Transportation Mobility Study - 35 Gordon Collins Drive

1065752 Ontario Inc.

Project number: 60719636

March 6, 2025

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AECOM: 2015-04-13

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Revision History

Revision	Revision date	Details	Authorized	Name	Position
1	October 17, 2024	Reflects Latest Site Plan, issued on Sep. 11, 2024	YES	Nayer Daher	Project Manager
2	March 6, 2025	Addresses comments received by R.J. Burnside on Revision 1	YES	Nayer Daher	Project Manager

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1. Introduction

1.1 Study Background and Purpose

AECOM Canada Limited (AECOM) was retained by 1065752 Ontario Inc. to undertake a Transportation Mobility Study in support of a Site Plan application for a proposed industrial building located at 35 Gordon Collins Drive in the Town of Whitchurch-Stouffville, Ontario. The Site Plan is presented in **Appendix A**. A pre-consultation meeting was held for this application, and subsequently, the Town of Whitchurch-Stouffville (i.e., the Town), York Region (i.e., the Region), and the Ontario Ministry of Transportation (MTO) identified the need for undertaking a Transportation Mobility Study and specified its scope. The record of the pre-consultation meeting is included in **Appendix B**. This study has the following objectives:

- Assess multi-modal level of service (LOS) at nearby intersections on a typical weekday during both the AM and PM peak hours in the Existing Conditions 2024;
- Estimate traffic volumes to be generated by the proposed industrial development;
- Assess multi-modal LOS at nearby intersections on a typical weekday during both the AM and PM peak hours in 2025 (i.e., the anticipated opening year of the proposed development) and 2030 (i.e., five years after the anticipated opening year) with and without accounting for trips generated by the proposed industrial development;
- Identify needs for and recommend mitigation measures to address any potential issues to road users caused by the proposed industrial developments, as and if required; and
- Review parking requirements as per the Town of Whitchurch-Stouffville's (i.e., the Town) zoning By-law[1].

This study was undertaken as per the Region's Transportation Mobility Plan Guidelines for Development Applications[2]. This report presents the data and methodology used to undertake this study as well as the findings and recommendations in support of the Site Plan application.

1.2 Study Area

The Study Area for this traffic impact analysis was defined and confirmed with R.J Burnside & Associates, the Town's engineering reviewer of this Site Plan application, through email correspondence on November 2, 2023. The development site and the Study Area are illustrated in **Figure 1**. The proposed development will be accessible through two accesses off Gordon Collins Drive as illustrated in the Site Plan. The Study Area is defined to include the following intersections:

- Highway 404 West Ramp Terminal and Stouffville Road (Regional Road 14);
- Highway 404 East Ramp Terminal and Stouffville Road (Regional Road 14);
- Woodbine Avenue (Regional Road 8) and Stouffville Road (Regional Road 14); and
- Woodbine Avenue (Regional Road 8) and Gordon Collins Drive / Gormley Industrial Avenue.

[1] Town of Whitchurch-Stouffville, *Comprehensive Zoning By-law 2010-001-ZO*, January 2023
[2] York Region, *Transportation Mobility Plan Guidelines,* November 2016.

Figure 1. Study Area

2. Methodology

2.1 Data Collection

The turning movement count (TMC) data at the Study Area intersections were collected by Ontario Traffic Inc. on behalf of AECOM, on April 10, 2024. The raw counts were collected for 8 hours, from 7:00 to 10:00 AM, from 12:00 to 2:00 PM, and from 3:00 to 6:00 PM. The signal timing plans (STP) for the three (3) signalized intersections were provided by the Regional Municipality of York. The TMC data and STPs are presented in **Appendix C.**

Table 1. TMC Data Inventory

Intersection	Intersection Control	TMC Collection Date	Source
Highway 404 West Ramp Terminal and Stouffville Road	Signalized	April 10, 2024	Ontario Traffic Inc.
Highway 404 East Ramp Terminal and Stouffville Road	Signalized		
Woodbine Avenue and Stouffville Road	Signalized		
Woodbine Avenue and Gordon Collins Drive / Gormley Industrial Avenue	Two-way Stop-Controlled		

2.2 Analysis Horizon Years

The anticipated opening year of the proposed development is 2025. Hence, in conformance with the Region's Transportation Mobility Plan Guidelines and the MTO General Guidelines for the Preparation of Traffic Impact Studies, the anticipated opening year of 2025 and the 5-year horizon of 2030 were selected as the two horizon years in this study.

2.3 Multi-Modal Level of Service Assessment

The Region adopts a complete streets approach ensuring that all new transportation infrastructure and developments within the Region provide a balance between the needs and priorities of all transportation users (including pedestrians, bicycles, and transit users).

Hence, to support the Region's vision and for the purpose of assessing the potential impacts of the proposed development on all road users, a multi-modal level of service analysis was undertaken at the studied intersections and road segments based on the methodologies outlined in the Region's Transportation Mobility Plan Guidelines for Development Applications (November 2016). **Table 2** presents the various mode-specific performance indicators and LOS targets outlined in the Guidelines. The detailed LOS criteria considered in the evaluation of automobile, pedestrian, bicycle, and transit LOS are presented in **Appendix D**.

Table 2: Performance Indicators and LOS Targets as per the York Region Mobility Plan Guidelines

Travel Modes	Performance Indicators	Level of Service Target
Automobile	• Average vehicular delay • Volume-to-capacity ratio (v/c) • Queue length and storage capacity	• D for intersections in urban areas • C for intersections in rural areas
Pedestrian	• Facility and connectivity • Designs, gaps, and missing links • Average crossing delay at signalized intersections • Average crosswalk length/crossing distance • Qualitative measure of pedestrian experience • Traffic volume and speed • Buffer between sidewalk and traffic lanes	C
Bicycle	• Bike lane facility and connectivity • Designs, gaps, and missing links • Access to bikeways (distance and time) • Potential barriers	C
Transit	• Access to transit stops • Transit service headways • Transit vehicle performance at the intersection approach	• C for "Access to transit stops" and "Transit service headways" • D for "Transit vehicle performance at the intersection approach"

As per the Region's Mobility Plan Guidelines for Development Applications, v/c ratios at urban intersections greater than 0.85 are deemed critical, whereas v/c ratios at rural intersections greater than 0.70 are deemed critical. Additionally, as per MTO's Guidelines for the Preparation of Traffic Impact Studies, movements with v/c ratios higher than 0.85 are deemed critical and ramp approaches greater than 0.75 are deemed critical. In this study, it was assumed that intersections along Woodbine Avenue are in a rural area.

2.4 Analysis Assumptions and Parameters

In assessing the automobile LOS, a traffic modelling exercise was undertaken using the Synchro 11 software in accordance with the methodologies outlined in the Highway Capacity Manual. Synchro models were initially developed to replicate traffic operations at the Study Area intersections under the Existing Conditions in 2024 during the AM and PM peak hours on a typical weekday. The Existing Conditions Synchro models were then used to develop additional Synchro models to assess traffic operations under the Future Background and Future Total

scenarios for the horizon years of 2025 and 2030. The following assumptions were made as part of the traffic modelling exercise:

- The heavy vehicle percentages are calculated at the movement level using the available TMC data at the studied intersections;
- The peak hour factors (PHF) are calculated at the intersection level using the available TMC data at the studied intersections; and
- For all other Synchro parameters (e.g., Saturated Flow Rate, Critical Gap, etc.), the default values were used.

3. Existing Conditions

3.1 Road Network

This section provides an overview of the existing road network within the Study Area. The existing lane configurations and traffic control types at the Study Area intersections are illustrated in **Figure 2**. The characteristics of the roads in the vicinity of the Study Area are described as follows:

- **Highway 404** is a north-south multi-lane freeway under the jurisdiction of MTO. Within the Study Area, it provides three travel lanes in each direction with a posted speed of 100 km/h.
- **Stouffville Road (Regional Road 14)** is an east-west arterial road under the jurisdiction of York Region. Within the Study Area, it provides two travel lanes in each direction with a posted speed of 70 km/h.
- **Woodbine Avenue (Regional Road 8)** is a north-south arterial road under the jurisdiction of York Region. Within the Study Area, it provides two travel lanes in each direction, north of Union Street. North of Stouffville Road, two northbound travel lanes become a single travel lane (approximately 200 m north of the intersection) and a single southbound travel lane becomes two travel lanes (approximately 150 m north of the intersection). The posted speed varies between 70 km/h and 80 km/h. In addition to the vehicular travel lanes, there are on-street bike lanes on both sides of the road.
- **Gordon Collins Drive / Gormley Industrial Avenue** is an east-west collector road under the jurisdiction of the Town of Whitchurch-Stouffville. It provides access to industrial sites with a single travel lane in each direction. With no posted speed limit, a speed limit of 50 km/h was assumed.

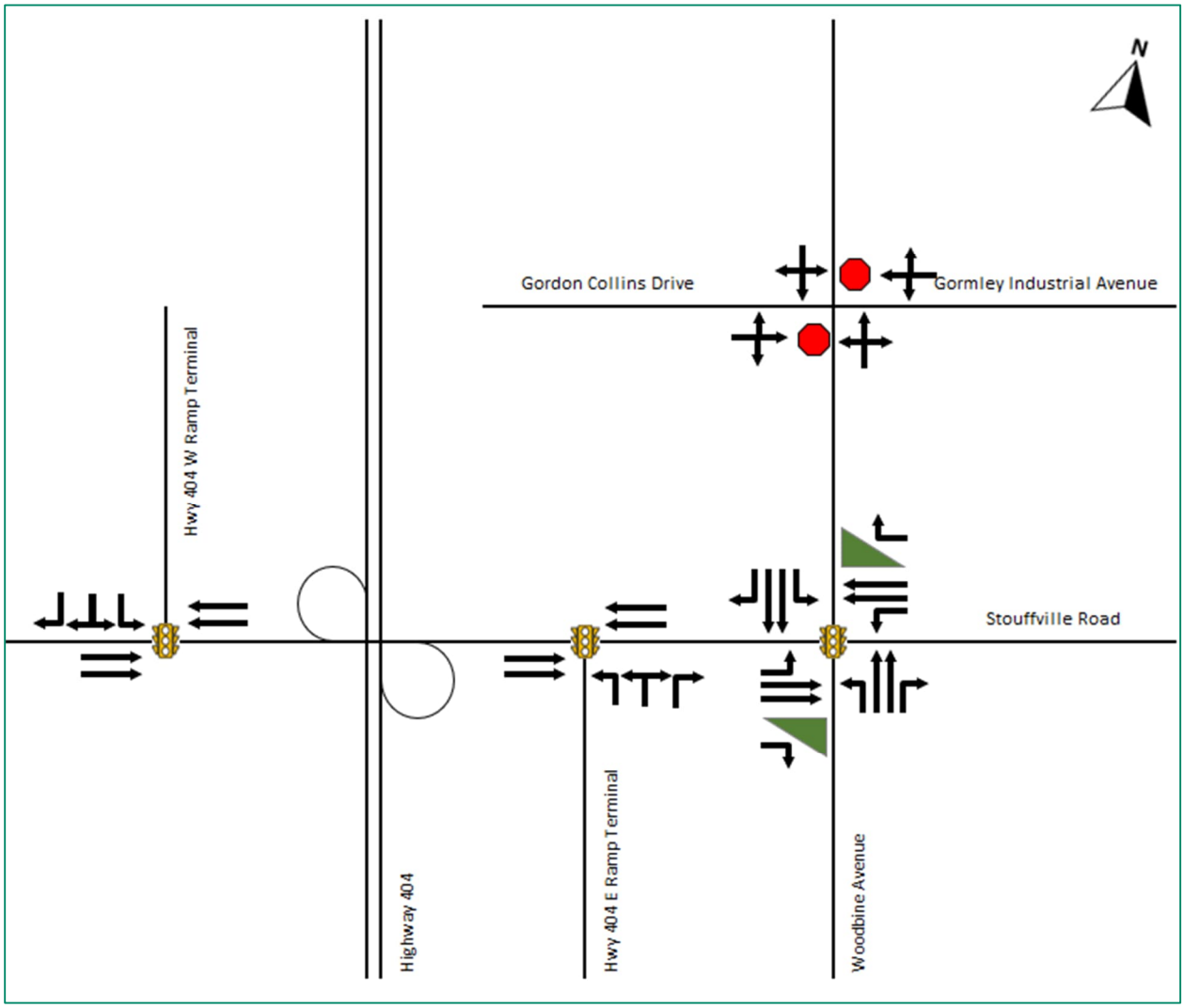


Figure 2. Study Area Lane Configuration and Traffic Control in Existing Conditions

3.2 Active Transportation Network

Sidewalks are partially provided in the Study Area. There are sidewalks on both sides of the Stouffville Road overpass, between the two Highway 404 ramp terminals. On the south side of Stouffville Road between Doner Street and Union Street, there is an in-boulevard pathway that can be used by pedestrians. Approximately 40 m west of Woodbine Avenue, a sidewalk is provided on the north side of Stouffville Road and continues beyond the study area. On Woodbine Avenue, there are sidewalks on both sides of the road starting from approximately 50 m south of Gordon Collins Drive/Gormley Industrial Avenue in the north to beyond the defined study area limits to the south. Gordon Collins Drive has a sidewalk on its north side, providing a connection between the access driveways and terminating approximately 20 m west of Woodbine Avenue.

Out of the four intersections being assessed, only two have pedestrian crossing facilities. The intersection of Stouffville Road and the Highway 404 West Ramp Terminal has a pedestrian signal and crossing on the west and north legs. The intersection of Stouffville Road and Woodbine Avenue has pedestrian signals and crossings on all four legs. The intersections of Highway 404 East Ramp Terminal and Stouffville Road and Woodbine Avenue and Gordon Collins Drive/Gormley Industrial Avenue do not have any pedestrian facilities.

In terms of cycling facilities, there are on-street bike lanes on both sides of Woodbine Avenue. The southbound bike lane begins approximately 15 m south of Gordon Collins Drive and continues south beyond the Study Area boundary. The northbound bicycle lane begins south of the Study Area boundary and continues north where it terminates

approximately 60 m south of Gormley Industrial Avenue. It should be noted that on rural roads, the Region's Transportation Mobility Plan Guidelines describes paved shoulders as dedicated cycling facilities.

3.3 Transit Network

The closest transit facility to the Study Area is the Gormley GO Station as depicted in **Figure 3**. The **#61 – Richmond Hill** route operates between Union Station in the City of Toronto and the Bloomington GO Station in the Town of Whitchurch-Stouffville, generally in the north-south direction and a headway of 60 minutes. The route operates trains during the AM and PM peak hours, and buses during off peak times. The bus route operates during weekdays only and travels mainly along Highway 404, Yonge Street, and Bayview Avenue. The designated bus stop that is closest to the proposed development is Gormley GO Station, located at 1650 Stouffville Road, just west of the Highway 404 / Stouffville Road interchange.

Figure 3. Transit Service in the vicinity of the Study Area

3.4 Traffic Volumes

The turning movement volumes at the Study Area intersections in the Existing Conditions 2024 during the AM and PM peak hours are illustrated in **Figure 4**.

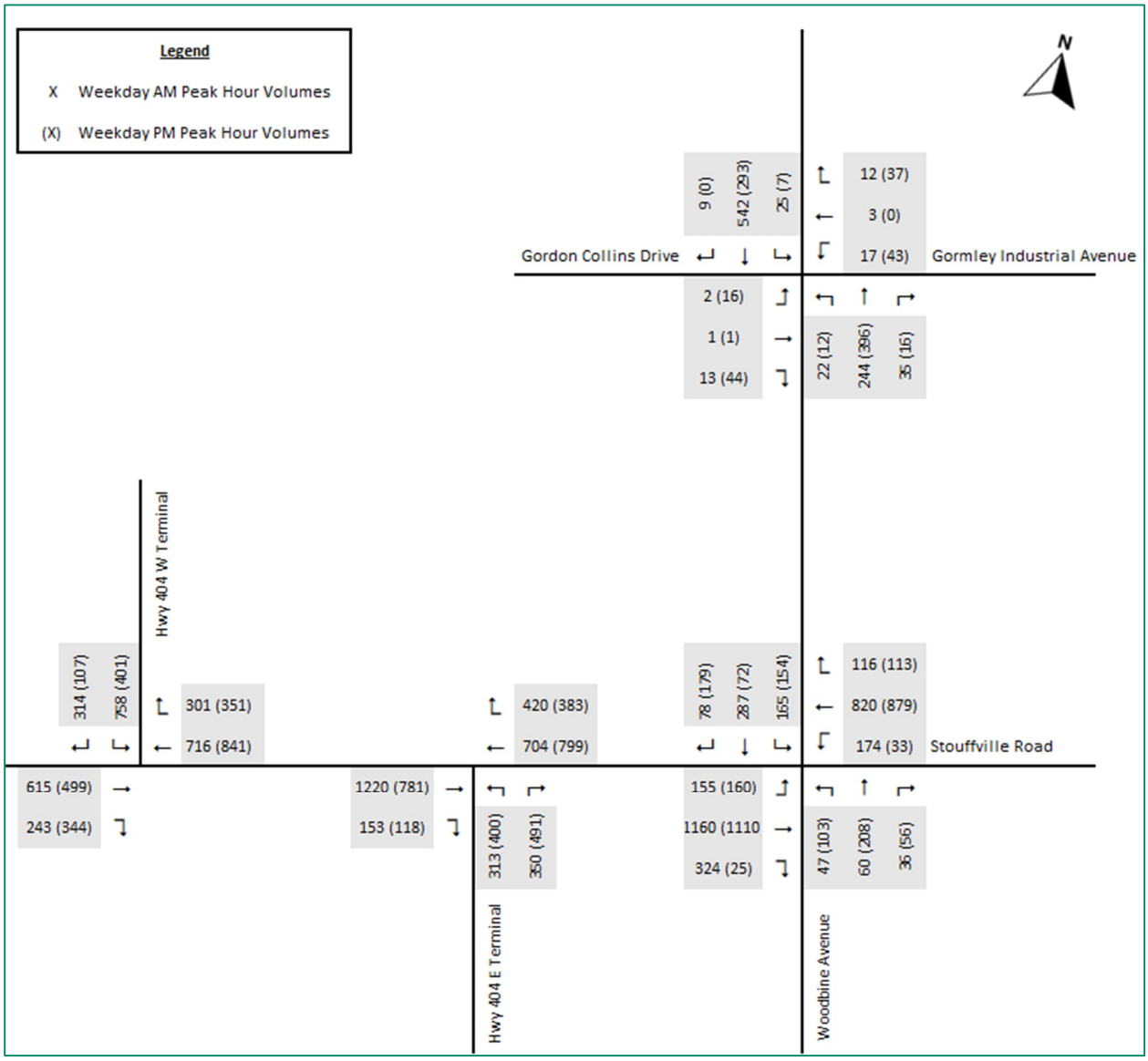


Figure 4. Turning Movement Volumes at the Study Area Intersections in the Existing Conditions

3.5 Multi-Modal Level of Service Assessment

3.5.1 Automobile Level of Service

The Existing Conditions turning movement volumes and associated traffic data were input into the developed Synchro model to replicate and assess weekday AM and PM peak hour operations. The findings of the traffic operations assessment at the Study Area intersections are summarized in **Table 3**, including v/c ratio, overall intersection delay, LOS, and 95th percentile queue length. Additionally, the 95th percentile queue length results were compared against the available storage lengths across all the movements. The corresponding Synchro results are presented in **Appendix E**. As shown in **Table 3**, all individual movements at the Study Area intersections meet the traffic operations targets identified in **Section 2.3**, except for the following movements:

Highway 404 West Ramp Terminal

- The shared southbound left right-turn movement operates at a v/c ratio of 0.80 in the AM peak hour.

Highway 404 East Ramp Terminal

- The shared northbound left right-turn movement operates at a v/c ratio of 0.76 in the PM peak hour.

Woodbine Avenue and Stouffville Road

- The eastbound through movement operates at a v/c ratio of 0.74 in the AM peak hour. The 95th queue length exceeds the available storage length in both peak hours.
- The northbound left-turn movement operates at LOS D in the PM peak hour.
- The southbound left-turn movement operates at LOS D in both peak hours, with v/c ratio of 0.71 in the AM peak hour.

Table 3. Summary of the Traffic Operations Findings in the Existing Conditions

Intersection	Movement	Existing Conditions 2024 AM Peak Hour				Existing Conditions 2024 PM Peak Hour				Storage Length (m)
		v/c Ratio	Delay (s)	LOS	95th % Queue (m)	v/c Ratio	Delay (s)	LOS	95th % Queue (m)	
Highway 404 West Ramp Terminal (Signalized)	EBT	0.33	12.6	B	53.1	0.21	6.2	A	28.6	280
	WBT	0.38	13.3	B	63.4	0.36	7.2	A	51.9	280
	SBLR	0.80	38.2	D	92.0	0.70	44.4	D	55.6	470
	SBR	0.53	14.7	B	45.0	0.29	9.2	A	14.6	150
	Overall	***0.80***	***21.5***	***C***	-	***0.70***	***15.3***	***B***	-	-
Highway 404 East Ramp Terminal (Signalized)	EBT	0.53	11.3	B	118.8	0.34	9.8	A	66.2	275
	WBT	0.32	8.9	A	58.4	0.35	9.9	A	68.4	385
	NBLR	0.71	47.2	D	64.7	0.76	41.9	D	73.5	570
	NBR	0.74	54.4	D	74.3	0.75	39.5	D	76.0	170
	Overall	***0.74***	***20.5***	***C***	-	***0.76***	***21.2***	***C***	-	-
Woodbine Avenue and Stouffville Road (Signalized)	EBL	0.45	10.9	B	24.3	0.49	11.7	B	23.6	100
	EBT	0.74	22.6	C	143.4	0.62	17.8	B	123.5	120
	EBR	0.39	6.0	A	30.6	0.03	0.1	A	0.0	80
	WBL	0.70	26.7	C	#48.4	0.11	7.6	A	6.5	80
	WBT	0.55	19.7	B	94.5	0.56	19.5	B	95.3	660
	WBR	0.16	3.9	A	10.8	0.15	3.9	A	10.4	150
	NBL	0.26	32.0	C	17.7	0.44	35.9	D	32.2	240
	NBT	0.10	27.6	C	10.2	0.32	30.4	C	27.4	240
	NBR	0.10	0.5	A	0.0	0.15	2.7	A	3.5	160
	SBL	0.71	48.5	D	51.9	0.70	48.6	D	48.0	180
	SBT	0.48	33.0	C	38.0	0.11	27.9	C	11.5	260
	SBR	0.25	6.7	A	9.1	0.42	7.4	A	16.1	260
	Overall	***0.74***	***21.1***	***C***	-	***0.70***	***19.5***	***B***	-	-
Woodbine Avenue and Gordon Collins Drive / Gormley Industrial Avenue (Unsignalized)	EBLTR	0.05	15.2	C	1.2	0.14	13.8	B	3.9	410
	WBLTR	0.13	20.2	C	3.4	0.25	18.4	C	7.7	510
	NBLTR	0.02	0.9	B	0.6	0.01	0.4	B	0.3	240
	SBLTR	0.02	0.6	B	0.5	0.01	0.3	B	0.2	>1000
	Overall	***0.13***	***20.2***	***C***	-	***0.25***	***18.4***	***C***	-	-

3.5.2 Pedestrian Level of Service

The findings of the pedestrian LOS assessment in the Existing Conditions (2024) at the Study Area intersections and road segments are summarized in **Table 4** and **Table 5**, respectively. Within the Study Area, only the intersection of Woodbine Avenue and Stouffville Road meets the LOS C target for pedestrians set by York Region in the Transportation Mobility Plan Guidelines. As for road segments, the Stouffville Road overpass, Woodbine Avenue, and Gordon Collins Drive meet the LOS C target.

Table 4. Pedestrian Level of Service at the Study Area Intersections in the Existing Conditions

Intersection	Approach	Facility Type on Parallel Leg	Pedestrian Signal Head?	Delineated Crosswalk?	PLOS
Highway 404 West Ramp Terminal	East	Paved shoulder	Yes	Yes	D
	West		No	No	E
	North		Yes	Yes	D
Highway 404 East Ramp Terminal	East	Paved shoulder	No	No	E
	West				
	South	No pedestrian facilities	No	No	F
Woodbine Avenue and Stouffville Road	East	Sidewalk	Yes	Yes	C
	West				
	North				
	South				
Woodbine Avenue and Gordon Collins Drive/Gormley Industrial Avenue	East	No pedestrian facilities	No	No	F
	West				
	North				
	South				

Table 5. Pedestrian Level of Service at the Studied Road Segments in the Existing Conditions

Road Segment	Facility Type	PLOS
Stouffville Road Overpass	≥1.5 m curb faced sidewalk	C
Stouffville Road (west of Woodbine Avenue)	Paved shoulder	E
Stouffville Road (east of Woodbine Avenue)	Paved shoulder (south side) ≥1.5 m curb faced sidewalk (north side)	D
Woodbine Avenue	≥1.5 m curb faced sidewalk	C
Gordon Collins Drive	≥1.5 m sidewalk with minimum 1.0 m buffer	B
Gormley Industrial Avenue	No pedestrian facilities	F

3.5.3 Bicycle Level of Service

The findings of the bicycles LOS assessment in the Existing Conditions (2024) at the studied intersections and along the studied road segments are summarized in **Table 6** and **Table 7**, respectively. Within the Study Area, only the northbound and southbound approach at the intersection of Woodbine Avenue and Stouffville Road meet the target LOS C for cyclists (identified in **Section 2.3**). These approaches have 1.8 m bicycle lanes that are clearly delineated with no buffer and no bicycle boxes or signal heads at the intersection. At the road segment level, only Woodbine Avenue meets the LOS C target for cyclists.

Table 6. Bicycle Level of Service at the Study Area Intersections in the Existing Conditions

Intersection	Direction	Facility Type on Parallel Leg	Bicycle Signal Head?	Delineated Cross-ride?	BLOS
Highway 404 West Ramp Terminal	Eastbound	Shared facilities (paved shoulder)	No	No	E
	Westbound				
	Southbound	No cycling facilities			F
Highway 404 East Ramp Terminal	Eastbound	Shared facilities (paved shoulder)	No	No	E
	Westbound				
	Northbound	No cycling facilities			F
Woodbine Avenue and Stouffville Road	Eastbound	Shared facilities (paved shoulder)	No	No	E
	Westbound				
	Northbound	<1.8 m bicycle lane with no buffer		Yes	C
	Southbound				
Woodbine Avenue and Gordon Collins Drive/Gormley Industrial Avenue	Eastbound	No cycling facilities	No	No	F
	Westbound				
	Northbound				
	Southbound				

Table 7. Bicycle Level of Service at the Studied Road Segments in the Existing Conditions

Road Segment	Facility Type	PLOS
Stouffville Road Overpass	No cycling facilities	F
Stouffville Road	Shared facilities (paved shoulder)	E
Woodbine Avenue	<1.8 m bicycle lane with no buffer	C
Gordon Collins Drive	No cycling facilities	F
Gormley Industrial Avenue	No cycling facilities	F

3.5.4 Transit Level of Service

Within the Study Area there are no transit stops, as a result, the findings of the transit LOS assessment in the Existing Conditions 2024 reflect the LOS for the nearest transit stop to the Study Area, the results area illustrated in **Table 8**. As shown in **Table 8**, the Gormley GO Station does not provide transit users accessing the proposed site with adequate levels of service in terms of the proximity to the site and transit headways. Buses approaching the Highway 404 Ramp Terminal at Stouffville Road do not experience significant delays and meet the LOS D target at intersections approaches.

Table 8. Transit Level of Service within the Study Area in the Existing Conditions

Transit Stop Location	Direction	Access to Transit Stops LOS	Transit Headways LOS	Intersection Approach (transit or curb lanes) LOS
Gormley GO Station	Eastbound	F	F	B
	Westbound			Not applicable
	Southbound			D

4. Future Background Conditions

4.1 Planned Transportation Network Improvements

4.1.1 Road Network

The Gormley Industrial Secondary Plan (January 2023) describes the development of the Study Area into a larger industrial and commercial region. Part of this growth includes the extension of Brillinger Industrial Place to provide a connection between Gordon Collins Drive and Stouffville Road. As per the transportation study completed by CGE Transportation Consulting (January 2021) in support of the development application at 7 Brillinger Industrial Place, the future intersection of Brillinger Industrial Place and Stouffville Road is expected to have a right-in and right-out configuration.

There are no other planned improvements to the Study Area road network. Accordingly, the current road network, lane configurations, and traffic control devices, illustrated in **Figure 2**, were used for the assessment of the Study Area intersections in the 2025 and 2030 horizon years.

West of the Study Area, there are planned road improvements on Stouffville Road between Yonge Street and Leslie Street set to begin in 2025, according to York Region's 10-Year Roads and Transit Growth Capital Construction Program and their 2022 Transportation Master Plan.

4.1.2 Active Transportation Network

The York Region's 2022 Transportation Master Plan (TMP) presents the recommended active transportation network on regional roads by the year 2051. Within the Study Area, the Region's TMP recommends implementing a cycling facility and/or multi-use trail on Stouffville Road. The TMP notes that the type of cycling facility is to be determined in consultation with the Pedestrian and Cycling Planning and Design Guidelines. For the purpose of this analysis, no change to the existing active transportation network, discussed in **Section 3.2**, is assumed to be implemented by the analysis horizon years.

4.1.3 Transit Network

As per the York Region's 2022 TMP and the Town's 2023 TMP, there will be no transit improvements within the Study Area.

4.2 Traffic Volumes

The Future Background Conditions scenario represents the business-as-usual scenario at the site of the proposed development, and it is intended to assess the multi-modal LOS conditions at the Study Area intersections in the absence of the estimated additional number of trips generated by the proposed background developments. The Future Background Conditions is assessed for the horizon years of 2025 and 2030.

There are six (6) developments proposed for construction in the vicinity of the site. The background developments along with the corresponding generated traffic are presented in **Table 9**. In the analysis of the Future Background Conditions (2025) scenario, all the background developments presented in **Table 9** were considered to be fully built-out, except for the 12131 Woodbine Avenue development, which is a phased development with Phase 1 anticipated to be built out in 2027 and Phase 2 in 2032. Hence, in addition to the five (5) background developments considered in the 2025 analysis year, Phase 1 of the 12131 Woodbine Avenue development was also considered in the 2030 analysis year.

To estimate the turning movement volumes under the Future Background Conditions scenario in 2025 and 2030, the turning movement volumes in the Existing Conditions 2024 scenario, presented in **Figure 4**, were grown at the annual traffic growth rate of 2% and then added to the trips generated by background developments presented in **Table 9**. Further details on the trip generation and trip assignment for each background development are provided in

Appendix F. The Future Background traffic volumes during the AM and PM peak hours are presented in **Figure 5** for the 2025 horizon year and in **Figure 6** for the 2030 horizon year.

Table 9. Estimated Number of Trips Generated by the Future Background Developments

Background Developments	Source	ITE Land Use	Size (1000 sq. ft.)	Trip Generation					
				Weekday AM Peak Hour			Weekday PM Peak Hour		
				IN	Out	Total	IN	Out	Total
10 Gordon Collins Drive	Poulos & Chung Ltd (Aug. 2021)	710 - General Office	23.50	42	7	49	5	24	29
56 Gordon Collins Drive	TRANS-PLAN (Nov. 2021)	Badminton Courts[1]	9.87	15	12	27	15	15	30
7 Brillinger Industrial Pl	CGE Transportation Consulting (Jan. 2021)	710 - General Office	6.26	6	1	7	1	6	7
		150 - Warehouse	6.22	1	0	1	0	1	1
		820 - Shopping Center	6.50	4	2	6	12	13	25
12131 Woodbine Avenue	Nextrans (Sept. 2022)	710 - General Office	46.73	77	10	87	15	73	88
		110 – General Light Industrial	54.92	36	5	41	59	31	90
12153 Woodbine Avenue	EXP Services (May 2021)	710 - General Office	19.35	39	6	45	4	20	24
		150 - Warehouse	91.91	28	8	36	11	39	50
12379 Woodbine Avenue	Paradigm (Dec. 2021)	942 – Automobile Care Centre	10.91	17	8	25	19	20	39

[1]: The consultant used site statistics, number of employees, and hours of operation to estimate trip generation.

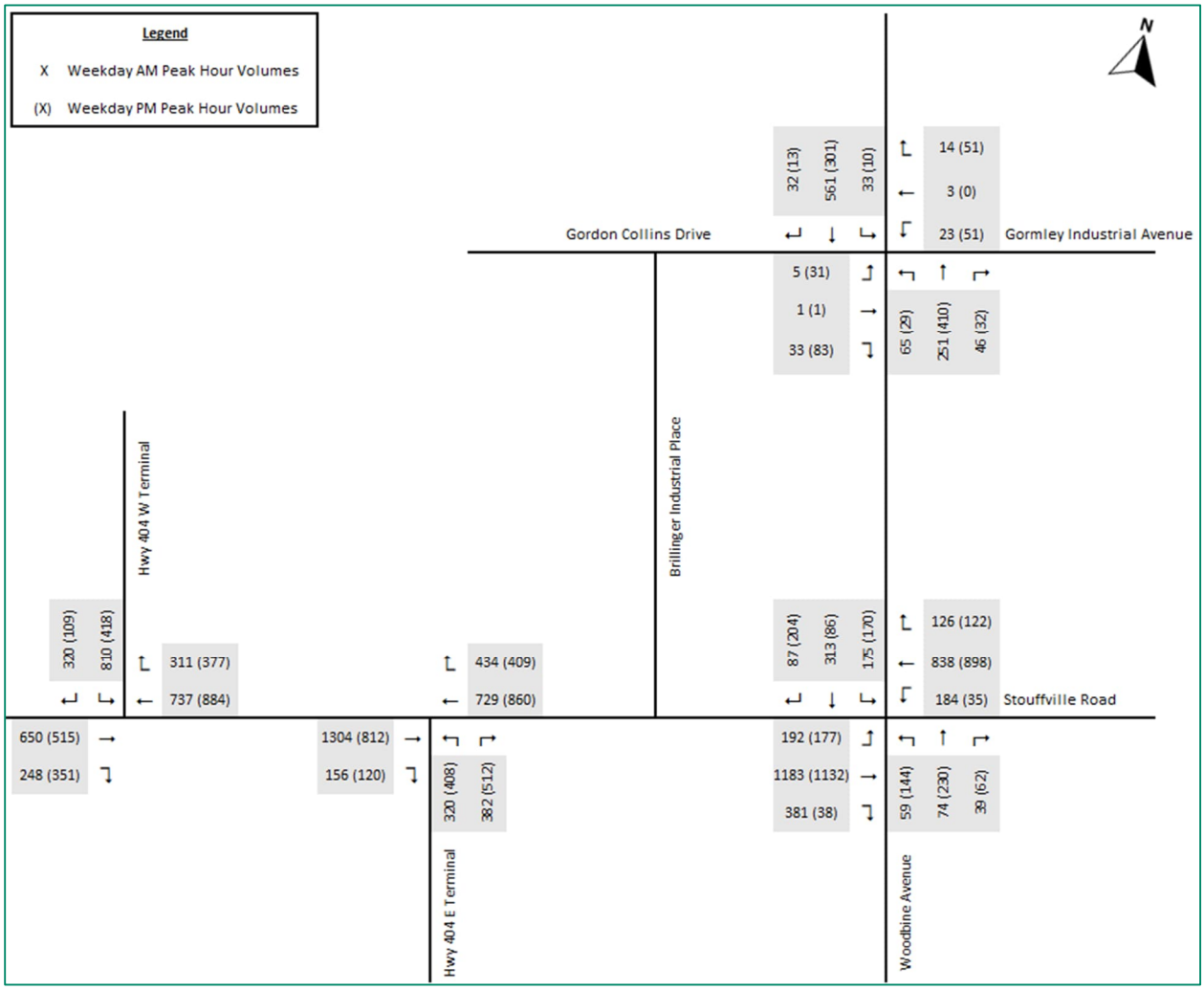


Figure 5. Estimated Turning Movement Volumes in the Future Background Conditions (2025)

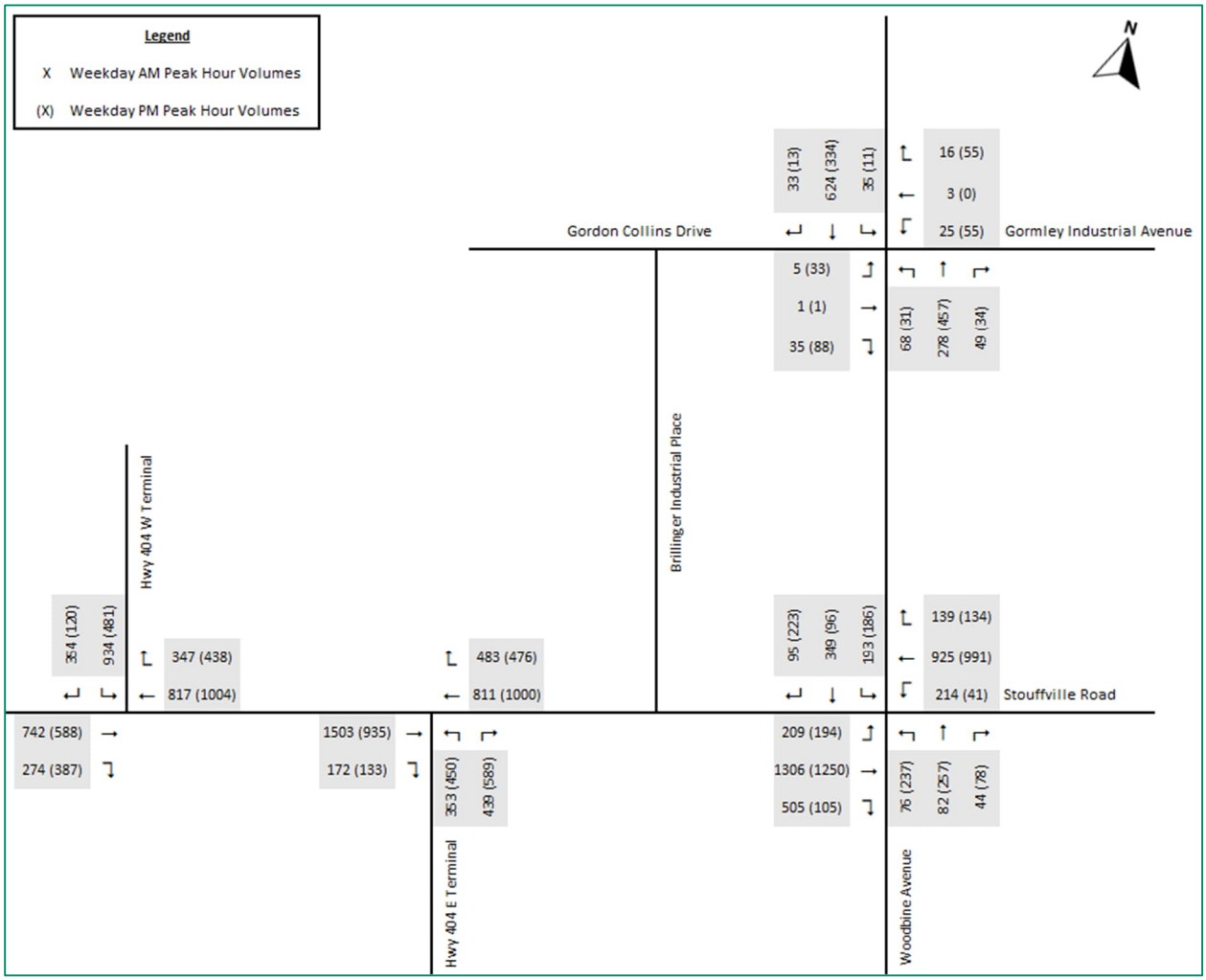


Figure 6. Estimated Turning Movement Volumes in the Future Background Conditions (2030)

4.3 Automobile Level of Service

The findings of the traffic operations assessments at the studied intersections in the Future Background scenario in the horizon years of 2025 and 2030 are summarized in **Table 10** and

Table 11, respectively. The corresponding Synchro results are presented in **Appendix E**.

Under the Future Background Conditions (2025) scenario, the following movements are not anticipated to meet the LOS and/or v/c ratio targets discussed in **Section 2.3**:

Highway 404 West Ramp Terminal at Stouffville Road

- The shared southbound left/right-turn movement with a v/c ratio of 0.81 in the AM peak hour.

Highway 404 East Ramp Terminal at Stouffville Road

- The shared northbound left/right-turn movement with a v/c ratio of 0.76 in the PM peak hour.

Woodbine Avenue and Stouffville Road

- The eastbound through movement with a v/c ratio of 0.77 in the AM peak hour. The 95th queue length is anticipated to exceed the available storage length in both peak hours.
- The westbound left-turn movement is anticipated to operate at LOS D with a v/c ratio of 0.78 in the AM peak hour.

- The northbound left-turn movement is anticipated to operate at LOS D in the PM peak hour.
- The southbound left-turn movement at Woodbine Avenue and Stouffville Road is anticipated to operate at LOS D with a v/c ratio of 0.73 in both peak hours.

Woodbine Avenue and Gordon Collins Drive / Gormley Industrial Avenue

- The shared westbound left/through/right-turn movements are anticipated to operate at LOS D in the AM peak hour.

Under the Future Background Conditions (2030) scenario, and in addition to the above-noted movements, the following movements are not anticipated to meet the LOS and/or v/c ratio targets discussed in **Section 2.3**:

Highway 404 East Ramp Terminal at Stouffville Road

- The northbound right-turn movement with a v/c ratio of 0.76 in the AM peak hour and 0.78 in the PM peak hour.

Woodbine Avenue and Stouffville Road

- The eastbound left-turn movement with a v/c ratio of 0.72 in the PM peak hour.

Note that the westbound-left turn movement at the intersection of Woodbine Avenue and Stouffville Road is anticipated to operate at LOS F and exceed capacity (with v/c ratio of 1.02) in the AM peak hour of 2030. Mitigation measures for this intersection are discussed in **Section 8**.

Table 10. Summary of Traffic Operations in the Future Background Scenario (2025)

Intersection	Movement	Future Background - 2025 AM Peak				Future Background - 2025 PM Peak				Storage Length (m)
		v/c Ratio	Delay (s)	LOS	95th % Queue (m)	v/c Ratio	Delay (s)	LOS	95th % Queue (m)	
Highway 404 West Ramp Terminal (Signalized)	EBT	0.36	13.7	B	58.2	0.22	6.5	A	30.1	280
	WBT	0.41	14.4	B	67.7	0.38	7.6	A	56.5	280
	SBLR	0.81	37.5	D	97.5	0.71	44.1	D	57.4	470
	SBR	0.53	15.1	B	47.4	0.30	8.9	A	14.7	150
	Overall	***0.81***	***22.0***	**C**	**-**	***0.71***	***15.5***	**B**	**-**	**-**
Highway 404 East Ramp Terminal (Signalized)	EBT	0.58	13.0	B	137.4	0.36	10.7	B	71.8	275
	WBT	0.34	9.9	A	63.5	0.38	10.9	B	77.6	385
	NBLR	0.71	46.7	D	68.0	0.76	41.8	D	76.2	570
	NBR	0.75	54.6	D	78.9	0.75	40.5	D	79.6	170
	Overall	***0.75***	***21.4***	**C**	**-**	***0.76***	***21.7***	**C**	**-**	**-**
Woodbine Avenue and Stouffville Road (Signalized)	EBL	0.58	14.5	B	31.7	0.56	14.5	B	28.6	100
	EBT	0.77	24.3	C	152.8	0.64	19.4	B	135.8	120
	EBR	0.48	9.6	A	52.7	0.05	0.1	A	0.0	80
	WBL	0.78	36.9	D	#60.6	0.12	8.6	A	7.3	80
	WBT	0.58	21.2	C	100.4	0.59	21.2	C	103.8	660
	WBR	0.18	4.0	A	11.6	0.17	4.0	A	11.2	150
	NBL	0.32	33.0	C	21.3	0.58	40.1	D	44.2	240
	NBT	0.11	27.4	C	11.8	0.33	29.9	C	29.7	240
	NBR	0.10	0.5	A	0.0	0.16	3.1	A	4.8	160
	SBL	0.73	48.7	D	54.9	0.73	50.0	D	53.0	180
	SBT	0.49	32.8	C	41.2	0.13	27.5	C	13.1	260
	SBR	0.27	7.6	A	11.2	0.44	8.2	A	19.0	260
	Overall	***0.78***	***22.9***	**C**	**-**	***0.73***	***21.1***	**C**	**-**	**-**
	EBLTR	0.12	17.2	C	3.3	0.30	17.0	C	9.8	410

Intersection	Movement	Future Background - 2025 AM Peak				Future Background - 2025 PM Peak				Storage Length (m)
		v/c Ratio	Delay (s)	LOS	95th % Queue (m)	v/c Ratio	Delay (s)	LOS	95th % Queue (m)	
Woodbine Avenue and Gordon Collins Drive / Gormley Industrial Avenue (Unsignalized)	WBLTR	0.22	29.5	D	6.6	0.39	25.0	C	14.0	510
	NBLTR	0.08	2.4	A	1.9	0.03	0.9	A	0.8	240
	SBLTR	0.03	0.8	A	0.7	0.01	0.4	A	0.3	>1000
	Overall	***0.22***	***29.5***	**D**	-	***0.39***	***25.0***	**C**	-	-

Table 11. Summary of Traffic Operations in the Future Background Scenario (2030)

Intersection	Movement	Future Background - 2030 AM Peak				Future Background - 2030 PM Peak				Storage Length (m)
		v/c Ratio	Delay (s)	LOS	95th % Queue (m)	v/c Ratio	Delay (s)	LOS	95th % Queue (m)	
Highway 404 West Ramp Terminal (Signalized)	EBT	0.43	16.7	B	71.8	0.26	7.6	A	38.3	280
	WBT	0.48	17.4	B	81.1	0.45	9.3	A	73.7	280
	SBLR	0.83	36.1	D	112.0	0.73	43.0	D	63.6	470
	SBR	0.56	18.5	B	60.8	0.31	14.2	B	20.8	150
	Overall	***0.83***	***23.7***	**C**	-	***0.73***	***16.6***	**B**	-	-
Highway 404 East Ramp Terminal (Signalized)	EBT	0.70	17.5	B	190.6	0.44	14.3	B	97.3	275
	WBT	0.39	12.1	B	79.0	0.48	14.8	B	106.8	385
	NBLR	0.72	45.2	D	75.2	0.75	40.5	D	85.4	570
	NBR	0.76	54.1	D	87.9	0.78	44.4	D	95.0	170
	Overall	***0.76***	***23.9***	**C**	-	***0.78***	***24.1***	**C**	-	-
Woodbine Avenue and Stouffville Road (Signalized)	EBL	0.70	22.0	C	#49.0	0.72	26.7	C	#49.4	100
	EBT	0.86	29.5	C	#194.7	0.74	23.9	C	157.8	120
	EBR	0.66	17.4	B	102.8	0.13	5.0	A	11.5	80
	WBL	1.02	88.9	F	#86.6	0.18	10.5	B	8.2	80
	WBT	0.66	23.6	C	114.3	0.69	25.5	C	118.5	660
	WBR	0.20	3.9	A	12.0	0.19	4.1	A	11.6	150
	NBL	0.42	36.0	D	27.0	0.83	55.7	E	#76.2	240
	NBT	0.12	27.1	C	12.9	0.31	28.9	C	32.8	240
	NBR	0.11	0.8	A	0.9	0.18	5.1	A	8.3	160
	SBL	0.77	51.2	D	61.5	0.71	46.4	D	59.0	180
	SBT	0.52	32.9	C	45.8	0.12	26.6	C	14.2	260
	SBR	0.28	7.7	A	12.2	0.45	9.9	A	25.7	260
	Overall	***1.02***	***29.1***	**C**	-	***0.83***	***25.4***	**C**	-	-
Woodbine Avenue and Gordon Collins Drive / Gormley Industrial Avenue (Unsignalized)	EBLTR	0.14	19.0	C	4.0	0.36	19.9	C	12.7	410
	WBLTR	0.30	37.5	E	9.5	0.49	33.0	D	19.9	510
	NBLTR	0.08	2.5	A	2.2	0.04	0.0	A	0.9	240
	SBLTR	0.03	0.8	A	0.7	0.02	0.0	A	0.4	>1000
	Overall	***0.30***	***37.5***	**E**	-	***0.49***	***33.0***	**D**	-	-

5. Future Total Conditions

5.1 Traffic Volumes

5.1.1 Site Traffic – Trip Generation

Automobile trip generation for the proposed development was determined based on rates from the *Trip Generation Manual, 11th Edition* published by the Institute of Transportation Engineers (ITE). The values published in the Trip Generation Manual are based on historical data from sites with a similar land use. A rate is given for land uses in the form of a fitted curve equation or as an average rate. In this study, the number of trips generated by the proposed development was determined based on the ITE land-use type 110 (i.e., General Light Industrial) using the fitted curve in the AM peak period and the average rate in the PM peak period.

The number of automobile trips generated by the proposed industrial development during the weekday AM and PM peak hours are presented in **Table 12**. As shown in **Table 12**, the proposed development is anticipated to generate a total of 41 trips in the AM peak hour, with 36 inbound and 5 outbound trips. During the PM peak hour, the site is anticipated to generate a total of 35 trips, with 5 inbound and 30 outbound trips.

Table 12. Estimated Number of Trips Generated by the Proposed Development

ITE Land Use – Description	GFA (1000 Sq. Ft)	Trip Generation					
		Weekday AM Peak Hour Trips			Weekday PM Peak Hour Trips		
		In	Out	Total	In	Out	Total
110 – General Light Industrial	54.43	36	5	41	5	30	35
Total		***36***	***5***	***41***	***5***	***30***	***35***

5.1.2 Mode Split

Due to the industrial nature of the proposed development, the rural environment the proposed development is in, and the lack of active transportation and transit facilities around the site, all inbound and outbound trips generated by the proposed development are assumed to be vehicle trips.

5.1.3 Site Traffic – Trip Distribution

The site-generated traffic was distributed and assigned to the road network in the Study Area based on the existing traffic patterns obtained from the TMC data at the Study Area intersections. The distribution of the site-generated traffic is presented in **Table 13**. The traffic volumes generated from the proposed development in the AM and PM peak hours are illustrated in **Figure 7.**

Table 13. Estimated Site Traffic Trip Distribution

Direction	AM Peak Hour		PM Peak Hour	
	Inbound Traffic	Outbound Traffic	Inbound Traffic	Outbound Traffic
North	30%	20%	0%	30%
East	10%	0%	0%	0%
South	60%	80%	100%	70%
West	0%	0%	0%	0%

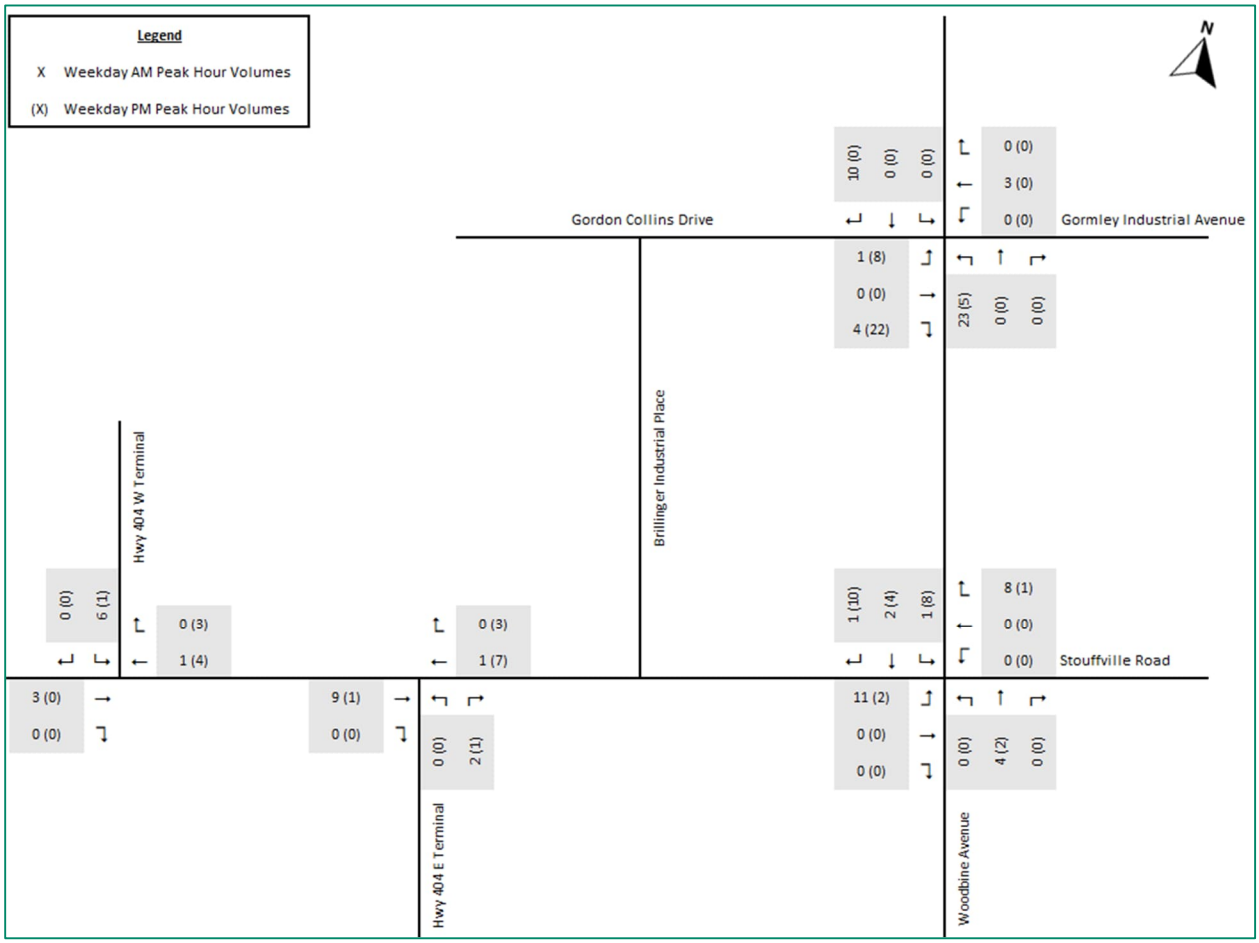


Figure 7. Site Traffic Volumes Generated by the Proposed Developments

5.1.4 Future Total Traffic Volumes

The turning movement volumes under the Future Total Conditions scenario in 2025 and 2030 were estimated by adding the site traffic to the corresponding Future Background scenario. The Future Total traffic volumes during the AM and PM peak hours are presented in **Figure 8** for the 2025 horizon year and in **Figure 9** for the 2030 horizon year.

