# 15-23 Toryork Drive



### **ENVIRONMENTAL NOISE ASSESSMENT**

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### 15-23 Toryork Drive Development Toronto, ON

SLR Project No.: 241.30246.0001, Version 1.2

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### **1.0 INTRODUCTION**

SLR Consulting (Canada) Ltd. (SLR), was retained by Berkshire Axis Development Corp to conduct an environmental noise study in support of a Zoning Bylaw Amendment (ZBA) Application for the 15-23 Toryork Drive development site in Toronto, Ontario.

### 1.1 Focus of Report

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

- Transportation noise impacts from the nearby roadways; and
- Railway noise impacts from nearby rail line; and
- Stationary noise impacts from nearby commercial and industrial properties.

#### 1.2 Nature of Subject Lands

The proposed development is located at 15-23 Toryork Drive, near the northwest corner of Weston Road and Finch Avenue West. The site is currently occupied by two low-rise commercial buildings.

Immediately surrounding the site are low-rise commercial developments in all directions. Beyond the immediate surroundings, there are few mid to high-rise developments to the south of the Project site. The current context plan is shown on **Figure 1**.

The proposed development includes three blocks. The development drawings are provided in **Appendix A.** 

Block 1 is 38-storeys tall and located near the northwest corner of the Project site along Toryork Drive. The main entrance for Block 1 is located along the east facade. There are retail entrances along the north facade and other secondary entrances on the east and west facade.

Block 2 is located on the east side of the Project site and includes two towers: the north tower is 36-storeys tall and the south tower is 27-storeys tall. The main entrance for the north tower is located on the south facade and the south tower entrance is located on the north facade.

Block 3 is 29-storeys tall and located at the southwest edge of the Project site. The main entrance is located near the northwest corner of the building.

### 1.3 Nature of Surroundings

The area surrounding the Project site is low-rise commercial land uses. The following provides more detail related to the surrounding land uses:

- North: employment uses and the Canadian Pacific Railway (CPR) MacTier Subdivision (Utility Corridor)
- East: commercial land uses that include a gas station, carwash, and commercial/retail operations, and the CPR MacTier Subdivision;



- South: commercial land uses that include offices, retail, gas station, car washes and restaurants. There are also multi-storey high-rise residential land uses south of the Project site.
- West: employment land uses and institutional land uses including Celestial Church of Christ Emmanuel Parish and North York Sikh Temple.

### PART 1: IMPACTS OF THE ENVIRONMENT ON THE DEVELOPMENT

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

- Transportation noise impacts from the surrounding roadways;
- Transportation noise and vibration impacts from the Finch West LRT; and
- "Stationary" noise impacts from the surrounding commercial and institutional landsTransportation noise impacts.

### 2.0 TRANSPORTATION NOISE SOURCES

Transportation sources of interest with the potential to produce noise at the Subject Lands are:

- Roadway noise from Toryork Drive, Weston Road, and Finch Avenue West;
- Railway noise from the CPR MacTier subdivision railway corridor; and
- Finch West LRT (currently under construction).

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

#### 2.1 Surface Transportation Noise Criteria

#### 2.1.1 MECP Publication NPC-300

#### 2.1.1.1 Noise Sensitive Developments

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

#### 2.1.1.2 Location Specific Criteria

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

**Table 2** summarizes the noise mitigation requirements for outdoor amenity areas ("Outdoor LivingAreas" or "OLAs"). This would include the ground level patios/backyards and raised terraces.

#### 2.1.1.3 Ventilation and Warning Clauses

**Table 3** summarizes requirements for ventilation where windows potentially would have to remain closed as a means of noise control. Despite implementation of ventilation measures where required, if sound exposure levels exceed the guideline limits in **Table 1**, warning clauses advising future occupants of the potential excesses are required. Warning clauses are discussed further in **Section 2.4.2**.

Type of Space	Time Period	Equivalent Sou	Assessment	
		Road	Rail <sup>[1]</sup>	Location
Outdoor Living Area (OLA)	Daytime (0700-2300h)	55	55	Outdoors <sup>[2]</sup>
Living / Dining Doom	Daytime (0700-2300h)	45	40	Indoors <sup>[3]</sup>
Living / Dining Room	Night-time (2300-0700h)	45	40	Indoors <sup>[3]</sup>
Cleaning Quarters	Daytime (0700-2300h)	45	40	Indoors <sup>[3]</sup>
Sieeping Quarters	Night-time (2300-0700h)	40	35	Indoors <sup>[3]</sup>

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

**Notes:** [1] Whistle noise is excluded for OLA noise assessments and included for Living / Dining Room and Sleeping Quarter assessments. [2] Road and Rail noise impacts are to be combined for assessment of OLA impacts.

[3] An assessment of indoor noise levels is required only if the criteria in Table 4 are exceeded.

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

Time Period	Equivalent Sound Level in Outdoor Living Area (dBA)	Ventilation Requirements
	<u>&lt;</u> 55	• None
Daytime	55 to 60 incl.	Noise barrier <b>OR</b> Warning Clause A
(0700-2300h)	> 60	<ul> <li>Noise barrier to reduce noise to 55 dBA OR</li> <li>Noise barrier to reduce noise to 60 dBA and Warning Clause B</li> </ul>

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

Assessment	Time Period	Energy Equ Exposure Le	ivalent Sound evel - L <sub>eq</sub> (dBA)	Ventilation and		
Location		Road	Rail <sup>[1]</sup>			
Outdoor Living Area	Daytime (0700-2300h)	56 to 60 incl.		56 to 60 incl.		Type A Warning Clause
		<u> </u>	≤ 55	None		
	Daytime (0700-2300h)	56 to 65 incl.		Forced Air Heating /provision to add air conditioning + Type C Warning Clause		
Plane of Window		> 65		Central Air Conditioning + Type D Warning Clause		
WINGOW	Night time (2200.0700h)	51 to 60 incl.		Forced Air Heating/ provision to add air conditioning + Type C Warning Clause		
	Night-time (2300-0700n)	> 60		Central Air Conditioning + Type D Warning Clause		

Notes: [1] Rail whistle noise is excluded.

[2] Road and Rail noise is combined for determining Ventilation and Warning Clause requirements.

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#### 2.1.1.4**Building Shell Requirements**

Table 4 provides sound level thresholds which, if exceeded require the building shell and components (i.e., wall, windows) to be designed to ensure that the **Table 1** indoor sound criteria are met.

Assessment	Time Period	Energy Equivalen Level - L	t Sound Exposure <sub>eq</sub> (dBA))	Component Requirements
Location		Road	Rail <sup>[1]</sup>	
Plane of	Daytime (0700-2300h)	> 65	> 60	Designed/ Selected to Meet
Window	Night-time (2300-0700h)	> 60	> 55	Indoor Requirements <sup>[2]</sup>
Notes:	[1] Including whistle noise.			

#### Table 4: MECP Publication NPC-300 Building Component Requirements

[1] Including whistle noise.

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

#### **Traffic Data and Future Projections** 2.2

#### 2.2.1 **Roadway Traffic Data**

The 2019 turning movement counts and vehicle distributions for Toryork Drive, Weston Road, and Finch Avenue West were provided by NexTrans Consulting Engineers, the transportation consultants for the development. A growth rate of 1% was also provided by NexTrans for the surrounding road network. 2035 Traffic volumes were predicted based on the above.

Copies of all traffic data used, and calculations can be found in **Appendix B**. The following summarizes the road traffic volumes used in the analysis.

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

	2035 Traffic	% Da Volun	ny/ Night ne Split <sup>[1]</sup>	Commerci Breakdo	Vehicle	
Roadway Link	Levels (AADT)	Daytime	Night-time	% Medium Trucks	% Heavy Trucks	(km/h)
Weston Rd	18,136	90	10	7.0	1.1	50
Finch Ave West	23,281	90	10	4.9	0.6	50
Toryork Dr	5,410	90	10	8.4	1.0	50

Notes: [1] The Day/Night split was determined from historic data at SLR for urban areas.

#### 2.2.2 Rail Traffic Data

Rail traffic data for the CPR MacTier Subdivision were obtained directly from CPR. An annual growth rate of 2.5% was applied to the rail data to predict rail traffic volumes in 2035.



					-	
Rail Line	Typica No. of		No. of	No. of Tra	Maximum	
	Train Type	Engines /Train	Cars/Train	Daytime (7am to 11pm)	Night-time (11pm to 7am)	Speed (km/h)
CPR MacTier	Diesel Freight	4	55	16	11	72

Table 6: Summary of Rail Traffic Data Used in the Transportation Analysis

#### 2.2.3 LRT Traffic Data

A Noise and Vibration Report was written by Delcan in 2010 for the future Finch Ave West Light Rail Transit. Traffic volumes were obtained from this study and summarized in the table below:

|--|

Train Tuna	Future Year 2035	No. of Trains	Typical No. of Cars	Maximum	
паш туре	Daytime	Night-time	(Consist)	Speed (km/h)	
LRT Passenger [1]	440	160	2	60	

Notes: [1] Based on data obtained from the 2010 Noise and Vibration Impact Assessment.

### 2.3 Projected Sound Levels

Road traffic sound levels at the Site 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.

Future rail operation sound levels at the proposed development were predicted using the FTA/FRA modelling algorithms included in the Cadna/A. FTA and FRA reference sound levels were used for diesel locomotives and rail cars for Passenger and Freight Trains. The LRT trains were modelled as two Conventional Commuter Rail Cars per train.

Sound levels were predicted along the façades of the proposed development using the "building evaluation" feature of Cadna/A. This feature allows for noise levels to be predicted across the entire façade of a structure.

Ground absorption was assessed as reflective surfaces, as the majority of the intervening ground is asphalt or concrete.

#### 2.3.1 Façade Sound Levels

Predicted worst-case façade sound levels are presented in **Table 8**. The transportation façade sound levels of the development, showing the ranges of predicted daytime and night-time sound levels are shown on **Figures 2 to 5** for the road, LRT, Rail and combined impacts, respectively on the development.



