



BA Group

450 DUFFERIN STREET MIXED-USE DEVELOPMENT

Urban Transportation Considerations
City of Toronto
Zoning By-law Amendment

Prepared For: HM RK (450 Dufferin) LP

November 2022



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1.0 INTRODUCTION

BA Group is retained by HM RK (450 Dufferin) LP to provide transportation consulting services in support of a Zoning By-law Amendment (ZBA) to permit a proposed mixed-use redevelopment located at the municipal addresses of 450-458 Dufferin Street (the “site”) in the City of Toronto.

The site is located northwest of the intersection of Dufferin Street and Alma Avenue. The site is bound by Dufferin Street to the east, Alma Avenue to the south, a commercial property to the west, and a strip of municipally owned land (474 Dufferin Street) and then residential properties to the north. The site location is illustrated in **Figure 1**.

This report forms part of the ZBA application submitted to the City to advance the development approval process for the proposed development as described in the report that follows.

1.1 EXISTING SITE

Currently, the site is occupied by a one-storey commercial building which is presently utilized by a clothing manufacturer/designer. The site’s parking supply is contained in a gated, surface level parking/storage area within the bounds of the site at its west end. Vehicular access to this parking area is provided via Alma Avenue. Pedestrian access to the site is provided directly off of Dufferin Street.

1.2 PROPOSED DEVELOPMENT CONCEPT

The proposed development concept includes 143 residential dwelling units and 929.9 m² commercial GFA. A summary of the proposed development program is included in **Table 1**. The site plan in neighbourhood context is illustrated in **Figure 2** and reduced scale architecture plans of the proposed development are attached in **Appendix A**.

TABLE 1 DEVELOPMENT PROGRAM & TRANSPORTATION ELEMENTS

Use/Aspect	Units / GFA / Description
Development	
Residential	143 dwelling units
Commercial	929.9 m ² GFA
Site Plan / Facilities	
Vehicle Parking	Resident Parking: 22 spaces Shared Residential Visitor / Commercial Parking: 12 spaces
Bicycle Parking	158 bicycle parking spaces (129 long-term, 29 short-term)
Loading	1 Type G loading space
Site Vehicle Access	Vehicle access (passenger vehicles and loading) taken from Alma Avenue

Notes:

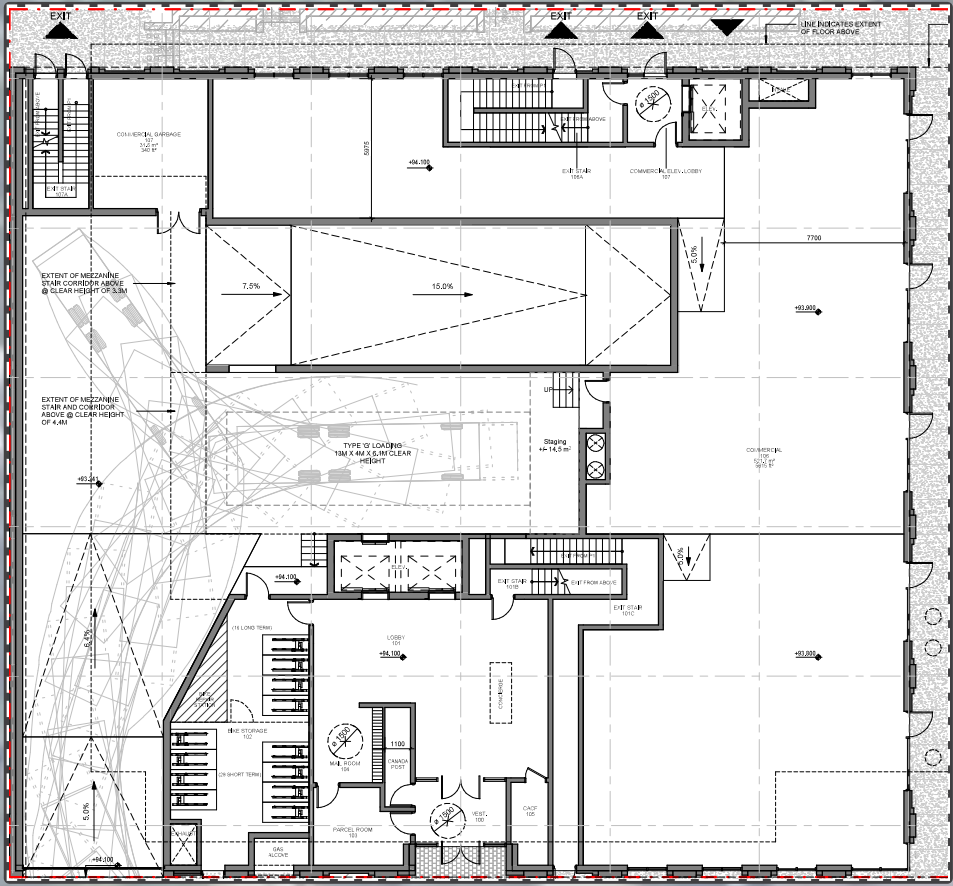
1. Site plan statistics provided by superkül, dated November 4, 2022.



FIGURE 1 SITE LOCATION



LEGEND
 - - - - Site Location



DUFFERIN ST

ALMA AVE

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Aerial maps provided courtesy of: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

FIGURE 2 SITE PLAN

1.3 THIS STUDY

BA Group has undertaken a review of the key transportation-related aspects of the proposed ZBA/SPA application being submitted to the City of Toronto to permit the proposed development as planned. This report provides a review of the following:

- A review of supporting site transportation-related infrastructure;
- A review of the existing and evolving transportation context within the vicinity of the site;
- An outline of the potential Transportation Demand Management measures to be adopted for the proposed development;
- A review of the transportation elements of the proposed development (i.e. site access, parking, loading, and bicycle parking);
- A review of existing and future traffic activity forecasts in the study area considering new area development activity;
- An assessment of the traffic operations at intersections in the area under existing and future conditions;
- A review of forecast active transport and transit volumes levels related to the development of the proposal and commentary on the ability of area mobility networks to accommodate such demands; and
- A review of how the development responds to Toronto Green Standards trip reduction targets.

2.0 EVOLVING AREA TRANSPORTATION CONTEXT

2.1 AREA STREET NETWORK

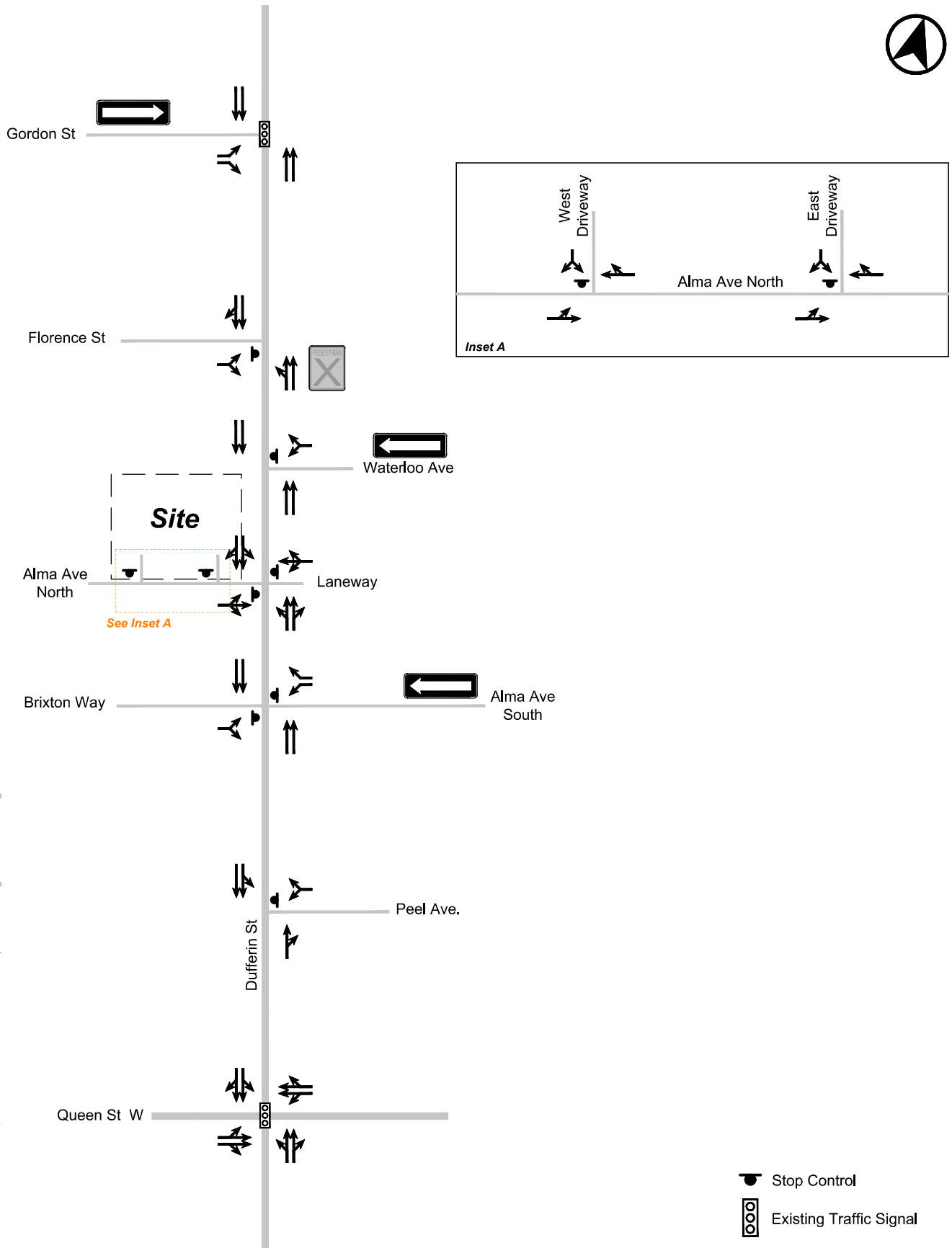
The site is located on Dufferin Street and affords itself to excellent connectivity to the surrounding road network. Dufferin Street provides north-south connectivity while Queen Street West and Dundas Street West provide east-west connectivity. A summary of the area street network is provided in **Table 2**.

Figure 3 illustrates the existing lane configuration and traffic controls. **Figure 4** illustrates the classification of the existing area road network.

TABLE 2 SUMMARY OF AREA STREET NETWORK

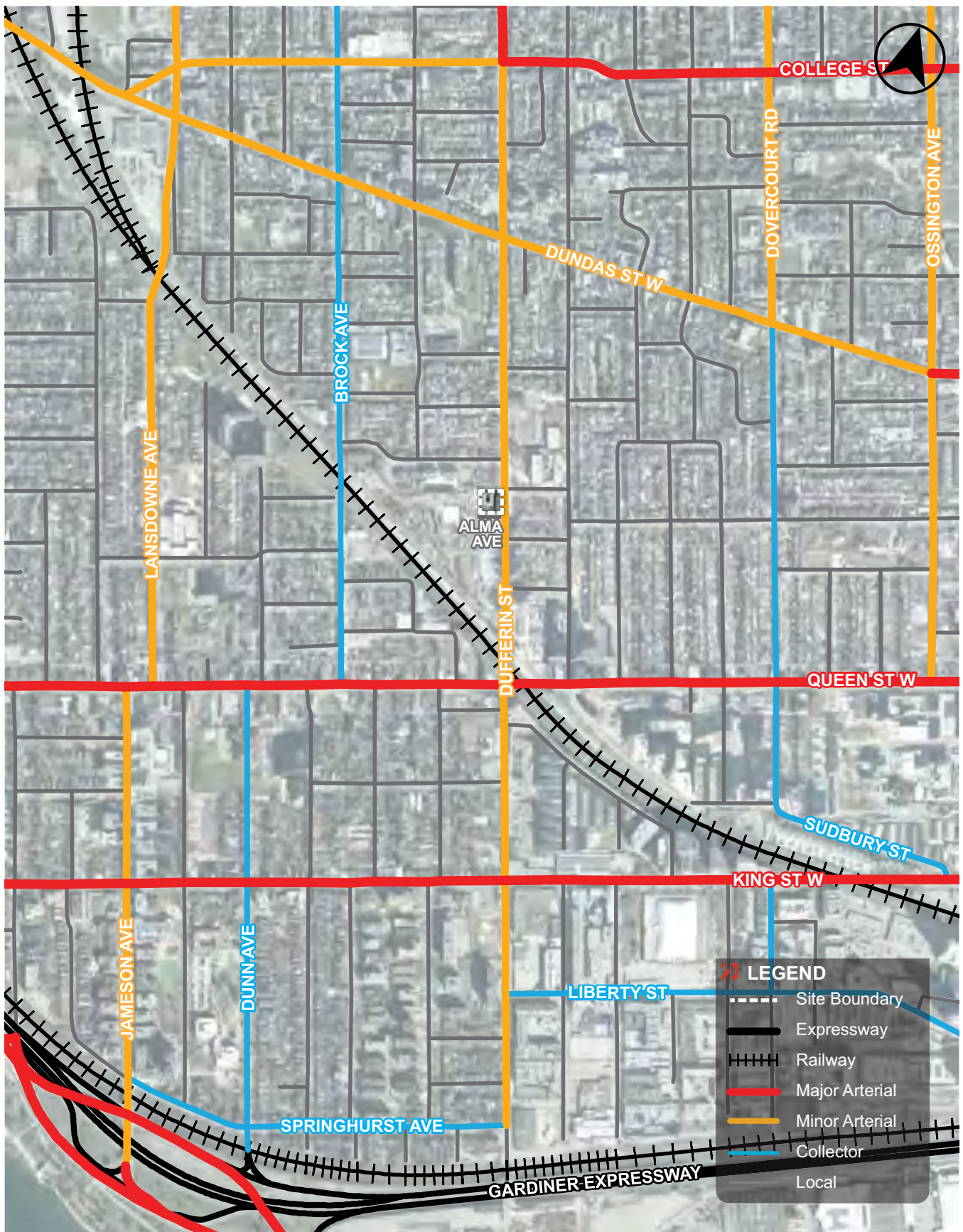
Street Name	Closest Intersection	Parking/Traffic Regulations	Posted Speed	Description
Major Arterial Roads				
Queen Street West	Queen Street West / Dufferin Street (200m)	Pay parking enforced zone. Parking is allowed between 9:00am and 9:00pm Monday to Friday, 8:00am to 9:00pm on Saturdays, and 1:00pm to 9:00pm on Sundays. No stopping between 7:00am – 9:00am.	40 km/hr	Queen Street West is an east-west major arterial under the jurisdiction of the City of Toronto. It extends from Roncesvalles Avenue in the west, where it becomes the Queensway, to Yonge Street in the east, where it becomes Queen Street East. The corridor has a 4-lane cross section with streetcar tracks in the centre lanes. Within the study area, the intersection of Queen Street West and Dufferin Street is signalized.
Minor Arterial Roads				
Dundas Street West	Dundas Street West / Dufferin Street (200m)	Pay parking enforced zone. Parking is allowed between 9:00am and 9:00pm Monday to Friday, 8:00am to 9:00pm on Saturdays, and 1:00pm to 9:00pm on Sundays. No stopping between 7:00am – 9:00am.	40 km/hr	Dundas Street West is an east-west minor arterial road under the jurisdiction of the City of Toronto. It extends from Keele Street in the north-west to Ossington Avenue in the east. The corridor has a 4-lane cross section with streetcar tracks in the centre lanes. Within the study area, the intersection of Dundas Street West and Dufferin Street is signalized.
Dufferin Street	Alma Ave / Dufferin St (0m)	Along the site frontage, parking is restricted between 7:00am – 9:00am and not permitted between 12:00am – 7:00am except by permit. Along the east side of Dufferin Street, parking is restricted between 8:00am – 6:00pm.	40 km/hr	Dufferin Street is a north-south minor arterial road with a basic 4-lane urban cross-section connecting from Lakeshore Boulevard West to, and beyond, Highway 401.
Local Roads				
Alma Avenue	Alma Ave / Dufferin St (0m from western segment; 90m from eastern portion)	No parking regulation are signed along the western segment of Alma Avenue adjacent the site. The eastern segment of Alma Avenue allows parking along the southern side of the street. Parking is only permitted to permit holders between the hours of 12:00am and 7:00am.	30 km/hr	Alma Avenue is a local road that extends east and west of Dufferin Street from two offset intersections. The short western segment runs westward from Dufferin Street and terminates at the Riverview Produce Terminal just north of the subject property. It operates two-way with a basic two-lane cross-section. It connects to Dufferin Street at an unsignalized T-intersection with STOP control on Alma Avenue. This western segment forms the northern boundary of the proposed development site. The eastern segment of Alma Avenue is located south of the western leg and runs eastward from Dufferin Street to Gladstone Avenue. It operates one-way westbound and provides for a single travel lane. It currently connects to Dufferin Street at an unsignalized intersection with STOP control on Alma Avenue and the opposing private road (Brixton Way).

Street Name	Closest Intersection	Parking/Traffic Regulations	Posted Speed	Description
Peel Avenue	Peel Ave / Dufferin St (100m)	Parking is permitted along both sides of the street apart from the eastern portion of Peel Avenue, towards Gladstone Avenue. Parking is only permitted to permit holders between the hours of 12:00am and 7:00am.	30 km/hr	Peel Avenue is a minor arterial street running east-west between Dufferin Street (to the west) and Gladstone Avenue (to the east). It operates two-way and has a basic 2-lane cross-section. It connects to Dufferin Street at an unsignalized STOP controlled T-intersection.
Private Roads				
Alma Avenue	End of Alma Avenue (public street)	Continuation of Alma Avenue, forming a 'loop', serving the commercial property to the west.		
Brixton Way	Brixton Way / Dufferin Street (90m)	Private driveway providing connection to residential buildings located at 400 Dufferin Street ("The Brixton").		



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FIGURE 3 EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL



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FIGURE 4 EXISTING STREET NETWORK

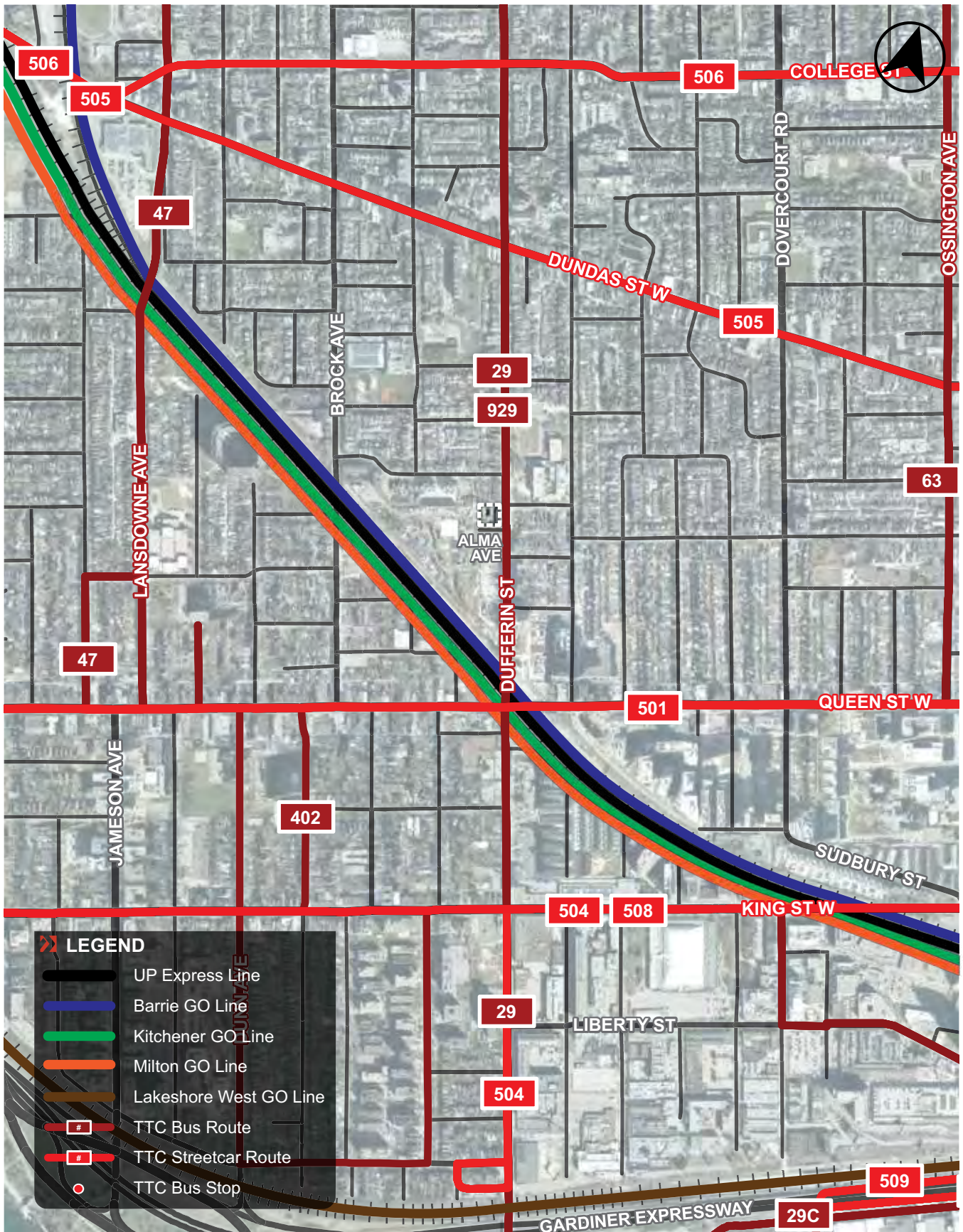
2.2 AREA TRANSIT NETWORK

2.2.1 Existing Transit

The Site is located in proximity to four major Toronto Transit Commission (TTC) **streetcar** routes that connect the Site to the wider transit network. **Table 3** provides a brief description of the various existing and planned transit services in the area, which is illustrated in **Figure 5**.

TABLE 3 AREA TRANSIT SERVICE SUMMARY

Route	Closest Stop	Headways	Description
501 Queen	Queen Street West / Dufferin Street (~350m walking distance or 4 min walk)	3-5 minutes (peak) 10 minutes (off peak)	The 501 Queen Streetcar route operates between Long Branch GO Station in the west (near the Toronto-Mississauga boarder) and Neville Park in the east. The route travels in an east-west direction along Queen Street and offers surface transit connections to the Yonge-University-Spadina Subway line at Osgoode and Queen Stations. The route is part of the 10 Minute Network and operates 10 minutes or better, all day, everyday.
505 Dundas	Dundas St West / Dufferin St (~500m walking distance or 7 min walk)	8 – 10 minutes (all day)	The 505 Dundas route operates in an east-west direction between Dundas West Station and Broadview Station on the Bloor-Danforth Subway. It also services the St Patrick Station and Dundas Station on the Yonge-University-Spadina Subway. This route is part of the 10 Minute Network, and operates 10 minutes or better, all day, everyday until 1:00am.
504 King	King Street West / Dufferin Street (~750m walking distance or 10 min walk)	5-6 minutes (peak) 10 minutes (off peak)	The 504 King Streetcar route operates between Dundas West and Broadview Stations on the Bloor-Danforth Subway line. The route travels generally in an east-west direction along King Street. The route offers surface transit connections to the Yonge-University-Spadina Subway line at St. Andrew and King Stations, and Bloor-Danforth Subway line and GO Transit services at Dundas West Station. The route is part of the 10 Minute Network and operates 10 minutes or better, all day, everyday.
508 Lake Shore	King Street West / Dufferin Street (~750m walking distance or 10 min walk)	Only 5 eastbound buses run in the morning peak period Only 5 westbound buses run in the afternoon peak period No weekend service.	The 508 Lake Shore route operates between Long Branch Loop in the west and Parliament Street in the east, The route travels in an east-west direction along King Street. The route offers surface transit connections to the Yonge-University-Spadina Subway line at St. Andrew and King Stations.
29 Dufferin / 929 Dufferin Express	Alma Ave / Dufferin Street (~85m walking distance or 1 min walk)	7-10 minutes (all day) 30 minutes (off peak at night) 8-10 minutes (Express between 6am and 11pm)	The 29 Dufferin Bus route operates between Princes' Gates Loop in the south to Wilson Station in the north. The route travels in a north-south direction along Dufferin Street. The route offers a transit connection to the Yonge-University-Spadina Subway line surface at Wilson Station and a surface transit connection to the Bloor-Danforth Subway line at Dufferin Station. The route is part of the 10 Minute Network and operates 10 minutes or better, all day, everyday. The 929 Dufferin Express Bus only operates between Dufferin Gate Loop in the south to Wilson Station in the north. This branch operates during the peak periods, midday and early evening, from Monday to Friday only. The bus route also has fewer stop than the regular 29 route with stops at the major intersections.



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FIGURE 5 EXISTING TRANSIT NETWORK

2.2.2 Planned Transit Improvements

There are several future transit improvements planned that will further enhance transit accessibility in the west downtown area including enhanced GO Transit services and the future Ontario Line. The planned transit projects within the site vicinity are discussed further below and are illustrated in **Figure 6**.

Regional Express Rail

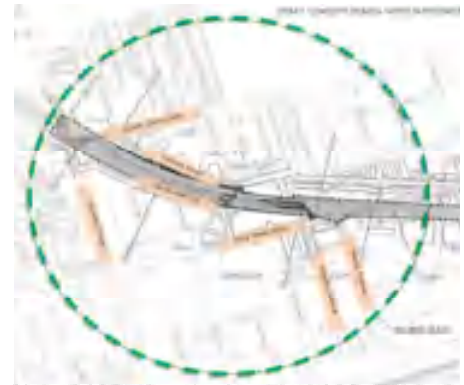
Regional Express Rail (RER) is a planned frequency, network, and speed enhancement to the regional transit network, to be developed as part of the GO Expansion On-Corridor Works program. Comprised of GO Rail electrification, new stations, and more frequent, all-day services, RER buildout will provide regional transit users with faster, easily accessible, and consistent services, even beyond peak hours.

As the site is well situated in relation to the regional transit network (all currently accessed at Union Station), RER will provide direct benefits for those frequenting the site through the Lakeshore West, Kitchener, Barrie, Stouffville, and Lakeshore East GO lines. These lines will offer service every 15 minutes or better during all times of day, 7 days a week. This will enhance service on the Lakeshore West GO line that can be accessed at the Exhibition GO Station, an approximate 20-minute walk from the Site.

In tandem with the RER plan is **SmartTrack Stations Program**, an urban enhancement to the advancing GO RER network which will add five (5) new stations to the Kitchener, Barrie, Stouffville, and Lakeshore East GO rail corridors in Toronto. The five new stops will be St. Clair-Old Weston, King-Liberty, East Harbour, Bloor-Lansdowne, and Finch-Kennedy.

King-Liberty GO Station

As part of the SmartTrack Stations Program, King-Liberty GO Station is proposed along the Kitchener GO Line and will be located on King Street West near Hanna Avenue and Atlantic Avenue with station access from King Street West, Joe Shuster Way, and Sudbury Street, with a connection to the West Toronto Railpath south of Queen Street West; the station will be an approximately 700m walk from the site along Joe Shuster Way. A diagram presented in a Metrolinx public meeting on November 18, 2021 is provided to the right.