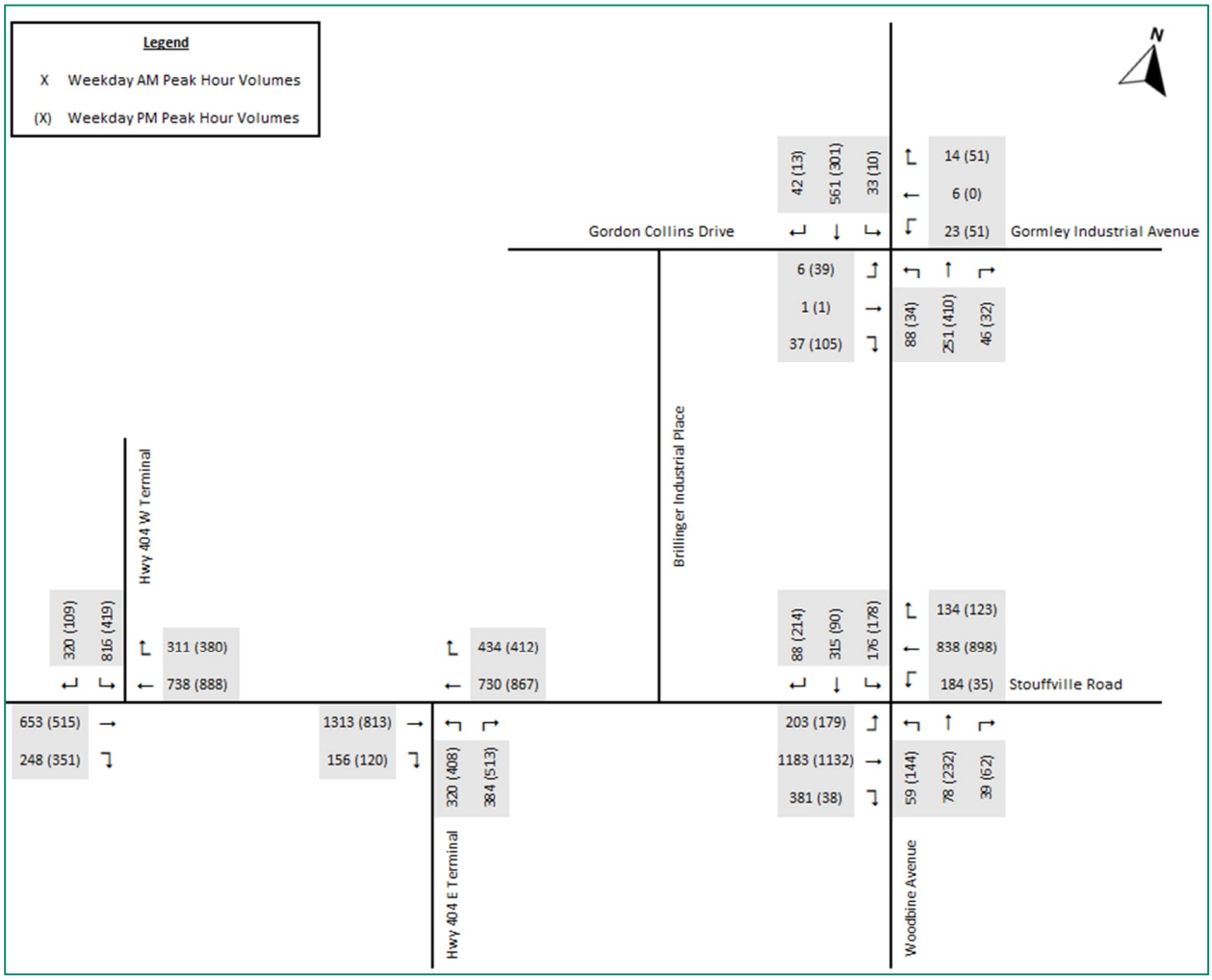


Figure 8. Estimated Turning Movement Volumes in the Future Total Scenario (2025)

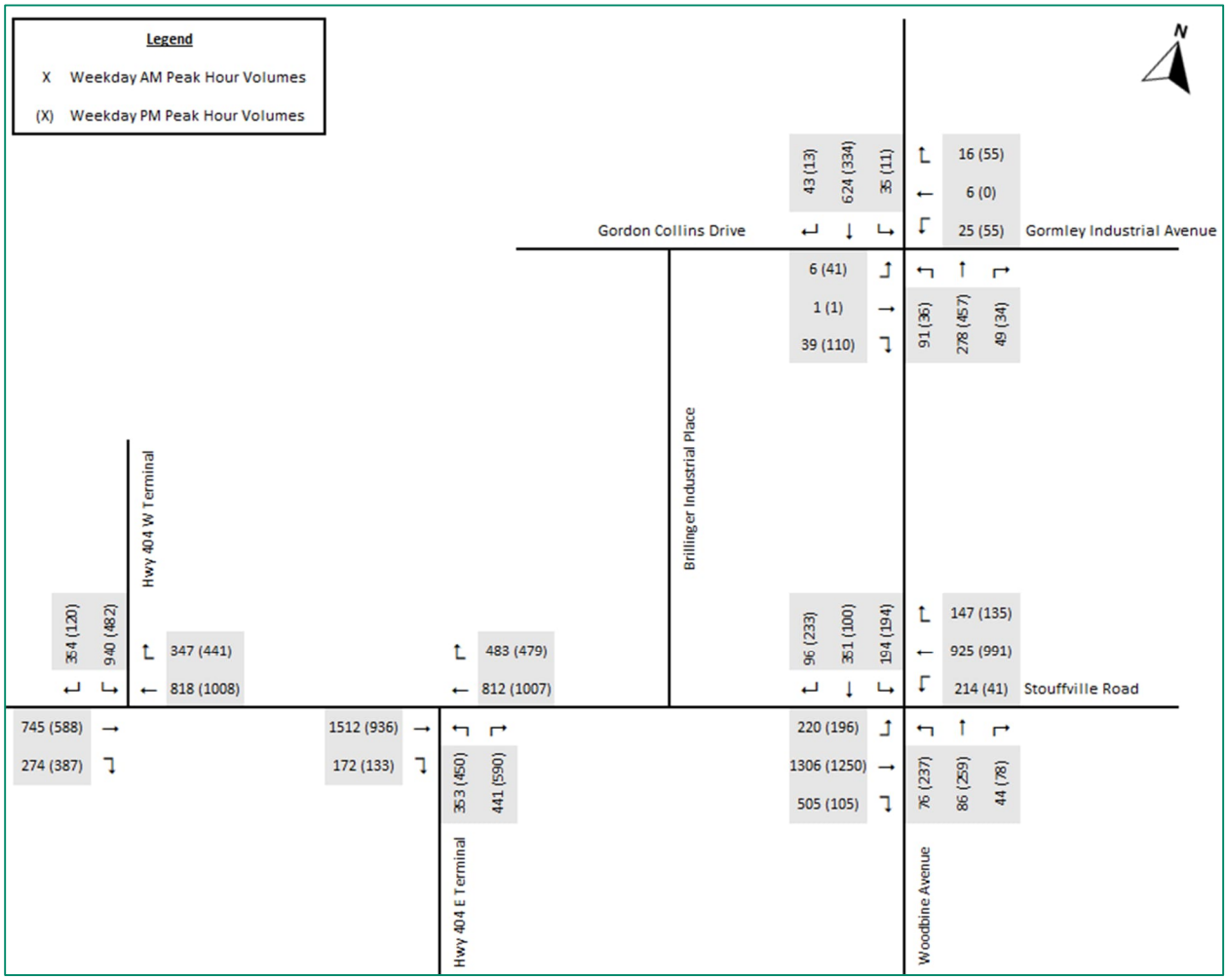


Figure 9. Estimated Turning Movement Volumes in the Future Total Scenario (2030)

5.2 Multi-Modal Level of Service Assessment

5.2.1 Automobile Level of Service

The findings of the traffic operations assessments at the studied intersections in the Future Total scenario in the horizon years of 2025 and 2030 are summarized in **Table 14** and **Table 15**, respectively. The corresponding Synchro results are presented in **Appendix E**.

Under the Future Total (2025) scenario, the following movements are not anticipated to meet the LOS and/or v/c ratio targets discussed in **Section 2.3**. It should be noted that all the identified operational issues were also evident in the Future Background scenario (i.e., in the absence of the proposed development), with minor incremental impacts in the Future Total scenario. Hence, these issues could be attributed to background traffic growth rather than the site-generated trips.

Highway 404 West Ramp Terminal at Stouffville Road

- The shared southbound left right-turn movement with a v/c ratio of 0.81 in the AM peak hour.

Highway 404 East Ramp Terminal at Stouffville Road

- The shared northbound left/right-turn movement with a v/c ratio of 0.76 in the PM peak hour.

Woodbine Avenue and Stouffville Road

- The eastbound through movement with a v/c ratio of 0.77 in the AM peak hour. The 95th queue length is anticipated to exceed the available storage length in both peak hours.
- The westbound left-turn movement is anticipated to operate at LOS D with a v/c ratio of 0.78 in the AM peak hour.
- The northbound left-turn movement is anticipated to operate at LOS D in the PM peak hour.
- The southbound left-turn movement at Woodbine Avenue and Stouffville Road is anticipated to operate at LOS D in both peak hours with a v/c ratio of 0.73 and 0.75 in the AM and PM peak hours, respectively.

Woodbine Avenue and Gordon Collins Drive / Gormley Industrial Avenue

- The shared westbound left/through/right-turn movements are anticipated to operate at LOS E in the AM peak hour and LOS D in the PM peak hour.

Under the Future Background Conditions (2030) scenario, and in addition to the above-noted movements, the following movements are not anticipated to meet the LOS and/or v/c ratio targets discussed in **Section 2.3**:

Highway 404 East Ramp Terminal at Stouffville Road

- The northbound right-turn movement with a v/c ratio of 0.76 in the AM peak hour and 0.78 in the PM peak hour.

Woodbine Avenue and Stouffville Road

- The eastbound left-turn movement with a v/c ratio of 0.73 in both peak hours.

Note that the westbound-left turn movement at the intersection of Woodbine Avenue and Stouffville Road is anticipated to operate at LOS F and exceed capacity (with v/c ratio of 1.02) in the AM peak hour of 2030. Mitigation measures for this intersection are discussed in **Section 9**.

Table 14. Summary of Traffic Operations in the Future Total Scenario (2025)

Intersection	Movement	Future Total - 2025 AM Peak				Future Total - 2025 PM Peak				Storage Length (m)
		v/c Ratio	Delay (s)	LOS	95th % Queue (m)	v/c Ratio	Delay (s)	LOS	95th % Queue (m)	
Highway 404 West Ramp Terminal (Signalized)	EBT	0.36	13.9	B	58.6	0.22	6.5	A	30.3	280
	WBT	0.41	14.5	B	67.9	0.38	7.6	A	56.9	280
	SBLR	0.81	37.5	D	98.1	0.71	44.1	D	57.4	470
	SBR	0.53	15.2	B	47.5	0.30	8.9	A	14.6	150
	Overall	***0.81***	***22.1***	**C**	**-**	***0.71***	***15.5***	**B**	**-**	**-**
Highway 404 East Ramp Terminal (Signalized)	EBT	0.58	13.1	B	139.7	0.36	10.7	B	72.0	275
	WBT	0.34	9.9	A	63.8	0.39	11.0	B	78.5	385
	NBLR	0.71	46.6	D	68.2	0.76	41.8	D	76.4	570
	NBR	0.75	54.6	D	78.9	0.75	40.6	D	79.8	170
	Overall	***0.75***	***21.5***	**C**	**-**	***0.76***	***21.7***	**C**	**-**	**-**
Woodbine Avenue and Stouffville Road (Signalized)	EBL	0.61	15.8	B	33.5	0.57	15.0	B	29.0	100
	EBT	0.77	24.5	C	153.2	0.64	19.7	B	135.8	120
	EBR	0.48	9.7	A	53.1	0.05	0.1	A	0.0	80
	WBL	0.78	36.8	D	#60.4	0.12	8.7	A	7.3	80
	WBT	0.58	21.4	C	100.5	0.59	21.5	C	103.8	660
	WBR	0.19	3.9	A	11.9	0.17	4.0	A	11.2	150
	NBL	0.32	32.9	C	21.3	0.57	39.5	D	44.2	240
	NBT	0.12	27.4	C	12.4	0.32	29.7	C	29.8	240
	NBR	0.10	0.5	A	0.0	0.16	3.0	A	4.8	160

Intersection	Movement	Future Total - 2025 AM Peak				Future Total - 2025 PM Peak				Storage Length (m)
		v/c Ratio	Delay (s)	LOS	95th % Queue (m)	v/c Ratio	Delay (s)	LOS	95th % Queue (m)	
	SBL	0.73	48.9	D	55.3	0.75	51.1	D	55.5	180
	SBT	0.49	32.7	C	41.5	0.13	27.4	C	13.5	260
	SBR	0.27	7.7	A	11.5	0.46	8.9	A	21.3	260
	Overall	***0.78***	***23.0***	**C**	-	***0.75***	***21.5***	**C**	-	-
Woodbine Avenue and Gordon Collins Drive / Gormley Industrial Avenue (Unsignalized)	EBLTR	0.14	18.2	C	4.0	0.38	18.7	C	13.9	410
	WBLTR	0.28	35.2	E	8.5	0.42	27.8	D	15.7	510
	NBLTR	0.10	3.1	A	2.8	0.04	1.0	A	0.9	240
	SBLTR	0.03	0.7	A	0.7	0.01	0.4	A	0.3	>1000
	Overall	***0.28***	***35.2***	**E**	-	***0.42***	***27.8***	**D**	-	-

Table 15. Summary of Traffic Operations in the Future Total Scenario (2030)

Intersection	Movement	Future Total - 2030 AM Peak				Future Total - 2030 PM Peak				Storage Length (m)
		v/c Ratio	Delay (s)	LOS	95th % Queue (m)	v/c Ratio	Delay (s)	LOS	95th % Queue (m)	
Highway 404 West Ramp Terminal (Signalized)	EBT	0.44	16.8	B	72.3	0.26	7.6	A	38.3	280
	WBT	0.49	17.5	B	81.4	0.45	9.3	A	74.1	280
	SBLR	0.83	36.1	D	112.5	0.73	43.0	D	63.7	470
	SBR	0.56	18.4	B	60.6	0.31	14.5	B	21.0	150
	Overall	***0.83***	***23.8***	**C**	-	***0.73***	***16.7***	**B**	-	-
Highway 404 East Ramp Terminal (Signalized)	EBT	0.70	17.8	B	193.6	0.44	14.4	B	97.7	275
	WBT	0.40	12.2	B	79.6	0.48	15.0	B	108.1	385
	NBLR	0.71	44.9	D	74.8	0.75	40.4	D	85.4	570
	NBR	0.76	54.1	D	88.3	0.78	44.6	D	95.8	170
	Overall	***0.76***	***24.0***	**C**	-	***0.78***	***24.1***	**C**	-	-
Woodbine Avenue and Stouffville Road (Signalized)	EBL	0.73	24.5	C	#56.4	0.73	27.6	C	#50.7	100
	EBT	0.86	29.6	C	#194.7	0.74	23.9	C	157.8	120
	EBR	0.66	17.5	B	103.2	0.13	5.0	A	11.5	80
	WBL	1.02	89.7	F	#86.6	0.18	10.5	B	8.2	80
	WBT	0.66	23.8	C	114.3	0.69	25.5	C	118.5	660
	WBR	0.21	3.9	A	12.4	0.19	4.1	A	11.7	150
	NBL	0.42	36.1	D	27.1	0.83	55.9	E	#76.6	240
	NBT	0.12	27.2	C	13.3	0.32	29.0	C	33.1	240
	NBR	0.11	0.8	A	0.9	0.18	5.0	A	8.3	160
	SBL	0.77	51.5	D	61.9	0.74	48.6	D	61.8	180
	SBT	0.52	32.9	C	46.2	0.12	26.6	C	14.6	260
	SBR	0.28	7.6	A	12.3	0.47	10.7	B	28.2	260
	Overall	***1.02***	***29.3***	**C**	-	***0.83***	***25.6***	**C**	-	-
Woodbine Avenue and Gordon Collins Drive / Gormley	EBLTR	0.17	20.4	C	4.8	0.45	22.6	C	18.2	410
	WBLTR	0.37	46.7	E	12.3	0.54	38.2	E	22.7	510
	NBLTR	0.11	3.2	A	3.0	0.04	1.1	A	1.0	240

Intersection	Movement	Future Total - 2030 AM Peak				Future Total - 2030 PM Peak				Storage Length (m)
		v/c Ratio	Delay (s)	LOS	95th % Queue (m)	v/c Ratio	Delay (s)	LOS	95th % Queue (m)	
Industrial Avenue (Unsignalized)	SBLTR	0.03	0.8	A	0.7	0.02	0.5	A	0.4	>1000
	Overall	***0.37***	***46.7***	**E**	**-**	***0.54***	***38.2***	**E**	**-**	**-**

5.2.2 Pedestrian Level of Service

As discussed in **Section 4.1.2,** no change to the existing active transportation network is assumed to be implemented by the analysis horizon years. Hence, the pedestrian LOS in the Future Total scenario is the same as that under Existing Conditions, presented in **Section 3.5.2**.

5.2.3 Bicycle Level of Service

As discussed in **Section 4.1.2,** no change to the existing active transportation network is assumed to be implemented by the analysis horizon years. Hence, the pedestrian LOS in the Future Total scenario is the same as that under Existing Conditions, presented in **Section 3.5.3**.

5.2.4 Transit Level of Service

As discussed in **Section 4.1.3**, there is no planned improvement in the transit network withing the Study Area. Hence, the transit LOS in the Future Total scenario is the same as that under Existing Conditions Scenario.

6. Swept Path Analysis

An assessment of internal site circulation has been performed using AutoTURN software and the findings of the analysis are presented in a set of drawings in **Appendix G**. The following vehicles were used in the site circulation assessment:

- Aerial fire truck – Inbound and outbound movements at the access driveway and circulation within the site.
- WB-50 truck - Inbound and outbound movements at the access driveway and inbound and outbound maneuvers at the designated loading spaces..
- Front-loading waste collection truck – Inbound and outbound movements at the access driveway and access to the location of garbage collection.
- Passenger vehicle – entering and existing parking spaces located at dead-ends. At the north-east limit of the site, passenger vehicles accessing parking spaces #60 and #61 would have to mount the concrete curb. Necessary adjustments will be made in the next submission.

As shown in **Appendix G**, all design vehicles can safely enter, exit, as well as circulate within the development site.

7. Parking Requirements

As per the Town's By-law 2010-001-ZO, the parking requirement for office use is 5 parking spaces for each 100 m^2 of Gross Floor Area (GFA), and for industrial/service use is 2 parking spaces for each 100 m^2 of GFA. Additionally, as per the Town's By-law, 1 space plus 3% of the total required parking spaces should be barrier-free, where the range of required parking spaces is between 101 and 200 spaces. The Town's By-law does not mention specific rates for carpool parking spaces, so the Town of Newmarket Zoning By-law 2010-40 was used to estimate the required carpool spaces. For bicycle parking, the City of Markham's Zoning By-law 2024-19 was used to identify the required

parking spaces. **Table 16** summarizes the parking requirements and compares them to the proposed parking supply. As shown in this table, the proposed parking supply meets all the parking requirements.

Table 16. Parking Requirements as per the Town of Whitchurch-Stouffville By-law

Parking Type	Land Use	Gross Floor Area	By-law Requirement	Required Parking Spaces	Proposed Parking Spaces
Total Parking	Office	2,127 m^2	5 parking spaces for each 100 m^2 of GFA	107	163 (excluding the 49 additional spaces at the Block 6 gravel lot)
	Industrial Mall	2,789.4 m^2	2 parking spaces for each 100 m^2 of GFA	56	
Accessible Parking	-	-	1 space + 3% of total parking required	6 (i.e., 1+0.03*(163))	6 (included in the 163 spaces)
Carpool Parking	-	-	The lesser of 5% of the total required parking supply or 2 parking spaces	2	2 (included in the 163 spaces)
Loading Space	-	-	1 small loading space per unit	10	10 (including 6 small and 4 large spaces)
Bicycle Parking	Office	2,127 m^2	1 long-term space per 1000 m^2 of GFA The greater of 1 short-term space per 1250 m^2 of GFA or 3 spaces	3 long-term 3 short-term	6 short-term. The long-term spaces will be provided by future tenants of the rear units
	Industrial	2,789.4 m^2	1 long-term space per 2000 m^2 of GFA 1 short-term space per 1000 m^2 of GFA	2 long-term 3 short-term	

8. Pavement Marking and Signage Plan

A pavement marking and signage plan was prepared for the proposed development, based on the standards/guidelines outlined in the Ontario Traffic Manual Books 5 and 11. The plan is presented in **Appendix H**.

9. Mitigation Measures

As discussed in **Section 4.3** and **Section 5.2.1**, the westbound left-turn movement at the intersection of Woodbine Avenue and Stouffville Road is anticipated to exceed capacity in the AM peak hour of the 2030 horizon year as a result of the anticipated background growth in traffic. Accordingly, it is recommended to optimize the signal timing plan at this intersection to allow all movements to operate within capacity and enhance the overall intersection operations.

The optimized traffic operations at the intersection of Woodbine Avenue and Stouffville Road are shown in **Table 17**. As shown in **Table 17**, all individual movements are anticipated to operate within capacity upon the optimization of the signal timing plan. The average vehicular delays at this intersection are not anticipated to be extensive with delays at the individual movement level not exceeding one (1) minute. The full Synchro report for traffic operations at the intersection of Woodbine Avenue and Stouffville Road is presented in **Appendix E**.

Table 17. Optimized Traffic Operations at Woodbine Avenue and Stouffville Road in the Future Total Scenario

Intersection	Movement	Future Total - 2030 AM Peak				Storage Length (m)
		v/c Ratio	Delay (s)	LOS	95th % Queue (m)	
Woodbine Avenue and Stouffville Road (Signalized)	EBL	0.73	23.6	C	#51.2	100
	EBT	0.88	31.9	C	#194.7	120
	EBR	0.68	19.3	B	107.0	80
	WBL	0.89	56.5	E	#78.8	80
	WBT	0.64	22.9	C	110.2	660
	WBR	0.21	3.7	A	12.0	150
	NBL	0.44	38.0	D	28.0	240
	NBT	0.13	28.3	C	13.7	240
	NBR	0.12	0.9	A	0.9	160
	SBL	0.79	54.6	D	63.9	180
	SBT	0.54	34.3	C	47.7	260
	SBR	0.29	7.9	A	12.7	260
	Overall	***0.89***	***28.6***	**C**	**-**	**-**

10. Transportation Demand Management

Transportation Demand Management (TDM) refers to strategies that increase the efficiency of the transportation system by inducing changes to travel behaviour. TDM places an emphasis on the movement of people and goods rather than motor vehicles. Specifically, TDM initiatives discourage single-occupant vehicle travel and encourage sustainable non-auto modes of transportation to reduce congested conditions.

The following are TDM initiatives that are incorporated in the site plan:

- Carpool parking with two (2) designated spaces in proximity to the building entrance.
- Internal pedestrian network with the provision of sidewalks.
- Bicycle parking with six (6) short-term spaces.

Table 18 presents the Region's TDM Checklist for the proposed development.

Table 18. Transportation Demand Management Checklist

TDM Measures	Requirement	Requirement Fulfilled?	Responsibility	Estimated Applicant Cost
Transit incentives (i.e., PRESTO cards)	Yes	To be determined	Applicant	-
Information packages (YRT/Viva maps, GO schedules, cycling maps)	Yes	Yes	Employees will be provided with information on local transit routes and active transportation network via email.	-
Communication strategy and physical location to deliver PRESTO cards and information packages	Yes	Yes	The proposed office space will be delivering PRESTO cards and information packages, as needed.	Part of overall construction cost
Outreach programs	Yes	N/A	-	-
Pedestrian connections	Yes	Yes	Incorporated into the site plan	Part of overall construction cost

TDM Measures	Requirement	Requirement Fulfilled?	Responsibility	Estimated Applicant Cost
Cycling connections	Yes	N/A	-	-
Ped/cycling connections to transit facilities	Yes	N/A	-	-
Internal ped/cycling circulation	Yes	Yes	Incorporated into the site plan	Part of overall construction cost
Active transportation network/fine grid	Yes	N/A	-	-
Bicycle-parking/shelter	Yes	Yes	Incorporated into the site plan	Part of overall construction cost
Bicycle repair station	As per local bylaw	N/A	-	-
Bicycle parking	As per local bylaw	Yes	Incorporated into the site plan	Part of overall construction cost
Benches/receptacles	Case by case	N/A	-	-
Illumination of ped/cycling connections	Case by case	N/A	-	-
Carpool parking	Yes	Yes	Incorporated into the site plan	Part of overall construction cost
Car share	Case by case	N/A	-	-
Shared-parking between land uses	Yes	N/A	-	-
Parking reduction	Where appropriate	N/A	-	-
Real time TV screen	Where appropriate	N/A	-	-
Trip end facilities (i.e., showers)	Where appropriate	N/A	-	-
Membership with Smart Commute	Yes	To be determined	Applicant	$1000 annual fee
School travel planning	No	-	-	-
Telecommute	Where appropriate	N/A	-	-
Monitoring program/report	Yes	Yes	The applicant will coordinate with the Town's staff regarding any follow-up surveys.	-

11. Conclusions

This report presents the data, methodology, as well as the findings and recommendations of a Transportation Mobility Study prepared in support of a Site Plan application for a proposed industrial building located at 35 Gordon Collins Drive in the Town of Whitchurch-Stouffville, Ontario. The Study Area was established and confirmed with R.J. Burnside & Associates, the Town's engineering reviewer of this Site Plan application, through email correspondence on November 2, 2023. The Study Area is defined to include the following four intersections:

- Highway 404 West Ramp Terminal and Stouffville Road (Regional Road 14);
- Highway 404 East Ramp Terminal and Stouffville Road (Regional Road 14);
- Woodbine Avenue (Regional Road 8) and Stouffville Road (Regional Road 14); and
- Woodbine Avenue (Regional Road 8) and Gordon Collins Drive / Gormley Industrial Avenue.

This study was undertaken as per the Region's Transportation Mobility Plan Guidelines for Development Applications, where a multi-modal level of service analysis was undertaken at the studied intersections and road segments for the purpose of assessing the potential impacts of the proposed industrial development on all road users. The multi-modal level of service included assessment of automobile, pedestrian, bicycle, and transit level of service.

Automobile Level of Service:
The findings of the traffic operations assessments at the studied intersections in the Future Total scenario in the horizon year of 2030 indicate that all individual movements are anticipated to operate within capacity with average delays not exceeding one (1) minute, except for the westbound left-turn movement at the intersection of Woodbine Avenue and Stouffville Road, which is anticipated to exceed capacity and operate at LOS F in the AM peak hour of 2030. It should be noted that this movement is also anticipated to exceed capacity in the Future Background scenario (i.e., in the absence of the proposed development), with minor incremental impacts in the Future Total scenario. Hence, this issue could be attributed to background traffic growth rather than the site-generated trips.

To mitigate this operational issue, it is recommended to optimize the signal timing plan for the intersection of Woodbine Avenue and Stouffville Road. With an optimized signal timing plan, all individual movements are anticipated to operate within capacity with average vehicular delays not exceeding one (1) minute.

Pedestrian Level of Service:
The findings of the pedestrian LOS assessment under the Future Total scenario are the same as that under Existing Conditions, as there are no planned pedestrian facilities to be implemented by the 2030 horizon year. Based on the Existing Conditions assessment, only the intersection of Woodbine Avenue and Stouffville Road meets the LOS C target. As for road segments, the Highway 404 overpass, Woodbine Avenue, and Gordon Collins Drive meet the LOS C target.

Bicycle Level of Service:
The findings of the bicycle LOS assessment under the Future Total scenario are the same as that under Existing Conditions, as there are no planned cycling facilities to be implemented by the 2030 horizon year. Within the Study Area, only the northbound and southbound approach at the intersection of Woodbine Avenue and Stouffville Road meet the target LOS C. At the road segment level, only Woodbine Avenue meets the LOS C target for cyclists.

Transit Level of Service:
There is no planned transit network improvement in the vicinity of the Study Area by the 2030 horizon year. Hence, the findings of the transit LOS assessment are the same as that under Existing Conditions, which indicate that the Gormley GO Station does not provide transit users accessing the proposed site with adequate levels of service in terms of the proximity to the site and transit headways. Buses approaching the Highway 404 Ramp Terminal at Stouffville Road do not experience significant delays and meet the LOS D target at intersections approaches.

Swept Path Analysis:
An assessment of internal site circulation has been performed using AutoTURN software for an aerial fire truck, WB-50 truck, front-loading waste collection truck, and a passenger vehicle. The findings of the analysis are presented in a set of drawings in **Appendix G**. As shown in **Appendix G**, all design vehicles can safely enter, exit, as well as circulate within the development site. The only exception is at the north-east limit of the site, where passenger

vehicles accessing parking spaces #60 and #61 would have to mount the concrete curb. Necessary adjustments will be made in the next submission.

Parking Requirements:
The proposed parking supply meets the Town's requirement for total and accessible parking spaces, as per the Town's By-law 2010-001-ZO. The site also provides carpool parking spaces that meet the requirement outlined in the Town of Newmarket Zoning By-law 2010-40. Additionally, the site provides bicycle parking spaces as per the City of Markham's Zoning By-law 2024-19.

Mitigation Measures:
Signal timing plan optimization is recommended at the intersection of Woodbine Avenue and Stouffville Road to mitigate future operational issues at the intersection, specifically the westbound left-turn movement.

Transportation Demand Management:
The following TDM initiatives that are incorporated into the site plan:

- Carpool parking with two (2) designated spaces in proximity to the building entrance.
- Internal pedestrian network with the provision of sidewalks.
- Bicycle parking with six (6) short-term spaces.

Appendix A

Site Plan

Firm Name: Joseph N. Campitelli Architect
Certificate of Practice Number: 5859
Firm Certificate of Practice Number: 4067

The architect noted above has exercised responsible control with respect to design activities.
The architect's seal number is the architect's BCDN.

Item	ONTARIO'S 2012 BUILDING CODE Data Matrix Part 3 or 9			OBC Reference	
				References are to Division B unless noted [A] for Division A or [C] for Division C.	
1	Project Description: Industrial Building	■ New ☐ Addition ☐ Alteration ☐ Change of Use	☐ Part 11 11.1 to 11.4	■ Part 3 1.1.2.[A]	☐ Part 9 1.1.2.[A] & 9.10.1.3.
2	Major Occupancy(s)	Group F2		3.1.2.1.(1)	9.10.2.
3	Building Area(m²)	Existing _____ New 4,069m2 Total 4,069m2		1.4.1.2.[A]	1.4.1.2.[A]
4	Gross Area	Existing _____ New 5,057m2 Total 5,057m2		1.4.1.2.[A]	1.4.1.2.[A]
5	Number of Storeys	Above Grade 3 Below Grade 0		1.4.1.2.[A] & 3.2.1.1.	1.4.1.2.[A] & 9.10.4
6	Number of Streets / Fire Fighter Access	1		3.2.2.10 & 3.2.5.	9.10.20.
7	Building Classification	Section 3.2.2.69 - Group F2		3.2.2.20 - .83	9.10.2.
8	Sprinkler System Proposed	■ entire building ☐ selected compartments ☐ selected compartments ☐ basement ☐ in lieu of roof rating ☐ not required		3.2.2.20. - .83 3.2.1.5. 3.2.2.17. INDEX	9.10.8.2. INDEX
9	Standpipe required	☐ Yes ■ No		3.2.9.	N / A
10	Fire Alarm required	■ Yes ☐ No		3.2.4.	9.10.18.
11	Water Service / Supply is Adequate	■ Yes ☐ No		3.2.5.7.	N / A
12	High Building	☐ Yes ■ No		3.2.6.	N / A
13	Construction Restrictions	☐ Combustible permitted ■ Non-combustible required ☐ Both		3.2.2.20. - .83	9.10.6.
	Actual Construction	☐ Combustible ■ Non-combustible ☐ Both			
14	Mezzanine(s) Area m²	123m2		3.2.1.1.(3)-(8)	9.10.4.1.
15	Occupant Load Based on	☐ m²/ person ■ Design of building		3.1.17.	9.9.1.3.
	Basement	Occupancy _____ Load N/A Persons			
	1st Floor	Occupancy _____ Load 150 Persons			
	Mezzanine	Occupancy _____ Load N/A Persons			
	2nd Floor	Occupancy _____ Load 9 Persons			
	3rd Floor	Occupancy _____ Load 9 Persons			
	(Additional floor areas continue on last page)				
16	Barrier-free Design	■ Yes (Office Space) ☒ No (Exempt as per 3.8.1.1.(1).(b))		3.8.	9.5.2.
17	Hazardous Substances	☐ Yes ■ No		3.3.1.2. & 3.3.1.19.	9.10.1.3(4)

18	Required Fire Resistance Rating (FRR)	Horizontal Assemblies FRR (Hours)	Listed Design N° or Description (SG-2)	3.2.2.20. - .83 & 3.2.1.4.	9.10.8. 9.10.9.
		Floors 1 Hours			
		Roof 0 Hours			
		Mezzanine 1 Hours			
		FRR of Supporting Members	Listed Design N° or Description (SG-2)		
		Floors 1 Hours			
		Roof 0 Hours			
		Mezzanine 1 Hours			

19	Spatial Separation - Construction of Exterior Walls										3.2.3		9.10.14.
	Wall	Area of EBF (m²)	L.D. (m)	L/H Or H/L	Permitted Max. % of Openings	Proposed % of Openings	FRR (Hours)	Listed Design or Description	Comb. Constr.	Comb Constr. / Non-comb. Cladd.	Non comb. Constr.		Non-comb. Constr.
	North	1,251	23.4		100				■				
	South	1,262	20.8		100				■				
	East	483	54.60		100				■				
	West	547	56		100				■				

20	Plumbing Fixtures Requirements/unit								OBC Reference		
				Occupant Load	F/M Ratio	Fixtures Required	Fixtures Provided	BF / Universal Provided	☐ Part 3		☐ Part 9
	Basement	Occupancy	N/A								
	UNIT 1-2	Occupancy	F2 + Subsidiary D	20 People	Female: 10 Male: 10	2/ Sex 4 W.C.	11 W.C.	1 Universal + 2 B.F.	3.7.4.9	3.8	
	UNIT 3 to 10	Occupancy	F2 + Subsidiary D	18 / Unit	Female: 9 Male: 9	1/ Sex 2 W.C.	2 / Unit	1 Universal/ Unit	3.7.4.9	3.8	
	TOTAL										
	(Adjust as Required for Additional Floors or Occupancies)										

SITE STATISTICS

	ZONING BY LAW	PROPOSED
1. ZONING	EBP-C(●)(h-18) TOWN OF WHITCHURCH-STOUFFVILLE ZONING BY-LAW	INDUSTRIAL UNITS W/ OFFICE SPACE
2. SITE AREA	0.8ha (0.4ha)	1.76ha (BLOCK 6) 17,612.3m2
3. SETBACKS	FRONT YARD – 10.0m REAR YARD 10.0m EXTERIOR SIDE YARD – 10.0m INTERIOR SIDE YARD – 6.0m	FRONT YARD – 56.03m REAR YARD – 54.60m EXTERIOR SIDE YARD – 23.40m INTERIOR SIDE YARD – 20.80m
4. BLDG. HEIGHT	MAX. 20m	15.64m
5. COVERAGE	35%	23.1% (4,069.3sm) 1 STOREY OFFICES – 818 sm UNIT 1-2 OFFICES – 436 sm UNIT 1-2 REAR AREA – 404 sm PUMP ROOM – 6.3 sm REAR UNITS AREA – 2,379 sm UTILITY ROOMS – 26 sm TOTAL FOOTPRINT – 4,069.3sm
6. FSI / GFA	N/A	1 STOREY OFFICES – 818 sm 3 STOREY DECOR/OFFICE – 1,308 sm REAR UNITS AREA – 2,789.3sm UTILITY ROOMS – 26 sm MEZZ. LEVEL (UNIT 1) – 116 sm TOTAL GFA – 5,057.3sm
7. PARKING	REQUIRED PARKING: OFFICES SPACES (5/100sm): 2,127sm @ 5/100: 107 CARS REAR UNITS AREA (2/100sm): 2,789.3sm @ 2/100: 56 CARS TOTAL REQUIRED: 163 CARS BARRIER FREE PARKING REQ. B/W 101-200 SPACES – 1 BF SPACE + 3% TOTAL REQ. – 6 BF SPACES (1+ (3%x163))	163 PARKING SPACES TYP. PARKING 2.75m x 5.5m 49 ADDITIONAL SPACES AT GRAVEL OPEN STORAGE / PARKING 6 BARRIER FREE SPACES (INCLUDED) TYPE A (3.4m x 5.5m) – 3 TYPE B (2.4m x 5.5m) – 3 2 CARPOOL PARKING SPACE (INCLUDED)
8. LOADING	1 SMALL LOADING SPACES PER UNIT 10 UNITS (10 SPACES REQ.)	10 LOADING SPACES IN TOTAL 5 SMALL LOADING SPACES (SL) 3.6(W) x9(L) x4.25m (H) / EACH 5 LARGE LOADING SPACES (LL) 3.6(W) x16(L) x4.25m (H) / EACH
9. LANDSCAPE	10% OF LOT AREA (1,761sm REQ.) 50% OF FRONT YARD AREA (YARD AREA = 4,731sm) MIN. 4.5m LANDSCAPE STRIP @ FRONT, REAR + EXTERIOR SIDE YARDS MIN. 3.0m LANDSCAPE STRIP @ INTERIOR SIDE YARD	21.3% OF LOT AREA (3,746sm) 55% (2,600sm) 4.5m @ EXTR. SIDE YARD + REAR YARD 8.25m @ FRONT YARD **0m STRIP @ INTERIOR PROP. LINE**
10. OCCUPANT LOAD	N/A	UNIT 1-2: 20 PEOPLE UNITS 3–10: 18 PEOPLE/UNIT (x8) TOTAL: 164 PEOPLE (MAX.)

LEGEND

- 3-STOREY OFFICE SPACE
- 1-STOREY OFFICE SPACE
- 1-STOREY INDUSTRIAL BLDNG.
- PAINTED LINES NO PARKING
- FIRE ROUTE ACCESS 6m (W) x 147.2m (L)
- LANDSCAPE AREA
- BACKLIT SOFFIT / LED STRIP LIGHT T.B.C.
- LANDSCAPE UPLIGHT FIXTURE
- EXTERIOR SOFFIT LIGHT FIXTURE
- WALL MOUNTED EXTERIOR LIGHT FIXTURE
- FIRE HYDRANT
- DP CURB DEPRESSION
- FRS FIRE ROUTE SIGN AS PER T.M.S. FIRE-ROUTE BY-LAW

ABBREVIATIONS LEGEND

CATV	CABLE PEDESTAL
FH	FIRE HYDRANT
LS	MUNICIPAL STREET LIGHT
VW	VALVE & CHAMBER
LL	LARGE LOADING SPACE 3.6x16.0x4.25m (H)
SL	SMALL LOADING SPACE 3.6x9.0x4.25m (H)
MH	MANHOLE (REF. TO GRADING)
CB	CATCH BASIN (REF. TO GRADING)

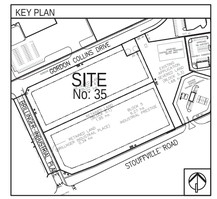
SURVEY INFORMATION

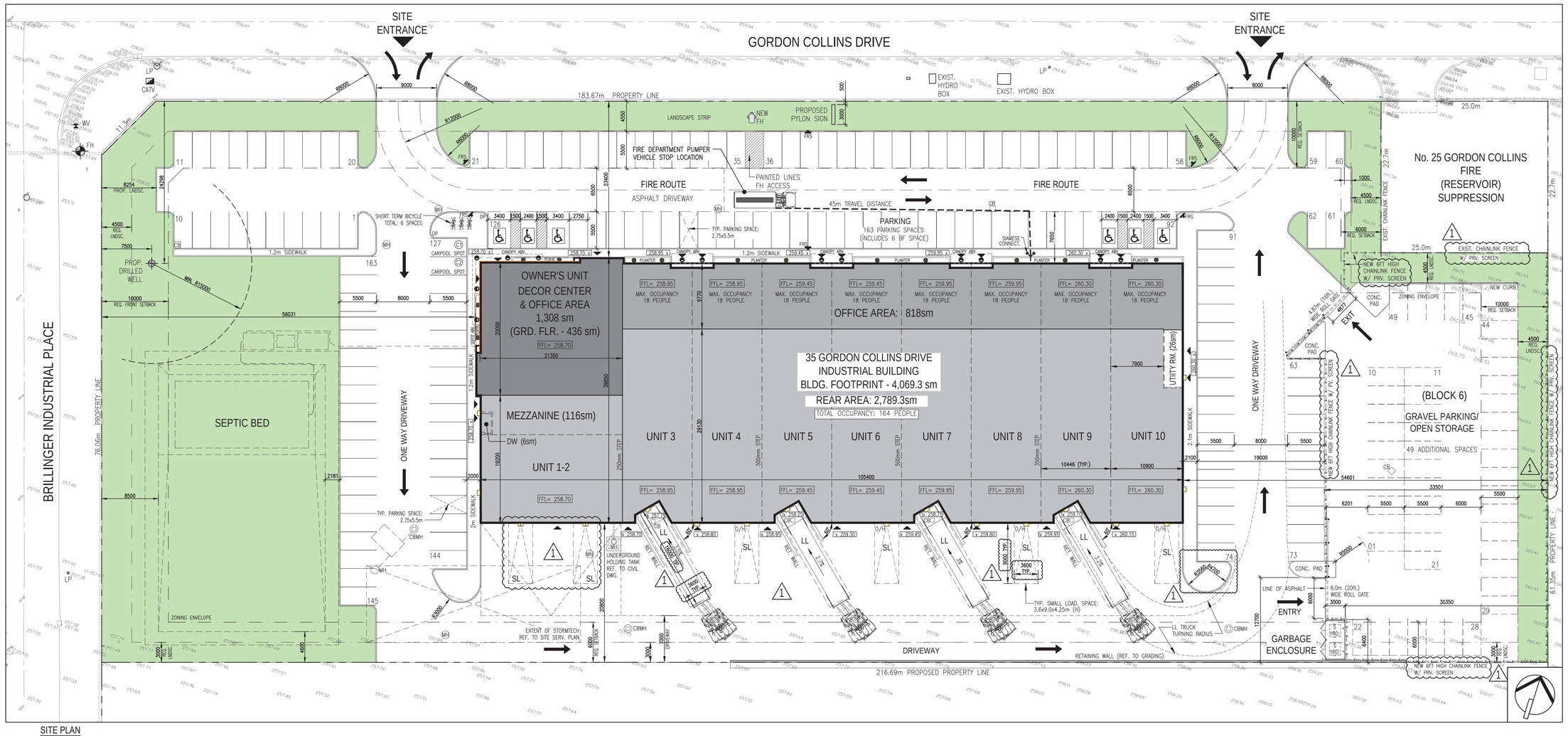
INFORMATION FOR THIS SITE PLAN WAS TAKEN FROM THE FOLLOWING:
PLAN OF SURVEY OF PART OF LOT 1 CONCESSION 3 GEOGRAPHIC TOWNSHIP OF WHITCHURCH
TOWN OF WHITCHURCH-STOUFFVILLE REGIONAL MUNICIPALITY OF YORK

DATED: APRIL 19, 2016

LLOYD & PURCELL LTD.
ONTARIO LAND SURVEYORS 1
228 GORHAM STREET, UNIT 28,
NEWMARKET, ON, L3Y 8Z1

KEY PLAN





SITE PLAN

PROJECT
GORMLEY INDUSTRIAL PARK
PROPOSED INDUSTRIAL BUILDING
35 GORDON COLLINS DRIVE
GORMLEY, ON

CLIENT
FAIRGATE HOMES
1065752 ONTARIO INC.
8 PAISLEY LANE
STOUFFVILLE, ON

CONSULTANTS

ARCHITECT
JOSEPH N. CAMPITELLI ARCHITECT INC.
10 Bur Oak Avenue, Unit 3, Markham, ON L6C 0A2
tel: 905.887.6900 fax: 905.887.9400
e-mail: info@jnc-architect.com

LEGAL
This drawing, as an instrument of service, is provided by, and is the property of, Joseph N. Campitelli, Architect Inc., (the "Architect"). The contractor must verify and accept responsibility for all dimensions and conditions on site and must notify the Architect, of any variations from the supplied information. The Architect is not responsible for the accuracy of survey, structural, mechanical, electrical, engineering information, etc., which is shown on this drawing. Refer to the appropriate engineering drawings before proceeding with the work. Construction must conform to all applicable codes and requirements of authorities having jurisdiction. Unless otherwise noted, no investigation has been undertaken or reported on by the Architect, in regards to the environmental condition of the site to which this drawing relates. This drawing is not to be used for construction purposes until countersigned by the Architect.

This drawing is not to be scaled. All architectural symbols indicated on this drawing are graphic representations only.

COUNTERSIGNED
Joseph N. Campitelli, Architect
B.ARCH., O.A.A., M.R.A.I.C.

DATE

DWG. ISSUES

1.	MAY.08.2023 ISSUED FOR CLIENT REVIEW	RD
2.	MAY.12.2023 ISSUED FOR COORDINATION	RD
3.	JUN.09.2023 ISSUED FOR COORDINATION	RD
4.	JUN.29.2023 ISSUED FOR COORDINATION	RD
5.	DEC.08.2023 ISSUED FOR SPA	RD
6.	FEB.22.2024 ISSUED FOR SPA CMNTS. COORD.	RD
7.	AUG.07.2024 ISSUED UPDATE FOR COORD.	RD
8.	SEP.11.2024 ISSUED FOR SPA COORDINATION	RD
9.	JAN.17.2025 ISSUED FOR COORDINATION	RD

DESCRIPTION
SPA File No: CAPP 23.005

INFO
PROJECT ARCHITECT: J. CAMPITELLI
ASSISTANT DESIGNER:
DRAWN BY: R.D.
CHECKED BY: J.C.

DWG TITLE
SITE PLAN

SCALE	DATE PRINTED	PROJECT NO.
1:300	JAN.17.2025	218.15.D

SHEET NO.
A.100

Appendix B

Pre-consultation Meeting Record

TOWN OF
WHITCHURCH–STOUFFVILLE
111 Sandiford Drive, Stouffville, ON L4A 0Z8

Customer Service Centre: 905-640-1900
Toll Free: 1-855-642-TOWN (8696)
Automated: 905-640-1910
Toll Free: 1-855-642-TOWS (8697)
Fax: 905-640-7957
www.townofws.ca

January 31, 2018

Emilio Ronco
Fairgate Homes
2561 Stouffville Road
Gormley ON

Via Email: emilio@fairgatehomes.com

Re: Two industrial building development

This is further to our pre-submission consultation meeting of January 18, 2018. The following comments relate to the Concept Site Plan, and topics raised during the meeting submitted with the pre-consultation request.

Subject Property	
Legal Description	Part 1, Part of Lot 1, 65R36330
Lot Area	1.76 ha
Frontage(s)	76.06m along Brillinger Industrial Place
Current Use	Vacant

Proposal

The proposal depicts two multi-use industrial type buildings. One building will contain administrative offices and warehousing related to the operation of Fairgate Homes. The remaining units will be rented/leased out to other businesses. Future uses within the proposed buildings are to be in keeping with the "Prestige" Employment designation on the subject property.

Town of Whitchurch-Stouffville Official Plan	
Secondary Plan	Gormley Industrial Secondary Plan
Secondary Plan Designation	Prestige Industrial
Secondary Plan Section	10.2.1
Comments	The key components of the Prestige Industrial designation are intended to be upheld both through the site design and proposed uses on the site. High quality façade materials, architectural design, landscaping, and screening materials should all be utilized to maintain the intent of the Official Plan. Furthermore, the proposed uses on site are to be in keeping with those intended within the Secondary Plan Designation

Comprehensive Zoning By-law 2010-001-ZO	
Zoning	EBP-G(w)(H-18)
Parking Requirement (Section 3.23, 3.24 and 3.25)	Office – 5 Parking Spaces for each 100m2 of GFA Warehouse – 1 Parking Space for each 100m2 of GFA Type A and Type B accessible parking spaces are required
Comments	An application to lift the H off the subject property will need to be supplied to the Town

Other comments

Engineering Comments

- Brillinger Industrial Place is not an assumed public roadway
- Extension of Watermain and storm sewer services from Gordon Collins Drive may be required
- Installation of Fire Hydrant(s) on site
- Construction of Brillinger Industrial Drive will be important for access to and from the site
- Design and review of proposed "future" storm water management pond on the west side of Brillinger Industrial Place (south of existing pond location)
- Denote well location
- Provide Septic flow calculations
- Will need to confirm the septic and well locations of adjacent properties

Fire Comments

- Fire Route Application is required and to be designed in accordance with OBC standards
- Fire Hydrant installation required
- Need for fire suppression system

Planning Comments

- The subject property was formerly considered phase two of the 19T(W)89.053 subdivision
    - The draft approval of this subdivision lapsed in June of 2017 and therefore the provisions of the agreement and the draft approval conditions no longer apply to this property
    - Brillinger Industrial Place is owned by the RICE Group
    - Gordon Collins is an assumed public roadway
- Utility boxes are located within the proposed accesses to the site
- Applicant is to work with RICE Group to see the construction of Brillinger Industrial Place through to Stouffville Road
- The RICE Group has submitted a TIS for review by the Town and York Region supporting the construction of a right-in, right-out design for the intersection of Brillinger and Stouffville
- High quality landscaping is to complement the uses on the property
- The proposed uses on the site are to be in keeping with the "Prestige" designation of the Secondary Plan
- ~~A meeting should be arranged with Schickedanz Bros. Ltd. (Farsight Homes) – the applicant to the south – to discuss a shared access from Brillinger Industrial Place.~~
- Town staff are supportive of a meeting with Fairgate Homes, Farsight Homes, The RICE Group, and any public agencies deemed appropriate.
- Please contact Andrew Jurrius, Chief Building Official, to discuss options for a partial or conditional building permit, as well as development charges that will be collected for construction on the property
- It is recommended that you liaise with the Town's Economic Development Officer who may be able to assist with proposed uses or tenants on the property. Please contact David Tuley david.tuley@townofws.ca

Agency Review

Toronto and Region Conservation Authority – Comments Attached
Regional Municipality of York – Submission Checklist Provided

Reference Documents

Please make reference to the following documents and links for subject proposal:

Town of Whitchurch-Stouffville Official Plan
Gormley Industrial Secondary Plan
Comprehensive Zoning By-law 2010-001-ZO

Applications

If it is your intention to proceed with the proposed development generally as presented, the following application(s) will be required. The application forms are available on the Town's website.

	Official Plan Amendment		Draft Plan of Subdivision
	Zoning By-law Amendment		Draft Plan of Condominium/Exemption
✓	Removal of Holding Symbol		Part Lot Control Exemption
✓	Site Plan Control Application		Minor Variance (CofA)
	Site Plan Control Exemption (Res / ORM)		Consent (CofA)
	Site Plan Control Agreement Amendment		Part Lot Control Exemption
✓	Fire Route Application (Fire Department)		Other:

Submission Requirements

All supporting documents as identified on the ***Technical Study Checklist (attached)*** will be required at the time of submitting the application(s). As the detailed review of the application(s) progresses, additional material may be required in support of the proposal.

For the subject proposal, please submit:

5	full size copies of the each drawing/plan
1	8½" x 11" reduction copy of each drawing/plan
5	hard copies of each study/report in support of the application
1	full set of ALL drawings and reports on a CD/USB (in PDF and/or AutoCAD format)

Fees

Fees are collected in accordance with the Fees and Charges By-law current at the time of the application. Contact planning staff for the current fee schedule prior to making an appointment for application submission. Please make all cheques payable to the *Town of Whitchurch-Stouffville*. The Town does not accept debit or credit card payments for planning applications.

Submitting a Complete Application

The application(s) will not be considered complete until all required drawings and studies have been submitted and the issues identified in this letter have been complied with. Please submit all completed application form(s) to my attention.

Please note that the Declaration in the application forms must be signed in the presence of and witnessed by a Commissioner of Oaths in accordance with the Canada Evidence Act for the

application to be valid. If the Declaration is signed by any person other than the Owner, the Owner must complete the Authorization for submission of the applications to be accepted by the Town. The applications will not be considered to be complete until the issues identified in this letter have been complied with.

Please contact me if you have any planning process related questions at extension 2284 or Jeremy.humphrey@townofws.ca

Yours truly,

Attachments:
TRCA Comments
York Region Submission Checklist
Official Plan Excerpts
Zoning By-law Excerpts
Municipal Servicing

Copy: Mary Hall, Director, Development Services
David Tuley, Economic Development Officer
Jeff Harman, Fire Department
Peter Wylie, Manager, Public Works
Dave Kenth, Manager of Engineering
Andrew Jurrius, Chief Building Official

TOWN OF WHITCHURCH–STOUFFVILLE

DATE: 31/01/2018

FOR PRECONSULTATION

Planning Application Submission Checklist

Additional Materials and Studies Required for the Submission of Planning Act Application(s)

☒ SPC (Agreement)	☐ SPC (Amendment)	☐ SPC (Residential)	☐ SPCA (ORM)
☐ ZBA (Rezoning)	☐ ZBA (Temporary)	☒ ZBA (Removal of Holding Symbol)	☐ ZBA (Conditional)
☐ SUB (Proposed Draft Plan)	☐ SUB (Revision to DPA)	☐ SUB (Extension of DPA)	☐ Part Lot Control Exemption
☐ CDM (Proposed Draft Plan)	☐ CDM (Revision to DPA)	☐ CDM (Extension of DPA)	☐ CDM (Exemption from DPA)
☐ OPA	☐ Consent	☐ Minor Variance	☐ Other:

PROPERTY: 35 Gordon Collins Drive/45 Brillinger Industrial Place

PROPOSAL: Two multi-unit industrial buildings with office and warehousing space

Plans/Reports/Studies	Required (✓)	No. of hard copies	Comments	Staff Checkoff at Submission
APPLICTION & FEES				
App. Declaration, Authorization & Commissioning	✓			
Application Fee(s)	✓		*Refer to* Planning Applications Fees Schedule	
Peer Review Security Deposit (210-XX-YY-##-#)	✓		*Refer to* Planning Applications Fees Schedule	
Fire Route Application & Fee	✓		*Refer to Fire Route Application Package on Town's Website*	
GENERAL				
Property Survey	✓	2		
Land Titles Documents (Deeds w/ registered easements)	✓	2		
ARCHITECTURAL				
Preliminary Building Design OBC Matrix	✓	5	*Include on Site Plan*	
Site Plan	✓	5		
Floor Plan(s)	✓	5		
Elevation Drawings	✓	5		
Building Sections	✓	5		
Landscape Plan & Details	✓	5		
Landscape Cost Estimates	✓		*To be submitted later on in the review process*	
ENGINEERING				
Engineering Cost Estimates	✓		*To be submitted later on in the review process*	
Site Servicing Plan	✓	5		
Grading Plan	✓	5		
Erosion and Sediment Control Plan	✓	5		
Lighting/Illumination/Photometric Plan	✓	5	*Provide Horizontal Illuminance Level in Lux; Provide luminaire and pole specification sheets; Indicate Light Loss Factor (LFF)*	
Photometric Cost Estimates	✓		*To be submitted later on in the review process*	
Geotechnical Report	✓	5		

d – digital copy

Plans/Reports/Studies	Required (✓)	No. of hard copies	Comments	Staff Checkoff at Submission
Stormwater Management Report	✓	5		
Slope Stability Study				
Functional Servicing Report	✓	5		
Hydraulic Analysis for Floodplain Delineation				
Hydrogeological Assessment				
Operation Maintenance Report				
Construction Management Plan				
Noise Impact Study				
Vibration Study				
Air Quality Impact Study				
Wind Study				
Soil Quality Study				
Railway Corridor Safety Study				
Traffic Impact Analysis	✓	5		
PUBLIC WORKS				
Waste Management Plan				
Site Servicing Plan			If not covered off under Engineering	
MOECC Form 1				
Tree Preservation, Protection and Removal Plan			For trees on public property impacted by the development	
Tree Canopy Loss/Enhancement Within the Town			Provide details in relation to urban forest, air quality and green infrastructure impacts	
PLANNING				
Draft of OPA / ZBA				
Planning Justification Report				
Sustainable Development Report				
Land Use Compatibility Study				
Urban Design Brief	✓	5		
Retail Impact Study				
Parking Standard Analysis/Justification	✓	5	*Required if minimum parking regulations cannot be achieved*	
ENVIRONMENTAL				
Environmental Site Assessment - Phase 1	✓	5		
Record of Site Condition	✓	5		
Tree Analysis/Inventory				

Plans/Reports/Studies	Required (✓)	No. of hard copies	Comments	Staff Checkoff at Submission
Natural Heritage Evaluation (Required on lands within 90 m within an ENV zone)				
Hydrological Evaluation (Required on lands within 90 m within a FH zone)				
Oak Ridges Moraine Conformity Statement / Report				
Minimum Distance of Separation (OMAFRA)				
Nutrient Management Plan (OMAFRA)				
Watershed & Sub-watershed Study				
Water Analysis Report				
Dust/Odour Control Study				
Agricultural Impact Evaluation				
Environmental Impact Study (Required on lands within areas of Greenlands System)				
Contamination Management Plan (Required for lands within a Highly Vulnerable Aquifer as deemed necessary by the Town)			For major source water development applications involving the manufacturing, handling and/or storage of bulk fuels or chemicals (activities as prescribed under the *Clean Water Act*)	
Water Balance Assessment (Required for proposal considered *major development* under Source Protection Plan)	✓	5		
Section 59 Notice (Required for ICI, farm structure, residential fuel oil storage proposal in Wellhead Protection Areas)			*Contact Risk Management Office at York Region* *sourcewaterprotection@york.ca*	
CULTURAL				
Cultural Heritage Impact Assessment				
Shadow Study				
Architectural Control Guidelines				
Compliance Certificate from Control Architect				
Rental Housing Conversion Study				
Analysis of and Impact Mitigation to Views and Vistas from the ORM Ridgeline				
Archaeological Resource Assessment				
OTHER APPLICABLE REQUIREMENTS				
Toronto & Region Conservation Authority Permit			*Applicant is required to apply for separate permits directly with the government agency and submit the approvals as part of a complete Building Permit Application to the Town.* *See Building Permit Applicable Law Declaration*	
Lake Simcoe & Region Conservation Authority Permit				
Ministry of Transportation Land Use Permit				
DIGITAL SUBMISSION				
1 full set of ALL drawings and reports in digital format (PDF and/or AutoCAD) provided on a CD/ USB/FTP Link	✓	1		

10.2 LAND USE POLICIES

This Amendment to the Official Plan of the Town of Whitchurch-Stouffville establishes a Secondary Plan for the Gormley Industrial Area, and the following land use categories are hereby incorporated into the Secondary Plan:

a) Prestige Industrial

b) Industrial

c) Community Residential

d) General Commercial

e) Convenience Commercial

f) Open Space – Environmental

The general location of the land use designations, roads, and other features are depicted on Schedule 'D' hereto. Those locations are diagrammatic and may be altered provided that the general intent of the Plan is maintained. Where use, and/or lot size requirements, would dictate modification of a Collector Road pattern, or deletion of these roads, such modifications may be made without Amendment to this Plan.

