

Memo

To: John Pennachetti
From: Mike Walters, P.Eng.
Date: March 30, 2026
Subject: **Proposed Mixed-Use Development, 2172 Wycroft Road, Town of Oakville
Alternatives for Intersection of Wycroft Road, Street “A” and West Bronte GO
Driveway**
Our File: 23-6586

1.0 Introduction

1.1 Purpose

This memorandum presents a review of potential alternatives for the intersection of Wycroft Road and Street “A” (that is proposed to be constructed as part of the planned development of 2172 Wycroft Road) and how that intersection would relate to the existing west driveway to the Bronte GO station, located immediately to the east.

1.2 Background

NBIM 2172 Wycroft LP is proposing a mixed-use development on the subject lands. The current version of the site plan (see **Attachment 1**) envisions four residential towers containing 1,191 residential units, with 27,586 sq. ft. of retail space and a 14,587 sq. ft. daycare at grade. Dillon previously prepared a transportation impact study (TIS) in August 2025 in support of the subject application.

In comments provided by the Town of Oakville and by Metrolinx following their review of the August 2025 TIS, clarification was requested on the interface between the proposed Wycroft Road and Street “A” intersection on the east side of the subject lands and the adjacent west driveway to the Bronte GO station.

A subsequent meeting was held on February 27, 2026 between the applicant, Metrolinx and the Town of Oakville to discuss this issue (the interface between the future intersection and the Bronte GO station west driveway). At that meeting, the applicant was asked to develop some preliminary options for an interim configuration of Street “A” that maintains access to the GO station and bus loop. This memorandum presents the preliminary alternatives that have been developed and evaluated to date.

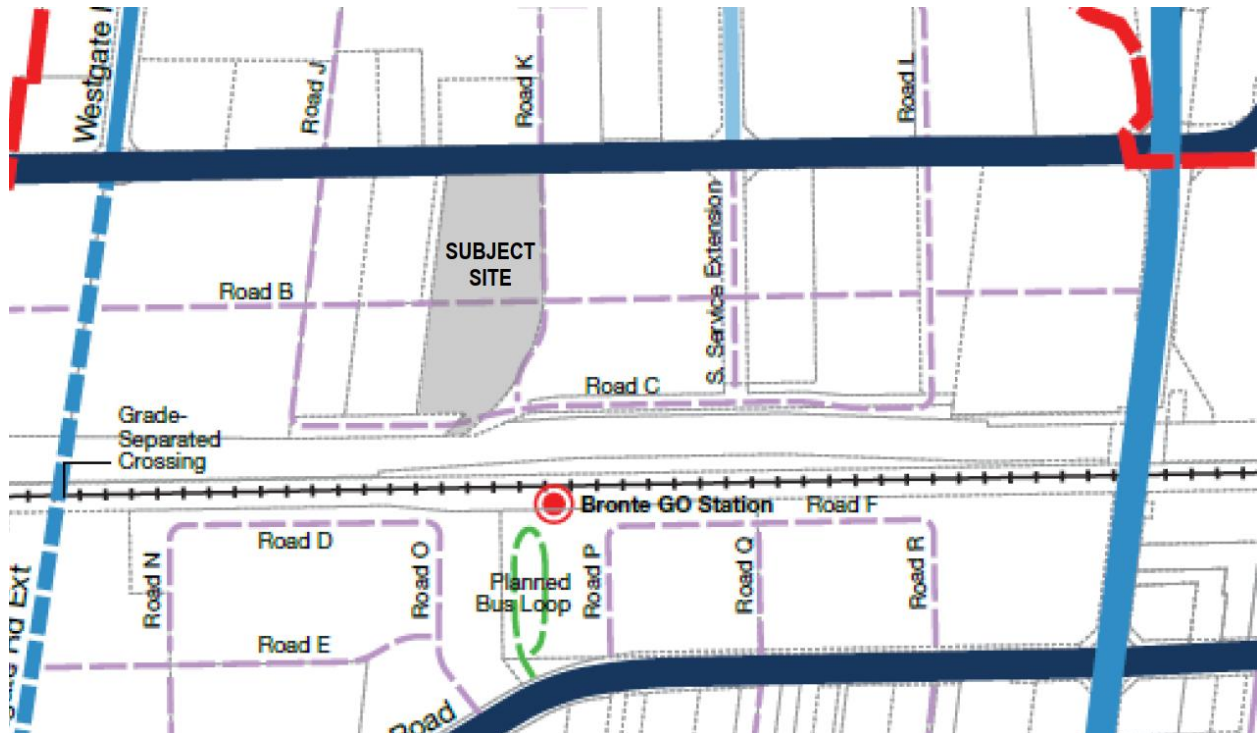
1.3 Planned Road Network Context

The subject site is part of the Bronte GO Major Transit Station Area (MTSA). As part of the planning work for the MTSA undertaken by the Town in 2018, a proposed local street network was identified that subdivides the area into blocks (see **Figure 1**). The measures directly affecting the subject site are:

- A new north-south local road (identified in the MTSA as “Road K”) generally straddling the property line between the subject lands and the Bronte GO station;

- A new midblock east-west road (identified in the MTSA as “Road B”) extending across the extent of the MTSA and bisecting the subject lands;
- Another new east-west road (identified in the MTSA as “Road C”) extending along the north side of the rail corridor, south of the subject lands; and
- The relocation of the Bronte GO bus loop from its current location to a new site on the south side of the station.

Figure 1: Planned MTSA Road Network



Source: Wood Environment & Infrastructure Solutions: Bronte GO Major Transit Station Area Study Transportation Assessment, January 15, 2021. Excerpt from Figure 26: MTSA Proposed Road Network, with annotations by Dillon.

The relocation of the bus loop is also recognized by Metrolinx in their GO Rail Station Access report (February 2023). Amongst the required improvements identified at Bronte GO is “Relocat[ing] and expand[ing] the bus loop to the south station site with a dedicated signaled access off of Speers Road”. However, the timing of this measure is unspecified.

Because the MTSA plan covers an area that is already developed, the new road network and other transportation features cannot be implemented in advance of development but will need to be implemented incrementally as development applications are brought forward. In the longer term, the plan envisions the redevelopment of the GO station parking lot (including the extension of the new local street network) and the relocation of the existing bus loop. However, there are no specific plans for any such changes, and the timing of any such redevelopment is unknown. Therefore, the subject application is challenged with constructing a new road that straddles the property line of a block with no active plans for redevelopment, and with maintaining a driveway (the west Bronte GO station driveway) that is only 10 metres east of the property line where that new street is to be constructed.

Four conceptual alternatives were developed that develop Street “A” and integrate the bus terminal access in different ways. These alternatives are illustrated in **Attachment 2** and described below.

Alternative 1: Two-way bus driveway

This is essentially a “do nothing” alternative. It maintains the bus driveway and bus access / egress patterns in the existing configuration and brings Street “A” and the driveway into a combined signalized intersection at Wycroft Road.

Alternative 2: Two-way contraflow bus driveway

In this alternative, a crossover is introduced on the bus driveway approximately 85 metres east of Wycroft Road so that inbound buses enter on the east lane of the driveway and outbound buses exit on the west lane of the driveway. There would continue to be a single signalized intersection, but in this case northbound general traffic lanes and the northbound bus lanes would be adjacent to each other.

Alternative 3: One-way outbound bus driveway

In this alternative, the bus driveway is narrowed to two lanes for use by outbound buses only. Inbound buses would enter via Street “A”, then would turn left at a one-way connecting roadway leading to the bus loop approximately opposite Street “B”. Street “A” and the bus access would continue to meet Wycroft Road at a single signalized intersection, but in this case the movements would be simplified by shifting all inbound traffic to Street “A”.

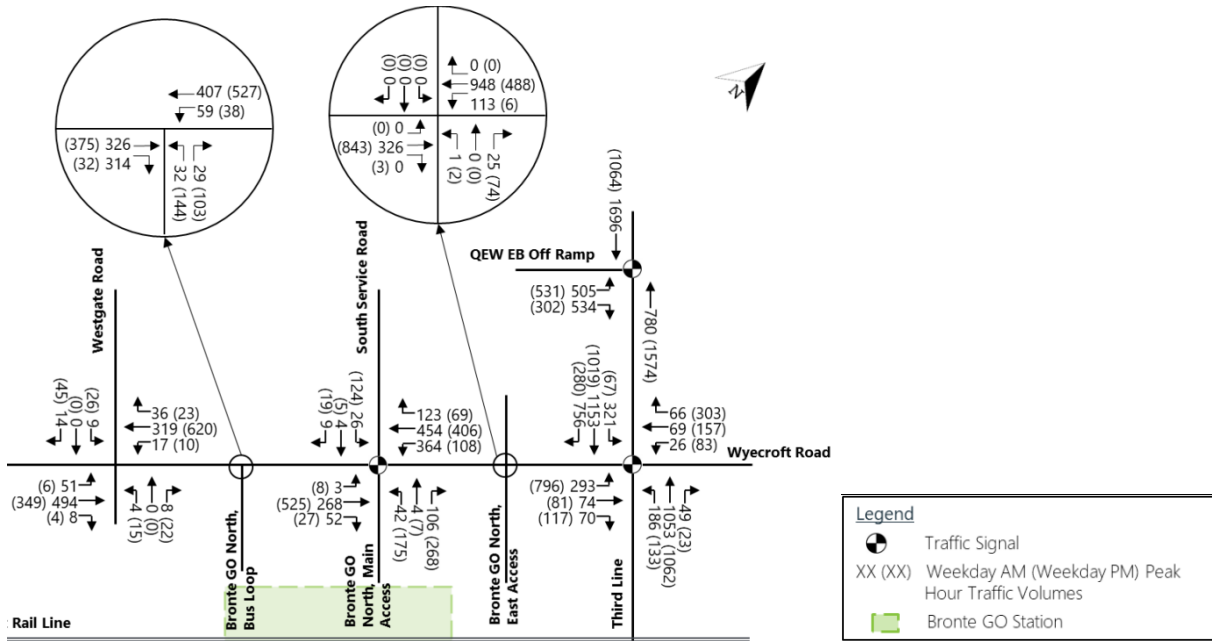
Alternative 4: Bus access/egress via Street “A”

In this alternative, the bus driveway is removed from the intersection entirely and all movements are consolidated at a single simplified signalized intersection. All buses would travel along Street “A” and access to/from the bus loop would be via a two-way connecting roadway approximately opposite Street “B”. Inbound buses would travel along a dedicated bus lane, while outbound buses would operate in mixed traffic to simplify the signal phasing at Wycroft Road.

All alternatives assume that the applicant dedicates 16 metres of the eventual 20-metre right-of-way.

All alternatives assume the driveway connections from the bus access to/from the commuter parking lot are closed and that all non-bus traffic is removed from the bus access to simplify operations, particularly for alternatives that may be more complex. **Figure 2** is an excerpt from the traffic analysis for the MTSA planning study, illustrating the existing (2018) peak hour volumes at the intersections surrounding the GO station (including the west driveway intersection with Wycroft Road). While those volumes are out of date, they are provided for reference purposes and are a reasonable order-of-magnitude indication of traffic patterns at the intersection, considering that the growth in commuter traffic experienced before 2020 has been offset by an increase in remote work.

Figure 2: Existing (2018) Intersection Volumes Near GO Station



Source: Wood Environment & Infrastructure Solutions: Bronte GO Major Transit Station Area Study Transportation Assessment, January 15, 2021. Excerpt from Figure 3: 2019 Existing Traffic Volumes.

1.5 Longer-Term Considerations

The four alternatives are all intended as configurations that could operate as “long-term interim” measures until such time as the bus loop is relocated and/or the adjacent GO station parking lot is redeveloped or reconfigured. When that occurs and the remaining 4 metres of right-of-way can be dedicated to Street “A”, the following changes would occur:

- Removal of any roadway connections between Street “A” and the decommissioned bus loop;
- Construction of a sidewalk or multi-use path along the east side of Street “A” and final boulevard works;
- Any works required to accommodate the easterly extension of Street “B” into the Metrolinx lands.

The southerly extension of Street “A” (its alignment and configuration) will be dependent on several factors that are unknown at this time:

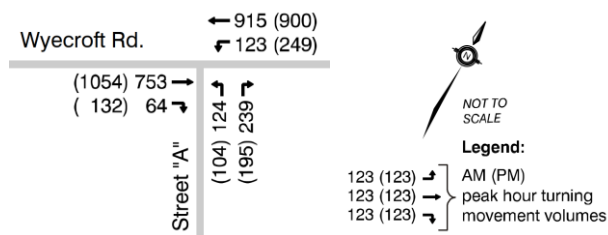
- The nature and layout of any development plans on the Metrolinx lands and how (and if) they account for MTSA Road C; and
- The timing of any development west of the subject lands that would require the extension of Street “A” and/or construction of MTSA Road C.

2.0 Analysis of Alternatives

2.1 Projected Traffic Volumes

General traffic projections at the intersection were documented in Dillon's August 2025 TIS. **Figure 3** illustrates the projected AM and PM peak hour volumes at the 2042 horizon, accounting for full build-out of all buildings on the subject site.

Figure 3: Projected 2042 Peak Hour Traffic, Wycroft Road at Street "A"



The number of buses entering and exiting the loop, and the pattern of bus movements (grouped or dispersed), was reviewed from the scheduled Oakville Transit and GO Transit arrival and departure times. **Figure 4** presents the existing hourly bus volume (i.e., rolling hourly volumes in 15-minute increments) on all turning movements and in total. These figures indicate the following:

- Bus traffic peaks at approximately 36 buses per hour (18 in and 18 out) during the AM and PM peak hours;
- During the midday and on weekends, there are approximately 15 to 25 bus movements per hour;
- There is a higher proportion of buses turning to/from the east than to/from the west.

Most buses are operated by Oakville Transit. GO buses only operate through this terminal in the early morning and late night, before the start and after the end of Lakeshore West train service.

The existing schedule was assumed to be maintained for analysis purposes, recognizing that service on some routes could be increased slightly but that the change would likely not be significant (e.g., a 30-minute headway could be improved to 20 minutes but likely not to 10 minutes or less, and not on all routes serving the GO station).

Attachment 3 is a dot plot illustrating the scheduled arrival and departure times of all buses entering and exiting the terminal. Where multiple buses are scheduled to arrive or depart within a minute of each other, the dots for those buses are stacked. The plot illustrates different patterns on weekdays vs. weekends:

- On weekends, buses are scheduled to arrive and depart in pulses, with 2 to 4 buses arriving and departing together, followed by periods of up to 20 minutes without bus traffic.
- On weekdays, bus arrivals and departures are scheduled to be more evenly distributed throughout the hour, with few instances where multiple buses are scheduled to arrive or depart at the exact same time.

Figure 4: Bus Traffic Profile

Total buses:



Individual movements:



2.2 Traffic Signal Operations

Traffic signal phasing plans were developed for each of the alternatives; phasing diagrams are provided in **Attachment 4**. The phasing plans include additional phases to manage conflicting movements and provide additional opportunities for bus movements.

In all alternatives, there would be an advance westbound left turn phase callable at times of day when volumes warrant. During lower-volume periods, the advance left turn phase could be deactivated to allow the phases to cycle more frequently and reduce delays to minor movements (including buses leaving the terminal).

In alternatives 1 through 3, there would be a bus-only phase to eliminate the conflict between northbound buses and northbound traffic from Street “A”. To reduce delays to buses, the bus phase would be callable both before and after the Street “A” phase.

In alternatives 1 through 3, northbound right turns from Street “A” would be prohibited on red due to the conflict with movements to/from the bus loop access. In Alternative 2, northbound right turns on red would also need to be prohibited from the bus lanes for the same reason.

In alternatives 1 and 2, there is a longer distance between the westbound stop bar and the far side of the intersection, and the westbound left turn movement is complicated by having two different left turns from the same lane. These can be overcome by having a short lagging left turn phase following the main east-west phase, to clear any left-turning vehicles waiting within the intersection and to provide an opportunity for any buses that may be waiting in the queue. Lagging left turn phases are usually not advisable due to the yellow trap¹ phenomenon, but that does not exist at a “T” intersection.

The intersection would run semi-actuated during the day, with pedestrian recall on the main street. During the lower-volume overnight period when there is little traffic on the main street and few pedestrians, the intersection could operate fully actuated with pedestrian recall turned off; this would allow the side street phases (including outbound buses) to be called sooner. This assumes there are detectors on Wycroft Road to enable this type of operation.

The signal operations assume that westbound left-turning buses are controlled by the same detectors as general traffic (i.e., buses do not have transmitters that can call or extend left turn phases beyond the preprogrammed levels).

Traffic signal operations will be affected by bus traffic differently on weekends vs. weekdays, assuming the current approach to scheduling is maintained:

- On weekends, bus services are scheduled in pulses, so that most of the time there will be no traffic on the driveway, but when buses are present, there will be a need to accommodate up to 4 at a time.
- On weekdays, scheduled bus service is more evenly distributed. A bus signal will be called frequently but it will frequently only need to accommodate one bus.

2.3 Traffic Operations Analysis

The intersection operations were modeled in Synchro (version 12). For each alternative, the v/c ratio, level of service (LOS), average delay per vehicle and 95th percentile queue were noted for each individual movement, and the overall level of service and average delay per vehicle were noted for the intersection as a whole. **Table 1** presents the results of the intersection analyses of all alternatives. Synchro analysis worksheets are provided in **Attachment 5**.

¹ A “yellow trap” is a hazardous signal condition where a driver attempting a permissive left turn sees their light turn yellow and mistakenly assumes oncoming traffic is also stopping. In reality, oncoming traffic maintains a green light to allow for a lagging turn phase in the opposite direction. This creates a high risk of collisions as the turning driver may pull directly into the path of vehicles that are still facing a green signal.

Table 1: Intersection Operations, Wycroft Road at Street “A” / West GO Driveway

Movement	AM peak hour				PM peak hour			
	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Alternative 1								
EB through	0.80	D	43.3	181	0.85	D	43.3	262
WB left	0.48	C	24.1	34	0.92	E	63.6	107
WB through	0.61	C	29.3	145	0.59	C	25.8	170
NB left	0.32	D	46.2	53	0.38	E	56.3	50
NB right	0.85	E	70.0	145	0.79	E	77.4	92
NB left (buses)	0.10	D	36.0	8	0.09	D	40.8	9
NB right (buses)	0.05	A	0.4	0	0.05	A	0.3	0
Overall	—	D	40.0	—	—	D	42.2	—
Alternative 2								
EB through	0.80	D	43.6	190	0.85	D	42.8	263
WB left	0.47	C	24.1	34	0.90	E	59.8	106
WB through	0.61	C	29.4	146	0.59	C	25.4	170
NB left	0.32	D	45.6	53	0.38	E	55.5	50
NB right	0.84	E	67.9	145	0.79	E	76.4	92
NB left (buses)	0.07	C	31.8	8	0.07	D	37.3	9
NB right (buses)	0.15	C	34.3	12	0.15	D	40.0	14
Overall	—	D	39.9	—	—	D	41.5	—
Alternative 3								
EB through	0.74	C	26.4	127	0.81	C	34.8	203
WB left	0.58	C	26.3	38	0.91	E	70.2	132
WB through	0.58	C	20.9	119	0.53	B	18.4	136
NB left	0.28	C	32.6	43	0.38	D	53.5	48
NB right	0.74	D	46.1	118	0.79	E	74.0	94
NB left (buses)	0.06	C	24.2	6	0.09	D	37.3	9
NB right (buses)	0.05	A	0.4	0	0.05	A	0.3	0
Overall	—	C	26.9	—	—	D	36.2	—
Alternative 4								
EB through	0.56	B	13.2	81	0.79	C	24.8	134
WB left	0.34	A	6.3	15	0.55	C	20.8	56
WB through	0.41	A	6.0	51	0.43	A	5.0	52
NB left	0.50	C	34.0	35	0.55	D	46.0	37
NB right	0.73	B	18.9	37	0.63	B	16.7	27
Overall	—	B	11.9	—	—	B	18.0	—

The intersection analysis found the following:

- All alternatives would have adequate capacity to accommodate the projected 2042 design hour volumes; Alternative 4 has the most capacity due to the more straightforward phasing pattern.
- Alternative 4 results in the lowest overall intersection delay and the shortest queues; the other alternatives have higher delays, poorer levels of service and longer queues as a result of the additional phases to manage movements from the bus driveway.
- The queues are anticipated to be more manageable in Alternative 4 due to the more straightforward phasing and shorter cycle / shorter red intervals. In Alternatives 1 through 3 the westbound queues are anticipated to reach or extend just beyond the upstream South Service Road intersection, and the AM peak hour northbound right turn queues are anticipated to extend beyond Street “B” (also due to the northbound “no right turn on red” requirement under these alternatives).

- Alternative 3 has the lowest delays for buses exiting the GO station. In Alternatives 1/2, the left turn delays are slightly longer because of the more complex left turn phases on Wyecroft Road. In Alternative 4, the left and right turn delays are longer because of the interaction with general traffic on Street “A”. In Alternative 2, the right turn delay is highest because of a “no right turn on red” restriction needed to manage the conflict with the westbound left turn phase. The difference between the individual alternatives is generally minor for left turns (within a range of approximately 10 seconds between the alternatives), and is in a wider range for right turns.
- Alternative 4 has the lowest delays for the westbound left turn lane that would be used by buses entering the bus loop, due to the simpler signal phasing, while Alternative 3 has the highest. In practice the delays to left-turning buses may be somewhat lower than shown for Alternatives 1 through 3 because some buses may be able to turn simultaneously with general traffic turning at Street “A”.
- Alternative 4 involves the lowest delays for buses turning right from Wyecroft Road due to shorter queues and delays in the through lanes.

A sensitivity test was also undertaken of an illustrative lower-volume time period (e.g., mid to late evening) when roadway capacity is not a consideration and when intersection delays may be felt more acutely (i.e., motorists or bus riders held at a red signal when there is little or no traffic on the active phase). This test assumed the following volumes:

- 250 vehicles per hour on the eastbound/westbound through movements;
- 50 vehicles per hour and 10 buses per hour on the turning movements to/from the east; and
- 25 vehicles per hour and 5 buses per hour on the turning movements to/from the west.

Table 2 presents the results of this low-volume scenario analysis.

Under this lower-volume scenario:

- Alternative 4 is expected to have the best operations, with only the northbound left turn operating at a worse level of service than LOS A. The phasing of this alternative is straightforward and all movements except the northbound left turn can proceed during the eastbound/westbound green phase (northbound right turns can proceed on red).
- Alternative 2 would have the poorest operations. No movement would operate better than LOS B. No side street movements (general traffic or buses) would be able to proceed during the eastbound/westbound phase, even during a gap in traffic. Eastbound right turns into Street “A” and the bus access would be prohibited on red.
- Delays to buses turning right out of the GO station are lowest under Alternative 1 and 3 because buses are in a dedicated lane and can turn right on red during a gap (which is more common in a lower-volume period). Otherwise, bus delays are lowest under Alternative 4.
- Alternatives 3 and 4 are the only alternatives where buses would be able to make a right turn on red when approaching the bus terminal during lower-volume periods.

Table 2: Intersection Operations, Wycroft Road at Street “A” / West GO Driveway (Low-Volume Scenario)

MOVEMENT	LOW VOLUME SCENARIO			
	v/c	LOS	Delay (s/veh)	95 th %ile queue (m)
Alternative 1				
EB through	0.15	B	14.0	31
WB left	0.11	B	11.7	14
WB through	0.13	B	14.2	29
NB left	0.14	D	39.6	13
NB right	0.31	D	43.2	22
NB left (buses)	0.04	C	23.8	5
NB right (buses)	0.04	A	0.3	0
Overall	—	B	16.8	—
Alternative 2				
EB through	0.18	B	14.2	31
WB left	0.12	B	11.4	14
WB through	0.16	B	14.5	28
NB left	0.14	D	38.4	13
NB right	0.31	D	41.8	21
NB left (buses)	0.03	C	21.2	5
NB right (buses)	0.06	C	22.0	9
Overall	—	B	17.1	—
Alternative 3				
EB through	0.13	A	4.6	16
WB left	0.11	B	10.4	18
WB through	0.12	A	8.3	24
NB left	0.11	C	26.6	11
NB right	0.25	C	28.9	18
NB left (buses)	0.03	B	14.8	4
NB right (buses)	0.05	A	0.4	0
Overall	—	A	9.1	—
Alternative 4				
EB through	0.11	A	2.7	8
WB left	0.09	A	3.6	6
WB through	0.10	A	2.8	8
NB left	0.16	C	21.3	9
NB right	0.27	A	9.2	9
Overall	—	A	4.2	—

Given the review of both the peak hour scenarios and the low-volume scenario, Alternative 4 (a conventional intersection with buses operating in mixed traffic) would be preferable from a traffic operations perspective; the only disadvantage of this movement is longer delays experienced by buses turning right out of the GO station, since they would be in mixed traffic and not in a dedicated lane.

2.4 Comparative Evaluation

The four alternatives were compared from the following perspectives:

- The complexity of the intersection and the extent to which the configuration would be intuitive vs. prone to being misinterpreted by motorists;
- The ability to accommodate the projected peak hour traffic and the anticipated level of service, delays and queues;
- The average delays for buses entering and exiting the GO station;
- The bus operating environment and the level of interaction with traffic (as a separate consideration from the delays specifically at the Wycroft Road intersection);
- The ability to construct Street “A” without encroaching into the Metrolinx lands;
- The grading implications; and
- The complexity of construction staging needed to maintain continuous bus access to and from the GO station.

