Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

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Revision Record

Revision	Date	Revision Description
A	November 15, 2023	Final Draft Report
01	November 29, 2023	Final Report
02	December 5, 2023	Revised Final Report
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Executive Summary

SLR Consulting (Canada) Ltd. (SLR), was retained by Bousfields Inc., to conduct a Compatibility / Mitigation Study focusing on air quality, odour, dust, noise, and vibration in support of a request to the Minister of Municipal Affairs and Housing to redesignate the site to permit residential uses. The development site is located at 1936 McCowan Road in Toronto, Ontario ("the Project site").

This assessment is intended to address the air quality, odour, and dust, noise, and vibration portions of the Terms of Reference of the City of Toronto OPA 231 requirements for Land Use Compatibility/Mitigation Studies and Air Quality and Odour Study ("the OPA 231 ToR").

This assessment has considered:

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

Surrounding facilities have the potential to generate air emissions including dust and odour as well as noise and vibration. It is recommended that further studies related to land use compatibility be completed as part of future planning applications once the Project site plan is further advanced.

An assessment of surrounding stationary noise was conducted. Noise sources from the CP Rail Yard and Dufferin Concrete are predicted to exceed the Class 1 Area and Class 4 Area guideline limits at the proposed development. An initial review of source-based noise mitigation measures was completed. Based on the nature of the sources, and particularly for the CP Rail Yard, source-based mitigation measures to meet the Class 1 Area noise guideline limits are unlikely to be feasible. Therefore, to allow for receptor-based noise control measures, a Class 4 Area designation is required.

An initial transportation noise study was completed. Wall and window upgrades, noise barriers, air conditioning and warning clauses will be required. With the inclusion of receptor-based noise mitigation measures and warning clauses, adverse noise impacts are not anticipated.

For both air quality and noise, there are a number of strategies that can be used in the design of the Project site and associated structures that can facilitate mixed uses including high density residential these include but are not limited to the use of:

1 Air conditioning;
2 Sealed (inoperable) windows;
3 "Blank" facades (including single loaded corridors);
4 Strategic orientation of building;
5 Construction of intervening buffer uses;
6 Enclosed buffer balconies;
7 Installation of carbon and MERV rated filters;
8 Positive pressurization of the building; and
9 Warning clauses.

Examples of potential Mitigation Measures and Warning Clauses are provided in **Appendix A**.

An assessment of surrounding transportation noise and vibration was conducted. With the inclusion of potential, future mitigation measures (upgraded glazing/barriers) and warning clauses, adverse noise impacts from transportation sources are not anticipated.

With the inclusion of the at receptor mitigation and use of Warning Clauses, the Project Site is anticipated to be compatible with the surrounding land uses from an air quality perspective. Further, the Project site will not affect the ability for industrial facilities to obtain or maintain compliance with applicable Provincial environmental policies, regulations, approvals, authorizations, and guidelines. 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 site is:

- Unlikely to result in increased risk of complaint and nuisance claims;
- Unlikely to result in operational constraints for the major facilities; and

Unlikely to result in constraints on major facilities to reasonably expand, intensify or introduce changes to their operations.

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1.0 Introduction

SLR Consulting (Canada) Ltd. (SLR), was retained by Bousfields Inc., to conduct a Compatibility / Mitigation Study focusing on air quality, odour, dust, noise, and vibration in support of a request to the Minister of Municipal Affairs and Housing to redesignate the site to permit residential uses. The development site is located at 1936 McCowan Road in Toronto, Ontario ("the Project site").

This assessment is intended to address the air quality, odour, and dust, noise, and vibration portions of the Terms of Reference of the City of Toronto OPA231 requirements for Land Use Compatibility/Mitigation Studies and Air Quality and Odour Study ("the OPA 231 ToR").

This assessment has considered:

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

The assessment has included a review of air quality and noise emissions from industrial facilities in the area.

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

- The City of Toronto Terms of Reference for Compatibility/ Mitigation Studies, Air Quality and Odour Study and Noise Impact Study;
- 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 draft policies on odour impacts and assessment;
- Public Health Toronto report "City of Toronto. Avoiding the TRAP: Traffic-Related Air Pollution in Toronto and Options for Reducing Exposure. Technical Report", dated October 2017;
- 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.

2.0 Description of Development and Surroundings

2.1 Proposed Development

The proposed Project site is at 1936 McCowan Road. The site is currently occupied by two buildings comprised of a restaurant and a health supplement retailer.

The current proposed uses for the site include high-rise residential with the potential for mixed-uses within a podium.

A site and context plan are provided in **Figure 1**.

2.2 Surroundings

The Project site is located at the northwest corner of the intersection of Nugget Avenue and McCowan Road, and south of the Canadian Pacific Railway corridor in Scarborough. There are a number of commercial and industrial facilities in the immediate vicinity of the Project site.

2.3 Land Use Designations in the Area

The sections to follow outline the current land use designations under the City of Toronto Official Plan (OP) (February 2019 consolidation). Note that the Project site and many of the lands immediately surrounding the Project site are not subject to the City of Toronto By-law 569-2013.

2.3.1 City of Toronto Official Plan

The City of Toronto Official Plan Map for the area can be seen in **Figure 2a**. The Project site is designated as General Employment Areas. The lands east of the Project are also designated as General Employment Areas. To the north and west the lands are designated as Core Employment Areas. The lands at the immediate southern property boundary are designated as Natural Areas.

On September 14, 2023, the lands located south of the Natural Areas at 4630 and 4570 Sheppard were redesignated from General Employment Areas to Regeneration Areas under Site and Area Specific Policy 793.

2.3.2 City of Toronto Zoning By-Law 569-2013

An excerpt of the City of Toronto Zoning Map for the area can be seen in **Figure 2b**. The Project site is not covered under the current City of Toronto By-Law 569-2013 and is covered under the former City of Scarborough Employment District By-Law 24982 (Marshalling Yard). Some of the lands surrounding the Project site are also covered under the former by-law.

An excerpt of the lands west of the Project site are zoned as Employment Heavy Industrial Zone (“EH”). The lands to the east and south of the Project site are zoned as Open Space – Natural Zone (“ON”). The Canadian Pacific Railway lands located north of the Project site are zoned as Utility and Transportation (“UT”).

An excerpt of the Former City of Scarborough Employment District By-Law 24982 (Marshalling Yard) Map for the area can be seen in **Figure 2c.** The Project site is zoned Mixed Employment Zone (“ME”). The lands beyond the ON zoning to the east is also zoned ME. The lands beyond the ON zoning to the south is zoned Industrial District Commercial Zone (“MDC”). The lands southwest of the Project site is zoned Industrial Zone (“M”).

3.0 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 surrounding 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 the Ontario planning regime are organized such that generic policy is informed by specific policy, guidance, and legislation, as follows:

- The Ontario Planning Act, Section 2.1 – sets the ground rules for land use planning in Ontario, whereby planning decisions have regard to matters of provincial interest including orderly development, public health, and safety; then
- 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 Provincial Growth Plan, Section 2.2.5 – builds on the PPS to establish a unique land use planning framework for the Greater Golden Horseshoe, where the development of sensitive land uses will avoid, or where avoidance is not possible, minimize and mitigate adverse impacts on industrial, manufacturing, or other uses that are particularly vulnerable to encroachment; then
- The MECP D-series of guidelines set out methods to determine if assessments are required (Areas of Influence, Recommended Minimum 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 studies and the applicable policies, standards, guidelines, and objectives to ensure that adverse effects do not occur.

3.1 Ontario Planning Act

The Ontario Planning Act is provincial legislation that sets out the ground rules for land use planning in Ontario. It describes how land uses may be controlled, and who may control them. "The purpose of the Act is to:

- provide for planning processes that are fair by making them open, accessible, timely and efficient;
- promote sustainable economic development in a healthy natural environment within a provincial policy framework;
- provide for a land use planning system led by provincial policy;
- integrate matters of provincial interest into provincial and municipal planning decisions by requiring that all decisions be consistent with the Provincial Policy Statement and conform/not conflict with provincial plans;
- encourage co-operation and coordination among various interests;

- recognize the decision-making authority and accountability of municipal councils in planning"[1]

Section 2.1 of the Ontario Planning Act describes how approval authorities and Tribunals must have regard to matters of provincial interest including orderly development, public health, and safety.

3.2 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 the Ontario 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 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. 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.

[1] https://www.ontario.ca/document/citizens-guide-land-use-planning/planning-act

3.3 Growth Plan for the Greater Golden Horseshoe (2019, as amended)

A Place to Grow: The Growth Plan for the Greater Golden Horseshoe, 2019 (the "2019 Growth Plan") came into effect, replacing the Growth Plan for the Greater Golden Horseshoe, 2017. All decisions made on or after this date in respect of the exercise of any authority that affects a planning matter will conform with the 2019 Growth Plan, subject to any legislative or regulatory provisions providing otherwise. Subsequently, on August 28, 2020, the 2019 Growth Plan was amended by Growth Plan Amendment No. 1.[2]

There are a number of changes from the previously applicable Growth Plan that are relevant to the Project site. One significant change was the identification of 29 provincially significant employment zones. Provincially Significant Employment Zones (PSEZs) are areas defined by the Minister in consultation with affected municipalities for the purpose of long-term planning for job creation and economic development. These zones can consist of employment areas or mixed-use areas with a significant number of jobs. The Project site and surrounding lands are located in PSEZ – Zone 5, Toronto[3]. An Excerpt of the Place to Grow Map can be seen in the attached **Figure 3**.

3.4 City of Toronto Official Plan Amendment No. 231

The City of Toronto has released a Terms of Reference for Compatibility/ Mitigation Studies and Air Quality and Odour Studies, based on the framework developed under Official Plan Amendment No. 231 (OPA 231). The Terms of Reference for these two studies can be found on the City 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/

3.4.1 Compatibility/Mitigation Studies

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;

[2] https://www.ontario.ca/page/growth-plan-greater-golden-horseshoe-2019-order-council-6412019

[3] https://www.ontario.ca/page/provincially-significant-employment-zones#section-1

- 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.

3.4.2 Air Quality and Odour Study

The purpose of the air quality and odour study is to assess the impact of air emissions, including odour and dust, by the surrounding environment on the proposed development as well as mitigation measures to reduce any negative impacts.

The air quality and odour study is to include:

- The Area of Influence (as defined by the MECP D-Series Guidelines) of sensitive land uses relative to nearby industrial uses based on the distance measured property boundary to property boundary;
- Classification of nearby industrial uses based on the MECP D-Series Guideline;
- Copies of MECP ECAs/EASR documents for facilities located within the Area of Influence of the sensitive land use;
- Emission Summary Table for each industry located within the Area of Influence of the sensitive land use;
- Analysis of the Emission Summary Table for industry ground-level concentrations and potential emissions at sensitive land uses;
- Analysis including dispersion modelling or long-term air sampling and monitoring if necessary to quantify potential air emissions at sensitive land uses;
- Assess industrial facilities for the potential to emit fugitive odour;
- If odour is deemed to be a significant fugitive emission, prepare a plan to undertake a community odour survey for approval by the City prior to implementation;
- Assess industrial facilities for the potential to emit fugitive dust; and
- If the potential exists for significant air emissions including fugitive dust or odour consider requirements for the development to be designed, buffered and/or separated from the industries to mitigate adverse effects.

3.5 D-Series of Guidelines

The D-series of guidelines were developed by the MECP in 1995 as a means to assess Recommended Minimum 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 D-3), landfills (Guideline D-4), water services (Guideline D-5) and industries (Guideline D-6).[4]

[4] https://www.ontario.ca/page/environmental-land-use-planning-guides

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

Sensitive Land Use is defined in the D-Series Guidelines as:

> "A building, 'amenity area' or outdoor space where routine or normal activities occurring at reasonably expected times would experience 1 or more 'adverse effect(s)' from contaminant discharges generated by a nearby 'facility'. The 'sensitive land use' may be a part of the natural or built environment. Depending upon the particular 'facility' involved, a sensitive land use and associated activities may include one or a combination of:
>
> i. residences or facilities where people sleep (e.g. single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.). These uses are considered to be sensitive 24 hours/day.
>
> ii. a permanent structure for non-facility related use, particularly of an institutional nature (e.g. schools, churches, community centres, day care centres).
>
> iii. certain outdoor recreational uses deemed by a municipality or other level of government to be sensitive (e.g. trailer park, picnic area, etc.).
>
> iv. certain agricultural operations (e.g. cattle raising, mink farming, cash crops and orchards).
>
> v. bird/wildlife habitats or sanctuaries."

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".

3.5.1 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, Areas of Influence and Recommended Minimum Separation Distances are included within the guidelines. The Areas of Influence and Recommended Minimum Separation Distances from the guidelines are provided in the table below.

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

Industry Classification	Area of Influence	Recommended Minimum Separation 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, 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	• Noise: Sound not audible off-property • Dust: Infrequent and not intense • Odour: Infrequent and not intense • Vibration: No ground-borne vibration on plant property	• No outside storage • Small-scale plant or scale is irrelevant in relation to all other criteria for this Class	• Self-contained plant or building which produces/ stores a packaged product • Low probability of fugitive emissions	• Daytime operations only • Infrequent movement of products and/ or heavy trucks	• 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	• 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	• Outside storage permitted • Medium level of production allowed	• Open process • Periodic outputs of minor annoyance • Low probability of fugitive emissions	• Shift operations permitted • Frequent movements of products and/ or heavy trucks with the majority of movements during daytime hours	• Magazine printing • Paint spray booths • Metal command • Electrical production • Manufacturing of dairy products • Dry cleaning services • Feed packing plants

Category	Outputs	Scale	Process	Operations / Intensity	Possible Examples
Class III Heavy Industry	• 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	• Outside storage of raw and finished products • Large production levels	• Open process • Frequent outputs of major annoyances • High probability of fugitive emissions	• Continuous movement of products and employees • Daily shift operations permitted	• Paint and varnish manufacturing • Organic chemical manufacturing • Breweries • Solvent recovery plants • Soaps and detergent manufacturing • Metal refining and manufacturing

3.5.2 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). However, the D-Series of guidelines are still active, 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).

3.5.3 Recommended 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 Recommended Minimum 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.

4.0 Nearby Industries

The Guideline D-6 Separation distances from the Project site are shown in **Figure 4** and **Figure 5**. SLR personnel conducted a site visit to the area on October 26, 2023. Local industries within 1 km of the Project site were inventoried. The lands surrounding the Project site are generally compromised of commercial, residential and employment uses.

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 *Access Environment* website[5].

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

Table 3: Identified Industries Within the Potential Area of Influence of the Project Site

Facility	Type of Operation	Environmental Compliance Approval No.	Industry Class	Area of Influence Dist. (m)	Actual Distance to Site (m)	Additional Assessment Required?
Canadian Pacific Railway Company	Rail Yard	-	Class III	1000	0	Yes
York1 Nugget Transfer Station	Waste Transfer Station	4099-C4GRBB (2022)	Class II/ Class III	1000	950	Yes
Dufferin Concrete	Ready Mix Concrete Batching	8513-CJEMRK (2022)	Class II	300	0	Yes
Metrolinx Sheppard and McCowan Station	LRT Station	-	Class II	300	80	Yes
Celplast Metallized Products Limtied	Metal Fabricator	3444-6GFJCU (2005)	Class II	300	230	Yes
Richardson Industrial Finishers Limtied	Powder Coating	9205-A2LQ25 (2015)	Class II	300	250	Yes
Leland Industries Inc.	Nuts and Bolts Manufacturing	7611-AJTSLV (2017)	Class II	300	290	Yes
Canadian Tire Plaza	Retail/ Automotive repair	N/A	Class I	70	0	Yes
20 Nugget Ave. Plaza	Commercial/Retail	N/A	Class I	70	50	Yes

The industries listed above were identified inside their Potential Area of Influence and, therefore, require additional assessment.

[5] https://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/GoSearch.action

All other industries, detailed in **Appendix B**, are outside of their respective Guideline D-6 Area of Influence and, therefore, are anticipated to be compatible with the proposed Project site development.

4.1 Canadian Pacific Railway Toronto Yard

Address:	**-**
Distance to Project:	120 m
D-6 Classification:	Not Applicable

The Canadian Pacific Railway ("CP") Toronto Yard is located approximately 120 m northeast of the Project site and is currently used for train maintenance and shunting operations. The yard is regulated under federal jurisdiction and is not subject to provincial permitting requirements.

Potential air emission sources from the CP Toronto Yard include odour and NOx emissions from trains, and continuous idling locomotives.

Railway operations are not directly applicable to the MECP D-Series guidelines, however, based on the size and nature of the operations, the site is assessed in this report as equivalent to a Guideline D-6 Class III Heavy Industry with a 1000 m Potential Area of Influence and a Recommended Minimum Separation Distance of 300 m.

On October 23 and 26, 2023, SLR personnel conducted site visits to the area. No odours or visible dust was observed at the facility at the time of the site visits. Noise from rail operations were observed at the Project site and surrounding area.

The Project site is within the Recommended Separation Distance of 300 m and is within the Potential Area of Influence of 1000 m. Therefore, additional assessment is warranted and provided further within this report.

4.2 Class III Heavy Industries

The area within 1 km of the Project site was reviewed. As shown in **Figure 4**, there is one Class III Heavy industries within 1 km of the Project site, namely the York1 Waste Transfer Station.

4.2.1 York1 Nugget Transfer Station

Address:	**300 Nugget Avenue**
Distance To Project:	950 m
D-6 Classification:	Class III heavy industry

The York1 Nugget Transfer Station is a waste transfer facility located approximately 950 m east of the Project site. The site accepts a variety of items including; construction waste, household items, inert fill, food, and yard waste. The facility operates under MECP ECA Number 4099-C4GRBB, dated July 18, 2022. Copies of the MECP permit are located in **Appendix E**.

On October 23 and 26, 2023, SLR personnel conducted site visits to the area. Garbage and sour odours were detected from the transfer station. Odours became undetectable approximately 100 m downwind of the facility. Odours from this facility were not observed at the Project site. No noise emissions were observed from the facility.

From an air quality perspective, waste transfer stations can be identified as either a Class II or a Class III industry. For conservatism, and based on the size and nature of the facility, the York1 Nugget Transfer Station is considered is considered a Class III Heavy Industry under MECP Guideline D-6, with a Recommended Minimum Separation Distance of 300 m and a Potential Area of Influence of 1000 m. The Project site lies outside of the Recommended Minimum Separation Distance, but within the Potential Area of Influence. Therefore, additional assessment is warranted and provide subsequent sections of this report.

From a noise perspective, the waste transfer station is considered a Class II Medium Industry and is outside of the 300 m Potential Area of Influence. Therefore, no assessment of noise impacts from the industry are required.

4.3 Class I Light and Class II Medium Industries

The area within 300 m of the Project site was reviewed. There are a number of Class I light and Class II medium scale industries within 300 m of the Project site, as shown in **Figure 5**, namely:

- Dufferin Concrete;
- Metrolinx Sheppard and McCowan Station;
- Celplast Metallized Products Limited;
- Richardson Industrial Finishers Limited;
- Leland Industries Inc.;
- Canadian Tire Plaza; and
- Commercial retail plaza (20 Nugget Avenue).

4.3.1 Dufferin Concrete

Address:	**1940 McCowan Road**
Distance To Project:	Adjacent
D-6 Classification:	II

Dufferin Concrete is a ready-mix concrete batch plant that is located immediately west of the Project site. The facility operates under MECP ECA 8513-CJERMK, dated November 10, 2022. According to the permit information, the facility is permitted to operate on the property with a maximum production limit of up to 2,880 cubic meters of ready-mix concrete per day. A copy of the MECP permit can be found in **Appendix F**.

The following air quality and noise sources of interest were identified based on the ECA, aerial imagery, and SLR experience with similar facilities:

- Outdoor stockpiles
- Vehicle movements including loader;
- Screener;
- Cement truck load out, mix and wash and pneumatic cement powder unloading;
- Fugitive emissions resulting from delivery, storage, and transfer of materials; and
- Dust Collectors.

No crushing equipment is used on the property.

SLR personnel conducted site visits to the area on October 23 and 26, 2023. During the site visits fugitive dust was observed from the facility. Noise and dust was observed from trucks on the roadway adjacent to the Project site leading into the Dufferin Concrete facility.

Based on the size and nature of the facility operations and the fact that the facility is not permitted to operate crushing equipment on-site, Dufferin Concrete is considered a Class II Medium Industry under MECP Guideline D-6, with a 300 m Area of Influence and a Recommended Minimum Separation Distance of 70 m.

The Project site is located within the 70 m Recommended Minimum Separation Distance. Additional assessment is, therefore, warranted and provided further within this report.

4.3.2 Metrolinx Sheppard and McCowan Station

Address:	**1871 McCowan Road**
Distance To Project:	75 m
D-6 Classification:	Class II Medium Industry

The Metrolinx Sheppard and McCowan Station will be an underground subway station with a TTC bus terminal located approximately 75 m from the Project site, at the intersection of Sheppard Avenue and McCowan Road. The station is still under construction.

This facility is owned by Metrolinx and operated by the Toronto Transit Commission (TTC). The station will include an off-street TTC Bus Terminal and an underground extension of the proposed Sheppard Subway (Line 4).

On October 23 and 26, 2023, SLR personnel conducted site visits to the area. The facility was under construction and non-operational at the time of the site visits.

Based on the size and nature of the of the facility operations, the Metrolinx Sheppard and McCowan Station is considered to be a Class II Medium Industry under MECP Guideline D-6, with a Minimum Recommended Separation Distance of 70 m.

The Project site lies outside of the Recommended Minimum Separation Distance, but is within the Potential Area of Influence. Therefore, additional assessment is warranted and is provided in subsequent sections of this report.

4.3.3 Celplast Metallized Products Limited

Address:	**67 Commander Boulevard**
Distance To Project:	230 m
D-6 Classification:	Class II Medium Industry

Celplast Metallized Products is a packaging manufacturer that specializes in high barrier transparent and metallized films to flexible packaging. Celplast is located approximately 230 m north of the Project site. The facility operates under MECP ECA Number 3444-6GFJCU, dated September 30, 2005. Copies of the MECP permit are located in **Appendix G**.

On October 23 and 26, 2023, SLR personnel conducted site visits to the area. No odours, visible dust, or noise emissions were observed at the facility at the time of the site visits.

Based on a review of the permit information, air quality, and noise sources of interest include:

- HVAC equipment; and
- General exhaust serving metal fabrication (contaminants and/or odours).

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

The Project site lies outside of the Recommended Minimum Separation Distance but is within the Potential Area of Influence. Therefore, additional assessment is warranted and provided in subsequent sections of this report.

4.3.4 Richardson Industrial Finishers Limited

Address:	**21 Commander Boulevard**
Distance To Project:	250 m
D-6 Classification:	Class II Medium Industry

Richardson Industrial Finishers Limited is a powder coating facility located approximately 250 m north of the Project site. The facility operates under MECP ECA 9205-A2LQ25, dated October 5, 2015. A copy of the MECP Permit is located in **Appendix H**.

SLR personnel conducted a site visit to the area on October 26, 2023. During the site visit no dust, odours or noise emissions were detected from the facility.

Based on a review of the permit information, air quality and noise sources of interest include:

- Three-stage washer;
- Natural gas fired dry-off oven;
- Natural gas fired curing oven;
- Natural gas fired hot water heater;
- Powder coating booth;
- Primer booth;
- four paint spray booths;
- Batch oven; and
- Pyrolysis heat cleaning oven.

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

The Project site lies outside of the Recommended Minimum Separation Distance but is within the Potential Area of Influence. Therefore, additional assessment is warranted and is provided in subsequent sections of this report.

4.3.5 Leland Industries Inc.

Address:	**95 Commander Boulevard**
Distance To Project:	290 m
D-6 Classification:	Class II Medium Industry

Leland Industries Inc. is a screws, nuts, and bolts manufacturing facility located approximately 290 m north of the Project site. The facility operates under MECP 7611-AJTSLV, dated March 21, 2017. A copy of the MECP Permit is located in **Appendix I**.

SLR personnel conducted site visits to the area on October 23 and 26, 2023. During the site visits no dust, odours or noise emissions were detected from the facility.

Based on site visit observations and review of the permit information, air quality and noise sources of interest include:

- Cold forming process equipped with mist collectors;
- Painting process and curing oven equipped with a regenerative thermal oxidizer; and
- Facility production limit of up to 24,000 tonnes of steel processed per year.

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

The Project site lies outside of the Recommended Minimum Separation Distance but is within the Potential Area of Influence. Therefore, additional assessment is warranted and is provided in subsequent sections of this report.

4.3.6 Canadian Tire Plaza

Address:	**4630, 4650 Sheppard Avenue, 1900 McCowan Road**
Distance To Project:	Adjacent
D-6 Classification:	Class I Light Industry

The plaza contains retail/ commercial stores, an automotive shop, and a car wash. A search of the MECP registry did not yield a permit or registration for this site.

On October 23 and 26, 2023, SLR personnel conducted site visits to the area. No odours or visible dust were observed at the plaza at the time of the site visits. Noise emissions from the car wash were observed and measured.

Based on a review of the aerial imagery, the noise sources of interest include:

- Rooftop HVAC units;
- Idling trucks;
- Impact wrenches;
- Air compressors;
- Car wash; and
- Vacuum stalls.

Based on the size and nature of the of the plaza, it is considered a Class I Light Industry under MECP Guideline D-6, with a Recommended Minimum Separation Distance of 20 m and a Potential Area of Influence of 70 m. The Project is located within the Recommended Separation Distance and the Potential Area of Influence.

The lands located at 4630 and 4560 Sheppard Avenue East, which include the Canadian Tire Plaza are intended to be redeveloped for residential uses. OPA 653 as adopted by Council establishes a policy framework that contemplates the development of sensitive land uses through a future Secondary Plan or a Site and Area Specific policy, including completion of future compatibility studies.

From an air quality perspective, there are no expected dust or odour emissions from the plaza, and further assessment is not required. From a noise perspective, there is a potential for noise emissions at the development. Therefore, additional evaluation is warranted related to noise and is provided in **Section 6** of this report.

4.3.7 Commercial/Retail Plaza

Address:	**20 Nugget Avenue**
Distance To Project:	Adjacent
D-6 Classification:	Class I Light Industry

The plaza contains restaurants, retails stores, and a place of worship. A search of the MECP registry did not yield a permit or registration for this site.

On October 23 and 26, 2023, SLR personnel conducted site visits to the area. No odours, visible dust, or noise were observed at the plaza at the time of the site visits.

Based on a review of the aerial imagery, the noise sources of interest include:

- Rooftop HVAC units;
- Exhaust fan; and
- Idling trucks.

Based on the size and nature of the of the plaza, it is considered a Class I Light Industry under MECP Guideline D-6, with a Recommended Minimum Separation Distance of 20 m and a Potential Area of Influence of 70 m. The Project is located within the Recommended Separation Distance and the Potential Area of Influence.

From an air quality perspective, dust or odour emissions are not expected, and further assessment is not required. From a noise perspective, there is a potential for noise emissions at the Project site. Therefore, additional evaluation is warranted related to noise and is provided in **Section 6** of this report.

4.4 Propane Suppliers

As per the City of Toronto Zoning By-law 569-2013, dated September 2021, as amended:

> *"i. In the EH zone, a propane transfer, handing, and storage facility pertains to facilities which transfer, handle, or store propane in quantities equal to or greater than 5,000 U.S. Water Gallons (USWG) on the lot, and:*
>
> *(A) may be on a lot that is at least 500 metres from a lot in the Residential Zone category, Residential Apartment Zone category, Commercial Zone category,*

Commercial Residential Zone category, Commercial Residential Employment Zone category, Institutional Zone category, or Open Space Zone category; and

(B) is not a permitted manufacturing use that involves propane in the manufacturing process, or in the operation of equipment or vehicles that is not subject to regulation (A) above."

The area within 500 m of the Project site was reviewed. There is one propane Supplier that is located within 500 m of the Project site, as shown in **Figure 4**, namely Canadian Tire Corporation.

4.4.1 Canadian Tire Corporation

Address:	**4630 Sheppard Avenue East**
Distance To Project:	Adjacent
D-6 Classification:	Propane Supplier

Canadian Tire is a large-scale retailer that is located immediately south of the Project site. Canadian Tire is located less than 500 m west of the property line and is a "propane supplier".

The propane operations support refilling of portable residential propane tanks. Based on SLR experience with similar operations, the propane vessels are a standard 2,000 USWG size. One vessel is located at the Canadian Tire facility.

There are existing low density residential uses along Hallbank Terrace within 500 m of the Canadian Tire store.

Given the vessel is less than 5,000 USWG and there are existing uses within 500 m of the propane vessel. The Project site is anticipated to be compatible with propane vessel location.

4.5 Future Uses

A review of development applications in the area indicated that there are 13 active development applications within 1000 m of the Project site. The following is a summary of the significant applications and excludes committee of adjustment applications such as minor variance or consent. This information is reflective of those applications listed online at the City of Toronto applications information centre as of October 31, 2023:

Table 4: Development Applications in the Area

Address	Date	Development Application Information *	Details
4700 Sheppard Avenue E	01/08/2023	23 170868 ESC 23 SA	Site Plan Approval for TTC's Scarborough Subway Extension Sheppard East Station
4415-4421 Sheppard Avenue	09/11/2020 22/11/2021	20 216675 ESC 23 OZ 21 240284 ESC 23 SA	Redevelopment comprising of an 11-storey mixed-use building with commercial uses on the ground floor and residential uses above.
59 Heather Road	04/10/2021	21 221491 ESC 23 SA	demolish a portion of their existing main level washroom and chapel support areas to construct a new parish hall addition to the north of the existing site.

Address	Date	Development Application Information *	Details
4630 and 4570 Sheppard Avenue	14/09/2023	OPA 653	Lands Redesignated from General Employment Areas to Regenerative Areas

The above table illustrates that many of the surrounding landowners are pursuing rezoning applications to enable more efficient use of land and mixed uses including residential.

4.6 Summary

From the list of industries discussed in **Section 4**, nine are identified to require further analysis as a result of being within their Area of Influence. These industries include:

- Canadian Pacific Railway Company;
- York1 Nugget Transfer Station;
- Dufferin Concrete;
- Metrolinx Sheppard and McCowan Station;
- Celplast Metallized Products Limited;
- Richardson Industrial Finishers Limited;
- Leland Industries Inc.;
- Canadian Tire Plaza; and
- Commercial retail plaza (20 Nugget Avenue).

5.0 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 ECA from the MECP or submit an EASR. Facilities with an ECA/EASR should already meet the MECP guidelines for air quality contaminants at their property line.

5.1.2 Air Quality

Under O.Reg. 419/05, a facility is required to meet prescribed standards for air emissions 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 buildings 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.

5.1.2.1 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.
- **Location** – Where the odour occurs. The MECP assesses at 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.

5.1.2.2 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 site. 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.

5.1.2.3 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.

5.1.2.4 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 6.** 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

A site visit was conducted to the area on October 26, 2023, 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 area surrounding the Project site.

During the site visit, the staff members observed existing industries from the sidewalks and other publicly accessible areas. Wind conditions during the site visit were noted as:

- October 26, 2023 south westerly winds, 7 km/h, 15°C, 99 %RH

Fugitive dust emissions were observed from the Dufferin Concrete facility. The majority of the observed dust emissions were associated with the movement of aggregate. Aggregate stockpiles were also observed on the Dufferin Concrete property. Dust was observed on the road south of the Project site, and attributed to dust tracking from truck traffic to and from Dufferin Concrete.

Faint waste odours were detected from the York1 Nugget Transfer Station. The odour was local to the sidewalks surrounding the immediate area of the facility. Odours were undetected beyond 100 m downwind of the facility. Odours from York1 were not detected at the Project site.

5.1.4 Ministry of Environment, Conservation and Parks Facility Information

SLR recognizes that complaint history can be useful in evaluating land use compatibility. SLR typically only requests potential complaints information for facilities located within the potential Area of Influence or where an industry is known to have the potential to generate significant air emissions.

SLR submitted a request related to neighbourhood complaint history with MECP through their Environmental Property Information (EPI) Program. The results are provided in **Appendix J**. Based on a review of the EPI results, incident reports are on record for the Dufferin Concrete property at 1940 McCowan Road.

SLR advanced an FOI request for the property to review these incident reports to determine if they related to air or noise emissions. A review of the EPI results for the property indicates that there are a variety of reports of interest related to the properties. These documents include air permits, noise permits, incident reports, and abatement and occurrence reports. SLR advanced an FOI request to review relevant reports from 2013 to Present. At the time of preparation of this report a response from the FOI requests has not been received.

Although follow-up information has not been received for the other properties, the results of these reports are not anticipated to change the findings of this report.

5.1.5 Assessment of Potential Air Emissions

The following facilities were identified as being within the Potential Area of Influence for their industrial classification and were identified to require additional review from an air quality perspective:

- Canadian Pacific Railway Company;
- York1 Nugget Transfer Station;
- Dufferin Concrete;
- Metrolinx Sheppard and McCowan Station;
- Celplast Metallized Products Limited;

- Richardson Industrial Finishers Limited; and
- Leland Industries Inc.

Further discussion regarding each of these facilities and potential air emissions is provided below.

All the other industries surrounding the Project site were outside of the Potential Area of Influence. Therefore, the development of the Project site is anticipated to be compatible with these facilities from an air quality perspective. In addition, emissions of dust, and/or odour at the Project are not anticipated. Further the Project site is not anticipated to limit the ability of these industries to obtain or maintain required MECP permits and approvals.

5.1.5.1 Canadian Pacific Railway Toronto Yard

The Canadian Pacific Railway ("CP") Toronto Yard is located approximately 120 m northeast of the Project site and is currently used for train maintenance and shunting operations. The yard is regulated under federal jurisdiction and is not subject to provincial permitting requirements.

Potential air emission sources from the CP Toronto Yard include odour and NOx emissions from trains, and continuous idling locomotives.

On October 26, 2023, SLR personnel conducted a site visit to the area. No odours or visible dust was observed at the facility at the time of the site visit.

A wind frequency distribution diagram (a wind rose) is provided in **Figure 6**. Winds with the potential to direct air emissions from the CP Toronto Yard towards the Project site include winds from the northeast quadrants. Winds from this direction are predicted to occur less than 10% of the time.

Railway operations are not directly applicable to the MECP D-Series guidelines, however, based on the size and nature of the operations, the site is assessed in this report as a Class III Heavy Industry with a 1000 m Potential Area of Influence and a Recommended Minimum Separation Distance of 300 m. The Project site lies within the Recommended Minimum Separation Distance.

There are existing residences located on Bushcroft Grove (120 m), north of the rail yard, that are in similar proximity to the rail yard as the Project site.

The Canadian Pacific Railway Toronto Yard has the potential to generate air emissions including dust and odour. It is recommended that further studies related to land use compatibility be completed as part of future planning applications once the Project site plan is further advanced.

5.1.5.2 York1 Nugget Transfer Station

The York1 Nugget Transfer Station is a waste transfer facility located approximately 950 m east of the Project site. The site accepts a variety of items including; construction waste, household items, inert fill, food, and yard waste. The facility operates under MECP ECA Number 4099-C4GRBB, dated July 18, 2022. Copies of the MECP permit are located in **Appendix E**.

On October 23 and 26, 2023, SLR personnel conducted site visits to the area. Faint garbage and sour odours were detected from the transfer station. Odours were undetected 100 m downwind of the facility. Odours from this facility were not observed at the Project site.

Section 10(2) of the MECP permit states that “Any loads that contain or may contain Putrescible Wastes must be directed to the East Tipping Floor.

Putrescible Wastes cannot be stored on the West Tipping Floor or outdoors.” Section 10(4) of the MECP permit states “All Putrescible Waste shall be removed from the tipping floor within 48 hours of receipt and the tipping floor cleaned as necessary.”

Based on the permit information, the site is limited to receiving waste that has low potential for odour generation. The site visit confirmed that odours were faint and inconsistent. No long-term storage of the waste material is permitted on the property.

The MECP permit requires the Owner to conduct daily inspections to ensure that no off-site emissions of odour are present and resulting from the Facility operations. In addition, the facility is required to operate and maintain in compliance with the requirements of their MECP permit. The MECP determines compliance to be required at the property boundary, and any elevated receptor locations.

There is an existing residential subdivision south of Sheppard Avenue that is approximately 550 m south of the facility. These residences are at a closer proximity to the York1 facility than the Project site (950 m).

A wind frequency distribution diagram (a wind rose) is provided in **Figure 6**. Winds with the potential to direct air emissions from the York1 facility towards the Project site include winds from the east quadrants. Winds from this direction are predicted to occur less than 10% of the time.

The facility is required to operate and maintain in compliance with the requirements of their MECP permit. The MECP determines compliance at the property boundary, and any elevated receptor locations.

Based on the above, and given that the Project site more than 3 times the Recommended Minimum Separation Distance is anticipated that the Project site is compatible with the York1 Nugget Transfer Station from an air quality perspective. Emissions of dust, or odour at the Project site are not anticipated. Further, the Project site is not anticipated to limit the ability of York1 to obtain or maintain required MECP permits or approvals.

5.1.5.3 Dufferin Concrete

Dufferin Concrete is a ready-mix concrete batch plant that is located immediately west of the Project site. The facility operates under MECP ECA 8513-CJERMK, dated November 10, 2022. According to the permit information, the facility is permitted to operate on the property with a maximum production limit of up to 2,880 cubic meters of ready-mix concrete per day. A copy of the MECP permit can be found in **Appendix F**.

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

As the facility holds an ECA, it is required to meet guidelines for containment emissions at the property line.

Air quality sources of interest were identified based on the ECA, aerial imagery, and SLR experience with similar facilities:

- Outdoor stockpiles

- Vehicle movements including loader;
- Screener;
- Cement truck load out, mix and wash and pneumatic cement powder unloading;
- Fugitive emissions resulting from delivery, storage, and transfer of materials; and
- Dust Collectors.
- No crushing equipment is used on the property.

