



Medallion Corporation

TRANSPORTATION IMPACT STUDY

**Proposed Mixed-Use
Development**

**1771 Jane Street
City of Toronto**

February 2026
9517



LEA Consulting Ltd.

625 Cochrane Drive, 5th Floor
Markham, ON, L3R 9R9 Canada
T | 905 470 0015 F | 905 470 0030
WWW.LEA.CA

February 18, 2026

Reference Number: 9517

Mr. Luka Kot

Medallion Corporation
44 Apex Rd
Toronto, Ontario M6A 2V2

Dear Mr. Kot,

**RE: Transportation Impact Study
Proposed Mixed-Use Development
1771 Jane Street, Toronto, Ontario**

LEA Consulting Ltd. is pleased to present the findings of our Transportation Impact Study for the proposed high-rise mixed-use development located at 1771 Jane Street in the City of Toronto. This study has been prepared in support of the Zoning By-law Amendment (ZBA) application for the site. This report concludes that the traffic associated with the proposed development will have an acceptable impact on the surrounding road network.

Please do not hesitate to contact the undersigned should you have any additional questions or concerns.

Yours truly,

LEA CONSULTING LTD.

Debang Chen, P.Eng., M.Eng.
Project Manager, Transportation

Disclaimer

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1 INTRODUCTION

LEA Consulting Ltd. (LEA) has been retained by Medallion Corporation to undertake a Transportation Impact Study (TIS) for the proposed mixed-use development located at 1771 Jane Street in the City of Toronto (herein referred to as the “subject site”). The following TIS has been prepared in support of the Zoning By-law Amendment (ZBA) application for the proposed development. The site location is illustrated in **Figure 1-1**.

Figure 1-1: Subject Site Location



Source: Google Maps, Accessed April 2025

The purpose of this assessment is to review the existing transportation infrastructure in the surrounding area, including the road network, transit network and active transportation network, and assess the traffic impact of the proposed development on the surrounding network. In addition, the proposed parking and loading provisions have been reviewed, and Transportation Demand Management (TDM) measures have been recommended to encourage the use of other modes of transportation, aligning with key mobility objectives articulated in the City of Toronto Official Plan objectives and Toronto Green Standards.

The study scope is consistent with the City of Toronto Guidelines for the Preparation of Transportation Impact Studies (2013) and the City of Toronto Guidelines for Using Synchro 11 (2021).

1.2 PROPOSED DEVELOPMENT

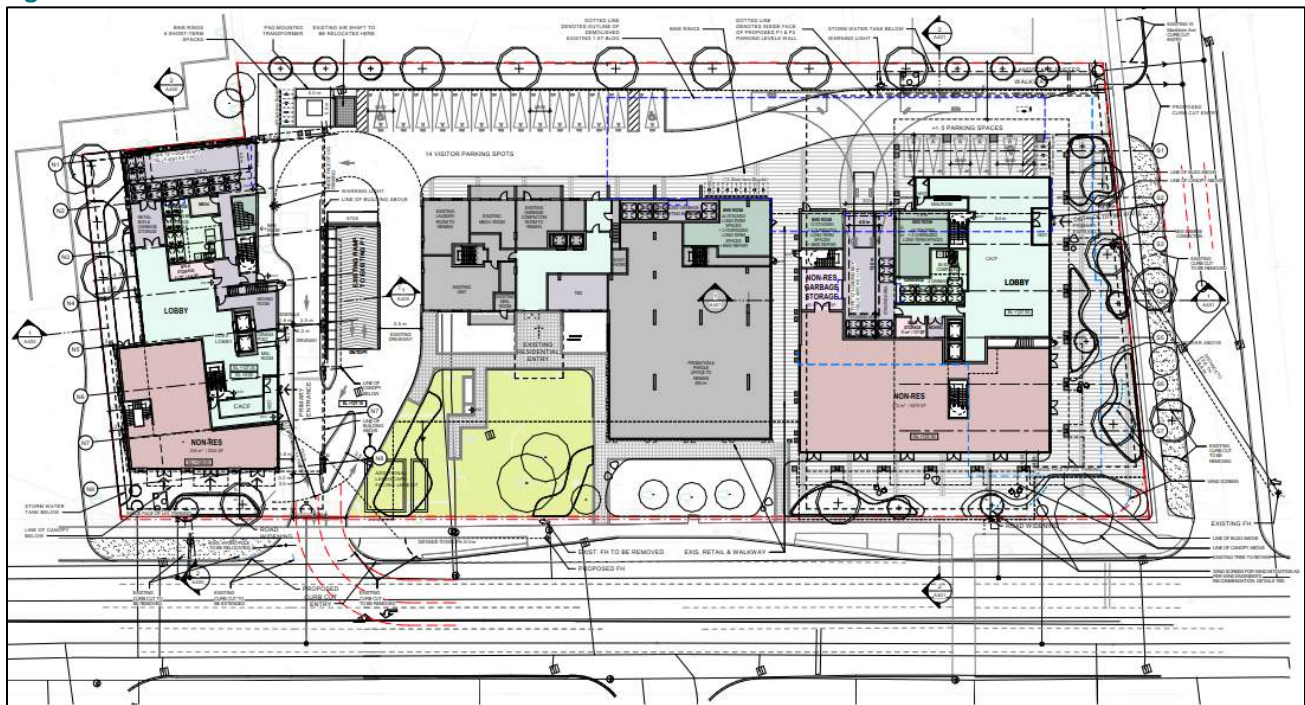
The proposed development includes two (2) 12-storey apartment buildings with ground floor retail space. The existing 14- storey apartment building on the site is proposed to be retained. The North Building will consist of 107 residential units with 368 m² of retail GFA, while the South Building will contain 141 units with 499 m² of GFA. The proposed site statistics are summarized in **Table 1-1**.

Table 1-1: Site Statistics

Building	Land Use	Unit Count / GFA
North	Residential	107 Units
	1-Bedroom	52 Units
	2-Bedroom	43 Units
	3-Bedroom	12 Units
	Retail	368m²
South	Residential	141 Units
	1-Bedroom	67 Units
	2-Bedroom	62 Units
	3-Bedroom	12 Units
	Retail	499m²

Vehicular access to the development is proposed via the existing signalized full-movement driveway connection to Jane Street, as well as a proposed full-movement driveway at Marshlynn Avenue. The proposed ground floor plan is illustrated in **Figure 1-2**.

Figure 1-2: Site Plan



Source: Arcadis Architects (Canada) Inc., December 2025

2 EXISTING TRAFFIC CONDITIONS

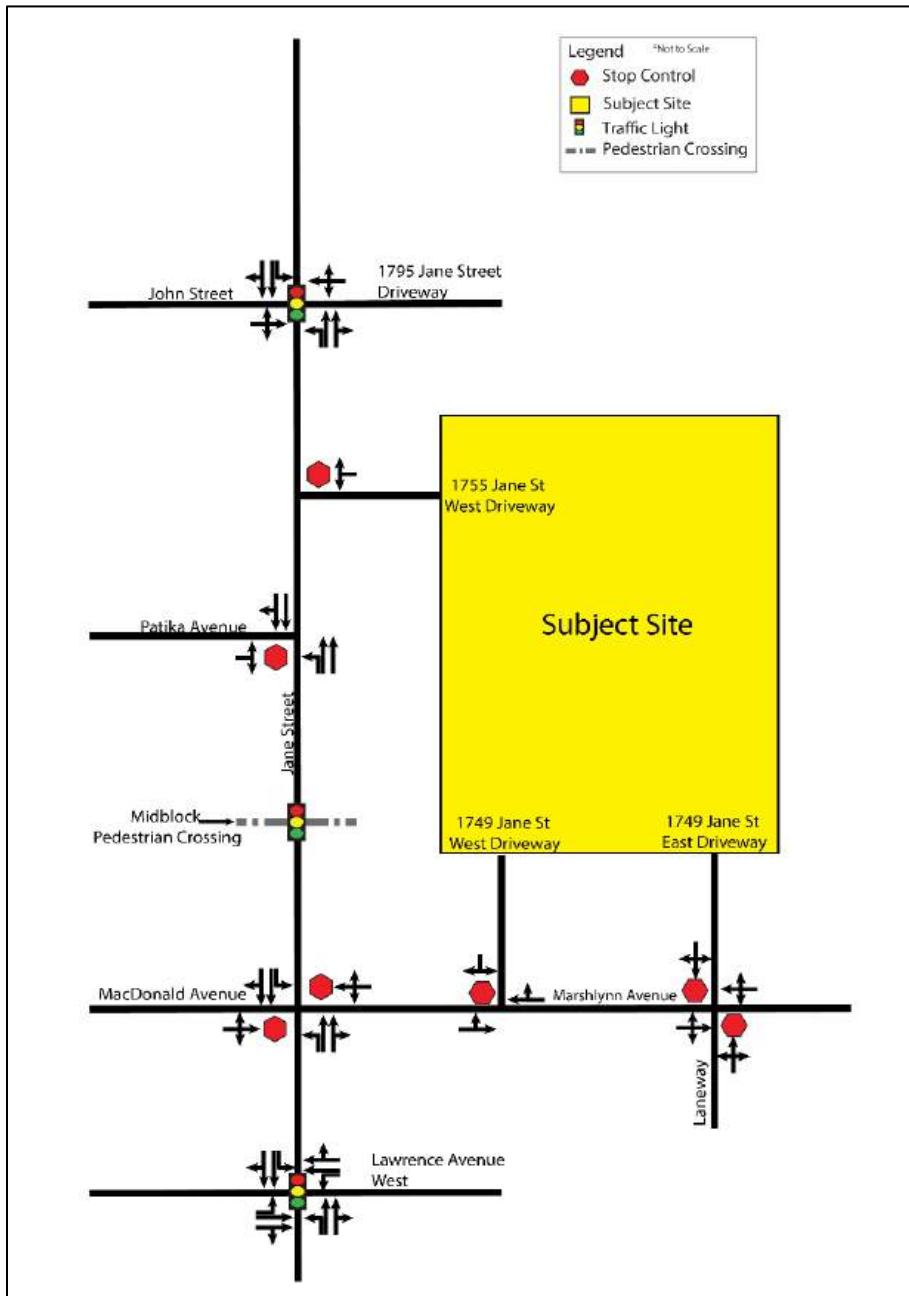
This section identifies the existing traffic conditions present in the study area, including the road, transit, cyclist, and pedestrian networks. The study area was determined by assessing the size of the proposed development and its anticipated traffic impact. The study area includes the following intersections:

- ▶ Jane Street & John Street/1795 Jane Street Site Access (Signalized);
- ▶ Jane Street & 1755 Jane Street West Driveway (Unsignalized);
- ▶ Jane Street & Patika Avenue (Unsignalized);
- ▶ Jane Street & MacDonald Avenue/Marshlynn Avenue (Unsignalized);
- ▶ 1749 Jane Street West Driveway & Marshlynn Avenue (Unsignalized);
- ▶ 1749 Jane Street East Driveway/Laneway & Marshlynn Avenue (Unsignalized); and
- ▶ Jane Street & Lawrence Avenue West (Signalized).

2.1 EXISTING ROAD NETWORK

This section describes the road network within the above-mentioned study area. The existing intersection controls and lane configuration are illustrated in **Figure 2-1**. All roadways within the study area are under the jurisdiction of the City of Toronto.

Figure 2-1: Existing Lane Configuration



Jane Street is a north-south major arterial road that operates with a four (4) lane cross section, consisting of two lanes in each direction, with an additional centre left-turn lane. Jane Street runs between Steeles Avenue West in the north to Bloor Street West in the south. The roadway operates with a posted speed limit of 50 km/h in the study area.

Lawrence Avenue West is an east-west major arterial road that operates with a four (4) lane cross section, consisting of two lanes in each direction. Lawrence Avenue West runs between Scarlet Road in the west to Bathurst Street in the east. The roadway operates with a posted speed limit of 50 km/h in the study area.

Marshlynn Avenue is an east-west local road that operates with a two (2) lane cross section, consisting of one lane in each direction. Marshlynn Avenue runs between Jane Street in the West and then converts to Blackstone Street which ends at Lawrence Avenue West. The roadway operates with a posted speed limit of 40 km/h in the study area.

MacDonald Avenue is an east-west local road that operates with a two (2) lane cross section, consisting of one lane in each direction. MacDonald Avenue runs between Rosemount Avenue in the west to Jane Street in the east. The roadway operates with a posted speed limit of 30 km/h in the study area.

Patika Avenue is an east-west local road that operates with a two (2) lane cross-section (one lane in each direction). Patika Avenue runs between Pine Street in the west to Jane Street in the east. The roadway operates with a posted speed limit of 30 km/h in the study area.

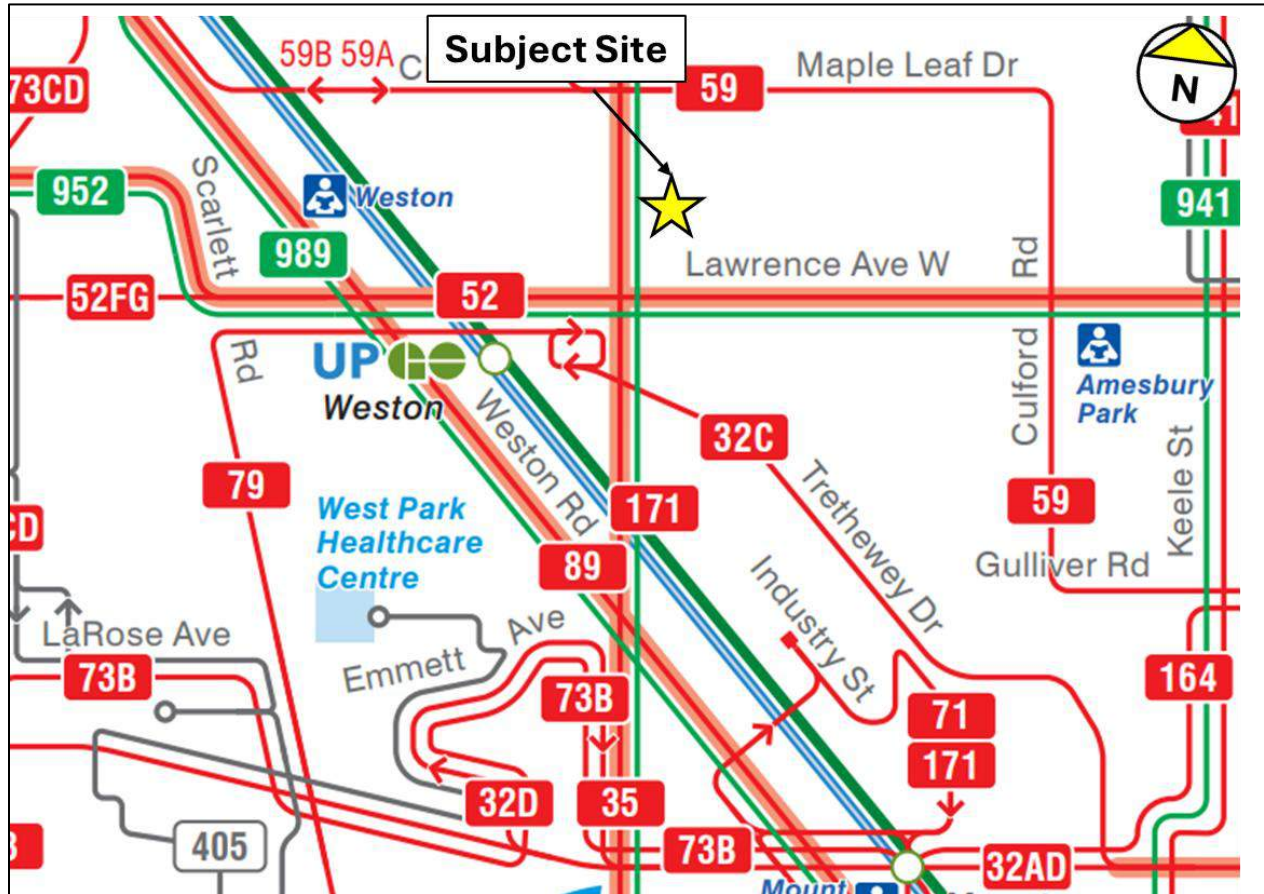
John Street is an east-west local road that operates with a two (2) lane cross-section (one lane in each direction). John Street runs between Rosemount Avenue in the west to Jane Street in the east. The roadway operates with a posted speed limit of 30 km/h in the study area.

2.2 EXISTING TRANSIT NETWORK

The subject site is located in an area well-serviced by the existing Toronto Transit Commission (TTC) transit network. There are a number of surface transit options available in the study area which connect the subject site to a variety of destinations. The site is within walking distance of bus stops at the intersections of Lawrence Avenue West at Jane Street, Jane Street at Patika Avenue, and Jane Street at John Street. Bus routes near these intersections are able to connect future residents and employees to the larger surrounding area.

Transit routes currently servicing the area are illustrated in **Figure 2-2** and are described below. The site has a TransitScore™ of 80/100, which classifies the area as having “Excellent Transit” and indicates that there are several nearby public transportation options.

Figure 2-2: Existing Transit Network



Source: Toronto Transit Commission, Accessed December 2025

TTC Route 35 – Jane is a bus route that generally operates in a north-south direction between Jane Station on Line 2 Bloor-Danforth and Pioneer Village Station on Line 1 Yonge-University. Route 35 has two services. Accessible service is provided on this route as Jane Station and Pioneer Village Station are accessible subway stations.

Access Location: Route 35 is accessible in the study area at the intersection of Jane Street at John Street, approximately 100 m (or a 1-minute walk) from the subject site.

TTC Route 935 – Jane Express is a bus route that generally operates in a north-south direction between Jane Station on Line 2 Bloor-Danforth and Pioneer Village Station on Line 1 Yonge-University. Route 935 operates one single service. Accessible service is provided on the route. Jane Station and Pioneer Village Station are accessible subway stations.

Access Location: Route 935 is accessible in the study area at the intersection of Jane Street at Lawrence Avenue West, approximately 300 m (or a 4-minute walk) from the subject site.

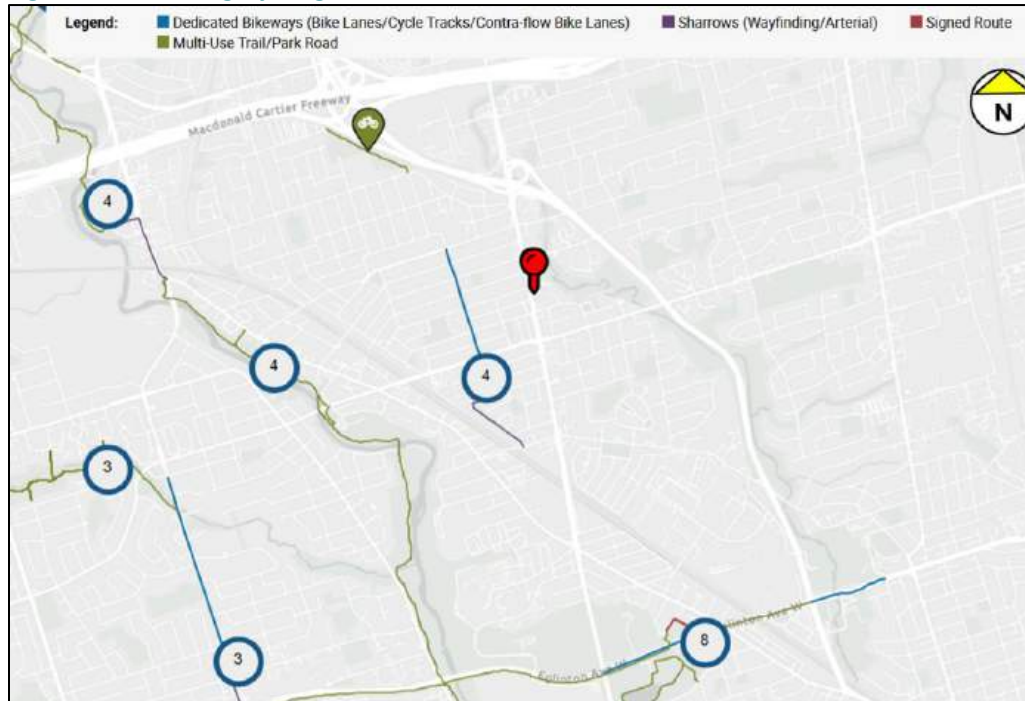
TTC Route 52 – Lawrence West is a bus route that generally operates in an east-west direction between Lawrence Station on the Line 1 Yonge-University and the area of The Westway and Martin Grove Road, Pearson International Airport, and Westwood Mall. Route 52 operates five services. Accessible service and bike racks are provided on this route.

Access Location: Route 52 is accessible in the study area at the intersection of Jane Street at Lawrence Avenue West, approximately 300 m (or a 4-minute walk) from the subject site.

2.3 EXISTING CYCLING NETWORK

The existing cycling network surrounding the site is illustrated in **Figure 2-3**. The subject site is located in a neighbourhood with some access to nearby cycling infrastructure, receiving a BikeScore™ of 53/100, or “Bikeable”, indicating that some bike infrastructure is available in the study area. Notable infrastructure includes bike lanes west of the subject site along Pine Street.

Figure 2-3: Existing Cycling Network



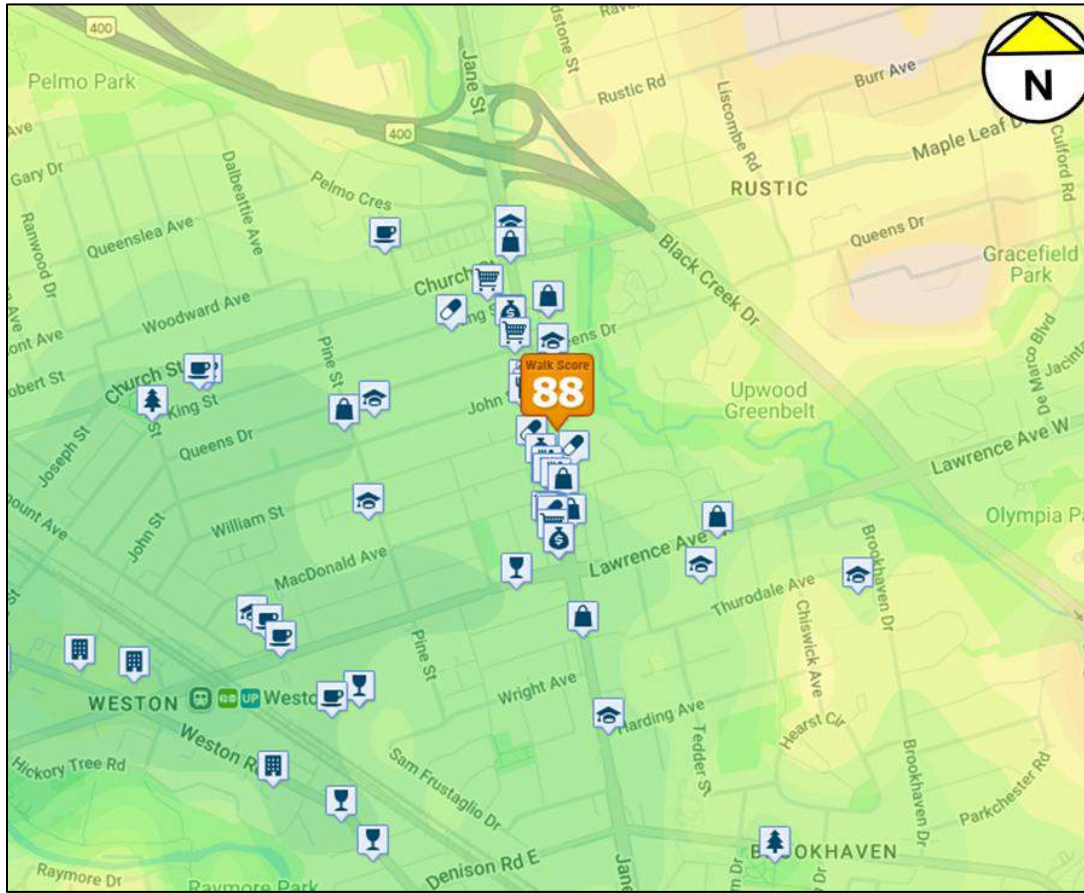
Source: City of Toronto, Accessed December 2025

2.4 EXISTING PEDESTRIAN NETWORK

The surrounding area has a well-established pedestrian network, with all major streets providing continuous sidewalks along both sides of the road. Pedestrian crosswalks are available on all approaches at all signalized intersections in the study area.

The site has a WalkScore™ of 88/100, or “Very Walkable”, which indicates that some errands can be accomplished on foot. As shown in **Figure 2-4**, a 15-minute walk from the site provides access to amenities and services such as convenience stores, restaurants and retail, schools, and parks, providing a variety of destinations that can be reached as a pedestrian.

Figure 2-4: Neighbourhood Walkability



Source: Walkscore.com, Accessed December 2025

2.5 TRAFFIC DATA COLLECTION

Turning movement counts (TMCs) were used as the source of traffic data in the intersection capacity analysis. Traffic counts were collected by LEA to capture the weekday AM and PM peak periods. The signal timing plan (STP) for the signalized intersection was obtained from the City of Toronto.

A summary of the TMC data collected is outlined in **Table 2-1**, with detailed traffic counts and signal timing plans available in **Appendix A**.

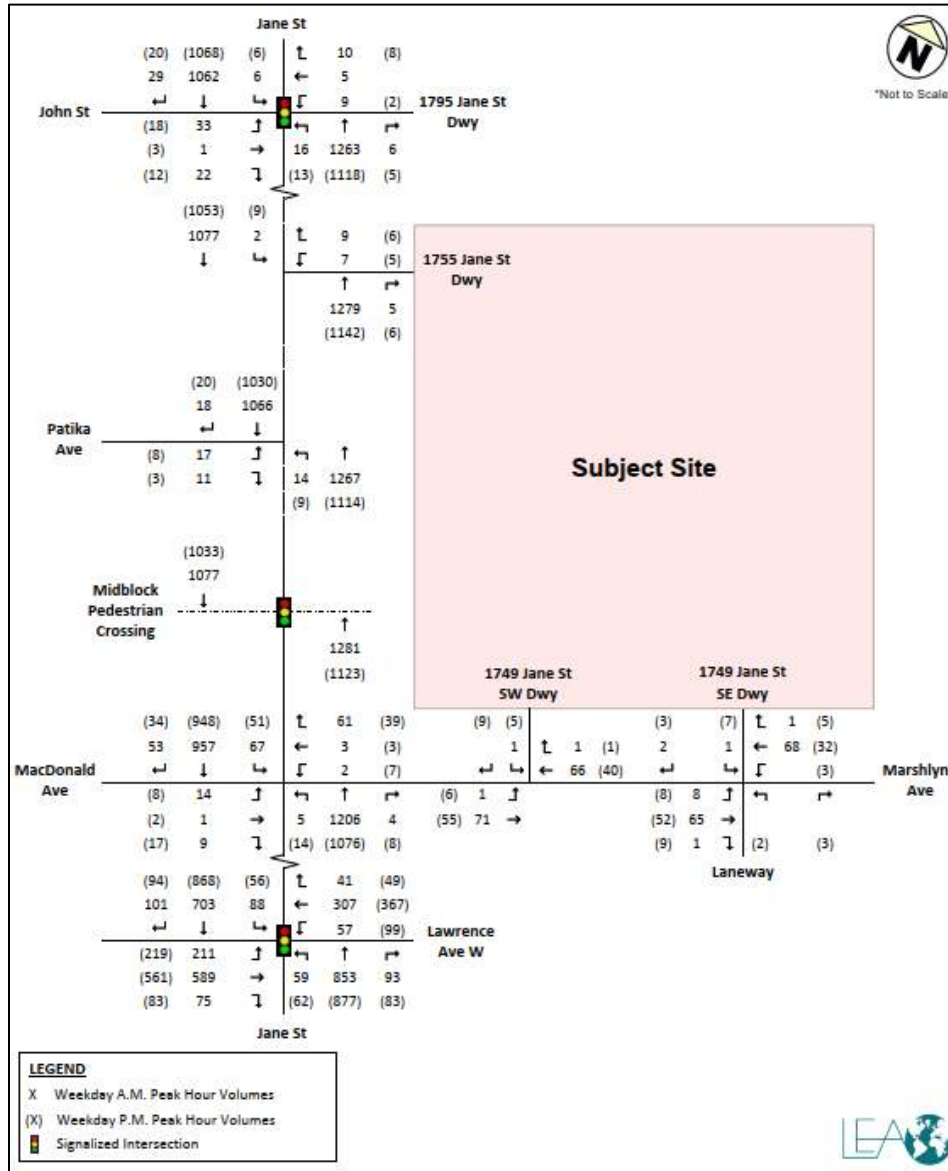
Table 2-1: Traffic Data Summary

Intersection	TMC Date	Source
Jane St & John St/1795 Jane St Site Access	Tuesday March 18, 2025	LEA
Jane St & Site Access (1755 Jane St)		
Jane St & Patika Ave		
Jane St & Midblock Pedestrian Crossing		
Jane St & MacDonald Ave/Marshlynn Ave		
Southwest Site Dwy & Marshlynn Ave		
Southeast Site Dwy / Laneway & Marshlynn Ave	Wed. June 19, 2024	City of Toronto
Jane St & Lawrence Ave W		

2.6 EXISTING TRAFFIC VOLUMES

The existing traffic volumes during the weekday AM and PM peak hours are illustrated in **Figure 2-5**.

Figure 2-5: Existing Traffic Volumes



3 FUTURE BACKGROUND TRAFFIC CONDITIONS

For the analysis of future background traffic conditions, the project will be executed in two phases, with construction of the North Building scheduled for 2030 and the South Building (full build-out) in 2035. Future background conditions include traffic added to the network from other background developments, corridor growth and considers overall improvements to the transportation network. The future background conditions were used as the baseline for evaluating the impact of the proposed development.

3.1 FUTURE TRANSIT AND ROAD IMPROVEMENTS

RapidTO intends to provide priority bus lanes along Jane Street between Steeles Avenue West and Eglinton Avenue West to prioritize transit solutions. For the section of Jane Street between Maple Leaf Drive/Church Street to Lawrence Avenue West one vehicle lane in each direction will be converted into a priority bus lane and the two-way left-turn lane will be maintained as seen in **Figure 3-1**. The updated lane configuration can be seen in **Figure 3-2**.

Figure 3-1: Proposed Road Design for Jane Street between Maple Leaf Drive/Church Street to Lawrence Avenue West

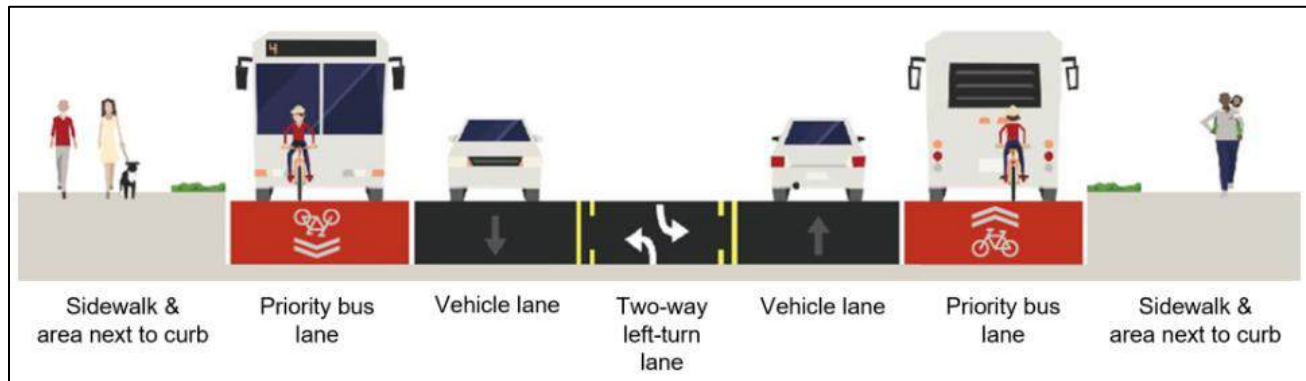
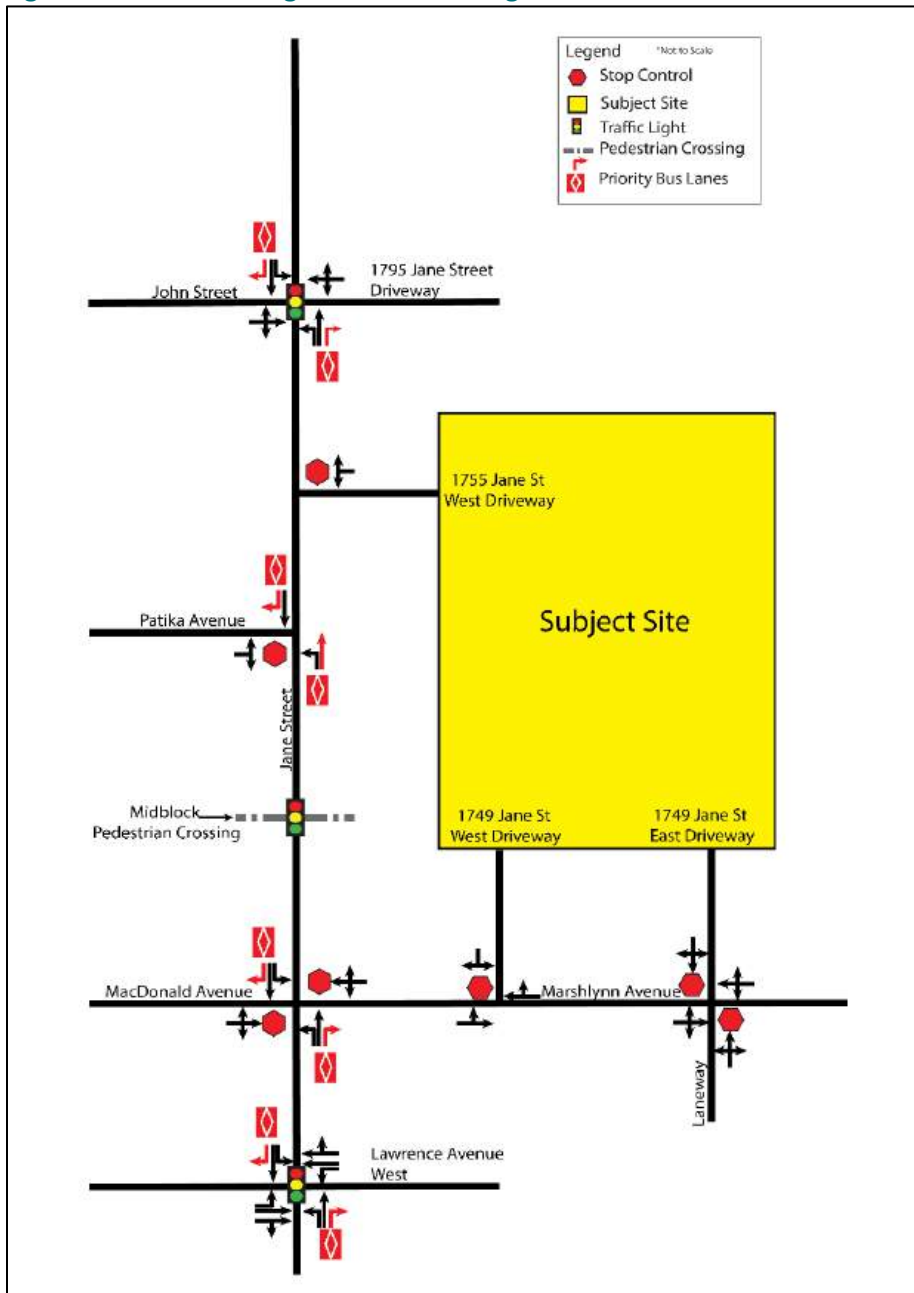


Figure 3-2: Future Background Lane Configuration



3.2 CORRIDOR GROWTH

Historical traffic data collected at the intersection of Jane Street and Lawrence Avenue West was reviewed to derive appropriate corridor growth rates. No growth rates were applied as the traffic counts are within two years old and displayed negative growth. Detailed corridor growth rates are provided in **Appendix B**.

3.3 BACKGROUND DEVELOPMENTS

Two (2) background developments were included in the future background analysis as per the City of Toronto’s Development Application Portal and associated transportation study reports. The background developments are summarized in **Table 3-1**. Excerpts from the studies providing details of the background development trips are provided in **Appendix C**.

Table 3-1: Background Developments

#	Location	Proposed Development	Source of Traffic Volumes
1	12 Duckworth St	Proposed daycare: 49 students and 9 staff	TIA dated April 2023 (Figures 4.3 & 4.4) Paradigm
2	1683 Jane St	Gas station: 4 fuel pumps, 232 m ² convenience store	TOA February 2020 (Figure 7 & 8) Trans-plan

3.4 FUTURE BACKGROUND TRAFFIC VOLUMES

Future background traffic volumes were derived by adding traffic associated with the identified background developments to existing traffic volumes. Future background traffic volumes during the weekday AM and PM peak hours under the 2030 and 2035 horizon year are illustrated in **Figure 3-3** and **Figure 3-4**.

Figure 3-3: Future Background (2030) Traffic Volumes

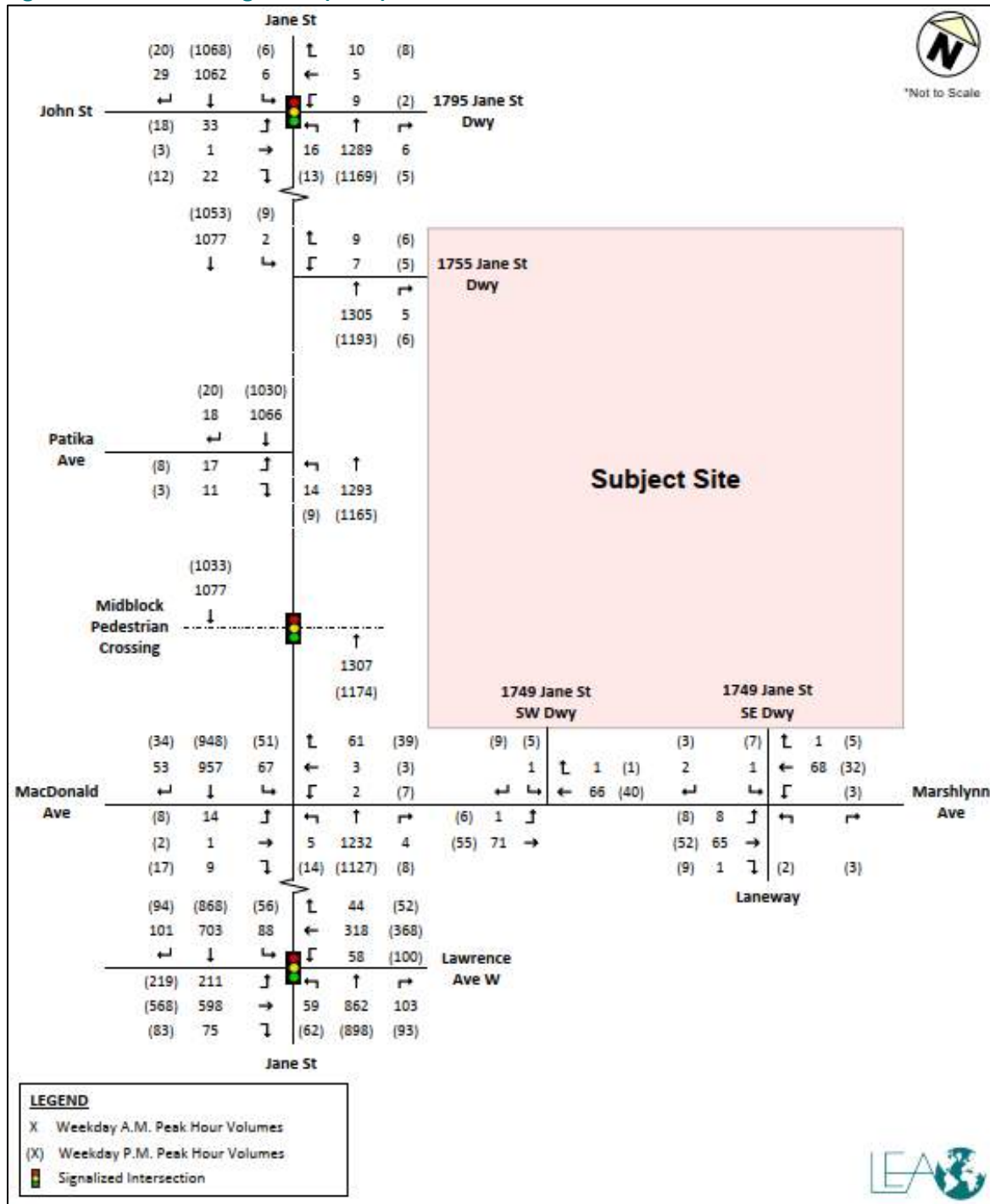
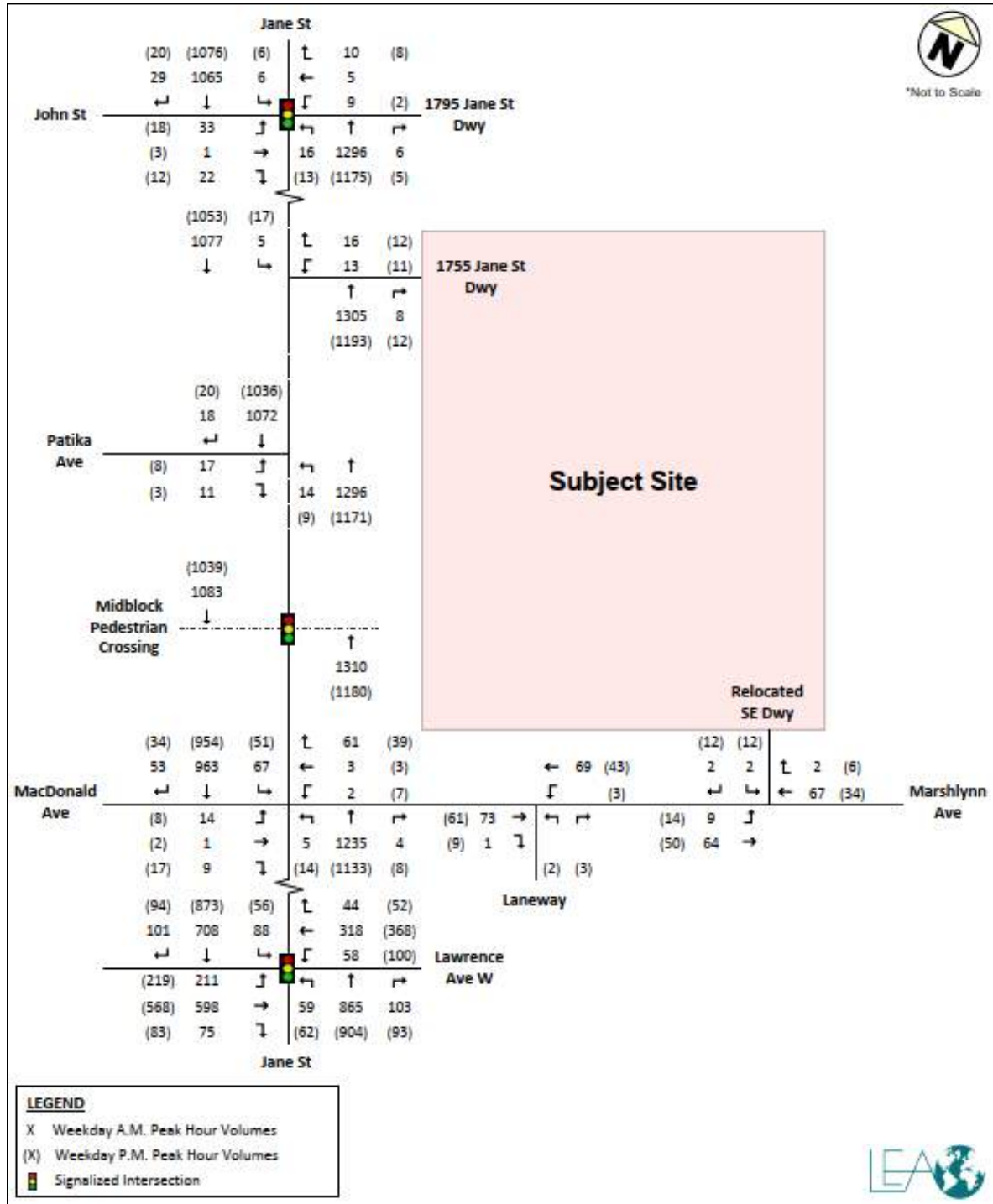


Figure 3-4: Future Background (2035) Traffic Volumes



4 SITE GENERATED TRAFFIC

The proposed development consists of a two 12-storey residential building containing a total of 248 units and 867 m² of retail GFA. Access to the development is proposed via an access off of Jane Street and an access off Marshlyn Avenue. The sections below discuss the calculation, distribution, and assignment of site-generated vehicle trips.

4.1 MODE SPLIT

Data from the 2022 Transportation Tomorrow Survey (TTS) was extracted to identify the modal split of trips to/from the study area (TAZ 1141-1142, and 1144-1149) for home-based trips. The local area modal split is summarized in **Table 4-1**. Detailed TTS data is provided in **Appendix D**.

Table 4-1: Existing Study Area Mode Split

Mode	Split	
	Residential	Retail
Auto Driver Trips	44%	56%
Auto Passenger Trips	18%	32%
Taxi/Rideshare Trips	0%	0%
Transit Trips	36%	1%
Pedestrian Trips	2%	11%
Cycling Trips	0%	0%
Total	100%	100%

4.2 TRIP GENERATION

Trip generation was estimated using trip rates from the ITE Trip Generation Manual 12th Edition. The trip rates from ITE LUC 222 (Multifamily Housing – High Rise) were used to estimate the number of residential trips. It should be noted that as there is no retail parking available, it is assumed that any site generated trips are from within the future residential building and local neighbourhood foot traffic.

For the residential PUDO trips, it was deemed that the auto passenger rate of 18% from the 2022 TTS data is too high. To calculate PUDO trips, 3 proxy site data were applied. Data was collected at 120 Varna Drive/20 New Heights Court, 3100 Keele Street and 15 James Finlay Way on Thursday & Friday May 9-10, 2024. Raw PUDO data can be found in **Appendix E**. The same peak hours for the traffic analyses were applied to extract the number of PUDO trips (filtered out of loading and delivery activities with large vehicle and unrelated site trips). The number of occurrences was tallied for all site, and all survey days. This value was divided by the total number of residential units of all proxy sites and number of survey days (P1 Units+P2 units+P3 units) and then multiplied by two (2). Resultant peak hour trip rates (per unit) was: AM: 0.018, PM: 0.023. These rates were applied to the number of proposed residential unit per building. Each value was counted as both In and Out trips. The PUDO values are as follows:

- ▶ North building: 2 In, 2 Out = 4 total (For each peak hour)
- ▶ South building: 3 In, 3 Out = 6 total (For each peak hour)

The proposed residential trip generation for the North and South buildings is in **Table 4-2**.

Table 4-2: Trip Generation

Land Use	Description	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
<i>Phase 1 (North Building)</i>							
Residential (ITE12 LUC222 Multifamily Housing [High-rise], General Urban-Suburban, Not Close to rail transit 107 Units)	Person Trip Rate (/Unit)	0.10	0.24	0.34	0.25	0.21	0.46
	Person Trips	10	26	36	27	22	49
	External Auto Trips	4	11	15	12	10	22
	External PUDO Trips	2	2	4	3	3	6
	Total External Auto Trips	6	13	19	15	13	28
<i>Phase 2 (South Building)</i>							
Residential (ITE12 LUC222 Multifamily Housing [High-rise], General Urban-Suburban, Not Close to rail transit 141 Units)	Person Trip Rate (/Unit)	0.10	0.24	0.34	0.25	0.21	0.46
	Person Trips	13	35	48	35	30	65
	External Auto Trips	6	15	21	15	13	28
	External PUDO Trips	3	3	6	3	3	6
	Total External Auto Trips	9	18	27	18	16	34
Total New Site Auto Trips		15	31	46	33	29	62

The proposed development is anticipated to generate an additional 46 two-way vehicle trips in the AM peak hour (15 inbound, 31 outbound), and 62 two-way vehicle trips during the PM peak hour (33 inbound, 29 outbound).

4.2.1 Multi-Modal Trip Generation

The multi-modal site trip generation was estimated using the local mode split identified in the 2022 TTS, as shown in **Table 4-3**.

Table 4-3: Multi-Modal Trip Generation

Land Use	Description	Modal Split	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
Proposed North Building-Residential	External Person Trips	100%	10	26	36	27	22	49
	Auto Driver Trips	44%	4	11	15	12	10	22
	Passenger Trip	18%	2	5	7	5	4	9
	Taxi/Rideshare	0%	0	0	0	0	0	0
	Transit Trips	36%	4	9	13	10	8	18
	Pedestrian trips	2%	0	1	1	0	0	0
	Cycling Trips	0%	0	0	0	0	0	0
Proposed South Building-Residential	External Person Trips	100%	13	35	48	35	30	65
	Auto Driver Trips	44%	6	15	21	15	13	28
	Passenger Trip	18%	2	6	8	6	5	11
	Taxi/Rideshare	0%	0	0	0	0	0	0
	Transit Trips	36%	5	13	18	13	11	24
	Pedestrian trips	2%	5	13	18	13	11	24
	Cycling Trips	0%	0	0	0	0	0	0
Total Proposed	External Person Trips	100%	23	61	84	62	52	114
	Auto Driver Trips	-	10	26	36	27	23	50
	Passenger Trip	-	4	11	15	11	9	20
	Taxi/Rideshare	-	0	0	0	0	0	0
	Transit Trips	-	9	22	31	23	19	42
	Pedestrian trips	-	0	2	2	1	1	2
	Cycling Trips	-	0	0	0	0	0	0

4.3 TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution of site traffic was estimated using Transportation Tomorrow Survey (TTS) 2022 data. The trip purposes in the TTS data were filtered for home-based trips during the weekday AM and PM peak periods for TAZ 1141-1142, and 1144-1149. Site traffic was assigned to the road network based on observed trip patterns in the study, turn restrictions, and logical routing.

The assumed trip distribution for the proposed development is outlined in **Table 4-4**. Detailed TTS calculations are provided in **Appendix F**.

Table 4-4: Site Trip Distribution

Assigned Route	Weekday AM		Weekday AM/PM	
	In	Out	In	Out
Jane Street North	50%	54%	54%	50%
Jane Street South	43%	40%	40%	43%
Maple Leaf Drive East	1%	1%	1%	1%
Lawrence Avenue West	0%	3%	3%	0%
Lawrence Avenue East	6%	2%	2%	6%
Total	100%	100%	100%	100%

The proposed site traffic for the North and South buildings are illustrated in **Figure 4-1** and **Figure 4-2** with the total site traffic is illustrated in **Figure 4-3**.

Figure 4-1: Phase 1 - North Building Residential Site Traffic Volumes

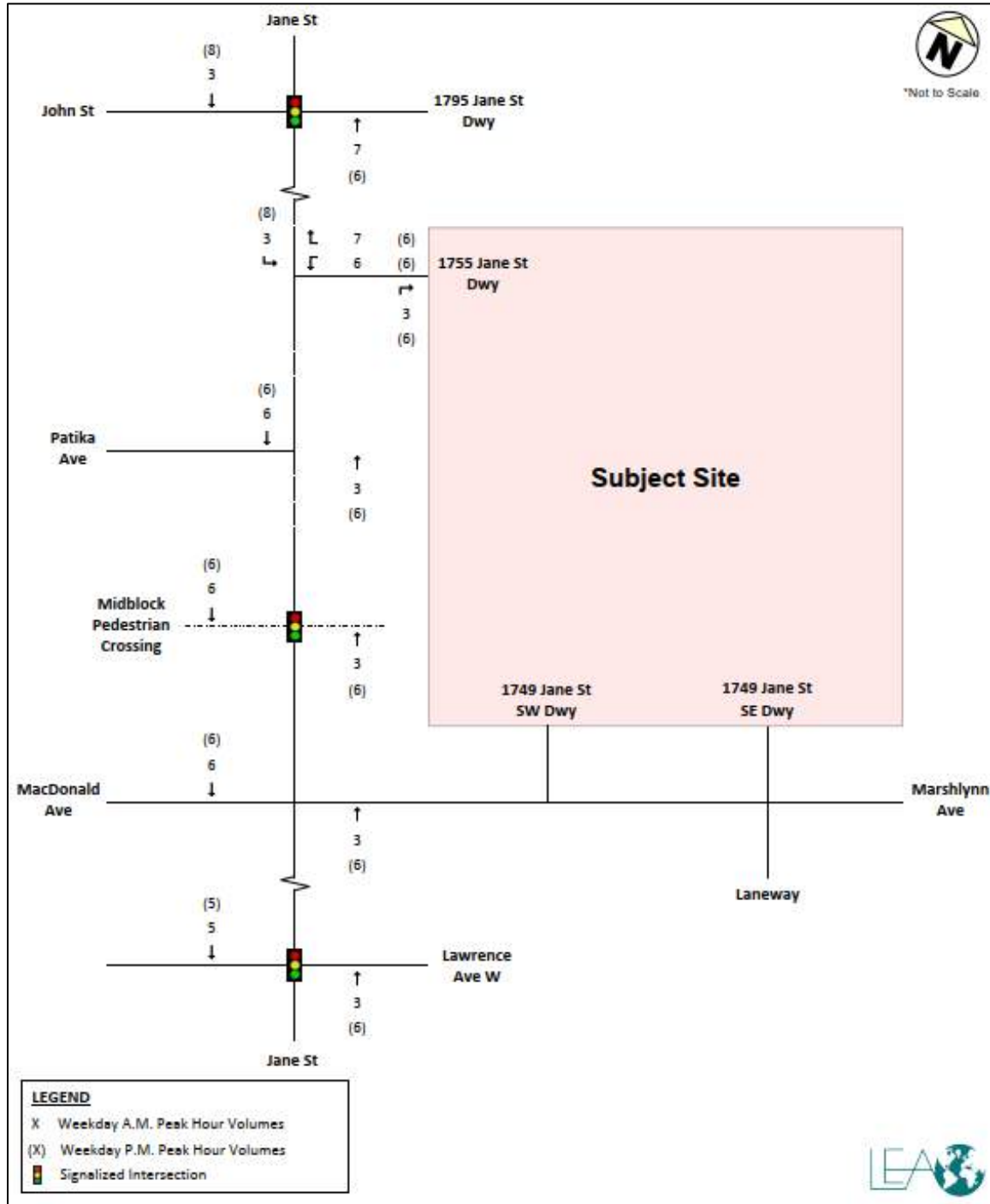


Figure 4-2: Phase 2 - South Building Residential Site Traffic Volumes

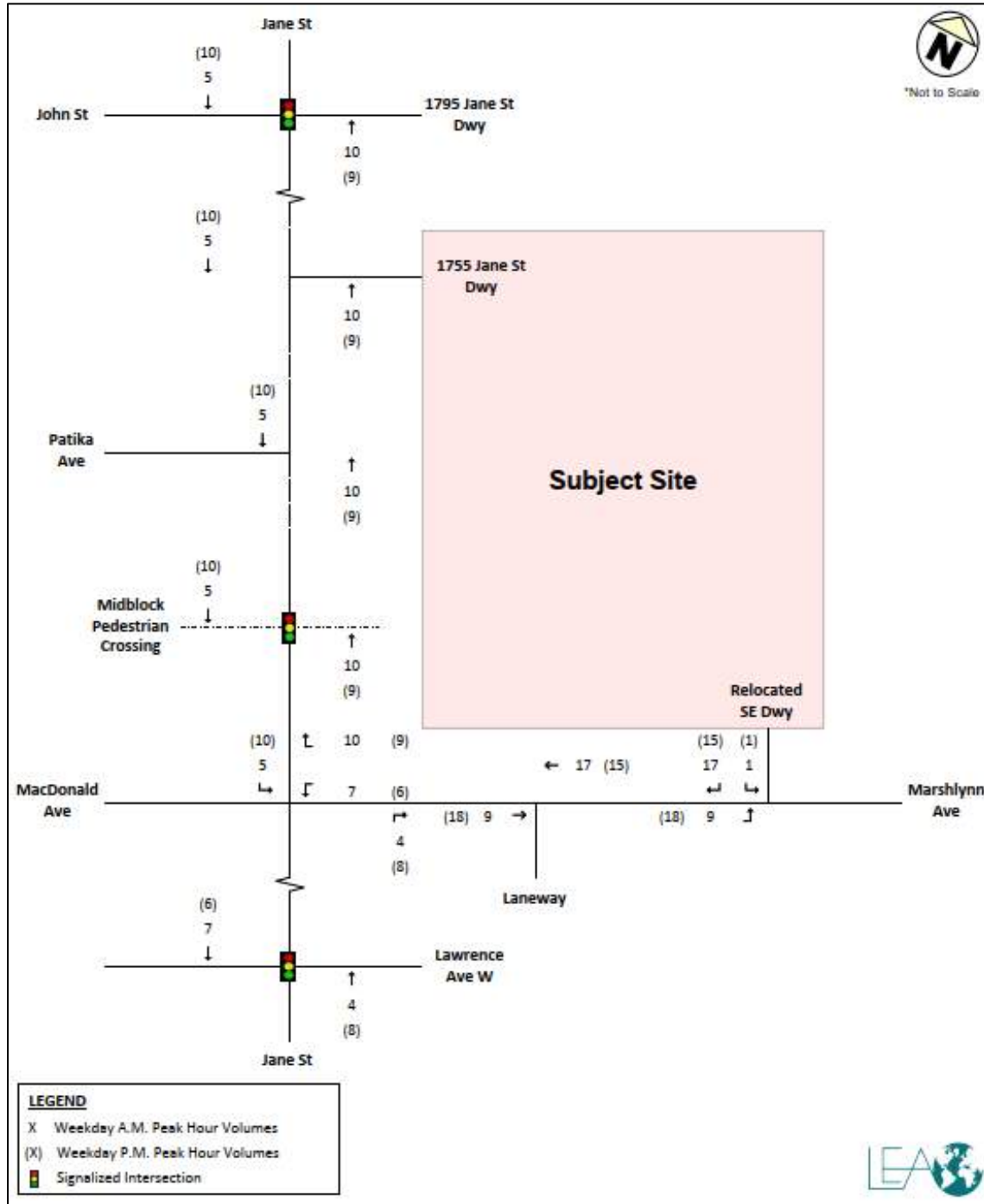
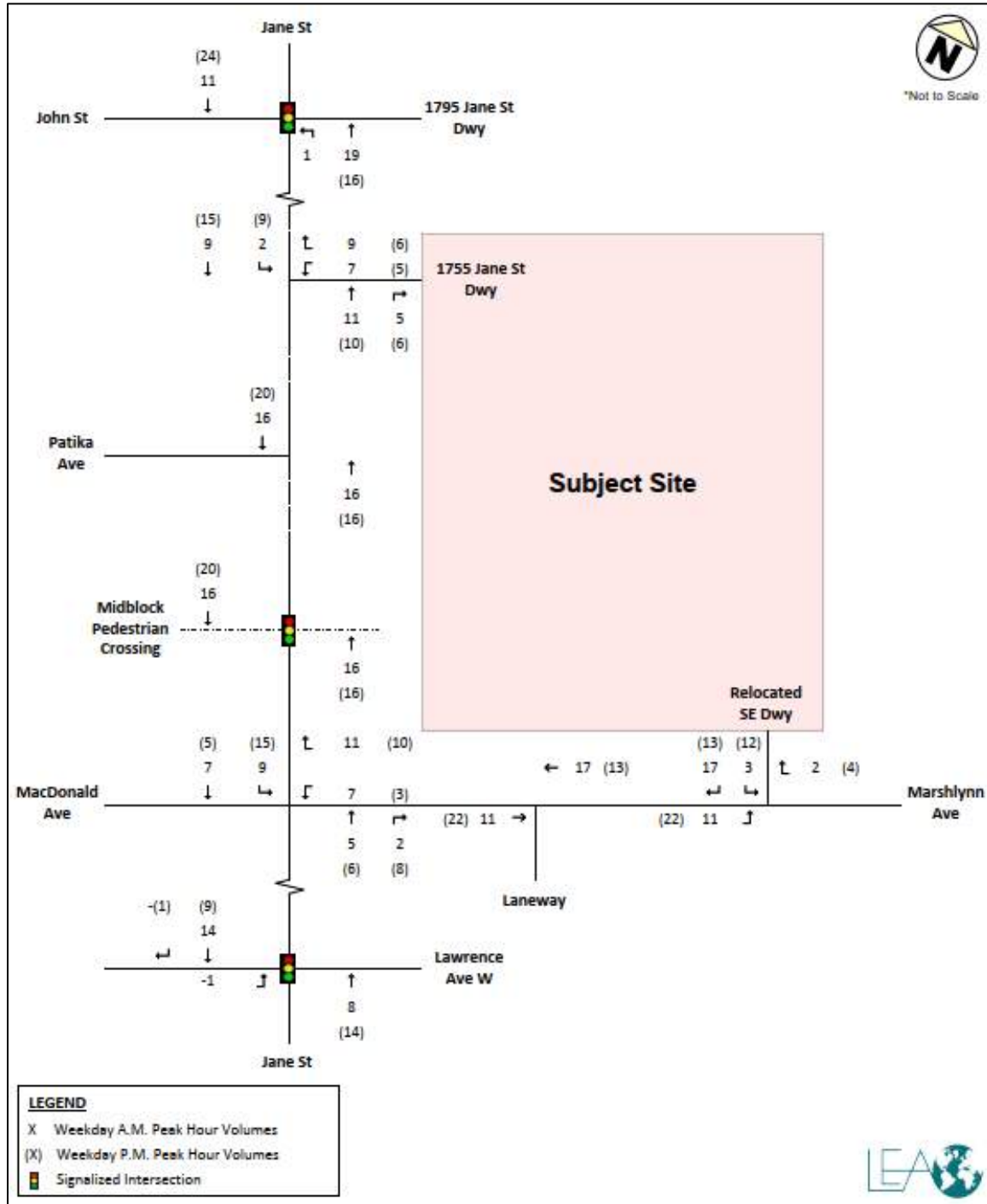


Figure 4-3: Total Site Traffic (With Existing Retail Traffic)



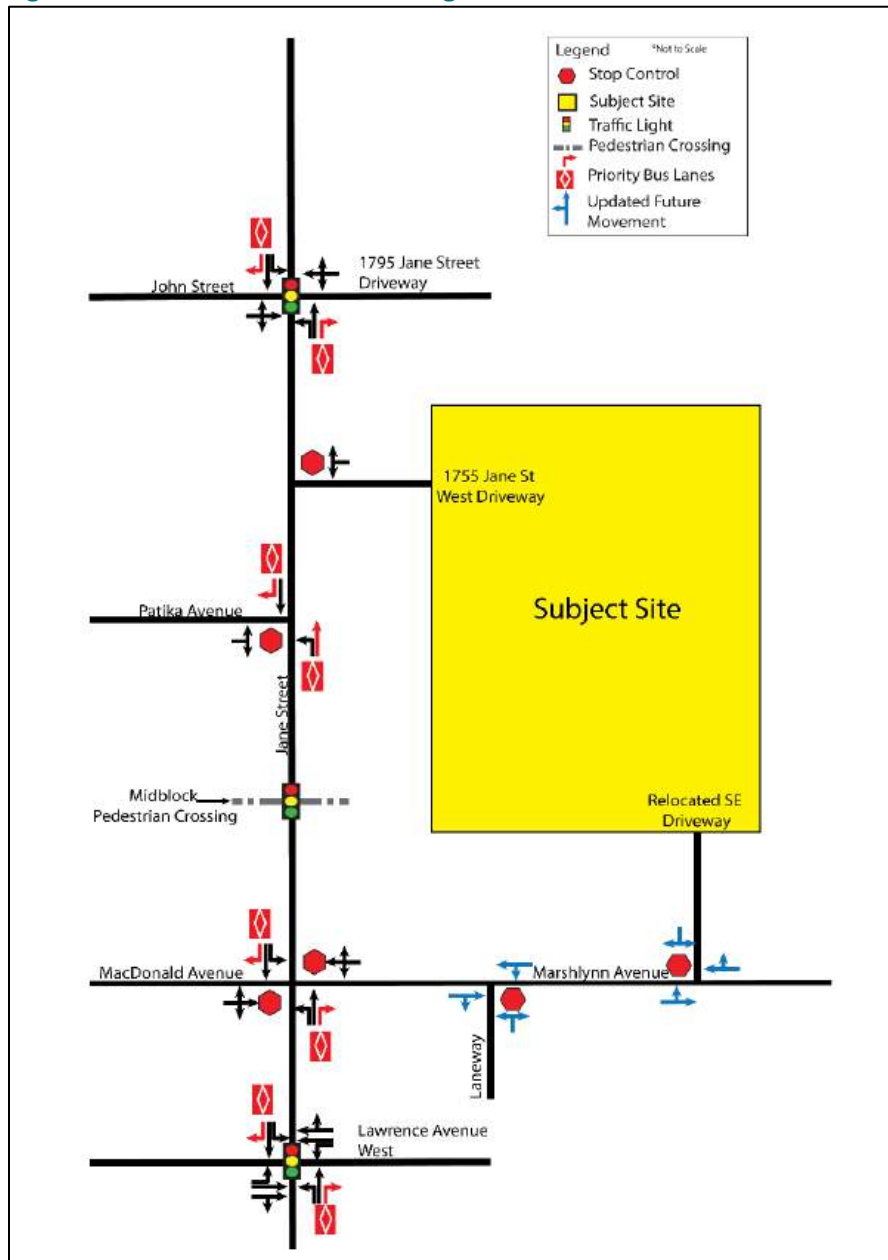
5 FUTURE TOTAL TRAFFIC CONDITIONS

Future total traffic conditions include the addition of site trips to the 2030 and 2035 future background volumes.

5.1 FUTURE ACCESS IMPROVEMENTS

In addition to the road improvements mentioned in **Section 3.1**, there are improvements proposed for the site accesses. In the 2035 horizon the two (2) site driveways at Marshlynn Avenue is to be consolidated into one single access point located at the east property limit of the subject site. The future lane configuration is illustrated in **Figure 5-1**.

Figure 5-1: Future Access Lane Configuration



5.2 FUTURE TOTAL TRAFFIC VOLUMES

Future total traffic volumes under the weekday AM and PM peak hours during the 2030 and 2035 horizon years are illustrated in **Figure 5-2** and **Figure 5-3**.

Figure 5-2: Future Total (2030) Traffic Volumes

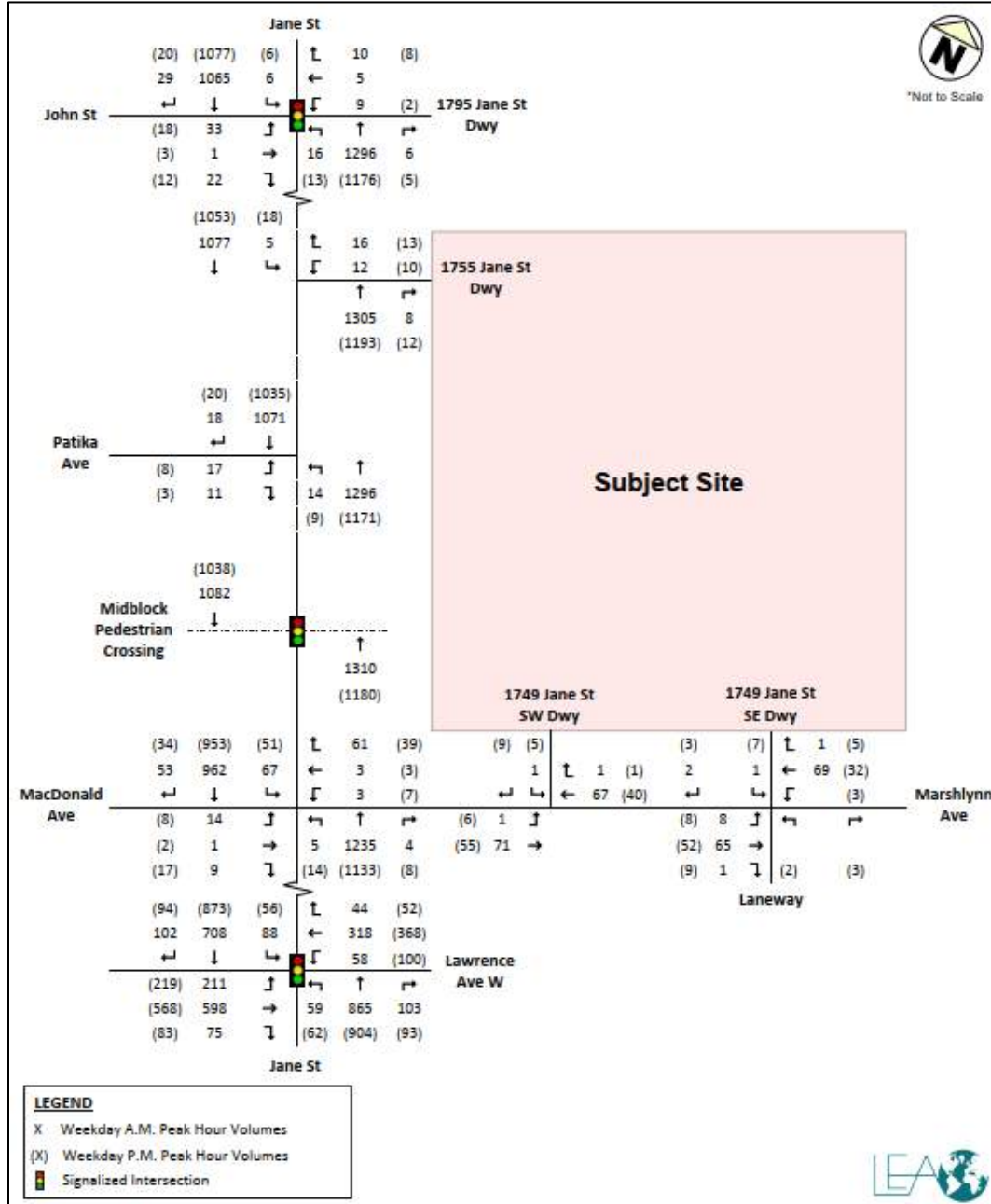
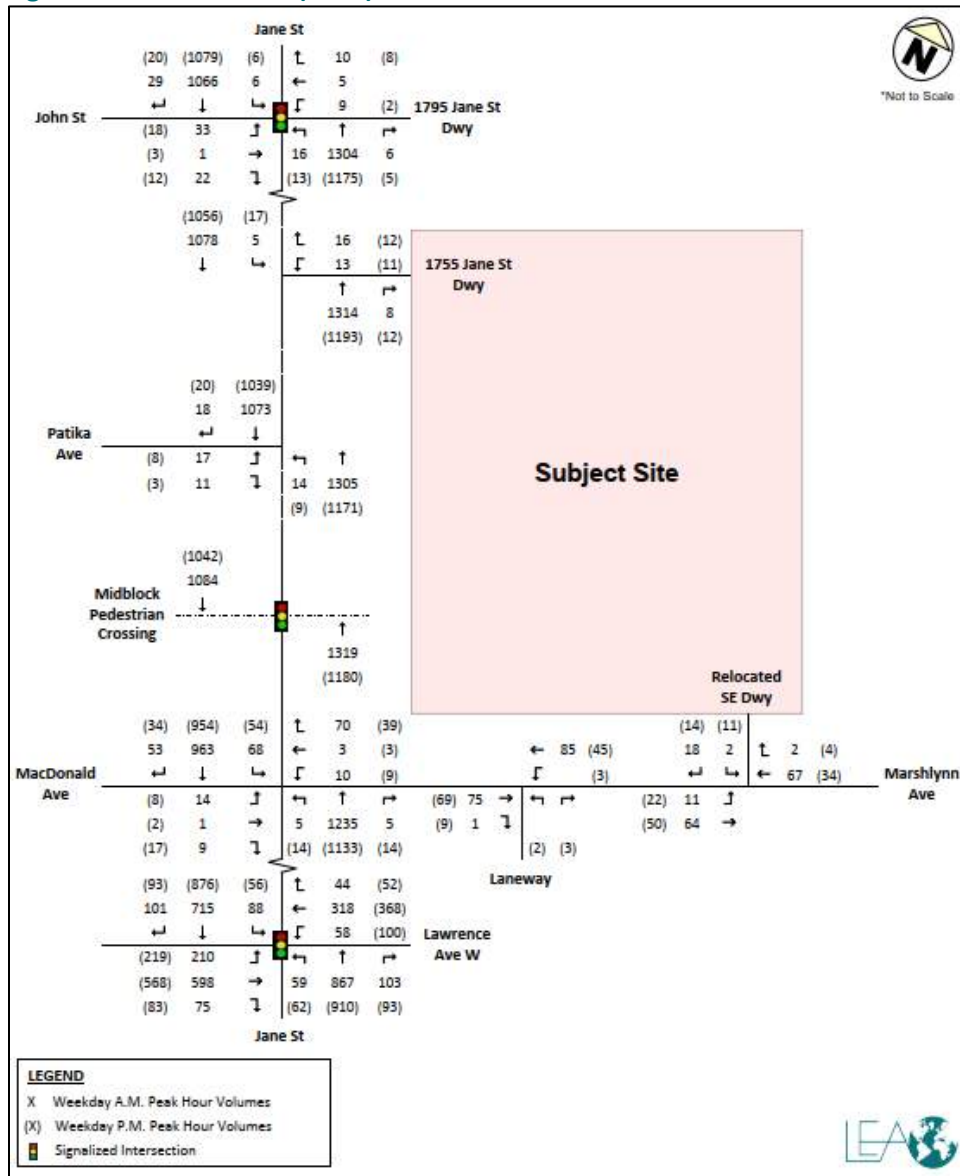


Figure 5-3: Future Total (2035) Traffic Volumes



6 INTERSECTION CAPACITY ANALYSIS

The intersection capacity analysis was undertaken using Synchro 11.0, which is based on the Highway Capacity Manual (2000) methodology and adheres to the City of Toronto Guidelines for the Preparation of Transportation Impact Studies (2013). As per the guidelines, key movements of interest are those with a Level of Service (LOS) E or worse or a Volume-to-Capacity (V/C) ratio greater than 1.00 for through and turning movements.

The sections below outline a comparison of the capacity analysis results under existing, future background and future total conditions. Detailed capacity results are provided in the following appendices:

- ▶ **Appendix G:** Existing Intersection Capacity Analysis.
- ▶ **Appendix H:** 2030 Future Background Intersection Capacity Analysis; and
- ▶ **Appendix I:** 2030 Future Total Intersection Capacity Analysis.

The following sub-sections outline the network assumptions and changes applied to the Synchro models in the existing, future background and future total scenarios.

6.1 SYNCHRO CALIBRATIONS/PARAMETERS

6.1.1 Existing Conditions Synchro Model Inputs

Existing traffic operations were assessed to provide a baseline for future traffic operations. The existing analysis incorporates the most recent signal timing plan for the study intersection. The applied Peak Hour Factor (PHF) values were calculated based on the surveyed counts.

6.1.2 Future Background and Future Total Synchro Model Inputs

Input parameters from the existing conditions were maintained with the corresponding future background and future total volumes.

6.1.3 Signal Timing Modifications

Due to critical movements identified during both the AM and PM peak hours under the future background scenario, the following signal timing adjustments were applied at the intersection of Jane Street and Lawrence Avenue West.

The optimized signal timing plans compared to the existing signal timing plans are shown in **Table 6-1**.

Table 6-1: Proposed Optimization Signalized Intersection of Jane Street & Lawrence Avenue West

Jane Street and Lawrence Avenue West	
Existing – AM Peak Period	
2030 & 2035 Future Optimized – AM Peak	

Jane Street and Lawrence Avenue West	
Existing – PM Peak Period	
2030 & 2035 Future Optimized – PM Peak	

6.2 SIGNALIZED INTERSECTIONS

The results for the studied signalized intersections under each traffic scenario during the weekday AM and PM peak hours are summarized in the sections below.

6.2.1 Jane Street & Lawrence Avenue West

The intersection capacity analysis results at Jane Street and Lawrence Avenue West during the 2030 AM and PM peak hours are summarized below. The 2030 horizon capacity results are summarized in **Table 6-2** and the 2035 horizon capacity results are summarized in **Table 6-3**.

Table 6-2: Intersection Capacity Analysis (2030) – Jane Street & Lawrence Avenue West

Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
AM Peak Hour												
Overall	-	0.71	C (28)	-/-	-	0.98	D (48)	-/-	-	0.98	D (47)	-/-
EBL	211	0.68	C (32)	30/43	211	0.86	E (55)	34/76	211	0.85	D (54)	34/76
EBTR	664	0.76	D (36)	64/78	673	0.99	E (70)	81/118	673	0.99	E (69)	81/118
WBL	57	0.30	C (25)	7/14	58	0.37	C (30)	8/18	58	0.37	C (30)	8/18
WBTR	348	0.41	C (30)	29/38	362	0.55	D (36)	34/49	362	0.55	D (36)	34/49
NBL	59	0.23	B (15)	6/14	59	0.28	B (16)	5/10	59	0.28	B (16)	5/10
NBTR	946	0.71	C (27)	88/123	862	1.02	E (61)	192/266	865	1.01	E (59)	184/266
O	0	0.00	(0)	0/0	103	0.09	B (14)	0/7	103	0.09	B (14)	0/7
SBL	88	0.40	B (17)	9/19	88	0.58	C (27)	7/19	88	0.57	C (27)	7/19
SBTR	804	0.61	C (24)	68/97	703	0.85	C (33)	122/195	708	0.85	C (33)	124/197
O	0	0.00	(0)	0/0	101	0.09	B (14)	0/7	102	0.09	B (14)	0/7
PM Peak Hour												
Overall	-	0.73	C (30)	-/-	-	1.02	E (70)	-/-	-	1.02	E (69)	-/-
EBL	219	0.81	D (43)	32/59	219	0.96	E (78)	35/82	219	0.96	E (78)	35/82
EBTR	644	0.76	D (37)	64/78	651	0.94	E (58)	71/107	651	0.93	E (56)	71/107
WBL	99	0.50	C (25)	13/22	100	0.60	C (32)	15/29	100	0.60	C (32)	15/29
WBTR	416	0.48	C (30)	37/48	420	0.59	C (35)	41/57	420	0.58	C (35)	41/57
NBL	62	0.32	B (17)	6/15	62	0.42	C (23)	6/11	62	0.41	C (23)	6/11
NBTR	960	0.74	C (28)	92/139	898	1.14	F (102)	231/307	904	1.13	F (100)	233/309
O	0	0.00	(0)	0/0	93	0.10	B (15)	0/7	93	0.10	B (15)	0/7
SBL	56	0.28	B (17)	6/14	56	0.36	C (23)	5/11	56	0.36	C (23)	5/11
SBTR	962	0.74	C (28)	93/139	868	1.09	F (83)	217/292	873	1.08	F (82)	219/294

0	0	0.00	(0)	0/0	94	0.10	B (15)	0/7	94	0.10	B (15)	0/7
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Table 6-3: Intersection Capacity Analysis (2035) – Jane Street & Lawrence Avenue West

Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
AM Peak Hour												
Overall	-	0.71	C (28)	-/-	-	0.98	D (48)	-/-	-	0.98	D (48)	-/-
EBL	211	0.68	C (32)	30/43	211	0.86	E (55)	34/76	210	0.85	D (54)	34/76
EBTR	664	0.76	D (36)	64/78	673	0.99	E (70)	81/118	673	0.99	E (69)	81/118
WBL	57	0.30	C (25)	7/14	58	0.37	C (30)	8/18	58	0.37	C (30)	8/18
WBTR	348	0.41	C (30)	29/38	362	0.55	D (36)	34/49	362	0.55	D (36)	34/49
NBL	59	0.23	B (15)	6/14	59	0.28	B (16)	5/10	59	0.29	B (17)	5/10
NBTR	946	0.71	C (27)	88/123	862	1.02	E (61)	192/266	867	1.01	E (59)	193/268
0	0	0.00	(0)	0/0	103	0.09	B (14)	0/7	103	0.09	B (14)	0/7
SBL	88	0.40	B (17)	9/19	88	0.58	C (27)	7/19	88	0.57	C (27)	7/19
SBTR	804	0.61	C (24)	68/97	703	0.85	C (33)	122/195	715	0.86	C (33)	126/200
0	0	0.00	(0)	0/0	101	0.09	B (14)	0/7	101	0.09	B (14)	0/7
Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
PM Peak Hour												
Overall	-	0.73	C (30)	-/-	-	1.02	E (71)	-/-	-	1.02	E (70)	-/-
EBL	219	0.81	D (43)	32/59	219	0.96	E (78)	35/84	219	0.96	E (78)	35/82
EBTR	644	0.76	D (37)	64/78	651	0.94	E (58)	71/107	651	0.93	E (56)	71/107
WBL	99	0.50	C (25)	13/22	100	0.60	C (32)	15/29	100	0.60	C (32)	15/29
WBTR	416	0.48	C (30)	37/48	420	0.59	C (35)	41/57	420	0.58	C (35)	41/57
NBL	62	0.32	B (17)	6/15	62	0.42	C (23)	6/11	62	0.41	C (23)	6/11
NBTR	960	0.74	C (28)	92/139	904	1.14	F (104)	234/309	910	1.14	F (103)	236/312
0	0	0.00	(0)	0/0	93	0.10	B (15)	0/7	93	0.10	B (15)	0/7
SBL	56	0.28	B (17)	6/14	56	0.36	C (23)	5/11	56	0.36	C (23)	5/11
SBTR	962	0.74	C (28)	93/139	873	1.09	F (86)	219/294	876	1.09	F (83)	220/296
0	0	0.00	(0)	0/0	94	0.10	B (15)	0/7	93	0.10	B (15)	0/7

Existing Conditions: Under existing conditions, the intersection of Jane Street and Lawrence Avenue West operates well during both weekday peak hours. All movements operate with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

2030 Conditions

Future Background Conditions: Under future background conditions, the eastbound left for the PM peak and eastbound through-right for the PM peak operate at close to capacity. The northbound movement operates at practical capacity for both peak hours, while the southbound movement operates at practical capacity for the PM peak hour. These results are a function of a through lane reduction on Jane Street for the RapidTO program to install Bus rapid lanes.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

2035 Conditions

Future Background Conditions: Under future background conditions, the eastbound left for the PM peak and eastbound through-right for the PM peak operate at close to capacity. The northbound movement operates at practical capacity for both peak hours, while the southbound movement operates at practical capacity for the PM peak hour. These results are a function of a through lane reduction on Jane Street for the RapidTO program to install Bus rapid lanes.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

6.2.2 Jane Street & John Street/1795 Jane Street Private Driveway

The intersection capacity analysis results at Jane Street and John Street/1795 Jane Street Private Driveway during the AM and PM peak hours are summarized below. The 2030 horizon capacity results are summarized in **Table 6-4** and the 2035 horizon capacity results are summarized in **Table 6-5**.

Table 6-4: Intersection Capacity Analysis (2030) – Jane Street & John Street/1795 Jane Street Private Driveway

Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
AM Peak Hour												
Overall	-	0.48	A (4)	-/-	-	0.89	B (14)	-/-	-	0.89	B (14)	-/-
EBLTR	56	0.33	D (40)	6/18	56	0.34	D (40)	6/18	56	0.34	D (40)	6/18
WBLTR	24	0.11	D (38)	3/10	24	0.12	D (38)	3/10	24	0.12	D (38)	3/10
NBL	16	0.05	A (2)	1/1	16	0.07	A (3)	1/1	16	0.07	A (3)	1/1
NBTR	1269	0.50	A (3)	31/29	1289	0.96	B (17)	158/318	1296	0.96	B (17)	158/324
0	0	0.00	(0)	0/0	6	0.01	A (10)	0/0	6	0.01	A (10)	0/0
SBL	6	0.02	A (2)	0/1	6	0.07	A (3)	0/1	6	0.07	A (3)	0/1
SBTR	1091	0.43	A (3)	24/42	1062	0.80	A (10)	82/201	1065	0.79	A (9)	82/192
0	0	0.00	(0)	0/0	29	0.03	A (2)	0/2	29	0.03	A (2)	0/2
Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
PM Peak Hour												
Overall	-	0.41	A (3)	-/-	-	0.79	A (8)	-/-	-	0.79	A (8)	-/-
EBLTR	33	0.27	D (42)	4/13	33	0.27	D (42)	4/13	33	0.27	D (42)	4/13
WBLTR	10	0.01	D (39)	0/1	10	0.01	D (39)	0/1	10	0.01	D (39)	0/1
NBL	13	0.04	A (2)	0/1	13	0.05	A (2)	0/1	13	0.05	A (2)	0/1
NBTR	1123	0.42	A (2)	24/27	1169	0.84	A (9)	102/128	1176	0.83	A (8)	102/126
0	0	0.00	(0)	0/0	5	0.00	A (1)	0/0	5	0.00	A (1)	0/0
SBL	6	0.02	A (1)	0/1	6	0.03	A (2)	0/1	6	0.04	A (2)	0/1
SBTR	1088	0.41	A (2)	23/36	1068	0.76	A (7)	76/161	1077	0.76	A (7)	77/161
0	0	0.00	(0)	0/0	20	0.02	A (1)	0/1	20	0.02	A (1)	0/1

Table 6-5: Intersection Capacity Analysis (2035) – Jane Street & John Street/1795 Jane Street Private Driveway

Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
AM Peak Hour												
Overall	-	0.48	A (4)	-/-	-	0.89	B (14)	-/-	-	0.90	B (15)	-/-
EBLTR	56	0.33	D (40)	6/18	56	0.34	D (40)	6/18	56	0.34	D (40)	6/18
WBLTR	24	0.11	D (38)	3/10	24	0.12	D (38)	3/10	24	0.12	D (38)	3/10
NBL	16	0.05	A (2)	1/1	16	0.07	A (3)	1/1	16	0.07	A (3)	1/1
NBTR	1269	0.50	A (3)	31/29	1289	0.96	B (17)	158/318	1304	0.96	B (18)	162/324
0	0	0.00	(0)	0/0	6	0.01	A (10)	0/0	6	0.01	A (10)	0/0

SBL	6	0.02	A (2)	0/1	6	0.07	A (3)	0/1	6	0.08	A (4)	0/1
SBTR	1091	0.43	A (3)	24/42	1062	0.80	A (10)	82/201	1066	0.80	A (10)	83/207
0	0	0.00	(0)	0/0	29	0.03	A (2)	0/2	29	0.03	A (2)	0/2
Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
PM Peak Hour												
Overall	-	0.41	A (3)	-/-	-	0.80	A (8)	-/-	-	0.79	A (8)	-/-
EBLTR	33	0.27	D (42)	4/13	33	0.27	D (42)	4/13	33	0.27	D (42)	4/13
WBLTR	10	0.01	D (39)	0/1	10	0.01	D (39)	0/1	10	0.01	D (39)	0/1
NBL	13	0.04	A (2)	0/1	13	0.05	A (2)	0/1	13	0.05	A (2)	0/1
NBTR	1123	0.42	A (2)	24/27	1175	0.84	A (9)	103/130	1175	0.83	A (8)	101/126
0	0	0.00	(0)	0/0	5	0.00	A (1)	0/0	5	0.00	A (1)	0/0
SBL	6	0.02	A (1)	0/1	6	0.04	A (2)	0/1	6	0.04	A (2)	0/1
SBTR	1088	0.41	A (2)	23/36	1076	0.76	A (7)	78/164	1079	0.76	A (7)	79/166
0	0	0.00	(0)	0/0	20	0.02	A (1)	0/1	20	0.02	A (1)	0/1

Existing Conditions: Under existing conditions, the intersection of Jane Street and John Street/1795 Jane Street Private Driveway operates well during both weekday peak hours. All movements operate with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

2030 Conditions

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

2035 Conditions

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate well with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

6.3 UNSIGNALIZED INTERSECTIONS

The results for the studied unsignalized intersections under each traffic scenario during the weekday AM and PM peak hours are summarized in the sections below.

6.3.1 Jane Street & Site Access (1755 Jane Street)

The intersection capacity analysis results at Jane Street and the site access (1755 Jane Street) during the AM and PM peak hours are summarized below. The 2030 horizon capacity results are summarized in **Table 6-6** and the 2035 horizon capacity results are summarized in **Table 6-7**.

Table 6-6: Intersection Capacity Analysis (2030) – Jane Street & Site Access (1755 Jane Street)

Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
AM Peak Hour												
Overall	-	-	- (0)	-/-	-	-	- (0)	-/-	-	-	- (0)	-/-
NBT	1279	0.00	(0)	-/0	1305	0.00	(0)	-/0	1305	0.00	(0)	-/0
NBR	5	0.00	(0)	-/0	5	0.00	(0)	-/0	8	0.00	(0)	-/0
WBLR	16	0.08	C (23)	-/1	16	0.11	D (31)	-/3	28	0.19	D (33)	-/5
SBL	2	0.01	C (18)	-/0	2	0.01	C (16)	-/0	5	0.01	B (14)	-/0
SBT	1077	0.00	A (0)	-/0	1077	0.00	A (0)	-/0	1077	0.00	A (0)	-/0
Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
PM Peak Hour												
Overall	-	-	- (0)	-/-	-	-	- (0)	-/-	-	-	- (0)	-/-
NBT	1142	0.00	(0)	-/0	1193	0.00	(0)	-/0	1193	0.00	(0)	-/0
NBR	6	0.00	(0)	-/0	6	0.00	(0)	-/0	12	0.00	(0)	-/0
WBLR	11	0.05	C (20)	-/1	11	0.07	D (27)	-/1	23	0.15	D (30)	-/4
SBL	9	0.02	B (12)	-/1	9	0.02	B (13)	-/1	18	0.04	B (13)	-/1
SBT	1053	0.00	A (0)	-/0	1053	0.00	A (0)	-/0	1053	0.00	A (0)	-/0

Table 6-7: Intersection Capacity Analysis (2035) – Jane Street & Site Access (1755 Jane Street)

Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
AM Peak Hour												
Overall	-	-	- (0)	-/-	-	-	- (0)	-/-	-	-	- (0)	-/-
NBT	1279	0.00	(0)	-/0	1305	0.00	(0)	-/0	1314	0.00	(0)	-/0
NBR	5	0.00	(0)	-/0	5	0.00	(0)	-/0	8	0.00	(0)	-/0
WBLR	16	0.08	C (23)	-/1	16	0.11	D (31)	-/3	29	0.19	D (33)	-/5
SBL	2	0.01	C (18)	-/0	2	0.01	C (16)	-/0	5	0.01	B (14)	-/0
SBT	1077	0.00	A (0)	-/0	1077	0.00	A (0)	-/0	1078	0.00	A (0)	-/0
Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
PM peak Hour												

Overall	-	-	-(0)	-/-	-	-	-(0)	-/-	-	-	-(0)	-/-
NBT	1142	0.00	(0)	-/0	1193	0.00	(0)	-/0	1193	0.00	(0)	-/0
NBR	6	0.00	(0)	-/0	12	0.00	(0)	-/0	12	0.00	(0)	-/0
WBLR	11	0.05	C (20)	-/1	23	0.15	D (30)	-/4	23	0.15	D (30)	-/4
SBL	9	0.02	B (12)	-/1	17	0.04	B (13)	-/1	17	0.04	B (13)	-/1
SBT	1053	0.00	A (0)	-/0	1053	0.00	A (0)	-/0	1056	0.00	A (0)	-/0

Existing Conditions: Under existing conditions, the intersection of Jane Street and John Street/1795 Jane Street Private Driveway operates well during both weekday peak hours. All movements operate with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

2030 Conditions

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

2035 Conditions

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate well with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

6.3.2 Jane Street & Patika Avenue

The intersection capacity analysis results at Jane Street and Patika Avenue during the AM and PM peak hours are summarized below. The 2030 horizon capacity results are summarized in **Table 6-8** and the 2035 horizon capacity results are summarized in **Table 6-9**.

