



Birch Equities Limited

TRANSPORTATION IMPACT ASSESSMENT

Proposed Mixed-Use Development
1198 Yonge Street, City of Toronto

November 2021
19109



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November 5th, 2021

Reference Number: 19109

Mr. Paul Dydula
Birch Equities Limited
c/o Woodcliffe Landmark Properties
1133 Yonge Street, Suite 601
Toronto, ON
M4T 2Y7

Dear Mr. Dydula:

RE: Transportation Impact Assessment
Proposed Mixed-use Development
1198-Yonge Street, City of Toronto

LEA Consulting Ltd. is pleased to present the findings of our Transportation Impact Assessment for the proposed mixed-use development at 1198 Yonge Street in the City of Toronto. This report provides an analysis of the transportation network using available traffic data from the City, as well as a review of the parking and loading provisions in comparison to the By-law requirements.

Should you have any comments with our assumptions or have any concerns, please contact the undersigned.

Yours truly,
LEA CONSULTING LTD.

Kenneth Chan, P.Eng., PTOE, PMP
Vice President, Transportation Engineering and Planning

Joseph Doran, B.Eng., EIT
Project Coordinator

Encl.

Disclaimer

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1 INTRODUCTION

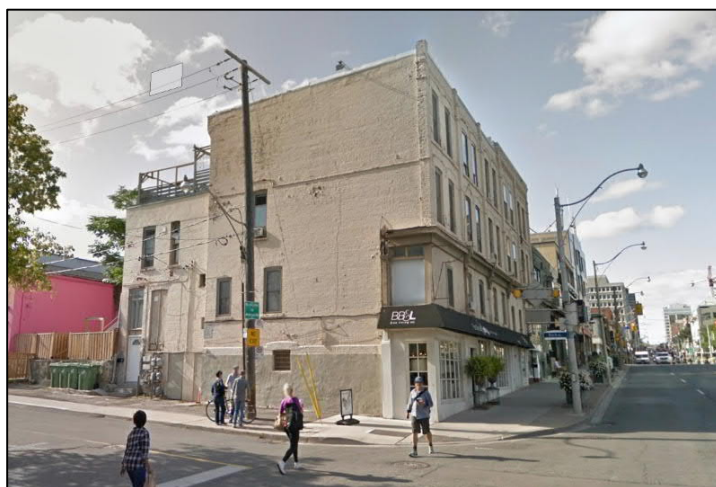
LEA Consulting Ltd. (LEA) was retained by Birch Equities Limited to conduct a Transportation Impact Assessment (TIA) for the proposed mixed-use redevelopment of 1198 Yonge Street (herein referred to as “subject site”) in the City of Toronto. The subject site is bounded by Yonge Street to the east, Birch Avenue to the south, and commercial properties to the north and west, as illustrated in Figure 1-1. The subject site is currently occupied by an existing four-storey commercial building as shown in Figure 1-2.

Figure 1-1: Site Location



Source: Google Maps

Figure 1-2: Existing Site



This report will review the existing transportation infrastructure in the surrounding area including road network, transit network and active transportation network.

Due to the small number of residential units and very low density of ancillary retail use proposed on-site, the trip generation for the proposed development is anticipated to be insignificant. Resultantly, no significant traffic impact on the surrounding transportation network is expected. In accordance with the City of

Toronto Transportation Impact Study Guidelines, a comprehensive traffic study is not required when the proposed development generates less than 100 vehicular trips. This was further confirmed with Transportation Planning and Transportation Services staff. Details related to our email correspondence are attached in Appendix A.

Therefore, the following assessment will review the trip generation for the existing building and compare this with the potential trip generation for the proposed development. In addition, the parking and loading provisions will be reviewed and Transportation Demand Management (TDM) measures will be recommended to encourage the use of other modes of transportation which is inline with objectives of the City of Toronto Official Plan.

1.1 DEVELOPMENT PROPOSAL

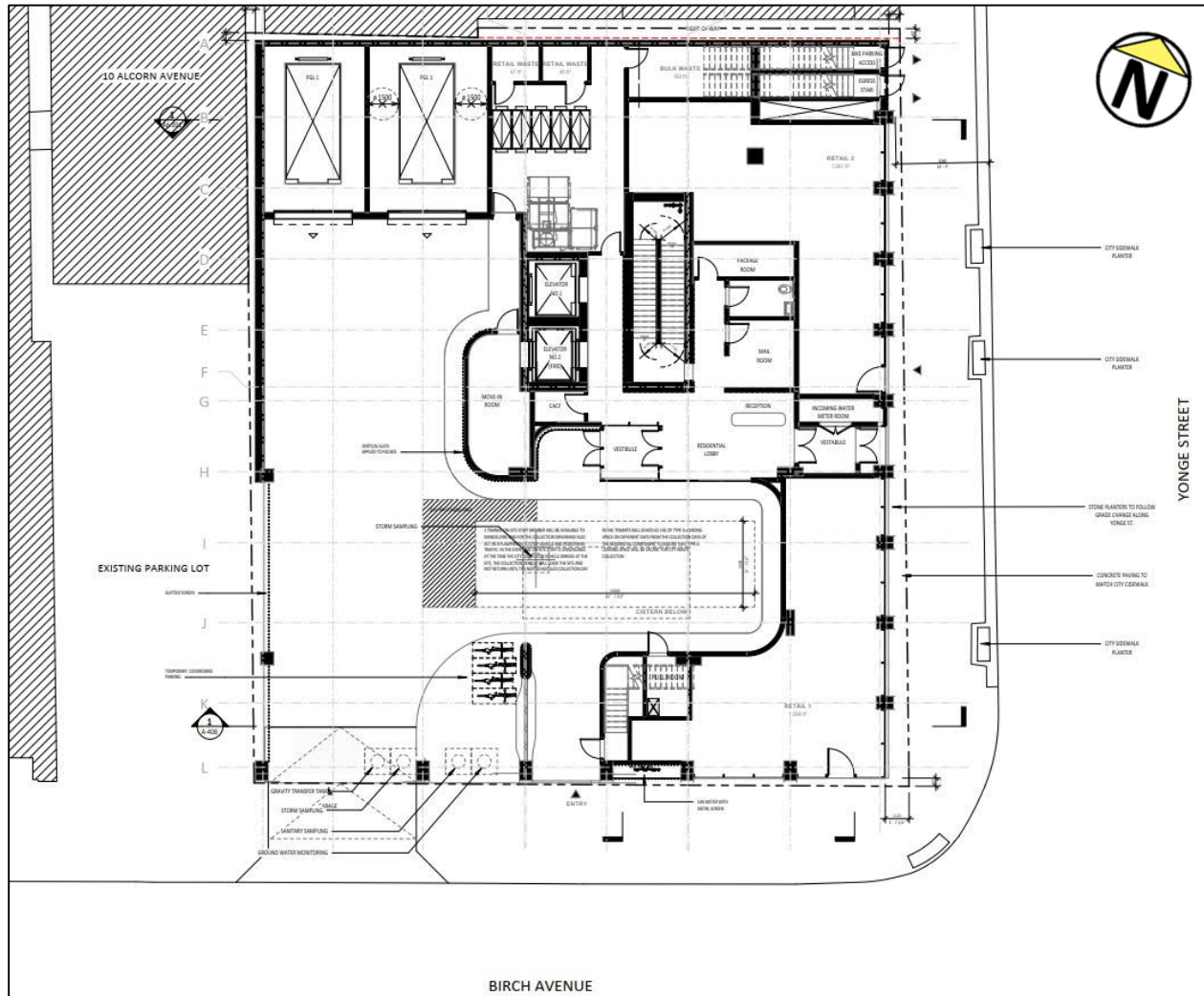
The redevelopment will introduce a 14-storey residential building with 67 units and 229m² of ground-floor retail as summarized in Table 1-1.

Table 1-1: Site Statistics

Land Use	Units/GFA
Bachelor	3
1-Bedroom	13
2-Bedroom	41
3-Bedroom	10
Total Units	67
Retail/Commercial	229 m ²

The existing access on Birch Avenue will remain as the single access to the subject site, with the site plan shown in Figure 1-3. A total of 105 parking spaces will be provided via two (2) car elevator shafts for three (3) levels of underground parking to serve the proposed development. Parking is proposed to be provided through an automated puzzle parking system (APS).

Figure 1-3: Proposed Site Plan



Source: KPMB Architects (January 29, 2021)

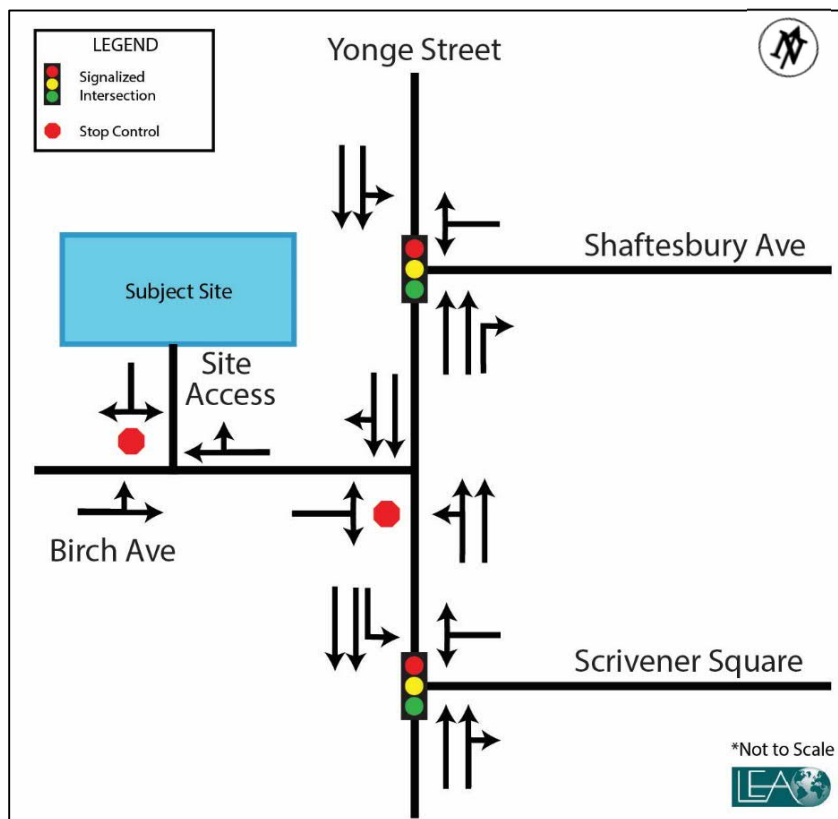
2 EXISTING CONDITIONS

This section will identify and assess the existing transportation conditions present in the study area, including the road, transit, cyclist, and pedestrian networks.

