



BA Group

275 ALBANY AVENUE MIXED-USE DEVELOPMENT

Construction Mitigation Report

Prepared For: Residences at Bianca Inc.

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TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	CONSTRUCTION SEQUENCE AND SCHEDULE	2
2.1	Stage I – Demolition	2
2.1.1	Construction Vehicular Activity	3
2.2	Stage II – Shoring and Excavation	3
2.2.1	Construction Vehicular Activity	3
2.3	Stage III – Below-Grade Construction	3
2.3.1	Construction Vehicular Activity	4
2.4	Stage IV – Above-Grade Construction.....	4
2.4.1	Construction Vehicular Activity	4
2.5	Stage V – Completion of Interior Finishes	4
2.5.1	Construction Vehicular Activity	5
2.6	Stage VI – Streetscape/ Boulevard Works.....	5
2.6.1	Construction Vehicular Activity	5
3.0	CONSTRUCTION MANAGEMENT PLAN	6
3.1	Construction Vehicular Access.....	6
3.1.1	Construction Vehicular Access Route	6
3.1.2	Construction Vehicle Queuing Strategy	6
3.2	Construction Material Delivery and Material Lay-Down Areas.....	6
3.3	Off-Site Construction Parking.....	6
4.0	TRAFFIC MANAGEMENT DURING CONSTRUCTION	8
4.1	Construction Management Plan	9
5.0	RESIDENT COMMUNICATION STRATEGY.....	10
6.0	OTHER MITIGATION MEASURES.....	11



1.0 INTRODUCTION

BA Group has been retained by Residences at Bianca Inc. to provide transportation consulting services for the proposed 9 storey mixed-use development located at 275 Albany Avenue and 420 Dupont Street. The Site is located at the north-east corner of Albany Avenue and Dupont Street in the City of Toronto. The proposed development includes 216 residential units and 2,194m² of commercial retail.

The existing Site consists of a rectangular shaped parcel with direct frontage onto Dupont Street, Albany Avenue, and Howland Avenue. The Site is bounded by Dupont Street to the south, Albany Avenue to the west, Howland Avenue to the east, and the CP railway corridor to the north. The Site is currently occupied by two industrial buildings: a 3-storey building at 275 Albany Avenue and a vacant 1- and 2-storey building at 420 Dupont Street. Vehicular access to the Site is provided by a single driveway on Dupont Street with additional loading access from Howland Avenue.

The Site location is illustrated on **FIGURE 1**. An aerial photograph depicting the existing Site context is illustrated on **FIGURE 2**. Reduced-scale copies of the proposed architectural development plans (dated April 5, 2017) are provided in **APPENDIX A**.

The following matters are considered in this report:

- Construction activity sequence and schedule;
- Construction vehicle routes, access and material lay-down needs;
- Construction staff parking strategy;
- Traffic operations, safety and street maintenance;
- Resident communications strategy.

The proposed construction mitigation measures contained in this document are based on information provided by Residences at Bianca Inc. and will be refined during construction, taking into account more detailed information regarding construction logistics, timing and related discussions with the City of Toronto and other stakeholders.

2.0 CONSTRUCTION SEQUENCE AND SCHEDULE

TABLE 1 CONSTRUCTION SCHEDULE

Stage	Construction Activities	Estimated Time Period
I	Demolition	4 months
II	Shoring and Excavation	5 months
III	Below-Grade Construction	3 months
IV	Above-Grade Construction	10 months
V	Completion of Interior Finishes	12 months
VI	Streetscape/Boulevard Works	4 months
	Total	34 months

Note: The proposed construction schedule is approximate only and is subject to change.

There are six main stages of construction which will commence with the demolition of the existing buildings on the Site. Following demolition, shoring and excavation will commence. Once the Site is excavated to the proposed depth, the below-grade construction will take place which will incorporate formwork and concrete work. Once the structure has reached grade-level, the construction of the building structure will continue. Upon completion of the concrete work and exterior cladding, interior finishes will be the remaining stage until the building is ready for occupancy. Nearing the end of the construction, the proposed streetscape/boulevard works will be undertaken thus bringing construction to completion.

The proposed construction schedule for the development is approximately 34 months. It is noteworthy to mention that various factors can affect the overall construction schedule. Notwithstanding these factors, the developer will work diligently to complete the project at an appropriate fashion.

