Environmental Noise & Vibration Assessment

3400 Dufferin Street and 8 Jane Osler Boulevard, Toronto, ON

Dufferin – 401 Properties Limited

20 Eglinton Avenue West
Toronto, ON M4R 1K8

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1.0 Introduction

SLR Consulting (Canada) Ltd. (SLR) was retained by Dufferin – 401 Properties Limited ("the Client") to prepare an environmental noise assessment for the proposed development at 3400 Dufferin Street and 8 Jane Osler Boulevard in Toronto, Ontario. This report is in support of a combined planning application for Official Plan Amendment (OPA), Zoning By-law Amendment (ZBA), and Site Plan Approval (SPA).

1.1 Focus of Report

In keeping with City of Toronto and Ministry of Environment, Conservation and Parks (MECP) 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 Surroundings

The proposed development site is current occupied by the Midtown Honda car dealership, and is surrounding by the following:

- An approved mixed-use residential development at 3450 Dufferin Street (currently under construction), with Highway 401 beyond, to the north;
- Dufferin Street, with Yorkdale Shopping Centre beyond to the east (note: Allen Road and the TTC Line 1 subway are located more than 700 m east of the proposed development, on the east side of Yorkdale Shopping Centre);
- Commercial buildings along Dufferin Street beyond and single-family residential dwellings west of Dufferin Street beyond to the south; and
- Access Storage Yorkdale Bridgeland storage facility on the adjacent lands, with other commercial/retail/light industrial facilities along Bridgeland Avenue and Cartwright Avenue beyond to the west.

A context plan is shown in Figure 1.

Lands immediately surrounding the proposed development are generally zoned Residential to the southwest and southeast, and Commercial Residential along Dufferin Street to the north and south, according to City of Toronto Zoning By-Law 569-2013. The proposed development lands and adjacent lands to the west and east are zoned under Former City of North York By-Law No. 7625. A zoning map for the Project Site and surrounding area is provided for reference in Appendix A.

1.3 Description of Proposed Development

The proposed development is located at municipal address 3400 Dufferin Street and 8 Jane Osler Boulevard, Toronto. The site is currently occupied by the Midtown Honda car dealership, which would be demolished to accommodate the development buildings and new municipal roads.

Three (3) mixed-use buildings (Buildings A, B and C) and two (2) levels of underground parking are proposed. Development drawings are provided for reference in Appendix B.

Building A will be up to 29 storeys in height and located at the west side of the site, containing primarily residential suites. Outdoor amenity areas are planned at the 6th and 7th storeys above the podium structure. Building B will be up to 29 storeys in height with ground floor retail fronting east towards Dufferin Street and along the north side of the building, and with residential suites up to the 29th storey. Outdoor amenity areas will also be located atop the 6th and 7th storeys of the podium structure. Building C will be up to 9 storeys in height and located at the southeast corner of the site, with ground-floor retail fronting towards Dufferin Street and residential suites from the 2nd storey up to the 9th storey. An outdoor amenity area will be located at the 6th storey, facing west away from Dufferin Street.

Site access will be via a new municipal road from Dufferin Street at the east, or at the northwest of the site from a new municipal road planned up to Bridgeland Avenue.

PART 1: IMPACTS OF THE ENVIRONMENT ON THE DEVELOPMENT

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

- Transportation noise impacts from surrounding roadways;
- Stationary noise impacts from the surrounding industries on the development.

There are no railway lines in the immediate vicinity of the proposed development, and TTC Line 1 is located more than 700 m east on the other side of Yorkdale Shopping Centre; therefore, an assessment of railway noise impacts is not required. The development is also located outside of the Downsview Airport NEF 25 contour; therefore, an assessment of aircraft noise is not required.

2.0 Transportation Noise Impacts

2.1 Transportation Noise Sources

Transportation sources of interest with the potential to produce road traffic noise at the proposed development include:

- Dufferin Street;
- Bridgeland Avenue/Yorkdale Road; and
- Highway 401.

Road noise from these sources has been predicted, and this information has been used to identify façade, ventilation, and warning clause requirements for the proposed development.

2.2 Surface Transportation Noise Criteria

2.2.1 Ministry of Environment Publication NPC-300

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 summarize 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, Sleeping Quarters have more stringent criteria than Living/Dining room spaces.

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

Type of Space	Time Period	Energy Equivalent Sound Exposure Level L_{eq} [5] (dBA)		Assessment Location
		Road	Rail [1]	
Outdoor Amenity Area	Daytime (0700-2300h)	55	55	Outdoors [2]
Living/Dining Room [3]	Daytime (0700-2300h)	45	40	Indoors [4]
	Nighttime (2300-0700h)	45	40	Indoors [4]
Sleeping Quarters	Daytime (0700-2300h)	45	40	Indoors [4]
	Nighttime (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, where applicable.
[2] Road and Rail noise impacts are to be combined for assessment of OLA impacts.
[3] Residence area Dens, Hospitals, Nursing Homes, Schools, Daycares are also included. During the nighttime period, Schools and Daycares are excluded.
[4] An assessment of indoor noise levels is required only if the criteria in Table 3 are exceeded.
[5] Leq – the energy equivalent sound exposure level, integrated over the time period shown.

Outdoor Living 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 from trains is not included in the determination of outdoor sound levels.

Table 2: NPC-300 OLA Sound Level Criteria for Road and Rail Noise

Time Period	OLA Energy Equivalent Sound Level L_{eq} (dBA)	Mitigation/Warning Clause Requirements
Daytime (0700-2300h)	≤ 55	• None
	56 to 60 inc.	• 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 would potentially 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 Table 1, warning clauses advising future occupants of the potential excesses are required. Warning clauses also apply to OLAs.

Table 3: NPC-300 Ventilation and Warning Clause Requirements

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level - L_{eq} (dBA)		Ventilation and Warning Clause Requirements [2]
		Road	Rail [1]	
Outdoor Living Area	Daytime (0700-2300h)	56 to 60 incl.		Type A Warning Clause
Plane of Window	Daytime (0700-2300h)	≤ 55		None
		56 to 65 incl.		Forced Air Heating with provision to add air conditioning + Type C Warning Clause
		> 65		Central Air Conditioning + Type D Warning Clause
	Nighttime (2300-0700h)	51 to 60 incl.		Forced Air Heating with provision to add air conditioning + Type C Warning Clause
		> 60		Central Air Conditioning + Type D Warning Clause

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

Building Component Requirements

Table 4 provides sound level thresholds which, if exceeded, trigger a requirement for the building shell components (i.e., wall, windows) to be designed accordingly to meet the applicable indoor sound criteria.

Table 4: NPC-300 Building Component Assessment 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]
	Nighttime (2300-0700h)	> 60	> 55	

Notes: [1] Whistle noise is included in assessment
[2] Building component requirements are assessed separately for Road and Rail, and then combined for a resultant sound isolation parameter.

2.3 Traffic Data and Future Projections

2.3.1 Road Traffic Data

Year 2019 turning movement counts (TMCs) were obtained from the City of Toronto's Open Data Portal for the intersection of Dufferin Street and Bridgeland Avenue/Yorkdale Road. Projected Average Annual Daily Traffic (AADT) volumes were compared with AADT volumes determined from peak hour counts provided by the project traffic consultant and collected by Spectrum in June 2022. TMC data from the City of Toronto resulted in higher AADT and commercial vehicle percentages and was therefore used in the analysis to be conservative. The traffic consultant indicated there is no through-traffic growth along the Dufferin Street Corridor, with a 0% per annum growth rate. Day/night splits of 90%/10% were assumed, as it typical for well-travelled roadways.

Year 2016 AADT volume for the segment of Highway 401 immediately north of the Project Site (i.e., from Dufferin Street to Keele Street) were obtained from the Ministry of Transportation (MTO) iCorridor database. Annual growth rates for the segment were calculated to be approximately 0.8% per year from 2013 to 2016. The 2016 AADT volume was projected to future year 2035 at a growth rate of 1.0%, which is considered conservative. Commercial vehicle percentages were based on the Annual Average Daily Truck Traffic (AADTT) relative to the AADT, and it was assumed a medium/heavy truck ratio of 25%/75%. A day/night split of 85%/15% was assumed based on historical data for 400-series highways.

Copies of traffic data and calculations are provided for reference in Appendix C. Table 5 summarizes the road traffic volumes used in the analysis.

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

Roadway Link	2035 Traffic Volumes [1] AADT	% Day/Night Volume Split		Commercial Vehicle Breakdown		Vehicle Speed (km/hr)
		Daytime	Nighttime	% Medium Trucks	% Heavy Trucks	
Highway 401	468,384	85	15	2.0	6.0	100
Dufferin Street [2]	39,794	90	10	3.7	2.2	50
Bridgeland Avenue [2]	14,809	90	10	4.8	3.4	40

Notes: [1] AADT based on 2016 traffic counts along the segment of Highway 401 directly north of the proposed development. The data was projected to year 2035 at a growth rate of 1.0% per annum. Total commercial vehicles based on AADTT (annual average daily truck traffic) in year 2016, assuming 25% medium trucks and 75% heavy trucks.

[2] AADT and commercial vehicle breakdown based on 2019 TMC data from the City of Toronto. A 0% per annum growth rate was applied (i.e., no growth – area at maximum capacity).

2.4 Predicted Sound Levels

Future 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 the 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. A STAMSON validation file and output is included for reference in Appendix D.

Sound levels were predicted along the facades 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.

Topographic contours and surrounding buildings from the City of Toronto Open Data Portal were included in the analysis. Additionally, building massing for the mixed-use residential development currently under construction at 3450 Dufferin Street were included based on available architectural drawings.

Highway 401 was divided into four (4) separate segments with equal traffic volumes/parameters. Two (2) segments represented the westbound collector and express lanes, and two (2) segments represented the eastbound collector and express lanes. Similarly, Dufferin Street was divided into two (2) separate segments with equal traffic volumes/parameters, representing northbound and southbound lanes respectively.

2.4.1 Façade Sound Levels

Predicted worst-case façade sound levels due to road traffic 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 2 (daytime) and Figure 3 (nighttime).

The façade roadway sound levels are predicted to be above 65 dBA and 60 dBA during the daytime and nighttime periods, respectively (i.e., the thresholds described in Table 4). Therefore, an assessment of building components is required. Refer to Section 2.5.1.

Table 6: Summary of Predicted Transportation Façade Sound Levels

Project Building	Building Façade[1]	Predicted Road Traffic Sound Levels[2]	
		L_{eq} Day (dBA)	L_{eq} Night (dBA)
Building A	North	73	68
	East	67	63
	South	58	53
	West	71	66
Building B	North	74	69
	East	73	68
	South	65	59
	West	68	63
Building C	North	70	65
	East	72	67
	South	65	59
	West	62	58

Notes: [1] Façade locations are shown in **Figure 2** (day) and **Figure 3** (night)
[2] Sound levels presented above are the highest for the described building façade.

2.4.2 Outdoor Living Area Sound Levels

The Outdoor Living Areas (OLAs) of the proposed development are common rooftop (elevated) amenity areas, with two (2) rooftop terraces on both Buildings A and B, and one (1) rooftop terrace on Building C. The assessment locations for OLAs are shown in Figure 4.

As the development includes common amenity spaces for all condominium occupants in the three (3) buildings, private terraces are not considered to be the only outdoor amenity spaces available. Therefore, an assessment of private terraces was excluded based on the definitions outlined in NPC-300.

The predicted OLA transportation noise levels are shown on Figure 4 and summarized in Table 7.

Table 7: Summary of Predicted Transportation OLA Sound Levels

Assessment Location[1]	Predicted Road Traffic Sound Levels
	L_{eq} Day (dBA)
OLA A-1	71
OLA A-2	72
OLA B-1	66
OLA B-2	71
OLA C-1	60

Notes: [1] Assessment locations are shown in **Figure 4**.

Predicted OLA sound levels at several location exceed the criteria outlined in Table 2. Therefore, mitigation and warning clauses are required. Refer to Section 2.5.3.

2.5 Noise Control Measures

2.5.1 Façade Assessment

An assessment of indoor noise levels is required because façade sound levels due to road traffic exceed 65 dBA/60 dBA during the daytime/nighttime periods, respectively, on several building facades within the proposed development.

Indoor sound levels and required facade Sound Transmission Classes (STCs) were estimated using the procedures outlined in National Research Council Building Practice Note 56 (BPN-56).

Detailed floor plans were not available at the time of the assessment. The preliminary façade requirements analysis is therefore based on the following assumptions:

- Window wall construction with glazing and glass spandrel panel elements;
- Non-glazing portions of the exterior wall were assumed to have a rating of STC 45;
- For living/dining rooms, 70% of the exterior wall is vision glass/patio doors; and
- For bedrooms, 70% of the exterior wall is vision glass.

The building façade requirements based on the transportation façade sound levels and assumptions listed above are outlined in Table 8 for units with one exposed façade, and in Table 9 for corner units with two exposed facades.

Table 8: Summary of Façade Glazing Requirements for Proposed Development

Project Building	Building Façade	Non-Glazing Components	Glazing STC Requirements[1]	
			Living Room	Bedroom
Building A	North	45	31	34
	East	45	OBC	OBC
	South	45	OBC	OBC
	West	45	OBC	32
Building B	North	45	32	35
	East	45	31	34
	South	45	OBC	OBC
	West	45	OBC	OBC
Building C	North	45	OBC	31
	East	45	30	33
	South	45	OBC	OBC
	West	45	OBC	OBC
Notes: [1] OBC = meeting the minimum non-acoustical requirements of the Ontario Building Code, with a rating of STC 29.				

Table 9: Summary of Façade Glazing Requirements for Proposed Development – Corner Units

Project Building	Building Façade	Non-Glazing Components	Glazing STC Requirements[1]	
			Living Room	Bedroom
Building A	Northeast Corner	45	32	35
	Southeast Corner	45	OBC	31
	Southwest Corner	45	30	33
	Northwest Corner	45	33	36
Building B	Northeast Corner	45	35	38
	Southeast Corner	45	32	35
	Southwest Corner	45	30	33
	Northwest Corner	45	33	36
Building C	Northeast Corner	45	32	35
	Southeast Corner	45	31	34
	Southwest Corner	45	OBC	OBC
	Northwest Corner	45	OBC	32
Notes: [1] OBC = meeting the minimum non-acoustical requirements of the Ontario Building Code, with a rating of STC 29.				

Where upgraded glazing is required, the combined glazing and frame assembly must be constructed to ensure the overall sound isolation performance of the entire window unit meets the specified STC rating. It is recommended that the window manufacturer's test data be reviewed to confirm the required acoustical performance is achieved.

The building façade requirements should be reviewed by an acoustical consultant when detailed suite layouts and elevations are available.

2.5.2 Ventilation and Warning Clause Requirements

The triggers for requiring 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.

Based on the predicted façade noise levels, the following locations will require an MECP Type D warning clause:

- Building A Podium – residential units on north and west façades;
- Building A Tower – residential units on north, east and west façades;
- Building B Podium – residential units on north, east and west façades;
- Building B Tower – residential units on north, east and west façades;
- Building C Podium – residential units on north and east façades; and
- Building C Tower – residential units on north and east façade.

An MECP Type C warning clause and provision for installation of air conditioning at a later date are required for remaining residential units not noted above.

SLR understands that Buildings A, B and C will be constructed such that all residential units are provided with air conditioning. Therefore, warning clause requirements for all other residential units along facades not listed above would be considered met.

Ventilation and warning clause requirements for the proposed development are summarized in Appendix E.

2.5.3 OLA Mitigation Requirements

Outdoor amenity areas located on the 6th and 7th floors of Buildings A and B predicted to be up to 72 dBA, be in excess of 66 dBA, as shown in Table 7 and Figure 4.

Barriers surrounding OLA A-1, OLA A-2, OLA B-1 and OLA B-2 are required with heights in excess of 3 m above the roof to reduce impacts to meet the guideline requirements. This is not considered feasible.

During the site plan stage, a combination of perimeter barriers and localized acoustic screens should be included in the landscape design. Given the range of predicted sound level impacts (66 dBA to 72 dBA), meeting the guideline requirements is anticipated to be possible.

The perimeter barriers and localized screens can be composed of solid walls and glass/plexiglass panels. The panels should be selected so that they have sufficient mass to adequately attenuate the road traffic noise (generally, a minimum surface density of 20 kg/m^2). The panels and frames should be free of gaps and cracks on the sides and bottom, except for small, localized openings required for drainage purposes. The system should also be designed to withstand any wind loading.

An MECP Type B warning clause will also be required for all residential units in Buildings A and B, and a Type A warning clause for residential units in Building C. Refer to Appendix E.

3.0 Stationary Source Noise Impacts

A site visits to the proposed development site and surrounding area were completed by SLR personnel on July 11, 2022. The focus of the site visit was to identify nearby facilities with the potential for stationary source noise impacts at the proposed development The site was found to be primarily surrounded by commercial/retail and residential land uses.

With the surrounding area contains primarily commercial/retail lands, the inclusion of stationary noise sources was determined based on the MECP Guideline D-6 Potential Influence Areas. Commercial/retail lands are considered to be Class I Industries with respect to noise based on these guidelines, in which a 70 m influence area was applied for the inclusion of stationary noise sources to assess. The 70 m influence area from the proposed development property line is shown in yellow in Figure 5.

The closest Class II facilities are outside of the 300 m area of influence defined in MECP Guideline D-6. Furthermore, there are no Class III facilities in proximity to the proposed development without significantly closer existing noise-sensitive residences at which applicable criteria must be met. As NPC-300 limits are expected to be met at these existing intervening noise-sensitive residential homes, adverse impacts are not expected at the proposed development. Therefore, a detailed assessment of facilities outside of the 70 m area of influence was not completed.

3.1 Stationary Source Modelling

Based on previous studies of similar facilities, aerial imagery, and information obtained from the site visit conducted by SLR staff, the significant sources of noise with the potential to impact the proposed development have been identified. Modelled noise sources include the following.

- Yorkdale Shopping Centre – 3401 Dufferin Street
  - 526 rooftop HVAC units, ranging in size from 1 ton to 30 tons;
  - 34 rooftop exhaust fans;
  - Two (2) cooling towers; and
  - Five (5) air cooled chillers.

  Note: Yorkdale Shopping Centre holds a Certificate of Approval (CofA, now referred to as an Environmental Compliance Approval or ECA) for one (1) 300 kW standby emergency generator (CofA Number 6738-6W2RMJ). It was assumed that the emergency generator sound emissions during routine testing must be met at existing nearby residences to the south and west (including the previous hotel at 3450 Dufferin Street). Furthermore, emergency generator testing typically occurs during daytime hours when the ambient sound levels on exposed facades to the Yorkdale Shopping Centre are expected to be high. Therefore, impacts noise impacts from the generator testing are not anticipated and a detailed assessment was not completed.
- Access Storage – Yorkdale Bridgeland – 55 Bridgeland Avenue
  - Nine (9) rooftop HVAC units.
- Tyco Security Products – 95 Bridgeland Avenue
  - 25 rooftop HVAC units; and

  - Seven (7) rooftop/building-side exhaust fans.
- Commercial/Retail Building – 3350 Dufferin Street
  - One (1) rooftop HVAC unit.
- Commercial/Retail Building – 3332-3338 Dufferin Street
  - Four (4) rooftop HVAC units.

Noise impacts from stationary 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 ISO-9613 equations account for:

- Source to receiver geometry;
- Distance attenuation;
- Atmospheric absorption;
- Reflections off of the ground and ground absorption;
- Reflections off of vertical walls; and
- Screening effects of buildings, terrain, and purpose-built noise barriers (noise walls, berms, etc.).

The following additional parameters were used in the modelling, which are consistent with providing a conservative (predictable worst-case assessment of noise levels):

- Temperature: 10°C;
- Relative Humidity: 70%;
- Ground Absorption G: G = 0.0 (reflective) as the default global parameter, with small localized areas (e.g. green roof areas) considered as absorptive;
- Reflection: Two (2) orders of reflection were used (accounts for noise reflecting from walls);
- Wall Absorption Coefficients: Set to 0.21 or 0.37 (21%/37% of energy is absorbed, 79%/63% reflected); and
- Terrain: Topographical contours obtained from City of Toronto Open Data Portal.

Sound level data from site visit spot-check measurements and generic SLR historical sound level data were applied in the stationary noise modelling assessment. A summary of the sound levels used in the analysis and equipment operating conditions is included in Appendix F. All stationary sources modelled are shown in Figure 5.

3.2 Stationary Source Noise Criteria

MECP noise guidelines for stationary source noise impacting residential developments are given in MECP publication NPC-300. The applicable portions of NPC-300 are Part C – Land Use Planning and the associated definitions outlined in Part A – Background.

The acoustic environment surrounding the proposed development is generally dominated by roadway noise from Highway 401, Dufferin Street and Bridgeland Avenue during all periods of the day. Therefore, the proposed development is considered to be located in a Class 1 area.

The sound level limits for steady sound sources are expressed as a 1-hr equivalent sound level (L_{eq} (1 hr) values, in dBA) and is the higher of the NPC-300 exclusionary limits and the existing background sound

level. The NPC-300 stationary source noise requirements in a Class 1 Area are summarized in Table 10 for steady sound sources.

Table 10: NPC-300 Class 1 Continuous Sound Level Limits

Point of Reception Category	Time Period	Minimum Exclusionary Sound Level Limit L_{eq}(1-hr), dBA[1]
Outdoors	Daytime (0700-1900h)	50
	Evening (1900-2300h)	50
	Nighttime (2300-0700h)	n/a[3]
Plane of Window[2]	Daytime (0700-1900h)	50
	Evening (1900-2300h)	50
	Nighttime (2300-0700h)	45

Notes: [1] Or minimum hourly L_{eq} of background noise; whichever is higher.
[2] Applicable for windows opening into "noise-sensitive spaces" as defined in NPC-300.
[3] Sound level limits during nighttime hours are not applicable at outdoor points of reception.

Since the ambient sound levels were anticipated to exceed the NPC-300 exclusionary limits for most facades and time periods, minimum hourly sound levels for daytime, evening and nighttime hours from roadway noise were assessed and the corresponding applicable guideline limits were determined.

Table 11 summarizes the current road traffic volumes and details applied in the ambient noise modelling.

Minimum hourly traffic volumes as a percentage of the AADT were based on data from the SLR database for freeways (Highway 401), and arterial roads in the City of Toronto (Dufferin Street and Bridgeland Avenue).

Table 11: Summary of Road Traffic Data Used to Determine Minimum 1-hr Ambient Sound Levels

Roadway Link	Current Traffic Volumes AADT	Minimum Day/Evening/Night Hour Volume % of AADT			Commercial Vehicle Breakdown		Vehicle Speed (km/hr)
		Daytime	Evening	Night-time	% Medium Trucks	% Heavy Trucks	
Highway 401 [1]	387,700	5.1	3.8	0.7	2.0	6.0	100
Dufferin Street [2]	39,794	4.3	3.1	0.4	3.7	2.2	50
Bridgeland Avenue [2]	14,809	4.3	3.1	0.4	4.8	3.4	40

Notes: [1] AADT based on 2016 traffic counts along the segment of Highway 401 directly north of the proposed development.
[2] AADT and commercial vehicle breakdown based on 2019 TMC data from the City of Toronto.

As with the Transportation Noise Impact assessment, ambient roadway noise was modelled as line sources of sound using the Cadna/A computer model. The minimum hourly L_{eq} for the ambient sound levels were found to exceed the NPC-300 default guideline limits during most periods of the day at most assessment locations on the facades of the proposed development.

Surrounding facility noise impacts were assessed against the higher of the modelled ambient noise levels and the exclusionary limits calculated using road traffic data summarized in Table 11.

