

2400 - 2440 DUNDAS STREET WEST PROPOSED MIXED-USE DEVELOPMENT

Zoning By-Law Amendment Application
City of Toronto



Prepared For: Fora Developments

June 2024



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1.0 INTRODUCTION

BA Group has been retained by Fora Developments to provide transportation consulting services in support of a Zoning By-law Amendment (ZBA) application being made to the City of Toronto for the proposed redevelopment of 2400 Dundas Street West (referred to herein as the “site”). The site is situated north of the Bloor Street West and Dundas Street West intersection and is bordered by continuous GO rail tracks to the east. **Figure 1** and **Figure 2** illustrate the location and context of the site to the surrounding area.

An original ZBA application was submitted to the City in March 2023. As part of the application, BA Group prepared a traffic impact study title “2400-2440 Dundas Street West Proposed Mixed-Use Development – Zoning By-Law Amendment Application”, (“March 2023 Transportation Report”).

An initial meeting was held on February 13th, 2024 with City of Toronto staff to discuss site plan options that explored options to better prioritize the quality of the public park space, constructability / phasing, and vehicular site access. Following the City meeting, a preferred option was selected to be further review and developed.

A focussed transportation follow-up meeting was held on February 23rd to discuss the transportation related considerations of the preferred site plan. The key change from the initial March 2023 design includes retaining the existing location of the signalized intersection, instead of the proposed signalization of Chelsea Avenue / Dundas Street West and relocating the site access driveway with the newly signalized intersection. Retaining the existing site access driveway responds to the following concerns highlighted through the community consultation process:

- **Public Park location and arrangements** – the proposed location of the site access driveway better allow for the proposed public park to be located central to the development, with public road access, and in a more regular shape.
- **Food Accessibility During Construction** - The initial proposal would require the temporary closure of the existing FreshCo to facilitate the construction of the proposed development. Maintaining the existing alignment provides the opportunity for a phased construction of the site and seamless relocation of the food store.
- **Metrolinx Bloor GO Station Pick-Up / Drop-Off** – Maintaining the existing alignment provides a better opportunity for access to the Metrolinx Bloor GO Station Pick-Up / Drop-Off facility to be largely maintained during all phases of construction.
- **Neighbourhood Traffic Infiltration** – Maintaining the existing driveway alignment (as opposed to aligning with Chelsea Avenue) reduces the desirability for residents / visitors of the proposed development to use Chelsea Avenue as a vehicular means of accessing the site.

Simultaneously comments were received from city staff regarding transportation design aspects of the project from the March 2023 Transportation Report in the following memos:

- City of Toronto Development Engineering department provided comments in a memorandum dated May 15, 2023
- City of Toronto Development Planning department provided comments in a memorandum dated August 29, 2023

Consequently this report has been prepared to review the comments provided by City of Toronto and provide responses as appropriate. The Transportation Impact Study contained herein is based upon the report submitted in March 2023, updated where appropriated to reflect the changes to site plan and development programme and requested revisions as per City comments.

1.1 Existing Site Overview

The site is currently occupied by a Shoppers Drug Mart, Discount Car and Truck Rental company and a FreshCo grocery store. Surface parking is provided for all retail in the centre of the site and loading is provided on the south-west corner of the FreshCo . The site also provides access to the Bloor GO Station passenger Pick-up / Drop-off (PUDO) loop.

Table 1 Existing Site Summary

Route Name	GFA / Supply
Shoppers Drug Mart	1,050 m2 GFA, in addition to 1,000 m2 GFA second floor office
Discount Car and Truck Rental	120 m2 GFA
FreshCo	1800 m2 GFA
Existing Parking Supply	132 parking spaces consisting of 120 regular parking spaces, 5 accessible parking spaces and 7 parking spaces reserved for FreshCo
Existing Loading Supply	2 loading spaces for tractor trailers - dedicated loading spaces for FreshCo

There is only one access to the site via an existing signalized intersection off of Dundas Street West. The Metrolinx Bloor GO Station and UP Express pick-up / drop-off loop is currently accessed by continuing on the site driveway to the east boundary of the site.



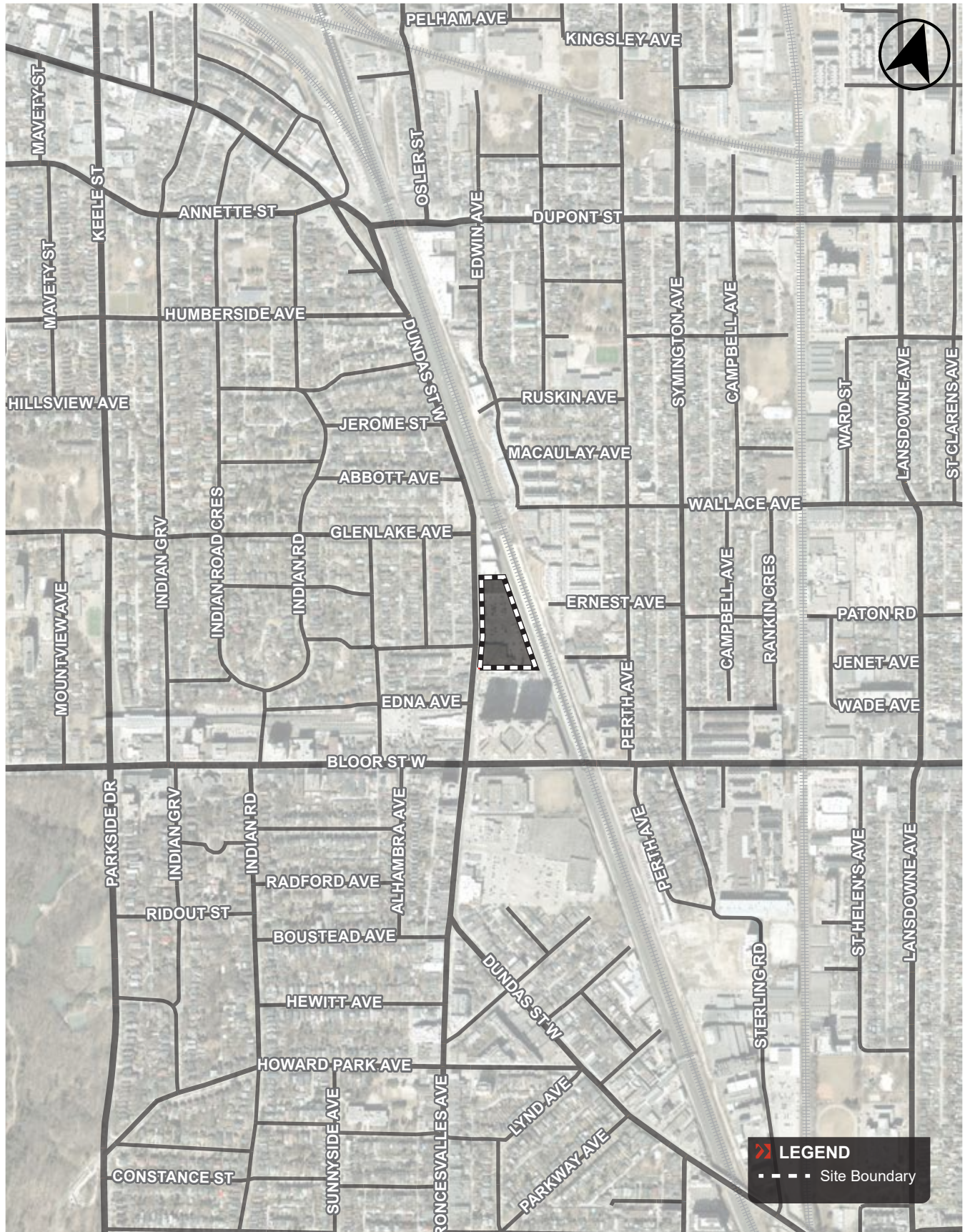


FIGURE 1 SITE LOCATION

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FIGURE 2 SITE PLAN

1.2 Study Scope

BA Group has undertaken a review of the key transportation related aspects of the proposed Zoning By-law Amendment (ZBA) application) being submitted to the City of Toronto (i.e., traffic, parking, loading and site circulation and access) to permit the proposed development. Key aspects of the concept development reviewed are as follows.

Transportation Context

- A description of the existing transportation context of the site considering the area road network, existing and future transit service and infrastructure, existing and future bicycle infrastructure network, and other non-automobile dependent travel options.

Site Planning

- A review of the proposed building programme; and
- A review of the parking supply provisions of the proposed development plans;
- A review of the bicycle parking supply provisions for the proposed development plans;
- A review of the loading space provisions for the proposed development plans;
- A review of the functionality and appropriateness of the proposed vehicular facilities incorporated into the site plan including loading / garbage collection facility arrangements.

Travel Demand Forecasting

- an outline of travel demand projections for the proposed development based on “First Principles” person-trip forecasting methodologies and observed travel characteristics of the existing site area, and;
- An assessment of the transit, pedestrian, cycling, other non-auto trip generation characteristics of the proposed development.

Vehicular Operations Review

- Assessment of the existing traffic activity patterns and volumes in the study area during the key weekday morning and afternoon peak periods.
- A comprehensive review of the traffic changes that may occur in the area in the future with the development of a number of other area development projects; and
- A review of the traffic operations at intersections in the area under existing and future conditions including an assessment of the operational impacts of the proposed development.

The findings of our report are summarised in the following sections.



2.0 AREA TRANSPORTATION CONTEXT

2.1 Dundas West-Bloor Mobility Hub

The site is located within an area categorized by Metrolinx as the Bloor-Dundas Mobility Hub with several higher order transit facilities in the area offering local, city-wide, and regional transit service to residents, patrons, and employees that travel to and from the area. Two major transit stations – TTC Dundas West Subway Station and the Bloor GO/UPX Station – offer many of these services directly adjacent to the site. The area transit context is discussed further in **Section 2.3**.

Notwithstanding the above, there are significant public transit infrastructure improvements planned that will directly benefit the site. Further details are provided in **Section 2.3.2**.

2.2 Area Road Network

An overview of the key area roads in proximity to the site is provided in **Table 2** below. The area road network is further illustrated in **Figure 3** and **Figure 4**.



Table 2 Road Classification Summary

Type	Street Name	Parking & Regulations	Roadway Limits	Description
Major Arterial	Bloor Street West	West of Dundas St paid parking is permitted Mon. – Sat. from 8:00 AM to 6:00 PM. No stopping is permitted EB 7:00 AM to 9:00 AM & WB 4:00 PM to 6:00 PM, Mon.-Fri.	Roadway extends from Mississauga in the west to the Bloor St Viaduct in the east	A 2-lane cross-section, 1 lane in each direction, having a speed limit of 40 km/h. Parking lanes on both sides of the street. Dedicated bicycle lanes are provided west of Dundas St W until Runnymede Rd. Signalized intersections provided at Dundas St W, Keele Street / Parkside Drive
Minor Arterial	Dundas Street West	No parking is permitted at any time No stopping is permitted SB 7:00 AM to 9:00 AM & NB 4:00 PM to 6:00 PM, Mon.-Fri.	Roadway extends from Mississauga in the west to Kingston Rd in the east	A 4-lane cross-section, 2 lanes in each direction with streetcar tracks running in the two central lanes, mixed with vehicular traffic. Signalized intersections provided at Bloor St W. The speed limit is 40 km/h.
	Keele Street / Parkside Drive	No parking is permitted at any time. No stopping is permitted SB 7:00 AM to 9:00 AM & NB 4:00 PM to 6:00 PM, Mon.-Fri.	Roadway extends from The Queensway to St Clair Ave W, continue to the north after the tracks.	A 4-lane cross-section, 2 lanes in each direction. The speed limit is 40 km/h.
Collector	Glenlake Avenue	Parking is permitted from 8:00 AM to 6:00PM.	Roadway extends from Dundas St W to Kennedy Ave in the west.	A 2-lane cross section, with 1 lane in each direction. The speed limit is 40 km/h.
Local	Chelsea Avenue	Parking is permitted from 8:00 AM to 6:00 PM.	Roadway extends off of Dundas St W to a cul-de-sac at the end.	A 1 lane, one-way road with a speed limit of 30 km/h.



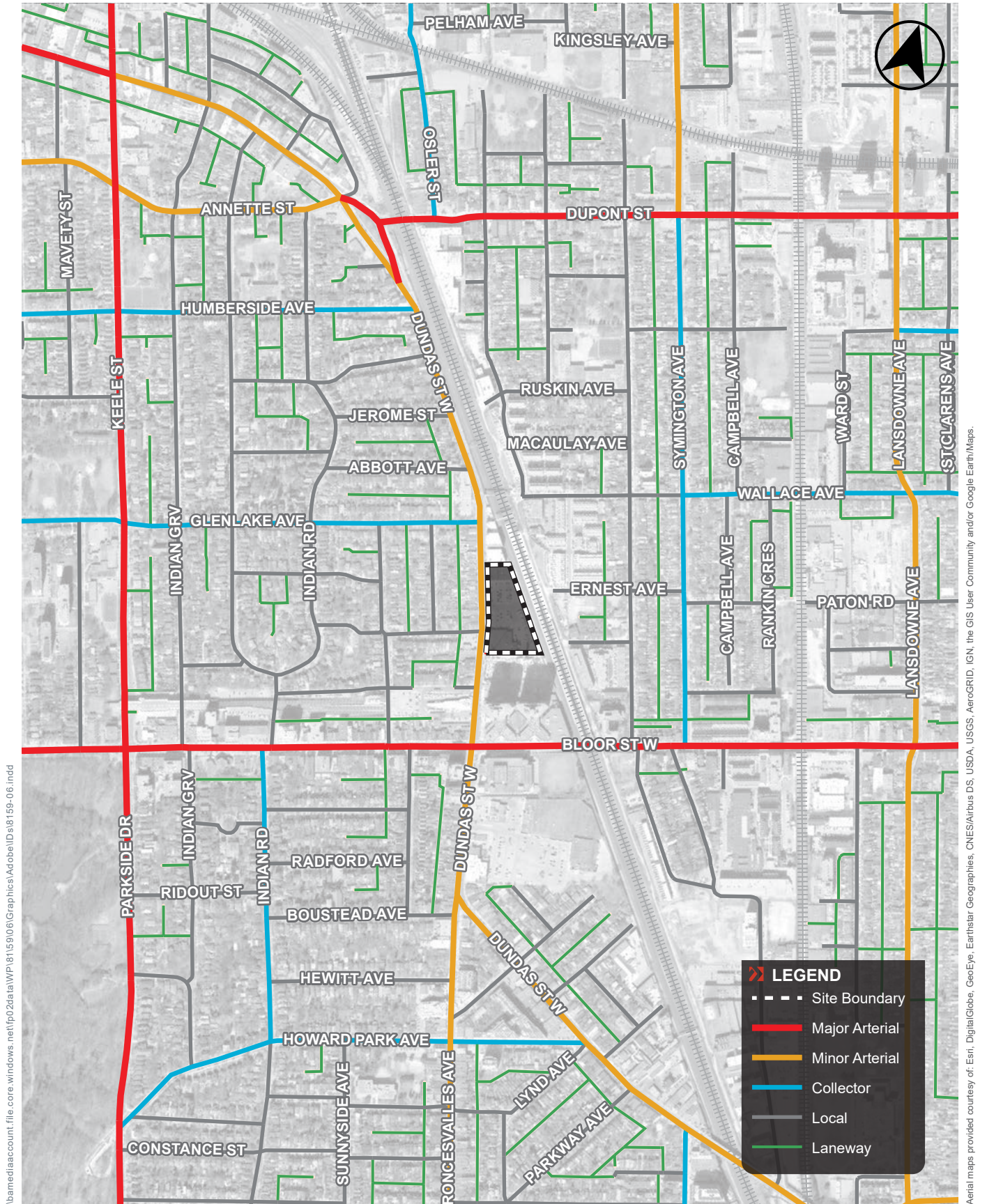


FIGURE 3 AREA ROAD NETWORK

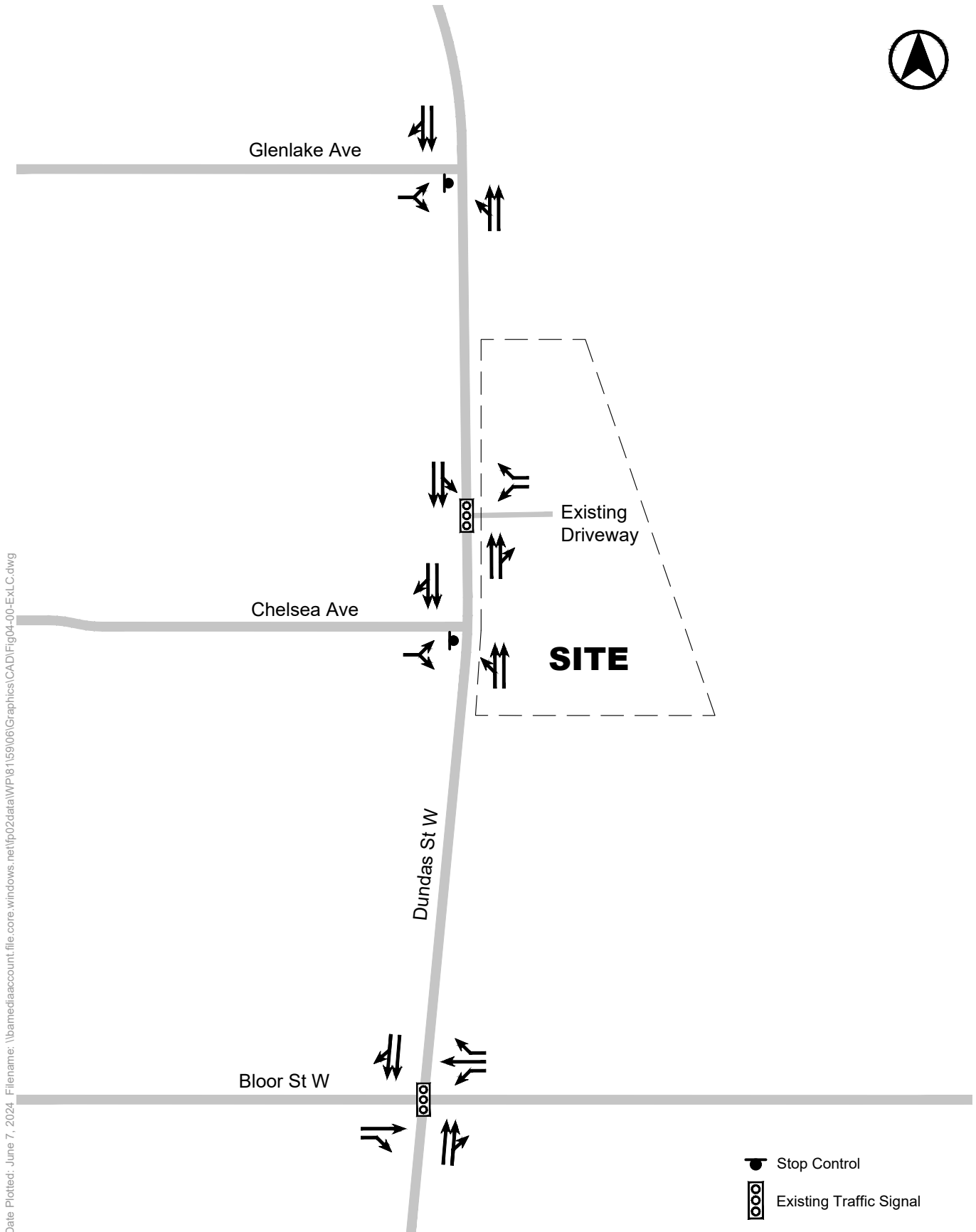


FIGURE 4 EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL

2.3 Area Transit Network

2.3.1 Existing Transit

The area is in close proximity to several modes of public transit including TTC subway and surface transit including streetcar and bus routes, GO Transit commuter rail, and the Union-Pearson Express airport rail link. An overview of the key area transit routes in proximity to the site is summarized in **Table 3**. The existing and planning area transit network is further illustrated in **Figure 5**.



