

 **2130254 Ontario Inc.**

51 Manstor Road

**Compatibility & Mitigation Study
Air Quality, Dust, Odour, & Noise
Toronto, ON**

SLR Project No: 241.30132.00000

July 2021

SLR



This page intentionally left blank
for 2-sided printing purposes

Compatibility & Mitigation Study Air Quality, Dust, Odour, and Noise Toronto, ON

SLR Project No.: 241.30132.00000, Version 2

Prepared by
SLR Consulting (Canada) Ltd.
150 Research Lane, Suite 105
Guelph, ON N1G 4T2

for

2130254 Ontario Inc.
c/o Mark Flowers
Davies Howe LLP
The Tenth Floor
424 Adelaide Street West
Toronto, ON, Canada
M5V 3C1

July 12, 2021

Prepared by:



Alice Najjar, B.A.
Junior Air Quality Scientist

Prepared by:



Jason Dorsers
Junior Acoustics, Noise, and Vibration Scientist

Reviewed by:



Nigel Taylor, M. Sc., EP
Principal, Air Quality



Scott Penton, P.Eng.
Principal, Technical Director

Distribution: 1 copy – 2130254 Ontario Inc.
1 copy – SLR Consulting (Canada) Ltd.

EXECUTIVE SUMMARY

SLR Consulting (Canada) Ltd. (SLR), was retained by 2130254 Ontario Inc. to conduct a Compatibility / Mitigation Study focusing on air quality, odour, dust, and noise, in support of a request to redesignate the 51 Manstor Road property from Employment Areas to Mixed Use Areas. This assessment has considered:

- Industrial air quality, odour, and dust emissions;
- Industrial/ commercial noise and vibration; and
- Transportation noise and vibration.

Based on the review completed, the mixed use development, including residential uses, are anticipated to be compatible with the surrounding land uses from an air quality and noise perspective. No adverse impacts from air quality contaminants, dust, odour or noise are anticipated. There will be no negative impacts on surrounding industries and their ability to obtain/ maintain their required Ministry of the Environment, Conservation & Parks permits and approvals.

Based on transportation façade sound levels, windows will require acoustical upgrades on the east, northeast and southeast corner units, as outlined in **Section 6.2.5**. Façade STC requirements should be reviewed by an acoustical consultant as a built form design exercises.

Adverse vibration impacts from transportation sources are not anticipated provided the building outline maintains a 20 m setback from the railway corridor.

Versions

Version	Date	Comment
1	June 21, 2021	• First Submission
2	July 12, 2021	• Final Submission

Table of Contents

Executive Summary	ii
1. Introduction	1
2. Description of Development and Surroundings	1
2.1 Proposed Development	1
2.2 Surroundings	1
2.3 Land Use Designations in the Area	2
3. Assessment Framework.....	2
3.1 Provincial Policy Statement	2
3.2 City of Toronto Official Plan Amendment No. 231	3
3.3 D-Series of Guidelines.....	4
3.3.1 Guidelne D-6 Requirements	4
3.3.2 Requirements for Assessments	5
3.3.3 Requirements for Minimum Separation Distances	6
4. Nearby Industries	6
4.1 Canuck Express / Global wAste Service Storage Yard	7
4.2 Toronto – Works and Emergency Services	8
4.3 Classic Towing and Storage	9
4.4 KBC Enterprise	9
4.5 Wilson Truck Lines	10
4.6 Brandt Meat	10
4.7 Summary	11
5. Air Quality, Dust and Odour Assessment.....	11
5.1 Industrial Sources	11
5.1.1 Guidelines and Regulations	11
5.1.2 Local Meteorology	13
5.1.3 Site Visits and Odour and Dust Observations	13
5.1.4 Assessment of Potential Air Quality Impacts.....	13
5.1.5 Logistics Facilities	13
5.1.6 Toronto- Works and Emergency Services	14
5.1.7 Classic Towing and Storage	14
5.1.8 KBC Enterprise.....	14

5.1.9	Brandt Meat	15
5.2	Transportation Related Air Pollution	15
5.2.1	Arterial Roadways	15
5.2.2	Canadian Pacific – Galt Subdivision Rail Yard	16
5.3	Summary of Air Quality, Dust and Odour Conclusions And Recommendations	16
6.	Noise Assessment.....	16
6.1	Industrial (Stationary) Sources	16
6.1.1	Guidelines	16
6.1.2	Application of the NPC-300 Guidelines	17
6.1.3	Sources of Interest	18
6.1.4	Ambient Roadway - Background Sound Level.....	19
6.1.5	Noise Modelling and Results	20
6.1.6	Required Noise Mitigation Measures.....	21
6.1.7	Impacts of the Development on Itself	21
6.1.8	Impacts of the Development on The Surroundings.....	22
6.2	Transportation Noise Sources	22
6.2.1	MECP Publication NPC-300 Guidelines for Transportation Sources.....	22
6.2.2	Traffic Data and Future Projections	25
6.2.3	Railway Traffic Data.....	26
6.2.4	Projected Sound Levels	26
6.2.5	Glazing Requirements	27
6.2.6	Outdoor Living Area Requirements	29
6.2.7	Ventilation Requirements	30
6.2.8	Other Transportation Warning Clause Requirements.....	30
6.3	Summary of Noise Conclusions And Recommendations	31
7.	Vibration Assessment.....	31
7.1	Industrial (Stationary) Sources	31
7.2	Transportation Sources	31
7.2.1	Guidelines	31
7.2.2	Measurements	32
7.2.3	Assessment Results	32
7.3	Summary of Vibration Conclusions And Recommendations	33
8.	Conclusions.....	33
9.	References.....	34
10.	Statement Of Limitations.....	35

TABLES

Table 1: Guideline D-6 - Potential Influence Areas and Recommended Minimum Setback Distances for Industrial Land Uses	4
Table 2: Guideline D-6 - Industrial Categorization Criteria	5
Table 3: Identified Industries Within 1000 m of Proposed Development	7
Table 4: Proposed Clarification of Human Receptors (MECP 2008)	12
Table 5: NPC-300 Exclusion Limits for Non-Impulsive Sounds (L_{eq} (1-hr), dBA)	17
Table 6: NPC-300 Exclusion Limits for Impulsive Sounds (L_{LLM} , dBA)	17
Table 7: Summary of Ambient Road Traffic Data ^[1]	19
Table 8: Overall Industrial Sound Levels – Normal Operations, Non-Impulsive Noise.....	20
Table 9: Overall Industrial Sound Levels – Normal Operations, Generator Set Testing.....	21
Table 10: Overall Industrial Sound Levels – Normal Operations, Impulsive Noise	21
Table 11: NPC-300 Sound Level Criteria for Road and Rail Noise	23
Table 12: NPC-300 Ventilation and Warning Clause Requirements	23
Table 13: NPC-300 Building Component Requirements.....	24
Table 14: NPC-300 Outdoor Sound Level Criteria for Road and Rail Noise	24
Table 15: NPC-300 Outdoor Living Area Mitigation & Warning Clause Requirements.....	25
Table 16: Summary of Road Traffic Data Used in the Transportation Analysis	26
Table 17: Summary of Rail Traffic Data Used in the Transportation Noise Analysis.....	26
Table 18: Overall Projected Sound Levels	27
Table 19: Transportation Noise Façade Sound Transmission Class (STC) Requirements.....	28
Table 20: Predicted Outdoor Amenity Area Sound Levels.....	30
Table 21: Transportation Vibration Guideline Limits.....	32
Table 22: Measured Vibration Levels	32

FIGURES

Figure 1: Site and Context Plan

Figure 2: Area Zoning Map

Figure 3a: Toronto Official Plan Map

Figure 3b: Sherway Secondary Plan Map

Figure 4: Guideline D-6 Separation Distances

Figure 5: Wind Frequency Distribution Diagram (Wind Rose), Toronto Lester B. Pearson Int'l Airport

Figure 6: Modelled Stationary Noise Sources

Figure 7: Predicted Stationary Noise Sound Levels at Façades, Continuous – 4.5m

Figure 8: Predicted Stationary Noise Sound Levels at Façades, Impulsive – 4.5m

Figure 9: Predicted Stationary Noise Sound Levels at Facades, Generator Testing – 4.5m

Figure 10: Predicted Ambient Background Noise Sound Levels at Facades – 4.5m

Figure 11: Predicted Transportation Noise Sound Levels at Facades, Overall Total – 4.5m

Figure 12: Predicted Transportation Noise Sound Levels at Facades, Overall Total – 30m

Figure 13: Vibration Measurement Locations

APPENDIX

Appendix A: Industrial Information

Appendix B: Stationary Noise Modelling Inputs

Appendix C: Traffic Data

Appendix D: Warning Clauses

1. INTRODUCTION

SLR Consulting (Canada) Ltd. (SLR) was retained by 2130254 Ontario Inc. to conduct a Compatibility / Mitigation Study in support of a request to redesignate the 51 Manstor Road property from Employment Areas to Mixed Use Areas.

Potential environmental impacts from the following sources have been considered:

- Industrial air quality, odour, and dust emissions; and
- Industrial and transportation noise and vibration.

In this assessment, SLR has reviewed the surrounding industrial land uses and major facilities in the area with respect to the following guidelines:

- The City of Toronto's Terms of Reference for Compatibility/ Mitigation Studies;
- The Provincial Policy Statement;
- Ministry of the Environment, Conservation and Parks ("MECP") Guidelines D-1 and D-6;
- Ontario Regulation 419/05: *Air Pollution – Local Air Quality* and its associated air quality standards and assessment requirements;
- The MECP's draft policies on odour impacts and assessment;
- MECP Publication NPC-300 noise guidelines for industrial and transportation; and
- The City Noise By-law (Chapter 591 of the Municipal Code).

This report is intended to meet the requirements of the "Compatibility/ Mitigation Study" Terms of Reference published by the City of Toronto ("the OPA 231 ToR"). This report identifies existing and potential land use compatibility issues and identifies and evaluates options to achieve appropriate design, buffering and/or separation distances between the proposed sensitive land uses, including residential uses, and nearby Employment Areas and/or major facilities.

2. DESCRIPTION OF DEVELOPMENT AND SURROUNDINGS

2.1 PROPOSED DEVELOPMENT

The subject property, 51 Manstor Road (the "Project"), is currently occupied by Ultra Depot Inc., which specializes in the handling and storage of empty marine containers. A context plan can be found in **Figure 1**. This study is in support of the property's proposed Employment Land conversion to a Mixed-Use Area designation. As the development is currently in the early planning stages, a concept plan for the mixed-use site, including residential uses, has not yet been developed.

2.2 SURROUNDINGS

Surrounding the Project site are commercial and industrial lands. South and east of the Project are commercial plazas, as well as the Sherway Gardens shopping centre. Northeast of the site is a City of Toronto winter maintenance site, and to the west across the railway are industrial sites.

2.3 LAND USE DESIGNATIONS IN THE AREA

The City of Toronto Zoning Map for the area can be seen in **Figure 2**. The Project site is zoned as Employment Industrial (E). The proposed site is surrounded by properties that are zoned as Utility and Transportation (UT). The property to the east of the Project site is zoned as Commercial Residential (CR) and the lands north of the Project are zoned as Employment Industrial.

The City of Toronto Official Plan Map for the area can be seen in **Figure 3a**. The Project site is currently proposed to be designated as Core Employment. The Project site is surrounded by utility corridors to the north, east, south, and west. The property east of the Project site is a designated Mixed-Use area. To the west the lands are designated Core Employment.

The Sherway Secondary Plan map can be seen in **Figure 3b**. The Project site is proposed to be designated as a Core Employment Areas within the Sherway Secondary Plan.

3. ASSESSMENT FRAMEWORK

The intent of this report is to identify any existing and potential land use compatibility issues and to identify and evaluate options to achieve appropriate design, buffering and/or separation distances between the proposed sensitive land uses, including residential uses, and nearby Employment Areas and/or major facilities. Recommended measures intended to eliminate or mitigate negative impacts and adverse effects are provided.

The requirements of Ontario's planning regime are organized such that generic policy is informed by specific policy, guidance, and legislation, as follows:

- The Provincial Policy Statement (“PPS”) sets out goals – making sure adjacent land uses are compatible from a health and safety perspective and are appropriately buffered; then
- The Ministry of the Environment, Conservation & Parks (“MECP”) D-series of guidelines set out methods to determine if assessments are required (areas of influence, recommended separation distances, and the need for additional studies); then
- MECP and Municipal regulations, policies, standards and guidelines then set out the requirements of additional air quality, noise and vibration studies and the applicable policies, standards, guidelines and objectives to ensure that adverse effects do not occur or are mitigated.

3.1 PROVINCIAL POLICY STATEMENT

The PPS “provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario’s policy-led planning system, the Provincial Policy Statement sets the policy foundation for regulating the development and use of land. It also supports the provincial goal to enhance the quality of life for all Ontarians.”

The PPS is a generic document, providing a consolidated statement of the government’s policies on land use planning and is issued under section 3 of the Planning Act. Municipalities are the primary implementers of the PPS through policies in their local official plans, zoning by-laws and other planning related decisions, such as City of Toronto’s Official Plan. The current 2020 PPS came into effect on May 1, 2020. Policy direction concerning land use compatibility is provided in Section 1.2.6 of the PPS.

From the current 2020 version:

“1.2.6 Land Use Compatibility

1.2.6.1 Major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of major facilities in accordance with provincial guidelines, standards and procedures.

1.2.6.2 Where avoidance is not possible in accordance with policy 1.2.6.1, planning authorities shall protect the long-term viability of existing or planned industrial, manufacturing or other uses that are vulnerable to encroachment by ensuring that the planning and development of proposed adjacent sensitive land uses are only permitted if the following are demonstrated in accordance with provincial guidelines, standards and procedures:

- a) there is an identified need for the proposed use;
- b) alternative locations for the proposed use have been evaluated and there are no reasonable alternative locations;
- c) adverse effects to the proposed sensitive land use are minimized and mitigated; and
- d) potential impacts to industrial, manufacturing or other uses are minimized and mitigated.”

The goals of the PPS are implemented through Municipal and Provincial policies, as discussed below. Provided the Municipal and Provincial policies, guidelines, standards and procedures are met, the requirements of the PPS will be met.

3.2 CITY OF TORONTO OFFICIAL PLAN AMENDMENT NO. 231

The City of Toronto has recently released a Terms of Reference for Compatibility/ Mitigation Studies, based on the framework developed under Official Plan Amendment No. 231 (OPA 231). The Terms of Reference can be found on the City’s website at:

<https://www.toronto.ca/city-government/planning-development/application-forms-fees/building-toronto-together-a-development-guide/application-support-material-terms-of-reference/>

The purpose of the compatibility/mitigation study is to identify any existing and potential land use compatibility issues and identify and evaluate options to achieve appropriate design, including buffering and/or separation distances between land uses.

The compatibility/mitigation study is to provide a written description of:

- Potential land use compatibility impacts by type (traffic, noise, vibration, dust, odour, etc.), including severity, frequency and duration of impacts that may cause an adverse effect on the proposed development;
- Existing approvals from the MECP;
- Within the immediate area of the proposed development, the history of complaints received by the City or MECP;
- Potential intensification or operational changes such as expansion plans for existing major facilities in the area;
- Potential land use compatibility issues that may have a negative impact on nearby employment areas and major facilities

Where a land use compatibility issue is identified, the compatibility/mitigation study should identify options to achieve appropriate design, such as buffering/separation distance, at-source mitigation or at-

receptor mitigation.

3.3 D-SERIES OF GUIDELINES

The D-series of guidelines were developed by the MECP in 1995 as a means to assess recommended separation distances and other control measures for land use planning proposals in an effort to prevent or minimize 'adverse effects' from the encroachment of incompatible land uses where a facility either exists or is proposed. D-series guidelines address sources including sewage treatment (Guideline D-2), gas and oil pipelines (Guideline D3), landfills (Guideline D-4), water services (Guideline D-5) and industries (Guideline D-6).

For this project, the applicable guideline is Guideline D-6 - *Compatibility between Industrial Facilities and Sensitive Land Uses*.

Adverse effect is a term defined in the Environmental Protection Act and "means one or more of

- impairment of the quality of the natural environment for any use that can be made of it,
- injury or damage to property or to plant or animal life,
- harm or material discomfort to any person,
- an adverse effect on the health of any person,
- impairment of the safety of any person,
- rendering any property or plant or animal life unfit for human use,
- loss of enjoyment of normal use of property, and
- interference with the normal conduct of business".

3.3.1 GUIDELINE D-6 REQUIREMENTS

The guideline specifically addresses issues of air quality, odour, dust, noise and litter. To minimize the potential to cause an adverse effect, potential areas of influence and recommended minimum setback distances are included within the guidelines. The potential areas of influence and recommended separation distances from the guidelines are provided in the table below.

Table 1: Guideline D-6 - Potential Influence Areas and Recommended Minimum Setback Distances for Industrial Land Uses

Industry Classification	Area of Influence	Recommended Minimum Setback Distance
Class I – Light Industrial	70 m	20 m
Class II – Medium Industrial	300 m	70 m
Class III – Heavy Industrial	1000 m	300 m

Industrial categorization criteria are supplied in Guideline D-6-2, and are shown in the following table:

Table 2: Guideline D-6 - Industrial Categorization Criteria

Category	Outputs	Scale	Process	Operations / Intensity	Possible Examples
Class I Light Industry	<ul style="list-style-type: none"> Noise: Sound not audible off-property Dust: Infrequent and not intense Odour: Infrequent and not intense Vibration: No ground-borne vibration on plant property 	<ul style="list-style-type: none"> No outside storage Small-scale plant or scale is irrelevant in relation to all other criteria for this Class 	<ul style="list-style-type: none"> Self-contained plant or building which produces/ stores a packaged product Low probability of fugitive emissions 	<ul style="list-style-type: none"> Daytime operations only Infrequent movement of products and/ or heavy trucks 	<ul style="list-style-type: none"> Electronics manufacturing and repair Furniture repair and refinishing Beverage bottling Auto parts supply Packaging and crafting services Distribution of dairy products Laundry and linen supply
Class II Medium Industry	<ul style="list-style-type: none"> Noise: Sound occasionally heard off-property Dust: Frequent and occasionally intense Odour: Frequent and occasionally intense Vibration: Possible ground-borne vibration, but cannot be perceived off-property 	<ul style="list-style-type: none"> Outside storage permitted Medium level of production allowed 	<ul style="list-style-type: none"> Open process Periodic outputs of minor annoyance Low probability of fugitive emissions 	<ul style="list-style-type: none"> Shift operations permitted Frequent movements of products and/ or heavy trucks with the majority of movements during daytime hours 	<ul style="list-style-type: none"> Magazine printing Paint spray booths Metal command Electrical production Manufacturing of dairy products Dry cleaning services Feed packing plants
Class III Heavy Industry	<ul style="list-style-type: none"> Noise: Sound frequently audible off property Dust: Persistent and/ or intense Odour: Persistent and/ or intense Vibration: Ground-borne vibration can frequently be perceived off-property 	<ul style="list-style-type: none"> Outside storage of raw and finished products Large production levels 	<ul style="list-style-type: none"> Open process Frequent outputs of major annoyances High probability of fugitive emissions 	<ul style="list-style-type: none"> Continuous movement of products and employees Daily shift operations permitted 	<ul style="list-style-type: none"> Paint and varnish manufacturing Organic chemical manufacturing Breweries Solvent recovery plants Soaps and detergent manufacturing Metal refining and manufacturing

3.3.2 REQUIREMENTS FOR ASSESSMENTS

Guideline D-6 requires that studies be conducted to assess impacts where sensitive land uses are proposed within the potential area of influence of an industrial facility. This report is intended to fulfill this requirement.

The D-series guidelines reference previous versions of the air quality regulation (Regulation 346) and noise guidelines (Publications NPC-205 and LU-131). However, the D-Series of guidelines are still in force, still represent current MECP policy and are specifically referenced in numerous other current MECP

policies. In applying the D-series guidelines, the current policies, regulations, standards and guidelines have been used (e.g., Regulation 419, Publication NPC-300).

SLR is aware that the MECP has recently released draft guidelines to replace the D-Series land use compatibility guidelines. These guidelines are currently under public review and subject to change. These draft guidelines have not been considered in preparing this report.

3.3.3 REQUIREMENTS FOR MINIMUM SEPARATION DISTANCES

Guideline D-6 also *recommends* that no sensitive land use be placed within the Recommended Minimum Separation Distance. However, it should be noted that this is a recommendation only. Section 4.10 of the Guideline allows for development within the separation distance, in cases of redevelopment, infilling, and transitions to mixed use, provided that the appropriate studies are conducted and that the relevant air quality and noise guidelines are met.