2.1 STAGE I – DEMOLITION

This stage of construction includes the following activities:

- Asbestos removal and disposal;
- Severing of all existing utilities and servicing infrastructure entering and contained within the Site;
- Demolition of existing buildings on Site; and
- Removal and trucking of construction debris (asphalt, building material, etc.).

Prior to commencement of any construction activities, the perimeter of the Site will be secured with fast fence, or an equivalent fencing system. The primary activity within this stage is the demolition of the existing buildings within the Site.



2.1.1 Construction Vehicular Activity

Construction vehicular activities are anticipated to range from low to heavy with the majority of vehicles being dump trucks. Very little truck traffic is expected during the abatement works (approximately 1 to 5 trucks per day). Once the demolition commences, approximately 5 to 30 construction vehicles per day are anticipated during the removal of above-grade structure, which is expected to increase to 15 to 50 construction vehicles per day during the removal of the existing below-grade structure. Loading and unloading during this phase will be from within the Site.

2.2 STAGE II – SHORING AND EXCAVATION

This stage of construction includes the following activities:

- Levelling of the sub-surface after demolition of asphalt;
- Drilling and installation of caisson wall;
- Installation of lagging, tieback, rakers and corner supports; and
- Excavation of the Site.

This stage commences with levelling of the Site, followed by drilling and installation of the caisson and piles. The proposed shoring system includes a number of supports within the system such as corner bracing, rakers, and tiebacks. Once in place the caissons and piles act to secure the perimeter of the Site, which enables the commencement of excavation. As the excavation progresses, lagging and additional supports are installed, until excavation comes to completion.

2.2.1 Construction Vehicular Activity

During the shoring and excavation stage, construction vehicular activities are anticipated to be heavy. The type of construction vehicles are predominately dump trucks during excavation and concrete trucks during shoring. Approximately 15 to 50 construction vehicles per day are anticipated during this stage. Loading and unloading during this phase will be from within the Site.

2.3 STAGE III – BELOW-GRADE CONSTRUCTION

This stage of construction includes the following activities:

- Completion of detailed excavation for footings and sub-slab drainage;
- Pouring of footings;
- Erection of two tower cranes;
- Installation of Site servicing connections;
- Installation of blindside waterproofing;
- Pouring of foundation walls; and
- Pouring of concrete slabs.

Following detailed excavation, the footings will be poured and the two proposed tower cranes will be erected. Site servicing connections will be installed and blindside waterproofing will be installed on the shoring wall



prior to the concrete pour of the vertical elements (foundation walls and columns). The initial slab is poured and the sequence of verticals and slabs continues until the foundation is brought to grade.

2.3.1 Construction Vehicular Activity

During the below-grade construction stage, construction vehicular activities are anticipated to be moderate. The anticipated type of construction vehicles are predominately concrete trucks. To a lesser extent other construction related vehicles are anticipated, such large flatbed tractor trailer trucks for steel delivery and other delivery vehicles such as single-unit trucks and typical cube-vans. Approximately 5 to 30 concrete/delivery vehicles per day are anticipated during this stage. Steel deliveries are expected 2 to 3 times per week and will typically be scheduled for early morning delivery.

2.4 STAGE IV – ABOVE-GRADE CONSTRUCTION

This stage of construction includes the following activities:

- Completion of above-grade structure;
- Enclosure of building envelope;
- Installation of roofing;
- Installation of windows; and
- Installation of precast masonry.

Above-grade construction commences with the continuation of the concrete structure. The sequence of slab and verticals continues to the top level of the structure. Building envelope will follow the structure up the building. This stage will conclude with the installation of windows, precast masonry and roofing.

2.4.1 Construction Vehicular Activity

During the above-grade construction stage, construction vehicular activities are anticipated to be heavy. The anticipated type of construction vehicles are predominately concrete trucks. To a lesser extent other construction related vehicles are anticipated, such large flatbed tractor trailer trucks for steel delivery and other delivery vehicles such as single-unit trucks and typical cube-vans. Approximately 35 to 50 concrete/delivery vehicles per day are anticipated during this stage. Steel deliveries are expected 2 to 3 times per week and will typically be scheduled for early morning delivery.

2.5 STAGE V – COMPLETION OF INTERIOR FINISHES

This stage of construction includes the following activities:

- Erection of interior stud walls (framing, insulation, drywall);
- Installation of internal mechanical and electrical systems;
- Millwork;
- Installation of flooring;
- Installation of appliances; and
- Painting.