The following policies pertain specifically to each of the land use designations indicated on Schedule 'D', the Land Use and Roads Plan:

10.2.1 Prestige Industrial

Dry Prestige Industrial uses shall be developed on landscaped lots in a park-like setting in locations that are sensitive to the range of permitted uses due to their proximity to residential land uses or because of their exposure to major roads.

10.2.1.1 Permitted Uses

Uses permitted in Prestige Industrial Areas are:

i) Dry Industrial uses within enclosed buildings including manufacturing, processing, assembling, fabricating, repairing, packaging, warehousing and wholesaling, data processing, and related uses.

ii) Office uses provided that they are located on the same lot, and are related or accessory to the main permitted industrial use. Ancillary uses to the Office and permitted Industrial uses such as employee conference and training centre facilities and day care facilities shall also be permitted.

iii) Limited gross floor area devoted to retail sales of a minor portion of the goods manufactured, processed, assembled, or packaged on the

industrial premises.

10.2.1.2 Policies

i) Only dry uses as defined in Section 10.4.1 (b) shall be permitted.

ii) All permitted uses shall be carried out within enclosed buildings.

iii) Outside storage shall be prohibited.

iv) Uses that are likely to cause air or water pollution, odour, or a level of noise which causes an adverse impact on adjacent sensitive land uses, shall be prohibited.

v) A high standard of building design and appearance shall be encouraged, with undeveloped portions of lots being landscaped in a manner which augments and reinforces the intended prestige image.

vi) Existing vegetation and other natural features, considered worthy of protection or conservation, shall be maintained and, if possible, incorporated within the Prestige Industrial uses and between other types of uses to act as buffers and separators.

vii) The overall density of development shall comply with the conclusions of the Settlement Capability Study. Increases to the density may be permitted subject to the review and approval of additional detailed servicing information by the Ministry of the Environment and Energy and the Region of York. Specific by-law standards and provision shall be utilized to establish density, minimum lot sizes and other provisions as deemed necessary by the Town of Whitchurch-Stouffville. The minimum lot size shall be approximately 2.0 hectares (5.0 acres) with a maximum lot coverage of 35%.

viii) Specific by-law standards and provisions shall be utilized where Prestige Industrial uses are to be situated in proximity to existing or proposed residential development, in order to mitigate impacts on the amenity of the residential area.

10.2.2 Industrial

Lands designated Industrial shall be for industrial uses that may have limited outdoor storage.

10.2.2.1 Permitted Uses

Uses permitted in the Industrial Areas are:

i) Dry Industrial uses within enclosed buildings including manufacturing, processing, assembling, fabricating, repairing, packaging, warehousing

ii) a deck shall not be permitted in a front yard or a minimum side yard

3.23 Parking Standards (2011-115-ZO) (2013-110-ZO) (2013-112-ZO) (2016-143-ZO)

3.23.1 Table of Parking Standards

For every building or structure to be erected or enlarged, off-street parking located in the same lot as the use and having unobstructed access to a street or lane shall be provided and maintained in conformity with the following table. The term "GFA", used in the table, means gross floor area.

Use of Building or Lot	Minimum Number of Parking Spaces
Residential Dwellings	
Detached Dwelling	2 parking spaces for each dwelling unit
Detached Dwelling with second suite	Refer to section 3.28
Bed and Breakfast Establishment	1 parking space per guest suite in addition to the parking required for the detached dwelling. The additional parking spaces may be located in tandem with other parking spaces.
Semi-Detached Dwelling	2 parking spaces for each dwelling unit
Converted Dwelling	1 parking space for each dwelling unit
Duplex Dwelling	1 parking space for each dwelling unit
Group Home	1 parking space for each dwelling unit
Street Townhouse Dwelling	2 parking spaces for each dwelling unit
Back-to-Back Townhouse Dwelling	2 parking spaces for each dwelling unit
Townhouse Dwelling	2 parking spaces for each dwelling unit for residents plus 0.25 parking spaces reserved for visitors
Stacked Townhouse Dwelling	2 parking spaces per dwelling unit
Apartment Building	1.25 parking spaces per dwelling unit for residents plus 0.25 parking spaces reserved for visitors
Dwelling Units over Commercial Uses	1.25 parking spaces per dwelling unit for residents plus 0.25 parking spaces reserved for visitors
Long Term Care Facility	1 parking space for every 3 beds
Senior Citizens' Home	1 parking space for every 3 beds
Non-Residential Uses	
Automotive Sales and Service Uses	4 parking spaces for each repair bay, stationary car wash bay or detailing bay, plus 5 parking spaces for each 100m^2 of GFA, exclusive of repair bays
Bowling Alley	4 parking spaces for each lane, plus for a restaurant, 1 parking space for each 4 persons seating capacity or 11 parking spaces for each 100 m^2 of GFA, whichever is greater
Car Wash	5 parking spaces
Commercial School	5 parking spaces for each 100m^2 GFA
Curling Rink	4 parking spaces for each ice sheet, plus for a restaurant, 1 parking space for each 4 persons seating capacity or 11 spaces for each 100 m^2 of GFA, whichever is greater

Use of Building or Lot	Minimum Number of Parking Spaces
Non-Residential Uses (continued)	
Day Care Centre	1.5 parking spaces for each classroom plus 1 parking space for each 5 person capacity as determined by the total occupant load
Elementary School	2 parking spaces per classroom
Farm Produce Sales Outlet	5 parking spaces for each 100 m² of sales area
Financial Institution	5 parking spaces for each 100 m² of GFA
Fitness and Recreational Facility	6 parking spaces per 100 m² of GFA plus 6 per racquet court
Funeral Home	7.5 parking spaces per 100 m² of GFA
Gas Bar	3 parking spaces for each 100m² of GFA of the convenience store or 5 parking spaces, whichever is greater
Golf Course	27 parking spaces for each 9 holes of the golf course and 3.75 parking spaces for each 100m² of GFA for the clubhouse, pro shop and public use areas
Grocery Store, Supermarket	5 parking spaces for each 100 m² GFA
High School	3 parking spaces for each classroom
Hospitals	1 parking space for every 2 beds
Hotel or Motel	1 parking space for each guest suite, plus 10 parking spaces for each 100m² of GFA excluding guest suites and guest suite access hallways
Industrial Mall	2 parking spaces for each 100 m² within each unit, provided that where an industrial unit has a GFA greater than 500 m², the individual parking requirement for the use in that unit shall apply to the GFA devoted to that use, in lieu of the foregoing.
Manufacturing, Processing or Assembly Use	3000 m² or less GFA: 1.6 parking spaces for each 100 m² of GFA Greater than 3000 m² of GFA: 1.6 parking spaces for each 100 m² of GFA for the first 3000 m² and 1 parking space for each 100 m² of GFA in excess of 3000 m²
Miniature Golf Course, Golf Driving Range	1.5 parking spaces for each tee
Motor Vehicle Body Repair Shop	4 parking spaces for each repair bay, stationary wash bay or any other work bay
Museums and Art Galleries	2.5 parking spaces for each 100 m² of GFA
Office	5 parking spaces for each 100 m² of GFA
Place of Amusement	1 parking space for each 4 persons capacity
Place of Worship, Commercial Recreation Use	1 parking space for each 5 seats or 3 m of bench space. Where there are no fixed seats, 10 parking spaces for each 100 m² of GFA devoted to public use. Where there is a combination of floor area containing fixed seating and floor area devoted to public use containing no fixed seating, 10 parking spaces for each 100 m² of GFA devoted to public use
Restaurant	1 parking space for each 4 persons seating capacity or 11 parking spaces for each 100 m² of GFA, whichever is greater. The required number of parking spaces may be reduced by a factor of 20% where a drive thru facility is present.
Restaurant with Take-out Facilities	6 parking spaces, plus 1 space for each 4 persons seating capacity or 11 parking spaces for each 100 m² of GFA, whichever is greater
Retail Store, Personal Service Establishment, Service Establishment	1,200 m² or less of GFA - 3 parking spaces for each 100 m² of GFA. Greater than 1,200 m² of GFA - 2 parking spaces per 100 m² of GFA
Shopping Centre	Maximum 6 parking spaces for each 100 m² of GFA;

Use of Building or Lot	Minimum Number of Parking Spaces
	Minimum 3.3 parking spaces for each 100 m² of GFA
Veterinary Clinic	4 parking spaces for each 100 m² of GFA
Warehouse	2,000 m² or less of GFA: (1 parking space for each 100 m² of GFA) Greater than 2,000 m² of GFA: 0.6 parking space for each 100 m² of GFA
All other Commercial Uses	3.5 parking spaces for each 100 m² of GFA

3.23.2 Barrier Free Parking Requirements (2016-143-ZO)

3.23.2.1 Minimum Barrier Free Parking Space Dimensions

Dimension	*Type A (large)*	*Type B (small)*
Minimum width	3.4 m	2.4 m
Minimum length	5.5 m	5.5 m
Minimum vertical clearance	2.75 m	2.75 m

3.23.2.2 The apportionment of barrier free parking spaces of the total parking spaces required is as follows:

Total Parking Space(s) Required	Barrier Free Parking Space(s) Required
1 to 25	1 *Type A* parking space
26 to 100	4% of total required parking
101 to 200	1 space + 3% of total required parking
201 to 1000	2 spaces + 2% of total required parking
1001+	11 spaces + 1% of total required parking

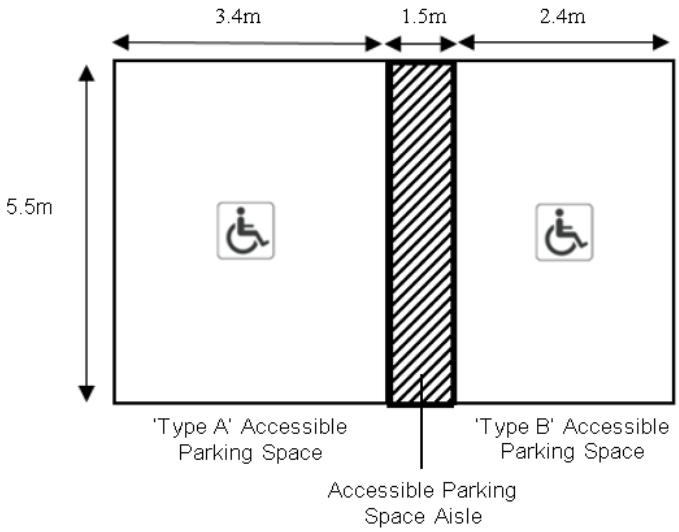
(All parking spaces shall be rounded up to the nearest whole number)

3.23.2.3 Where an even number of barrier free parking spaces are required, 50% of the required barrier free spaces must be *Type A* and 50% must be *Type B.*

Where an odd number of barrier free parking spaces are required, the additional parking space may be either a *Type A* or a *Type B.*

3.23.2.4 An access aisle must be provided for each barrier free parking space and shall meet the following requirements:

i) a minimum width of 1.5 m
ii) extends the full length of the parking space
iii) is marked with contrasting diagonal lines
iv) the required access aisle may be shared by two barrier free parking spaces



3.23.3 Multiple Uses **(2016-143-ZO)**

The parking requirements for a single lot or building containing more than one use shall be the sum total of all the parking requirements for each of the component uses, unless otherwise provided for in this By-law.

3.24 General Parking Area Regulations (2013-110-ZO) (2016-143-ZO)

3.24.1 Where the calculation of parking in Section 3.23.1 - Table of Parking Standards results in a fraction of a parking space, the fraction shall be rounded up to the nearest whole number of parking spaces.

3.24.2 Parking spaces shall be on the same lot as the building or use for which they are required.

3.24.3 Each parking space shall be clearly demarcated and shall have a minimum width, length and adjoining aisle width, as set out in the following table:

Parking Angle (degrees)	Parking Space Width (m)	Parking Space Length (m)	Aisle Width (m)
0 to 20	2.75	6.7	3.5
21 to 45	2.75	5.5	3.2
46 to 60	2.75	5.5	3.9
61 to 75	2.75	5.5	5.1
76 to 90	2.75	5.5	6.5

3.24.4 The minimum width of a driveway leading to any parking area shall be 3 m for a one-way driveway and 6.5 m for a two-way driveway.

3.24.5 Downtown Area Parking Reduction Area

For that part of the Downtown area on both sides of Main Street, between Albert Street and Park Drive, as shown on Schedule 64, the amount of parking required by Section 3.23.1 – Table of Parking Standards may be reduced to an amount equal to 60% of the standard shown in the Table of Parking Standards for all uses except residential uses and office uses exceeding 1,858 m^2.

3.24.6 Parking Provisions:

3.24.6.1 Location of Parking in Residential and New Residential Zones

In all Residential and New Residential Zones:

i) Within a front or rear or exterior side yard, motor vehicle parking is only permitted on a driveway or a parking pad having a minimum unobstructed dimension of 2.75 m in width and 5.5 m in length.

ii) Parking is permitted within a garage having an unobstructed dimension of 2.75 m in width and 6 m in length.

iii) Parking is permitted in a garage having a dimension of 2.75 m in width and 6 m in length with up to 0.6 m of encroachment by stairs located within 1 m from the end of the parking space.

iv) Parking is permitted in a garage having a dimension of 3.25 m in width and 6 m in length if stairs intrude into the garage beyond 0.6 m, or are located more than 1 m away from the end of the parking space.

v) Parking is permitted in a garage having a dimension of 5.6 m in width and 6 m in length for a double vehicle garage, with up to 0.6 m of encroachment by stairs located within 1 m of the end of the parking space.

vi) Subject to the provisions for circular driveways, only one driveway or one parking pad is permitted per lot.

Section 7

Employment Zones

No person shall, within any Employment Light (EL), Employment Light - Gormley (EL-G), Employment Heavy (EH), Employment Heavy - Gormley (EH-G), Employment Extractive (EX), Employment Disposal (ED), Employment Business Park (EBP) or Employment Business Park - Gormley (EBP-G) Zone, use any land, or erect, alter or use any building or structure, except in accordance with the following:

7.1 Permitted Uses, Buildings and Structures

Uses, Buildings and Structures	EL	EL-G	EH	EH-G	EX	ED	EBP	EBP-G
Abattoir			✓					
Accessory Outdoor Storage	✓(3)	✓(3)	✓(3)	✓(3)	✓(3)	✓(3)		
Accessory Restaurant							✓(4)	
Accessory Retail Store	✓(1)	✓(1)	✓(2)	✓(6)			✓(1)	✓(1)
Adult Retraining Schools				✓			✓	✓
Agricultural Uses, Buildings and Structures					✓			
Automobile Service Station				✓				
Boat and Marine Supply, Storage, Repair or Sales				✓				
Building Supply and Equipment Depot				✓				
Bulk Storage Tank			✓	✓				
Business Services							✓	
Club	✓	✓	✓				✓	
Commercial School	✓	✓					✓	
Commercial Recreation							✓	
Contractor's Yard			✓					
Day Care Centre	✓(5)	✓(5)	✓(5)				✓	✓(5)
Dry Cleaning Establishment				✓				
Equipment Sales and Rental	✓	✓	✓					
Farm Implement Sales and Service								
Feed Mill								
Fitness and Recreation Facilities							✓	✓

Uses, Buildings and Structures	EL	EL-G	EH	EH-G	EX	ED	EBP	EBP-G
Foundry			✓	✓				
Heavy Equipment Sales and Service			✓	✓				
Hotel, Conference, Convention or Banquet Facility							✓	
Manufacturing or Assembling or Processing	✓	✓	✓	✓			✓	✓
Mineral Aggregate Operation					✓			
Motor Vehicle Body Repair Shop	✓	✓	✓	✓				
Office	✓	✓	✓(5)	✓			✓	✓
Organic Composting Facility						✓		
Peat Extraction					✓			
Pit or Quarry					✓			
Place of Worship							✓	
Portable Asphalt Plant					✓			
Printing Plant	✓							
Private Club				✓				
Public Garage	✓	✓	✓	✓				
Public Storage Facility	✓(3)	✓	✓(3)					
Research and Development Establishment	✓	✓	✓	✓			✓	✓
Recording Studio	✓	✓					✓	
Recreational Vehicle Sales and Service			✓					
Salvage or Wrecking Yard						✓		
Sawmill			✓					
Service Establishment	✓	✓	✓	✓			✓(1)	✓
Transportation Terminal			✓	✓	✓	✓		
Warehouse	✓	✓	✓	✓			✓	✓
Waste Disposal Facility						✓		
Waste Transfer Station						✓		
Wholesale Sales and Distribution				✓			✓	✓

(2011-151-ZO) (2011-152-ZO) (2013-114-ZO) (2013-157-ZO)

7.1.1 Qualifying Notes to Permitted Uses

(1) An accessory retail store shall not exceed 10% of the GFA of the main use.

(2) In EH Zones, an accessory retail store does not include the sale or leasing of vehicles. **(2013-114-ZO)**

(3) Accessory outdoor storage provisions are contained in the regulations of Section 7.2 and the associated Qualifying Notes. **(2011-152-ZO)**

(4) An accessory restaurant is permitted in a building having a minimum gross floor area of 929 m² where the maximum size of the accessory restaurant is the lesser of 10% of the GFA of the main building or 110 m². **(2011-152-ZO)**

(5) This use is permitted only if it is accessory to a permitted use.

(6) Not more than 25% of the GFA, each individual unit, may be used as an accessory retail store. **(2011-151-ZO)**

7.2 Regulations

	EL	EL-G	EH	EH-G	EX	ED	EBP	EBP-G
Minimum Lot Area	0.4 ha	0.8 ha(11)	0.8 ha(11)	0.8 ha(11)	(9)	4 ha	0.4 ha	0.8 ha(11)
Minimum Lot Frontage	30 m	30 m	30 m	30 m	(9)	100 m	30 m	30 m
Minimum Front Yard	7.5 m (3)(7)	10 m (7)	10 m (7)	10 m (7)	(9)	30 m (4)(7)	10 m (7)	10 m (7)
Minimum Exterior Side Yard	7.5 m (7)	10 m (7)	10 m (7)	10 m (7)	(9)	30 m (4)(7)	10 m (7)	10 m (7)
Minimum Interior Side Yard	7.5 m (7)(8)	7.5 m (7)(8)	7.5 m (7)(8)	7.5 m (7)(8)	(9)	15 m (4)(7)(8)	6 m (7)(8)	6 m (7)(8)
Minimum Rear Yard	10 m (7)	10 m (7)(8)	10 m (7)	10 m (7)(8)	(9)	15 m (4)(7)	10 m (7)	10 m (7)(8)
Minimum Yard abutting OS, ENV, R and RN Zones	10 m (1)(5)	30 m (1)(5)	30 m (1)(5)	30 m (1)(5)	(9)	60 m (1)(5)	10 m (5)	30 m (5)
Maximum Floor Space Index	1		1		(9)	1	1	
Minimum Building Gross Floor Area	n/a	186 m^2	186 m^2	186 m^2	(9)	186 m^2	n/a	n/a
Maximum Height of Buildings	20 m	20 m	12 m	12 m	(9)	12 m	20 m	20 m
Minimum Landscaped Area	10% of lot area	10% of lot area	10% of lot area	10% of lot area	(9)	20% of lot area	10% of lot area	10% of lot area
Front Yard Landscaped Area	50% of front yard area	50% of front yard area	50% of front yard area	50% of front yard area	(9)	50% of front yard area	50% of front yard area	50% of front yard area
Accessory Outdoor Storage	20% of lot area (6)(10)	20% of lot area (6)(10)	40% of lot area on lots less than 2.4 ha; 60% of lot area on lots greater than 2.4 ha (10)(11)	40% of lot area on lots less than 2.4 ha; 60% of lot area on lots greater than 2.4 ha (10)(11)(13)	(9)	20% of lot area (10)	n/a	n/a
Maximum Lot Coverage		35%		35%				35%
Minimum Setback to Hedgerow				3 m (12)				3 m (12)

(2011-151-ZO) (2011-152-ZO) (2013-114-ZO)

7.2.1 Qualifying Notes to Regulations

(1) Any yard abutting an OS, ENV, FH, R or RN Zone must be landscaped.

(2) NOT IN USE

(3) Lots on private services require a minimum 15 m front yard.

(4) All minimum yards must be screened to create an opaque screen in accordance with the Town's Fencing By-law. **(2013-114-ZO)**

(5) If the need is established pursuant to Section 3.20 and/or a Natural Heritage Evaluation or Hydrological Evaluation, as applicable, a greater setback may be required.

(6) An accessory outdoor storage area shall only be used for the temporary storage of finished or semi-finished products, processed, manufactured, assembled, repaired or used on the premises in a building.

(7) A minimum 4.5 m of the required yard must be landscaped.

(8) In the case of 2 lots which are combined as part of a singularly planned development with shared parking and loading facilities, no minimum landscaped strip shall be required within the abutting interior side yards.

In the case of 2 abutting lots developed individually, the minimum landscaped strip width within each abutting yard may be 3 m, for a combined landscaped width of 6 m.

(9) Subject to the standards and regulations in the "Aggregate Resource of Ontario Provincial Standards".

(10) Accessory outdoor storage is permitted only as an accessory use to a permitted use taking place in a building on the site and is permitted in rear and side yards only. The area used for accessory outdoor storage shall be screened in accordance with the Town's Fencing By-law. Notwithstanding any provision in this By-law to the contrary, the minimum landscaped buffer at the property boundary shall be 4.5 m in a lot with accessory outdoor storage. The screening shall not be subject to any minimum yard requirements of this By-law.

(11) The minimum lot area may be reduced to 0.4 ha subject to the submission and approval by The Town of a hydrogeological report and other technical studies required to verify that the lot at the reduced size can be properly serviced with private well and sanitary services to the satisfaction of the Town. **(2011-151-ZO) (2016-144-ZO)**

(12) The minimum setback applies to all buildings and structures, parking areas or accessory outdoor storage. The setback shall be measured from the staked dripline of the hedgerow feature. No re-grading or soil stripping shall be permitted in the setback area. **(2011-151-ZO)**

(13) For lots that are zoned Employment Business Park-Gormley (EBP-G) and Employment Heavy-Gormley (EH-G) and, in instances where that portion of the lot zoned EH is greater than 2.4 ha in area, the maximum coverage for Accessory Outdoor Storage within the Employment Heavy Zone is 80%. The minimum landscaped buffer at the property boundary of 4.5 shall be required notwithstanding any other provision of this By-law. **(2011-151-ZO)**

TOWN OF WHITCHURCH-STOUFFVILLE | WS MAPS 3.1

Fairgate Homes

Print Date:
1/10/2018

1 2,257 WGS_1984_Web_Mercator_Auxiliary_Sphere

N W E S

Notes

Hi Jeremy,

Based on a review of TRCA mapping I can confirm that a portion of the subject lands are within TRCA's Regulation Area due to an Oak Ridges Moraine wetland feature located to the west of the property. I had previously provided comments on the associated consent application (CA-16-01) which created the subject property. In that comment letter it was noted that the lot to be conveyed was outside of TRCA's Regulated Area. This comment was an error due to out of date mapping. Based on review of our most up to date mapping, I can confirm that TRCA's Regulated Area actually extends approximately 30 metres into the western portion of the property. As such, a permit pursuant to Ontario Regulation 166/06 would be required for any development or site alteration within TRCA's Regulated Area on the subject property.

Furthermore, the subject property is located in a Source Water Protection vulnerable area referred to as Wellhead Protection Area-Q2 (WHPA-Q2). A site water balance assessment (Hydrogeological Report and Water Balance Assessment, prepared by Terraprobe, dated January 25, 2016) was submitted as a part of the consent application. TRCA staff reviewed the document and confirmed that the findings of the report were satisfactory. The conclusion of the report was that recharge could be maintained in the post development condition with a Low Impact Development (LID) strategy. As a part of the site plan process the applicant will need to provide materials outlining the applicable design details and supporting calculations for the LID's as well as engineering drawings illustrating locations, typical details and spatial requirements for all mitigation measures proposed in order to demonstrate the pre-development recharge conditions will be met during post-development.

With regards to submission materials to support a future site plan application, TRCA would request a copy of the following materials:

Reports
- Functional Servicing and Stormwater Management Report
- Water Balance Assessment - updated with design details/calculations for proposed LID's.
- Oak Ridges Moraine Conformity Statement

Engineering Drawings
- Site Plan
- Grading Plan
- Servicing Plan
- Erosion and Sediment Control Plan
- Landscape Plan

An application for site plan for the subject property would be subject to an associated TRCA review fee of $6,050.00 (Site Plan - Standard).

Regards,

Stephen Bohan | Planner II, Planning and Development | Toronto and Region Conservation Authority | ☎ 416 661-6600 ext. 5743 | 🖷 416-661-6898 | ✉ sbohan@trca.on.ca | www.trca.on.ca

* *Mailing Address:* 5 Shoreham Drive, Toronto, ON M3N 1S4
* *NEW* - Location Address: 101 Exchange Avenue, Vaughan ON L4K 5R6

Site Plan Control Application
York Region Submission Requirements

To facilitate the Regional development review process for a site plan application, please submit the following materials. Additional submission requirements may be identified through the Regional review process. Note that all designs must be AODA compliant. Please provide electronic and hard copies of the following:

Submission Checklist

1. **Processing Fees** (refer to York Region Fee Bylaw No. 2010-15, as amended):
   Additional fee is required after the third submission due to revisions by the owner or the owner's failure to revise drawings/plans/studies as requested by the Region

   $3,100 Must be paid by **certified cheque,** made payable to 'The Regional Municipality of York' ■

2. **One copy** of the application and completed pre-consultation checklist ■

3. ~~**Three**~~ One **copies** of the following:
   - ◉ Site Plan
   - ◉ Servicing Plans
   - ◉ Stormwater Management Report
   - ○ Grading Plan
   - ○ Landscape Plans (including Tree Protection Plan)
   - ◉ Erosion and Sediment Control Plans (including Construction Access)
   - ○ For Lands to be conveyed to York Region: Phase 1 Environmental Site Assessment (and Phase 2 if required) completed in general accordance with Ontario Regulation 153/04 for the entire property. The ESA should be less than two years old at the time of land conveyance.
   - ○ Survey Plan

4. **The following additional requirements** will be determined through pre-consultation with Regional staff (**three folded sets** of each drawing and **three copies** of each report):
   - ○ Transportation Demand Management Plan
   - ◉ Transportation Mobility Plan
   - ◉ Functional Servicing Report
   - ○ Noise and Vibration Study
   - ○ Hydrogeological Report
   - ○ Geotechnical Report
   - ○ Crane Swing
   - ○ Shoring Plans
   - ○ Hoarding/Fencing Plan
   - ○ Dewatering Management Plan
   - ○ Tree Planting and Protection Plan
   - ○ Traffic Management Plan
   - ○ Construction Management Plan
   - ○ Restoration Details for Regional Road Impacted Areas
   - ○ Electrical Utilities Plans
   - ○ Cross-Sections at 20 Meter Intervals
   - ○ R-Plan
   - ○ Pavement Markings and Signage Plans

Site Plan Control Application

York Region Submission Requirements (continued)

Submission Checklist (continued)

- ○ Removals Plan
- ○ Additional Financial Requirements
- ○ Above and Below Ground Civil Engineering Designs
  (Plans and Profile Drawings)
- ◉ Risk Management Plan
- ○ Source Water Impact Assessment and Mitigation Plan

*Not all of the materials identified above may be required. **All submissions must include digital copies of the items outlined in the checklist on a CD/DVD or USB flash drive.

Please submit the completed form and package to:
York Region, Corporate Services Department, Planning and Economic Development Branch,
Community Planning and Development Services,
17250 Yonge Street, 1st Floor, Newmarket, ON L3Y 6Z1

Please send electronic submissions to: ***developmentservices@york.ca***

Re. Risk Management Plan - Please consult with Angelika Masotti at ext. 75128 first

York Region

AECOM

Appendix C

Traffic Data: TMC and STP

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #24-148 - AECOM

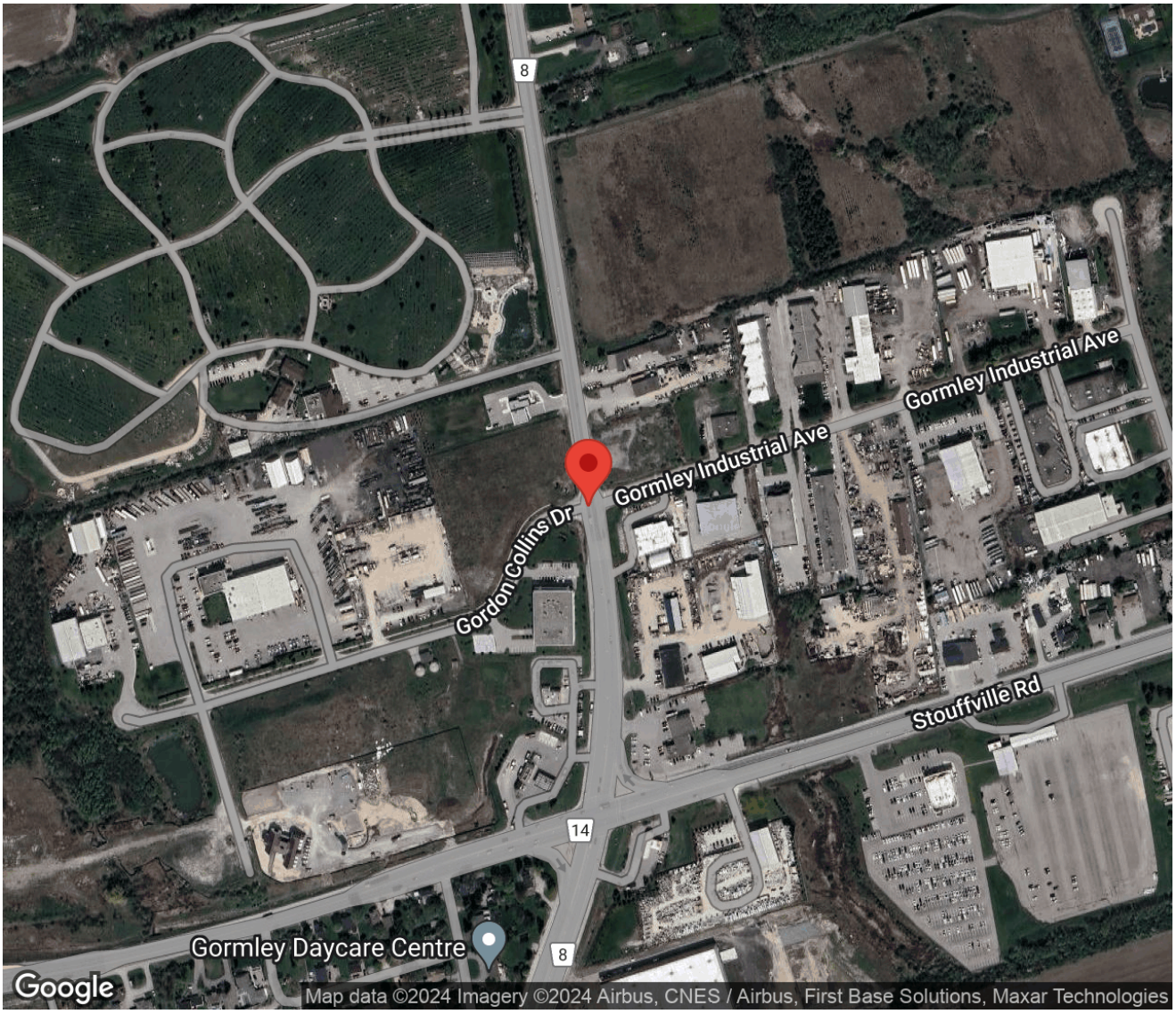
Intersection Count Report

Intersection:	Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Municipality:	Gormley
Count Date:	Wednesday, Apr 10, 2024
Site Code:	2414800001
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-10:00, 12:00-14:00, 15:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code:	2414800001
Municipality:	Gormley
Count Date:	Apr 10, 2024



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code:	2414800001
Municipality:	Gormley
Count Date:	Apr 10, 2024

Woodbine Ave - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	28	476	10	0	514	0	23	240	30	0	293	0	807
08:00 - 09:00	24	443	9	0	476	0	15	240	30	0	285	0	761
09:00 - 10:00	18	339	7	0	364	1	25	283	41	0	349	0	713
BREAK													
12:00 - 13:00	14	240	2	0	256	2	19	252	34	0	305	0	561
13:00 - 14:00	11	206	1	0	218	0	7	232	36	0	275	0	493
BREAK													
15:00 - 16:00	12	210	3	0	225	0	13	372	24	1	410	0	635
16:00 - 17:00	7	293	0	0	300	0	12	396	16	2	426	0	726
17:00 - 18:00	8	250	1	0	259	0	5	449	16	0	470	0	729
GRAND TOTAL	**122**	**2457**	**33**	**0**	**2612**	**3**	**119**	**2464**	**227**	**3**	**2813**	**0**	**5425**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code:	2414800001
Municipality:	Gormley
Count Date:	Apr 10, 2024

Gormley Industrial Ave - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	18	3	6	0	27	1	2	3	12	0	17	0	44
08:00 - 09:00	17	4	9	0	30	0	1	3	11	0	15	0	45
09:00 - 10:00	18	3	9	0	30	0	1	1	11	0	13	2	43
BREAK													
12:00 - 13:00	30	3	12	0	45	2	4	1	17	0	22	0	67
13:00 - 14:00	22	2	16	0	40	0	0	2	11	0	13	0	53
BREAK													
15:00 - 16:00	43	0	20	0	63	0	10	0	15	0	25	1	88
16:00 - 17:00	43	0	37	0	80	0	16	1	44	0	61	1	141
17:00 - 18:00	31	1	26	0	58	0	7	1	23	0	31	0	89
GRAND TOTAL	**222**	**16**	**135**	**0**	**373**	**3**	**41**	**12**	**144**	**0**	**197**	**4**	**570**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

North Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	9	66	1	0	76	0	20	0	0	20	0	0	0	0	0	0
07:15	5	79	4	0	88	0	15	0	0	15	0	0	0	0	0	0
07:30	5	132	4	0	141	0	16	0	0	16	0	0	0	0	0	0
07:45	9	127	1	0	137	0	21	0	0	21	0	0	0	0	0	0
08:00	9	91	2	0	102	0	20	0	0	20	0	0	0	0	0	0
08:15	2	115	1	0	118	0	20	1	0	21	0	0	0	0	0	0
08:30	6	91	3	0	100	0	12	0	0	12	0	0	0	0	0	0
08:45	4	81	2	0	87	3	13	0	0	16	0	0	0	0	0	0
09:00	7	75	0	0	82	0	22	0	0	22	0	0	0	0	0	1
09:15	3	74	2	0	79	1	18	0	0	19	0	0	0	0	0	0
09:30	4	65	1	0	70	0	16	0	0	16	0	0	0	0	0	0
09:45	3	62	3	0	68	0	7	1	0	8	0	0	0	0	0	0
SUBTOTAL	66	1058	24	0	1148	4	200	2	0	206	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

North Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
12:00	4	71	0	0	75	0	10	0	0	10	0	0	0	0	0	0
12:15	4	53	0	0	57	0	7	0	0	7	0	0	0	0	0	0
12:30	2	53	0	0	55	0	3	0	0	3	0	0	0	0	0	1
12:45	4	36	2	0	42	0	7	0	0	7	0	0	0	0	0	1
13:00	1	45	0	0	46	1	6	0	0	7	0	0	0	0	0	0
13:15	2	45	0	0	47	0	5	0	0	5	0	0	0	0	0	0
13:30	3	53	1	0	57	2	12	0	0	14	0	0	0	0	0	0
13:45	2	31	0	0	33	0	8	0	0	8	0	1	0	0	1	0
SUBTOTAL	22	387	3	0	412	3	58	0	0	61	0	1	0	0	1	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

North Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
15:00	4	38	0	0	42	1	2	0	0	3	0	0	0	0	0	0
15:15	0	44	0	0	44	1	7	0	0	8	0	0	0	0	0	0
15:30	0	63	1	0	64	3	6	2	0	11	0	1	0	0	1	0
15:45	2	46	0	0	48	1	3	0	0	4	0	0	0	0	0	0
16:00	1	78	0	0	79	1	13	0	0	14	0	0	0	0	0	0
16:15	1	57	0	0	58	0	4	0	0	4	0	0	0	0	0	0
16:30	0	66	0	0	66	0	5	0	0	5	0	0	0	0	0	0
16:45	1	67	0	0	68	3	3	0	0	6	0	0	0	0	0	0
17:00	1	73	0	0	74	0	4	1	0	5	0	0	0	0	0	0
17:15	2	65	0	0	67	1	2	0	0	3	0	0	0	0	0	0
17:30	3	54	0	0	57	0	5	0	0	5	0	0	0	0	0	0
17:45	1	47	0	0	48	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	16	698	1	0	715	11	54	3	0	68	0	1	0	0	1	0
GRAND TOTAL	104	2143	28	0	2275	18	312	5	0	335	0	2	0	0	2	3

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

South Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	4	53	6	0	63	2	5	1	0	8	0	0	0	0	0	0
07:15	2	64	8	0	74	2	5	0	0	7	0	0	0	0	0	0
07:30	7	53	5	0	65	1	4	1	0	6	0	0	0	0	0	0
07:45	4	48	9	0	61	1	8	0	0	9	0	0	0	0	0	0
08:00	4	50	7	0	61	0	6	1	0	7	0	0	0	0	0	0
08:15	5	69	10	0	84	0	6	2	0	8	0	0	0	0	0	0
08:30	4	42	4	0	50	0	8	0	0	8	0	0	0	0	0	0
08:45	2	50	6	0	58	0	9	0	0	9	0	0	0	0	0	0
09:00	5	63	8	0	76	0	12	0	0	12	0	0	1	0	1	0
09:15	8	59	9	0	76	1	25	1	0	27	0	1	0	0	1	0
09:30	4	42	9	0	55	2	7	1	0	10	0	0	0	0	0	0
09:45	5	66	11	0	82	0	8	1	0	9	0	0	0	0	0	0
SUBTOTAL	54	659	92	0	805	9	103	8	0	120	0	1	1	0	2	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

South Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
12:00	3	46	5	0	54	0	10	2	0	12	0	0	0	0	0	0
12:15	3	47	5	0	55	2	11	1	0	14	0	0	0	0	0	0
12:30	4	61	6	0	71	0	8	2	0	10	0	0	0	0	0	0
12:45	5	59	11	0	75	2	10	2	0	14	0	0	0	0	0	0
13:00	2	45	7	0	54	0	8	0	0	8	0	1	0	0	1	0
13:15	0	61	8	0	69	0	6	2	0	8	0	0	0	0	0	0
13:30	2	44	10	0	56	1	8	0	0	9	0	0	0	0	0	0
13:45	2	51	8	0	61	0	8	1	0	9	0	0	0	0	0	0
SUBTOTAL	21	414	60	0	495	5	69	10	0	84	0	1	0	0	1	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

South Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	1	62	5	0	68	5	13	0	1	19	0	0	0	0	0	0
15:15	1	74	8	0	83	1	9	1	0	11	0	0	0	0	0	0
15:30	0	85	4	0	89	0	19	2	0	21	0	1	0	0	1	0
15:45	1	97	3	0	101	4	12	1	0	17	0	0	0	0	0	0
16:00	2	87	3	1	93	2	9	1	0	12	0	0	0	0	0	0
16:15	3	94	6	0	103	0	20	2	0	22	0	0	0	0	0	0
16:30	1	72	2	1	76	4	16	1	0	21	0	0	0	0	0	0
16:45	0	94	1	0	95	0	4	0	0	4	0	0	0	0	0	0
17:00	0	92	5	0	97	1	9	1	0	11	0	0	0	0	0	0
17:15	0	105	2	0	107	2	5	1	0	8	0	0	0	0	0	0
17:30	0	110	4	0	114	0	3	0	0	3	0	0	0	0	0	0
17:45	1	122	1	0	124	1	3	2	0	6	0	0	0	0	0	0
SUBTOTAL	10	1094	44	2	1150	20	122	12	1	155	0	1	0	0	1	0
GRAND TOTAL	85	2167	196	2	2450	34	294	30	1	359	0	3	1	0	4	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

East Approach - Gormley Industrial Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	4	0	0	0	4	2	0	0	0	2	0	0	0	0	0	0
07:15	3	1	2	0	6	3	0	0	0	3	0	0	0	0	0	1
07:30	1	0	2	0	3	0	1	0	0	1	0	0	0	0	0	0
07:45	3	0	2	0	5	2	1	0	0	3	0	0	0	0	0	0
08:00	1	0	3	0	4	2	0	3	0	5	0	0	0	0	0	0
08:15	8	1	2	0	11	0	0	0	0	0	0	0	0	0	0	0
08:30	1	2	0	0	3	0	0	1	0	1	0	0	0	0	0	0
08:45	2	0	0	0	2	3	1	0	0	4	0	0	0	0	0	0
09:00	2	0	1	0	3	1	0	0	0	1	0	0	0	0	0	0
09:15	6	0	5	0	11	2	2	0	0	4	0	0	0	0	0	0
09:30	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0
09:45	3	0	2	0	5	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	38	5	19	0	62	15	5	5	0	25	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

East Approach - Gormley Industrial Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
12:00	7	1	3	0	11	0	0	1	0	1	0	0	0	0	0	0
12:15	7	1	4	0	12	2	0	0	0	2	0	0	0	0	0	1
12:30	7	1	3	0	11	0	0	0	0	0	0	0	0	0	0	0
12:45	6	0	1	0	7	1	0	0	0	1	0	0	0	0	0	1
13:00	4	0	2	0	6	1	0	0	0	1	0	0	0	0	0	0
13:15	7	0	7	0	14	0	1	0	0	1	0	0	0	0	0	0
13:30	4	0	2	0	6	1	1	0	0	2	0	0	0	0	0	0
13:45	4	0	5	0	9	1	0	0	0	1	0	0	0	0	0	0
SUBTOTAL	46	3	27	0	76	6	2	1	0	9	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

East Approach - Gormley Industrial Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
15:00	13	0	5	0	18	1	0	2	0	3	0	0	0	0	0	0
15:15	14	0	5	0	19	0	0	0	0	0	0	0	0	0	0	0
15:30	8	0	1	0	9	0	0	0	0	0	0	0	0	0	0	0
15:45	7	0	7	0	14	0	0	0	0	0	0	0	0	0	0	0
16:00	10	0	9	0	19	0	0	0	0	0	0	0	0	0	0	0
16:15	5	0	4	0	9	0	0	0	0	0	0	0	0	0	0	0
16:30	18	0	15	0	33	0	0	0	0	0	0	0	0	0	0	0
16:45	10	0	9	0	19	0	0	0	0	0	0	0	0	0	0	0
17:00	13	0	9	0	22	0	0	0	0	0	0	0	0	0	0	0
17:15	7	1	9	0	17	0	0	0	0	0	0	0	0	0	0	0
17:30	8	0	5	0	13	0	0	0	0	0	0	0	0	0	0	0
17:45	3	0	2	0	5	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	116	1	80	0	197	1	0	3	0	4	0	0	0	0	0	0
GRAND TOTAL	200	9	126	0	335	22	7	9	0	38	0	0	0	0	0	3

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

West Approach - Gordon Collins Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	0
07:15	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	0
07:30	1	0	0	0	1	0	0	3	0	3	0	0	0	0	0	0
07:45	1	1	3	0	5	0	0	1	0	1	0	0	0	0	0	0
08:00	0	0	2	0	2	0	0	1	0	1	0	0	0	0	0	0
08:15	0	0	1	0	1	0	0	2	0	2	0	0	0	0	0	0
08:30	0	1	1	0	2	0	0	1	0	1	0	0	0	0	0	0
08:45	0	0	3	0	3	1	2	0	0	3	0	0	0	0	0	0
09:00	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0	1
09:15	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0
09:30	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1
09:45	1	0	2	0	3	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	3	3	19	0	25	1	4	15	0	20	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

West Approach - Gordon Collins Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
12:00	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	8	0	8	1	0	0	0	1	0	0	0	0	0	0
12:30	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0
12:45	0	1	3	0	4	1	0	0	0	1	0	0	0	0	0	0
13:00	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0
13:15	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	0
13:45	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	2	1	28	0	31	2	2	0	0	4	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Municipality: Gormley
Count Date: Apr 10, 2024

West Approach - Gordon Collins Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	2	0	3	0	5	0	0	1	0	1	0	0	0	0	0	0
15:15	4	0	2	0	6	0	0	1	0	1	0	0	0	0	0	0
15:30	2	0	4	0	6	0	0	1	0	1	0	0	0	0	0	0
15:45	2	0	2	0	4	0	0	1	0	1	0	0	0	0	0	1
16:00	4	0	16	0	20	0	0	0	0	0	0	0	0	0	0	0
16:15	6	0	7	0	13	0	0	0	0	0	0	0	0	0	0	1
16:30	4	1	5	0	10	0	0	3	0	3	0	0	0	0	0	0
16:45	2	0	13	0	15	0	0	0	0	0	0	0	0	0	0	0
17:00	1	0	6	0	7	0	0	0	0	0	0	0	0	0	0	0
17:15	6	0	7	0	13	0	0	0	0	0	0	0	0	0	0	0
17:30	0	1	7	0	8	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	33	2	75	0	110	0	0	7	0	7	0	0	0	0	0	2
GRAND TOTAL	**38**	**6**	**122**	**0**	**166**	**3**	**6**	**22**	**0**	**31**	**0**	**0**	**0**	**0**	**0**	**4**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:30:00
To:	10:00:00	To:	08:30:00

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Woodbine Ave runs N/S

North Approach

	Out	In	Total
Cars	498	231	729
Trucks	78	27	105
Bicycles	0	0	0
	576	**258**	**834**

Woodbine Ave

Bicycles	0	0	0	0
Trucks	1	77	0	0
Cars	8	465	25	0
Totals	**9**	**542**	**25**	**0**

East Approach

	Out	In	Total
Cars	23	57	80
Trucks	9	4	13
Bicycles	0	0	0
	32	**61**	**93**

Peds: 0

Gordon Collins Dr

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	0	2	**2**
0	0	1	**1**
0	7	6	**13**

Peds: 0

Peds: 0

Gormley Industrial Ave

Totals	Cars	Trucks	Bicycles
0	0	0	0
12	9	3	0
3	1	2	0
17	13	4	0

Peds: 0

West Approach

	Out	In	Total
Cars	9	29	38
Trucks	7	5	12
Bicycles	0	0	0
	16	**34**	**50**

Woodbine Ave

Totals	**22**	**244**	**35**	**0**
Cars	20	220	31	0
Trucks	2	24	4	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	271	484	755
Trucks	30	88	118
Bicycles	0	0	0
	301	**572**	**873**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Count Date: Apr 10, 2024
Period: 07:00 - 10:00

Peak Hour Data (07:30 - 08:30)

Start Time	North Approach Woodbine Ave						South Approach Woodbine Ave						East Approach Gormley Industrial Ave						West Approach Gordon Collins Dr						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:30	5	148	4	0	0	157	8	57	6	0	0	71	1	1	2	0	0	4	1	0	3	0	0	4	236
07:45	9	148	1	0	0	158	5	56	9	0	0	70	5	1	2	0	0	8	1	1	4	0	0	6	242
08:00	9	111	2	0	0	122	4	56	8	0	0	68	3	0	6	0	0	9	0	0	3	0	0	3	202
08:15	2	135	2	0	0	139	5	75	12	0	0	92	8	1	2	0	0	11	0	0	3	0	0	3	245
Grand Total	**25**	**542**	**9**	**0**	**0**	**576**	**22**	**244**	**35**	**0**	**0**	**301**	**17**	**3**	**12**	**0**	**0**	**32**	**2**	**1**	**13**	**0**	**0**	**16**	**925**
Approach %	4.3	94.1	1.6	0		-	7.3	81.1	11.6	0		-	53.1	9.4	37.5	0		-	12.5	6.3	81.3	0		-	
Totals %	2.7	58.6	1	0		62.3	2.4	26.4	3.8	0		32.5	1.8	0.3	1.3	0		3.5	0.2	0.1	1.4	0		1.7	
PHF	**0.69**	**0.92**	**0.56**	**0**		**0.91**	**0.69**	**0.81**	**0.73**	**0**		**0.82**	**0.53**	**0.75**	**0.5**	**0**		**0.73**	**0.5**	**0.25**	**0.81**	**0**		**0.67**	**0.94**
Cars	25	465	8	0		498	20	220	31	0		271	13	1	9	0		23	2	1	6	0		9	801
% Cars	100	85.8	88.9	0		86.5	90.9	90.2	88.6	0		90	76.5	33.3	75	0		71.9	100	100	46.2	0		56.3	86.6
Trucks	0	77	1	0		78	2	24	4	0		30	4	2	3	0		9	0	0	7	0		7	124
% Trucks	0	14.2	11.1	0		13.5	9.1	9.8	11.4	0		10	23.5	66.7	25	0		28.1	0	0	53.8	0		43.8	13.4
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	12:00:00	From:	12:00:00
To:	14:00:00	To:	13:00:00

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Woodbine Ave runs N/S

North Approach

	Out	In	Total
Cars	229	226	455
Trucks	27	42	69
Bicycles	0	0	0
	256	**268**	**524**

Woodbine Ave

Bicycles	0	0	0	0
Trucks	0	27	0	0
Cars	2	213	14	0
Totals	**2**	**240**	**14**	**0**

Peds: 2

East Approach

	Out	In	Total
Cars	41	42	83
Trucks	4	7	11
Bicycles	0	0	0
	45	**49**	**94**

Gordon Collins Dr

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	2	2	**4**
0	0	1	**1**
0	0	17	**17**

Peds: 0

Peds: 2

Gormley Industrial Ave

Totals	Cars	Trucks	Bicycles
0	0	0	0
12	11	1	0
3	3	0	0
30	27	3	0

Peds: 0

West Approach

	Out	In	Total
Cars	20	20	40
Trucks	2	4	6
Bicycles	0	0	0
	22	**24**	**46**

Totals	**19**	**252**	**34**	**0**
Cars	15	213	27	0
Trucks	4	39	7	0
Bicycles	0	0	0	0

Woodbine Ave

South Approach

	Out	In	Total
Cars	255	257	512
Trucks	50	30	80
Bicycles	0	0	0
	305	**287**	**592**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Count Date: Apr 10, 2024
Period: 12:00 - 14:00

Peak Hour Data (12:00 - 13:00)

Start Time	North Approach Woodbine Ave						South Approach Woodbine Ave						East Approach Gormley Industrial Ave						West Approach Gordon Collins Dr						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
12:00	4	81	0	0	0	85	3	56	7	0	0	66	7	1	4	0	0	12	2	0	1	0	0	3	166
12:15	4	60	0	0	0	64	5	58	6	0	0	69	9	1	4	0	1	14	1	0	8	0	0	9	156
12:30	2	56	0	0	1	58	4	69	8	0	0	81	7	1	3	0	0	11	0	0	5	0	0	5	155
12:45	4	43	2	0	1	49	7	69	13	0	0	89	7	0	1	0	1	8	1	1	3	0	0	5	151
Grand Total	**14**	**240**	**2**	**0**	**2**	**256**	**19**	**252**	**34**	**0**	**0**	**305**	**30**	**3**	**12**	**0**	**2**	**45**	**4**	**1**	**17**	**0**	**0**	**22**	**628**
Approach %	5.5	93.8	0.8	0		-	6.2	82.6	11.1	0		-	66.7	6.7	26.7	0		-	18.2	4.5	77.3	0		-	
Totals %	2.2	38.2	0.3	0		40.8	3	40.1	5.4	0		48.6	4.8	0.5	1.9	0		7.2	0.6	0.2	2.7	0		3.5	
PHF	**0.88**	**0.74**	**0.25**	**0**		**0.75**	**0.68**	**0.91**	**0.65**	**0**		**0.86**	**0.83**	**0.75**	**0.75**	**0**		**0.8**	**0.5**	**0.25**	**0.53**	**0**		**0.61**	**0.95**
Cars	14	213	2	0		229	15	213	27	0		255	27	3	11	0		41	2	1	17	0		20	545
% Cars	100	88.8	100	0		89.5	78.9	84.5	79.4	0		83.6	90	100	91.7	0		91.1	50	100	100	0		90.9	86.8
Trucks	0	27	0	0		27	4	39	7	0		50	3	0	1	0		4	2	0	0	0		2	83
% Trucks	0	11.3	0	0		10.5	21.1	15.5	20.6	0		16.4	10	0	8.3	0		8.9	50	0	0	0		9.1	13.2
Bicycles	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
Peds					2	-					0	-					2	-					0	-	4
% Peds					50	-					0	-					50	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	15:00:00	From:	16:00:00
To:	18:00:00	To:	17:00:00

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Woodbine Ave runs N/S

North Approach

	Out	In	Total
Cars	271	400	671
Trucks	29	49	78
Bicycles	0	0	0
	300	**449**	**749**

Woodbine Ave

Bicycles	0	0	0	0
Trucks	0	25	4	0
Cars	0	268	3	0
Totals	**0**	**293**	**7**	**0**

East Approach

	Out	In	Total
Cars	80	16	96
Trucks	0	8	8
Bicycles	0	0	0
	80	**24**	**104**

Gordon Collins Dr

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	0	16	**16**
0	0	1	**1**
0	3	41	**44**