2.1 ROAD NETWORK

The subject site is bounded by adjacent developments to the north and west, Yonge Street to the east and Birch Ave to the south. The following section provides a description and classification of the roadways within the surrounding area, with the existing lane configurations illustrated in Figure 2-1.

Figure 2-1: Existing Lane Configuration



Yonge Street is a north-south major arterial roadway with a four-lane cross-section (two lanes per direction) in the vicinity of the subject site under the jurisdiction of the City of Toronto. The roadway operates with an assumed unposted speed limit of 50km/h.

Birch Avenue is an east-west local road that operates with a two-lane cross section (one lane per direction) in the vicinity of the subject site. It currently extends from Yonge Street westward before terminating into a cul-de-sac. The roadway operates with a posted speed limit of 30km/h.

Shaftesbury Avenue is an east-west local road that operates with a two-lane cross section (one lane per direction) in the vicinity of the subject site. Shaftesbury Avenue extends from Yonge Street eastward

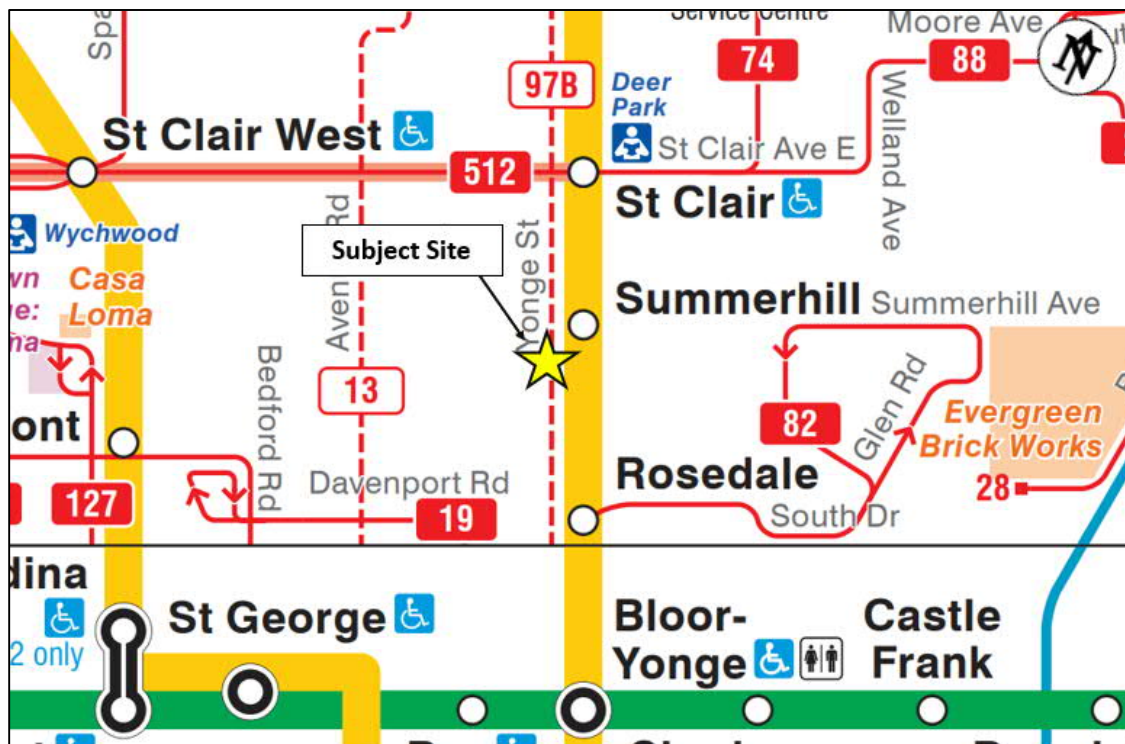
before becoming Summerhill Ave/Summerhill Garden. The roadway operates with a posted speed limit of 30km/h.

Scrivener Square is a private road which connects Yonge Street and Price Street. It has a two-lane cross section with one lane per direction in the vicinity of the subject site. It currently operates as an easement to its surrounding buildings. The roadway operates with a posted speed limit of 30km/h.

2.2 TRANSIT NETWORK

The proposed development is accessible by public transit in the form of bus and subway services operated by the Toronto Transit Commission (TTC). The existing transit network is described below and illustrated in Figure 2-2.

Figure 2-2: Existing Transit Services



Source: Toronto Transit Commission (June 2021)

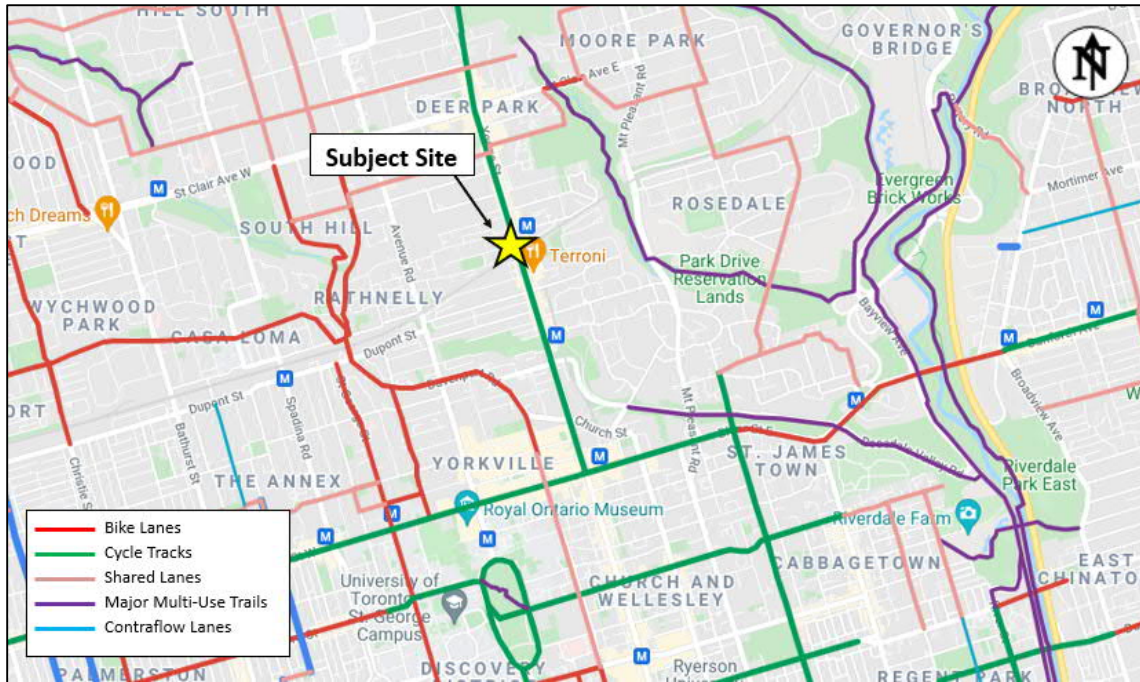
Line 1 Yonge – University is a subway route that generally runs in a south and then north direction. The route connects with Line 2 at Bloor-Yonge, St George and Spadina stations, and it connects with Line 4 at Sheppard-Yonge Station. The Line operates every day of the week, with a frequency of every 2 to 3 minutes during peak periods and every 4 to 5 minutes outside the rush hours. The closest Line 1 station is Summerhill, which is located 100m (approximately a 1.5 min walk) from the subject site.

TTC Route 97B is a bus route that generally operates in a north-south direction. The northbound of Route 97B operates from Queens Quay West and Yonge Street via north of Yonge Street, while southbound operates from York Mills Station via west on York Mills Road. The 97B branch operates only during the peak periods, from Monday to Friday.

2.3 CYCLING NETWORK

Cycling facilities are available within the study area with cycle tracks along Yonge Street, providing good north-south connections from the site to further cycle tracks along Bloor Street East and shared roadways along Balmoral Avenue and Rosehill Avenue. A map of the existing cycling facilities present in the area is shown in Figure 2-3. The greater area surrounding the subject site is also supported by cycling infrastructure including major multi-use trails along Yellow Creek to the east.

Figure 2-3: Existing Cycling Network



Source: Toronto Transit Commission (2021)

2.4 PEDESTRIAN NETWORK

In the area immediately surrounding the subject site, continuous sidewalks are available along both sides of Birch Avenue and Yonge Street, with crosswalks available at the signalized intersection of Yonge Street and Shaftesbury Avenue, and Yonge Street and Scrivener Square.