Table 6-8: Intersection Capacity Analysis (2030) – Jane Street & Patika Avenue

Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
AM Peak Hour												
Overall	-	-	- (1)	-/-	-	-	- (0)	-/-	-	-	- (0)	-/-
NBL	14	0.02	B (11)	-/1	14	0.02	B (11)	-/1	14	0.02	B (11)	-/1
NBT	1267	0.00	A (1)	-/0	1293	0.00	A (0)	-/0	1296	0.00	A (0)	-/0
EBLR	28	0.12	C (22)	-/3	28	0.16	D (29)	-/4	28	0.16	D (29)	-/4
SBT	1066	0.00	(0)	-/0	1066	0.00	(0)	-/0	1071	0.00	(0)	-/0
SBR	18	0.00	(0)	-/0	18	0.00	(0)	-/0	18	0.00	(0)	-/0
Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
PM Peak Hour												
Overall	-	-	- (0)	-/-	-	-	- (0)	-/-	-	-	- (0)	-/-
NBL	9	0.02	B (11)	-/1	9	0.02	B (11)	-/1	9	0.02	B (11)	-/1
NBT	1114	0.00	A (0)	-/0	1165	0.00	A (0)	-/0	1171	0.00	A (0)	-/0
EBLR	11	0.05	C (20)	-/1	11	0.06	C (25)	-/1	11	0.06	C (25)	-/1
SBT	1030	0.00	(0)	-/0	1030	0.00	(0)	-/0	1035	0.00	(0)	-/0
SBR	20	0.00	(0)	-/0	20	0.00	(0)	-/0	20	0.00	(0)	-/0

Table 6-9: Intersection Capacity Analysis (2035) – Jane Street & Patika Avenue

Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
AM Peak Hour												
Overall	-	-	- (1)	-/-	-	-	- (0)	-/-	-	-	- (0)	-/-
NBL	14	0.02	B (11)	-/1	14	0.02	B (11)	-/1	14	0.02	B (11)	-/1
NBT	1267	0.00	A (1)	-/0	1293	0.00	A (0)	-/0	1305	0.00	A (0)	-/0
EBLR	28	0.12	C (22)	-/3	28	0.16	D (29)	-/4	28	0.17	D (29)	-/4
SBT	1066	0.00	(0)	-/0	1066	0.00	(0)	-/0	1073	0.00	(0)	-/0
SBR	18	0.00	(0)	-/0	18	0.00	(0)	-/0	18	0.00	(0)	-/0
Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
PM Peak Hour												
Overall	-	-	- (0)	-/-	-	-	- (0)	-/-	-	-	- (0)	-/-
NBL	9	0.02	B (11)	-/1	9	0.02	B (11)	-/1	9	0.02	B (11)	-/1
NBT	1114	0.00	A (0)	-/0	1171	0.00	A (0)	-/0	1171	0.00	A (0)	-/0
EBLR	11	0.05	C (20)	-/1	11	0.06	C (25)	-/1	11	0.06	C (25)	-/1
SBT	1030	0.00	(0)	-/0	1036	0.00	(0)	-/0	1039	0.00	(0)	-/0

SBR	20	0.00	(0)	-/0	20	0.00	(0)	-/0	20	0.00	(0)	-/0
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Existing Conditions: Under existing conditions, the intersection of Jane Street and Patika Avenue operates well during both weekday peak hours. All movements operate with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

2030 Conditions

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

2035 Conditions

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate well with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future conditions, the intersection is expected to operate well with no major constraints are noted.

6.3.3 Jane Street & MacDonald Avenue/Marshlynn Avenue

The intersection capacity analysis results at Jane Street and MacDonald Avenue/Marshlynn Avenue during the AM and PM peak hours are summarized below. The 2030 horizon capacity results are summarized in **Table 6-10** and the 2035 horizon capacity results are summarized in **Table 6-11**.

Table 6-10: Intersection Capacity Analysis (2030) – Jane Street & Macdonald Avenue/Marshlynn Avenue

Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
AM Peak Hour												
Overall	-	-	- (2)	-/-	-	-	- (2)	-/-	-	-	- (3)	-/-
NBL	5	0.01	B (12)	-/0	5	0.01	B (11)	-/0	5	0.01	B (12)	-/0
NBT	1206	0.00	A (0)	-/0	1232	0.00	A (0)	-/0	1235	0.00	A (0)	-/0
NBR	4	0.00	(0)	-/0	4	0.00	(0)	-/0	4	0.00	(0)	-/0
EBLTR	24	0.14	D (28)	-/4	24	0.41	F (101)	-/11	24	0.42	F (103)	-/11
WBLTR	66	0.21	C (19)	-/6	66	0.40	E (39)	-/12	67	0.41	E (39)	-/13
SBL	67	0.14	B (13)	-/4	67	0.14	B (13)	-/4	67	0.14	B (13)	-/4
SBT	957	0.00	A (2)	-/0	957	0.00	A (0)	-/0	962	0.00	A (0)	-/0
SBR	53	0.00	(0)	-/0	53	0.00	(0)	-/0	53	0.00	(0)	-/0
Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
PM Peak Hour												
Overall	-	-	- (2)	-/-	-	-	- (1)	-/-	-	-	- (1)	-/-
NBL	14	0.02	B (11)	-/1	14	0.02	B (11)	-/1	14	0.02	B (11)	-/1
NBT	1076	0.00	A (0)	-/0	1127	0.00	A (0)	-/0	1133	0.00	A (0)	-/0
NBR	8	0.00	(0)	-/0	8	0.00	(0)	-/0	8	0.00	(0)	-/0
EBLTR	27	0.11	C (20)	-/2	27	0.16	D (31)	-/4	27	0.17	D (31)	-/4
WBLTR	49	0.17	C (19)	-/4	49	0.27	D (32)	-/8	49	0.27	D (32)	-/8
SBL	51	0.09	B (12)	-/2	51	0.10	B (12)	-/2	51	0.10	B (12)	-/2
SBT	948	0.00	A (1)	-/0	948	0.00	A (0)	-/0	953	0.00	A (0)	-/0
SBR	34	0.00	(0)	-/0	34	0.00	(0)	-/0	34	0.00	(0)	-/0

Table 6-11: Intersection Capacity Analysis (2035) – Jane Street & MacDonald Avenue/Marshlynn Avenue

Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
AM Peak Hour												
Overall	-	-	- (2)	-/-	-	-	- (2)	-/-	-	-	- (4)	-/-
NBL	5	0.01	B (12)	-/0	5	0.01	B (11)	-/0	5	0.01	B (12)	-/0
NBT	1206	0.00	A (0)	-/0	1232	0.00	A (0)	-/0	1235	0.00	A (0)	-/0
NBR	4	0.00	(0)	-/0	4	0.00	(0)	-/0	5	0.00	(0)	-/0
EBLTR	24	0.14	D (28)	-/4	24	0.41	F (101)	-/11	24	0.55	F (154)	-/14
WBLTR	66	0.21	C (19)	-/6	66	0.40	E (39)	-/12	83	0.53	E (50)	-/19
SBL	67	0.14	B (13)	-/4	67	0.14	B (13)	-/4	68	0.14	B (13)	-/4

SBT	957	0.00	A (2)	-/0	957	0.00	A (0)	-/0	963	0.00	A (0)	-/0
SBR	53	0.00	(0)	-/0	53	0.00	(0)	-/0	53	0.00	(0)	-/0
Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
PM Peak Hour												
Overall	-	-	- (2)	-/-	-	-	- (1)	-/-	-	-	- (1)	-/-
NBL	14	0.02	B (11)	-/1	14	0.02	B (11)	-/1	14	0.02	B (11)	-/1
NBT	1076	0.00	A (0)	-/0	1133	0.00	A (0)	-/0	1133	0.00	A (0)	-/0
NBR	8	0.00	(0)	-/0	8	0.00	(0)	-/0	14	0.00	(0)	-/0
EBLTR	27	0.11	C (20)	-/2	27	0.17	D (31)	-/4	27	0.17	D (32)	-/4
WBLTR	49	0.17	C (19)	-/4	49	0.28	D (32)	-/8	51	0.29	D (33)	-/8
SBL	51	0.09	B (12)	-/2	51	0.10	B (13)	-/2	54	0.10	B (13)	-/2
SBT	948	0.00	A (1)	-/0	954	0.00	A (0)	-/0	954	0.00	A (0)	-/0
SBR	34	0.00	(0)	-/0	34	0.00	(0)	-/0	34	0.00	(0)	-/0

Existing Conditions: Under existing conditions, the intersection of Jane Street and MacDonald Avenue/Marshlynn Avenue operates well during both weekday peak hours. All movements operate with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

2030 Conditions

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

2035 Conditions

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate well with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future conditions, the intersection is expected to operate well with no major constraints are noted.

6.3.4 1749 Jane Street SW Driveway (Site Access 2030) & Marshlynn Avenue

The intersection capacity analysis results at 1749 Jane Street SW Driveway and Marshlynn Avenue during the 2030 AM and PM peak hours are summarized in **Table 6-12**. This site access will be removed in the 2035 horizon.

Table 6-12: Intersection Capacity Analysis (2030) – 1749 Jane Street SW Driveway & Marshlynn Avenue

Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
AM Peak Hour												
Overall	-	-	- (0)	-/-	-	-	- (0)	-/-	-	-	- (0)	-/-
EBL	1	0.00	A (7)	-/0	1	0.00	A (7)	-/0	1	0.00	A (7)	-/0
EBT	71	0.00	A (0)	-/0	71	0.00	A (0)	-/0	71	0.00	A (0)	-/0
WBT	66	0.00	(0)	-/0	66	0.00	(0)	-/0	67	0.00	(0)	-/0
WBR	1	0.00	(0)	-/0	1	0.00	(0)	-/0	1	0.00	(0)	-/0
SBLR	1	0.00	A (10)	-/0	1	0.00	A (10)	-/0	1	0.00	A (10)	-/0
Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
PM Peak Hour												
Overall	-	-	- (2)	-/-	-	-	- (2)	-/-	-	-	- (2)	-/-
EBL	6	0.01	A (8)	-/0	6	0.01	A (8)	-/0	6	0.01	A (8)	-/0
EBT	55	0.00	A (0)	-/0	55	0.00	A (0)	-/0	55	0.00	A (0)	-/0
WBT	40	0.00	(0)	-/0	40	0.00	(0)	-/0	40	0.00	(0)	-/0
WBR	1	0.00	(0)	-/0	1	0.00	(0)	-/0	1	0.00	(0)	-/0
SBLR	14	0.02	A (9)	-/1	14	0.02	A (9)	-/1	14	0.02	A (9)	-/1

Existing Conditions: Under existing conditions, the intersection of 1749 Jane Street SW Driveway and Marshlynn Avenue operates well during both weekday peak hours. All movements operate with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

6.3.5 1749 Jane Street SE Driveway/Laneway & Marshlynn Avenue

The intersection capacity analysis results at 1749 Jane Street SE Driveway/Laneway and Marshlynn Avenue during the AM and PM peak hours are summarized below. The 2030 horizon capacity results are summarized in **Table 6-13** and the 2035 horizon capacity results are summarized in **Table 6-14**.

Table 6-13: Intersection Capacity Analysis (2030) – 1749 Jane Street SE Driveway/Laneway & Marshlynn Avenue

Mvmt	Existing Traffic	Future Background Traffic (2030)	Future Total Traffic (2030)
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	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
AM Peak Hour												
Overall	-	-	- (1)	-/-	-	-	- (1)	-/-	-	-	- (1)	-/-
NBLTR	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0
EBL	8	0.01	A (7)	-/0	8	0.01	A (7)	-/0	8	0.01	A (7)	-/0
EBT	65	0.00	A (0)	-/0	65	0.00	A (0)	-/0	65	0.00	A (0)	-/0
EBR	1	0.00	(0)	-/0	1	0.00	(0)	-/0	1	0.00	(0)	-/0
WBL	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0
WBT	68	0.00	(0)	-/0	68	0.00	(0)	-/0	69	0.00	(0)	-/0
WBR	1	0.00	(0)	-/0	1	0.00	(0)	-/0	1	0.00	(0)	-/0
SBLTR	3	0.01	A (9)	-/0	3	0.01	A (9)	-/0	3	0.01	A (9)	-/0
Mvmt	Existing Traffic				Future Background Traffic (2030)				Future Total Traffic (2030)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
PM Peak Hour												
Overall	-	-	- (2)	-/-	-	-	- (2)	-/-	-	-	- (2)	-/-
NBLTR	5	0.01	A (9)	-/0	5	0.01	A (9)	-/0	5	0.01	A (9)	-/0
EBL	8	0.01	A (7)	-/0	8	0.01	A (7)	-/0	8	0.01	A (7)	-/0
EBT	52	0.00	A (0)	-/0	52	0.00	A (0)	-/0	52	0.00	A (0)	-/0
EBR	9	0.00	(0)	-/0	9	0.00	(0)	-/0	9	0.00	(0)	-/0
WBL	3	0.00	A (7)	-/0	3	0.00	A (7)	-/0	3	0.00	A (7)	-/0
WBT	32	0.00	A (0)	-/0	32	0.00	A (0)	-/0	32	0.00	A (0)	-/0
WBR	5	0.00	(0)	-/0	5	0.00	(0)	-/0	5	0.00	(0)	-/0
SBLTR	10	0.02	A (9)	-/0	10	0.02	A (9)	-/0	10	0.02	A (9)	-/0

Table 6-14: Intersection Capacity Analysis (2035) – Laneway & Marshlynn Avenue

Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035 Opt)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
AM Peak Hour												
Overall	-	-	- (1)	-/-	-	-	- (0)	-/-	-	-	- (0)	-/-
NBLTR	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0
EBL	8	0.01	A (7)	-/0	73	0.00	(0)	-/0	75	0.00	(0)	-/0
EBT	65	0.00	A (0)	-/0	1	0.00	(0)	-/0	1	0.00	(0)	-/0
EBR	1	0.00	(0)	-/0	0	0.00	A (0)	-/0	0	0.00	A (0)	-/0
WBL	0	0.00	A (0)	-/0	69	0.00	(0)	-/0	85	0.00	(0)	-/0
WBT	68	0.00	(0)	-/0	0	0.00	(0)	-/0	0	0.00	(0)	-/0
WBR	1	0.00	(0)	-/0	0	0.00	(0)	-/0	0	0.00	(0)	-/0
SBLTR	3	0.01	A (9)	-/0	0	0.00	(0)	-/0	0	0.00	(0)	-/0
Mvmt	Existing Traffic				Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
PM Peak Hour												
Overall	-	-	- (2)	-/-	-	-	- (1)	-/-	-	-	- (1)	-/-
NBLTR	5	0.01	A (9)	-/0	5	0.01	A (9)	-/0	5	0.01	A (9)	-/0
EBL	8	0.01	A (7)	-/0	61	0.00	(0)	-/0	69	0.00	(0)	-/0

EBT	52	0.00	A (0)	-/0	9	0.00	(0)	-/0	9	0.00	(0)	-/0
EBR	9	0.00	(0)	-/0	3	0.00	A (7)	-/0	3	0.00	A (7)	-/0
WBL	3	0.00	A (7)	-/0	43	0.00	A (0)	-/0	45	0.00	A (0)	-/0
WBT	32	0.00	A (0)	-/0	-			-				
WBR	5	0.00	(0)	-/0								
SBLTR	10	0.02	A (9)	-/0								

Existing Conditions: Under existing conditions, the intersection of 1749 Jane Street SE Driveway/Laneway and Marshlynn Avenue operates well during both weekday peak hours. All movements operate with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

2030 Conditions

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate similar to existing conditions with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future total conditions, the addition of site traffic is expected to have an acceptable impact on intersection operations, with all movements operating similar to future background conditions. No intersection modifications are recommended.

2035 Conditions

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate well with acceptable increases in V/C ratios and delay. No major constraints are noted.

Future Total Conditions: Under future conditions, the intersection is expected to operate well with no major constraints are noted.

6.3.6 Relocated Site Access & Marshlynn Drive

The intersection capacity analysis results at the relocated site access and Marshlynn Avenue during the AM and PM peak hours are summarized in **Table 6-15** for the 2035 horizon.

Table 6-15: Intersection Capacity Analysis (2030) – Relocated Site Access & Marshlynn Avenue

Mvmt	Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
AM Peak Hour								
Overall	-	-	- (1)	-/-	-	-	- (1)	-/-
EBL	9	0.01	A (7)	-/0	11	0.01	A (7)	-/0
EBT	64	0.00	A (0)	-/0	64	0.00	A (0)	-/0
WBT	67	0.00	(0)	-/0	67	0.00	(0)	-/0
WBR	2	0.00	(0)	-/0	2	0.00	(0)	-/0
SBLR	4	0.01	A (9)	-/0	20	0.02	A (9)	-/1
Mvmt	Future Background Traffic (2035)				Future Total (2035)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (veh)
PM Peak Hour								
Overall	-	-	- (2)	-/-	-	-	- (3)	-/-
EBL	14	0.01	A (7)	-/0	22	0.01	A (7)	-/0
EBT	50	0.00	A (0)	-/0	50	0.00	A (0)	-/0
WBT	34	0.00	(0)	-/0	34	0.00	(0)	-/0
WBR	6	0.00	(0)	-/0	4	0.00	(0)	-/0
SBLR	24	0.03	A (9)	-/1	25	0.03	A (9)	-/1

Existing Conditions: Under existing conditions, the intersection of the relocated site access and Marshlynn Avenue operates well during both weekday peak hours. All movements operate with residual capacity and acceptable delays. All existing 95th percentile queues can be accommodated by their available storage lanes. No critical movements have been identified.

Future Background Conditions: Under future background conditions, the intersection is expected to generally operate well with acceptable increases in V/C ratios and delay. No major constraints are noted.

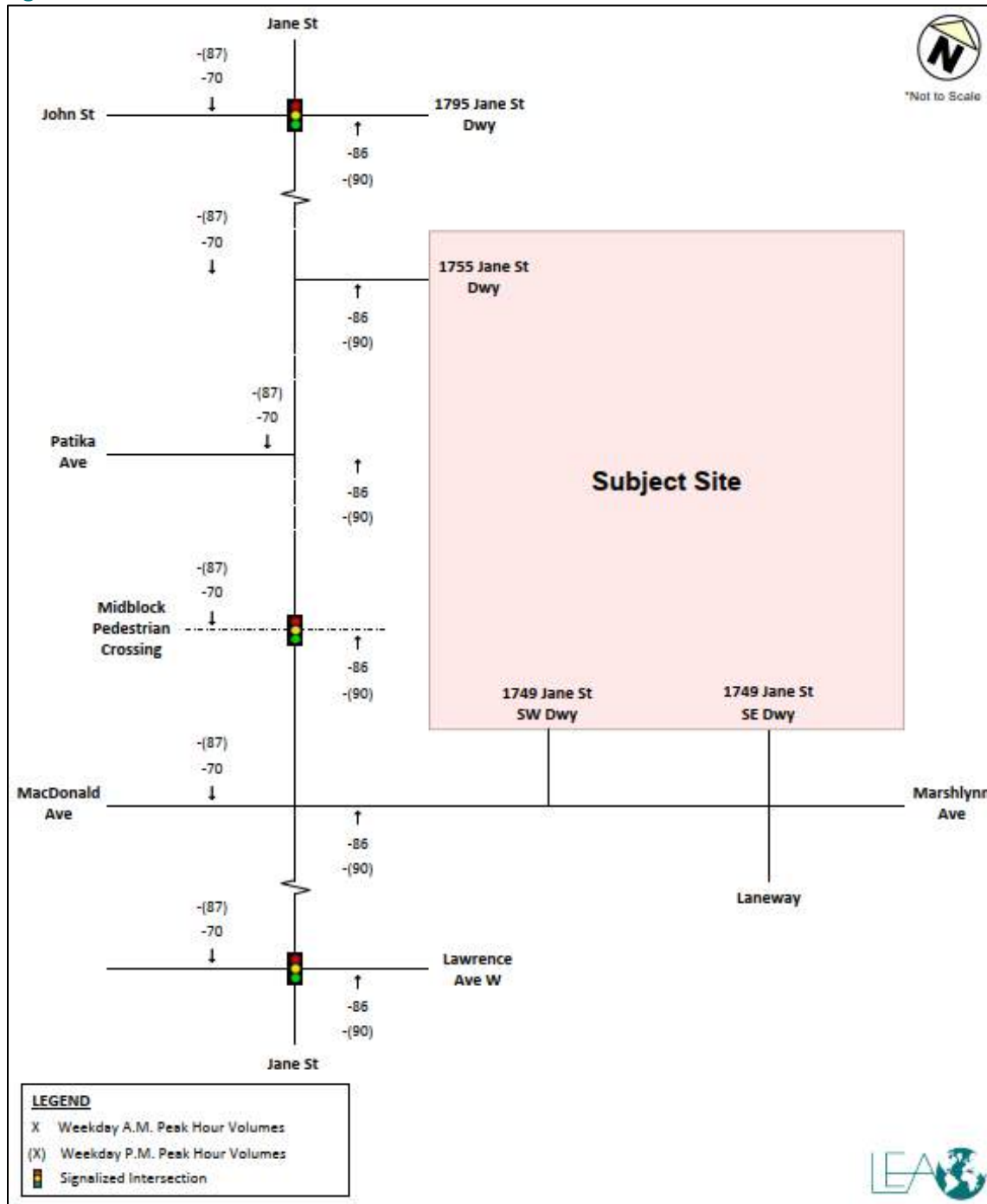
Future Total Conditions: Under future conditions, the intersection is expected to operate well with no major constraints are noted.

6.4 SENSITIVITY ANALYSIS

A sensitivity analysis was conducted to ascertain the traffic conditions on Jane Street. Under the RapidTO scenario, as the two-lanes for vehicles to use on Jane Street will go down to one lane in each direction to accommodate the bus priority lanes, it is expected that some north-south through traffic will experience a higher amount of travel time. As such, motorists may choose an alternative north-south travel route in place of Jane Street.

A 10% reduction of north-south through traffic on Jane Street based on the future background traffic conditions and carried through the entire study area. As noted above, traffic operations are an issue at Jane Street at Lawrence Avenue West while other intersection to the north operate without any issues. The relocated traffic volumes are illustrated below in **Figure 6-1**.

Figure 6-1: Jane Street North-South Volume Reductions



Future background traffic volumes have been updated with the traffic reductions during the weekday AM and PM peak hours under the 2030 and 2035 horizon year and are illustrated in **Figure 6-2** and **Figure 6-3**.

Figure 6-2: Updated 2030 Future Background Traffic Volumes

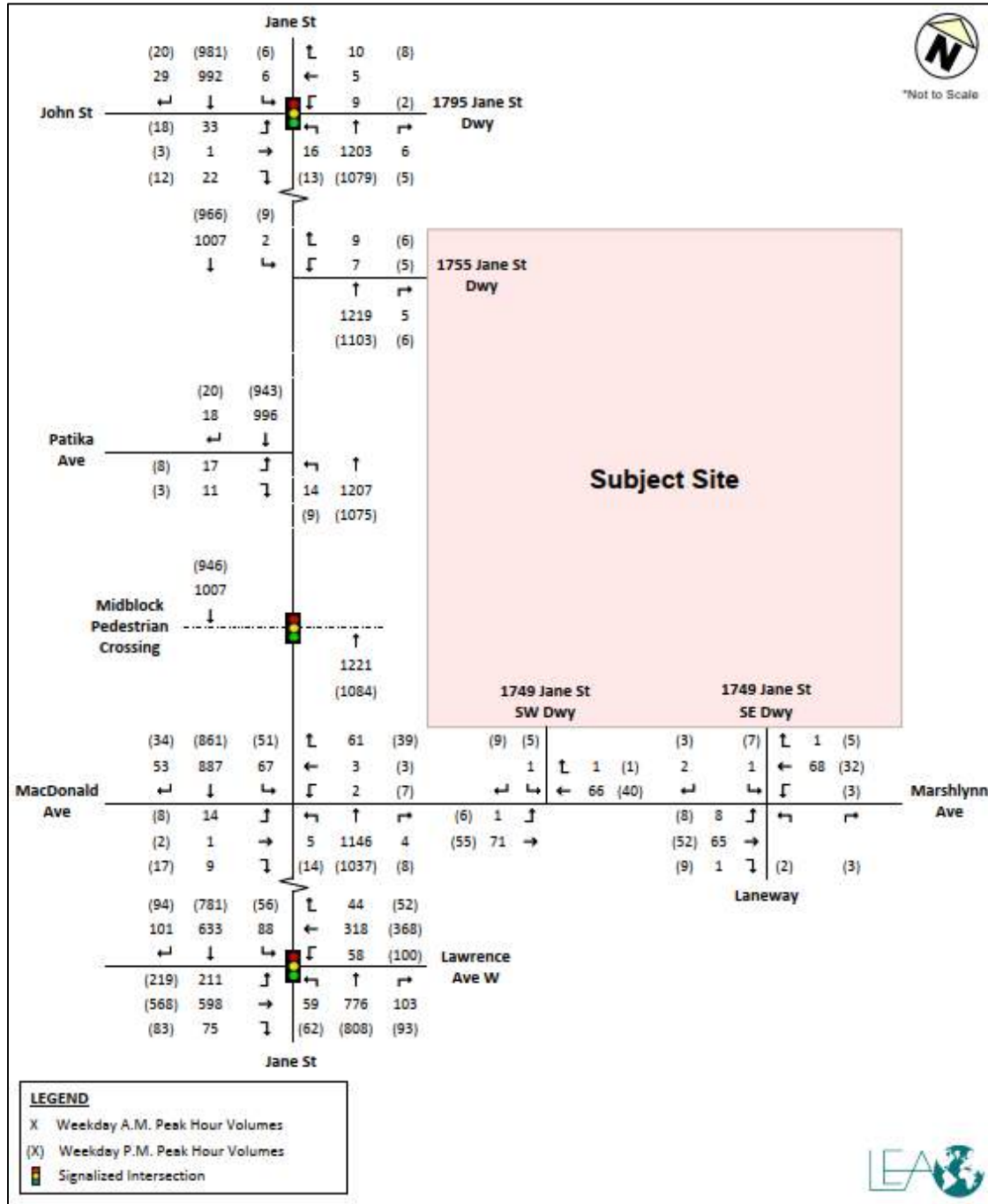
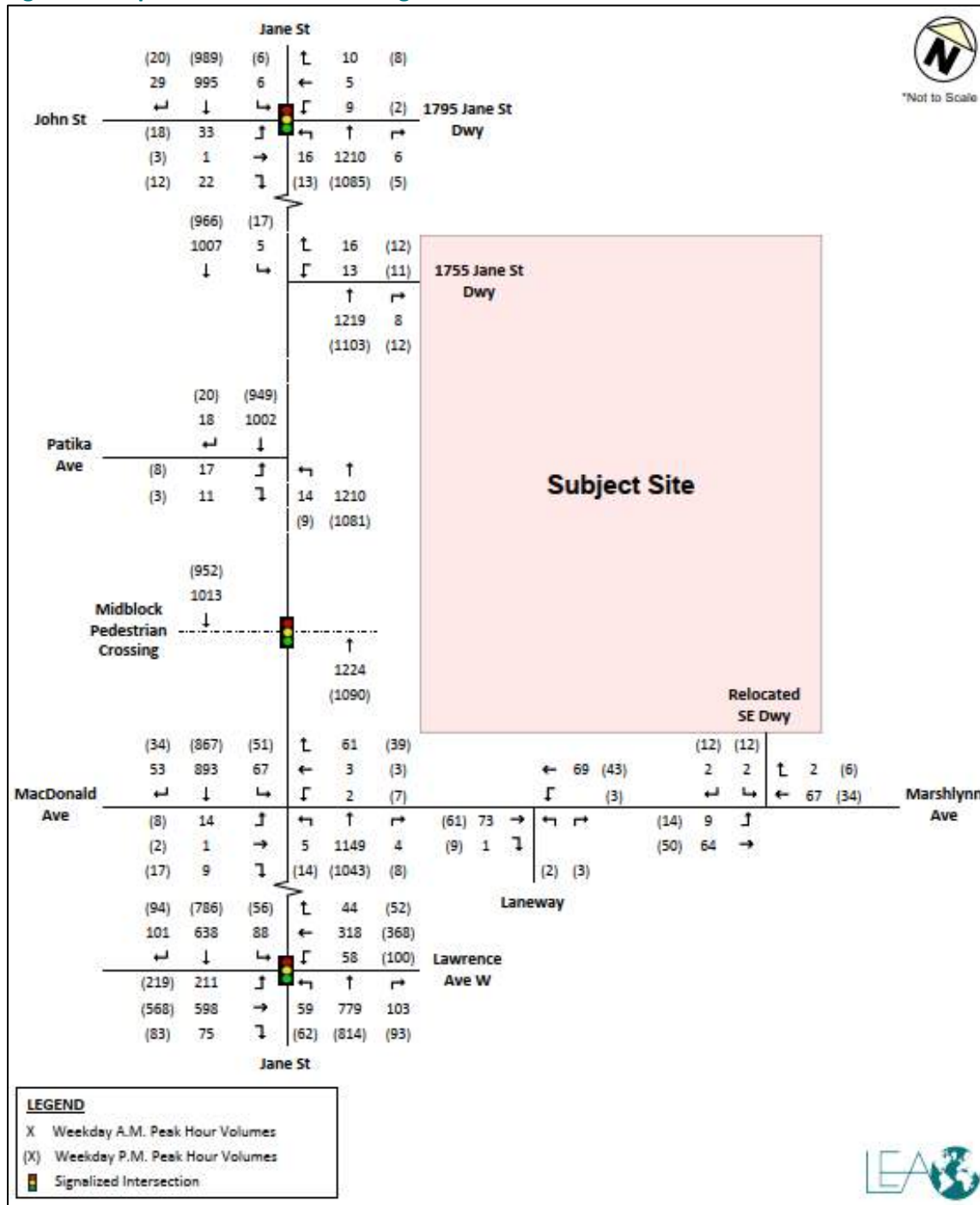


Figure 6-3: Updated 2035 Future Background Traffic Volumes



Additionally, future total traffic volumes have been updated with the traffic reductions during the weekday AM and PM peak hours under the 2030 and 2035 horizon year and are illustrated in **Figure 6-4** and **Figure 6-5**.

Figure 6-4: Updated 2030 Future Total Traffic Volumes

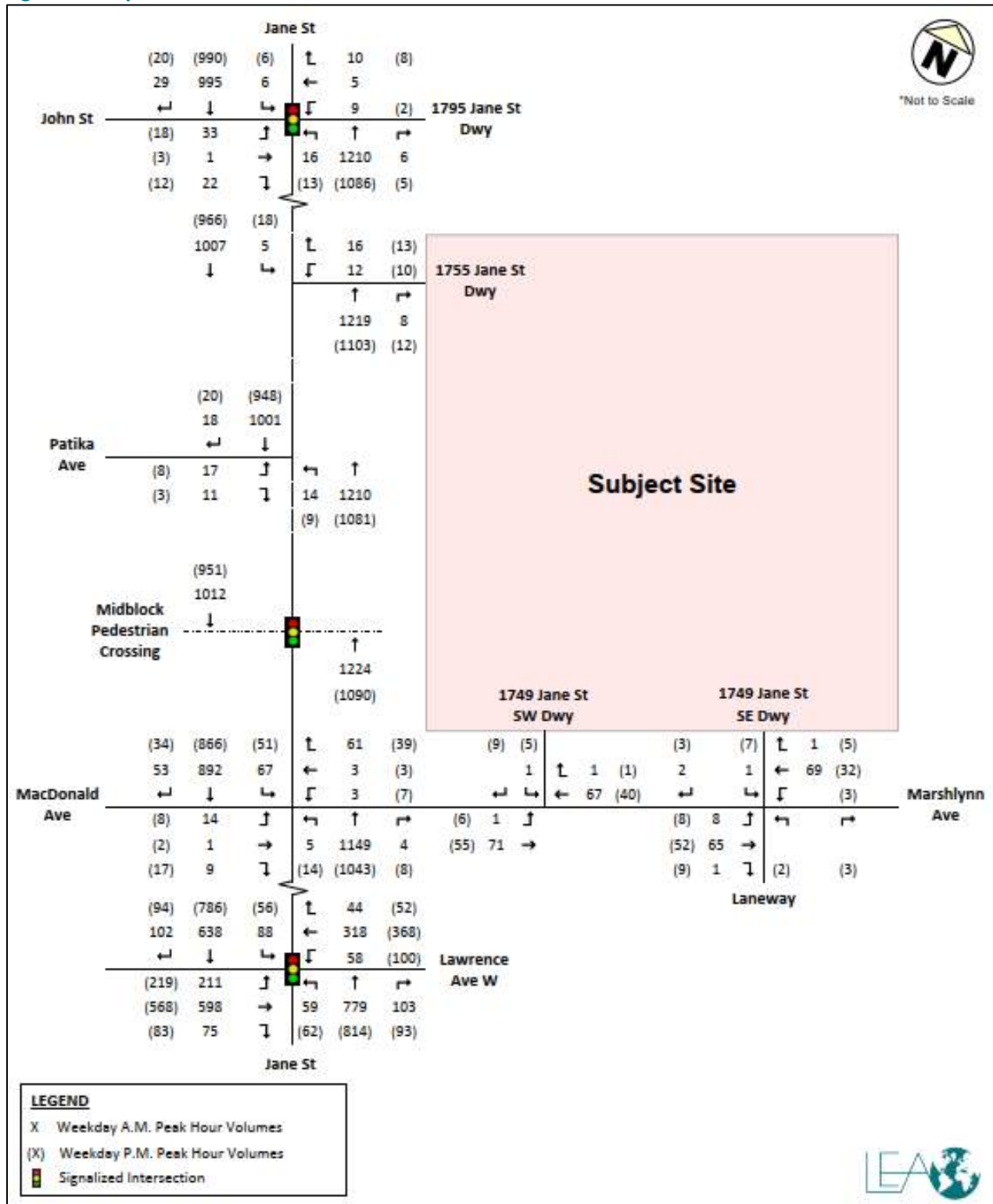
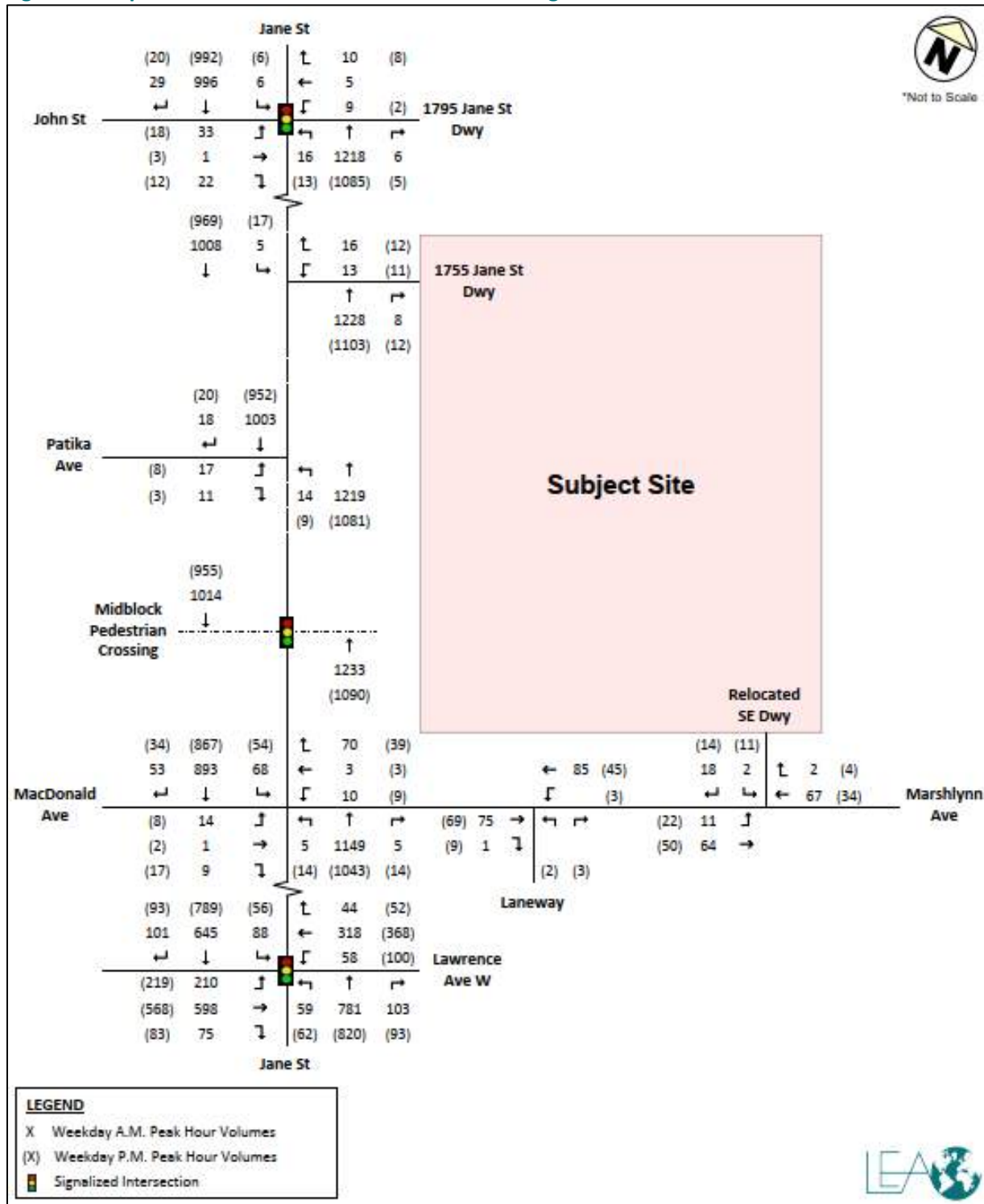


Figure 6-5: Updated 2035 Future Total Traffic Volume Figures



Accordingly, the capacity results are summarized below in **Table 6-16** and **Table 6-17** for the intersection of Jane Street at Lawrence Avenue West for the 2030 and 2035 horizons respectively. Detailed capacity results can be found in **Appendix J**. The intersection signal timing was also optimized as per the changes in **Section 6.2.3**.

Table 6-16: Sensitivity Analysis: Intersection Capacity Analysis (2030) – Jane Street & Lawrence Avenue West

Mvmt	Future Background Traffic (2030 Sensitivity)				Future Total Traffic (2030 Sensitivity)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
AM Peak Hour								
Overall	-	0.92	D (42)	-/-	-	0.92	D (41)	-/-
EBL	211	0.85	D (54)	34/76	211	0.85	D (54)	34/76
EBTR	673	0.99	E (69)	81/118	673	0.99	E (69)	81/118
WBL	58	0.37	C (30)	8/18	58	0.37	C (30)	8/18
WBTR	362	0.55	D (36)	34/49	362	0.55	D (36)	34/49
NBL	59	0.23	B (14)	5/10	59	0.23	B (14)	5/10
NBT	776	0.92	D (41)	145/227	779	0.92	D (40)	146/228
NBR	103	0.09	B (14)	0/7	103	0.09	B (14)	0/7
SBL	88	0.53	C (22)	7/16	88	0.54	C (22)	7/16
SBT	633	0.78	C (28)	103/151	638	0.77	C (27)	104/152
SBR	101	0.09	B (14)	0/7	102	0.09	B (14)	0/7
Mvmt	Future Background Traffic (2030 Sensitivity)				Future Total Traffic (2030 Sensitivity)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
PM Peak Hour								
Overall	-	0.96	D (51)	-/-	-	0.95	D (51)	-/-
EBL	219	0.96	E (78)	35/82	219	0.96	E (78)	35/82
EBTR	651	0.93	E (56)	71/107	651	0.93	E (56)	71/107
WBL	100	0.60	C (32)	15/29	100	0.60	C (32)	15/29
WBTR	420	0.58	C (35)	41/57	420	0.58	C (35)	41/57
NBL	62	0.41	C (22)	6/11	62	0.41	C (23)	6/11
NBT	808	1.02	E (63)	191/264	814	1.02	E (62)	192/266
NBR	93	0.10	B (15)	0/7	93	0.10	B (15)	0/7
SBL	56	0.36	C (23)	5/11	56	0.36	C (23)	5/11
SBT	781	0.98	D (52)	166/250	786	0.97	D (51)	166/252
SBR	94	0.10	B (15)	0/7	94	0.10	B (15)	0/7

Table 6-17: Sensitivity Analysis: Intersection Capacity Analysis (2035) – Jane Street & Lawrence Avenue West

Mvmt	Future Background Traffic (2035 Sensitivity)				Future Total Traffic (2035 Sensitivity)			
	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
AM Peak Hour								
Overall	-	0.92	D (42)	-/-	-	0.92	D (41)	-/-
EBL	211	0.85	D (54)	34/76	210	0.85	D (54)	34/76
EBTR	673	0.99	E (69)	81/118	673	0.99	E (69)	81/118
WBL	58	0.37	C (30)	8/18	58	0.37	C (30)	8/18
WBTR	362	0.55	D (36)	34/49	362	0.55	D (36)	34/49
NBL	59	0.23	B (14)	5/10	59	0.24	B (14)	5/10
NBT	779	0.93	D (41)	146/228	781	0.91	D (39)	146/228
NBR	103	0.09	B (14)	0/7	103	0.09	B (14)	0/7
SBL	88	0.54	C (22)	7/16	88	0.55	C (22)	7/16
SBT	638	0.78	C (28)	104/154	645	0.78	C (28)	106/155
SBR	101	0.09	B (14)	0/7	101	0.09	B (14)	0/7
Mvmt	Future Background Traffic (2035 Sensitivity)				Future Total Traffic (2035 Sensitivity)			

	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)	Vol	V/C	LOS (Delay) (s)	Queues (50/95) (m)
PM Peak Hour								
Overall	-	0.96	D (52)	-/-	-	0.96	D (52)	-/-
EBL	219	0.96	E (78)	35/82	219	0.96	E (78)	35/82
EBTR	651	0.93	E (56)	71/107	651	0.93	E (56)	71/107
WBL	100	0.60	C (32)	15/29	100	0.60	C (32)	15/29
WBTR	420	0.58	C (35)	41/57	420	0.58	C (35)	41/57
NBL	62	0.41	C (23)	6/11	62	0.41	C (23)	6/11
NBT	814	1.03	E (65)	193/267	820	1.03	E (64)	195/269
NBR	93	0.10	B (15)	0/7	93	0.10	B (15)	0/7
SBL	56	0.36	C (23)	5/11	56	0.36	C (23)	5/11
SBT	786	0.98	D (53)	169/253	789	0.98	D (52)	168/254
SBR	94	0.10	B (15)	0/7	93	0.10	B (15)	0/7

2030 & 2035 Conditions

Future Background Conditions: Under future background conditions, the eastbound left for the PM peak and eastbound through-right for the PM peak operate at close to capacity. The northbound movement operates at practical capacity for PM peak hours, while the southbound movement operates at practical capacity for the PM peak hour. These results are a function of a through lane reduction on Jane Street for the RapidTO program to install Bus rapid lanes.

Future Total Conditions: Under future total conditions, similar traffic conditions are projected with the addition of site traffic. The same movements experiencing an operational issue remains under future total conditions. The additional delay to the northbound and southbound movement is minimal at 1-2 seconds.

Overall, the sensitivity analysis included some improved conditions for the northbound and southbound movements yet still operate at close to or at capacity.

6.5 ANALYSIS SUMMARY

The analysis results indicate that the proposed development is expected to have an acceptable impact on road operations in the surrounding area, with the intersection of Jane Street and Lawrence Avenue West experiencing some constraints due to the implementation of dedicated bus lanes. Signal timing optimization is recommended at the intersection of Jane Street and Lawrence Avenue West under the 2030 and 2035 horizons.

In addition, a sensitivity analysis was completed for the intersection of Jane Street and Lawrence Avenue West. Based on this analysis, a reduction of traffic shows that the intersection is operating with improved capacity and has some movements operating close to capacity.

7 MULTI-MODAL ANALYSIS

The City of Toronto’s guidelines require a general overview of various travel modes outside of vehicular traffic. As such, this section provides an overview of the transit, pedestrian and cycling networks surrounding the subject site.

7.1 TRANSIT ASSESSMENT

The proposed development is expected to generate 31 and 42 two-way transit trips during the AM and PM peak hours respectively. These trips are expected to be supported by the multi-modal network surrounding the subject site, particularly given the subject site’s proximity to the TTC bus routes 35, 335, 935, and 52. In the future, RapidTO will implement dedicated bus lanes along Jane Street which will improve the level of service. In addition, the Transportation Demand Management (TDM) plan for the subject site, as explained in **Section 10**, includes strategies to support and encourage users to travel by alternative modes.

7.2 PEDESTRIAN ASSESSMENT

The proposed development is expected to generate two (2) and two (2) two-way pedestrian trips during the AM and PM peak hours respectively.

Table 7-1 summarizes the results of the pedestrian level of service (PLOS) evaluation.

Table 7-1: Pedestrian Level of Service Evaluation

Street / Road Segment	Existing	Future
Jane Street	Sidewalks on both sides of street but only boulevard space on east side street.	To maintain current infrastructure.
Lawrence Avenue West	Sidewalks and some boulevard space on both sides of street. Some portion has some while other have no boulevard.	
Marshlynn Avenue	Sidewalks and boulevard space on both sides of street.	
MacDonald Avenue	Sidewalks and boulevard space on both sides of street.	
Patika Avenue	Sidewalks and boulevard space on both sides of street.	
John Street	Sidewalks on both sides of street but no boulevard space exists.	

There existing pedestrian infrastructure includes sidewalks and boulevard spaces on most roadways listed above with John Street having a sidewalk on both sides of the street but no boulevard spaces. No improvements in pedestrian infrastructure are assumed for the study area corridor.

7.3 BICYCLE ASSESSMENT

The proposed development is expected to generate no two-way cycling trips during the AM and PM peak hours.

Table 7-2 summarizes the results of the bicycle level of service evaluation.

Table 7-2: Bicycle Level of Service Evaluation

Street / Road Segment	Existing	Future
Jane Street	Mixed with Street traffic	Under consideration
Lawrence Avenue West		
Marshlynn Avue		No change anticipated
MacDonald Avenue		
Patika Avenue		
John Street		

No cycling facilities are available on any of the roadways within the study area and cycling will take place mixed with traffic. There are cycle lanes under consideration for Jane Street and Lawrence Avenue West as part of the RapidTO dedicated bus lane implementation. The bicycle lanes would be implemented within the bus lane. No changes to cycle infrastructure are planned for the other roadways.

8 PARKING AND LOADING ASSESSMENT

This section reviews the vehicular and bicycle parking standards based on the zoning by-law requirements applicable to the subject site.

8.1 ZONING BY-LAW REQUIREMENTS – BICYCLE PARKING

The bicycle parking provision of the proposed development has been assessed according to the standards set out by the City of Toronto Zoning By-law 569-2013 and the Toronto Green Standard Tier 1 Guidelines. The subject site is located in Bicycle Zone 2, and the required bicycle parking rates and provisions are summarized in **Table 8-1**.

Table 8-1: Zoning By-law Bicycle Parking Requirements

Land Use	Units/GFA	Minimum Bicycle Parking Rate		Minimum Bicycle Parking Spaces Required		Minimum Bicycle Parking Spaces Provided	
		Long-Term	Short-Term	Long-Term	Short-Term	Long-Term	Short-Term
North Building Residential	107 Units	0.68	0.07	73	8	213	28
North Building Retail	368 m ²	None Required if <2000 m ²		0	0		
South Building Residential	141 Units	0.68	0.07	96	10		
South Building Retail	499 m ²	None Required if <2000 m ²		0	0		
Total:				169	18		

According to the City of Toronto Zoning By-law 569-2013, the North building requires a total of 8 short-term and 73 long-term residential spaces. The South building requires a total of 10 short-term and 97 long-term residential spaces. The proposed development is providing a total of 213 long-term residential spaces and 28 short-term residential spaces satisfying the requirements.

8.2 ZONING BY-LAW REQUIREMENTS – VEHICLE PARKING

The vehicle parking requirements for the subject site are governed by the parking standards set out in Zoning By-law 569-2013 as amended by By-law 89-2022. The subject site is located in Parking Zone B (PZB) and as such the requirements based on the By-law 89-2022 parking rates for PZB are summarized below in **Table 8-2**. It is understood that the parking will be shared with the existing residential development on-site and as such has been accounted for in the overall total parking calculation.

Table 8-2: Zoning By-law 89-2022 Vehicular Parking Standards - Parking Zone B

Use	Units/GFA	Parking Rate (Minimum)	Minimum Spaces	Parking Rate (Maximum)	Maximum Spaces Allowed	Total Provided
Studio	14 Units	-	-	0.7 sp./unit	9	201
1-Bed	159 Units			0.8 sp./unit	127	
2-Bed	154 Units			0.9 sp./unit	138	
3-Bed	24 Units			1.1 sp./unit	26	
Total Residential Parking					300	
Visitors	351 Units	2 plus 0.05 sp/unit	19	1.0 sp/unit for the first 5 units, then 0.1 space per subsequent unit	39	19
Retail	867 m ²	-		4.0 per 100m ²	34	0
Total Development on Residential Parking			19		73	19
Total Development Parking			19		373	220

According to Zoning By-law 89-2022, the development is subject to a minimum parking requirement of 19 visitor spaces and an overall maximum of 373 residential and non-residential spaces. As such, the parking supply of 19 visitor spaces and 201 residential spaces proposed for the development, will satisfy the requirements of the Zoning By-law.

8.3 ACCESSIBLE VEHICLE PARKING REQUIREMENTS

The City of Toronto Zoning By-law 569-2013, through By-law 223-2025, provides updated parking requirements to calculate the required accessible parking supply. As no retail parking is being proposed, no accessible parking for retail is required. The by-law requirements and proposed supply are illustrated below in **Table 8-3**.

Table 8-3: Accessible Parking Requirements

Accessible Parking Space Requirement – Parking Zone B			
Test 1 – Absolute Minimum Requirement		Test 2 – Requirement per Units / GFA	
Parking Proposed		Units / GFA Proposed	
Resident Parking Supply	220 spaces	Residential Units	351 units
Visitor Parking Supply	19 spaces		
Min. Accessible Spaces Required		Min. Accessible Spaces Required	
5% of Residential Supply	11 spaces	0.025 spaces / unit	9 spaces
5% of Visitor Supply	1 space	--	--
		Min. Residential Spaces Required	11 spaces
		Min. Visitor Spaces Required	1 spaces
		Total Accessible Spaces Required¹	12 spaces

Notes: Total accessible spaces represent the sum of the greater requirement from Test 1 and Test 2 for each land use.

The proposed development is required to provide a minimum of 12 accessible parking spaces consisting of 11 residential spaces and one (1) visitor spaces. The proposed development will provide 12 parking spaces, meeting the zoning by-law requirements.

8.4 LOADING ASSESSMENT

The City of Toronto Zoning By-law 569-2013 was reviewed to determine the loading requirements for the proposed development. **Table 8-4** summarizes the loading requirements according to the City’s by-law and the proposed supply.

Table 8-4: Zoning By-law Loading Requirements

Land Use	Units/GFA	ZBL 569-2013		Proposed Supply
		Required Rate	Loading Space Required	
Residential (31-399 units)	107 Units	400 dwelling units or more	1 Type “G”	1 Type “G”
Retail	368 m ²	0-499 m ² of GFA	None Required	
Total			1 Type “G”	
Residential (31-399 units)	141 Units	400 dwelling units or more	1 Type “G”	1 Type “G”
Retail	499 m ²	0-499 m ² of GFA	None Required	
Total			1 Type “G”	

The proposed development is required to provide 2 Type “G” loading spaces each for the North Building and South Building. Swept path diagrams demonstrating vehicular and loading functionality are provided in **Appendix K**.

9 TORONTO GREEN STANDARDS REVIEW

The subject site is required to meet the Tier 1 Performance Measures listed under the Toronto Green Standards Version 4 (TGS v4) for Mid- to High-Rise Residential and Non-Residential developments. This section will review the TGS v4 development features based on the applicable requirements for the study area. Overall, the proposed development is compliant with all the Tier 1 Performance Measures where applicable with respect to transportation-related measures.

9.1 LOW EMISSIONS TRANSPORTATION

9.1.1 Single-Occupant Vehicle Trips

Section AQ 1.1 of TGS v4 requires that the proposed development reduce single-occupancy-vehicle trips by 25%. This will be achieved through the inclusion of a variety of multimodal infrastructure strategies and Transportation Demand Management (TDM) measures. The site meets this requirement as the proposed development includes a TDM plan. This plan is discussed in greater detail in **Section 10**.

9.1.2 Electric Vehicle Infrastructure

Section AQ 1.2 of the TGS v4 requires that parking spaces be equipped with an energized outlet in accordance with Zoning By-law 569-2013. According to the by-law, 25% of non-residential parking spaces must include an energized outlet to ensure electric vehicles can be accommodated. **Table 9-1** summarizes the required Electric Vehicle (EV) parking supply.

Table 9-1: Zoning By-Law 569-2013 Electric Vehicle Parking Standards

Use	Proposed Spaces	Minimum Rate	Required EV Spaces	Proposed EV Spaces
Residential	201	100% of parking spaces	201	201
Visitor	19	25% of parking spaces	5	5
Total	220	-	206	206

The development will provide 201 residential spaces and five (5) visitor spaces with EVSE capabilities, meeting all requirements.

9.2 CYCLING INFRASTRUCTURE

9.2.1 Bicycle Parking Rates

Section AQ 2.1 of TGS v4 requires developments to provide bicycle parking spaces in accordance with Zoning By-law 569-2013. These rates will inform the bicycle parking supply to be provided on-site to accommodate travel by bicycle to and from the subject site. As discussed in **Section 8.1**, the proposed development will provide bicycle parking facilities that meet the requirements for long-term and short-term bicycle parking for residential use. This will support and encourage active transportation and travel by bicycle in place of a personal vehicle for residents and visitors.

9.2.2 Long-Term Bicycle Parking Location

Section AQ 2.2 of TGS v4 requires developments to provide long-term bicycle parking in a secure and controlled access bicycle parking facility or purpose-built bicycle locker on the first or second storey of the building or on levels below ground commencing with the first level below ground. Long-term bicycle parking can be provided on levels below ground when at least 50% of the area of the level is occupied by bicycle parking spaces until all required spaces have been provided.

The proposed development will have long-term residential bicycle parking between underground parking level two and above grade level two in secure bicycle storage rooms.

9.2.3 Short-Term Bicycle Parking Location

Section AQ 2.3 of TGS v4 requires developments to provide short-term bicycle parking in a highly visible and publicly accessible location at grade or on the first parking level of the building below grade.

The site plan indicates the provision of short-term bicycle parking in a secure weather protected bicycle room within the ground floor level of the building, ensuring easy access for visitors travelling to/from the site by bike.

9.2.4 Electric Bicycle Infrastructure

Section AQ 2.4 of TGS v4 requires developments to provide bicycle parking spaces equipped with an energized outlet for at least 15 percent of the required long-term bicycle parking. As such, 32 long-term residential bicycle spaces (15% of the total proposed long-term bicycle parking) will be equipped with an energized outlet.

9.3 PEDESTRIAN INFRASTRUCTURE

9.3.1 Connectivity

Section AQ 3.1 of TGS v4 requires developments to provide safe, direct, universally accessible pedestrian routes that connect the buildings on-site to the off-site pedestrian network and priority destinations. The proposed development includes several elements to maintain and improve pedestrian access and permeability through the site. The proposed building's entrance connects to the adjacent sidewalk along Jane Street facilitating ease of access to the surrounding pedestrian network.

9.3.2 Sidewalk Space

Section AQ 3.2 requires developments to provide a context-sensitive pedestrian clearway that is a minimum of 2.1m wide, to accommodate pedestrian flow safely and comfortably. The proposed development will satisfy this requirement by improving the pedestrian sidewalk along Finch Avenue West.

9.3.3 Weather Protection

Section AQ 3.3 of the TGS v4 requires developments to provide covered outdoor waiting areas for pedestrian comfort and protection from inclement weather. Covered outdoor waiting areas are proposed via canopies at the building entrance.

9.3.4 Pedestrian Specific Lighting

Section AQ 3.4 of the TGS v4 requires developments to provide pedestrian-scale lighting that is evenly spaced, continuous and directly onto sidewalk pathways, entrances, outdoor waiting areas and public spaces. The proposed development will meet this requirement by providing appropriate pedestrian scale lighting. These measures will foster a safer experience for pedestrians regardless of the time of day and promote walking, biking, and riding public transit as a viable option to travel to and from the subject site.

10 TRANSPORTATION DEMAND MANAGEMENT PLAN

Transportation Demand Management (TDM) is a set of strategies that strive towards a more efficient transportation network by influencing travel behaviour. Effective TDM measures can reduce vehicle usage and encourage residents to engage in more sustainable methods of travel. There are various opportunities to incorporate TDM measures for the site that will support alternative modes of transportation for future residents and visitors. The recommendations should enhance non-single auto vehicle trips for future residents of the subject development.

The TDM strategies discussed in the following sections are critical for achieving a balanced multi-modal transportation system in the City of Toronto and supporting sustainable development goals as identified by the Toronto Green Standards (TGS) and TransformTO Net Zero Strategy to achieve net zero greenhouse gas emissions by 2040.

A specific requirement of the TGS is to reduce single-occupancy vehicle trips generated by a proposed development by at least 25%. The following multi-modal infrastructure strategies and TDM measures are recommended for consideration to support the subject site's parking strategies and role in transforming the surrounding neighbourhood. As the development moves through the development process, the TDM plan will undergo further refinement.

10.1 CYCLING-BASED STRATEGIES

Provision of Bicycle Parking

The proposed development will provide bicycle parking spaces to support and encourage active transportation. A supply of 241 bicycle parking spaces consisting of 28 short-term spaces and 213 long-term spaces will be accommodated on-site. Short-term spaces will be located at-grade and long-term spaces will be located in the underground parking level.

Provision of Bicycle Repair Station

A significant barrier for some people considering cycling as their day-to-day mode of travel is repair and maintenance. Providing a bicycle repair stand, tools, and basic information on-site will alleviate the stress of technical issues and promote cycling as a long-term travel method for tenants. A bicycle repair station will be provided on-site on the ground level to further support individuals choosing to cycle.

Promote and Increase Cycling Awareness

Information packages will be made available to residents of the proposed development, to help encourage active transportation and increase awareness of different travel alternatives. The packages will include information regarding the environmental and health benefits of cycling, rules of the road, and maps which display active transportation infrastructure available in the surrounding area.

Provision of Bike-Share Spaces

There is space on-site for six (6) bike share spaces to be utilized by tenants and visitors. The addition of bike share spaces will increase the level of connectivity in the neighbouring area and facilitate occasional travel by bicycle, particularly for visitors to the subject site and for residents who either do not have a bicycle or prefer the convenience of Bike share for short spontaneous trips.

- ▶ **Estimated Impact:** Based on the trip generation for the subject site, currently no trips are taken to and from the subject site are cycling trips in the AM and PM peak hour (**Table 4-3**). However, with the implementation of the RapidTO-Jane project, there is potential for cycling lanes to be provided within the priority lanes. The combination of these robust measures, notably on-site bicycle parking facilities, bicycle repair stations, and information packages, have the ability to further encourage the use of cycling with an estimated of at least 5%.

10.2 PEDESTRIAN-BASED STRATEGIES

Building entrances are to be oriented close to the street with direct connections to pedestrian pathways.

The proposed pedestrian entrance for the site is oriented towards Jane Street, providing a convenient link for pedestrians, transit users and cyclists. The development will also maintain enhanced landscaping and facades throughout the site to encourage walking and provide a safe and accessible pedestrian realm.

- ▶ **Estimated Impact:** Based on the trip generation conducted for the subject site and as determined through the utilization of TTS modal split data (**Table 4-3**), about 2% of trips undertaken to and from the site are walking trips in the AM and PM peak hours, indicating a prevalence of walking trips. Implementing location of building entrances close to the street providing pedestrian pathways an walking distance to nearby amenities, will reduce SOV trips by an estimated 5%.

10.3 TRANSIT-BASED STRATEGIES

Connection to Transit Networks

The proposed development will be well served by local transit services provided by the TTC. The availability of surface bus routes will encourage future residents and visitors of the site to use public transit.

Transit incentive program

Pre-loaded PRESTO cards (\$156 stored value) will be offered to units in their welcome packages. This incentive, coupled with the site's proximity to surface transit route options, provides an opportunity for residents to experience the benefits of using adjacent transit facilities.

Transit Information Packages and Digital Displays

For residents to take complete advantage of the local transit services, transit information packages will be distributed to residents to increase transit awareness. The information packages will contain public transit information such as route maps and timetables. In addition, a digital display will be located in the building lobby with up-to-date information regarding transit schedules, adjacent transit stops, and service disruptions. The addition of a digital display showing transit information will help residents gain a better understanding of what transit routes are available and when departure times are so that they can easily plan their trip.

- ▶ **Estimated Impact:** Based on the trip generation conducted for the subject site and as determined through the utilization of TTS modal split data (**Table 4-3**), about 36% of trips undertaken to and from the site are transit trips in the AM and PM peak hours, indicating a prevalence of transit usage. The combination of these robust measures, notably, the provision of pre-loaded PRESTO cards to all units will have the ability to further encourage the use of transit with an estimated impact of at least 15%.

10.4 PARKING-BASED STRATEGIES

Limited Provision of Residential Vehicle Parking

The proposed development will provide a reduced number of parking spaces (0.63 residential spaces per unit) compared to the maximum permitted under By-law 89-2022. By providing less parking spaces on-site, the proposed development will encourage future residents/tenants to adopt a lifestyle of low-car dependency and promote the use of more sustainable travel options.

Unbundled Parking

Selling parking spaces separately from each residential unit can lead to lower rates of vehicle ownership and can be used as a selling feature in an area well-served by transit. The proposed development will unbundle the cost of parking from new dwelling units to support zero-car households and reduce parking demand from the proposed development.

10.5 IMPACT OF TDM MEASURES

The proposed TDM measures are expected to support multi-modal travel by increasing the convenience and attractiveness of taking transit, walking, or cycling to/from the subject site. The proposed TDM measures will help reduce vehicle activity associated with the subject site and encourage a lifestyle that largely relies upon transit and active transportation. **Table 10-1** summarizes the proposed strategies and the expected impact.

Table 10-1: Summary of TDM Measures

Recommended TDM Measure	Impact	Quantity	Unit Cost	Total Cost
Pedestrian-Based Strategies				
On-Site Pedestrian Infrastructure and Connection to the Public Network	5%	N/A	Included in Site Plan	Included in Site Plan
Cycling-Based Strategies				
Provision of Bicycle Parking Facilities	5%	241 spaces	Included in Site Plan	Included in Site Plan
Provision of Bicycle Repair Facilities		1 repair station	\$2,500	\$2,500
Promote and Increase Cycling Awareness		248 units	~\$2.00 per unit	\$496
Bike Share Spaces?				
Transit-Based Strategies				
Connection to Transit Networks	15%	N/A	Existing Condition	Existing Condition
Pre-Loaded Presto Cards		248 units	\$156 per unit	\$38,688
Transit Information Packages		248 units	~\$2.00 per unit	\$496
Parking-Based Strategies				
Limited Provision of Residential Vehicle Parking (0.63 spaces per unit)	N/A	N/A	Included in Site Plan	Included in Site Plan
Unbundled Parking		N/A	Included in Site Plan	Included in Site Plan
Total	25%	-	-	\$42,180

The combination of these TDM strategies listed above is expected to significantly reduce the auto-dependency of residents and visitors and encourage more sustainable travel habits. This thereby enables the requirements of TGS V4 to be met and contributes to a 25% SOV reduction for the proposed development.

11 CONCLUSIONS AND RECOMMENDATIONS

- ▶ **Proposed Development:** LEA has been retained by Medallion Corporation to undertake a Transportation Impact Study (TIS) for the proposed mixed-use development located at 1771 Jane Street in the City of Toronto. The subject site is currently occupied by an existing 14-storey apartment building which will be maintained. The proposed development consists of two additional mixed-use buildings; Phase 1: North Building and Phase 2: South Building containing 107 and 141 residential units respectively. Each building will also contain some retail GFA with the North building containing 368 m² of GFA and the south building containing 499 m² of GFA. Vehicular access to the development is proposed via two full moves accesses on Jane Street and Marshlynn Avenue.
- ▶ **Existing Transportation Context:** The subject site is located in an area well-served by the existing Toronto Transit Commission (TTC) transit network. There are a number of surface transit options available in the study area which connect the subject site to a variety of destinations. The site is within walking distance of bus stops on Jane which will connect future residents and employees to the larger surrounding area.
- ▶ **Site Trip Generation:** The proposed development is anticipated to generate 46 two-way vehicle trips during the weekday AM peak hour (15 inbound, 31 outbound) and 62 two-way vehicle trips during the weekday PM peak hour (33 inbound, 29 outbound).
- ▶ **Intersection Capacity Analysis:** The traffic analysis was undertaken based on a future horizon of 2030 and 2035. The analysis results confirm that the proposed development will have an acceptable impact on the surrounding road network, with all intersections operating similar to background conditions. A sensitivity analysis was completed for the intersection of Jane Street and Lawrence Avenue West to improve capacity constraints.
- ▶ **Vehicle Parking:** By-law 89-2022 permits a maximum vehicle parking supply of 373 spaces and requires a minimum of 19 visitor spaces. The proposed parking supply of 19 visitor spaces and 201 residential spaces satisfies the by-law requirements.
- ▶ **Bicycle Parking:** Based on the minimum parking requirements under By-law 569-2013 for Bicycle Zone 2, the proposed development is required to provide a total of 213 long-term and 28 short-term bicycle parking spaces. The proposed development will satisfy the zoning by-law requirements.
- ▶ **Loading:** The site will provide one (1) Type “G” loading space, meeting the minimum by-law requirements.
- ▶ **Transportation Demand Management and TGS V4.0:** The proposed development will meet all the Tier 1 Performance Measures in the TGS v4.0 where applicable. A set of Transportation Demand Management (TDM) measures have been recommended to reduce single-occupant vehicle trips by at least 25%, satisfying the TGS v4.0 requirements.



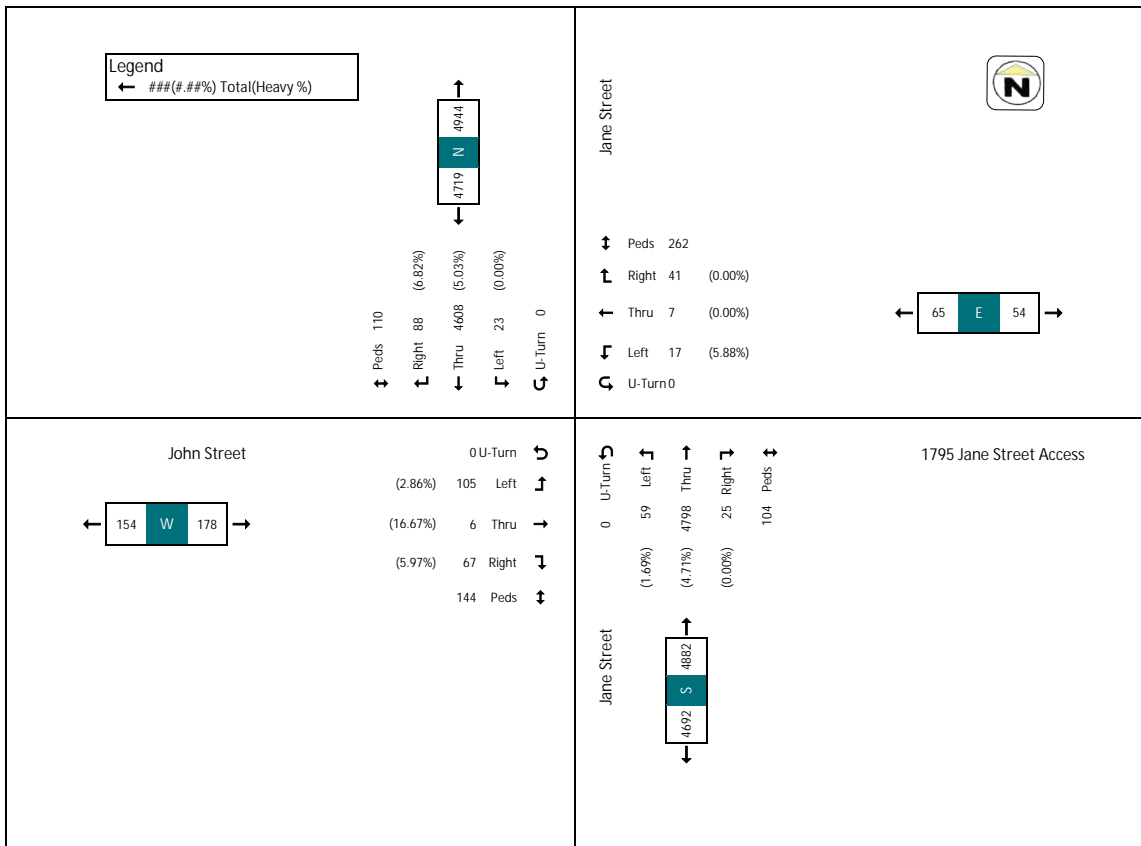
APPENDIX A

Traffic Data and Signal Timing Plans



Turning Movement Count - Jane Street & John Street

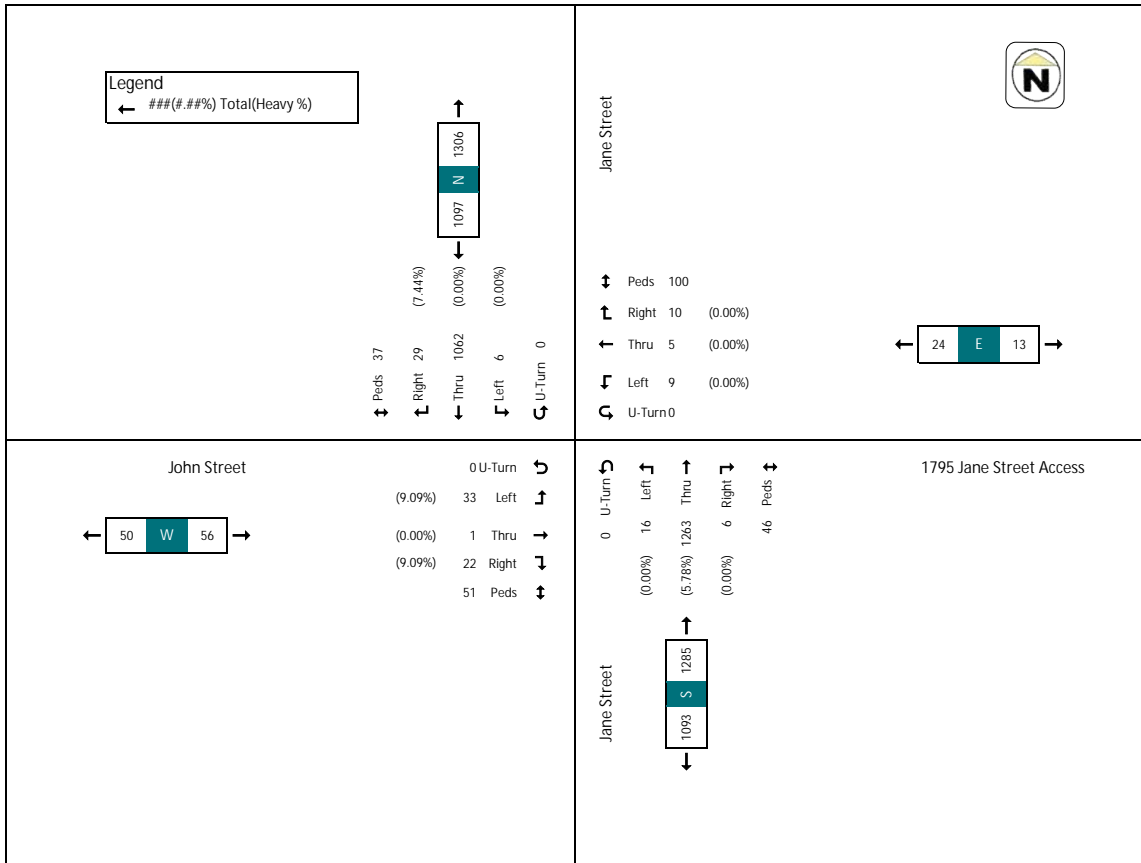
Start Time	Jane Street Southbound					1795 Jane Street Access Westbound					Jane Street Northbound					John Street Eastbound					Grand Total					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total	
7:00	0	0	181	0	3	181	0	0	0	2	8	2	0	0	238	0	2	238	0	2	0	2	0	4	425	
7:15	0	0	248	5	5	251	0	0	0	8	8	0	0	2	231	0	2	233	0	7	0	7	0	10	495	
7:30	0	0	269	3	5	273	0	0	0	1	14	0	0	2	256	2	0	260	0	7	0	0	0	10	549	
7:45	0	0	230	5	2	235	0	0	0	1	4	0	0	3	252	0	0	255	0	4	1	1	9	6	501	
Hourly Total	0	2	926	13	15	940	0	2	0	12	19	14	0	7	977	2	0	988	0	20	1	9	10	39	1970	
8:00	0	0	248	7	2	255	0	6	0	2	22	8	0	7	299	2	12	308	0	6	0	8	7	14	585	
8:15	0	0	277	9	8	283	0	0	0	5	18	8	0	5	327	2	0	334	0	10	0	0	0	12	635	
8:30	0	0	269	0	10	279	0	0	0	0	0	0	0	0	269	0	0	269	0	0	0	0	0	0	269	
8:45	0	0	259	5	13	264	0	0	0	2	23	0	0	3	295	0	15	298	0	11	0	8	29	29	584	
Hourly Total	0	6	1062	29	37	1097	0	9	5	10	100	24	0	16	1263	6	46	1285	0	33	1	22	51	56	2462	
9:00	0	0	244	5	8	251	0	0	0	3	7	8	0	2	256	1	8	269	0	6	0	0	0	13	537	
9:15	0	0	222	5	4	225	0	1	0	0	3	4	0	3	233	0	0	236	0	0	0	0	0	9	445	
Hourly Total	0	3	467	10	12	480	0	1	0	10	5	5	0	5	469	5	2	475	0	12	1	9	10	22	982	
* Break *																										
16:00	0	0	267	5	10	268	0	0	1	0	27	0	0	2	277	0	0	277	0	0	0	0	0	0	10	574
16:15	0	0	275	3	9	279	0	0	0	0	12	0	0	3	272	0	0	275	0	0	0	0	0	0	0	581
16:30	0	1	278	3	1	279	0	0	0	3	20	3	0	3	313	1	8	317	0	5	0	2	6	7	616	
Hourly Total	0	4	1063	18	21	1085	0	2	0	10	67	12	0	12	1117	5	18	1134	0	19	3	10	28	32	2283	
17:00	0	3	297	7	5	311	0	0	0	11	7	0	0	3	298	0	7	300	0	8	0	3	9	11	534	
17:15	0	0	266	0	6	266	0	0	0	0	16	0	0	0	266	0	0	266	0	0	0	0	0	0	9	556
17:30	0	0	290	0	6	304	0	2	0	0	11	0	0	2	243	0	0	248	0	5	0	0	0	9	564	
17:45	0	1	261	3	8	271	0	2	0	2	24	3	0	2	278	3	0	280	0	0	0	13	9	511		
Hourly Total	0	8	1091	18	29	1117	0	3	1	6	66	10	0	19	972	11	29	1002	0	21	0	17	35	38	2187	
Grand Total	0	23	4608	88	110	4719	0	17	7	41	262	65	0	59	4798	25	104	4882	0	105	6	67	144	178	6944	
Approach %	0.0%	0.5%	97.6%	1.9%			0.0%	26.2%	10.8%	63.1%			0.0%	1.2%	98.3%	0.5%			0.0%	59.0%	3.4%	37.6%				
Total %	0.0%	0.2%	46.8%	0.9%			0.0%	0.2%	0.1%	0.4%			0.7%	0.0%	48.7%	0.3%			49.6%	0.0%	1.1%	0.1%	0.7%			1.8%
Light %	0	0	438	82	148		0	0	0	11			0	0	452	23			0	102	0	63	170	170	930	
% Lights	100.0%	95.0%	93.2%	95.0%			94.1%	100.0%	100.0%				98.9%	93.3%	100.0%	95.4%			97.1%	83.3%	94.0%	1	95.5%	95.2%	92.8%	
% Buses	0	0	15	5	16		0	0	0	0			0	0	16	0			0	3	0	0	0	0	7	
% Trucks	0	0	89	0	30		0	0	0	0			0	0	80	0			0	2	0	0	0	1	171	
% Trucks	0.0%	1.9%	1.9%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%			0.0%	0.0%	1.7%	0.0%			1.6%	0.0%	0.0%	1.5%	0.6%	1.7%	1.7%	
Bicycles																										
Pedestrians					110					262								104				144			620	





AM Peak Hour - Jane Street & John Street

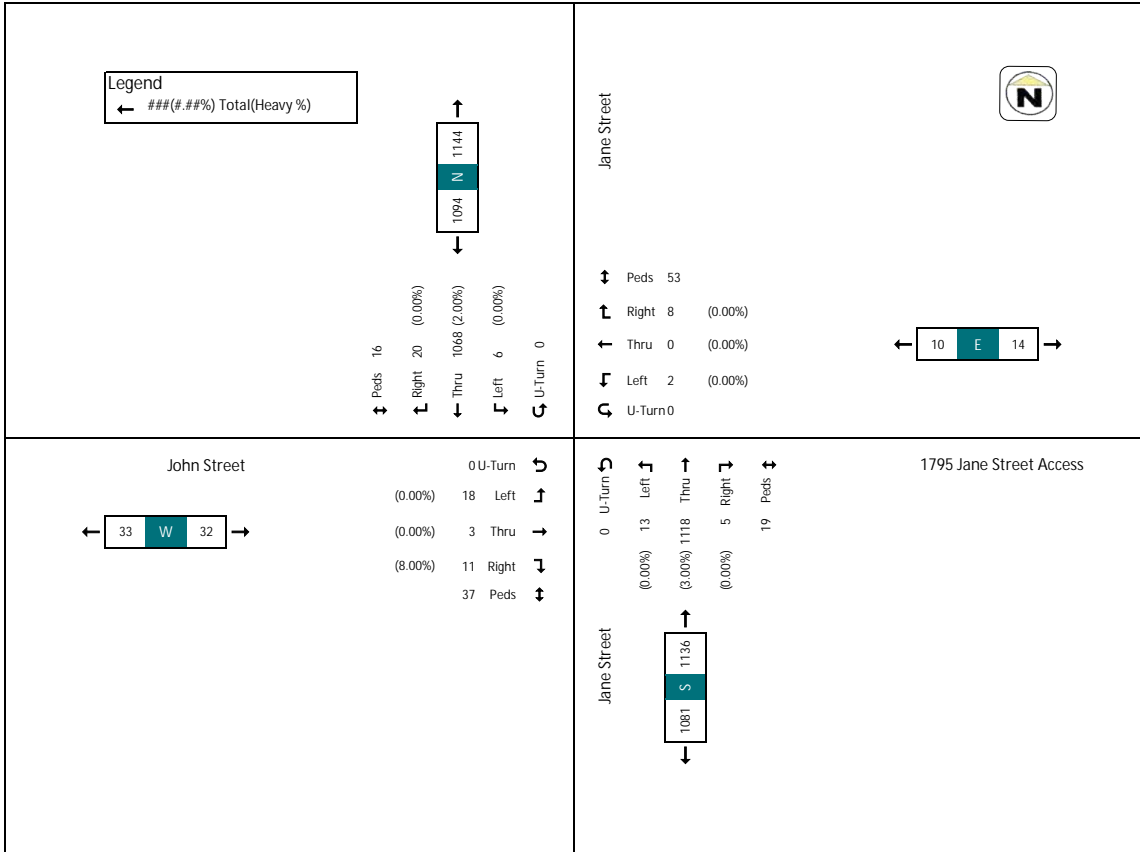
Start Time	Jane Street Southbound						1795 Jane Street Access Westbound						Jane Street Northbound						John Street Eastbound						Grand Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00	0	0	248	7	2	255	0	0	0	2	22	8	0	1	299	2	12	368	0	6	0	8	7	14	585
8:15	0	0	271	9	5	285	0	0	0	3	15	8	0	5	327	2	13	354	0	10	0	4	8	19	655
8:30	0	0	284	8	10	295	0	0	0	3	37	8	0	1	342	2	14	345	0	6	0	4	11	10	658
8:45	0	0	259	5	17	264	0	0	0	2	23	2	0	3	295	0	15	298	0	11	1	8	29	20	584
Heavy Total	0	0	1062	29	37	1097	0	0	0	10	100	24	0	16	1263	6	46	1285	0	53	1	21	31	56	2462
Approach %	0.0%	0.0%	96.8%	2.6%	0.0%	0.0%	0.0%	37.5%	20.8%	41.7%	0.0%	0.0%	1.2%	98.3%	0.5%	0.0%	58.9%	1.8%	0.3%	0.0%	0.0%	0.0%	0.0%	2.3%	
Total %	0.0%	0.2%	43.1%	1.2%	0.0%	44.6%	0.0%	0.4%	0.2%	0.4%	1.0%	0.0%	0.6%	51.3%	0.2%	0.0%	52.2%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%
PHF	0	0	0.93	0.81	0.93	0	0	0.38	0.31	0.83	0	0	0.75	0	0.57	0.92	0.7	0.93	0	0.75	0.25	0.69	0	0.7	0.94
% Lights	100.0%	100.0%	92.6%	89.7%	92.5%	92.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	92.2%	94.3%	94.3%	90.9%	100.0%	90.9%	100.0%	100.0%	100.0%	100.0%	100.0%	91.1%
% Buses	0.0%	0.0%	4.5%	4.9%	4.6%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	0.0%	3.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	3.1%
% Trucks	0.0%	0.0%	2.7%	3.4%	2.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%
% Bicycles	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
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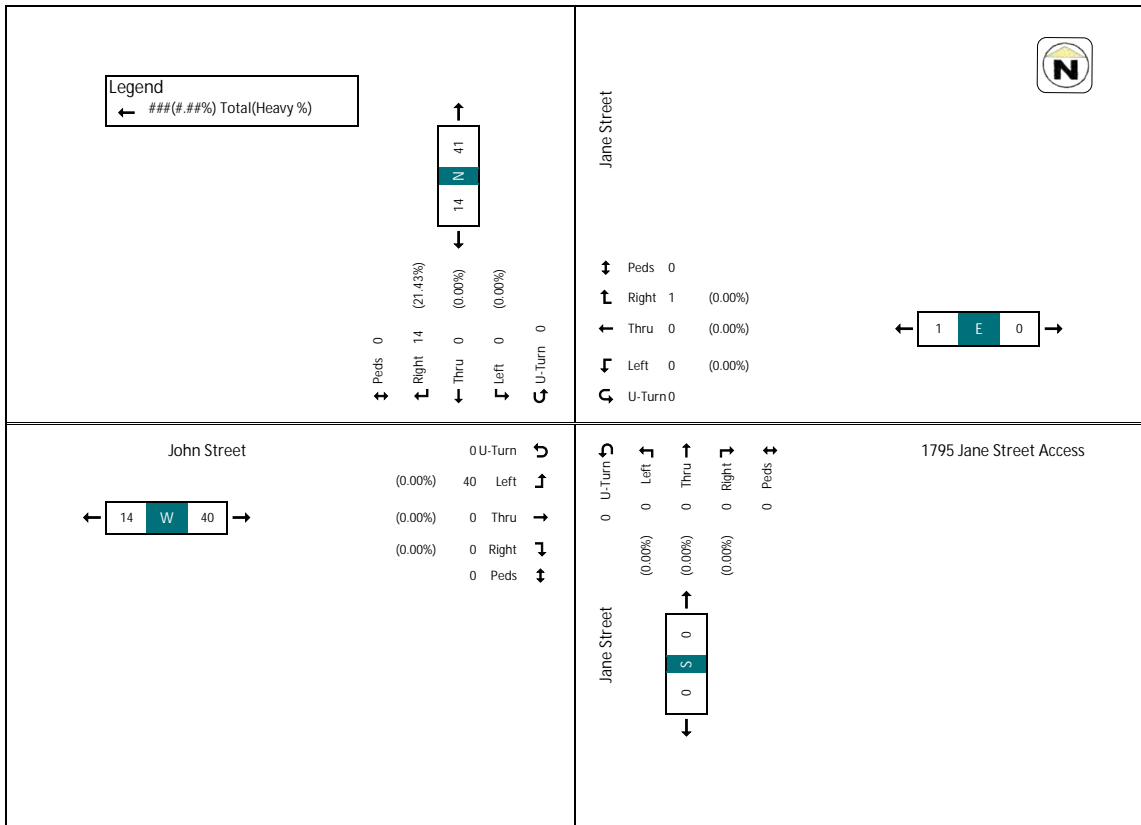
PM Peak Hour - Jane Street & John Street

Start Time	Jane Street Southbound					1795 Jane Street Access Westbound					Jane Street Northbound					John Street Eastbound					Grand Total				
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total
16:15	0	1	248	2	9	251	0	0	2	8	3	0	4	295	0	3	299	0	4	1	3	10	8	561	
16:30	0	1	273	3	1	277	0	0	1	12	2	0	3	272	1	8	276	0	1	0	4	12	7	562	
16:45	0	1	290	8	1	299	0	0	0	20	2	0	3	313	1	8	317	0	5	0	2	6	7	610	
17:00	0	3	20	7	5	27	0	0	7	13	2	0	3	238	3	8	244	0	8	0	0	0	11	534	
Hourly Total	0	6	1068	20	16	1094	0	0	8	53	10	0	13	1118	5	19	1136	0	18	3	12	37	33	2273	
Approach %	0.0%	0.5%	97.8%	1.8%			0.0%	20.0%	0.0%	80.0%		0.0%	1.1%	98.4%	0.4%			0.0%	54.5%	9.1%	36.4%				
Total %	0.0%	0.3%	47.0%	0.9%	48.1%		0.0%	0.1%	0.0%	0.2%		0.0%	0.5%	45.4%	0.2%	20.0%		0.0%	37.2%	0.1%	0.2%			1.5%	
PHF	0	0.5	0.02	0.63		0.95	0	0	0.67		0.83	0	0.01	0.89	0.42		0.9	0	0.56	0.38	0.75			0.75	
Lights	0		104	20		1069	0		0		10		13	1081			1099	0	18					32	
% Lights	100.0%		97.3%	18.00%		97.3%	100.0%		100.0%		10		100.0%	96.7%			100.0%	0	100.0%	97.7%					97.7%
% Buses	0.0%	4.5%	0.0%		4.4%		0.0%		0.0%		0.0%		0.0%	2.4%	0.0%		2.4%		0.0%	0.0%	8.3%			3.0%	
% Trucks	0.0%	0	0		0		0	0	0		0		0	10	0		10		0	0	0			0	
% Heavy	0.0%	4.5%	0.0%		4.4%		0.0%	0.0%	0.0%		0.0%		0.0%	2.4%	0.0%		2.4%		0.0%	0.0%	8.3%			3.0%	
Bikes	0	0	0		0		0	0	0		0		0	0	0		0		0	0	0			0	
Pedestrians					16					0							53								16



Turning Movement Count - Jane Street & John Street

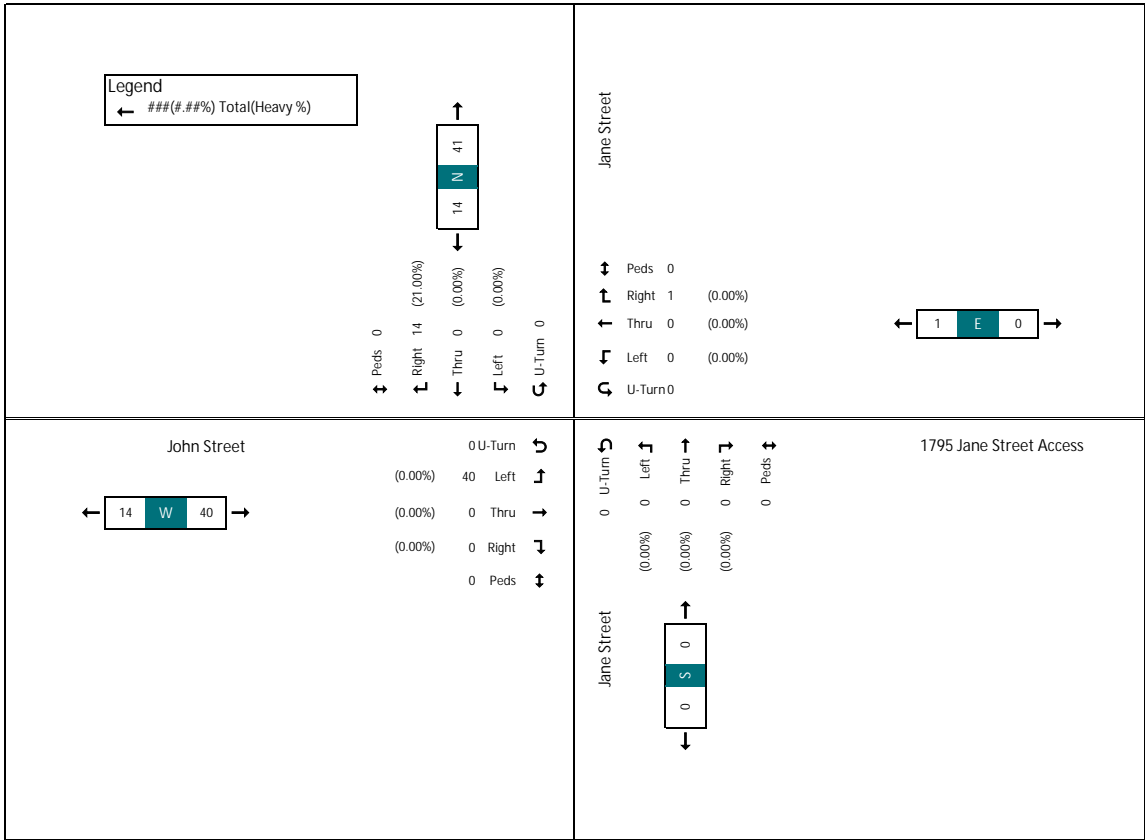
Start Time	Jane Street Southbound					1795 Jane Street Access Westbound					Jane Street Northbound					John Street Eastbound					Grand Total	
	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	Peds		App. Total
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15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	2	2	0	0	0	1	1	0	0	0	0	0	0	17	0	0	0	17	20
21:15	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	10
Hourly Total	0	0	0	14	14	0	0	0	1	1	0	0	0	0	0	0	40	0	0	0	40	55
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	14	14	0	0	0	1	1	0	0	0	0	0	0	40	0	0	0	40	55
Approach %	0.0%	0.0%	0.0%	100.0%		0.0%	0.0%	0.0%	100.0%		0.0%	100.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	25.5%		0.0%	0.0%	0.0%	1.8%		0.0%	0.0%	0.0%	0.0%		0.0%	12.7%	0.0%	0.0%		72.7%	
% Trucks	0.0%	0.0%	0.0%	76.6%		0.0%	0.0%	0.0%	100.0%		0.0%	100.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		100.0%	94.5%
% Buses	0	0	3	3		0	0	0	0		0	0	0	0		0	0	0	0		0	3
% Bicycles	0	0	0	21.4%		0	0	0	0.0%		0	0	0	0		0	0	0	0		0	5.5%
% Trucks	0	0	0	0.0%		0	0	0	0.0%		0	0	0	0		0	0	0	0		0	0.0%
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
Pedestrians	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0