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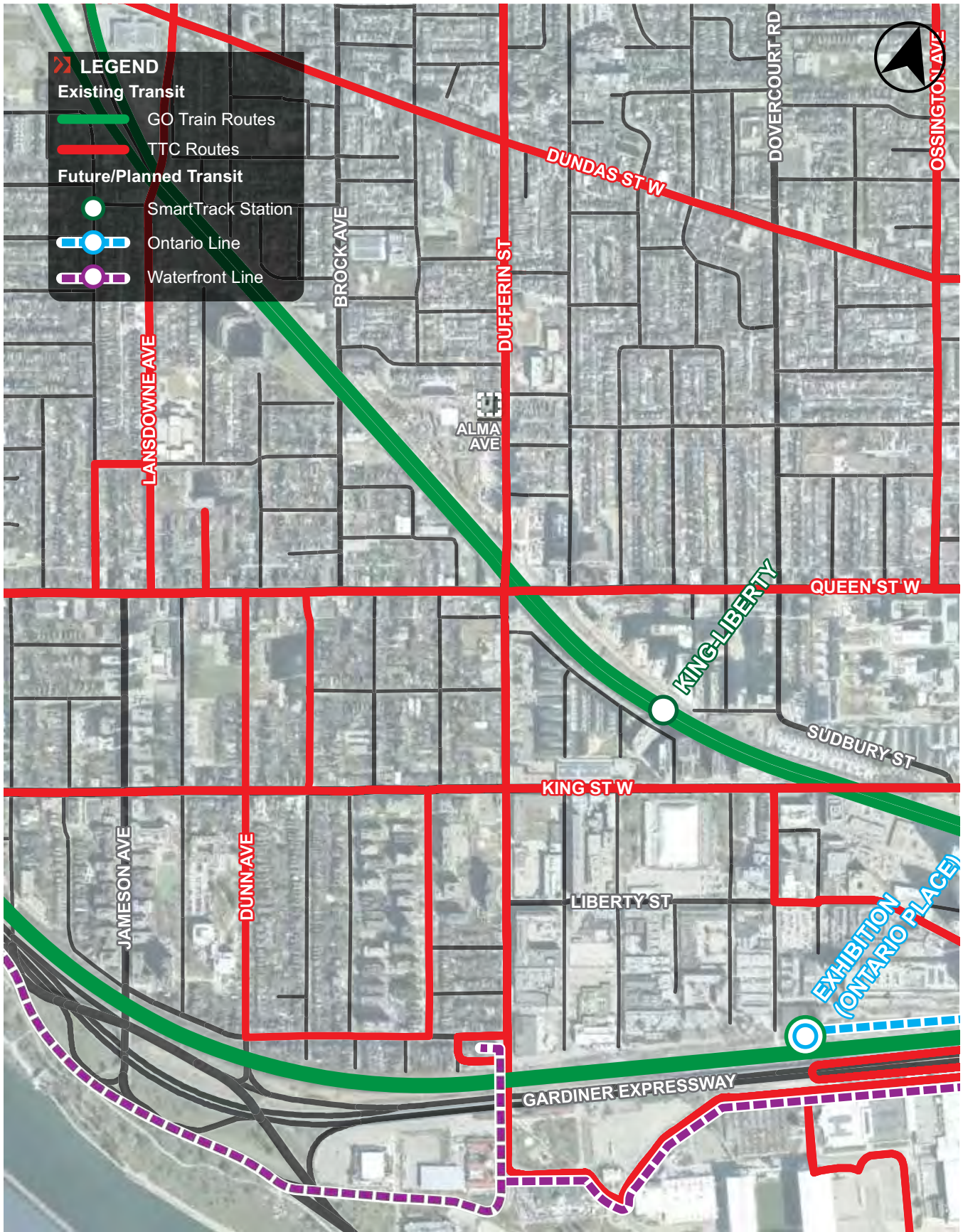
https://www.metrolinxengage.com/sites/default/files/st_king-liberty_voh_nov_18_final1.pdf

Ontario Line

The Ontario Line is a planned rapid transit line announced in April 2019, and planned to open by 2030, that will provide an alternative route into the Toronto Downtown. The planned alignment of the route is from Exhibition Place (or Ontario Place) in the west to the Ontario Science Centre in the east and north where it will connect with the under-construction Eglinton Crosstown LRT. The proposed line will provide the Site with convenient access to higher-order transit, which has connections to GO Transit services, Line 1, and Line 2. The line will have 15 stations (Exhibition Station will be the closest to the site) and is planned to have headways as frequent as every 90 seconds during rush hour.

RapidTO

The City of Toronto has plans for the Dufferin Street corridor to introduce, at an unspecified future date, dedicated bus lanes to accommodate TTC routes within the existing right-of-way; this program is known as "RapidTO".



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FIGURE 6 PLANNED TRANSIT CONTEXT

2.3 AREA CYCLING NETWORK

2.3.1 Existing Cycling Infrastructure

Within the local site vicinity, Brock Avenue is a City of Toronto cycling route extending from Bloor Street West in the north to Queen Street West in the south. The route features a combination of bike lanes and “sharrows”. In addition, running eastbound from Brock Avenue, a series of contra-flow bike lanes and sharrows form a route including Florence Street, Waterloo Avenue, and Argyle Street, terminating at Ossington Avenue.

The existing and planned cycling infrastructure network is illustrated in **Figure 7**.

2.3.2 Planned Cycling Network Improvements

A series of planned infrastructure investments will benefit the “reach” of the cycling network in proximity to the site, expanding the dedicated cycling infrastructure. 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). Under the *Ten Year Plan*, a number of cycling infrastructure improvements are planned within the vicinity of the site, including bike lanes on the following streets; Lansdowne Avenue, Gladstone Avenue, Argyle Street, and Dovercourt Road.

In 2019, Toronto City Council approved the *Cycling Network Plan Update*, which provided a new timeframe to improve road work coordination, accountability and implementation following review of the *Ten Year Cycling Network Plan*. The current period *Near-Term Implementation Program (2022-2024)* contains plans to upgrade existing area cycling infrastructure and to study corridors in the vicinity of the Site for future cycling routes.

A number of cycling infrastructure improvements are planned within the vicinity of the site as part of the *Implementation Plan*, including cycling infrastructure on the following streets; Gladstone Avenue and Argyle Street. While some of the *Ten Year Plan* cycling improvements do not have status in the *Near-Term Implementation Plan*, these planned improvements may inform future Implementation Plans and will be carried out should road work on these corridors occur.

An important route to note is the proposed West Toronto Railpath multi-use trail, an extension of the existing trail to the northwest, is noted as being “Underway” in the 2022-2024 plan. This trail would extend south from Dundas Street West and Sterling Road to Abell Street and Sudbury Street. The trail will be routed adjacent to the Kitchener GO Rail Corridor. The first phase of the multi-use trail was completed in 2008 from Cariboo Avenue to the Dundas Street West overpass. The detailed design phase of the project is being coordinated with other projects in the area, including the Kitchen Rail Corridor Expansion and the King-Liberty SmartTrack Station design. The route would pass over the Dufferin Street / Queen Street intersection in close proximity to the site. Construction is scheduled to begin in 2022.

In addition, as part of the “RapidTO” dedicated bus lane implementation on Dufferin Street (see **Section 2.2.2**) it is possible that the painted lanes will be shared with cyclists. One RapidTO implementation has occurred in Toronto thus far – Eglinton Avenue East in Scarborough – which includes shared bus/bicycle usage (cars are excluded) of red painted lanes.

These routes will provide new north-south and east-west connections to the wider cycling network, planned and existing. It will make cycling to and from the Site more feasible.



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FIGURE 7 EXISTING AND PROPOSED CYCLING CONTEXT

2.4 AREA PEDESTRIAN CONTEXT

Surrounding Area

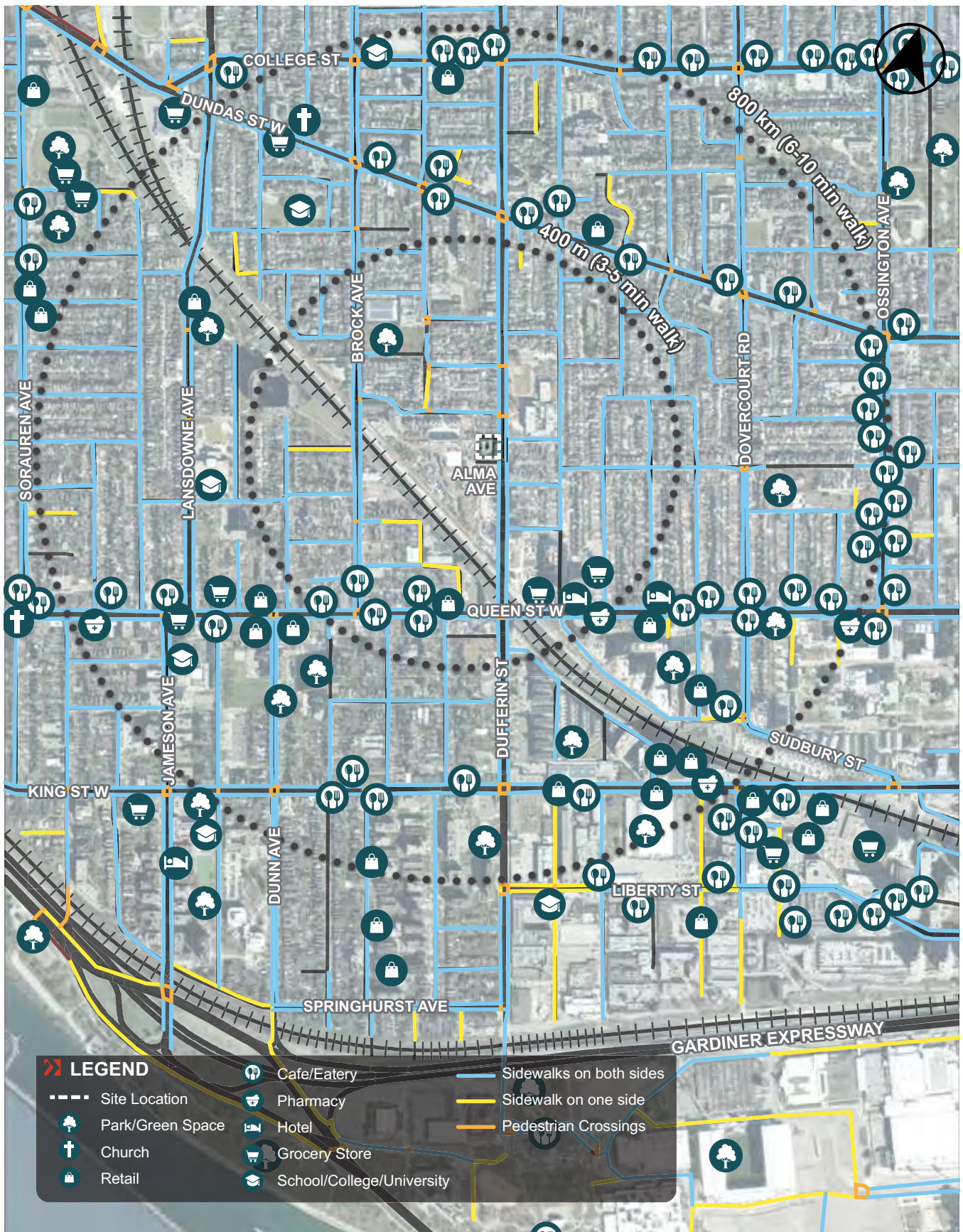
The site is located within walking distance of numerous amenities, restaurants, a library, several community centres, religious centres, tourist attractions, and more. This proximity provides substantial opportunity for future residents and visitors to travel on foot while accessing the local range of destinations. The locations of area pedestrian designations are illustrated in **Figure 8**.

Pedestrian Crossings

In the vicinity of the site, there are a number of signalized crossings, which facilitate safe and efficient pedestrian movement. Some of these signalized crossings include Dufferin Street / Gordon Street, Dufferin Street / Queen Street West, and Dufferin Street / Dundas Street West. Further, there are a number of formal pedestrian crossovers (PXO), the nearest one to the site being located at the intersection of Dufferin Street / Florence Street.

Sidewalks

All local area streets (with the exception of some laneways) include sidewalks on both sides of the street to facilitate walking activity.



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FIGURE 8 AREA PEDESTRIAN DESTINATIONS

2.5 AREA SHARED MOBILITY SERVICES

The location of area car-share vehicles and Toronto Bike Share stations are illustrated in **Figure 9**.

2.5.1 Car-Share Options

Car sharing across central Toronto provides a low-commitment transportation alternative for automobile use. 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.

There are three primary car sharing companies operating in Toronto – ZipCar, Enterprise CarShare, and CommunAuto – and each offers their members access to vehicles conveniently located around the City. Zipcar is the world’s largest car sharing program and entered into the Toronto market in 2006 with approximately 100 vehicles; it has since grown the fleet to approximately 700 vehicles. Enterprise CarShare (formerly AutoShare) was founded in 1998 and currently has over 12,000 members and 400 vehicles at over 150 locations across the City. Vehicles rented from any of these programs must be picked up and returned from the same parking space.

In April 2018, City Council approved a Free-Floating Car-Share Pilot. Unlike the other car-share programs, a free-floating car-sharing program allows its users to undertake one-way trips that begin in one location and terminates in another location. Users park the vehicles on the street near their final destination and the vehicles do not have a designated space where they need to be returned to at the end of the trip.

The Quebec-based car-sharing platform, Communauto, was the first participating company to receive a car-sharing pilot permit and it began its Toronto operations in November 2018. Communauto FLEX entered the Toronto market with 200 cars serving an approximate 50 square kilometre area. If the pilot project is approved after the initial 18 months of operation, Communauto has plans to expand to 500 vehicles covering 100 square kilometres. City Council made the program permanent in June 2020.

Within an 800-metre radius of the site, there are seven (7) car-share vehicles (3 ZipCar and 4 Enterprise CarShare) located within walking distance to the site that are available to be used on demand by Site members and visitors, in addition to Communauto vehicles that may be available at any given time dependent on their location.

2.5.2 Bike Share Toronto

The Bike Share Toronto program provides flexible cycling options within the City of Toronto with bicycles that can be used on a short term basis and picked up/dropped off at different stations across the City. Recent expansions include the introduction of 300 pedal-assist e-bikes and 10 e-bike charging stations in 2020 and the launch of a 45-minute ride membership option in 2021. The fleet now has 7,185 bikes, 630 e-bikes, and 625 stations across urban parts of the City. The Four-Year Growth Plan will improve the reach to over 1,000 stations and 10,000 bikes by 2025 in all 25 wards of the city.

Within an 800-metre radius of the site, there are seven (7) Bike Share Toronto stations which collectively hold approximately 102 bicycles.

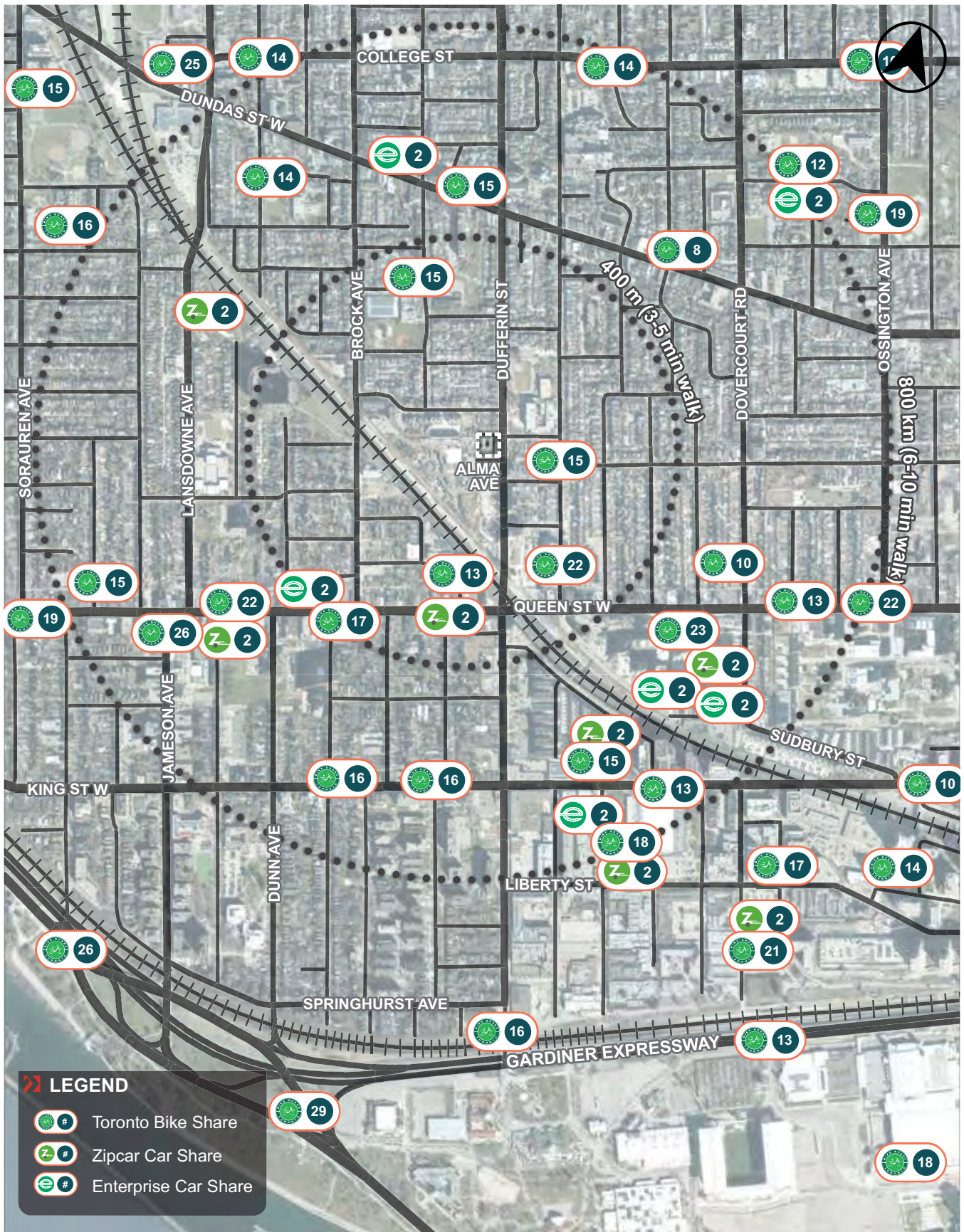


FIGURE 9 AREA CAR-SHARE AND BIKE-SHARE FACILITIES

3.0 TRANSPORTATION DEMAND MANAGEMENT

A suite of transportation demand management measures are 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.

A low parking supply is proposed as part of the overall demand management strategy. A reduced parking supply assists in reducing the attractiveness of driving to / from the site and responds to the reduced need for parking that will result from the successful advancement of the transportation demand management (TDM) strategies implemented on the site. In other areas of the City experiencing substantial growth, there has been the recognition that robust TDM plans support reduced vehicle use and ownership.

In addition to the proposed reduction in parking supply, the proposed TDM measures will include alternative transportation offerings, property management, and operational policies, each of which have the goal of redistributing and reducing the travel demand of the project.

3.1 TDM STRATEGIES AND INITIATIVES

Strategies have been developed to support the use of non-auto modes of travel, and to encourage a change in travel behaviour that reduces automobile travel. The proposed TDM strategies are outlined in **Table 4**.

TABLE 4 POTENTIAL AND RECOMMENDED SITE TDM MEASURES

TDM Measure	Overview	Impact
Cycling Related		
Bicycle Parking	Bicycle parking will be provided for the proposed buildings to meet Zoning By-law requirements, as is outlined in Section 4.3 of this report.	Improved cycling convenience.
Travel Information Brochures	Provide a travel information brochure to residents providing an overview of nearby bicycle network and bicycle share facilities in the area.	Identifies mobility choices in the area.
Local Cycling Network Infrastructure Funding Contribution	A funding contribution to the Toronto bicycle infrastructure fund will be considered.	Improved cycling convenience.
Bike Share Toronto Infrastructure Funding Contribution	A funding contribution to the Bike Share Toronto bicycle infrastructure fund will be considered; a Bike Share station may be located on site if desired by Bike Share Toronto.	Improved cycling convenience.
Bicycle Repair Station	Bike repair station(s) will be provided within the secure long-term bicycle parking rooms of the underground parking garage. This allows residents of the proposed building to change tires, inflate tires, adjust seat, etc.	Improved cycling convenience.
Transit Related		
Travel Information Brochures	Provide a travel information brochure to residents providing an overview of transportation (walk, cycle, car-share, transit) in the area.	Identifies mobility choices in the area.
Automobile Infrastructure		
Lower Parking Rates	A reduced parking rate on-site is proposed, as is outlined in Section 4.2 of this report.	Lower vehicle numbers and related traffic generated by the site.

4.0 SITE PLAN REVIEW

4.1 SITE PLAN ACCESS & DESIGN

4.1.1 Vehicular Site Access

Vehicular access to the site is taken directly from Alma Avenue, the public street forming the southern boundary to the site. Alma Avenue can be accessed from Dufferin Street to the east.

- The at-grade loading facility is accessed from Alma Avenue. Loading vehicles that access the facility (i.e. refuse collection vehicles, delivery vehicles, service vehicles, etc.) will complete manoeuvres within the site.
- The 2-level underground parking garage is accessed via a ramp to the underground accessed north of the loading facility. The underground parking garage includes resident and shared residential visitor / non-residential parking.

4.1.2 Pedestrian Access & Design

Pedestrian access to the site is in two locations.

- The residential lobby access to the site is located off Alma Avenue.
- The proposed commercial space has frontage off Alma Avenue, Dufferin Street, and the adjacent property to the north (474 Dufferin Street). It is possible that the space is divided into several commercial units and as a result, there may be multiple pedestrian access points to commercial space on the site.

4.1.3 Cycling Access & Design

Cycling access to the site is generally in two locations.

- Access to short-term residential bike parking is located at-grade, directly off Alma Avenue (adjacent to the residential lobby).
- The secure long-term residential bike parking room is located at the P1 level adjacent to the base of the vehicular parking ramp.

4.2 VEHICULAR PARKING CONSIDERATIONS

4.2.1 Minimum Vehicular Parking Requirements

Former City of Toronto Zoning By-law 438-86

The site is located within a “grey hole” of contemporary City of Toronto 569-2013 Zoning By-law; former City of Toronto Zoning By-law 438-86 is applicable to the site. Further, the site is zoned “I2 D2” and as such “Regulations Applying to All Use Districts” within Section 4 are applicable. The minimum parking requirements for the site are outlined in **Table 5**.

TABLE 5 ZONING BY-LAW 438-86 MINIMUM PARKING REQUIREMENTS

Use	Units/GFA ¹	Minimum Requirement (Rate)	Minimum Requirement (Spaces)
Residents	143 units / 10,285.2 m ² GFA	1 space / 102 m ² GFA	101 spaces
Residential Visitors		0.25 spaces per unit	36 spaces
Retail ²	929.9 m ² GFA	None	0 spaces
SITE TOTAL			137 spaces

Notes:

1. Site plan statistics provided by superkül, dated November 4, 2022.
2. The proposed commercial space is considered as retail for the purpose of calculating minimum parking requirements.

The minimum parking requirements for the site based on the applicable Zoning By-law 438-86 use stipulations are 137 parking spaces including 101 resident parking spaces and 36 residential visitor parking spaces.

City of Toronto Zoning By-law 569-2013 / 89-2022

While the site is not located under the jurisdiction of City of Toronto Zoning By-law 569-2013, it is understood that the application will be assessed based upon general compliance with this Zoning By-law as it is contemporary and reflects recent policy directions.

The City of Toronto has signalled a change in policy direction regarding its Zoning By-law and minimum parking requirements. In December 2021, after approximately a year of study and consultation, City Council adopted the *Review of Parking Requirements for New Development* which recommended the elimination of minimum parking requirements for most land uses, city-wide, replacing them with maximum parking standards within Zoning By-law 569-2013. In February 2022, By-law 89-2022 was published to amend Zoning By-law 569-2013 with the proposed changes, which included adjusted minimum accessible parking requirements for most land uses. While it was appealed, the appeal has since been resolved. As such, Zoning By-law 569-2013 as amended by By-law 89-2022 (since amended by By-law 125-2022 to correct Parking Zone mapping) is considered to be ‘applicable law’ where Zoning By-law 569-2013 is applicable.

The application of the new parking standards included within By-law 89-2022 (which amend Zoning By-law 569-2013) are applied to the updated development program is summarized in **Table 6**. Notably, the site is located in Parking Zone B

TABLE 6 BY-LAW 89-2022 MINIMUM PARKING REQUIREMENTS (INCL. ACCESSIBLE PARKING)

Use	Units/ GFA ¹	Minimum Parking Ratio	Minimum Parking Requirement	Effective Parking Ratio ²	Effective Parking Requirement ²	Accessible Parking Requirement	Total Parking Requirement
Resident						<i>if the number of effective parking spaces is >100, a minimum of 5 accessible parking spaces + 1 accessible parking space for every 50 effective parking spaces or part thereof in excess of 100 parking spaces</i>	9 sps including 9 residential visitor parking spaces, of which 6 spaces must be accessible parking
Studio	50 units	None	0 sps	0.7 sps/unit	35 sps		
1-bedroom	46 units	None	0 sps	0.8 sps/unit	36 sps		
2-bedroom	32 units	None	0 sps	0.9 sps/unit	28 sps		
3-bedroom	15 units	None	0 sps	1.1 sps/unit	16 sps		
Resident Sub-total	143 units	--	0 sps	--	115 sps		
Non-Resident							
Residential Visitor	143 units	2 sps plus 0.05 per unit	9 sps	0.1 sps/unit	14 sps		
Retail ³	930 m ² GFA	None	0 sps	1.0 sps / 100 sm GFA	9 sps		
Non-resident Sub-total			9 sps	--	23 sps		
Site Total			9 sps	--	138 sps	6 sps	9 sps

Notes:

1. Site plan statistics provided by superkül, dated November 4, 2022.
2. Application of "Effective" Parking Ratio and Requirement is a procedural requirement, stipulated by By-law 89-2022, intended to calculate the required quantity of parking spaces.
3. The proposed commercial space is considered as retail for the purpose of calculating minimum parking requirements.

The application of the new standards of Zoning By-law 569-2013 as amended by By-law 89-2022 results in a requirement of 9 residential visitor parking spaces, of which 6 must be accessible parking.

4.2.2 Proposed Vehicular Parking Supply and Facilities

It is proposed to provide vehicular parking in accordance with the below. While the proposed parking supply does not meet the aforementioned requirements of Zoning By-law 438-86, they are compliant with Zoning By-law 569-2013 as amended by By-law 89-2022.

- 22 resident parking spaces (equivalent to 0.15 spaces per unit)
- 12 residential visitor parking spaces (equivalent to 0.08 spaces per unit)
- No dedicated retail parking
 - Parking for residential visitors and retail uses to be provided on a shared, non-exclusive basis

Accessible Parking

In accordance with the higher accessible parking supply standard of By-law 89-2022, a total of 6 accessible parking spaces are provided throughout the development, located in close proximity to elevator cores as is required.

Electric Vehicle Parking

In accordance with Toronto Green Standard Version 4, all (100% of) resident parking spaces will include an energized outlet capable of providing Level 2 charging or higher to the parking space. In addition, 25% of non-resident parking spaces will include an energized outlet capable of providing Level 2 charging or higher to the parking space.

Non-Standard Parking Spaces

It is expected at this time that several parking spaces (number to be determined as part of a subsequent application at the Site Plan Approval stage of the development process) within the proposed parking garage will not meet the parking space dimensional requirements of City of Toronto Zoning By-law 569-2013. The relevant and basic parking space dimensional requirements are the following:

- 2.6 metres in width
- 5.6 metres in length
- 2.0 metres in height
- Accessed by a 6.0 metre drive aisle

Parking spaces that do not meet any of the above requirements will be small car / obstructed parking spaces. As building plans will adapt to respond to City comments and the acceleration of the design process, the number of small car / obstructed spaces will change. It is expected that the number of obstructed parking spaces will not exceed 15% of the total parking space supply within the parking garages. The small car / obstructed parking spaces will be reviewed to determine functionality; this analysis will be conducted in conjunction with a subsequent submission associated with the Project.

4.2.3 Appropriateness of Vehicular Parking Supply

It is proposed to adopt reduced parking supply standards for resident and non-residential uses within the proposed development. A discussion and rationale is provided within the following sections regarding the appropriateness of the reduced parking supply.

4.2.3.1 Resident Parking Assessment

Minimum resident parking standards outlined in Zoning By-laws 438-86 are considered to overstate the parking needs of a residential building in an area well served by transit. Recently, we have observed a significant reduction in parking space demand needs at almost all new residential buildings that are marketed in the city, compared to those that have existed historically. Factors that have played a part in establishing the framework for this change in parking needs include the change in the size of residential units on an overall basis (i.e. reduction), the unbundling of parking from a unit sale and more importantly, the significant enhancement in travel alternatives available in the midtown area that reduce the need for individuals to use a car on a day-to-day basis and, in fact, reduce the need to own a vehicle.

Adoption of a reduced parking standard is appropriate based upon the following considerations:

- area land use compatibility;
- existing and evolving sustainable transportation context;
- the evolving planning policy context;
- transportation planning principles that have informed the proposed parking supply;
- the proposed TDM Plan; and
- recent reduced resident parking supply ratio approvals for buildings in the surrounding area.

The following provides an overview of the contextual factors influencing parking demand at residential buildings in urban areas of the City of Toronto and the adequacy of the proposed parking rate (0.26 spaces per unit).