Table 3: Comparative Evaluation

Category	Commentary	Preferred
Ease of motorist comprehension	Alternative 4 is a standard intersection with no unconventional features other than the southbound bus lane. Alternatives 1 and 2 are unconventional with potential risk of wrong-way movements when turning from Wycroft Road (e.g., will westbound left-turning motorists follow a bus into the bus driveway). Alternative 3 is also unconventional due to the additional northbound leg but with less risk of wrong-way movements.	Alt. 4
Traffic operations	Alternatives 1 through 3 have longer delays and queues, and lower capacity due to more complex signal phasing and a longer cycle. They also require “no right turn on red” restrictions on at least one movement.	Alt. 4
Average delay for buses at intersection	Intersection delays are longer on most movements in Alternatives 1 through 3, except for on the northbound right turn, which operates in a dedicated lane under those alternatives but in mixed traffic under Alternative 4.	Alt. 4
Bus environment	Buses operate on a dedicated roadway in Alternatives 1 and 2 (inbound/outbound) and Alternative 3 (outbound only), which would be less prone to potential disruptions due to interaction with traffic. Alternative 4 has a dedicated lane for inbound buses, but not on a bus-only roadway. Alternative 2 is less preferable to Alternative 1 due to its bus crossover.	Alt. 1
Property requirements	Alternative 2 accommodates Street “A” without any encroachment on Metrolinx lands (minor easements may be required for construction purposes). Alternatives 3 and 4 require Street “A” to encroach across property line (but into lands eventually required for full 20-metre ROW).	Alt. 1 or 2
Grading implications	Existing GO driveway is at different elevation from subject lands, depending on distance from Wycroft Road. Alternatives 3 and 4 may require careful grading for connections across the property line.	Alt. 1 or 2
Ease of construction staging	Alternative 1 has minimal impact to bus operations during construction. Alternative 2 will require more complex staging at north end of driveway to maintain bus operations while crossover / driveway modifications are constructed. Staging complexity of Alternatives 3 and 4 may depend on grading implications.	Alt. 1

3.0 Recommendations and Next Steps

Alternative 1 would be more straightforward to construct and would enable buses to operate within a fully dedicated environment once off Wycroft Road. However, Alternative 4 is a more conventional and more readily understood configuration with less complex signal operating requirements, fewer restrictions that might affect operations at lower-volume times, and higher capacity, lower delays and shorter queues. Although Alternative 4 requires outbound buses to operate in mixed traffic, this is offset by lower delays for most movements turning to/from Wycroft Road.

* * *

Should you have any questions or wish to discuss the results, please contact me at (416) 229-4647, extension 2376, or at mwalters@dillon.ca.

Yours sincerely,

DILLON CONSULTING LIMITED



Mike Walters, P.Eng.
Project Manager

Attachment 1:
Proposed Site Plan

This drawing, as an instrument of service, is produced by and is the property of Turner Fleischer. The contractor shall verify and accept responsibility for all dimensions and conditions on site and shall notify Turner Fleischer of any variations from the required information. This drawing is not to be used for any other purpose without the written consent of Turner Fleischer. The architect is not responsible for the accuracy of survey, structural, mechanical, electrical, etc. information shown on this drawing. Refer to the appropriate consultant's drawings before proceeding with the work. Construction must conform to all applicable codes and requirements of authority having jurisdiction. The contractor working from drawings not specifically marked "For Contractor" must assume full responsibility and bear costs for any corrections or damages resulting from the work.

BLDG	FLOOR	SALEABLE						AVG. UNIT SIZE		
		1B	1B+D	2B	2B+D	3B	3B+D	TOTAL	m ²	ft ²
BLDG A+B	FLOOR 01	5		1				6	58.6	630
	FLOOR 02	4	28	9	5	5	1	52	70.8	762
	FLOOR 03	4	28	9	5	5	1	52	70.8	762
	FLOOR 04	4	28	9	5	5	1	52	70.8	762
	FLOOR 05	4	28	9	5	5	1	52	70.8	762
	FLOOR 06	4	28	9	5	5	1	52	70.8	762
	FLOOR 07	2	2	3		2		9	70.1	754
	FLOOR 08	5	3	9	1	2		20	69.0	742
	FLOOR 09	5	3	9	1	2		20	69.0	742
	FLOOR 10	5	3	9	1	2		20	69.0	742
	FLOOR 11	5	3	9	1	2		20	69.0	742
	FLOOR 12	5	3	9	1	2		20	69.0	742
	FLOOR 13	5	3	9	1	2		20	69.0	742
	FLOOR 14	5	3	9	1	2		20	69.0	742
	FLOOR 15	5	3	9	1	2		20	69.0	742
	FLOOR 16	5	3	9	1	2		20	69.0	742
	FLOOR 17	5	3	9	1	2		20	69.0	742
	FLOOR 18	5	3	9	1	2		20	69.0	742
	FLOOR 19	5	3	9	1	2		20	69.0	742
	FLOOR 20	5	3	9	1	2		20	69.0	742
	FLOOR 21	5	3	9	1	2		20	69.0	742
	FLOOR 22	5	3	9	1	2		20	69.0	742
	FLOOR 23	5	3	9	1	2		20	69.0	742
	FLOOR 24	5	3	9	1	2		20	69.0	742
SUBTOTAL		112	193	202	42	61	5	615		
TOTAL UNITS		305		244		66		615		
UNIT MIX		18.2%	31.4%	32.8%	6.8%	9.9%	0.8%	100.0%		
UNIT MIX TOTAL		49.6%		39.7%		10.7%		100.0%		
AVG UNIT SIZE (m ²)		52.4	61.2	73.0	91.2	99.2	100.1	69.6		
AVG UNIT SIZE (ft ²)		564	659	786	982	1,068	1,077	750		
AVG UNIT SIZE TOTAL (m ²)		58.0		76.2		99.3		69.6		
AVG UNIT SIZE TOTAL (ft ²)		624		820		1,069		750		

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BLDG	FLOOR	SALEABLE						AVG. UNIT SIZE		
		1B	1B+D	2B	2B+D	3B	3B+D	TOTAL	m ²	ft ²
BLDG A+B+C+D	FLOOR 01	8	2	3	1	6	9	29	87.3	940
	FLOOR 02	20	39	15	11	7	1	93	68.7	740
	FLOOR 03	20	39	15	11	7	1	93	68.7	740
	FLOOR 04	20	39	15	11	7	1	93	68.7	740
	FLOOR 05	20	39	15	11	7	1	93	68.7	740
	FLOOR 06	20	39	15	11	7	1	93	68.7	740
	FLOOR 07	2	6	5		4		17	73.0	786
	FLOOR 08	9	9	17	1	4		40	69.4	747
	FLOOR 09	9	9	17	1	4		40	69.4	747
	FLOOR 10	9	9	17	1	4		40	69.4	747
	FLOOR 11	9	9	17	1	4		40	69.4	747
	FLOOR 12	9	9	17	1	4		40	69.4	747
	FLOOR 13	9	9	17	1	4		40	69.4	747
	FLOOR 14	9	9	17	1	4		40	69.4	747
	FLOOR 15	9	9	17	1	4		40	69.4	747
	FLOOR 16	9	9	17	1	4		40	69.4	747
	FLOOR 17	9	9	17	1	4		40	69.4	747
	FLOOR 18	9	9	17	1	4		40	69.4	747
	FLOOR 19	9	9	17	1	4		40	69.4	747
	FLOOR 20	9	9	17	1	4		40	69.4	747
	FLOOR 21	9	9	17	1	4		40	69.4	747
	FLOOR 22	9	9	17	1	4		40	69.4	747
	FLOOR 23	9	9	17	1	4		40	69.4	747
	FLOOR 24	9	9	17	1	4		40	69.4	747
SUBTOTAL		263	356	372	73	113	14	1191		
TOTAL UNITS		619		445		127		1191		
UNIT MIX		22.1%	29.9%	31.2%	6.1%	9.5%	1.2%	100.0%		
UNIT MIX TOTAL		52.0%		37.4%		10.7%		100.0%		
AVG UNIT SIZE (m ²)		53.1	62.0	73.0	91.7	101.7	111.9	69.7		
AVG UNIT SIZE (ft ²)		572	667	786	987	1,095	1,204	750		
AVG UNIT SIZE TOTAL (m ²)		58.2		76.1		102.8		69.7		
AVG UNIT SIZE TOTAL (ft ²)		627		819		1,107		750		

Last Updated: Wednesday, 18 March 2026 16:30:29 PM

BLDG	FLOOR	SALEABLE						AVG. UNIT SIZE		
		1B	1B+D	2B	2B+D	3B	3B+D	TOTAL	m ²	ft ²
BLDG C+D	FLOOR 01	3	2	2	1	6	9	23	94.8	1,021
	FLOOR 02	16	11	6	6	2		41	66.2	712
	FLOOR 03	16	11	6	6	2		41	66.2	712
	FLOOR 04	16	11	6	6	2		41	66.2	712
	FLOOR 05	16	11	6	6	2		41	66.2	712
	FLOOR 06	16	11	6	6	2		41	66.2	712
	FLOOR 07		4	2		2		8	76.3	822
	FLOOR 08	4	6	8		2		20	69.9	752
	FLOOR 09	4	6	8		2		20	69.9	752
	FLOOR 10	4	6	8		2		20	69.9	752
	FLOOR 11	4	6	8		2		20	69.9	752
	FLOOR 12	4	6	8		2		20	69.9	752
	FLOOR 13	4	6	8		2		20	69.9	752
	FLOOR 14	4	6	8		2		20	69.9	752
	FLOOR 15	4	6	8		2		20	69.9	752
	FLOOR 16	4	6	8		2		20	69.9	752
	FLOOR 17	4	6	8		2		20	69.9	752
	FLOOR 18	4	6	8		2		20	69.9	752
	FLOOR 19	4	6	8		2		20	69.9	752
	FLOOR 20	4	6	8		2		20	69.9	752
	FLOOR 21	4	6	8		2		20	69.9	752
	FLOOR 22	4	6	8		2		20	69.9	752
	FLOOR 23	4	6	8		2		20	69.9	752
	FLOOR 24	4	6	8		2		20	69.9	752
SUBTOTAL		151	163	170	31	52	9	576		
TOTAL UNITS		314		201		61		576		
UNIT MIX		26.2%	28.3%	29.5%	5.4%	9.0%	1.6%	100.0%		
UNIT MIX TOTAL		54.5%		34.9%		10.6%		100.0%		
AVG UNIT SIZE (m ²)		53.6	62.8	73.0	92.3	104.7	118.4	69.7		
AVG UNIT SIZE (ft ²)		577	676	786	993	1,127	1,275	750		
AVG UNIT SIZE TOTAL (m ²)		58.4		76.0		106.7		69.7		
AVG UNIT SIZE TOTAL (ft ²)		629		818		1,149		750		

Last Updated: Wednesday, 18 March 2026 16:29:54 PM

BLDG	FLOOR	VEHICULAR PARKING - MINIMUM REQUIRED		
		USE	RATIO (MIN.)	UNITS / GFA (m ²)
A+B	RESIDENTIAL (<75 m ²)	1.0/UNIT	454	454
	RESIDENTIAL (>75 m ²)	1.25/UNIT	161	202
	TOTAL RESIDENTIAL			656
	VISITOR	0.2/UNIT	615	123
	RETAIL	1/40sqm	1976	49
	INSTITUTIONAL	1/40sqm	1355	33
TOTAL VISITOR			205	
TOTAL				861

BLDG	FLOOR	VEHICULAR PARKING PROVIDED		
		USE	RATIO (MIN.)	UNITS / GFA (m ²)
A+B	BLOCK A - U/G 1	RESIDENTIAL	13	205
	BLOCK A - U/G 2	RESIDENTIAL	251	251
	BLOCK A - U/G 3	RESIDENTIAL	251	251
	BLOCK A - U/G 4	RESIDENTIAL	226	226
	TOTAL		741	205

Last Updated: Thursday, 26 March 2026 13:22:23 PM

BLDG	FLOOR	ACCESSIBLE PARKING PROVIDED*		
		USE	RATIO (MIN.)	UNITS / GFA (m ²)
A+B	BLOCK A - U/G 1	RESIDENTIAL	7	7
	BLOCK A - U/G 2	RESIDENTIAL	5	5
	BLOCK A - U/G 3	RESIDENTIAL	5	5
	BLOCK A - U/G 4	RESIDENTIAL	5	5
	TOTAL		15	7

Last Updated: Monday, 19 January 2026 09:44:51 AM

BLDG	FLOOR	BICYCLE PARKING - MINIMUM REQUIRED						
		USE	RATIO	SPACES	RATIO	SPACES	RATIO	SPACES
A+B	SHORT TERM	0.25/UNIT	154	1/1000m ²	2	1/500m ²	3	159
	LONG TERM	0.75/UNIT	462	-	0	-	0	462
	TOTAL		616		2		3	621
	% OF HORIZONTAL = 22.5%							

Last Updated: Wednesday, 04 March 2026 15:10:19 PM

BLDG	FLOOR	BICYCLE PARKING - PROVIDED					
		SHORT TERM	LONG TERM	SUB TOTAL	SHORT TERM	LONG TERM	SUB TOTAL
A+B	MEZZANINE	154	462	616			616
	FLOOR 01				2	2	3
	TOTAL	154	462	616	2	2	3

Last Updated: Wednesday, 04 March 2026 17:12:22 PM

BLDG	FLOOR	VEHICULAR PARKING - MINIMUM REQUIRED		
		USE	RATIO (MIN.)	UNITS / GFA (m ²)
C+D	RESIDENTIAL (<75 m ²)	1.0/UNIT	448	448
	RESIDENTIAL (>75 m ²)	1.25/UNIT	128	130
	TOTAL RESIDENTIAL			578
	VISITOR	0.2/UNIT	576	116
	RETAIL	1/40sqm	586	14
	TOTAL VISITOR			130
TOTAL				708

BLDG	FLOOR	VEHICULAR PARKING PROVIDED		
		USE	RATIO (MIN.)	UNITS / GFA (m ²)
C+D	BLOCK A - U/G 1	RESIDENTIAL	58	130
	BLOCK A - U/G 2	RESIDENTIAL	213	213
	BLOCK A - U/G 3	RESIDENTIAL	213	213
	BLOCK A - U/G 4	RESIDENTIAL	182	182
	TOTAL		666	130

Last Updated: Thursday, 26 March 2026 14:26:23 PM

BLDG	FLOOR	ACCESSIBLE PARKING PROVIDED*		
		USE	RATIO (MIN.)	UNITS / GFA (m ²)
C+D	BLOCK A - U/G 1	RESIDENTIAL	5	5
	BLOCK A - U/G 2	RESIDENTIAL	5	5
	BLOCK A - U/G 3	RESIDENTIAL	5	5
	BLOCK A - U/G 4	RESIDENTIAL	5	5
	TOTAL		15	5

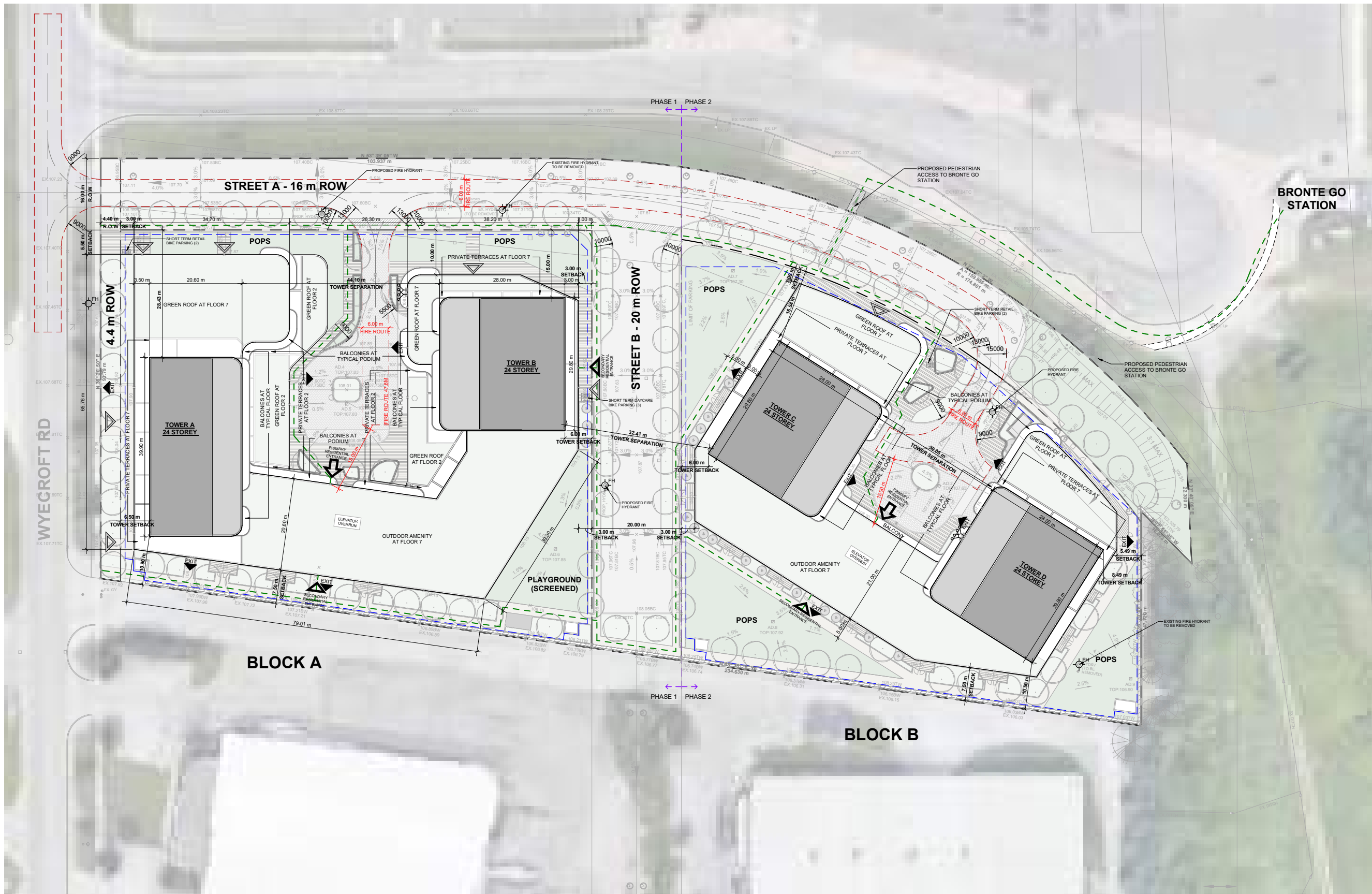
Last Updated: Monday, 19 January 2026 09:42:12 AM

BLDG	FLOOR	BICYCLE PARKING - MINIMUM REQUIRED					
		USE	RATIO	SPACES	RATIO	SPACES	RATIO
C+D	SHORT TERM	0.25/UNIT	144	1/1000m ²	1		145
	LONG TERM	0.75/UNIT	432	-	0		432
	TOTAL		576		1		577
	% OF HORIZONTAL = 22.5%						

Last Updated: Tuesday, 17 March 2026 13:49:35 PM

BLDG	FLOOR	BICYCLE PARKING - PROVIDED					
		SHORT TERM	LONG TERM	SUB TOTAL	SHORT TERM	LONG TERM	SUB TOTAL
C+D	MEZZANINE	144	432	576			576
	FLOOR 1				2	2	2
	TOTAL	144	432	576	2	2	578

This drawing, as an instrument of service, is provided by and is the property of Turner Fleischer. The contractor shall verify and accept responsibility for all dimensions and conditions on site and shall notify Turner Fleischer of any variations from the approved information. This drawing is not to be used for any other project without the written consent of Turner Fleischer. The contractor shall proceed with the work. Construction must conform to all applicable codes and requirements of authorities having jurisdiction. The contractor working from drawings not specifically marked 'For Construction' must assume full responsibility and bear costs for any corrections or damages resulting from the work.



LEGEND

	PRIMARY RESIDENTIAL ENTRANCE
	SECONDARY RESIDENTIAL ENTRANCE
	RETAIL ENTRANCE
	EXIT
	FIRE HYDRANT
	SIAMESE CONNECTION
	CONVEX MIRROR
	TRANSFORMER WITH CLEARANCES
	FIRE ROUTE SIGN
	SPOT ELEVATION
	GASHYDRO METER
	LIGHT FIXTURE
	PEDESTRIAN CIRCULATION
	WARNING SIGNAL

NO.	DATE	DESCRIPTION	BY
1	2024-05-27	ISSUED FOR REZONING #2	MLE

PROJECT
PROPOSED MIXED USE RESIDENTIAL

2172 Wycroft Road, Oakville, ON

DRAWING
SITE PLAN / ROOF PLAN

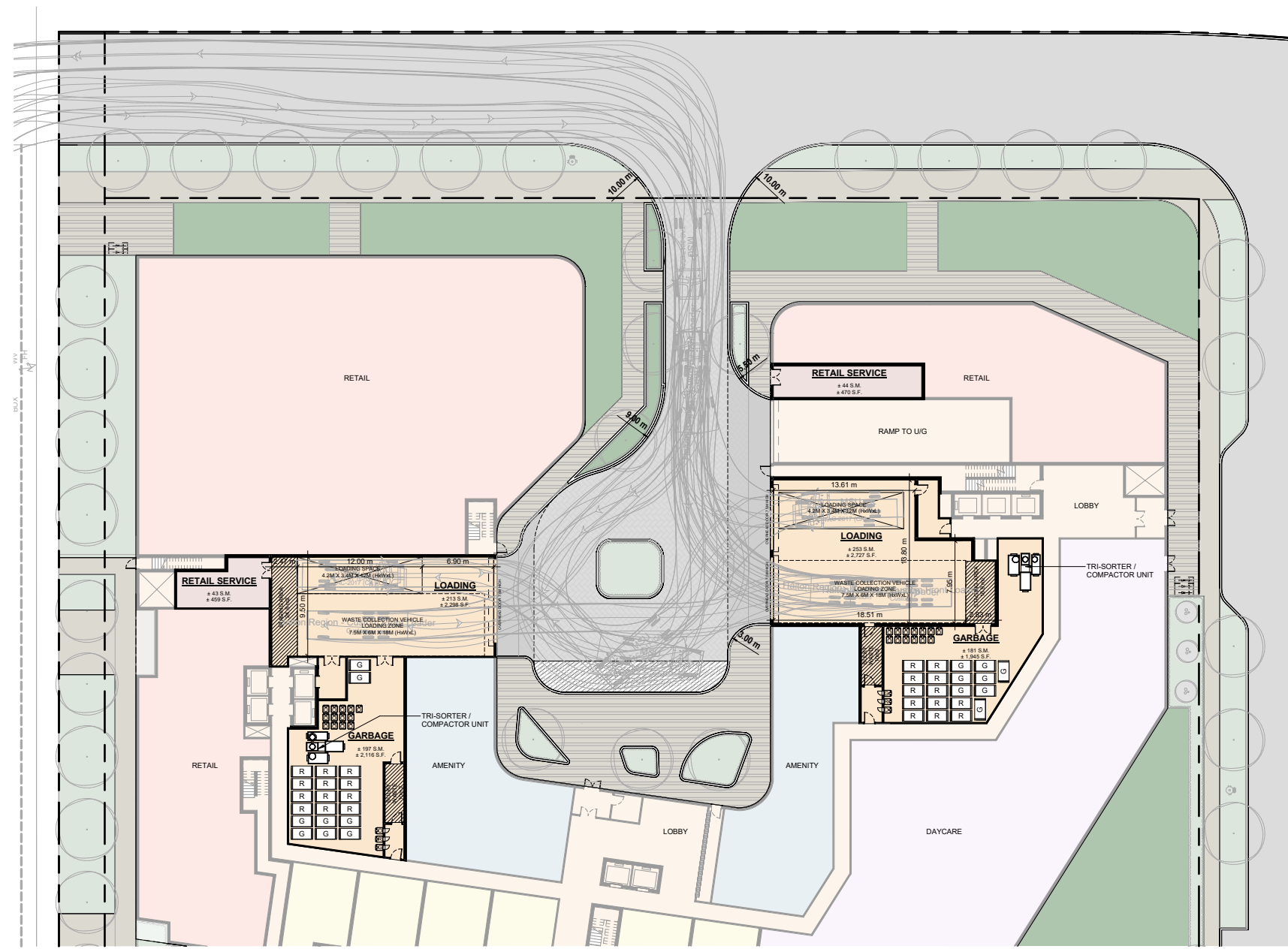
PROJECT NO.
23 230P01
PROJECT DATE
2024/06/27
DRAWN BY
MLE
CHECKED BY
NMC
SCALE
As indicated



DRAWING NO. RZ006	REV. 1
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1 BLOCK A - T.O. ROOF (A)
RZ006 1:400

This drawing, as an instrument of service, is provided by and is the property of Turner Fleischer. The contractor shall be held responsible for all dimensions and conditions on site and shall notify Turner Fleischer of any variations from the required information. This drawing is not to be used for any other purpose without the written consent of Turner Fleischer. The contractor shall be held responsible for the accuracy of survey, structural, mechanical, electrical, etc. information shown on this drawing. Refer to the appropriate consultant drawings before proceeding with the work. Contractor must conform to all applicable codes and requirements of authorities having jurisdiction. The contractor working from drawings not specifically marked "For Construction" must assume full responsibility and bear costs for any corrections or damages resulting from his work.