4. NEARBY INDUSTRIES

A zoning map for the area is provided in **Figure 2**. The Guideline D-6 setback distances from the Development are shown in **Figure 4**. SLR personnel conducted site visits to the area on April 27, 2021. Local industries within 1 km of the site were inventoried. The lands surrounding the Project site are generally comprised of commercial and industrial properties.

In Ontario, facilities that emit significant amounts of contaminants to the environment are required to obtain and maintain an Environmental Compliance Approval (“ECA”) from the MECP or submit an Environmental Activity and Sector Registry (“EASR”). ECAs/ EASRs within 1 km of the Site were obtained from the MECP’s *Access Environment* website. Copies are provided in **Appendix A**.

Table 3 lists the identified industries within 1000m of the site. A more detailed table of the identified industries is provided in **Appendix A**. Industries which lie within their applicable Area of Influence in respect to the Project are discussed further below.

Table 3: Identified Industries Within 1000 m of Proposed Development

Facility	Type of Operation	Environmental Compliance Approval No.	Industry Class	Area of Influence Dist (m)	Actual Distance to Site (m)	Additional Assessment Required?
Canuck Express	Truck Transport Logistics	None	Class II	300	0	Yes
Global Waste Services	Waste Bin Storage	None	Class I	70	0	Yes
Toronto – Works and Emergency Services	Winter Maintenance Facility	None	Class I	70	0	Yes
Classic Towing and Storage	Towing Service	None	Class I	70	30	Yes
KBC Enterprise	Truck Maintenance and Repair	None	Class I	70	40	Yes
Vision Truck Group	Truck Dealer	None	Class I	70	75	No
Wilson’s Truck Lines Ltd.	Truck Transport (Food Distribution)	None	Class II	300	75	Yes
Thomson Terminals Ltd.	Truck Maintenance Repair Facility	None	Class I	70	115	No
Popular Car Wash & Detailing	Car Wash	None	Class I	70	150	No
SFS Trucking Inc.	Freight Forwarding Service	None	Class I	70	200	No
Arc-En-Cie Produce	Food Products Supplier	None	Class I	70	245	No
First Quality Auto Inc.	Automotive Repair Shop	None	Class I	70	255	No
Brandt Meat	Meat Processing Facility	None	Class II	300	270	Yes
Sheridan Metal Products	Steel Fabricator	None	Class I	70	270	No
Baker Street	Bakery	None	Class I	70	275	No
Village Juicery	Juice Manufacturer	None	Class I	70	290	No
Metro Distribution Centre	Food Logistics	None	Class II	300	425	No

The following Industries were identified inside their potential area of influence and, therefore, require additional assessment:

- Canuck Express/ Global Waste Services;
- Toronto- Works and Emergency Services;
- Classic Towing and Storage;
- KBC Enterprise;
- Wilson’s Truck Lines; and
- Brandt Meat.

All other industries are outside of their respective Guideline D-6 Areas of Influence and, therefore, are unlikely to result in adverse effects at the Project site.

4.1 CANUCK EXPRESS / GLOBAL WASTE SERVICE STORAGE YARD

ADDRESS	39 Manstor Road
DISTANCE TO PROJECT:	Adjacent Lot
D-6 CLASSIFICATION:	Class II Medium Industry (Canuck Express) Class I Light Industry (Global Waste Service)

The property at 39 Manstor is used by two facilities.

The northern portion of the site is occupied by Canuck Express, a logistics company that transports a variety of products. A search of the MECP registry did not yield a permit or registration for this site.

On April 27, 2021, SLR personnel conducted a site visit to the area. The facility contains a building and a parking lot containing parked cars and trucks. No odours or visible dust were observed at the facility.

There was minimal truck activity observed during the site visit. There is a potential for increased activity on site during winter months.

Significant noise sources of interest based on the site visit, aerial photography and typical operations for this type of facility include:

- HVAC equipment, ventilation fans;
- Vehicle idling and movements

Based on the size and nature of the facility operations, including the potential for night-time vehicle movements, Canuck Express would be considered a Class II medium industry, with a minimum Recommended Separation Distance of 70 m. The Project is on the adjacent lot and lies inside of this distance.

Given the above, there is potential for adverse air quality and noise impacts from Canuck Express' current operations on the Project. Additional assessment is therefore warranted.

The southern portion of the property is used for storage of waste bins by Global Waste Services Inc. This site is only used for the storage of clean bins, and is not used for waste transfer or waste sorting purposes. There are no air quality sources associated with the facility. "Bin drop" noise from the infrequent movement of bins would be the only significant noise source on site. Additional assessment is warranted.

4.2 TORONTO – WORKS AND EMERGENCY SERVICES

ADDRESS	40 Boncer Drive
DISTANCE TO PROJECT:	0 m
D-6 CLASSIFICATION:	Class I Light Industry

Toronto – Works and Emergency Services is a winter maintenance facility that is located at 40 Boncer Drive, east of the Project site. A search of the MECP registry did not yield a permit or registration for this site.

On April 27, 2021, SLR personnel conducted a site visit to the area. A covered storage structure that contained salt was observed. There was no odour or visible dust observed from the facility at the time of the site visit. No activity was observed at the facility during the site visit. Since it is a winter maintenance facility, on-site activity is expected more during the winter season.

Air quality and noise sources of interest based on the site visit, aerial photography and typical operations for this type of facility include:

- Loading and unloading of salt; and
- Vehicle idling and movements.

Based on the size and nature of the facility operations, Toronto – Works and Emergency Services would be considered a Class I light industry, with a Minimum Recommended Separation Distance of 20 m. The Project is on the adjacent lot and lies inside of this distance.

Given the above, there is potential for adverse air quality and noise impacts from the Toronto Services Facility's current operations on the Project. Additional assessment is therefore warranted.

4.3 CLASSIC TOWING AND STORAGE

ADDRESS	41 Westside Drive
DISTANCE TO PROJECT:	30 m
D-6 CLASSIFICATION:	Class I Light Industry

Classic Towing and Storage facility specializes in towing and storing vehicles. The facility owns more than 150 storage and tow trucks and offers a wide range of services including medium and heavy tow, pull start, winch and recovery, trailer lifts, container stacking, air-cushion recovery, rotator and boom work services, and emergency and accident scene management. A search of the MECP registry did not yield a permit or registration for this site.

On April 27, 2021, SLR personnel conducted a site visit to the area. A large lot filled with many vehicles was observed. There was no odour or visible dust observed from the facility. Occasional noise from the facility was audible from the facility due to vehicle traffic.

Potential air quality and noise sources of interest based on the site visit, aerial photography and typical operations for this type of facility include:

- Vehicle idling and movements.

Based on the size and nature of the facility operation, Classic Towing and Storage would be considered a Class I light industry, with a minimum recommended separation distance of 20 m and a recommended area of influence of 70 m. Although the Project is outside of the Minimum Separation Distance, it is within the Recommended Area of Influence.

Given the above, there is potential for adverse air quality and noise impacts from Classic Towing and Storage's current operations on the Project. Additional assessment is therefore warranted.

4.4 KBC ENTERPRISE

ADDRESS	25 Westside Drive
DISTANCE TO PROJECT:	40 m
D-6 CLASSIFICATION:	Class I Light Industry

The KBC Enterprise facility specializes in truck trailer repair. A search of the MECP registry did not yield a permit or registration for this site.

On April 27, 2021, SLR personnel conducted a site visit to the area. A large lot filled with many vehicles was observed. There was no odour or visible dust observed from the facility. Occasional noise from the facility was audible from the facility due to vehicle traffic.

Potential air quality and noise sources of interest based on the site visit, aerial photography and typical operations for this type of facility include:

- Vehicle maintenance activities; and
- Vehicle idling and movements.

SLR attempted to reach out to KBC Enterprise via phone call to understand the types of maintenance activities occurring at this facility but were unable to contact anyone at the facility. Their services noted online include: metal fabrication and welding, trailer modifications, on-road repairs, mobile service and tire repair service.

Based on the size and nature of the facility operation, KBC Enterprise would be considered a Class I Light industry, with a minimum recommended separation distance of 20 m and a recommended area of influence of 70 m. The Project lies within the Area of Influence.

Given the above, there is potential for adverse air quality and noise impacts from KBC Enterprise's current operations on the Project. Additional assessment is therefore warranted.

4.5 WILSON TRUCK LINES

ADDRESS	111 The West Mall
DISTANCE TO PROJECT:	75 m
D-6 CLASSIFICATION:	Class II Medium Industry

Wilson Truck Lines is a logistics company that specializes in food distribution, located at 111 The West Mall. A search of the MECP registry did not yield a permit or registration for this site.

On April 27, 2021, SLR personnel conducted a site visit to the area. The site had a building, and a lot with parked trucks. There was no odour or visible dust observed from the facility. There was minimal truck activity observed during the site visit.

Significant noise sources of interest based on the site visit, aerial photography, and typical operations for this type of facility include:

- HVAC equipment, ventilation fans;
- Reefer trucks;
- Vehicle idling and movements

Based on the size and nature of the facility operations, Canuck Express would be considered a Class II medium industry, with a minimum Recommended Separation Distance of 70 m and an Area of Influence of 300m. Although the Project lies outside of the recommended Minimum Separation Distance, it is within the Area of Influence for Class II industries.

Given the above, there is potential for adverse air quality and noise impacts from Wilson Truck Lines' current operations on the Project. Additional assessment is therefore warranted.

4.6 BRANDT MEAT

ADDRESS	1878 Mattawa Avenue
DISTANCE TO PROJECT:	270 m
D-6 CLASSIFICATION:	Class II Medium Industry

Brandt Meat is a meat processing and packaging facility located at 1878 Mattawa Avenue. The facility processes various types of meat products such as poultry, beef, pork, and deli meats. The products are then packaged and shipped to retailers. A search of the MECP registry did not yield a permit or registration for this site.

On April 27, 2021, SLR personnel conducted a site visit to the area. Smoked meat type odours were observed in the immediate vicinity of the facility. Odours were faint and infrequent. Odour from this facility was not observed at the Project site.

Based on the size and nature of the facility, Brandt Meat is considered a Class II Medium Industry, with a minimum separation distance of 70 m and a recommended area of influence of 300 m. The Project site is outside of the Minimum Separation Distance but is within the Recommended Area of Influence.

Given the above there is potential for adverse air quality and noise impacts from Brandt Meat's operations on the Project site. Therefore, additional assessment is warranted.

4.7 SUMMARY

From the list of industries identified in **Section 4**, six were identified to require further analysis as a result of being within their area of influence: Canuck Express, Toronto – Works and Emergency Services, Classic Towing and Storage, KBC Enterprise, Wilson Truck Lines, and Brandt Meat.

Provided below are preliminary comments and findings with respect to predicted impacts at the Project site from the identified industrial facilities nearby.

5. AIR QUALITY, DUST AND ODOUR ASSESSMENT

5.1 INDUSTRIAL SOURCES

5.1.1 GUIDELINES AND REGULATIONS

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"). Facilities with an ECA/EASR should already meet the MECP guidelines for air quality contaminants at their property line.

5.1.1.1 Air Quality Contaminants

Under O.Reg. 419/05, a facility is required to meet prescribed standards for air quality contaminants at their property boundary line and any location off-site. The MECP does not require industries to assess their emissions at elevated points off-site, if a receptor does not exist at that location. While the introduction of mid-rise or high-rise residential properties could trigger a facility to re-assess compliance at new receptor locations, the introduction of new low-rise receptors does not introduce any new receptors, as the facility is already required to be in compliance at grade-level at their property line.

5.1.1.2 Odour

There are a select few compounds that are provincially regulated from an odour perspective; however, there is no formal regulation with respect to mixed odours. Impacts from mixed odours produced by industrial facilities are generally only considered and regulated by the MECP in the presence of persistent complaints (ECO 2010).

The MECP assesses mixed odours, in Odour Units, following draft guidelines. One odour unit (1 OU) has been used as a default threshold. This is the concentration at which 50 % of the population will just detect an odour (but not necessarily identify/recognize or object to it). Recognition of an odour will typically occur between 3 and 5 odour units. The following factors may be considered:

- **Frequency** – How often the odour occurs. The MECP typically allows odours to exceed 1 OU with a 0.5 % frequency.

- **Intensity** – The strength of the odour, in odour units. 1 OU is often used in odour assessments in Ontario.
- **Duration** – How long the odour occurs.
- **Offensiveness** – How objectionable the odour is. The MECP may allow for a higher concentration of pleasant smells such as baking as opposed to off-putting smells such as rotting garbage or rancid meat.
- **Location** – Where the odour occurs. The MECP assesses odours where human activity is likely to occur.

The MECP has decided to apply odour-based standards to locations “where human activities regularly occur at a time when those activities regularly occur,” which is generally accepted to be places that would be considered sensitive such as residences and public meeting places. As a guide, the MECP has provided proposed clarification of human odour receptors, as shown in the following table:

Table 4: Proposed Clarification of Human Receptors (MECP 2008)

Receptor Category	Examples	Exposure Type	Type of Assessment
Permanent potential 24-hour sensitivity	Anywhere someone could sleep including any resident or house, motels, hospitals, senior citizen homes, campgrounds, farmhouse, etc.	Individual likely to receive multiple exposures	Considered sensitive 24 hours per day
Permanent daily hours but with definite periods of shutdown/closure	Schools, daycares, community centres, soccer fields, farmland, churches, bicycle paths, hiking areas, lakes, commercial or institutional facilities (with consideration of hours of operation such as night clubs, restaurants, etc.)	Individual could receive multiple exposures	Night-time or daytime exclusion only (consider all other hours)
Seasonal variations with clear restrictions on accessibility during the off season	Golf courses, amusement parks, ski hills, other clearly seasonal private property	Short term potential for exposure	Exclusions allowed for non-seasonal use
Transient	Open fields, roadways, easements, driveways, parking lots, pump houses	Very short-term potential for exposure, may not be a single resident exposed to multiple events	Generally, would not be included as human receptors unless otherwise specified.

Note that commercial facilities are considered to be odour sensitive points of reception, as well as community spaces and residences. The MECP odour policy would apply to the commercial uses in the existing commercial plazas, as well as the Project site.

5.1.1.3 Dust

Ontario Regulation 419/05 also provides limits for dust, including limits for suspended particulates and dust fall. Under Reg. 419/05, these air quality limits must be met at the property line and all points beyond. This is not changed by the addition of the Project. That is to say, the existing mutual property line is already a point of reception for dust, and the limits must already be met at that location.

5.1.1.4 Cumulative Assessments

Cumulative impact assessments, examining the combined effects of individual industries, or the combined effects of industry and roadway emissions, are generally not required. Neither the PPS, the D-

Series of guidelines, Regulation 419/05, or the current MECP odour assessment protocols require an assessment of cumulative impacts.

Which is not to say that such assessments are never warranted; rather, the need to do so is considered on a case-by-case basis, depending on the nature and intensity of the industrial operation(s), and the nature of the pollutants released. Based on the types of pollutants released by the industries in this area, cumulative effects assessments are not warranted.

5.1.2 LOCAL METEOROLOGY

Surface wind data was obtained to generate a wind rose from data collected at the Pearson International Airport in Toronto from 1986 through 2015, as shown in **Figure 5**. As can be seen in the wind rose, predominant winds are from the west and northwestern quadrants, while winds from the northeast and southeast quadrants may be the least frequent.

5.1.3 SITE VISITS AND ODOUR AND DUST OBSERVATIONS

Site visits were conducted to the area on April 27, 2021, and May 7, 2021, by SLR personnel to identify significant sources of air quality emissions and to identify any significant sources of noise, vibration, odour or dust in the Project neighbourhood. During the site visits, the staff members observed existing industries from the sidewalks and other publicly accessible areas. Wind conditions during the site visit were noted as:

- April 27, 2021: northeasterly winds, 31 km/h, 8 °C, 36 %RH
- May 7, 2021: southeasterly winds, 14 km/h, 10°C, 63%RH

At the Project site, no odours or fugitive dust emissions were detected during the site visits. No odours or visible dust emissions were observed in the surrounding neighbourhood.

During the site April 27th visit, odours were detected from the Brandt Meat facility along Mattawa Avenue, and Wharton Glen Avenue. Odours were described as a 'smokey/meat' type of odours. Odours were found to be intermittent, occurring for approximately 20-30 seconds at a time every few minutes. Odour strength was generally considered faint and was not detectable when using the nasal olfactometer. Approximately 100 m downwind of the Brandt Meat facility, odours were found to substantially decrease and became undetectable.

5.1.4 ASSESSMENT OF POTENTIAL AIR QUALITY IMPACTS

5.1.5 LOGISTICS FACILITIES

Canuck Express and Wilson Truck Lines are logistics facilities that transport a variety of products including food. The facilities were identified to be inside the Class II Area of Influence for the Project. These facilities were identified with potential air quality emissions due to its proximity to the Project site. A search of the MECP registry did not yield a permit or registration for these sites.

On April 27, 2021, SLR personnel conducted a site visit to the area. There was no odour or visible dust observed from the facilities. There was minimal truck activity observed during the site visit.

Based on the size and nature of the facility's operations, Canuck Express and Wilson Truck Lines would be considered a Class II Medium Industry, with a minimum Recommended Separation distance of 70 m. The

Class II classification is considered due to potential noise activity at the facilities. From an air quality perspective, potential exhaust sources from this type of facility are generally not considered significant. There will be emissions associated with vehicles and trucks accessing the facility. Emissions from on-site vehicle activity are expected to be similar to that of nearby roadways, or potential on-site loading areas for a development on the Project site, and are generally not considered as an industrial activity.

Therefore, the Canuck Express and Wilson Truck Lines facilities do not present a concern at the Project site from an air quality perspective and mitigation measures are not warranted.

5.1.6 TORONTO- WORKS AND EMERGENCY SERVICES

Toronto – Works and Emergency Services is a winter maintenance facility that is located at 40 Boncer Drive, east of the Project site. The facility is identified as a Class I Light industry. A search of the MECP registry did not yield a permit or registration for this site.

On April 27, 2021, SLR personnel conducted a site visit to the area. A covered storage structure that contained salt was observed. There was no odour or visible dust observed from the facility at the time of the site visit. No activity was observed during the site visit. Since it is a winter maintenance facility, on-site activity is expected more during the winter season.

Based on the size and nature of the facility operations, Toronto – Works and Emergency Services would be considered a Class I light industry, with a minimum Recommended Separation Distance of 20 m. The Project is on the adjacent lot and lies inside of this distance.

There is potential for fugitive dust emissions from the storage of winter maintenance salt, however, this potential is minimized and controlled by the covered storage area. The potential for fugitive dust emissions would occur only during the winter season when vehicles are loaded with salt. Any potential dust emissions are expected to be localized to the facility site. Therefore, the Toronto – Works and Emergency Services does not present a major concern at the Project site from an air quality perspective and mitigation measures are not warranted.

5.1.7 CLASSIC TOWING AND STORAGE

Classic Towing and Storage facility specializes in towing and offers a wide range of services related to vehicle towing. A search of the MECP registry did not yield a permit or registration for this site.

On April 27, 2021, SLR personnel conducted a site visit to the area. A large lot filled with many vehicles was observed. There was no odour or visible dust observed from the facility at the Project site. Based on the size and nature of the facility's operations, Classic Towing and Storage is considered to be a Class I Light Industry, with a minimum Recommended Separation distance of 20 m, and an Area of Influence of 70 m. The Project site is 30 m from the Classic Towing facility and is within the Area of Influence but lies outside of the recommended separation distance.

Potential air quality emissions on the site are associated with vehicles and trucks accessing the facility. As the lot is generally used for vehicle-storage, significant emissions from vehicle movement are not anticipated. Emissions from on-site vehicle activity are expected to be similar to that of nearby roadways.

Therefore, the Classic Towing and Storage facility does not present a concern at the Project site from an air quality perspective and mitigation measures are not warranted.

5.1.8 KBC ENTERPRISE

The KBC Enterprise facility specializes in truck trailer repair. The facility is located 40m west of the Project site across the rail line. A search of the MECP registry did not yield a permit or registration for this site. Services conducted by the facility noted online include: metal fabrication and welding, trailer modifications, on-road repairs, mobile service and tire repair service. The facility does not appear to operate a paint-spray booth. The facility is considered a Class I facility.

There are no MECP environmental permits available for the operations on the [Access Environment](#) search directory. However, compliance at the property line with applicable MECP air quality criteria is expected and is an obligation according to Provincial regulations. Based on the facility's operations, adverse air quality impacts are not anticipated.

5.1.9 BRANDT MEAT

Brandt Meat is identified as a Class II facility. The facility is a meat manufacturing plant that produces and packages meat products. As noted on their website, the facility manufactures various types of meat products such as poultry, beef, pork, and deli meats. The products are then packaged and shipped to retailers. A search of the MECP registry did not yield a permit or registration for this site.

During the April 27, 2021, site visit, odours were detected in the vicinity of Brandt Meat, but were found to be significantly reduced approximately 100m from the facility. The Project is located 270 m from Brandt Meat, which is inside the Potential Area of Influence (300m) and outside of the Recommended Minimum Setback Distance (70 m) for a Class II industry.

