



BA Group

2150 LAKE SHORE BOULEVARD WEST PROPOSED MIXED-USE DEVELOPMENT TORONTO, ONTARIO

Urban Transportation Considerations
Official Plan Amendment, Zoning By-law Amendment, and Draft Plan
of Subdivision Application Resubmission
Technical Study

Prepared For: FCR (Park Lawn) Corporation
2253213 Ontario Limited

February 2021



**MOVEMENT
IN URBAN
ENVIRONMENTS**
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45 St. Clair Avenue West, Suite 300
Toronto, ON M4V 1K9
www.bagroup.com

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1.0 INTRODUCTION

BA Group is retained by First Capital (Park Lawn) Corporation (herein referred to as “First Capital” or “the Client”) on behalf of FCR (Park Lawn) Corporation and 2253213 Ontario Limited (herein referred to as “the Owners”) to provide urban transportation consulting services in relation to the redevelopment of the former Christies cookie factory Site, comprising municipal addresses 2150-2194 Lake Shore Boulevard West and 23 Park Lawn Road (herein referred to as “the Site”, “the Christies Site”, or “the 2150 Lake Shore Site”).

1.1 THE CHRISTIES SITE

The Christies Site is located in the western area of Toronto at the confluence of a number of regional transportation facilities as they cross the Humber River. These include, significantly, the Gardiner Expressway highway corridor (and its interchanges with Park Lawn Road), two arterial streets in Lake Shore Boulevard West and the Queensway, the Lakeshore West GO rail corridor and the Martin Goodman multi-use trail system.

Figure 1 illustrates the site location and context.

As noted in prior submissions, this confluence provides a significant opportunity to support the redevelopment of the 2150 Lake Shore Boulevard West property as a complete community that can, with accompanying investment in new and modified transportation initiatives, be excellently served by a full range of mobility travel options. These are embodied within the Master Plan vision for the 2150 Lake Shore Boulevard West site as outlined in prior submissions and further discussed within this update report.

1.2 BACKGROUND

1.2.1 Christies Planning Study and Park-Lawn - Lake Shore Transportation Master Plan

The Site is a key part of an ongoing City of Toronto led Secondary Plan process that is to establish a comprehensive vision for both the Site and surrounding area.

The Christies Planning Study process was initiated by the City following a settlement of appeals by FCR of the City of Toronto Official Plan Amendment No. 231 (herein referred to as “OPA 231”) for the Site. This settlement led to the adoption of a Site and Area Specific Policy (SASP) for the Site and the re-designation of the lands from Employment Industrial to Regeneration Areas. The Christies Planning Study will provide a framework – together with site specific planning approvals – guiding redevelopment within the area.

The City had previously initiated the Park Lawn – Lake Shore Transportation Master Plan (TMP) prior to the commencement of the Christies Planning Study to inform transportation infrastructure needs decision making for the area. After a delay in the study process awaiting resolution of the appeals of OPA 231 for the Christies property, the TMP was re-initiated in parallel to the Secondary Planning process.



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FIGURE 1 SITE LOCATION AND CONTEXT

Notably, City-led transportation modelling and assessment processes have been developed in coordination with those developed / required as part of the site specific planning applications and approvals process for the 2150 Lake Shore Boulevard West property.

Both the Christies Planning Study and Park Lawn – Lake Shore TMP are proposed to conclude in Spring / Summer 2021.

1.2.2 Initial Official Plan Amendment Application (October 2019)

An Official Plan Amendment (OPA) application was made for the Site in October 2019. This application presented a comprehensive mixed-use Master Plan development vision for the property and this process is currently advancing in parallel to the City-led Secondary Plan process. BA Group prepared an Urban Transportation Considerations report as part of the initial October 2019 OPA submission made to the City.

The proposed Master Plan provides a multi-faceted framework guiding the creation of a new community within the Humber Bay Shores area including a detailed consideration of the range of supporting services, amenities, public and private open spaces, land-uses, transit and other mobility infrastructure provisions, new streets and other structuring elements that are proposed to support the Master Plan.

1.2.3 Official Plan Amendment Update, Zoning By-law Amendment, and Draft Plan of Subdivision Application (May 2020)

Combined updated Official Plan Amendment, Zoning By-law Amendment (ZBA), and Draft Plan of Subdivision (DPS) applications was made to the City of Toronto in May 2020 reflecting changes made to the Master Plan since the initial OPA submission in October 2019.

These applications were made to further advance and define the approvals and implementation processes for the Site and the infrastructure proposed to support its development in the context of continuing development in the Humber Bay Shores Area. BA Group prepared updated transportation assessment reports as part of these updated OPA and the initial ZBA / DPS applications for the Site that built upon the comprehensive submission materials presented as part of the October 2019 OPA submission.

1.2.4 Staff Transportation Comments: Prior Submissions

A range of City staff and other agency comments have been received prior to and following submission of the most recent OPA, ZBA and DPS applications and supporting materials.

From a transportation perspective, comments have been received from City of Toronto Engineering and Construction Services staff, Transportation Planning staff and the Toronto Transit Commission (TTC) on a range of topics. These have ranged from commentary on the design of TTC light rail LRT infrastructure on Street B; the right-of-way width of Street B; the form of cycling facilities on Street B and elsewhere across the Master Plan, parking supply provisions of the Master Plan and commentary on the broad mobility assessments presented within BA Group's initial October 2019 Transportation Study report.

Comments relating to the desired coordination of the travel demand forecasts developed as part of the transportation assessments presented in BA Group’s materials with the broader work being advanced as part of the Park Lawn – Lake Shore TMP were also provided.

City staff comments are addressed within the current Master Plan submission and within this update report. Notably, supporting analyses have been refined to reference and align with City of Toronto modelling and forecasting assumptions / outputs based upon a coordination of modelling efforts being advanced as part of the City led Park Lawn – Lake Shore Transportation Master Plan study.

1.2.5 Current Submission and Master Plan Update

FCR has been working with City of Toronto staff, City and Provincial agencies and the area community representatives since the most recent OPA, ZBA, and DPS submissions in Spring 2020 to respond to City staff comments, agency comments and other inputs.

Development plans have been advanced and modified as part of the ongoing design development process for the Master Plan and related supporting transportation infrastructure as well as in response to staff and agency comments and input. Updated OPA, ZBA, and DPS resubmissions are now being made to the City reflecting the advancement of the Master Plan.

This update report forms part of this submission and responds – together with a summary of the broader Master Plan refinements made since the last submission - to City staff and other agency comments.

Key Master Plan Changes

The Master Plan has been refined as part of the ongoing design development of the project and in response to City staff and agency comments. The current Master Plan is presented in **Figure 2**.

It is important to note that the Master Plan remains organized around the same key mobility and design principles as outlined in prior submissions and that the extent of the changes made from a transportation perspective since the most recent May 2020 submission are relatively modest.

Key amongst these have been modifications to:

- i. the Street B right-of-way (increased to 26 metres from 23 metres with the segment in front of the proposed Community Park increased from 20 metres to 22 metres),
- ii. the composition of the Street B right-of-way to include a uni-directional LRT track facility and bi-directional cycling facility as well as enhanced landscaping provisions; and
- iii. the land-use mix and development programme (minor modifications to the residential unit count, inclusion of potential community facilities and employment and retail floor areas);

The design development and approvals processes for the proposed Park Lawn GO Station have also been advanced significantly by First Capital working with Metrolinx including the recent completion of the Updated Initial Business Plan (IBC) report by Metrolinx and the advancement of the initial design arrangements for the GO Station.

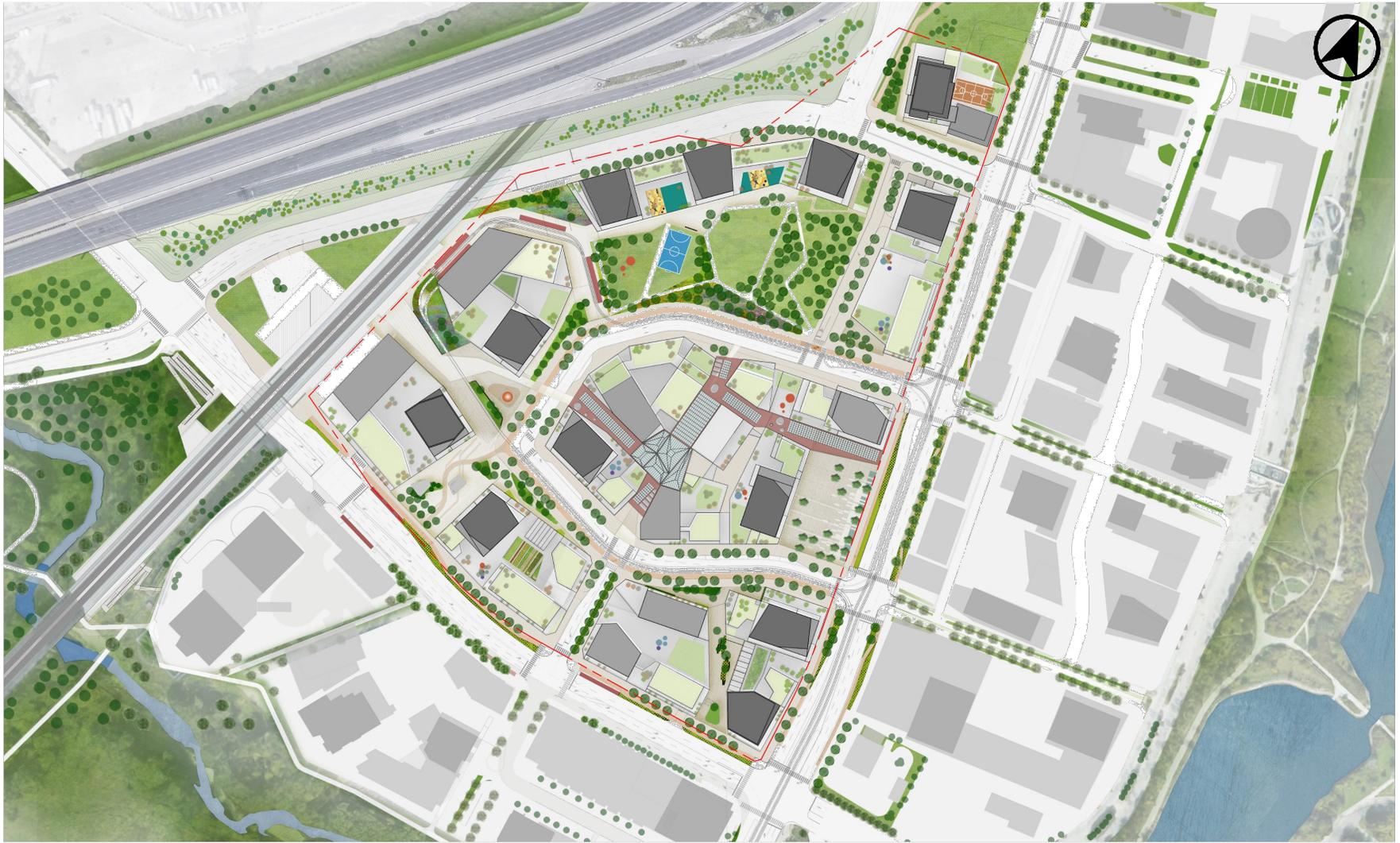


FIGURE 2 - CURRENT MASTER PLAN (FEBRUARY 2021)

1.3 THIS REPORT

1.3.1 Building on the Prior Submissions and Response to Comments

This Report has been prepared as a Master Plan update and a response to comments report that is focussed upon providing an overview of the changes made to the mobility aspects of the updated Master Plan (recognizing that the key mobility and design aspects of the Master Plan has remained similar to that presented previously) and a focussed response to comments made by City and other agencies.

This organization of this update report recognizes and builds upon, as noted previously, the comprehensive series of assessments and technical studies submitted as part of the earlier OPA, ZBA and DPS submissions. The broad descriptions of the area travel context and detailed review of a number of transportation aspects of the proposed development that remain current have not been incorporated into this focussed update. Reference is made to earlier submission materials in this regard.

Updated / refined reviews of key Master Plan items (such as street design and parking considerations) are provided where details of the Master Plan have been refined or modified in response to staff comments or as part of the design development process. Other updates are provided to the broader transportation assessment to respond to City staff / agency comments.

1.3.2 Coordination with Park Lawn - Lake Shore Transportation Master Plan Forecasting and Modelling

An update of the prior transportation assessments has been undertaken as part of this update now that the future 2041 forecasting and modelling work being developed as part of the Park Lawn - Lake Shore TMP has advanced sufficiently to enable a coordination of inputs and outputs with the analyses presented as part of BA Group's OPA / ZBA and DPS submission reports.

Travel behaviour inputs and outputs from this broad area study have been used in two ways in the analyses:

- The first involves a comparison of the multi-modal site related travel activity forecasts developed by BA Group to the macro / meso travel inputs provided by the City modelling process to provide confirmation of their general consistency; and
- The second involves a re-evaluation of the area traffic operations assessments using the 2041 VISSIM model volume outputs.

Both of these are undertaken to illustrate consistency of prior submission forecasting and operations assessments with the City-led future modelling input / output parameters and to respond to related City staff comments.

1.3.3 Study Scope

The following provides an overview of the scope of the transportation items addressed as part of this update report.

As referenced earlier, the scope of this report has been tailored / scoped to provide information regarding key transportation related changes made to the Master Plan, updates to key technical assessments / analyses that respond to modifications made to the Master Plan and prior staff comments, and a response to staff and agency comments. The following are addressed:

A. Master Plan Update

An overview of the current Master Plan development programme and supporting mobility framework;
A review of the key transportation elements of the Master Plan including design / functional / operational characteristics of the following:

- the Transit Hub
- the proposed street network
- the active network
- emerging GO Station design arrangements
- site planning elements including parking layouts, loading and servicing plan arrangement, bicycle parking provisions and allocations, building and GO Station vehicular pick-up / drop-off activity accommodation and vehicular site access.

B. Parking Supply Assessment

- A review of appropriate reduced vehicle parking supply standards proposed to support the Master Plan that recognize:
 - i. the future mobility context of the Site;
 - ii. mobility aspirations for the Master Plan that promote non-automobile travel means; and
 - iii. the role of parking supply as a key element of a successful Travel Demand Management framework.
- A detailed justification of the proposed reduced resident parking standards being proposed based upon the significant non-automobile infrastructure planned as part of the development, proxy area demand, approval and sales information and TDM measures.

C. Loading and Servicing Update

- An update to the loading supply requirements and provisions of the current Master Plan considering a consolidation of servicing facilities between development blocks.

D. Bicycle Parking Update

- An update to the bicycle parking supply requirements and provisions of the current Master Plan.

E. Travel Demand Forecasting Update and City Modelling Coordination

- An update to the travel demand forecasts developed initially as part of the October 2019 report based upon the current Master Plan and comparison to those considered in prior submissions.
- An overview of the multi-resolution modelling process, key input / output parameters and output metrics for the 2041 Master Plan street network is outlined based upon work developed in conjunction with City staff.
- A comparison has been undertaken of build-out site related travel assumptions and forecasts derived within the BA Group submissions to those established from the City-led macro-meso-micro modelling work being advanced as part of the Park Lawn – Lake Shore TMP. This comparison has been undertaken to establish the level of consistency between the travel demand forecasting approaches.
- A review of forecast 2041 site transit ridership travel demand and a comparison to forecast Park Lawn GO Station ridership outlined by Metrolinx in the Updated Initial Business Case report (April 2020).

F. Traffic Operations Analysis Update – Area Street Network

- An overview of the operational performance output metrics for the 2041 Master Plan street network established through the micro-simulation modelling process developed in conjunction with City Park Lawn Lake Shore TMP staff.
- Future build-out traffic operations analyses have been updated to reflect forecast area intersection turning movement traffic activity levels established for the recommended Master Plan street network as part of the City-led 2041 AM / PM micro-simulation modelling process.

G. Loop Road (Street B) Cross-Sectional Considerations

- An overview of supplementary micro-simulation analyses undertaken to assess the differing transit travel parameters of alternative TTC LRT track configurations on Street B.
- An overview of the updated right-of-way provisions on Street B.
- A review of key cross-sectional elements and cycling facility provisions.

H. City Staff Comments Response

- Responses to City staff and agency transportation related comments received prior to and following the May 2020 updated ZBA and DPS application and OPA resubmission is provided.
- Detailed responses are provided with reference to relevant elements of the updated Master Plan or technical analyses provided herein.

Appendix materials are attached to this Update Report that provide the key technical assessments and review referred to and summarized within the report.

2.0 MASTER PLAN UPDATES

2.1 OVERVIEW OF CHANGES

2.1.1 Master Plan Development Programme

A comprehensive Master Plan, developed initially as part of the September 2019 OPA application has continued to evolve in response to initial City of Toronto comments and as part of the design development of the project. FCR has been working with City of Toronto staff, City and Provincial agencies and the area community representatives to advance and modify the development plan in response to staff and agency comments and input. While the Master Plan remains organized around the same key principles as outlined in the May 2020 submission, changes have been made to the following as part of the evolution and refinement of the design.

Key amongst these is:

- 1) the inclusion of potential community centre (such as a public library, not-for-profit human agency space) and daycare uses within the Master Plan; and,
- 2) the minor increases to the residential unit count.

The Master Plan continues to reflect the guiding mobility vision and responds specifically to the area transportation challenges, and fosters a growth of a precinct centred on transit, cycling, and pedestrian travel as the primary modes of travel for the Site and surrounding neighbourhood, helping meet the long-term area transportation demands and goals.

Table 1 provides a summary of the changes to the development statistics.

TABLE 1 MASTER PLAN CHANGES

Use	October 2019 OPA Submission	May 2020 ZBA Submission #1	February 2021 ZBA Submission #2	Changes since May 2020 Submission
Residential	7,455 units	7,139 units	7,504 units	+365 units
Employment	41,925 sq. m. GFA	64,392 sq. m. GFA	63,444 sq. m. GFA	- 948 sq. m. GFA
Retail	42,700 sq. m. GFA	36,659 sq. m. GFA	36,363 sq. m. GFA	-296 sq. m. GFA
Hotel	20,235 sq. m. GFA	-	-	-
Community	-	-	8,230 sq. m. GFA	+ 8,230 sq. m. GFA
School	-	8,459 sq. m. GFA	8,841 sq. m. GFA	+ 382 q. m. GFA

Note: Retail Floor Area (GFA) includes 1,354 sq. m. daycare GFA, consistent with the SASP calculation of "Column 2 and 3"

The updated reduced scale architectural plans are provided in **Appendix A**.

2.1.2 Transit Hub

The design of the integrated transit hub has generally remained consistent with the prior May 2020 Submission. Ongoing coordination with various stakeholders (the City of Toronto, Metrolinx, etc...) has been continuing to advance the coordination and design of the station.

The transit hub will provide a logical terminus and point of convergence for the modified surface routes (bus and streetcar) as feeder services to the new Park Lawn GO Station. An LRT / streetcar loop facility and layover spaces will provide a turnaround facility for the existing 501 Queen and 504 King services. Bus stops along Park Lawn Road, adjacent to station entrances will provide the opportunity for passengers to seamlessly connect with the transit hub. The planned provision of this transit hub will provide an anchor to the Humber Bay Shores neighbourhood and help reduce auto-reliance in South Etobicoke.

As part of the ongoing coordination, notable changes and refinements to the design of the transit hub are as follows:

- the **north station access building** has shifted north, at the request of Metrolinx, to provide flexibility for a fifth rail, as part of future planning;
- additional **secondary platform entrances** on the west side of Park Lawn Road (located on City of Toronto and private property) are being planned to help meet Metrolinx station exiting requirements and to improve accessibility to / from the GO train platforms. Sloped pedestrian walkways (a maximum 5.0% are being incorporated north of the Park Lawn underpass to access the north platform, and off the existing pedestrian pathway between the rail corridor and the 88 Park Lawn Road condominium property to provide secondary access to the south platform.
- the location of **96 secured bicycle parking spaces and 192 covered bicycle parking spaces**, consistent with the Metrolinx Functional Station Requirements, have been coordinated as part of the Park Lawn GO station masterplan; and,
- a layby design for the **pick-up / drop-off spaces** along the relief road has been introduced to better comply with the September 2020 Metrolinx urban pick-up / drop-off standards. The introduction of two (2) accessible barrier free drop-off zones along the relief road will also provide defined, and visible locations for wheel-trans and other accessible van services to pick-up and drop-off passengers.

Continued coordination with Metrolinx and the City of Toronto through formal station design submissions and with TTC will further advance the design.

2.1.3 New Public Street Network

The proposed road network has generally remained consistent with the previous May 2020 ZBA submission. The larger road network improvements will help improve traffic congestion at key intersections that are detrimental to the character and functionality of Park Lawn Road and Lake Shore Boulevard. Ultimately, the proposed road network changes will be reviewed in conjunction with the ongoing Park Lawn Lake Shore Transportation Master Plan (TMP) and will be further developed as part of that process.

Minor changes to the road network as part of the ongoing discussions and dialogue with the City of Toronto to advance the Master Plan design. These key changes include:

- a 1.0 metre increase in the right-of-way width of Public Street 'B' (loop road) to 22.0 metres adjacent to the proposed Community Park and 26.0 metres elsewhere. The increase in the right-of-way width provides for additional boulevard space to accommodate 3.0 metre wide pedestrian clearways and widened planting areas;
- the conversion of the curb lane into a accessible and passenger pick-up / drop-off layby along Street 'A' (relief road) to satisfy the September 2020 Metrolinx urban pick-up / drop-off standards; and,
- the introduction of a second southbound left-turn lane at the proposed signalized intersection of Public Street 'A' (relief road) and the relocated Gardiner Expressway on / off ramps.

A Functional Road Plan (not to scale) is provided in **Figure 3**. A full scale Functional Road Plan can be found in **Appendix I**.

TABLE 2 SUMMARY OF FUNCTIONAL ROAD ELEMENTS

Street	Private / Public	Proposed R.O.W. Width	Key Cross-Sectional Elements
Street 'A' Relief Road ¹	Public	26.0 metres	<ul style="list-style-type: none"> ▪ 2.4 metre wide pedestrian clearway on south boulevard ▪ 2.0 metre wide furnishing / planting strip ▪ 16.0 metre wide five-lane roadway (typical) ▪ 4.4 metre allowance for embankment / retaining wall
Street 'B' Loop Road	Public	26.0 metres / 22.0 metres	<ul style="list-style-type: none"> ▪ 3.0 metre wide pedestrian clearway on both sides ▪ 3.5 metre two-way cycle track on outer boulevard (typ.) ▪ 2.40 metre layby spaces / planting strip ▪ 6.60 metre pavement width (two-way vehicle traffic) ▪ 3.60 metre dedicated TTC R.O.W.
Street 'C'	Public	20.0 metres	<ul style="list-style-type: none"> ▪ 3 lane cross-section at signalized intersection with Park Lawn Road ▪ minimum 2.1 metre pedestrian clearway
Street 'D'	Private	N/A	<ul style="list-style-type: none"> ▪ 6.60 metre pavement width (two-way vehicle traffic) ▪ minimum 2.1 metre pedestrian clearway
Park Lawn Road	Public	36.0 metres	<ul style="list-style-type: none"> ▪ 3.10 metre two-way cycle track on east boulevard (typ.) ▪ 2.40 metre pedestrian clearway (typ.) ▪ 1.50 metre planting zone on both sides of the cycle track facility ▪ 2.40 metre wide TTC bus platform at stop locations ▪ An approximate widening of 6.0 metres along the east boulevard of Park Lawn Road to provide for new high quality cycling and pedestrian facilities to / from the proposed GO Station
Lake Shore Boulevard	Public	36.0 metres	<ul style="list-style-type: none"> ▪ 1.80 metre one-way cycle track on both boulevard ▪ min 3.00 metre pedestrian clearway (typ.) ▪ 7.00 metre dedicated TTC streetcar / LRT centre running right-of-way

Notes:

1. The design and ultimate cross-section of the relief road is subject to the recommendations and outcome of the City of Toronto's Transportation Master Plan (TMP)

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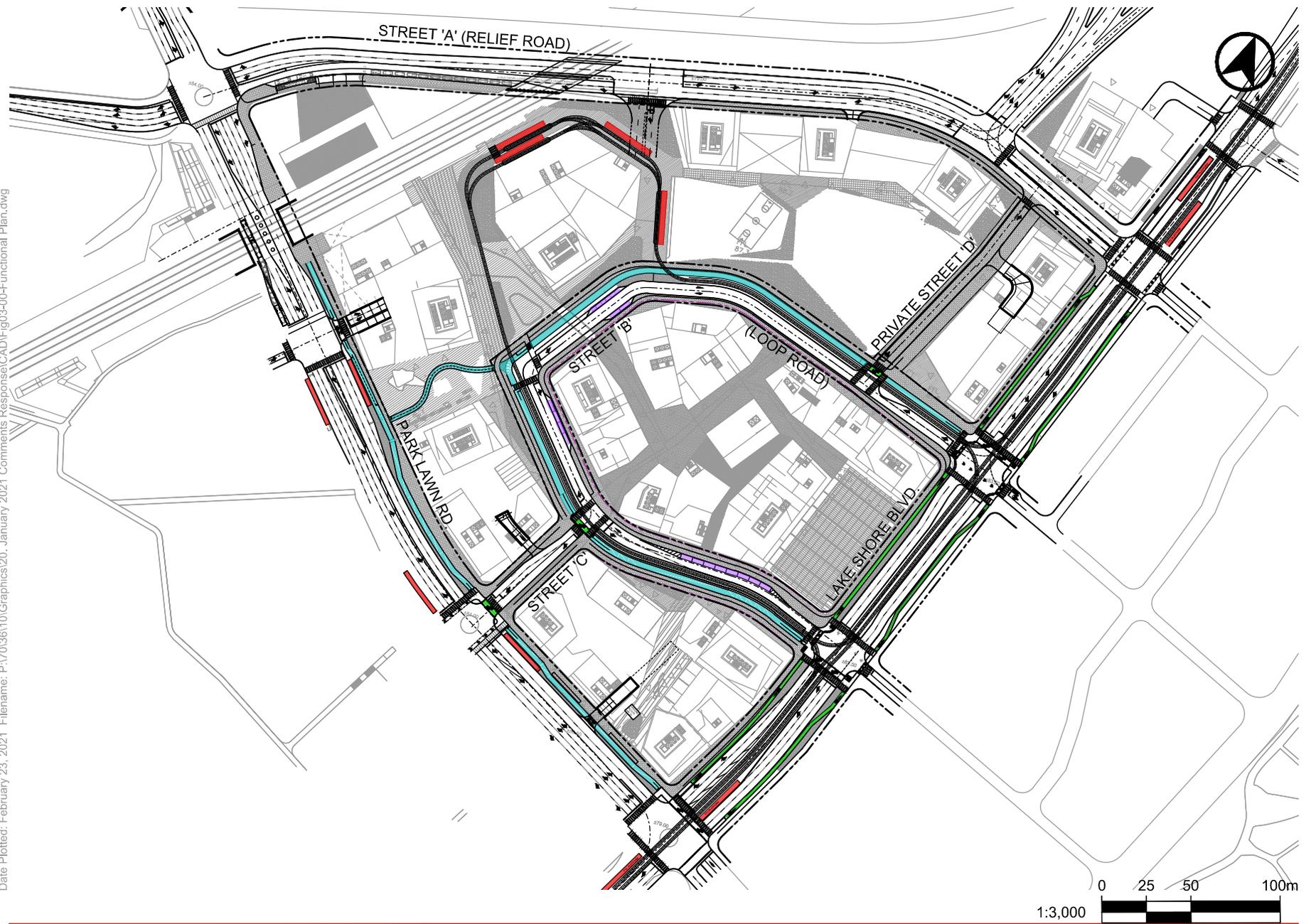


FIGURE 3 - FUNCTIONAL ROAD PLAN

2.1.4 Active Network

The 2150 Lake Shore Boulevard Master Plan emphasizes pedestrian and cycling mobility and aims to provide for a safe and attractive public realm. In general, the pedestrian and cycling network remain generally consistent with that proposed as part of the May 2020 submission. Minor changes to the overall pedestrian and cycling network are a result of the ongoing coordination design development process. These key changes to the plan include:

- A widening of the pedestrian clearway and two-way cycle track along Public Street 'B' (loop road) to 3.0 metres and 3.5 metres, respectively. This improved pedestrian and cycling condition will further enhance the attractiveness and safety of the boulevard facilities, which are conveniently located adjacent to a number of notable destinations including the Park Lawn GO Station, proposed Community Park, potential schools and community centre;
- The addition of a 3.0-metre bi-direction cycling facility within Park Lawn Gardens and;
- Further refinement of secure bicycle parking and covered bicycle parking locations for the Metrolinx GO Station, which are strategically located in areas that are easily accessible from planned cycling facilities.