RESIDENTIAL SOLID WASTE MANAGEMENT NOTES

- ALL ACCESS DRIVEWAYS TO BE USED BY THE COLLECTION VEHICLE WILL BE LEVEL (+/-8%), AT LEAST 4.5 METERS WIDE THROUGHOUT THE SITE AND 6 METERS WIDE AT ENTRANCES AND EXITS, AND WILL HAVE A MINIMUM OVERHEAD TRAVELING CLEARANCE OF 4.4 METERS INCLUDING WHEN TRAVELING THROUGH OVER-HEAD DOORS.
- TYPE G LOADING SPACE WILL BE AT LEAST 4 METRES WIDE, 13 METRES LONG, WITH AN UNOBSTRUCTED VERTICAL CLEARANCE OF 6.1 METRES, IS LEVEL (+/- 2 %), AND IS CONSTRUCTED OF AT LEAST 200MM OF REINFORCED CONCRETE.
- A TRAINED ON - SITE STAFF MEMBER WILL BE AVAILABLE TO MANUEVER BINS FOR THE COLLECTION DRIVER AND ALSO ACT AS A FLAG MAN WHEN THE TRUCK IS REVERSING. IN THE EVENT THAT THE ON - SITE STAFF IS UNAVAILABLE AT THE TIME THE CITY COLLECTION VEHICLES ARRIVE AT THE SITE, THE COLLECTION VEHICLE WILL LEAVE THE SITE AND NOT RETURN UNTIL THE NEXT SCHEDULED COLLECTION DAY.
- SHARING OF TYPE G LOADING SPACE - RESIDENTIAL USE OF LOADING SPACE FOR PURPOSES OF MOVING WILL BE SCHEDULED ACCORDING TO GARBAGE PICK UP TIMES. SHOULD THE TYPE G SPACE BE NEEDED FOR USE BY COMMERCIAL SECTORS, THE COMMERCIAL COMPONENT MUST ARRANGE THIS USE SUCH THAT IT DOES NOT CONFLICT WITH ANY RESIDENTIAL USES.
- IF THE LOADING AREA / EGRESS ROUTES ARE OVER SUPPORTED STRUCTURES, IE OVER AN UNDERGROUND GARAGE OR A MECHANICAL SHAFT, THE FACILITY MUST CONFORM TO THE FOLLOWING:
 - DESIGN CODE - ONTARIO BUILDING CODE.
 - DESIGN LOAD - CITY BULK LIFT VEHICLE IN ADDITION BUILDING CODE REQUIREMENTS.
 - IMPACT FACTOR - 5 % FOR MAXIMUM VEHICULAR SPEEDS TO 15 KM / H AND 30 % FOR HIGHER SPEEDS.
 - CITY COLLECTION VEHICLE IS REQUIRED TO DRIVE ONTO OR OVER A SUPPORTED STRUCTURE(SUCH AS AN UNDERGROUND PARKING GARAGE) THE UNDERGROUND PARKING GARAGE ROOF SLAB IS TO BE DESIGNED TAKING INTO ACCOUNT THE COLLECTION VEHICLE WEIGHT THE CITY MUST PROVIDE. PRIOR TO COMMENCEMENT OF CITY SOLID WASTE PICK UP, A LETTER CERTIFIED BY A QUALIFIED ENGINEER THAT THE STRUCTURE CAN SAFELY SUPPORT A FULLY LOADED COLLECTION VEHICLE WEIGHING 35,000 KILOGRAMS.
- PRIVATE CONTRACTOR MUST COLLECT ALL SOLID WASTE FROM THE RETAIL COMPONENT.
- WASTE BINS TO BE JOCKEYED ON COLLECTION DAY, IF REQUIRED. STAFF JOCKEYING THE BINS DURING SOLID WASTE PICK UP AND THE REQUIRED STAGING AREA IS TO BE LOCATED IN CLOSE PROXIMITY TO THE LOADING AREA TO AVOID ANY DELAYS DURING PICK UP.
- NON - RESIDENTIAL COMPONENT WILL ONLY SCHEDULE USE OF THE TYPE G LOADING SPACE ON OPPOSITE DAYS FROM THE COLLECTION DAYS OF THE RESIDENTIAL COMPONENT TO ENSURE THAT THE TYPE G LOADING SPACE WILL BE VACANT FOR CITY WASTE COLLECTION. IF LOADING SPACE IS TO BE SHARED, THE COMMERCIAL BINS MUST BE LABELLED "RETAIL WASTE ONLY"

RESIDENTIAL WASTE MANAGEMENT CALCULATIONS
AS PER HALTON REGION DEVELOPMENT DESIGN GUIDELINES FOR SOURCE SEPARATION OF SOLID WASTE AND OAKVILLE REZONING CITY COMMENTS

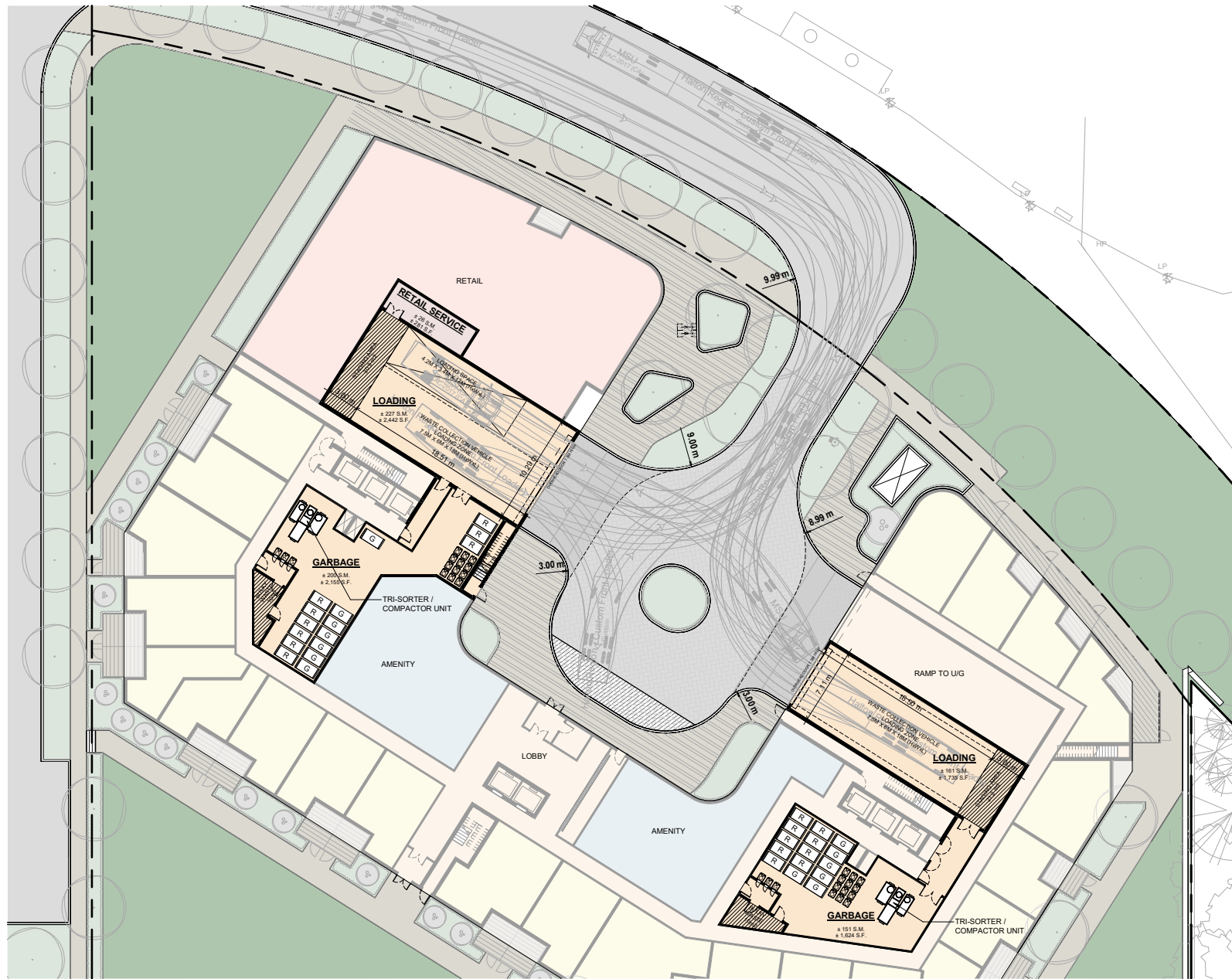
TOWER A - 314 RESIDENTIAL UNITS		
PROJECT STATS:	NUMBER OF BINS REQUIRED:	LOADING SPACE(S) REQUIRED:
<ul style="list-style-type: none"> NUMBER OF UNITS = 314 OVERSIZED ITEMS, AND ITEMS ELEGIBLE FOR SPECIAL COLLECTION SERVICES: 10m² 	<ul style="list-style-type: none"> GARBAGE WASTE BINS (200+ UNITS) <ul style="list-style-type: none"> 3 BINS (COMPACTED) CITY REQUIRED TO INCREASE TO 8 BINS RECYCLING BINS (1 SEMI-AUTOMATED CART FOR EVERY 7 UNITS) <ul style="list-style-type: none"> CITY REQUIRED FRONT END RECYCLING - 12 BINS ORGANIC BINS (1 SEMI-AUTOMATED CART FOR EVERY 25 UNITS) <ul style="list-style-type: none"> 314/25 = 12.56 (ROUND UP) =13 BINS 	<ul style="list-style-type: none"> NO MINIMUM NUMBER OF LOADING SPACES REQUIRED BY ZONING BY-LAW 2014-014. LOADING SPACE STANDARDS: <ul style="list-style-type: none"> MIN. LENGTH OF 12.0M; MIN. WIDTH OF 3.5M; MIN. VERTICAL CLEARANCE OF 4.2M. LOADING SPACE(S) PROVIDED: <ul style="list-style-type: none"> RESIDENTIAL/RETAIL: 1 TOTAL LOADING SPACES: 1
WASTE STORAGE AREA PROVIDED:	TOTAL NUMBER OF BINS REQUIRED:	
<ul style="list-style-type: none"> RESIDENTIAL: 196.59m² 	<ul style="list-style-type: none"> GARBAGE WASTE BINS (G): 8 RECYCLING BINS (R): 12 ORGANIC BINS (O): 13 TOTAL: 33 	
	NUMBER OF BINS PROVIDED:	
	<ul style="list-style-type: none"> GARBAGE WASTE BINS (G): 8 RECYCLING BINS (R): 12 ORGANIC BINS (O): 13 TOTAL: 33 	
STAGING AREA PROVIDED:		
<ul style="list-style-type: none"> 24.8 m² 		

RESIDENTIAL WASTE MANAGEMENT CALCULATIONS
AS PER HALTON REGION DEVELOPMENT DESIGN GUIDELINES FOR SOURCE SEPARATION OF SOLID WASTE AND OAKVILLE REZONING CITY COMMENTS

TOWER B - 301 RESIDENTIAL UNITS		
PROJECT STATS:	NUMBER OF BINS REQUIRED:	LOADING SPACE(S) REQUIRED:
<ul style="list-style-type: none"> NUMBER OF UNITS = 301 OVERSIZED ITEMS, AND ITEMS ELEGIBLE FOR SPECIAL COLLECTION SERVICES: 10m² 	<ul style="list-style-type: none"> GARBAGE WASTE BINS (200+ UNITS) <ul style="list-style-type: none"> 3 BINS (COMPACTED) CITY REQUIRED TO INCREASE TO 8 BINS RECYCLING BINS (1 SEMI-AUTOMATED CART FOR EVERY 7 UNITS) <ul style="list-style-type: none"> CITY REQUIRED FRONT END RECYCLING - 12 BINS ORGANIC BINS (1 SEMI-AUTOMATED CART FOR EVERY 25 UNITS) <ul style="list-style-type: none"> 301/25 = 12.04 (ROUND UP) =13 BINS 	<ul style="list-style-type: none"> NO MINIMUM NUMBER OF LOADING SPACES REQUIRED BY ZONING BY-LAW 2014-014. LOADING SPACE STANDARDS: <ul style="list-style-type: none"> MIN. LENGTH OF 12.0M; MIN. WIDTH OF 3.5M; MIN. VERTICAL CLEARANCE OF 4.2M. LOADING SPACE(S) PROVIDED: <ul style="list-style-type: none"> RESIDENTIAL/RETAIL: 1 TOTAL LOADING SPACES: 1
WASTE STORAGE AREA PROVIDED:	TOTAL NUMBER OF BINS REQUIRED:	
<ul style="list-style-type: none"> RESIDENTIAL: 180.65m² 	<ul style="list-style-type: none"> GARBAGE WASTE BINS (G): 8 RECYCLING BINS (R): 12 ORGANIC BINS (O): 13 TOTAL: 33 	
	NUMBER OF BINS PROVIDED:	
	<ul style="list-style-type: none"> GARBAGE WASTE BINS (G): 8 RECYCLING BINS (R): 12 ORGANIC BINS (O): 13 TOTAL: 33 	
STAGING AREA PROVIDED:		
<ul style="list-style-type: none"> 16.9 m² 		

1	2020-05-27	ISSUED FOR REZONING #2	MLE
2	DATE	DESCRIPTION	BY
PROJECT: PROPOSED MIXED USE RESIDENTIAL			
2172 Wycroft Road, Oakville, ON			
DRAWING: RESIDENTIAL SOLID WASTE MANAGEMENT BUILDINGS A AND B			
PROJECT NO:	23.230P01		
PROJECT DATE:	2024/06/27		
DRAWN BY:	MLE		
CHECKED BY:	NMC		
SCALE:	1:250		
DRAWING NO: RZ007		REV: 1	

This issuance of this record drawing is a representation by Turner Fleischer that the construction, arrangement or alteration of the building is in general, as opposed to precise, conformity with the design prepared and provided by Turner Fleischer, but it is not a representation that the construction, arrangement or alteration of the building is in conformity with a design that has been prepared or provided by others. The reviewer by these contract documents, reflecting the significant changes in the work made during construction, are based on data furnished by the contractor to Turner Fleischer. Turner Fleischer shall not be held responsible for the accuracy or completeness of the information provided by the contractor.



RESIDENTIAL SOLID WASTE MANAGEMENT NOTES

- ALL ACCESS DRIVEWAYS TO BE USED BY THE COLLECTION VEHICLE WILL BE LEVEL (+/-8%), AT LEAST 4.5 METERS WIDE THROUGHOUT THE SITE AND 6 METERS WIDE AT ENTRANCES AND EXITS, AND WILL HAVE A MINIMUM OVERHEAD TRAVELING CLEARANCE OF 4.4 METERS INCLUDING WHEN TRAVELING THROUGH OVERHEAD DOORS.
- TYPE G LOADING SPACE WILL BE AT LEAST 4 METRES WIDE, 13 METRES LONG, WITH AN UNOBSTRUCTED VERTICAL CLEARANCE OF 6.1 METRES, IS LEVEL (+/- 2%), AND IS CONSTRUCTED OF AT LEAST 200MM OF REINFORCED CONCRETE.
- A TRAINED ON - SITE STAFF MEMBER WILL BE AVAILABLE TO MANEUVER BINS FOR THE COLLECTION DRIVER AND ALSO ACT AS A FLAG MAN WHEN THE TRUCK IS REVERSING. IN THE EVENT THAT THE ON - SITE STAFF IS UNAVAILABLE AT THE TIME THE CITY COLLECTION VEHICLES ARRIVE AT THE SITE, THE COLLECTION VEHICLE WILL LEAVE THE SITE AND NOT RETURN UNTIL THE NEXT SCHEDULED COLLECTION DAY.
- SHARING OF TYPE G LOADING SPACE - RESIDENTIAL USE OF LOADING SPACE FOR PURPOSES OF MOVING WILL BE SCHEDULED ACCORDING TO GARBAGE PICK UP TIMES. SHOULD THE TYPE G SPACE BE NEEDED FOR USE BY COMMERCIAL SECTORS, THE COMMERCIAL COMPONENT MUST ARRANGE THIS USE SUCH THAT IT DOES NOT CONFLICT WITH ANY RESIDENTIAL USES.
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 - DESIGN LOAD - CITY BULK LIFT VEHICLE IN ADDITION BUILDING CODE REQUIREMENTS.
 - IMPACT FACTOR - 5% FOR MAXIMUM VEHICULAR SPEEDS TO 15 KM / H AND 30% FOR HIGHER SPEEDS.
 - CITY COLLECTION VEHICLE IS REQUIRED TO DRIVE ONTO OR OVER A SUPPORTED STRUCTURE(SUCH AS AN UNDERGROUND PARKING GARAGE); THE UNDERGROUND PARKING GARAGE ROOF SLAB IS TO BE DESIGNED TAKING INTO ACCOUNT THE COLLECTION VEHICLE WEIGHT. THE CITY MUST PROVIDE, PRIOR TO COMMENCEMENT OF CITY SOLID WASTE PICK UP, A LETTER CERTIFIED BY A QUALIFIED ENGINEER THAT THE STRUCTURE CAN SAFELY SUPPORT A FULLY LOADED COLLECTION VEHICLE WEIGHING 35,000 KILOGRAMS.
- PRIVATE CONTRACTOR MUST COLLECT ALL SOLID WASTE FROM THE RETAIL COMPONENT.
- WASTE BINS TO BE JOCKEYED ON COLLECTION DAY, IF REQUIRED. STAFF JOCKEYING THE BINS DURING SOLID WASTE PICK UP AND THE REQUIRED STAGING AREA IS TO BE LOCATED IN CLOSE PROXIMITY TO THE LOADING AREA TO AVOID ANY DELAYS DURING PICK UP.
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RESIDENTIAL WASTE MANAGEMENT CALCULATIONS

AS PER HALTON REGION DEVELOPMENT DESIGN GUIDELINES FOR SOURCE SEPARATION OF SOLID WASTE AND OAKVILLE REZONING CITY COMMENTS

TOWER C - 288 RESIDENTIAL UNITS

PROJECT STATS:

- NUMBER OF UNITS = 288
- OVERSIZED ITEMS, AND ITEMS ELEGIBLE FOR SPECIAL COLLECTION SERVICES: 10m²

WASTE STORAGE AREA PROVIDED:
RESIDENTIAL: 200.18m²

NUMBER OF BINS REQUIRED:

- GARBAGE WASTE BINS (200+ UNITS)
• 3 BINS (COMPACTED)
• CITY REQUIRED TO INCREASE TO 7 BINS
- RECYCLING BINS (1 SEMI-AUTOMATED CART FOR EVERY 7 UNITS)
• CITY REQUIRED FRONT END RECYCLING - 9 BINS
- ORGANIC BINS (1 SEMI-AUTOMATED CART FOR EVERY 25 UNITS)
• 288/25 = 11.52 (ROUND UP) = 12 BINS

TOTAL NUMBER OF BINS REQUIRED:
GARBAGE WASTE BINS (G): 7
RECYCLING BINS (R): 9
ORGANIC BINS (O): 12
TOTAL: 26

NUMBER OF BINS PROVIDED:

GARBAGE WASTE BINS (G): 7
RECYCLING BINS (R): 9
ORGANIC BINS (O): 12
TOTAL: 26

STAGING AREA PROVIDED:
30.9 m²

LOADING SPACE(S) REQUIRED:

NO MINIMUM NUMBER OF LOADING SPACES REQUIRED BY ZONING BY-LAW 2014-014.

LOADING SPACE STANDARDS:
MIN. LENGTH OF 12.0M;
MIN. WIDTH OF 3.5M;
MIN. VERTICAL CLEARANCE OF 4.2M.

LOADING SPACE(S) PROVIDED:
RESIDENTIAL/RETAIL: 1
TOTAL LOADING SPACES: 1

RESIDENTIAL WASTE MANAGEMENT CALCULATIONS

AS PER HALTON REGION DEVELOPMENT DESIGN GUIDELINES FOR SOURCE SEPARATION OF SOLID WASTE AND OAKVILLE REZONING CITY COMMENTS

TOWER D - 288 RESIDENTIAL UNITS

PROJECT STATS:

- NUMBER OF UNITS = 288
- OVERSIZED ITEMS, AND ITEMS ELEGIBLE FOR SPECIAL COLLECTION SERVICES: 10m²

WASTE STORAGE AREA PROVIDED:
RESIDENTIAL: 150.85m²

NUMBER OF BINS REQUIRED:

- GARBAGE WASTE BINS (200+ UNITS)
• 3 BINS (COMPACTED)
• CITY REQUIRED TO INCREASE TO 7 BINS
- RECYCLING BINS (1 SEMI-AUTOMATED CART FOR EVERY 7 UNITS)
• CITY REQUIRED FRONT END RECYCLING - 9 BINS
- ORGANIC BINS (1 SEMI-AUTOMATED CART FOR EVERY 25 UNITS)
• 288/25 = 11.52 (ROUND UP) = 12 BINS

TOTAL NUMBER OF BINS REQUIRED:
GARBAGE WASTE BINS (G): 6
RECYCLING BINS (R): 9
ORGANIC BINS (O): 12
TOTAL: 25

NUMBER OF BINS PROVIDED:

GARBAGE WASTE BINS (G): 6
RECYCLING BINS (R): 9
ORGANIC BINS (O): 12
TOTAL: 25

STAGING AREA PROVIDED:
21.2 m²

LOADING SPACE(S) REQUIRED:

NO MINIMUM NUMBER OF LOADING SPACES REQUIRED BY ZONING BY-LAW 2014-014.

LOADING SPACE STANDARDS:
MIN. LENGTH OF 12.0M;
MIN. WIDTH OF 3.5M;
MIN. VERTICAL CLEARANCE OF 4.2M.

LOADING SPACE(S) PROVIDED:
RESIDENTIAL/RETAIL: 1
TOTAL LOADING SPACES: 1

1	2020-05-27	ISSUED FOR REZONING #2	MLE
#	DATE	DESCRIPTION	BY

PROPOSED MIXED USE RESIDENTIAL

2172 Wycroft Road, Oakville, ON

RESIDENTIAL SOLID WASTE MANAGEMENT BUILDINGS C AND D

PROJECT NO:
23.230P01
PROJECT DATE:
2024/06/27
DRAWN BY:
MLE
CHECKED BY:
NMC
SCALE:
1:250



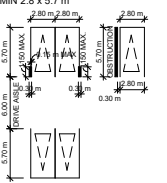
DRAWING NO:
RZ008
REV:
1

The issuance of this record drawing is a representation by Turner Fleischer that the construction, engagement or alteration of the building is in general, as opposed to precise, conformity with the design prepared and provided by Turner Fleischer, but is not a representation that the construction, engagement or alteration of the building is in conformity with a design that has been prepared or provided by others. The reader is to refer to these correct documents, reflecting the significant changes to the work made during construction, are based on data furnished by the contractor to Turner Fleischer. Turner Fleischer shall not be held responsible for the accuracy or completeness of the information provided by the contractor.

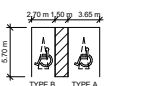
TYPICAL PARKING DIMENSIONS

aisle width: MIN 6m

TYPICAL PARKING SPACE:
MIN 2.8 x 5.7 m

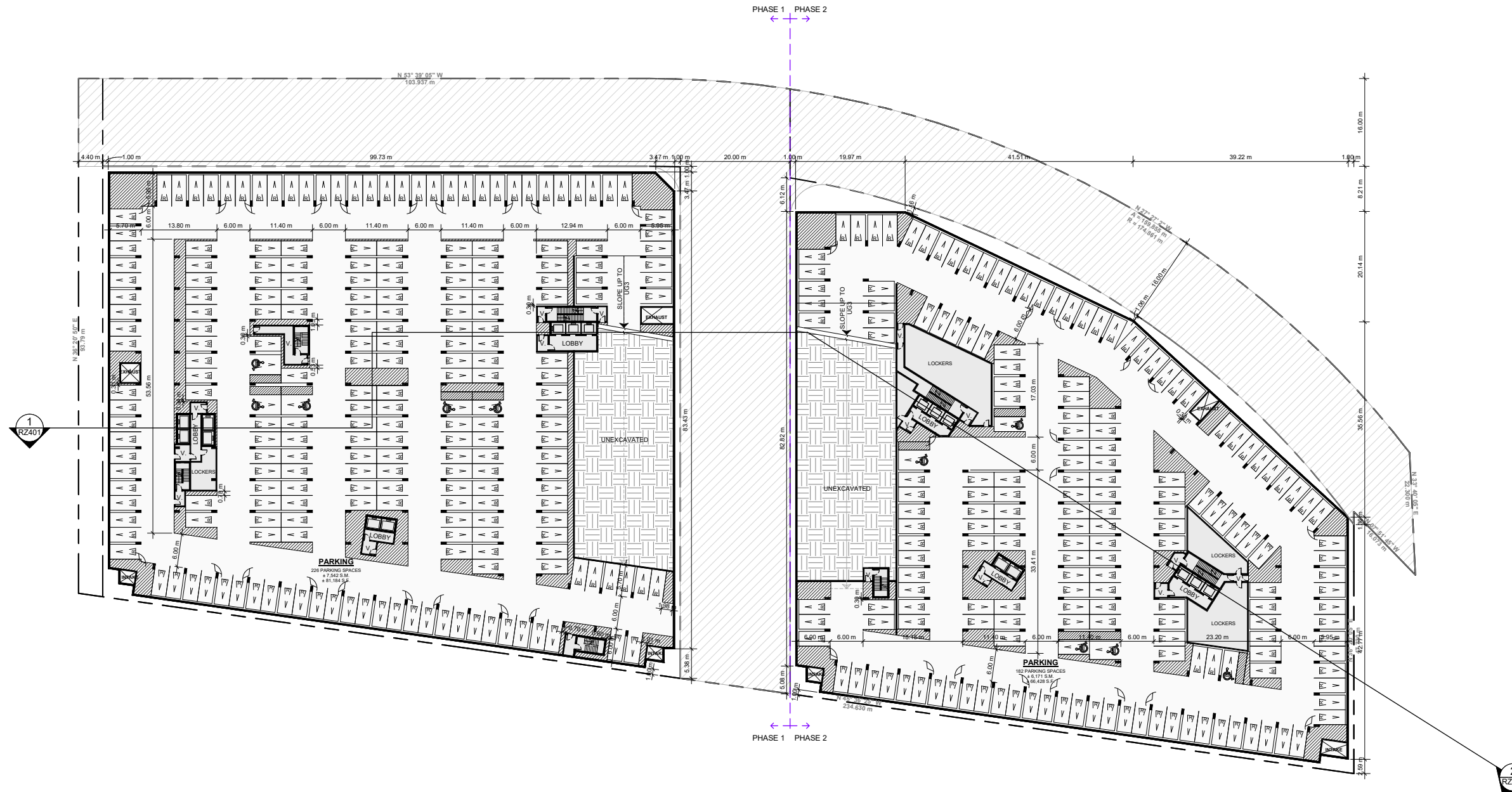


TYPICAL BARRIER FREE SPACE



VISITOR/RETAIL/DAYCARE
PARKING SPACE

CONVEX MIRROR



NO.	DATE	ISSUED FOR REZONING #2	DESCRIPTION	BY
1	2024-05-27			MLE

PROJECT
PROPOSED MIXED USE RESIDENTIAL

2172 Wycroft Road, Oakville, ON

DRAWING
UNDERGROUND LEVEL 04

PROJECT NO. 23 230P01	
PROJECT DATE 2024/06/27	
DRAWN BY MLE	
CHECKED BY NMC	
SCALE 1 : 400	

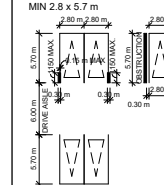
DRAWING NO. RZ100	REV. 1
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This drawing, as an instrument of service, is provided by and is the property of Turner Fleischer. The contractor shall verify and accept responsibility for all dimensions and conditions on site and that every feature of the drawing is in accordance with the approved information. This drawing is not to be used for any other purpose without the written consent of Turner Fleischer. The architect is not responsible for the accuracy of survey, structural, mechanical, electrical, etc. information shown on this drawing. Refer to the appropriate consultant drawings before proceeding with the work. Contractor must conform to all applicable codes and requirements of authorities having jurisdiction. The contractor working from drawings not specifically marked "For Construction" must assume full responsibility and bear costs for any corrections or damages resulting from the work.