There are existing low-rise residences approximately 200 m east of the facility on Coram Crescent. These residences are closer in proximity to the Brandt Meat facility than the Project site. If these sensitive receptors are compatible with the Brandt Meat facility, then the Project site is expected to be compatible as well. During the site visit to the area, odours were only observed within approximately 100 m of the facility.

Given the site visit observations and presence of existing residences in closer proximity than the Project, the Brandt Meat facility is not expected to present a concern at the Project site from an air quality perspective and mitigation measures are not warranted.

5.2 TRANSPORTATION RELATED AIR POLLUTION

Transportation related air pollution (TRAP) is generally considered in background pollution levels, however, based on recent studies conducted by Toronto Public Health (TPH), the City of Toronto is starting to look more closely at TRAP and its impacts on new residential developments in close proximity to major highways and roadways. The 2017 Toronto Public Health *'Avoiding the Trap' Technical Report – Land Use Planning at the Project site Level* and *"Operational and Behaviour strategies in Buildings"* document notes that TRAP is a major local contributor to air pollution in Toronto and can result in adverse health impacts for people residing in close proximity to highways and roadways. Common mitigation strategies for TRAP include filtration, strategic intake/amenity location, HVAC system operational procedures (i.e. timing around rush hour), physical barriers and vegetation buffers.

5.2.1 ARTERIAL ROADWAYS

Major arterial roadways near to the Project include The West Mall and The Queensway. The Project is not adjacent to any major highways. Therefore, a detailed TRAP assessment is not warranted for this Project

site. Regardless, it is generally a good practice to locate fresh air intakes in rooftop mechanical spaces, or at above-grade locations to provide separation distance from vehicle emissions (roadways, loading bays, on-site parking), and to include standard MERV rated filters on fresh air intakes.

5.2.2 CANADIAN PACIFIC – GALT SUBDIVISION CORRIDOR

The CPR Galt Subdivision and the GO Transit Galt Subdivisions are located along the north property boundary of the Project site. The subdivision consists of multiple tracks used for through traffic of passenger and freight trains.

Because there is no idling of rail cars associated with storage and yard facilities along this corridor, air emissions from the CPR Galt Subdivision and the GO Transit Galt Subdivisions are not anticipated to impact the Project lands. However, additional quantitative modelling of the noise and vibration emissions will likely be required during future planning applications once building plans are further progressed.

5.3 SUMMARY OF AIR QUALITY, DUST AND ODOUR CONCLUSIONS AND RECOMMENDATIONS

The potential for air quality impacts at the Project site, including dust and odour, have been assessed. Based on the results of our studies adverse air quality impacts from industrial sources are not anticipated at the Project site with the understanding further assessment may be required to assist with detailed design of future development.

6. NOISE ASSESSMENT

6.1 INDUSTRIAL (STATIONARY) SOURCES

6.1.1 GUIDELINES

6.1.1.1 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 were previously used for assessing noise impacts as part of Certificates of Approval / Environmental Compliance Approvals granted by the MECP for industries.

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

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

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

- Outdoor points of reception (e.g., back yards, communal outdoor amenity areas); and

- Façade points of reception such as the plane of windows on the outdoor façade which connect onto noise sensitive spaces, such as living rooms, dens, eat-in kitchens, dining rooms and bedrooms.

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

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

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

Table 5: NPC-300 Exclusion Limits for Non-Impulsive Sounds (L_{eq} (1-hr), dBA)

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

Table 6: NPC-300 Exclusion Limits for Impulsive Sounds (L_{LLM} , dBAI)

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

Notes:

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

The applicable guideline limits for testing of emergency equipment, such as emergency generator sets, are +5 dB higher than the values above.

6.1.2 APPLICATION OF THE NPC-300 GUIDELINES

The stationary noise guidelines apply only to residential land uses and to noise-sensitive commercial and institutional uses, as defined in NPC-300 (e.g., schools, daycares, hotels). For the Project, the stationary noise guidelines apply to the entire site, as a finalized design is not completed.

Therefore, the entirety of the site as been considered a potential noise-sensitive points of reception.

6.1.2.1 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.

6.1.2.2 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 By-law. Noise levels from industry meeting NPC-300 requirements will meet the requirements of Bylaw Section 591-2.8

6.1.3 SOURCES OF INTEREST

The significant sources of stationary noise potentially impacting the Project site include the surrounding rooftop HVAC units, ACCs, Cooling Towers, Air Tools, Welding noise, an Emergency Generator, Garbage Compactors, and Reefer units. There were no impulsive noise sources observed during the site visit on April 27, 2021, and May 7, 2021.

A summary of the sound power levels used in the assessment are provided in **Appendix B** for the surrounding commercial and retail facilities. The following sound power levels are a combination of engineering calculations, manufacturer's data, historical data, and actual measurements taken in the surrounding area.

- HVAC mechanical equipment;
- Air-cooled condensers;
- General Air Tools;
- Impact Wrenches;
- Emergency Generator at 133 West Mall,

- Trash Compactors at Home Sense;
- Truck Movement at Thompson Terminals;
- Snow-plow movement at City of Toronto Winter Maintenance Yard;
- Reefer Units at Wilson’s Truck Lines and Canuck Express; and
- Bin drops at Canuck Express / Global Waste Service Storage Yard

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

6.1.4 AMBIENT ROADWAY - BACKGROUND SOUND LEVEL

During the site visit on April 27th, 2021, it was observed that the acoustic environment surrounding the proposed development is dominated by the roadway noise from Highway 427, the Queen Elizabeth Park Way, and the Gardiner Expressway. As NPC-300 allows for the higher of the existing ambient sound level or the exclusion limits, an assessment of roadway noise ambient levels was completed.

Road traffic data was obtained from historical counts in the area, and from the Ministry of Transportation. Average annual daily traffic (AADT) volumes were then calculated for each roadway based on these counts. The percentage of vehicle splits were assumed based on historical data for similar roadways in the Toronto area. Excerpts of the traffic data taken from the City of Toronto and traffic volume calculations are provided in Appendix C. The road traffic data used in the modelling is summarized in Table 7.

Table 7: Summary of Ambient Road Traffic Data ^[1]

Roadway Link	Existing Traffic Volume (AADT)	Minimum Hourly Percentages ^[2]			% Commercial Traffic Breakdown		Vehicle Speed (km/h)
		Daytime 7am-7pm	Evening 7pm-11pm	Night-time 11pm-6am	Medium Trucks	Heavy Trucks	
The West Mall (North of Queensway)	13,439	3.5	2.5	0.2	1.1	2.4	60
The West Mall (South of Queensway)	20,281	3.5	2.5	0.2	1.1	1.8	60
The Queensway	29,523	3.5	2.5	0.2	1.1	1.7	60
North Queen Street	13,939	3.5	2.5	0.2	1.6	2.2	60
North Queen Street Extension	13,939	3.5	2.5	0.2	1.6	2.2	60
Highway 427	347,218	5.1	3.8	0.7	5.0	5.0	100
Gardiner & QEW	183,367	5.1	3.8	0.7	5.0	5.0	100

Notes: [1] Traffic data per data from the City of Toronto Open data website.

[2] Determined based on ITE distribution for roadways and historical Toronto freeways, respectively.

Existing road traffic was modelled using Cadna/A (a commercially available noise propagation modelling software). Line sources of sound were used, 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.

Sound levels were predicted at the worst-case locations for stationary noise impacts.

Resulting ambient (background) sound levels from the surrounding roadways are shown in **Table 6** as the applicable guideline limit. The MECP NPC-300 Publication allows for an additional 5 dB to be added to the applicable limits for assessment of testing or maintenance of emergency equipment.

6.1.5 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
- Reflections off of the ground and ground absorption
- Reflections off of vertical walls
- 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=1.0 (absorptive) as default global parameter, specific reflective areas such as parking lots defined as G=0.0 (reflective).
- Reflection: An order of reflection of 2 was used (accounts for noise reflecting from walls)
- Wall Absorption Coefficients: Set to 0.20 (20 % of energy is absorbed, 80% reflected)
- Terrain: Assumed to be flat

Predicted façade sound levels are shown in **Figures 7 and 8** for continuous and generator testing, respectively. Background ambient roadway sound levels are shown in **Figure 9** based on information provided in Table 7. Overall predicted sound levels are provided in the following tables:

Table 8: Overall Industrial Sound Levels – Normal Operations, Non-Impulsive Noise

Unit/ Location	Normal Operations				Meets Guideline?
	Predicted Level		Guideline Limit		
	Day	Night	Day	Night	
North	56	43	63	54	Yes
East	56	55	64	55	Yes
South	48	41	61	52	Yes
West	46	38	65	55	Yes

Notes: Sound levels are L_{eq} (1-hr) sound levels, in dBA

Notes: Sound levels are L_{LM} sound levels, in dBA

Table 9: Overall Industrial Sound Levels – Normal Operations, Generator Set Testing

Unit/ Location	Normal Operations				Meets Guideline?
	Predicted Level		Guideline Limit ^[1]		
	Day	Night	Day	Night	
North	30	n/a	68	n/a	Yes
East	36	n/a	69	n/a	Yes
South	25	n/a	66	n/a	Yes
West	27	n/a	70	n/a	Yes

Notes: Sound levels are L_{eq} (1-hr) sound levels, in dBA

[1] The MECP NPC-300 Publication allows for an additional 5 dB to be added to the applicable limits for assessment of testing or maintenance of emergency equipment.

Table 10: Overall Industrial Sound Levels – Normal Operations, Impulsive Noise

Unit/ Location	Normal Operations				Meets Guideline?
	Predicted Level		Guideline Limit ^[1]		
	Day	Night	Day	Night	
North	55	n/a	70	n/a	Yes
East	62	n/a	70	n/a	Yes
South	50	n/a	70	n/a	Yes
West	48	n/a	70	n/a	Yes

Notes: Sound levels are L_{LM} sound levels, in dBA

6.1.6 REQUIRED NOISE MITIGATION MEASURES

The following section outlines the required noise mitigation measures.

6.1.6.1 Source-Based Mitigation Measures

No source-based noise mitigation measures (e.g., noise mitigation at the industries) are required.

6.1.6.2 Receptor-Based Mitigation Measures

No receptor-based noise mitigation measures (e.g., noise mitigation at the Project) are required.

6.1.6.3 Noise Warning Clauses

A **Type E** noise warning clause is recommended due to the proximity of industries in the area including KBC Enterprise and Canuck Express. See **Appendix C** for warning clause details. The warning clauses must be registered on Title and included in all agreements of purchase and sale or lease and all rental agreements.

6.1.7 IMPACTS OF THE DEVELOPMENT ON ITSELF

The building mechanical systems (e.g., cooling tower, HVAC, parkade exhaust, and emergency generator) have not been designed in detail at this stage.

Although no adverse impacts are expected, such equipment has the potential to result in noise impacts on the noise sensitive spaces within the development.

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

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

6.1.8 IMPACTS OF THE DEVELOPMENT ON THE SURROUNDINGS

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 Project site will be small relative to the existing traffic volumes within the area and is not of concern with respect to noise impact.

Other possible development noise sources with potentially adverse impacts on the surrounding neighbourhood are the mechanical roof-top equipment (e.g., cooling tower, HVACs, parkade exhaust, and emergency generator). This equipment is required to meet MECP Publication NPC-300 requirements at the worst-case off-site noise sensitive receptors. Given the urban environment of the area, off-site impacts are not anticipated.

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

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

6.2 TRANSPORTATION NOISE SOURCES

Transportation sources of interest with the potential to produce noise at the proposed development are:

- The West Mall;
- The Queensway;
- North Queen Street;
- The proposed North Queen Street Extension to the West Mall;
- Highway 427;
- Gardiner Expressway/Queen Elizabeth Way; and
- The CPR Galt Subdivision Railway Corridor.

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

6.2.1 MECP PUBLICATION NPC-300 GUIDELINES FOR TRANSPORTATION SOURCES

Indoor Criteria

The following table summarizes the criteria in terms of energy equivalent sound exposure (L_{eq}) levels for specific indoor noise-sensitive locations. These indoor criteria vary with sensitivity of the space. As a result, sleep areas have more stringent criteria than Living / Dining room space.

Table 11: NPC-300 Sound Level Criteria for Road and Rail Noise

Type of Space	Time Period	Energy Equivalent Sound Exposure Level L_{eq} (dBA) ^[1]		Assessment Location
		Road	Rail ^[2]	
Criteria for Residential Units				
Living / Dining Room	Daytime (7 am to 11 pm)	45	40	Indoors
	Night-time (11 pm to 7 am)	45	40	Indoors
Sleeping Quarters	Daytime (7 am to 11 pm)	45	40	Indoors
	Night-time (11 pm to 7 am)	40	35	Indoors
Supplementary Criteria for Non-Residential Uses				
General offices, reception areas, retail stores, etc.	Daytime (7 am to 11 pm)	50	45	Indoors
Living/dining areas of residences, hospitals, schools, nursing/retirement homes, day-care centres, theatres, places of worship, libraries, individual or semi-private offices, conference rooms, reading rooms, etc.	Daytime (7 am to 11 pm))	45	40	Indoors
Sleeping quarters of hotels/motels	Night-time (11 pm to 7 am)	45	40	Indoors
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	Night-time (11 pm to 7 am)	40	35	Indoors

Notes: [1] Road and Rail noise impacts are to be combined for assessment of impacts.

[2] Whistle/warning bell noise is excluded for OLA noise assessments and included for indoor assessments, where applicable.

Ventilation and Warning Clauses

The following table summarizes requirements for ventilation where windows potentially would have to remain closed as a means of noise control. Despite the implementation of ventilation measures where required, some occupants may choose not to use the ventilation means provided, and as such, warning clauses advising future occupants of the potential excess over the indoor guideline limits are required.

Table 12: NPC-300 Ventilation and Warning Clause Requirements

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level - L_{eq} (dBA)		Ventilation and Warning Clause Requirements ^[2, 3]
		Road	Rail ^[1]	
Plane of Window	Daytime (7am to 11 pm)	≤ 55		None
		56 to 65 incl.		Forced Air Heating with provision to add AC + Applicable Warning Clause(s)

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level - L_{eq} (dBA)		Ventilation and Warning Clause Requirements ^[2, 3]
		Road	Rail ^[1]	
		> 65		Central AC + Applicable Warning Clause(s)
	Night-time (11 pm to 7 am)	51 to 60 incl.		Forced Air Heating with provision to add AC+ Applicable Warning Clause(s)
		> 60		Central AC + Applicable Warning Clause(s)

Notes: [1] Whistle/warning bell noise is excluded.

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

Building Shell Requirements

The following table provides sound exposure (L_{eq}) thresholds which if exceeded, require the building shell and components (i.e., wall, windows) to be designed and selected accordingly to ensure that the indoor location criteria are met.

Table 13: NPC-300 Building Component Requirements

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level - L_{eq} (dBA)		Component Requirements
		Road	Rail ^[1]	
Facade	Daytime (7am to 11 pm)	> 65	> 60	Designed/ Selected to Meet Indoor Requirements [2]
	Night-time (11 pm to 7 am)	> 60	> 55	

Notes: [1] Including whistle/warning bell noise.

[2] The resultant sound isolation parameter from Road and Rail are to be combined for determining the overall acoustic parameter.

Outdoor Sound Level Criteria

The following table summarizes criteria in terms of energy equivalent sound exposure (L_{eq}) levels for the outdoor noise-sensitive locations, with a focus of outdoor areas being amenity spaces (called Outdoor Living Areas (OLAs) per NPC-300).

Table 14: NPC-300 Outdoor Sound Level Criteria for Road and Rail Noise

Type of Space	Time Period	Energy Equivalent Sound Exposure Level L_{eq} (dBA) ^[1, 2]	Assessment Location
OLA	Daytime (0700-2300h)	55	Outdoors

- Notes: [1] Excluding whistle/warning bell noise for OLA noise assessments
 [2] Road and Rail noise impacts are to be combined for assessment of OLA impacts.

Mitigation and Warning Clauses

The following table summarizes mitigation and warning clause requirements for outdoor amenity spaces.

Table 15: NPC-300 Outdoor Living Area Mitigation & Warning Clause Requirements

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level - L_{eq} ^[1, 2] (dBA)	Mitigation and Warning Clause Requirements ^[3]
OLA	Daytime (0700-2300h)	≤ 55	None
		56 to 60 incl.	Noise Control Measures may be applied, and/or Applicable Warning Clause(s)
		> 60	Noise barrier to reduce noise to 55 dBA, or Noise barrier to reduce noise to 60 dBA and Applicable Warning Clause(s)

- Notes: [1] Whistle/warning bell noise is excluded.
 [2] Road and Rail noise is combined for determining Ventilation and Warning Clause requirements.

As indicated in NPC-300, noise control measures may be applied to reduce sound levels to 55 dBA. If measures are not provided, potential purchasers/tenants are required to be informed of potential noise problems with the applicable Warning Clause(s).

If noise impacts are predicted to be greater than 60 dBA, noise control measures are required to reduce noise levels to 55 dBA. If noise control measures are not technically feasible for meeting 55 dBA, an excess of up to 5 dBA is allowed, with the inclusion of the applicable Warning Clause(s).

6.2.2 TRAFFIC DATA AND FUTURE PROJECTIONS

Road traffic data was obtained from historical counts in the area, and from the Ministry of Transportation. Average annual daily traffic (AADT) volumes were then calculated for each roadway based on these counts. The percentage of vehicle splits were assumed based on historical data for similar roadways in the Toronto area. Copies of applicable traffic data and calculations can be found in **Appendix C**. The following table summarizes the road traffic volumes used in the analysis.

Table 16: Summary of Road Traffic Data Used in the Transportation Analysis

Roadway Link	2031 Traffic Levels (AADT)	% Day/ Night Volume Split ^[1]		Commercial Traffic Breakdown ^[2]		Vehicle Speed (km/h)
		Daytime	Night-time	% Medium Trucks	% Heavy Trucks	
The West Mall (North of Queensway)	16382	90	10	1.1	2.4	60
The West Mall (South of Queensway)	24723	90	10	1.1	1.8	60
The Queensway	32131	90	10	1.1	1.7	60
North Queen Street	12707	90	10	1.6	2.2	50
North Queen Street Extension	17842	90	10	1.6	2.2	50
Highway 427	364974	66	33	5	5	100
Gardiner & QEW	192744	66	33	5	5	100

Notes: [1] The Day/Night split was determined from historic data at SLR for urban areas.
 [2] Commercial Traffic Breakdowns were assumed based on historical data.
 [3] The worst-case volumes were assumed based on historical turning movement counts.

6.2.3 RAILWAY TRAFFIC DATA

Freight traffic volumes for the CPR Galt Subdivision were obtained from CPR and assessed based on an annual growth rate of 2.5%. Future railway traffic data for the GO commuter trains were obtained directly from Metrolinx. Copies of all rail traffic data are provided in **Appendix C**. The rail traffic data used in the assessment is summarized in the following table:

Table 17: Summary of Rail Traffic Data Used in the Transportation Noise Analysis

Rail	Train Type	No. of Trains		No. of Locomotives	No. of Cars	Maximum Speed (km/h)
		Daytime (7AM-11PM)	Night-time (11PM-7AM)			
CPR Freight ^[1]	Diesel Locomotive	32	16	5	122	80
GO Metrolinx Commuter	Diesel Locomotive	38	6	1	12	97

Notes: [1] Railway traffic data was grown based on CPR supplied growth rate of 2.5% annually to 2031.

6.2.4 PROJECTED SOUND LEVELS

Future roadway and railway sound levels at the Project 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 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 CPR and GO Metrolinx rail sound levels at the Project site were predicted using the FTA/FRA modelling algorithms included in Cadna/A, a commercially available noise propagation modelling software. FTA reference sound levels were used for diesel-electric locomotives, and rail cars. Based on

information provided by CPR, the CPR Galt Subdivision track is constructed of continuous welded rail, with no rail switches in the immediate area.

As described in ISO 9613-2, ground factor values that represent the effect of ground absorption on sound levels range between 0 and 1. Paved areas (on-site, roadway, etc.) were modelled as a reflective surface (ground factor of 0). All other surrounding areas were assumed to be absorptive (ground factor of 1).

Predicted worst-case sound levels are presented in **Table 18**. The transportation sound levels at the Project site, showing the ranges of predicted daytime and night-time sound levels are shown in **Figure 10a/b-11ab** for combined road and railway impacts, respectively. The sound level contours are presented at 4.5m, and 30 m which represents the worst-case height for a two-storey dwelling and a 10-storey podium/tower.

At the time of the assessment, building outlines were not in the concept plan. Therefore, the entire boundary of the property was assessed for noise impacts.

