61-69 Ainslie Street South

Environmental Noise Assessment
Cambridge, ON

SLR Project No: 241.20035.00000
July 2020

Environmental Noise Assessment
61-19 Ainslie Street South
Cambridge, ON
SLR Project No: 241.20035.00000

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1. INTRODUCTION

SLR Consulting (Canada) Ltd., was retained by GSP Group Inc. on behalf of Atlantic Development Group Ltd. to conduct an Environmental Noise Assessment for the proposed 61-69 Ainslie Street South development (site), located in Cambridge, Ontario. A copy of the declaration forms are provided in Appendix A.

1.1 FOCUS OF REPORT

In keeping with the Regional Municipality of Waterloo and City of Cambridge requirements, this report examines the potential for:

- Impacts of the environment on the proposed development;
- Impacts of the proposed development on the environment; and
- Impacts of the proposed development on itself.

1.2 NATURE OF THE SUBJECT LANDS

The proposed development is located on the north-east corner of Bruce Street and Ainslie Street South, east of the Grand River and Water Street South in Cambridge, Ontario. An overall context plan of the area is provided in Figure 1.

The site plan and architectural drawings of the proposed development is provided in Appendix B. The proposed construction is a mixed-use development with two towers sitting atop a common 5-storey podium. Tower A will be 20-storeys and Tower B will be 15-storeys in height. An L-shaped 7-storey podium connects both towers. The development is primarily residential in use, with retail on the ground floor and parking along the west, south and east sides of the 5-storey podium, starting at the second floor. A common rooftop outdoor amenity space is planned on the 5th Floor.

Excerpts from the proposed site plan are shown in Figure 2.

1.3 NATURE OF THE SURROUNDINGS

Directly surrounding the proposed development there are mostly commercially zoned lands. To the north, is the Ainslie Street Bus Terminal which is owned and operated by the Grand River Transit. Further north, the Galt Little Theatre and Cambridge Arts Centre is considered as an open space. The walking trail to the west across Ainslie Street is also considered an open space. To the east, and south of the development lands there are multiple single-detached and townhouses. Beyond the existing surroundings there is low, mid and high-rise residential developments to the east and south-east, with the singular high-rise building along Concession Street.

The topography of the area is mostly flat in nature with a minor decrease in elevation towards the Grand River and Bruce Street.

PART 1: IMPACTS OF THE ENVIRONMENT ON THE DEVELOPMENT

In assessing potential impacts of the environment on the proposed development, the focus of this report is to assess the potential for:

- Transportation noise impacts from the surrounding roadways; and
- "Stationary" noise impacts from the surrounding residential, commercial and industrial lands.

2. TRANSPORTATION NOISE IMPACTS

2.1 TRANSPORTATION NOISE SOURCES

Roadway noise sources of interest with the potential to produce noise at the proposed development include Ainslie Street South, and Water Street.

Sound exposure levels at the development have been predicted, and this information has been used to identify façade, ventilation and warning clause requirements.

2.2 SURFACE TRANSPORTATION NOISE CRITERIA

Noise Sensitive Developments

Ministry of the Environment, Conservation and Parks (MECP) Publication NPC-300 provides sound level criteria for noise sensitive developments. The applicable portions of NPC-300 are Part C – Land Use Planning and the associated definitions outlined in Part A – Background. Tables 1 to 4 below summarizes the applicable surface transportation (road and rail) criteria limits.

Location Specific Criteria

Table 1 summarizes criteria in terms of energy equivalent sound exposure (L_{eq}) levels for specific noise-sensitive locations. Both outdoor and indoor locations are identified, with the focus of outdoor areas being amenity spaces. Indoor criteria vary with sensitivity of the space. As a result, sleep areas have more stringent criteria than Living / Dining room space.

Table 1: MECP Publication NPC-300 Sound Level Criteria for Road and Rail Noise

Type of Space	Time Period	Equivalent Sound Exposure Level - L_{eq} (dBA)		Assessment Location
		Road	Rail [1]	
Outdoor Living Area (OLA)	Daytime (0700-2300h)	55	55	Outdoors [2]
Living / Dining Room	Daytime (0700-2300h)	45	40	Indoors [4]
	Night-time (2300-0700h)	45	40	Indoors [4]
Sleeping Quarters	Daytime (0700-2300h)	45	40	Indoors [4]
	Night-time (2300-0700h)	40	35	Indoors [4]

Notes: [1] Whistle noise is excluded for OLA noise assessments, and included for Living / Dining Room and Sleeping Quarter assessments.
[2] Road and Rail noise impacts are to be combined for assessment of OLA impacts.
[3] An assessment of indoor noise levels is required only if the criteria in Table 4 are exceeded.

Outdoor Amenity Areas

Table 2 summarizes the noise mitigation requirements for communal outdoor amenity areas ("Outdoor Living Areas" or "OLAs").

For the assessment of outdoor sound levels, the surface transportation noise impact is determined by combining road and rail traffic sound levels. Whistle noise due to railway trains is not included in the determination of levels.

Table 2: MECP Publication NPC-300 Outdoor Living Area Mitigation Requirements

Time Period	Equivalent Sound Level in Outdoor Living Area (dBA)	Ventilation Requirements
Daytime (0700-2300h)	≤ 55	• None
	55 to 60 incl.	• Noise barrier **OR** Warning Clause A
	> 60	• Noise barrier to reduce noise to 55 dBA **OR** • Noise barrier to reduce noise to 60 dBA and Warning Clause B

Ventilation and Warning Clauses

Table 3 summarizes requirements for ventilation where windows potentially would have to remain closed as a means of noise control. Despite implementation of ventilation measures where required, if sound exposure levels exceed the guideline limits in Tables 1, warning clauses advising future occupants of the potential excesses are required. Warning clauses also apply to OLAs.

Table 3: MECP Publication NPC-300 Ventilation & Warning Clause Requirements

<table>
<tr><th rowspan="2">Assessment Location</th><th rowspan="2">Time Period</th><th colspan="2">Energy Equivalent Sound Exposure Level - L_{eq} (dBA)</th><th rowspan="2">Ventilation and Warning Claus Requirements [2]</th></tr>
<tr><th>Road</th><th>Rail [1]</th></tr>
<tr><td>Outdoor Living Area</td><td>Daytime (0700-2300h)</td><td colspan="2">56 to 60 incl.</td><td>Type A Warning Clause</td></tr>
<tr><td rowspan="5">Plane of Window</td><td rowspan="3">Daytime (0700-2300h)</td><td colspan="2">≤ 55</td><td>None</td></tr>
<tr><td colspan="2">56 to 65 incl.</td><td>Forced Air Heating /provision to add air conditioning + Type C Warning Clause</td></tr>
<tr><td colspan="2">> 65</td><td>Central Air Conditioning + Type D Warning Clause</td></tr>
<tr><td rowspan="2">Night-time (2300-0700h)</td><td colspan="2">51 to 60 incl.</td><td>Forced Air Heating/ provision to add air conditioning + Type C Warning Clause</td></tr>
<tr><td colspan="2">> 60</td><td>Central Air Conditioning + Type D Warning Clause</td></tr>
</table>

Notes: [1] Rail whistle noise is excluded.
[2] Road and Rail noise is combined for determining Ventilation and Warning Clause requirements.

Building Shell Requirements

Table 4 provides sound level thresholds which if exceeded, require the building shell and components (i.e., wall, windows) to be designed and selected accordingly to ensure that the Table 3 and 4 indoor sound criteria are met.

Table 4: MECP Publication NPC-300 Building Component Requirements

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level - L_{eq} (dBA))		Component Requirements
		Road	Rail [1]	
Plane of Window	Daytime (0700-2300h)	> 65	> 60	Designed/ Selected to Meet Indoor Requirements [2]
	Night-time (2300-0700h)	> 60	> 55	

Notes: [1] Including whistle noise.
[2] Building component requirements are assessed separately for Road and Railway noise. The resultant sound isolation parameter is required to be combined to determine and overall acoustic parameter.

2.3 TRAFFIC DATA AND FUTURE PROJECTIONS

Future (2031) average annual daily traffic (AADT) volumes and vehicle percentages were provided by the Regional Municipality of Waterloo's Transportation department. Commercial vehicle percentages and the standard day/night split were also provided. Copies of applicable traffic data and calculations can be found in Appendix C. The following Table 5 summarizes the road traffic volumes used in the analysis.

Table 5: Summary of Road Traffic Data Used in the Transportation Analysis

Roadway Link	Future 2031 Traffic Volumes (AADT)	% Day/ Night Volume Split [1]		Commercial Traffic Breakdown [2]		Vehicle Speed (km/h)
		Daytime	Night-time	% Medium Trucks	% Heavy Trucks	
Ainslie Street South	16900	90	10	2.0	5.6	50
Water Street South	18000	90	10	2.0	3.6	50

Notes: [1] The standard Day/Night split for the region was provided by the RMOW.
[2] Commercial Traffic Breakdowns were provided by the RMOW.

2.4 TRANSPORTATION NOISE MODELLING

Future (2031) road traffic sound levels at the proposed development were predicted using Cadna/A, a commercially available noise propagation modelling software. Roadways were modelled as line sources of sound, with sound emission rates calculated using ORNAMENT algorithms, the road traffic noise model of the MECP. These predictions were validated and are equivalent to those made using the MECP's ORNAMENT or STAMSON v5.04 road traffic noise models.

Sound levels were predicted along the façades of the proposed development using the "building evaluation" feature of Cadna/A. This feature allows for noise levels to be predicted across the entire façade of a structure. All non-noise sensitive spaces such as the parking, retail space and hallways were omitted from the assessment.

Ground absorption was assessed as a reflective surface, as the majority of the intervening ground is paved.

2.5 FAÇADE SOUND LEVELS

Predicted worst-case façade sound levels are presented in **Table 6**. The transportation façade sound levels of the development, showing the ranges of predicted daytime and night-time sound levels are shown in **Figure 3 and 4** for roadway impacts on the full build-out of the development.

Table 6: Summary of Transportation Facade Sound Levels

Component	Façade [1]	Roadway Sound Levels [2]	
		L_{eq} Day (dBA)	L_{eq} Night (dBA)
5th Floor Podium	North	66	59
	East	39	33
	South	64	58
	West	69	62
7th Floor Podium	North	64	58
	East	47	40
	South	61	54
	West	66	60
North Tower	North	62	55
	East	46	40
	South	61	54
	West	64	58
South Tower	North	52	46
	East	41	34
	South	55	49
	West	57	50

Notes: [1] Façade locations are shown in **Figure 3** and **Figure 4**.
[2] The sound levels presented are for the worst-case exposed façade, in which totals may not correspond to the same location.

2.6 OUTDOOR AMENITY AREA SOUNDS LEVELS

Predicted worst-case sound levels from adjacent roadways are presented in **Table 7** for the outdoor amenity space on the 5th floor rooftop of the development. The 7th floor rooftop will contain a green roof and is not considered an amenity space. The assessment locations were selected to represent each section of the area. The locations are shown in **Figure 5** along with predicted worst-case daytime sound levels.

Table 7: Summary of OLA Sound Levels - Roadway

OLA Location	Transportation Impact L_{eq} Day (dBA)	Applicable Guideline Limit (dBA)	Meets Criteria (Y/N?)
5th Floor Rooftop	40	55	Y

The predicted sound levels on the ground level amenity space are predicted to be below 55 dBA during the daytime hours. Therefore, noise mitigation is not required to meet NPC-300 guidelines.

2.7 FAÇADE RECOMMENDATIONS

2.7.1 GLAZING REQUIREMENTS

An assessment of indoor noise levels is required providing the façade sound levels due to road traffic exceed 65 dBA during the daytime or 60 dBA during the night-time periods.

Based on roadway sound levels summarized in Table 6, exceedances are predicted on portions of the development. Therefore, a detailed assessment of glazing requirements is necessary to meet indoor noise criteria listed in Table 4.

Indoor sound levels and required Sound Transmission Class (STC) ratings for façade components were estimated using the procedures outlined in the National Research Council Building Practice Note BPN-56.

Detailed floor plates were provided at the time of this assessment. For the analysis, room dimensions for bedrooms and living/dining rooms have been considered. The following assumptions have been made:

- Window wall construction with glazing and glass spandrel panel elements;
- Windows were assumed to be 80% of the total exterior wall area;
- Non-glazing portions of the wall have an assumed STC rating of 45;
- Living/Dining rooms were assumed to have a reflective level of acoustic absorption;
- Bedrooms were assumed to be very acoustically absorptive.

Preliminary acoustical requirements for glazing will be met providing windows meet the Ontario Building Code specifications (STC 29).

Detailed façade requirements and calculations for each façade are provided in Appendix C.

The combined glazing and frame assembly must be designed to ensure the overall sound isolation performance for the entire window unit meets the sound isolation requirements. It is recommended window manufacturers test data be reviewed to confirm acoustical performance is met.

2.7.2 VENTILATION AND WARNING CLAUSE REQUIREMENTS

The requirements regarding warning clauses are summarized in Table 2. Where required, the Warning Clauses should be included in agreements registered on Title for the residential units, and included in all agreements of purchase and sale or lease, and all rental agreements.

A Type C Warning Clause, forced air heating and a provision for air-conditioning is required for the following units:

- North and South facing facades of 5th Floor Podium;
- South facing facades of 7th Floor Podium;
- North, south, and west facing facades of the North Tower; and
- West facing façade of the South Tower.

A **Type D** Warning Clause, and central air-conditioning is required for following units:

- West facing facades of 5th Floor Podium; and
- West facing facades of 7th Floor Podium.

Warning clause text can be found in **Appendix D**.

3. STATIONARY SOURCE NOISE IMPACTS

A review has been conducted for the potential impacts on the development from stationary residential and commercial noise sources. The Ainslie Street GRT Terminal contains multiple stationary sources including idling buses, HVAC units, and bus movement throughout the terminal property. West of the site, there are also rooftop HVAC units at the Cambridge Self-Help Food Bank.

3.1 STATIONARY NOISE CRITERIA

3.1.1 MECP NPC-300 GUIDELINES FOR STATIONARY NOISE SOURCES

The applicable MECP noise guidelines for new sensitive land uses adjacent to existing industrial/ commercial uses are provided in MECP Publication NPC-300. NPC-300 revokes and replaces the previous noise assessment guideline, Publication LU-131 and Publication NPC-205, which was previously used for assessing noise impacts as part of Certificates of Approval / Environmental Compliance Approvals granted by the MECP for industries.

The new guideline sets out noise limits for two main types of noise sources:

- Non-impulsive, “continuous” noise sources such as ventilation fans, mechanical equipment, and vehicles while moving within the property boundary of an industry. Continuous noise is measured using 1-hour average sound exposures (L_{eq} (1-hr) values), in dBA; and
- Impulsive noise, which is a “banging” type noise characterized by rapid rise time and decay. Impulsive noise is measured using a logarithmic mean (average) level (L_{LM}) of the impulses in a one-hour period, in dBAI.

Furthermore, the guideline requires an assessment at, and provides separate guideline limits for:

- Outdoor points of reception (e.g., back yards, communal outdoor amenity areas); and
- Façade points of reception such as the plane of windows on the outdoor façade which connect onto noise sensitive spaces, such as living rooms, dens, eat-in kitchens, dining rooms and bedrooms.

The applicable noise limits at a point of reception are the higher of:

- The existing ambient sound level due to road traffic, or
- The exclusion limits set out in the guideline.

The following table sets out the exclusion limits from the guideline for continuous noise sources.

Table 8: NPC-300 Continuous Sound Noise Requirements

Receiver Category	Time Period	Class 1 Area Exclusionary Sound Level Limits, 1h-L_{eq} (dBA) [1]	Class 4 Area Exclusionary Sound Level Limits, 1h-L_{eq} (dBA) [1]
Outdoor	0700-1900h	50	55
	1900-2300h	50	55
	2300-0700h	-	
Plane of Window [2]	0700-1900h	50	60
	1900-2300h	50	60
	2300-0700h	45	55

Notes: [1] or minimum hourly L_{eq} of background noise, whichever is higher
[2] Applicable for "Noise Sensitive Spaces", as defined in NPC-300.

3.1.2 APPLICATION OF THE NPC-300 GUIDELINES

The stationary noise guidelines apply only to residential land uses and to noise-sensitive commercial and institutional uses, as defined in NPC-300 (e.g., schools, daycares, hotels). For the Project, the stationary noise guidelines only apply to the residential portions of the development, including:

- Individual residences;
- Communal indoor amenity areas; and
- Communal outdoor amenity areas.

All of the above have been considered as noise-sensitive points of reception in the analysis.

3.1.3 PROPOSED AREA CLASSIFICATION

Under Ministry of the Environment, Conservation & Parks (MECP) Publication NPC-300 noise guidelines, noise sensitive receptors are defined using area classifications. The receptor areas are classified as either:

- Class 1 – Urban areas
- Class 2 – Suburban / semi-rural areas
- Class 3 – Rural areas
- Class 4 – Infill areas

Depending on the receptor area classification, different guideline limits apply. Classes 1, 2 and 3 were included in the predecessor guidelines to NPC-300, namely MECP Publications NPC-205, NPC-232, and LU-131. The Class 4 designation is a new designation, intended to allow for infill and redevelopment, whilst still protecting residences from undue noise.

Based on the nature of the area, the Class 1 area urban sound level limits apply. The area is urban in nature and dominated by man-made sounds, including road traffic noise and an "urban hum", 24-hours per day. However, the development site meets the definition and requirements for a Class 4 area and it would be recommended and appropriate to issue a Class 4 designation for the development lands.