SLR personnel conducted a site visit to the area on October 26, 2023. SLR personnel observed 3 storage silos on site, heavy truck activity entering and exiting the facility, aggregate stockpiles, and conveyors in use. During the site visit fugitive dust was observed from the facility. Dust was observed on the roadway adjacent to the Project site leading into the Dufferin Concrete facility.

Based on the size and nature of the facility operations Dufferin Concrete is considered a Class II Medium Industry under MECP Guideline D-6, with a 300 m Area of Influence and a Recommended Minimum Separation Distance of 70 m. The Project site are located within the 70 m Recommended Minimum Separation Distance.

A wind frequency distribution diagram (a wind rose) is provided in **Figure 6**. Winds with the potential to direct air emissions from the Dufferin Concrete facility towards the Project site include winds from the west quadrants. Winds from this direction are predicted to occur less than 25% of the time.

A review of the Dufferin Concrete environmental permit identifies that there are a number of emission sources that are equipped with baghouse dust collectors. The baghouse dust collectors manage the potential for off-property fugitive emissions of dust and particulate. The permit requires that this control equipment be routinely inspected and maintained.

Additionally, the permit requires the facility to develop a Dust Best Management Practices Plan (BMPP). The MECP permit requires the facility to maintain a record and report any complaints associated with off-property fugitive emissions.

The facility is required to operate and maintain in compliance with the requirements of their MECP permit. The MECP determines compliance at the property boundary, and any elevated receptor locations.

The Dufferin Concrete facility has the potential to generate air emissions including dust and odour. It is recommended that further studies related to land use compatibility be completed as part of future planning applications once the Project site plan is further advanced.

5.1.5.4 Metrolinx Sheppard and McCowan Station

The Metrolinx Sheppard and McCowan Station will be an underground subway station with a TTC bus terminal located approximately 75 m from the Project site, at the intersection of Sheppard Avenue and McCowan Road. The station is still under construction.

This facility is owned by Metrolinx and operated by the Toronto Transit Commission (TTC). The station will include an off-street TTC Bus Terminal and an underground extension of the proposed Sheppard Subway (Line 4).

Based on the size and nature of the of the facility operations, the facility is considered to be a Class II Medium Industry under MECP Guideline D-6, with a Minimum Recommended Separation Distance of 70 m. The Class II classification is considered for noise activity at the facility.

From air quality perspective, potential exhaust sources from this type of facility are generally not considered significant.

Under routine operating conditions, the potential exists for the TTC buses to idle for a short period of time while passengers load and unload. There are no storage or maintenance facilities at this station, therefore, long term idling of vehicles is not anticipated.

The operation of buses on the property has the potential to emit, PM, VOCs, NOx, and SO_2. These air emissions are generated from the operation of internal fuel combustion engines, brake wear, tire wear and breakdown of dust/debris on roadways. The emissions of VOCs, NOx, and SO_2 from engines (tailpipes) are specifically exempted from MECP permitting requirements by Section (3)(f) of the EPA are addressed in Sections 21 to 23 of the EPA and by O. Reg. 457/19: Vehicle Emissions. Based on our experience, the types of number of vehicles used, their locations, and on the MECP guidance, adverse impacts from tailpipe emissions are highly unlikely and an assessment of potential tailpipe emissions is not required.

The majority of PM emissions from the operations of buses comes from brake wear, tire wear and the breakdown of dust/debris which is re-suspended by vehicles travelling on the road. Buses will be travelling on short lengths of paved roadways internal to the property. Paved surfaces have a low potential to generate dust and to retain debris because the surface is continuously “flushed” by rainfall events. During rainfall events, dust/debris is directed to catch basins/sewers where is it later removed for off-property disposal. Vehicles speeds will be very low reducing the potential for re-suspension of dust/debris. Given the low travel speeds, buffering of surface winds by the station building, and that the buses are moving on paved surfaces, the potential for re-suspension of PM is considered to be negligible.

Throughout the City of Toronto, there are existing mixed-use commercial/residential developments that are at a similar or closer proximity to existing TTC structures. Therefore, the Project site development is not introducing a new air quality condition related to the operation of the TTC Station.

The TTC bus fleet is comprised of 3 different eco-friendly technologies that include clean diesel, hybrid electric and battery electric. The TTC has set goals to attain a zero-emissions bus fleet by 2040.[6] This will eliminate the potential for air emissions caused by internal combustion engines.

Based on the above, the facility is expected to be compatible with the Project site from an air quality perspective.

5.1.5.5 Celplast Metallized Products

Celplast Metallized Products is a packaging manufacturer that specializes in high barrier transparent and metallized films to flexible packaging. Celplast is located approximately 230 m north of the Project site. The facility operates under MECP ECA Number 3444-6GFJCU, dated September 30, 2005. Copies of the MECP permit are located in **Appendix G**.

On October 26, 2023, SLR personnel conducted a site visit to the area. No odours or visible dust was observed at the facility at the time of the site visit.

[6] https://www.ttc.ca/riding-the-ttc/TTC-Green-Initiatives

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

The Project site is more than three times the Recommended Minimum Separation Distance from the facility.

A wind frequency distribution diagram (a wind rose) is provided in **Figure 6**. Winds with the potential to direct air emissions from the Celplast facility towards the Project site include winds from the northwest quadrants. Winds from this direction are predicted to occur less than 15% of the time.

The facility is required to operate and maintain in compliance with the requirements of their MECP permit. The MECP determines compliance at the property boundary, and any elevated receptor locations.

Based on the above, the Project site is anticipated to be compatible with the Celplast Metallized Products facility from an air quality perspective. Emissions of dust, or odour at the Project site are not anticipated. Further, the Project site is not anticipated to limit the ability of Celplast to obtain or maintain required MECP permits or approvals.

5.1.5.6 Richardson Industrial Finishers Limited

Richardson Industrial Finishers Limited is a powder coating facility located approximately 250 m north of the Project site. The facility operates under MECP ECA 9205-A2LQ25, dated October 5, 2015. A copy of the MECP Permit is located in **Appendix H**.

SLR personnel conducted a site visit to the area on October 26, 2023. During the site visit no dust, odours or noise emissions were detected from the facility.

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

The Project site is more than three times the Recommended Minimum Separation Distance from the facility.

A wind frequency distribution diagram (a wind rose) is provided in **Figure 6**. Winds with the potential to direct air emissions from the Richardson facility towards the Project site include winds from the north quadrants. Winds from this direction are predicted to occur less than 14% of the time.

The facility is required to operate and maintain in compliance with the requirements of their MECP permit. The MECP determines compliance at the property boundary, and any elevated receptor locations.

Based on the above, the Project site is anticipated to be compatible with the Richardson Industrial Finishers facility from an air quality perspective. Emissions of dust, or odour at the Project site are not anticipated. Further, the Project site is not anticipated to limit the ability of Richardson Industrial Finishers to obtain or maintain required MECP permits or approvals.

5.1.5.7 Leland Industries Inc.

Leland Industries Inc. is a screws, nuts, and bolts manufacturing facility located approximately 290 m north of the Project site. The facility operates under MECP 7611-AJTSLV, dated March 21, 2017. A copy of the MECP Permit is located in **Appendix I**.

SLR personnel conducted a site visit to the area on October 26, 2023. During the site visit no dust, odours or noise emissions were detected from the facility.

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

The Project site is more than four times the Recommended Minimum Separation Distance from the facility.

The closest existing sensitive receptors are the residential homes located along Brimely Road. These houses are located approximately 250 m west of Leland and are in closer proximity to Leland than the Project site. Given the presence of sensitive receptors, there is already an obligation for the industry to meet the MECP requirements related to air emissions.

A wind frequency distribution diagram (a wind rose) is provided in **Figure 6**. Winds with the potential to direct air emissions from the Leland facility towards the Project site include winds from the northwest quadrants. Winds from this direction are predicted to occur less than 15% of the time.

The facility is required to operate and maintain in compliance with the requirements of their MECP permit. The MECP determines compliance at the property boundary, and any elevated receptor locations.

Based on the above, the Project site is anticipated to be compatible with the Leland Industries facility from an air quality perspective. Emissions of dust, or odour at the Project site are not anticipated. Further, the Project site is not anticipated to limit the ability of Leland Industries to obtain or maintain required MECP permits or approvals.

5.1.5.8 Future Uses

The potential exists for industries to turn over, therefore SLR completed a review of City of Toronto Zoning By-law No. 569-2013 Chapter applicable Chapter 60.20 Employment uses and have classified the uses in accordance with the MECP D-6 Guidelines.

Table 5: D-6 Classification of Proposed City of Toronto Zoning By-law No. 569-2013 Chapter 60.30 - Employment Heavy Industrial Zone Uses

Land Use	Type of Operation	Industry Class	Area of Influence Distance (m)	Recommended Minimum Separation Distance (m)
Ambulance Depot	N/A	N/A	N/A	N/A
Animal Shelter	If completed with outdoor animal runs maybe considered as an industry. Expected to be self-contained minimal air/noise emissions	I	70	20
Bindery	Classification depends on intensity. MECP Permits required for emissions to atmosphere	I or II	70 or 300	20 or 70
Building Supply Yards	Classification depends on intensity. MECP Permits required for emissions to atmosphere	I or II	70 or 300	20 or 70
Carpenter's Shop	Classification depends on intensity. MECP Permits required for emissions to atmosphere	I or II	70 or 300	20 or 70
Chemical Materials Storage	Classification depends on intensity. MECP Permits required for emissions to atmosphere	II or III	300 or 1000	70 or 300
Cold Storage	Classification depends on intensity. MECP Permits required for emissions to atmosphere	I or II	70 or 300	20 or 70
Contractor's Establishment	Classification depends on intensity. MECP Permits required for emissions to atmosphere	I or II	70 or 300	20 or 70
Custom Workshop	Classification depends on intensity. . MECP Permits required for emissions to atmosphere	I or II	70 or 300	20 or 70
Dry Cleaning or Laundry Plant	Classification depends on intensity. MECP Permits required for emissions to atmosphere	I or II	70 or 300	20 or 70
Fire Hall	N/A	N/A	N/A	N/A
Fuel Storage	Classification depends on intensity. MECP Permits required for emissions to atmosphere	II or III	300 or 1000	70 or 300
Industrial Sales and Service Use	N/A	N/A	N/A	N/A
Laboratory	Classification depends on intensity. MECP Permits required for emissions to atmosphere	I or II	70 or 300	20 or 70
All Manufacturing Uses with exceptions [1]	Classification depends on intensity. MECP Permits required for emissions to atmosphere	II or III	300 or 1000	70 or 300
Police Station	N/A	N/A	N/A	N/A

Land Use	Type of Operation	Industry Class	Area of Influence Distance (m)	Recommended Minimum Separation Distance (m)
Public Utility	Classification depends on intensity. MECP Permits required for emissions to atmosphere	I or II	70	20
Public Works Yard	MECP Permits required for emissions to atmosphere	II	300	70
Recovery Facility	Classification depends on intensity. MECP Permits required for emissions to atmosphere	II or III	300 or 1000	70 or 300
Service Shop	Self-contained minimal air/noise emissions	I	70	20
Shipping Terminal	Classification depends on intensity. MECP Permits required for emissions to atmosphere	II or III	300 or 1000	70 or 300
Vehicle Depot	Classification depends on intensity. MECP Permits required for emissions to atmosphere	I or II	70	20
Vehicle Repair Shop	Typically a Class I industry. MECP Permits required for emissions to atmosphere.	I	70	20
Warehouse	Self-contained minimal air/noise emissions.	I	70	20
Waste Transfer Station	Classification depends on intensity. MECP Permits required for emissions to atmosphere	II or III	300 or 1000	70 or 300

Notes:

[1] Manufacturing Uses not permitted: Ammunition, Firearms or Fireworks Factory; Crude Petroleum Oil or Coal Refinery; Explosives Factory; and Tannery

Based on the above employment characteristics, existing surrounding sensitive land uses, size, and nature of the possible employment land uses, the majority of the possible uses are considered a Class I Light Industries or Class II Medium Industries under MECP Guideline D-6, with a 70 - 300 m Area of Influence and a Recommended Minimum Separation Distance of 20 - 70 m. Depending on the intensity of the employment uses, Class III Heavy Industries may also occur. Under MECP Guideline D-6, Class III industries have a 1000 m Area of Influence and a Recommended Minimum Separation Distance of 300 m.

Facilities with significant emissions to atmosphere are required, under the Environmental Protection Act, to ensure compliance with the applicable Provincial air quality regulations and standards and noise guidelines at all existing sensitive receptors and any elevated receptor locations.

Based on the above, the Project site development is anticipated to be compatible with future employment uses from an air quality perspective. However, it is recommended that further studies related to land use compatibility be completed as part of future planning applications once the Project site plan is further advanced.

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 potential air emissions on new residential developments near 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 outcomes for people residing near 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.

The City of Toronto document entitled Reducing Health Risks from Traffic Related Air Pollution (TRAP) in Toronto, October 16, 2017[7] identifies that:

> "Exposures to traffic-related air pollution (TRAP) are highest near highways and busy roads. The health literature indicates that health risk from TRAP is higher within 500 metres of highways with an average daily traffic volume of 100,000 vehicles or more, and within 100 metres of arterial roads with an average daily traffic volume of 15,000 vehicles or more."

The report recommends that City Staff

> "develop guidance to assist appropriate City agencies, corporations, and divisions in establishing traffic-related air pollution mitigation measures at City owned sites located within 500 metres of roads with annual average traffic volumes of 100,000 vehicles or more per day, and within 100 metres of roads with annual average traffic volumes of 15,000 vehicles or more per day; and
>
> develop best practices guidelines for new and existing buildings, in consultation with industry professionals, and raise awareness of these practices among school board staff, childcare centre operators, long-term care facility operators, and residents, as well as builders, developers, designers, architects, engineers and other professionals"

At this time, there is no guidance related to addressing TRAP within potential exposure zones.

5.2.1 Arterial Roadways

The Project site is outside the 500 m TRAP exposure zone to major highways.

The surrounding arterial roadways within the potential 100 m TRAP exposure zone include McCowan Road. McCowan Road AADT values in excess of 15,000 vehicles per day. The AADT for McCowan Road is 42,653.

SLR has experience with responding to City requests for detailed quantitative TRAP studies. To date, the City has only requested quantitative detailed TRAP studies to be completed for developments located within 100 m of major highways with average traffic volumes of 100,000 vehicles or more per day. Therefore, a detailed TRAP assessment is not warranted for the Project site.

[7] https://www.toronto.ca/legdocs/mmis/2017/pe/bgrd/backgroundfile-108665.pdf

The potential exists for TRAP emissions from the surrounding arterial roadways. It is recommended that further studies related to land use compatibility be completed as part of future planning applications once the Project site plan is further advanced.

5.2.2 Canadian Pacific (CP) Belleville Rail Subdivision

CP Belleville Subdivision is a mainline rail corridor 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.

The rail lines are on a bridge and are at a higher elevation than the Project site to facilitate uninterrupted movement of the passenger/commuter trains.

The rail line leads into the CP Railway Toronto Yard, therefore, idling of vehicles is anticipated.

The use of diesel engines along the rail corridor have the potential to generate fugitive odour emissions. It is recommended that further studies related to land use compatibility be completed as part of future planning applications once the Project site plan is further advanced.

5.3 Summary of Air Quality, Dust and Odour Conclusions And Recommendations

The potential for air quality emissions at the Project Site including dust and odour have been assessed.

Surrounding facilities have the potential to generate air emissions including dust and odour as well as noise and vibration. It is recommended that further studies related to land use compatibility be completed as part of future planning applications once the Project site plan is further advanced.

There are a number of strategies that can be used in the design of the Project site and associated structures that can facilitate mixed uses including high density residential these include but are not limited to the following:

5.3.1 Air Conditioning

Air conditioning would allow for windows and patio doors to remain closed on dusty days, or days when odours from rail yard or other industrial activity are observed.

5.3.2 Sealed (Inoperable) Windows

Sealed or inoperable windows could be used in some locations, particularly such as for indoor communal amenity areas.

5.3.3 “Blank” Facades (Including Single Loaded Corridors)

“Blank facades” are facades which either contain no windows, or which do not contain windows attached to sensitive spaces. Blank facades could be used in areas where excesses of the guideline limits are predicted.

For high-rise buildings, this could also be a “single-loaded building” design with the corridor facing the air quality source of concern, and sensitive spaces “in the downwind lea” of the building. This approach was used at the ‘Peir 27 “development site in the East Bayfront Precinct in Toronto (to address noise and odour emissions from Redpath Sugar).

Such buildings may be less cost-effective, and may not meet the urban design objectives/guidelines for municipalities. Nonetheless, blank facades may be considered in certain locations or for certain directions.

5.3.4 Building Orientation

Building orientations can be used to shield some facades. The practicableness of this is dependant on the overall site plan and design of the building. For example, amenity spaces and main building entrances could be located in “downwind lea” areas of the building.

5.3.5 Intervening Uses

Intervening uses such as commercial or office buildings can increase separation distances to sources of concern, and can provide additional screening and increase dispersion.

5.3.6 Enclosed Buffer Balconies

Enclosed buffer balconies (“ENBs”) are uses as a noise control, measure (see Section 6), and are essentially solariums with limited window openings, which provide a buffer space between sources and windows /doors attached to sensitive indoor spaces.

5.3.7 Strategic Location Of Fresh Air Intakes

Air intakes could be located at elevated locations and in the “downwind lea” areas of the building, which provides shielding and increased dispersion.

5.3.8 Installation Of Carbon And MERV Rated Filters

Building heating, ventilation and air conditioning (“HVAC”) systems could incorporate carbon filters for odour control and Minimum Efficiency Reporting Value (“MERV”) rated filters with ratings of MERV 11 or better to control dust.

5.3.9 Positive Pressurization Of The Building

Buildings should be positively pressurized in accordance with the latest standards from the American Society for Heating, Refrigeration and Air-Conditioning Engineers (“ASHRAE”), under normal weather conditions, to minimize the intrusion of dust and odours.

5.3.10 Warning Clauses

While not a physical noise control measure, warning clauses provide notification to prospective buyers/ tenants, and provide protection for industries under civil law. Examples of potential Mitigation Measures and Warning Clauses are provided in **Appendix A.**

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

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

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

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

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

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

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

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

Table 6: NPC-300 Exclusion Limits for Non-Impulsive Sounds (L_{eq} (1-hr), dBA)

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

Table 7: NPC-300 Exclusion Limits for Impulsive Sounds (L_{LLM}, dBAI)

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

Notes:
n/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 infrequent events such as emergency generator set testing are +5 dB higher than the values above.

Application of the NPC-300 Guidelines

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

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

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

Proposed Area Classification

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

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

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

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

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

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

Additionally, areas with existing noise sensitive land use(s) cannot be classified as Class 4 areas." Section C4.4.2 of Publication NPC-300 further discusses the use of Class 4 areas:

> "Class 4 area classification is based on the principle of formal confirmation of the classification by the land use planning authority. Such confirmation would be issued at the discretion of the land use planning authority and under the procedures developed by the land use planning authority, in the exercise of its responsibility and authority under the Planning Act.
>
> The following considerations apply to new noise sensitive land uses proposed in a Class 4 area:
>
> - an appropriate noise impact assessment should be conducted for the land use planning authority as early as possible in the land use planning process that verifies that the applicable sound level limits will be met;
> - noise control measures may be required to ensure the stationary source complies with the applicable sound level limits at the new noise sensitive land use;
> - noise control measures may include receptor-based noise control measures and/or source-based noise control measures;
> - source based noise control measures may require an MECP approval;

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

In SLR's opinion, subject to formal confirmation from City as the land use planning authority, the Project site meets the definition and requirements for a Class 4 area listed in MECP Publication NPC-300, and it therefore appropriate for the City to declare the Project site as a Class 4 area, under their role as the land use planning authority, in the exercise of their responsibility and authority under the Planning Act.

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

The Class 4 designation also allows for the use of receptor-based mitigation measures in locations where the guideline limits are exceeded. Specifically, the use of a Class 4 designation allows for the use of Enclosed Noise Buffers at the Project site as a mitigation measure. These mitigation methods are described in detail in subsequent sections of this report.

The City of Toronto has issued a Class 4 designation for other similar developments in Toronto, including but not limited to:

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

Class 4 area designations have been used for other projects affected by rail yard noise, including but not limited to:

- Tesmar Holdings, Vaughan (PL140839, PL070347) CN MacMillan Yard
- Rutherford Land Development Corp., Vaughan CN MacMillan Yard
- Courtland Road East & Block Line Road, Kitchener (PL190267) CN Huron Yard
- Mimico-Judson Secondary Plan, Toronto (PL160692) Metrolinx Willowbrook Yard

6.1.1.2 RAC/FCM "Proximity Guidelines"

The Railway Association of Canada / Federation of Canadian Municipalities ("RAC/FCM") jointly published the *Guidelines for New Development in Proximity to Railway Operations* in May 2013 ("the Proximity Guidelines"), and are intended to provide guidance to planners, municipalities and developers for new development near to railway operations. The guidelines have no official status and are not referred to in Provincial noise guidelines or in the City Toronto Official Plan. Regardless, they are useful in outlining what would normally be considered acceptable. These guidelines are promoted by CP.

The Proximity Guidelines borrow heavily from MECP Guideline D-6 and Publication LU-131 (the predecessor guideline to Publication NPC-300), and lists these documents as part of "Best Practices" in Appendix E.

Sections 3.3 and 3.4 of the Proximity Guidelines recommend a minimum separation distance from Freight Yard operations of 300 m, and an area of influence of 1000 m, consistent with Guideline D-6.

Mitigation measures in the form of design features noted in the Proximity Guidelines include:

- Noise barriers (Section 3.4.1.2);
- Building location, design orientation, and room layouts (Section 3.4.1.3);
- Podium-type designs (Section 3.4.1.4);
- Enclosed balconies (Section 3.4.1.5); and
- Acoustically upgraded walls, windows, and doors (Sections 3.4.1.7, .8, and .9)

Appendix AC1.5 sets out recommended procedures for the preparation of noise impact studies for new residential or other sensitive land uses in proximity to rail yards. In SLR's opinion, this report meets these recommendations.

Appendix AC1.6 sets out the recommended sound level limits for development near freight rail shunting yards:

Table 8: Recommended Noise Criteria - Residential Or Other Sensitive Land Uses In Proximity To Freight Rail Shunting Yards (From RAC/FCM Proximity Guidelines Table AC 1.6)

Time of Day	Sound Level (L_{eq} (1hr), in dBA or L_{LM}, in dBAI)	
	Class 1 Area	Class 2 Area
7 am to 7 pm	50	50
7 pm to 11 pm	47	45
11 pm to 7 am	45	45

The guideline limits were taken from MECP Publication LU-131, and are essentially equivalent to the limits in the current guideline Publication NPC-300, except during the evening period.

6.1.1.3 CTA Noise Guidelines

Complaints about railway related noise and vibration may be addressed by the federal Canadian Transportation Agency ("CTA"), under its powers from the *Canada Transportation Act*.

Section 95.1 of the Canada Transportation Act states that a railway company shall cause only such noise and vibration as is *reasonable* [emphasis added], taking into account:

- its obligations under sections 113 and 114 of the Act, if applicable;
- its operational requirements; and
- the area where the construction or operation is taking place.

CTA's Guidelines for the Resolution of Complaints Over Railway Noise and Vibration set out its procedures during investigation of complaints from existing facilities and processes for determining whether a railway company is in compliance with the noise and vibration provisions of the Act.

The CTA does not have its own guideline limits regarding acceptable levels of noise and vibration. While it acknowledges that some municipalities and provinces have developed goals or standards of maximum acceptable noise levels at the point of reception that are contained in by-laws, policies, or guidelines, it is not bound by them, but will take them into account in its deliberations. This would include the Provincial D-6 and NPC-300 guidelines, as well as the RAC/FCM Proximity Guidelines.

Reasonableness is determined on a case-by-case basis, given the particular circumstances of a case, including "the characteristics and magnitude of the noise or vibration (such as the level and type of noise, the time of day, duration, and frequency of occurrence)", as well as "efforts made by the parties to reduce the noise or vibration at its source and/or at the point of reception, to prevent its propagation, and mitigate its impact on the persons affected."

CTA's Railway Noise Measurement and Reporting Methodology sets out methods for measuring and predicting railway noise and vibration. These methods are consistent with the modelling assessment presented in this report.

6.1.1.4 City of Toronto Noise By-law

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

> Section 591-2.4. Loading and unloading.
>
> No person shall emit or cause or permit the emission of sound resulting from loading, unloading, delivering, packing, unpacking, and otherwise handling any containers, products or materials from 11 p.m. to 7 a.m. the next day, except until 9 a.m. on Saturdays, Sundays and statutory holidays.

And:

> Section 591-2.8. Stationary sources and residential air conditioners.
>
> A. No person shall cause or permit the emission of sound from a stationary source or residential air conditioner that, when measured with a sound level meter a point of reception, has a sound level (expressed in terms of Leq for a one-hour period) exceeding 50 dB(A) or the applicable sound level limit prescribed in provincial noise pollution control guidelines.
>
> B. Subsection A does not apply to the emission of sound from a stationary source that is in compliance with a provincial environmental compliance approval.

6.1.1.5 Guideline Summary and Interpretation

In accordance with Provincial policies and the City Toronto requirements, the applicable noise guidelines for this assessment are MECP Publication NPC-300. The Class 4 area noise guideline limits have been adopted in this study. This allows for the use of higher guideline limits and for the use of receptor-based mitigation measures which are not allowed under a Class 1 designation, specifically the use of Enclosed Noise Buffers.

The Class 4 noise limits are not included in the RAC/FCM Proximity Guidelines, as the Proximity Guidelines were released 5 months prior to the publication of NPC-300. However, the Proximity Guidelines do reference MECP Publication LU-131 as “best practices” for noise assessment. It is logical that the successor guideline to LU-131, namely Publication NPC-300, would represent current best practices. Further, Section 3.4.1.5 of the Proximity Guidelines specifically includes enclosed balconies as a potential receptor-based mitigation measure, consistent with NPC-300 in a Class 4 area.

6.1.2 Sources of Interest

Based on the information obtained from the site visit conducted on October 23, 2023, and the review of the aerial imagery, the significant sources of noise in the area of the Project site have been identified.

One week of noise monitoring of the CP rail yard has previously been completed by SLR personnel in May of 2021. Rail activity north of the Project site was observed and measured during the site visit on October 23, 2023. Information obtained during the monitoring and 2023 site visit has been used in this assessment. The rail yard was originally designed as a hump yard however free coupling of rail cars has been confirmed to no longer occur at the yard.

A screening level noise model was prepared for each of the facilities identified in Section 4 above, as follows:

Table 9: Modelled Noise Sources

Facility	Modelled Noise Sources
Canadian Pacific Rail Yard 2025 McCowan Road	Continuous/Non-Impulsive Noise: • Idling locomotives (x8); • The equivalent of one moving locomotive is assumed to operate in the rail yard at all times; • Squeal from the two retarders associated with the classification humps (3 minutes per hour each). A +5 dB Tonal penalty was applied, per MOECC Publication NPC-104 requirements; Impulsive Noise (9+ impulses assumed for all sources): • Impulsive Knuckle thump from train car movement; • Impulsive noise from cars connecting during flat switching.
Dufferin Concrete 1940 McCowan Road	• Idling trucks, truck movements, front end loader, and dust collectors.
Sheppard East Station 1871 McCowan Road	• Idling buses, and bus movements.
Richardson Industrial Finishers 21 Commander Boulevard	• HVAC unit, exhaust stack, and idling trucks.

Facility	Modelled Noise Sources
Celplast Metallized Products 67 Commander Boulevard	• HVAC units, air cooled condensers, exhaust fans, and idling trucks.
Leland Industries Inc. 95 Commander Boulevard	• HVAC units, exhaust fans, and Idling trucks.
Canadian Tire and Mark's Work Warehouse 4630, 4650 Sheppard Avenue E, 1900 McCowan Road	• HVAC units, Idling trucks, car wash, vacuum stalls, impact wrenches, and air compressors.
Commercial Plaza 20 Nugget Avenue	• HVAC units, exhaust fan, and idling trucks.

Figure 7 to Figure 8 show the location of the above facilities. Noise emission data used in the assessment can be found in **Appendix C**.

6.1.3 Ambient Sound Levels and Guideline Limits

During the site visit on October 23, 2023, it was observed that the acoustic environment surrounding the Project site is dominated by the roadway noise from McCowan Road and Sheppard Avenue East. 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.

Turning movement counts were obtained from the City of Toronto open data portal and average annual daily traffic (AADT) volumes were calculated. Commercial vehicle percentages were also obtained from the City of Toronto open data. Copies of all traffic data used, and calculations can be found in **Appendix C**. The following summarizes the road traffic volumes used in the analysis.

Table 10: 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-7am	Medium Trucks	Heavy Trucks	
McCowan Road	42,653	4.3	3.1	0.4	4.6	1.7	50
Sheppard Ave East	27,324	4.3	3.1	0.4	7.7	4.8	50

Notes:
[1] Traffic data obtained from the City of Toronto open data portal.
[2] Determined based on ITE and Arterial distribution for roadways.

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

Resulting ambient (background) sound levels from the surrounding roadways are shown in **Table 11 through Table 14** as the applicable guideline limit and minimum façade sound levels are shown in **Figures 9**.

6.1.4 Stationary Noise Modelling and Results

Noise impacts were predicted within the Project site for each individual facility 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 from the ground and ground absorption
- Reflections from 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=0.2 (reflective) as default global parameter.
- Reflection: An order of reflection of 1 was used (accounts for noise reflecting from walls)
- Wall Absorption Coefficients: Set to 0.21 (21 % of energy is absorbed, 79% reflected)
- Terrain: ground height contours were modelled to account for variances in grade in the surrounding area.

As the site layout is unknown at this time, a proxy high-rise building has been modelled to approximate sound levels. The proxy building consists of:

- A 6-storey podium (2,375 m^2 floor plate area); and
- A 20-storey tower (750 m^2 floor plate area);

For a total building height of 26-storeys. Note that building height is not a limiting factor for noise in this instance, and higher or lower building heights will not significantly change the results of this assessment.

The predicted noise levels for each of the above facilities are summarized in the following tables and presented in **Figures 11 to 13**.

Table 11: Overall Sound Levels - Canadian Pacific Rail Yard – Normal Operations, Non-Impulsive Noise

Façade	Normal Operations							
	Predicted Level (dBA)		Class 1 Guideline Limit		Class 4 Guideline Limit		Meets Class 1 Limits?	Meets Class 4 Limits?
	Day	Night	Day	Night	Day	Night [1]		
North	60	60	58-62	38-51	60	55	**No**	**No**
East	52	52	60-66	49-55	60	55	Yes	Yes
South	36	36	53-62	45-51	60	55	Yes	Yes
West	54	54	46-54	45	60	55	**No**	Yes

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

Table 12: Overall Sound Levels – Canadian Pacific Rail Yard – Normal Operations, Impulsive Noise

Façade	Normal Operations							
	Predicted Level (dBAI)		Class 1 Guideline Limit		Class 4 Guideline Limit		Meets Class 1 Limits?	Meets Class 4 Limits?
	Day	Night	Day	Night	Day	Night		
North	75	75	58-62	38-51	60	55	**No**	**No**
East	69	69	60-66	49-55	60	55	**No**	**No**
South	55	55	53-62	45-51	60	55	**No**	Yes
West	74	74	46-54	45	60	55	**No**	**No**

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

Table 13: Overall Sound Levels – Dufferin Concrete – Normal Operations, Non-Impulsive Noise

Façade	Normal Operations							
	Predicted Level (dBA)		Class 1 Guideline Limit		Class 4 Guideline Limit		Meets Class 1 Limits?	Meets Class 4 Limits?
	Day	Night	Day	Night	Day	Night		
North	54	52	58-62	38-51	60	55	**No**	Yes
East	46	46	60-66	49-55	60	55	Yes	Yes
South	64	64	53-62	45-51	60	55	**No**	**No**
West	65	65	46-54	45	60	55	**No**	**No**

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

Table 14: Overall Sound Levels – Other Surrounding Industries – Normal Operations, Non-Impulsive Noise

Façade	Normal Operations							
	Predicted Level (dBA)		Class 1 Guideline Limit		Class 4 Guideline Limit		Meets Class 1 Limits?	Meets Class 4 Limits?
	Day	Night	Day	Night	Day	Night		
North	44	41	58-62	38-51	60	55	Yes	Yes
East	52	49	60-66	49-55	60	55	Yes	Yes
South	53	50	53-62	45-51	60	55	**No**	Yes
West	49	46	46-54	45	60	55	**No**	Yes

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

Based on the sound levels presented in **Tables 11 to 14**, excesses of the NPC-300 Class 1 and Class 4 guideline limits are expected to be exceeded at all sides of the property. Therefore, noise mitigation is required. Details are provided in the sections below.

6.1.5 Stationary Noise Mitigation Measures

The above exceedances of the guideline limits (Class 1 Ara and Class 4 Area) are due to mobile sources such as locomotives idling, railway shunting activity, and truck pass-by noise. As these sources cannot be readily mitigated at the source, particularly for sources associated with the CP Railway Yard, the Class 1 Area noise limits cannot be met. A Class 4 Area designation and receptor-based noise control measures will be required.

The following is a summary of feasible noise control measures that can be used in combination to prevent adverse noise impacts from the surrounding industries. The need for and required extent of noise mitigation would be determined as part of future *Planning Act* applications (e.g., as part of Zoning By-Law Amendment ("ZBA") or Site Plan Approval ("SPA") applications).

6.1.5.1 Receptor-Based Mitigation Measures

Class 4 Designation

In SLR's opinion, subject to formal confirmation from City as the land use planning authority, the Project site meets the definition and requirements for a Class 4 area listed in MECP Publication NPC-300, and it therefore appropriate for the City to declare the Project site as a Class 4 area, under their role as the land use planning authority, in the exercise of their responsibility and authority under the Planning Act. Under a Class 4 Area designation, the following receptor-based noise mitigation methods could be used:

Air Conditioning

Under the Publication NPC-300 noise guidelines, air conditioning by itself is not considered to be a noise control measure for stationary noise. Regardless, mandatory air conditioning is a requirement of the Class 4 Area designation, along with a "Type F" noise warning clause, to notify occupants that there may be times when outdoor noise levels will require windows to remain closed.

Sealed (Inoperable) Windows

Sealed (inoperable) windows are not allowed as a noise control measure for residential units under Publication NPC-300. They are allowed for some types of noise sensitive commercial and noise sensitive institutional uses, such as hotels and schools and community centres.

For mid- and high-rise developments of this type, indoor communal amenity areas are generally considered to be akin to a noise sensitive institutional or commercial use, and sealed windows are an acceptable noise control measure.

"Blank" Facades

"Blank facades" are facades which either contain no windows, or which do not contain windows attached to noise sensitive spaces. For high-rise buildings, this could be a "single-loaded building" design with the corridor facing the noise source. Such buildings may be less cost-effective, and may not meet the urban design objectives/guidelines for municipalities. In this case, given the size and location of the CP Yard, multiple facades on the proposed development are affected, and blank facades are therefore not considered to be a practical solution by themselves. Nonetheless, blank facades may be considered in certain locations or for certain directions.

Building Orientation

Minor changes to building orientations, for example by slightly rotating the high-rise tower, can be used to shield some facades. The practicableness of this is dependant on the structural design of the building. In this case, given the size and location of noise sources such as the CP Yard and Dufferin Concrete, multiple facades on the proposed development are affected, and building orientation is therefore not considered to be a practical solution by itself.

Noise Walls

Noise walls are an acceptable noise control measure for outdoor amenity areas and private terraces, when required.

Noise walls should be free of gaps and cracks and have a minimum face density (mass per unit area) of 20 kg/m^2. There are numerous wood, metal, concrete, glass, and plexiglass products available which meet these requirements. Drainage gaps at the bottom of a noise wall should be small (no more than 25 mm high) and localized (i.e., not continuous along the length of the wall).

Enclosed Noise Buffers

Enclosed noise buffers, which can include enclosed noise buffer balconies ("ENBBs"), are described as a noise control measure in MECP Publication NPC-300, and are defined as follows:

> "Enclosed noise buffer"
>
> means an enclosed area outside the exterior wall of a building such as an enclosed balcony specifically intended to buffer one or more windows of noise sensitive spaces. In order for the concept of enclosed noise buffer to be acceptable within the context of an MOE approval of stationary sources, it can only apply to high-rise multi-unit buildings in a Class 4 area. The characteristics of an enclosed noise buffer are listed below:
>
> - not less than one metre and not more than two metres deep;

- fully enclosed with floor to ceiling glazing or a combination of solid parapet plus glazing above – glazing can potentially be operable to the maximum permitted by the Ontario Building Code;
- separated from interior space with a weatherproof boundary of exterior grade wall, exterior grade window, exterior grade door, or any combination, in compliance with exterior envelope requirements of the Ontario Building Code;
- of sufficient horizontal extent to protect windows of noise sensitive spaces; and
- the architectural design is not amenable to converting the enclosed space to being noise sensitive."

The design requirements are shown schematically in **Figure 14**.

Windows are allowed but must only open to a maximum of 10 cm (4") in accordance with the Ontario Building Code. Tempered air can also be provided to the space.

The ENBB design should not be amenable for conversion into interior/noise sensitive space. The wall separating the ENBB from the indoor space must be an exterior wall which cannot be removed by the occupant. The interior finishes should also be exterior grade (brick, glass, concrete, etc.).

While the exterior of the ENBB is not a noise sensitive receptor, the windows within the ENBB attached to noise-sensitive spaces inside the building are points of reception. Even with the windows of the ENBB open, the ENBB will reduce exterior sound levels, due to acoustical impedance mismatch effects. The design of the ENBBs will need to be reviewed by an acoustical consultant as the project proceeds.

6.1.5.2 Source-Based Mitigation Measures

Based on the nature of the proposed development, and the nature of CP's operations, at-source mitigation measures are unlikely to be feasible or cost-effective. CP is highly unlikely to accept restrictions on timing, duration, location, or intensity of operations within their yard. Noise barriers within the yard could interfere with rail operations, and noise barriers at the perimeter of the yard will not be effective given the height of the proposed development.