TYPICAL PARKING DIMENSIONS

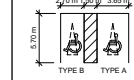
AISLE WIDTH: MIN 6m

TYPICAL PARKING SPACE:
MIN 2.8 x 5.7 m



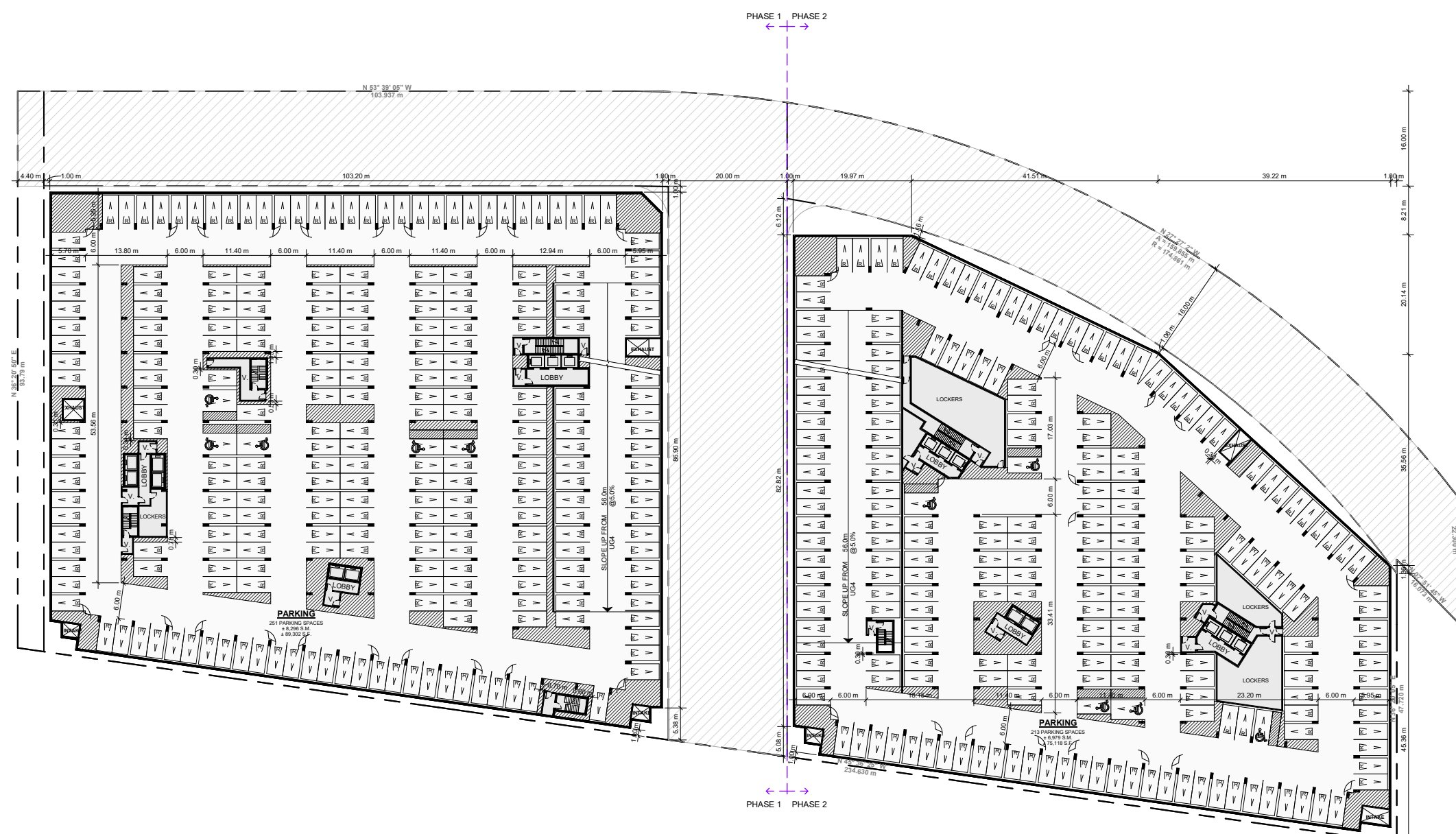
TYPICAL BARRIER FREE SPACE

2.70 m x 3.65 m



VISITOR/RETAIL/DAYCARE
PARKING SPACE

CONVEX MIRROR



NO.	DATE	ISSUED FOR REVISION #2	DESCRIPTION	BY
1	2024-05-27			

PROJECT
PROPOSED MIXED USE RESIDENTIAL

2172 Wycroft Road, Oakville, ON

DRAWING
UNDERGROUND LEVEL 03

PROJECT NO:
23 230P01
PROJECT DATE:
2024/06/27
DRAWN BY:
MLE
CHECKED BY:
NMC
SCALE:
1:400



DRAWING NO.	REV.
RZ101	1

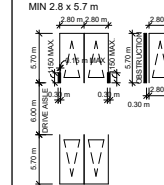
1 BLOCK A - UG 3
RZ101 1:400

This drawing, as an instrument of service, is provided by and is the property of Turner Fleischer. The contractor shall verify and accept responsibility for all dimensions and conditions on site and that every feature is in accordance with the approved plans. This drawing is not to be used for any other purpose without the written consent of Turner Fleischer. The architect is not responsible for the accuracy of survey, structural, mechanical, electrical, etc. information shown on this drawing. Refer to the appropriate consultant drawings before proceeding with the work. Construction must conform to all applicable codes and requirements of authorities having jurisdiction. The contractor working from drawings not specifically marked "For Construction" must assume full responsibility and bear costs for any corrections or damages resulting from the work.

TYPICAL PARKING DIMENSIONS

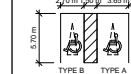
aisle width: MIN 6m

TYPICAL PARKING SPACE:
MIN 2.8 x 5.7 m



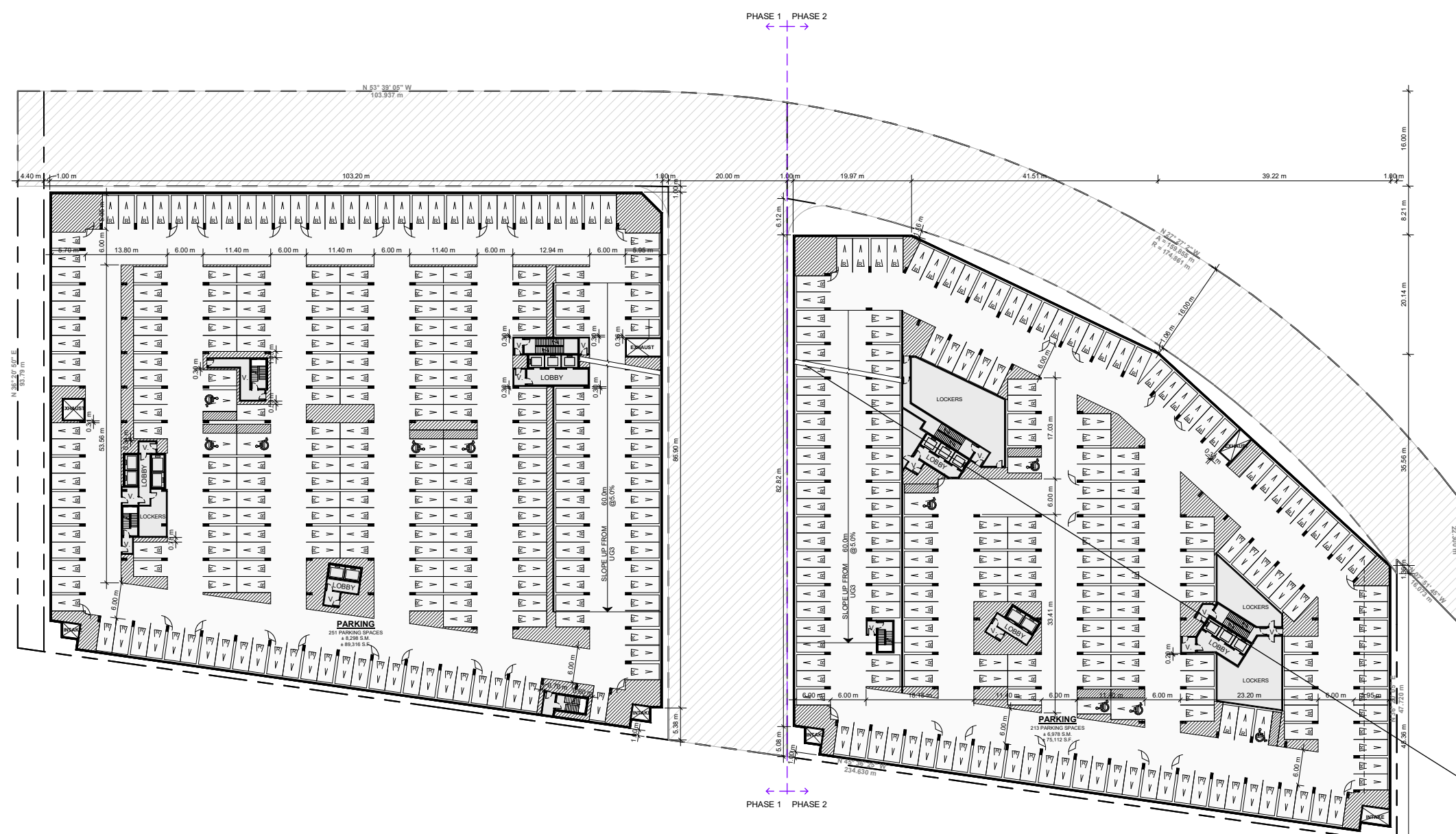
TYPICAL BARRIER FREE SPACE

2.70m x 3.65m



VISITOR/RETAIL/DAYCARE
PARKING SPACE

CONVEX MIRROR



NO.	DATE	ISSUED FOR REVISION #2	DESCRIPTION	BY
1	2024-05-27			

PROJECT
PROPOSED MIXED USE RESIDENTIAL

2172 Wycroft Road, Oakville, ON

DRAWING
UNDERGROUND LEVEL 02

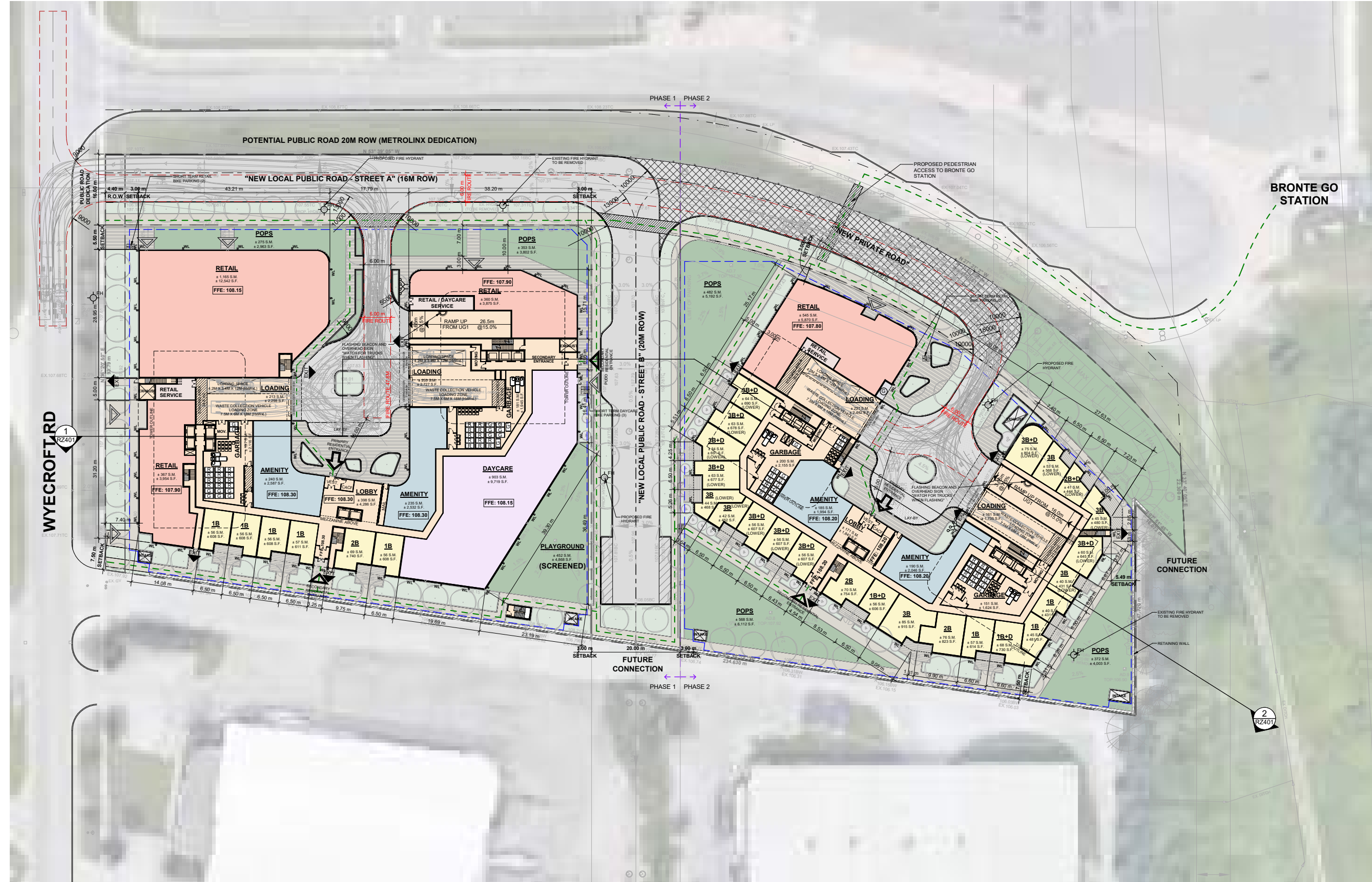
PROJECT NO:
23 230P01
PROJECT DATE:
2024/06/27
DRAWN BY:
MLE
CHECKED BY:
NMC
SCALE:
1 : 400



DRAWING NO.	REV.
RZ102	1

1 BLOCK A - U/G 2
RZ102 1 : 400

This drawing, as an instrument of service, is prepared by and is the property of Turner Fleischer. The contractor must verify and accept responsibility for all dimensions and conditions on site and that they conform to the approved drawings. The architect is not responsible for the accuracy of survey, structural, mechanical, electrical, etc., information shown on this drawing. Under the appropriate consultants drawings before proceeding with the work. Contractor must conform to all applicable codes and requirements of authorities having jurisdiction. The contractor working from drawings not specifically marked "For Construction" must assume full responsibility and bear costs for any corrections or damages resulting from its work.



LEGEND	
	PRIMARY RESIDENTIAL ENTRANCE
	SECONDARY RESIDENTIAL ENTRANCE
	RETAIL ENTRANCE
	EXIT
	FIRE HYDRANT
	SIAMESE CONNECTION
	CONVEX MIRROR
	TRANSFORMER WITH CLEARANCES
	FIRE ROUTE SIGN
	SPOT ELEVATION
	GASHYDRO METER
	LIGHT FIXTURE
	PEDESTRIAN CIRCULATION
	WARNING SIGNAL

NO.	DATE	DESCRIPTION	BY
1	2024-05-27	ISSUED FOR REZONING #2	MLE

PROJECT
PROPOSED MIXED USE RESIDENTIAL

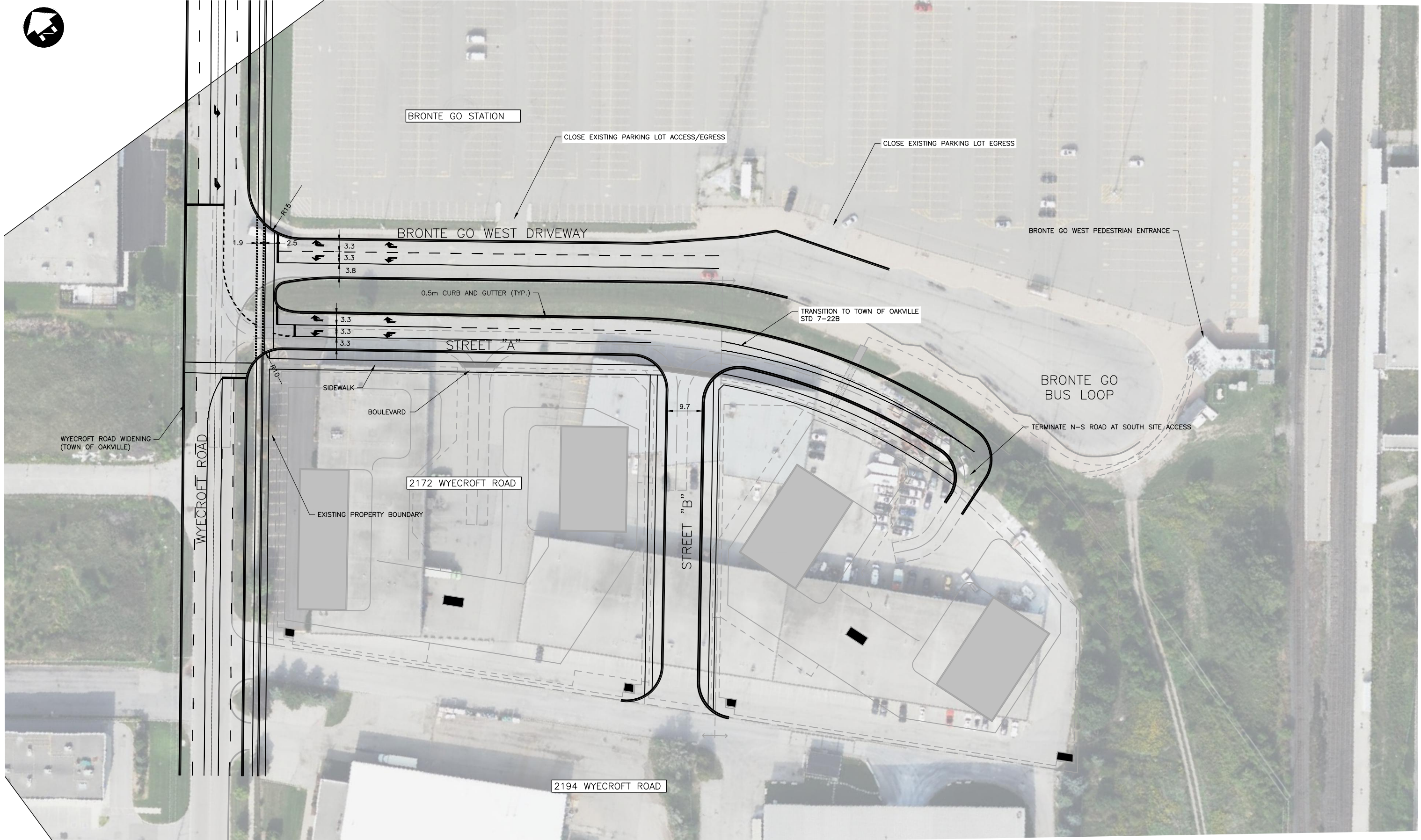
2172 Wycroft Road, Oakville, ON

DRAWING
FLOOR 01

PROJECT NO. 23 230P01	
PROJECT DATE 2024/06/27	
DRAWN BY MLE	
CHECKED BY NMC	
SCALE 1:400	

DRAWING NO. RZ151	REV. 1
-----------------------------	------------------

Attachment 2:
Conceptual Street "A" Design Alternatives



FILENAME: C:\PW\WORKING DIRECTORY\PROJECTS\2023\DILLON_20W\15252558\STREET A ALTERNATIVES.DWG PLOTTED BY: WONG, WABLE
 PLOT DATE: 2026-03-30 9:54:05 AM PLOT SCALE: 1:25.4 PLOT STYLE: DILLON-STANDARD.CTB
 KITCHENER, ON

Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.



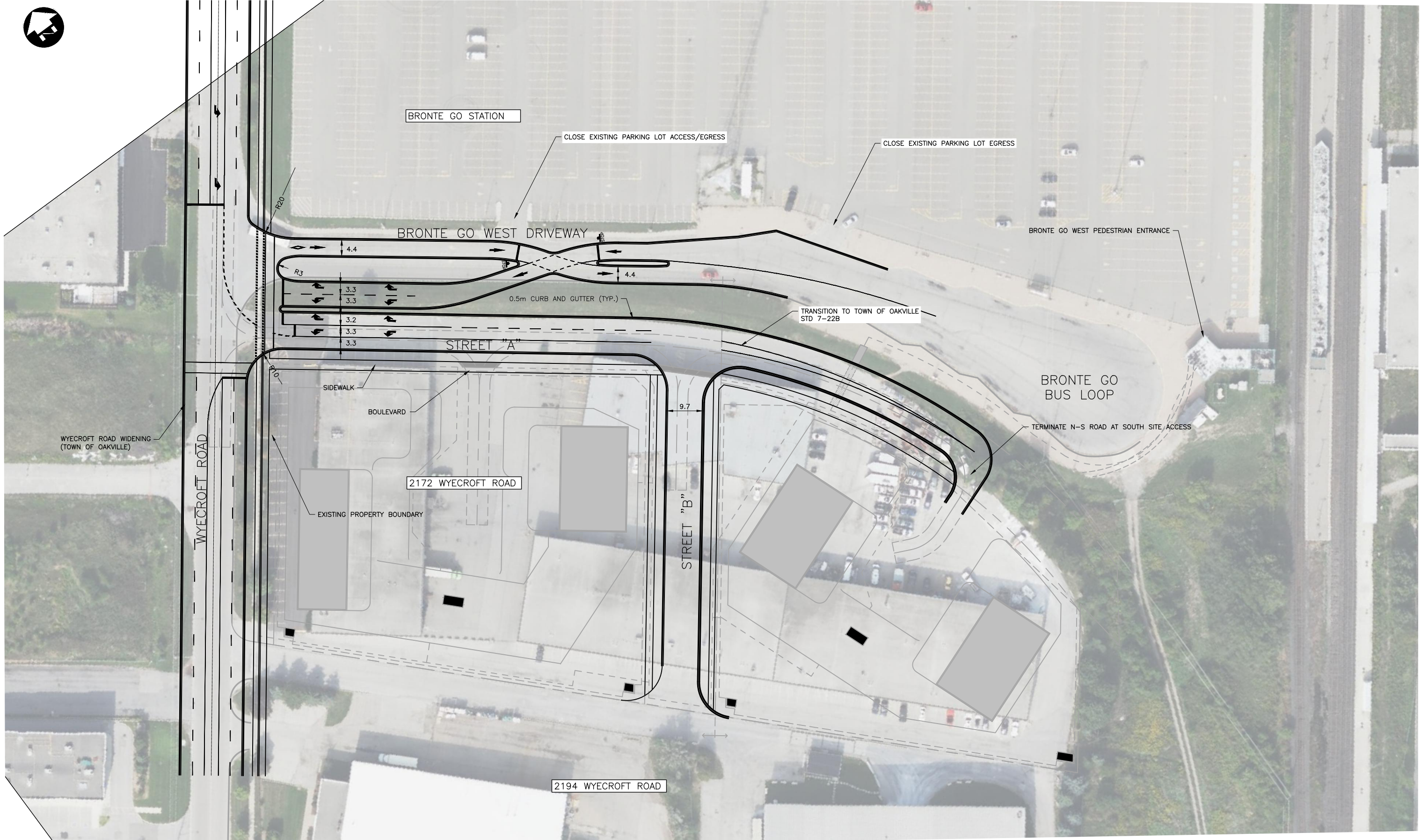
No.	ISSUED FOR	DATE	BY
02	ISSUED FOR SUBMISSION	2026-03-30	MW
01	ISSUED FOR REVIEW	2026-03-17	MW

**2172 WYECROFT ROAD
PROPOSED LOCAL ROAD NETWORK**

**CONCEPTUAL STREET "A" INTERSECTION DESIGN
ALT. 1: MAINTAIN EXISTING GO DRIVEWAY**

PROJECT NO. 23-6586

SHEET NO. **01**



FILENAME: C:\PW\WORKING DIRECTORY\PROJECTS\2023\DILLON_20W\INDSR2558\STREET A ALTERNATIVES.DWG PLOTTED BY: WONG, MABLE
 PLOT DATE: 2026-03-30 9:54:06 AM PLOT SCALE: 1:25.4 PLOT STYLE: DILLON-STANDARD.CTB

Conditions of Use

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Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.