	[1]	Roadwa Leve	Roadway Sound Levels <sup>[1]</sup> LRT Sound Levels <sup>[1]</sup>		Railway Sounds Levels <sup>[1]</sup>		Combined Road & Rail <sup>[1]</sup>		
Building	Façade <sup>(1)</sup>	L <sub>eq</sub> Day (dBA)	L <sub>eq</sub> Night (dBA)	L <sub>eq</sub> Day (dBA)	L <sub>eq</sub> Night (dBA)	L <sub>eq</sub> Day (dBA)	L <sub>eq</sub> Night (dBA)	L <sub>eq</sub> Day (dBA)	L <sub>eq</sub> Night (dBA)
	North	61	54	42	41	57	59	62	60
Block 1 Tower	East	58	51	47	46	55	57	60	58
	South	53	47	48	46	50	51	55	53
	West	56	50	43	42	54	56	58	57
	North	62	55	43	42	57	59	63	60
Block 1	East	59	52	46	45	55	56	60	58
Podium	South	51	44	46	45	48	49	53	51
	West	57	51	42	40	54	56	59	57
	North	63	56	49	47	58	60	64	61
Block 2	East	62	56	51	49	57	58	64	60
Tower B	South	60	53	51	50	54	56	61	58
	West	61	54	46	44	57	58	62	60
Block 2	North	63	56	47	45	58	60	64	61
	East	62	55	52	50	57	58	63	60
Podium	South	58	51	51	50	53	54	60	57
	West	59	52	47	45	55	56	60	58
	North	57	50	47	46	55	57	59	58
Block 2	East	60	53	54	52	55	56	61	58
TOWERC	South	58	51	52	51	48	49	59	55
	West	55	48	47	45	53	55	57	56
Block 3 Podium	North	52	46	42	41	54	55	56	56
	East	55	49	49	48	52	53	57	55
	South	55	49	50	49	48	50	57	54
	West	53	46	47	45	53	54	56	55
	North	54	48	44	43	55	56	57	57
Block 3	East	56	50	50	49	53	54	58	56
Tower	South	55	49	50	49	49	50	57	54
	West	53	46	47	46	53	55	56	55

**Table 8: Summary of Transportation Facade Sound Levels** 

**Notes:** [1] Sound Levels shown are the maximums along the facade and are not necessarily for the same location for the various source types.

#### 2.3.2 Outdoor Living Areas

Five main common outdoor amenity areas are currently planned for the rooftops of the podiums in the development as shown on **Figure 6**.

As the development includes a common amenity space for all occupants, the private terraces are not considered to be the only outdoor amenity space available. Therefore, an assessment of private terraces was excluded based on the definitions outlined in NPC-300.

Landscaped areas at grade are considered to be publicly accessible and have not been included as an amenity spaces in this assessment.

The predicted combined transportation noise impacts are shown on Figure 6 are summarized in Table 9.

Sound levels are predicted to be at or below 60dBA for the outdoor amenity space; further evaluation is not required.

ID	Location	Transportation Impacts L <sub>eq</sub> Day (dBA)	Applicable Guideline Limit Leg Day (dBA)	Meets Criteria? (Yes/No)
OLA 1	Block 1, 3 <sup>rd</sup> storey	53	60	Yes
OLA 2	Block 1, 6 <sup>th</sup> storey	60	60	Yes
OLA 3	Block 2, 3 <sup>rd</sup> storey	57	60	Yes
OLA 4	Block 3, 6 <sup>th</sup> storey	60	60	Yes
OLA 5	Block 3, 3 <sup>rd</sup> storey	56-58	60	Yes
OLA 6	Block 3, 7 <sup>th</sup> storey	58	60	Yes

#### Table 9: Summary of Predicted Outdoor Living Area Sound Levels

#### 2.4 Façade Assessment

#### 2.4.1 Glazing Requirements

Based on the sound levels shown in **Table 8**, façade sound levels were predicted to exceed the above criteria at multiple locations throughout the development. Therefore, an assessment of glazing requirements is necessary for meeting the indoor sound level requirements outlined in **Table 1**.

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

The following assumptions were considered for both buildings:

- 70% glazing for both living room and bedroom facades;
- sleeping quarters were assumed to have a façade-to-floor area ratio of 100%;
- living/dining rooms were assumed to have a façade-to-floor area ratio of 50%;
- non-glazing portion of wall was assumed to have a rating of STC 45 for all locations.

The acoustic requirements are provided below in **Table 10**, which is the STC rating taking into consideration roadway, railway and LRT noise and the assumptions listed above. The façade calculations are included in **Appendix B**.



Table 10:	<b>Façade Sound</b>	<b>Transmission</b>	Class (STC)	<b>Requirements</b>

Duilding	Façade [1]	Non-Glazing	Glazing Requirements		
Building		Component	Living Room	Bedroom	
	North	45	OBC	32	
	East	45	OBC	OBC	
Plack 1 Towar	South	45	OBC	OBC	
DIOCK I TOWEI	West	45	OBC	OBC	
	North Corners	45	OBC	35	
	South Corners	45	OBC	32	
	North	45	OBC	32	
	East	45	OBC	OBC	
Block 1	South	45	OBC	OBC	
Podium	West	45	OBC	OBC	
	North Corners	45	OBC	35	
	South Corners	45	OBC	32	
	North	45	OBC	33	
	East	45	OBC	32	
BIOCK 2	South	45	OBC	OBC	
TOWELD	West	45	OBC	OBC	
	North Corners	45	OBC	36	
	South Corners	45	OBC	35	
	North	45	OBC	33	
	East	45	OBC	32	
Block 2	South	45	OBC	OBC	
Podium	West	45	OBC	OBC	
	North Corners	45	OBC	36	
	South Corners	45	OBC	35	
	North	45	OBC	OBC	
	East	45	OBC	OBC	
Block 2	South	45	OBC	OBC	
TowerC	West	45	OBC	OBC	
	North Corners	45	OBC	32	
	South Corners	45	OBC	32	
	North	45	OBC	OBC	
	East	45	OBC	OBC	
BIOCK 3	South	45	OBC	OBC	
rower	West	45	OBC	OBC	
	North Corners	45	OBC	31	
	South Corners	45	OBC	OBC	
	North	45	OBC	OBC	
Block 3	East	45	OBC	OBC	
Podium	South	45	OBC	OBC	
	West	45	OBC	OBC	



Building	Façade <sup>[1]</sup>	Non-Glazing	Glazing Requirements		
		Component	Living Room	Bedroom	
	North Corners	45	OBC	32	
	South Corners	45	OBC	30	

Notes: OBC = Ontario Building Code, meeting a rating of STC 29

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

The glazing requirements above are approximated, based on the generic room, façade and glazing dimensions. Once detailed floor plans and façade plans become available, the glazing requirements should be re-assessed and reviewed by an Acoustical Consultant.

#### 2.4.2 Ventilation and Warning Clause Requirements

Based on the predicted noise sound levels, warning clauses are recommended to 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.

Central Air Conditioning and a **Type D** Warning Clause is recommended for all affected units with façade sound levels that are above 60 dBA during night-time hours. This includes all the Façades listed below, Warning clause text can be found in.

- Block 2 Tower B North Façade; and
- Block 2 Podium North Façade

Forced air heating with provisions for future installation of central air conditioning, and a **Type C** warning clause, is recommended for all affected units with façade sound levels that are between 56 and 65 dBA during the daytime, or between 51 and 60 dBA during night-time hours. This includes **all the remaining building Façades not listed above**, Warning clause text can be found in **Appendix D**.

In addition, a CPR Warning Clause is required for all blocks of the development. Warning clause text can be found in **Appendix D**.

#### 2.5 Outdoor Living Area Requirements

#### 2.5.1 Warning Clause Requirements

Due to high road and rail noise, a **Type A** warning clause is expected to be required. Warning clause text can be found in **Appendix D**.

### **3.0 STATIONARY SOURCE NOISE IMPACTS**

#### 3.1 Site Visit and Noise Observations

Project site visits were conducted to the area on August 5, 2021, during the nighttime, and August 10, 2021, during the daytime. Observations and noise measurements were made for the industries of concern to the project. Further details pertaining to individual industries are included below.



#### 3.2 Nearby Industries

The Guideline D-6 setback distances from the Project site are shown on **Figure 7**. SLR personnel conducted site visits to the area. Local industries within 1 km of the Project site were inventoried.

**Table 11** lists the identified industries which lie within their applicable Area of Influence in respect to theProject and are discussed further in this Section.

Facility	Type of Operation	Environmental Compliance Approval No.	Industry Class	Area of Influence Dist (m)	Actual Distance to Site (m)	Additional Assessment Required?
Esso Gas Station and Car Wash	Automatic Car Wash	N/A	I	70	20	Yes
McDonalds	Fast Food Restaurant	N/A	I	70	0	Yes
Burger King	Fast Food Restaurant	N/A	I	70	55	Yes
Lucky and Brother Auto Inc.	Automotive Repair/Recycling	N/A	I	70	20	Yes
Mega City and Nanak Car Wash	Automatic Car Wash	N/A	I	70	0	Yes
City of Toronto	Silk Screening Process	6855-6AGTPM (2005)	I	70	50	Yes
City of Toronto	Emery Parks, Works, and Emergency Services Yard	N/A	Ш	300	0	Yes
City of Toronto-Fire Services	Passive Landfill Gas Ventilation System	3045-65SHY8 (2004)	Ш	300	50	Yes
2000007 Ontario Inc.	Armour Vehicle Manufacturing	6561-BT2RM7 (2020)	П	300	260	Yes
Danplas Pipe Systems	Pipe Supplier	N/A	II	300	180	Yes
Gerdau Ameristeel Corporation	Scrap Metal Recycling End of Life Vehicle Recycling	4852-BFWJ38 (2020) R-007-9654427693 (2016)	111	1000	200	Yes
GFL Fenmar Transfer Station	Municipal Waste Transfer/Processing	3164-6R9PXX (2007) Notices 1, 2, 3, 4, 5 0413-4LBPNZ (2008)		1000	310	Yes
Tito Construction/BinXpress	Waste Transfer and Aggregate/Concrete Crushing Operations	9847-873NJR (2010)		1000	410	Yes
269068 Ontario Limited Robert Chabot Enterprises Limited	Waste Management System/Salt Yard	R-004-7600609705 (2016) A680359 (2000) Notices 1, 2 and 3		1000	840	Yes
Combined Metal Industries	Thermal Treatment for Heating Metal Recycling	R-007-6656785414 (2016) 8248-8J9HBN (2011)		1000	665	Yes
Crown Metal Packaging	Steel food Can Coating	3902-5CYQHJ (2006)		1000	680	Yes
Etobicoke Iron Works	Wash and curing oven equipment	4311-4UCT8X (2001)		1000	720	Yes
Ingot Metal Company Limited	Copper Smelting Facility	0470-9X3K9F (2016)	111	1000	605	Yes
Knoll North America Corp	Office furniture Manufacturing	R-010-3112401486 3905-9ZRS3V (2016)		1000	525	Yes
Satin Finish Hardwood Flooring	Hardwood Flooring Finishing	R-010-7111025615 (2019)	111	1000	710	Yes

#### Table 11: Identified Industries Within 1000 m of Proposed Development



Roadside Paving Inc.	Crushing/Screening Operations	2798-A6AMD2 (2016)		1000	725	Yes
SEJJ Environmental	Municipal Waste Transfer/Processing	A841193 (2002) 0854-524QUQ (2009)		1000	640	Yes

A full list of all industries identified within 1 km of the Project site can be found in **Appendix C**. The industries that are located within their respective Areas of Influence for their identified Class category are further detailed below.