A summary of the proposed cycling facilities is provided in **Table 3**.

TABLE 3 SUMMARY OF PLANNED CYCLING FACILITIES

Street	Type of Facility	Facility Width	
Street 'A' Relief Road ¹	--	--	<ul style="list-style-type: none"> ▪ The provision and location of a potential cycling facility on Street 'A' is under review as part of the Park Lawn Lake Shore Transportation Master Plan
Street 'B' Loop Road	Bi-directional cycle track	3.5 metres	<ul style="list-style-type: none"> ▪ A widening in the public R.O.W. has allowed for the widening and provision of a 3.5 metre bi-directional cycling facility on the outer boulevard of the loop road. As previously discussed, the location of the bi-directional facility has a stronger relationship with multiple key destinations (e.g. Community Park, community centre, school, transit hub) on the outer loop, and would minimize crossing needs.
Park Lawn Road	Bi-directional cycle track	3.1 metres	<ul style="list-style-type: none"> ▪ The proposed 3.1 metre cycle track on the east boulevard of Park Lawn Road takes advantage of the widened Park Lawn Road right-of-way, and provides a direct, separated and safe cycling route to / from the proposed lower level entrance of the Park Lawn GO station and the planned covered, secured bicycle parking. A review of this cycling facility will be done in conjunction with the Transportation Master Plan
Lake Shore Boulevard	Uni-directional	1.8 metres	<ul style="list-style-type: none"> ▪ The proposed 1.8 metre uni-directional cycle track on Lake Shore Boulevard will provide a high quality east-west link within the neighbourhood and is consistent with creating a complete "main street" on Lake Shore Boulevard
Park Lawn Gardens	Bi-directional	3.0 metres	<ul style="list-style-type: none"> ▪ A 3.0 metre bi-direction facility through Park Lawn Gardens provides a connection between the Park Lawn and Street B bi-directional facilities. The location of this connection allows cyclists on Park Lawn Road to enter the heart of the site, and in particular, to Station Square.

Cycling Access to / from the GO Station

Providing dedicated cycling infrastructure to access the new Transit Hub is paramount to ensuring that there are cycling options for people to get to / from their destinations safely. Multiple dedicated cycling facilities are being proposed to access an assortment of bicycle parking spots. They are as follows:

- the Street 'B' loop road Bi-directional facility will provide access to and from the covered bicycle parking spaces located within Station Square;
- the Park Lawn Road bi-directional facility will provide direct access to / from the covered and secured bicycle parking located at the lower level entrance to the south station building, and the indoor, secured bicycle parking facility located on the lower level of the south station building;
- a connecting facility through Park Lawn Gardens will connect cyclists between the Park Lawn Road and Loop Road facilities. It also provides an excellent connection to the Station Square; and;
- the future provision of a Mimico Creek off-street trail will provide convenient access to the covered bicycle parking located at the secondary platform access ramp at the southwest corner of the station.

A cycling facility along Public Street 'A' (relief road), which would provide better cycling access to the north station building, is currently under review in the context of the Transportation Master Plan.

2.1.5 Site Planning Elements

2.1.5.1 Vehicular Site Access Arrangement

Central to the 2150 Lake Shore Boulevard West Master Plan is the creation of an excellent public realm at-grade. A comprehensive approach to the planning of the vehicular elements is made possible by the single ownership of the Site, enabling vehicular elements (which include Site access driveways) to be removed from the heart of the Master Plan. The intrusion of servicing / loading and vehicle activity at-grade within the Master Plan was minimised by placing vehicular accesses along the periphery of the Site. This removed the need to provide multiple separate driveways for each building or development block.

To achieve the level of consolidation sought, below-grade tunnel connections between development blocks are required to provide connections to parking, pick-up / drop-off and loading facilities. They help enable a defined parking and loading circulation strategy, and facilitate the Master Plan parking strategy discussed in **Section 3.8.4**.

Site access locations have remained consistent with the May 2020 submission with the exception of the right-in / right-out un-signalized driveway at relief road (Public Street 'A') to D3 Block which has been relocated as part of ongoing design and elevation coordination. The accesses are summarized as follows:

Primary Site Accesses:

- Main signalized Driveway at relief road (Public Street 'A')
- Signalized driveway at Park Lawn Road (D1 Block)

Secondary Site Accesses:

- Right-in / right-out un-signalized driveway at relief road (Public Street 'A') (D3 Block)
- Right-in / right-out un-signalized driveway at Park Lawn Road (B Block)
- All-moves un-signalized driveway at Private Street 'D' (E Block)

- Signalized Site Driveway at Lake Shore Boulevard / Brooker's Lane (Block F)
- Compatibility of street network with landscape plan

Parking Strategy and Arrangements

Since the initial May 2020 ZBA application, the parking strategy and arrangements have evolved.

As part of the ongoing coordination, key changes and refinements to the design of the underground parking facility are as follows:

- minor loss of parking under the boulevard square in Phase 2 (Block 'A') to provide an unencumbered public Boulevard Square Park
- minor loss of parking as a result of a widened Street B right-of-way
- loss of the basement level inter-block P4 "tunnel" connections beneath public roads
- the supply of commercial parking is now located on the P1, P2 and partial P3 level of the underground parking facility.

Site access locations from the relief road (Public Street 'A') and Park Lawn Road generally remain consistent with the ZBA application and will enable circulation to all levels of the below grade parking garage.

Please refer to **Section 3.4** for a more detailed discussion regarding the proposed parking supply.

Non-Residential Parking Deployment Strategy

Park Lawn Road and relief road signalized Site driveways will provide for the primary accesses to the commercial parking areas. Secondary un-signalized accesses will also be provided.

The primary supply of non-residential parking will be located:

- on the P1 level within Blocks A, C, and D
- on the P2 level within Blocks E and F and;
- within a partial area on the P3 level within Block D

"Tunnel" connections beneath the public roads allow for a consolidated commercial parking facility and provide for an interconnected circulation loop, facilitating a well-defined search and circulation path. These non-residential "tunnel" connections are listed below:

- Block A (83.50) to Block C (83.00); and,
- Block A (83.50) to Block D (83.00).

It is intended that all non-residential parking areas within the Site will be operated as a commercial parking garage. The main supply, located within the heart of the masterplan, will act as a Site-wide parking resource and help meet the overall demands of the Site.

The non-residential parking supply requirement is intended to be met upon the full build out of the Site. As part of the ongoing design development process, a review of the non-residential parking supply by phase will be undertaken.

In general, it is proposed to adopt a 1.0 space / 100 sq. metres of non-residential GFA (i.e. office, retail) parking requirement to the Site, consistent with Zoning By-law 569-2013 PA-3 parking requirements. Temporary sharing will be considered when determining the overall Site wide parking requirement.

Section 3.4 provides further information regarding the proposed parking supply.

Residential Parking Deployment Strategy

All Site accesses will provide access to the residential parking areas. Resident parking will be located within the lower levels of the underground parking area. As part of the residential parking deployment strategy, the residential parking supply will be located relative to the demands generated by the residential towers, allowing residents to park below their respective residential towers.

Various below-grade “tunnel” connections and inter-floor ramps will allow residents flexibility and redundancy when entering / exiting the garage. This helps alleviate congestion at Site accesses and enables a more efficient distribution of traffic onto the local street network. These residential “tunnel” connections are listed below:

- Block A (73.50) to Block C (74.00);
- Block A (73.50) to Block D (74.00);
- Block D (74.00) to Block B (74.00); and,
- Block A (73.50) to Block E (74.50).

The minimum parking standards being proposed are reduced compared to the Zoning By-law provisions that would ordinarily apply to this area today. The proposed parking supply was guided by the following:

- The Site’s proximity to existing and future transit and cycling facilities that provide non-automobile dependant travel connections across the city;
- The range of employment, retail and residential uses on the Site which reduce the need for area residents to use / own a car for general trip making; and,
- An evolving and expanding menu of transportation modes, which do not require reliance on privately, owned vehicles.

The Site is located directly adjacent to a new multi-modal transit hub with direct rail connections to downtown Toronto and the terminus for local streetcar and bus services. Recognizing the connections to higher order and local transit services, it is proposed to adopt an effective residential parking supply ratio of 0.40 spaces per unit, which is lower than the Zoning By-law requirements for the proposed development (an equivalent blended rate of 0.96 spaces per unit). **Section 3.4** provides further information regarding the proposed parking supply.

2.1.6 Site-Wide Loading Strategy

Loading connections and supply have generally stayed consistent with the May 2020 submission. The Master Plan takes a comprehensive approach to planning by integrating a below-grade interconnected servicing system to provide access across multiple blocks and buildings. A centralised below-grade servicing network is being pursued for the development to consolidate access at a series of key driveway / ramps to avoid the proliferation of ramps, typical in conventional developments where each development block is considered individually. This helps to minimise the intrusion of servicing and loading vehicles within the heart of the Site and is central to creating an excellent at-grade public realm.

Please refer to the reduced scale architectural drawings (**Appendix A**) for further detail.

2.1.6.1 Servicing Access

The placement of key loading accesses on the perimeter of the proposed development helps avoid larger vehicles from travelling through the heart of the development (e.g. along the loop road), opening opportunities to better enhance the public realm at-grade.

Three (3) loading accesses are provided along the perimeter of the Site:

- relief road 'Street A' (signalized driveway)
- relief road 'Street A' (un-signalized driveway)
- Brooker's Lane / Lake Shore Boulevard West (signalized driveway)

It should be noted that majority of the servicing vehicles for blocks A to E will be entering and exiting from the relief road 'Street A' signalized driveway. This provides a defined and consolidated entrance and exit route for service vehicles for the entire development. Access to an at-grade loading area for two (2) type 'C' loading spaces in Block D3-3 is provided via an un-signalized driveway from the relief road 'Street A' to help facilitate move-in / move-out of residents. Access to an at-grade loading area for Block F is provided via a signalized driveway at Brooker's Lane / Lake Shore Boulevard.

2.1.6.2 Below-Grade Inter-Block Connections

The loading areas will be located beneath the development parcels and outside of the public road network and proposed public parks with the exception of Block F and two (2) type 'C' loading spaces in Block D3-3. To achieve the level of consolidation sought, a number of below-grade tunnel connection at strategic locations are placed beneath the public streets to access development blocks separated from the loading accesses by public roads.

Key tunnels below public roads allow connections between the various development blocks, minimising the need for loading driveways on the site. The inter-block loading tunnels are as follows:

- Block D (79.00) to Block A (76.50);
- Block C (77.00) to Block A (76.50);
- Block C (77.00) to Block B (77.00); and,
- Block A (76.50) to Block E (74.50).

The elevation of these connections occur where sufficient depth beneath the public road can be provided for utilities and landscaping requirements.

2.1.6.3 Loading Space Supply Strategy

Each block or group of Master Plan buildings will have a centralized loading areas. These loading facilities are well located relative to building cores and vertical circulation areas. Loading spaces are strategically placed based on the building's main usage. Multiple Type 'B' and 'C' loading spaces are placed near buildings with employment and retail cores to accommodate for frequent deliveries and pick-up. Type 'G' and 'C' loading spaces are placed near residential cores to accommodate for garbage collection and facilitate move-in / move-out of residents.

2.1.7 Site-Wide Pick-Up / Drop-Off Strategy and Arrangements

Pick-up drop-off (PUDO) elements of the site plan remain generally consistent with that previously proposed as part of the May 2020 submission. These spaces will help accommodate the needs that are driven by taxi, and ride-hail services and passenger PUDO related to the Transit Hub. The design and size of the pick-up / drop-off will be re-evaluated at each development phase during Site Plan Approval. The following facilities have been incorporated into the Master Plan:

The following locations are the proposed off-street Site PUDO facilities:

- **Block D2 Below-grade PUDO loop** basement facility (accessed from the relief road);
- Potential **short-term parking spaces** adjacent to building cores within the publicly accessible portions of the underground garage, and;
- **PUDO (short-term parking spaces) within the D3 Block**, to serve potential school demands (accessed from the relief road).

In addition, the following are form part of the on-street pick-up / drop-off strategy for the Site:

- **At-grade loop road curbside laybys** (Public Street B), adjacent to building entrances and key destinations; and,
- **Short-term curbside layby drop-off along the relief road** (Public Street A).

A Dynamic Curb

An opportunity to use technology to allow lanes, or curbside space to become dynamic, serving different purposes across the day could be explored as part of the 2150 Lake Shore Master Plan. Technology such as a programmable management system that is applied Site wide, would allow for a more efficient management of this valued space, and can change and communicate to vehicles / drivers the usage of the space depending on priorities over the time of day. These technologies, which include availability sensors, dynamic signs and pricing, can all help manage the use of the space. The feasibility and use of these technologies on the public street infrastructure will continue to be explored through the planning process.

2.1.7.1 Transit Hub Pick-Up / Drop-Off Strategy

Although Park Lawn GO Station will be an urban commuter rail station, and the majority of passengers will arrive either by transit, walking or cycling, Metrolinx has identified the need to provide thirty (30) passenger pick-up / drop-off (PPUDO) spaces to be provided in some form. A combination of proposed facilities will help meet this demand. The following is discussed in further detail:

1. **A below-grade PPUDO facility** within the P2 basement of the **D2 block** will provide in the order of 12 to 15 short-term spaces. Vertical circulation is provided within the development block allowing passengers to travel to / from ground level to access the station facilities.
2. **Layby facilities** on the **loop road** will allow for short-term temporary parking adjacent to Station Square. Activity associated with the short-trip vehicle use (i.e. ride-share, taxi) can be accommodated along the curb and help form part of the overall approach to station PPUDO. The close proximity to Station Square, and ultimately the transit hub, make it a convenient place for a portion of the GO station pick-up / drop-off activity to occur. In the order of five (5) vehicles can be accommodated within the layby spaces adjacent to Station Square.
3. **Formal curbside layby drop-off** is has been incorporated into the design of the **relief road** (Public Street A) adjacent to the north GO station entrance. The ultimate design is pending the outcome of the City of Toronto's Transportation Master Plan. Two (2) accessible drop-off spaces (12 metres long, each) adjacent to the north station building will accommodate any necessary WheelTrans or accessible pick-up / drop-off, per Metrolinx design standards and requirements. An additional layby length of approximately 105 metres will accommodate up to 15 spaces, is provided to satisfy Metrolinx PUDO design requirements and provision. Please refer to **Figure 4** for the relief road curbside pick-up / drop-off arrangements.

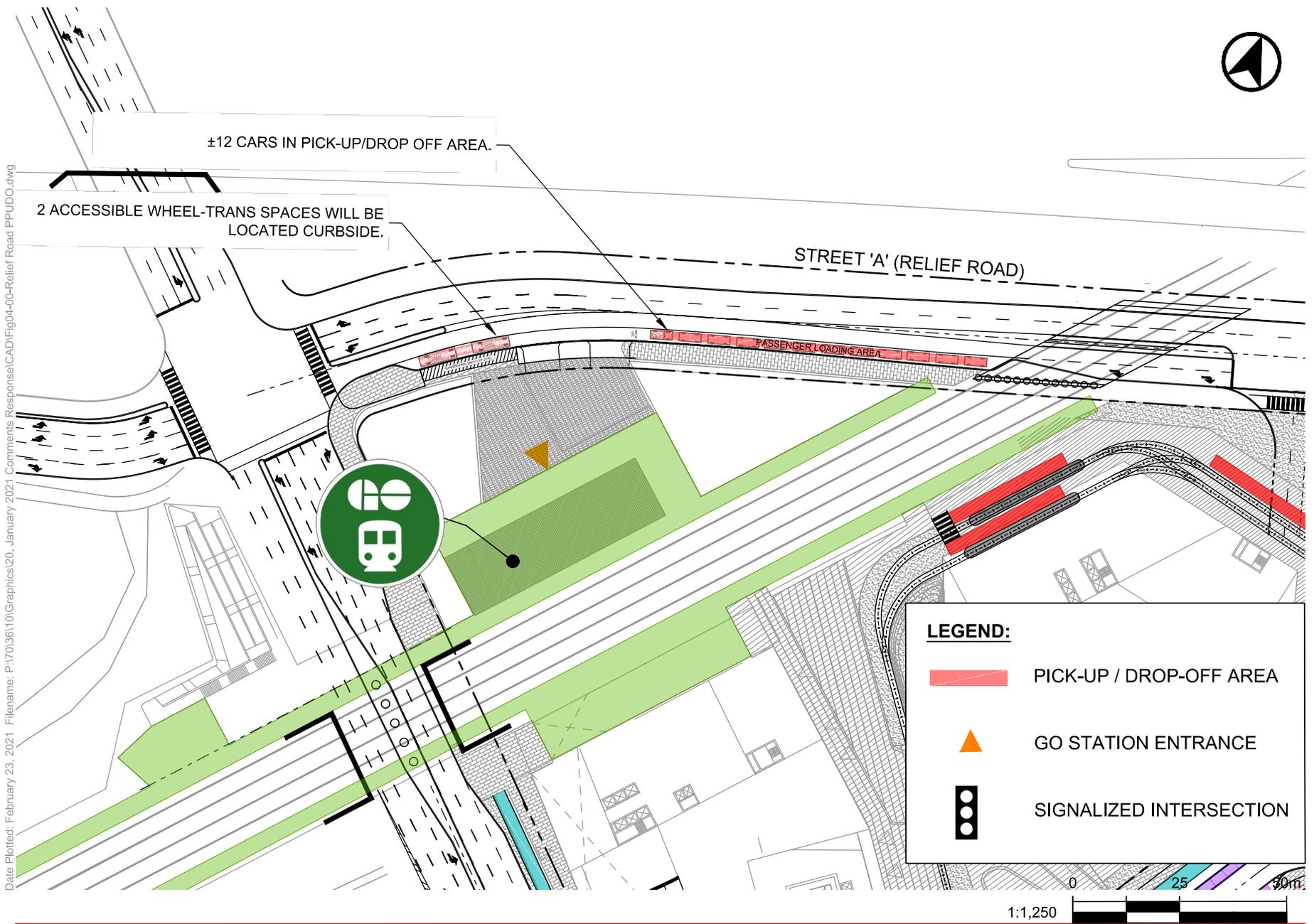


FIGURE 4 - RELIEF ROAD PICK-UP / DROP-OFF ARRANGEMENTS

2.1.7.2 Development-Related Pick-up / Drop-off Strategy

A number of different facilities around the Site are proposed to accommodate the front-door PUDO demands associated with the development. A combination of proposed facilities will help accommodate these activities.

1. **A below-grade PPUDO facility** within the **P2** basement level of the D2 block will provide for the office and residential uses in the D1 and D2 block.
2. **Designated short-term parking spaces** near retail building entrances and vertical circulation elements within the **P1 level** of the commercial garage beneath retail uses (i.e. Block A, C, and D) will provide for the short-term parking associated with the retail uses of the development.
3. **Designated short-term parking spaces** near residential tower core locations within the underground parking garage will help meet the demands related to the residential pick-up / drop-off activity.
4. **Formal layby facilities on the loop road** will allow for short-term temporary parking adjacent to the development blocks. Activity related to short-trip vehicle use and accessible vehicle can be accommodate with the formal laybys. The 6.6 metre two-way vehicular portion between Private Street 'D' and Public Street 'C', will allow for informal, flexible curbside usage on a controlled limited basis, while still accommodating for the low levels of vehicular traffic expected on this street.
5. **D3 Block short-term parking spaces** within the P1 level of the garage, accessed from the relief road un-signalized Site access will, in addition to the school, accommodate any residential related PUDO demands within the garage area.

The formal below-grade PUDO facilities, combined with the spaces provided along the street system will allow for a practical, responsive pick-up / drop-off strategy for the Site. Overall, a review of the pick-up / drop-off facilities will be carried through at each phase of the Master Plan, through the Site Plan Application process.

2.1.7.3 School Pick-Up / Drop-off Facility

Although the school (located within the D3) block is within walking distance to the immediate neighbourhood and catchment area, a number of parking spaces is proposed within the P1 level of the D3 block be designated and allocated for short-term parking during peak hours. Although pick-up / drop-off activity is not encouraged at an urban school location, the provision of these parking spaces will help accommodate those who live outside the immediate neighbourhood and families with special needs / small children. The facility and the parking spaces will be accessed from the un-signalized driveway off the relief road (Public Street 'A') and will be directly adjacent / below the school uses.

3.0 VEHICLE PARKING SUPPLY UPDATE

3.1 OVERVIEW

The following provides a review of parking related aspects of the Master Plan including consideration of the following:

- the prevailing Zoning By-law parking standard that would apply to the area today (and without consideration of the extent of any transit / non-automobile infrastructure being delivered through the Master Plan);
- considerations involved in the development of appropriate and reduced parking standards being proposed for the Master Plan;
- an overview of the proposed parking standards being recommended;
- a summary review of the considerations supporting the adoption of the recommended (reduced) parking standards for residential and non-residential uses;
- parking requirements of the recommended standards for the current and updated Master Plan development programme;
- parking supply provision of the current Master Plan and their sufficiency;
- accessible and Toronto Green Standards related aspects of the parking supply provisions; and
- parking space dimensions and recommended flexibility allowances.

A detailed parking rationale providing an outlined of a broad range of factors supporting adoption of the proposed reduced parking standards is provided in **Appendix B**.

This detailed rationale and the discussions provided within this section has been completed to address City of Toronto staff have provided comments on the Master Plan application.

A summary of the key aspects of the parking rationale is provided in the following sections.

3.2 PREVAILING PARKING STANDARD CONSIDERATIONS: BY-LAW 569-2013

The site is currently subject to the Rest of City (ROC) parking standards under the City of Toronto Zoning By-law 569-2013. These standards reflect the current mobility context on the Humber Bay Shores area and the limited extent of convenient transit service to the area.

The prevailing Rest of City (ROC) minimum parking supply standards that apply to the site are provided below:

- Residential
 - Bachelor 0.80 spaces per unit
 - 1-Bedroom 0.90 spaces per unit
 - 2-Bedroom 1.00 spaces per unit
 - 3-Bedroom 1.20 spaces per unit
- Visitor 0.20 spaces per unit
- Retail
 - 200m² < GFA < 10,000m² 1.50 spaces per 100m² GFA
 - 10,000m² ≤ GFA < 20,000m² 3.00 spaces per 100m² GFA
 - 20,000m² ≤ GFA 6.00 spaces per 100m² GFA
- Office 1.50 spaces per 100m² GFA
- School 1.50 spaces per 100m² GFA
- Community 3.00 spaces per 100m² GFA

Application of Zoning By-law 569-2013 ROC minimum parking standards to the current development programme results in a requirement of 11,047 parking spaces, including 7,094 resident parking spaces and 3,953 non-residential (i.e. retail, office, visitor, school and community) parking spaces. The effective resident parking standard requirement of the ROC standards is approximately 0.95 parking spaces per dwelling unit.

3.2.1 By-law Parking Standards Disconnect and Support for the Adoption of Reduced Standards

In our opinion, the Zoning By-law 569-2013 and applicable Rest of City (ROC) standards **greatly overstate** the vehicular parking needs of the Master Plan and its emerging transportation context and are also not reflective of recent parking trends evident across the City and proactive policy and planning initiatives / context.

This is particularly relevant when considering the urban, transit-oriented development environment / vision being advanced through the Master Plan and the extent of new transit / active transportation infrastructure being delivered in the immediate site environs as a key element of the proposed Master Plan.

The form of development proposed, and the extent of new supporting infrastructure being advanced as part of the development plan is, in our opinion, precedent setting for the Etobicoke context and creates a mobility choice environment in the Humber Bay Shores area that can approach that provided today in the more central and transit accessible areas of the City.

The delivery of tangible, lasting and new legacy transit facilities – such as the Park Lawn GO Station - that will serve the proposed development and broader area over many years will, in our opinion, provide “game-changing” future mobility opportunities and travel behaviour into the future that will significantly reduce the reliance on the private automobile for travel purposes. This will serve to reduce the need for residents and visitors to own a vehicle and park on-site.

This evolving mobility context provides a strong context where reduced and progressive minimum parking standards **should be** (need to be) adopted and advanced that: i) reflect this future travel context; ii) support the sustainable travel options provided as part of the Master Plan; and iii) move significantly away from the prevailing standards of the area (and, in fact, those generally provided within By-law 569-2013 for all areas) that continue to promote higher than necessary parking provisions within new developments.

The creation of a “low floor” minimum parking regime that limits the amount of parking required for the Site will enable sustainable travel habits and behaviour to be promoted from the outset of development, will support the automobile trip reduction goals of the City and will avoid the over-provision of parking within this new community.

This is discussed further in the following sections and within the parking rationale materials in **Appendix B**.