Area Land Use Compatibility

Future residents of the site will enjoy the benefit of residing within walking distance of a range of local amenities on the Queen Street West, Dundas Street West, and Dufferin Street corridors. Located within a 500m radius are a number of grocery stores, parks, restaurants/bars, and entertainment venues; the community includes a variety of land uses to ensure that various needs can be met without driving a car. Residents of the site will be able to walk to all of these closely-located amenities which will in turn reduce parking demand; a future resident of the site will not need to own a vehicle (and will not require parking on-site) in order to live comfortably.

Existing and Evolving Transportation Context

The location of the site will afford future residents with numerous options for transportation that will eliminate the need to own a vehicle and park it on site. The complete transportation context is provided in **Section 2.0**.

Streetcar service is provided along the Queen Street, Dundas Street West, and King Street West corridors, and express bus service is provided along the Dufferin Street corridor. Transit service for future residents of the site will be enhanced by King-Liberty GO Station and the Metrolinx Regional Express Rail (RER) planned GO Transit enhancement; the site is located approximately 700m walk from the location of the future station.

A number of enhancements to the local cycling network are planned (including Gladstone Avenue and Argyle Street) and in addition, the extension of the West Toronto Railpath, to begin construction in 2022, will afford future residents of the site with a far reaching active transportation option providing access along the Kitchener GO Rail corridor and into downtown.

Within a 500-metre radius of the site, there are 7 car-share vehicles (3 ZipCar and 4 Enterprise CarShare) and seven (7) Bike Share Toronto stations which collectively hold approximately 102 bicycles located within walking distance to the site that are available to be used on demand by Site members and visitors. In addition, Communauto vehicles may be available at any given time dependent on their location.

City of Toronto By-law 89-2022 (amended by 125-2022 and 1048-2022)

As is noted in **Section 4.2.1**, the City of Toronto has signalled a change in policy direction regarding its Zoning By-law and minimum parking requirements. In December 2021, after approximately a year of study and consultation, City Council adopted the *Review of Parking Requirements for New Development* which recommended the elimination of minimum parking requirements for most land uses, city-wide, replacing them with maximum parking standards within Zoning By-law 569-2013.

Throughout the year of study, several staff reports provided rationale for the change. It was noted that while development applications frequently get approved with reduced parking in comparison to Zoning By-law requirements, City Council has the power to prohibit residents, visitors, and tradespeople of a building subject to a development application from parking on local area streets when there is community concern, and that many other cities have completely or partially eliminated parking minimums in their Zoning By-laws.

Staff stipulated that the “review should be guided by the principle that parking standards should allow only the maximum amount of automobile parking reasonably required for a given use and minimums should be avoided except where necessary to ensure equitable access, such as for accessible parking or in areas which would be difficult to serve with transit.”

Generally, the staff report represents a definitive shift in the public position of City of Toronto staff with regards to minimum parking requirements and their enforcement. The most notable of the positions stated within the staff reports is that the current minimum parking requirements in Zoning By-law 569-2013 do not advance the policies of the City’s Official Plan to reduce auto-dependence and support non-auto modes of transportation.

Given this shift, the proposed parking supply is consistent with the research that informs the staff report and resulting Zoning By-law changes because it is lower than the requirements of the pre-existing Zoning By-law and is located within walking distance to higher order transit service, both existing and planned.

Toronto Green Standards

The Toronto Green Standards (TGS) set 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 purpose of the TGS is to improve air quality, reduce urban heat island effect, and is an effective tool to achieve the City's greenhouse gas emission targets.

TGS Version 4 requires developments to be designed to encourage low-emissions transportation and encourage non-auto modes of transportation. The standards set a requirement for single occupancy auto vehicle trips generated by the proposed development to be reduced by 25 percent through a variety of multimodal infrastructure strategies and Transportation Demand Management (TDM) measures, including bicycle parking, shower and changerooms (depending on the uses in the building), and sustainable mobility spaces if minimum parking standards are exceeded.

Providing additional parking encourages automobile ownership, which encourages single occupant automobile commuting. The most direct, effective way to effect change in travel behaviour is to reduce the amount of vehicular parking available to commuters. The implementation of various TDM initiatives is more effectively implemented in tandem with limited vehicular parking.

The proposed parking supply of 34 spaces reflects a 75 percent reduction in parking supply from the pre-existing minimum requirement (137 spaces), which theoretically would result in a 75 percent reduction in vehicle ownership and the resulting trips generated from these vehicles. This would exceed the 25 percent reduction in single occupancy auto trips that are stipulated within the standards of the TGS Version 4. Thus, reducing the parking requirement would be in line with the City's stated policy intentions.

Transportation Planning Considerations

A future resident of the Site will have options that allow them to live and travel without a car. The currently applicable by-laws recognize this by requiring an effective rate of below one space per unit.

The proposed minimum resident parking supply for the site is equivalent to 0.15 spaces per unit. By not accommodating all future residents to park a car on-site, in combination with the proposed TDM measures to be implemented, will increase mobility options throughout the area.

A parking reduction will not introduce the need for non-automobile travel to the Site in comparison to simply meeting minimum parking requirements; a decrease in minimum parking supply would simply increase the percentage of units that will not rely on personal vehicles for travel.

Providing additional parking encourages automobile ownership, which encourages single occupant automobile commuting.

Taking a holistic perspective of the overall transportation network, the simplest way to effect change in travel behaviour is to reduce the amount of available vehicular parking. While the consideration and implementation of various TDM initiatives and Projects is advised, these are always more effectively implemented in tandem with limited vehicular parking (or none). Providing a limited amount of parking is a direct incentive for residents to use sustainable transportation. As an alternative, the provision of ample parking encourages automobile ownership, a key enabler of automobile commuting particularly as a single occupant.

TDM Plan

The proposed TDM Plan for the site is included in **Section 3.0**. Proposed TDM measures include a local cycling network infrastructure funding contribution, Bike Share Toronto funding contribution, a bicycle repair station, bicycle parking, and travel information brochures. These TDM measures will work in tandem with the proposed lower parking rates in order to provide residents with transportation alternatives in place of owning a vehicle, parking it on site, and driving regularly.

Recent Resident Parking Approval Trends

The City of Toronto has regularly granted permission to establish minimum residential parking standards well below the prevailing by-laws. Such approvals have been provided by City Council as part of the Zoning By-law Amendment process, by the Committee of Adjustment as part of Minor Variance applications, or at the Ontario Land Tribunal (OLT). **Table 7** outlines a selection of approvals in the local area.

From the approvals seen below in **Table 7**, it is clear that the minimum parking rates outlined in City of Toronto Zoning By-law 569-2013 (pre-dating the By-law 89-2022 amendments) are not absolute. The City has shown flexibility and pragmatism in adopting to the evolving transportation landscape as options became available to residents that were not available at the time when the Zoning By-law was enacted. As more transit options surrounding the site will be available in the future, it is appropriate to approve parking standards in line with what is being proposed for the site.

TABLE 7 APPROVED REDUCED RESIDENT PARKING SUPPLY RATIOS

Address	Key Intersection	Resident Standard Applied	Permission Through
Local Area / West End Toronto			
1521 Queen Street West	Queen Street West & Sorauren Avenue	95 dwelling units 0 resident parking spaces <i>Effective res ratio:</i> <i>0.00 sps / unit</i>	Site-specific By-law 1175-2022(OLT)
1488 Queen Street West	Queen Street West & Lansdowne Avenue	29 dwelling units 1 resident parking space <i>Effective res ratio:</i> <i>0.03 sps / unit</i>	Site-specific By-law 579-2022
1200 Dundas Street West	Ossington Street & Dundas Street West	115 dwelling units 25 resident parking spaces <i>Effective res ratio:</i> <i>0.22 sps / unit</i>	Site-specific By-law 398-2022(OLT)
646-648 Dufferin Street and 1-3 Boland Lane	Dufferin Street & Dundas Street West	124 dwelling units 36 resident parking spaces <i>Effective res ratio:</i> <i>0.29 sps / unit</i>	Site-specific By-laws 950-2021 & 951-2021
1182 King Street West	Dufferin Street & King Street West	400 dwelling units 120 resident parking spaces 1 car-share space <i>Effective res ratio (w car-share):</i> <i>0.30 sps / unit</i>	Site-specific By-laws 222-2021 & 223-2021
1221 King Street West	Dufferin Street & King Street West	307 dwelling units 92 resident parking spaces 1 car-share space <i>Effective res ratio (w car-share):</i> <i>0.30 sps / unit</i>	Site-specific By-laws 222-2021 & 223-2021
466-468 Dovercourt Road	Dovercourt Road & College Street	30 dwelling units 9 resident parking spaces <i>Effective res ratio:</i> <i>0.30 sps / unit</i>	Site-specific By-laws 30-2021 & 31-2021

4.2.3.2 Non-Resident Parking Assessment

Similarly, residential visitor and non-residential parking standards outlined in Zoning By-law 569-2013 (which remain applicable to the site) are considered to overstate the parking needs of a residential building in an area well served by transit. Adoption of a reduced non-resident parking supply – provided on a shared non-exclusive basis – is appropriate based upon the following considerations:

- recent reduced residential visitor parking supply ratio approvals for buildings in the surrounding area; and
- area commercial parking supply which can accommodate additional parking demand as needed.

Recent Dedicated Residential Visitor Parking Approval Trends

Alongside resident parking supply reduction approvals, residential visitor parking supply reductions have often been approved as part of the same developments. In addition, these approvals often include permission to share residential visitor parking with parking for non-residential uses. A selection of approvals is provided in **Table 8** that place the proposal for the site in local context.

TABLE 8 APPROVED REDUCED RESIDENTIAL VISITOR PARKING SUPPLY RATIOS

Address	Key Intersection	Visitor Standard Applied	Sharing Provision (if applicable)	Permission Through
Local Area / West End Toronto				
1521 Queen Street West	Queen Street West & Sorauren Avenue	95 dwelling units 0 visitor parking spaces <i>Effective vis ratio:</i> <i>0.00 sps / unit</i>	N/A	Site-specific By-law 1175-2022(OLT)
1488 Queen Street West	Queen Street West & Lansdowne Avenue	29 dwelling units 2 visitor parking space <i>Effective vis ratio:</i> <i>0.07 sps / unit</i>	N/A	Site-specific By-law 579-2022
1200 Dundas Street West	Ossington Street & Dundas Street West	115 dwelling units 3 visitor parking spaces <i>Effective vis ratio:</i> <i>0.03 sps / unit</i>	"may be provided on a non-exclusive basis for the use of residential and non-residential visitors"	Site-specific By-law 398-2022(OLT)
646-648 Dufferin Street and 1-3 Boland Lane	Dufferin Street & Dundas Street West	124 dwelling units 4 visitor parking spaces <i>Effective vis ratio:</i> <i>0.03 sps / unit</i>	N/A	Site-specific By-laws 950-2021 & 951-2021
466-468 Dovercourt Road	Dovercourt Road & College Street	30 dwelling units 0 visitor parking spaces <i>Effective vis ratio:</i> <i>0.00 sps / unit</i>	N/A	Site-specific By-laws 30-2021 & 31-2021
1494-1502 Dundas Street West	Dufferin Street & Dundas Street West	48 dwelling units 0 visitor parking spaces <i>Effective vis ratio:</i> <i>0.00 sps / unit</i>	N/A	Site-specific By-laws 952-2021 & 953-2021

Area Commercial Parking

There are commercial parking options in the local area with an aggregate commercial parking supply of 231 spaces which can accommodate additional parking demand as needed; these are outlined in **Table 9**.

TABLE 9 AREA COMMERCIAL PARKING SUPPLY

Location (Name)	Total Parking Supply
45 Abell Street (Municipal Carpark 261 – Green P)	124 spaces
FreshCo Queen & Gladstone (TargetPark Inc.)	75 spaces
1325 Queen Street West (Municipal Carpark 158 – Green P)	32 spaces
TOTAL Area Supply	231 spaces

4.3 BICYCLE PARKING CONSIDERATIONS

4.3.1 Minimum Bicycle Parking Requirements

Zoning By-law 438-86

Zoning By-law 438 is applicable to the site. Its minimum bicycle parking requirements are summarized in **Table 10**.

TABLE 10 ZONING BY-LAW 438-86 BICYCLE PARKING REQUIREMENTS

Use	Units/GFA ¹	Type	Rate	Requirement ²
Residential	143 units	Occupant (80%)	0.75 spaces per unit	86 spaces
		Visitor (20%)		21 spaces
Retail ²	930 m ² GFA	Occupant (80%)	6 bicycle parking spaces	5 spaces
		Visitor (20%)		1 spaces
Long-term Sub-total				91 spaces
Short-term Sub-total				22 spaces
SITE TOTAL				113 spaces

Notes:

1. Site plan statistics provided by superkül, dated November 4, 2022.
2. The proposed commercial space is considered as retail for the purpose of calculating minimum bicycle parking requirements.

A minimum of 113 bicycle parking spaces are required, inclusive of 91 long-term bike parking spaces and 22 short-term bike parking spaces.

Zoning By-law 569-2013

The bicycle parking requirements of contemporary City of Toronto Zoning By-law 569-2013 (Zone 1) and Toronto Green Standard (Zone 1) are summarized in **Table 11**.

TABLE 11 ZONING BY-LAW 569-2013 (BICYCLE ZONE 1) BICYCLE PARKING REQUIREMENTS

Use	Units/GFA ¹	Type	Rate	Requirement ²
Residential	143 units	Long-term	0.9 spaces per unit	129 spaces
		Short-term	0.2 spaces per unit	29 spaces
Retail ⁴	930 m ² GFA	Long-term	None ²	0 spaces
		Short-term	None ²	0 spaces
Long-term Sub-total				129 spaces
Short-term Sub-total				29 spaces
SITE TOTAL				158 spaces

Notes:

1. Site plan statistics provided by superkül, dated November 4, 2022.
2. As per Section 230.5.10.1 (3), no bicycle parking is required for uses other than dwelling units with 2,000 m² GFA or less.
3. Bicycle parking calculations resulting in fractions are rounded up to the nearest whole number, in accordance with Section 230.5.1.10 (2) of City of Toronto Zoning By-law 569-2013.
4. The proposed commercial space is considered as retail for the purpose of calculating minimum bicycle parking requirements.

A minimum of 158 bicycle parking spaces are required, inclusive of 129 long-term bike parking spaces and 29 short-term bike parking spaces.

Introduced to Zoning By-law 569-2013 via amendment (By-law 839-2022), the short-term bicycle parking requirement may be reduced by not more than half through payment-in-lieu of bicycle parking. Each bicycle parking space that is reduced has a fee attached. The absolutely minimum bicycle parking supply is 0.1 spaces per unit or, in this case, 15 bicycle parking spaces, and payment would need to be made to the City of Toronto in lieu of providing the other 14 requirement bicycle parking spaces.

4.3.2 Proposed Bicycle Parking Supply

The proposed bicycle parking supply meets the requirements of Zoning By-law 569-2013 outlined above and will not utilize the bicycle parking payment-in-lieu scenario. A total of 158 bicycle parking spaces are provided, inclusive of 129 long-term bike parking spaces and 29 short-term bike parking spaces.

4.4 LOADING CONSIDERATIONS

4.4.1 Minimum Loading Requirement

Zoning By-law 438-86

Zoning By-law 438 is applicable to the site. Its minimum loading requirements are summarized in **Table 12**.

TABLE 12 ZONING BY-LAW 438-86 MINIMUM LOADING REQUIREMENTS

Land Use	Units/GFA ¹	Loading Category	Loading Requirement / Loading Space Type				
			Type A	Type B	Type C	Type G	Total
Residential	143 units	More than 30 units	-	-	-	1	1
Retail ³	930 m ² GFA	500 to 999 m ²	-	1	-	-	1
Sub-total (pre-sharing)			-	1	-	1	2
SITE TOTAL (with sharing)			-	-	-	1	1

Notes:

1. Site plan statistics provided by superkül, dated November 4, 2022.
2. As per Section 4(8)(e) of Zoning By-law 438-86, loading space sharing is applied.
3. The proposed commercial space is considered as retail for the purpose of calculating minimum loading requirements.

Application of Zoning-By-law 438-86 minimum loading requirements to the proposed development would require the provision of one (1) Type G loading space.

Zoning By-law 569-2013

The loading standards outlined in the City of Toronto's comprehensive Zoning By-law 569-2013 have been applied to the proposed development.

Application of the loading requirements outlined in City of Toronto Zoning By-law 569-2013 is detailed in **Table 13**.

TABLE 13 ZONING BY-LAW 569-2013 MINIMUM LOADING REQUIREMENTS

Land Use	Units/GFA ¹	Loading Category	Loading Requirement / Loading Space Type				
			Type A	Type B	Type C	Type G	Total
Residential	143 units	31-399 units	-	-	-	1	1
Retail ³	930 m ² GFA	500 to 1,999 m ²	-	1	-	-	1
Sub-total (pre-sharing)			-	1	-	1	2
SITE TOTAL (with sharing)			-	-	-	1	1

Notes:

1. Site plan statistics provided by superkül, dated November 4, 2022.
2. As per Sections 40.10.90.1 and 200.5.10.1(9) of Zoning By-law 569-2013, loading space sharing is applied.
3. The proposed commercial space is considered as retail for the purpose of calculating minimum loading requirements.

Application of Zoning-By-law 569-2013 minimum loading requirements to the proposed development would require the provision of one (1) Type G loading space.

4.4.2 Proposed Loading Provision

4.4.2.1 Loading Supply / Servicing Arrangements

It is proposed to provide 1 Type G loading space. The Type G loading space is to be located at-grade, accessible from Alma Avenue with space for vehicle turnaround within the building.

4.4.2.2 Residential Waste Facilities

Residential waste collection for the proposed building, for both phases, will occur within the proposed Type G loading space.

A 14.3 m² bin staging area is provided at the front of the Type G loading space. A residential waste storage room is provided on the P1 level of the underground parking garage. Bins are transferred from the waste storage room to the bin staging area on collection day via a dedicated bin elevator adjacent to the loading area. The residential waste collection facilities meet the design provisions outlined in “*City of Toronto Requirements for Garbage and Recycling Collection for New Developments and Redevelopments*” dated March 2022.

4.4.2.3 Height Clearances

A minimum height clearance of 4.5 metres is maintained throughout the loading area, and a minimum height clearance of 6.1 metres is maintained above the Type G loading space and in staging area. The height clearance provided meets the standards of Zoning By-law 569-2013 and “*City of Toronto Requirements for Garbage and Recycling Collection for New Developments and Redevelopments*” dated March 2022.

4.4.2.4 Operations and Manoeuvring

Turning movement diagrams have been developed demonstrating the ability for City of Toronto refuse / recycling collection vehicles and other service / delivery vehicles to manoeuvre appropriately when entering / leaving the proposed loading area. Vehicle Manoeuvring Diagrams are provided in **Appendix B** and illustrate the turning movements of the above design vehicles entering and exiting the proposed loading areas. These diagrams confirm that the proposed loading area arrangements are appropriate and will facilitate the manoeuvring needs of the service vehicles entering / exiting the site. It is further noted that City refuse / recycling collection vehicles will be able to enter / leave the site in a forward motion without the need to reverse to / from the new proposed public road.

The design vehicles used to assess the proposed loading spaces are as follows:

- City of Toronto Front Loading Refuse Collection Vehicle
- TAC Single Unit Design Vehicle (TAC – SU)

4.4.2.5 Loading Summary

The proposed loading facilities meet and exceed the requirements of City of Toronto Zoning By-law 569-2013 and the facilities meet the standards of all additional applicable guidelines. Vehicle manoeuvring for each loading space is appropriate and will service the development sufficiently.

5.0 SITE TRAVEL DEMAND FORECASTING

Travel demand forecasts have been prepared as part of this study for the build-out of the proposed development. Residential site traffic was estimated based on proxy site surveys of developments in the Toronto, as detailed below.

This site is a designated employment conversion, linked to Municipal Comprehensive Review – OPA 591 and Site and Area Specific Policy 749. City of Toronto By-law 1106-2022 states approval for the site's land use designation to change from Core Employment Area to Mixed Use Area.

A total of 143 new residential units are planned to be added, with approximately 930 sqm of non-residential floor area.

Future non-residential trip generation will likely be at a similar level to the existing condition during adjacent street peak hours. Due to zero trips being recorded under existing conditions, conservatively, 5 trips in and out have been added for non-residential trip generation in future. Forecast traffic for the site during the weekday morning and afternoon peak hours is summarized in **Table 14**.

TABLE 14 VEHICULAR TRIP GENERATION

	Units or sqm GFA	AM Peak Hour			PM Peak Hour		
		In	Out	2-Way	In	Out	2-Way
ITE Trip Generation Manual, 11th Edition							
<i>Multifamily Housing (High-Rise) - LUC 222</i>	-	0.09	0.18	0.27	0.18	0.14	0.32
Residential Proxy Site Trip Generation Rates							
<i>955 Queen Street West</i>	144	0.00	0.08	0.08	0.04	0.02	0.06
<i>375 King Street West</i>	305	0.01	0.05	0.06	0.05	0.01	0.06
<i>43 Hanna Avenue</i>	215	0.07	0.10	0.17	0.13	0.09	0.22
<i>700 King West</i>	216	0.03	0.11	0.14	0.11	0.05	0.16
<i>120 Homewood Ave</i>	408	0.02	0.10	0.12	0.07	0.04	0.11
<i>1638 Bloor West</i>	108	0.03	0.14	0.17	0.11	0.03	0.14
<i>20 Gothic Avenue</i>	175	0.09	0.08	0.17	0.12	0.09	0.21
Average Residential Trip Generation Rate (Adopted)	-	0.04	0.09	0.13	0.09	0.05	0.14
Trips Generated							
Residential Site Traffic Volumes	143 units	5	15	20	15	5	20
Non-Residential Site Traffic Volumes	930 sqm	5	5	10	5	5	10
New Site Traffic Volumes	-	10	20	30	20	10	30

Notes:

1. All trips rounded to the nearest five (5).
2. Proxy site surveys undertaken between December 2011 & April 2017.

Based on the foregoing, the proposed buildings will generate in the order of **30** two-way vehicle trips in each peak hour.

5.1 TORONTO GREEN STANDARD REQUIREMENT AQ 1.1

Under the *Toronto Green Standard* (TGS) Version 4, all residential developments within the City of Toronto must meet Tier 1 requirements. Air Quality (AQ) Requirement AQ 1.1 is addressed below.

Requirement AQ 1.1 – Single Occupant Auto Vehicle Trips targets a reduction of 25% in single-occupant auto vehicle trips. For this site, a reduction of at least 25% has been achieved through a variety of Transportation Demand Management (TDM) measures as outlined in **Section 3.0** and by the proposed parking reduction as outlined in **Section 4.2**. This is best showcased by comparing the adopted residential trip generation rates to ITE Trip Generation Manual 11th Edition rates for similar buildings.

Table 15 outlines the percentage reduction between the selected residential trip generation rates and the ITE Trip Generation Manual Rates for a high-rise residential building.

TABLE 15 RESIDENTIAL TRIP RATE COMPARISON (SELECTED VS ITE)

	AM Peak Hour			PM Peak Hour		
	In	Out	2-Way	In	Out	2-Way
<i>ITE Trip Generation Manual (LUC 222: High-Rise)</i>	0.09	0.18	0.27	0.18	0.14	0.32
<i>Selected Residential Trip Generation Rate</i>	0.04	0.09	0.13	0.09	0.05	0.14
Percent Reduction from ITE	-56%	-49%	-52%	-50%	-64%	-56%

As illustrated above, the proposed two-way residential trip generation rates are a minimum of 49% lower compared to the ITE rates for high-rise buildings.

In combination with the other TDM measures proposed, a reduction in parking supply (compared to the requirements of Zoning By-laws 438-86 and 569-2013) and residential trip generation rates will translate directly into a reduction in auto trips and hence encourage the use of sustainable transportation modes. Given the above, the minimum required reduction of 25% in single-occupant auto vehicle trips will be achieved for this development plan.

6.0 VEHICLE TRAFFIC VOLUMES

6.1 BASELINE EXISTING TRAFFIC VOLUMES

Existing public street intersection peak hour traffic volumes were established based on traffic counts undertaken by Spectrum Traffic Data on behalf of BA Group, as summarized in **Table 16**. Turning movement count (TMC) data and signal timing plans (STPs) are attached in **Appendix C**.

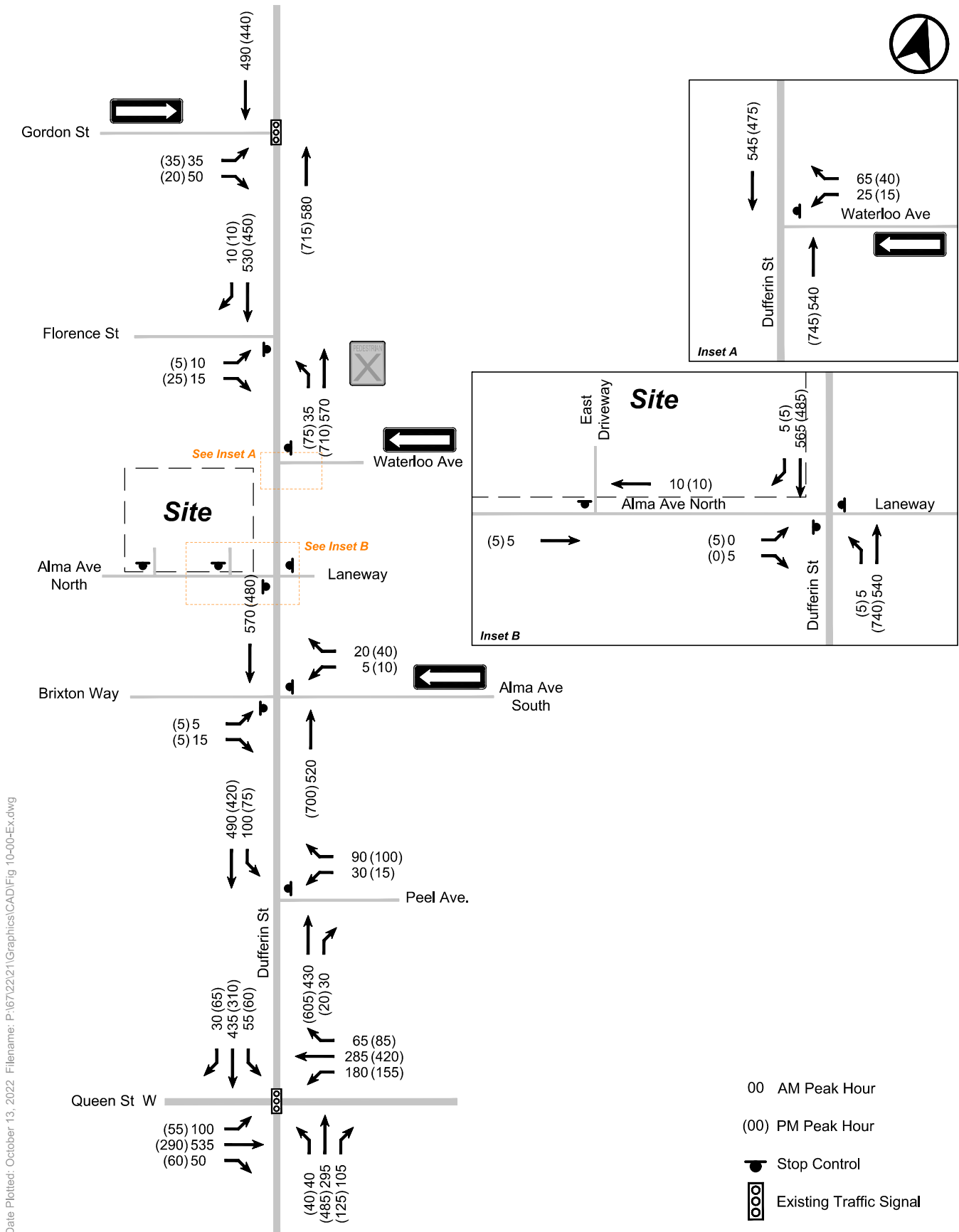
TABLE 16 EXISTING TRAFFIC DATA SOURCES

Intersection	Control Type	Source	Date
Queen Street West / Dufferin Street	Signalized	Spectrum Traffic Inc.	Tuesday, March 8, 2022
Dufferin Street / Gordon Street	Signalized		Thursday, December 6, 2018
Dufferin Street / Florence Street	Unsignalized (PXO Signal)		
Dufferin Street / Waterloo Avenue	Unsignalized		Thursday, September 8, 2022
450 Dufferin Street West Driveway / Alma Avenue North	Unsignalized		
Dufferin Street / Alma Avenue North	Unsignalized		
Dufferin Street / Brixton Way & Alma Avenue South	Unsignalized		
Dufferin Street / Peel Avenue	Unsignalized		

Notes:

1. 450 Dufferin Street currently has two driveways to Alma Avenue North; however, the second driveway did not generate any trips during the count periods.