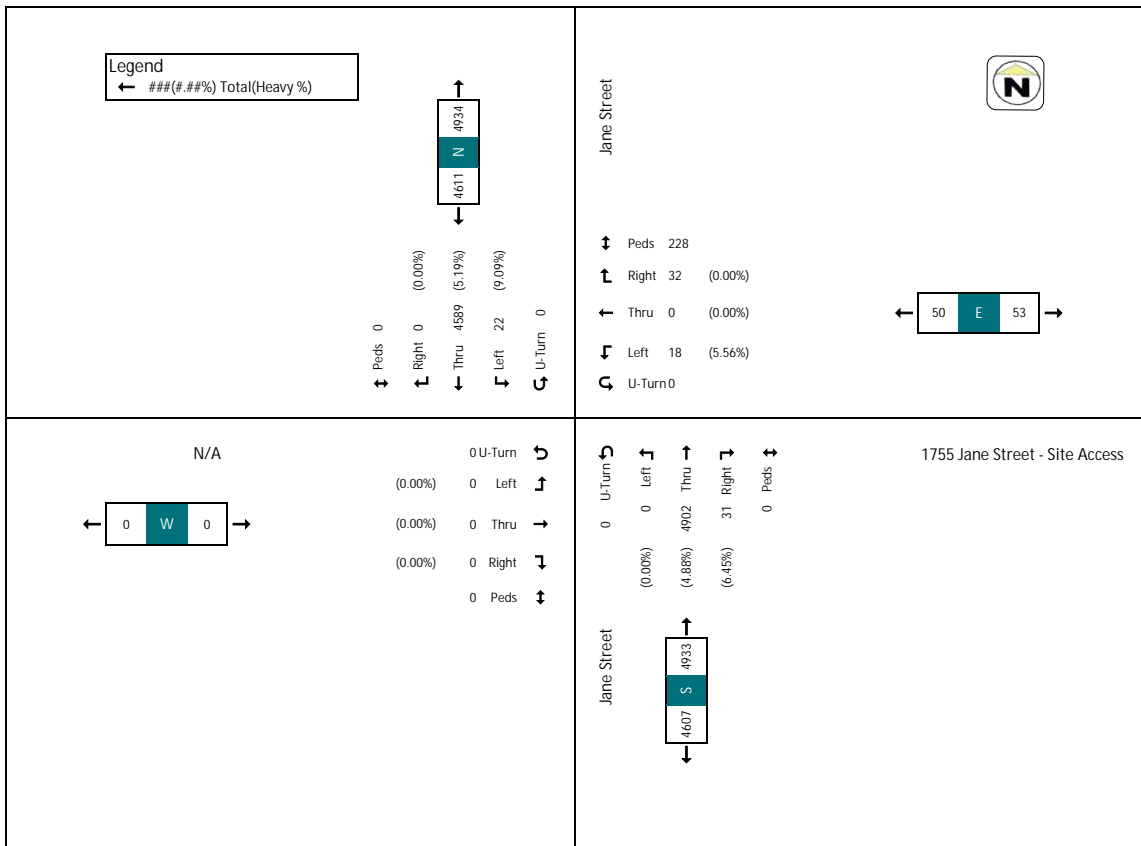
SAT Peak Hour - Jane Street & John Street

Start Time	Jane Street Southbound						1795 Jane Street Access Westbound						Jane Street Northbound						John Street Eastbound						Grand Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
21:00	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	17	0	0	0	17	20
21:15	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	14
21:30	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	11
21:45	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	10
Hourly Total	0	0	0	14	0	14	0	0	0	1	0	1	0	0	0	0	0	0	0	40	0	0	0	40	55
Approach %	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total %	0.0%	0.0%	0.0%	25.3%	0.0%	25.3%	0.0%	0.0%	0.0%	1.8%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	72.7%
PHF	0	0	0	0.7	0	0.7	0	0	0	0.25	0	0.25	0	0	0	0	0	0	0	0.59	0	0	0	0.59	0.69
% Lights	0	0	0	11	0	11	0	0	0	100.0%	0	0	0	0	0	0	0	0	0	100.0%	0	0	0	0	100.0%
% Buses	0	0	0	3	0	3	0	0	0	0.0%	0	0.0%	0	0	0	0	0	0	0	0.0%	0	0	0	0.0%	0.0%
% Trucks	0	0	0	21.4%	0	21.4%	0	0	0	0.0%	0	0.0%	0	0	0	0	0	0	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	15.3%
% Pedals	0	0	0	0.0%	0	0.0%	0	0	0	0.0%	0	0.0%	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



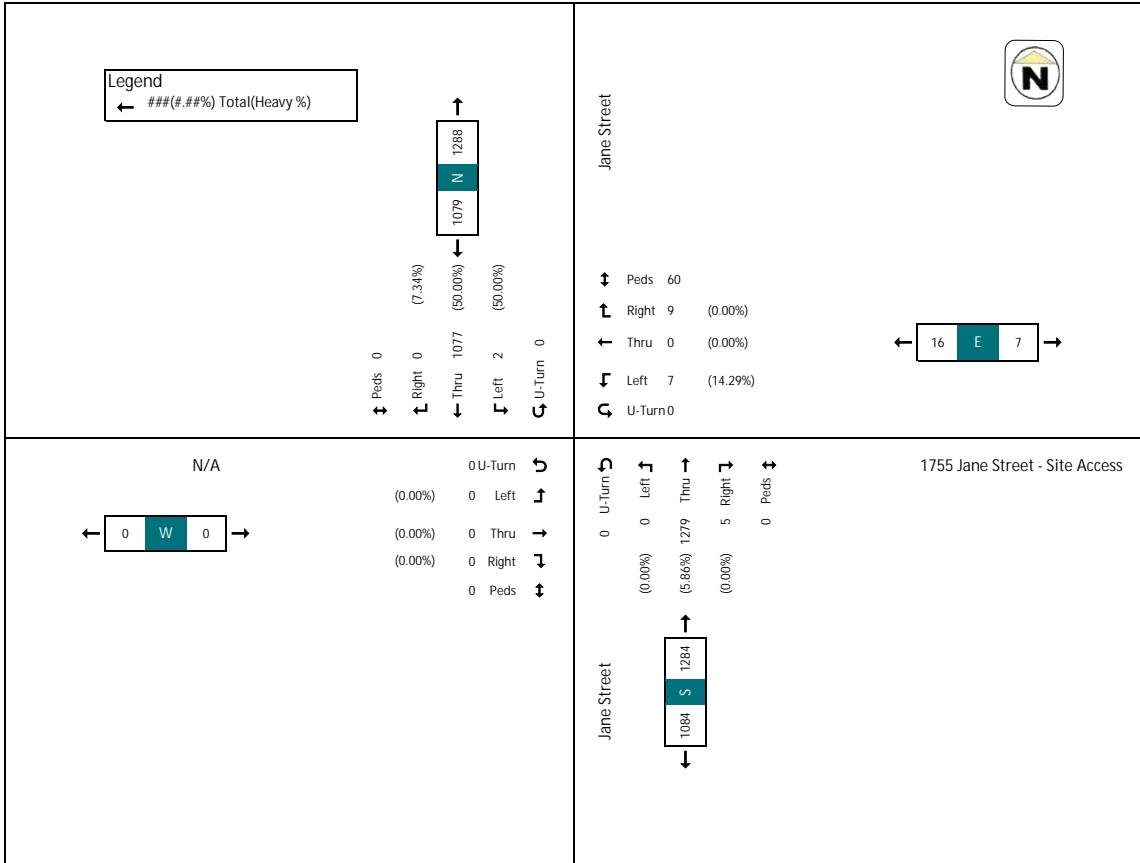
Turning Movement Count - Jane Street & 1755 Jane Street - Site Access

Start Time	Jane Street Southbound					1755 Jane Street - Site Access Westbound					Jane Street Northbound					N/A Eastbound					Grand Total						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total		
7:00	0	0	171	0	0	171	0	0	0	0	0	0	0	0	243	2	0	244	0	0	0	0	0	0	0	416	
7:15	0	0	239	0	0	239	0	0	0	0	0	0	0	0	232	2	0	234	0	0	0	0	0	0	0	471	
7:30	0	0	277	0	0	277	0	0	2	2	0	4	0	0	259	3	0	262	0	0	0	0	0	0	0	537	
7:45	0	2	222	0	0	224	0	0	3	10	0	13	0	0	243	5	0	248	0	0	0	0	0	0	0	461	
Hourly Total	0	2	905	0	0	908	0	2	7	19	0	28	0	0	977	11	0	988	0	0	0	0	0	0	0	1905	
8:00	0	0	253	0	0	253	0	1	0	0	0	1	0	0	306	1	0	307	0	0	0	0	0	0	0	561	
8:15	0	0	269	0	0	269	0	0	2	21	0	23	0	0	333	3	0	336	0	0	0	0	0	0	0	624	
8:30	0	0	278	0	0	278	0	0	0	0	0	0	0	0	329	2	0	331	0	0	0	0	0	0	0	630	
8:45	0	1	252	0	0	253	0	0	0	10	0	10	0	0	301	1	0	302	0	0	0	0	0	0	0	581	
Hourly Total	0	1	1077	0	0	1079	0	1	2	31	0	34	0	0	1279	5	0	1284	0	0	0	0	0	0	0	2379	
9:00	0	0	247	0	0	248	0	0	0	2	8	10	0	0	267	0	0	267	0	0	0	0	0	0	0	517	
9:15	0	0	254	0	0	254	0	0	0	3	2	5	0	0	211	0	0	212	0	0	0	0	0	0	0	466	
Hourly Total	0	0	501	0	0	502	0	0	3	13	0	16	0	0	478	0	0	479	0	0	0	0	0	0	0	985	
* Break *																											
16:00	0	0	261	0	0	261	0	0	0	27	0	27	0	0	237	2	0	239	0	0	0	0	0	0	0	0	507
16:15	0	0	244	0	0	244	0	0	0	10	0	10	0	0	252	0	0	252	0	0	0	0	0	0	0	0	511
16:30	0	0	252	0	0	252	0	0	3	17	0	20	0	0	293	0	0	293	0	0	0	0	0	0	0	0	568
16:45	0	5	256	0	0	261	0	1	0	3	17	21	0	0	293	0	0	293	0	0	0	0	0	0	0	0	588
Hourly Total	0	5	1044	0	0	1049	0	1	3	57	0	60	0	0	1076	2	0	1078	0	0	0	0	0	0	0	0	2147
17:00	0	1	270	0	0	271	0	2	0	24	0	26	0	0	274	4	0	278	0	0	0	0	0	0	0	0	552
17:15	0	0	267	0	0	267	0	0	0	15	0	15	0	0	297	0	0	297	0	0	0	0	0	0	0	0	566
17:30	0	0	286	0	0	286	0	0	0	10	0	10	0	0	278	0	0	278	0	0	0	0	0	0	0	0	563
17:45	0	1	265	0	0	266	0	1	0	16	0	17	0	0	284	3	0	287	0	0	0	0	0	0	0	0	515
Hourly Total	0	6	1062	0	0	1068	0	3	0	46	0	49	0	0	1093	7	0	1100	0	0	0	0	0	0	0	0	2178
Grand Total	0	22	4589	0	0	4611	0	18	0	52	228	50	0	0	4902	31	0	4933	0	0	0	0	0	0	0	0	9594
Approach %	0.0%	0.5%	99.5%	0.0%			0.0%	36.0%	0.0%	64.0%			0.0%	0.0%	99.4%	0.6%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Total %	0.0%	0.2%	47.8%	0.0%			48.1%	0.0%	0.2%	0.0%	0.3%		0.5%	0.0%	51.1%	0.3%			51.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Left %	0	20	43	0			43	0	0	0	0	0	0	0	263	0			263	0	0	0	0	0	0	0	4911
% Left	0.0%	94.8%	94.8%	0.0%			94.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	93.1%	0.0%			93.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.0%
% Thru	0	0	0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
% Right	0	0	0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
% U-Turn	0	0	0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
% Bicycles	0	0	0	0			0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0			0	0	0	0	228	0	0	0	0	0			0	0	0	0	0	0	0	0	228



AM Peak Hour - Jane Street & 1755 Jane Street - Site Access

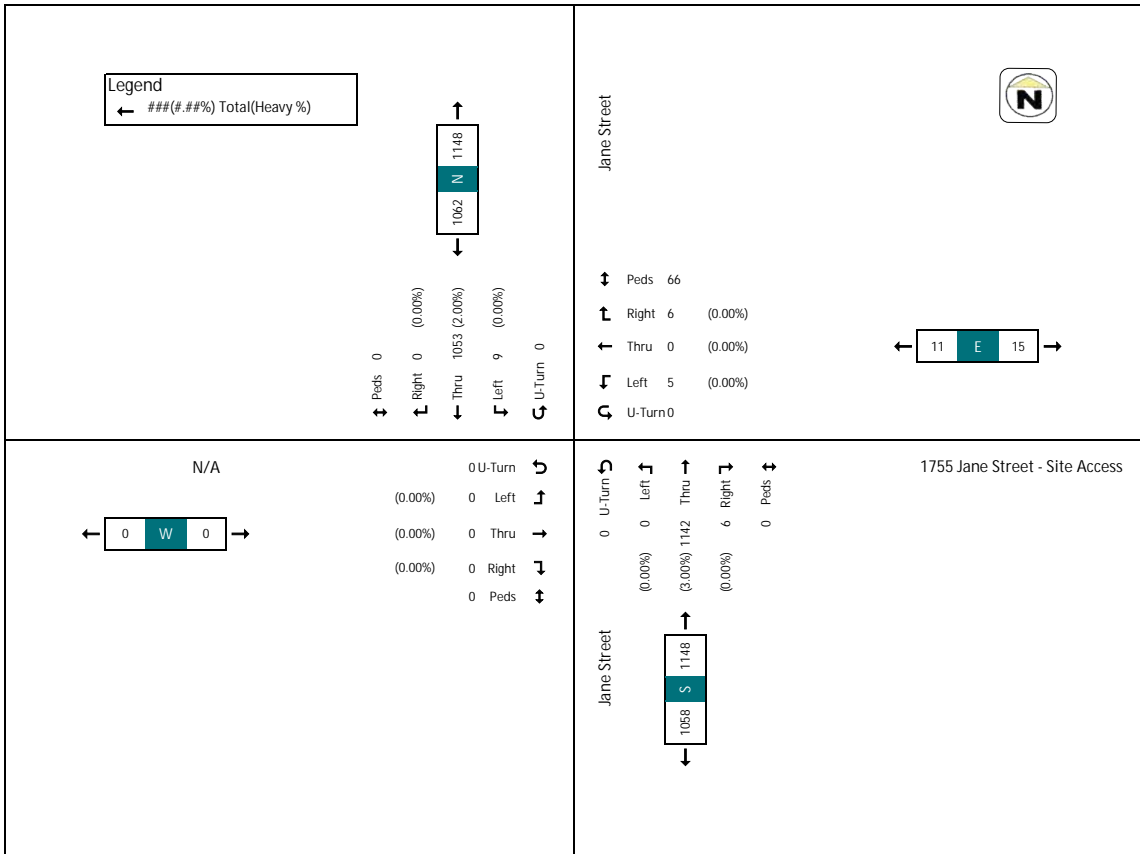
Start Time	Jane Street Southbound						1755 Jane Street - Site Access Westbound						Jane Street Northbound						N/A Eastbound						Grand Total	
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total		
8:00	0	0	253	0	0	253	0	0	0	0	19	19	0	0	306	1	0	0	0	0	0	0	0	0	0	561
8:15	0	0	256	0	0	256	0	0	0	0	21	21	0	0	333	1	0	0	0	0	0	0	0	0	0	654
8:30	0	1	276	0	0	277	0	0	0	0	4	19	8	0	339	2	0	0	0	0	0	0	0	0	0	626
8:45	0	1	262	0	0	263	0	0	0	0	3	10	3	0	301	1	0	0	0	0	0	0	0	0	0	588
Heavy Total	0	2	1017	0	0	1019	0	0	0	0	60	60	0	0	1279	5	0	0	0	0	0	0	0	0	0	2279
Approach %	0.0%	0.2%	99.8%	0.0%	0.0%	0.0%	0.0%	43.8%	0.0%	56.3%	0.0%	0.0%	0.0%	0.0%	99.8%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total %	0.0%	0.1%	45.3%	0.0%	0.0%	45.4%	0.0%	0.3%	0.0%	0.4%	0.7%	0.0%	0.0%	0.0%	53.8%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PHF	0	0.5	0.94	0	0	0.94	0	0.84	0	0.56	0.5	0	0	0.94	0.63	0.94	0	0	0	0	0	0	0	0	0	0.95
% Light	0	0	99.0%	0	0	99.0%	0	0	0	100.0%	0	0	0	0	99.0%	0	0	0	0	0	0	0	0	0	0	99.0%
% Heavy	0	0	0.0%	0	0	0.0%	0	0	0	0.0%	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0.0%
% Buses	0	0	0.0%	0	0	0.0%	0	0	0	0.0%	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0.0%
% Trucks	0	0	0.0%	0	0	0.0%	0	0	0	0.0%	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0.0%
% Bicycles	0	0	0.0%	0	0	0.0%	0	0	0	0.0%	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0.0%
Pedestrians	0	0	0	0	0	0	0	0	0	0	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	60





PM Peak Hour - Jane Street & 1755 Jane Street - Site Access

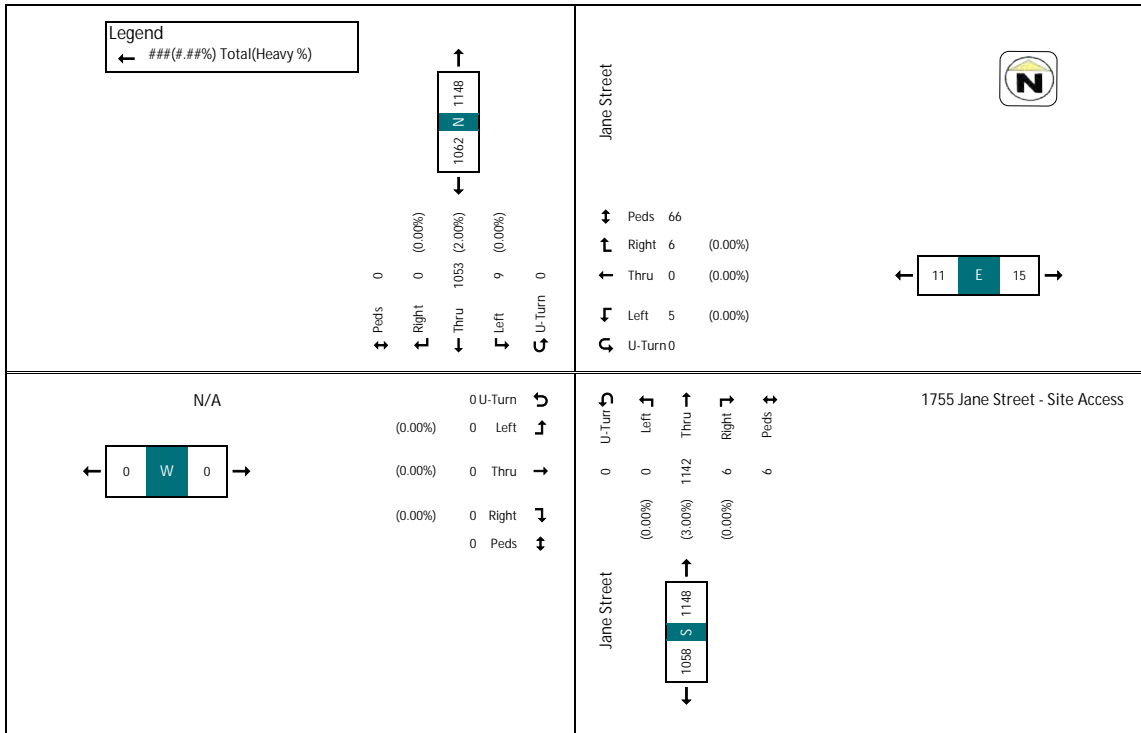
Start Time	Jane Street Southbound					1755 Jane Street - Site Access Westbound					Jane Street Northbound					N/A Eastbound					Grand Total						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total		
16:45	0	5	256	0	0	261	0	0	3	17	4	0	0	293	0	0	293	0	0	0	0	0	0	0	558		
17:00	0	1	278	0	0	279	0	0	1	24	3	0	0	274	4	0	278	0	0	0	0	0	0	0	552		
17:15	0	1	265	0	0	266	0	0	0	15	3	0	0	297	2	0	299	0	0	0	0	0	0	0	566		
17:30	0	2	268	0	0	270	0	0	0	10	1	0	0	278	0	0	278	0	0	0	0	0	0	0	563		
Hourly Total	0	9	1053	0	0	1062	0	5	6	66	11	0	0	1142	6	0	1148	0	0	0	0	0	0	0	2221		
Approach %	0.0%	0.8%	99.2%	0.0%			0.0%	45.1%	0.0%	54.5%		0.0%	0.0%	99.5%	0.5%												
Total %	0.0%	0.4%	47.5%	0.0%			0.0%	0.2%	0.0%	0.3%		0.0%	0.0%	48.0%	0.3%												
Ped	0	0.45	0.02	0			0	0.63	0	0.5		0	0	0.96	0.38												
Lights	0	0	1030	0			0	1029	0	5		0	0	1112	6												
% Trucks	100.0%	97.98%	97.98%	100.0%			100.0%	97.98%	100.0%	100.0%		100.0%	97.98%	100.0%	97.98%												
% Buses	0.0%	4.5%	4.4%	0.0%			0.0%	0.0%	0.0%	0.0%		0.0%	1.6%	0.0%	1.6%												
% Trucks	0.0%	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%												
Bikes	0	0	0	0			0	0	0	0		0	0	0	0												
Pedestrians	0	0	0	0			0	0	0	0		0	0	0	0												





Common PM Peak Hour - Jane Street & 1755 Jane Street - Site Access

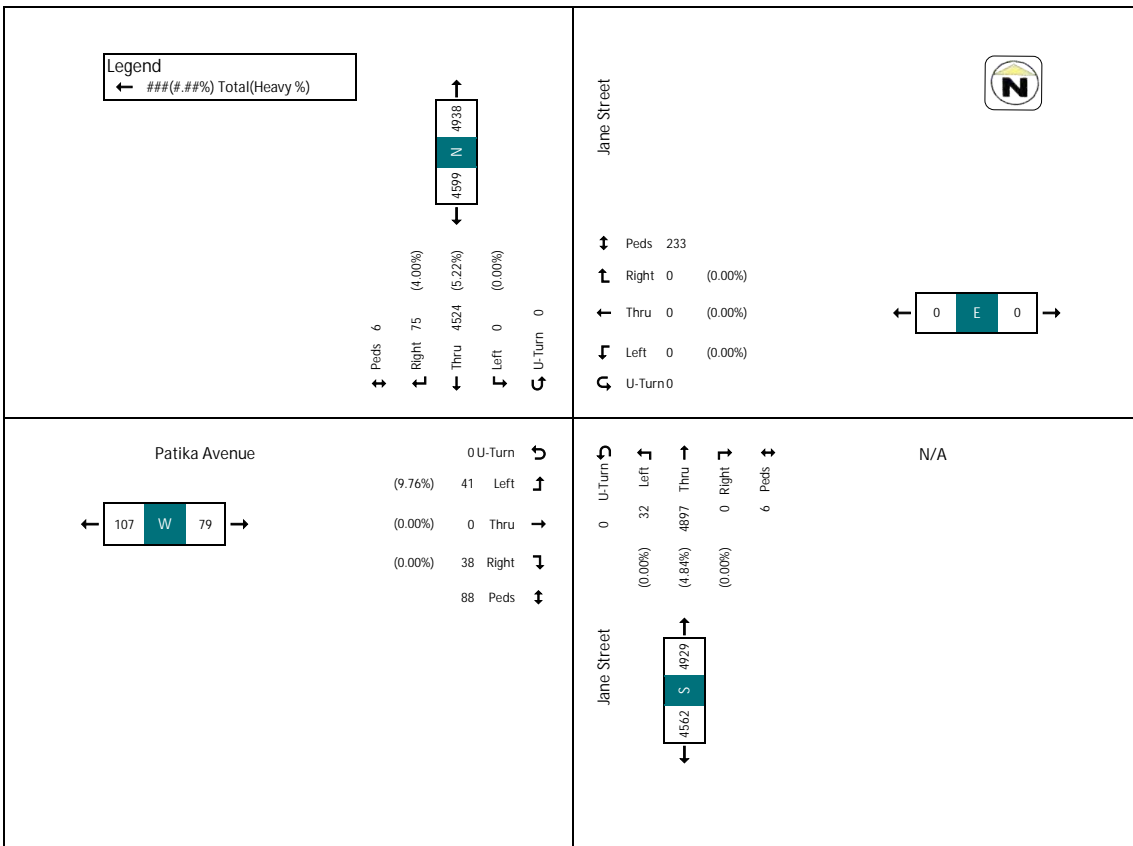
Start Time	Jane Street Southbound					1755 Jane Street - Site Access Westbound					Jane Street Northbound					N/A Eastbound					Grand Total					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total	
16:15	0	5	256	0	0	261	0	0	3	17	4	24	0	0	293	0	1	293	0	0	0	0	0	0	558	
16:30	0	1	278	0	0	279	0	0	1	24	3	29	0	0	274	4	2	278	0	0	0	0	0	0	552	
16:45	0	1	245	0	0	246	0	0	0	15	3	18	0	0	297	2	0	299	0	0	0	0	0	0	546	
17:00	0	2	285	0	0	287	0	0	0	10	1	11	0	0	278	0	0	278	0	0	0	0	0	0	563	
Hourly Total	0	9	1053	0	0	1062	0	5	0	6	66	11	0	0	1142	6	6	1148	0	0	0	0	0	0	2221	
Approach %	0.0%	0.8%	99.2%	0.0%			0.0%	45.1%	0.0%	54.9%			0.0%	0.0%	99.5%	0.5%										
Total %	0.0%	0.4%	47.5%	0.0%			0.0%	0.2%	0.0%	0.3%			0.0%	0.0%	48.0%	0.3%										
Ped	0	0.45	0.02	0			0.92	0	0.63	0	0.5			0	0.96	0.38										
Lights	0	0	1030	0			1039	0	0	5				0	1112	6										
% Trucks	0.0%	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%										
% Buses	0.0%	1.4%	0.0%	0.0%			1.4%	0.0%	0.0%	0.0%				1.6%	0.0%	0.0%										
% Trucks	0.0%	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%										
Bicycles	0	0	0	0			0	0	0	0				0	0	0										
Pedestrians	0	0	0	0			0	0	0	66				0	0	0										





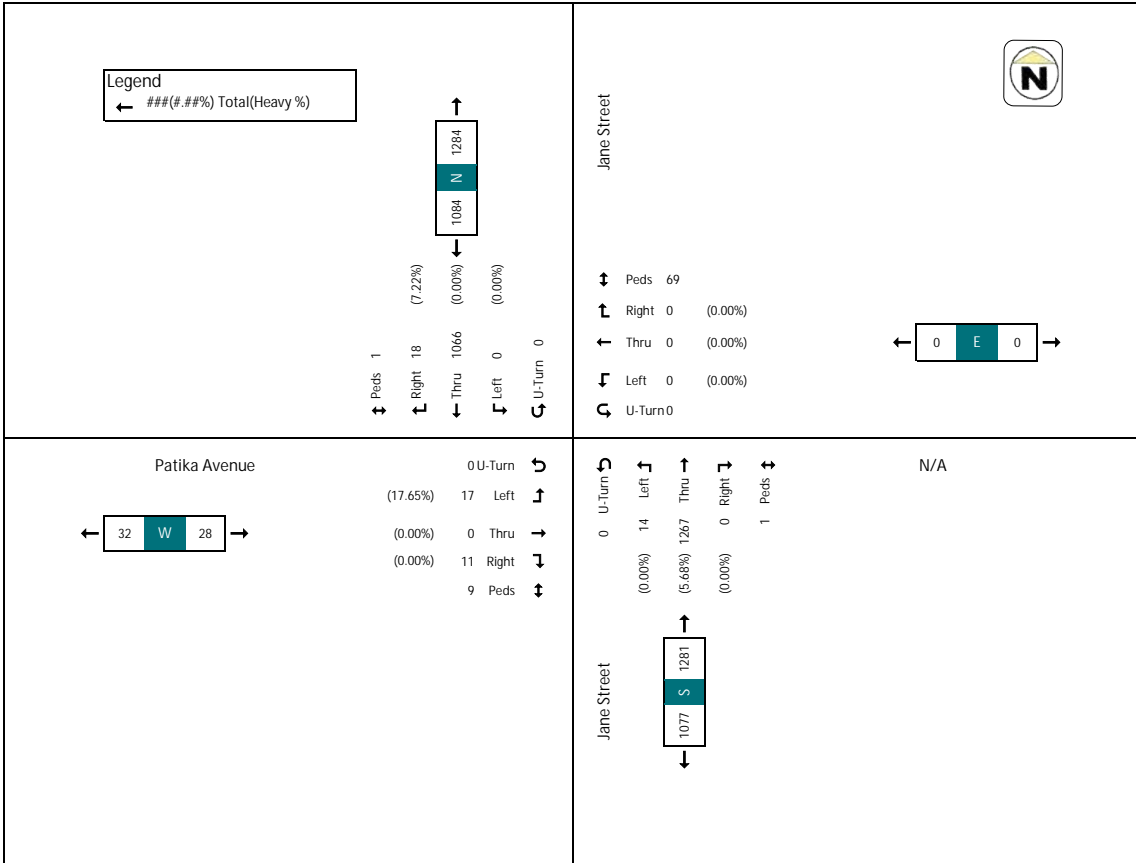
Turning Movement Count - Jane Street & Patika Avenue

Start Time	Jane Street Southbound					N/A Westbound					Jane Street Northbound					Patika Avenue Eastbound					Grand Total						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total		
7:00	0	0	170	1	0	171	0	0	0	0	3	0	0	0	242	0	0	242	0	0	2	0	1	2	415		
7:15	0	0	234	1	0	235	0	0	0	0	0	0	0	0	234	0	0	234	0	0	1	2	1	2	470		
7:30	0	0	273	0	0	273	0	0	0	0	0	0	0	0	266	0	0	266	0	0	1	3	2	2	538		
7:45	0	0	224	4	1	229	0	0	0	0	6	0	0	0	248	0	0	248	0	0	0	3	1	3	474		
Hourly Total	0	0	901	6	1	907	0	0	0	0	18	0	0	0	2	986	0	1	987	0	0	5	7	8	1922		
8:00	0	0	250	4	0	254	0	0	0	0	16	0	0	0	2	306	0	1	307	0	0	2	0	1	2	563	
8:15	0	0	284	4	0	288	0	0	0	0	28	0	0	0	333	0	0	333	0	0	0	1	2	2	623		
8:30	0	0	277	4	0	281	0	0	0	0	13	0	0	0	296	0	0	296	0	0	0	1	2	2	623		
8:45	0	0	285	0	0	285	0	0	0	0	11	0	0	0	301	0	0	301	0	0	0	0	0	0	316		
Hourly Total	0	0	1066	18	1	1084	0	0	0	0	69	0	0	0	14	1267	0	1	1281	0	0	17	9	28	2393		
9:00	0	0	241	6	0	247	0	0	0	0	18	0	0	0	2	259	0	2	261	0	0	10	0	18	326		
9:15	0	0	250	5	0	255	0	0	0	0	13	0	0	0	212	0	0	212	0	0	0	2	2	2	473		
Hourly Total	0	0	491	11	0	502	0	0	0	0	31	0	0	0	2	471	0	2	473	0	0	8	14	2	22	997	
* Break *																											
10:00	0	0	229	5	0	234	0	0	0	0	26	0	0	0	232	0	0	232	0	0	1	0	1	0	310		
10:15	0	0	229	4	0	233	0	0	0	0	24	0	0	0	229	0	0	229	0	0	0	1	0	1	0	312	
10:30	0	0	276	5	0	281	0	0	0	0	13	0	0	0	256	0	0	256	0	0	0	0	0	0	0	335	
10:45	0	0	252	4	2	258	0	0	0	0	10	0	0	0	2	292	0	2	294	0	0	1	2	3	3	553	
Hourly Total	0	0	1026	18	3	1044	0	0	0	0	67	0	0	0	7	1077	0	2	1084	0	0	6	2	26	8	2136	
11:00	0	0	263	7	0	270	0	0	0	0	24	0	0	0	279	0	0	279	0	0	3	2	0	3	3	352	
11:15	0	0	241	0	0	241	0	0	0	0	10	0	0	0	240	0	0	240	0	0	0	0	0	0	0	312	
11:30	0	0	277	5	0	282	0	0	0	0	10	0	0	0	278	0	0	278	0	0	7	13	4	4	364		
11:45	0	0	259	6	1	265	0	0	0	0	0	0	0	0	1	246	0	0	247	0	0	3	17	4	516		
Hourly Total	0	0	1040	22	1	1062	0	0	0	0	66	0	0	0	7	1097	0	0	1104	0	0	7	6	44	13	2179	
Grand Total	0	0	4524	75	6	4599	0	0	0	0	233	0	0	0	32	4897	0	6	4929	0	0	41	0	38	88	79	9607
Approach %	0.0%	0.0%	98.4%	1.6%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	99.4%	0.0%			0.0%	0.0%	51.9%	0.0%	48.1%				
Total %	0.0%	0.0%	47.1%	0.8%		47.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	51.0%	0.0%			51.3%	0.0%	0.4%	0.0%	0.4%		0.8%		
Light %	0	0	4280	72		4350	0	0	0	0	233	0	0	0	4660	0	0	4662	0	0	40	0	38	88	79	9127	
% Lights	0	0	94.9%	98.0%		94.9%	0	0	0	0	100.0%	0	0	0	98.2%	0	0	98.2%	0	0	100.0%	0	94.9%	95.0%		94.9%	
% Buses	0	0	142	5		147	0	0	0	0	3	0	0	0	149	0	0	149	0	0	3	0	0	0	0	297	
% Buses	0	0	3.2%	2.7%		3.2%	0	0	0	0	1.3%	0	0	0	3.0%	0	0	3.0%	0	0	7.3%	0	0	0	0	315	
Trucks	0	0	93	1		94	0	0	0	0	0	0	0	0	88	0	0	88	0	0	0	0	0	0	0	162	
% Trucks	0	0	2.1%			2.0%	0	0	0	0	0	0	0	0.0%	1.8%	0	0	1.8%	0	0	2.4%	0	0	0	0	1.9%	
Bicycles	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
Pedestrians	0	0	0	6		6	0	0	0	233	0	0	0	0	6	0	0	6	0	0	41	0	38	88	79	333	



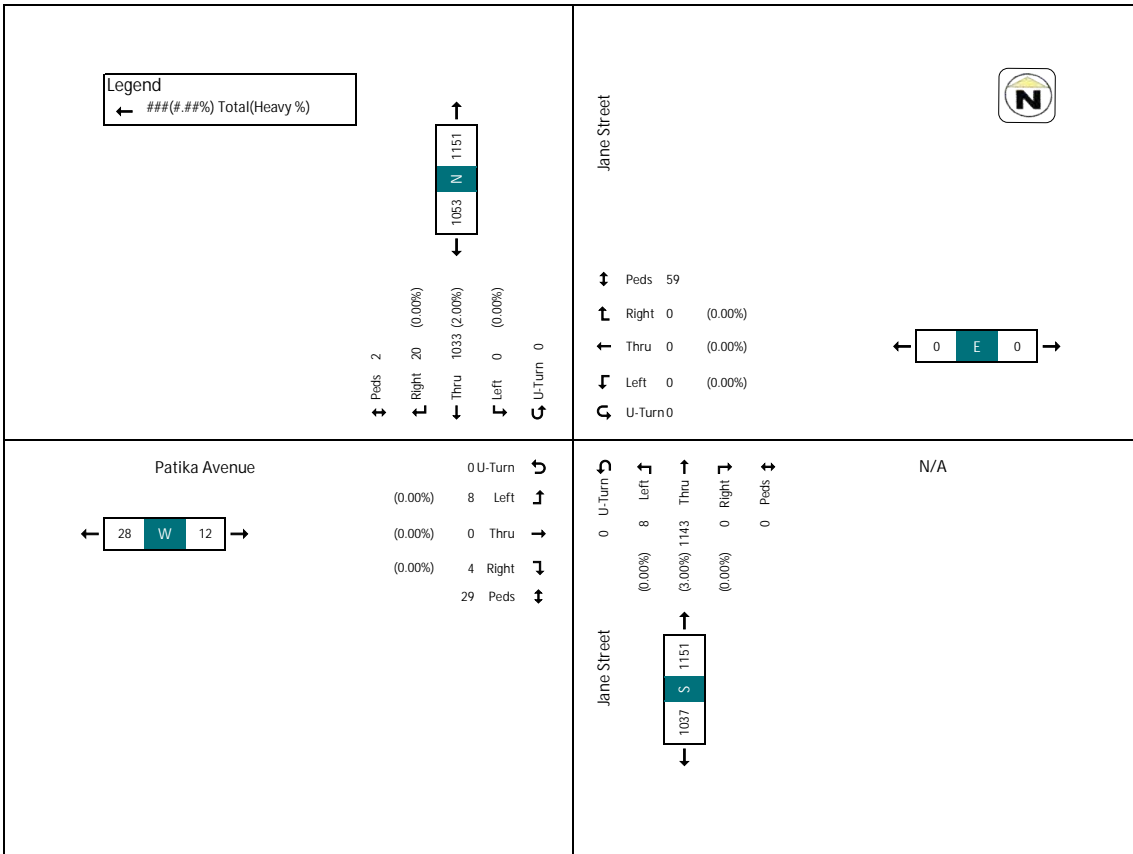
AM Peak Hour - Jane Street & Patika Avenue

Start Time	Jane Street Southbound						N/A Westbound						Jane Street Northbound						Patika Avenue Eastbound						Grand Total			
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total				
8:00	0	0	250	4	0	254	0	0	0	0	16	0	0	2	326	0	0	1	307	0	0	0	0	1	2	563		
8:15	0	0	264	4	0	268	0	0	0	0	20	0	0	0	336	0	0	0	336	0	0	0	0	0	2	622		
8:30	0	0	277	3	0	280	0	0	0	0	16	0	0	4	336	0	0	0	340	0	0	0	0	4	1	629		
8:45	0	0	255	7	0	262	0	0	0	0	11	0	0	7	294	0	0	0	301	0	0	8	0	7	5	15	578	
Heavy Total	0	0	1056	18	0	1084	0	0	0	0	69	0	0	14	1281	0	0	1	1291	0	0	17	0	11	9	29	2393	
Approach %	0.0%	0.0%	98.3%	1.7%									0.0%	1.1%	98.9%	0.0%			0.0%	60.7%	0.0%	39.3%						
Total %	0.0%	0.0%	44.5%	0.8%		45.3%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.6%	52.9%	0.0%			53.5%	0.0%	0.7%	0.0%	0.5%				1.2%	
PHF	0	0	0.94	0.64		0.94	0	0	0	0	0		0	0	0.5	0.94	0		0.94	0	0.53	0	0.39				0.47	0.95
% Left	0	0	92.8%	83.3%		92.8%	0	0	0	0	0		0	0	100.0%	16.3%	0		100.0%	0	0	0	0	0	0	0	0	92.5%
% Right	0	0	4.3%	11.1%		4.3%	0	0	0	0	0		0	0	0.0%	3.1%	0		0.0%	11.8%	0.0%	0.0%	0	0	0	0	7.1%	
% Thru	0	0	3.9%	5.4%		3.9%	0	0	0	0	0		0	0.0%	2.7%	2.3%	0		0.0%	0.0%	0.0%	0.0%	0	0	0	0	6.6%	
% U-Turn	0	0	0.0%	0.0%		0.0%	0	0	0	0	0		0	0.0%	0.0%	0.0%	0		0.0%	0.0%	0.0%	0.0%	0	0	0	0	0.0%	
Bicycles	0	0	0	0		0	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0		0	0	0	0	69	0		0	0	0	0	0		0	0	0	17	0	11	9	0	79	



PM Peak Hour - Jane Street & Patika Avenue

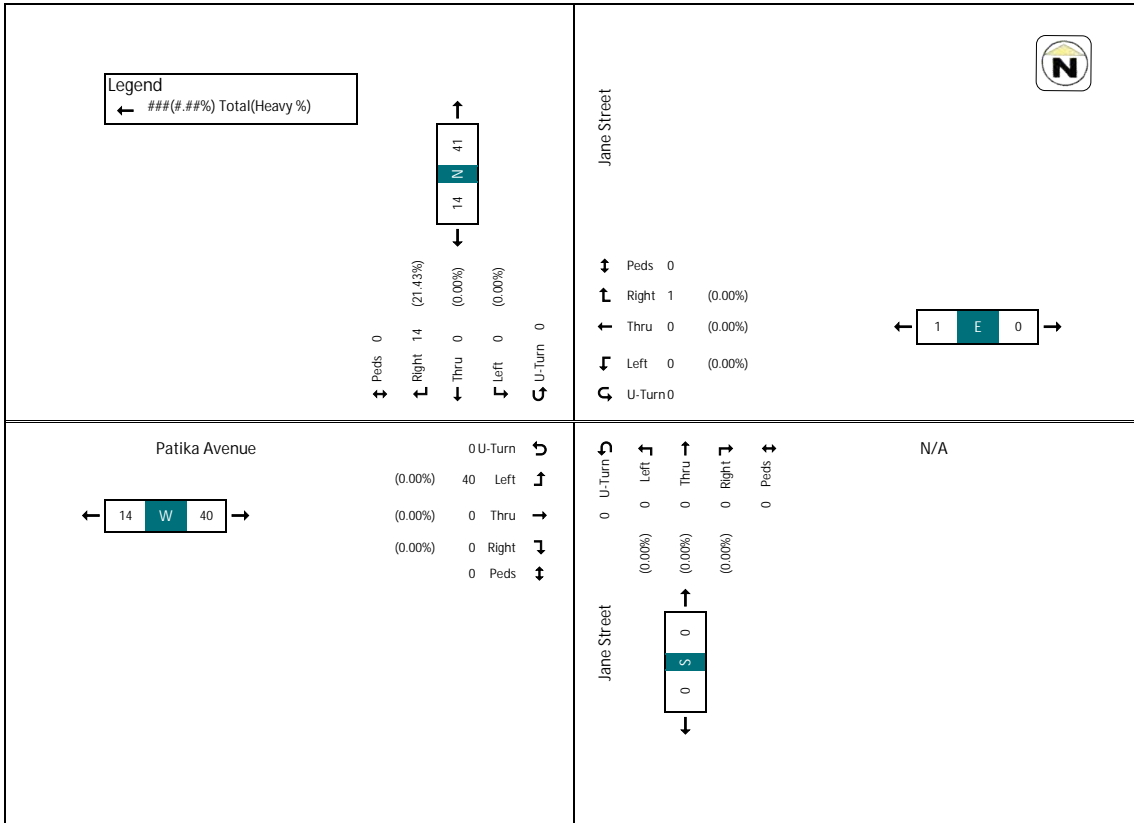
Start Time	Jane Street Southbound					N/A Westbound					Jane Street Northbound					Patika Avenue Eastbound					Grand Total				
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total
16:45	0	0	252	4	2	258	0	0	0	0	10	0	0	2	292	0	0	294	0	2	0	1	2	3	553
17:00	0	0	263	7	0	270	0	0	0	0	15	0	0	2	275	0	0	277	0	0	0	1	9	2	552
17:15	0	0	241	4	0	245	0	0	0	0	10	0	0	2	247	0	0	249	0	0	0	4	2	2	549
17:30	0	0	277	5	0	282	0	0	0	0	10	0	0	2	279	0	0	281	0	0	0	2	13	4	544
Hourly Total	0	0	1033	20	2	1053	0	0	0	0	59	0	0	8	1143	0	0	1151	0	8	0	4	29	12	2216
Approach %	0.0%	0.0%	98.1%	1.9%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	99.3%	0.0%		0.0%	66.7%	0.0%	33.3%				
Thru %	0.0%	0.0%	46.2%	0.0%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	47.3%	0.0%		51.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Right %	0	0	0.93	0.11		0.93	0	0	0	0	0	0	0	0.87	0.96	0		0.96	0	0	0	0.5	0.75	0.98	0.98
Left %	0	0	0.10	0.20		0.10	0	0	0	0	0	0	0	0.11	0			0.12	0	0	0	0.25	0.25	0.12	0.12
% Buses			0.0%	100.0%		0.0%								100.0%	99.9%			100.0%		100.0%		100.0%			99.4%
% Trucks			4.5%	0.0%		4.4%								0.0%	1.6%			1.6%		0.0%		0.0%			2.9%
% Pedestrians			0.9%	0.0%		0.9%								0.0%	1.2%			1.2%		0.0%		0.0%			0.9%
U-Turn %			0	0		0								0	0			0		0		0			0
Right %			0	0		0								0	0			0		0		0			0
Left %			0	0		0								0	0			0		0		0			0
U-Turn %			0	0		0								0	0			0		0		0			0





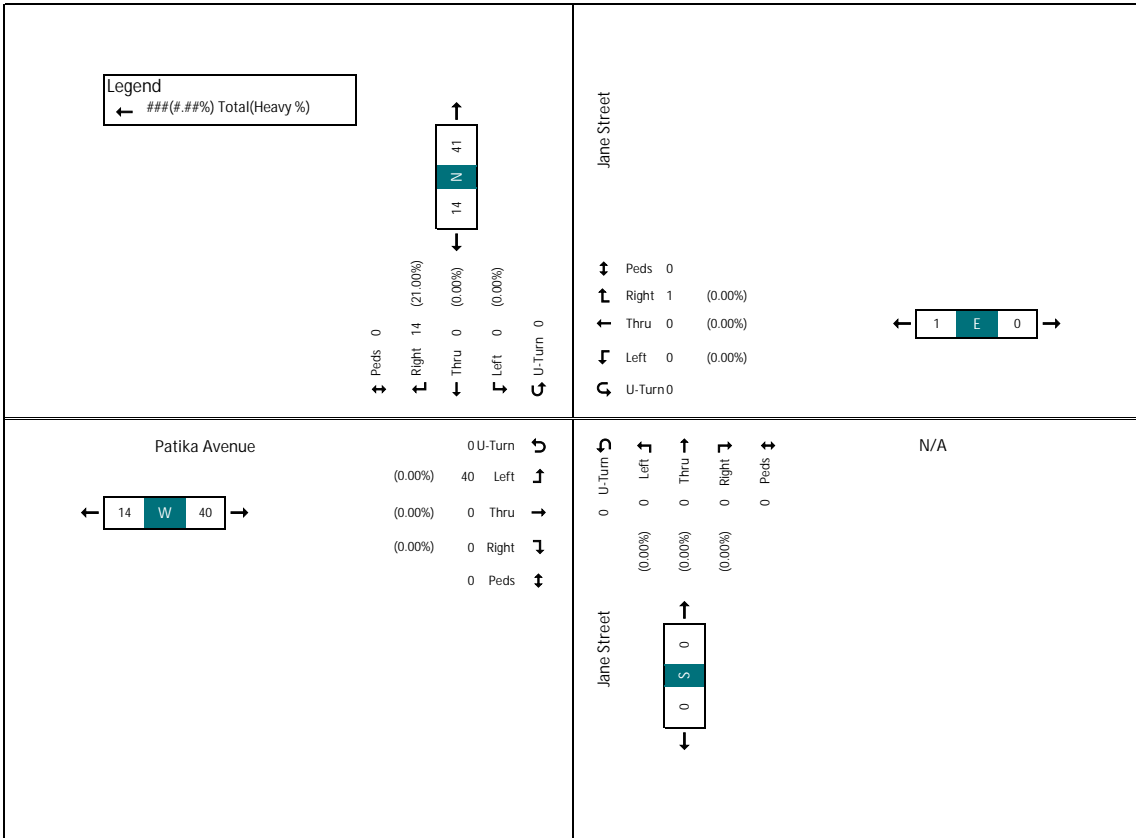
Turning Movement Count - Jane Street & Patika Avenue

Start Time	Jane Street Southbound					N/A Westbound					Jane Street Northbound					Patika Avenue Eastbound					Grand Total		
	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds	U-Turn	Left	Thru	Right	Peds		U-Turn	
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	2	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	17	20
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10
Hourly Total	0	0	0	14	0	14	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	40	55
Grand Total	0	0	0	14	0	14	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	40	55
Approach %	0.0%	0.0%	0.0%	100.0%		0.0%	0.0%	0.0%	100.0%		0.0%	0.0%	100.0%		0.0%	0.0%	100.0%	0.0%	0.0%		0.0%	0.0%	
Total %	0.0%	0.0%	0.0%	25.5%		25.5%	0.0%	0.0%	1.9%		1.9%	0.0%	22.7%		0.0%	0.0%	22.7%	0.0%	0.0%		22.7%	27.3%	
% Buses	0	0	0	0		0	0	0	0		0	0	0		0	0	0	0	0		0	0	
% Trucks	0	0	0	21.4%		21.4%	0	0	0.0%		0.0%	0	0		0	0	0	0	0		0	0	5.5%
% Bicycles	0	0	0	0		0	0	0	0		0	0	0		0	0	0	0	0		0	0	0.0%
% Pedestrians	0	0	0	0		0	0	0	0		0	0	0		0	0	0	0	0		0	0	0



SAT Peak Hour - Jane Street & Patika Avenue

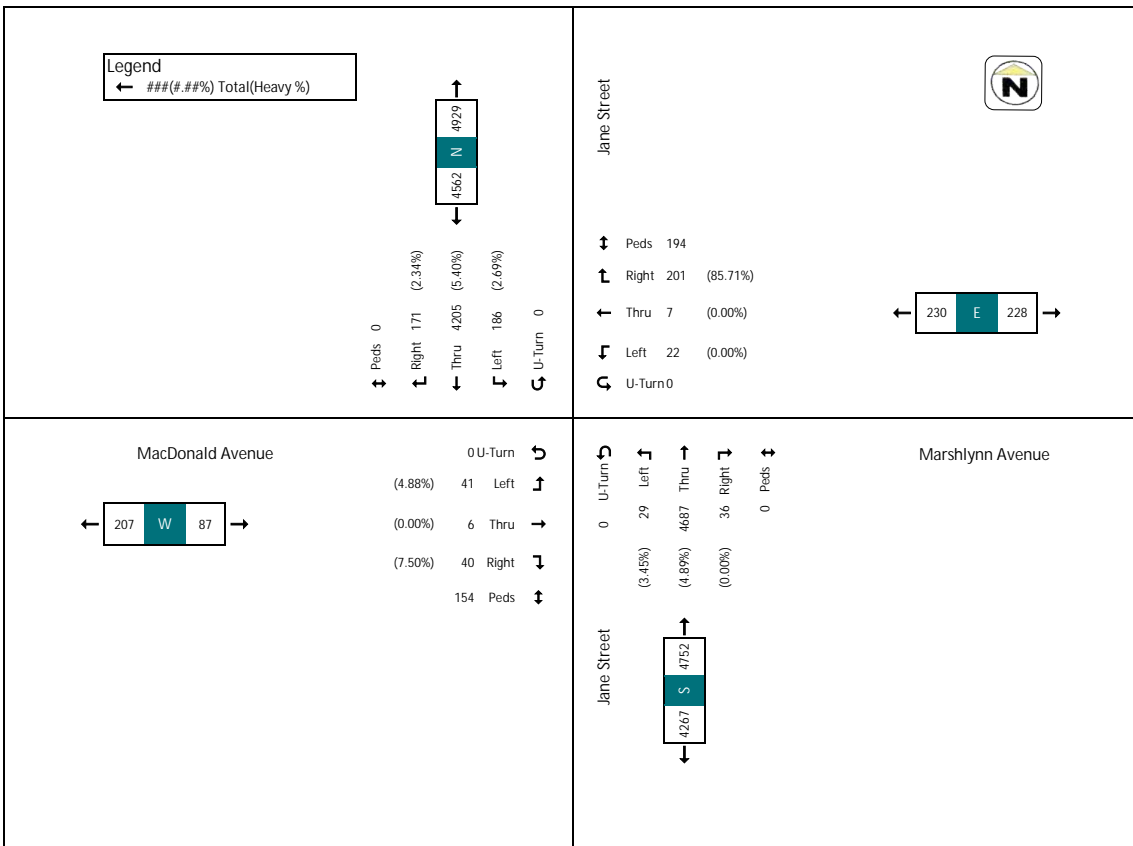
Start Time	Jane Street Southbound						N/A Westbound						Jane Street Northbound						Patika Avenue Eastbound						Grand Total	
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total		
21:00	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	17	20
21:15	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	14
21:30	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	11
21:45	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10	
Hourly Total	0	0	0	14	0	14	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	5	55	
Approach %	0.0%	0.0%	0.0%	100.0%	-	-	0.0%	0.0%	0.0%	100.0%	-	-	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	-	-	-	-
Total %	0.0%	0.0%	0.0%	25.5%	-	29.5%	0.0%	0.0%	0.0%	1.8%	-	-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	-	-	0.0%	72.7%	0.0%
Left %	0	0	0	0	-	0	0	0	0.25	-	-	0	0	0	0	0	0	0	0.59	0	0	-	-	0.59	0.0%	0.0%
Thru %	0	0	0	0	-	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	-	-	0	0.0%	0.0%
Right %	0	0	0	0	-	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	-	-	0	0.0%	0.0%
% Buses	0	0	0	3	-	3	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	-	-	0	0	3
% Trucks	0	0	0	0	-	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0
% Bicycles	0	0	0	0	-	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0
Pedestrians	-	-	-	0	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	0	-	-	0	-	0	0





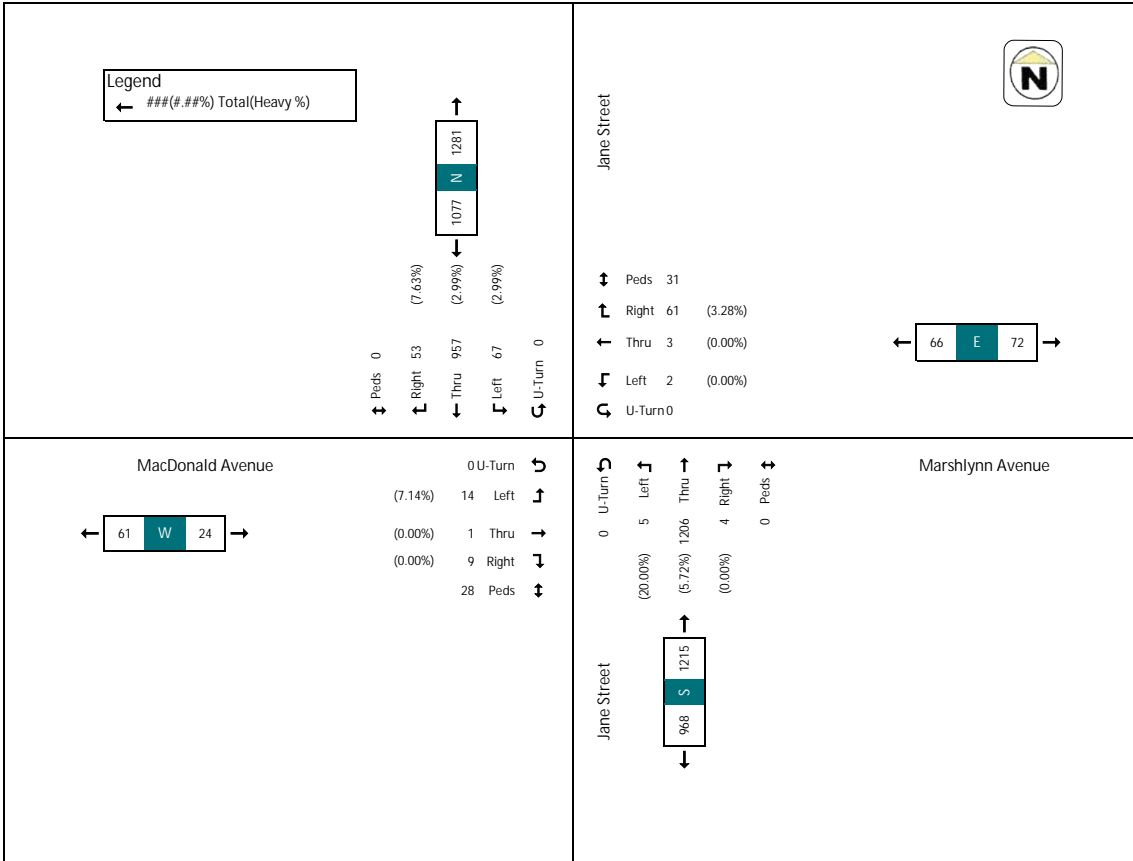
Turning Movement Count - Jane Street & Marshlynn Avenue

Start Time	Jane Street Southbound					Marshlynn Avenue Westbound					Jane Street Northbound					MacDonald Avenue Eastbound					Grand Total					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total	
7:00	0	3	161	6	0	170	0	0	0	0	0	0	0	0	229	0	0	229	0	0	0	2	1	0	6	414
7:15	0	5	224	6	0	235	0	0	0	6	0	6	0	0	229	0	0	229	0	0	0	0	0	0	0	465
7:30	0	4	259	11	0	274	0	0	0	0	0	0	0	0	256	0	0	256	0	0	0	2	2	1	540	
7:45	0	4	222	4	0	227	0	0	0	11	5	11	0	0	239	0	0	239	0	0	0	2	2	2	479	
Hourly Total	0	13	666	27	0	706	0	0	0	36	16	35	0	0	3	466	2	0	468	0	0	4	4	10	1902	
8:00	0	13	230	7	0	250	0	0	0	12	9	12	0	1	204	2	0	207	0	1	0	4	2	5	564	
8:15	0	26	240	18	0	284	0	1	1	14	15	16	0	0	316	2	0	318	0	0	0	13	6	6	623	
8:30	0	14	254	11	0	279	0	0	0	12	21	23	0	0	216	7	0	223	0	0	0	10	15	5	559	
8:45	0	14	231	11	0	256	0	0	0	12	15	17	0	0	246	7	0	253	0	0	0	10	15	5	566	
Hourly Total	0	67	967	53	0	1077	0	2	3	61	31	66	0	0	5	1206	4	0	1215	0	14	1	9	28	2382	
9:00	0	5	239	7	0	251	0	0	0	6	6	6	0	0	254	1	0	255	0	0	1	6	6	2	514	
9:15	0	6	244	2	0	254	0	1	0	10	19	21	0	0	200	0	0	200	0	0	0	3	3	1	471	
Hourly Total	0	11	483	9	0	505	0	1	0	14	12	15	0	0	1	456	3	0	460	0	3	0	2	9	5	985
* Break *																										
16:00	0	11	235	13	0	259	0	0	0	10	11	11	0	0	227	6	0	233	0	1	1	10	1	10	1	513
16:15	0	15	250	6	0	271	0	0	0	10	10	11	0	0	246	7	0	253	0	0	0	15	15	6	6	544
16:30	0	15	252	9	0	276	0	1	1	8	12	11	0	0	246	8	0	254	0	0	0	4	13	6	6	531
16:45	0	14	230	9	0	253	0	3	1	8	12	12	0	0	1	285	3	0	289	0	1	0	6	15	7	561
Hourly Total	0	49	942	37	0	1028	0	9	2	37	62	48	0	0	8	1037	12	0	1055	0	10	2	14	53	26	2157
17:00	0	13	241	10	0	264	0	2	1	12	21	15	0	0	9	266	2	0	271	0	1	1	4	16	6	562
17:15	0	13	230	6	0	249	0	0	0	12	21	17	0	0	260	7	0	267	0	0	0	15	15	6	605	
17:30	0	14	252	13	0	279	0	5	0	12	21	17	0	0	274	6	0	280	0	4	1	13	6	16	576	
17:45	0	14	232	16	0	262	0	0	0	16	19	14	0	0	224	3	0	227	0	4	1	2	16	1	517	
Hourly Total	0	46	958	45	0	1046	0	10	2	54	73	66	0	0	14	1042	15	0	1071	0	8	3	11	49	22	2205
Grand Total	0	186	4205	171	0	4562	0	22	7	201	194	230	0	0	29	4687	36	0	4752	0	41	6	40	154	87	9631
Approach %	0.0%	4.1%	92.2%	3.7%			0.0%	2.6%	3.0%	87.4%			0.0%	0.6%	98.6%	0.8%			0.0%	4.71%	6.9%	46.0%				
Total %	0.0%	1.9%	43.7%	1.8%		47.4%	0.0%	0.2%	0.1%	2.1%		2.4%	0.0%	0.3%	48.7%	0.4%		49.3%	0.0%	0.4%	0.1%	0.4%			0.9%	
Light %	0	18	976	16		1018	0	22	0	162		204	0	0	28	428		452	0	0	0	19				913
% Lights	0	97.3%	93.6%	97.7%		94.9%	0	100.0%	100.0%	77.9%		97.8%	0	0	66.6%	100.0%		100.0%	0	45.1%	100.0%	49.5%				91.3%
% Buses	0	2	136	1		139	0	0	0	1		1	0	0	1	14		15	0	0	0	2				29
% Trucks	0	2	3	18%		3%	0.0%	0.0%	2.0%	3		1.7%	0	0	3	3		3	0	0	0	2.5%				3.1%
% Trucks	0	0.1%	0.1%	1.8%		0.2%	0.0%	0.0%	0.7%	0		0.7%	0	0	0	0		0	0	0	0.0%					0.3%
% Trucks	0	0.5%	2.2%		2.0%	0.0%	0.0%	1.0%	0.9%	0		0.9%	0	0	1.8%	1.8%		1.8%	0	2.4%	0.0%	5.0%				1.9%
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0				0
Pedestrians	0	0	0	0		0	0	0	0	194		194	0	0	0	0		0	0	0	0	0				194



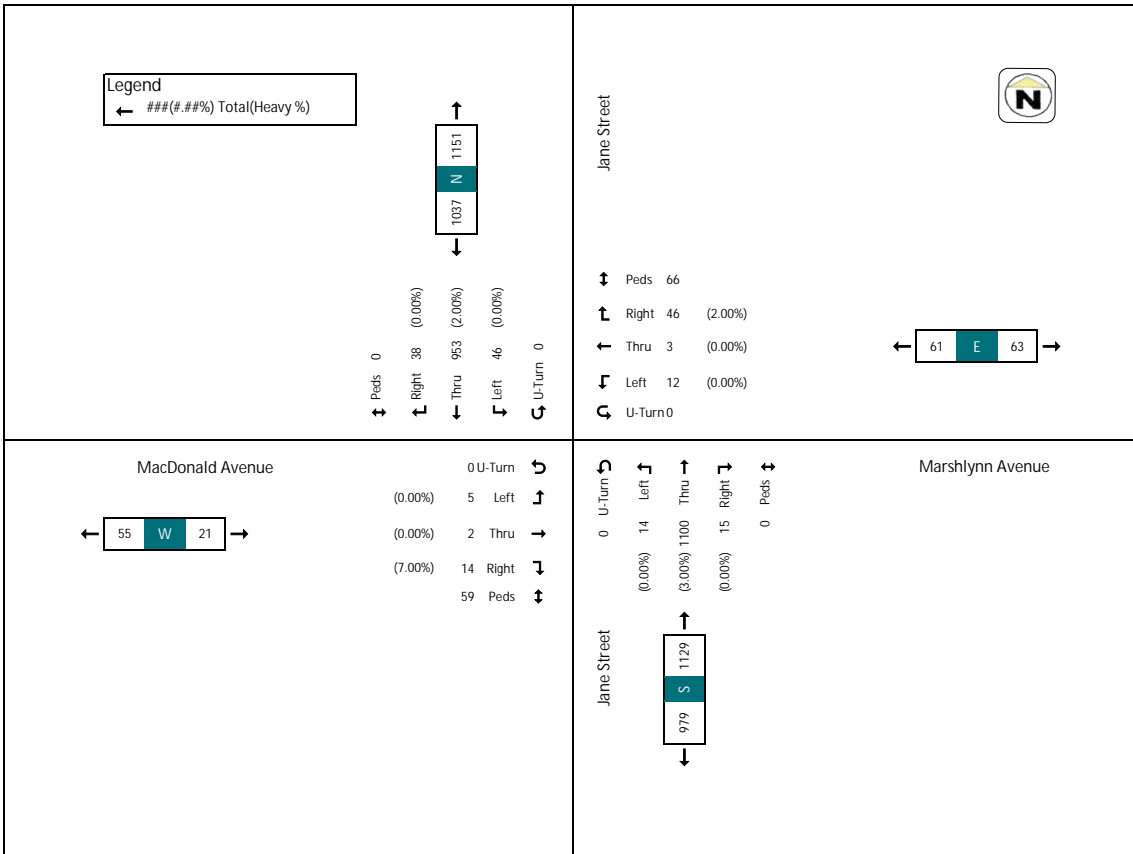
AM Peak Hour - Jane Street & Marshlynn Avenue

Start Time	Jane Street Southbound						Marshlynn Avenue Westbound						Jane Street Northbound						MacDonald Avenue Eastbound						Grand Total	
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total		
8:00	0	13	230	7	0	250	0	0	0	12	9	12	0	1	294	0	0	0	297	0	1	0	0	2	5	564
8:15	0	25	240	18	0	283	0	1	1	18	13	16	0	0	316	0	0	0	316	0	4	0	4	3	8	630
8:30	0	14	256	11	0	281	0	1	1	23	4	25	0	3	313	0	0	0	316	0	4	0	4	3	8	630
8:45	0	14	231	17	0	262	0	0	1	12	5	13	0	1	285	0	0	0	286	0	4	0	4	10	5	566
Heavy Total	0	61	657	32	0	1077	0	2	3	51	21	66	0	5	1206	4	0	0	1210	0	11	0	10	28	24	2382
Approach %	0.0%	6.2%	88.9%	4.9%	0.0%		0.0%	3.0%	4.5%	92.4%	2.8%		0.0%	0.4%	99.3%	0.3%	0.0%		0.0%	58.3%	4.2%	37.5%	0.0%	1.0%		
Total %	0.0%	2.8%	40.2%	2.2%	0.0%		0.0%	0.1%	0.1%	2.6%	2.8%		0.0%	0.2%	50.6%	0.2%	0.0%		51.0%	0.0%	0.6%	0.0%	0.4%	1.0%		
PHF	0	0.64	0.93	0.74	0		0	0.5	0.75	0.66	0.66		0	0.42	0.86	0.5	0		0.96	0	0.25	0.56	0.75	0.95		
% Left	0	22.4%	89.4%	22.3%	0		0	100.0%	100.0%	86.5%	97.0%		0	80.0%	96.3%	100.0%	0		84.2%	0	92.0%	100.0%	95.8%	92.5%		
% Thru	0	43	1	0	0		0	0	1	0	1		0	1	0	0	0		30	0	0	0	0	1	86	
% Right	0	3.0%	4.5%	1.9%	4.3%		0.0%	0.0%	1.6%	1.5%			20.0%	3.1%	0.0%	0.0%	0.0%		3.1%	1%	0.0%	0.0%	2%	3.6%		
% Trucks	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	0	
% Buses	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	0	
% Bicycles	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	0	
% Pedestrians	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	59	



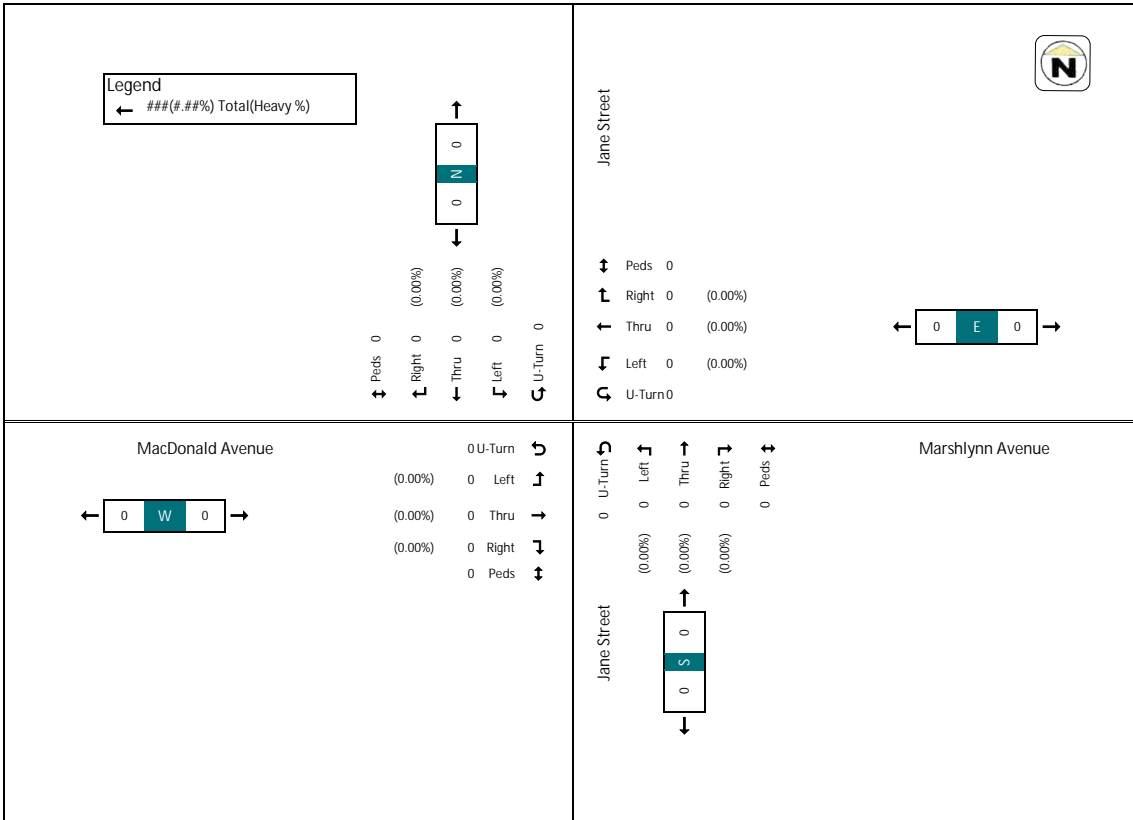
PM Peak Hour - Jane Street & Marshlynn Avenue

Start Time	Jane Street Southbound					Marshlynn Avenue Westbound					Jane Street Northbound					Macdonald Avenue Eastbound					Grand Total	
	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	App. Total		
16:45	0	14	230	9	253	0	3	1	8	12	0	1	285	3	289	0	1	0	6	15	7	561
17:00	0	13	241	10	264	0	2	1	12	15	0	0	288	2	290	0	1	1	4	16	8	562
17:15	0	5	230	6	241	0	2	1	14	17	0	0	288	4	292	0	1	1	15	3	3	555
17:30	0	14	252	13	279	0	2	0	12	14	0	4	290	6	294	0	0	4	13	6	6	574
Hourly Total	0	46	953	38	1037	0	12	3	46	61	0	14	1100	15	1129	0	5	2	35	59	22	2249
Approach %	0.0%	4.4%	91.9%	3.7%		0.0%	19.7%	4.9%	75.4%		0.0%	1.2%	97.8%	1.3%		0.0%	22.7%	9.7%	68.2%			
Total %	0.0%	2.0%	42.4%	1.7%		0.0%	0.5%	0.1%	2.0%		0.0%	0.6%	48.2%	0.6%		0.0%	0.2%	0.1%	0.3%			
PHF	0	0.52	0.95	0.33		0	0.6	0.75	0.62		0	0.39	0.95	0.63		0	0.6	0.63	0.5			
Left %	0	46	930	38		0	12	3	46		0	14	101	15		0	5	2	35			
% Buses	0.0%	4.5%	0.0%	4.1%		0.0%	0.0%	0.0%	0.0%		0.0%	1.6%	0.0%	1.6%		0.0%	0.0%	0.0%	0.0%			
% Trucks	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0			
% Pedestrians	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0			



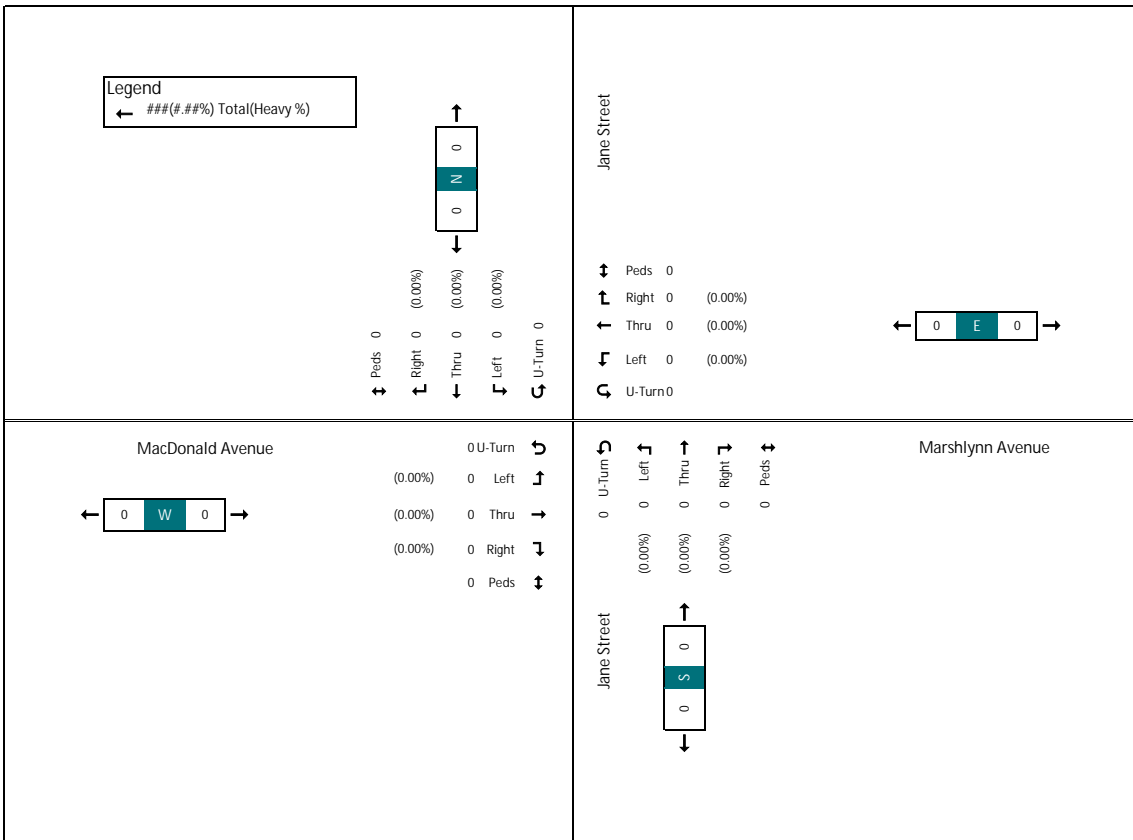
Turning Movement Count - Jane Street & Marshlynn Avenue

Start Time	Jane Street Southbound					Marshlynn Avenue Westbound					Jane Street Northbound					MacDonald Avenue Eastbound					Grand Total					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total	
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Approach %																										
Total %																										
% Left																										
% Thru																										
% Right																										
% Buses																										
% Trucks																										
% Bicycles																										
% Pedestrians																										



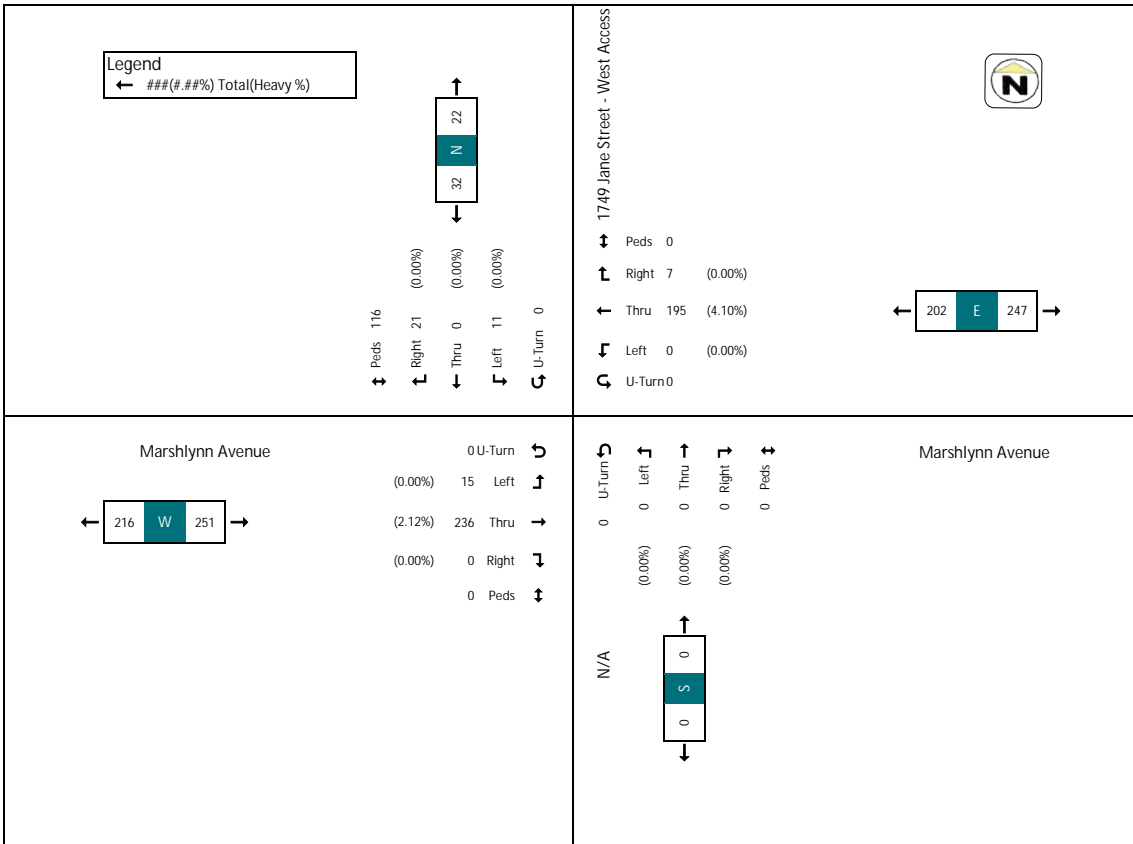
SAT Peak Hour - Jane Street & Marshlynn Avenue

Start Time	Jane Street Southbound						Marshlynn Avenue Westbound						Jane Street Northbound						MacDonald Avenue Eastbound						Grand Total								
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total									
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %																																	
Total %							0.0%						0.0%						0.0%						0.0%								
Right %							0.0%						0.0%						0.0%						0.0%								
Thru %							0.0%						0.0%						0.0%						0.0%								
Left %							0.0%						0.0%						0.0%						0.0%								
U-Turn %							0.0%						0.0%						0.0%						0.0%								
Peds %							0.0%						0.0%						0.0%						0.0%								
Bikes %							0.0%						0.0%						0.0%						0.0%								
Trucks %							0.0%						0.0%						0.0%						0.0%								
Totals							0						0						0						0								
Bicycles							0						0						0						0								
Pedestrians							0						0						0						0								



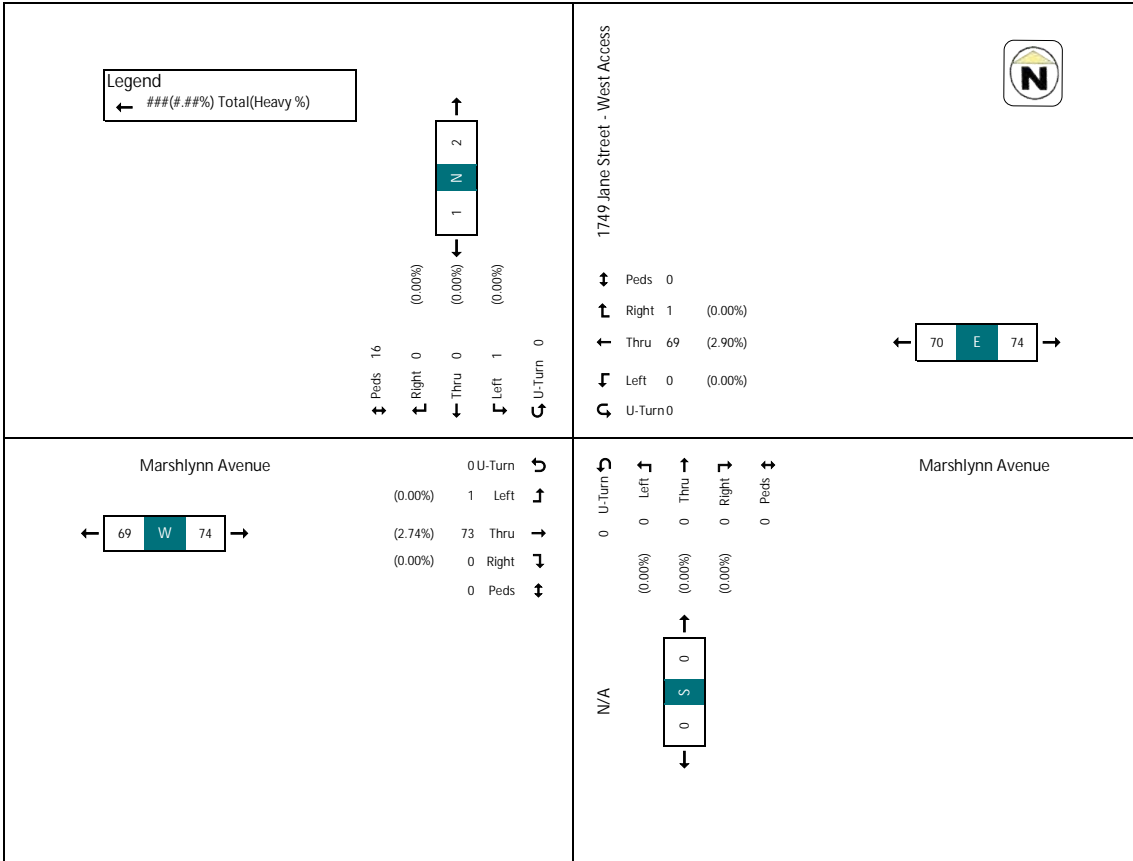
Turning Movement Count - 1749 Jane Street - West Access & Marshlynn Avenue

Start Time	1749 Jane Street - West Access Southbound						Marshlynn Avenue Westbound						N/A Northbound						Marshlynn Avenue Eastbound						Grand Total	
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total		
7:00	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	12
7:15	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
7:30	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	15
7:45	0	0	0	0	11	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Hourly Total	0	0	0	0	6	0	0	0	35	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	66
8:00	0	0	0	0	5	0	0	0	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	28
8:15	0	0	0	0	0	0	0	0	21	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	51
8:30	0	0	0	0	4	1	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	99
8:45	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Hourly Total	0	1	0	0	16	1	0	0	69	1	0	70	0	0	0	0	0	0	0	0	1	73	0	0	0	145
9:00	0	0	0	1	0	1	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	13
9:15	0	0	0	1	2	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Hourly Total	0	0	0	2	2	2	0	0	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Break *																										
15:00	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	20
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
15:30	0	0	0	0	14	0	0	0	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	35
15:45	0	0	0	2	15	2	0	0	9	1	0	10	0	0	0	0	0	0	0	0	0	1	18	0	0	31
Hourly Total	0	4	0	6	50	10	0	0	34	3	0	37	0	0	0	0	0	0	0	0	6	66	0	0	0	119
17:00	0	1	0	3	10	4	0	0	9	0	0	9	0	0	0	0	0	0	0	0	1	17	0	0	0	31
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
17:30	0	0	0	3	8	4	0	0	12	2	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	39
17:45	0	2	0	3	10	0	0	0	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Hourly Total	0	6	0	13	42	19	0	0	44	3	0	47	0	0	0	0	0	0	0	0	6	59	0	0	0	131
Grand Total	0	11	0	21	116	32	0	0	195	7	0	202	0	0	0	0	0	0	0	0	15	236	0	0	0	485
Approach %	0.0%	34.4%	0.0%	65.6%			0.0%	0.0%	96.5%	3.5%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	94.0%	0.0%				
Total %	0.0%	3.3%	0.0%	4.3%			6.6%	0.0%	40.2%	1.4%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	48.7%	0.0%				51.8%
Light %	0	1	0	2			0	0	10	0			0	0	0	0	0	0	0	0	2	24	0			47
% Lights	100.0%	100.0%	100.0%	100.0%			95.9%	100.0%	96.0%				100.0%	97.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	97.9%	96.0%				97.3%
% Buses	0	0	0	0			0	0	2	0			0	0	0	0	0	0	0	0	1	0				4
% Trucks	0	0	0	0			0	0	3	0			0	0	0	0	0	0	0	0	1	0				4
% Trucks	0.0%	0.0%	0.0%	0.0%			1.5%	0.0%	1.5%				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%					0.8%
% Bicycles	0	0	0	0			0	0	0	0			0	0	0	0	0	0	0	0	0	0				0
Pedestrians	0	0	0	0	116		0	0	0	0			0	0	0	0	0	0	0	0	0	0				116



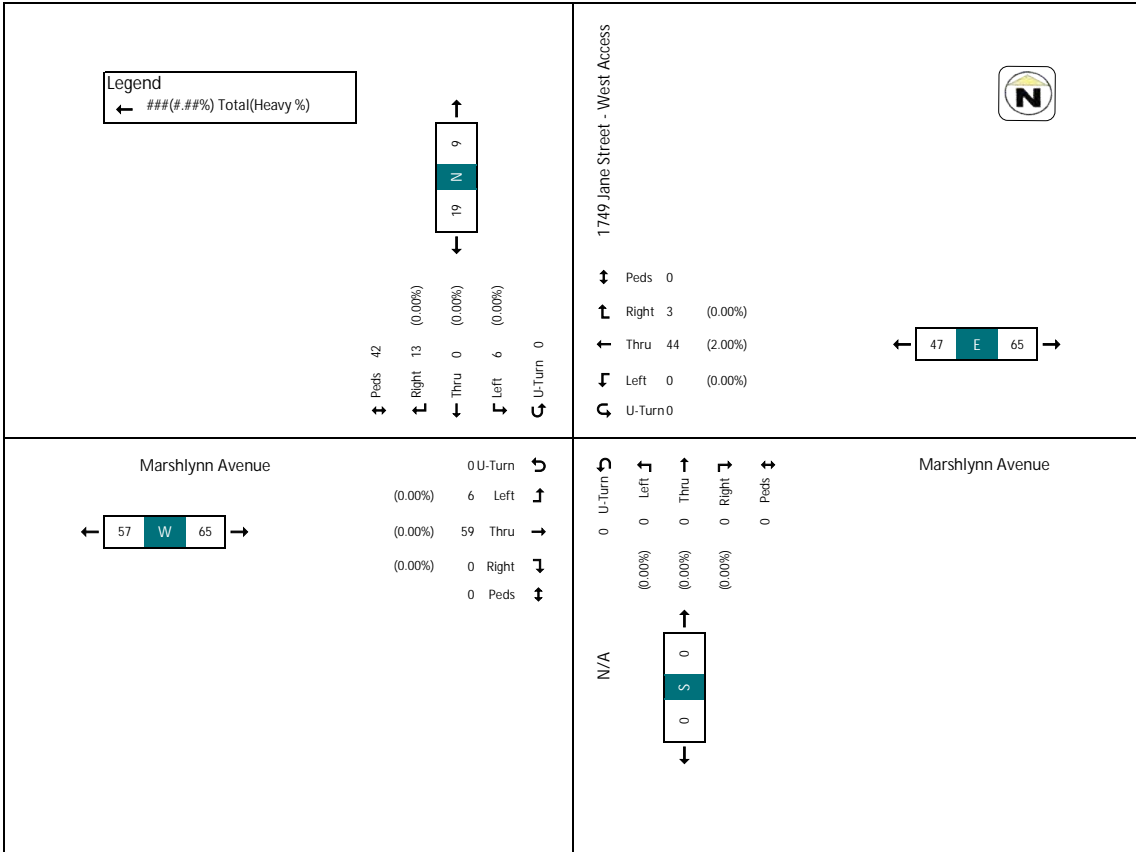
AM Peak Hour - 1749 Jane Street - West Access & Marshlynn Avenue

Start Time	1749 Jane Street - West Access Southbound						Marshlynn Avenue Westbound						N/A Northbound						Marshlynn Avenue Eastbound						Grand Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00	0	0	0	0	5	0	0	0	13	0	0	13	0	0	0	0	0	0	0	0	14	0	0	14	28
8:15	0	0	0	0	4	0	0	0	21	0	0	21	0	0	0	0	0	0	0	0	20	0	0	20	31
8:30	0	0	0	0	3	0	0	0	22	1	0	23	0	0	0	0	0	0	0	0	16	0	0	16	39
8:45	0	1	0	0	4	1	0	0	13	0	0	13	0	0	0	0	0	0	0	0	13	0	0	13	27
Heavy Total	0	1	0	0	16	1	0	0	69	1	0	70	0	0	0	0	0	0	0	78	0	0	74	145	
Approach %	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	98.6%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	98.6%	0.0%	0.0%	0.0%	74
Total %	0.0%	0.7%	0.0%	0.0%	0.7%	0.0%	0.0%	47.6%	0.7%	48.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	50.3%	0.0%	0.0%	51.0%	
PHF	0	0.25	0	0	0.25	0	0	0.78	0.25	0.75	0	0	0	0	0	0	0	0	0	0.25	0.61	0	0	0.62	0.71
% Light	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	97.9%	100.0%	97.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	97.9%	0.0%	0.0%	97.9%	
% Heavy	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	2.1%	
% Trucks	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
% Bicycles	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Pedestrians	0	0	0	0	16	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	13	0	0	13	



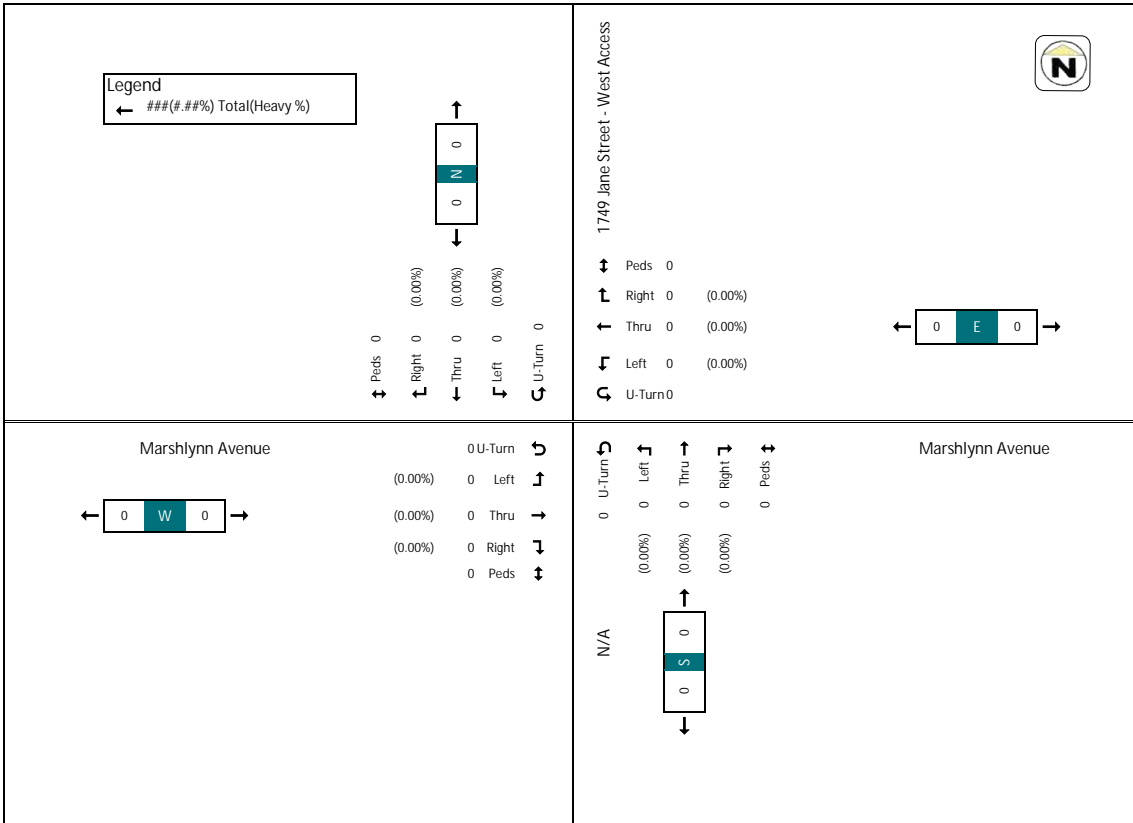
PM Peak Hour - 1749 Jane Street - West Access & Marshlynn Avenue

Start Time	1749 Jane Street - West Access Southbound					Marshlynn Avenue Westbound					N/A Northbound					Marshlynn Avenue Eastbound					Grand Total			
	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru		Right	Peds	App. Total
17:00	0	1	0	3	10	4	0	0	9	0	0	0	0	0	0	0	0	0	0	17	0	0	18	31
17:15	0	2	0	4	14	8	0	0	11	0	0	0	0	0	0	0	0	0	0	4	0	0	4	26
17:30	0	1	0	3	8	4	0	0	7	0	0	0	0	0	0	0	0	0	0	15	0	0	15	39
17:45	0	2	0	3	10	4	0	0	7	0	0	0	0	0	0	0	0	0	0	18	0	0	18	55
Hourly Total	0	6	0	13	42	19	0	0	44	3	0	0	0	0	0	0	0	0	6	59	0	0	65	131
Approach %	0.0%	31.4%	0.0%	48.4%		0.0%	0.0%	93.8%	4.4%			0.0%	0.0%	0.0%	0.0%	0.0%	90.8%	0.0%						
Total %	0.0%	4.6%	0.0%	9.9%		14.2%	0.0%	30.3%	2.2%			0.0%	0.0%	0.0%	0.0%	0.0%	41.3%	0.0%						
PHF	0	0.75	0	0.81		0.79	0	0.92	0.35			0.84	0	0	0	0	0.82	0		0.15	0.82	0	0	0.77
Left %	0	6	0	13		42	0	13	3			0	0	0	0	0	59	0		6	59	0	65	131
% Buses	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Trucks	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Pedestrians	0	0	0	0		0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0
Right %	0	0	0	0		0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0
U-Turn %	0	0	0	0		0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0



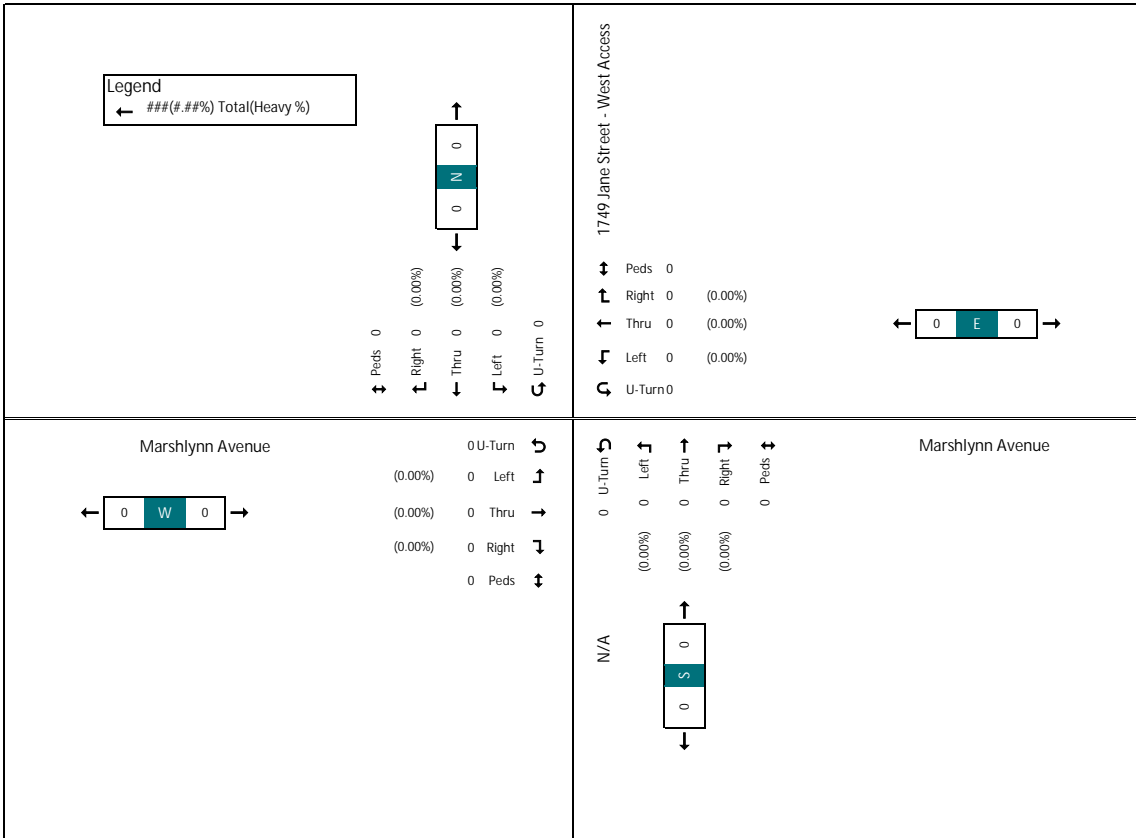
Turning Movement Count - 1749 Jane Street - West Access & Marshlynn Avenue

Start Time	1749 Jane Street - West Access Southbound					Marshlynn Avenue Westbound					N/A Northbound					Marshlynn Avenue Eastbound					Grand Total					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total	
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Approach %																										
Total %																										
% Left																										
% Thru																										
% Right																										
% Buses																										
% Trucks																										
% Bicycles																										
% Pedestrians																										



SAT Peak Hour - 1749 Jane Street - West Access & Marshlynn Avenue

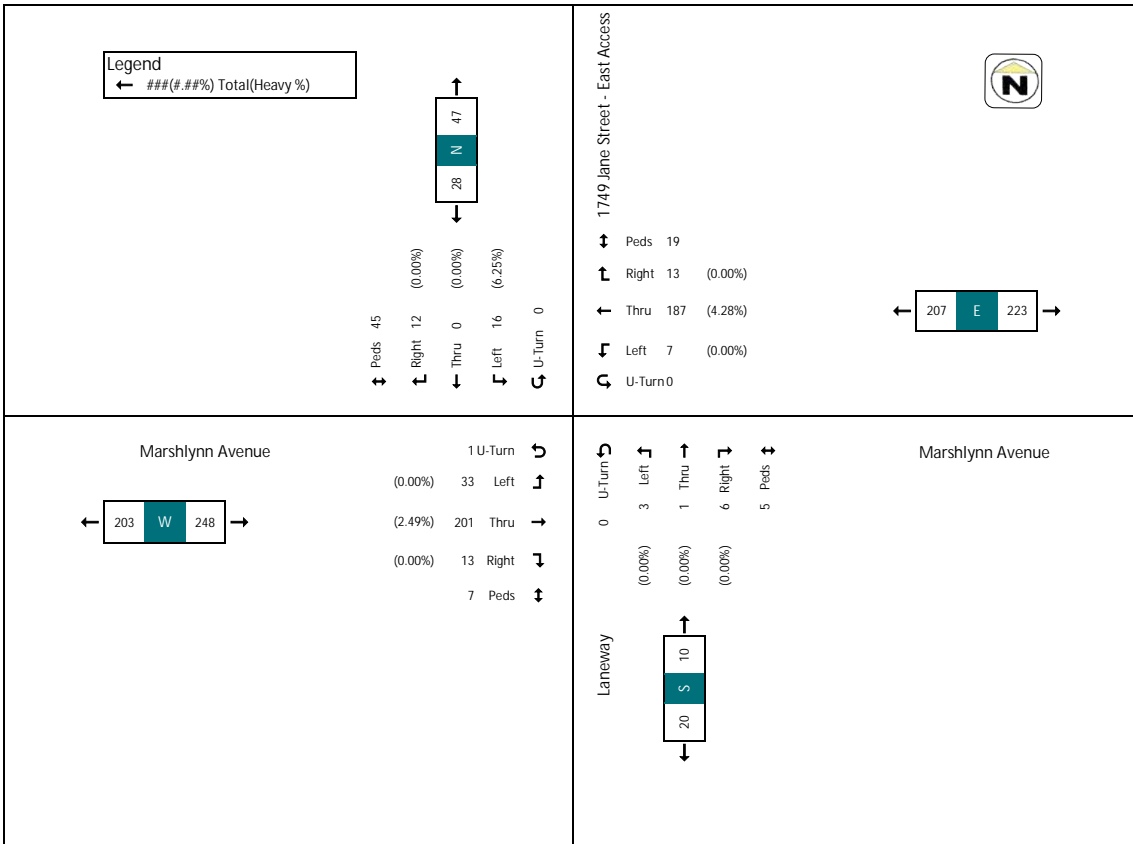
Start Time	1749 Jane Street - West Access Southbound						Marshlynn Avenue Westbound						N/A Northbound						Marshlynn Avenue Eastbound						Grand Total							
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total								
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach % Total %							0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
% Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Thru	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	





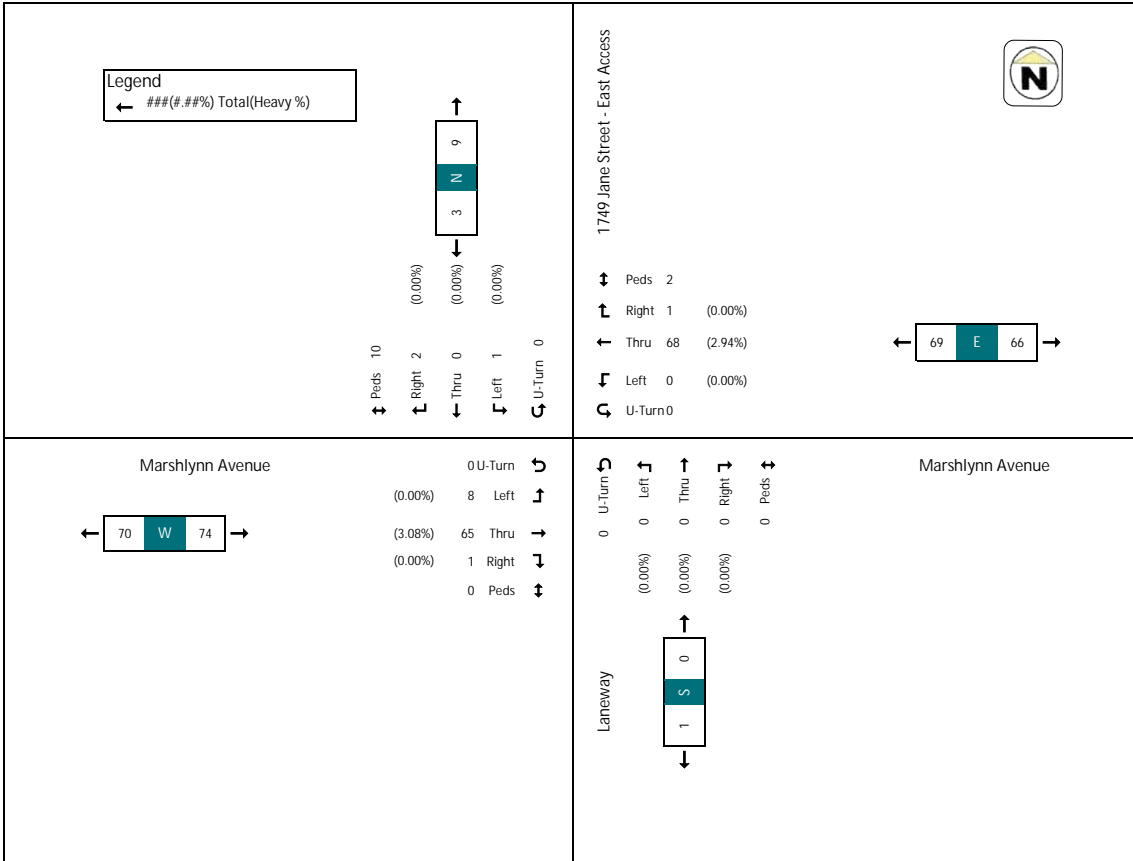
Turning Movement Count - 1749 Jane Street - East Access & Marshlynn Avenue

Table with columns for Start Time, 1749 Jane Street - East Access (Southbound), Marshlynn Avenue (Westbound), Laneway (Northbound), and Marshlynn Avenue (Eastbound). Rows include hourly totals from 7:00 to 16:45, a break, and a Grand Total row. Summary statistics for Approach, Total, Lights, Buses, Trucks, and Pedestrians are provided at the bottom.