Peds: 1

Peds: 0

Peds: 0

Peds: 0

Gormley Industrial Ave

Totals	Cars	Trucks	Bicycles
0	0	0	0
37	37	0	0
0	0	0	0
43	43	0	0

West Approach

	Out	In	Total
Cars	58	6	64
Trucks	3	6	9
Bicycles	0	0	0
	61	**12**	**73**

Woodbine Ave

Totals	**12**	**396**	**16**	**2**
Cars	6	347	12	2
Trucks	6	49	4	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	367	354	721
Trucks	59	28	87
Bicycles	0	0	0
	426	**382**	**808**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Woodbine Ave & Gordon Collins Dr - Gormley Industrial Ave
Site Code: 2414800001
Count Date: Apr 10, 2024
Period: 15:00 - 18:00

Peak Hour Data (16:00 - 17:00)

Start Time	North Approach Woodbine Ave						South Approach Woodbine Ave						East Approach Gormley Industrial Ave						West Approach Gordon Collins Dr						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:00	2	91	0	0	0	93	4	96	4	1	0	105	10	0	9	0	0	19	4	0	16	0	0	20	237
16:15	1	61	0	0	0	62	3	114	8	0	0	125	5	0	4	0	0	9	6	0	7	0	1	13	209
16:30	0	71	0	0	0	71	5	88	3	1	0	97	18	0	15	0	0	33	4	1	8	0	0	13	214
16:45	4	70	0	0	0	74	0	98	1	0	0	99	10	0	9	0	0	19	2	0	13	0	0	15	207
Grand Total	**7**	**293**	**0**	**0**	**0**	**300**	**12**	**396**	**16**	**2**	**0**	**426**	**43**	**0**	**37**	**0**	**0**	**80**	**16**	**1**	**44**	**0**	**1**	**61**	**867**
Approach %	2.3	97.7	0	0		-	2.8	93	3.8	0.5		-	53.8	0	46.3	0		-	26.2	1.6	72.1	0		-	
Totals %	0.8	33.8	0	0		34.6	1.4	45.7	1.8	0.2		49.1	5	0	4.3	0		9.2	1.8	0.1	5.1	0		7	
PHF	**0.44**	**0.8**	**0**	**0**		**0.81**	**0.6**	**0.87**	**0.5**	**0.5**		**0.85**	**0.6**	**0**	**0.62**	**0**		**0.61**	**0.67**	**0.25**	**0.69**	**0**		**0.76**	**0.91**
Cars	3	268	0	0		271	6	347	12	2		367	43	0	37	0		80	16	1	41	0		58	776
% Cars	42.9	91.5	0	0		90.3	50	87.6	75	100		86.2	100	0	100	0		100	100	100	93.2	0		95.1	89.5
Trucks	4	25	0	0		29	6	49	4	0		59	0	0	0	0		0	0	0	3	0		3	91
% Trucks	57.1	8.5	0	0		9.7	50	12.4	25	0		13.8	0	0	0	0		0	0	0	6.8	0		4.9	10.5
Bicycles	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
Peds					0	-					0	-					0	-					1	-	1
% Peds					0	-					0	-					0	-					100	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #24-148 - AECOM

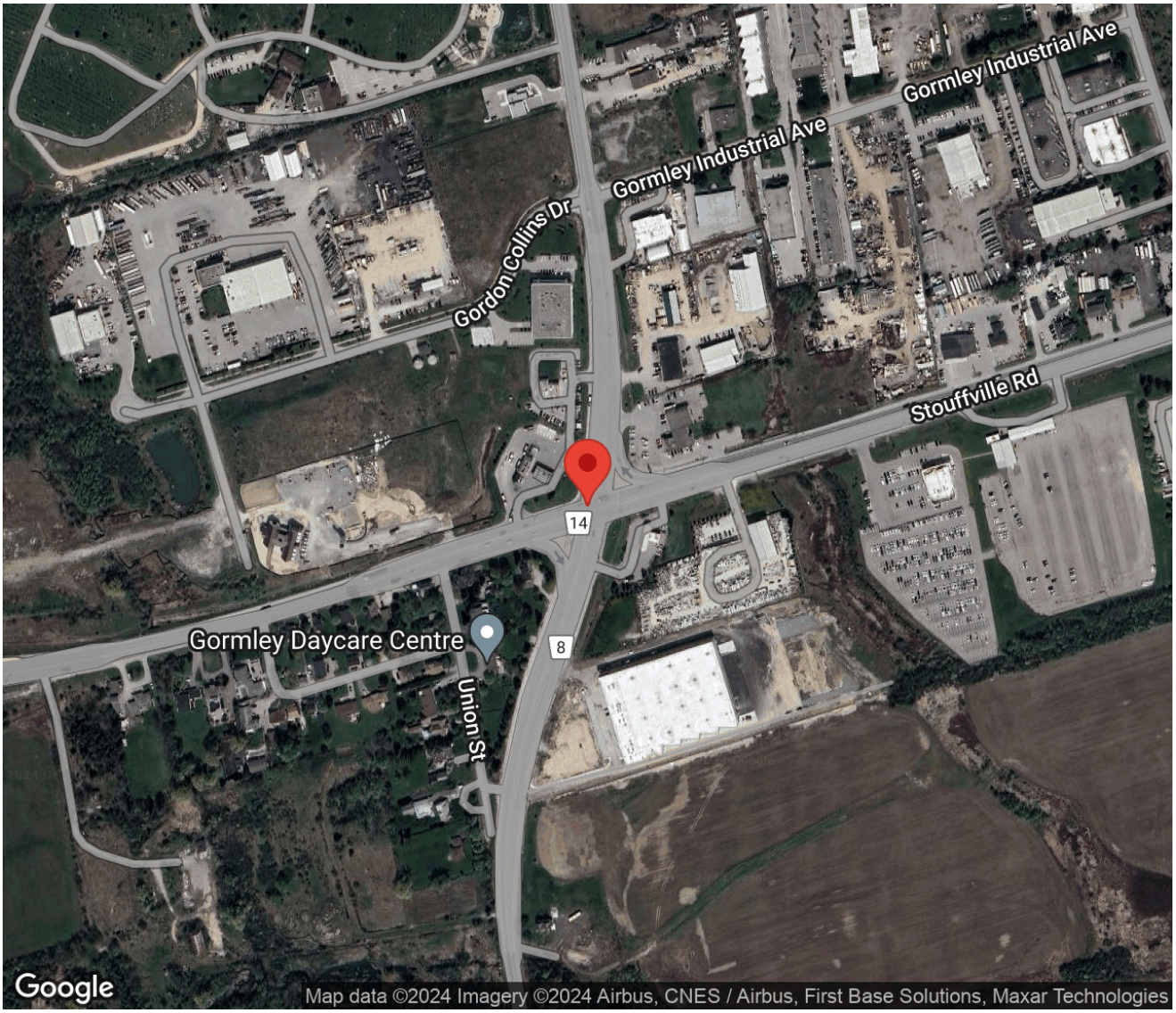
Intersection Count Report

Intersection:	Woodbine Ave & Stouffville Rd
Municipality:	Gormley
Count Date:	Wednesday, Apr 10, 2024
Site Code:	2414800002
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-10:00, 12:00-14:00, 15:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Woodbine Ave & Stouffville Rd
Site Code:	2414800002
Municipality:	Gormley
Count Date:	Apr 10, 2024



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Woodbine Ave & Stouffville Rd
Site Code:	2414800002
Municipality:	Gormley
Count Date:	Apr 10, 2024

Woodbine Ave - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	158	266	85	0	509	1	37	40	14	0	91	2	600
08:00 - 09:00	152	214	104	0	470	3	39	65	111	0	215	6	685
09:00 - 10:00	132	104	145	0	381	1	23	122	214	1	360	2	741
BREAK													
12:00 - 13:00	67	77	159	0	303	0	46	88	27	0	161	2	464
13:00 - 14:00	82	50	139	0	271	0	64	84	21	0	169	0	440
BREAK													
15:00 - 16:00	105	61	136	0	302	0	67	145	59	0	271	1	573
16:00 - 17:00	150	79	182	1	412	0	79	170	61	0	310	0	722
17:00 - 18:00	128	83	141	0	352	0	101	259	61	0	421	0	773
GRAND TOTAL	**974**	**934**	**1091**	**1**	**3000**	**5**	**456**	**973**	**568**	**1**	**1998**	**13**	**4998**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Woodbine Ave & Stouffville Rd
Site Code:	2414800002
Municipality:	Gormley
Count Date:	Apr 10, 2024

Stouffville Rd - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	128	769	134	0	1031	0	152	838	203	0	1193	0	2224
08:00 - 09:00	145	874	136	6	1161	1	124	1046	366	0	1536	0	2697
09:00 - 10:00	52	685	145	0	882	0	122	480	361	0	963	2	1845
BREAK													
12:00 - 13:00	30	478	67	1	576	0	184	553	30	0	767	2	1343
13:00 - 14:00	21	509	77	0	607	0	158	602	34	0	794	0	1401
BREAK													
15:00 - 16:00	30	799	114	0	943	0	182	892	37	0	1111	1	2054
16:00 - 17:00	36	856	122	0	1014	0	164	1062	28	1	1255	0	2269
17:00 - 18:00	42	854	124	1	1021	0	143	1054	60	0	1257	0	2278
GRAND TOTAL	**484**	**5824**	**919**	**8**	**7235**	**1**	**1229**	**6527**	**1119**	**1**	**8876**	**5**	**16111**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

North Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	25	37	14	0	76	9	2	13	0	24	0	0	0	0	0	0
07:15	22	46	13	0	81	3	5	9	0	17	0	0	0	0	0	0
07:30	42	84	13	0	139	4	10	3	0	17	0	0	0	0	0	0
07:45	47	72	14	0	133	6	10	6	0	22	0	0	0	0	0	1
08:00	28	55	9	0	92	3	15	4	0	22	0	0	0	0	0	0
08:15	47	65	21	0	133	5	7	8	0	20	0	0	0	0	0	0
08:30	26	58	12	0	96	3	5	4	0	12	0	0	0	0	0	1
08:45	34	8	39	0	81	6	1	7	0	14	0	0	0	0	0	2
09:00	38	0	34	0	72	6	2	16	0	24	0	0	0	0	0	1
09:15	37	34	16	0	87	6	5	13	0	24	0	0	0	0	0	0
09:30	20	27	27	0	74	2	4	11	0	17	0	0	0	0	0	0
09:45	21	29	25	0	75	2	3	3	0	8	0	0	0	0	0	0
SUBTOTAL	387	515	237	0	1139	55	69	97	0	221	0	0	0	0	0	5

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

North Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
12:00	15	27	41	0	83	1	1	8	0	10	0	0	0	0	0	0
12:15	17	18	26	0	61	2	0	5	0	7	0	0	0	0	0	0
12:30	20	15	40	0	75	0	1	5	0	6	0	0	0	0	0	0
12:45	10	13	31	0	54	2	2	3	0	7	0	0	0	0	0	0
13:00	11	19	27	0	57	1	0	7	0	8	0	0	0	0	0	0
13:15	18	9	35	0	62	0	1	6	0	7	0	0	0	0	0	0
13:30	23	10	34	0	67	2	2	8	0	12	0	0	0	0	0	0
13:45	24	7	16	0	47	3	2	6	0	11	0	0	0	0	0	0
SUBTOTAL	138	118	250	0	506	11	9	48	0	68	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

North Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	23	11	30	0	64	1	2	3	0	6	0	0	0	0	0	0
15:15	21	11	29	0	61	2	0	4	0	6	0	0	0	0	0	0
15:30	30	19	35	0	84	0	0	8	0	8	0	0	0	0	0	0
15:45	27	17	24	0	68	1	1	3	0	5	0	0	0	0	0	0
16:00	44	16	49	0	109	0	5	9	0	14	0	0	0	0	0	0
16:15	27	23	31	0	81	3	1	2	0	6	0	0	0	0	0	0
16:30	37	14	33	1	85	0	2	6	0	8	0	0	0	0	0	0
16:45	39	16	51	0	106	0	2	1	0	3	0	0	0	0	0	0
17:00	42	17	48	0	107	1	0	4	0	5	0	0	0	0	0	0
17:15	35	19	34	0	88	0	2	2	0	4	0	0	0	0	0	0
17:30	28	24	26	0	78	0	4	1	0	5	0	0	0	0	0	0
17:45	22	16	26	0	64	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	375	203	416	1	995	8	20	43	0	71	0	0	0	0	0	0
GRAND TOTAL	900	836	903	1	2640	74	98	188	0	360	0	0	0	0	0	5

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

South Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	2	5	3	0	10	3	0	0	0	3	0	0	0	0	0	0
07:15	10	7	2	0	19	2	0	0	0	2	0	0	0	0	0	0
07:30	5	9	4	0	18	2	1	1	0	4	0	0	0	0	0	0
07:45	11	17	3	0	31	2	1	1	0	4	0	0	0	0	0	2
08:00	9	11	6	0	26	1	3	0	0	4	0	0	0	0	0	1
08:15	9	15	10	0	34	0	2	0	0	2	0	0	0	0	0	3
08:30	13	11	15	0	39	2	0	1	0	3	0	0	0	0	0	0
08:45	4	21	78	0	103	1	2	1	0	4	0	0	0	0	0	2
09:00	3	50	149	0	202	0	6	5	0	11	0	0	0	0	0	2
09:15	3	28	48	0	79	2	8	1	0	11	0	1	0	0	1	0
09:30	6	11	5	1	23	1	2	0	0	3	0	0	0	0	0	0
09:45	7	15	6	0	28	1	1	0	0	2	0	0	0	0	0	0
SUBTOTAL	82	200	329	1	612	17	26	10	0	53	0	1	0	0	1	10

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

South Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
12:00	14	21	5	0	40	1	1	0	0	2	0	0	0	0	0	1
12:15	13	19	6	0	38	2	3	0	0	5	0	0	0	0	0	0
12:30	5	21	7	0	33	1	1	0	0	2	0	0	0	0	0	1
12:45	7	18	8	0	33	3	4	1	0	8	0	0	0	0	0	0
13:00	16	17	4	0	37	1	2	0	0	3	0	0	0	0	0	0
13:15	17	17	7	0	41	1	1	0	0	2	0	0	0	0	0	0
13:30	13	17	4	0	34	1	2	1	0	4	0	0	0	0	0	0
13:45	14	25	5	0	44	1	3	0	0	4	0	0	0	0	0	0
SUBTOTAL	99	155	46	0	300	11	17	2	0	30	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

South Approach - Woodbine Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	9	22	10	0	41	0	2	1	0	3	0	0	0	0	0	1
15:15	18	31	17	0	66	1	2	5	0	8	0	0	0	0	0	0
15:30	17	40	8	0	65	3	6	0	0	9	0	0	0	0	0	0
15:45	19	40	17	0	76	0	2	1	0	3	0	0	0	0	0	0
16:00	13	45	17	0	75	1	1	1	0	3	0	0	0	0	0	0
16:15	14	38	16	0	68	0	3	1	0	4	0	0	0	0	0	0
16:30	26	36	10	0	72	3	4	2	0	9	0	0	0	0	0	0
16:45	20	41	14	0	75	2	2	0	0	4	0	0	0	0	0	0
17:00	19	62	12	0	93	3	4	0	0	7	0	0	0	0	0	0
17:15	29	59	18	0	106	1	0	0	0	1	0	0	0	0	0	0
17:30	27	64	16	0	107	0	0	0	0	0	0	0	0	0	0	0
17:45	20	70	15	0	105	2	0	0	0	2	0	0	0	0	0	0
SUBTOTAL	231	548	170	0	949	16	26	11	0	53	0	0	0	0	0	1
GRAND TOTAL	412	903	545	1	1861	44	69	23	0	136	0	1	0	0	1	13

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

East Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	14	169	33	0	216	1	14	2	0	17	0	0	0	0	0	0
07:15	36	180	38	0	254	0	16	2	0	18	0	0	0	0	0	0
07:30	30	188	35	0	253	2	17	3	0	22	0	0	0	0	0	0
07:45	44	171	20	0	235	1	14	1	0	16	0	0	0	0	0	0
08:00	43	209	25	0	277	1	11	1	0	13	0	0	0	0	0	0
08:15	42	190	35	0	267	0	7	1	0	8	0	0	0	0	0	0
08:30	43	207	30	0	280	0	11	3	0	14	0	0	0	0	0	0
08:45	15	232	38	6	291	1	7	3	0	11	0	0	0	0	0	1
09:00	0	218	35	0	253	0	16	7	0	23	0	0	0	0	0	0
09:15	17	163	34	0	214	0	19	11	0	30	0	0	0	0	0	0
09:30	21	127	28	0	176	1	5	2	0	8	0	0	0	0	0	0
09:45	12	130	27	0	169	1	7	1	0	9	0	0	0	0	0	0
SUBTOTAL	317	2184	378	6	2885	8	144	37	0	189	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

East Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
12:00	6	120	13	0	139	0	2	1	0	3	0	0	0	0	0	0
12:15	8	117	12	0	137	0	15	2	0	17	0	0	0	0	0	0
12:30	6	98	14	0	118	0	10	1	0	11	0	0	0	0	0	0
12:45	9	107	23	1	140	1	9	1	0	11	0	0	0	0	0	0
13:00	5	117	15	0	137	0	8	0	0	8	0	0	0	0	0	0
13:15	7	129	24	0	160	1	10	0	0	11	0	0	0	0	0	0
13:30	2	120	14	0	136	0	5	2	0	7	0	0	0	0	0	0
13:45	5	104	19	0	128	0	16	3	0	19	1	0	0	0	1	0
SUBTOTAL	48	912	134	1	1095	2	75	10	0	87	1	0	0	0	1	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

East Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	4	154	19	0	177	2	10	6	0	18	0	0	0	0	0	0
15:15	8	193	25	0	226	2	10	2	0	14	0	0	0	0	0	0
15:30	8	190	33	0	231	0	3	3	0	6	0	0	0	0	0	0
15:45	6	232	24	0	262	0	7	2	0	9	0	0	0	0	0	0
16:00	12	208	27	0	247	0	2	2	0	4	0	0	0	0	0	0
16:15	9	202	25	0	236	1	8	8	0	17	0	0	0	0	0	0
16:30	6	216	24	0	246	0	9	3	0	12	0	0	0	0	0	0
16:45	8	204	32	0	244	0	7	1	0	8	0	0	0	0	0	0
17:00	13	207	20	0	240	0	1	0	0	1	0	0	0	0	0	0
17:15	5	231	32	1	269	1	4	1	0	6	0	0	0	0	0	0
17:30	13	195	38	0	246	0	3	0	0	3	0	0	0	0	0	0
17:45	10	211	33	0	254	0	2	0	0	2	0	0	0	0	0	0
SUBTOTAL	102	2443	332	1	2878	6	66	28	0	100	0	0	0	0	0	0
GRAND TOTAL	**467**	**5539**	**844**	**8**	**6858**	**16**	**285**	**75**	**0**	**376**	**1**	**0**	**0**	**0**	**1**	**1**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

West Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	35	121	19	0	175	5	11	2	0	18	0	0	0	0	0	0
07:15	35	195	21	0	251	5	8	3	0	16	0	0	0	0	0	0
07:30	30	231	83	0	344	1	9	2	0	12	0	0	0	0	0	0
07:45	34	254	71	0	359	7	9	2	0	18	0	0	0	0	0	0
08:00	34	255	60	0	349	3	11	3	0	17	0	0	0	0	0	0
08:15	47	305	94	0	446	7	12	2	0	21	0	0	0	0	0	0
08:30	18	304	92	0	414	5	10	0	0	15	0	0	0	0	0	0
08:45	7	147	109	0	263	3	2	6	0	11	0	0	0	0	0	0
09:00	0	0	217	0	217	0	3	16	0	19	0	0	0	0	0	0
09:15	26	100	85	0	211	6	6	6	0	18	0	0	0	0	0	1
09:30	28	190	21	0	239	6	6	0	0	12	0	0	0	0	0	1
09:45	49	164	15	0	228	7	11	1	0	19	0	0	0	0	0	0
SUBTOTAL	343	2266	887	0	3496	55	98	43	0	196	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

West Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
12:00	35	130	9	0	174	12	8	1	0	21	0	0	0	0	0	1
12:15	34	115	5	0	154	9	6	2	0	17	0	0	0	0	0	0
12:30	37	152	4	0	193	9	9	1	0	19	0	0	0	0	0	1
12:45	39	126	7	0	172	9	7	1	0	17	0	0	0	0	0	0
13:00	37	133	10	0	180	7	15	0	0	22	0	0	0	0	0	0
13:15	34	147	4	0	185	8	8	0	0	16	0	0	0	0	0	0
13:30	33	147	9	0	189	5	7	1	0	13	0	0	0	0	0	0
13:45	30	131	9	0	170	4	14	1	0	19	0	0	0	0	0	0
SUBTOTAL	279	1081	57	0	1417	63	74	7	0	144	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Municipality: Gormley
Count Date: Apr 10, 2024

West Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	36	217	13	0	266	9	16	6	0	31	0	0	0	0	0	1
15:15	40	219	6	0	265	8	15	1	0	24	0	0	0	0	0	0
15:30	27	196	5	0	228	10	20	0	0	30	0	0	0	0	0	0
15:45	38	194	6	0	238	14	15	0	0	29	0	0	0	0	0	0
16:00	33	243	7	0	283	10	11	0	0	21	0	0	0	0	0	0
16:15	30	237	2	0	269	9	14	4	0	27	0	0	0	0	0	0
16:30	28	269	5	1	303	13	10	1	0	24	0	0	0	0	0	0
16:45	39	267	9	0	315	2	11	0	0	13	0	0	0	0	0	0
17:00	30	254	5	0	289	8	7	0	0	15	0	0	0	0	0	0
17:15	31	289	5	0	325	9	3	0	0	12	0	0	0	0	0	0
17:30	25	259	21	0	305	1	2	0	0	3	0	0	0	0	0	0
17:45	33	234	28	0	295	6	6	1	0	13	0	0	0	0	0	0
SUBTOTAL	390	2878	112	1	3381	99	130	13	0	242	0	0	0	0	0	1
GRAND TOTAL	1012	6225	1056	1	8294	217	302	63	0	582	0	0	0	0	0	5

Peak Hour Diagram

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:45:00
To:	10:00:00	To:	08:45:00

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Stouffville Rd runs E/W

North Approach

	Out	In	Total
Cars	454	297	751
Trucks	76	34	110
Bicycles	0	0	0
	530	**331**	**861**

Woodbine Ave

Bicycles	0	0	0	0
Trucks	22	37	17	0
Cars	56	250	148	0
Totals	**78**	**287**	**165**	**0**

East Approach

	Out	In	Total
Cars	1059	1300	2359
Trucks	51	61	112
Bicycles	0	0	0
	1110	**1361**	**2471**

Stouffville Rd

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	22	133	**155**	
0	42	1118	**1160**	
0	7	317	**324**	

Peds: 0

Peds: 0

Peds: 2

Peds: 6

Stouffville Rd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	116	110	6	0
	820	777	43	0
	174	172	2	0

West Approach

	Out	In	Total
Cars	1568	875	2443
Trucks	71	70	141
Bicycles	0	0	0
	1639	**945**	**2584**

Woodbine Ave

Totals	**47**	**60**	**36**	**0**
Cars	42	54	34	0
Trucks	5	6	2	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	130	739	869
Trucks	13	46	59
Bicycles	0	0	0
	143	**785**	**928**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Count Date: Apr 10, 2024
Period: 07:00 - 10:00

Peak Hour Data (07:45 - 08:45)

Start Time	North Approach Woodbine Ave						South Approach Woodbine Ave						East Approach Stouffville Rd						West Approach Stouffville Rd						Total Vehicles
	↰	↑	↱	↶	Peds	Total	↰	↑	↱	↶	Peds	Total	↰	↑	↱	↶	Peds	Total	↰	↑	↱	↶	Peds	Total	
07:45	53	82	20	0	1	155	13	18	4	0	2	35	45	185	21	0	0	251	41	263	73	0	0	377	818
08:00	31	70	13	0	0	114	10	14	6	0	1	30	44	220	26	0	0	290	37	266	63	0	0	366	800
08:15	52	72	29	0	0	153	9	17	10	0	3	36	42	197	36	0	0	275	54	317	96	0	0	467	931
08:30	29	63	16	0	1	108	15	11	16	0	0	42	43	218	33	0	0	294	23	314	92	0	0	429	873
Grand Total	**165**	**287**	**78**	**0**	**2**	**530**	**47**	**60**	**36**	**0**	**6**	**143**	**174**	**820**	**116**	**0**	**0**	**1110**	**155**	**1160**	**324**	**0**	**0**	**1639**	**3422**
Approach %	31.1	54.2	14.7	0		-	32.9	42	25.2	0		-	15.7	73.9	10.5	0		-	9.5	70.8	19.8	0		-	
Totals %	4.8	8.4	2.3	0		15.5	1.4	1.8	1.1	0		4.2	5.1	24	3.4	0		32.4	4.5	33.9	9.5	0		47.9	
PHF	**0.78**	**0.88**	**0.67**	**0**		**0.85**	**0.78**	**0.83**	**0.56**	**0**		**0.85**	**0.97**	**0.93**	**0.81**	**0**		**0.94**	**0.72**	**0.91**	**0.84**	**0**		**0.88**	**0.92**
Cars	148	250	56	0		454	42	54	34	0		130	172	777	110	0		1059	133	1118	317	0		1568	3211
% Cars	89.7	87.1	71.8	0		85.7	89.4	90	94.4	0		90.9	98.9	94.8	94.8	0		95.4	85.8	96.4	97.8	0		95.7	93.8
Trucks	17	37	22	0		76	5	6	2	0		13	2	43	6	0		51	22	42	7	0		71	211
% Trucks	10.3	12.9	28.2	0		14.3	10.6	10	5.6	0		9.1	1.1	5.2	5.2	0		4.6	14.2	3.6	2.2	0		4.3	6.2
Bicycles	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
Peds					2	-					6	-					0	-					0	-	8
% Peds					25	-					75	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	12:00:00	From:	13:00:00
To:	14:00:00	To:	14:00:00

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Stouffville Rd runs E/W

North Approach

	Out	In	Total
Cars	233	282	515
Trucks	38	37	75
Bicycles	0	0	0
	271	**319**	**590**

Woodbine Ave

Bicycles	0	0	0	0
Trucks	27	5	6	0
Cars	112	45	76	0
Totals	**139**	**50**	**82**	**0**

East Approach

	Out	In	Total
Cars	561	654	1215
Trucks	45	51	96
Bicycles	1	0	1
	607	**705**	**1312**

Stouffville Rd

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	24	134	**158**	
0	44	558	**602**	
0	2	32	**34**	

Peds: 0

Peds: 0

Peds: 0

Peds: 0

Stouffville Rd

Totals	Cars	Trucks	Bicycles
0	0	0	0
77	72	5	0
509	470	39	0
21	19	1	1

West Approach

	Out	In	Total
Cars	724	642	1366
Trucks	70	70	140
Bicycles	0	0	0
	794	**712**	**1506**

Woodbine Ave

Totals	**64**	**84**	**21**	**0**
Cars	60	76	20	0
Trucks	4	8	1	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	156	96	252
Trucks	13	8	21
Bicycles	0	1	1
	169	**105**	**274**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Count Date: Apr 10, 2024
Period: 12:00 - 14:00

Peak Hour Data (13:00 - 14:00)

Start Time	North Approach Woodbine Ave						South Approach Woodbine Ave						East Approach Stouffville Rd						West Approach Stouffville Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
13:00	12	19	34	0	0	65	17	19	4	0	0	40	5	125	15	0	0	145	44	148	10	0	0	202	452
13:15	18	10	41	0	0	69	18	18	7	0	0	43	8	139	24	0	0	171	42	155	4	0	0	201	484
13:30	25	12	42	0	0	79	14	19	5	0	0	38	2	125	16	0	0	143	38	154	10	0	0	202	462
13:45	27	9	22	0	0	58	15	28	5	0	0	48	6	120	22	0	0	148	34	145	10	0	0	189	443
Grand Total	**82**	**50**	**139**	**0**	**0**	**271**	**64**	**84**	**21**	**0**	**0**	**169**	**21**	**509**	**77**	**0**	**0**	**607**	**158**	**602**	**34**	**0**	**0**	**794**	**1841**
Approach %	30.3	18.5	51.3	0		-	37.9	49.7	12.4	0		-	3.5	83.9	12.7	0		-	19.9	75.8	4.3	0		-	
Totals %	4.5	2.7	7.6	0		14.7	3.5	4.6	1.1	0		9.2	1.1	27.6	4.2	0		33	8.6	32.7	1.8	0		43.1	
PHF	**0.76**	**0.66**	**0.83**	**0**		**0.86**	**0.89**	**0.75**	**0.75**	**0**		**0.88**	**0.66**	**0.92**	**0.8**	**0**		**0.89**	**0.9**	**0.97**	**0.85**	**0**		**0.98**	**0.95**
Cars	76	45	112	0		233	60	76	20	0		156	19	470	72	0		561	134	558	32	0		724	1674
% Cars	92.7	90	80.6	0		86	93.8	90.5	95.2	0		92.3	90.5	92.3	93.5	0		92.4	84.8	92.7	94.1	0		91.2	90.9
Trucks	6	5	27	0		38	4	8	1	0		13	1	39	5	0		45	24	44	2	0		70	166
% Trucks	7.3	10	19.4	0		14	6.3	9.5	4.8	0		7.7	4.8	7.7	6.5	0		7.4	15.2	7.3	5.9	0		8.8	9
Bicycles	0	0	0	0		0	0	0	0	0		0	1	0	0	0		1	0	0	0	0		0	1
% Bicycles	0	0	0	0		0	0	0	0	0		0	4.8	0	0	0		0.2	0	0	0	0		0	0.1
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	15:00:00	From:	16:30:00
To:	18:00:00	To:	17:30:00

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Stouffville Rd runs E/W

North Approach

	Out	In	Total
Cars	386	435	821
Trucks	20	47	67
Bicycles	0	0	0
	406	**482**	**888**

Woodbine Ave

Bicycles	0	0	0	0
Trucks	13	6	1	0
Cars	166	66	153	1
Totals	**179**	**72**	**154**	**1**

East Approach

	Out	In	Total
Cars	999	1287	2286
Trucks	27	34	61
Bicycles	0	0	0
	1026	**1321**	**2347**

Stouffville Rd

Bicycles	Trucks	Cars	Totals
0	0	1	**1**
0	32	128	**160**
0	31	1079	**1110**
0	1	24	**25**

Peds: 0

Peds: 0

Peds: 0

Stouffville Rd

Totals	Cars	Trucks	Bicycles
1	1	0	0
113	108	5	0
879	858	21	0
33	32	1	0

West Approach

	Out	In	Total
Cars	1232	1119	2351
Trucks	64	43	107
Bicycles	0	0	0
	1296	**1162**	**2458**

Woodbine Ave

Totals	**103**	**208**	**56**	**0**
Cars	94	198	54	0
Trucks	9	10	2	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	346	122	468
Trucks	21	8	29
Bicycles	0	0	0
	367	**130**	**497**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Woodbine Ave & Stouffville Rd
Site Code: 2414800002
Count Date: Apr 10, 2024
Period: 15:00 - 18:00

Peak Hour Data (16:30 - 17:30)

Start Time	North Approach Woodbine Ave						South Approach Woodbine Ave						East Approach Stouffville Rd						West Approach Stouffville Rd						Total Vehicles
	↰	↑	↱	↶	Peds	Total	↰	↑	↱	↶	Peds	Total	↰	↑	↱	↶	Peds	Total	↰	↑	↱	↶	Peds	Total	
16:30	37	16	39	1	0	93	29	40	12	0	0	81	6	225	27	0	0	258	41	279	6	1	0	327	759
16:45	39	18	52	0	0	109	22	43	14	0	0	79	8	211	33	0	0	252	41	278	9	0	0	328	768
17:00	43	17	52	0	0	112	22	66	12	0	0	100	13	208	20	0	0	241	38	261	5	0	0	304	757
17:15	35	21	36	0	0	92	30	59	18	0	0	107	6	235	33	1	0	275	40	292	5	0	0	337	811
Grand Total	**154**	**72**	**179**	**1**	**0**	**406**	**103**	**208**	**56**	**0**	**0**	**367**	**33**	**879**	**113**	**1**	**0**	**1026**	**160**	**1110**	**25**	**1**	**0**	**1296**	**3095**
Approach %	37.9	17.7	44.1	0.2		-	28.1	56.7	15.3	0		-	3.2	85.7	11	0.1		-	12.3	85.6	1.9	0.1		-	
Totals %	5	2.3	5.8	0		13.1	3.3	6.7	1.8	0		11.9	1.1	28.4	3.7	0		33.2	5.2	35.9	0.8	0		41.9	
PHF	**0.9**	**0.86**	**0.86**	**0.25**		**0.91**	**0.86**	**0.79**	**0.78**	**0**		**0.86**	**0.63**	**0.94**	**0.86**	**0.25**		**0.93**	**0.98**	**0.95**	**0.69**	**0.25**		**0.96**	**0.95**
Cars	153	66	166	1		386	94	198	54	0		346	32	858	108	1		999	128	1079	24	1		1232	2963
% Cars	99.4	91.7	92.7	100		95.1	91.3	95.2	96.4	0		94.3	97	97.6	95.6	100		97.4	80	97.2	96	100		95.1	95.7
Trucks	1	6	13	0		20	9	10	2	0		21	1	21	5	0		27	32	31	1	0		64	132
% Trucks	0.6	8.3	7.3	0		4.9	8.7	4.8	3.6	0		5.7	3	2.4	4.4	0		2.6	20	2.8	4	0		4.9	4.3
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #24-148 - AECOM

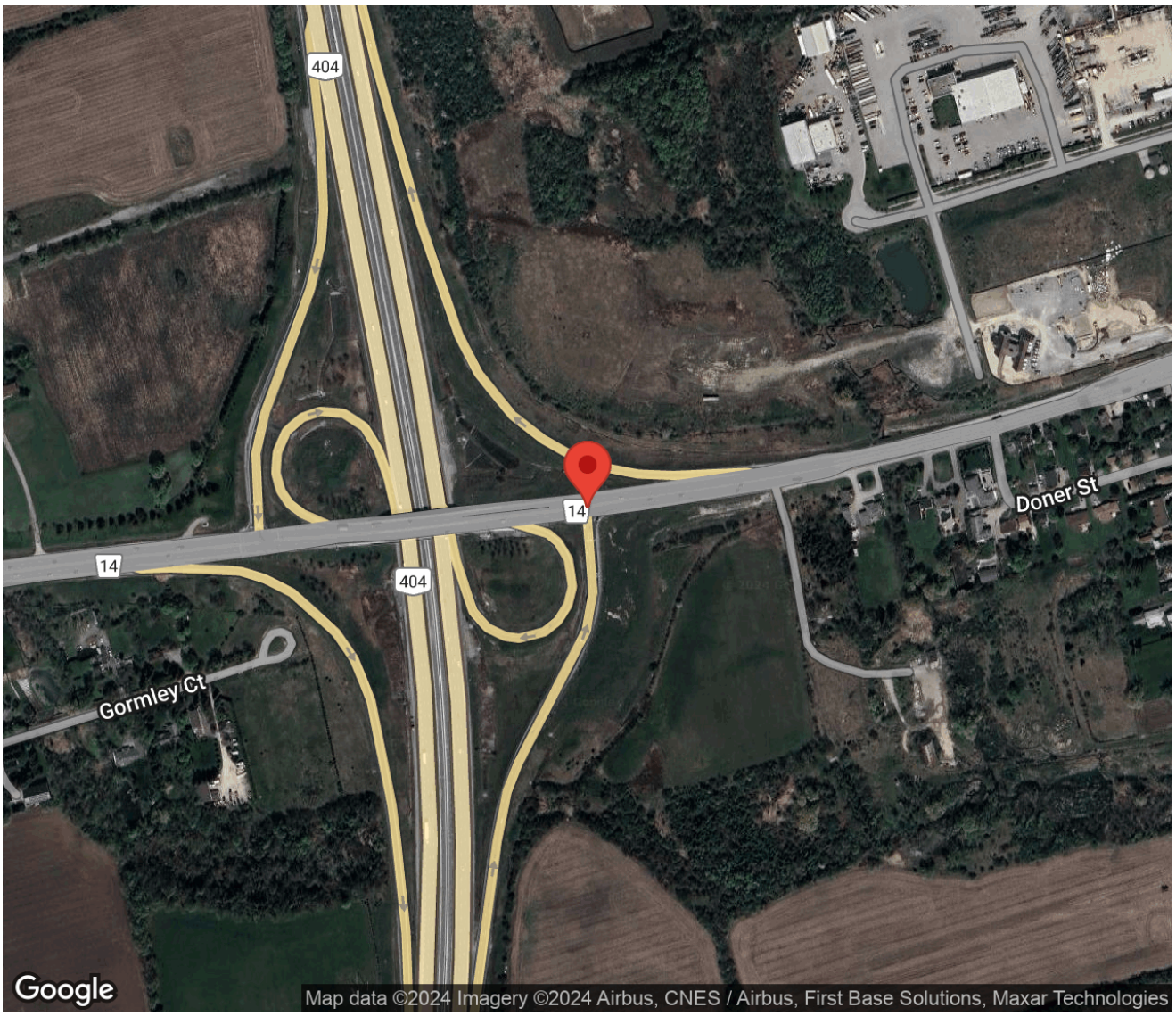
Intersection Count Report

Intersection:	Stouffville Rd & Hwy 404 East Ramp Terminal
Municipality:	Gormley
Count Date:	Wednesday, Apr 10, 2024
Site Code:	2414800003
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-10:00, 12:00-14:00, 15:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code:	2414800003
Municipality:	Gormley
Count Date:	Apr 10, 2024



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code:	2414800003
Municipality:	Gormley
Count Date:	Apr 10, 2024

Hwy 404 East Ramp Terminal - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	0	0	0	0	0	0	228	0	295	0	523	0	523
08:00 - 09:00	0	0	0	0	0	0	281	0	350	0	631	0	631
09:00 - 10:00	0	0	0	0	0	0	282	0	294	0	576	0	576
BREAK													
12:00 - 13:00	0	0	0	0	0	0	349	0	399	0	748	0	748
13:00 - 14:00	0	0	0	0	0	0	314	0	426	0	740	0	740
BREAK													
15:00 - 16:00	0	0	0	0	0	0	410	0	520	0	930	1	930
16:00 - 17:00	0	0	0	0	0	0	409	0	480	0	889	0	889
17:00 - 18:00	0	0	0	0	0	0	369	0	433	0	802	0	802
GRAND TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**2642**	**0**	**3197**	**0**	**5839**	**1**	**5839**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code:	2414800003
Municipality:	Gormley
Count Date:	Apr 10, 2024

Stouffville Rd - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	0	696	257	0	953	0	0	917	70	0	987	0	1940
08:00 - 09:00	0	631	420	0	1051	0	0	1220	153	6	1379	0	2430
09:00 - 10:00	0	639	254	0	893	0	0	680	86	4	770	0	1663
BREAK													
12:00 - 13:00	0	565	145	0	710	0	0	350	63	0	413	0	1123
13:00 - 14:00	0	566	182	0	748	0	0	373	65	0	438	0	1186
BREAK													
15:00 - 16:00	0	678	341	0	1019	0	0	598	96	0	694	0	1713
16:00 - 17:00	0	756	388	0	1144	0	0	749	142	0	891	0	2035
17:00 - 18:00	0	743	381	0	1124	0	0	837	108	0	945	0	2069
GRAND TOTAL	**0**	**5274**	**2368**	**0**	**7642**	**0**	**0**	**5724**	**783**	**10**	**6517**	**0**	**14159**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

North Approach - Hwy 404 East Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

North Approach - Hwy 404 East Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

North Approach - Hwy 404 East Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
15:00	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
15:30	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
16:00	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
16:30	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
17:00	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
17:30	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
SUBTOTAL	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

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

South Approach - Hwy 404 East Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	51	0	53	0	104	1	0	8	0	9	0	0	0	0	0	0
07:15	45	0	73	0	118	5	0	9	0	14	0	0	0	0	0	0
07:30	57	0	59	0	116	6	0	7	0	13	0	0	0	0	0	0
07:45	60	0	74	0	134	3	0	12	0	15	0	0	0	0	0	0
08:00	78	0	85	0	163	4	0	12	0	16	0	0	0	0	0	0
08:15	39	0	85	0	124	4	0	13	0	17	0	0	0	0	0	0
08:30	62	0	80	0	142	5	0	7	0	12	0	0	0	0	0	0
08:45	81	0	65	0	146	8	0	3	0	11	0	0	0	0	0	0
09:00	91	0	57	0	148	3	0	9	0	12	0	0	0	0	0	0
09:15	65	0	64	0	129	1	0	7	0	8	0	0	0	0	0	0
09:30	57	0	65	0	122	1	0	8	0	9	0	0	0	0	0	0
09:45	63	0	72	0	135	1	0	12	0	13	0	0	0	0	0	0
SUBTOTAL	749	0	832	0	1581	42	0	107	0	149	0	0	0	0	0	0

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

South Approach - Hwy 404 East Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
12:00	80	0	70	0	150	4	0	13	0	17	0	0	0	0	0	0
12:15	82	0	77	0	159	4	0	10	0	14	0	0	0	0	0	0
12:30	80	0	106	0	186	4	0	12	0	16	0	0	0	0	0	0
12:45	86	0	98	0	184	9	0	13	0	22	0	0	0	0	0	0
13:00	62	0	86	0	148	4	0	18	0	22	0	0	0	0	0	0
13:15	86	0	95	0	181	6	0	13	0	19	0	0	0	0	0	0
13:30	71	0	100	0	171	1	0	8	0	9	0	0	0	0	0	0
13:45	83	0	93	0	176	1	0	13	0	14	0	0	0	0	0	0
SUBTOTAL	630	0	725	0	1355	33	0	100	0	133	0	0	0	0	0	0

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

South Approach - Hwy 404 East Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
15:00	91	0	128	0	219	3	0	14	0	17	0	0	0	0	0	1
15:15	112	0	112	0	224	3	0	18	0	21	0	0	0	0	0	0
15:30	83	0	112	0	195	4	0	13	0	17	0	0	0	0	0	0
15:45	109	0	108	0	217	5	0	15	0	20	0	0	0	0	0	0
16:00	108	0	113	0	221	2	0	12	0	14	0	0	0	0	0	0
16:15	92	0	96	0	188	2	0	9	0	11	0	0	0	0	0	0
16:30	99	0	108	0	207	4	0	16	0	20	0	0	0	0	0	0
16:45	101	0	118	0	219	1	0	8	0	9	0	0	0	0	0	0
17:00	102	0	120	0	222	2	0	12	0	14	0	0	0	0	0	0
17:15	90	0	105	0	195	1	0	4	0	5	0	0	0	0	0	0
17:30	78	0	87	0	165	0	0	3	0	3	0	0	0	0	0	0
17:45	95	0	92	0	187	1	0	10	0	11	0	0	0	0	0	0
SUBTOTAL	1160	0	1299	0	2459	28	0	134	0	162	0	0	0	0	0	1
GRAND TOTAL	**2539**	**0**	**2856**	**0**	**5395**	**103**	**0**	**341**	**0**	**444**	**0**	**0**	**0**	**0**	**0**	**1**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

East Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	152	32	0	184	0	28	5	0	33	0	0	0	0	0	0
07:15	0	173	47	0	220	0	25	3	0	28	0	0	0	0	0	0
07:30	0	138	86	0	224	0	18	6	0	24	0	0	0	0	0	0
07:45	0	142	75	0	217	0	20	3	0	23	0	0	0	0	0	0
08:00	0	117	100	0	217	0	12	5	0	17	0	0	0	0	0	0
08:15	0	136	92	0	228	0	14	4	0	18	0	0	0	0	0	0
08:30	0	135	103	0	238	0	13	1	0	14	0	0	0	0	0	0
08:45	0	191	113	0	304	0	13	2	0	15	0	0	0	0	0	0
09:00	0	190	86	0	276	0	25	9	0	34	0	0	0	0	0	0
09:15	0	124	65	0	189	0	28	8	0	36	0	0	0	0	0	0
09:30	0	114	47	0	161	0	14	2	0	16	0	0	0	0	0	0
09:45	0	131	37	0	168	0	13	0	0	13	0	0	0	0	0	0
SUBTOTAL	0	1743	883	0	2626	0	223	48	0	271	0	0	0	0	0	0

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

East Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
12:00	0	146	29	0	175	0	9	1	0	10	0	0	0	0	0	0
12:15	0	139	37	0	176	0	22	1	0	23	0	0	0	0	0	0
12:30	0	121	32	0	153	0	13	3	0	16	0	0	0	0	0	0
12:45	0	99	40	0	139	0	16	2	0	18	0	0	0	0	0	0
13:00	0	137	37	0	174	0	14	3	0	17	0	0	0	0	0	0
13:15	0	143	49	0	192	0	16	2	0	18	0	0	0	0	0	0
13:30	0	119	40	0	159	0	11	3	0	14	0	0	0	0	0	0
13:45	0	109	41	0	150	0	17	7	0	24	0	0	0	0	0	0
SUBTOTAL	0	1013	305	0	1318	0	118	22	0	140	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

East Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	0	127	68	0	195	0	11	3	0	14	0	0	0	0	0	0
15:15	0	160	86	0	246	0	9	6	0	15	0	0	0	0	0	0
15:30	0	170	74	0	244	0	11	2	0	13	0	0	0	0	0	0
15:45	0	183	101	0	284	0	7	1	0	8	0	0	0	0	0	0
16:00	0	176	90	0	266	0	7	2	0	9	0	0	0	0	0	0
16:15	0	170	100	0	270	0	8	3	0	11	0	0	0	0	0	0
16:30	0	176	92	0	268	0	15	1	0	16	0	0	0	0	0	0
16:45	0	197	98	0	295	0	7	2	0	9	0	0	0	0	0	0
17:00	0	199	87	0	286	0	3	1	0	4	0	0	0	0	0	0
17:15	0	197	101	0	298	0	5	1	0	6	0	0	0	0	0	0
17:30	0	161	95	0	256	0	4	2	0	6	0	0	0	0	0	0
17:45	0	171	94	0	265	0	3	0	0	3	0	0	0	0	0	0
SUBTOTAL	0	2087	1086	0	3173	0	90	24	0	114	0	0	0	0	0	0
GRAND TOTAL	0	4843	2274	0	7117	0	431	94	0	525	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

West Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	116	14	0	130	0	9	0	0	9	0	0	0	0	0	0
07:15	0	182	14	0	196	0	9	0	0	9	0	0	0	0	0	0
07:30	0	283	13	0	296	0	6	1	0	7	0	0	0	0	0	0
07:45	0	303	24	0	327	0	9	4	0	13	0	0	0	0	0	0
08:00	0	266	31	0	297	0	6	1	0	7	0	0	0	0	0	0
08:15	0	368	35	0	403	0	8	1	0	9	0	0	0	0	0	0
08:30	0	328	35	0	363	0	10	2	0	12	0	0	0	0	0	0
08:45	0	225	45	6	276	0	9	3	0	12	0	0	0	0	0	0
09:00	0	185	41	4	230	0	11	2	0	13	0	0	0	0	0	0
09:15	0	140	16	0	156	0	8	2	0	10	0	0	0	0	0	0
09:30	0	167	12	0	179	0	3	2	0	5	0	0	0	0	0	0
09:45	0	159	10	0	169	0	7	1	0	8	0	0	0	0	0	0
SUBTOTAL	0	2722	290	10	3022	0	95	19	0	114	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

West Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
12:00	0	107	11	0	118	0	8	1	0	9	0	0	0	0	0	0
12:15	0	73	19	0	92	0	7	1	0	8	0	0	0	0	0	0
12:30	0	74	15	0	89	0	4	1	0	5	0	0	0	0	0	0
12:45	0	74	14	0	88	0	3	1	0	4	0	0	0	0	0	0
13:00	0	99	11	0	110	0	5	0	0	5	0	0	0	0	0	0
13:15	0	91	23	0	114	0	5	1	0	6	0	0	0	0	0	0
13:30	0	84	18	0	102	0	4	0	0	4	0	0	0	0	0	0
13:45	0	77	11	0	88	0	8	1	0	9	0	0	0	0	0	0
SUBTOTAL	0	679	122	0	801	0	44	6	0	50	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Municipality: Gormley
Count Date: Apr 10, 2024

West Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	0	134	22	0	156	0	15	0	0	15	0	0	0	0	0	0
15:15	0	149	26	0	175	0	6	0	0	6	0	0	0	0	0	0
15:30	0	121	16	0	137	0	15	2	0	17	0	0	0	0	0	0
15:45	0	145	28	0	173	0	13	2	0	15	0	0	0	0	0	0
16:00	0	165	37	0	202	0	8	1	0	9	0	0	0	0	0	0
16:15	0	176	43	0	219	0	18	0	0	18	0	0	0	0	0	0
16:30	0	186	31	0	217	0	6	1	0	7	0	0	0	0	0	0
16:45	0	186	29	0	215	0	4	0	0	4	0	0	0	0	0	0
17:00	0	178	24	0	202	0	4	1	0	5	0	0	0	0	0	0
17:15	0	210	32	0	242	0	7	0	0	7	0	0	0	0	0	0
17:30	0	220	27	0	247	0	2	0	0	2	0	0	0	0	0	0
17:45	0	212	24	0	236	0	4	0	0	4	0	0	0	0	0	0
SUBTOTAL	0	2082	339	0	2421	0	102	7	0	109	0	0	0	0	0	0
GRAND TOTAL	0	5483	751	10	6244	0	241	32	0	273	0	0	0	0	0	0

Peak Hour Diagram

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Specified Period		One Hour Peak	
From:	07:00:00	From:	08:00:00
To:	10:00:00	To:	09:00:00

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Stouffville Rd runs E/W

North Approach

	Out	In	Total
Cars	0	408	408
Trucks	0	12	12
Bicycles	0	0	0
	0	**420**	**420**

Hwy 404 East Ramp Terminal

Bicycles	0	0	0	0
Trucks	0	0	0	0
Cars	0	0	0	0
Totals	**0**	**0**	**0**	**0**

East Approach

	Out	In	Total
Cars	987	1502	2489
Trucks	64	68	132
Bicycles	0	0	0
	1051	**1570**	**2621**

Stouffville Rd

Bicycles	Trucks	Cars	Totals	
0	0	6	**6**	
0	0	0	**0**	
0	33	1187	**1220**	
0	7	146	**153**	

Peds: 0

Peds: 0

Peds: 0

Stouffville Rd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	420	408	12	0
	631	579	52	0
	0	0	0	0

West Approach

	Out	In	Total
Cars	1339	845	2184
Trucks	40	73	113
Bicycles	0	0	0
	1379	**918**	**2297**

Totals	**281**	**0**	**350**	**0**
Cars	260	0	315	0
Trucks	21	0	35	0
Bicycles	0	0	0	0

Hwy 404 East Ramp Terminal

South Approach

	Out	In	Total
Cars	575	146	721
Trucks	56	7	63
Bicycles	0	0	0
	631	**153**	**784**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Count Date: Apr 10, 2024
Period: 07:00 - 10:00

Peak Hour Data (08:00 - 09:00)

Start Time	North Approach Hwy 404 East Ramp Terminal						South Approach Hwy 404 East Ramp Terminal						East Approach Stouffville Rd						West Approach Stouffville Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
08:00	0	0	0	0	0	0	82	0	97	0	0	179	0	129	105	0	0	234	0	272	32	0	0	304	717
08:15	0	0	0	0	0	0	43	0	98	0	0	141	0	150	96	0	0	246	0	376	36	0	0	412	799
08:30	0	0	0	0	0	0	67	0	87	0	0	154	0	148	104	0	0	252	0	338	37	0	0	375	781
08:45	0	0	0	0	0	0	89	0	68	0	0	157	0	204	115	0	0	319	0	234	48	6	0	288	764
Grand Total	**0**	**0**	**0**	**0**	**0**	**0**	**281**	**0**	**350**	**0**	**0**	**631**	**0**	**631**	**420**	**0**	**0**	**1051**	**0**	**1220**	**153**	**6**	**0**	**1379**	**3061**
Approach %	0	0	0	0		-	44.5	0	55.5	0		-	0	60	40	0		-	0	88.5	11.1	0.4		-	
Totals %	0	0	0	0		0	9.2	0	11.4	0		20.6	0	20.6	13.7	0		34.3	0	39.9	5	0.2		45.1	
PHF	**0**	**0**	**0**	**0**		**0**	**0.79**	**0**	**0.89**	**0**		**0.88**	**0**	**0.77**	**0.91**	**0**		**0.82**	**0**	**0.81**	**0.8**	**0.25**		**0.84**	**0.96**
Cars	0	0	0	0		0	260	0	315	0		575	0	579	408	0		987	0	1187	146	6		1339	2901
% Cars	0	0	0	0		0	92.5	0	90	0		91.1	0	91.8	97.1	0		93.9	0	97.3	95.4	100		97.1	94.8
Trucks	0	0	0	0		0	21	0	35	0		56	0	52	12	0		64	0	33	7	0		40	160
% Trucks	0	0	0	0		0	7.5	0	10	0		8.9	0	8.2	2.9	0		6.1	0	2.7	4.6	0		2.9	5.2
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
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Peak Hour Diagram

Specified Period		One Hour Peak	
From:	12:00:00	From:	12:30:00
To:	14:00:00	To:	13:30:00

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Stouffville Rd runs E/W

North Approach

	Out	In	Total
Cars	0	158	158
Trucks	0	10	10
Bicycles	0	0	0
	0	**168**	**168**

Hwy 404 East Ramp Terminal

Bicycles	0	0	0	0
Trucks	0	0	0	0
Cars	0	0	0	0
Totals	**0**	**0**	**0**	**0**

Peds: 0

East Approach

	Out	In	Total
Cars	658	723	1381
Trucks	69	73	142
Bicycles	0	0	0
	727	**796**	**1523**

Stouffville Rd

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	0	0	**0**
0	17	338	**355**
0	3	63	**66**

Peds: 0

Peds: 0

Stouffville Rd

Totals	Cars	Trucks	Bicycles
0	0	0	0
168	158	10	0
559	500	59	0
0	0	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	401	814	1215
Trucks	20	82	102
Bicycles	0	0	0
	421	**896**	**1317**

Hwy 404 East Ramp Terminal

Totals	**337**	**0**	**441**	**0**
Cars	314	0	385	0
Trucks	23	0	56	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	699	63	762
Trucks	79	3	82
Bicycles	0	0	0
	778	**66**	**844**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Count Date: Apr 10, 2024
Period: 12:00 - 14:00

Peak Hour Data (12:30 - 13:30)

Start Time	North Approach Hwy 404 East Ramp Terminal						South Approach Hwy 404 East Ramp Terminal						East Approach Stouffville Rd						West Approach Stouffville Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
12:30	0	0	0	0	0	0	84	0	118	0	0	202	0	134	35	0	0	169	0	78	16	0	0	94	465
12:45	0	0	0	0	0	0	95	0	111	0	0	206	0	115	42	0	0	157	0	77	15	0	0	92	455
13:00	0	0	0	0	0	0	66	0	104	0	0	170	0	151	40	0	0	191	0	104	11	0	0	115	476
13:15	0	0	0	0	0	0	92	0	108	0	0	200	0	159	51	0	0	210	0	96	24	0	0	120	530
Grand Total	**0**	**0**	**0**	**0**	**0**	**0**	**337**	**0**	**441**	**0**	**0**	**778**	**0**	**559**	**168**	**0**	**0**	**727**	**0**	**355**	**66**	**0**	**0**	**421**	**1926**
Approach %	0	0	0	0		-	43.3	0	56.7	0		-	0	76.9	23.1	0		-	0	84.3	15.7	0		-	
Totals %	0	0	0	0		0	17.5	0	22.9	0		40.4	0	29	8.7	0		37.7	0	18.4	3.4	0		21.9	
PHF	**0**	**0**	**0**	**0**		**0**	**0.89**	**0**	**0.93**	**0**		**0.94**	**0**	**0.88**	**0.82**	**0**		**0.87**	**0**	**0.85**	**0.69**	**0**		**0.88**	**0.91**
Cars	0	0	0	0		0	314	0	385	0		699	0	500	158	0		658	0	338	63	0		401	1758
% Cars	0	0	0	0		0	93.2	0	87.3	0		89.8	0	89.4	94	0		90.5	0	95.2	95.5	0		95.2	91.3
Trucks	0	0	0	0		0	23	0	56	0		79	0	59	10	0		69	0	17	3	0		20	168
% Trucks	0	0	0	0		0	6.8	0	12.7	0		10.2	0	10.6	6	0		9.5	0	4.8	4.5	0		4.8	8.7
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
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Peak Hour Diagram