3.3 Predicted Stationary Source Sound Levels

The "building evaluation" feature of Cadna/A was used to assess noise impacts on the residential portions of the proposed development podiums and towers. This feature allows for noise levels to be predicted across the entire façade of a structure.

3.3.1 Façade Sound Levels

A summary of the predicted noise impacts on each façade due to simultaneous operation of all modelled stationary sources are shown in Table 12, and summarized in Figure 6 (daytime/evening) and (Figure 7 nighttime), respectively. Stationary source operating scenarios were assumed to be the same for all daytime and evening hours, as noted in Appendix F.

The difference between the existing ambient sound levels and the surrounding stationary noise impacts are shown in Figure 8, Figure 9, and Figure 10 for daytime, evening and nighttime periods, respectively.

Predicted stationary sound levels at all façade locations associated with proposed development were determined to be below ambient sound levels or NPC-300 Class 1 minimum exclusionary limits during worst-case daytime, evening and nighttime hours.

Table 12: Summary of Predicted Stationary Source and Ambient Façade Sound Levels

Project Building	Façade	Stationary Source Sound Levels			Ambient Sound Levels		
		L_{eq} Day (dBA)	L_{eq} Evening (dBA)	L_{eq} Night (dBA)	L_{eq} Day (dBA)	L_{eq} Evening (dBA)	L_{eq} Night (dBA)
Building A	North	54	54	48	≤ 72	≤ 70	≤ 63
	East	53	53	47	≤ 66	≤ 65	≤ 58
	South	53	53	46	≤ 57	≤ 55	≤ 48
	West	53	53	48	≤ 70	≤ 69	≤ 61
Building B	North	56	56	50	≤ 73	≤ 72	≤ 64
	East	57	57	50	≤ 72	≤ 71	≤ 63
	South	56	56	49	≤ 64	≤ 62	≤ 54
	West	50	50	44	≤ 67	≤ 66	≤ 58
Building C	North	51	51	46	≤ 69	≤ 68	≤ 60
	East	56	56	49	≤ 71	≤ 70	≤ 62
	South	54	54	47	≤ 64	≤ 62	≤ 54
	West	44	44	38	≤ 61	≤ 60	≤ 53

Notes: [1] Façade locations are identified on **Figure 6** and **Figure 7**.
[2] Sound levels shown represent the calculated worst-case impact along the identified facade.

An MECP Type E warning clause is recommended for all residential units due to the proximity of the proposed development to nearby commercial/retail facilities.

3.3.2 Outdoor Sound Levels

The predicted worst-case noise impacts from the stationary sources are summarized in Table 13 and shown in Figure 11 for daytime and evening periods. Predicted OLA sound levels are well below the minimum ambient daytime and evening sound levels due to road traffic at all outdoor amenity area locations. Therefore, mitigation is not required.

Table 13: Summary of Predicted Stationary Source and Ambient Outdoor Sound Levels

Outdoor Assessment Location	Stationary Source Sound Levels		Ambient Sound Levels	
	L_{eq} Day (dBA)	L_{eq} Evening (dBA)	L_{eq} Day (dBA)	L_{eq} Evening (dBA)
OLA A-1	52	52	70	68
OLA A-2	51	51	71	70
OLA B-1	47	47	65	64
OLA B-2	49	49	70	68
OLA C-1	43	43	59	58

Notes:
[1] Outdoor assessment locations are shown in **Figure 11**.
[2] Sound levels shown represent the calculated worst-case impact along the identified facade.
[3] The minimum exclusionary limit is higher than or equal to the predicted ambient sound level and was therefore use as the assessment criterion for that façade.

4.0 Vibration Assessment

4.1 Industrial (Stationary) Sources

Based on the site visit completed by SLR staff on July 11, 2022, the surrounding lands includes residential and commercial/light industrial buildings. No significant sources of industrial vibration (such as large stamping presses or forges) were identified. Impacts from industrial vibration are not of concern for the proposed development, and a detailed assessment of vibration impacts was not completed.

4.2 Transportation Sources

The closest railway corridor to the proposed development (the TTC Line 1 subway) is located greater than 75 m from the proposed development, approximately 750 m to the east along Allen Road (refer to Figure 1). Adverse impacts from transportation-related vibration are not anticipated, and a detailed assessment was not completed.

PART 2: IMPACTS OF THE DEVELOPMENT ON ITSELF

5.0 Stationary Source Noise Impacts of the Development on Itself

At the time of this assessment, the proposed development's mechanical systems have not been sufficiently designed to complete a detailed assessment of stationary source impacts on the development itself.

For common mechanical systems that will be implemented as part of the proposed development, the impacts from all noise-generating equipment should comply with the guideline limits in MECP Publication NPC-300. The potential noise impacts of mechanical equipment to be included with proposed development (such as make-up air units, cooling towers, parking garage exhaust fans, emergency generators) should be assessed as part of the final building design. The criteria can be met at all on-site receptors through appropriate selection of mechanical equipment, by locating equipment with sufficient setback from noise sensitive locations, and by incorporating control measures (e.g., silencers) into the design. This can be confirmed either later in the site plan approval process, or at the building permit approval stages.

It is recommended that the mechanical systems be reviewed by an acoustical consultant prior to final equipment selection.

If individual air conditioning systems are to be implemented for each residential unit for the proposed site, the sound levels from each unit should meet MECP Publication NPC-216.

PART 3: IMPACTS OF THE DEVELOPMENT ON THE SURROUNDING AREA

6.0 Stationary Source Noise Impacts on the Surrounding Area

With respect to the acoustic environment of the area, it is expected that the proposed development will have a negligible effect on neighbouring noise-sensitive 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 potential noise impacts.

Other noise sources associated with the development with possible adverse impacts on the surrounding neighbourhood are mechanical equipment (e.g., make up air units, cooling units, and parking garage exhaust fans). Sound levels due to operation of these sources are required to meet MECP Publication NPC-300 requirements at all off-site noise sensitive receptors.

Off-site impacts are not anticipated given the elevated ambient sound levels in the area, and because systems will be designed to ensure that the applicable noise guidelines are met at on-site receptors.

Regardless, potential impacts should be assessed as part of the final building design to ensure compliance. The criteria can be met at all surrounding and on-site receptors though the use of routine mitigation measures, including 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 that the mechanical systems be reviewed by an accredited acoustical consultant prior to final selection of equipment.

7.0 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 itself, and the development on the surrounding area have been considered. Based on the results of this assessment, the following conclusions have been reached:

Transportation Noise

- An assessment of transportation noise impacts from surrounding roadways has been completed.
- Based on transportation façade sound levels upgraded glazing is required within the development, as outlined in outlined in Section 2.5.1.
- Ventilation and warning clause requirements are outlined in Section 2.5.2.
    - Mandatory air conditioning and MECP Type D warning clauses are required for residential units along the specified facades of Buildings A, B and C noted in Section 2.5.2 and Appendix E.
- Noise impacts within the common outdoor amenity areas are predicted to exceed applicable criteria, and mitigation will be required as outlined in Section 2.5.3. It is expected to be feasible to achieve applicable criteria with the combination of perimeter barriers and localized acoustic screens. These should be assessed in detail and included in the landscape design.
- Warning clauses should be included in agreements registered on Title for the residential units and included in agreements of purchase and sale/rental agreements. Warning clause requirements are summarized in Appendix E.

Stationary Source Noise

- A review of the surrounding stationary noise sources was completed by SLR personnel during a site visit to the area and through available aerial photography.
- Stationary source noise impacts were assessed for commercial/retail facilities located within 70 m of the proposed development, including Yorkdale Shopping Centre, Access Storage Yorkdale Bridgeland, Tyco Security Products, 3350 Dufferin Street and 3332-3338 Dufferin Street.
- Stationary source sound levels were determined to be below the higher of the minimum hourly ambient sound levels or NPC-300 Class 1 minimum exclusionary limits at all locations within the proposed development.
- A Type E warning clause is recommended for all residential units.

Vibration

- No significant industrial vibration sources were identified within the surrounding area. Therefore, vibration impacts from industrial sources are not of concern.
- As the proposed development is located more than 75 m from any existing railways, adverse vibration impacts from rail sources are not of concern.

Overall Assessment

- Impacts of the environment on the proposed development can be adequately controlled with upgraded glazing, acoustic barriers, without mitigation from surrounding industries/commercial buildings, and the inclusion of ventilation and warning clause requirements, detailed in **Part 1** of this report.
- Impacts of the proposed development on itself are not anticipated and can be adequately controlled by following the design guidance outlined in **Part 2** of this report.
- Impacts of the proposed development on the surroundings are expected to meet the applicable guideline limits, and can be adequately controlled by following the design guidance outlined in **Part 3** of this report.
- As glazing requirements were approximated based on the generic room, façade and glazing dimensions, the glazing requirements should be re-assessed and reviewed by an Acoustical Consultant once detailed floor plans (room dimensions) and façade plans become available.
- As the mechanical systems for the proposed development have not been designed in detail, the acoustical design should be reviewed by an acoustical consultant later in the site plan approval process, or as part of the final building design.

Sincerely,

SLR Consulting (Canada) Ltd.

Keni Mallinen, M.A.Sc., P.Eng.
Acoustics Engineer

Marcus Li, P.Eng.
Principal, Acoustics, Noise and Vibration

Distribution: 1 electronic copy – Dufferin – 401 Properties Limited
1 electronic copy – SLR Consulting (Canada) Ltd.

8.0 References

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

National Research Council, Building Practice Note 56: Controlling Sound Transmission into Buildings, Canada 1985.

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

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

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

9.0 Statement of Limitations

This report has been prepared and the work referred to in this report has been undertaken by SLR Consulting (Canada) Ltd. (SLR) for Dufferin – 401 Properties Limited, hereafter referred to as the "Client." It is intended for the sole and exclusive use of the Client. The report has been prepared in accordance with the Scope of Work and agreement between SLR and the Client. Other than by the Client and by the City of Toronto in their role as land use planning approval authority, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted unless payment for the work has been made in full and express written permission has been obtained from SLR.

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Figures

Environmental Noise & Vibration Assessment

3400 Dufferin Street and 8 Jane Osler Boulevard, Toronto, ON

Dufferin – 401 Properties Limited

SLR Project No. 241.30588.00000

August 8, 2022

DUFFERIN – 401 PROPERTIES LIMITED	True North	Scale: 1:5000	METRES
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. 1
CONTEXT PLAN		Project No. 241.30588.00000	

SLR global environmental solutions

DUFFERIN – 401 PROPERTIES LIMITED	True North	Scale: 1:1000	METRES
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. **2**
PREDICTED FAÇADE SOUND LEVELS – ROADWAY – DAYTIME		Project No. 241.30588.00000	

SLR global environmental solutions

DUFFERIN – 401 PROPERTIES LIMITED

3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO

PREDICTED FAÇADE SOUND LEVELS – ROADWAY – NIGHTTIME

True North

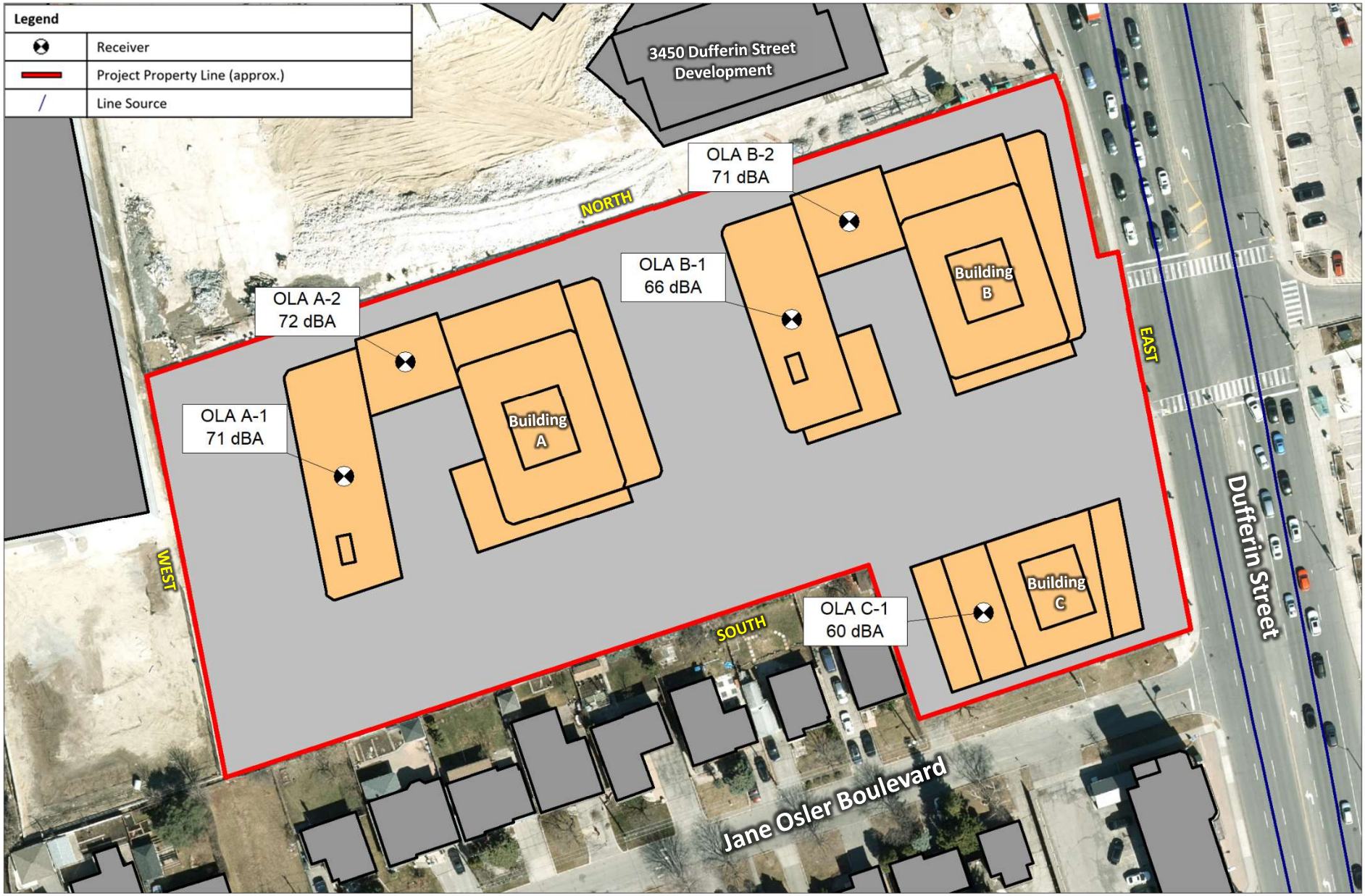
Scale: 1:1000 METRES

Date: Aug. 8, 2022 Rev 1.0

Project No. 241.30588.00000

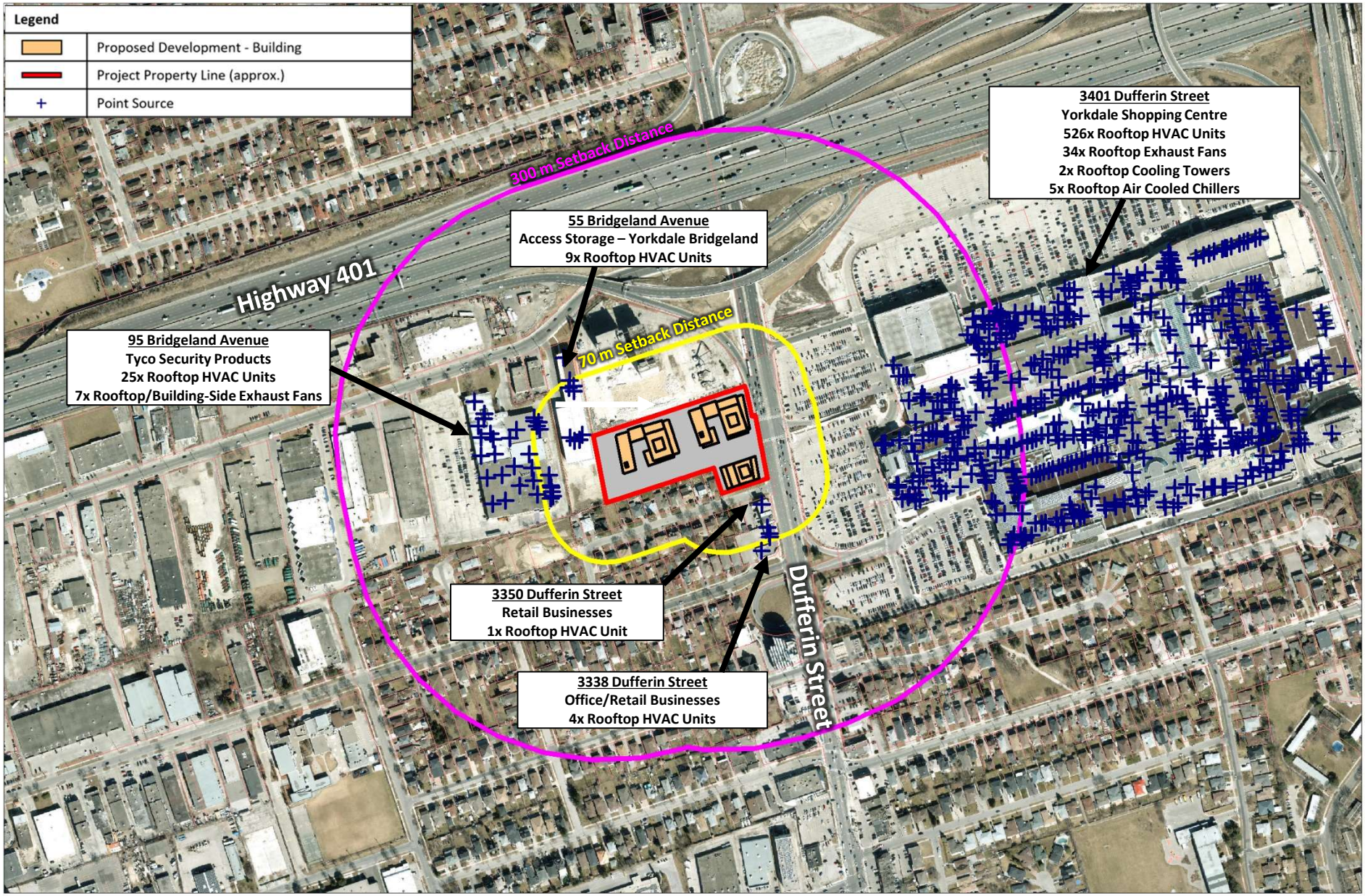
Figure No. **3**

SLR global environmental solutions



DUFFERIN – 401 PROPERTIES LIMITED	True North	Scale: 1:1000	METRES
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. **4**
PREDICTED OUTDOOR LIVING AREA SOUND LEVELS – ROADWAY – DAYTIME		Project No. 241.30588.00000	

SLR global environmental solutions



DUFFERIN – 401 PROPERTIES LIMITED	True North	Scale: 1:6000	METRES
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. **5**
SURROUNDING STATIONARY SOURCE LOCATIONS		Project No. 241.30588.00000	

SLR global environmental solutions

DUFFERIN – 401 PROPERTIES LIMITED	True North	Scale: 1:1000	METRES
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. **6**
PREDICTED FAÇADE SOUND LEVELS – STATIONARY SOURCES – DAYTIME/EVENING		Project No. 241.30588.00000	