3.3 APPROACH TO DEVELOPING APPROPRIATE PARKING STANDARDS

Reduced parking standards are proposed to support the Master Plan as a central element of the Site’s transportation demand management strategy and to support the use of the significant new transit and active transportation investments being planned as part of the Master Plan.

The proposed resident and non-residential (including residential visitors) parking standards have been established through a review of parking supply standards and provisions being advanced on a contemporary basis across the City in transit accessible areas.

3.3.1 Non-Resident Parking

From a non-residential and residential visitor perspective, the proposed minimum standards reflect those associated with the Policy Area (PA) 2 standards outlined in the City’s general Zoning By-law 569-2013. These standards are considered to reflect, in the case of non-resident parking, a low and appropriate set of minimum standards that will meet demand needs of the Site commercial / visitor uses on a shared basis as permitted by the By-law.

3.3.2 Resident Parking

From a resident parking perspective, further assessment has involved a considerable focus on the evolution of parking needs of new residential buildings in urban areas over recent years; the disconnect of actual demand trends / City policy from the current By-law regime; and City policy considerations which seek to minimize car usage and promote other forms of mobility.

A generalized approach adopted in establishing the adopted resident parking standards for the site is as follows:

1. Understanding the site mobility context in the future.

The Site's future mobility context (refer to **Section 6.0** in **Appendix B**) will be significantly different from today. The Master Plan will deliver substantial transportation infrastructure, such as the new GO station and integrated Transit Hub that will provide new and convenient access to higher-order and other surface transit services that extend across the City and broader Greater Toronto Area.

Importantly, Humber Bay Shores will, with the integration of the Master Plan at its heart, become a "complete" community with a mix of land uses supported by a pedestrian, active transportation and public realm focussed local street network that will change the way site and area residents travel on a day-to-day basis. A significant localization of trips is anticipated within the community as a whole with development of the Master Plan and "last mile" trip making across Humber Bay Shores is anticipated to occur through significant use of active travel means.

2. Understanding the travel and parking characteristics of the future context.

The mobility characteristics of the future context (refer to **Section 8.2** in **Appendix B**) are reviewed based on the travel demand forecasting that was undertaken and discussed in the initial October 2019 OPA submission. The projected residential modal shift away from automobile dependent travel of the area today is facilitated and attributed to the following:

- a localization of trips given the new urban, mixed-use community development;
- the support afforded for active travel given the new cycling connections and pedestrian focused public realm; and, significantly
- a significant increase in transit usage and travel compared to prevailing levels given the construction of the planned Park Lawn GO Station and the access it affords to frequent GO RER services on the Lakeshore West corridor and integrated TTC LRT and bus routes.

The future site context and projected mobility characteristics are specifically compared to the following three (3) proxy areas to provide inputs into establishing an appropriate and low minimum parking standard for the Master Plan. The three areas referenced are:

- The Bloor-Dundas / High Park Area
- The Liberty Village / City Place Area
- The Yonge-Eglinton / Midtown Area

Information secured from a variety of sources by BA Group provides insight into the range of parking demands / approvals that have emerged within these transit accessible and evolving areas of the City over recent years:

3. Implementing and supporting the use of reduced parking as a proactive TDM measure.

As discussed in the current Zoning By-law review (refer to **Section 5.0** in **Appendix B**), constraining parking supplies – particularly resident supply in transit accessible areas - is a tool that has been widely advanced in urban areas such as downtown Toronto, and that can, combined within other mobility measures and opportunities, significantly influence resident travel habits and behaviour and reduce their reliance on automobile usage.

The Christies Master Plan provides a significant opportunity to implement a similar, proactive approach to influencing and reducing vehicular use in the context of a truly transit-oriented, mixed-use development plan that is being planned, from its inception, as a transit focussed community.

Constraining parking supplies through adoption of a reduced parking standard is considered one of the most effective measures in reducing vehicle use and guiding the way prospective residents would look to travel. The creation of a community where use of a car for day-to-day travel purposes is a secondary consideration for prospective residents and tenants is a key factor in achieving a true sustainable community. This strategy supported by the balance of the sustainable infrastructure and TDM measures proposed to support the Master Plan will maximize the benefits of the significant transit and sustainable transportation investments being made as part of the development plan and related transportation planning processes.

The implementation of a proactive TDM plan will be significantly assisted by, and will enable, the adoption of a progressive (reduced) resident parking standard to manage and reduce vehicular travel to / from the site.

3.4 PROPOSED PARKING STANDARDS

It is proposed – given the above - to establish a low, yet appropriate, minimum set of parking standards for residents, residential visitors and non-residential land uses. The *recommended* standards and proposed parking requirements are provided below:

- Resident 0.40 spaces per unit (effective average / blended standard)
- Visitor 0.10 spaces per unit
- Retail 1.00 spaces per 100m² GFA (blended standard)
- Restaurant No parking required
- Office 1.00 spaces per 100m² GFA
- School 0.50 spaces per 100m² GFA
- Community 0.50 spaces per 100m² GFA
- All other uses 1.00 spaces per 100m² GFA

This minimum resident parking standard is reduced relative to the in-force Zoning By-law for this area and recognizes the significantly enhanced transit accessibility context of the Master Plan with construction of the new Park Lawn GO Station and other TTC related infrastructure.

The proposed minimum resident parking standard is reflective of reduced appropriate standards that correspond to the demand needs seen at contemporary residential and mixed-use buildings in transit accessible and urbanized areas of the City. More specifically, the proposed resident standard is reflective of a lower to mid-range bracket of parking demands / approvals recorded in the three proxy areas reviewed as part of the parking rationale. Adoption of a minimum resident standard in this range is considered to be a highly pro-active and appropriate approach to guiding parking provisions within the Master Plan and – thereon – parking and car usage.

The proposed non-resident parking standards are also reduced relative to the in-force Zoning By-law requirements of the area and generally reflect, as noted previously, the Policy Area 2 / 3 minimum parking standards outlined in Zoning By-law 569-2013.

3.5 APPROPRIATENESS OF PROPOSED RESIDENT STANDARDS

A brief overview of the parking rationale regarding the proposed reduced resident standard is provided in the following:

3.5.1 Policy and Planning Context

The City of Toronto's transportation policy and planning regime is constantly evolving, such that it actively responds to the changing transportation needs of the City. Specifically, current policies and initiatives strongly reflect and prioritize the mobility and experience of people, as opposed to the efficiency of car movement.

Common themes across Provincial, Regional, and Municipal policies and guidelines include:

- Planning and transit from a network perspective;
- Designing streets and public realm for people;
- Connecting and expanding cycling infrastructure; and
- Increasing multi-modal mobility options.

The aforementioned themes are fundamental to the development of the Christies Master Plan mobility principles, which will continue to guide the planning and design of the Site.

These policies are strongly supportive of the adoption of reduced – significantly where appropriate – minimum parking standards for new development across the City and particularly new development in transit accessible and urbanizing areas.

It is considered particularly appropriate in this context – considering the significant investments being made as part of the Master Plan in non-automobile infrastructure – to adopt a Zoning By-law parking regime that establishes a series of low, but appropriate, minimum standards to guide (and control) parking provision within the Master Plan. Adoption of a “low-floor” in this manner will help to establish the available non-automobile travel opportunities and desired sustainable mobility focus of the Master Plan from the outset of the development.

3.5.2 Parking Standards Disconnect: Resident Parking Needs

It is clear, based upon BA Group’s experience over recent years and the review presented as part of the parking rationale in **Appendix B**, that the current City of Toronto Zoning By-law regime is “out of step” with the contemporary parking needs of new residential development today in the City and the sustained downward trend in demands that has been evident over recent years.

This has been most noticeable (and was seen earliest) in the central areas and most transit accessible areas of the City but has – importantly - been extending outwards from the downtown core across transit accessible areas of the City.

What has become apparent, with the advent of car-sharing, advancement of the transit system supporting the City and an increased adoption of non-automobile travel behaviour by City residents, is that the parking standards outlined in the City of Toronto Zoning By-law 569-2013 are conservatively high relative to parking demand and approval trends observed across the City. These standards routinely overstate development parking needs, particularly for residential land uses, by a significant margin in these transit accessible areas.

It is noteworthy, in regard to the above, that the City is also undertaking an update to their parking By-law parking standards given the relative “age” of the current By-law standards (dating from before the development of the first – and since repealed – comprehensive City-wide Zoning By-law in 2007 following amalgamation) and the way that parking needs have changed over the recent years. Consideration of the removal of parking minimums in certain areas of the City is one of the criteria that maybe considered in the context of this review given that the same approach has been adopted in other jurisdictions.

This disconnect between the current Zoning By-law 569-2013 parking standards and actual residential parking needs is important to understand and correct as part of any successful and effective parking strategy that is adopted for the Christies Master Plan.

To demonstrate the growing disparity between the current Zoning By-law regime in place across the various areas of the City and the extent of actual demands / approvals in these areas, BA Group has reviewed citywide residential parking trends (e.g. demand studies conducted by BA Group and approvals) and the in-force equivalent Zoning By-law requirements.

This is summarized in **Table 4**, which highlights the contrast between the (outdated) Zoning By-law parking requirements and the range of demands / approvals seen in these areas. The disparity is most acute in the central areas and transit accessible areas of the City.

TABLE 4 ZONING BY-LAW 569-2013 PARKING REQUIREMENT AND PARKING DEMAND / APPROVAL RATE COMPARISONS

Study Area and Context	Policy Area	Zoning By-law 569-2013	Parking Demand Trends	Parking Sales Trends	Parking Approval Trends
Downtown Toronto Generally Bathurst Street to Parliament Street and Front Street to Dupont Street	Policy Area 1 (Downtown)	0.65	Range: 0.05 to 0.45 Average: 0.25	Range: 0.10 to 0.60 Average: 0.25	Range: 0.10 to 0.45 Average: 0.20
Midtown Generally Yonge-Eglinton / Yonge-St. Clair	Policy Area 2 (Centres) Policy Area 3 (Avenues along Subway Lines)	0.80	Range: 0.20 to 0.50 Average: 0.35	Range: 0.15 to 0.50 Average: 0.30	Range: 0.20 to 0.60 Average: 0.30
West Toronto Generally Bloor-Dundas / High Park, Liberty Village / City Place	Policy Area 3 (Avenues along Subway Lines) Policy Area 4 (Avenues along Surface Transit) Rest of City	0.80-0.95	Range: 0.30 to 0.60 Average: 0.45	Range: 0.30 to 0.50 Average: 0.45	Range: 0.35 to 0.55 Average: 0.45
Scarborough, North York & Etobicoke Subway Access	Policy Area 3 (Avenues along Subway Lines)	0.80	Range: 0.35 to 0.75 Average: 0.55	---	Range: 0.45 to 0.80 Average: 0.65
Scarborough, North York & Etobicoke No Subway Access	Policy Area 4 (Avenues along Surface Transit) Rest of City	0.85-0.95	Range: 0.50 to 0.85 Average: 0.65	---	Range: 0.70 to 0.90 Average: 0.80

Notes:

1. Limited parking demand and approvals data (less than 5 data points).
2. All values round to the nearest 0.05 decimal points.
3. Parking rates provided as spaces per unit.

3.5.3 Unprecedented Delivery of New Transit and Active Infrastructure

The Master Plan is centred upon creating a complete community that is built, from the ground up, to provide a wide range of non-automobile dependent mobility options that minimize car usage as a primary form of transportation.

The Master Plan is proposing a wide array of new non-automobile facilities and elements that will not only provide for future mobility needs of the site but will also greatly benefit the mobility options for all of Humber Bay Shores and the southeastern Etobicoke area.

Significant sustainable mobility elements of the Master Plan include:

- Construction of a new Park Lawn GO Station;
- Creation of a Transit Hub at the new GO Station with new TTC LRT and bus facilities;
- New dedicated LRT track facilities connecting Lake Shore Boulevard West to the Transit Hub;
- Dedicated LRT tracks on Lake Shore Boulevard West;
- Enhancing cycling facilities on Lake Shore Boulevard West, Park Lawn Road and within the development plan;
- A series of complete streets and new main street signalized crossings that promote walking as a viable local travel mode;
- Bike share and end-user cycling facilities within the development plan; and
- Car share facilities and other complementary programmes.

These sustainable transportation elements of the Master Plan, together with the mix of mutually supportive land uses provided within the development plan, will collectively support non-automobile dependency within the area and will offer “game-changing” improvements to area transit accessibility and mobility options. This will, as outlined in previous BA Group submissions, lead to notable changes in mode share and travel option usage in the area compared to today.

The wide array of infrastructure being planned and implemented in conjunction with the Master Plan is supportive of the adoption of a complimentary parking strategy that seeks to maximize usage of these non-automobile infrastructure investments.

3.5.4 A Highly Effective TDM Tool

A Transportation Demand Management (TDM) Plan is proposed to guide the provision of viable alternative personal transportation options beyond the single-occupant, private automobile. The objective is to encourage the use of active and sustainable transportation modes, respond to the mobility needs of site residents, employees and patrons, and reduce dependence on the private automobile.

The primary goals of the TDM Plan are:

- Reducing demand on road infrastructure, thereby minimizing road and parking capital expenditures;
- Increasing travel efficiency;
- Reducing climate change emissions;
- Improving air quality; and,
- Improving overall community health.

The development plan includes a number of significant investments in transportation infrastructure, community uses, and public realm, to maximize mobility choice and connect with existing and planned active transportation and transit infrastructure. The future site context provides for frequent, public transit services and improved pedestrian and cycling connectivity. The TDM Plan supplements and further leverages the physical infrastructure and attributes of the Master Plan and area planning initiatives that will reduce auto-mode share.

To this end, Mobility Plan strategies are presented with targeted “intents” (e.g. what each measure is trying to achieve and for whom), accompanied by methods of implementation. Potential strategies are then framed in the context of the development and the strategies most appropriate for application are proposed.

The control of parking supply and reduction in minimum parking requirements are key aspects of a successful TDM Plan for the Master Plan as they are for most applications. The desirability of reducing the minimum requirements to reduce parking provisions to the extent practical / possible is a strong TDM measure and is highly supportive of reducing reliance on single-occupant vehicle use. It also maximizes the potential for area residents to capitalize upon the significant investments being made in new area transit infrastructure.

3.5.5 Projected Mode Choice

As outlined in the initial October 2019 submission material, residential travel characteristics are anticipated to be influenced by both distribution and mode share considerations.

Existing travel patterns will change notably with new transit access and strengthened connections, new urban community development, and new active network connectivity. There will also be changes in travel patterns as areas of the City redevelop as employment centres and destination nodes. Proxy comparisons to other comparable sites were utilized for estimation purposes.

The anticipated shift in residential mode shares are as follows and indicate a considerable advancement in sustainable mobility choice in the area:

- Auto Driver: 60% → 30%
- Transit: 30% → 45%
- Active: 2% → 15%
- Passenger: 8% → 10%

It is projected that the auto driver mode share for the site will reduce from approximately 60% (as it would be today) to approximately 30% (future with implementation of the full Master Plan) which reflects a considerable reduction in car usage on a day-to-day basis.

It is noteworthy that the derived mode splits and resulting travel demands are consistent – as outlined within this Update Report - with the 2041 City model forecasts for the 2150 Lake Shore Boulevard West development established by the City as part of the modelling process being undertaken as part of the City’s Park Lawn – Lake Shore Transportation Master Plan.

This consistency in forecasts derived as part of the transportation reports submitted as part of the Christies development application and those macro model forecasts established independently by the City are supportive of the validity and appropriateness of the future modal splits and forecasts outlined herein.

3.5.6 Focus Areas: Resident Parking Needs Trends

BA Group has undertaken a focussed review of parking needs within three areas of the City that are comparable to the future mobility context of the Site in terms of transit travel times to / from major destinations across the City and existing / anticipated mode shares.

These three areas include: the Bloor – Dundas area that is centred upon the Dundas West Line 2 subway station and the Bloor GO Station, the Liberty Village area that is supported by the Exhibition GO Station and TTC streetcar services and the Yonge – Eglinton area on the Line 1 subway.

By way of reference, it is anticipated, as outlined in the parking rationale in **Appendix B**, that auto-driver mode share for the site will be comparable to those exhibited in these areas (30 percent for the site compared to 27 to 28 percent in the three focus areas). Furthermore, the key transit travel times to downtown Toronto to / from the site and the three focus areas considered are comparable when considering use of the Lakeshore GO / RER service. The three focus areas are considered, given the above, to be generally representative of the future mobility context of the site with introduction of the array of non-automobile travel infrastructure.

Parking demand / approvals information reviewed for each of the three focus areas is instructive in regard to assisting in developing a range of parking demands that could be experienced on the site in the future.

Demands / parking needs range within the three areas are as follows:

- Bloor-Dundas 0.40 to 0.60 spaces per unit
(0.45 spaces per unit average)
- Liberty Village 0.30 to 0.55 spaces per unit
(0.45 spaces per unit average)
- Yonge-Eglinton 0.20 to 0.50 spaces per unit
(0.35 spaces per unit average)

The range of parking demands / needs in the three focus areas are supportive, when considering the comparable mobility context of the site and these areas in the future, of adoption of a reduced minimum resident parking standard of 0.40 spaces / unit.

3.5.7 Proposed Resident Standard

The future mobility context of the site will change considerably as a result of the transit, active and community infrastructure, facilities, and uses to be delivered through the development proposal.

It is projected that the site will have a residential auto-driver mode share that will be comparable to the Liberty Village and Bloor-Dundas areas, as well as the Midtown / Yonge-Eglinton area given the planned employment and range of associated area uses. The site projected auto driver mode share is approximately 30%.

To understand and assist in establishing an appropriate parking rate that corresponds with the future planned mobility context and projected mode share, parking demands ranges seen at residential developments in these three proxy focus areas were reviewed. These three areas are (or will be) notably comparably located by transit to the downtown area of Toronto with travel times of approximately 15 minutes.

The recorded resident parking demand ranges in these areas have been used in establishing the recommended minimum resident parking standard. The proposed minimum **0.40 spaces / unit** standard is well within the range of parking demands currently being observed across the three key proxy areas and is reflective of lower end parking needs with in the Bloor – Dundas and Liberty Village areas and mid-range of those seen in the Yonge – Eglinton area. This is summarized in **Table 5**.

TABLE 5 RESIDENT PARKING NEEDS COMPARISON AND PROPOSED STANDARD

Bloor-Dundas	Liberty Village	Yonge-Eglinton	Site
Range: 0.40 to 0.60 Average: 0.45	Range: 0.30 to 0.55 Average: 0.45	Range: 0.20 to 0.50 Average: 0.35	Recommended: 0.40

Notes:

1. Parking rates provided as spaces per unit.

Given the future transit access of the site (approximately 15 minutes to downtown Toronto) – similar to (if not better than) the West Toronto proxy areas - and the highly urban “complete” community of the Master Plan - similar to the Yonge-Eglinton area - the recommended rate of 0.40 spaces per unit is considered appropriate for the site’s future mobility and urban context.

The recommended standard is considered to adopt a proactive and progressive approach to minimizing vehicular use and will work in concert with the range of sustainable transportation infrastructure facilities being advanced as part of the Master Plan and the comprehensive Transportation Demand Management (TDM) plan,

Setting a proactive (yet appropriate) parking standard, complimented by a comprehensive TDM plan, is important in supporting the investments being made both privately and publicly in more sustainable mobility infrastructure and to advance contemporary and sustainable planning framework.

3.6 APPROPRIATENESS OF PROPOSED NON-RESIDENT STANDARDS

The current Zoning By-law parking standards outlined in By-law 569-2013) for “Rest of City” areas are considered to over-state the parking needs of the proposed development.

It is proposed to adopt non-resident parking standards that are reduced relative to the in-force Zoning By-law requirements of the area (Rest of City standards) and generally reflect, as noted previously, the Policy Area 2 / 3 minimum parking standards outlined in Zoning By-law 569-2013.

Adoption of these standards are considered to be appropriate for the Master Plan considering the reduction they reflect compared to the Rest of City (ROC) standards outlined in By-law 569-2013 and given opportunities to share parking between component uses on a non-exclusive basis.

3.7 PARKING SUPPLY REQUIREMENTS OF THE PROPOSED STANDARDS

Application of the proposed minimum parking standards results in a requirement of 4,161 parking spaces for the proposed Master Plan, including 2,999 residential parking spaces and 1,162 non-residential (i.e. retail, office, visitor, school, and community) parking spaces.

Table 2 outlines the breakdown of parking requirements.

TABLE 6 PROPOSED PARKING STANDARDS

Use	Units / IFA	Minimum Parking Rate	Minimum Parking Required	Minimum Parking Required			
				AM	PM	Evening	
Resident	Phase I	1,245 units	0.40 spaces per unit	498 spaces	498 (100%)	498 (100%)	498 (100%)
	Phase II	1,406 units		562 spaces	562 (100%)	562 (100%)	562 (100%)
	Phase III	2,197 units		878 spaces	878 (100%)	878 (100%)	878 (100%)
	Phase IV	1,347 units		538 spaces	538 (100%)	538 (100%)	538 (100%)
	Phase V	628 units		251 spaces	251 (100%)	251 (100%)	251 (100%)
	Phase VI	681 units		272 spaces	272 (100%)	272 (100%)	272 (100%)
	<i>Sub-Total</i>			2,999 spaces	2,999	2,999	2,999
Non-Resident	Residential Visitor	7,504 units	0.10 spaces per unit	750 spaces	75 (10%)	262 (35%)	750 (100%)
	Retail	36,363 m ²	1.00 space per 100 m ²	363 spaces	72 (20%)	363 (100%)	363 (100%)
	Office	63,444 m ²	1.00 space per 100 m ²	634 spaces	634 (100%)	380 (60%)	0 (0%)
	School	8,841 m ²	0.50 spaces per 100 m ²	44 spaces	44 (100%)	44 (100%)	8 (20%)
	Community	8,230 m ²	0.50 spaces per 100 m ²	41 spaces	10 (25%)	41 (100%)	41 (100%)
	<i>Sub-Total</i>			1,832	835	1,090	1,162
Minimum Requirement Totals	Resident			2,999	2,999	2,999	
	Non-Resident			835	1,090	1,162	
	Total			3,834	4,089	4,161	
	Minimum-Parking Requirement			4,161			

Notes:

1. Site stats are based on architectural stats prepared by Allies and Morrison Architects dated February 24, 2021.

It is also proposed to adopt the sharing provisions outlined in Zoning By-law 569-2013 for all non-resident parking to maximize the usage of provided parking, to enable multiple user groups to utilize an available parking space and to minimize all non-resident parking requirements across the project.

3.8 PROPOSED PARKING SUPPLY

3.8.1 Total Parking Provisions

A proposed parking supply of 4,422 parking spaces is provided within a six (6) level underground parking garage (i.e. P1 to P6 underground levels).

The parking supply per parking level is summarized in **Table 7**.

TABLE 7 PROPOSED PARKING SUPPLY

Parking Level	Residential	Non-Residential
P1 Level	--	660
P2 Level	21	121
P3 Level	899	442
P4 Level	1,443	--
P5 Level	586	--
P6 Level	250	--
Sub-Total	3,199	1,223
Total	4,422	

Notes:

1. Site stats are based on architectural stats prepared by Allies and Morrison Architects dated February 24, 2021.

Based on the above, the proposed supply meets the requirements of the recommended parking standards of the Master Plan.

3.8.2 Accessible Parking Supply

It is proposed to meet the accessible standards outlined in City of Toronto By-law 579-2017 which requires a minimum of 104 accessible spaces be provided for the proposed Master Plan. The accessible spaces will meet the dimensions outlined in the Zoning By-law 579-2017.

A total of 107 accessible spaces with dimensions 3.4 metre x 5.6 metre x 2.1 metre are proposed in the underground garage. Shared 1.5 metre access aisles are provided adjacent to the spaces, meeting the requirements outlined in Zoning By-law 579-2017. The proposed accessible parking supply is summarized in **Table 8**.

TABLE 8 PROPOSED ACCESSIBLE PARKING SUPPLY

Phase	Proposed Parking Supply	Accessible Spaces Required	Accessible Space Allocation	
			Residential	Non-Residential
Phase 1	799	20	14	6
Phase 2	998	24	14	6
Phase 3	1,186	27	21	7
Phase 4	660	17	14	3
Phase 5	389	11	8	3
Phase 6	390	11	8	3
Total	4,422	107	79	28

Notes:

1. Site stats are based on architectural stats prepared by Adamson Associates Architects dated February 24, 2021.

3.8.3 Proposed Toronto Green Standards (TGS) Parking Provisions

3.8.3.1 AQ 1.2 - LEV and Sustainable Mobility Spaces - Residential

The Toronto Green Standard (TGS) Version 3.0, standard AQ1.2 states that if providing more than the minimum parking required under the Zoning-By-law, the excess spaces must be dedicated low-emitting vehicles (LEV), car-pool or car-share spaces.

Given that the provision of residential parking is 200 spaces over the recommended Zoning By-law requirement (2,999 spaces required vs 3,199 spaces provided), 200 spaces within the underground garage are to be dedicated as LEV, car-pool or car-share, meeting and exceeding the TGS V3.0 AQ1.2 requirements.

The proposed Residential LEV parking supply is summarized in **Table 9**.

TABLE 9 PROPOSED RESIDENTIAL LEV PARKING SUPPLY

Phase	Residential		
	Required Parking	Proposed Parking	Proposed LEV Parking
Phase 1	2,999	512	200
Phase 2		728	
Phase 3		878	
Phase 4		540	
Phase 5		240	
Phase 6		287	
Total	--	3,199	200

Notes:

1. Site stats are based on architectural stats prepared by Adamson Associates Architects dated February 24, 2021.

3.8.3.2 AQ 1.2 - LEV and Sustainable Mobility Spaces - Non-Residential

The Toronto Green Standard (TGS) Version 3.0, standard AQ1.2 states that for institutional, commercial and retail developments, the number of dedicated low-emitting vehicles (LEV), car-pool or car-share spaces should be no less than 1 dedicated space for every 10 parking spaces provided above the minimum Zoning By-law requirement.

Given that the provision of non-residential parking is 61 spaces over the Zoning By-law requirement (1,162 spaces required vs 1,223 spaces provided), a minimum of 6 spaces within the underground garage are to be dedicated as LEV, car-pool or car-share, meeting the TGS V3.0 AQ1.2 requirements.

The proposed LEV parking supply is summarized in **Table 10**.

TABLE 10 PROPOSED NON-RESIDENTIAL LEV PARKING SUPPLY

Phase	Non-Residential		
	Required Parking	Proposed Parking	Proposed LEV Parking
Phase 1	1,164	287	3
Phase 2		270	0
Phase 3		308	0
Phase 4		120	0
Phase 5		135	2
Phase 6		103	1
Total	--	1,223	6

Notes:

1. Site stats are based on architectural stats prepared by Adamson Associates Architects dated February 24, 2021.

3.8.3.3 AQ 1.3 - Electric Vehicle Infrastructure

The Toronto Green Standard (TGS) Version 3.0, standard AQ1.3 states that 20% of the total parking supply must be fitted with electric vehicle supply equipment (EVSE). The remaining 80% of the parking spaces are to be designed to permit future EVSE installation (i.e. empty conduit).