Once the proposed building structure is complete, the remaining stage includes the overall interior finishes. This work ranges from plumbing, drywall, cabinetry and electrical components of the proposed building.

2.5.1 Construction Vehicular Activity

During this construction stage, construction vehicular activities are anticipated to be heavy. The anticipated type of construction vehicles are predominately delivery vehicles such as single-unit trucks and typical cube-vans. Approximately 15 to 50 trade vehicles per day are anticipated during this stage.

2.6 STAGE VI – STREETScape/ BOULEVARD WORKS

This stage of construction includes the following activities:

- Landscaping (on-grade, street boulevards, and podium structures - including terraces and green roofs);
- Installation of new curbs and sidewalks;
- Installation of lighting;
- Re-instatement of street furniture and utilities (if applicable) removed to facilitate construction;
- Installation of post-construction regulatory and warning traffic signage;

The final stage of construction typically happens concurrently with the completion of internal finishes. This phase includes internal Site works such as hard and soft landscaping (on grade, terraces, green roofs, etc.) and the installation of lighting. Streetscape works on the adjacent surrounding streets includes the installation of new curbs and sidewalks, installation of new street lighting (if applicable), and landscaping of the adjacent City boulevards. Lastly once right-of-way occupancies are no longer required, the right-of-ways will be returned to either their pre-construction condition or post-construction condition (if changes have been proposed). This includes the re-instatement of street furniture, utilities (if applicable) and traffic signage.

2.6.1 Construction Vehicular Activity

Since this phase of construction will be happening at the same time as the completion of internal finishes, the total anticipated number of construction vehicles is 15 to 50 delivery vehicles per day.



3.0 CONSTRUCTION MANAGEMENT PLAN

3.1 CONSTRUCTION VEHICULAR ACCESS

The current Construction Management Plan has been designed to limit the majority of construction activity to Albany Avenue. During construction hours, Albany Avenue will be reduced to an alternating one-way traffic lane, which will be controlled by a traffic control person at either end of the closure. Given the dead-end condition of Albany Avenue, reversing of construction vehicles either into or out of the staging area will be required.

In addition to the Albany Avenue staging area, a daily off-peak lane occupancy of the westbound curb lane on Dupont Street is proposed. A single gate at the north end of the Site, on Howland Avenue is also proposed, but will not be utilized until the Site reaches grade. Vehicles will access/egress these staging areas in a forward-in/forward-out orientation. The condition for vehicles to access/egress the staging areas in a forward-in/forward-out movement minimizes reversing of construction vehicles onto the public street system. This condition satisfies the requirements outlined in the Occupational Health and Safety Act and guidelines set forth by the Ministry of Labour.

3.1.1 Construction Vehicular Access Route

Given the Site's central location it's not known at this time what access route construction vehicles will take to to/from the Site. There are a number of major travel corridors available within the vicinity of the Site, some of which include Bathurst Street, Dupont Street, Davenport Road, Spadina Road, Bloor Street West, St.Clair Avenue West. Efforts will be made to minimize/prevent any travel along local residential roads.

3.1.2 Construction Vehicle Queuing Strategy

The current TMDC proposal provides sufficient staging area on Albany Avenue and Dupont Street, such that vehicle are not anticipated to queue outside of these areas. Once the structure reaches grade, there is additional space within the Site, which is available to queue vehicles. In order to reduce the incidence of queuing vehicles exceeding this capacity, all trades will be expected to comply with a strict schedule of deliveries. Vehicles exceeding the capacity of the Site will be radioed in as required.

3.2 CONSTRUCTION MATERIAL DELIVERY AND MATERIAL LAY-DOWN AREAS

Until the completion of the below-grade construction the proposed construction staging area on Albany Avenue will be utilized primarily for delivery and lay-down of concrete, steel, construction equipment, and other construction materials. Once the building construction reaches grade, there will be more opportunity to utilize staging area within the Site; portions of which will be designated for material lay-down.

3.3 OFF-SITE CONSTRUCTION PARKING

The current proposal is for construction staff to park off-Site. All contractors/trades are required to make suitable off-Site arrangements for the construction staff parking until such time that the new garage is



available for temporary use. Construction staff parking along local residential streets in the surrounding neighbourhood is prohibited. It is anticipated that a large number of the non-local construction staff will arrange to carpool. Additionally, due to the Site's close proximity to the Dupont subway station, many construction staff are anticipated to utilize existing public transit.