Source-based noise mitigation measures could potentially be used for sources associated with Dufferin Concrete. Source based mitigation may including noise barriers and or acoustic enclosures for the dust collectors. Mitigation could potentially reduce requirements for receptor-based noise mitigation measures such as ENBBs. This can be further reviewed as the development proceeds through the planning process.

6.1.5.3 Noise Mitigation For the Proposed Development

The following mitigation measures will likely be required, and assume that a Class 4 Area designation is granted by the City/land use planning approval authority:

- Air conditioning for all residential units;
- ENBBs will be likely be required for all residential units, and on all facades;
- Noise barriers will be required for communal outdoor amenity areas; and
- Sealed windows and/or blank facades may ne required in some locations, for example for indoor amenity areas.

The need for and extent of mitigation measures can appropriately be determined during later stages of the planning process (e.g., as part of at ZBA or SPA applications).

6.1.6 Stationary Noise Warning Clauses

A Class 4 Area designation is required, a **Type F** warning clause is required for all units.

CP typically requests warning clauses to be included for new developments near rail corridors and near rail yards.

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.

6.2 Transportation Sources

6.2.1 Transportation Noise Sources

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

- Roadway noise from McCowan Road, Sheppard Avenue East, and Nugget Avenue.
- Railway noise from the CP Belleville Railway Subdivision.

A review was completed of the above transportation sources and summarized below.

As the Project site is located well away from any airports an assessment of aircraft noise is not required.

6.2.2 Transportation Noise Guidelines

6.2.2.1 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, sleeping areas have more stringent criteria than Living / Dining room space.

Table 15: 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 16: NPC-300 Ventilation and Warning Clause Requirements

Assessment Location	Time Period	Energy Equivalent Sound Exposure Level - L_{eq} (dBA)		Ventilation and Warning Clause Requirements [2]
		Road	Rail [1]	
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)
		> 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 (Leq) 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 17: 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 18: 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] Whistle/warning bell noise is excluded 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 19: 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).

6.2.2.2 RAC/FCM "Proximity Guidelines"

The Proximity Guidelines recommendations for rail transportation noise are provided below:

Table 20: Recommended Noise Criteria For New Residential Or Other Sensitive Land Uses In Proximity To Freight Railway Corridors (Adopted from Table AC1.4 of RAC/FCM Proximity Guidelines)

Type of Space	Time Period	Energy Equivalent Sound Level L_{eq} (dBA)	
		Limit [1]	Outdoors, Trigger for Air Conditioning [2]
Indoors, Living/Dining Room [3]	Daytime (0700-2300h)	40	55
	Night-time (2300-0700h)	Not provided	Not provided
Indoors, Sleeping Quarters	Daytime (0700-2300h)	Not provided	Not provided
	Night-time (2300-0700h)	35	50
Outdoors, Outdoor Living Area	Daytime (0700-2300h)	55 [3]	n/a

Notes:
[1] The indoor sound level limits are used only to determine the architectural component requirements. Whistle noise (where applicable) is included when determining indoor noise levels and excluded when determining outdoor noise levels.
[2] The outside façade sound level limits are used to determine the air conditioning requirements.
[3] Mitigation is recommended between 55 dBA and 60 dBA and if levels are 60 dBA or above, mitigation should be implemented to reduce the levels as close as practicable to 55 dBA.

The guideline limits in the table were derived from MECP Publication LU-131, the predecessor guideline to Publication NPC-300, and are essentially equivalent to it. The “triggers” for requiring air conditioning are 10 dB stricter than Publication NPC-300, which would only require forced air heating with a provision to add air conditioning at these levels. Regardless, under a Class 4 area designation, air conditioning is already mandatory for the development.

The Proximity Guidelines do not have a requirement for façade construction, but instead note “the architectural component requirements must include the minimum requirements of the railways.”

6.2.2.3 Transportation Noise Guidelines Adopted in This Assessment

In accordance with Provincial and City of Toronto policies, the applicable noise guidelines for this assessment are MECP Publication NPC-300. As discussed above, these are effectively equivalent to the RAC/FCM Proximity Guidelines.

6.2.3 Traffic Data and Future Projections

Turning movement counts were obtained from the City of Toronto open data portal. Average annual daily traffic (AADT) volumes were calculated and projected to a future year of 2035, assuming a conservative *per annum* growth rate of 2.0% . Commercial vehicle percentages were also obtained from the City of Toronto Open Data site. Copies of all traffic data used, and calculations can be found in **Appendix D**. The following summarizes the road traffic volumes used in the analysis.

Table 21: Summary of Road Traffic Data Used in the Analysis

Roadway Link	Future Year 2035 Traffic Volume (AADT)	% Day / Night Volume Split [1]		% Commercial Traffic Breakdown [2]		Vehicle Speed (km/h)
		Daytime	Night-time	Medium Trucks	Heavy Trucks	
McCowan Road	64,648	90	10	4.6	1.7	50
Sheppard Avenue East	37,510	90	10	7.7	4.8	50
Nugget Avenue	16,153	90	10	1.7	0.5	50

Notes:
[1] The Day/Night split was determined from historic data at SLRs for urban areas.
[2] Estimated based on truck percentages based on turning movement count data within the area.

Rail traffic data was obtained from previous noise and vibration studies conducted in the surrounding area. In keeping with CPR requirements, an annual growth rate of 2.5% was applied to the CPR rail data to forecast volumes for the year 2035.

Table 22: Summary of Rail Traffic Data Used in the Analysis

Rail Line	Train Type	Typical No. of Engines Per Train	No. of Cars Per Train	No of Trains		Maximum Speed (km/h)
				Daytime (7am to 11pm)	Night-time (11pm to 7am)	
CP Belleville Subdivision	Freight	2	59	18	15	97

6.2.4 Projected Transportation Sound Levels

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

Rail operation sound levels at the proposed development were predicted using the FTA/FRA modelling algorithms included in the Cadna/A software, FRA reference sound levels were used for diesel-electric locomotives, and rail cars. Locomotives were modelled at maximum throttle setting 8.

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

Ground absorption was assessed as reflective surfaces, as the majority of the intervening ground is asphalt or concrete. In calculating road and rail traffic noise levels to determine façade and outdoor amenity areas, no reflections from building surfaces were accounted for, in keeping with NPC-300 requirements (order of reflection set to 0).

6.2.5 Façade Sound Levels

Total façade sound levels are shown in **Figure 15**. Overall predicted sound levels are provided in the following table:

Table 23: Projected Transportation Sound Levels at Facades

Façade	Roadway Sound Levels		Railway Sound Levels		Combined Road and Rail	
	L_{eq} Day (dBA)	L_{eq} Night (dBA)	L_{eq} Day (dBA)	L_{eq} Night (dBA)	L_{eq} Day (dBA)	L_{eq} Night (dBA)
North	65	59	68	70	69	70
East	70	63	63	66	70	67
South	66	60	57	59	66	61
West	54	48	66	68	66	68
Notes: [1] Façade locations are shown in Figure 15						

As the roadway induced sound levels are predicted to exceed 65 dBA and 60 dBA during the daytime and night-time, respectively, an assessment of indoor sound levels is required.

6.2.6 Façade Recommendations

Due to sound levels exceeding **Table 11** requirements, a detailed assessment of glazing is required. Indoor sound levels and required façade Sound Transmission Classes (STCs) were estimated using the procedures outlined in National Research Council Building Practice Note BPN-56. Façade calculations are provided in **Appendix D.** As detailed floor plans were not available at the time of the analysis, the following assumptions were applied to the development units:

- 70 % glazing was assumed for living/dining room façades;
- 50% glazing was assumed for bedroom façades;
- living/dining rooms were assumed to have a façade-to-floor area ratio of 50%;
- sleeping quarters and hotel units were assumed to have a façade-to-floor area ratio of 100%; and
- the non-glazing portions of the façade were assumed to have a STC 45 rating.

Façade STC requirements are summarized in the following table:

Table 24: Façade Sound Transmission Class (STC) Requirements

Facade	Minimum Required STC Rating		
	Wall	Living Room Windows/ Patio Door	Bedroom Windows
North	45	32	39
East	45	30	35
South	45	OBC (25)	OBC (28)
West	45	31	37
Notes: “OBC” - Glazing elements meeting minimum thermal and structural requirements of the Ontario Building Code.			

An additional +3 STC points may be required for corner units. Final STC requirements should be determined later in the planning process, once final floor layouts and façade designs are available (e.g., as part of ZBA or SPA submissions).

6.2.7 Ventilation and Warning Clause Requirements

As façade sound levels are predicted to exceed 65 dBA and 60 dBA during daytime and nighttime hours respectively, Central air-conditioning and a "**Type D**" warning clause will be required for all residential units in the development.

Should communal outdoor living areas be included in the development, a "**Type B**" warning clause with acoustic barriers are likely required.

CP typically requests warning clauses to be included for new developments near rail corridors and near rail yards.

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.

6.3 Summary of Noise Conclusions and Recommendations

The potential for noise impacts on the Project site have been assessed.

An assessment of surrounding stationary noise was conducted. Noise sources from the CP Rail Yard and Dufferin Concrete are predicted to exceed the Class 1 Area and Class 4 Area guideline limits at the proposed development.

An initial review of source-based noise mitigation measures was completed. Based on the nature of the sources, and particularly for the CP Rail Yard, source-based mitigation measures to meet the Class 1 Area noise guideline limits are unlikely to be feasible. Therefore, to allow for receptor-based noise control measures, a Class 4 Area designation is required.

In SLR's opinion, subject to formal confirmation from City as the land use planning authority, the Project site meets the definition and requirements for a Class 4 area listed in MECP Publication NPC-300, and it therefore appropriate for the City to declare the Project site as a Class 4 area, under their role as the land use planning authority, in the exercise of their responsibility and authority under the Planning Act.

Under a Class 4 Area designation, there are a number of receptor-based design features which can be used to mitigate noise, including enclosed noise buffer balconies, sealed windows, blank facades, noise barriers, air conditioning and warning clauses.

An initial transportation noise study was completed. Wall and window upgrades, noise barriers, air conditioning and warning clauses will be required.

With the inclusion of receptor-based noise mitigation measures and warning clauses, adverse noise impacts are not anticipated.

Further noise assessments should be completed as part of future planning applications (e.g., ZBA and SPA applications) to determine the type and extent of noise mitigation measures.

7.0 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. Any future industries which may use significant vibration sources will be able to incorporate vibration isolation into their design. Under applicable MECP guidelines, a detailed vibration assessment is not required. Adverse impacts from industrial vibration are not anticipated.

7.2 Transportation Sources

There is a potential source of vibration in the area:

- CP Bellville Subdivision; and
- Future subway traffic on the proposed Line 4 Sheppard extension.

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

The Proposed extension of Line 4 Sheppard Subway line extension to McCowan Road is understood to run 300 m south of the proposed development along Sheppard Avenue. The line will be outside of 75 m. Therefore, adverse vibration impacts from the subway line are not anticipated at the Project site.

The CN Belleville Rail Subdivision is located within 75 m of the development, and an assessment of railway vibration impacts is warranted.

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 supplementation 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 25: Transportation Vibration Guideline Limits

Train Type	Receptor Type	Limit [1] (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:
[1] 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.

7.3 Vibration Assessment

A site visit was conducted on October 23, 2023, by SLR staff to conduct measurements of ground-borne vibrations on the Project site. Vibration data was recorded at two locations on the Project site. The monitors were deployed at two locations along the north property line, the measurement locations are shown on **Figure 16**.

Seven CP freight train movements were measured to quantify the potential impacts at the proposed development. The data were post-processed to compute the 1-second sliding window RMS amplitudes of vibration velocity in units of mm/s.

The results are summarized in the table below.

Table 26: Measured Vibration Levels

Train Type/Direction	Measured Level – Monitor 1 (mm/s RMS) [1]	Measured Level – Monitor 2 (mm/s RMS) [1]	Guideline Limit	Meets Guideline? (Y/N)
CP – Westbound	0.044	N/A	0.14	Yes
CP – Eastbound	0.092	0.072		Yes
CP – Westbound	0.067	0.066		Yes
CP – Westbound	0.044	0.049		Yes
CP – Eastbound	0.042	0.045		Yes
CP – Westbound	0.070	0.087		Yes
CP – Eastbound and Westbound	0.064	0.104		Yes

Notes:
[1] 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.

Vibration levels from the trains on the Bellville Subdivision are expected to meet the 0.14 mm/s vertical RMS criterion at the northern property line. Therefore, vibration mitigation measures are not required.

7.4 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.

8.0 Conclusions

SLR Consulting (Canada) Ltd. (SLR), was retained by Bousfields Inc., to conduct a Compatibility / Mitigation Study focusing on air quality, odour, dust, noise, and vibration in support of a request to the Minister of Municipal Affairs and Housing to redesignate the site to permit residential uses. The development site is located at 1936 McCowan Road in Toronto, Ontario (“the Project site”).

This assessment is intended to address the air quality, odour, and dust, noise, and vibration portions of the Terms of Reference of the City of Toronto OPA231 requirements for Land Use Compatibility/Mitigation Studies and Air Quality and Odour Study (“the OPA 231 ToR”).

This assessment has considered:

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

Surrounding facilities have the potential to generate air emissions including dust and odour as well as noise and vibration. It is recommended that further studies related to land use compatibility be completed as part of future planning applications once the Project site plan is further advanced.

An assessment of surrounding stationary noise was conducted. Noise sources from the CP Rail Yard and Dufferin Concrete are predicted to exceed the Class 1 Area and Class 4 Area guideline limits at the proposed development. An initial review of source-based noise mitigation measures was completed. Based on the nature of the sources, and particularly for the CP Rail Yard, source-based mitigation measures to meet the Class 1 Area noise guideline limits are unlikely to be feasible. Therefore, to allow for receptor-based noise control measures, a Class 4 Area designation is required.

An initial transportation noise study was completed. Wall and window upgrades, noise barriers, air conditioning and warning clauses will be required. With the inclusion of receptor-based noise mitigation measures and warning clauses, adverse noise impacts are not anticipated.

For both air quality and noise , there are a number of strategies that can be used in the design of the Project site and associated structures that can facilitate mixed uses including high density residential these include but are not limited to the use of:

1 Air conditioning;
2 Sealed (inoperable) windows;
3 “Blank” facades (including single loaded corridors);
4 Strategic orientation of building;
5 Construction of intervening buffer uses;
6 Enclosed buffer balconies;
7 Installation of carbon and MERV rated filters;
8 Positive pressurization of the building; and
9 Warning clauses.

Examples of potential Mitigation Measures and Warning Clauses are provided in **Appendix A**.

An assessment of surrounding transportation noise and vibration was conducted. With the inclusion of potential, future mitigation measures (upgraded glazing/barriers) and warning clauses, adverse noise impacts from transportation sources are not anticipated.

With the inclusion of the at receptor mitigation and use of Warning Clauses, the Project Site is anticipated to be compatible with the surrounding land uses from an air quality perspective. Further, the Project site will not affect the ability for industrial facilities to obtain or maintain compliance with applicable Provincial environmental policies, regulations, approvals, authorizations, and guidelines. 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 site is:

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

9.0 Closure

Should you have questions on the above report, please contact the undersigned.

Regards,

SLR Consulting (Canada) Ltd.

Alice Najjar, B.A
Air Quality Scientist

Dylan Diebolt, B.Sc.
Acoustics Consultant

Diane Freeman, P.Eng., FEC, FCAE
Principal Air Quality

R.L. Scott Penton, P.Eng.
Principal Acoustics Engineer

10.0 References

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Figures

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

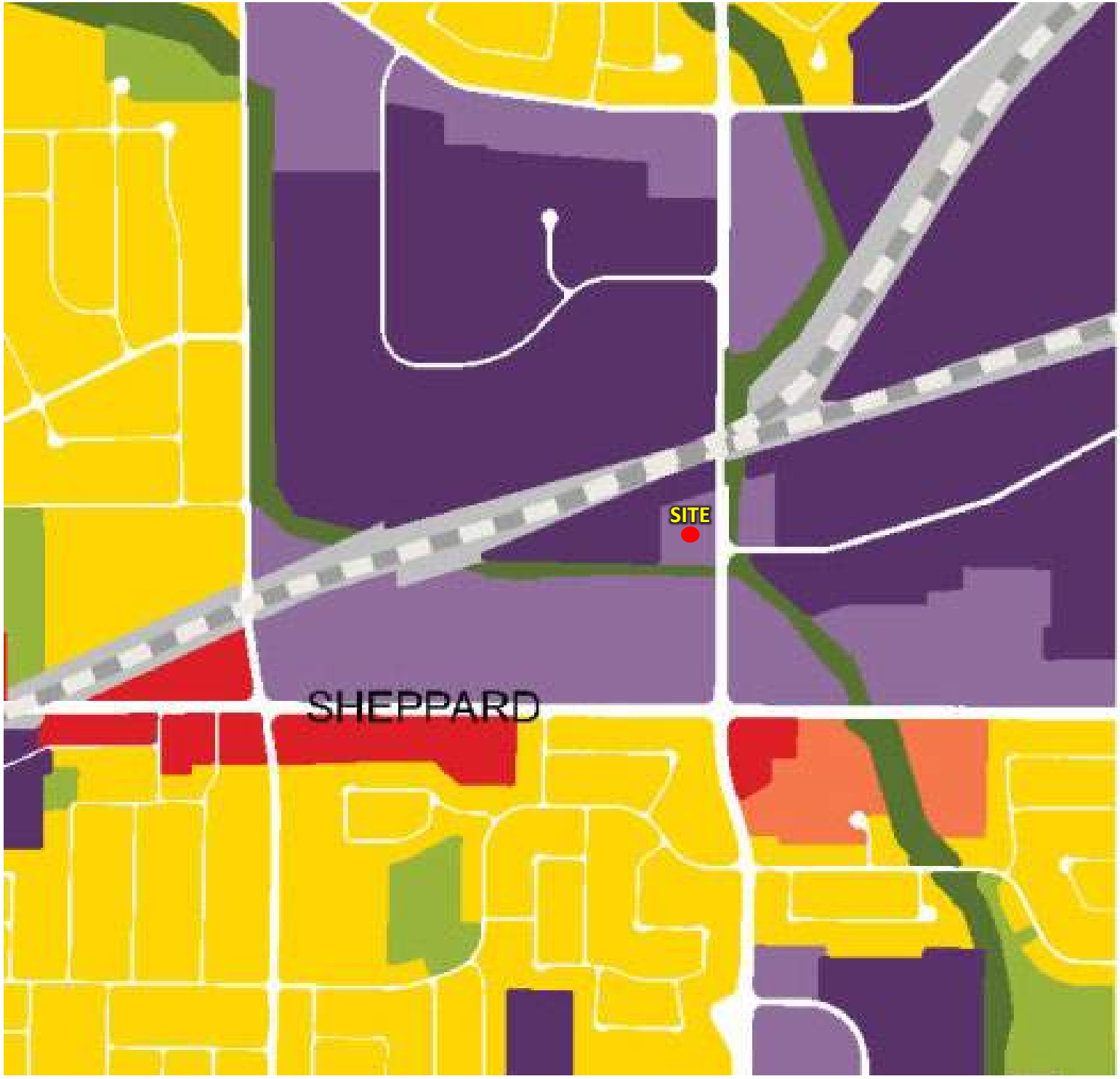
Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

Aerial Photography from Google Earth

BOUSFIELDS INC.	True North	Scale: 1:1,500	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. 1	
SITE AND CONTEXT PLAN		Project No. 241.031222.00001		



Land Use Designations

- Neighbourhoods
- Apartment Neighbourhoods
- Mixed Use Areas
- Natural Areas
- Parks
- Other Open Space Areas (Including Golf Courses, Cemetaries, 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

BOUSFIELDS INC.

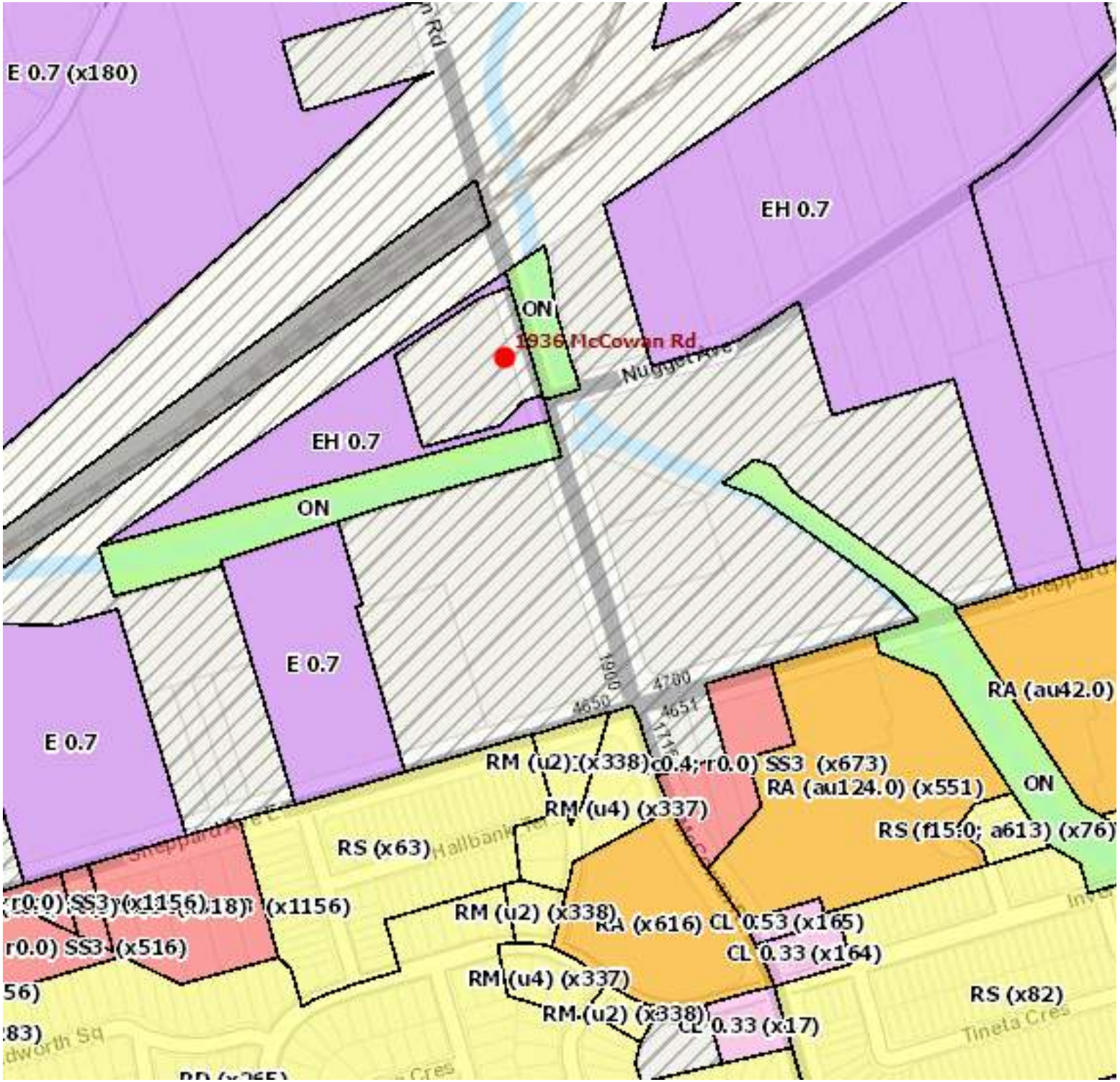
1936 MCCOWAN ROAD - TORONTO, ONTARIO

TORONTO OFFICIAL PLAN MAP

City of Toronto Official Plan - Map 19

Scale: n/a		METRES
Date: Nov. 29, 2023	Rev 0.0	Figure No. **2a**
Project No. 241.031222.00001		

SLR



Zone Categories

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

True North

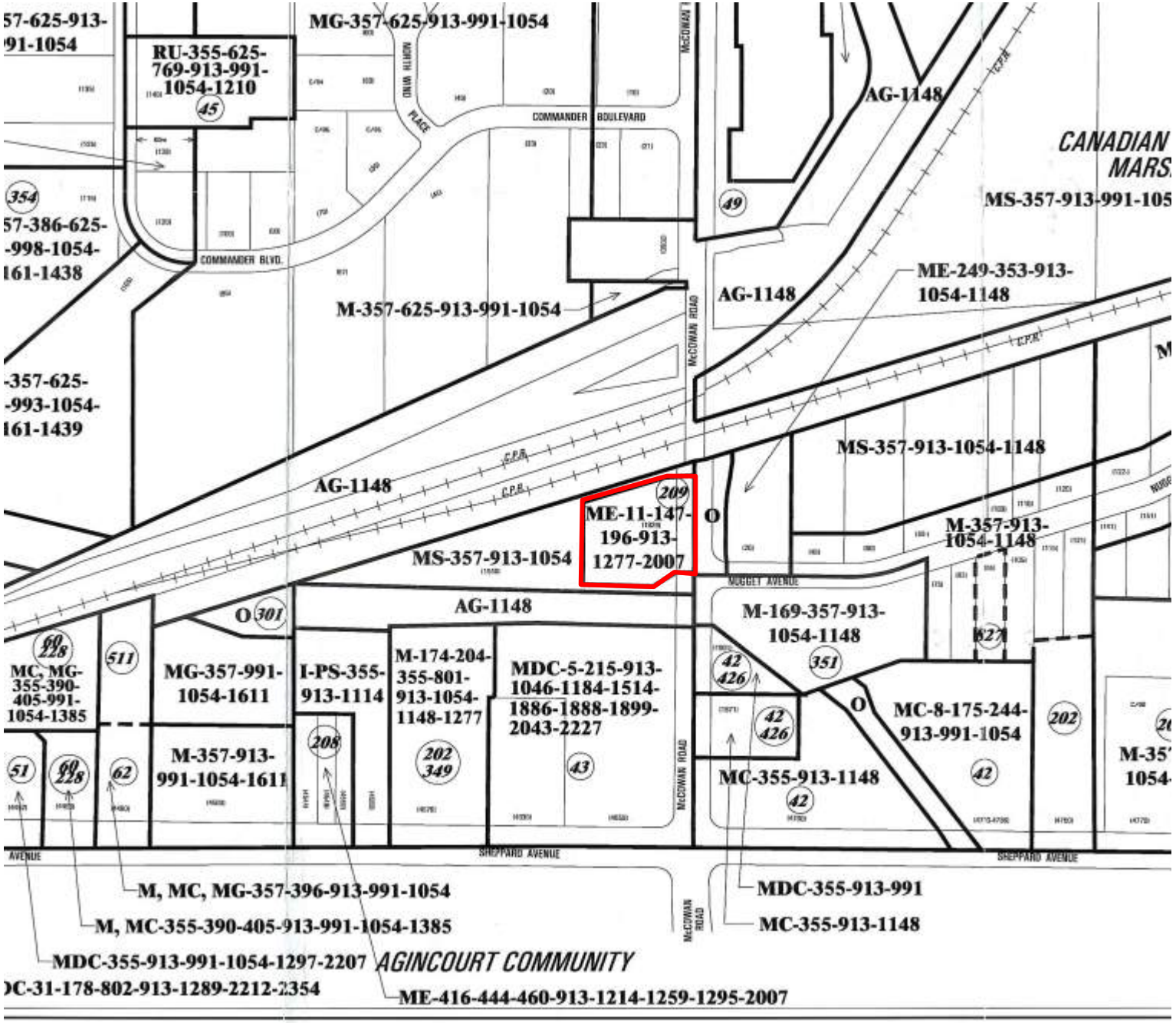
BOUSFIELDS INC.

1936 MCCOWAN ROAD - TORONTO, ONTARIO

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

Scale: n/a		METRES
Date: Nov. 29, 2023	Rev 0.0	Figure No. **2b**
Project No. 241.031222.00001		

SLR



AG	AGRICULTURAL ZONE
CF	COMMUNITY FACILITIES ZONE
CR	COMMERCIAL / RESIDENTIAL ZONE
HC	HIGHWAY COMMERCIAL ZONE
I-PS	INSTITUTIONAL - PUBLIC SERVICES ZONE
I-SW	INSTITUTIONAL - SOCIAL WELFARE
M	INDUSTRIAL ZONE
MC	INDUSTRIAL COMMERCIAL ZONE
MDC	INDUSTRIAL DISTRICT COMMERCIAL ZONE
ME	MIXED EMPLOYMENT ZONE
MG	GENERAL INDUSTRIAL ZONE
MS	SPECIAL INDUSTRIAL ZONE
MF	MULTIPLE FAMILY RESIDENTIAL ZONE
O	OPEN SPACES ZONE
RU	RECREATIONAL ZONE
S	SINGLE FAMILY RESIDENTIAL ZONE

True North

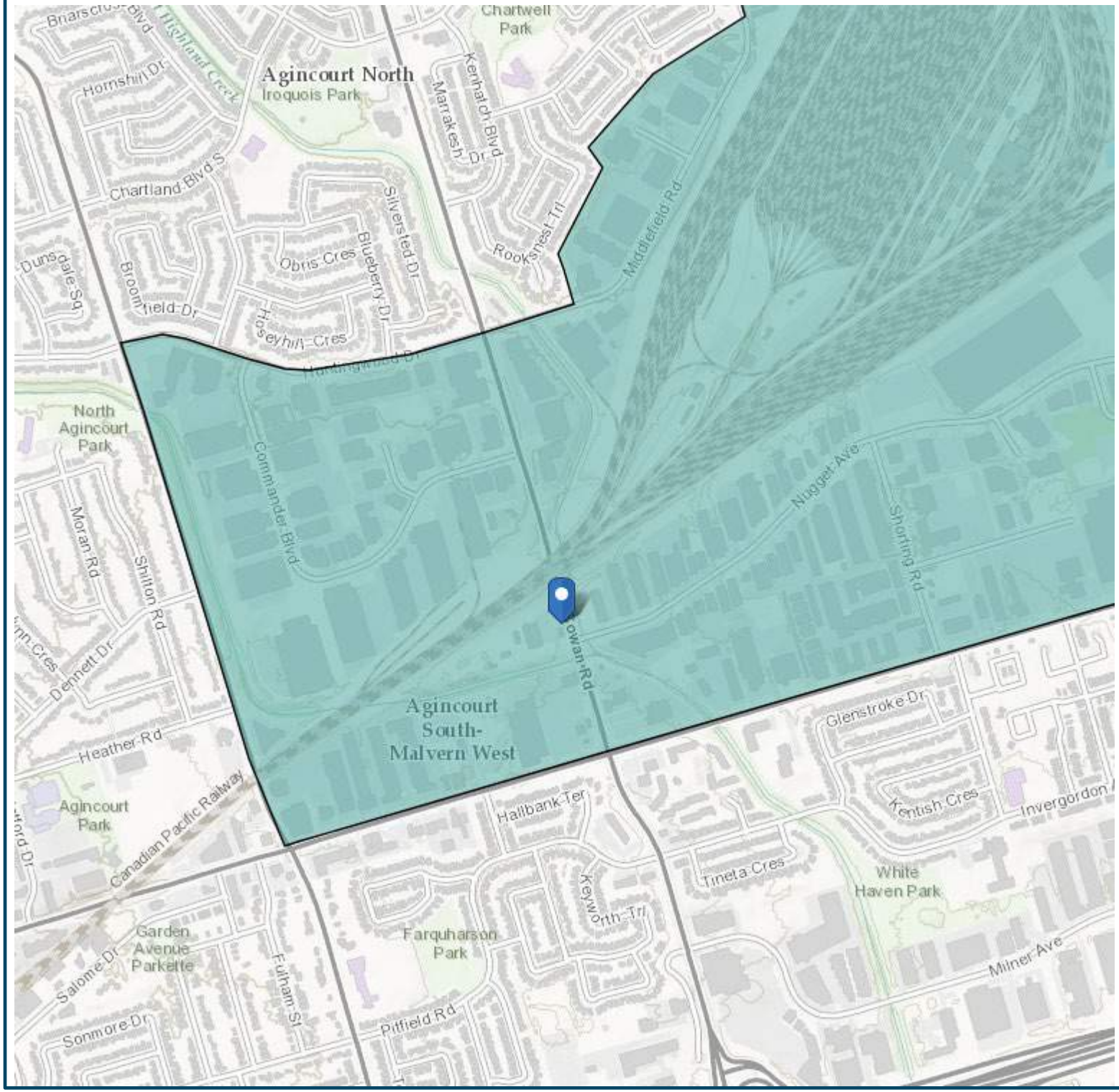
BOUSFIELDS INC.

1936 MCCOWAN ROAD - TORONTO, ONTARIO

MARSHALLING YARD EMPLOYMENT DISTRICT SCHEDULE 'A'

Scale: n/a		METRES
Date: Nov. 29, 2023	Rev 0.0	Figure No. **2c**
Project No. 241.031222.00001		

SLR



True North

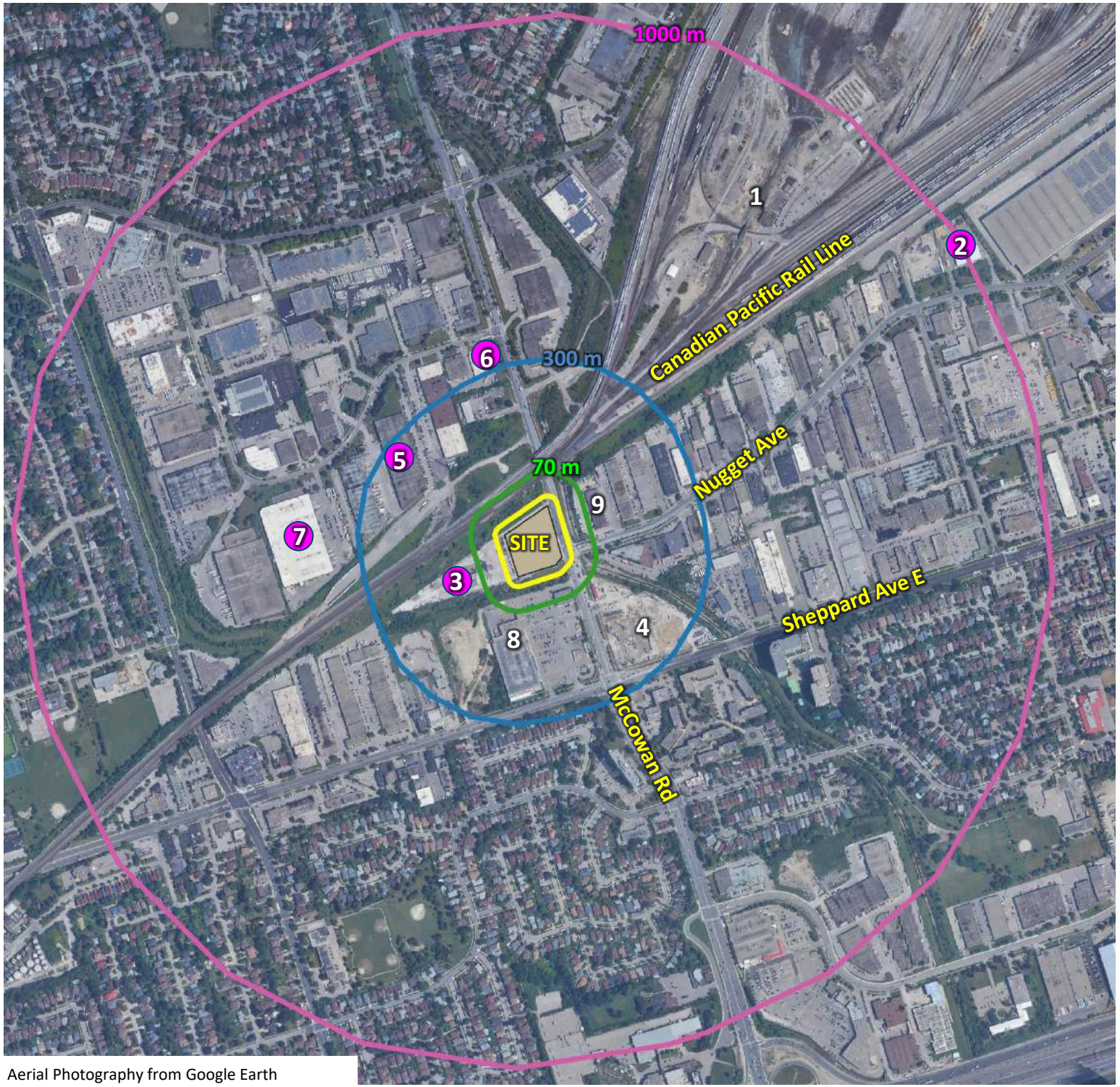
BOUSFIELDS INC.