SLR global environmental solutions

DUFFERIN – 401 PROPERTIES LIMITED

3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO

FAÇADE SOUND LEVELS – STATIONARY SOURCES – NIGHTTIME

True North

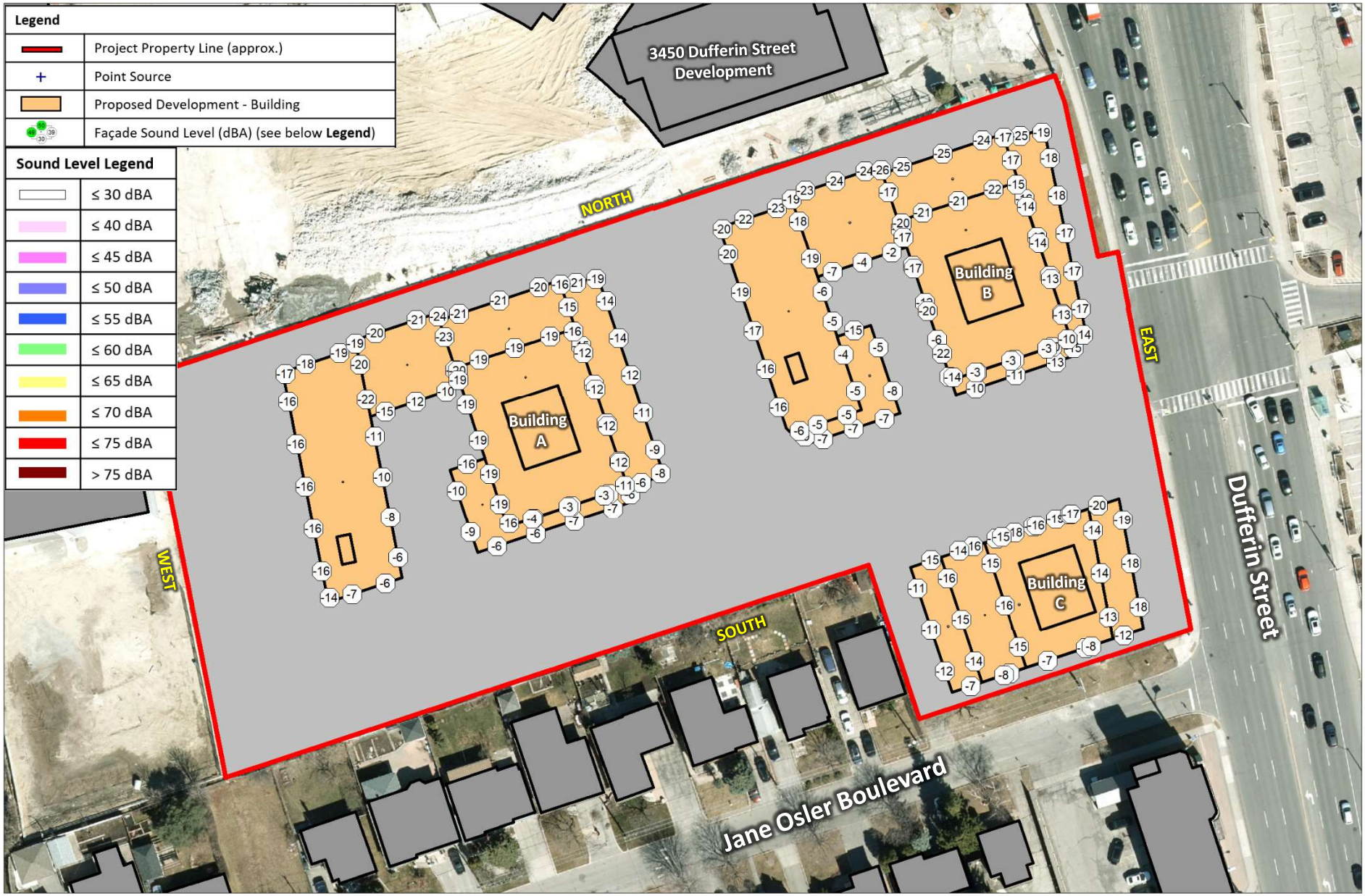
Scale: 1:1000 METRES

Date: Aug. 8, 2022 Rev 1.0

Project No. 241.30588.00000

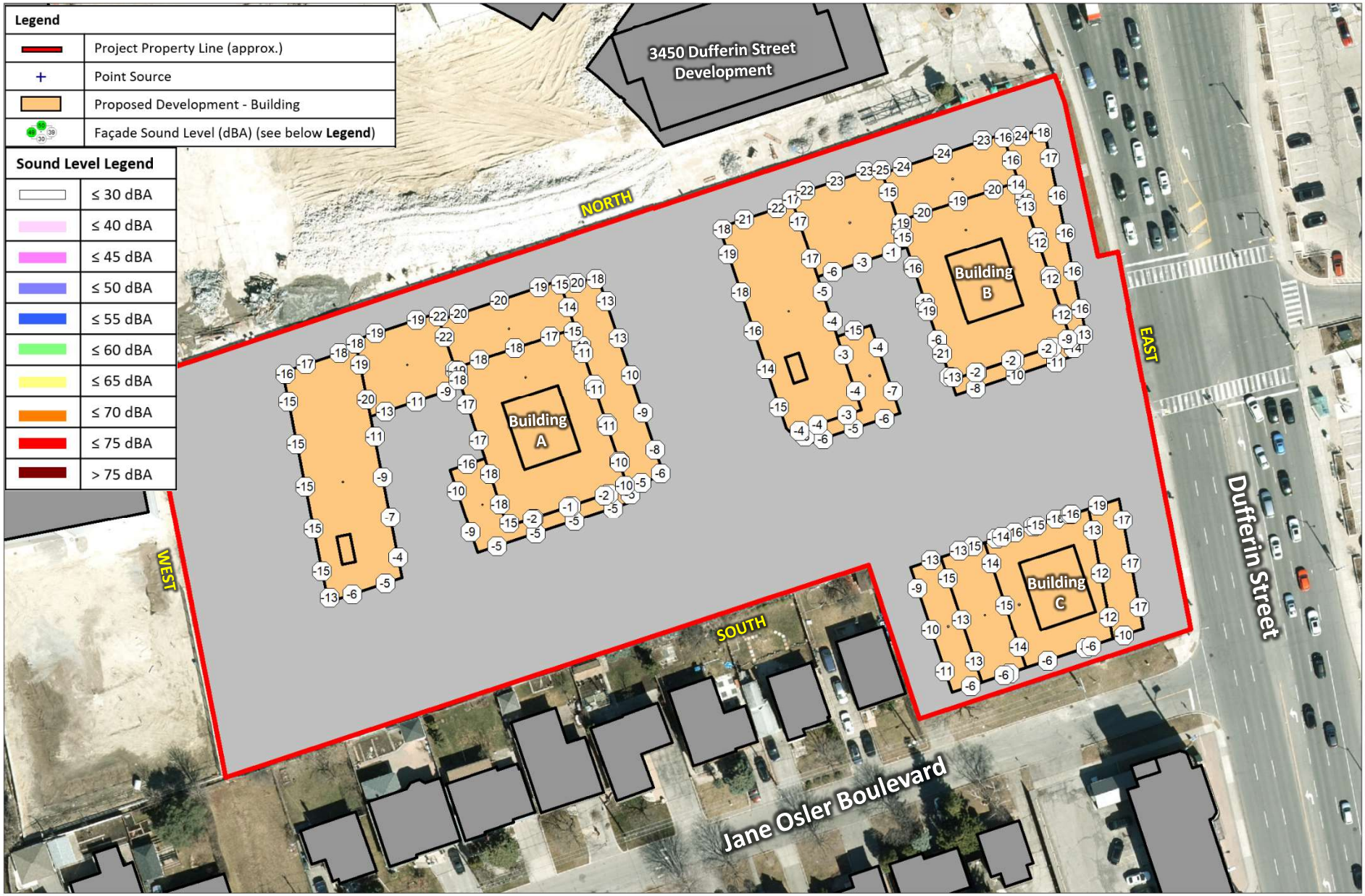
Figure No. **7**

SLR global environmental solutions



DUFFERIN – 401 PROPERTIES LIMITED	True North	Scale: 1:1000	METRES
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. **8**
FAÇADE SOUND LEVEL EXCESSES – STATIONARY SOURCES – DAYTIME		Project No. 241.30588.00000	

SLR global environmental solutions



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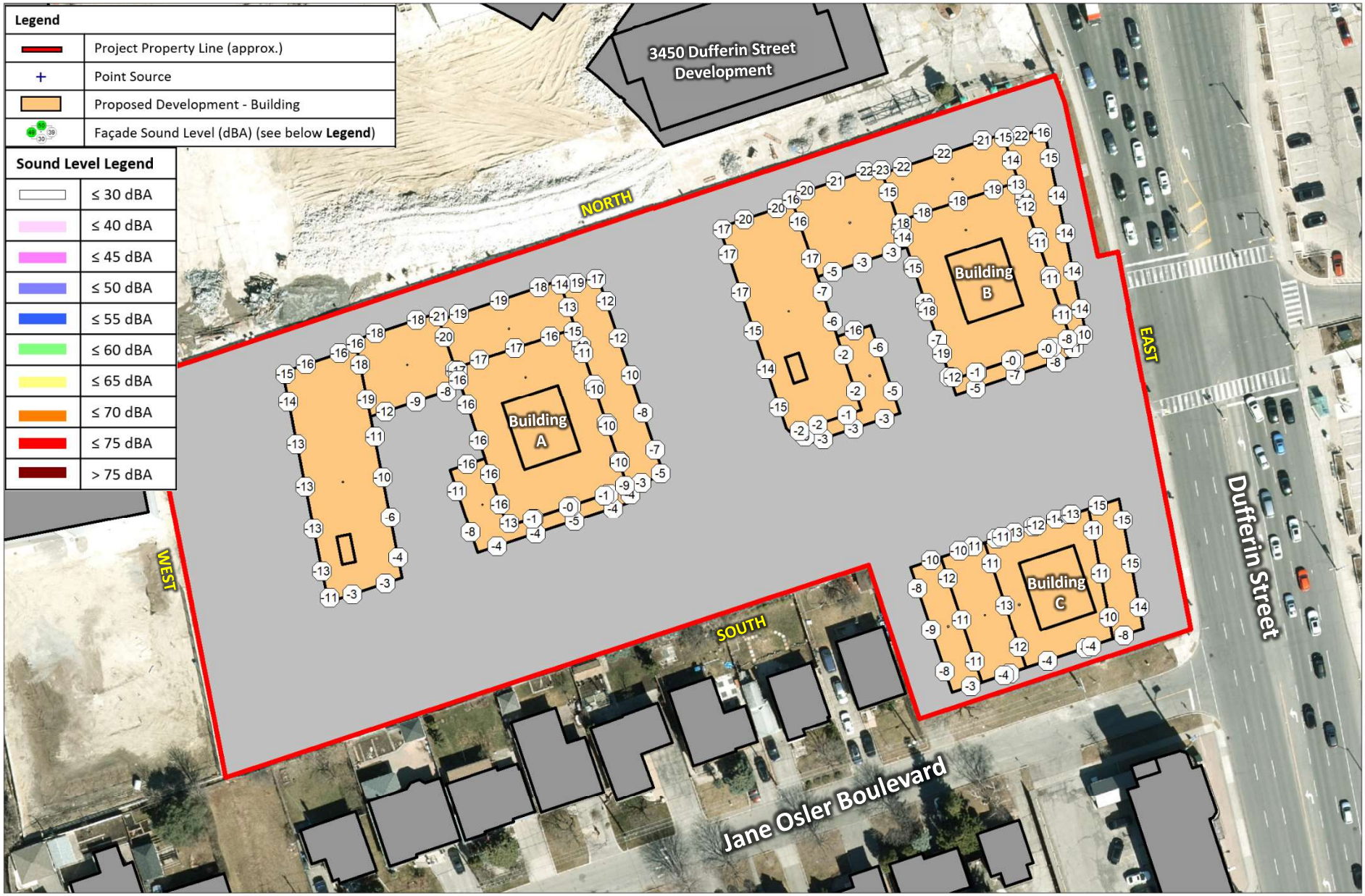
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. **9**
FAÇADE SOUND LEVEL EXCESSES – STATIONARY SOURCES – EVENING		Project No. 241.30588.00000	

SLR global environmental solutions



DUFFERIN – 401 PROPERTIES LIMITED	True North	Scale: 1:1000	METRES
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. **10**
FAÇADE SOUND LEVEL EXCESSES – STATIONARY SOURCES – NIGHT-TIME		Project No. 241.30588.00000	

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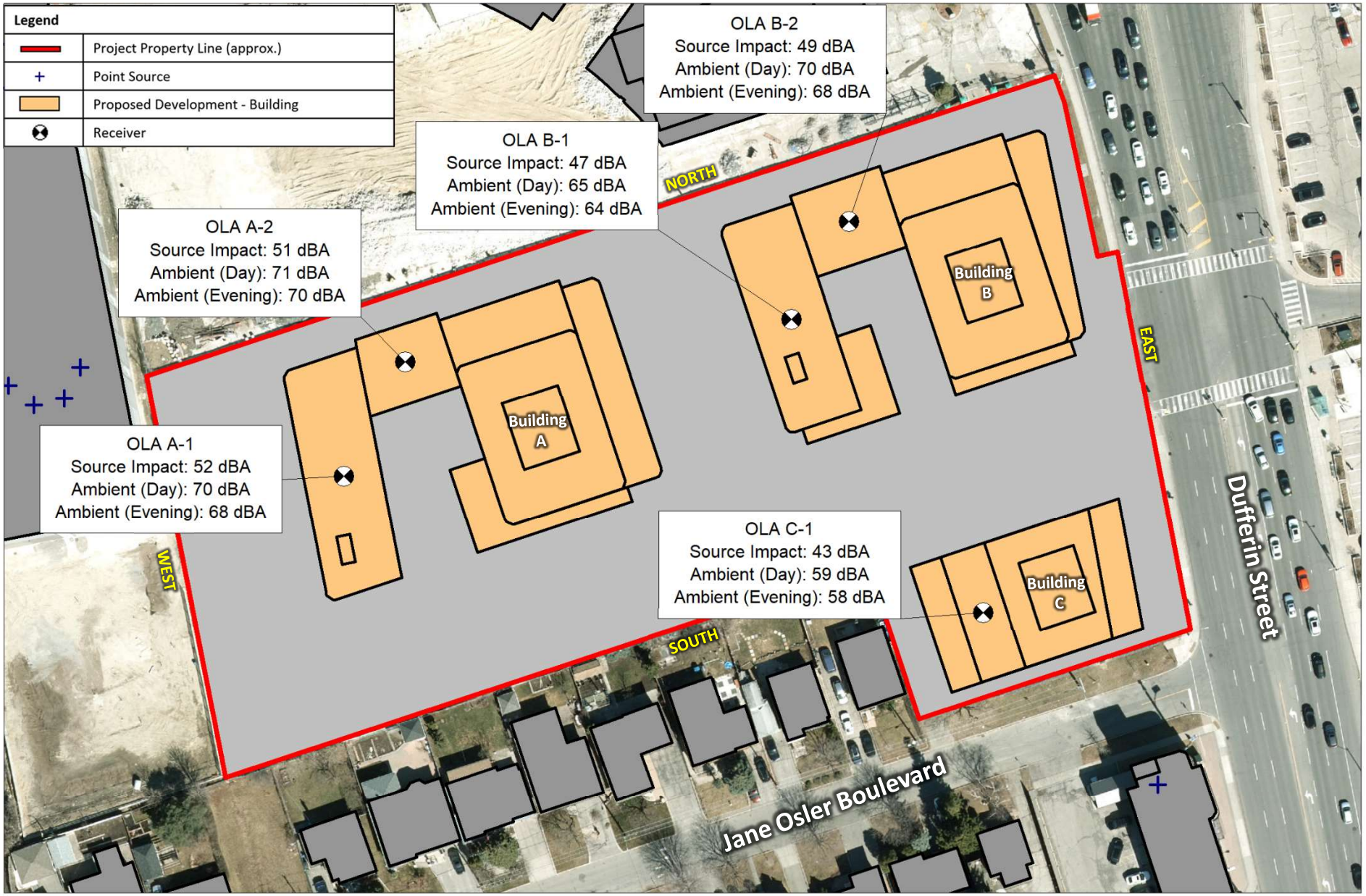


DUFFERIN – 401 PROPERTIES LIMITED	True North	Scale: 1:1000	METRES
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. **11**
OUTDOOR SOUND LEVELS – STATIONARY SOURCES – DAYTIME/EVENING		Project No. 241.30588.00000	

SLR global environmental solutions

Appendix A Zoning Information

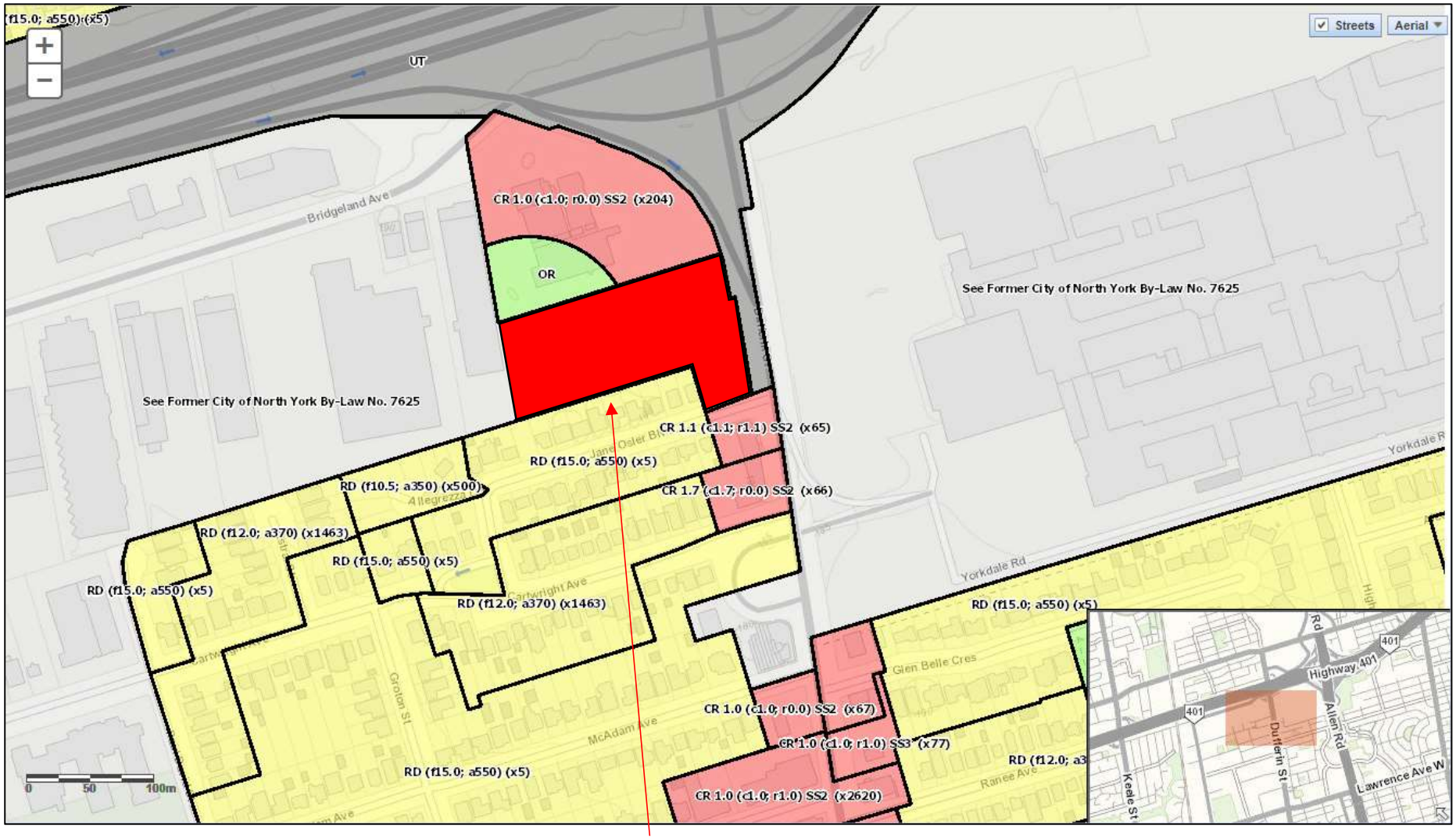
Environmental Noise & Vibration Assessment

3400 Dufferin Street and 8 Jane Osler Boulevard, Toronto, ON

Dufferin – 401 Properties Limited

SLR Project No. 241.30588.00000

August 8, 2022



Proposed Development (Former City of North York By-Law No. 7625)

Source: https://map.toronto.ca/maps/map.jsp?app=ZBL_CONSULT

DUFFERIN – 401 PROPERTIES LIMITED	True North	Scale: n.t.s.	METRES	SLR global environmental solutions
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. **A1**	
ZONING INFORMATION		Project No. 241.30588.00000		

Appendix B Development Drawings

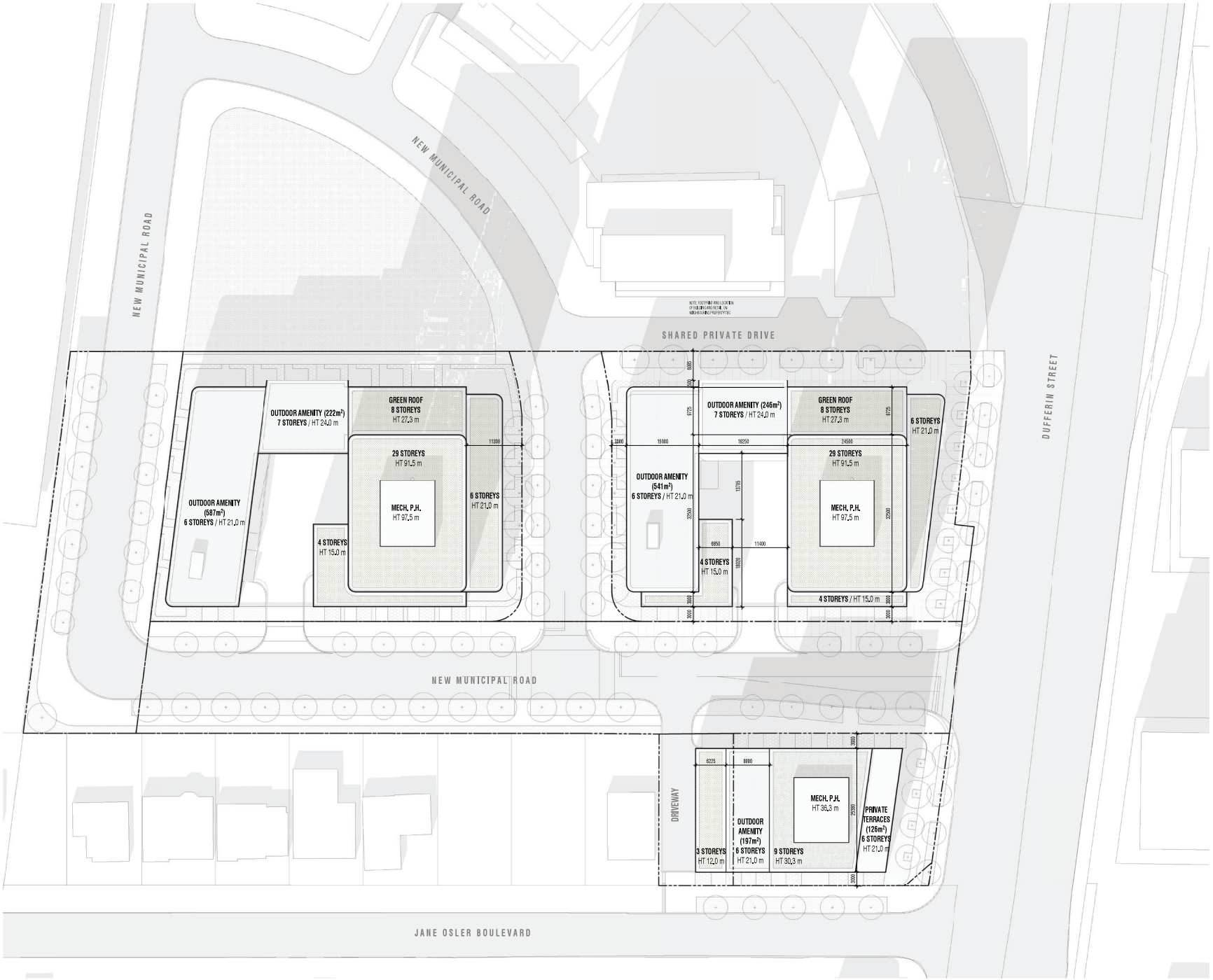
Environmental Noise & Vibration Assessment

3400 Dufferin Street and 8 Jane Osler Boulevard, Toronto, ON

Dufferin – 401 Properties Limited

SLR Project No. 241.30588.00000

August 8, 2022



GREEN ROOF STATISTICS - BUILDING A

Available Roof Space Calculation	Required	Provided
Green Type Area, as defined in Green Roof Bylaw (m2)		-
Total Roof Area		2475
Area of Residential Private Terraces (m2)		-
Rooftop Outdoor Amenity Space, if in a Residential Building (m2)		587 + 222 = 809
Area of Renewable Energy Devices (m2)		-
Tower (uRoof Area with floor plate less than 750 (m2)		-
Total Available Roof Space (m2)		1666
Green Roof Coverage		
Coverage of Available Roof Space (m2)	908	1080
Coverage of Available Roof Space (%)	60%	47%

GREEN ROOF STATISTICS - BUILDING B

Available Roof Space Calculation	Required	Provided
Green Type Area, as defined in Green Roof Bylaw (m2)		-
Total Roof Area		2475
Area of Residential Private Terraces (m2)		-
Rooftop Outdoor Amenity Space, if in a Residential Building (m2)		541 + 246 = 787
Area of Renewable Energy Devices (m2)		-
Tower (uRoof Area with floor plate less than 750 (m2)		-
Total Available Roof Space (m2)		1536
Green Roof Coverage		
Coverage of Available Roof Space (m2)	961	1536
Coverage of Available Roof Space (%)	60%	60%

GREEN ROOF STATISTICS - BUILDING C

Available Roof Space Calculation	Required	Provided
Green Type Area, as defined in Green Roof Bylaw (m2)		-
Total Roof Area		1334
Area of Residential Private Terraces (m2)		126
Rooftop Outdoor Amenity Space, if in a Residential Building (m2)		197
Area of Renewable Energy Devices (m2)		-
Tower (uRoof Area with floor plate less than 750 (m2)		-
Total Available Roof Space (m2)		711
Green Roof Coverage		
Coverage of Available Roof Space (m2)	213	384
Coverage of Available Roof Space (%)	30%	54%