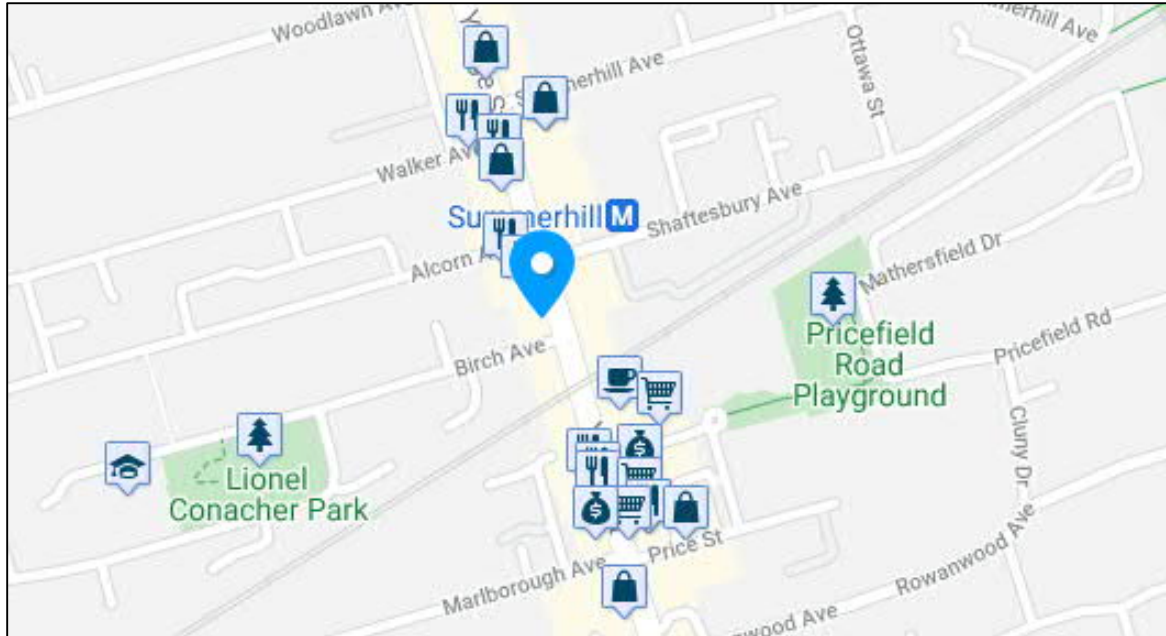
To verify the land uses that support the area's walkability, the subject site was entered as an address in the Walk Score website. The subject site receives a Walkscore™ of 89/100 – Very Walkable¹, which indicates that most errands can be accomplished on foot. Amenities along Yonge Street make the subject site a convenient location for residents.

A 10-minute walk from the site could permit an individual to reach St Clair Avenue to the north, Belmont Street to the south, Avenue Road to the west and Mt Pleasant Road to the east. Within this area are many amenities and services such as public parks, restaurants, banks, pharmacies and culture & entertainment

¹ <https://www.walkscore.com/score/1198-yonge-st-toronto-on-canada>

uses. Figure 2-4 below displays a range of amenities and daily needs that are within a walkable distance from the subject site.

Figure 2-4: Daily Needs and Amenities within Walking Distance of the Subject Site



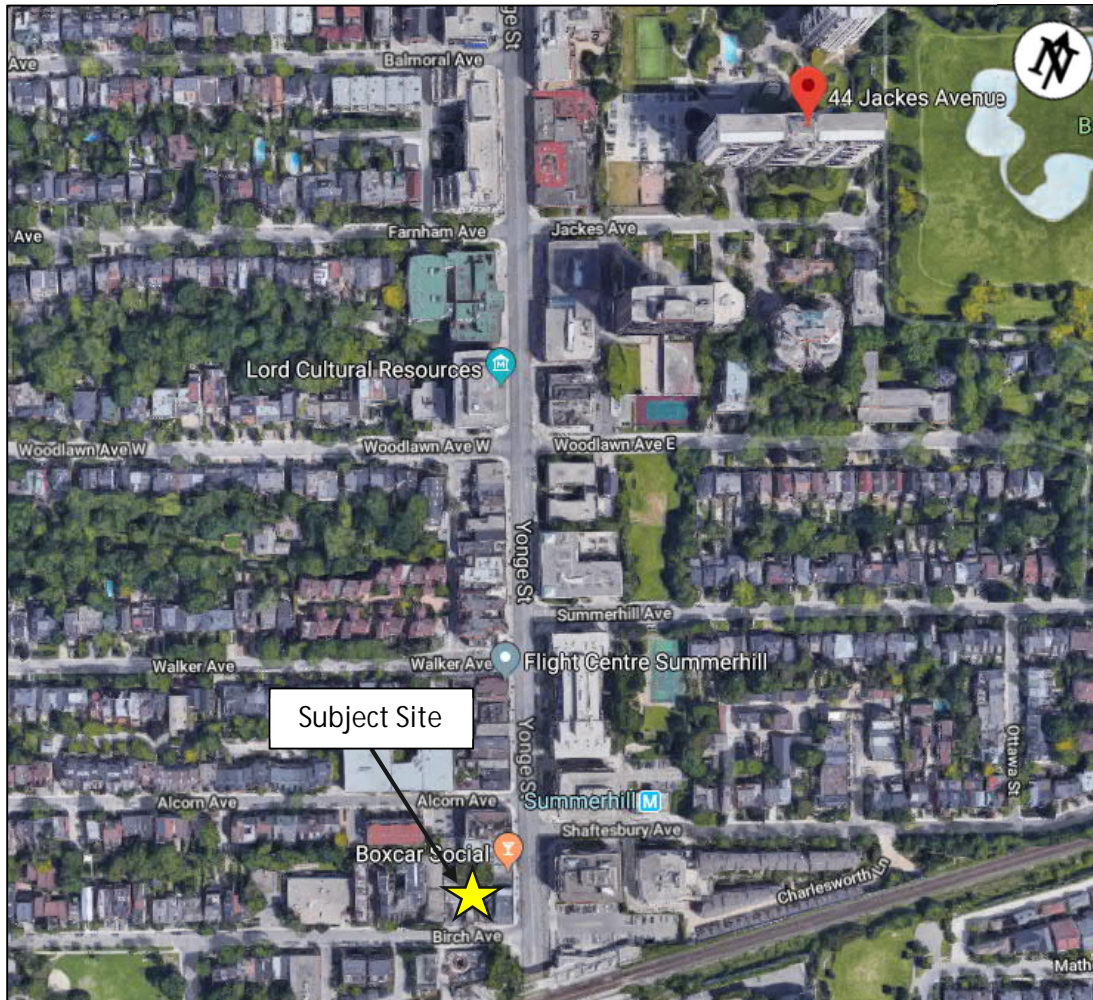
Source: WalkScore (2021)

3 SITE GENERATED TRIPS

3.1 TRIP GENERATION FOR THE PROPOSED DEVELOPMENT

As noted, the proposed development consists of 67 residential units and 229m² of retail space. The trip generation for the proposed development was estimated on the basis of the trip generation rates for the recently approved residential development at 44 Jackes Avenue. The trip generation rates were extracted from the *Rosehill Tower – Bretton Place: Urban Transportation Considerations Update* prepared by BA Group dated July 26, 2017. Details pertaining to the trip generation rates are provided in Appendix B. Figure 3-1 illustrates the location of the proxy site.

Figure 3-1: Proxy Site Location



As shown in Figure 3-1, the proxy site is located approximately 450 m to the north of the subject site. The proxy site is situated on the east side of Yonge Street between St. Clair Station and Summerhill Station.

The proxy site trip generation rates were approved by City staff and were applied to the proposed development, as summarized in Table 3-1. Given the proposed size of the retail uses, a trip generation forecast was not undertaken for the proposed ground floor retail. The retail component is expected to be ancillary to the residential development and will not generate significant auto trips.

Table 3-1: Proxy Trip Generation Rates

Site	Address	Units	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
Proxy Site Rates	44 Jackes Avenue	629	0.07	0.06	0.13	0.07	0.09	0.16
Subject Site	1198 Yonge Street	67	5	4	9	5	6	11

Based on the proxy trip generation rates, the proposed redevelopment is expected to generate 9 new trips (5 inbound, 4 outbound) in the AM peak hour, and 11 new trips (5 inbound, 6 outbound) in the PM peak hour.

3.2 TRIP GENERATION FOR THE EXISTING COMMERCIAL BUILDING

As requested by City staff, trip generation surveys were also conducted at the existing site. LEA conducted the surveys on Tuesday, July 10, 2018 from 7:00 AM to 9:00 and from 4:00 PM to 6:00 to capture the site traffic related to the existing commercial building during the weekday AM and PM peak periods.

Table 3-2: Trip Generation Comparison

Site	Weekday AM Peak Hour			Weekday PM Peak Hour		
	In	Out	Total	In	Out	Total
Existing Trip Generation at 1198 Yonge Street	4	3	7	3	1	4
Future Trip Generation at 1198 Yonge Street	5	4	9	5	6	11
Net Difference	+1	+1	+2	+2	+5	+7

The projected trip generation based on the proxy trip rates is comparable to the existing trips observed at the subject site, which currently generates 7 trips and 4 trips in the AM and PM peak hours respectively. Given the realization of the application, the subject site will generate 2 additional trips (+1 inbound, +1 outbound) in the AM peak hour and 7 new trips (+2 inbound, +5 outbound) in the PM peak hour.

Given the minimal number of trips generated by the subject site, the proposed expansion is expected to have a virtually no significant impact on the traffic operations in the surrounding area. As such, no intersection capacity analyses have been conducted as per City of Toronto Transportation Impact Study Guidelines.

4 PARKING REVIEW

This section will review the vehicular parking standards based on the City's Zoning By-law for the subject site. A discussion of the proposed automated puzzle parking system is also detailed below.

4.1 VEHICULAR PARKING

Currently, the subject site is governed by the requirements within City of Toronto Zoning By-Law 569-2013 (Policy Area 3). The parking standards and proposed supply for the subject site are summarized in Table 4-1.