Table 18: Overall Projected Sound Levels

Façade	Component Sound Level (dBA) ^[1]			Overall
	Road	Rail Locomotive	Rail Wheel	
Daytime (7AM-11PM)				
North	63	69	69	72
East	63	69	69	72
South	64	59	58	66
West	67	69	69	73
Night-time (11PM-7AM)				
North	62	68	68	72
East	62	68	68	72
South	61	58	58	64
West	63	68	68	72

Notes: [1] Sound levels are presented at the worst-case location for each respective noise source.

[2] Sound levels are presented at a height of 4.5m, **Figure 11a/b** and **Table 19** provide sound levels at 30m, and 1.5m

The predicted railway sound levels are predicted to be above 60 dBA and 55 dBA during the daytime and nighttime periods, respectively. Therefore, an assessment of building components is required.

6.2.5 GLAZING REQUIREMENTS

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

Based on the roadway and railway sound levels summarized in **Table 18**, exceedances are predicted on portions of the Project site. Therefore, a detailed assessment of glazing requirements is necessary to meet indoor noise criteria listed in **Table 11**.

Indoor sound levels and required Sound Transmission Class (STC) ratings for façade components were estimated using the procedures outlined in the National Research Council Building Practice Note BPN-56. This document provides corrections to estimate the STC ratings required based on either the roadway and/or railway noise.

Detailed floor plates were not provided at the time of this assessment. For the analysis, room dimensions for bedrooms and living/dining rooms have been assumed. The following assumptions have been made:

- Window wall construction with glazing and glass spandrel panel elements;
- For kitchen/dining/living rooms 70% of the exterior wall area is vision glass / patio doors;
- For bedrooms 50% of the exterior wall area is vision glass;
- Non-glazing portions of the wall have an assumed STC rating of 54 (brick veneer or equivalent);
- Living rooms were assumed to be 3 m x 6 m in size and typically have a reflective level of acoustic absorption; and
- Bedrooms were assumed to be 3 m x 3 m in size and are very acoustically absorptive.

Table 19 outlines the requirements for glazing for each worst case receiver location.

Table 19: Transportation Noise Façade Sound Transmission Class (STC) Requirements

Location	Façade ^[1]	Non-Vision Glazing Portions of the Wall	Windows and Patio Doors	
			Living/Dining Room (STC)	Bedroom (STC)
30m Receiver	North	54	33	39
	East	54	33	40
	South	54	OBC	33
	West	54	33	40
4.5m Receiver	North	54	35	40
	East	54	34	40
	South	54	OBC	32
	West	54	34	40

Notes: OBC – Element must meet the minimum thermal and structural requirements of the Ontario Building Code (i.e., no acoustical upgrades required)

[1] STC requirements may change once building outlines are defined at a later planning stage.

Detailed façade requirements and calculations for each façade are provided in **Appendix C**. The combined glazing and frame assembly must be designed to ensure the overall sound isolation performance for the entire window unit meets the sound isolation requirements. It is recommended window manufacturers test data be reviewed to confirm acoustical performance is met.

Since corner units may be exposed from two sides, an additional 3 STC points should be added onto corner unit window recommendations.

When the building concept plan and architectural drawings are finalized, the detailed calculations for glazing requirements should be updated. There is potential for lower STC requirements once building/s are included in the noise model. Specifically on the south side of the site as the potential building/s would provide screening from the railway corridor.

6.2.6 OUTDOOR LIVING AREA REQUIREMENTS

A concept plan showing outdoor living areas was not provided at the time of this assessment.

Per NPC-300, the assessment location for each OLA is assumed to be positioned 1.5 meters above grade for ground level receptors. The predicted noise impacts at 1.5m above the ground elevation from the adjacent transportation sources are summarized in the following table.

Table 20: Predicted Outdoor Amenity Area Sound Levels

Amenity Area	Predicted Sound Level (dBA)	Guideline Limit [1] (dBA)	Warning Clause / Noise Mitigation Measure	Meets Guideline?
North	72	60	Type B Warning Clause + Noise Mitigation	No
East	72	60		
South	65	60		
West	73	60		

Notes: [1] Sound levels up to 60 dBA are allowed with the use of a Type A or Type B Warning Clause.

Sound levels are predicted to be above 60 dBA at any proposed outdoor amenity spaces, therefore, physical noise control measures and warning clauses would be required.

6.2.7 VENTILATION REQUIREMENTS

The requirements regarding warning clauses are summarized in **Table 12**. Where required, the Warning Clauses should be included in agreements registered on Title for the residential units and included in all agreements of purchase and sale or lease, and all rental agreements. Warning Clauses are summarized in **Appendix D**.

The façade sound levels due to the surrounding roadway and railway, as shown in **Table 18**, are predicted to be greater than or equal to 65 dBA during the daytime and 60 dBA during the night-time for portions of the Project site. Therefore, provision for central air conditioning and a **Type D** Warning Clause should be included for all units within the development.

The predicted sound levels along the ground level (1.5m) are also predicted to be above 60 dBA. Therefore, potential noise mitigation will be required to bring the predicted sound level below 60 dBA. A **Type A or Type B** warning clause would be included for all units within the development. It is recommended that any outdoor amenity space should be shielded from the railway corridor by massing from the proposed building, or mitigation requirements may be feasibly and physically difficult to achieve.

A barrier could be included around the entirety of the amenity space (at ground or elevated) to bring the predicted sound level below 60 dBA. Acoustic barriers/parapets should be structurally sound, appropriately designed to withstand wind and snow load, and constructed without cracks or surface gaps. The minimum surface density (face weight) is 20 kg/m². Any gaps under the barrier/parapet that are necessary for drainage purposes should be minimized and localized, so that the acoustical performance of the barrier/parapet is maintained.

6.2.8 OTHER TRANSPORTATION WARNING CLAUSE REQUIREMENTS

CN, CP, and Metrolinx have additional warning clause requirements for residential development projects located near their operations. See **Appendix D** for warning clause details. The warning clauses must be registered on Title and included in all agreements of purchase and sale or lease and all rental agreements.

6.3 SUMMARY OF NOISE CONCLUSIONS AND RECOMMENDATIONS

The potential for noise impacts on and the Project site have been assessed. Based on the results of our studies:

- SLR staff completed a site visit on April 27, and May 7, 2021, to the development lands and surrounding area. The surrounding KBC Enterprises, Canuck Express, and commercial buildings were identified as a significant contribution to potential stationary noise impacts at portions of the subject lands.
- An assessment of surrounding stationary noise was conducted. Sound levels are predicted to meet the NPC 300 Class 1 guideline limits due to increased background ambient noise from the surrounding roadways.
- An assessment of transportation noise impacts has been completed for the surrounding roadways and railway corridor.
- Based on transportation façade sound levels, windows will require acoustical upgrades on the east, northeast and southeast corner units, as outlined in **Section 6.2.5**. Façade STC requirements should be reviewed by an acoustical consultant as the design progresses.
- STC requirements along the southern side of the site will likely change due to shielding from the proposed building outline. Once a concept plan is finalized, an update to the detailed glazing requirements should be conducted by an Acoustical Consultant.
- Mandatory air conditioning and a **Type D** Warning Clause will be required for the majority of the residential units facing the surrounding roadways and railway corridor. Similarly the warning clause requirements may change once the building outline is finalized and included in the environmental noise prediction model.

7. VIBRATION ASSESSMENT

7.1 INDUSTRIAL (STATIONARY) SOURCES

There are no existing or proposed significant industrial vibration sources within 75 m of the Project, such as large stamping presses or forges. Under applicable MECP Publication NPC-207 guidelines, a detailed vibration assessment is not required. Adverse impacts from industrial vibration are not anticipated.

7.2 TRANSPORTATION SOURCES

There is one potential source of vibration in the area:

- The CPR Galt Subdivision Railway Corridor.

Vibration impacts from other transportation sources such as local roadways will be negligible.

7.2.1 GUIDELINES

The Railway Association of Canada / Federation of Canadian Municipalities (“RAC/FCM”) have developed *Guidelines for New Development in Proximity to Railway Operations*. The “Proximity Guidelines” have been adopted by CN, CP, and Metrolinx. International Standard ISO 2631-2: 2003 (1989) also provides

supplementary criteria for commercial and office space and for industrial buildings. For public transit systems, the MECP has previously issued a number of draft protocols for vibration assessment of various planned TTC expansions. The MECP has also developed a draft *Guideline for Noise and Vibration Assessment of Transit Projects*. The adopted guideline limits are presented in the following table.

Table 21: Transportation Vibration Guideline Limits

Train Type	Receptor Type	Limit (mm/s RMS)	Source
Heavy Rail (Freight and Commuter)	Residential	0.14	RAC/FCM, CN, CP, Metrolinx, MECP
	Commercial / Office	0.40	ISO 2631-2: 2003 (1989)
	Industrial	0.80	ISO 2631-2: 2003 (1989)
Transit Rail (Streetcars and LRTs)	Residential	0.10	TTC, MECP

Notes: Limits are overall vibration levels in the vertical direction, measured in root-mean square (“RMS”) values (1-second averaging time), in the frequency range from 4 Hz to 200 Hz.

7.2.2 MEASUREMENTS

Vibration measurements were conducted on May 7th, 2021. The vibration measurement locations were chosen as the best location for attaining measurements of freight passbys. Given high traffic within the site, locations were selected based on readily accessible spaces.

Due to the inaccessibility of the entire site, measurements were conducted at two setbacks to the rail corridor (20 and 30m). The measurement locations are shown in **Figure 12**.

Vibration measurements were conducted using a Blastmate Minimate Plus and a BARTEC SYSCOM MR3000C system. Both systems record vibration using an internal tri-axial geophone. The maximum RMS vibration levels were obtained by post-processing the recorded vibration signals using a MATLAB data analysis program developed by SLR. At each location, the system was levelled with the weight of the unit preventing movement and rocking. The Minimate system triggers recording at 0.1 mm/s, the SYSCOM records continuously.

A total of 2 train events were recorded by the systems. This included 1 freight train, and 1 Metrolinx GO train travelling in different directions. The following table summarizes the measurement results.

7.2.3 ASSESSMENT RESULTS

Measured vibration levels are shown in the following table:

Table 22: Measured Vibration Levels

Train Type	Direction of Travel	Measured Level (mm/s RMS)
Freight	Westbound	0.0097
Metrolinx	Eastbound	0.0067

Notes: Measured Levels shown are overall vibration levels in the vertical direction, measured in root-mean square (“RMS”) values (1-second averaging time), in the frequency range from 4 Hz to 200 Hz.

The Minimate system was positioned at the closer of the two setbacks shown in **Figure 12**, the system did not trigger a recording, therefore, the vibration criteria are expected to be met at that setback. The SYSCOM system recorded both events, which are well below the applicable guidelines.

Vibration mitigation measures are not required. This recommendation is provided, assuming that the residential dwellings will be positioned at a minimum of 20 m from the railway tracks. Once a concept plan is designed with building outlines, additional vibration measurements should be conducted at the setback/s proposed.

7.3 SUMMARY OF VIBRATION CONCLUSIONS AND RECOMMENDATIONS

The potential for vibration impacts on and the proposed development have been assessed. Based on the results of our studies:

- Adverse vibration impacts from transportation sources are not anticipated provided the building outline maintains a 20 m setback from the railway corridor.

8. CONCLUSIONS

A compatibility/mitigation assessment has been completed, examining the potential for air quality, dust, odour, and noise impacts from surrounding roadways and nearby industrial land uses to affect the Project site.

The assessment has included a review of the major industrial facilities in the area. Based on our assessment, the Project will not affect the industrial facilities' compliance with applicable Provincial environmental policies, regulations, approvals, authorizations and guidelines, including the City's Noise Bylaw. The requirements of MECP Guideline D-6, Regulation 419/05, and Publication NPC-300 are met. As the applicable policies and guidelines are met, the Project is:

- Unlikely to result in increased risk of complaint and nuisance claims;
- Unlikely to result in operational constraints for the major facilities;
- Unlikely to result in constraints on major facilities to reasonably expand, intensify or introduce changes to their operations.

9. REFERENCES

- Environmental Commissioner of Ontario (ECO, 2010), *Review of Posted Decision: Developing an Odour Policy Framework*, April 2010.
- City of Toronto Noise By-law, Municipal Code Chapter 591
- International Organization for Standardization, (ISO, 1989), ISO 2631-2: 2003 (1989) *Evaluation of human exposure to whole-body vibration — Part 2: Continuous and shock-induced vibrations in buildings (1 to 80 Hz)*
- National Research Council Canada (NRCC, 1985), Building Practice Note BPN 56: *Controlling Sound Transmission Into Buildings*
- Ontario Ministry of the Environment, Conservation & Parks (MECP), 1989, *ORNAMENT Ontario Road Noise Analysis Method for Environment and Transportation – Technical Document*.
- Ontario Ministry of the Environment, Conservation & Parks (MECP), 1993, Publication NPC-207: *Impulse Vibration in Residential Buildings (Draft)*
- Ontario Ministry of the Environment, Conservation & Parks (MECP), 1993, Publication NPC-216: *Residential Air Conditioning Devices*
- Ontario Ministry of the Environment, Conservation & Parks (MECP), 1994, *Environmental Noise Guidelines for Installation of Residential Air Conditioning Devices*
- Ontario Ministry of the Environment, Conservation & Parks (MECP, 1995), Guideline D-1: *Land Use Compatibility*
- Ontario Ministry of the Environment, Conservation & Parks (MECP, 1995), Guideline D-6: *Compatibility Between Industrial Facilities and Sensitive Land Uses*
- Ontario Ministry of the Environment, Conservation & Parks (MECP, 2008), *Technical Bulletin, Standards Development Branch, Methodology For Modelling Assessments Of Contaminants With 10-Minute Average Standards And Guidelines Under O. Reg. 419/05*, April 2008.
- Ontario Ministry of the Environment, Conservation & Parks (MECP), 2013, Publication NPC-300: *Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning*
- Ontario Ministry of Municipal Affairs and Housing (MMAH, 2014). *Provincial Policy Statement*
<http://www.ontario.ca/document/provincial-policy-statement-2014>
- Ontario Ministry of Municipal Affairs and Housing (MMAH, 2019). Draft *Provincial Policy Statement*. https://prod-environmental-registry.s3.amazonaws.com/2019-07/EN_PPS_Proposed_Policies_July2019.pdf
- Ontario Regulation 419/01 – *Local Air Quality*.

10. STATEMENT OF LIMITATIONS

This report has been prepared and the work referred to in this report has been undertaken by SLR Consulting (Canada) Ltd. (SLR) for 2130254 Ontario Inc. hereafter referred to as the “Client”. It is intended for the sole and exclusive use of the Client. The report has been prepared in accordance with the Scope of Work and agreement between SLR and the Client. Other than by the Client and as set out herein, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted unless payment for the work has been made in full and express written permission has been obtained from SLR.

This report has been prepared in a manner generally accepted by professional consulting principles and practices for the same locality and under similar conditions. No other representations or warranties, expressed or implied, are made.

Opinions and recommendations contained in this report are based on conditions that existed at the time the services were performed and are intended only for the client, purposes, locations, time frames and project parameters as outlined in the Scope of Work and agreement between SLR and the Client. The data reported, findings, observations and conclusions expressed are limited by the Scope of Work. SLR is not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. SLR does not warranty the accuracy of information provided by third party sources.

Figures



Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

SITE AND CONTEXT PLAN

True North



Scale: 1:4,000

Date: April 23, 2021 Rev 0.0

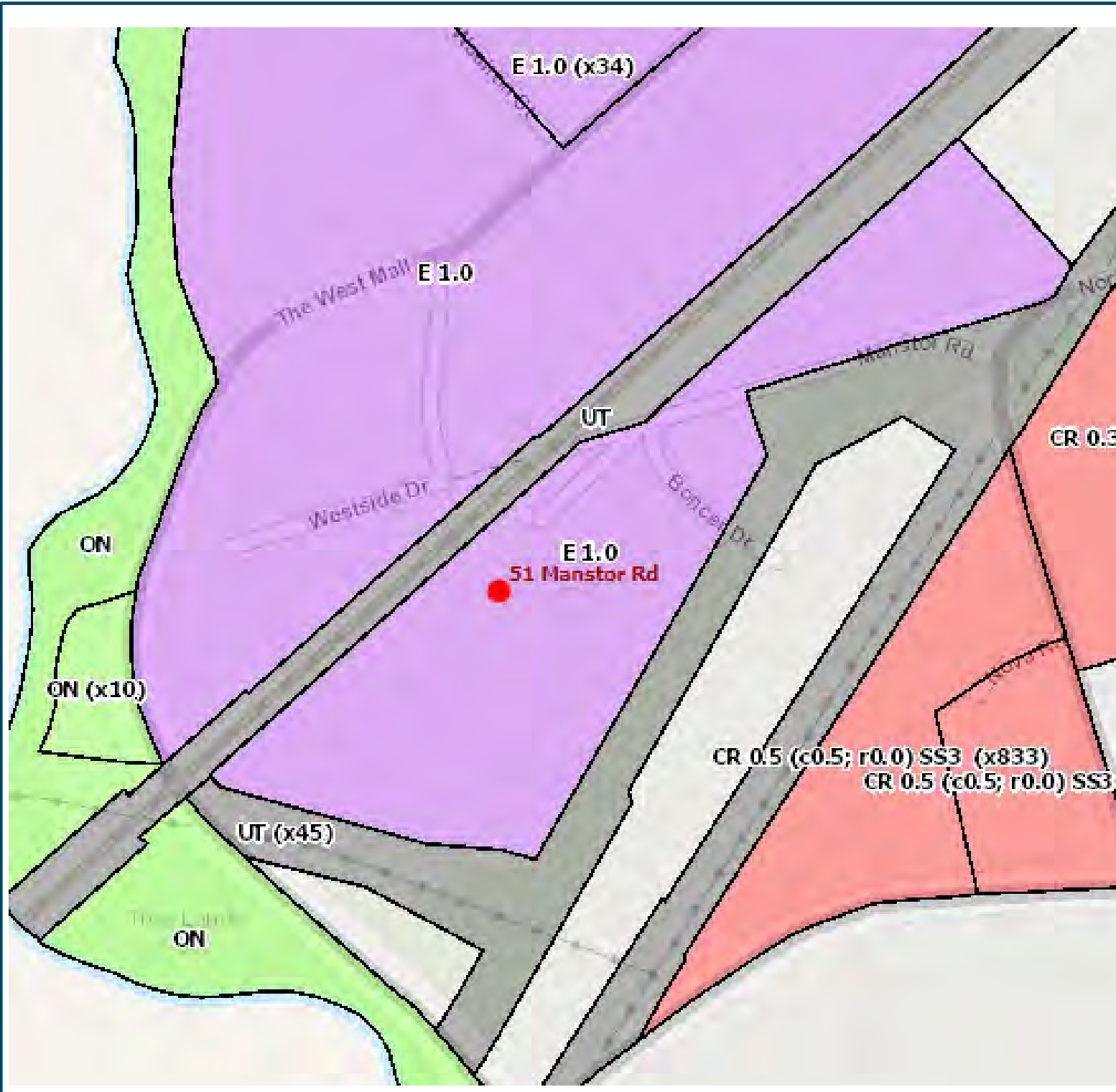
Project No. 241.30132.00000

METRES

Figure No.