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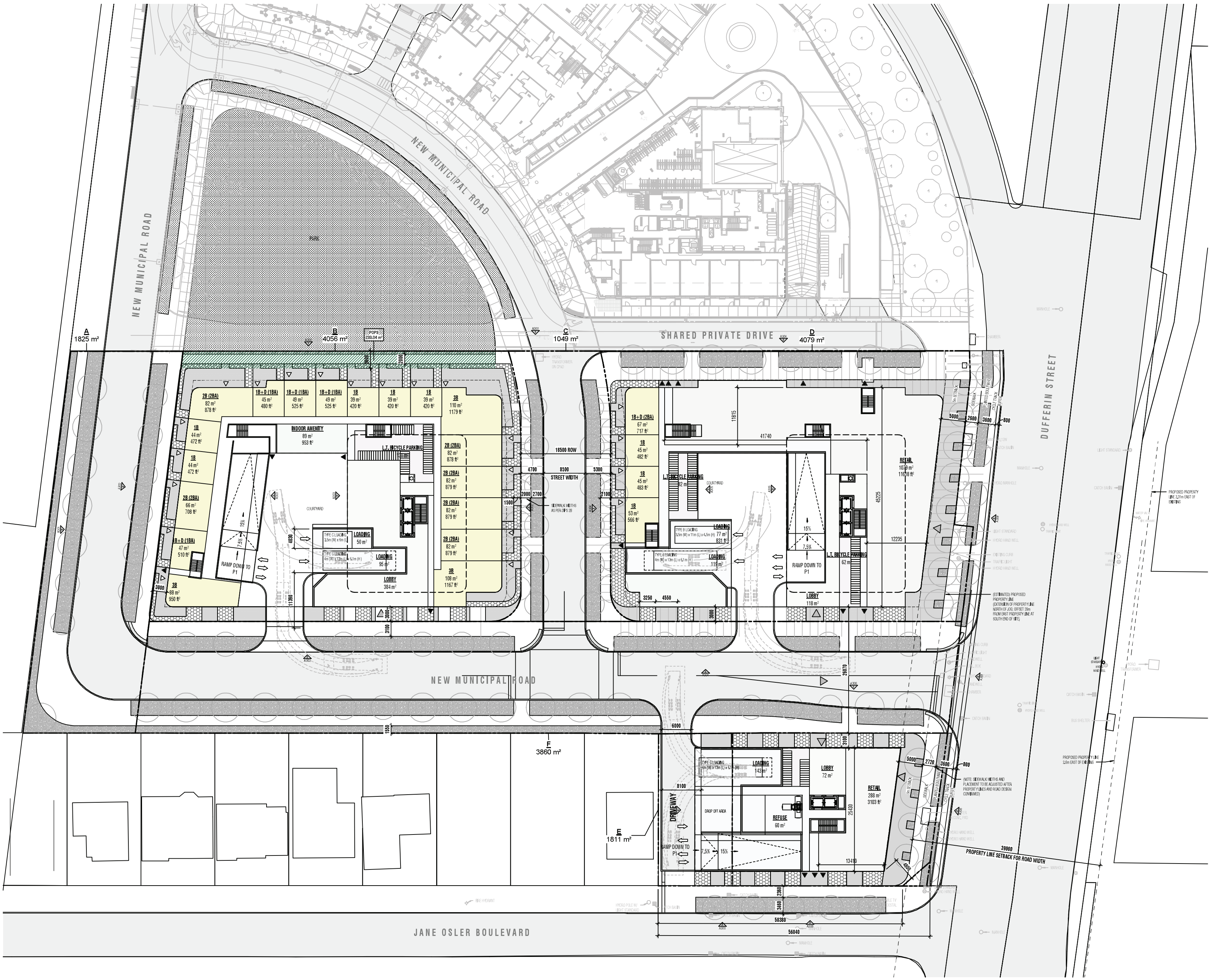
PROJECT NO. 202111
ISSUE DATE -

ROOF PLAN

A102



SITE PLAN LEGEND

- PROPOSED ELEVATION
- EXISTING ELEVATION
- AREA DRAINAGE
- STORM WATER
- CATCH BASIN
- PROPERTY LINE
- SETBACK
- FIRE TRUCK ROUTE
- PARKING STRUCTURE BELOW
- DESIGNATED P.O.P.S. AREA
- RESIDENTIAL
- RESIDENTIAL LOBBY
- RESIDENTIAL INDOOR AMENITY
- COMMERCIAL
- BICYCLE STORAGE
- MAIN RES ENTRANCE
- RES ENTRANCE
- NON-RES ENTRANCE
- EXIT
- VEHICULAR ENTRANCE/EXIT
- FIRE HYDRANT
- SIAMESE CONNECTION
- STREET LIGHT
- PEDESTRIAN LIGHT
- BOLLARD LIGHT
- BOLLARDS
- BICYCLE SHARING STATION
- BIKE RING
- PROPOSED CANOPY TREE
- EXISTING TREE
- EXISTING TREE TO BE PROTECTED
- PROPOSED UNDERSTOREY TREE
- GRASSES AND SHRUBS
- HIGH-ALBEDO PAVERS SRI VALUE - 29 OR BETTER
- CONCRETE PAVING SRI VALUE - 29 OR BETTER
- CONCRETE PAVING SRI VALUE - 29 OR BETTER
- BICYCLE LANE
- SOD
- BLACK MULCH
- RUBBERIZED PAVING
- WOOD DECKING SRI VALUE - 29 OR BETTER
- ARTIFICIAL TURF GRASS / DOG RELIEF AREA

REFER TO LANDSCAPE PLAN FOR HARDSCAPE AND PLANTING DETAILS

NOTES

- A TRAINED ON-SITE STAFF MEMBER MUST BE AVAILABLE TO MANOEUVRE BINS FOR THE COLLECTION DRIVER AND ALSO ACT AS A FLAGMAN WHEN THE TRUCK IS REVERSING. IN THE EVENT THE ON-SITE STAFF MEMBER IS UNAVAILABLE AT THE TIME THE CITY COLLECTION VEHICLES ARRIVAL AT THE SITE, THE COLLECTION VEHICLE WILL LEAVE THE SITE AND NOT RETURN UNTIL THE NEXT SCHEDULED COLLECTION DAY.
- TYPE G LOADING 6.1m MINIMUM VERTICAL CLEARANCE. MINIMUM 200mm THICK REINFORCED CONCRETE SLAB IN LOADING SPACE AND STAGING AREA. FLOOR GRADE NOT TO EXCEED +/-2%
- THE OVERHEAD DOOR ADJACENT TO THE TYPE G LOADING AREA WILL BE OPEN UPON THE ARRIVAL OF THE TRUCK TO ALLOW IT TO REVERSE FORM THE TYPE G LOADING AREA ENABLING IT TO EXIT THE SITE IN A FORWARD MOTION.
- A WARNING SYSTEM IS TO BE PROVIDED TO CAUTION MOTORISTS LEAVING THE PARKING GARAGE OF HEAVY VEHICLES WHEN LOADING. SYSTEM TO INCLUDE LIGHTS AND SIGNS.
- ALL ACCESS DRIVEWAYS TO BE USED BY THE COLLECTION VEHICLE TO HAVE A MAXIMUM GRADIENT OF 8%, HAVE A MINIMUM VERTICAL CLEARANCEOF 4.4 METERS THROUGHOUT, A MINIMUM WIDTH OF 4.5 METERS THROUGHOUT AND BE 6 METERS WIDE AT POINT OF INGRESS AND EGRESS.
- PROPOSED ACCESS ROUTE FOR WASTE COLLECTION VEHICLE TO HAVE MINIMUM 4.4M VERTICAL CLEARANCE THROUGHOUT AND DESIGNED TO SAFELY SUPPORT 35,000 KG.
- STRUCTURAL ENGINEER TO DESIGN AREA TO CONFORM AS FOLLOWS:
  (A) DESIGN CODE -ONTARIO BUILDING CODE
  (B) DESIGN LOAD -CITY BULK LIFT VEHICLE IN ADDITION TO BUILDING CODE REQUIREMENTS
  (C) IMPACT FACTOR -5% FOR MAX. VEHICULAR SPEEDS TO 15KM/H AND 30% FOR HIGHER SPEEDS
- NON-RESIDENTIAL COMPONENT WILL ONLY SCHEDULE USE OF THE TYPE G LOADING SPACE ON DIFFERENT DAYS FROM THE COLLECTION DAYS OF THE RESIDENTIAL COMPONENT TO ENSURE THAT THE TYPE G LOADING SPACE WILL BE VACANT FOR CITY WASTE COLLECTION.
- 4-FIRE ACCESS ROUTE MIN. 6m WIDE WITH 5m HEIGHT CLEARANCE, CHANGE IN GRADIENT NOT MORE THAN 6% IN 15m; LOAD SUPPORT SUFFICIENT FOR EQUIPMENT; SURFACE TO BE ACCESSIBLE IN ALL CLIMATICE CONDITION FOR ALL TRUCK DIAGRAM MOVEMENT REFER TO TRAFFIC CONSULTANT REPORT - PATH SHOWN FOR CONTEXT
- FIRE ACCESS ROUTE MIN. 6m WIDE WITH 5m HEIGHT CLEARANCE, CHANGE IN GRADIENT NOT MORE THAN 8% IN 15m; LOAD SUPPORT SUFFICIENT FOR EQUIPMENT; SURFACE TO BE ACCESSIBLE IN ALL CLIMATICE CONDITION FOR ALL TRUCK DIAGRAM MOVEMENT REFER TO TRAFFIC CONSULTANT REPORT - PATH SHOWN FOR CONTEXT
- BE ADVISED THAT SHOULD ANY PARTY INCLUDING THE OWNER OR ANY SUBSEQUENT OWNER , APPLY FOR MORE THAN ONE CONDOMINIUM CORPORATION ENCOMPASSING ANY OR ALL OF THIS DEVELOPMENT OR MAKE AN APPLICATION THAT RESULTS IN A LAND DIVISION, STAFF MAY REQUIRE LEGAL ASSURANCES, INCLUDING BUT NOT LIMITED TO EASEMENTS, WITH RESPECT TO THE APPROVED SERVICES. SUCH ASSURANCES WILL BE DETERMINED AT THE TIME OF APPLICATION FOR CONDOMINIUM APPROVAL
- VENTILATION GRATING TO HAVE A POROSITY OF LESS THAN 20mm X 20mm OR 40mm X 10mm

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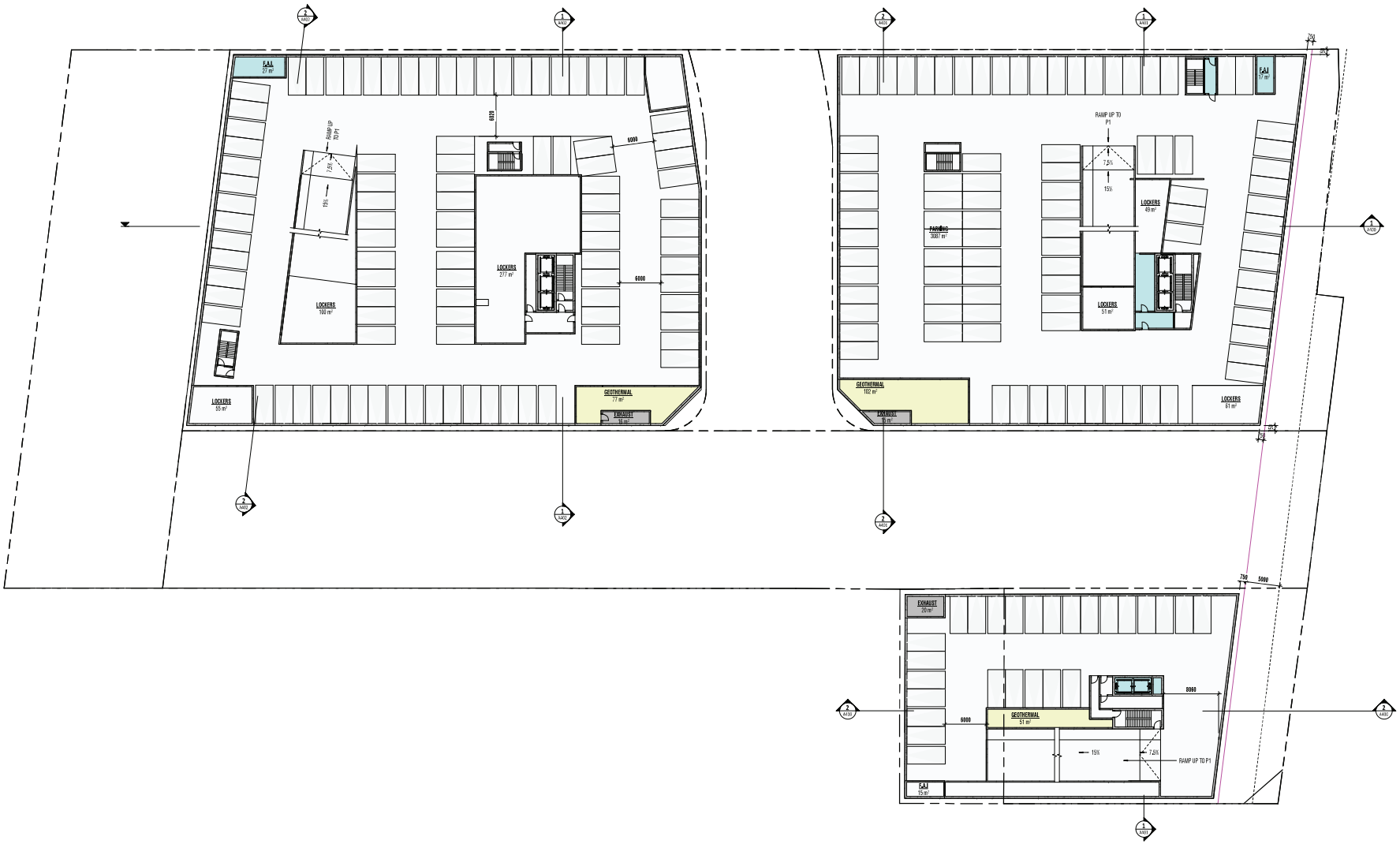
PROJECT NO. 202211
ISSUE DATE -

GROUND FLOOR SITE PLAN

A103



5.1 CAR PARKING							
Level	Residential Car Parking			Visitor Car Parking			Total Car Parking
	Regular	BF	Total	Regular	BF	Total	
BUILDING A							
P1	78	0	78	0	0	0	78
P2	95	0	95	0	0	0	95
	173	**0**	**173**	**0**	**0**	**0**	**173**
BUILDING B							
P1	73	0	73	0	0	0	73
P2	91	0	91	0	0	0	91
	164	**0**	**164**	**0**	**0**	**0**	**164**
BUILDING C							
P1	20	0	20	0	0	0	20
P2	26	0	26	0	0	0	26
	46	**0**	**46**	**0**	**0**	**0**	**46**
TOTAL	**383**	**0**	**383**	**0**	**0**	**0**	**383**

Rev.	Date	Issued

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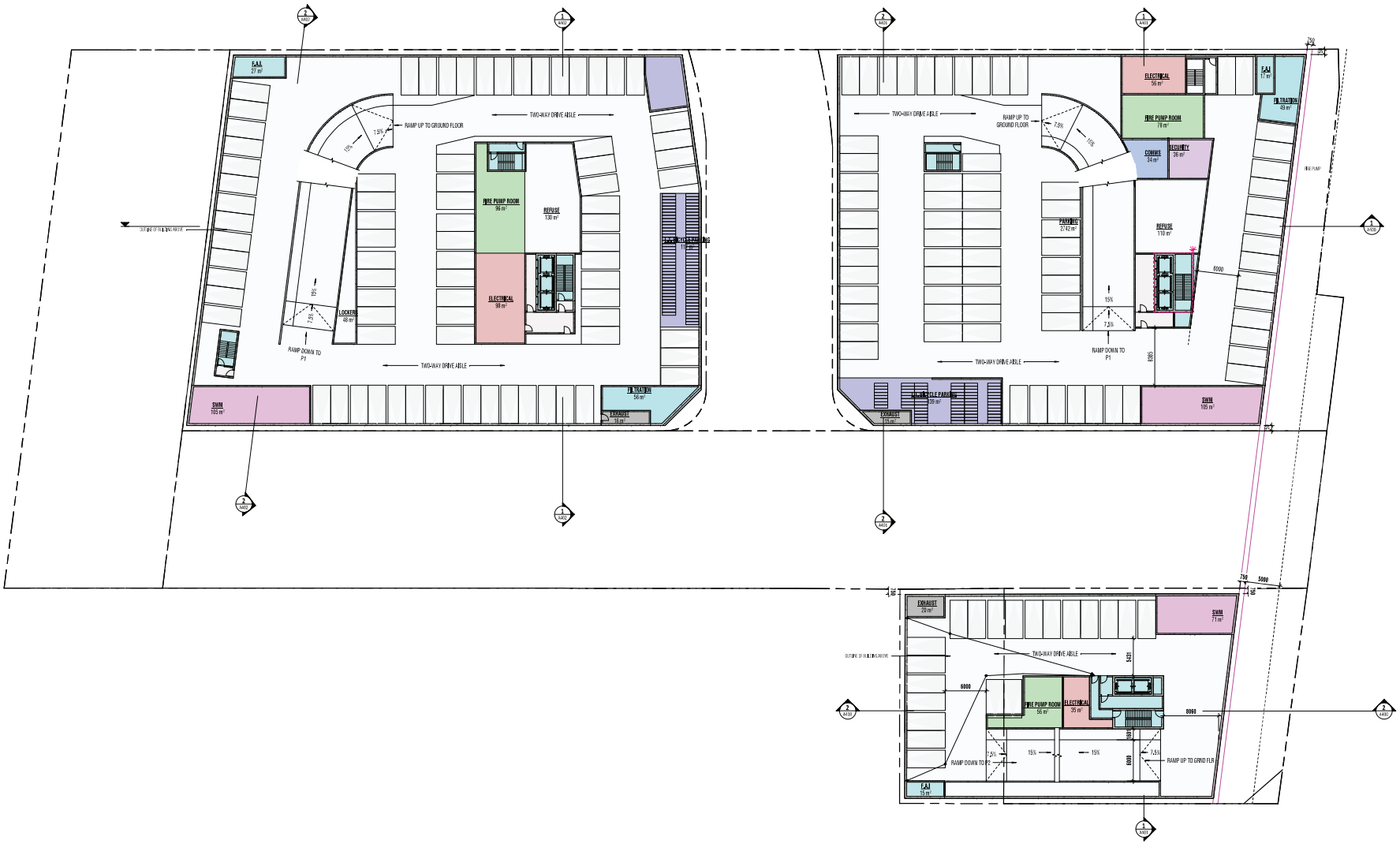
SCALE 1 : 200
PROJECT NO. 202211
ISSUE DATE -

LEVEL P2 FLOOR PLAN

A104



4.1 CAR PARKING							
	Residential Car Parking			Visitor Car Parking			
Level	Regular	BF	Total	Regular	BF	Total	Total Car Parking
BUILDING A							
P1	78	0	78	0	0	0	78
P2	95	0	95	0	0	0	95
	173	**0**	**173**	**0**	**0**	**0**	**173**
BUILDING B							
P1	73	0	73	0	0	0	73
P2	91	0	91	0	0	0	91
	164	**0**	**164**	**0**	**0**	**0**	**164**
BUILDING C							
P1	20	0	20	0	0	0	20
P2	26	0	26	0	0	0	26
	46	**0**	**46**	**0**	**0**	**0**	**46**
TOTAL	**383**	**0**	**383**	**0**	**0**	**0**	**383**

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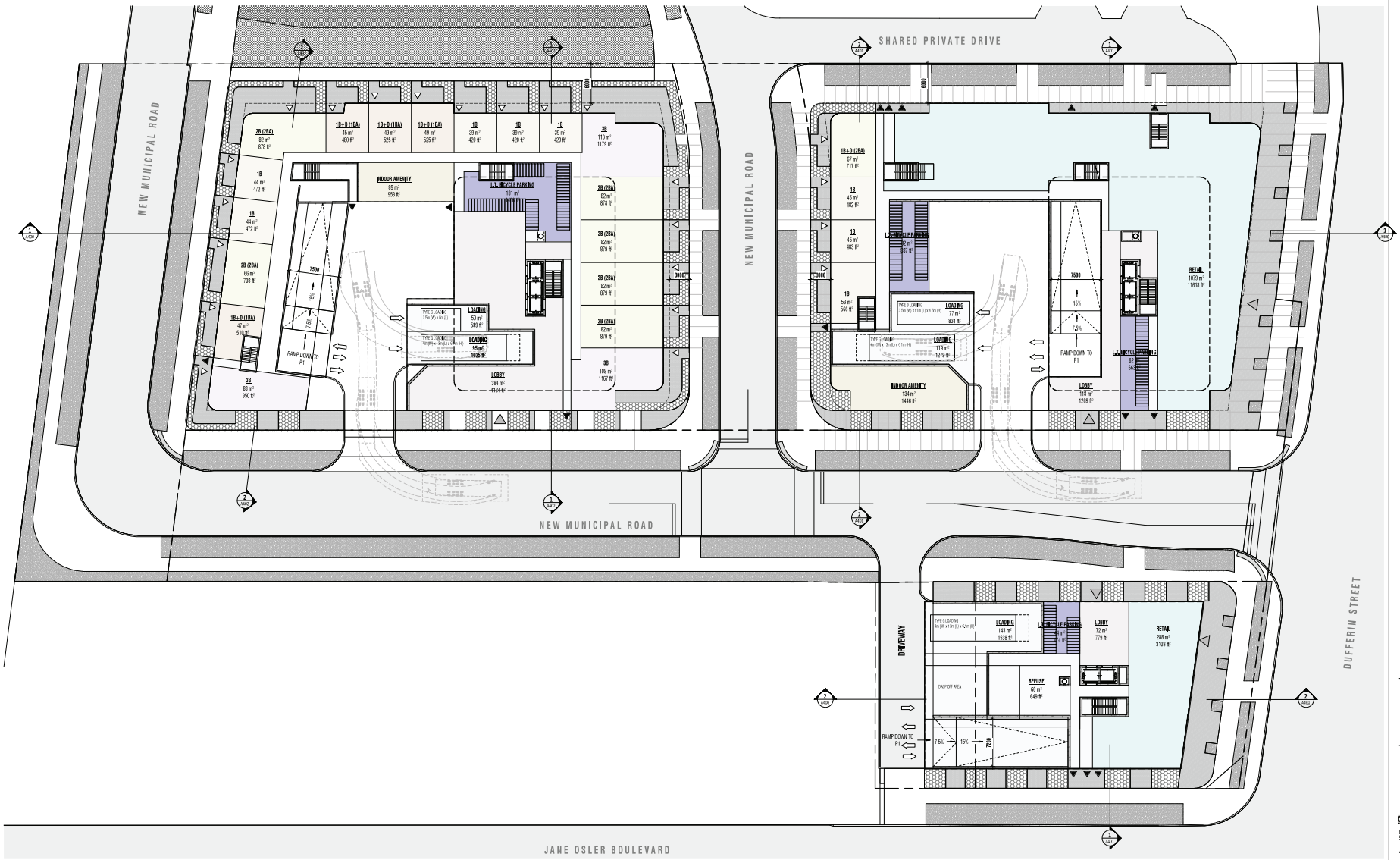
LEVEL P1 FLOOR PLAN