Table 3 Area Transit Network

	Number / Name of Service Line	Closest Stop	Peak Period Headways	Route Description
Subway	TTC Line 2 Bloor-Danforth	Dundas West Station (200 m / 3 min walk)	2-3 min	This line has 31 stations and operates in an east-west direction between Kipling Station in the west and Kennedy Station in the east. Line 2 connects with TTC Line 1 at Bloor-Yonge, St. George, and Spadina Stations.
Streetcar	504 – King	Dundas Street West / Bloor Street West (200 m / 3 min walk)	4 minutes	Service generally operates in an east-west direction along King St between Dundas West Station and Broadview Station (both on TTC Line 2). Near the site, the 504 streetcar service travels in a north-south direction along Dundas St W and Roncesvalles Ave and operates under mixed traffic conditions.
	505 – Dundas	Dundas Street West / Bloor Street West (450 m / 5 min walk)	5-6 min	Service generally operates in an east-west direction along Dundas St between Dundas West Station and Broadview Station (both on TTC Line 2). The streetcar operates under mixed traffic conditions.
	506 – Carlton	Dundas Street West / Sterling Road (800 m / 10 min walk)	4-5 min	Service generally operates in an east-west direction along College St / Gerrard St E, between the High Park Loop and Main Station. Near the site, the 506 streetcar service operates on Dundas St W and Howard Park Ave under mixed traffic conditions.
Busses	40 – Junction	Dundas West Station (50 m / >1 min walk)	6-7 min	Service generally operates in an east-west direction between the Runnymede Loop and Dundas West Station on TTC Line 2.
	168 – Symington	Dundas West Station (200 m / 3 min walk)	5 min	Service generally operates in a north-south direction between Dundas West Station and Weston Rd.
Commuter Rail	Kitchener Line	Bloor GO / UPX Station (50m / 1 min walk)	Weekday service only Half hourly service during weekday peak periods Hourly service during mid-day weekdays	The Kitchener Line route runs between Kitchener Station in the east to Toronto Union Station in the west. It connects with Grand River Transit and the iON LRT system in Waterloo Region, Guelph Transit, Brampton Transit, MiWay, TTC subway and surface routes, the UP Express, regional GO bus routes, and VIA national rail services.
Airport Rail Link	Union Pearson Express		15 min all-day, every-day	The Union Pearson Express route runs between Toronto Pearson airport in the east to Toronto Union Station in the west. It connects with MiWay, TTC subway and surface routes, regional GO rail and bus routes, and VIA national rail services.



2.3.2 Evolving Transit Improvements

There are significant transit improvements planned in the vicinity of the site. These investments will allow better access to the regional transit network. An overview of the future transit improvements is provided below. The existing and planned area transit network is illustrated in **Figure 5**.

SmartTrack

SmartTrack is a proposed municipal transit plan that will be implemented and integrated with existing and planned GO transit infrastructure. The plan establishes a service concept of a minimum 15 minute headway along existing Kitchener, Lakeshore East, and Stouffville GO rail corridors coupled with the addition of five (5) new GO stations within Toronto. The five new stations, St. Clair-Old Weston, Bloor-Lansdowne, King-Liberty (i.e., Liberty Village), East Harbour, and Finch-Kennedy, will provide more options to access various areas of the City.

Two SmartTrack stations are proposed in the vicinity of the site. The proposed St. Clair-Old Weston station is located 1.8 km north-west of the site. The station would be serviced by the SmartTrack service concept. Next, the proposed Bloor-Lansdowne station is located approximately 800 m south-west of the site. Although it is included within the SmartTrack program, the station is not part of the conceptual SmartTrack rail corridor.

GO Expansion

The GO Expansion program is a proposed Metrolinx plan that will implement a range of improvements across the GTHA to GO rail infrastructure and services. The plan will introduce frequent service in both directions along the Lakeshore West and East, Kitchener, Barrie, and Stouffville Lines supported through electrification of large portions of the rail corridors, additional grade separations between road and railways, and improved station facilities.

GO Expansion projects nearby the site include the Davenport Diamond guideway grade separation project between the Barrie Line rail corridor and the CP North Toronto freight subdivision. The project will allow for more frequent service along the Barrie Line to future stations including the nearby Bloor-Lansdowne station.



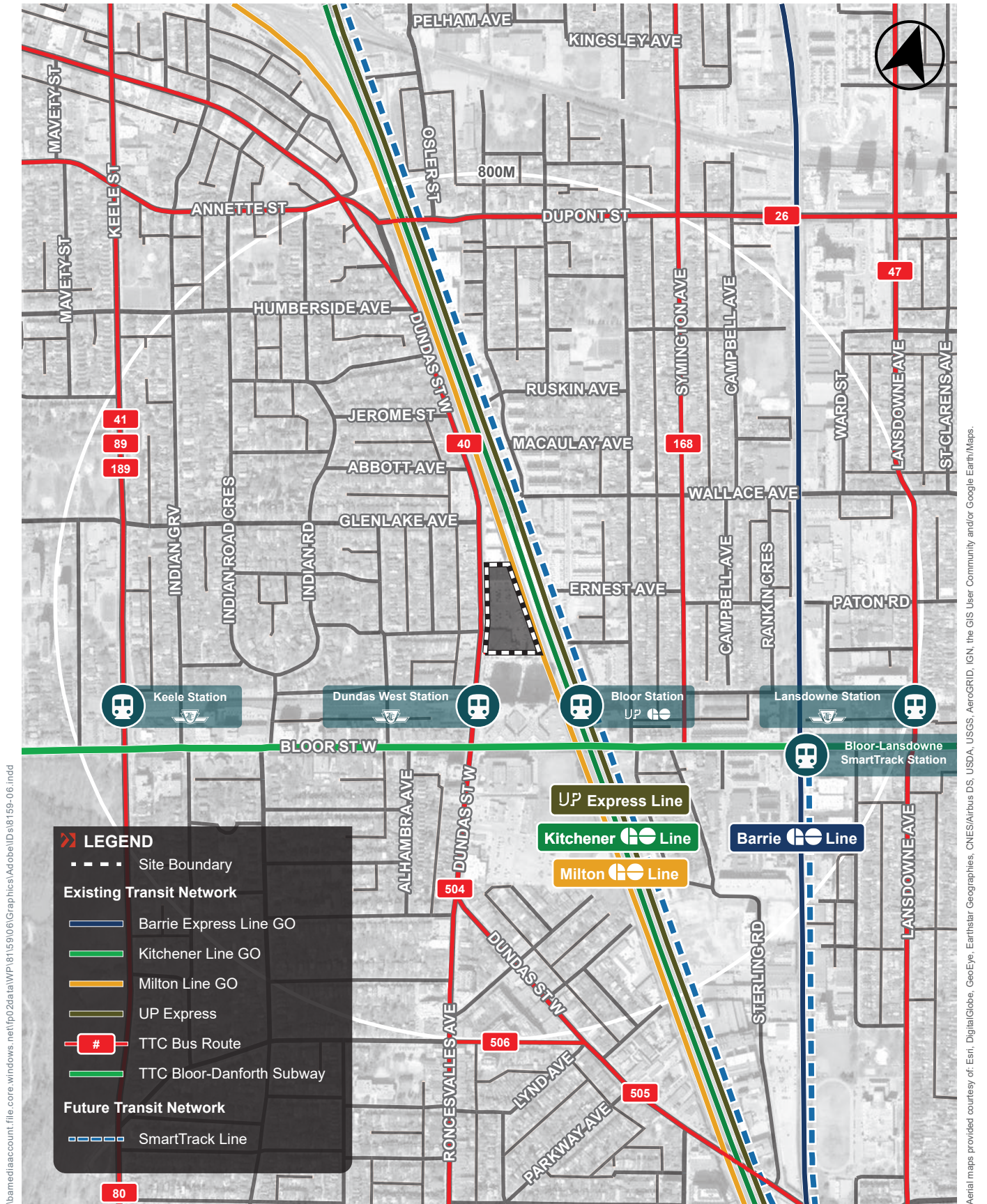


FIGURE 5 EXISTING AND PLANNED TRANSIT NETWORK

2.4 Area Cycling Network and Facilities

2.4.1 Existing Pedestrian Connections

The area in the site vicinity benefits from excellent cycling infrastructure, which permits accessibility to both the north-south and east-west orientations through dedicated cycling facilities. The existing and planned area cycling network is illustrated in **Figure 6**. Further details related to the cycling facilities in the vicinity of the site are summarized in **Table 4**.

Table 4 Area Existing Cycling Infrastructure

→	Route Name	Type of Cycling Infrastructure	Description
North-South Connections	West Toronto Railpath	Off-street Multi-Use Trail	Route travels from Cariboo Avenue in the north to Dundas St West in the south. The route is completely grade separated from roads and railways. However, route is shared with pedestrian traffic.
	Lansdowne Avenue	Bike Lane	Route travels from Dupont St in the north to Lappin Ave in the south. Route is on-street and connects with bike lanes on Dupont St and shared lane markings on Lappin Ave. Intermittent lay-by on street parking is provided on the east side of the street between the curb and bike lane.
	Sorauren Avenue	Shared Roadway (unmarked)	Route travels from Dundas St W to Queen St W. Route is unmarked and shares with the roadway.
East-West Connections	Davenport Road	Bike Lane	Route travels from Old Weston Rd in the west to Bay St in the east. Route is on-street and connects with shared lane markings on Shaw St and bike lanes on Christie St, Boulton Dr, Popular Plains Rd, Bedford Rd, and Bay St. Intermittent lay-by on street parking is provided on both the north and south sides of the street between the curb and bike lane.
	Dupont Street	Bike Lane	Route travels from Annette St in the west to Lansdowne Ave in the east. Route is on-street and connects with bike lanes on Annette St and Lansdowne Ave. Intermittent lay-by on street parking is provided on both the north and south sides of the street between the curb and bike lane.
	Bloor Street West	Cycle Track	Route travels from Runnymede Rd in the west to Dawes Rd in the east. Route is physically separated from vehicular traffic, including parked vehicles.



2.4.2 Evolving Cycling Network Improvements

A series of planned infrastructure investments (included as part of City of Toronto plans) will benefit the “reach” of the cycling network connected to the Site. Planned connections and improvements have been identified by the City of Toronto and have been addressed through the Cycling Network Ten Year Plan (2016), a policy document that outlines proposed cycling infrastructure improvements in Toronto over a ten year period (2016-2025). The Ten Year Plan aims to connect gaps in the City’s existing cycling network, expand the network to new areas of the City, and to renew existing cycling routes by improving their quality.

Furthermore, the Ten Year Plan has been updated by the 2019-2021 Near-Term Implementation Plan which is intended to combine on-street cycling infrastructure projects with planned road upgrading projects (and therefore, is planned to expedite the construction of specified planned cycling routes).

Within the vicinity of the site, Bloor Street has been earmarked for a “Major Corridor Study”; the projected study area will also include Dupont Street and Lansdowne Avenue (north of Bloor Street West), while Davenport Avenue is planned to undergo renewal. Furthermore, an off-street multi-use trail adjacent to the Barrie Line rail corridor is planned as part of Metrolinx’s Davenport Diamond guideway and greenway plan, with completion planned for 2024.

Near Term Implementation Plan

- Edwin Avenue, Greenlaw Avenue and Bartlet Avenue are planned “new” routes which will facilitate a comprehensive cycling network in the area;
- Davenport Avenue is planned to undergo renewal.

10 Year Cycling Network and Trail Plan

- Bloor Street has been earmarked for a “Major Corridor Study”; the projected study area will also include Dupont Street and Lansdowne Avenue (north of Bloor Street West) in the site vicinity;
- Construction is set to begin in 2019 on the southeasterly expansion of the West Toronto Railpath to a new terminus at Abell Street (south of Queen Street West); the Cycling Network Ten Year Plan also identifies a northern expansion to the West Toronto Railpath;
- Proposed on-street bicycle lanes along Dundas Street West between Dupont Street / Annette Street and Bloor Street West;
- Proposed on-street bicycle lanes along College Street between Dundas Street West and Brock Avenue;
- Proposed on-street bicycle lanes along Lansdowne Avenue between Rideau Avenue and Queen Street West;
- Proposed on-street bicycle lanes to replace shared roadways (sharrows) along Rideau Avenue, Macdonell Avenue, and Wabash Avenue between Sorauren Avenue and Lansdowne Avenue; and
- Proposed quiet street route along Wallace Avenue between Lansdowne Avenue and the West Toronto Railpath.



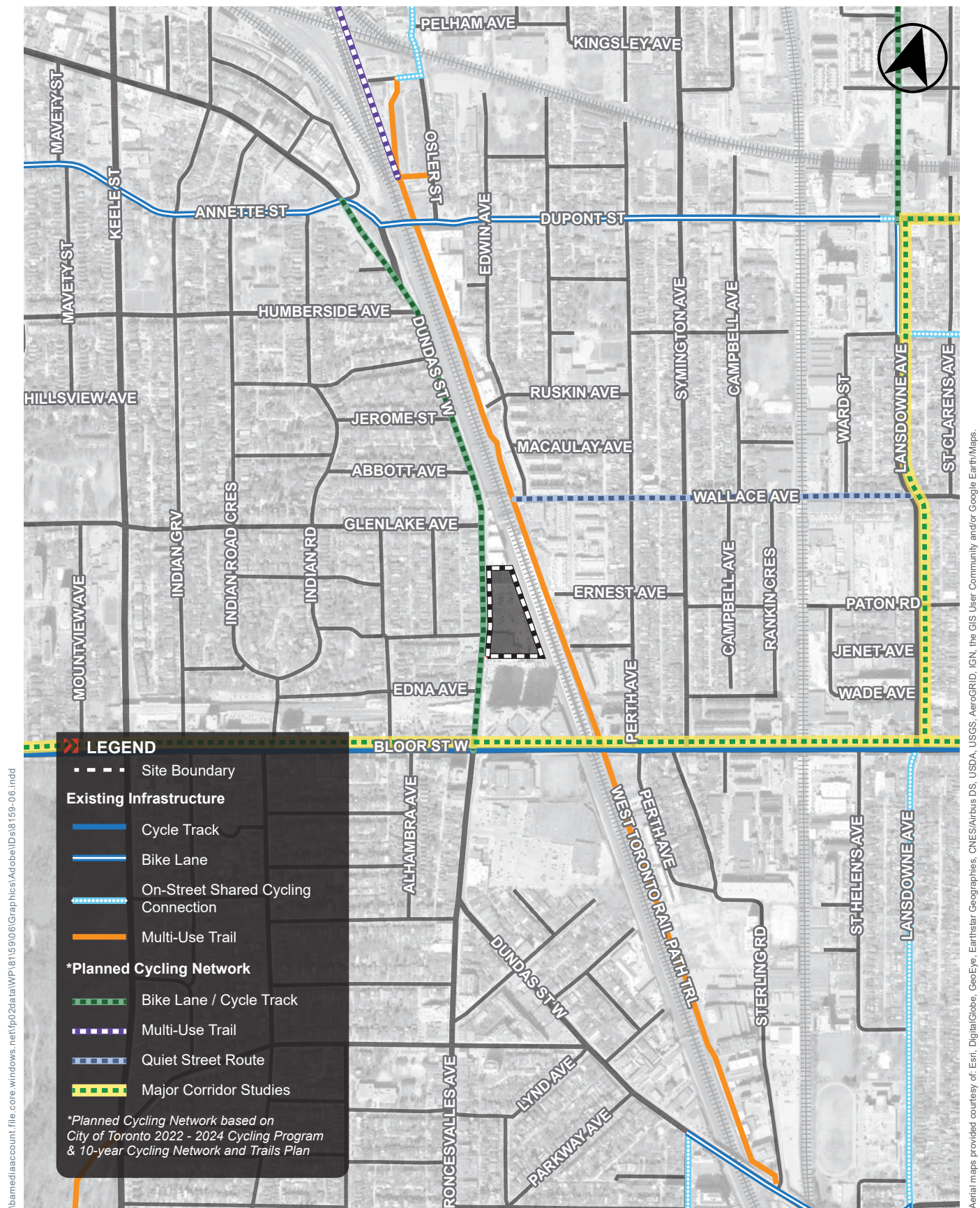


FIGURE 6 EXISTING AND PLANNED CYCLING CONTEXT

2.5 Area Pedestrian Network

Pedestrian Context

The site is located in the southern end of Toronto's Junction Triangle neighborhood and is located within walking distance to a number of services, entertainment, retail, and amenity centres. Bloor West Village and The Junction are located within a 20 to 30-minute walk or 5 to 10-minute bike ride from the site, both of which offer residents and patrons access to a variety of shops, services, employment, and amenities without the need for a vehicle.

The site is located nearby the Bloor Street West, Dundas Street West, and Roncesvalles Avenue corridors (each located within a 5-minute walk of the site), containing a mixture of restaurants, specialty food markets, retail, daycare centers, banks, and community centres. In addition, the eastern edge of High Park is located one kilometre from the site; it is the largest park located entirely within the City of Toronto and contains a unique combination of nature-related activities, sporting facilities, cultural facilities, educational facilities, gardens, playgrounds, and a zoo.

Immediate Pedestrian Environment

In the vicinity of the site, Dundas Street West has pedestrian sidewalks on both sides of the roadway with pedestrian crosswalks and pedestrian signal heads to cross Dundas Street West to the site access location.

Along Bloor Street West, pedestrian crosswalks and pedestrian signal heads are provided at the signalized intersections and are spaced at approximately 380 – 400 metres apart. All roads in the site vicinity have continuous sidewalks on both sides of the roadway with curb ramps at all signalized and unsignalized intersections.

2.6 Area Bicycle and Car Share Facilities

2.6.1 Area Bicycle Share Facilities

The Bike Share Toronto program, owned by the Toronto Parking Authority (TPA) provides flexible cycling options within the City of Toronto with bicycles that are used on a short-term basis and can be picked up/dropped off at different stations across the City.

To lay the foundation for the future of Bike Share Toronto, TPA has carried out a Four-Year Bike Share Growth Plan study that will guide a system expansion into 2025. The study sets an ambitious goal of extending the system's coverage area into all 25 wards of Toronto by the end of 2024 and to expand to upwards of 1,000 stations and 10,000 bikes, including 2,000 e-bikes, by 2025. There is a continued effort to expand the network further north and locate new stations along major corridors in conjunction with other investments in cycling infrastructure.

Existing Area Bike Share

Within an 800-metre radius of the site, there are approximately nine Bike Share Toronto stations which collectively hold approximately 139 bicycles, as illustrated in **Figure 7**.



2.6.2 Area Car Share Facilities

Car sharing across Toronto provides a low-commitment transportation alternative for automobile use, which has become common practice. The success and influence of car-share programs, which were only in their infancy a decade ago, now provide convenient, non-private automobile travel opportunities for thousands of residents, employees, and visitors of the City of Toronto.

Within the City of Toronto, there are two types of car-share services available for use.

- **Type 1: Round-trip, station-based service.** The majority of service providers operate using this model, where the user rents and returns the fleet vehicle at the same location. The time of use is reserved in advance.
- **Type 2: “Flex”, zone-based service.** This car-share model permits the user to rent the vehicle and return at a different location. Typically, the vehicle can be parked within resident-only parking zones. These zones are defined by the car-share provider and are typically located within the residential downtown or East York areas of Toronto.

There are three primary car sharing companies in operation in Toronto – ZipCar, Enterprise CarShare and more recently, Communauto. Each of these services offer their members access to vehicles conveniently located across the City.

ZipCar is the world’s largest car sharing program and entered the Toronto market in 2006 while Enterprise CarShare (formerly AutoShare) was founded in 1998. Both programs have acquired parking spaces in private garages or within Toronto Parking Authority (TPA) lots for their vehicle fleet. The program stipulates that users must return rented vehicles to the same parking space where it was picked up.

The success and rising influence of car share programs now provides convenient travel opportunities within the City through the use of non-private automobiles. As vehicles are available “on-demand”, residents in the area can access a vehicle for unique trips that may require a vehicle without having the need to own a personal vehicle. The availability of this service encourages reduced car ownership.

Existing Area Car Share

Within an 800-metre radius of the site, three (3) Enterprise CarShare vehicles can be accessed at Howard Park and Dundas West, as is illustrated in **Figure 7**. In addition, Communauto vehicles are often available on local neighbourhood streets.