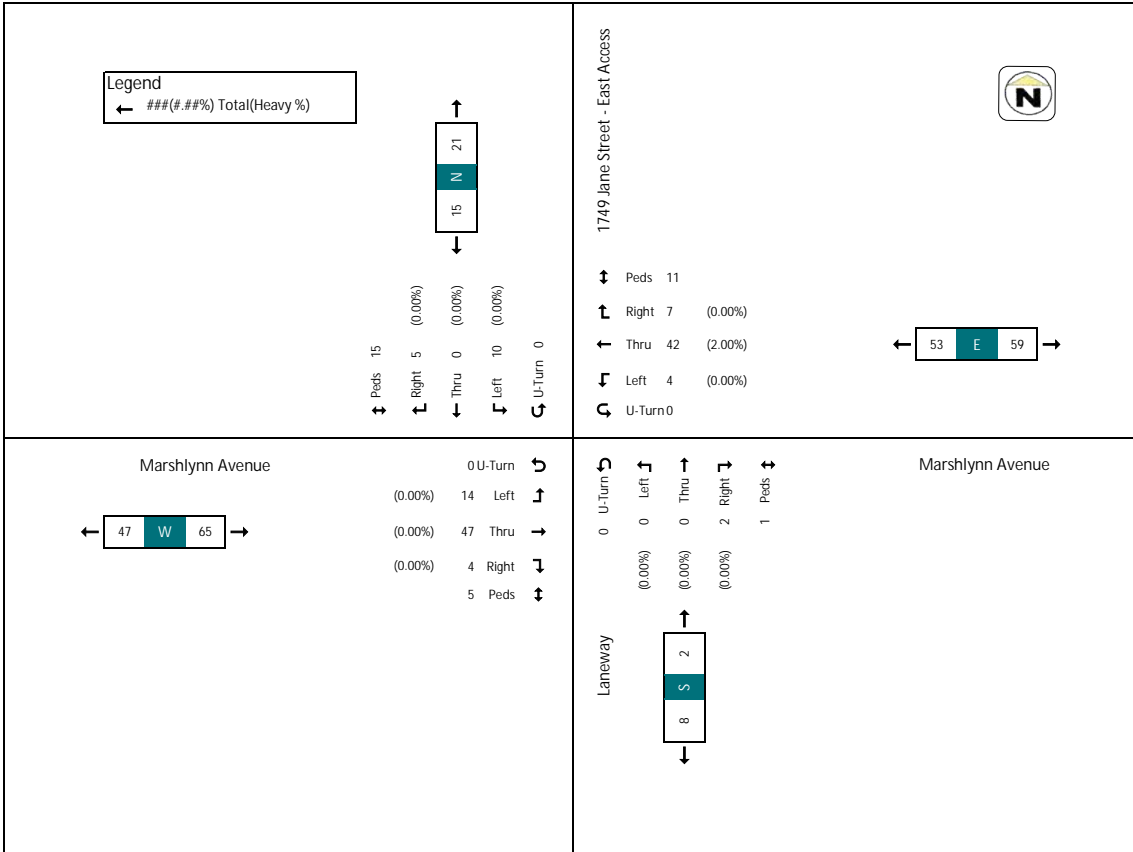
AM Peak Hour - 1749 Jane Street - East Access & Marshlynn Avenue

Start Time	1749 Jane Street - East Access Southbound						Marshlynn Avenue Westbound						Laneway Northbound						Marshlynn Avenue Eastbound						Grand Total	
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total		
8:00	0	1	0	0	1	1	0	0	13	0	1	13	0	0	0	0	0	0	0	0	3	12	0	0	14	28
8:15	0	0	0	0	2	2	0	0	21	0	0	21	0	0	0	0	0	0	0	0	3	25	1	0	26	54
8:30	0	0	0	2	3	2	0	0	21	1	0	22	0	0	0	0	0	0	0	0	3	13	0	0	16	40
8:45	0	0	0	0	4	0	0	0	13	0	1	13	0	0	0	0	0	0	0	0	3	11	0	0	14	27
Heavy Total	0	1	0	2	10	3	0	0	48	1	2	49	0	0	0	0	0	0	0	6	58	1	0	74	146	
Approach %	0.0%	33.3%	0.0%	66.7%			0.0%	0.0%	98.6%	1.4%			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.8%	87.8%	1.4%				
Total %	0.0%	0.7%	0.0%	1.4%	2.1%	0.0%	0.0%	46.6%	0.7%	47.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	44.5%	0.7%			50.7%	
PHF	0	0.25	0	0.25	0.38		0	0	0.81	0.25			0	0	0	0	0	0	0	0.67	0.56	0.25			0.62	0.72
% Light	0	0	0	0	0		0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy	0	0	0	0	0		0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0		0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0.0%	0.0%	0.0%	0.0%	0.0%		0	0	1.5%	0.0%			0	0	0	0	0	0	0	0	3.1%	0.0%			2.7%	2.1%
% Trucks	0	0	0	0	0		0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0.0%	0.0%	0.0%	0.0%	0.0%		0	0	1.5%	0.0%			0	0	0	0	0	0	0	0	3.1%	0.0%			2.7%	2.1%
% Bicycles	0	0	0	0	0		0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians					10					2																12



PM Peak Hour - 1749 Jane Street - East Access & Marshlynn Avenue

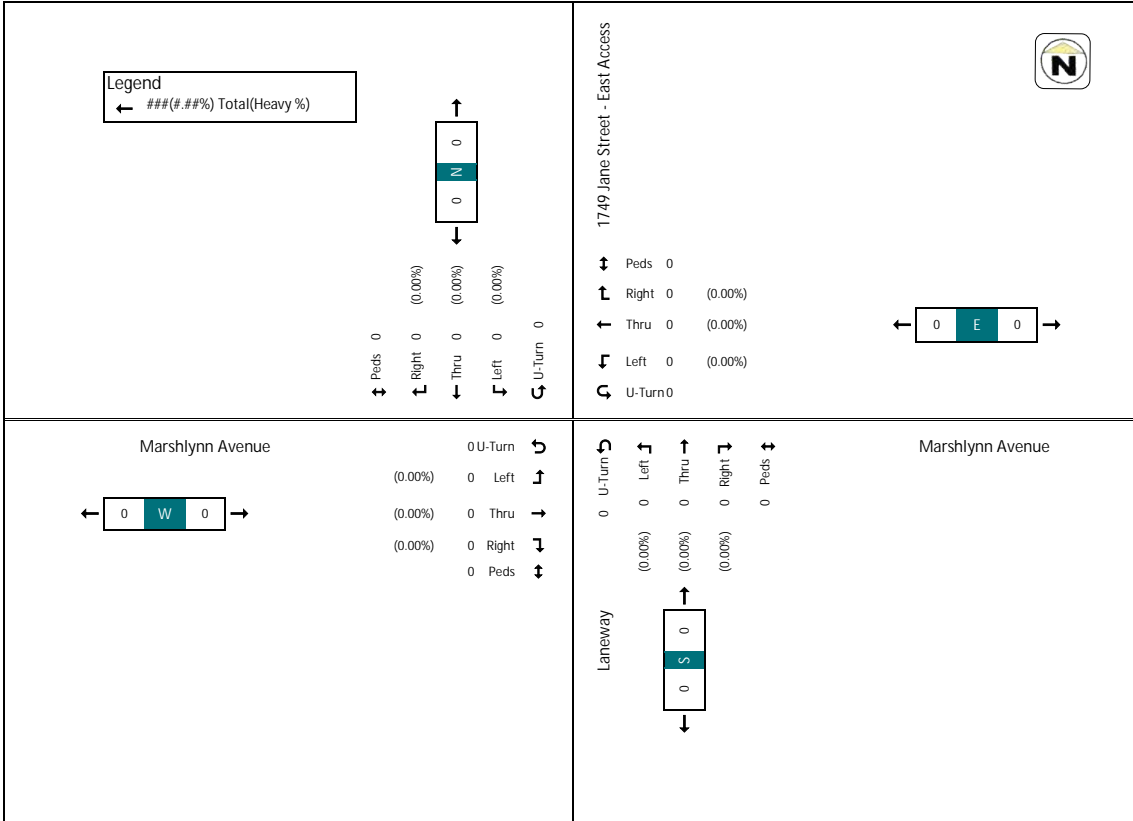
Start Time	1749 Jane Street - East Access Southbound					Marshlynn Avenue Westbound					Laneway Northbound					Marshlynn Avenue Eastbound					Grand Total				
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total
17:00	0	5	0	0	3	5	0	0	9	2	1	11	0	0	0	0	0	0	0	4	11	3	0	18	34
17:15	0	2	0	0	8	3	0	1	12	2	0	15	0	0	0	0	0	1	0	4	1	2	0	8	26
17:30	0	1	0	0	2	3	0	2	12	1	0	15	0	0	0	0	0	0	0	3	6	0	0	9	27
17:45	0	2	0	0	3	5	0	1	7	2	0	9	0	0	0	0	0	0	0	14	0	0	3	20	38
Hourly Total	0	10	0	0	15	15	0	4	42	7	11	53	0	0	0	2	1	2	0	14	47	4	0	65	135
Approach %	0.0%	66.7%	0.0%	0.0%	33.3%		0.0%	1.5%	79.2%	13.7%			0.0%	0.0%	100.0%			0.0%	21.5%	72.5%	4.2%				
Total %	0.0%	7.4%	0.0%	0.0%	3.7%	13.3%	0.0%	2.7%	26.8%	3.2%			0.0%	0.0%	1.6%			1.3%	0.0%	9.0%	22.3%	2.7%			48.1%
PHF	0	0.5	0	0	0.42	0.75	0	0.5	0.88	0.88	0.88	0.88	0	0	0	0.5	0.5	0.5	0	0.58	0.73	0.33	0	0.81	0.99
Left %	0	15	0	0	15	100.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0%	47	4	0	51	133
% Buses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Trucks	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Pedestrians	0	0	0	0	15	100.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15





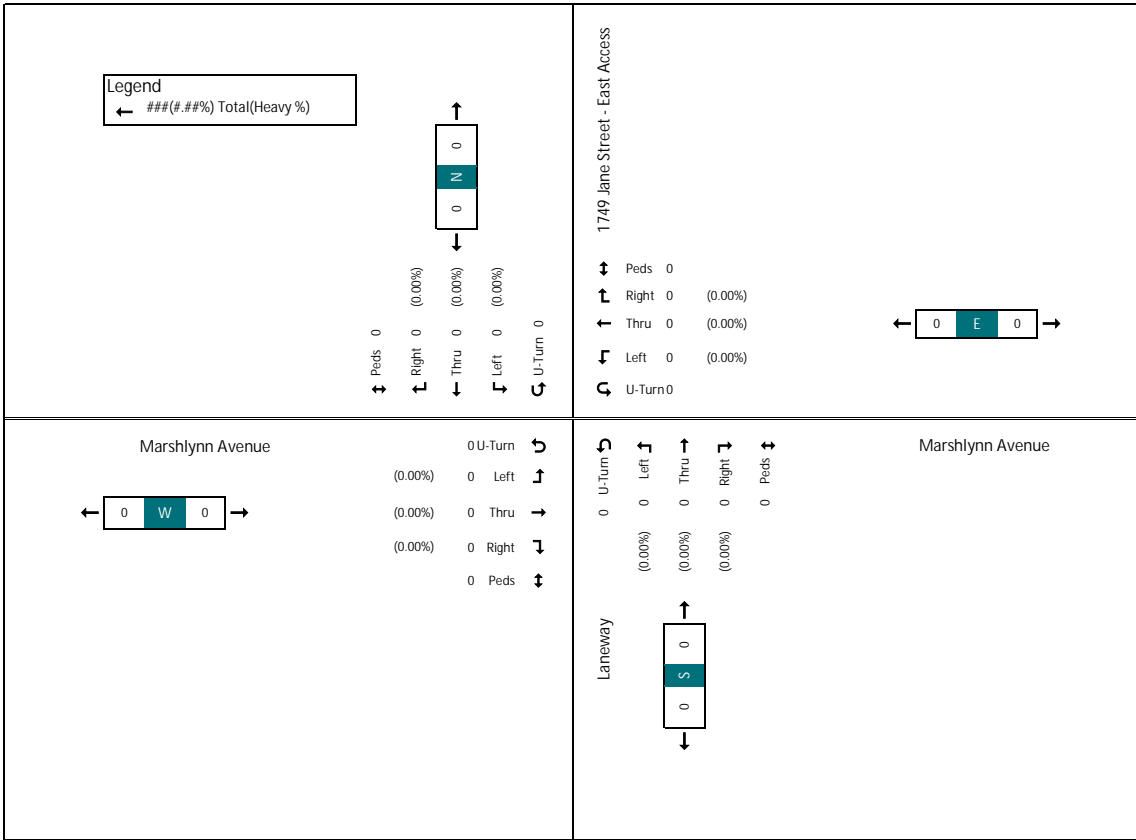
Turning Movement Count - 1749 Jane Street - East Access & Marshlynn Avenue

Start Time	1749 Jane Street - East Access Southbound					Marshlynn Avenue Westbound					Laneway Northbound					Marshlynn Avenue Eastbound					Grand Total					
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left		Thru	Right	Peds	App. Total	
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Approach %																										
Total %																										
% Left																										
% Thru																										
% Right																										
% Buses																										
% Trucks																										
% Bicycles																										
% Pedestrians																										



SAT Peak Hour - 1749 Jane Street - East Access & Marshlynn Avenue

Start Time	1749 Jane Street - East Access Southbound						Marshlynn Avenue Westbound						Laneway Northbound						Marshlynn Avenue Eastbound						Grand Total							
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total								
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %																																
Total %							0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
% Heavy																																
% Trucks																																
% Buses																																
% Bicycles																																
% Pedestrians																																



count_id	location_id	count_date	Location	Interval Time		Cars												Trucks												
				Start	End	SB			NB			WB			EB			SB			NB			WB			EB			
				time_start	time_end	sb_cars_r	sb_cars_t	sb_cars_l	nb_cars_r	nb_cars_t	nb_cars_l	wb_cars_r	wb_cars_t	wb_cars_l	eb_cars_r	eb_cars_t	eb_cars_l	sb_truck_r	sb_truck_t	sb_truck_l	nb_truck_r	nb_truck_t	nb_truck_l	wb_truck_r	wb_truck_t	wb_truck_l	eb_truck_r	eb_truck_t	eb_truck_l	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T07:30:00	2024-06-19T07:45:00	24	140	8	16	198	6	5	59	8	6	119	49	2	7	0	0	1	6	0	0	2	2	1	1	2
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T07:45:00	2024-06-19T08:00:00	25	165	25	18	174	8	5	61	15	6	122	58	1	8	0	0	12	0	0	0	0	1	1	4	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T08:00:00	2024-06-19T08:15:00	28	141	20	28	200	9	4	73	14	17	147	51	1	9	0	0	2	4	1	0	2	0	2	0	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T08:15:00	2024-06-19T08:30:00	25	162	17	19	233	11	8	86	14	10	125	61	1	6	1	0	7	1	0	0	2	0	3	1	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T08:30:00	2024-06-19T08:45:00	24	166	20	20	192	20	9	68	19	15	142	56	0	11	0	0	9	0	1	0	0	1	6	0	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T08:45:00	2024-06-19T09:00:00	19	179	26	22	185	15	17	51	9	19	136	38	1	6	0	1	7	0	0	0	0	0	3	2	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T09:00:00	2024-06-19T09:15:00	26	153	12	17	140	8	12	52	16	18	103	70	0	5	0	2	4	0	0	1	0	1	4	4	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T09:15:00	2024-06-19T09:30:00	25	155	19	10	170	13	8	56	15	15	98	56	2	6	0	1	8	0	0	3	2	1	4	3	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T10:00:00	2024-06-19T10:15:00	31	154	14	15	125	10	9	51	12	14	86	39	1	13	1	1	7	0	0	1	0	0	5	2	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T10:15:00	2024-06-19T10:30:00	42	139	21	23	105	15	12	44	8	14	87	26	2	6	0	1	3	0	0	1	0	0	2	1	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T10:30:00	2024-06-19T10:45:00	24	117	10	29	160	15	11	67	16	8	94	27	1	6	1	2	11	0	0	2	1	0	4	0	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T10:45:00	2024-06-19T11:00:00	41	154	12	19	111	11	13	59	18	21	101	38	0	7	0	0	6	0	0	1	1	1	0	8	2
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T11:00:00	2024-06-19T11:15:00	32	132	14	13	145	18	11	46	19	15	72	39	2	2	1	1	7	0	0	1	1	2	4	1	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T11:15:00	2024-06-19T11:30:00	32	173	22	16	147	17	18	58	16	10	104	36	1	11	0	1	7	1	0	2	1	0	3	5	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T11:30:00	2024-06-19T11:45:00	36	126	19	15	145	19	11	67	22	10	78	35	3	9	0	0	9	0	0	3	0	0	2	4	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T11:45:00	2024-06-19T12:00:00	34	140	20	18	177	17	16	55	17	14	77	44	1	8	1	0	2	0	1	1	0	0	5	1	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T13:00:00	2024-06-19T13:15:00	28	146	16	28	151	16	9	66	24	16	54	25	1	5	0	0	6	1	0	2	0	0	3	1	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T13:15:00	2024-06-19T13:30:00	28	139	14	21	159	18	11	70	17	14	87	38	2	4	1	0	6	1	0	0	0	1	2	2	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T13:30:00	2024-06-19T13:45:00	36	140	17	20	160	14	8	59	21	10	98	40	1	5	0	0	5	0	0	2	0	0	3	0	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T13:45:00	2024-06-19T14:00:00	28	137	11	25	160	17	14	93	24	18	72	38	1	6	0	0	8	0	0	0	1	0	1	0	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T14:00:00	2024-06-19T14:15:00	36	161	21	22	181	13	9	80	21	23	90	32	0	6	0	1	8	1	0	3	1	0	2	1	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T14:15:00	2024-06-19T14:30:00	31	183	18	21	162	19	6	56	15	15	109	48	2	4	1	0	4	1	1	2	0	2	0	2	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T14:30:00	2024-06-19T14:45:00	26	191	15	22	222	14	7	78	23	20	99	31	2	6	0	0	7	1	0	3	0	1	4	1	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T14:45:00	2024-06-19T15:00:00	39	206	16	18	201	23	10	97	18	14	112	32	0	6	1	0	11	0	0	1	0	0	7	2	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T15:00:00	2024-06-19T15:15:00	26	229	18	33	214	15	9	99	27	14	149	47	1	4	0	0	6	0	0	1	0	0	2	4	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T15:15:00	2024-06-19T15:30:00	26	188	11	30	197	14	11	76	23	17	138	55	0	1	0	0	1	1	0	1	0	0	4	1	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T15:30:00	2024-06-19T15:45:00	22	219	11	10	212	12	11	78	24	22	139	50	0	3	1	1	6	0	0	2	0	0	3	0	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T15:45:00	2024-06-19T16:00:00	18	207	15	9	222	18	16	94	22	21	104	61	1	4	0	0	4	0	0	1	0	0	1	0	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T17:00:00	2024-06-19T17:15:00	26	226	11	11	226	13	3	85	26	24	123	49	0	2	1	0	2	0	0	4	1	0	0	1	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T17:15:00	2024-06-19T17:30:00	22	211	14	19	227	11	10	91	21	24	137	46	0	1	0	1	5	0	0	0	0	0	0	0	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T17:30:00	2024-06-19T17:45:00	25	227	19	19	181	16	9	93	37	19	139	50	1	0	1	0	3	0	0	0	0	1	0	0	
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T17:45:00	2024-06-19T18:00:00	15	193	15	15	193	20	10	112	27	26	140	38	0	1	0	0	3	0	0	0	0	0	2	0	

count_id	location_id	count_date	Location	Interval Time		Buses												Pedestrians				Bicycles Crossings				Non-vehicle modes			
				Start	End	SB			NB			WB			EB			North Side	South Side	East Side	West Side	North Side	South Side	East Side	West Side	North Side	South Side	East Side	West Side
				time_start	time_end	sb_bus_r	sb_bus_t	sb_bus_l	nb_bus_r	nb_bus_t	nb_bus_l	wb_bus_r	wb_bus_t	wb_bus_l	eb_bus_r	eb_bus_t	eb_bus_l	nx_peds	sx_peds	ex_peds	wx_peds	nx_bike	sx_bike	ex_bike	wx_bike	nx_other	sx_other	ex_other	wx_other
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T07:30:00	2024-06-19T07:45:00	0	5	0	1	5	0	0	4	7	1	16	24	20	15	0	2	2	0	0	0	0	0	0	0
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T07:45:00	2024-06-19T08:00:00	1	5	2	2	7	0	0	3	6	2	5	6	0	34	24	14	25	3	3	1	1	0	0	0
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T08:00:00	2024-06-19T08:15:00	1	6	1	0	1	1	1	6	0	2	8	1	23	34	22	26	1	1	0	0	0	0	0	0
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T08:15:00	2024-06-19T08:30:00	1	8	1	2	6	1	1	6	0	4	6	1	31	46	20	21	0	2	0	0	0	0	0	0
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T08:30:00	2024-06-19T08:45:00	0	7	1	1	4	0	0	6	1	3	7	0	37	34	37	18	1	1	0	0	0	0	0	0
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T08:45:00	2024-06-19T09:00:00	0	2	1	0	5	0	0	7	0	4	4	0	19	46	21	32	0	1	0	0	0	0	0	0
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T09:00:00	2024-06-19T09:15:00	1	7	0	0	8	0	1	3	0	4	2	25	20	15	22	0	2	1	0	0	0	0	0	0
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T09:15:00	2024-06-19T09:30:00	2	4	0	0	8	0	0	12	0	1	6	0	14	40	37	19	0	1	0	0	0	0	0	0
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T10:00:00	2024-06-19T10:15:00	2	5	0	0	2	0	0	4	1	2	4	0	16	22	34	31	0	0	0	0	0	0	0	0
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX 430)	2024-06-19T10:15:00	2024-06-19T10:30:00	2	1	0	0	6	0	0	3	0	1	0	21	34	24	16	2	0	0	0	0	0	0	0	0
100809	5799	2024-06-19	JANE ST AT LAWRENCE AVE (PX																										

LOCATION:	Jane St & Lawrence Ave	ATO / DISTRICT / WARD:	Area 2 / Etobicoke York / Ward 5
MODE/COMMENT:	SA1 with 2-Wire Polara APS & TSP*	COMPUTER SYSTEM:	TransSuite
TCS:	430	CONTROLLER/CABINET TYPE:	Peek ATC-1000 / TS2T1
PREPARED BY / DATE:	HDR / December 24, 2020	CONFLICT FLASH:	Red & Red
CHECKED BY / DATE:	Syed Qasim/Ihtesham Ahmad / January 04, 2021	DESIGN WALK SPEED:	0.9 m/s (FDW based on full crossing at 1.1 m/s)
IMPLEMENTATION DATE:	February 8, 2021	CHANNEL/DROP:	4023/13
		CONTROLLER FIRMWARE:	3.018.1.2976



NEMA Phase	Local Plan Split Table	OFF	AM	PM	NGHT	WKND	401 Closure	Phase Mode (Fixed/Demanded/Callable)	Remarks
		All Other Times	06:30-09:30 M-F	15:00-19:00 M-F	22:00-06:30 Daily	10:00-19:00 Sat - Sun			
		Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5			
1 	WLK 6 FDW 6 MIN 6 MAX1 3.3 AMB 3.7 ALR SPLIT	13	13	13			13	Callable/Extendable by setback Wavetronix detector	Pedestrian Minimums: NSWK = 8 sec, NSFD = 25 sec EWWK = 8 sec, EWFD = 25 sec APS on during NSWK & EWWK when activated by push buttons & no LT arrows are displayed. Extended Push Activation = 3 sec *See back for TSP instructions
2 Jane St 	WLK 8 FDW 25 MIN 33 MAX1 33 AMB 3.3 ALR 2.8 SPLIT	40	41	48	40	42	47	Fixed POZ activated by Request Loop (max extension of 16 sec in Green/Don't Walk)	TSP enabled on September 13, 2016. Left-Turn Passage Time = 2 sec
3 	WLK 6 FDW 6 MIN 6 MAX1 3.3 AMB 4.0 ALR SPLIT			14				Callable/Extendable by setback Wavetronix detector	
4 Lawrence Ave 	WLK 8 FDW 25 MIN 33 MAX1 36 AMB 3.3 ALR 3.1 SPLIT	43	56	45	42	55	60	Fixed (truncations allowable to pedestrian minimum)	
5 	WLK 6 FDW 6 MIN 6 MAX1 3.3 AMB 3.7 ALR SPLIT	13	13	13			13	Callable/Extendable by Setback Loop	
6 Jane St 	WLK 8 FDW 25 MIN 33 MAX1 33 AMB 3.3 ALR 2.8 SPLIT	40	41	48	40	42	47	Fixed POZ activated by Request Loop (max extension of 16 sec in Green/Don't Walk)	
7 	WLK 6 FDW 6 MIN 6 MAX1 3.3 ALR 4.1 SPLIT		14	14		14	14	Callable/Extendable by Setback Loop	
8 Lawrence Ave 	WLK 8 FDW 25 MIN 33 MAX1 36 AMB 3.3 ALR 3.1 SPLIT	43	42	45	42	41	46	Fixed (truncations allowable to pedestrian minimum)	
	CL	96	110	120	82	110	120		
	OF	85	96	62	47	85	33		

Notes:

LOC: Jane St & Lawrence Ave
 MODE: SA1 with 2-Wire Polara APS & TSP*
 TCS: 430

OFFSET CORRECTION PARAMETERS

2.3.4 O.C. Extend / Reduce (Max. time added & subtracted in sec.) From page 1

		Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8	[Cycle]	[Slop]	O.C.	Thres.
OFF													
Split 1	Ext.	--	22	--	23	--	22	--	23	96	3	6	6 %
	Rdc.	--	--	--	2	--	--	--	2				
AM													
Split 2	Ext.	--	26	--	26	--	26	--	26	110	3	7	5 %
	Rdc.	--	1	--	2	--	1	1	1				
PM													
Split 3	Ext.	--	24	--	24	--	24	--	24	120	13	24	25 %
	Rdc.	--	8	--	4	--	8	--	4				
NIGHT													
Split 4	Ext.	--	20	--	20	--	20	--	20	82	2	3	7 %
	Rdc.	--	--	--	1	--	--	--	1				
WKND													
Split 5	Ext.	--	26	--	26	--	26	--	26	110	3	7	5 %
	Rdc.	--	2	--	1	--	2	1	--				
401 Closure													
Split 18	Ext.	--	23	--	24	--	23	--	24	120	13	26	25 %
	Rdc.	--	7	--	6	--	7	1	5				

OC Threshold is set to lower values due to limited slop. For Patterns 1, 2, 4 & 5 Timer could take up to 3 cycles to get back In Sync in OC-Recovery
 OC Rdc for Phase 4/8 must be limited to not reduce more than the available time as calculated with the longer left turn clearances applied.

2.8.6 TSP Split Tables: 1

	Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8
GRN EXT (SDW Extension)	--	16	--	--	--	16	--	--
GRN RDC (Reduction)	--	--	--	-2	--	--	--	-2
WLK EXT (Walk Extension)	--	--	--	--	--	--	--	--

2.8.6 TSP Split Tables: 2 & 4

	Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8
GRN EXT (SDW Extension)	--	16	--	--	--	16	--	--
GRN RDC (Reduction)	--	--	--	-1	--	--	--	-1
WLK EXT (Walk Extension)	--	--	--	--	--	--	--	--

2.8.6 TSP Split Tables: 3

	Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8
GRN EXT (SDW Extension)	--	--	--	--	--	--	--	--
GRN RDC (Reduction)	--	--	--	--	--	--	--	--
WLK EXT (Walk Extension)	--	--	--	--	--	--	--	--

2.8.6 TSP Split Tables: 5

	Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8
GRN EXT (SDW Extension)	--	16	--	--	--	16	--	--
GRN RDC (Reduction)	--	--	--	--	--	--	--	--
WLK EXT (Walk Extension)	--	--	--	--	--	--	--	--

2.8.6 TSP Split Tables: 16

	Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8
GRN EXT (SDW Extension)	--	16	--	--	--	16	--	--
GRN RDC (Reduction)	--	--	--	-5	--	--	--	-5
WLK EXT (Walk Extension)	--	--	--	--	--	--	--	--

T.S.P. PARAMETERS

TSP RUN # 2	TSP RUN # 6
NB Thru	SB Thru

2.8.2 Transit Run Parameters

ATC Green Extend Mode (Equivalent TTC Algorithm)	Mode 0	Mode 0
	B-2	B-2

2.8.3 Transit Action Plan 1 (Used for Pattern 1 & 16)

Run Enable (X = Yes)	X	X
Run Config = 1	Recovery = 2 (O.C. with delay)	

2.8.3 Transit Action Plan 2 (Used for Pattern 2)

Run Enable (X = Yes)	X	X
Run Config = 2	Recovery = 2 (O.C. with delay)	

2.8.3 Transit Action Plan 3 (Used for Pattern 3)

Run Enable (X = Yes)		
Run Config = 3	Recovery = 2 (O.C. with delay)	

2.8.3 Transit Action Plan 4 (Used for Pattern 4)

Run Enable (X = Yes)	X	X
Run Config = 4	Recovery = 2 (O.C. with delay)	

2.8.3 Transit Action Plan 5 (Used for Pattern 5)

Run Enable (X = Yes)	X	X
Run Config = 5	Recovery = 2 (O.C. with delay)	

2.8.4 Transit Run Configuration 1

Delay / Extend / Fail	5* / -- / 235	* / -- / 235
CALLS (and Extends)	Ø 2/6	Ø 2/6
Skips	--	--
Reduces (Truncates)	Ø 4/8	Ø 4/8

2.8.4 Transit Run Configuration 2

Delay / Extend / Fail	* / -- / 235	* / -- / 235
CALLS (and Extends)	Ø 2/6	Ø 2/6
Skips	--	--
Reduces (Truncates)	Ø 4/8	Ø 4/8

2.8.4 Transit Run Configuration 3

Delay / Extend / Fail	-- / -- / 235	-- / -- / 235
CALLS (and Extends)	--	--
Skips	--	--
Reduces (Truncates)	--	--

2.8.4 Transit Run Configuration 4

Delay / Extend / Fail	3* / -- / 235	* / -- / 235
CALLS (and Extends)	Ø 2/6	Ø 2/6
Skips	--	--
Reduces (Truncates)	Ø 4/8	Ø 4/8

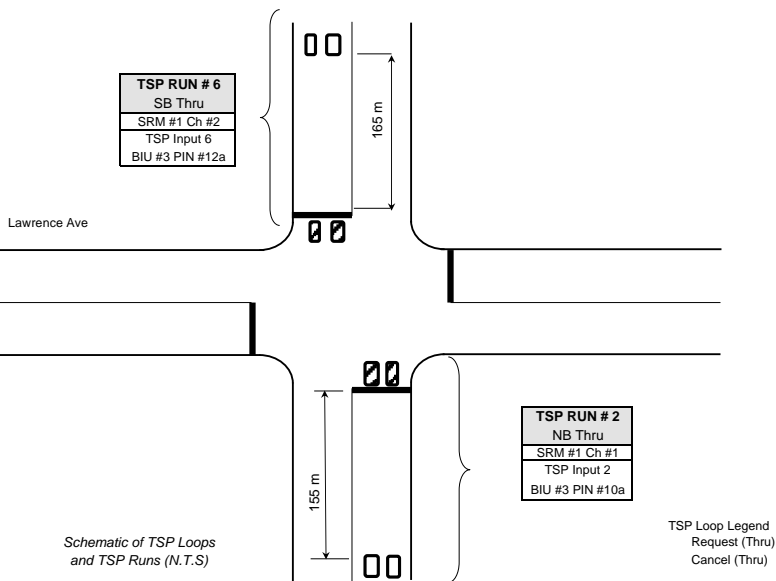
2.8.4 Transit Run Configuration 5

Delay / Extend / Fail	5* / -- / 235	* / -- / 235
CALLS (and Extends)	Ø 2/6	Ø 2/6
Skips	--	--
Reduces (Truncates)	Ø 4/8	Ø 4/8

*Script #4 uses an ELAPSED time to emulate 21s of delay for TSP Run 2 and for TSP Run 6. The elapsed time is needed because delays are longer than or close to the FDW time.

Screen 2.1.9.2 Advanced I/O Script

Input Script #4 TCS430FilterB2
 Blocks out TSP calls except during Phase 2/6 FDW and SDW, and Phase 4/8 WLK. The script also use elapsed time to emulate 21s of delay for TSP Run#2 delay and TSP Run#6 because the delay times are close to, or longer than the FDW of 24s.
 TSP Inputs can be checked on Screen 1.2.4 at all times.



Notes:
 TSP is not enabled during Pattern 3 due to a firmware 3.18.1.2976 issue with TSP and all 8 phases programmed.

ATC Mode	0	2	3	4
TTC Algor'm	B-2	A	C	D
Extensions	SDW	Walk	W/SDW	W/SDW

TSP SUMMARY
 Maximum Green Extensions:
 EWG: 16 s Green/SDW
 Phase 4 & 8 truncation

TSP Loop Legend
 Request (Thru)
 Cancel (Thru)

LOCATION:	Jane St & John St	DISTRICT:	Etobicoke York
MODE/COMMENT:	SA2-VMG with PR & TSP*	COMPUTER SYSTEM:	TransSuite
TCS:	943	CONTROLLER/CABINET TYPE:	Peek ATC-1000 / TS2T1
PREPARED BY / DATE:	Tony Yuen / August 18, 2022	CONFLICT FLASH:	Red & Red
CHECKED BY / DATE:	Masoud Ramezani / August 18, 2022	DESIGN WALK SPEED:	1.0 m/s (FDW based on full crossing at 1.2 m/s)
IMPLEMENTATION DATE:	August 24, 2022	CHANNEL/DROP:	4025/14
		CONTROLLER FIRMWARE:	3.018.1.2976



NEMA Phase	Local Plan Split Table	OFF	AM	PM	NGHT	WKND	Phase Mode (Fixed/Demanded/Callable)	Remarks
		All Other Times	06:30-09:30 M-F	15:00-19:00 M-F	22:00-06:30 Daily	10:00-19:00 Sat & Sun		
		Pattern 1 Split 1	Pattern 2 Split 2	Pattern 3 Split 3	Pattern 4 Split 4	Pattern 5 Split 5		
1 	WLK FDW MIN MAX1 AMB ALR SPLIT							Pedestrian Minimums: NSWK = 7 sec, NSFD = 9 sec EWWK = 7 sec, EWFD = 14 sec EW phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum EWG is 7 seconds. If ongoing vehicle demand exists on the detection zone, the EWG is capable of providing vehicle extensions up to the maximum green split. If a pedestrian call is received, the pedestrian minimum will be served. The EWWK & EWFD are only displayed on the pedestrian signal heads if a pedestrian call is received. Extension time is based on vehicle demand. Unused extension time is given to the NSG.
2 Jane St 	WLK 7 FDW 9 MIN 16 MAX1 63 AMB 4 ALR 2 SPLIT						Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	Side Street Passage Time = 3 sec *See back for TSP Instructions.
3 	WLK FDW MIN MAX1 AMB ALR SPLIT							TSP enabled for NB & SB directions on November 28, 2014. Script #2 is used to mitigate issues with TSP operation in ATC-1000 firmware version 3.018.1.2976
4 John St 	WLK 7 FDW 14 MIN 7 MAX1 21 AMB 3 ALR 2 SPLIT						Callable by Stopbar Loop and/or Pushbutton; Extendable by Stopbar Loop.	
5 	WLK FDW MIN MAX1 AMB ALR SPLIT							
6 Jane St 	WLK 7 FDW 9 MIN 16 MAX1 63 AMB 4 ALR 2 SPLIT						Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	
7 	WLK FDW MIN MAX1 AMB ALR SPLIT							
8 John St 	WLK 7 FDW 14 MIN 7 MAX1 21 AMB 3 ALR 2 SPLIT						Callable by Wavetronix Overhead Detector and/or Pushbutton; Extendable by Wavetronix	
	CL OF	94 38	106 42	106 89	76 10	106 22		

Notes:

LOC: Jane St & John St
 MODE: SA2-VMG with PR & TSP*
 TCS: 943 PREPARATION DATE (TIMING CARD): October 26, 2018

OFFSET CORRECTION PARAMETERS

2.3.4 O.C. Extend / Reduce (Max. time added & subtracted in sec.) From page 1

		Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8	(Cycle)	(Slop)
OFF											
Split 1	Ext.	--	35	--	--	--	35	--	--	94	46
	Rdc.	--	46	--	--	--	46	--	--		
AM											
Split 2	Ext.	--	40	--	--	--	40	--	--	106	58
	Rdc.	--	58	--	--	--	58	--	--		
PM											
Split 3	Ext.	--	40	--	--	--	40	--	--	106	58
	Rdc.	--	58	--	--	--	58	--	--		
NGHT											
Split 4	Ext.	--	29	--	--	--	29	--	--	76	28
	Rdc.	--	28	--	--	--	28	--	--		
WKND											
Split 5	Ext.	--	40	--	--	--	40	--	--	106	58
	Rdc.	--	58	--	--	--	58	--	--		

2.3.2.x O.C.

Thres. Pattern 1	24 s [25 %]
Pattern 2	27 s [25 %]
Pattern 3	27 s [25 %]
Pattern 4	19 s [25 %]
Pattern 5	27 s [25 %]

T.S.P. PARAMETERS

PREPARED: Parsons

TSP RUN # 2	TSP RUN # 6
NB Thru	SB Thru

2.8.2 Transit Run Parameters

ATC Green Extend Mode (Equivalent TTC Algorithm)	Mode 2 A	Mode 2 A
--	----------	----------

2.8.3 Transit Action Plan 1 (Used for all Patterns)

Run Enable (X = Yes)	X	X
Run Config = 1	Recovery = 2 (O.C. with delay)	

2.8.4 Transit Run Configuration 1

Delay / Extend / Fail	-- / -- / 235	-- / -- / 235
CALLS (and Extends)	Ø 2/6	Ø 2/6
Skips	--	--
Reduces (Truncates)	--	--

Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8
-----	-----	-----	-----	-----	-----	-----	-----

2.8.6 TSP Split Tables: 1, 2, 3, 4, & 5

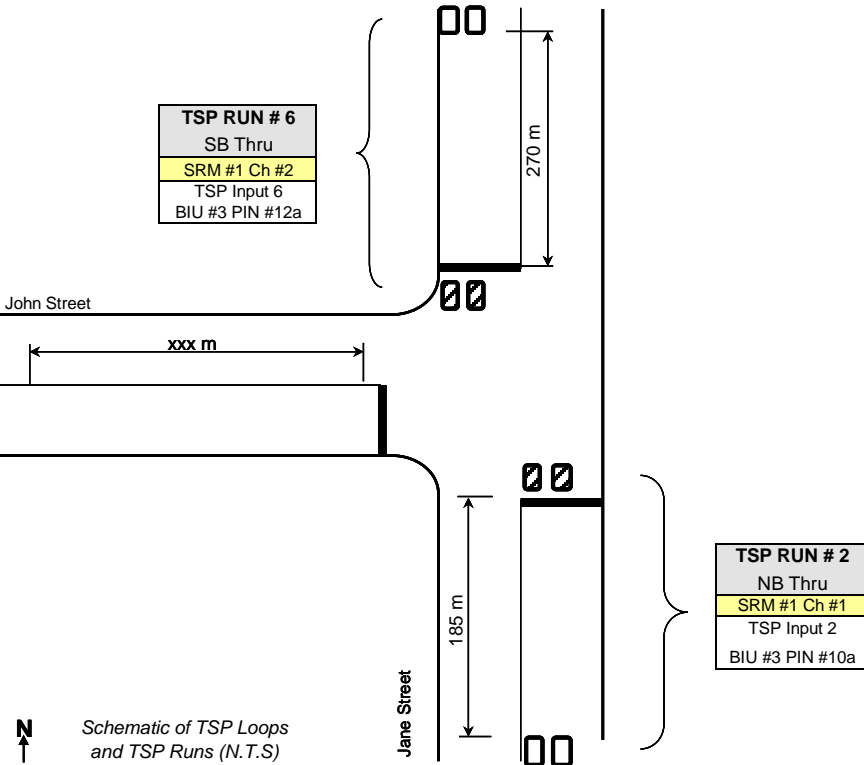
GRN EXT (SDW Extension)	--	--	--	--	--	--	--
GRN RDC (Reduction)	--	--	--	--	--	--	--
WLK EXT (Walk Extension)	--	30	--	--	--	30	--

2.1.9.2 Advanced I/O Scripts

Input Script 2 "TSPFilterA"

Blocks TSP inputs 2 & 6 during phase 4/8 Amb & AllR, and during unused time served in phase 2/6 late in the cycle, to mitigate firmware issues with ATC-1000 Build 3.018.1.2976

TSP Inputs can be checked on screen 1.2.4 at all times.

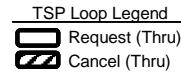


Notes:
 TSP truncations of phases 4 and 8 are approved but there currently is no slop available in these phases.

ATC Mode	0	2	3	4
TTC Algor'm	B-2	A	C	D
Extensions	SDW	Walk	W/SDW	W/SDW


TSP SUMMARY

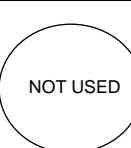
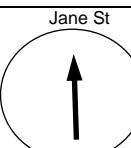
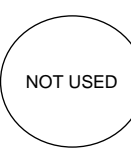
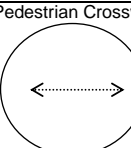
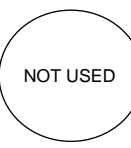
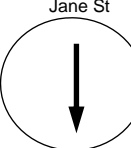
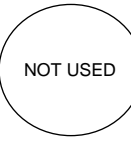
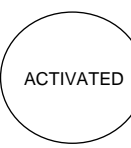
Maximum Green Extensions:
 NSG: 30 s Green/WLK



LOCATION: Jane St & 35m North of Marshlynn Ave / MacDonald Ave
MODE/COMMENT: PA - MPS with 2-Wire Polara APS & TSP*
TCS: 1675
PREPARED BY / DATE: Tony Zhao / October 09, 2019
CHECKED BY / DATE: Masoud Ramezani / October 31, 2019
IMPLEMENTATION DATE: May 27, 2020

ATO (District) / WARD: 2 (Etobicoke York) / 5
COMPUTER SYSTEM: TransSuite
CONTROLLER/CABINET TYPE: Peek ATC-1000 / TS2T1
CONFLICT FLASH: Red & Red
DESIGN WALK SPEED: 1.0 m/s (FDW based on full crossing @1.2m/s)
CHANNEL/DROP:
CONTROLLER FIRMWARE: 3.018.1.2976

N


NEMA Phase	Local Plan Split Table	OFF	AM	PM	NGHT	WKND	Phase Mode (Fixed/Demanded/Callable)	Remarks
		All Other Times	06:30-09:30 M-F	15:00-19:00 M-F	22:00-06:30 Daily	10:00-19:00 Sat & Sun		
		Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5		
1 	WLK FDW MIN MAX1 AMB ALR SPLIT							Pedestrian Minimums: EWWK = 7 sec, EWFD = 13 sec EW phase is callable by pedestrian actuation. APS on during NSWK & EWWK when activated by push buttons Extended Push Activation = 3 sec *See back for TSP instructions
2 Jane St 	WLK 26 FDW 1 MIN 27 MAX1 64 AMB 4 ALR 2 SPLIT						Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	TSP enabled on September 13, 2016.
3 	WLK FDW MIN MAX1 AMB ALR SPLIT							
4 Pedestrian Crosswalk 	WLK 7 FDW 13 MIN 20 MAX1 20 AMB 3 ALR 1 SPLIT						Callable by Pushbutton	
5 	WLK FDW MIN MAX1 AMB ALR SPLIT							
6 Jane St 	WLK 26 FDW 1 MIN 27 MAX1 64 AMB 4 ALR 2 SPLIT						Fixed POZ activated by Request Loop (max extension of 30 secs in Green/Walk)	
7 	WLK FDW MIN MAX1 AMB ALR SPLIT							
8 	WLK 7 FDW 13 MIN 20 MAX1 20 AMB 3 ALR 1 SPLIT							
	CL OF	94 87	106 102	106 38	76 42	106 3		

NOTES:
 Phase 2/6 FDW reduced to 1 sec to prevent unnecessary TSP extensions in WLK. Phase 2/6 WLK increased to maintain the same minimum green time.
 Phase 2/6 WLK and FDW are 'dummy' and are not served on street. Used as a workaround with TSP

LOC: Jane St & 35m North of Marshlynn Ave / MacDonald Ave
 MODE: PA - MPS with 2-Wire Polara APS & TSP*
 TCS: 1675 PREPARATION DATE (TIMING CARD): October 9, 2019

OFFSET CORRECTION PARAMETERS

2.3.4 O.C. Extend / Reduce (Max. time added & subtracted in sec.) From page 1
 Ø 1 Ø 2 Ø 3 Ø 4 Ø 5 Ø 6 Ø 7 Ø 8 [Cycle] [Slop]

Split	Ext.	Rdc.	Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8	Cycle	Slop	Thres.
Split 1	Ext.	--	35	--	--	--	35	--	--	--	94	37	24 s [25 %]
	Rdc.	--	37	--	--	--	37	--	--	--			
Split 2	Ext.	--	40	--	--	--	40	--	--	--	106	49	27 s [25 %]
	Rdc.	--	49	--	--	--	49	--	--	--			
Split 3	Ext.	--	40	--	--	--	40	--	--	--	106	49	27 s [25 %]
	Rdc.	--	49	--	--	--	49	--	--	--			
Split 4	Ext.	--	29	--	--	--	29	--	--	--	76	19	19 s [25 %]
	Rdc.	--	19	--	--	--	19	--	--	--			
Split 5	Ext.	--	40	--	--	--	40	--	--	--	106	49	27 s [25 %]
	Rdc.	--	49	--	--	--	49	--	--	--			

2.3.5 O.C.

T.S.P. PARAMETERS

PREPARED: TZ

TSP RUN # 2	TSP RUN # 6
NB Thru	SB Thru

2.8.2 Transit Run Parameters

ATC Green Extend Mode (Equivalent TTC Algorithm)	Mode 2 A	Mode 2 A
--	----------	----------

2.8.3 Transit Action Plan 1 (Used for all Patterns)

Run Enable (X = Yes)	X	X
Run Config = 1	Recovery = 2 (O.C. with delay)	

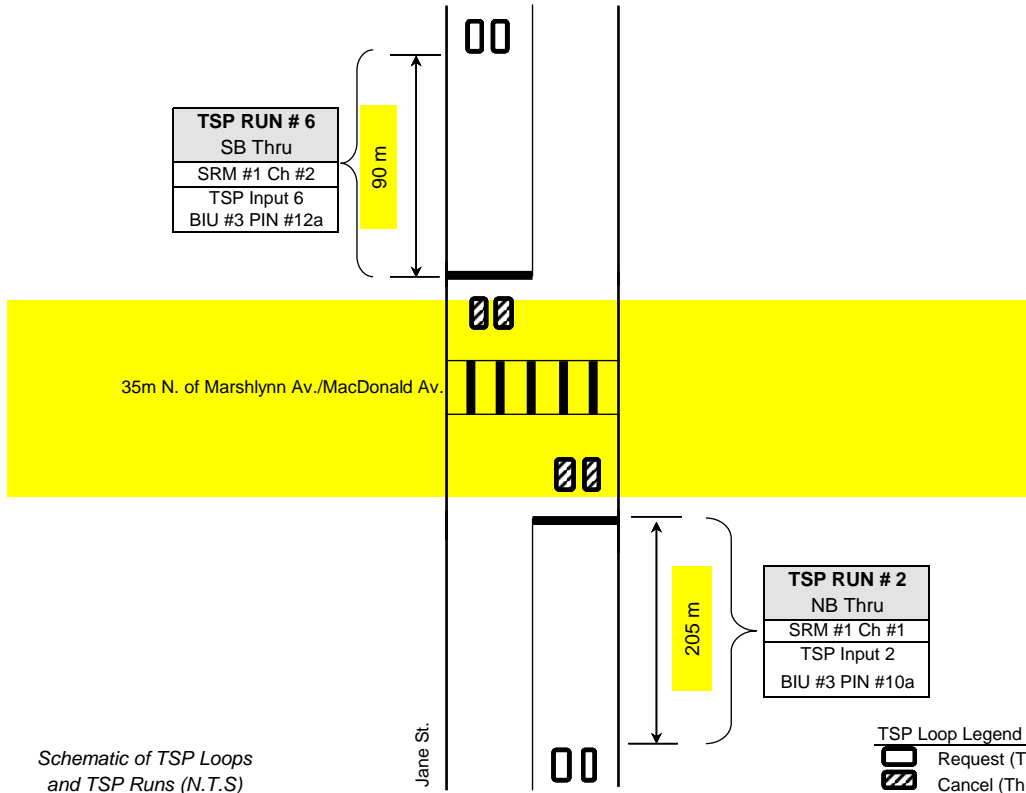
2.8.4 Transit Run Configuration 1

Delay / Extend / Fail	-- / -- / 235	-- / -- / 235
CALLS (and Extends)	Ø 2/6	Ø 2/6
Skips	--	--
Reduces (Truncates)	--	--

Ø 1 Ø 2 Ø 3 Ø 4 Ø 5 Ø 6 Ø 7 Ø 8

2.8.6 TSP Split Tables: 1, 2, 3, 4 & 5

GRN EXT (SDW Extension)	--	--	--	--	--	--	--	--
GRN RDC (Reduction)	--	--	--	--	--	--	--	--
WLK EXT (Walk Extension)	--	30	--	--	--	30	--	--



Notes:
 TSPFilterA script is not required as there is no slop on the side street.
 TSP truncations of phases 4 and 8 are approved but there currently is no slop available in these phases.

ATC Mode	0	2	3	4
TTC Algor'm	B-2	A	C	D
Extensions	SDW	Walk	W/SDW	W/SDW

TSP SUMMARY
 Maximum Green Extensions:
 NSG: 30 s Green/Walk



APPENDIX B

Corridor Growth Calculations

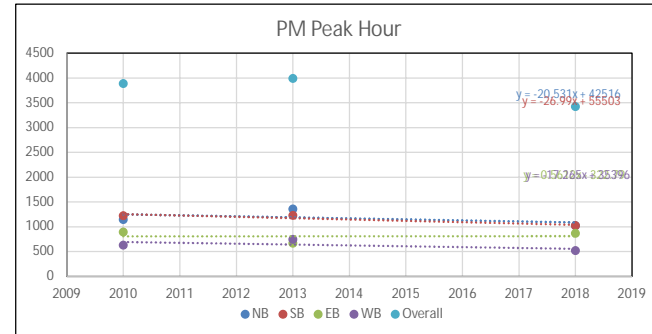
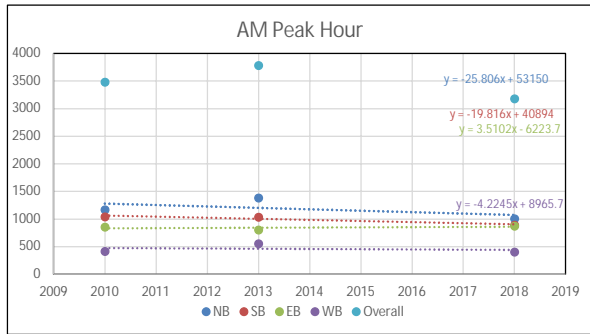
Intersection	Index	Movement	03-Mar-11					12-Apr-18					19-Jun-24					
			AM Peak	PM Peak	Sat Peak	AM Corridor	PM Corridor	AM Peak	PM Peak	Sat Peak	AM Corridor	PM Corridor	AM Peak	PM Peak	Sat Peak	AM Corridor	PM Corridor	
Jane St & Lawrence Ave W	1	NBL	47	62				140	131				59	62				
	2	NBT	1016	997		1166	1144	1149	1059			1384	1357	853	877		1005	1022
	3	NBR	103	85				95	167					93	83			
	4	SBL	65	59				51	77					88	56			
	5	SBT	875	1052		1042	1221	825	957			1038	1224	703	868		892	1018
	6	SBR	102	110				162	190					101	94			
	7	EBL	171	176				283	233					211	219			
	8	EBT	621	640		857	894	441	339			802	665	589	561		875	863
	9	EBR	65	78				78	93					75	83			
	10	WBL	57	93				85	99					57	99			
	11	WBT	321	499		415	627	406	596			557	745	307	367		405	515
	12	WBR	37	35				66	50					41	49			

AM					
Year	Street Name		Street Name		Overall
	NB	SB	EB	WB	
2010	1166	1042	857	415	3480
2013	1384	1038	802	557	3781
2018	1005	892	875	405	3177

Calculated Growth Rates:	-2.57%	-2.22%	0.40%	-1.04%	-1.46%
Applied Growth Rates:	0.0%	0.0%	50.0%	0.0%	0.0%

PM					
Year	Street Name		Street Name		Overall
	NB	SB	EB	WB	
2010	1144	1221	894	627	3886
2013	1357	1224	665	745	3991
2018	1022	1018	863	515	3418

Calculated Growth Rates:	-2.01%	-2.65%	0.07%	-3.35%	-1.88%
Applied Growth Rates:	0.0%	0.0%	0.0%	0.0%	0.0%

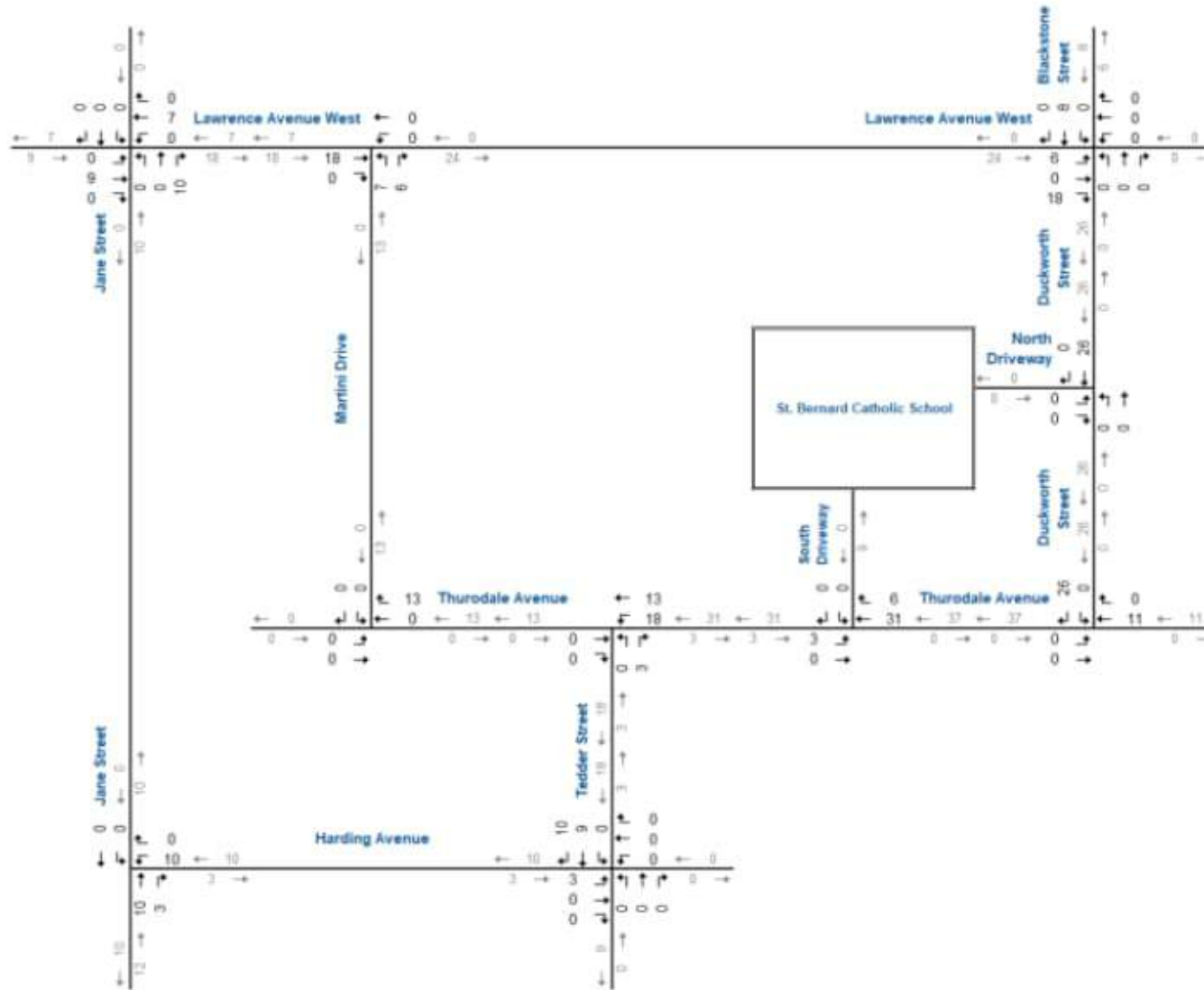




APPENDIX C

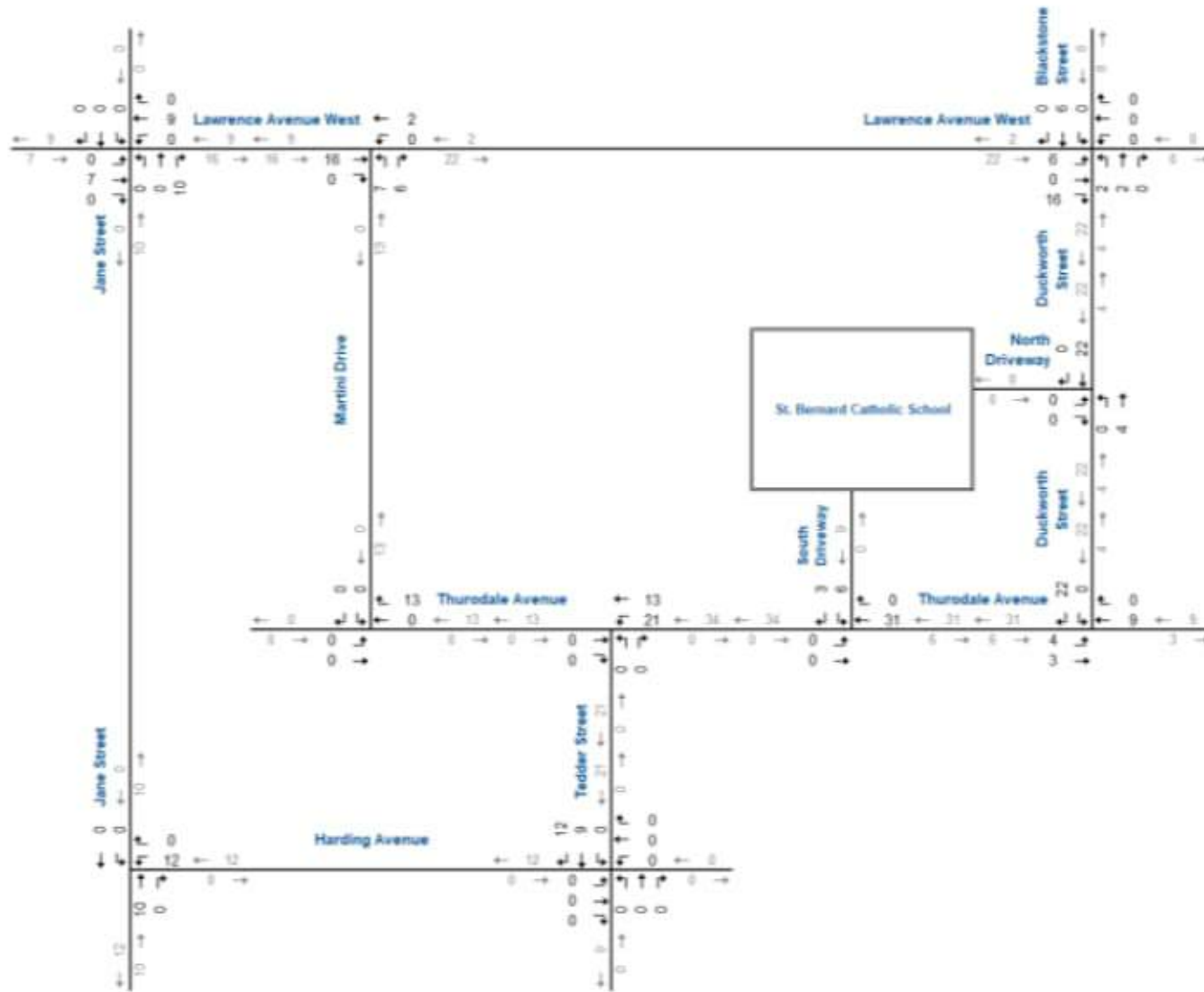
Background Developments

AM Peak Hour



Forecast Site Generated Traffic
AM Peak Hour

PM Peak Hour



Forecast Site Generated Traffic PM Peak Hour



Figure 7: Site Traffic Assignment, Weekday AM and PM Peak Hours

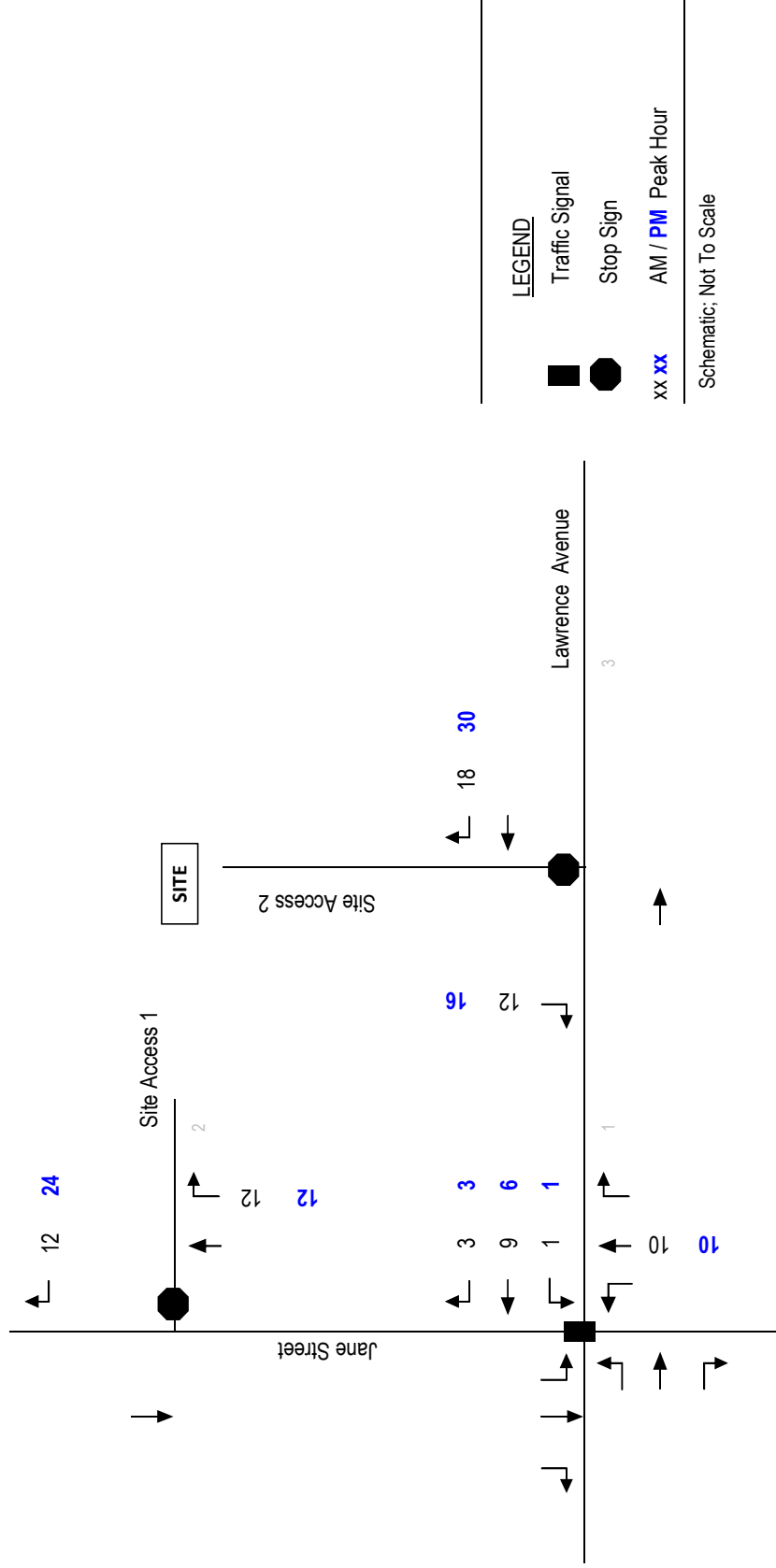
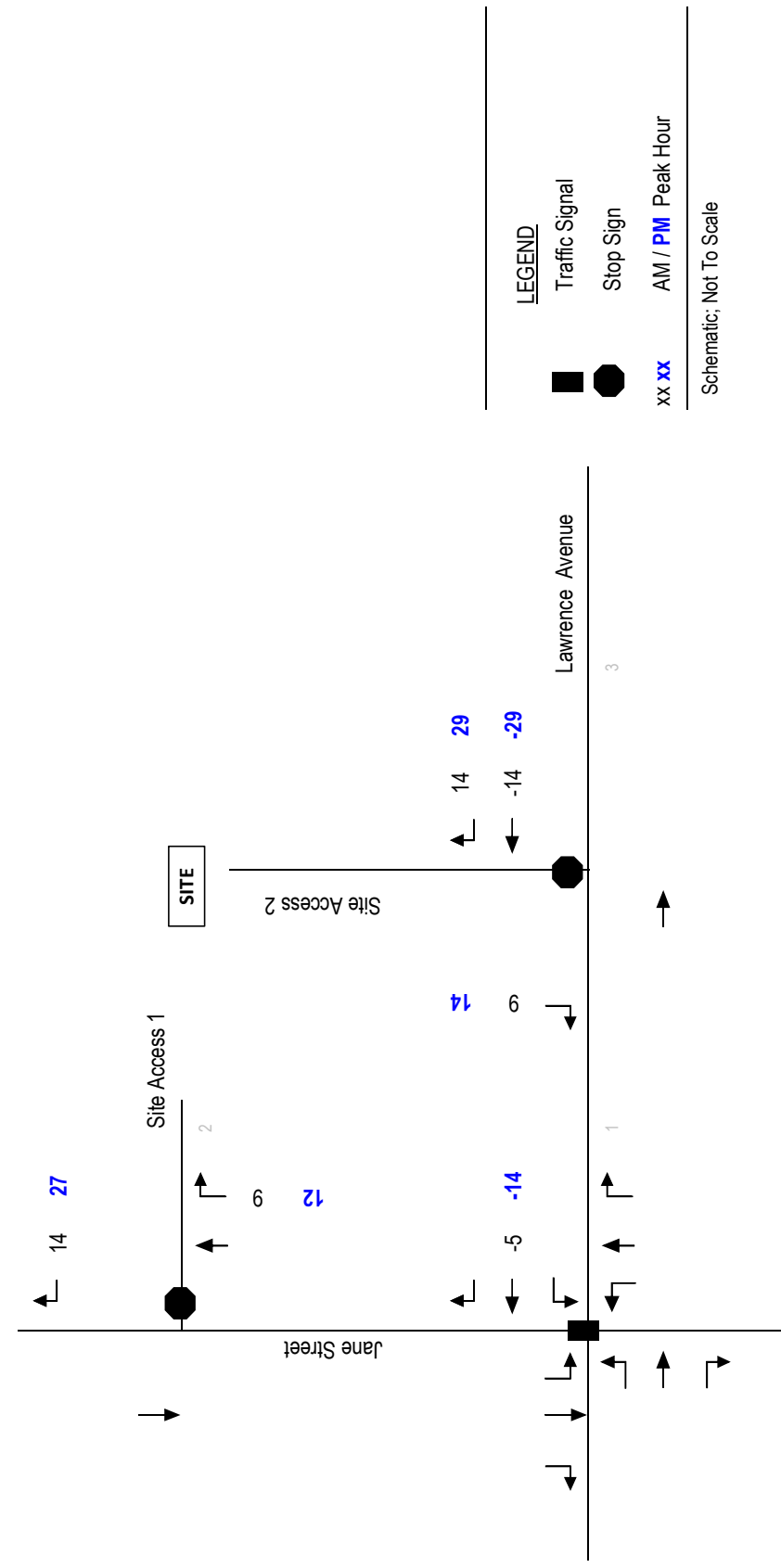




Figure 8: Pass-by Trip Adjustment, Weekday AM and PM Peak Hours





APPENDIX D

TTS Modal Split Data

RESIDENTIAL

Thu Mar 13 2025 11:36:54 GMT-0400 (Eastern Daylight Time) - Run Time: 4051ms

Cross Tabulation Query Form - Trip - 2022

Row: 2022 TTS zone of origin - tts22_orig
 Column: Primary travel mode of trip - mode_prime

Filters:
 (2022 TTS zone of origin - tts22_orig In 1141-1142, 1144-1149, and
 Start time of trip - start_time In 600-900, and
 Primary travel mode of trip - mode_prime In B,C,D,E,G,J,M,O,P,S,T,U,W, and
 Trip Purpose of Origin - purp_orig In H, and
 Type of dwelling unit - dwell_type In 2,)

Trip 2022
 ROW : tts22_orig
 COLUMN : mode_prime

tts22_orig	mode_prime	total	Raw Data		
			Zone of Origin	Mode	Total
1141	B	284	1141	B	284
1141	D	929	1141	D	929
1141	G	5	1141	G	5
1141	P	587	1141	P	587
1141	S	178	1141	S	178
1141	W	58	1141	W	58
1142	B	110	1142	B	110
1142	D	214	1142	D	214
1142	J	23	1142	J	23
1142	P	66	1142	P	66
1144	D	42	1142	D	42
1145	G	13	1145	G	13
1147	B	272	1147	B	272
1147	D	37	1147	D	37
1147	P	37	1147	P	37
1147	W	26	1147	W	26
1148	B	397	1148	B	397
1148	D	205	1148	D	205
1148	P	129	1148	P	129
1149	B	392	1148	B	392
1149	D	589	1148	D	589
1149	P	39	1148	P	39
			Total		4,632

Sorted		
Zone of Origin	Mode	Total
1141	B	284
1142	B	110
1147	B	272
1148	B	397
1148	B	392
1141	D	929
1142	D	214
1142	D	42
1147	D	37
1148	D	205
1148	D	589
1141	G	5
1145	G	13
1142	J	23
1141	P	587
1142	P	66
1147	P	37
1148	P	129
1148	P	39
1141	S	178
1141	W	58
1147	W	26
Total		4,632

Summary			
Travel Mode	TTS Code	Value	Percent
Auto Driver	D+M	2,016	44%
Auto Passenger	P	858	18%
Taxi / Rideshare	T+U	0	0%
Transit	B+G+J+S	1,674	36%
Walk	W	84	2%
Cycle+E-Scooter	C+E	0	0%
Other	O	0	0%
Total		4,632	100%



APPENDIX E

TTS Trip Distribution Data

AM INBOUND

Subject Site is in TTS2022 Zone 1148

Thu Mar 13 2025 11:12:27 GMT-0400 (Eastern Daylight Time) - Run Time: 3623ms

Cross Tabulation Query Form - Trip - 2022

Row: 2022 TTS zone of origin - tts22_orig
 Column: 2022 TTS zone of destination - tts22_dest

Filters:
 (2022 TTS zone of origin - tts22_orig In 1001-27069, and
 Start time of trip - start_time In 600-900, and
 Primary travel mode of trip - mode_prime In D,M,T, and
 Trip Purpose of Destination - purp_dest In H, and
 2022 TTS zone of destination - tts22_dest In 1141-1149, 1429-1435, and
 Type of dwelling unit - dwell_type In 2)

Trip 2022
 ROW : tts22_orig

COLUMN : tts22_dest

tts22_orig tts22_dest total

1123 1143 67
 1136 1143 115
 1154 1143 88
 1156 1141 178
 1168 1143 56
 1186 1143 141
 1412 1429 246
 1430 1432 37
 1431 1430 98
 1432 1431 170
 1586 1432 35

Zone			Value	General Direction	Path						Value							
From	Municipality	To			Jane St		John St	MacDonald Ave	Maple Leaf Dr	Lawrence Ave W		Jane St		John St	MacDonald Ave	Maple Leaf Dr	Lawrence Ave W	
					North	South	West	West	East	West	East	North	South	West	West	East	West	East
1123	Toronto	1143	67	South		100%						0	67	0	0	0	0	0
1136		1143	115	South		100%						0	115	0	0	0	0	0
1154		1143	88	South		100%						0	88	0	0	0	0	0
1156		1141	178	South		100%						0	178	0	0	0	0	0
1168		1143	56	East	50%				10%		40%	28	0	0	0	6	0	22
1186		1143	141	Southeast		60%					40%	0	85	0	0	0	0	56
1412		1429	246	North	100%							246	0	0	0	0	0	0
1430		1432	37	North	100%							37	0	0	0	0	0	0
1431		1430	98	North	100%							98	0	0	0	0	0	0
1432		1431	170	North	100%							170	0	0	0	0	0	0
1586		1432	35	East	100%							35	0	0	0	0	0	0
			1231							614	533	0	0	6	0	78		
										50%	43%	0%	0%	1%	0%	6%		

AM OUTBOUND

Subject Site is in TTS2022 Zone 1148

Thu Mar 13 2025 10:47:46 GMT-0400 (Eastern Daylight Time) - Run Time: 3659ms

Cross Tabulation Query Form - Trip - 2022

Row: 2022 TTS zone of origin - tts22_orig
 Column: 2022 TTS zone of destination - tts22_dest

Filters:
 (2022 TTS zone of origin - tts22_orig In 1430-1434, 1141-1142, 1144-1145, 1147-1148, and
 Start time of trip - start_time In 600-900, and
 Primary travel mode of trip - mode_prime In D,M,T, and
 Trip Purpose of Origin - purp_orig In H, and
 2022 TTS zone of destination - tts22_dest In 1001-27069, and
 Type of dwelling unit - dwell_type In 2)

Trip 2022
 ROW : tts22_orig

COLUMN : tts22_dest

tts22_orig tts22_dest total

Zone			Value	General Direction	Path						Value								
From	To	Municipality			Jane St		John St	MacDonald Ave	Maple Leaf Dr	Lawrence Ave W		Jane St		John St	MacDonald Ave	Maple Leaf Dr	Lawrence Ave W		
					North	South	West	West	East	West	East	North	South	West	West	East	West	East	
1141	1134	Toronto	7	South		100%						0	7	0	0	0	0	0	
1141	1142		5	South		100%						0	5	0	0	0	0	0	
1141	1145		19	North	100%							19	0	0	0	0	0	0	
1141	1149		162	South		100%						0	162	0	0	0	0	0	
1141	1152		19	South		100%						0	19	0	0	0	0	0	
1141	1155		178	South		100%						0	178	0	0	0	0	0	
1141	1156		178	South		100%						0	178	0	0	0	0	0	
1141	1188		24	Southeast		25%				75%		0	6	0	0	0	0	18	
1141	1329		47	Southwest		60%				40%		0	28	0	0	0	0	19	
1141	1514		178	Southeast	100%							178	0	0	0	0	0	0	
1141	3096	22	North	100%							22	0	0	0	0	0	0		
1141	3457	59		100%								59	0	0	0	0	0	0	
1142	1064	95	Southeast		100%						0	95	0	0	0	0	0		
1142	1067	66	Southeast		100%						0	66	0	0	0	0	0		
1142	1147	33	Northeast	20%				55%		25%	7	0	0	0	18	0	8		
1142	1316	20	Southwest	100%							20	0	0	0	0	0	0		
1142	4251	42	North	100%							42	0	0	0	0	0	0		
1147	1077	24	Southeast		100%						0	24	0	0	0	0	0		
1147	1170	13	East		60%				40%		0	8	0	0	0	0	5		
1148	1159	141	South		100%						0	141	0	0	0	0	0		
1148	1433	64	North	100%							64	0	0	0	0	0	0		
1430	1431	185	North	100%							185	0	0	0	0	0	0		
1431	1432	170	North	100%							170	0	0	0	0	0	0		
1432	1378	30	West					100%			0	0	0	0	0	30	0		
1432	1414	48	North	100%							48	0	0	0	0	0	0		
1432	1428	159	Northwest	100%							159	0	0	0	0	0	0		
1432	1430	37	North	100%							37	0	0	0	0	0	0		
1432	4515	45	North	100%							45	0	0	0	0	0	0		
1432	4542	167	North	100%							167	0	0	0	0	0	0		
1433	1363	45	Southwest		33%				67%		0	15	0	0	0	30	0		
1434	1055	21	South		100%						0	21	0	0	0	0	0		
1434	1150	133	South		100%						0	133	0	0	0	0	0		
1434	1168	50	East	50%				10%		40%	25	0	0	0	5	0	20		
1434	1410	90	North	100%							90	0	0	0	0	0	0		
1434	1447	43	Northeast	100%							43	0	0	0	0	0	0		
1434	3253	82	North	100%							82	0	0	0	0	0	0		
			2,701																
					1,462	1,086	0	0	0	23	79	51							
					54%	40%	0%	0%	1%	3%	2%								



APPENDIX F

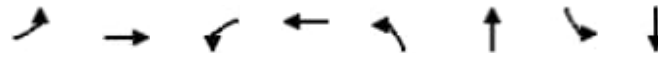
Existing Intersection Capacity Analysis

Queues

Existing Traffic

1: Jane St & John St/1795 Jane St Private Dwy

AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		+		+	+	+	+	+
Traffic Volume (vph)	33	1	9	5	16	1263	6	1062
Future Volume (vph)	33	1	9	5	16	1263	6	1062
Lane Group Flow (vph)	0	59	0	26	17	1350	6	1161
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.38		0.15	0.05	0.48	0.02	0.42
Control Delay (s/veh)		32.3		26.7	2.7	3.0	2.7	3.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		32.3		26.7	2.7	3.0	2.7	3.4
Queue Length 50th (m)		6.2		2.5	0.5	30.6	0.2	24.0
Queue Length 95th (m)		17.5		9.9	m1.4	29.3	1.1	42.1
Internal Link Dist (m)		401.7		66.0		107.2		271.5
Turn Bay Length (m)					20.0		20.0	
Base Capacity (vph)		348		418	334	2790	265	2746
Starvation Cap Reductn		0		0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.17		0.06	0.05	0.48	0.02	0.42

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

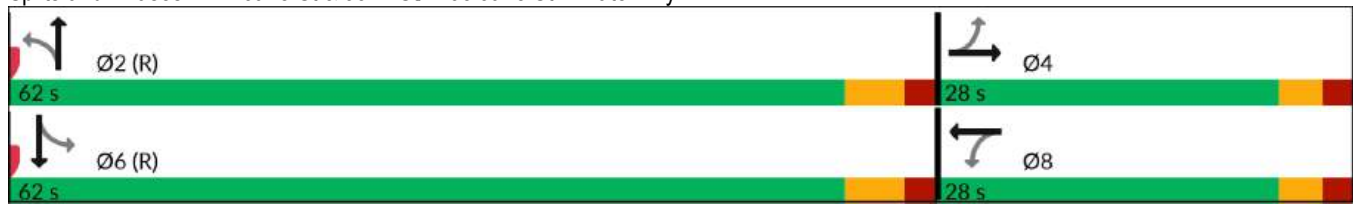
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

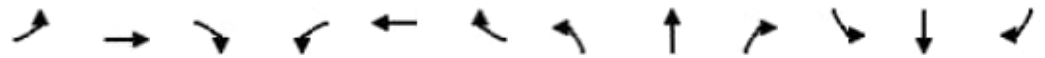
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Existing Traffic
 AM Peak Hour