Existing area traffic volumes adopted for the analysis of weekday morning and afternoon peak hours are illustrated on **Figure 10**.



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FIGURE 10 EXISTING TRAFFIC VOLUMES

6.2 FUTURE BACKGROUND TRAFFIC VOLUMES

6.2.1 Background Development

Background development traffic allowances were made for four significant approved or proposed developments in the local area, as summarized in **Table 17** below. Overall, background developments include in the order of 1,178 residential units and a small selection of commercial land use.

Traffic allowances associated with background developments were established based upon assignment information incorporated into traffic impact studies prepared as part of their approval process.

TABLE 17 BACKGROUND DEVELOPMENT APPLICATIONS

Address	Date of Application	Transportation Consultant	Statistics
2-24 Temple Street	January 2020	NexTrans	273 units
1354 Queen Street West	September 2020	BA Group	117 units + 539 sqm non-residential GFA
31 Gladstone Avenue	October 2021	LEA	28 units
6 Noble Street	November 2021	NexTrans	101 units + 45 sqm non-residential GFA
340-376R Dufferin Street	July 2022	BA Group	658 units + 1,929 sqm flex space GFA + 1,521 sqm flex commercial GFA

6.2.2 Corridor Traffic Changes

Two-way corridor growth along Queen Street West and Dufferin Streets was calculated based on traffic volume counts undertaken between the years 2013 and 2022. Low or negative corridor growth was observed in all cases, except for along Dufferin Street in the afternoon peak hour, where an average increase of 2% per year was adopted.

Where growth was calculated to be negative, a growth rate of 0% was adopted as a conservative measure for this analysis. Corridor growth calculations area attached in **Appendix D**.

6.2.3 Future Background Total Traffic Volumes

Future background total traffic volumes include existing traffic volumes and background traffic volumes. These are illustrated on **Figure 11**.

6.3 SITE TRAFFIC VOLUMES

6.3.1 Site Trip Generation

Based on methodology outlined in **Section 5.0**, the proposed development is expected to generate in the order of **30** new two-way vehicle trips in the weekday morning and afternoon peak hours.

6.3.2 Vehicle Trip Distribution

Vehicle trip distribution parameters have been adopted consistent with the 2016 Transportation Tomorrow Survey (TTS). Adopted traffic distribution patterns for site traffic are summarized in **Table 18**.

TABLE 18 SITE RESIDENT TRAFFIC DISTRIBUTION

Direction (origin or destination)	Residential	
	Inbound	Outbound
North via Dufferin	15%	20%
South via Dufferin	57.5%	37.5%
East via Queen Street West	7.5%	7.5%
East via King Street West	7.5%	10%
West via Queen Street West	10%	5%
West via King Street West	2.5%	20%
Total	100%	100%

Notes:

1. Residential distribution determined through a query of homebased trips from 2006 TTS zones 89, 109 and 110.

A variety of travel routes are available to and from the site. Traffic will likely predominantly utilize major highways to move throughout Toronto and the Greater Toronto Area (GTA), explaining the higher percentage showing to and from the south on Dufferin Street.

Transportation Tomorrow Survey (TTS) data are attached in **Appendix E**.

6.3.3 Site Traffic Volumes

Forecast site traffic volumes for the proposed development are based upon the site trip generation and vehicular trip distribution described above. New site traffic volumes are illustrated on **Figure 12**.

6.4 FUTURE TOTAL TRAFFIC VOLUMES

Future total traffic volumes were established by adding future background traffic volumes and site traffic volumes. The resulting future total traffic volumes are illustrated on **Figure 13**.

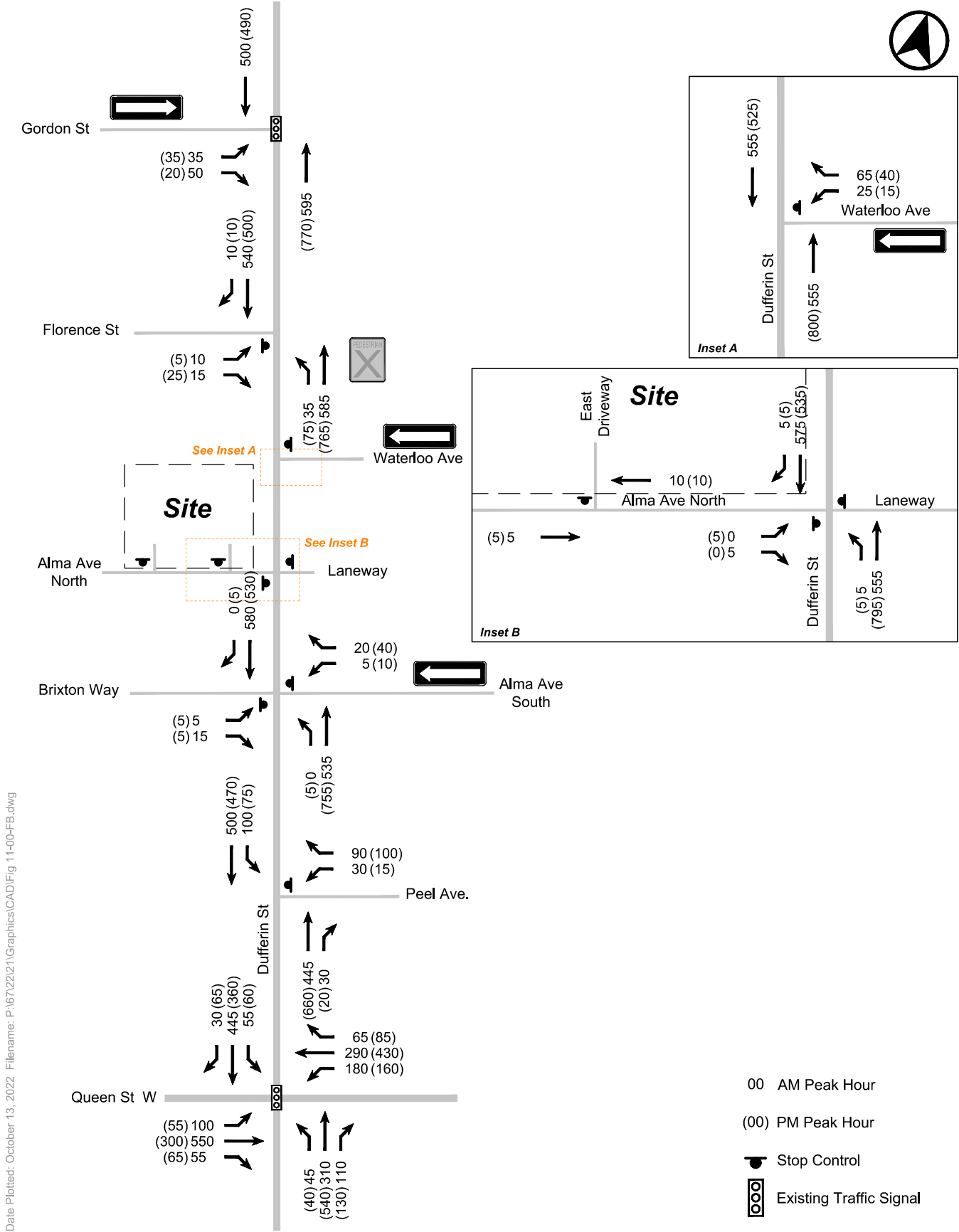
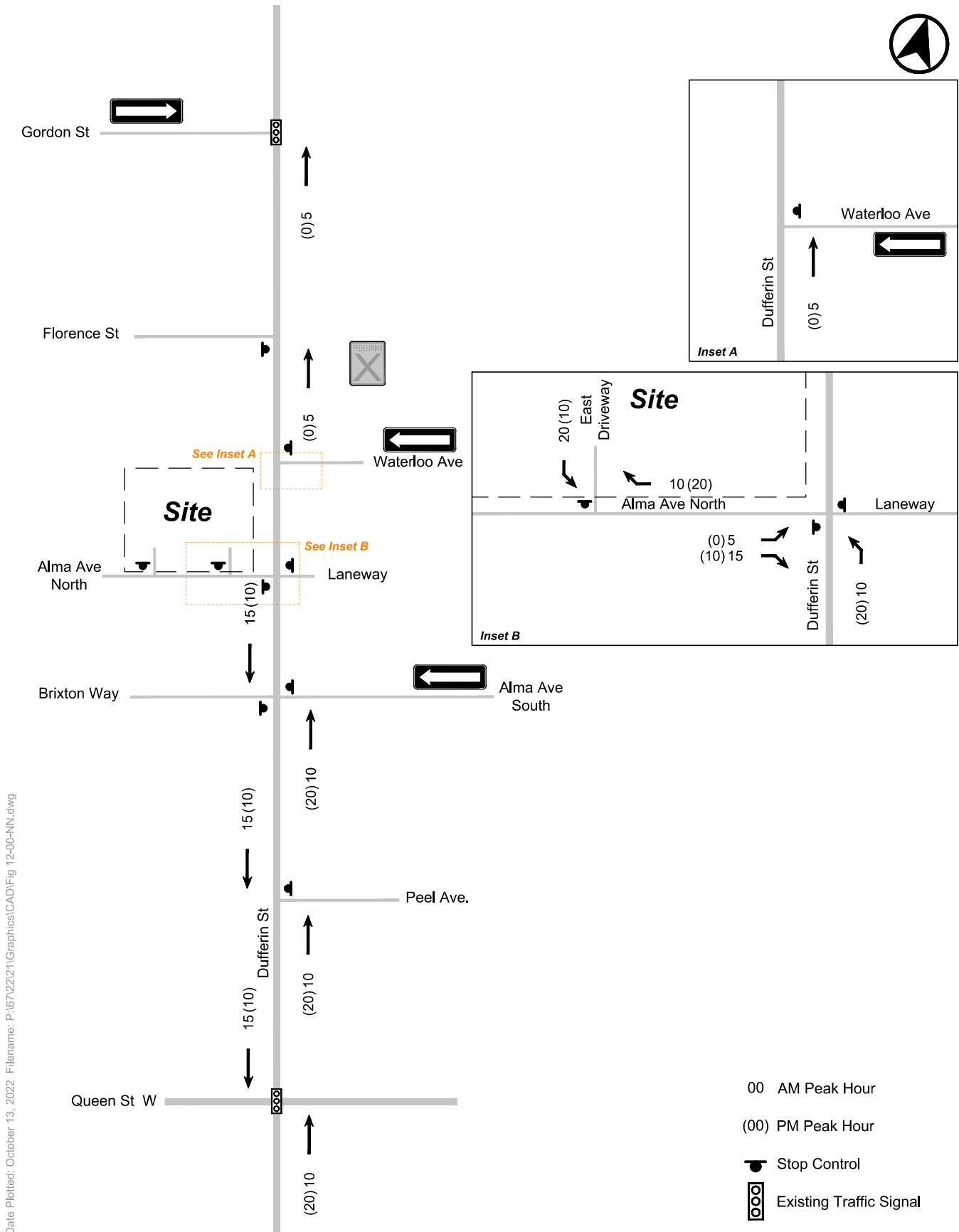


FIGURE 11 FUTURE BACKGROUND TRAFFIC VOLUMES



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FIGURE 12 NEW SITE TRAFFIC VOLUMES

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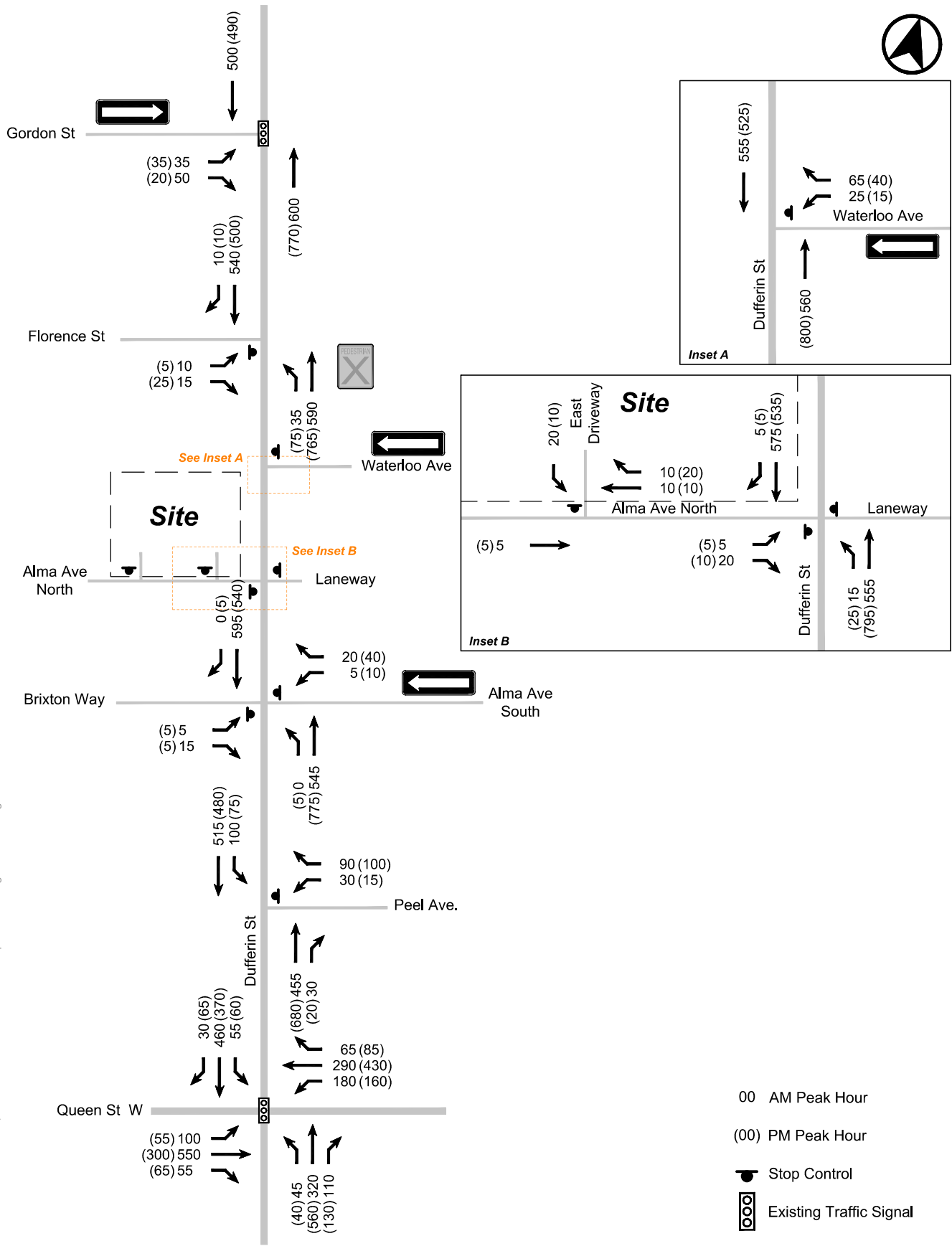


FIGURE 13 FUTURE TOTAL TRAFFIC VOLUMES

7.0 VEHICULAR TRAFFIC OPERATIONS ANALYSIS

7.1 ANALYSIS SCENARIOS

Operations analysis was undertaken for the weekday morning and weekday afternoon peak hours, for the following scenarios:

- Existing traffic conditions;
- 5-year future background traffic conditions; and
- 5-year future total traffic conditions.

7.2 ANALYSIS STUDY AREA

The following existing and future intersections were included in this analysis:

Signalized Intersections:

- Queen Street West / Dufferin Street
- Dufferin Street / Gordon Street

Unsignalized Intersections:

- Dufferin Street / Florence Avenue (PXO signal)
- Dufferin Street / Waterloo Avenue
- Dufferin Street / Alma Avenue North
- Dufferin Street / Alma Avenue South & Brixton Way
- Dufferin Street / Peel Avenue
- Alma Avenue North / Site Driveway

Although there are two existing site driveways from Alma Street, the eastern driveway did not generate any peak hour traffic and has not been included in the analysis.

7.3 ANALYSIS METHODOLOGY

Intersection capacity analysis has been completed using Synchro Version 11 and the methodology presented within the Highway Capacity Manual 2000 (HCM 2000), unless otherwise specified in the results discussion.

For signalized intersections, the volume-to-capacity ratio (V/C) is an indicator of the capacity utilization for the key movements in the intersection. A V/C ratio of 1.00 indicates that certain governing traffic movements through the intersection are operating at or near maximum capacity. The primary overall level of service (LOS) indicator is delay, both on individual movements and expressed as an average for all vehicles processed. Many busy urban intersections operate at LOS D to E, which reflect average (control) delays in the range of 35 to 80 seconds.

For unsignalized intersections, level of service (LOS) characterizes operational conditions for key movements in terms of delay within the traffic stream. LOS A represents a good level of service with short delays. LOS F represents a poor level of service with long delays. The volume to capacity (V/C) ratio is an indicator of the capacity utilization for key movements at the intersection and resultant residual capacity potential.

7.3.1 Input and Calibration Parameters

Key input parameters and calibrations for this analysis include:

- Existing lane configurations assumed for existing conditions;
- Existing signal timings provided by the City of Toronto;
- Heavy vehicle percentages derived from existing traffic counts;
- Peak hour factors as derived from existing traffic counts;
- Pedestrian and bicycle approach crossings derived from existing traffic counts;
- A lost time adjustment factor of -1.0 globally has been adopted, in addition to lane widths of 3.5 metres for through lanes and 3.0 metres for turning lanes, as outlined in the City of Toronto's *Guidelines for Using Synchro 11*; and
- Synchro defaults for all other parameters.

7.4 INTERSECTION TRAFFIC OPERATIONS

The following sections discuss the operations of the study area intersections. Synchro reports are provided in **Appendix F**.

7.4.1 Signalized Intersection Operations

Queen Street West / Dufferin Street

The intersection of Queen Street West / Dufferin Street currently operates under traffic signal control with a cycle length of 80 seconds in the weekday morning and afternoon peak hours. The results of the traffic analysis for this intersection are summarized in **Table 19**.

Under existing conditions, the intersection operates within its theoretical capacity, with overall V/C ratios of 0.71 and 0.74 during the weekday morning and afternoon peak hours, respectively.

Under future background conditions, the intersection continues to operate well, with overall V/C ratios of 0.72 and 0.78 during the weekday morning and afternoon peak hours, respectively.

Under future total conditions, the intersection will continue to operate very similarly to future background conditions, with overall V/C ratios of 0.73 and 0.79 during the weekday morning and afternoon peak hours, respectively.

TABLE 19 QUEEN STREET WEST / DUFFERIN STREET OPERATIONS SUMMARY

Movement	Existing		Future Background		Future Total	
	V/C	LOS	V/C	LOS	V/C	LOS
EBTLR	0.64 (0.39)	B (B)	0.66 (0.40)	B (B)	0.66 (0.40)	B (B)
WBTLR	0.65 (0.68)	B (B)	0.66 (0.70)	B (B)	0.66 (0.70)	B (B)
NBTLR	0.54 (0.63)	B (C)	0.58 (0.69)	C (C)	0.60 (0.70)	C (C)
SBTLR	0.59 (0.49)	C (B)	0.60 (0.56)	C (B)	0.62 (0.57)	C (B)
Overall	0.71 (0.74)	B (B)	0.72 (0.78)	B (B)	0.73 (0.79)	B (B)

Notes:

- 00 (00) – Weekday Morning Peak Hour (Weekday Afternoon Peak Hour).

Dufferin Street / Gordon Street

The intersection of Dufferin Street / Gordon Street currently operates under traffic signal control with a cycle length of 80 seconds in the weekday morning and afternoon peak hours. The results of the traffic analysis for this intersection are summarized in **Table 20**.

Under existing conditions, the intersection operates within its theoretical capacity, with overall V/C ratios of 0.25 and 0.28 during the weekday morning and afternoon peak hours, respectively.

Under future background conditions, the intersection continues to operate well, with overall V/C ratios of 0.25 and 0.30 during the weekday morning and afternoon peak hours, respectively.

Under future total conditions, the intersection will continue to operate very similarly to future background conditions, with overall V/C ratios of 0.25 and 0.30 during the weekday morning and afternoon peak hours, respectively.

TABLE 20 DUFFERIN STREET / GORDON STREET OPERATIONS SUMMARY

Movement	Existing		Future Background		Future Total	
	V/C	LOS	V/C	LOS	V/C	LOS
EBL	0.12 (0.16)	C (C)	0.12 (0.16)	C (C)	0.12 (0.16)	C (C)
EBR	0.04 (0.02)	C (C)	0.04 (0.02)	C (C)	0.04 (0.02)	C (C)
NBT	0.28 (0.30)	A (A)	0.29 (0.33)	A (A)	0.29 (0.33)	A (A)
SBT	0.24 (0.19)	A (A)	0.24 (0.21)	A (A)	0.24 (0.21)	A (A)
Overall	0.25 (0.28)	A (A)	0.25 (0.30)	A (A)	0.25 (0.30)	A (A)

Notes:

1. 00 (00) – Weekday Morning Peak Hour (Weekday Afternoon Peak Hour).

Dufferin Street / Florence Street

The intersection of Dufferin Street / Florence Street has been modelled in Synchro as a signalized intersection. This analysis is an attempt to accurately reflect the existing Pedestrian Crossover (PXO) across Dufferin Street in Synchro and is **not** to demonstrate operations for a proposed traffic signal. The following key parameters have been adopted for this analysis:

- Pedestrian crossing time of 16 seconds (assuming 1.0 m/s walk speed + 2 seconds buffer)
- Pedestrian signal activations estimated based on pedestrian data within the turning movement count (TMC) data
- Assumption that pedestrians are crossing, on average, in groups of two (resulting in 40 activations for the AM peak and 20 activations in the PM peak)
- Signal cycle length (CL) = 3600 seconds / 40 activations = 90 seconds in the AM peak
- CL = 3600 seconds / 20 activations = 180 seconds in the PM peak (adopted 90 seconds)
- Phasing set to 16 seconds for pedestrians in each peak hour
- Signal modelled as 'pretimed' in Synchro to assume the average condition over one hour

Table 21 summarizes the capacity analysis results of this intersection (modelled as a signal) under the three analysis scenarios.

Under existing conditions, the intersection theoretically operates within capacity during the weekday morning and afternoon peak hours, with overall v/c ratios of 0.24 and 0.31, respectively, when modelled as a pretimed signal using the abovementioned parameters.

Under future conditions, the intersection continues to operate under capacity with overall v/c ratios of 0.24 and 0.33 or better, during the weekday morning and afternoon peak hours, respectively.

As demonstrated, the intersection is projected to operate well during all analysis scenarios. No improvements or mitigation measures are recommended at this intersection.

TABLE 21 TRAFFIC OPERATIONS SUMMARY – DUFFERIN STREET / FLORENCE STREET

	Existing		Future Background		Future Total	
	V/C	LOS	V/C	LOS	V/C	LOS
EBLR	0.06 (0.04)	C (C)	0.06 (0.04)	C (C)	0.06 (0.04)	C (C)
NBTL	0.27 (0.36)	A (A)	0.28 (0.39)	A (A)	0.28 (0.39)	A (A)
SBTR	0.22 (0.19)	A (A)	0.22 (0.21)	A (A)	0.22 (0.21)	A (A)
Overall	0.24 (0.31)	A (A)	0.24 (0.33)	A (A)	0.24 (0.33)	A (A)

Notes:

1. 00 (00) – Weekday Morning Peak Hour (Weekday Afternoon Peak Hour).

7.4.2 Unsignalized Intersection Operations

Unsignalized intersection movements within the study area operate satisfactorily at LOS D or better in future scenarios.

No intersection improvements or mitigation measures are recommended at the unsignalized intersections in the study area. Results of traffic analysis for the study area unsignalized intersections are summarized in **Table 22**.

TABLE 22 UNSIGNALIZED INTERSECTION TRAFFIC OPERATIONS SUMMARY

Movement	Existing		Future Background		Future Total	
	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)
Dufferin Street & Waterloo Avenue						
WBLR	B (C)	14.8 (16.3)	C (C)	15.0 (17.5)	C (C)	15.1 (17.5)
Dufferin Street & Alma Avenue North						
EBTLR	B (D)	10.7 (25.5)	B (D)	10.7 (28.4)	C (C)	20.9 (17.1)
NBTL	A (A)	0.3 (0.2)	A (A)	0.3 (0.2)	A (A)	0.8 (1.3)
Dufferin Street & Brixton Way / Alma Avenue South						
EBTLR	C (C)	15.7 (19.8)	C (C)	15.9 (20.6)	C (C)	16.2 (20.7)
WBL	D (D)	32.1 (29.9)	D (D)	33.0 (31.9)	D (D)	34.0 (32.4)
WBR	B (B)	12.7 (12.1)	B (B)	12.8 (11.8)	B (B)	12.9 (11.7)
NBTL	A (A)	0.0 (0.2)	A (A)	0.0 (0.2)	A (A)	0.0 (0.2)
Dufferin Street & Peel Avenue						
WBLR	D (B)	25.4 (13.7)	D (B)	26.3 (13.6)	D (B)	27.1 (13.5)
SBTL	A (A)	4.9 (3.9)	A (A)	4.9 (3.8)	A (A)	4.9 (3.7)
Alma Avenue North & Site Driveway						
SBLR	A (A)	0.0 (0.0)	A (A)	0.0 (0.0)	A (A)	8.8 (8.7)

Notes:

1. 00 (00) = Weekday morning peak hour (Weekday afternoon peak hour).
2. Movements with no delay reported by Synchro not shown in this table.

8.0 MULTI-MODAL ANALYSIS

Multimodal trips made to and from the site were generated based on homebased modal splits for the local area, as shown in **Table 23**.

TABLE 23 AREA MODE SPLIT

Travel Mode	Weekday Morning Peak	Weekday Afternoon Peak
Auto driver	24%	22%
Passenger	6%	5%
Transit	49%	49%
Cycle	6%	8%
Walk	15%	16%
Total	100%	100%

Notes:

1. Based on a homebased TTS query for 2006 GTA Zone 110.

Based on the mode splits above, a back-calculation was made using the auto driver trips generated (per **Section 5.0**) to determine the multimodal trip generation for the proposed development. Site multimodal trip generation is summarized in **Table 24**.

TABLE 24 SITE MULTIMODAL TRIP GENERATION

	AM Peak Hour			PM Peak Hour		
	In	Out	2-Way	In	Out	2-Way
Area Mode Split						
Driver		24%			22%	
Passenger		6%			5%	
Transit		49%			49%	
Walk		15%			16%	
Cycle		6%			8%	
Multimodal Trips Generated						
Trips						
Driver	10	20	30	20	10	30
Passenger	3	5	8	5	2	7
Transit	20	41	61	45	22	67
Walk	6	13	19	15	7	22
Cycle	3	5	8	7	4	11
Total Site Trips	40	85	125	90	45	135

Notes:

1. All trips rounded to the nearest five (5).

It is expected that the proposed development will generate in the order of **125** and **135** two-way person trips in the morning and afternoon peak hours, respectively.

8.1 TRANSIT CONSIDERATIONS

Multimodal forecasting for the site as planned indicates that an additional **61** and **67** two-way transit trips will be generated in the weekday morning and afternoon peak hours, respectively.

In the morning peak hour, **41** of the transit trips are outbound from the subject site. In the afternoon peak hour, it is anticipated that **45** of the new transit trips will be inbound towards the site, equating to less than one new trip per minute in the peak hours.

The small number of peak hour trips generated by the development will not have a noticeable impact to transit operations in the surrounding area.

8.2 ACTIVE TRAVEL CONSIDERATIONS

Multimodal forecasting for the site indicates that in future, the site is projected to generate in the order of **27** and **33** two-way walking or cycling trips in the morning and afternoon peak hours, respectively. Given high level of pedestrian connectivity in the local area and proximity to a range of pedestrian destinations, it is anticipated that the existing infrastructure will be able to accommodate these additional person trips.