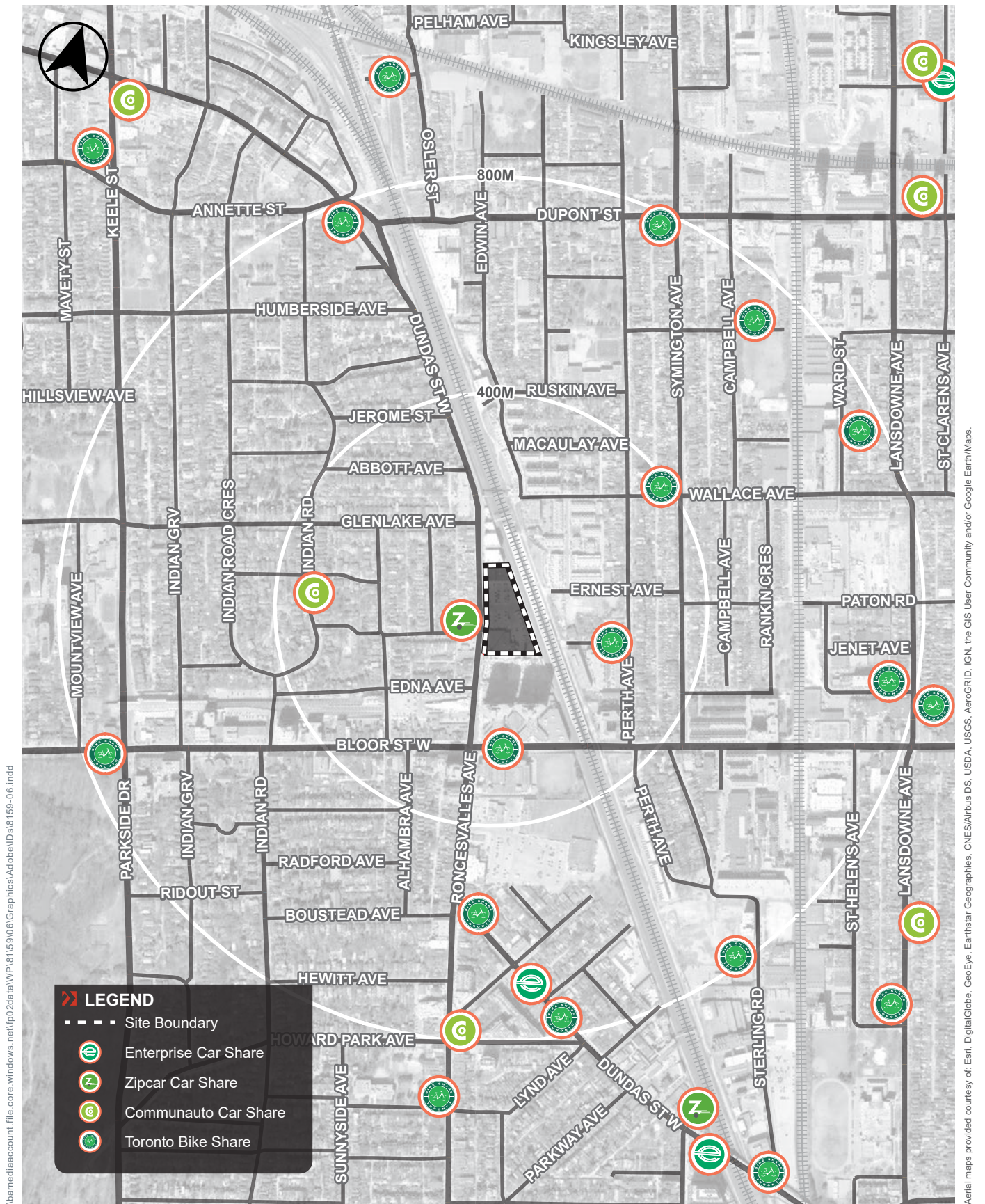


FIGURE 7 AREA CAR-SHARE AND BIKE-SHARE FACILITIES & PROPOSED ADDITIONS

3.0 DEVELOPMENT PROPOSAL

It is proposed to construct three (3) buildings, a single tower of thirty-seven (37) stories on the north (Block A) and two towers of twenty-five (25) and forty-two (42) storeys on the south (Block B). The development contains a total of 1,214 residential units, 2,863 m² of food store GFA, 1,004.5 m² of ancillary retail GFA, and 2,408.5 m² of commercial office space GFA. A total of 172 parking spaces (100 resident and 72 non-resident spaces), 2 car-share spaces, 1,373 bicycle parking spaces, and seven (7) loading spaces (2 Type 'G', 1 Type 'B' and 1 Type 'A' space, and 3 Type 'C' spaces) are provided to support the transportation related aspects of the proposed development. The development programme is summarized in **Table 5**.

Architectural Plans (Not to Scale) are provided in **Appendix A**.

Table 5 Development Programme Summary

Use	Type	Building A	Building B	Total
Resident	Studio	96 units	89 units	185 units
	1-Bedroom	248 units	408 units	656 units
	2-Bedroom	68 units	183 units	251 units
	3-Bedroom	46 units	76 units	122 units
	Total	458 units	756 units	1,214 units
Retail	Total GFA	455.7 m²	548.8 m²	1,004.5 m²
Commercial Office	Total GFA	--	2,408.5 m²	2,408.5 m²
Grocery Store	Total GFA	2,863.0 m²	-	2,863.0 m²
Vehicular Parking	Resident	100 vehicular parking spaces		
	Residential Visitor	72 vehicular parking spaces		
	Car Share	2 car share spaces		
	Total	172 vehicular parking spaces + 2 car share spaces		
Bicycle Parking	Residential Long-Term	1,093 bicycle parking spaces		
	Residential Short-Term	243 bicycle parking spaces		
	Non-Residential Long-Term	14 bicycle parking spaces		
	Non-Residential Short-Term	23 bicycle parking spaces		
	Total	1,373 bicycle parking spaces		
Loading		1 Type "G", 1 Type "A", and 1 Type "C" loading space	1 Type "G", 1 Type "B" loading space, and 2 Type "C" spaces	2 Type "G", 1 Type "B", 1 Type "A", and 3 Type "C" loading spaces
Vehicular Access		Signalized driveway connection from Dundas Street West to a private driveway.		

Notes:

1. Based on site statistics provided by Giannone Petricone Associates, dated June 07, 2024.



3.1 Site Access Arrangements

It is proposed to maintain the existing location of the site access driveway as part of this revised development proposal. This signalized site access driveway will provide vehicular access to the 2400-2440 Dundas Street development and continue to provide vehicular access to the existing Metrolinx Bloor GO Station Pick-Up / Drop-Off facility.

Detailed site design arrangements include that the signalized site driveway will provide vehicular access to a parking access ramp that will serve a consolidated below-grade parking facility. Access to the three (3) loading facilities (one for each of the three proposed buildings) will also be accessed from the private driveway network. Pick-Up / Drop-off will be located along the private driveway network to accommodate any anticipated front-door activity.

The future lane configuration and traffic control is illustrated in **Figure 8**.

3.2 Pick-Up / Drop-Off

The emergence and convenience of auto-based shared mobility services, including car-share, taxi, and ride-hailing services (e.g., Uber and Lyft), and general carpooling, have grown in recent years and are being used as an increasingly suitable alternative for private vehicle ownership or single-occupancy vehicle travel. These shared mobility services may be considered a contributing factor to the evident reduction in automobile reliance for everyday needs, based on the historical auto mode split changes observed for residents in the area. Furthermore, increased use in auto-based shared mobility services is often being observed in central, high-density, and intensified areas of urban cities, including City of Toronto (e.g., along several major intersections and corridors with frequent heavy traffic).

In consideration of these aspects, adequate space and width is provided along the private road network to enable vehicles to stop curbside along the private road network, providing space for this activity to occur on-site, without affecting the operations of the public road network.

The width of the east-west portion of the private road is 10.0m wide, which provides flexibility for the vehicular turn lanes at the intersection with Dundas Street West, as well as adequate width for the short-term stopping of vehicles in locations that respond to the residential lobbies of the buildings.

The width of the north-south portion of the private road network, parallel to the rail corridor is 7.5m wide, which also provides flexibility along the length of the street for vehicles to stop on the west side without interfering with two-way vehicular traffic.



3.3 Development Phasing Plan

As part of the proposed development, maintaining the existing alignment provides the opportunity for a phased construction of the site, allowing for a seamless relocation of the food store and continued access to the Metrolinx Bloor GO Station Pick-Up / Drop-Off facility during all phases of construction.

3.3.1 Phase 1

While Phase 1 is under construction (Tower A), the existing vehicular driveway will be closed. The existing signalized intersection and pedestrian crossings will be maintained. It is contemplated that a temporary unsignalized site driveway, south of the existing site driveway will provide vehicular site access to the existing food store parking and loading areas and the Metrolinx Bloor GO Station Pick-Up / Drop-Off facility.

3.3.2 Phase 2

Upon the completion of Phase 1, the east-west component of the private street network will provide vehicular access to the Phase 1 parking and loading areas. The existing signal will provide a signalized and controlled vehicular entrance to the development, as well as continue to provide a safe pedestrian crossing location.

Parking for residents, residential visitor, and commercial will be consolidated to one level of underground parking accessed from the private street.



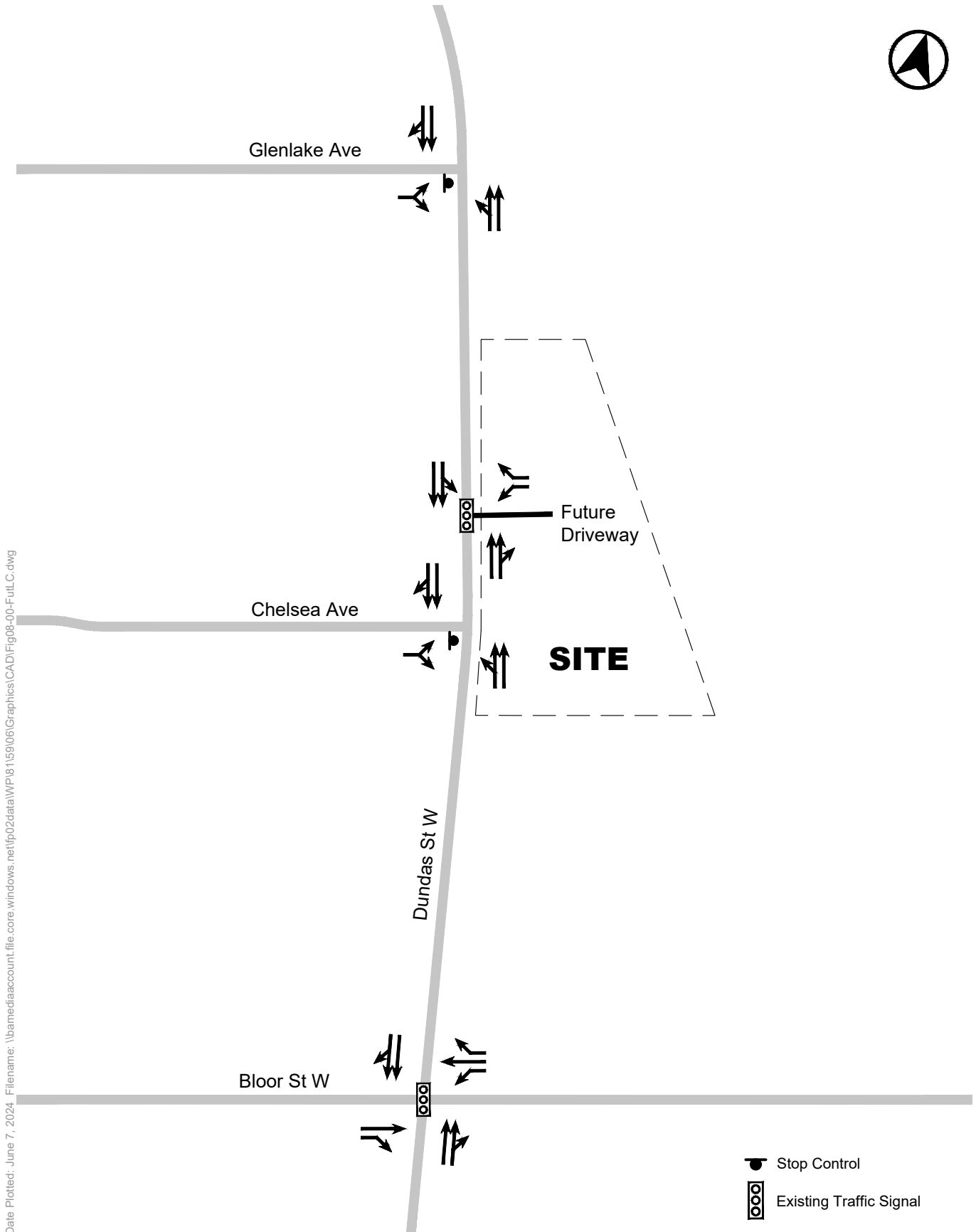


FIGURE 8 FUTURE LANE CONFIGURATION AND TRAFFIC CONTROL

4.0 TRANSPORTATION DEMAND MANAGEMENT

4.1 Mobility Choice Travel Plan

The location of the site, its context, and surrounding land-use mix greatly influences the success of a mobility plan. The purpose of the Mobility Choice Travel Plan is to guide the provision of viable alternative personal transportation options beyond the single-occupant, private automobile. This plan intends to support the proposed development by outlining Transportation Demand Management (TDM) measures and the suite of strategies under consideration to promote the use of more active and sustainable transportation modes; respond to the mobility needs of residents, and to reduce the overall dependence on the private automobile.

A suite of transportation demand management measures is proposed as part of a Transportation Demand Management (TDM) Plan for the project that will attempt to influence the way people travel to and from the site through a comprehensive suite of TDM strategies.

Generally, this TDM Plan has three primary objectives:

1. Reduce car dependence and the need for everyday single-occupant vehicle (SOV) travel;
2. Make it easy and attractive for people to walk and cycle; and
3. Promote transit and low-carbon alternatives in comparison to car ownership and SOV travel.

Specifically, the primary goal is to reduce the overall reliance on SOV's while promoting the use of more active and sustainable modes of transportation.

4.2 Organizational Framework

The broader objectives can be organized within the following categories:

- Encourage Transit Use;
- Encourage and Facilitate Bicycle Use;
- Enhance Pedestrian Access and Walkability;
- Facilitate Reduced Car Ownership and Usage;
- Vehicular Parking Supply and Management;
- Land Use and Building Infrastructure; and
- Coordination, Communication, and Promotion.

Within each of the six (6) categories, interventions considered for application may be further organized by the buildings of their implementation as the development progresses:

- **Infrastructure** (external links and facilities)
Measures to improve the active transportation realm along the boundaries of the site and to facilitate the integration of pedestrian, cycling and transit infrastructure
- **Facilities and features of the site plan and design**
Physical aspects of the internal design of the development, including its buildings, open spaces, and circulation routings to promote alternative transportation modes



- **Building operations / property management**
User-focused programs and policies enacted once the site is operational to encourage alternative transportation modes
- **Monitoring**
Post-occupancy data collection programs are used to assess travel patterns and gauge the effectiveness of the incorporated TDM strategies as a whole

4.3 TDM Strategies and Initiatives

The site context provides access to public transit services and good pedestrian connectivity. While strong opportunities exist in the area's infrastructure to accommodate sustainable transportation practices, the ability to fully leverage these opportunities, ensuring the success of the TDM strategies is important. To this end, TDM Plan strategies are presented with targeted "intentions" (i.e., what it 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 the application are proposed.

A summary of the mobility strategy is outlined below in **Table 6**. It is important to note that these TDM strategies will be continuously refined throughout the application process.



Table 6 Potential TDM Strategies

Measure	Description	Cost Estimate	Implementation Strategy	Reduction in Single Occupancy Vehicle Trips
Hard Measures				
Pedestrian/Cycling Connections	Provide enhanced sidewalks along Dundas Street West and provide walkways along the east-west private driveway.	Integrated into overall development cost.	Construct as part of development.	.. ²
Bicycle Parking	Provide bicycle parking spaces in accordance with the City of Toronto Zoning By-law 569-2013 Zone 1 and the TGS Tier 1.	Integrated into overall development cost.	Construct as part of development.	.. ²
Bicycle Repair Station	Provide bicycle repair / maintenance station in the long-term bicycle parking area(s) in accordance with the City of Toronto Zoning By-law 569-2013.	Integrated into overall development cost.	Construct as part of development.	.. ²
Access to Bicycle Parking Facilities	Direct access for cycling infrastructure areas through high quality bicycle stairs	Integrated into overall development cost.	Construct as part of development.	.. ²
Bike Share Station	Contribute to a new bike share station on the site or in proximity.	\$85,000	To be determined in consultation with the City of Toronto.	.. ²
Car Share Station	Provision of two (2) on-site car-share spaces within the parking garage.	Integrated into overall development cost.	To be determined in consultation with the City of Toronto.	.. ²
Vehicle Parking	Provide an appropriate vehicle parking supply in accordance with City of Toronto Zoning By-law 569-2013, as amended.	Integrated into overall development cost.	Construct as part of development.	40% - 55% ¹
Soft Measures				
Travel Mode Information Packages	Implement programs to inform new residents of available travel mode choices and existing mobile apps providing transit information.	To be determined.	Travel mode information packages will be distributed at the sales centre or property management office.	.. ²

Notes:

1. See **Section 5.3.2.1** for detailed calculation.
2. Unable to reasonably quantify the impact on driver mode at this time.



5.0 VEHICLE PARKING CONSIDERATIONS

5.1 Zoning By-law Parking Requirements

5.1.1 Zoning By-law 569-2013 (as amended) Parking Requirements

For context, this application will consider the parking standards included within Zoning By-law 569-2013 (as amended by Zoning By-law 89-2022 and 125-2022). Notably, the site is located in 'Parking Zone A' of Zoning By-law 569-2013 (as amended by Zoning By-law 89-2022 and 125-2022) and results in a minimum requirement of 10 visitor parking spaces and 17 accessible parking spaces.

Table 7 City of Toronto Zoning By-law 569-2013 As Amended (PZ A) Parking Requirements

Use	Units / Floor Area ¹		Minimum Rate	Minimum Parking Space Req ²	Maximum Rate	Maximum Parking Space Req ²	Effective Parking Rate ³	Effective Parking Space Req ^{2,3}
Resident								
Resident	Studio	185 units	None	0	0.30 sps / unit	55	0.30 sps/ unit	55
	1-BR	656 units	None	0	0.50 sps / unit	328	0.50 sps / unit	328
	2-BR	251 units	None	0	0.80 sps / unit	200	0.80 sps / unit	200
	3-BR	122 units	None	0	1.0 sps / unit	122	1.0 sps / unit	122
Resident Sub-Total			-	0	-	705	-	705
Non-Resident								
Visitor	1,214 units		2 plus 0.01 spaces / unit	14	1.0 spaces / unit for the first five units and 0.1 spaces / unit for the sixth and subsequent units	125	0.10 spaces / unit	121
Commercial Retail	1,004.5 m ²		None	0	3.5 spaces / 100 m ²	35	1.0 spaces / 100 m ²	10
Commercial Office	2,408.5 m ²		None	0	0.8 spaces / 100 m ²	19	0.4 spaces / 100 m ²	9
Grocery Store	2,863.0 m ²		None	0	3.5 spaces / 100 m ²	100	1.0 spaces / 100 m ²	28
Non-Resident Sub-Total			-	14	-	279	-	168
TOTAL			-	14	-	984	-	873
Accessible Parking Spaces ⁴ (included in TOTAL)				21 accessible spaces				

Notes:

- Based upon site statistics provided by Giannone Petricone Associates, dated June 07, 2024.
- If the number of required parking spaces results in a number with a fraction, the number is rounded down to the nearest whole number but there may not be less than one parking space.
- Application of "Effective" Parking Rate and Requirement is a procedural requirement, stipulated by By-law 89-2022, intended to calculate the required quantity of parking spaces (see Section 200.15.10.5).
- Accessible parking spaces calculated per Section 200.15.10.10
(C) if the number of effective parking spaces is more than 100, a minimum of 5 accessible parking spaces plus 1 accessible parking space for every 50 effective parking spaces or part thereof in excess of 100 parking spaces must comply with all regulations for an accessible parking space in Section 200.15.



5.2 Proposed Parking Supply

A total of 172 parking spaces are proposed to be located within a one-level underground parking garage, comprised of 100 resident parking spaces and 72 non-resident parking spaces (shared visitor and commercial). Of the total parking supply, 21 accessible parking spaces are provided.

The provision equates to an overall resident parking supply of 0.08 spaces per unit. This supply falls within the minimum and maximum requirements based on the City of Toronto Zoning By-law 569-2013, as amended by Zoning By-law 89-2022 and 125-2022. Standard reflects current city policy and reduces the auto focused / encouraged behaviour attributed to minimum parking standards – not applicable to transit focused areas like this.

The visitor parking supply equates to a rate of 0.01 spaces per unit. This supply falls within the minimum and maximum requirements of the City of Toronto Zoning By-law 569-2013, as amended by Zoning By-law 89-2022 and 125-2022.

The proposed parking supply is appropriate based on the characteristics of the development and the evolving transportation context, as discussed in the following section.

5.2.1 Vehicle Parking Provisions as per Toronto Green Standard Version 4.0

All new developments are required to meet Toronto Green Standard Version 4 (previously known as Toronto Green Standard Version 3) as of May 1, 2022. The site is subject to the Tier 1 performance measures, the only tier, within the “Mid to High Rise Residential and Non-Residential Version 4” standards.

5.2.1.1 AQ 1.1 - SINGLE – OCCUPANT VEHICLE TRIPS

This standard requires that single-occupancy auto vehicle trips generated by the site be reduced by 25% through various multi-modal infrastructure strategies and Transportation Demand Management (TDM) measures. The minimal amount of proposed residential parking will limit the amount of auto trip generation. In fact, the proposed provision of 100 parking spaces indicates that approximately 40% - 55% of single-occupancy auto vehicle trips will be reduced based on comparable proxy residential trip generation.

In addition, a number of TDM measures are proposed on-site (as discussed in **Section 4.3**) to further reduce single occupancy vehicle trips and encourage other alternative, non-motorized travel through a number of strategies. As such, the set of TDM strategies proposed, coupled with the provision of limited parking, are to meet and exceed the minimum standard of 25% reduced single-occupancy auto vehicle trips collectively and appropriately.