889 parking spaces are to have electric vehicle supply equipment (EVSE) installed (642 resident spaces and 247 non-residential spaces). The remaining 3,539 spaces are to be EVSE ready (2,557 residential and 982 non-residential spaces), meeting the TGS V3.0 AQ 1.3 requirements. The proposed EVSE parking supply is summarized in **Table 11**.

TABLE 11 PROPOSED EVSE SUPPLY

Phase	Residential		Non-Residential		Total
	EV Supply (20%)	EVSE Supply (80%)	EV Supply (20%)	EVSE Supply (80%)	
Required	642	2,557	245	978	4,422
Proposed	642	2,557	245	978	4,422

Notes:

1. Site stats are based on architectural stats prepared by Adamson Associates Architects dated February 24, 2021.

3.8.4 Parking Space Dimension Flexibility

It is proposed to adopt the dimension standards of 569-2013. However, it is recommended that provisions be made within the site-specific Zoning By-law to permit a certain proportion of the total number of spaces to be provided with dimensions that, while acceptable, may not meet the By-law requirements.

This provides some flexibility to accommodate parking space size variations that may result from specific design considerations that become evident through the site plan and detailed design processes for the various buildings comprising the Master Plan. This recognizes that the current garage arrangements reflected on the site plans are preliminary in nature and will evolve through the design processes and that there is a two-year moratorium on the ability to seek minor variances to a new site-specific Zoning By-law.

It is recommended that inclusions be made within the site-specific Zoning By-law to permit up to 10 percent of the total parking supply to be provided with reduced dimension requirements of 5.0 metres in length by 2.6 metres in width with no provisions required to meet the obstruction criteria for these spaces.

3.9 PARKING SUMMARY

The proposed parking standards are, in our opinion, proactive and representative of forward-thinking measures that can be achieved through the mixed development and major active and transit investments (such as the planned GO station) for the Site.

The proposed parking supply meets the minimum standards as recommended for the Master Plan.

The proposed parking supply and parking deployment strategies are, based on the above, considered appropriate and will guide the parking demands and future mobility of the Site.

4.0 BICYCLE PARKING SUPPLY UPDATE

It is proposed to adopt the Toronto Green Standards (TGS) Version 3 - Tier 2, Zone 2 standards. The adoption of these higher rates are conducive to the urban content of the neighbourhood and further encourages cycling as an attracted mode of transportation.

Application of the City of Toronto Zoning By-law 569-2013 and Toronto Green Standards (TGS) Version 3.0 (Tier 2, Zone 2) on a phase-by-phase basis, requires a minimum of 7,902 bicycle parking spaces, including 6,900 long-term spaces and 1,002 short-term spaces.

A summary of the minimum bicycle requirements for the proposed development for each block or group of Master Plan buildings is provided in **Table 12**. A breakdown of the phase-by-phase bicycle parking requirement calculation can be found in **Appendix C**.

TABLE 12 ZONING BY-LAW 569-2013 / TORONTO GREEN STANDARD VERSION 3 (TIER 2, ZONE 2) BICYCLE PARKING REQUIREMENTS

Phase	Minimum Bicycle Parking Required							
	Residential		Retail		Office		School	
	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term
Phase 1	125	1,124	17	7	39	31	--	--
Phase 2	141	1,266	35	17	32	25	--	--
Phase 3	220	1,978	15	6	35	28	9	6
Phase 4	135	1,213	20	9	--	--	--	--
Phase 5	63	566	11	5	--	--	--	--
Phase 6	69	613	11	4	--	--	--	--
Sub-Total	753	6,757	109	48	106	84	9	6
Total	7,902							

Notes:

1. Site stats are based on architectural stats prepared by Allies and Morrison Architects dated February 24, 2021.

4.1 PROPOSED BICYCLE PARKING SUPPLY AND FACILITIES

A total of 7,902 bicycle parking spaces (6,900 long-term spaces and 1,002 short-term spaces) are currently incorporated into the development proposal. These spaces are provided on the ground floor, mezzanine level and P1 underground parking levels. A description of the bicycle parking allocation and bicycle supply is provided in **Table 13** and is illustrated in the reduced scale architectural plans provided in Appendix A.

Bicycle parking is generally located within the first level of below grade basement. Access to these facilities will be designed as part of the ongoing Master Plan, however; it is intended that access to these facilities be granted through passive (non-mechanical) means, such as bicycle stairs or ramps.

The long-term bicycle parking rooms will be secure and weather protected and the short-term bicycle parking will be located in highly visible and publicly accessible locations. A portion of the short-term bicycle parking supply will be located within close proximity to building entrances at street level.

It is of BA Group's opinion that the planned bicycle storage rooms areas effectively meet the overall intent of providing bicycle parking on the ground level or the first level below or above grade to make it convenient and effortless and is thus acceptable.

TABLE 13 PROPOSED BICYCLE PARKING SUPPLY

Block	Residential		Retail		Office		School	
	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term
Site Wide	714	6,425	113	73	196	129	28	17
Sub-Total	7,139		186		325		45	
Total	7,902							

Notes:

1. Site stats are based on architectural stats prepared by Allies and Morrison Architects dated February 24, 2021.

4.2 PROPOSED SHOWER AND CHANGE FACILITIES

Application of the shower and change room facilities standards of the Toronto Green Standards for the non-residential bicycle parking supply requires six (6) shower and change rooms to be provided for each gender. A total of eight (8) change rooms and shower facilities are provided for the proposed development as summarized in **Table 14**.

The above supply meets and exceeds the requirements of the shower and change facilities outlined in the City of Toronto Zoning By-law 569-2013 and Toronto Green Standards (TGS) Version 3.0 (Tier 2, Zone 2).

TABLE 14 SHOWER AND CHANGE ROOM FACILITIES

Phase	Use	No. of Long Term Bicycle Parking Spaces Required (Tier 2)	No. of Shower & Change Room Facilities	Block	Location
Phase 1	Office	31 spaces	1 per gender	Block D1	P1 Level
	Retail	8 spaces			
Phase 2	Office	25 spaces	1 per gender	Block A2 / A3	P1 Level
	Retail	18 spaces			
Phase 3	Office	28 spaces	1 per gender	Block D2	P2 Level
	Retail	7 spaces			
	School	6 spaces			
Phase 4	Retail	9 spaces	1 per gender	Block B2	P2 Level
Phase 5	Retail	5 spaces	1 per gender	Block E	P1 Level
Phase 6	Retail	4 spaces	1 per gender	Block F	Ground Floor Level
Total		141 spaces	6 per gender	--	--

4.3 GO STATION BICYCLE PARKING

A total of 192 short-term bicycle spaces are proposed in and around the GO station to support GO station cycling needs. These short-term spaces will be located in highly visible and publicly accessible locations. It is noteworthy, that these spaces are provided outside of, and above, the requirement of the Master Plan.

The deployment of bicycle parking as part of the GO station will be determined through a Site Plan Approval process and Metrolinx design process to be undertaken for the GO station.

5.0 LOADING SUPPLY UPDATE

Application of the loading requirements outlined in the City of Toronto Zoning By-law 569-2013 to the proposed development proposal was applied for each block in order to meet the needs their respective uses.

This requires 25 loading spaces, including 10 Type 'B', eight (8) Type 'G', and seven (7) Type 'C' loading spaces.

A summary of the minimum loading requirements for the proposed development is provided in **Table 15**. Detailed loading requirement calculations, including loading sharing rules, are provided in **Appendix D**.

TABLE 15 OVERALL LOADING SUMMARY ZONING

Use	Minimum Number of Loading Spaces				
	Type A	Type B	Type G	Type C	Total
Residential (7,504 units)	0 spaces	0 spaces	8 spaces	8 spaces	16 spaces
Retail (32,757 m ²)	1 space	14 spaces	0 spaces	0 spaces	15 spaces
Office (63,444 m ²)	0 spaces	6 spaces	0 spaces	6 spaces	12 spaces
Grocery (3,606 m ²)	1 space	1 space	0 spaces	0 spaces	2 spaces
Total Before Sharing	2 spaces	21 spaces	8 spaces	14 spaces	45 spaces
Total After Sharing	0 spaces	10 spaces	8 spaces	7 spaces	25 spaces

Notes:

1. Site stats are based on architectural stats prepared by Allies and Morrison Architects dated February 24, 2021.

5.1 PROPOSED LOADING SUPPLY

The current proposed development incorporates a total of 56 loading spaces, including two (2) Type 'A', 24 Type 'B', eight (8) Type 'G', and 22 Type 'C' loading spaces to service all 6 blocks.

Each loading area is accessed from the relief road ('Street A') with the exception of Block F where the at-grade loading area is accessed from the signalized driveway from Brooker's Lane / Lake Shore Boulevard West. Refer to Section 4.4.4.1 for an overview of how each loading area in Blocks A to E are accessed from relief road (Street 'A').

The proposed loading supply meets and exceeds the minimum requirement in order to meet the individual blocks' needs. Multiple loading Type 'B' and Type 'C' loading spaces are proposed to help facilitate move-in / move-out of residents while also ensuring commercial deliveries and pick-up needs are met. A summary of the proposed loading supply for each block is provided in **Table 16**.

TABLE 16 PROPOSED LOADING SUPPLY

Block	Minimum Number of Loading Spaces				
	Type A	Type B	Type G	Type C	Total
A	1	10	1	7	19
B	0	2	1	3	6
C	1	1	1	2	5
D-1	0	4	1	2	7
D-2	0	3	1	2	6
D-3	0	1	1	4	6
E	0	2	1	1	4
F	0	1	1	1	3
Total	2	24	8	22	56

Notes:

1. Loading supply is based on architectural stats prepared by Adamson Associates Architects dated February 24, 2021.

5.2 PROPOSED LOADING FACILITIES

5.2.1 Residential Refuse / Recycling Collection

Residential refuse / recycling collection for all residential buildings on the Site is proposed to occur within the proposed Type ‘G’ space located in the respective block’s loading area. Each block is provided with at least one Type ‘G’ loading space and staging area. Appropriate bin staging provisions are provided adjacent to the Type ‘G’ loading space in accordance with the design provisions outlined in the *City of Toronto Requirements for Garbage and Recycling Collection for New Developments and Redevelopments* (May 2012).

Provision for a minimum bin staging area to be provided in accordance with the City policy requirements (i.e. size of bin staging area = 5 m² for every 50 residential units provided in excess of the first 50 residential units). The full 6.1-metre clearance will be provided above the bin staging area.

The full 6.1 metre clearance will be provided above the entire Type ‘G’ space and with a portion of the bin staging area located in front of the Type ‘G’ loading space. This portion of staging area that has a 6.1 metre height clearance, is located approximately 2.0 metres in front of the Type ‘G’ loading space.

A trained waste management staff can facilitate garbage bins being manoeuvred to / from the Type ‘G’ loading space during garbage collection. The remaining bin staging area will have a minimum of 4.5 metres clearance.

5.2.2 Non-Residential Refuse / Recycling Collection

Non-residential refuse / recycling facilities for the non-residential (retail, office, and institutional) component of the Site will be picked up by a private garbage contractor.

5.2.3 Operations & Manoeuvring

Turning movement diagrams have been developed demonstrating the ability for service and delivery vehicles to manoeuvre appropriately within the Site and entering / leaving the Site in a forward motion. The design vehicles used to access the proposed loading spaces are as follows:

- City of Toronto Garbage Truck
- Single Axle Cab with 53' Trailer
- TAC Heavy Single Unit Design Vehicle (TAC-HSU)
- TAC Single Unit Design Vehicle (TAC-SU)
- TAC P-Car

Vehicle Manoeuvring Diagrams are provided in **Appendix E** and illustrate the turning movements for the design vehicles entering and exiting the proposed loading spaces. These diagrams confirm that the proposed loading arrangements are appropriate and will facilitate the manoeuvring needs of the vehicles entering and exiting the Site.

5.2.4 Height Clearances

The loading areas have been designed such that a minimum height clearances of 4.4 metres is maintained throughout the entire loading area meeting / exceeding the minimum Zoning By-law 569-2013 height clearance requirements (4.0 metres for a Type 'B' loading space, 4.4 metres for a Type 'A' loading space and 4.4 metres for a Type 'G' loading space).

A minimum height clearance of 6.1 metres is provided above the Type 'G' loading space a portion of the bin staging area (located 2.0 metres in front of the Type 'G' loading space) to enable compacted bulk lift bin collection.

5.3 LOADING SUMMARY

The proposed loading supply of fifty-six (56) loading spaces, including two (2) Type 'A', twenty-four (24) Type 'B', eight (8) Type 'G' and twenty-two (22) Type 'C' loading spaces meets and exceeds the minimum Zoning By-law 569-2013 loading standards.

The proposed loading supply and loading area arrangements are, based on the above, appropriate and will accommodate the loading demands of the Site as planned.

6.0 MODELLING AND FORECASTING UPDATE

6.1 OVERVIEW

This section provides an update to the forecasting and micro-simulation modelling undertaken for the proposed development. The following key components were undertaken:

- an update to the projected multimodal trip generation of the development based upon the current Site statistics in accordance with the methodologies outlined by BA Group in previous submissions;
- an overview of the multi-resolution model prepared in coordination between BA Group and the City of Toronto and the trip (traffic) generation parameters established for the 250 Lake Shore Boulevard West site;
- alignment of the abovementioned multi-resolution modelling with the analysis scenarios and subsequent validation of the forecasting work previously undertaken by BA Group against the modelling forecasts; and
- a review of the projected Site GO Transit ridership volumes comparing to Metrolinx's ridership projections for the Park Lawn GO Station in the IBC Update.

6.2 UPDATED MULTIMODAL TRIP GENERATION

Details of the multimodal trip generation forecasting were previously detailed in the October 2019 OPA submission transportation report for residential, office and retail uses and in the May 2020 submission transportation report for the school use. Accordingly, updated multimodal trip generation forecasting has been undertaken in accordance with the abovementioned previously outlined methodologies. As requested by staff within the City comments, school-related school bus trips have been extracted and listed as a separate mode from local transit.

For reference, the proposed development statistics are reproduced in **Table 17** comparing the current development programme to that submitted previously. The updated projected multimodal Site trip generation associated with the current proposal is summarized in **Table 18**. The projected multimodal site trip generation by land use is summarized in **Table 19**. A comparison of the projected multimodal trip generation associated with the current and previous proposals is provided in **Table 20**.

TABLE 17 MASTER PLAN DEVELOPMENT STATISTICS: CHANGE SUMMARY

Use	October 2019 OPA Submission	May 2020 ZBA Submission #1	February 2021 ZBA Submission #2	Changes since May 2020 Submission
Residential	7,455 units	7,139 units	7,504 units	+365 units
Employment	41,925 sq. m. GFA	64,392 sq. m. GFA	63,444 sq. m. GFA	- 948 sq. m. GFA
Retail	42,700 sq. m. GFA	36,659 sq. m. GFA	36,363 sq. m. GFA	-296 sq. m. GFA
Hotel	20,235 sq. m. GFA	-	-	-
Community	-	-	8,230 sq. m. GFA	+ 8,230 sq. m. GFA
School	-	8,459 sq. m. GFA	8,841 sq. m. GFA	+ 382 q. m. GFA

Note: Retail Floor Area (GFA) includes 1,354 sq. m. daycare GFA, consistent with the SASP calculation of "Column 2 and 3"

TABLE 18 PROJECTED UPDATED MULTIMODAL TRIP GENERATION

Mode	In	Out	2-Way
Auto Driver	465 (905) [1095]	875 (760) [1195]	1340 (1665) [2290]
Auto Passenger	100 (255) [295]	240 (185) [335]	340 (440) [630]
Auto PuDo	90 (10) [5]	15 (15) [10]	105 (25) [15]
Transit GO	455 (655) [455]	850 (520) [565]	1305 (1175) [1020]
Transit Local	390 (620) [545]	740 (480) [645]	1130 (1100) [1185]
School Bus	80 (0) [0]	0 (10) [0]	80 (10) [0]
Internal (Walk)	1195 (865) [855]	615 (930) [845]	1810 (1795) [1705]
Linked (Walk)	400 (1065) [685]	400 (1060) [680]	800 (2125) [1365]
Walk	35 (45) [70]	20 (60) [80]	55 (105) [150]
Cycle	85 (145) [135]	160 (125) [160]	245 (270) [295]
Total	3295 (4565) [4140]	3915 (4145) [4515]	7210 (8710) [8655]

Notes:

- xx (xx) [xx] = AM peak hour (PM peak hour) [Saturday peak hour]

TABLE 19 PROJECTED MULTIMODAL SITE TRIP GENERATION BY LAND USE (TWO-WAY)

Mode	Residential	Office	Retail	School	Total
Auto Driver	980 (840) [840]	225 (235) [60]	115 (580) [1390]	20 (10) [0]	1340 (1665) [2290]
Auto Passenger	285 (240) [245]	30 (30) [0]	25 (170) [385]	0 (0) [0]	340 (440) [630]
Auto PuDo	20 (15) [15]	0 (0) [0]	0 (0) [0]	85 (10) [0]	105 (25) [15]
Transit GO	1005 (855) [845]	275 (260) [50]	5 (60) [125]	20 (0) [0]	1305 (1175) [1020]
Transit Local	880 (745) [750]	215 (195) [40]	25 (160) [395]	10 (0) [0]	1130 (1100) [1185]
School Bus ²	0 (0) [0]	0 (0) [0]	0 (0) [0]	80 (10) [0]	80 (10) [0]
Internal (Walk)	375 (505) [505]	90 (90) [20]	840 (1150) [1180]	505 (50) [0]	1810 (1795) [1705]
Linked (Walk)	0 (0) [0]	0 (0) [0]	800 (2125) [1365]	0 (0) [0]	800 (2125) [1365]
Walk	20 (15) [15]	30 (30) [10]	5 (60) [125]	0 (0) [0]	55 (105) [150]
Cycle	185 (160) [160]	55 (50) [10]	5 (60) [125]	0 (0) [0]	245 (270) [295]
Total	3750 (3375) [3375]	920 (890) [190]	1820 (4365) [5090]	720 (80) [0]	7210 (8710) [8655]

Notes:

- xx (xx) [xx] = AM peak hour (PM peak hour) [Saturday peak hour]

TABLE 20 PROJECTED CHANGE TO MULTIMODAL SITE TRIP GENERATION (TWO-WAY)

Mode	October 2019 OPA Submission	May 2020 Submission #1	February 2021 Submission #2	Change from October 2019 OPA Submission	Change from May 2020 Submission
Auto Driver	1350 (1780) [2615]	1290 (1645) [2265]	1340 (1665) [2290]	-10 (-115) [-325]	50 (20) [25]
Auto Passenger	355 (480) [710]	325 (430) [625]	340 (440) [630]	-15 (-40) [-80]	15 (10) [5]
Auto PuDo	20 (15) [15]	105 (25) [15]	105 (25) [15]	85 (10) [0]	0 (0) [0]
Transit GO	1270 (1175) [1105]	1265 (1145) [995]	1305 (1175) [1020]	35 (0) [-85]	40 (30) [25]
Transit Local	1140 (1150) [1320]	1185 (1055) [1135]	1130 (1100) [1185]	-10 (-50) [-135]	-55 (45) [50]
School Bus ²	0 (0) [0]	0 (0) [0]	80 (10) [0]	80 (10) [0]	80 (10) [0]
Internal (Walk)	1345 (1795) [1775]	1770 (1745) [1655]	1810 (1795) [1705]	465 (0) [-70]	40 (50) [50]
Linked (Walk)	1040 (2650) [1770]	835 (2175) [1410]	800 (2125) [1365]	-240 (-525) [-405]	-35 (-50) [-45]
Walk	50 (95) [165]	55 (105) [150]	55 (105) [150]	5 (10) [-15]	0 (0) [0]
Cycle	245 (270) [330]	230 (270) [290]	245 (270) [295]	0 (0) [-35]	15 (0) [5]
Total	6815 (9410) [9805]	7060 (8595) [8540]	7210 (8710) [8655]	395 (-700) [-1150]	150 (115) [115]

Notes:

1. xx (xx) [xx] = AM peak hour (PM peak hour) [Saturday peak hour]
2. School bus was categorized as local transit trips in previous submission

As shown in **Table 20**, given the minor changes to the proposed statistics, the projected change to the overall Site multimodal trip generation is minor compared to those presented in the most recent May 2020 submission and the earlier (original) October 2019 OPA submission.

The travel demands of the current Master Plan are, therefore, generally consistent with those considered as part of BA Group's prior submissions such that the original assessments of the area mobility networks remain valid subject to minor updates outlined in this report.

6.3 MULTI-RESOLUTION MODELLING

6.3.1 Overview

In the early stages of the Park Lawn - Lake Shore Transportation Master Plan (TMP) study, the City of Toronto determined that it would, in collaboration with BA Group working on behalf of the developer of the 2150 Lake Shore Boulevard West property, follow the multi-resolution (macro / meso / micro) transportation modelling methodology in order to produce future (2041) travel demand forecasts.

These models would be used to evaluate future traffic volume activity and projected traffic operations throughout the Humber Bay Shores neighbourhood study area for various transportation alternatives being considered by the City as part of the process in identified a preferred transportation solution recommended by the TMP.

This same modelling process has also been used to evaluate the traffic related implications of the proposed 2150 Lake Shore Boulevard West Master Plan in the future considering the Master Plan area street and mobility network being advanced to support the development.

6.3.2 Modelling Methodology

The multi-resolution modelling methodology outlined above, is commonly adopted for large-scale projects (e.g. East Harbour) in the Greater Toronto and Hamilton Area, and was chosen because it retains the benefits of both scales of the modelling tools (macroscopic and microscopic), while circumventing the specific limitations associated with each.

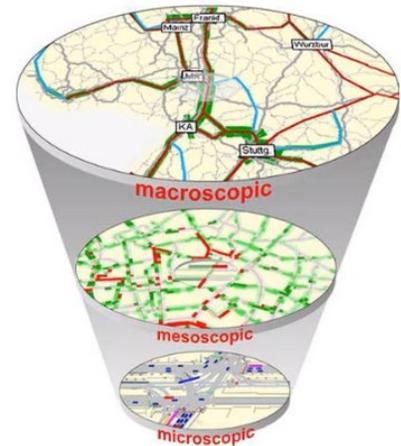
In fact, multi-resolution modelling exercises allow the extraction, at a local level, of detailed traffic operations metrics (corridor travel times, intersection queues, public transit vehicle dwell times, pedestrian delays, etc.) derived from travel demand forecasts that incorporate the effects of region-wide population growth projections and planned infrastructure improvements (e.g. new roads and transit stations), a local-and-regional combination that is unattainable through the use of a standalone macroscopic or microscopic model.

Furthermore, by relying on a regional travel demand model, the multi-resolution approach systematizes what can often be, in the case of smaller local traffic impact studies, the somewhat custom and sometimes inconsistent process of forecasting future study area background traffic growth and multi-modal travel demand.

From a technical perspective, the multi-resolution transportation modelling methodology consists in the development and use of:

- 1) a regional macroscopic travel demand forecasting (*EMME GTAModel v4.0*) model;
- 2) a neighbourhood mesoscopic (*Visum*) model as well as;
- 3) a local microscopic (*Vissim*) traffic simulation model.

These would all interact through the transfer of sub-area origin-destination traversal demand matrices. These transfers of OD matrices, from larger-scale to localized, smaller models, is the mechanism which ultimately allows the impact of regional-level population growth and infrastructure improvements to be captured in detailed network traffic operations metrics such as increased corridor travel times, longer intersection queueing, shorter transit vehicle dwell times, denser pedestrian and cyclist facilities. Because regional macroscopic travel demand models are usually managed and run by municipalities and regional municipalities, while mesoscopic and microscopic modelling expertise tends to be more commonly found in private consulting firms, the multi-resolution modelling approach naturally lends itself to a collaborative approach between government agencies and consulting firms.



6.3.3 Coordination with the Park Lawn – Lake Shore TMP Modelling

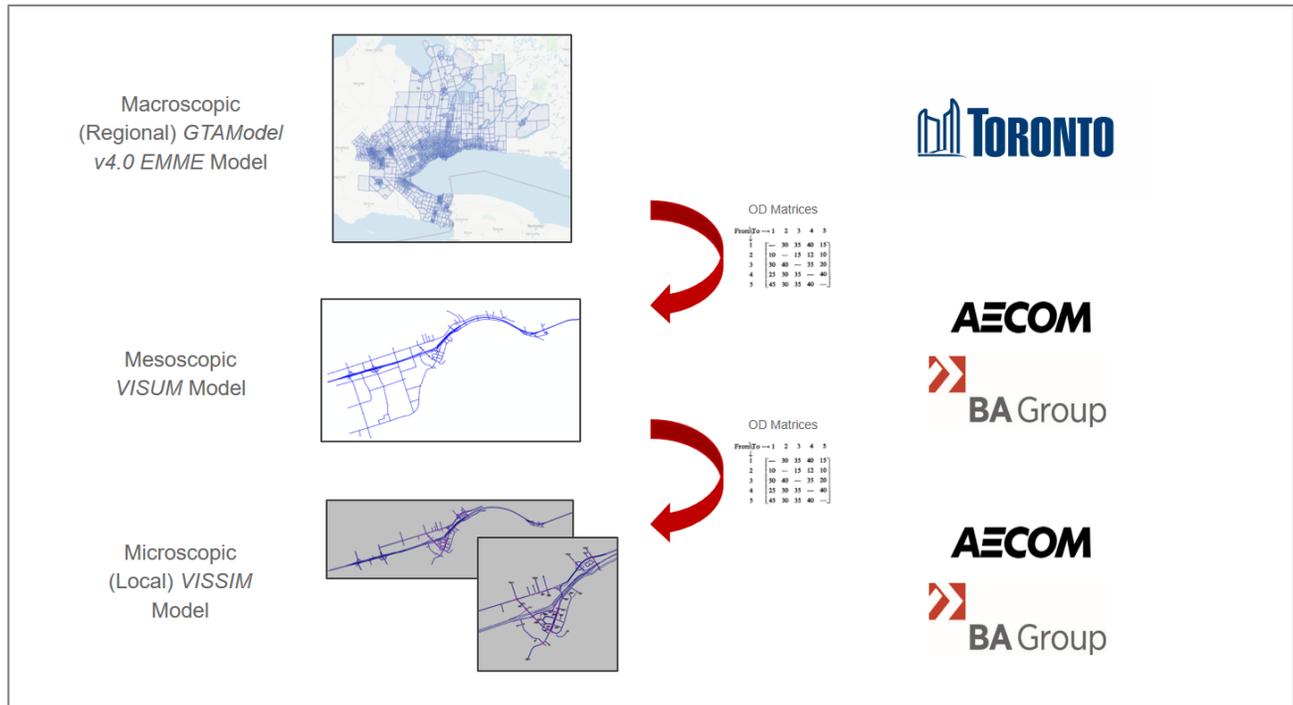
It is noteworthy that modelling efforts undertaken on behalf of the City (by AECOM) as part of the TMP and by BA Group have been coordinated to ensure a consistent approach is taken by work being undertaken as part of the broader TMP and as part of the development review process by BA Group.