In NPC-300, a Class 4 area is defined as:

> "Class 4 area"
>
> means an area or specific site that would otherwise be defined as Class 1 or 2 and which:
>
> - is an area intended for development with new noise sensitive land use(s) that are not yet built;
> - is in proximity to existing, lawfully established stationary source(s); and
> - has formal confirmation from the land use planning authority with the Class 4 area classification which is determined during the land use planning process.

Additionally, areas with existing noise sensitive land use(s) cannot be classified as Class 4 areas."

Section C4.4.2 of Publication NPC-300 further discusses the use of Class 4 areas:

> "Class 4 area classification is based on the principle of formal confirmation of the classification by the land use planning authority. Such confirmation would be issued at the discretion of the land use planning authority and under the procedures developed by the land use planning authority, in the exercise of its responsibility and authority under the Planning Act.
>
> The following considerations apply to new noise sensitive land uses proposed in a Class 4 area:
>
> - an appropriate noise impact assessment should be conducted for the land use planning authority as early as possible in the land use planning process that verifies that the applicable sound level limits will be met;
> - noise control measures may be required to ensure the stationary source complies with the applicable sound level limits at the new noise sensitive land use;
> - noise control measures may include receptor-based noise control measures and/or source-based noise control measures;
> - source based noise control measures may require an MECP approval;
> - receptor based noise control measures may require agreements for noise mitigation, as described in Part A of this guideline;
> - prospective purchasers should be informed that this dwelling is located in a Class 4 area through appropriate means and informed of the agreements for noise mitigation. Registration on title of the agreements for noise mitigation is recommended. Additionally, registration on title of an appropriate warning clause to notify purchasers that the applicable Class 4 area sound level limits for this dwelling are protective of indoor areas and are based on the assumption of closed windows, such as Warning Clause F in Section C8.3 is also recommended; and
> - any final agreements for noise mitigation as described in Part A of this guideline and all other relevant documentation are to be submitted to the MECP by the stationary source owner(s) when applying for an MECP approval. These agreements will be assessed during the review of the application for MECP approvals."

The Project meets the definitions and requirements for a Class 4 area listed in Publication NPC-300:

- the site is within an area intended for new high-intensity development;
- the site is in proximity existing lawfully established stationary sources, including the GRT's Ainslie Street Terminal;

- An appropriate, detailed noise impact assessment has been conducted as part of the zoning by-law amendment application (i.e., this report).

In addition, based on a preliminary review, the adjacent Ainslie Street GRT Terminal includes particularly difficult sources to mitigate. Bus noise (pass-by and idling) would not be effectively mitigated through the implementation of a barrier due to the elevated units of the North Tower, and modification of the entire fleet of buses is considered unreasonable.

Considering the above mitigation strategies are problematic and difficult to achieve, a Class 4 designation for the development site from the Regional Municipality of Waterloo and RMOW should be requested.

It is therefore appropriate for the City to declare the development property as a Class 4 area, under their role as the land use planning authority, in the exercise of its responsibility and authority under the Planning Act.

It is important to note that the Class 4 designation only applies to the development lands. Existing noise-sensitive receptors in the area will remain as Class 1 areas. Therefore, the designation will not allow for industries to increase their noise impacts at existing residences.

For the proposed development, a Class 4 area designation is considered appropriate and should be sought from the Regional Municipality of Waterloo and the City of Cambridge. This is based on:

- the development lands being located in a Class 1 urban area;
- the lands are intended for development of new residential lands;
- the surrounding stationary sources are lawfully established, where the Ainslie Street GRT Terminal is currently exempt from MECP permitting.
- Noise mitigation requirements for the Ainslie Street GRT Terminal are considered to be unreasonable for the proposed development.

For the purposes of this assessment, the proposed development is assumed to be located in a Class 4 area.

3.2 STATIONARY SOURCE NOISE IMPACTS

Previously, SLR/Novus worked on noise assessments for residential developments in the area. SLR personnel completed a site visit in May 12, 2020 to survey the surrounding area for potential stationary noise sources. During the site visit and the aerial review, the Ainslie Terminal was identified as a significant noise source. An aerial review was also conducted of the development lands and surrounding area. No major industrial facilities were identified within 1000m of the development.

3.2.1 SOURCES OF INTERST

Based on the information obtained during the site visit and previous data from SLR/Novus' database, the significant sources of noise in the area of the development have been identified. Noise emission rates for the equipment were determined based on property-line noise measurements and supplemented by information from SLR/Novus' in-house database. Modelled noise sources include:

Ainslie Street GRT Terminal

11 separate bus routes operate through the GRT's Ainslie Street Terminal. This includes 51 Hespeler, 53 Franklin, 54 Lisbon Pines, 55 Grand Ridge, 57 Blair, 58 Elmwood, 59 Christopher, 63 Champlain, 206 iXpress Southwood/Cedar, 206 iXpress Fairway Station, and 302 ION Bus Fairway Station.

The identified significant noise sources for the terminal include.

- Idling Buses;
- Slow Moving Buses;
- Terminal Building HVAC mechanical equipment.

Bus volumes were determined based on discussions with GRT, review of online schedules, and site observations. Routes 53, 54, 55, 57, 58, 59, 63, 206 Southwood/Cedar, and 206 Fairway Station will operate with 2 buses/hour. Routes 51, and 302 will operate with 4 buses/hour. Average idling times observed on-site by SLR staff range between 3 and 7 minutes/route. SLR staff observed multiple cases of less than 3 minutes of idling during peak periods. All station locations are shown in Figure 6.

54 Ainslie St South (Cambridge Self-Help Food Bank)

- HVAC mechanical equipment

Figure 6 shows the location of all modelled sources. Noise emission data used in the assessment can be found in Appendix E.

3.2.2 OPERATING CONDITIONS

Ainslie Street GRT Terminal

Daytime/Evening (7AM-11PM)

- HVAC mechanical equipment operating at 100% capacity;
- Movement for 36 buses/hour with on observed speed (19 km/h) within the terminal;
- Floater bus idling for 15 min/hour;
- Each bus idling for 5 minutes at 2 buses/hour (total 10 mins/hour) (excluding Station 51 and 302); and
- Each bus idling for 5 minutes at 4 buses/hour (total 20 mins/hour) at Stations 51, and 302.

Night-time (11PM-7AM)

- HVAC mechanical equipment operating at 50% capacity;
- Movement for 36 buses/hour with an observed speed (19 km/h) within the terminal;
- Floater bus idling for 15 mins/hour;
- Each bus idling for 5 minutes at 2 buses/hour (total 10 mins/hour) (excl. Station 51, and 302); and
- Each bus idling for 5 minutes at 4 buses/hour (total 20 mins/hour) at Stations 51, and 302.

Cambridge Self-Help Food Bank

Daytime/Evening (7AM-11PM)

- HVAC mechanical equipment running at 100% capacity

Night-time (11PM-7AM)

- HVAC mechanical equipment running at 50% capacity

3.3 STATIONARY NOISE MODELLING

Noise impacts from stationary noise sources were modelled using Cadna/A, a software implementation of the internationally recognized ISO-9613-2 environmental noise propagation algorithms. Cadna/A / ISO-9613 is the preferred noise model of the MECP. The model accounts for source noise emission levels, distance, screening effects from buildings, noise barriers, ground absorption, reflections from surrounding buildings, atmospheric absorption, and worst-case meteorological conditions.

For this assessment, a ground absorption factor of 0 was applied, as the surrounding area consists primarily of reflective ground surfaces (asphalt and concrete).

The "building evaluation" feature of the Cadna/A was used to assess noise impacts on the development. This feature allows for noise levels to be predicted across the entire façade of a structure. All non-noise sensitive spaces such as the parking, retail space and hallways were omitted from the assessment.

All stationary sources modelled are shown in Figure 6.

3.4 FAÇADE SOUND LEVELS

Predicted worst-case façade sound levels are presented in Table 9 for normal operations and emergency generator set testing, respectively. Daytime/evening, and night-time façade sound levels due to surrounding stationary sources are provided Figure 7, and 8.

Worst-case sound levels from surrounding stationary noise sources are predicted to meet the applicable NPC-300 guideline limits on all façades. Therefore, noise mitigation is not required.

3.5 OUTDOOR AMENITY AREA SOUND LEVELS

Predicted worst-case sound levels from surrounding stationary sources are presented in Table 10 for the outdoor amenity space on the ground level of the development. Predicted worst case levels due to normal operations are provided in Figure 9.

3.6 VENTILATION AND NOISE WARNING CLAUSES

Central air conditioning and a Type F Warning Clause is recommended as a component of the Class 4 Area designation. See Appendix D for warning clause details. The warning clauses must be registered on Title and included in all agreements of purchase and sale or lease and all rental agreements.

Table 9: Summary of Facade Sound Levels due to Surrounding Stationary Sources

Component	Façade [1]	Stationary Sound Levels [2]		Guideline Limit		Meets Criteria (Y/N?)
		L_{eq} Day/Eve (dBA)	L_{eq} Night (dBA)	L_{eq} Day (dBA)	L_{eq} Night (dBA)	
5th Floor Podium	North	55	55	60	55	Y
	East	41	41			Y
	South	33	33			Y
	West	49	49			Y
7th Floor Podium	North	53	53			Y
	East	50	50			Y
	South	31	31			Y
	West	48	48			Y
Tower A	North	52	52			Y
	East	48	48			Y
	South	39	39			Y
	West	51	51			Y
Tower B	North	47	47			Y
	East	41	41			Y
	South	30	30			Y
	West	46	46			Y

Notes: [1] Façade locations are shown in **Figure 7** and **Figure 8**.

[2] The sound levels presented are for the worst-case exposed façade, in which totals may not correspond to the same location.

Table 10: Summary of OLA Sound Levels – Normal Operations Stationary Sources

OLA Location	Stationary Sound Level L_{eq} Day (dBA)	Applicable Guideline Limit (dBA)	Meets Criteria (Y/N?)
5th Floor Podium	32	55	Y

PART 2: IMPACTS OF THE DEVELOPMENT ON ITSELF

The building mechanical systems (e.g., cooling tower, emergency generator, etc.) have not been designed in detail at this stage. Although no adverse impacts are expected, such equipment has the potential to result in noise impacts on the noise sensitive spaces within the development.

Therefore, the potential impacts should be assessed as part of the final building design. The criteria is expected to be met at all on-site receptors with the appropriate selection of mechanical equipment, by locating equipment to minimize noise impacts within the development, and by incorporating control measures (e.g., silencers, barriers) into the design.

It is recommended that the mechanical systems be reviewed by an Acoustical Consultant prior to final selection of equipment.

PART 3: IMPACTS OF THE DEVELOPMENT ON THE SURROUNDING AREA

In terms of the noise environment of the area, it is expected that the project will have a negligible effect on the neighbouring properties.

The traffic related to the proposed development will be small relative to the existing traffic volumes within the area and is not of concern with respect to noise impact.

Other possible development noise sources with potentially adverse impacts on the surrounding neighbourhood are the mechanical roof-top equipment (cooling tower, make up air units and generator). This equipment is required to meet MECP Publication NPC-300 requirements at the worst-case off-site noise sensitive receptors. Given the high ambient sound levels in the area and the requirement for the systems to meet the applicable noise guideline at closer on-site receptors, off-site impacts are not anticipated.

Regardless, potential impacts should be assessed as part of the final building design. The criteria can be met at all surrounding and on-site receptors by the appropriate selection of mechanical equipment, by locating equipment with sufficient setback from noise sensitive locations, and by incorporating control measures (e.g., silencers, barriers) into the design.

It is recommended the mechanical systems be reviewed by an Acoustical Consultant prior to final selection of equipment.

4. Conclusions and Recommendations

The potential for noise impacts on and from the proposed development have been assessed. Impacts of the environment on the development, the development on the surrounding area and the development on itself have been considered. Based on the results of our studies, the following conclusions have been reached:

4.1 TRANSPORTATION NOISE

- An assessment of transportation noise impacts from surrounding roadways has been completed.
- OBC construction is anticipated to be sufficient for meeting the MECP NPC-300 Building Component Requirements. Upgraded glazing is not required within the development, as outlined in outlined in Section 2.6.1.
- Required Warning clauses for the development are detailed further in Appendix D.

4.2 STATIONARY NOISE

- SLR staff conducted a site visit in May 2020, in which in which the Ainslie Street GRT Terminal and the Cambridge Self-Help Food Bank were identified as stationary sources with the potential to impact the development.
- Noise mitigation requirements for the Ainslie Street GRT Terminal are considered to be unreasonable for the proposed development. As the development site meets the definition and requirements for a Class 4 area, it would be recommended that the Class 4 designation be sought after for from the Regional Municipality of Waterloo and City of Cambridge.
- Stationary noise levels meet the Class 4 NPC-300 requirements at the development during all periods of the day. Therefore, additional mitigation is not required if a Class 4 designation is granted by the Regional Municipality of Waterloo.
- Central air conditioning and a Type F noise warning clause should be included as a component of the Class 4 Area designation. Warning clauses are included in Appendix D.

4.3 OVERALL ASSESSMENT

- Impacts of the environment on the proposed development can be adequately controlled through the feasible mitigation measures, façade designs, and warning clauses detailed in Part 1 of this report.
- Impacts of the proposed development on the surrounding area are predicted to meet NPC-300 requirements and can be adequately controlled by following the design guidance outlined in Part 2 of this report.
- Impacts of the proposed development on itself are predicted to meet NPC-300 requirements and can be adequately controlled by following the design guidance outlined in Part 3 of this report.

5. REFERENCES

International Organization for Standardization, ISO 9613-2: Acoustics – Attenuation of Sound During Propagation Outdoors Part 2: General Method of Calculation, Geneva, Switzerland, 1996.

Ontario Ministry of the Environment, Conservation and Parks (MECP), 1989, Ontario Road Noise Analysis Method for Environment and Transportation (ORNAMENT)

Ontario Ministry of the Environment, Conservation and Parks (MECP), 1996, STAMSON v5.04: Road, Rail and Rapid Transit Noise Prediction Model

Ontario Ministry of the Environment, Conservation and Parks, Publication NPC-300: *Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning*, 2013.

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FIGURES

Environmental Noise Assessment
61-69 Ainslie Street S
SLR Project No.: 241.20035.00000