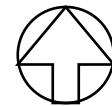
1





- Zone Categories
- Residential
 - Residential Apartment
 - Open Space
 - Utility and Transportation
 - Commercial
 - Commercial Residential
 - Commercial Residential Employment
 - Employment Industrial
 - Institutional

True North



2130254 ONTARIO INC.

51 MANSTOR ROAD
TORONTO, ONTARIO

AREA ZONING MAP

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

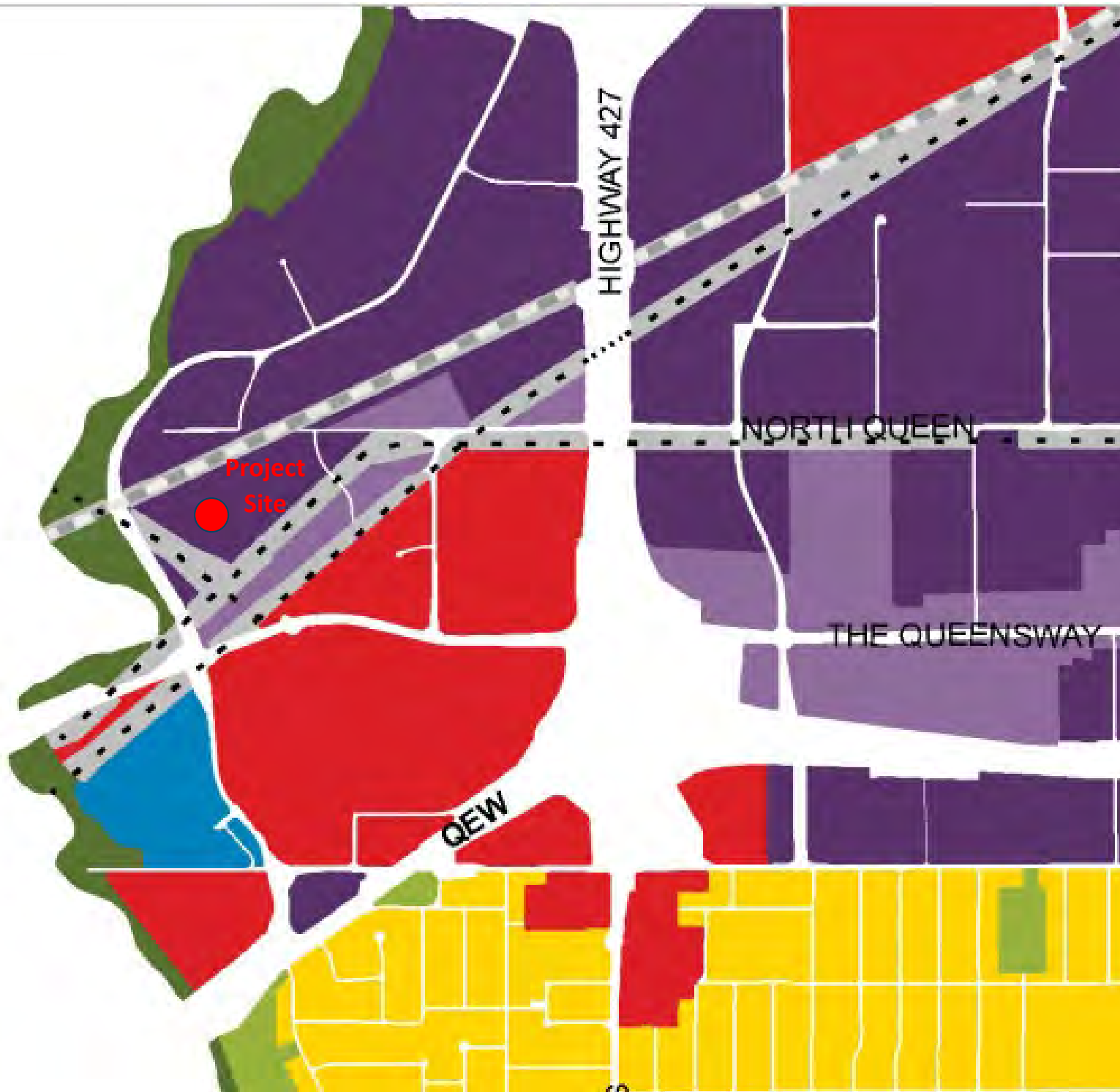
Scale: n/a METRES

Date: April 23, 2021 Rev 0.0 Figure No.

Project No. 241.30132.00000

2

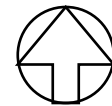




Land Use Designations

-  Neighbourhoods
-  Apartment Neighbourhoods
-  Mixed Use Areas
-  Natural Areas
-  Parks
-  Other Open Space Areas (Including Golf Courses, Cemeteries, Public Utilities)
-  Institutional Areas
-  Regeneration Areas
-  General Employment Areas
-  Core Employment Areas
-  Utility Corridors
-  Special Policy Area (See Chapter 7, Site and Area Specific Policies 235, 236)

True North



2130254 ONTARIO INC.

51 MANSTOR ROAD
TORONTO, ONTARIO

OFFICIAL PLAN MAP 15
[City of Toronto Official Plan](#)

Scale: n/a METRES

Date: April 23, 2021 Rev 0.0 Figure No.

Project No. 241.30132.00000

3a





- Mixed Use Areas A - Residential
- Mixed Use Areas B - Office Commercial
- Mixed Use Areas C - Retail
- Natural Areas
- Institutional Areas
- Core Employment Areas
- General Employment Areas
- Utility Corridors



2130254 ONTARIO INC.

51 MANSTOR ROAD
TORONTO, ONTARIO

SHERWAY SECONDARY PLAN
[Sherway Area Secondary Plan - Draft \(toronto.ca\)](#)

Scale:	n/a	METRES
Date: April 23, 2021	Rev 0.0	Figure No.
Project No. 241.30132.00000		3b








Highway 427





Aerial Photography from Google Earth

-  Facility with MECP Permit (ECA/EASR)
-  20 m Separation
-  70 m Separation
-  300 m Separation
-  1000 m Separation

True North



2130254 ONTARIO INC

51 MANSTOR ROAD
TORONTO, ONTARIO

GUIDELINE D-6 SEPARATION
DISTANCES

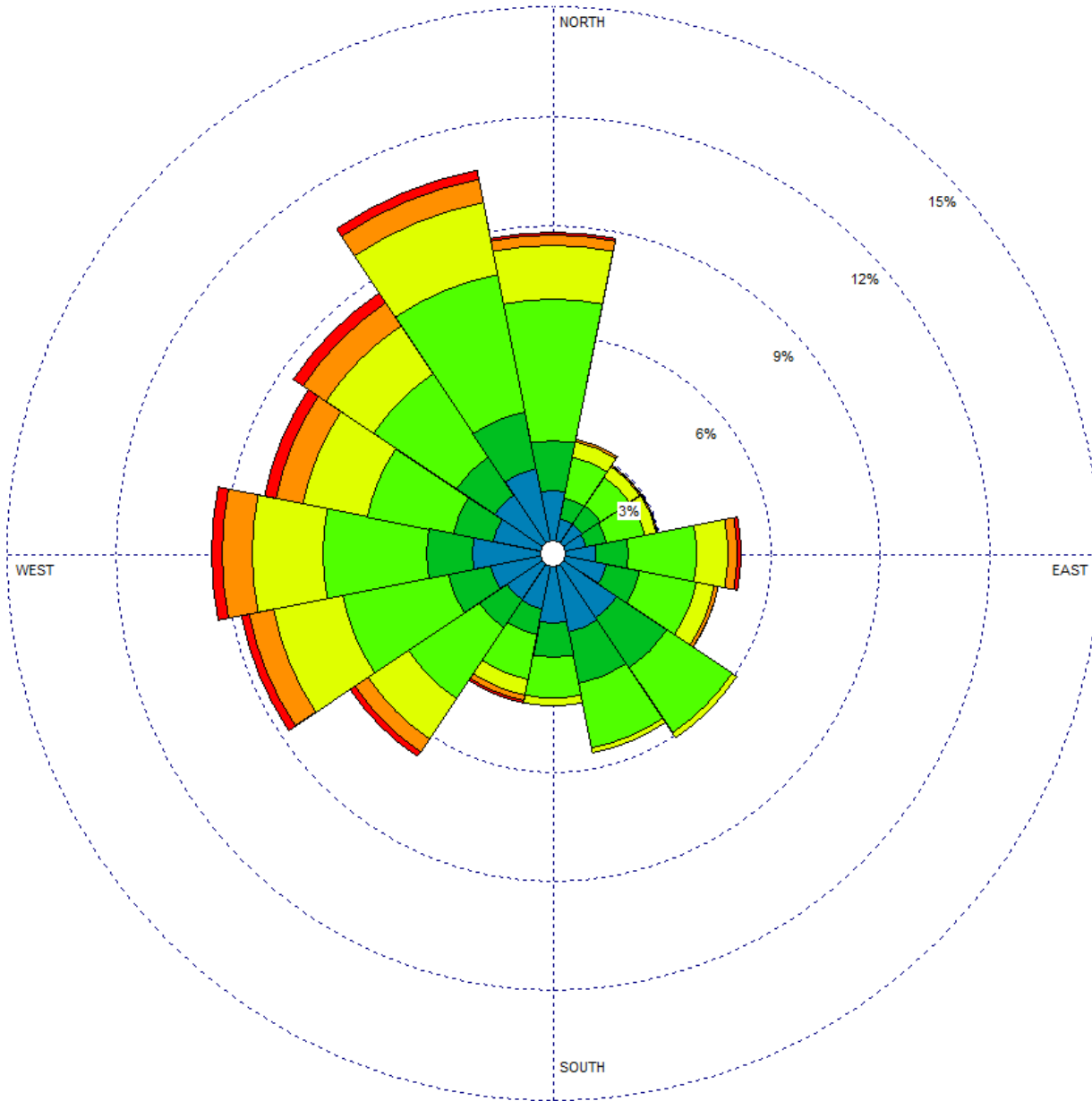
Scale: 1: 10,000 METRES

Date: April 23, 2021 Rev 0.0 Figure No.

Project No. 241.30132.00000

4

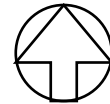




**WIND SPEED
(m/s)**

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 0.00%

True North



2130254 ONTARIO INC

51 MANSTOR ROAD
TORONTO, ONTARIO

WIND FREQUENCY
DISTRIBUTION DIAGRAM
(WIND ROSE)
TORONTO LESTER B.
PEARSON INT' L AIRPORT

Scale: n/a METRES

Date: April 23, 2021 Rev 0.0 Figure No.

Project No. 241.30132.00000

5





Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

MODELLED STATIONARY NOISE SOURCES

True North



Scale: 1:5,000

Date: April 23, 2021 Rev 0.0

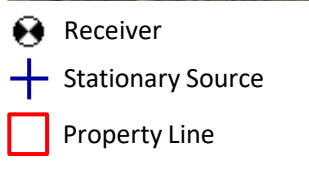
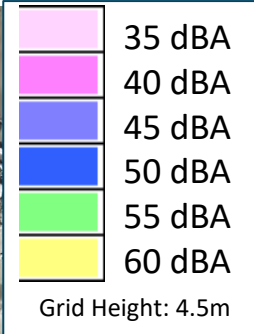
Project No. 241.30132.00000

METRES

Figure No.

6





Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

PREDICTED STATIONARY NOISE SOUND LEVELS, CONTINUOUS DAYTIME

True North



Scale: 1:3,000

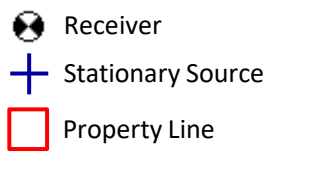
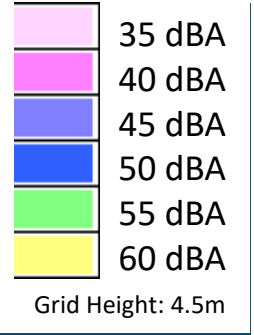
Date: April 23, 2021 Rev 0.0

Project No. 241.30132.00000

METRES

Figure No. **7a**





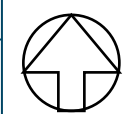
Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

PREDICTED STATIONARY NOISE SOUND LEVELS, CONTINUOUS NIGHT-TIME

True North



Scale: 1:3,000

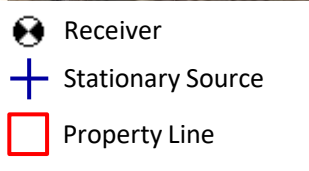
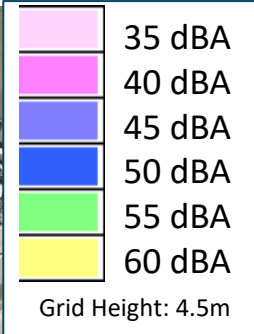
Date: April 23, 2021 Rev 0.0

Project No. 241.30132.00000

METRES

Figure No. **7b**





Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

PREDICTED STATIONARY NOISE SOUND LEVELS, IMPULSIVE DAYTIME

True North



Scale: 1:3,000

Date: April 23, 2021 Rev 0.0

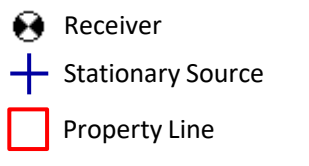
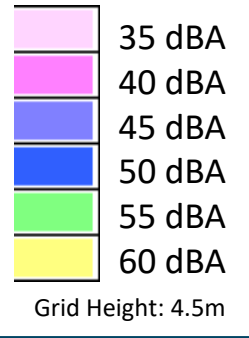
Project No. 241.30132.00000

METRES

Figure No.

8





Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

PREDICTED STATIONARY NOISE SOUND LEVELS, GENERATOR TESTING DAYTIME

True North



Scale: 1:3,000

Date: April 23, 2021 Rev 0.0

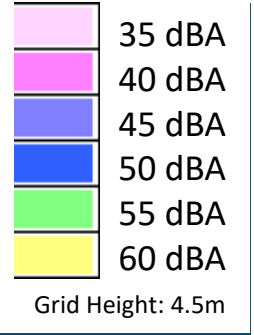
Project No. 241.30132.00000

METRES

Figure No.

9





- Receiver
- Stationary Source
- Property Line

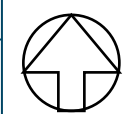
Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

PREDICTED AMBIENT BACKGROUND NOISE SOUND LEVELS
DAYTIME

True North



Scale: 1:3,000

Date: April 23, 2021 Rev 0.0




Project No. 241.30132.00000

METRES

Figure No.
10a





-  Receiver
-  Stationary Source
-  Property Line

Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

PREDICTED AMBIENT BACKGROUND NOISE SOUND LEVELS
NIGHT-TIME

True North



Scale: 1:3,000

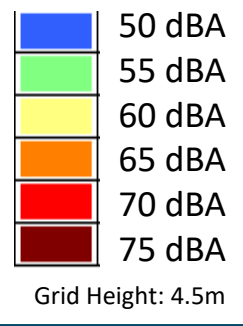
Date: April 23, 2021 Rev 0.0

Project No. 241.30132.00000

METRES

Figure No.
10b





- Receiver
- Railway
- Line Source
- Property Line

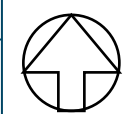
Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

PREDICTED TRANSPORTATION NOISE SOUND LEVELS AT FACADES, OVERALL TOTAL DAYTIME

True North



Scale: 1:3,000

Date: April 23, 2021 Rev 0.0





Project No. 241.30132.00000

METRES

Figure No. **11a**





-  Receiver
-  Railway
-  Line Source
-  Property Line

Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

PREDICTED TRANSPORTATION NOISE SOUND LEVELS AT FACADES, OVERALL TOTAL NIGHT-TIME

True North



Scale: 1:3,000

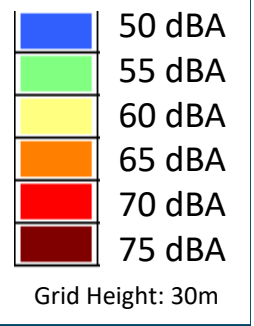
Date: April 23, 2021 Rev 0.0

Project No. 241.30132.00000

METRES

Figure No. **11b**





- Receiver
- Railway
- Line Source
- Property Line

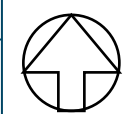
Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

PREDICTED TRANSPORTATION NOISE SOUND LEVELS AT FACADES, OVERALL TOTAL DAYTIME

True North



Scale: 1:3,000

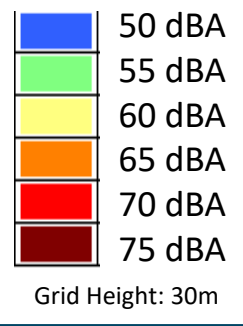
Date: April 23, 2021 Rev 0.0

Project No. 241.30132.00000

METRES

Figure No. **12a**





- Receiver
- Railway
- Line Source
- Property Line

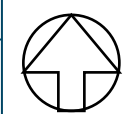
Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

PREDICTED TRANSPORTATION NOISE SOUND LEVELS AT FACADES, OVERALL TOTAL NIGHT-TIME

True North



Scale: 1:3,000

Date: April 23, 2021 Rev 0.0



Project No. 241.30132.00000

METRES

Figure No. **12b**





 Receiver
 Property Line

Aerial Photography from Google Earth

2130254 ONTARIO INC.

51 MANSTOR ROAD - TORONTO, ONTARIO

VIBRATION MEASUREMENT LOCATIONS

True North



Scale: 1:3,000

Date: April 23, 2021 Rev 0.0

Project No. 241.30132.00000

METRES

Figure No.
13



Appendix A

Appendix B

Name	Result. PWL			Lw / Li Type	Operating Time			K0 (dB)	Height (m)	Coordinates		
	Day (dBA)	Evening (dBA)	Night (dBA)		Day (min)	Special (min)	Night (min)			X (m)	Y (m)	Z (m)
KBC Enterprises - Impact Wrench	112	102	102	Lw	1	0	0	3	1.5 g	615849.9	4830305	115.65
KBC Enterprises - general air tools	102	102	102	Lw	5	0	0	3	1.5 g	615849.8	4830305	115.65
KBC Enterprises	100.9	100.9	100.9	Lw	15	0	0	3	1.5 g	615847.4	4830304	115.63
KBC Enterprises	85.5	85.5	85.5	Lw	60	0	0	0	1.25 g	615851.2	4830320	122.22
Mr.Front End Truck Repair - Impact Wrenct	112	102	102	Lw	1	0	0	3	1.5 g	616346.1	4830427	122.9
Mr.Front End Truck Repair - general Air Tools	102	102	102	Lw	5	0	0	3	1.5 g	616346.3	4830427	122.9
Mr.Front End Truck Repair - general Air Tools	102	102	102	Lw	5	0	0	3	1.5 g	616346.3	4830427	122.9
Thompson Maintenance - Impact Wrench	112	102	102	Lw	1	0	0	3	1.5 g	616136.9	4830385	118
Thompson Maintenance - general Air Tools	102	102	102	Lw	5	0	0	3	1.5 g	616136.9	4830385	118
Acura - Impact Wrench	112	102	102	Lw	1	0	0	3	1.5 g	616039.6	4829949	119.86
Acura - general Air Tools	102	102	102	Lw	5	0	0	3	1.5 g	616039.6	4829949	119.86
133 West mall - Emergency Generator	93.9	93.9	93.9	Lw	60	0	0	0	1.5 g	616083.9	4830560	118.21
retail HVAC	93.5	93.5	93.5	Lw	60	0	0	0	1.5 g	616136.2	4830570	125.68
retail HVAC	85.5	85.5	85.5	Lw	60	60	0	0	1.5 g	616085.5	4830104	125.46
retail HVAC	85.5	85.5	85.5	Lw	60	60	0	0	1.5 g	616095.4	4830120	125.46
retail HVAC	85.5	85.5	85.5	Lw	60	60	0	0	1.5 g	616113.1	4830138	125.46
retail HVAC	82.5	82.5	82.5	Lw	60	0	0	0	1 g	615958.4	4830434	123.33
retail HVAC	82.5	82.5	82.5	Lw	60	0	0	0	1 g	615964.7	4830450	123.33
Home SenseTrash Compactor	82.2	82.2	82.2	Lw	0.5	0.5	0	0	2 g	616202.3	4830275	116.21
Home Depot Trash Compactor	82.2	82.2	82.2	Lw	0.5	0.5	0	0	2 g	616724.9	4830302	116.59
Thermo King (whisper unit)	101.6	101.6	101.6	Lw	30	30	30	0	3 g	616221.2	4830357	118.39
Thermo King (whisper unit)	101.6	101.6	101.6	Lw	30	30	30	0	3 g	616067.2	4830375	118.89
Thermo King (whisper unit)	101.6	101.6	101.6	Lw	30	30	30	0	3 g	616045.4	4830343	118.54