Table 4-1: Vehicular Parking Requirements

Use	Units / GFA	Zoning By-law 569-2013 (PA3)				Proposed Supply
		Minimum Parking Rate	Minimum Parking Spaces	Maximum Parking Rate	Maximum Parking Spaces	
Bachelor	3 units	0.6 per unit	1	0.9 per unit	2	105
1-Bedroom	13 units	0.7 per unit	9	1.0 per unit	13	
2-Bedroom	41 units	0.9 per unit	36	1.3 per unit	53	
3-Bedroom	10 units	1.0 per unit	10	1.5 per unit	15	
Residential Sub-total			56		83	
Visitor	67 units	0.1 per unit	6	0.1 per unit	6	
Commercial	229 m ²	1.0 per 100m ²	2	4.0 per 100m ²	9	
TOTAL			64		98	105

Based on the Zoning By-Law requirements, the proposed development is required to provide a total of 64 parking spaces consisting of 56 resident parking spaces and 8 non-residential parking spaces. The development is proposing a total of 105 parking spaces which exceeds the minimum by-law requirement and the maximum by-law requirement. The proposed 105 parking spaces will be accessible via two (2) elevator car shafts for three (3) levels of underground parking. Parking is proposed to be provided through an automated puzzle parking system. It is to our understanding that visitor parking will be handled by the development's concierge.

To ensure appropriate operations of the parking system and identify any potential queueing impacts onto Birch Avenue, specification with respect to service operations were obtained from the supplier. Based on information received, the estimated total service time for a user to drop off their vehicle and for the system to accept the next vehicle is 194 seconds. Therefore, the automated parking system, containing two car elevators can process up to a total of 36 inbound and outbound vehicles (18 vehicles per elevator) in an hour.

As detailed in Section 3.1, the proposed development is expected to generate a total 9 and 11 auto trips in the AM and PM peak hours, respectively, with a peak inbound demand of 5 vehicles during both the AM and PM peak hour. This results in a car elevator capacity that is significantly higher than the projected peak hour demand of inbound and outbound traffic. Furthermore, under a scenario where one of the elevators becomes non-functional, the car capacity of the remaining elevator still exceeds the projected peak hour demand of inbound and outbound traffic. Therefore, there is no concern with potential spillage and the proposed development is not expected to generate significant queues that would obstruct the use of Birch Avenue. It can be concluded that there are no operational concerns with the proposed automated parking and associated elevator system.

4.2 BICYCLE PARKING

The subject site is governed by the requirements within City of Toronto Zoning By-Law 569-2013 (Bicycle Zone 1). The proposed development will achieve TGS Tier 1 goals, which require bicycle parking spaces to be provided in accordance with the City of Toronto Zoning By-law 569-2013. The bicycle parking standards are summarized below in Table 4-2.

Table 4-2: Bicycle Parking Requirements

Land Use	Units/GFA	Type	Min. Rate	Min. Spaces	Proposed
Residential	67	Long-Term	0.9 spaces per unit	61	72
		Short-Term	0.1 spaces per unit	7	
Retail	229m ²	Long-Term	No requirement for interior GFA <2,000m ²	-	-
		Short-Term		-	-
TOTAL				68	72

Based on Zoning By-law 569-2013/TGS requirements, the proposed development is required to provide a total of 68 bicycle spaces, consisting of 61 long-term and 7 short-term bicycle parking spaces. Since the retail space is less than 2,000m², bicycle parking is not required for the retail use. The subject site is proposing a total of 72 bicycle parking spaces which will exceed the City's By-law and TGS Tier 1 requirements.

5 LOADING REVIEW

The proposed development is subject to the rates and standards outlined in the City of Toronto Zoning By-law 569-2013. The minimum loading requirements are summarized in Table 5-1.

Table 5-1: Loading Requirements

Land Use	Units/GFA	By-Law Requirement	Proposed
Residential	67 units	1 Type G	1 Type G
Commercial	< 400m ²	-	-

The Zoning By-law outlines a minimum standard of one (1) Type G loading space for the proposed redevelopment. The site plan indicates the provision of one (1) Type G loading space to satisfy this requirement.

6 FUNCTIONAL DESIGN REVIEW

A review of the site plan has been undertaken to test site circulation for the City garbage truck and vehicle maneuvering into and out of the proposed car elevators. The functionality review of the proposed loading area indicates that the loading space can be safely accessed and egressed by the appropriate loading vehicles. The swept path diagrams are provided in Appendix D.

7 TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is a set of strategies which strive towards a more efficient transportation network by influencing travel behaviour. Effective TDM measures can reduce vehicle usage and encourage people to engage in more sustainable methods of travel. There are several opportunities to incorporate TDM measures that support alternative modes of transportation. The recommendations should enhance non-single occupant vehicle trips for future residents of the proposed residential development. The combination of the recommendations provided below are expected to reduce the number of single occupant vehicle (SOV) trips by 15%.

7.1 PEDESTRIAN-BASED STRATEGIES

Building entrances are to be located close to the street with a direct connection to pedestrian corridors.

The proposed pedestrian entrance is located on Yonge Street with direct connection to the existing sidewalks surrounding the site. This provides convenient linkages for pedestrians, transit users, and cyclists to access the building. To further enhance the pedestrian realm and consider persons with mobility difficulties, the passageways should be well lit with enhanced landscaping and minimal barriers to provide a permeable pedestrian corridor. This will create a pleasant and safe pedestrian experience.

Mixed land uses to facilitate walking trips.

The proximity to Summerhill Station as well as the nearby commercial, retail, and amenity uses provides a great opportunity for residents to walk to these destinations. The mix of land uses will facilitate utilitarian travel and reduce the need for automobile travel in the area. Given that Yonge Street is a major pedestrian corridor, the subject site receives a Walk Score™ of 89/100 on the Walk Score application, which evaluates the walkability of a site based on the distance to nearby destinations and pedestrian friendliness. The high Walk Score indicates that all daily errands can be completed without the use of a vehicle.

7.2 TRANSIT-BASED STRATEGIES

Connection to transit network.

There are existing transit stops within the vicinity of the subject site. As mentioned in Section 2.2, the subject site is located within 100m (or 1-minute walk) to Summerhill Station, which provides access to one of the most utilized subway lines. Line 1 offers connections to the central business district (CBD) of Toronto in the south and to York Region in the north. The proximity to both buses and subway presents a great opportunity for residents and visitors to use transit when traveling to and from the site.

Communication Strategy.

In order for residents to take advantage of the transit services surrounding the subject site, it is recommended that information packages be provided to new tenants to increase transit awareness and multi-modal transportation. Furthermore, route and scheduling information could be provided as displays in the lobby or through real-time updated digital displays in the elevator or in central locations in the

building. It is recommended that the applicant coordinate an information session with the City of Toronto to deliver and promote transit incentives to residents that work in the City.

7.3 CYCLING-BASED STRATEGIES

Provide bicycle parking facilities.

The proposed development will provide bicycle parking facilities to support and encourage active transportation. A supply of 74 bicycle parking spaces will be provided to meet the City of Toronto Zoning By-law 569-2013/TGS requirements. Bicycle parking will be located within the underground parking area for the residential units, while visitors and guests can utilize the bike racks at-grade near the front entrance.

Promote and increase cycling awareness and multi-modal transport.

Provide information packages to encourage active transportation and different travel demand management programs. This should include educating residents on the health and environmental benefits of cycling, as well as providing pedestrian, cycling and transit maps of the available infrastructure in the surrounding area. Identifying safe cycling routes can also facilitate students cycling to school and reduce automobile reliance for the younger generation.

The applicant should provide the information packages and communications to be distributed to future residents. A designated Information Centre should be set up within the main building area to provide updated information on Smart Commute initiatives and multi-modal connections.

7.4 TDM MEASURES IMPACT

This section provides an estimate of the effectiveness of the proposed TDM measures. It is noted that what is provided below is a high-level analysis estimating the upper limit of the impacts the proposed TDM measures would have on reducing single-occupancy automobiles generated by the subject site.

Given that the proposed TDM measures have the potential to decrease the single-occupancy vehicle modal split by up to 45%, it is anticipated that the above-mentioned TDM strategies will facilitate a reduction of single-occupancy vehicle trips at the subject site by at least 15%.

Table 7-1 provides an estimate of the effectiveness of the proposed TDM measures.

Table 7-1: TDM Measures Effectiveness

TDM Measure	Impact	Details
1. Building entrances are to be located close to the street with a direct connection to pedestrian corridors. 2. Mixed land uses to facilitate walking trips	≤24%	Based on the Modal Split documented in Appendix C, the pedestrian modal split (TTS 2016 data) consists of 24%. Given that the subject site provides convenient connections to pedestrian corridors, it is expected that the pedestrian modal split would be at least the same or higher than the existing pedestrian modal split in the area of the subject site.
3. Connection to transit network 4. Communication strategy	≤45%	Based on the Modal Split documented in Appendix C, the transit split (TTS 2016 data) consists of 45%. Given that the subject site provides convenient connections to the nearby transit stops especially Summerhill Subway Station, it is expected that the transit modal split of the subject site would be at least the same or higher than the existing transit modal split of the area surrounding the subject site.
5. Provide bicycle parking facilities 6. Promote and increase cycling awareness and multi-modal transport	≤4%	Based on the Modal Split documented in Appendix C for cyclists (TTS 2016 data) consists of 4%. Providing cycling infrastructure and increasing awareness is anticipated to raise the number of cyclists in the area. Also, it must be noted that the subject site's proposed bicycle parking exceeds the Toronto Green Standards, with the intent to encourage more cycling in the area.
Maximum	≤45%	-

8 CONCLUSIONS AND RECOMMENDATIONS

- ▶ The proposed mixed-use development will introduce 67 residential units and 229m² of ground floor retail, replacing the existing 4-storey commercial building located at 1198 Yonge Street in the City of Toronto. The existing access on Birch Avenue will remain as the single vehicular access to the subject site. Pedestrian access to the site will be provided from Yonge Street and Birch Avenue.
- ▶ The subject site is located in an area that is well-serviced by the Toronto Transit Commission (TTC) transit network. The subject site is located approximately 100m (or a 1.5 min walk) from Summerhill Station on the TTC Subway Line 1. The subject site is also within walkable distance of bus stops at Yonge Street & Shaftesbury Avenue.
- ▶ Overall, the proposed redevelopment is expected to generate 9 and 11 new primary vehicle trips during the weekday AM and PM peak hours, respectively. This results in a net difference of +2 trips and +7 trips during the weekday AM and PM peak hours, respectively when compared to the existing trips generated by the subject site. It is expected that the minimal number of auto trips generated by the site will not have a significant impact on the surrounding road network.
- ▶ The parking requirements specified within Zoning By-Law 569-2013 requires a total of 64 vehicular parking spaces for the proposed development, which is satisfied by the proposed supply of 105 parking spaces. Likewise, a minimum total of 68 bicycle spaces are required for the proposed development, which is met by the 72 proposed bicycle spaces.
- ▶ The loading review determined that the subject site will require one Type G loading space, which is satisfied.
- ▶ Several TDM measures have been recommended to reduce single-occupant vehicle trips and encourage alternative modes of travel including pedestrian connections and bicycle parking. The proximity to TTC transit services and the provisions of bicycle parking on-site allow residents to engage in active transportation and reduce the need for a vehicle.