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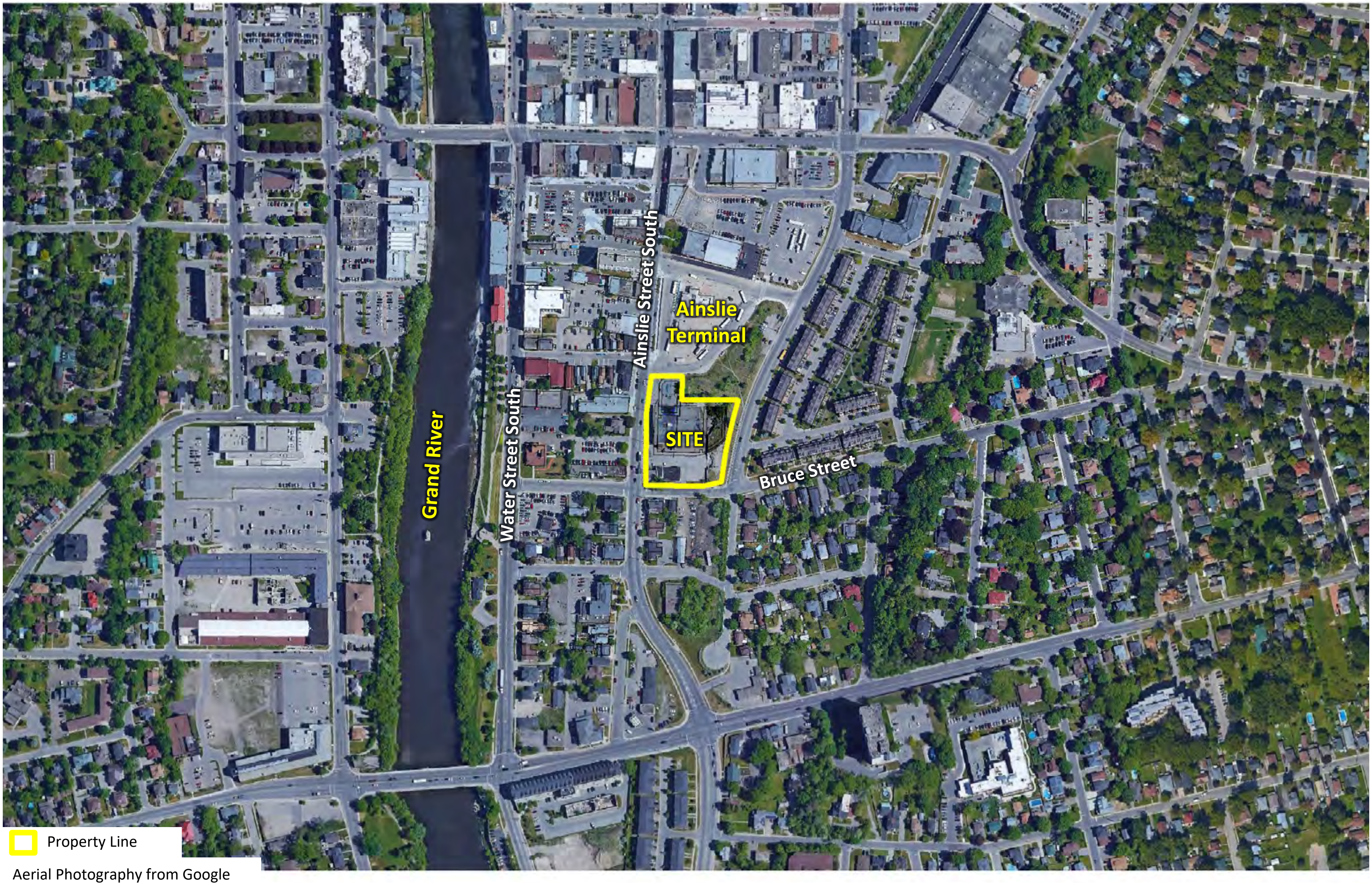
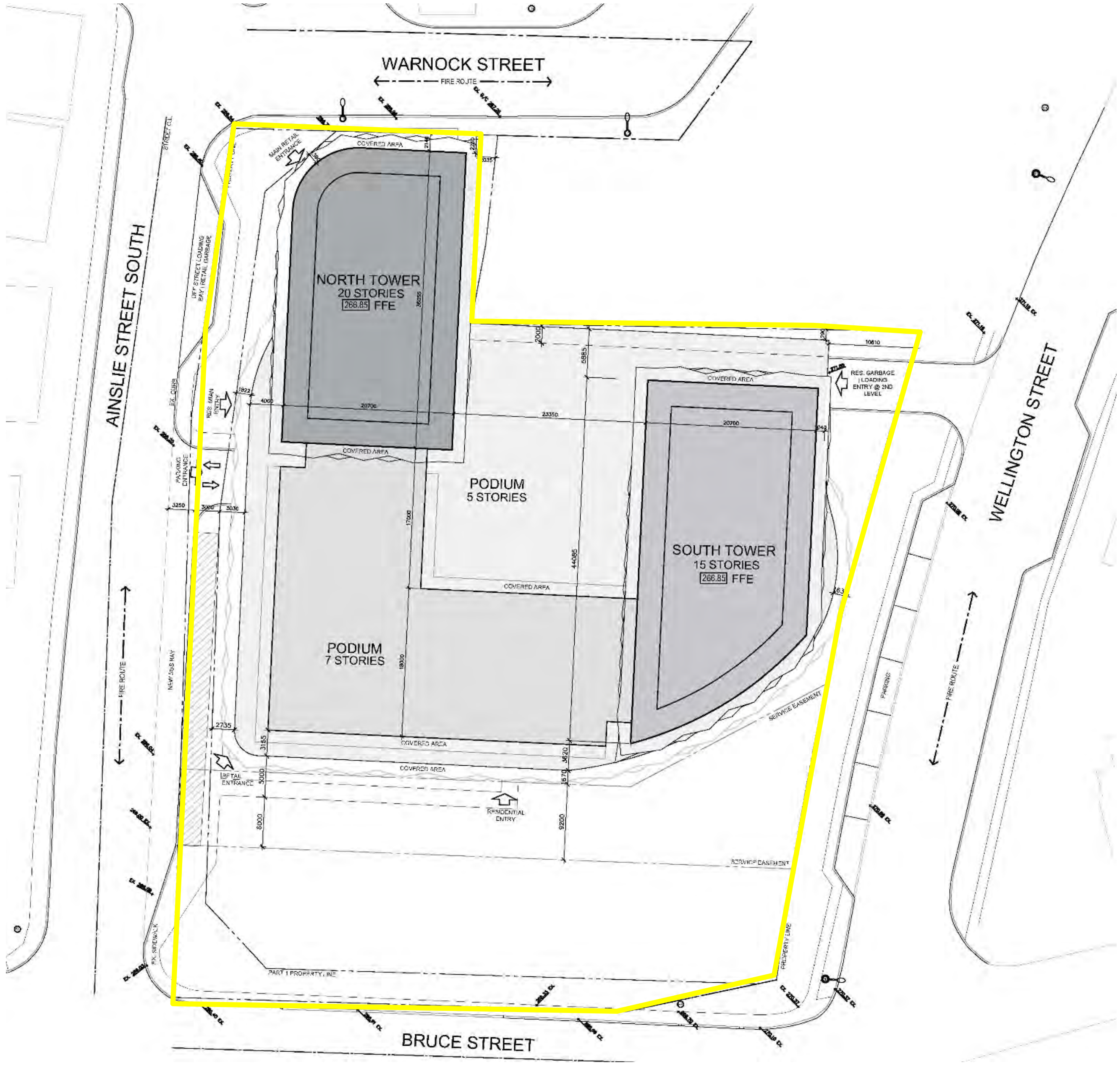
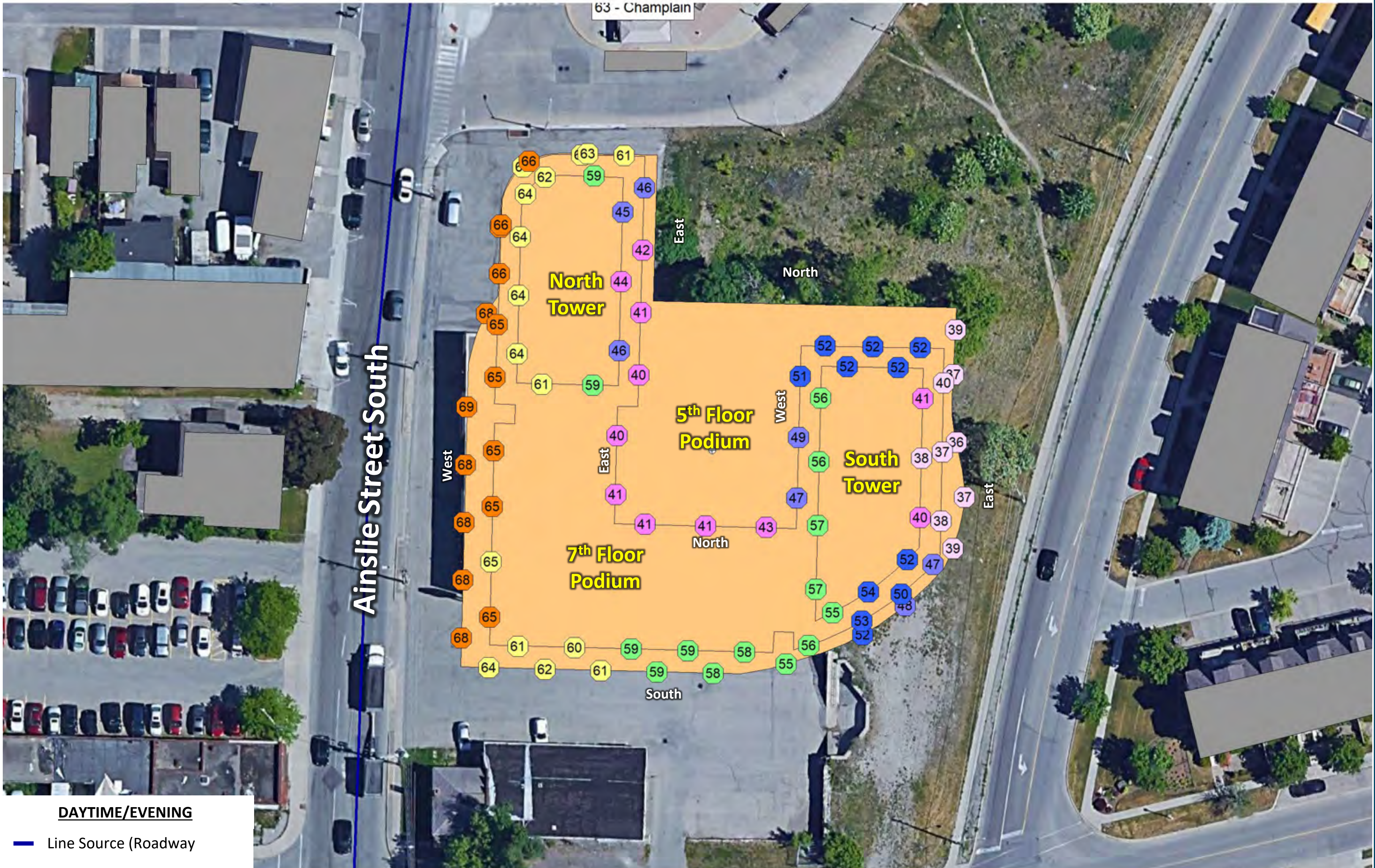


ATLANTIC DEVELOPMENT GROUP LTD.	True North	Scale: 1:5,000	METRES	SLR global environmental solutions
61-69 AINSLIE STREET SOUTH – CAMBRIDGE, ONTARIO		Date: July 6, 2020 Rev 0.0	Figure No. 1	
SITE AND CONTEXT PLAN		Project No. 241.20035.00000		



Property Line

ATLANTIC DEVELOPMENT GROUP LTD.	True North	Scale: n/a	METRES	SLR global environmental solutions
61-69 AINSLIE STREET SOUTH - CAMBRIDGE, ONTARIO		Date: July 6, 2020 / Rev 0.0	Figure No. **2**	
EXCERPTS FROM SITE PLAN		Project No. 241.20035.00000		



ATLANTIC DEVELOPMENT GROUP LTD.

61-69 AINSLIE STREET SOUTH – CAMBRIDGE, ONTARIO

PREDICTED TRANSPORTATION NOISE SOUND LEVELS AT FAÇADES
ROADWAY

True North

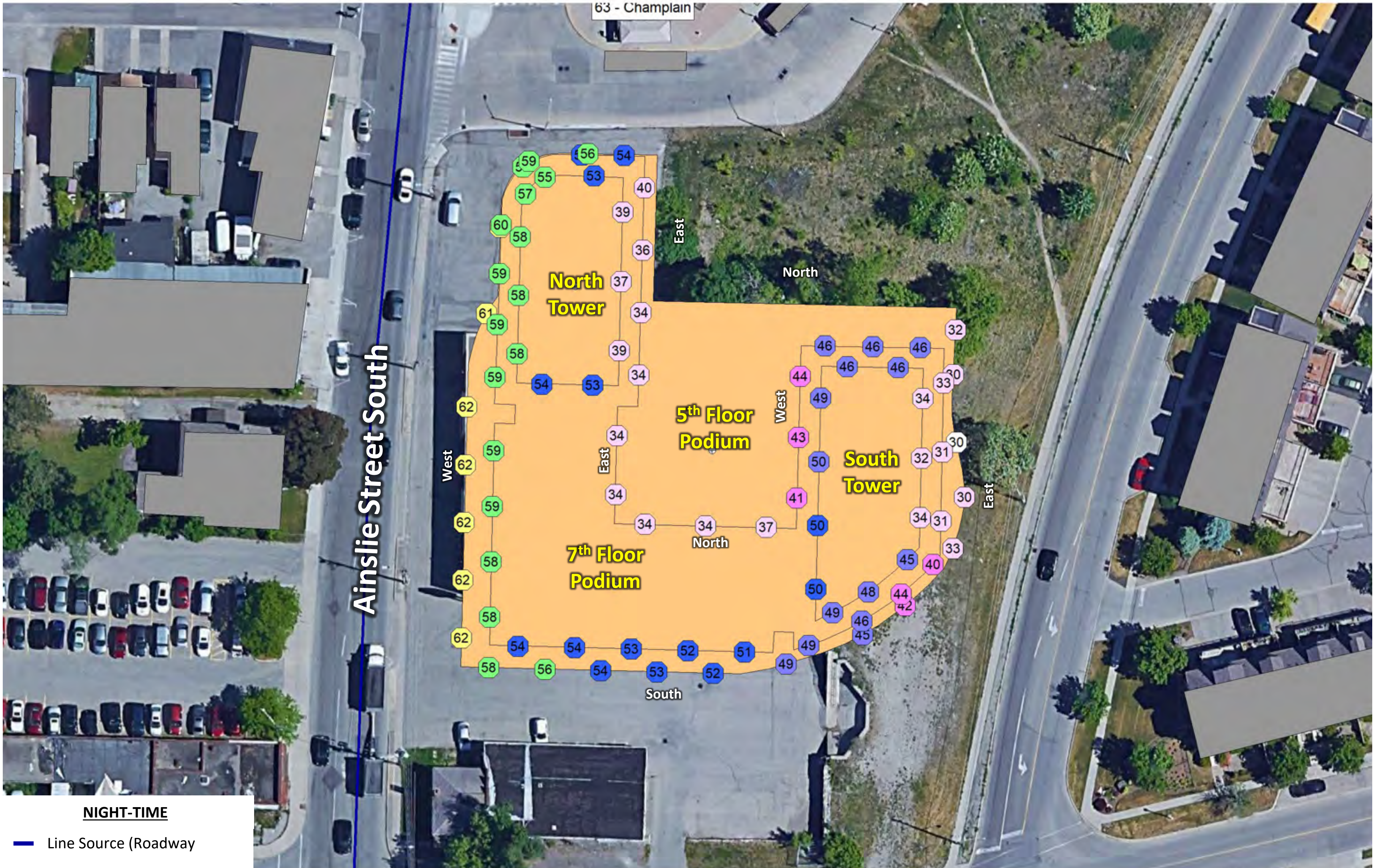
Scale: 1: 750 METRES

Date: July 10, 2020 Rev 0.0

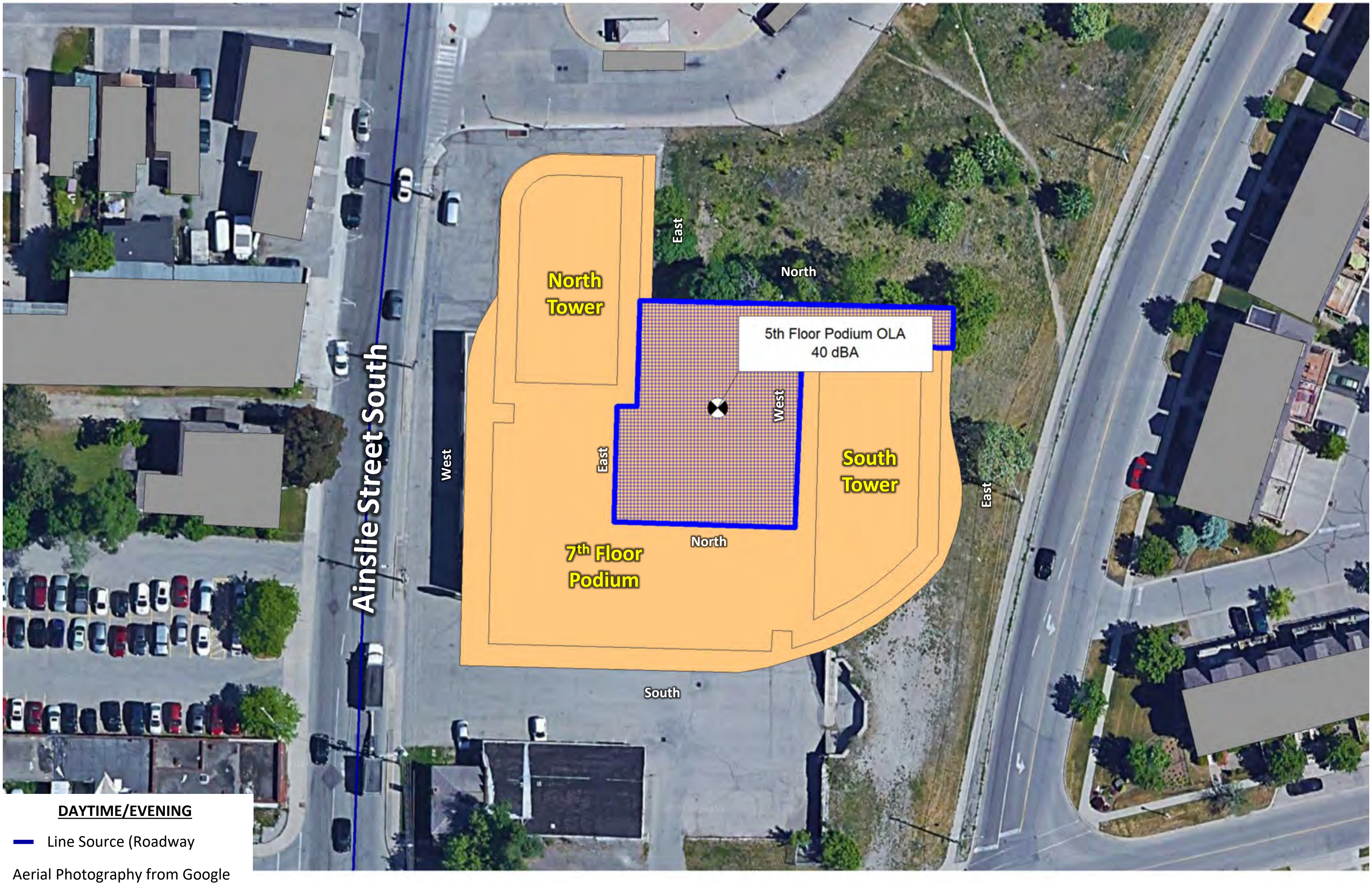
Figure No. **3**

Project No. 241.20035.00000

SLR global environmental solutions



ATLANTIC DEVELOPMENT GROUP LTD.	True North	Scale: 1: 750	METRES	SLR global environmental solutions
61-69 AINSLIE STREET SOUTH – CAMBRIDGE, ONTARIO		Date: July 10, 2020 Rev 0.0	Figure No. 4	
PREDICTED TRANSPORTATION NOISE SOUND LEVELS AT FAÇADES ROADWAY		Project No. 241.20035.00000		