Within Ontario, facilities which emit significant amounts of contaminants to the environment are required to obtain and maintain an Environmental Compliance Approval (an "ECA") from the MECP or submit an Environmental Activity and Sector Registry ("EASR"). ECA's/EASRs within 1 k m of the Project were obtained from the MECP's *Access Environment* website.

#### 3.3 Class III Heavy Industries

The area within 1000 m of the Project was reviewed. Thirteen class III facilities were identified within 1000 m of the Project site. The facilities and their locations relative to the Project Site are illustrated on **Figure 7**.

3.3.1	Gerdau	Ameristeel	Corporation
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ADDRESS	55 FENMAR DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	200 m
D-6 CLASSIFICATION:	III

Gerdau Ameristeel Corporation operates a vehicle end-of-life waste disposal site at 55 Fenmar Drive approximately 200 m north of the Project site. The facility operates under MECP numbers 4852-BRWJ38 (2020), and R-0079654427693 (2016). Based on the permit information, the following sources are operated at the Facility:

- Stormwater management systems including storm sewers and an on-site wet stormwater retention pond.
- Torching and lancing of materials.

A copy of the MECP permits for Gerdau Ameristeel are provided in **Appendix C.02**.

Heavy truck activity was observed. Movement of end-of-life vehicles by overhead cranes was also observed.

The facility is a large-scale operation with continuous movement of products/employees, including shift operations.

Based on the size and nature of the above noted operations, the facility is considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m Area of Influence and within the Recommend Minimum Separation Distance of 300 m. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.



#### 3.3.2 GFL Fenmar Transfer Station

ADDRESS	71 FENMAR DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	310
D-6 CLASSIFICATION:	111

Green For Life (GFL) operates a municipal waste transfer station at 71 Fenmar Drive, approximately 310 m north of the Project site. The facility operates under MECP permit numbers 3164-6R9PXX (2007) with Notices 1 through 5, 0413-4LBPNZ (2008), and R-004-4110370601 (2018). Permit number 0413-4LBPNZ (2008) is issued in the name of All Star Wood Waste & Recycling Limited. EASR Number R-004-4110370601 (2018) is issued in the name of MJM Concrete and Paving Ltd. Based on the permit information, the facility is permitted "to be used for the transfer/processing of solid non-hazardous waste limited to industrial, commercial, institutional, and construction and demolition waste."

A copy of the MECP permits for the GFL Fenmar Transfer Station are provided in **Appendix C.03**.

During the site visit of August 10, 2021, primarily movement of heavy trucks was observed.

Based on the size and nature of the above noted operations, the facility is considered a Class III Heavy Industries under MECP Guideline D-6, with a 1000 m Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.

ADDRESS	79 FENMAR DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	410 m
D-6 CLASSIFICATION:	III

#### 3.3.3 Tito Construction/BinXpress

Tito Construction/BinXpress operates a waste management facility at 79 Fenmar Drive, approximately 410 m north of the Project site. The MECP Permit is issued to BinXpress. The MECP Permit number for BinXpress is 9847-873NJR (2010).

A copy of the MECP permit for the Tito Construction/BinXpress is provided in **Appendix C.04**.

Based on SLR experience with similar facilities, the following sources are expected to be operated/managed at the Tito Construction/BinXpress facility.

- Comfort heating/air conditioning;
- Outdoor delivery, storage, screening, crushing and movement of materials including construction debris, aggregates, soils and etc;
- Outdoor operations including, storage and cleaning of vehicles and heavy equipment including pick-up trucks, excavators, front end loaders, waste storage bins and dump trucks.
- Indoor repair/maintenance of vehicles;
- Covered storage;



- Maintenance welding; and
- Equipment washing bay(s).

The yard may be staffed 24 hours per day, 7 days per week, however the regular operating hours are likely daytime hours.

During the August 10, 2021, site visit, large aggregate piles were observed, and aggregate crushing equipment was operating on-site.

The facility is a large-scale works operation with continuous movement of products/employees/vehicles. The emission sources have the potential to emit fugitive dust and odour.

Based on the size and nature of the above noted operations, this facility is considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.

#### 3.3.4 269068 Ontario Limited- Chabot Enterprises Limited

ADDRESS	143 TORYORK DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	840 m
D-6 CLASSIFICATION:	111

269068 Ontario Limited-Robert Chabot Enterprises Limited, operate an MECP approved waste transfer and storage facility located at 143 Toryork Drive, approximately 840 m west of the Project site. The facility is permitted under MECP Numbers R-004-7600609705 (2016), and A680359 (2000) and associated Notices 1, 2 and 3. The original permit from 2000 and Notice No. 1 were not available, electronically.

An online search of Robert Chabot Enterprises Limited indicates that services are also provided under the name of Centennial Construction Equipment Rental and Centennial Sweeping. The website for Centennial Sweeping indicates that they specialize in street sweeping, flushing and emergency roadside response. In addition to emergency services, they also provide the following equipment services including excavation, loading, product movement in dump and slurry trucks. In winter months the facility sells standard road salt in bulk and in bags and Thawrox<sup>™</sup>. They also offer hot and cold bulk water for purchase.

During the site visit of August 10, 2021 no activity was observed from this facility.

Based on a review of the MECP Permits, on-line business information and areal imagery of the facility the following sources are expected to be operated at the Facility:

- Heavy vehicle operation;
- Comfort heating/air conditioning;
- Outdoor delivery and storage of materials including salt;
- Outdoor operations including, storage of vehicles and heavy equipment including pick-up trucks, excavators, front end loaders, street sweepers, and dump trucks.
- Indoor repair/maintenance of vehicles;
- Covered storage;



- Maintenance welding; and
- Equipment washing bay(s).

A copy of the MECP permits for 269068 Ontario Limited-Robert Chabot Enterprises Limited are provided in **Appendix C.05**.

The facility is a large-scale operation with continuous movement of products/employees, including shift operations. It is expected that the emission sources have the potential to emit fugitive dust and odour.

Based on the size and nature of the above noted operations, the facility considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m Area of Influence. Therefore, additional review and further analysis of the sources are warranted. The analysis is provided in subsequent sections of the report.

#### 3.3.5 Combined Metal Industries

ADDRESS	145 FENMAR DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	665
D-6 CLASSIFICATION:	III

Combined Metal Industries operates a vehicle end-of-life waste disposal site at 145 Fenmar Drive approximately 665 m northwest of the Project site. The facility operates under MECP number R-007-6656785414 (2016). Based on the permit information, the following sources are operated at the Facility:

- Torching and lancing of materials;
- Crushing of materials;
- Large machinery such as excavators and front end loaders;

Excavators and impulsive noise were observed during the site visit on august 10<sup>th</sup>.

A copy of the MECP permit for Combined Metal Industries is provided in **Appendix C.06**.

During the site visit of August 10, 2021 excavator and heavy truck activity was observed.

The facility is a large-scale operation with continuous movement of products/employees, including shift operations.

Based on the size and nature of the above noted operations, the facility is considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.



#### 3.3.6 Crown Metal Packaging

ADDRESS	21 FENMAR DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	665 m
D-6 CLASSIFICATION:	111

Crown Metal Packaging operates a metal can lining facility located at 21 Fenmar Drive, approximately 665 m northeast of the Project site. The facility operates under MECP number 3902-5CYQHJ (2006). The facility is permitted to serve 2 aluminum beverage can lines producing a total of 258,000 cans per hour and one steel food can line producing a total of 90,000 cans per hour utilizing approximately 350 litres per hour of all coatings and inks. Based on the permit information, the following sources are operated at the Facility:

- Two Catalytic oxidizers serving inside bake ovens and coater ovens.
- Ultraviolet bottom rim coating exhaust system
- Aluminum lacquer spray machines;
- Steel lacquer spray machines;
- Waste coat oven;
- Aluminum base coaters;
- Aluminum printers;
- Aluminum can washer;
- Steal can washer; and
- Natural gas fired water heaters.

A copy of the MECP permit for Crown Metal Packaging is provided in **Appendix C.07**.

The facility is a large-scale operation with continuous movement of products/employees, including shift operations. It is expected that the emission sources have the potential to emit fugitive dust and odour.

Based on the size and nature of the above noted operations, this facility is considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.

ADDRESS	163 RIVALDA ROAD
CONTACTS:	N/A
DISTANCE TO PROJECT:	720 m
D-6 CLASSIFICATION:	Ш

#### 3.3.7 Etobicoke Iron Works Limited

Etobicoke Iron Works Limited operates a steel fabrication facility located at 163 Rivalda Road, approximately 720 m southeast of the Project site. The facility operates under MECP number 4311-4UCT8X (2001).



Based on the permit information, the following sources are operated at the Facility:

- One two-stage wash system; and
- One natural gas-fired dry-off curing oven.

A copy of the MECP permit for Etobicoke Iron Works Limited is provided in Appendix C.08.

The facility produces grandstands, scaffolding systems, shoring systems, forming systems, structural steel, and miscellaneous iron products. A review of areal photography illustrates that the facility manages much of their product in an unpaved outdoor storage area where the potential exists for dust emissions. The facility is a large-scale operation with continuous movement of products/employees, including shift operations.

Based on the size and nature of the above noted operations, this facility is considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m potential Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.

ADDRESS	111 FENMAR DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	605 m
D-6 CLASSIFICATION:	111

#### 3.3.8 Ingot Metal Company Limited

Ingot Metal Company Limited operates a secondary copper smelting facility located at 111 Fenmar Drive, approximately 605 m northwest of the Project site. The facility operates under MECP number 0470-9X3K9F (2016). The facility is permitted to have a maximum charge rate of 95.7 tonnes per day. Based on the permit information, the following sources are operated at the Facility:

- eight Baghouse dust collectors to control fugitive emissions from four Rotary Furnaces and two crucible furnaces; and
- Natural gas-fired unit heaters.

A copy of the MECP permit for Ingot Metal Company Limited is provided in **Appendix C.09**.

The facility produces bearings, bushings, and ingots.

During the site visit of August 5, 2021, overall noise from facility equipment was observed and measured.

The facility is a large-scale operation with continuous movement of products/employees, including shift operations.

Based on the size and nature of the above noted operations, this facility is considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.