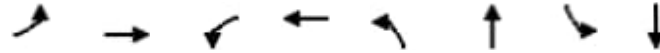


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Volume (vph)	33	1	22	9	5	10	16	1263	6	6	1062	29
Future Volume (vph)	33	1	22	9	5	10	16	1263	6	6	1062	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		0.97			0.98		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		0.97			0.98		0.98	1.00		0.97	1.00	
Frt		0.95			0.94		1.00	1.00		1.00	1.00	
Flt Protected		0.97			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1506			1664		1648	3363		1634	3308	
Flt Permitted		0.80			0.91		0.23	1.00		0.18	1.00	
Satd. Flow (perm)		1245			1538		401	3363		317	3308	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	35	1	23	10	5	11	17	1344	6	6	1130	31
RTOR Reduction (vph)	0	21	0	0	10	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	38	0	0	16	0	17	1350	0	6	1160	0
Confl. Peds. (#/hr)	37		46	46		37	51		100	100		51
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	9%	0%	9%	0%	0%	0%	0%	6%	0%	0%	7%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.3			7.3		71.7	71.7		71.7	71.7	
Effective Green, g (s)		8.3			8.3		72.7	72.7		72.7	72.7	
Actuated g/C Ratio		0.09			0.09		0.81	0.81		0.81	0.81	
Clearance Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		114			141		323	2716		256	2672	
v/s Ratio Prot							c0.40				0.35	
v/s Ratio Perm		c0.03			0.01		0.04			0.02		
v/c Ratio		0.33			0.11		0.05	0.50		0.02	0.43	
Uniform Delay, d1		38.3			37.5		1.7	2.8		1.7	2.6	
Progression Factor		1.00			1.00		0.92	0.77		1.00	1.00	
Incremental Delay, d2		1.7			0.4		0.3	0.6		0.2	0.5	
Delay (s)		40.0			37.8		1.9	2.7		1.9	3.1	
Level of Service		D			D		A	A		A	A	
Approach Delay (s/veh)		40.0			37.8			2.7			3.1	
Approach LOS		D			D			A			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	4.1	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.48	A
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	58.4%	9.0
Analysis Period (min)	15	ICU Level of Service
		B
c Critical Lane Group		

Queues
2: Jane St & Lawrence Ave W

Existing Traffic
AM Peak Hour

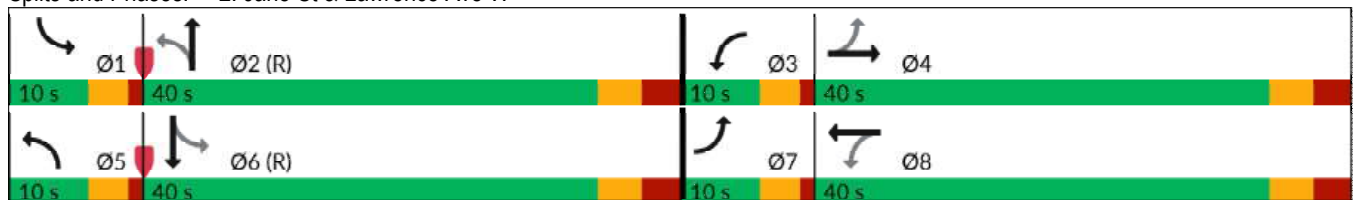


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	211	589	57	307	59	853	88	703
Future Volume (vph)	211	589	57	307	59	853	88	703
Lane Group Flow (vph)	220	692	59	363	61	986	92	837
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	6.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	10.0	22.3
Total Split (s)	10.0	40.0	10.0	40.0	10.0	40.0	10.0	40.0
Total Split (%)	10.0%	40.0%	10.0%	40.0%	10.0%	40.0%	10.0%	40.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.0	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	1.0	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	3.0	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
v/c Ratio	0.69	0.76	0.27	0.43	0.21	0.68	0.36	0.59
Control Delay (s/veh)	34.1	37.5	19.9	29.3	14.8	28.2	16.9	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.1	37.5	19.9	29.3	14.8	28.2	16.9	25.3
Queue Length 50th (m)	29.6	64.0	7.1	28.5	5.6	87.8	8.7	68.2
Queue Length 95th (m)	42.8	78.0	13.7	37.9	13.6	#122.6	19.0	97.0
Internal Link Dist (m)		350.0		285.9		207.5		152.3
Turn Bay Length (m)	30.0		45.0		45.0		25.0	
Base Capacity (vph)	317	1101	218	1106	290	1442	255	1415
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.63	0.27	0.33	0.21	0.68	0.36	0.59

Intersection Summary





















Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Existing Traffic
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	211	589	75	57	307	41	59	853	93	88	703	101
Future Volume (vph)	211	589	75	57	307	41	59	853	93	88	703	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1		3.0	5.1	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	0.97		1.00	0.97		1.00	0.98		1.00	0.98	
Flpb, ped/bikes	0.96	1.00		0.99	1.00		0.99	1.00		1.00	1.00	
Frft	1.00	0.98		1.00	0.98		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1578	3127		1630	3142		1564	3288		1589	3177	
Flt Permitted	0.45	1.00		0.22	1.00		0.23	1.00		0.16	1.00	
Satd. Flow (perm)	743	3127		381	3142		384	3288		269	3177	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	220	614	78	59	320	43	61	889	97	92	732	105
RTOR Reduction (vph)	0	11	0	0	12	0	0	8	0	0	10	0
Lane Group Flow (vph)	220	681	0	59	351	0	61	978	0	92	827	0
Confl. Peds. (#/hr)	110		160	160		110	97		100	100		97
Confl. Bikes (#/hr)									5			2
Heavy Vehicles (%)	2%	7%	19%	2%	9%	7%	7%	5%	4%	6%	8%	5%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	33.7	27.7		31.3	26.5		46.7	41.0		47.9	41.6	
Effective Green, g (s)	35.7	28.7		33.3	27.5		48.7	42.0		49.9	42.6	
Actuated g/C Ratio	0.36	0.29		0.33	0.28		0.49	0.42		0.50	0.43	
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1		4.0	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	323	897		199	864		266	1380		230	1353	
v/s Ratio Prot	c0.05	c0.22		0.02	0.11		0.02	c0.30		c0.03	0.26	
v/s Ratio Perm	0.19			0.08			0.10			0.17		
v/c Ratio	0.68	0.76		0.30	0.41		0.23	0.71		0.40	0.61	
Uniform Delay, d1	25.9	32.5		23.8	29.6		14.6	24.0		15.5	22.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.8	3.7		0.8	0.3		0.4	3.1		1.1	2.1	
Delay (s)	31.7	36.2		24.7	29.9		15.1	27.1		16.7	24.3	
Level of Service	C	D		C	C		B	C		B	C	
Approach Delay (s/veh)		35.1			29.2			26.4			23.6	
Approach LOS		D			C			C			C	

Intersection Summary

HCM 2000 Control Delay (s/veh)	28.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.2
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	7	9	1279	5	2	1077
Future Vol, veh/h	7	9	1279	5	2	1077
Conflicting Peds, #/hr	0	0	0	60	60	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	14	0	6	0	50	7
Mvmt Flow	7	9	1346	5	2	1134

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1980	736	0	0	1411	0
Stage 1	1409	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Critical Hdwy	7.08	6.9	-	-	5.1	-
Critical Hdwy Stg 1	6.08	-	-	-	-	-
Critical Hdwy Stg 2	6.08	-	-	-	-	-
Follow-up Hdwy	3.64	3.3	-	-	2.7	-
Pot Cap-1 Maneuver	47	366	-	-	293	-
Stage 1	172	-	-	-	-	-
Stage 2	496	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	44	351	-	-	281	-
Mov Cap-2 Maneuver	150	-	-	-	-	-
Stage 1	165	-	-	-	-	-
Stage 2	487	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	22.6	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	221	281
HCM Lane V/C Ratio	-	-	0.076	0.007
HCM Ctrl Dly (s/v)	-	-	22.6	17.9
HCM Lane LOS	-	-	C	C
HCM 95th %tile Q (veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	17	11	14	1267	1066	18
Future Vol, veh/h	17	11	14	1267	1066	18
Conflicting Peds, #/hr	1	1	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	18	0	0	6	7	17
Mvmt Flow	18	12	15	1334	1122	19

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1839	581	1150	0	-	0
Stage 1	1141	-	-	-	-	-
Stage 2	698	-	-	-	-	-
Critical Hdwy	7.16	6.9	4.1	-	-	-
Critical Hdwy Stg 1	6.16	-	-	-	-	-
Critical Hdwy Stg 2	6.16	-	-	-	-	-
Follow-up Hdwy	3.68	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	56	462	615	-	-	-
Stage 1	235	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	50	459	611	-	-	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	212	-	-	-	-	-
Stage 2	414	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	22.1	0.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	611	-	240	-	-
HCM Lane V/C Ratio	0.024	-	0.123	-	-
HCM Ctrl Dly (s/v)	11	0.5	22.1	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q (veh)	0.1	-	0.4	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

Existing Traffic
AM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑↑	↑↑	
Traffic Volume (vph)	1281	1077	
Future Volume (vph)	1281	1077	
Lane Group Flow (vph)	1348	1134	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.46	0.39	
Control Delay (s/veh)	4.8	2.5	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	4.8	2.5	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	79.1	21.3	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	2919	2891	
Starvation Cap Reductn	0	0	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.46	0.39	

Intersection Summary













Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
 5: Jane St & Midblock Pedestrian Crosswalk

Existing Traffic
 AM Peak Hour

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations								↑↑			↑↑		
Traffic Volume (vph)	0	0	0	0	0	0	0	1281	0	0	1077	0	
Future Volume (vph)	0	0	0	0	0	0	0	1281	0	0	1077	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	
Total Lost time (s)								4.0			4.0		
Lane Util. Factor								0.95			0.95		
Fr _t								1.00			1.00		
Fl _t Protected								1.00			1.00		
Satd. Flow (prot)								3368			3336		
Fl _t Permitted								1.00			1.00		
Satd. Flow (perm)								3368			3336		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	0	0	0	0	0	0	0	1348	0	0	1134	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	0	0	0	1348	0	0	1134	0	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	7%	0%	
Turn Type								NA			NA		
Protected Phases								2			6		
Permitted Phases													
Actuated Green, G (s)								71.0			71.0		
Effective Green, g (s)								72.0			72.0		
Actuated g/C Ratio								0.80			0.80		
Clearance Time (s)								5.0			5.0		
Vehicle Extension (s)								3.0			3.0		
Lane Grp Cap (vph)								2694			2668		
v/s Ratio Prot								c0.40			0.34		
v/s Ratio Perm													
v/c Ratio								0.50			0.43		
Uniform Delay, d ₁								3.0			2.7		
Progression Factor								1.00			0.55		
Incremental Delay, d ₂								0.7			0.5		
Delay (s)								3.7			2.0		
Level of Service								A			A		
Approach Delay (s/veh)		0.0			0.0			3.7			2.0		
Approach LOS		A			A			A			A		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			2.9					HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.45										
Actuated Cycle Length (s)			90.0					Sum of lost time (s)			10.0		
Intersection Capacity Utilization			38.7%					ICU Level of Service			A		
Analysis Period (min)			15										

c Critical Lane Group

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	14	1	9	2	3	61	5	1206	4	67	957	53
Future Vol, veh/h	14	1	9	2	3	61	5	1206	4	67	957	53
Conflicting Peds, #/hr	0	0	0	0	0	0	28	0	31	31	0	28
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	0	3	20	6	0	3	8	4
Mvmt Flow	15	1	9	2	3	64	5	1269	4	71	1007	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1851	2519	560	1958	2545	668	1091	0	0	1304	0	0
Stage 1	1205	1205	-	1312	1312	-	-	-	-	-	-	-
Stage 2	646	1314	-	646	1233	-	-	-	-	-	-	-
Critical Hdwy	7.64	6.5	6.9	7.5	6.5	6.96	4.5	-	-	4.16	-	-
Critical Hdwy Stg 1	6.64	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.64	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.57	4	3.3	3.5	4	3.33	2.4	-	-	2.23	-	-
Pot Cap-1 Maneuver	43	28	477	39	27	398	540	-	-	521	-	-
Stage 1	187	259	-	170	230	-	-	-	-	-	-	-
Stage 2	415	230	-	431	251	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	25	17	467	26	16	388	528	-	-	508	-	-
Mov Cap-2 Maneuver	139	103	-	132	118	-	-	-	-	-	-	-
Stage 1	177	166	-	161	217	-	-	-	-	-	-	-
Stage 2	330	217	-	274	160	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	27.5		18.6		0.2		2.6	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	528	-	-	185	334	508	-	-
HCM Lane V/C Ratio	0.01	-	-	0.137	0.208	0.139	-	-
HCM Ctrl Dly (s/v)	11.9	0.2	-	27.5	18.6	13.2	2	-
HCM Lane LOS	B	A	-	D	C	B	A	-
HCM 95th %tile Q (veh)	0	-	-	0.5	0.8	0.5	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	1	71	66	1	1	0
Future Vol, veh/h	1	71	66	1	1	0
Conflicting Peds, #/hr	16	0	0	16	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	1	100	93	1	1	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	110	0	-	0	212
Stage 1	-	-	-	-	110
Stage 2	-	-	-	-	102
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1493	-	-	-	781
Stage 1	-	-	-	-	920
Stage 2	-	-	-	-	927
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1476	-	-	-	772
Mov Cap-2 Maneuver	-	-	-	-	772
Stage 1	-	-	-	-	909
Stage 2	-	-	-	-	927

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1476	-	-	-	772
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	65	1	0	68	1	0	0	0	1	0	2
Future Vol, veh/h	8	65	1	0	68	1	0	0	0	1	0	2
Conflicting Peds, #/hr	10	0	0	0	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	3	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	11	90	1	0	94	1	0	0	0	1	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	91	0	0	209	218	93	220	218	105
Stage 1	-	-	-	-	-	-	113	113	-	105	105	-
Stage 2	-	-	-	-	-	-	96	105	-	115	113	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1499	-	-	1517	-	-	753	684	970	740	684	955
Stage 1	-	-	-	-	-	-	897	806	-	906	812	-
Stage 2	-	-	-	-	-	-	916	812	-	895	806	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1487	-	-	1517	-	-	746	673	968	729	673	948
Mov Cap-2 Maneuver	-	-	-	-	-	-	746	673	-	729	673	-
Stage 1	-	-	-	-	-	-	890	800	-	892	806	-
Stage 2	-	-	-	-	-	-	913	806	-	886	800	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.8	0	0	9.2
HCM LOS			A	A

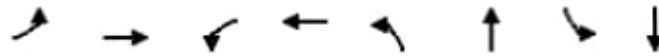
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1487	-	-	1517	-	-	862
HCM Lane V/C Ratio	-	0.007	-	-	-	-	-	0.005
HCM Ctrl Dly (s/v)	0	7.4	0	-	0	-	-	9.2
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q (veh)	-	0	-	-	0	-	-	0

Queues

Existing Traffic

1: Jane St & John St/1795 Jane St Private Dwy

PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		+		+	+	+	+	+
Traffic Volume (vph)	18	3	2	0	13	1118	6	1068
Future Volume (vph)	18	3	2	0	13	1118	6	1068
Lane Group Flow (vph)	0	36	0	11	14	1220	7	1183
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.25		0.06	0.04	0.40	0.02	0.39
Control Delay (s/veh)		31.2		1.6	2.2	2.1	2.2	2.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		31.2		1.6	2.2	2.1	2.2	2.4
Queue Length 50th (m)		4.0		0.0	0.4	24.0	0.2	22.8
Queue Length 95th (m)		12.9		0.8	m1.2	27.0	1.1	36.4
Internal Link Dist (m)		401.7		66.0		107.2		271.5
Turn Bay Length (m)					20.0		20.0	
Base Capacity (vph)		380		429	355	3040	337	3061
Starvation Cap Reductn		0		0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.09		0.03	0.04	0.40	0.02	0.39

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

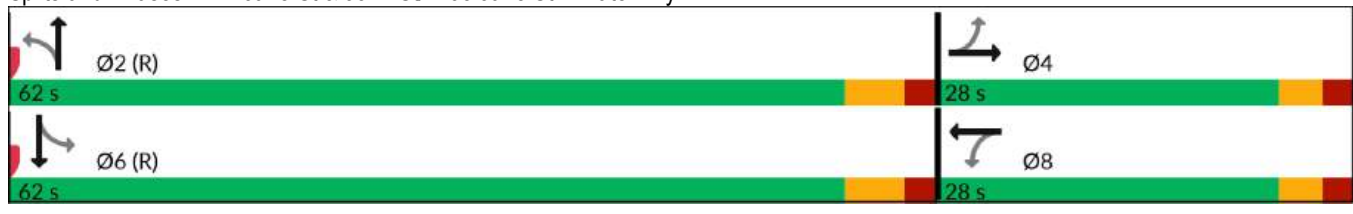
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

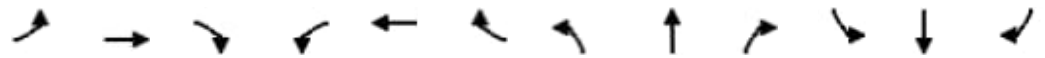
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Existing Traffic
 PM Peak Hour

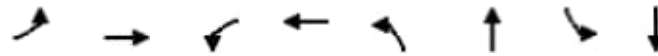


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Volume (vph)	18	3	12	2	0	8	13	1118	5	6	1068	20
Future Volume (vph)	18	3	12	2	0	8	13	1118	5	6	1068	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		0.98			0.97		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		0.99			1.00		0.98	1.00		0.98	1.00	
Fr _t		0.95			0.89		1.00	1.00		1.00	1.00	
Fl _t Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1643			1603		1658	3462		1649	3485	
Fl _t Permitted		0.82			0.93		0.23	1.00		0.22	1.00	
Satd. Flow (perm)		1387			1506		401	3462		382	3485	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	13	2	0	9	14	1215	5	7	1161	22
RTOR Reduction (vph)	0	12	0	0	10	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	24	0	0	1	0	14	1220	0	7	1182	0
Confl. Peds. (#/hr)	16		19	19		16	37		53	53		37
Confl. Bikes (#/hr)			4			1						
Heavy Vehicles (%)	0%	0%	8%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		4.9			4.9		74.1	74.1		74.1	74.1	
Effective Green, g (s)		5.9			5.9		75.1	75.1		75.1	75.1	
Actuated g/C Ratio		0.07			0.07		0.83	0.83		0.83	0.83	
Clearance Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		90			98		334	2888		318	2908	
v/s Ratio Prot								c0.35				0.34
v/s Ratio Perm		c0.02			0.00		0.03			0.02		
v/c Ratio		0.27			0.01		0.04	0.42		0.02	0.41	
Uniform Delay, d ₁		40.0			39.3		1.3	1.9		1.3	1.9	
Progression Factor		1.00			1.00		0.97	0.81		1.00	1.00	
Incremental Delay, d ₂		1.6			0.0		0.2	0.4		0.1	0.4	
Delay (s)		41.6			39.3		1.5	2.0		1.4	2.3	
Level of Service		D			D		A	A		A	A	
Approach Delay (s/veh)		41.6			39.3			2.0			2.3	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	2.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Queues
2: Jane St & Lawrence Ave W

Existing Traffic
PM Peak Hour

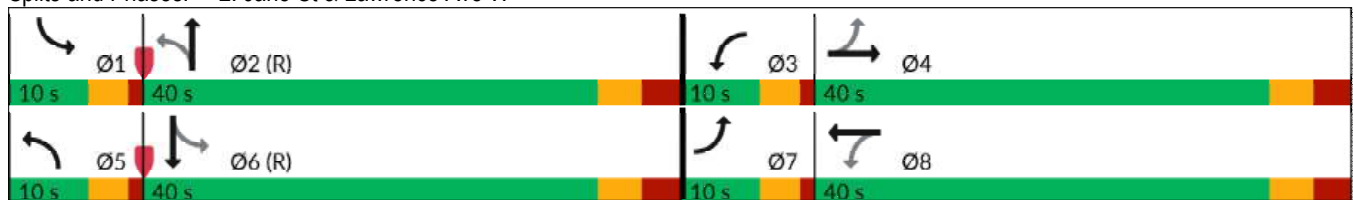


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	219	561	99	367	62	877	56	868
Future Volume (vph)	219	561	99	367	62	877	56	868
Lane Group Flow (vph)	235	692	106	448	67	1032	60	1034
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	6.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	10.0	22.3
Total Split (s)	10.0	40.0	10.0	40.0	10.0	40.0	10.0	40.0
Total Split (%)	10.0%	40.0%	10.0%	40.0%	10.0%	40.0%	10.0%	40.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.0	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	1.0	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	3.0	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
v/c Ratio	0.90	0.77	0.50	0.49	0.33	0.73	0.25	0.73
Control Delay (s/veh)	59.4	37.8	26.0	29.9	17.3	29.3	15.5	29.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.4	37.8	26.0	29.9	17.3	29.3	15.5	29.3
Queue Length 50th (m)	32.1	64.1	13.3	37.3	6.2	92.0	5.6	92.8
Queue Length 95th (m)	#59.3	78.0	22.0	47.8	14.7	#139.3	13.5	#139.4
Internal Link Dist (m)		350.0		285.9		207.5		152.3
Turn Bay Length (m)	30.0		45.0		45.0		25.0	
Base Capacity (vph)	262	1111	214	1137	203	1419	239	1421
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.62	0.50	0.39	0.33	0.73	0.25	0.73

Intersection Summary





















Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Existing Traffic
PM Peak Hour

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	219	561	83	99	367	49	62	877	83	56	868	94	
Future Volume (vph)	219	561	83	99	367	49	62	877	83	56	868	94	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1		3.0	5.1		
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95		
Frbp, ped/bikes	1.00	0.96		1.00	0.97		1.00	0.97		1.00	0.97		
Flpb, ped/bikes	0.96	1.00		0.99	1.00		1.00	1.00		1.00	1.00		
Frft	1.00	0.98		1.00	0.98		1.00	0.99		1.00	0.99		
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1563	3151		1617	3230		1604	3305		1652	3321		
Flt Permitted	0.39	1.00		0.21	1.00		0.14	1.00		0.15	1.00		
Satd. Flow (perm)	647	3151		354	3230		242	3305		254	3321		
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	
Adj. Flow (vph)	235	603	89	106	395	53	67	943	89	60	933	101	
RTOR Reduction (vph)	0	13	0	0	11	0	0	6	0	0	8	0	
Lane Group Flow (vph)	235	679	0	106	437	0	67	1026	0	60	1026	0	
Confl. Peds. (#/hr)	148		176	176		148	151		176	176		151	
Confl. Bikes (#/hr)			3			4			9			6	
Heavy Vehicles (%)	3%	6%	11%	3%	5%	4%	5%	4%	1%	2%	3%	2%	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA		
Protected Phases	7	4		3	8		5	2		1	6		
Permitted Phases	4			8			2			6			
Actuated Green, G (s)	33.2	27.2		33.2	27.2		46.8	41.0		46.4	40.8		
Effective Green, g (s)	35.2	28.2		35.2	28.2		48.8	42.0		48.4	41.8		
Actuated g/C Ratio	0.35	0.28		0.35	0.28		0.49	0.42		0.48	0.42		
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1		4.0	6.1		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	291	888		213	910		210	1388		215	1388		
v/s Ratio Prot	c0.06	0.22		0.03	0.14		c0.02	c0.31		0.02	0.31		
v/s Ratio Perm	c0.23			0.14			0.13			0.12			
v/c Ratio	0.81	0.76		0.50	0.48		0.32	0.74		0.28	0.74		
Uniform Delay, d1	27.7	32.9		23.5	29.8		16.1	24.4		16.0	24.5		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		
Incremental Delay, d2	15.0	4.0		1.8	0.4		0.9	3.6		0.7	3.6		
Delay (s)	42.7	36.8		25.3	30.2		17.0	28.0		16.8	28.1		
Level of Service	D	D		C	C		B	C		B	C		
Approach Delay (s/veh)		38.3			29.3			27.3			27.5		
Approach LOS		D			C			C			C		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			30.4									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.73										
Actuated Cycle Length (s)			100.0									Sum of lost time (s)	16.2
Intersection Capacity Utilization			73.3%									ICU Level of Service	D
Analysis Period (min)			15										

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	5	6	1142	6	9	1053
Future Vol, veh/h	5	6	1142	6	9	1053
Conflicting Peds, #/hr	6	0	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	5	6	1228	6	10	1132

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1889	683	0	0	1300
Stage 1	1297	-	-	-	-
Stage 2	592	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	63	396	-	-	540
Stage 1	224	-	-	-	-
Stage 2	521	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	57	378	-	-	515
Mov Cap-2 Maneuver	189	-	-	-	-
Stage 1	213	-	-	-	-
Stage 2	492	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	19.5	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	260	515
HCM Lane V/C Ratio	-	-	0.045	0.019
HCM Ctrl Dly (s/v)	-	-	19.5	12.1
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q (veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗			↕↕		↕↕
Traffic Vol, veh/h	8	3	9	1114	1030	20
Future Vol, veh/h	8	3	9	1114	1030	20
Conflicting Peds, #/hr	2	1	33	0	0	33
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	4	3	0
Mvmt Flow	9	3	10	1198	1108	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1773	599	1163	0	-	0
Stage 1	1152	-	-	-	-	-
Stage 2	621	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	76	450	608	-	-	-
Stage 1	267	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	70	439	594	-	-	-
Mov Cap-2 Maneuver	217	-	-	-	-	-
Stage 1	248	-	-	-	-	-
Stage 2	503	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	20	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	594	-	252	-	-
HCM Lane V/C Ratio	0.016	-	0.047	-	-
HCM Ctrl Dly (s/v)	11.2	0.3	20	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q (veh)	0.1	-	0.1	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

Existing Traffic
PM Peak Hour



Lane Group	NBT	SBT	Ø4
Lane Configurations	↑↑	↑↑	
Traffic Volume (vph)	1123	1033	
Future Volume (vph)	1123	1033	
Lane Group Flow (vph)	1208	1111	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.41	0.37	
Control Delay (s/veh)	4.4	2.7	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	4.4	2.7	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	66.3	20.1	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	2975	3004	
Starvation Cap Reductn	0	0	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.41	0.37	

Intersection Summary













Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Existing Traffic
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↑↑			↑↑	
Traffic Volume (vph)	0	0	0	0	0	0	0	1123	0	0	1033	0
Future Volume (vph)	0	0	0	0	0	0	0	1123	0	0	1033	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								0.95			0.95	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								3433			3466	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								3433			3466	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	0	0	0	0	1208	0	0	1111	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1208	0	0	1111	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	3%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								2746			2772	
v/s Ratio Prot								c0.35			0.32	
v/s Ratio Perm												
v/c Ratio								0.44			0.40	
Uniform Delay, d ₁								2.8			2.6	
Progression Factor								1.00			0.62	
Incremental Delay, d ₂								0.5			0.4	
Delay (s)								3.3			2.0	
Level of Service								A			A	
Approach Delay (s/veh)		0.0			0.0			3.3			2.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			2.7									
HCM 2000 Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			90.0									
Intersection Capacity Utilization			34.4%									
Analysis Period (min)			15									
HCM 2000 Level of Service											A	
Sum of lost time (s)											10.0	
ICU Level of Service											A	

c Critical Lane Group

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	2	17	7	3	39	14	1076	8	51	948	34
Future Vol, veh/h	8	2	17	7	3	39	14	1076	8	51	948	34
Conflicting Peds, #/hr	0	0	0	0	0	0	59	0	70	70	0	59
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	6	0	0	0	0	4	0	2	3	0
Mvmt Flow	8	2	17	7	3	40	14	1098	8	52	967	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1727	2352	560	1789	2365	623	1061	0	0	1176	0	0
Stage 1	1148	1148	-	1200	1200	-	-	-	-	-	-	-
Stage 2	579	1204	-	589	1165	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	7.02	7.5	6.5	6.9	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.36	3.5	4	3.3	2.2	-	-	2.22	-	-
Pot Cap-1 Maneuver	58	36	462	52	36	434	664	-	-	590	-	-
Stage 1	215	276	-	200	261	-	-	-	-	-	-	-
Stage 2	473	259	-	466	271	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	39	24	441	37	24	410	634	-	-	558	-	-
Mov Cap-2 Maneuver	163	129	-	151	139	-	-	-	-	-	-	-
Stage 1	194	208	-	178	233	-	-	-	-	-	-	-
Stage 2	397	231	-	349	204	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	20.3		19.4		0.4		1.7	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	634	-	-	262	300	558	-	-
HCM Lane V/C Ratio	0.023	-	-	0.105	0.167	0.093	-	-
HCM Ctrl Dly (s/v)	10.8	0.3	-	20.3	19.4	12.1	1.2	-
HCM Lane LOS	B	A	-	C	C	B	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.3	0.6	0.3	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	6	55	40	1	5	9
Future Vol, veh/h	6	55	40	1	5	9
Conflicting Peds, #/hr	54	0	0	54	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	2	0	0	0	0
Mvmt Flow	7	64	47	1	6	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	102	0	180
Stage 1	-	-	102
Stage 2	-	-	78
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1503	-	814
Stage 1	-	-	927
Stage 2	-	-	950
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1446	-	779
Mov Cap-2 Maneuver	-	-	779
Stage 1	-	-	887
Stage 2	-	-	950

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.7	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1446	-	-	-	865
HCM Lane V/C Ratio	0.005	-	-	-	0.019
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	52	9	3	32	5	2	0	3	7	0	3
Future Vol, veh/h	8	52	9	3	32	5	2	0	3	7	0	3
Conflicting Peds, #/hr	15	0	2	2	0	15	2	0	5	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	2	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	10	63	11	4	39	6	2	0	4	9	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	76	0	0	145	159	76	161	161	59
Stage 1	-	-	-	-	-	-	91	91	-	65	65	-
Stage 2	-	-	-	-	-	-	54	68	-	96	96	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1556	-	-	1536	-	-	828	737	991	809	735	1012
Stage 1	-	-	-	-	-	-	921	823	-	951	845	-
Stage 2	-	-	-	-	-	-	963	842	-	916	819	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1538	-	-	1534	-	-	816	719	986	787	717	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	816	719	-	787	717	-
Stage 1	-	-	-	-	-	-	913	816	-	933	832	-
Stage 2	-	-	-	-	-	-	955	829	-	903	812	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.9	0.6	9	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	910	1538	-	-	1534	-	-	841
HCM Lane V/C Ratio	0.007	0.006	-	-	0.002	-	-	0.015
HCM Ctrl Dly (s/v)	9	7.4	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	0



APPENDIX G

Future Background Intersection Capacity Analysis



2030 Capacity Analysis

Queues

Future Background Traffic (2030 Opt)

1: Jane St & John St/1795 Jane St Private Dwy

AM Peak Hour

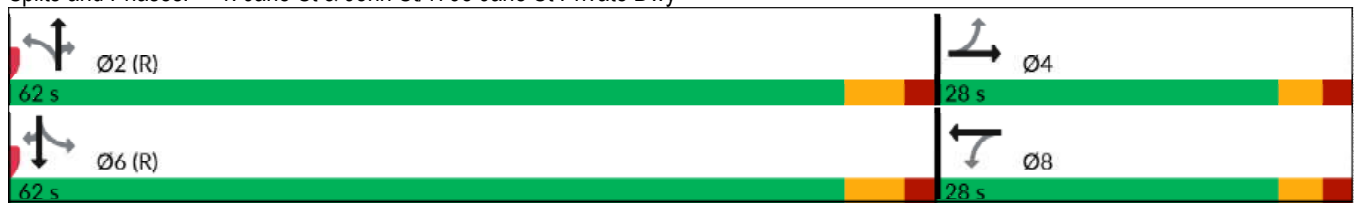


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	33	1	9	5	16	1289	6	6	1062	29
Future Volume (vph)	33	1	9	5	16	1289	6	6	1062	29
Lane Group Flow (vph)	0	59	0	26	17	1371	6	6	1130	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.39		0.15	0.07	0.93	0.01	0.06	0.78	0.03
Control Delay (s/veh)		32.6		26.6	3.8	17.7	0.8	4.3	10.9	1.4
Queue Delay		0.0		0.0	0.0	0.2	0.0	0.0	0.4	0.0
Total Delay (s/veh)		32.6		26.6	3.8	17.9	0.8	4.3	11.4	1.4
Queue Length 50th (m)		6.2		2.5	0.5	157.7	0.0	0.2	82.2	0.2
Queue Length 95th (m)		17.5		9.8	m1.1	m#317.5	m0.0	1.4	#200.9	2.1
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		337		405	260	1469	881	93	1455	919
Starvation Cap Reductn		0		0	0	4	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	72	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.18		0.06	0.07	0.94	0.01	0.06	0.82	0.03

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Background Traffic (2030 Opt)
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	33	1	22	9	5	10	16	1289	6	6	1062	29
Future Volume (vph)	33	1	22	9	5	10	16	1289	6	6	1062	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.96			0.96		1.00	1.00	0.75	1.00	1.00	0.86
Flpb, ped/bikes		0.96			0.97		1.00	1.00	1.00	1.00	1.00	1.00
Fr t		0.95			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Fl t Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1453			1616		1685	1773	1059	1685	1756	1105
Fl t Permitted		0.80			0.91		0.18	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)		1201			1493		314	1773	1059	114	1756	1105
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	35	1	23	10	5	11	17	1371	6	6	1130	31
RTOR Reduction (vph)	0	21	0	0	10	0	0	0	1	0	0	5
Lane Group Flow (vph)	0	38	0	0	16	0	17	1371	5	6	1130	26
Confl. Peds. (#/hr)	37		46	46		37	51		100	100		51
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	9%	0%	9%	0%	0%	0%	0%	6%	0%	0%	7%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		7.4			7.4		71.6	71.6	71.6	71.6	71.6	71.6
Effective Green, g (s)		8.4			8.4		72.6	72.6	72.6	72.6	72.6	72.6
Actuated g/C Ratio		0.09			0.09		0.81	0.81	0.81	0.81	0.81	0.81
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		112			139		253	1430	854	91	1416	891
v/s Ratio Prot								c0.77			0.64	
v/s Ratio Perm		c0.03			0.01		0.05		0.00	0.05		0.02
v/c Ratio		0.34			0.12		0.07	0.96	0.01	0.07	0.80	0.03
Uniform Delay, d1		38.2			37.4		1.8	7.4	1.7	1.8	4.7	1.7
Progression Factor		1.00			1.00		1.31	1.07	5.79	1.00	1.00	1.00
Incremental Delay, d2		1.8			0.4		0.2	9.1	0.0	1.4	4.8	0.1
Delay (s)		40.0			37.8		2.6	17.1	9.8	3.2	9.5	1.8
Level of Service		D			D		A	B	A	A	A	A
Approach Delay (s/veh)		40.0			37.8			16.9			9.3	
Approach LOS		D			D			B			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	14.2	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.89	B
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	91.2%	9.0
Analysis Period (min)	15	ICU Level of Service
		F
c Critical Lane Group		

Queues

Future Background Traffic (2030 Opt)

2: Jane St & Lawrence Ave W

AM Peak Hour

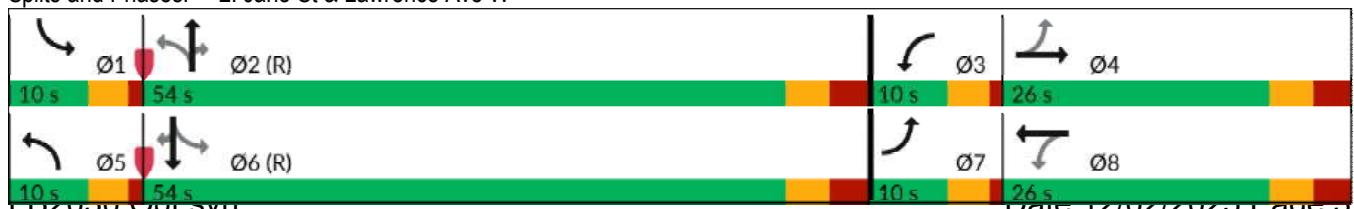


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	211	598	58	318	59	862	103	88	703	101
Future Volume (vph)	211	598	58	318	59	862	103	88	703	101
Lane Group Flow (vph)	220	701	60	377	61	898	107	92	732	105
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	26.0	10.0	26.0	10.0	54.0	54.0	10.0	54.0	54.0
Total Split (%)	10.0%	26.0%	10.0%	26.0%	10.0%	54.0%	54.0%	10.0%	54.0%	54.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.89	0.99	0.33	0.58	0.25	0.99	0.16	0.51	0.83	0.16
Control Delay (s/veh)	65.2	71.3	28.6	38.2	10.6	53.3	2.7	21.6	31.6	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.2	71.3	28.6	38.2	10.6	53.3	2.7	21.6	31.6	2.6
Queue Length 50th (m)	34.2	~81.2	8.4	33.8	4.5	~192.3	0.0	7.0	122.4	0.0
Queue Length 95th (m)	#76.1	#117.9	17.7	48.9	9.6	#266.2	7.0	18.6	#195.1	6.7
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	248	708	181	655	241	910	651	181	885	651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.99	0.33	0.58	0.25	0.99	0.16	0.51	0.83	0.16

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Background Traffic (2030 Opt)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	211	598	75	58	318	44	59	862	103	88	703	101
Future Volume (vph)	211	598	75	58	318	44	59	862	103	88	703	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.94		1.00	0.96		1.00	1.00	0.80	1.00	1.00	0.81
Flpb, ped/bikes	0.94	1.00		0.98	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1552	3056		1626	3082		1574	1789	1163	1589	1740	1162
Flt Permitted	0.39	1.00		0.18	1.00		0.15	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	644	3056		316	3082		256	1789	1163	136	1740	1162
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	220	623	78	60	331	46	61	898	107	92	732	105
RTOR Reduction (vph)	0	9	0	0	11	0	0	0	54	0	0	53
Lane Group Flow (vph)	220	692	0	60	366	0	61	898	53	92	732	52
Confl. Peds. (#/hr)	110		160	160		110	97		100	100		97
Confl. Bikes (#/hr)									5			2
Heavy Vehicles (%)	2%	7%	19%	2%	9%	7%	7%	5%	4%	6%	8%	5%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	27.9	21.9		25.5	20.7		53.1	48.3	48.3	53.1	48.3	48.3
Effective Green, g (s)	29.9	22.9		27.5	21.7		55.1	49.3	49.3	55.1	49.3	49.3
Actuated g/C Ratio	0.30	0.23		0.28	0.22		0.55	0.49	0.49	0.55	0.49	0.49
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	256	699		162	668		217	881	573	159	857	572
v/s Ratio Prot	c0.06	c0.23		0.02	0.12		0.02	c0.50		c0.03	0.42	
v/s Ratio Perm	0.20			0.08			0.14		0.05	0.29		0.04
v/c Ratio	0.86	0.99		0.37	0.55		0.28	1.02	0.09	0.58	0.85	0.09
Uniform Delay, d1	31.7	38.4		28.3	34.8		15.3	25.4	13.5	21.6	22.2	13.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	23.7	31.1		1.4	0.9		0.7	35.3	0.3	5.0	10.6	0.3
Delay (s)	55.4	69.5		29.7	35.7		16.1	60.6	13.8	26.6	32.8	13.8
Level of Service	E	E		C	D		B	E	B	C	C	B
Approach Delay (s/veh)		66.1			34.9			53.4			30.0	
Approach LOS		E			C			D			C	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	48.0	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.98	
Actuated Cycle Length (s)	100.0	Sum of lost time (s)
Intersection Capacity Utilization	90.5%	ICU Level of Service
Analysis Period (min)	15	

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		↑	↑		↓
Traffic Vol, veh/h	7	9	1305	5	2	1077
Future Vol, veh/h	7	9	1305	5	2	1077
Conflicting Peds, #/hr	0	0	0	60	60	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	7.5	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	14	0	6	0	50	7
Mvmt Flow	7	9	1374	5	2	1134

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2572	1434	0	0	1439
Stage 1	1434	-	-	-	-
Stage 2	1138	-	-	-	-
Critical Hdwy	6.54	6.2	-	-	4.6
Critical Hdwy Stg 1	5.54	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-
Follow-up Hdwy	3.626	3.3	-	-	2.65
Pot Cap-1 Maneuver	26	166	-	-	350
Stage 1	207	-	-	-	-
Stage 2	290	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	25	159	-	-	335
Mov Cap-2 Maneuver	153	-	-	-	-
Stage 1	198	-	-	-	-
Stage 2	285	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	30.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	156	335
HCM Lane V/C Ratio	-	-	0.108	0.006
HCM Ctrl Dly (s/v)	-	-	30.9	15.8
HCM Lane LOS	-	-	D	C
HCM 95th %tile Q (veh)	-	-	0.4	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	17	11	14	1293	1066	18
Future Vol, veh/h	17	11	14	1293	1066	18
Conflicting Peds, #/hr	1	1	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	18	0	0	6	7	17
Mvmt Flow	18	12	15	1361	1122	19

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2523	1132	1150	0	-	0
Stage 1	1131	-	-	-	-	-
Stage 2	1392	-	-	-	-	-
Critical Hdwy	6.58	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.58	-	-	-	-	-
Critical Hdwy Stg 2	5.58	-	-	-	-	-
Follow-up Hdwy	3.662	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	27	250	615	-	-	-
Stage 1	287	-	-	-	-	-
Stage 2	212	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	24	248	611	-	-	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	257	-	-	-	-	-
Stage 2	212	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	28.7	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	611	-	181	-	-
HCM Lane V/C Ratio	0.024	-	0.163	-	-
HCM Ctrl Dly (s/v)	11	0	28.7	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q (veh)	0.1	-	0.6	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

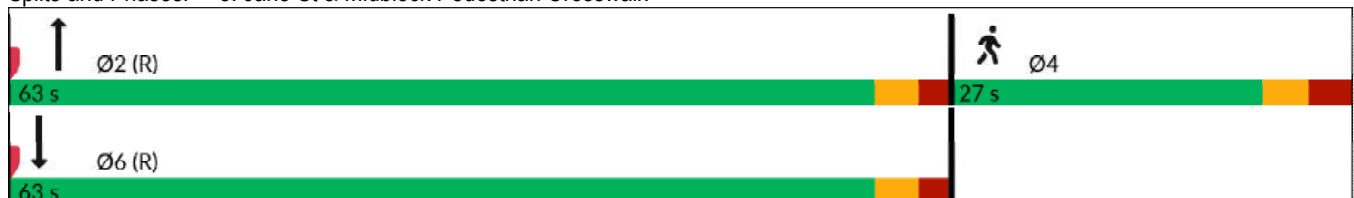
Future Background Traffic (2030 Opt)
AM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1307	1077	
Future Volume (vph)	1307	1077	
Lane Group Flow (vph)	1376	1134	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.90	0.75	
Control Delay (s/veh)	20.7	9.0	
Queue Delay	1.5	0.0	
Total Delay (s/veh)	22.2	9.0	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#370.5	#276.8	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1537	1522	
Starvation Cap Reductn	2	1	
Spillback Cap Reductn	58	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.93	0.75	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Background Traffic (2030 Opt)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1307	0	0	1077	0
Future Volume (vph)	0	0	0	0	0	0	0	1307	0	0	1077	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1773			1756	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1773			1756	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	0	0	1376	0	0	1134	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1376	0	0	1134	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	7%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1418			1404	
v/s Ratio Prot								c0.78			0.65	
v/s Ratio Perm												
v/c Ratio								0.97			0.81	
Uniform Delay, d ₁								8.0			5.1	
Progression Factor								1.00			0.56	
Incremental Delay, d ₂								17.8			3.4	
Delay (s)								25.9			6.2	
Level of Service								C			A	
Approach Delay (s/veh)		0.0			0.0			25.9			6.2	
Approach LOS		A			A			C			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.0									HCM 2000 Level of Service
												B
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			90.0								10.0	Sum of lost time (s)
Intersection Capacity Utilization			72.1%									ICU Level of Service
												C
Analysis Period (min)			15									

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	14	1	9	2	3	61	5	1232	4	67	957	53
Future Vol, veh/h	14	1	9	2	3	61	5	1232	4	67	957	53
Conflicting Peds, #/hr	0	0	0	0	0	0	28	0	31	31	0	28
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	0	3	20	6	0	3	8	4
Mvmt Flow	15	1	9	2	3	64	5	1297	4	71	1007	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2520	2519	1035	2520	2571	1328	1091	0	0	1332	0	0
Stage 1	1177	1177	-	1338	1338	-	-	-	-	-	-	-
Stage 2	1343	1342	-	1182	1233	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.2	7.1	6.5	6.23	4.3	-	-	4.13	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	3.5	4	3.327	2.38	-	-	2.227	-	-
Pot Cap-1 Maneuver	18	28	284	19	26	189	577	-	-	515	-	-
Stage 1	228	267	-	190	224	-	-	-	-	-	-	-
Stage 2	183	223	-	234	251	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 8	17	278	13	16	184	564	-	-	503	-	-
Mov Cap-2 Maneuver	40	102	-	104	117	-	-	-	-	-	-	-
Stage 1	216	170	-	180	212	-	-	-	-	-	-	-
Stage 2	114	211	-	146	160	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	100.6		38.5		0		0.8	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	564	-	-	61	175	503	-	-
HCM Lane V/C Ratio	0.009	-	-	0.414	0.397	0.14	-	-
HCM Ctrl Dly (s/v)	11.4	0	-	100.6	38.5	13.3	0	-
HCM Lane LOS	B	A	-	F	E	B	A	-
HCM 95th %tile Q (veh)	0	-	-	1.6	1.7	0.5	-	-

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

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	1	71	66	1	1	0
Future Vol, veh/h	1	71	66	1	1	0
Conflicting Peds, #/hr	16	0	0	16	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	1	100	93	1	1	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	110	0	212
Stage 1	-	-	110
Stage 2	-	-	102
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1493	-	781
Stage 1	-	-	920
Stage 2	-	-	927
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1476	-	772
Mov Cap-2 Maneuver	-	-	772
Stage 1	-	-	909
Stage 2	-	-	927

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1476	-	-	-	772
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	65	1	0	68	1	0	0	0	1	0	2
Future Vol, veh/h	8	65	1	0	68	1	0	0	0	1	0	2
Conflicting Peds, #/hr	10	0	0	0	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	3	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	11	90	1	0	94	1	0	0	0	1	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	91	0	0	209	218	93	220	218	105
Stage 1	-	-	-	-	-	-	113	113	-	105	105	-
Stage 2	-	-	-	-	-	-	96	105	-	115	113	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1499	-	-	1517	-	-	753	684	970	740	684	955
Stage 1	-	-	-	-	-	-	897	806	-	906	812	-
Stage 2	-	-	-	-	-	-	916	812	-	895	806	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1487	-	-	1517	-	-	746	673	968	729	673	948
Mov Cap-2 Maneuver	-	-	-	-	-	-	746	673	-	729	673	-
Stage 1	-	-	-	-	-	-	890	800	-	892	806	-
Stage 2	-	-	-	-	-	-	913	806	-	886	800	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.8	0	0	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1487	-	-	1517	-	-	862
HCM Lane V/C Ratio	-	0.007	-	-	-	-	-	0.005
HCM Ctrl Dly (s/v)	0	7.4	0	-	0	-	-	9.2
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q (veh)	-	0	-	-	0	-	-	0

Queues

Future Background Traffic (2030 Opt)

1: Jane St & John St/1795 Jane St Private Dwy

PM Peak Hour

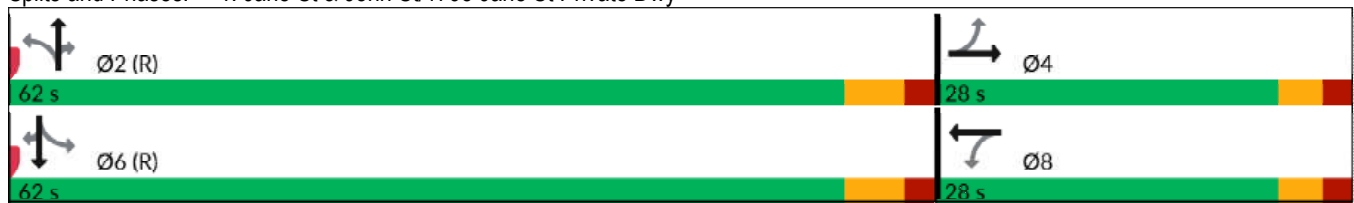


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	+	+	+	+	+	+
Traffic Volume (vph)	18	3	2	0	13	1169	5	6	1068	20
Future Volume (vph)	18	3	2	0	13	1169	5	6	1068	20
Lane Group Flow (vph)	0	36	0	11	14	1271	5	7	1161	22
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.25		0.06	0.05	0.79	0.00	0.03	0.72	0.02
Control Delay (s/veh)		31.3		1.7	3.2	9.8	0.6	2.5	7.4	0.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)		31.3		1.7	3.2	9.9	0.6	2.5	7.5	0.9
Queue Length 50th (m)		4.0		0.0	0.4	101.6	0.0	0.2	76.3	0.0
Queue Length 95th (m)		12.9		0.8	m1.0	#127.7	m0.0	1.2	160.6	1.3
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		374		421	283	1602	1069	213	1617	1110
Starvation Cap Reductn		0		0	0	6	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	62	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.10		0.03	0.05	0.80	0.00	0.03	0.75	0.02

Intersection Summary

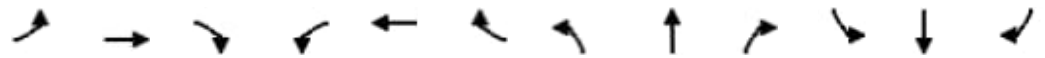
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Background Traffic (2030 Opt)
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	18	3	12	2	0	8	13	1169	5	6	1068	20
Future Volume (vph)	18	3	12	2	0	8	13	1169	5	6	1068	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.97			0.95		1.00	1.00	0.86	1.00	1.00	0.89
Flpb, ped/bikes		0.98			0.99		1.00	1.00	1.00	1.00	1.00	1.00
Fr t		0.95			0.89		1.00	1.00	0.85	1.00	1.00	0.85
Fl t Protected		0.97			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1612			1568		1685	1824	1214	1685	1842	1261
Fl t Permitted		0.82			0.93		0.18	1.00	1.00	0.14	1.00	1.00
Satd. Flow (perm)		1361			1475		323	1824	1214	242	1842	1261
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	13	2	0	9	14	1271	5	7	1161	22
RTOR Reduction (vph)	0	12	0	0	10	0	0	0	1	0	0	4
Lane Group Flow (vph)	0	24	0	0	1	0	14	1271	4	7	1161	18
Confl. Peds. (#/hr)	16		19	19		16	37		53	53		37
Confl. Bikes (#/hr)			4			1						
Heavy Vehicles (%)	0%	0%	8%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		5.0			5.0		74.0	74.0	74.0	74.0	74.0	74.0
Effective Green, g (s)		6.0			6.0		75.0	75.0	75.0	75.0	75.0	75.0
Actuated g/C Ratio		0.07			0.07		0.83	0.83	0.83	0.83	0.83	0.83
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		90			98		269	1520	1011	201	1535	1050
v/s Ratio Prot								c0.70				0.63
v/s Ratio Perm		c0.02			0.00		0.04		0.00	0.03		0.01
v/c Ratio		0.27			0.01		0.05	0.84	0.00	0.03	0.76	0.02
Uniform Delay, d1		39.9			39.2		1.3	4.1	1.3	1.3	3.4	1.3
Progression Factor		1.00			1.00		1.40	1.22	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.6			0.0		0.2	3.5	0.0	0.3	3.5	0.0
Delay (s)		41.5			39.3		2.1	8.5	1.3	1.6	6.9	1.3
Level of Service		D			D		A	A	A	A	A	A
Approach Delay (s/veh)		41.5			39.3			8.4			6.8	
Approach LOS		D			D			A			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	8.2	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.79	A
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	80.7%	9.0
Analysis Period (min)	15	ICU Level of Service
		D
c Critical Lane Group		

Queues

Future Background Traffic (2030 Opt)

2: Jane St & Lawrence Ave W

PM Peak Hour

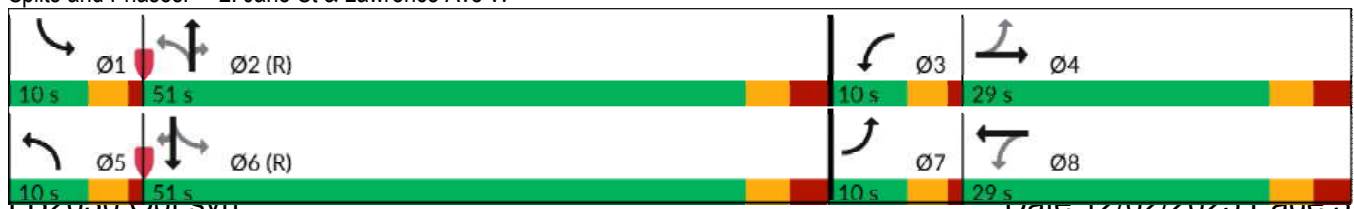


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	219	568	100	368	62	898	93	56	868	94
Future Volume (vph)	219	568	100	368	62	898	93	56	868	94
Lane Group Flow (vph)	235	700	108	452	67	966	100	60	933	101
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	29.0	10.0	29.0	10.0	51.0	51.0	10.0	51.0	51.0
Total Split (%)	10.0%	29.0%	10.0%	29.0%	10.0%	51.0%	51.0%	10.0%	51.0%	51.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.97	0.94	0.60	0.59	0.37	1.12	0.18	0.32	1.07	0.18
Control Delay (s/veh)	80.4	58.8	37.1	36.3	15.3	95.4	2.8	13.9	78.2	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.4	58.8	37.1	36.3	15.3	95.4	2.8	13.9	78.2	2.8
Queue Length 50th (m)	34.9	70.7	14.7	40.7	5.5	~231.2	0.0	5.0	~216.7	0.0
Queue Length 95th (m)	#82.3	#107.1	#29.3	57.3	11.4	#306.7	6.6	10.5	#291.7	6.6
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	243	744	181	762	182	865	553	187	873	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.94	0.60	0.59	0.37	1.12	0.18	0.32	1.07	0.18

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Background Traffic (2030 Opt)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	568	83	100	368	52	62	898	93	56	868	94
Future Volume (vph)	219	568	83	100	368	52	62	898	93	56	868	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.93		1.00	0.94		1.00	1.00	0.69	1.00	1.00	0.71
Flpb, ped/bikes	0.94	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1531	3066		1614	3143		1604	1807	1024	1652	1824	1048
Fl _t Permitted	0.36	1.00		0.17	1.00		0.08	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	577	3066		284	3143		143	1807	1024	148	1824	1048
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	235	611	89	108	396	56	67	966	100	60	933	101
RTOR Reduction (vph)	0	11	0	0	11	0	0	0	53	0	0	53
Lane Group Flow (vph)	235	689	0	108	441	0	67	966	47	60	933	48
Confl. Peds. (#/hr)	148		176	176		148	151		176	176		151
Confl. Bikes (#/hr)			3			4			9			6
Heavy Vehicles (%)	3%	6%	11%	3%	5%	4%	5%	4%	1%	2%	3%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	28.9	22.9		28.9	22.9		50.9	46.1	46.1	50.9	46.1	46.1
Effective Green, g (s)	30.9	23.9		30.9	23.9		52.9	47.1	47.1	52.9	47.1	47.1
Actuated g/C Ratio	0.31	0.24		0.31	0.24		0.53	0.47	0.47	0.53	0.47	0.47
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	245	732		180	751		160	851	482	165	859	493
v/s Ratio Prot	c0.07	0.22		0.04	0.14		c0.02	c0.53		0.02	0.51	
v/s Ratio Perm	c0.23			0.14			0.20		0.05	0.17		0.05
v/c Ratio	0.96	0.94		0.60	0.59		0.42	1.14	0.10	0.36	1.09	0.10
Uniform Delay, d ₁	32.4	37.4		26.8	33.7		21.2	26.4	14.7	21.1	26.4	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d ₂	45.6	20.1		5.5	1.2		1.8	75.2	0.4	1.4	56.8	0.4
Delay (s)	78.0	57.5		32.3	34.9		23.0	101.6	15.1	22.5	83.2	15.0
Level of Service	E	E		C	C		C	F	B	C	F	B
Approach Delay (s/veh)		62.6			34.4			89.3			73.6	
Approach LOS		E			C			F			E	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	69.7	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	1.02	E
Actuated Cycle Length (s)	100.0	Sum of lost time (s)
Intersection Capacity Utilization	88.8%	16.2
Analysis Period (min)	15	ICU Level of Service
		E

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	5	6	1193	6	9	1053
Future Vol, veh/h	5	6	1193	6	9	1053
Conflicting Peds, #/hr	6	0	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	5	6	1283	6	10	1132

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2510	1352	0	0	1355	0
Stage 1	1352	-	-	-	-	-
Stage 2	1158	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	32	185	-	-	514	-
Stage 1	243	-	-	-	-	-
Stage 2	302	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	29	176	-	-	490	-
Mov Cap-2 Maneuver	170	-	-	-	-	-
Stage 1	232	-	-	-	-	-
Stage 2	284	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	27.3	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	173	490
HCM Lane V/C Ratio	-	-	0.068	0.02
HCM Ctrl Dly (s/v)	-	-	27.3	12.5
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.2	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↔	↑	↑
Traffic Vol, veh/h	8	3	9	1165	1030	20
Future Vol, veh/h	8	3	9	1165	1030	20
Conflicting Peds, #/hr	2	1	33	0	0	33
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	4	3	0
Mvmt Flow	9	3	10	1253	1108	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2416	1142	1163	0	-	0
Stage 1	1141	-	-	-	-	-
Stage 2	1275	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	36	246	608	-	-	-
Stage 1	307	-	-	-	-	-
Stage 2	265	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	33	240	594	-	-	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	283	-	-	-	-	-
Stage 2	264	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	24.5	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	594	-	196	-	-
HCM Lane V/C Ratio	0.016	-	0.06	-	-
HCM Ctrl Dly (s/v)	11.2	0	24.5	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q (veh)	0.1	-	0.2	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

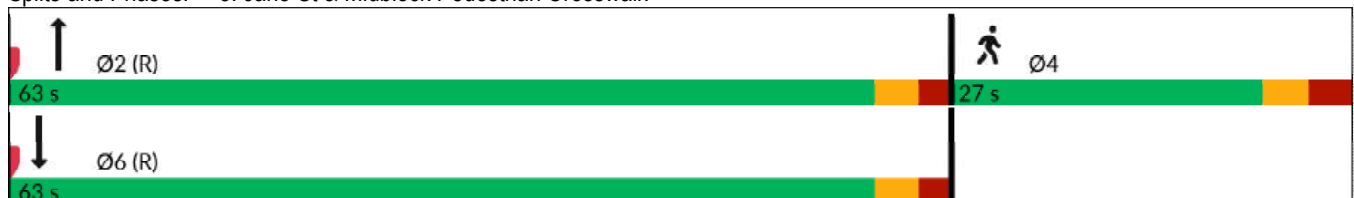
Future Background Traffic (2030 Opt)
PM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1174	1033	
Future Volume (vph)	1174	1033	
Lane Group Flow (vph)	1262	1111	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.81	0.70	
Control Delay (s/veh)	15.2	7.7	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	15.3	7.7	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#325.7	#264.0	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1566	1581	
Starvation Cap Reductn	8	4	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.81	0.70	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
 5: Jane St & Midblock Pedestrian Crosswalk

Future Background Traffic (2030 Opt)
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1174	0	0	1033	0
Future Volume (vph)	0	0	0	0	0	0	0	1174	0	0	1033	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1807			1824	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1807			1824	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	0	0	0	0	1262	0	0	1111	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1262	0	0	1111	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	3%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1445			1459	
v/s Ratio Prot								c0.70			0.61	
v/s Ratio Perm												
v/c Ratio								0.87			0.76	
Uniform Delay, d ₁								6.0			4.6	
Progression Factor								1.00			0.62	
Incremental Delay, d ₂								7.6			2.7	
Delay (s)								13.6			5.5	
Level of Service								B			A	
Approach Delay (s/veh)		0.0			0.0			13.6			5.5	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			9.8									HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio			0.79									A
Actuated Cycle Length (s)			90.0								10.0	Sum of lost time (s)
Intersection Capacity Utilization			65.1%									ICU Level of Service
Analysis Period (min)			15									C

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	8	2	17	7	3	39	14	1127	8	51	948	34
Future Vol, veh/h	8	2	17	7	3	39	14	1127	8	51	948	34
Conflicting Peds, #/hr	0	0	0	0	0	0	59	0	70	70	0	59
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	6	0	0	0	0	4	0	2	3	0
Mvmt Flow	8	2	17	7	3	40	14	1150	8	52	967	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2334	2386	1026	2346	2413	1220	1061	0	0	1228	0	0
Stage 1	1130	1130	-	1248	1248	-	-	-	-	-	-	-
Stage 2	1204	1256	-	1098	1165	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.26	7.1	6.5	6.2	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.354	3.5	4	3.3	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	26	35	280	26	33	222	664	-	-	568	-	-
Stage 1	250	281	-	214	247	-	-	-	-	-	-	-
Stage 2	227	245	-	260	271	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	16	23	267	18	22	210	634	-	-	537	-	-
Mov Cap-2 Maneuver	99	123	-	121	135	-	-	-	-	-	-	-
Stage 1	224	209	-	190	219	-	-	-	-	-	-	-
Stage 2	170	217	-	188	202	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	30.6		31.7		0.1		0.6	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	634	-	-	168	184	537	-	-
HCM Lane V/C Ratio	0.023	-	-	0.164	0.272	0.097	-	-
HCM Ctrl Dly (s/v)	10.8	0	-	30.6	31.7	12.4	0	-
HCM Lane LOS	B	A	-	D	D	B	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.6	1.1	0.3	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	6	55	40	1	5	9
Future Vol, veh/h	6	55	40	1	5	9
Conflicting Peds, #/hr	54	0	0	54	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	2	0	0	0	0
Mvmt Flow	7	64	47	1	6	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	102	0	0 180 102
Stage 1	-	-	- 102 -
Stage 2	-	-	- 78 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1503	-	- 814 959
Stage 1	-	-	- 927 -
Stage 2	-	-	- 950 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	1446	-	- 779 922
Mov Cap-2 Maneuver	-	-	- 779 -
Stage 1	-	-	- 887 -
Stage 2	-	-	- 950 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.7	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1446	-	-	-	865
HCM Lane V/C Ratio	0.005	-	-	-	0.019
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	52	9	3	32	5	2	0	3	7	0	3
Future Vol, veh/h	8	52	9	3	32	5	2	0	3	7	0	3
Conflicting Peds, #/hr	15	0	2	2	0	15	2	0	5	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	2	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	10	63	11	4	39	6	2	0	4	9	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	76	0	0	145	159	76	161	161	59
Stage 1	-	-	-	-	-	-	91	91	-	65	65	-
Stage 2	-	-	-	-	-	-	54	68	-	96	96	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1556	-	-	1536	-	-	828	737	991	809	735	1012
Stage 1	-	-	-	-	-	-	921	823	-	951	845	-
Stage 2	-	-	-	-	-	-	963	842	-	916	819	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1538	-	-	1534	-	-	816	719	986	787	717	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	816	719	-	787	717	-
Stage 1	-	-	-	-	-	-	913	816	-	933	832	-
Stage 2	-	-	-	-	-	-	955	829	-	903	812	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.9	0.6	9	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	910	1538	-	-	1534	-	-	841
HCM Lane V/C Ratio	0.007	0.006	-	-	0.002	-	-	0.015
HCM Ctrl Dly (s/v)	9	7.4	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	0



2035 Capacity Analysis

Queues

Future Background Traffic (2035 Opt)

1: Jane St & John St/1795 Jane St Private Dwy

AM Peak Hour

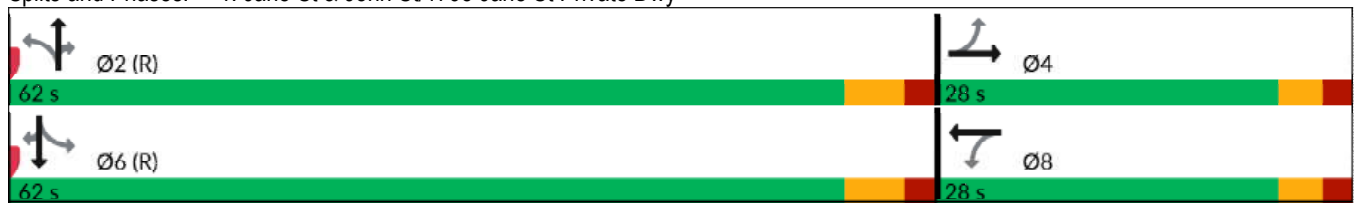


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	33	1	9	5	16	1289	6	6	1062	29
Future Volume (vph)	33	1	9	5	16	1289	6	6	1062	29
Lane Group Flow (vph)	0	59	0	26	17	1371	6	6	1130	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.39		0.15	0.07	0.93	0.01	0.06	0.78	0.03
Control Delay (s/veh)		32.6		26.6	3.8	17.7	0.8	4.3	10.9	1.4
Queue Delay		0.0		0.0	0.0	0.2	0.0	0.0	0.4	0.0
Total Delay (s/veh)		32.6		26.6	3.8	17.9	0.8	4.3	11.4	1.4
Queue Length 50th (m)		6.2		2.5	0.5	157.7	0.0	0.2	82.2	0.2
Queue Length 95th (m)		17.5		9.8	m1.1	m#317.5	m0.0	1.4	#200.9	2.1
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		337		405	260	1469	881	93	1455	919
Starvation Cap Reductn		0		0	0	4	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	72	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.18		0.06	0.07	0.94	0.01	0.06	0.82	0.03

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Background Traffic (2035 Opt)
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	33	1	22	9	5	10	16	1289	6	6	1062	29
Future Volume (vph)	33	1	22	9	5	10	16	1289	6	6	1062	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.96			0.96		1.00	1.00	0.75	1.00	1.00	0.86
Flpb, ped/bikes		0.96			0.97		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1453			1616		1685	1773	1059	1685	1756	1105
Flt Permitted		0.80			0.91		0.18	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)		1201			1493		314	1773	1059	114	1756	1105
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	35	1	23	10	5	11	17	1371	6	6	1130	31
RTOR Reduction (vph)	0	21	0	0	10	0	0	0	1	0	0	5
Lane Group Flow (vph)	0	38	0	0	16	0	17	1371	5	6	1130	26
Confl. Peds. (#/hr)	37		46	46		37	51		100	100		51
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	9%	0%	9%	0%	0%	0%	0%	6%	0%	0%	7%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		7.4			7.4		71.6	71.6	71.6	71.6	71.6	71.6
Effective Green, g (s)		8.4			8.4		72.6	72.6	72.6	72.6	72.6	72.6
Actuated g/C Ratio		0.09			0.09		0.81	0.81	0.81	0.81	0.81	0.81
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		112			139		253	1430	854	91	1416	891
v/s Ratio Prot								c0.77			0.64	
v/s Ratio Perm		c0.03			0.01		0.05		0.00	0.05		0.02
v/c Ratio		0.34			0.12		0.07	0.96	0.01	0.07	0.80	0.03
Uniform Delay, d1		38.2			37.4		1.8	7.4	1.7	1.8	4.7	1.7
Progression Factor		1.00			1.00		1.31	1.07	5.79	1.00	1.00	1.00
Incremental Delay, d2		1.8			0.4		0.2	9.1	0.0	1.4	4.8	0.1
Delay (s)		40.0			37.8		2.6	17.1	9.8	3.2	9.5	1.8
Level of Service		D			D		A	B	A	A	A	A
Approach Delay (s/veh)		40.0			37.8			16.9			9.3	
Approach LOS		D			D			B			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	14.2	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.89	B
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	91.2%	9.0
Analysis Period (min)	15	ICU Level of Service
		F
c Critical Lane Group		

Queues

Future Background Traffic (2035 Opt)

2: Jane St & Lawrence Ave W

AM Peak Hour

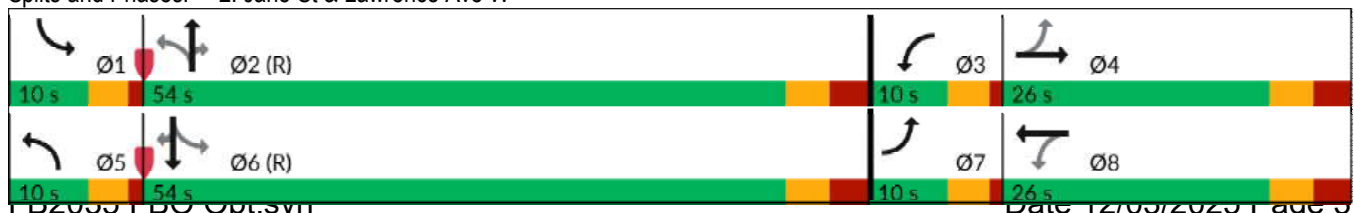


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	211	598	58	318	59	862	103	88	703	101
Future Volume (vph)	211	598	58	318	59	862	103	88	703	101
Lane Group Flow (vph)	220	701	60	377	61	898	107	92	732	105
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	26.0	10.0	26.0	10.0	54.0	54.0	10.0	54.0	54.0
Total Split (%)	10.0%	26.0%	10.0%	26.0%	10.0%	54.0%	54.0%	10.0%	54.0%	54.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.89	0.99	0.33	0.58	0.25	0.99	0.16	0.51	0.83	0.16
Control Delay (s/veh)	65.2	71.3	28.6	38.2	10.6	53.3	2.7	21.6	31.6	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.2	71.3	28.6	38.2	10.6	53.3	2.7	21.6	31.6	2.6
Queue Length 50th (m)	34.2	~81.2	8.4	33.8	4.5	~192.3	0.0	7.0	122.4	0.0
Queue Length 95th (m)	#76.1	#117.9	17.7	48.9	9.6	#266.2	7.0	18.6	#195.1	6.7
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	248	708	181	655	241	910	651	181	885	651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.99	0.33	0.58	0.25	0.99	0.16	0.51	0.83	0.16

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Background Traffic (2035 Opt)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	211	598	75	58	318	44	59	862	103	88	703	101
Future Volume (vph)	211	598	75	58	318	44	59	862	103	88	703	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.94		1.00	0.96		1.00	1.00	0.80	1.00	1.00	0.81
Flpb, ped/bikes	0.94	1.00		0.98	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1552	3056		1626	3082		1574	1789	1163	1589	1740	1162
Flt Permitted	0.39	1.00		0.18	1.00		0.15	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	644	3056		316	3082		256	1789	1163	136	1740	1162
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	220	623	78	60	331	46	61	898	107	92	732	105
RTOR Reduction (vph)	0	9	0	0	11	0	0	0	54	0	0	53
Lane Group Flow (vph)	220	692	0	60	366	0	61	898	53	92	732	52
Confl. Peds. (#/hr)	110		160	160		110	97		100	100		97
Confl. Bikes (#/hr)									5			2
Heavy Vehicles (%)	2%	7%	19%	2%	9%	7%	7%	5%	4%	6%	8%	5%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	27.9	21.9		25.5	20.7		53.1	48.3	48.3	53.1	48.3	48.3
Effective Green, g (s)	29.9	22.9		27.5	21.7		55.1	49.3	49.3	55.1	49.3	49.3
Actuated g/C Ratio	0.30	0.23		0.28	0.22		0.55	0.49	0.49	0.55	0.49	0.49
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	256	699		162	668		217	881	573	159	857	572
v/s Ratio Prot	c0.06	c0.23		0.02	0.12		0.02	c0.50		c0.03	0.42	
v/s Ratio Perm	0.20			0.08			0.14		0.05	0.29		0.04
v/c Ratio	0.86	0.99		0.37	0.55		0.28	1.02	0.09	0.58	0.85	0.09
Uniform Delay, d1	31.7	38.4		28.3	34.8		15.3	25.4	13.5	21.6	22.2	13.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	23.7	31.1		1.4	0.9		0.7	35.3	0.3	5.0	10.6	0.3
Delay (s)	55.4	69.5		29.7	35.7		16.1	60.6	13.8	26.6	32.8	13.8
Level of Service	E	E		C	D		B	E	B	C	C	B
Approach Delay (s/veh)		66.1			34.9			53.4			30.0	
Approach LOS		E			C			D			C	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	48.0	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.98	
Actuated Cycle Length (s)	100.0	Sum of lost time (s)
Intersection Capacity Utilization	90.5%	ICU Level of Service
Analysis Period (min)	15	

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		↑	↑		↓
Traffic Vol, veh/h	7	9	1305	5	2	1077
Future Vol, veh/h	7	9	1305	5	2	1077
Conflicting Peds, #/hr	0	0	0	60	60	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	7.5	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	14	0	6	0	50	7
Mvmt Flow	7	9	1374	5	2	1134

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2572	1434	0	0	1439
Stage 1	1434	-	-	-	-
Stage 2	1138	-	-	-	-
Critical Hdwy	6.54	6.2	-	-	4.6
Critical Hdwy Stg 1	5.54	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-
Follow-up Hdwy	3.626	3.3	-	-	2.65
Pot Cap-1 Maneuver	26	166	-	-	350
Stage 1	207	-	-	-	-
Stage 2	290	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	25	159	-	-	335
Mov Cap-2 Maneuver	153	-	-	-	-
Stage 1	198	-	-	-	-
Stage 2	285	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	30.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	156	335
HCM Lane V/C Ratio	-	-	0.108	0.006
HCM Ctrl Dly (s/v)	-	-	30.9	15.8
HCM Lane LOS	-	-	D	C
HCM 95th %tile Q (veh)	-	-	0.4	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	17	11	14	1293	1066	18
Future Vol, veh/h	17	11	14	1293	1066	18
Conflicting Peds, #/hr	1	1	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	18	0	0	6	7	17
Mvmt Flow	18	12	15	1361	1122	19

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2523	1132	1150	0	-	0
Stage 1	1131	-	-	-	-	-
Stage 2	1392	-	-	-	-	-
Critical Hdwy	6.58	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.58	-	-	-	-	-
Critical Hdwy Stg 2	5.58	-	-	-	-	-
Follow-up Hdwy	3.662	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	27	250	615	-	-	-
Stage 1	287	-	-	-	-	-
Stage 2	212	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	24	248	611	-	-	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	257	-	-	-	-	-
Stage 2	212	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	28.7	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	611	-	181	-	-
HCM Lane V/C Ratio	0.024	-	0.163	-	-
HCM Ctrl Dly (s/v)	11	0	28.7	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q (veh)	0.1	-	0.6	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

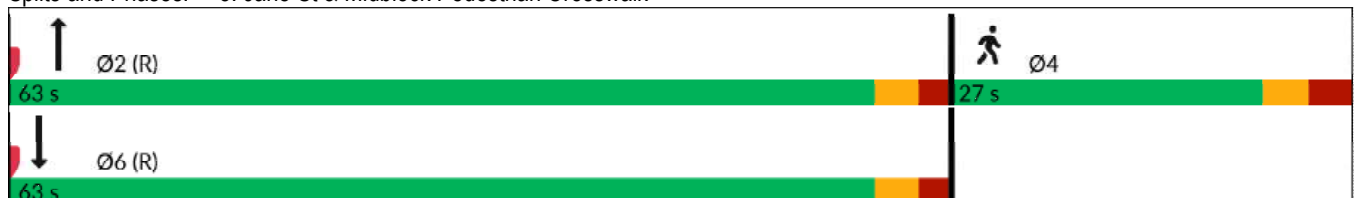
Future Background Traffic (2035 Opt)
AM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1307	1077	
Future Volume (vph)	1307	1077	
Lane Group Flow (vph)	1376	1134	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.90	0.75	
Control Delay (s/veh)	20.7	9.0	
Queue Delay	1.5	0.0	
Total Delay (s/veh)	22.2	9.0	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#370.5	#276.8	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1537	1522	
Starvation Cap Reductn	2	1	
Spillback Cap Reductn	58	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.93	0.75	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Background Traffic (2035 Opt)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1307	0	0	1077	0
Future Volume (vph)	0	0	0	0	0	0	0	1307	0	0	1077	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1773			1756	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1773			1756	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	0	0	1376	0	0	1134	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1376	0	0	1134	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	7%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1418			1404	
v/s Ratio Prot								c0.78			0.65	
v/s Ratio Perm												
v/c Ratio								0.97			0.81	
Uniform Delay, d ₁								8.0			5.1	
Progression Factor								1.00			0.56	
Incremental Delay, d ₂								17.8			3.4	
Delay (s)								25.9			6.2	
Level of Service								C			A	
Approach Delay (s/veh)		0.0			0.0			25.9			6.2	
Approach LOS		A			A			C			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.0									HCM 2000 Level of Service
												B
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			90.0								10.0	Sum of lost time (s)
Intersection Capacity Utilization			72.1%									ICU Level of Service
												C
Analysis Period (min)			15									
c Critical Lane Group												

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	14	1	9	2	3	61	5	1232	4	67	957	53
Future Vol, veh/h	14	1	9	2	3	61	5	1232	4	67	957	53
Conflicting Peds, #/hr	0	0	0	0	0	0	28	0	31	31	0	28
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	0	3	20	6	0	3	8	4
Mvmt Flow	15	1	9	2	3	64	5	1297	4	71	1007	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2520	2519	1035	2520	2571	1328	1091	0	0	1332	0	0
Stage 1	1177	1177	-	1338	1338	-	-	-	-	-	-	-
Stage 2	1343	1342	-	1182	1233	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.2	7.1	6.5	6.23	4.3	-	-	4.13	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	3.5	4	3.327	2.38	-	-	2.227	-	-
Pot Cap-1 Maneuver	18	28	284	19	26	189	577	-	-	515	-	-
Stage 1	228	267	-	190	224	-	-	-	-	-	-	-
Stage 2	183	223	-	234	251	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 8	17	278	13	16	184	564	-	-	503	-	-
Mov Cap-2 Maneuver	40	102	-	104	117	-	-	-	-	-	-	-
Stage 1	216	170	-	180	212	-	-	-	-	-	-	-
Stage 2	114	211	-	146	160	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	100.6		38.5		0		0.8	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	564	-	-	61	175	503	-	-
HCM Lane V/C Ratio	0.009	-	-	0.414	0.397	0.14	-	-
HCM Ctrl Dly (s/v)	11.4	0	-	100.6	38.5	13.3	0	-
HCM Lane LOS	B	A	-	F	E	B	A	-
HCM 95th %tile Q (veh)	0	-	-	1.6	1.7	0.5	-	-

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

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			4	Y	
Traffic Vol, veh/h	73	1	0	69	0	0
Future Vol, veh/h	73	1	0	69	0	0
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	101	1	0	96	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	102	0	198
Stage 1	-	-	-	-	102
Stage 2	-	-	-	-	96
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1503	-	795
Stage 1	-	-	-	-	927
Stage 2	-	-	-	-	933
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1503	-	795
Mov Cap-2 Maneuver	-	-	-	-	787
Stage 1	-	-	-	-	927
Stage 2	-	-	-	-	933

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1503	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q (veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	9	64	67	2	2	2
Future Vol, veh/h	9	64	67	2	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	72	72	100	100	100
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	9	89	93	2	2	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	95	0	-	0	201
Stage 1	-	-	-	-	94
Stage 2	-	-	-	-	107
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1512	-	-	-	792
Stage 1	-	-	-	-	935
Stage 2	-	-	-	-	922
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1512	-	-	-	787
Mov Cap-2 Maneuver	-	-	-	-	787
Stage 1	-	-	-	-	929
Stage 2	-	-	-	-	922

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.7	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1512	-	-	-	868
HCM Lane V/C Ratio	0.006	-	-	-	0.005
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0

Queues

Future Background Traffic (2035 Opt)

1: Jane St & John St/1795 Jane St Private Dwy

PM Peak Hour

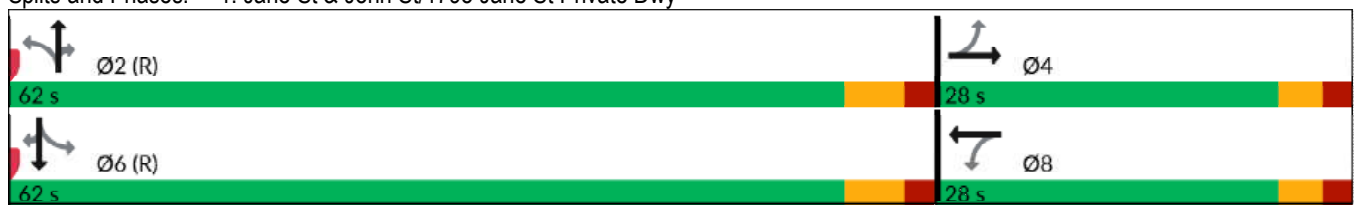


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	18	3	2	0	13	1175	5	6	1076	20
Future Volume (vph)	18	3	2	0	13	1175	5	6	1076	20
Lane Group Flow (vph)	0	36	0	11	14	1277	5	7	1170	22
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.25		0.06	0.05	0.80	0.00	0.03	0.72	0.02
Control Delay (s/veh)		31.3		1.7	3.2	10.0	0.6	2.5	7.6	0.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)		31.3		1.7	3.2	10.0	0.6	2.5	7.7	0.9
Queue Length 50th (m)		4.0		0.0	0.4	103.2	0.0	0.2	78.0	0.0
Queue Length 95th (m)		12.9		0.8	m1.0	#130.1	m0.0	1.2	164.4	1.3
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		374		421	277	1602	1069	209	1617	1110
Starvation Cap Reductn		0		0	0	6	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	64	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.10		0.03	0.05	0.80	0.00	0.03	0.75	0.02

Intersection Summary

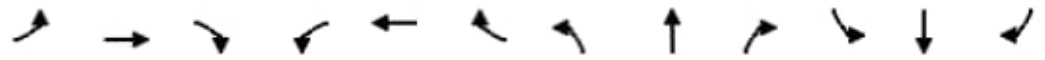
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Background Traffic (2035 Opt)
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	18	3	12	2	0	8	13	1175	5	6	1076	20
Future Volume (vph)	18	3	12	2	0	8	13	1175	5	6	1076	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.97			0.95		1.00	1.00	0.86	1.00	1.00	0.89
Flpb, ped/bikes		0.98			0.99		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1612			1568		1685	1824	1214	1685	1842	1261
Flt Permitted		0.82			0.93		0.18	1.00	1.00	0.13	1.00	1.00
Satd. Flow (perm)		1361			1475		316	1824	1214	238	1842	1261
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	13	2	0	9	14	1277	5	7	1170	22
RTOR Reduction (vph)	0	12	0	0	10	0	0	0	1	0	0	4
Lane Group Flow (vph)	0	24	0	0	1	0	14	1277	4	7	1170	18
Confl. Peds. (#/hr)	16		19	19		16	37		53	53		37
Confl. Bikes (#/hr)			4			1						
Heavy Vehicles (%)	0%	0%	8%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		5.0			5.0		74.0	74.0	74.0	74.0	74.0	74.0
Effective Green, g (s)		6.0			6.0		75.0	75.0	75.0	75.0	75.0	75.0
Actuated g/C Ratio		0.07			0.07		0.83	0.83	0.83	0.83	0.83	0.83
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		90			98		263	1520	1011	198	1535	1050
v/s Ratio Prot							c0.70				0.64	
v/s Ratio Perm		c0.02			0.00		0.04		0.00	0.03		0.01
v/c Ratio		0.27			0.01		0.05	0.84	0.00	0.04	0.76	0.02
Uniform Delay, d1		39.9			39.2		1.3	4.2	1.3	1.3	3.4	1.3
Progression Factor		1.00			1.00		1.41	1.22	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.6			0.0		0.2	3.6	0.0	0.3	3.6	0.0
Delay (s)		41.5			39.3		2.1	8.6	1.3	1.6	7.1	1.3
Level of Service		D			D		A	A	A	A	A	A
Approach Delay (s/veh)		41.5			39.3			8.5			6.9	
Approach LOS		D			D			A			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	8.4	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.80	A
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	81.0%	9.0
Analysis Period (min)	15	ICU Level of Service
		D
c Critical Lane Group		

Queues

Future Background Traffic (2035 Opt)

2: Jane St & Lawrence Ave W

PM Peak Hour

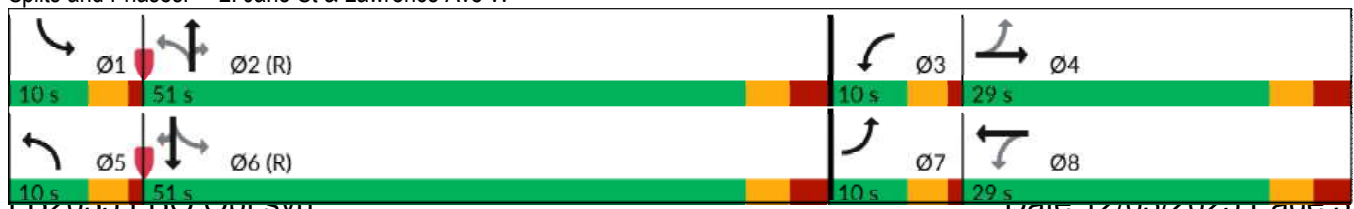


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	219	568	100	368	62	904	93	56	873	94
Future Volume (vph)	219	568	100	368	62	904	93	56	873	94
Lane Group Flow (vph)	235	700	108	452	67	972	100	60	939	101
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	29.0	10.0	29.0	10.0	51.0	51.0	10.0	51.0	51.0
Total Split (%)	10.0%	29.0%	10.0%	29.0%	10.0%	51.0%	51.0%	10.0%	51.0%	51.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	1.00	0.94	0.60	0.59	0.37	1.12	0.18	0.32	1.08	0.18
Control Delay (s/veh)	88.4	58.8	37.1	36.3	15.3	98.0	2.8	13.9	80.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	88.4	58.8	37.1	36.3	15.3	98.0	2.8	13.9	80.5	2.8
Queue Length 50th (m)	34.9	70.7	14.7	40.7	5.5	~233.7	0.0	5.0	~219.2	0.0
Queue Length 95th (m)	#83.8	#107.1	#29.3	57.3	11.4	#309.2	6.6	10.5	#294.2	6.6
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	236	744	181	762	182	865	553	187	873	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.94	0.60	0.59	0.37	1.12	0.18	0.32	1.08	0.18

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Background Traffic (2035 Opt)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	568	83	100	368	52	62	904	93	56	873	94
Future Volume (vph)	219	568	83	100	368	52	62	904	93	56	873	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.93		1.00	0.94		1.00	1.00	0.69	1.00	1.00	0.71
Flpb, ped/bikes	0.94	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frnt	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1531	3066		1614	3143		1604	1807	1024	1652	1824	1048
Flt Permitted	0.36	1.00		0.17	1.00		0.08	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	577	3066		284	3143		143	1807	1024	148	1824	1048
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	235	611	89	108	396	56	67	972	100	60	939	101
RTOR Reduction (vph)	0	11	0	0	11	0	0	0	53	0	0	53
Lane Group Flow (vph)	235	689	0	108	441	0	67	972	47	60	939	48
Confl. Peds. (#/hr)	148		176	176		148	151		176	176		151
Confl. Bikes (#/hr)			3			4			9			6
Heavy Vehicles (%)	3%	6%	11%	3%	5%	4%	5%	4%	1%	2%	3%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	28.9	22.9		28.9	22.9		50.9	46.1	46.1	50.9	46.1	46.1
Effective Green, g (s)	30.9	23.9		30.9	23.9		52.9	47.1	47.1	52.9	47.1	47.1
Actuated g/C Ratio	0.31	0.24		0.31	0.24		0.53	0.47	0.47	0.53	0.47	0.47
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	245	732		180	751		160	851	482	165	859	493
v/s Ratio Prot	c0.07	0.22		0.04	0.14		c0.02	c0.54		0.02	0.51	
v/s Ratio Perm	c0.23			0.14			0.20		0.05	0.17		0.05
v/c Ratio	0.96	0.94		0.60	0.59		0.42	1.14	0.10	0.36	1.09	0.10
Uniform Delay, d1	32.4	37.4		26.8	33.7		21.2	26.4	14.7	21.1	26.4	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	45.6	20.1		5.5	1.2		1.8	77.9	0.4	1.4	59.3	0.4
Delay (s)	78.0	57.5		32.3	34.9		23.0	104.4	15.1	22.5	85.7	15.0
Level of Service	E	E		C	C		C	F	B	C	F	B
Approach Delay (s/veh)		62.6			34.4			91.8			75.8	
Approach LOS		E			C			F			E	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	71.2	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	1.02	E
Actuated Cycle Length (s)	100.0	Sum of lost time (s)
Intersection Capacity Utilization	88.8%	16.2
Analysis Period (min)	15	ICU Level of Service
		E

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	11	12	1193	12	17	1053
Future Vol, veh/h	11	12	1193	12	17	1053
Conflicting Peds, #/hr	6	0	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	12	13	1283	13	18	1132

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2530	1356	0	0	1362
Stage 1	1356	-	-	-	-
Stage 2	1174	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	31	184	-	-	511
Stage 1	242	-	-	-	-
Stage 2	296	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	26	175	-	-	487
Mov Cap-2 Maneuver	164	-	-	-	-
Stage 1	231	-	-	-	-
Stage 2	265	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	29.7	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	170	487
HCM Lane V/C Ratio	-	-	0.145	0.038
HCM Ctrl Dly (s/v)	-	-	29.7	12.7
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.5	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	8	3	9	1171	1036	20
Future Vol, veh/h	8	3	9	1171	1036	20
Conflicting Peds, #/hr	2	1	33	0	0	33
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	4	3	0
Mvmt Flow	9	3	10	1259	1114	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2428	1148	1169	0	-	0
Stage 1	1147	-	-	-	-	-
Stage 2	1281	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	36	244	605	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	33	238	591	-	-	-
Mov Cap-2 Maneuver	182	-	-	-	-	-
Stage 1	281	-	-	-	-	-
Stage 2	262	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	24.8	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	591	-	194	-	-
HCM Lane V/C Ratio	0.016	-	0.061	-	-
HCM Ctrl Dly (s/v)	11.2	0	24.8	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q (veh)	0.1	-	0.2	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

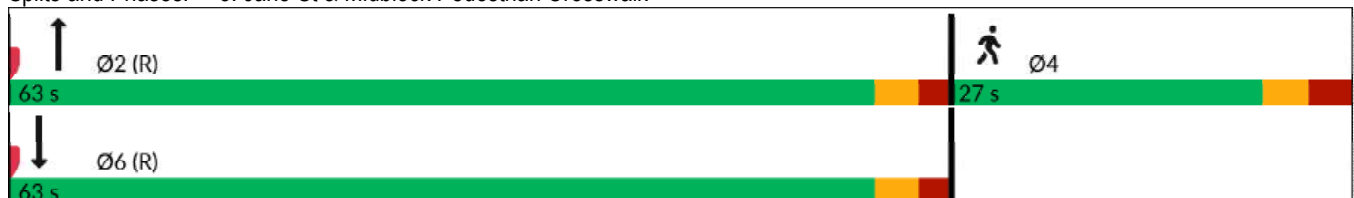
Future Background Traffic (2035 Opt)
PM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1180	1039	
Future Volume (vph)	1180	1039	
Lane Group Flow (vph)	1269	1117	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.81	0.71	
Control Delay (s/veh)	15.4	7.9	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	15.5	7.9	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#328.3	#266.4	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1566	1581	
Starvation Cap Reductn	8	5	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.81	0.71	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Background Traffic (2035 Opt)
PM Peak Hour