Specified Period		One Hour Peak	
From:	15:00:00	From:	16:30:00
To:	18:00:00	To:	17:30:00

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Stouffville Rd runs E/W

North Approach

	Out	In	Total
Cars	0	378	378
Trucks	0	5	5
Bicycles	0	0	0
	0	**383**	**383**

Hwy 404 East Ramp Terminal

Bicycles	0	0	0	0
Trucks	0	0	0	0
Cars	0	0	0	0
Totals	**0**	**0**	**0**	**0**

Peds: 0

East Approach

	Out	In	Total
Cars	1147	1211	2358
Trucks	35	61	96
Bicycles	0	0	0
	1182	**1272**	**2454**

Stouffville Rd

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	0	0	**0**	
0	21	760	**781**	
0	2	116	**118**	

Peds: 0

Peds: 0

Peds: 0

Stouffville Rd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	383	378	5	0
	799	769	30	0
	0	0	0	0

West Approach

	Out	In	Total
Cars	876	1161	2037
Trucks	23	38	61
Bicycles	0	0	0
	899	**1199**	**2098**

Totals	**400**	**0**	**491**	**0**
Cars	392	0	451	0
Trucks	8	0	40	0
Bicycles	0	0	0	0

Hwy 404 East Ramp Terminal

South Approach

	Out	In	Total
Cars	843	116	959
Trucks	48	2	50
Bicycles	0	0	0
	891	**118**	**1009**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Stouffville Rd & Hwy 404 East Ramp Terminal
Site Code: 2414800003
Count Date: Apr 10, 2024
Period: 15:00 - 18:00

Peak Hour Data (16:30 - 17:30)

Start Time	North Approach Hwy 404 East Ramp Terminal						South Approach Hwy 404 East Ramp Terminal						East Approach Stouffville Rd						West Approach Stouffville Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:30	0	0	0	0	0	0	103	0	124	0	0	227	0	191	93	0	0	284	0	192	32	0	0	224	735
16:45	0	0	0	0	0	0	102	0	126	0	0	228	0	204	100	0	0	304	0	190	29	0	0	219	751
17:00	0	0	0	0	0	0	104	0	132	0	0	236	0	202	88	0	0	290	0	182	25	0	0	207	733
17:15	0	0	0	0	0	0	91	0	109	0	0	200	0	202	102	0	0	304	0	217	32	0	0	249	753
Grand Total	**0**	**0**	**0**	**0**	**0**	**0**	**400**	**0**	**491**	**0**	**0**	**891**	**0**	**799**	**383**	**0**	**0**	**1182**	**0**	**781**	**118**	**0**	**0**	**899**	**2972**
Approach %	0	0	0	0		-	44.9	0	55.1	0		-	0	67.6	32.4	0		-	0	86.9	13.1	0		-	
Totals %	0	0	0	0		0	13.5	0	16.5	0		30	0	26.9	12.9	0		39.8	0	26.3	4	0		30.2	
PHF	**0**	**0**	**0**	**0**		**0**	**0.96**	**0**	**0.93**	**0**		**0.94**	**0**	**0.98**	**0.94**	**0**		**0.97**	**0**	**0.9**	**0.92**	**0**		**0.9**	**0.99**
Cars	0	0	0	0		0	392	0	451	0		843	0	769	378	0		1147	0	760	116	0		876	2866
% Cars	0	0	0	0		0	98	0	91.9	0		94.6	0	96.2	98.7	0		97	0	97.3	98.3	0		97.4	96.4
Trucks	0	0	0	0		0	8	0	40	0		48	0	30	5	0		35	0	21	2	0		23	106
% Trucks	0	0	0	0		0	2	0	8.1	0		5.4	0	3.8	1.3	0		3	0	2.7	1.7	0		2.6	3.6
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
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Project #24-148 - AECOM

Intersection Count Report

Intersection:	Stouffville Rd & Hwy 404 West Ramp Terminal
Municipality:	Richmond Hill
Count Date:	Wednesday, Apr 10, 2024
Site Code:	2414800004
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-10:00, 12:00-14:00, 15:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
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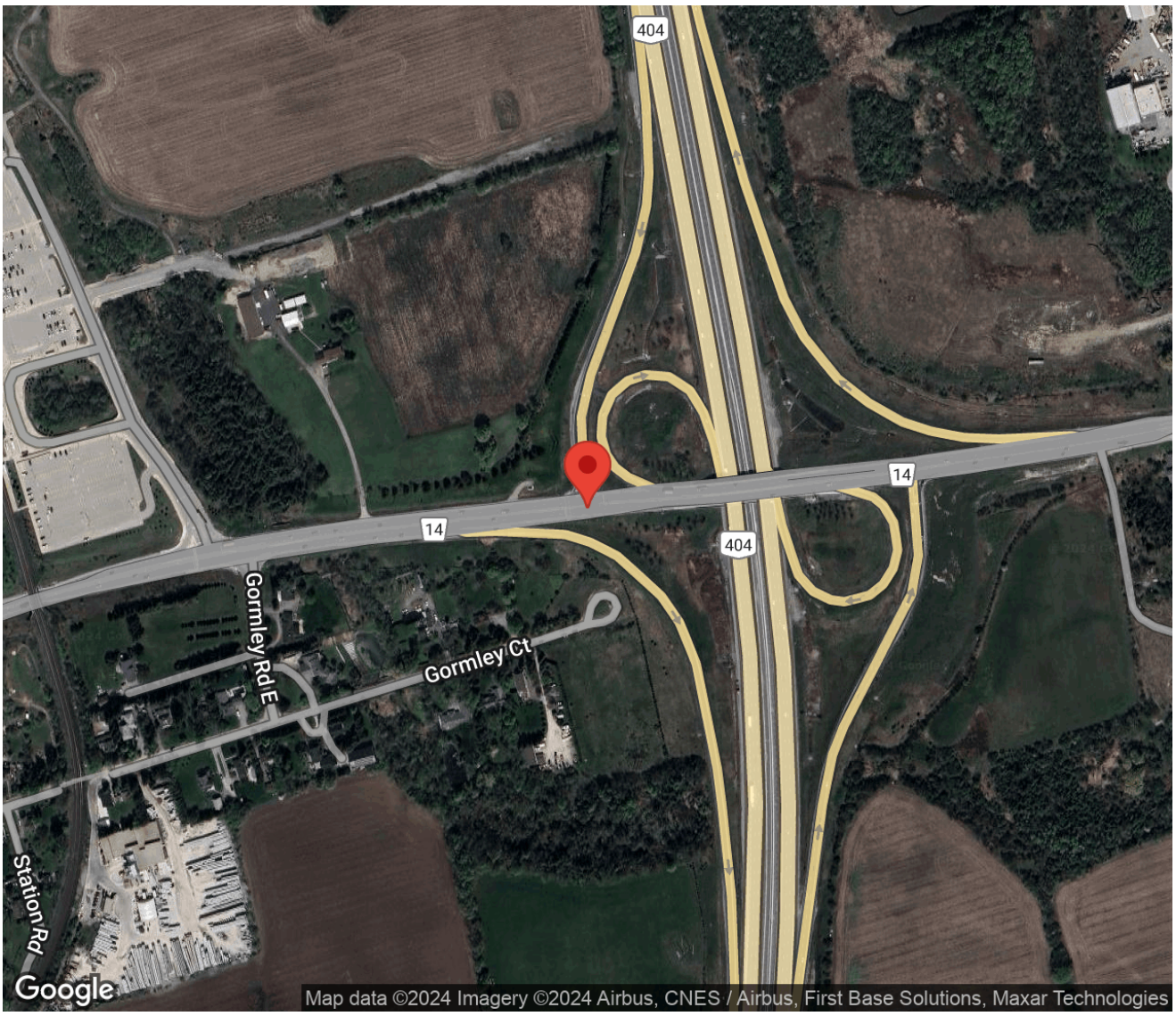
Traffic Count Map

Intersection:	Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code:	2414800004
Municipality:	Richmond Hill
Count Date:	Apr 10, 2024



Ontario Traffic Inc.
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Traffic Count Summary

Intersection:	Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code:	2414800004
Municipality:	Richmond Hill
Count Date:	Apr 10, 2024

Hwy 404 West Ramp Terminal - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	575	0	294	0	869	1	0	0	0	0	0	0	869
08:00 - 09:00	792	0	333	0	1125	0	0	0	0	0	0	0	1125
09:00 - 10:00	373	0	163	0	536	0	0	0	0	0	0	0	536
BREAK													
12:00 - 13:00	148	0	71	0	219	0	0	0	0	0	0	0	219
13:00 - 14:00	160	0	46	0	206	0	0	0	0	0	0	0	206
BREAK													
15:00 - 16:00	303	0	99	0	402	0	0	0	0	0	0	0	402
16:00 - 17:00	376	0	105	0	481	0	0	0	0	0	0	0	481
17:00 - 18:00	406	0	173	0	579	0	0	0	0	0	0	0	579
GRAND TOTAL	**3133**	**0**	**1284**	**0**	**4417**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**4417**

Ontario Traffic Inc.
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Traffic Count Summary

Intersection:	Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code:	2414800004
Municipality:	Richmond Hill
Count Date:	Apr 10, 2024

Stouffville Rd - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	0	620	300	1	921	0	0	409	265	0	674	0	1595
08:00 - 09:00	0	692	229	0	921	0	0	588	235	0	823	0	1744
09:00 - 10:00	0	576	347	2	925	0	0	396	266	0	662	0	1587
BREAK													
12:00 - 13:00	0	517	395	0	912	0	0	267	358	0	625	0	1537
13:00 - 14:00	0	526	356	0	882	0	0	276	341	1	618	0	1500
BREAK													
15:00 - 16:00	0	751	330	0	1081	0	0	391	302	0	693	0	1774
16:00 - 17:00	0	798	373	0	1171	0	0	519	349	0	868	0	2039
17:00 - 18:00	0	806	307	0	1113	0	0	535	273	0	808	0	1921
GRAND TOTAL	**0**	**5286**	**2637**	**3**	**7926**	**0**	**0**	**3381**	**2389**	**1**	**5771**	**0**	**13697**

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

North Approach - Hwy 404 West Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	57	0	24	0	81	3	0	2	0	5	0	0	0	0	0	0
07:15	119	0	54	0	173	3	0	3	0	6	0	0	0	0	0	0
07:30	192	0	109	0	301	2	0	5	0	7	0	0	0	0	0	1
07:45	198	0	94	0	292	1	0	3	0	4	0	0	0	0	0	0
08:00	161	0	75	0	236	2	0	2	0	4	0	0	0	0	0	0
08:15	235	0	73	0	308	1	0	0	0	1	0	0	0	0	0	0
08:30	250	0	91	0	341	7	0	4	0	11	0	0	0	0	0	0
08:45	133	0	87	0	220	3	0	1	0	4	0	0	0	0	0	0
09:00	93	0	55	0	148	5	0	3	0	8	0	0	0	0	0	0
09:15	84	0	49	0	133	2	0	3	0	5	0	0	0	0	0	0
09:30	98	0	35	0	133	2	0	0	0	2	0	0	0	0	0	0
09:45	85	0	17	0	102	4	0	1	0	5	0	0	0	0	0	0
SUBTOTAL	1705	0	763	0	2468	35	0	27	0	62	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

North Approach - Hwy 404 West Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
12:00	42	0	19	0	61	3	0	1	0	4	0	0	0	0	0	0
12:15	24	0	17	0	41	4	0	3	0	7	0	0	0	0	0	0
12:30	42	0	13	0	55	2	0	3	0	5	0	0	0	0	0	0
12:45	29	0	14	0	43	2	0	1	0	3	0	0	0	0	0	0
13:00	35	0	7	0	42	2	0	1	0	3	0	0	0	0	0	0
13:15	39	0	13	0	52	0	0	3	0	3	0	0	0	0	0	0
13:30	40	0	13	0	53	1	0	0	0	1	0	0	0	0	0	0
13:45	37	0	7	0	44	6	0	2	0	8	0	0	0	0	0	0
SUBTOTAL	288	0	103	0	391	20	0	14	0	34	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

North Approach - Hwy 404 West Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
15:00	68	0	17	0	85	8	0	1	0	9	0	0	0	0	0	0
15:15	80	0	25	0	105	3	0	1	0	4	0	0	0	0	0	0
15:30	65	0	26	0	91	7	0	1	0	8	0	0	0	0	0	0
15:45	68	0	25	0	93	4	0	3	0	7	0	0	0	0	0	0
16:00	78	0	22	0	100	0	0	0	0	0	0	0	0	0	0	0
16:15	95	0	30	0	125	5	0	0	0	5	0	0	0	0	0	0
16:30	96	0	27	0	123	3	0	0	0	3	0	0	0	0	0	0
16:45	97	0	25	0	122	2	0	1	0	3	0	0	0	0	0	0
17:00	91	0	26	0	117	1	0	0	0	1	0	0	0	0	0	0
17:15	109	0	27	0	136	2	0	1	0	3	0	0	0	0	0	0
17:30	114	0	60	0	174	1	0	0	0	1	0	0	0	0	0	0
17:45	86	0	59	0	145	2	0	0	0	2	0	0	0	0	0	0
SUBTOTAL	1047	0	369	0	1416	38	0	8	0	46	0	0	0	0	0	0
GRAND TOTAL	3040	0	1235	0	4275	93	0	49	0	142	0	0	0	0	0	1

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

South Approach - Hwy 404 West Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

South Approach - Hwy 404 West Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

South Approach - Hwy 404 West Ramp Terminal

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
15:00	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
15:30	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
16:00	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
16:30	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
17:00	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
17:30	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
SUBTOTAL	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

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

East Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	0	97	105	1	203	0	7	22	0	29	0	0	0	0	0	0
07:15	0	117	94	0	211	0	15	15	0	30	0	0	0	0	0	0
07:30	0	160	42	0	202	0	18	6	0	24	0	0	0	0	0	0
07:45	0	183	16	0	199	0	23	0	0	23	0	0	0	0	0	0
08:00	0	154	44	0	198	0	13	3	0	16	0	0	0	0	0	0
08:15	0	133	42	0	175	0	10	8	0	18	0	0	0	0	0	0
08:30	0	154	37	0	191	0	8	10	0	18	0	0	0	0	0	0
08:45	0	207	77	0	284	0	13	8	0	21	0	0	0	0	0	0
09:00	0	179	102	1	282	0	12	17	0	29	0	0	0	0	0	0
09:15	0	136	56	0	192	0	5	23	0	28	0	0	0	0	0	0
09:30	0	107	63	1	171	0	6	8	0	14	0	0	0	0	0	0
09:45	0	126	68	0	194	0	5	10	0	15	0	0	0	0	0	0
SUBTOTAL	0	1753	746	3	2502	0	135	130	0	265	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

East Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
12:00	0	125	105	0	230	0	6	8	0	14	0	0	0	0	0	0
12:15	0	122	95	0	217	0	6	19	0	25	0	0	0	0	0	0
12:30	0	123	80	0	203	0	8	9	0	17	0	0	0	0	0	0
12:45	0	114	69	0	183	0	13	10	0	23	0	0	0	0	0	0
13:00	0	117	82	0	199	0	7	13	0	20	0	0	0	0	0	0
13:15	0	141	80	0	221	0	13	9	0	22	0	0	0	0	0	0
13:30	0	109	89	0	198	0	4	9	0	13	0	0	0	0	0	0
13:45	0	129	63	0	192	0	6	11	0	17	0	0	0	0	0	0
SUBTOTAL	0	980	663	0	1643	0	63	88	0	151	0	0	0	0	0	0

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

East Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
15:00	0	162	56	0	218	0	10	4	0	14	0	0	0	0	0	0
15:15	0	192	80	0	272	0	8	4	0	12	0	0	0	0	0	0
15:30	0	168	85	0	253	0	12	3	0	15	0	0	0	0	0	0
15:45	0	190	95	0	285	0	9	3	0	12	0	0	0	0	0	0
16:00	0	194	97	0	291	0	6	3	0	9	0	0	0	0	0	0
16:15	0	174	95	0	269	0	6	4	0	10	0	0	0	0	0	0
16:30	0	185	83	0	268	0	15	4	0	19	0	0	0	0	0	0
16:45	0	214	84	0	298	0	4	3	0	7	0	0	0	0	0	0
17:00	0	209	93	0	302	0	3	3	0	6	0	0	0	0	0	0
17:15	0	207	79	0	286	0	4	2	0	6	0	0	0	0	0	0
17:30	0	174	65	0	239	0	2	2	0	4	0	0	0	0	0	0
17:45	0	204	62	0	266	0	3	1	0	4	0	0	0	0	0	0
SUBTOTAL	0	2273	974	0	3247	0	82	36	0	118	0	0	0	0	0	0
GRAND TOTAL	0	5006	2383	3	7392	0	280	254	0	534	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

West Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	74	102	0	176	0	6	3	0	9	0	0	0	0	0	0
07:15	0	75	74	0	149	0	6	1	0	7	0	0	0	0	0	0
07:30	0	104	41	0	145	0	5	1	0	6	0	0	0	0	0	0
07:45	0	128	42	0	170	0	11	1	0	12	0	0	0	0	0	0
08:00	0	137	50	0	187	0	6	3	0	9	0	0	0	0	0	0
08:15	0	168	62	0	230	0	8	0	0	8	0	0	0	0	0	0
08:30	0	113	46	0	159	0	5	2	0	7	0	0	0	0	0	0
08:45	0	142	71	0	213	0	9	1	0	10	0	0	0	0	0	0
09:00	0	137	59	0	196	0	8	2	0	10	0	0	0	0	0	0
09:15	0	73	59	0	132	0	8	2	0	10	0	0	0	0	0	0
09:30	0	79	65	0	144	0	3	3	0	6	0	0	0	0	0	0
09:45	0	84	74	0	158	0	4	2	0	6	0	0	0	0	0	0
SUBTOTAL	0	1314	745	0	2059	0	79	21	0	100	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

West Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
12:00	0	76	86	0	162	0	6	1	0	7	0	0	0	0	0	0
12:15	0	67	99	0	166	0	4	3	0	7	0	0	0	0	0	0
12:30	0	48	97	0	145	0	3	0	0	3	0	0	0	0	0	0
12:45	0	61	68	0	129	0	2	4	0	6	0	0	0	0	0	0
13:00	0	73	98	1	172	0	4	2	0	6	0	0	0	0	0	0
13:15	0	70	80	0	150	0	5	10	0	15	0	0	0	0	0	0
13:30	0	67	73	0	140	0	3	3	0	6	0	0	0	0	0	0
13:45	0	51	72	0	123	0	3	3	0	6	0	0	0	0	0	0
SUBTOTAL	0	513	673	1	1187	0	30	26	0	56	0	0	0	0	0	0

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Municipality: Richmond Hill
Count Date: Apr 10, 2024

West Approach - Stouffville Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
15:00	0	85	56	0	141	0	7	3	0	10	0	0	0	0	0	0
15:15	0	98	75	0	173	0	3	6	0	9	0	0	0	0	0	0
15:30	0	80	77	0	157	0	10	3	0	13	0	0	0	0	0	0
15:45	0	97	78	0	175	0	11	4	0	15	0	0	0	0	0	0
16:00	0	124	82	0	206	0	9	3	0	12	0	0	0	0	0	0
16:15	0	131	72	0	203	0	13	5	0	18	0	0	0	0	0	0
16:30	0	114	79	0	193	0	4	2	0	6	0	0	0	0	0	0
16:45	0	122	102	0	224	0	2	4	0	6	0	0	0	0	0	0
17:00	0	107	85	0	192	0	4	1	0	5	0	0	0	0	0	0
17:15	0	141	69	0	210	0	5	2	0	7	0	0	0	0	0	0
17:30	0	125	55	0	180	0	1	0	0	1	0	0	0	0	0	0
17:45	0	150	61	0	211	0	2	0	0	2	0	0	0	0	0	0
SUBTOTAL	0	1374	891	0	2265	0	71	33	0	104	0	0	0	0	0	0
GRAND TOTAL	0	3201	2309	1	5511	0	180	80	0	260	0	0	0	0	0	0

Peak Hour Diagram

Specified Period
From: 07:00:00
To: 10:00:00

One Hour Peak
From: 08:15:00
To: 09:15:00

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Stouffville Rd runs E/W

North Approach

	Out	In	Total
Cars	1017	258	1275
Trucks	24	43	67
Bicycles	0	0	0
	1041	**301**	**1342**

Hwy 404 West Ramp Terminal

Bicycles	0	0	0	0
Trucks	8	0	16	0
Cars	306	0	711	0
Totals	**314**	**0**	**727**	**0**

Peds: 0

East Approach

	Out	In	Total
Cars	932	1272	2204
Trucks	86	46	132
Bicycles	0	0	0
	1018	**1318**	**2336**

Stouffville Rd

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	U-turn
0	0	0	**0**	Left
0	30	560	**590**	Through
0	5	238	**243**	Right

Peds: 0

Peds: 0

Stouffville Rd

	Totals	Cars	Trucks	Bicycles
U-turn	**1**	1	0	0
Left	**301**	258	43	0
Through	**716**	673	43	0
Right	**0**	0	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	798	979	1777
Trucks	35	51	86
Bicycles	0	0	0
	833	**1030**	**1863**

Hwy 404 West Ramp Terminal

Totals	**0**	**0**	**0**	**0**
Cars	0	0	0	0
Trucks	0	0	0	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	0	238	238
Trucks	0	5	5
Bicycles	0	0	0
	0	**243**	**243**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Count Date: Apr 10, 2024
Period: 07:00 - 10:00

Peak Hour Data (08:15 - 09:15)

Start Time	North Approach Hwy 404 West Ramp Terminal						South Approach Hwy 404 West Ramp Terminal						East Approach Stouffville Rd						West Approach Stouffville Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
08:15	236	0	73	0	0	309	0	0	0	0	0	0	0	143	50	0	0	193	0	176	62	0	0	238	740
08:30	257	0	95	0	0	352	0	0	0	0	0	0	0	162	47	0	0	209	0	118	48	0	0	166	727
08:45	136	0	88	0	0	224	0	0	0	0	0	0	0	220	85	0	0	305	0	151	72	0	0	223	752
09:00	98	0	58	0	0	156	0	0	0	0	0	0	0	191	119	1	0	311	0	145	61	0	0	206	673
Grand Total	**727**	**0**	**314**	**0**	**0**	**1041**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**716**	**301**	**1**	**0**	**1018**	**0**	**590**	**243**	**0**	**0**	**833**	**2892**
Approach %	69.8	0	30.2	0		-	0	0	0	0		-	0	70.3	29.6	0.1		-	0	70.8	29.2	0		-	
Totals %	25.1	0	10.9	0		36	0	0	0	0		0	0	24.8	10.4	0		35.2	0	20.4	8.4	0		28.8	
PHF	**0.71**	**0**	**0.83**	**0**		**0.74**	**0**	**0**	**0**	**0**		**0**	**0**	**0.81**	**0.63**	**0.25**		**0.82**	**0**	**0.84**	**0.84**	**0**		**0.88**	**0.96**
Cars	711	0	306	0		1017	0	0	0	0		0	0	673	258	1		932	0	560	238	0		798	2747
% Cars	97.8	0	97.5	0		97.7	0	0	0	0		0	0	94	85.7	100		91.6	0	94.9	97.9	0		95.8	95
Trucks	16	0	8	0		24	0	0	0	0		0	0	43	43	0		86	0	30	5	0		35	145
% Trucks	2.2	0	2.5	0		2.3	0	0	0	0		0	0	6	14.3	0		8.4	0	5.1	2.1	0		4.2	5
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	12:00:00	From:	12:00:00
To:	14:00:00	To:	13:00:00

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Stouffville Rd runs E/W

North Approach

	Out	In	Total
Cars	200	349	549
Trucks	19	46	65
Bicycles	0	0	0
	219	**395**	**614**

Hwy 404 West Ramp Terminal

Bicycles	0	0	0	0
Trucks	8	0	11	0
Cars	63	0	137	0
Totals	**71**	**0**	**148**	**0**

Peds: 0

East Approach

	Out	In	Total
Cars	833	389	1222
Trucks	79	26	105
Bicycles	0	0	0
	912	**415**	**1327**

Stouffville Rd

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	0	0	**0**
0	15	252	**267**
0	8	350	**358**

Peds: 0

Peds: 0

Stouffville Rd

Totals	Cars	Trucks	Bicycles
0	0	0	0
395	349	46	0
517	484	33	0
0	0	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	602	547	1149
Trucks	23	41	64
Bicycles	0	0	0
	625	**588**	**1213**

Hwy 404 West Ramp Terminal

Totals	**0**	**0**	**0**	**0**
Cars	0	0	0	0
Trucks	0	0	0	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	0	350	350
Trucks	0	8	8
Bicycles	0	0	0
	0	**358**	**358**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Count Date: Apr 10, 2024
Period: 12:00 - 14:00

Peak Hour Data (12:00 - 13:00)

Start Time	North Approach Hwy 404 West Ramp Terminal						South Approach Hwy 404 West Ramp Terminal						East Approach Stouffville Rd						West Approach Stouffville Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
12:00	45	0	20	0	0	65	0	0	0	0	0	0	0	131	113	0	0	244	0	82	87	0	0	169	478
12:15	28	0	20	0	0	48	0	0	0	0	0	0	0	128	114	0	0	242	0	71	102	0	0	173	463
12:30	44	0	16	0	0	60	0	0	0	0	0	0	0	131	89	0	0	220	0	51	97	0	0	148	428
12:45	31	0	15	0	0	46	0	0	0	0	0	0	0	127	79	0	0	206	0	63	72	0	0	135	387
Grand Total	**148**	**0**	**71**	**0**	**0**	**219**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**517**	**395**	**0**	**0**	**912**	**0**	**267**	**358**	**0**	**0**	**625**	**1756**
Approach %	67.6	0	32.4	0		-	0	0	0	0		-	0	56.7	43.3	0		-	0	42.7	57.3	0		-	
Totals %	8.4	0	4	0		12.5	0	0	0	0		0	0	29.4	22.5	0		51.9	0	15.2	20.4	0		35.6	
PHF	**0.82**	**0**	**0.89**	**0**		**0.84**	**0**	**0**	**0**	**0**		**0**	**0**	**0.99**	**0.87**	**0**		**0.93**	**0**	**0.81**	**0.88**	**0**		**0.9**	**0.92**
Cars	137	0	63	0		200	0	0	0	0		0	0	484	349	0		833	0	252	350	0		602	1635
% Cars	92.6	0	88.7	0		91.3	0	0	0	0		0	0	93.6	88.4	0		91.3	0	94.4	97.8	0		96.3	93.1
Trucks	11	0	8	0		19	0	0	0	0		0	0	33	46	0		79	0	15	8	0		23	121
% Trucks	7.4	0	11.3	0		8.7	0	0	0	0		0	0	6.4	11.6	0		8.7	0	5.6	2.2	0		3.7	6.9
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Ontario Traffic Inc.
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Peak Hour Diagram

Specified Period		One Hour Peak	
From:	15:00:00	From:	16:30:00
To:	18:00:00	To:	17:30:00

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Count Date: Apr 10, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Stouffville Rd runs E/W

North Approach

	Out	In	Total
Cars	498	339	837
Trucks	10	12	22
Bicycles	0	0	0
	508	**351**	**859**

Hwy 404 West Ramp Terminal

Bicycles	0	0	0	0
Trucks	2	0	8	0
Cars	105	0	393	0
Totals	**107**	**0**	**401**	**0**

Peds: 0

East Approach

	Out	In	Total
Cars	1154	877	2031
Trucks	38	23	61
Bicycles	0	0	0
	1192	**900**	**2092**

Stouffville Rd

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	U-turn
0	0	0	**0**	Through
0	15	484	**499**	Right
0	9	335	**344**	Left

Peds: 0

Peds: 0

Stouffville Rd

	Totals	Cars	Trucks	Bicycles
U-turn	**0**	0	0	0
Through	**351**	339	12	0
Left	**841**	815	26	0
Right	**0**	0	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	819	920	1739
Trucks	24	28	52
Bicycles	0	0	0
	843	**948**	**1791**

Hwy 404 West Ramp Terminal

Totals	**0**	**0**	**0**	**0**
Cars	0	0	0	0
Trucks	0	0	0	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	0	335	335
Trucks	0	9	9
Bicycles	0	0	0
	0	**344**	**344**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

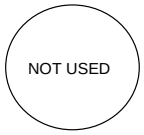
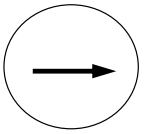
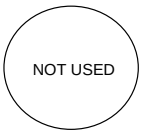
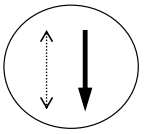
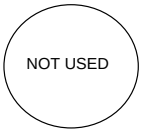
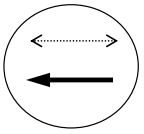
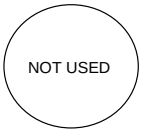
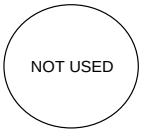
Peak Hour Summary

Intersection: Stouffville Rd & Hwy 404 West Ramp Terminal
Site Code: 2414800004
Count Date: Apr 10, 2024
Period: 15:00 - 18:00

Peak Hour Data (16:30 - 17:30)

Start Time	North Approach Hwy 404 West Ramp Terminal						South Approach Hwy 404 West Ramp Terminal						East Approach Stouffville Rd						West Approach Stouffville Rd						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:30	99	0	27	0	0	126	0	0	0	0	0	0	0	200	87	0	0	287	0	118	81	0	0	199	612
16:45	99	0	26	0	0	125	0	0	0	0	0	0	0	218	87	0	0	305	0	124	106	0	0	230	660
17:00	92	0	26	0	0	118	0	0	0	0	0	0	0	212	96	0	0	308	0	111	86	0	0	197	623
17:15	111	0	28	0	0	139	0	0	0	0	0	0	0	211	81	0	0	292	0	146	71	0	0	217	648
Grand Total	**401**	**0**	**107**	**0**	**0**	**508**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**841**	**351**	**0**	**0**	**1192**	**0**	**499**	**344**	**0**	**0**	**843**	**2543**
Approach %	78.9	0	21.1	0		-	0	0	0	0		-	0	70.6	29.4	0		-	0	59.2	40.8	0		-	
Totals %	15.8	0	4.2	0		20	0	0	0	0		0	0	33.1	13.8	0		46.9	0	19.6	13.5	0		33.1	
PHF	**0.9**	**0**	**0.96**	**0**		**0.91**	**0**	**0**	**0**	**0**		**0**	**0**	**0.96**	**0.91**	**0**		**0.97**	**0**	**0.85**	**0.81**	**0**		**0.92**	**0.96**
Cars	393	0	105	0		498	0	0	0	0		0	0	815	339	0		1154	0	484	335	0		819	2471
% Cars	98	0	98.1	0		98	0	0	0	0		0	0	96.9	96.6	0		96.8	0	97	97.4	0		97.2	97.2
Trucks	8	0	2	0		10	0	0	0	0		0	0	26	12	0		38	0	15	9	0		24	72
% Trucks	2	0	1.9	0		2	0	0	0	0		0	0	3.1	3.4	0		3.2	0	3	2.6	0		2.8	2.8
Bicycles	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
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

LOCATION:	**Hwy 404 & Stouffville Rd SB Off Ramp**		*MUNICIPALITY:*	**RichmondHill**	N
CTCS:	**688 (MTO Signal)**		*COMPUTER SYSTEM:*	**Centracs**	
MODE/COMMENT:	**SA**		*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**	
PREPARED/CHECKED BY:	**AM**				
PREPARATION DATE:	**March 22, 2023**		*DESIGN WALK SPEED:*		
IMPLEMENTATION DATE:	**March 22, 2023**		*CHANNEL/DROP:*		

NEMA Phase (MTO)	Normal Time	AM 7:00- 9:00 M-F	PM 16:00-18:00 M-F	Free 9:00-16:00; 19:00 - 7:00 M-F, 24 Hrs Sat & Sun	Phase Mode (Fixed/Demanded/Callable)	Remarks
		Pattern 1	Pattern 2	Pattern 99		
		Plan 1	Plan 2	Plan 99		
 NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					Pedestrian Minimums EWWK = 20 sec., EWFD = 5 sec. NSWK = 10 sec., NSFD = 5 sec.
2. Eastbound  Stouffville RD	WLK FDW MIN 20 EXT 4 MAX1 50 MAX2 0 AMB 5.0 ALR 2.0 SPLIT	**60**	**60**	**0**	MAX Int = 36 secs with 2 secs increment	SB phase is callable by vehicle. If a vehicle call is received, the minimum SBG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the SBG is capable of providing vehicle extensions up to the maximum green.
 NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					Timing changes to address complaint
4. Southbound  Hwy 404 SB Off Ramp	WLK 10 FDW 5 MIN 10 EXT 3 MAX1 30 MAX2 0 AMB 4.0 ALR 2.0 SPLIT	**40**	**40**	**0**	Callable by stopbar loop and/or pushbutton Extendable by stopbar loop 3 sec detection delay	
 NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			**0**		
6. Westbound  Stouffville RD	WLK 20 FDW 5 MIN 20 EXT 4 MAX1 50 MAX2 0 AMB 5.0 ALR 2.0 SPLIT	**60**	**60**	**0**	Ped Recall MAX Int = 36 secs with 2 secs increment	
 NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					
 NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			**0**		
	CL OF VP	**100** **5** **5**	**100** **10** **5**	**0 (FREE)** **0 (FREE)** **0 (FREE)**		

LEGEND:

SA - Semi-Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Priority
APS - Audible Pedestrian Signal
RLC - Red Light Camera

NOTES:

LOCATION:	**Hwy 404 & Stouffville Rd SB Off Ramp**	*MUNICIPALITY:*	**Richmond Hill**
CTCS:	**688 (MTO Signal)**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**AM**		
PREPARATION DATE:	**March 22, 2023**	*DESIGN WALK SPEED:*	
IMPLEMENTATION DATE:		*CHANNEL/DROP:*	

N

NEMA Phase (MTO)		Pre-Time	AM 7:00- 9:00 M-F	PM 16:00-19:00 M-F	Free 9:00-16:00; 19:00 - 7:00 M-F, Hrs Sat & Sun 24	Phase Mode (Fixed/Demanded/Callable)	Remarks
			Pattern 1	Pattern 2	Pattern 99		
			Plan 1	Plan 2	Plan 99		
NOT USED	WLK						
	FDW						
	MIN						
	EXT						
	MAX1						
	MAX2						
	AMB						
	ALR						
	SPLIT				**0**		
2. Eastbound	WLK						
	FDW						
	MIN	**30**				No ped crossing	NB phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NBG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the NBG is capable of providing vehicle extensions up to the maximum green.
	EXT	4					
	MAX1	50				MAX Int = 36 secs with 2 secs increment	
	MAX2	0					
	AMB	5.0					
	ALR	2.0					
Stouffville RD	SPLIT		60	60	**0**		
NOT USED	WLK						
	FDW						
	MIN						
	EXT						
	MAX1						
	MAX2						
	AMB						
	ALR						
	SPLIT				**0**		
4. Southbound	WLK	15					
	FDW	5					
	MIN	20				Callable by stopbar loop and/or pushbutton	
	EXT	3				Extendable by stopbar loop	
	MAX1	20					
	MAX2	0					
	AMB	4.0				3 sec detection delay	
	ALR	2.0					
	SPLIT		40	40	**0**		
NOT USED	WLK						
	FDW						
	MIN						
	EXT						
	MAX1						
	MAX2						
	AMB						
	ALR						
	SPLIT						
6. Westbound	WLK	**41**					
	FDW	**9**				Ped Recall	
	MIN	**30**					
	EXT	4					
	MAX1	50					
	MAX2	0					
	AMB	5.0					
	ALR	2.0				MAX Int = 36 secs with 2 secs increment	
Stouffville RD	SPLIT		60	60	**0**		
NOT USED	WLK						
	FDW						
	MIN						
	EXT						
	MAX1						
	MAX2						
	AMB						
	ALR						
	SPLIT						
NOT USED	WLK						
	FDW						
	MIN						
	EXT						
	MAX1						
	MAX2						
	AMB						
	ALR						
	SPLIT				**0**		
	CL		100	100	**0 (FREE)**		
	OF		5	10	**0 (FREE)**		
	VP		9	9	**0 (FREE)**		

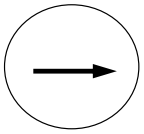
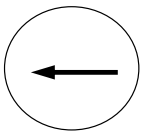
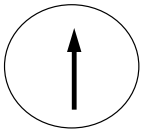
LEGEND:

SA - Semi-Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green=
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Priority
APS - Audible Pedestrian Signal
RLC - Red Light Camera

NOTES:

LOCATION:	**Hwy 404 & Stouffville Rd NB Off Ramp**	*MUNICIPALITY:*	**RichmondHill**
CTCS:	**450 (MTO Signal)**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**AM**		
PREPARATION DATE:	**September 13, 2022**	*DESIGN WALK SPEED:*	
IMPLEMENTATION DATE:	**October 4, 2022**	*CHANNEL/DROP:*	

N

NEMA Phase (MTO)	Normal Time	AM 7:00- 9:00 M-F	PM 16:00-19:00 M-F	Free 9:00-16:00; 19:00 - 7:00 M-F, 24 Hrs Sat & Sun	Phase Mode (Fixed/Demanded/Callable)	Remarks
		Pattern 1	Pattern 2	Pattern 99		
		Plan 1	Plan 2	Plan 99		
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					No Pedestrian crossing
2. Eastbound  Stouffville RD	WLK 0 FDW 0 MIN 20 EXT 4 MAX1 55 MAX2 0 AMB 5.0 ALR 2.0 SPLIT	**60**	**60**	**0**	Veh Min Recall No ped crossing MAX Int = 30 secs with 2 secs increment	NB phase is callable by vehicle. If a vehicle call is received, the minimum NBG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the NBG is capable of providing vehicle extensions up to the maximum green.
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					AM/PM plan implemented to address resident complaint
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			**0**		
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			**0**		
6. Westbound  Stouffville RD	WLK 0 FDW 0 MIN 20 EXT 4 MAX1 55 MAX2 0 AMB 5.0 ALR 2.0 SPLIT	**60**	**60**	**0**	Veh Min Recall No ped crossing MAX Int = 30 secs with 2 secs increment	
NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT					**LEGEND:** SA - Semi-Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Northbound  Hwy 404 NB	WLK 0 FDW 0 MIN 10 EXT 3 MAX1 35 MAX2 0 AMB 4.0 ALR 2.0 SPLIT	**60**	**60**	**0**	Callable/Extendable by stopbar loop 10 secs detection delay No ped crossing	
	CL OF VP	**120** **25** **0**	**120** **25** **0**	**0 (FREE)** **0 (FREE)** **0 (FREE)**		

NOTES:

LOCATION:	**Hwy 404 & Stouffville Rd NB Off Ramp**	*MUNICIPALITY:*	**Richmond Hill**
CTCS:	**450 (MTO Signal)**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**AM**		
PREPARATION DATE:	**February 18, 2021**	*DESIGN WALK SPEED:*	
IMPLEMENTATION DATE:		*CHANNEL/DROP:*	

N ↑

NEMA Phase (MTO)		Pre-Time	AM 7:00- 9:00 M-F Pattern 1 Plan 1	PM 16:00-19:00 M-F Pattern 2 Plan 2	Free 9:00-16:00; 19:00 - 7:00 M-F Pattern 99 Plan 99	Phase Mode (Fixed/Demanded/Callable)	Remarks
NOT USED	WLK						No Pedestrian crossing
	FDW						
	MIN						
	EXT						
	MAX1						
	MAX2						
	AMB						
	ALR						
	SPLIT				**0**		
2. Eastbound	WLK					Veh Min Recall	
	FDW					No ped crossing	
	MIN	**45**				MAX Int = 30 secs with 2 secs increment	
	EXT	4					
	MAX1	55					NB phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NBG is 10 seconds. If ongoing vehicle demand exists on the stopbar loop, the NBG is capable of providing vehicle extensions up to the maximum green.
	MAX2	0					
	AMB	5.0					
	ALR	2.0					
Stouffville RD	SPLIT		60	60	**0**		
NOT USED	WLK						
	FDW						
	MIN						
	EXT						
	MAX1						
	MAX2						
	AMB						
	ALR						
	SPLIT				**0**		
NOT USED	WLK						
	FDW						
	MIN						
	EXT						
	MAX1						
	MAX2						
	AMB						
	ALR						
	SPLIT				**0**		
NOT USED	WLK						
	FDW						
	MIN						
	EXT						
	MAX1						
	MAX2						
	AMB						
	ALR						
	SPLIT						
6. Westbound	WLK					Veh Min Recall	
	FDW					No ped crossing	
	MIN	**45**				MAX Int = 30 secs with 2 secs increment	
	EXT	4					
	MAX1	55					
	MAX2	0					
	AMB	5.0					
	ALR	2.0					
Stouffville RD	SPLIT		60	60	**0**		
NOT USED	WLK						
	FDW						
	MIN						
	EXT						
	MAX1						
	MAX2						
	AMB						
	ALR						
	SPLIT						
8. Northbound	WLK					Callable/Extendable by stopbar loop	
	FDW					10 secs delay	
	MIN	10				No ped crossing	
	EXT	3					
	MAX1	20					
	MAX2	0					
	AMB	4.0					
	ALR	2.0					
Hwy 404 NB	SPLIT		60	60	**0**		
	CL		120	120	**0 (FREE)**		
	OF		25	25	**0 (FREE)**		
	VP		0	0	**0 (FREE)**		

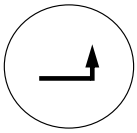
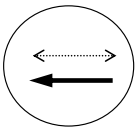
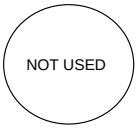
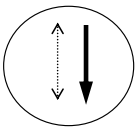
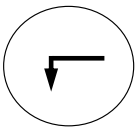
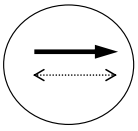
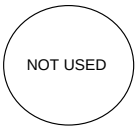
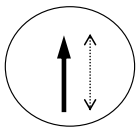
LEGEND:

SA - Semi-Actuated signal
WLK - Walk time
FDW - Flashing Don't Walk time
MIN - Minimum green time
EXT - Extension time
MAX1 - Maximum green time 1
MAX2 - Maximum green time 2
AMB - Amber
ALR -All Red
CL - Cycle Length
OF - Offset
VP - Vehicle Permissive
NSWK - North/South Walk
EWWK - East/West Walk
NSG - North/South Green
EWG - East/West Green
NSFD - North/South Flashing Don't Walk
EWFD - East/West Flashing Don't Walk
TSP - Transit Priority
APS - Audible Pedestrian Signal
RLC - Red Light Camera

NOTES:

LOCATION:	**Woodbine (YR 8) & Stouffville Rd (YR 14)**	*MUNICIPALITY:*	**Stouffville**
CTCS:	**49**	*COMPUTER SYSTEM:*	**Centracs**
MODE/COMMENT:	**SA**	*CONTROLLER/CABINET TYPE:*	**Econolite Cobalt / TS2T1**
PREPARED/CHECKED BY:	**AM**	*CONFLICT FLASH:*	**Red & Red**
PREPARATION DATE:	**April 6, 2023**	*DESIGN WALK SPEED:*	**1.0 m/s (FDW based on full crossing at 1.2 m/s)**
IMPLEMENTATION DATE:	**April 28, 2023**	*CHANNEL/DROP:*	

N

NEMA Phase (York)		Free All Day	Phase Mode (Fixed/Demanded/Callable)	Remarks
	Local Plan	Pattern 99		
	System Plan	Plan 99		
1. E/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 10 MAX2 0 AMB 3 ALR 1 SPLIT	**0**	Callable/Extendable by Setback Loop	Pedestrian Minimums: EWWK = 7 sec., EWFD = 26 sec. NSWK = 7 sec., NSFD = 21 sec. **Emergency vehicle pre-emption 3:** Serve EWG/EWDW min 20 secs and up to 100 secs if there are continuous emergency calls in EW direction.
2. Westbound  Stouffville Rd	WLK 7 FDW 26 MIN 40 EXT 0 MAX1 40 MAX2 0 AMB 5.0 ALR 3.0 SPLIT	**0**	Fixed	**Emergency vehicle pre-emption 4:** Serve NSG/NSDW min 20 secs and up to 100 secs if there are continuous emergency calls in NS direction.
3.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			NS phase is callable by vehicle or pedestrian actuation. If a vehicle call is received, the minimum NSG is served. If ongoing vehicle demand exists on the stopbar loop, the NSG is capable of providing vehicle extensions up to the maximum green split during coordinated operation or serves MAX1 during Free operation. If a pedestrian call is received, the pedestrian minimum will be served. The NSWK & NSFD 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 EWG.
4. Southbound  Woodbine Ave	WLK 7 FDW 21 MIN 10 EXT 3 MAX1 30 MAX2 0 AMB 5.5 ALR 2.5 SPLIT	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	During coordinated operation, the signal constantly cycles through main street FDW to improve response time to side street vehicle and pedestrian demand.
5. W/B Left Turn Arrow 	WLK FDW MIN 7 EXT 3 MAX1 7 MAX2 0 AMB 3 ALR 1 SPLIT	**0**	Callable/Extendable by Setback Loop	During free plan, signal rests in EWWK and does not cycle through EWFD unless there is side street vehicle or pedestrian demand. EWFD reverts to EWWK if there is no side street demand at the end of the EWFD. SpeedLimitChange- Veh clrs Update
6. Eastbound  Stouffville Rd	WLK 7 FDW 26 MIN 40 EXT 0 MAX1 40 MAX2 0 AMB 5.0 ALR 3.0 SPLIT	**0**	Fixed	
7.  NOT USED	WLK FDW MIN EXT MAX1 MAX2 AMB ALR SPLIT			**LEGEND:** SA - Semi-Actuated signal WLK - Walk time FDW - Flashing Don't Walk time MIN - Minimum green time EXT - Extension time MAX1 - Maximum green time 1 MAX2 - Maximum green time 2 AMB - Amber ALR -All Red CL - Cycle Length OF - Offset VP - Vehicle Permissive NSWK - North/South Walk EWWK - East/West Walk NSG - North/South Green EWG - East/West Green NSFD - North/South Flashing Don't Walk EWFD - East/West Flashing Don't Walk TSP - Transit Priority APS - Audible Pedestrian Signal RLC - Red Light Camera
8. Northbound  Woodbine Ave	WLK 7 FDW 21 MIN 10 EXT 3 MAX1 30 MAX2 0 AMB 5.5 ALR 2.5 SPLIT	**0**	Callable by stopbar loop and/or pushbutton; Extendable by stopbar loop.	
	CL OF VP	**0 (FREE)** **0 (FREE)** 0 (FREE)		

NOTES:

Appendix D

Multi-modal Level of Service Criteria

Table 6 summarizes the level of service criteria for pedestrian mode.

Pedestrian LOS Target: C or better for these LOS Categories

Table 6 - Pedestrian Level of Service Criteria

Level of Service	Segment	Intersection
A	≥2.0 m sidewalk with minimum 3.5 m buffer including planting and edge zone; or ≥3.0 m multi-use path	• ≥2.0 m sidewalk with minimum 3.5 m buffer including planting and edge zone; or ≥3.0 m multi-use path • Pedestrian signal head with sufficient pedestrian clearance time • Clearly delineated cross-walk
B	≥1.5 m sidewalk with minimum 1.0 m buffer including edge zone; or <3.0 m multi-use path	• ≥1.5 m sidewalk with minimum 1.0 m buffer including edge zone; or <3.0 m multi-use path • Pedestrian signal head with sufficient pedestrian clearance time • Clearly delineated cross-walk
C	≥1.5 m curb-faced sidewalk (no buffer)	• ≥1.5 m curb-faced sidewalk (no buffer) • Pedestrian signal head with sufficient pedestrian clearance time • Clearly delineated cross-walk
D	<1.5 m sidewalk	• <1.5 m sidewalk • Pedestrian signal head sufficient pedestrian clearance time • No clearly delineated cross-walk
E	Paved shoulder or no sidewalk provision	• Paved shoulder or no sidewalk provision • No pedestrian signal head • No clearly delineated cross-walk
F	No sidewalk provision	• No sidewalk provision • No pedestrian signal head • Not clearly delineated cross-walk

Definitions

Buffer: green or landscaped space separating the sidewalk and pavement street curb.

Curb-faced: the sidewalk is located adjacent to the pavement and street curb.

Delineated cross-walk: painted or special pavement to facilitate pedestrians.

Bicycle LOS Target: C or better for these LOS Categories

Table 8 summarizes the level of service criteria for bicycle mode.

Table 8 - Bicycle Level of Service Criteria

Level of Service	Segment	Intersection
A	Separated cycling facilities (e.g. cycle tracks, multi-use path)	Separated cycling facilities Bicycle box or clearly delineated bicycle treatment or bicycle signal head
B	≥1.8 m dedicated cycling facilities (e.g. bicycle lanes with and without buffer)	>1.8 m dedicated cycling facilities (e.g. bicycle lanes with and without buffer), Bicycle box, clearly delineated bicycle treatment or bicycle signal head
C	<1.8 m dedicated cycling facilities with no buffer	<1.8 m dedicated cycling facilities with no buffer, Bicycle box, clearly delineated bicycle treatment or bicycle signal head
D	≤1.5 m bicycle lane with no buffer	≤1.5 m bicycle lane and no buffer Bicycle treatment
E	Shared facilities (e.g. signed routes, sharrows or paved shoulder with minimum 1.2 m in constrained area)	Shared facilities (e.g. signed routes, sharrows or paved shoulder with minimum 1.2 m in constrained area) No clearly delineated bicycle treatment
F	No bicycle provision	No bicycle provision

Definitions

Shared: Shared facilities include roadways or streets where cyclists and motorists use the same road space. Types of shared facilities include signed routes, bicycle boulevards or shared lanes ("sharrows"). Since cyclists and motorists share the same space, these facilities are appropriate on streets with low traffic volumes and/or low speeds.

Dedicated: Designated or dedicated facilities are those that provide space on the road intended for use by cyclists only. They are generally adjacent to motor vehicle lanes and defined by pavement markings. In urban areas, dedicated facilities typically include bike lanes and buffered bike lanes while paved shoulders provide dedicated space on rural roads.

Separated: Separated bikeways are separated from traffic by more than just a painted line. Separation may consist of bollards or delineators, mountable or barrier curbs, planters, concrete medians, etc. Types of separated facilities can include cycle tracks, raised bike lanes, or multi-use trails. These facilities improve safety and comfort for cyclists along higher-speed, busy roadways.

Buffer: a painted area or physical barrier that separates the bicycle lane from the adjacent traffic lane.

Bicycle box: A bike box is used at intersections with dedicated bike lanes or a cycle track to designate a space for cyclists to wait at a red light or to assist cyclists in making left turns. Cyclists stop in front of motorists and can proceed through the intersection first when the light turns green.

Paved shoulder: Paved shoulders are located next to the travelled portion of the roadway and used to accommodate cyclists on rural roads.