#### 3.3.9 Knoll North America Corp.

ADDRESS	1000 ARROW ROAD
CONTACTS:	N/A
DISTANCE TO PROJECT:	525 m
D-6 CLASSIFICATION:	111

Knoll North America Corp. operates a wood office furniture manufacturing facility located at 1000 Arrow Road, approximately 525 m southeast of the Project site. The facility operates under MECP R-010-3112401486 (2020) and 3905-9ZRS3V (2016). The facility is permitted to utilize up to 52,000 litres of paint and adhesive products per week. Based on the permit information, the following process lines are operated at the Facility:

- Woodworking;
- Manual and robotic spray application and roll coating of water based and solvent based paints, sealants, stains, glues, and adhesives;
- Drying and curing;
- Baghouse dust collectors;
- Maintenance welding;
- QA/QC laboratory; and
- Natural gas fired combustion equipment.

A copy of the MECP permits for Knoll North America Corp. are provided in **Appendix C.10**.

The facility is a large-scale operation with continuous movement of products/employees, including shift operations.

Based on the size and nature of the above noted operations, this facility is considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m potential Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.

ADDRESS	15 FENMAR DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	710 m
D-6 CLASSIFICATION:	Ш

#### 3.3.10 Satin Finish Hardwood Flooring

Satin Finish Hardwood Flooring operates a hardwood flooring manufacturing facility located at 15 Fenmar Drive, approximately 710 m northeast of the Project site. The facility operates under MECP number R-010-7111025615 (2019). Based on the permit information, the following sources are operated at the Facility:

- Three coating application lines;
- One gluing station;
- Five baghouse dust collectors;



- Three boilers; and
- Five kilns, three are natural gas fired and two are heated by the boilers.

A copy of the MECP permit for Satin Finish Hardwood Flooring is provided in **Appendix C.11**.

The facility is a large-scale operation with continuous movement of products/employees, including shift operations.

Based on the size and nature of the above noted operations, this facility is considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m potential Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m potential Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.

#### 3.3.11 Roadside Paving Ltd.

ADDRESS	125 A TORYORK DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	725 m
D-6 CLASSIFICATION:	Ш

Roadside Paving Ltd. operates a crushing and screening operation at 125 A Toryork Drive, approximately 725 m west of the Project site. The facility operates under MECP Permit number 2798-A6AMD2 (2016).

A copy of the MECP permit for Roadside Paving Ltd. is provided in **Appendix C.12**.

Based on SLR experience with similar facilities, the following sources are expected to be operated/managed at the Roadside Paving Ltd. Facility:

- Comfort heating/air conditioning;
- Outdoor delivery, storage, screening, crushing and movement of materials;
- Outdoor operations including, storage and cleaning of vehicles and heavy equipment including pick-up trucks, excavators, front end loaders, and dump trucks;
- Indoor repair/maintenance of vehicles;
- Covered storage;
- Maintenance welding; and
- Equipment washing bay(s).

The yard is likely staffed 24 hours per day, 7 days per week, however the regular operating hours are likely daytime hours.

During the August 10, 2021, site visit, large aggregate piles were observed.

The facility is a large-scale works operation with continuous movement of products/employees/vehicles.

Based on the size and nature of the above noted operations, this facility is considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m potential Area of Influence and a Recommended Minimum Separation Distance of 300 m.



The Project lands are located within the 1000 m potential Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.

#### 3.3.12 SEJJ Environmental Solutions Inc.

ADDRESS	111 PROGRESS AVENUE
CONTACTS:	N/A
DISTANCE TO PROJECT:	250 m
D-6 CLASSIFICATION:	III

SEJJ Environmental Solutions Inc. operates a waste disposal site at 125 A Toryork Drive, approximately 725 m west of the Project site. The facility operates under MECP Permit numbers A841193 (2002) and 0854-524QUQ (2009). The facility is permitted to transfer/process 100% solid non-hazardous municipal waste limited to commercial and residential construction/demolition waste.

A copy of the MECP permits for SEJJ Environmental Solutions Inc are provided in **Appendix C.13**.

Based on SLR experience with similar facilities, the following sources are expected to be operated/managed at the SEJJ Environmental Solutions Inc facility:

- Comfort heating/air conditioning;
- Outdoor delivery, storage, and movement of materials;
- Outdoor operations including, storage and cleaning of vehicles and heavy equipment including pick-up trucks, excavators, front end loaders, and dump trucks;
- Indoor repair/maintenance of vehicles;
- Covered storage;
- Maintenance welding; and
- Equipment washing bay(s).

The facility is likely staffed 24 hours per day, 7 days per week. The permitted operating hours are Monday at 5:30 am to Saturday at 4:30 pm.

During the August 10, 2021, site visit, the facility was observed to be managing primarily construction waste. Excavators, and front-end loaders were observed to be operating on the site.

The facility is a large-scale works operation with continuous movement of products/employees/vehicles.

Based on the size and nature of the above noted operations, this facility is considered a Class III Heavy Industry under MECP Guideline D-6, with a 1000 m potential Area of Influence and a Recommended Minimum Separation Distance of 300 m.

The Project lands are located within the 1000 m potential Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.

### 3.4 Class I Light and Class II Medium Industries

There are many small and medium-scale facilities identified in the surroundings. Most of the identified facilities fall outside of the 300 m Area of Influence of the Project site (detailed in **Appendix C**). However, eight operations were identified through a review of the surrounding land uses and ECA/EASR search. These properties are discussed in more detail below.



#### 3.4.1 Existing Uses

#### 3.4.1.1 City of Toronto – Emery Parks, Works, and Emergency Services Yard

ADDRESS	27, 49, 61 AND 75 TORYORK DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	0 m
D-6 CLASSIFICATION:	Ш

The City of Toronto operates a Yard that is bounded by Toryork Drive to the north the Project site to the east, a green space to the south and employment uses to the west. The property is located adjacent to the Project site.

Based on the entrance signage, the yard is used for parks management and transportation services. Toronto EMS Station 51 and Toronto Fire Station 411 are located on the west side of the property. Based on SLR experience with similar yards, the following sources are expected to be operated/managed at the City of Toronto yard.

- Comfort heating/air conditioning;
- Outdoor delivery and storage of sand, clear stone, river stone and soil mixes;
- Outdoor operation, storage and cleaning of vehicles including pick-up trucks, street sweepers, front end loaders, lawn maintenance vehicles, dump trucks, and winter control equipment such as plow blades/wings;
- Indoor repair/maintenance of vehicles;
- Covered salt storage/delivery for winter control use;
- Emergency power backup/generation;
- Vehicle fueling;
- Maintenance welding; and
- Heavy truck wash bay(s).

The yard may be staffed 24 hours per day, 7 days per week, however the regular operating hours are likely daytime hours. Operations outside of those hours are likely based on calls for emergency services/support.

There are multiple structures on the property. The facility has controlled access at all of the entrances with fencing at the rear of the EMS and Fire Station.

An emergency generator was located at the southwest side of the Toronto EMS station but not ECA was found.

No MECP environmental compliance approvals were located for the facility on the <u>Access Environment</u> website.

Based on the size and nature of the facility operations, the yard is considered a Class II Medium Industry under MECP Guideline D-6, with a 300 m potential Area of Influence and a Recommended Minimum Separation Distance of 70 m.

The Project site is located within the 300 m potential Area of Influence and the Recommended Minimum Separation distance, therefore additional assessment is warranted for the City yard and is provided in subsequent sections of the report.



#### 3.4.1.2 2000007 Ontario Limited/INKAS Armoured Vehicle Manufacturing

ADDRESS	3605 WESTON ROAD
CONTACTS:	N/A
DISTANCE TO PROJECT:	260 m
D-6 CLASSIFICATION:	II

2000007 Ontario Limited/ INKAS operates an armoured vehicle manufacturing facility at 3605 Weston Road. The facility is located approximately 260 m north of the Project site. The facility operates under MECP number 6561-BT2RM7 (2020). The facility is permitted to manufacture up to 240 armoured vehicles per year. Based on the permit information, the following sources are operated at the Facility:

- Receiving;
- Staging;
- Processing including cutting/drilling, welding, woodworking, and spray painting;
- Assembly; and
- Shipping.

A copy of the MECP permit for INKAS is provided in **Appendix C.14**.

Based on a review of aerial photography, the facility has a number of emission sources located on the roof top. There is visible outdoor storage of vehicles.

Based on the size and nature of the above noted operations, this facility is considered a Class II Medium Industry under MECP Guideline D-6, with a 300 m potential Area of Influence and a Recommended Minimum Separation Distance of 70 m.

The Project lands are located within the 300 m potential Area of Influence. Therefore, additional review and further analysis of the sources is warranted. The analysis is provided in subsequent sections of the report.

#### 3.4.1.3 Mega City/Nanak, Esso, and Ultramar Car Washes

ADDRESS	3514 WESTON ROAD, 2316 FINCH AVENUE WEST AND 2370 FINCH AVENUE WEST
CONTACTS:	N/A
DISTANCE TO PROJECT:	0 m, 20 m, and 70m
D-6 CLASSIFICATION:	1

Under D-6 industrial categorization criteria, carwashes are considered class I facilities. Three car washes were identified within the 70m area of influence. The Esso car wash is at the 20 m recommended minimum separation distance, with the Ultramar located at the limit of the 70 m area of influence.

The three car washes were observed during the site visit on august 10, 2021 and measurements of the Mega city car wash were made.

Noise from the operations of the car washes is discussed in **Section 3.4.1.3** of this report.



#### 3.4.1.4 Lucky & Brothers Auto

ADDRESS	176 TORYORK DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	20 m
D-6 CLASSIFICATION:	1

As suggested in the D-6 Industrial Categorization criteria, automotive repair shops are listed as a Class II facility partly due to the operation of spray-paint booths. However, given that the MECP has a specific Environmental and Activity Sector Registry (EASR) for this industry with specific operating condition requirements that limit emissions, auto-repair shops can now generally be considered Class I facilities. In addition, the paint types which are now used are less odorous (water- versus solvent-based). Auto-repair shops are regulated under Ontario Regulation 347/12: Regulations Under Part II.2 of the Act – Automotive Refinishing (under the Environmental Protection Act).

One potential autobody shop was identified within the 70 m area of influence for the Project lands. There are no MECP environmental permits available for the operations on the <u>Access Environment</u> search directory.

The shop is within the 70 m area of influence and it is at the 20 m recommended separation distance.

SLR contacted the owner/operator of Lucky & Brothers Auto and confirmed that there is no paint spray booth operated at the 176 Toryork Drive location. Any vehicle repairs that require repainting are completed at another location, off-site.

Based on Areal images of the property, on-site vehicle, and shipping container storage also occurs on the property.

Noise from the shipping container operations is discussed in **Section 3.4.1.4** of this report.

#### 3.4.1.5 Danplas Pipe Systems

ADDRESS	20 HIGH MEADOW PLACE
CONTACTS:	N/A
DISTANCE TO PROJECT:	180 m
D-6 CLASSIFICATION:	Ш

Danplas Pipe Systems operate a pipe storage/warehousing facility at 20 High Meadow Place. The property is located approximately 180 m northeast of the Project Site.