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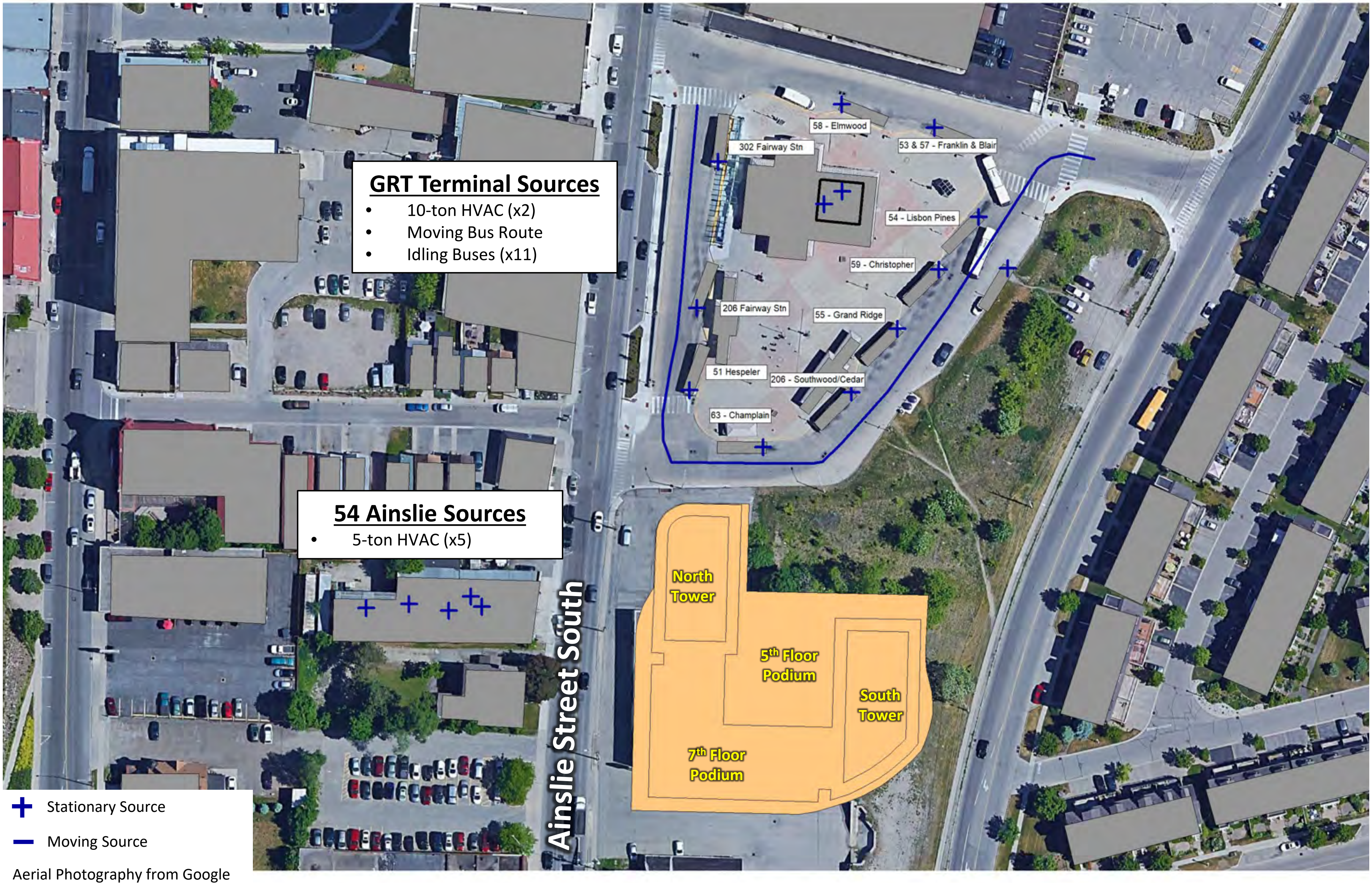
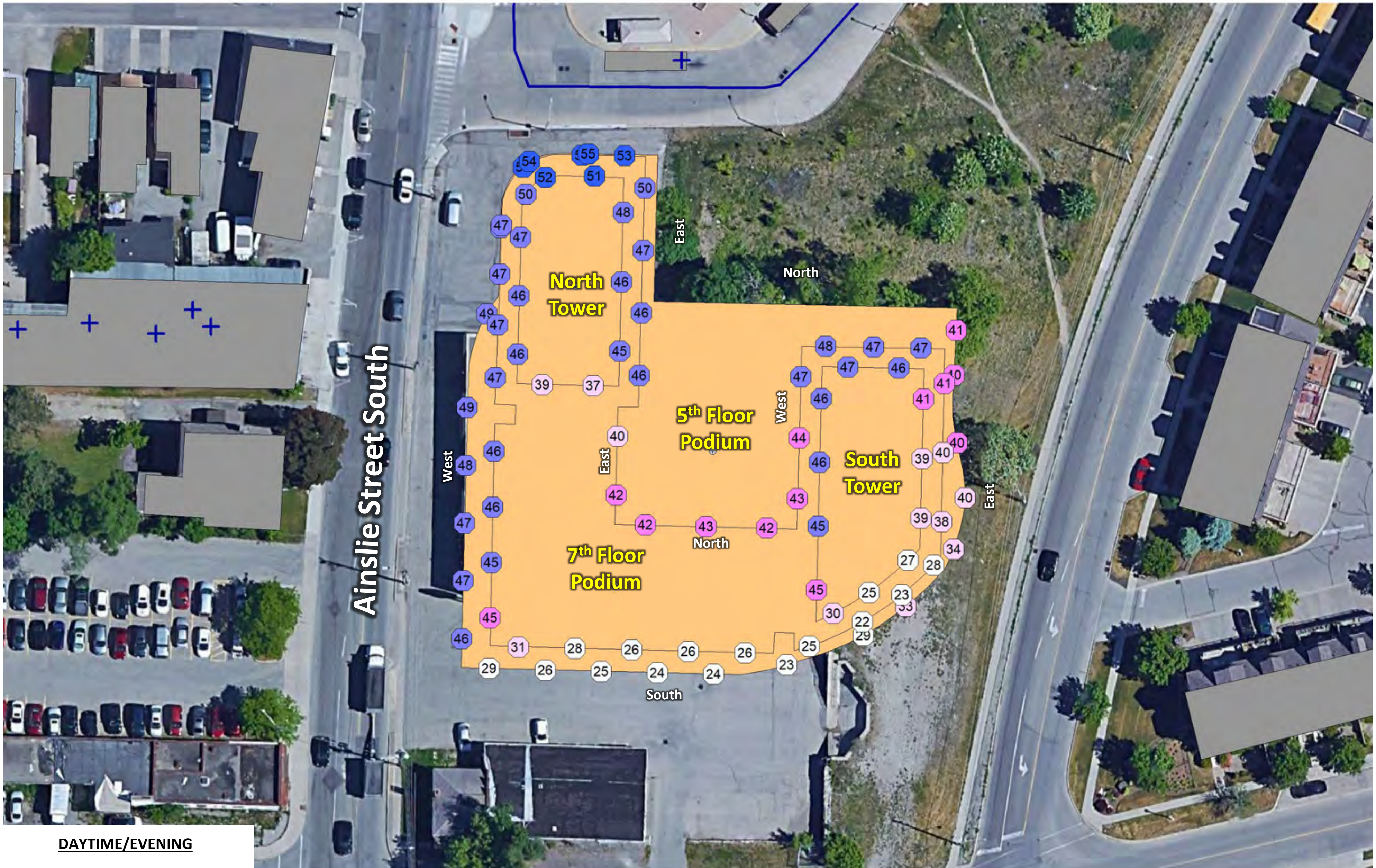
61-69 AINSLIE STREET SOUTH – CAMBRIDGE, ONTARIO		Date: July 10, 2020	Rev 0.0	Figure No. 5	
PREDICTED TRANSPORTATION NOISE SOUND LEVELS AT AMENITY AREAS ROADWAY		Project No. 241.20035.00000			



ATLANTIC DEVELOPMENT GROUP LTD.	True North	Scale: 1: 750	METRES
61-69 AINSLIE STREET SOUTH – CAMBRIDGE, ONTARIO		Date: July 10, 2020 Rev 0.0	Figure No. 6
STATIONARY SOURCES MODELLED		Project No. 241.20035.00000	

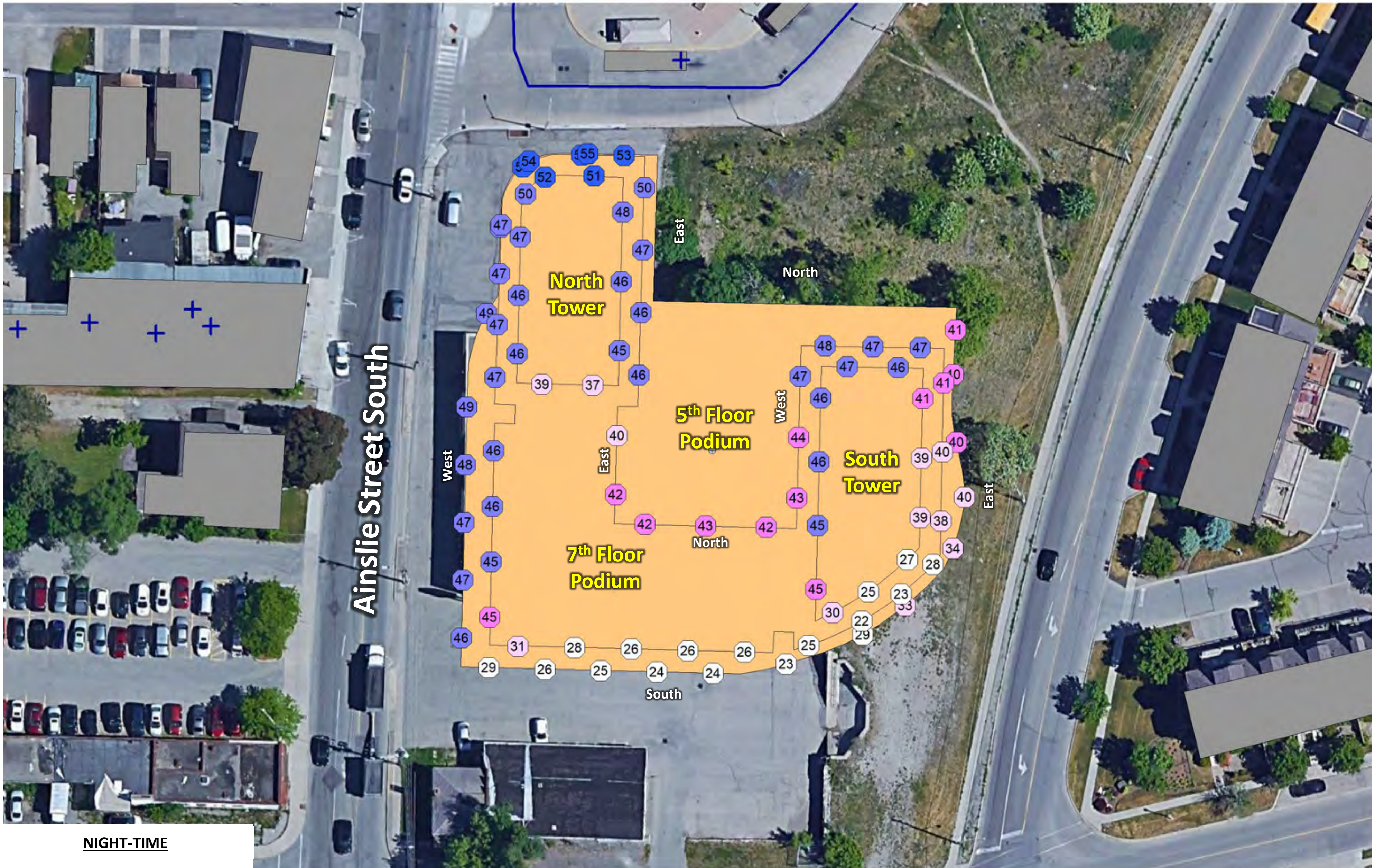
SLR global environmental solutions



DAYTIME/EVENING

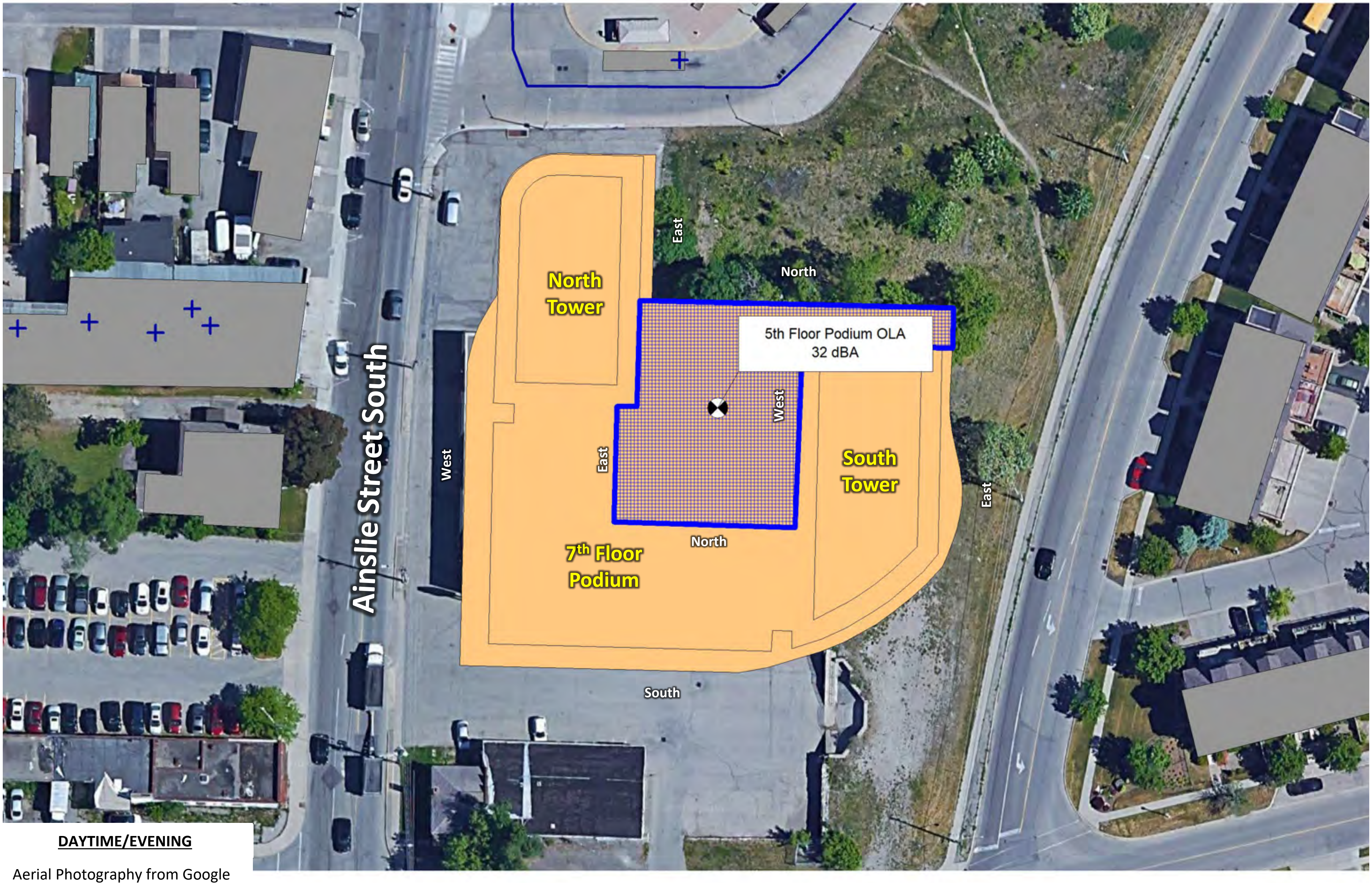
Aerial Photography from Google

ATLANTIC DEVELOPMENT GROUP LTD.	True North	Scale: 1: 750		METRES	SLR global environmental solutions
61-69 AINSLIE STREET SOUTH – CAMBRIDGE, ONTARIO		Date: July 10, 2020	Rev 0.0	Figure No. 7	
PREDICATED SURROUNDING STATIONARY SOUND LEVELS AT FAÇADES		Project No. 241.20035.00000			



ATLANTIC DEVELOPMENT GROUP LTD.	True North	Scale: 1: 750	METRES
61-69 AINSLIE STREET SOUTH – CAMBRIDGE, ONTARIO		Date: July 10, 2020 Rev 0.0	Figure No. 8
PREDICATED SURROUNDING STATIONARY SOUND LEVELS AT FAÇADES		Project No. 241.20035.00000	

SLR global environmental solutions



ATLANTIC DEVELOPMENT GROUP LTD.	True North	Scale: 1: 750	METRES
61-69 AINSLIE STREET SOUTH – CAMBRIDGE, ONTARIO		Date: July 10, 2020 Rev 0.0	Figure No. 9
PREDICATED SURROUNDING STATIONARY SOUND LEVELS AT AMENITY AREAS		Project No. 241.20035.00000	

SLR global environmental solutions

APPENDIX A
Declaration Statements

Environmental Noise Assessment
61-69 Ainslie Street S
SLR Project No.: 241.20035.00000

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CANADA PROVINCE OF ONTARIO	))))))))))	In the Matter of the Environmental Protection Act and the Planning Act And in the Matter of 61-69 Ainslie Street South in the City of Cambridge in the Regional Municipality of Waterloo

I, Marcus Li, P.Eng., of the Town of Oakville, in Halton Region, SOLEMNLY DECLARE THAT:

1. I am a Professional Engineer employed by Novus Environmental Inc., which holds a Certificate of Authorization from the Association of Professional Engineers of Ontario and have personal knowledge of the matters set out below.

2. I was retained or employed as the principal consultant to undertake the assessment of noise impacts and recommendation of noise mitigation measures for the property described as Westmount Place in Waterloo, Ontario.

3. I had the expertise required to perform these services. Any assessment activities or recommendations requiring the application of engineering principles have been undertaken or supervised by an engineer qualified to perform such services.