9.0 SUMMARY

BA Group is retained by HM RK (450 Dufferin) LP to provide transportation consulting services in support of a Zoning By-law Amendment (ZBA) to permit a proposed mixed-use redevelopment located at the municipal addresses of 450-458 Dufferin Street in the City of Toronto.

The proposed development concept includes 143 residential dwelling units and 929.9 m² retail/commercial GFA across two development phases.

9.1 KEY FINDINGS

Transportation Context

1. The site is very well located relative to public transit. Several Toronto Transit Commission (TTC) streetcar and express bus routes operate within 500 metres (7 minute walk) of the proposed development site. These routes include the 501 Queen, 504 King, 505 Dundas, 29 Dufferin, and 929 Dufferin Express.
2. There are several future transit improvements planned that will further enhance transit accessibility in the west downtown area including enhanced GO Transit services and the future Ontario Line. In particular, as part of the SmartTrack Stations Program (which will utilize the enhanced GO Transit services), King-Liberty GO Station is planned to be located approximately 700m (walking distance) from the site.
3. A number of enhancements to the local cycling network are planned (including Gladstone Avenue and Argyle Street) and in addition, the extension of the West Toronto Railpath, to begin construction in 2022, will afford future residents of the site with a far reaching active transportation option providing access along the Kitchener GO Rail corridor and into downtown.
4. Area pedestrian destinations will ensure walking activity, which is aided by the sidewalk network in the area.
5. Within a 500-metre radius of the site, there are seven (7) car-share vehicles (3 ZipCar and 4 Enterprise CarShare) and seven (7) Bike Share Toronto stations which collectively hold approximately 100 bicycles located within walking distance to the site that are available to be used on demand by Site members and visitors. In addition, Communauto vehicles may be available at any given time dependent on their location.

Transportation Demand Management

6. A suite of transportation demand management measures are 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.
7. The primary goal is to reduce the overall reliance on single-occupant vehicles (SOV) while promoting the use of more active and sustainable modes of transportation.

8. TDM measures that are proposed include Bike Share Station contribution, cycling network infrastructure contribution, on-site bicycle repair station, bicycle parking, travel information brochures, and lower vehicle parking supply rates.

Site Access

9. Vehicular access to the site is taken directly from Alma Avenue, the public street forming the southern boundary to the site. Alma Avenue can be accessed from Dufferin Street to the east. The at-grade loading facility is accessed from Alma Avenue. The 2-level underground parking garage is accessed via a ramp to the underground accessed north of the loading facility. The underground parking garage includes resident and shared residential visitor / non-residential parking.
10. Pedestrian access to the site is taken from Alma Avenue for residents, and may ultimately be taken from Alma Avenue, Dufferin Street, and the north for the proposed commercial use (i.e. varied access points if space is multiple units).
11. Cycling access to the site is at-grade for short-term residential bike parking, directly off Alma Avenue, and then at the P1 level for residents in a secure room.

Vehicular Parking

12. The site is located within a “grey hole” of contemporary City of Toronto 569-2013 Zoning By-law; former City of Toronto Zoning By-law 438-86 is applicable to the site. The minimum parking requirements for the site based on the applicable Zoning By-law 438-86 use stipulations are 137 parking spaces including 101 resident parking spaces and 36 residential visitor parking spaces.
13. The City of Toronto has signalled a change in policy direction regarding its Zoning By-law and minimum parking requirements; By-law 89-2022 (since amended) was passed to amend Zoning By-law 569-2013 and which eliminated most minimum parking requirements. The application of its minimum parking requirements to the site results in a requirement for 9 residential visitor parking spaces, of which 6 must be accessible parking.
14. It is proposed to provide parking as follows:
 - 22 resident parking spaces (equivalent to 0.15 spaces per unit)
 - 12 residential visitor parking spaces (equivalent to 0.08 spaces per unit)
 - No dedicated retail parking
 - Parking for residential visitors and retail uses to be provided on a shared, non-exclusive basis
15. In accordance with the higher accessible parking supply standard of By-law 89-2022, a total of 6 accessible parking spaces are provided throughout the development, located in close proximity to elevator cores as is required.
16. Adoption of a reduced parking standard is appropriate based upon area land use compatibility, evolving sustainable transportation context, the evolving planning policy context, transportation planning principles that have informed the proposed parking supply, the proposed TDM Plan, and recent reduced resident parking supply ratio approvals for buildings in the surrounding area.

17. Adoption of a reduced residential visitor parking standard – and the provision to share parking for non-residential uses on a non-exclusive basis – is appropriate based on recent reduced residential visitor parking supply ratio approvals for buildings in the surrounding area and the area commercial parking supply which can accommodate additional parking demand as needed.

Bicycle Parking

18. Zoning By-law 438-86 is applicable to the site. A minimum of 113 bicycle parking spaces are required, inclusive of 91 long-term bike parking spaces and 22 short-term bike parking spaces.
19. If Zoning By-law 569-2013 is applied to the site, a minimum of 158 bicycle parking spaces are required, inclusive of 129 long-term bike parking spaces and 29 short-term bike parking spaces. Introduced to Zoning By-law 569-2013 via amendment (By-law 839-2022), the short-term bicycle parking requirement may be reduced by not more than half through payment-in-lieu of bicycle parking. Each bicycle parking space that is reduced has a fee attached. The absolutely minimum bicycle parking supply is 0.1 spaces per unit or 15 bicycle parking spaces.
20. The proposed bicycle parking supply meets the requirements of Zoning By-law 569-2013 outlined above and will not utilize the bicycle parking payment-in-lieu scenario. A total of 158 bicycle parking spaces are provided, inclusive of 129 long-term bike parking spaces and 29 short-term bike parking spaces.

Loading

21. The application of Zoning By-law 438-86 loading requirements results in a minimum of one (1) Type G loading space being required, after applying Zoning By-law 569-2013 sharing permissions.
22. The application of Zoning By-law 569-2013 loading requirements results in a minimum of one (1) Type G loading space being required, after applying Zoning By-law 569-2013 sharing permissions.
23. It is proposed to provide 1 Type G loading space.
24. The Type G loading space is to be located at-grade, accessible from Alma Avenue with space for vehicle turnaround within the building.
25. The proposed loading supply and loading area arrangements are functionally appropriate and will accommodate the loading demands of the site as planned.

Site Travel Demand Forecasting

26. Travel demand forecasts have been prepared as part of this study for the build-out of the proposed development. Residential site traffic was estimated based on proxy site surveys of developments in the Toronto.
27. This site is a designated employment conversion, linked to Municipal Comprehensive Review – OPA 591 and Site and Area Specific Policy 749. City of Toronto By-law 1106-2022 states approval for the site’s land use designation to change from Core Employment Area to Mixed Use Area.
28. The proposed buildings will generate in the order of **30** two-way vehicle trips in each peak hour.
29. A reduction of 25% in single-occupant auto vehicle trips is required. For this site, a reduction of 25% has been achieved through a variety of Transportation Demand Management (TDM) measures as outlined in **Section 3.0** and by the proposed parking reduction as outlined in **Section 4.2.3**. This is best showcased by comparing the adopted residential trip generation rates to ITE Trip Generation Manual 11th Edition rates for similar buildings. The minimum required reduction of 25% in single-occupant auto vehicle trips will be achieved for this development plan.
30. Existing public street intersection peak hour traffic volumes were established based on traffic counts undertaken by Spectrum Traffic Data on behalf of BA Group.
31. Traffic allowances associated with background developments were established based upon assignment information incorporated into traffic impact studies prepared as part of their approval process.
32. Two-way corridor growth along Queen Street West and Dufferin Streets was calculated based on traffic volume counts undertaken between the years 2013 and 2022. Low or negative corridor growth was observed in all cases, except for along Dufferin Street in the afternoon peak hour, where an average increase of 2% per year was adopted. Where growth was calculated to be negative, a growth rate of 0% was adopted as a conservative measure for this analysis.
33. Future background total traffic volumes include existing traffic volumes and background traffic volumes. Future total traffic volumes were established by adding future background traffic volumes and site traffic volumes.

Traffic Operations Analysis

34. Intersection capacity analysis has been completed using Synchro Version 11 and the methodology presented within the Highway Capacity Manual 2000 (HCM 2000).
35. All signalized and unsignalized intersections and site driveways operate within their theoretical capacity during all future horizon years, indicating that the proposed road network can successfully accommodate the proposed development as planned.

Multimodal Analysis

36. Multimodal trips made to and from the site were generated based on homebased modal splits for the local area. A back-calculation was made using the auto driver trips generated (per **Section 6.3**) to determine the multimodal trip generation for the proposed development.
37. It is expected that the proposed development will generate in the order of **125** and **135** two-way person trips in the morning and afternoon peak hours, respectively.
38. Multimodal forecasting for the site as planned indicates that an additional **61** and **67** two-way transit trips will be generated in the weekday morning and afternoon peak hours, respectively.
39. In the morning peak hour, **41** of the transit trips are outbound from the subject site. In the afternoon peak hour, it is anticipated that **45** of the new transit trips will be inbound towards the site, equating to less than one new trip per minute in the peak hours.
40. Multimodal forecasting for the site indicates that in future, the site is projected to generate in the order of **27** and **33** two-way walking or cycling trips in the morning and afternoon peak hours, respectively. Given high level of pedestrian connectivity in the local area and proximity to a range of pedestrian destinations, it is anticipated that the existing infrastructure will be able to accommodate these additional person trips.

APPENDICES

APPENDIX A: Reduced Scale Architectural Plans



450 DUFFERIN

ISSUED FOR ZBA ON NOVEMBER 4, 2022



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Prior to commencement of the Work the Contractor shall verify all drawing dimensions, datums, and levels with the Contract Documents and with the conditions on site, ascertain any discrepancies between the site and the Contract Documents, and bring these items to the attention of the Architect for clarification.

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PROJECT ADDRESS

450 DUFFERIN STREET
TORONTO, ONTARIO
M6K 2A5

SHEET LIST

- A.000 COVER SHEET & DRAWING LIST
- A.010 PROJECT STATISTICS
- A.020 GFA DIAGRAMS PER 566-2013
- A.031 PERSPECTIVE VIEWS
- A.040 SHADOW STUDIES MARCH 21
- A.041 SHADOW STUDIES MARCH 21
- A.042 SHADOW STUDIES JUNE 21
- A.043 SHADOW STUDIES JUNE 21
- A.044 SHADOW STUDIES SEPTEMBER 21
- A.045 SHADOW STUDIES SEPTEMBER 21
- A.046 SHADOW STUDIES DECEMBER 21
- A.047 SHADOW STUDIES DECEMBER 21
- A.100 SITE PLAN
- A.200 PARKING LEVEL P2
- A.201 PARKING LEVEL P1
- A.202 GROUND FLOOR PLAN
- A.203 MEZZANINE FLOOR PLAN
- A.204 FLOOR PLAN - LEVEL 2
- A.205 FLOOR PLAN - TYP. LEVEL 3-4
- A.206 FLOOR PLAN - LEVEL 5
- A.207 FLOOR PLAN - TYP. LEVEL 6-14
- A.208 FLOOR PLAN - LEVEL 15
- A.209 FLOOR PLAN - MPH
- A.210 ROOF PLAN
- A.300 ELEVATION - EAST
- A.301 ELEVATION - SOUTH
- A.302 ELEVATION - WEST
- A.303 ELEVATION - NORTH
- A.400 BUILDING SECTION - EAST-WEST
- A.401 BUILDING SECTION - NORTH-SOUTH

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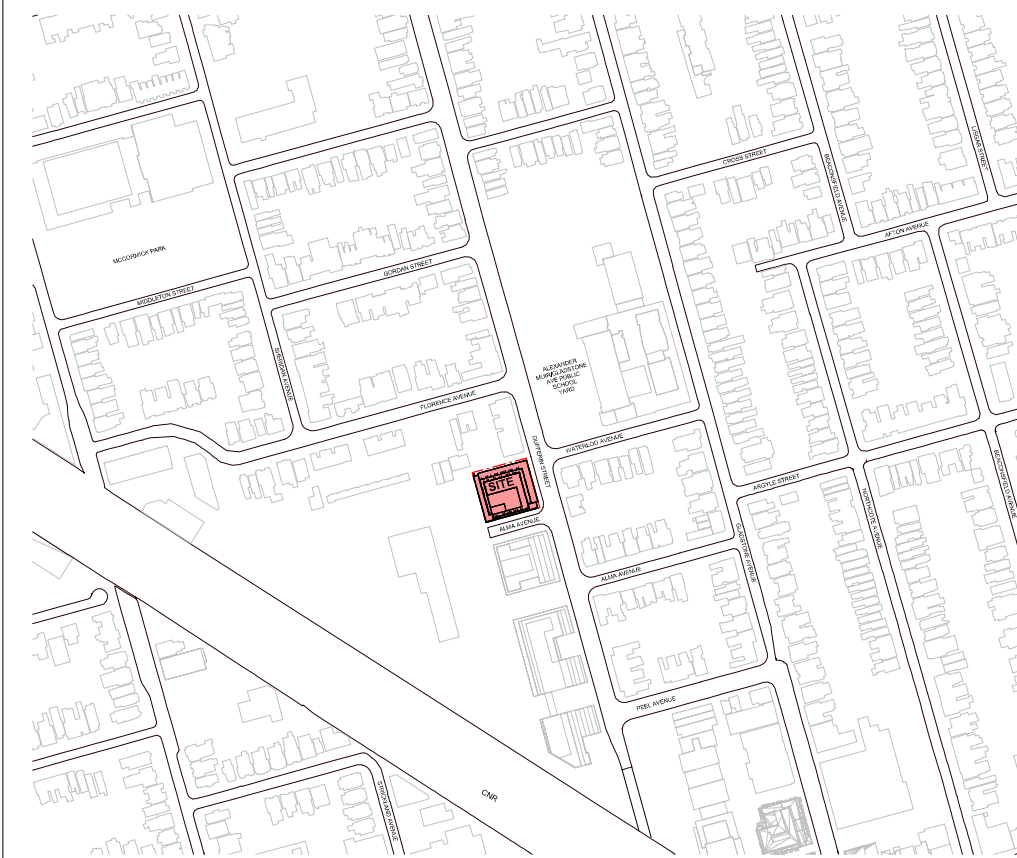
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1 CONTEXT PLAN
1:2000

1 2022.11.04 ISSUED FOR ZBA

No. Date Issue/Revision



450 DUFFERIN
450 DUFFERIN STREET
TORONTO, ON, M6K 2A5

Title:
COVER SHEET &
DRAWING LIST

Project No. 2214 Scale 1:2000

Drawing No.

A 000

ZONING BY-LAW PROJECT STATISTICS												
GROSS CONSTRUCTION AREA		ZBL 569-2013 EXCLUSIONS		CITY WIDE BY-LAW 569-2013 GROSS FLOOR AREA								
Level	Area (m ²)	Area (sq ft)	Area (m ²)	Area (sq ft)	GFA (RESIDENTIAL)		GFA (Commercial)		Amenity Floor Area		TOTAL GROSS FLOOR AREA	
					Area (m ²)	Area (sq ft)	Area (m ²)	Area (sq ft)	Area (m ²)	Area (sq ft)	Area (m ²)	Area (sq ft)
P2	1371.7 m ²	14765 ft ²	1349.4 m ²	14525 ft ²	22.3 m ²	240 ft ²					22.3 m ²	240 ft ²
P1	1371.8 m ²	14766 ft ²	1331.8 m ²	14336 ft ²	25.8 m ²	277 ft ²	14.2 m ²	153 ft ²			40.0 m ²	430 ft ²
GROUND LEVEL	1342.3 m ²	14449 ft ²	657.8 m ²	7081 ft ²	122.0 m ²	1313 ft ²	562.5 m ²	6055 ft ²			684.5 m ²	7368 ft ²
MEZZANINE	439.4 m ²	4730 ft ²	86.2 m ²	928 ft ²			353.2 m ²	3802 ft ²			353.2 m ²	3802 ft ²
LEVEL 2	1226.2 m ²	13199 ft ²	78.5 m ²	845 ft ²	1147.7 m ²	12354 ft ²					1147.7 m ²	12354 ft ²
LEVEL 3	1226.2 m ²	13199 ft ²	72.0 m ²	775 ft ²	1154.2 m ²	12424 ft ²					1154.2 m ²	12424 ft ²
LEVEL 4	1226.2 m ²	13199 ft ²	72.0 m ²	775 ft ²	1154.2 m ²	12424 ft ²					1154.2 m ²	12424 ft ²
LEVEL 5	729.0 m ²	7847 ft ²	64.9 m ²	699 ft ²	682.1 m ²	7342 ft ²					682.1 m ²	7342 ft ²
LEVEL 6	729.0 m ²	7847 ft ²	64.9 m ²	699 ft ²	664.1 m ²	7148 ft ²					664.1 m ²	7148 ft ²
LEVEL 7	729.0 m ²	7847 ft ²	64.9 m ²	699 ft ²	664.1 m ²	7148 ft ²					664.1 m ²	7148 ft ²
LEVEL 8	729.0 m ²	7847 ft ²	64.9 m ²	699 ft ²	664.1 m ²	7148 ft ²					664.1 m ²	7148 ft ²
LEVEL 9	729.0 m ²	7847 ft ²	64.9 m ²	699 ft ²	664.1 m ²	7148 ft ²					664.1 m ²	7148 ft ²
LEVEL 10	729.0 m ²	7847 ft ²	64.9 m ²	699 ft ²	664.1 m ²	7148 ft ²					664.1 m ²	7148 ft ²
LEVEL 11	729.0 m ²	7847 ft ²	64.9 m ²	699 ft ²	664.1 m ²	7148 ft ²					664.1 m ²	7148 ft ²
LEVEL 12	729.0 m ²	7847 ft ²	64.9 m ²	699 ft ²	664.1 m ²	7148 ft ²					664.1 m ²	7148 ft ²
LEVEL 13	729.0 m ²	7847 ft ²	64.9 m ²	699 ft ²	664.1 m ²	7148 ft ²					664.1 m ²	7148 ft ²
LEVEL 14	729.0 m ²	7847 ft ²	64.9 m ²	699 ft ²	664.1 m ²	7148 ft ²					664.1 m ²	7148 ft ²
LEVEL 15	333.8 m ²	3593 ft ²	33.8 m ²	363 ft ²			289.6 m ²	3117 ft ²			289.6 m ²	3117 ft ²
MPH	333.8 m ²	3593 ft ²	33.8 m ²	363 ft ²								
TOTAL	16161.6 m ²	173962 ft ²	4946.9 m ²	53248 ft ²	10284.8 m ²	110705 ft ²	929.9 m ²	10009 ft ²	289.6 m ²	3117 ft ²	11214.7 m ²	120714 ft ²

NOTES:

- In the Residential Apartment Zone category, the gross floor area of an apartment building is reduced by the area in the building used for:
 (A) parking, loading and bicycle parking below established grade;
 (B) required loading spaces and required bicycle parking spaces at or above established grade;
 (C) storage rooms, washrooms, electrical, utility, mechanical and ventilation rooms in the basement;
 (D) shower and change facilities required by this By-law for required bicycle parking spaces;
 (E) indoor amenity space required by this By-law;
 (F) elevator shafts;
 (G) garbage shafts;
 (H) mechanical penthouse; and
 (I) exit stairwells in the building.

PROJECT STATISTIC SUMMARY		
450 DUFFERIN STREET TORONTO, ONTARIO M6K 2A5		
ZONING DESIGNATION		
ZBL 438-86 (EXISTING)	I D2	
ZBL 569-2013 (PROPOSED)	CR 8.0 (c1.0, r7.5) SS1 (xR###)	
SITE DENSITY		
EXISTING LOT AREA:	1495.0 m ² (16,092 sf)	
SITE FSI: 7.50		
BUILDING HEIGHT: 53.1m (174.2f)		
# OF STORIES (ABOVE GRADE): 15		

UNIT STATISTICS				
TOTAL RESIDENTIAL SUITES: 143				
SUITE BREAKDOWN:				
# OF BEDROOMS	COUNT	PERCENTAGE	AVERAGE (SM)	AVERAGE (SF)
STUDIO	50	35.0%	41.27 m ²	444.2 m ²
1 BD	46	32.2%	60.96 m ²	656.1 m ²
2 BD	32	22.4%	79.46 m ²	855.2 m ²
3 BD	15	10.5%	102.67 m ²	1105.1 m ²

COMMERCIAL SPACE		
	REQUIRED*	PROVIDED
	897.1 9657.1	897.8 m ² 9664 ft ²

NOTES:
 *Required commercial space @ 8% of GFA (m² / ft²). Provided Commercial space excludes Commercial Elevator Lobbies on P1, GF and Mezzanine.

AMENITY SPACE		
REQUIRED AMENITY SPACE PER ZBL 569-2013		
15,10,40,50 Decks, Platforms and Amenities		
(1) Amenity Space for an Apartment Building in the RA zone, an apartment building with 20 or more dwelling units must provide amenity space at a minimum rate of 4.0 square metres for each dwelling unit, of which:		
(A) at least 2.0 square metres for each dwelling unit is indoor amenity space located at or above established grade; [By-law: 1353-2015]		
(B) at least 40.0 square metres is outdoor amenity space in a location adjoining or directly accessible to the indoor amenity space; and		
(C) no more than 25% of the outdoor component may be a green roof.		

INDOOR AMENITY SPACE		
	REQUIRED	PROVIDED
	286 m ² 3079 ft ²	289.6 m ² 3117 ft ²
OUTDOOR AMENITY SPACE		
	REQUIRED	PROVIDED
	286 m ² 3079 ft ²	286.5 m ² 3084 ft ²

PARKING SPACE			
PROVIDED			
	Rate	Spaces	
RESIDENTIAL PARKING	0.16/unit	22	
VISITOR (RESIDENTIAL) PARKING	0.09/unit	12	
COMMERCIAL PARKING**	0	0	
TOTAL		34	

NOTES:
 * of 34 parking spots provided 6 will be BF.
 ** No exclusive commercial parking but will be shared with visitor (residential) parking
 *** All residential parking spaces (22 spaces) and 25% of non-residential parking spaces (3 spaces) to include an energized outlet capable of providing level 2 charging or higher to the parking space.

BIKE PARKING SPACES				
PROVIDED				
	Rate	Spaces	Rate	Spaces
SHORT TERM BIKE PARKING	0.2/unit	29	0.2/unit	29
LONG TERM BIKE PARKING	0.9/unit	129	0.9/unit	129
TOTAL		158		158

NOTES:
 1. As per the new Toronto Green Standard V4.0, 15% of the residential long-term spaces must be electric spaces, 20 of the Long Term spaces are electric bicycle spaces (see floor plans).
 2. Assumes double decker bike rack system for all non-electric bikes.

STORAGE LOCKERS			
PROVIDED			
	Rate	Spaces	
STORAGE LOCKERS	1.0/unit	143	
TOTAL		143	

LOADING TYPE

1 - TYPE "G"

UNIT BREAKDOWN (PER FLOOR)		
Level	# of Bedrooms	Area
LEVEL 2	1 BD	66.4 m ²
LEVEL 2	1 BD	62.4 m ²
LEVEL 2	1 BD	67.0 m ²
LEVEL 2	2 BD	85.7 m ²
LEVEL 2	2 BD	70.3 m ²
LEVEL 2	2 BD	70.3 m ²
LEVEL 2	3 BD	94.2 m ²
LEVEL 2	3 BD	95.4 m ²
LEVEL 2	3 BD	117.3 m ²
LEVEL 2	3 BD	107.1 m ²
LEVEL 2	3 BD	99.7 m ²
LEVEL 3	1 BD	66.4 m ²
LEVEL 3	1 BD	67.4 m ²
LEVEL 3	2 BD	85.7 m ²
LEVEL 3	2 BD	70.3 m ²
LEVEL 3	2 BD	70.3 m ²
LEVEL 3	2 BD	89.7 m ²
LEVEL 3	3 BD	94.2 m ²
LEVEL 3	3 BD	94.5 m ²
LEVEL 3	3 BD	117.3 m ²
LEVEL 3	3 BD	107.1 m ²
LEVEL 3	3 BD	100.0 m ²
LEVEL 4	1 BD	66.4 m ²
LEVEL 4	1 BD	67.4 m ²
LEVEL 4	2 BD	85.7 m ²
LEVEL 4	2 BD	70.3 m ²
LEVEL 4	2 BD	70.3 m ²
LEVEL 4	2 BD	89.7 m ²
LEVEL 4	3 BD	94.2 m ²
LEVEL 4	3 BD	94.5 m ²
LEVEL 4	3 BD	117.3 m ²
LEVEL 4	3 BD	107.1 m ²
LEVEL 4	3 BD	100.0 m ²
LEVEL 5	1 BD	66.4 m ²
LEVEL 5	1 BD	67.4 m ²
LEVEL 5	1 BD	67.2 m ²
LEVEL 5	2 BD	84.8 m ²
LEVEL 5	2 BD	84.7 m ²
LEVEL 5	2 BD	73.7 m ²
LEVEL 5	STUDIO	44.0 m ²
LEVEL 5	STUDIO	42.2 m ²
LEVEL 5	STUDIO	37.6 m ²
LEVEL 5	STUDIO	39.7 m ²
LEVEL 5	STUDIO	43.0 m ²
LEVEL 6	1 BD	51.5 m ²
LEVEL 6	1 BD	50.5 m ²
LEVEL 6	1 BD	67.4 m ²
LEVEL 6	1 BD	69.0 m ²
LEVEL 6	2 BD	80.1 m ²
LEVEL 6	2 BD	80.1 m ²
LEVEL 6	STUDIO	44.0 m ²
LEVEL 6	STUDIO	42.2 m ²
LEVEL 6	STUDIO	39.5 m ²
LEVEL 6	STUDIO	37.6 m ²
LEVEL 6	STUDIO	43.1 m ²
LEVEL 7	1 BD	51.5 m ²
LEVEL 7	1 BD	50.5 m ²
LEVEL 7	1 BD	67.4 m ²
LEVEL 7	1 BD	69.0 m ²
LEVEL 7	2 BD	80.1 m ²
LEVEL 7	2 BD	80.1 m ²
LEVEL 7	STUDIO	44.0 m ²
LEVEL 7	STUDIO	42.2 m ²
LEVEL 7	STUDIO	39.5 m ²
LEVEL 7	STUDIO	37.6 m ²
LEVEL 7	STUDIO	43.1 m ²
LEVEL 8	1 BD	51.5 m ²
LEVEL 8	1 BD	50.5 m ²
LEVEL 8	1 BD	67.4 m ²
LEVEL 8	1 BD	69.0 m ²
LEVEL 8	2 BD	80.1 m ²
LEVEL 8	2 BD	80.1 m ²
LEVEL 8	STUDIO	44.0 m ²
LEVEL 8	STUDIO	42.2 m ²
LEVEL 8	STUDIO	39.5 m ²
LEVEL 8	STUDIO	37.6 m ²
LEVEL 8	STUDIO	43.1 m ²
LEVEL 9	1 BD	51.5 m ²
LEVEL 9	1 BD	50.5 m ²
LEVEL 9	1 BD	67.4 m ²
LEVEL 9	1 BD	69.0 m ²
LEVEL 9	2 BD	80.1 m ²
LEVEL 9	2 BD	80.1 m ²
LEVEL 9	STUDIO	44.0 m ²
LEVEL 9	STUDIO	42.2 m ²
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LEVEL 11	1 BD	51.5 m ²
LEVEL 11	1 BD	50.5 m ²
LEVEL 11	1 BD	67.4 m ²
LEVEL 11	1 BD	69.0 m ²
LEVEL 11	2 BD	80.1 m ²
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LEVEL 11	STUDIO	43.1 m ²
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LEVEL 12	1 BD	69.0 m ²
LEVEL 12	2 BD	80.1 m ²
LEVEL 12	2 BD	80.1 m ²
LEVEL 12	STUDIO	44.0 m ²
LEVEL 12	STUDIO	42.2 m ²
LEVEL 12	STUDIO	39.5 m ²
LEVEL 12	STUDIO	37.6 m ²
LEVEL 12	STUDIO	43.1 m ²
LEVEL 13	1 BD	51.5 m ²

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AERIAL VIEW LOOKING NORTH-WEST



VIEW FROM DUFFERIN LOOKING SOUTH-WEST



VIEW OF EAST FACADE FROM DUFFERIN



VIEW FROM DUFFERIN LOOKING NORTH-WEST

1	2022.11.04	ISSUED FOR ZBA
No.	Date	Issue/Revision



450 DUFFERIN
450 DUFFERIN STREET
TORONTO, ON, M6K 2A5

Title:
PERSPECTIVE VIEWS

Project No. 2214	Scale
Drawing No.	