Table 4 - Transit Level of Service Criteria

Level of Service	Access to Transit Stops	Transit Headways	Intersection Approach (transit or curb lanes)	
			Delay (seconds/ veh)	V/C
A	90% within ≤200 m	≤5 minutes	≤10	0 to 0.60
B	90% within ≤500m and 70% within ≤200	>5-10 minutes	>10-20	0.61 to 0.70
C	90% within ≤500m and 50% within ≤200m	>10-15 minutes	>20-35	0.71 to 0.80
D	100% within ≤600m	>15-20 minutes	>35-55	0.81 to 0.90
E	100% within ≤800m	>20-30 minutes	>55-80	0.91 to 1.00
F	100% >800m	>30 minutes	>80	>1.00

Definitions

Access: development's potential transit riders' straight line walking distance to transit stops

Stops: bus stops, rapid transit stations, subway stations, RER/GO Train/Bus stations

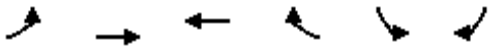
Transit headway: time interval between transit vehicles for a transit corridor

Intersection Approach: critical lane group or curb lane with transit vehicles approaching an intersection

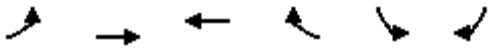
Transit or curb lanes: general purpose lane or curb lane where buses will operate

Appendix E

Synchro Reports: Existing Conditions, Future Background Conditions, Future Total Conditions, and Mitigation Measures



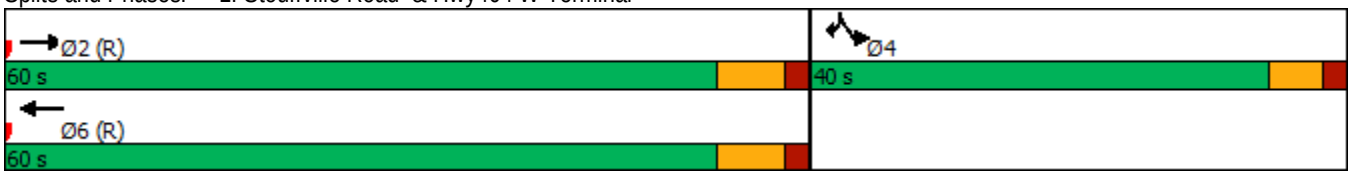
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	615	716	0	758	314
Future Volume (vph)	0	615	716	0	758	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	0.91
Frt					0.994	0.850
Flt Protected					0.954	
Satd. Flow (prot)	0	3438	3406	0	3427	1441
Flt Permitted					0.954	
Satd. Flow (perm)	0	3438	3406	0	3427	1441
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					5	172
Link Speed (k/h)		70	70		60	
Link Distance (m)		102.7	109.4		457.8	
Travel Time (s)		5.3	5.6		27.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	5%	6%	2%	2%	2%
Adj. Flow (vph)	0	641	746	0	790	327
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	0	641	746	0	823	294
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases						
Detector Phase		2	6		4	4
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.0	32.0		21.0	21.0
Total Split (s)		60.0	60.0		40.0	40.0
Total Split (%)		60.0%	60.0%		40.0%	40.0%
Maximum Green (s)		53.0	53.0		34.0	34.0
Yellow Time (s)		5.0	5.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.0	7.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		C-Min	C-Min		None	None
Walk Time (s)			20.0		10.0	10.0
Flash Dont Walk (s)			5.0		5.0	5.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)		57.1	57.1		29.9	29.9
Actuated g/C Ratio		0.57	0.57		0.30	0.30
v/c Ratio		0.33	0.38		0.80	0.53
Control Delay		12.6	13.3		38.2	14.7
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		12.6	13.3		38.2	14.7
LOS		B	B		D	B
Approach Delay		12.6	13.3		32.1	
Approach LOS		B	B		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 21.5		Intersection LOS: C	
Intersection Capacity Utilization 85.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Stouffville Road & Hwy404 W Terminal

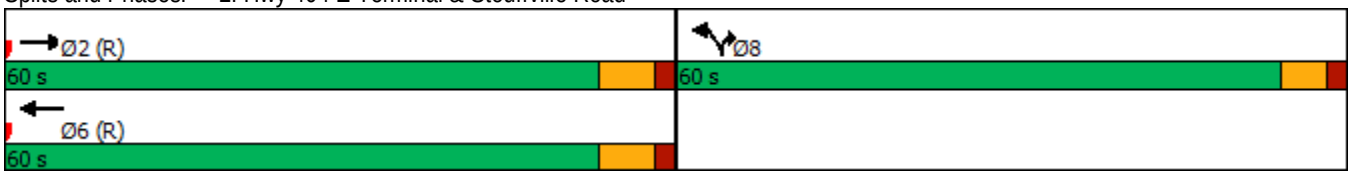


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1220	0	0	704	313	350
Future Volume (vph)	1220	0	0	704	313	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	160.0
Storage Lanes		0	0		2	1
Taper Length (m)			7.5		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.91
Frt					0.954	0.850
Flt Protected					0.967	
Satd. Flow (prot)	3505	0	0	3343	3131	1336
Flt Permitted					0.967	
Satd. Flow (perm)	3505	0	0	3343	3131	1336
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					22	22
Link Speed (k/h)	70			70	60	
Link Distance (m)	81.4			166.9	451.4	
Travel Time (s)	4.2			8.6	27.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	2%	8%	8%	10%
Adj. Flow (vph)	1271	0	0	733	326	365
Shared Lane Traffic (%)						40%
Lane Group Flow (vph)	1271	0	0	733	472	219
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2			2	1	1
Detector Template	Thru			Thru	Left	Right
Leading Detector (m)	10.0			10.0	2.0	2.0
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	0.6			0.6	2.0	2.0
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	10.0
Minimum Split (s)	27.0			27.0	16.0	16.0
Total Split (s)	60.0			60.0	60.0	60.0
Total Split (%)	50.0%			50.0%	50.0%	50.0%
Maximum Green (s)	53.0			53.0	54.0	54.0
Yellow Time (s)	5.0			5.0	4.0	4.0
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0			4.0	3.0	3.0
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	82.0			82.0	25.0	25.0
Actuated g/C Ratio	0.68			0.68	0.21	0.21
v/c Ratio	0.53			0.32	0.71	0.74
Control Delay	11.3			8.9	47.2	54.4
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	11.3			8.9	47.2	54.4
LOS	B			A	D	D
Approach Delay	11.3			8.9	49.5	
Approach LOS	B			A	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 20.5		Intersection LOS: C	
Intersection Capacity Utilization 86.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: Hwy 404 E Terminal & Stouffville Road

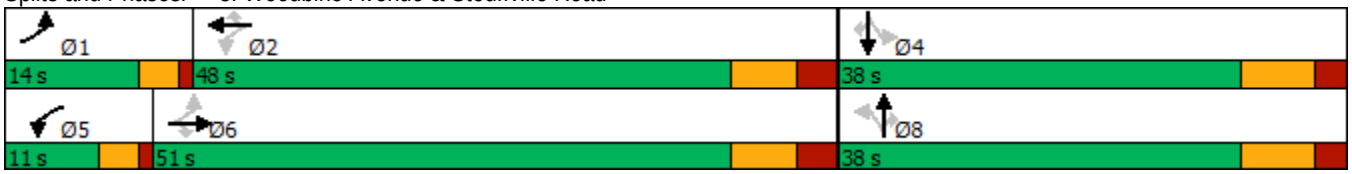


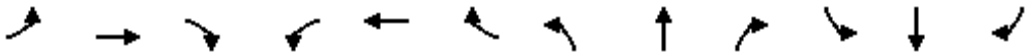
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	155	1160	324	174	820	116	47	60	36	165	287	78
Future Volume (vph)	155	1160	324	174	820	116	47	60	36	165	287	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99						
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3471	1583	1787	3438	1538	1626	3282	1524	1641	3195	1262
Flt Permitted	0.244			0.133			0.562			0.712		
Satd. Flow (perm)	407	3471	1556	250	3438	1517	962	3282	1524	1230	3195	1262
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			260			126			98			98
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Confl. Peds. (#/hr)	2		6	6		2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	14%	4%	2%	1%	5%	5%	11%	10%	6%	10%	13%	28%
Adj. Flow (vph)	168	1261	352	189	891	126	51	65	39	179	312	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	1261	352	189	891	126	51	65	39	179	312	85
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	11.0	48.0	48.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	14.0%	51.0%	51.0%	11.0%	48.0%	48.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Maximum Green (s)	10.0	43.0	43.0	7.0	40.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	0.2	0.2	3.0	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	56.0	43.2	43.2	52.6	41.5	41.5	18.0	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.63	0.49	0.49	0.60	0.47	0.47	0.20	0.20	0.20	0.20	0.20	0.20
v/c Ratio	0.45	0.74	0.39	0.70	0.55	0.16	0.26	0.10	0.10	0.71	0.48	0.25
Control Delay	10.9	22.6	6.0	26.7	19.7	3.9	32.0	27.6	0.5	48.5	33.0	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.9	22.6	6.0	26.7	19.7	3.9	32.0	27.6	0.5	48.5	33.0	6.7
LOS	B	C	A	C	B	A	C	C	A	D	C	A
Approach Delay		18.2			19.1			22.3			33.9	
Approach LOS		B			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 88.4			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 83.8%		ICU Level of Service E	
Analysis Period (min) 15			

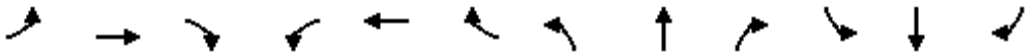
Splits and Phases: 3: Woodbine Avenue & Stouffville Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	1	13	17	3	12	22	244	35	25	542	9
Future Volume (vph)	2	1	13	17	3	12	22	244	35	25	542	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.889			0.948			0.984			0.998	
Flt Protected		0.994			0.974			0.996			0.998	
Satd. Flow (prot)	0	1162	0	0	1369	0	0	1692	0	0	1670	0
Flt Permitted		0.994			0.974			0.996			0.998	
Satd. Flow (perm)	0	1162	0	0	1369	0	0	1692	0	0	1670	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		208.5			133.3			45.7			80.8	
Travel Time (s)		15.0			9.6			2.1			3.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	54%	24%	67%	25%	9%	10%	11%	0%	14%	11%
Adj. Flow (vph)	2	1	14	18	3	13	23	260	37	27	577	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	34	0	0	320	0	0	614	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

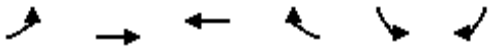
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.9%		ICU Level of Service A	
Analysis Period (min) 15			



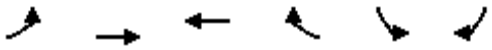
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	1	13	17	3	12	22	244	35	25	542	9
Future Volume (Veh/h)	2	1	13	17	3	12	22	244	35	25	542	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	2	1	14	18	3	13	23	260	37	27	577	10
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								297				
pX, platoon unblocked												
vC, conflicting volume	975	979	582	975	966	278	587			297		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	975	979	582	975	966	278	587			297		
tC, single (s)	7.1	6.5	6.7	7.3	7.2	6.5	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.7	4.6	3.5	2.3			2.2		
p0 queue free %	99	100	97	91	98	98	98			98		
cM capacity (veh/h)	218	241	428	196	190	708	954			1276		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	17	34	320	614
Volume Left	2	18	23	27
Volume Right	14	13	37	10
cSH	369	270	954	1276
Volume to Capacity	0.05	0.13	0.02	0.02
Queue Length 95th (m)	1.2	3.4	0.6	0.5
Control Delay (s)	15.2	20.2	0.9	0.6
Lane LOS	C	C	A	A
Approach Delay (s)	15.2	20.2	0.9	0.6
Approach LOS	C	C		

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	47.9%	ICU Level of Service	A	
Analysis Period (min)	15			



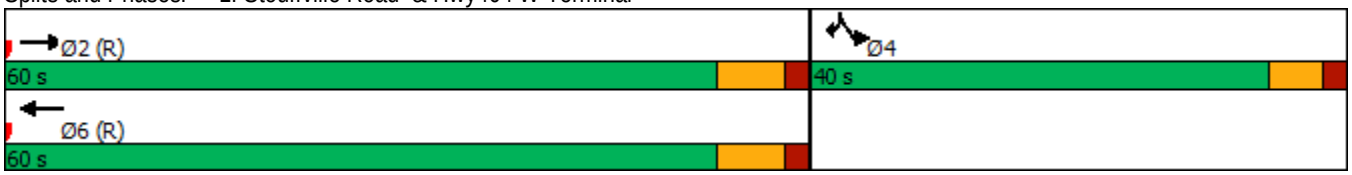
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	499	841	0	401	107
Future Volume (vph)	0	499	841	0	401	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	0.91
Frt					0.996	0.850
Flt Protected					0.954	
Satd. Flow (prot)	0	3505	3505	0	3434	1441
Flt Permitted					0.954	
Satd. Flow (perm)	0	3505	3505	0	3434	1441
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					3	100
Link Speed (k/h)		70	70		60	
Link Distance (m)		102.7	109.4		457.8	
Travel Time (s)		5.3	5.6		27.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	3%	3%	2%	2%	2%
Adj. Flow (vph)	0	520	876	0	418	111
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	0	520	876	0	429	100
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases						
Detector Phase		2	6		4	4
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.0	32.0		21.0	21.0
Total Split (s)		60.0	60.0		40.0	40.0
Total Split (%)		60.0%	60.0%		40.0%	40.0%
Maximum Green (s)		53.0	53.0		34.0	34.0
Yellow Time (s)		5.0	5.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.0	7.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		C-Min	C-Min		None	None
Walk Time (s)			20.0		10.0	10.0
Flash Dont Walk (s)			5.0		5.0	5.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)		69.2	69.2		17.8	17.8
Actuated g/C Ratio		0.69	0.69		0.18	0.18
v/c Ratio		0.21	0.36		0.70	0.29
Control Delay		6.2	7.2		44.4	9.2
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		6.2	7.2		44.4	9.2
LOS		A	A		D	A
Approach Delay		6.2	7.2		37.7	
Approach LOS		A	A		D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 15.3		Intersection LOS: B	
Intersection Capacity Utilization 46.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Stouffville Road & Hwy404 W Terminal

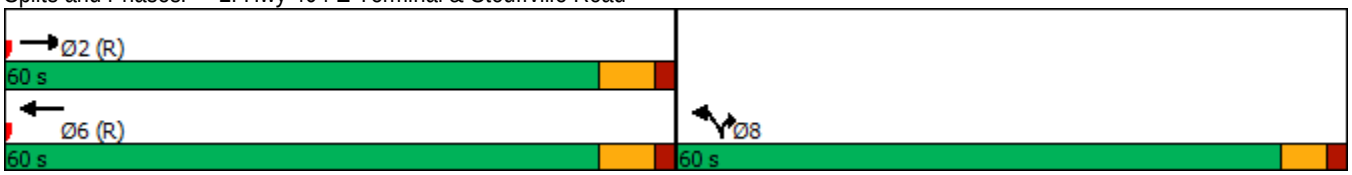


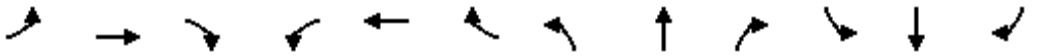
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	781	0	0	799	400	491
Future Volume (vph)	781	0	0	799	400	491
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	160.0
Storage Lanes		0	0		2	1
Taper Length (m)			7.5		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.91
Frt					0.949	0.850
Flt Protected					0.968	
Satd. Flow (prot)	3505	0	0	3471	3255	1361
Flt Permitted					0.968	
Satd. Flow (perm)	3505	0	0	3471	3255	1361
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					102	102
Link Speed (k/h)	70			70	60	
Link Distance (m)	81.4			166.9	451.4	
Travel Time (s)	4.2			8.6	27.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	2%	2%	4%	2%	8%
Adj. Flow (vph)	789	0	0	807	404	496
Shared Lane Traffic (%)						42%
Lane Group Flow (vph)	789	0	0	807	612	288
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2			2	1	1
Detector Template	Thru			Thru	Left	Right
Leading Detector (m)	10.0			10.0	2.0	2.0
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	0.6			0.6	2.0	2.0
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	10.0
Minimum Split (s)	27.0			27.0	16.0	16.0
Total Split (s)	60.0			60.0	60.0	60.0
Total Split (%)	50.0%			50.0%	50.0%	50.0%
Maximum Green (s)	53.0			53.0	54.0	54.0
Yellow Time (s)	5.0			5.0	4.0	4.0
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0			4.0	3.0	3.0
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	80.2			80.2	26.8	26.8
Actuated g/C Ratio	0.67			0.67	0.22	0.22
v/c Ratio	0.34			0.35	0.76	0.75
Control Delay	9.8			9.9	41.9	39.5
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	9.8			9.9	41.9	39.5
LOS	A			A	D	D
Approach Delay	9.8			9.9	41.1	
Approach LOS	A			A	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 21.2		Intersection LOS: C	
Intersection Capacity Utilization 81.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Hwy 404 E Terminal & Stouffville Road



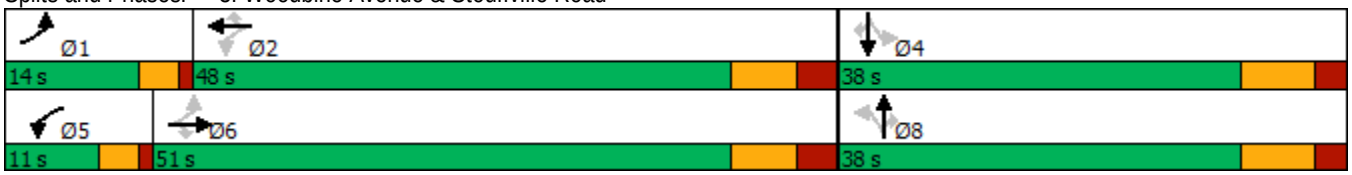


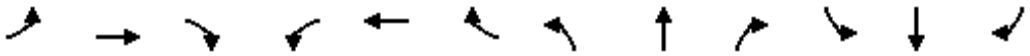
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	1110	25	33	879	113	103	208	56	154	72	179
Future Volume (vph)	160	1110	25	33	879	113	103	208	56	154	72	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	3505	1553	1752	3539	1553	1656	3438	1553	1787	3343	1509
Flt Permitted	0.221			0.192			0.705			0.615		
Satd. Flow (perm)	350	3505	1553	354	3539	1553	1229	3438	1553	1157	3343	1509
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			98			119			98			188
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	20%	3%	4%	3%	2%	4%	9%	5%	4%	1%	8%	7%
Adj. Flow (vph)	168	1168	26	35	925	119	108	219	59	162	76	188
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	1168	26	35	925	119	108	219	59	162	76	188
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	11.0	48.0	48.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	14.0%	51.0%	51.0%	11.0%	48.0%	48.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Maximum Green (s)	10.0	43.0	43.0	7.0	40.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	0.2	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	56.5	47.0	47.0	51.5	40.4	40.4	17.4	17.4	17.4	17.4	17.4	17.4
Actuated g/C Ratio	0.65	0.54	0.54	0.59	0.47	0.47	0.20	0.20	0.20	0.20	0.20	0.20
v/c Ratio	0.49	0.62	0.03	0.11	0.56	0.15	0.44	0.32	0.15	0.70	0.11	0.42
Control Delay	11.7	17.8	0.1	7.6	19.5	3.9	35.9	30.4	2.7	48.6	27.9	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	17.8	0.1	7.6	19.5	3.9	35.9	30.4	2.7	48.6	27.9	7.4
LOS	B	B	A	A	B	A	D	C	A	D	C	A
Approach Delay		16.7			17.4			27.7			26.7	
Approach LOS		B			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 86.7			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 82.4%		ICU Level of Service E	
Analysis Period (min) 15			

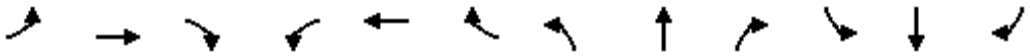
Splits and Phases: 3: Woodbine Avenue & Stouffville Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	1	44	43	0	37	12	396	16	7	293	0
Future Volume (vph)	16	1	44	43	0	37	12	396	16	7	293	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.903			0.937			0.995				
Flt Protected		0.987			0.974			0.999			0.999	
Satd. Flow (prot)	0	1613	0	0	1734	0	0	1663	0	0	1738	0
Flt Permitted		0.987			0.974			0.999			0.999	
Satd. Flow (perm)	0	1613	0	0	1734	0	0	1663	0	0	1738	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		208.5			133.3			45.7			80.8	
Travel Time (s)		15.0			9.6			2.1			3.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	50%	12%	25%	57%	8%	0%
Adj. Flow (vph)	18	1	48	47	0	41	13	435	18	8	322	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	88	0	0	466	0	0	330	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

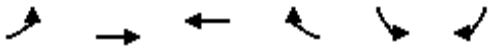
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 43.1%		ICU Level of Service A	
Analysis Period (min) 15			



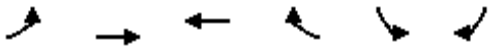
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	1	44	43	0	37	12	396	16	7	293	0
Future Volume (Veh/h)	16	1	44	43	0	37	12	396	16	7	293	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	18	1	48	47	0	41	13	435	18	8	322	0
Pedestrians		1										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								297				
pX, platoon unblocked	0.93	0.93		0.93	0.93	0.93				0.93		
vC, conflicting volume	850	818	323	856	809	444	323			453		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	799	765	323	806	755	362	323			371		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.6			4.7		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.7			2.7		
p0 queue free %	93	100	93	82	100	94	99			99		
cM capacity (veh/h)	261	304	706	256	308	638	1009			872		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	67	88	466	330
Volume Left	18	47	13	8
Volume Right	48	41	18	0
cSH	477	355	1009	872
Volume to Capacity	0.14	0.25	0.01	0.01
Queue Length 95th (m)	3.9	7.7	0.3	0.2
Control Delay (s)	13.8	18.4	0.4	0.3
Lane LOS	B	C	A	A
Approach Delay (s)	13.8	18.4	0.4	0.3
Approach LOS	B	C		

Intersection Summary				
Average Delay	3.0			
Intersection Capacity Utilization	43.1%	ICU Level of Service	A	
Analysis Period (min)	15			



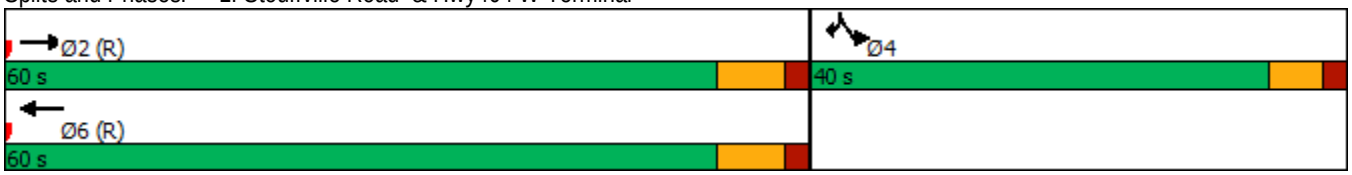
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	650	737	0	810	320
Future Volume (vph)	0	650	737	0	810	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	0.91
Frt					0.994	0.850
Flt Protected					0.954	
Satd. Flow (prot)	0	3438	3406	0	3427	1441
Flt Permitted					0.954	
Satd. Flow (perm)	0	3438	3406	0	3427	1441
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					4	163
Link Speed (k/h)		70	70		60	
Link Distance (m)		102.7	109.4		457.8	
Travel Time (s)		5.3	5.6		27.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	5%	6%	2%	2%	2%
Adj. Flow (vph)	0	677	768	0	844	333
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	0	677	768	0	877	300
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases						
Detector Phase		2	6		4	4
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.0	32.0		21.0	21.0
Total Split (s)		60.0	60.0		40.0	40.0
Total Split (%)		60.0%	60.0%		40.0%	40.0%
Maximum Green (s)		53.0	53.0		34.0	34.0
Yellow Time (s)		5.0	5.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.0	7.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		C-Min	C-Min		None	None
Walk Time (s)			20.0		10.0	10.0
Flash Dont Walk (s)			5.0		5.0	5.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)		55.5	55.5		31.5	31.5
Actuated g/C Ratio		0.56	0.56		0.32	0.32
v/c Ratio		0.36	0.41		0.81	0.53
Control Delay		13.7	14.4		37.5	15.1
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		13.7	14.4		37.5	15.1
LOS		B	B		D	B
Approach Delay		13.7	14.4		31.8	
Approach LOS		B	B		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 22.0		Intersection LOS: C	
Intersection Capacity Utilization 88.9%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Stouffville Road & Hwy404 W Terminal

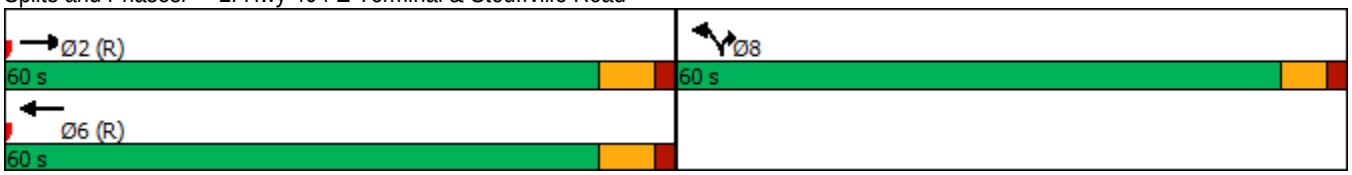


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1304	0	0	729	320	382
Future Volume (vph)	1304	0	0	729	320	382
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	160.0
Storage Lanes		0	0		2	1
Taper Length (m)			7.5		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.91
Frt					0.950	0.850
Flt Protected					0.968	
Satd. Flow (prot)	3505	0	0	3343	3119	1336
Flt Permitted					0.968	
Satd. Flow (perm)	3505	0	0	3343	3119	1336
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					16	16
Link Speed (k/h)	70			70	60	
Link Distance (m)	81.4			166.9	451.4	
Travel Time (s)	4.2			8.6	27.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	2%	8%	8%	10%
Adj. Flow (vph)	1358	0	0	759	333	398
Shared Lane Traffic (%)						42%
Lane Group Flow (vph)	1358	0	0	759	500	231
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2			2	1	1
Detector Template	Thru			Thru	Left	Right
Leading Detector (m)	10.0			10.0	2.0	2.0
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	0.6			0.6	2.0	2.0
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	10.0
Minimum Split (s)	27.0			27.0	16.0	16.0
Total Split (s)	60.0			60.0	60.0	60.0
Total Split (%)	50.0%			50.0%	50.0%	50.0%
Maximum Green (s)	53.0			53.0	54.0	54.0
Yellow Time (s)	5.0			5.0	4.0	4.0
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0			4.0	3.0	3.0
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	80.3			80.3	26.7	26.7
Actuated g/C Ratio	0.67			0.67	0.22	0.22
v/c Ratio	0.58			0.34	0.71	0.75
Control Delay	13.0			9.9	46.7	54.6
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	13.0			9.9	46.7	54.6
LOS	B			A	D	D
Approach Delay	13.0			9.9	49.2	
Approach LOS	B			A	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 21.4		Intersection LOS: C	
Intersection Capacity Utilization 91.1%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 2: Hwy 404 E Terminal & Stouffville Road

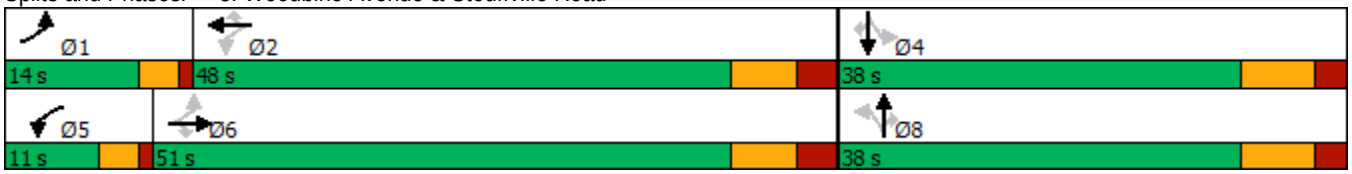


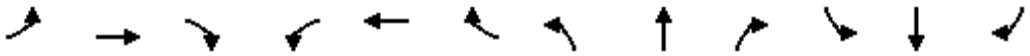
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	192	1183	381	184	838	126	59	74	39	175	313	87
Future Volume (vph)	192	1183	381	184	838	126	59	74	39	175	313	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99						
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3471	1583	1787	3438	1538	1626	3282	1524	1641	3195	1262
Flt Permitted	0.227			0.122			0.547			0.702		
Satd. Flow (perm)	378	3471	1556	229	3438	1517	936	3282	1524	1213	3195	1262
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			227			137			98			98
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Confl. Peds. (#/hr)	2		6	6		2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	14%	4%	2%	1%	5%	5%	11%	10%	6%	10%	13%	28%
Adj. Flow (vph)	209	1286	414	200	911	137	64	80	42	190	340	95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	209	1286	414	200	911	137	64	80	42	190	340	95
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	11.0	48.0	48.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	14.0%	51.0%	51.0%	11.0%	48.0%	48.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Maximum Green (s)	10.0	43.0	43.0	7.0	40.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	0.2	0.2	3.0	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	56.4	43.2	43.2	52.1	41.1	41.1	19.4	19.4	19.4	19.4	19.4	19.4
Actuated g/C Ratio	0.63	0.48	0.48	0.58	0.46	0.46	0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.58	0.77	0.48	0.78	0.58	0.18	0.32	0.11	0.10	0.73	0.49	0.27
Control Delay	14.5	24.3	9.6	36.9	21.2	4.0	33.0	27.4	0.5	48.7	32.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	24.3	9.6	36.9	21.2	4.0	33.0	27.4	0.5	48.7	32.8	7.6
LOS	B	C	A	D	C	A	C	C	A	D	C	A
Approach Delay		20.1			21.8			23.3			33.8	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 89.7			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 85.3%		ICU Level of Service E	
Analysis Period (min) 15			

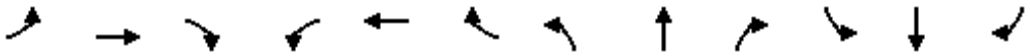
Splits and Phases: 3: Woodbine Avenue & Stouffville Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1	33	23	3	14	65	251	46	33	561	32
Future Volume (vph)	5	1	33	23	3	14	65	251	46	33	561	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.885			0.952			0.983			0.993	
Flt Protected		0.994			0.972			0.991			0.997	
Satd. Flow (prot)	0	1144	0	0	1380	0	0	1683	0	0	1663	0
Flt Permitted		0.994			0.972			0.991			0.997	
Satd. Flow (perm)	0	1144	0	0	1380	0	0	1683	0	0	1663	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		208.5			133.3			45.7			80.8	
Travel Time (s)		15.0			9.6			2.1			3.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	54%	24%	67%	25%	9%	10%	11%	0%	14%	11%
Adj. Flow (vph)	5	1	35	24	3	15	69	267	49	35	597	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	42	0	0	385	0	0	666	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

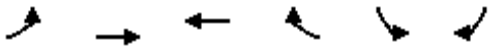
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.2%		ICU Level of Service A	
Analysis Period (min) 15			



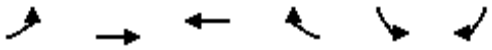
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1	33	23	3	14	65	251	46	33	561	32
Future Volume (Veh/h)	5	1	33	23	3	14	65	251	46	33	561	32
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	1	35	24	3	15	69	267	49	35	597	34
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								297				
pX, platoon unblocked												
vC, conflicting volume	1130	1138	614	1149	1130	292	631			316		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1130	1138	614	1149	1130	292	631			316		
tC, single (s)	7.1	6.5	6.7	7.3	7.2	6.5	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.7	4.6	3.5	2.3			2.2		
p0 queue free %	97	99	91	82	98	98	92			97		
cM capacity (veh/h)	162	183	409	134	140	696	919			1256		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	41	42	385	666
Volume Left	5	24	69	35
Volume Right	35	15	49	34
cSH	336	189	919	1256
Volume to Capacity	0.12	0.22	0.08	0.03
Queue Length 95th (m)	3.3	6.6	1.9	0.7
Control Delay (s)	17.2	29.5	2.4	0.8
Lane LOS	C	D	A	A
Approach Delay (s)	17.2	29.5	2.4	0.8
Approach LOS	C	D		

Intersection Summary				
Average Delay	3.0			
Intersection Capacity Utilization	54.2%	ICU Level of Service	A	
Analysis Period (min)	15			



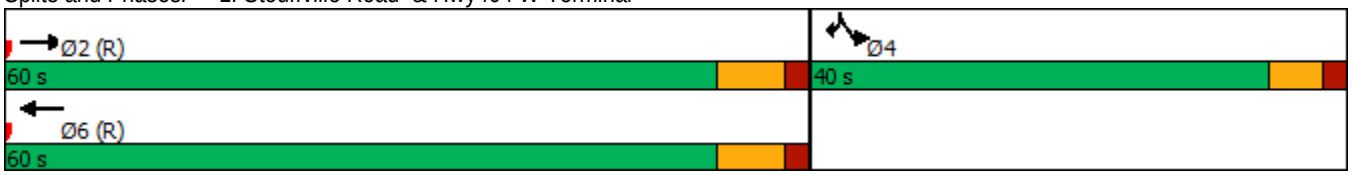
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	515	886	0	418	109
Future Volume (vph)	0	515	886	0	418	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	0.91
Frt					0.996	0.850
Flt Protected					0.954	
Satd. Flow (prot)	0	3505	3505	0	3434	1441
Flt Permitted					0.954	
Satd. Flow (perm)	0	3505	3505	0	3434	1441
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					3	103
Link Speed (k/h)		70	70		60	
Link Distance (m)		102.7	109.4		457.8	
Travel Time (s)		5.3	5.6		27.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	3%	3%	2%	2%	2%
Adj. Flow (vph)	0	536	923	0	435	114
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	0	536	923	0	446	103
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases						
Detector Phase		2	6		4	4
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.0	32.0		21.0	21.0
Total Split (s)		60.0	60.0		40.0	40.0
Total Split (%)		60.0%	60.0%		40.0%	40.0%
Maximum Green (s)		53.0	53.0		34.0	34.0
Yellow Time (s)		5.0	5.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.0	7.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		C-Min	C-Min		None	None
Walk Time (s)			20.0		10.0	10.0
Flash Dont Walk (s)			5.0		5.0	5.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)		68.7	68.7		18.3	18.3
Actuated g/C Ratio		0.69	0.69		0.18	0.18
v/c Ratio		0.22	0.38		0.71	0.30
Control Delay		6.5	7.6		44.1	8.9
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		6.5	7.6		44.1	8.9
LOS		A	A		D	A
Approach Delay		6.5	7.6		37.5	
Approach LOS		A	A		D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 15.5		Intersection LOS: B	
Intersection Capacity Utilization 48.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Stouffville Road & Hwy404 W Terminal

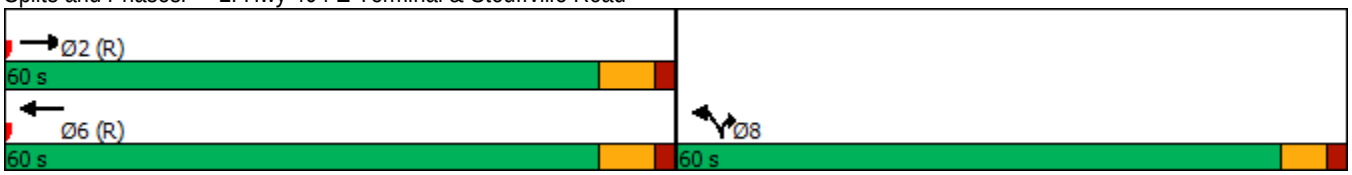


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	812	0	0	860	408	512
Future Volume (vph)	812	0	0	860	408	512
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	160.0
Storage Lanes		0	0		2	1
Taper Length (m)			7.5		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.91
Frt					0.947	0.850
Flt Protected					0.969	
Satd. Flow (prot)	3505	0	0	3471	3249	1361
Flt Permitted					0.969	
Satd. Flow (perm)	3505	0	0	3471	3249	1361
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					93	93
Link Speed (k/h)	70			70	60	
Link Distance (m)	81.4			166.9	451.4	
Travel Time (s)	4.2			8.6	27.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	2%	2%	4%	2%	8%
Adj. Flow (vph)	820	0	0	869	412	517
Shared Lane Traffic (%)						43%
Lane Group Flow (vph)	820	0	0	869	634	295
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2			2	1	1
Detector Template	Thru			Thru	Left	Right
Leading Detector (m)	10.0			10.0	2.0	2.0
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	0.6			0.6	2.0	2.0
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	10.0
Minimum Split (s)	27.0			27.0	16.0	16.0
Total Split (s)	60.0			60.0	60.0	60.0
Total Split (%)	50.0%			50.0%	50.0%	50.0%
Maximum Green (s)	53.0			53.0	54.0	54.0
Yellow Time (s)	5.0			5.0	4.0	4.0
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0			4.0	3.0	3.0
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	78.7			78.7	28.3	28.3
Actuated g/C Ratio	0.66			0.66	0.24	0.24
v/c Ratio	0.36			0.38	0.76	0.75
Control Delay	10.7			10.9	41.8	40.5
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	10.7			10.9	41.8	40.5
LOS	B			B	D	D
Approach Delay	10.7			10.9	41.4	
Approach LOS	B			B	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 21.7		Intersection LOS: C	
Intersection Capacity Utilization 85.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: Hwy 404 E Terminal & Stouffville Road

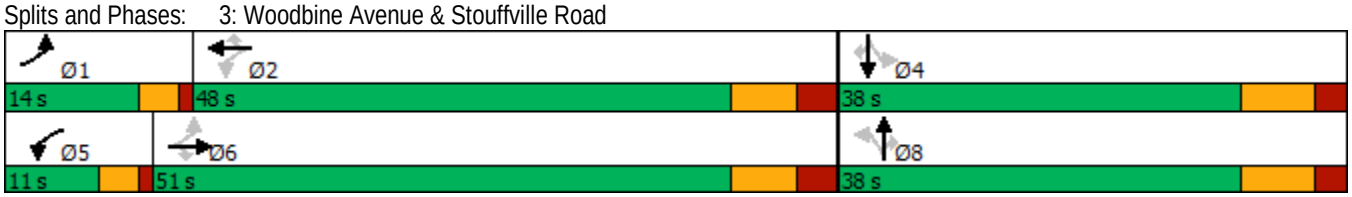


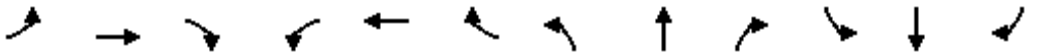
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	177	1132	38	35	898	122	144	230	62	170	86	204
Future Volume (vph)	177	1132	38	35	898	122	144	230	62	170	86	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	3505	1553	1752	3539	1553	1656	3438	1553	1787	3343	1509
Flt Permitted	0.208			0.180			0.695			0.601		
Satd. Flow (perm)	329	3505	1553	332	3539	1553	1211	3438	1553	1131	3343	1509
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			98			128			98			201
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	20%	3%	4%	3%	2%	4%	9%	5%	4%	1%	8%	7%
Adj. Flow (vph)	186	1192	40	37	945	128	152	242	65	179	91	215
Shared Lane Traffic (%)												
Lane Group Flow (vph)	186	1192	40	37	945	128	152	242	65	179	91	215
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	11.0	48.0	48.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	14.0%	51.0%	51.0%	11.0%	48.0%	48.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Maximum Green (s)	10.0	43.0	43.0	7.0	40.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	0.2	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	56.9	47.2	47.2	51.4	40.3	40.3	19.2	19.2	19.2	19.2	19.2	19.2
Actuated g/C Ratio	0.64	0.53	0.53	0.58	0.45	0.45	0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.56	0.64	0.05	0.12	0.59	0.17	0.58	0.33	0.16	0.73	0.13	0.44
Control Delay	14.5	19.4	0.1	8.6	21.2	4.0	40.1	29.9	3.1	50.0	27.5	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	19.4	0.1	8.6	21.2	4.0	40.1	29.9	3.1	50.0	27.5	8.2
LOS	B	B	A	A	C	A	D	C	A	D	C	A
Approach Delay		18.2			18.8			29.5			27.2	
Approach LOS		B			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 88.7			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 84.2%		ICU Level of Service E	
Analysis Period (min) 15			

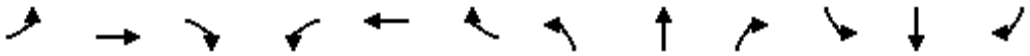
Splits and Phases: 3: Woodbine Avenue & Stouffville Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	1	83	51	0	51	29	410	32	10	301	13
Future Volume (vph)	31	1	83	51	0	51	29	410	32	10	301	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.902			0.932			0.991			0.995	
Flt Protected		0.987			0.976			0.997			0.998	
Satd. Flow (prot)	0	1610	0	0	1728	0	0	1629	0	0	1728	0
Flt Permitted		0.987			0.976			0.997			0.998	
Satd. Flow (perm)	0	1610	0	0	1728	0	0	1629	0	0	1728	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		208.5			133.3			45.7			80.8	
Travel Time (s)		15.0			9.6			2.1			3.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	50%	12%	25%	57%	8%	0%
Adj. Flow (vph)	34	1	91	56	0	56	32	451	35	11	331	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	126	0	0	112	0	0	518	0	0	356	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

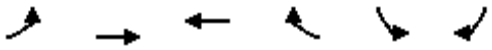
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.7%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	1	83	51	0	51	29	410	32	10	301	13
Future Volume (Veh/h)	31	1	83	51	0	51	29	410	32	10	301	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	34	1	91	56	0	56	32	451	35	11	331	14
Pedestrians		1										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								297				
pX, platoon unblocked	0.91	0.91		0.91	0.91	0.91				0.91		
vC, conflicting volume	950	911	339	984	900	468	346			486		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	898	856	339	936	845	373	346			392		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.6			4.7		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.7			2.7		
p0 queue free %	84	100	87	70	100	91	97			99		
cM capacity (veh/h)	210	260	691	189	264	620	988			843		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	126	112	518	356
Volume Left	34	56	32	11
Volume Right	91	56	35	14
cSH	424	290	988	843
Volume to Capacity	0.30	0.39	0.03	0.01
Queue Length 95th (m)	9.8	14.0	0.8	0.3
Control Delay (s)	17.0	25.0	0.9	0.4
Lane LOS	C	D	A	A
Approach Delay (s)	17.0	25.0	0.9	0.4
Approach LOS	C	D		

Intersection Summary				
Average Delay	5.0			
Intersection Capacity Utilization	53.7%	ICU Level of Service	A	
Analysis Period (min)	15			

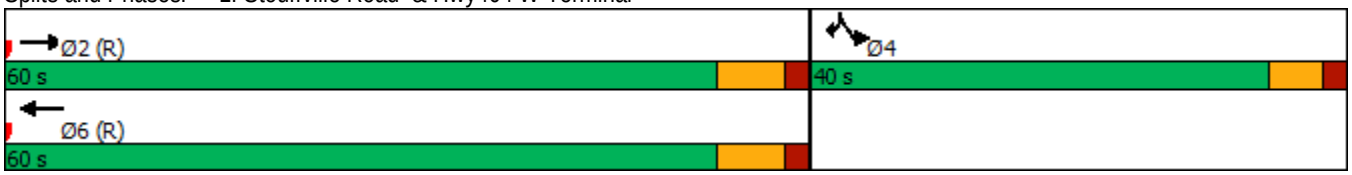


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	742	817	0	934	354
Future Volume (vph)	0	742	817	0	934	354
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	0.91
Frt					0.995	0.850
Flt Protected					0.954	
Satd. Flow (prot)	0	3438	3406	0	3430	1441
Flt Permitted					0.954	
Satd. Flow (perm)	0	3438	3406	0	3430	1441
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					4	131
Link Speed (k/h)		70	70		60	
Link Distance (m)		102.7	109.4		457.8	
Travel Time (s)		5.3	5.6		27.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	5%	6%	2%	2%	2%
Adj. Flow (vph)	0	773	851	0	973	369
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	0	773	851	0	1010	332
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases						
Detector Phase		2	6		4	4
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.0	32.0		21.0	21.0
Total Split (s)		60.0	60.0		40.0	40.0
Total Split (%)		60.0%	60.0%		40.0%	40.0%
Maximum Green (s)		53.0	53.0		34.0	34.0
Yellow Time (s)		5.0	5.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.0	7.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		C-Min	C-Min		None	None
Walk Time (s)			20.0		10.0	10.0
Flash Dont Walk (s)			5.0		5.0	5.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)		51.7	51.7		35.3	35.3
Actuated g/C Ratio		0.52	0.52		0.35	0.35
v/c Ratio		0.43	0.48		0.83	0.56
Control Delay		16.7	17.4		36.1	18.5
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		16.7	17.4		36.1	18.5
LOS		B	B		D	B
Approach Delay		16.7	17.4		31.7	
Approach LOS		B	B		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 98.7%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 1: Stouffville Road & Hwy404 W Terminal

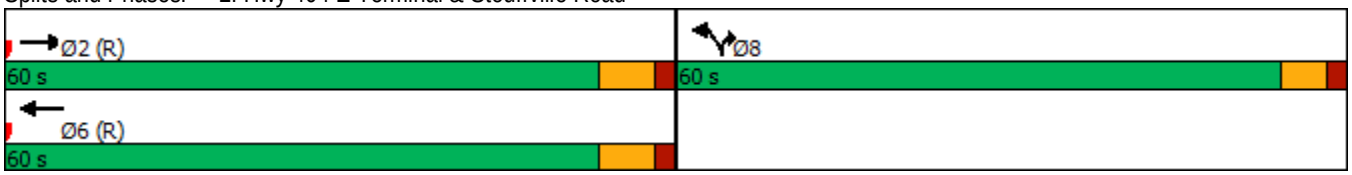


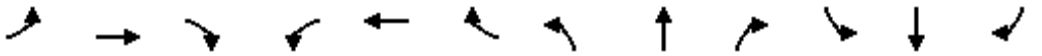
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1503	0	0	811	353	439
Future Volume (vph)	1503	0	0	811	353	439
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	160.0
Storage Lanes		0	0		2	1
Taper Length (m)			7.5		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.91
Frt					0.948	0.850
Flt Protected					0.968	
Satd. Flow (prot)	3505	0	0	3343	3112	1336
Flt Permitted					0.968	
Satd. Flow (perm)	3505	0	0	3343	3112	1336
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					8	8
Link Speed (k/h)	70			70	60	
Link Distance (m)	81.4			166.9	451.4	
Travel Time (s)	4.2			8.6	27.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	2%	8%	8%	10%
Adj. Flow (vph)	1566	0	0	845	368	457
Shared Lane Traffic (%)						43%
Lane Group Flow (vph)	1566	0	0	845	565	260
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2			2	1	1
Detector Template	Thru			Thru	Left	Right
Leading Detector (m)	10.0			10.0	2.0	2.0
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	0.6			0.6	2.0	2.0
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	10.0
Minimum Split (s)	27.0			27.0	16.0	16.0
Total Split (s)	60.0			60.0	60.0	60.0
Total Split (%)	50.0%			50.0%	50.0%	50.0%
Maximum Green (s)	53.0			53.0	54.0	54.0
Yellow Time (s)	5.0			5.0	4.0	4.0
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0			4.0	3.0	3.0
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	76.9			76.9	30.1	30.1
Actuated g/C Ratio	0.64			0.64	0.25	0.25
v/c Ratio	0.70			0.39	0.72	0.76
Control Delay	17.5			12.1	45.2	54.1
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	17.5			12.1	45.2	54.1
LOS	B			B	D	D
Approach Delay	17.5			12.1	48.0	
Approach LOS	B			B	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 23.9		Intersection LOS: C	
Intersection Capacity Utilization 101.7%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 2: Hwy 404 E Terminal & Stouffville Road



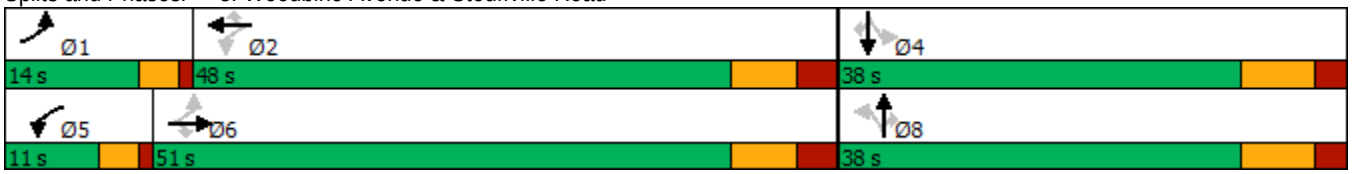


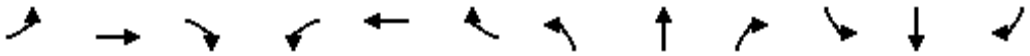
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	1306	505	214	925	139	76	82	44	193	349	95
Future Volume (vph)	209	1306	505	214	925	139	76	82	44	193	349	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99						
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3471	1583	1787	3438	1538	1626	3282	1524	1641	3195	1262
Flt Permitted	0.181			0.099			0.508			0.696		
Satd. Flow (perm)	302	3471	1556	186	3438	1517	870	3282	1524	1202	3195	1262
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			183			151			98			103
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Confl. Peds. (#/hr)	2		6	6		2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	14%	4%	2%	1%	5%	5%	11%	10%	6%	10%	13%	28%
Adj. Flow (vph)	227	1420	549	233	1005	151	83	89	48	210	379	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	227	1420	549	233	1005	151	83	89	48	210	379	103
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	11.0	48.0	48.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	14.0%	51.0%	51.0%	11.0%	48.0%	48.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Maximum Green (s)	10.0	43.0	43.0	7.0	40.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	0.2	0.2	3.0	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	57.0	43.2	43.2	51.6	40.5	40.5	20.8	20.8	20.8	20.8	20.8	20.8
Actuated g/C Ratio	0.62	0.47	0.47	0.57	0.44	0.44	0.23	0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.70	0.86	0.66	1.02	0.66	0.20	0.42	0.12	0.11	0.77	0.52	0.28
Control Delay	22.0	29.5	17.4	88.9	23.6	3.9	36.0	27.1	0.8	51.2	32.9	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	29.5	17.4	88.9	23.6	3.9	36.0	27.1	0.8	51.2	32.9	7.7
LOS	C	C	B	F	C	A	D	C	A	D	C	A
Approach Delay		25.7			32.4			24.7			34.7	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 91.2			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 29.1		Intersection LOS: C	
Intersection Capacity Utilization 90.3%		ICU Level of Service E	
Analysis Period (min) 15			

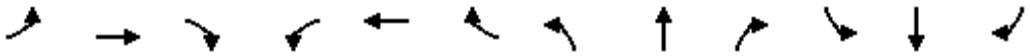
Splits and Phases: 3: Woodbine Avenue & Stouffville Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1	35	25	3	16	68	278	49	35	624	33
Future Volume (vph)	5	1	35	25	3	16	68	278	49	35	624	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.884			0.951			0.983			0.994	
Flt Protected		0.994			0.972			0.992			0.997	
Satd. Flow (prot)	0	1140	0	0	1382	0	0	1685	0	0	1664	0
Flt Permitted		0.994			0.972			0.992			0.997	
Satd. Flow (perm)	0	1140	0	0	1382	0	0	1685	0	0	1664	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		208.5			133.3			45.7			80.8	
Travel Time (s)		15.0			9.6			2.1			3.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	54%	24%	67%	25%	9%	10%	11%	0%	14%	11%
Adj. Flow (vph)	5	1	37	27	3	17	72	296	52	37	664	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	47	0	0	420	0	0	736	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

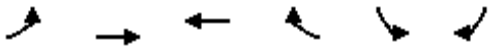
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1	35	25	3	16	68	278	49	35	624	33
Future Volume (Veh/h)	5	1	35	25	3	16	68	278	49	35	624	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	1	37	27	3	17	72	296	52	37	664	35
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								297				
pX, platoon unblocked	0.99	0.99		0.99	0.99	0.99				0.99		
vC, conflicting volume	1240	1248	682	1259	1239	322	699			348		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1238	1246	682	1257	1237	314	699			340		
tC, single (s)	7.1	6.5	6.7	7.3	7.2	6.5	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.7	4.6	3.5	2.3			2.2		
p0 queue free %	96	99	90	75	97	97	92			97		
cM capacity (veh/h)	134	155	372	109	117	671	866			1222		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	43	47	420	736
Volume Left	5	27	72	37
Volume Right	37	17	52	35
cSH	300	157	866	1222
Volume to Capacity	0.14	0.30	0.08	0.03
Queue Length 95th (m)	4.0	9.5	2.2	0.7
Control Delay (s)	19.0	37.5	2.5	0.8
Lane LOS	C	E	A	A
Approach Delay (s)	19.0	37.5	2.5	0.8
Approach LOS	C	E		

Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	58.3%	ICU Level of Service	B	
Analysis Period (min)	15			

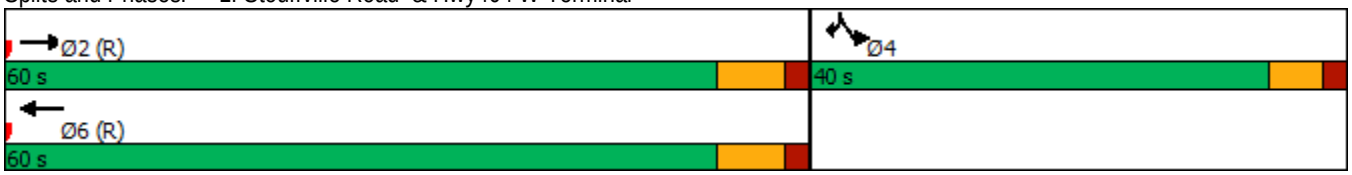


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	588	1006	0	481	120
Future Volume (vph)	0	588	1006	0	481	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	0.91
Frt					0.996	0.850
Flt Protected					0.954	
Satd. Flow (prot)	0	3505	3505	0	3434	1441
Flt Permitted					0.954	
Satd. Flow (perm)	0	3505	3505	0	3434	1441
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					3	78
Link Speed (k/h)		70	70		60	
Link Distance (m)		102.7	109.4		457.8	
Travel Time (s)		5.3	5.6		27.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	3%	3%	2%	2%	2%
Adj. Flow (vph)	0	613	1048	0	501	125
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	0	613	1048	0	514	112
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases						
Detector Phase		2	6		4	4
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.0	32.0		21.0	21.0
Total Split (s)		60.0	60.0		40.0	40.0
Total Split (%)		60.0%	60.0%		40.0%	40.0%
Maximum Green (s)		53.0	53.0		34.0	34.0
Yellow Time (s)		5.0	5.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.0	7.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		C-Min	C-Min		None	None
Walk Time (s)			20.0		10.0	10.0
Flash Dont Walk (s)			5.0		5.0	5.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)		66.5	66.5		20.5	20.5
Actuated g/C Ratio		0.66	0.66		0.20	0.20
v/c Ratio		0.26	0.45		0.73	0.31
Control Delay		7.6	9.3		43.0	14.2
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		7.6	9.3		43.0	14.2
LOS		A	A		D	B
Approach Delay		7.6	9.3		37.9	
Approach LOS		A	A		D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 16.6		Intersection LOS: B	
Intersection Capacity Utilization 53.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Stouffville Road & Hwy404 W Terminal

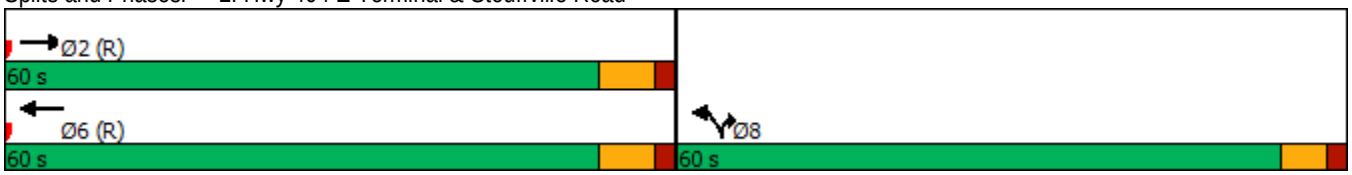


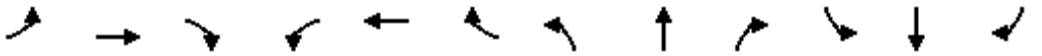
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	935	0	0	1000	450	589
Future Volume (vph)	935	0	0	1000	450	589
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	160.0
Storage Lanes		0	0		2	1
Taper Length (m)			7.5		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.91
Frt					0.945	0.850
Flt Protected					0.969	
Satd. Flow (prot)	3505	0	0	3471	3239	1361
Flt Permitted					0.969	
Satd. Flow (perm)	3505	0	0	3471	3239	1361
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					63	63
Link Speed (k/h)	70			70	60	
Link Distance (m)	81.4			166.9	451.4	
Travel Time (s)	4.2			8.6	27.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	2%	2%	4%	2%	8%
Adj. Flow (vph)	944	0	0	1010	455	595
Shared Lane Traffic (%)						44%
Lane Group Flow (vph)	944	0	0	1010	717	333
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2			2	1	1
Detector Template	Thru			Thru	Left	Right
Leading Detector (m)	10.0			10.0	2.0	2.0
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	0.6			0.6	2.0	2.0
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	10.0
Minimum Split (s)	27.0			27.0	16.0	16.0
Total Split (s)	60.0			60.0	60.0	60.0
Total Split (%)	50.0%			50.0%	50.0%	50.0%
Maximum Green (s)	53.0			53.0	54.0	54.0
Yellow Time (s)	5.0			5.0	4.0	4.0
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0			4.0	3.0	3.0
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	73.5			73.5	33.5	33.5
Actuated g/C Ratio	0.61			0.61	0.28	0.28
v/c Ratio	0.44			0.48	0.75	0.78
Control Delay	14.3			14.8	40.5	44.4
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	14.3			14.8	40.5	44.4
LOS	B			B	D	D
Approach Delay	14.3			14.8	41.8	
Approach LOS	B			B	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 24.1		Intersection LOS: C	
Intersection Capacity Utilization 96.2%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 2: Hwy 404 E Terminal & Stouffville Road



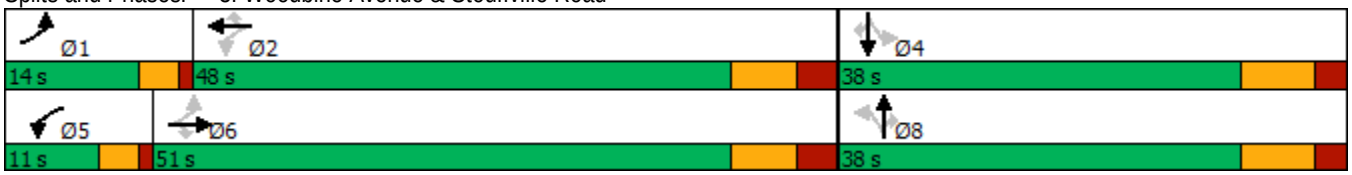


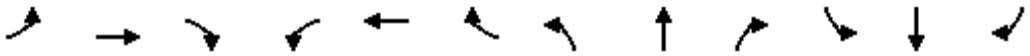
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	1250	105	41	991	134	237	257	78	186	96	223
Future Volume (vph)	194	1250	105	41	991	134	237	257	78	186	96	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	3505	1553	1752	3539	1553	1656	3438	1553	1787	3343	1509
Flt Permitted	0.159			0.129			0.688			0.585		
Satd. Flow (perm)	252	3505	1553	238	3539	1553	1199	3438	1553	1100	3343	1509
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			99			141			98			190
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	20%	3%	4%	3%	2%	4%	9%	5%	4%	1%	8%	7%
Adj. Flow (vph)	204	1316	111	43	1043	141	249	271	82	196	101	235
Shared Lane Traffic (%)												
Lane Group Flow (vph)	204	1316	111	43	1043	141	249	271	82	196	101	235
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	11.0	48.0	48.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	14.0%	51.0%	51.0%	11.0%	48.0%	48.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Maximum Green (s)	10.0	43.0	43.0	7.0	40.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	0.2	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	57.4	47.7	47.7	51.3	40.2	40.2	23.5	23.5	23.5	23.5	23.5	23.5
Actuated g/C Ratio	0.61	0.51	0.51	0.55	0.43	0.43	0.25	0.25	0.25	0.25	0.25	0.25
v/c Ratio	0.72	0.74	0.13	0.18	0.69	0.19	0.83	0.31	0.18	0.71	0.12	0.45
Control Delay	26.7	23.9	5.0	10.5	25.5	4.1	55.7	28.9	5.1	46.4	26.6	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.7	23.9	5.0	10.5	25.5	4.1	55.7	28.9	5.1	46.4	26.6	9.9
LOS	C	C	A	B	C	A	E	C	A	D	C	A
Approach Delay		22.9			22.5			36.8			26.5	
Approach LOS		C			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 93.6			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.4		Intersection LOS: C	
Intersection Capacity Utilization 88.9%		ICU Level of Service E	
Analysis Period (min) 15			