Based on a review of the areal imagery of the site, it appears that the following sources are operated/managed at the site.

- Comfort heating/air conditioning within two storey office building;
- Outdoor delivery and storage of pipes and storage containers; and
- Heavy vehicle/truck operations.

The facility has controlled access and the storage yard appears to be paved.

No MECP environmental compliance approvals were located for the facility on the <u>Access Environment</u> website.



Based on the size and nature of the facility operations, the yard is considered a Class II Medium Industry under MECP Guideline D-6, with a 300 m Area of Influence and a Recommended Minimum Separation Distance of 70 m.

The Project site is located within the 300 m Area of Influence, therefore additional assessment is warranted and is provided in subsequent sections of the report.

#### 3.4.1.6 City of Toronto - Silk Screening Process

ADDRESS	40 TORYORK DRIVE
CONTACTS:	N/A
DISTANCE TO PROJECT:	50 m
D-6 CLASSIFICATION:	1

The City of Toronto operates one pressurized drying chamber serving a silk-screening process at 40 Toryork Drive. The facility is located approximately 50 m north of the Project site on the north side of Toryork Drive. The facility operates under MECP number 855-6AGTPM (2005).

A copy of the MECP permit for the silk-screening process is provided in **Appendix C.15**.

This single silk-screening process is equipped with dry arrestor filters and is located at the City of Toronto Fire Services maintenance facility located at 40 Toryork Road.

Based on a review of aerial photography, the facility has HVAC and air handling units located on the roof top.

Based on the size and nature of the above noted operations, this facility is considered a Class I Light Industry under MECP Guideline D-6, with a 70 m potential Area of Influence and a Recommended Minimum Separation Distance of 20 m.

The Project lands are located inside the 70 m potential Area of Influence. Therefore, additional review and further analysis of the source is warranted. The analysis is provided in subsequent sections of the report.

#### 3.4.1.7 McDonalds, Burger King Restaurants

ADDRESS	2362, 2372 FINCH AVE W
CONTACTS:	N/A
DISTANCE TO PROJECT:	50m, and 0 m
D-6 CLASSIFICATION:	

Under D-6 industrial categorization criteria, restaurants are considered class I facilities. Two restaurants were identified within the 70m area of influence.

Burger King and McDonald's are within the 70 m area of influence, and the Burger King is at the 20 m recommended minimum separation distance.

Noise from the operations of the car washes is discussed in **Section 3.4.1.7** of this report.



#### 3.4.2 Vacant Lots

Under Guideline D-6 the use of vacant buildings must be considered in land use compatibility studies. Lands surrounding the Project site are occupied.

If a new industrial operation were to relocate or construct a new facility, they would be required to obtain an approval from the MECP (either EASR or ECA). In accordance with the MECP permit, the facility would be required to meet the applicable guidelines of O. Reg 419/05 at the facility property line and to meet the applicable requirements of MECP NPC 300. As part of the permitting process, the facility would be required to meet applicable guidelines at existing and approved residential locations.

#### 3.4.3 Future Uses

A review of development applications in the area indicated that are 4 active development applications within 500 m of the Project lands. The following is a summary of only the significant applications as listed online at the City of Toronto <u>applications information centre</u> as of February 21, 2023.

Address	Date	Development Application Information *	Details	
2345 Finch Avenue West	18/12/2020	20 230600 WET 07 OZ	Official Plan and Zoning By-law amendments to permit five rental residential buildings ranging in heights of 20 to 55 storeys consisting of 154,951 square metres of residential gross floor area resulting in 2,237 rental units, 1,202 square metres of retail space and 1,527 vehicular parking spaces at grade and within a 3-level underground garage. A 1,061 square metre public park is also proposed.	
2370 Finch Avenue West	14/11/2017	17 262422 WET 07 OZ	Amendments to the Emery Village Secondary Plan and Zoning By-law for a 11-storey mixed use condominium building and a 6-storey mixed use seniors building.	
2405 Finch Avenue West and 3400 Weston Road	21/08/2020	20 183834 WET 07 OZ	The application seeks to add a third building to the subject site, adding more rental housing to the Emery Village neighbourhood. The application provides for a new 36-storey building containing 480 new rental dwelling units and 565 square metres of daycare space. The existing buildings and all 517 existing rental housing units will be retained. The new development contains a total gross floor area of approximately 35,660 square metres, resulting in a total site density of 2.85 times the area of the lot.	



Address		Date	Development Application Information *	Details
2345 Finc Avenue Wes 3415-349 Weston Rc	ch t and 99 bad	18/12/2020	20 230600 WET 07 OZ	Official Plan and Zoning By-law amendments to permit five rental residential buildings ranging in heights of 20 to 55 storeys consisting of 154,951 square metres of residential gross floor area resulting in 2,237 rental units, 1,202 square metres of retail space and 1,527 vehicular parking spaces at grade and within a 3-level underground garage. A 1,061 square metre public park is also proposed.

\*Minor variances, closed applications, consent to sever and other minor applications are not included in above table.

### 3.5 Summary of Surrounding Industries

From the list of industries in **Sections 3.3 and 3.4**, twelve Class III, three Class II and five Class I operations were identified to require further analysis as they are located within the respective Areas of Influence for Class I, Class II and Class III facilities.

#### 3.6 Stationary Noise Modeling

#### 3.6.1 Guidelines

#### 3.6.1.1 MECP Publication NPC-300 Guidelines for Stationary Noise

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

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

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

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

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

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

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

The following tables set out the exclusion limits from the guideline.

#### Table 12: NPC-300 Exclusion Limits for Non-Impulsive Sounds (Leq (1-hr), dBA)

	Class :	1 Area	Class 4 Area		
Time of Day	Plane of Windows of Noise Sensitive Spaces	Outdoor Points of Reception	Plane of Windows of Noise Sensitive Spaces	Outdoor Points of Reception	
7 am to 7 pm	50	50	60	55	
7 pm to 11 pm	50	50	60	55	
11 pm to 7 am	45	n/a	55	n/a	

#### Table 13: NPC-300 Exclusion Limits for Impulsive Sounds (LLLM, dBAI)

Time of Day	No. of Impulses in a 1-hour Period	Class 1 A	irea	Class 4 Area	
		Plane of Windows of Noise Sensitive Spaces	Outdoor Points of Reception	Plane of Windows of Noise Sensitive Spaces	Outdoor Points of Reception
7 am to 11 pm	9 or more	50	50	60	55
	7 to 8	55	55	65	60
	5 to 6	60	60	70	65
	4	65	65	75	70
	3	70	70	80	75
	2	75	75	85	80
	1	80	80	90	85
11 pm to 7 am	9 or more	45	n/a	55	n/a
	7 to 8	50	n/a	60	n/a
	5 to 6	55	n/a	65	n/a
	4	60	n/a	70	n/a
	3	65	n/a	75	n/a
	2	70	n/a	80	n/a
	1	75	n/a	85	n/a

Notes:

n/aNot Applicable. Outdoor points of reception are not considered to be noise sensitive during the overnight period.-Area classifications are:Class 1 - UrbanClass 4 - Urban Redevelopment

The applicable guideline limits for infrequent events such as emergency generator set testing are +5 dB higher than the values above.

#### 3.6.2 Application of the NPC-300 Guidelines

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

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

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

#### 3.6.3 Proposed Area Classification

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

SIP

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

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

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

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

"Class 4 area"

means an area or specific site that would otherwise be defined as Class 1 or 2 and which:

- is an area intended for development with new noise sensitive land use(s) that are not yet built;
- is in proximity to existing, lawfully established stationary source(s);
- has formal confirmation from the land use planning authority with the Class 4 area classification which is determined during the land use planning process; and

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

"Class 4 area classification is based on the principle of formal confirmation of the classification by the land use planning authority. Such confirmation would be issued at the discretion of the land use planning authority and under the procedures developed by the land use planning authority, in the exercise of its responsibility and authority under the Planning Act.

The following considerations apply to new noise sensitive land uses proposed in a Class 4 area:

- an appropriate noise impact assessment should be conducted for the land use planning authority as early as possible in the land use planning process that verifies that the applicable sound level limits will be met;
- noise control measures may be required to ensure the stationary source complies with the applicable sound level limits at the new noise sensitive land use;
- noise control measures may include receptor-based noise control measures and/or source-based noise control measures;
- source based noise control measures may require an MECP approval;



- receptor based noise control measures may require agreements for noise mitigation, as described in Part A of this guideline;
- prospective purchasers should be informed that this dwelling is in a Class 4 area through appropriate means and informed of the agreements for noise mitigation. Registration on title of the agreements for noise mitigation is recommended. Additionally, registration on title of an appropriate warning clause to notify purchasers that the applicable Class 4 area sound level limits for this dwelling are protective of indoor areas and assume of closed windows, such as warning clause F in Section C8.3 is also recommended; and
- any final agreements for noise mitigation as described in Part A of this guideline and all other relevant documentation are to be submitted to the MECP by the stationary source owner(s) when applying for an MECP approval. These agreements will be assessed during the review of the application for MECP approvals."

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

- the Project site is close proximity to an area that contains existing and proposed mixed-use developments and is intended for new high-intensity developments.
- the Project site is in proximity to existing lawfully established noise generating sources.
- the Project site does not contain existing noise-sensitive land-uses.
- An appropriate, detailed noise impact assessment will be conducted as part of the zoning by-law amendment application (i.e., this report report).

It is therefore appropriate for the City to declare the development property as a Class 4 area, under their role as the land use planning authority, in the exercise of its responsibility and authority under the Planning Act. The City of Toronto has issued a Class 4 designation for other similar developments in Toronto, including but not limited to:

- 3560, 3580 and 3600 Lake Shore Blvd West;
- The Lower Yonge Precinct;
- Portions of the East Bayfront West Precinct;
- The Mimico-Judson Secondary Plan area;
- 4665 Steeles Avenue East; and
- 4181 Sheppard Avenue East.

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

#### 3.6.4 City of Toronto Noise By-law

The City of Toronto Noise By-law (Chapter 591 of the Municipal Code) applies to noise emissions within the City, including from industrial/ commercial uses. The following provisions of the By-law apply:

Section 591-2.4. Loading and unloading.

No person shall emit or cause or permit the emission of sound resulting from loading, unloading, delivering, packing, unpacking, and otherwise handling any containers, products, or


materials from 11 p.m. to 7 a.m. the next day, except until 9 a.m. on Saturdays, Sundays, and statutory holidays.

And:

Section 591-2.8. Stationary sources and residential air conditioners.