Key modelling inputs and travel demand parameters were developed by the City for input into all models developed by the City's consultant (AECOM) or BA Group to ensure this consistency and that appropriate inputs were adopted in all cases.

In this case, the collaboration consisted of the City of Toronto utilizing its *EMME GTAModel v4.0* regional model to extract sub-area OD matrices for the area that were then used as inputs to the AECOM's and BA Group's respective mesoscopic (*Visum*) and microscopic (*Vissim*) models, all of which are discussed in greater detail in the next section.

The multi-resolution transportation modelling approach, along with the different actors involved in the current ongoing process, are illustrated in **Figure 5**.

FIGURE 5: MULTI-RESOLUTION MODELLING METHODOLOGY



6.3.3.1 Micro-Simulation Analysis Scenarios – TMP / 2150 Lake Shore Boulevard West Modelling Processes

In order to evaluate the impacts of different infrastructure improvements and development plans on future (2041) travel demand and traffic operations throughout the Humber Bay Shores study area, the City of Toronto defined 5 analysis scenarios, which are listed, along with relevant characteristics, in **Table 21** below.

As shown in **Table 21**, AECOM was assigned with developing and calibrating the Scenario 1 existing conditions (2018 - 2019) mesoscopic (*Visum*) and microscopic (*Vissim*) models, as well as to use said models as a base on which to develop the Scenario 2 Future Do-Nothing (2041) models.

BA Group has participated in the development of two of the TMP modelling scenarios (Scenarios 3 and 4) as part of the work related to the 2150 Lake Shore Boulevard West development approvals process. These models were developed in conjunction with the City and its consultant, AECOM, and reflect two “do-something” networks that evaluate the proposed Master Plan street network that includes new Street A (relief road), the Park Lawn GO Station and a possible Gardiner / Lake Shore Boulevard ramp re-configuration.

These two model scenarios were provided to the City as input to the TMP process and Scenario 4 forms the basis of the recommended 2150 Lake Shore Boulevard West street network transportation assessment work.

Finally, AECOM is using the Scenario 3 / 4 models to develop the Scenario 5 (and other) model that will test the impact of potential additional TMP area improvements and will be used to determine the preferred TMP area street network recommendations.

TABLE 21 ANALYSIS SCENARIOS

	Scenario 1 Existing Conditions	Scenario 2 Future Do-Nothing	Scenario 3 Future Do-Something	Scenario 4 Future Do-Something (Ramps)	Scenario 5 Future Do-Something (TMP)
Responsible for	AECOM	AECOM	BA Group	BA Group	AECOM
Horizon Year	2018-2019	2041	2041	2041	2041
Legion Rd Extension	No	Yes	Yes	Yes	Yes
Christie's Development	No	No	Yes	Yes	Yes
Park Lawn GO Station	No	No	Yes	Yes	Yes
Loop Rd & Relief Rd	No	No	Yes	Yes	Yes
Gardiner/Brookers Ramps	Original	Original	Original	Reconfigured	Reconfigured
Park Lawn Rd & Lake Shore Blvd	Original	Original	As per Master Plan	As per Master Plan	As per Master Plan

6.3.3.2 Meso / Macro Model Inputs – TMP / 2150 Lake Shore Boulevard West Modelling Processes

The City of Toronto provided sub-area origin-destination travel demand matrices extracted from different runs of the regional *EMME GTAModel v4.0* macroscopic model as input into three groupings of the modelling scenarios outlined in **Table 21**. The three (3) specific runs of the macroscopic model from which OD matrices were provided to AECOM and BA Group are listed below:

- **Existing Conditions (Scenario 1)**
- **Future Do-Nothing (2041) Conditions (Scenario 2)**
- **Future Do-Something (2041) Conditions (Scenarios 3 / 4 / 5)**

It is noted that the Future Do-Something (2041) Conditions model runs used as inputs to mesoscopic and microscopic model Scenarios 3, 4 and 5 included the full Christie's development programme (as per the original OPA application) as well as all proposed infrastructure improvements (i.e. Park Lawn GO Station and proposed Street A).

It should be noted that the City did not run different Future Do-Something regional (macro) model scenarios, to provide individual OD matrices corresponding to each of Scenarios 3, 4 and 5, as the differences between each were considered to be relatively (in the context of a regional macroscopic model) minor and local, and therefore unlikely to affect travel demand patterns at the macroscopic level.

6.3.4 2150 Lake Shore Boulevard West OPA / ZBA / DPS Modelling

6.3.4.1 Recommended Master Plan Street Network

As noted above, BA Group used the Scenario 4 Future Do-Something microscopic (*Vissim*) model as a basis for the submissions outlined within this update report which provides area street network operational outputs for the full recommended Master Plan street network. This, notably from a large infrastructure perspective, includes the Street A (relief road) connection from Park Lawn Road to Lake Shore Boulevard West and the reconfiguration of the Gardiner / Lake Shore Boulevard West ramp connections from Brookers Lane to Street A.

Further details of the operational outputs from the Scenario 4 “Recommended Master Plan Street Network” are summarized in **Section 7.1** and detailed in materials provided in **Appendix F**.

It is further noted that the peak hour volume outputs from the Scenario 4 model outlined above were adopted directly, for consistency, as the basis for the 2041 traffic operations assessment analyses undertaken as part of this update report. A comparison of the traffic activity forecasts established through the modelling process (i.e. City macro and sub-area modelling outputs) for the 2150 Lake Shore Boulevard West Master Plan has also been undertaken to validate the forecasting process and outputs adopted by BA Group in our OPA, ZBA, and DPS submissions. This is discussed further in **Sections 6.4** and **6.5**.

The summary materials outlined in **Appendix F** were previously provided to the City as part of the TMP model development process and outline the coordinated and aligned outcome of the micro-simulation modelling process undertaken by BA Group in support of the 2150 Lake Shore Boulevard West development applications.

6.3.4.2 TTC LRT Track Configuration Evaluation – Street B

BA Group also used the Scenario 4 model to develop two sub-scenario models that investigated the impacts and transit / traffic operational attributes of two different potential Street B (Loop Road) LRT / streetcar track configurations. The two scenarios – presented to the TTC and City of Toronto as part of the design development of the Master Plan - reflected the recommended uni-directional (counter-clockwise) configuration reflected in the Master Plan and an alternate bi-directional arrangement on the eastern portions of Street B.

Further details and outputs of the transit travel time modelling undertaken as part of this review previously presented to the City are provided in **Appendix J**. Responses to commentary provided by the TTC and City are also provided within **Appendix J**.

6.4 ALIGNMENT OF ANALYSIS SCENARIOS

6.4.1 2041 Weekday Peak Hour Assessment

For consistency, intersection turning movement volumes extracted from the Scenario 4 micro-simulation model (derived through the coordinated multi-resolution modelling process outlined in **Section 6.3**) have been carried forward as the basis of all 2041 future weekday peak hour traffic operations analysis, including both the Vissim and Synchro analyses presented in **Section 7.0**.

6.4.2 Saturday Assessment

It is noted that as there is no Saturday model was developed through the multi-resolution modelling process.

In this case, the previously provided forecasting and Synchro analyses for the Saturday peak hour in the October 2019 OPA submission transportation report remains valid and has been updated as part of this report to reflect the current Master Plan development programme.

6.5 VALIDATION OF SITE TRAVEL DEMAND FORECASTS

6.5.1 Site (2150 Lake Shore Boulevard West) Vehicular Generation

6.5.1.1 October 2019 OPA Forecast Comparison

Weekday peak hour 2041 vehicle trip generation forecasts for the Site have been received from the City of Toronto, based upon the EMME regional modelling inputs provided as the basis for the “Future Do Something” modelling scenarios outlined in **Section 6.0**.

These inputs formed the basis of all future “Do-Something” assessments undertaken as part of the Park Lawn – Lake Shore TMP and those undertaken as part of the 2150 Lake Shore Boulevard West OPA / ZBA / DPS applications.

In order to validate the site forecasting methodology and outputs developed by BA Group in our original 2019 and subsequent submissions, the forecasts for the Site extracted from the City macro-modelling inputs are summarized in **Table 22** and are compared with the “Auto Driver” forecasts projected by BA Group for the Site in the October 2019 OPA submission transportation report.

As shown, the BA Group and City macro-model established forecasts during the peak hours are very similar and for are considered to be more or less be equivalent to each other from a large scale master planning perspective.

TABLE 22 COMPARISON OF AUTO DRIVER TRIP GENERATION – CITY MODEL VS. OCTOBER 2019 OPA SUBMISSION TRANSPORTATION REPORT

Source	AM Peak			PM Peak		
	In	Out	2-Way	In	Out	2-Way
BA Group ¹	450	900	1,350	1,005	775	1,780
City Model Forecasts ²	470	805	1,275	985	780	1,765
<i>Net Change</i>	<i>+20</i>	<i>-95</i>	<i>-75</i>	<i>-20</i>	<i>+5</i>	<i>-15</i>

Notes:

1. Based on the total vehicle trip generation outlined in the October 2019 OPA submission transportation report.
2. Reference is made to the City's macro model provided for the purposes of the meso and microsimulation exercise undertaken as part of the Park Lawn – Lake Shore Transportation Master Plan.

6.5.1.2 Comparison to Current Master Plan Forecasts

In order to confirm that the continued appropriateness of the City model inputs in the context of the current Master Plan, a comparison of the City 2041 weekday peak hour macro-model traffic generation parameters for the site and those related to the current Master Plan was undertaken. A comparison of the BA Group projected vehicle trip generation for the current proposal is compared against the City's model in **Table 23**.

TABLE 23 COMPARISON OF AUTO DRIVER TRIP GENERATION – CITY MODEL VS. CURRENT PROPOSAL

Source	AM Peak			PM Peak		
	In	Out	2-Way	In	Out	2-Way
BA Group ¹	465	875	1,340	905	760	1,665
City Model Forecasts ²	470	805	1,275	985	780	1,765
<i>Net Change</i>	<i>+5</i>	<i>-70</i>	<i>-65</i>	<i>+80</i>	<i>+20</i>	<i>+100</i>

Notes:

1. Based on the total vehicle trip generation for the current proposal, outlined in **Table 18**.
2. Reference is made to the City's macro model provided for the purposes of the meso and microsimulation exercise undertaken as part of the Park Lawn – Lake Shore Transportation Master Plan.

As shown, the City model remains reasonably representative of the current proposal and it is therefore considered appropriate to utilize the intersection turning movement volumes derived through the coordinated multi-resolution modelling process for the purposes of the future (2041) traffic operations analysis as part of this update.

6.5.2 Mode Share Comparison

In addition to the above, outputs were received from the City in relation to mode splits within the City macro-model for the sub-area that includes the 2150 Lake Shore Boulevard West site. The assumptions were related to TTS zones 111-112, 121 and 285-293, which includes land generally between Dufferin Street and Kipling Avenue in the east-west direction and between The Queensway / Gardiner Expressway and Lake Shore Boulevard West / Lake Ontario in the north-south direction.

It is noted that the outputs for sub-area considered in the mode split outputs provided by the City include lands that are well beyond the Site boundaries. While these outputs are not, therefore, directly comparable to the assumptions made for the Site specifically, they do provide a relevant metric to further understand and confirm the validity of the original forecasting process adopted by BA Group as part of the 2150 Lake Shore Boulevard West Master Plan assessments.

The outputs provided by the City effectively equate to a combined transit (the assumptions do not provide separate numbers for local transit and GO transit) mode split of 39% during the AM peak and 33% during the PM peak for the broader area outlined above. This compares favourably against the projected mode splits for the Site, which across all proposed land uses, equated to a combined transit mode split in the order of 35% in the AM peak and 25% during the peak.

Based on this comparison, it is concluded that the forecasts previously prepared by BA Group can be considered as representative of the likely Site trip generation, when compared with the outputs of the City's modelling process.

6.5.3 Park Lawn GO Station Transit Ridership Comparison

As outlined in **Table 18** and **Table 19**, the Site is projected to generate in the order of 1,305 two-way GO Transit trips during the AM peak hour and in the order of 1,175 two-way GO Transit trips during the PM peak hour. These forecasts reflect full build out of the Master Plan and are comparable to a 2041 horizon year.

6.5.3.1 Park Lawn GO Station Metrolinx Updated IBC: Service Plan Scenarios

For the purpose of comparison, reference is made to the ridership analysis outlined in the Updated Initial Business Case (IBC) prepared by Metrolinx for the proposed Park Lawn Station (dated April 22, 2020).

The IBC provided two sets of ridership projections at the future Park Lawn GO Station as follows:

- **Economic Case:** Ridership projections for a 2041 horizon year, based on a 2031 horizon year (committed) service plan; and
- **Sensitivity Test:** Ridership projections for a 2041 horizon year, with an increased service sensitivity for improvements that may be made between 2031 and 2041 in response to service demand needs and Metrolinx commitment provisions for operators to adjust / add / provide appropriate levels of service along the entire Lakeshore West GO corridor. The nature of such service improvements are not detailed.

The IBC notes that the sensitivity test considers service that is technically feasible to implement on the corridor and that could be implemented by 2041, if required, to enhance the committed 2031 service plan to accommodate further growth in ridership to the 2041 demand horizon. Given this, BA Group has provided comparisons using the sensitivity ridership forecasts as indicative of Metrolinx forecasts for the planned Park Lawn Station.

6.5.3.2 Park Lawn GO Station Metrolinx Updated IBC: Fare Integration Scenarios

Within the ridership projections, the IBC provides two operational scenarios relating to fare integration as follows:

- **Business as usual (BAU Fare):** Assumes the 2018 double discounted fare (\$1.50) for users transferring between GO and TTC; and
- **Integrated Fare:** Assumes a full discount for riders transferring between GO to TTC, consistent with the vision of the Metrolinx 2041 Regional Transportation Plan.

In this case, it is considered appropriate to consider the ridership associated with the Integrated Fare scenario, noting that this aligns with the vision of the Metrolinx 2041 Regional Transportation Plan.

6.5.3.3 Park Lawn GO Station Metrolinx Updated IBC: 2041 Ridership Forecasts

The IBC ridership projections provide a three-hour ridership for the AM peak period. No ridership projections are provided for the PM peak period.

For the purpose of comparison, it has been assumed that 50% of the projected 3 hour AM peak period ridership will occur during the peak hour. The IBC does not provide inbound and outbound splits for the sensitivity test. However for the purpose of this analysis, an inbound split percentage of 38% and an outbound split percentage of 62% has been extrapolated from Table D4 in Appendix D of the IBC for the integrated fare scenario and applied to the sensitivity test ridership projections.

The resultant ridership projected by the IBC is summarized in **Table 24** and is compared against the projected Site GO ridership.

TABLE 24 COMPARISON OF GO TRANSIT RIDERSHIP

Trip Type	AM Peak			PM Peak		
	In	Out	2-Way	In	Out	2-Way
Site Transit GO Ridership Forecasts (BA Group Studies)	455	850	1,305	655	520	1,175
IBC ¹	685	1,115	1,800	-		
Difference	230	265	495	-		

Notes:

1. Based on the Sensitivity Test, Integrated Fare scenario of the IBC. Assumes 50% of the projected peak period ridership, with 38% inbound and 62% outbound (as extrapolated from Table D4 in Appendix D of the IBC). Projections are not provided for the PM peak period in the IBC.

As shown, the projected total (2041) Site GO ridership in the AM peak hour developed by BA Group within the 2150 Lake Shore Boulevard West development application studies, fall well within the ridership forecasts projected by the IBC, with additional ridership capacity available for other nearby existing and background developments.

Whilst the IBC does not provide ridership projections for the PM peak, it is reasonable to assume that similar ridership could be expected compared with the AM peak, in which case, the Site GO ridership in the PM peak hour is also considered to be able to be accommodated.

Given the context of the Site and the proposed development, and its proximity to the proposed Station, it is logical and appropriate that a large portion of the ridership projected at Park Lawn Station would be associated with the Site, with the additional projected ridership capacity to be associated with other existing and background development.

It is considered that the BA Group site GO transit ridership forecasts are consistent with those developed by Metrolinx and presented within the Park Lawn GO Station IBC and can be readily, and reasonably, accommodated by the GO / RER service ridership on the Lakeshore West GO corridor as the Master Plan develops over time. It is important to note that the Park Lawn GO Station will be constructed in conjunction with the first phases of development on the Christies property and will be available for patron use from the outset of the development project.

7.0 TRAFFIC OPERATIONS ANALYSIS UPDATE

7.1 VISSIM ANALYSIS – MASTER PLAN RECOMMENDED ROAD NETWORK

As outlined in **Section 6.0**, BA Group has developed the Scenario 4 VISSIM micro-simulation model for the recommended Master Plan street network in the area.

This model considers the full range of street improvements and new linkages reflected in the 2150 Lake Shore Boulevard West Master Plan functional road plans and includes, notably, the new Street A (relief road) connection between Lake Shore Boulevard West and Park Lawn Road and the reconfiguration of the existing Brookers Lane Gardiner Expressway / Lake Shore Boulevard West ramp terminal / intersection.

This model also reflects activity levels forecast during the morning and afternoon peak hours for the 2041 “build-out” horizon year developed in coordination with the City of Toronto Transportation Master Plan modelling process.

Operational outputs from the VISSIM micro-simulation process are presented in detail in **Appendix F** and confirm that acceptable and operate levels of operation will be provided on the area street network during these peak hour periods with introduction of the key area street network improvements.

The Street A connection from Park Lawn Road to Lake Shore Boulevard West **and** the direct connection of Street A to the Gardiner Expressway and new Lake Shore Boulevard West corridors are key in achieving acceptable future operational context on the overall network. Notably, these two critical links, in combination, offer considerable benefit to the role that the southerly sections of Park Lawn Road and Lake Shore Boulevard West play in the overall network and assist in reducing vehicular usage levels on these linkages by enabling heavier, commuter based activity to “by-pass” these mainstreet linkages within the Humber Bay Shores community.

7.2 UPDATED SYNCHRO ANALYSIS

Updated capacity traffic analyses have been undertaken for future background and total traffic conditions using the Synchro analysis tool and based upon the volume forecasts provided by the future “do-nothing” (TMP Scenario 2) and future “do-something” scenario (Scenario 4) from the multi-resolution models discussed in **Section 6.0**.

Analysis methodologies remains consistent with that outlined in the October 2019 OPA and other submission transportation report.

As previously discussed, the Synchro traffic operations analyses are presented as parallel analyses to the VISSIM micro-simulation assessments undertaken as part of the Park Lawn – Lake Shore TMP and as part of the 2150 Lake Shore Boulevard West transportation assessments.

As also noted, the traffic volume inputs reflected in the future traffic operations analyses reflect those from the larger multi-resolution modelling process and used directly as the basis of all analysis. The results of the Synchro analysis should, as such, be considered and reviewed in tandem with the outputs of the multi-resolution models presented – for the 2041 horizon year – in **Section 7.1**.

As also previously noted, there is no Saturday multi-resolution model provided through the TMP process. As such the previously provided traffic forecasting and Synchro analysis approach adopted for the Saturday peak hour in our October 2019 OPA submission transportation report remains relevant and has been updated as part of this report to reflect the current Master Plan development programme.

The assumed future road network adopted for the Synchro assessment is consistent with the current Master Plan Functional Road Plans and is shown in **Figure 6**. The future “do-nothing” (i.e. future background) and future “do-something” (i.e. future total) volumes from the multi-resolution model and used as the basis of this analysis are summarized in **Figure 7** and **Figure 8**, respectively.

Traffic operations analysis results as reported by Synchro for the future “do-nothing” (future background) and future “do-something” (future total) scenarios are provided graphically in **Figure 9** and **Figure 10**, respectively.

Results are also provided in table format in **Appendix G**, whilst the Synchro outputs are attached in **Appendix H**.

7.2.1 Synchro Analysis Results Summary

The results remain generally consistent with those outlined in the October 2019 OPA submission transportation report, with intersections under the Future Do Something scenario generally to operate within theoretical capacity, based on the Synchro analysis.

The exception to the above is the Park Lawn Road / The Queensway intersection during the AM peak, which based on the Synchro analysis, is shown to slightly exceed theoretical capacity.

It is noted however, that the Vissim model indicates appropriate and acceptable operations at this intersection (see **Appendix F**), indicating that the Synchro analysis is likely reflecting a more conservative consideration of certain operational aspects of the intersection than the more sophisticated analysis provided by the Vissim model. It is recommended that operations at this intersection be monitored moving forward and if required, consideration could be given to an additional through lane to increase capacity in the eastbound direction.

It is also noted that the TMP will be reviewing the broader network and assessing long term infrastructure needs and improvements.

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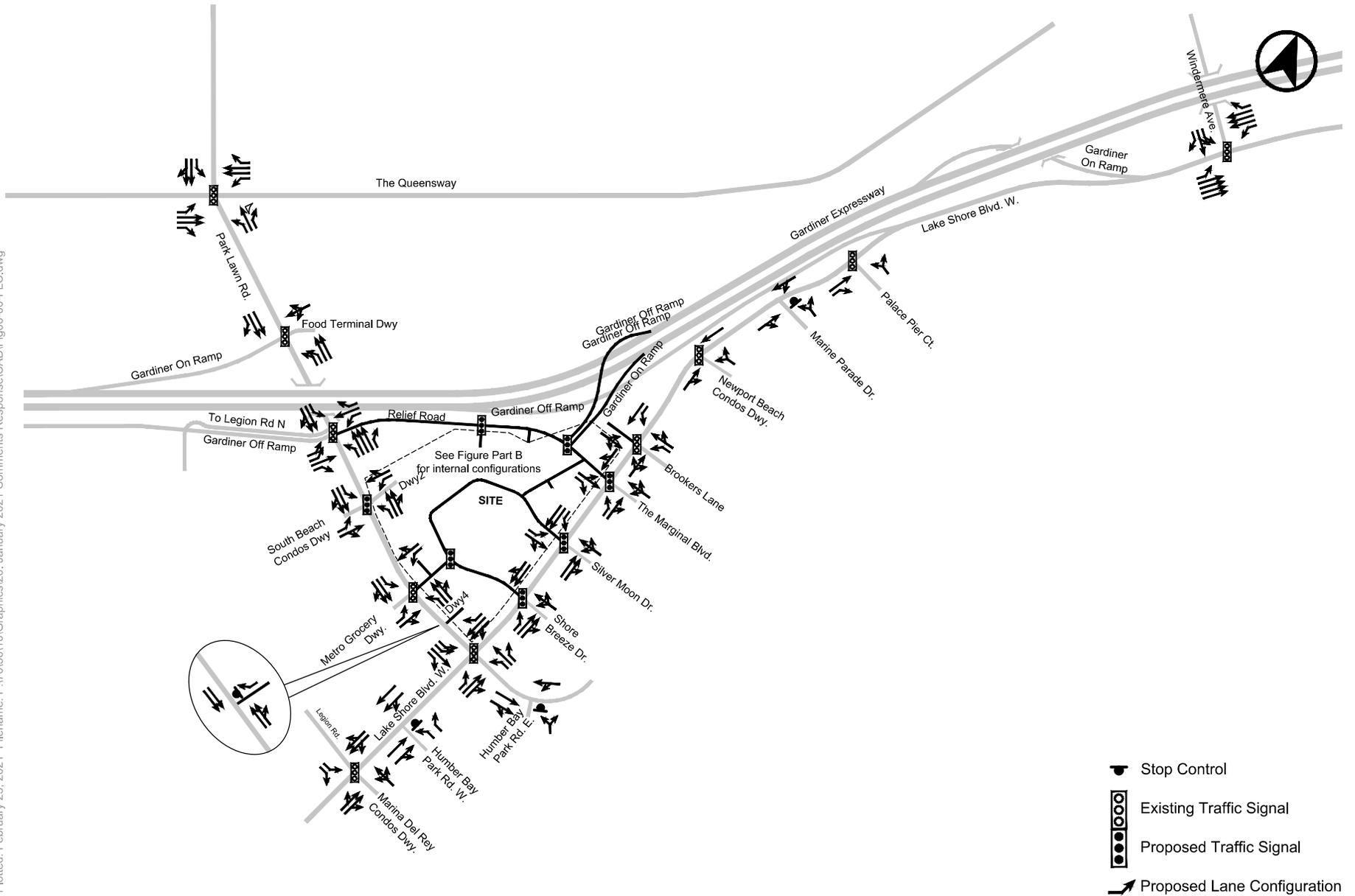