A 031

NOTES:

SITE PLAN NOTES

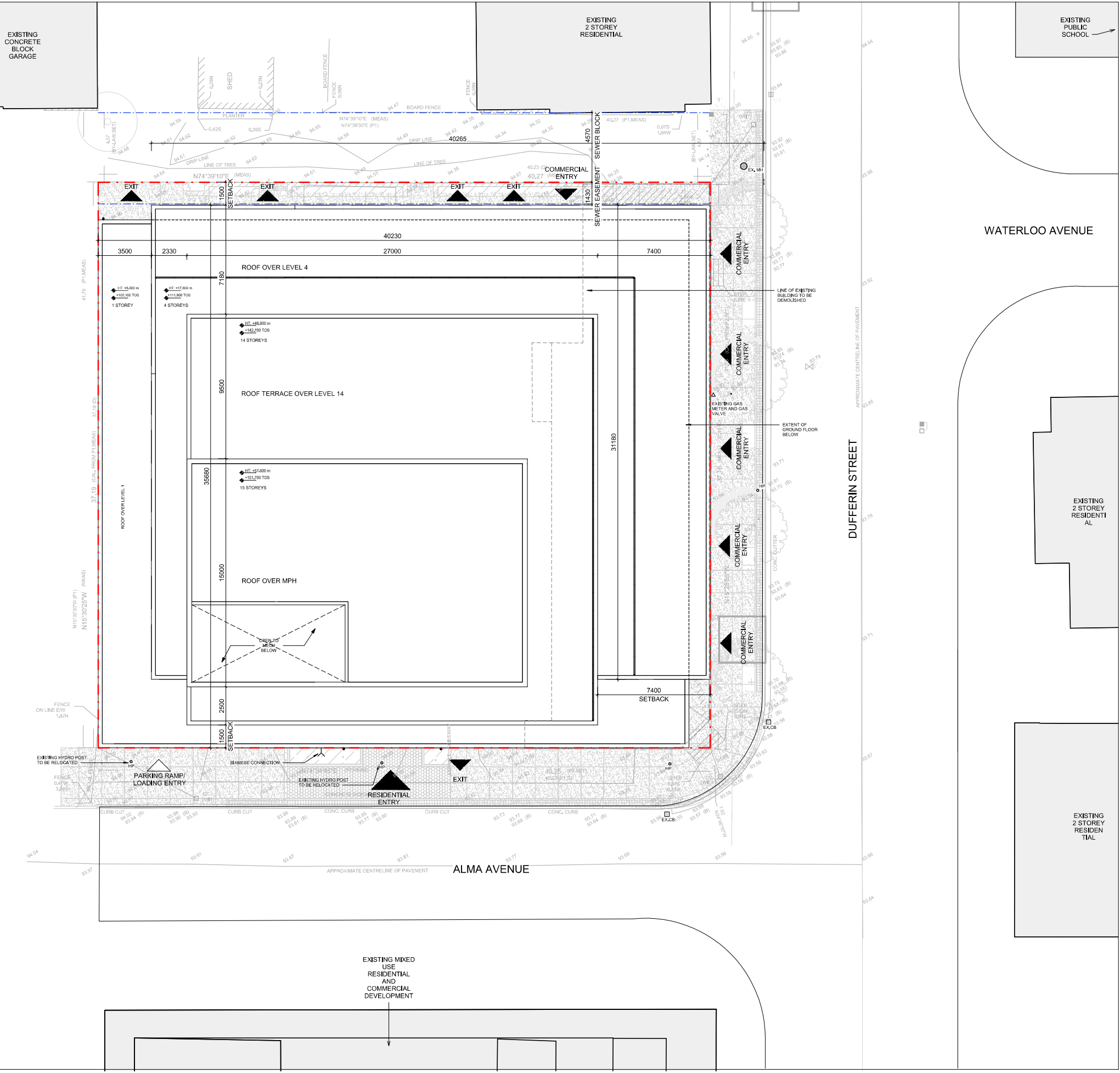
1. THE BUILDING IS TO BE SPRINKLERED.
2. RESIDENTIAL VISITOR PARKING SPACES WILL BE INDIVIDUALLY SIGNED AT THE FRONT OF EACH SPACE FOR THE USE OF RESIDENTIAL VISITORS. BUILDING MANAGEMENT SHALL PROVIDE SIGNAGE ENFORCEMENT OF THIS ARRANGEMENT.
3. SIDEWALKS AND BOULEVARDS WITHIN THE RIGHT OF WAY TO HAVE A MINIMUM 1.8 M AND MAXIMUM 4% SLOPE TOWARDS THE ROADWAY.
4. REFER TO SITE SURVEY DOCUMENTS FOR SEWER AND WATER SERVICE INFORMATION.
5. ANY RETAINING WALLS ARE TO BE PROFESSIONALLY ENGINEERED.
6. ALL EXISTING ACCESSES, CURB CUTS, TRAFFIC CONTROL SIGNS, ETC. ALONG THE DEVELOPMENT SITE FRONTS THAT ARE NO LONGER REQUIRED ARE TO BE REMOVED. THE BOULEVARD WITHIN THE PUBLIC RIGHT OF WAY IN ACCORDANCE WITH CITY STANDARDS AND TO THE SATISFACTION OF THE EXECUTIVE DIRECTOR OF TECHNICAL SERVICES ARE TO BE REINSTATED.
7. PROPOSED ACCESS TO THE RIGHT-OF-WAY/DRIVEWAY FOR THIS PROJECT TO BE DESIGNED IN ACCORDANCE WITH CITY STANDARD NO. T316-08-01 FOR COMBINED CURB AND SIDEWALK VEHICULAR ENTRANCES.
8. NO SPREAD BUMPS SHALL BE INSTALLED ON ANY DESIGNATED FIRE ROUTE.
9. MAX. POROSITY OF ALL GROUND LEVEL VENTILATION GRATES SHALL BE 20mm X 20mm PER TORONTO GREEN STANDARDS.
10. ALL EXTERIOR LIGHT FIXTURES TO BE "DARK SKY" COMPLIANT.

UTILITIES NOTES

1. THE METHOD OF INSTALLATION FOR THE PROPOSED SERVICE CONNECTIONS WILL BE AT THE DISCRETION OF TORONTO WATER.
2. EXISTING CONNECTIONS NO LONGER IN USE SHALL BE DISCONNECTED BY TORONTO WATER AT THE OWNERS COST.
3. THE LOCATION OF THE WATER METER SHALL BE TO TORONTO WATERS SATISFACTION.
4. THE OWNER IS REQUIRED TO INSTALL AND MAINTAIN A PREMISE ISOLATION DEVICE FOR ALL APPLICABLE WATER SERVICES IN ACCORDANCE WITH THE TORONTO MUNICIPAL CODE, CHAPTER B51 WATER SUPPLY, THE BUILDING CODE AND CSA SERIES STANDARDS.
5. THE BUILDING'S STORM AND SANITARY SYSTEM MUST BE DESIGNED TO BE ABLE TO OPERATE UNDER MUNICIPAL PURCHASE CONDITIONS.
6. BE ADVISED THAT SHOULD ANY PARTY, INCLUDING THE APPLICANT OR ANY SUBSEQUENT OWNER, APPLY FOR MORE THAN ONE CONDOMINIUM CORPORATION ENCOMPASSING ANY OR ALL OF THIS DEVELOPMENT OR MAKE AN APPLICATION THAT RESULTS IN A LAND DIVISION, STAFF MAY REQUIRE LEGAL ASSURANCES, INCLUDING BUT NOT LIMITED TO EASEMENTS, WITH RESPECT TO THE APPROVED SERVICES. SUCH ASSURANCES WILL BE DETERMINED AT THE TIME OF APPLICATION FOR CONDOMINIUM APPROVAL.

LOADING NOTES

1. TYPE G LOADING SPACE AND ADJACENT STAGING PAD HAVE VERTICAL CLEARANCE OF MIN 6.1 METERS. OVERHEAD DOOR TO LOADING SPACE WILL HAVE MIN 4.1 METER HEIGHT. 2. MDEEP STAGING AREA DIRECTLY IN FRONT OF THE LOADING AREA TO HAVE MIN VERTICAL CLEARANCE OF 6.1M.
2. TYPE G LOADING SPACE WILL BE SHARED BETWEEN RESIDENTIAL AND NON-RESIDENTIAL USES. NON-RESIDENTIAL COMPONENT WILL ONLY SCHEDULE USE OF THE TYPE G LOADING SPACE ON DIFFERENT DAYS FROM THE COLLECTION DAYS OF THE RESIDENTIAL COMPONENT TO ENSURE THAT THE TYPE G LOADING SPACE WILL BE VACANT FOR CITY WASTE COLLECTION.
3. NON-RESIDENTIAL WASTE WILL BE LABELED AND STORED SEPARATELY FROM THE BIN FOR RESIDENTIAL WASTE.
4. TYPE G LOADING SPACE WILL BE LEVEL (+/-2%) AND CONSTRUCTED WITH MIN 200mm THICK CONCRETE SLAB.
5. A WARNING SYSTEM WILL BE PROVIDED. ALERTING DRIVERS WHEN EXITING THE UNDERGROUND PARKING GARAGE THAT LARGE TRUCKS ARE MANOEUVRING WITHIN THE PUBLIC LINE.
6. ALL ACCESS DRIVEWAYS TO BE USED BY THE GARBAGE COLLECTION VEHICLE WILL HAVE:
 - a) MAXIMUM GRADIENT OF 8%.
 - b) MINIMUM VERTICAL CLEARANCE OF 4.4 METRES THROUGHOUT.
 - c) MINIMUM WIDTH OF 4.2 METRES THROUGHOUT, AND:
 - d) 6 METRES WIDE AT POINT OF INGRESS AND EGRESS.
7. NO PARKING SPACES TO BE PROVIDED AND MAINAINED ADJACENT TO THE LOADING SPACE.
8. CONSTRUCT ANY TYPE G LOADING SPACE AND ALL DRIVEWAYS AND PASSAGEWAYS PROVIDING ACCESS THERETO, TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE INCLUDING ALLOWANCE FOR CITY OF TORONTO BULK LIFT AND REAR BIN LOADING WITH IMPACT FACTORS WHERE THEY ARE TO BE BUILT AS SUPPORTED STRUCTURES.
9. THE RESIDENTIAL SOLID WASTE ROOM WILL ACCOMMODATE GARBAGE RECYCLING AND ORGANICS FOR THE RESIDENTIAL COMPONENT OF THE BUILDING VIA USE OF A TRUSSORTER.
10. BULK WASTE HAS 10m² DESIGNATED FLOOR AREA.
11. COLLECTION OF WASTE MATERIALS FOR THIS DEVELOPMENT WILL TAKE PLACE IN A PARTIALLY ENCLOSED LOADING BAY. AN ONSITE STAFF PERSON IS RESPONSIBLE FOR MOVING THE BINS FROM THE GARBAGE STORAGE SPACE TO THE COLLECTION POINT AND PROVIDE VEHICULAR DIRECTIONES TO THE COLLECTION VEHICLE OPERATOR AS REQUIRED.
12. THIS BUILDING IS DESIGNED WITH A TYPE G LOADING SPACE. A FLASHING WARNING LIGHT SYSTEM AND/OR APPROPRIATE SIGNAGE ADJACENT TO THE SPACE. AT NO COST TO THE CITY, WILL BE IN PLACE AND ACTIVATED DURING COLLECTION AND REMAIN ACTIVE UNTIL THE VEHICLE EXITS THE SITE. REFER TO TRAFFIC CONSULTANT REPORT FOR SNEEPT PATH.
13. SOLID WASTE MANAGEMENT TO BE NOTIFIED UPON COMPLETION OF THE DEVELOPMENT AND SHOULD PUBLIC WASTE COLLECTION BE USED. ALL NECESSARY APPLICATION AND WAIVER FORMS TO BE COMPLETED PRIOR TO COMMENCEMENT OF CITY REFUSE COLLECTION.
14. NON-RESIDENTIAL GARBAGE WILL BE COLLECTED BY LICENSED PRIVATE WASTE MANAGEMENT COMPANY.
15. REFUSE GENERATED BY THE NON-RESIDENTIAL USE MUST BE STORED ON SITE.
16. "ROCKET PROOF" CONTAINERS IN ACCORDANCE WITH CHAPTER B61 OF THE MUNICIPAL CODE "WASTE COLLECTION, COMMERCIAL PROPERTIES".



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LEGEND

	PRINCIPAL ENTRY
	VEHICULAR ENTRY/EXIT
	SEWER CONNECTION
	FIRE HYDRANT
	EXISTING MANHOLE
	EXISTING CATCH BASIN
	MANHOLE
	CATCH BASIN
	EXISTING HYDRO POLE
	EXISTING HYDRO LIGHT POLE
	GEODEIC ELEVATION (ESTABLISHED GRADE - XX.XX)
	EXISTING GRADE ELEVATION
	BARRIER FREE TURNING RADIUS
	PROPERTY LINE
	FFP FINISHED FLOOR ELEVATION
	TOP OF PARAPET
	TOR TOP OF ROOF
	TOS TOP OF STRUCTURE
	TOFF TOP OF FINISHED PAVER
	TGS TORONTO GREEN STANDARDS
	TPZ TREE PROTECTION ZONE

NOTES:

SURVEY INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY OF PART OF LOT 6 REGISTERED PLAN 294 YORK, CITY OF TORONTO

BY RLS SURVEYING INC.

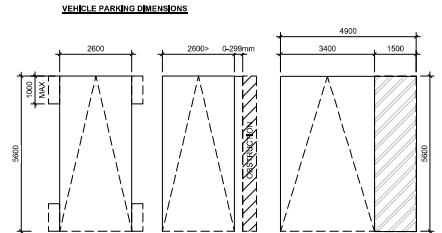
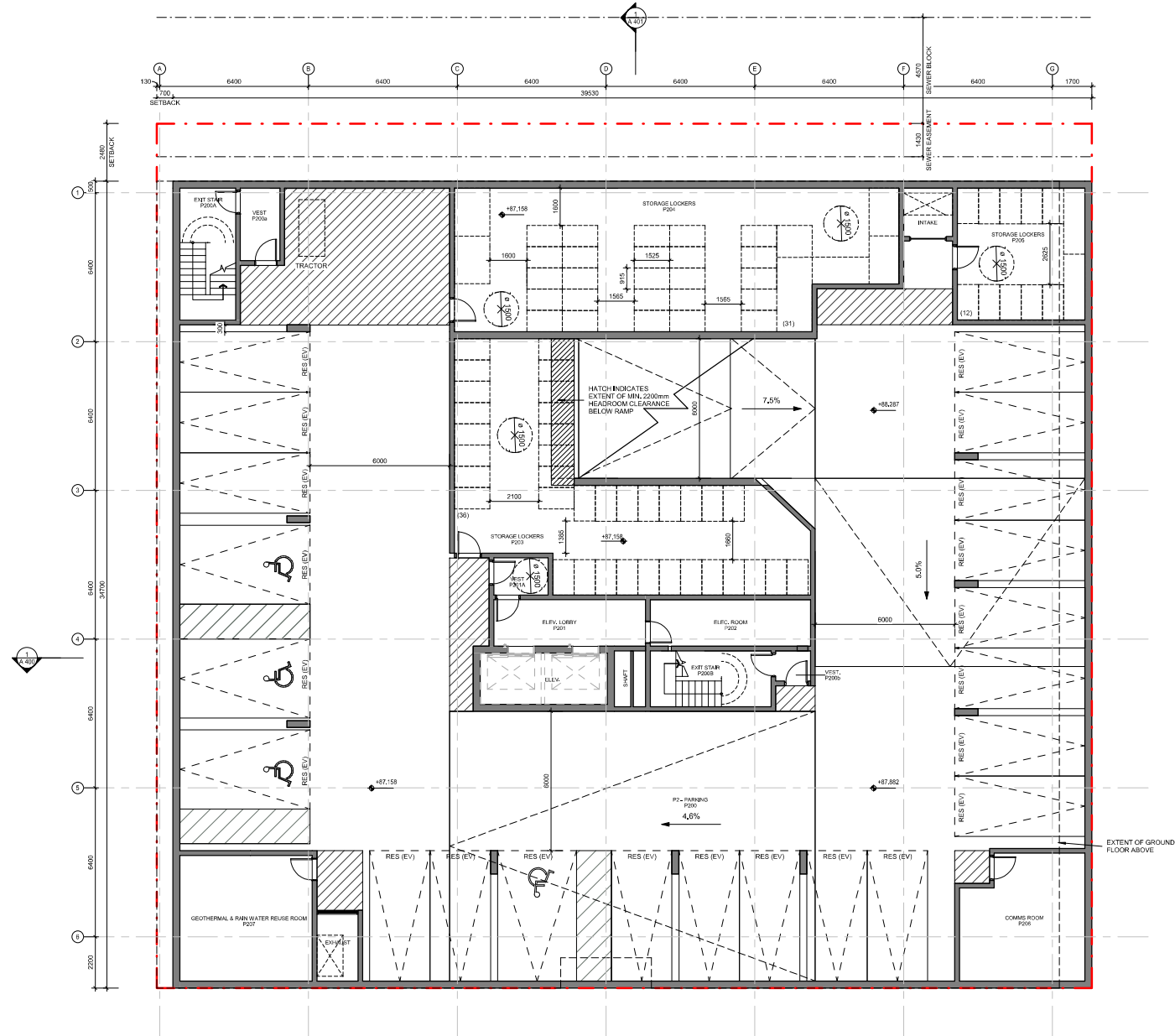
1	2022.11.04	ISSUED FOR ZBA
No.	Date	Issue/Revision

450 DUFFERIN
450 DUFFERIN STREET
TORONTO, ON, M6K 2A5

SITE PLAN

Project No. 2214 Scale 1:100
Drawing No.

A 100



PARKING LEGEND

RES	RESIDENTIAL
COM	COMMERCIAL
VIS	VISITOR
EV	ELECTRICAL VEHICLE CHARGING STATIONS (WHERE INDICATED ON PLANS, PROVIDE EV CHARGING STATIONS AT PARKING SPACES, PROVIDE ROUGH-IN (CONDUIT ONLY) FOR EV CHARGING AT ALL REMAINING SPACES.

NOTE

- MIRRORS AND TRAFFIC CONTROL SIGNS ARE TO BE MOUNTED SO THAT THE BOTTOM OF THE SIGNS AND/OR MIRRORS ARE 2.30 METRES ABOVE CURB OR GRADE EXCEPT WHERE RESTRICTED BY OVERHEAD STRUCTURE UTILITIES IN WHICH CASE THE DISTANCE BETWEEN BOTTOM OF SIGNS AND FLOOR SHALL BE MAXIMIZED. SIGNS RAINING PARALLEL AND PERPENDICULAR TO THE CURB FACE SHOULD BE PLACED SUCH THAT THE OUTER EDGE OF THE SIGN WILL NOT PROJECT BEYOND THE CURB INTO THE TRAFFIC LANE.
- MAINTAIN MIN. 2100MM CLEAR HEADROOM IN ALL LOCKERS.
- MAINTAIN MIN. 2100MM CLEAR HEADROOM THROUGHOUT.
- THE SLOPE OF ALL DRIVE ABLES (EXCEPT RAMPS WITH NOTED SLOPES) DOES NOT EXCEED THE MAXIMUM OF 5%, THE WIDTH OF ALL DRIVE ABLES TO BE A MINIMUM OF 7000MM UNLESS OTHERWISE NOTED.

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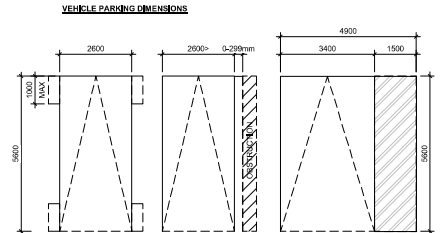
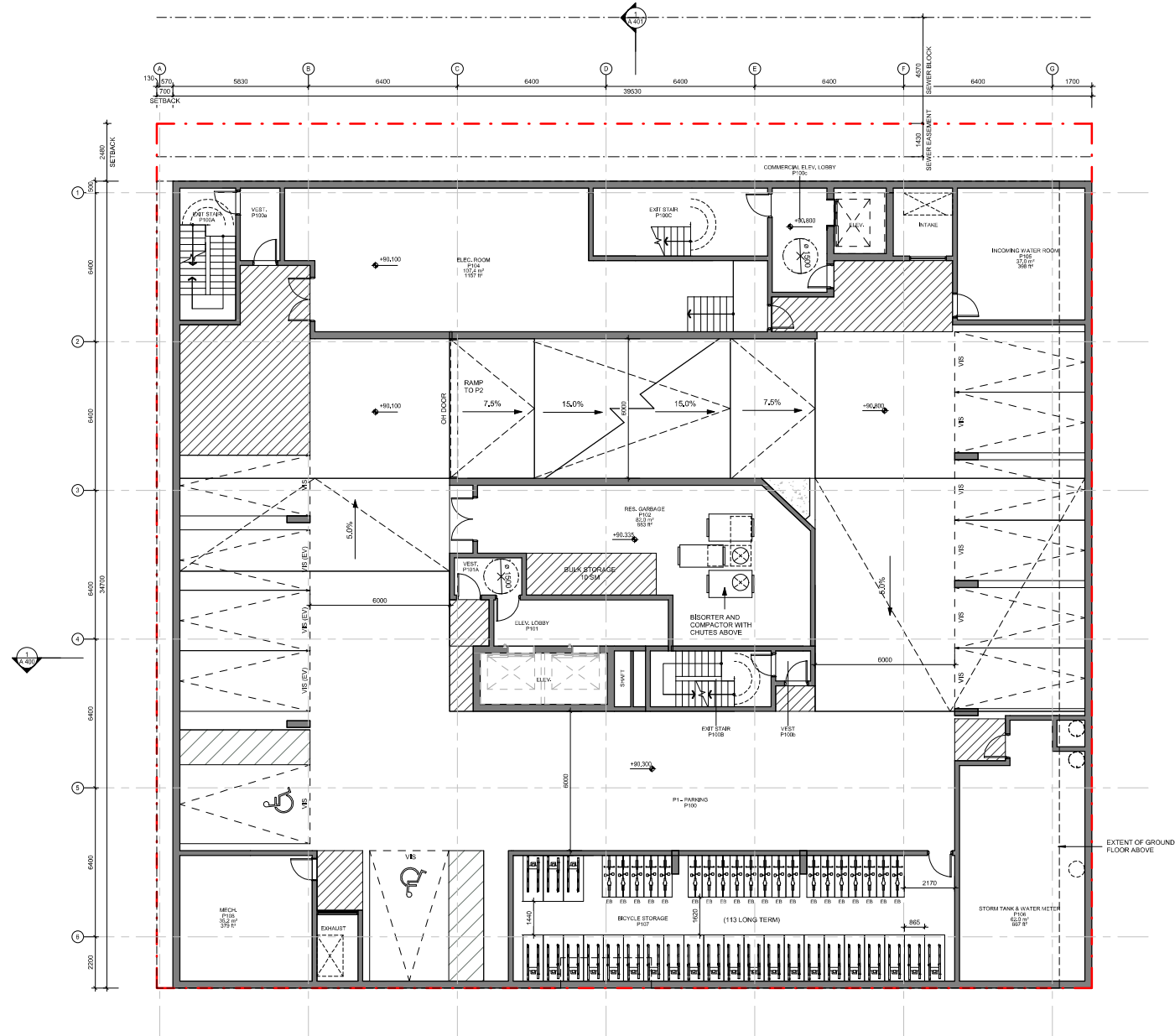
No.	Date	Issue/Revision

450 DUFFERIN
 450 DUFFERIN STREET
 TORONTO, ON, M6K 2A5

Title:
PARKING LEVEL P2

Project No. 2214 Scale 1:100
 Drawing No.

A 200



PARKING LEGEND

RES	RESIDENTIAL
COM	COMMERCIAL
VIS	VISITOR
EV	ELECTRICAL VEHICLE CHARGING STATIONS (WHERE INDICATED ON PLANS, PROVIDE EV CHARGING STATIONS AT PARKING SPACES, PROVIDE ROUGH-IN (CONDUIT ONLY) FOR EV CHARGING AT ALL REMAINING SPACES.

NOTE

- MIRRORS AND TRAFFIC CONTROL SIGNS ARE TO BE MOUNTED SO THAT THE BOTTOM OF THE SIGNS AND/OR MIRRORS ARE 2.30 METRES ABOVE CURB OR GRADE EXCEPT WHERE RESTRICTED BY OVERHEAD STRUCTURE UTILITIES IN WHICH CASE THE DISTANCE BETWEEN BOTTOM OF SIGNS AND FLOOR SHALL BE MAXIMIZED. SIGNS PLACING PARALLEL AND PERPENDICULAR TO THE CURB FACE, SHOULD BE PLACED SUCH THAT THE OUTER EDGE OF THE SIGN WILL NOT PROJECT BEYOND THE CURB INTO THE TRAFFIC LANE.
- MAINTAIN MIN. 2100MM CLEAR HEADROOM IN ALL LOCKERS.
- MAINTAIN MIN. 2100MM CLEAR HEADROOM THROUGHOUT.
- THE SLOPE OF ALL DRIVE ABLES (EXCEPT RAMP) WITH NOTED SLOPES DOES NOT EXCEED THE MAXIMUM OF 5%, THE WIDTH OF ALL DRIVE ABLES TO BE A MINIMUM OF 7000MM UNLESS OTHERWISE NOTED.

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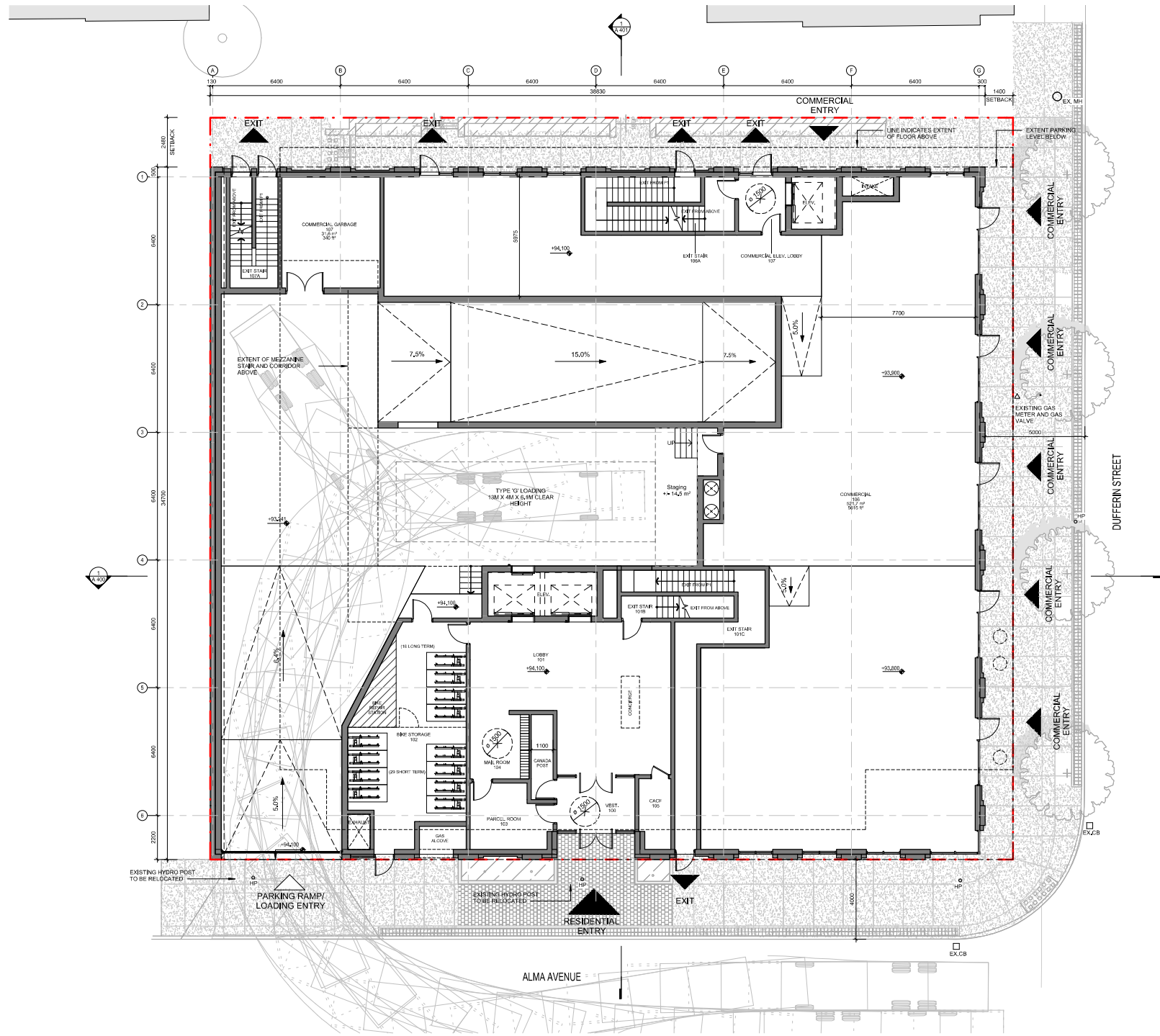
No.	Date	Issue/Revision

450 DUFFERIN
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 TORONTO, ON, M6K 2A5

Title:
PARKING LEVEL P1

Project No. 2214 Scale 1:100
 Drawing No.