Appendix C

ORNAMENT - Sound Power Emissions & Source Heights

Ontario Road Noise Analysis Method for Environment and Transportation

Road Segment ID	Roadway Name	Link Description	Speed (kph)	Period (h)	Total Traffic Volumes	Auto %	Med %	Hvy %	Auto	Med	Heavy	Road Gradient (%)	Cadna/A Ground Absorption G	PWL (dBA)	Source Height, s (m)
WmallN_avg	West Mall Crescent - North of Queensway	Daytime Impacts	60	16	14744	96.5%	1.1%	2.4%	14228	162	354	0	0.00	82.6	1.2
WmallN_avg	West Mall Crescent - North of Queensway	Nighttime Impacts	60	8	1638	96.5%	1.1%	2.4%	1581	18	39	0	0.00	76.1	1.2
WmallS_avg	West Mall Crescent - South of Queensway	Daytime Impacts	60	16	22251	97.1%	1.1%	1.8%	21605	245	401	0	0.00	83.8	1.2
WmallS_avg	West Mall Crescent - South of Queensway	Nighttime Impacts	60	8	2472	97.1%	1.1%	1.8%	2401	27	45	0	0.00	77.3	1.2
Nqueen_avg	North Queen Street	Daytime Impacts	50	16	11436	96.2%	1.6%	2.2%	11002	183	252	0	0.00	79.8	1.2
Nqueen_avg	North Queen Street	Nighttime Impacts	50	8	1271	96.2%	1.6%	2.2%	1222	20	28	0	0.00	73.3	1.2
Queensway_avg	The Queensway	Daytime Impacts	60	16	28917	97.2%	1.1%	1.7%	28108	318	492	0	0.00	84.9	1.1
Queensway_avg	The Queensway	Nighttime Impacts	60	8	3213	97.2%	1.1%	1.7%	3123	35	55	0	0.00	78.3	1.1
NQueenExt_avg	North Queen Street Extension	Daytime Impacts	50	16	16058	96.2%	1.6%	2.2%	15448	257	353	0	0.00	81.3	1.2
NQueenExt_avg	North Queen Street Extension	Nighttime Impacts	50	8	1784	96.2%	1.6%	2.2%	1716	29	39	0	0.00	74.8	1.2
Hway427_avg	Highway 427	Daytime Impacts	100	16	240883	90.0%	5.0%	5.0%	216795	12044	12044	0	0.00	101.7	1.5
Hway427_avg	Highway 427	Nighttime Impacts	100	8	120442	90.0%	5.0%	5.0%	108397	6022	6022	0	0.00	101.7	1.5
QEW_Gard_avg	QEW & Gardiner	Daytime Impacts	100	16	127211	90.0%	5.0%	5.0%	114490	6361	6361	0	0.00	98.9	1.5
QEW_Gard_avg	QEW & Gardiner	Nighttime Impacts	100	8	63606	90.0%	5.0%	5.0%	57245	3180	3180	0	0.00	98.9	1.5
WmallN_amb	West Mall Crescent - North of Queensway	Daytime Ambient	60	1	13439				454	5	11	0	0.00	79.8	1.2
WmallN_amb	West Mall Crescent - North of Queensway	Evening Ambient	60	1	13439				324	4	8	0	0.00	78.3	1.2
WmallN_amb	West Mall Crescent - North of Queensway	Night-time Ambient	60	1	13439				26	0	1	0	0.00	67.3	1.2
WmallS_amb	West Mall Crescent - South of Queensway	Daytime Ambient	60	1	20281				689	8	13	0	0.00	80.9	1.2
WmallS_amb	West Mall Crescent - South of Queensway	Evening Ambient	60	1	20281				492	6	9	0	0.00	79.4	1.2
WmallS_amb	West Mall Crescent - South of Queensway	Night-time Ambient	60	1	20281				39	0	1	0	0.00	68.5	1.2
Nqueen_amb	North Queen Street	Daytime Ambient	60	1	11969				403	7	9	0	0.00	79.1	1.2
Nqueen_amb	North Queen Street	Evening Ambient	60	1	11969				288	5	6	0	0.00	77.6	1.2
Nqueen_amb	North Queen Street	Night-time Ambient	60	1	11969				23	0	1	0	0.00	66.7	1.2
Queensway_amb	The Queensway	Daytime Ambient	60	1	29523				1004	11	18	0	0.00	82.5	1.1
Queensway_amb	The Queensway	Evening Ambient	60	1	29523				717	8	13	0	0.00	81.0	1.1
Queensway_amb	The Queensway	Night-time Ambient	60	1	29523				57	1	1	0	0.00	70.0	1.1
NQueenExt_amb	North Queen Street Extension	Daytime Ambient	60	1	13939				470	8	11	0	0.00	79.8	1.2
NQueenExt_amb	North Queen Street Extension	Evening Ambient	60	1	13939				335	6	8	0	0.00	78.3	1.2
NQueenExt_amb	North Queen Street Extension	Night-time Ambient	60	1	13939				27	0	1	0	0.00	67.3	1.2
Hway427_amb	Highway 427	Daytime Ambient	100	1	347218				15953	886	886	0	0.00	102.4	1.5
Hway427_amb	Highway 427	Evening Ambient	100	1	347218				11958	664	664	0	0.00	101.1	1.5
Hway427_amb	Highway 427	Night-time Ambient	100	1	347218				2225	124	124	0	0.00	93.8	1.5
QEW_Gard_amb	QEW & Gardiner	Daytime Ambient	100	1	183367				8425	468	468	0	0.00	99.6	1.5
QEW_Gard_amb	QEW & Gardiner	Evening Ambient	100	1	183367				6315	351	351	0	0.00	98.4	1.5
QEW_Gard_amb	QEW & Gardiner	Night-time Ambient	100	1	183367				1175	65	65	0	0.00	91.1	1.5

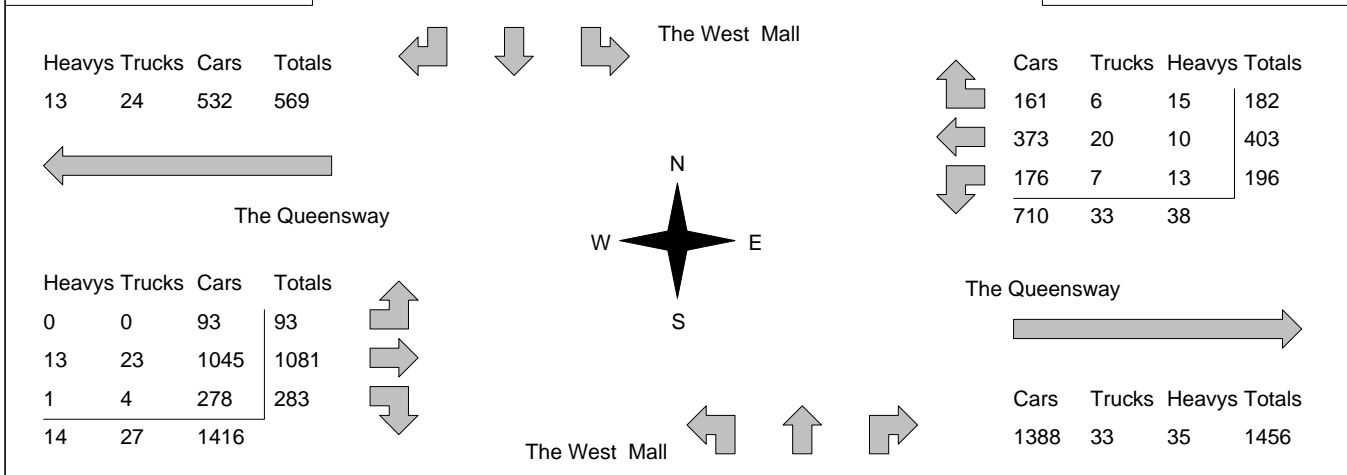
Accu-Traffic Inc

Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 8:00:00 To: 9:00:00
-----------------------------	---	--

Municipality: Mississauga Site #: 1306600001 Intersection: The Queensway & The West Mall TFR File #: 1 Count date: 17-Apr-13	Weather conditions: Person(s) who counted:
---	---

** Signalized Intersection **	Major Road: The Queensway runs W/E
--------------------------------------	---

North Leg Total: 954 North Entering: 332 North Peds: 1 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>6</td><td>7</td><td>13</td></tr> <tr><td>Trucks</td><td>2</td><td>3</td><td>6</td><td>11</td></tr> <tr><td>Cars</td><td>34</td><td>195</td><td>79</td><td>308</td></tr> <tr><td>Totals</td><td>36</td><td>204</td><td>92</td><td></td></tr> </table>	Heavys	0	6	7	13	Trucks	2	3	6	11	Cars	34	195	79	308	Totals	36	204	92		↑	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>18</td></tr> <tr><td>Trucks</td><td>9</td></tr> <tr><td>Cars</td><td>595</td></tr> <tr><td>Totals</td><td>622</td></tr> </table>	Heavys	18	Trucks	9	Cars	595	Totals	622	East Leg Total: 2237 East Entering: 781 East Peds: 4 Peds Cross: ☒
Heavys	0	6	7	13																												
Trucks	2	3	6	11																												
Cars	34	195	79	308																												
Totals	36	204	92																													
Heavys	18																															
Trucks	9																															
Cars	595																															
Totals	622																															



Peds Cross: ☒ West Peds: 1 West Entering: 1457 West Leg Total: 2026	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>649</td></tr> <tr><td>Trucks</td><td>14</td></tr> <tr><td>Heavys</td><td>20</td></tr> <tr><td>Totals</td><td>683</td></tr> </table>	Cars	649	Trucks	14	Heavys	20	Totals	683	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>125</td><td>341</td><td>264</td><td>730</td></tr> <tr><td>Trucks</td><td>2</td><td>3</td><td>4</td><td>9</td></tr> <tr><td>Heavys</td><td>3</td><td>3</td><td>15</td><td>21</td></tr> <tr><td>Totals</td><td>130</td><td>347</td><td>283</td><td></td></tr> </table>	Cars	125	341	264	730	Trucks	2	3	4	9	Heavys	3	3	15	21	Totals	130	347	283		Peds Cross: ☒ South Peds: 1 South Entering: 760 South Leg Total: 1443
Cars	649																														
Trucks	14																														
Heavys	20																														
Totals	683																														
Cars	125	341	264	730																											
Trucks	2	3	4	9																											
Heavys	3	3	15	21																											
Totals	130	347	283																												

Comments

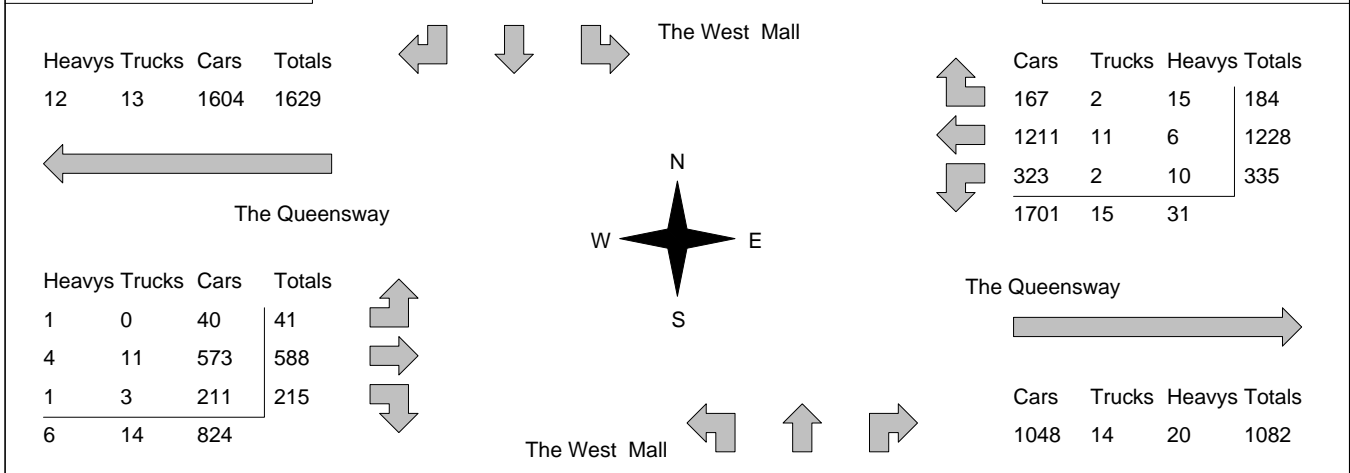
Accu-Traffic Inc

Afternoon Peak Diagram	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 17:00:00 To: 18:00:00
-------------------------------	---	--

Municipality: Mississauga Site #: 1306600001 Intersection: The Queensway & The West Mall TFR File #: 1 Count date: 17-Apr-13	Weather conditions: Person(s) who counted:
---	---

**** Signalized Intersection **** **Major Road:** The Queensway runs W/E

North Leg Total: 1147 North Entering: 673 North Peds: 2 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>1</td><td>3</td><td>6</td><td>10</td></tr> <tr><td>Trucks</td><td>0</td><td>3</td><td>1</td><td>4</td></tr> <tr><td>Cars</td><td>128</td><td>349</td><td>182</td><td>659</td></tr> <tr><td>Totals</td><td>129</td><td>355</td><td>189</td><td></td></tr> </table>	Heavys	1	3	6	10	Trucks	0	3	1	4	Cars	128	349	182	659	Totals	129	355	189		↑	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>18</td></tr> <tr><td>Trucks</td><td>9</td></tr> <tr><td>Cars</td><td>447</td></tr> <tr><td>Totals</td><td>474</td></tr> </table>	Heavys	18	Trucks	9	Cars	447	Totals	474	East Leg Total: 2829 East Entering: 1747 East Peds: 4 Peds Cross: ☒
Heavys	1	3	6	10																												
Trucks	0	3	1	4																												
Cars	128	349	182	659																												
Totals	129	355	189																													
Heavys	18																															
Trucks	9																															
Cars	447																															
Totals	474																															



Peds Cross: ☒ West Peds: 0 West Entering: 844 West Leg Total: 2473	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>883</td></tr> <tr><td>Trucks</td><td>8</td></tr> <tr><td>Heavys</td><td>14</td></tr> <tr><td>Totals</td><td>905</td></tr> </table>	Cars	883	Trucks	8	Heavys	14	Totals	905	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>265</td><td>240</td><td>293</td><td>798</td></tr> <tr><td>Trucks</td><td>2</td><td>7</td><td>2</td><td>11</td></tr> <tr><td>Heavys</td><td>5</td><td>2</td><td>10</td><td>17</td></tr> <tr><td>Totals</td><td>272</td><td>249</td><td>305</td><td></td></tr> </table>	Cars	265	240	293	798	Trucks	2	7	2	11	Heavys	5	2	10	17	Totals	272	249	305		Peds Cross: ☒ South Peds: 1 South Entering: 826 South Leg Total: 1731
Cars	883																														
Trucks	8																														
Heavys	14																														
Totals	905																														
Cars	265	240	293	798																											
Trucks	2	7	2	11																											
Heavys	5	2	10	17																											
Totals	272	249	305																												

Comments

Accu-Traffic Inc

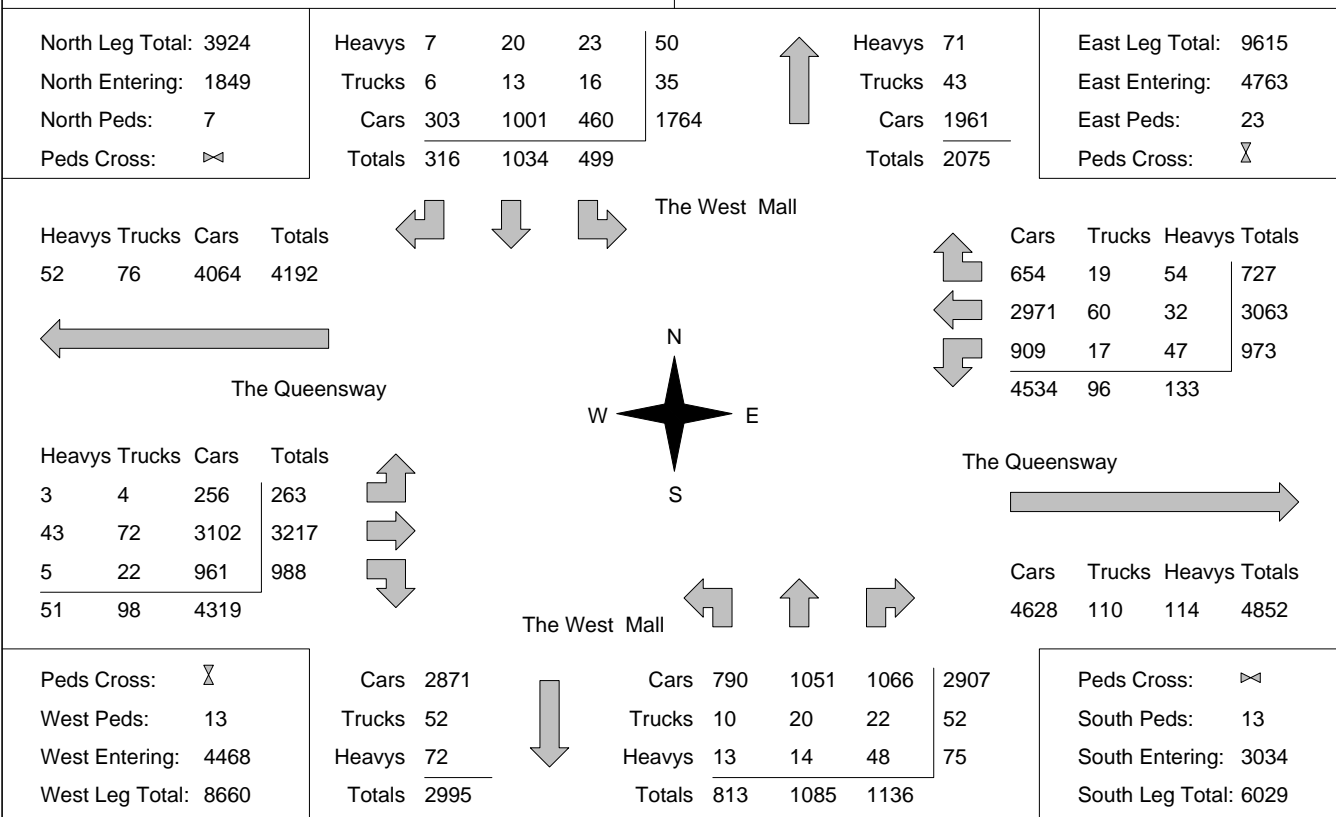
Total Count Diagram

Municipality: Mississauga
Site #: 1306600001
Intersection: The Queensway & The West Mall
TFR File #: 1
Count date: 17-Apr-13

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: The Queensway runs W/E



Comments

Accu-Traffic Inc

Traffic Count Summary

Intersection		The Queensway & The West Mall					Count Date		17-Apr-13					Municipality		Mississauga				
North Approach Totals							South Approach Totals													
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	North/South Total Approaches	Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds								
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total									
7:00:00	0	0	0	0	0	8	7:00:00	2	4	2	8	1								
8:00:00	49	149	30	228	1	754	8:00:00	98	196	232	526	1								
9:00:00	92	204	36	332	1	1092	9:00:00	130	347	283	760	1								
16:00:00	0	0	0	0	0	8	16:00:00	4	0	4	8	0								
17:00:00	160	316	119	595	2	1490	17:00:00	304	285	306	895	9								
18:00:00	189	355	129	673	2	1499	18:00:00	272	249	305	826	1								
Totals:	490	1024	314	1828	6	4851		810	1081	1132	3023	13								
East Approach Totals							West Approach Totals													
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	East/West Total Approaches	Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds								
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total									
7:00:00	0	1	2	3	1	6	7:00:00	0	3	0	3	0								
8:00:00	153	302	143	598	7	1896	8:00:00	81	917	300	1298	5								
9:00:00	196	403	182	781	4	2238	9:00:00	93	1081	283	1457	1								
16:00:00	6	20	7	33	1	86	16:00:00	6	39	8	53	0								
17:00:00	277	1098	205	1580	3	2381	17:00:00	42	581	178	801	5								
18:00:00	335	1228	184	1747	4	2591	18:00:00	41	588	215	844	0								
Totals:	967	3052	723	4742	20	9198		263	3209	984	4456	11								
Calculated Values for Traffic Crossing Major Street																				
Hours Ending:	0:00	0:00	7:00	8:00			9:00	16:00	17:00	18:00										
Crossing Values:	0	0	7	355			574	5	788	820										



Accu-Traffic Inc

Count Date: 17-Apr-13 Site #: 1306600001

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	2	2	4	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:15:00	32	30	42	38	46	44	0	0	1	1	4	4	1	1	0	0	3	3	1	0
7:30:00	50	18	89	47	85	39	0	0	1	0	5	1	1	0	0	0	6	3	2	1
7:45:00	71	21	138	49	146	61	3	3	1	0	10	5	2	1	0	0	11	5	2	0
8:00:00	94	23	198	60	210	64	3	0	2	1	11	1	3	1	0	0	13	2	2	0
8:15:00	123	29	266	68	271	61	3	0	2	0	11	0	4	1	2	2	17	4	2	0
8:30:00	156	33	354	88	339	68	3	0	2	0	11	0	5	1	2	0	21	4	3	1
8:45:00	181	25	450	96	400	61	4	1	3	1	12	1	6	1	2	0	25	4	3	0
9:00:00	219	38	539	89	474	74	5	1	5	2	15	3	6	0	3	1	28	3	3	0
9:01:57	219	0	539	0	474	0	5	0	5	0	15	0	6	0	3	0	28	0	3	0
16:00:00	223	4	539	0	478	4	5	0	5	0	15	0	6	0	3	0	28	0	3	0
16:15:00	304	81	616	77	554	76	5	0	8	3	16	1	7	1	8	5	33	5	6	3
16:30:00	368	64	681	65	617	63	6	1	9	1	16	0	7	0	11	3	33	0	9	3
16:45:00	454	86	738	57	706	89	7	1	11	2	18	2	8	1	12	1	36	3	10	1
17:00:00	522	68	807	69	769	63	8	1	13	2	20	2	8	0	12	0	38	2	12	2
17:15:00	576	54	866	59	859	90	8	0	16	3	21	1	12	4	12	0	40	2	12	0
17:30:00	653	77	924	58	933	74	9	1	18	2	21	0	12	0	13	1	43	3	12	0
17:45:00	723	70	990	66	988	55	10	1	20	2	21	0	13	1	13	0	46	3	12	0
18:00:00	787	64	1047	57	1062	74	10	0	20	0	22	1	13	0	14	1	48	2	13	1
18:15:00	790	3	1051	4	1066	4	10	0	20	0	22	0	13	0	14	0	48	0	13	0
18:15:51	790	0	1051	0	1066	0	10	0	20	0	22	0	13	0	14	0	48	0	13	0