5.2.1.2 AQ 1.2 – ELECTRIC VEHICLE INFRASTRUCTURE

This standard requires parking spaces to be equipped with an energized outlet with Level 2 charging or higher (e.g., marked and identified for electric vehicle charging), in accordance with Zoning By-law 569-2013 and Zoning By-law 89-2022:

- All residential parking spaces, excluding visitor parking spaces; and
- 25 percent of residential visitor and non-residential parking spaces.

Of the proposed parking supply of 172 parking spaces, comprised of 100 residential parking spaces and 72 non-residential parking spaces, 100% of the residential parking spaces and 100% of non-residential parking spaces provided will be equipped with an energized outlet with Level 2 charging or higher.



5.3 Adequacy of Resident Parking Supply

The proposed parking supply for the site is considered appropriate through the following considerations:

- The existing and future transportation context;
- The transportation planning context;
- The amendment to Zoning By-law 569-2013;
- Toronto Green Standards Version 4;
- The provision of transportation demand management measures; and
- Recent resident parking supply ratio approvals for buildings in a similar context.

Provided below is an overview of the contextual factors influencing parking demands at residential and mixed-use buildings in Toronto and the adequacy of the proposed resident and residential visitor parking supplies.

5.3.1 Area Transportation Context

5.3.1.1 EXISTING AND EVOLVING TRANSIT CONTEXT

As discussed in **Section 2.3**, the site is located within walking distance of several modes of public transit including Dundas West subway station on TTC Line 2, surface transit including streetcar and bus routes, GO Transit commuter rail, and the Union-Pearson Express airport rail link.

It should also be noted that many future transit improvements including two SmartTrack stations proposed at St. Clair Avenue / Old Weston Road and Bloor Street West / Lansdowne Avenue as well as plans for more frequent service along many GO lines will provide more convenience for residents and visitors to use transit around the site.

5.3.1.2 EXISTING AND EVOLVING CYCLING AND PEDESTRIAN CONTEXT

Under existing conditions, the West Toronto Railpath multi-use trail and many bicycle lanes along Lansdowne Avenue, Davenport Road, Dupont Street and Bloor Street West can be reached within the site vicinity. Additionally, the *Cycling Network Ten Year Plan* (2016) and its associated *2022-2024 Near-Term Implementation Program* have identified many proposed on-street bicycle lanes and quiet street routes around the site including Dundas Street West between Dupont Street / Annette Street and Bloor Street West and along Wallace Avenue between Lansdowne Avenue and the West Toronto Railpath. These improvements suggest that the City is continuing to progress towards providing stronger opportunities for cycling within the site area.

Furthermore, the site is within walking distance of High Park and various restaurants, services, retail, pharmacies along the Bloor Street West, Dundas Street West, and Roncesvalles Avenue corridors.

The site access to a variety of transit routes, its proximity to commercial and employment opportunities, and the nearby planned cycling infrastructure improvements are supportive of the proposed resident and residential visitor parking rates.



5.3.2 Transportation Planning Context

The passing of Zoning By-law 89-2022 in February 2022 to amend the minimum parking requirements under Zoning By-law 569-2013 introduced a new perspective on the provision of parking supply in the City of Toronto. Zoning By-law 569-2013, as amended by Zoning By-law 89-2022 and 125-2022 eliminates minimum parking requirements and instead enforces maximum parking rates, demonstrating the City's long-term commitment to reducing its reliance on the automobile, and subsequently promoting alternative modes of travel.

This new By-law is consistent with broader transportation planning priorities and principles denoted by the Province of Ontario and the City of Toronto. Notably, the City of Toronto's Official Plan supports focused urban growth connected by public transportation and reductions in auto dependency. Additionally, the Province of Ontario's Provincial Growth Plan, *A Place to Grow: Growth Plan for the Greater Golden Horseshoe* and the *Provincial Policy Statement (PPS)* each prioritizes developments that promote active transportation and are located in areas with strong connections to transit.

From a travel demand perspective, the provision of additional parking beyond the minimum required to satisfy the site needs encourages personal automobile ownership and, subsequently, automobile travel. The passing of By-law 89-2022 was a necessary step towards reducing vehicle kilometres travelled and increasing the use of alternative travel modes. These results can be more easily achieved in highly transit-accessible areas of the City, such as the site location, which incentivizes alternative travel modes and reduce the perceived necessity of single-occupancy vehicle travel.

5.3.2.1 TORONTO GREEN STANDARDS VERSION 4

Toronto Green Standards (TGS) Version 4 went into effect on May 1, 2022 and sets sustainable design requirements for new private and City-owned developments. The TGS implements the environmental policies of the City of Toronto Official Plan and the requirements of multiple City divisions through the community planning and development approvals process administered by the City Planning Division. The TGS intends to aid in improving air quality, reduce the urban heat island effect, and contribute towards achieving the City's greenhouse gas emission targets.

The TGS requires that developments be designed to encourage low-emission and non-automobile transportation options. The standards also require that single-occupancy vehicle trips generated by the proposed development be reduced by 25% through a variety of multimodal infrastructure strategies and transportation demand management (TDM) measures.

To achieve the reduced automobile travel targets set in TGS Version 4, the benefits of the aforementioned multimodal infrastructure strategies and TDM measures, as discussed in greater detail in **Section 4.0** are most effectively realized when implemented in conjunction with appropriate automobile parking supply rates which are in keeping with current City policy. On this basis, a total of 100 residential parking spaces are proposed, or an equivalent 0.08 spaces / unit. Overall, this equates to a 40% to 55% reduction in residential trip generation, when evaluated against comparable area residential trip generation (as discussed in **Section 8.2**), exceeding the 25% trip reduction requirement.

5.3.3 Transportation Demand Management Measures

A comprehensive transportation demand management (TDM) strategy has been developed for the site and is presented in **Section 4.3** of this report. The primary objectives of this strategy include reducing automobile dependence and reliance on single-occupancy vehicle travel; promoting and incentivizing walking and cycling as alternative modes of travel to and from the site; and promoting transit and low carbon-emitting alternatives relative to automobile ownership and use.



5.3.4 Parking Approvals in Similar Transportation Contexts

The proposed Site context, including proximity to higher-order transit, pedestrian focused streets, and dedicated cycling infrastructure, will be reflected in future travel behavior within the continuing urbanization of the Dundas West area. Travel behaviours are measured by use of diverse modes throughout the day for a variety of trip types, demonstrating limited dependence on personal automobile use.

Geographically, the Site area is a great candidate for transit-oriented development including plans for diverse land uses, increase in housing density, and pedestrian focused design. The proposed residential parking supply is provided to encourage residents of the Site to use transit and further promote non-automobile / single-occupant resident trips to / from the Site.

Recent Residential Parking Approvals

BA Group has reviewed area residential developments for which reduced parking standards have been approved. Such approvals have been provided by City Council as part of the Zoning By-law Amendment processes, by the Committee of Adjustment as part of minor variance applications, or at the Local Planning Appeal Tribunal (formerly the Ontario Municipal Board). There have been a significant number of approvals provided through the above processes at condominium and rental apartment buildings where (significantly) low resident parking rates have been adopted, particularly in transit accessible areas of the City.

There have been a number of residential / mixed-use developments in varying transportation contexts that have been approved for no minimum residential parking provisions with language adopted from Zoning By-law 569-2013 (as amended). A selection of developments for which residential parking minimums have been eliminated in Toronto by the city or other processes is outlined in **Table 8**.

It can be concluded that developments which provide easy access to transit and are located within existing or future urban areas, have seen a decrease in provisions for residential parking supply.



Table 8 Toronto Residential Developments Approved with Zero Resident Parking Standards

Address ¹	Closest Major Intersection	Permission Through
1500-1536 St. Clair Avenue West and 20-36 Caledonia Road	St. Clair Avenue West / Caledonia Road	Site-Specific By-Law 536-2022
140, 150, 158, and 160 Borough Drive	Ellesmere Road / Brimley Road	Site-Specific By-Law 268-2022
770 Don Mills Road	Eglinton Avenue East / Don Mills Road	Site Specific By-Law 551-2022
805 Don Mills Road	Eglinton Avenue East / Don Mills Road	Site Specific By-Law 582-2022
1319 Bloor Street West	Bloor Street West / Lansdowne Avenue	Site Specific By-Law 589-2022
210 Bloor Street West	Bloor Street West / Avenue Road	Site Specific By-Law 782-2022 (OLT)
1910 Eglinton Avenue East	Eglinton Avenue East / Warden Avenue	Site Specific By-Law 810-2022
353-355 Sherbourne Street and 157 Carlton Street	Carlton Street / Sherbourne Street	Site Specific By-Law 812-2022
888 Dupont Street	Dupont Street / Ossington Avenue	Site Specific By-Law 841-2022
640 Lansdowne Avenue	Bloor Street West / Lansdowne Avenue	Site Specific By-Law 848-2022
1801 and 1807 Eglinton Avenue West	Eglinton Avenue West / Dufferin Street	Site Specific By-Law 895-2022
334-350 Bloor Street West and 2-6 Spadina Road	Bloor Street West / Spadina Road	Site Specific By-Law 904-2022
254 and 260 Adelaide Street West	Adelaide Street West / University Avenue	Site Specific By-Law 920-2022
1423-1437 Bloor Street West and 278 Sterling Road	Bloor Street West / Lansdowne Avenue	Site Specific By-Law 927-2022
224, 230, 236, and 240 Adelaide Street West	Adelaide Street West / University Avenue	Site Specific By-Law 1042-2022
1406-1428 Yonge Street	St. Clair Avenue West / Yonge Street	Site Specific By-Law 1110-2022
582-590 King Street West, 471-473 Adelaide Street West, and 115 Portland Street	Adelaide Street West / Bathurst Street	Site Specific By-Law 1116-2022 (OLT)
655, 657, 659, 661, and 663 Queen Street West and 178 Bathurst Street	Queen Street West / Bathurst Street	Site Specific By-Law 1157-2022 (OLT)
1521 Queen Street West	Queen Street West / Roncesvalles Avenue	Site Specific By-Law 1175-2022 (OLT)
444 – 450 Richmond Street West	Queen Street West / Spadina Avenue	Site Specific By-Law 679-2023 (OLT)
938, 940, 942, 944 & 950 King Street West and 95, 97, and 99 Strachan Avenue	King Street West / Strachan Avenue	Site Specific By-Law 686-2023 (OLT)
Continued Next Page		



Address ¹	Closest Major Intersection	Permission Through
555 Davenport Road	Davenport Road / Spadina Road	Site Specific By-Law 739-2023
145 St. George Street	Bloor Street West / St. George Street	Site Specific By-Law 749-2023
5230 Dundas Street West, 3825 Bloor Street West and 0 Beamish Drive	Bloor Street West / Kipling Avenue	Site Specific By-Law 755-2023
152 – 164 Bathurst Street & 621 – 627 Richmond Street West	Richmond Street West / Bathurst Street	Site Specific By-Law 757-2023
125 The Esplanade	The Esplanade / Jarvis Street	Site Specific By-Law 771-2023
500 Macpherson Avenue	Davenport Road / Walmer Road	Site Specific By-Law 783-2023
632 – 652 Northcliffe Boulevard	Eglinton Avenue West / Dufferin Street	Site Specific By-Law 820-2023
429 Walmer Road	St. Clair Avenue West / Spadina Road	Site Specific By-Law 917-2023
56, 58, 60 Fieldway Road	Dundas Street West / Kipling Avenue	Site Specific By-Law 963-2023
1087 to 1091 Yonge Street and 9 Price Street	St. Clair Avenue West / Yonge Street	Site Specific By-Law 967-2023
5, 7, and 9 Jopling Avenue South	Bloor Street West / Kipling Avenue	Site Specific By-Law 969-2023
45 and 57-93 Balliol Street	Davisville Avenue / Yonge Street	Site Specific By-Law 983-2023
140 Merton Street	Merton Street / Yonge Street	Site Specific By-Law 1106-2023
148 – 158 Avenue Road & 220 to 234 Davenport Road	Avenue Road / Davenport Road	Site Specific By-law 1107-2023
170 Roehampton Avenue	Mt. Pleasant Road / Eglinton Avenue E.	Site Specific By-law 1133-2023
1303, 1313, 132, 1337 & 1345 Queen Street West & 212, 220 & 224 Cowan Avenue	Queen Street West / Dufferin Street	Site Specific By-law 1145-2023
212-224 Merton Street	Mt. Pleasant Road / Merton Street	Site Specific By-law 1164-2023
49 Ontario Street & 72-94 Berkeley Street	Adelaide Street / Parliament Street	Site Specific By-law 1299-2023
475 Yonge Street	Yonge Street / College Street	Site Specific By-law 1303-2023
550 Adelaide Street East	Adelaide Street / Parliament Street	Site Specific By-law 1306-2023
914 Bathurst Street	Bathurst Street / Bloor Street West	Site Specific By-law 65-2024
1134 Queen Street East	Bathurst Street / Dupont Street	Site Specific By-law 78-2024



5.3.5 Summary of Proposed Parking Adequacy

The proposed resident and residential visitor parking supply rates of 0.08 spaces per unit for residents and 0.01 spaces per unit for visitors are appropriate due to consideration of the existing and future area transportation context, the quantity and variety of nearby ancillary and other retail uses, and the excellent transit accessibility to both bus routes and higher order services. These parking rates are supported by the City of Toronto Zoning By-law 569-2013, as amended by Zoning By-law 89-2022 and 125-2022, and precedents set through the passing of site-specific By-laws for contextually similar developments. Additionally, the Toronto Green Standards require a minimum reduction in automobile travel associated with the site of 25%, a target which is achievable through the combination of multimodal infrastructure, TDM measures, and the proposed parking rates. Finally, the study of parking demand at proxy sites reiterates the oversupply of resident and residential visitor parking through the provision of unnecessarily high rates.

Based on the foregoing, the proposed parking supply rates will meet the practical needs of the site and will promote the adoption and use of non-automobile modes of travel to and from the site.



6.0 BICYCLE PARKING CONSIDERATIONS

6.1 Zoning By-law Bicycle Parking Requirements

6.1.1 Zoning By-law 569-2013 / 839-2022 Bicycle Parking Requirements

Application of the bicycle parking requirements outlined in City of Toronto Zoning By-law 569-2013 (Bicycle Zone 1) and Tier 1 of the Toronto Green Standards (TGS) Version 4, requires a minimum of 1,372 bicycle parking spaces, including 266 short-term spaces and 1,106 long-term spaces.

A detailed summary of these requirements is provided in **Table 9**.

Table 9 City of Toronto Zoning By-law 569-2013 (Bicycle Zone 1) Minimum Bicycle Parking Requirements

Use	Units / Floor Area ¹	Minimum Rate		Minimum Requirement ²
Residential	1,214 units	Short-Term	0.20 spaces / unit	243 spaces
		Long-Term	0.90 spaces / unit	1,093 spaces
Commercial Office	2,408.5 sq. m.	Short-Term	3 + 0.2 spaces / 100 m ²	8 spaces
		Long-Term	0.2 spaces / 100 m ²	5 spaces
Commercial Retail / Grocery	3,867.5 sq. m.	Short-Term	3 + 0.3 spaces / 100 m ²	15 spaces
		Long-Term	0.2 spaces / 100 m ²	8 spaces
Total	Short-Term			266 spaces
	Long-Term			1,106 spaces
	Total			1,372 spaces

Notes:

1. Based upon site statistics provided by Giannone Petricone Associates, dated June 07, 2024.
2. In accordance with City of Toronto Zoning By-law 569-2013, bicycle parking calculations resulting in a fraction are rounded up to the nearest whole number.
3. As per Zoning By-law 569-2013 Section 230.5.10.1 (3), if bicycle parking spaces is required for uses on a lot, other than dwelling units, and the total interior floor area of all such uses on the lot is 2000 square metres or less, then no bicycle parking space is required.



6.2 Proposed Bicycle Parking Supply

A total of 1,373 bicycle parking spaces are proposed to serve the project, comprised of 266 short-term bicycle parking spaces and 1,107 long-term bicycle parking spaces. Of the total long-term residential bicycle parking spaces, 167 bicycle parking spaces will include an energized outlet to serve the cycling needs of the project.

220 short-term bicycle parking spaces will be located on the ground floor and easily accessible from the street. The 1,107 long-term bicycle parking spaces will be largely located on ground level and mezzanine floor. Some long-term residential spaces will be located on the P1 level of the underground garage. High quality bicycle stairs will provide ease of access to bicycles located on the mezzanine level.

Additionally, a bicycle repair / maintenance station will be provided on the ground floor of the site, in accordance with the City of Toronto Zoning By-law 569-2013.

The proposed bicycle parking supply and facilities meets / exceeds the minimum requirements within the Toronto Green Standards Version 4 Tier 1 bicycle parking requirements.

6.2.1 Bicycle Parking Provisions as per Toronto Green Standard Version 4

6.2.1.1 AQ 2.1 - 2.3 BICYCLE PARKING

These standards require bicycle parking to be provided as per Zoning By-law 569-2013. In addition, long-term bicycle spaces must be provided in a secure controlled-access bicycle facility or purpose-built bicycle locker on a near-surface level. Short-term bicycle spaces must be highly visible at-grade or on the first parking level below-grade.

Based on the above, the proposed bicycle parking supply currently meets the requirements as per Zoning By-law 569-2013 at a minimum. All long-term bicycle parking is located on the ground level, mezzanine level, and P1 level of the site within secure, weather-protected facilities. In addition, short-term parking will be provided on the ground level of the site.

6.2.1.2 AQ 2.4 - ELECTRIC BICYCLE INFRASTRUCTURE

This standard requires at least 15 percent of residential long-term bicycle parking spaces to include an Energized Outlet (120 V) adjacent to the bicycle rack or parking space. The Energized Outlet is to be located at a maximum distance of 1100 mm from the bike rack.

Based on the above, a total of 167 residential long-term bicycle parking spaces are required to have Energized Outlets. The proposed development will provide energized outlets for 167 residential long-term bike spaces located on the mezzanine Level of the proposed development, therefore, meeting the requirements outlined in the TGS Version 4.

6.2.1.3 AQ 2.6 - PUBLICLY ACCESSIBLE BICYCLE PARKING

This standard requires that all uses within the proposed development located within 500 metres of a transit station entrance provide at least 10 additional publicly accessible, short-term bicycle parking spaces, at-grade on the site or within the public boulevard in addition to bicycle parking required under AQ 2.1.

The proposed development will be within 500 m of the Dundas West TTC subway station and will provide 10 publicly accessible, short-term bicycle parking spaces in addition to the requirements outlined as per Zoning By-law 569-2013.



7.0 LOADING CONSIDERATIONS

7.1 Zoning By-law Loading Requirements

7.1.1 Zoning By-law 569-2013 Loading Requirements

The site is currently subject to loading standards, as outlined in the City of Toronto Zoning By-law 569-2013.

Application of Zoning By-law 569-2013 loading standards to the proposed development would require the provision of 1 Type 'B' loading space, and 1 Type 'G' loading space for Building A. 1 Type 'G' and 3 Type 'C' loading spaces are required for Building B. A summary of the requirements is provided in **Table 10** and **Table 11**, for Building A and Building B, respectively.

Table 10 City of Toronto Zoning By-law 569-2013 Loading Requirements (Building A)

Use	Units / GFA ¹	Range (Units/GFA)	Type A Loading Spaces	Type B Loading Spaces	Type C Loading Spaces	Type G Loading Spaces	Total
Residential	458 units	400+ units	-	-	1	1	2
Retail	456 m ²	0 – 499 m ²	-	-	-	-	0
Grocery Store	2,863 m ²	2,000 – 4,999 m ²	1	1	-	-	2
Total Requirement (before sharing)			1	1	1	1	4
Total Requirement (after sharing)²			0	1	1	1	3
Total Requirement (after sharing)³			0	1	0	1	2

Notes:

1. Based upon site statistics provided by Giannone Petricone Associates, dated June 07, 2024.
2. Shared loading space calculations based upon Zoning By-law 569-2013 Section 40.10.90.1 (1): "In the CR zone, if a mixed-use building has a minimum of 30 dwelling units, the requirement for a Type "A" loading space or a Type "B" loading space is satisfied by the provision of a Type "G" loading space".
3. Shared loading space calculations based upon Zoning By-law 569-2013 Section 40.10.90.1 (2): "In the CR zone, if a mixed-use building has a minimum of 400 dwelling units, the requirement for a Type "C" loading space is satisfied by the provision of a Type "A" loading space" or Type "B" loading space".