FIGURE 6A FUTURE ROAD NETWORK - EXTERNAL

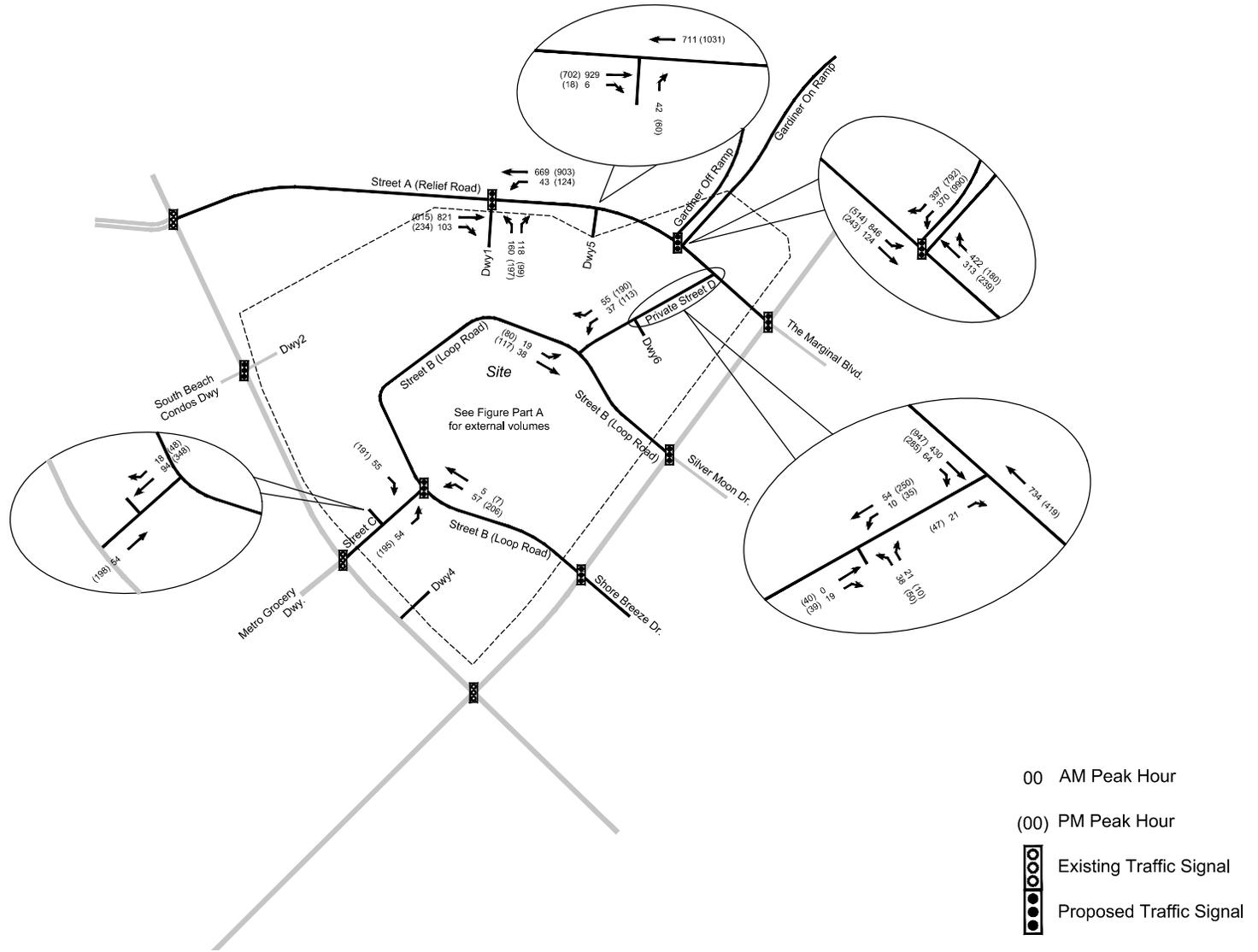
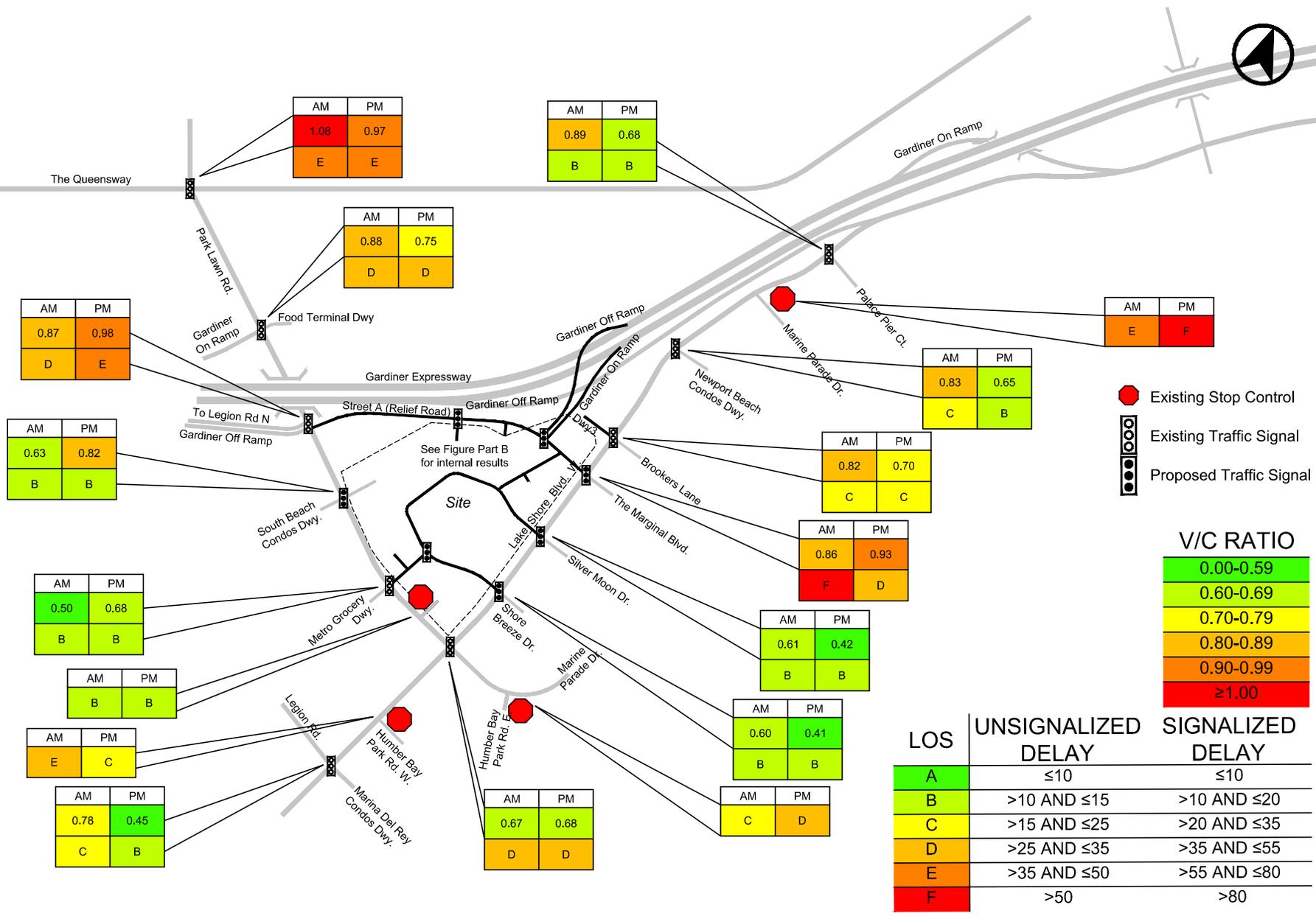


FIGURE 8B FUTURE DO SOMETHING TRAFFIC VOLUMES - INTERNAL

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8.0 LOOP ROAD CONSIDERATIONS

The loop road (Public Street 'B') provides public access to the community facilities (GO Station, Community Park to be dedicated, potential community centre, etc.), and is also intended to provide high quality pedestrian and cycling connections for those travelling within the vicinity of the community.

8.1 BACKGROUND

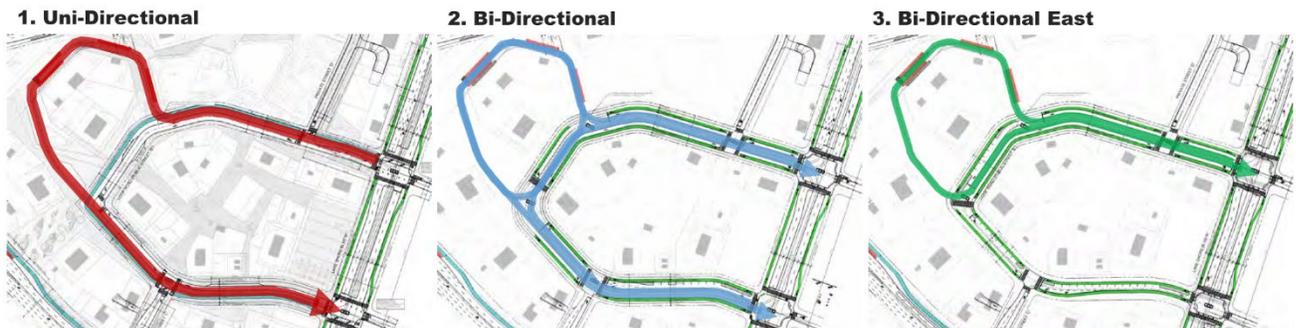
As part of the May 2020 Submission, the loop road accommodated a uni-directional dedicated streetcar right-of-way (3.5 metres wide), bi-directional cycling facility (2.9 metres wide), and a minimum 2.1 metre wide pedestrian clearway within a proposed 23.0 metre right-of-way. A narrowed 20.0 metre right-of-way was proposed adjacent to the Community Park frontage.

8.2 OPTIONEERING AND EVALUATION

Following the 2020 Submission, a review and design of the loop road was undertaken with the City of Toronto considering all aspects of a "Complete Street", including cyclists, pedestrians, vehicles, and transit riders. A coordinated review of various streetcar alignments and cycling facility options was carried out along side key stakeholders, including the Toronto Transit Commission, and the City of Toronto. These options considered:

Streetcar Routings

- Uni-directional streetcar loop (anti-clockwise)
- Bi-directional streetcar loop
- Bi-directional East streetcar loop



Cycle Track Arrangements

- Uni-directional cycle tracks
- Bi-directional cycle tracks

A holistic design approach provided the opportunity to ensure that the design of the loop road provided adequate space for all road users, addressed the safety of road users, while balancing the travel time aspirations of the TTC. BA Group undertook micro simulation analyses to assist in the evaluation of the operational differences (travel time) TTC streetcar / LRT services would encounter for the three streetcar routings and operational differences for private vehicles. A copy of this study – previously submitted to the City and TTC – can be found in **Appendix J**.

The results of the study indicated that transit (streetcar) travel times from Lake Shore Boulevard to / from the Transit Hub are comparable for all three (3) options. They are in the order of 5 to 6 minutes. Travel times associated with the uni-directional scenario, which is preferred from an urban design standpoint and is reflected in the current Master Plan, are comparable or marginally longer, depending on the service route. Similar levels of variability in travel time are anticipated for all three options (approximately 2 minutes). Despite the required signal time changes along Lake Shore Boulevard that would be required between the different options, all three transit configurations have little impact on the private vehicle travel times on Lake Shore Boulevard.

The uni-directional LRT track arrangement is reflected on Street B in the current Master Plan based upon extensive dialogue with the City and TTC staff.

8.3 PROPOSED CROSS-SECTIONAL DESIGN

Given the relatively minor differences in travel time and variability demonstrated by the micro-simulation analysis, we received general agreement from all parties, including the TTC, and the City of Toronto to proceed with a uni-directional streetcar loop on the loop road. An anti-clockwise uni-directional streetcar loop simplifies the cross-section and vehicular, pedestrian and cycling conflict points, and enables a street that is more intimate and complementary to the Master Plan vision and design.

A wider, 26.0 metre right-of-way (22.0 metres adjacent to the park) is now being proposed. This additional right-of-way width provides additional space to enhance the cycling and pedestrian facilities by providing a minimum 3.0 metre pedestrian clearway on both sides of the street, and a 3.5 metre wide dedicated bi-directional cycle facility. A minimum 3.5 metre dedicated TTC R.O.W. with 1.0 metre edge zone will provide sufficient clearance for transit vehicles and provide them with uninterrupted travel along the loop road. The Functional Plan can be found in **Appendix I**.

Although the loop road will handle a large amount of transit riders, cyclists, and pedestrians, this street will be quiet from a vehicular perspective. Use of the road by vehicles is centred on providing front door (i.e. pick-up / drop-off) and emergency access to the buildings and spaces that front onto it. A two-way vehicular portion, with access also from either Private Street 'D' or Public Street 'C', will be 6.6 metres in width, and allows for flexible curbside usage on a controlled limited basis. Formal laybys are provided along portions of the street to provide for a variety of possible uses, including, WheelTrans, taxi stands, or short-term parking uses.

8.4 INTERSECTION DESIGN

8.4.1 Internal Master Plan Street B Intersections

A signalized intersection is proposed at Street B / Street C to manage and control the southbound right-turning vehicles crossing the streetcar tracks. This intersection is located approximately 90 metres east of the Street C / Park Lawn Road intersection.

The intersection at Public Street B and Private Street D will operate under stop control for the minor intersection (Street D) and under yield condition for the southbound left turn across the TTC tracks. This arrangement allow for a clear view of oncoming TTC vehicles and is appropriate for the safe operation of all road users. Turning vehicle volumes are not anticipated to be high.

Transit signal priority within the loop road is being explored as part of the ongoing design development process. Transit signal priority at key pedestrian crossing locations will help enhance the accessibility and connectivity of the pedestrian network, while maintaining transit priority within the loop road.

Further details of the signal design and location will be worked through the ongoing Draft Plan of Subdivision and future Site Plan.

8.4.2 Lake Shore Boulevard West Intersections: Cycling Facilities

Signalized intersections at both intersections of Street B and Lake Shore Boulevard will control and provide safe crossing opportunities for cyclists transitioning between the Lake Shore Boulevard uni-directional facilities and the Street B bi-directional facility.

For some movements, cyclists will be required to make a two-stage crossing, however; ample space within the design of the intersections will allow for cyclists to wait in a safe, protected area. These waiting areas will be protected with curbs which will force drivers to slow when making turning movements, and also guide them to a position in which their field of vision to the cyclists is improved. This design has been adopted at numerous protected intersection crossings in North American cities.

Diagrams indicating how cyclists will navigate the intersections safety between different facilities is provided in **Appendix K**. The design of these intersection arrangements will continue to be worked through in conjunction with the Park Lawn Lake Shore Transportation Master Plan and the ongoing Draft Plan of Subdivision.

9.0 RESPONSE TO COMMENTS

9.1 CITY PLANNING – SEPTEMBER 8, 2020

D. Community Planning & Urban Design

D.1 Overall, City Planning staff are pleased to acknowledge that the revised submission addressed some of the previously raised concerns and comments, however, there are still a number of modifications that are required for the next submission. The draft Secondary Plan, Zoning By-law and Urban Design and Streetscape Guidelines that will be presented to the Planning and Housing Committee on September 22 will outline the recommended vision for the Secondary Plan area on matters related to built form, parkland dedication, shadowing, separation distances and setbacks and stepbacks. Once First Capital Realty has reviewed the staff report on the Christie's Planning Study, City Planning staff would like to meet to further discuss areas of where the Christie's Planning Study and the applicant's Master Plan do not align and options to address.

Response: Noted. Dialogue has been ongoing leading to submission of an updated OPA / ZBA and POSD applications to the City.

E. Transportation Planning

E.1 Please refer to the comments from Transportation Planning (dated July 27, 2020), attached to this memo.

Response: Noted, responses to Transportation Planning comments are provided in this document.

9.2 TORONTO BUILDING – MAY 29, 2020

K. General

K.8. For the parking requirements in R(iii), is the office requirement going to apply to any use in an office building? This will need to be further clarified to prevent any confusion.

Response: A separate parking standard for “all other uses” will be incorporated into the draft site-specific Zoning By-law to capture potential land uses not specifically identified. These standards will reflect the same standards as office uses. This detail will be discussed further as part of the finalization of the site-specific Zoning By-law.

9.3 ECONOMIC DEVELOPMENT AND CULTURE – AUGUST 31, 2020

L. General

L.3. Traffic

EDC remains concerned about any potential adverse traffic effects impacting the viability of the Ontario Food Terminal. It is our understanding that further Traffic Impact Studies will be undertaken for each future phase of development on the site and that the TMP exercise will also assess these impacts as well as propose mitigation measures. EDC asks that the OFT is continued to be considered an important stakeholder in the consultation process including on matters directly related to traffic.

Response: Noted. The signalized Ontario Food Terminal driveway to Park Lawn Road is included in the analysis study area.

9.4 ENGINEERING AND CONSTRUCTION SERVICES – SEPTEMBER 3, 2020

M. Zoning

A. Revisions and Additional Information Required for Plans and Studies

The owner is required to amend the Studies and/or Drawings to address the following comments and resubmit for the review and acceptance by the Chief Engineer and Executive Director of Engineering and Construction Services prior to approval of the zoning by-law amendment.

Response: Noted. Responses to transportation related comments are provided in this document.

Transportation Services

M.1 Comments will be provided upon receipt from Transportation Services.

Response: Noted.

Engineering and Construction Services

M.10 The road cross sections are not typical City standard sections; therefore, we will require approval from all the applicable Utility Companies and City Departments.

Response: Noted. The design of the road cross-sections is part of ongoing coordination with the city and all relevant utilities.

B. Preliminary Zoning By-law Amendment Conditions

M.48. The owner is required, as a condition of approval of the Zoning By-Law Amendment Application, to:

Response: Noted, responses to transportation related comments are provided in this document.

Transportation Services

M.49. Comments will be provided upon receipt from Transportation Services

Response: Noted.

Engineering and Construction Services

M.51 Make satisfactory arrangements with Engineering and Construction Services and enter into the appropriate agreement with the City for the design and construction of any improvements to the municipal infrastructure, should it be determined that upgrades are required to the infrastructure to support this development, according to the accepted Functional Servicing Report and Traffic Impact Study accepted by the Chief Engineer and Executive Director of Engineering and Construction Services.

Response: Noted.

MM. Subdivision

A. Revisions and Additional Information Required for Plans and Studies

The owner is required to amend the Draft Plan of Proposed Subdivision and/or provide additional information to address the following comments and resubmit for the review and acceptance by the Chief Engineer and Executive Director of Engineering and Construction Services.

Response: Noted, responses to transportation related comments are provided in this document.

Transportation Services

MM.1 Comments will be provided upon receipt from Transportation Services

Response: Noted.

Engineering and Construction Services

Comments noted above in the Zoning section will need to be addressed for the Subdivision Application.

Response: Noted, responses to transportation related comments are provided in this document.

B. Preliminary Draft Plan of Subdivision Conditions

Transportation Services

MM.3 Comments will be provided upon receipt from Transportation Services

Response: Noted.

MM.6 2. Street A, B and C on the Draft Plan shall be dedicated to the City as public road and must be designed and constructed as a fully serviced XXm wide public road allowance conforming to City of Toronto Standards.

Response: Streets A, B, and C on the draft plan will be dedicated to the City as a public road. The design of the road will be undertaken in coordination with city staff and the Park Lawn Lake Shore Transportation Master Plan.

MM.7 3. Dedicate all roads, corner roundings and road widenings shown on the plan for this development to the satisfaction of the Chief Engineer and Executive Director of Engineering and Construction Services.

Response: Noted.

MM.8 4. Convey all necessary easements (internal and external) to the City shown on the plan for this development to the satisfaction of the Chief Engineer and Executive Director of Engineering and Construction Services.

Response: Noted.

C. Background

Transportation Services

MM.23 Comments will be provided upon receipt from Transportation Services

Response: Noted.

Solid Waste and Recycling

MM.24 Multi-Residential Component: Block A - Shared loading (Phase 2)

Block A – Shared loading (Phase 2)

Based upon the information available, Solid Waste Management will provide bulk lift compacted garbage, recycling and organic collection services to this component of the development. Collection of waste materials from this component will be in accordance with the “City of Toronto Requirements

for Garbage, Recycling and Organics Collection Services for New Developments and Re-Developments” and Chapter 844, Solid Waste of the Municipal Code.

Collection will be subject to the following conditions being met:

1. Revised drawings must indicate and annotate the Type G loading space has an unencumbered vertical clearance of 6.1 metres, is level (+-2%), and is constructed of a minimum of 200 mm reinforced concrete.
2. Revised drawings must indicate and annotate a staging pad abutting the front of the Type G loading space that will be at least 160.4 square metres, have an unencumbered vertical clearance of 6.1 metres, constructed of 200mm reinforced concrete and have a grade of no more than 2%.
2. Revised drawings must indicate that all access driveways to be used by the collection vehicle will be level (+/-8%), have a minimum vertical clearance of 4.4 metres throughout, a minimum 4.5 metres wide throughout and 6 metres wide at point of ingress and egress.
3. Revised drawings must indicate that any/all overhead doors the collection vehicle will be passing through have a minimum width of 4 metres and a minimum overhead clearance of 4.4 metres.
4. Revised drawings must annotate that a trained on-site staff member will be available to manoeuvre bins for the collection driver and also act as a flagman when the truck is reversing. In the event the on-site staff is unavailable at the time the City collection vehicle arrives at the site, the collection vehicle will leave the site and not return until the next scheduled collection day.

Response: Noted. A Type ‘G’ loading space is being proposed to service the residential refuse and recycling collection for this Block. Sufficient bin staging area will be provided adjacent to the collection space. Detailed notes and dimensions have been added to the Architectural Drawings.

MM.35 Block B – Shared loading (Phase 4)

Based upon the information available, Solid Waste Management will provide bulk lift compacted garbage, recycling and organic collection services to this component of the development. Collection of waste materials from this component will be in accordance with the “City of Toronto Requirements for Garbage, Recycling and Organics Collection Services for New Developments and Re-Developments” and Chapter 844, Solid Waste of the Municipal Code.

Collection will be subject to the following conditions being met:

1. Revised drawings must indicate and annotate the Type G loading space has an unencumbered vertical clearance of 6.1 metres, is level (+-2%), and is constructed of a minimum of 200 mm reinforced concrete.
2. Revised drawings must indicate and annotate a staging pad abutting the front of the Type G loading space that will be at least 97 square metres, have an unencumbered vertical clearance of 6.1 metres, constructed of 200mm reinforced concrete and have a grade of no more than 2%.

3. Revised drawings must indicate that all access driveways to be used by the collection vehicle will be level (+/-8%), have a minimum vertical clearance of 4.4 metres throughout, a minimum 4.5 metres wide throughout and 6 metres wide at point of ingress and egress.
4. Revised drawings must indicate that any/all overhead doors the collection vehicle will be passing through have a minimum width of 4 metres and a minimum overhead clearance of 4.4 metres.
5. Revised drawings must annotate that a trained on-site staff member will be available to manoeuvre bins for the collection driver and also act as a flagman when the truck is reversing. In the event the on-site staff is unavailable at the time the City collection vehicle arrives at the site, the collection vehicle will leave the site and not return until the next scheduled collection day.

Response: Noted. A Type 'G' loading space is being proposed to service the residential refuse and recycling collection for this Block. Sufficient bin staging area will be provided adjacent to the collection space. Detailed notes and dimensions have been added to the Architectural Drawings.

MM.42 Block C – Shared loading (Phase 1)

Based upon the information available, Solid Waste Management will provide bulk lift compacted garbage, recycling and organic collection services to this component of the development. Collection of waste materials from this component will be in accordance with the “City of Toronto Requirements for Garbage, Recycling and Organics Collection Services for New Developments and Re-Developments” and Chapter 844, Solid Waste of the Municipal Code.

Collection will be subject to the following conditions being met:

1. Revised drawings must indicate and annotate the Type G loading space has an unencumbered vertical clearance of 6.1 metres, is level (+-2%), and is constructed of a minimum of 200 mm reinforced concrete.
2. Revised drawings must indicate and annotate a staging pad abutting the front of the Type G loading space that will be at least 65.5 square metres, have an unencumbered vertical clearance of 6.1 metres, constructed of 200mm reinforced concrete and have a grade of no more than 2%.
3. Revised drawings must indicate that all access driveways to be used by the collection vehicle will be level (+/-8%), have a minimum vertical clearance of 4.4 metres throughout, a minimum 4.5 metres wide throughout and 6 metres wide at point of ingress and egress.
1. 6. Revised drawings must indicate that any/all overhead doors the collection vehicle will be passing through have a minimum width of 4 metres and a minimum overhead clearance of 4.4 metres.
2. 7. Revised drawings must annotate that a trained on-site staff member will be available to manoeuvre bins for the collection driver and also act as a flagman when the truck is reversing. In the event the on-site staff is unavailable at the time the City collection vehicle arrives at the site, the collection vehicle will leave the site and not return until the next scheduled collection day.

Response: Noted. A Type 'G' loading space is being proposed to service the residential refuse and recycling collection for this Block. Sufficient bin staging area will be provided adjacent to the collection space. Detailed notes and dimensions have been added to the Architectural Drawings.

MM.46 Block D1– Shared loading (Phase 1)

Based upon the information available, Solid Waste Management will provide bulk lift compacted garbage, recycling and organic collection services to this component of the development. Collection of waste materials from this component will be in accordance with the “City of Toronto Requirements for Garbage, Recycling and Organics Collection Services for New Developments and Re-Developments” and Chapter 844, Solid Waste of the Municipal Code.

Collection will be subject to the following conditions being met:

- 1. Revised drawings must indicate and annotate the Type G loading space has an unencumbered vertical clearance of 6.1 metres, is level (+-2%), and is constructed of a minimum of 200 mm reinforced concrete.**
- 2. Revised drawings must indicate and annotate a staging pad abutting the front of the Type G loading space that will be at least 59.7 square metres, have an unencumbered vertical clearance of 6.1 metres, constructed of 200mm reinforced concrete and have a grade of no more than 2%.**
- 3. Revised drawings must indicate that all access driveways to be used by the collection vehicle will be level (+/-8%), have a minimum vertical clearance of 4.4 metres throughout, a minimum 4.5 metres wide throughout and 6 metres wide at point of ingress and egress.**
- 4. Revised drawings must indicate that any/all overhead doors the collection vehicle will be passing through have a minimum width of 4 metres and a minimum overhead clearance of 4.4 metres.**
- 5. Revised drawings must annotate that a trained on-site staff member will be available to manoeuvre bins for the collection driver and also act as a flagman when the truck is reversing. In the event the on-site staff is unavailable at the time the City collection vehicle arrives at the site, the collection vehicle will leave the site and not return until the next scheduled collection day.**

Response: Noted. A Type 'G' loading space is being proposed to service the residential refuse and recycling collection for this Block. Sufficient bin staging area will be provided adjacent to the collection space. Detailed notes and dimensions have been added to the Architectural Drawings.

MM.50 Block E– Shared loading (Phase 5)

Based upon the information available, Solid Waste Management will provide bulk lift compacted garbage, recycling and organic collection services to this component of the development. Collection of waste materials from this component will be in accordance with the “City of Toronto Requirements for Garbage, Recycling and Organics Collection Services for New Developments and Re-Developments” and Chapter 844, Solid Waste of the Municipal Code.

Collection will be subject to the following conditions being met:

1. Revised drawings must indicate and annotate the Type G loading space has an unencumbered vertical clearance of 6.1 metres, is level (+-2%), and is constructed of a minimum of 200 mm reinforced concrete.
2. Revised drawings must indicate and annotate a staging pad abutting the front of the Type G loading space that will be at least 46.7 square metres, have an unencumbered vertical clearance of 6.1 metres, constructed of 200mm reinforced concrete and have a grade of no more than 2%.
3. Revised drawings must indicate that all access driveways to be used by the collection vehicle will be level (+/-8%), have a minimum vertical clearance of 4.4 metres throughout, a minimum 4.5 metres wide throughout and 6 metres wide at point of ingress and egress.
4. Revised drawings must indicate that any/all overhead doors the collection vehicle will be passing through have a minimum width of 4 metres and a minimum overhead clearance of 4.4 metres.
5. Revised drawings must annotate that a trained on-site staff member will be available to manoeuvre bins for the collection driver and also act as a flagman when the truck is reversing. In the event the on-site staff is unavailable at the time the City collection vehicle arrives at the site, the collection vehicle will leave the site and not return until the next scheduled collection day.