A105



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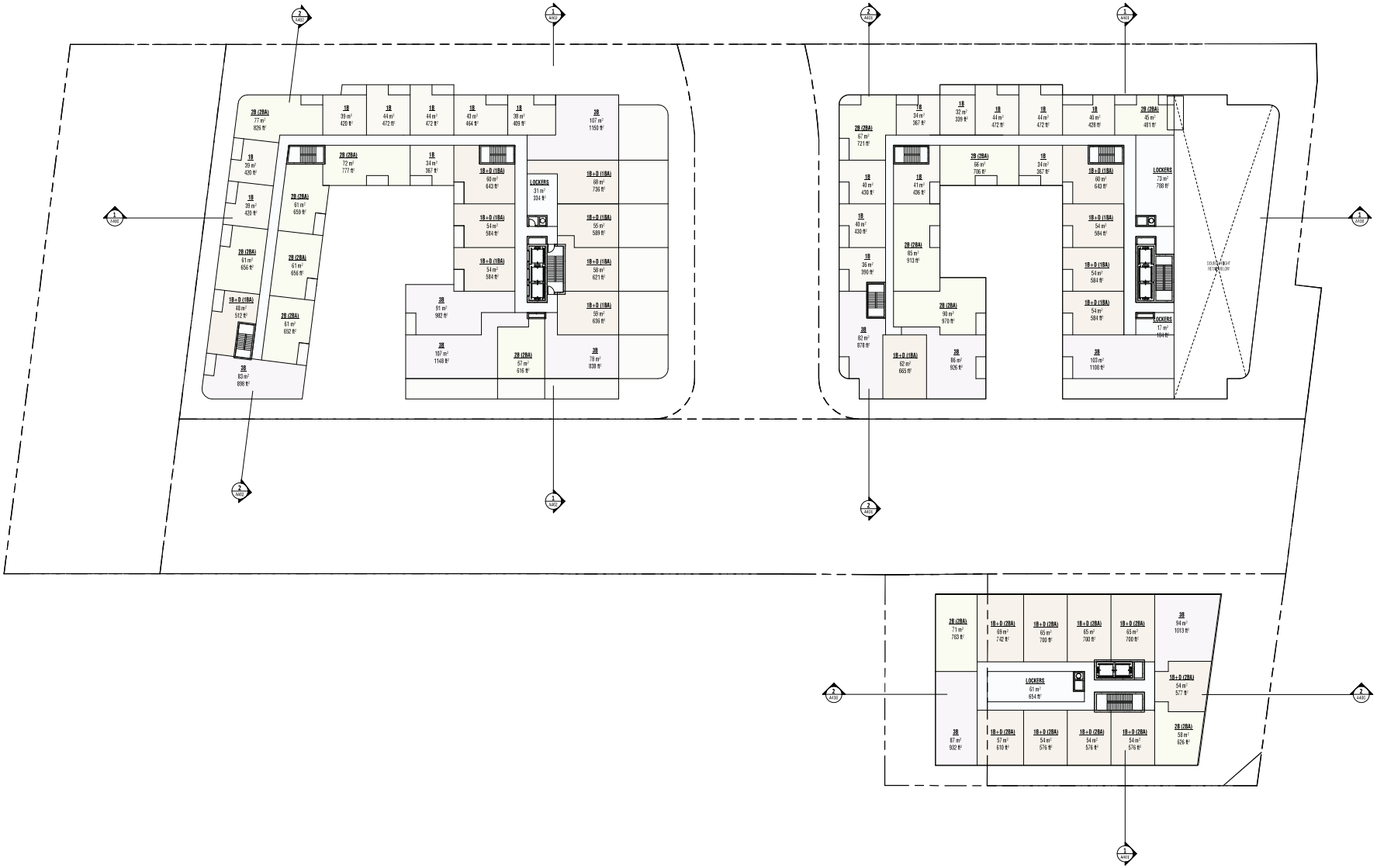
LEVEL 1 FLOOR PLAN

A200



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LEVEL 2 FLOOR PLAN

A201

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LEVEL 3 FLOOR PLAN

A202

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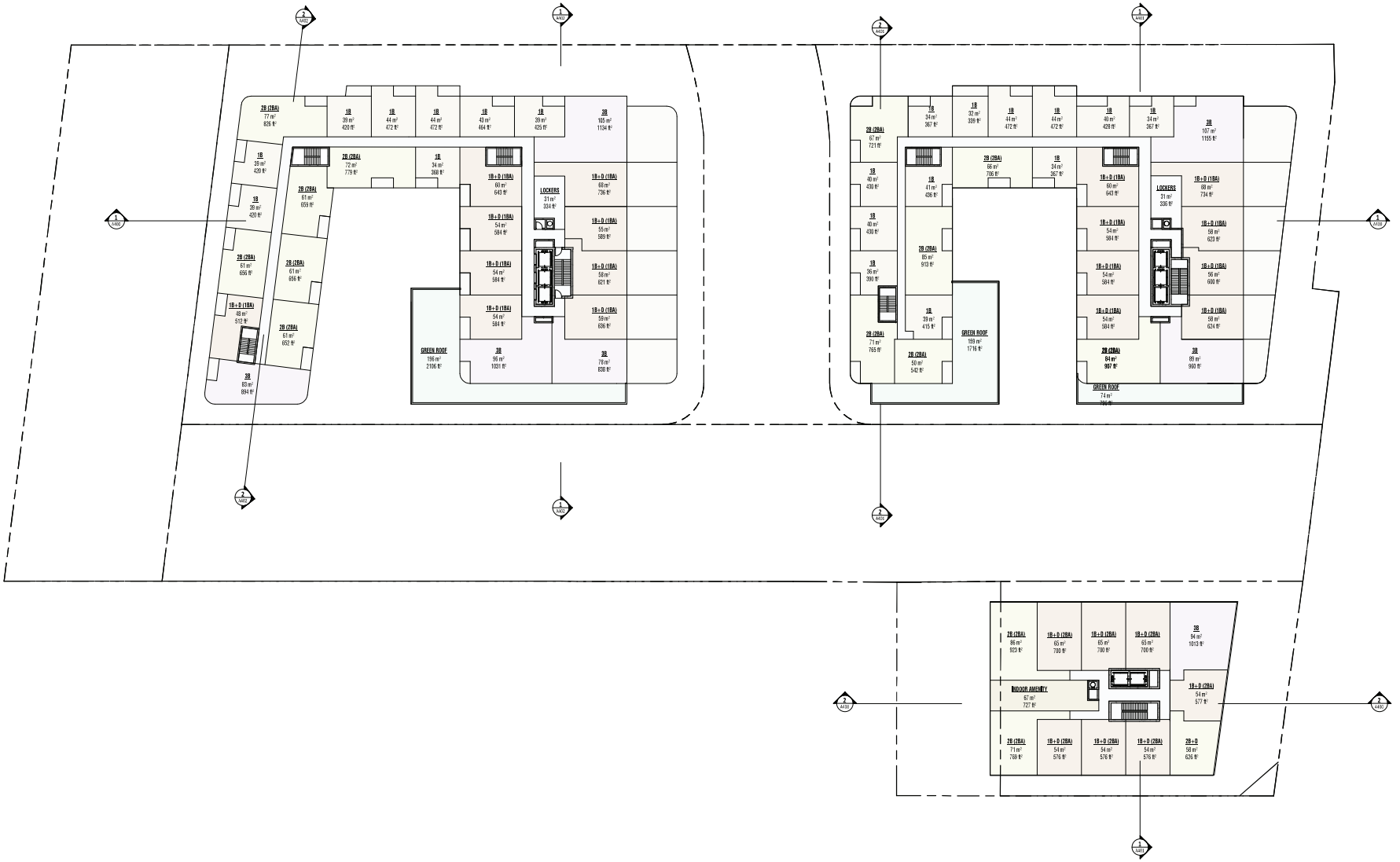
LEVEL 4 FLOOR PLAN

A203



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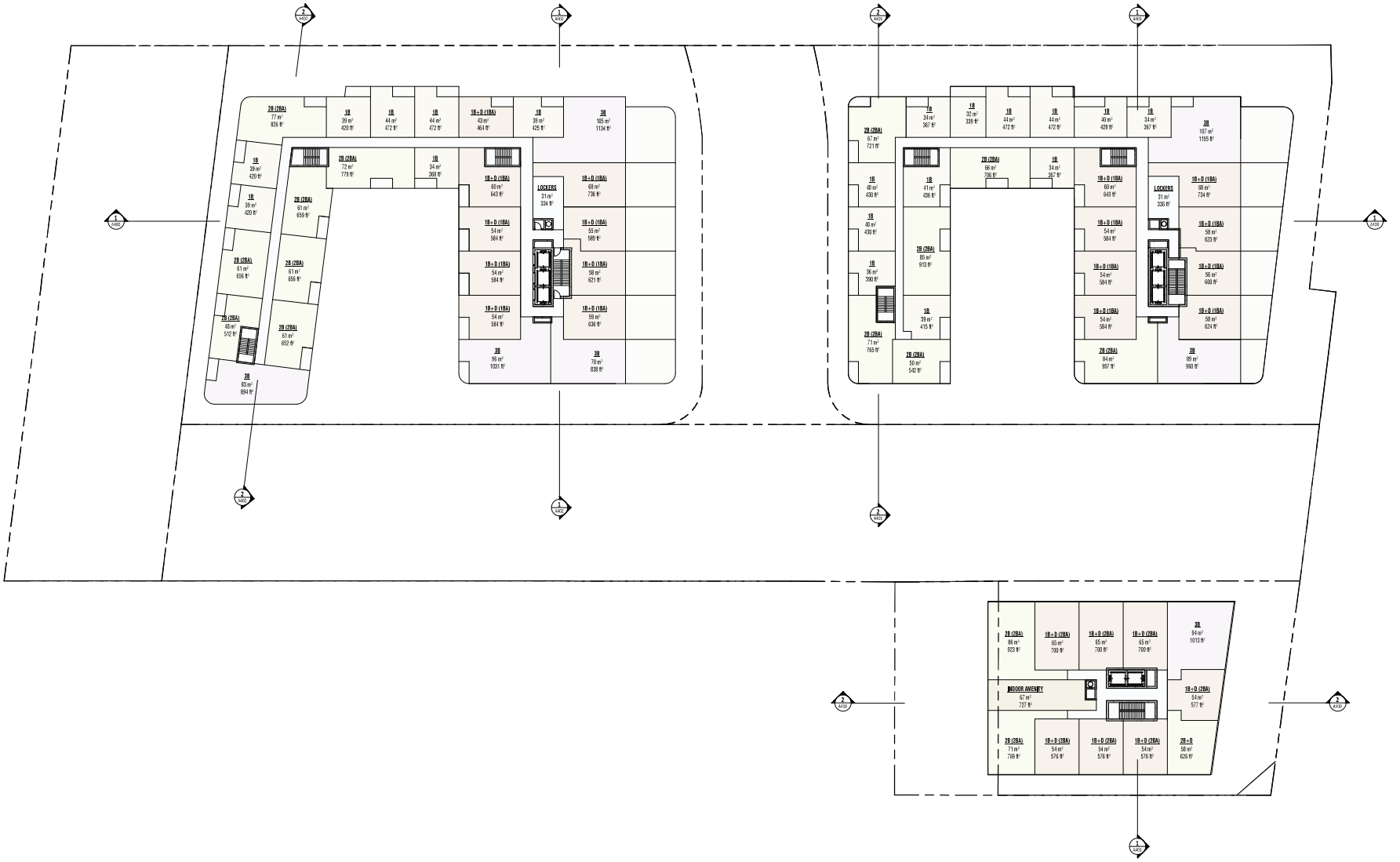
LEVEL 5 FLOOR PLAN

A204



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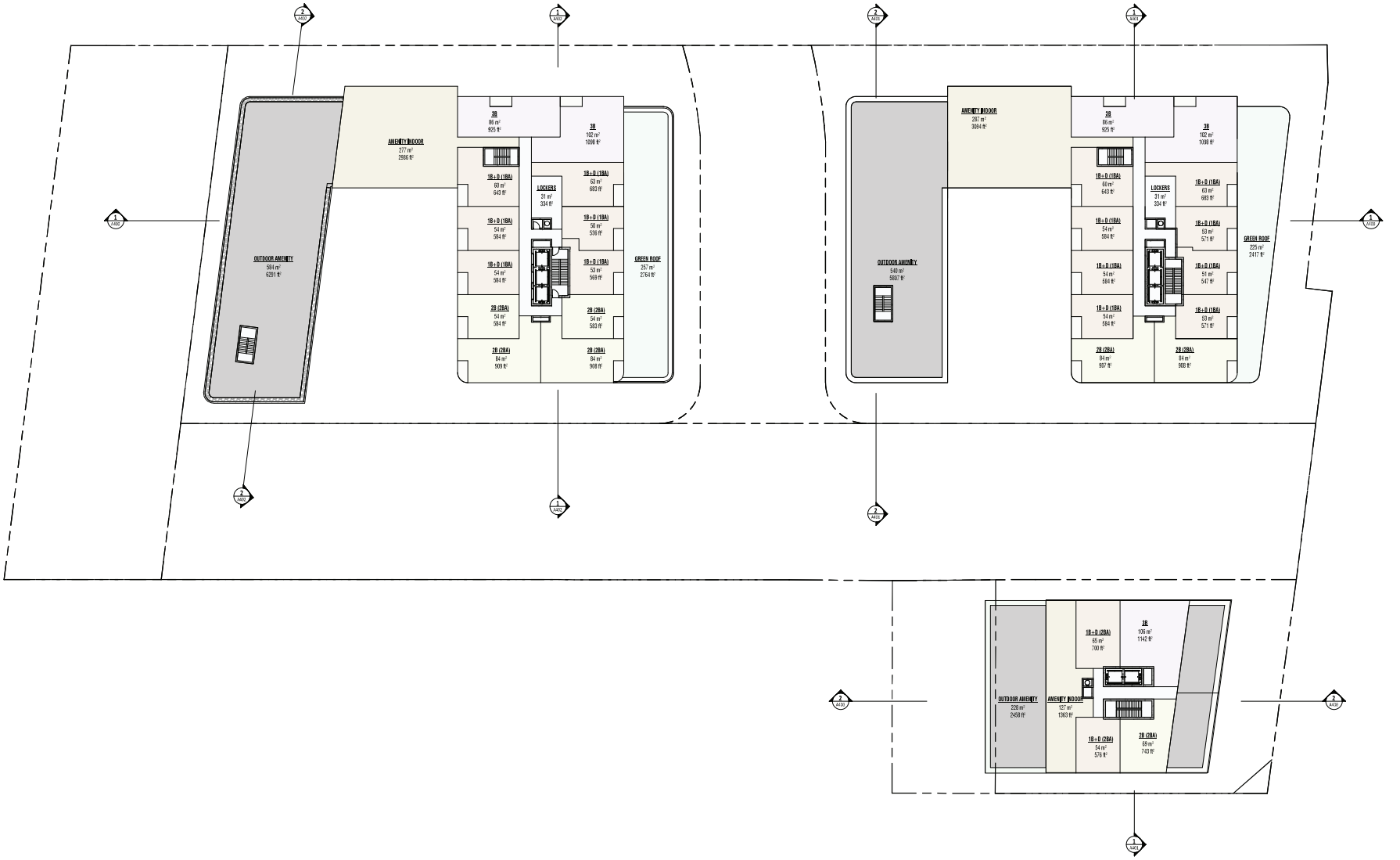
LEVEL 6 FLOOR PLAN

A205



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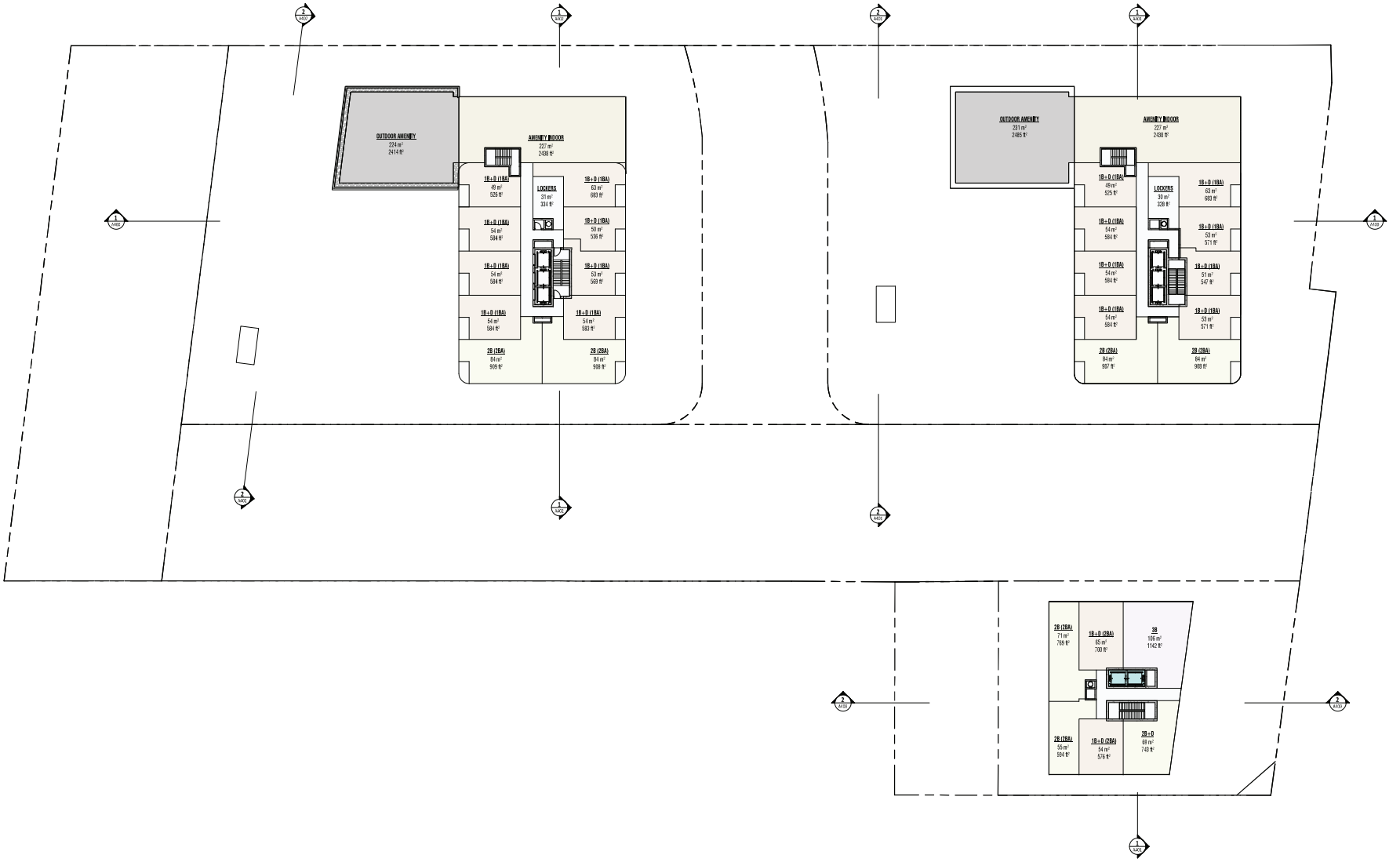
LEVEL 7 FLOOR PLAN

A206



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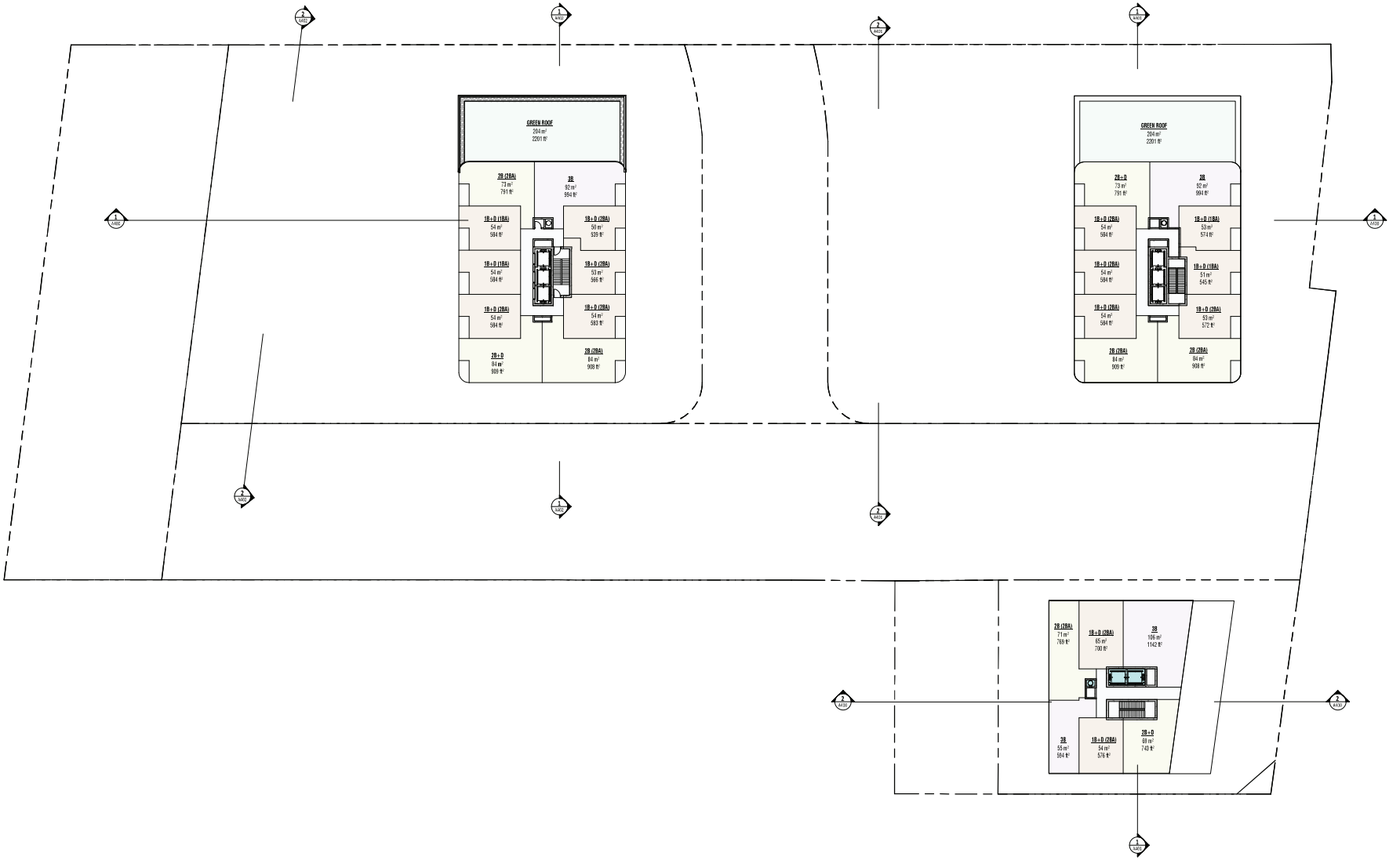
LEVEL 8 FLOOR PLAN

A207



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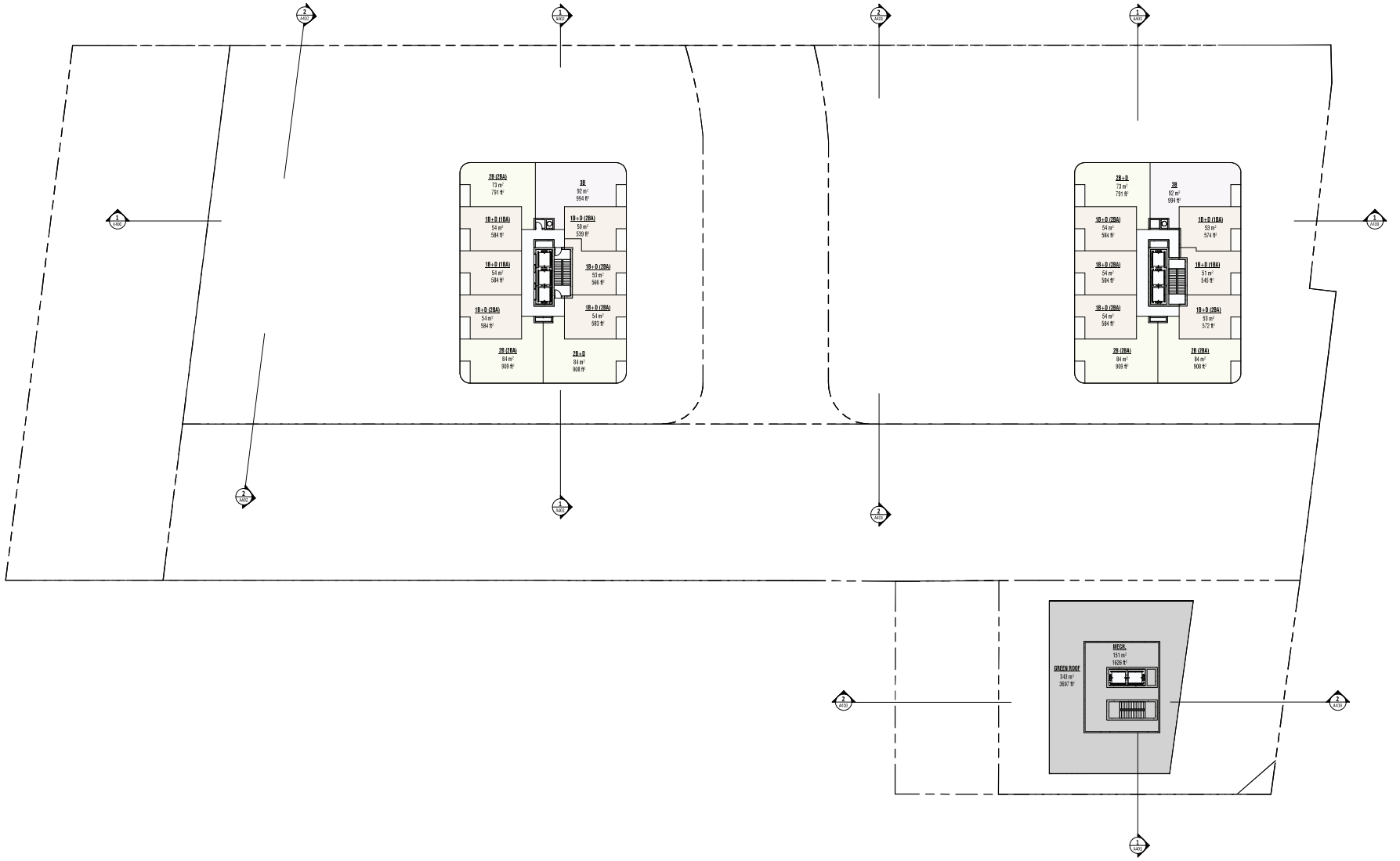
LEVEL 9 FLOOR PLAN