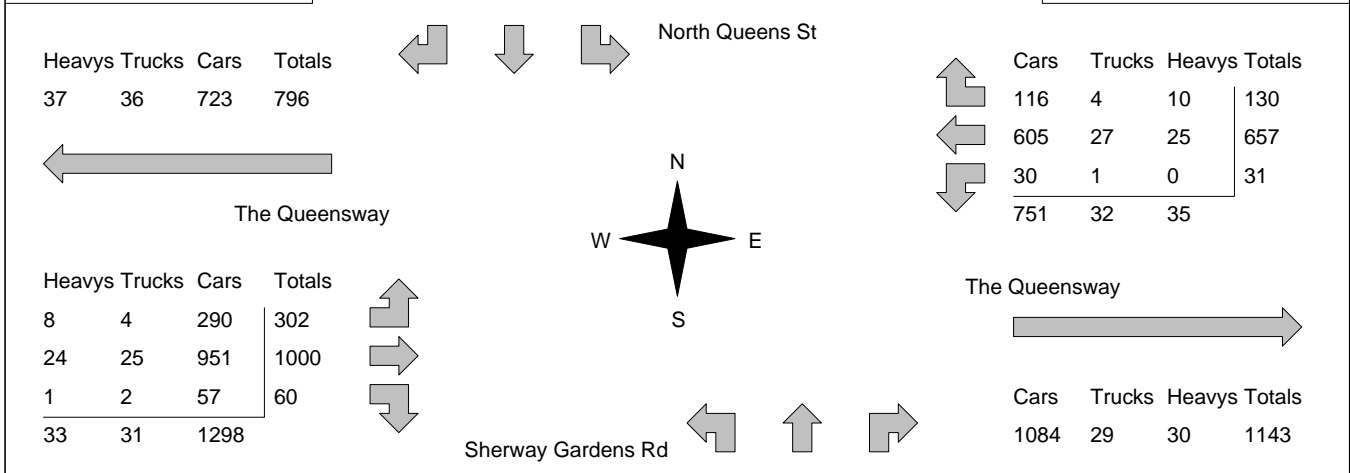
Accu-Traffic Inc

Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 8:00:00 To: 9:00:00
-----------------------------	---	--

Municipality: Mississauga Site #: 1306600004 Intersection: The Queensway & North Queens St TFR File #: 5 Count date: 17-Apr-13	Weather conditions: Person(s) who counted:
---	---

** Signalized Intersection **	Major Road: The Queensway runs W/E
--------------------------------------	---

North Leg Total: 734 North Entering: 277 North Peds: 1 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>12</td><td>0</td><td>5</td><td>17</td></tr> <tr><td>Trucks</td><td>8</td><td>1</td><td>4</td><td>13</td></tr> <tr><td>Cars</td><td>101</td><td>32</td><td>114</td><td>247</td></tr> <tr><td>Totals</td><td>121</td><td>33</td><td>123</td><td></td></tr> </table>	Heavys	12	0	5	17	Trucks	8	1	4	13	Cars	101	32	114	247	Totals	121	33	123		↑	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>18</td></tr> <tr><td>Trucks</td><td>8</td></tr> <tr><td>Cars</td><td>431</td></tr> <tr><td>Totals</td><td>457</td></tr> </table>	Heavys	18	Trucks	8	Cars	431	Totals	457	East Leg Total: 1961 East Entering: 818 East Peds: 6 Peds Cross: ☒
Heavys	12	0	5	17																												
Trucks	8	1	4	13																												
Cars	101	32	114	247																												
Totals	121	33	123																													
Heavys	18																															
Trucks	8																															
Cars	431																															
Totals	457																															



Peds Cross: ☒ West Peds: 8 West Entering: 1362 West Leg Total: 2158	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>119</td></tr> <tr><td>Trucks</td><td>4</td></tr> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Totals</td><td>124</td></tr> </table>	Cars	119	Trucks	4	Heavys	1	Totals	124	↓	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>17</td><td>25</td><td>19</td><td>61</td></tr> <tr><td>Trucks</td><td>1</td><td>0</td><td>0</td><td>1</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>1</td><td>1</td></tr> <tr><td>Totals</td><td>18</td><td>25</td><td>20</td><td></td></tr> </table>	Cars	17	25	19	61	Trucks	1	0	0	1	Heavys	0	0	1	1	Totals	18	25	20		Peds Cross: ☒ South Peds: 0 South Entering: 63 South Leg Total: 187
Cars	119																															
Trucks	4																															
Heavys	1																															
Totals	124																															
Cars	17	25	19	61																												
Trucks	1	0	0	1																												
Heavys	0	0	1	1																												
Totals	18	25	20																													

Comments

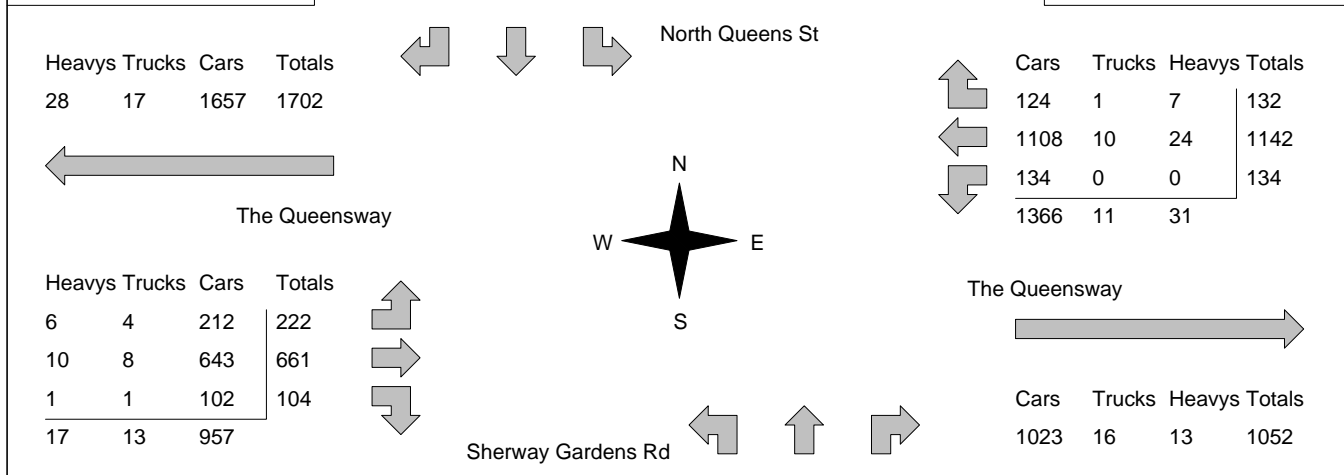
Accu-Traffic Inc

Afternoon Peak Diagram	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 17:00:00 To: 18:00:00
-------------------------------	---	--

Municipality: Mississauga Site #: 1306600004 Intersection: The Queensway & North Queens St TFR File #: 5 Count date: 17-Apr-13	Weather conditions: Person(s) who counted:
---	---

** Signalized Intersection **	Major Road: The Queensway runs W/E
--------------------------------------	---

North Leg Total: 1325 North Entering: 831 North Peds: 12 Peds Cross: ☒	<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>4</td><td>0</td><td>3</td><td>7</td></tr> <tr><td>Trucks</td><td>5</td><td>0</td><td>5</td><td>10</td></tr> <tr><td>Cars</td><td>413</td><td>152</td><td>249</td><td>814</td></tr> <tr><td>Totals</td><td>422</td><td>152</td><td>257</td><td></td></tr> </table>	Heavys	4	0	3	7	Trucks	5	0	5	10	Cars	413	152	249	814	Totals	422	152	257		<table style="border-collapse: collapse;"> <tr><td>Heavys</td><td>13</td></tr> <tr><td>Trucks</td><td>7</td></tr> <tr><td>Cars</td><td>474</td></tr> <tr><td>Totals</td><td>494</td></tr> </table>	Heavys	13	Trucks	7	Cars	474	Totals	494	East Leg Total: 2460 East Entering: 1408 East Peds: 29 Peds Cross: ☒
Heavys	4	0	3	7																											
Trucks	5	0	5	10																											
Cars	413	152	249	814																											
Totals	422	152	257																												
Heavys	13																														
Trucks	7																														
Cars	474																														
Totals	494																														



Peds Cross: ☒ West Peds: 18 West Entering: 987 West Leg Total: 2689	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>388</td></tr> <tr><td>Trucks</td><td>1</td></tr> <tr><td>Heavys</td><td>1</td></tr> <tr><td>Totals</td><td>390</td></tr> </table>	Cars	388	Trucks	1	Heavys	1	Totals	390	<table style="border-collapse: collapse;"> <tr><td>Cars</td><td>136</td><td>138</td><td>131</td><td>405</td></tr> <tr><td>Trucks</td><td>2</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Totals</td><td>138</td><td>140</td><td>134</td><td></td></tr> </table>	Cars	136	138	131	405	Trucks	2	2	3	7	Heavys	0	0	0	0	Totals	138	140	134		Peds Cross: ☒ South Peds: 4 South Entering: 412 South Leg Total: 802
Cars	388																														
Trucks	1																														
Heavys	1																														
Totals	390																														
Cars	136	138	131	405																											
Trucks	2	2	3	7																											
Heavys	0	0	0	0																											
Totals	138	140	134																												

Comments

Accu-Traffic Inc

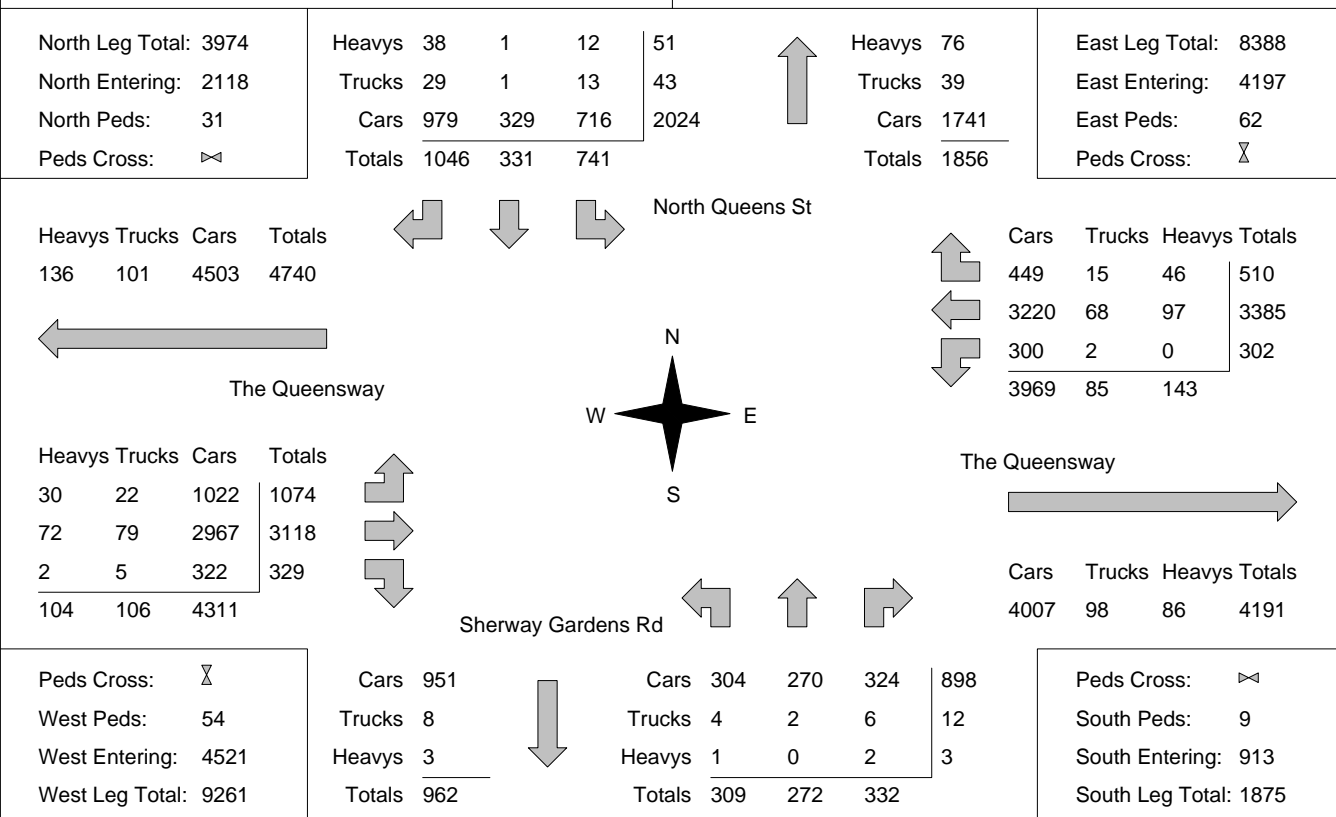
Total Count Diagram

Municipality: Mississauga
Site #: 1306600004
Intersection: The Queensway & North Queens St
TFR File #: 5
Count date: 17-Apr-13

Weather conditions:
Person(s) who counted:

**** Signalized Intersection ****

Major Road: The Queensway runs W/E



Comments

Accu-Traffic Inc

Traffic Count Summary

Intersection **The Queensway & North Queens** Count Date **17-Apr-13** Municipality **Mississauga**

North Approach Totals						North/South Total Approaches	South Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	71	16	115	202	2	235	8:00:00	11	8	14	33	0
9:00:00	123	33	121	277	1	340	9:00:00	18	25	20	63	0
16:00:00	16	3	3	22	0	25	16:00:00	0	0	3	3	0
17:00:00	274	127	383	784	16	1183	17:00:00	142	98	159	399	5
18:00:00	257	152	422	831	12	1243	18:00:00	138	140	134	412	4
Totals:	741	331	1044	2116	31	3026		309	271	330	910	9
East Approach Totals						East/West Total Approaches	West Approach Totals					
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds		Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	10	7:00:00	4	6	0	10	0
8:00:00	16	484	109	609	2	1741	8:00:00	301	793	38	1132	5
9:00:00	31	657	130	818	6	2180	9:00:00	302	1000	60	1362	8
16:00:00	0	21	8	29	0	37	16:00:00	5	3	0	8	0
17:00:00	119	1038	126	1283	25	2287	17:00:00	240	642	122	1004	22
18:00:00	134	1142	132	1408	29	2395	18:00:00	222	661	104	987	18
Totals:	300	3342	505	4147	62	8650		1074	3105	324	4503	53
Calculated Values for Traffic Crossing Major Street												
Hours Ending:	0:00	0:00	7:00	8:00		9:00	16:00	17:00	18:00			
Crossing Values:	0	0	0	105		188	19	590	594			



Accu-Traffic Inc

Count Date: 17-Apr-13 Site #: 1306600004

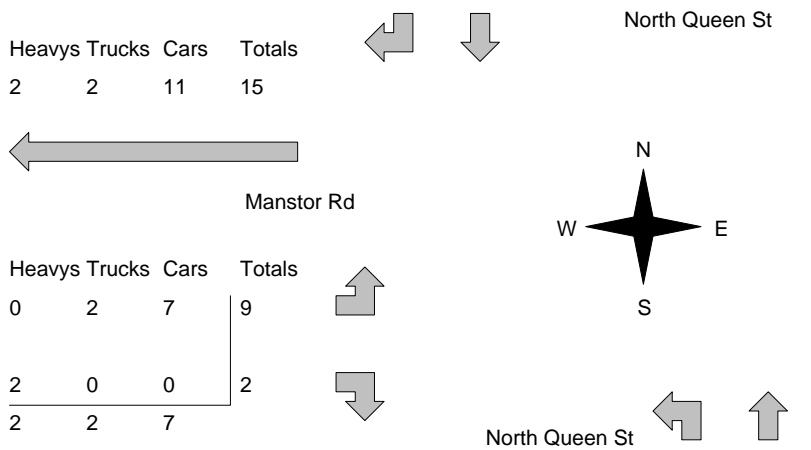
Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	4	4	5	5	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
7:15:00	67	63	135	130	10	10	2	2	9	9	1	1	2	2	8	7	0	0	1	1
7:30:00	129	62	312	177	14	4	4	2	14	5	1	0	6	4	10	2	0	0	1	0
7:45:00	208	79	500	188	21	7	6	2	27	13	1	0	6	0	19	9	0	0	5	4
8:00:00	290	82	744	244	37	16	7	1	32	5	1	0	8	2	23	4	0	0	5	0
8:15:00	360	70	981	237	45	8	10	3	38	6	1	0	10	2	28	5	0	0	5	0
8:30:00	441	81	1243	262	63	18	11	1	44	6	1	0	12	2	33	5	0	0	5	0
8:45:00	505	64	1485	242	74	11	11	0	48	4	1	0	14	2	41	8	0	0	8	3
9:00:00	580	75	1695	210	94	20	11	0	57	9	3	2	16	2	47	6	1	1	13	5
9:01:21	580	0	1695	0	94	0	11	0	57	0	3	0	16	0	47	0	1	0	13	0
16:00:00	585	5	1697	2	94	0	11	0	57	0	3	0	16	0	48	1	1	0	13	0
16:15:00	646	61	1852	155	122	28	11	0	61	4	3	0	16	0	55	7	1	0	18	5
16:30:00	695	49	2001	149	153	31	12	1	64	3	3	0	19	3	56	1	1	0	22	4
16:45:00	746	51	2160	159	179	26	16	4	68	4	3	0	22	3	61	5	1	0	26	4
17:00:00	810	64	2311	151	215	36	18	2	71	3	4	1	24	2	62	1	1	0	35	9
17:15:00	871	61	2477	166	238	23	20	2	73	2	5	1	28	4	64	2	1	0	41	6
17:30:00	920	49	2649	172	272	34	20	0	75	2	5	0	29	1	66	2	1	0	44	3
17:45:00	970	50	2790	141	295	23	22	2	77	2	5	0	29	0	70	4	1	0	49	5
18:00:00	1022	52	2954	164	317	22	22	0	79	2	5	0	30	1	72	2	2	1	53	4
18:15:00	1022	0	2967	13	322	5	22	0	79	0	5	0	30	0	72	0	2	0	54	1
18:15:26	1022	0	2967	0	322	0	22	0	79	0	5	0	30	0	72	0	2	0	54	0

Accu-Traffic Inc

Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 7:45:00 To: 8:45:00
-----------------------------	---	--

Municipality: Mississauga Site #: 1306600007 Intersection: North Queen St & Manstor Rd TFR File #: 3 Count date: 16-Apr-13	Weather conditions: Person(s) who counted:
---	---

** Non-Signalized Intersection **	Major Road: North Queen St runs N/S
--	--

North Leg Total: 595 North Entering: 193 North Peds: 0 Peds Cross: ☒	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"> Heavys 0 14 Trucks 1 7 Cars 9 162 Totals 10 183 </td> <td style="width: 50%; border-left: 1px solid black; padding-left: 10px;"> 14 8 171 </td> </tr> </table>	Heavys 0 14 Trucks 1 7 Cars 9 162 Totals 10 183	14 8 171	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"> Heavys 17 Trucks 9 Cars 376 Totals 402 </td> <td style="width: 50%; border-left: 1px solid black; padding-left: 10px;"> 171 9 376 402 </td> </tr> </table>	Heavys 17 Trucks 9 Cars 376 Totals 402	171 9 376 402	
Heavys 0 14 Trucks 1 7 Cars 9 162 Totals 10 183	14 8 171						
Heavys 17 Trucks 9 Cars 376 Totals 402	171 9 376 402						
							
Heavys Trucks Cars Totals 2 2 11 15 0 2 7 9 <hr style="width: 50%; margin-left: 0;"/> 2 0 0 2 <hr style="width: 50%; margin-left: 0;"/> 2 2 7 9	Heavys Trucks Cars Totals 0 2 7 9 <hr style="width: 50%; margin-left: 0;"/> 2 0 0 2 <hr style="width: 50%; margin-left: 0;"/> 2 2 7 9	Cars 162 Trucks 7 Heavys 16 Totals 185	Cars 2 369 Trucks 1 7 Heavys 2 17 Totals 5 393 Peds Cross: ☒ South Peds: 0 South Entering: 398 South Leg Total: 583				