4.0 TRAFFIC MANAGEMENT DURING CONSTRUCTION

A traffic management during construction (TMDC) plan will be implemented during the construction period. The overall objectives of the TMDC plan are to consider and address the following:

- Facilitate construction of the proposed residential condominium development;
- Minimize and/or prevent the extent and duration of public road closures;
- Minimize impacts and disruption to local area businesses and residential neighbourhoods;
- Provide appropriate temporary traffic and pedestrian management measures;
- Provision for hoarding, temporary fencing, temporary condition signage and covered walkway;
- The three key elements that have been considered with respect to maintaining mobility extend to pedestrians, cyclists and vehicular access. The priority of the proposed TMDC plans(s), with respect to these key elements is the maintenance of:
 - A viable and functional public realm and pedestrian access system during the construction process that will serve local residential buildings and the variety of businesses and destination facilities that surround the Site;
 - On-street bicycle facilities or provision of appropriate alternates throughout the construction process; and
 - Appropriate vehicular, emergency services and other (i.e. delivery, garbage collection) access to buildings and land uses within the adjacent properties. Construction staging will respond to the need to provide appropriate and logical circulation routings and access arrangements in all instances. Access disruption due to localized construction activity (i.e. sidewalk reconstruction) immediately adjacent and across entrance will be limited to the maximum extent possible.

A Preliminary figure illustrating the proposed conceptual traffic management during construction plan is attached in **APPENDIX B**.



4.1 CONSTRUCTION MANAGEMENT PLAN

PEDESTRIANS

The current TMDC proposal includes the maintenance of a 1.70m minimum covered pedestrian walkway along the frontages of the Site on both Dupont Street and Howland Avenue. Pedestrian access has been removed from the east side of Albany Avenue, which is appropriate given that the existing sidewalk only functions to provide access to the subject Site.

CYCLISTS

There are no existing dedicated cycling facilities on any of the streets immediately adjacent to the Site.

LOCAL TRAFFIC OPERATION, ACCESS AND CIRCULATION

The current Construction Management Plan has been designed to limit the majority of construction activity to Albany Avenue. During construction hours, Albany Avenue will be reduced to an alternating one-way traffic lane, which will be controlled by a traffic control person at either end of the closure. The entire boulevard on the east side of Albany Avenue will be occupied for construction staging purposes. Due to the dead-end condition of Albany Avenue, the roadway reduction is not anticipated to have a major impact to existing operations.

In addition the Albany Avenue staging area, a daily off-peak lane occupancy of the westbound curb lane on Dupont Street is proposed to facilitate material delivery to the east side of the Site. Traffic operations are expected to be relatively unaffected by this proposal.

The TMDC proposal on Howland Avenue is limited to a covered pedestrian walkway within the boulevard. Once the building reaches grade a single gate at the north end of the Site, on Howland Avenue will be utilized to access the proposed hoist and provide a drive-through across the north end of the Site. No impacts to the existing traffic conditions are anticipated.



5.0 RESIDENT COMMUNICATION STRATEGY

As part of the construction mitigation plan, a resident communication strategy will be implemented to provide construction related information to local residents on a regular basis including, but not limited to such matters as:

- Construction phases and timing of works;
- Provision of advance notice (where possible) of the start and estimated completion dates of each construction stage and major works;
- Potential road closures and the anticipated duration;
- Contact names, telephone numbers and other contact information for residents to call regarding noise and other construction related questions, complaints or any other matters that may be appropriate including but not limited to the anticipated interruptions to services and provision of alternative services.

A comprehensive communication strategy will be developed; some or all of the following strategies may be considered:

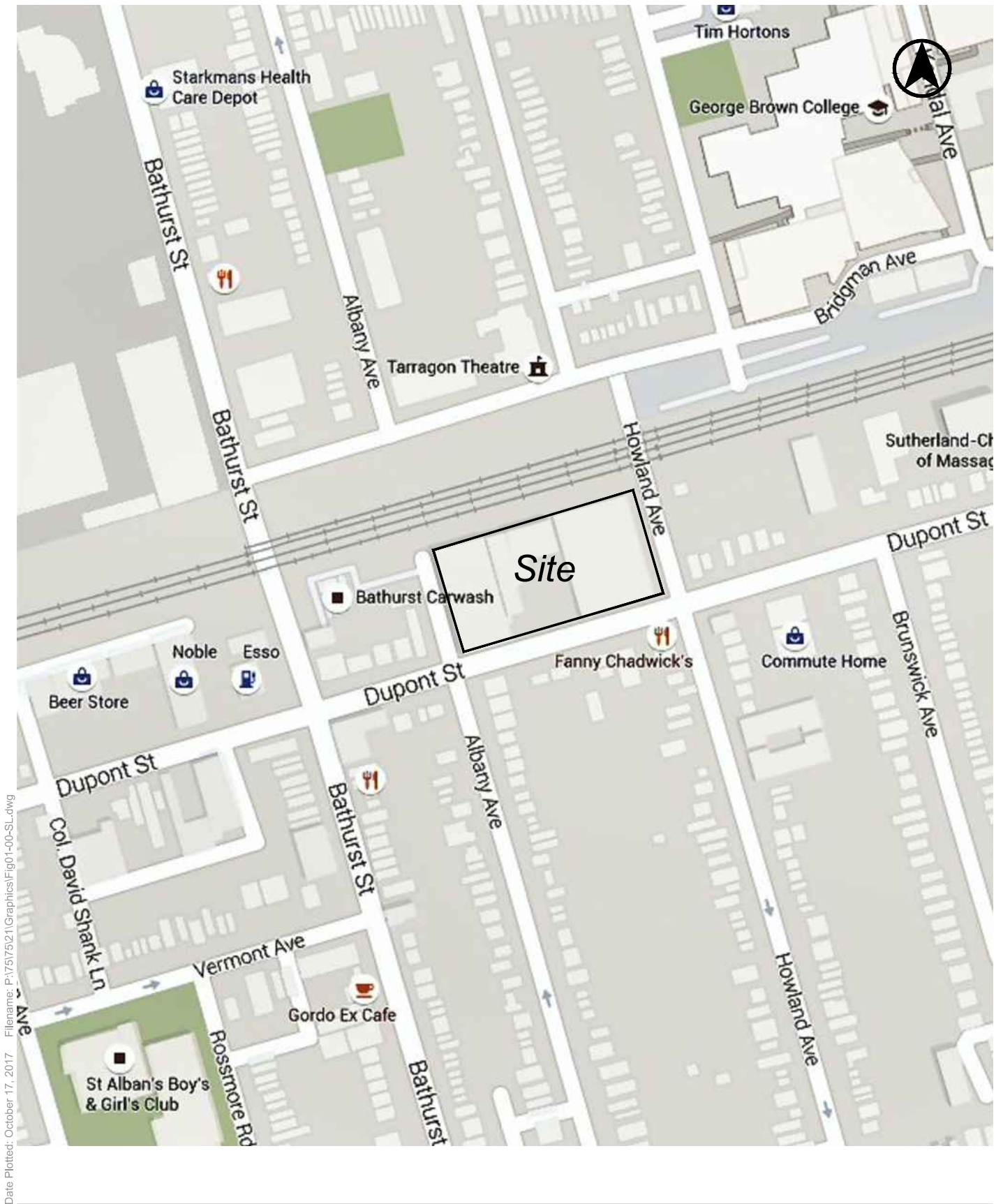
- A website exclusively for local residents will be provided by Residences at Bianca Inc. informing local residents of up-to-date construction information and notice of potential road closures related to the project;
- A posting board mounted on the proposed covered walkway will be provided for immediate construction notices;
- A 24-hour hotline which will be posted at the Site;
- A designated person will be responsible for addressing all construction related inquiries from the local residents;
- Meetings with residents, the City and other affected parties, as required.



6.0 OTHER MITIGATION MEASURES

- All Ministry of Labour requirements and Residences at Bianca Inc.'s safety policies will be strictly adhered;
- Traffic control persons will be utilized when required to direct traffic and pedestrian activity;
- All construction protocols will conform to City of Toronto By-Law requirements with respect to noise control, dust control and construction operation period. **APPENDIX C** outlines the general provisions of the City of Toronto noise by-law requirements;
- Mud mats will be positioned at all construction access points, to limit the amount of dirt leaving the Site;
- All construction fencing will be lined with a silt fence to allow water passage and restrict silt and/or soil compounds;
- Compliance with the Occupational Health and Safety Act;
- Dewatering process will involve a licensed contractor and will conform to Ministry of Environment guidelines and regulations;
- All existing and proposed catchbasins within the Site and within the public right-of-ways, adjacent to the Site are to be equipped with inlet sediment control traps;
- All removal / disposal of excavation and demolition materials will be transported to licensed dump station as per Ministry of Environment guidelines and regulations;
- Scheduled street maintenance along the local streets surrounding the development Site will be provided during the construction period;
- Winter maintenance measures (ie. snow removal, salting, etc.) shall be undertaken to maintain any roadway and/or pedestrian walkway where the proposed construction management plan interferes with the existing winter maintenance operations.