Table 11 City of Toronto Zoning By-law 569-2013 Loading Requirements (Building B)

Use	Units / GFA ¹	Range (Units/GFA)	Type A Loading Spaces	Type B Loading Spaces	Type C Loading Spaces	Type G Loading Spaces	Total
Residential	756 units	400+ units	-	-	1	1	2
Retail	548 m ²	500 – 1,999 m ²	-	1	-	-	1
Office	2,406 m ²	2,000 – 4,999 m ²	-	1	2	-	2
Total Requirement (before sharing)			-	2	3	1	6
Total Requirement (after sharing)²			-	1	3	1	5
Total Requirement (after sharing)³			-	-	3	1	4

Notes:

1. Based upon site statistics provided by Giannone Petricone Associates, dated June 07, 2024.
2. The minimum number of required Type "B" or Type 'C' **loading spaces** is the largest number of Type "B" or Type 'C' **loading spaces** required for office and retail uses.
3. Shared loading space calculations based upon Zoning By-law 569-2013 Section 40.10.90.1 (1): "In the CR zone, if a mixed-use building has a minimum of 30 dwelling units, the requirement for a Type "A" loading space or a Type "B" loading space is satisfied by the provision of a Type "G" loading space".

7.2 Proposed Loading Supply and Facilities

7.2.1 Loading Supply / Servicing Arrangements

The architectural plans illustrate the provision of one (1) Type 'A', one (1) Type 'G', and one (1) Type 'C' loading space for Building A. One (1) Type 'G', one (1) Type 'B' and two (2) Type 'C' loading spaces are provided for Building B on the ground floor of the proposed development. Vehicular access to the loading spaces is provided via the site driveway of Dundas Street West.

Given the physical space constraints of the existing building, it is proposed to adopt the CR Zone loading space sharing provisions for mixed-use buildings as per Section 40.10.90.1(1) of Zoning By-law 569-2013. In this way, the proposed loading supply is considered appropriate.

7.2.2 Resident Garbage and Recycling Facilities

Residential refuse / recycling collection for the residential component of the building will occur within the proposed Type 'G' loading space. 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, Recycling and Organics Collection Services for New Developments and Redevelopments"*, dated March 2022.

Provision for a minimum total bin staging area of 54.1 m² and 75.6 m² has been provided adjacent to the Building A and Building B Type 'G' loading space, respectively to accommodate bins within the allocated area (including 1 bin in the Type 'G' loading space). This staging area has been provided in accordance with the City policy requirements (i.e., size of bin staging area = 5 m² for every 50 residential units for 458 units and 756 units for Building A and Building B, respectively).



7.2.3 Non-Residential Garbage and Recycling Facilities

There will be separate waste rooms for non-residential garbage and recycling facilities. A private waste collection agency will use the Type 'G' space to perform non-residential waste pick-up.

7.2.4 Height Clearances

The loading area and access to the loading area has been designed such that a minimum of 4.5 metres clearance is maintained throughout the entire loading area and route leading up to the 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 and bin staging area to enable compacted bulk lift bin collection, meeting the City of Toronto Zoning By-law 569-2013 standards.

7.2.5 Operations and Manoeuvring

Vehicle manoeuvring diagrams are provided in **Appendix B**, illustrating the manoeuvring needs of the selected design vehicle vehicles to manoeuvre into and out of the proposed loading areas. These design vehicles comprise of the following:

- City of Toronto garbage collection vehicle;
- Transportation Association of Canada (TAC) Single-Unit Vehicles (SU and HSU);
- TAC Passenger Car (P-Car); and,
- WB-12 Urban Semi-Trailer.

These diagrams confirm that the functional arrangements of the site's loading facility are appropriate and will meet the manoeuvring needs of the vehicles that are expected to service the proposed development.



8.0 MULTI-MODAL TRAVEL DEMAND FORECASTING

The site is located within the City of Toronto, near Dundas Street West and Bloor Street West and within a transportation network that provides opportunities for non-automobile modes of travel (i.e., transit, walking and cycling). As part of this study, BA Group has established a travel demand forecast for auto-based and non-auto based trips for the site, including those made by active transportation modes in order to better assess the characteristics of each mode.

Anticipated travel demand to / from the site reflects a high level of pedestrian and transit usage, based on existing area pedestrian and transit infrastructure, and planned site elements which support all travel mode to / from and within the site.

8.1 Forecasting Approach

Preliminary travel demand forecasts have been prepared, as part of this study, for the proposed development based upon the development programme outlined in **Section 3.0**. Multi-modal forecasts have been developed from a ‘first principles’ approach using person trip making characteristics for the key component uses within the site.

For the purposes of this analysis, travel demand to and from the site has been developed by applying modal split and time of travel assumptions to base person-density parameters provided by Transportation Tomorrow Survey (TTS). Travel information that forms on the basis of this analysis has been obtained from 2016 Transportation Tomorrow Survey (TTS) and data collected by BA Group. It should be noted that interactions between site land uses exist, however were not considered in the analysis, therefore, the trips reported are considered conservative.

8.2 Residential Site Travel Demands

Residential travel demand to / from the site has been developed from ‘first principles’ based upon a review of the total number of residents anticipated to live on the site combined with data of residential travel characteristics in the vicinity of the site, particularly from the 2016 Transportation Tomorrow Survey (TTS) and data collected by BA Group. It should be noted that since TTS does not contain weekend data, the weekend afternoon peak hour was assumed to be the average of the weekday morning and afternoon peak hours. Forecast travel demand for residential trips to/from the site in the weekday morning and afternoon peak hours and the weekend afternoon peak hour is summarized in **Table 12**.

Based on the foregoing, non-auto residential travel demand (i.e., the sum of the two-way transit, walking and cycling trips outlined in **Table 12**) is forecast to be in the order of 470, 420 and 450 two-way trips in the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.

Forecast vehicular residential site traffic generation, based on ‘first principles’ assessment, is in the order of 210, 190 and 205 two-way trips (inclusive of auto drivers and passengers) in the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.



Table 12 Residential Site Trip Generation – Multi-Modal Trips

Parameter	Weekday & Weekend Peak Hour Travel Characteristics								
Proposed Buildings Residential Units ¹	1,214 units								
Building Occupancy	95% building occupancy = 1,155 units								
Number of Persons ¹	1.81 persons/unit = 2,090 persons								
Peak Hour Person Trips ¹	Weekday Morning Peak Hour 33% of daily trips made in AM peak hour 690 person trips			Weekday Afternoon Peak Hour 29% of daily trips made in PM peak hour 610 person trips			Weekend Afternoon Peak Hour 31% of daily trips travel in the peak hour 650 person trips		
Mode Split ¹									
Auto Driver	27%			26%			27%		
Auto Passenger	3%			3%			3%		
Passenger	1%			2%			2%		
Transit	56%			55%			56%		
Walk	8%			7%			7%		
Cycle	5%			6%			5%		
Total	100%			100%			100%		
Direction ²	<u>Inbound</u> 22%	<u>Outbound</u> 78%	<u>Total</u> 100%	<u>Inbound</u> 62%	<u>Outbound</u> 38%	<u>Total</u> 100%	<u>Inbound</u> 49%	<u>Outbound</u> 51%	<u>Total</u> 100%
Person Trips									
Auto Driver	40	145	185	100	60	160	85	90	175
Auto Passenger	5	15	20	10	5	15	10	10	20
Passenger	0	5	5	10	5	15	5	5	10
Transit	85	305	390	210	130	340	180	185	365
Walk	10	40	50	25	15	40	25	25	50
Cycle	5	25	30	25	15	40	15	20	35
Total	150	535	680	380	230	610	320	335	655
Vehicle Trips ³	45	165	210	120	70	190	100	105	205
Trip Rate (Vehicle Trips/Unit)	0.04	0.14	0.18	0.10	0.06	0.16	0.08	0.09	0.17

Notes:

1. Based on 2016 TTS data for condominium dwelling units in 2006 GTA Traffic Zone 106, 107, 114, 116, 119, and 125.
2. Based on ITE Trip Generation Manual 11th Ed. inbound and outbound percentages for Multifamily Housing (High Rise) land use in a “general urban/suburban” setting.
3. Includes auto-driver and auto-passenger trips.
4. Related TTS queries are provided in **Appendix C**.

Residential travel demand to / from the site has also been reviewed in conjunction with surveyed trip generation data for residential condominiums in a similar transportation context. Sites were chosen based on their similar proximity to transit services and area. This portfolio of data provides a context for forecasting vehicle trips from the proposed residential development.

Proxy residential trip generation studies are summarized in **Table 13**.



Table 13 Residential Trip Generation Proxy Sites

Location	Survey Date	Units	Transit Accessibility	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour			Weekend Afternoon Peak Hour		
				In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Calculated Trip Generation Rate (Vehicle Trips / Unit)												
TTS Zone 106, 107, 114, 116, 119 and 125 (Table 12)				0.04	0.14	0.18	0.10	0.06	0.16	0.08	0.09	0.17
Observed Trip Generation Rate (Vehicle Trips / Unit)												
60 Heintzman Street	2022	664	2-3 minute walk to 505 Dundas Streetcar	0.02	0.08	0.10	0.07	0.04	0.11	0.06	0.06	0.12
1369 Bloor Street West	2023	238	6 minute walk to Dundas West Station and Bloor GO	0.03	0.11	0.14	0.06	0.06	0.12	0.08	0.10	0.18
812 Lansdowne Avenue	2022	303	15 minute walk to Dundas West Station and Bloor GO	0.04	0.10	0.14	0.09	0.08	0.17	0.13	0.14	0.26
816 Lansdowne Avenue	2022	297	15 minute walk to Dundas West Station and Bloor GO	0.01	0.08	0.09	0.08	0.04	0.12	-	-	-
Average / Adopted Rate				0.03	0.10	0.13	0.08	0.06	0.14	0.09	0.10	0.19
Vehicle Trips (1,214 units)				36	121	158	97	73	170	109	121	231
Rounded				35	120	155	95	75	170	110	120	230

The site residential trip generation rate developed using the “First Principles” approach lies within the range of observed trip generation rates for multi-unit residential buildings in close proximity to surface transit routes around the area. The site residential trip generation rates are observed to fall at the higher end of the range; therefore, average trip rates were calculated including all proxy sites and this site and adopted to reflect contemporary travel patterns better. As such, the proposed residential use is anticipated to generate approximately 155, 170 and 230 two-way vehicle trips during the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.



8.3 Core Employment (Office) Area Site Travel Demands

CEA travel demand to / from the site has been developed from 'first principles' based upon a review of the total number of employees expected to work on the site combined with data of work travel characteristics in the vicinity of the site, particularly from the 2016 Transportation Tomorrow Survey (TTS). It should be noted that since TTS does not contain weekend data, the weekend afternoon peak hour was assumed to be the average of the weekday morning and afternoon peak hours. Forecast travel demand for CEA trips to/from the site in the weekday morning and afternoon peak hours and weekend afternoon peak hour is summarized in **Table 14**. Detailed trip generation TTS queries are attached in **Appendix C**.

Based on the foregoing, non-auto CEA travel demand (i.e., the sum of the two-way transit, walking and cycling trips outlined in **Table 14**) is forecast to be in the order of 10, 10 and 5 two-way trips in the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.

Forecast vehicular CEA site traffic generation, based on 'first principles' assessment, is in the order of 10, 5 and 10 two-way trips (inclusive of auto drivers and auto passengers) in the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.



Table 14 CEA (Office) Site Trip Generation – Multi-Modal Trips

Parameter	Weekday Peak Hour Travel Characteristics								
Proposed Buildings Office GFA ¹	2345.4 m ²								
Office GLA	90% leasable area = 2230 m ²								
Number of Persons ¹	1 employee / 25 m ² = 90 employees								
Peak Hour Person Trips ¹	Weekday Morning Peak Hour 20% of daily trips made in AM peak hour 20 person trips			Weekday Afternoon Peak Hour 15% of daily trips made in PM peak hour 15 person trips			Weekend Afternoon Peak Hour 17% of daily trips made in PM peak hour 15 person trips		
Mode Split ¹									
Auto Driver	51%			48%			50%		
Auto Passenger	6%			7%			7%		
Passenger	1%			2%			2%		
Transit	26%			23%			24%		
Walk	9%			13%			11%		
Cycle	7%			7%			7%		
Total	100%			100%			100%		
Direction ²	<u>Inbound</u> 88%	<u>Outbound</u> 12%	<u>Total</u> 100%	<u>Inbound</u> 17%	<u>Outbound</u> 83%	<u>Total</u> 100%	<u>Inbound</u> 54%	<u>Outbound</u> 46%	<u>Total</u> 100%
Person Trips									
Auto Driver	10	0	10	0	5	5	5	5	10
Auto Passenger	0	0	0	0	0	0	0	0	0
Passenger	0	0	0	0	0	0	0	0	0
Transit	5	0	5	0	5	5	0	0	0
Walk	5	0	5	0	5	5	0	5	5
Cycle	0	0	0	0	0	0	0	0	0
Total	20	0	20	0	15	15	5	10	15
Vehicle Trips ³	10	0	10	0	5	5	5	5	10
Trip Rate (Vehicle Trips/100 m ² GFA)	0.43	0.00	0.43	0.00	0.21	0.21	0.21	0.21	0.43

Notes:

1. Based on 2016 TTS data in 2006 GTA Traffic Zone 106, 107, 114, 116, 119, and 125.
2. Based on ITE Trip Generation Manual 11th Ed. inbound and outbound percentages for General Office Building land use in a “general urban/suburban” setting.
3. Includes auto-driver and auto-passenger trips.
4. Related TTS queries are provided in **Appendix C**.



8.4 Commercial Retail Site Travel Demands

It is assumed that the ground floor retail spaces will be ancillary to the site and anticipated to generate a negligible amount of vehicular trips. The retail spaces are generally small (100 sq. metres) and are intended to provide space for the area residents. It is anticipated that the majority of patrons to the commercial retail spaces will be made on foot, or other means of active transportation.

8.5 Grocery Store Site Travel Demands

The existing grocery store travel demand to / from the site has been developed using surveyed parking counts and door counts in / out of the existing grocery store, combined with data of retail travel characteristics in the vicinity of the site from the 2016 Transportation Tomorrow Survey (TTS). It should be noted that TTS does not contain weekend travel characteristics therefore the weekend mode split was assumed to be the average of the weekday morning and afternoon peak hours. Forecast travel demand for existing grocery store trips to / from the site in the weekday morning and afternoon peak hours and weekend afternoon peak hour are summarized in **Table 15**.

Detailed TTS queries are attached in **Appendix C**. Parking and door counts are attached in **Appendix G**.



Table 15 Grocery Store Site Trip Generation – Multi-Modal Trips (Existing Grocery Store)

Parameter	Weekday & Weekend Peak Hour Travel Characteristics								
Grocery Store GFA	1,800 m ² GFA								
Peak Hour Total Trips ¹	Weekday Morning Peak Hour 69 total trips			Weekday Afternoon Peak Hour 409 total trips			Weekend Afternoon Peak Hour 327 total trips		
Mode Split ²									
Auto Driver/Passenger	48%			23%			42%		
Transit	35%			56%			41%		
Walk	10%			14%			11%		
Cycle	7%			6%			6%		
Total	100%			100%			100%		
Direction ³	<u>Inbound</u> 49%	<u>Outbound</u> 51%	<u>Total</u> 100%	<u>Inbound</u> 48%	<u>Outbound</u> 52%	<u>Total</u> 100%	<u>Inbound</u> 50%	<u>Outbound</u> 50%	<u>Total</u> 100%
Auto Driver/Passenger	16	17	33	45	49	94	68	68	136
Transit	12	12	24	110	120	230	67	67	134
Cycle	2	3	5	12	14	26	10	10	20
Walk	3	4	7	28	31	59	18	18	36
Total	33	36	69	196	213	409	163	163	326
Vehicle Trips (Rounded)	15	20	35	45	50	95	70	70	140
Vehicle Trips Trip Rate (Vehicle Trips/100 sq.m GFA)	0.83	0.83	1.93	2.49	2.76	5.25	3.87	3.87	7.46
Trip Rate (Vehicle Trips/1000 sq.f GFA)	0.77	0.77	1.80	2.31	2.57	4.88	3.59	3.59	6.93

Notes:

1. Based on BA Group surveyed parking counts and door counts in / out of the existing grocery store
2. Related TTS queries are provided in **Appendix C**.
3. Based on ITE Trip Generation Manual 11th Ed. inbound and outbound percentages for Supermarket land use in a “general urban/suburban” setting.

Travel demands for other grocery stores within the City of Toronto were compared to the observed trip rates for FreshCo on the site for context to assess the appropriateness of applying the observed trip rates to the future retail demands for the site. **Table 16** details the trip rates observed at proxy sites per 1,000 square feet of GFA.



Table 16 Grocery Store Proxy Site Trip Rates

Store	Address	AM			PM			SAT		
		In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Loblaws	650 Dupont St	1.54	1.13	2.67	3.09	3.19	6.27	4.10	2.56	6.67
Loblaws	10 Lower Jarvis St	1.58	0.58	2.15	2.16	2.61	4.77	3.53	2.84	6.37
Sobeys	1015 Broadview Ave	-	-	-	1.90	2.05	3.95	2.03	1.89	3.92
Loblaws	396 St. Clair Ave W	2.09	1.06	3.15	3.31	3.06	6.38	3.96	4.10	8.06
T&T	222 Cherry St	-	-	-	2.80	2.69	5.49	3.74	3.78	7.53
FreshCo	2490 Gerrard St E	-	-	-	4.20	4.05	2.14	4.61	4.90	9.51
Sobeys	840 Dupont St	2.15	2.03	4.18	3.40	4.05	7.45	3.49	3.49	6.98
Sobeys	2451 Danforth Ave E	1.05	0.81	1.86	1.60	1.82	3.41	1.11	1.13	4.53
No Frills	2187 Bloor St W	1.73	1.81	4.15	3.11	3.37	6.48	-	-	-
No Frills	372 Pacific Ave	2.70	2.03	4.73	5.57	5.11	10.68	8.49	7.18	15.67
Price Chopper	22 Northcote Ave	0.91	0.67	1.58	1.40	1.61	3.02	1.86	2.01	3.87
Fiesta Farms	200 Christie St	1.18	0.82	2.00	2.56	2.36	4.92	3.58	4.01	7.58
FreshCo	2400 Dundas Street W	0.96	1.02	1.98	2.70	2.94	5.64	4.08	4.08	8.16
Average Rate (per 1,000 sq. ft. GFA)		1.57	1.17	2.83	2.88	2.96	5.37	3.67	3.46	7.30

The resultant average trip rates based upon the proxy sites are higher and lower than the observed trip rates for the site depending on weekday versus weekend and the peak hour, however the site trip rates fall within the observed range therefore were adopted for analysis purposes. Given the existing and proposed grocery store being of similar size the rates outlined in **Table 15** were used in the analysis. Forecast travel demand for future grocery store trips to / from the site in the weekday morning and afternoon peak hours and weekend afternoon peak hour are summarized in **Table 17**.



Table 17 Grocery Store Site Trip Generation – Multi-Modal Trips (Future Grocery Store)

Parameter	Weekday & Weekend Peak Hour Travel Characteristics								
Leasable Grocery Store GFA	2,318 m ² GFA								
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Vehicle Trips Trip Rate (Vehicle Trips/100 sq. m. GFA)	0.83	0.83	1.93	2.49	2.76	5.25	3.87	3.87	7.46
Vehicle Trips (Rounded)	20	20	40	60	65	125	90	90	180
Mode Split ¹									
Auto Driver/Passenger	48%			23%			42%		
Transit	35%			56%			41%		
Walk	10%			14%			11%		
Cycle	7%			6%			6%		
Total	100%			100%			100%		
Direction ²	<u>Inbound</u> 49%	<u>Outbound</u> 51%	<u>Total</u> 100%	<u>Inbound</u> 48%	<u>Outbound</u> 52%	<u>Total</u> 100%	<u>Inbound</u> 50%	<u>Outbound</u> 50%	<u>Total</u> 100%
Auto Driver/Passenger	20	20	40	60	65	125	90	90	180
Transit	14	15	29	146	159	305	88	88	176
Cycle	3	3	6	17	18	35	14	14	28
Walk	4	4	8	38	41	79	24	24	48
Total	41	42	83	261	283	544	216	216	432

Notes:

1. Related TTS queries are provided in **Appendix C**.
2. Based on ITE Trip Generation Manual 11th Ed. inbound and outbound percentages for Supermarket land use in a “general urban/suburban” setting.

Based on the foregoing, non-auto grocery store travel demand (i.e., the sum of the two-way transit, walking and cycling trips outlined in **Table 17**) is forecasted to be in the order of 43, 419 and 251 two-way trips in the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively

Forecast vehicular office site traffic generation is in the order of 40, 125, and 180 two-way trips (inclusive of auto drivers and auto passengers) in the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.



9.0 VEHICULAR TRAVEL ASSESSMENT

9.1 Traffic Analysis Scenarios and Design Periods

Traffic operations analyses have been undertaken during the weekday morning and afternoon street peak hours under the following conditions:

- Existing traffic – traffic activity level under current conditions;
- Future background traffic – traffic activity levels 5 years into the future which include allowances for corridor growth and area specific background developments; and
- Future total traffic – traffic activity levels 5 years into the future with the projected site generated traffic added to the road network

9.2 Existing Traffic

Existing baseline traffic volumes were established at intersections within the study area for the weekday morning and afternoon peak hours and weekend afternoon peak hour using traffic count information obtained from surveys undertaken by Accu-Traffic Inc. and Spectrum Traffic Data Inc. A listing of the count data and sources are provided in **Table 18**.