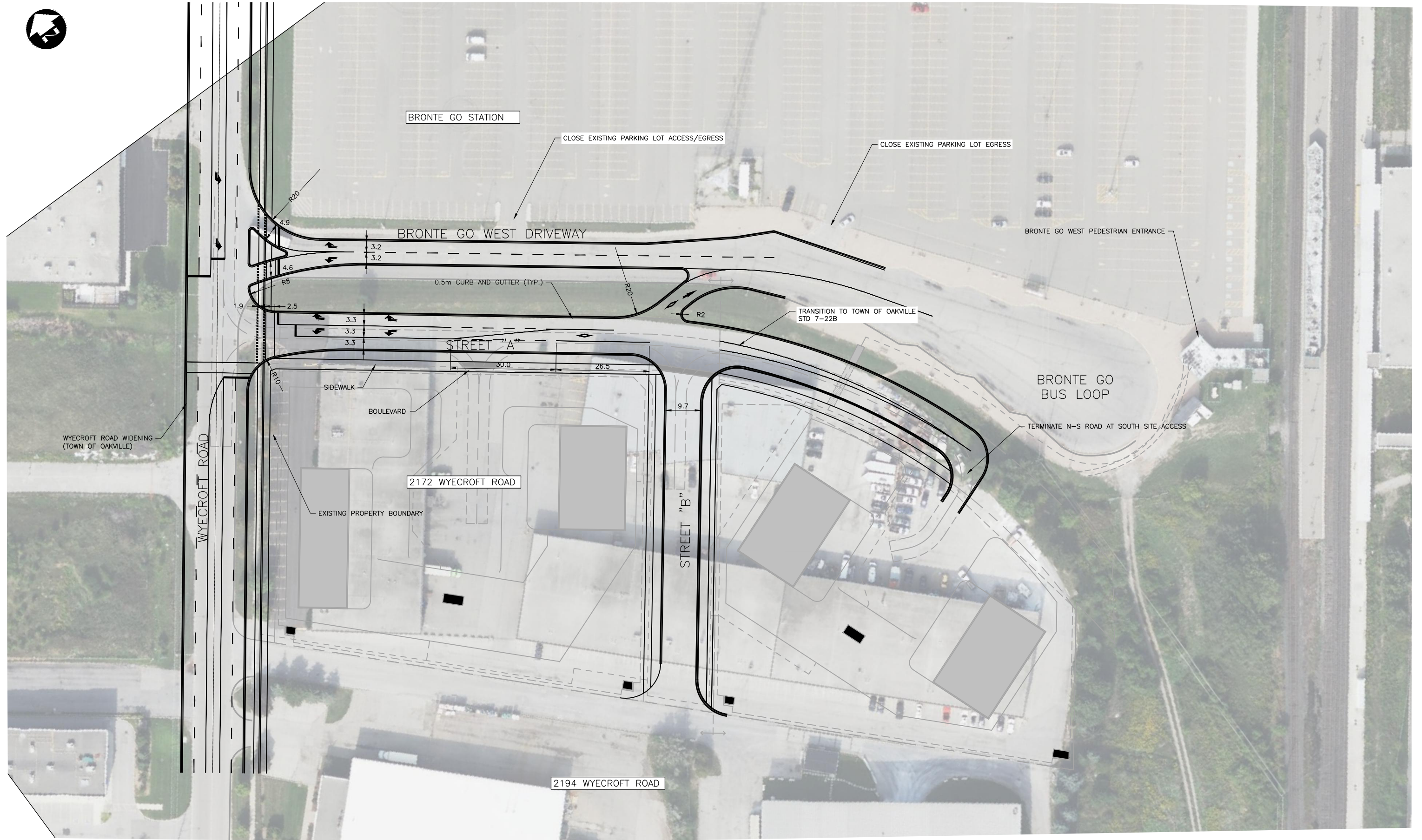
DESIGN	BJH	REVIEWED BY	BJH
DRAWN	MW	CHECKED BY	MDW
DATE	2026-03-17		
SCALE	1:500 (22x34) 1:1000 (11x17)		
No.	ISSUED FOR	DATE	BY
02	ISSUED FOR SUBMISSION	2026-03-30	MW
01	ISSUED FOR REVIEW	2026-03-17	MW

**2172 WYECROFT ROAD
 PROPOSED LOCAL ROAD NETWORK**

**CONCEPTUAL STREET "A" INTERSECTION DESIGN
 ALT. 2: CONTRAFLOW GO DRIVEWAY**

PROJECT NO. 23-6586

SHEET NO. **02**



FILENAME: C:\PW\WORKING DIRECTORY\PROJECTS\2023\DILLON_20M\WINDSOR\STREET A ALTERNATIVES.DWG PLOTTED BY: WONG, MABLE
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Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

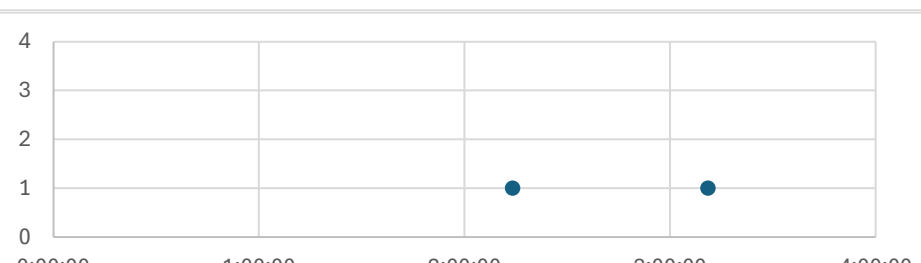
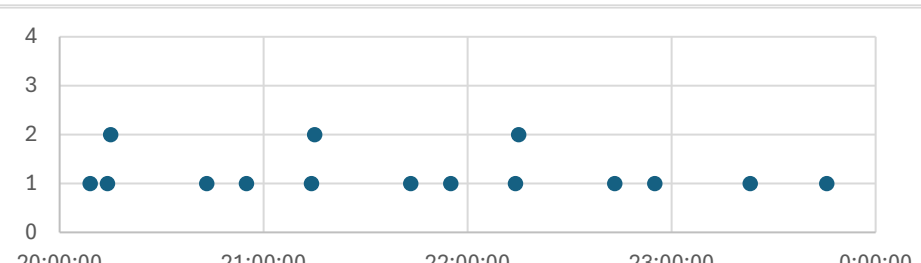
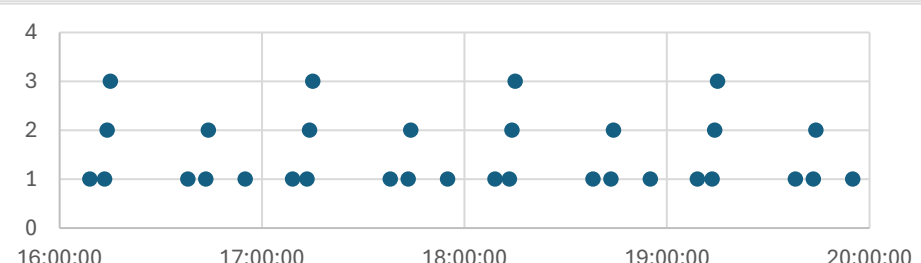
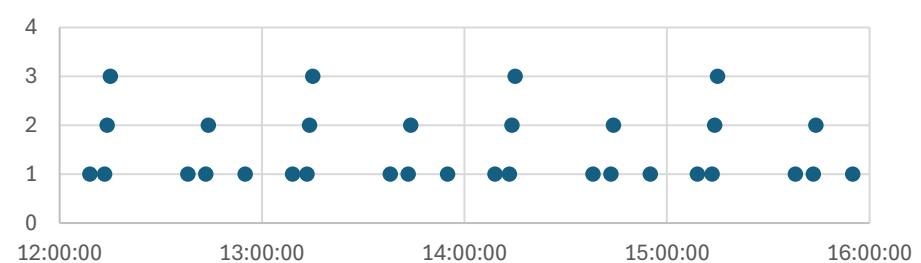
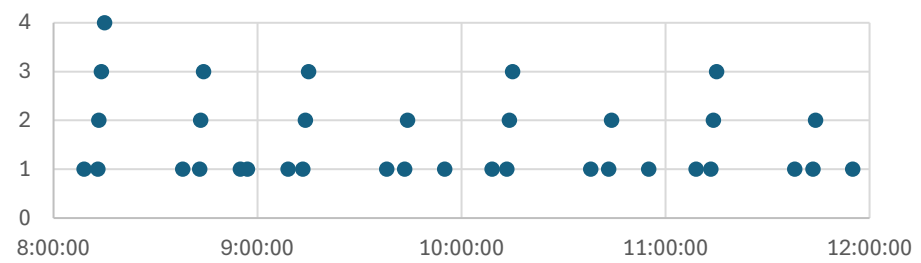
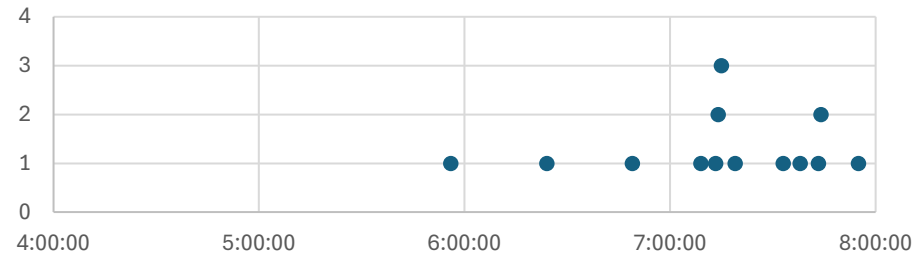


No.	ISSUED FOR	DATE	BY
02	ISSUED FOR SUBMISSION	2026-03-30	MW
01	ISSUED FOR REVIEW	2026-03-17	MW

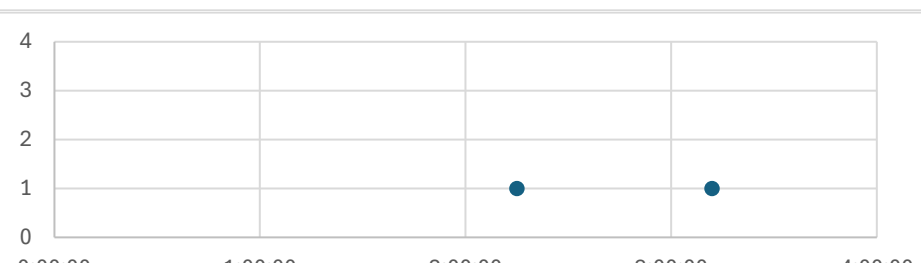
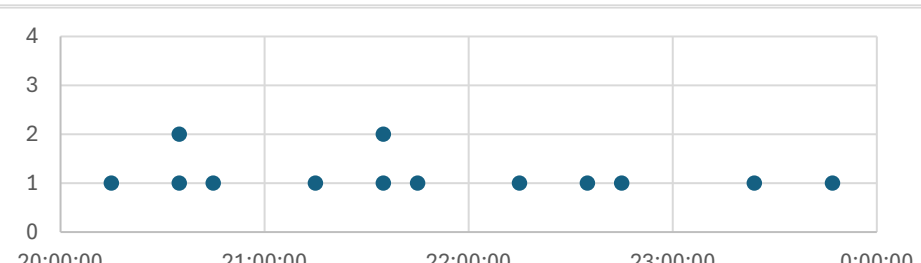
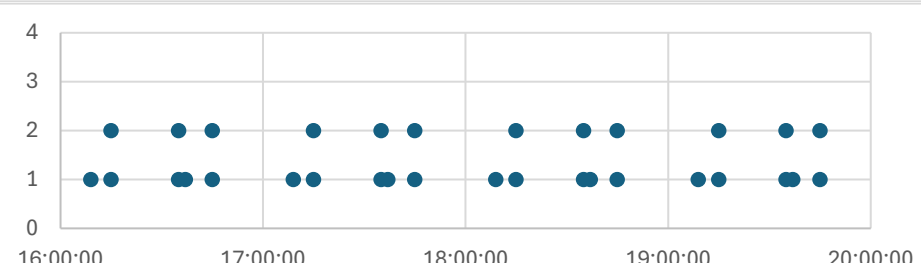
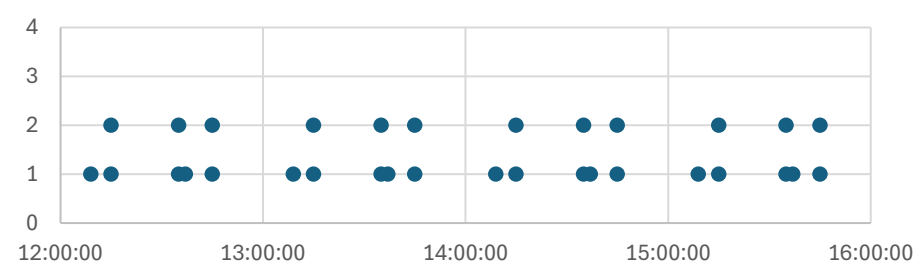
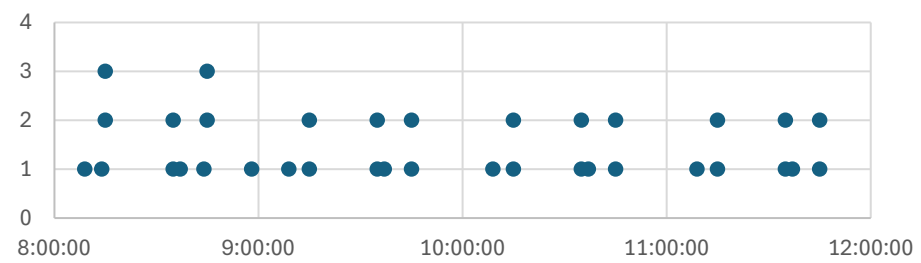
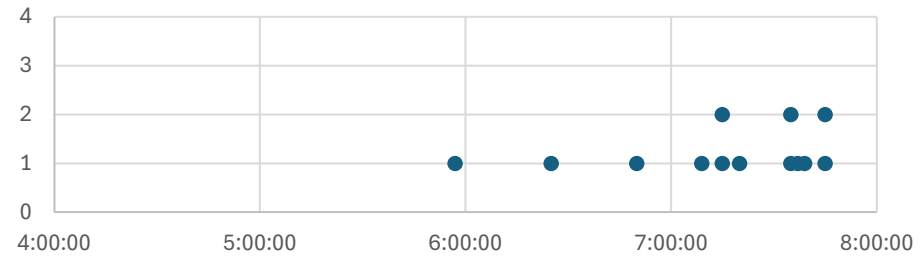
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2172 WYECROFT ROAD PROPOSED LOCAL ROAD NETWORK		CONCEPTUAL STREET "A" INTERSECTION DESIGN ALT. 3: INBOUND BUSES VIA STREET "A"	

Attachment 3:
Scheduled Bus Arrival and Departure Times

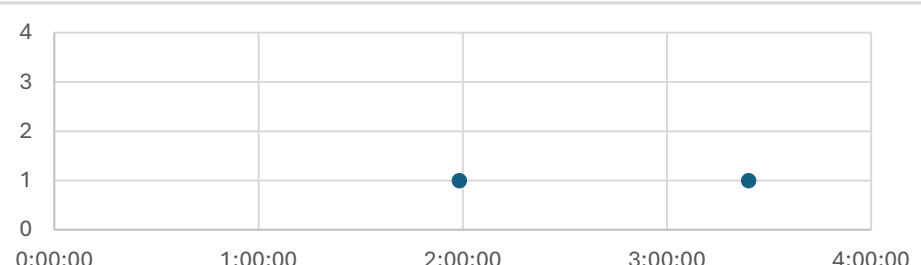
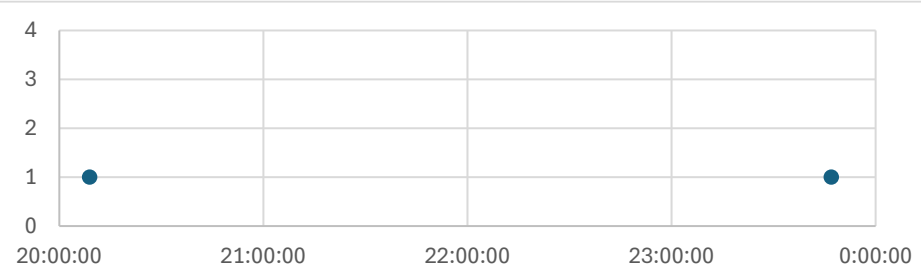
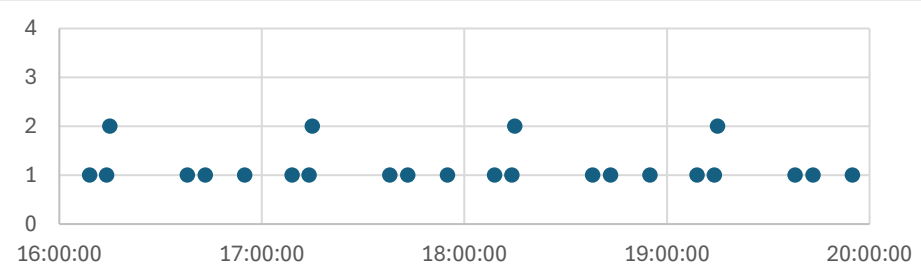
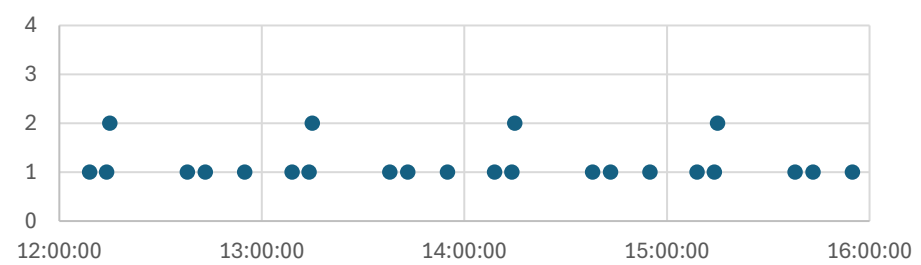
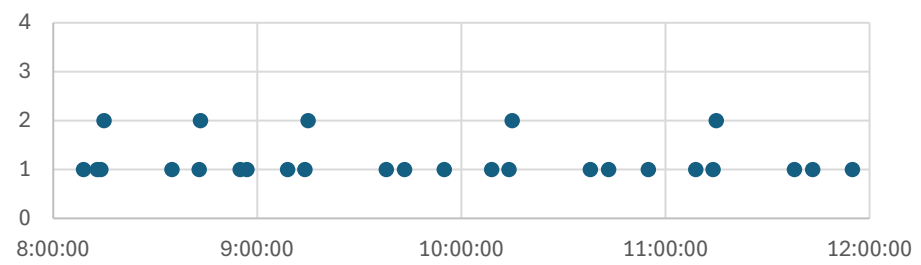
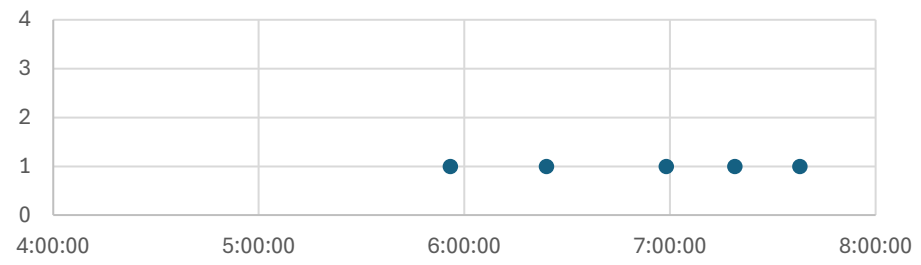
Saturday arrivals



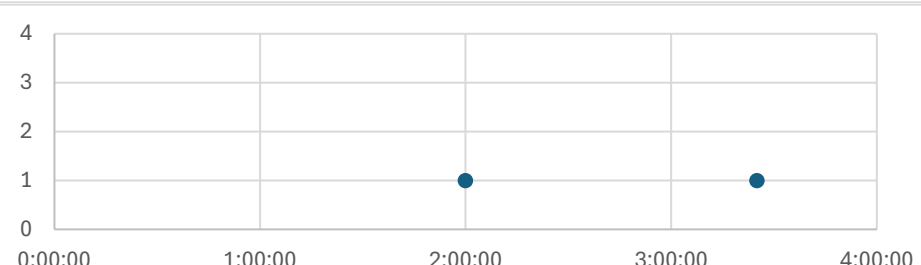
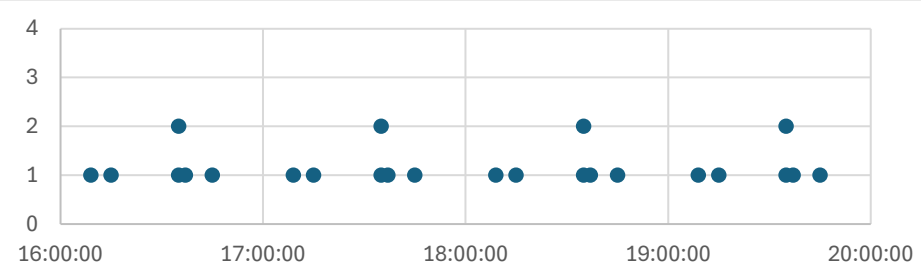
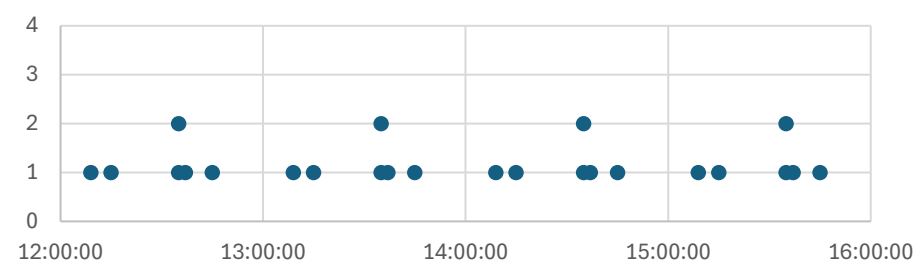
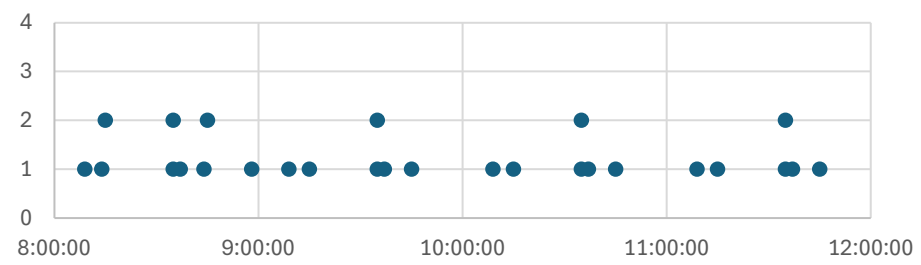
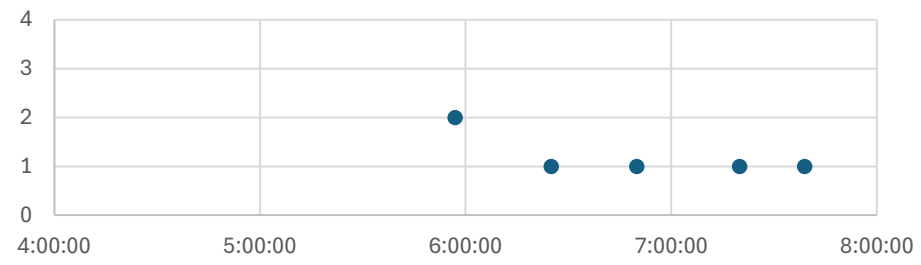
Saturday departures