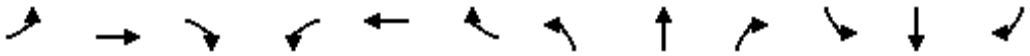
Splits and Phases: 3: Woodbine Avenue & Stouffville Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	1	88	55	0	55	31	457	34	11	334	13
Future Volume (vph)	33	1	88	55	0	55	31	457	34	11	334	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.902			0.932			0.991			0.995	
Flt Protected		0.987			0.976			0.997			0.998	
Satd. Flow (prot)	0	1610	0	0	1728	0	0	1631	0	0	1728	0
Flt Permitted		0.987			0.976			0.997			0.998	
Satd. Flow (perm)	0	1610	0	0	1728	0	0	1631	0	0	1728	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		208.5			133.3			45.7			80.8	
Travel Time (s)		15.0			9.6			2.1			3.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	50%	12%	25%	57%	8%	0%
Adj. Flow (vph)	36	1	97	60	0	60	34	502	37	12	367	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	134	0	0	120	0	0	573	0	0	393	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

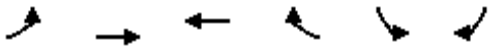
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 58.0%		ICU Level of Service B	
Analysis Period (min) 15			



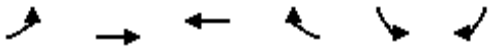
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	1	88	55	0	55	31	457	34	11	334	13
Future Volume (Veh/h)	33	1	88	55	0	55	31	457	34	11	334	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	36	1	97	60	0	60	34	502	37	12	367	14
Pedestrians		1										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								297				
pX, platoon unblocked	0.90	0.90		0.90	0.90	0.90				0.90		
vC, conflicting volume	1048	1006	375	1084	994	520	382			539		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1000	954	375	1040	941	417	382			438		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.6			4.7		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.7			2.7		
p0 queue free %	79	100	85	61	100	90	96			98		
cM capacity (veh/h)	174	224	660	155	228	579	956			799		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	134	120	573	393
Volume Left	36	60	34	12
Volume Right	97	60	37	14
cSH	374	245	956	799
Volume to Capacity	0.36	0.49	0.04	0.02
Queue Length 95th (m)	12.7	19.9	0.9	0.4
Control Delay (s)	19.9	33.0	1.0	0.5
Lane LOS	C	D	A	A
Approach Delay (s)	19.9	33.0	1.0	0.5
Approach LOS	C	D		

Intersection Summary				
Average Delay	6.0			
Intersection Capacity Utilization	58.0%	ICU Level of Service	B	
Analysis Period (min)	15			



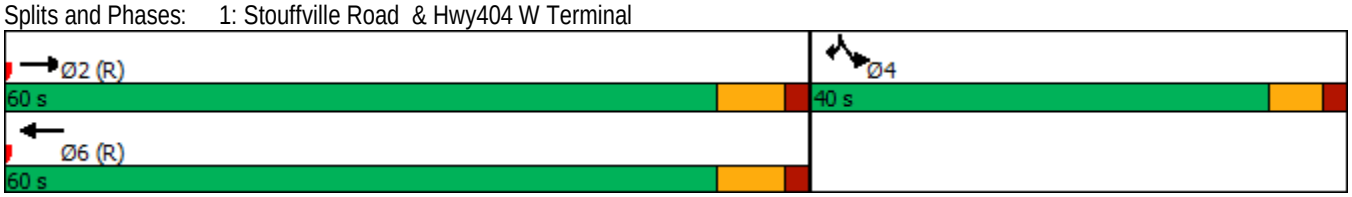
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	653	738	0	816	320
Future Volume (vph)	0	653	738	0	816	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	0.91
Frt					0.994	0.850
Flt Protected					0.954	
Satd. Flow (prot)	0	3438	3406	0	3427	1441
Flt Permitted					0.954	
Satd. Flow (perm)	0	3438	3406	0	3427	1441
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					4	162
Link Speed (k/h)		70	70		60	
Link Distance (m)		102.7	109.4		457.8	
Travel Time (s)		5.3	5.6		27.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	5%	6%	2%	2%	2%
Adj. Flow (vph)	0	680	769	0	850	333
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	0	680	769	0	883	300
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases						
Detector Phase		2	6		4	4
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.0	32.0		21.0	21.0
Total Split (s)		60.0	60.0		40.0	40.0
Total Split (%)		60.0%	60.0%		40.0%	40.0%
Maximum Green (s)		53.0	53.0		34.0	34.0
Yellow Time (s)		5.0	5.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.0	7.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		C-Min	C-Min		None	None
Walk Time (s)			20.0		10.0	10.0
Flash Dont Walk (s)			5.0		5.0	5.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)		55.3	55.3		31.7	31.7
Actuated g/C Ratio		0.55	0.55		0.32	0.32
v/c Ratio		0.36	0.41		0.81	0.53
Control Delay		13.9	14.5		37.5	15.2
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		13.9	14.5		37.5	15.2
LOS		B	B		D	B
Approach Delay		13.9	14.5		31.8	
Approach LOS		B	B		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 22.1		Intersection LOS: C	
Intersection Capacity Utilization 89.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Stouffville Road & Hwy404 W Terminal

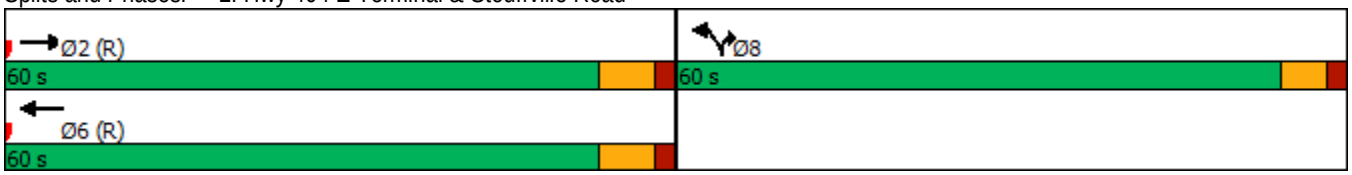


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1313	0	0	730	320	384
Future Volume (vph)	1313	0	0	730	320	384
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	160.0
Storage Lanes		0	0		2	1
Taper Length (m)			7.5		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.91
Frt					0.950	0.850
Flt Protected					0.968	
Satd. Flow (prot)	3505	0	0	3343	3119	1336
Flt Permitted					0.968	
Satd. Flow (perm)	3505	0	0	3343	3119	1336
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					16	16
Link Speed (k/h)	70			70	60	
Link Distance (m)	81.4			166.9	451.4	
Travel Time (s)	4.2			8.6	27.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	2%	8%	8%	10%
Adj. Flow (vph)	1368	0	0	760	333	400
Shared Lane Traffic (%)						42%
Lane Group Flow (vph)	1368	0	0	760	501	232
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2			2	1	1
Detector Template	Thru			Thru	Left	Right
Leading Detector (m)	10.0			10.0	2.0	2.0
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	0.6			0.6	2.0	2.0
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	10.0
Minimum Split (s)	27.0			27.0	16.0	16.0
Total Split (s)	60.0			60.0	60.0	60.0
Total Split (%)	50.0%			50.0%	50.0%	50.0%
Maximum Green (s)	53.0			53.0	54.0	54.0
Yellow Time (s)	5.0			5.0	4.0	4.0
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0			4.0	3.0	3.0
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	80.2			80.2	26.8	26.8
Actuated g/C Ratio	0.67			0.67	0.22	0.22
v/c Ratio	0.58			0.34	0.71	0.75
Control Delay	13.1			9.9	46.6	54.6
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	13.1			9.9	46.6	54.6
LOS	B			A	D	D
Approach Delay	13.1			9.9	49.1	
Approach LOS	B			A	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 21.5		Intersection LOS: C	
Intersection Capacity Utilization 91.5%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 2: Hwy 404 E Terminal & Stouffville Road

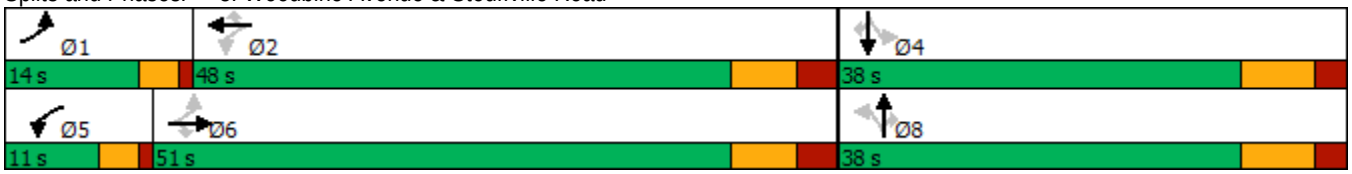


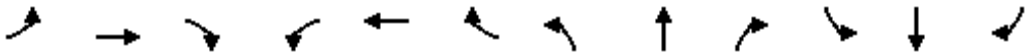
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	1183	381	184	838	134	59	78	39	176	315	88
Future Volume (vph)	203	1183	381	184	838	134	59	78	39	176	315	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99						
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3471	1583	1787	3438	1538	1626	3282	1524	1641	3195	1262
Flt Permitted	0.225			0.123			0.546			0.699		
Satd. Flow (perm)	375	3471	1556	231	3438	1517	935	3282	1524	1207	3195	1262
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			226			146			98			98
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Confl. Peds. (#/hr)	2		6	6		2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	14%	4%	2%	1%	5%	5%	11%	10%	6%	10%	13%	28%
Adj. Flow (vph)	221	1286	414	200	911	146	64	85	42	191	342	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	221	1286	414	200	911	146	64	85	42	191	342	96
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	11.0	48.0	48.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	14.0%	51.0%	51.0%	11.0%	48.0%	48.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Maximum Green (s)	10.0	43.0	43.0	7.0	40.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	0.2	0.2	3.0	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	56.6	43.2	43.2	52.0	40.9	40.9	19.5	19.5	19.5	19.5	19.5	19.5
Actuated g/C Ratio	0.63	0.48	0.48	0.58	0.45	0.45	0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.61	0.77	0.48	0.78	0.58	0.19	0.32	0.12	0.10	0.73	0.49	0.27
Control Delay	15.8	24.5	9.7	36.8	21.4	3.9	32.9	27.4	0.5	48.9	32.7	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	24.5	9.7	36.8	21.4	3.9	32.9	27.4	0.5	48.9	32.7	7.7
LOS	B	C	A	D	C	A	C	C	A	D	C	A
Approach Delay		20.3			21.8			23.4			33.8	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 89.9			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 23.0		Intersection LOS: C	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

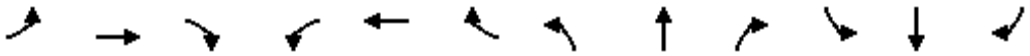
Splits and Phases: 3: Woodbine Avenue & Stouffville Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	1	37	23	6	14	88	251	46	33	561	42
Future Volume (vph)	6	1	37	23	6	14	88	251	46	33	561	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.886			0.955			0.984			0.991	
Flt Protected		0.994			0.974			0.989			0.997	
Satd. Flow (prot)	0	1148	0	0	1359	0	0	1683	0	0	1660	0
Flt Permitted		0.994			0.974			0.989			0.997	
Satd. Flow (perm)	0	1148	0	0	1359	0	0	1683	0	0	1660	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		208.5			133.3			45.7			80.8	
Travel Time (s)		15.0			9.6			2.1			3.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	54%	24%	67%	25%	9%	10%	11%	0%	14%	11%
Adj. Flow (vph)	6	1	39	24	6	15	94	267	49	35	597	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	45	0	0	410	0	0	677	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

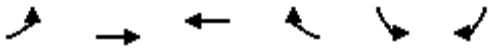
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 64.1%		ICU Level of Service C	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	1	37	23	6	14	88	251	46	33	561	42
Future Volume (Veh/h)	6	1	37	23	6	14	88	251	46	33	561	42
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	6	1	39	24	6	15	94	267	49	35	597	45
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								297				
pX, platoon unblocked	1.00	1.00		1.00	1.00	1.00				1.00		
vC, conflicting volume	1187	1194	620	1208	1192	292	642			316		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1187	1193	620	1208	1191	290	642			314		
tC, single (s)	7.1	6.5	6.7	7.3	7.2	6.5	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.7	4.6	3.5	2.3			2.2		
p0 queue free %	96	99	90	79	95	98	90			97		
cM capacity (veh/h)	142	164	406	117	124	697	910			1256		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	46	45	410	677
Volume Left	6	24	94	35
Volume Right	39	15	49	45
cSH	318	163	910	1256
Volume to Capacity	0.14	0.28	0.10	0.03
Queue Length 95th (m)	4.0	8.5	2.8	0.7
Control Delay (s)	18.2	35.2	3.1	0.7
Lane LOS	C	E	A	A
Approach Delay (s)	18.2	35.2	3.1	0.7
Approach LOS	C	E		

Intersection Summary				
Average Delay	3.6			
Intersection Capacity Utilization	64.1%	ICU Level of Service	C	
Analysis Period (min)	15			

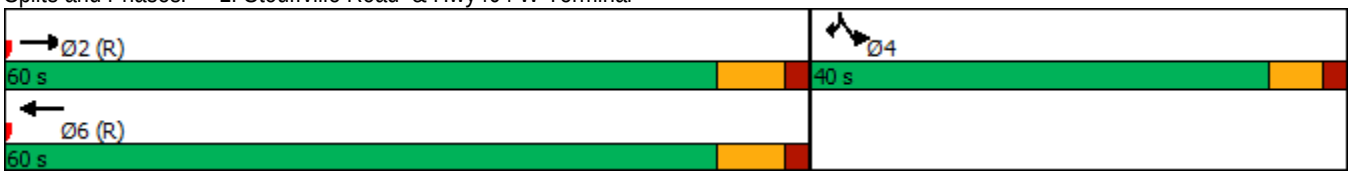


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	515	888	0	419	109
Future Volume (vph)	0	515	888	0	419	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	0.91
Frt					0.996	0.850
Flt Protected					0.953	
Satd. Flow (prot)	0	3505	3505	0	3430	1441
Flt Permitted					0.953	
Satd. Flow (perm)	0	3505	3505	0	3430	1441
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					3	103
Link Speed (k/h)		70	70		60	
Link Distance (m)		102.7	109.4		457.8	
Travel Time (s)		5.3	5.6		27.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	3%	3%	2%	2%	2%
Adj. Flow (vph)	0	536	925	0	436	114
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	0	536	925	0	447	103
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases						
Detector Phase		2	6		4	4
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.0	32.0		21.0	21.0
Total Split (s)		60.0	60.0		40.0	40.0
Total Split (%)		60.0%	60.0%		40.0%	40.0%
Maximum Green (s)		53.0	53.0		34.0	34.0
Yellow Time (s)		5.0	5.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.0	7.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		C-Min	C-Min		None	None
Walk Time (s)			20.0		10.0	10.0
Flash Dont Walk (s)			5.0		5.0	5.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)		68.6	68.6		18.4	18.4
Actuated g/C Ratio		0.69	0.69		0.18	0.18
v/c Ratio		0.22	0.38		0.71	0.30
Control Delay		6.5	7.6		44.1	8.9
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		6.5	7.6		44.1	8.9
LOS		A	A		D	A
Approach Delay		6.5	7.6		37.5	
Approach LOS		A	A		D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 15.5		Intersection LOS: B	
Intersection Capacity Utilization 48.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Stouffville Road & Hwy404 W Terminal

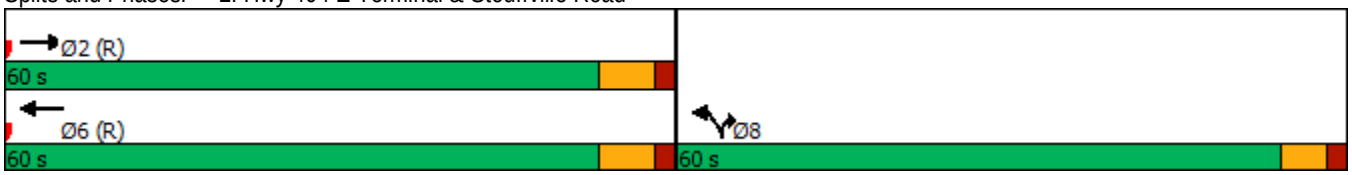


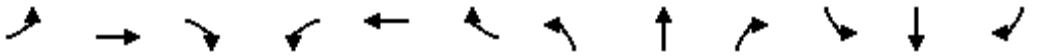
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	813	0	0	867	408	513
Future Volume (vph)	813	0	0	867	408	513
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	160.0
Storage Lanes		0	0		2	1
Taper Length (m)			7.5		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.91
Frt					0.947	0.850
Flt Protected					0.969	
Satd. Flow (prot)	3505	0	0	3471	3249	1361
Flt Permitted					0.969	
Satd. Flow (perm)	3505	0	0	3471	3249	1361
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					92	92
Link Speed (k/h)	70			70	60	
Link Distance (m)	81.4			166.9	451.4	
Travel Time (s)	4.2			8.6	27.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	2%	2%	4%	2%	8%
Adj. Flow (vph)	821	0	0	876	412	518
Shared Lane Traffic (%)						43%
Lane Group Flow (vph)	821	0	0	876	635	295
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2			2	1	1
Detector Template	Thru			Thru	Left	Right
Leading Detector (m)	10.0			10.0	2.0	2.0
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	0.6			0.6	2.0	2.0
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	10.0
Minimum Split (s)	27.0			27.0	16.0	16.0
Total Split (s)	60.0			60.0	60.0	60.0
Total Split (%)	50.0%			50.0%	50.0%	50.0%
Maximum Green (s)	53.0			53.0	54.0	54.0
Yellow Time (s)	5.0			5.0	4.0	4.0
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0			4.0	3.0	3.0
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	78.6			78.6	28.4	28.4
Actuated g/C Ratio	0.66			0.66	0.24	0.24
v/c Ratio	0.36			0.39	0.76	0.75
Control Delay	10.7			11.0	41.8	40.6
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	10.7			11.0	41.8	40.6
LOS	B			B	D	D
Approach Delay	10.7			11.0	41.4	
Approach LOS	B			B	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 21.7		Intersection LOS: C	
Intersection Capacity Utilization 85.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: Hwy 404 E Terminal & Stouffville Road



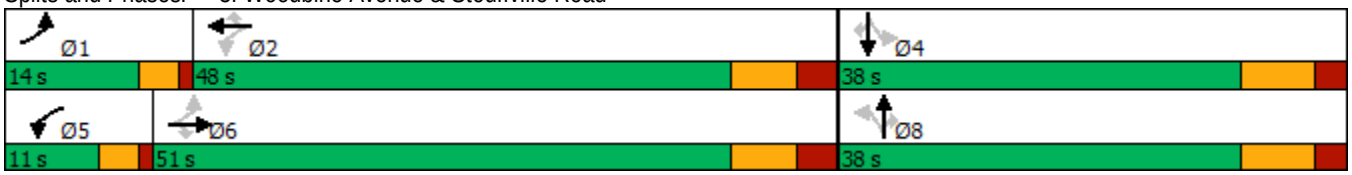


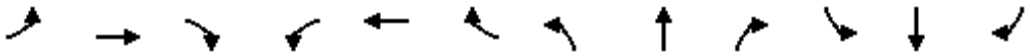
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	1132	38	35	898	123	144	232	62	178	90	214
Future Volume (vph)	179	1132	38	35	898	123	144	232	62	178	90	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	3505	1553	1752	3539	1553	1656	3438	1553	1787	3343	1509
Flt Permitted	0.207			0.179			0.692			0.600		
Satd. Flow (perm)	328	3505	1553	330	3539	1553	1206	3438	1553	1129	3343	1509
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			98			129			98			201
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	20%	3%	4%	3%	2%	4%	9%	5%	4%	1%	8%	7%
Adj. Flow (vph)	188	1192	40	37	945	129	152	244	65	187	95	225
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	1192	40	37	945	129	152	244	65	187	95	225
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	11.0	48.0	48.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	14.0%	51.0%	51.0%	11.0%	48.0%	48.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Maximum Green (s)	10.0	43.0	43.0	7.0	40.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	0.2	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	56.9	47.2	47.2	51.4	40.3	40.3	19.8	19.8	19.8	19.8	19.8	19.8
Actuated g/C Ratio	0.64	0.53	0.53	0.58	0.45	0.45	0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.57	0.64	0.05	0.12	0.59	0.17	0.57	0.32	0.16	0.75	0.13	0.46
Control Delay	15.0	19.7	0.1	8.7	21.5	4.0	39.5	29.7	3.0	51.1	27.4	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	19.7	0.1	8.7	21.5	4.0	39.5	29.7	3.0	51.1	27.4	8.9
LOS	B	B	A	A	C	A	D	C	A	D	C	A
Approach Delay		18.5			19.1			29.2			28.0	
Approach LOS		B			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 89.3			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 21.5		Intersection LOS: C	
Intersection Capacity Utilization 84.8%		ICU Level of Service E	
Analysis Period (min) 15			

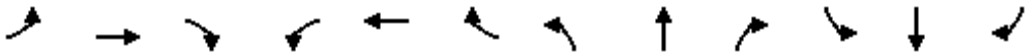
Splits and Phases: 3: Woodbine Avenue & Stouffville Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	1	105	51	0	51	34	410	32	10	301	13
Future Volume (vph)	39	1	105	51	0	51	34	410	32	10	301	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.902			0.932			0.991			0.995	
Flt Protected		0.987			0.976			0.996			0.998	
Satd. Flow (prot)	0	1610	0	0	1728	0	0	1623	0	0	1728	0
Flt Permitted		0.987			0.976			0.996			0.998	
Satd. Flow (perm)	0	1610	0	0	1728	0	0	1623	0	0	1728	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		208.5			133.3			45.7			80.8	
Travel Time (s)		15.0			9.6			2.1			3.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	50%	12%	25%	57%	8%	0%
Adj. Flow (vph)	43	1	115	56	0	56	37	451	35	11	331	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	159	0	0	112	0	0	523	0	0	356	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

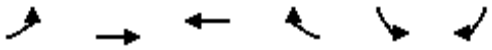
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.1%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	1	105	51	0	51	34	410	32	10	301	13
Future Volume (Veh/h)	39	1	105	51	0	51	34	410	32	10	301	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	43	1	115	56	0	56	37	451	35	11	331	14
Pedestrians		1										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								297				
pX, platoon unblocked	0.91	0.91		0.91	0.91	0.91				0.91		
vC, conflicting volume	960	921	339	1018	910	468	346			486		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	909	867	339	973	855	372	346			391		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.6			4.7		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.7			2.7		
p0 queue free %	79	100	83	67	100	91	96			99		
cM capacity (veh/h)	206	254	691	171	258	620	988			844		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	159	112	523	356
Volume Left	43	56	37	11
Volume Right	115	56	35	14
cSH	420	268	988	844
Volume to Capacity	0.38	0.42	0.04	0.01
Queue Length 95th (m)	13.9	15.7	0.9	0.3
Control Delay (s)	18.7	27.8	1.0	0.4
Lane LOS	C	D	A	A
Approach Delay (s)	18.7	27.8	1.0	0.4
Approach LOS	C	D		

Intersection Summary				
Average Delay	5.9			
Intersection Capacity Utilization	56.1%	ICU Level of Service	B	
Analysis Period (min)	15			

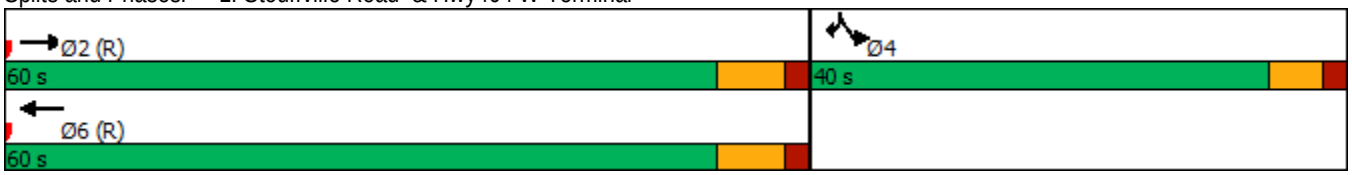


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	745	818	0	940	354
Future Volume (vph)	0	745	818	0	940	354
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	0.91
Frt					0.995	0.850
Flt Protected					0.954	
Satd. Flow (prot)	0	3438	3406	0	3430	1441
Flt Permitted					0.954	
Satd. Flow (perm)	0	3438	3406	0	3430	1441
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					4	131
Link Speed (k/h)		70	70		60	
Link Distance (m)		102.7	109.4		457.8	
Travel Time (s)		5.3	5.6		27.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	5%	6%	2%	2%	2%
Adj. Flow (vph)	0	776	852	0	979	369
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	0	776	852	0	1016	332
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases						
Detector Phase		2	6		4	4
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.0	32.0		21.0	21.0
Total Split (s)		60.0	60.0		40.0	40.0
Total Split (%)		60.0%	60.0%		40.0%	40.0%
Maximum Green (s)		53.0	53.0		34.0	34.0
Yellow Time (s)		5.0	5.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.0	7.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		C-Min	C-Min		None	None
Walk Time (s)			20.0		10.0	10.0
Flash Dont Walk (s)			5.0		5.0	5.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)		51.6	51.6		35.4	35.4
Actuated g/C Ratio		0.52	0.52		0.35	0.35
v/c Ratio		0.44	0.49		0.83	0.56
Control Delay		16.8	17.5		36.1	18.4
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		16.8	17.5		36.1	18.4
LOS		B	B		D	B
Approach Delay		16.8	17.5		31.7	
Approach LOS		B	B		C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 23.8		Intersection LOS: C	
Intersection Capacity Utilization 99.0%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 1: Stouffville Road & Hwy404 W Terminal

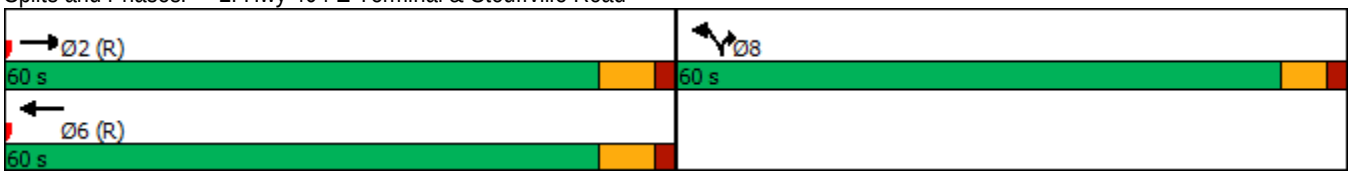


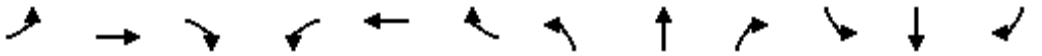
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1512	0	0	812	353	441
Future Volume (vph)	1512	0	0	812	353	441
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	160.0
Storage Lanes		0	0		2	1
Taper Length (m)			7.5		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.91
Frt					0.948	0.850
Flt Protected					0.968	
Satd. Flow (prot)	3505	0	0	3343	3112	1336
Flt Permitted					0.968	
Satd. Flow (perm)	3505	0	0	3343	3112	1336
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					8	8
Link Speed (k/h)	70			70	60	
Link Distance (m)	81.4			166.9	451.4	
Travel Time (s)	4.2			8.6	27.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	2%	2%	8%	8%	10%
Adj. Flow (vph)	1575	0	0	846	368	459
Shared Lane Traffic (%)						43%
Lane Group Flow (vph)	1575	0	0	846	565	262
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2			2	1	1
Detector Template	Thru			Thru	Left	Right
Leading Detector (m)	10.0			10.0	2.0	2.0
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	0.6			0.6	2.0	2.0
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	10.0
Minimum Split (s)	27.0			27.0	16.0	16.0
Total Split (s)	60.0			60.0	60.0	60.0
Total Split (%)	50.0%			50.0%	50.0%	50.0%
Maximum Green (s)	53.0			53.0	54.0	54.0
Yellow Time (s)	5.0			5.0	4.0	4.0
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0			4.0	3.0	3.0
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	76.7			76.7	30.3	30.3
Actuated g/C Ratio	0.64			0.64	0.25	0.25
v/c Ratio	0.70			0.40	0.71	0.76
Control Delay	17.8			12.2	44.9	54.1
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	17.8			12.2	44.9	54.1
LOS	B			B	D	D
Approach Delay	17.8			12.2	47.8	
Approach LOS	B			B	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 24.0		Intersection LOS: C	
Intersection Capacity Utilization 102.1%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 2: Hwy 404 E Terminal & Stouffville Road



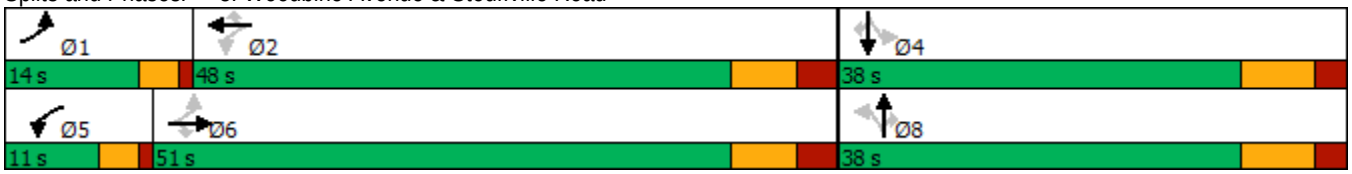


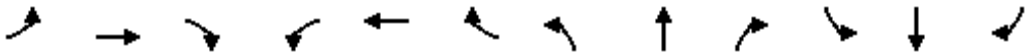
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	1306	505	214	925	147	76	86	44	194	351	96
Future Volume (vph)	220	1306	505	214	925	147	76	86	44	194	351	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99						
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3471	1583	1787	3438	1538	1626	3282	1524	1641	3195	1262
Flt Permitted	0.179			0.099			0.505			0.694		
Satd. Flow (perm)	298	3471	1556	186	3438	1517	864	3282	1524	1199	3195	1262
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			181			160			98			104
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Confl. Peds. (#/hr)	2		6	6		2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	14%	4%	2%	1%	5%	5%	11%	10%	6%	10%	13%	28%
Adj. Flow (vph)	239	1420	549	233	1005	160	83	93	48	211	382	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	239	1420	549	233	1005	160	83	93	48	211	382	104
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	11.0	48.0	48.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	14.0%	51.0%	51.0%	11.0%	48.0%	48.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Maximum Green (s)	10.0	43.0	43.0	7.0	40.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	0.2	0.2	3.0	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	57.2	43.2	43.2	51.4	40.3	40.3	20.9	20.9	20.9	20.9	20.9	20.9
Actuated g/C Ratio	0.63	0.47	0.47	0.56	0.44	0.44	0.23	0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.73	0.86	0.66	1.02	0.66	0.21	0.42	0.12	0.11	0.77	0.52	0.28
Control Delay	24.5	29.6	17.5	89.7	23.8	3.9	36.1	27.2	0.8	51.5	32.9	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	29.6	17.5	89.7	23.8	3.9	36.1	27.2	0.8	51.5	32.9	7.6
LOS	C	C	B	F	C	A	D	C	A	D	C	A
Approach Delay		26.0			32.5			24.9			34.8	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 91.2			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 29.3		Intersection LOS: C	
Intersection Capacity Utilization 90.4%		ICU Level of Service E	
Analysis Period (min) 15			

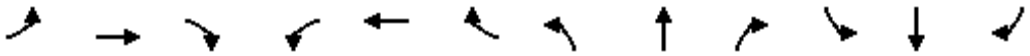
Splits and Phases: 3: Woodbine Avenue & Stouffville Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	1	39	25	6	16	91	278	49	35	624	43
Future Volume (vph)	6	1	39	25	6	16	91	278	49	35	624	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.885			0.954			0.984			0.992	
Flt Protected		0.994			0.974			0.989			0.998	
Satd. Flow (prot)	0	1144	0	0	1363	0	0	1682	0	0	1663	0
Flt Permitted		0.994			0.974			0.989			0.998	
Satd. Flow (perm)	0	1144	0	0	1363	0	0	1682	0	0	1663	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		208.5			133.3			45.7			80.8	
Travel Time (s)		15.0			9.6			2.1			3.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	54%	24%	67%	25%	9%	10%	11%	0%	14%	11%
Adj. Flow (vph)	6	1	41	27	6	17	97	296	52	37	664	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	50	0	0	445	0	0	747	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

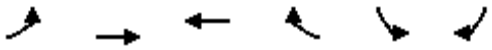
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 68.2%		ICU Level of Service C	
Analysis Period (min) 15			



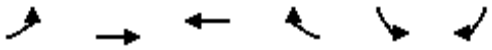
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	1	39	25	6	16	91	278	49	35	624	43
Future Volume (Veh/h)	6	1	39	25	6	16	91	278	49	35	624	43
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	6	1	41	27	6	17	97	296	52	37	664	46
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								297				
pX, platoon unblocked	0.98	0.98		0.98	0.98	0.98				0.98		
vC, conflicting volume	1297	1303	687	1318	1300	322	710			348		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1294	1300	687	1315	1297	302	710			329		
tC, single (s)	7.1	6.5	6.7	7.3	7.2	6.5	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.7	4.6	3.5	2.3			2.2		
p0 queue free %	95	99	89	71	94	97	89			97		
cM capacity (veh/h)	115	138	369	94	102	675	858			1222		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	48	50	445	747
Volume Left	6	27	97	37
Volume Right	41	17	52	46
cSH	282	135	858	1222
Volume to Capacity	0.17	0.37	0.11	0.03
Queue Length 95th (m)	4.8	12.3	3.0	0.7
Control Delay (s)	20.4	46.7	3.2	0.8
Lane LOS	C	E	A	A
Approach Delay (s)	20.4	46.7	3.2	0.8
Approach LOS	C	E		

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	68.2%	ICU Level of Service	C	
Analysis Period (min)	15			



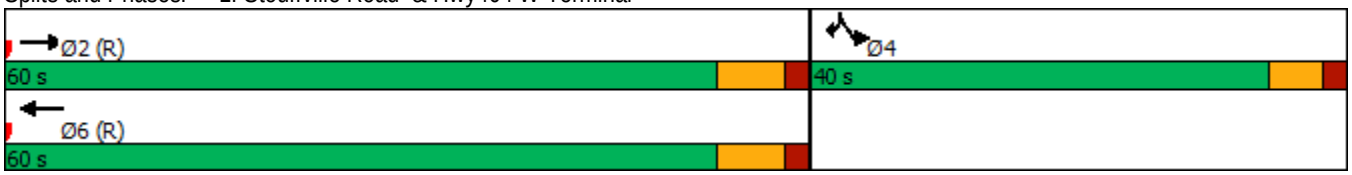
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	588	1010	0	482	120
Future Volume (vph)	0	588	1010	0	482	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0			0.0	0.0	160.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5				7.5	
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	0.91
Frt					0.996	0.850
Flt Protected					0.954	
Satd. Flow (prot)	0	3505	3505	0	3434	1441
Flt Permitted					0.954	
Satd. Flow (perm)	0	3505	3505	0	3434	1441
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					3	77
Link Speed (k/h)		70	70		60	
Link Distance (m)		102.7	109.4		457.8	
Travel Time (s)		5.3	5.6		27.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	3%	3%	2%	2%	2%
Adj. Flow (vph)	0	613	1052	0	502	125
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	0	613	1052	0	515	112
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		7.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Number of Detectors		2	2		1	1
Detector Template		Thru	Thru		Left	Right
Leading Detector (m)		10.0	10.0		2.0	2.0
Trailing Detector (m)		0.0	0.0		0.0	0.0
Detector 1 Position(m)		0.0	0.0		0.0	0.0
Detector 1 Size(m)		0.6	0.6		2.0	2.0
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	0.0
Detector 1 Queue (s)		0.0	0.0		0.0	0.0
Detector 1 Delay (s)		0.0	0.0		0.0	0.0
Detector 2 Position(m)		9.4	9.4			
Detector 2 Size(m)		0.6	0.6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type		NA	NA		Prot	Prot
Protected Phases		2	6		4	4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases						
Detector Phase		2	6		4	4
Switch Phase						
Minimum Initial (s)		20.0	20.0		10.0	10.0
Minimum Split (s)		27.0	32.0		21.0	21.0
Total Split (s)		60.0	60.0		40.0	40.0
Total Split (%)		60.0%	60.0%		40.0%	40.0%
Maximum Green (s)		53.0	53.0		34.0	34.0
Yellow Time (s)		5.0	5.0		4.0	4.0
All-Red Time (s)		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.0	7.0		6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		4.0	4.0		3.0	3.0
Recall Mode		C-Min	C-Min		None	None
Walk Time (s)			20.0		10.0	10.0
Flash Dont Walk (s)			5.0		5.0	5.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)		66.5	66.5		20.5	20.5
Actuated g/C Ratio		0.66	0.66		0.20	0.20
v/c Ratio		0.26	0.45		0.73	0.31
Control Delay		7.6	9.3		43.0	14.5
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		7.6	9.3		43.0	14.5
LOS		A	A		D	B
Approach Delay		7.6	9.3		37.9	
Approach LOS		A	A		D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 5 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 16.7		Intersection LOS: B	
Intersection Capacity Utilization 53.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Stouffville Road & Hwy404 W Terminal

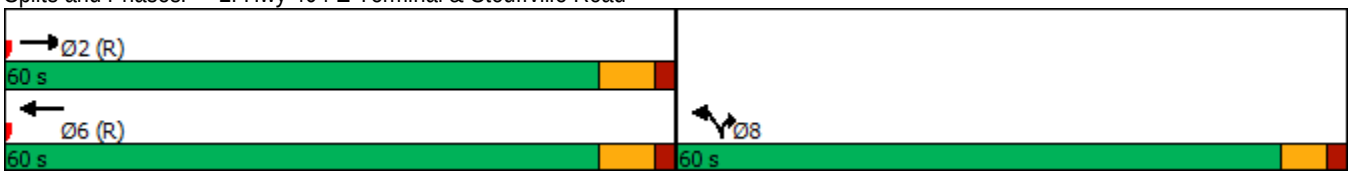


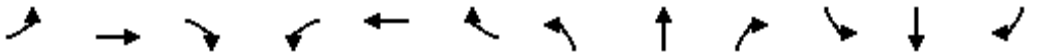
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	936	0	0	1007	450	590
Future Volume (vph)	936	0	0	1007	450	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		0.0	0.0		0.0	160.0
Storage Lanes		0	0		2	1
Taper Length (m)			7.5		7.5	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.91
Frt					0.945	0.850
Flt Protected					0.969	
Satd. Flow (prot)	3505	0	0	3471	3239	1361
Flt Permitted					0.969	
Satd. Flow (perm)	3505	0	0	3471	3239	1361
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					62	62
Link Speed (k/h)	70			70	60	
Link Distance (m)	81.4			166.9	451.4	
Travel Time (s)	4.2			8.6	27.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	2%	2%	4%	2%	8%
Adj. Flow (vph)	945	0	0	1017	455	596
Shared Lane Traffic (%)						44%
Lane Group Flow (vph)	945	0	0	1017	717	334
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Number of Detectors	2			2	1	1
Detector Template	Thru			Thru	Left	Right
Leading Detector (m)	10.0			10.0	2.0	2.0
Trailing Detector (m)	0.0			0.0	0.0	0.0
Detector 1 Position(m)	0.0			0.0	0.0	0.0
Detector 1 Size(m)	0.6			0.6	2.0	2.0
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0			0.0	0.0	0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0
Detector 2 Position(m)	9.4			9.4		
Detector 2 Size(m)	0.6			0.6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA			NA	Prot	Prot
Protected Phases	2			6	8	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases						
Detector Phase	2			6	8	8
Switch Phase						
Minimum Initial (s)	20.0			20.0	10.0	10.0
Minimum Split (s)	27.0			27.0	16.0	16.0
Total Split (s)	60.0			60.0	60.0	60.0
Total Split (%)	50.0%			50.0%	50.0%	50.0%
Maximum Green (s)	53.0			53.0	54.0	54.0
Yellow Time (s)	5.0			5.0	4.0	4.0
All-Red Time (s)	2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	4.0			4.0	3.0	3.0
Recall Mode	C-Min			C-Min	None	None
Act Effct Green (s)	73.4			73.4	33.6	33.6
Actuated g/C Ratio	0.61			0.61	0.28	0.28
v/c Ratio	0.44			0.48	0.75	0.78
Control Delay	14.4			15.0	40.4	44.6
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	14.4			15.0	40.4	44.6
LOS	B			B	D	D
Approach Delay	14.4			15.0	41.8	
Approach LOS	B			B	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 24.1		Intersection LOS: C	
Intersection Capacity Utilization 96.5%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 2: Hwy 404 E Terminal & Stouffville Road



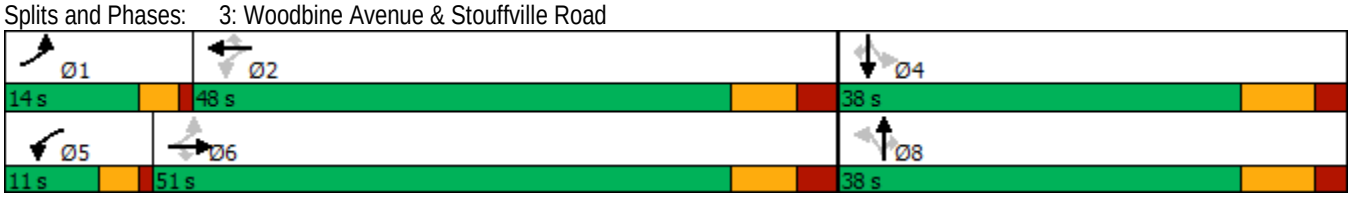


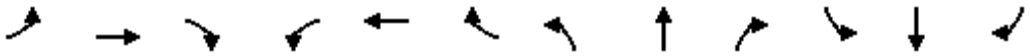
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	1250	105	41	991	135	237	259	78	194	100	233
Future Volume (vph)	196	1250	105	41	991	135	237	259	78	194	100	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1504	3505	1553	1752	3539	1553	1656	3438	1553	1787	3343	1509
Flt Permitted	0.158			0.129			0.686			0.584		
Satd. Flow (perm)	250	3505	1553	238	3539	1553	1196	3438	1553	1099	3343	1509
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			99			142			98			190
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	20%	3%	4%	3%	2%	4%	9%	5%	4%	1%	8%	7%
Adj. Flow (vph)	206	1316	111	43	1043	142	249	273	82	204	105	245
Shared Lane Traffic (%)												
Lane Group Flow (vph)	206	1316	111	43	1043	142	249	273	82	204	105	245
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	11.0	48.0	48.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	14.0%	51.0%	51.0%	11.0%	48.0%	48.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Maximum Green (s)	10.0	43.0	43.0	7.0	40.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	0.2	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	57.4	47.7	47.7	51.2	40.2	40.2	23.6	23.6	23.6	23.6	23.6	23.6
Actuated g/C Ratio	0.61	0.51	0.51	0.55	0.43	0.43	0.25	0.25	0.25	0.25	0.25	0.25
v/c Ratio	0.73	0.74	0.13	0.18	0.69	0.19	0.83	0.32	0.18	0.74	0.12	0.47
Control Delay	27.6	23.9	5.0	10.5	25.5	4.1	55.9	29.0	5.0	48.6	26.6	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.6	23.9	5.0	10.5	25.5	4.1	55.9	29.0	5.0	48.6	26.6	10.7
LOS	C	C	A	B	C	A	E	C	A	D	C	B
Approach Delay		23.1			22.5			36.8			27.7	
Approach LOS		C			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 93.6			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.6		Intersection LOS: C	
Intersection Capacity Utilization 89.0%		ICU Level of Service E	
Analysis Period (min) 15			

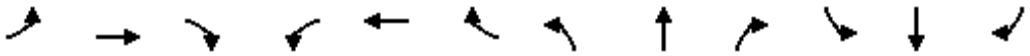
Splits and Phases: 3: Woodbine Avenue & Stouffville Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	1	110	55	0	55	36	457	34	11	334	13
Future Volume (vph)	41	1	110	55	0	55	36	457	34	11	334	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.902			0.932			0.991			0.995	
Flt Protected		0.987			0.976			0.997			0.998	
Satd. Flow (prot)	0	1610	0	0	1728	0	0	1626	0	0	1728	0
Flt Permitted		0.987			0.976			0.997			0.998	
Satd. Flow (perm)	0	1610	0	0	1728	0	0	1626	0	0	1728	0
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		208.5			133.3			45.7			80.8	
Travel Time (s)		15.0			9.6			2.1			3.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	50%	12%	25%	57%	8%	0%
Adj. Flow (vph)	45	1	121	60	0	60	40	502	37	12	367	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	167	0	0	120	0	0	579	0	0	393	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.4%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	1	110	55	0	55	36	457	34	11	334	13
Future Volume (Veh/h)	41	1	110	55	0	55	36	457	34	11	334	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	45	1	121	60	0	60	40	502	37	12	367	14
Pedestrians		1										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								297				
pX, platoon unblocked	0.90	0.90		0.90	0.90	0.90				0.90		
vC, conflicting volume	1060	1018	375	1120	1006	520	382			539		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1012	966	375	1079	954	416	382			436		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.6			4.7		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.7			2.7		
p0 queue free %	74	100	82	57	100	90	96			98		
cM capacity (veh/h)	170	218	660	139	222	579	956			799		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	167	120	579	393
Volume Left	45	60	40	12
Volume Right	121	60	37	14
cSH	369	224	956	799
Volume to Capacity	0.45	0.54	0.04	0.02
Queue Length 95th (m)	18.2	22.7	1.0	0.4
Control Delay (s)	22.6	38.2	1.1	0.5
Lane LOS	C	E	A	A
Approach Delay (s)	22.6	38.2	1.1	0.5
Approach LOS	C	E		

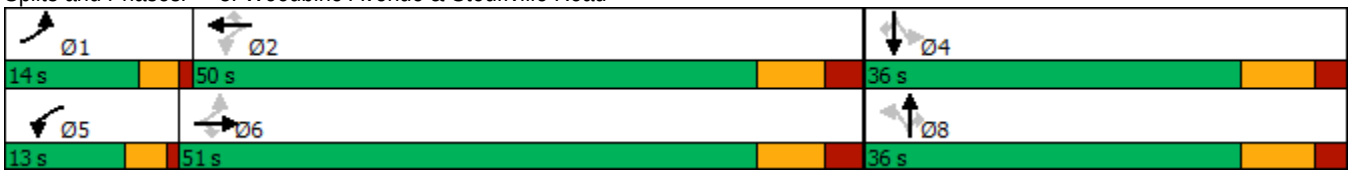
Intersection Summary				
Average Delay	7.3			
Intersection Capacity Utilization	60.4%	ICU Level of Service	B	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	1306	505	214	925	147	76	86	44	194	351	96
Future Volume (vph)	220	1306	505	214	925	147	76	86	44	194	351	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	140.0		70.0	140.0		130.0	260.0		150.0	165.0		220.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00		0.98	1.00		0.99						
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3471	1583	1787	3438	1538	1626	3282	1524	1641	3195	1262
Flt Permitted	0.194			0.094			0.498			0.694		
Satd. Flow (perm)	323	3471	1556	177	3438	1517	852	3282	1524	1199	3195	1262
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			165			160			98			104
Link Speed (k/h)		70			70			70			70	
Link Distance (m)		548.3			682.8			540.6			251.2	
Travel Time (s)		28.2			35.1			27.8			12.9	
Confl. Peds. (#/hr)	2		6	6		2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	14%	4%	2%	1%	5%	5%	11%	10%	6%	10%	13%	28%
Adj. Flow (vph)	239	1420	549	233	1005	160	83	93	48	211	382	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	239	1420	549	233	1005	160	83	93	48	211	382	104
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	7.0	40.0	40.0	7.0	40.0	40.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.0	48.0	48.0	11.0	48.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (s)	14.0	51.0	51.0	13.0	50.0	50.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (%)	14.0%	51.0%	51.0%	13.0%	50.0%	50.0%	36.0%	36.0%	36.0%	36.0%	36.0%	36.0%
Maximum Green (s)	10.0	43.0	43.0	9.0	42.0	42.0	28.0	28.0	28.0	28.0	28.0	28.0
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	3.0	3.0	1.0	3.0	3.0	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	8.0	8.0	4.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	0.2	0.2	3.0	0.2	0.2	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	0
Act Effct Green (s)	56.9	43.2	43.2	55.5	42.4	42.4	20.8	20.8	20.8	20.8	20.8	20.8
Actuated g/C Ratio	0.61	0.46	0.46	0.60	0.46	0.46	0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.73	0.88	0.68	0.89	0.64	0.21	0.44	0.13	0.12	0.79	0.54	0.29
Control Delay	23.6	31.9	19.3	56.5	22.9	3.7	38.0	28.3	0.9	54.6	34.3	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.6	31.9	19.3	56.5	22.9	3.7	38.0	28.3	0.9	54.6	34.3	7.9
LOS	C	C	B	E	C	A	D	C	A	D	C	A
Approach Delay		27.9			26.3			26.0			36.5	
Approach LOS		C			C			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 93.1			
Natural Cycle: 95			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 28.6		Intersection LOS: C	
Intersection Capacity Utilization 90.4%		ICU Level of Service E	
Analysis Period (min) 15			

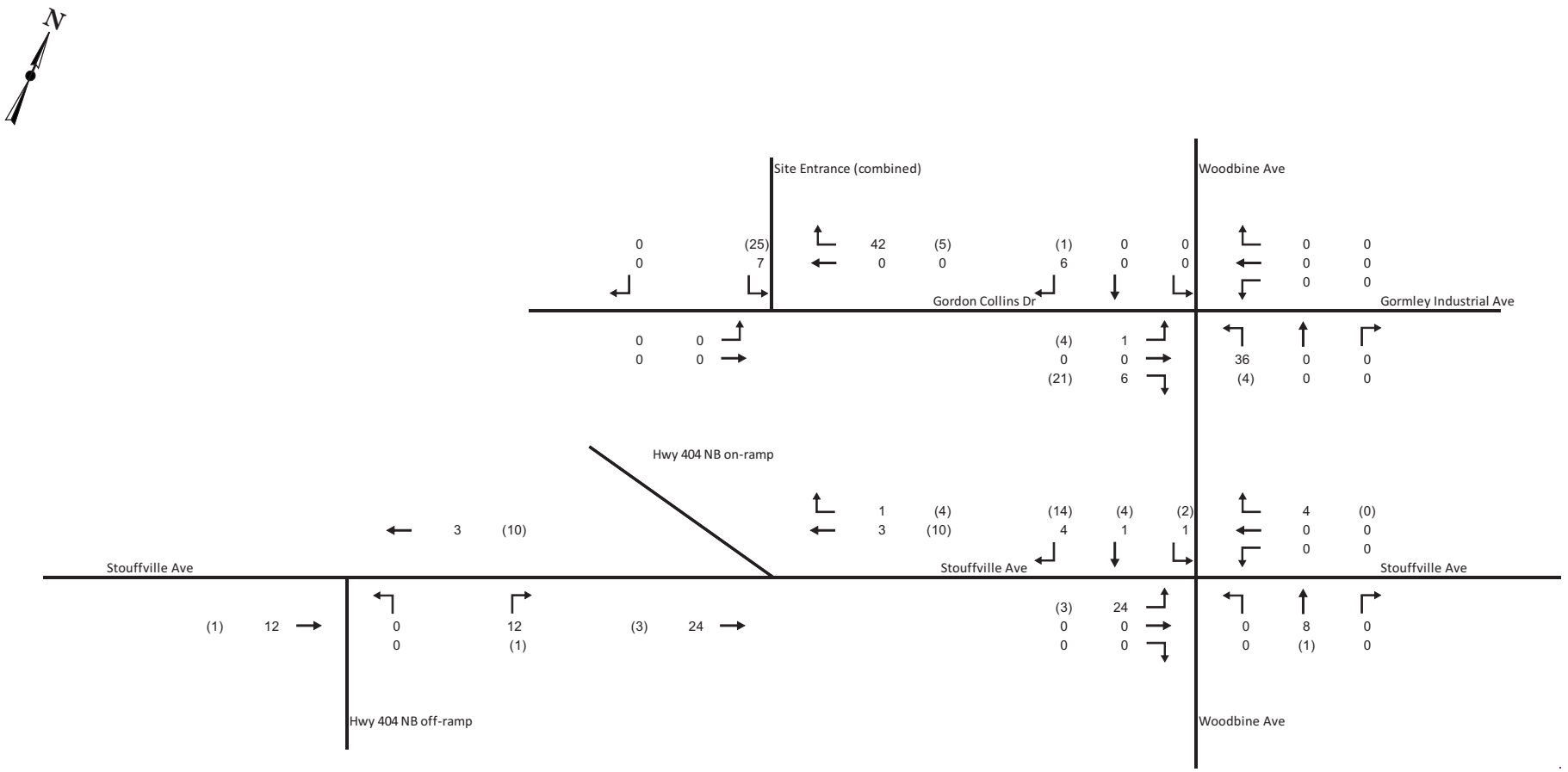
Splits and Phases: 3: Woodbine Avenue & Stouffville Road



Appendix F

Background Developments Traffic

10 Gordon Collins Drive



Legend:

732 (1281)