4. The information used in the study entitled Environmental Noise Study, 61-69 Ainslie Street South, SLR file No. 241.20035.00000 dated July 13, 2020 is based on the best information available as of the date of the study.

5. The noise level calculations, the interpretation of noise attenuation requirements, and the recommended measures are in accordance with Ministry of Environment guidelines, Region of Waterloo policies, and any applicable policy or guidelines of the Area Municipality, and any other applicable policy or guideline.

6. The physical noise attenuation measures proposed in this study are feasible to implement and will provide the level of attenuation indicated in the study.

7. I acknowledge that this study may be subject to a peer review conducted at my cost.

8. I acknowledge that public authorities and future owners, occupants and others may rely on this statement.

AND I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

DECLARED before me at the City of Guelph, in the County of Wellington, this 14th day of July, 2020.	))))	Marcus Li

Donna Marie Susan Dobbin, a Commissioner, etc.,
Province of Ontario, for SLR Consulting (Canada) Ltd.
Expires June 4, 2022

Donna Dobbin

CANADA	)	In the Matter of the
	)	Environmental Protection
PROVINCE OF ONTARIO	)	Act and the Planning Act
	)	
	)	
	)	And in the Matter of
	)	61-69 Ainslie Street South,
	)	in the City of Cambridge
	)	in the Regional Municipality
	)	of Waterloo

I, Adeel Khan, of the City of Toronto, in the County of GTA, SOLEMNLY DECLARE THAT:

1. I am the owner of the property, or the owner's agent, and that I understand and agree with the study entitled Environmental Noise Study, 61-69 Ainslie Street South, SLR file No. 241.20035.00000 dated July__, 2020 is based on the best information available as of the date of the study.

2. The application has been designed to avoid the use of berms or walls as noise attenuation features where feasible. Where berms or walls are recommended, the Noise Study provides economic, planning and engineering justification.

3. If the application is changed in a way that may affect the noise level calculations, I will have a revised noise study submitted to the Region.

AND I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

)
)
) AuthentiSIGN
)
) 7/21/2020 9:13:50 PM EDT
) ______________________________

07/21/2020
__________, 20____.

APPENDIX B
Development Drawings

Environmental Noise Assessment
61-69 Ainslie Street S
SLR Project No.: 241.20035.00000

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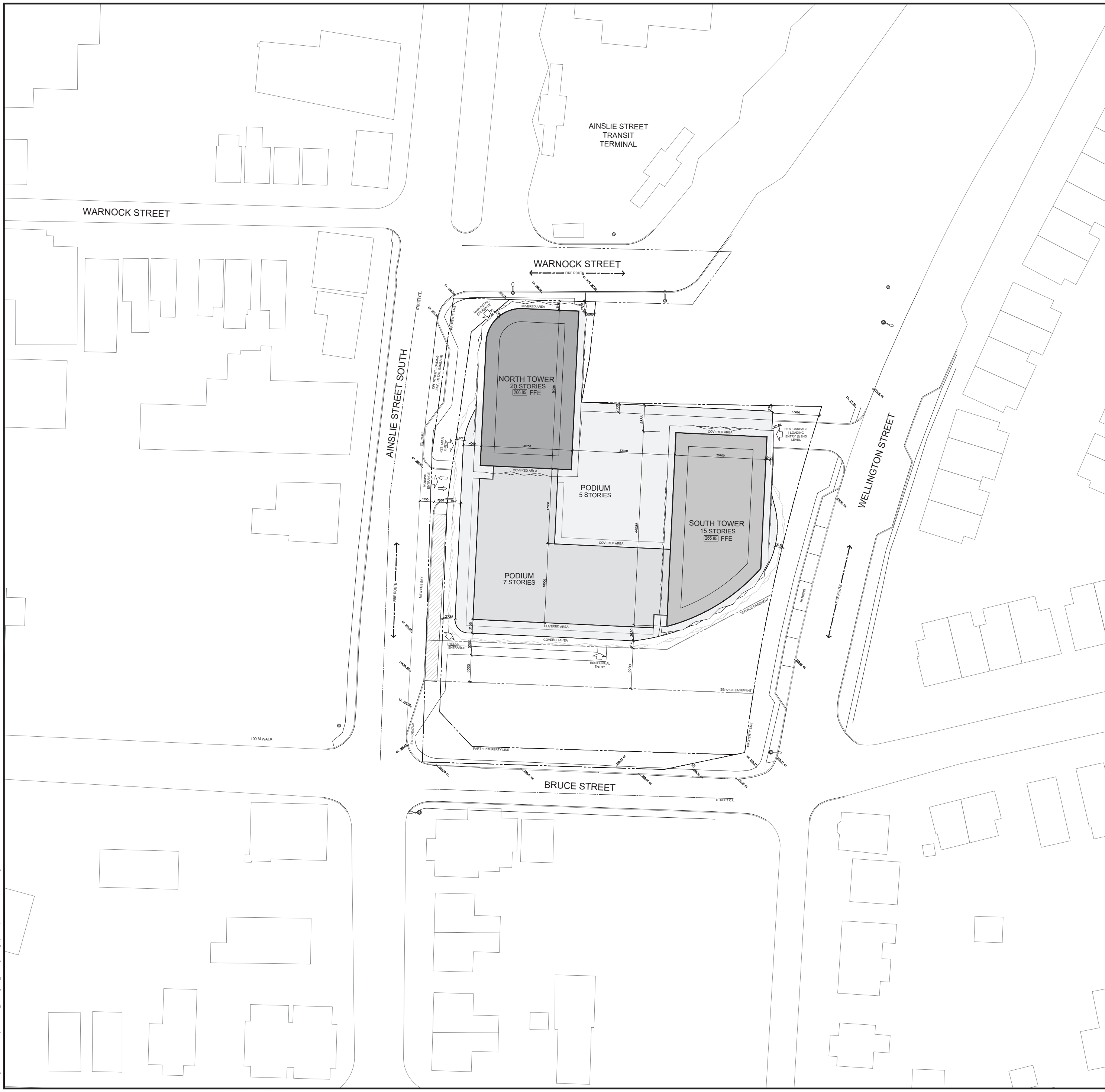

SITE STATISTICS	
SITE AREA	
CURRENT SITE AREA SITE AREA PRIOR TO ROAD WIDENING (PART 1 OF SURVEY, DRAWING NO. 20-40-802-00)	7251.05 m^2
SITE AREA AFTER ROAD WIDENING	6519.19 M^2

ZONING REGULATIONS AS PER CITY OF CAMBRIDGE ZONING BY-LAW NO. 150-85

REGULATION	REQUIRED	PROVIDED
MINIMUM LOT FRONTAGE	30 m	105.6 m (WEST FRONTAGE)
MAXIMUM DENSITY (DWELLING UNITS PER NET RESIDENTIAL HECTARE)	250 uph	601 uph (392 UNITS)
MINIMUM FRONT YARD (m)	4.5 m	0.0 m
MINIMUM INTERIOR SIDE YARD (m)	3 M FOR THE FIRST 2 STOREYS, PLUS 1.5 M FOR EACH ADDITIONAL STOREY, TO A TOTAL REQUIRED INTERIOR SIDE YARD OF 12 M	0.0 m
MINIMUM REAR YARD (m)	3 M FOR THE FIRST 2 STOREYS, PLUS 1.5 M FOR EACH ADDITIONAL STOREY, TO A TOTAL REQUIRED REAR YARD OF 12 M	----------
MINIMUM GROSS FLOOR AREA (m^2 PER DWELLING UNIT)		
i. PER BACHELOR OR STUDIO UNIT	AS PRESCRIBED BY THE BUILDING CODE AS AMENDED FROM TIME TO TIME	NONE PROVIDED
ii. PER ONE-BEDROOM UNIT	50	50 ≤
iii. PER UNIT WITH TWO OR MORE BEDROOMS	60	60 ≤
MINIMUM AMENITY AREA (m^2 PER DWELLING UNIT)		
i. PER BACHELOR OR ONE BEDROOM UNIT	20	20
ii. PER UNIT WITH TWO OR MORE BEDROOMS	30	30
MAXIMUM BUILDING HEIGHT (m)	28 m AS PER SECTION 2.1.9 AND APPENDIX 5	64.60 m NORTH TOWER 54.85 m SOUTH TOWER
MINIMUM LANDSCAPED OPEN SPACE (m^2)	30 % AND SUBJECT TO SECTION 3.1.1.4 (% OF LOT AREA) B) NOTWITHSTANDING THE PROVISION OF CLAUSE A) OF THIS SUBSECTION, NOT LESS THAN 45% OF THE AREA OF THE REQUIRED OR ESTABLISHED FRONT YARD, WHICHEVER IS LESS, IN A RESIDENTIAL USE CLASS ZONE SHALL BE MAINTAINED AS LANDSCAPED OPEN SPACE AND KEPT FREE OF ACCESSORY BUILDINGS, PARKING LOTS AND ACCESSORY DRIVEWAYS AND SHALL BE PROVIDED IN THE ESTABLISHED FRONT YARD	37 % 2423.56 m^2
PLANTING STRIPS AND FENCING	SEE SECTION 2.4.1	
PARKING		
RESIDENTIAL	392 SPACES 1 SPACE PER DWELLING UNIT WITHIN AN AREA WHERE REQUIRED NON-RESIDENTIAL PARKING MAY BE REDUCED BY 25% (SECTION 2.2.1.1.D)	306 SPACES (+16 TANDEM) (.78 SPACES PER UNIT)
VISITOR	NOT REQUIRED (SECTION 2.2.1.1 D)	NEW OFF STREET PARKING PROVIDED (7 SPACES)
COMMERCIAL	15 SPACES 2.5 SPACES PER 100m^2 WITHIN AN AREA WHERE REQUIRED NON-RESIDENTIAL PARKING MAY BE REDUCED BY 25% (SECTION 2.2.2.10)	13 SPACES
LOADING	1 SPACE RESIDENTIAL (SECTION 2.3.1.2) 0 SPACE COMMERCIAL (SECTION 2.3.1.1 B) >500M^2	1 RESIDENTIAL
ACCESSIBLE SPACES	11 SPACES COMMERCIAL - TYPE A, O.B.C. PART 1 80.36 (1) 1 RESIDENTIAL - 2 PLUS 2 PERCENT OF TOTAL PARKING SPACES PROVIDED, O.B.C. PART 1 80.36 (1) 4	11 SPACES (2 COMMERCIAL) (9 RESIDENTIAL)
TOTAL PARKING		335 SPACES
BICYCLE PARKING	----------	LONG TERM 132 SPACES (.3 > PER UNIT) SHORT TERM 12 SPACES
FLOOR SPACE INDEX	2.5 (AS PER THE OFFICIAL PLAN)	4.39

GROSS FLOOR AREA (GFA) CAMBRIDGE ZONING BY-LAW No. 150-85

PODIUM	RESIDENTIAL (m2)	NON-RES. (m2)	TOTAL (m2)
P1	675.61	0	675.61
GROUND	0	794.34	794.34
2ND	1677.66	0	1677.66
3RD TO 5TH	1812.94	0	5438.82
6TH TO 7TH	2518.29	0	5036.58
NORTH TWR.	RESIDENTIAL (m2)	NON-RES. (m2)	TOTAL (m2)
8TH TO 20TH	688.44	0	8949.72
SOUTH TWR.	RESIDENTIAL (m2)	NON-RES. (m2)	TOTAL (m2)
8TH TO 15TH	753.42	0	6027.36
TOTAL	30324.04	794.34	28600.09

Key Plan

Item	Description	Date

ISSUES/REVISIONS

N

Check and verify all dimensions and report any discrepancies to the Consultant whose seal is affixed to this drawing. This drawing is not to be scaled for the purpose of verifying dimensions.

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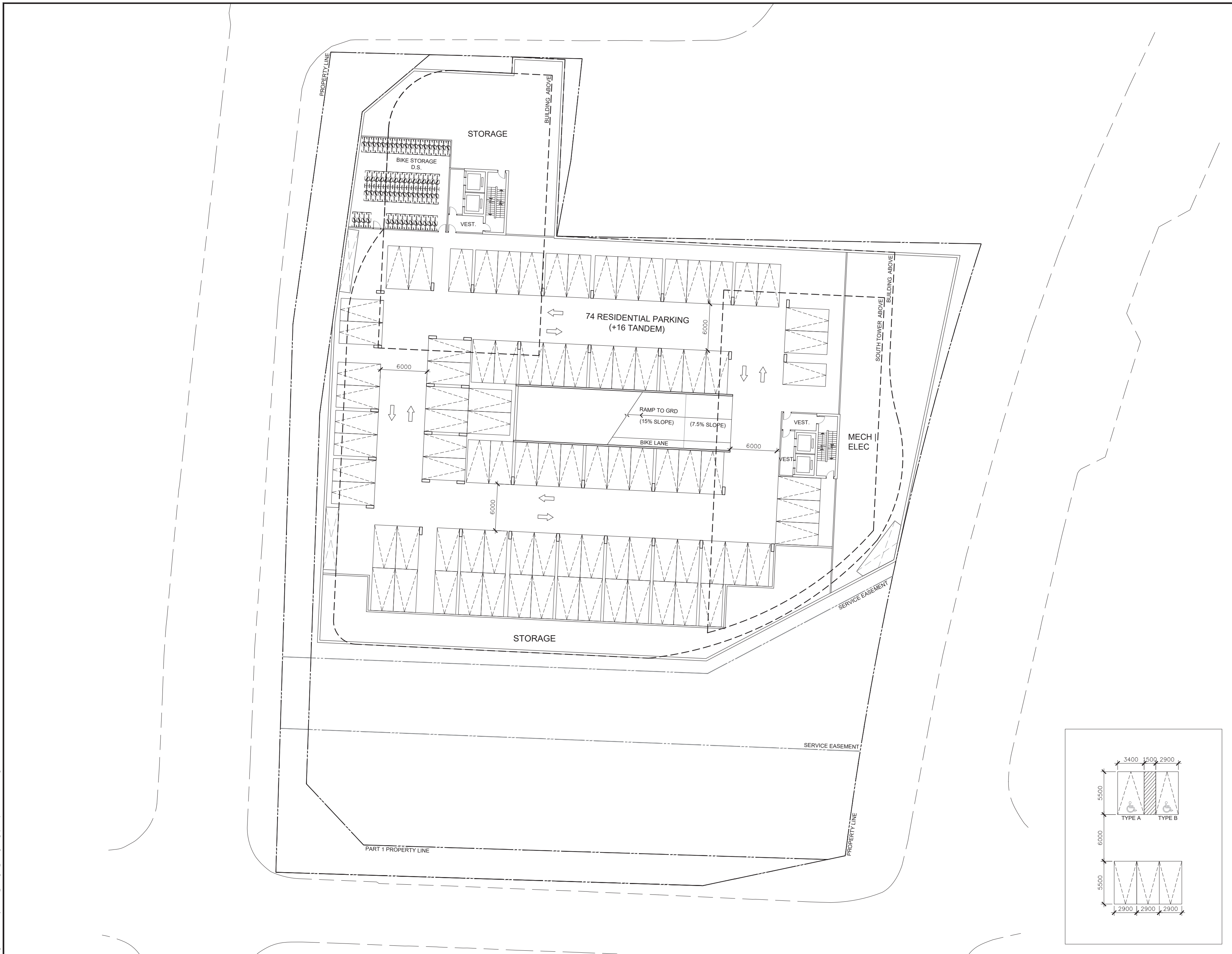
Suite 1500
Toronto, Ontario
Canada M4V 1N6
T 416.961.4111
F 416.961.3176

Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

Owner:

Sheet Title:
SITE PLAN

Scale: 1: 300
Project Number: 07750
Drawing Number: A—002



Key Plan

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F 416.961.3176

Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

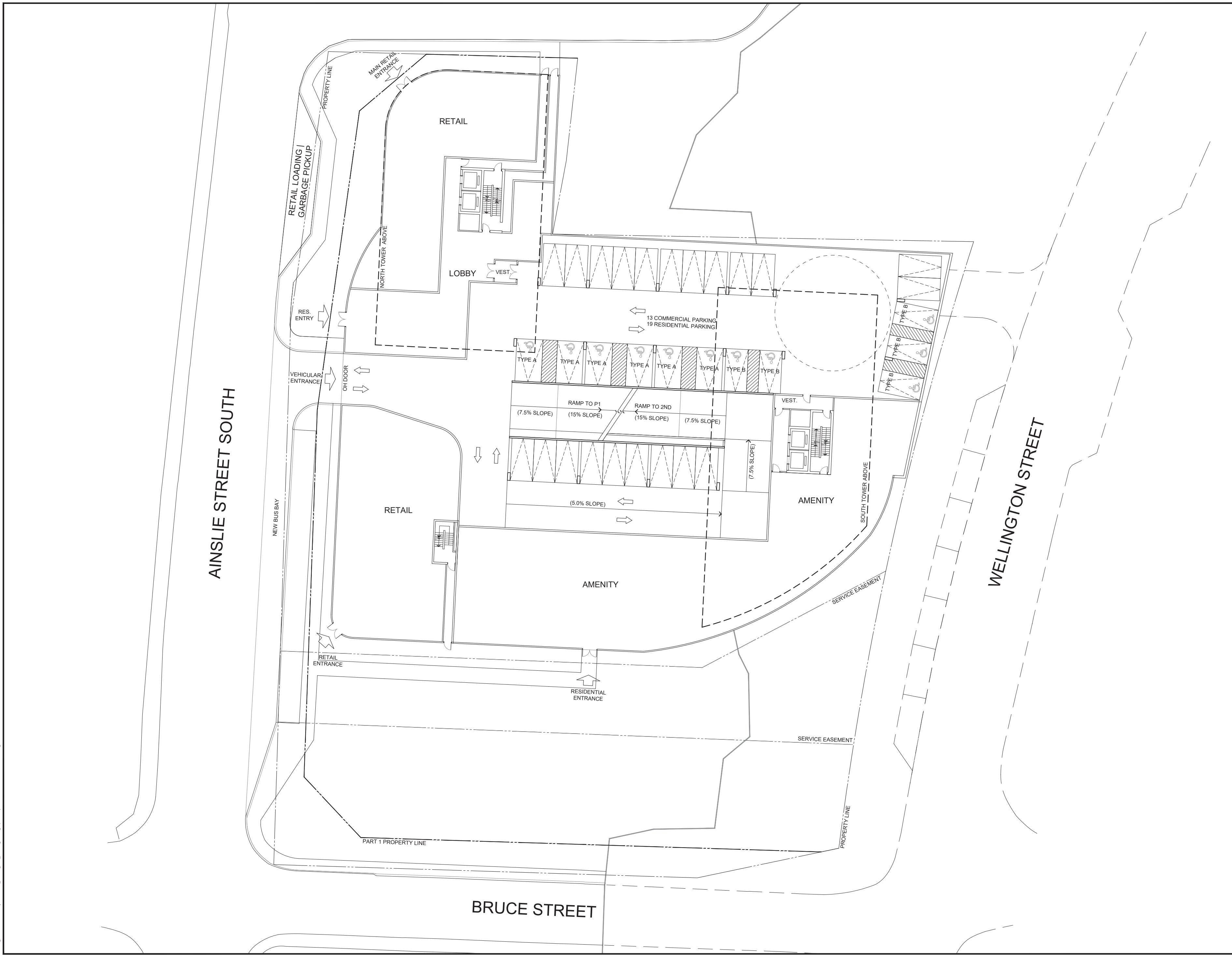
Owner:

Sheet Title:
P1 FLOOR PLAN

Scale: 1:150

Project Number: 07750

Drawing Number: A–200



Key Plan

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Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

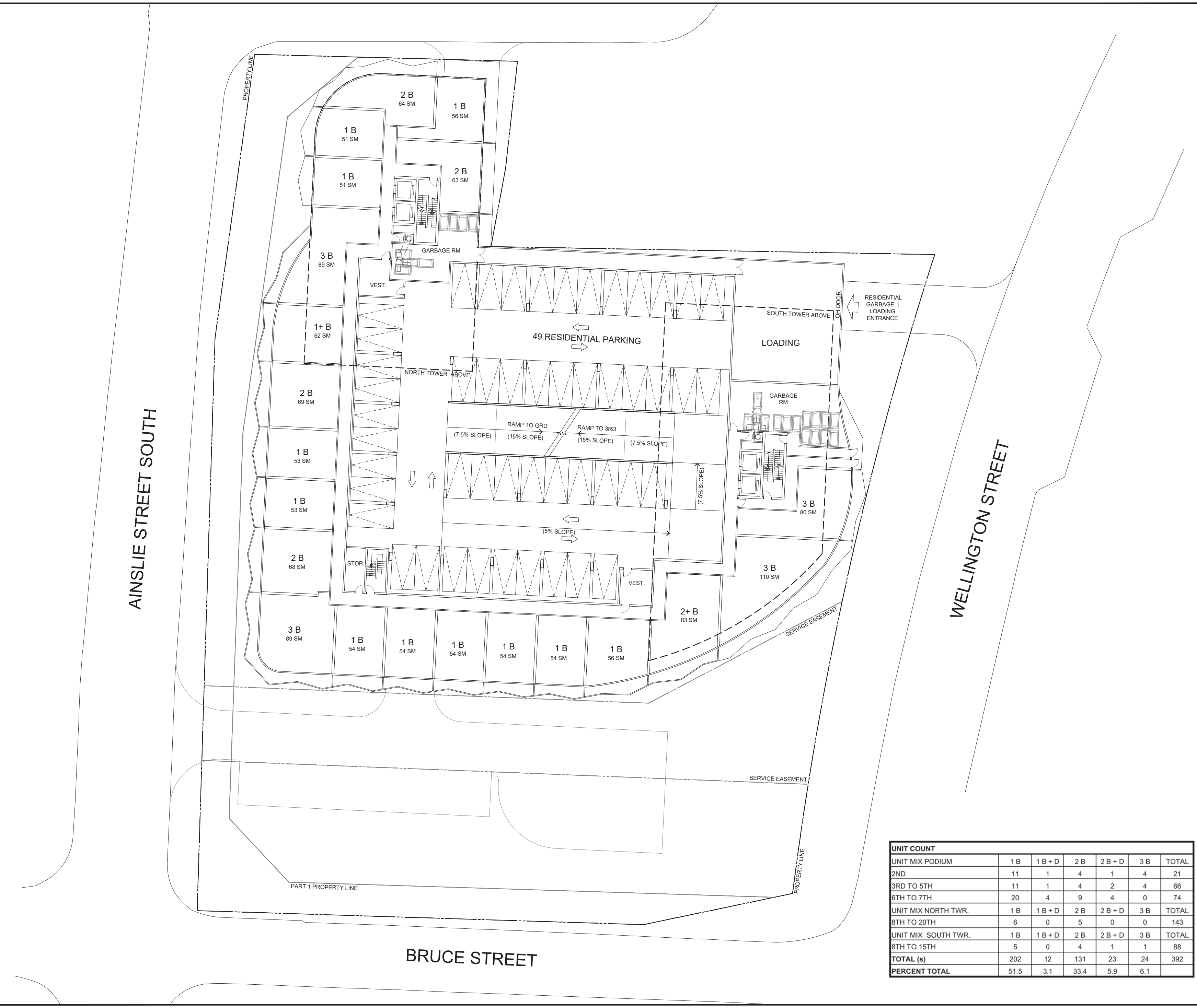
Owner:

Sheet Title:
GROUND FLOOR PLAN

Scale: 1:150

Project Number: 07750

Drawing Number: A–201



UNIT COUNT						
UNIT MIX PODIUM	1 B	1 B + D	2 B	2 B + D	3 B	TOTAL
2ND	11	1	4	1	4	21
3RD TO 5TH	11	1	4	2	4	66
6TH TO 7TH	20	4	9	4	0	74
UNIT MIX NORTH TWR.	1 B	1 B + D	2 B	2 B + D	3 B	TOTAL
8TH TO 20TH	6	0	5	0	0	143
UNIT MIX SOUTH TWR.	1 B	1 B + D	2 B	2 B + D	3 B	TOTAL
8TH TO 15TH	5	0	4	1	1	88
TOTAL (s)	202	12	131	23	24	392
PERCENT TOTAL	51.5	3.1	33.4	5.9	6.1	

Key Plan

Item	Description	Date

ISSUES/REVISIONS

N

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Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

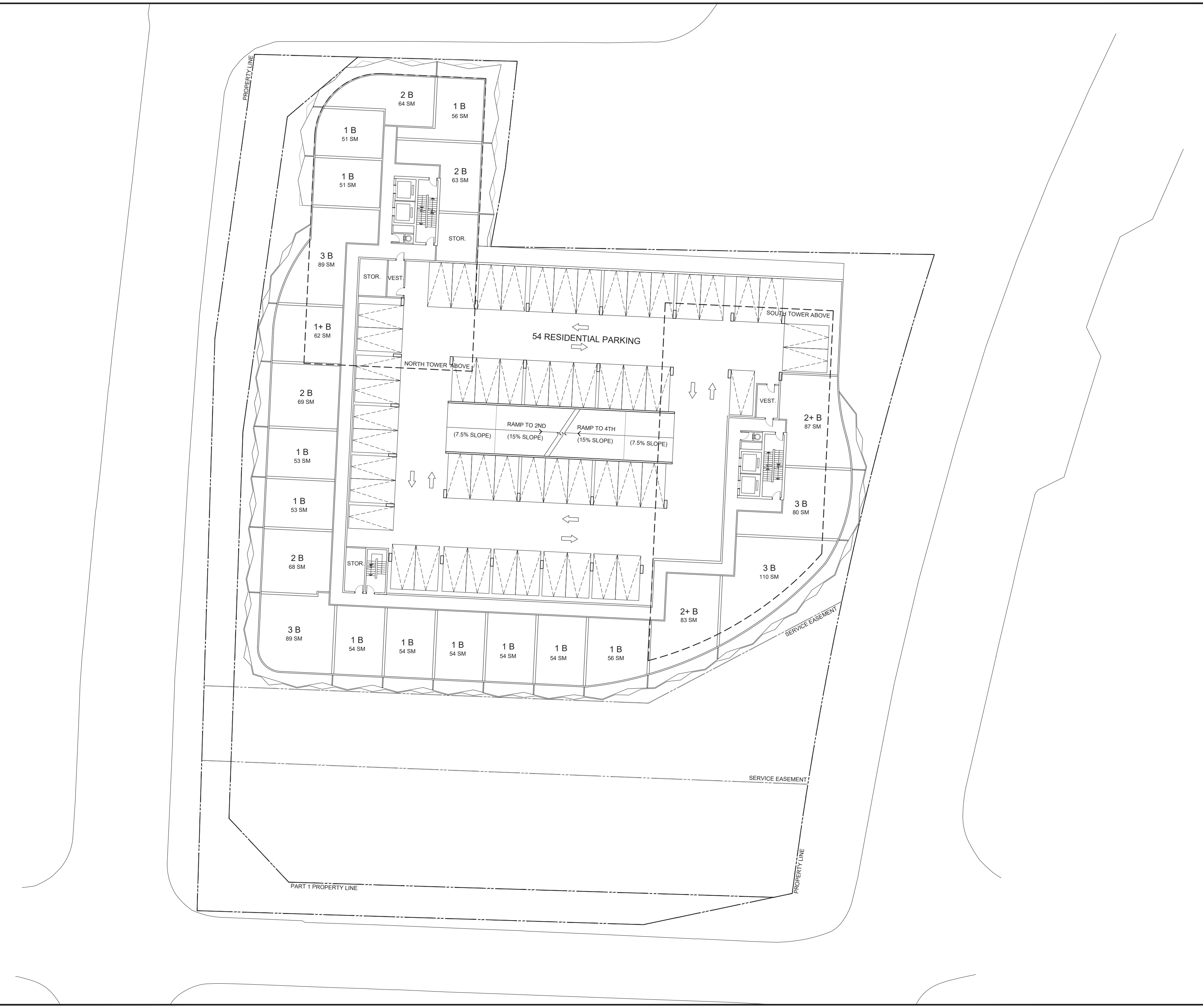
Owner:

Sheet Title:
2ND FLOOR PLAN

Scale: 1:150

Project Number: 07750

Drawing Number: A–202



Key Plan

Item	Description	Date

ISSUES/REVISIONS

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F 416.961.3176

Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

Owner:

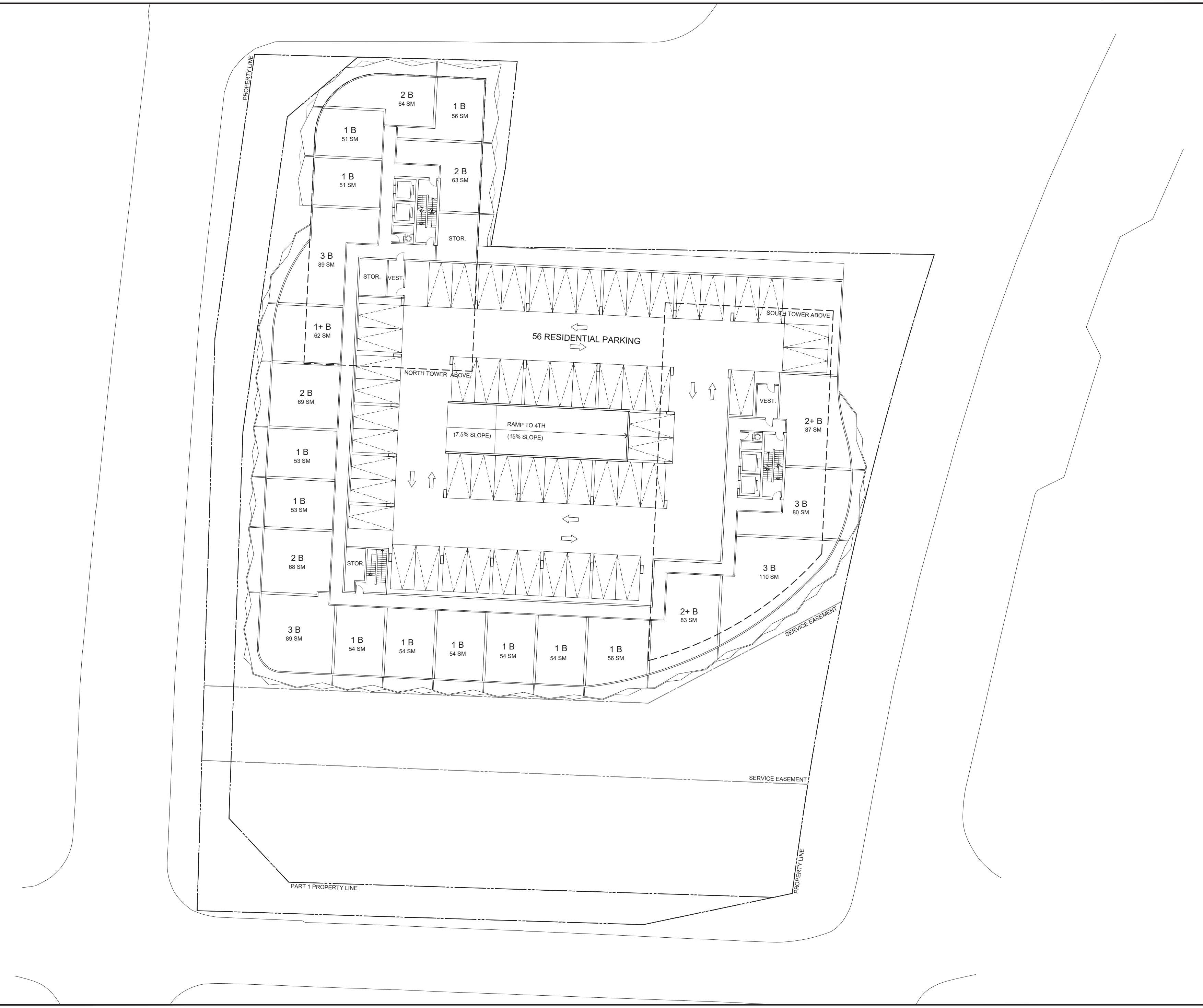
Sheet Title:
3RD – 4TH FLOOR PLAN

Scale: 1:150

Project Number: 07750

Drawing Number: A–203

Plot Time: May 04, 2020 - 9:42am
Drawing Name: \\wzmh\Projects\7750\6_Drawings\10_Drawings-Design (SD-DD)\CAD\A-203 3rd-4th Floor Plan.dwg



Key Plan

Item	Description	Date

ISSUES/REVISIONS

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F 416.961.3176

Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

Owner:

Sheet Title:
5TH FLOOR PLAN

Scale: 1:150

Project Number: 07750

Drawing Number: A–204

Plot Time: May 04, 2020 - 9:26am
Drawing Name: \\wzmh\Projects\7750\6_Drawings\10_Drawings-Design (SD-DD)\CAD\A-205 6th-7th Floor Plan.dwg

Key Plan

Item	Description	Date

ISSUES/REVISIONS

N

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95 St. Clair Av W
Suite 1500
Toronto, Ontario
Canada M4V 1N6
T 416.961.4111
F 416.961.3176

Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

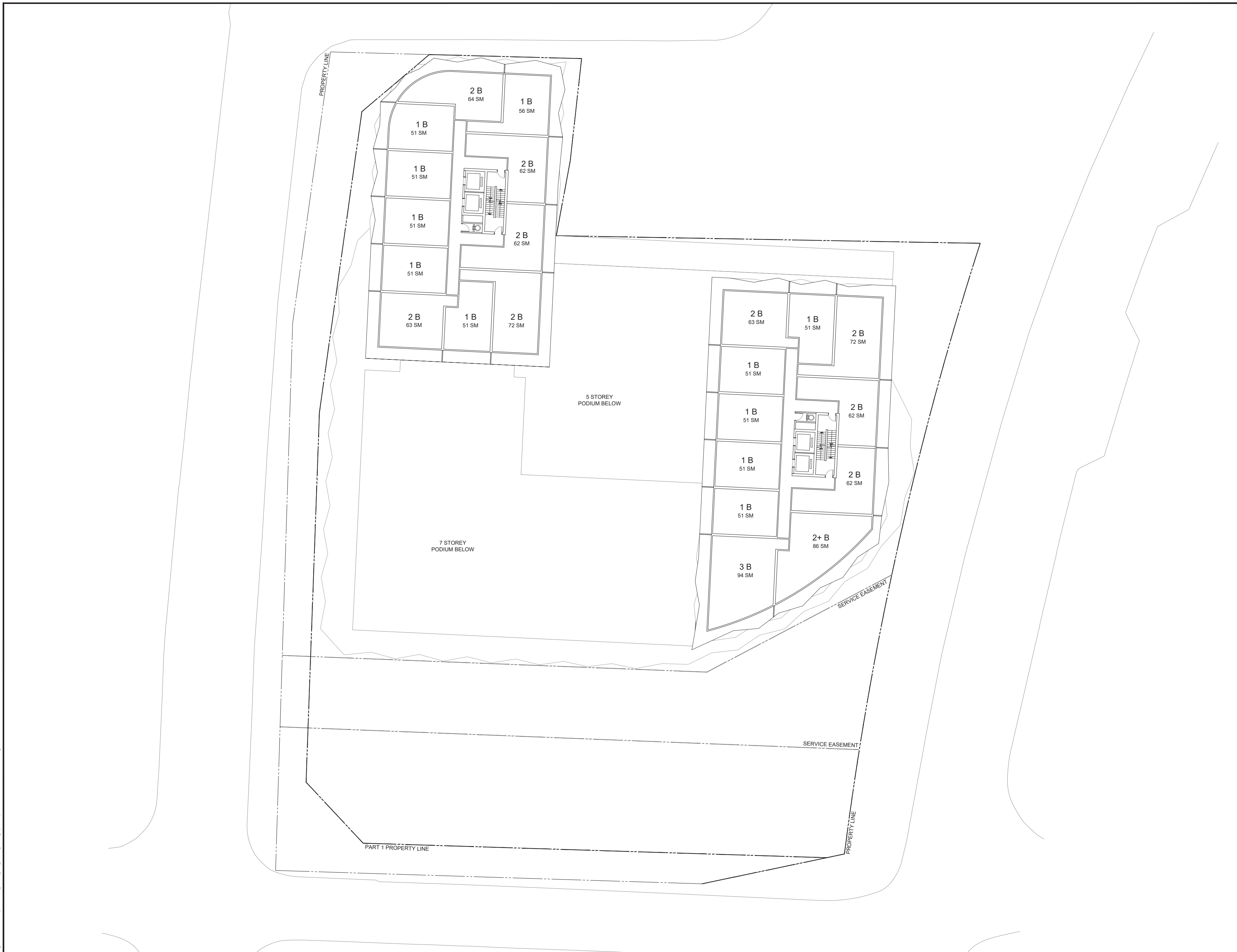
Owner:

Sheet Title:
6TH–7TH FLOOR PLAN

Scale: 1:150

Project Number: 07750

Drawing Number: A–205



Key Plan

Item	Description	Date

ISSUES/REVISIONS

N

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F 416.961.3176

Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

Owner:

Sheet Title:
TYP. TOWER FLOOR PLAN

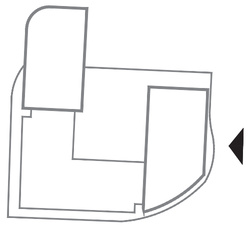
Scale: 1:150

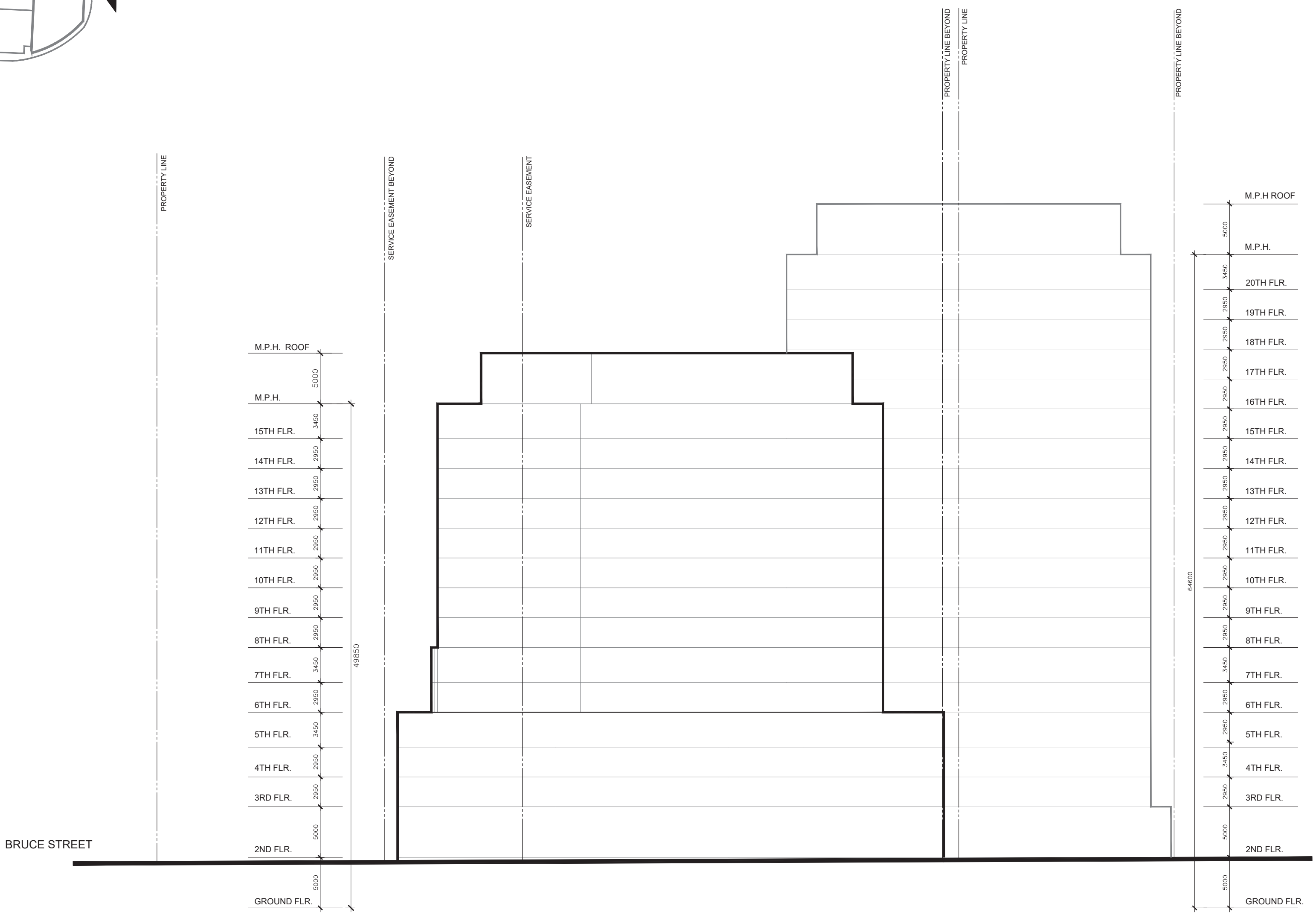
Project Number: 07750

Drawing Number: A–206

Plot Time: May 04, 2020 - 9:15am
Drawing Name: \\wzmh\Projects\7750\6_Drawings\10_Drawings-Design (SD-DD)\CAD\A-206 8th-15th Floor Plan.dwg

KEY PLAN





Key Plan

Item	Description	Date

ISSUES/REVISIONS

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Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

Owner:

Sheet Title:
EAST ELEVATION

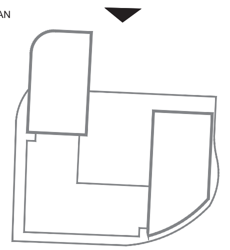
Scale: 1:200

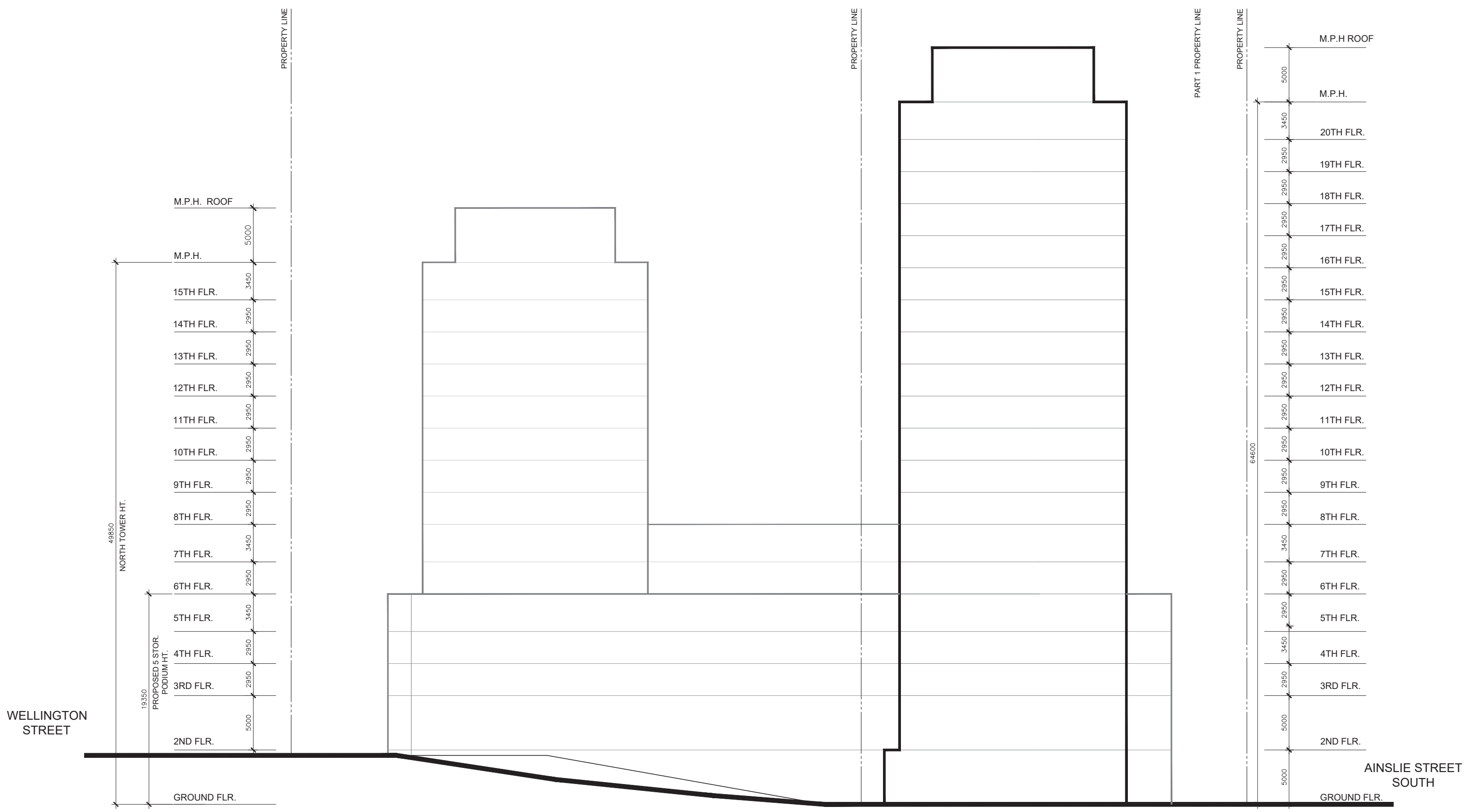
Project Number: 07750

Drawing Number: A—401

Plot Time: Apr 20, 2020 - 9:12am
Drawing Name: \\wzmh\Projects\7750\6_Drawings\10_Drawings-Design (SD-DD)\CAD\A-401 East Elevation.dwg

KEY PLAN





Key Plan

Item	Description	Date

ISSUES/REVISIONS

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Date

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Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

Owner:

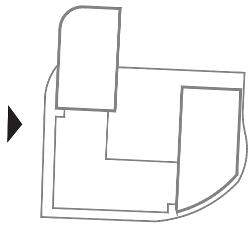
Sheet Title:
NORTH ELEVATION

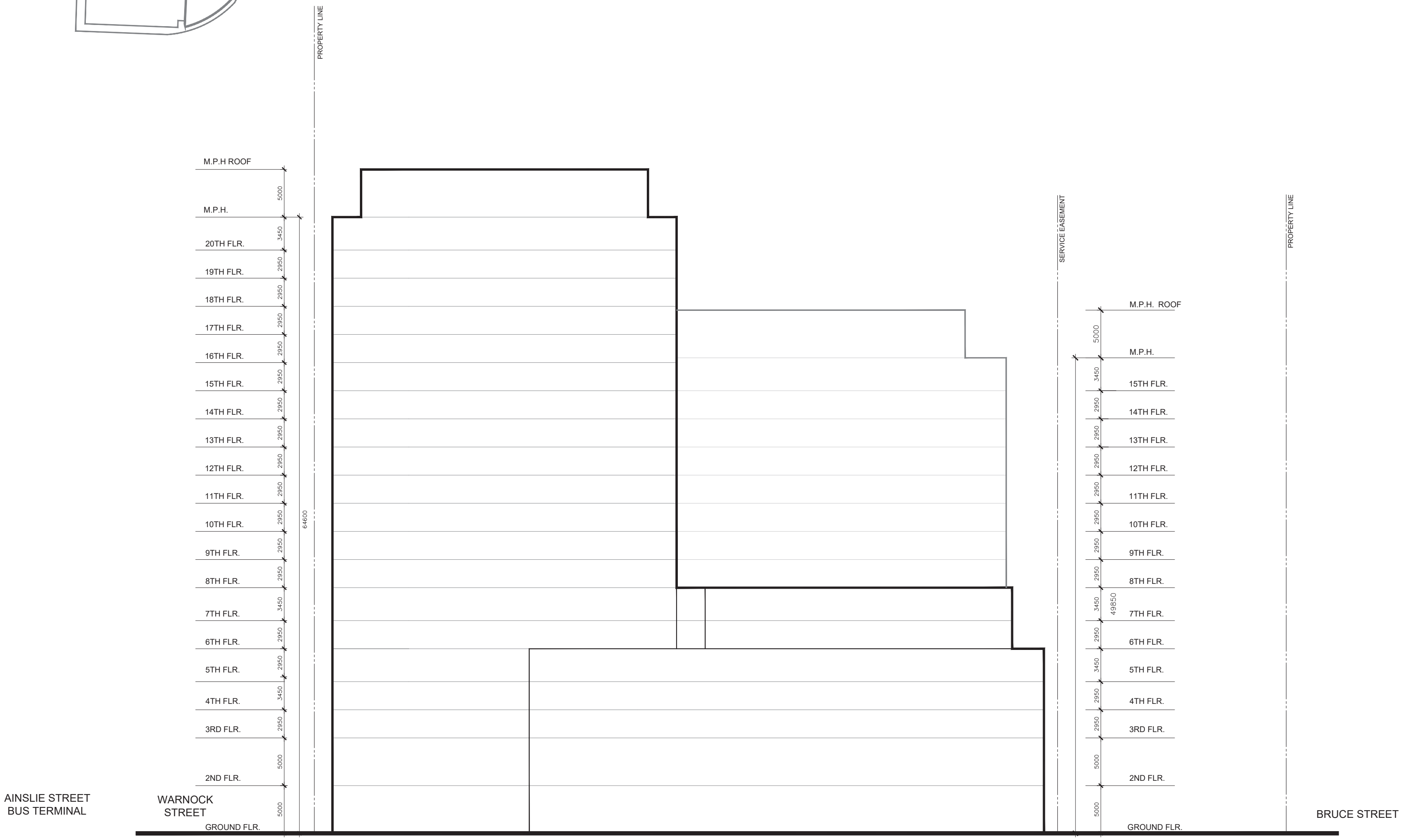
Scale: 1:200

Project Number: 07750

Drawing Number: A-402

KEY PLAN





Key Plan

Item	Description	Date

ISSUES/REVISIONS

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Canada M4V 1N6
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F 416.961.3176

Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

Owner:

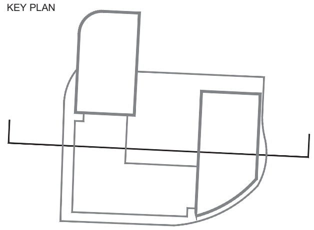
Sheet Title:
WEST ELEVATION

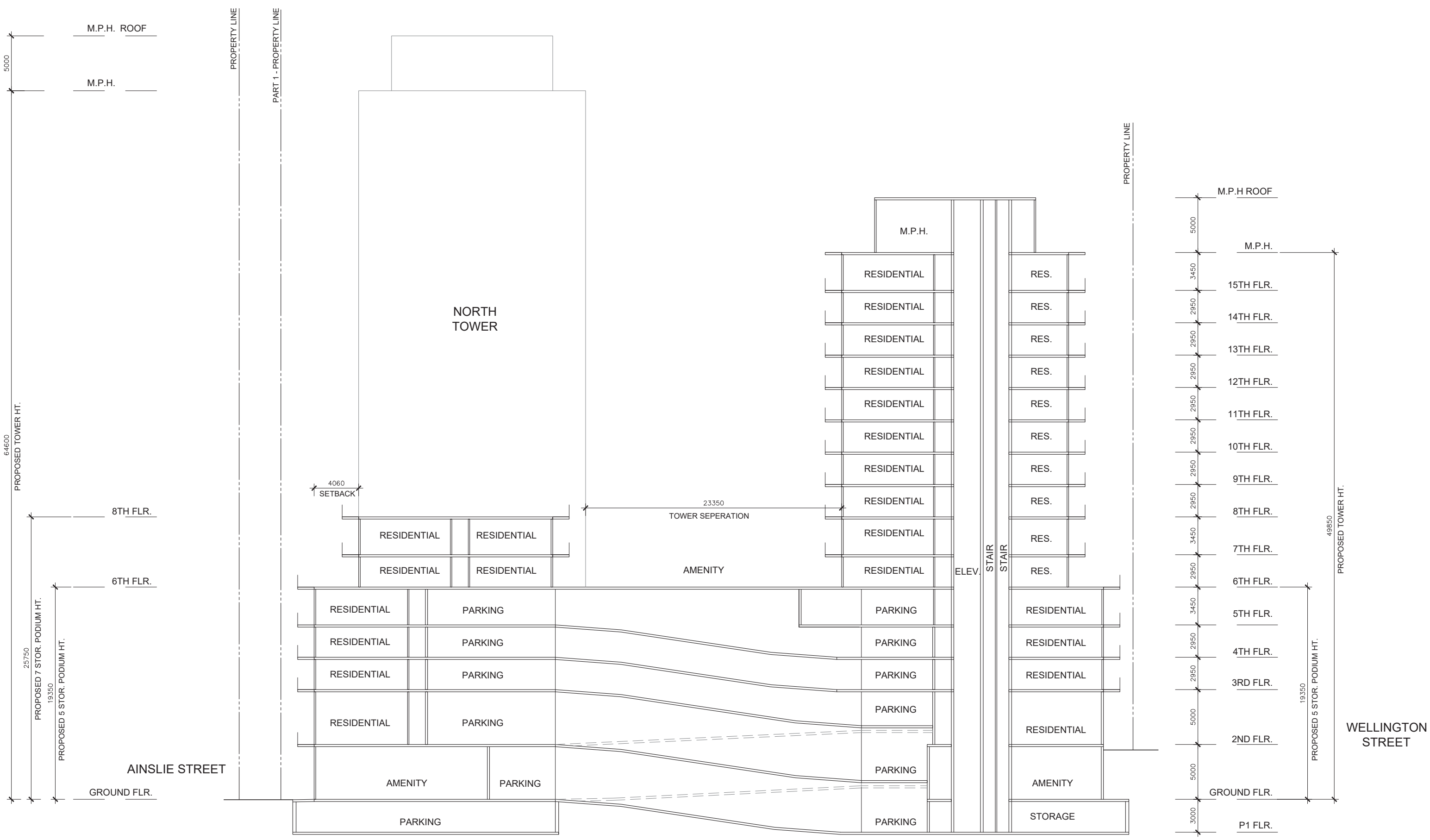
Scale: 1:200

Project Number: 07750

Drawing Number: A–403

KEY PLAN





Key Plan

Item | Description | Date

ISSUES/REVISIONS

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Suite 1500
Toronto, Ontario
Canada M4V 1N6
T 416.961.4111
F 416.961.3176

Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

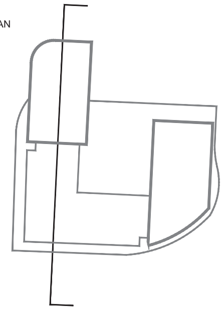
Owner:

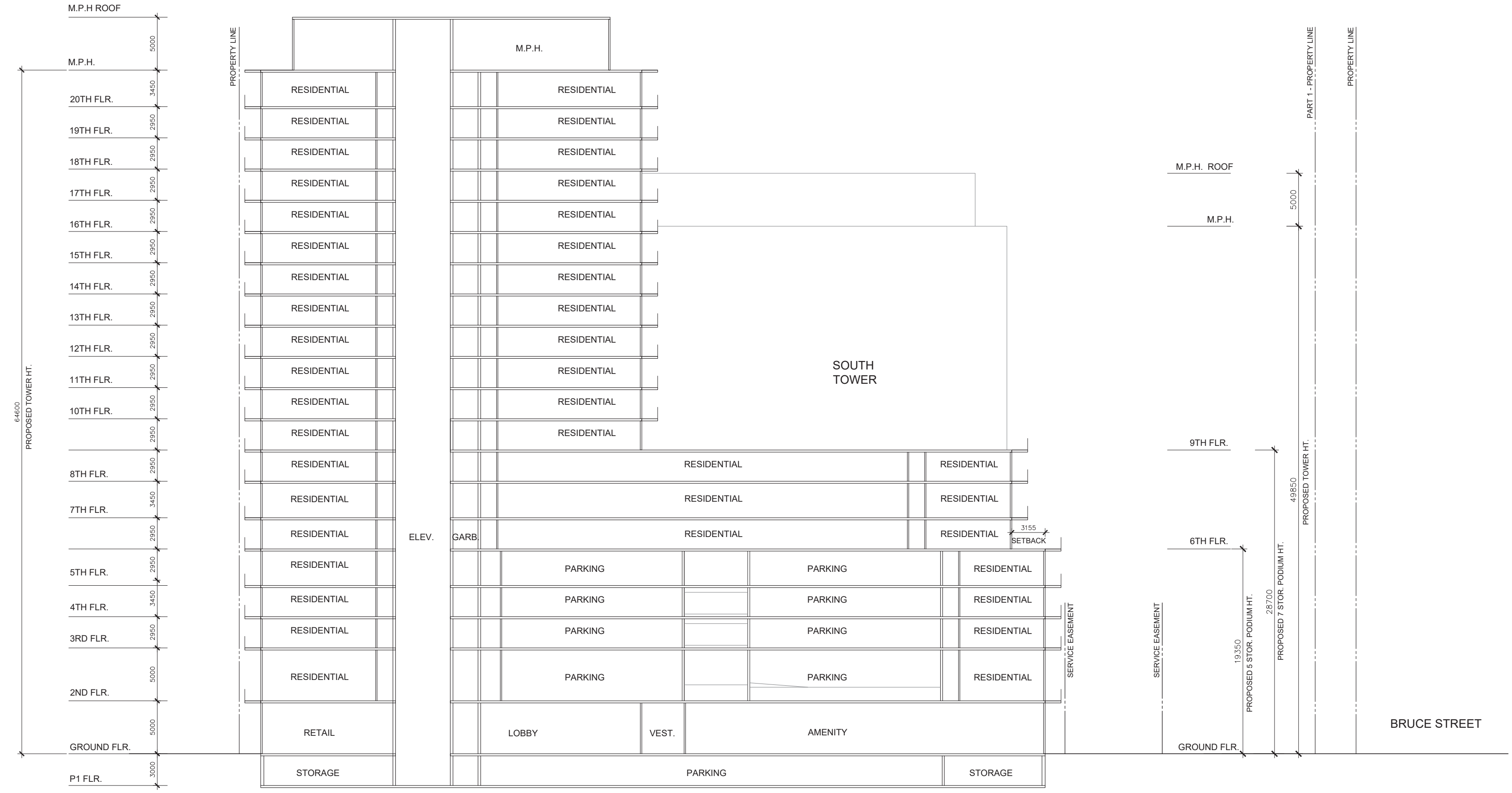
Sheet Title:
EAST–WEST SECTION

Scale: 1:200
Project Number: 07750
Drawing Number: A–404

Plot Time: Apr 20, 2020 - 7:49am
Drawing Name: \\wzmh\Projects\7750\6_Drawings\10_Drawings-Design (SD-DD)\CAD\A-404 East-West Section.dwg

KEY PLAN





Key Plan

Item	Description	Date

ISSUES/REVISIONS

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Suite 1500
Toronto, Ontario
Canada M4V 1N6
T 416.961.4111
F 416.961.3176

Project Name:
69 Ainslie Street South
69 Ainslie Street South, Toronto ON

Owner:

Sheet Title:
NORTH–SOUTH SECTION

Scale: 1:200

Project Number: 07750

Drawing Number: A–405

APPENDIX C
Traffic Data and Calculations

Environmental Noise Assessment
61-69 Ainslie Street S
SLR Project No.: 241.20035.00000

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Region of Waterloo AADT Forecast for Noise Studies

1. Development/Location

61-69 Ainslie Street

2. Current AADT (2020)

Ainslie St&Concession St/Water St &Concession St	
North Leg/Ainslie St	North Leg/Water St
14,900	15,500

3. Forecast AADT (2030)

Ainslie St&Concession St/Water St &Concession St	
North Leg/Ainslie St	North Leg/Water St
16,900	18,000

4. Commercial Vehicle Rates

Ainslie St&Concession St/Water St &Concession St		
	North Leg/Ainslie St	North Leg/Water St
% Medium Trucks	2.0%	2.0%
% Heavy Trucks	5.6%	3.6%

5. Posted Speed Limit

Ainslie St&Concession St/Water St &Concession St	
North Leg/Ainslie St	North Leg/Water St
50 km/h	50 KM/h

6. Day/Night Splits

Regional Standard 90/10 Day/Night Split

7. Validity Period

December 31st, 2021

8. Notes

This forecast is intended for the purpose of carrying out a noise study only. The above AADTs represent the North legs traffic volumes at the intersections of Ainslie St & Concession St/Water St& Concession St considering Ainslie St and Water St run North - South direction. This forecast remains valid up to the date indicated above. The Region of Waterloo should be contacted for an updated forecast if there are plans to use this forecast beyond the above validity period.

3252305

Prepared by: Hanan Wahib

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O R N A M E N T - Sound Power Emissions & Source Heights

Ontario Road Noise Analysis Method for Environment and Transportation

Road Segment ID	Roadway Name	Link Description	Speed (kph)	Period (h)	Total Traffic Volumes	Auto %	Med %	Hvy %	Auto	Med	Heavy	Road Gradient (%)	Cadna/A Ground Absorption G	PWL (dBA)		Source Height, s (m)
Ainslie_avg	Ainslie Street	Daytime Impacts	50	16	15210	92.4%	2.0%	5.6%	14054	304	852	0	0.00	**83.7**		**1.5**
Ainslie_avg	Ainslie Street	Nighttime Impacts	50	8	1690	92.4%	2.0%	5.6%	1562	34	95	0	0.00	**77.2**		**1.5**
Water_avg	Water Street	Daytime Impacts	50	16	16200	94.4%	2.0%	3.6%	15293	324	583	0	0.00	**82.7**		**1.4**
Water_avg	Water Street	Nighttime Impacts	50	8	1800	94.4%	2.0%	3.6%	1699	36	65	0	0.00	**76.1**		**1.4**

BPN 56 Calculation Procedure - Required Glazing STC Rating (Fixed Veneer)

61-69 Ainslie Street South

	Receptor ID	Source Description	Sound Levels: Façade Sound Level: (dBA)	Sound Levels: Required Indoor Sound Level: (dBA)	Room / Façade Inputs: Glazing as % of Wall Area	Room / Façade Inputs: Exposed Wall Height (m)	Room / Façade Inputs: Exposed Wall Length (m)	Room / Façade Inputs: Room Depth (m)	Room / Façade Inputs: Room Absorption:	Source Inputs: Incident Sound Angle: (deg)	Source Inputs: Spectrum type:	Veneer - Component 1: Assumed Veneer STC (STC)	Veneer - Component 1: Component Category:	Glazing - Component 2: Component Category:	Glazing - Component 2: Require Glazing STC (STC)
DAYTIME															
Living/Dining Room	5th North	Roadways, Daytime	66	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**26**
	5th East	Roadways, Daytime	39	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**-1**
	5th South	Roadways, Daytime	64	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**24**
	5th West	Roadways, Daytime	69	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**29**
	7th North	Roadways, Daytime	64	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**24**
	7th East	Roadways, Daytime	47	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**7**
	7th South	Roadways, Daytime	61	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**21**
	7th West	Roadways, Daytime	66	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**26**
	North Tower North	Roadways, Daytime	62	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**22**
	North Tower East	Roadways, Daytime	46	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**6**
	North Tower South	Roadways, Daytime	61	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**21**
	North Tower West	Roadways, Daytime	64	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**24**
	South Tower North	Roadways, Daytime	52	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**12**
	South Tower East	Roadways, Daytime	41	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**1**
	South Tower South	Roadways, Daytime	55	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**15**
	South Tower West	Roadways, Daytime	57	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**17**
Bedroom	5th North	Roadways, Daytime	66	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**25**
	5th East	Roadways, Daytime	39	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**-2**
	5th South	Roadways, Daytime	64	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**23**
	5th West	Roadways, Daytime	69	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**28**
	7th North	Roadways, Daytime	64	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**23**
	7th East	Roadways, Daytime	47	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**6**
	7th South	Roadways, Daytime	61	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**20**
	7th West	Roadways, Daytime	66	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**25**
	North Tower North	Roadways, Daytime	62	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**21**
	North Tower East	Roadways, Daytime	46	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**5**
	North Tower South	Roadways, Daytime	61	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**20**
	North Tower West	Roadways, Daytime	64	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**23**
	South Tower North	Roadways, Daytime	52	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**11**
	South Tower East	Roadways, Daytime	41	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**0**
	South Tower South	Roadways, Daytime	55	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**14**
	South Tower West	Roadways, Daytime	57	45	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**16**
NIGHT-TIME															
Living/Dining Room	5th North	Roadways, Night-time	59	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**19**
	5th East	Roadways, Night-time	33	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**-7**
	5th South	Roadways, Night-time	58	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**18**
	5th West	Roadways, Night-time	62	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**22**
	7th North	Roadways, Night-time	58	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**18**
	7th East	Roadways, Night-time	40	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**0**
	7th South	Roadways, Night-time	54	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**14**
	7th West	Roadways, Night-time	60	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**20**
	North Tower North	Roadways, Night-time	55	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**15**
	North Tower East	Roadways, Night-time	40	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**-1**
	North Tower South	Roadways, Night-time	54	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**14**
	North Tower West	Roadways, Night-time	58	45	80%	2.4	3.0	6.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**18**
	South Tower North	Roadways, Night-time	46	45	80%	2.4	3.0	3.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**9**
	South Tower East	Roadways, Night-time	34	45	80%	2.4	3.0	3.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**-3**
	South Tower South	Roadways, Night-time	49	45	80%	2.4	3.0	3.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**12**
	South Tower West	Roadways, Night-time	51	45	80%	2.4	3.0	3.0	Hard	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**14**
Bedroom	5th North	Roadways, Night-time	59	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**23**
	5th East	Roadways, Night-time	33	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**-3**
	5th South	Roadways, Night-time	58	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**22**
	5th West	Roadways, Night-time	62	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**26**
	7th North	Roadways, Night-time	58	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**22**
	7th East	Roadways, Night-time	40	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**4**
	7th South	Roadways, Night-time	54	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**18**
	7th West	Roadways, Night-time	60	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**24**
	North Tower North	Roadways, Night-time	55	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**19**
	North Tower East	Roadways, Night-time	40	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**4**
	North Tower South	Roadways, Night-time	54	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**18**
	North Tower West	Roadways, Night-time	58	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**22**
	South Tower North	Roadways, Night-time	46	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**10**
	South Tower East	Roadways, Night-time	34	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**-2**
	South Tower South	Roadways, Night-time	49	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**13**
	South Tower West	Roadways, Night-time	51	40	80%	2.4	3.0	3.0	Very Absorptive	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	**15**

APPENDIX D
Warning Clause Information

Environmental Noise Assessment
61-69 Ainslie Street S
SLR Project No.: 241.20035.00000

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SUMMARY OF MITIGATION MEASURES AND WARNING CLAUSES

Warning Clauses

Warning Clauses may be used individually or in combination. The following Warning Clauses should be included in agreements registered on Title for the residential units, and included in all agreements of purchase and sale or lease, and all rental agreements:

Transportation Sources (Road)

MECP Type C Warning Clause

- North and South facing facades of 5th Floor Podium;
- South facing facades of 7th Floor Podium;
- North, south, and west facing facades of the North Tower; and
- West facing façade of the South Tower.

"This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."

MECP Type D Warning Clause

- West facing facades of 5th Floor Podium; and
- West facing facades of 7th Floor Podium.

"This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."

Industrial Sources

MECP Type F Warning Clause (All Buildings)

"Purchasers/tenants are advised that sound levels due to the adjacent industries are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This dwelling unit has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed."

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APPENDIX E
Stationary Noise Modelling Inputs

Environmental Noise Assessment
61-69 Ainslie Street S
SLR Project No.: 241.20035.00000

Point Sources

Name	Result. PW Day	Evening	Night	Operating Time Day	Special	Night	Height	Coordinates X	Y	Z
	(dBA)	(dBA)	(dBA)	(min)	(min)	(min)	(m)	(m)	(m)	(m)
HVAC - Food Bank	82.5	82.5	82.5	60	60	30	1	555573.6	4800647	272.18
HVAC - Food Bank	82.5	82.5	82.5	60	60	30	1	555571	4800649	272.18
HVAC - Food Bank	82.5	82.5	82.5	60	60	30	1	555556.2	4800647	272.18
HVAC - Food Bank	82.5	82.5	82.5	60	60	30	1	555545.9	4800646	272.18
HVAC - Food Bank	82.5	82.5	82.5	60	60	30	1	555565.7	4800646	272.18
HVAC - Terminal	85.5	85.5	85.5	60	60	30	1	555660	4800746	275.87
HVAC - Terminal	85.5	85.5	85.5	60	60	30	1	555655.6	4800743	275.87
Idling Bus - Route 51	89.1	89.1	89.1	20	20	20	1.5	555623.4	4800698	269.75
Idling Bus - Route 53 57	89.1	89.1	89.1	20	20	20	1.5	555682.1	4800761	271.57
Idling Bus - Route 54	89.1	89.1	89.1	10	10	10	1.5	555692.7	4800740	271.62
Idling Bus - Route 55	89.1	89.1	89.1	10	10	10	1.5	555673.2	4800713	271.1
Idling Bus - Route 58	89.1	89.1	89.1	10	10	10	1.5	555659.9	4800767	270.93
Idling Bus - Route 59	89.1	89.1	89.1	10	10	10	1.5	555683.2	4800727	271.41
Idling Bus - Route 63	89.1	89.1	89.1	10	10	10	1.5	555641.1	4800685	270.09
Idling Bus - Route 206	89.1	89.1	89.1	10	10	10	1.5	555662.3	4800698	270.88
Idling Bus - Route 206 Fairway	89.1	89.1	89.1	10	10	10	1.5	555625.2	4800718	270.07
Idling Bus - Route 302	89.1	89.1	89.1	20	20	20	1.5	555630.3	4800753	270.05
Idling Bus - Floater	89.1	89.1	89.1	15	15	15	1.5	555699.7	4800728	271.83

Line Sources

Name	Result. PWL Day	Evening	Night	Result. PWL' Day	Evening	Night	Correction Day	Evening	Night	Moving Pt. Src Number Day	Evening	Night	Speed
	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	dB(A)	dB(A)	dB(A)				(km/h)
Bus Route	89.2	89.2	89.2	65.7	65.7	65.7	76.9	75.5	64.5	36	36	36	19