Sunday arrivals









Sunday departures



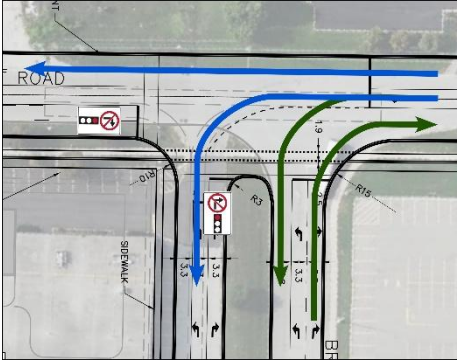
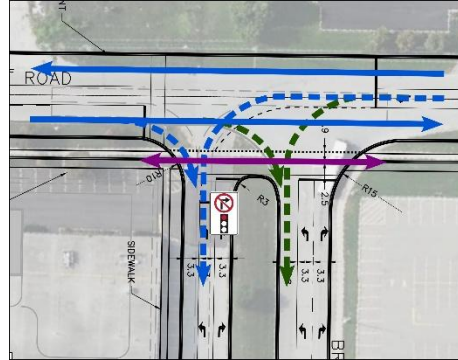
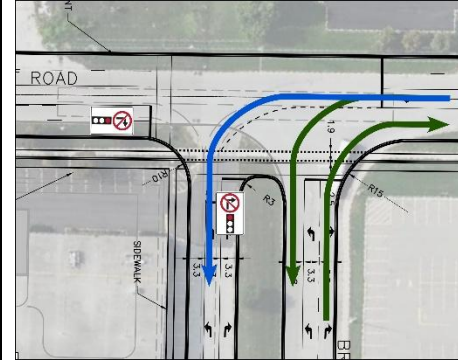
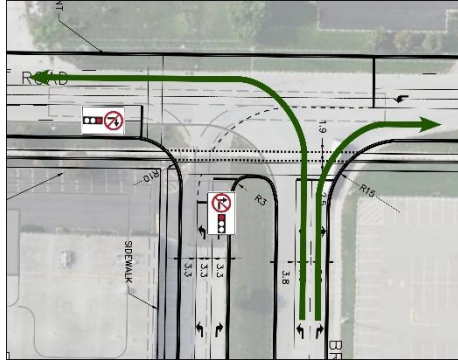
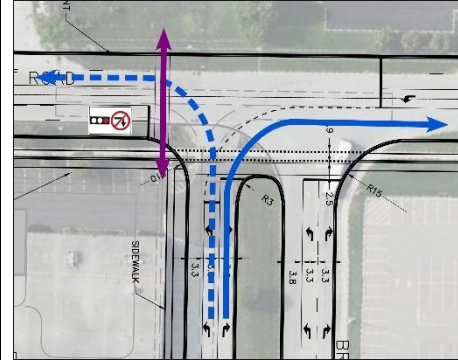
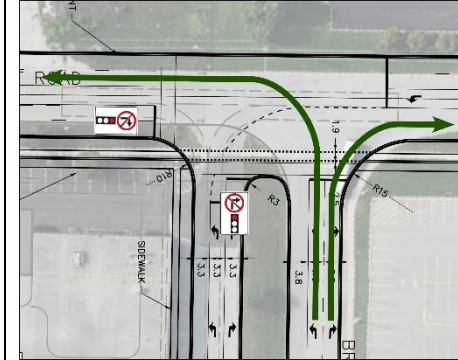
Attachment 4:
Conceptual Traffic Signal Phasing Diagrams

Conceptual traffic signal phasing diagrams

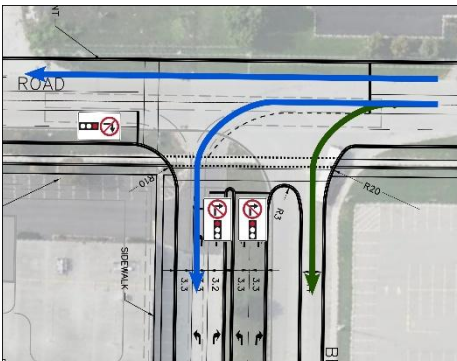
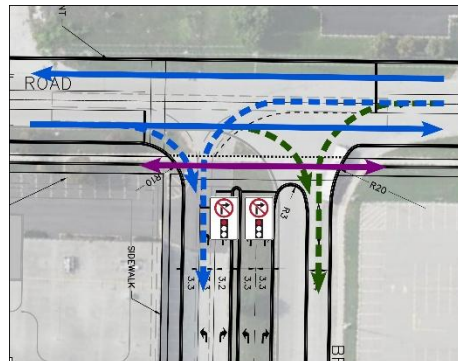
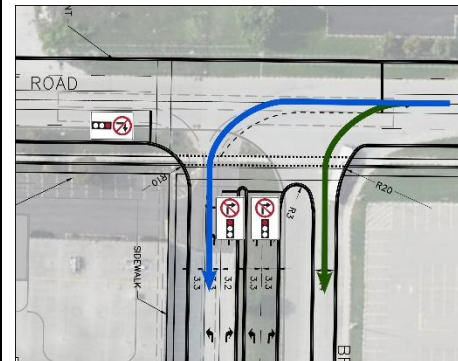
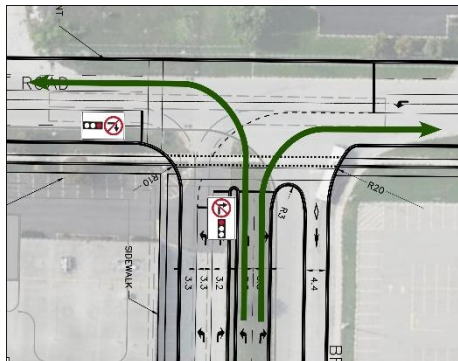
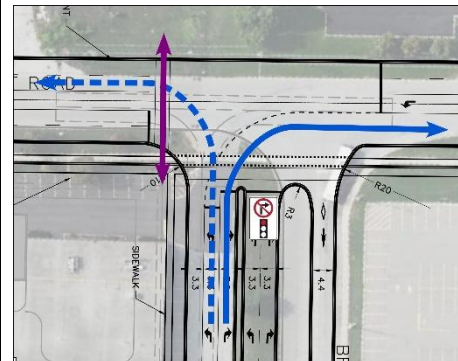

Legend:

- Line colour:**
-  General traffic movement (including buses where applicable)
 -  Bus-only movement
 -  Pedestrian crossing
- Line type:**
-  Protected movement
 -  Permissive movement
-  No right turn on red

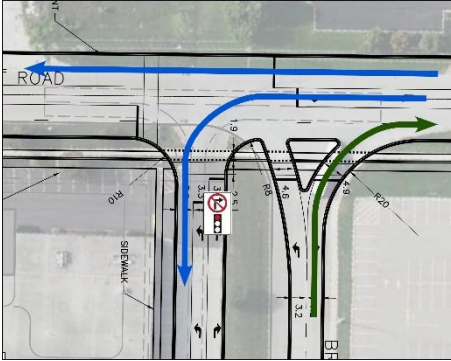
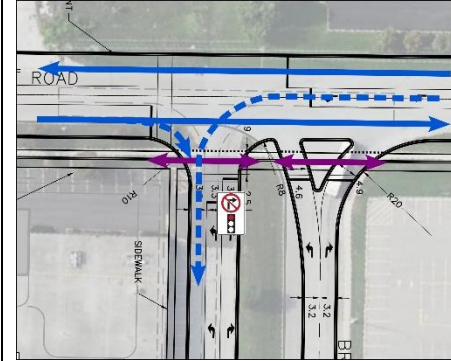
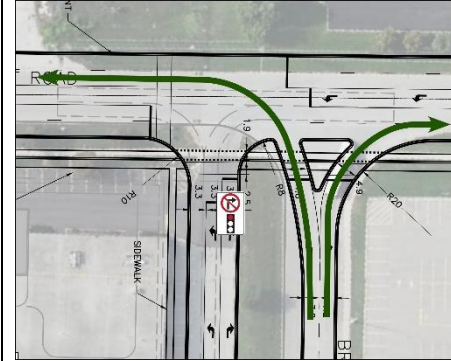
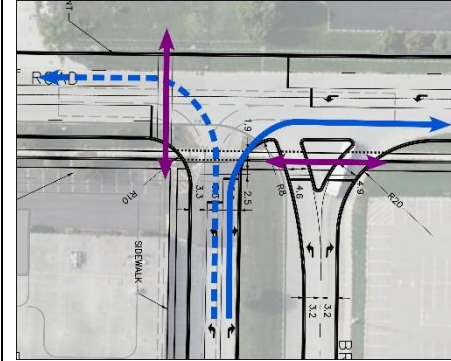
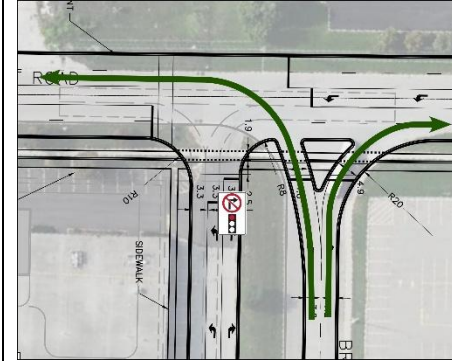
Alternative 1: Two-way bus driveway

<p>1: Advance left turn phase (general traffic and buses)</p>  <p>Callable with vehicle detection (This phase may be deactivated during low-volume periods to reduce delays to outbound buses)</p>	<p>2: East/west phase (general traffic and buses)</p>  <p>Called every cycle (max/ped recall during day; min recall overnight)</p>	<p>3: Trailing left turn clearance phase (general traffic and buses)</p>  <p>Called every cycle prior to switching to a northbound phase (This phase would apply at all times; it allows for clearance of left-turning vehicles queued within the intersection to ensure it is not blocked during the bus or northbound phases)</p>	<p>4: Outbound bus phase (opportunity 1)</p>  <p>Callable with bus detection (Clears any outbound buses that arrived during the east/west phases)</p>	<p>5: Northbound phase (general traffic)</p>  <p>Callable with vehicle or pedestrian detection</p>	<p>6: Outbound bus phase (opportunity 2)</p>  <p>Callable with bus detection (Clears any outbound buses that arrived during the northbound phase)</p>
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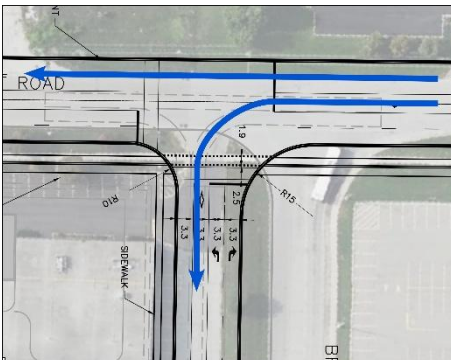
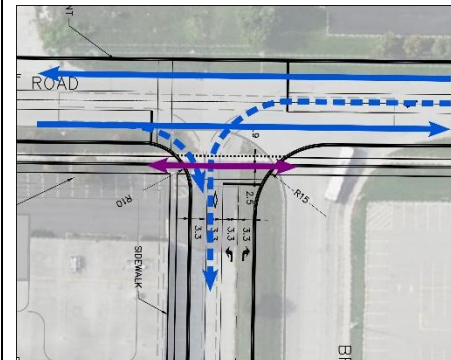
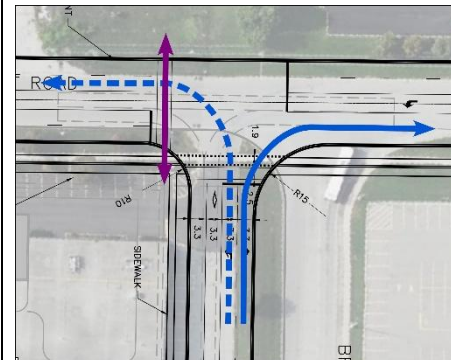
Alternative 2: Two-way contraflow bus driveway

<p>1: Advance left turn phase (general traffic and buses)</p>  <p>Callable with vehicle detection (This phase may be deactivated during low-volume periods to reduce delays to outbound buses)</p>	<p>2: East/west phase (general traffic and buses)</p>  <p>Called every cycle (max/ped recall during day; min recall overnight)</p>	<p>3: Trailing left turn clearance phase (general traffic and buses)</p>  <p>Called every cycle prior to switching to a northbound phase (This phase would apply at all times; it allows for clearance of left-turning vehicles queued within the intersection to ensure it is not blocked during the bus or northbound phases)</p>	<p>4: Outbound bus phase (opportunity 1)</p>  <p>Callable with bus detection (Clears any outbound buses that arrived during the east/west phases)</p>	<p>5: Northbound phase (general traffic)</p>  <p>Callable with vehicle or pedestrian detection</p>	<p>6: Outbound bus phase (opportunity 2)</p>  <p>Callable with bus detection (Clears any outbound buses that arrived during the northbound phase)</p>
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Alternative 3: One-way outbound bus driveway

<p>1: Advance left turn phase (general traffic, including buses)</p>  <p>Callable with vehicle detection (This phase may be deactivated during low-volume periods to reduce delays to outbound buses)</p>	<p>2: East/west phase (general traffic, including buses)</p>  <p>Called every cycle (max/ped recall during day; min recall overnight) (Two-stage pedestrian crossing, Street "A" vs. bus driveway, to reduce delays to outbound buses and enable a potential overlap during the northbound phase)</p>	<p>3: Outbound bus phase (opportunity 1)</p>  <p>Callable with bus detection (Clears any outbound buses that arrived during the east/west phases)</p>	<p>4: Northbound phase (general traffic)</p>  <p>Callable with vehicle or pedestrian detection (Potential overlapping pedestrian phase across bus driveway)</p>	<p>5: Outbound bus phase (opportunity 2)</p>  <p>Callable with bus detection (Clears any outbound buses that arrived during the northbound phase)</p>
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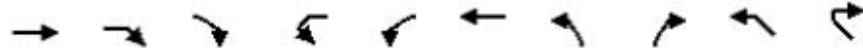
Alternative 4: Bus access/egress via Street "A"

<p>1: Advance left turn phase (general traffic, including buses)</p>  <p>Callable with vehicle detection (This phase may be deactivated during low-volume periods to reduce delays to outbound buses)</p>	<p>2: East/west phase (general traffic, including buses)</p>  <p>Called every cycle (max/ped recall during day; min recall overnight)</p>	<p>3: Northbound phase (general traffic, including buses)</p>  <p>Callable with vehicle or pedestrian detection</p>
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Attachment 5:
Synchro Analysis Worksheets

Lanes, Volumes, Timings
110: Street "A" & Bronte GO Station & Wycroft Rd

AM Peak Hour
Alternative 1



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø1	Ø3		
Lane Configurations	↑↑				↑	↑↑	↑	↑	↑	↑				
Traffic Volume (vph)	753	8	64	10	123	915	124	293	6	13				
Future Volume (vph)	753	8	64	10	123	915	124	293	6	13				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00				
Fr _t	0.987						0.850			0.850				
Fl _t Protected					0.950	0.950		0.950						
Satd. Flow (prot)	2928	0	0	0	1668	3476	1789	1601	913	816				
Fl _t Permitted					0.134	0.950		0.950						
Satd. Flow (perm)	2928	0	0	0	235	3476	1789	1601	913	816				
Right Turn on Red							Yes			Yes				
Satd. Flow (RTOR)	6										51			
Link Speed (k/h)	50					50	48	48						
Link Distance (m)	247.6					588.6	89.5	130.6						
Travel Time (s)	17.8					42.4	6.7	9.8						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92				
Heavy Vehicles (%)	24%	100%	2%	100%	2%	5%	2%	2%	100%	100%				
Adj. Flow (vph)	818	9	70	11	134	995	135	318	7	14				
Shared Lane Traffic (%)														
Lane Group Flow (vph)	897	0	0	0	145	995	135	318	7	14				
Turn Type	NA			pm+pt	pm+pt	NA	Perm	Prot	Prot	custom				
Protected Phases	2				1 5	1 5	6	4	3 8	1 3 5 8	1	3		
Permitted Phases				6	6	4								
Detector Phase	2				1 5	1 5	6	4	4	3 8	3 8			
Switch Phase														
Minimum Initial (s)	20.0					20.0	7.0	7.0					7.0	7.0
Minimum Split (s)	42.3					42.3	26.0	26.0					11.0	15.0
Total Split (s)	52.3					52.3	37.0	37.0					11.0	23.0
Total Split (%)	33.5%					33.5%	23.7%	23.7%					7%	15%
Maximum Green (s)	49.0					49.0	30.0	30.0					7.0	15.0
Yellow Time (s)	3.3					3.3	3.0	3.0					3.0	3.0
All-Red Time (s)	0.0					0.0	4.0	4.0					1.0	5.0
Lost Time Adjust (s)	0.0					0.0	0.0	0.0						
Total Lost Time (s)	3.3					3.3	7.0	7.0						
Lead/Lag	Lag						Lag	Lag					Lead	Lead
Lead-Lag Optimize?	Yes						Yes	Yes					Yes	Yes
Vehicle Extension (s)	3.0					3.0	3.0	3.0					3.0	3.0
Recall Mode	Max					Max	None	None					None	None
Walk Time (s)	7.0					7.0	7.0	7.0						
Flash Don't Walk (s)	32.0					32.0	12.0	12.0						
Pedestrian Calls (#/hr)	0					0	0	0						
Act Effct Green (s)	49.5				69.0	60.6	30.3	30.3	10.1	37.6				
Actuated g/C Ratio	0.38				0.53	0.47	0.23	0.23	0.08	0.29				
v/c Ratio	0.80				0.48	0.61	0.32	0.85	0.10	0.05				
Control Delay (s/veh)	43.3				24.1	29.3	46.2	70.0	36.0	0.4				
Queue Delay	0.0				0.0	0.0	0.0	0.0	0.0	0.0				
Total Delay (s/veh)	43.3				24.1	29.3	46.2	70.0	36.0	0.4				
LOS	D				C	C	D	E	D	A				
Approach Delay (s/veh)	43.3					28.7	62.9	12.3						

Lane Group	Ø5	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Fr _t		
Fl _t Protected		
Satd. Flow (prot)		
Fl _t Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (k/h)		
Link Distance (m)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	7.0	5.0
Minimum Split (s)	13.0	10.0
Total Split (s)	13.0	20.0
Total Split (%)	8%	13%
Maximum Green (s)	7.0	15.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	3.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		
Flash Don't Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

AM Peak Hour
 Alternative 1

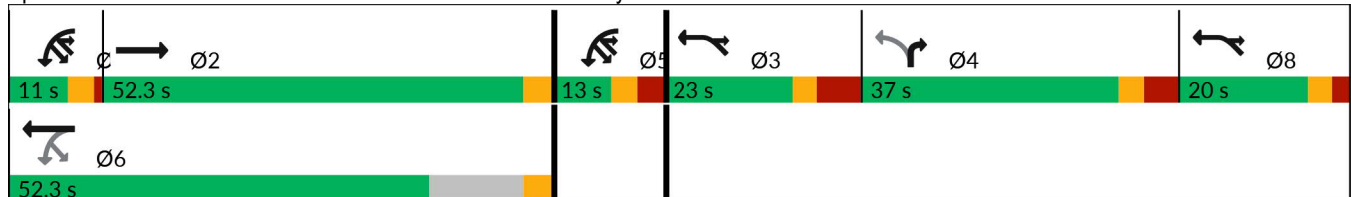


Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø1	Ø3
Approach LOS	D						C		E		B	
Queue Length 50th (m)	143.1				20.7	117.8	32.3	87.8	2.1	0.0		
Queue Length 95th (m)	#180.9				34.0	144.5	53.1	#145.3	8.0	0.0		
Internal Link Dist (m)	223.6					564.6	65.5	106.6				
Turn Bay Length (m)												
Base Capacity (vph)	1126				305	1632	419	375	192	345		
Starvation Cap Reductn	0				0	0	0	0	0	0		
Spillback Cap Reductn	0				0	0	0	0	0	0		
Storage Cap Reductn	0				0	0	0	0	0	0		
Reduced v/c Ratio	0.80				0.48	0.61	0.32	0.85	0.04	0.04		

Intersection Summary

Area Type:	Other
Cycle Length:	156.3
Actuated Cycle Length:	129.1
Natural Cycle:	120
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.85
Intersection Signal Delay (s/veh):	40.0
Intersection LOS:	D
Intersection Capacity Utilization:	62.3%
ICU Level of Service:	B
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

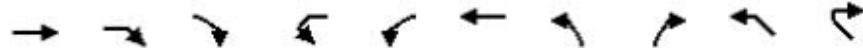
Splits and Phases: 110: Street "A" & Bronte GO Station & Wycroft Rd



Lane Group	Ø5	Ø8
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
110: Street "A" & Bronte GO Station & Wycroft Rd

PM Peak Hour
Alternative 1



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø1	Ø3
Lane Configurations	↑↑				↑	↑↑	↑	↑	↑	↑		
Traffic Volume (vph)	1054	6	132	11	249	900	104	195	6	13		
Future Volume (vph)	1054	6	132	11	249	900	104	195	6	13		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00		
Fr _t	0.983							0.850		0.850		
Fl _t Protected					0.950		0.950		0.950			
Satd. Flow (prot)	3470	0	0	0	1719	3017	1789	1601	913	816		
Fl _t Permitted					0.062		0.950		0.950			
Satd. Flow (perm)	3470	0	0	0	112	3017	1789	1601	913	816		
Right Turn on Red			Yes								Yes	
Satd. Flow (RTOR)	9										47	
Link Speed (k/h)	50					50	48		48			
Link Distance (m)	247.6					588.6	89.5		130.6			
Travel Time (s)	17.8					42.4	6.7		9.8			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Heavy Vehicles (%)	3%	100%	2%	100%	2%	21%	2%	2%	100%	100%		
Adj. Flow (vph)	1146	7	143	12	271	978	113	212	7	14		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1296	0	0	0	283	978	113	212	7	14		
Turn Type	NA			pm+pt	pm+pt	NA	Perm	Prot	Prot	custom		
Protected Phases	2			1 5	1 5	6		4	3 8	1 3 5 8	1	3
Permitted Phases				6	6		4					
Detector Phase	2			1 5	1 5	6	4	4	3 8	3 8		
Switch Phase												
Minimum Initial (s)	20.0					20.0	7.0	7.0			7.0	7.0
Minimum Split (s)	42.3					42.3	26.0	26.0			11.0	15.0
Total Split (s)	62.3					62.3	37.0	37.0			15.0	23.0
Total Split (%)	36.6%					36.6%	21.7%	21.7%			9%	14%
Maximum Green (s)	59.0					59.0	30.0	30.0			11.0	15.0
Yellow Time (s)	3.3					3.3	3.0	3.0			3.0	3.0
All-Red Time (s)	0.0					0.0	4.0	4.0			1.0	5.0
Lost Time Adjust (s)	0.0					0.0	0.0	0.0				
Total Lost Time (s)	3.3					3.3	7.0	7.0				
Lead/Lag	Lag						Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes						Yes	Yes			Yes	Yes
Vehicle Extension (s)	3.0					3.0	3.0	3.0			3.0	3.0
Recall Mode	Max					Max	None	None			None	None
Walk Time (s)	7.0					7.0	7.0	7.0				
Flash Don't Walk (s)	32.0					32.0	12.0	12.0				
Pedestrian Calls (#/hr)	0					0	0	0				
Act Effct Green (s)	60.3				84.1	75.6	23.0	23.0	11.4	42.4		
Actuated g/C Ratio	0.44				0.61	0.55	0.17	0.17	0.08	0.31		
v/c Ratio	0.85				0.92	0.59	0.38	0.79	0.09	0.05		
Control Delay (s/veh)	43.3				63.6	25.8	56.3	77.4	40.8	0.3		
Queue Delay	0.0				0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	43.3				63.6	25.8	56.3	77.4	40.8	0.3		
LOS	D				E	C	E	E	D	A		
Approach Delay (s/veh)	43.3					34.3	70.1		13.8			

Lane Group	Ø5	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Fr _t		
Fl _t Protected		
Satd. Flow (prot)		
Fl _t Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (k/h)		
Link Distance (m)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.0	12.0
Total Split (s)	13.0	20.0
Total Split (%)	8%	12%
Maximum Green (s)	7.0	15.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	3.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		
Flash Don't Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

PM Peak Hour
 Alternative 1

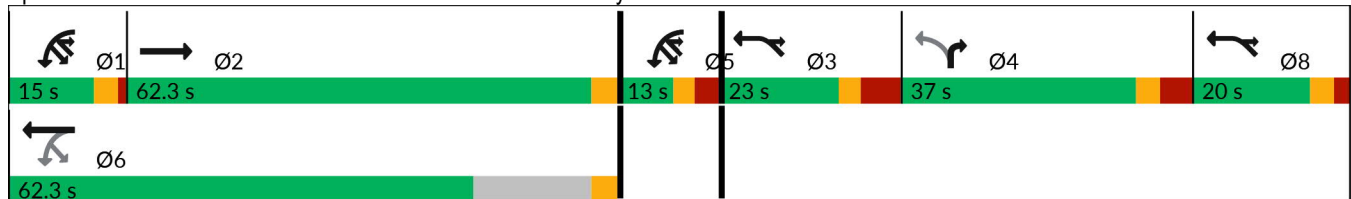


Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø1	Ø3
Approach LOS	D						C		E		B	
Queue Length 50th (m)	197.7			~44.0		130.8	30.6	62.0	2.5	0.0		
Queue Length 95th (m)	#261.5			#106.8		170.0	50.3	92.2	9.0	0.0		
Internal Link Dist (m)	223.6					564.6	65.5	106.6				
Turn Bay Length (m)												
Base Capacity (vph)	1530				308	1663	399	357	183	343		
Starvation Cap Reductn	0				0	0	0	0	0	0		
Spillback Cap Reductn	0				0	0	0	0	0	0		
Storage Cap Reductn	0				0	0	0	0	0	0		
Reduced v/c Ratio	0.85				0.92	0.59	0.28	0.59	0.04	0.04		

Intersection Summary

Area Type: Other
 Cycle Length: 170.3
 Actuated Cycle Length: 137.1
 Natural Cycle: 130
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay (s/veh): 42.2 Intersection LOS: D
 Intersection Capacity Utilization 78.8% ICU Level of Service D
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

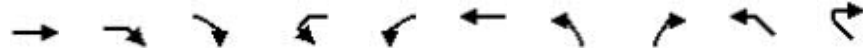
Splits and Phases: 110: Street "A" & Bronte GO Station & Wycroft Rd



Lane Group	Ø5	Ø8
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
110: Street "A" & Bronte GO Station & Wycroft Rd