A208



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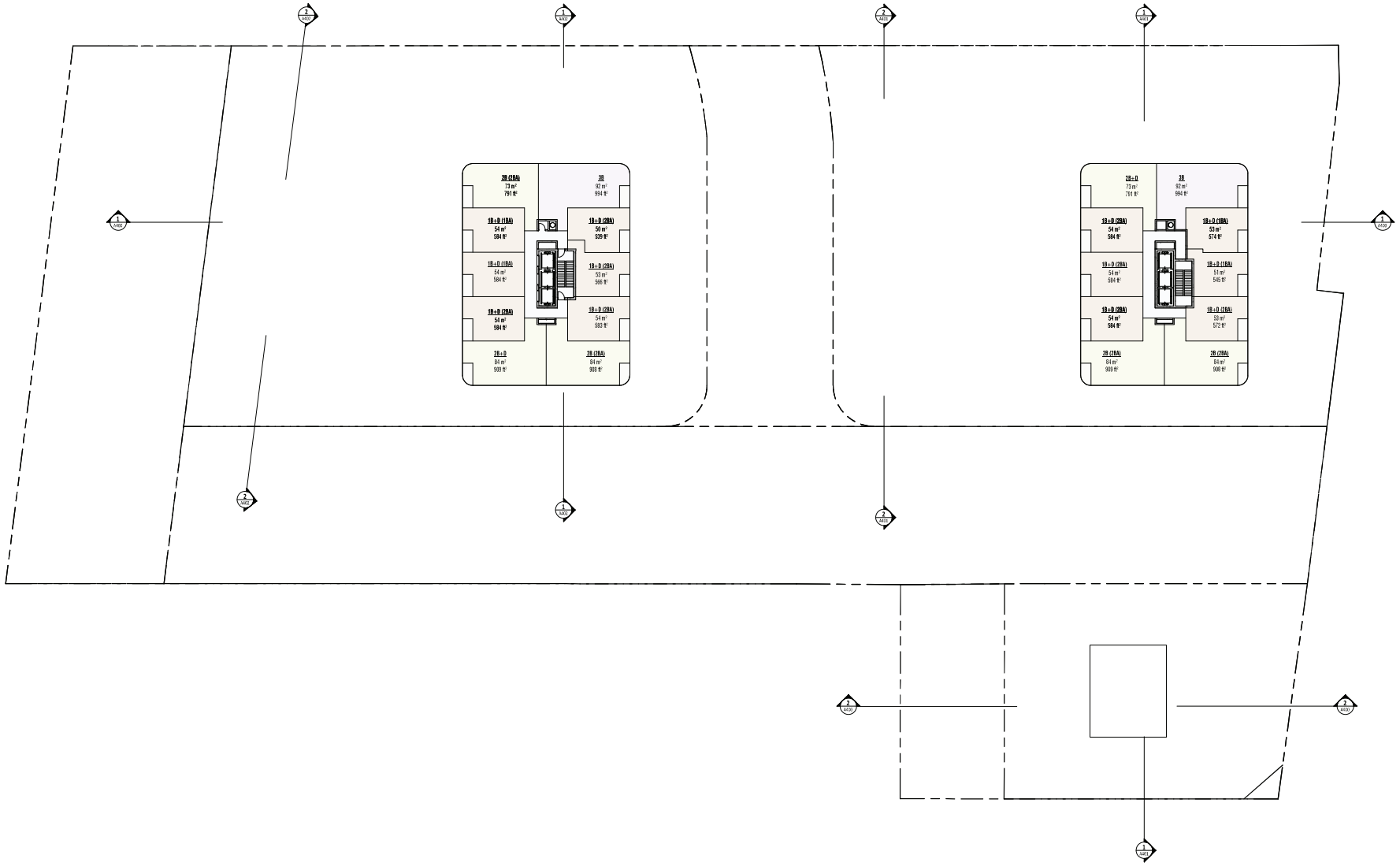
LEVEL 10 FLOOR PLAN

A209



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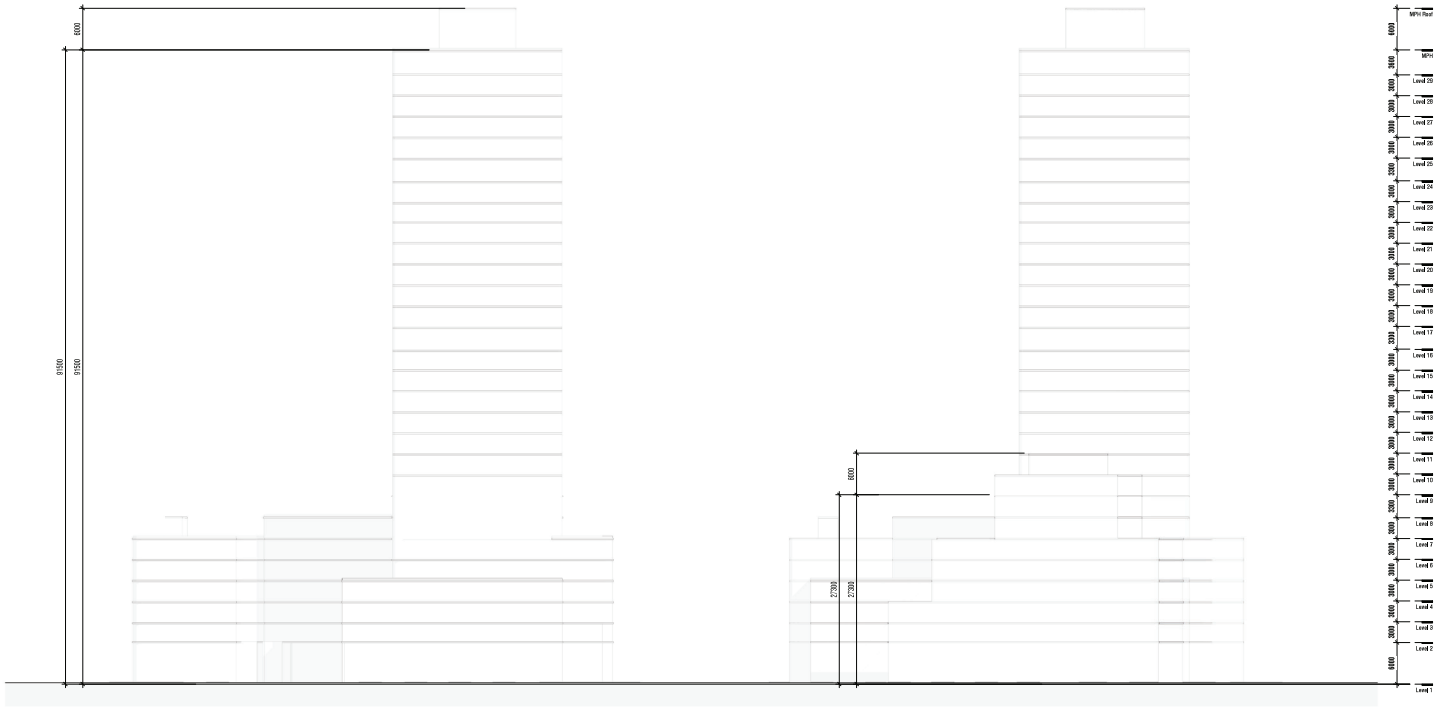
LEVEL 11-29 FLOOR PLAN

A210

1 A103 A300 NORTH ELEVATION
1 : 250



2 A103 A300 SOUTH ELEVATION
1 : 250

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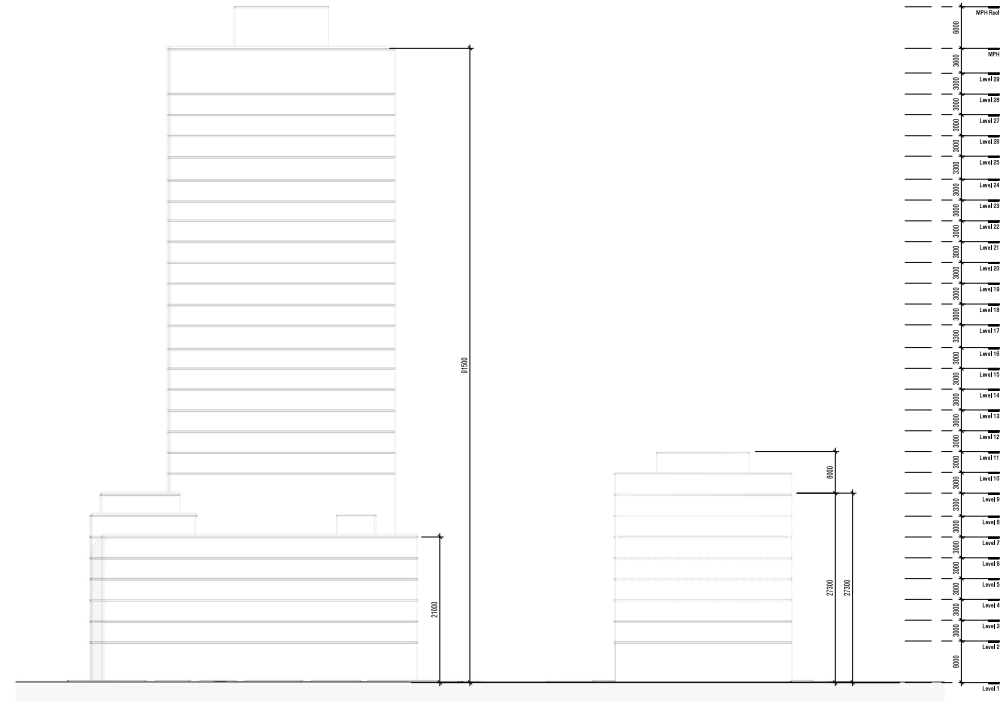
SITE ELEVATIONS

A300

1 A103 A301 EAST SITE ELEVATION

1 : 250



2 A103 A301 WEST SITE ELEVATION

1 : 250

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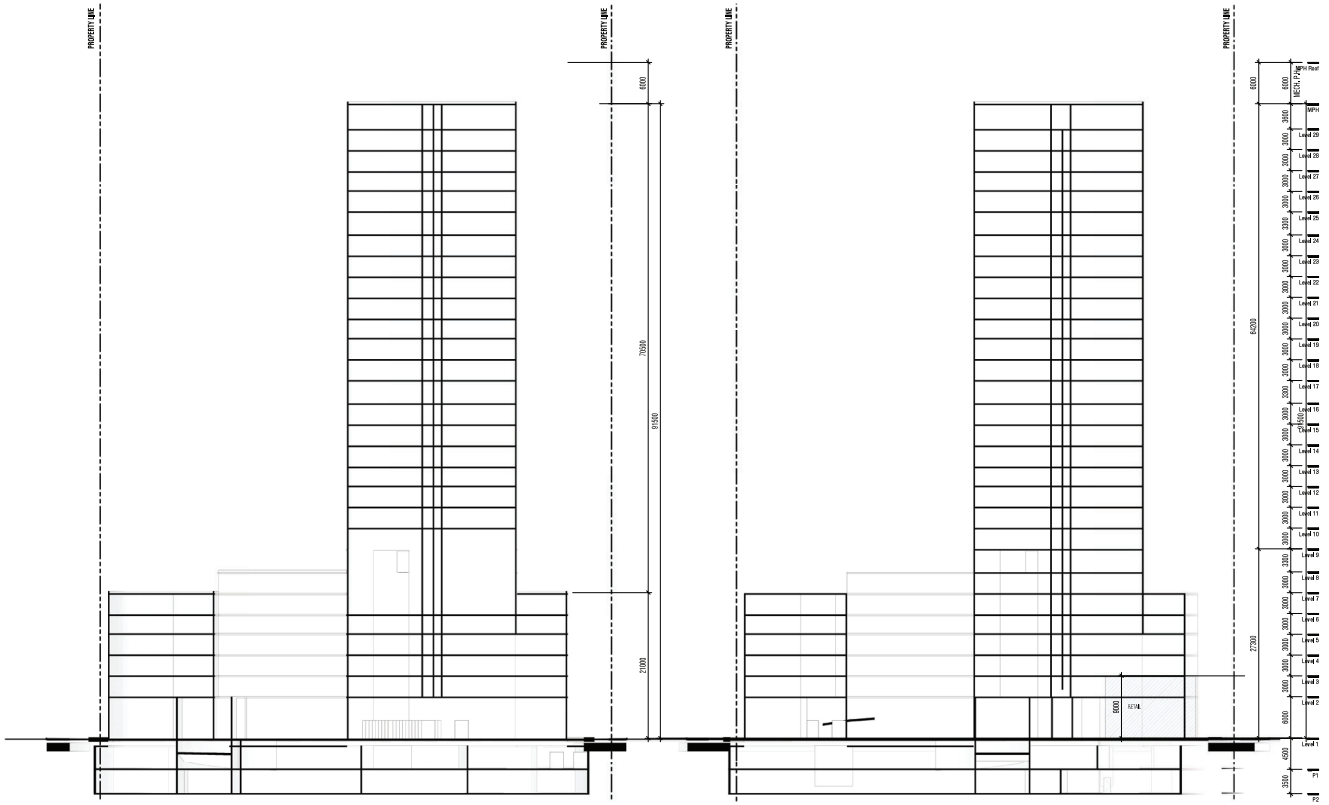
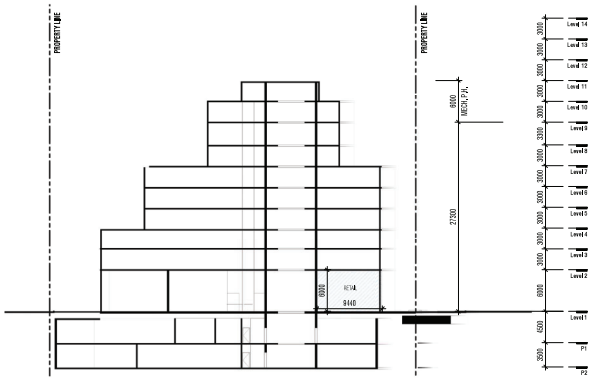
SITE ELEVATIONS

A301



1 / A104 / A400 EAST-WEST SECTION 1

1 : 250



2 / A104 / A400 EAST-WEST SECTION 2

1 : 250

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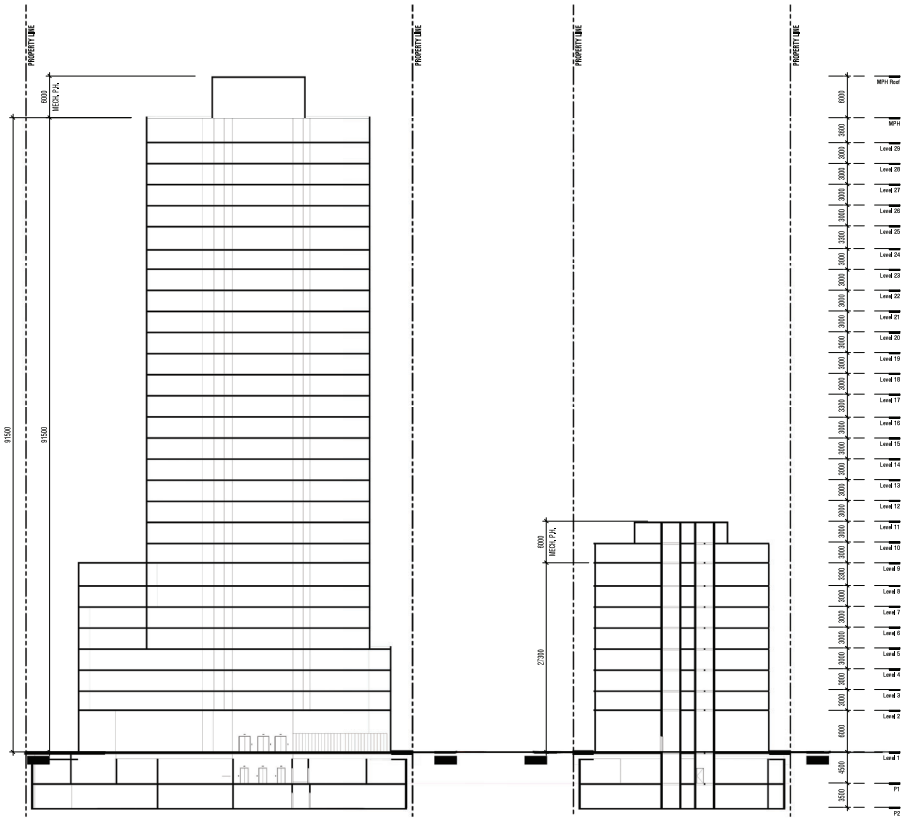
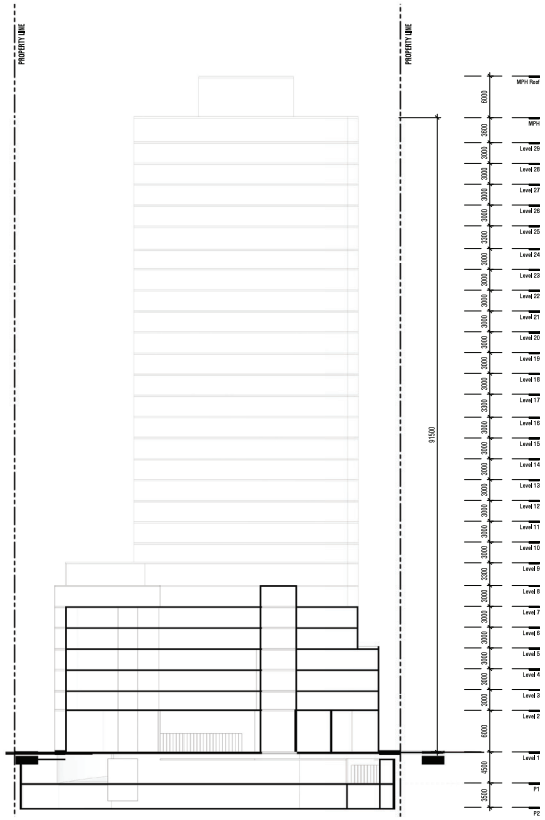
A400



1 A104 A401 NORTH-SOUTH SECTION 1

1 : 250



2 A104 A401 NORTH-SOUTH SECTION 2

1 : 250

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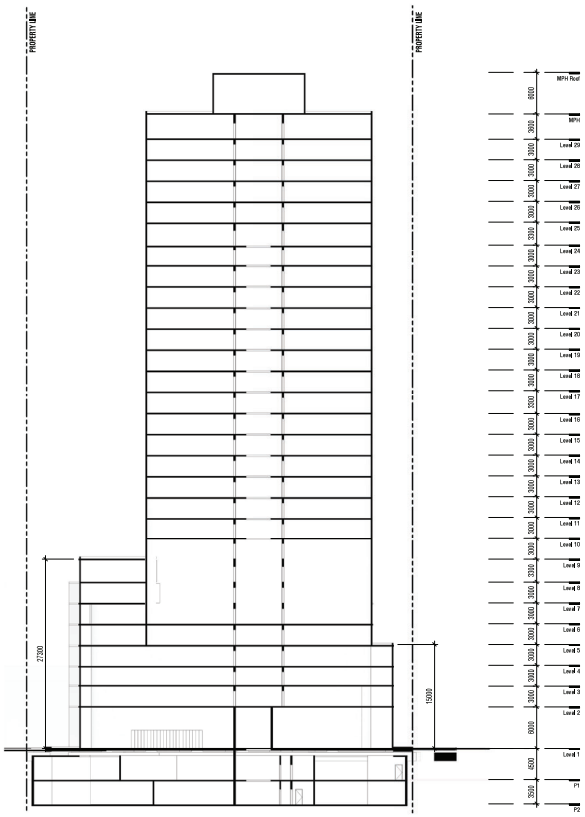
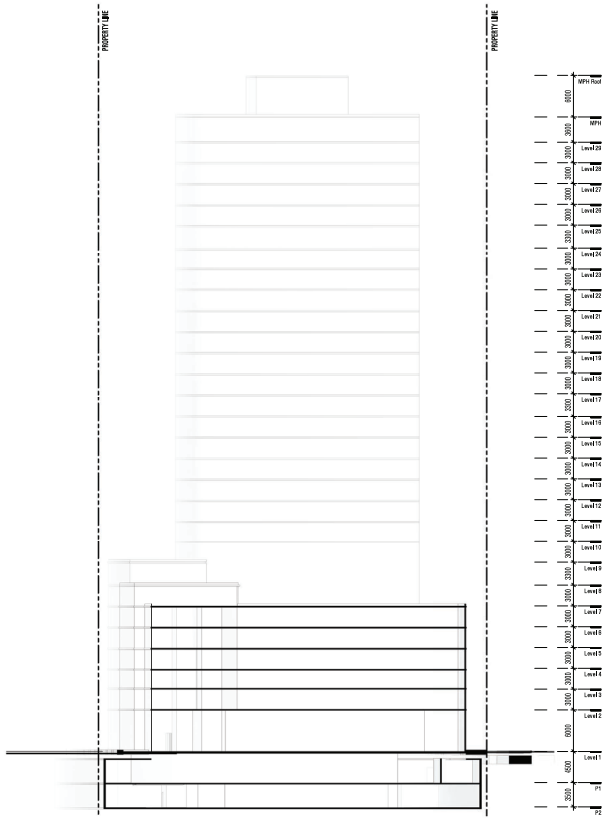
SITE SECTIONS