Response: Noted. A Type 'G' loading space is being proposed to service the residential refuse and recycling collection for this Block. Sufficient bin staging area will be provided adjacent to the collection space. Detailed notes and dimensions have been added to the Architectural Drawings.

MM.54 Block F– Shared loading (Phase 6)

Based upon the information available, Solid Waste Management will provide bulk lift compacted garbage, recycling and organic collection services to this component of the development. Collection of waste materials from this component will be in accordance with the “City of Toronto Requirements for Garbage, Recycling and Organics Collection Services for New Developments and Re-Developments” and Chapter 844, Solid Waste of the Municipal Code.

Collection will be subject to the following conditions being met:

1. Revised drawings must indicate and annotate the Type G loading space has an unencumbered vertical clearance of 6.1 metres, is level (+-2%), and is constructed of a minimum of 200 mm reinforced concrete.
2. Revised drawings must indicate and annotate a staging pad abutting the front of the Type G loading space that will be at least 46.7 square metres, have an unencumbered vertical clearance of 6.1 metres, constructed of 200mm reinforced concrete and have a grade of no more than 2%.
3. Revised drawings must indicate that all access driveways to be used by the collection vehicle will be level (+/-8%), have a minimum vertical clearance of 4.4 metres throughout, a minimum 4.5 metres wide throughout and 6 metres wide at point of ingress and egress.

4. Revised drawings must indicate that any/all overhead doors the collection vehicle will be passing through have a minimum width of 4 metres and a minimum overhead clearance of 4.4 metres.
5. Revised drawings must annotate that a trained on-site staff member will be available to manoeuvre bins for the collection driver and also act as a flagman when the truck is reversing. In the event the on-site staff is unavailable at the time the City collection vehicle arrives at the site, the collection vehicle will leave the site and not return until the next scheduled collection day.

Response: Noted. A Type 'G' loading space is being proposed to service the residential refuse and recycling collection for this Block. Sufficient bin staging area will be provided adjacent to the collection space. Detailed notes and dimensions have been added to the Architectural Drawings.

9.5 TRANSPORTATION PLANNING – SEPTEMBER 3, 2020

N. General

N.1 The following comments are provided on the Transportation Impact Study prepared by BA Group, dated May 2020, and the Architectural drawings and Draft Plan of Subdivision drawings submitted as part of the current Official Plan & Zoning By-law Amendment application as well as the Draft Plan of Subdivision, submitted by First Capital Realty for 2150 & 2194 Lake Shore Boulevard West and 23 Park Lawn Road.

Transportation Planning staff are pleased to acknowledge that the revised submission addressed some of the previously raised concerns and comments. The comments found within this memo seek resolution to outstanding comments made on the original Official Plan Amendment application (File No. 19 239170 WET 03 OZ), as provided by the City of Toronto on December 20, 2019 and March 25, 2020, and provides new comments on the recent submission made by FCR on May 15, 2020.

The draft Secondary Plan, Zoning By-law and Urban Design and Streetscape Guidelines will be released with the Staff Report to Planning and Housing Committee on September 22, 2020. The policies of the Secondary Plan will contain mobility policies that guide the following: the local street network, transit hub, active transportation, mid-block connections and parking and loading.

Response: Noted. Responses to Transportation Planning comments are provided in this document.

N.2 Summary:

Transportation Planning requests that the applicant make revisions to their Transportation Impact Study, Official Plan & Zoning Bylaw Amendment application as well as the Draft Plan of Subdivision with respect to the following items: travel demand forecasting and traffic operations; transportation demand management; vehicle parking rates; active transportation network; site access; parking structures; pick-up and drop-off; loading; public and private street network including in-street facilities; streetscape, and right of ways; and transit facilities related to the proposed Transit Hub and

other on-site transit facilities. Specific requests regarding these items are described below in the following memorandum.

Response: Noted. Revisions have been made as per the comment responses outlined in this document.

Travel Demand Forecasting and Traffic Operations

Outstanding Requests for resolution from March 25, 2020:

N.3 The analysis provided to date by the applicant includes the following: Area Mobility Assumptions, Multi-Modal Travel Demand Forecasting, Transit Hub Activity Projection, Transit Travel Assessment, Vehicle Travel Assessment, Active Travel Assessment and Traffic Operations. Transportation Planning and Transportation Services staff have the following concerns related to this analysis:

- **The applicant's traffic simulation models are not properly calibrated. Transportation Planning has assessed the model submitted to-date by the proponent and the Gardiner is operating at free-flowing conditions, which is inaccurate. Transportation Planning finds that the proponent's analysis has no up-to-date baseline traffic conditions, which will need to be provided by the Park Lawn – Lake Shore Transportation Master Plan (TMP) work. If the traffic simulation model has been updated to reflect this, it must be submitted to Transportation Services and Transportation Planning for review.**

Response: The above is addressed through analysis material submitted to the City of Toronto by BA Group on January 18th, 2021. Furthermore, it should be noted that all model calibration was performed by AECOM, the City's TMP consultant, and that BA Group utilized AECOM's calibrated base models, as reviewed and approved by the City, in order to conduct its analysis.

- **Transit Ridership forecasting has no input from the City of Toronto GTAV4 model.**

Response: Inputs received from the City of Toronto based on EMME regional modelling have been compared against BA Group's forecasts in **Section 6.5**. The comparison indicates that the forecasts prepared by BA Group can be considered as representative of the likely Site trip generation, when compared with the outputs of the City's model. Whilst not directly comparable to the assumptions made for the Site specifically, it is noted that this also included comparison of transit mode splits.

The Site GO Transit ridership projections have also been compared against Metrolinx's ridership projections for the proposed Park Lawn Station in **Section 6.5.3**, which indicates that the projected Site GO ridership can be completely accommodated by the ridership projected by the IBC, with additional ridership capacity available for other nearby existing and background developments.

N.4 It should be noted that the ongoing modelling/analysis that AECOM has provided to BA Group should be incorporated into the TIS, for review and consideration, as part of the next submission.

Response: Noted. The analysis has been updated to incorporate the abovementioned modelling received from the City, as discussed in **Section 6.0**.

N.5 The applicant must revise their TIS report with the following inputs:

- **Outputs from the City's GTAV 4 ridership model. The City has received ridership information from Metrolinx and has shared it with the applicant.**
- **Updated baseline traffic conditions that will be determined through the TMP work being led by Transportation Services.**
 - **The travel times will need to be checked against the new assumptions from Metrolinx which are still outstanding.**
 - **The travel times assumed for various parts of Toronto/GTA need to be checked against the new assumptions from Metrolinx, GTAV 4 model, and updated GGH model which are still outstanding.**

For more detailed comments provided on these items, please see Appendix A: Travel Demand Forecasting and Traffic Operations:

Response: As discussed above, the analysis has been updated to incorporate outputs from modelling received from the City. Details are provided in **Section 6.0**.

Vehicle Parking Rates

The comments found below reflect the May 2020 submission

The applicant has proposed a parking rate comparable to Policy Area 1.

Transportation Planning cannot support the proposed vehicle parking rate at this time. Proxy locations outside of Toronto's Yonge Line 1 corridor must be used. The level of transit service and active mobility infrastructure on the Yonge corridor is not comparable to the subject site. It is recommended that the consultant look at Liberty Village Exhibition GO station area, or the Bloor-Dundas West GO station area as a comparable analysis to assess parking demand. It is expected, that parking provision rates within the Plan Area will reflect the high availability of transit in the Plan Area and will be flexible to be reduced over the course of the development. The Secondary Plan will include conditions that require the monitoring of parking utilization through each development phase and may allow for rates to be reduced with subsequent phases of development. If after Phase 1 and 2 for example, it is seen that parking demand is dropping, the City may enact reduced rates for remaining phases. Given that in each phase of development the City will require individual site plans, the parking arrangement and design may be refined.

- **Transportation Planning supports the concept of shared parking between non-residential uses to maximize the efficiency of the supply. Further details on the sharing of parking spaces will need to be developed.**
- **Transportation Planning supports not including commuter parking on-site.**
- **Transportation Planning agrees on minimizing the vehicle parking supply while ensuring that the demands of the site are met. Maximum rates for the site may be considered by Transportation Planning.**

Response: Noted. The reduced rates previously proposed, continue to be recommended as part of this update and current Master Plan. The parking rationale has been updated and expanded to incorporate the abovementioned items in the analysis and is provided in **Appendix B**.

Active Transportation Network – Cycling Infrastructure

N.7 The following comments were prepared with input from Transportation Services, as well as Cycling and Pedestrian Projects Group, and will be further refined through the Plan of Subdivision process.

Response: Noted, responses provided within this document.

Outstanding requests for resolution from March 25, 2020

N.8 Preliminary comments on the cycling network proposed as part of this development are outlined below:

- **Access to GO Station – Revised drawings must include a dedicated, direct cycling facility that connects the bicycle parking for the station to the larger cycling network, the Access Street (applicant’s “relief road” or Street A) Multi-use Trail (MUT), and the (loop road or Street B). This could be done through the transit plaza or via another route. If another route is chosen, it would have to be highly visible from the external road network. Providing a direct route will minimize the number of people choosing to cycle through the shared space.**

Response: Two dedicated bicycle facilities provide direct connection between the wider cycling network and the station bicycle parking. A bi-directional cycling facility on the east boulevard of Park Lawn Road provides a dedicated cycle facility between the Martin Goodman Trail access at the intersection of Park Lawn / Lake Shore Boulevard, and the Lake Shore Boulevard cycle track facility and the secured, and covered station bicycle parking, accessed at the lower level of the station building, off Park Lawn Road). A second, bi-directional bicycle facility on the loop road, provides connections between the Lake Shore Boulevard cycle tracks and the covered station bicycle parking located in Station Square. The covered bicycle parking located in Station Square is in close proximity to the loop road facility to minimize the number of people cycling through the shared space.

N.9 Public Street B (loop road) – Revise plans to show a uni-directional cycling facility on the internal loop road. A bi-directional facility does not prioritize active transportation access over motorist access. This facility type is not preferred for new roads especially when there is significant development on both sides of the road. Uni-directional facilities provide transit riders an easier and more intuitive crossing of the bike lane than bi-directional facilities.

Response: It is our understanding that the City of Toronto is generally supportive of a bi-directional cycling facility on the loop road through ongoing design working meetings. In our opinion, a bi-directional cycling facility on the outer loop provides a higher degree of accessibility to community oriented destinations such as the school, potential community centre, Transit Hub and Community Park. In addition, a bi-directional facility minimizes conflicts and delays along the TTC streetcar route. Dedicated, protected crossing facilities at the Lake Shore Boulevard uni-directional cycle lanes will ensure that cyclists have a safe and defined crossing location. The design and use of these facilities is covered in **Section 8.4.2** and **Appendix K**.

N.10 The loop road intersects with Lake Shore Boulevard. Intersection design from uni-directional facilities to uni-directional facilities would be safer and more intuitive than from bi-directional to uni-directional.

Response: See Response to N.9 above.

N.11 Additionally, it would be easier for cyclists to navigate south of the intersection onto Shore Breeze Drive and Silver Moon Drive to connect the waterfront trail.

Response: See Response to N.9 above.

N.12 Public Street C - Provide uni-directional cycle tracks on public street C to connect the loop road with Park Lawn Road.

Response: Bicycle facilities are provided through Park Lawn Gardens POPS area to connect the bi-directional cycling facilities on the loop road (Street B) and Park Lawn Road.

N.13 Private Street D – This appears to provide direct access to the north end of the site and is a suitable location for additional cycling infrastructure.

Response: Private Street D is intended to provide local road access to development block D3 and E. There is a right-in / right-out intersection condition at the relief road. Vehicle volumes along Private Street D are expected to be minimal and cycling in a shared 6.6 metre roadway is considered to be appropriate given the context.

N.14 Park Lawn Road – Subject to input from the TMP will maintain our requests for the provision of a uni-directional or bi-directional cycling connection on Park Lawn Road from Lake Shore Boulevard to The Queensway.

Response: Noted. A bi-directional cycling facility is being proposed on the east boulevard of Park Lawn Road between Lake Shore Boulevard and the existing rail corridor, along our site boundary. Further information and direction following the outcome of the TMP will help determine the location and type of facility between the rail corridor and the Queensway.

N.15 Further workshops between the applicant, the City, and TTC is required.

Response: See above response N.14.

The comments found below reflects the May 2020 submission

N.16 Public Street A (relief road) – In the October 2019 OPA submission, the applicant proposed an MUT on the north side of the street. The applicant has removed this facility entirely from the May 2020 submission. Transportation Planning requests that the MUT be reinstated and switched to the south side of this street to eliminate the need to cross the road to connect to the site. Additionally, the existing Legion Road MUT appears to be on the south side as it approaches Park Lawn Road; having the Access Street MUT on the south side would avoid lowering the priority of pedestrians and cyclists to motorist and avoid a two-stage crossing of Park Lawn Road for users of the MUT. Including an MUT and complete streets concepts on Public Street A will also help keep the road from becoming a high speed bypass route for cars. This is subject to review by the TMP.

Response: A fulsome design review of the appropriateness, location and design of a cycling facility along the relief road is being undertaken as part of the TMP process. It is of our opinion that a cycling facility along the south side of the relief road is not appropriate given the boulevard conflicts with the GO Station and school bus pick-up / drop-off and site driveways / private road intersections.

N.17 It is likely that the intersection of Park Lawn Road and Lake Shore Boulevard will need some special intersection treatments to facilitate bike movements from the bi-directional facility ending on the north east corner of the intersection to the trail connection in the south west corner of the intersection, making this a good candidate for protected cycling intersection design. It is recommended the applicant explore this concept in their revised TIS report. Further workshops between the applicant, City, and TTC as well as consideration as part of the TMP is required.

Response: Noted. The design of this crossing will be continue to be coordinated and addressed as part of the ongoing design coordination work, and will be done in context with the ongoing area TMP.

Active Transportation Network – Bicycle Parking

The comments found below reflects the May 2020 submission

N.18 Transportation Planning generally supports bicycle parking rates and shower facilities. Bicycle parking infrastructure must comply with Toronto Green Standards (TGS) Version 3.0 (Tier 2, Zone 2). For more detailed comments provided on these items please see Appendix A: Bicycle Parking.

Note: Continued review of the bicycle infrastructure will occur through the development process to ensure that cycling demands are met. At the Site Plan application stage for each phase of development, it is requested that the applicant provide more details regarding the bicycle infrastructure that will be used for outdoor short-term bicycle parking and indoor long-term bicycle parking. These details can include renderings or specification sheets, manufacturer information, and model numbers.

Response: Noted. Bicycle parking provisions are currently being planned to satisfy Toronto Green Standards Version 3.0 (Tier 2, Zone 2) requirements.

Site Access, Parking Structures, Pick-up and Drop-Off (PUDO); and Loading

The comments found below reflects the May 2020 submission

N.19 Given that subsequent Transportation Impact Studies will be required at each development phase of Site Plan Approval, amount and arrangement of all PUDO areas and laybys will be reevaluated based on updated travel behaviour and operational demands. Transportation Planning still maintains that the applicant shall work to secure all PUDO activities within convenient underground facilities on site or at-grade near vehicle accesses and residential accesses and egresses.

Response: Noted.

N.20 Below-grade loading and servicing facilities for developments must be provided. Loading entrances and accesses are encouraged to be consolidated and shall be limited.

Response: Noted. Loading access is being consolidated to the main signalized basement access from the relief road for Phases 1-5. A shared loading / parking site driveway is being planned for Phase 6.

N.21 It is recommended that as part of the applicant's revised functional plans, a comprehensive wayfinding strategy be developed for all users as part of ongoing development of TDM measures for the site.

Response: Noted. More detailed wayfinding and signage plans as part of the TDM strategy will be developed during the Site Plan Application planning stage.

Below Grade Encumbrances related to Parking, Loading and Servicing

The comments found below reflects the May 2020 submission

N.22 Generally, the City discourages the encumbrance of public streets below grade to facilitate tunnels to connect blocks for the purposes of parking, loading and servicing. Below grade encumbrances may be considered to facilitate connections only in circumstances where no other alternatives can be achieved. These considerations generally will be balanced with the overall policy objectives being targeted in the Secondary Plan and are subject to review and approval by Transportation Services and Engineering and Construction Services. However, no parking of any kind will be permitted below public streets.

Response: Noted. Below grade tunnel connections have been minimized, and no parking is being proposed beneath public streets. It is noteworthy that the tunnel connections between the different phases of the Master Plan enable vehicles to circulate between different development blocks underground. This facilitates a minimization of driveway intrusions within the at-grade public realm and are critical to the foundation of the 2150 Lake Shore Master Plan.

Transportation Demand Management (TDM)

The comments found below reflects the May 2020 submission

N.23 Transportation Planning agrees in general with the measures proposed in concept.

Response: Noted.

Outstanding requests for resolution from March 25, 2020:

N.24 A comprehensive travel behavior monitoring program strategy is expected as part of the Secondary Plan process. The applicant is requested to reflect these in subsequent TIS report revisions for each phase of development. It is requested that the applicant meet with the City and its relevant divisions to workshop these initiatives prior to submitting future revisions to the TIS report.

Response: A comprehensive travel behavior monitoring program, as identified in our proposed TDM plan, will be undertaken and revisited during the various stages of the approvals process and at each phase of development.

Street Network

N.25 All transportation routes, street cross-sections, and their configurations - including but not limited to pedestrian clearways, cycling infrastructure, transit infrastructure, and vehicular travel lanes within proposed and existing public streets - shall adhere to City requests and transit service provider standards. Further direction may apply amendments to these standards will be secured in a comprehensive set of Urban Design Guidelines developed through the City-led Secondary Plan process with input from the Transportation Master Plan (TMP). The applicant is expected to adhere to these guidelines through the development application process and reflect this work in subsequent revisions to the Transportation Impact Study. Generally, it is expected the rights-of-way of all public streets (existing and proposed) will prioritize pedestrian, active, and transit modes over private vehicles.

Response: Noted.

Public Street A

N.26 The applicant should proceed with furthering the design of the Public Street A. The design must be informed by the City led TMP through all stages of the development process and will adhere to ongoing input from staff. Transportation Planning (in consultation with Transportation Services), at this time, does not support the re-configuration of the Gardiner Ramps at the east end of the site, but further analysis of the ramps is being conducted through the TMP process.

Response: Noted.

N.27 It is Transportation Planning and Transportation Services position that the road is required to serve the development (this is being evaluated by the TMP).

Response: It is considered that Street A will play a role in serving broader regional demands while also serving the proposed development. Street A is not wholly required to service the proposed development. This is being considered further, together with discussions related to the basic cross-section and right-of-way of Street A, as part of the Park Lawn – Lake Shore TMP. Cost sharing and other related considerations will be advanced as part of the finalization of the Zoning By-law Amendment, Draft Plan of Sub-Division and other applicable processes.

N.28 Further discussions with First Capital regarding completion of Phases 3 and 4 of the Municipal Class EA for the Access Street will be required.

Response: Noted.

Internal Street Layout (Including Public Streets B, C, and Private Street D)

N.29 The draft Secondary Plan will show the proposed street network.

Response: Noted.

Approximate Rights-of-way (ROWs) widths of Public Streets

Internal Streets

N.30 The ROWs and cross sections proposed for the public streets and boulevards are required to be revised as per the Zoning Bylaw and Draft Plan of Subdivision application:

Note: All in street facilities including but not limited to car travel lanes, cycling facilities and transit facilities are subject to further discussion and approval by City Planning, Transportation Services and the TTC

Response: Noted.

N.31 Public Street B – Transportation Planning request a consistent right-of-way of a minimum of 28 m (with uni-directional streetcar loop service) to a maximum of approximately 32 m (with bi-directional streetcar loop service) as per the considerations below to achieve excellence in complete street design that prioritizes pedestrians, active modes, and transit over motorists.

- 3 m pedestrian clearways
- 2 m tree/planting zone
- Uni-directional protected cycle tracks on each side which includes appropriate buffer space
- Two-way vehicle operation (one travel lane per direction)
- Uni-directional dedicated streetcar facility, or;
- Bi-directional dedicated streetcar facility - protecting barricades installed for safety and horizontal curves are subject to discussion with TTC.

Response: A planned right-of-way of 26.0 metres (22.0 metres adjacent to the Community Park) is being proposed, consistent with discussions during the design workshops held with the City of Toronto in recent months. This planned right-of-way will accommodate minimum 3.0 metre pedestrian clearways, a 2.0 metre planting zone, bi-directional cycle tracks (3.5 metres typical), a typical 6.6 metre wide pavement for vehicular traffic, and a minimum 3.5 metre dedicated TTC R.O.W. with 1.0m edge zone for pole infrastructure.

N.32 Public Street C – Transportation Planning requests a consistent right-of-way width of 20 m with the following:

- **2.1 m pedestrian clearways**
- **2 m tree/planting zone**
- **Please see further comments from Urban Design on Streets and Vehicular Accesses**
- **Uni-directional protected cycle tracks on each side**
- **Two-way vehicle operation (one travel lane per direction)**

Response: Minimum 2.1 metre pedestrian clearways are provided together with tree planting zones are incorporated within the planned 20.0 metre public right-of-way. Two-way vehicle operation, with an additional westbound left-turn lane at the Park Lawn Road signalized intersection is also proposed consistent with prior submissions. Bicycle facilities connecting between Park Lawn Road and Street B are provided through Park Lawn Gardens POPS area.

N.33 Private Street D - Should be designed to integrate into the public realm and meet all the City's objectives for new streets. Public easements over the street will ensure public access.

Response: Private Street D will be designed to integrate into the public realm and will be designed with the City's objectives in mind. Public easements over the street will ensure public access.

Existing and Proposed Public Streets external to applicants Draft Subdivision Plan

N.34 Public Street A – The total ROW is subject to analysis from the TMP.

Requested:

- **3 m pedestrian clearways**
- **2 m tree/planting zone**
- **Bi-directional bike facility/MUT with appropriate buffers**
- **Vehicle operations and lane configuration subject to analysis from the TMP and review from City Planning, Transportation Services, TTC and Metrolinx**

Response: The design of Street 'A' (relief road) is being done in coordination with the area TMP and review from the applicable departments. A fulsome design review of the appropriateness, location and design of a cycling facility along the relief road is being undertaken as part of the TMP process. It is of our opinion that a cycling facility along the south side of the relief road is not appropriate given the boulevard conflicts with the GO Station and school bus pick-up / drop-off and site driveways / private road intersections.

N.35 Park Lawn Road – under assessment by the TMP. Currently, the Official Plan identifies the right-of-way width of Park Lawn Road to be 36 m. Any conveyances required beyond 36 m to provide the below requests will be addressed through the Secondary Plan process:

- 3 m pedestrian clearways
- 2 m tree/planting zone
- Bi-directional bike facility/MUT on the east side with appropriate buffers
- Vehicle and operations and lane configuration subject to analysis from the TMP
- Vehicle and transit operations and lane configuration subject to analysis from the TMP and review from City Planning, Transportation Services, TTC and Metrolinx

Response: Park Lawn Road is being designed with a minimum 3.0 metre bi-directional cycling facility on the east boulevard. 1.5 metre wide tree planting zones are being provided on either side of the cycling facility to provide adequate buffer. A minimum 2.4 metre wide pedestrian clearway is being provided on the east boulevard. No changes to the boulevard on the west side is being proposed.

N.36 Lake Shore Boulevard West – Under assessment by the TMP. Currently, the Official Plan identifies the right-of-way width of Lake Shore Boulevard West to be 36 m. Any conveyances required beyond 36 m to provide the below requests will be addressed through the Secondary Plan process:

- 3 m pedestrian clearways
- 2 m tree/planting zone
- Uni-directional protected cycle tracks on each side which includes appropriate buffer space (subject to further discussion with Transportation Services).
- Vehicle and operations and lane configuration subject to analysis from the TMP
- Vehicle and Transit operations and lane configuration subject to analysis from the TMP and review from City Planning, Transportation Services and TTC

Response: Lake Shore Boulevard is being designed to accommodate a minimum 3.0 metre wide pedestrian clearway on the north and south side of the street. A 2.1 metre pedestrian clearway is being provided in front of the proposed Community Park (Boulevard Square) to maintain a viable tree planting zone. 1.8 metre wide uni-directional cycle tracks are being proposed. A minimum 7.0 metre wide TTC dedicated centre-running right-of-way is being proposed, subject to TTC review.

Transit

N.37 Transit Hub and GO Station:

Park Lawn Road:

- Transportation Planning appreciates and supports the concept for bus facilities on Park Lawn Road. The bus stops north of Lake Shore Boulevard should be placed so that they provide an excellent connection to the proposed Park Lawn GO Station. Both the northbound and southbound bus stops should include a connection to the GO Station platform. TTC will provide further direction on the appropriate locations and sizing.

- **May 20th TIS report 4.1.3 -- Bus Interchange Considerations (pg. 54-55): We request clarification on whether Metrolinx requires/anticipates any GO Bus service to the station. Can the proposed bus stops on Park Lawn Road and/or TTC streetcar loop accommodate GO Buses if necessary, whether for future regular GO Bus service, or for use by temporary shuttles in the case of disruption to GO Rail service?**

Response: Bus Platforms are being incorporated into the design of Park Lawn Road at the new signalized intersection with the underground parking garage ramp. The location of these bus stops, adjacent to the signal provides pedestrians with a designated safe crossing location that will enable them to transfer to / from the GO station and streetcar loop. In addition, secondary accessible ramp accesses on the west side of Park Lawn Road will allow passengers to access the GO station platforms without a need to cross Park Lawn Road, if desired.

N.38 Public Street B (loop road):

Transportation Planning is aware that additional materials were sent to the TTC (for review by BA Group to address the TTC's previous comments related to bi-directional vs. uni-directional streetcar service) however, staff have not yet received a thorough analysis to warrant a review, therefore, this analysis will be a requirement with the next submission.

The design of Public Street B will be informed by the outcome of the TTC's review. See comments above regarding the preferred cross section width and minimum sizes of pedestrian clearways, landscaping, etc.

- **Transportation Planning supports the TTC's general comments on transit facilities and operations on Street B (loop road) as provided to the applicant on December 20, 2019.**
- **Transportation Planning request clarification on the May 2020 TIS Report - Design Considerations (pg. 51): The Report notes TTC comments indicate that streetcar loop right-of-way does not need to accommodate bus operations in the same ROW. Discussion with the applicant and the TTC is required to clarify if there is an alternative arrangement to provide service to the station in the event of bus substitution for the 501/508 (e.g., to accommodate track work somewhere along those lines)?**

Response: Noted. The loop road considerations have been explored in **Section 8.0** of this application submission.