1936 MCCOWAN ROAD - TORONTO, ONTARIO

PROVINCIALLY SIGNIFICANT EMPLOYMENT ZONE MAP ZONE 5 , TORONTO

Scale:	n/a	METRES
Date: Nov. 29, 2023	Rev 0.0	Figure No. 3
Project No. 241.031222.00001		

SLR



Aerial Photography from Google Earth

Facility with MECP Permit (ECA/EASR)

20m Separation Distance

70m Separation Distance

300m Separation Distance

1000m Separation Distance

1 – CP Rail Yard
2 – York1
3 – Dufferin Concrete
4 – Sheppard Station
5 – Celplast
6 – Richardson
7 – Leland
8 – Canadian Tire
9 – Commercial Plaza

True North

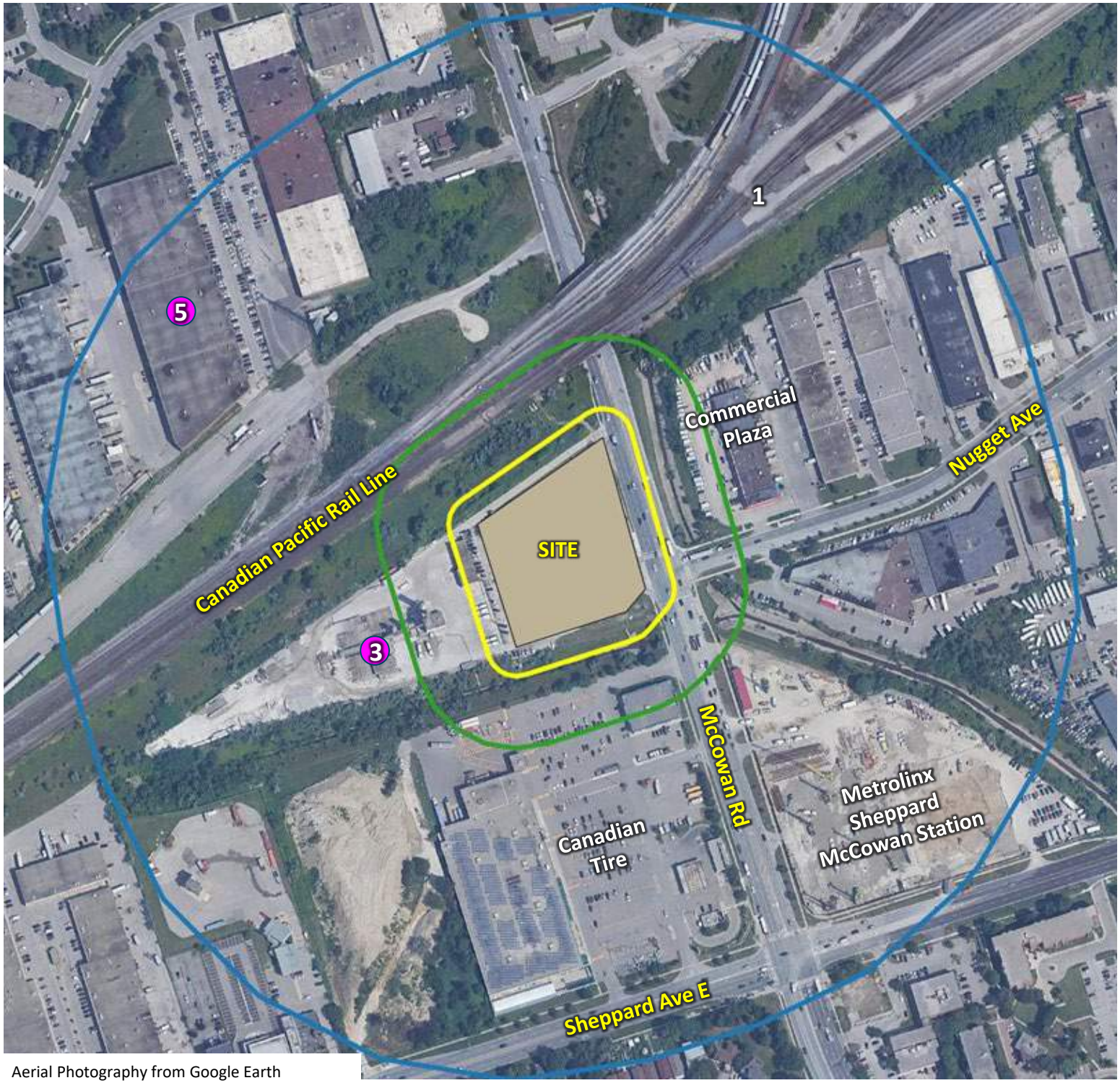
BOUSFIELDS INC.

1936 MCCOWAN ROAD - TORONTO, ONTARIO

GUIDELINE D-6 SEPARATION DISTANCES TO 1000 METERS

Scale: 1: 9,800		METRES
Date: Nov. 29, 2023	Rev 0.0	Figure No. 4
Project No. 241.031222.00001		

SLR



Aerial Photography from Google Earth

Facility with MECP Permit (ECA/EASR)

20m Separation Distance

70m Separation Distance

300m Separation Distance

1 – CP Rail Yard
2 – York1
3 – Dufferin Concrete
4 – Sheppard Station
5 – Celplast
6 – Richardson
7 – Leland
8 – Canadian Tire
9 – Commercial Plaza

True North

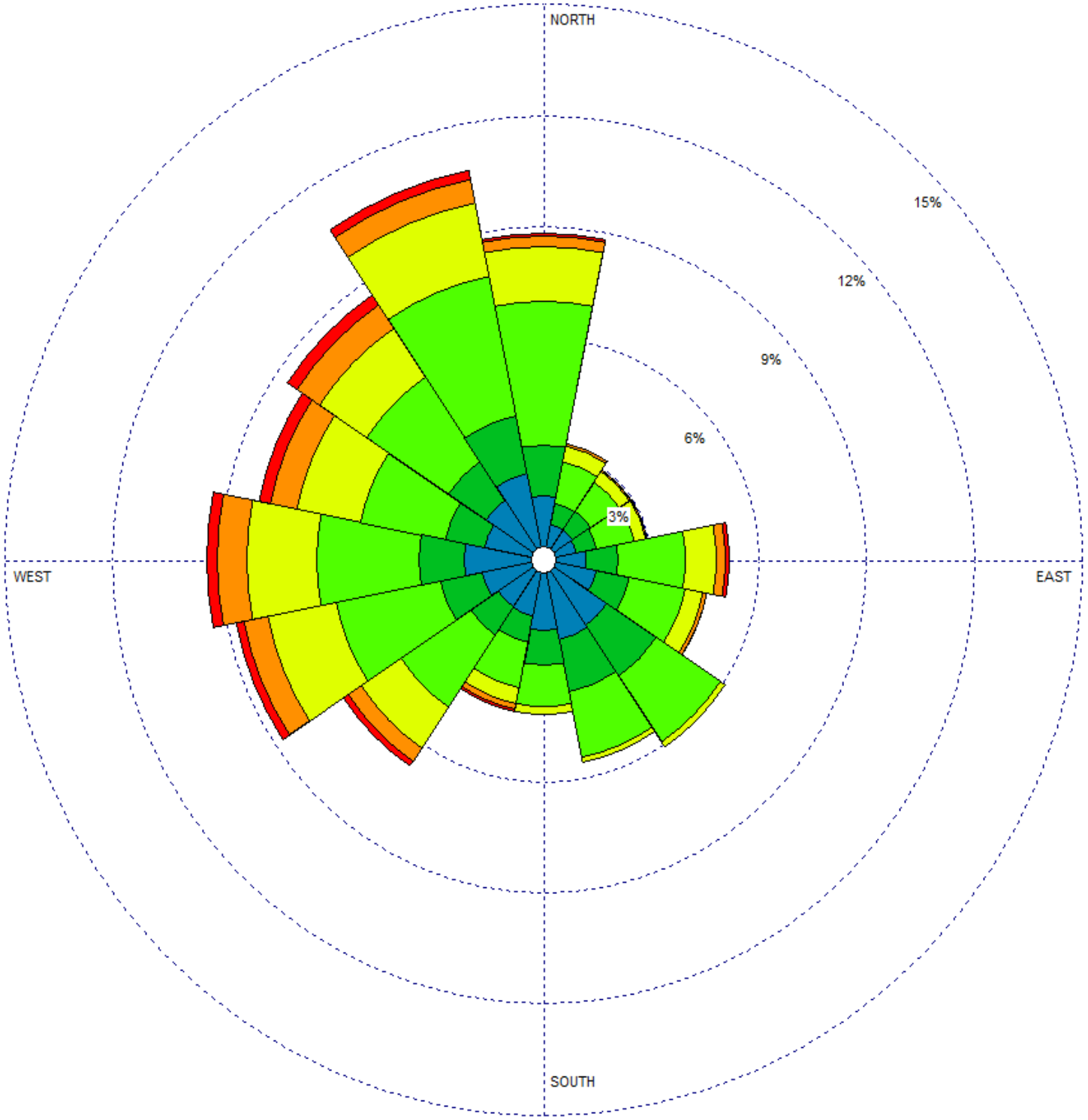
BOUSFIELDS INC.

1936 MCCOWAN ROAD - TORONTO, ONTARIO

GUIDELINE D-6 SEPARATION DISTANCES TO 300 METRES

Scale: 1: 9,800		METRES
Date: Nov. 29, 2023	Rev 0.0	Figure No. 5
Project No. 241.031222.00001		

SLR



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

BOUSFIELDS INC.

1936 MCCOWAN ROAD - TORONTO, ONTARIO

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

Scale: n/a		METRES
Date: Nov. 29, 2023	Rev 0.0	Figure No. 6
Project No. 241.031222.00001		

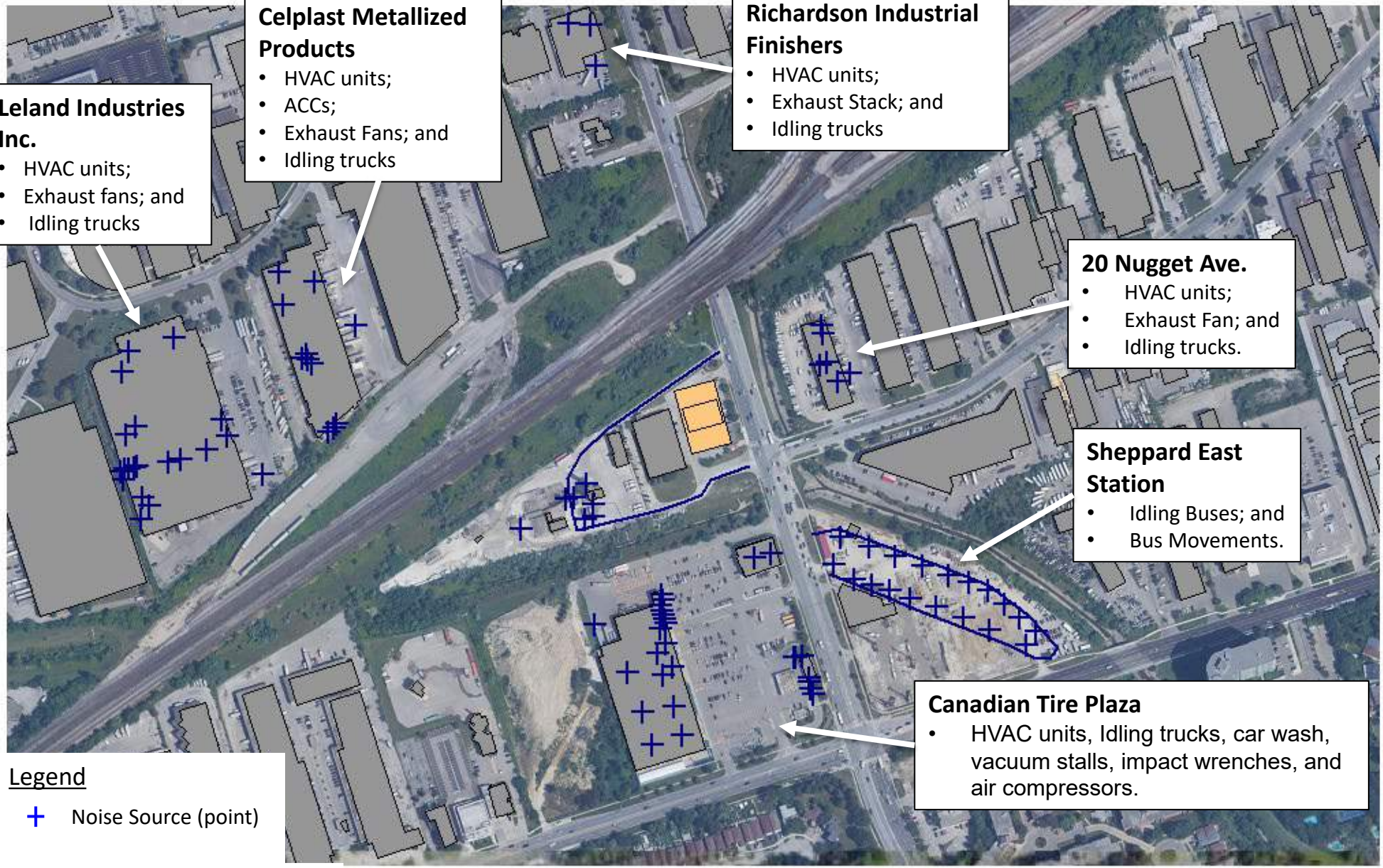
SLR

BOUSFIELDS INC.	True North	Scale: 1:15,000	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **7a**	
MODELLED NOISE SOURCE LOCATIONS – CP RAIL YARD – CONTINUOUS		Project No. 241.031222.00001		

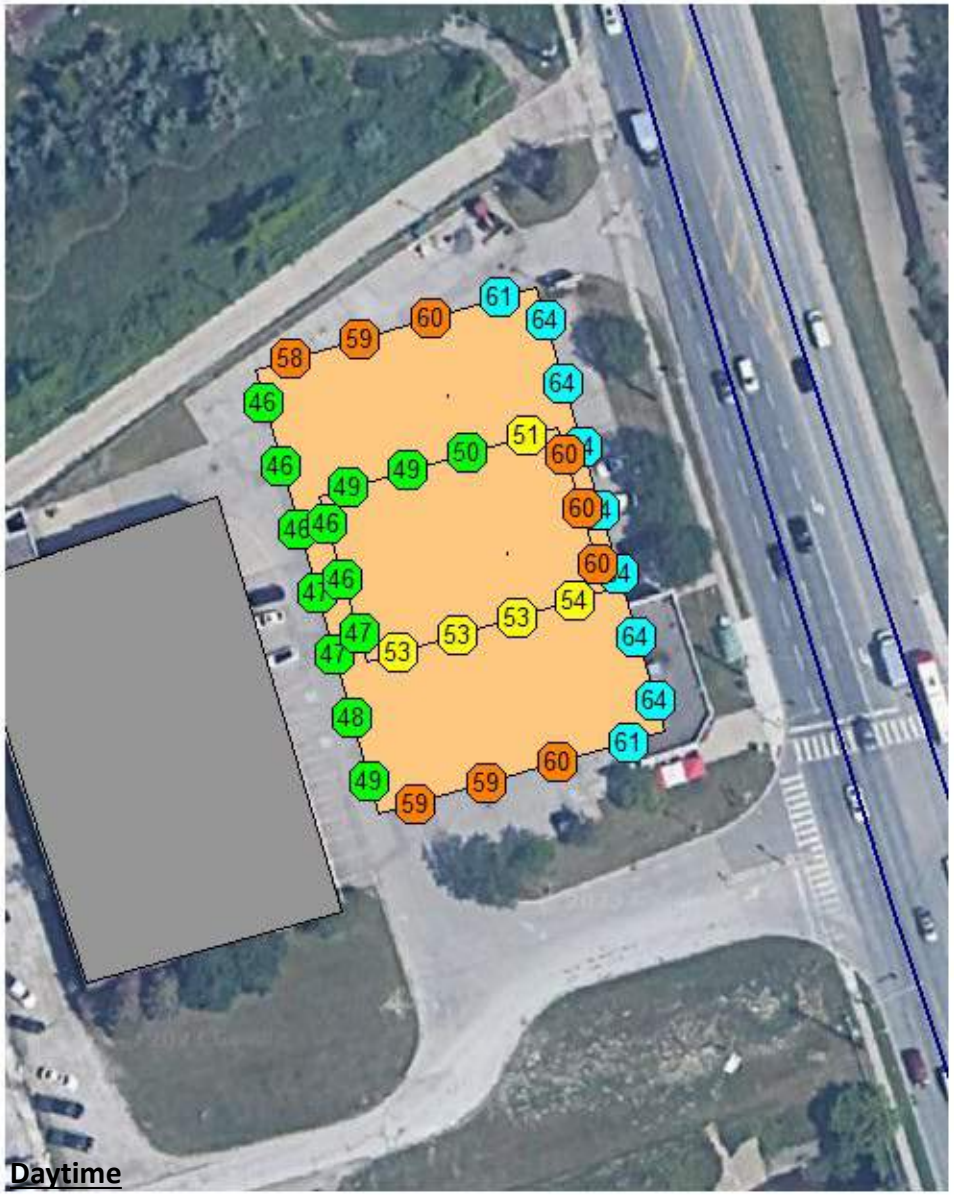
Legend

- Noise Source (point)
- Noise Source (line)
- Noise Source (area)

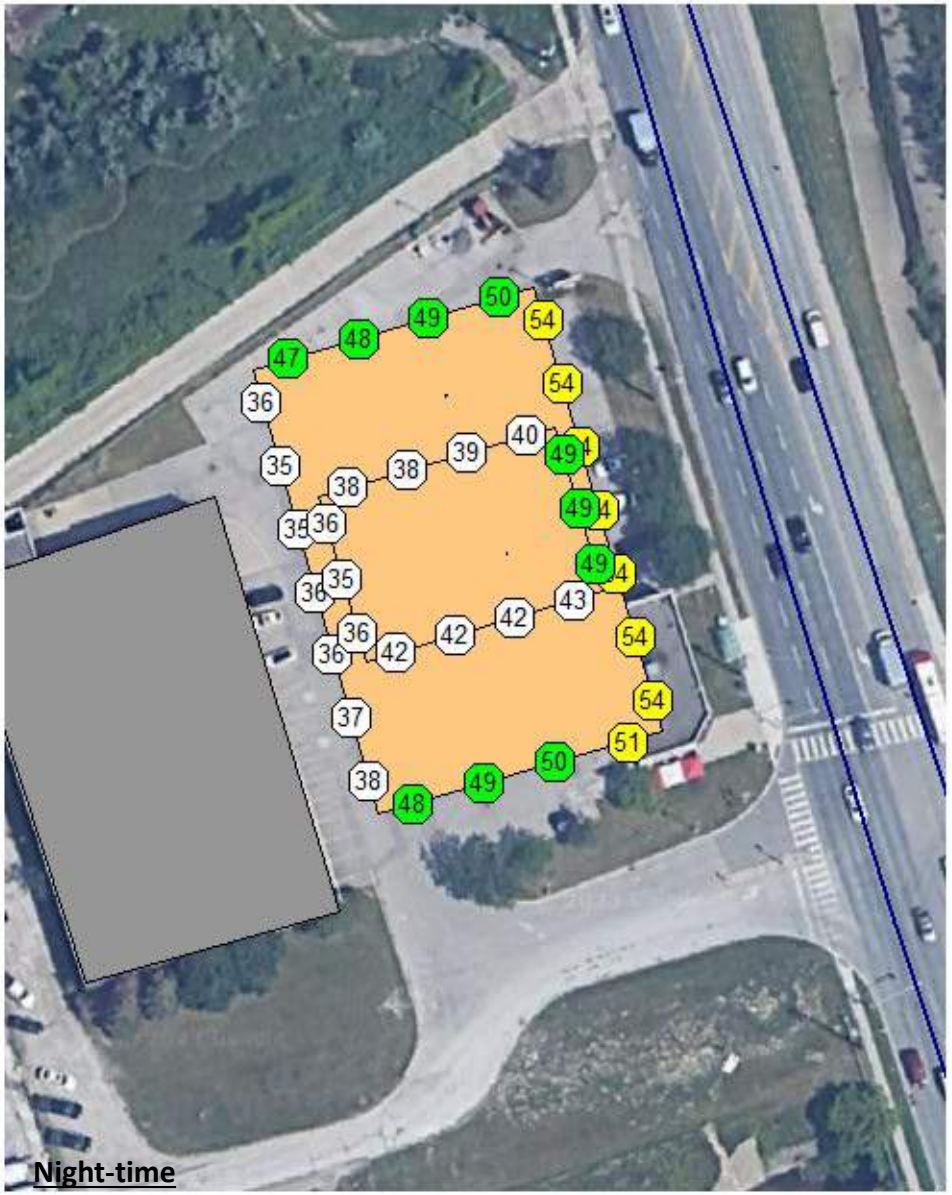
BOUSFIELDS INC.	True North	Scale: 1:17,000	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **7b**	
MODELLED NOISE SOURCE LOCATIONS – CP RAIL YARD – IMPULSIVE		Project No. 241.031222.00001		



BOUSFIELDS INC.	True North	Scale: 1:5,000	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **8**	
MODELLED NOISE SOURCE LOCATIONS – SURROUNDING INDUSTRIES - CONTINUOUS		Project No. 241.031222.00001		



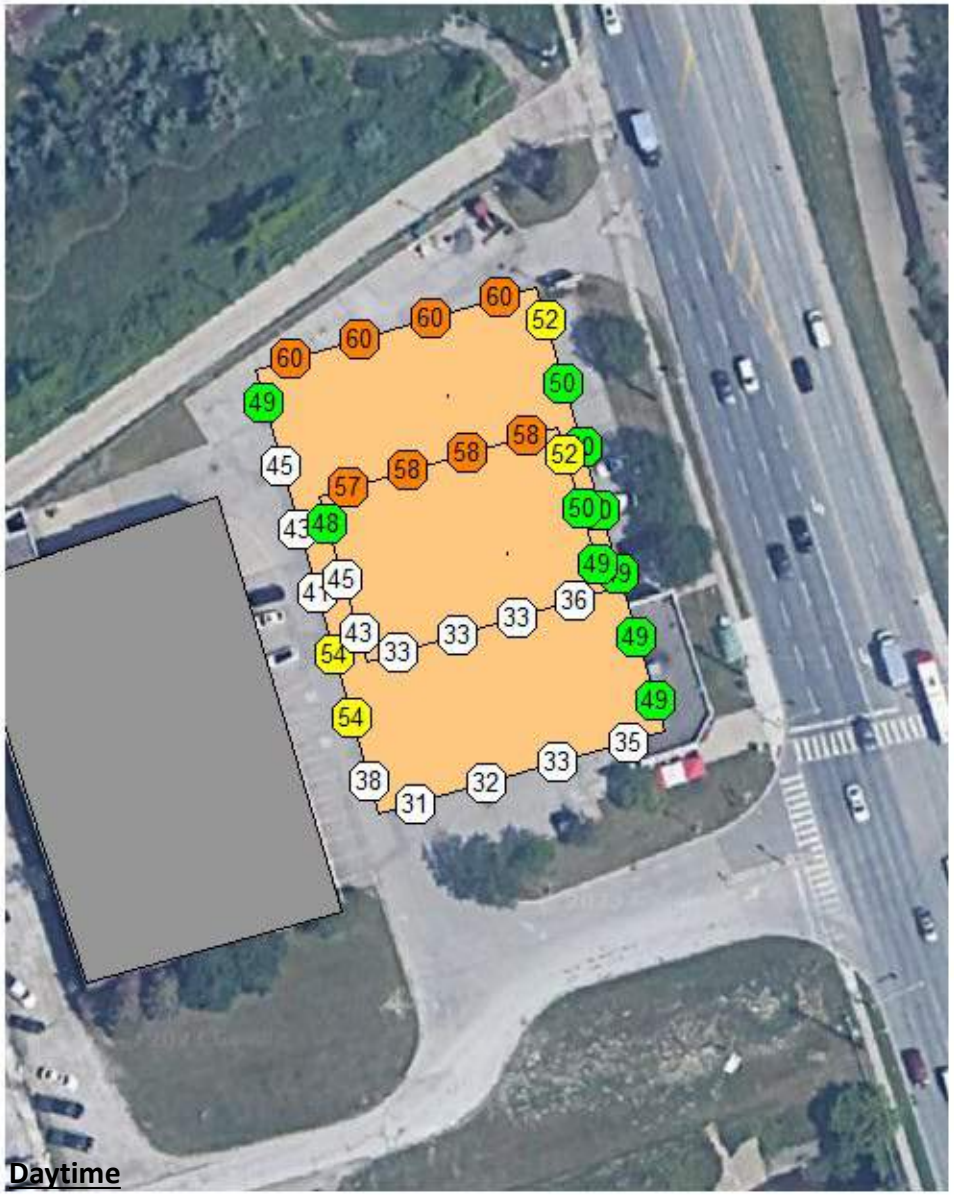
Daytime



Night-time

Aerial Photography from Google Earth

BOUSFIELDS INC.	True North	Scale: 1:1,000	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **9**	
PREDICTED AMBIENT SOUND LEVELS		Project No. 241.031222.00001		



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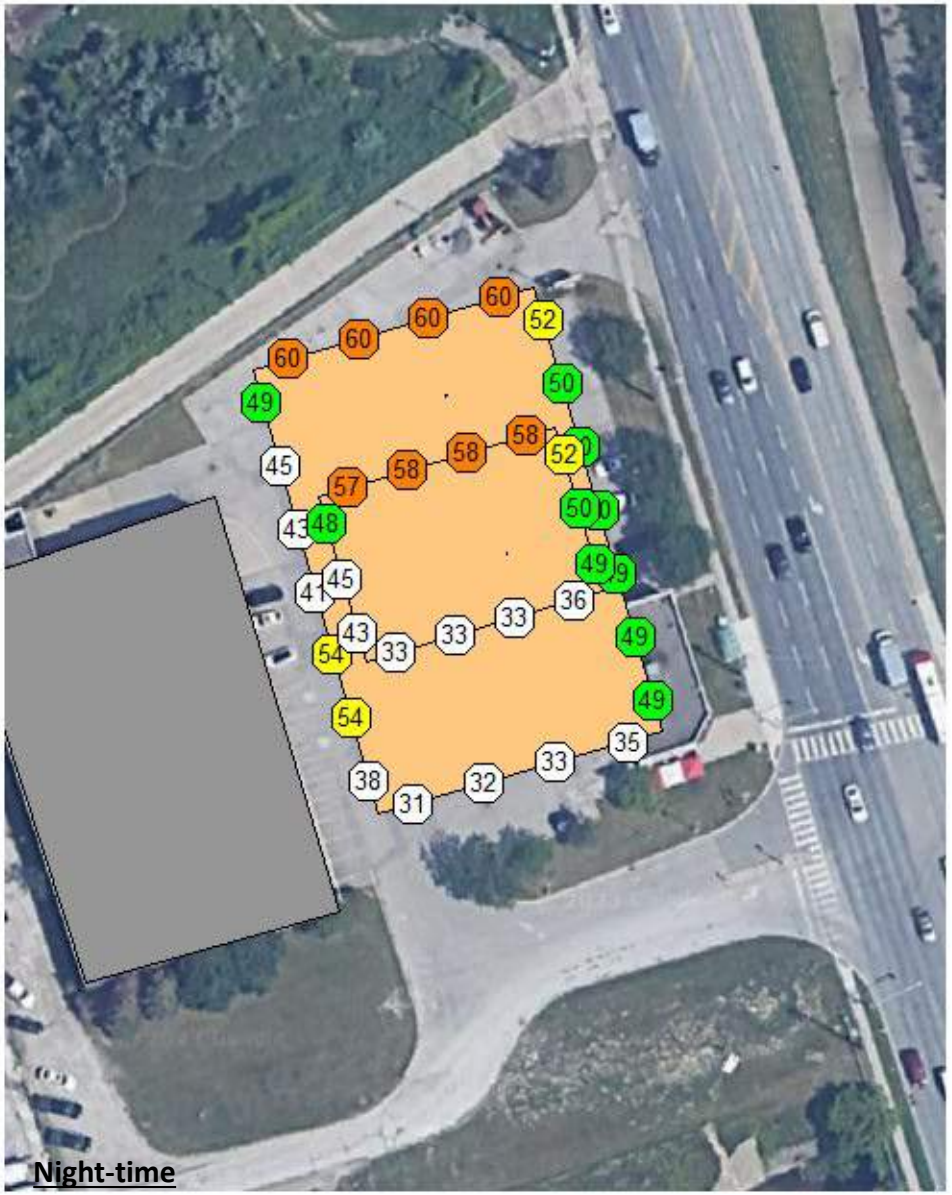
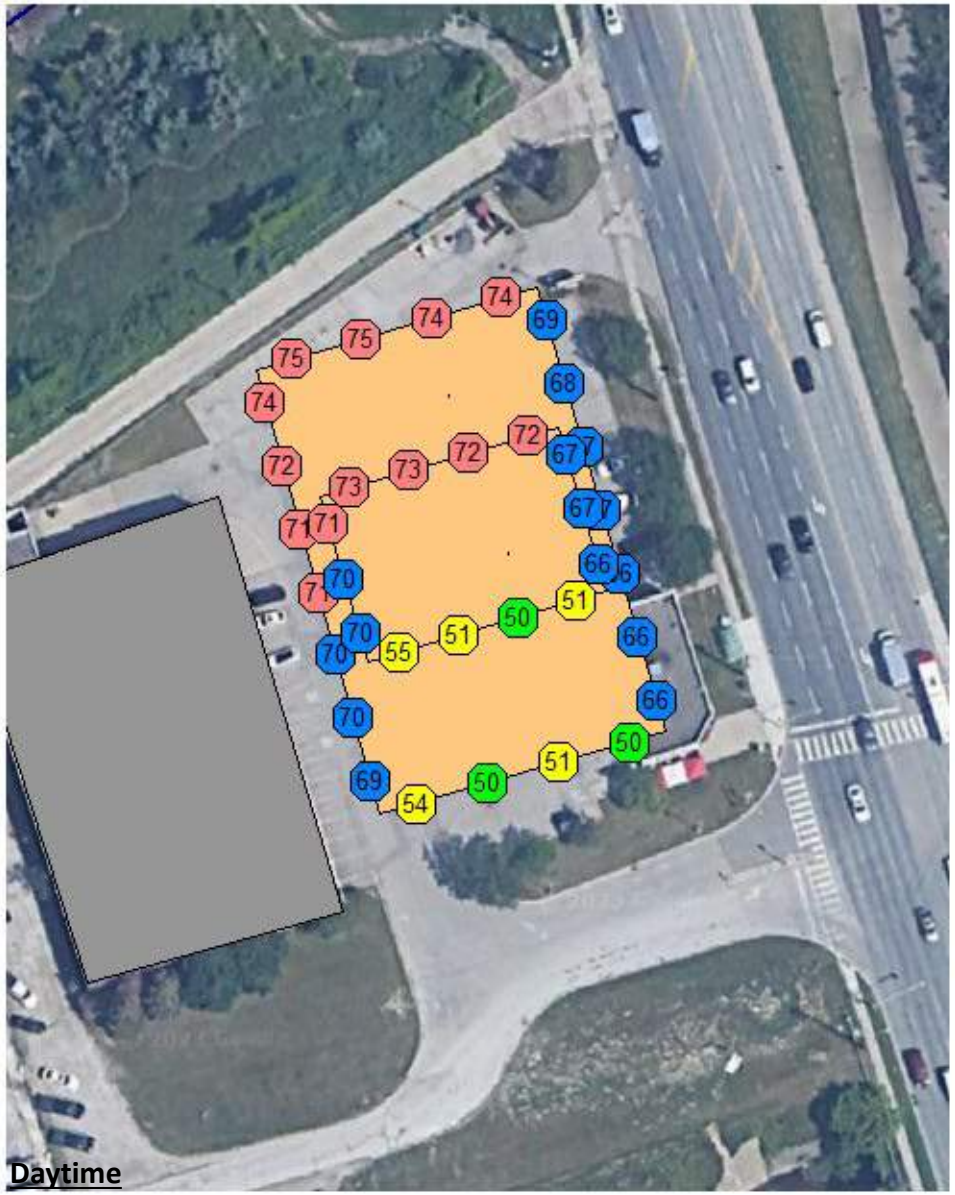


Night-time

Aerial Photography from Google Earth

BOUSFIELDS INC.	True North	Scale: 1:3,500	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **10**	
PREDICTED STATIONARY NOISE SOUND LEVELS – CP RAIL YARD – CONTINUOUS NOISE		Project No. 241.031222.00001		



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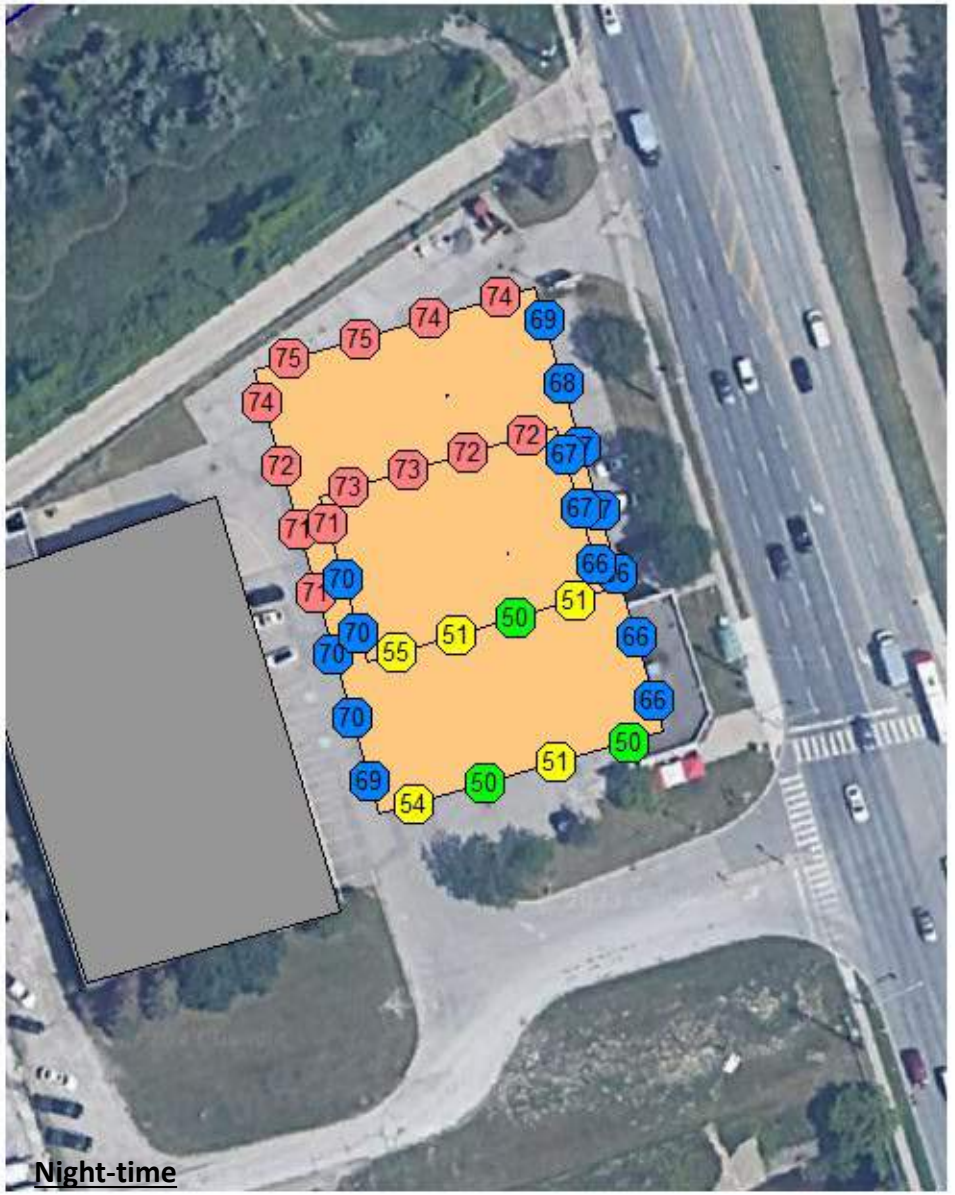
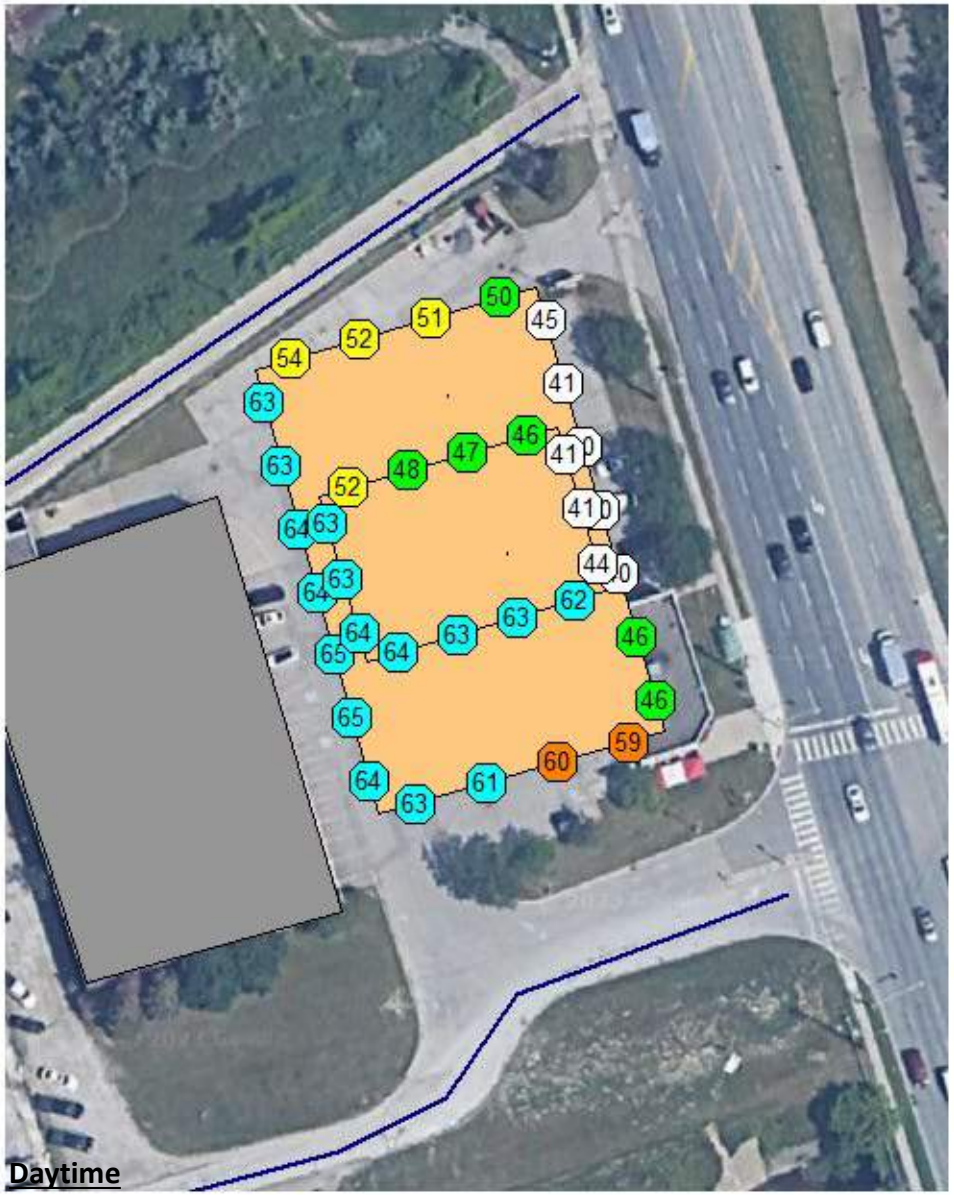