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	0	0	0	0	0	1180	0	0	1039	0	
Future Volume (vph)	0	0	0	0	0	0	0	1180	0	0	1039	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	
Total Lost time (s)								4.0			4.0		
Lane Util. Factor								1.00			1.00		
Flt								1.00			1.00		
Flt Protected								1.00			1.00		
Satd. Flow (prot)								1807			1824		
Flt Permitted								1.00			1.00		
Satd. Flow (perm)								1807			1824		
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	
Adj. Flow (vph)	0	0	0	0	0	0	0	1269	0	0	1117	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	0	0	0	1269	0	0	1117	0	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	3%	0%	
Turn Type								NA			NA		
Protected Phases								2			6		
Permitted Phases													
Actuated Green, G (s)								71.0			71.0		
Effective Green, g (s)								72.0			72.0		
Actuated g/C Ratio								0.80			0.80		
Clearance Time (s)								5.0			5.0		
Vehicle Extension (s)								3.0			3.0		
Lane Grp Cap (vph)								1445			1459		
v/s Ratio Prot								c0.70			0.61		
v/s Ratio Perm													
v/c Ratio								0.88			0.77		
Uniform Delay, d1								6.1			4.6		
Progression Factor								1.00			0.61		
Incremental Delay, d2								7.9			2.7		
Delay (s)								13.9			5.6		
Level of Service								B			A		
Approach Delay (s/veh)		0.0			0.0			13.9			5.6		
Approach LOS		A			A			B			A		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			10.0					HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.79										
Actuated Cycle Length (s)			90.0					Sum of lost time (s)			10.0		
Intersection Capacity Utilization			65.4%					ICU Level of Service			C		
Analysis Period (min)			15										

c Critical Lane Group

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	8	2	17	7	3	39	14	1133	8	51	954	34
Future Vol, veh/h	8	2	17	7	3	39	14	1133	8	51	954	34
Conflicting Peds, #/hr	0	0	0	0	0	0	59	0	70	70	0	59
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	6	0	0	0	0	4	0	2	3	0
Mvmt Flow	8	2	17	7	3	40	14	1156	8	52	973	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2346	2398	1032	2358	2425	1226	1067	0	0	1234	0	0
Stage 1	1136	1136	-	1254	1254	-	-	-	-	-	-	-
Stage 2	1210	1262	-	1104	1171	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.26	7.1	6.5	6.2	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.354	3.5	4	3.3	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	26	34	278	25	33	220	661	-	-	565	-	-
Stage 1	248	279	-	213	246	-	-	-	-	-	-	-
Stage 2	225	243	-	258	269	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	16	22	265	17	22	208	631	-	-	534	-	-
Mov Cap-2 Maneuver	97	122	-	119	133	-	-	-	-	-	-	-
Stage 1	222	207	-	189	218	-	-	-	-	-	-	-
Stage 2	168	215	-	185	199	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	31		32.1		0.1		0.6	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	631	-	-	166	182	534	-	-
HCM Lane V/C Ratio	0.023	-	-	0.166	0.275	0.097	-	-
HCM Ctrl Dly (s/v)	10.8	0	-	31	32.1	12.5	0	-
HCM Lane LOS	B	A	-	D	D	B	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.6	1.1	0.3	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	h			4	W	
Traffic Vol, veh/h	61	9	3	43	2	3
Future Vol, veh/h	61	9	3	43	2	3
Conflicting Peds, #/hr	0	2	2	0	2	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	74	11	4	52	2	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	87	0	144 87
Stage 1	-	-	-	-	82 -
Stage 2	-	-	-	-	62 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1522	-	853 977
Stage 1	-	-	-	-	946 -
Stage 2	-	-	-	-	966 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1520	-	848 972
Mov Cap-2 Maneuver	-	-	-	-	822 -
Stage 1	-	-	-	-	945 -
Stage 2	-	-	-	-	961 -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.5	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	906	-	-	1520	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Ctrl Dly (s/v)	9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	14	50	34	6	12	12
Future Vol, veh/h	14	50	34	6	12	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	82	82	100	100	100
Heavy Vehicles, %	0	2	4	0	0	0
Mvmt Flow	14	61	41	6	12	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	47	0	-	0	133 44
Stage 1	-	-	-	-	44 -
Stage 2	-	-	-	-	89 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1573	-	-	-	866 1032
Stage 1	-	-	-	-	984 -
Stage 2	-	-	-	-	940 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1573	-	-	-	858 1032
Mov Cap-2 Maneuver	-	-	-	-	858 -
Stage 1	-	-	-	-	975 -
Stage 2	-	-	-	-	940 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.4	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1573	-	-	-	937
HCM Lane V/C Ratio	0.009	-	-	-	0.026
HCM Ctrl Dly (s/v)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1



APPENDIX H

Future Total Intersection Capacity Analysis



2030 Capacity Analysis

Queues

Future Total Traffic (Phase 1: 2030 Opt)

1: Jane St & John St/1795 Jane St Private Dwy

AM Peak Hour

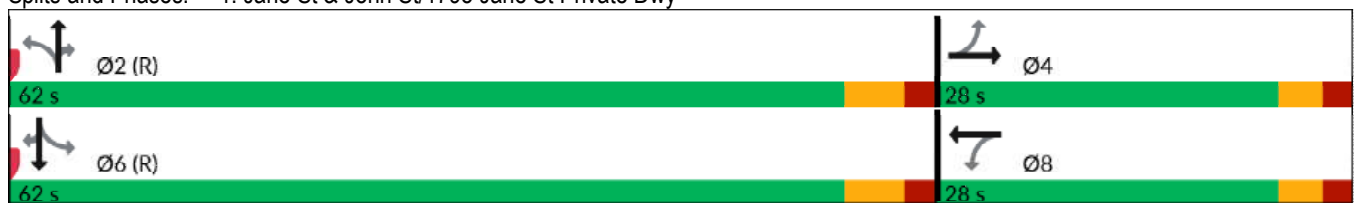


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	33	1	9	5	16	1296	6	6	1065	29
Future Volume (vph)	33	1	9	5	16	1296	6	6	1065	29
Lane Group Flow (vph)	0	59	0	26	17	1379	6	6	1133	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.39		0.15	0.07	0.93	0.01	0.07	0.77	0.03
Control Delay (s/veh)		32.6		26.6	3.8	17.5	0.8	4.7	10.7	1.4
Queue Delay		0.0		0.0	0.0	0.1	0.0	0.0	0.4	0.0
Total Delay (s/veh)		32.6		26.6	3.8	17.6	0.8	4.7	11.0	1.4
Queue Length 50th (m)		6.2		2.5	0.5	157.8	0.0	0.2	81.8	0.2
Queue Length 95th (m)		17.5		9.8	m1.1	m#324.3	m0.0	1.4	#191.9	2.1
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		337		405	258	1482	881	87	1469	919
Starvation Cap Reductn		0		0	0	3	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	71	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.18		0.06	0.07	0.93	0.01	0.07	0.81	0.03

Intersection Summary

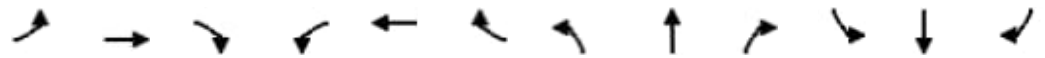
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Total Traffic (Phase 1: 2030 Opt)
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	33	1	22	9	5	10	16	1296	6	6	1065	29
Future Volume (vph)	33	1	22	9	5	10	16	1296	6	6	1065	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.96			0.96		1.00	1.00	0.75	1.00	1.00	0.86
Flpb, ped/bikes		0.96			0.97		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1453			1616		1685	1789	1059	1685	1773	1105
Flt Permitted		0.80			0.91		0.18	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)		1201			1493		312	1789	1059	106	1773	1105
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	35	1	23	10	5	11	17	1379	6	6	1133	31
RTOR Reduction (vph)	0	21	0	0	10	0	0	0	1	0	0	5
Lane Group Flow (vph)	0	38	0	0	16	0	17	1379	5	6	1133	26
Confl. Peds. (#/hr)	37		46	46		37	51		100	100		51
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	9%	0%	9%	0%	0%	0%	0%	5%	0%	0%	6%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		7.4			7.4		71.6	71.6	71.6	71.6	71.6	71.6
Effective Green, g (s)		8.4			8.4		72.6	72.6	72.6	72.6	72.6	72.6
Actuated g/C Ratio		0.09			0.09		0.81	0.81	0.81	0.81	0.81	0.81
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		112			139		251	1443	854	85	1430	891
v/s Ratio Prot								c0.77			0.64	
v/s Ratio Perm		c0.03			0.01		0.05		0.00	0.06		0.02
v/c Ratio		0.34			0.12		0.07	0.96	0.01	0.07	0.79	0.03
Uniform Delay, d1		38.2			37.4		1.8	7.3	1.7	1.8	4.7	1.7
Progression Factor		1.00			1.00		1.32	1.07	5.79	1.00	1.00	1.00
Incremental Delay, d2		1.8			0.4		0.3	8.9	0.0	1.6	4.6	0.1
Delay (s)		40.0			37.8		2.6	16.8	9.8	3.4	9.2	1.8
Level of Service		D			D		A	B	A	A	A	A
Approach Delay (s/veh)		40.0			37.8			16.6			9.0	
Approach LOS		D			D			B			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	14.0	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.89	B
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	91.5%	9.0
Analysis Period (min)	15	ICU Level of Service
		F
c Critical Lane Group		

Queues
2: Jane St & Lawrence Ave W

Future Total Traffic (Phase 1: 2030 Opt)
AM Peak Hour

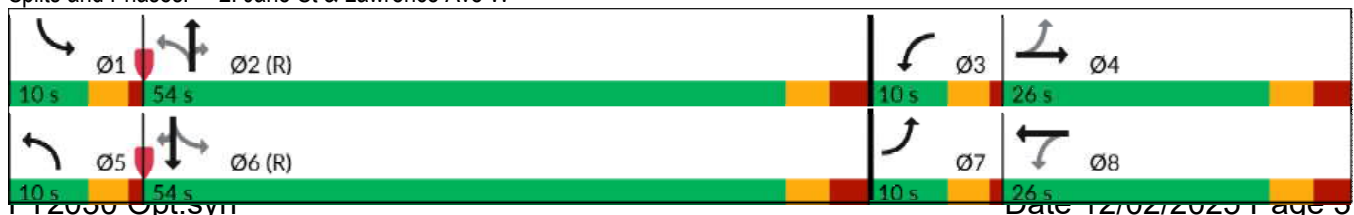


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	211	598	58	318	59	865	103	88	708	102
Future Volume (vph)	211	598	58	318	59	865	103	88	708	102
Lane Group Flow (vph)	220	701	60	377	61	901	107	92	738	106
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	26.0	10.0	26.0	10.0	54.0	54.0	10.0	54.0	54.0
Total Split (%)	10.0%	26.0%	10.0%	26.0%	10.0%	54.0%	54.0%	10.0%	54.0%	54.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.88	0.99	0.33	0.57	0.25	0.98	0.16	0.50	0.83	0.16
Control Delay (s/veh)	63.1	71.0	28.5	38.2	10.6	51.6	2.7	21.2	31.4	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.1	71.0	28.5	38.2	10.6	51.6	2.7	21.2	31.4	2.6
Queue Length 50th (m)	34.3	~81.2	8.4	33.8	4.5	~184.2	0.0	7.0	123.8	0.0
Queue Length 95th (m)	#75.6	#117.8	17.8	48.9	9.6	#266.4	7.0	18.6	#196.8	6.9
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	251	709	183	656	240	919	657	183	893	656
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.99	0.33	0.57	0.25	0.98	0.16	0.50	0.83	0.16

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Total Traffic (Phase 1: 2030 Opt)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	211	598	75	58	318	44	59	865	103	88	708	102
Future Volume (vph)	211	598	75	58	318	44	59	865	103	88	708	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.94		1.00	0.96		1.00	1.00	0.80	1.00	1.00	0.81
Flpb, ped/bikes	0.94	1.00		0.98	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1567	3059		1642	3086		1589	1807	1175	1604	1756	1173
Flt Permitted	0.39	1.00		0.18	1.00		0.15	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	650	3059		319	3086		250	1807	1175	137	1756	1173
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	220	623	78	60	331	46	61	901	107	92	738	106
RTOR Reduction (vph)	0	9	0	0	11	0	0	0	54	0	0	54
Lane Group Flow (vph)	220	692	0	60	366	0	61	901	53	92	738	52
Confl. Peds. (#/hr)	110		160	160		110	97		100	100		97
Confl. Bikes (#/hr)									5			2
Heavy Vehicles (%)	1%	7%	18%	1%	9%	6%	6%	4%	3%	5%	7%	4%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	27.9	21.9		25.5	20.7		53.1	48.3	48.3	53.1	48.3	48.3
Effective Green, g (s)	29.9	22.9		27.5	21.7		55.1	49.3	49.3	55.1	49.3	49.3
Actuated g/C Ratio	0.30	0.23		0.28	0.22		0.55	0.49	0.49	0.55	0.49	0.49
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	700		164	669		215	890	579	160	865	578
v/s Ratio Prot	c0.06	c0.23		0.02	0.12		0.02	c0.50		c0.03	0.42	
v/s Ratio Perm	0.19			0.08			0.14		0.04	0.28		0.04
v/c Ratio	0.85	0.99		0.37	0.55		0.28	1.01	0.09	0.57	0.85	0.09
Uniform Delay, d1	31.6	38.4		28.3	34.8		15.5	25.4	13.5	21.5	22.2	13.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.8	30.7		1.4	0.9		0.7	33.3	0.3	4.9	10.4	0.3
Delay (s)	54.4	69.1		29.7	35.7		16.2	58.6	13.8	26.5	32.6	13.8
Level of Service	D	E		C	D		B	E	B	C	C	B
Approach Delay (s/veh)		65.6			34.9			51.7			29.9	
Approach LOS		E			C			D			C	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	47.3	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.98	D
Actuated Cycle Length (s)	100.0	Sum of lost time (s)
Intersection Capacity Utilization	90.7%	16.2
Analysis Period (min)	15	ICU Level of Service
		E

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	12	16	1305	8	5	1077
Future Vol, veh/h	12	16	1305	8	5	1077
Conflicting Peds, #/hr	0	0	0	60	60	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	7.5	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	8	0	5	0	20	6
Mvmt Flow	13	17	1374	8	5	1134

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2578	1434	0	0	1442
Stage 1	1434	-	-	-	-
Stage 2	1144	-	-	-	-
Critical Hdwy	6.48	6.2	-	-	4.3
Critical Hdwy Stg 1	5.48	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-
Follow-up Hdwy	3.572	3.3	-	-	2.38
Pot Cap-1 Maneuver	27	166	-	-	419
Stage 1	213	-	-	-	-
Stage 2	295	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	25	159	-	-	401
Mov Cap-2 Maneuver	156	-	-	-	-
Stage 1	204	-	-	-	-
Stage 2	285	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	32.9	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	158	401
HCM Lane V/C Ratio	-	-	0.187	0.013
HCM Ctrl Dly (s/v)	-	-	32.9	14.1
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.7	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	17	11	14	1296	1071	18
Future Vol, veh/h	17	11	14	1296	1071	18
Conflicting Peds, #/hr	1	1	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	0	0	6	7	16
Mvmt Flow	18	12	15	1364	1127	19

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2531	1137	1155	0	-	0
Stage 1	1136	-	-	-	-	-
Stage 2	1395	-	-	-	-	-
Critical Hdwy	6.57	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	27	248	612	-	-	-
Stage 1	286	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	24	246	608	-	-	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	255	-	-	-	-	-
Stage 2	213	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	28.7	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	608	-	181	-	-
HCM Lane V/C Ratio	0.024	-	0.163	-	-
HCM Ctrl Dly (s/v)	11.1	0	28.7	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q (veh)	0.1	-	0.6	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

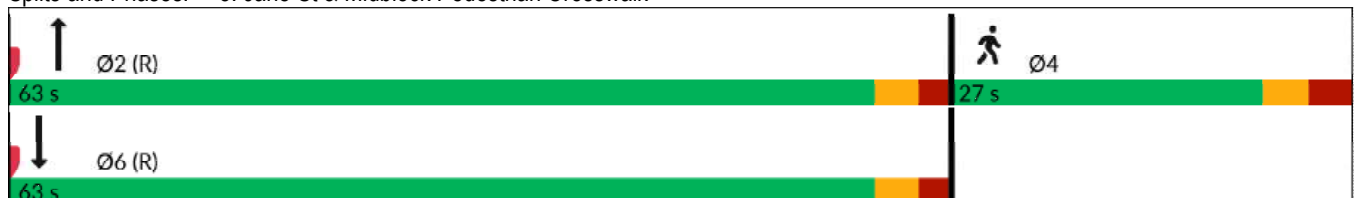
Future Total Traffic (Phase 1: 2030 Opt)
AM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1310	1082	
Future Volume (vph)	1310	1082	
Lane Group Flow (vph)	1379	1139	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.89	0.74	
Control Delay (s/veh)	20.2	8.9	
Queue Delay	1.3	0.0	
Total Delay (s/veh)	21.5	8.9	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#371.3	#277.5	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1550	1537	
Starvation Cap Reductn	3	1	
Spillback Cap Reductn	59	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.92	0.74	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Total Traffic (Phase 1: 2030 Opt)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1310	0	0	1082	0
Future Volume (vph)	0	0	0	0	0	0	0	1310	0	0	1082	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1789			1773	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1789			1773	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	0	0	1379	0	0	1139	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1379	0	0	1139	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	6%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1431			1418	
v/s Ratio Prot								c0.77			0.64	
v/s Ratio Perm												
v/c Ratio								0.96			0.80	
Uniform Delay, d ₁								7.9			5.0	
Progression Factor								1.00			0.57	
Incremental Delay, d ₂								16.6			3.3	
Delay (s)								24.4			6.2	
Level of Service								C			A	
Approach Delay (s/veh)		0.0			0.0			24.4			6.2	
Approach LOS		A			A			C			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.2					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			90.0					Sum of lost time (s)			10.0	
Intersection Capacity Utilization			72.3%					ICU Level of Service			C	
Analysis Period (min)			15									

c Critical Lane Group

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	14	1	9	3	3	61	5	1235	4	67	962	53
Future Vol, veh/h	14	1	9	3	3	61	5	1235	4	67	962	53
Conflicting Peds, #/hr	0	0	0	0	0	0	28	0	31	31	0	28
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	0	3	20	5	0	2	8	3
Mvmt Flow	15	1	9	3	3	64	5	1300	4	71	1013	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2529	2528	1041	2529	2580	1331	1097	0	0	1335	0	0
Stage 1	1183	1183	-	1341	1341	-	-	-	-	-	-	-
Stage 2	1346	1345	-	1188	1239	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.2	7.1	6.5	6.23	4.3	-	-	4.12	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	3.5	4	3.327	2.38	-	-	2.218	-	-
Pot Cap-1 Maneuver	18	28	282	19	26	188	574	-	-	517	-	-
Stage 1	226	265	-	190	223	-	-	-	-	-	-	-
Stage 2	182	222	-	232	250	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 8	17	276	13	16	183	562	-	-	505	-	-
Mov Cap-2 Maneuver	39	101	-	103	116	-	-	-	-	-	-	-
Stage 1	214	168	-	180	211	-	-	-	-	-	-	-
Stage 2	113	210	-	144	159	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	103.1		39.4		0		0.8	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	562	-	-	60	173	505	-	-
HCM Lane V/C Ratio	0.009	-	-	0.421	0.408	0.14	-	-
HCM Ctrl Dly (s/v)	11.5	0	-	103.1	39.4	13.3	0	-
HCM Lane LOS	B	A	-	F	E	B	A	-
HCM 95th %tile Q (veh)	0	-	-	1.6	1.8	0.5	-	-

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

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	1	71	67	1	1	0
Future Vol, veh/h	1	71	67	1	1	0
Conflicting Peds, #/hr	16	0	0	16	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	1	100	94	1	1	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	111	0	-	0	213
Stage 1	-	-	-	-	111
Stage 2	-	-	-	-	102
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1492	-	-	-	780
Stage 1	-	-	-	-	919
Stage 2	-	-	-	-	927
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1475	-	-	-	771
Mov Cap-2 Maneuver	-	-	-	-	771
Stage 1	-	-	-	-	908
Stage 2	-	-	-	-	927

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1475	-	-	-	771
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	65	1	0	69	1	0	0	0	1	0	2
Future Vol, veh/h	8	65	1	0	69	1	0	0	0	1	0	2
Conflicting Peds, #/hr	10	0	0	0	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	11	90	1	0	96	1	0	0	0	1	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	91	0	0	211	220	93	222	220	107
Stage 1	-	-	-	-	-	-	113	113	-	107	107	-
Stage 2	-	-	-	-	-	-	98	107	-	115	113	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1497	-	-	1517	-	-	750	682	970	738	682	953
Stage 1	-	-	-	-	-	-	897	806	-	903	811	-
Stage 2	-	-	-	-	-	-	913	811	-	895	806	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1485	-	-	1517	-	-	743	671	968	727	671	946
Mov Cap-2 Maneuver	-	-	-	-	-	-	743	671	-	727	671	-
Stage 1	-	-	-	-	-	-	890	800	-	889	805	-
Stage 2	-	-	-	-	-	-	910	805	-	886	800	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.8	0	0	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1485	-	-	1517	-	-	860
HCM Lane V/C Ratio	-	0.007	-	-	-	-	-	0.005
HCM Ctrl Dly (s/v)	0	7.4	0	-	0	-	-	9.2
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q (veh)	-	0	-	-	0	-	-	0

Queues

Future Total Traffic (Phase 1: 2030 Opt)

1: Jane St & John St/1795 Jane St Private Dwy

PM Peak Hour

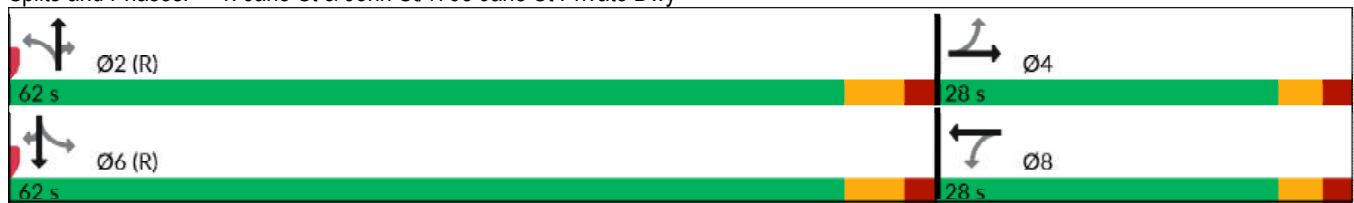


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	18	3	2	0	13	1176	5	6	1077	20
Future Volume (vph)	18	3	2	0	13	1176	5	6	1077	20
Lane Group Flow (vph)	0	36	0	11	14	1278	5	7	1171	22
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.25		0.06	0.05	0.79	0.00	0.03	0.72	0.02
Control Delay (s/veh)		31.3		1.7	3.2	9.7	0.6	2.5	7.3	0.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)		31.3		1.7	3.2	9.7	0.6	2.5	7.5	0.9
Queue Length 50th (m)		4.0		0.0	0.4	101.5	0.0	0.2	77.4	0.0
Queue Length 95th (m)		12.9		0.8	m1.0	#126.0	m0.0	1.2	161.0	1.3
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		374		421	277	1617	1069	209	1633	1110
Starvation Cap Reductn		0		0	0	7	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	62	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.10		0.03	0.05	0.79	0.00	0.03	0.75	0.02

Intersection Summary

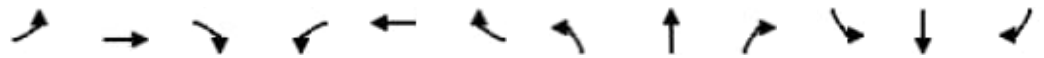
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Total Traffic (Phase 1: 2030 Opt)
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑	↕	↕	↕	↕
Traffic Volume (vph)	18	3	12	2	0	8	13	1176	5	6	1077	20
Future Volume (vph)	18	3	12	2	0	8	13	1176	5	6	1077	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.97			0.95		1.00	1.00	0.86	1.00	1.00	0.89
Flpb, ped/bikes		0.98			0.99		1.00	1.00	1.00	1.00	1.00	1.00
Fr t		0.95			0.89		1.00	1.00	0.85	1.00	1.00	0.85
Fl t Protected		0.97			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1612			1568		1685	1842	1214	1685	1860	1261
Fl t Permitted		0.82			0.93		0.18	1.00	1.00	0.13	1.00	1.00
Satd. Flow (perm)		1361			1475		315	1842	1214	237	1860	1261
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	13	2	0	9	14	1278	5	7	1171	22
RTOR Reduction (vph)	0	12	0	0	10	0	0	0	1	0	0	4
Lane Group Flow (vph)	0	24	0	0	1	0	14	1278	4	7	1171	18
Confl. Peds. (#/hr)	16		19	19		16	37		53	53		37
Confl. Bikes (#/hr)			4			1						
Heavy Vehicles (%)	0%	0%	8%	0%	0%	0%	0%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		5.0			5.0		74.0	74.0	74.0	74.0	74.0	74.0
Effective Green, g (s)		6.0			6.0		75.0	75.0	75.0	75.0	75.0	75.0
Actuated g/C Ratio		0.07			0.07		0.83	0.83	0.83	0.83	0.83	0.83
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		90			98		262	1535	1011	197	1550	1050
v/s Ratio Prot								c0.69			0.63	
v/s Ratio Perm		c0.02			0.00		0.04		0.00	0.03		0.01
v/c Ratio		0.27			0.01		0.05	0.83	0.00	0.04	0.76	0.02
Uniform Delay, d1		39.9			39.2		1.3	4.1	1.3	1.3	3.4	1.3
Progression Factor		1.00			1.00		1.39	1.21	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.6			0.0		0.2	3.4	0.0	0.3	3.5	0.0
Delay (s)		41.5			39.3		2.1	8.4	1.3	1.6	6.9	1.3
Level of Service		D			D		A	A	A	A	A	A
Approach Delay (s/veh)		41.5			39.3			8.3			6.7	
Approach LOS		D			D			A			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	8.1	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.79	A
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	81.1%	9.0
Analysis Period (min)	15	ICU Level of Service
		D
c Critical Lane Group		

Queues
2: Jane St & Lawrence Ave W

Future Total Traffic (Phase 1: 2030 Opt)
PM Peak Hour

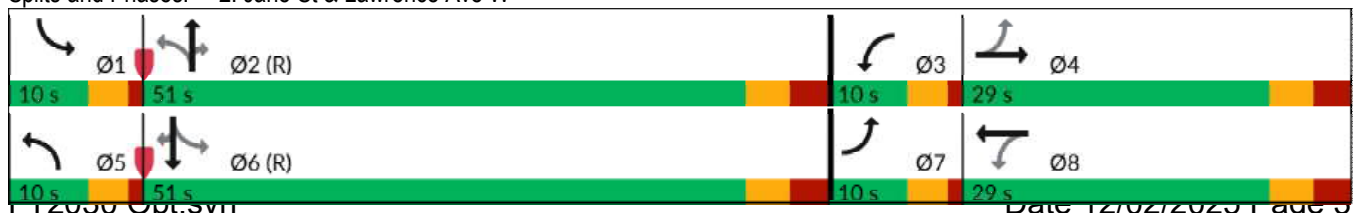


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	219	568	100	368	62	904	93	56	873	94
Future Volume (vph)	219	568	100	368	62	904	93	56	873	94
Lane Group Flow (vph)	235	700	108	452	67	972	100	60	939	101
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	29.0	10.0	29.0	10.0	51.0	51.0	10.0	51.0	51.0
Total Split (%)	10.0%	29.0%	10.0%	29.0%	10.0%	51.0%	51.0%	10.0%	51.0%	51.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.11	0.18	0.32	1.06	0.18
Control Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	93.7	2.8	13.8	76.8	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	93.7	2.8	13.8	76.8	2.8
Queue Length 50th (m)	34.9	70.8	14.7	40.9	5.5	~233.1	0.0	5.0	~218.5	0.0
Queue Length 95th (m)	#82.3	#106.7	#29.3	57.4	11.4	#309.0	6.6	10.5	#293.8	6.6
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	243	751	181	769	184	874	553	189	882	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.11	0.18	0.32	1.06	0.18

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Total Traffic (Phase 1: 2030 Opt)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	568	83	100	368	52	62	904	93	56	873	94
Future Volume (vph)	219	568	83	100	368	52	62	904	93	56	873	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.93		1.00	0.94		1.00	1.00	0.69	1.00	1.00	0.71
Flpb, ped/bikes	0.94	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frnt	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1531	3095		1614	3174		1620	1824	1024	1668	1842	1048
Flt Permitted	0.36	1.00		0.17	1.00		0.08	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	577	3095		284	3174		145	1824	1024	149	1842	1048
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	235	611	89	108	396	56	67	972	100	60	939	101
RTOR Reduction (vph)	0	11	0	0	11	0	0	0	53	0	0	53
Lane Group Flow (vph)	235	689	0	108	441	0	67	972	47	60	939	48
Confl. Peds. (#/hr)	148		176	176		148	151		176	176		151
Confl. Bikes (#/hr)			3			4			9			6
Heavy Vehicles (%)	3%	5%	10%	3%	4%	3%	4%	3%	1%	1%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	28.9	22.9		28.9	22.9		50.9	46.1	46.1	50.9	46.1	46.1
Effective Green, g (s)	30.9	23.9		30.9	23.9		52.9	47.1	47.1	52.9	47.1	47.1
Actuated g/C Ratio	0.31	0.24		0.31	0.24		0.53	0.47	0.47	0.53	0.47	0.47
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	245	739		180	758		162	859	482	166	867	493
v/s Ratio Prot	c0.07	0.22		0.04	0.14		c0.02	c0.53		0.02	0.51	
v/s Ratio Perm	c0.23			0.14			0.19		0.05	0.17		0.05
v/c Ratio	0.96	0.93		0.60	0.58		0.41	1.13	0.10	0.36	1.08	0.10
Uniform Delay, d1	32.4	37.3		26.8	33.6		21.2	26.4	14.7	21.1	26.4	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	45.6	18.5		5.5	1.1		1.7	73.7	0.4	1.3	55.6	0.4
Delay (s)	78.0	55.7		32.3	34.8		23.0	100.1	15.1	22.5	82.0	15.0
Level of Service	E	E		C	C		C	F	B	C	F	B
Approach Delay (s/veh)		61.3			34.3			88.1			72.6	
Approach LOS		E			C			F			E	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			68.8			HCM 2000 Level of Service			E			
HCM 2000 Volume to Capacity ratio			1.02									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			16.2			
Intersection Capacity Utilization			88.8%			ICU Level of Service			E			
Analysis Period (min)			15									

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	10	13	1193	12	18	1053
Future Vol, veh/h	10	13	1193	12	18	1053
Conflicting Peds, #/hr	6	0	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	3	0	0	1
Mvmt Flow	11	14	1283	13	19	1132

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2532	1356	0	0	1362	0
Stage 1	1356	-	-	-	-	-
Stage 2	1176	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	31	184	-	-	511	-
Stage 1	242	-	-	-	-	-
Stage 2	296	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	26	175	-	-	487	-
Mov Cap-2 Maneuver	164	-	-	-	-	-
Stage 1	231	-	-	-	-	-
Stage 2	264	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	29.7	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	170	487
HCM Lane V/C Ratio	-	-	0.145	0.04
HCM Ctrl Dly (s/v)	-	-	29.7	12.7
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.5	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	8	3	9	1171	1035	20
Future Vol, veh/h	8	3	9	1171	1035	20
Conflicting Peds, #/hr	2	1	33	0	0	33
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	4	3	0
Mvmt Flow	9	3	10	1259	1113	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2427	1147	1168	0	-	0
Stage 1	1146	-	-	-	-	-
Stage 2	1281	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	36	245	605	-	-	-
Stage 1	306	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	33	239	591	-	-	-
Mov Cap-2 Maneuver	182	-	-	-	-	-
Stage 1	282	-	-	-	-	-
Stage 2	262	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	24.7	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	591	-	195	-	-
HCM Lane V/C Ratio	0.016	-	0.061	-	-
HCM Ctrl Dly (s/v)	11.2	0	24.7	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q (veh)	0.1	-	0.2	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

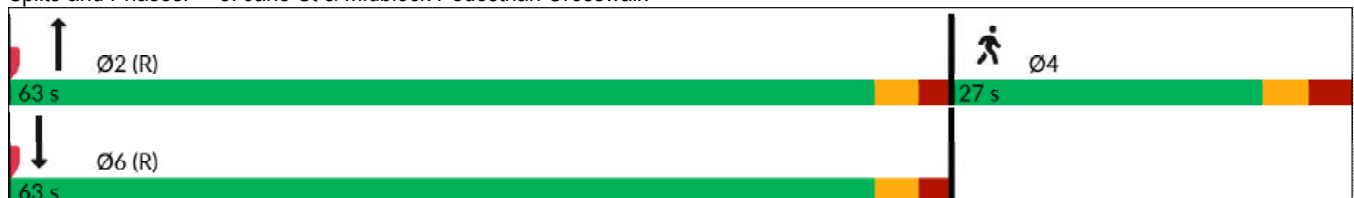
Future Total Traffic (Phase 1: 2030 Opt)
PM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1180	1038	
Future Volume (vph)	1180	1038	
Lane Group Flow (vph)	1269	1116	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.80	0.70	
Control Delay (s/veh)	15.0	7.6	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	15.1	7.6	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#327.6	#264.2	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1581	1596	
Starvation Cap Reductn	9	5	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.81	0.70	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Total Traffic (Phase 1: 2030 Opt)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1180	0	0	1038	0
Future Volume (vph)	0	0	0	0	0	0	0	1180	0	0	1038	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1824			1842	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1824			1842	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	0	0	0	0	1269	0	0	1116	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1269	0	0	1116	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1459			1473	
v/s Ratio Prot								c0.70			0.61	
v/s Ratio Perm												
v/c Ratio								0.87			0.76	
Uniform Delay, d ₁								5.9			4.6	
Progression Factor								1.00			0.61	
Incremental Delay, d ₂								7.3			2.6	
Delay (s)								13.2			5.4	
Level of Service								B			A	
Approach Delay (s/veh)		0.0			0.0			13.2			5.4	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			9.6									
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			90.0								10.0	
Intersection Capacity Utilization			65.4%									
Analysis Period (min)			15									
c Critical Lane Group												

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	8	2	17	7	3	39	14	1133	8	51	953	34
Future Vol, veh/h	8	2	17	7	3	39	14	1133	8	51	953	34
Conflicting Peds, #/hr	0	0	0	0	0	0	59	0	70	70	0	59
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	5	0	0	0	0	3	0	1	2	0
Mvmt Flow	8	2	17	7	3	40	14	1156	8	52	972	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2345	2397	1031	2357	2424	1226	1066	0	0	1234	0	0
Stage 1	1135	1135	-	1254	1254	-	-	-	-	-	-	-
Stage 2	1210	1262	-	1103	1170	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	26	34	279	25	33	220	661	-	-	568	-	-
Stage 1	248	280	-	213	246	-	-	-	-	-	-	-
Stage 2	225	243	-	259	269	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	16	22	266	17	22	208	631	-	-	537	-	-
Mov Cap-2 Maneuver	97	122	-	120	134	-	-	-	-	-	-	-
Stage 1	222	208	-	189	218	-	-	-	-	-	-	-
Stage 2	168	215	-	187	200	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	31		31.9		0.1		0.6	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	631	-	-	166	183	537	-	-
HCM Lane V/C Ratio	0.023	-	-	0.166	0.273	0.097	-	-
HCM Ctrl Dly (s/v)	10.8	0	-	31	31.9	12.4	0	-
HCM Lane LOS	B	A	-	D	D	B	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.6	1.1	0.3	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	6	55	40	1	5	9
Future Vol, veh/h	6	55	40	1	5	9
Conflicting Peds, #/hr	54	0	0	54	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	7	64	47	1	6	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	102	0	180
Stage 1	-	-	102
Stage 2	-	-	78
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1503	-	814
Stage 1	-	-	927
Stage 2	-	-	950
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1446	-	779
Mov Cap-2 Maneuver	-	-	779
Stage 1	-	-	887
Stage 2	-	-	950

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.7	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1446	-	-	-	865
HCM Lane V/C Ratio	0.005	-	-	-	0.019
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	52	9	3	32	5	2	0	3	7	0	3
Future Vol, veh/h	8	52	9	3	32	5	2	0	3	7	0	3
Conflicting Peds, #/hr	15	0	2	2	0	15	2	0	5	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	10	63	11	4	39	6	2	0	4	9	0	4

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	60	0	0	76	0	0	145	159	76	161	161	59
Stage 1	-	-	-	-	-	-	91	91	-	65	65	-
Stage 2	-	-	-	-	-	-	54	68	-	96	96	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1556	-	-	1536	-	-	828	737	991	809	735	1012
Stage 1	-	-	-	-	-	-	921	823	-	951	845	-
Stage 2	-	-	-	-	-	-	963	842	-	916	819	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1538	-	-	1534	-	-	816	719	986	787	717	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	816	719	-	787	717	-
Stage 1	-	-	-	-	-	-	913	816	-	933	832	-
Stage 2	-	-	-	-	-	-	955	829	-	903	812	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.9	0.6	9	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	910	1538	-	-	1534	-	-	841
HCM Lane V/C Ratio	0.007	0.006	-	-	0.002	-	-	0.015
HCM Ctrl Dly (s/v)	9	7.4	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	0



2035 Capacity Analysis

Queues

Future Total (Full Build-out 2035 Opt)

1: Jane St & John St/1795 Jane St Private Dwy

AM Peak Hour

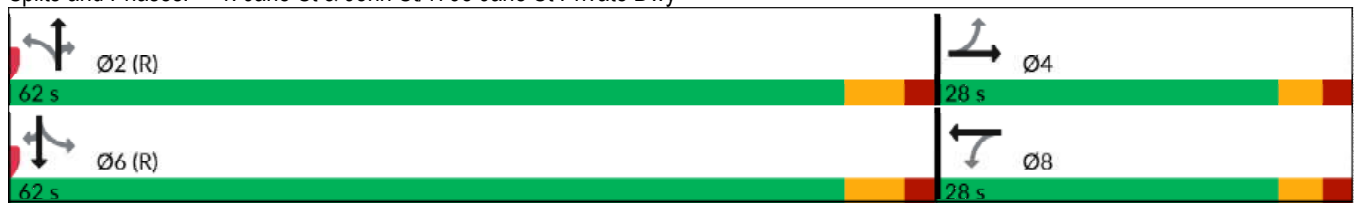


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	33	1	9	5	16	1304	6	6	1066	29
Future Volume (vph)	33	1	9	5	16	1304	6	6	1066	29
Lane Group Flow (vph)	0	59	0	26	17	1387	6	6	1134	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.39		0.15	0.07	0.94	0.01	0.07	0.78	0.03
Control Delay (s/veh)		32.6		26.6	3.8	18.0	0.8	5.0	11.1	1.4
Queue Delay		0.0		0.0	0.0	0.1	0.0	0.0	0.5	0.0
Total Delay (s/veh)		32.6		26.6	3.8	18.1	0.8	5.0	11.5	1.4
Queue Length 50th (m)		6.2		2.5	0.5	161.5	0.0	0.2	83.2	0.2
Queue Length 95th (m)		17.5		9.8	m1.1 m#	324.3	m0.0	1.4	#206.5	2.1
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		337		405	257	1482	881	81	1455	919
Starvation Cap Reductn		0		0	0	3	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	74	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.18		0.06	0.07	0.94	0.01	0.07	0.82	0.03

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Total (Full Build-out 2035 Opt)
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	33	1	22	9	5	10	16	1304	6	6	1066	29
Future Volume (vph)	33	1	22	9	5	10	16	1304	6	6	1066	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.96			0.96		1.00	1.00	0.75	1.00	1.00	0.86
Flpb, ped/bikes		0.96			0.97		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1453			1616		1685	1789	1059	1685	1756	1105
Flt Permitted		0.80			0.91		0.18	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)		1201			1493		311	1789	1059	98	1756	1105
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	35	1	23	10	5	11	17	1387	6	6	1134	31
RTOR Reduction (vph)	0	21	0	0	10	0	0	0	1	0	0	5
Lane Group Flow (vph)	0	38	0	0	16	0	17	1387	5	6	1134	26
Confl. Peds. (#/hr)	37		46	46		37	51		100	100		51
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	9%	0%	9%	0%	0%	0%	0%	5%	0%	0%	7%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		7.4			7.4		71.6	71.6	71.6	71.6	71.6	71.6
Effective Green, g (s)		8.4			8.4		72.6	72.6	72.6	72.6	72.6	72.6
Actuated g/C Ratio		0.09			0.09		0.81	0.81	0.81	0.81	0.81	0.81
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		112			139		250	1443	854	79	1416	891
v/s Ratio Prot								c0.78				0.65
v/s Ratio Perm		c0.03			0.01		0.05		0.00	0.06		0.02
v/c Ratio		0.34			0.12		0.07	0.96	0.01	0.08	0.80	0.03
Uniform Delay, d1		38.2			37.4		1.8	7.5	1.7	1.8	4.8	1.7
Progression Factor		1.00			1.00		1.32	1.07	5.79	1.00	1.00	1.00
Incremental Delay, d2		1.8			0.4		0.2	9.4	0.0	1.9	4.8	0.1
Delay (s)		40.0			37.8		2.6	17.5	9.8	3.7	9.6	1.8
Level of Service		D			D		A	B	A	A	A	A
Approach Delay (s/veh)		40.0			37.8			17.2			9.4	
Approach LOS		D			D			B			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	14.5	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.90	B
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	91.9%	9.0
Analysis Period (min)	15	ICU Level of Service
		F
c Critical Lane Group		

Queues

Future Total (Full Build-out 2035 Opt)

2: Jane St & Lawrence Ave W

AM Peak Hour

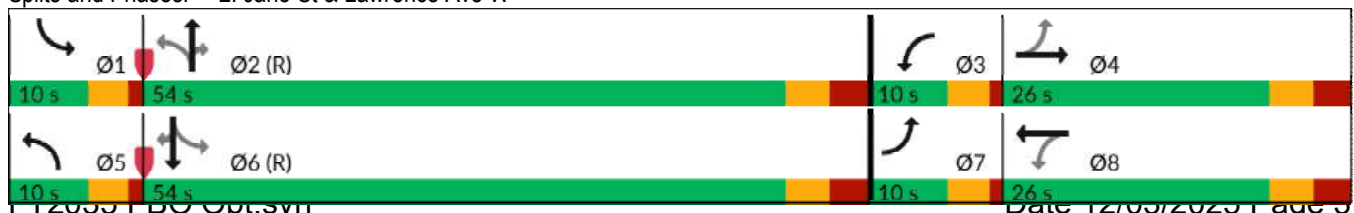


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	210	598	58	318	59	867	103	88	715	101
Future Volume (vph)	210	598	58	318	59	867	103	88	715	101
Lane Group Flow (vph)	219	701	60	377	61	903	107	92	745	105
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	26.0	10.0	26.0	10.0	54.0	54.0	10.0	54.0	54.0
Total Split (%)	10.0%	26.0%	10.0%	26.0%	10.0%	54.0%	54.0%	10.0%	54.0%	54.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.87	0.99	0.33	0.57	0.26	0.98	0.16	0.50	0.83	0.16
Control Delay (s/veh)	62.5	71.0	28.5	38.2	10.8	52.1	2.7	21.2	32.0	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.5	71.0	28.5	38.2	10.8	52.1	2.7	21.2	32.0	2.6
Queue Length 50th (m)	34.0	~81.2	8.4	33.8	4.5	~193.4	0.0	7.0	125.7	0.0
Queue Length 95th (m)	#75.6	#117.8	17.8	48.9	9.6	#267.7	7.0	18.6	#200.1	6.7
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	251	709	183	656	235	919	657	183	893	656
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.99	0.33	0.57	0.26	0.98	0.16	0.50	0.83	0.16

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W

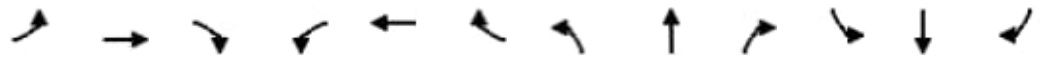


HCM Signalized Intersection Capacity Analysis

Future Total (Full Build-out 2035 Opt)

2: Jane St & Lawrence Ave W

AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	598	75	58	318	44	59	867	103	88	715	101
Future Volume (vph)	210	598	75	58	318	44	59	867	103	88	715	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.94		1.00	0.96		1.00	1.00	0.80	1.00	1.00	0.81
Flpb, ped/bikes	0.94	1.00		0.98	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1567	3059		1642	3086		1589	1807	1175	1604	1756	1173
Fl _t Permitted	0.39	1.00		0.18	1.00		0.14	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	650	3059		319	3086		241	1807	1175	137	1756	1173
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	219	623	78	60	331	46	61	903	107	92	745	105
RTOR Reduction (vph)	0	9	0	0	11	0	0	0	54	0	0	53
Lane Group Flow (vph)	219	692	0	60	366	0	61	903	53	92	745	52
Confl. Peds. (#/hr)	110		160	160		110	97		100	100		97
Confl. Bikes (#/hr)									5			2
Heavy Vehicles (%)	1%	7%	18%	1%	9%	6%	6%	4%	3%	5%	7%	4%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	27.9	21.9		25.5	20.7		53.1	48.3	48.3	53.1	48.3	48.3
Effective Green, g (s)	29.9	22.9		27.5	21.7		55.1	49.3	49.3	55.1	49.3	49.3
Actuated g/C Ratio	0.30	0.23		0.28	0.22		0.55	0.49	0.49	0.55	0.49	0.49
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	700		164	669		210	890	579	160	865	578
v/s Ratio Prot	c0.06	c0.23		0.02	0.12		0.02	c0.50		c0.03	0.42	
v/s Ratio Perm	0.19			0.08			0.14		0.04	0.28		0.04
v/c Ratio	0.85	0.99		0.37	0.55		0.29	1.01	0.09	0.57	0.86	0.09
Uniform Delay, d ₁	31.5	38.4		28.3	34.8		15.7	25.4	13.5	21.5	22.3	13.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d ₂	22.0	30.7		1.4	0.9		0.8	33.9	0.3	4.9	11.0	0.3
Delay (s)	53.5	69.1		29.7	35.7		16.5	59.2	13.8	26.5	33.3	13.8
Level of Service	D	E		C	D		B	E	B	C	C	B
Approach Delay (s/veh)		65.4			34.9			52.2			30.5	
Approach LOS		E			C			D			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	47.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.2
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	S	S
Traffic Vol, veh/h	13	16	1314	8	5	1078
Future Vol, veh/h	13	16	1314	8	5	1078
Conflicting Peds, #/hr	0	0	0	60	60	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	7.5	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	7	0	5	0	20	6
Mvmt Flow	14	17	1383	8	5	1135

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2588	1443	0	0	1451
Stage 1	1443	-	-	-	-
Stage 2	1145	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.3
Critical Hdwy Stg 1	5.47	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.38
Pot Cap-1 Maneuver	27	164	-	-	416
Stage 1	212	-	-	-	-
Stage 2	296	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	25	157	-	-	398
Mov Cap-2 Maneuver	156	-	-	-	-
Stage 1	203	-	-	-	-
Stage 2	286	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	33.4	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	157	398
HCM Lane V/C Ratio	-	-	0.194	0.013
HCM Ctrl Dly (s/v)	-	-	33.4	14.2
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.7	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			4	↑	↑
Traffic Vol, veh/h	17	11	14	1305	1073	18
Future Vol, veh/h	17	11	14	1305	1073	18
Conflicting Peds, #/hr	1	1	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	0	0	5	6	16
Mvmt Flow	18	12	15	1374	1129	19

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2543	1139	1157	0	-	0
Stage 1	1138	-	-	-	-	-
Stage 2	1405	-	-	-	-	-
Critical Hdwy	6.57	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	27	247	611	-	-	-
Stage 1	286	-	-	-	-	-
Stage 2	210	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	24	245	607	-	-	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	255	-	-	-	-	-
Stage 2	210	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	29	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	607	-	179	-	-
HCM Lane V/C Ratio	0.024	-	0.165	-	-
HCM Ctrl Dly (s/v)	11.1	0	29	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q (veh)	0.1	-	0.6	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

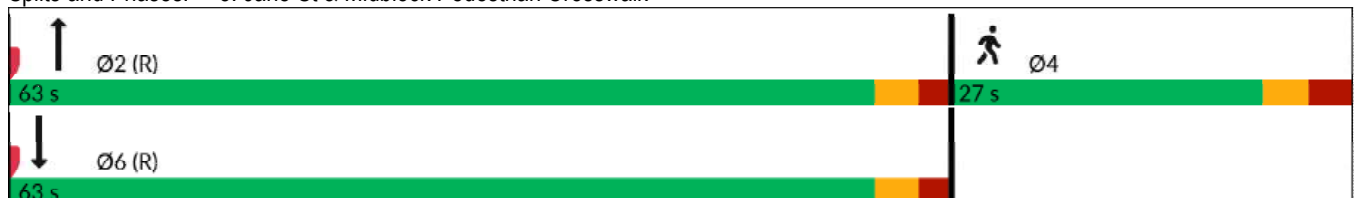
Future Total (Full Build-out 2035 Opt)
AM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1319	1084	
Future Volume (vph)	1319	1084	
Lane Group Flow (vph)	1388	1141	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.90	0.75	
Control Delay (s/veh)	20.6	9.2	
Queue Delay	1.7	0.0	
Total Delay (s/veh)	22.3	9.2	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#374.7	#279.8	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1550	1522	
Starvation Cap Reductn	3	1	
Spillback Cap Reductn	64	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.93	0.75	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Total (Full Build-out 2035 Opt)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1319	0	0	1084	0
Future Volume (vph)	0	0	0	0	0	0	0	1319	0	0	1084	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1789			1756	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1789			1756	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	0	0	1388	0	0	1141	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1388	0	0	1141	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	7%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1431			1404	
v/s Ratio Prot								c0.78			0.65	
v/s Ratio Perm												
v/c Ratio								0.97			0.81	
Uniform Delay, d ₁								8.0			5.1	
Progression Factor								1.00			0.56	
Incremental Delay, d ₂								17.6			3.5	
Delay (s)								25.7			6.4	
Level of Service								C			A	
Approach Delay (s/veh)		0.0			0.0			25.7			6.4	
Approach LOS		A			A			C			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.0									HCM 2000 Level of Service
												B
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			90.0								10.0	Sum of lost time (s)
Intersection Capacity Utilization			72.8%									ICU Level of Service
												C
Analysis Period (min)			15									

c Critical Lane Group

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	14	1	9	10	3	70	5	1235	5	68	963	53
Future Vol, veh/h	14	1	9	10	3	70	5	1235	5	68	963	53
Conflicting Peds, #/hr	0	0	0	0	0	0	28	0	31	31	0	28
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	0	2	20	5	0	2	8	3
Mvmt Flow	15	1	9	11	3	74	5	1300	5	72	1014	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2537	2532	1042	2532	2583	1331	1098	0	0	1336	0	0
Stage 1	1186	1186	-	1341	1341	-	-	-	-	-	-	-
Stage 2	1351	1346	-	1191	1242	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.2	7.1	6.5	6.22	4.3	-	-	4.12	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	3.5	4	3.318	2.38	-	-	2.218	-	-
Pot Cap-1 Maneuver	18	28	281	19	26	189	573	-	-	516	-	-
Stage 1	225	265	-	190	223	-	-	-	-	-	-	-
Stage 2	181	222	-	231	249	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 7	17	275	13	15	184	561	-	-	504	-	-
Mov Cap-2 Maneuver	29	101	-	102	115	-	-	-	-	-	-	-
Stage 1	213	167	-	180	211	-	-	-	-	-	-	-
Stage 2	103	210	-	143	157	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB		
HCM Ctrl Dly, s/v	154		49.5		0		0.8		
HCM LOS	F		E						

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	561	-	-	46	164	504	-	-
HCM Lane V/C Ratio	0.009	-	-	0.549	0.533	0.142	-	-
HCM Ctrl Dly (s/v)	11.5	0	-	154	49.5	13.3	0	-
HCM Lane LOS	B	A	-	F	E	B	A	-
HCM 95th %tile Q (veh)	0	-	-	2	2.7	0.5	-	-

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

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			4	2	
Traffic Vol, veh/h	75	1	0	85	0	0
Future Vol, veh/h	75	1	0	85	0	0
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	104	1	0	118	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	105	0	223
Stage 1	-	-	-	-	105
Stage 2	-	-	-	-	118
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1499	-	770
Stage 1	-	-	-	-	924
Stage 2	-	-	-	-	912
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1499	-	770
Mov Cap-2 Maneuver	-	-	-	-	770
Stage 1	-	-	-	-	924
Stage 2	-	-	-	-	912

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1499	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q (veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	11	64	67	2	2	18
Future Vol, veh/h	11	64	67	2	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	72	72	100	100	100
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	11	89	93	2	2	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	95	0	-	0	205 94
Stage 1	-	-	-	-	94 -
Stage 2	-	-	-	-	111 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1512	-	-	-	788 968
Stage 1	-	-	-	-	935 -
Stage 2	-	-	-	-	919 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1512	-	-	-	782 968
Mov Cap-2 Maneuver	-	-	-	-	782 -
Stage 1	-	-	-	-	928 -
Stage 2	-	-	-	-	919 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.8	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1512	-	-	-	946
HCM Lane V/C Ratio	0.007	-	-	-	0.021
HCM Ctrl Dly (s/v)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1

Queues

Future Total (Full Build-out 2035 Opt)

1: Jane St & John St/1795 Jane St Private Dwy

PM Peak Hour

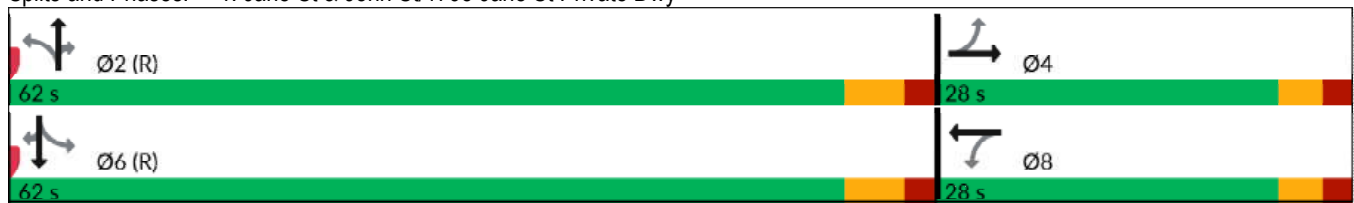


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	18	3	2	0	13	1175	5	6	1079	20
Future Volume (vph)	18	3	2	0	13	1175	5	6	1079	20
Lane Group Flow (vph)	0	36	0	11	14	1277	5	7	1173	22
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.25		0.06	0.05	0.79	0.00	0.03	0.73	0.02
Control Delay (s/veh)		31.3		1.7	3.2	9.6	0.6	2.5	7.6	0.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)		31.3		1.7	3.2	9.7	0.6	2.5	7.8	0.9
Queue Length 50th (m)		4.0		0.0	0.4	101.1	0.0	0.2	78.7	0.0
Queue Length 95th (m)		12.9		0.8	m1.0	#125.9	m0.0	1.2	165.7	1.3
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		374		421	275	1617	1069	209	1617	1110
Starvation Cap Reductn		0		0	0	7	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	62	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.10		0.03	0.05	0.79	0.00	0.03	0.75	0.02

Intersection Summary

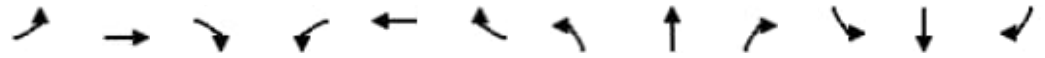
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Total (Full Build-out 2035 Opt)
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑	↕	↕	↑	↕
Traffic Volume (vph)	18	3	12	2	0	8	13	1175	5	6	1079	20
Future Volume (vph)	18	3	12	2	0	8	13	1175	5	6	1079	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.97			0.95		1.00	1.00	0.86	1.00	1.00	0.89
Flpb, ped/bikes		0.98			0.99		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1612			1568		1685	1842	1214	1685	1842	1261
Flt Permitted		0.82			0.93		0.18	1.00	1.00	0.13	1.00	1.00
Satd. Flow (perm)		1361			1475		314	1842	1214	238	1842	1261
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	13	2	0	9	14	1277	5	7	1173	22
RTOR Reduction (vph)	0	12	0	0	10	0	0	0	1	0	0	4
Lane Group Flow (vph)	0	24	0	0	1	0	14	1277	4	7	1173	18
Confl. Peds. (#/hr)	16		19	19		16	37		53	53		37
Confl. Bikes (#/hr)			4			1						
Heavy Vehicles (%)	0%	0%	8%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		5.0			5.0		74.0	74.0	74.0	74.0	74.0	74.0
Effective Green, g (s)		6.0			6.0		75.0	75.0	75.0	75.0	75.0	75.0
Actuated g/C Ratio		0.07			0.07		0.83	0.83	0.83	0.83	0.83	0.83
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		90			98		261	1535	1011	198	1535	1050
v/s Ratio Prot								c0.69				0.64
v/s Ratio Perm		c0.02			0.00		0.04		0.00	0.03		0.01
v/c Ratio		0.27			0.01		0.05	0.83	0.00	0.04	0.76	0.02
Uniform Delay, d1		39.9			39.2		1.3	4.1	1.3	1.3	3.4	1.3
Progression Factor		1.00			1.00		1.39	1.21	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.6			0.0		0.2	3.4	0.0	0.3	3.7	0.0
Delay (s)		41.5			39.3		2.1	8.3	1.3	1.6	7.1	1.3
Level of Service		D			D		A	A	A	A	A	A
Approach Delay (s/veh)		41.5			39.3			8.2			7.0	
Approach LOS		D			D			A			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	8.2	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.79	A
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	81.0%	9.0
Analysis Period (min)	15	ICU Level of Service
		D
c Critical Lane Group		

Queues

Future Total (Full Build-out 2035 Opt)

2: Jane St & Lawrence Ave W

PM Peak Hour

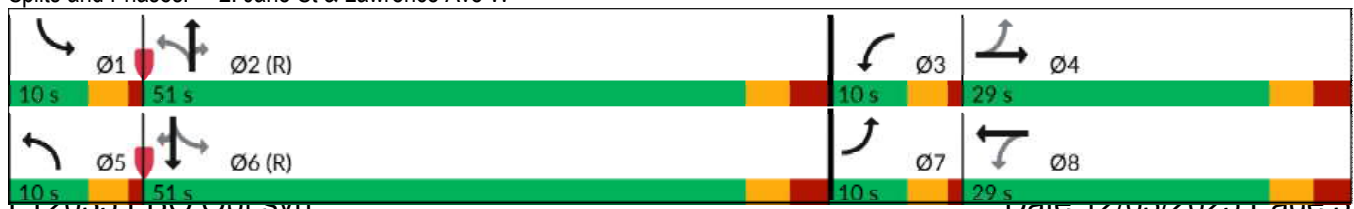


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	219	568	100	368	62	910	93	56	876	93
Future Volume (vph)	219	568	100	368	62	910	93	56	876	93
Lane Group Flow (vph)	235	700	108	452	67	978	100	60	942	100
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	29.0	10.0	29.0	10.0	51.0	51.0	10.0	51.0	51.0
Total Split (%)	10.0%	29.0%	10.0%	29.0%	10.0%	51.0%	51.0%	10.0%	51.0%	51.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.12	0.18	0.32	1.07	0.18
Control Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	96.3	2.8	13.8	77.9	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	96.3	2.8	13.8	77.9	2.7
Queue Length 50th (m)	34.9	70.8	14.7	40.9	5.5	~235.7	0.0	5.0	~219.7	0.0
Queue Length 95th (m)	#82.3	#106.7	#29.3	57.4	11.4	#311.5	6.6	10.5	#295.5	6.5
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	243	751	181	769	184	874	553	189	882	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.12	0.18	0.32	1.07	0.18

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis

Future Total (Full Build-out 2035 Opt)

2: Jane St & Lawrence Ave W

PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	568	83	100	368	52	62	910	93	56	876	93
Future Volume (vph)	219	568	83	100	368	52	62	910	93	56	876	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.93		1.00	0.94		1.00	1.00	0.69	1.00	1.00	0.71
Flpb, ped/bikes	0.94	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1531	3095		1614	3174		1620	1824	1024	1668	1842	1048
Fl _t Permitted	0.36	1.00		0.17	1.00		0.08	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	577	3095		284	3174		145	1824	1024	149	1842	1048
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	235	611	89	108	396	56	67	978	100	60	942	100
RTOR Reduction (vph)	0	11	0	0	11	0	0	0	53	0	0	53
Lane Group Flow (vph)	235	689	0	108	441	0	67	978	47	60	942	47
Confl. Peds. (#/hr)	148		176	176		148	151		176	176		151
Confl. Bikes (#/hr)			3			4			9			6
Heavy Vehicles (%)	3%	5%	10%	3%	4%	3%	4%	3%	1%	1%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	28.9	22.9		28.9	22.9		50.9	46.1	46.1	50.9	46.1	46.1
Effective Green, g (s)	30.9	23.9		30.9	23.9		52.9	47.1	47.1	52.9	47.1	47.1
Actuated g/C Ratio	0.31	0.24		0.31	0.24		0.53	0.47	0.47	0.53	0.47	0.47
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	245	739		180	758		162	859	482	166	867	493
v/s Ratio Prot	c0.07	0.22		0.04	0.14		c0.02	c0.54		0.02	0.51	
v/s Ratio Perm	c0.23			0.14			0.19		0.05	0.17		0.04
v/c Ratio	0.96	0.93		0.60	0.58		0.41	1.14	0.10	0.36	1.09	0.10
Uniform Delay, d ₁	32.4	37.3		26.8	33.6		21.2	26.4	14.7	21.1	26.4	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d ₂	45.6	18.5		5.5	1.1		1.7	76.4	0.4	1.3	56.8	0.4
Delay (s)	78.0	55.7		32.3	34.8		23.0	102.8	15.1	22.5	83.2	15.0
Level of Service	E	E		C	C		C	F	B	C	F	B
Approach Delay (s/veh)		61.3			34.3			90.5			73.7	
Approach LOS		E			C			F			E	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	69.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.2
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	11	12	1193	12	17	1056
Future Vol, veh/h	11	12	1193	12	17	1056
Conflicting Peds, #/hr	6	0	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	3	0	0	1
Mvmt Flow	12	13	1283	13	18	1135

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2533	1356	0	0	1362	0
Stage 1	1356	-	-	-	-	-
Stage 2	1177	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	31	184	-	-	511	-
Stage 1	242	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	26	175	-	-	487	-
Mov Cap-2 Maneuver	164	-	-	-	-	-
Stage 1	231	-	-	-	-	-
Stage 2	264	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	29.7	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	170	487
HCM Lane V/C Ratio	-	-	0.145	0.038
HCM Ctrl Dly (s/v)	-	-	29.7	12.7
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.5	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	8	3	9	1171	1039	20
Future Vol, veh/h	8	3	9	1171	1039	20
Conflicting Peds, #/hr	2	1	33	0	0	33
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	4	2	0
Mvmt Flow	9	3	10	1259	1117	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2431	1151	1172	0	-	0
Stage 1	1150	-	-	-	-	-
Stage 2	1281	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	36	243	603	-	-	-
Stage 1	304	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	33	237	589	-	-	-
Mov Cap-2 Maneuver	182	-	-	-	-	-
Stage 1	280	-	-	-	-	-
Stage 2	262	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	24.8	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	589	-	194	-	-
HCM Lane V/C Ratio	0.016	-	0.061	-	-
HCM Ctrl Dly (s/v)	11.2	0	24.8	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q (veh)	0.1	-	0.2	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

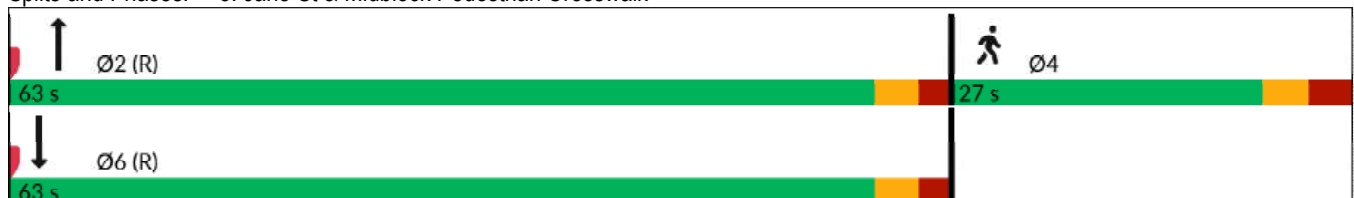
Future Total (Full Build-out 2035 Opt)
PM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1180	1042	
Future Volume (vph)	1180	1042	
Lane Group Flow (vph)	1269	1120	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.80	0.70	
Control Delay (s/veh)	15.0	7.6	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	15.1	7.6	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#327.6	#266.1	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1581	1596	
Starvation Cap Reductn	9	6	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.81	0.70	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Total (Full Build-out 2035 Opt)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1180	0	0	1042	0
Future Volume (vph)	0	0	0	0	0	0	0	1180	0	0	1042	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Flt								1.00			1.00	
Flt Protected								1.00			1.00	
Satd. Flow (prot)								1824			1842	
Flt Permitted								1.00			1.00	
Satd. Flow (perm)								1824			1842	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	0	0	0	0	1269	0	0	1120	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1269	0	0	1120	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1459			1473	
v/s Ratio Prot								c0.70			0.61	
v/s Ratio Perm												
v/c Ratio								0.87			0.76	
Uniform Delay, d1								5.9			4.6	
Progression Factor								1.00			0.61	
Incremental Delay, d2								7.3			2.6	
Delay (s)								13.2			5.4	
Level of Service								B			A	
Approach Delay (s/veh)		0.0			0.0			13.2			5.4	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			9.6					HCM 2000 Level of Service			A	
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			90.0					Sum of lost time (s)			10.0	
Intersection Capacity Utilization			65.4%					ICU Level of Service			C	
Analysis Period (min)			15									

c Critical Lane Group

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	8	2	17	9	3	39	14	1133	14	54	954	34
Future Vol, veh/h	8	2	17	9	3	39	14	1133	14	54	954	34
Conflicting Peds, #/hr	0	0	0	0	0	0	59	0	70	70	0	59
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	5	0	0	0	0	3	0	1	3	0
Mvmt Flow	8	2	17	9	3	40	14	1156	14	55	973	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2355	2410	1032	2364	2431	1226	1067	0	0	1240	0	0
Stage 1	1142	1142	-	1254	1254	-	-	-	-	-	-	-
Stage 2	1213	1268	-	1110	1177	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	25	33	279	25	32	220	661	-	-	565	-	-
Stage 1	246	278	-	213	246	-	-	-	-	-	-	-
Stage 2	224	242	-	256	267	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	15	21	266	17	21	208	631	-	-	534	-	-
Mov Cap-2 Maneuver	94	119	-	117	131	-	-	-	-	-	-	-
Stage 1	220	203	-	189	218	-	-	-	-	-	-	-
Stage 2	167	214	-	181	195	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	31.5		33.4		0.1		0.6	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	631	-	-	163	178	534	-	-
HCM Lane V/C Ratio	0.023	-	-	0.169	0.292	0.103	-	-
HCM Ctrl Dly (s/v)	10.8	0	-	31.5	33.4	12.5	0	-
HCM Lane LOS	B	A	-	D	D	B	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.6	1.2	0.3	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	T			T	T	
Traffic Vol, veh/h	69	9	3	45	2	3
Future Vol, veh/h	69	9	3	45	2	3
Conflicting Peds, #/hr	0	2	2	0	2	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	84	11	4	55	2	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	97	0	157
Stage 1	-	-	-	-	92
Stage 2	-	-	-	-	65
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1509	-	839
Stage 1	-	-	-	-	937
Stage 2	-	-	-	-	963
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1507	-	834
Mov Cap-2 Maneuver	-	-	-	-	812
Stage 1	-	-	-	-	936
Stage 2	-	-	-	-	958

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.5	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	895	-	-	1507	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Ctrl Dly (s/v)	9.1	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	22	50	34	4	11	14
Future Vol, veh/h	22	50	34	4	11	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	82	82	100	100	100
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	22	61	41	4	11	14

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	45	0	-	0	148 43
Stage 1	-	-	-	-	43 -
Stage 2	-	-	-	-	105 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1576	-	-	-	849 1033
Stage 1	-	-	-	-	985 -
Stage 2	-	-	-	-	924 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1576	-	-	-	837 1033
Mov Cap-2 Maneuver	-	-	-	-	837 -
Stage 1	-	-	-	-	971 -
Stage 2	-	-	-	-	924 -

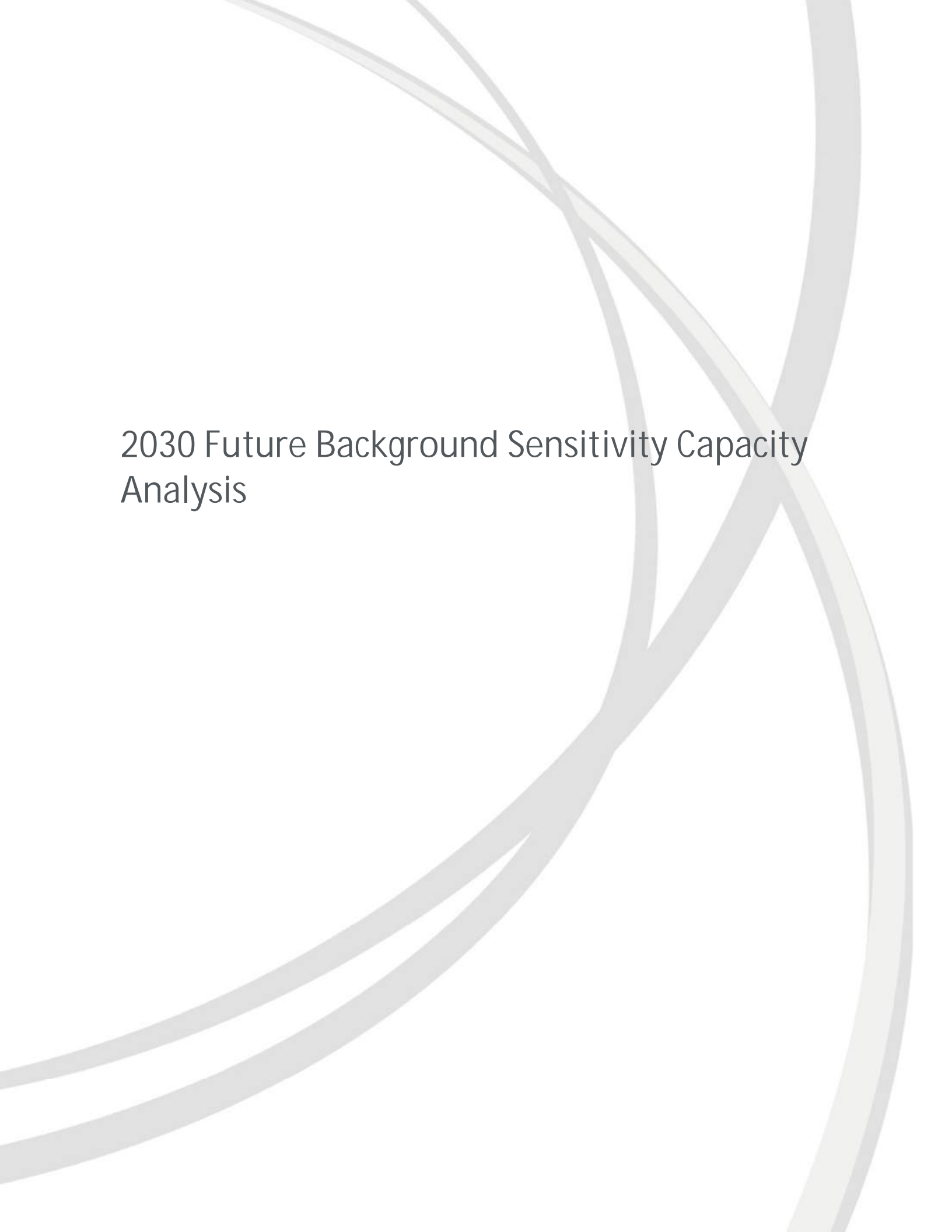
Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.9	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1576	-	-	-	937
HCM Lane V/C Ratio	0.014	-	-	-	0.027
HCM Ctrl Dly (s/v)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1



APPENDIX I

Sensitivity Analysis Intersection Capacity Analysis



2030 Future Background Sensitivity Capacity
Analysis

Queues

Future Background Traffic (2030 Sen Opt)

1: Jane St & John St/1795 Jane St Private Dwy

AM Peak Hour

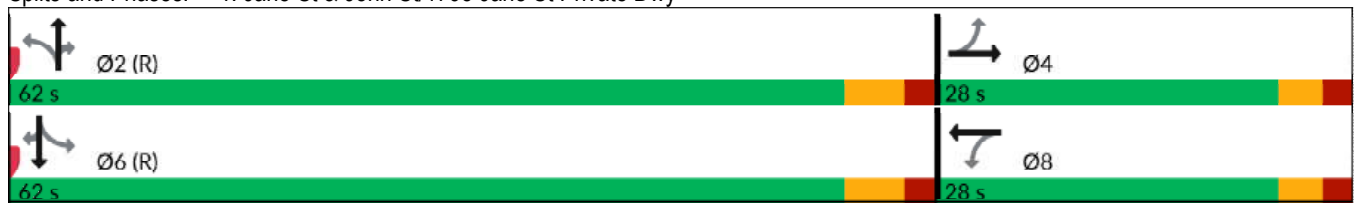


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	33	1	9	5	16	1203	6	6	992	29
Future Volume (vph)	33	1	9	5	16	1203	6	6	992	29
Lane Group Flow (vph)	0	59	0	26	17	1280	6	6	1055	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.39		0.15	0.06	0.87	0.01	0.04	0.73	0.03
Control Delay (s/veh)		32.6		26.6	3.8	13.8	0.8	3.2	9.2	1.4
Queue Delay		0.0		0.0	0.0	0.1	0.0	0.0	0.2	0.0
Total Delay (s/veh)		32.6		26.6	3.8	13.9	0.8	3.2	9.4	1.4
Queue Length 50th (m)		6.2		2.5	0.5	119.8	0.0	0.2	69.4	0.2
Queue Length 95th (m)		17.5		9.8	m1.2	#300.4	m0.0	1.2	157.5	2.1
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		337		405	307	1469	881	163	1442	919
Starvation Cap Reductn		0		0	0	5	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	56	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.18		0.06	0.06	0.87	0.01	0.04	0.76	0.03

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Background Traffic (2030 Sen Opt)
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	33	1	22	9	5	10	16	1203	6	6	992	29
Future Volume (vph)	33	1	22	9	5	10	16	1203	6	6	992	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.96			0.96		1.00	1.00	0.75	1.00	1.00	0.86
Flpb, ped/bikes		0.96			0.97		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1453			1616		1685	1773	1059	1685	1740	1105
Flt Permitted		0.80			0.91		0.21	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)		1201			1493		370	1773	1059	196	1740	1105
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	35	1	23	10	5	11	17	1280	6	6	1055	31
RTOR Reduction (vph)	0	21	0	0	10	0	0	0	1	0	0	5
Lane Group Flow (vph)	0	38	0	0	16	0	17	1280	5	6	1055	26
Confl. Peds. (#/hr)	37		46	46		37	51		100	100		51
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	9%	0%	9%	0%	0%	0%	0%	6%	0%	0%	8%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		7.4			7.4		71.6	71.6	71.6	71.6	71.6	71.6
Effective Green, g (s)		8.4			8.4		72.6	72.6	72.6	72.6	72.6	72.6
Actuated g/C Ratio		0.09			0.09		0.81	0.81	0.81	0.81	0.81	0.81
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		112			139		298	1430	854	158	1403	891
v/s Ratio Prot							c0.72				0.61	
v/s Ratio Perm		c0.03			0.01		0.05		0.00	0.03		0.02
v/c Ratio		0.34			0.12		0.06	0.90	0.01	0.04	0.75	0.03
Uniform Delay, d1		38.2			37.4		1.8	6.1	1.7	1.7	4.3	1.7
Progression Factor		1.00			1.00		1.32	1.08	5.79	1.00	1.00	1.00
Incremental Delay, d2		1.8			0.4		0.2	5.4	0.0	0.4	3.8	0.1
Delay (s)		40.0			37.8		2.5	11.9	9.8	2.2	8.0	1.8
Level of Service		D			D		A	B	A	A	A	A
Approach Delay (s/veh)		40.0			37.8			11.8			7.8	
Approach LOS		D			D			B			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	11.0	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.84	B
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	86.6%	9.0
Analysis Period (min)	15	ICU Level of Service
		E
c Critical Lane Group		

Queues

Future Background Traffic (2030 Sen Opt)

2: Jane St & Lawrence Ave W

AM Peak Hour

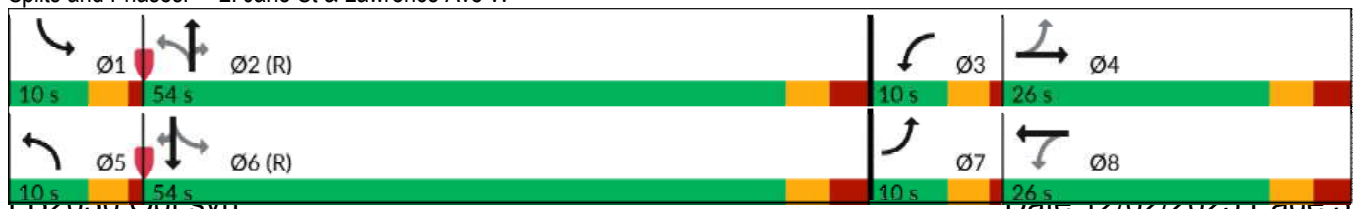


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	211	598	58	318	59	776	103	88	633	101
Future Volume (vph)	211	598	58	318	59	776	103	88	633	101
Lane Group Flow (vph)	220	701	60	377	61	808	107	92	659	105
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	26.0	10.0	26.0	10.0	54.0	54.0	10.0	54.0	54.0
Total Split (%)	10.0%	26.0%	10.0%	26.0%	10.0%	54.0%	54.0%	10.0%	54.0%	54.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.88	0.99	0.33	0.57	0.21	0.90	0.16	0.47	0.75	0.16
Control Delay (s/veh)	63.1	71.0	28.5	38.2	9.7	37.7	2.7	17.6	27.1	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.1	71.0	28.5	38.2	9.7	37.7	2.7	17.6	27.1	2.6
Queue Length 50th (m)	34.3	#81.2	8.4	33.8	4.5	144.9	0.0	7.0	102.8	0.0
Queue Length 95th (m)	#75.6	#117.8	17.8	48.9	9.6	#227.2	7.0	15.5	151.0	6.7
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	251	709	183	656	293	902	657	195	877	656
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.99	0.33	0.57	0.21	0.90	0.16	0.47	0.75	0.16

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Background Traffic (2030 Sen Opt)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	211	598	75	58	318	44	59	776	103	88	633	101
Future Volume (vph)	211	598	75	58	318	44	59	776	103	88	633	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.94		1.00	0.96		1.00	1.00	0.80	1.00	1.00	0.81
Flpb, ped/bikes	0.94	1.00		0.98	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frnt	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1567	3059		1642	3086		1589	1773	1175	1604	1724	1173
Flt Permitted	0.39	1.00		0.18	1.00		0.21	1.00	1.00	0.10	1.00	1.00
Satd. Flow (perm)	650	3059		319	3086		353	1773	1175	162	1724	1173
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	220	623	78	60	331	46	61	808	107	92	659	105
RTOR Reduction (vph)	0	9	0	0	11	0	0	0	54	0	0	53
Lane Group Flow (vph)	220	692	0	60	366	0	61	808	53	92	659	52
Confl. Peds. (#/hr)	110		160	160		110	97		100	100		97
Confl. Bikes (#/hr)									5			2
Heavy Vehicles (%)	1%	7%	18%	1%	9%	6%	6%	6%	3%	5%	9%	4%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	27.9	21.9		25.5	20.7		53.1	48.3	48.3	53.1	48.3	48.3
Effective Green, g (s)	29.9	22.9		27.5	21.7		55.1	49.3	49.3	55.1	49.3	49.3
Actuated g/C Ratio	0.30	0.23		0.28	0.22		0.55	0.49	0.49	0.55	0.49	0.49
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	700		164	669		266	874	579	172	849	578
v/s Ratio Prot	c0.06	c0.23		0.02	0.12		0.01	c0.46		c0.03	0.38	
v/s Ratio Perm	0.19			0.08			0.11		0.04	0.26		0.04
v/c Ratio	0.85	0.99		0.37	0.55		0.23	0.92	0.09	0.53	0.78	0.09
Uniform Delay, d1	31.6	38.4		28.3	34.8		13.7	23.6	13.5	18.4	20.8	13.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.8	30.7		1.4	0.9		0.4	16.9	0.3	3.2	6.9	0.3
Delay (s)	54.4	69.1		29.7	35.7		14.1	40.5	13.8	21.6	27.7	13.8
Level of Service	D	E		C	D		B	D	B	C	C	B
Approach Delay (s/veh)		65.6			34.9			35.9			25.3	
Approach LOS		E			C			D			C	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	41.5	HCM 2000 Level of Service D
HCM 2000 Volume to Capacity ratio	0.92	
Actuated Cycle Length (s)	100.0	Sum of lost time (s) 16.2
Intersection Capacity Utilization	86.0%	ICU Level of Service E
Analysis Period (min)	15	

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘		↑	↑		↙
Traffic Vol, veh/h	7	9	1219	5	2	1007
Future Vol, veh/h	7	9	1219	5	2	1007
Conflicting Peds, #/hr	0	0	0	60	60	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	7.5	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	14	0	6	0	50	8
Mvmt Flow	7	9	1283	5	2	1060

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2407	1343	0	0	1348
Stage 1	1343	-	-	-	-
Stage 2	1064	-	-	-	-
Critical Hdwy	6.54	6.2	-	-	4.6
Critical Hdwy Stg 1	5.54	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-
Follow-up Hdwy	3.626	3.3	-	-	2.65
Pot Cap-1 Maneuver	33	188	-	-	383
Stage 1	229	-	-	-	-
Stage 2	315	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	31	180	-	-	367
Mov Cap-2 Maneuver	170	-	-	-	-
Stage 1	219	-	-	-	-
Stage 2	311	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	27.8	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	175	367
HCM Lane V/C Ratio	-	-	0.096	0.006
HCM Ctrl Dly (s/v)	-	-	27.8	14.9
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.3	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	17	11	14	1207	996	18
Future Vol, veh/h	17	11	14	1207	996	18
Conflicting Peds, #/hr	1	1	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	0	0	6	8	16
Mvmt Flow	18	12	15	1271	1048	19

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2359	1058	1076	0	-	0
Stage 1	1057	-	-	-	-	-
Stage 2	1302	-	-	-	-	-
Critical Hdwy	6.57	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	35	276	656	-	-	-
Stage 1	313	-	-	-	-	-
Stage 2	237	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	32	274	652	-	-	-
Mov Cap-2 Maneuver	174	-	-	-	-	-
Stage 1	287	-	-	-	-	-
Stage 2	237	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	25.7	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	652	-	203	-	-
HCM Lane V/C Ratio	0.023	-	0.145	-	-
HCM Ctrl Dly (s/v)	10.6	0	25.7	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q (veh)	0.1	-	0.5	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

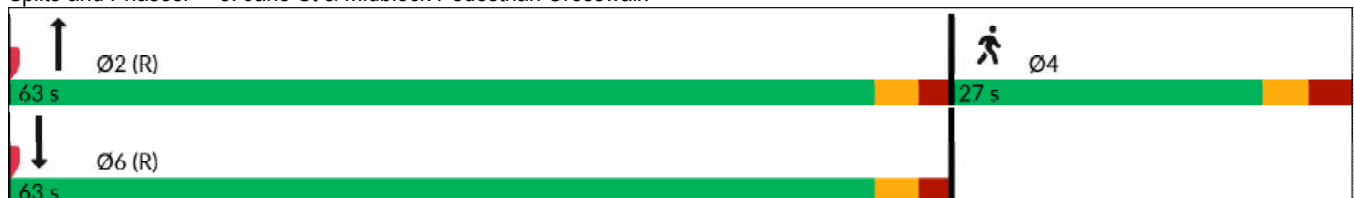
Future Background Traffic (2030 Sen Opt)
AM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1221	1007	
Future Volume (vph)	1221	1007	
Lane Group Flow (vph)	1285	1060	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.84	0.70	
Control Delay (s/veh)	16.8	7.8	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	16.9	7.8	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#335.6	#248.6	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1537	1508	
Starvation Cap Reductn	5	1	
Spillback Cap Reductn	3	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.84	0.70	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Background Traffic (2030 Sen Opt)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1221	0	0	1007	0
Future Volume (vph)	0	0	0	0	0	0	0	1221	0	0	1007	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1773			1740	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1773			1740	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	0	0	1285	0	0	1060	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1285	0	0	1060	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	8%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1418			1392	
v/s Ratio Prot								c0.72			0.61	
v/s Ratio Perm												
v/c Ratio								0.91			0.76	
Uniform Delay, d ₁								6.5			4.6	
Progression Factor								1.00			0.59	
Incremental Delay, d ₂								9.9			2.8	
Delay (s)								16.5			5.6	
Level of Service								B			A	
Approach Delay (s/veh)		0.0			0.0			16.5			5.6	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			11.5									HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio			0.82									B
Actuated Cycle Length (s)			90.0									Sum of lost time (s)
Intersection Capacity Utilization			67.6%									10.0
Analysis Period (min)			15									ICU Level of Service
												C

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	14	1	9	2	3	61	5	1146	4	67	887	53
Future Vol, veh/h	14	1	9	2	3	61	5	1146	4	67	887	53
Conflicting Peds, #/hr	0	0	0	0	0	0	28	0	31	31	0	28
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	0	3	20	6	0	2	9	3
Mvmt Flow	15	1	9	2	3	64	5	1206	4	71	934	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2356	2355	962	2356	2407	1237	1018	0	0	1241	0	0
Stage 1	1104	1104	-	1247	1247	-	-	-	-	-	-	-
Stage 2	1252	1251	-	1109	1160	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.2	7.1	6.5	6.23	4.3	-	-	4.12	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	3.5	4	3.327	2.38	-	-	2.218	-	-
Pot Cap-1 Maneuver	24	36	313	25	34	214	616	-	-	561	-	-
Stage 1	250	289	-	215	247	-	-	-	-	-	-	-
Stage 2	206	246	-	257	272	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 12	24	306	18	22	209	603	-	-	548	-	-
Mov Cap-2 Maneuver	60	121	-	123	136	-	-	-	-	-	-	-
Stage 1	239	200	-	205	235	-	-	-	-	-	-	-
Stage 2	137	234	-	175	188	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	60.8		32.3		0		0.8	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	603	-	-	89	200	548	-	-
HCM Lane V/C Ratio	0.009	-	-	0.284	0.347	0.129	-	-
HCM Ctrl Dly (s/v)	11	0	-	60.8	32.3	12.5	0	-
HCM Lane LOS	B	A	-	F	D	B	A	-
HCM 95th %tile Q (veh)	0	-	-	1.1	1.5	0.4	-	-

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

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	1	71	66	1	1	0
Future Vol, veh/h	1	71	66	1	1	0
Conflicting Peds, #/hr	16	0	0	16	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	1	100	93	1	1	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	110	0	-	0	212
Stage 1	-	-	-	-	110
Stage 2	-	-	-	-	102
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1493	-	-	-	781
Stage 1	-	-	-	-	920
Stage 2	-	-	-	-	927
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1476	-	-	-	772
Mov Cap-2 Maneuver	-	-	-	-	772
Stage 1	-	-	-	-	909
Stage 2	-	-	-	-	927

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1476	-	-	-	772
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	65	1	0	68	1	0	0	0	1	0	2
Future Vol, veh/h	8	65	1	0	68	1	0	0	0	1	0	2
Conflicting Peds, #/hr	10	0	0	0	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	11	90	1	0	94	1	0	0	0	1	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	91	0	0	209	218	93	220	218	105
Stage 1	-	-	-	-	-	-	113	113	-	105	105	-
Stage 2	-	-	-	-	-	-	96	105	-	115	113	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1499	-	-	1517	-	-	753	684	970	740	684	955
Stage 1	-	-	-	-	-	-	897	806	-	906	812	-
Stage 2	-	-	-	-	-	-	916	812	-	895	806	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1487	-	-	1517	-	-	746	673	968	729	673	948
Mov Cap-2 Maneuver	-	-	-	-	-	-	746	673	-	729	673	-
Stage 1	-	-	-	-	-	-	890	800	-	892	806	-
Stage 2	-	-	-	-	-	-	913	806	-	886	800	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.8	0	0	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1487	-	-	1517	-	-	862
HCM Lane V/C Ratio	-	0.007	-	-	-	-	-	0.005
HCM Ctrl Dly (s/v)	0	7.4	0	-	0	-	-	9.2
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q (veh)	-	0	-	-	0	-	-	0

Queues

Future Background Traffic (2030 Sen Opt)

1: Jane St & John St/1795 Jane St Private Dwy

PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	+	+	+	+	+	+
Traffic Volume (vph)	18	3	2	0	13	1079	5	6	981	20
Future Volume (vph)	18	3	2	0	13	1079	5	6	981	20
Lane Group Flow (vph)	0	36	0	11	14	1173	5	7	1066	22
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.25		0.06	0.04	0.73	0.00	0.03	0.66	0.02
Control Delay (s/veh)		31.3		1.7	3.1	7.7	0.6	2.3	5.9	0.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (s/veh)		31.3		1.7	3.1	7.7	0.6	2.3	6.0	0.9
Queue Length 50th (m)		4.0		0.0	0.4	79.6	0.0	0.2	61.7	0.0
Queue Length 95th (m)		12.9		0.8	m1.0	96.0	m0.0	1.1	123.6	1.3
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		374		421	342	1602	1069	275	1617	1110
Starvation Cap Reductn		0		0	0	7	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	38	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.10		0.03	0.04	0.74	0.00	0.03	0.68	0.02

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

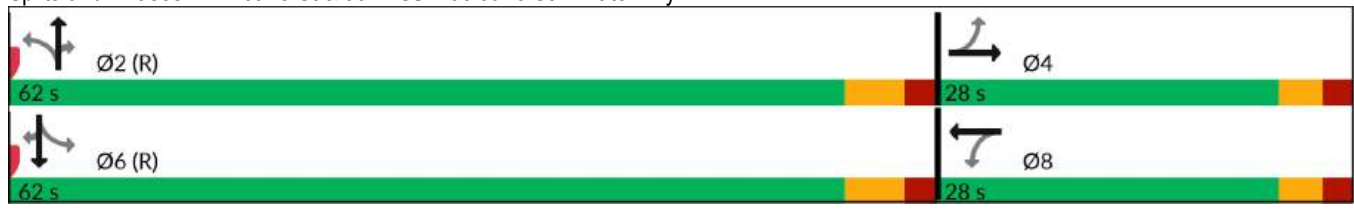
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

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

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Background Traffic (2030 Sen Opt)
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑	↕	↕	↕	↕
Traffic Volume (vph)	18	3	12	2	0	8	13	1079	5	6	981	20
Future Volume (vph)	18	3	12	2	0	8	13	1079	5	6	981	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.97			0.95		1.00	1.00	0.86	1.00	1.00	0.89
Flpb, ped/bikes		0.98			0.99		0.99	1.00	1.00	1.00	1.00	1.00
Fr t		0.95			0.89		1.00	1.00	0.85	1.00	1.00	0.85
Fl t Protected		0.97			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1612			1568		1666	1824	1214	1685	1842	1261
Fl t Permitted		0.82			0.93		0.22	1.00	1.00	0.18	1.00	1.00
Satd. Flow (perm)		1361			1475		385	1824	1214	314	1842	1261
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	13	2	0	9	14	1173	5	7	1066	22
RTOR Reduction (vph)	0	12	0	0	10	0	0	0	1	0	0	4
Lane Group Flow (vph)	0	24	0	0	1	0	14	1173	4	7	1066	18
Confl. Peds. (#/hr)	16		19	19		16	37		53	53		37
Confl. Bikes (#/hr)			4			1						
Heavy Vehicles (%)	0%	0%	8%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		5.0			5.0		74.0	74.0	74.0	74.0	74.0	74.0
Effective Green, g (s)		6.0			6.0		75.0	75.0	75.0	75.0	75.0	75.0
Actuated g/C Ratio		0.07			0.07		0.83	0.83	0.83	0.83	0.83	0.83
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		90			98		320	1520	1011	261	1535	1050
v/s Ratio Prot							c0.64				0.58	
v/s Ratio Perm		c0.02			0.00		0.04		0.00	0.02		0.01
v/c Ratio		0.27			0.01		0.04	0.77	0.00	0.03	0.69	0.02
Uniform Delay, d1		39.9			39.2		1.3	3.5	1.3	1.3	3.0	1.3
Progression Factor		1.00			1.00		1.40	1.15	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.6			0.0		0.2	2.7	0.0	0.2	2.6	0.0
Delay (s)		41.5			39.3		2.0	6.7	1.3	1.5	5.6	1.3
Level of Service		D			D		A	A	A	A	A	A
Approach Delay (s/veh)		41.5			39.3			6.6			5.5	
Approach LOS		D			D			A			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	6.8	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.73	A
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	76.0%	9.0
Analysis Period (min)	15	ICU Level of Service
		D
c Critical Lane Group		