A 201



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LEGEND

	PRINCIPAL ENTRY
	VEHICULAR ENTRY/EXIT
	STAIRCASE CONNECTION
	FIRE HYDRANT
	EXISTING MANHOLE
	EXISTING CATCH BASIN
	MANHOLE
	CATCH BASIN
	EXISTING HYDROPOLE
	EXISTING HYDRO LIGHT POLE
	GEOMETRIC ELEVATION (ESTABLISHED GRADE = XX'XX")
	EXISTING GRADE ELEVATION
	BARRIER FREE TURNING RADIUS
	PROPERTY LINE
	FFE FINISHED FLOOR ELEVATION
	TOP OF PARAPET
	TOP OF ROOF
	TOP OF STRUCTURE
	TOP OF FINISHED PAVEMENT
	TORONTO GREEN STANDARDS
	TREE PROTECTION ZONE

NOTES:
 SURVEY INFORMATION TAKEN FROM
 TOPOGRAPHIC SURVEY OF PART OF LOT 6
 REGISTERED PLAN 2M YORK, CITY OF
 TORONTO
 BY R. AMB SURVEYING INC.

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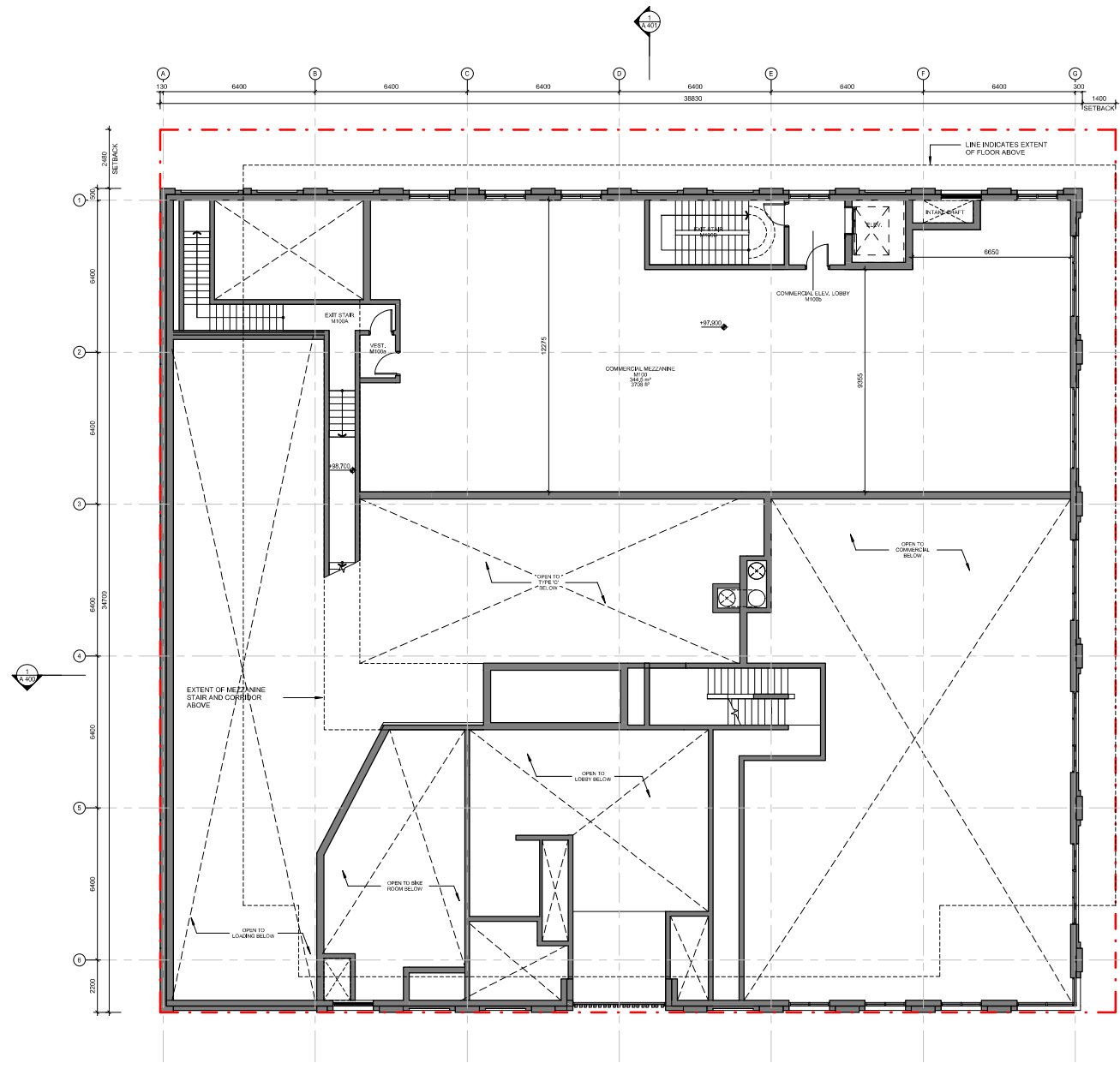
No.	Date	Issue/Revision

450 DUFFERIN
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 TORONTO, ON, M6K 2A5

Title:
GROUND FLOOR PLAN

Project No. 2214 Scale 1:100
 Drawing No.

A 202



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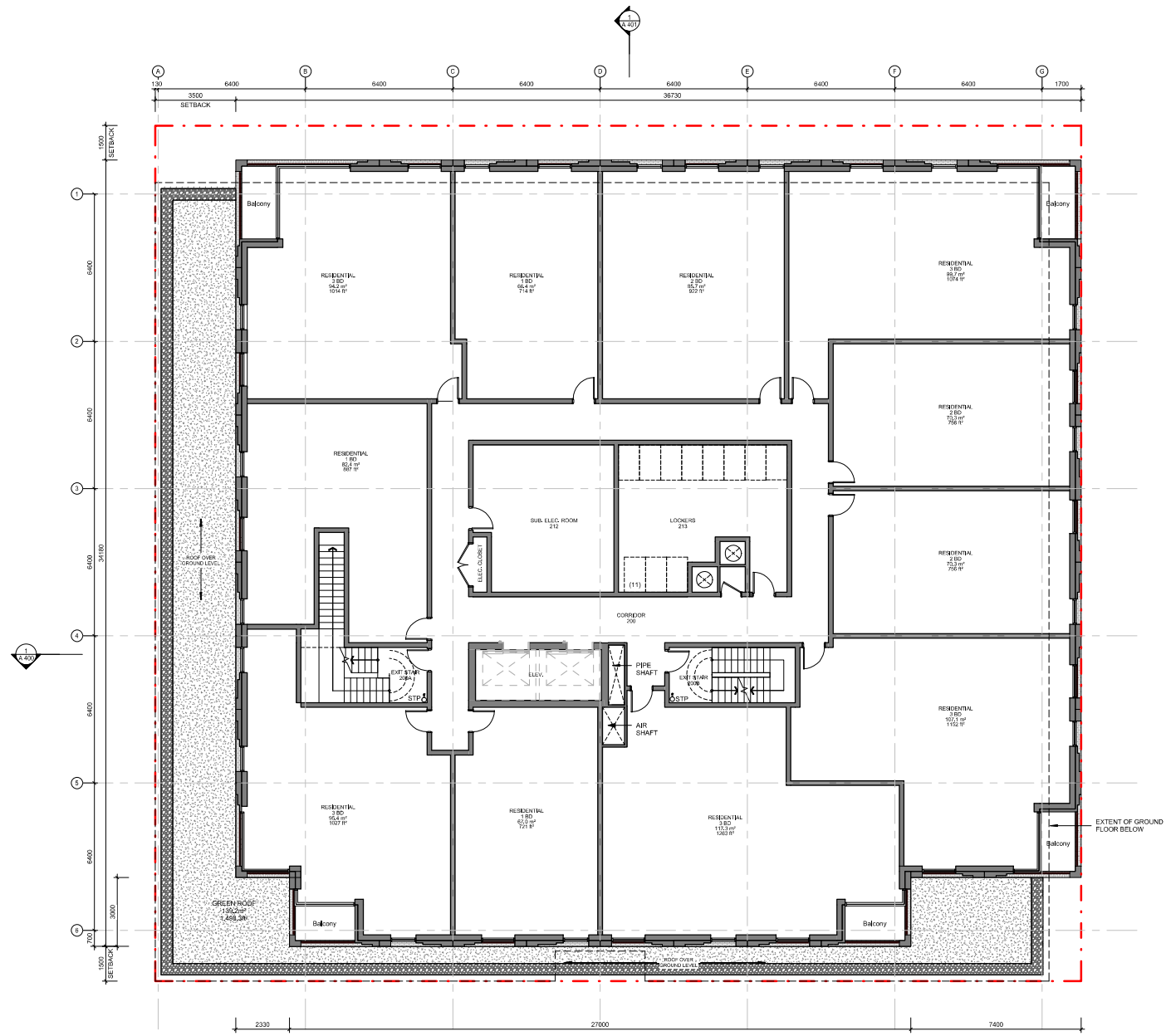


450 DUFFERIN
 450 DUFFERIN STREET
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Title:
MEZZANINE FLOOR PLAN

Project No. 2214 Scale 1:100
 Drawing No.

A 203



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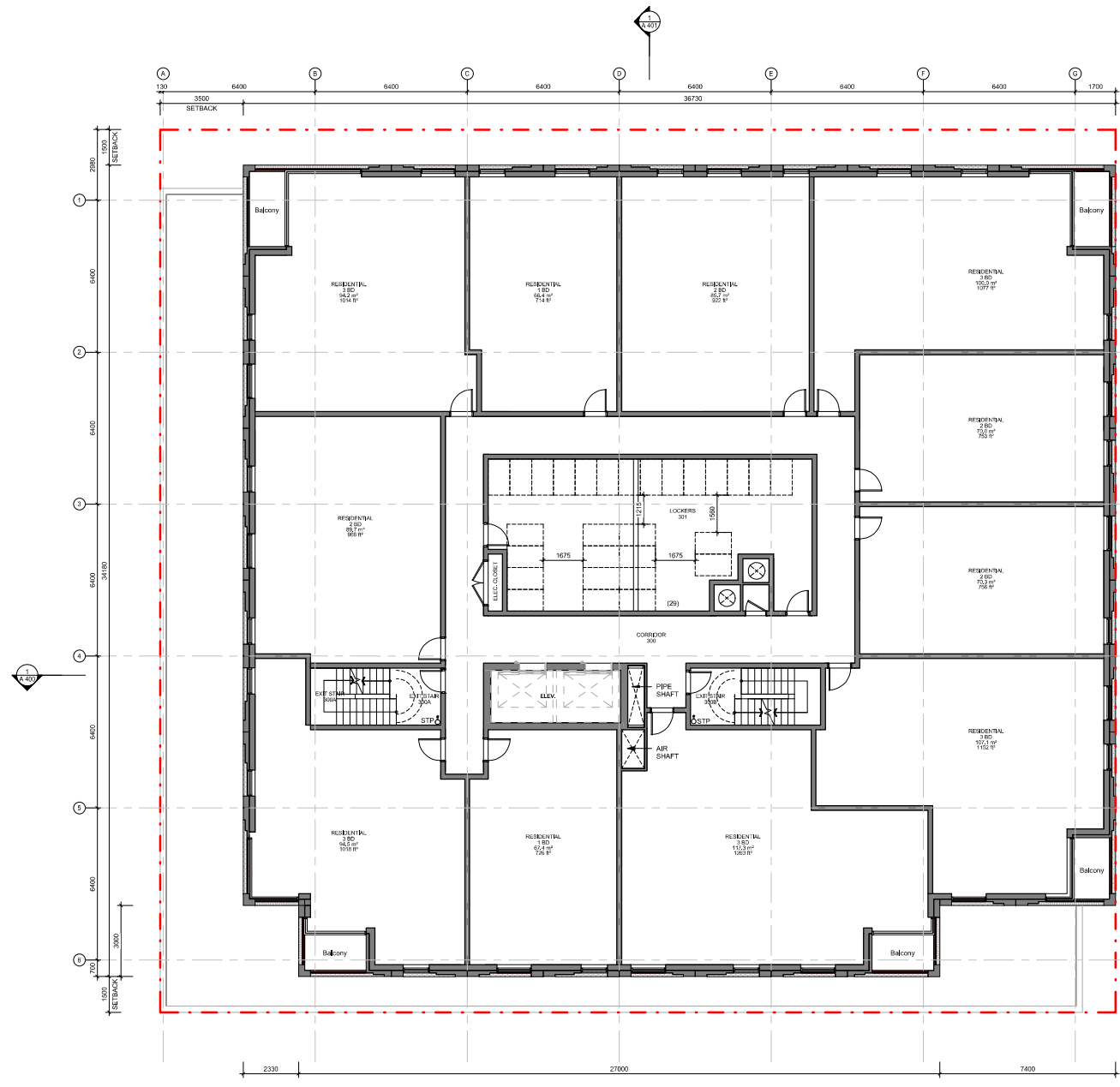


450 DUFFERIN
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Title:
FLOOR PLAN - LEVEL 2

Project No. 2214 | Scale 1:100
 Drawing No.

A 204



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450 DUFFERIN
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 TORONTO, ON, M6K 2A5

Title:
**FLOOR PLAN - TYP.
 LEVEL 3-4**

Project No. 2214 Scale 1:100
 Drawing No.

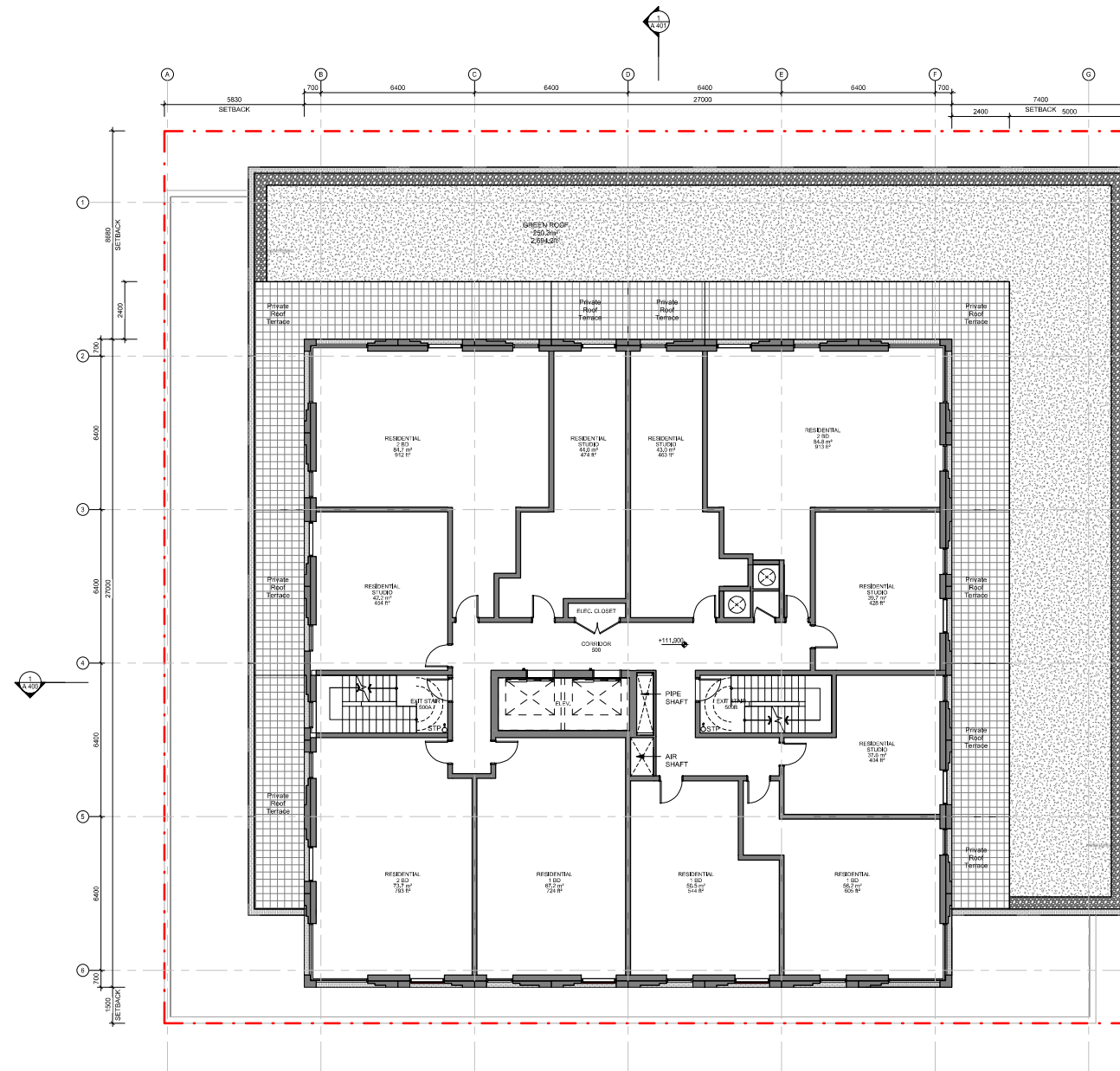
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450 DUFFERIN
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Title:
FLOOR PLAN - LEVEL 5

Project No. 2214 | Scale 1:100
Drawing No.

A 206

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450 DUFFERIN
450 DUFFERIN STREET
TORONTO, ON, M6K 2A5

Title:
**FLOOR PLAN - TYP.
LEVEL 6-14**

Project No. 2214 | Scale 1:100
Drawing No.

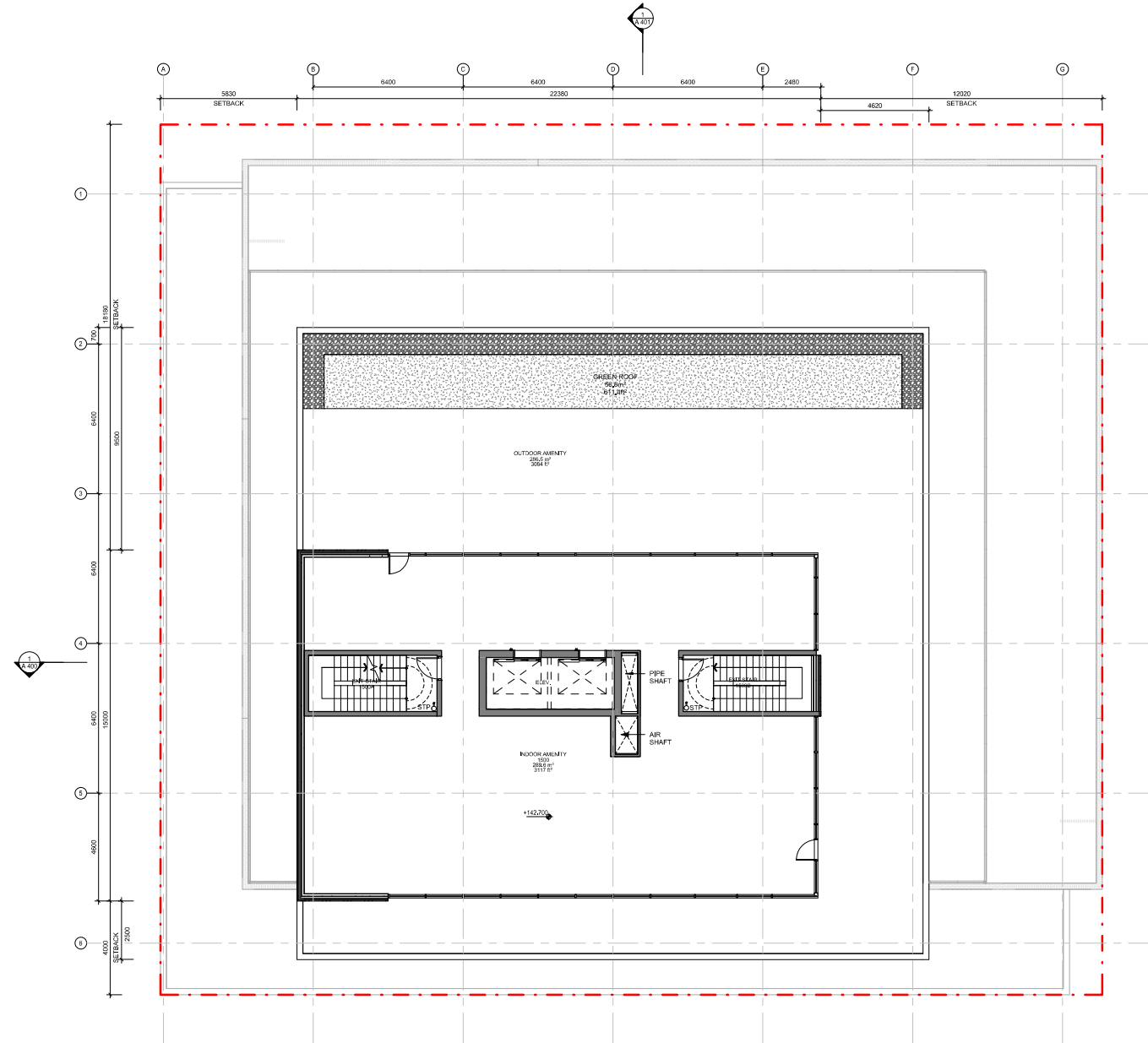
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450 DUFFERIN
450 DUFFERIN STREET
TORONTO, ON, M6K 2A5

Title:
FLOOR PLAN - LEVEL 15

Project No. 2214 Scale 1:100
Drawing No.

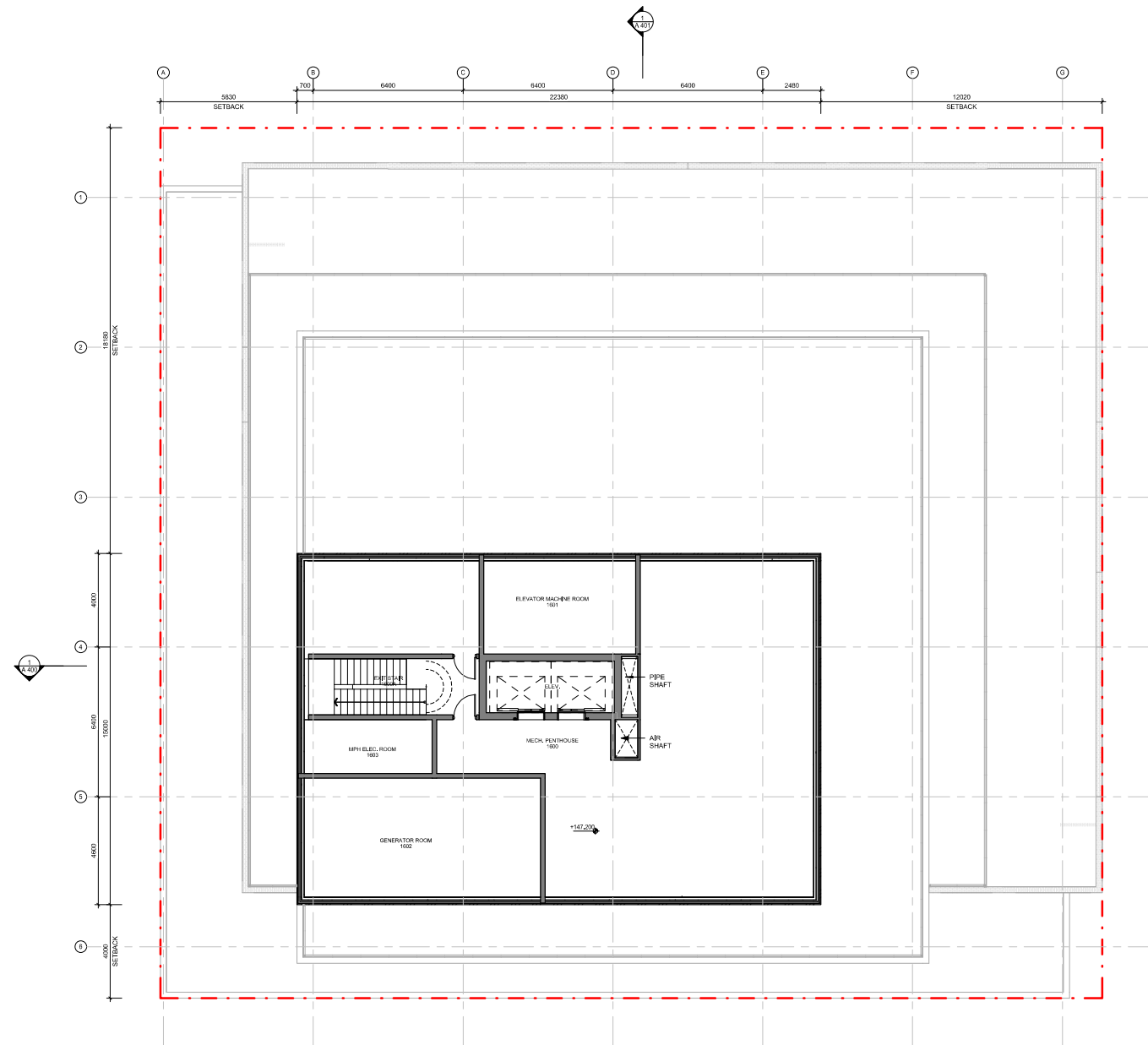
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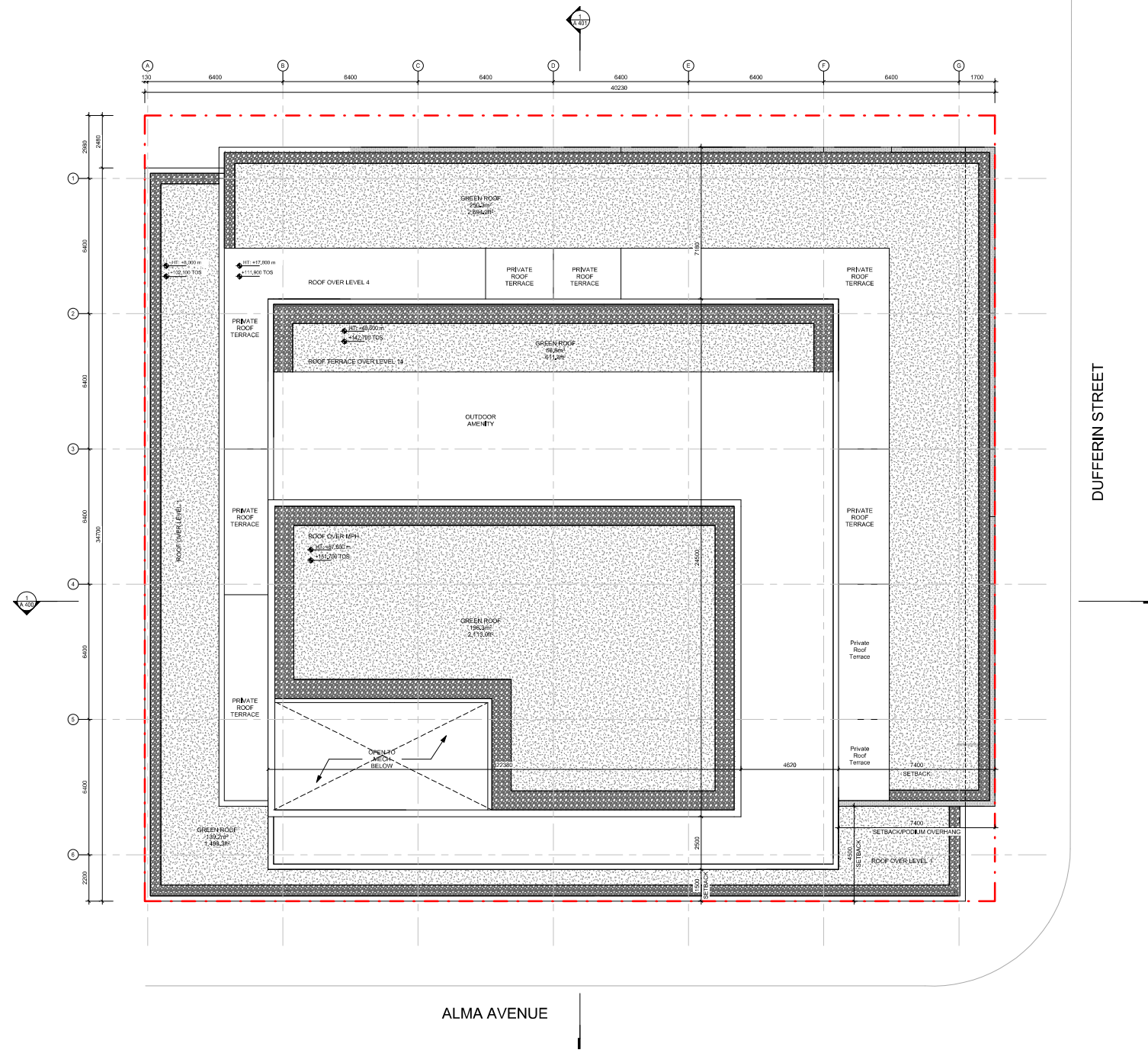


450 DUFFERIN
450 DUFFERIN STREET
TORONTO, ON, M6K 2A5

Title:
FLOOR PLAN - MPH

Project No. 2214 | Scale 1:100
Drawing No.