A401



1 / A104 A402 NORTH-SOUTH SECTION 3

1 : 250



2 / A104 A402 NORTH-SOUTH SECTION 4

1 : 250

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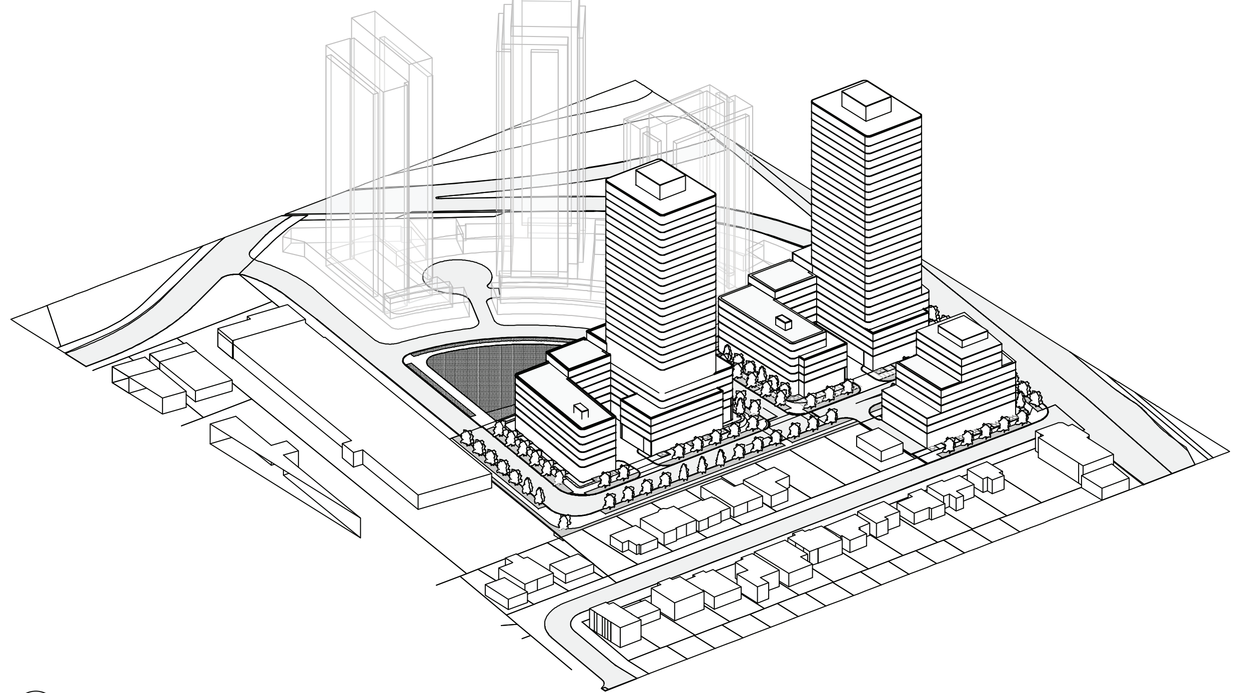
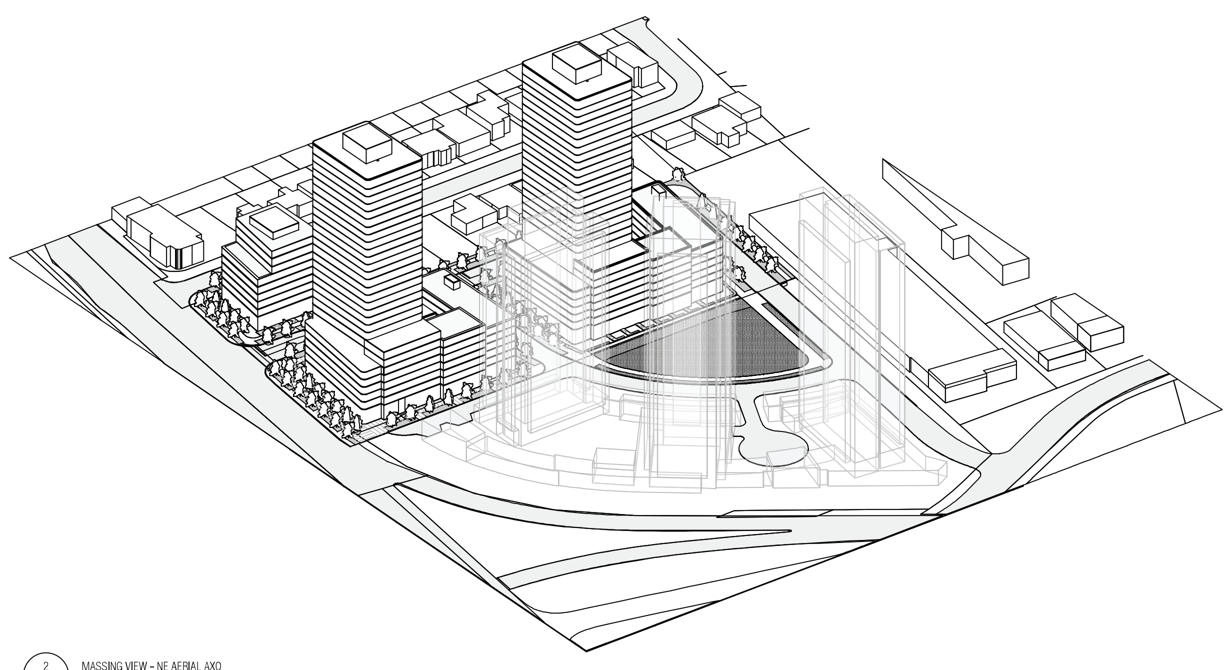
SITE SECTIONS

A402



1 A500 MASSING VIEW - SW AERIAL AXO



2 A500 MASSING VIEW - NE AERIAL AXO

GENERAL NOTES:

1. Drawings are not to be scaled. Contractor will verify all existing conditions and dimensions required to perform the Work and will report any discrepancies with the Contract Documents to the Architect before commencing work.
2. The Architectural Drawings are to be read in conjunction with all other Contract Documents including the Project Manuals and the Structural, Mechanical and Electrical Drawings. In cases of difference between the Consultants' documents with respect to the quantity, sizes or scope of work, the greater shall apply.
3. Positions of exposed or finished Mechanical or Electrical devices, fittings and fixtures are indicated on the Architectural Drawings. Locations shown on the Architectural Drawings shall govern over Mechanical and Electrical Drawings. Mechanical and Electrical items not clearly located will be located as directed by the Architect.
4. Dimensions indicated are taken between the faces of finished surfaces unless otherwise noted.
5. The architect has not been retained for supervision of construction and assumes no responsibility for means, methods and techniques of construction.
6. These documents are not to be used for construction unless specifically noted for such purpose.

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MASSING VIEW

A500

Appendix C Traffic Data and Calculations

Environmental Noise & Vibration Assessment

3400 Dufferin Street and 8 Jane Osler Boulevard, Toronto, ON

Dufferin – 401 Properties Limited

SLR Project No. 241.30588.00000

August 8, 2022

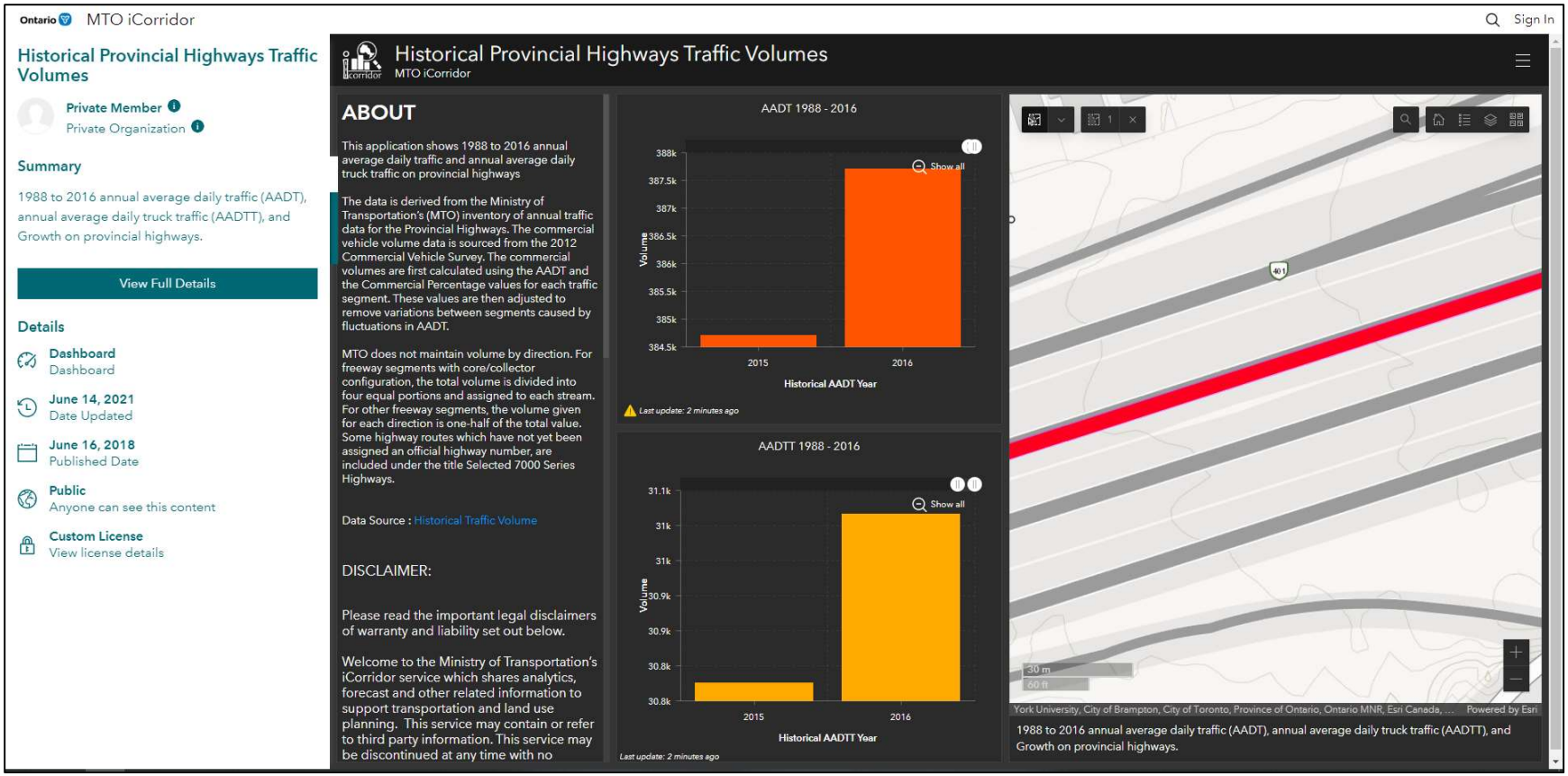
Dufferin Street at Bridgeland and Yorkdale

count_date	location_id	location	time_start	time_end	sb_cars_r	sb_cars_t	sb_cars_l	nb_cars_r	nb_cars_t	nb_cars_l	wb_cars_r	wb_cars_t	wb_cars_l	eb_cars_r	eb_cars_t	eb_cars_l	sb_truck_r	sb_truck_t	sb_truck_l	nb_truck_r	nb_truck_t	nb_truck_l	wb_truck_r	wb_truck_t	wb_truck_l	eb_truck_r	eb_truck_t	eb_truck_l	sb_bus_r	sb_bus_t	sb_bus_l	nb_bus_r	nb_bus_t	nb_bus_l	wb_bus_r	wb_bus_t	wb_bus_l	eb_bus_r	eb_bus_t	eb_bus_l
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 07:30:00-05:00	2019-05-25 07:45:00-05:00	18	39	0	8	80	3	26	28	16	3	12	14	2	7	0	2	7	0	0	3	0	0	0	4	0	2	0	0	2	0	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 07:45:00-05:00	2019-05-25 08:00:00-05:00	17	58	0	7	74	1	40	27	19	1	10	22	0	4	0	1	10	0	3	4	0	1	1	2	0	2	0	0	2	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 08:00:00-05:00	2019-05-25 08:15:00-05:00	17	55	0	4	85	2	25	29	24	1	14	31	6	4	0	0	4	0	1	3	1	1	2	6	0	3	0	0	3	1	1	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 08:15:00-05:00	2019-05-25 08:30:00-05:00	16	55	0	6	111	1	31	27	28	3	17	32	6	7	0	2	10	0	2	5	1	1	4	6	0	2	0	0	3	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 08:30:00-05:00	2019-05-25 08:45:00-05:00	23	85	0	6	142	1	55	31	31	5	7	35	3	6	0	1	6	0	6	3	1	0	2	4	0	3	0	0	2	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 08:45:00-05:00	2019-05-25 09:00:00-05:00	28	87	0	11	111	5	59	48	30	6	12	33	4	12	0	2	15	0	3	5	1	2	3	4	0	3	0	0	6	1	0	0	0	0	0	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 09:00:00-05:00	2019-05-25 09:15:00-05:00	38	102	0	9	156	1	57	42	24	7	19	32	3	11	0	1	12	0	2	3	1	0	1	3	0	4	0	0	2	0	1	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 09:15:00-05:00	2019-05-25 09:30:00-05:00	37	130	0	8	180	0	63	48	37	5	23	57	3	3	0	1	12	1	5	3	2	0	0	6	0	3	0	0	3	1	0	0	1	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 10:00:00-05:00	2019-05-25 10:15:00-05:00	55	163	0	10	202	7	60	38	39	4	22	58	1	12	0	2	9	0	0	1	0	1	1	7	0	4	0	0	3	1	0	0	0	0	2	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 10:15:00-05:00	2019-05-25 10:30:00-05:00	49	160	0	11	206	5	105	32	40	9	30	49	6	11	0	1	5	0	0	5	1	1	3	3	0	3	0	0	3	1	0	0	0	0	0	1
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 10:30:00-05:00	2019-05-25 10:45:00-05:00	45	187	0	18	235	9	75	40	35	12	23	56	3	16	0	1	11	0	1	6	2	0	0	7	0	3	0	1	1	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 10:45:00-05:00	2019-05-25 11:00:00-05:00	57	204	0	17	251	7	107	45	37	4	25	71	1	5	0	0	5	1	1	6	1	2	1	6	1	4	0	1	4	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 11:00:00-05:00	2019-05-25 11:15:00-05:00	43	206	0	13	245	2	93	40	46	8	30	65	1	7	0	2	4	0	2	2	0	0	3	4	1	3	0	0	3	1	0	0	0	0	2	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 11:15:00-05:00	2019-05-25 11:30:00-05:00	51	208	0	19	242	7	87	41	54	9	30	70	6	12	0	3	4	0	2	2	0	0	0	3	0	3	0	1	2	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 11:30:00-05:00	2019-05-25 11:45:00-05:00	53	200	0	29	263	1	113	42	42	13	32	73	5	9	0	0	11	0	0	4	0	0	0	8	0	2	0	0	5	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 11:45:00-05:00	2019-05-25 12:00:00-05:00	53	219	0	18	283	6	100	45	45	17	38	64	6	8	0	1	3	0	0	2	1	0	1	5	0	4	0	0	3	0	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 13:00:00-05:00	2019-05-25 13:15:00-05:00	34	211	0	26	273	3	125	41	54	12	35	71	4	9	0	2	13	0	4	7	2	1	3	3	0	5	0	0	5	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 13:15:00-05:00	2019-05-25 13:30:00-05:00	54	196	0	16	286	8	120	42	57	5	42	83	7	15	0	2	12	0	6	6	0	0	1	9	0	3	0	0	6	0	1	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 13:30:00-05:00	2019-05-25 13:45:00-05:00	54	218	0	14	291	7	123	49	61	12	35	91	5	8	0	0	14	1	4	6	0	1	2	5	0	6	0	0	4	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 13:45:00-05:00	2019-05-25 14:00:00-05:00	53	248	0	17	294	8	129	57	42	11	26	78	4	8	0	2	13	1	4	1	0	0	1	11	0	4	0	0	4	1	0	0	0	0	2	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 14:00:00-05:00	2019-05-25 14:15:00-05:00	62	201	0	20	298	6	137	35	41	11	39	103	7	6	0	0	11	1	2	1	3	0	1	6	0	4	0	0	5	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 14:15:00-05:00	2019-05-25 14:30:00-05:00	44	202	0	34	270	6	156	53	66	14	37	74	5	13	0	0	11	0	2	5	2	1	2	7	0	7	0	0	4	1	0	0	0	0	0	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 14:30:00-05:00	2019-05-25 14:45:00-05:00	55	219	0	22	287	7	130	55	49	8	40	90	5	5	0	1	10	1	3	2	3	1	1	10	0	3	0	0	6	0	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 14:45:00-05:00	2019-05-25 15:00:00-05:00	63	227	0	11	287	4	159	47	55	9	31	99	2	5	0	1	10	1	7	4	3	0	12	6	0	5	0	0	5	2	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 16:00:00-05:00	2019-05-25 16:15:00-05:00	48	192	0	8	286	5	165	53	58	9	32	97	5	8	0	0	12	0	5	1	2	2	2	2	0	4	0	0	4	1	0	0	0	0	0	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 16:15:00-05:00	2019-05-25 16:30:00-05:00	55	212	0	13	308	3	158	49	58	10	47	102	3	7	1	0	11	0	3	4	2	0	2	5	0	3	0	0	4	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 16:30:00-05:00	2019-05-25 16:45:00-05:00	50	239	0	13	281	8	137	57	70	10	32	90	2	17	0	1	16	0	4	1	0	1	1	11	0	5	0	0	6	0	0	0	0	0	2	1
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 16:45:00-05:00	2019-05-25 17:00:00-05:00	54	208	0	18	295	6	158	50	57	8	32	64	5	7	0	0	11	1	2	0	1	1	3	6	0	6	0	0	5	0	0	1	0	0	0	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 17:00:00-05:00	2019-05-25 17:15:00-05:00	45	244	0	8	286	7	137	49	47	6	33	94	1	6	0	0	18	1	8	4	0	0	3	4	0	4	0	0	6	0	0	0	0	0	2	1
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 17:15:00-05:00	2019-05-25 17:30:00-05:00	45	167	0	16	279	5	154	40	37	16	44	86	2	2	0	0	7	0	4	4	6	2	1	2	0	6	0	0	4	1	0	0	0	0	0	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 17:30:00-05:00	2019-05-25 17:45:00-05:00	38	173	0	12	233	4	116	31	44	21	30	83	4	5	0	1	14	0	5	3	0	1	0	6	0	4	0	0	6	1	0	0	0	0	1	0
5/25/2019	5671	DUFFERIN ST AT BRIDGELAND AVE & YORKDALE RD (PX 616)	2019-05-25 17:45:00-05:00	2019-05-25 18:00:00-05:00	35	183	0	19	269	5	113	52	44	18	26	51	6	6	0	0	10	0	4	2	0	0	0	10	0	5	0	0	4	1	0	0	0	0	0	0

Highway	Location Description From	Location Description To	Dist. (KM)	2016 AADT
401	BENNETT RD IC-435-NEWCASTLE	LIBERTY ST IC 432-REG RD 14-BOWMANVILLE	2.5	82,400
401	LIBERTY ST IC 432-REG RD 14-BOWMANVILLE	WAVERLEY RD IC-431-NEWCASTLE	1.2	85,600
401	WAVERLEY RD IC-431-NEWCASTLE	HOLT RD IC-428-NEWCASTLE	2.9	89,600
401	HOLT RD IC-428-NEWCASTLE	COURTICE RD IC-425-REG RD 34-NEWCASTLE	3.2	98,000
401	COURTICE RD IC-425-REG RD 34-NEWCASTLE	BLOOR ST/HARMONY RD IC-419-REG RD 33	5.5	98,500
401	BLOOR ST/HARMONY RD IC-419-REG RD 33	RITSON RD IC-418-REG RD 16-OSHAWA	1.4	124,200
401	RITSON RD IC-418-REG RD 16-OSHAWA	SIMCOE ST IC-417-REG RD 2-OSHAWA	0.8	128,700
401	SIMCOE ST IC-417-REG RD 2-OSHAWA	STEVENSON RD IC-415-OSHAWA	1.6	134,200
401	STEVENSON RD IC-415-OSHAWA	THICKSON RD IC-412-REG RD 26-WHITBY	2.4	129,100
401	THICKSON RD IC-412-REG RD 26-WHITBY	HWY 12 IC-410-BROCK ST-WHITBY	2.5	151,200
401	HWY 12 IC-410-BROCK ST-WHITBY	SALEM RD IC 404	6.2	166,900
401	SALEM RD IC 404	WESTNEY RD IC 401	2.2	202,800
401	WESTNEY RD IC 401	BROCK RD IC-399-REG RD 1-PICKERING	2.6	210,000
401	BROCK RD IC-399-REG RD 1-PICKERING	LIVERPOOL RD IC-397-REG RD 29-PICKERING	1.7	223,000
401	LIVERPOOL RD IC-397-REG RD 29-PICKERING	WHITES RD IC-394-REG RD 38-PICKERING	2.5	230,000
401	WHITES RD IC-394-REG RD 38-PICKERING	401-HWY 2 KINGSTON RD IC 392	3.7	226,000
401	401-HWY 2 KINGSTON RD IC 392	MEADOWVALE RD IC-389-SCARBOROUGH	1.3	230,000
401	MEADOWVALE RD IC-389-SCARBOROUGH	MORNINGSIDE AV IC-387-SCARBOROUGH	2.4	230,000
401	MORNINGSIDE AV IC-387-SCARBOROUGH	NEILSON RD IC-385	1.5	260,000
401	NEILSON RD IC-385	HWY 48 IC-383-MARKHAM RD-SCARBOROUGH	1.7	280,000
401	HWY 48 IC-383-MARKHAM RD-SCARBOROUGH	MCCOWAN RD IC-381-SCARBOROUGH	1.6	291,200
401	MCCOWAN RD IC-381-SCARBOROUGH	BRIMLEY RD IC-380	0.8	329,800
401	BRIMLEY RD IC-380	KENNEDY RD IC-379-SCARBOROUGH	1.6	330,000
401	KENNEDY RD IC-379-SCARBOROUGH	WARDEN AV IC-378-SCARBOROUGH	1.6	355,000
401	WARDEN AV IC-378-SCARBOROUGH	VICTORIA PARK AV IC-376-SCARBOROUGH	1.2	334,000
401	VICTORIA PARK AV IC-376-SCARBOROUGH	HWY 404 IC-375-DON VALLEY PKWY-NORTH YORK	1.4	333,000
401	HWY 404 IC-375-DON VALLEY PKWY-NORTH YORK	LESLIE ST IC-373-NORTH YORK	2.0	348,000
401	LESLIE ST IC-373-NORTH YORK	BAYVIEW AV IC-371-NORTH YORK	1.9	332,000
401	BAYVIEW AV IC-371-NORTH YORK	HWY 11 IC-369-YONGE ST-NORTH YORK	2.0	341,500
401	HWY 11 IC-369-YONGE ST-NORTH YORK	AVENUE RD IC-367-NORTH YORK	1.7	332,000
401	AVENUE RD IC-367-NORTH YORK	BATHURST ST IC-366-NORTH YORK	1.0	343,000
401	BATHURST ST IC-366-NORTH YORK	ALLEN RD IC-365-NORTH YORK	1.4	350,000
401	ALLEN RD IC-365-NORTH YORK	DUFFERIN ST IC-364-NORTH YORK	0.7	368,000
401	DUFFERIN ST IC-364-NORTH YORK	KEELE ST IC-362-NORTH YORK	1.9	387,700
401	KEELE ST IC-362-NORTH YORK	HWY 400 IC-359-NORTH YORK	3.0	397,100
401	HWY 400 IC-359-NORTH YORK	WESTON RD IC-357-NORTH YORK	1.4	416,500
401	WESTON RD IC-357-NORTH YORK	ISLINGTON AV IC-356-ETOBICOKE	1.3	411,600
401	ISLINGTON AV IC-356-ETOBICOKE	DIXON RD IC-354-ETOBICOKE	2.4	390,700
401	DIXON RD IC-354-ETOBICOKE	HWY 427 IC 352	2.4	275,000
401	HWY 427 IC 352	RENFORTH DR IC 349	0.7	385,000
401	RENFORTH DR IC 349	DIXIE RD IC 346	4.3	352,000
401	DIXIE RD IC 346	HWYS 410 & 403 IC-344 END OF COMPLEX FRWY	1.4	340,000
401	HWYS 410 & 403 IC-344 END OF COMPLEX FRWY	HWY 10 IC-342-HURONTARIO ST-MISSISSAUGA	2.7	210,500
401	HWY 10 IC-342-HURONTARIO ST-MISSISSAUGA	MAVIS ROAD IC	2.1	216,500