A. No person shall cause or permit the emission of sound from a stationary source or residential air conditioner that, when measured with a sound level meter a point of reception, has a sound level (expressed in terms of Leq for a one-hour period) exceeding 50 dB(A) or the applicable sound level limit prescribed in provincial noise pollution control guidelines.

B. Subsection A does not apply to the emission of sound from a stationary source that is in compliance with a provincial environmental compliance approval.

#### 3.6.5 Guideline Summary and Interpretation

The following presents a summary of the guidelines and settlements presented above.

- The applicable Ministry of the Environment noise guideline for assessing new residential development applications is Publication NPC-300, which is also referenced in the City Noise Bylaw. Noise levels from industry meeting NPC-300 requirements will meet the requirements of Bylaw Section 591-2.8;
- The proposed development meets the general requirements of obtaining a Class 4 area designation under NPC-300: that is to say, the development is in an area intended for future residences (new noise sensitive land uses) that are not yet built; and it is in proximity to existing, lawfully established stationary sources.
- Both the Class 1 and Class 4 limits have been investigated in this study.

#### 3.6.6 Sources of Interest

Based on the information obtained from during site visits, and aerial images, the significant sources of noise in the area of the Site have been identified. Noise emission rates for the equipment/ activities were determined based on property-line noise measurements, where indicated below, and otherwise assessed based on sound level data from SLR's in-house database. Modelled noise sources include:

<u>Gerdau Ameristeel Corporation</u> – Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours.

- Idling Heavy trucks;
- on site truck movements;
- car shredding/compacting;
- excavators;
- front end loader;
- rail car loading;
- rail king idling; and
- Impulsive noise from metal shearing.

<u>GFL Fenmar Transfer Station</u> – Assumed to operate continuously during daytime and evening, with overlapping nighttime hour operations.

• Idling Heavy trucks;

- on site truck movements;
- Front end loaders;
- Excavator; and
- Impulsive noise from waste loading in transfer station.

<u>Tito Construction/BinXpress</u> – Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours.

SLRQ

- Idling Heavy truck;
- on site truck movements;
- Portable Crusher with Screen; and
- Impulsive Noise from bin drops.

The portable crusher and screen were measured within the surrounding area.

<u>Chabot Enterprises</u> – Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours.

- Idling Heavy trucks; and
- on site truck movements.

<u>Combined Metal Industries</u> – Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours.

- on site truck movements;
- metal shredding/compaction
- excavators;
- front end loader;
- large rooftop exhaust fan;
- rail car loading;
- rail king idling;
- impulsive noise from metal shearing;
- impulsive noise from metal dropped into trucks; and
- general impulsive noise from metal being dropped.

<u>Crown Metal Packaging</u> – Assumed to operate continuously during all times of day.

- Heavy truck idling;
- make up air units;
- 5-ton HVAC units;
- 10-ton HVAC unit;
- cooling towers;
- small exhaust fans; and
- large exhaust fans.

Ingot Metal Company – Assumed to operate continuously during all times of day.

- Heavy trucks idling;
- Cooling tower;
- Dust collectors;
- Rooftop air intake/exhausts; and
- large exhaust fans.

Overall noise from the Ingot Metal Company was measured in the immediate area surrounding the facility.

SLRQ

<u>Satin Finish Hardwood Flooring</u> – Assumed to operate continuously during all times of day.

- Heavy trucks idling;
- Dust collectors;
- 10-ton HVAC units;
- make up air unit; and
- medium rooftop exhaust fans.

<u>Roadside Paving Ltd.</u> – Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours.

- Heavy truck idling;
- Crusher with screening;
- Excavator;
- Front end loaders; and
- On site truck movements.

<u>SEJJ Environmental Solutions</u> – Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours.

- Heavy trucks idling;
- Front end loader;
- On site truck movements; and
- Impulsive noise from trucks rolling over scale.

<u>City of Toronto – Emery Parks, Works, and Emergency Services Yard</u> – Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours.

- Heavy truck idling;
- make up air units;
- 5-ton HVAC units;
- Front end loaders; and
- Wood chipper.

Operation of an emergency generator is assumed to only occur during the daytime for 60-minute intervals.

<u>INKAS Armoured Vehicle Manufacturing</u> - Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours.

- 5-ton HVAC units;
- 10-ton HVAC unit; and
- 15-ton HVAC unit.



Esso Car Wash - Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours

- 5-ton HVAC unit;
- Car Wash;
- Vacuum stalls; and
- Idling cars.

<u>Ultramar Car Wash</u> - Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours

- 5-ton HVAC unit;
- 10-ton HVAC unit;
- Car Wash;
- Vacuum stalls; and
- Idling cars.

<u>Mega City Car Wash</u> - Assumed to operate continuously during daytime and evening, based on business hours of operation for the facility.

- 5-ton HVAC unit;
- Car Wash;
- Vacuum fan, serving several stalls; and
- Idling cars.

Car Wash and Vacuum fan noise were measured on-site within the surrounding area.

<u>Lucky & Brothers Auto</u> - Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours

- Forklift; and
- Heavy truck idling.

<u>Dunplas Pipe Systems</u> - Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours

- Forklifts;
- Heavy trucks idling;
- 5-ton HVAC units; and
- On site truck movements.

<u>City of Toronto - Silk Screening Process</u> - Assumed to operate continuously during daytime and evening, with reduced operation during nighttime hours

- Make up air units;
- 5-ton HVAC units;
- 10-ton HVAC units;
- 20-ton HVAC unit; and
- Small exhaust fans.



McDonald's - Assumed to operate during all times of the day.

- 5-ton HVAC units;
- 10-ton HVAC units;
- Kitchen exhaust fans; and
- Idling cars in drive thru.

Burger King - Assumed to operate during all times of the day.

- 5-ton HVAC units;
- 10-ton HVAC unit;
- Kitchen exhaust fans; and
- Idling cars in drive thru.

Noise emission data used in the assessment can be found in **Appendix D** for the above sources, including the assumptions applied in the assessment.

Assessments of Etobicoke Iron Works and Knoll North America were not completed as they are expected to meet noise guidelines at the closer residential towers between these facilities and the development lands.

#### 3.7 Noise Modelling and Results

Worst-case scenario noise levels from the surrounding commercial/industrial operations were modelled using Cadna/A, a computerized version of the internationally recognized ISO 9613-2 noise propagation algorithms. This is the preferred noise modelling methodology of the MECP. The ISO 9613 equations account for:

- Source to receiver geometry;
- Distance attenuation;
- Atmospheric absorption;
- Ground absorption;
- Reflections from the ground;
- Reflections from 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 (worst-case assessment of noise levels):

- Temperature: 10°C;
- Relative Humidity: 70%;
- Ground Absorption G: G = 0 (Reflective) as default global parameter, specific reflective areas such as forested areas modeled as G = 1.0 (absorptive);
- Reflection: An order of reflection of 1 was used (accounts for noise reflecting from walls);
- Wall Absorption Coefficients: Set to 0.37 (37 % of energy is absorbed, 63% reflected); and
- Terrain: Assumed to be flat.

Overall predicted sound levels and a comparison versus the Class 1 and Class 4 guideline minimums are provided in the following tables.



#### 3.7.1 Stationary Continuous Noise

The following tables summarize the worst-case impact for each block of the development and compares the results to the Class 1 and Class 4 area exclusionary limits.

#### 3.7.1.1 Façade Sound Levels

la durta i	Location	Predicted \ Sound	Worst-Case I Level	Meets Class 1	Meets Class 4
Industry	Location	Day/Eve (dBA)	Night (dBA)	Guideline Minimums? <sup>[1]</sup>	Guideline Minimums? <sup>[2]</sup>
	Block 1	57		No	Yes
Gerdau	Block 2	56		No	Yes
	Block 3	56		No	Yes
	Block 1	55	26	No	Yes
GFL	Block 2	53	25	No	Yes
	Block 3	54	26	No	Yes
	Block 1	52	24	No	Yes
Tito Construction	Block 2	51	22	No	Yes
	Block 3	51	23	No	Yes
	Block 1	37	37	Yes	Yes
Chabot Enterprises	Block 2	35	35	Yes	Yes
	Block 3	36	36	Yes	Yes
	Block 1	52	43	No	Yes
Combined Metal Industries	Block 2	51	44	No	Yes
	Block 3	52	43	No	Yes
	Block 1	43	43	Yes	Yes
Crown Metal Packaging	Block 2	44	44	Yes	Yes
	Block 3	42	42	Yes	Yes
	Block 1	42	42	Yes	Yes
Ingot Metal	Block 2	41	41	Yes	Yes
	Block 3	42	42	Yes	Yes
	Block 1	34	34	Yes	Yes
Satin Finish	Block 2	35	35	Yes	Yes
	Block 3	34	34	Yes	Yes
	Block 1	55		No	Yes
Roadside Paving	Block 2	55		No	Yes
	Block 3	54		No	Yes
	Block 1	44	32	Yes	Yes
SEJJ Environmental	Block 2	44	32	Yes	Yes
	Block 3	45	35	Yes	Yes
	Block 1	60		No	Yes
City of Toronto	Block 2	59		No	Yes
	Block 3	63		No	No
	Block 1	35	32	Yes	Yes
INKAS	Block 2	35	32	Yes	Yes
	Block 3	33	30	Yes	Yes
Esso	Block 1	37	33	Yes	Yes

Table 14: Predicted Worst-Case Noise Levels, Non-Impulsive Noise Sources

					SLR <sup>Q</sup>
Industry.	Location	Predicted Sound	Worst-Case I Level	Meets Class 1	Meets Class 4
		Day/Eve (dBA)	Night (dBA)	Minimums? <sup>[1]</sup>	Minimums? <sup>[2]</sup>
	Block 2	60	54	No	Yes
	Block 3	36	33	Yes	Yes
	Block 1	48	42	Yes	Yes
Ultramar	Block 2	58	51	No	Yes
	Block 3	50	43	Yes	Yes
	Block 1	56		No	Yes
Mega City Car Wash	Block 2	59		No	Yes
	Block 3	63		No	No
	Block 1	57		No	Yes
Lucky & Bros Auto	Block 2	51		No	Yes
	Block 3	43		Yes	Yes
	Block 1	49	50	No	Yes
Dunplas Pipe Systems	Block 2	49	49	No	Yes
	Block 3	46	46	No	Yes
	Block 1	44	42	Yes	Yes
CoT Silk Screening	Block 2	40	38	Yes	Yes
	Block 3	42	40	Yes	Yes
	Block 1	46	46	No	Yes
McDonalds	Block 2	49	49	No	Yes
	Block 3	51	51	No	Yes
	Block 1	41	41	Yes	Yes
Burger King	Block 2	43	43	Yes	Yes
	Block 3	46	46	Yes	Yes

<u>Notes:</u> - impacts are shown for the worst-case façade of each block.