Night-time

Aerial Photography from Google Earth

BOUSFIELDS INC.	True North	Scale: 1:3,500	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **11**	
PREDICTED STATIONARY NOISE SOUND LEVELS – CP RAIL YARD – IMPULSIVE NOISE		Project No. 241.031222.00001		



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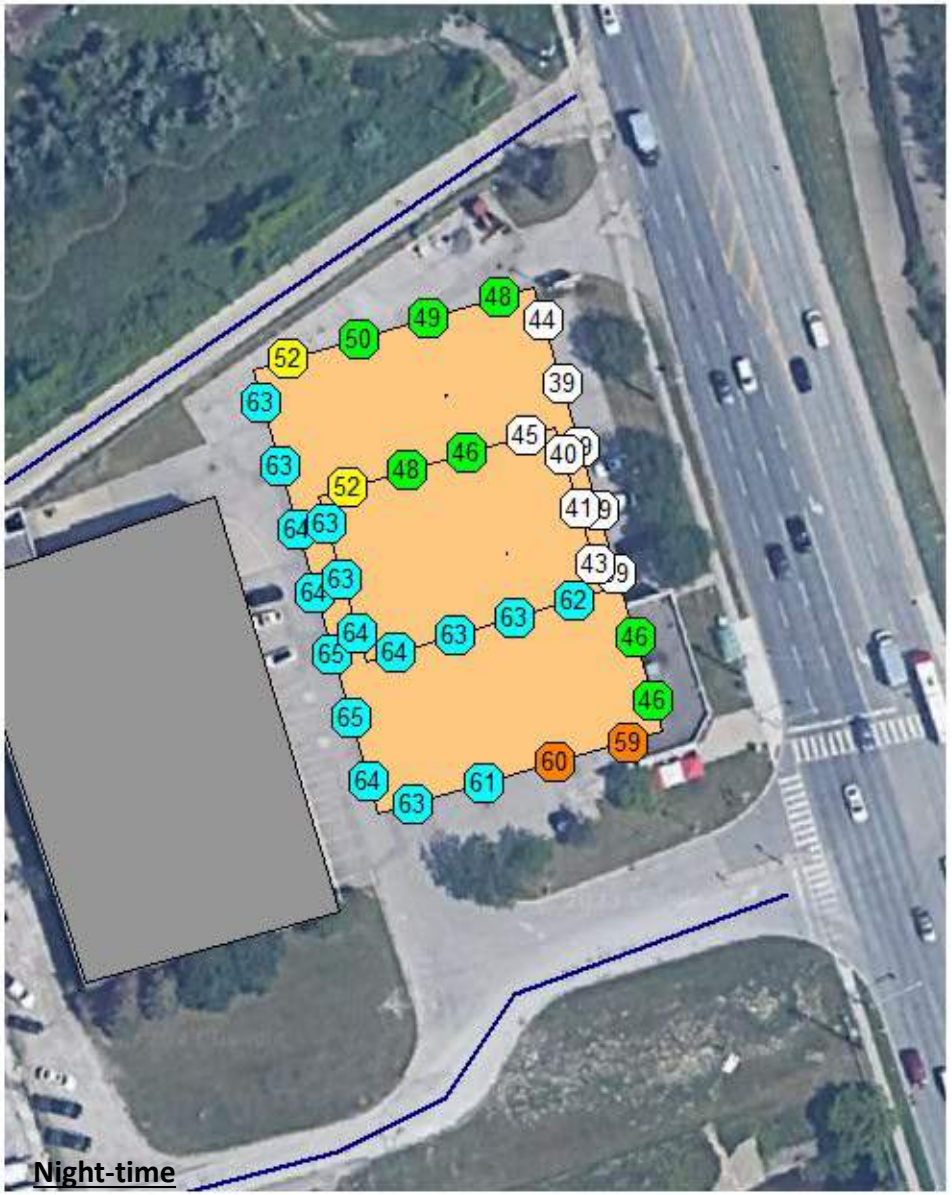
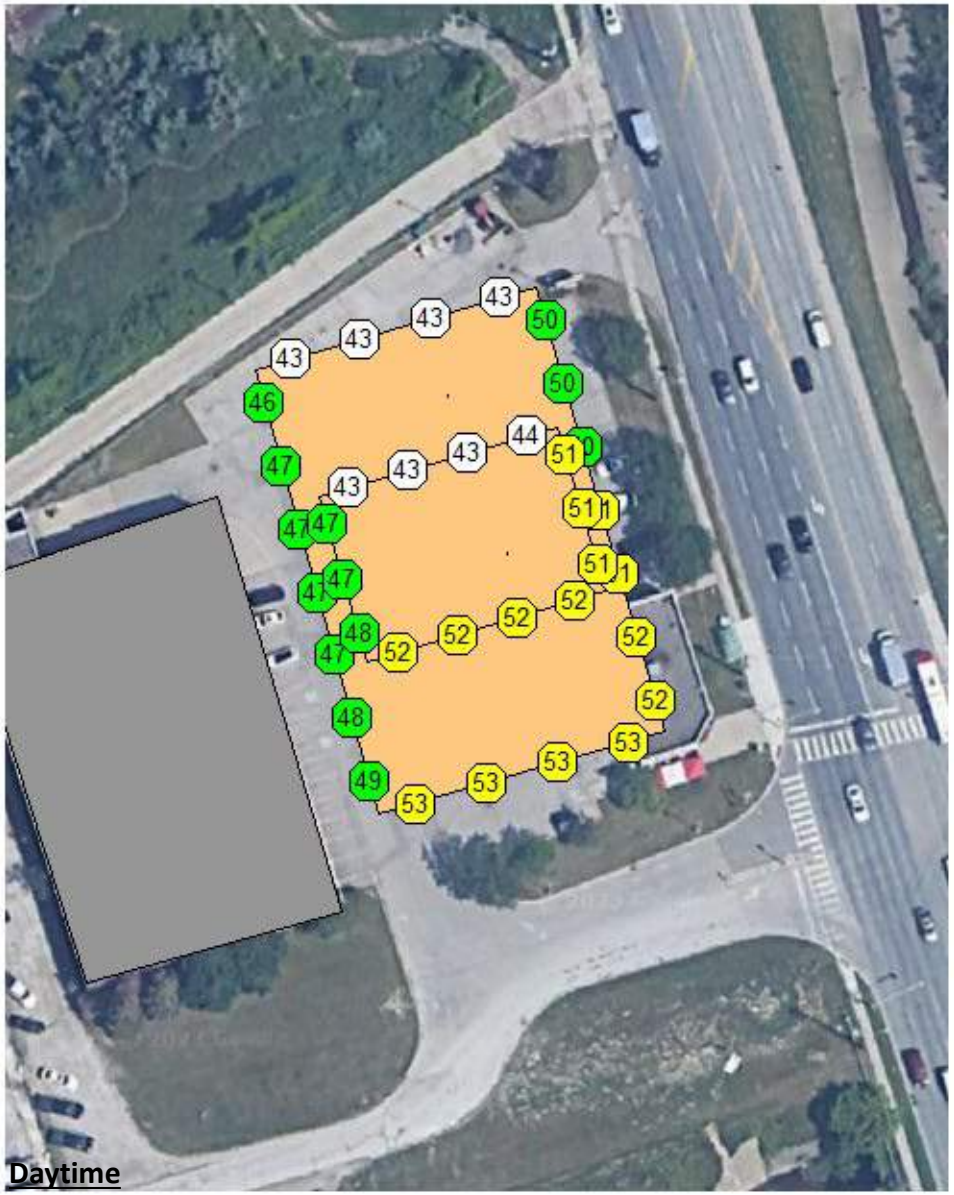


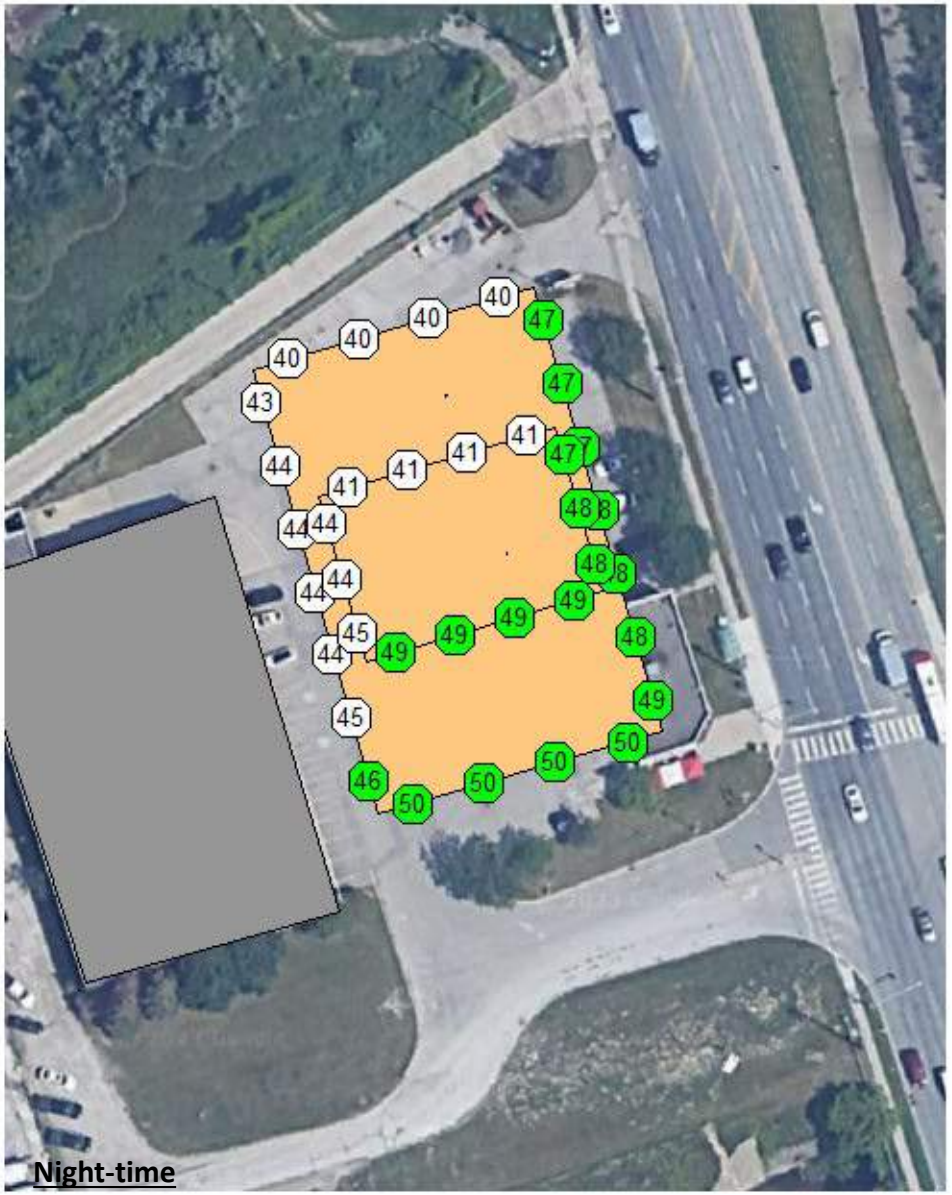
Night-time

Aerial Photography from Google Earth

BOUSFIELDS INC.	True North	Scale: 1:1,000	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **12**	
PREDICTED STATIONARY NOISE SOUND LEVELS – DUFFERIN CONCRETE		Project No. 241.031222.00001		



Daytime

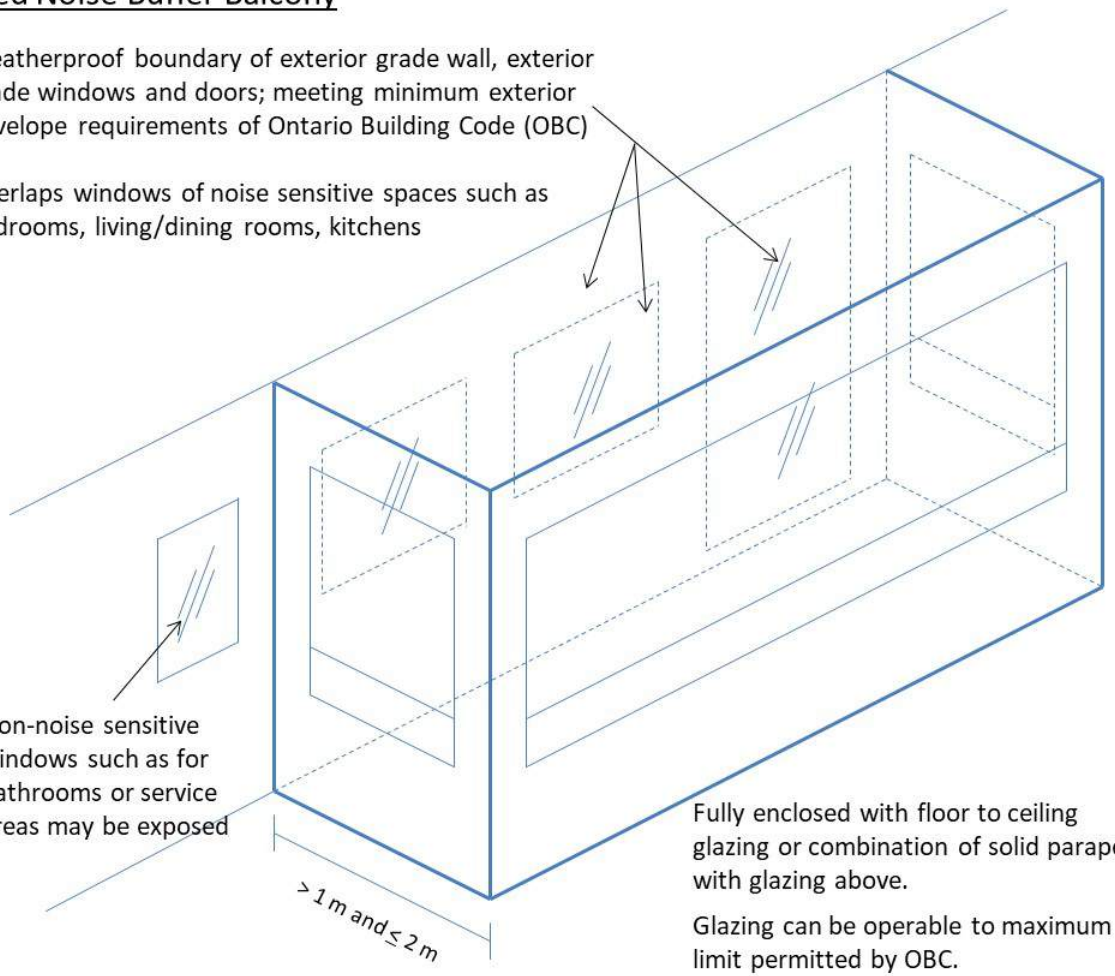


Night-time

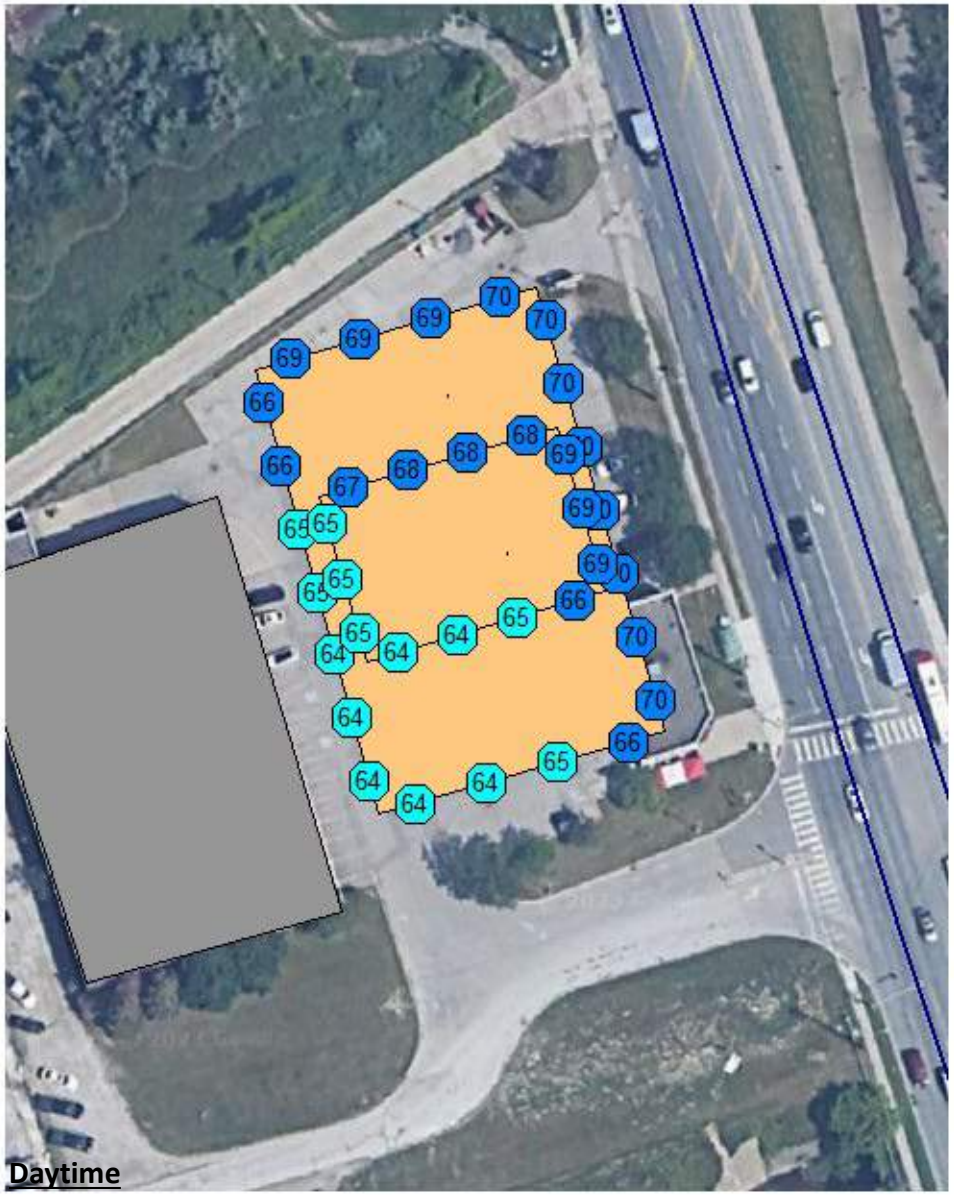
Aerial Photography from Google Earth

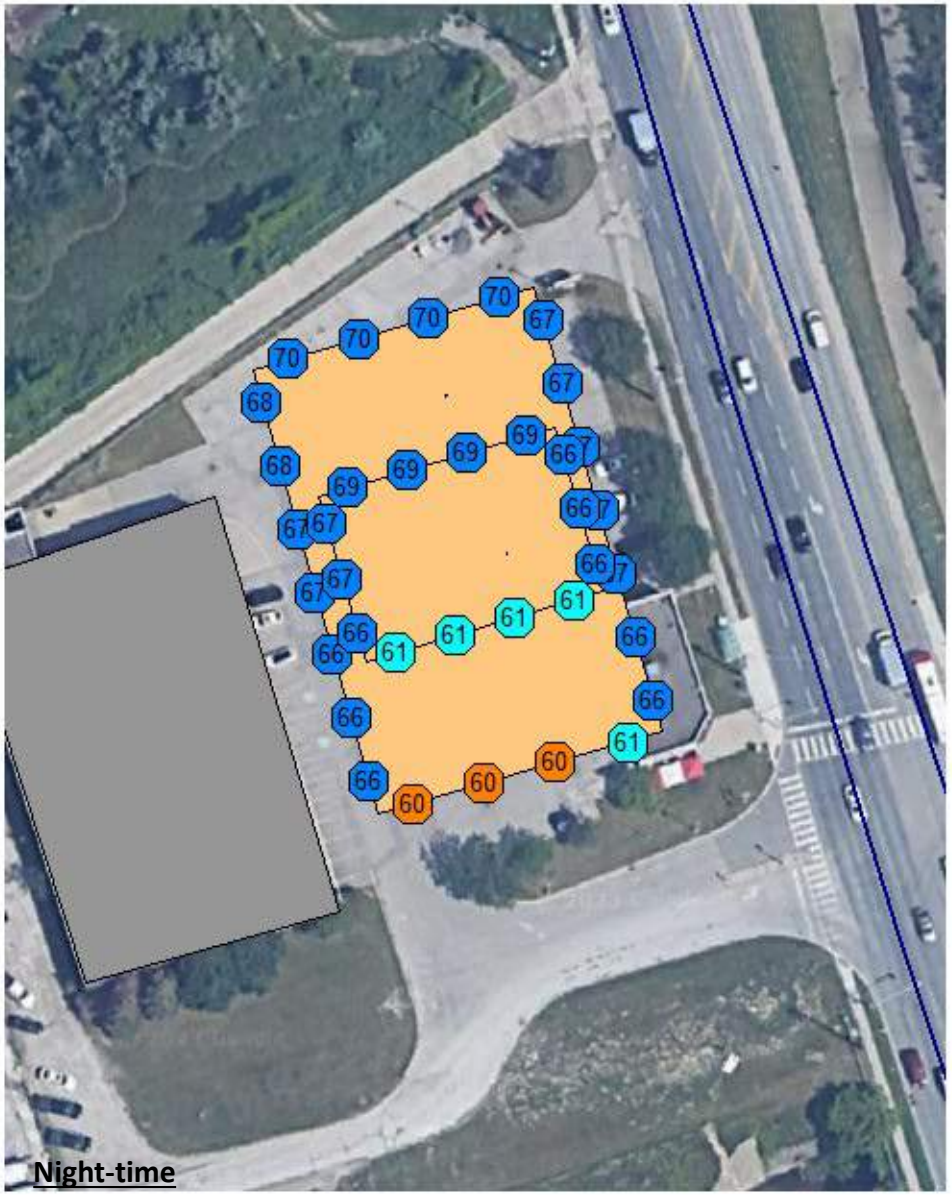
BOUSFIELDS INC.	True North	Scale: 1:1,000	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **13**	
PREDICTED STATIONARY NOISE SOUND LEVELS – OTHER SURROUNDING STATIONARY NOISE SOURCES		Project No. 241.031222.00001		

Enclosed Noise Buffer Balcony



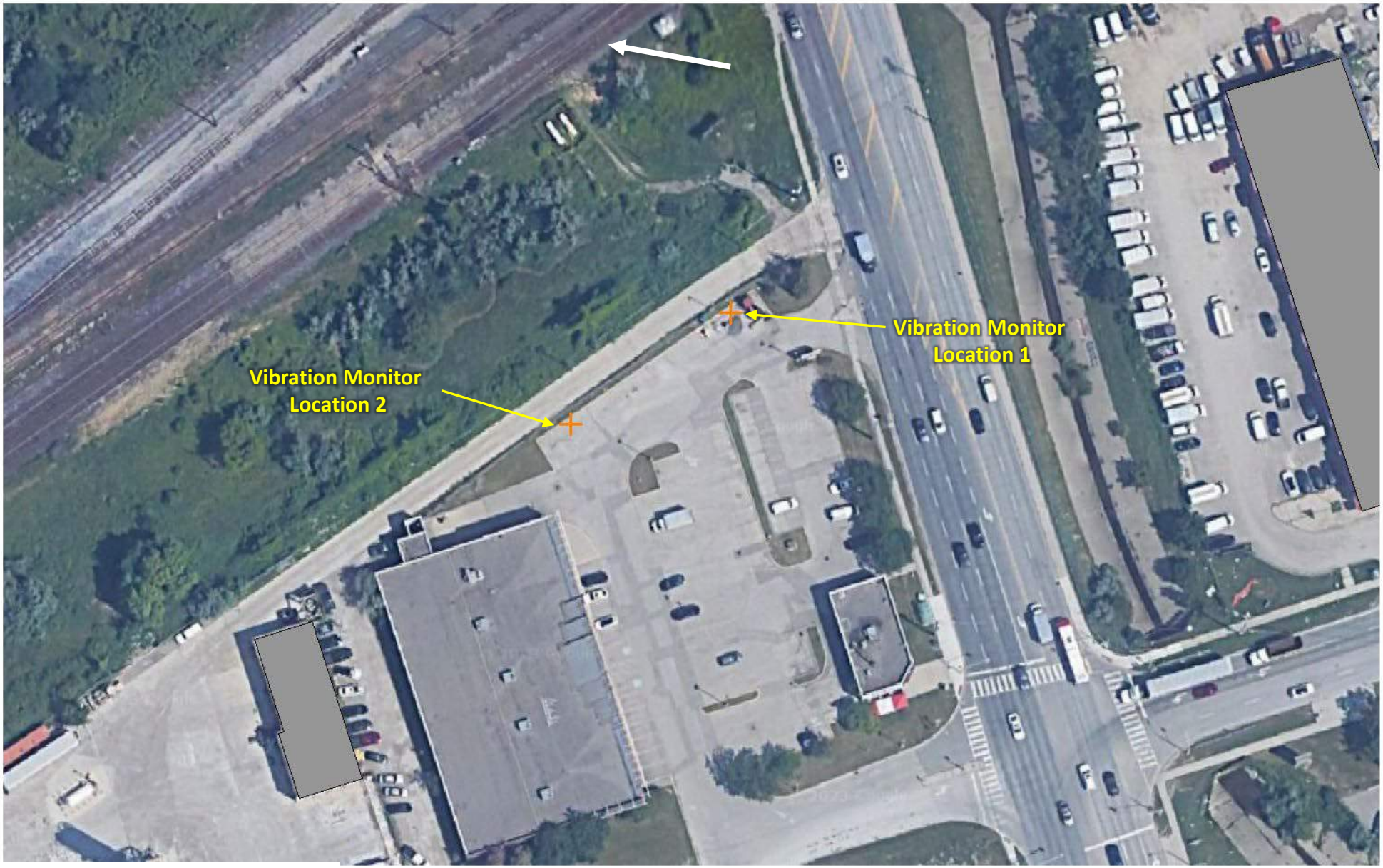
BOUSFIELDS INC.	True North	Scale: 1:3,500	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **14**	
ENCLOSED NOISE BUFFER BALCONY CONCEPT		Project No. 241.031222.00001		





Aerial Photography from Google Earth

BOUSFIELDS INC.	True North	Scale: 1:3,500	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **15**	
PREDICTED TRANSPORTATION NOISE SOUND LEVELS AT FACADES OVERALL TOTAL		Project No. 241.031222.00001		



Aerial Photography from Google Earth

BOUSFIELDS INC.	True North	Scale: 1:1,000	METRES	SLR
1936 MCCOWAN ROAD - TORONTO, ONTARIO		Date: Nov. 29, 2023 Rev 0.0	Figure No. **16**	
TRANSPORTATION VIBRATION MONITORING LOCATIONS		Project No. 241.031222.00001		

Appendix A Warning Clause

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

SUMMARY OF MITIGATION MEASURES AND WARNING CLAUSES

Warning Clauses

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

Transportation Sources (Road and Rail)

MECP Type A Warning Clause (Units ### to ###)

“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 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 B Warning Clause (Units ### to ###)

“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 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 (Units ### to ###)

“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 (Units ### to ###)

“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 Pacific Railways Warning Clause (Units ### to ###)

“Purchasers are advised that the Canadian Pacific Railway Company is the owner of certain lands known as the Toronto Rail Yard (the “CP Lands”) located within a kilometer of the Subject Lands, and that the CP Lands are now and will continue to be used for the present and future railway and trucking facilities and operations of CP and its customers on a continuous basis (24 hours of each day in each year) including, without limitation, the operation and idling of diesel locomotives and trucks with the generation of diesel fumes and odours, 24 hours a day artificial lighting of the CP Lands which may illuminate the sky, the classification, loading, unloading, braking and switching of rail cars containing bulk and other commodities including hazardous substances and/or goods containing the same which can make wheel squeal, noise, vibration, odours, airborne particulate matter and/or dust and the operation of various processes for the maintenance of rail and truck equipment.

CP may in the future renovate, add to, expand or otherwise change its facilities on the CP Lands and/or expand, extend, increase, enlarge or otherwise change the operations conducted upon the CP Lands. CP, its customers, invitees, lessees and/or licensees will not be responsible for any complaints or claims by or on behalf of the owners and/or occupants of the Subject Lands from time to time arising from or out of or in any way in connection with the operation of the CP Lands and all effects thereof upon the use and enjoyment of the Subject Lands or any part thereof, and whether arising from the presently existing facilities and operations of CP, its customers, invitees, lessees or licensees, upon or from any and all future renovations, additions, expansions and other changes to such facilities and/or future expansions, extensions, increases, enlargements and other changes to such operations."

Canadian Pacific Railways Warning Clause (Units ### to ###)

"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."

Industrial Sources

MECP Type E Warning Clause (Units ### to ###)

"Purchasers/tenants are advised that due to the proximity of adjacent industries, noise from these facilities may at times be audible."

MECP Type F Warning Clause (Units ### to ###)

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

Air Quality, Odour, Dust Emissions (Units ### to ###)

"Purchasers/tenants are advised that due to the proximity of adjacent industries, dust and odours from these facilities may at times be perceptible."

Receptor-Based Physical Mitigation Measures

Ventilation System Design

Forced Air Heating Systems / Future Air Conditioning (Units ### to ###)

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

Air Conditioning (Units ### to ###)

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

Air Intake Locations (Building or Units ### to ###)

All air intakes for building mechanical systems, central air conditioning units and heat recovery units shall be located in areas of least impact, on the lea-side of the building (south facades), facing away from the industrial area to the north, east and west of the development, or behind a significant intervening building or structure.

Carbon/ Dust Filters (Building or Units ### to ###)

All air intakes for building mechanical systems, make-up air units, HVAC units, central air conditioning units and heat recovery units shall include carbon and dust filters. The filtration system is to be designed to supply the space with 100% odour filtered air drawn from outside the building envelope.

Positive Pressurization (Building or Units ### to ###)

The building mechanical systems, make-up air units, HVAC units, central air conditioning units and heat recovery units shall be designed to maintain positive pressurization under normal weather conditions of all occupied areas, in accordance with current ASHRAE recommendations.

Automatic Door Closers (Building or Units ### to ###)

All door accessing the exterior (outdoors) of the Units must be outfitted with an automatic door closer that is designed to operate under normal weather conditions and exclude any mechanisms that would allow the doors to be left in an open position.

Appendix B Industry List

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

Land Uses Surrounding 1936 McCowan

Name	Address	Description	MECP ECA or EASR No.	Date	MECP Guideline D-6					
					Class	A of I	R M S	Actual Dist.	Within A of I?	Within R M S?
CRH Canada Group Inc.	1940 McCowan Rd	(Dufferin Concrete Scarborough) Ready-mix concrete batching plant	8513-CJEMRK 5084-757LAM 5084-757LAM	2022-11-10 2015-03-26 2007-07-22	III	1000	300	0	Yes	Yes
Canadian Pacific Railway Company	2025 McCowan Road	Rail line/yard	9628-6MHLYQ 4-0080-72-006	2006-04-21 2003-05-09	III	1000	300	70	Yes	Yes
Sheppard East Station	1871 McCowan Rd	LRT station	-	-	II	300	70	80	Yes	-
Richardson Industrial Finishers Limited	21 Commander Blvd	Powder coating service	9205-A2LQ25 8022-58NR8B	2015-10-05 2002-04-26	II	300	70	290	Yes	-
Celplast Metallized Products Limited	67 Commander Blvd.	Metal fabricator	3444-6GFJCU	2005-09-30	II	300	70	280	Yes	-
Leland Industries Inc.	95 Commander Blvd	screws, nuts and bolts manufacturi ng facility	7611-AJTSLV	2017-03-21	II	300	70	290	Yes	-
York1 Nugget Transfer Station	300 Nugget Ave	Waste disposal (processing and transfer) site	4099-C4GRBB 1333-8W4Q5P 9644-954RSD	2022-07-18 2021-06-18 7/19/2013	III	1000	300	950	Yes	-
Firan Technology Group Corporation	10 Commander Blvd	Electronics manufacturer	0141-87SR2A	2012-06-29	I	70	20	400	-	-
MORGUARD INDUSTRIAL PROPERTIES (1) INC.	10 COMMANDER BLVD	Property manager	R-003-3584149350	2019-07-02	I	70	20	400	-	-
Scientific-Atlanta Canada Inc.	100 & 120 Middlefield Rd	Electronics manufacturer	8066-6W7SA6	2006-12-27	I	70	20	840	-	-
Partners Labels Limited	101 Shorting Road	Printing service	0239-6QDKMZ	2006-08-24	I	70	20	850	-	-
GRAIN PROCESS ENTERPRISES LIMITED	105 Commander BLVD	Food supplier	R-010-7111108334	2012-09-05	I	70	20	590	-	-
Jayden's Landscaping	115 Commander Blvd unit3, Scarborough, ON M1S 3M7	Landscape arcitect	-	-	I	70	20	590	-	-
Canadian Standard	135 Commander Blvd, Toronto, ON M1S 3H6	Building materials supplier	-	-	I	70	20	650	-	-
LCC Ontario Inc.	1361 Huntingwood Dr	Building materials supplier	8078-9KKTS7	2014-05-30	I	70	20	640	-	-
Skor One Corporation	1361 Huntingwood Dr	Open?	1799-8AGL2M	2010-10-25	I	70	20	640	-	-
MORGUARD INDUSTRIAL PROPERTIES (1) INC.	1361 HUNTINGWOOD DR	Property manager	R-003-2584495517	2016-04-07	I	70	20	640	-	-

Land Uses Surrounding 1936 McCowan

Name	Address	Description	MECP ECA or EASR No.	Date	MECP Guideline D-6					
					Class	A of I	R M S	Actual Dist.	Within A of I?	Within R M S?
Electronic Imaging Systems Corp.	1361 Huntingwood Drive, Unit 8	Document scanning	7720-6K2MLT	2005-12-15	I	70	20	640	-	-
Commander Park Arena	140 Commander Blvd, Scarborough, ON M1S 3H7	Hockey arena	-	-	I	70	20	530	-	-
Getronics Canada Inc.	150 Middlefield Rd	Software	0577-4Q9LMP	10/24/2000	I	70	20	880	-	-
CLS Imports Inc	150 Middlefield Rd, Scarborough, ON M1S 4L6	Novelties wholesale	-	-	I	70	20	880	-	-
EM Dynamics Inc.	160 Commander Blvd	Metal fabricator	-	-	I	70	20	620	-	-
Shell Canada Limited	1670 McCowan Road	Gas station	7675-65RLP7	2004-10-21	I	70	20	580	-	-
Tielman North America Ltd	180 Middlefield Rd	Printing service	5503-AARJLE	6/14/2016	I	70	20	1040	-	-
MORGUARD INDUSTRIAL PROPERTIES (1) INC.	20 COMMANDER BLVD	Property manager	R-003-3584285093	2016-04-07	I	70	20	400	-	-
Spi Holdings Inc.	2071 McCowan Road	Property manager	6785-64FH7N	2004-09-02	I	70	20	280	-	-
Automatic Armature Service Limited	211 Nugget Avenue	CLOSED	5137-4SGMMY	2001-02-06	I	70	20	640	-	-
Hung Shing Meat Trading Ltd	23 Commander Blvd, Scarborough, ON M1S 3E7	Meat packer	-	-	I	70	20	300	-	-
Printbox Canada Inc.	235 Nugget Ave	CLOSED	0228-7TALGF	2009-06-23	I	70	20	770	-	-
The Foam & Fibre Company Inc.	235 Nugget Ave	Packaging supplier	2494-9PHKR4	2014-10-16	I	70	20	770	-	-
8141720 CANADA LTD.	235 NUGGET AVE	Wood finishing	R-010-6111423613	2015-12-07	I	70	20	770	-	-
MORGUARD INDUSTRIAL PROPERTIES (1) INC.	40 COMMANDER BLVD	Property manager	R-003-4584339782	2016-04-07	I	70	20	440	-	-
A&B Meat Wholesale	40 Nugget Ave	Meat wholesaler	-	-	I	70	20	120	-	-
Toronto Fire Station 243	4560 Sheppard Ave E, Scarborough, ON M1S 3R6	Fire station	-	-	I	70	20	340	-	-
Canadian Tire Real Estate Limited	4600 & 4630 Sheppard Avenue East	Retail store	2252-5R9PKN	2003-09-25	I	70	20	90	-	-