Highway	Location Description	Dist. (KM)	Year	Pattern Type	AADT	SADT	SAWDT	WADT	AR
401	ALLEN RD IC-365-NORTH YORK	0.7	1988	UC	268,400	281,800	303,200	252,200	1.9
			1989	UC	284,000	298,100	320,900	269,700	2.1
			1990	UC	255,000	272,800	295,700	242,200	1.9
			1991	UC	252,500	267,500	290,300	244,800	2.6
			1992	UC	253,900	269,100	286,900	233,500	2.7
			1993	UC	263,800	279,600	289,100	242,700	2.9
			1994	UC	273,600	290,000	306,400	251,700	3.0
			1995	UC	283,500	300,500	314,700	260,800	3.2
			1996	UC	289,200	307,700	338,400	274,700	2.4
			1997	UC	291,300	305,900	340,800	273,800	2.5
			1998	UC	293,500	312,300	343,400	278,800	3.2
			1999	UC	332,400	353,700	388,900	315,800	3.0
			2000	UC	335,500	357,000	395,200	315,400	3.1
			2001	UC	338,700	362,400	399,700	318,400	2.8
			2002	UC	341,800	364,200	402,100	320,000	2.7
			2003	UC	345,000	365,700	407,100	324,300	2.6
			2004	UC	361,400	381,900	423,300	341,400	2.2
			2005	UC	370,300	391,800	433,100	347,300	2.1
			2006	UC	369,300	390,500	431,600	347,600	2.7
			2007	UC	368,400	390,700	426,400	345,600	2.5
			2008	UC	367,400	388,100	364,300	343,700	1.6
			2009	UC	366,400	386,900	426,900	344,700	2.2
			2010	UC	365,500	386,400	425,300	343,600	1.8
			2011	UC	373,000	373,000	384,200	354,400	N/A
			2012	UC	370,000	370,000	395,900	351,500	N/A
			2013	UC	366,000	366,000	369,700	347,700	N/A
			2014	UC	366,000	366,000	351,400	347,700	N/A
			2015	UC	367,000	367,000	352,300	348,700	N/A
			2016	UC	368,000	368,000	353,300	349,600	N/A
401	DUFFERIN ST IC-364-NORTH YORK	1.9	1988	C	304,000	319,100	343,500	285,700	0.9
			1989	C	321,700	337,700	363,400	305,500	1.0
			1990	C	289,600	309,800	335,800	275,000	1.0
			1991	C	288,400	305,700	331,600	279,700	1.2

Highway	Location Description	Dist. (KM)	Year	Pattern Type	AADT	SADT	SAWDT	WADT	AR
			1992	C	289,800	307,100	327,400	266,600	1.1
			1993	C	323,900	343,300	372,400	310,900	0.7
			1994	C	331,000	350,900	370,700	304,500	0.8
			1995	C	323,100	342,500	358,600	297,300	0.9
			1996	C	323,100	343,800	378,000	306,900	0.8
			1997	C	325,900	342,200	381,300	306,300	0.9
			1998	C	326,900	347,800	382,500	310,600	0.9
			1999	C	337,400	359,000	394,800	320,500	1.0
			2000	C	340,500	362,300	401,100	320,100	1.2
			2001	C	343,700	367,800	405,600	323,100	0.9
			2002	C	346,800	369,500	408,000	324,700	0.8
			2003	C	350,000	371,000	413,000	329,000	0.9
			2004	C	351,900	371,900	412,200	332,400	0.8
			2005	C	354,500	375,100	414,600	332,500	0.9
			2006	C	357,500	378,100	417,800	336,400	1.0
			2007	C	360,600	382,500	417,400	338,300	0.9
			2008	C	363,600	384,100	360,500	340,200	0.6
			2009	C	366,600	404,600	408,500	329,900	0.7
			2010	C	369,600	407,300	411,000	332,700	0.7
			2011	C	372,600	409,900	413,600	335,400	N/A
			2012	C	375,700	413,200	405,700	338,100	N/A
			2013	C	378,700	416,600	412,800	340,800	N/A
			2014	C	381,700	419,900	408,400	343,500	N/A
			2015	C	384,700	423,200	411,600	346,200	N/A
			2016	C	387,700	426,500	414,900	349,000	N/A
401	KEELE ST IC-362-NORTH YORK	3.0	1988	C	301,000	316,000	340,100	282,900	1.1
			1989	C	318,500	334,300	359,800	302,500	1.2
			1990	C	334,400	357,800	387,900	317,600	1.0
			1991	C	332,700	352,600	382,600	322,700	1.4
			1992	C	334,100	354,100	377,500	307,300	1.2
			1993	C	337,400	357,600	381,300	314,000	1.1
			1994	C	340,800	361,200	381,700	313,500	1.1
			1995	C	344,100	364,700	382,000	316,600	1.1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Historical Provincial Highways Traffic Volumes
Historical Provincial Highways Traffic Volumes
MTO iCorridor
Private Member
Private Organization
Summary
1988 to 2016 annual average daily traffic (AADT), annual average daily truck traffic (AADTT), and Growth on provincial highways.
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Details
Dashboard
Dashboard
June 14, 2021
Date Updated
June 16, 2018
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ABOUT
This application shows 1988 to 2016 annual average daily traffic and annual average daily truck traffic on provincial highways
The data is derived from the Ministry of Transportation's (MTO) inventory of annual traffic data for the Provincial Highways. The commercial vehicle volume data is sourced from the 2012 Commercial Vehicle Survey. The commercial volumes are first calculated using the AADT and the Commercial Percentage values for each traffic segment. These values are then adjusted to remove variations between segments caused by fluctuations in AADT.
MTO does not maintain volume by direction. For freeway segments with core/collector configuration, the total volume is divided into four equal portions and assigned to each stream. For other freeway segments, the volume given for each direction is one-half of the total value. Some highway routes which have not yet been assigned an official highway number, are included under the title Selected 7000 Series Highways.
Data Source : Historical Traffic Volume
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AADT 1988 - 2016
Show all
388k
387.5k
387k
386.5k
386k
385.5k
385k
384.5k
Volume
2015
2016
Historical AADT Year
Last update: 2 minutes ago
AADTT 1988 - 2016
Show all
31.1k
31k
31k
30.9k
30.9k
30.8k
30.8k
Volume
2015
2016
Historical AADTT Year
Last update: 2 minutes ago
401
30 m
60 ft
York University, City of Brampton, City of Toronto, Province of Ontario, Ontario MNR, Esri Canada, ...
Powered by Esri
1988 to 2016 annual average daily traffic (AADT), annual average daily truck traffic (AADTT), and Growth on provincial highways.

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)
Hwy401_WB1_avg	Highway 401 - Westbound 1	Daytime Impacts	100	16	99532	92.0%	2.0%	6.0%	91573	1990	5969	0	0.00	**97.7**	**1.6**
		Nighttime Impacts	100	8	17564	92.0%	2.0%	6.0%	16160	351	1053	0	0.00	**93.2**	**1.6**
Hwy401_WB2_avg	Highway 401 - Westbound 2	Daytime Impacts	100	16	99532	92.0%	2.0%	6.0%	91573	1990	5969	0	0.00	**97.7**	**1.6**
		Nighttime Impacts	100	8	17564	92.0%	2.0%	6.0%	16160	351	1053	0	0.00	**93.2**	**1.6**
Hwy401_EB1_avg	Highway 401 - Eastbound 1	Daytime Impacts	100	16	99532	92.0%	2.0%	6.0%	91573	1990	5969	0	0.00	**97.7**	**1.6**
		Nighttime Impacts	100	8	17564	92.0%	2.0%	6.0%	16160	351	1053	0	0.00	**93.2**	**1.6**
Hwy401_EB2_avg	Highway 401 - Eastbound 1	Daytime Impacts	100	16	99532	92.0%	2.0%	6.0%	91573	1990	5969	0	0.00	**97.7**	**1.6**
		Nighttime Impacts	100	8	17564	92.0%	2.0%	6.0%	16160	351	1053	0	0.00	**93.2**	**1.6**
Dufferin_NB_avg	Dufferin Street - Northbound	Daytime Impacts	50	16	17907	94.1%	3.7%	2.2%	16851	663	394	0	0.00	**82.2**	**1.2**
		Nighttime Impacts	50	8	1990	94.1%	3.7%	2.2%	1872	74	44	0	0.00	**75.7**	**1.2**
Dufferin_SB_avg	Dufferin Street - Southbound	Daytime Impacts	50	16	17907	94.1%	3.7%	2.2%	16851	663	394	0	0.00	**82.2**	**1.2**
		Nighttime Impacts	50	8	1990	94.1%	3.7%	2.2%	1872	74	44	0	0.00	**75.7**	**1.2**
Bridgeland_avg	Bridgeland Avenue	Daytime Impacts	40	16	13328	91.8%	4.8%	3.4%	12235	640	453	0	0.00	**80.3**	**1.4**
		Nighttime Impacts	40	8	1481	91.8%	4.8%	3.4%	1359	71	50	0	0.00	**73.7**	**1.4**

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)
Hwy401_WB1_avg	Highway 401 - Westbound 1	Daytime Hour	100	1	4943	92.0%	2.0%	6.0%	4548	99	297	0	0.00	**96.7**	**1.6**
		Evening Hour	100	1	3683	92.0%	2.0%	6.0%	3388	74	221	0	0.00	**95.5**	**1.6**
		Night-time Hour	100	1	678	92.0%	2.0%	6.0%	624	14	41	0	0.00	**88.1**	**1.6**
Hwy401_WB2_avg	Highway 401 - Westbound 2	Daytime Hour	100	1	4943	92.0%	2.0%	6.0%	4548	99	297	0	0.00	**96.7**	**1.6**
		Evening Hour	100	1	3683	92.0%	2.0%	6.0%	3388	74	221	0	0.00	**95.5**	**1.6**
		Night-time Hour	100	1	678	92.0%	2.0%	6.0%	624	14	41	0	0.00	**88.1**	**1.6**
Hwy401_EB1_avg	Highway 401 - Eastbound 1	Daytime Hour	100	1	4943	92.0%	2.0%	6.0%	4548	99	297	0	0.00	**96.7**	**1.6**
		Evening Hour	100	1	3683	92.0%	2.0%	6.0%	3388	74	221	0	0.00	**95.5**	**1.6**
		Night-time Hour	100	1	678	92.0%	2.0%	6.0%	624	14	41	0	0.00	**88.1**	**1.6**
Hwy401_EB2_avg	Highway 401 - Eastbound 1	Daytime Hour	100	1	4943	92.0%	2.0%	6.0%	4548	99	297	0	0.00	**96.7**	**1.6**
		Evening Hour	100	1	3683	92.0%	2.0%	6.0%	3388	74	221	0	0.00	**95.5**	**1.6**
		Night-time Hour	100	1	678	92.0%	2.0%	6.0%	624	14	41	0	0.00	**88.1**	**1.6**
Dufferin_NB_avg	Dufferin Street - Northbound	Daytime Hour	50	1	856	94.1%	3.7%	2.2%	805	32	19	0	0.00	**81.1**	**1.2**
		Evening Hour	50	1	617	94.1%	3.7%	2.2%	580	23	14	0	0.00	**79.6**	**1.2**
		Night-time Hour	50	1	80	94.1%	3.7%	2.2%	75	3	2	0	0.00	**70.7**	**1.2**
Dufferin_SB_avg	Dufferin Street - Southbound	Daytime Hour	50	1	856	94.1%	3.7%	2.2%	805	32	19	0	0.00	**81.1**	**1.2**
		Evening Hour	50	1	617	94.1%	3.7%	2.2%	580	23	14	0	0.00	**79.6**	**1.2**
		Night-time Hour	50	1	80	94.1%	3.7%	2.2%	75	3	2	0	0.00	**70.7**	**1.2**
Bridgeland_avg	Bridgeland Avenue	Daytime Hour	40	1	637	91.8%	4.8%	3.4%	585	31	22	0	0.00	**79.1**	**1.4**
		Evening Hour	40	1	459	91.8%	4.8%	3.4%	421	22	16	0	0.00	**77.7**	**1.4**
		Night-time Hour	40	1	59	91.8%	4.8%	3.4%	54	3	2	0	0.00	**68.8**	**1.4**

Appendix D STAMSON Output File

Environmental Noise & Vibration Assessment

3400 Dufferin Street and 8 Jane Osler Boulevard, Toronto, ON

Dufferin – 401 Properties Limited

SLR Project No. 241.30588.00000

August 8, 2022

STAMSON 5.04 NORMAL REPORT Date: 28-07-2022 15:07:14
MINISTRY OF ENVIRONMENT CONSERVATION AND PARKS / NOISE ASSESSMENT

Filename: st5val.te Time Period: 16 hours
Description: Sample Calculation - STAMSON Validation

Road data, segment # 1: Hwy401-WB1

Car traffic volume : 91573 veh/TimePeriod
Medium truck volume : 1990 veh/TimePeriod
Heavy truck volume : 5969 veh/TimePeriod
Posted speed limit : 100 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Hwy401-WB1

Angle1 Angle2 : 7.00 deg 70.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 294.10 m
Receiver height : 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: Hwy401-WB2

Car traffic volume : 91573 veh/TimePeriod
Medium truck volume : 1990 veh/TimePeriod
Heavy truck volume : 5969 veh/TimePeriod
Posted speed limit : 100 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: Hwy401-WB2

Angle1 Angle2 : 7.00 deg 70.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 270.70 m
Receiver height : 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

```
Road data, segment # 3: Hwy401-EB1
----------------------------------
Car traffic volume  : 91573 veh/TimePeriod
Medium truck volume :  1990 veh/TimePeriod
Heavy truck volume  :  5969 veh/TimePeriod
Posted speed limit  :   100 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

Data for Segment # 3: Hwy401-EB1
--------------------------------
Angle1   Angle2           :   7.00 deg   70.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 249.70 m
Receiver height           :   7.50 m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 4: Hwy401-EB2
----------------------------------
Car traffic volume  : 91573 veh/TimePeriod
Medium truck volume :  1990 veh/TimePeriod
Heavy truck volume  :  5969 veh/TimePeriod
Posted speed limit  :   100 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

Data for Segment # 4: Hwy401-EB2
--------------------------------
Angle1   Angle2           :   7.00 deg   70.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 228.30 m
Receiver height           :   7.50 m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 5: Dufferin NB
-----------------------------------
Car traffic volume  : 16851 veh/TimePeriod
Medium truck volume :   663 veh/TimePeriod
Heavy truck volume  :   394 veh/TimePeriod
Posted speed limit  :    50 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)
```

```
Data for Segment # 5: Dufferin NB
--------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  31.00 m
Receiver height           :   7.50 m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 6: Dufferin SB
----------------------------------
Car traffic volume  : 16851 veh/TimePeriod
Medium truck volume :   663 veh/TimePeriod
Heavy truck volume  :   394 veh/TimePeriod
Posted speed limit  :    50 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

Data for Segment # 6: Dufferin SB
--------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  18.00 m
Receiver height           :   7.50 m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Road data, segment # 7: Bridgeland
----------------------------------
Car traffic volume  : 12235 veh/TimePeriod
Medium truck volume :   640 veh/TimePeriod
Heavy truck volume  :   453 veh/TimePeriod
Posted speed limit  :    40 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

Data for Segment # 7: Bridgeland
--------------------------------
Angle1   Angle2           :   5.00 deg   70.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 174.20 m
Receiver height           :   7.50 m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Results segment # 1: Hwy401-WB1

Source height = 1.56 m

ROAD (0.00 + 65.18 + 0.00) = 65.18 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
7	70	0.00	82.67	0.00	-12.92	-4.56	0.00	0.00	0.00	65.18

Segment Leq : 65.18 dBA

Results segment # 2: Hwy401-WB2

Source height = 1.56 m

ROAD (0.00 + 65.54 + 0.00) = 65.54 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
7	70	0.00	82.67	0.00	-12.56	-4.56	0.00	0.00	0.00	65.54

Segment Leq : 65.54 dBA

Results segment # 3: Hwy401-EB1

Source height = 1.56 m

ROAD (0.00 + 65.90 + 0.00) = 65.90 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
7	70	0.00	82.67	0.00	-12.21	-4.56	0.00	0.00	0.00	65.90

Segment Leq : 65.90 dBA

Results segment # 4: Hwy401-EB2

Source height = 1.56 m

ROAD (0.00 + 66.28 + 0.00) = 66.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
7	70	0.00	82.67	0.00	-11.82	-4.56	0.00	0.00	0.00	66.28

Segment Leq : 66.28 dBA

Results segment # 5: Dufferin NB

Source height = 1.22 m

ROAD (0.00 + 64.00 + 0.00) = 64.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	67.16	0.00	-3.15	0.00	0.00	0.00	0.00	64.00

Segment Leq : 64.00 dBA

Results segment # 6: Dufferin SB

Source height = 1.22 m

ROAD (0.00 + 66.36 + 0.00) = 66.36 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	67.16	0.00	-0.79	0.00	0.00	0.00	0.00	66.36

Segment Leq : 66.36 dBA

Results segment # 7: Bridgeland

Source height = 1.36 m

ROAD (0.00 + 50.11 + 0.00) = 50.11 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
5	70	0.00	65.18	0.00	-10.65	-4.42	0.00	0.00	0.00	50.11

Segment Leq : 50.11 dBA

Total Leq All Segments: 73.42 dBA

TOTAL Leq FROM ALL SOURCES: 73.42

DUFFERIN – 401 PROPERTIES LIMITED	True North	Scale: 1:1000	METRES
3400 DUFFERIN STREET AND 8 JANE OSLER BOULEVARD, TORONTO		Date: Aug. 8, 2022 Rev 1.0	Figure No. **D1**
COMPARISON OF CADNA/A AND STAMSON – ROAD NOISE		Project No. 241.30588.00000	

SLR global environmental solutions

Appendix E Warning Clause, Ventilation and Barrier Summary

Environmental Noise & Vibration Assessment

3400 Dufferin Street and 8 Jane Osler Boulevard, Toronto, ON

Dufferin – 401 Properties Limited

SLR Project No. 241.30588.00000

August 8, 2022

Ventilation, Warning Clause and Barrier Summary

The following Warning Clauses are recommended for inclusion 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 summary of the Warning Clause and Ventilation Requirements is included in Table E1 on the following page.

MECP Type A: "Purchasers/tenants are advised that sound levels due to road traffic may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

MECP Type B: "Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

MECP Type D: "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."

MECP Type E: "Purchasers/tenants are advised that due to the proximity of the adjacent commercial facilities, noise from the facilities may at times be audible."

Table E1: Summary of Ventilation and Warning Clause and Barrier Requirements

Development Building	Applicable Façade(s)	Barrier Required?[1]	Air Conditioning Requirement	Warning Clause
Building A – Podium	North, West	Yes	AC Required	Type B, Type D, Type E
Building A – Tower	North, East, West	Yes	AC Required	Type B, Type D, Type E
Building B – Podium	North, East, West	Yes	AC Required	Type B, Type D, Type E
Building B – Tower	North, East, West	Yes	AC Required	Type B, Type D, Type E
Building C – Podium	North, East	No	AC Required	Type A, Type D, Type E
Building C – Tower	North, East	No	AC Required	Type A, Type D, Type E

Notes: [1] A combination of perimeter and localized barriers will be required to achieve applicable limits.

Appendix F Stationary Source Modelling Data

Environmental Noise & Vibration Assessment

3400 Dufferin Street and 8 Jane Osler Boulevard, Toronto, ON

Dufferin – 401 Properties Limited

SLR Project No. 241.30588.00000

August 8, 2022

STATIONARY SOURCE MODELLING DATA

Source Description	Maximum Sound Power Level (1/1 Octave Bands)									Modelled Sound Power Level (dBA)	Source Notes
	31.5	63	125	250	500	1000	2000	4000	8000		
Yorkdale Shopping Centre - 3401 Dufferin Street											
Rooftop HVAC - 1 ton - x2 units	73.3	76.3	77.3	77.3	76.3	74.3	70.3	66.3	60.3	78.8	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop HVAC - 5 ton - x207 units	77.0	80.0	81.0	81.0	80.0	78.0	74.0	70.0	64.0	82.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop HVAC - 10 ton - x209 units	80.0	83.0	84.0	84.0	83.0	81.0	77.0	73.0	67.0	85.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop HVAC - 15 ton - x17 units	87.0	90.0	91.0	91.0	90.0	88.0	84.0	80.0	74.0	92.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop HVAC - 20 ton - x27 units	89.0	92.0	93.0	93.0	92.0	90.0	86.0	82.0	76.0	94.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop HVAC - 30 ton - x64 units			84.0	85.0	90.0	90.0	85.0	80.0	72.0	94.8	Based on on-hand manufacturers data for 30-ton unit - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop Air Cooled Chiller - 2-fan - x4 units		93.0	99.0	93.0	89.0	85.0	80.0	74.0	65.0	91.3	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 30 minutes per hour during nighttime hours
Rooftop Air Cooled Chiller - 6 fan - x1 unit		98.0	104.0	98.0	94.0	90.0	85.0	79.0	70.0	96.3	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 30 minutes per hour during nighttime hours
Rooftop Cooling Tower - x1 unit	100.0	103.0	103.0	100.0	97.0	93.0	90.0	87.0	79.0	99.2	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 30 minutes per hour during nighttime hours
Rooftop Exhaust Fan - x34 units	83.0	93.0	88.0	82.0	77.0	75.0	69.0	66.0	85.0	94.9	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening/nighttime hours
Tyco Security Products - 95 Bridgeland Avenue											
Exhaust Fans (Rooftop/Building-Side) - x6 units			80.0	75.8	79.4	71.0	67.0	64.4	59.3	78.6	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening/nighttime hours
Rooftop HVAC - 1 ton - x1 units	73.3	76.3	77.3	77.3	76.3	74.3	70.3	66.3	60.3	78.8	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop HVAC - 5-ton - x3 units	77.0	80.0	81.0	81.0	80.0	78.0	74.0	70.0	64.0	82.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop HVAC - 10-ton - x19 units	80.0	83.0	84.0	84.0	83.0	81.0	77.0	73.0	67.0	85.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop HVAC - 15-ton - x2 units	87.0	90.0	91.0	91.0	90.0	88.0	84.0	80.0	74.0	92.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Access Storage - Yorkdale Bridgeland - 55 Bridgeland Avenue											
Rooftop HVAC - 10-ton - x9 units	80.0	83.0	84.0	84.0	83.0	81.0	77.0	73.0	67.0	85.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Commercial/Retail Building - 3350 Dufferin Street											
Rooftop HVAC - 10 ton - x1 unit	80.0	83.0	84.0	84.0	83.0	81.0	77.0	73.0	67.0	85.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Commercial/Retail Building - 3332-3338 Dufferin Street											
Rooftop HVAC - 1 ton - x1 unit	73.3	76.3	77.3	77.3	76.3	74.3	70.3	66.3	60.3	78.8	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop HVAC - 5-ton - x2 units	77.0	80.0	81.0	81.0	80.0	78.0	74.0	70.0	64.0	82.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours
Rooftop HVAC - 10-ton - x1 unit	80.0	83.0	84.0	84.0	83.0	81.0	77.0	73.0	67.0	85.5	Based on historical SLR data - Operates 60 minutes per hour during daytime/evening hours - Operates 10 minutes per hour during nighttime hours