AM Peak Hour
Alternative 2



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø1	Ø3	
Lane Configurations	↑↑				↑	↑↑	↑	↑	↑	↑			
Traffic Volume (vph)	753	8	64	10	123	915	124	293	6	13			
Future Volume (vph)	753	8	64	10	123	915	124	293	6	13			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00			
Fr _t	0.987						0.850			0.850			
Fl _t Protected					0.950	0.950		0.950					
Satd. Flow (prot)	2928	0	0	0	1668	3476	1789	1601	913	816			
Fl _t Permitted					0.133	0.950		0.950					
Satd. Flow (perm)	2928	0	0	0	233	3476	1789	1601	913	816			
Right Turn on Red							Yes			No			
Satd. Flow (RTOR)	6												
Link Speed (k/h)	50						50	48	48				
Link Distance (m)	247.6						588.6	89.5	130.6				
Travel Time (s)	17.8						42.4	6.7	9.8				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Heavy Vehicles (%)	24%	100%	2%	100%	2%	5%	2%	2%	100%	100%			
Adj. Flow (vph)	818	9	70	11	134	995	135	318	7	14			
Shared Lane Traffic (%)													
Lane Group Flow (vph)	897	0	0	0	145	995	135	318	7	14			
Turn Type	NA			pm+pt	pm+pt	NA	Perm	Prot	Prot	custom			
Protected Phases	2				15	15	6	4	38	38	1	3	
Permitted Phases					6	6	4						
Detector Phase	2				15	15	6	4	4	38	38		
Switch Phase													
Minimum Initial (s)	20.0						7.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	41.3						41.3	26.0	26.0		11.0	13.0	
Total Split (s)	51.3						51.3	36.0	36.0		11.0	21.0	
Total Split (%)	33.5%						33.5%	23.5%	23.5%		7%	14%	
Maximum Green (s)	48.0						48.0	30.0	30.0		7.0	15.0	
Yellow Time (s)	3.3						3.3	3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0						0.0	3.0	3.0		1.0	3.0	
Lost Time Adjust (s)	0.0						0.0	0.0	0.0				
Total Lost Time (s)	3.3						3.3	6.0	6.0				
Lead/Lag	Lag						Lag	Lag			Lead	Lead	
Lead-Lag Optimize?	Yes						Yes	Yes			Yes	Yes	
Vehicle Extension (s)	3.0						3.0	3.0	3.0		3.0	3.0	
Recall Mode	Max						Max	Min	Min		None	None	
Walk Time (s)	7.0						7.0	7.0	7.0				
Flash Don't Walk (s)	31.0						31.0	13.0	13.0				
Pedestrian Calls (#/hr)	0						0	0	0				
Act Effct Green (s)	48.5				68.1	59.7	30.3	30.3	14.8	14.8			
Actuated g/C Ratio	0.38				0.53	0.47	0.24	0.24	0.12	0.12			
v/c Ratio	0.80				0.47	0.61	0.32	0.84	0.07	0.15			
Control Delay (s/veh)	43.6				24.1	29.4	45.6	67.9	31.8	34.3			
Queue Delay	0.0				0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay (s/veh)	43.6				24.1	29.4	45.6	67.9	31.8	34.3			
LOS	D				C	C	D	E	C	C			
Approach Delay (s/veh)	43.6						28.7	61.3	33.5				

Lane Group	Ø5	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Fr _t		
Fl _t Protected		
Satd. Flow (prot)		
Fl _t Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (k/h)		
Link Distance (m)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.0	13.0
Total Split (s)	13.0	21.0
Total Split (%)	8%	14%
Maximum Green (s)	7.0	15.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	Max	None
Walk Time (s)		
Flash Don't Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

AM Peak Hour
 Alternative 2

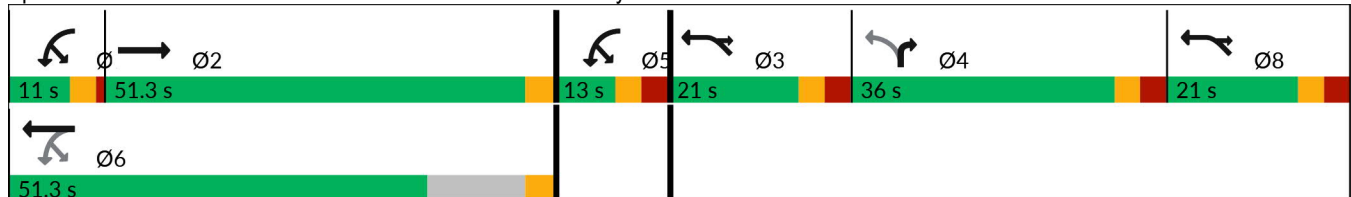


Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø1	Ø3
Approach LOS	D						C		E		C	
Queue Length 50th (m)	141.7				20.4	116.5	31.7	86.2	2.0	4.1		
Queue Length 95th (m)	#189.8				34.3	145.5	52.8	#145.0	7.7	12.4		
Internal Link Dist (m)	223.6				564.6		65.5	106.6				
Turn Bay Length (m)												
Base Capacity (vph)	1117				306	1625	425	380	217	193		
Starvation Cap Reductn	0				0	0	0	0	0	0		
Spillback Cap Reductn	0				0	0	0	0	0	0		
Storage Cap Reductn	0				0	0	0	0	0	0		
Reduced v/c Ratio	0.80				0.47	0.61	0.32	0.84	0.03	0.07		

Intersection Summary

Area Type: Other
 Cycle Length: 153.3
 Actuated Cycle Length: 127.6
 Natural Cycle: 120
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay (s/veh): 39.9
 Intersection LOS: D
 Intersection Capacity Utilization 60.4%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

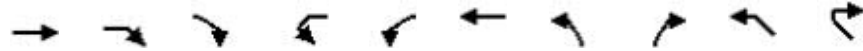
Splits and Phases: 110: Street "A" & Bronte GO Station & Wycroft Rd



Lane Group	Ø5	Ø8
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

PM Peak Hour
 Alternative 2



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø1	Ø3
Lane Configurations	↑↑				↑	↑↑	↑	↑	↑	↑		
Traffic Volume (vph)	1054	6	132	11	249	900	104	195	6	13		
Future Volume (vph)	1054	6	132	11	249	900	104	195	6	13		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00		
Fr _t	0.983							0.850		0.850		
Fl _t Protected					0.950		0.950		0.950			
Satd. Flow (prot)	3470	0	0	0	1719	3017	1789	1601	913	816		
Fl _t Permitted					0.063		0.950		0.950			
Satd. Flow (perm)	3470	0	0	0	114	3017	1789	1601	913	816		
Right Turn on Red			Yes							No		
Satd. Flow (RTOR)	9											
Link Speed (k/h)	50					50	48		48			
Link Distance (m)	247.6					588.6	89.5		130.6			
Travel Time (s)	17.8					42.4	6.7		9.8			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Heavy Vehicles (%)	3%	100%	2%	100%	2%	21%	2%	2%	100%	100%		
Adj. Flow (vph)	1146	7	143	12	271	978	113	212	7	14		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1296	0	0	0	283	978	113	212	7	14		
Turn Type	NA			pm+pt	pm+pt	NA	Perm	Prot	Prot	custom		
Protected Phases	2			15	15	6		4	38	38	1	3
Permitted Phases				6	6		4					
Detector Phase	2			15	15	6	4	4	38	38		
Switch Phase												
Minimum Initial (s)	20.0					7.0	7.0	7.0			7.0	7.0
Minimum Split (s)	41.3					41.3	26.0	26.0			11.0	13.0
Total Split (s)	61.3					61.3	36.0	36.0			15.0	21.0
Total Split (%)	36.6%					36.6%	21.5%	21.5%			9%	13%
Maximum Green (s)	58.0					58.0	30.0	30.0			11.0	15.0
Yellow Time (s)	3.3					3.3	3.0	3.0			3.0	3.0
All-Red Time (s)	0.0					0.0	3.0	3.0			1.0	3.0
Lost Time Adjust (s)	0.0					0.0	0.0	0.0				
Total Lost Time (s)	3.3					3.3	6.0	6.0				
Lead/Lag	Lag						Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes						Yes	Yes			Yes	Yes
Vehicle Extension (s)	3.0					3.0	3.0	3.0			3.0	3.0
Recall Mode	Max					Max	Min	Min			None	None
Walk Time (s)	7.0					7.0	7.0	7.0				
Flash Don't Walk (s)	31.0					31.0	13.0	13.0				
Pedestrian Calls (#/hr)	0					0	0	0				
Act Effct Green (s)	59.3				83.1	74.6	22.7	22.7	15.1	15.1		
Actuated g/C Ratio	0.44				0.62	0.55	0.17	0.17	0.11	0.11		
v/c Ratio	0.85				0.90	0.59	0.38	0.79	0.07	0.15		
Control Delay (s/veh)	42.8				59.8	25.4	55.5	76.4	37.3	40.0		
Queue Delay	0.0				0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	42.8				59.8	25.4	55.5	76.4	37.3	40.0		
LOS	D				E	C	E	E	D	D		
Approach Delay (s/veh)	42.8					33.1	69.1		39.1			

Lane Group	Ø5	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Fr _t		
Fl _t Protected		
Satd. Flow (prot)		
Fl _t Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (k/h)		
Link Distance (m)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	5	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	7.0	7.0
Minimum Split (s)	13.0	13.0
Total Split (s)	13.0	21.0
Total Split (%)	8%	13%
Maximum Green (s)	7.0	15.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	Max	None
Walk Time (s)		
Flash Don't Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

PM Peak Hour
 Alternative 2

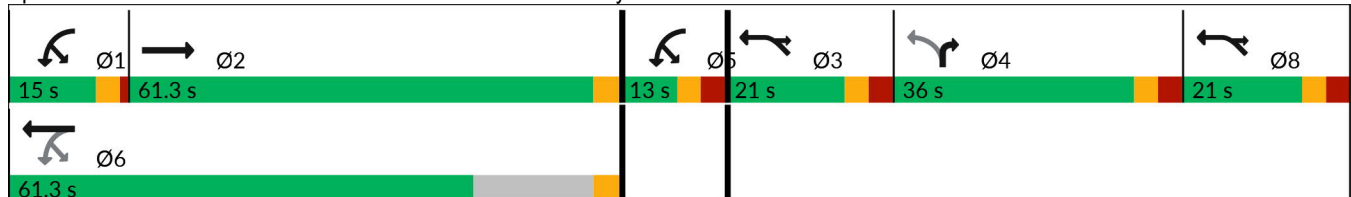


Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø1	Ø3	
Approach LOS	D						C		E		D		
Queue Length 50th (m)	191.8				39.9	126.1	29.9	60.5	2.4	4.9			
Queue Length 95th (m)	#263.3				#106.1	170.4	50.0	92.0	8.7	14.3			
Internal Link Dist (m)	223.6					564.6	65.5		106.6				
Turn Bay Length (m)													
Base Capacity (vph)	1530				313	1669	406	363	207	185			
Starvation Cap Reductn	0				0	0	0	0	0	0			
Spillback Cap Reductn	0				0	0	0	0	0	0			
Storage Cap Reductn	0				0	0	0	0	0	0			
Reduced v/c Ratio	0.85				0.90	0.59	0.28	0.58	0.03	0.08			

Intersection Summary

Area Type: Other
 Cycle Length: 167.3
 Actuated Cycle Length: 134.9
 Natural Cycle: 130
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay (s/veh): 41.5 Intersection LOS: D
 Intersection Capacity Utilization 76.3% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

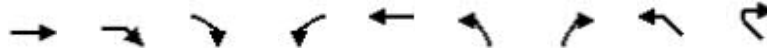
Splits and Phases: 110: Street "A" & Bronte GO Station & Wycroft Rd



Lane Group	Ø5	Ø8
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

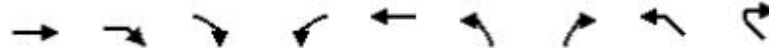
AM Peak Hour
 Alternative 3



Lane Group	EBT	EBR	EBR2	WBL	WBT	NBL	NBR	NWL	NWR	Ø3	Ø8
Lane Configurations	↑↑			↖	↑↑	↖	↖	↖	↖		
Traffic Volume (vph)	753	0	72	133	915	124	293	6	13		
Future Volume (vph)	753	0	72	133	915	124	293	6	13		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00		
Fr _t	0.987						0.850		0.850		
Fl _t Protected				0.950		0.950		0.950			
Satd. Flow (prot)	2932	0	0	1789	3476	1789	1601	913	816		
Fl _t Permitted				0.142		0.950		0.950			
Satd. Flow (perm)	2932	0	0	267	3476	1789	1601	913	816		
Right Turn on Red			Yes						Yes		
Satd. Flow (RTOR)	181								84		
Link Speed (k/h)	50				50	48		48			
Link Distance (m)	247.6				588.6	91.9		123.2			
Travel Time (s)	17.8				42.4	6.9		9.2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Heavy Vehicles (%)	24%	11%	11%	2%	5%	2%	2%	100%	100%		
Adj. Flow (vph)	818	0	78	145	995	135	318	7	14		
Shared Lane Traffic (%)											
Lane Group Flow (vph)	896	0	0	145	995	135	318	7	14		
Turn Type	NA			pm+pt	NA	Perm	Prot	Prot	custom		
Protected Phases	2			1	6		4	3 8	1 3 8	3	8
Permitted Phases				6		4					
Detector Phase	2			1	6	4	4	3 8	3 8		
Switch Phase											
Minimum Initial (s)	20.0			7.0	20.0	7.0	7.0			7.0	7.0
Minimum Split (s)	25.8			11.0	25.8	26.0	26.0			15.0	12.0
Total Split (s)	40.8			11.0	40.8	32.0	32.0			23.0	20.0
Total Split (%)	32.2%			8.7%	32.2%	25.2%	25.2%			18%	16%
Maximum Green (s)	35.0			7.0	35.0	25.0	25.0			15.0	15.0
Yellow Time (s)	3.3			3.0	3.3	3.0	3.0			3.0	3.0
All-Red Time (s)	2.5			1.0	2.5	4.0	4.0			5.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0	0.0				
Total Lost Time (s)	5.8			4.0	5.8	7.0	7.0				
Lead/Lag	Lag			Lead		Lag	Lag			Lead	
Lead-Lag Optimize?	Yes			Yes		Yes	Yes			Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode	Max			None	Max	None	None			None	None
Walk Time (s)	7.0				7.0	7.0	7.0				
Flash Don't Walk (s)	10.0				10.0	12.0	12.0				
Pedestrian Calls (#/hr)	0				0	0	0				
Act Effct Green (s)	35.7			48.7	46.9	25.5	25.5	11.2	23.1		
Actuated g/C Ratio	0.38			0.51	0.50	0.27	0.27	0.12	0.24		
v/c Ratio	0.74			0.58	0.58	0.28	0.74	0.06	0.05		
Control Delay (s/veh)	26.4			26.3	20.9	32.6	46.1	24.2	0.4		
Queue Delay	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	26.4			26.3	20.9	32.6	46.1	24.2	0.4		
LOS	C			C	C	C	D	C	A		
Approach Delay (s/veh)	26.4				21.6	42.1		8.3			

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

AM Peak Hour
 Alternative 3

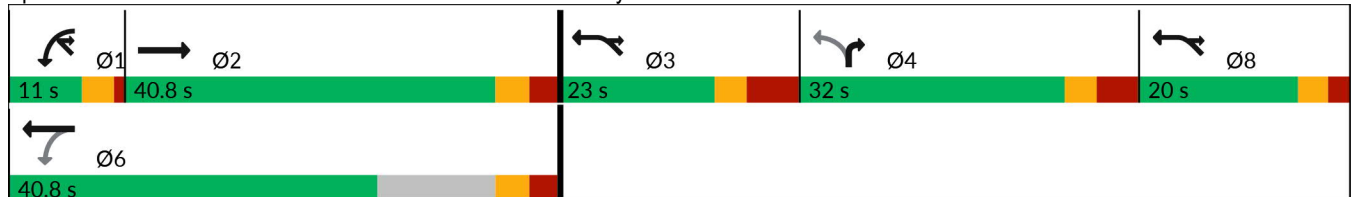


Lane Group	EBT	EBR	EBR2	WBL	WBT	NBL	NBR	NWL	NWR	Ø3	Ø8
Approach LOS	C			C			D		A		
Queue Length 50th (m)	56.3			10.2	51.2	16.5	44.9	1.1	0.0		
Queue Length 95th (m)	#127.4			#37.8	118.7	43.0	#117.7	6.2	0.0		
Internal Link Dist (m)	223.6			564.6			67.9	99.2			
Turn Bay Length (m)											
Base Capacity (vph)	1217			252	1722	481	430	265	367		
Starvation Cap Reductn	0			0	0	0	0	0	0		
Spillback Cap Reductn	0			0	0	0	0	0	0		
Storage Cap Reductn	0			0	0	0	0	0	0		
Reduced v/c Ratio	0.74			0.58	0.58	0.28	0.74	0.03	0.04		

Intersection Summary

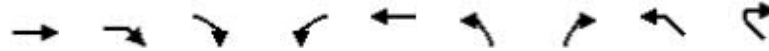
Area Type: Other
 Cycle Length: 126.8
 Actuated Cycle Length: 94.6
 Natural Cycle: 90
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay (s/veh): 26.9
 Intersection LOS: C
 Intersection Capacity Utilization 63.8%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 110: Street "A" & Bronte GO Station & Wycroft Rd



Lanes, Volumes, Timings
110: Street "A" & Bronte GO Station & Wycroft Rd

PM Peak Hour
Alternative 3



Lane Group	EBT	EBR	EBR2	WBL	WBT	NBL	NBR	NWL	NWR	Ø3	Ø8
Lane Configurations	↑↑			↖	↑↑	↖	↖	↖	↖		
Traffic Volume (vph)	1054	0	138	260	900	104	195	6	13		
Future Volume (vph)	1054	0	138	260	900	104	195	6	13		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00		
Fr _t	0.983						0.850		0.850		
Fl _t Protected				0.950		0.950		0.950			
Satd. Flow (prot)	3480	0	0	1755	3017	1789	1601	913	816		
Fl _t Permitted				0.066		0.950		0.950			
Satd. Flow (perm)	3480	0	0	122	3017	1789	1601	913	816		
Right Turn on Red			Yes						Yes		
Satd. Flow (RTOR)	145								68		
Link Speed (k/h)	50				50	48		48			
Link Distance (m)	247.6				588.6	91.9		123.2			
Travel Time (s)	17.8				42.4	6.9		9.2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Heavy Vehicles (%)	3%	4%	4%	4%	21%	2%	2%	100%	100%		
Adj. Flow (vph)	1146	0	150	283	978	113	212	7	14		
Shared Lane Traffic (%)											
Lane Group Flow (vph)	1296	0	0	283	978	113	212	7	14		
Turn Type	NA			pm+pt	NA	Perm	Prot	Prot	custom		
Protected Phases	2			1	6		4	3 8	13 8	3	8
Permitted Phases				6		4					
Detector Phase	2			1	6	4	4	3 8	3 8		
Switch Phase											
Minimum Initial (s)	20.0			7.0	20.0	7.0	7.0			7.0	7.0
Minimum Split (s)	25.8			11.0	25.8	26.0	26.0			15.0	12.0
Total Split (s)	60.8			22.0	60.8	32.0	32.0			23.0	20.0
Total Split (%)	38.5%			13.9%	38.5%	20.3%	20.3%			15%	13%
Maximum Green (s)	55.0			18.0	55.0	25.0	25.0			15.0	15.0
Yellow Time (s)	3.3			3.0	3.3	3.0	3.0			3.0	3.0
All-Red Time (s)	2.5			1.0	2.5	4.0	4.0			5.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0	0.0				
Total Lost Time (s)	5.8			4.0	5.8	7.0	7.0				
Lead/Lag	Lag			Lead		Lag	Lag			Lead	
Lead-Lag Optimize?	Yes			Yes		Yes	Yes			Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode	Max			None	Max	None	None			None	None
Walk Time (s)	7.0				7.0	7.0	7.0				
Flash Don't Walk (s)	10.0				10.0	12.0	12.0				
Pedestrian Calls (#/hr)	0				0	0	0				
Act Effct Green (s)	56.1			80.4	78.6	21.4	21.4	11.4	36.2		
Actuated g/C Ratio	0.44			0.63	0.62	0.17	0.17	0.09	0.28		
v/c Ratio	0.81			0.91	0.53	0.38	0.79	0.09	0.05		
Control Delay (s/veh)	34.8			70.2	18.4	53.5	74.0	37.3	0.3		
Queue Delay	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	34.8			70.2	18.4	53.5	74.0	37.3	0.3		
LOS	C			E	B	D	E	D	A		
Approach Delay (s/veh)	34.8				30.0	66.8		12.6			

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

PM Peak Hour
 Alternative 3

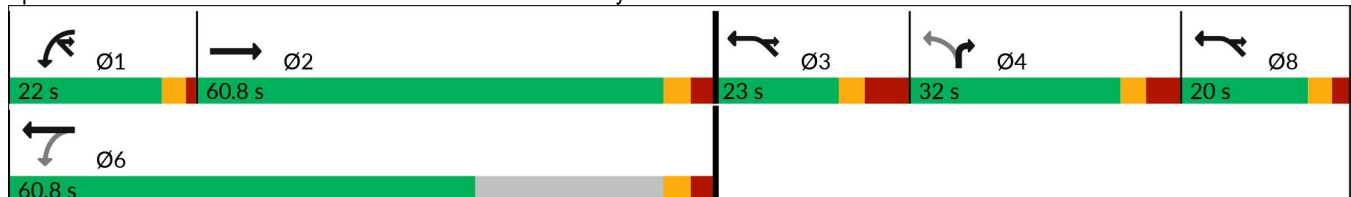


Lane Group	EBT	EBR	EBR2	WBL	WBT	NBL	NBR	NWL	NWR	Ø3	Ø8
Approach LOS	C			C			E		B		
Queue Length 50th (m)	167.1			~71.3	110.5	28.7	58.1	2.3	0.0		
Queue Length 95th (m)	#203.2			#131.7	136.3	48.2	#94.4	8.7	0.0		
Internal Link Dist (m)	223.6				564.6	67.9		99.2			
Turn Bay Length (m)											
Base Capacity (vph)	1609			311	1855	357	319	196	326		
Starvation Cap Reductn	0			0	0	0	0	0	0		
Spillback Cap Reductn	0			0	0	0	0	0	0		
Storage Cap Reductn	0			0	0	0	0	0	0		
Reduced v/c Ratio	0.81			0.91	0.53	0.32	0.66	0.04	0.04		

Intersection Summary















Area Type: Other
 Cycle Length: 157.8
 Actuated Cycle Length: 127.8
 Natural Cycle: 120
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay (s/veh): 36.2
 Intersection LOS: D
 Intersection Capacity Utilization 80.3%
 ICU Level of Service D
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 110: Street "A" & Bronte GO Station & Wycroft Rd



Lanes, Volumes, Timings
3: Street "A" / Bronte GO Station & Wycroft Rd

AM Peak Hour
Alternative 4

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	 			 		 
Traffic Volume (vph)	753	72	133	915	130	306
Future Volume (vph)	753	72	133	915	130	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Fr _t	0.987					0.850
Fl _t Protected			0.950		0.950	
Satd. Flow (prot)	2932	0	1690	3476	1738	1570
Fl _t Permitted			0.243		0.950	
Satd. Flow (perm)	2932	0	432	3476	1738	1570
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	14					240
Link Speed (k/h)	48			48	48	
Link Distance (m)	247.6			588.6	83.9	
Travel Time (s)	18.6			44.1	6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	24%	11%	8%	5%	5%	4%
Adj. Flow (vph)	818	78	145	995	141	333
Shared Lane Traffic (%)						
Lane Group Flow (vph)	896	0	145	995	141	333
Turn Type	NA		pm+pt	NA	Perm	Perm
Protected Phases	6		5	2		
Permitted Phases			2		8	8
Detector Phase	6		5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0		7.0	20.0	7.0	7.0
Minimum Split (s)	27.5		11.0	27.5	26.0	26.0
Total Split (s)	45.5		11.0	45.5	35.0	35.0
Total Split (%)	49.7%		12.0%	49.7%	38.3%	38.3%
Maximum Green (s)	40.0		7.0	40.0	30.0	30.0
Yellow Time (s)	3.3		3.0	3.3	3.0	3.0
All-Red Time (s)	2.2		1.0	2.2	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5		4.0	5.5	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	Max		None	Max	None	None
Walk Time (s)	7.0			7.0	7.0	7.0
Flash Don't Walk (s)	15.0			15.0	14.0	14.0
Pedestrian Calls (#/hr)	0			0	0	0
Act Effct Green (s)	40.1		52.7	51.2	12.0	12.0
Actuated g/C Ratio	0.54		0.72	0.69	0.16	0.16
v/c Ratio	0.56		0.34	0.41	0.50	0.73
Control Delay (s/veh)	13.2		6.3	6.0	34.0	18.9
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.2		6.3	6.0	34.0	18.9
LOS	B		A	A	C	B
Approach Delay (s/veh)	13.2			6.0	23.4	