Land Uses Surrounding 1936 McCowan

Name	Address	Description	MECP ECA or EASR No.	Date	MECP Guideline D-6					
					Class	A of I	R M S	Actual Dist.	Within A of I?	Within R M S?
2458025 ONTARIO LIMITED	4730 SHEPPARD AVE E	Automotive refinishing (outdoor storage)	R-001-2524842952	2016-04-08	I	70	20	290	-	-
1064300 Ontario Inc.	4730 Sheppard Ave. E.	Automotive refinishing (outdoor storage)	1477-69XQCS	2005-02-28	I	70	20	290	-	-
1431703 Ontario Inc.	4736 Sheppard Avenue East	Autoshop with spray booth	4140-6EQSFN	2005-07-29	I	70	20	360	-	-
Pharma Medica Research Inc.	4770 Sheppard Ave E, Scarborough, ON M1S 3V6	Research foundation	-	-	I	70	20	470	-	-
GFX AUTO CENTER INC.	4900 SHEPPARD AVE E	Autoshop	R-001-8111380086	2016-05-09	I	70	20	890	-	-
SHAWN LEGACY AUTO LTD.	4900 SHEPPARD AVE E	Autoshop	R-001-1115069332	2019-03-18	I	70	20	890	-	-
Pecaso Auto Ltd.	4910 Sheppard Avenue East	Autoshop with spray booth	9171-6SJQH3	2006-08-16	I	70	20	890	-	-
Cana-Foam Products Ltd	4940 Sheppard Ave E, Scarborough, ON M1S 4A7	Manufacturer	-	-	I	70	20	1000	-	-
SCARBOROTOWN CHRYSLER DODGE JEEP RAM LTD.	4960 SHEPPARD AV E	Dealership	R-001-1669251180	2016-04-07	I	70	20	1050	-	-
Scarborotown Chrysler Dodge Jeep Ltd.	4960 Sheppard Avenue East	Dealership	6682-6AKPPE	2005-03-21	I	70	20	1050	-	-
Metro Label Company Ltd.	50-192 Shorting Road, Unit #74	CLOSED	3453-4VWKHN	2001-04-20	I	70	20	800	-	-
ICI Canada Inc.	67 Commander Blvd., Unit # 2	CLOSED	2866-69HT54	2005-02-17	I	70	20	280	-	-
Monarch Construction Limited	70 Commander Boulevard	General contractor	3311-4SULRS	2001-01-10	I	70	20	410	-	-
CanPrev Natural Health Products	70 N Wind Pl, Scarborough, ON M1S 3R5	Health product manufacturer	-	-	I	70	20	590	-	-
Orange Naturals	70 N Wind Pl, Scarborough, ON M1S 3R5	Health product manufacturer	-	-	I	70	20	590	-	-
Fu Yang Seafood Co Ltd	80 Nugget Ave	Seafood wholesaler	-	-	I	70	20	230	-	-
Greater Toronto Transit Authority	81 Middlefield Rd	Toronto transit office	2544-7DZLX6 0275-72LRG2 1794-67VQUU 3284-4U7PN8	2008-04-29 2007-05-06 2004-12-22 2001-03-08	I	70	20	630	-	-

Land Uses Surrounding 1936 McCowan

Name	Address	Description	MECP ECA or EASR No.	Date	MECP Guideline D-6					
					Class	A of I	R M S	Actual Dist.	Within A of I?	Within R M S?
VIPE CONSTRUCTION LTD	107 SHORTING RD	General contractor, outdoor storage	R-004-8585407194	2017-10-05	II	300	70	860	-	-
Catelectric Inc.	125 Commander Boulevard	Electronics manufacturer	8746-7EPJ7Y 2430-5V5JUW 8/300/162/82/826 8/300/163/82/826 8-3366-99-008	2008-05-21 2004-01-21 2002-08-12 2002-08-09 2002-07-29	II	300	70	630	-	-
Ram Plastics Inc	1401 Huntingwood Dr	Plastics manufacturing	-	-	II	300	70	580	-	-
Steve's Castings Ltd.	144 Shorting Rd	Aluminum casting	2124-94EQN4	2013-01-31	II	300	70	800	-	-
Olympic Kitchens Inc.	150 Nugget Ave	Cabinet maker	8837-8BCLAK	2010-12-22	II	300	70	500	-	-
Estee Lauder Cosmetics Ltd.	161 Commander Blvd	Cosmetics manufacturer	6051-9XRRN4 0900-7JQKYC 7826-5TQMWM	2016-03-16 2008-12-31 2003-11-29	II	300	70	740	-	-
Vienna Meat Products LTD	170 Nugget Ave, Scarborough, ON M1S 3A7	Meat packer	-	-	II	300	70	600	-	-
Stefco Ltd	190 Nugget Ave, Scarborough, ON M1S 3A7	Steel fabricator, outdoor storage	-	-	II	300	70	650	-	-
Ellesmere Fabricators Ltd.	200 Nugget Ave	Steel fabricator	8576-86ETQC	2010-07-02	II	300	70	680	-	-
Automatic Coating Limited	211 Nugget Ave	Powder coating service	8004-AFPRK6 0720-7LPLK8 8677-7LJPT5	2017-03-10 2009-01-31 2008-12-03	II	300	70	640	-	-
J & W Foods inc LICENSED PROCESSING PLANT	2201 Brimley Rd #1, Scarborough, ON M1S 4N7	Food supplier	-	-	II	300	70	640	-	-
Hing Lee Fresh	2201 Brimley Rd #1, Scarborough, ON M1S 4N7	Food supplier	-	-	II	300	70	640	-	-
T & L Plastic Industries Limited	225 Nugget Ave Unit 5	Plastics manufacturing	3761-7LWRR7	2008-12-04	II	300	70	700	-	-
Lee's Food Products Ltd	250 Nugget Ave, Scarborough, ON M1S 3A7	Food supplier	-	-	II	300	70	760	-	-
ITN Food Corporation	40 Commander Blvd, Scarborough, ON M1S 3S2	Food importer	-	-	II	300	70	440	-	-
Vic's Group Inc.	41 Shorting Rd	Contractor with outdoor storage	7565-CSYQ7X R-004-1110193435	2023-06-29 2018-03-06	II	300	70	870	-	-

Land Uses Surrounding 1936 McCowan

Name	Address	Description	MECP ECA or EASR No.	Date	MECP Guideline D-6					
					Class	A of I	R M S	Actual Dist.	Within A of I?	Within R M S?
TFI Foods Ltd	44 Milner Ave, Scarborough, ON M1S 3P8	Seafood wholesaler	-		II	300	70	850	-	-
Imago Foods Ltd.	44 Milner Ave, Scarborough, ON M1S 3P8	Meat processor	-	-	II	300	70	850	-	-
Koch Heat Transfer Canada GP, ULC	4750 Sheppard Ave E	Heat exchanger manufacturing	5714-AAAL52 3775-7UTNML 6956-5TVRU8	2016-08-22 2010-11-06 2004-06-11	II	300	70	390	-	-
Shah Trading Company	61 Middlefield Rd, Scarborough, ON M1S 5A9	Food manufacturer	-	-	II	300	70	500	-	-
TORONTO DISTRICT SCHOOL BOARD	85 SHORTING RD	Outdoor fueling and vehicle storage	R-010-6111681122	2019-06-12	II	300	70	850	-	-
TORONTO DISTRICT SCHOOL BOARD	95 SHORTING RD	Outdoor fueling and vehicle storage	R-010-1111676072	2017-07-27	II	300	70	850	-	-

Appendix C Stationary Noise Modelling Inputs

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

Table C.1: Summary of Noise Source Sound Power Levels

Source Description	ID	Maximum Sound Power Levels (1/1 Octave Band Levels)									Total PWL (dBA)	Notes
		32 (dB)	63 (dB)	125 (dB)	250 (dB)	500 (dB)	1000 (dB)	2000 (dB)	4000 (dB)	8000 (dB)		
Rooftop HVAC (5-ton)	HVAC_5ton	77	80	81	81	80	78	74	70	64	83	- based on SLR historical data - Assumed to operate continuously during daytime and evening with 50% duty cycle during nighttime
Rooftop HVAC (10-ton)	HVAC_10ton	80	84	84	84	83	81	77	73	67	86	- based on SLR historical data - Assumed to operate continuously during daytime and evening with 50% duty cycle during nighttime
HVAC Unit (15 ton)	HVAC_15ton	87	90	91	91	90	88	84	80	74	93	- based on SLR historical data - Assumed to operate continuously during daytime and evening with 50% duty cycle during nighttime
HVAC Unit (20 ton)	HVAC_20ton	89	92	93	93	92	90	86	82	76	95	- based on SLR historical data - Assumed to operate continuously during daytime and evening with 50% duty cycle during nighttime
Generic Exhaust Fan- Small	Gen_ExFan_S	0	83	93	88	82	77	75	69	66	85	- based on SLR historical data - Assumed to operate 60 minutes per hour during all times of day
Generic Exhaust Fan- Medium	Gen_ExFan_M	0	99	99	92	88	82	78	72	66	90	- based on SLR historical data - Assumed to operate 60 minutes per hour during all times of day
Idling Bus Engine	bus_idle	91	91	86	89	85	85	82	75	68	89	- based on SLR historical data - Assumed to operate 10 min/hour during all times of day
Bus Passby - Medium Speed	bus_pass	95	96	93	92	90	87	86	79	73	93	- based on SLR historical data - Assumed 10 passybys per hour during all times of day
Heavy Truck Idling	vclHvyTrkl	19	93	88	83	90	87	88	82	71	93	- based on SLR historical data - Assumed to operate 5 min/hour during daytime and evening hours
Locomotive Movements (Ensemble Average)	Loco_Avg		127	115	112	108	105	104	104	101	113	- based on SLR historical data - Assumed 1 train moving at all times in yard as a conservative assesment
Knuckle Thump (based on CTA PWL)	IMP_Knuckle_CTA		129	123	121	120	119	116	112	105	123	- based on SLR historical data - Assumed 9+ impulses per hour during all times of the day as a conservative assesment
Freight Locomotive, at idle	vcl_LocoIdle	117	113	109	97	103	102	99	92	89	106	- based on SLR historical data - Assumed to operate continuously as a conservative assesment
Flat Switching	FlatSwitch		78	74	73	76	74	69	63	52	120	- based on SLR historical data - Assumed 9+ impulses per hour during all times of the day as a conservative assesment
Wheel Squeel	Wheel_Squeel		83	86	88	89	87	91	111	94	137	- based on SLR historical data - Assumed to operate 3 minutes per hour
Vaccuum Stall	Vaccuum		86	82	84	82	86	88	87	85	93	- based on SLR historical data - Assumed to operate 45 minutes per hour during daytime and evening hours, and 5 minutes per hour during nighttime - +5 dB Tonality Penalty Applied
Impact Gun	Impact_Gun		74	75	81	85	89	89	92	93	97	- based on SLR historical data - Assumed to operate 1 minutes per hour in every mechanical bay during daytime and evening only
Air Compressor	Air_Compressor		72	75	72	79	79	76	69	65	83	- based on SLR historical data - Assumed to operate 5 minutes per hour in every mechanical bay during daytime and evening only
Touchless Carwash Exit	Touchless_CarWash_Exit	105	102	107	105	108	104	105	100	94	111	- based on SLR historical data - Assumed to operate 12 minutes per hour during daytime and evening, and 5 minutes per hour during nighttime hours
Generic Large Front End Loader	Gen_Loader		110	104	100	100	102	100	93	89	106	- based on SLR historical data - Assumed to operate continously during all times of the day
Generic Baghouse Exhaust	Gen_Baghouse		109	111	109	107	106	101	93	85	110	- based on SLR historical data - Assumed to operate continously during all times of the day
Idling Car	Car_Idle		85	80	75	72	70	69	65	55	76	- based on SLR historical data - Assumed1 car idling at all times, and additional cars idling during daytime and evening only.

Appendix D Traffic Data and Calculations

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

Environmental Noise Impact Study

23 Glen Watford Drive

Proposed High-Rise Residential Development

City of Toronto

April 25, 2019
Project: 114-053

Prepared for

4280 Sheppard Limited

Prepared by

Anthony Amarra, M.Sc.

Reviewed by

John Emeljanow, P.Eng.

VALCOUSTICS
Canada Ltd.

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April 25, 2019

Sherman Brown
5075 Yonge Street, Suite 900
Toronto, Ontario
M2N 6C6

Attention: Naomi Mares
naomi@shermanbrown.com

VIA E-MAIL

Re: Environmental Noise Impact Study
Proposed High Rise Residential Development
23 Glen Watford Drive
Toronto, Ontario
VCL File: 114-0053

Dear Ms. Mares:

Attached please find a copy of our updated Environmental Noise Impact Study report, prepared in support of the above noted development. This updated study reflects the latest site plan and includes an assessment of both the transportation and stationary noise sources. The report outlines the noise mitigation measures needed for the proposed development to comply with the Ministry of Environment, Conservation and Parks (MECP) noise guideline limits.

In their review of our previous Stationary Noise Study report for the proposed High Rise Residential Development at 23 Glen Watford Drive, dated August 28, 2017, City of Toronto planning staff raised a number of questions. Responses to these questions are provided below.

1. *The revised noise study must address both transportation and stationary noise sources based on the current development proposal and include a comprehensive set of recommended mitigation measures.*

   The revised noise study addresses the impact of both transportation and stationary noise sources on the latest version of the development proposal. A comprehensive set of noise mitigation recommendations is included as Section 7.0 in the report.

2. *Why is a 2017 report relying on sound level measurements done in 2015?*

   The results of the noise monitoring completed in 2015 led to a set of extensive noise mitigation recommendations, including enclosed noise buffer balconies that were not anticipated by the owner. Once the mitigation requirements were known, it took some time for the owner to assess the impact these mitigation measures have on the potential saleability of the units within the high rise towers. Once the potential saleability was confirmed, direction was provided to update the development design and proceed with the submission of the noise study.

3. *Why were periods where weather conditions were not favourable for sound level measurements included in the assessment?*

   The measurement data for the entire duration of the measurements is included as part of the noise study. The periods where weather conditions were not favourable are highlighted and were not used to complete the assessment.

4. *Why wasn't the traffic data from the WSP TIS submitted as part of the same September 12, 2017 resubmission used by Valcoustics?*

   Although the report references various sources of traffic information, ultimately, the assessment was completed using the sound level measurement data.

5. *Why is IGI's Amended ECA #5757-8VERGA, dated January 9, 2015, not referenced in this report as it is in the Aercoustics Addendum?*

   Valcoustics Canada Ltd. was first retained to prepare the stationary noise source study in 2014. As part of the work completed in 2014, we investigated the status of IGI's MECP approvals at that time. This investigation did not reveal their future ECA amendment. We have reviewed two newer amendments to their ECA, one issued in 2015 (#5757-8VERGA) and one in 2018 (#9915-B2UK7G) and have determined there is no impact on the results and recommendations outlined within the noise study.

It should be noted that IGI had the previous Stationary Noise Study peer reviewed by Novus Environmental. The results of the peer review are outlined in their letter dated February 12, 2018. The conclusion of the peer review is that Novus Environmental is an agreement with the findings of the assessment and mitigation recommendations outlined in our Stationary Noise Study. That is, the Class 4 designation and use of ENBs in the building design are appropriate means of addressing the noise impact from IGI.

If there are any questions or if additional information is needed, please do not hesitate to call.

Yours truly,

VALCOUSTICS CANADA LTD.

Per: _____
John Emeljanow, P.Eng.

JE\tk
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Version History

Version #	Date	Comments
1.0	April 4, 2019	Issued to Client
2.0	April 16, 2019	Updated
3.0	April 25, 2019	Updated – Revised Site Plan

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Environmental Noise Impact Study

23 Glen Watford Drive

Proposed High-Rise Residential Development

City of Toronto

1.0 INTRODUCTION

Valcoustics Canada Ltd. previously prepared a Stationary Noise Study in support of the proposed residential development located at 23 Glen Watford Drive in the City of Toronto.

This revised report has been prepared to include an assessment of the noise impact from transportation noise sources on the proposed development. The mitigation measures required for the development to comply with the applicable Ministry of Environment, Conservation and Parks (MECP) noise guidelines are outlined herein.

2.0 THE SITE AND SURROUNDING AREA

The proposed development is for two high rise (both 28-storeys) buildings connected by a 2-storey podium. The site is on the north side of Sheppard Avenue between Brimley Road and Midland Avenue.

The site is bounded by:

- An existing 2-storey commercial plaza with Glen Watford Drive beyond to the west;
- An existing 2-storey commercial plaza to the north;
- Agincourt Park to the east; and
- Sheppard Avenue along with the Canadian Pacific Railways (CPR) Belleville Subdivision to the south.

A Key Plan is included as Figure 1. The study is based on the Site Plan, prepared by Kirkor Architects and Planners, dated April 18, 2019 (“Rezoning Resubmission”). The Site Plan is included in Appendix G.

3.0 NOISE SOURCES

3.1 TRANSPORTATION SOURCES

The noise sources with the potential to impact the proposed development are road traffic on Sheppard Avenue, Glen Watford Drive, Midland Avenue and Brimley Road and rail traffic on the Belleville Subdivision of the Canadian Pacific Railways (CPR).

Traffic volumes on the other surrounding roadways are anticipated to be minor and no significant noise impact is expected.

The road and rail traffic data are summarized in Tables 1A and 1B. Correspondence regarding the traffic data is included as Appendix A.

3.1.1.1 Road Traffic

Road traffic volumes applicable to the year 2012 for Glen Watford Drive at Sheppard Avenue, the year 2011 for Lawrence Avenue at Midland Avenue and the year 2013 for Brimley Road at Ellesmere Road were obtained from the City of Toronto Traffic Safety Unit. Daily (24-hour) volumes were calculated by multiplying the 8-hour turning movement count data by 2.2 (that is, the 8-hour period consists of 45% of the total daily traffic volume). Where traffic volumes for a roadway were available from two different data sets, the higher volume was used to be conservative. A day/night split of 90%/10% was used as is typical for well-travelled roadways. A growth rate of 2%, compounded annually, was used to determine the future (year 2029) traffic volumes. Overall truck percentages were obtained from the turning movement counts. The ratio of heavy trucks to medium trucks was assumed to be 60%/40% of the total truck volume. Buses were considered to be medium trucks.

3.1.1.2 Rail Traffic

The main rail noise source with the potential for impact on the proposed development is the CPR Belleville Subdivision line to the south. Rail traffic data applicable to the year 2016 for the CP Belleville Subdivision line was obtained from CP. The rail data was projected to the year 2029 design condition using a growth rate of 2.5%, compounded annually.

3.2 STATIONARY SOURCES

To the south of Sheppard Avenue, south of the CPR rail Line and to the south of a commercial plaza is an International Group Inc. (IGI) facility. IGI is a wax manufacturing, refining and processing facility that supplies wax based products for a variety of uses.

There are no other stationary noise sources in the area that could adversely impact the site.

4.0 ENVIRONMENTAL NOISE CRITERIA

4.1 MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS (MECP)

The applicable noise criteria for planning a new noise sensitive development, such as the one proposed for 23 Glen Watford Drive, are contained in Part C of MECP Publication NPC-300, “Stationary and Transportation Sources - Approval and Planning”. The guideline addresses transportation noise sources such as roadways and railways (Section C3 of NPC-300) as well as

"stationary" noise sources (industry/commercial) such as the IGI facility (Section C4 of NPC-300). Note that transportation and stationary noise sources are assessed independently of one another.

4.1.1 Transportation Sources

The environmental noise guidelines of the MECP, as provided in Publication NPC-300, are discussed briefly below and summarized in Appendix B.

4.1.1.1 Architectural Elements

In the daytime, the indoor criterion for road/rail noise is $L_{eq\ Day}$(1) of 45/40 dBA for sensitive spaces such as living/dining rooms, dens and bedrooms. At night, the indoor criterion for road/rail noise is $L_{eq\ Night}$(2) of 40/35 dBA for bedrooms. Note that the indoor criteria for rail traffic noise is 5 dBA lower than the criteria for road traffic noise.

The architectural design of the building envelope (exterior walls, windows, etc.) must provide adequate sound isolation to achieve the above noted MECP indoor sound level limits.

4.1.1.2 Ventilation

If the daytime sound level ($L_{eq\ Day}$) at the exterior facade of a window into a noise-sensitive space is greater than 65 dBA or the nighttime sound level ($L_{eq\ Night}$) is greater than 60 dBA, means must be provided so that windows can be kept closed for noise control purposes and central air conditioning is required. For daytime sound levels between 56 dBA and 65 dBA (inclusive) or nighttime sound levels between 50 dBA and 60 dBA (inclusive), there need only be the provision for adding air conditioning at a later date. A warning clause advising the occupant of the potential interference with some activities is also required.

4.1.1.3 Outdoors

For outdoor amenity areas ("Outdoor Living areas" – OLA's), the sound level objective during the daytime is 55 dBA. An excess of up to 5 dBA is considered acceptable if it is not technically or economically feasible to achieve the 55 dBA objective, provided warning clauses are registered on title (see Section C7.1.1 and C7.2.1 of NPC-300).

4.1.2 Stationary Noise Sources

The site and surrounding area are considered a Class 1 area (as defined in NPC-300) where the background sound level is dominated by the "urban hum" during all hours of the day and night. Urban hum is sounds from the activities of people, such as road traffic. At 23 Glen Watford Drive, the background sound level is dominated mainly by road traffic on Sheppard Avenue during all hours of the day and night.

4.1.2.1 Class 1 Criteria

For stationary noise sources in a Class 1 area, the criteria are $L_{eq\ 1hr}$ of 50 dBA during the daytime and evening (0700 to 2300 hours) and 45 dBA during the nighttime (2300 to 0700 hours), or the

(1) $L_{eq\ Day}$ – 16-hour equivalent continuous sound level, from 0700 to 2300 hours.

(2) $L_{eq\ Night}$ – 8-hour equivalent continuous sound level, from 2300 to 0700 hours.

existing ambient sound level due to road traffic, whichever is higher. The criteria apply either at the outside plane of window or at an Outdoor Point of Reception (OPOR) except that there is no OPOR criteria during the nighttime period. For high-rise multi-unit buildings, the OPORs are confined to common outdoor amenity areas ("Outdoor Living Areas" – OLA's) and not anywhere on the property that is amenable for use as they would be for detached single family residential dwellings. Unlike for transportation sources, there are no indoor criteria for stationary noise sources of sound.

Appendix B summarizes the MECP stationary noise guideline limits for a Class 1 area.

4.1.2.2 Class 4 Criteria

For new noise sensitive uses to be established in what would otherwise be considered a Class 1 or 2 area, it may be possible to have the development considered as a Class 4 area. To be considered a Class 4 area:

- the planning authority (City of Toronto in this case) will have to agree to the Class 4; and
- the stationary noise source (IGI in this case) will need to be notified that the new development site is considered a Class 4 area.

For stationary noise sources in a Class 4 area, the criteria are $L_{eq\ 1hr}$ of 60 dBA during the daytime and evening (0700 to 2300 hours) and 55 dBA during the nighttime (2300 to 0700 hours), or the existing ambient sound level due to road traffic, whichever is higher. The criteria apply at the outside plane of window. At an OPOR, the criteria are $L_{eq\ 1hr}$ of 55 dBA during the daytime and evening (0700 to 2300 hours). At nighttime (2300 to 0700 hours) there are no OPOR criteria. For high-rise multi-unit buildings, the OPORs are confined to common OLAs and not anywhere on the property as they would be for detached single family residential dwellings. Unlike for transportation sources, there are no indoor criteria for stationary noise sources. However, since in a Class 4 area exterior windows are assumed to be closed, the exterior façade of the building must be designed to provide a suitable indoor acoustical environment for the occupants of the building.

If the site were considered to be a Class 4 area, the criteria would be 5 to 10 dBA less stringent than the exclusion limits applicable for a Class 1 area. See Appendix B for the MECP noise guideline limits applicable to a Class 4 area.

5.0 TRANSPORTATION NOISE IMPACT ASSESSMENT

Using the road and rail traffic data in Tables 1A and 1B, the sound levels, in terms of $L_{eq\ Day}$ and $L_{eq\ Night}$, were determined using STAMSON V5.04 – ORNAMENT/STEAM, the computerized road and rail traffic noise prediction model of the MECP.

The daytime and nighttime sound levels at the building facades were assessed at the 28th floor, at a height of 84 m above grade, the worst-case location.

The architectural drawings indicate there will be outdoor amenity areas (OLAs) provided for the occupants of the building. The daytime OLA sound levels were calculated at:

- The ground floor amenity area to the north of the podium (OLA1); and

- The ground floor outdoor amenity area in the centre of the podium, between the two residential towers (OLA2).

The OLA receptor locations are shown in Figure 2.

The daytime OLA sound levels were calculated at a height of 1.5 m above the ground floor elevation. Screening from the podium building and towers were accounted for in assessing the OLA sound levels.

5.1 RESULTS

Table 2 summarizes the predicted sound levels from road and rail traffic at specific locations outdoors. Figure 2 shows the predicted daytime sound levels in the two OLAs from road and rail traffic.

A sample sound level calculation is included in Appendix C.

The highest daytime/nighttime sound levels of 78 dBA/77 dBA are predicted to occur at the south facade of Building B. The sound façade of Building A is predicted to receive maximum daytime/nighttime sound levels of 78 dBA/77 dBA.

The predicted daytime sound levels at OLA1 and OLA2 are 49 dBA and 58 dBA, respectively. See Figure 2.

5.2 TRANSPORTATION SOURCE NOISE CONTROL MEASURES

The noise control measures for transportation noise sources can generally be classified into two categories which are interrelated, but which can be treated separately for the most part:

a) Architectural elements to achieve acceptable indoor noise guidelines; and

b) Design features to protect the OLAs.

Figure 3, Table 3 and the Notes to Table 3 summarize the noise abatement requirements for the site. Note that some of the measures are required to address stationary noise. See Section 6.5.

5.2.1 Architectural Elements

The required STC ratings for the exterior facades of the proposed buildings were calculated assuming bedroom windows have a surface area equalling 30% of the associated room floor area and living room windows have a surface area equalling 50% of the associated room floor area. These estimates are based on the assessment done by HGC Engineering (Reference 6).

Based on the predicted sound levels at the exterior facades, the requirements would be:

- Exterior wall construction meeting STC 54;
- For facades with enclosed noise balconies, exterior window construction meeting the minimum no acoustical requirements of the OBC; and
- For facades without enclosed noise balconies, exterior window construction with a STC rating of up to 41.

5.2.2 Ventilation Requirements

Based on the predicted sound levels, all dwelling units require central air conditioning to allow windows to be closed for noise control purposes.

Table 3 summarizes the ventilation requirements.

5.2.3 Outdoors

The predicted daytime sound level of 58 dBA at OLA2 exceeds the target 55 dBA sound level in the MECP noise guidelines. Section C7.1.1 of NPC-300 states "*if the 16-Hour Equivalent Sound Level, L_{eq} (16) in the OLA is greater than 55 dBA and less than or equal to 60 dBA, noise control measures may be applied to reduce the sound level to 55 dBA. If measures are not provided, prospective purchasers or tenants should be informed of potential noise problems by a warning clause*". The 58 dBA daytime sound level (i.e. L_{eq} (16)) is in the 56 to 60 dBA range noted in C7.1.1. Hence, no additional physical mitigation is required. However, a warning clause to inform prospective purchasers or tenants of potential noise problems is required.

At OLA1, the sound levels are below the 55 dBA sound level limit. Hence, no additional mitigation is required.

5.2.4 Warning Clauses

Warning clauses are a tool to inform prospective owners/occupants of potential annoyance due to the existing noise sources. Where the guideline sound level limits are exceeded, appropriate warning clauses should be registered on the title or included in the development agreement that is registered on title. The warning clauses should also be included in agreements of Offers of Purchase and Sale, condominium declarations and lease/rental agreements for all units to make future occupants aware of the potential noise situation.

Table 3 and the notes to Table 3 summarize the warning clauses for the site.

6.0 STATIONARY SOURCE NOISE IMPACT ASSESSMENT

6.1 SOUND LEVEL MEASUREMENTS

Sound level measurements were completed on the development site to quantify the potential noise impacts from the IGI facility.

A sound level meter was installed on the roof of an existing two storey commercial building on the proposed development site. The microphone was installed atop a 6 m high mast to minimize any acoustical screening effects that would be provided by the intervening commercial development on the south side of Sheppard Avenue.

The sound level meter recorded the sound level on a second by second basis. In addition, hourly sound level descriptors, including L_{eq} and L_{90}, were also recorded. The sound level meter also digitally recorded the sounds that were occurring at the microphone position. This provided the opportunity to listen to the actual audio when the measurement data was being analysed back in our office.

In addition to the sound level monitoring, video recording to the south was also done for the entire measurement duration. This allowed us to identify when train activity was occurring on the CPR

Belleville Subdivision and to possibly identify other sounds that were impacting the measurement results.

Sound level monitoring was done continuously from August 31, 2015 to October 2, 2015. Measurements were completed using a Norsonic Nor140 Sound Analyser measurement system. The sound level meter was calibrated before and after the measurements.

The area was also visited during the early morning of August 7, 2015, August 13, 2015 and October 1, 2015. During these visits, observations of the existing sound environment at the measurement location were made including separate spot sound level measurements.

6.2 ANALYSIS OF MEASUREMENT DATA

A sound level meter is not capable of discriminating between sounds that are to be measured. Thus, the measurement data includes the sound energy from any source that is audible at the measurement location. In other words, the measurement data is not solely due to sound sources at the IGI facility. The measurement data includes the sounds from all sources in the area which would include road traffic on Sheppard Avenue, rail traffic on the CPR Belleville Subdivision and any sounds from the commercial development in the area.

As per the MECP noise guidelines, valid sound level measurements cannot be made when it is excessively windy, during periods of precipitation or when the weather conditions are outside of the acceptable parameters for the sound level meter (i.e., it is extremely cold). The periods where weather conditions were not favourable for sound level measurements have also been considered in the assessment. Weather data corresponding to the measurement periods is included as Appendix D.

6.3 AMBIENT SOUND LEVELS

To determine the sound levels from the IGI facility at the proposed development site, the ambient sound level needs to be subtracted from the measured sound level.

The most significant ambient noise sources are road traffic on Sheppard Avenue and rail traffic on the CPR Belleville Subdivision.

6.3.1 Ambient Sound Levels Due To Road Traffic

City of Toronto traffic count data for Sheppard Avenue was included in the Noise Study completed by HGC Engineering (Ref. 6). These counts do not reflect the entire 24-hour day.

Hourly traffic counts were completed on Sheppard Avenue from Thursday, September 4, 2014 to Sunday, September 7, 2014. The traffic count information has been included in Appendix A.

The MECP road traffic noise prediction model, ORNAMENT, as implemented in the STAMSON computer program, was used to calculate the hourly ambient sound levels due to road traffic at the measurement location. The 2014 hourly traffic counts were used to calculate the hourly ambient sound exposures. The Thursday and Friday counts were used to calculate week day average hourly traffic volumes. The Saturday and Sunday counts were used to calculate separate hourly ambient sound levels for Saturday and Sunday. See Table 4 for the hourly ambient sound level due to road traffic prediction results.

Conversion of the City of Toronto traffic data to a 24-hour volume indicates the 2014 traffic counts were lower for the week day average and significantly lower on the weekends. Thus, using the 2014 traffic counts results in lower predicted hourly ambient sound levels. This is considered conservative since using a lower ambient sound level results in a higher sound level contribution at the measurement location from the IGI facility.

In addition, since the predicted ambient sound levels due to road traffic are higher than the Class 1 exclusion limits, the ambient sound levels can be used as the noise guideline limit. Again, using the 2014 traffic counts is considered conservative since it results in a lower ambient sound level and a lower noise guideline limit.

6.3.2 Ambient Sound Levels Due To Rail Traffic

Rail traffic data was taken from the Noise Study prepared by HGC Engineering (Ref. 6). The data is broken down into the number of trains expected during the daytime (0700 to 2300 hours) and nighttime (2300 to 0700 hours) periods. From the rail data, it is not possible to determine in which hours a train movement(s) would occur. Thus, accurate prediction of hourly sound levels due to trains is not possible.

The MECP rail traffic noise prediction model, STEAM, also implemented in the STAMSON computer program, was used to calculate the daytime and nighttime sound levels due to rail traffic at the measurement location.

The daytime and nighttime L_{eq} due to trains is predicted to be 66 dBA and 67 dBA, respectively, at the measurement location.

The hourly measured L_{eq}, the hourly measured L_{90}, the hourly predicted L_{eq} due to road traffic, the $L_{eq\ Day}$ due to rail traffic and the $L_{eqNight}$ due to rail traffic were plotted on a day by day basis. These plots are provided as Appendix E.

The L_{eq} is the energy averaged sound level over an indicated time period. The L_{eq} is different than the arithmetic average in that it tends to provide greater weight to the higher sound level events in determining the average. For assessing stationary noise sources, a one-hour time period is used. $L_{eq\ Day}$ is the energy averaged sound level over the entire 16-hour daytime (i.e. 0700 to 2300 hours) period. $L_{eq\ Night}$ is the energy averaged sound level over the entire 8-hour nighttime (i.e. 2300 to 0700 hours) period. L_{90} is a statistical sound level descriptor which represents the sound level that was exceeded for 90% of the measurement period.

On the plots in Appendix E:

- The dark blue line is the measured $L_{eq\ 1hr}$ which includes the sound energy from all sources combined.
- The red line is the predicted hourly L_{eq} at the measurement location due to road traffic on Sheppard Avenue.
- The light blue line is the predicted sound exposure at the measurement location due to rail traffic on the CPR Belleville Subdivision. As indicated above, since the rail data was only available for the overall daytime and nighttime periods, the sound level due to trains is the same between 0700 and 2300 hours (daytime period) and between 2300 and 0700 hours (nighttime period).

- The green line is the measured hourly L_{90}. The L_{90} is a statistical sound level descriptor that represents the sound level that was exceeded for 90% of the time (one-hour measurement period in this case).
- The green shaded areas are times when weather conditions were not suitable for sound level monitoring.

During the early morning spot measurements and observations, the sound level was noted as being 50 to 52 dBA during lulls in road traffic on Sheppard Avenue. Sound from the IGI facility was barely audible over the sound of fans operating to the west of the measurement location.

6.4 ASSESSMENT AND DISCUSSION

As outlined above, the measured L_{eq} (i.e. the dark blue line on the plots included as Appendix E) includes the influence from all noise sources present within the environment. To determine the L_{eq} from the IGI facility alone requires the ambient sounds (i.e. those sounds not from the IGI facility) to be subtracted from the measured L_{eq}.

The most significant ambient sounds are road traffic on Sheppard Avenue and rail traffic on the CPR Belleville Subdivision. Hourly ambient sound levels due to Sheppard Avenue could be predicted using the hourly traffic data. However, since hourly rail traffic information is not available, it is not possible to predict the contribution rail traffic has on the measured L_{eq}. Thus, it is not possible to perform a direct subtraction.

Another way of subtracting the road and rail sound exposures from the measured sound exposure is to use the measured L_{90}. The L_{90} is a statistical sound measurement descriptor that represents the sound level that was exceeded for 90% of the measurement period. The L_{90} is a good way of quantifying the sound energy from a continuously operating noise source such as the IGI facility. For intermittent railway pass bys, use of the L_{90} inherently eliminates the rail activity from the measurement since the rail activity was generally not present for 90% of the hourly measurement period. Road traffic, even during the nighttime period, is fairly steady and would likely contribute some sound energy to the L_{90}. Other ambient noise sources, such as fans from area commercial operations, would also contribute some sound energy to the L90. Thus, assuming that the L_{90} represents the hourly L_{eq} from the IGI facility is conservative in that it also likely includes a contribution from non IGI noise sources in the area.

Based on our review of the measured L_{90} (green line on the plots in Appendix E), the IGI facility produces relatively uniform sound exposures from day to day. There is some fluctuation between the daytime, evening and nighttime periods. There are likely some sources that cycle on and off during the operating day. However, since there appear to be a large number of significant noise sources on the site (as outlined in the Amended Environmental Compliance Approval #9915-B2UK7G, issued November 21, 2018 - See Appendix F), the cycling of individual noise sources should have very little impact at an off-site receptor location that is fairly far from the site, such as the 23 Glen Watford site. The variation in sound level between different times of the day is likely due to different activities occurring at the IGI facility during different shifts.

Review of the plots in Appendix E indicate:

- The sound level from the IGI facility at the measurement location during the daytime period (0700 to 1900 hours) is typically as high as 65 dBA.
- The sound level from the IGI facility at the measurement location during the evening period (1900 to 2300 hours) is typically as high as 63 dBA.

- The sound level from the IGI facility at the measurement location during the nighttime period (2300 to 0700 hours) is typically at about 55 dBA. However, during the midnight hour, the sound level is typically at 58 to 59 dBA. The only exception occurs on September 22, 2015 where the nighttime sound level begins increasing at about 4:00 am and is just above 60 dBA at 6:00 am. Review of the audio recordings indicate that it is fan noise that is the source of these unusual sound levels. The fans are likely those from the nearby commercial buildings, as observed during our early morning measurements, and not from the IGI facility. Thus, the nighttime maximum sound level from the IGI facility at the measurement location was taken to be 59 dBA, which is the maximum sound level measured during the midnight hour.
- The ambient sound level due to road traffic on Sheppard Avenue (the red line on the plots in Appendix E) at the measurement location is always above the MECP exclusion limits for a Class 1 area.

To determine compliance at the measurement location with the MECP noise guideline limits, the hourly L_{eq} from the IGI facility (the green line on the plots in Appendix E) was compared to the ambient sound level due to road traffic (the red line on the plots in Appendix E). There are a few time periods when the green line is above the red line which indicates that there is a potential excess above the MECP noise guideline limits.

6.4.1 Acoustical Modelling

The noise impact from IGI was also assessed at the proposed development using CadnaA V2018 MR1. The model follows the protocols of ISO Standard 9613.2, *"Acoustics - Attenuation of Sound during Propagation Outdoors"*. The model accounts for distance attenuation, inherent acoustical screening and sound reflections from hard reflective surfaces, such as the facades of the proposed towers.

Since the exact location of the source(s) producing the greatest impact on the proposed development site was not known, the IGI facility was modelled as an area source which was calibrated to produce the sound levels indicated in Section 5.3 above during the daytime, evening and nighttime periods. A source height of 8.0 m was used for the area source.

Ambient sound levels from road traffic on Sheppard Avenue were also calculated using the CadnaA modelling software.

Figure 4 shows the predicted excesses over the Class 1 guideline limits at the proposed development. The figure shows exceedances up to 15 dBA during the daytime, 10 dBA during the evening and 14 dBA during the nighttime occur at the subject site.

At the amenity areas, the sound levels due to IGI exceed the Class 1 guideline limits during the day at the courtyard amenity (OPOR1) and at the terraces on the east (OPOR3).

6.5 STATIONARY SOURCE NOISE ABATEMENT MEASURES

Since the sound levels from the IGI facility outlined above potentially exceed the MECP Class 1 noise guideline limits, noise mitigation measures are required for the proposed development.