AM peak hour volume — PM peak hour volume

Site Volumes
Figure 10

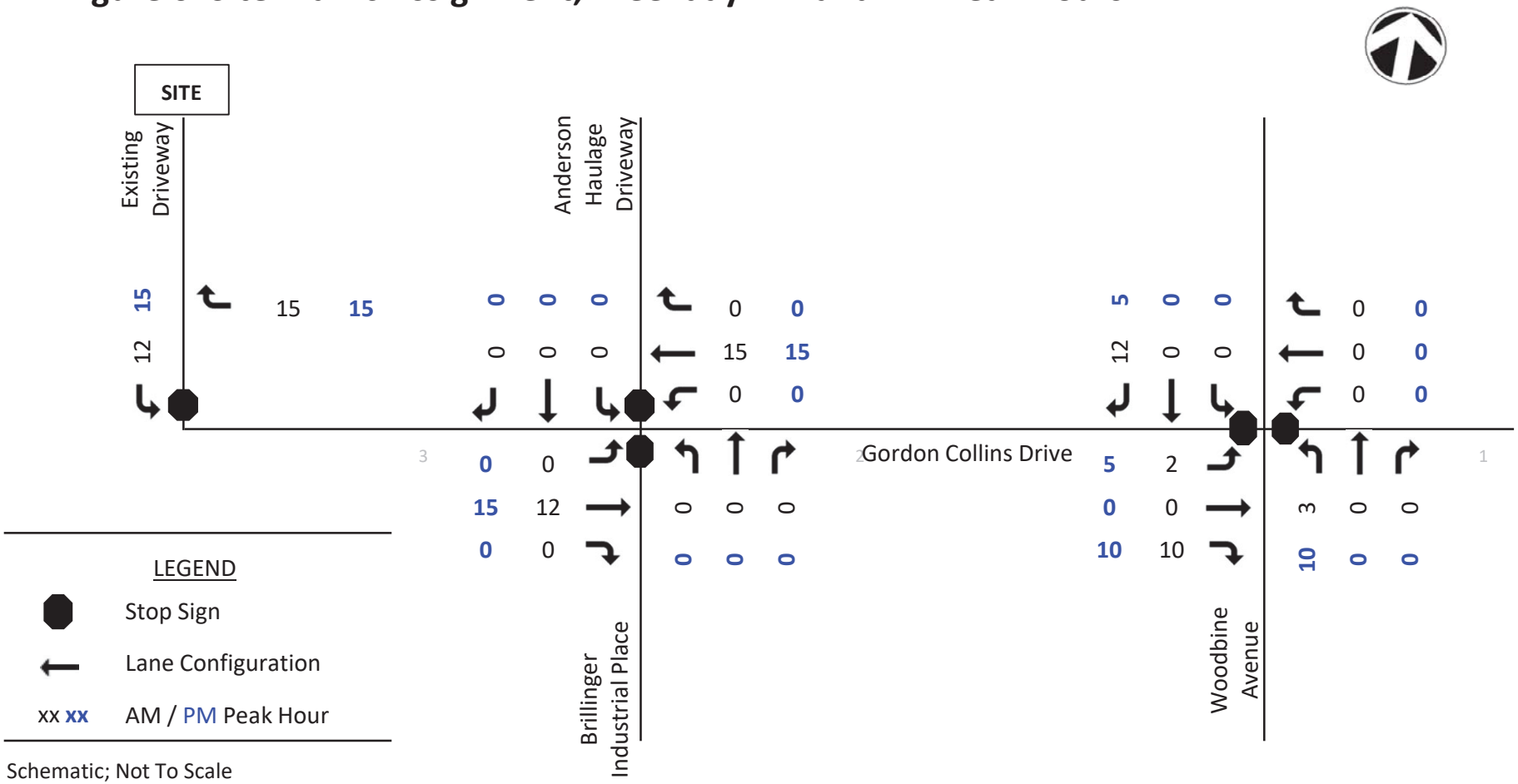
56 Gordon Collins Drive

TRAFFIC IMPACT STUDY

Proposed Sports Facility Addition to Existing Industrial Development

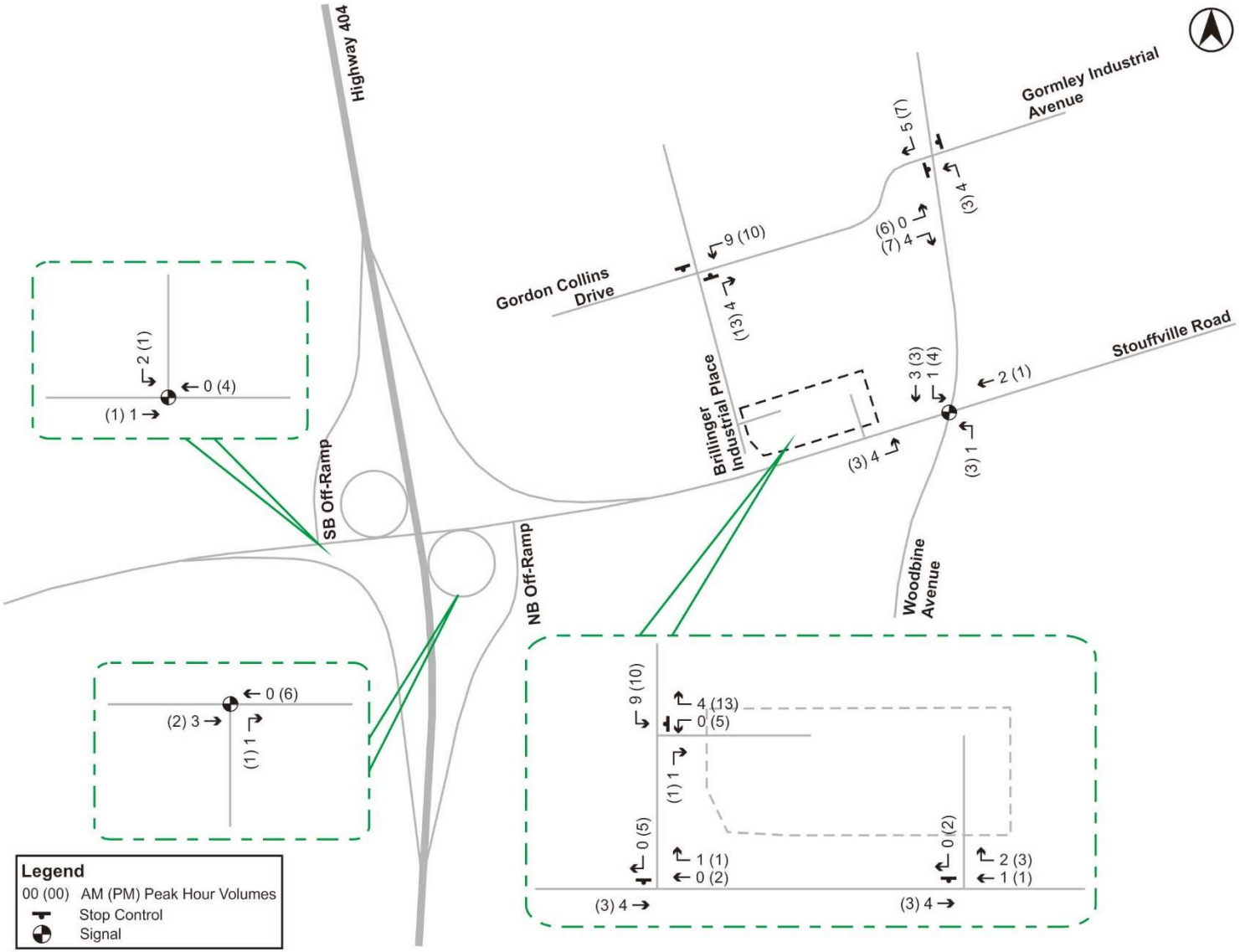
56 Gordon Collins Drive, Gormley, ON

Figure 6: Site Traffic Assignment, Weekday AM and PM Peak Hours



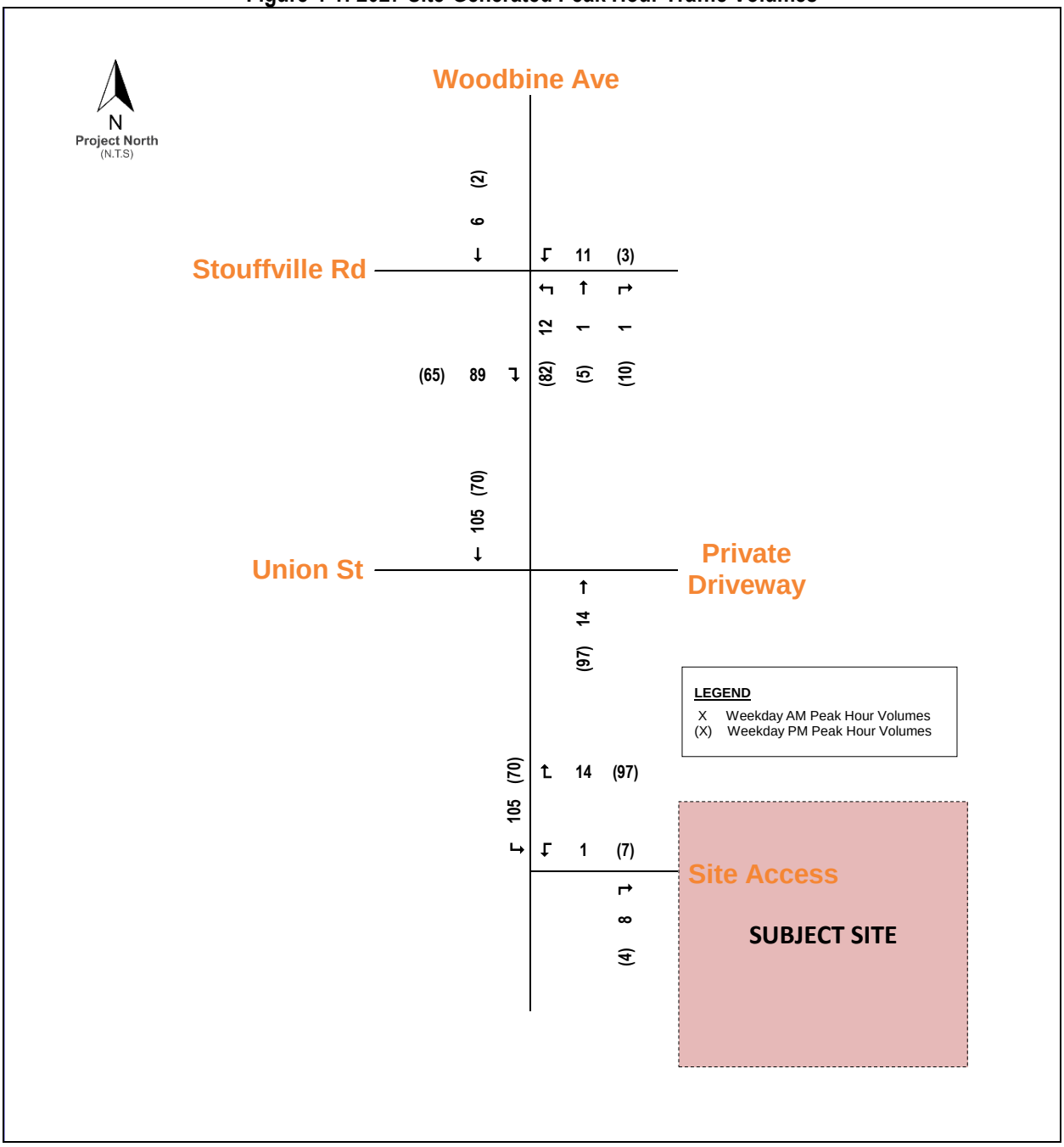
7 Brillinger Industrial Place

Figure 8 New Site Traffic Volumes

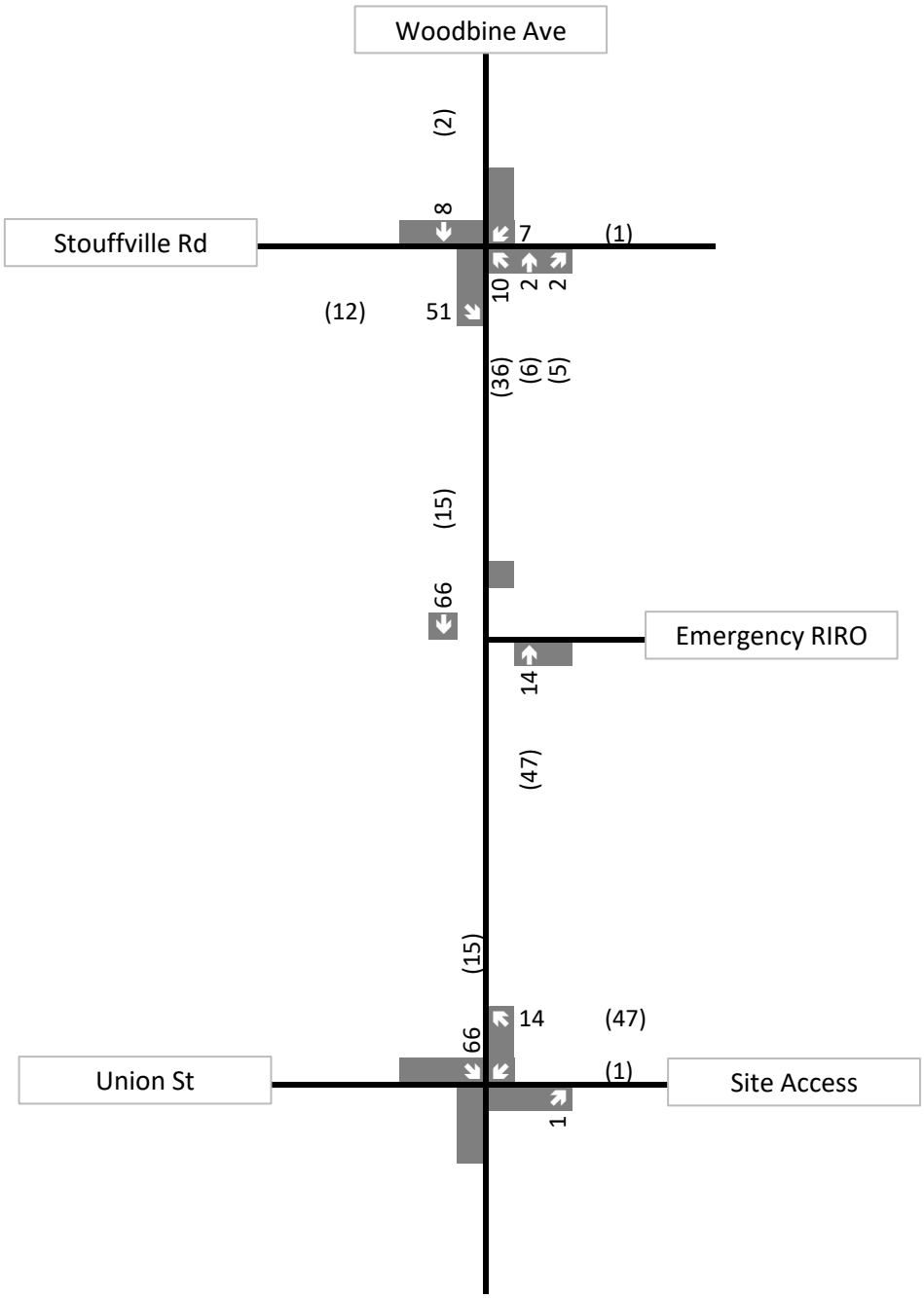


12131 Woodbine Avenue

Figure 4-1: 2027 Site-Generated Peak Hour Traffic Volumes



12153 Woodbine Avenue



Legend

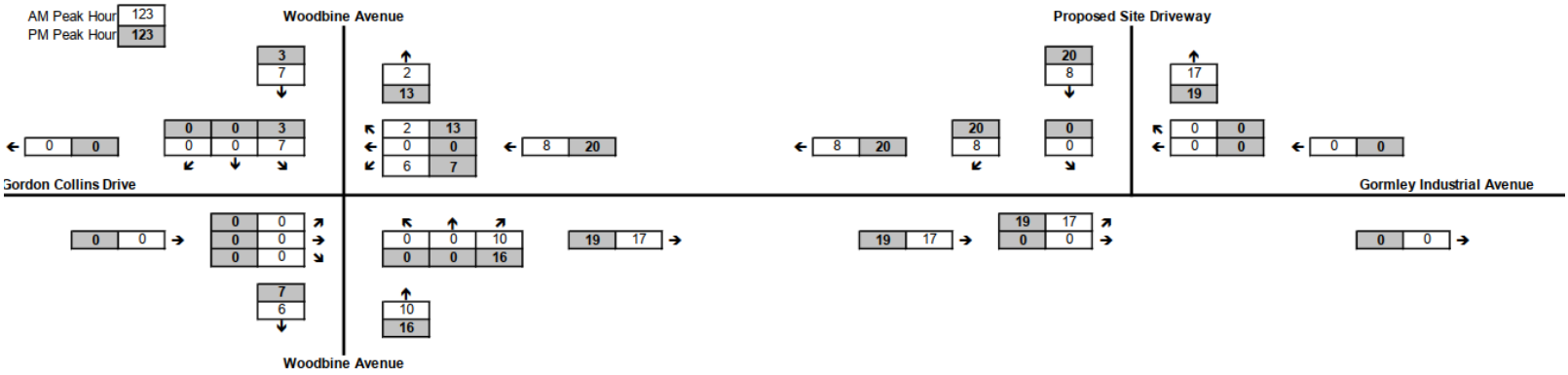
xx A.M. Peak Hour Traffic Volumes

(xx) P.M. Peak Hour Traffic Volumes

Figure 11

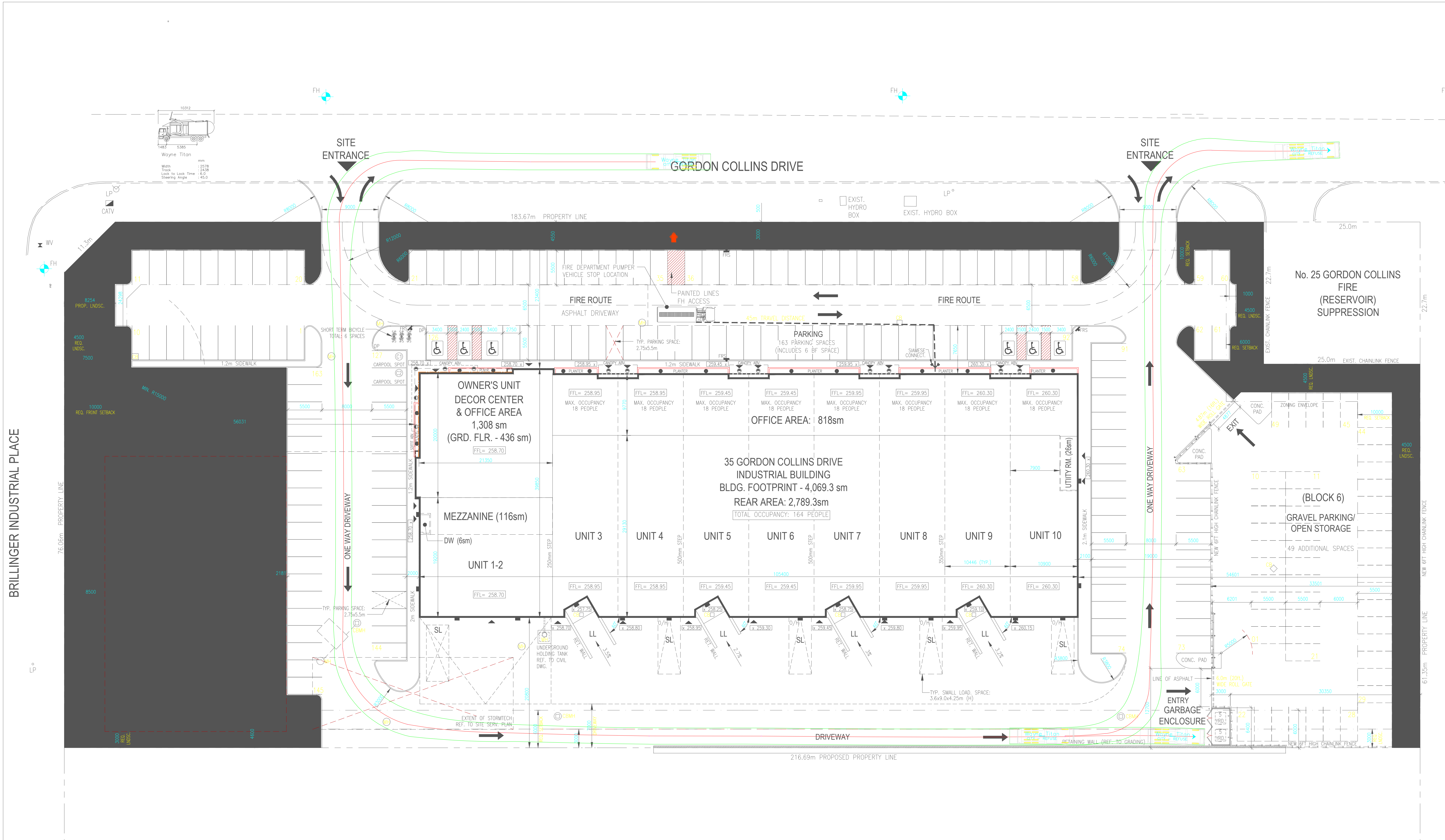
Site Trip Assignment

12379 Woodbine Avenue

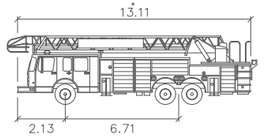


Appendix G

Swept Path Analysis



GORDON COLLINS DRIVE
SITE ENTRANCE
SITE ENTRANCE
BRILLINGER INDUSTRIAL PLACE
183.67m PROPERTY LINE
FIRE DEPARTMENT PUMPER VEHICLE STOP LOCATION
PAINTED LINES FH ACCESS
FIRE ROUTE
ASPHALT DRIVEWAY
FIRE ROUTE
PARKING
163 PARKING SPACES (INCLUDES 6 BF SPACE)
SHORT TERM BICYCLE TOTAL: 6 SPACES
CARPOOL SPOT
CARPOOL SPOT
TYP. PARKING SPACE: 2.75x5.5m
EXIST. HYDRO BOX
EXIST. HYDRO BOX
No. 25 GORDON COLLINS
FIRE
(RESERVOIR)
SUPPRESSION
OWNER'S UNIT
DECOR CENTER
& OFFICE AREA
1,308 sm
(GRD. FLR. - 436 sm)
MEZZANINE (116sm)
DW (6sm)
UNIT 1-2
OFFICE AREA: 818sm
35 GORDON COLLINS DRIVE
INDUSTRIAL BUILDING
BLDG. FOOTPRINT - 4,069.3 sm
REAR AREA: 2,789.3sm
TOTAL OCCUPANCY: 164 PEOPLE
MAX. OCCUPANCY 18 PEOPLE
UNIT 3
UNIT 4
UNIT 5
UNIT 6
UNIT 7
UNIT 8
UNIT 9
UNIT 10
UTILITY RM. (26sm)
ONE WAY DRIVEWAY
ONE WAY DRIVEWAY
(BLOCK 6)
GRAVEL PARKING/
OPEN STORAGE
49 ADDITIONAL SPACES
EXIT
CONC. PAD
ENTRY
GARBAGE
ENCLOSURE
UNDERGROUND HOLDING TANK REF. TO CIVIL DWG.
EXTENT OF STORMTECH REF. TO SITE SERV. PLAN
TYP. SMALL LOAD. SPACE: 3.6x9.0x4.25m (H)
DRIVEWAY
RETAINING WALL (REF. TO GRADING)
NEW 6FT HIGH CHAINLINK FENCE
216.69m PROPOSED PROPERTY LINE
76.06m PROPERTY LINE
61.35m PROPERTY LINE
25.0m
22.7m
EXIST. CHAINLINK FENCE
Wayne Titan



Aerial Fire Truck

	meters
Width	: 2.59
Track	: 2.59
Lock to Lock Time	: 6.0
Steering Angle	: 33.3

SITE ENTRANCE

GORDON COLLINS DRIVE

Aerial Fire
REDG TORONTO 2017 (CA)

183.67m PROPERTY LINE

EXIST. HYDRO BOX

EXIST. HYDRO BOX

FIRE DEPARTMENT PUMPER VEHICLE STOP LOCATION

PAINTED LINES FH ACCESS

FIRE ROUTE

ASPHALT DRIVEWAY

FIRE ROUTE

45m TRAVEL DISTANCE

PARKING
163 PARKING SPACES
(INCLUDES 6 BF SPACE)

TYP. PARKING SPACE: 2.75x5.5m

SHORT TERM BICYCLE PARKING TOTAL: 6 SPACES

CARPOOL SPOT

CARPOOL SPOT

1.2m SIDEWALK

OWNER'S UNIT
DECOR CENTER
& OFFICE AREA
1,308 sm
(GRD. FLR. - 436 sm)
FFL= 258.70

MEZZANINE (116sm)

DW (6sm)

UNIT 1-2

OFFICE AREA: 818sm

35 GORDON COLLINS DRIVE
INDUSTRIAL BUILDING
BLDG. FOOTPRINT - 4,069.3 sm
REAR AREA: 2,789.3sm
TOTAL OCCUPANCY: 164 PEOPLE

UNIT 3 | UNIT 4 | UNIT 5 | UNIT 6 | UNIT 7 | UNIT 8 | UNIT 9 | UNIT 10

MAX. OCCUPANCY 18 PEOPLE

UTILITY RM. (26sm)

ONE WAY DRIVEWAY

2.1m SIDEWALK

2m SIDEWALK

TYP. PARKING SPACE: 2.75x5.5m

UNDERGROUND HOLDING TANK REF. TO CIVIL DWG.

TYP. SMALL LOAD. SPACE: 3.6x9.0x4.25m (H)

EXTENT OF STORMTECH REF. TO SITE SERV. PLAN

DRIVEWAY

RETAINING WALL (REF. TO GRADING)

216.69m PROPOSED PROPERTY LINE

BRILLINGER INDUSTRIAL PLACE

76.06m PROPERTY LINE

61.35m PROPERTY LINE

No. 25 GORDON COLLINS
FIRE
(RESERVOIR)
SUPPRESSION

EXIST. CHAINLINK FENCE

NEW 6FT HIGH CHAINLINK FENCE

(BLOCK 6)
GRAVEL PARKING/
OPEN STORAGE
49 ADDITIONAL SPACES

CONC. PAD

ZONING ENVELOPE

EXIT

ENTRY

6.0m (20ft.) WIDE ROLL GATE

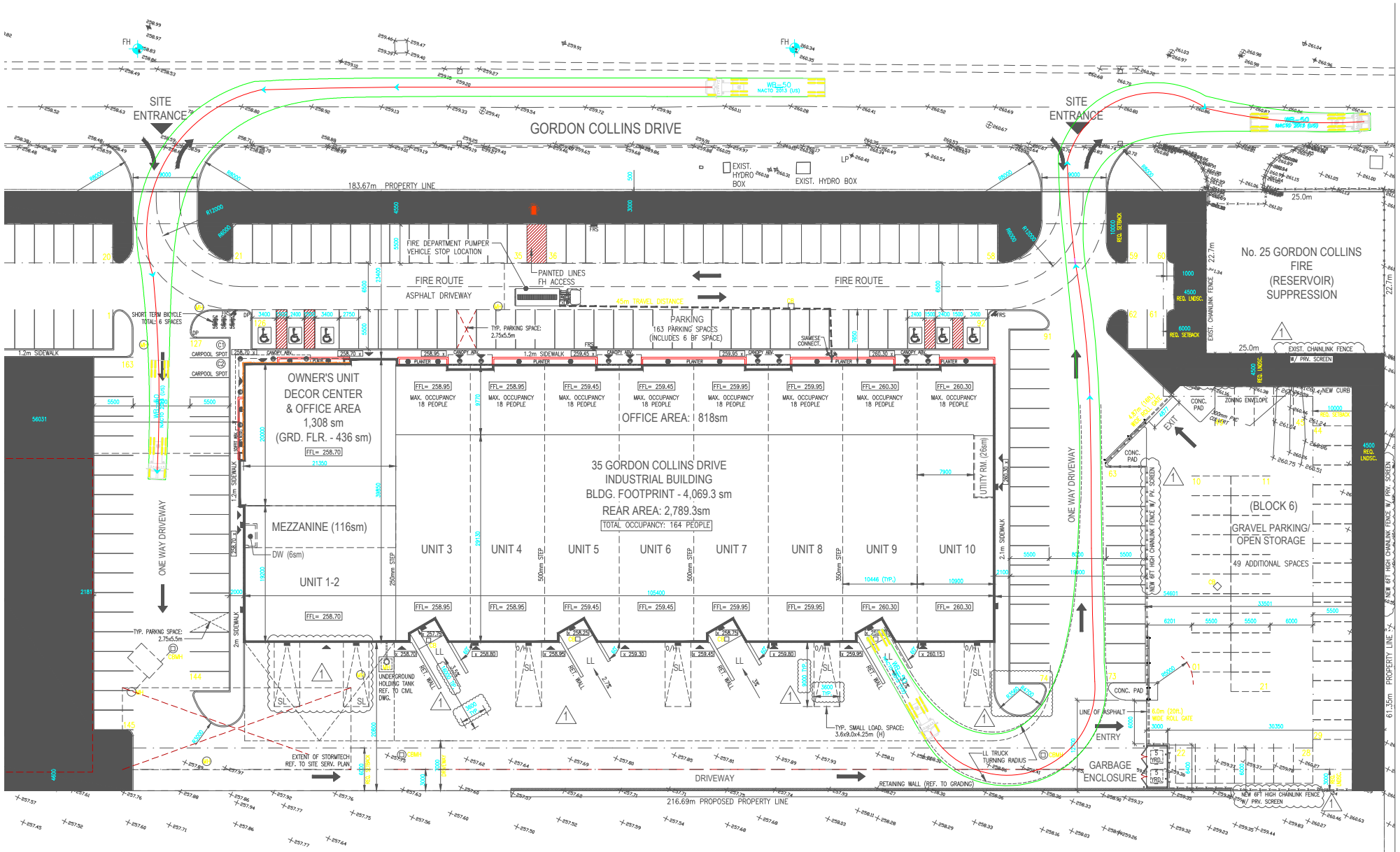
LINE OF ASPHALT

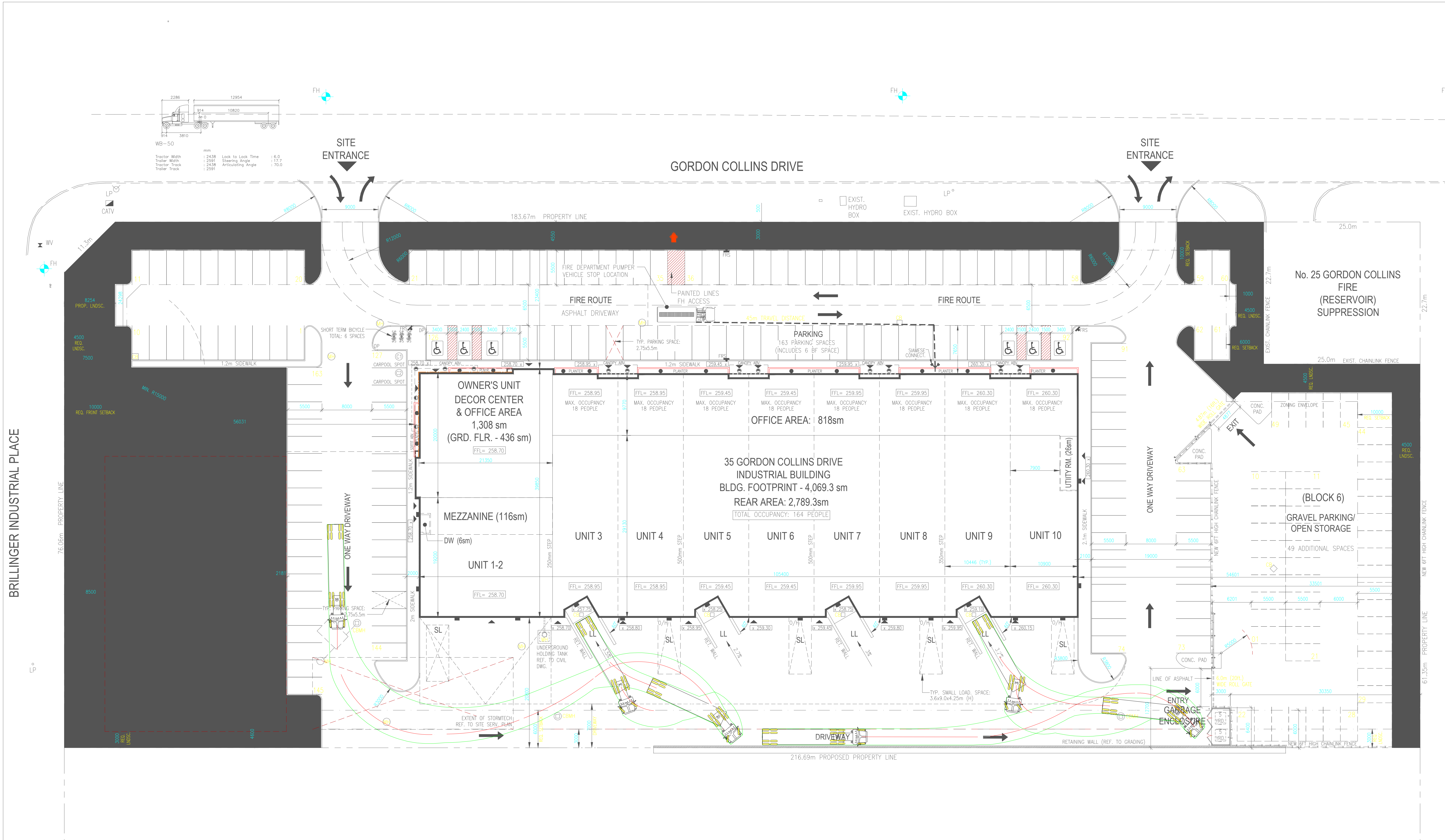
GARBAGE ENCLOSURE

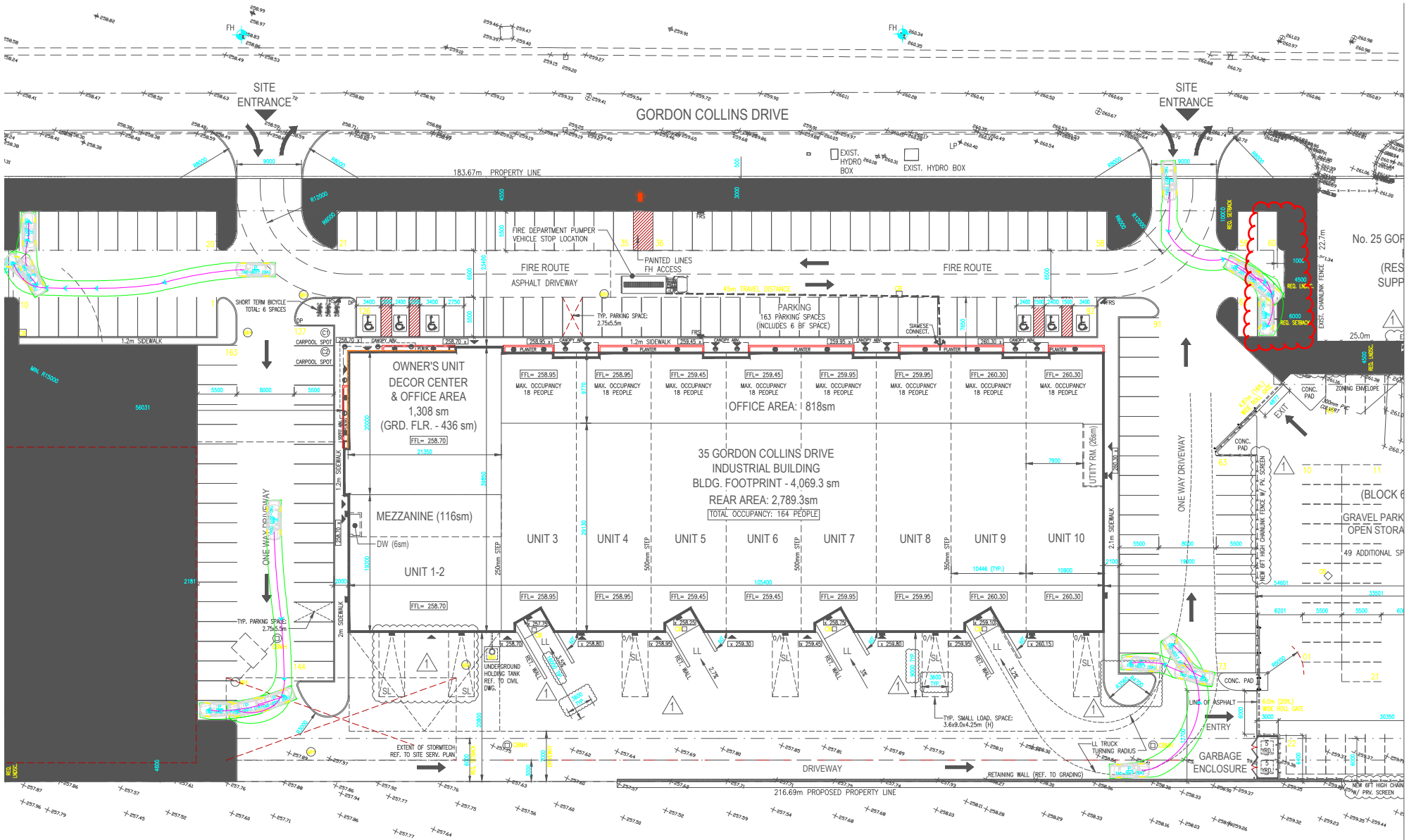
CONC. PAD

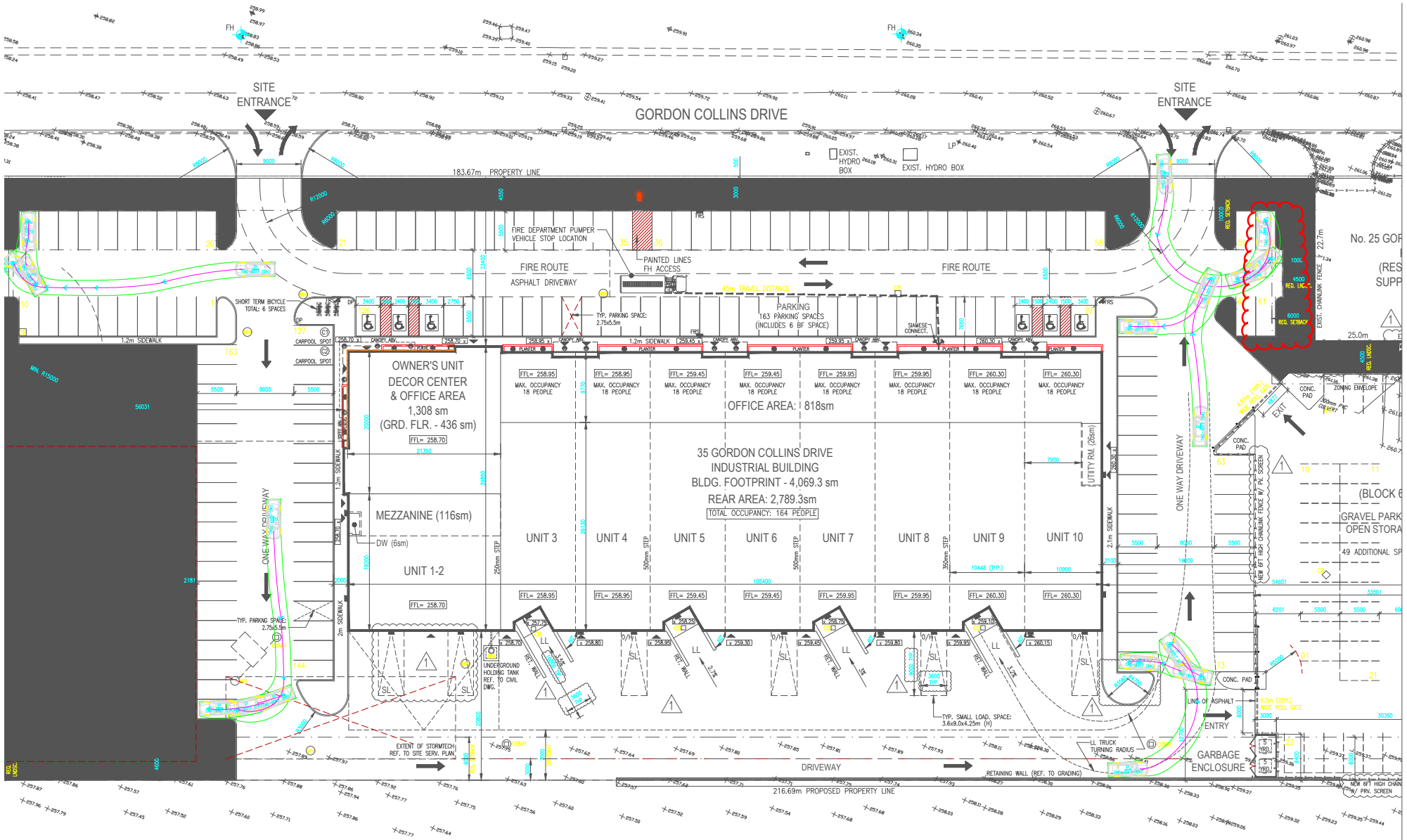
SITE ENTRANCE

Aerial Fire
REDG TORONTO 2017 (CA)


SITE ENTRANCE
GORDON COLLINS DRIVE
SITE ENTRANCE
183.67m PROPERTY LINE
EXIST. HYDRO BOX
EXIST. HYDRO BOX
FIRE DEPARTMENT PUMPER VEHICLE STOP LOCATION
PAINTED LINES FH ACCESS
FIRE ROUTE
ASPHALT DRIVEWAY
FIRE ROUTE
45m TRAVEL DISTANCE
PARKING
163 PARKING SPACES
(INCLUDES 6 BF SPACE)
TYP. PARKING SPACE: 2.75x5.5m
SHORT TERM BICYCLE PARKING TOTAL 6 SPACES
1.2m SIDEWALK
CARPOOL SPOT
CARPOOL SPOT
OWNER'S UNIT
DECOR CENTER
& OFFICE AREA
1,308 sm
(GRD. FLR. - 436 sm)
FFL= 258.70
MEZZANINE (116sm)
DW (6sm)
UNIT 1-2
OFFICE AREA: 818sm
35 GORDON COLLINS DRIVE
INDUSTRIAL BUILDING
BLDG. FOOTPRINT - 4,069.3 sm
REAR AREA: 2,789.3sm
TOTAL OCCUPANCY: 164 PEOPLE
UNIT 3
UNIT 4
UNIT 5
UNIT 6
UNIT 7
UNIT 8
UNIT 9
UNIT 10
FFL= 258.95
FFL= 259.45
FFL= 259.95
FFL= 260.30
MAX. OCCUPANCY 18 PEOPLE
UTILITY RM. (26sm)
ONE WAY DRIVEWAY
ONE WAY DRIVEWAY
2m SIDEWALK
2.1m SIDEWALK
250mm STEP
500mm STEP
500mm STEP
350mm STEP
TYP. PARKING SPACE: 2.75x5.5m
UNDERGROUND HOLDING TANK REF. TO CIVIL DWG.
EXTENT OF STORMTECH REF. TO SITE SERV. PLAN
RET. WALL
RETAINING WALL (REF. TO GRADING)
DRIVEWAY
216.69m PROPOSED PROPERTY LINE
TYP. SMALL LOAD. SPACE: 3.6x9.0x4.25m (H)
LL TRUCK TURNING RADIUS
GARBAGE ENCLOSURE
LINE OF ASPHALT
ENTRY
No. 25 GORDON COLLINS
FIRE
(RESERVOIR)
SUPPRESSION
EXIST. CHAINLINK FENCE
EXIST. CHAINLINK FENCE W/ PRV. SCREEN
NEW CURB
ZONING ENVELOPE
CONC. PAD
EXIT
(BLOCK 6)
GRAVEL PARKING/
OPEN STORAGE
49 ADDITIONAL SPACES
NEW 6FT HIGH CHAINLINK FENCE W/ PRV. SCREEN
NEW 6FT HIGH CHAINLINK FENCE
61.35m PROPERTY LINE
REQ. SETBACK
REQ. LNDSC.
6.0m (20ft.) WIDE ROLL GATE
25.0m
22.7m

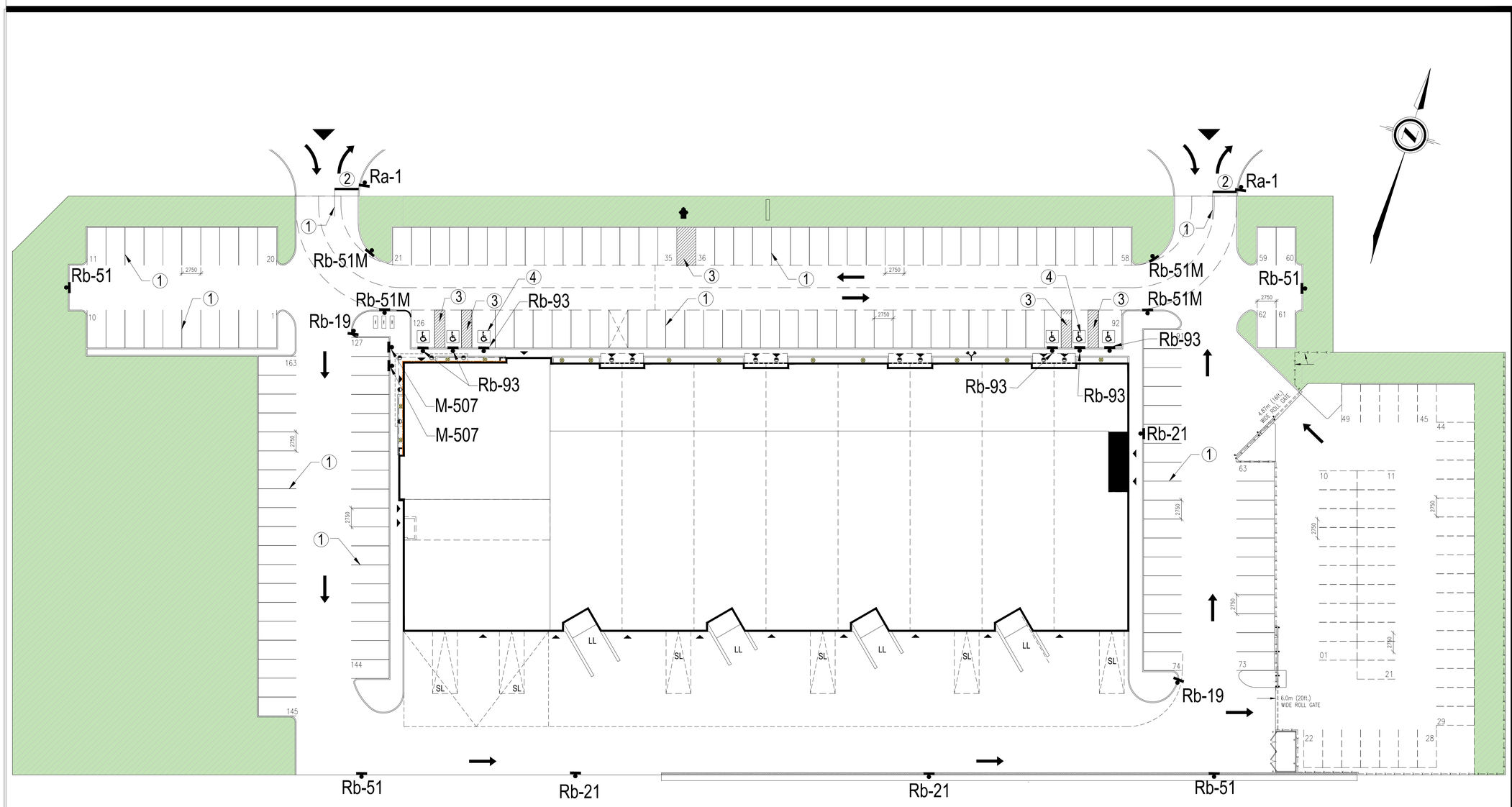

GORDON COLLINS DRIVE
SITE ENTRANCE
SITE ENTRANCE
BRILLINGER INDUSTRIAL PLACE
183.67m PROPERTY LINE
216.69m PROPOSED PROPERTY LINE
76.06m PROPERTY LINE
61.35m PROPERTY LINE
WB-50
FIRE ROUTE
ASPHALT DRIVEWAY
FIRE ROUTE
FIRE DEPARTMENT PUMPER VEHICLE STOP LOCATION
PAINTED LINES FH ACCESS
PARKING
163 PARKING SPACES (INCLUDES 6 BF SPACE)
SHORT TERM BICYCLE TOTAL: 6 SPACES
CARPOOL SPOT
CARPOOL SPOT
TYP. PARKING SPACE: 2.75x5.5m
1.2m SIDEWALK
EXIST. HYDRO BOX
EXIST. HYDRO BOX
No. 25 GORDON COLLINS
FIRE
(RESERVOIR)
SUPPRESSION
OWNER'S UNIT
DECOR CENTER
& OFFICE AREA
1,308 sm
(GRD. FLR. - 436 sm)
FFL= 258.70
MEZZANINE (116sm)
DW (6sm)
UNIT 1-2
OFFICE AREA: 818sm
35 GORDON COLLINS DRIVE
INDUSTRIAL BUILDING
BLDG. FOOTPRINT - 4,069.3 sm
REAR AREA: 2,789.3sm
TOTAL OCCUPANCY: 164 PEOPLE
MAX. OCCUPANCY 18 PEOPLE
UNIT 3
UNIT 4
UNIT 5
UNIT 6
UNIT 7
UNIT 8
UNIT 9
UNIT 10
UTILITY RM. (26sm)
ONE WAY DRIVEWAY
ONE WAY DRIVEWAY
EXIT
CONC. PAD
(BLOCK 6)
GRAVEL PARKING/
OPEN STORAGE
49 ADDITIONAL SPACES
ZONING ENVELOPE
NEW 6FT HIGH CHAINLINK FENCE
EXIST. CHAINLINK FENCE
UNDERGROUND HOLDING TANK REF. TO CIVIL DWG.
EXTENT OF STORMTECH REF. TO SITE SERV. PLAN
TYP. SMALL LOAD. SPACE: 3.6x9.0x4.25m (H)
LINE OF ASPHALT
ENTRY
GARBAGE
ENCLOSURE
DRIVEWAY
RETAINING WALL (REF. TO GRADING)
REQ. FRONT SETBACK
PROP. LNDSC.


GORDON COLLINS DRIVE
SITE ENTRANCE
SITE ENTRANCE
183.67m PROPERTY LINE
EXIST. HYDRO BOX
EXIST. HYDRO BOX
FIRE DEPARTMENT PUMPER VEHICLE STOP LOCATION
PAINTED LINES FH ACCESS
FIRE ROUTE
ASPHALT DRIVEWAY
FIRE ROUTE
40m TRAVEL DISTANCE
PARKING
163 PARKING SPACES
(INCLUDES 6 BF SPACE)
SHORT TERM BICYCLE TOTAL: 6 SPACES
1.2m SIDEWALK
CARPOOL SPOT
CARPOOL SPOT
TYP. PARKING SPACE: 2.75x5.5m
SIAMESE CONNECT.
OWNER'S UNIT
DECOR CENTER
& OFFICE AREA
1,308 sm
(GRD. FLR. - 436 sm)
FFL= 258.70
MEZZANINE (116sm)
DW (6sm)
UNIT 1-2
OFFICE AREA: 818sm
35 GORDON COLLINS DRIVE
INDUSTRIAL BUILDING
BLDG. FOOTPRINT - 4,069.3 sm
REAR AREA: 2,789.3sm
TOTAL OCCUPANCY: 164 PEOPLE
UNIT 3
UNIT 4
UNIT 5
UNIT 6
UNIT 7
UNIT 8
UNIT 9
UNIT 10
MAX. OCCUPANCY 18 PEOPLE
UTILITY RM. (26sm)
ONE WAY DRIVEWAY
ONE WAY DRIVEWAY
TYP. PARKING SPACE: 2.75x5.5m
UNDERGROUND HOLDING TANK REF. TO CIVIL DWG.
EXTENT OF STORMTECH REF. TO SITE SERV. PLAN
DRIVEWAY
TYP. SMALL LOAD. SPACE: 3.6x9.0x4.25m (H)
LL TRUCK TURNING RADIUS
RETAINING WALL (REF. TO GRADING)
216.69m PROPOSED PROPERTY LINE
LINE OF ASPHALT
ENTRY
GARBAGE ENCLOSURE
CONC. PAD
CONC. PAD
CONC. PAD
EXIST. CHAINLINK FENCE
ZONING ENVELOPE
NEW 6FT HIGH CHAINLINK FENCE W/ PV. SCREEN
6.0m (20'h.) WIDE ROLL GATE
No. 25 GOR
(RES
SUPP
(BLOCK 6
GRAVEL PARK
OPEN STORA
49 ADDITIONAL SP
25.0m
22.7m


SITE ENTRANCE
GORDON COLLINS DRIVE
SITE ENTRANCE
183.67m PROPERTY LINE
EXIST. HYDRO BOX
EXIST. HYDRO BOX
FIRE DEPARTMENT PUMPER VEHICLE STOP LOCATION
PAINTED LINES FH ACCESS
FIRE ROUTE
ASPHALT DRIVEWAY
FIRE ROUTE
40m TRAVEL DISTANCE
SHORT TERM BICYCLE TOTAL: 6 SPACES
1.2m SIDEWALK
CARPOOL SPOT
CARPOOL SPOT
TYP. PARKING SPACE: 2.75x5.5m
PARKING
163 PARKING SPACES
(INCLUDES 6 BF SPACE)
SIAMESE CONNECT.
OWNER'S UNIT
DECOR CENTER
& OFFICE AREA
1,308 sm
(GRD. FLR. - 436 sm)
FFL= 258.70
MEZZANINE (116sm)
DW (6sm)
UNIT 1-2
OFFICE AREA: 818sm
35 GORDON COLLINS DRIVE
INDUSTRIAL BUILDING
BLDG. FOOTPRINT - 4,069.3 sm
REAR AREA: 2,789.3sm
TOTAL OCCUPANCY: 164 PEOPLE
UNIT 3
UNIT 4
UNIT 5
UNIT 6
UNIT 7
UNIT 8
UNIT 9
UNIT 10
UTILITY RM. (26sm)
ONE-WAY DRIVEWAY
ONE-WAY DRIVEWAY
TYP. PARKING SPACE: 2.75x5.5m
UNDERGROUND HOLDING TANK REF. TO CIVIL DWG.
EXTENT OF STORMTECH REF. TO SITE SERV. PLAN
TYP. SMALL LOAD. SPACE: 3.6x9.0x4.25m (H)
LL TRUCK TURNING RADIUS
DRIVEWAY
RETAINING WALL (REF. TO GRADING)
216.69m PROPOSED PROPERTY LINE
GARBAGE ENCLOSURE
ENTRY
LINE OF ASPHALT
6.0m (20'-0") WIDE ROLL GATE
EXIST. CHAINLINK FENCE
No. 25 GOR
(RES
SUPP
25.0m
ZONING ENVELOPE
CONC. PAD
EXIT
NEW 6FT HIGH CHAINLINK FENCE W/ PVC SCREEN
(BLOCK 6
GRAVEL PARK
OPEN STORA
49 ADDITIONAL SP

Appendix H

Pavement Marking and Signage Plan



Legend

- Stop (Ra-1)
- No Entry (Rb-19)
- One Way (Rb-21)
- No Parking (Rb-51)
- No Parking Fire Access Route (Rb-51M)
- No Parking By Permit Only (Rb-93)
- Carpool Parking (M-507)
- Proposed Sign
- (1) 10cm Solid White Line
- (2) 30cm Solid White Wide Stop Bar
- (3) 10cm Solid Yellow Line
- (4) International Symbol of Accessibility

Notes

1. All Signs to conform to the Ontario Traffic Manual (OTM).
2. All signs to be aluminum, unless otherwise noted
3. All wood posts to be pressure treated, unless otherwise noted.
4. Minimum post buried depth is to be 1.0m
5. All pavement markings to be permanent unless otherwise noted.
6. Contract Administrator for sign layout drawing prior to manufacturing sign

Note: All dimensions in metres, unless otherwise noted.

No.	DESCRIPTION	DATE	BY	TOWN APP.
3.	Third Submission	Mar 2025		
2.	Second Submission	Oct 2024		
1.	First Submission	May 2024		

REVISIONS

GORMLEY INDUSTRIAL PARK
PROPOSED INDUSTRIAL BUILDING

Transportation Functional Plan

AECOM
105 Commerce Valley Drive W, 7th Floor
Richmond Hill, Ontario L3T 7W3
TEL: (905)886-7022

Note:
As to lane marking and traffic control devices

Note:
As to lane marking and traffic control devices

DESIGN BY:	D.R.	CHECKED BY:	I.S.
DRAWN BY:	D.R.	CHECKED BY:	I.S.
SCALES:	1:300	DATE:	March 2025

Approved as to form in reliance upon the professional skill and ability of AECOM Canada Inc. Consulting Engineers as to design and specification.

Town of Oakville — Date

The Regional Municipality of Halton — Date

MUNICIPAL FILE No.

REGIONAL FILE No.

PROJECT No. 60719636

DRAWING No. TFP - 1