Table 18 Existing Turning Movement Count Summary

Intersection	Control Type	Source	Date Counted	Signal Timing Date ¹
Site Access / Dundas Street West	Signalized	Accu-Traffic Inc.	Thursday, December 1, 2022 & Saturday, December 3, 2022	January 20, 2021
Bloor Street West / Dundas Street West	Signalized			May 29, 2022
Chelsea Avenue / Dundas Street West	Unsignalized			N/A
Glenlake Avenue / Dundas Street West	Unsignalized	Spectrum	Tuesday January 10, 2023 & Saturday January 14, 2023	N/A

Notes:

1. Signal Timing data issued by the City of Toronto – Transportation Services

It should be noted that existing turning movement counts at Bloor Street West / Dundas Street West intersection shows illegal left turns. There are restricted left turns at all approaches except for the east approach, therefore the following assumptions were used to reassign the traffic in the network:

- Eastbound left turns are assumed to continue through the intersection and turn left on Symington Avenue instead
- Northbound left turns are assumed to either use local streets or Parkside Drive to turn left onto Bloor Street West



- Southbound left turns are assumed to use Keele Street to turn left onto Bloor Street West

The existing turning movement counts are provided in **Appendix D**.

Existing, balanced baseline area traffic volumes for the weekday morning and afternoon peak traffic hours are summarized in **Figure 9**.

9.2.1 Existing Site Traffic Removal Volumes

Existing vehicular site traffic is generated by commercial buildings (FreshCo, Shoppers Drug Mart and Discount Car and Truck Rentals) currently occupying the site as well as access to the Bloor GO Station passenger PUDO loop.

As part of the proposed development, the existing pharmacy, rental car agency, and grocery store will be demolished and replaced with two residential towers above a podium containing uses such as retail, office, and live work units, as well as a 36 storey mixed residential and commercial tower. The transit pickup and drop off loop will remain however using the existing site driveway. As a result, the existing site traffic volumes associated with the commercial buildings will be removed from the area road network but traffic volumes pertaining to the PUDO loop will be maintained. See **Figure 10** for site removal traffic volumes with the maintained volumes using the PUDO loop. Existing site traffic split between trips in / out of the site and the Bloor GO Station passenger PUDO loop is shown in **Table 19**.

Table 19 Existing Site Traffic Volumes

	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Site Trips	55	50	105	120	100	220	110	105	215
Bloor GO PUDO Trips	25	25	50	20	25	45	5	5	10
Total	80	75	155	140	125	265	115	110	225



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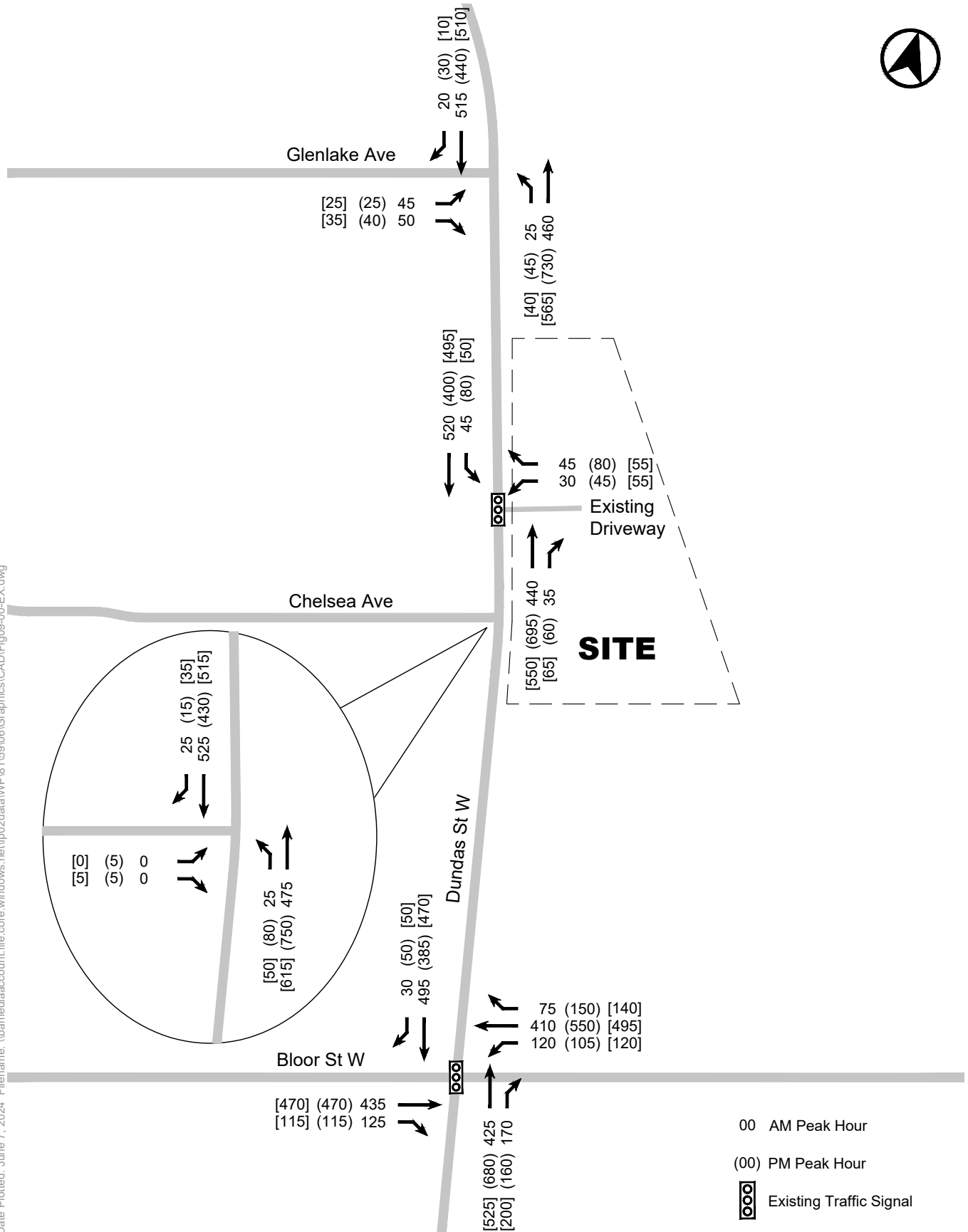


FIGURE 9 EXISTING TRAFFIC VOLUMES

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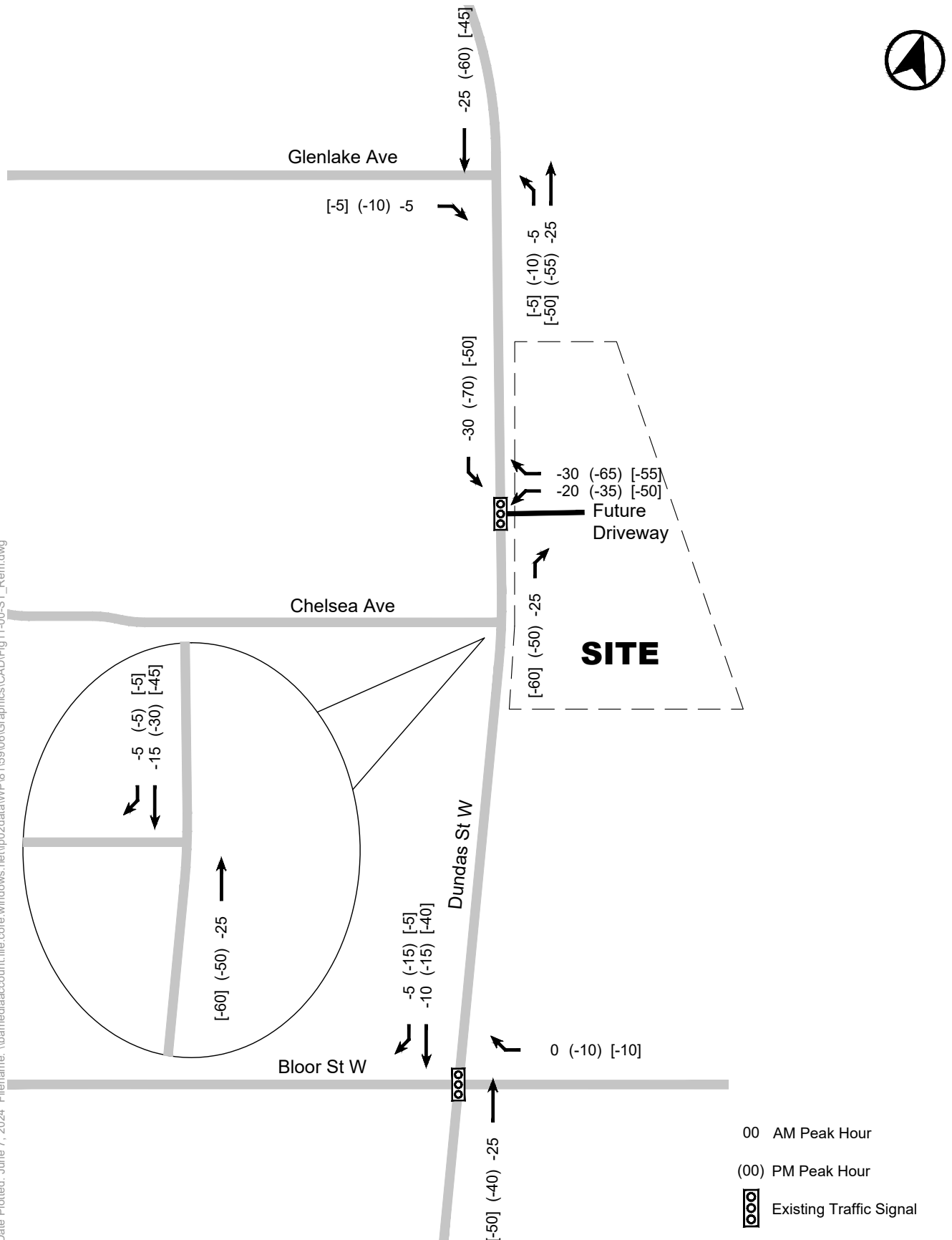


FIGURE 10 SITE REMOVAL TRAFFIC VOLUMES

9.3 Future Background Traffic

Traffic growth in the vicinity of the site has been considered based on an evaluation of traffic volume changes related to specific area development traffic (i.e., background development traffic).

9.3.1 Corridor Traffic Growth

A review of historic traffic volumes in the area was undertaken by BA Group to determine growth on the major corridors in the study area. Traffic volumes were reviewed at the Dundas Street West / Bloor Street West intersection. The observed trends indicate negative or no substantial traffic growth for the corridors. Detailed corridor growth analysis is attached in **Appendix E**.

Given the generally negative or stable growth trend in both analyzed weekday peak periods, no general corridor growth rate has been applied for the Dundas Street West and Bloor Street West Corridors.

9.3.2 Background Development Growth

Specific allowances have been made to account for traffic generated by other area development proposals in the vicinity of the site that are either approved but not constructed or are in the City's approval process.

Traffic allowances associated with these developments were generally established based upon assignment information incorporated into traffic impact studies prepared as part of the approval processes for these developments. If no traffic impact study was found, traffic allowances were established using information from City of Toronto project data sheets in conjunction with this sites trip generation and distribution assumptions. These sites represent in the order of 7,340 residential units, 106,514 m² non-residential GFA.

The area background developments that have been considered for this study, along with the key statistics adopted, are summarized in **Table 20**.

9.3.1 Future Background Traffic Volumes

Future background traffic has been established for the weekday morning and afternoon peak hours based on the addition of existing traffic volumes and background development volumes.

Figure 11 illustrates the future background traffic volumes.



Table 20 Area Background Developments

Development	Development Programme	Source of Traffic Assignment
2 Howard Park Avenue	128 residential units	<i>2 Howard Park Avenue, Mixed-Use Development – Urban Transportation Considerations, BA Group, April 2021</i>
421 Roncesvalles Avenue & 61 Howard Park Avenue	278.9 m ² GFA retail use 1,452.1 m ² GFA office use	<i>Project Data Sheet – City of Toronto</i>
422-436 Roncesvalles Avenue & 76 Howard Park Avenue	99 residential units 675 m ² GFA retail use	<i>Project Data Sheet – City of Toronto</i>
72 Perth Avenue	108 residential units	<i>72 Perth Avenue, Residential Building – Site Plan Application, BA Group, October 2021</i>
11 Pacific Avenue, 255 Glenlake Avenue, 66 Oakmount Road	689 residential units	<i>Glenlake + Oakmount, Urban Transportation Considerations, Addendum 2, BA Group, September 2021</i>
175 Sterling Road (Block 4A & 4C)	16,545 m ² GFA office use 192 m ² GFA retail use	<i>175 Sterling Road, Block 4A and 4C, Mixed-Used Development – Urban Transportation Considerations Report, Site Plan Control Application, BA Group, August 2022</i>
221-227 Sterling Road	892 residential units	<i>221-227 Sterling Road – Transportation Impact Study, WSP, April 2021</i>
1405-1409A Bloor Street West & 229-231A Sterling Road	326 residential units 237 m ² GFA retail use	<i>Project Data Sheet – City of Toronto</i>
1423-1437 Bloor Street West & 278 Sterling Road	197 residential units 390 m ² GFA retail use	<i>Response to City Comments for the 1423-1437 Bloor Street West Property, BA Group, January 2022</i>
1293 Bloor Street West	230 residential units 247 m ² GFA retail use	<i>Project Data Sheet – City of Toronto</i>
1319 Bloor Street West	825 residential units 291 m ² GFA retail use 464 m ² GFA community centre	<i>1319 Bloor Street West – Response to City Comments, BA Group, December 2021</i>
1439 Bloor Street West, 80, 82 Perth Avenue	169 residential units	<i>Traffic Impact Study, Proposed Residential Development, Bloor Street West & Perth Avenue, GHD, August 2018</i>
1540-1550 Bloor Street West	353 residential units 680 m ² GFA retail use	<i>TIS Addendum – Proposed Development, 1540-1550 Bloor Street West, LEA Consulting, February 2022</i>
1660 Bloor Street West	174 residential units 315 m ² GFA retail use	<i>1660 Bloor Street West – Response to City Comments, BA Group, May 2022</i>
1515 Bloor Street West & 2238, 2252, 2280, 2288, 2290 Dundas Street West & 104-105 Ritchie Avenue	2606 residential units 21,782 m ² GFA retail use 3,600 m ² GFA grocery store 58,275 m ² GFA office use	<i>Bloor-Dundas Mixed-Use Development – Urban Transportation Consideration, Official Plan Amendment, BA Group, April 2018</i>
2376 Dundas Street West	393 residential units 566 m ² GFA commercial space	<i>Transportation Letter – 2376 Dundas Street West, LEA Consulting, July 2020</i>
2706-2730 Dundas Street West	151 residential units 524 m ² GFA retail use	<i>Transportation Impact Study (TIS) Update – 2706-2730 Dundas Street West, LEA Consulting, April 2018</i>
Total	7,340 residential units, 106,514 m² non-residential GFA	



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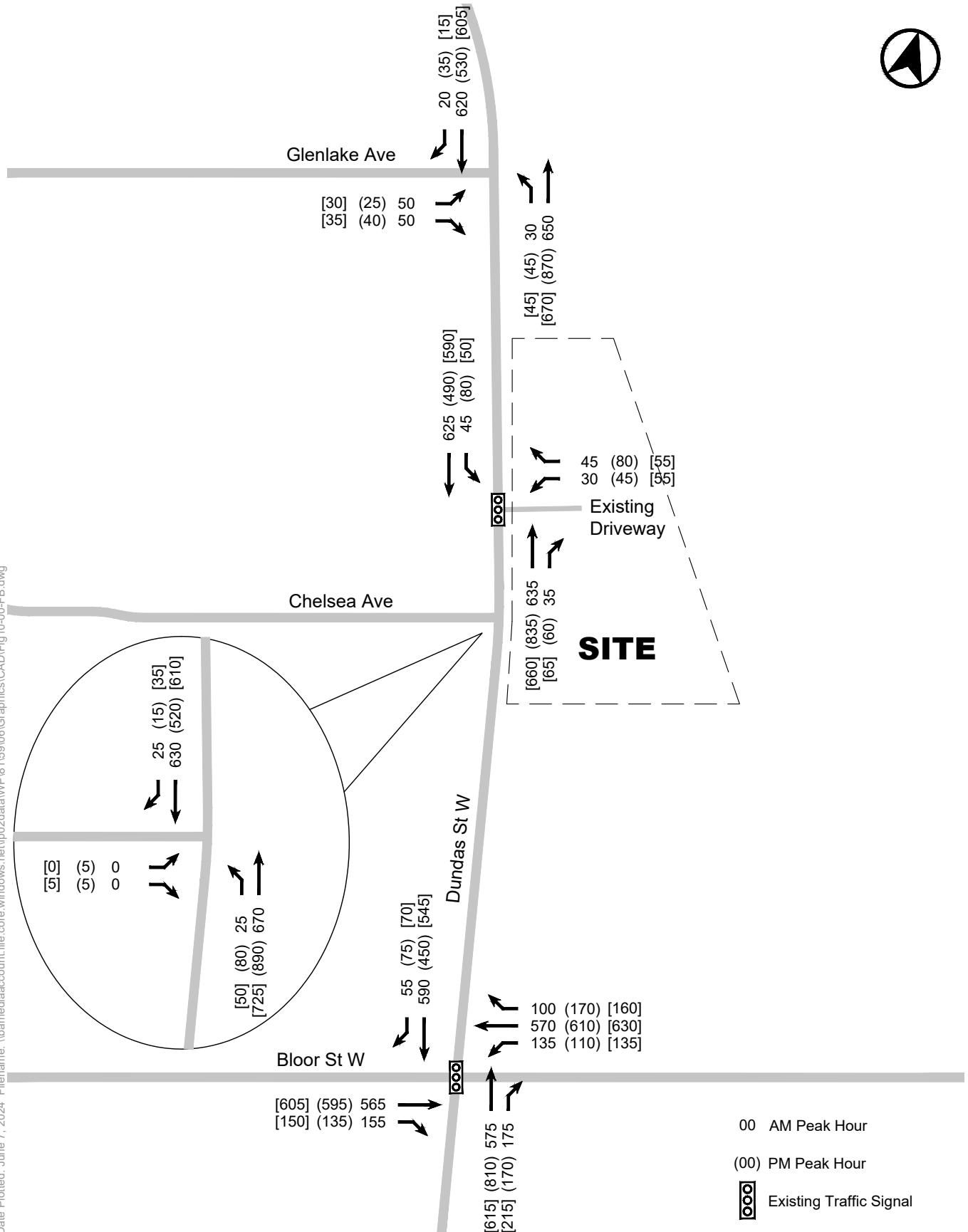


FIGURE 11 FUTURE BACKGROUND TRAFFIC VOLUMES

9.4 Site Traffic

Total site vehicle trip generation during the weekday morning and afternoon peak hours is summarized in **Table 21**.

Table 21 Summary of Site Vehicle Trip Generation

	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Total Existing Site Traffic	80	75	155	140	125	265	115	110	225
Existing Site Removed	- 55	- 50	- 105	- 120	- 100	- 220	- 110	- 105	- 215
Maintained PUDO Trips	25	25	50	20	25	45	5	5	10
Existing to Remain Trips	25	25	50	20	25	45	5	5	10
Residential Site Vehicle Trips	35	120	155	95	75	170	110	120	230
CEA Site Vehicle Trips	10	0	10	0	5	5	5	5	10
Grocery Store Site Vehicle Trips	20	20	40	60	65	125	90	90	180
Net New Site Trips	65	140	205	155	145	300	205	215	420
Total Site Trips	90	165	255	175	170	345	210	220	430

The proposed development is expected to generate in the order of 205, 300 and 420 two-way vehicle trips during weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively. Including the maintained PUDO trips, that total trips in / out of the proposed site driveway is in the order of 255, 345 and 430 two-way vehicle trips during the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.

9.4.1 Site Traffic Distribution and Assignment

Site trips have been distributed to the area road network based on the results of the 2016 Transportation Tomorrow Survey (TTS), prevailing traffic patterns, and turn restrictions. Detailed TTS queries are attached in **Appendix C**. General direction of approach percentages for site traffic is summarized in **Table 22**.