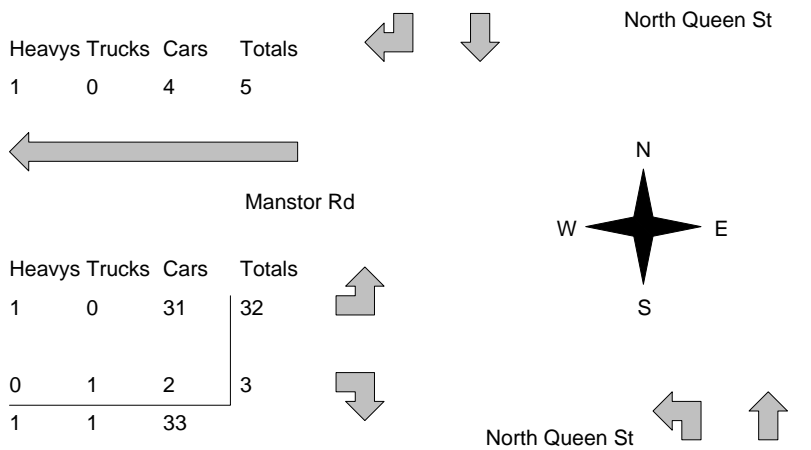
Comments

Accu-Traffic Inc

Afternoon Peak Diagram	Specified Period From: 16:00:00 To: 18:00:00	One Hour Peak From: 16:30:00 To: 17:30:00
-------------------------------	---	--

Municipality: Mississauga Site #: 1306600007 Intersection: North Queen St & Manstor Rd TFR File #: 3 Count date: 16-Apr-13	Weather conditions: Person(s) who counted:
---	---

**** Non-Signalized Intersection **** **Major Road:** North Queen St runs N/S

North Leg Total: 1064 North Entering: 559 North Peds: 0 Peds Cross: ☒	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Heavys</td> <td style="width: 10%;">0</td> <td style="width: 10%;">6</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Trucks</td> <td>0</td> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Cars</td> <td>3</td> <td>543</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Totals</td> <td>3</td> <td>556</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Heavys	0	6								Trucks	0	7								Cars	3	543								Totals	3	556								<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Heavys</td> <td style="width: 10%;">20</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Trucks</td> <td>11</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Cars</td> <td>474</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Totals</td> <td>505</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Heavys	20									Trucks	11									Cars	474									Totals	505																																																																																										
Heavys	0	6																																																																																																																																																																		
Trucks	0	7																																																																																																																																																																		
Cars	3	543																																																																																																																																																																		
Totals	3	556																																																																																																																																																																		
Heavys	20																																																																																																																																																																			
Trucks	11																																																																																																																																																																			
Cars	474																																																																																																																																																																			
Totals	505																																																																																																																																																																			
 <p style="text-align: center;">North Queen St</p> <p style="text-align: center;">Manstor Rd</p> <p style="text-align: center;">North Queen St</p>																																																																																																																																																																				
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Heavys</td> <td style="width: 10%;">1</td> <td style="width: 10%;">0</td> <td style="width: 10%;">4</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Trucks</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Cars</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Totals</td> <td>1</td> <td>0</td> <td>4</td> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Heavys	1	0	4							Trucks	0									Cars										Totals	1	0	4	5						<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Heavys</td> <td style="width: 10%;">1</td> <td style="width: 10%;">0</td> <td style="width: 10%;">31</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Trucks</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Cars</td> <td>0</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Totals</td> <td>1</td> <td>1</td> <td>33</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Heavys	1	0	31							Trucks	0									Cars	0	1	2							Totals	1	1	33	3						<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Cars</td> <td style="width: 10%;">545</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Trucks</td> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Heavys</td> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Totals</td> <td>559</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Cars	545									Trucks	8									Heavys	6									Totals	559									<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Cars</td> <td style="width: 10%;">1</td> <td style="width: 10%;">443</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Trucks</td> <td>0</td> <td>11</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Heavys</td> <td>1</td> <td>19</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Totals</td> <td>2</td> <td>473</td> <td>444</td> <td>11</td> <td>20</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Cars	1	443								Trucks	0	11								Heavys	1	19								Totals	2	473	444	11	20					Peds Cross: ☒ South Peds: 0 South Entering: 475 South Leg Total: 1034
Heavys	1	0	4																																																																																																																																																																	
Trucks	0																																																																																																																																																																			
Cars																																																																																																																																																																				
Totals	1	0	4	5																																																																																																																																																																
Heavys	1	0	31																																																																																																																																																																	
Trucks	0																																																																																																																																																																			
Cars	0	1	2																																																																																																																																																																	
Totals	1	1	33	3																																																																																																																																																																
Cars	545																																																																																																																																																																			
Trucks	8																																																																																																																																																																			
Heavys	6																																																																																																																																																																			
Totals	559																																																																																																																																																																			
Cars	1	443																																																																																																																																																																		
Trucks	0	11																																																																																																																																																																		
Heavys	1	19																																																																																																																																																																		
Totals	2	473	444	11	20																																																																																																																																																															

Comments

Accu-Traffic Inc

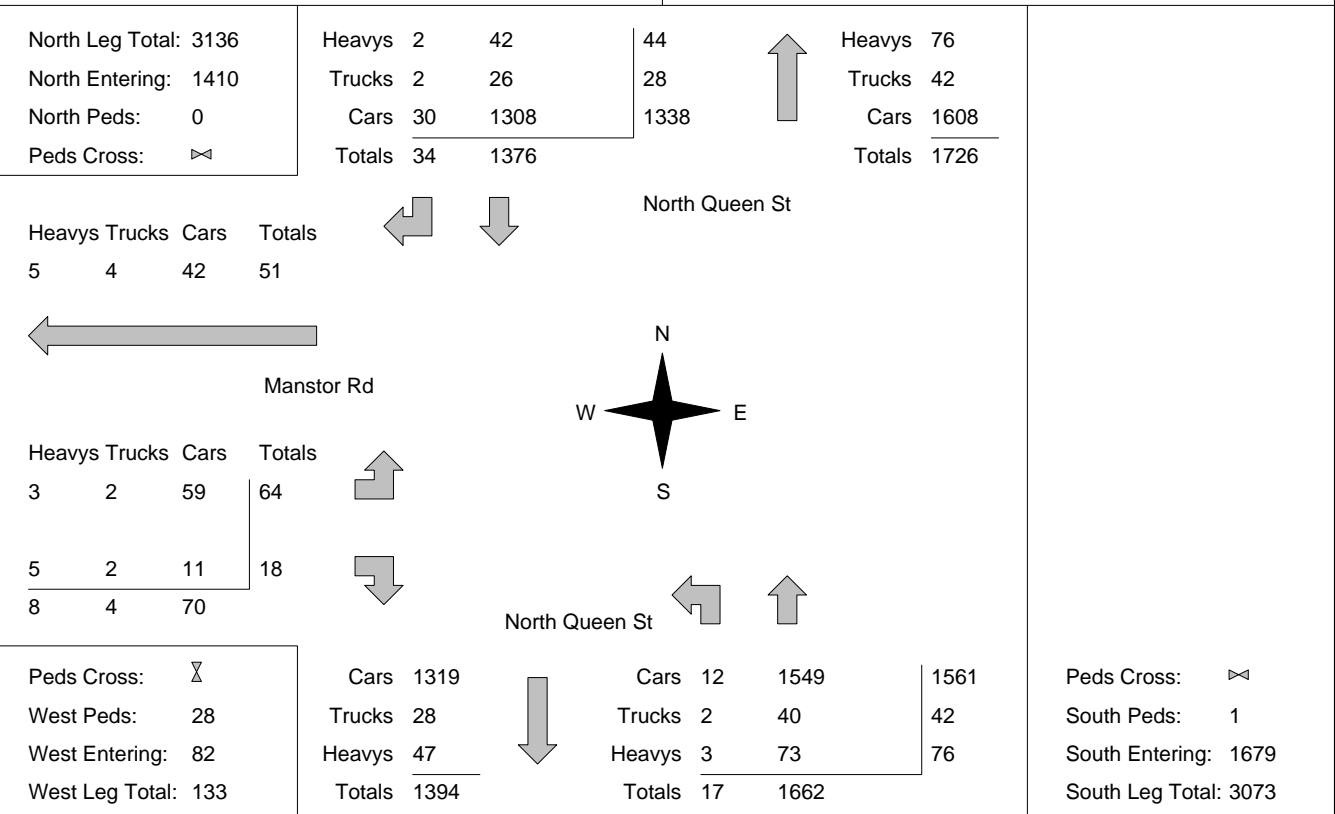
Total Count Diagram

Municipality: Mississauga
Site #: 1306600007
Intersection: North Queen St & Manstor Rd
TFR File #: 3
Count date: 16-Apr-13

Weather conditions:
Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: North Queen St runs N/S



Comments

Accu-Traffic Inc

Traffic Count Summary

Intersection		North Queen St & Manstor Rd				Count Date		16-Apr-13		Municipality				Mississauga	
North Approach Totals							South Approach Totals								
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	North/South Total Approaches	Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds			
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total				
7:00:00	0	5	1	6	0	20	7:00:00	0	14	0	14	0			
8:00:00	0	145	15	160	0	535	8:00:00	11	364	0	375	1			
9:00:00	0	167	6	173	0	563	9:00:00	1	389	0	390	0			
16:00:00	0	3	0	3	0	8	16:00:00	0	5	0	5	0			
17:00:00	0	496	10	506	0	953	17:00:00	1	446	0	447	0			
18:00:00	0	556	2	558	0	1006	18:00:00	4	444	0	448	0			
Totals:	0	1372	34	1406	0	3085	17	1662	0	1679	1				
East Approach Totals							West Approach Totals								
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	East/West Total Approaches	Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds			
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total				
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0			
8:00:00	0	0	0	0	0	12	8:00:00	10	0	2	12	16			
9:00:00	0	0	0	0	0	9	9:00:00	6	0	3	9	3			
16:00:00	0	0	0	0	0	1	16:00:00	0	0	1	1	0			
17:00:00	0	0	0	0	0	42	17:00:00	36	0	6	42	7			
18:00:00	0	0	0	0	0	18	18:00:00	12	0	6	18	2			
Totals:	0	0	0	0	0	82	64	0	18	82	28				
Calculated Values for Traffic Crossing Major Street															
Hours Ending:	0:00	0:00	7:00	8:00			9:00	16:00	17:00	18:00					
Crossing Values:	0	0	0	11			6	0	36	12					



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis
www.accu-traffic.ca
Tel: 1-825-910-0171
Fax: 1-888-711-3125

Accu-Traffic Inc

Count Date: 16-Apr-13 Site #: 1306600007

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	13	13	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
7:15:00	2	2	83	70	0	0	0	0	3	3	0	0	0	0	9	8	0	0	0	0
7:30:00	6	4	164	81	0	0	1	1	6	3	0	0	0	0	11	2	0	0	1	1
7:45:00	6	0	241	77	0	0	1	0	12	6	0	0	0	0	15	4	0	0	1	0
8:00:00	7	1	343	102	0	0	2	1	14	2	0	0	2	2	21	6	0	0	1	0
8:15:00	7	0	425	82	0	0	2	0	18	4	0	0	2	0	25	4	0	0	1	0
8:30:00	8	1	532	107	0	0	2	0	19	1	0	0	2	0	28	3	0	0	1	0
8:45:00	8	0	610	78	0	0	2	0	19	0	0	0	2	0	32	4	0	0	1	0
9:00:00	8	0	709	99	0	0	2	0	21	2	0	0	2	0	37	5	0	0	1	0
9:00:19	8	0	710	1	0	0	2	0	21	0	0	0	2	0	37	0	0	0	1	0
16:00:00	8	0	713	3	0	0	2	0	21	0	0	0	2	0	38	1	0	0	1	0
16:15:00	9	1	820	107	0	0	2	0	25	4	0	0	2	0	42	4	0	0	1	0
16:30:00	9	0	917	97	0	0	2	0	26	1	0	0	2	0	51	9	0	0	1	0
16:45:00	9	0	1028	111	0	0	2	0	30	4	0	0	2	0	55	4	0	0	1	0
17:00:00	9	0	1124	96	0	0	2	0	32	2	0	0	2	0	62	7	0	0	1	0
17:15:00	9	0	1257	133	0	0	2	0	35	3	0	0	2	0	66	4	0	0	1	0
17:30:00	10	1	1360	103	0	0	2	0	37	2	0	0	3	1	70	4	0	0	1	0
17:45:00	11	1	1445	85	0	0	2	0	39	2	0	0	3	0	70	0	0	0	1	0
18:00:00	12	1	1549	104	0	0	2	0	40	1	0	0	3	0	73	3	0	0	1	0
18:15:00	12	0	1549	0	0	0	2	0	40	0	0	0	3	0	73	0	0	0	1	0
18:15:18	12	0	1549	0	0	0	2	0	40	0	0	0	3	0	73	0	0	0	1	0



Accu-Traffic Inc

Count Date: 16-Apr-13 Site #: 130660007

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians		
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross		
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15:00	3	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	3	
7:30:00	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10	7	
7:45:00	5	2	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	1	14	4
8:00:00	9	4	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	16	2
8:15:00	9	0	0	0	1	0	1	1	0	0	0	0	0	1	0	0	0	2	1	17	1
8:30:00	10	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	3	1	17	0
8:45:00	12	2	0	0	1	0	2	1	0	0	0	0	0	1	0	0	0	3	0	18	1
9:00:00	13	1	0	0	1	0	2	0	0	0	0	0	0	1	0	0	0	4	1	19	1
9:00:19	13	0	0	0	1	0	2	0	0	0	0	0	0	1	0	0	0	4	0	19	0
16:00:00	13	0	0	0	2	1	2	0	0	0	0	0	0	1	0	0	0	4	0	19	0
16:15:00	21	8	0	0	4	2	2	0	0	0	1	1	1	1	0	0	0	4	0	21	2
16:30:00	24	3	0	0	5	1	2	0	0	0	1	0	0	2	1	0	0	4	0	24	3
16:45:00	42	18	0	0	6	1	2	0	0	0	1	0	0	3	1	0	0	4	0	26	2
17:00:00	47	5	0	0	6	0	2	0	0	0	2	1	0	3	0	0	0	4	0	26	0
17:15:00	51	4	0	0	6	0	2	0	0	0	2	0	0	3	0	0	0	4	0	26	0
17:30:00	55	4	0	0	7	1	2	0	0	0	2	0	0	3	0	0	0	4	0	26	0
17:45:00	58	3	0	0	10	3	2	0	0	0	2	0	0	3	0	0	0	5	1	28	2
18:00:00	59	1	0	0	11	1	2	0	0	0	2	0	0	3	0	0	0	5	0	28	0
18:15:00	59	0	0	0	11	0	2	0	0	0	2	0	0	3	0	0	0	5	0	28	0
18:15:18	59	0	0	0	11	0	2	0	0	0	2	0	0	3	0	0	0	5	0	28	0



**CANADIAN
PACIFIC
RAILWAY**

Real Estate

Suite 200
40 University Avenue
Toronto Ontario
M5J 1T1

Fax (416) 595-3112

March 29, 2006

Jade Acoustics Inc.
545 North Rivermede Road
Suite 203
Concord, Ontario
L4K 4H1

FAX (905) 660-4110

Attention: Jamie Paterson

Dear Sir:

This has reference to your request for rail traffic data for the study area located in the vicinity of Dundas Street West and Kipling Avenue in the City of Toronto (Etobicoke). The Study area is located at mile 9.39 of our Galt Subdivision which is classified as a principle main line.

The information requested is as follows:

- 1. Number of freight trains (0700 to 2300): 24 trains
 Number of freight trains (2300 to 0700): 12 trains
 Number of passenger trains (GO Transit*): 12 trains

*GO Transit passenger service runs on weekdays between 0700 & 0845 and then between 1635 & 1930.

- 2. Number of locomotives per train: ② freight (5 maximum), 1 passenger
- 3. Average number of cars per train: ④① freight (122 maximum), 10 passenger
- 4. Maximum permissible speed: 60 mph freight, 65 mph passenger

Note: Actual train speeds would be slower through the area because of the constant activity through this hub.

- 5. Shunting occurs continuously through this area by the yard assignment operating out of our Obico Yard which is located south of the Kipling subway station. Consideration should be given to these activities as a possible stationary noise source.
- 6. Whistle signal is generally prohibited but may be sounded if deemed necessary by the train crew for safety reasons. Bells are rung by trains passing through the Kipling GO Station.

The information provided is based on existing traffic and approximately represents rail traffic for the average day. Variations of the above may exist on a day to day basis. Specific measurements may also vary significantly depending on customer demands.

Yours truly,

Orest Rojik
Area Manager Support

(416) 595-3116
e-mail: orest_rojik@cpr.ca

By FAX

April 3/06
Mr. Orest Rojik advised that
this information can be used
for the CP rail line at
Bronte Street in the Town of
Milton.

CPR CMB

Marcus Li

From: Rail Data Requests <RailDataRequests@metrolinx.com>
Sent: March 02, 2021 9:45 PM
To: Marcus Li; Jason Dorsers
Cc: Elisabeth Silva Stewart
Subject: 1750-1900 Queensway

Hi Marcus/Jason: Elisabeth asked me to send the revised rail traffic forecast for this proposal, here it is.

The subject lands (1750-1900 The Queensway, Toronto) are located within 300 metres of the CP Galt Subdivision (which carries Milton GO rail service).

It's anticipated that GO rail service on this Subdivision will be comprised of diesel trains. The GO rail fleet combination on this Subdivision will consist of up to 1 locomotive and 12 passenger cars. The typical GO rail weekday train volume forecast near the subject lands, including both revenue and equipment trips is in the order of 44 trains. The planned detailed trip breakdown is listed below:

	1 Diesel Locomotive		1 Diesel Locomotive
Day (0700-2300)	38	Night (2300-0700)	6

The current track design speed near the subject lands is 70 mph (113 km/h).

There is an anti-whistling by-law in affect at the Loreland Ave. at-grade crossing.

Operational information is subject to change and may be influenced by, among other factors, service planning priorities, operational considerations, funding availability and passenger demand.

It should be noted that this information only pertains to Metrolinx rail service. It would be prudent to contact other rail operators in the area directly for rail traffic information pertaining to non-Metrolinx rail service.

I trust this information is useful. Should you have any questions or concerns, please do not hesitate to contact me.

EDMOND WU, MCIP, RPP

Project Manager

Third Party Projects Review, Capital Projects Group

Metrolinx | 20 Bay Street | Suite 600 | Toronto | Ontario | M5J 2W3

T: 416.202.8513 | C: 437.240.8613



This e-mail is intended only for the person or entity to which it is addressed. If you received this in error, please contact the sender and delete all copies of the e-mail together with any attachments.

Appendix D

SUMMARY OF POTENTIAL MITIGATION MEASURES AND WARNING CLAUSES

Warning Clauses

Transportation Sources (Road and Rail)

MECP Type B Warning Clause

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

MECP Type C Warning Clause

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

MECP Type D Warning Clause

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

Canadian National Railways Warning Clause

“Purchasers are advised that the Canadian National Railway Company or its assigns or successors in interest has or have a right-of-way within 300 metres from the land the subject thereof. There may be alterations to or expansions of the rail facilities on such right-of-way in the future, including the possibility that the railway or its assigns or successors as aforesaid may expand its operations, which expansion may affect the living environment of the residents in the vicinity, notwithstanding the inclusion of any noise and vibration attenuating measures in the design of the development and individual dwelling(s). CNR will not be responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under the aforesaid right-of-way.”

Canadian Pacific Railways Warning Clause

“Purchasers are advised that Canadian Pacific Railway Company or its assigns or successors in interest has or have a right-of-way within 300 metres from the land the subject thereof. There may be alterations to or expansions of the rail facilities on such right-of-way in the future, including the possibility that the railway or its assigns or successors as aforesaid may expand its

operations, which expansion may affect the living environment of the residents in the vicinity, notwithstanding the inclusion of any noise and vibration attenuating measures in the design of the development and individual dwelling(s). CPR will not be responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under the aforesaid right-of-way.”

Metrolinx Warning Clause

“Metrolinx, carrying on business as GO Transit, and its assigns and successors in interest are the owners of lands within 300 metres from the land which is the subject hereof. In addition to the current use of the lands owned by Metrolinx, there may be alterations to or expansions of the rail and other facilities on such lands in the future including the possibility that GO Transit or any railway entering into an agreement with GO Transit to use the Metrolinx lands or Metrolinx and their respective assigns or successors as aforesaid may expand their operations, which expansion may affect the living environment of the residents in the vicinity, notwithstanding the inclusion of any noise and vibration attenuating measures in the design of the development and individual dwellings. Metrolinx will not be responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under its lands.”

Receptor-Based Physical Mitigation Measures

Ventilation System Design

Forced Air Heating Systems / Future Air Conditioning

The above listed units should be designed with a provision for the installation of central air conditioning in the future, at the occupant’s discretion.

Mandatory Air Conditioning

All residential units should be designed with central air conditioning systems, will allow windows and exterior doors to remain closed.