Queues

Future Background Traffic (2030 Sen Opt)

2: Jane St & Lawrence Ave W

PM Peak Hour

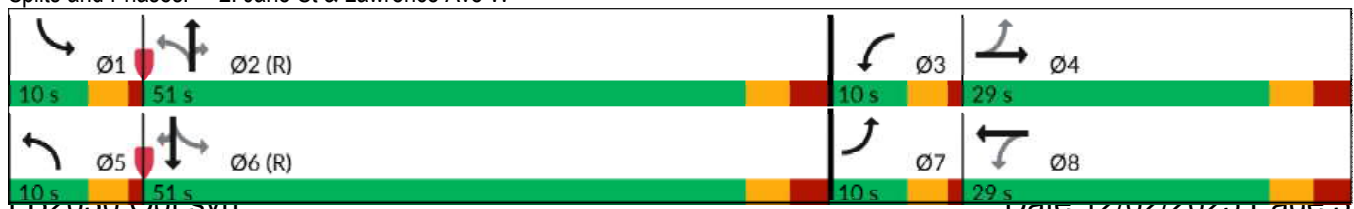


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	219	568	100	368	62	808	93	56	781	94
Future Volume (vph)	219	568	100	368	62	808	93	56	781	94
Lane Group Flow (vph)	235	700	108	452	67	869	100	60	840	101
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	29.0	10.0	29.0	10.0	51.0	51.0	10.0	51.0	51.0
Total Split (%)	10.0%	29.0%	10.0%	29.0%	10.0%	51.0%	51.0%	10.0%	51.0%	51.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.00	0.18	0.32	0.96	0.18
Control Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	59.8	2.8	13.8	49.7	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	59.8	2.8	13.8	49.7	2.8
Queue Length 50th (m)	34.9	70.8	14.7	40.9	5.5	~190.6	0.0	5.0	~165.5	0.0
Queue Length 95th (m)	#82.3	#106.7	#29.3	57.4	11.4	#263.9	6.6	10.5	#250.4	6.6
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	243	751	181	769	184	865	553	189	874	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.00	0.18	0.32	0.96	0.18

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Background Traffic (2030 Sen Opt)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	568	83	100	368	52	62	808	93	56	781	94
Future Volume (vph)	219	568	83	100	368	52	62	808	93	56	781	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.93		1.00	0.94		1.00	1.00	0.69	1.00	1.00	0.71
Flpb, ped/bikes	0.94	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1531	3095		1614	3174		1620	1807	1024	1668	1824	1048
Flt Permitted	0.36	1.00		0.17	1.00		0.08	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	577	3095		284	3174		145	1807	1024	149	1824	1048
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	235	611	89	108	396	56	67	869	100	60	840	101
RTOR Reduction (vph)	0	11	0	0	11	0	0	0	53	0	0	53
Lane Group Flow (vph)	235	689	0	108	441	0	67	869	47	60	840	48
Confl. Peds. (#/hr)	148		176	176		148	151		176	176		151
Confl. Bikes (#/hr)			3			4			9			6
Heavy Vehicles (%)	3%	5%	10%	3%	4%	3%	4%	4%	1%	1%	3%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	28.9	22.9		28.9	22.9		50.9	46.1	46.1	50.9	46.1	46.1
Effective Green, g (s)	30.9	23.9		30.9	23.9		52.9	47.1	47.1	52.9	47.1	47.1
Actuated g/C Ratio	0.31	0.24		0.31	0.24		0.53	0.47	0.47	0.53	0.47	0.47
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	245	739		180	758		162	851	482	166	859	493
v/s Ratio Prot	c0.07	0.22		0.04	0.14		c0.02	c0.48		0.02	0.46	
v/s Ratio Perm	c0.23			0.14			0.19		0.05	0.17		0.05
v/c Ratio	0.96	0.93		0.60	0.58		0.41	1.02	0.10	0.36	0.98	0.10
Uniform Delay, d1	32.4	37.3		26.8	33.6		20.6	26.4	14.7	21.1	25.9	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	45.6	18.5		5.5	1.1		1.7	36.3	0.4	1.3	25.8	0.4
Delay (s)	78.0	55.7		32.3	34.8		22.3	62.7	15.1	22.5	51.7	15.0
Level of Service	E	E		C	C		C	E	B	C	D	B
Approach Delay (s/veh)		61.3			34.3			55.5			46.3	
Approach LOS		E			C			E			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			51.1			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.96									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			16.2			
Intersection Capacity Utilization			88.2%			ICU Level of Service			E			
Analysis Period (min)			15									

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	5	6	1103	6	9	966
Future Vol, veh/h	5	6	1103	6	9	966
Conflicting Peds, #/hr	6	0	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	5	6	1186	6	10	1039

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2320	1255	0	0	1258
Stage 1	1255	-	-	-	-
Stage 2	1065	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	42	211	-	-	560
Stage 1	271	-	-	-	-
Stage 2	334	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	38	201	-	-	534
Mov Cap-2 Maneuver	191	-	-	-	-
Stage 1	258	-	-	-	-
Stage 2	318	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	24.5	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	196	534
HCM Lane V/C Ratio	-	-	0.06	0.018
HCM Ctrl Dly (s/v)	-	-	24.5	11.9
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q (veh)	-	-	0.2	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			4	↑	↑
Traffic Vol, veh/h	8	3	9	1075	943	20
Future Vol, veh/h	8	3	9	1075	943	20
Conflicting Peds, #/hr	2	1	33	0	0	33
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	4	3	0
Mvmt Flow	9	3	10	1156	1014	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2225	1048	1069	0	-	0
Stage 1	1047	-	-	-	-	-
Stage 2	1178	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	48	279	660	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	45	272	645	-	-	-
Mov Cap-2 Maneuver	208	-	-	-	-	-
Stage 1	319	-	-	-	-	-
Stage 2	294	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	22.1	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	645	-	222	-	-
HCM Lane V/C Ratio	0.015	-	0.053	-	-
HCM Ctrl Dly (s/v)	10.7	0	22.1	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q (veh)	0	-	0.2	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

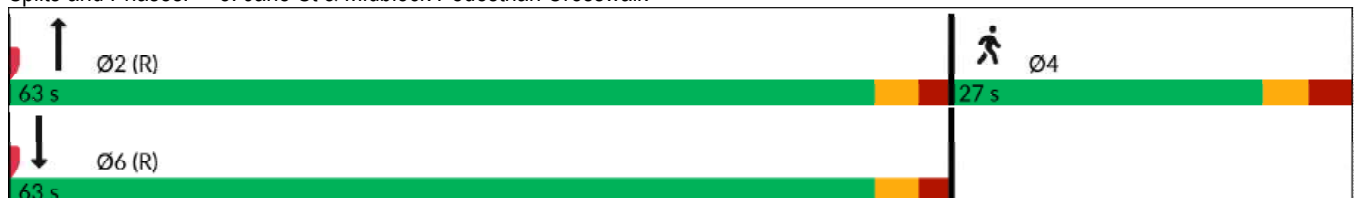
Future Background Traffic (2030 Sen Opt)
PM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1084	946	
Future Volume (vph)	1084	946	
Lane Group Flow (vph)	1166	1017	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.74	0.64	
Control Delay (s/veh)	12.7	5.9	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	12.7	5.9	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#288.1	69.5	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1566	1581	
Starvation Cap Reductn	12	5	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.75	0.65	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Background Traffic (2030 Sen Opt)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1084	0	0	946	0
Future Volume (vph)	0	0	0	0	0	0	0	1084	0	0	946	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1807			1824	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1807			1824	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	0	0	0	0	1166	0	0	1017	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1166	0	0	1017	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	3%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1445			1459	
v/s Ratio Prot								c0.65			0.56	
v/s Ratio Perm												
v/c Ratio								0.81			0.70	
Uniform Delay, d ₁								5.1			4.1	
Progression Factor								1.00			0.57	
Incremental Delay, d ₂								4.9			2.1	
Delay (s)								10.0			4.4	
Level of Service								B			A	
Approach Delay (s/veh)		0.0			0.0			10.0			4.4	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			7.4									HCM 2000 Level of Service
												A
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			90.0								10.0	Sum of lost time (s)
Intersection Capacity Utilization			60.4%									ICU Level of Service
												B
Analysis Period (min)			15									

c Critical Lane Group

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	8	2	17	7	3	39	14	1037	8	51	861	34
Future Vol, veh/h	8	2	17	7	3	39	14	1037	8	51	861	34
Conflicting Peds, #/hr	0	0	0	0	0	0	59	0	70	70	0	59
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	5	0	0	0	0	4	0	1	3	0
Mvmt Flow	8	2	17	7	3	40	14	1058	8	52	879	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2154	2206	938	2166	2233	1128	973	0	0	1136	0	0
Stage 1	1042	1042	-	1156	1156	-	-	-	-	-	-	-
Stage 2	1112	1164	-	1010	1077	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	35	45	316	34	43	251	717	-	-	619	-	-
Stage 1	280	309	-	242	273	-	-	-	-	-	-	-
Stage 2	256	271	-	292	298	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	23	32	302	25	30	237	684	-	-	585	-	-
Mov Cap-2 Maneuver	122	144	-	143	155	-	-	-	-	-	-	-
Stage 1	254	241	-	217	245	-	-	-	-	-	-	-
Stage 2	200	244	-	223	232	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	26		27.4		0.1		0.6	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	684	-	-	199	210	585	-	-
HCM Lane V/C Ratio	0.021	-	-	0.138	0.238	0.089	-	-
HCM Ctrl Dly (s/v)	10.4	0	-	26	27.4	11.8	0	-
HCM Lane LOS	B	A	-	D	D	B	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.5	0.9	0.3	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	6	55	40	1	5	9
Future Vol, veh/h	6	55	40	1	5	9
Conflicting Peds, #/hr	54	0	0	54	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	7	64	47	1	6	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	102	0	180
Stage 1	-	-	102
Stage 2	-	-	78
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1503	-	814
Stage 1	-	-	927
Stage 2	-	-	950
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1446	-	779
Mov Cap-2 Maneuver	-	-	779
Stage 1	-	-	887
Stage 2	-	-	950

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.7	0	9.2
HCM LOS			A


Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1446	-	-	-	865
HCM Lane V/C Ratio	0.005	-	-	-	0.019
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	52	9	3	32	5	2	0	3	7	0	3
Future Vol, veh/h	8	52	9	3	32	5	2	0	3	7	0	3
Conflicting Peds, #/hr	15	0	2	2	0	15	2	0	5	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	10	63	11	4	39	6	2	0	4	9	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	76	0	0	145	159	76	161	161	59
Stage 1	-	-	-	-	-	-	91	91	-	65	65	-
Stage 2	-	-	-	-	-	-	54	68	-	96	96	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1556	-	-	1536	-	-	828	737	991	809	735	1012
Stage 1	-	-	-	-	-	-	921	823	-	951	845	-
Stage 2	-	-	-	-	-	-	963	842	-	916	819	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1538	-	-	1534	-	-	816	719	986	787	717	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	816	719	-	787	717	-
Stage 1	-	-	-	-	-	-	913	816	-	933	832	-
Stage 2	-	-	-	-	-	-	955	829	-	903	812	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.9			0.6			9			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	910	1538	-	-	1534	-	-	841
HCM Lane V/C Ratio	0.007	0.006	-	-	0.002	-	-	0.015
HCM Ctrl Dly (s/v)	9	7.4	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	0



2035 Future Background Sensitivity Capacity Analysis

Queues

Future Background Traffic (2035 Sen Opt)

1: Jane St & John St/1795 Jane St Private Dwy

AM Peak Hour

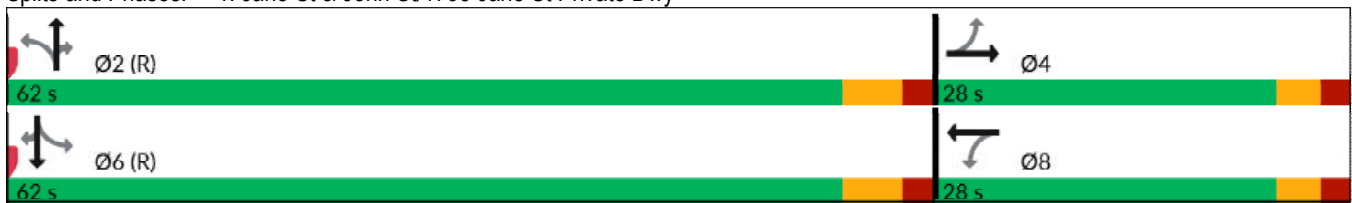


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	33	1	9	5	16	1210	6	6	995	29
Future Volume (vph)	33	1	9	5	16	1210	6	6	995	29
Lane Group Flow (vph)	0	59	0	26	17	1287	6	6	1059	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.39		0.15	0.06	0.88	0.01	0.04	0.73	0.03
Control Delay (s/veh)		32.6		26.6	3.7	14.1	0.8	3.2	9.3	1.4
Queue Delay		0.0		0.0	0.0	0.1	0.0	0.0	0.2	0.0
Total Delay (s/veh)		32.6		26.6	3.7	14.1	0.8	3.2	9.5	1.4
Queue Length 50th (m)		6.2		2.5	0.5	122.4	0.0	0.2	69.8	0.2
Queue Length 95th (m)		17.5		9.8	m1.2	#303.3	m0.0	1.2	159.3	2.1
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		337		405	304	1469	881	157	1442	919
Starvation Cap Reductn		0		0	0	4	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	58	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.18		0.06	0.06	0.88	0.01	0.04	0.77	0.03

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Background Traffic (2035 Sen Opt)
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	33	1	22	9	5	10	16	1210	6	6	995	29
Future Volume (vph)	33	1	22	9	5	10	16	1210	6	6	995	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.96			0.96		1.00	1.00	0.75	1.00	1.00	0.86
Flpb, ped/bikes		0.96			0.97		1.00	1.00	1.00	1.00	1.00	1.00
Fr t		0.95			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Fl t Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1453			1616		1685	1773	1059	1685	1740	1105
Fl t Permitted		0.80			0.91		0.21	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)		1201			1493		367	1773	1059	190	1740	1105
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	35	1	23	10	5	11	17	1287	6	6	1059	31
RTOR Reduction (vph)	0	21	0	0	10	0	0	0	1	0	0	5
Lane Group Flow (vph)	0	38	0	0	16	0	17	1287	5	6	1059	26
Confl. Peds. (#/hr)	37		46	46		37	51		100	100		51
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	9%	0%	9%	0%	0%	0%	0%	6%	0%	0%	8%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		7.4			7.4		71.6	71.6	71.6	71.6	71.6	71.6
Effective Green, g (s)		8.4			8.4		72.6	72.6	72.6	72.6	72.6	72.6
Actuated g/C Ratio		0.09			0.09		0.81	0.81	0.81	0.81	0.81	0.81
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		112			139		296	1430	854	153	1403	891
v/s Ratio Prot								c0.73			0.61	
v/s Ratio Perm		c0.03			0.01		0.05		0.00	0.03		0.02
v/c Ratio		0.34			0.12		0.06	0.90	0.01	0.04	0.75	0.03
Uniform Delay, d1		38.2			37.4		1.8	6.1	1.7	1.7	4.3	1.7
Progression Factor		1.00			1.00		1.31	1.07	5.79	1.00	1.00	1.00
Incremental Delay, d2		1.8			0.4		0.2	5.6	0.0	0.5	3.8	0.1
Delay (s)		40.0			37.8		2.5	12.2	9.8	2.2	8.1	1.8
Level of Service		D			D		A	B	A	A	A	A
Approach Delay (s/veh)		40.0			37.8			12.1			7.9	
Approach LOS		D			D			B			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	11.2	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.84	B
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	87.0%	9.0
Analysis Period (min)	15	ICU Level of Service
		E
c Critical Lane Group		

Queues

Future Background Traffic (2035 Sen Opt)

2: Jane St & Lawrence Ave W

AM Peak Hour

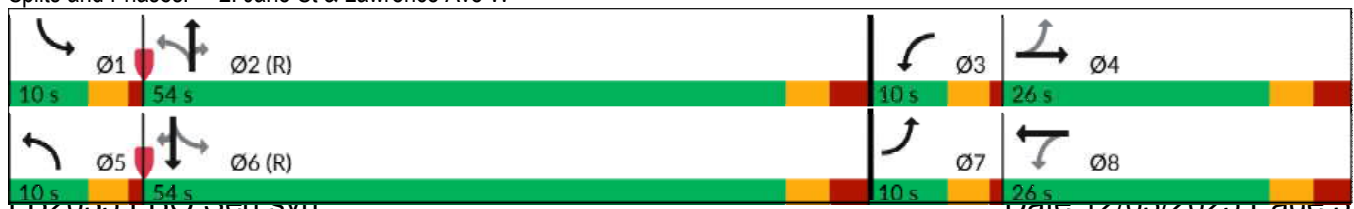


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	211	598	58	318	59	779	103	88	638	101
Future Volume (vph)	211	598	58	318	59	779	103	88	638	101
Lane Group Flow (vph)	220	701	60	377	61	811	107	92	665	105
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	26.0	10.0	26.0	10.0	54.0	54.0	10.0	54.0	54.0
Total Split (%)	10.0%	26.0%	10.0%	26.0%	10.0%	54.0%	54.0%	10.0%	54.0%	54.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.88	0.99	0.33	0.57	0.21	0.90	0.16	0.47	0.76	0.16
Control Delay (s/veh)	63.1	71.0	28.5	38.2	9.8	38.1	2.7	18.0	27.4	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.1	71.0	28.5	38.2	9.8	38.1	2.7	18.0	27.4	2.6
Queue Length 50th (m)	34.3	#81.2	8.4	33.8	4.5	145.9	0.0	7.0	104.3	0.0
Queue Length 95th (m)	#75.6	#117.8	17.8	48.9	9.6	#228.4	7.0	15.8	153.5	6.7
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	251	709	183	656	289	902	657	194	877	656
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.99	0.33	0.57	0.21	0.90	0.16	0.47	0.76	0.16

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Background Traffic (2035 Sen Opt)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	211	598	75	58	318	44	59	779	103	88	638	101
Future Volume (vph)	211	598	75	58	318	44	59	779	103	88	638	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.94		1.00	0.96		1.00	1.00	0.80	1.00	1.00	0.81
Flpb, ped/bikes	0.94	1.00		0.98	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frnt	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1567	3059		1642	3086		1589	1773	1175	1604	1724	1173
Flt Permitted	0.39	1.00		0.18	1.00		0.21	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	650	3059		319	3086		345	1773	1175	158	1724	1173
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	220	623	78	60	331	46	61	811	107	92	665	105
RTOR Reduction (vph)	0	9	0	0	11	0	0	0	54	0	0	53
Lane Group Flow (vph)	220	692	0	60	366	0	61	811	53	92	665	52
Confl. Peds. (#/hr)	110		160	160		110	97		100	100		97
Confl. Bikes (#/hr)									5			2
Heavy Vehicles (%)	1%	7%	18%	1%	9%	6%	6%	6%	3%	5%	9%	4%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	27.9	21.9		25.5	20.7		53.1	48.3	48.3	53.1	48.3	48.3
Effective Green, g (s)	29.9	22.9		27.5	21.7		55.1	49.3	49.3	55.1	49.3	49.3
Actuated g/C Ratio	0.30	0.23		0.28	0.22		0.55	0.49	0.49	0.55	0.49	0.49
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	700		164	669		262	874	579	170	849	578
v/s Ratio Prot	c0.06	c0.23		0.02	0.12		0.01	c0.46		c0.03	0.39	
v/s Ratio Perm	0.19			0.08			0.11		0.04	0.27		0.04
v/c Ratio	0.85	0.99		0.37	0.55		0.23	0.93	0.09	0.54	0.78	0.09
Uniform Delay, d1	31.6	38.4		28.3	34.8		13.8	23.7	13.5	18.5	20.9	13.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.8	30.7		1.4	0.9		0.5	17.3	0.3	3.5	7.1	0.3
Delay (s)	54.4	69.1		29.7	35.7		14.3	41.0	13.8	22.0	28.1	13.8
Level of Service	D	E		C	D		B	D	B	C	C	B
Approach Delay (s/veh)		65.6			34.9			36.3			25.7	
Approach LOS		E			C			D			C	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	41.7	HCM 2000 Level of Service D
HCM 2000 Volume to Capacity ratio	0.92	
Actuated Cycle Length (s)	100.0	Sum of lost time (s) 16.2
Intersection Capacity Utilization	86.1%	ICU Level of Service E
Analysis Period (min)	15	

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	13	16	1219	8	5	1007
Future Vol, veh/h	13	16	1219	8	5	1007
Conflicting Peds, #/hr	0	0	0	60	60	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	7.5	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	7	0	6	0	20	8
Mvmt Flow	14	17	1283	8	5	1060

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2413	1343	0	0	1351
Stage 1	1343	-	-	-	-
Stage 2	1070	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.3
Critical Hdwy Stg 1	5.47	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.38
Pot Cap-1 Maneuver	35	188	-	-	456
Stage 1	237	-	-	-	-
Stage 2	322	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	33	180	-	-	437
Mov Cap-2 Maneuver	175	-	-	-	-
Stage 1	227	-	-	-	-
Stage 2	313	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	29.4	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	178	437
HCM Lane V/C Ratio	-	-	0.171	0.012
HCM Ctrl Dly (s/v)	-	-	29.4	13.3
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.6	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	17	11	14	1210	1002	18
Future Vol, veh/h	17	11	14	1210	1002	18
Conflicting Peds, #/hr	1	1	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	0	0	6	8	16
Mvmt Flow	18	12	15	1274	1055	19

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2369	1065	1083	0	-	0
Stage 1	1064	-	-	-	-	-
Stage 2	1305	-	-	-	-	-
Critical Hdwy	6.57	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	35	273	652	-	-	-
Stage 1	311	-	-	-	-	-
Stage 2	236	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	32	271	648	-	-	-
Mov Cap-2 Maneuver	173	-	-	-	-	-
Stage 1	285	-	-	-	-	-
Stage 2	236	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	25.8	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	648	-	202	-	-
HCM Lane V/C Ratio	0.023	-	0.146	-	-
HCM Ctrl Dly (s/v)	10.7	0	25.8	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q (veh)	0.1	-	0.5	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

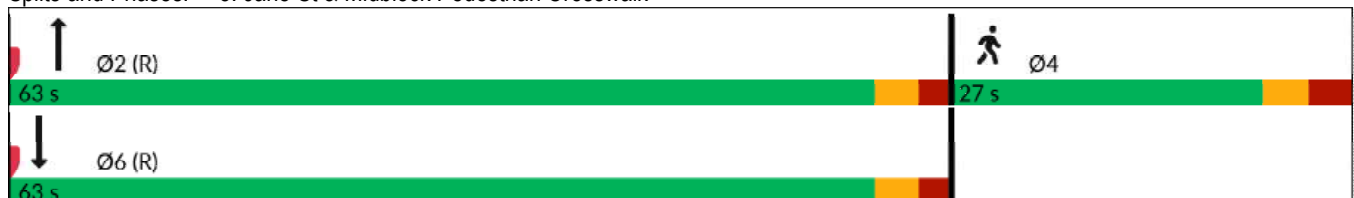
Future Background Traffic (2035 Sen Opt)
AM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1224	1013	
Future Volume (vph)	1224	1013	
Lane Group Flow (vph)	1288	1066	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.84	0.71	
Control Delay (s/veh)	16.9	8.0	
Queue Delay	0.1	0.0	
Total Delay (s/veh)	17.0	8.0	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#336.7	#251.1	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1537	1508	
Starvation Cap Reductn	5	1	
Spillback Cap Reductn	7	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.84	0.71	

Intersection Summary

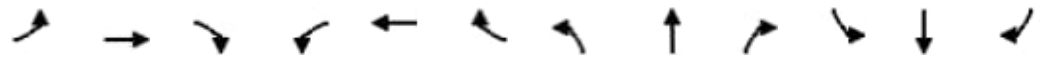
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Background Traffic (2035 Sen Opt)
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↑			↑	
Traffic Volume (vph)	0	0	0	0	0	0	0	1224	0	0	1013	0
Future Volume (vph)	0	0	0	0	0	0	0	1224	0	0	1013	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Flt								1.00			1.00	
Flt Protected								1.00			1.00	
Satd. Flow (prot)								1773			1740	
Flt Permitted								1.00			1.00	
Satd. Flow (perm)								1773			1740	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	0	0	1288	0	0	1066	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1288	0	0	1066	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	8%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1418			1392	
v/s Ratio Prot								c0.73			0.61	
v/s Ratio Perm												
v/c Ratio								0.91			0.77	
Uniform Delay, d1								6.6			4.6	
Progression Factor								1.00			0.59	
Incremental Delay, d2								10.1			2.9	
Delay (s)								16.7			5.7	
Level of Service								B			A	
Approach Delay (s/veh)		0.0			0.0			16.7			5.7	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			11.7					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.82									
Actuated Cycle Length (s)			90.0					Sum of lost time (s)			10.0	
Intersection Capacity Utilization			67.8%					ICU Level of Service			C	
Analysis Period (min)			15									

c Critical Lane Group

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	14	1	9	2	3	61	5	1149	4	67	893	53
Future Vol, veh/h	14	1	9	2	3	61	5	1149	4	67	893	53
Conflicting Peds, #/hr	0	0	0	0	0	0	28	0	31	31	0	28
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	0	3	20	6	0	2	9	3
Mvmt Flow	15	1	9	2	3	64	5	1209	4	71	940	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2365	2364	968	2365	2416	1240	1024	0	0	1244	0	0
Stage 1	1110	1110	-	1250	1250	-	-	-	-	-	-	-
Stage 2	1255	1254	-	1115	1166	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.2	7.1	6.5	6.23	4.3	-	-	4.12	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	3.5	4	3.327	2.38	-	-	2.218	-	-
Pot Cap-1 Maneuver	24	36	311	25	33	213	613	-	-	560	-	-
Stage 1	248	287	-	214	247	-	-	-	-	-	-	-
Stage 2	205	246	-	255	270	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 12	24	304	18	22	208	600	-	-	547	-	-
Mov Cap-2 Maneuver	60	120	-	122	135	-	-	-	-	-	-	-
Stage 1	236	198	-	204	235	-	-	-	-	-	-	-
Stage 2	136	234	-	173	186	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	61.6		32.5		0		0.8	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	600	-	-	88	199	547	-	-
HCM Lane V/C Ratio	0.009	-	-	0.287	0.349	0.129	-	-
HCM Ctrl Dly (s/v)	11.1	0	-	61.6	32.5	12.6	0	-
HCM Lane LOS	B	A	-	F	D	B	A	-
HCM 95th %tile Q (veh)	0	-	-	1.1	1.5	0.4	-	-

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

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	T			T	T	
Traffic Vol, veh/h	73	1	0	69	0	0
Future Vol, veh/h	73	1	0	69	0	0
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	101	1	0	96	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	102	0	198
Stage 1	-	-	-	-	102
Stage 2	-	-	-	-	96
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1503	-	795
Stage 1	-	-	-	-	927
Stage 2	-	-	-	-	933
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1503	-	795
Mov Cap-2 Maneuver	-	-	-	-	787
Stage 1	-	-	-	-	927
Stage 2	-	-	-	-	933

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1503	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q (veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	9	64	67	2	2	2
Future Vol, veh/h	9	64	67	2	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	72	72	100	100	100
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	9	89	93	2	2	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	95	0	-	0	201 94
Stage 1	-	-	-	-	94 -
Stage 2	-	-	-	-	107 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1512	-	-	-	792 968
Stage 1	-	-	-	-	935 -
Stage 2	-	-	-	-	922 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1512	-	-	-	787 968
Mov Cap-2 Maneuver	-	-	-	-	787 -
Stage 1	-	-	-	-	929 -
Stage 2	-	-	-	-	922 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.7	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1512	-	-	-	868
HCM Lane V/C Ratio	0.006	-	-	-	0.005
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0

Queues

Future Background Traffic (2035 Sen Opt)

1: Jane St & John St/1795 Jane St Private Dwy

PM Peak Hour

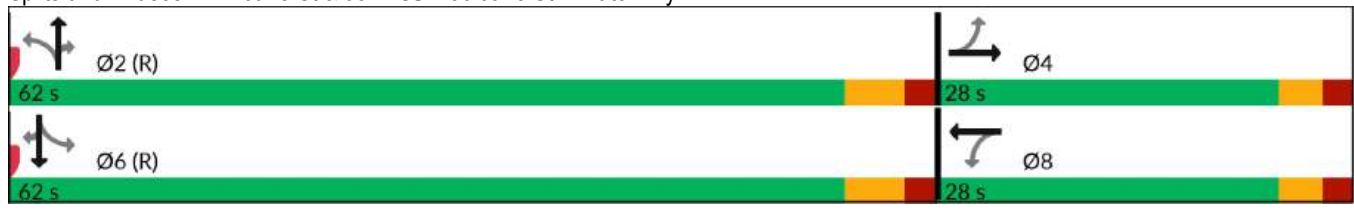


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	+	+	+	+	+	+
Traffic Volume (vph)	18	3	2	0	13	1085	5	6	989	20
Future Volume (vph)	18	3	2	0	13	1085	5	6	989	20
Lane Group Flow (vph)	0	36	0	11	14	1179	5	7	1075	22
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.25		0.06	0.04	0.74	0.00	0.03	0.66	0.02
Control Delay (s/veh)		31.3		1.7	3.1	7.8	0.6	2.3	6.0	0.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (s/veh)		31.3		1.7	3.1	7.8	0.6	2.3	6.1	0.9
Queue Length 50th (m)		4.0		0.0	0.4	80.8	0.0	0.2	62.6	0.0
Queue Length 95th (m)		12.9		0.8	m1.0	97.0	m0.0	1.1	126.4	1.3
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		374		421	336	1602	1069	272	1617	1110
Starvation Cap Reductn		0		0	0	8	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	38	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.10		0.03	0.04	0.74	0.00	0.03	0.68	0.02

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Background Traffic (2035 Sen Opt)
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑	↕	↕	↕	↕
Traffic Volume (vph)	18	3	12	2	0	8	13	1085	5	6	989	20
Future Volume (vph)	18	3	12	2	0	8	13	1085	5	6	989	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.97			0.95		1.00	1.00	0.86	1.00	1.00	0.89
Flpb, ped/bikes		0.98			0.99		0.99	1.00	1.00	1.00	1.00	1.00
Fr _t		0.95			0.89		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected		0.97			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1612			1568		1667	1824	1214	1685	1842	1261
Fl _t Permitted		0.82			0.93		0.22	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)		1361			1475		379	1824	1214	310	1842	1261
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	13	2	0	9	14	1179	5	7	1075	22
RTOR Reduction (vph)	0	12	0	0	10	0	0	0	1	0	0	4
Lane Group Flow (vph)	0	24	0	0	1	0	14	1179	4	7	1075	18
Confl. Peds. (#/hr)	16		19	19		16	37		53	53		37
Confl. Bikes (#/hr)			4			1						
Heavy Vehicles (%)	0%	0%	8%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		5.0			5.0		74.0	74.0	74.0	74.0	74.0	74.0
Effective Green, g (s)		6.0			6.0		75.0	75.0	75.0	75.0	75.0	75.0
Actuated g/C Ratio		0.07			0.07		0.83	0.83	0.83	0.83	0.83	0.83
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		90			98		315	1520	1011	258	1535	1050
v/s Ratio Prot							c0.65				0.58	
v/s Ratio Perm		c0.02			0.00		0.04		0.00	0.02		0.01
v/c Ratio		0.27			0.01		0.04	0.78	0.00	0.03	0.70	0.02
Uniform Delay, d ₁		39.9			39.2		1.3	3.5	1.3	1.3	3.0	1.3
Progression Factor		1.00			1.00		1.39	1.14	1.00	1.00	1.00	1.00
Incremental Delay, d ₂		1.6			0.0		0.2	2.7	0.0	0.2	2.7	0.0
Delay (s)		41.5			39.3		2.0	6.8	1.3	1.5	5.7	1.3
Level of Service		D			D		A	A	A	A	A	A
Approach Delay (s/veh)		41.5			39.3			6.7			5.6	
Approach LOS		D			D			A			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	6.8	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.74	A
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	76.3%	9.0
Analysis Period (min)	15	ICU Level of Service
		D
c Critical Lane Group		

Queues

Future Background Traffic (2035 Sen Opt)

2: Jane St & Lawrence Ave W

PM Peak Hour

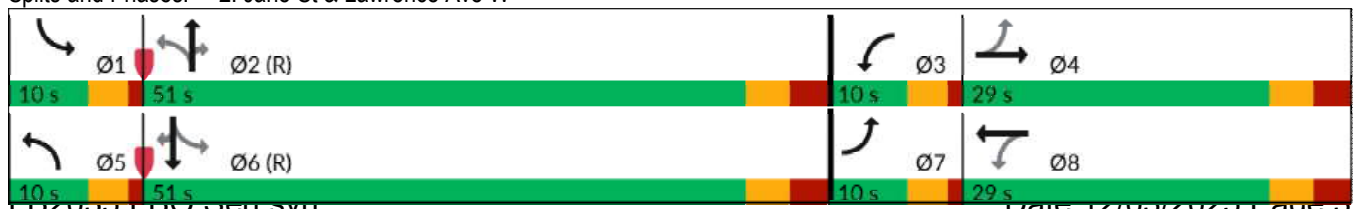


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	219	568	100	368	62	814	93	56	786	94
Future Volume (vph)	219	568	100	368	62	814	93	56	786	94
Lane Group Flow (vph)	235	700	108	452	67	875	100	60	845	101
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	29.0	10.0	29.0	10.0	51.0	51.0	10.0	51.0	51.0
Total Split (%)	10.0%	29.0%	10.0%	29.0%	10.0%	51.0%	51.0%	10.0%	51.0%	51.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.01	0.18	0.32	0.97	0.18
Control Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	61.5	2.8	13.8	50.9	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	61.5	2.8	13.8	50.9	2.8
Queue Length 50th (m)	34.9	70.8	14.7	40.9	5.5	~193.1	0.0	5.0	~169.2	0.0
Queue Length 95th (m)	#82.3	#106.7	#29.3	57.4	11.4	#266.5	6.6	10.5	#252.9	6.6
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	243	751	181	769	184	865	553	189	874	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.01	0.18	0.32	0.97	0.18

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Background Traffic (2035 Sen Opt)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	568	83	100	368	52	62	814	93	56	786	94
Future Volume (vph)	219	568	83	100	368	52	62	814	93	56	786	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.93		1.00	0.94		1.00	1.00	0.69	1.00	1.00	0.71
Flpb, ped/bikes	0.94	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1531	3095		1614	3174		1620	1807	1024	1668	1824	1048
Flt Permitted	0.36	1.00		0.17	1.00		0.08	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	577	3095		284	3174		145	1807	1024	149	1824	1048
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	235	611	89	108	396	56	67	875	100	60	845	101
RTOR Reduction (vph)	0	11	0	0	11	0	0	0	53	0	0	53
Lane Group Flow (vph)	235	689	0	108	441	0	67	875	47	60	845	48
Confl. Peds. (#/hr)	148		176	176		148	151		176	176		151
Confl. Bikes (#/hr)			3			4			9			6
Heavy Vehicles (%)	3%	5%	10%	3%	4%	3%	4%	4%	1%	1%	3%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	28.9	22.9		28.9	22.9		50.9	46.1	46.1	50.9	46.1	46.1
Effective Green, g (s)	30.9	23.9		30.9	23.9		52.9	47.1	47.1	52.9	47.1	47.1
Actuated g/C Ratio	0.31	0.24		0.31	0.24		0.53	0.47	0.47	0.53	0.47	0.47
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	245	739		180	758		162	851	482	166	859	493
v/s Ratio Prot	c0.07	0.22		0.04	0.14		c0.02	c0.48		0.02	0.46	
v/s Ratio Perm	c0.23			0.14			0.19		0.05	0.17		0.05
v/c Ratio	0.96	0.93		0.60	0.58		0.41	1.03	0.10	0.36	0.98	0.10
Uniform Delay, d1	32.4	37.3		26.8	33.6		20.8	26.4	14.7	21.1	26.1	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	45.6	18.5		5.5	1.1		1.7	38.3	0.4	1.3	27.0	0.4
Delay (s)	78.0	55.7		32.3	34.8		22.5	64.7	15.1	22.5	53.1	15.0
Level of Service	E	E		C	C		C	E	B	C	D	B
Approach Delay (s/veh)		61.3			34.3			57.2			47.4	
Approach LOS		E			C			E			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			51.9			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.96									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			16.2			
Intersection Capacity Utilization			88.5%			ICU Level of Service			E			
Analysis Period (min)			15									

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	11	12	1103	12	17	966
Future Vol, veh/h	11	12	1103	12	17	966
Conflicting Peds, #/hr	6	0	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	12	13	1186	13	18	1039

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2340	1259	0	0	1265	0
Stage 1	1259	-	-	-	-	-
Stage 2	1081	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	41	210	-	-	556	-
Stage 1	270	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	36	200	-	-	530	-
Mov Cap-2 Maneuver	186	-	-	-	-	-
Stage 1	257	-	-	-	-	-
Stage 2	300	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	26.4	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	193	530
HCM Lane V/C Ratio	-	-	0.128	0.034
HCM Ctrl Dly (s/v)	-	-	26.4	12
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.4	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	8	3	9	1081	949	20
Future Vol, veh/h	8	3	9	1081	949	20
Conflicting Peds, #/hr	2	1	33	0	0	33
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	4	3	0
Mvmt Flow	9	3	10	1162	1020	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2237	1054	1075	0	-	0
Stage 1	1053	-	-	-	-	-
Stage 2	1184	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	47	277	656	-	-	-
Stage 1	339	-	-	-	-	-
Stage 2	293	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	44	270	641	-	-	-
Mov Cap-2 Maneuver	206	-	-	-	-	-
Stage 1	317	-	-	-	-	-
Stage 2	292	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	22.3	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	641	-	220	-	-
HCM Lane V/C Ratio	0.015	-	0.054	-	-
HCM Ctrl Dly (s/v)	10.7	0	22.3	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q (veh)	0	-	0.2	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

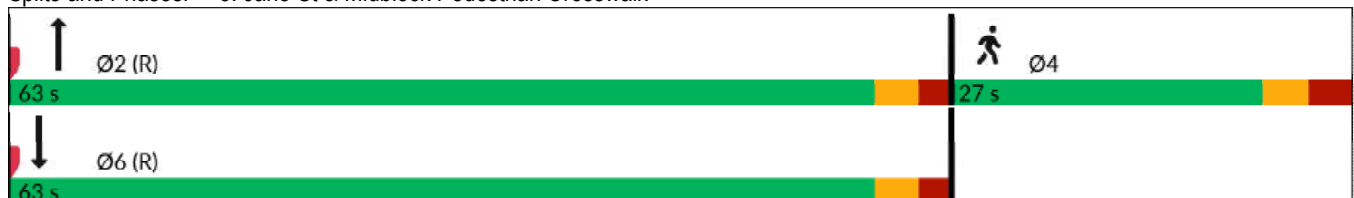
Future Background Traffic (2035 Sen Opt)
PM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1090	952	
Future Volume (vph)	1090	952	
Lane Group Flow (vph)	1172	1024	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.75	0.65	
Control Delay (s/veh)	12.8	6.0	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	12.9	6.0	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#290.3	#85.5	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1566	1581	
Starvation Cap Reductn	12	5	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.75	0.65	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Background Traffic (2035 Sen Opt)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1090	0	0	952	0
Future Volume (vph)	0	0	0	0	0	0	0	1090	0	0	952	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1807			1824	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1807			1824	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	0	0	0	0	1172	0	0	1024	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1172	0	0	1024	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	3%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1445			1459	
v/s Ratio Prot								c0.65			0.56	
v/s Ratio Perm												
v/c Ratio								0.81			0.70	
Uniform Delay, d ₁								5.1			4.1	
Progression Factor								1.00			0.56	
Incremental Delay, d ₂								5.0			2.2	
Delay (s)								10.2			4.5	
Level of Service								B			A	
Approach Delay (s/veh)		0.0			0.0			10.2			4.5	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			7.5									
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			90.0									
Intersection Capacity Utilization			60.7%									
Analysis Period (min)			15									
HCM 2000 Level of Service								A				
Sum of lost time (s)								10.0				
ICU Level of Service								B				

c Critical Lane Group

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	8	2	17	7	3	39	14	1043	8	51	867	34
Future Vol, veh/h	8	2	17	7	3	39	14	1043	8	51	867	34
Conflicting Peds, #/hr	0	0	0	0	0	0	59	0	70	70	0	59
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	5	0	0	0	0	4	0	1	3	0
Mvmt Flow	8	2	17	7	3	40	14	1064	8	52	885	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2166	2218	944	2178	2245	1134	979	0	0	1142	0	0
Stage 1	1048	1048	-	1162	1162	-	-	-	-	-	-	-
Stage 2	1118	1170	-	1016	1083	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	34	44	314	34	42	249	713	-	-	615	-	-
Stage 1	278	307	-	240	272	-	-	-	-	-	-	-
Stage 2	254	269	-	289	296	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	22	31	300	25	29	235	680	-	-	582	-	-
Mov Cap-2 Maneuver	120	143	-	141	154	-	-	-	-	-	-	-
Stage 1	252	239	-	215	244	-	-	-	-	-	-	-
Stage 2	198	242	-	220	230	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	26.2		27.7		0.1		0.6	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	680	-	-	197	208	582	-	-
HCM Lane V/C Ratio	0.021	-	-	0.14	0.24	0.089	-	-
HCM Ctrl Dly (s/v)	10.4	0	-	26.2	27.7	11.8	0	-
HCM Lane LOS	B	A	-	D	D	B	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.5	0.9	0.3	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	T			T	T	
Traffic Vol, veh/h	61	9	3	43	2	3
Future Vol, veh/h	61	9	3	43	2	3
Conflicting Peds, #/hr	0	2	2	0	2	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	74	11	4	52	2	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	87	0	144 87
Stage 1	-	-	-	-	82 -
Stage 2	-	-	-	-	62 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1522	-	853 977
Stage 1	-	-	-	-	946 -
Stage 2	-	-	-	-	966 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1520	-	848 972
Mov Cap-2 Maneuver	-	-	-	-	822 -
Stage 1	-	-	-	-	945 -
Stage 2	-	-	-	-	961 -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.5	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	906	-	-	1520	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Ctrl Dly (s/v)	9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	14	50	34	6	12	12
Future Vol, veh/h	14	50	34	6	12	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	82	82	100	100	100
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	14	61	41	6	12	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	47	0	-	0	133
Stage 1	-	-	-	-	44
Stage 2	-	-	-	-	89
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1573	-	-	-	866
Stage 1	-	-	-	-	984
Stage 2	-	-	-	-	940
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1573	-	-	-	858
Mov Cap-2 Maneuver	-	-	-	-	858
Stage 1	-	-	-	-	975
Stage 2	-	-	-	-	940

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.4	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1573	-	-	-	937
HCM Lane V/C Ratio	0.009	-	-	-	0.026
HCM Ctrl Dly (s/v)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1



2030 Future Total Sensitivity Capacity Analysis

Queues

Future Total Traffic (Phase 1: 2030 Sen Opt)

1: Jane St & John St/1795 Jane St Private Dwy

AM Peak Hour

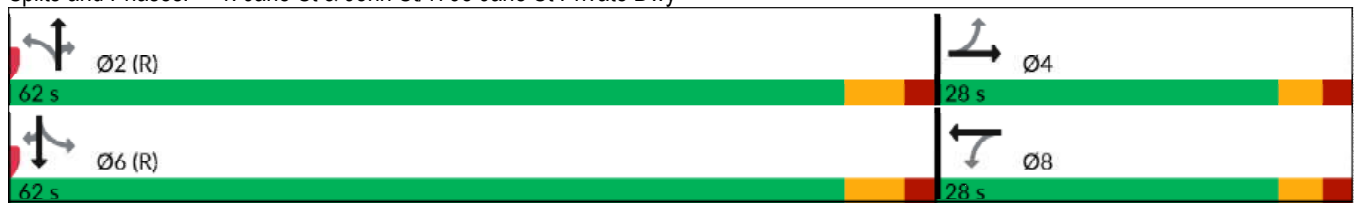


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	33	1	9	5	16	1210	6	6	995	29
Future Volume (vph)	33	1	9	5	16	1210	6	6	995	29
Lane Group Flow (vph)	0	59	0	26	17	1287	6	6	1059	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.39		0.15	0.06	0.88	0.01	0.04	0.72	0.03
Control Delay (s/veh)		32.6		26.6	3.7	14.1	0.8	3.2	8.7	1.4
Queue Delay		0.0		0.0	0.0	0.1	0.0	0.0	0.2	0.0
Total Delay (s/veh)		32.6		26.6	3.7	14.1	0.8	3.2	8.9	1.4
Queue Length 50th (m)		6.2		2.5	0.5	122.4	0.0	0.2	68.4	0.2
Queue Length 95th (m)		17.5		9.8	m1.2	#303.3	m0.0	1.2	153.1	2.1
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		337		405	304	1469	881	157	1469	919
Starvation Cap Reductn		0		0	0	4	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	52	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.18		0.06	0.06	0.88	0.01	0.04	0.75	0.03

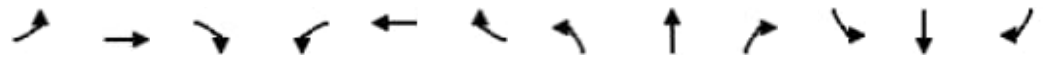
Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis Future Total Traffic (Phase 1: 2030 Sen Opt)
 1: Jane St & John St/1795 Jane St Private Dwy AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	33	1	22	9	5	10	16	1210	6	6	995	29
Future Volume (vph)	33	1	22	9	5	10	16	1210	6	6	995	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.96			0.96		1.00	1.00	0.75	1.00	1.00	0.86
Flpb, ped/bikes		0.96			0.97		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1453			1616		1685	1773	1059	1685	1773	1105
Flt Permitted		0.80			0.91		0.21	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)		1201			1493		367	1773	1059	190	1773	1105
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	35	1	23	10	5	11	17	1287	6	6	1059	31
RTOR Reduction (vph)	0	21	0	0	10	0	0	0	1	0	0	5
Lane Group Flow (vph)	0	38	0	0	16	0	17	1287	5	6	1059	26
Confl. Peds. (#/hr)	37		46	46		37	51		100	100		51
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	9%	0%	9%	0%	0%	0%	0%	6%	0%	0%	6%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		7.4			7.4		71.6	71.6	71.6	71.6	71.6	71.6
Effective Green, g (s)		8.4			8.4		72.6	72.6	72.6	72.6	72.6	72.6
Actuated g/C Ratio		0.09			0.09		0.81	0.81	0.81	0.81	0.81	0.81
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		112			139		296	1430	854	153	1430	891
v/s Ratio Prot							c0.73				0.60	
v/s Ratio Perm		c0.03			0.01		0.05		0.00	0.03		0.02
v/c Ratio		0.34			0.12		0.06	0.90	0.01	0.04	0.74	0.03
Uniform Delay, d1		38.2			37.4		1.8	6.1	1.7	1.7	4.2	1.7
Progression Factor		1.00			1.00		1.31	1.07	5.79	1.00	1.00	1.00
Incremental Delay, d2		1.8			0.4		0.2	5.6	0.0	0.5	3.5	0.1
Delay (s)		40.0			37.8		2.5	12.2	9.8	2.2	7.7	1.8
Level of Service		D			D		A	B	A	A	A	A
Approach Delay (s/veh)		40.0			37.8			12.1			7.5	
Approach LOS		D			D			B			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	11.0	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.84	B
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	87.0%	9.0
Analysis Period (min)	15	ICU Level of Service
		E
c Critical Lane Group		

Queues

Future Total Traffic (Phase 1: 2030 Sen Opt)

2: Jane St & Lawrence Ave W

AM Peak Hour

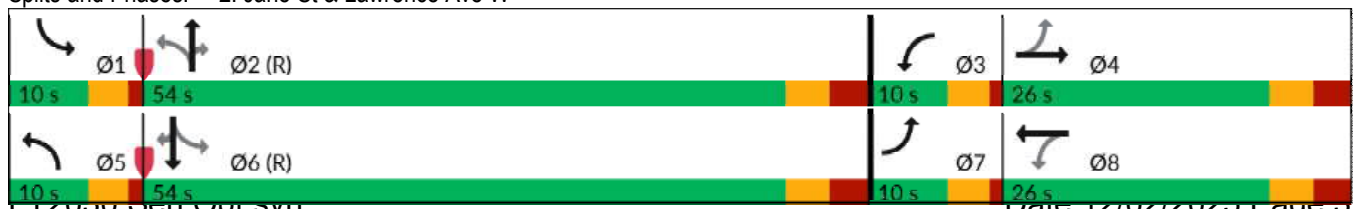


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	211	598	58	318	59	779	103	88	638	102
Future Volume (vph)	211	598	58	318	59	779	103	88	638	102
Lane Group Flow (vph)	220	701	60	377	61	811	107	92	665	106
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	26.0	10.0	26.0	10.0	54.0	54.0	10.0	54.0	54.0
Total Split (%)	10.0%	26.0%	10.0%	26.0%	10.0%	54.0%	54.0%	10.0%	54.0%	54.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.88	0.99	0.33	0.57	0.21	0.89	0.16	0.47	0.74	0.16
Control Delay (s/veh)	63.1	71.0	28.5	38.2	9.8	37.1	2.7	18.0	26.6	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.1	71.0	28.5	38.2	9.8	37.1	2.7	18.0	26.6	2.6
Queue Length 50th (m)	34.3	~81.2	8.4	33.8	4.5	145.5	0.0	7.0	104.1	0.0
Queue Length 95th (m)	#75.6	#117.8	17.8	48.9	9.6	#227.8	7.0	15.8	152.2	6.9
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	251	709	183	656	289	910	657	194	893	656
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.99	0.33	0.57	0.21	0.89	0.16	0.47	0.74	0.16























Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis Future Total Traffic (Phase 1: 2030 Sen Opt)
 2: Jane St & Lawrence Ave W AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	211	598	75	58	318	44	59	779	103	88	638	102
Future Volume (vph)	211	598	75	58	318	44	59	779	103	88	638	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.94		1.00	0.96		1.00	1.00	0.80	1.00	1.00	0.81
Flpb, ped/bikes	0.94	1.00		0.98	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1567	3059		1642	3086		1589	1789	1175	1604	1756	1173
Flt Permitted	0.39	1.00		0.18	1.00		0.21	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	650	3059		319	3086		345	1789	1175	158	1756	1173
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	220	623	78	60	331	46	61	811	107	92	665	106
RTOR Reduction (vph)	0	9	0	0	11	0	0	0	54	0	0	54
Lane Group Flow (vph)	220	692	0	60	366	0	61	811	53	92	665	52
Confl. Peds. (#/hr)	110		160	160		110	97		100	100		97
Confl. Bikes (#/hr)									5			2
Heavy Vehicles (%)	1%	7%	18%	1%	9%	6%	6%	5%	3%	5%	7%	4%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	27.9	21.9		25.5	20.7		53.1	48.3	48.3	53.1	48.3	48.3
Effective Green, g (s)	29.9	22.9		27.5	21.7		55.1	49.3	49.3	55.1	49.3	49.3
Actuated g/C Ratio	0.30	0.23		0.28	0.22		0.55	0.49	0.49	0.55	0.49	0.49
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	700		164	669		262	881	579	170	865	578
v/s Ratio Prot	c0.06	c0.23		0.02	0.12		0.01	c0.45		c0.03	0.38	
v/s Ratio Perm	0.19			0.08			0.11		0.04	0.27		0.04
v/c Ratio	0.85	0.99		0.37	0.55		0.23	0.92	0.09	0.54	0.77	0.09
Uniform Delay, d1	31.6	38.4		28.3	34.8		13.8	23.5	13.5	18.5	20.7	13.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.8	30.7		1.4	0.9		0.5	16.3	0.3	3.5	6.5	0.3
Delay (s)	54.4	69.1		29.7	35.7		14.3	39.8	13.8	22.0	27.2	13.8
Level of Service	D	E		C	D		B	D	B	C	C	B
Approach Delay (s/veh)		65.6			34.9			35.4			25.0	
Approach LOS		E			C			D			C	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	41.2	HCM 2000 Level of Service D
HCM 2000 Volume to Capacity ratio	0.92	
Actuated Cycle Length (s)	100.0	Sum of lost time (s) 16.2
Intersection Capacity Utilization	86.1%	ICU Level of Service E
Analysis Period (min)	15	

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	12	16	1219	8	5	1007
Future Vol, veh/h	12	16	1219	8	5	1007
Conflicting Peds, #/hr	0	0	0	60	60	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	7.5	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	8	0	6	0	20	6
Mvmt Flow	13	17	1283	8	5	1060

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2413	1343	0	0	1351
Stage 1	1343	-	-	-	-
Stage 2	1070	-	-	-	-
Critical Hdwy	6.48	6.2	-	-	4.3
Critical Hdwy Stg 1	5.48	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-
Follow-up Hdwy	3.572	3.3	-	-	2.38
Pot Cap-1 Maneuver	34	188	-	-	456
Stage 1	236	-	-	-	-
Stage 2	321	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	32	180	-	-	437
Mov Cap-2 Maneuver	174	-	-	-	-
Stage 1	226	-	-	-	-
Stage 2	312	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	29.4	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	177	437
HCM Lane V/C Ratio	-	-	0.167	0.012
HCM Ctrl Dly (s/v)	-	-	29.4	13.3
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.6	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	17	11	14	1210	1001	18
Future Vol, veh/h	17	11	14	1210	1001	18
Conflicting Peds, #/hr	1	1	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	0	0	6	6	16
Mvmt Flow	18	12	15	1274	1054	19

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2368	1064	1082	0	-	0
Stage 1	1063	-	-	-	-	-
Stage 2	1305	-	-	-	-	-
Critical Hdwy	6.57	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	35	273	652	-	-	-
Stage 1	311	-	-	-	-	-
Stage 2	236	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	32	271	648	-	-	-
Mov Cap-2 Maneuver	173	-	-	-	-	-
Stage 1	285	-	-	-	-	-
Stage 2	236	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	25.8	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	648	-	202	-	-
HCM Lane V/C Ratio	0.023	-	0.146	-	-
HCM Ctrl Dly (s/v)	10.7	0	25.8	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q (veh)	0.1	-	0.5	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

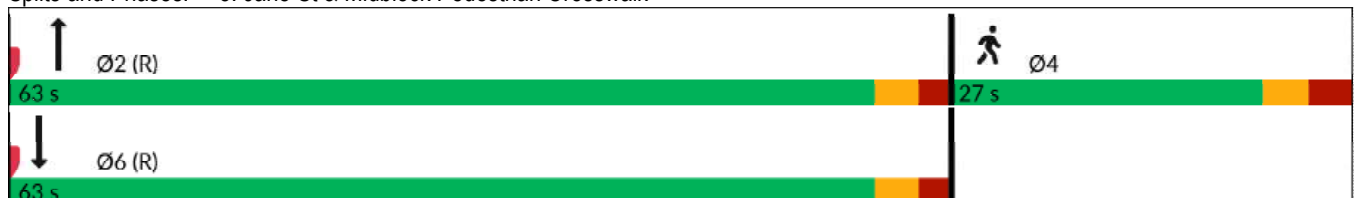
Future Total Traffic (Phase 1: 2030 Sen Opt)
AM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1224	1012	
Future Volume (vph)	1224	1012	
Lane Group Flow (vph)	1288	1065	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.84	0.69	
Control Delay (s/veh)	16.9	7.4	
Queue Delay	0.1	0.0	
Total Delay (s/veh)	17.0	7.4	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#336.7	#248.8	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1537	1537	
Starvation Cap Reductn	5	2	
Spillback Cap Reductn	7	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.84	0.69	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis Future Total Traffic (Phase 1: 2030 Sen Opt)
 5: Jane St & Midblock Pedestrian Crosswalk AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↑			↑	
Traffic Volume (vph)	0	0	0	0	0	0	0	1224	0	0	1012	0
Future Volume (vph)	0	0	0	0	0	0	0	1224	0	0	1012	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1773			1773	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1773			1773	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	0	0	1288	0	0	1065	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1288	0	0	1065	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	6%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1418			1418	
v/s Ratio Prot								c0.73			0.60	
v/s Ratio Perm												
v/c Ratio								0.91			0.75	
Uniform Delay, d ₁								6.6			4.5	
Progression Factor								1.00			0.59	
Incremental Delay, d ₂								10.1			2.7	
Delay (s)								16.7			5.3	
Level of Service								B			A	
Approach Delay (s/veh)		0.0			0.0			16.7			5.3	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			11.5					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.82									
Actuated Cycle Length (s)			90.0					Sum of lost time (s)			10.0	
Intersection Capacity Utilization			67.8%					ICU Level of Service			C	
Analysis Period (min)			15									

c Critical Lane Group

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	14	1	9	3	3	61	5	1149	4	67	892	53
Future Vol, veh/h	14	1	9	3	3	61	5	1149	4	67	892	53
Conflicting Peds, #/hr	0	0	0	0	0	0	28	0	31	31	0	28
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	0	3	20	6	0	2	7	3
Mvmt Flow	15	1	9	3	3	64	5	1209	4	71	939	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2364	2363	967	2364	2415	1240	1023	0	0	1244	0	0
Stage 1	1109	1109	-	1250	1250	-	-	-	-	-	-	-
Stage 2	1255	1254	-	1114	1165	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.2	7.1	6.5	6.23	4.3	-	-	4.12	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	3.5	4	3.327	2.38	-	-	2.218	-	-
Pot Cap-1 Maneuver	24	36	311	25	33	213	613	-	-	560	-	-
Stage 1	249	288	-	214	247	-	-	-	-	-	-	-
Stage 2	205	246	-	255	271	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 12	24	304	18	22	208	600	-	-	547	-	-
Mov Cap-2 Maneuver	60	120	-	122	136	-	-	-	-	-	-	-
Stage 1	237	199	-	204	235	-	-	-	-	-	-	-
Stage 2	136	234	-	173	187	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	61.6		33.1		0		0.8	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	600	-	-	88	197	547	-	-
HCM Lane V/C Ratio	0.009	-	-	0.287	0.358	0.129	-	-
HCM Ctrl Dly (s/v)	11.1	0	-	61.6	33.1	12.6	0	-
HCM Lane LOS	B	A	-	F	D	B	A	-
HCM 95th %tile Q (veh)	0	-	-	1.1	1.5	0.4	-	-

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

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	1	71	67	1	1	0
Future Vol, veh/h	1	71	67	1	1	0
Conflicting Peds, #/hr	16	0	0	16	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	1	100	94	1	1	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	111	0	-	0	213
Stage 1	-	-	-	-	111
Stage 2	-	-	-	-	102
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1492	-	-	-	780
Stage 1	-	-	-	-	919
Stage 2	-	-	-	-	927
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1475	-	-	-	771
Mov Cap-2 Maneuver	-	-	-	-	771
Stage 1	-	-	-	-	908
Stage 2	-	-	-	-	927

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1475	-	-	-	771
HCM Lane V/C Ratio	0.001	-	-	-	0.002
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	65	1	0	69	1	0	0	0	1	0	2
Future Vol, veh/h	8	65	1	0	69	1	0	0	0	1	0	2
Conflicting Peds, #/hr	10	0	0	0	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	3	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	11	90	1	0	96	1	0	0	0	1	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	91	0	0	211	220	93	222	220	107
Stage 1	-	-	-	-	-	-	113	113	-	107	107	-
Stage 2	-	-	-	-	-	-	98	107	-	115	113	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1497	-	-	1517	-	-	750	682	970	738	682	953
Stage 1	-	-	-	-	-	-	897	806	-	903	811	-
Stage 2	-	-	-	-	-	-	913	811	-	895	806	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1485	-	-	1517	-	-	743	671	968	727	671	946
Mov Cap-2 Maneuver	-	-	-	-	-	-	743	671	-	727	671	-
Stage 1	-	-	-	-	-	-	890	800	-	889	805	-
Stage 2	-	-	-	-	-	-	910	805	-	886	800	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.8	0	0	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1485	-	-	1517	-	-	860
HCM Lane V/C Ratio	-	0.007	-	-	-	-	-	0.005
HCM Ctrl Dly (s/v)	0	7.4	0	-	0	-	-	9.2
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q (veh)	-	0	-	-	0	-	-	0

Queues

Future Total Traffic (Phase 1: 2030 Sen Opt)

1: Jane St & John St/1795 Jane St Private Dwy

PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	+	+	+	+	+	+
Traffic Volume (vph)	18	3	2	0	13	1086	5	6	990	20
Future Volume (vph)	18	3	2	0	13	1086	5	6	990	20
Lane Group Flow (vph)	0	36	0	11	14	1180	5	7	1076	22
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.25		0.06	0.04	0.73	0.00	0.03	0.66	0.02
Control Delay (s/veh)		31.3		1.7	3.1	7.5	0.6	2.3	5.9	0.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (s/veh)		31.3		1.7	3.1	7.5	0.6	2.3	6.0	0.9
Queue Length 50th (m)		4.0		0.0	0.4	79.9	0.0	0.2	62.3	0.0
Queue Length 95th (m)		12.9		0.8	m1.0	95.7	m0.0	1.1	124.3	1.3
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		374		421	336	1617	1069	271	1633	1110
Starvation Cap Reductn		0		0	0	9	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	38	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.10		0.03	0.04	0.73	0.00	0.03	0.67	0.02

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

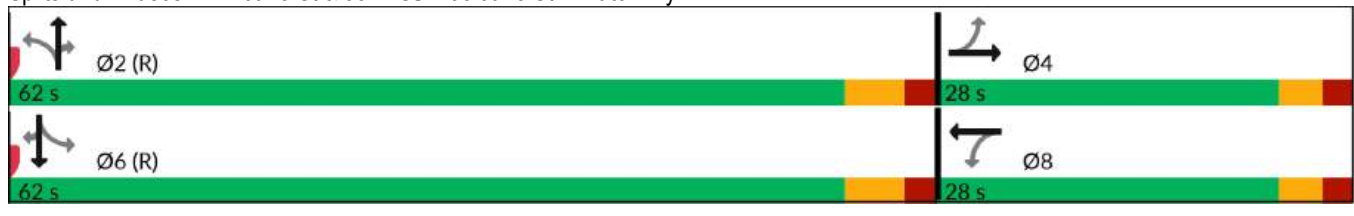
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

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

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis Future Total Traffic (Phase 1: 2030 Sen Opt)
 1: Jane St & John St/1795 Jane St Private Dwy PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑	↕	↕	↕	↕
Traffic Volume (vph)	18	3	12	2	0	8	13	1086	5	6	990	20
Future Volume (vph)	18	3	12	2	0	8	13	1086	5	6	990	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.97			0.95		1.00	1.00	0.86	1.00	1.00	0.89
Flpb, ped/bikes		0.98			0.99		0.99	1.00	1.00	1.00	1.00	1.00
Fr t		0.95			0.89		1.00	1.00	0.85	1.00	1.00	0.85
Fl t Protected		0.97			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1612			1568		1667	1842	1214	1685	1860	1261
Fl t Permitted		0.82			0.93		0.22	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)		1361			1475		378	1842	1214	309	1860	1261
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	13	2	0	9	14	1180	5	7	1076	22
RTOR Reduction (vph)	0	12	0	0	10	0	0	0	1	0	0	4
Lane Group Flow (vph)	0	24	0	0	1	0	14	1180	4	7	1076	18
Confl. Peds. (#/hr)	16		19	19		16	37		53	53		37
Confl. Bikes (#/hr)			4			1						
Heavy Vehicles (%)	0%	0%	8%	0%	0%	0%	0%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		5.0			5.0		74.0	74.0	74.0	74.0	74.0	74.0
Effective Green, g (s)		6.0			6.0		75.0	75.0	75.0	75.0	75.0	75.0
Actuated g/C Ratio		0.07			0.07		0.83	0.83	0.83	0.83	0.83	0.83
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		90			98		315	1535	1011	257	1550	1050
v/s Ratio Prot							c0.64				0.58	
v/s Ratio Perm		c0.02			0.00		0.04		0.00	0.02		0.01
v/c Ratio		0.27			0.01		0.04	0.77	0.00	0.03	0.69	0.02
Uniform Delay, d1		39.9			39.2		1.3	3.5	1.3	1.3	3.0	1.3
Progression Factor		1.00			1.00		1.39	1.13	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.6			0.0		0.2	2.6	0.0	0.2	2.6	0.0
Delay (s)		41.5			39.3		2.0	6.6	1.3	1.5	5.6	1.3
Level of Service		D			D		A	A	A	A	A	A
Approach Delay (s/veh)		41.5			39.3			6.5			5.4	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			6.7									A
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			90.0							9.0		
Intersection Capacity Utilization			76.4%									D
Analysis Period (min)			15									
c Critical Lane Group												

Queues

Future Total Traffic (Phase 1: 2030 Sen Opt)

2: Jane St & Lawrence Ave W

PM Peak Hour

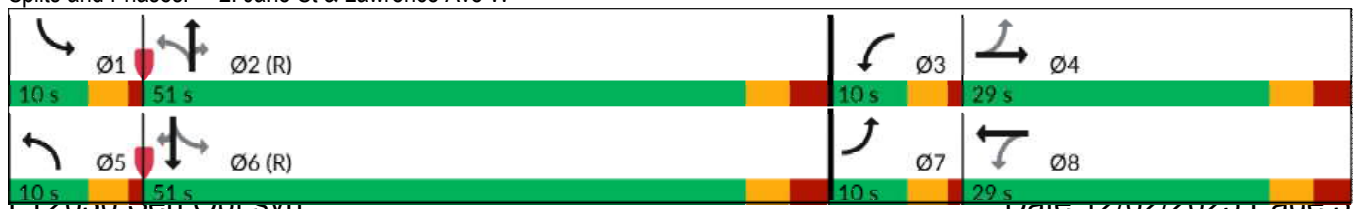


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	219	568	100	368	62	814	93	56	786	94
Future Volume (vph)	219	568	100	368	62	814	93	56	786	94
Lane Group Flow (vph)	235	700	108	452	67	875	100	60	845	101
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	29.0	10.0	29.0	10.0	51.0	51.0	10.0	51.0	51.0
Total Split (%)	10.0%	29.0%	10.0%	29.0%	10.0%	51.0%	51.0%	10.0%	51.0%	51.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.00	0.18	0.32	0.96	0.18
Control Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	59.0	2.8	13.8	48.9	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	59.0	2.8	13.8	48.9	2.8
Queue Length 50th (m)	34.9	70.8	14.7	40.9	5.5	~192.3	0.0	5.0	165.6	0.0
Queue Length 95th (m)	#82.3	#106.7	#29.3	57.4	11.4	#266.0	6.6	10.5	#252.3	6.6
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	243	751	181	769	184	874	553	189	882	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.00	0.18	0.32	0.96	0.18























Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis Future Total Traffic (Phase 1: 2030 Sen Opt)
 2: Jane St & Lawrence Ave W PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	568	83	100	368	52	62	814	93	56	786	94
Future Volume (vph)	219	568	83	100	368	52	62	814	93	56	786	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.93		1.00	0.94		1.00	1.00	0.69	1.00	1.00	0.71
Flpb, ped/bikes	0.94	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1531	3095		1614	3174		1620	1824	1024	1668	1842	1048
Fl _t Permitted	0.36	1.00		0.17	1.00		0.08	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	577	3095		284	3174		145	1824	1024	149	1842	1048
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	235	611	89	108	396	56	67	875	100	60	845	101
RTOR Reduction (vph)	0	11	0	0	11	0	0	0	53	0	0	53
Lane Group Flow (vph)	235	689	0	108	441	0	67	875	47	60	845	48
Confl. Peds. (#/hr)	148		176	176		148	151		176	176		151
Confl. Bikes (#/hr)			3			4			9			6
Heavy Vehicles (%)	3%	5%	10%	3%	4%	3%	4%	3%	1%	1%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	28.9	22.9		28.9	22.9		50.9	46.1	46.1	50.9	46.1	46.1
Effective Green, g (s)	30.9	23.9		30.9	23.9		52.9	47.1	47.1	52.9	47.1	47.1
Actuated g/C Ratio	0.31	0.24		0.31	0.24		0.53	0.47	0.47	0.53	0.47	0.47
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	245	739		180	758		162	859	482	166	867	493
v/s Ratio Prot	c0.07	0.22		0.04	0.14		c0.02	c0.48		0.02	0.46	
v/s Ratio Perm	c0.23			0.14			0.19		0.05	0.17		0.05
v/c Ratio	0.96	0.93		0.60	0.58		0.41	1.02	0.10	0.36	0.97	0.10
Uniform Delay, d ₁	32.4	37.3		26.8	33.6		20.8	26.4	14.7	21.1	25.9	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d ₂	45.6	18.5		5.5	1.1		1.7	35.5	0.4	1.3	25.0	0.4
Delay (s)	78.0	55.7		32.3	34.8		22.5	61.9	15.1	22.5	50.9	15.0
Level of Service	E	E		C	C		C	E	B	C	D	B
Approach Delay (s/veh)		61.3			34.3			54.9			45.6	
Approach LOS		E			C			D			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			50.7			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.95									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			16.2			
Intersection Capacity Utilization			88.5%			ICU Level of Service			E			
Analysis Period (min)			15									

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	10	13	1103	12	18	966
Future Vol, veh/h	10	13	1103	12	18	966
Conflicting Peds, #/hr	6	0	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	11	14	1186	13	19	1039

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2342	1259	0	0	1265
Stage 1	1259	-	-	-	-
Stage 2	1083	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	41	210	-	-	556
Stage 1	270	-	-	-	-
Stage 2	328	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	36	200	-	-	530
Mov Cap-2 Maneuver	186	-	-	-	-
Stage 1	257	-	-	-	-
Stage 2	299	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	26.2	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	194	530
HCM Lane V/C Ratio	-	-	0.127	0.037
HCM Ctrl Dly (s/v)	-	-	26.2	12.1
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.4	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	8	3	9	1081	948	20
Future Vol, veh/h	8	3	9	1081	948	20
Conflicting Peds, #/hr	2	1	33	0	0	33
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	9	3	10	1162	1019	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2236	1053	1074	0	-	0
Stage 1	1052	-	-	-	-	-
Stage 2	1184	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	47	277	657	-	-	-
Stage 1	339	-	-	-	-	-
Stage 2	293	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	44	270	642	-	-	-
Mov Cap-2 Maneuver	206	-	-	-	-	-
Stage 1	317	-	-	-	-	-
Stage 2	292	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	22.3	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	642	-	220	-	-
HCM Lane V/C Ratio	0.015	-	0.054	-	-
HCM Ctrl Dly (s/v)	10.7	0	22.3	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q (veh)	0	-	0.2	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

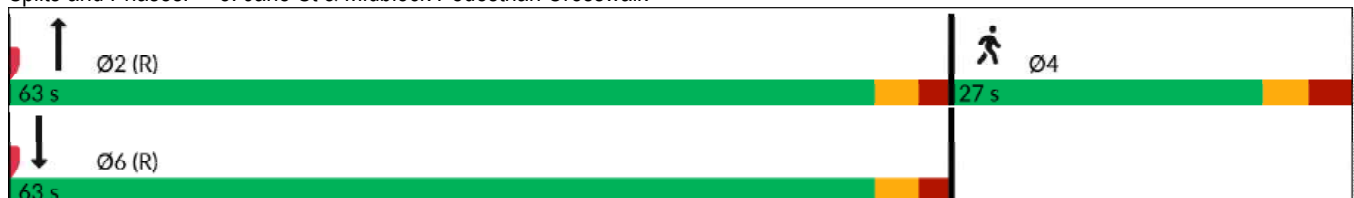
Future Total Traffic (Phase 1: 2030 Sen Opt)
PM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1090	951	
Future Volume (vph)	1090	951	
Lane Group Flow (vph)	1172	1023	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.74	0.64	
Control Delay (s/veh)	12.5	5.8	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	12.6	5.8	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#289.5	69.0	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1581	1596	
Starvation Cap Reductn	13	5	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.75	0.64	















Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis Future Total Traffic (Phase 1: 2030 Sen Opt)
 5: Jane St & Midblock Pedestrian Crosswalk PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1090	0	0	951	0
Future Volume (vph)	0	0	0	0	0	0	0	1090	0	0	951	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1824			1842	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1824			1842	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	0	0	0	0	1172	0	0	1023	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1172	0	0	1023	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1459			1473	
v/s Ratio Prot								c0.64			0.56	
v/s Ratio Perm												
v/c Ratio								0.80			0.69	
Uniform Delay, d ₁								5.0			4.1	
Progression Factor								1.00			0.57	
Incremental Delay, d ₂								4.8			2.1	
Delay (s)								9.8			4.4	
Level of Service								A			A	
Approach Delay (s/veh)		0.0			0.0			9.8			4.4	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			7.3									HCM 2000 Level of Service
												A
HCM 2000 Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			90.0									Sum of lost time (s)
												10.0
Intersection Capacity Utilization			60.7%									ICU Level of Service
												B
Analysis Period (min)			15									

c Critical Lane Group

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			-	+		-	+
Traffic Vol, veh/h	8	2	17	7	3	39	14	1043	8	51	866	34
Future Vol, veh/h	8	2	17	7	3	39	14	1043	8	51	866	34
Conflicting Peds, #/hr	0	0	0	0	0	0	59	0	70	70	0	59
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	5	0	0	0	0	3	0	1	2	0
Mvmt Flow	8	2	17	7	3	40	14	1064	8	52	884	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2165	2217	943	2177	2244	1134	978	0	0	1142	0	0
Stage 1	1047	1047	-	1162	1162	-	-	-	-	-	-	-
Stage 2	1118	1170	-	1015	1082	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	34	44	314	34	43	249	714	-	-	615	-	-
Stage 1	278	308	-	240	272	-	-	-	-	-	-	-
Stage 2	254	269	-	290	296	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	22	31	300	25	30	235	681	-	-	582	-	-
Mov Cap-2 Maneuver	120	143	-	141	154	-	-	-	-	-	-	-
Stage 1	252	240	-	215	244	-	-	-	-	-	-	-
Stage 2	198	242	-	221	230	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	26.2		27.7		0.1		0.6	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	681	-	-	197	208	582	-	-
HCM Lane V/C Ratio	0.021	-	-	0.14	0.24	0.089	-	-
HCM Ctrl Dly (s/v)	10.4	0	-	26.2	27.7	11.8	0	-
HCM Lane LOS	B	A	-	D	D	B	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.5	0.9	0.3	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	6	55	40	1	5	9
Future Vol, veh/h	6	55	40	1	5	9
Conflicting Peds, #/hr	54	0	0	54	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	7	64	47	1	6	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	102	0	180
Stage 1	-	-	102
Stage 2	-	-	78
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1503	-	814
Stage 1	-	-	927
Stage 2	-	-	950
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1446	-	779
Mov Cap-2 Maneuver	-	-	779
Stage 1	-	-	887
Stage 2	-	-	950

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.7	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1446	-	-	-	865
HCM Lane V/C Ratio	0.005	-	-	-	0.019
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	8	52	9	3	32	5	2	0	3	7	0	3
Future Vol, veh/h	8	52	9	3	32	5	2	0	3	7	0	3
Conflicting Peds, #/hr	15	0	2	2	0	15	2	0	5	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	10	63	11	4	39	6	2	0	4	9	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	76	0	0	145	159	76	161	161	59
Stage 1	-	-	-	-	-	-	91	91	-	65	65	-
Stage 2	-	-	-	-	-	-	54	68	-	96	96	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1556	-	-	1536	-	-	828	737	991	809	735	1012
Stage 1	-	-	-	-	-	-	921	823	-	951	845	-
Stage 2	-	-	-	-	-	-	963	842	-	916	819	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1538	-	-	1534	-	-	816	719	986	787	717	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	816	719	-	787	717	-
Stage 1	-	-	-	-	-	-	913	816	-	933	832	-
Stage 2	-	-	-	-	-	-	955	829	-	903	812	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.9			0.6			9			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	910	1538	-	-	1534	-	-	841
HCM Lane V/C Ratio	0.007	0.006	-	-	0.002	-	-	0.015
HCM Ctrl Dly (s/v)	9	7.4	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	0



2035 Future Total Sensitivity Capacity Analysis

Queues

Future Total (Full Build-out 2035 Sen Opt

1: Jane St & John St/1795 Jane St Private Dwy

AM Peak Hour

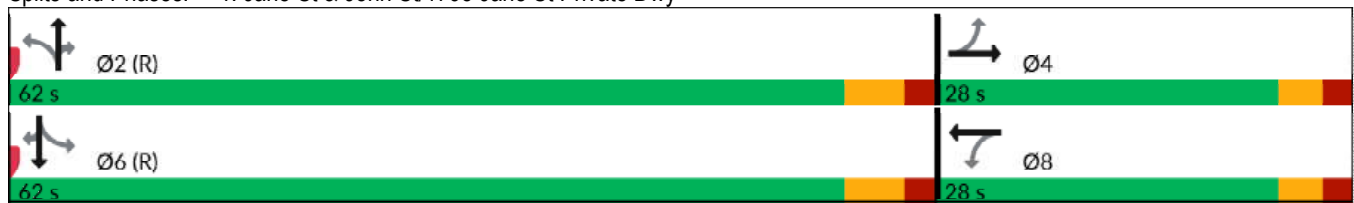


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	33	1	9	5	16	1218	6	6	996	29
Future Volume (vph)	33	1	9	5	16	1218	6	6	996	29
Lane Group Flow (vph)	0	59	0	26	17	1296	6	6	1060	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.39		0.15	0.06	0.88	0.01	0.04	0.72	0.03
Control Delay (s/veh)		32.6		26.6	3.8	14.4	0.8	3.3	8.7	1.4
Queue Delay		0.0		0.0	0.0	0.1	0.0	0.0	0.2	0.0
Total Delay (s/veh)		32.6		26.6	3.8	14.5	0.8	3.3	8.9	1.4
Queue Length 50th (m)		6.2		2.5	0.5	126.1	0.0	0.2	68.7	0.2
Queue Length 95th (m)		17.5		9.8	m1.1	#307.0	m0.0	1.2	153.5	2.1
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		337		405	304	1469	881	151	1469	919
Starvation Cap Reductn		0		0	0	4	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	52	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.18		0.06	0.06	0.88	0.01	0.04	0.75	0.03

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Total (Full Build-out 2035 Sen Opt
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	33	1	22	9	5	10	16	1218	6	6	996	29
Future Volume (vph)	33	1	22	9	5	10	16	1218	6	6	996	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.96			0.96		1.00	1.00	0.75	1.00	1.00	0.86
Flpb, ped/bikes		0.96			0.97		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1453			1616		1685	1773	1059	1685	1773	1105
Flt Permitted		0.80			0.91		0.21	1.00	1.00	0.10	1.00	1.00
Satd. Flow (perm)		1201			1493		366	1773	1059	183	1773	1105
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	35	1	23	10	5	11	17	1296	6	6	1060	31
RTOR Reduction (vph)	0	21	0	0	10	0	0	0	1	0	0	5
Lane Group Flow (vph)	0	38	0	0	16	0	17	1296	5	6	1060	26
Confl. Peds. (#/hr)	37		46	46		37	51		100	100		51
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	9%	0%	9%	0%	0%	0%	0%	6%	0%	0%	6%	10%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		7.4			7.4		71.6	71.6	71.6	71.6	71.6	71.6
Effective Green, g (s)		8.4			8.4		72.6	72.6	72.6	72.6	72.6	72.6
Actuated g/C Ratio		0.09			0.09		0.81	0.81	0.81	0.81	0.81	0.81
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		112			139		295	1430	854	147	1430	891
v/s Ratio Prot							c0.73				0.60	
v/s Ratio Perm		c0.03			0.01		0.05		0.00	0.03		0.02
v/c Ratio		0.34			0.12		0.06	0.91	0.01	0.04	0.74	0.03
Uniform Delay, d1		38.2			37.4		1.8	6.3	1.7	1.7	4.2	1.7
Progression Factor		1.00			1.00		1.32	1.07	5.79	1.00	1.00	1.00
Incremental Delay, d2		1.8			0.4		0.2	5.9	0.0	0.5	3.5	0.1
Delay (s)		40.0			37.8		2.5	12.6	9.8	2.3	7.7	1.8
Level of Service		D			D		A	B	A	A	A	A
Approach Delay (s/veh)		40.0			37.8			12.4			7.5	
Approach LOS		D			D			B			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	11.2	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.85	B
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	87.4%	9.0
Analysis Period (min)	15	ICU Level of Service
		E
c Critical Lane Group		

Queues
2: Jane St & Lawrence Ave W

Future Total (Full Build-out 2035 Sen Opt
AM Peak Hour

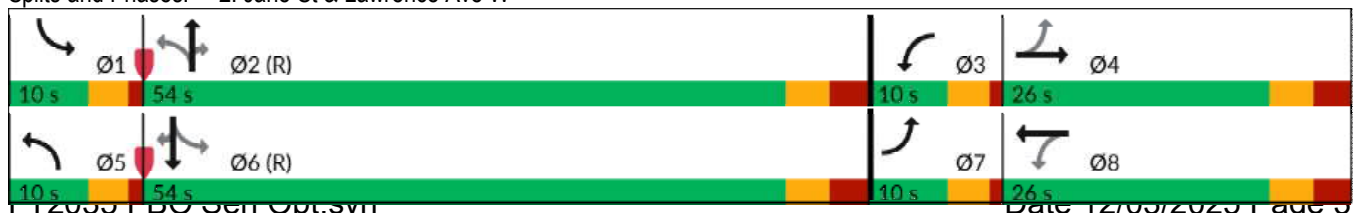


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	210	598	58	318	59	781	103	88	645	101
Future Volume (vph)	210	598	58	318	59	781	103	88	645	101
Lane Group Flow (vph)	219	701	60	377	61	814	107	92	672	105
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	26.0	10.0	26.0	10.0	54.0	54.0	10.0	54.0	54.0
Total Split (%)	10.0%	26.0%	10.0%	26.0%	10.0%	54.0%	54.0%	10.0%	54.0%	54.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.87	0.99	0.33	0.57	0.21	0.89	0.16	0.48	0.75	0.16
Control Delay (s/veh)	62.5	71.0	28.5	38.2	9.8	36.3	2.7	18.7	27.0	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.5	71.0	28.5	38.2	9.8	36.3	2.7	18.7	27.0	2.6
Queue Length 50th (m)	34.0	~81.2	8.4	33.8	4.5	145.8	0.0	7.0	105.8	0.0
Queue Length 95th (m)	#75.6	#117.8	17.8	48.9	9.6	#228.3	7.0	16.4	154.8	6.7
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	251	709	183	656	284	919	657	191	893	656
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.99	0.33	0.57	0.21	0.89	0.16	0.48	0.75	0.16

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Total (Full Build-out 2035 Sen Opt
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	598	75	58	318	44	59	781	103	88	645	101
Future Volume (vph)	210	598	75	58	318	44	59	781	103	88	645	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	0.94		1.00	0.96		1.00	1.00	0.80	1.00	1.00	0.81
Flpb, ped/bikes	0.94	1.00		0.98	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frnt	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1567	3059		1642	3086		1589	1807	1175	1604	1756	1173
Flt Permitted	0.39	1.00		0.18	1.00		0.20	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	650	3059		319	3086		336	1807	1175	154	1756	1173
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	219	623	78	60	331	46	61	814	107	92	672	105
RTOR Reduction (vph)	0	9	0	0	11	0	0	0	54	0	0	53
Lane Group Flow (vph)	219	692	0	60	366	0	61	814	53	92	672	52
Confl. Peds. (#/hr)	110		160	160		110	97		100	100		97
Confl. Bikes (#/hr)									5			2
Heavy Vehicles (%)	1%	7%	18%	1%	9%	6%	6%	4%	3%	5%	7%	4%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	27.9	21.9		25.5	20.7		53.1	48.3	48.3	53.1	48.3	48.3
Effective Green, g (s)	29.9	22.9		27.5	21.7		55.1	49.3	49.3	55.1	49.3	49.3
Actuated g/C Ratio	0.30	0.23		0.28	0.22		0.55	0.49	0.49	0.55	0.49	0.49
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	700		164	669		257	890	579	168	865	578
v/s Ratio Prot	c0.06	c0.23		0.02	0.12		0.01	c0.45		c0.03	0.38	
v/s Ratio Perm	0.19			0.08			0.12		0.04	0.27		0.04
v/c Ratio	0.85	0.99		0.37	0.55		0.24	0.91	0.09	0.55	0.78	0.09
Uniform Delay, d1	31.5	38.4		28.3	34.8		13.9	23.4	13.5	18.7	20.8	13.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.0	30.7		1.4	0.9		0.5	15.4	0.3	3.6	6.8	0.3
Delay (s)	53.5	69.1		29.7	35.7		14.4	38.9	13.8	22.3	27.6	13.8
Level of Service	D	E		C	D		B	D	B	C	C	B
Approach Delay (s/veh)		65.4			34.9			34.6			25.4	
Approach LOS		E			C			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			41.0			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.92									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			16.2			
Intersection Capacity Utilization			86.2%			ICU Level of Service			E			
Analysis Period (min)			15									

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	S	S
Traffic Vol, veh/h	13	16	1228	8	5	1008
Future Vol, veh/h	13	16	1228	8	5	1008
Conflicting Peds, #/hr	0	0	0	60	60	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	7.5	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	7	0	6	0	20	6
Mvmt Flow	14	17	1293	8	5	1061

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2424	1353	0	0	1361	0
Stage 1	1353	-	-	-	-	-
Stage 2	1071	-	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.3	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.38	-
Pot Cap-1 Maneuver	34	185	-	-	451	-
Stage 1	235	-	-	-	-	-
Stage 2	322	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	32	177	-	-	432	-
Mov Cap-2 Maneuver	174	-	-	-	-	-
Stage 1	225	-	-	-	-	-
Stage 2	313	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	29.7	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	176	432
HCM Lane V/C Ratio	-	-	0.173	0.012
HCM Ctrl Dly (s/v)	-	-	29.7	13.4
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.6	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	17	11	14	1219	1003	18
Future Vol, veh/h	17	11	14	1219	1003	18
Conflicting Peds, #/hr	1	1	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	0	0	6	6	16
Mvmt Flow	18	12	15	1283	1056	19

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2379	1066	1084	0	-	0
Stage 1	1065	-	-	-	-	-
Stage 2	1314	-	-	-	-	-
Critical Hdwy	6.57	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	34	273	651	-	-	-
Stage 1	310	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	31	271	647	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	283	-	-	-	-	-
Stage 2	234	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	26.1	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	647	-	200	-	-
HCM Lane V/C Ratio	0.023	-	0.147	-	-
HCM Ctrl Dly (s/v)	10.7	0	26.1	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q (veh)	0.1	-	0.5	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

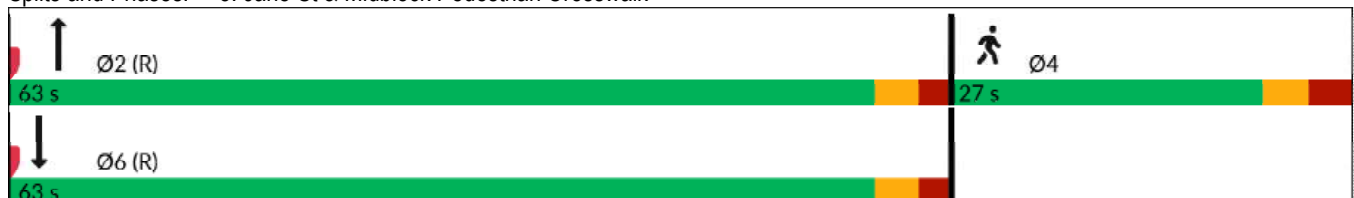
Future Total (Full Build-out 2035 Sen Opt
AM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1233	1014	
Future Volume (vph)	1233	1014	
Lane Group Flow (vph)	1298	1067	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.84	0.69	
Control Delay (s/veh)	17.3	7.4	
Queue Delay	0.1	0.0	
Total Delay (s/veh)	17.4	7.5	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#340.8	#249.2	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1537	1537	
Starvation Cap Reductn	5	2	
Spillback Cap Reductn	14	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.85	0.70	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Total (Full Build-out 2035 Sen Opt
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1233	0	0	1014	0
Future Volume (vph)	0	0	0	0	0	0	0	1233	0	0	1014	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Flt								1.00			1.00	
Flt Protected								1.00			1.00	
Satd. Flow (prot)								1773			1773	
Flt Permitted								1.00			1.00	
Satd. Flow (perm)								1773			1773	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	0	0	1298	0	0	1067	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1298	0	0	1067	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	6%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1418			1418	
v/s Ratio Prot								c0.73			0.60	
v/s Ratio Perm												
v/c Ratio								0.92			0.75	
Uniform Delay, d1								6.7			4.5	
Progression Factor								1.00			0.59	
Incremental Delay, d2								10.7			2.7	
Delay (s)								17.4			5.4	
Level of Service								B			A	
Approach Delay (s/veh)		0.0			0.0			17.4			5.4	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			12.0					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.82									
Actuated Cycle Length (s)			90.0					Sum of lost time (s)			10.0	
Intersection Capacity Utilization			68.2%					ICU Level of Service			C	
Analysis Period (min)			15									

c Critical Lane Group

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	14	1	9	10	3	70	5	1149	5	68	893	53
Future Vol, veh/h	14	1	9	10	3	70	5	1149	5	68	893	53
Conflicting Peds, #/hr	0	0	0	0	0	0	28	0	31	31	0	28
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	0	2	20	6	0	2	7	3
Mvmt Flow	15	1	9	11	3	74	5	1209	5	72	940	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2372	2367	968	2367	2418	1240	1024	0	0	1245	0	0
Stage 1	1112	1112	-	1250	1250	-	-	-	-	-	-	-
Stage 2	1260	1255	-	1117	1168	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.2	7.1	6.5	6.22	4.3	-	-	4.12	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	3.5	4	3.318	2.38	-	-	2.218	-	-
Pot Cap-1 Maneuver	23	36	311	25	33	214	613	-	-	559	-	-
Stage 1	248	287	-	214	247	-	-	-	-	-	-	-
Stage 2	204	245	-	254	270	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 11	23	304	18	22	209	600	-	-	546	-	-
Mov Cap-2 Maneuver	51	119	-	121	135	-	-	-	-	-	-	-
Stage 1	236	197	-	204	235	-	-	-	-	-	-	-
Stage 2	127	233	-	172	185	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	73.1		39.4		0		0.8	
HCM LOS	F		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	600	-	-	77	189	546	-	-
HCM Lane V/C Ratio	0.009	-	-	0.328	0.462	0.131	-	-
HCM Ctrl Dly (s/v)	11.1	0	-	73.1	39.4	12.6	0	-
HCM Lane LOS	B	A	-	F	E	B	A	-
HCM 95th %tile Q (veh)	0	-	-	1.2	2.2	0.4	-	-

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

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	h			4	W	
Traffic Vol, veh/h	75	1	0	85	0	0
Future Vol, veh/h	75	1	0	85	0	0
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	104	1	0	118	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	105	0	223 107
Stage 1	-	-	-	-	105 -
Stage 2	-	-	-	-	118 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1499	-	770 953
Stage 1	-	-	-	-	924 -
Stage 2	-	-	-	-	912 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1499	-	770 952
Mov Cap-2 Maneuver	-	-	-	-	770 -
Stage 1	-	-	-	-	924 -
Stage 2	-	-	-	-	912 -