IGI have indicated that the majority of IGI's industrial operations are not conducted within a building but are conducted in a series of outdoor tanks. IGI believes that it is unlikely that mitigation of any single source of noise would reduce the resultant noise level at the 23 Glen Watford site in any meaningful way. Implementation of an acoustical barrier along the

north side of the IGI facility will not be effective because such a barrier cannot be constructed tall enough to protect the upper levels of the proposed residential development. Thus, IGI feel the only practical mitigation that could be implemented at the IGI facility would involve enclosing some of IGI's operations. IGI estimates that the cost of such an enclosure(s) would exceed $100 million because of the extent of containment and safeguards that would be required to address the fuels and chemicals that are being used. This is not considered feasible.

Since at-source mitigation and sound barriers are not practical, then the recommended mitigation would be to deem the site Class 4, to allow for higher sound level limits at the proposed development, and the use of receptor-based noise mitigation measures in the form of Enclosed Noise Buffers (ENBs).

6.5.1 Class 4 and Enclosed Noise Buffers

NPC-300 permits the use of ENBs in high-rise multi-tenant buildings such as proposed for this development. The enclosed noise buffer mitigation concept can only be used in a Class 4 area.

The enclosed noise buffer concept means an enclosed area outside of the exterior wall of a building such as an enclosed balcony specifically intended to buffer one or more windows of noise sensitive spaces. The exterior balcony is glassed-in to protect the balcony space from excessive noise levels. The noise sensitive spaces within the building (i.e., bedrooms, living/dining rooms, etc.) have their windows opening into the enclosed noise buffer instead of directly to the building exterior.

The characteristics of an ENB are:

- not less than one metre and not more than two metres deep;
- fully enclosed with floor to ceiling glazing or a combination of solid parapet plus glazing above that can potentially be operable to the maximum permitted by the Ontario Building Code (OBC);
- separated from interior space with a weatherproof boundary of exterior grade wall, exterior grade window, exterior grade door, or any combination, in compliance with exterior envelope requirements of the OBC;
- of sufficient horizontal extent to protect windows of noise sensitive spaces; and
- architectural design not amenable to converting the enclosed space to being noise sensitive.

Where an ENB is provided, typically (but not necessarily) in the form of an enclosed balcony, the exterior plane of window point of reception does not apply to the glazing enclosing such balcony but instead applies to any window or glass door that forms part of the building facade and serves to separate the ENB space from the habitable space inside the building.

Appendix G contains drawings showing the locations of the proposed enclosed noise buffers. The drawings also show the 3.6 m high sound barrier along the southern end of the property, and a 1.6 m high parapet wall along the south edge of the terraces on the east side of the podium.

6.5.2 Mitigated Sound Levels

Figure 5 shows the predicted sound levels from the IGI facility compared against the applicable noise guideline limits for Class 4 areas, accounting for the receptor-based noise mitigation measures shown on the drawings. The results indicate that with the Class 4 designation, and

receptor-based noise mitigation measures, the guideline limits are met at the proposed development. Note that no numbers are presented along the south facing facades of the two buildings since there are no points of reception when enclosed noise buffers are provided on the building faade.

There are no indoor sound level limits for stationary noise sources MECP noise guideline NPC-300. The MECP stationary source guideline limits apply outdoors at a noise-sensitive plane of window. In lieu of any guidance from the MECP, the indoor sound levels recommended by Health Canada and by the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) in Chapter 48 of the HVAC Applications Handbook ("Noise and Vibration Control") have been used to confirm the exterior building façade will provide adequate sound attenuation.

6.5.2.1 Health Canada

Health Canada's noise guidelines are presented in the document "Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise". The document provides guidance on determining health risks related to levels and/or types of sound predicted in federal environmental assessments of proposed major resource and infrastructure projects.

Although not specifically intended for noise impact assessments of industrial facilities (such as IGI), the guidelines provide input for assessing the potential for noise-induced sleep disturbance.

According to Health Canada, the guidelines and recommendations of the World Health Organization (WHO) should be considered in the assessment. The WHO guidelines indicate sleep disturbance is considered one of the major effects of environmental noise.

To minimize sleep disturbance, the WHO guidelines indicate that the 8-hour nighttime equivalent continuous sound level (Leq 8hr - Night) indoors should not exceed 30 dBA.

6.5.2.2 ASHRAE Guidance

The ASHRAE Handbook recommends the use of the Noise Criterion (NC) rating system to evaluate background sound levels due to HVAC systems. The NC rating system is a single number rating representing the distribution of sound energy across a range of frequencies (spectrum). NC ratings are determined by comparing the sound level spectra against a set of curves; the highest curve that touches the spectrum being considered (without exceeding in any other band) defines the corresponding NC rating for that spectrum. The assessment is done in octave frequency bands from 63 Hz to 8000 Hz. The rating is given as a value preceded by NC, e.g. NC-25. The lower the number the lower the sound level.

For residential spaces, ASHRAE recommends an indoor criteria range of NC-25 to 35.

6.5.2.3 Target Indoor Sound Levels Used In The Assessment

The MECP stationary source guidelines require the assessment of noise impact using an outdoor plane of window one hour equivalent continuous sound level (L_{eq}, 1hr), which results from a predictable worst case mode of operation at a commercial/industrial facility. The 1 hour L_{eq} was used as the basis of assessment in this evaluation. The indoor sound levels used are two-fold:

1. a maximum overall sound level of 30 dBA; and
2. an octave band spectrum meeting NC-25.

The assessment was done using both of the above levels to determine a suitable indoor environment for the occupants.

The results of our assessment indicate that a suitable indoor sound environment can be provided for the building occupants. Specific guidance is provided in Section 7.0 below.

7.0 SUMMARY OF NOISE MITIGATION MEASURES

The recommended noise mitigation measures are:

- The City of Toronto will need to agree to the site being categorized as Class 4;
- With the site categorized as Class 4, the facades with a view to the IGI facility must have Enclosed Noise Buffers (ENBs);
- To provide a suitable indoor acoustic environment for the building occupants that also complies with the Ministry of Environment, Conservation and Parks (MECP) guideline requirements, the following should be anticipated for the exterior façade of the buildings:
    - The exterior walls should have a STC rating of at least 54 to minimize the sound isolation requirements for the exterior windows;
    - The glass exterior of the ENBs should have a Sound Transmission Class (STC) rating of 31 (anticipated to be a single pane of 6 mm thick tempered glass, or thicker if needed for safety reasons). The STC 31 glazing will attenuate the sound levels from IGI such that the MECP Class 4 noise guideline exclusion limits will be met at the exterior plane of the interior windows within the ENBs;
    - Accounting for the exterior glazing of the ENBs, windows meeting the minimum Ontario Building Code (OBC) requirements are needed for the interior facade within the ENBs;
    - Exterior windows with STC ratings up to 41 should be anticipated for the residential units on the facades without ENBs. This construction is needed to protect the indoor spaces from the transportation noise sources since these facades are shielded from noise generated by the IGI facility by the buildings themselves;
    - Windows along the south facade of the podium into amenity spaces will need to be sealed. It is expected that these sealed windows will need to have a STC rating of at least 37 to protect the indoor amenity spaces;
    - Since the recommendations for the STC ratings of exterior walls and windows, as outlined above, were determined using assumed areas for rooms sizes, the final requirements will need to be confirmed once detailed building plans are available.
- With the exterior façade sound isolation requirements outlined above, a suitable indoor acoustical environment will be provided for the future occupants of the 23 Glen Watford development. On the facades exposed to the IGI facility, the indoor sound levels will be 30 dBA or less and will not exceed NC-25. The sound level on the exterior of the windows within the ENBs will comply with the Class 4 noise guideline limits. The indoor sound levels from transportation noise sources will comply with the limits provided in NPC-300;
- A Sound barrier needs to be provided, as shown on Figure 5, to protect the private terrace on Level 2;

- Mandatory air conditioning is required for the development, including all residential suites and other noise sensitive spaces (such as interior amenity facilities and other habitable common areas);
- Warning clauses need to be included in Offers of Purchase and Sale, lease/tenant agreements and condominium declarations for all units within both buildings to inform the future occupants of the potential noise situation. The recommended warning clauses are provided as part of Table 3;
- IGI will need to be informed that the development site is Class 4 for use in their future Environmental Compliance Approval (ECA) submissions to the MECP;
- A legally binding mitigation agreement, as per MECP Publication NPC-300, is to be entered into by 4280 Sheppard, the International Group (IGI) and the City of Toronto, to ensure that the agreed upon receptor based noise mitigation measures are included in the final building design; and
- Mechanical equipment at the proposed high rise residential development interfacing with the outside environment must comply with Chapter 591 (Noise) of the City of Toronto Municipal Code and the MECP noise guideline limits in NPC-300. During the detailed design of the development, noise from the mechanical equipment needs to be assessed to ensure compliance with the Municipal Code and NPC-300.

8.0 CONCLUSIONS

With appropriate design of the development, and Class 4 designation from the City of Toronto, a suitable acoustical environment can be provided for the occupants and the applicable MECP guidelines met.

9.0 REFERENCES

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6. “Noise & Vibration Feasability Study, 23 Glen Watford Drive, Toronto (Scarborough), Ontario”, Howe Gastmeier Chapnik Limited, June 13, 2013.

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J:\2014\114053\000\Reports\2 - Environmental Noise Impact Study\23 Glen Watford - Environmental Noise V3_0.docx

TABLE 1A: ROAD TRAFFIC DATA

Roadway	Year	24-hour Volume[1]	% Trucks		Day/Night (%)	Speed Limit (Kph)
			Medium	Heavy		
Sheppard Avenue[2]	2012	29 192 (40 876)	2.8	1.9	90/10	60
Glen Watford Road[2]	20112	8 567 (11 996)	0.8	0.9	90/10	60
Midland Avenue[2]	2011	27 256 (38 928)	4	2.1	90/10	50
Brimley Avenue[2]	2013	31 640 (43 435)	1	2	90/10	60

Notes:

(1) Values shown in brackets are the future (year 2029) volumes.

(2) Obtained from the City of Toronto Traffic Centre. The data was extrapolated to the year 2029 design condition using a 2% growth rate compounded annually.

TABLE 1B: RAIL TRAFFIC DATA

Rail	Year	Period	Train Type	Typical # of Trains	Max. # of Cars/Train	Max. # of Locos/Train	Speed Limit (Kph)
CP Belleville[1]	2019	Daytime (0700-2300 hours)	90/10	16	183	2	97
		Nighttime (2300-0700 hours)	90/10	7	183	2	97

Note:

(1) Obtained from C.P. Rail data was projected to the year 2029 using a growth rate of 2.5%, compounded annually.

TABLE 2: PREDICTED SOUND LEVELS OUTDOORS

Location[1]	Source	Distance (m)[2]	$L_{eq\ Day}$ (dBA)	$L_{eq\ Night}$ (dBA)
Building A West Facade (South Corner)	Sheppard Avenue	22	68	61
	Glen Watford Road	68	57	51
	Midland Avenue	316	57	50
	CP Belleville	65	74	73
	TOTAL	–	**75**	**73**
Building A South Facade (West Corner)	Sheppard Avenue	22	69	63
	Midland Avenue	316	54	47
	CP Belleville	65	76	76
	TOTAL	–	**77**	**76**
Building A North Facade (West Corner)	Glen Watford Road	68	55	48
	TOTAL	**–**	**55**	**48**
Building A East Facade (South Corner)	Sheppard Avenue	36	63	56
	CP Belleville	66	72	71
	TOTAL	**–**	**72**	**71**
Building B North Facade (West Corner)	Glen Watford Road	116	55	48
	Brimley Road	466	53	47
	TOTAL	**–**	**57**	**51**
Building B South Facade (East Corner)	Sheppard Avenue	32	68	61
	Midland Avenue	375	51	45
	CP Belleville	49	78	77
	TOTAL	**–**	**78**	**77**

…/cont'd

TABLE 2: PREDICTED SOUND LEVELS OUTDOORS (continued)

Location[1]	Source	Distance (m)[2]	$L_{eq\ Day}$ (dBA)	$L_{eq\ Night}$ (dBA)
Building B East Facade (South Corner)	Sheppard Avenue	46	64	57
	CP Belleville	50	75	74
	TOTAL	–	**75**	**74**
Lobby South Facade (East Corner)	Sheppard Avenue	40	63	57
	CP Belleville	43	75	74
	TOTAL	–	**75**	**74**
Lobby South Facade (West Corner)	Sheppard Avenue	17	69	63
	CP Belleville	42	74	74
	TOTAL	–	**75**	**74**
Outdoor Amenity Area on the North Side (OLA1)	Sheppard Avenue	71	42	–
	CP Belleville	86	49	–
	TOTAL	**–**	**49**	**–**
Courtyard Area in the Centre of Podium (OLA2)	Sheppard Avenue	44	46	–
	CP Belleville	70	58	–
	TOTAL	**–**	**58**	**–**

Notes:

(1) Daytime/nighttime facade receptors were taken at the top floor windows (84 m above grade). OLA receptors were taken at 1.5 m above the top of slab height.

(2) Distance indicated is from the centreline of the noise sources to facade or OLA.

TABLE 3: NOISE ABATEMENT REQUIREMENTS

Building	Air Conditioning[1]	Exterior Wall[2]	Exterior Window[3]	Sound Barrier	Warning Clauses[4]
All Residential Dwellings	Mandatory	Brick Veneer	Facades with ENB: OBC Facades without ENB: STC-41	3.6 m High Acoustic Fence (on southeast amenity area) and 1.8 m High Parapet on East Terrace *see Figure 2	A + B + C + D

Notes:

(1) Central air conditioning allows windows to remain closed for noise control purposes.

(2) STC – Sound Transmission Class Rating (Reference ASTM E-413).

OBC denotes any construction meeting the minimum non-acoustical requirements of the Ontario Building Code.

(3) A sliding glass walkout door should be considered as a window and be included in the percentage of glazing. Window and exterior wall requirements were based on standard assumptions and should be reviewed once building (floor) plans are finalized.

The window STC rating applies to the entire window assembly and not just the glazing. The window supplier should provide acoustical laboratory test data (following a recognized test standard) for the intended windows indicated the STC ratings can be met.

(4) Standard example warning clauses to be registered on title and be included in Offers of Purchase and Sale and Leases on designated units:

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

B. "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."

C. "Purchasers/tenants are advised that due to the proximity to neighbouring industrial facility, noise from this facility may at times be audible."

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

(5) Conventional roof construction meeting Ontario Building Code requirements is satisfactory in all cases.

(6) All exterior doors shall be fully weatherstripped.

TABLE 4: PREDICTED AMBIENT SOUND LEVELS

Time Period	Weekdays (dBA)	Saturday (dBA)	Sunday (dBA)
0:00 to 01:00	61	61	62
1:00 to 02:00	58	59	61
2:00 to 03:00	56	58	60
3:00 to 04:00	55	58	58
4:00 to 05:00	55	56	57
5:00 to 06:00	59	58	56
6:00 to 07:00	65	60	59
7:00 to 08:00	68	61	60
8:00 to 09:00	69	65	64
9:00 to 010:00	68	67	66
10:00 to 011:00	68	68	68
11:00 to 012:00	69	69	69
12:00 to 013:00	69	70	69
13:00 to 014:00	69	70	69
14:00 to 015:00	69	70	69
15:00 to 016:00	70	69	69
16:00 to 017:00	69	69	69
17:00 to 018:00	70	69	69
18:00 to 019:00	69	68	68
19:00 to 020:00	69	68	67
20:00 to 021:00	68	67	67
21:00 to 022:00	66	66	66
22:00 to 023:00	65	66	65
23:00 to 00:00	63	64	63

Note:

(1) Hourly sound levels due to road traffic on Sheppard Avenue.

VALCOUSTICS
Canada Ltd.
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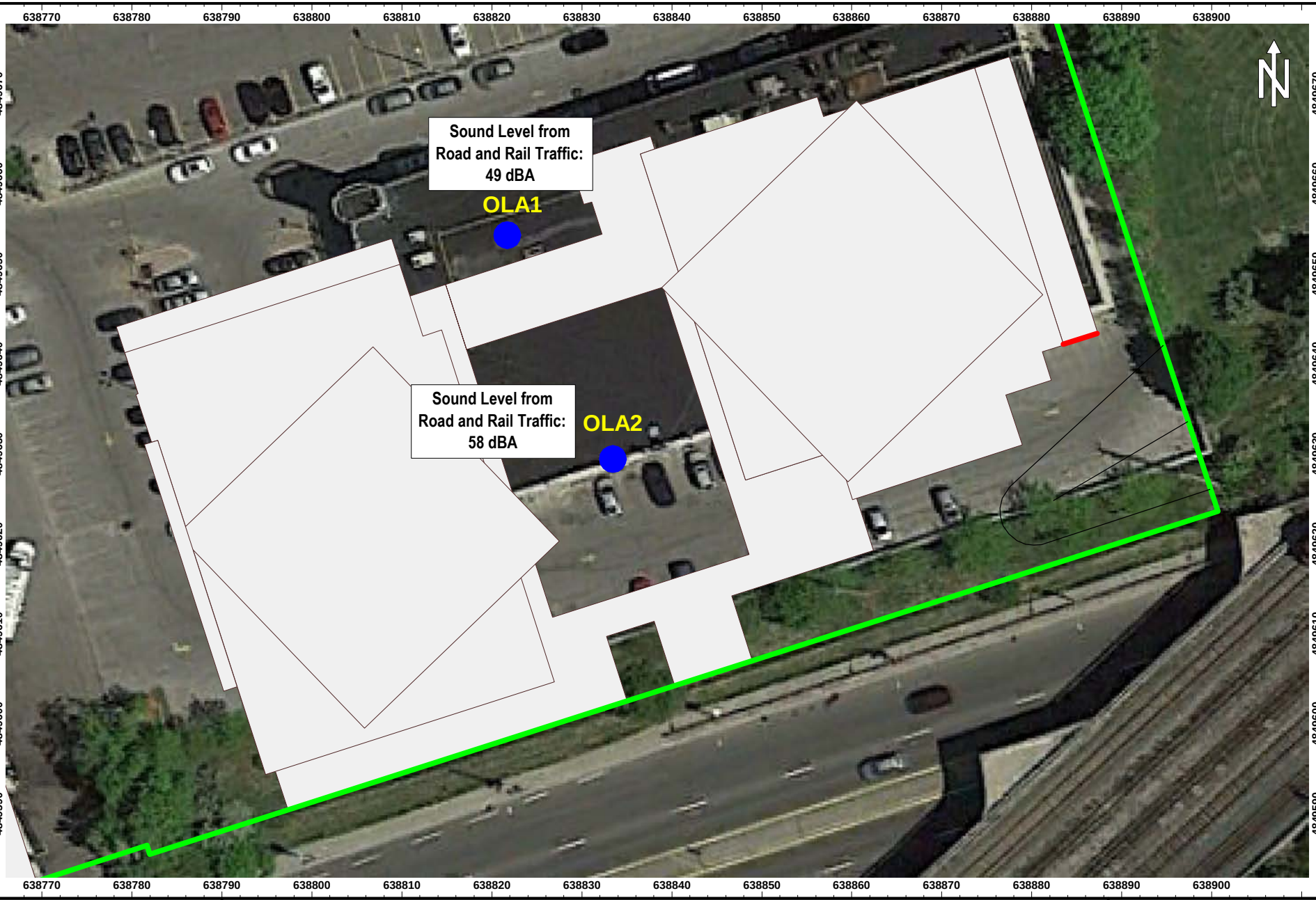
Title	Date	Figure
Key Plan	**2019-02-04**	**1**
Project Name	Project No.	
23 Glen Watford Drive	**114-053**	

J:\2014\114053\000\Reports\2 - Environmental Noise Impact Study\For V1_1\KeyPlan.cna

Date Plotted: 04.02.19



VALCOUSTICS
Canada Ltd.
consulting acoustical engineers

Title
OLA Sound Levels due to Road and Rail Traffic

Date
2019-04-25

Figure
2

Project Name
23 Glen Watford Drive

Project No.
114-053

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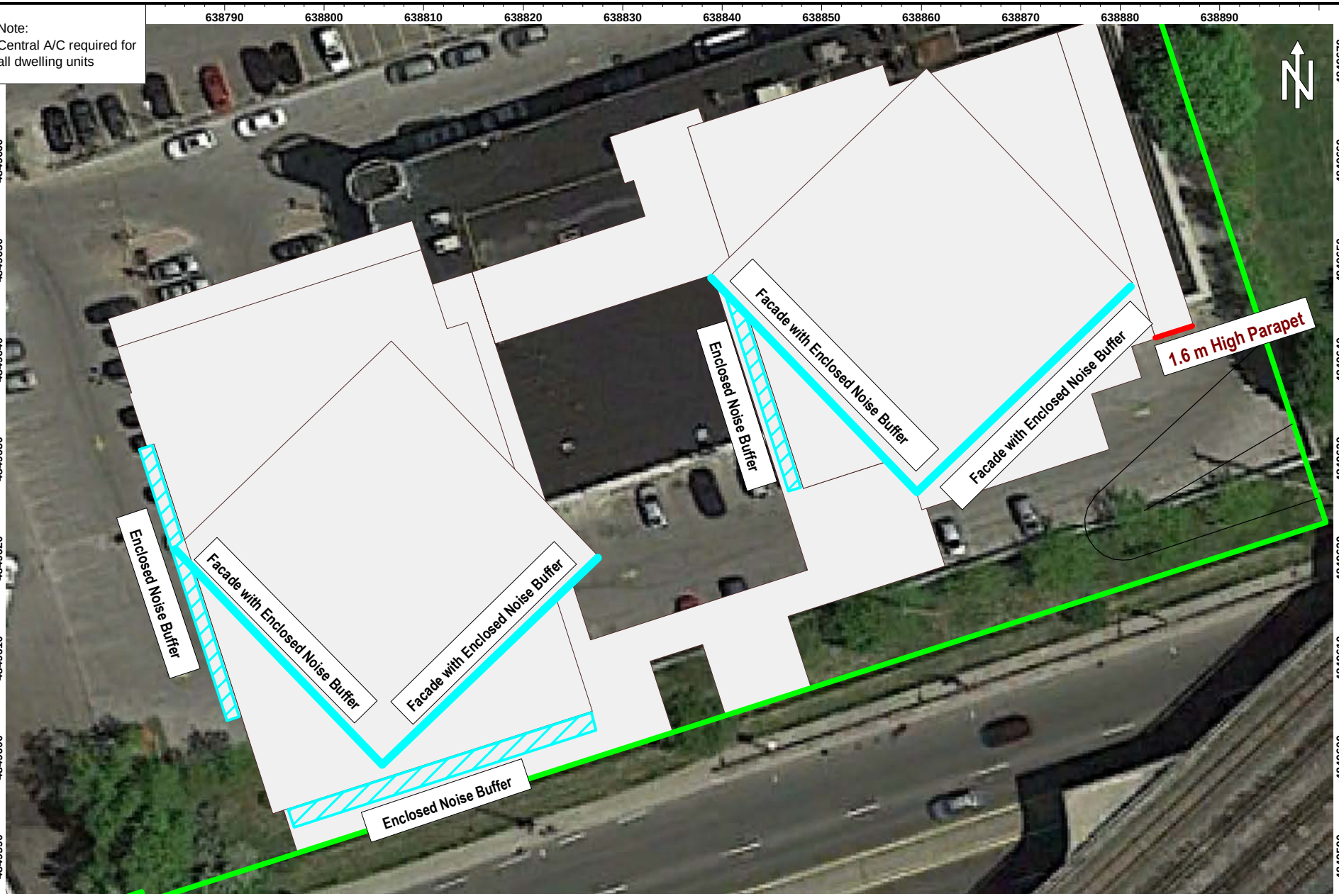
Date Plotted: 25.04.19

Note:
Central A/C required for all dwelling units



VALCOUSTICS
Canada Ltd.
consulting acoustical engineers

Title	Date	Figure
Noise Control Requirements	**2019-04-25**	**3**
Project Name	Project No.	
23 Glen Watford Drive	**114-053**	

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Date Plotted: 25.04.19

Legend:

Receptor

D: Daytime (0700-1900)
E: Evening (1900-2300)
*Values in parentheses represent guideline limits

No Excess
Excesses Occur

OPOR1
D: 52 (50)
E: 50 (50)

OPOR2
D: 42 (50)
E: 41 (50)

OPOR3
D: 59 (58)
E: 58 (63)

638780 638800 638820 638840 638860 638880

4849740 4849720 4849700 4849680 4849660 4849640 4849620 4849600 4849580 4849560 4849540 4849520

Daytime (0700-1900) | **Evening (1900-2300)** | **Nighttime (2300-0700)**

VALCOUSTICS
Canada Ltd.
consulting acoustical engineers

Title
Predicted Excesses at Building Facades and Predicted Sound Levels at OPORs (dBA) due to IGI - Class 1 Guideline Limits

Date
2019-04-25

Figure
4

Project Name
23 Glen Watford Drive

Project No.
114-053

J:\2014\114053\000\Analysis\Cadnal\2019-04-25\2019-04-25 Glen Watford.cna

Date Plotted: 25.04.19

Legend:

Receptor

D: Daytime (0700-1900)
E: Evening (1900-2300)
*Values in parentheses represent guideline limits

No Excess
Excesses Occur

OPOR1
D: 52 (55)
E: 50 (55)

OPOR2
D: 42 (55)
E: 41 (55)

OPOR3
D: 51 (55)
E: 50 (60)

1.6 m High Parapet

Enclosed Noise Buffer

Facade with Enclosed Noise Buffer

638780 638800 638820 638840 638860 638880

4849740 4849720 4849700 4849680 4849660 4849640 4849620 4849600 4849580 4849560 4849540 4849520

Daytime (0700-1900) | Evening (1900-2300) | Nighttime (2300-0700)

VALCOUSTICS
Canada Ltd.
consulting acoustical engineers

Title
Predicted Excesses at Building Facades and Predicted Sound Levels at OPORs (dBA) due to IGI - Class 4 Guideline Limits

Date
2019-04-25

Figure
5

Project Name
23 Glen Watford Drive

Project No.
114-053

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Date Plotted: 25.04.19

APPENDIX A
TRAFFIC DATA

City of Toronto - Traffic Safety Unit

24-Hour Count Summary Report

SHEPPARD AVE	STAT CODE	ARTERY CODE	COUNT DATE	AM PEAK	AM PEAK HOUR	PM PEAK	PM PEAK HOUR	OFF HOUR PEAK	OFF HOUR PEAK HOUR	24 HOUR Total
Eastbound **Category: 24 HOUR**										
SHEPPARD AVE E/B W OF GLEN WATFORD DR	1392	1392	4/24/14 Thu	876	08:15 - 09:15	1,618	17:30 - 18:30	1,304	14:00 - 15:00	18,160
			Eastbound Total:	876		1,618		1,304		18,160
			Eastbound Average:	876		1,618		1,304		18,160
Westbound **Category: 24 HOUR**										
SHEPPARD AVE W/B E OF GLEN WATFORD DR	1393	1393	4/24/14 Thu	1,592	07:45 - 08:45	1,137	15:30 - 16:30	1,143	14:15 - 15:15	17,153
			Westbound Total:	1,592		1,137		1,143		17,153
			Westbound Average:	1,592		1,137		1,143		17,153
SHEPPARD AVE				2,468		2,755		2,447		35,313

Comment:

Printed On: 26 Jan, 2016 1:13:42PM

City of Toronto - Traffic Safety Unit

Turning Movement Count Summary Report

GLEN WATFORD DR AT SHEPPARD AVE (PX 1436)

Survey Date: 2012-Mar-01 (Thursday)

Survey Type: Routine Hours

Time Period	Vehicle Type	NORTHBOUND Exits	Left	Thru	Right	Total	EASTBOUND Exits	Left	Thru	Right	Total	SOUTHBOUND Exits	Left	Thru	Right	Total	WESTBOUND Exits	Left	Thru	Right	Total		Peds	Bike	Other
08:15-09:15	CAR	360	3	1	7	11	647	58	459	4	521	21	181	9	121	311	953	8	829	301	1,138	N	17	0	0
	TRK	3	0	0	0	0	15	2	15	1	18	1	0	0	1	1	28	0	27	1	28	S	1	0	0
AM PEAK	BUS	2	0	0	0	0	12	1	12	0	13	0	0	0	0	0	18	0	18	1	19	E	11	1	0
																						W	7	0	0
	TOTAL:	**365**	**3**	**1**	**7**	**11**	**674**	**61**	**486**	**5**	**552**	**22**	**181**	**9**	**122**	**312**	**999**	**8**	**874**	**303**	**1,185**				
17:00-18:00	CAR	274	26	9	21	56	1,019	121	837	25	983	53	161	7	106	274	771	21	639	144	804	N	26	0	0
	TRK	3	0	0	0	0	10	2	9	0	11	0	1	0	2	3	12	0	10	1	11	S	7	0	0
PM PEAK	BUS	0	0	0	0	0	16	0	16	0	16	0	0	0	0	0	13	0	13	0	13	E	22	3	0
																						W	5	0	0
	TOTAL:	**277**	**26**	**9**	**21**	**56**	**1,045**	**123**	**862**	**25**	**1,010**	**53**	**162**	**7**	**108**	**277**	**796**	**21**	**662**	**145**	**828**				
OFF HR AVG	CAR	222	24	13	23	60	751	100	610	19	729	55	118	10	103	231	724	26	597	109	732	N	20	1	0
	TRK	7	1	0	1	2	36	3	32	0	35	1	3	0	2	5	36	1	33	4	38	S	10	1	0
	BUS	0	0	0	0	0	9	0	9	0	9	0	0	0	0	0	10	0	10	0	10	E	20	1	0
																						W	18	2	0
	TOTAL:	**229**	**25**	**13**	**24**	**62**	**796**	**103**	**651**	**19**	**773**	**56**	**121**	**10**	**105**	**236**	**770**	**27**	**640**	**113**	**780**				
07:30-09:30	CAR	508	11	2	11	24	1,111	110	841	8	959	33	259	13	184	456	1,875	12	1,680	396	2,088	N	25	1	0
	TRK	4	0	0	1	1	32	3	31	1	35	1	0	0	1	1	50	0	49	1	50	S	3	0	0
2 HR AM	BUS	3	0	0	0	0	29	1	29	0	30	0	0	0	0	0	31	0	31	2	33	E	15	1	0
																						W	7	0	0
	TOTAL:	**515**	**11**	**2**	**12**	**25**	**1,172**	**114**	**901**	**9**	**1,024**	**34**	**259**	**13**	**185**	**457**	**1,956**	**12**	**1,760**	**399**	**2,171**				
16:00-18:00	CAR	517	40	27	46	113	1,926	221	1,572	37	1,830	89	308	15	214	537	1,542	37	1,288	269	1,594	N	60	0	0
	TRK	4	0	0	0	0	26	3	21	0	24	0	5	0	3	8	29	0	26	1	27	S	18	1	0
2 HR PM	BUS	1	0	0	0	0	32	0	32	0	32	0	0	0	0	0	28	0	28	1	29	E	47	3	0
																						W	14	0	0
	TOTAL:	**522**	**40**	**27**	**46**	**113**	**1,984**	**224**	**1,625**	**37**	**1,886**	**89**	**313**	**15**	**217**	**545**	**1,599**	**37**	**1,342**	**271**	**1,650**				
07:30-18:00	CAR	1,914	148	82	147	377	6,037	731	4,852	122	5,705	340	1,038	67	809	1,914	6,312	151	5,355	1,101	6,607	N	164	3	0
	TRK	32	3	0	3	6	199	16	180	1	197	4	16	0	12	28	220	3	205	16	224	S	62	3	0
8 HR SUM	BUS	6	0	0	0	0	98	2	98	0	100	0	0	0	0	0	100	0	100	4	104	E	141	6	0
																						W	92	6	0
	TOTAL:	**1,952**	**151**	**82**	**150**	**383**	**6,334**	**749**	**5,130**	**123**	**6,002**	**344**	**1,054**	**67**	**821**	**1,942**	**6,632**	**154**	**5,660**	**1,121**	**6,935**				

Total 8 Hour Vehicle Volume: 15,262

Total 8 Hour Bicycle Volume: 18

Total 8 Hour Intersection Volume: 15,280

Comment:

Printed On: 26 Jan, 2016 1:08:50PM

City of Toronto - Traffic Safety Unit

Turning Movement Count Summary Report

LAWRENCE AVE AT MIDLAND AVE (PX 413)

Survey Date: 2011-Mar-21 (Monday)

Survey Type: Routine Hours

Time Period	Vehicle Type	NORTHBOUND Exits	Left	Thru	Right	Total	EASTBOUND Exits	Left	Thru	Right	Total	SOUTHBOUND Exits	Left	Thru	Right	Total	WESTBOUND Exits	Left	Thru	Right	Total		Peds	Bike	Other
07:30-08:30	CAR	991	123	820	125	1,068	596	103	377	103	583	924	94	671	248	1,013	1,753	150	1,382	68	1,600	N	64	14	0
	TRK	25	0	24	2	26	21	0	14	0	14	18	5	18	5	28	49	0	44	1	45	S	126	0	0
AM PEAK	BUS	34	0	34	0	34	41	0	39	0	39	16	2	16	11	29	48	0	37	0	37	E	51	14	0
																						W	83	0	0
	TOTAL:	1,050	123	878	127	1,128	658	103	430	103	636	958	101	705	264	1,070	1,850	150	1,463	69	1,682				
16:00-17:00	CAR	779	178	445	160	783	1,737	194	1,510	136	1,840	803	67	570	201	838	935	97	556	140	793	N	47	1	0
	TRK	32	0	25	0	25	32	0	30	0	30	20	2	19	4	25	29	1	25	7	33	S	206	0	0
PM PEAK	BUS	29	0	29	0	29	38	0	38	0	38	20	0	20	0	20	20	0	20	0	20	E	85	3	0
																						W	164	0	0
	TOTAL:	840	178	499	160	837	1,807	194	1,578	136	1,908	843	69	609	205	883	984	98	601	147	846				
OFF HR AVG	CAR	649	118	410	110	638	779	119	582	91	792	464	87	293	163	543	810	80	529	120	729	N	51	14	0
	TRK	34	1	31	0	32	26	2	24	0	26	15	2	14	3	19	21	1	17	1	19	S	87	0	0
	BUS	18	0	18	0	18	19	0	19	0	19	10	0	10	1	11	8	0	7	0	7	E	64	14	0
																						W	79	0	0
	TOTAL:	701	119	459	110	688	824	121	625	91	837	489	89	317	167	573	839	81	553	121	755				
07:30-09:30	CAR	1,858	270	1,400	226	1,896	1,158	278	734	208	1,220	1,692	198	1,198	393	1,789	3,459	286	2,796	180	3,262	N	117	25	0
	TRK	69	0	63	2	65	46	3	35	0	38	33	9	32	12	53	90	1	78	3	82	S	216	0	0
2 HR AM	BUS	68	0	68	0	68	74	0	71	0	71	25	3	25	12	40	85	0	73	0	73	F	119	29	0
																						W	183	0	0
	TOTAL:	1,995	270	1,531	228	2,029	1,278	281	840	208	1,329	1,750	210	1,255	417	1,882	3,634	287	2,947	183	3,417				
16:00-18:00	CAR	1,630	353	981	343	1,677	3,454	372	2,993	283	3,648	1,596	118	1,136	338	1,592	1,817	177	1,126	277	1,580	N	118	11	0
	TRK	67	1	57	0	58	65	0	63	0	63	36	2	33	5	40	53	3	47	10	60	S	301	0	0
2 HR PM	BUS	56	0	56	0	56	76	0	76	0	76	35	0	35	1	36	48	0	47	0	47	E	154	9	0
																						W	308	0	0
	TOTAL:	1,753	354	1,094	343	1,791	3,595	372	3,132	283	3,787	1,667	120	1,204	344	1,668	1,918	180	1,220	287	1,687				
07:30-18:00	CAR	6,081	1,096	4,021	1,009	6,126	7,727	1,124	6,056	855	8,035	5,146	662	3,507	1,383	5,552	8,515	784	6,036	936	7,756	N	438	93	0
	TRK	270	3	243	2	248	212	9	192	0	201	127	18	121	30	169	224	6	191	18	215	S	863	0	0
8 HR SUM	BUS	197	0	197	0	197	226	0	222	0	222	99	4	99	17	120	166	0	149	0	149	E	527	95	0
																						W	808	0	0
	TOTAL:	6,548	1,099	4,461	1,011	6,571	8,165	1,133	6,470	855	8,458	5,372	684	3,727	1,430	5,841	8,905	790	6,376	954	8,120				

Total 8 Hour Vehicle Volume: 28,990

Total 8 Hour Bicycle Volume: 188

Total 8 Hour Intersection Volume: 29,178

Comment:

Printed On: 08 Jun, 2015 1:30:35PM

City of Toronto - Traffic Safety Unit

24-Hour Count Summary Report

BRIMLEY RD	STAT CODE	ARTERY CODE	COUNT DATE	AM PEAK	AM PEAK HOUR	PM PEAK	PM PEAK HOUR	OFF HOUR PEAK	OFF HOUR PEAK HOUR	24 HOUR Total
Northbound **Category: 24 HOUR**										
BRIMLEY RD N/B S OF ELLESMERE RD	138	138	2/8/05 Tue	1,282	07:30 - 08:30	1,068	16:30 - 17:30	902	14:30 - 15:30	14,467
			Northbound Total:	1,282		1,068		902		14,467
			Northbound Average:	1,282		1,068		902		14,467
Southbound **Category: 24 HOUR**										
BRIMLEY RD S/B N OF ELLESMERE RD	139	139	2/8/05 Tue	1,178	07:30 - 08:30	1,278	16:00 - 17:00	1,113	14:30 - 15:30	15,009
			Southbound Total:	1,178		1,278		1,113		15,009
			Southbound Average:	1,178		1,278		1,113		15,009
BRIMLEY RD				2,460		2,346		2,015		29,476

Comment:

Printed On: 29 Mar, 2016 2:11:17PM

City of Toronto - Traffic Safety Unit

24-Hour Count Summary Report

BRIMLEY RD	STAT CODE	ARTERY CODE	COUNT DATE	AM PEAK	AM PEAK HOUR	PM PEAK	PM PEAK HOUR	OFF HOUR PEAK	OFF HOUR PEAK HOUR	24 HOUR Total
Northbound **Category: 24 HOUR**										
BRIMLEY RD N/B S OF ELLESMERE RD	138	138	10/20/09 Tue	1,335	08:00 - 09:00	1,151	16:15 - 17:15	877	14:00 - 15:00	14,546
			Northbound Total:	1,335		1,151		877		14,546
			Northbound Average:	1,335		1,151		877		14,546
Southbound **Category: 24 HOUR**										
BRIMLEY RD S/B N OF ELLESMERE RD	139	139	10/20/09 Tue	1,162	07:45 - 08:45	1,214	16:30 - 17:30	1,066	14:30 - 15:30	14,816
			Southbound Total:	1,162		1,214		1,066		14,816
			Southbound Average:	1,162		1,214		1,066		14,816
BRIMLEY RD				2,497		2,365		1,943		29,362

Comment:

Printed On: 29 Mar, 2016 2:12:13PM

City of Toronto - Traffic Safety Unit

24-Hour Count Summary Report

BRIMLEY RD	STAT CODE	ARTERY CODE	COUNT DATE	AM PEAK	AM PEAK HOUR	PM PEAK	PM PEAK HOUR	OFF HOUR PEAK	OFF HOUR PEAK HOUR	24 HOUR Total
Northbound **Category: 24 HOUR**										
BRIMLEY RD N/B S OF ELLESMERE RD	138	138	11/12/13 Tue	1,416	08:15 - 09:15	1,252	16:30 - 17:30	955	14:30 - 15:30	15,820
			Northbound Total:	1,416		1,252		955		15,820
			Northbound Average:	1,416		1,252		955		15,820
Southbound **Category: 24 HOUR**										
BRIMLEY RD S/B N OF ELLESMERE RD	139	139	11/12/13 Tue	1,239	08:15 - 09:15	1,301	16:30 - 17:30	1,076	14:30 - 15:30	15,725
			Southbound Total:	1,239		1,301		1,076		15,725
			Southbound Average:	1,239		1,301		1,076		15,725
BRIMLEY RD				2,655		2,553		2,031		31,545

Comment:

Printed On: 29 Mar, 2016 2:13:13PM

Real Estate and Facility Management
800 – 1290 Central Parkway West
Mississauga, ON, L5C 4R3
www.cpr.ca

January 28, 2016

Via e-mail: IwonaS@aercoustics.com

Iwona Stasiewicz
Aercoustics Engineering Ltd.
50 Ronson Dr.
Suite 165
Toronto, ON M9W 1B3

Dear Sir/Madam:

Re: Rail Traffic Volumes, CP Mileage 198.85 Belleville Subdivision
Glen Watford Drive, Toronto, ON

This is in reference to your request for rail traffic data for a noise study in the vicinity of Glen Watford Drive and Sheppard Avenue East in the City of Toronto. For your information, the study area is in proximity of Mile 198.85 our Belleville Subdivision, which is classified as a principle main line.