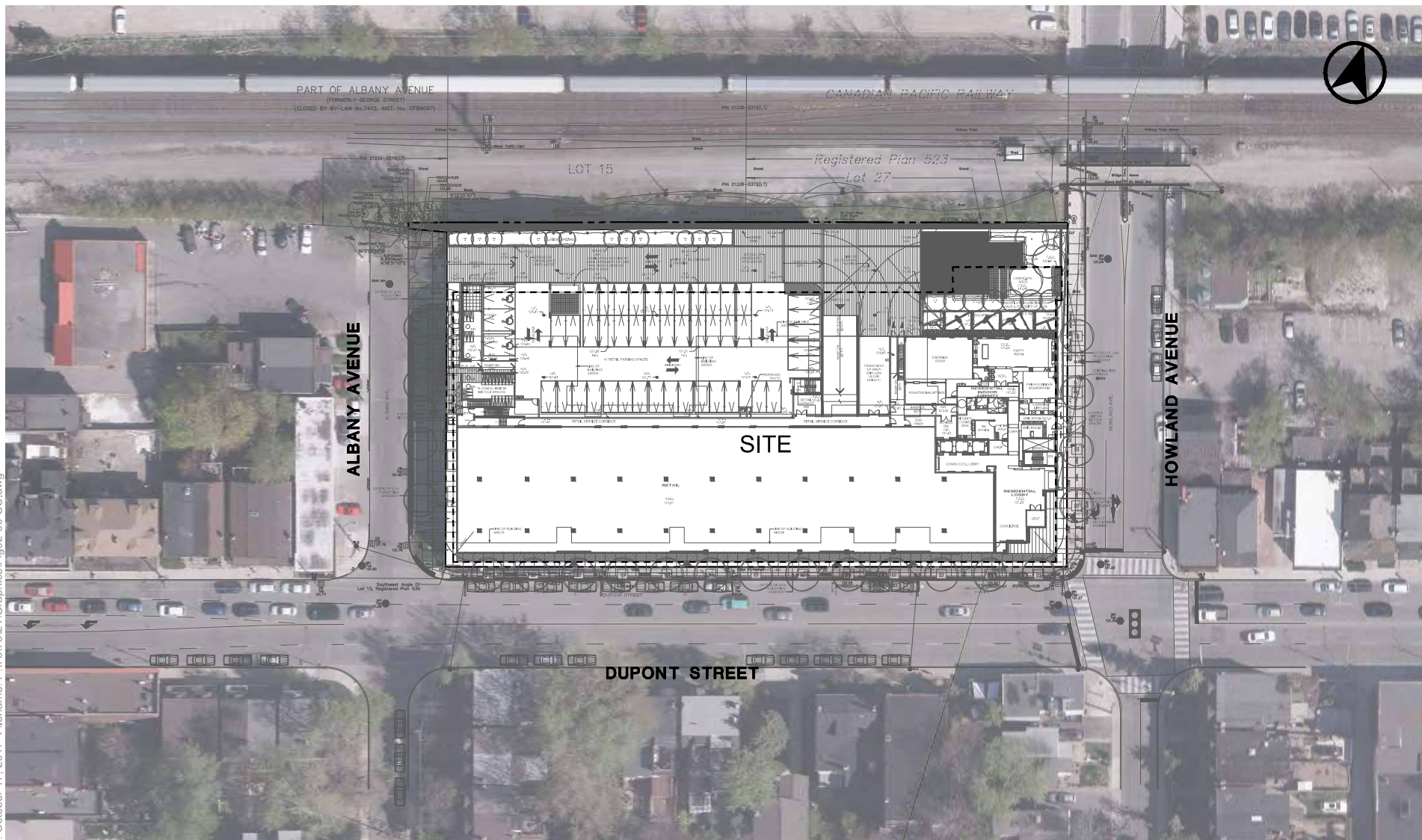
SITE LOCATION



BA Group

275 Albany Avenue
7575-21 October 2017

Figure 1



SITE CONTEXT