Lanes, Volumes, Timings
 3: Street "A" / Bronte GO Station & Wycroft Rd

AM Peak Hour
 Alternative 4

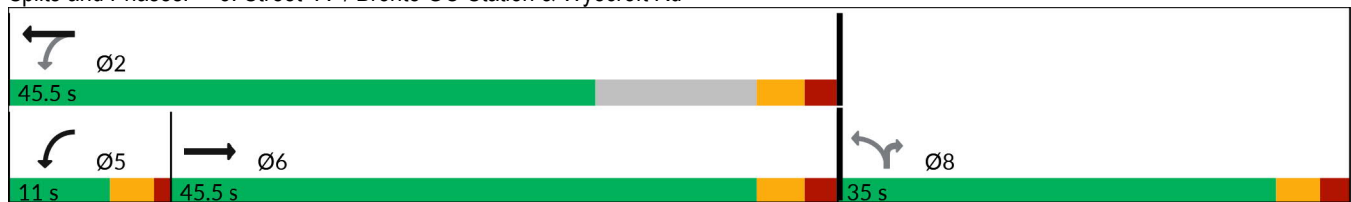


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach LOS	B		A		C	
Queue Length 50th (m)	44.6		5.0	25.1	18.7	12.0
Queue Length 95th (m)	80.6		14.8	51.2	34.6	37.3
Internal Link Dist (m)	223.6			564.6	59.9	
Turn Bay Length (m)						
Base Capacity (vph)	1602		428	2413	709	782
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.56		0.34	0.41	0.20	0.43

Intersection Summary

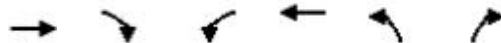
Area Type:	Other
Cycle Length:	91.5
Actuated Cycle Length:	73.7
Natural Cycle:	65
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.73
Intersection Signal Delay (s/veh):	11.9
Intersection LOS:	B
Intersection Capacity Utilization	50.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 3: Street "A" / Bronte GO Station & Wycroft Rd



Lanes, Volumes, Timings
3: Street "A" / Bronte GO Station & Wycroft Rd

PM Peak Hour
Alternative 4



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Traffic Volume (vph)	1054	138	260	900	110	208
Future Volume (vph)	1054	138	260	900	110	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Fr _t	0.983					0.850
Fl _t Protected			0.950		0.950	
Satd. Flow (prot)	3480	0	1755	3017	1722	1541
Fl _t Permitted			0.085		0.950	
Satd. Flow (perm)	3480	0	157	3017	1722	1541
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	20					189
Link Speed (k/h)	48			48	48	
Link Distance (m)	247.6			588.6	83.9	
Travel Time (s)	18.6			44.1	6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	4%	4%	21%	6%	6%
Adj. Flow (vph)	1146	150	283	978	120	226
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1296	0	283	978	120	226
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	8	
Permitted Phases			2			8
Detector Phase	6		5	2	8	8
Switch Phase						
Minimum Initial (s)	20.0		7.0	20.0	7.0	7.0
Minimum Split (s)	27.5		11.0	27.5	26.0	26.0
Total Split (s)	45.5		11.0	45.5	35.0	35.0
Total Split (%)	49.7%		12.0%	49.7%	38.3%	38.3%
Maximum Green (s)	40.0		7.0	40.0	30.0	30.0
Yellow Time (s)	3.3		3.0	3.3	3.0	3.0
All-Red Time (s)	2.2		1.0	2.2	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5		4.0	5.5	5.0	5.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	C-Max		None	C-Max	None	None
Walk Time (s)	7.0			7.0	7.0	7.0
Flash Don't Walk (s)	15.0			15.0	14.0	14.0
Pedestrian Calls (#/hr)	0			0	0	0
Act Effct Green (s)	42.9		70.8	69.3	11.7	11.7
Actuated g/C Ratio	0.47		0.77	0.76	0.13	0.13
v/c Ratio	0.79		0.55	0.43	0.55	0.63
Control Delay (s/veh)	24.8		20.8	5.0	46.0	16.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.8		20.8	5.0	46.0	16.7
LOS	C		C	A	D	B
Approach Delay (s/veh)	24.8			8.6	26.9	

Lanes, Volumes, Timings
 3: Street "A" / Bronte GO Station & Wyecroft Rd

PM Peak Hour
 Alternative 4

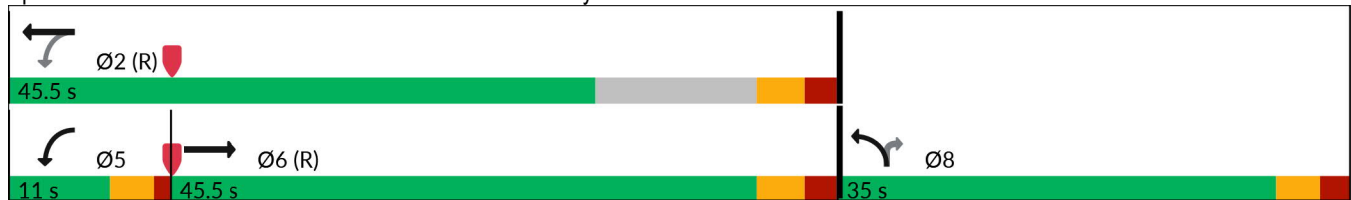


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach LOS	C			A	C	
Queue Length 50th (m)	92.8		27.5	30.5	21.1	6.2
Queue Length 95th (m)	134.4		55.6	51.9	36.6	27.1
Internal Link Dist (m)	223.6			564.6	59.9	
Turn Bay Length (m)						
Base Capacity (vph)	1640		513	2284	564	632
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.79		0.55	0.43	0.21	0.36

Intersection Summary

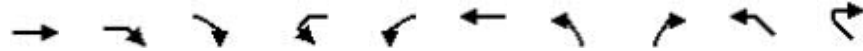
Area Type:	Other
Cycle Length:	91.5
Actuated Cycle Length:	91.5
Offset:	0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay (s/veh):	18.0
Intersection LOS:	B
Intersection Capacity Utilization:	66.1%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 3: Street "A" / Bronte GO Station & Wyecroft Rd



Lanes, Volumes, Timings
110: Street "A" & Bronte GO Station & Wycroft Rd

Low-Volume Scenario
Alternative 1



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø3	Ø8	
Lane Configurations	↑↑				↑	↑↑	↑	↑	↑	↑			
Traffic Volume (vph)	250	5	25	10	50	250	25	50	5	10			
Future Volume (vph)	250	5	25	10	50	250	25	50	5	10			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00			
Fr _t	0.984						0.850			0.850			
Fl _t Protected					0.950	0.950		0.950					
Satd. Flow (prot)	3379	0	0	0	1539	3476	1789	1601	913	816			
Fl _t Permitted					0.552	0.950		0.950					
Satd. Flow (perm)	3379	0	0	0	894	3476	1789	1601	913	816			
Right Turn on Red							Yes			Yes			
Satd. Flow (RTOR)	8										59		
Link Speed (k/h)	50						50	48	48				
Link Distance (m)	247.6						588.6	89.5	130.6				
Travel Time (s)	17.8						42.4	6.7	9.8				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Heavy Vehicles (%)	5%	100%	2%	100%	2%	5%	2%	2%	100%	100%			
Adj. Flow (vph)	272	5	27	11	54	272	27	54	5	11			
Shared Lane Traffic (%)													
Lane Group Flow (vph)	304	0	0	0	65	272	27	54	5	11			
Turn Type	NA			pm+pt	pm+pt	NA	Perm	Prot	Prot	custom			
Protected Phases	2				5	5	6	4	3 8	3 5 8	3	8	
Permitted Phases				6	6	4							
Detector Phase	2				5	5	6	4	4	3 8	3 8		
Switch Phase													
Minimum Initial (s)	20.0			7.0	7.0	20.0	7.0	7.0				7.0	7.0
Minimum Split (s)	42.3			13.0	13.0	42.3	26.0	26.0				15.0	12.0
Total Split (s)	42.3			13.0	13.0	42.3	37.0	37.0				23.0	20.0
Total Split (%)	31.3%			9.6%	9.6%	31.3%	27.3%	27.3%				17%	15%
Maximum Green (s)	39.0			7.0	7.0	39.0	30.0	30.0				15.0	15.0
Yellow Time (s)	3.3			3.0	3.0	3.3	3.0	3.0				3.0	3.0
All-Red Time (s)	0.0			3.0	3.0	0.0	4.0	4.0				5.0	2.0
Lost Time Adjust (s)	0.0			0.0		0.0	0.0	0.0					
Total Lost Time (s)	3.3			6.0		3.3	7.0	7.0					
Lead/Lag							Lag	Lag	Lead				
Lead-Lag Optimize?							Yes	Yes	Yes				
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0	3.0				3.0	3.0
Recall Mode	Max			None	None	Max	None	None				None	None
Walk Time (s)	7.0						7.0	7.0	7.0				
Flash Don't Walk (s)	32.0						32.0	12.0	12.0				
Pedestrian Calls (#/hr)	0						0	0	0				
Act Effct Green (s)	47.4				49.0	47.4	8.7	8.7	10.4	20.3			
Actuated g/C Ratio	0.59				0.61	0.59	0.11	0.11	0.13	0.25			
v/c Ratio	0.15				0.11	0.13	0.14	0.31	0.04	0.04			
Control Delay (s/veh)	14.0				11.7	14.2	39.6	43.2	23.8	0.3			
Queue Delay	0.0				0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay (s/veh)	14.0				11.7	14.2	39.6	43.2	23.8	0.3			
LOS	B				B	B	D	D	C	A			
Approach Delay (s/veh)	14.0						13.7	42.0	7.6				

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

Low-Volume Scenario
 Alternative 1

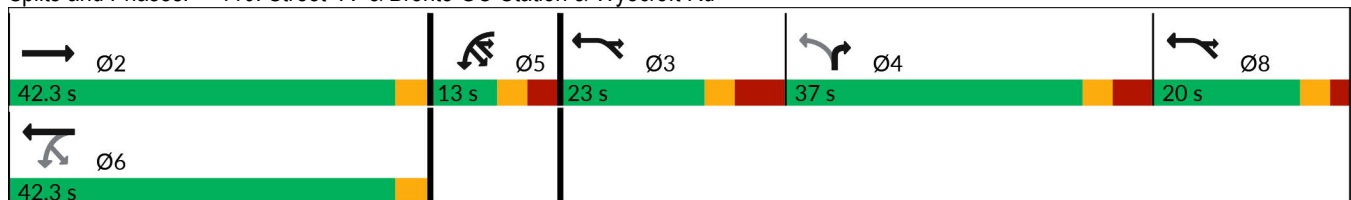


Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø3	Ø8
Approach LOS	B						B	D	A			
Queue Length 50th (m)	9.3						2.2	8.5	3.3	6.8	0.9	0.0
Queue Length 95th (m)	31.1						14.0	28.5	13.0	21.7	5.4	0.0
Internal Link Dist (m)	223.6						564.6	65.5	106.6			
Turn Bay Length (m)												
Base Capacity (vph)	1988						601	2041	696	623	278	383
Starvation Cap Reductn	0						0	0	0	0	0	0
Spillback Cap Reductn	0						0	0	0	0	0	0
Storage Cap Reductn	0						0	0	0	0	0	0
Reduced v/c Ratio	0.15						0.11	0.13	0.04	0.09	0.02	0.03

Intersection Summary

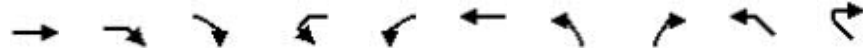
Area Type:	Other
Cycle Length:	135.3
Actuated Cycle Length:	80.7
Natural Cycle:	110
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.31
Intersection Signal Delay (s/veh):	16.8
Intersection LOS:	B
Intersection Capacity Utilization:	55.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 110: Street "A" & Bronte GO Station & Wycroft Rd



Lanes, Volumes, Timings
110: Street "A" & Bronte GO Station & Wycroft Rd

Low-Volume Scenario
Alternative 2



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø3	Ø8
Lane Configurations	↑↑				↑	↑↑	↑	↑	↑	↑		
Traffic Volume (vph)	250	5	25	10	50	250	25	50	5	10		
Future Volume (vph)	250	5	25	10	50	250	25	50	5	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00		
Fr _t	0.984							0.850		0.850		
Fl _t Protected					0.950		0.950		0.950			
Satd. Flow (prot)	3379	0	0	0	1539	3476	1789	1601	913	816		
Fl _t Permitted					0.547		0.950		0.950			
Satd. Flow (perm)	3379	0	0	0	886	3476	1789	1601	913	816		
Right Turn on Red			Yes							No		
Satd. Flow (RTOR)	8											
Link Speed (k/h)	50					50	48		48			
Link Distance (m)	247.6					588.6	89.5		130.6			
Travel Time (s)	17.8					42.4	6.7		9.8			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Heavy Vehicles (%)	5%	100%	2%	100%	2%	5%	2%	2%	100%	100%		
Adj. Flow (vph)	272	5	27	11	54	272	27	54	5	11		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	304	0	0	0	65	272	27	54	5	11		
Turn Type	NA			pm+pt	pm+pt	NA	Perm	Prot	Prot	custom		
Protected Phases	2			5	5	6		4	3 8	3 8	3	8
Permitted Phases				6	6		4					
Detector Phase	2			5	5	6	4	4	3 8	3 8		
Switch Phase												
Minimum Initial (s)	20.0			7.0	7.0	7.0	7.0	7.0			7.0	7.0
Minimum Split (s)	41.3			13.0	13.0	41.3	26.0	26.0			13.0	13.0
Total Split (s)	41.3			13.0	13.0	41.3	36.0	36.0			21.0	21.0
Total Split (%)	31.2%			9.8%	9.8%	31.2%	27.2%	27.2%			16%	16%
Maximum Green (s)	38.0			7.0	7.0	38.0	30.0	30.0			15.0	15.0
Yellow Time (s)	3.3			3.0	3.0	3.3	3.0	3.0			3.0	3.0
All-Red Time (s)	0.0			3.0	3.0	0.0	3.0	3.0			3.0	3.0
Lost Time Adjust (s)	0.0				0.0	0.0	0.0	0.0				
Total Lost Time (s)	3.3				6.0	3.3	6.0	6.0				
Lead/Lag							Lag	Lag			Lead	
Lead-Lag Optimize?							Yes	Yes			Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode	Max			Max	Max	Max	Min	Min			None	None
Walk Time (s)	7.0					7.0	7.0	7.0				
Flash Don't Walk (s)	31.0					31.0	13.0	13.0				
Pedestrian Calls (#/hr)	0					0	0	0				
Act Effct Green (s)	39.3				43.7	39.3	8.6	8.6	17.5	17.5		
Actuated g/C Ratio	0.49				0.55	0.49	0.11	0.11	0.22	0.22		
v/c Ratio	0.18				0.12	0.16	0.14	0.31	0.03	0.06		
Control Delay (s/veh)	14.2				11.4	14.5	38.4	41.8	21.2	22.0		
Queue Delay	0.0				0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	14.2				11.4	14.5	38.4	41.8	21.2	22.0		
LOS	B				B	B	D	D	C	C		
Approach Delay (s/veh)	14.2					13.9	40.7		21.8			

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

Low-Volume Scenario
 Alternative 2

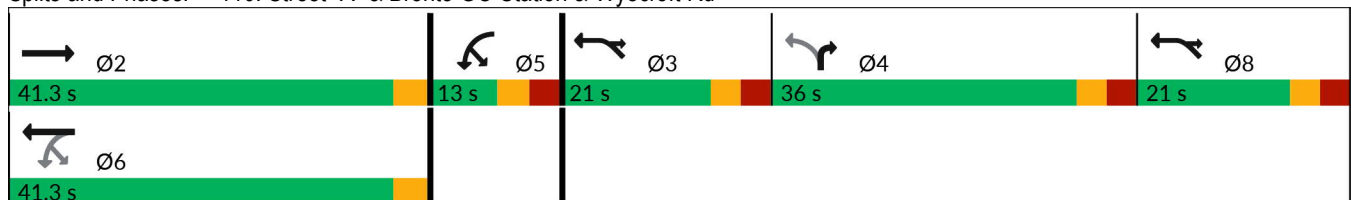


Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBR	NWL	NWR	Ø3	Ø8	
Approach LOS	B						B		D		C		
Queue Length 50th (m)	8.9				2.0		8.1	3.2	6.5	0.8	1.8		
Queue Length 95th (m)	30.5				13.7		28.0	12.9	21.4	5.1	8.7		
Internal Link Dist (m)	223.6						564.6	65.5	106.6				
Turn Bay Length (m)													
Base Capacity (vph)	1672				546		1716	697	623	341	304		
Starvation Cap Reductn	0				0		0	0	0	0	0		
Spillback Cap Reductn	0				0		0	0	0	0	0		
Storage Cap Reductn	0				0		0	0	0	0	0		
Reduced v/c Ratio	0.18				0.12		0.16	0.04	0.09	0.01	0.04		

Intersection Summary

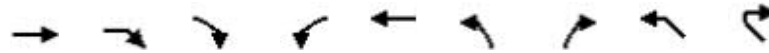
Area Type:	Other
Cycle Length:	132.3
Actuated Cycle Length:	79.5
Natural Cycle:	110
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.31
Intersection Signal Delay (s/veh):	17.1
Intersection LOS:	B
Intersection Capacity Utilization:	51.9%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 110: Street "A" & Bronte GO Station & Wycroft Rd



Lanes, Volumes, Timings
110: Street "A" & Bronte GO Station & Wycroft Rd

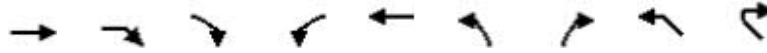
Low-Volume Scenario
Alternative 3



Lane Group	EBT	EBR	EBR2	WBL	WBT	NBL	NBR	NWL	NWR	Ø3	Ø8
Lane Configurations	↑↑			↘	↑↑	↘	↘	↘	↘		
Traffic Volume (vph)	250	0	30	60	250	25	50	5	10		
Future Volume (vph)	250	0	30	60	250	25	50	5	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00		
Frt	0.984						0.850		0.850		
Flt Protected				0.950		0.950		0.950			
Satd. Flow (prot)	3369	0	0	1521	3476	1789	1601	913	816		
Flt Permitted				0.566		0.950		0.950			
Satd. Flow (perm)	3369	0	0	906	3476	1789	1601	913	816		
Right Turn on Red			Yes						Yes		
Satd. Flow (RTOR)	167								96		
Link Speed (k/h)	50				50	48		48			
Link Distance (m)	247.6				588.6	91.9		123.2			
Travel Time (s)	17.8				42.4	6.9		9.2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Heavy Vehicles (%)	5%	2%	20%	20%	5%	2%	2%	100%	100%		
Adj. Flow (vph)	272	0	33	65	272	27	54	5	11		
Shared Lane Traffic (%)											
Lane Group Flow (vph)	305	0	0	65	272	27	54	5	11		
Turn Type	NA			Perm	NA	Perm	Prot	Prot	custom		
Protected Phases	2				6		4	3 8	3 8	3	8
Permitted Phases				6		4					
Detector Phase	2			6	6	4	4	3 8	3 8		
Switch Phase											
Minimum Initial (s)	20.0			20.0	20.0	7.0	7.0			7.0	7.0
Minimum Split (s)	25.8			25.8	25.8	26.0	26.0			15.0	12.0
Total Split (s)	35.8			35.8	35.8	32.0	32.0			23.0	20.0
Total Split (%)	32.3%			32.3%	32.3%	28.9%	28.9%			21%	18%
Maximum Green (s)	30.0			30.0	30.0	25.0	25.0			15.0	15.0
Yellow Time (s)	3.3			3.3	3.3	3.0	3.0			3.0	3.0
All-Red Time (s)	2.5			2.5	2.5	4.0	4.0			5.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0	0.0				
Total Lost Time (s)	5.8			5.8	5.8	7.0	7.0				
Lead/Lag						Lag	Lag			Lead	
Lead-Lag Optimize?						Yes	Yes			Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode	Max			Max	Max	None	None			None	None
Walk Time (s)	7.0			7.0	7.0	7.0	7.0				
Flash Don't Walk (s)	10.0			10.0	10.0	12.0	12.0				
Pedestrian Calls (#/hr)	0			0	0	0	0				
Act Effct Green (s)	40.9			40.9	40.9	8.3	8.3	10.3	10.3		
Actuated g/C Ratio	0.66			0.66	0.66	0.13	0.13	0.17	0.17		
v/c Ratio	0.13			0.11	0.12	0.11	0.25	0.03	0.05		
Control Delay (s/veh)	4.6			10.4	8.3	26.6	28.9	14.8	0.4		
Queue Delay	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	4.6			10.4	8.3	26.6	28.9	14.8	0.4		
LOS	A			B	A	C	C	B	A		
Approach Delay (s/veh)	4.6				8.7	28.1		4.9			

Lanes, Volumes, Timings
 110: Street "A" & Bronte GO Station & Wycroft Rd

Low-Volume Scenario
 Alternative 3

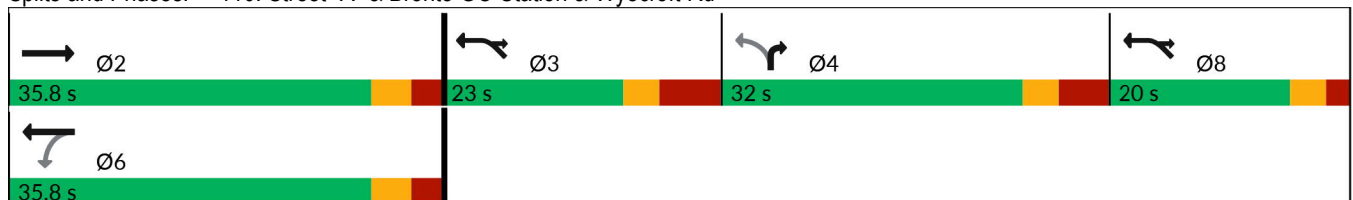


Lane Group	EBT	EBR	EBR2	WBL	WBT	NBL	NBR	NWL	NWR	Ø3	Ø8
Approach LOS	A			A			C			A	
Queue Length 50th (m)	2.3			2.4	4.8	2.8	5.6	0.7	0.0		
Queue Length 95th (m)	15.7			17.9	23.7	10.9	18.1	4.0	0.0		
Internal Link Dist (m)	223.6			564.6			67.9			99.2	
Turn Bay Length (m)											
Base Capacity (vph)	2287			600	2301	745	667	363	382		
Starvation Cap Reductn	0			0	0	0	0	0	0		
Spillback Cap Reductn	0			0	0	0	0	0	0		
Storage Cap Reductn	0			0	0	0	0	0	0		
Reduced v/c Ratio	0.13			0.11	0.12	0.04	0.08	0.01	0.03		

Intersection Summary












Area Type:	Other
Cycle Length:	110.8
Actuated Cycle Length:	61.7
Natural Cycle:	80
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.25
Intersection Signal Delay (s/veh):	9.1
Intersection LOS:	A
Intersection Capacity Utilization:	67.2%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 110: Street "A" & Bronte GO Station & Wycroft Rd



Lanes, Volumes, Timings
3: Street "A" / Bronte GO Station & Wycroft Rd

Low-Volume Scenario
Alternative 4

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	250	30	60	250	30	60
Future Volume (vph)	250	30	60	250	30	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Fr _t	0.984					0.850
Fl _t Protected			0.950		0.950	
Satd. Flow (prot)	3369	0	1521	3476	1521	1361
Fl _t Permitted			0.566		0.950	
Satd. Flow (perm)	3369	0	906	3476	1521	1361
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	23					65
Link Speed (k/h)	48			48	48	
Link Distance (m)	247.6			588.6	83.9	
Travel Time (s)	18.6			44.1	6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	20%	20%	5%	20%	20%
Adj. Flow (vph)	272	33	65	272	33	65
Shared Lane Traffic (%)						
Lane Group Flow (vph)	305	0	65	272	33	65
Turn Type	NA		Perm	NA	Perm	Perm
Protected Phases	6			2		
Permitted Phases			2		8	8
Detector Phase	6		2	2	8	8
Switch Phase						
Minimum Initial (s)	20.0		20.0	20.0	7.0	7.0
Minimum Split (s)	27.5		27.5	27.5	26.0	26.0
Total Split (s)	35.5		35.5	35.5	35.0	35.0
Total Split (%)	50.4%		50.4%	50.4%	49.6%	49.6%
Maximum Green (s)	30.0		30.0	30.0	30.0	30.0
Yellow Time (s)	3.3		3.3	3.3	3.0	3.0
All-Red Time (s)	2.2		2.2	2.2	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5		5.5	5.5	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	Max		Max	Max	None	None
Walk Time (s)	7.0		7.0	7.0	7.0	7.0
Flash Don't Walk (s)	15.0		15.0	15.0	14.0	14.0
Pedestrian Calls (#/hr)	0		0	0	0	0
Act Effct Green (s)	41.8		41.8	41.8	7.3	7.3
Actuated g/C Ratio	0.80		0.80	0.80	0.14	0.14
v/c Ratio	0.11		0.09	0.10	0.16	0.27
Control Delay (s/veh)	2.7		3.6	2.8	21.3	9.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	2.7		3.6	2.8	21.3	9.2
LOS	A		A	A	C	A
Approach Delay (s/veh)	2.7			3.0	13.3	

Lanes, Volumes, Timings
 3: Street "A" / Bronte GO Station & Wycroft Rd

Low-Volume Scenario
 Alternative 4



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach LOS	A			A	B	
Queue Length 50th (m)	4.1		2.0	3.8	4.0	0.0
Queue Length 95th (m)	8.0		6.1	7.6	9.4	8.8
Internal Link Dist (m)	223.6			564.6	59.9	
Turn Bay Length (m)						
Base Capacity (vph)	2692		722	2772	875	810
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.11		0.09	0.10	0.04	0.08

Intersection Summary

Area Type:	Other
Cycle Length:	70.5
Actuated Cycle Length:	52.4
Natural Cycle:	55
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.27
Intersection Signal Delay (s/veh):	4.2
Intersection LOS:	A
Intersection Capacity Utilization:	52.5%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 3: Street "A" / Bronte GO Station & Wycroft Rd