Outstanding requests for resolution from March 25, 2020

N.39 Transportation Planning and TTC request that the applicant conduct an analysis to determine whether double-track/bi-directional operation of streetcars may help reduce the potential bottlenecks at the accesses and egresses from Lake Shore Boulevard; this reduction would be beneficial to all road users.

Response: The above was addressed in the response to TTC comments submitted by BA Group to the City of Toronto on January 18th, 2021. Please refer to said document, as well as to its companion analysis results package and simulation model files for details.

This comment reflects the May 2020 submission

N.40 The analysis should evaluate this transit service design by considering the principles below:

- **Serving People** - how well does the design meet the demand for travel in terms of helping passengers, drivers, goods and services get to where they need to go, and in terms of improving equity or fairness by bringing better transportation services to all parts of the city?
- **Strengthening Place** - how well does the project strengthen and connect neighbourhoods, balance the functions of serving as a travel corridor and a place-building agent, and protect and enhance the quality of the site's urban environment?
- **Supporting Prosperity** - how affordable is the project to build, operate and maintain, and how well does it support the city's economic development goals, improve its competitiveness, and deliver the greatest ridership/travel volumes at the least cost?

Response: Noted. The above has been addressed and refined in this TIS report.

APPENDIX A

Travel Demand Forecasting and Traffic Operations

Outstanding Requests for resolution from March 25, 2020:

N.41 The future shares of various modes represent significant modal shifts (particularly to GO transit) and should be justified with regional travel demand modelling or other numerical analysis techniques combined with expert judgment. This has yet to be applied and is required revision.

Response: The projected mode shifts were justified in the October 2019 OPA submission transportation report through a detailed review of proxy areas that are considered to have a similar context to the expected future context of the Site, including transit access and land use mix and density.

Engineering judgement was applied in considering to what extent information from each proxy area was relevant to the future context of the Site area and appropriate mode shifts were estimated on this basis. Important to note is that the proxy data consistently demonstrated that in high density areas with convenient access to higher-order transit and reasonable travel times to Downtown, transit usage was high. These elements are all consistent with the future context of the site and are of strong relevance to expected future travel patterns in the area.

Furthermore, as discussed above, inputs received from the City of Toronto based on EMME regional modelling have been compared against BA Group's forecasts in **Section 6.5**. The comparison indicates that the forecasts prepared by BA Group can be considered as representative of the likely Site trip generation, when compared with the outputs of the City's model and therefore provides further validation to the assumptions within the forecasting.

N.42 Further explanation of the sources of the transit capacity numbers is required. It is unlikely that TTC or GO would operate services with the amount of excess capacity assumed. In the case of TTC, is the applicant looking at the capacity on the outer parts of a service which reaches capacity before most of these riders would be alighting? Continued discussion between Metrolinx, the City and the applicant is required to ensure that sufficient GO capacity can be provided to serve the subject site.

Response: Transit capacity was calculated at the stops adjacent to the Site based on existing ridership and projected additional transit ridership from the area in the future. Transit-oriented development and facilitating increased transit utilization is strongly and regularly supported through multiple City of Toronto and provincial Ontario policies and is a cornerstone of transportation planning. In this respect, transit service would and should be monitored and adjusted over time to respond to increasing demands as necessary.

It is noted that TTC has not raised any concerns with regards to capacity of transit services. With respect to GO service specifically, as discussed in **Section 6.5.3** there is sufficient projected future capacity to service the projected GO Transit trips generated by the Site when compared against the Metrolinx projections, with excess capacity available for other surrounding development.

N.43 Trip distributions will need to be checked against the City's regional travel demand model (GTA Model v4) results. The City will be seeking measures to increase the amount of local trip making through resubmission of the TIS report required as part of the development review process.

Response: As discussed above, the analysis has been updated to incorporate outputs from modelling received from the City. Details are provided in **Section 6.0**. Given the mix of land uses proposed, local trip making associated with the proposal is expected to be notable, as outlined in the October 2019 OPA submission transportation report.

N.44 Not all proxy sites used are comparable to the subject site.

- It has not been demonstrated that there will be sufficient office use in the local area to attract the number of trips the applicant has anticipated. The proxies of Yonge-Eglinton and Yonge-St Clair have significant local office employment comparatively and rapid transit service level frequencies of 3 minutes; thus, they are not considered appropriate proxy sites.
- Transportation Planning recommends the following proxies: Liberty Village/ Exhibition GO, and Dundas-Bloor West GO

Response: Whilst the context is not identical, Yonge-St Clair and Yonge-Eglinton are both considered to be strongly relevant to the expected future context of the site, particularly with respect to access to higher order transit, travel time to Downtown and mixed-use nature of the area. It is noted that Liberty Village and Bloor-Dundas were also considered and outlined in the TIS, along with Kipling and Mimico.

Furthermore, as discussed above, inputs received from the City of Toronto based on EMME regional modelling have been compared against BA Group's forecasts in **Section 6.5**. The comparison indicates that the forecasts prepared by BA Group can be considered as representative of the likely Site trip generation, when compared with the outputs of the City's model and therefore provides further validation to the assumptions within the forecasting.

N.45 The active transportation mode share appears ambitious and will require refined forecasting and TDM measures to support this outcome.

Response: As outlined in the TIS, given the mixed-use nature of the site, substantial interaction is projected to occur between the proposed and surrounding land uses. The projected active transportation mode share includes these interaction assumptions. Overall, this approach is consistent with the comment above that indicates that the City will be seeking to increase the amount of local trip making and TDM measures to support this outcome will be implemented as part of the development.

Furthermore, as discussed above, inputs received from the City of Toronto based on EMME regional modelling have been compared against BA Group's forecasts in **Section 6.5**. The comparison indicates that the forecasts prepared by BA Group can be considered as representative of the likely Site trip generation, when compared with the outputs of the City's model and therefore provides further validation to the assumptions within the forecasting.

N.46 The applicant must demonstrate that there is sufficient unused capacity on the Lake Shore GO line to absorb all of these projected GO trips.

Response: As reviewed in **Section 6.5.3**, there is sufficient projected future capacity to service the projected GO Transit trips generated by the Site when compared against the Metrolinx projections, with excess capacity available for other surrounding development.

The comments below reflect the May 2020 submission:

N.47 Trip generation and mode share for the two schools:

- **The applicant concludes 85% walk mode share for "local" students, and PUDO [pick-up/drop-off] mode share for the other 15%. It's not clear where this mode split comes from. Clarification is required.**
- **PUDO city-wide is closer to 30% for elementary students (from TTS), so 15% seems low especially given the auto-centric land use surrounding the development. Clarification is required**

Response: The adopted 85% walk mode split and 15% PUDO mode split for local students was estimated on the basis of the context of the Site and surrounding area. Of particular note is that the local population expected to service the schools is largely located within an approximate 5 minute walk of the proposed schools, either within the Site itself or within the nearby buildings along Park Lawn Road, Lake Shore Boulevard West and Marine Parade Drive. Furthermore, robust pedestrian facilities are proposed in and around the site to facilitate and encourage pedestrian movements, including sidewalks, dedicated pedestrian spaces and signalized crosswalks across Lake Shore Boulevard West, Park Lawn Road and the proposed Street A (relief road).

As a result, it is assumed that the majority of people travelling to and from the school locally would take advantage of the favourable proximity and pedestrian infrastructure. In this respect, travel patterns associated with trips to and from the school are expected to differ from those schools within the City which are located in more suburban contexts, where less people would live within such close proximity. As such, the city-wide PUDO mode split of 30% for elementary schools quoted above is not considered to be directly applicable in this instance.

Furthermore, with the development of the Site as a mixed-use hub and the construction of the GO Station and associated transit hub, the Site and surrounding area into the future is not expected to be auto-centric, rather it is expected to facilitate and encourage transit and active transportation modes.

N.48 School buses are being treated like local transit, but must be treated as a separate category as the behaviour is different. This must be revised.

Response: The revised multimodal trip generation in **Section 6.2** has categorized school bus separate to local transit.

N.49 As a general comment, the pickup/drop-off mode share seems low considering how many planned PUDO areas are proposed on the site suggesting an over-supply of PUDO areas. Please see detailed comments on PUDO in the PUDO section of this memo.

Response: The pick up/drop off areas currently shown on the plans is in response to Metrolinx's request for the provision of 30 pick up/drop off spaces.

N.50 The City led TMP is assessing the broader transportation network in the area which significantly impacts the application. Understandably, the applicant has not applied this assessment to their analysis because this work has not been completed.

Response: As discussed above, the analysis has been updated to incorporate outputs from modelling received from the City. Details are provided in **Section 6.0**.

Bicycle Parking

The comments below reflect the May 2020 submission

N.51 No secured long-term bicycle parking facilities are to be located more than one level above grade or one level below grade within the development's blocks or GO Station lands.

Response: Preference will be made for long-term bicycle parking to be located within one level of the ground floor. Should bicycle parking be located deeper within the basement, a mechanical mean (i.e. dedicated bicycle elevator) will be incorporated into the design to provide ease of access to the bicycle parking areas. Detailed design will be addressed during the Site Plan application stage.

N.52 Access to below-grade or above-grade secured long-term bicycle parking facilities are to be provided primarily with bicycle parking stairs (shallow grade stairs with bicycle rails), bicycle ramps, or dedicated bicycle elevators.

Response: Noted.

N.53 Transportation Planning request that all short-term bicycle parking is to be located at-grade to improve visibility and convenience for visitors to the site.

Response: An appropriate amount of short-term bicycle parking will be located at-grade to improve visibility and convenience for visitors to the site. Should short-term bicycle parking be located within the building, appropriate, visible wayfinding signage will be incorporated into the design to maximize visibility and ease of access.

N.54 Transportation Planning request additional outdoor weather protected convenience bicycle parking located at-grade to improve visibility and convenience for visitors to the site.

Response: Additional outdoor weather protected bicycle parking is being proposed within Station Square to improve visibility and convenience for visitors to the site. Additional outdoor covered bicycle parking may be considered at other locations within the Master Plan, during further stages of planning and design.

N.55 Transportation Planning request that bicycle repair facilities be provided for each phase of development within the secure designated long-term parking facilities. In addition, bicycle repair facilities should also be provided within the GO Station lands.

Response: Noted. Bicycle repair facilities are an important TDM measure which helps improve the appeal of cycling as a mode of choice. They will be incorporated into the building design as part of the Site Plan Application stage of approval and design.

N.56 Transportation Planning request that the applicant work to secure a funding partnership to supply Toronto Public Bike share facilities in appropriate locations within Privately Owned Publicly Accessible Spaces on-site and within the GO Station lands

Response: Noted. Opportunities to locate Bike share facilities will need to be considered through the appropriate Site Plan Approval and Draft Plan of Sub-Division process for respective phases of development, and may be considered on both public and private land. Any related funding partnerships / contributions should be identified as part of the finalization of development contributions package.

N.57 Note:

- **All transportation data sources used in the applicant's analysis should be included in appendices in the back of the Transportation Impact Study (TIS Report). This includes but is not limited to turning movement count sheets, signal timing plans, transit data, pedestrian count data etc. with the dates clearly indicated. If transportation data have been adopted from other studies, then that source data must also be included.**
- **The resubmissions of the applicant's TIS REPORT in each stage of the development review process must reflect the TMP's findings.**
- **Further to the above and given the uncertainty regarding forecasting on a 20 year buildout, all operations including proposed signals are subject to submission of subsequent Transportation Impact study updates (including signal warrant analyses) for each phase of development and are subject to approval by Transportation Services.**

Response: Noted. Transportation data sources were attached in the Appendix of the October 2019 OPA submission transportation report.

9.6 TORONTO TRANSIT COMMISSION – AUGUST 6, 2020

General

We have reviewed the plans with respect to transit and the related transit infrastructure, and have provided comments in the attached consolidated response table. The attached table also includes comments that TTC has submitted on previous design submissions to First Capital's consultants and TTC has yet to receive formal responses to these comments.

Response: Noted.

Please note comments in response to BA Group's Christie's 2041 Streetcar Operations Analysis sent to TTC on July 24, 2020 will be submitted separately upon further discussions with the City and First Capital's consultants.

Response: Noted.

Should temporary lane closures and/or stop relocations be required as part of the developer's construction management plan, TTC requires that the developer contact TTC Closures and Diversions at least 16 weeks prior to the planned construction work. TTC may require the developer to pay fees associated with the proposed work due to considerations such as service diversions and/or other temporary structural requirements.

Response: Noted.

Comments - WIP Functional Plan dated February 13, 2020

~~SP-01 TTC Transit Stops Planning prefers the S1 and N3 stop locations identified on the attached plan.~~

- Stops need to be designed as per TTC's Stop Design Guidelines and accommodate for 2 standard buses (28m - tangent and the platform) at each stop.

Comment no longer applies, refer to comment 43.

Response: Noted.

SP-02 Cycling Design

- Will there be a proposed design for bicycle lanes on Park Lawn?

Response: A bi-directional cycling facility on the east boulevard of Park Lawn Road provides a dedicated cycle facility between the Martin Goodman Trail access at the intersection of Park Lawn / Lake Shore Boulevard, and the Lake Shore Boulevard cycle track facility and the secured, and covered station bicycle parking, accessed at the lower level of the station building, off Park Lawn Road).

SP-03 Queue Jump Lanes

- Any proposed queue jump lanes and potential requirements for queue jump lanes will need to be reviewed and approved by the Transit Priority Measures Working Group.

Response: Noted.

SP-04 Cycling Design

- **Will there be a proposed design for bicycle lanes on Park Lawn?**

Response: See comment SP-02 above.

SP-05 Design of the streetcar right-of-way does not need to accommodate for bus operations in the same right-of-way.

Response: Noted.

SP-06 TTC does not have specific design preference for raised vs. separated track bed. We require safe and effective delineation for TTC streetcar operations from pedestrians and general road traffic. The design shall demonstrate how this requirement can be met and show how various modes of travel will be coordinated within the site.

Response: A raised track bed with curb is being proposed for the streetcar route along the loop road to help separate general road traffic and provide effective delineation. A 1.0 metre edge zone will separate any pedestrian / cycling facility from the streetcar right-of-way and also provide adequate space for TTC pole infrastructure.

SP-07 No need for physical separation of streetcar, but should provide physical and visual cues of streetcar track for pedestrian safety.

Response: See comment response SP-06 above.

SP-08 When details are available, TTC would like to review the underground structural portal in relation to the streetcar track above. The design of the portal may impact the track design.

Response: Noted. Pending detailed design of underground structural portal.

SP-09 How will overhead infrastructure be accommodated in the plaza area?

Response: A 1.0 metre zone adjacent to the track within Station Square will be protected for TTC pole infrastructure. The design and location of these poles will be coordinated with landscaping and other relevant parties.

SP-10 Sharp curve may result in increased noise and passenger discomfort.

Review curve radius to lessen impact.

Response: Noted. Track curve and alignment will meet TTC minimum curve radii requirements will be coordinated with the Master Plan design.

Comments – BA Group Presentation Slide Decks titled 2150 Lakeshore TTC/City Meeting – March 16, 2020

SP-08 – Demonstrate the pedestrian flow in the track area adjacent to the unloading platforms. Explore opportunity to shift the unloading platform next to the underground parking portal closing to the building face to discourage pedestrian flow in that area.

Response: The location of the unloading platforms, as proposed, balance the functional need for two loading and two off-loading platforms for the streetcar, as indicated by the TTC. The desire to maintain an open, welcoming, public space in front of the station (Station Square) as well as geometrical and functional design constraints requires the location of the unloading platforms on all sides of Building D2. Both unloading platforms will be well connected to the proposed GO station area, but will also have an excellent relationship to the proposed community park to be dedicated.

SP-09 As previously requested, TTC requires traffic modelling showing the outcomes of one-way track versus two-way track operations in relation to the Lake Shore Blvd. intersections. City and/or BA Group to confirm if additional information is required from TTC for you to undertake modelling work.

Response: The above was addressed in the response to TTC comments submitted by BA Group to the City of Toronto on January 18th, 2021. Please refer to said document, as well as to its companion analysis results package and simulation model files for details.

SP-10 There are operational concerns with streetcars intersecting the proposed bi-directional cycle track on the east side of the site. In order to mitigate conflicts, we request that the design team consider relocating the cycle track inside the loop road, to provide a safe and efficient crossing.

Response: The City of Toronto is generally supportive of a bi-directional cycling facility on the outer boulevard along loop road following coordination during ongoing design working meetings. In our opinion, a bi-directional cycling facility on the outer loop provides a higher degree of accessibility to community oriented destinations such as the school, potential community centre, Transit Hub and Community Park. Dedicated, protected crossing facilities at the Lake Shore Boulevard uni-directional cycle lanes and at Street 'C' will ensure that cyclists have a safe and defined crossing location.

K. Madill-01 Turnouts and radius must compile with our standard track arrangements, Track drainage, Lubrication, Clearances will need to be assessed. Input from SCI will be available as design progresses. Refer to attached Typical Intersection Layout drawing nos. S-3-202 and S-3-203.

Response: Noted. To be addressed as part of the detailed design process.

K. Madill-02 Refer to attached drawings for additional typical streetcar infrastructure standards for reference.

Response: Noted, thank you.

K. Madill-03 3.3m streetcar ROW - Dimension adequate for tangent track sections. On curve sections, the dimension needs to be adjusted to account for different swing of cars based on curve radius (e.g. smaller the radius, car needs more room). Vehicle clearances need to be checked during track alignment design phase (streetcar template on CADD). Min clearance must be met. Refer to attached Vehicle Engineering dwgs (No. 25956r02, 25125, 26444) for values. Must consider inswing, outswing, super elevation, etc.

Response: Noted. Streetcar R.O.W. along the loop road has been increased to a minimum of 3.5 to allow for additional vehicle clearances as a result of the curved sections.

K. Madill-04 2.5m clearance between the edge of the 3.3m streetcar ROW and chamber lids - Dimension adequate.

Response: Noted.

K. Madill-05 Depth of the TTC utility-free zone underneath the streetcar tracks - Allow for 1300mm. Refer to attached drawing titled "PUCS Stamp for Streetcar Tracks 2 (002)".

Response: Noted, design and coordination of utility infrastructure is ongoing.

R. Vella-01 1.0m edge zone reserved for OCS poles - 1m edge proofing is adequate in addition to the vehicle clearance envelope. For the most part we would be cantilevering from the sidewalk side.

Response: Noted.

M. Al Naib-01 Provide design safety measures to prevent vehicles from entering TTC ROW

Response: A raised track bed with concrete curb along the dedicated streetcar facility on the loop road is being planned to prevent vehicles from entering the TTC right-of-way. Further design and coordination with TTC pending.

M. Al Naib-02 What safety measures are in place for the un-signalized intersection?

Response: Unsignalized intersections will operated under side street stop control. Appropriate signage will be introduced to alert drivers, pedestrians and cyclists of streetcar operations.

M. Al Naib-03

- a. Has an agreement reached/drafted regarding responsibilities and funding for future capital/Maintenance?
- b. Has an agreement reached/drafted regarding responsibilities and funding for future capital/Maintenance for width beyond TTC ROW standards?

Response: Discussions regarding financial obligations of the developer and contributions to be provided to a variety of aspects of the development plan will be determined through discussions with City staff as part of the finalization of the Zoning By-law, Draft Plan of Sub-Division and other application processes.

Comments – Bi-Directional Scenario Comments – May 22, 2020

SP-11 Refer to 2020-05-05-Park-Lawn-Bi-directional Option-R02.pptx

Response: Noted.

SP-12 501 Long Branch to Church and 504 Park Lawn to Broadview streetcars will access the proposed GO Station via an east-to-north left turn (maximum of 6 LRV's per hour) or a west-to-north right turn (maximum of 18 streetcars per hour) movement from Lake Shore Blvd. W. onto loop road (east leg) utilizing bi-directional tracks in the centre of loop road (east leg) between Lake Shore and the GO station and a counterclockwise two track loop, as shown, conceptually, in the attached marked-up drawing.

Response: The above was addressed in the response to TTC comments submitted by BA Group to the City of Toronto on January 18th, 2021. Please refer to said document, as well as to its companion analysis results package and simulation model files for details.

SP-13 Streetcars exiting the site will make a south-to-west right turn (maximum of six streetcars per hour) or a south-to-east left turn (maximum of 18 streetcars per hour) from loop road (east leg) onto Lake Shore Blvd. W.

Response: The above was addressed in the response to TTC comments submitted by BA Group to the City of Toronto on January 18th, 2021. Please refer to said document, as well as to its companion analysis results package and simulation model files for details.

SP-14 The streetcar tracks on loop road (east leg) will be in the centre of the road with all traffic movements to and from the segment of the loop road with streetcar tracks restricted to right-in/right-out.

Response: It is our understanding that a bi-directional scenario is no longer being pursued.

SP-15 The counterclockwise track in the loop (station) will feature two tracks with two adjacent alighting platforms, parallel layover and circulation tracks and two boarding platforms with crossovers after the alighting platforms and before the loading platforms, as shown in the attached marked up drawing.

Response: It is our understanding that a bi-directional scenario is no longer being pursued.

SP-16 The alighting and loading platforms should be shifted as shown in the marked up drawing to better balance the walking distance to/from the GO platforms and reduce the overall distance to/from the GO platforms and the surrounding neighbourhood.

Response: It is our understanding that a bi-directional scenario is no longer being pursued.

SP-17 Transit operations on loop road will improve as there will be more separation and less conflicts between LRV's and pedestrians.

Response: It is our understanding that a bi-directional scenario is no longer being pursued.

SP-18 – Transit and traffic operations on Lake Shore Blvd. will improve due to the removal of the signals at Lake Shore/Shore Breeze Dr. which will be converted to right-in/right-out intersection.

Response: The location and operation of signalized and unsignalized intersections on the area arterial street network will be reviewed by the City as part of the Park Lawn – Lake Shore TMP.

SP-19 The bi-directional scenario will not necessarily increase the footprint of the streetcar infrastructure on the site since there will only be a double track on the east side of Loop Rd. and at the streetcar loop interfacing with the proposed Park Lawn GO Station.

Response: It is our understanding that a bi-directional scenario is no longer being pursued.

SP-20 The consultant should provide:

- **Shortest Travel Time**
- **Longest Travel Time**
- **Average Travel Time**
- **Standard Deviation**
- **85%ile Travel Time**
- **95%ile Travel Time**

Response: The above was addressed in the response to TTC comments submitted by BA Group to the City of Toronto on January 18th, 2021. Please refer to said document, as well as to its companion analysis results package and simulation model files for details.

SP-21 The information should be provided for the following three travel time segments of each scenario

- **Eastbound through**
- **Westbound through**
- **Westbound to Eastbound loop.**

Response: The above was addressed in the response to TTC comments submitted by BA Group to the City of Toronto on January 18th, 2021. Please refer to said document, as well as to its companion analysis results package and simulation model files for details.

SP-22 The start and end points of the travel time segments should be outside the of the area of influence of the proposal (i.e. the entry point should be well upstream of the back of the maximum queue of any new signal and the end point should be downstream of any new signal).

Response: The above was addressed in the response to TTC comments submitted by BA Group to the City of Toronto on January 18th, 2021. Please refer to said document, as well as to its companion analysis results package and simulation model files for details.

SP-23 The Consultant should be required to conduct 10 simulation runs of each scenario and provide us with the models and the raw data from which the summaries are developed.

Response: The above was addressed in the response to TTC comments submitted by BA Group to the City of Toronto on January 18th, 2021. Please refer to said document, as well as to its companion analysis results package and simulation model files for details.

SP-24 Assumed service levels:

- **501 Long Branch to Church - every 10 minutes (6 streetcars/hr.)**
- **504 Park Lawn to Broadview – every 5 minutes (12 streetcars/hr.)**

Response: The above was addressed in the response to TTC comments submitted by BA Group to the City of Toronto on January 18th, 2021. Please refer to said document, as well as to its companion analysis results package and simulation model files for details.

Comments - Draft Plan of Subdivision Comments - July 30, 2020

SI-01 At this time, due to the proximity of adjacent TTC substations in the area (Humber Loop ~1km and Kipling ~5km away), Subway Infrastructure recommends inclusion of 1 new substation within the site, as close to Lakeshore Blvd as possible. Sizing and access/maintenance requirements shall be to TTC standards (DM, Master Specs, etc.). A load flow simulation study will be required in preliminary design phase to validate the need for a new substation.

Response: Details relating to transit infrastructure needs will be reviewed through the detailed design process for any new TTC facilities with appropriate responsibility being assessed and determined through the City-led design processes for any such improvements / changes.

MP-01 Further Design Coordination will be required in order to demonstrate the overhead network/coordination with Streetcar power and associated Clearance/Cover.

Response: Noted. This will be addressed as the design undergoes further design.

MP-02 Will the abandoned Overhead network and Hydro network be removed as well?

Response: This will be determined by the TTC / City of Toronto as part of any street design and engineering processes.

SP-25 Need to clarify that TTC does not intend to “relocate” Humber Loop. The new loop at Park Lawn GO would “supplement existing streetcar infrastructure, such as Humber Loop, and enhance transit service flexibility in the area

Response: Noted.

SP-26 The connection of 66 Prince Edward/80 Queensway on Park Lawn requires entrances to the GO Station on both sides of the street to enhance accessibility, convenience, and safety. The need for the western entrance should be stated clearly.

Response: Noted. Secondary accessible access ramps to / from the GO station platforms are now being proposed on the west side of Park Lawn to enhance accessibility, convenience and safety to / from the Transit Hub. These entrances will also provide additional access points for TTC customers to access rail platform without the need to cross the signalized Park Lawn Road intersection.

SP-27 Figure 3 – Remove routes 176 and 145 from the map

Response: Noted.

SP-28 TTC accepts BA Group's rationale to adopt locations S3 and N3.

- **Stops need to be designed as per TTC’s Stop Design Guidelines and accommodate for 2 standard buses (28m - tangent and the platform) at each stop.**

Response: Noted. The Bus platforms are located south of the proposed new signalized intersection at the new site driveway.

SP-28 How will conflicts between streetcars, pedestrians and cyclists be mitigated in the Loop Rd.?

The bike lane should be relocated to avoid the conflict between streetcars and cyclists.

The applicant will need to provide clear delineation of uses, such as yield signage for cyclists and provisions to separate pedestrians from streetcar traffic.

Response: It is our understanding that the City of Toronto is generally supportive of a bi-directional cycling facility on the loop road through ongoing design working meetings. In our opinion, a bi-directional cycling facility on the outer loop provides a higher degree of accessibility to community oriented destinations such as the school, potential community centre, Transit Hub and Community Park. Dedicated, protected crossing facilities at the Lake Shore Boulevard uni-directional cycle lanes will ensure that cyclists have a safe and defined crossing location. Appropriate signage for cyclists and pedestrians will help sure safety of all road users.