APPENDIX A

Terms of Reference



June 29, 2018

Our Ref. 19109.200

Eddy Lam
City of Toronto
100 Queen Street West
Toronto, ON
M5H 2N2

**RE: Terms of Reference – Transportation Impact Assessment
Proposed Mixed-Use Development
1198 Yonge Street, City of Toronto**

Dear Mr. Lam,

We wish to confirm the following work plan for a Transportation Impact Assessment (TIA) for the proposed redevelopment located at 1198 Yonge Street in the City of Toronto. The subject site is located on the northwest corner of Yonge Street and Birch Avenue, as illustrated in **Figure 1**. The site is currently occupied by a four-storey commercial building. The proposed redevelopment will introduce a 12-storey residential building consisting of 32 units and 467 m² of ancillary retail uses. The following outlines the proposed Terms of Reference for this study.



Figure 1: Subject Site

This site plan is shown in **Figure 2**, with access provided to the site via one driveway on Birch Avenue.

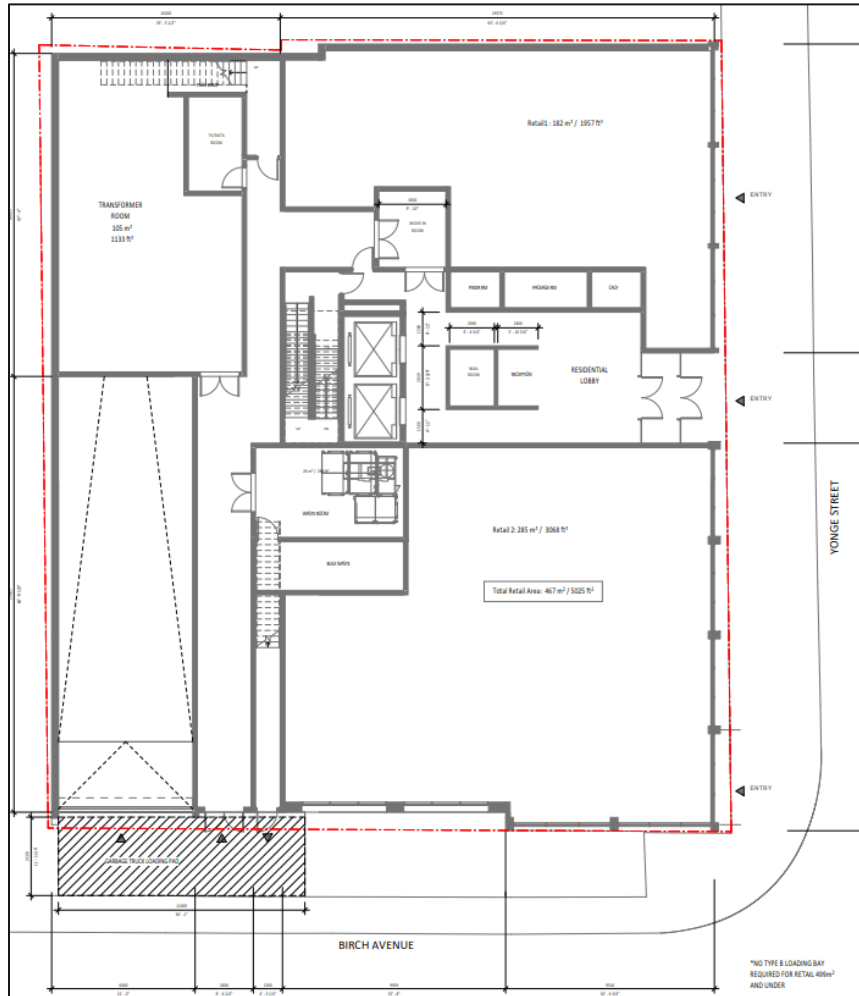


Figure 2: Proposed Site Plan

Trip Generation

Trip generation for the residential land uses will be based on the trip generation rates indicated in the *Rosehill Tower – Bretton Place: Urban Transportation Considerations Update* prepared by BA Group dated July 26, 2017. The trip generation rates applied in the report were approved by City staff and are summarized below:

	Weekday AM Peak Hour			Weekday PM Peak Hour		
	In	Out	Total	In	Out	Total
Trip Rates/unit	0.07	0.06	0.13	0.07	0.09	0.16

Table 1: Trip Generation Rates

Transportation Demand Management

Recommend Transportation Demand Management (TDM) measures to encourage alternative modes of travel and identify pedestrian, cycling and transit connections.



Parking and Loading

The site is currently under the jurisdiction of City of Toronto Zoning By-law 569-2013, which will be reviewed for parking and loading requirements. If a parking reduction is proposed, appropriate analyses and justification will be provided to illustrate that the proposed parking supply will meet the projected parking demand.

Site Plan Review

Review the site plan to ensure that the overall site functions properly from a transportation perspective, such as vehicular movements, parking space dimensions and aisle widths.

Should you have any concerns with the above assumptions, please contact the undersigned at (905) 470-0015, Ext. 310.

Yours truly,

LEA CONSULTING LTD.

Iris Chan

Transportation Planner

cc: Tony Chiu

Joseph Doran

From: Eddy Lam <Eddy.Lam@toronto.ca>
Sent: July 5, 2018 4:05 PM
To: Iris Chan
Cc: Tony Chiu; Felipe Vernaza; Tabassum Rafique; Nigel Tahair
Subject: RE: 1198 Yonge St - Terms of Reference

Hi Isis,

From a planning perspective in , the 12-storey may raise some height and massing issue. In order to properly address this issue, it is important to understand the trip generation difference between the existing land use and the proposed land use. Thus, an on-site trip generation survey should be conduct during the a.m. and p.m. peak periods. In addition, due to the urban setting and limited on-site parking supply, curbside activities (such as deliveries, taxi pick-up/drop-off) must also be included in the survey.

I have discussed this project with Tabassum Rafique, Traffic Planning of Transportation Services Division. He will respond to you directly if he needs further adjustments on your scope of work. I have cc'ed him in this email.

Regards,
Eddy

From: Iris Chan [mailto:IChan@lea.ca]
Sent: June-29-18 11:15 AM
To: Nigel Tahair <Nigel.Tahair@toronto.ca>
Cc: Eddy Lam <Eddy.Lam@toronto.ca>; Tony Chiu <tchiu@lea.ca>; Felipe Vernaza <fvernaza@lea.ca>
Subject: 1198 Yonge St - Terms of Reference

Hello Eddy,

LEA has been retained to complete a Transportation Impact Assessment for the proposed redevelopment of 1198 Yonge Street. The proposal consists of a 12-storey residential building with approximately 32 units and ground floor retail. Given the number of units proposed, the site is expected to generate a small number of trips, in which a full TIS will not be required as per the City's TIS Guidelines. As such, our proposed work plan for a reduced-scope TIA will only involve a trip generation assessment and conclude that traffic impacts will be minimal and acceptable. The proposed TIA will not include intersection capacity analysis of the surrounding road network.

Our terms of reference for the study has been attached for your review. We look forward to working with you and receiving your comments. If you have any questions or concerns, please feel free to contact me.

Thank you,

Iris Chan
Transportation Planner

LEA Consulting Ltd.

625 Cochrane Drive, 9th Floor | Markham, ON | L3R 9R9
T: 905-470-0015, ext.310 | E: ichan@lea.ca

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APPENDIX B

Trip Generation Rates



BA Group

ROSEHILL TOWER - BRETTON PLACE PROPOSED RESIDENTIAL DEVELOPMENT CITY OF TORONTO

Urban Transportation Considerations Update

Prepared For: QuadReal

July 26, 2017



3.0 TRAFFIC OPERATIONS

3.1 SITE TRIP GENERATION

For this report, BA Group has updated the trip generation for the proposed development because it now includes 251 new units, 21 fewer than assessed as part of the November 2016 proposal. The updated trip generation is summarized in **Table 4**.

TABLE 4: SITE TRAFFIC GENERATION

	AM Peak Hour			PM Peak Hour		
	In	Out	2-Way	In	Out	2-Way
Existing Bretton Place Trips ¹	44	37	81	42	56	98
Existing Residential Trip Rate (629 Units)	0.07	0.06	0.13	0.07	0.09	0.16
Number of New Trips (272 units ²)	19	16	35	19	24	43
Number of New Trips (251 units ³)	17	15	32	17	23	40
Difference between Old and New Proposals	-2	-1	-3	-2	-1	-3

Notes:

1. Based on surveys conducted by BA Group on Wednesday, June 1, 2016, and includes peak hour trips generated by leased parking spaces.
2. Site statistics are based on plans provided by Hariri Pontarini Architects dated November 8, 2016.
3. Site statistics are based on plans provided by Hariri Pontarini Architects dated July 18, 2017.