Table 22 Site Traffic Distribution

Direction	Residential		Office		Grocery Store	
	Inbound ¹	Outbound ²	Inbound ³	Outbound ⁴	Inbound ⁵	Outbound ⁵
North on Dundas St W	50%	40%	55%	55%	50% (45%) [40%]	50% (55%) [45%]
South on Dundas St W	35%	15%	35%	10%	35% (40%) [45%]	35% (30%) [45%]
East on Bloor St W	10%	0%	0%	0%	10% (10%) [10%]	0% (0%) [0%]
West on Bloor St W	0%	40%	0%	35%	0% (0%) [0%]	10% (10%) [5%]
West on Glenlake Ave	5%	5%	10%	0%	5% (5%) [5%]	5% (5%) [5%]
Total	100%	100%	100%	100%	100%	100%

Notes:

1. Based upon afternoon peak period residential inbound trips obtained using 2016 TTS information for 2006 GTA zones 106, 107, 114, 116, 119 and 125.
2. Based upon morning peak period residential outbound trips obtained using 2016 TTS information for 2006 GTA zones 106, 107, 114, 116, 119 and 125.
3. Based upon morning peak period work inbound trips obtained using 2016 TTS information for 2006 GTA zones 106, 107, 114, 116, 119 and 125.
4. Based upon afternoon peak period work outbound trips obtained using 2016 TTS information for 2006 GTA zones 106, 107, 114, 116, 119 and 125.
5. Data obtained using existing travel patterns of the site.
6. XX (XX) [XX] – Weekday Morning Peak Hour (Weekday Afternoon Peak Hour) [Weekend Afternoon Peak Hour]

New site traffic generated by the proposed development was assigned onto the area road network based on the directional distribution summarized in **Table 22**.

The resulting site traffic assigned to the road network is illustrated in **Figure 12**.

The net new site traffic volumes are shown in **Figure 13**.

9.5 Future Total Traffic

Future total traffic volumes have been established for the weekday morning and afternoon peak hours based on the addition of future background traffic volumes, subtraction of existing site traffic, and addition of new site traffic volumes.

Future total traffic volumes are illustrated in **Figure 14**.



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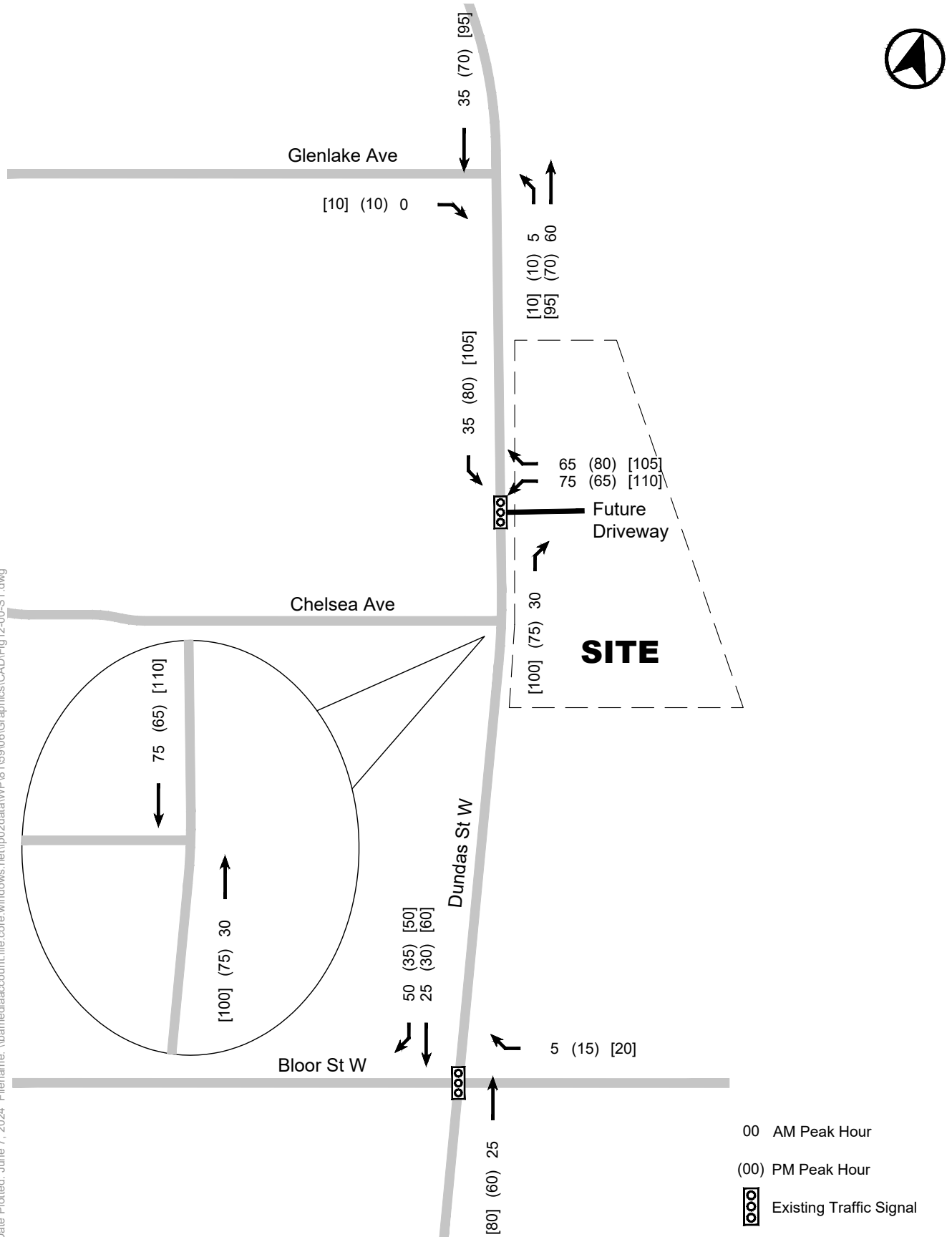


FIGURE 12 SITE TRAFFIC VOLUMES

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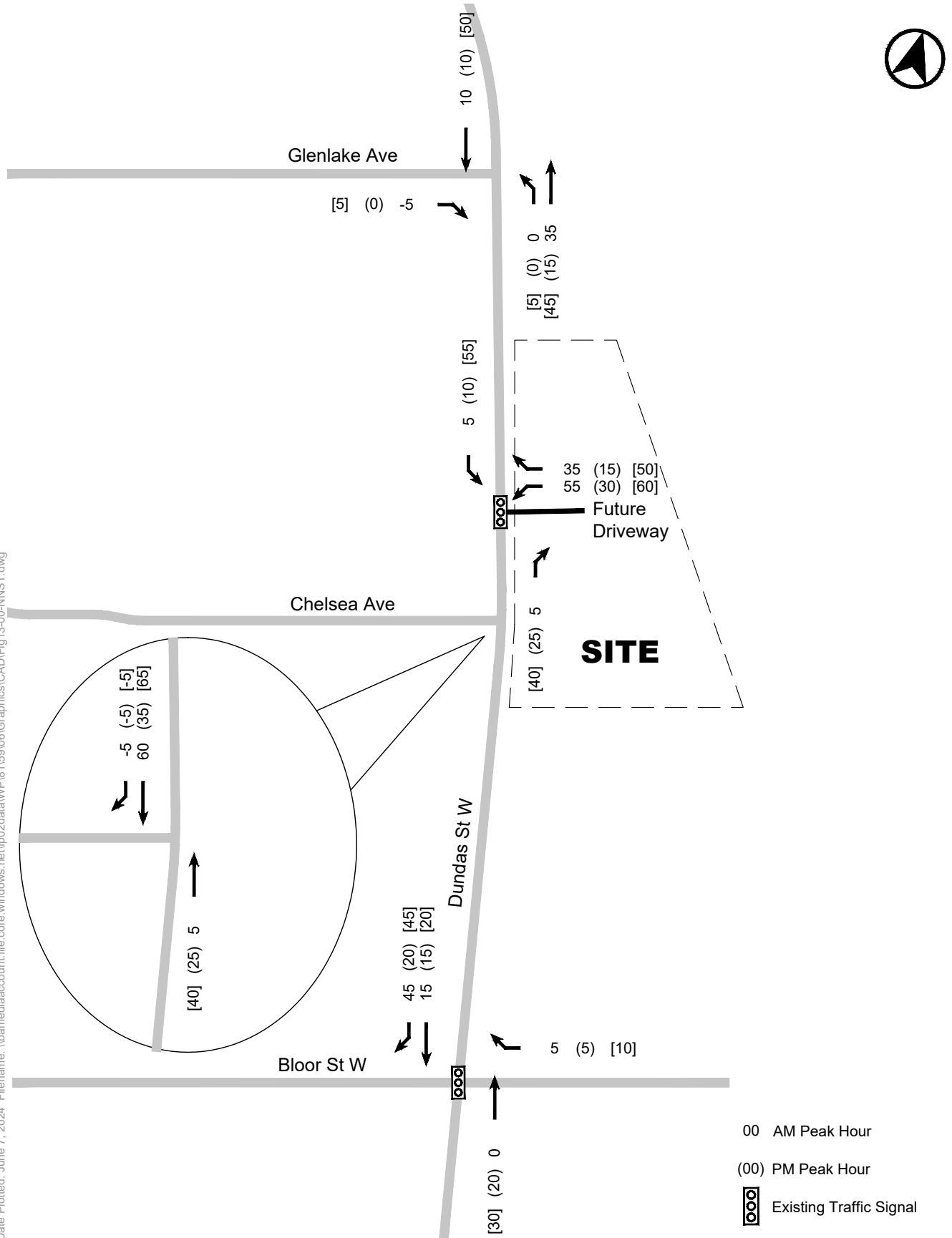


FIGURE 13 NET NEW SITE TRAFFIC VOLUMES

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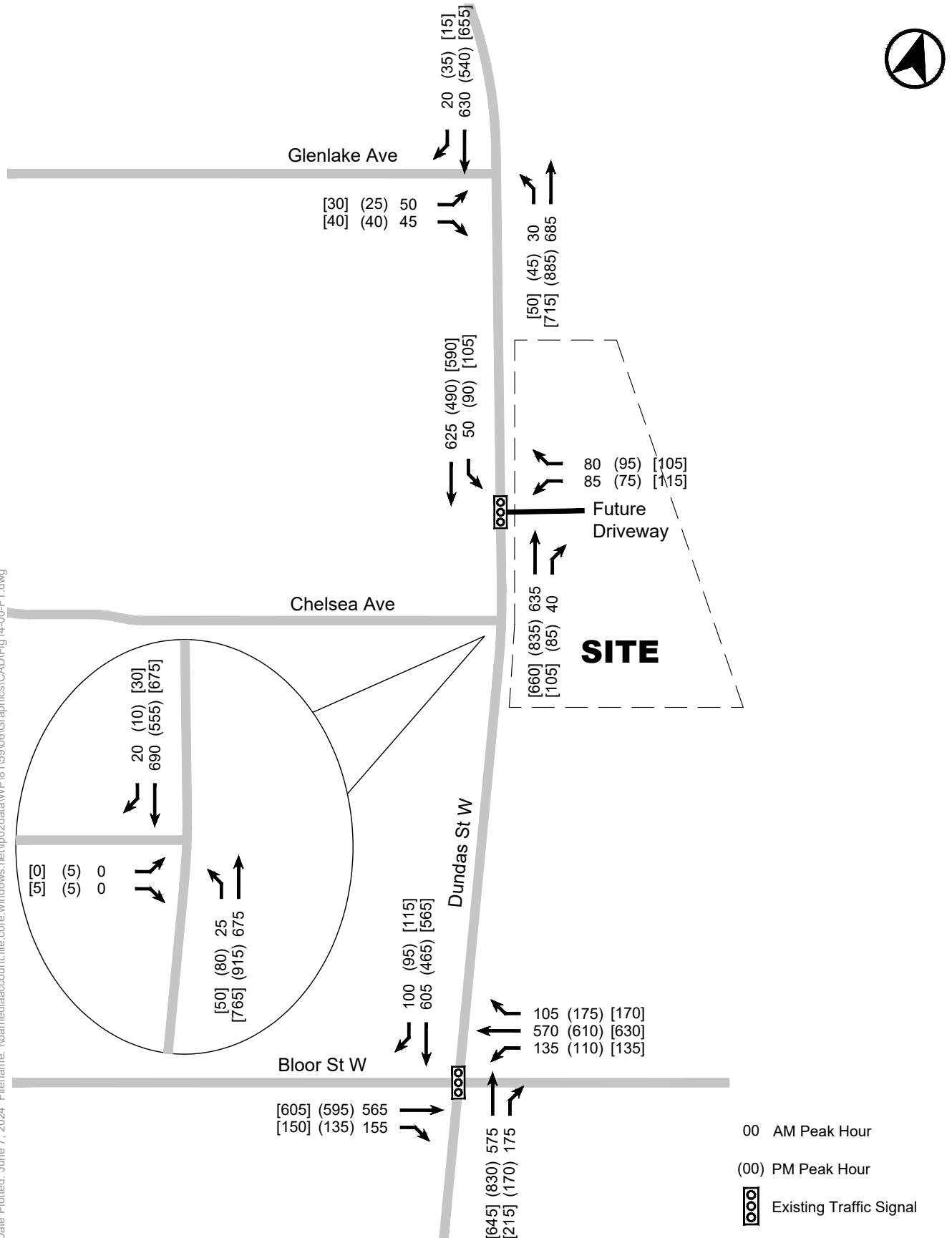


FIGURE 14 FUTURE TOTAL TRAFFIC VOLUMES

10.0 TRAFFIC OPERATIONS ANALYSIS

10.1 Analysis Methodology

Traffic operations analyses have been undertaken at the area intersections using standard capacity analysis procedures as follows.

Signalized Intersections:

Analyses undertaken at intersections operating under traffic signal control have been undertaken using the methodologies and procedures outlined in the Highway Capacity Manual (HCM) 2000, and in accordance with the City of Toronto's guidelines for analyses undertaken using Synchro 11.0 software. The product of the signalized intersection evaluation is an intersection performance index (volume to capacity ratio or v/c), where a v/c index of 1.00 indicates 'at or near capacity' conditions.

HCM level of service (LOS) criteria for signalized intersections are as follow:

- LOS A: Control Delay $\leq 10s$
- LOS B: $10s < \text{Control Delay} \leq 20s$
- LOS C: $20s < \text{Control Delay} \leq 35s$
- LOS D: $35s < \text{Control Delay} \leq 55s$
- LOS E: $55s < \text{Control Delay} \leq 80s$
- LOS F: Control Delay $> 80s$

Unsignalized Intersections:

Unsignalized intersection analyses have been carried out using standard capacity procedures for intersections operating under "Two-way" and "All-Way" STOP control and in accordance with the methodologies outlined in the Highway Capacity Manual 2000 (HCM2000).

The product of these analyses is a level of service (LOS) designation, ranging from LOS of A to F; which provides a relative indication of the level of delay experienced by motorists completing a turning manoeuvre at an intersection. LOS A represents conditions under which motorists would experience little delay and LOS F reflects conditions where more extended delays can be expected.

HCM level of service (LOS) criteria for unsignalized intersections are as follow:

- LOS A: Control Delay $\leq 10s$
- LOS B: $10s < \text{Control Delay} \leq 15s$
- LOS C: $15s < \text{Control Delay} \leq 25s$
- LOS D: $25s < \text{Control Delay} \leq 35s$
- LOS E: $35s < \text{Control Delay} \leq 50s$
- LOS F: Control Delay $> 50s$



10.2 Network Wide Parameters

Key analysis parameters were assumed based on requirements contained in the City of Toronto's *Guidelines for Using Synchro 11 (Including SimTraffic 11)* (January 2021), summarized as follows:

Signal Timing

Existing signal timings, phasing plans, and cycle lengths were obtained from the City of Toronto. Existing signal timings adopted as the basis for the traffic operations analyses are provided in **Appendix F**. Existing signal timings were maintained during the analysis of future conditions.

Base Saturation Flow Rates

The City of Toronto *Guidelines for Using Synchro 11 (Including SimTraffic 11)* (January 2021) specifies a base saturation flow rate of 1,900 passenger cars per hour of green time per lane (pcphgpl) for signalized and unsignalized intersections. These default rates were adopted in the analysis for the proposed development.

Heavy Vehicle Assumptions

Heavy and medium truck percentages incorporated into the analysis were based on information provided as part of intersection turning movement counts.

Lost Time Adjustments

The City of Toronto *Guidelines for Using Synchro 11 (Including SimTraffic 11)* (January 2021), specify a base lost time adjustment factor of -1.0 seconds (i.e., a total loss time per phase equal to the amber plus all-red time minus 1 second). This default value was adopted in the analysis.

Lane Utilization Factors

Under existing conditions, default Synchro lane utilization factors (LUF) was adopted, which take into consideration the distribution of individual lane usage within each movement group.

Peak Hour Factors

The City of Toronto Synchro 9 guidelines specify that the default peak hour factors ("PHF") should be used except where site specific values can be calculated from existing traffic count information. PHF were calculated based on the existing traffic volume data extracted from the traffic counts used in this study for the operations analysis.



Model Calibration

An intergreen study was conducted using December 1st and 3rd, 2022 video at the Bloor Street West / Dundas Street West intersection and used to calibrate the model to the observed westbound cars turning left during the intergreen periods. The morning and afternoon peak hours and weekend peak hour intergreen studies can be found in **Appendix H**. The following lost time adjustment calibrations were made to the Synchro model:

AM Peak Hour

- WBL changed from -1.0 to -2.0

PM Peak Hour

- WBL changed from -1.0 to -2.0

SAT Peak Hour

- WBL changed from -1.0 to -2.5

A delay study was conducted using January 10th and 14th, 2023 video at the Glenlake Avenue / Dundas Street West intersection. The morning and afternoon peak hours and weekend peak hour delay studies can be found in **Appendix H**. The following calibrations were made to the Synchro model, based on the delay times observed during the studies:

AM Peak Hour

- EBL critical gap (tC) has been adjusted from the default of 6.8 to 7.1 seconds
- EBL follow up time (tF) has been adjusted from the default of 3.5 to 3.6 seconds
- EBR critical gap (tC) has been adjusted from the default of 6.9 to 7.1 seconds
- EBR follow up time (tF) has been adjusted from the default of 3.3 to 3.6 seconds

PM Peak Hour

- EBL critical gap (tC) has been adjusted from the default of 6.8 to 7.5 seconds
- EBL follow up time (tF) has been adjusted from the default of 3.5 to 3.8 seconds
- EBR critical gap (tC) has been adjusted from the default of 6.9 to 7.5 seconds
- EBR follow up time (tF) has been adjusted from the default of 3.3 to 3.7 seconds

SAT Peak Hour

- EBL critical gap (tC) has been adjusted from the default of 6.8 to 7.1 seconds
- EBL follow up time (tF) has been adjusted from the default of 3.5 to 3.7 seconds
- EBR critical gap (tC) has been adjusted from the default of 6.9 to 7.1 seconds
- EBR follow up time (tF) has been adjusted from the default of 3.3 to 3.7 seconds

A pedestrian group study was completed using December 1st and 3rd, 2022 video at the Bloor Street West / Dundas Street West intersection and used to calibrate the model to the observed number of pedestrians crossing the intersection. The morning and afternoon peak hours and weekend peak hour pedestrian grouping studies can be found in **Appendix H**.



10.3 Signalized Intersections Analysis

Traffic operations analysis results for the area signalized intersections for the existing, future background and future total conditions are summarized in the following sections. Detailed capacity analysis reports are provided in **Appendix I**.

10.3.1 Site Driveway / Dundas Street West

The Site Driveway / Dundas Street West intersection operates under traffic signal control with a cycle length of 90 seconds during the weekday morning and afternoon peak period. The existing cycle length was maintained in all analysis scenarios. A summary of the traffic analysis results for this intersection is shown in **Table 23**.

Table 23 Site Driveway / Dundas Street West

Key Movements	Existing		Future Background		Future Total	
	V/C	LOS	V/C	LOS	V/C	LOS
WBL	0.28 (0.32) [0.33]	D (D) [C]	0.28 (0.32) [0.33]	D (D) [C]	0.49 (0.49) [0.46]	D (D) [C]
WBR	0.04 (0.06) [0.04]	D (D) [C]	0.04 (0.08) [0.04]	D (D) [C]	0.07 (0.20) [0.15]	C (D) [C]
NBTR	0.21 (0.28) [0.25]	A (A) [A]	0.30 (0.33) [0.29]	A (A) [A]	0.33 (0.35) [0.33]	A (A) [A]
SBTL	0.28 (0.23) [0.26]	A (A) [A]	0.34 (0.28) [0.30]	A (A) [A]	0.38 (0.31) [0.41]	A (A) [A]
Overall	0.29 (0.29) [0.26]	A (A) [A]	0.34 (0.33) [0.31]	A (A) [A]	0.40 (0.37) [0.42]	A (A) [A]

Notes:

1. XX (XX) [XX] – Weekday Morning Peak Hour (Weekday Afternoon Peak Hour) [Weekend Peak Hour]

Under existing conditions the intersection operates at an overall v/c of 0.29, 0.29 and 0.26 during the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.

Under future background conditions the intersection operates at an overall v/c of 0.34, 0.33 and 0.31 during the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.

Under future total conditions the intersection operates at an overall v/c of 0.40, 0.37 and 0.42 during the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.