[1] Class 1 Exclusionary Limits are 50 dBA for day/eve and 45 dBA for night

[2] Class 4 Exclusionary Limits are 60 dBA for day/eve and 55 dBA for night.

Industries found to be in excess of class 4 guidelines are shown on **Figures 8 to 10** for City of Toronto and Mega City Car Wash, respectively.

#### 3.7.1.2 Outdoor Living Area Sound Levels

#### Table 15: Predicted Worst-Case Noise Levels, Non-Impulsive Noise Sources - Outdoor living Areas

la dustra i	Leastion	Predicted \ Sounc	Vorst-Case Level	Meets Class 1	Meets Class 4	
industry	Location	Day/Eve (dBA)	Night (dBA)	Minimums? <sup>[1]</sup>	Minimums? <sup>[2]</sup>	
	Block 1	56		No	No	
Gerdau	Block 2	50		Yes	Yes	
	Block 3	50		Yes	Yes	
	Block 1	49		Yes	Yes	
GFL	Block 2	47		Yes	Yes	
	Block 3	49		Yes	Yes	
	Block 1	47		Yes	Yes	
Tito Construction	Block 2	45		Yes	Yes	
	Block 3	47		Yes	Yes	

					SLR <sup>Q</sup>	
		Predicted Worst-Case Sound Level		Meets Class 1	Meets Class 4	
Industry	Location	Day/Eve (dBA)	Night (dBA)	Guideline Minimums? <sup>[1]</sup>	Guideline Minimums? <sup>[2]</sup>	
	Block 1	27	-	Yes	Yes	
Chabot Enterprises	Block 2	34	-	Yes	Yes	
	Block 3	35	-	Yes	Yes	
	Block 1	49	-	Yes	Yes	
Combined Metal Industries	Block 2	50	-	Yes	Yes	
	Block 3	51	-	No	Yes	
	Block 1	43	-	Yes	Yes	
Crown Metal Packaging	Block 2	37	-	Yes	Yes	
	Block 3	40	-	Yes	Yes	
	Block 1	43	-	Yes	Yes	
Ingot Metal	Block 2	40	-	Yes	Yes	
	Block 3	41	-	Yes	Yes	
	Block 1	33	-	Yes	Yes	
Satin Finish	Block 2	28	-	Yes	Yes	
	Block 3	34	-	Yes	Yes	
	Block 1	46	-	Yes	Yes	
Roadside Paving	Block 2	52	-	No	Yes	
	Block 3	53	-	No	Yes	
	Block 1	37	-	Yes	Yes	
SEJJ Environmental	Block 2	42	-	Yes	Yes	
	Block 3	44	-	Yes	Yes	
	Block 1	59	-	No	Yes	
City of Toronto	Block 2	58	-	No	No	
	Block 3	63	-	No	No	
	Block 1	34	-	Yes	Yes	
INKAS	Block 2	29	-	Yes	Yes	
	Block 3	29	-	Yes	Yes	
	Block 1	31	-	Yes	Yes	
Esso	Block 2	41	-	Yes	Yes	
	Block 3	25	-	Yes	Yes	
	Block 1	39	-	Yes	Yes	
Ultramar	Block 2	55	-	No	Yes	
	Block 3	31	-	Yes	Yes	
	Block 1	57	-	No	No	
Mega City Car Wash	Block 2	59	-	No	No	
	Block 3	63	-	No	No	
	Block 1	43	-	Yes	Yes	
Lucky & Bros Auto	Block 2	49	-	Yes	Yes	
	Block 3	42	-	Yes	Yes	
	Block 1	49	-	Yes	Yes	
Dunplas Pipe Systems	Block 2	34	-	Yes	Yes	
	Block 3	40	-	Yes	Yes	
	Block 1	43	-	Yes	Yes	
COT SIlk Screening	Block 2	34	-	Yes	Yes	



loduster.	Looption	Predicted \ Sound	Vorst-Case Level	Meets Class 1	Meets Class 4	
muustry	LUCATION	Day/Eve (dBA)	Night (dBA)	Minimums? <sup>[1]</sup>	Minimums? <sup>[2]</sup>	
	Block 3			Yes	Yes	
	Block 1	45		Yes	Yes	
McDonalds	Block 2	50		Yes	Yes	
	Block 3	52		Yes	Yes	
	Block 1	42		Yes	Yes	
Burger King	Block 2	44		Yes	Yes	
	Block 3	47		Yes	Yes	

<u>Notes:</u> - impacts are shown for the worst-case façade of each block.

[1] Class 1 Exclusionary Limits are 50 dBA for day/eve.

[2] Class 4 Exclusionary Limits are 60 dBA for day/eve.

Industries found to be in excess of class 4 guidelines are shown on **Figures 8 to 10** for Gerdau, City of Toronto Yard, and Mega City Car Wash, respectively.

#### 3.7.2 Emergency Testing Equipment

#### 3.7.2.1 Façade Sound Levels

#### Table 16: Overall Industrial Sound Levels – Emergency Equipment Testing, Non-Impulsive Noise

		Predicted Worst-O	Case Stationary el	Meets Class 1	Meets Class 4 Guideline Minimums? <sup>[2]</sup>	
Source Facility	Site Location	Day/Eve (dBA)	Night (dBA)	Minimums? <sup>[1]</sup>		
City of Toronto Yard	Block 1	43	-	Yes	Yes	
	Block 2	46	-	Yes	Yes	
	Block 3	52	-	Yes	Yes	

<u>Notes:</u> - impacts are shown for the worst-case façade of each block.

[1] Class 1 Exclusionary Limits are 55 dBA for day/eve.

[2] Class 4 Exclusionary Limits are 65 dBA for day/eve.

#### 3.7.2.2 Outdoor Living Area Sound Levels

# Table 17: Predicted Worst-Case Noise Levels, Emergency Testing Non-Impulsive Noise Sources Outdoor living Areas

la dusta r		Predicted \ Sound L	Vorst-Case evel [1]	Meets Class 1	Meets Class 4 Guideline Minimums?	
industry	WOIST Case OLA	Day/Eve (dBA)	Night (dBA)	Minimums?		
	Block 1	39		Yes	Yes	
City of Toronto Yard	Block 2	42		Yes	Yes	
	Block 3	48		Yes	Yes	

The predicted emergency equipment sound levels within the development are below the exclusionary guideline limits. Therefore, no additional mitigation is required. Sound levels are shown on **Figure 13**.

#### 3.7.3 Stationary Impulsive Noise

#### 3.7.3.1 Façade Sound Levels

Source	Location	Impulses Per Hour	Predicted Worst-Case Sound Level (dBAI) Day/Eve Night		Meets Class 1 Guideline Minimums?	Meets Class 4 Guideline Minimums?
			(UDA)	(dBA)		
Corday (Pail loading	Block 1	9+	54	n/a	No	Yes
metal shearing)	Block 2	9+	53	n/a	No	Yes
	Block 3	9+	55	n/a	No	Yes
	Block 1	9+	56	n/a	No	Yes
CMI Rail loading,	Block 2	9+	54	n/a	No	Yes
metarshearing	Block 3	9+	55	n/a	No	Yes
	Block 1	2	70	n/a	Yes	Yes
CMI (Metal Casing Dron)	Block 2	2	69	n/a	Yes	Yes
Diop)	Block 3	2	70	n/a	Yes	Yes
SEJJ Scale	Block 1	9+	50	n/a	Yes	Yes
	Block 2	9+	51	n/a	No	Yes
	Block 3	9+	50	n/a	Yes	Yes

#### Table 18: Overall Industrial Sound Levels – Normal Operations, Impulsive Noise

Notes: Sound levels are L<sub>LM</sub> sound levels, in dBAI

#### 3.7.3.2 Outdoor Living Area Sound Levels

## Table 19: Predicted Worst-Case Noise Levels, Normal Operations, Impulsive Noise - Outdoor living Areas

Industry	Worst Case OLA	Predicted Worst-Case Sound Level [1] Day/Eve Night		Meets Class 1 Guideline Minimums?	Meets Class 4 Guideline Minimums?
		(dBA)	(dBA)		INITIATION:
Gorday (Pail loading motal	Block 1	54		No	Yes
shoaring)	Block 2	51		No	Yes
sticating)	Block 3	49		Yes	Yes
	Block 1	52		No	Yes
CMI (Rail loading, metal shearing)	Block 2	54		No	Yes
	Block 3	55		No	Yes
	Block 1	70		Yes	Yes
CMI (Metal Casing Drop)	Block 2	68		Yes	Yes
	Block 3	69		Yes	Yes
	Block 1	42		Yes	Yes
SEJJ Scale	Block 2	48		Yes	Yes
	Block 3	49		Yes	Yes

Notes: Sound levels are impulsive L<sub>LM</sub> sound levels, in dBAI



The predicted impulsive sound levels within the development are below the Class 4 exclusionary guideline limits. Therefore, no additional mitigation is required if a Class 4 designation is obtained.

#### 3.7.4 Recommended Noise Mitigation Measures

Based on the noise modelling above, excesses of 13 dBA above the Class 1 and 3 dBA above the Class 4 guideline limits are predicted on the south and west façades block 3 of the proposed development. Excesses of up to 13 dBA above the Class 1 and 8 dBA above the Class 4 guideline limits are predicted for OLAs.

Impulsive noise is also expected to exceed Class 1 guidelines by 6 dBAI on Block 1, however they will meet the Class 4 guideline limits on all facades.

The above excesses of the guideline limits (Class 1 and Class 4) are due to sources, such as excavators, cranes, wood chipping, shredding equipment, truck pass-by noise. As these sources cannot be readily mitigated at the source, a combination of noise control measures will be required to meet the applicable guideline limits.

The following is a summary of feasible noise control measures that will likely be used in combination to prevent adverse impacts from the surrounding industries.

#### 3.7.4.1 Class 4 Area designation

Requesting a Class 4 Area designation from the City allows for the application of relaxed guideline limits to the development. The exclusionary sound level limits for the Class 4 Area facades are 10 dBA/dBAI higher than the MECP default guideline limits for a Class 1 area. A 5 dBA/dBAI increase in the guideline limits is applied to the outdoor amenity areas of a Class 4 designated area.

Based on a preliminary review, the proposed development meets the requirements outlined in NPC-300 (e.g. new development not yet built, located near lawfully established facilities, etc.), and can be sought from the City of Toronto. If approved, the majority of facilities in excess of the Class 1 guideline limits would meet the Class 4 limits with no additional noise controls. The exceptions are Gerdau, City of Toronto Yards and Mega City Car Wash, in which a reduced amount of noise controls would be required to meet the relaxed Class 4 area guideline limits.