Based on the project having 251 new units, it is estimated that the site will generate in the order of 32 and 40 new two-way trips in the weekday morning and afternoon peak hour periods, respectively. This represents a marginal reduction in site trips compared to the assessment in the November 2015 Report. Since the existing site traffic volumes include existing trips generated by leased parking spaces used by off-site users, the existing residential trip rates contained in Table 4 above are conservatively high.

City Staff comments on trip generation and traffic impact based on staff review of the November 2016 Report were included in the Development Engineering memo of January 16, 2017:

Given this level of estimated trip generation, the consultant concludes that the proposed development will have minimal traffic impacts at the intersections within the study area. Based on a review of the documentation provided by the consultant, and considering the nature of the application for this project, we concur with the above-noted conclusion and the traffic impacts of the proposal will be accepted.

Given the reduction in the number of proposed new units, the previous conclusions of BA Group and City Transportation Staff remain valid.

TABULAR SUMMARY OF TRIP GENERATION COUNT

COUNT DATE: July 10th, 2018
 PROJECT #: 19109.000
 OBSERVER: AF

WEATHER: Sunny
 LOCATION: Backside of 1198 Yonge Street

TIME	WEEKDAY AM PEAK										TOTAL			
	INBOUND					OUTBOUND					IB	OB	ALL	HOURLY
	AUTO	TAXI	TRUCK	SITE PARKING	ADJACENT PARKING	AUTO	TAXI	TRUCK	SITE PARKING	ADJACENT PARKING				
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15	1	0	0	1	0	0	0	0	0	0	2	0	2	
7:30	1	0	0	0	0	2	0	0	0	0	1	2	3	
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:00	1	0	0	0	0	1	0	0	0	0	1	1	2	7 <-- Peak Hour
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:30	0	0	0	1	0	0	0	0	0	0	1	0	1	3
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	3
TOTAL	3	0	0	2	0	3	0	0	0	0	5	3	8	
AM PEAK	3	0	0	1	0	3	0	0	0	0	4	3	7	

*All Auto Drop-Off & Pick-Up were parked on adjacent parking lot

TIME	WEEKDAY PM PEAK										TOTAL			
	INBOUND					OUTBOUND					IB	OB	ALL	HOURLY
	AUTO	TAXI	TRUCK	SITE PARKING	ADJACENT PARKING	AUTO	TAXI	TRUCK	SITE PARKING	ADJACENT PARKING				
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:15	0	0	0	1	0	0	0	0	0	0	1	0	1	
16:30	0	0	0	0	0	0	0	0	1	0	0	1	1	
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	2 <-- Peak Hour
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	2 <-- Peak Hour
17:15	1	0	0	0	0	0	0	0	0	0	1	0	1	2 <-- Peak Hour
17:30	0	1	0	0	0	0	0	0	0	0	1	0	1	2 <-- Peak Hour
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	2 <-- Peak Hour
TOTAL	1	1	0	1	0	0	0	0	1	0	3	1	4	
PM PEAK	1	1	0	0	0	0	0	0	0	0	2	0	2	

*2 Cars already parked in Site parking lot before survey time



TABULAR SUMMARY OF TRIP GENERATION COUNT

COUNT DATE: July 10th, 2018
 PROJECT #: 19109.000 WEATHER: Sunny
 OBSERVER: AF LOCATION: Frontside of 1198 Yonge Street

TIME	WEEKDAY AM PEAK						TOTAL			
	INBOUND			OUTBOUND			IB	OB	ALL	HOURLY
	AUTO	TAXI	TRUCK	AUTO	TAXI	TRUCK				
7:00	0	0	0	0	0	0	0	0	0	
7:15	0	0	0	0	0	0	0	0	0	
7:30	0	0	0	0	0	0	0	0	0	
7:45	0	0	0	0	0	0	0	0	0	<-- Peak Hour
8:00	0	0	0	0	0	0	0	0	0	<-- Peak Hour
8:15	0	0	0	0	0	0	0	0	0	<-- Peak Hour
8:30	0	0	0	0	0	0	0	0	0	<-- Peak Hour
8:45	0	0	0	0	0	0	0	0	0	<-- Peak Hour
TOTAL	0	0	0	0	0	0	0	0	0	
AM PEAK	0	0	0	0	0	0	0	0	0	

TIME	WEEKDAY PM PEAK						TOTAL			
	INBOUND			OUTBOUND			IB	OB	ALL	HOURLY
	AUTO	TAXI	TRUCK	AUTO	TAXI	TRUCK				
16:00	0	0	0	0	0	0	0	0	0	
16:15	0	0	0	0	0	0	0	0	0	
16:30	0	0	0	0	0	0	0	0	0	
16:45	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	1	0	0	1	1	1	2	2 <-- Peak Hour
17:45	0	0	0	0	0	0	0	0	0	2 <-- Peak Hour
TOTAL	0	0	1	0	0	1	1	1	2	
PM PEAK	0	0	1	0	0	1	1	1	2	

* Canpar Truck Parked at 5:34-5:39





APPENDIX C

TTS Data

2016 Mode Split Data

Thu Aug 05 2021 09:44:30 GMT-0400 (Eastern Daylight Time) - Run Time: 2802ms

Cross Tabulation Query Form - Trip - 2016 v1.1

Row: 2006 GTA zone of origin - gta06_orig

Column: Primary travel mode of trip - mode_prime

Filters:

(2006 GTA 203 204
and

Start time of trip - start_time In 600-900
and

Type of dwelling unit - dwell_type In 2)

Trip 2016

Table:

Filter Tutorial Here about the checkboxes
[Open current page in new tab.](#)

Type of Dwelling Unit	
Code	Description
1	House
2	Apartment
3	Townhouse (Starting From 1996)
9	Unknown

	Transit excluding GO rail	Cycle	Auto driver	Auto passenger	Walk	Total	
44	342	76	259	51	472	1200	
203	579	97	154	60	143	1033	
204	1107	23	512	181	454	2277	
	2028	196	925	292	1069	4510	
	45%	4%	21%	6%	24%	100%	



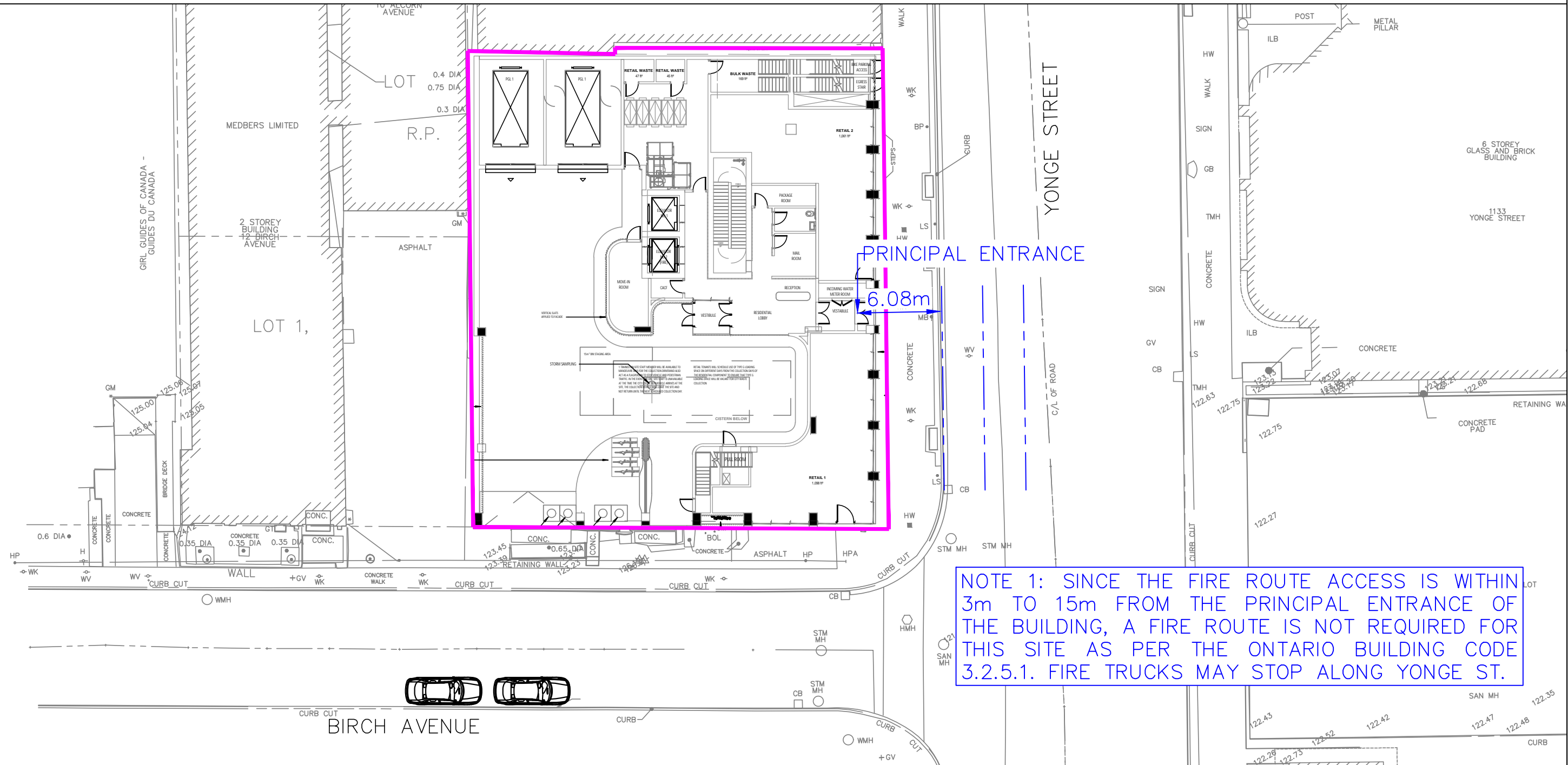
APPENDIX D

Swept Path Diagrams

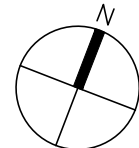
NOTES:

AS PER THE ONTARIO BUILDING CODE 3.2.5

- 5.1 LOCATION OF ACCESS ROUTES – ACCESS ROUTES SHALL BE LOCATED SO THAT THE PRINCIPAL ENTRANCE AND EVERY ACCESS OPENING ARE LOCATED NOT LESS THAN 3m AND NOT MORE THAN 15m FROM THE CLOSEST PORTION OF THE ACCESS ROUTE

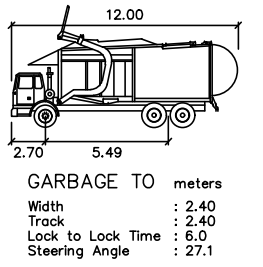


NOTE 1: SINCE THE FIRE ROUTE ACCESS IS WITHIN 3m TO 15m FROM THE PRINCIPAL ENTRANCE OF THE BUILDING, A FIRE ROUTE IS NOT REQUIRED FOR THIS SITE AS PER THE ONTARIO BUILDING CODE 3.2.5.1. FIRE TRUCKS MAY STOP ALONG YONGE ST.