A 209



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450 DUFFERIN
 450 DUFFERIN STREET
 TORONTO, ON, M6K 2A5

Title:
ROOF PLAN

Project No. 2214 Scale 1:100
 Drawing No.

A 210



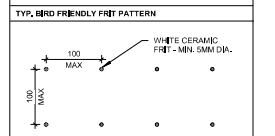
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MATERIAL LEGEND

	MAS-1 MASONRY CLADDING (LIGHT BEIGE)
	PC-1 PRECAST (SANDBLAST FINISH)
	STL-1 STEEL CLADDING SYSTEM (GREY)
	GL-1 CLEAR GLASS
	GL-2 TINTED GLASS (LIGHT GREY)
	L1-1 LOUVRES (DARK BRONZE)
	G-1 GUARDRAIL 1 (CLEAR GLASS)
	G-2 GUARDRAIL 2 (METAL IN DARK BRONZE)
	G-3 GUARDRAIL 3 (JULET, METAL IN DARK BRONZE)



NOTES:
 1) ALL EXTERIOR LIGHT FIXTURES WILL BE DARK SKY COMPLIANT, DIRECTED DOWNWARD AND DESIGNED TO PREVENT GLARE AND LIGHT TRESPASS ONTO NEIGHBORING PROPERTIES.

1 2022.11.04 ISSUED FOR ZBA
 No. Date Issue/Revision



450 DUFFERIN
 450 DUFFERIN STREET
 TORONTO, ON, M6K 2A5

Title:
ELEVATION - EAST

Project No. 2214 Scale 1:100
 Drawing No.

A 300



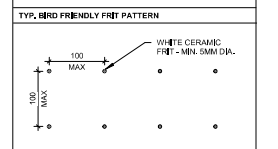
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MATERIAL LEGEND

MAS-1	MASONRY CLADDING (LIGHT BEIGE)
PC-1	PRECAST (SANDBLAST FINISH)
STL-1	STEEL CLADDING SYSTEM (GREY)
GL-1	CLEAR GLASS
GL-2	TINTED GLASS (LIGHT GREY)
LV-1	LOUVRES (DARK BRONZE)
G-1	GUARDRAIL 1 (CLEAR GLASS)
G-2	GUARDRAIL 2 (METAL IN DARK BRONZE)
G-3	GUARDRAIL 3 (JULET, METAL IN DARK BRONZE)



NOTES:
 1) ALL EXTERIOR LIGHT FIXTURES WILL BE DARK SKY COMPLIANT, DIRECTED DOWNWARD AND DESIGNED TO PREVENT GLARE AND LIGHT TRESPASS ONTO NEIGHBOURING PROPERTIES.

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No.	Date	Issue/Revision

450 DUFFERIN
 450 DUFFERIN STREET
 TORONTO, ON, M6K 2A5

Title:
ELEVATION - SOUTH

Project No. 2214 Scale 1:100
 Drawing No.

A 301



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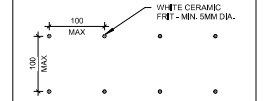
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MATERIAL LEGEND

- MAS-1 MASONRY CLADDING (LIGHT BEIGE)
- PC-1 PRECAST (SANDBLAST FINISH)
- ST-1 STEEL CLADDING SYSTEM (GREY)
- GL-1 CLEAR GLASS
- GL-2 TINTED GLASS (LIGHT GREY)
- L-1 LOUVRES (DARK BRONZE)
- G-1 GUARDRAIL 1 (CLEAR GLASS)
- G-2 GUARDRAIL 2 (METAL IN DARK BRONZE)
- G-3 GUARDRAIL 3 (JULET, METAL IN DARK BRONZE)

TYP. BRD FRIENDLY FRNT PATTERN



NOTES:
 1) ALL EXTERIOR LIGHT FIXTURES WILL BE DARK SKY COMPLIANT, DIRECTED DOWNWARD AND DESIGNED TO PREVENT GLARE AND LIGHT TRESPASS ONTO NEIGHBORING PROPERTIES.

1	2022.11.04	ISSUED FOR ZBA
No.	Date	Issue/Revision

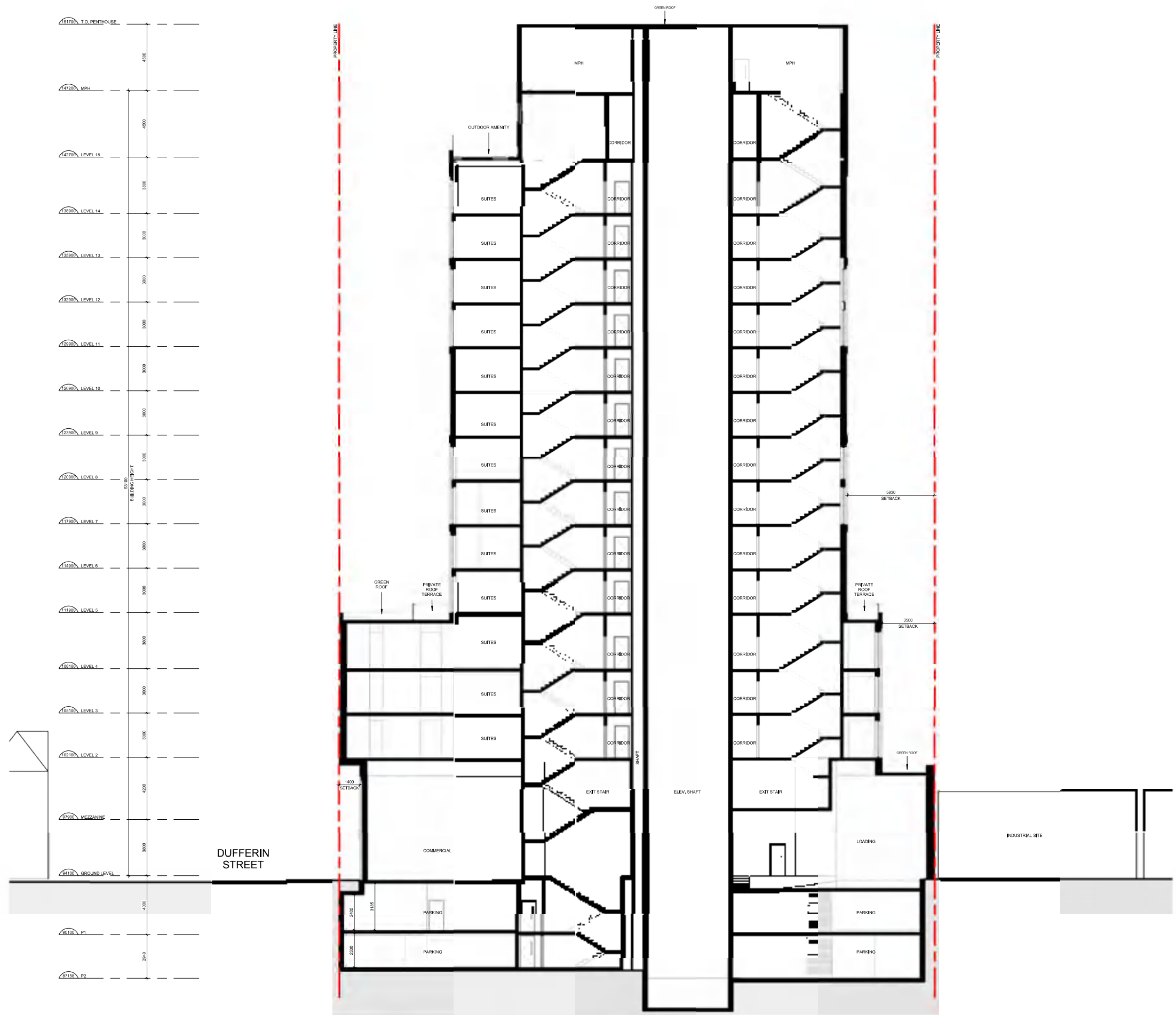


450 DUFFERIN
 450 DUFFERIN STREET
 TORONTO, ON, M6K 2A5

Title:
ELEVATION - NORTH

Project No. 2214 Scale 1:100
 Drawing No.

A 303



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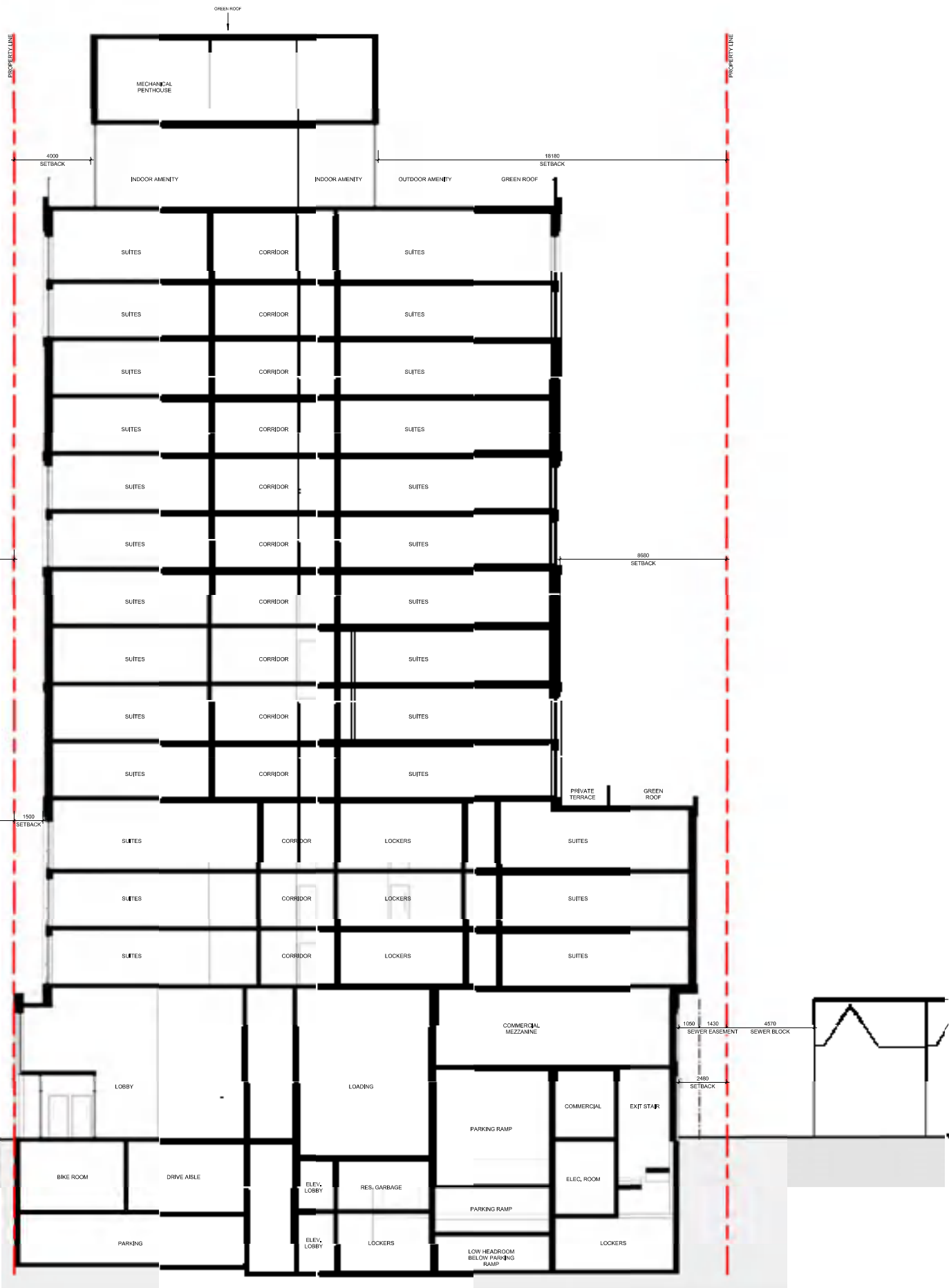
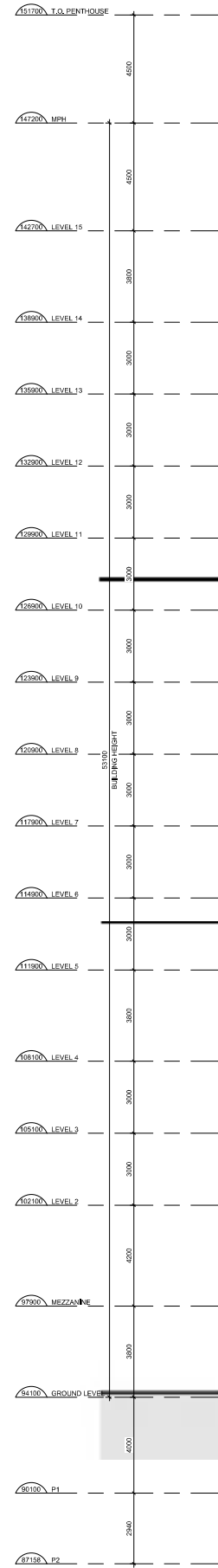


450 DUFFERIN
 450 DUFFERIN STREET
 TORONTO, ON, M6K 2A5

Title:
BUILDING SECTION - EAST-WEST

Project No. 2214 Scale 1:100
 Drawing No.

A 400



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No. Date Issue/Revision



450 DUFFERIN
 450 DUFFERIN STREET
 TORONTO, ON, M6K 2A5

Title:
BUILDING SECTION - NORTH-SOUTH

Project No. 2214 Scale 1:100
 Drawing No.

A 401

APPENDIX B: Vehicle Manoeuvring Diagrams



INBOUND

OUTBOUND

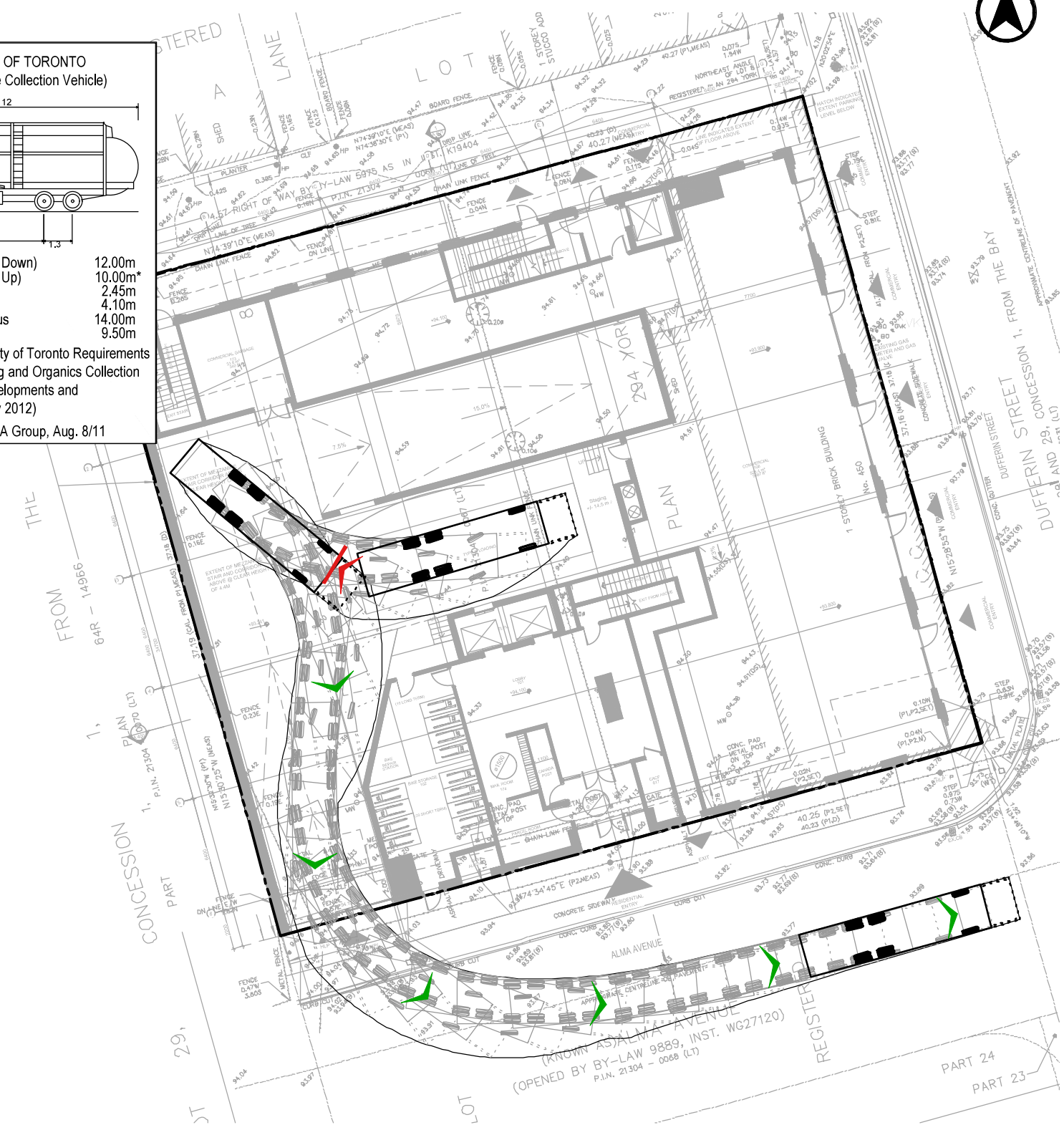
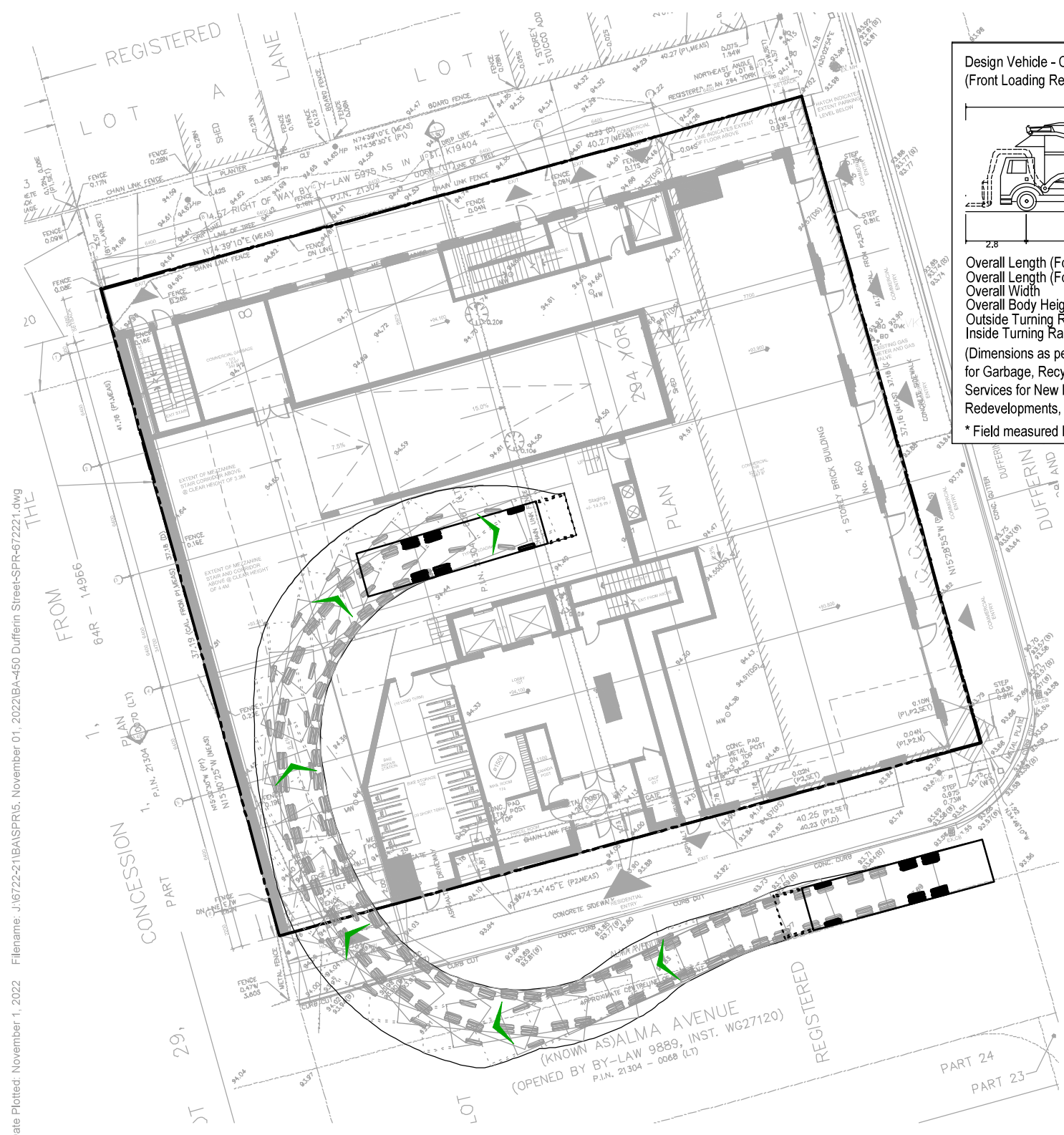


Design Vehicle - CITY OF TORONTO
(Front Loading Refuse Collection Vehicle)

Overall Length (Forks Down)	12.00m
Overall Length (Forks Up)	10.00m*
Overall Width	2.45m
Overall Body Height	4.10m
Outside Turning Radius	14.00m
Inside Turning Radius	9.50m

(Dimensions as per City of Toronto Requirements for Garbage, Recycling and Organics Collection Services for New Developments and Redevelopments, May 2012)

* Field measured by BA Group, Aug. 8/11

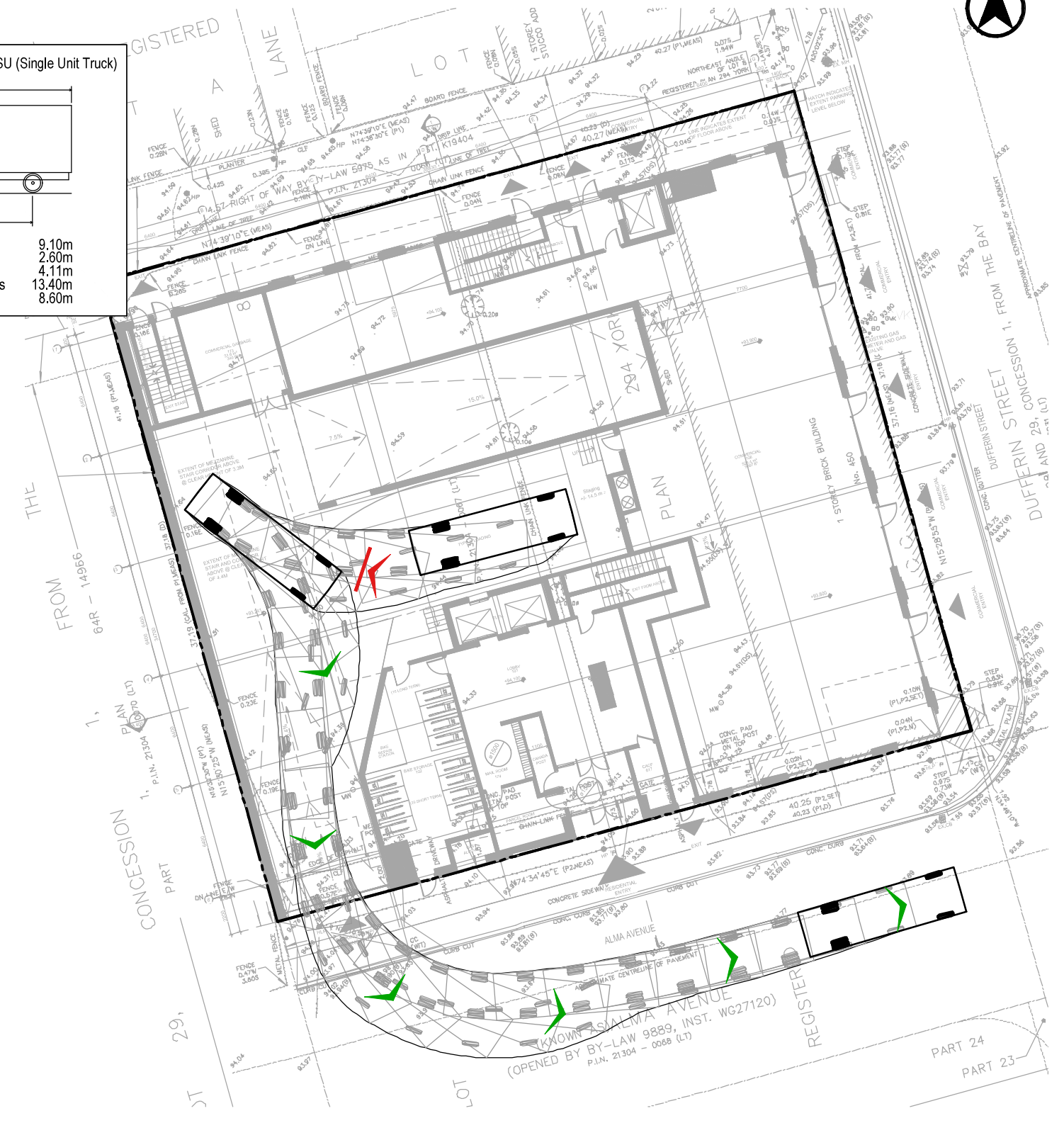


Date Plotted: November 1, 2022 File: J:\6722-21\BA\SPR15, November 01, 2022\BA-450 Dufferin Street-SPR-672221.dwg

	<p>450 Dufferin St. Vehicle Manoeuvring Diagram City of Toronto Front Loading Garbage Truck</p>	Project: 450 Dufferin St.	Scale
		Project No. 6722-21	0 5 10m
Date: November 1, 2022		Revised: --	1:300
			Drawing No. VMD-01

INBOUND

OUTBOUND



Design Vehicle - TAC SU (Single Unit Truck)

Overall Length 9.10m
 Overall Width 2.60m
 Overall Body Height 4.11m
 Outside Turning Radius 13.40m
 Inside Turning Radius 8.60m

Date Plotted: November 1, 2022 File: J:\6722-21\BA\SPR15, November 01, 2022\BA-450 Dufferin Street-SPR-672221.dwg

	<p align="center">450 Dufferin St. Vehicle Manoeuvring Diagram TAC Single Unit Truck (SU)</p>	Project: 450 Dufferin St. Project No. 6722-21 Date: November 1, 2022 Revised: --	Scale: 1:300
		Drawing No. VMD-02	