#### 3.7.4.2 Source Sound Level Refinement

During the site visits completed by SLR personnel, the City of Toronto Yards woodchipper was not in use and could not be measured. For this assessment, generic sound level data on file was applied. As this equipment is the dominant source contributing to excesses within the development, sound level measurements should be completed of the woodchipper in operation. Noise measurements of the unit in operation will refine the noise impact modelling and confirm excesses of the Class 4 guideline limits. Once revised, noise control measures for this equipment can be re-assessed.

#### 3.7.4.3 Physical Noise Controls

#### 3.7.4.3.1 City of Toronto Yards

The City of Toronto Yards woodchipper noise impacts were assessed based on generic sound level data on file at SLR. A reduction of approximately 5 dBA is required for compliance with the Class 4 limits for the overall City of Toronto Yards woodchipper. Based on historical data on file, a reduction of 7 to 10 dBA can be achieved by enclosing the woodchipper (and associated equipment) within a canopy structure

typically applied for industrial storage and warehousing. With the enclosure of the wood chipping operations within a canopy structure, the MECP Class 4 limits are expected to be met at the proposed development.

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#### 3.7.4.3.2 Mega City Car Wash

The Mega City Car Wash lands are understood to be currently undergoing a development application to allow for a residential development. Once re-developed, the Mega City Car Wash noise will no longer be a concern for the development and noise controls are not required.

Should the Mega City Car Wash continue to operate, noise control measures will be required to meet the Class 4 Area limits at the development. Excesses of the guideline limits are due to a combination of the car wash dryer fan noise emitted through the entrance and the central vacuum fan noise. As the development will be a multi-storey residential building, acoustic barriers are not considered a feasible option for mitigation noise on the building façade. Dryer and vacuum fan replacement and or installation of acoustic silencers will likely be required to reduce the car wash facility noise levels sufficiently for the development.

Based on a current modelling, an overall reduction of dryer fan noise by 11 dBA is required (overall fan PWL of 95 dBA), which can be achieved with commercially available low noise fan systems. On preliminary review, fitment of the central vacuum system with an acoustic silencer is expected to provide sufficient noise reductions to meet the Class 4 limits for the Mega City Car Wash facility.

#### 3.7.4.4 Acoustic Barriers (For Outdoor Amenity areas)

Perimeter acoustic barriers will be Required around OLAs in block 1 on the 6<sup>th</sup> storey, block 3 on the 2<sup>nd</sup> and 7<sup>th</sup> Square to address a combination of noise from the Gerdeau Metals Recycling, City of Toronto Yards, and the Mega City Car Wash. The required barrier heights to reach reduce sound levels to reach the Class 4 limit of 55 dBA for outdoor amenity areas are summarized in **Table 20**.

ID	Location	Barrier Height (m)	Worst-Case Facility Noise Level Leq Day (dBA)	Class 4 Guideline Limit Leq Day (dBA)	Notes
OLA 1	Block 1, 2 <sup>nd</sup> Floor	1.5	55	55	<ul> <li>Perimeter barrier on south side of OLA</li> <li>Height = 1.5 m</li> <li>Approx. length of 63 m</li> <li>Surface Density of 10 kg/m<sup>2</sup> required</li> <li>Must be sealed with no gaps</li> </ul>
OLA 2	Block 1, 6 <sup>th</sup> Floor	1.0	53	55	<ul> <li>Perimeter barrier</li> <li>Height = 1.0 m</li> <li>Approx. length of 108 m</li> <li>Surface Density of 10 kg/m<sup>2</sup> required</li> <li>Must be sealed with no gaps</li> </ul>
OLA 3	Block 2, 2 <sup>nd</sup> Floor	1.5	53	55	<ul> <li>Perimeter barrier on south and west sides of OLA</li> <li>Height = 1.5 m</li> <li>Approx. length of 78 m</li> <li>Surface Density of 10 kg/m<sup>2</sup> required</li> <li>Must be sealed with no gaps</li> </ul>

#### Table 20: Recommended Acoustic Barriers for Outdoor Living Areas



ID	Location	Barrier Height (m)	Worst-Case Facility Noise Level Leq Day (dBA)	Class 4 Guideline Limit Leq Day (dBA)	Notes
OLA 5	Block 3, 2 <sup>nd</sup> storey	2.5	55	55	<ul> <li>Perimeter barrier on South and west sides of OLA</li> <li>Height = 2.5 m</li> <li>Approx. lengths of 24 m</li> <li>Surface Density of 10 kg/m<sup>2</sup> required</li> <li>Must be sealed with no gaps</li> </ul>
OLA 6	Block 3, 7 <sup>th</sup> storey	2.25	55	55	<ul> <li>Perimeter barrier on south and west sides of OLA</li> <li>Height = 2.25 m</li> <li>Approx. length of 19 m</li> <li>Surface Density of 10 kg/m<sup>2</sup> required</li> <li>Must be sealed with no gaps</li> </ul>

The perimeter barriers and localized screening 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 noise (generally a minimum of  $10 \text{ kg/m}^2$  face density). The panels and frames should be free of gaps and cracks on the sides and bottom. The system should also be designed to withstand any wind loading.

With the inclusion of the acoustic barriers, the outdoor amenity space sound level limits for a Class 4 area will be met for all facilities (Gerdau, City of Toronto Yards, and Mega City Car Wash) originally predicted to be in excess of the Class 4 limits within the outdoor amenity areas.

As indicated above, noise impact modelling was completed based on historical data on file at SLR. Following a confirmation of equipment noise levels for the City of Toronto Yards, the above barrier requirements would be re-assessed. Also, should the Mega City Car Wash lands be re-developed into residential buildings, the car wash and vacuum fan system noise will no longer be a concern.

#### 3.8 Ventilation and Warning Clause Requirements

As the surrounding industries have the potential to be audible at times, a warning clause should be included in the Agreement of Purchase and Sale or Lease and in the relevant Development Agreements. An MECP NPC-300 **Type E** warning clause is recommended for all suites within the development. See **Appendix D** for warning clause details.

In addition, central air conditioning and a **Type F** Warning Clause is recommended as a component of the Class 4 Area designation. See **Appendix D** for warning clause details.



## PART 2: IMPACTS OF THE DEVELOPMENT ON ITSELF

# 4.0 STATIONARY SOURCE NOISE IMPACTS ON THE DEVELOPMENT ITSELF

At the time of this assessment, the proposed development's mechanical systems have not been sufficiently designed.

If common mechanical systems will be implemented as part of the proposed development, the impacts from all equipment should comply with the MECP Publication NPC-300 guideline limits. The mechanical equipment is to be included with proposed development; the potential impacts should be assessed as part of the final building design. The criteria can be met at all surrounding and on-site receptors by the appropriate selection of mechanical equipment, by locating equipment with sufficient setback from noise sensitive locations, and by incorporating control measures (e.g., silencers) into the design. This can be confirmed at either the site plan approval or building permit approval stages.

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 SOUROUNDING AREA

## 5.0 STATIONARY SOURCE NOISE IMPACTS ON SORROUNDING AREA

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

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

Other possible development noise sources with possible adverse impacts on the surrounding neighbourhood are the potential mechanical equipment (make up air units, cooling units, and parking garage vents). This equipment is required to meet MECP Publication NPC-300 requirements at the worst-case off-site noise sensitive receptors.

Off-site impacts are not anticipated given that the systems will be designed to ensure that the applicable noise guidelines are met at on-site receptors.

Regardless, potential impacts will 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) into the design.

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



## 6.0 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 the surrounding area and the development on itself have been considered. Based on the results of our studies, the following conclusions have been reached:

#### 6.1 Transportation Noise

- An assessment of transportation noise impacts from the surrounding roadways, railway and future LRT was completed.
- Based on transportation façade sound levels upgraded glazing is required within the development, as outlined in outlined in **Section 2.4.1.**
- Noise impacts within the common outdoor amenity areas are expected to meet guidelines as outlined in **Section 2.5**.
- Central Air Conditioning and a **Type D** Warning Clause is recommended for units on the North, facades of Block 2 Tower B and Podium, as outlined in **Section 2.4.2**. Warning clauses are included in **Appendix D**.
- Forced air heating and the provision for air conditioning and a **Type C** Warning Clause are recommended for all units not listed above, as outlined in **Section 2.4.2**. Warning clauses are included in **Appendix D**.
- In addition, a CPR Warning Clause are also required for all units in the development.

#### 6.2 Stationary Noise

- "Stationary" noise from the surrounding commercial and industrial facilities were assessed on the proposed development for both Class 1 and Class 4 Area designation, as outlined in **Section 3**.
- Stationary noise impacts from the surrounding commercial/industrial facilities are predicted to exceed Class 1 and Class 4 guidelines within the development.
- Due to the number and types of equipment within the surrounding area (eg. excavators, cranes, wood chipping, shredding equipment, truck pass-by noise, etc) source-based noise controls are not considered to be practical or feasible for the levels of reductions needed to meet the Class 1 limits.
- The majority of the surrounding facilities are predicted to meet the Class 4 area designation guideline limits of the MECP NPC-300 with no additional noise controls. The Class 4 area guideline limits are expected to be met for the remaining facilities, with a combination of sound level data refinement, installation of noise controls/equipment replacement and inclusion of acoustic barriers. Therefore, a Class 4 area designation is considered appropriate and should be sought from the City.



- A **Type E** noise warning clause is recommended, as outlined in **Section 3.8**, due to the general noise from the surrounding industries and commercial properties. Warning clauses are included in **Appendix D**.
- Central air conditioning and a **Type F** noise warning clause should be included as a component of the Class 4 Area designation if it is obtained, as outlined in **Section 3.8**. Warning clauses are included in **Appendix D**.

#### 6.3 Overall Assessment

- Impacts of the environment on the proposed development can be adequately controlled with upgraded glazing, inclusion of noise barriers, ventilation requirements and warning clauses, sound data refinement, equipment replacement/installation of noise controls, and through the application for a Class 4 area designation., as outlined 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 the glazing analysis was completed based on generic room and window dimensions, the analysis should be revised once detailed floor and façade plans are available.
- As the mechanical systems for the proposed development have not been designed at the time of this assessment, the acoustical design should be reviewed by an Acoustical Consultant as part of the final building design.



## 7.0 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, Stationery and Transportation Sources – Approval and Planning*, 2013.

Ontario Ministry of the Environment, Conservation and Parks, 1996, STAMSON v5.03: Road, Rail and Rapid Transit Noise Prediction.



## 8.0 STATEMENT OF LIMITATIONS

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### **FIGURES**

Environmental Noise Assessment Weston Heights SLR Project No.: 241.30246.00000























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## APPENDIX A Development Drawings

Environmental Noise Assessment Weston Heights SLR Project No.: 241.30246.00000

