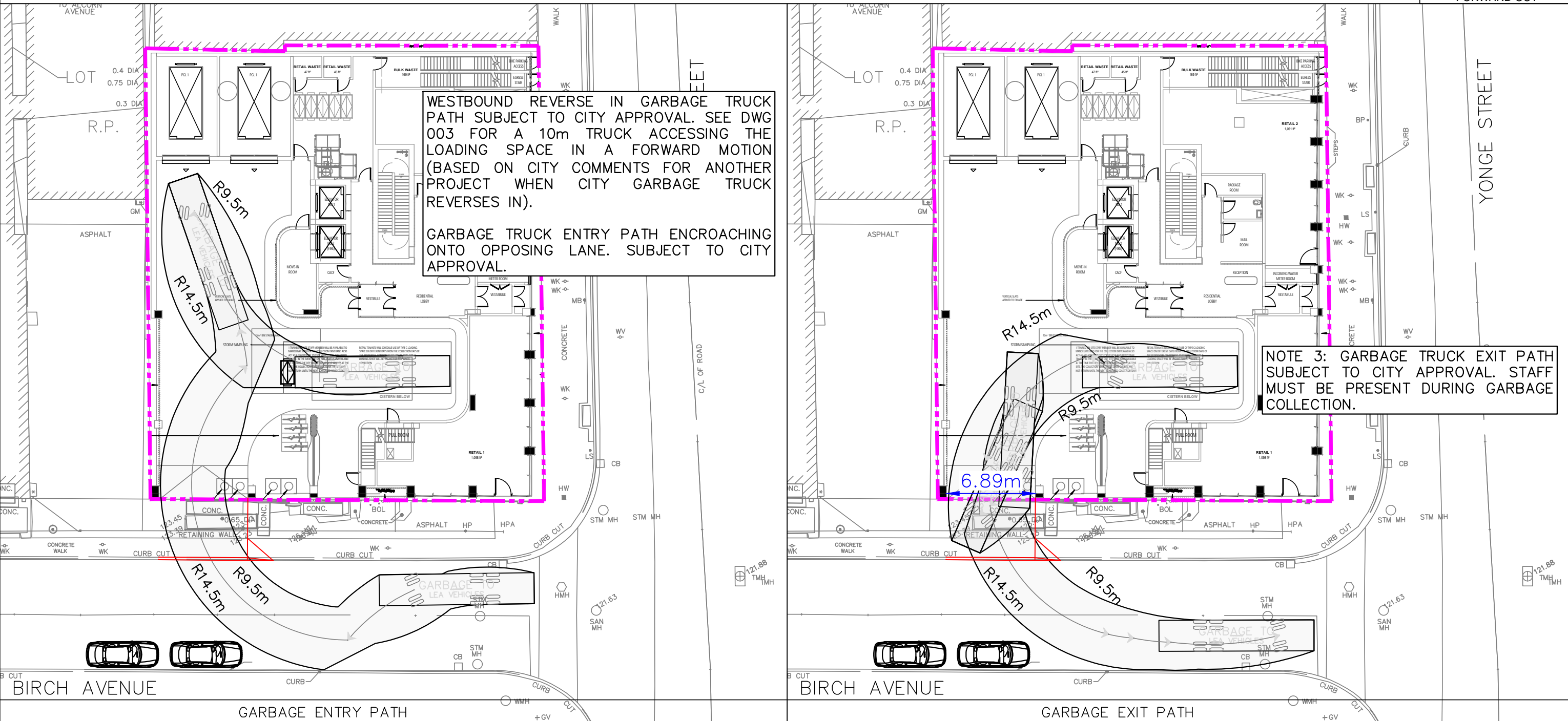


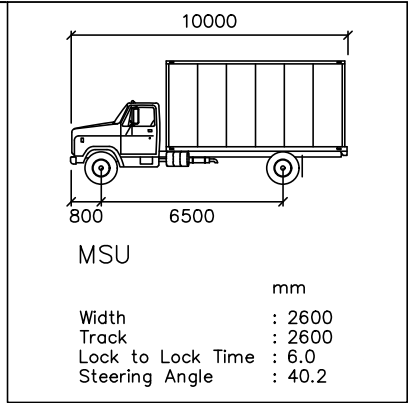
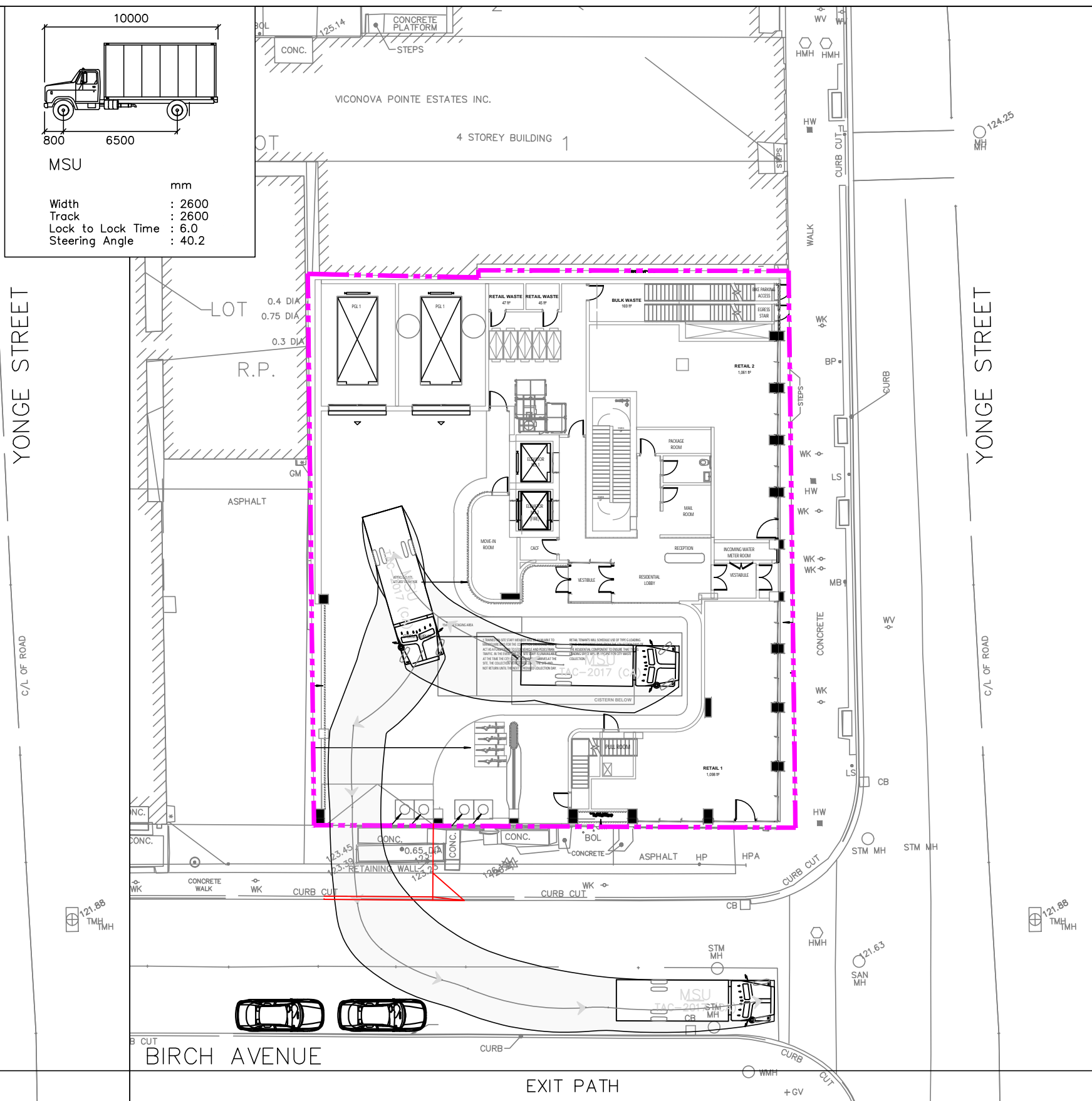
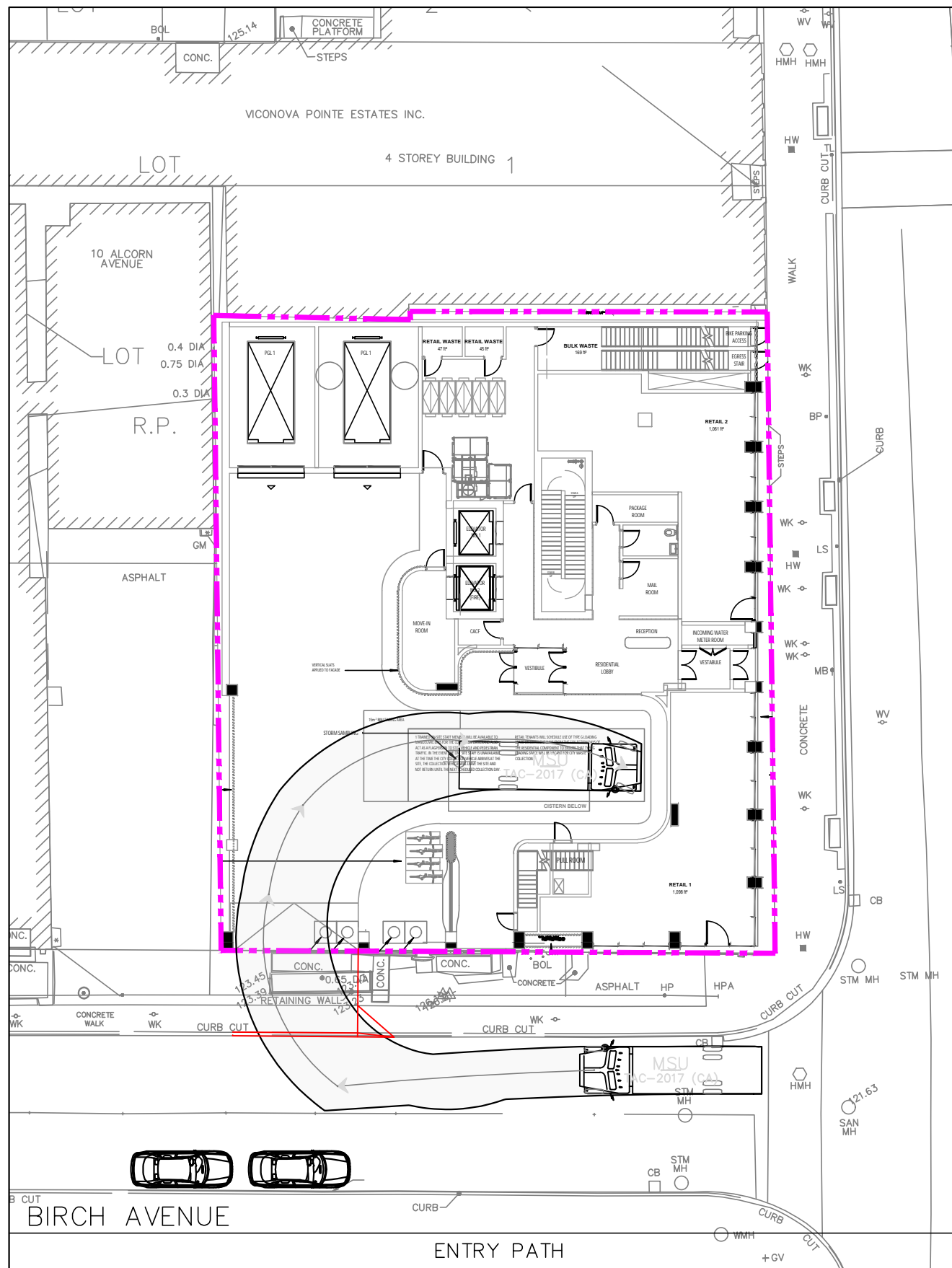
NOTES:

1. AS PER THE CITY OF TORONTO ZONING BY-LAW 569-2013 CHAPTER 220.5.1.10.8.D, TYPE G LOADING SPACE – MIN. 13.0m LENGTH, 4.0m WIDTH, 6.1m VERTICAL CLEARANCE
2. AS PER THE CITY OF TORONTO REQUIREMENTS FOR GARBAGE, RECYCLING AND ORGANICS COLLECTION SERVICES FOR NEW DEVELOPMENTS AND REDEVELOPMENTS (WASTE DESIGN GUIDELINES):
 - 2.1. PAGE 16 STAGING AREA – ADD 5m² FOR EVERY 50 UNITS > 50
 - 2.2. PAGE 17 ACCESS – MIN. 4.4m VERTICAL CLEARANCE THROUGHOUT THE SITE
3. A TRAINED ON-SITE STAFF MEMBER WILL BE AVAILABLE TO MANEUVER THE GARBAGE BIN TO THE FRONT OF THE VEHICLE FOR THE COLLECTION DRIVER AND ACT AS A FLAGMAN WHEN THE TRUCK IS REVERSING. IF THE STAFF IS UNAVAILABLE AT THE TIME THE CITY COLLECTION VEHICLE ARRIVES AT THE SITE, IT WILL LEAVE THE SITE AND RETURN ON THE NEXT SCHEDULED COLLECTION DAY.

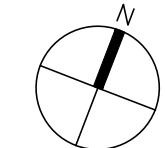


REVERSE IN
FORWARD OUT





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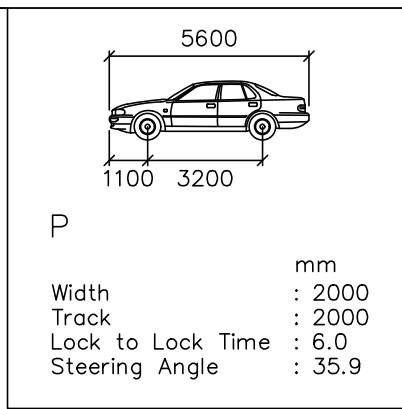
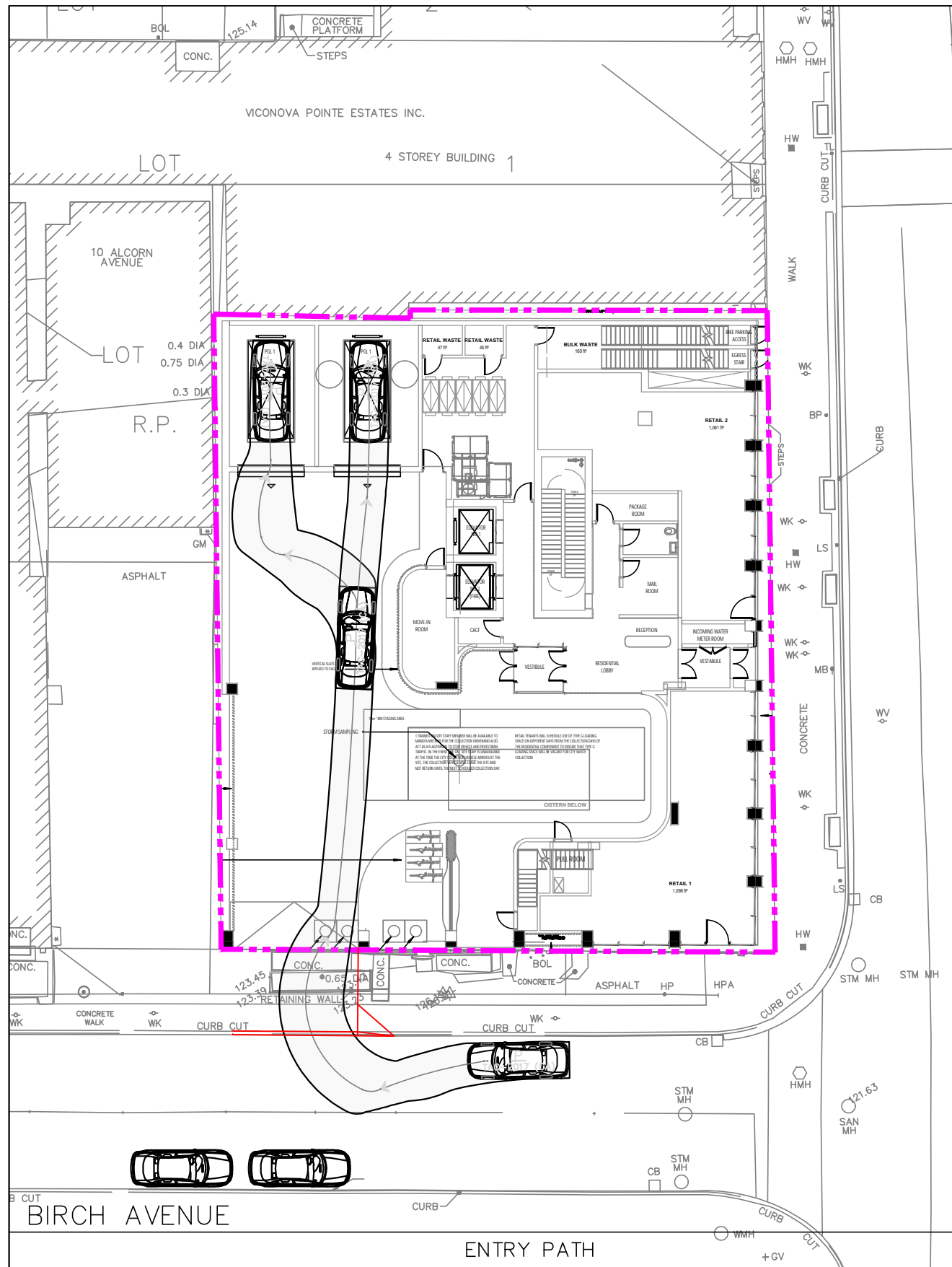


Project No.
19109
Date
SEP 27, 2021

1198 YONGE STREET
TORONTO ONTARIO
3 0 3 6 9m
1:300

LOADING REVIEW
MOVING / DELIVERY TRUCK (MSU)
ENTRY & EXIT PATHS

Drawing No.
004



NOTE:
 1. SWEEP PATHS SHOWN ARE BASED ON A STANDARD P-TAC VEHICLE (5.6m LONG). AUTOMATED PARKING SYSTEM SPEC SHEETS TO BE PROVIDED FOR DETAILED REVIEW.