The addition of site-related traffic has very minimal impacts on the overall intersection operations. All individual movements and the intersection overall are expected to operate at acceptable levels of service and within capacity.



10.3.2 Bloor Street West / Dundas Street West

The Bloor Street West / Dundas Street West intersection operates under traffic signal control with a cycle length of 90 seconds during the weekday morning and afternoon peak period. The existing cycle length was maintained in all analysis scenarios. A summary of the traffic analysis results for this intersection is shown in **Table 24**.

Table 24 Bloor Street West / Dundas Street West

Key Movements	Existing		Future Background		Future Total	
	V/C	LOS	V/C	LOS	V/C	LOS
EBT	0.78 (0.78) [0.80]	C (C) [C]	0.87 (0.89) [0.92]	D (D) [D]	0.87 (0.89) [0.92]	D (D) [D]
EBR	0.11 (0.08) [0.08]	C (C) [C]	0.17 (0.11) [0.13]	B (B) [B]	0.17 (0.11) [0.13]	B (B) [B]
WBL	0.57 (0.64) [0.52]	D (D) [D]	0.74 (0.65) [0.63]	D (D) [D]	0.74 (0.65) [0.65]	D (D) [D]
WBT	0.47 (0.63) [0.53]	B (B) [B]	0.61 (0.65) [0.64]	B (B) [B]	0.61 (0.65) [0.64]	B (B) [B]
WBR	0.11 (0.23) [0.18]	B (B) [B]	0.15 (0.24) [0.21]	B (B) [B]	0.16 (0.25) [0.22]	B (B) [B]
NBTR	0.55 (0.68) [0.59]	C (C) [C]	0.76 (0.87) [0.74]	C (D) [C]	0.76 (0.89) [0.76]	C (D) [C]
SBTR	0.45 (0.35) [0.43]	C (B) [C]	0.62 (0.45) [0.55]	C (C) [C]	0.69 (0.49) [0.61]	C (C) [C]
Overall	0.64 (0.75) [0.68]	C (C) [C]	0.81 (0.88) [0.83]	C (C) [C]	0.81 (0.89) [0.84]	C (C) [C]

Notes:

1. XX (XX) [XX] – Weekday Morning Peak Hour (Weekday Afternoon Peak Hour) [Weekend Peak Hour]

Under existing conditions the intersection operates at an overall v/c of 0.64, 0.75 and 0.68 during the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.

Under future background conditions the intersection operates at an overall v/c of 0.81, 0.88 and 0.83 during the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.

Under future total conditions the intersection operates at an overall v/c of 0.81, 0.89 and 0.84 during the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.

The addition of site-related traffic has very minimal impacts on the overall intersection operations. All individual movements and the intersection overall are expected to operate at acceptable levels of service and within capacity.



10.4 Unsignalized Intersection Analysis

The results of the capacity analysis undertaken at the Chelsea Avenue / Dundas Street West and Glenlake Avenue / Dundas Street West unsignalized intersections are summarized in **Table 25**.

Table 25 Unsignalized Capacity Analysis Summary

Key Movements	Existing		Future Background		Future Total	
	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
Chelsea Avenue / Dundas Street West						
EBLR	0.0 (17.2) [11.1]	A (C) [B]	0.0 (17.5) [11.4]	A (C) [B]	0.0 (17.7) [11.4]	A (C) [B]
NBTL	2.0 (3.3) [2.5]	A (A) [A]	1.8 (3.2) [2.4]	A (A) [A]	1.9 (3.2) [2.4]	A (A) [A]
NBT	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]
SBT	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]
SBTR	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]
Glenlake Avenue / Dundas Street West						
EBLR	20.0 (21.2) [20.1]	C (C) [C]	28.1 (25.6) [26.1]	D (D) [D]	28.5 (25.7) [28.6]	D (D) [D]
NBTL	1.6 (1.9) [2.1]	A (A) [A]	1.6 (1.8) [2.2]	A (A) [A]	1.5 (1.8) [2.4]	A (A) [A]
NBT	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]
SBT	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]
SBTR	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]	0.0 (0.0) [0.0]	A (A) [A]

Notes:

1. XX (XX) [XX] – Weekday Morning Peak Hour (Weekday Afternoon Peak Hour) [Weekend Peak Hour]

Under all conditions where the Chelsea Avenue / Dundas Street West unsignalized intersection exist, it is expected to operate at LOS C or better.

Under existing conditions the Glenlake Avenue / Dundas Street West is expected to operate at LOS C or better. Under future conditions it is expected to operate at LOS D or better.

The addition of site-related traffic to the proposed signalized intersection has very minimal impacts on the overall intersection operations. All individual movements and the intersection overall are expected to operate at acceptable levels of service.



11.0 RESIDENTIAL TRIP GENERATION SENSITIVITY ANALYSIS

A sensitivity analysis was conducted that considers the reduction in residential trip generation rates due to the reduction of parking supply. Given that the proposed development is constrained to a residential parking rate of 0.08 spaces / unit, the two-way residential trip rates for the weekday morning, afternoon and weekend peak hours have been reduced to 0.08 trips / unit. A summary of the trip reduction for the residential component of the development is provided in **Table 26**.

Table 26 Residential Trip Generation Reduction

	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour			Weekend Afternoon Peak Hour		
	In	Out	2-Way	In	Out	2-Way	In	Out	2-Way
Selected Trip Rate (trips / unit)	0.03	0.10	0.13	0.08	0.06	0.14	0.09	0.10	0.19
Forecast Traffic Volumes – Proposed Residential Development (1,214 units)	35	120	155	95	75	170	110	120	230
Adjusted Trip Rate (trips / unit)	0.02	0.06	0.08	0.05	0.03	0.08	0.04	0.04	0.08
Forecast Traffic Volumes – Proposed Residential Development (1,214 units)	25	75	100	60	40	100	50	50	100
Reduction	-10	-45	-55	-35	-35	-70	-60	-70	-130

Notes:

1. All trips are rounded to the nearest 5 trips.

It is anticipated that the site will generate approximately 100 two-way vehicle trips during the weekday morning afternoon and weekend peak hours. This is equivalent to a trip reduction of approximately 55, 70 and 130 two-way vehicle trips during the weekday morning, afternoon and weekend peak hours, respectively. Given that traffic impacts on the area road network with the selected trip rates are minimal, it can be assumed that traffic impacts on the area road network will be further minimized with a reduction in the residential trip generation rates.

Based on the foregoing, site related traffic generated by the proposed development can be acceptably accommodated at the intersections in the area road network. No mitigation measures or improvements are recommended at the intersections.



12.0 RESPONSE TO COMMENTS

12.1 Development Engineering Comments (Memo received May 15, 2023)

Comment A1.3

Satisfy all outstanding requirements related to the March 2023 Transportation Impact Study from BA Group, as further discussed in Section D: Background of this memorandum.

Response

Noted, please refer to responses to comments in Section D discussed below.

Comment A1.4

Revise the site statistics and the parking level plans to satisfy the requirement of the Toronto Green Standards Ver. 4.0, to provide and maintain 100 percent of spaces with EVSE infrastructure (e.g. energized outlets capable of Level 2 charging or higher).

Response

Noted, please refer to update architecture plans in **Appendix A**.

Comment A1.6

Revise Vehicle Manoeuvring drawing VMD-08 to remove the swept path encroachment of the outbound Dual Axle Cab & Trailer onto the adjacent Type B loading space.

Response

Noted, please refer to update VMD in **Appendix B**.

Comment A2.1 (a, f, h)

Revise all applicable plans to indicate and annotate the following:

- a) That all access driveways to be used by the collection vehicle will have a maximum gradient of 8%.*
- f) That all access driveways to be used by the collection vehicle for Building B will have maximum gradient of 8%, have a minimum vertical clearance of 4.4 metres throughout.'*
- a) That the staging pad is located at the front of the Type G loading space for Building B will be at least 43.1 square metres, has an unencumbered vertical clearance of 6.1 metres. A minimum of 8 square metres, out of the total staging pad area required, must be allocated at the front of the Type G, with the remainder being located along the side if all of it cannot be located in front.*

Response

Noted, please refer to update architecture plans in **Appendix A**.



Comment C2.2 (a,b)

In conjunction with the future Site Plan Control application, it will be necessary to:

- a) Revise applicable plans to indicate and annotate two collection vehicle movement diagrams. The first is a front-end load collection vehicle that has a length of 10 metres and a width of 2.4 metres. The second is a rear-pack collection vehicle that has a length of 12 metres and a width of 2.4 metres. Both trucks must have a minimum inside/outside turning radii of 9.5 metres and 14 metres respectively, when entering, exiting, travelling throughout the site, and entering/exiting the Type G loading space. These collection vehicles must be shown entering/exiting the site in a forward motion with no more than a three-point turn on site to turn around. This is to be demonstrated for both Building A and B.*
- b) The planned movement of the collection vehicle drives over the pedestrian connection to the proposed sidewalk. Revise applicable plans to indicate a warning system to caution pedestrian and motorists leaving the parking garage of heavy vehicles when loading operations are occurring. This warning system should include both lights and signs. This is to be demonstrated for both Building A and B.*

Response

Noted, please refer to update VMD in **Appendix B**.

Signage Plans indicated the location and placement of any warning signage and systems will be provided as part of the Site Plan Application.

Comment 1 (Section D)

It is intended to provide access to the site in accordance with the following:

- The existing signalized site access off Dundas Street West will be closed and the traffic signal control. Under the existing condition this driveway also provides access to the Metrolinx Bloor GO Station and UP Express pick up / drop off loop, located adjacent to the south-east corner of the lot.*
- A new driveway access is proposed off Dundas Street West, the width of which is not labelled, will be controlled by a newly proposed traffic signal, and will be located approximately 50 metres south of the existing Site Driveway / Dundas Street West intersection. This driveway will serve as the main entrance driveway of the site and will provide direct access to the underground parking garage and loading spaces and access to the Metrolinx Bloor GO Station and UP Express pick up / drop off loop will remain on an interim basis by continuing on the site driveway to the east boundary of the site, the permanent location of the pick-up/drop off loop will be on the adjacent property to the south. The width of the proposed driveway is not labelled.*

Response

The revised development proposal includes the retention of the existing location of the signalized intersection, instead of relocating the site access driveway with a newly signalized intersection, this is further discussed in **Section 3.0**.



Comment 2 (Section D)

Intersection of New Site Driveway Access and Dundas Street West

As noted above, the new driveway access will be controlled by a newly proposed traffic signal and will be located approximately 50 metres south of the existing Site Driveway / Dundas Street West intersection. The owner is required to submit a functional road plan that illustrates the required traffic control signals and associated modifications including possible changes to the curb line, radii, pavement markings and signage, at the intersection.

Response

A revised development is being proposed which includes retaining the existing location of the signalized intersection, instead of relocating the site access driveway with a newly signalized intersection, this is further discussed in **Section 3.0**.

Comment 3 (Section D)

This site must be revised to comply with Toronto Green Standards (TGS) Version 4.0, Tier 1, AQ 1.1 (Single Occupant Auto-Vehicle Trips), AQ 1.2 (Electric Vehicle Infrastructure), and AQ 3.2 (Sidewalk Space).

Response

Please refer to **Section 4.0**, **Section 5.2.1.1** and **Section 5.2.1.2** for more information.

Comment 4 (Section D)

AQ 1.1 – A TDM plan which addresses how the site will result in a minimum 25 percent reduction in single-occupancy vehicle trips.

Response

Please refer to **Section 4.0** which outlines the various TDM measures proposed and summarizes the anticipated reduction in single occupancy trips. The TDM measure proposed are anticipated to reduce by 75%.

Comment 5 (Section D)

Notwithstanding the above, to meet the project multi-modal targets outlined in the reports and reduce vehicular dependency for the site and area, the applicant will be required to implement a Transportation Demand Management (TDM) plan, as documented in the submitted reports. This will include financial contributions/payments in the form of letter of credits/certified cheques and/or additional documentation for the implementation of this TDM plan. At this time, these provisions include, but are not limited to, the following items:

- *Provision of on-site car-share spaces within the parking garage.*
- *Direct access for cycling infrastructure areas from at-grade private entrance elevator.*
- *A payment of \$85,000 for a new Bike-Share station in the area capable of e-bike charging.*

Response

Acknowledged. Please refer to **Section 4.0** which outlines the various TDM measures proposed.



Comment 6 (Section D)

The following provisions will be included in the Site Plan Agreement, which requires the following Transportation Demand Management (TDM) measures on site:

- *Maintain direct access for cycling infrastructure areas from at-grade private entrance elevator.*
- *One (1) annual bike-share membership per unit, offered for the first year of occupancy.*
- *One (1) annual car-share membership per unit, offered for the first year of occupancy.*
- *One (1) pre-loaded Presto card (\$156.00 value) per unit, offered to the first set of move in residents/purchasers.*
- *Provide/maintain a minimum of one (1) bike repair station on-site;*

Response

Acknowledged. Please refer to **Section 4.0** which outlines the various TDM measures proposed

Comment 7 (Section D)

Application of Zoning By-law 569-2013 loading standards to the Building A of the proposed development would require the provision of 1 Type 'B' loading space, 1 Type 'C' loading space and 1 Type 'G' loading space.

The architectural plans illustrate the provision of one (1) Type 'A', two (2) Type 'B', and two (2) Type 'G' loading spaces located on the ground floor of the proposed development. Vehicular access to the loading spaces is provided via the site driveway of Dundas Street West.

Furthermore, vehicular manoeuvring diagrams (VMD01 and VMD20) are provided in Appendix C of the consultant's report, illustrating the turning movements for a City of Toronto front loading garbage truck, Dual Axle Cab with 53 feet Trailer, TAC Single Unit Truck and TAC Heavy Single Unit Truck entering and exiting the Site and its proposed loading spaces. In general, these VMDs are acceptable. However, VMD-08 is required to be revised to remove the swept path encroachment of the outbound Dual Axle Cab & Trailer onto the adjacent Type B loading space.

Response

Please refer to the updated Vehicular Manoeuvring Diagrams, provided in **Appendix B**.



12.2 City Planning Comment (Memo received August 29, 2023)

Comment 35

Consider removing the turning lane to minimize the curb cut width on Dundas.

Response

The westbound left-turn lane is a balance between providing the necessary space for left-turning vehicles to queue, to improve the operational efficiency of the intersection, and the minimisation of space and width for all anticipated vehicles to be able to manoeuvre into / out of the site. It is noteworthy that the width of the private street also provides flexibility for short-term pick-up / drop-off activity to occur curbside.

Comment 36

Minimize curb radii and lane widths to reflect Complete Streets criteria and Vision Zero targets. Provide vehicle turning diagrams. Coordination required with Transportation Services.

Response

The location of the curb on Dundas Street West narrows the pavement to contemporary lane width minimums to help reduce vehicular speed and increase the amount of pedestrian boulevard space. Curb radii at the private street / driveway entrance are minimised.

Comment 37

Explore a raised crosswalk at Dundas Street and at the internal pedestrian crossing.

Response

A raised crosswalk will continue to be explored as part of the ongoing design and approvals process.

Comment 38

At the Dundas St intersection: locate the north crosswalk as south as possible to improve pedestrian safety and provide a more direct pedestrian route.

Response

A revised development is being proposed which includes retaining the existing location of the signalized intersection, instead of relocating the site access driveway with a newly signalized intersection, this is further discussed in **Section 3.0**.



Comment 39

The traffic light will be relocated to the new private road. Costs are to be borne by the applicant, and this should be reflected in the ZBL.

Response

It is proposed to maintain the existing location of the site access driveways as part of the forthcoming revised development proposal therefore, the traffic light will not be relocated.

Comment 54

AQ1.1 Maximize the number of car share spaces to reduce private car ownership. Consider reducing the number of private parking stalls provided.

Response

Two (2) car-share spaces are being proposed within the commercial (publicly accessible) portions of the garage. The proposed residential parking ratio is 0.05 spaces / unit, and is reflective of a lower level of vehicle ownership at highly transit accessible parts of the city.



13.0 SUMMARY AND CONCLUSIONS

Key findings related to our review of the transportation related aspects of the proposed development plan, including our traffic impact assessment analysis are as follows:

Transportation Context

1. The site is located within an area categorized by Metrolinx as the Bloor-Dundas Mobility Hub with several higher order transit facilities in the area offering local, city-wide, and regional transit services. The TTC Dundas West Subway Station which also is a hub for bus and tram services as well as the Bloor GO / UPX Station are both approximately 200 metres from the site.
2. The site is within close proximity to many existing and future cycle routes and located within a 5-minute walk to nearby Bloor Street West, Dundas Street West and Roncesvalles Avenue corridor containing a mixture of restaurants, specialty food markets, retail, daycare centers, banks, and community centres.
3. Within an 800-metre radius of the site, there exist approximately nine (9) Bike Share Toronto stations which collectively hold approximately 139 bicycles, and three (2) Enterprise Car Share vehicles.

Transportation Demand Management

4. A Transportation Demand Management (TDM) Plan has been prepared which will aim to reduce the overall reliance on single-occupant vehicles while promoting the use of more active and sustainable modes of transportation. The key elements of the TDM plan include:
 - a. Provision of limited on-site parking (mostly below-grade), to enhance the pedestrian realm, encourage the use of other non-auto means, and accommodate essential site related parking needs.
 - b. Providing 3.0 metre wide pedestrian clearways along Dundas Street West and providing a minimum of 2.1 metre wide pedestrian clearways along the east-west private driveway.
 - c. Bicycle parking spaces provided in convenient and accessible locations and within secure, weather protected areas for residents and long-term visitor spaces.
 - d. A bicycle repair station for use by residents provided on-site.
 - e. Contribute to new bike share station on the site or in proximity.
 - f. Provide a travel information to residents giving an overview of the available travel options (walk, cycle, car-share, transit) in the area. Travel information materials and/or sessions could be held by the City of Toronto and facilitated by the developer.



Vehicle Parking Considerations

5. Under the Zoning By-law 569-2013 (as amended), 14 visitor parking spaces are required.
6. Under the Zoning By-law 569-2013 (as amended), application of the “effective” parking rate and requirement, 21 accessible parking spaces are required.
7. A total of 172 parking spaces are proposed comprise of 100 residential parking spaces and 72 non-residential parking spaces. Of the total parking supply, 21 accessible parking spaces are provided. These provisions are within the requirement of the City of Toronto Zoning By-law 569-2013 and 89-2022 and are therefore considered appropriate.

Bicycle Parking Considerations

8. Under the Zoning by-law 569-2013 (Bicycle Zone 1), 1,372 bicycle spaces are required, consisting of 266 short-term and 1,106 long-term spaces.
9. A bicycle repair / maintenance station will be provided on the ground floor of the site, in accordance with the City of Toronto Zoning By-law 569-2013. A total of 1,373 bicycle parking spaces are proposed comprise of 266 short-term and 1,107 long-term bicycle parking spaces.
10. The following provisions are in accordance with the City of Toronto By-law 569-2013 and are therefore considered appropriate.

Loading Considerations

11. The architectural plans illustrate the provision of one (1) Type ‘A’, one (1) Type ‘G’, and one (1) Type ‘C’ loading space for Building A. One (1) Type ‘G’, one (1) Type ‘B’ and two (2) Type ‘C’ loading spaces are provided for Building B on the ground floor of the proposed development. Vehicular access to the loading spaces is provided via the site driveway of Dundas Street West.
12. The following provisions are in accordance with the City of Toronto Zoning By-law 569-2013 and are therefore consider appropriate.
13. Provision for a minimum total bin staging area of 54.1 m² and 75.6 m² has been provided adjacent to the Building A and Building B Type ‘G’ loading space, respectively.
14. Separate waste rooms for non-residential garbage and recycling facilities will be provided. A private waste collection agency will use the Type ‘G’ space to perform non-residential waste pick-up.



Multimodal Travel Demand Forecasts

15. The proposed development is expected to generate in the order of 205, 300 and 420 two-way vehicle trips during weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.
16. Including the maintained PUDO trips as an interim condition, that total trips in / out of the proposed site driveway is in the order of 255, 345 and 430 two-way vehicle trips during the weekday morning and afternoon peak hours and the weekend afternoon peak hour, respectively.

Vehicular Traffic Assessment

17. The addition of site-related traffic has very minimal impacts on all intersection's overall operations. All individual movements and the intersection overall are expected to operate at acceptable levels of service and within capacity.
18. A sensitivity analysis was conducted that considers the reduction in residential trip generation rates due to the reduction of parking supply. Given that the proposed development is constrained to a residential parking rate of 0.08 spaces / unit, the two-way residential trip rates for all peak hours have been reduced to 0.08 trips / unit. This is equivalent to a trip reduction of approximately 55, 70 and 130 two-way vehicle trips during the weekday morning, afternoon and weekend peak hours, respectively. Given that traffic impacts on the area road network with the selected trip rates are minimal, it can be assumed that traffic impacts on the area road network will be further minimized with a reduction in the residential trip generation rates.