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1499	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q (veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	11	64	67	2	2	18
Future Vol, veh/h	11	64	67	2	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	72	72	100	100	100
Heavy Vehicles, %	0	3	2	0	0	0
Mvmt Flow	11	89	93	2	2	18

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	95	0	-	0	205 94
Stage 1	-	-	-	-	94 -
Stage 2	-	-	-	-	111 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1512	-	-	-	788 968
Stage 1	-	-	-	-	935 -
Stage 2	-	-	-	-	919 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1512	-	-	-	782 968
Mov Cap-2 Maneuver	-	-	-	-	782 -
Stage 1	-	-	-	-	928 -
Stage 2	-	-	-	-	919 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.8	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1512	-	-	-	946
HCM Lane V/C Ratio	0.007	-	-	-	0.021
HCM Ctrl Dly (s/v)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1

Queues

Future Total (Full Build-out 2035 Sen Opt)

1: Jane St & John St/1795 Jane St Private Dwy

PM Peak Hour

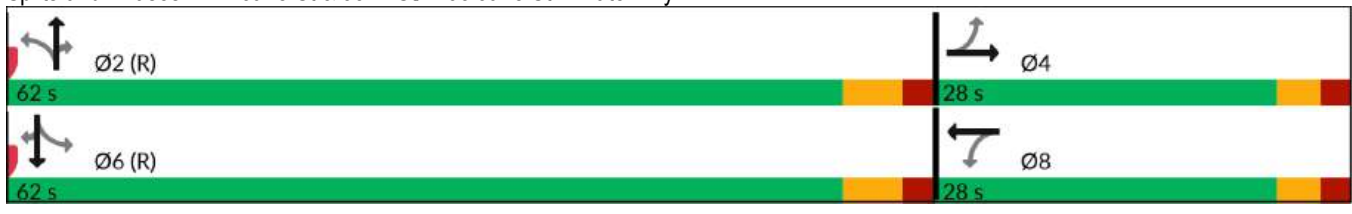


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+		+	+	+	+	+	+	+
Traffic Volume (vph)	18	3	2	0	13	1085	5	6	992	20
Future Volume (vph)	18	3	2	0	13	1085	5	6	992	20
Lane Group Flow (vph)	0	36	0	11	14	1179	5	7	1078	22
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	27.0	27.0	27.0	27.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)		4.0		4.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
v/c Ratio		0.25		0.06	0.04	0.73	0.00	0.03	0.66	0.02
Control Delay (s/veh)		31.3		1.7	3.1	7.5	0.6	2.3	5.9	0.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (s/veh)		31.3		1.7	3.1	7.5	0.6	2.3	6.0	0.9
Queue Length 50th (m)		4.0		0.0	0.4	79.9	0.0	0.2	62.6	0.0
Queue Length 95th (m)		12.9		0.8	m1.0	95.5	m0.0	1.1	125.1	1.3
Internal Link Dist (m)		401.7		66.0		107.2			271.5	
Turn Bay Length (m)					21.0		76.8	22.0		29.2
Base Capacity (vph)		374		421	334	1617	1069	272	1633	1110
Starvation Cap Reductn		0		0	0	9	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	39	0
Storage Cap Reductn		0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.10		0.03	0.04	0.73	0.00	0.03	0.68	0.02

Intersection Summary

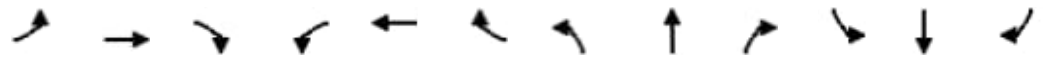
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Jane St & John St/1795 Jane St Private Dwy



HCM Signalized Intersection Capacity Analysis
 1: Jane St & John St/1795 Jane St Private Dwy

Future Total (Full Build-out 2035 Sen Opt)
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+		+	+	+	+	+	+
Traffic Volume (vph)	18	3	12	2	0	8	13	1085	5	6	992	20
Future Volume (vph)	18	3	12	2	0	8	13	1085	5	6	992	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)		4.0			4.0		5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		0.97			0.95		1.00	1.00	0.86	1.00	1.00	0.89
Flpb, ped/bikes		0.98			0.99		0.99	1.00	1.00	1.00	1.00	1.00
Frnt		0.95			0.89		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1612			1568		1667	1842	1214	1685	1860	1261
Flt Permitted		0.82			0.93		0.21	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)		1361			1475		377	1842	1214	310	1860	1261
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	13	2	0	9	14	1179	5	7	1078	22
RTOR Reduction (vph)	0	12	0	0	10	0	0	0	1	0	0	4
Lane Group Flow (vph)	0	24	0	0	1	0	14	1179	4	7	1078	18
Confl. Peds. (#/hr)	16		19	19		16	37		53	53		37
Confl. Bikes (#/hr)			4			1						
Heavy Vehicles (%)	0%	0%	8%	0%	0%	0%	0%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	15	0	0	16
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		5.0			5.0		74.0	74.0	74.0	74.0	74.0	74.0
Effective Green, g (s)		6.0			6.0		75.0	75.0	75.0	75.0	75.0	75.0
Actuated g/C Ratio		0.07			0.07		0.83	0.83	0.83	0.83	0.83	0.83
Clearance Time (s)		5.0			5.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		90			98		314	1535	1011	258	1550	1050
v/s Ratio Prot								c0.64			0.58	
v/s Ratio Perm		c0.02			0.00		0.04		0.00	0.02		0.01
v/c Ratio		0.27			0.01		0.04	0.77	0.00	0.03	0.70	0.02
Uniform Delay, d1		39.9			39.2		1.3	3.5	1.3	1.3	3.0	1.3
Progression Factor		1.00			1.00		1.40	1.13	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.6			0.0		0.2	2.6	0.0	0.2	2.6	0.0
Delay (s)		41.5			39.3		2.0	6.5	1.3	1.5	5.6	1.3
Level of Service		D			D		A	A	A	A	A	A
Approach Delay (s/veh)		41.5			39.3			6.5			5.5	
Approach LOS		D			D			A			A	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	6.7	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.73	A
Actuated Cycle Length (s)	90.0	Sum of lost time (s)
Intersection Capacity Utilization	76.3%	9.0
Analysis Period (min)	15	ICU Level of Service
		D
c Critical Lane Group		

Queues

Future Total (Full Build-out 2035 Sen Opt)

2: Jane St & Lawrence Ave W

PM Peak Hour

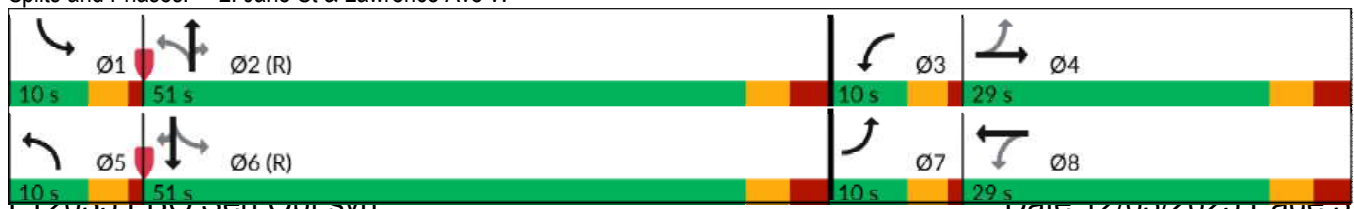


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	219	568	100	368	62	820	93	56	789	93
Future Volume (vph)	219	568	100	368	62	820	93	56	789	93
Lane Group Flow (vph)	235	700	108	452	67	882	100	60	848	100
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	6.0	12.0	6.0	12.0	6.0	12.0	12.0	6.0	12.0	12.0
Minimum Split (s)	10.0	22.3	10.0	22.3	10.0	22.3	22.3	10.0	22.3	22.3
Total Split (s)	10.0	29.0	10.0	29.0	10.0	51.0	51.0	10.0	51.0	51.0
Total Split (%)	10.0%	29.0%	10.0%	29.0%	10.0%	51.0%	51.0%	10.0%	51.0%	51.0%
Yellow Time (s)	3.0	3.3	3.0	3.3	3.0	3.3	3.3	3.0	3.3	3.3
All-Red Time (s)	1.0	2.8	1.0	2.8	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	5.1	3.0	5.1	3.0	5.1	5.1	3.0	5.1	5.1
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.01	0.18	0.32	0.96	0.18
Control Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	60.9	2.8	13.8	49.6	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.6	57.4	37.1	36.2	15.1	60.9	2.8	13.8	49.6	2.7
Queue Length 50th (m)	34.9	70.8	14.7	40.9	5.5	~195.2	0.0	5.0	~167.6	0.0
Queue Length 95th (m)	#82.3	#106.7	#29.3	57.4	11.4	#269.4	6.6	10.5	#253.6	6.5
Internal Link Dist (m)		350.0		285.9		207.5			152.3	
Turn Bay Length (m)	30.0		45.0		51.0		67.2	25.0		25.0
Base Capacity (vph)	243	751	181	769	184	874	553	189	882	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.93	0.60	0.59	0.36	1.01	0.18	0.32	0.96	0.18

Intersection Summary























Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 48 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Jane St & Lawrence Ave W



HCM Signalized Intersection Capacity Analysis
2: Jane St & Lawrence Ave W

Future Total (Full Build-out 2035 Sen Opt)
PM Peak Hour

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	219	568	83	100	368	52	62	820	93	56	789	93	
Future Volume (vph)	219	568	83	100	368	52	62	820	93	56	789	93	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	
Total Lost time (s)	3.0	5.1		3.0	5.1		3.0	5.1	5.1	3.0	5.1	5.1	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.93		1.00	0.94		1.00	1.00	0.69	1.00	1.00	0.71	
Flpb, ped/bikes	0.94	1.00		0.99	1.00		1.00	1.00	1.00	1.00	1.00	1.00	
Fr _t	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	
Fl _t Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1531	3095		1614	3174		1620	1824	1024	1668	1842	1048	
Fl _t Permitted	0.36	1.00		0.17	1.00		0.08	1.00	1.00	0.08	1.00	1.00	
Satd. Flow (perm)	577	3095		284	3174		145	1824	1024	149	1842	1048	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	
Adj. Flow (vph)	235	611	89	108	396	56	67	882	100	60	848	100	
RTOR Reduction (vph)	0	11	0	0	11	0	0	0	53	0	0	53	
Lane Group Flow (vph)	235	689	0	108	441	0	67	882	47	60	848	47	
Confl. Peds. (#/hr)	148		176	176		148	151		176	176		151	
Confl. Bikes (#/hr)			3			4			9			6	
Heavy Vehicles (%)	3%	5%	10%	3%	4%	3%	4%	3%	1%	1%	2%	2%	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	
Protected Phases	7	4		3	8		5	2		1	6		
Permitted Phases	4			8			2		2	6		6	
Actuated Green, G (s)	28.9	22.9		28.9	22.9		50.9	46.1	46.1	50.9	46.1	46.1	
Effective Green, g (s)	30.9	23.9		30.9	23.9		52.9	47.1	47.1	52.9	47.1	47.1	
Actuated g/C Ratio	0.31	0.24		0.31	0.24		0.53	0.47	0.47	0.53	0.47	0.47	
Clearance Time (s)	4.0	6.1		4.0	6.1		4.0	6.1	6.1	4.0	6.1	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	245	739		180	758		162	859	482	166	867	493	
v/s Ratio Prot	c0.07	0.22		0.04	0.14		c0.02	c0.48		0.02	0.46		
v/s Ratio Perm	c0.23			0.14			0.19		0.05	0.17		0.04	
v/c Ratio	0.96	0.93		0.60	0.58		0.41	1.03	0.10	0.36	0.98	0.10	
Uniform Delay, d ₁	32.4	37.3		26.8	33.6		20.9	26.4	14.7	21.1	25.9	14.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d ₂	45.6	18.5		5.5	1.1		1.7	37.7	0.4	1.3	25.7	0.4	
Delay (s)	78.0	55.7		32.3	34.8		22.6	64.2	15.1	22.5	51.6	15.0	
Level of Service	E	E		C	C		C	E	B	C	D	B	
Approach Delay (s/veh)		61.3			34.3			56.8			46.3		
Approach LOS		E			C			E			D		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			51.5									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.96										
Actuated Cycle Length (s)			100.0									Sum of lost time (s)	16.2
Intersection Capacity Utilization			88.8%									ICU Level of Service	E
Analysis Period (min)			15										

c Critical Lane Group

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	11	12	1103	12	17	969
Future Vol, veh/h	11	12	1103	12	17	969
Conflicting Peds, #/hr	6	0	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	12	13	1186	13	18	1042

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2343	1259	0	0	1265
Stage 1	1259	-	-	-	-
Stage 2	1084	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	41	210	-	-	556
Stage 1	270	-	-	-	-
Stage 2	327	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	36	200	-	-	530
Mov Cap-2 Maneuver	186	-	-	-	-
Stage 1	257	-	-	-	-
Stage 2	299	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	26.4	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	193	530
HCM Lane V/C Ratio	-	-	0.128	0.034
HCM Ctrl Dly (s/v)	-	-	26.4	12
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q (veh)	-	-	0.4	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	W
Traffic Vol, veh/h	8	3	9	1081	952	20
Future Vol, veh/h	8	3	9	1081	952	20
Conflicting Peds, #/hr	2	1	33	0	0	33
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	7.5
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	3	2	0
Mvmt Flow	9	3	10	1162	1024	22

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2241	1058	1079	0	-	0
Stage 1	1057	-	-	-	-	-
Stage 2	1184	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	47	276	654	-	-	-
Stage 1	337	-	-	-	-	-
Stage 2	293	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	44	269	639	-	-	-
Mov Cap-2 Maneuver	206	-	-	-	-	-
Stage 1	315	-	-	-	-	-
Stage 2	292	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	22.3	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	639	-	220	-	-
HCM Lane V/C Ratio	0.015	-	0.054	-	-
HCM Ctrl Dly (s/v)	10.7	0	22.3	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q (veh)	0	-	0.2	-	-

Queues
5: Jane St & Midblock Pedestrian Crosswalk

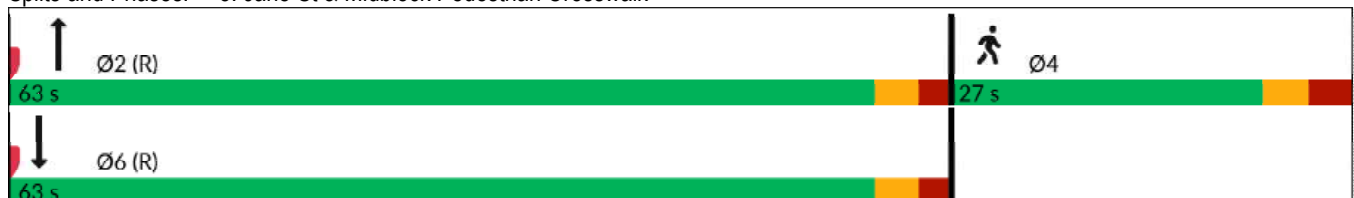
Future Total (Full Build-out 2035 Sen Opt)
PM Peak Hour

Lane Group	NBT	SBT	Ø4
Lane Configurations	↑	↑	
Traffic Volume (vph)	1090	955	
Future Volume (vph)	1090	955	
Lane Group Flow (vph)	1172	1027	
Turn Type	NA	NA	
Protected Phases	2	6	4
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	7.0
Minimum Split (s)	21.0	21.0	26.0
Total Split (s)	63.0	63.0	27.0
Total Split (%)	70.0%	70.0%	30%
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
v/c Ratio	0.74	0.64	
Control Delay (s/veh)	12.5	5.9	
Queue Delay	0.0	0.0	
Total Delay (s/veh)	12.6	5.9	
Queue Length 50th (m)	0.0	0.0	
Queue Length 95th (m)	#289.5	71.4	
Internal Link Dist (m)	24.7	5.6	
Turn Bay Length (m)			
Base Capacity (vph)	1581	1596	
Starvation Cap Reductn	13	5	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.75	0.65	

Intersection Summary















Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Jane St & Midblock Pedestrian Crosswalk



HCM Signalized Intersection Capacity Analysis
5: Jane St & Midblock Pedestrian Crosswalk

Future Total (Full Build-out 2035 Sen Opt)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	1090	0	0	955	0
Future Volume (vph)	0	0	0	0	0	0	0	1090	0	0	955	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.5	3.0
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Fr _t								1.00			1.00	
Fl _t Protected								1.00			1.00	
Satd. Flow (prot)								1824			1842	
Fl _t Permitted								1.00			1.00	
Satd. Flow (perm)								1824			1842	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	0	0	0	0	1172	0	0	1027	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1172	0	0	1027	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Turn Type								NA			NA	
Protected Phases								2			6	
Permitted Phases												
Actuated Green, G (s)								71.0			71.0	
Effective Green, g (s)								72.0			72.0	
Actuated g/C Ratio								0.80			0.80	
Clearance Time (s)								5.0			5.0	
Vehicle Extension (s)								3.0			3.0	
Lane Grp Cap (vph)								1459			1473	
v/s Ratio Prot								c0.64			0.56	
v/s Ratio Perm												
v/c Ratio								0.80			0.70	
Uniform Delay, d ₁								5.0			4.1	
Progression Factor								1.00			0.57	
Incremental Delay, d ₂								4.8			2.1	
Delay (s)								9.8			4.4	
Level of Service								A			A	
Approach Delay (s/veh)		0.0			0.0			9.8			4.4	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			7.3									
HCM 2000 Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			90.0								10.0	
Intersection Capacity Utilization			60.7%									
Analysis Period (min)			15									
c Critical Lane Group												

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+	+		+	+
Traffic Vol, veh/h	8	2	17	9	3	39	14	1043	14	54	867	34
Future Vol, veh/h	8	2	17	9	3	39	14	1043	14	54	867	34
Conflicting Peds, #/hr	0	0	0	0	0	0	59	0	70	70	0	59
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	7.5	-	-	7.5
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	5	0	0	0	0	3	0	1	3	0
Mvmt Flow	8	2	17	9	3	40	14	1064	14	55	885	35

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2175	2230	944	2184	2251	1134	979	0	0	1148	0	0
Stage 1	1054	1054	-	1162	1162	-	-	-	-	-	-	-
Stage 2	1121	1176	-	1022	1089	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	34	43	314	33	42	249	713	-	-	612	-	-
Stage 1	276	305	-	240	272	-	-	-	-	-	-	-
Stage 2	253	267	-	287	294	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	22	30	300	24	29	235	680	-	-	579	-	-
Mov Cap-2 Maneuver	117	139	-	139	152	-	-	-	-	-	-	-
Stage 1	250	234	-	215	244	-	-	-	-	-	-	-
Stage 2	197	239	-	216	225	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	26.6		28.6		0.1		0.7	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	680	-	-	194	204	579	-	-
HCM Lane V/C Ratio	0.021	-	-	0.142	0.255	0.095	-	-
HCM Ctrl Dly (s/v)	10.4	0	-	26.6	28.6	11.9	0	-
HCM Lane LOS	B	A	-	D	D	B	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.5	1	0.3	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	T			T	T	
Traffic Vol, veh/h	69	9	3	45	2	3
Future Vol, veh/h	69	9	3	45	2	3
Conflicting Peds, #/hr	0	2	2	0	2	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	84	11	4	55	2	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	97	0	157
Stage 1	-	-	-	-	92
Stage 2	-	-	-	-	65
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1509	-	839
Stage 1	-	-	-	-	937
Stage 2	-	-	-	-	963
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1507	-	834
Mov Cap-2 Maneuver	-	-	-	-	812
Stage 1	-	-	-	-	936
Stage 2	-	-	-	-	958

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.5	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	895	-	-	1507	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Ctrl Dly (s/v)	9.1	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	22	50	34	4	11	14
Future Vol, veh/h	22	50	34	4	11	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	82	82	100	100	100
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	22	61	41	4	11	14

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	45	0	-	0	148 43
Stage 1	-	-	-	-	43 -
Stage 2	-	-	-	-	105 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1576	-	-	-	849 1033
Stage 1	-	-	-	-	985 -
Stage 2	-	-	-	-	924 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1576	-	-	-	837 1033
Mov Cap-2 Maneuver	-	-	-	-	837 -
Stage 1	-	-	-	-	971 -
Stage 2	-	-	-	-	924 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.9	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1576	-	-	-	937
HCM Lane V/C Ratio	0.014	-	-	-	0.027
HCM Ctrl Dly (s/v)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q (veh)	0	-	-	-	0.1



APPENDIX J

Functional Design Review

STAFF MEMBER WILL BE AVAILABLE TO MANEUVER BINS DRIVER AND ALSO ACT AS A FLAGMAN WHEN THE TRUCK EVENT THE ON SITE STAFF IS UNAVAILABLE AT THE TIME VEHICLE ARRIVES AT THE SITE, THE COLLECTION HE SITE AND NOT RETURN UNTIL THE NEXT SCHEDULED TO CAUTION MOTORISTS LEAVING THE PARKING GARAGE WHEN LOADING OPERATIONS ARE OCCURRING. THIS SHOULD INCLUDE BOTH LIGHTS AND SIGNS.

CONCRETE PAD AND HAVE A 2% SLOPE, WITH 6.1M CEILING HANGING & STAGING AREA

EXISTING AIR SHAFT TO BE RELOCATED HERE
PAD-MOUNTED TRANSFORMER
BIKE RINGS
8 SHORT-TERM SPACES

DOTTED LINE DENOTES OUTLINE OF DEMOLISHED EXISTING 1ST BLDG
BIKE RINGS
DOTTED LINE DENOTES INSIDE FACE OF PROPOSED P1 & P2 PARKING LEVELS WALL

ACCESS RADIUS AS PER TAC TABLE 8.9.1
STORM WATER TANK BELOW
WARNING LIGHT

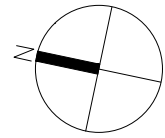
ACCESS DESIGN AS PER CITY OF TORONTO STANDARD T-350.01

ACCESS DESIGN AS PER CITY OF TORONTO STANDARD T-350.01

6.0m CORNER ROUNDING AS PER CITY OF TORONTO GUIDELINES FOR PRIVATE PROPERTY CORNER REQUIREMENTS AT INTERSECTIONS

DRAWN BY: Hsoothi
PLOT DATE: February 18, 2026

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Consulting Engineers and Planners
www.LEA.ca

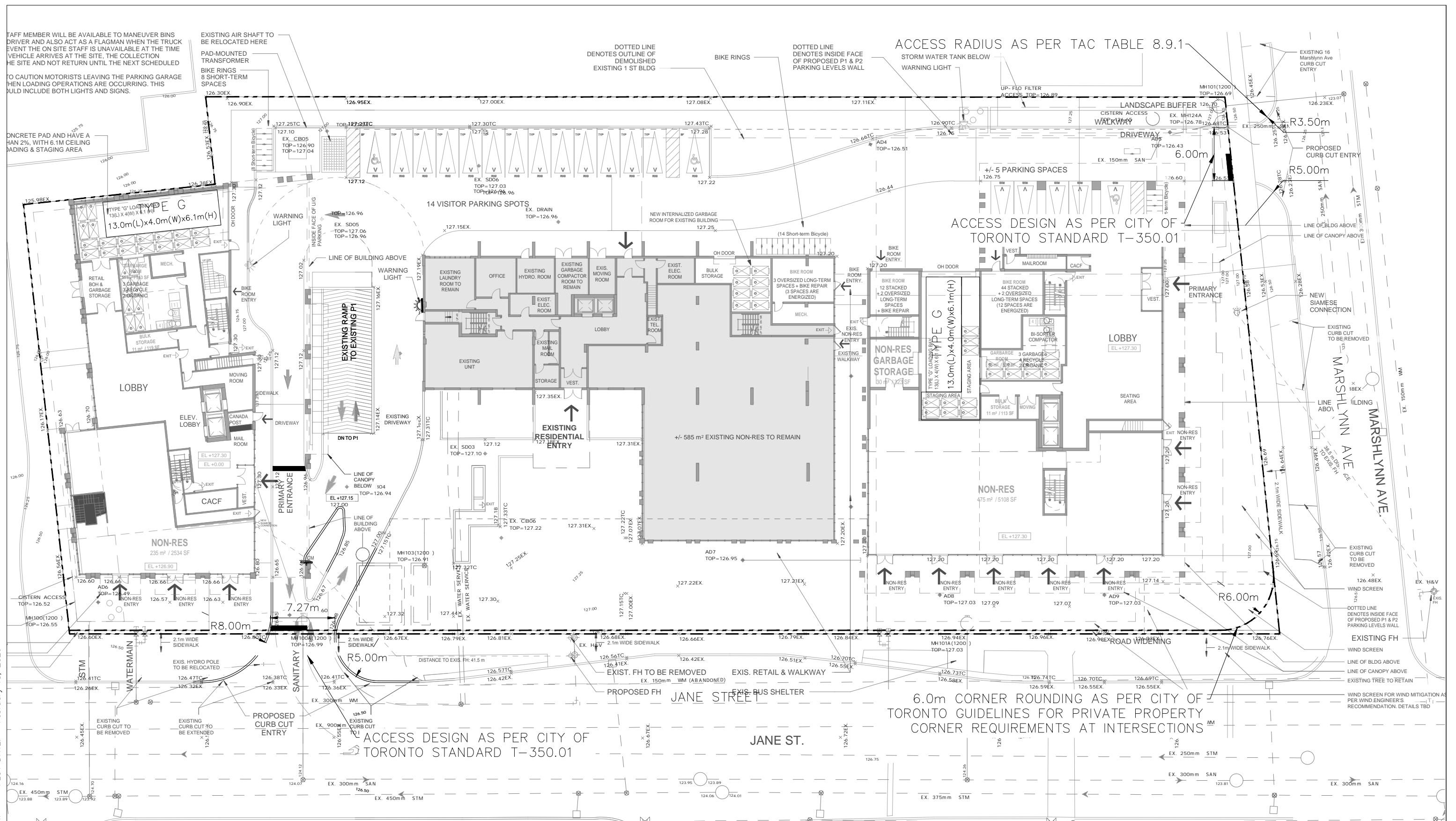



Project No. 9517
Date FEB. 18, 2026

1771 JANE STREET
TORONTO ONTARIO
4 0 4 8 12m
1:400

Drawing No. ACCESS REVIEW

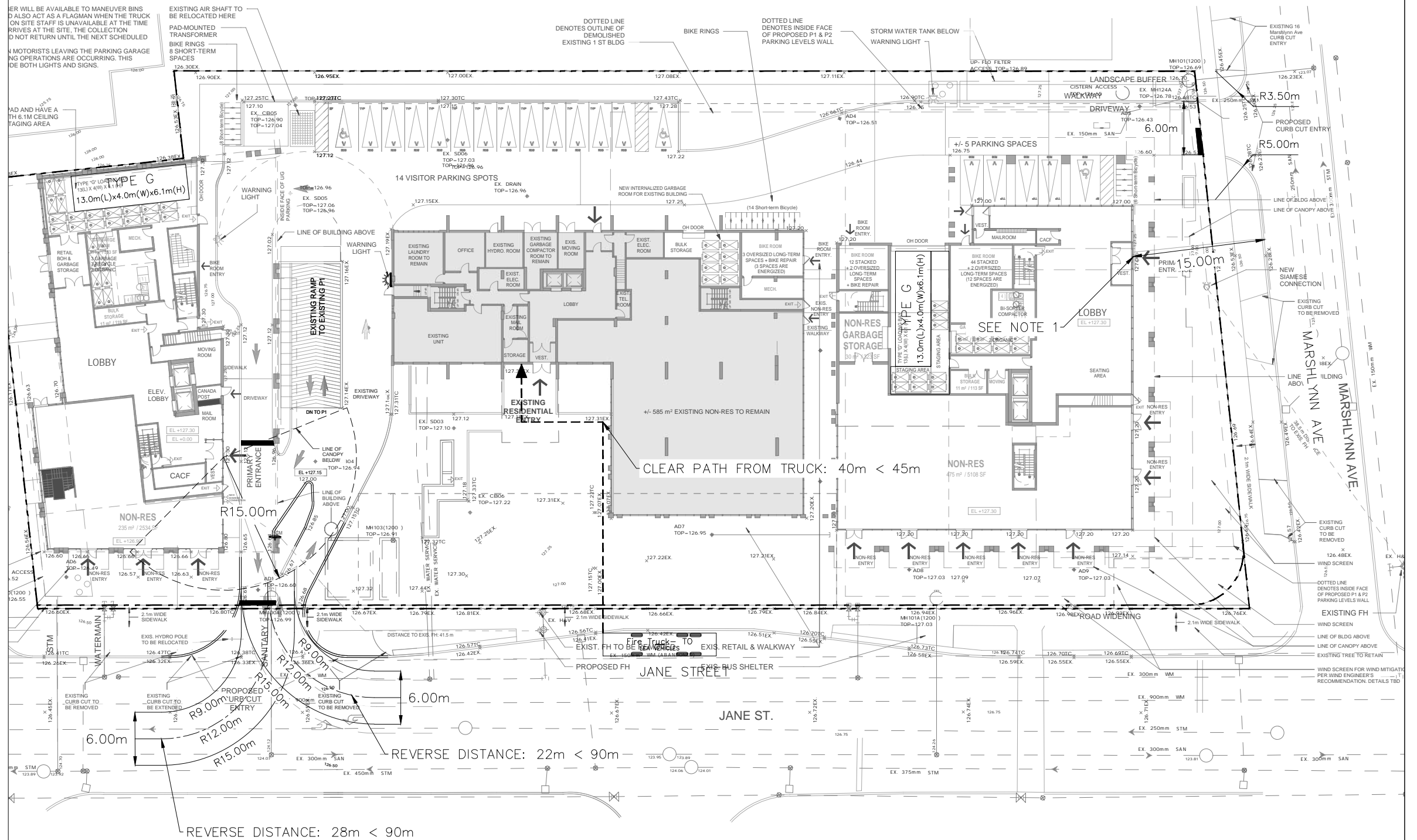
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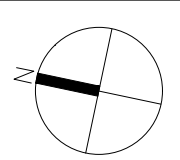
AS PER THE ONTARIO BUILDING CODE 3.2.5.

1. 5.1 LOCATION OF ACCESS ROUTES – ACCESS ROUTES SHALL BE LOCATED SO THAT THE PRINCIPAL ENTRANCE AND EVERY ACCESS OPENING ARE LOCATED NOT LESS THAN 3m AND NOT MORE THAN 15m FROM THE CLOSEST PORTION OF THE ACCESS ROUTE
2. 5.2 IF A PORTION OF A BUILDING IS COMPLETELY CUT OFF FROM THE REMAINDER OF THE BUILDING SO THAT THERE IS NO ACCESS TO THE REMAINDER OF THE BUILDING, THE ACCESS ROUTE SHALL BE LOCATED SO THAT THE UNOBSTRUCTED PATH OF TRAVEL FROM THE VEHICLE TO ONE ENTRANCE OF EACH PORTION OF THE BUILDING IS NOT MORE THAN 45m
3. 6.1 ACCESS ROUTE DESIGN – A PORTION OF A ROADWAY PROVIDED AS A REQUIRED ACCESS ROUTE FOR FIRE DEPARTMENT USE SHALL:
 - 3.1. 6.1.a HAVE A CLEAR WIDTH NOT LESS THAN 6m
 - 3.2. 6.1.b HAVE A CENTRELINE RADIUS NOT LESS THAN 12m
 - 3.3. 6.1.c HAVE AN OH CLEARANCE OF NOT LESS THAN 5m
 - 3.4. 6.1.f HAVE TURNAROUND FACILITIES FOR ANY DEAD-END PORTION OF THE ACCESS ROUTE MORE THAN 90m LONG
 - 3.5. 6.1.g BE CONNECTED WITH A PUBLIC THOROUGHFARE



DRAWN BY: Hsothi PLOT DATE: February 18, 2026

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Project No.	9517
Date	FEB. 18, 2026

1771 JANE STREET
 TORONTO ONTARIO

1:500

FIRE ROUTE REVIEW

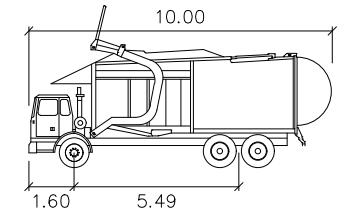
Drawing No.
 002

NOTES:

1. AS PER THE CITY OF TORONTO REQUIREMENTS FOR GARBAGE, RECYCLING AND ORGANICS COLLECTION SERVICES FOR NEW DEVELOPMENTS AND REDEVELOPMENTS (APRIL 2024):
 - 1.1. PAGE 27 WASTE STORAGE ROOM – 25m² FOR FIRST 50 UNITS + 0.26m²/UNIT ABOVE 50 + MIN. 10m² FOR UNCOMPACTED WASTE.
 - 1.2. PAGE 29 LOADING SPACE – TYPE G LOADING SPACE MUST BE: ON PRIVATE PROPERTY; 13m IN LENGTH; 4m IN WIDTH; 6.1m UNENCUMBERED VERTICAL CLEARANCE THROUGHOUT. TYPE G LOADING SPACE MUST HAVE A MINIMUM 2m BUFFER BETWEEN THE FRONT OF THE TYPE G AND ADJACENT WALL.
 - 1.3. PAGE 29 STAGING & LOADING AREA – 5m² FOR FIRST 50 UNITS + 0.10m²/UNIT ABOVE 50. USE 3yd³ CONTAINERS FOR WASTE COLLECTION. MIN. 6.1m VERTICAL CLEARANCE THROUGHOUT.
 - 1.4. PAGE 32 ACCESS – MIN. 6.0m AT THE POINT OF INGRESS/EGRESS TO THE SITE, MIN. 4.5m WIDE THROUGHOUT THE SITE WITH A MIN. 4.4m VERTICAL CLEARANCE THROUGHOUT THE SITE.
2. FLASHING WARNING SYSTEM
 - 2.1. FLASHING WARNING LIGHT TO BE ACTIVATED WHEN TRUCKS ENTER AND EXIT THE SITE. THE SYSTEM TO REMAIN ACTIVATED DURING THE CITY GARBAGE COLLECTION ACTIVITY AND UNTIL THE TRUCK EXITS THE SITE.
 - 2.2. WARNING SIGN TO BE MOUNTED BELOW THE FLASHING LIGHT.
 - 2.3. A TRAINED ON-SITE STAFF MEMBER WILL BE AVAILABLE TO MANEUVER THE GARBAGE BINS FOR THE COLLECTION DRIVER AND ACT AS A FLAGMAN WHEN THE TRUCK IS REVERSING. IF THE STAFF IS UNAVAILABLE AT THE TIME THE CITY COLLECTION VEHICLE ARRIVES AT THE SITE, IT WILL LEAVE THE SITE AND RETURN ON THE NEXT SCHEDULED COLLECTION DAY.

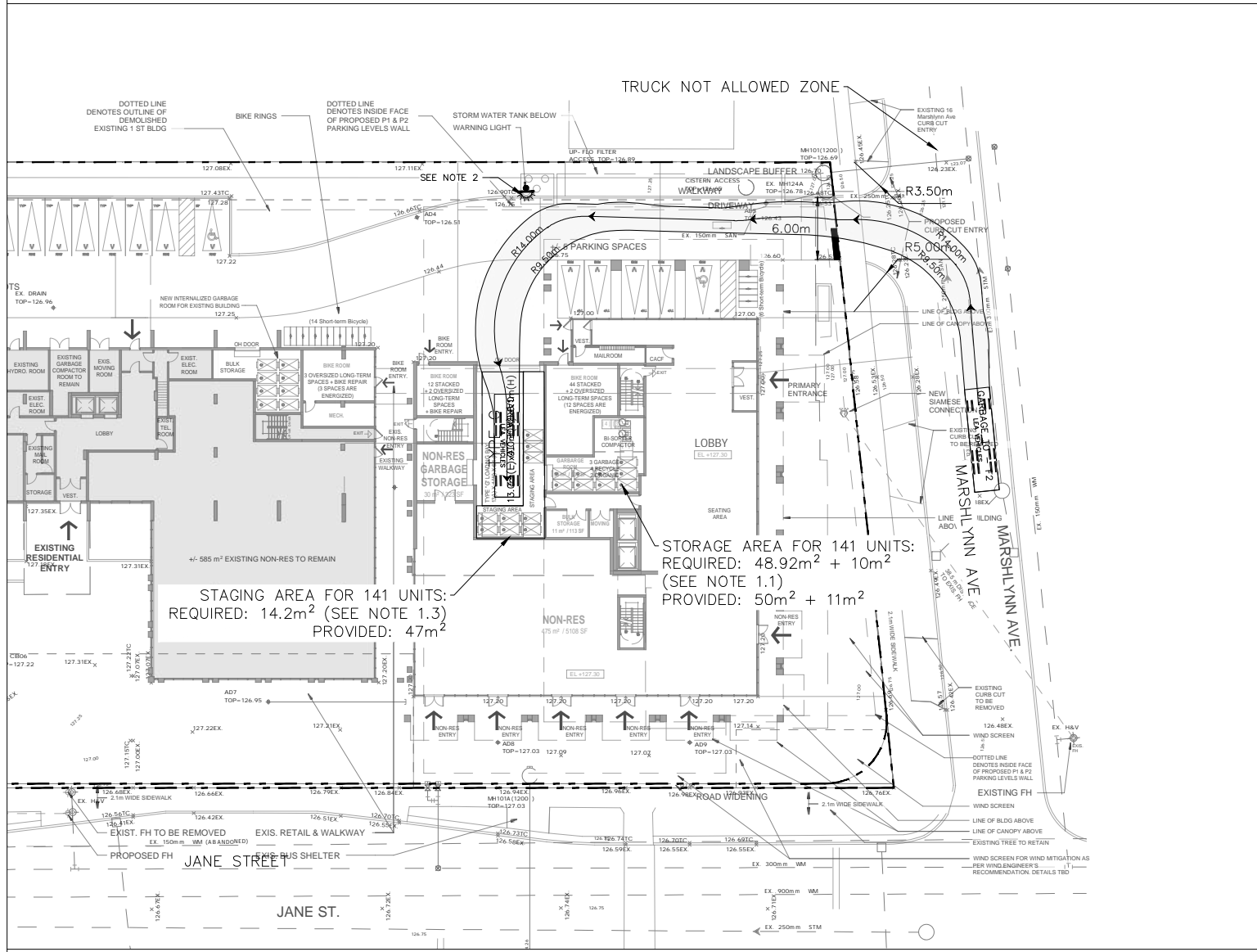
WATCH FOR
TURNING TRUCKS
WHEN FLASHING

(600x300)
BLACK LEGEND & BORDER,
YELLOW REFL. BACKGROUND.

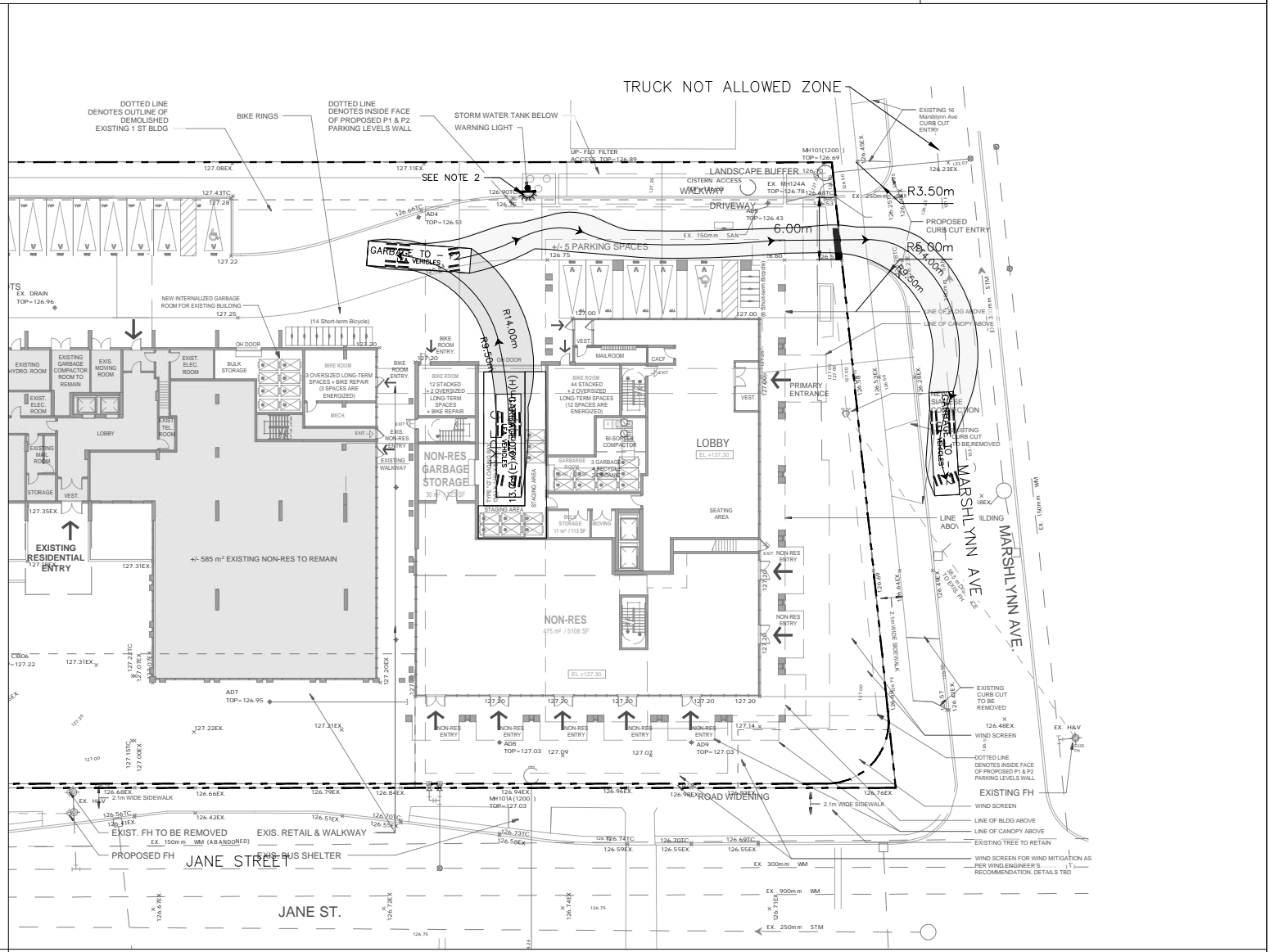


GARBAGE TO – F2
meters
Width : 2.40
Track : 2.40
Lock to Lock Time : 6.0
Steering Angle : 26.8

FORWARD IN
REVERSE OUT



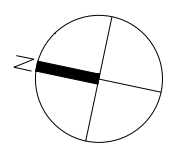
ENTRY PATH



EXIT PATH

DRAWN BY: Hsothi
PLOT DATE: February 18, 2026

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Project No.
9517
Date
FEB. 18, 2026

1771 JANE STREET
TORONTO ONTARIO

1:600

TYPE 'G' LOADING REVIEW
SOUTH BUILDING
CITY GARBAGE TRUCK – FRONT LOADER
ENTRY & EXIT PATHS

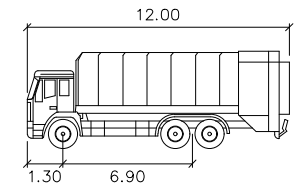
Drawing No.
003

NOTES:

1. AS PER THE CITY OF TORONTO REQUIREMENTS FOR GARBAGE, RECYCLING AND ORGANICS COLLECTION SERVICES FOR NEW DEVELOPMENTS AND REDEVELOPMENTS (APRIL 2024):
 - 1.1. PAGE 27 WASTE STORAGE ROOM – 25m² FOR FIRST 50 UNITS + 0.26m²/UNIT ABOVE 50 + MIN. 10m² FOR UNCOMPACTED WASTE.
 - 1.2. PAGE 29 LOADING SPACE – TYPE G LOADING SPACE MUST BE: ON PRIVATE PROPERTY; 13m IN LENGTH; 4m IN WIDTH; 6.1m UNENCUMBERED VERTICAL CLEARANCE THROUGHOUT. TYPE G LOADING SPACE MUST HAVE A MINIMUM 2m BUFFER BETWEEN THE FRONT OF THE TYPE G AND ADJACENT WALL.
 - 1.3. PAGE 29 STAGING & LOADING AREA – 5m² FOR FIRST 50 UNITS + 0.10m²/UNIT ABOVE 50. USE 3yd³ CONTAINERS FOR WASTE COLLECTION. MIN. 6.1m VERTICAL CLEARANCE THROUGHOUT.
 - 1.4. PAGE 32 ACCESS – MIN. 6.0m AT THE POINT OF INGRESS/EGRESS TO THE SITE, MIN. 4.5m WIDE THROUGHOUT THE SITE WITH A MIN. 4.4m VERTICAL CLEARANCE THROUGHOUT THE SITE.
2. FLASHING WARNING SYSTEM
 - 2.1. FLASHING WARNING LIGHT TO BE ACTIVATED WHEN TRUCKS ENTER AND EXIT THE SITE. THE SYSTEM TO REMAIN ACTIVATED DURING THE CITY GARBAGE COLLECTION ACTIVITY AND UNTIL THE TRUCK EXITS THE SITE.
 - 2.2. WARNING SIGN TO BE MOUNTED BELOW THE FLASHING LIGHT.
 - 2.3. A TRAINED ON-SITE STAFF MEMBER WILL BE AVAILABLE TO MANEUVER THE GARBAGE BINS FOR THE COLLECTION DRIVER AND ACT AS A FLAGMAN WHEN THE TRUCK IS REVERSING. IF THE STAFF IS UNAVAILABLE AT THE TIME THE CITY COLLECTION VEHICLE ARRIVES AT THE SITE, IT WILL LEAVE THE SITE AND RETURN ON THE NEXT SCHEDULED COLLECTION DAY.

WATCH FOR
TURNING TRUCKS
WHEN FLASHING

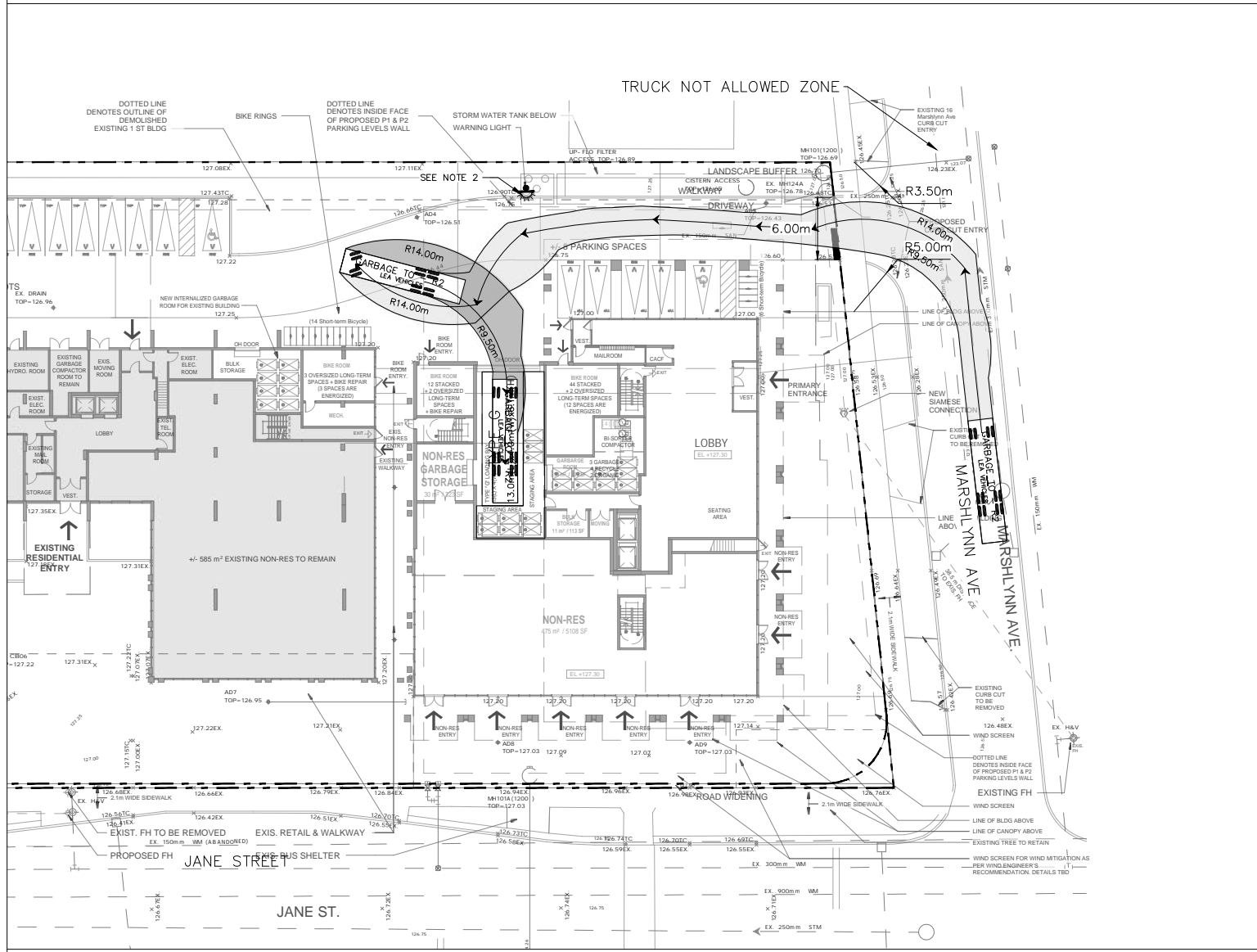
(600x300)
BLACK LEGEND & BORDER,
YELLOW REFL. BACKGROUND.



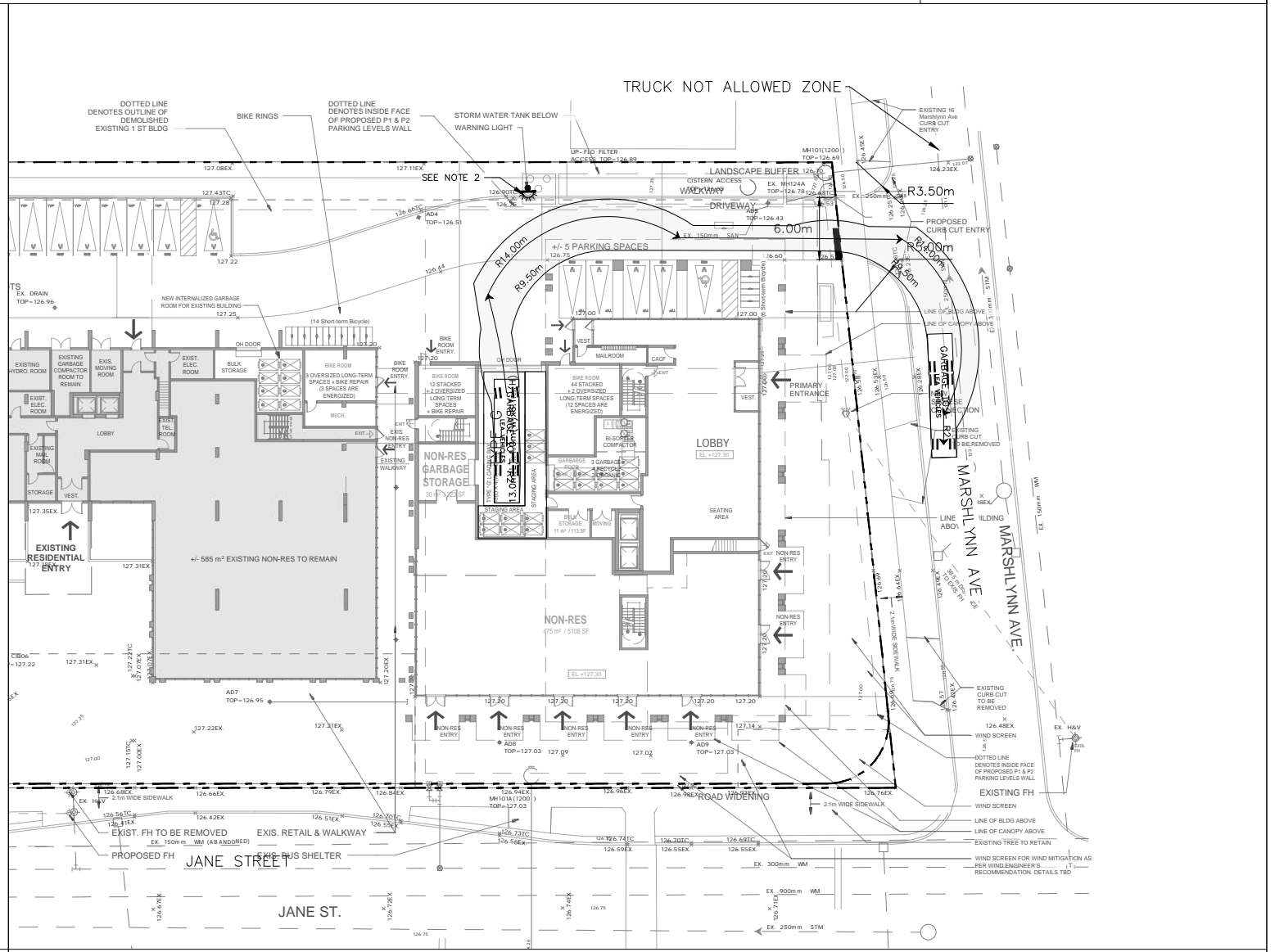
GARBAGE TO – R2

Width	: 2.40
Track	: 2.40
Lock to Lock Time	: 6.0
Steering Angle	: 32.8

REVERSE IN
FORWARD OUT



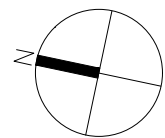
ENTRY PATH



EXIT PATH

PLOT DATE: February 18, 2026
DRAWN BY: Hsothi

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Date
FEB. 18, 2026

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TORONTO ONTARIO

1:600

TYPE 'G' LOADING REVIEW
SOUTH BUILDING
CITY GARBAGE TRUCK – REAR LOADER
ENTRY & EXIT PATHS

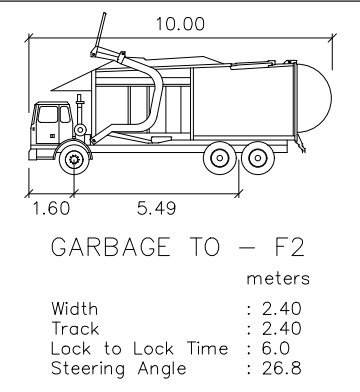
Drawing No.
004

NOTES:

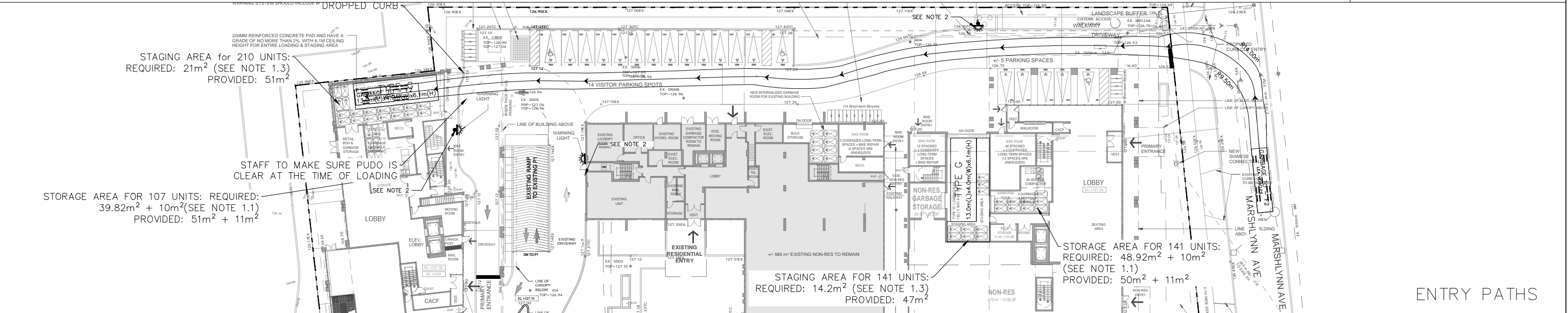
1. AS PER THE CITY OF TORONTO REQUIREMENTS FOR GARBAGE, RECYCLING AND ORGANICS COLLECTION SERVICES FOR NEW DEVELOPMENTS AND REDEVELOPMENTS (APRIL 2024):
 - 1.1. PAGE 27 WASTE STORAGE ROOM – 25m² FOR FIRST 50 UNITS + 0.26m²/UNIT ABOVE 50 + MIN. 10m² FOR UNCOMPACTED WASTE.
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2. FLASHING WARNING SYSTEM
 - 2.1. FLASHING WARNING LIGHT TO BE ACTIVATED WHEN TRUCKS ENTER AND EXIT THE SITE. THE SYSTEM TO REMAIN ACTIVATED DURING THE CITY GARBAGE COLLECTION ACTIVITY AND UNTIL THE TRUCK EXITS THE SITE.
 - 2.2. WARNING SIGN TO BE MOUNTED BELOW THE FLASHING LIGHT.
 - 2.3. A TRAINED ON-SITE STAFF MEMBER WILL BE AVAILABLE TO MANEUVER THE GARBAGE BINS FOR THE COLLECTION DRIVER AND ACT AS A FLAGMAN WHEN THE TRUCK IS REVERSING. IF THE STAFF IS UNAVAILABLE AT THE TIME THE CITY COLLECTION VEHICLE ARRIVES AT THE SITE, IT WILL LEAVE THE SITE AND RETURN ON THE NEXT SCHEDULED COLLECTION DAY.

WATCH FOR TURNING TRUCKS WHEN FLASHING

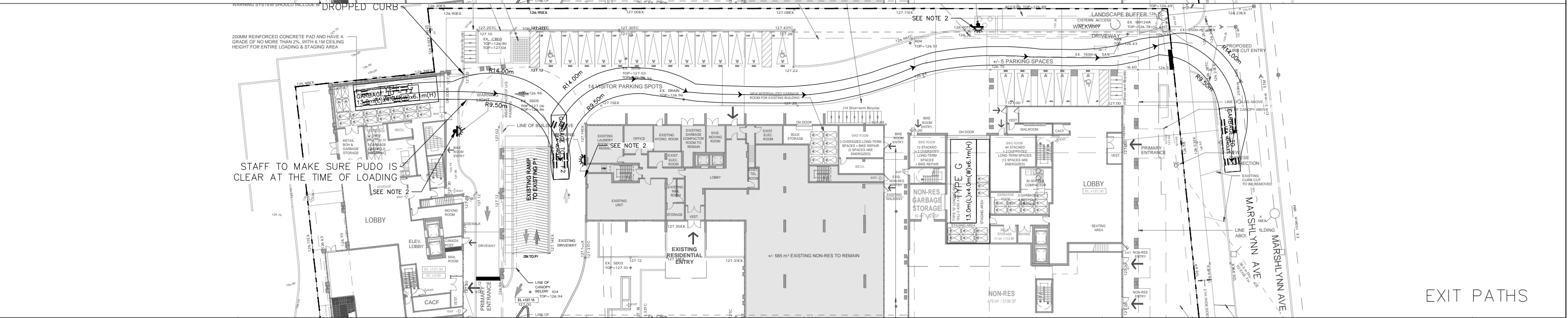
(600x300) BLACK LEGEND & BORDER, YELLOW REFL. BACKGROUND.



FORWARD IN
REVERSE OUT



ENTRY PATHS



EXIT PATHS

DRAWN BY: Hsoadhi PLOT DATE: February 18, 2026

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1:600

TYPE 'G' LOADING REVIEW
NORTH BUILDING
CITY GARBAGE TRUCK – FRONT LOADER
ENTRY & EXIT PATHS

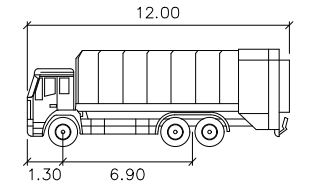
Drawing No.
005

NOTES:

1. AS PER THE CITY OF TORONTO REQUIREMENTS FOR GARBAGE, RECYCLING AND ORGANICS COLLECTION SERVICES FOR NEW DEVELOPMENTS AND REDEVELOPMENTS (APRIL 2024):
 - 1.1. PAGE 27 WASTE STORAGE ROOM – 25m² FOR FIRST 50 UNITS + 0.26m²/UNIT ABOVE 50 + MIN. 10m² FOR UNCOMPACTED WASTE.
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 - 2.2. WARNING SIGN TO BE MOUNTED BELOW THE FLASHING LIGHT.
 - 2.3. A TRAINED ON-SITE STAFF MEMBER WILL BE AVAILABLE TO MANEUVER THE GARBAGE BINS FOR THE COLLECTION DRIVER AND ACT AS A FLAGMAN WHEN THE TRUCK IS REVERSING. IF THE STAFF IS UNAVAILABLE AT THE TIME THE CITY COLLECTION VEHICLE ARRIVES AT THE SITE, IT WILL LEAVE THE SITE AND RETURN ON THE NEXT SCHEDULED COLLECTION DAY.

WATCH FOR
TURNING TRUCKS
WHEN FLASHING

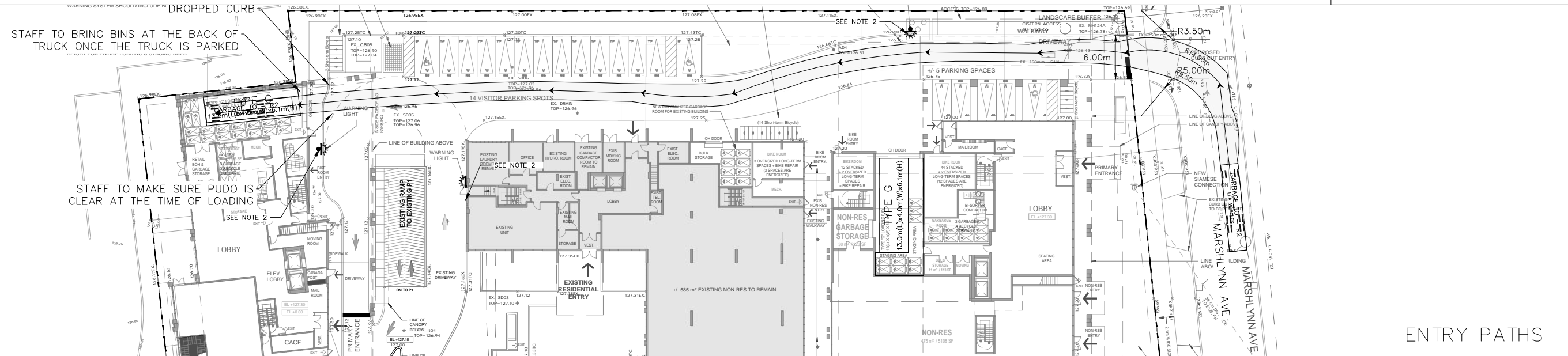
(600x300)
BLACK LEGEND & BORDER,
YELLOW REFL. BACKGROUND.



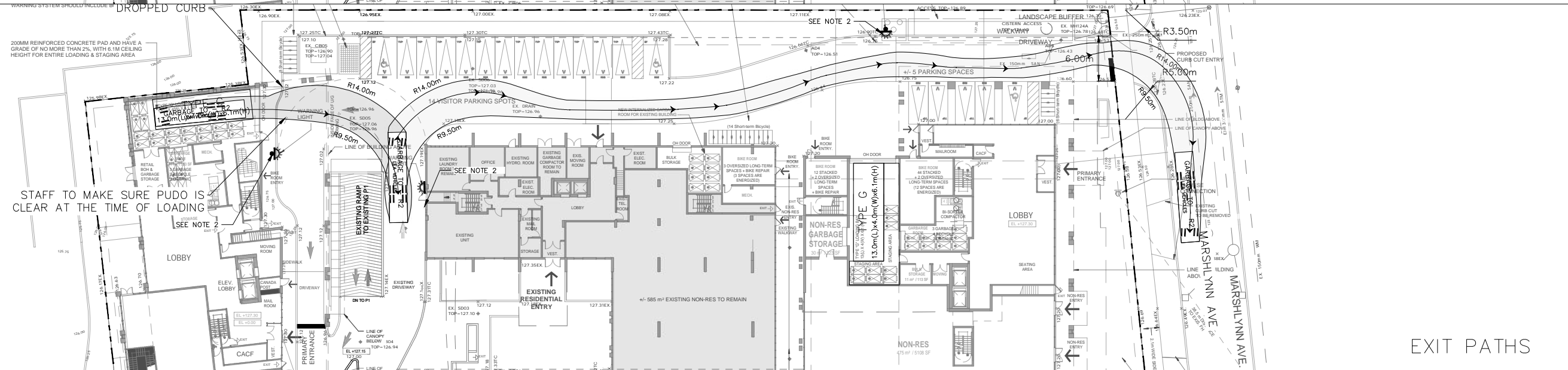
GARBAGE TO – R2

Width : 2.40 meters
Track : 2.40
Lock to Lock Time : 6.0
Steering Angle : 32.8

FORWARD IN
REVERSE OUT



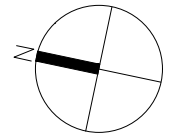
ENTRY PATHS



EXIT PATHS

DRAWN BY: Hsothi PLOT DATE: February 18, 2026

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Date
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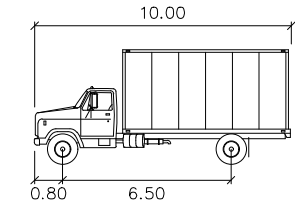
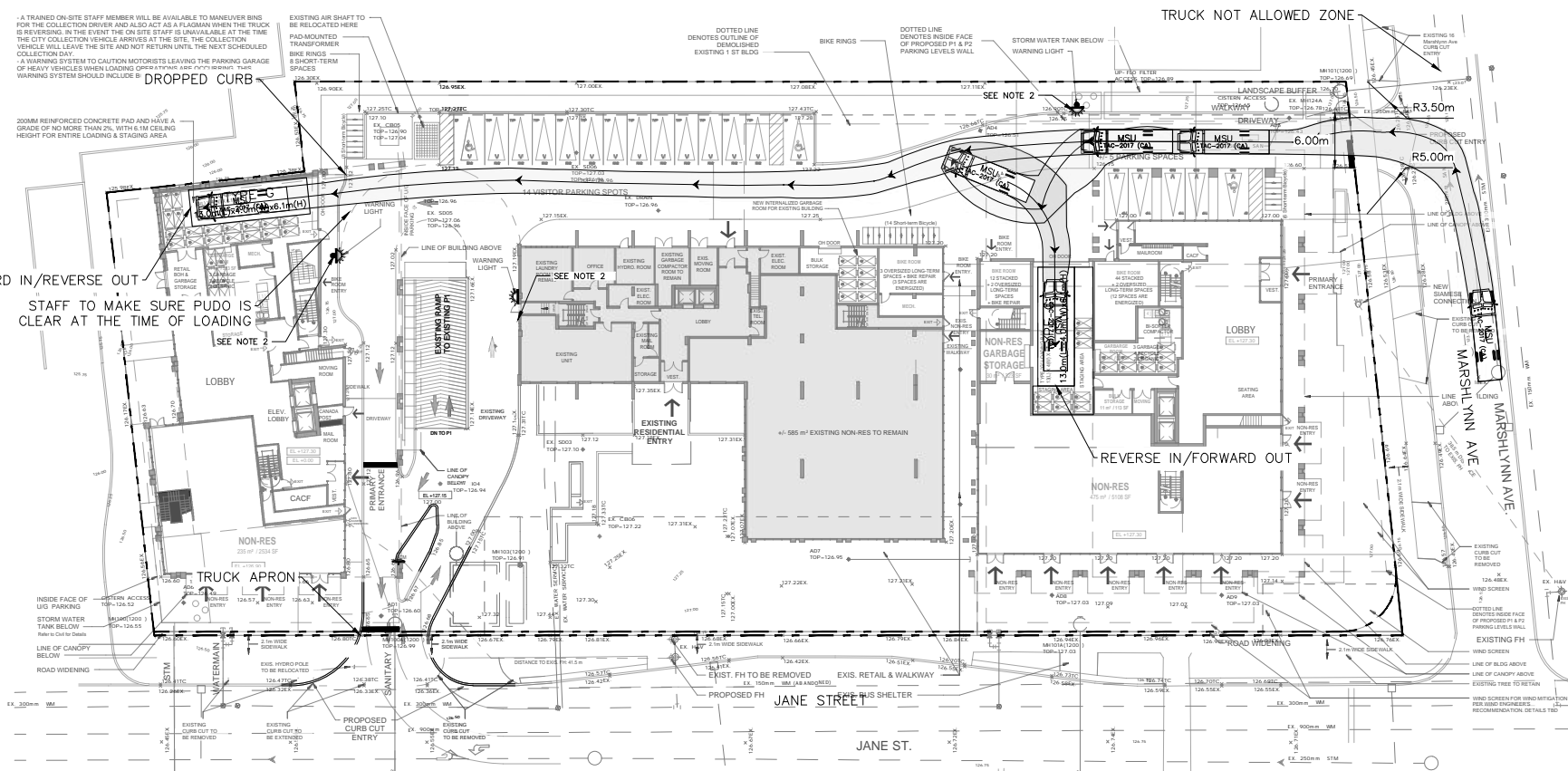
1771 JANE STREET
TORONTO ONTARIO

6 0 6 12 18m

1:600

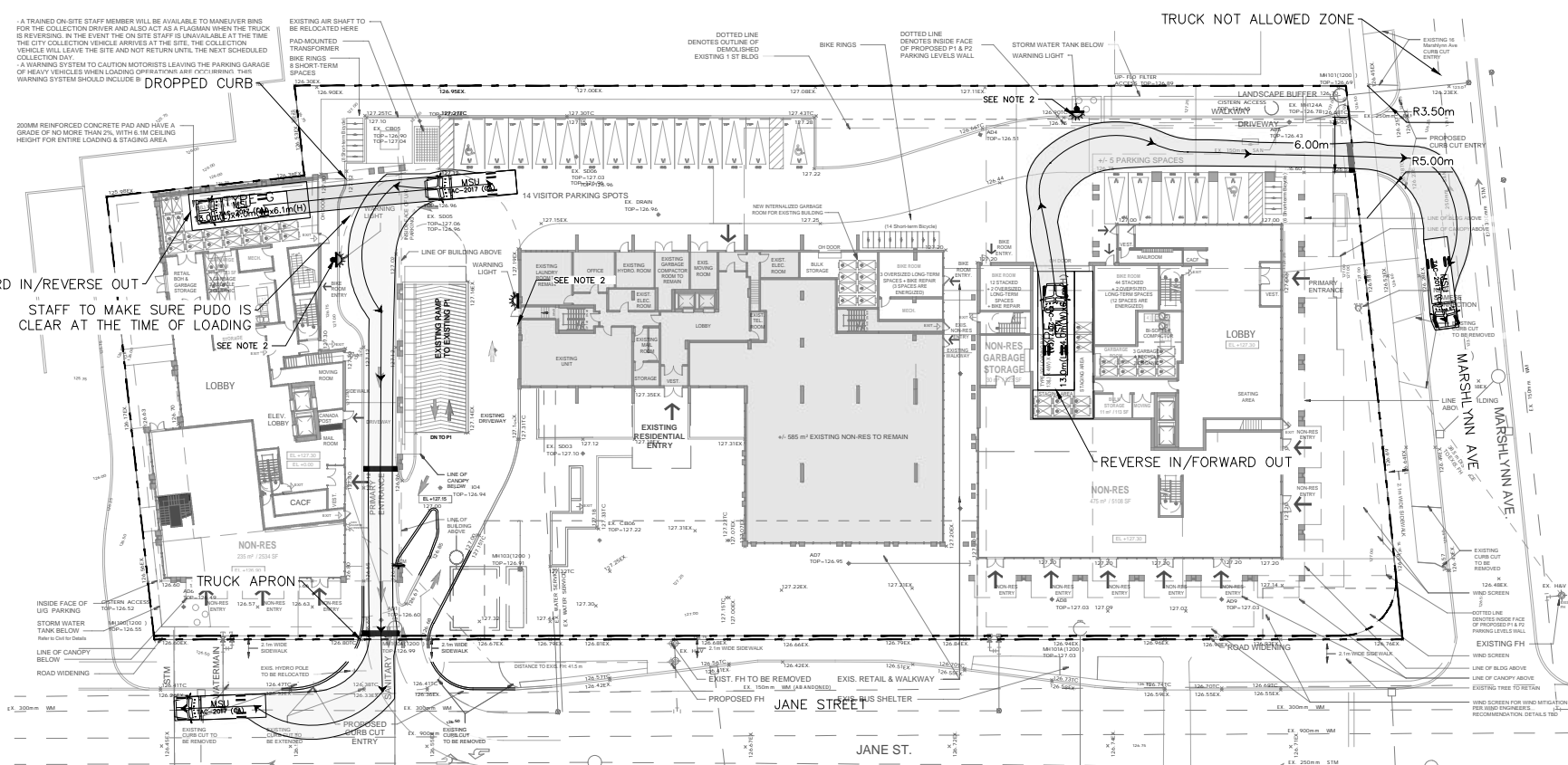
TYPE 'G' LOADING REVIEW
NORTH BUILDING
CITY GARBAGE TRUCK – REAR LOADER
ENTRY & EXIT PATHS

Drawing No.
006



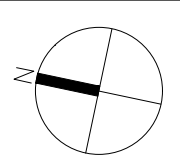
MSU meters

Width : 2.60
 Track : 2.60
 Lock to Lock Time : 6.0
 Steering Angle : 40.2



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1:750

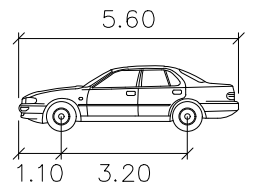
LOADING REVIEW
 MOVING/DELIVERY TRUCK (MSU)
 ENTRY & EXIT PATHS

Drawing No. 007

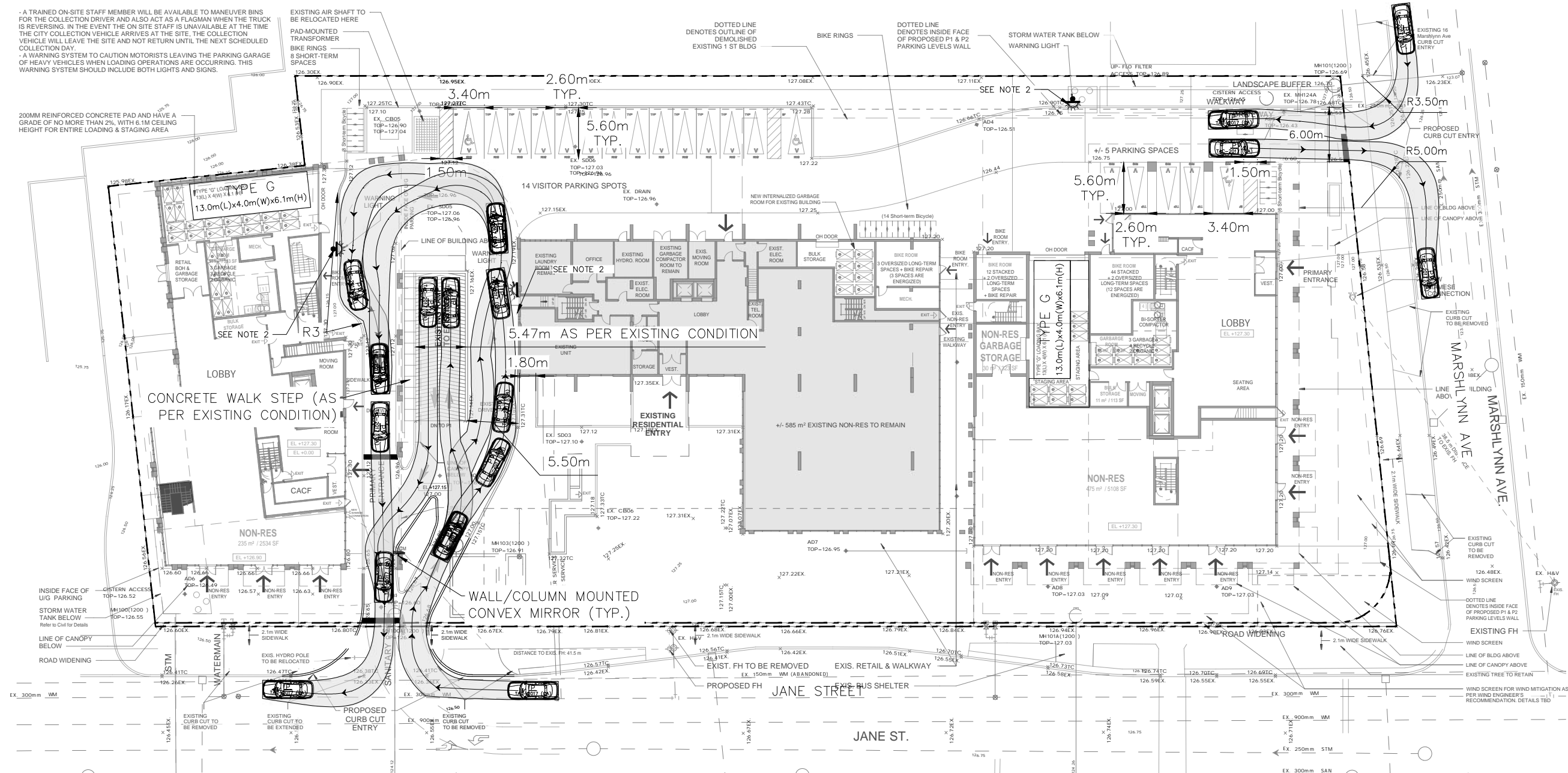
NOTES:

- A. CITY OF TORONTO ZONING BY-LAW 569-2013 CHAPTER 200: PARKING SPACES MUST HAVE THE MINIMUM DIMENSIONS EXCLUSIVE OF AISLES OR DRIVEWAYS AS FOLLOWS:
 - A.1. MIN LENGTH: 5.6m
 - A.2. MIN WIDTH: 2.6m
 - A.3. THE MINIMUM WIDTH MUST BE INCREASED BY 0.3m FOR EACH SIDE OF THE PARKING SPACE THAT IS OBSTRUCTED ACCORDING TO (B):
- B. THE SIDE OF A PARKING SPACE IS OBSTRUCTED IF ANY PART OF A FIXED OBJECT SUCH AS A WALL, COLUMN, BOLLARD, FENCE OR PIPE IS SITUATED:
 - B.1. WITHIN 0.3m OF THE SIDE OF THE PARKING SPACE, MEASURED AT RIGHT ANGLES, AND
 - B.2. MORE THAN 1.0m FROM THE FRONT OR REAR OF THE PARKING SPACE

- C. FOR PARKING SPACES AT AN ANGLE OF 70°-90° TO THE DRIVE AISLE, THE MINIMUM WIDTH FOR THAT ONE OR TWO LANE DRIVE AISLE IS 6.0m
- D. AN ACCESSIBLE PARKING SPACE MUST HAVE THE FOLLOWING MINIMUM DIMENSIONS:
 - D.1. MIN LENGTH: 5.6m
 - D.2. MIN WIDTH: 3.4m
 - D.3. THE ENTIRE LENGTH OF THE PARKING SPACE MUST BE ADJACENT TO A 1.5m WIDE BARRIER FREE AISLE OR PATH
- E. THE MINIMUM DIMENSIONS OF A PARKING SPACE THAT IS ADJACENT AND PARALLEL TO A DRIVE AISLE FROM WHICH VEHICLE ACCESS IS PROVIDED ARE AS FOLLOWS:
 - E.1. MIN LENGTH: 6.7m
 - E.2. MIN WIDTH: 2.6m
- F. AS PER THE TORONTO ACCESSIBILITY DESIGN GUIDELINES TABLE 1.3.1-A, 1 ACCESSIBLE PARKING SPACE IS REQUIRED FOR A TOTAL PARKING SPACE COUNT OF 18 SPACES

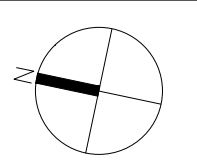


P	Width	: 2.00
	Track	: 2.00
	Lock to Lock Time	: 6.0
	Steering Angle	: 35.9



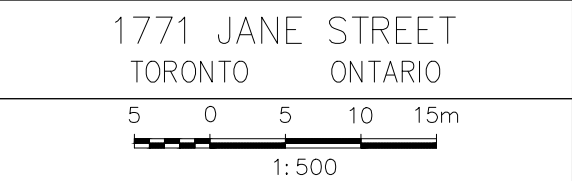
DRAWN BY: Hsoadhi PLOT DATE: February 18, 2026

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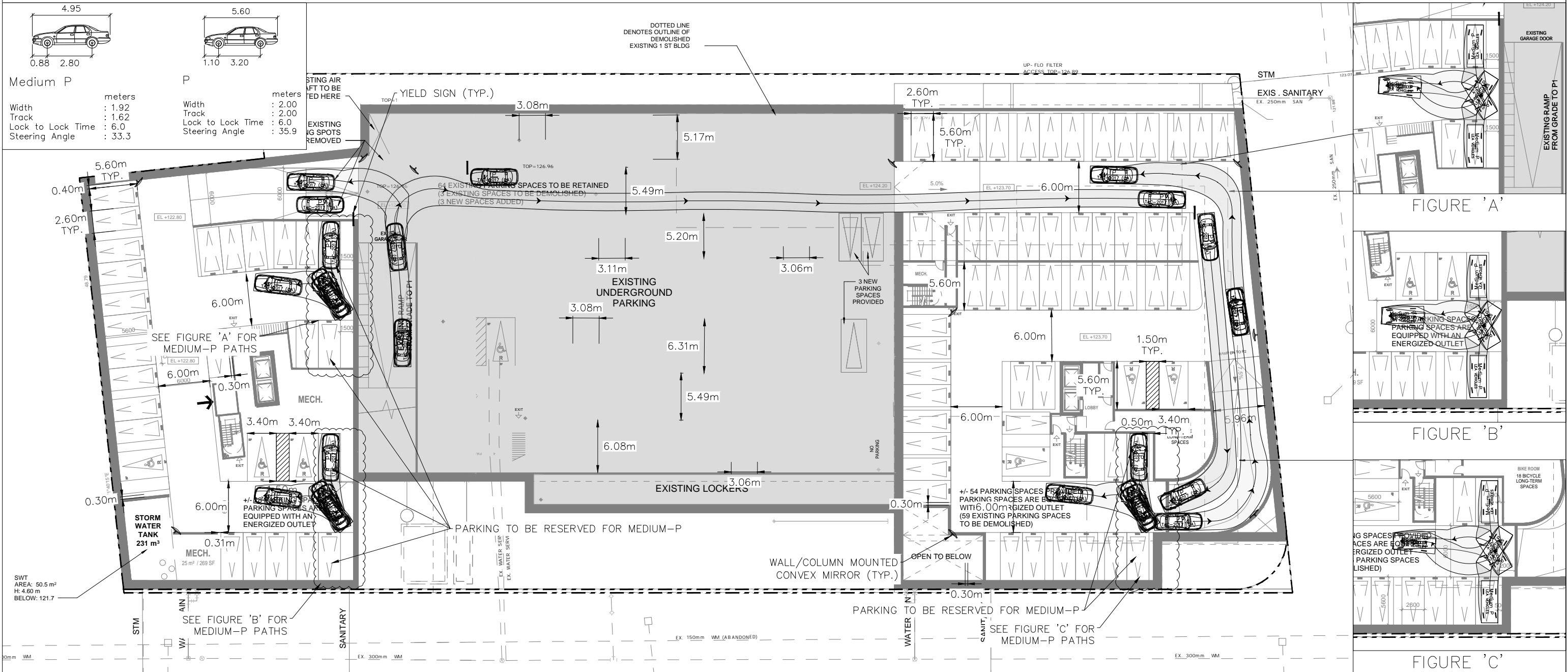
GROUND FLOOR REVIEW
PASSENGER VEHICLE (P-TAC)

Drawing No. 008

NOTES:

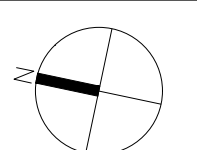
- A. CITY OF TORONTO ZONING BY-LAW 569-2013 CHAPTER 200: PARKING SPACES MUST HAVE THE MINIMUM DIMENSIONS EXCLUSIVE OF AISLES OR DRIVEWAYS AS FOLLOWS:
 - A.1. MIN LENGTH: 5.6m
 - A.2. MIN WIDTH: 2.6m
 - A.3. THE MINIMUM WIDTH MUST BE INCREASED BY 0.3m FOR EACH SIDE OF THE PARKING SPACE THAT IS OBSTRUCTED ACCORDING TO (B):
- B. THE SIDE OF A PARKING SPACE IS OBSTRUCTED IF ANY PART OF A FIXED OBJECT SUCH AS A WALL, COLUMN, BOLLARD, FENCE OR PIPE IS SITUATED:
 - B.1. WITHIN 0.3m OF THE SIDE OF THE PARKING SPACE, MEASURED AT RIGHT ANGLES, AND
 - B.2. MORE THAN 1.0m FROM THE FRONT OR REAR OF THE PARKING SPACE

- C. FOR PARKING SPACES AT AN ANGLE OF 70°-90° TO THE DRIVE AISLE, THE MINIMUM WIDTH FOR THAT ONE OR TWO LANE DRIVE AISLE IS 6.0m
- D. AN ACCESSIBLE PARKING SPACE MUST HAVE THE FOLLOWING MINIMUM DIMENSIONS:
 - D.1. MIN LENGTH: 5.6m
 - D.2. MIN WIDTH: 3.4m
 - D.3. THE ENTIRE LENGTH OF THE PARKING SPACE MUST BE ADJACENT TO A 1.5m WIDE BARRIER FREE AISLE OR PATH
- E. THE MINIMUM DIMENSIONS OF A PARKING SPACE THAT IS ADJACENT AND PARALLEL TO A DRIVE AISLE FROM WHICH VEHICLE ACCESS IS PROVIDED ARE AS FOLLOWS:
 - E.1. MIN LENGTH: 6.7m
 - E.2. MIN WIDTH: 2.6m
- F. AS PER THE TORONTO ACCESSIBILITY DESIGN GUIDELINES TABLE 1.3.1-A, 6 ACCESSIBLE SPACES ARE REQUIRED FOR A TOTAL PARKING COUNT BETWEEN 101-150 SPACES



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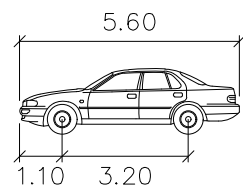
4.5 0 4.5 9 13.5m
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PARKING REVIEW – UG LEVEL P1
 PASSENGER VEHICLE (P-TAC)

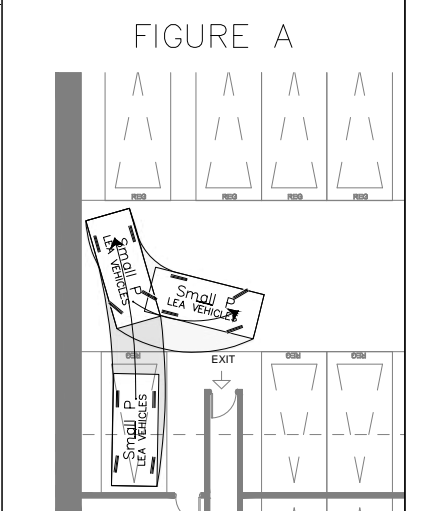
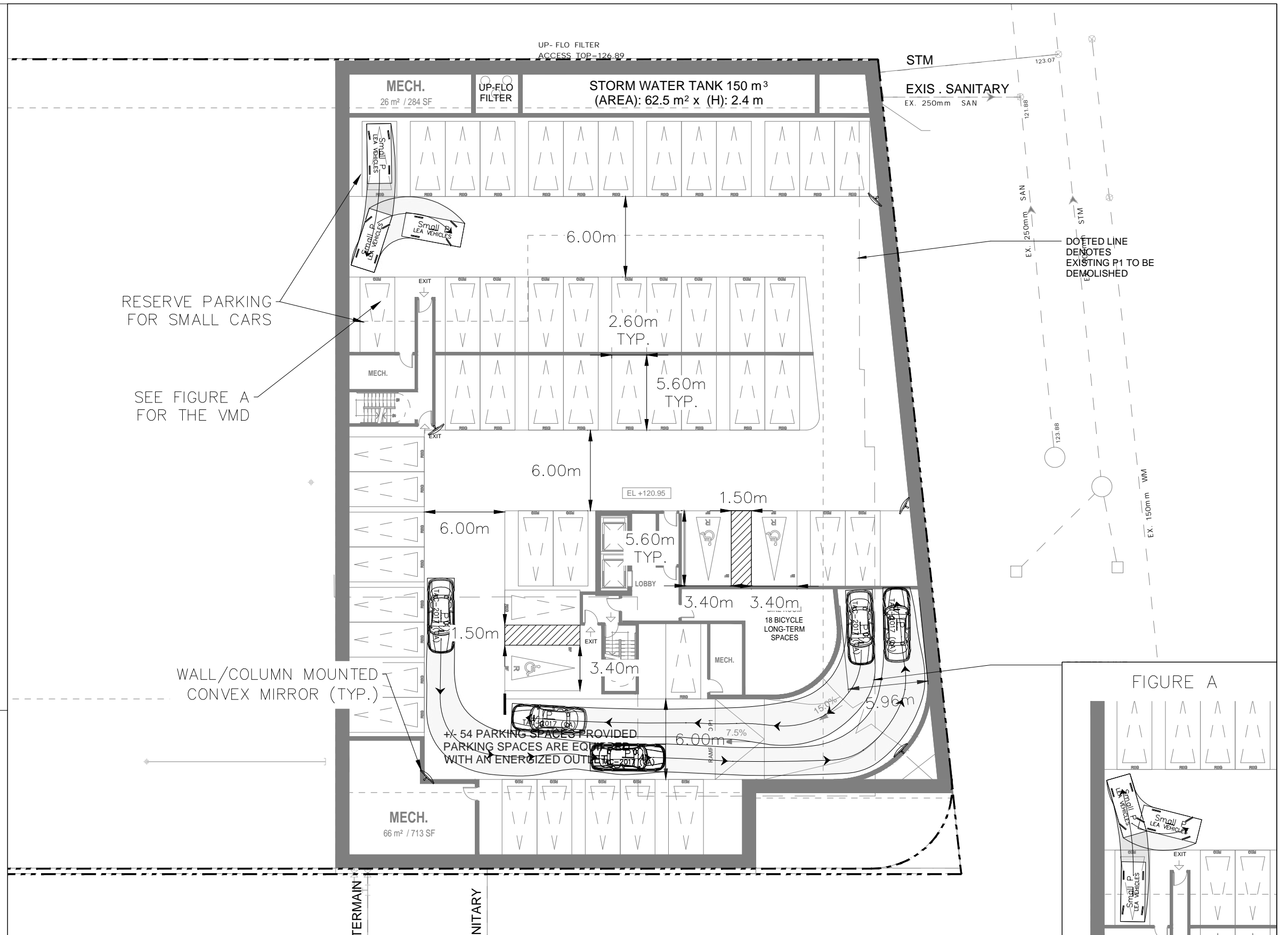
Drawing No. 009

NOTES:

- A. CITY OF TORONTO ZONING BY-LAW 569-2013 CHAPTER 200: PARKING SPACES MUST HAVE THE MINIMUM DIMENSIONS EXCLUSIVE OF AISLES OR DRIVEWAYS AS FOLLOWS:
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 - D.1. MIN LENGTH: 5.6m
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 - D.3. THE ENTIRE LENGTH OF THE PARKING SPACE MUST BE ADJACENT TO A 1.5m WIDE BARRIER FREE AISLE OR PATH
- E. AS PER THE TORONTO ACCESSIBILITY DESIGN GUIDELINES TABLE 1.3.1-A, 6 ACCESSIBLE SPACES ARE REQUIRED FOR A TOTAL PARKING COUNT BETWEEN 101-150 SPACES



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



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1:300

PARKING REVIEW – UG LEVEL P2
 PASSENGER VEHICLE (P-TAC)

Drawing No. 010