The information requested is as follows:

1. Number of freight trains between 0700 & 2300: 12 trains
   Number of freight trains between 2300 & 0700: 10 trains

2. Number of freight cars per train: 59 average (178 maximum)
   Number of locomotives per train: 2 average (4 maximum)

3. Whistle signals are not routinely sounded through the study area. Please note the whistle signal may be used in any dangerous situation when suitable warning is required.

4. Maximum permissible speed: 60 mph

5. There are 3 tracks at this location, all of which are comprised of continuously welded rail (two tracks are mainline, the third is used for switching operations).

6. As the study site is located within the switching limits of a major classification line, we do request the following warning clause be included in addition to the standard recommended clause for developments with 300 metres of the railway:

.../2

"Warning: Canadian Pacific Railway or its assigns or successors in interest has or have a railway classification yard located within 1000 metres from the land subject hereof; that its operations are conducted 24 hours a day, 7 days a week which includes the shunting of trains and the idling of locomotives. There may be alterations to or expansions of the railway yard operations in the future which alterations or expansions 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, and the Railway will not be responsible for complaints or claims arising from the use of its facilities and/or its operations."

The information provided is based on average rail traffic over the last 30 days and variations of the above may exist on a day-to-day basis. Specific measurements may also vary significantly depending on customer demands.

Yours truly,

Josie Tomei
Specialist Real Estate Sales
& Acquisitions – Ontario
905-803-3429
josie_tomei@cpr.ca

APPENDIX B

ENVIRONMENTAL NOISE GUIDELINES

APPENDIX B

ENVIRONMENTAL NOISE GUIDELINES

MINISTRY OF THE ENVIRONMEN, CONSERVATION AND PARKS (MECP)

Reference: MECP Publication NPC-300, October 2013: *"Environmental Noise Guideline, Stationary and Transportation Source – Approval and Planning"*.

SPACE	SOURCE	TIME PERIOD	CRITERION
Living/dining, den areas of residences, hospitals, nursing homes, schools, daycare centres, etc.	Road	07:00 to 23:00	45 dBA
	Rail	07:00 to 23:00	40 dBA
	Aircraft	24-hour period	NEF/NEP 5
Living/dining, den areas of residences, hospitals, nursing homes, etc. (except schools or daycare centres)	Road	23:00 to 07:00	45 dBA
	Rail	23:00 to 07:00	40 dBA
	Aircraft	24-hour period	NEF/NEP 5
Sleeping quarters	Road	07:00 to 23:00	45 dBA
	Rail	07:00 to 23:00	40 dBA
	Aircraft	24-hour period	NEF/NEP 0
Sleeping quarters	Road	23:00 to 07:00	40 dBA
	Rail	23:00 to 07:00	35 dBA
	Aircraft	24-hour period	NEF/NEP 0
Outdoor Living Areas	Road and Rail	07:00 to 23:00	55 dBA
Outdoor Point of Reception	Aircraft	24-hour period	NEF/NEP 30[#]
	Stationary Source		
	Class 1 Area	07:00 to 19:00[(1)]	50[*] dBA
		19:00 to 23:00[(1)]	50[*] dBA
	Class 2 Area	07:00 to 19:00[(2)]	50[*] dBA
		19:00 to 23:00[(2)]	45[*] dBA
	Class 3 Area	07:00 to 19:00[(3)]	45[*] dBA
		19:00 to 23:00[(3)]	40[*] dBA
	Class 4 Area	07:00 to 19:00[(4)]	55[*] dBA
		19:00 to 23:00[(4)]	55[*] dBA

…./cont'd

SPACE	SOURCE	TIME PERIOD	CRITERION
Plane of a Window of Noise Sensitive Spaces	Stationary Source		
	Class 1 Area	07:00 to 19:00(1)	50* dBA
		19:00 to 23:00(1)	50* dBA
		23:00 to 07:00(1)	45* dBA
	Class 2 Area	07:00 to 19:00(2)	50* dBA
		19:00 to 23:00(2)	50* dBA
		23:00 to 07:00(2)	45* dBA
	Class 3 Area	07:00 to 19:00(3)	45* dBA
		19:00 to 23:00(3)	45* dBA
		23:00 to 07:00(3)	40* dBA
	Class 4 Area	07:00 to 19:00(4)	60* dBA
		19:00 to 23:00(4)	60* dBA
		23:00 to 07:00(4)	55* dBA

\# may not apply to in-fill or re-development.
* or the minimum hourly background sound exposure $L_{eq(1)}$, due to road traffic, if higher.
(1) Class 1 Area: Urban.
(2) Class 2 Area: Urban during day; rural-like evening and night.
(3) Class 3 Area: Rural.
(4) Class 4 Area: Subject to land use planning authority's approval.

Reference: MECP Publication ISBN 0-7729-2804-5, 1987: *"Environmental Noise Assessment in Land-Use Planning"*.

EXCESS ABOVE RECOMMENDED SOUND LEVEL LIMITS (dBA)	CHANGE IN SUBJECTIVE LOUDNESS ABOVE	MAGNITUDE OF THE NOISE PROBLEM	NOISE CONTROL MEASURES (OR ACTION TO BE TAKEN)
No excess (<55 dBA)	—	No expected noise problem	None
1 to 5 inclusive (56 to 60 dBA)	Noticeably louder	Slight noise impact	If no physical measures are taken, then prospective purchasers or tenants should be made aware by suitable warning clauses.
6 to 10 inclusive (61 - 65 dBA)	Almost twice as loud	Definite noise impact	Recommended.
11 to 15 inclusive (66 - 70 dBA)	Almost three times as loud	Serious noise impact	Strongly Recommended.
16 and over (>70 dBA)	Almost four times as loud	Very serious noise impact	Strongly Recommended (may be mandatory).

APPENDIX C

SAMPLE CALCULATION
TRANSPORTATION NOISE

```
STAMSON 5.04        NORMAL REPORT        Date: 07-03-2019 08:44:00
MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS / NOISE ASSESSMENT

Filename: bld_b_s.te           Time Period: Day/Night 16/8 hours
Description: Building B - South Facade, East Corner


Rail data, segment # 1: CN rail (day/night)
-------------------------------------------
Train            ! Trains      ! Speed !# loc !# Cars! Eng  !Cont
Type             !             !(km/h) !/Train!/Train! type !weld
-----------------+-------------+-------+------+------+------+----
* 1.             !  20.5/9.0   !  97.0 !  2.0 !183.0 !Diesel! Yes

* The identified number of trains have been adjusted for
  future growth using the following parameters:

Train type:         ! Unadj. ! Annual % ! Years of !
 No  Name           ! Trains ! Increase !  Growth  !
--------------------+--------+----------+----------+
  1.                !  16.0/7.0   !    2.50  !   10.00  !

Data for Segment # 1: CN rail (day/night)
-----------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  49.00 / 49.00  m
Receiver height           :  84.00 / 84.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
No Whistle
Reference angle           :   0.00

Results segment # 1: CN rail (day)
----------------------------------

LOCOMOTIVE (0.00 + 77.49 + 0.00) = 77.49 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  82.64  -5.14   0.00   0.00   0.00   0.00  77.49
-------------------------------------------------------------------------

WHEEL (0.00 + 66.70 + 0.00) = 66.70 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  71.84  -5.14   0.00   0.00   0.00   0.00  66.70
-------------------------------------------------------------------------

Segment Leq : 77.84 dBA

Total Leq All Segments: 77.84 dBA

Results segment # 1: CN rail (night)
------------------------------------

LOCOMOTIVE (0.00 + 76.93 + 0.00) = 76.93 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  82.07  -5.14   0.00   0.00   0.00   0.00  76.93
-------------------------------------------------------------------------

WHEEL (0.00 + 66.14 + 0.00) = 66.14 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  71.28  -5.14   0.00   0.00   0.00   0.00  66.14
-------------------------------------------------------------------------

Segment Leq : 77.28 dBA

Total Leq All Segments: 77.28 dBA
```

```
Road data, segment # 1: Sheppard Ave (day/night)
------------------------------------------------
Car traffic volume  : 35059/3895  veh/TimePeriod  *
Medium truck volume :  1030/114   veh/TimePeriod  *
Heavy truck volume  :   699/78    veh/TimePeriod  *
Posted speed limit  :    60 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

    24 hr Traffic Volume (AADT or SADT):  29192
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  17.00
    Medium Truck % of Total Volume     :   2.80
    Heavy Truck  % of Total Volume     :   1.90
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Sheppard Ave (day/night)
----------------------------------------------
Angle1   Angle2           : -90.00 deg   64.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  32.00 / 32.00  m
Receiver height           :  84.00 / 84.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00


Road data, segment # 2: Midland Ave (day/night)
-----------------------------------------------

Car traffic volume  : 32898/3655  veh/TimePeriod  *
Medium truck volume :  1401/156   veh/TimePeriod  *
Heavy truck volume  :   736/82    veh/TimePeriod  *
Posted speed limit  :    50 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

    24 hr Traffic Volume (AADT or SADT):  27256
    Percentage of Annual Growth        :   2.00
    Number of Years of Growth          :  18.00
    Medium Truck % of Total Volume     :   4.00
    Heavy Truck  % of Total Volume     :   2.10
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 2: Midland Ave (day/night)
---------------------------------------------
Angle1   Angle2           : -90.00 deg   -28.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  : 375.00 / 375.00 m
Receiver height           :  84.00 / 84.00  m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00
```

Results segment # 1: Sheppard Ave (day)

Source height = 1.17 m

ROAD (0.00 + 67.52 + 0.00) = 67.52 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	64	0.00	71.49	0.00	-3.29	-0.68	0.00	0.00	0.00	67.52

Segment Leq : 67.52 dBA

Results segment # 2: Midland Ave (day)

Source height = 1.20 m

ROAD (0.00 + 51.43 + 0.00) = 51.43 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-28	0.00	70.04	0.00	-13.98	-4.63	0.00	0.00	0.00	51.43

Segment Leq : 51.43 dBA

Total Leq All Segments: 67.63 dBA

Results segment # 1: Sheppard Ave (night)

Source height = 1.18 m

ROAD (0.00 + 60.99 + 0.00) = 60.99 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	64	0.00	64.96	0.00	-3.29	-0.68	0.00	0.00	0.00	60.99

Segment Leq : 60.99 dBA

Results segment # 2: Midland Ave (night)

Source height = 1.20 m

ROAD (0.00 + 44.91 + 0.00) = 44.91 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-28	0.00	63.51	0.00	-13.98	-4.63	0.00	0.00	0.00	44.91

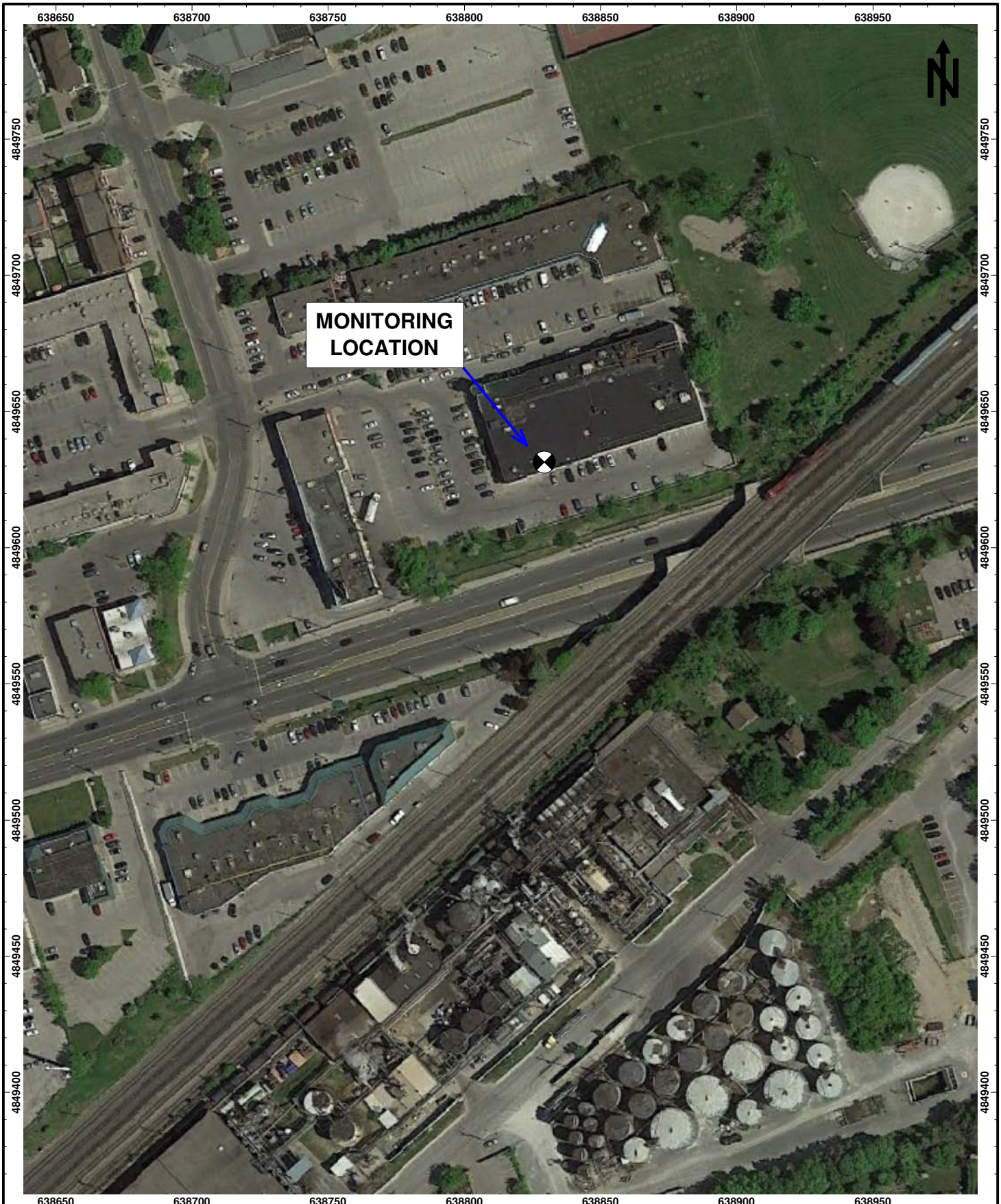
Segment Leq : 44.91 dBA

Total Leq All Segments: 61.10 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 78.23
(NIGHT): 77.38

APPENDIX D

SOUND LEVEL MONITORING
LOCATION AND WEATHER DATA



VALCOUSTICS
Canada Ltd.
consulting acoustical engineers

Title	Date	Figure
Sound Monitoring Location	**2015-08-31**	**D1**
Project Name: **23 Glen Watford Drive**	Project No.: **114-053**	

\\10.7.11.13\jobs\2014\114053\000\Analysis\Cadna\2016-12-05\Glen Watford Calibration.cna

Date Plotted: 07.03.19

Hourly Data Report for August 31, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	19.4	17.6	89	36	1	19.3	99.28			NA
01:00	18.3	16.5	89	36	1	16.1	99.26			Mainly Clear
02:00	17.5	16.0	91	36	2	16.1	99.22			NA
03:00	17.3	15.8	91	36	3	16.1	99.23			NA
04:00	18.2	17.1	93	29	3	16.1	99.24			Mainly Clear
05:00	18.3	17.3	94	28	3	16.1	99.23			NA
06:00	18.1	17.1	94	22	4	9.7	99.26			Fog
07:00	19.9	18.2	90	26	7	12.9	99.29			Clear
08:00	21.8	19.0	84	28	8	14.5	99.33	29		NA
09:00	23.2	18.8	76	29	13	16.1	99.36	30		NA
10:00	24.2	18.7	71	29	12	19.3	99.39	31		Mainly Clear
11:00	25.3	18.1	64	27	16	19.3	99.37	31		NA
12:00	26.9	17.8	57	26	13	19.3	99.33	33		NA
13:00	28.2	18.5	55	29	5	19.3	99.31	35		Mostly Cloudy
14:00	28.0	18.3	55	29	7	19.3	99.27	34		NA
15:00	28.9	18.0	51	34	11	19.3	99.23	35		NA
16:00	29.0	18.1	51	31	11	19.3	99.22	35		Mostly Cloudy
17:00	28.7	18.1	52	29	14	19.3	99.23	35		NA
18:00	27.5	18.1	56	33	10	19.3	99.23	34		NA
19:00	25.4	19.6	70	1	13	19.3	99.28	33		Mainly Clear
20:00	23.5	18.7	74	35	15	19.3	99.32	30		NA
21:00	21.8	18.1	79	36	12	19.3	99.35	28		NA
22:00	20.3	17.9	86	35	9	19.3	99.38	26		Clear
23:00	19.4	17.7	90	35	9	19.3	99.37			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

Hourly Data Report for September 01, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	18.9	18.1	95	34	10	12.9	99.42			NA
01:00 ‡	18.9	18.3	96	36	9	3.2	99.43			Fog
02:00 ‡	19.1	18.1	94	35	8	11.3	99.44			NA
03:00 ‡	19.3	17.8	91	34	5	12.9	99.46			NA
04:00 ‡	18.7	17.4	92	35	6	12.9	99.46			Cloudy
05:00 ‡	18.3	17.0	92	33	4	12.9	99.46			NA
06:00 ‡	18.3	17.0	92	25	5	9.7	99.49			Fog
07:00 ‡	18.4	17.4	94	26	7	4.8	99.53			Fog
08:00 ‡	19.6	17.9	90	34	6	9.7	99.54			Fog
09:00 ‡	22.1	18.0	77	19	4	12.9	99.53	28		NA
10:00 ‡	24.6	18.4	68	21	12	16.1	99.51	31		Cloudy
11:00 ‡	26.0	18.3	62	25	7	16.1	99.47	32		NA
12:00 ‡	28.1	18.1	54	23	12	19.3	99.43	34		NA
13:00 ‡	29.1	18.1	51	26	8	19.3	99.38	35		Mostly Cloudy
14:00 ‡	29.9	19.5	53	23	14	16.1	99.35	37		NA
15:00 ‡	29.7	19.6	54	23	18	16.1	99.32	37		NA
16:00 ‡	29.4	19.9	56	20	14	16.1	99.29	37		Cloudy
17:00 ‡	28.7	19.5	57	18	11	16.1	99.28	36		NA
18:00 ‡	27.4	18.8	59	18	17	16.1	99.29	34		NA
19:00 ‡	25.3	19.5	70	19	10	16.1	99.30	32		Mainly Clear
20:00 ‡	24.6	20.2	76	17	4	16.1	99.36	32		NA
21:00 ‡	23.4	20.2	82	20	4	17.7	99.37	31		NA
22:00 ‡	22.7	19.3	81	35	5	16.1	99.35	30		Clear
23:00 ‡	21.4	19.0	86	4	5	19.3	99.38	28		NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

- NA = Not Available

Hourly Data Report for September 02, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	20.4	19.1	92	0	1	14.5	99.40	27		NA
01:00 ‡	19.9	18.9	94	36	2	9.7	99.38			Fog
02:00 ‡	19.6	18.1	91	36	2	12.9	99.36			NA
03:00 ‡	18.6	17.5	93	35	3	16.1	99.32			NA
04:00 ‡	19.4	18.1	92	36	3	11.3	99.34			Mostly Cloudy
05:00 ‡	19.7	18.2	91	36	3	11.3	99.32			NA
06:00 ‡	19.4	17.9	91	36	3	12.9	99.36			NA
07:00 ‡	21.3	19.3	88	18	4	12.9	99.38	28		Mainly Clear
08:00 ‡	23.1	19.5	80	19	5	11.3	99.36	30		NA
09:00 ‡	24.3	19.9	76	11	6	11.3	99.33	32		NA
10:00 ‡	27.2	20.4	66	23	7	11.3	99.33	35		Mainly Clear
11:00 ‡	29.8	20.8	58	26	8	12.9	99.26	38		NA
12:00 ‡	30.1	19.7	53	30	5	16.1	99.19	37		NA
13:00 ‡	31.4	18.7	46	26	11	16.1	99.14	38		Mostly Cloudy
14:00 ‡	31.5	18.0	44	31	15	16.1	99.11	38		NA
15:00 ‡	32.2	19.4	46	22	7	16.1	99.03	39		NA
16:00 ‡	31.1	19.0	48	26	9	19.3	98.97	38		Mainly Clear
17:00 ‡	29.2	20.0	57	19	18	19.3	98.94	37		NA
18:00 ‡	28.6	20.8	62	19	13	19.3	98.95	37		Rain Showers
19:00 ‡	25.0	22.0	83	8	7	16.1	98.98	34		Cloudy
20:00 ‡	24.0	20.8	82	32	8	19.3	99.04	32		NA
21:00 ‡	23.9	20.1	79	36	6	19.3	99.07	32		NA
22:00 ‡	23.8	20.2	80	35	9	19.3	99.09	32		Mostly Cloudy
23:00 ‡	23.3	19.9	81	35	7	19.3	99.04	31		NA

Notes on Data Quality.

Legend

Hourly Data Report for September 03, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	‡23.1	20.3	84	34	5	19.3	99.03	31		NA
01:00	‡22.5	20.6	89	34	5	19.3	99.03	31		Mainly Clear
02:00	‡22.4	20.9	91	33	4	19.3	98.98	31		NA
03:00	‡21.8	20.6	93	32	4	19.3	99.00	30		NA
04:00	‡21.5	20.7	95	34	7	19.3	99.03	30		Mostly Cloudy
05:00	‡22.0	21.2	95	33	4	12.9	99.01	31		NA
06:00	‡21.6	21.0	96	1	7	4.0	99.05	30		Fog
07:00	‡22.1	21.1	94	34	7	3.6	99.11	31		Fog
08:00	‡22.9	21.4	91	36	10	8.1	99.11	32		Fog
09:00	‡24.2	21.9	87	36	12	9.7	99.10	33		Fog
10:00	‡25.0	21.6	81	36	8	9.7	99.13	34		Fog
11:00	‡26.6	21.9	75	36	2	12.9	99.09	36		NA
12:00	‡27.8	21.5	68	4	7	17.7	99.05	37		NA
13:00	‡28.1	22.2	70	36	12	17.7	99.07	38		Mainly Clear
14:00	‡29.3	21.7	63	1	13	19.3	99.02	38		NA
15:00	‡28.7	20.3	60	6	3	17.7	98.95	37		NA
16:00	‡28.1	21.5	67	16	13	19.3	98.95	37		Mostly Cloudy
17:00	‡27.7	20.2	63	18	13	17.7	99.04	35		NA
18:00	‡25.6	17.1	59	26	20	20.9	99.20	31		NA
19:00	‡22.3	18.1	77	36	16	24.1	99.10	28		Cloudy
20:00	‡22.4	17.8	75	6	13	24.1	99.06	28		NA
21:00	‡22.5	17.9	75	6	10	24.1	99.12	28		NA
22:00	‡20.8	17.7	82	1	6	24.1	99.14	27		Mainly Clear
23:00	‡21.7	18.0	79	6	4	19.3	99.19	28		NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

Hourly Data Report for September 04, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	21.5	18.2	81	35	3	19.3	99.26	28		NA
01:00	21.6	18.6	83	8	5	16.1	99.28	28		Cloudy
02:00	21.6	19.0	85	8	9	16.1	99.30	28		NA
03:00	21.5	19.3	87	10	9	16.1	99.37	29		NA
04:00	20.7	18.3	86	8	8	19.3	99.39	27		Clear
05:00	20.1	17.2	83	6	5	19.3	99.42	26		NA
06:00	19.5	16.6	83	5	6	24.1	99.50			NA
07:00	20.9	16.6	76	6	10	24.1	99.56	26		Mostly Cloudy
08:00	22.8	16.9	69	11	10	24.1	99.58	28		NA
09:00	24.0	16.4	62	10	19	24.1	99.62	29		NA
10:00	25.7	17.0	58	11	20	24.1	99.63	31		Mainly Clear
11:00	26.5	14.5	47	10	24	24.1	99.66	30		NA
12:00	26.5	13.1	43	11	28	24.1	99.65	29		NA
13:00	26.7	11.8	39	11	25	24.1	99.64	29		Clear
14:00	26.9	11.6	38	11	25	24.1	99.64	29		NA
15:00	26.8	11.5	38	13	25	24.1	99.60	29		NA
16:00	26.5	12.0	40	11	21	24.1	99.60	29		Clear
17:00	25.8	11.8	41	11	15	24.1	99.63	28		NA
18:00	24.4	11.9	45	11	17	24.1	99.62	27		NA
19:00	23.3	9.5	41	11	17	24.1	99.67			Mainly Clear
20:00	22.1	11.3	50	11	8	24.1	99.77			NA
21:00	21.2	13.0	59	9	10	24.1	99.77			NA
22:00	20.8	11.8	56	8	9	24.1	99.80			Clear
23:00	20.6	10.8	53	9	14	24.1	99.76			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

- NA = Not Available

Hourly Data Report for September 05, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	20.1	11.4	57	8	11	24.1	99.71			NA
01:00	19.7	12.1	61	9	4	24.1	99.73			Clear
02:00	19.2	12.3	64	11	4	24.1	99.72			NA
03:00	18.7	12.8	68	3	6	24.1	99.71			NA
04:00	17.5	13.3	76	34	6	24.1	99.74			Clear
05:00	17.3	13.3	77	36	6	24.1	99.78			NA
06:00	17.2	13.4	78	1	5	24.1	99.81			NA
07:00	19.1	15.0	77	36	2	24.1	99.84			Mainly Clear
08:00	21.1	17.2	78	12	5	24.1	99.85	27		NA
09:00	23.1	18.1	73	11	10	24.1	99.85	29		NA
10:00	24.6	19.3	72	13	10	24.1	99.86	32		Clear
11:00	26.2	19.7	67	12	9	24.1	99.83	34		NA
12:00	27.8	20.0	62	16	12	24.1	99.76	35		NA
13:00	29.4	19.3	54	18	11	19.3	99.72	36		Clear
14:00	29.7	19.6	54	20	10	19.3	99.69	37		NA
15:00	29.9	19.8	54	19	20	19.3	99.62	37		NA
16:00	29.9	19.8	54	20	13	19.3	99.61	37		Mainly Clear
17:00	29.1	19.9	57	18	14	19.3	99.60	37		NA
18:00	27.8	19.8	61	16	12	19.3	99.59	35		NA
19:00	23.9	20.1	79	14	15	20.9	99.65	32		Mainly Clear
20:00	23.5	20.3	82	11	10	19.3	99.69	31		NA
21:00	23.1	20.7	86	11	8	19.3	99.71	31		NA
22:00	22.2	20.3	89	4	5	16.1	99.68	30		Clear
23:00	21.9	20.2	90	11	3	14.5	99.65	30		NA

Notes on Data Quality.

Legend

- E = Estimated

Hourly Data Report for September 06, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	21.6	20.1	91	36	3	11.3	99.64	29		NA
01:00	20.8	19.7	93	36	2	6.4	99.64	28		Fog
02:00	20.3	19.2	93	36	2	6.4	99.60	27		Fog
03:00	20.1	19.3	95	36	2	6.4	99.59	27		Fog
04:00	19.5	18.7	95	36	3	4.0	99.59			Fog
05:00	18.4	17.8	96	35	6	4.0	99.61			Fog
06:00	18.7	17.9	95	36	2	9.7	99.65			Fog
07:00	21.1	19.3	89	36	2	16.1	99.66	28		Clear
08:00	23.6	19.6	78	21	6	19.3	99.67	31		NA
09:00	25.7	19.2	67	25	7	19.3	99.68	33		NA
10:00	27.6	19.6	61	24	9	24.1	99.64	35		Clear
11:00	28.9	18.9	54	23	12	24.1	99.63	36		NA
12:00	30.3	18.6	49	23	13	24.1	99.61	37		NA
13:00	29.6	18.9	52	26	18	24.1	99.57	36		Mostly Cloudy
14:00	30.0	18.7	50	26	13	19.3	99.51	37		NA
15:00	30.0	19.3	52	29	10	19.3	99.47	37		NA
16:00	30.9	19.2	49	28	11	19.3	99.44	38		Mostly Cloudy
17:00	29.8	19.7	54	16	13	19.3	99.40	37		NA
18:00	28.1	20.3	62	19	9	19.3	99.38	36		NA
19:00	26.6	19.9	66	18	10	24.1	99.38	34		Mainly Clear
20:00	25.7	19.9	70	19	5	24.1	99.38	33		NA
21:00	25.5	20.0	71	19	4	24.1	99.40	33		NA
22:00	24.6	20.0	75	18	3	24.1	99.35	32		Mainly Clear
23:00	24.5	19.9	75	23	4	24.1	99.36	32		NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

Hourly Data Report for September 07, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	24.9	20.0	74	22	3	24.1	99.34	32		NA
01:00 ‡	24.3	20.3	78	23	6	24.1	99.28	32		Mainly Clear
02:00 ‡	23.2	20.0	82	22	6	19.3	99.25	31		NA
03:00 ‡	23.2	20.0	82	24	8	24.1	99.23	31		NA
04:00 ‡	22.4	19.6	84	21	3	24.1	99.24	30		Clear
05:00 ‡	22.2	18.8	81	24	8	24.1	99.27	29		NA
06:00 ‡	22.2	18.7	80	23	10	24.1	99.28	29		NA
07:00 ‡	23.2	19.0	77	24	8	19.3	99.31	30		Mainly Clear
08:00 ‡	25.2	19.7	71	25	12	19.3	99.30	33		NA
09:00 ‡	27.7	20.4	64	24	8	19.3	99.28	36		NA
10:00 ‡	29.7	19.6	54	23	22	19.3	99.26	37		Mostly Cloudy
11:00 ‡	31.1	19.4	49	25	17	19.3	99.22	38		NA
12:00 ‡	32.5	20.0	47	22	17	19.3	99.15	40		NA
13:00 ‡	33.2	19.2	43	24	21	19.3	99.11	40		Mostly Cloudy
14:00 ‡	32.7	19.1	44	26	18	19.3	99.05	40		NA
15:00 ‡	33.3	18.6	41	27	14	19.3	99.00	40		NA
16:00 ‡	32.6	18.7	43	27	12	19.3	98.96	39		Mostly Cloudy
17:00 ‡	32.2	19.0	45	25	22	19.3	98.94	39		NA
18:00 ‡	31.2	18.5	46	26	14	19.3	98.94	38		NA
19:00 ‡	30.1	19.4	52	26	12	19.3	98.99	37		Mostly Cloudy
20:00 ‡	29.0	19.5	56	27	13	22.5	99.08	36		NA
21:00 ‡	27.4	19.9	63	29	14	22.5	99.14	35		NA
22:00 ‡	26.5	20.0	67	32	9	24.1	99.14	34		Mostly Cloudy
23:00 ‡	25.8	20.0	70	27	7	24.1	99.16	33		NA

Notes on Data Quality.

Legend

Hourly Data Report for September 08, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	25.4	19.9	71	28	5	24.1	99.16	33		NA
01:00	24.8	19.7	73	27	3	24.1	99.18	32		Mostly Cloudy
02:00	24.4	20.0	76	28	4	24.1	99.16	32		NA
03:00	24.1	20.1	78	24	3	14.5	99.17	32		Moderate Rain Showers
04:00	23.2	21.3	89	36	2	11.3	99.18	32		Rain Showers
05:00	22.3	21.3	94	36	3	16.1	99.15	31		NA
06:00	22.8	21.5	92	36	1	16.1	99.20	32		NA
07:00	23.0	21.3	90	19	12	16.1	99.23	32		Cloudy
08:00	22.7	21.7	94	18	9	9.7	99.20	32		Fog
09:00	23.8	21.9	89	21	9	12.9	99.16	33		NA
10:00	24.6	22.2	86	18	9	12.9	99.11	34		Cloudy
11:00	25.1	21.9	82	21	7	16.1	99.08	34		NA
12:00	26.3	22.0	77	19	8	24.1	99.01	36		NA
13:00	27.5	22.6	74	19	13	24.1	98.96	37		Mostly Cloudy
14:00	28.4	21.3	65	20	18	24.1	98.86	37		NA
15:00	28.7	22.1	67	19	17	24.1	98.74	38		NA
16:00	28.0	21.4	67	17	15	19.3	98.73	37		Mostly Cloudy
17:00	27.1	21.3	70	16	15	24.1	98.73	36		NA
18:00	27.1	21.5	71	17	12	24.1	98.69	36		NA
19:00	26.4	21.3	73	17	10	24.1	98.68	35		Mostly Cloudy
20:00	26.0	20.4	71	17	11	19.3	98.67	34		NA
21:00	25.3	20.2	73	17	9	19.3	98.66	33		NA
22:00	24.9	20.0	74	18	12	19.3	98.61	32		Mainly Clear
23:00	24.2	20.4	79	19	10	19.3	98.58	32		NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

- NA = Not Available

Hourly Data Report for September 09, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	24.8	20.4	76	21	10	19.3	98.55	33		NA
01:00	24.1	20.3	79	18	7	19.3	98.50	32		Mostly Cloudy
02:00	23.9	20.5	81	30	7	19.3	98.52	32		NA
03:00	23.4	20.2	82	36	3	19.3	98.52	31		NA
04:00	23.2	19.8	81	24	5	24.1	98.51	31		Mostly Cloudy
05:00	23.4	19.6	79	25	9	24.1	98.51	31		NA
06:00	23.1	19.9	82	26	11	19.3	98.60	31		NA
07:00	20.4	19.4	94	34	13	9.7	98.71	27		Rain Showers
08:00	20.1	18.8	92	33	9	17.7	98.72	27		Rain Showers
09:00	20.8	19.3	91	33	10	22.5	98.80	28		Rain Showers
10:00	20.7	18.1	85	33	21	24.1	98.83	27		Cloudy
11:00	21.3	17.8	80	33	21	24.1	98.82	27		NA
12:00	22.9	18.3	75	32	16	24.1	98.85	29		NA
13:00	23.1	17.0	68	33	17	24.1	98.87	28		Mostly Cloudy
14:00	23.3	17.2	68	31	10	24.1	98.87	29		NA
15:00	23.3	15.7	62	30	16	24.1	98.85	28		NA
16:00	23.2	14.9	59	31	10	24.1	98.84	27		Mostly Cloudy
17:00	22.9	15.1	61	33	21	24.1	98.85	27		NA
18:00	21.1	13.2	60	34	21	24.1	98.92			NA
19:00	19.5	9.8	53	33	18	24.1	98.99			Mostly Cloudy
20:00	18.2	10.4	60	32	10	24.1	99.06			NA
21:00	18.2	9.4	56	29	5	24.1	99.10			NA
22:00	17.4	9.9	61	31	7	24.1	99.10			Cloudy
23:00	16.5	9.7	64	26	6	24.1	99.13			NA

Hourly Data Report for September 10, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	15.6	10.0	69	30	3	24.1	99.15			NA
01:00	15.0	9.8	71	32	7	24.1	99.14			Mostly Cloudy
02:00	13.6	9.9	78	33	6	24.1	99.15			NA
03:00	13.3	9.4	77	35	8	24.1	99.16			NA
04:00	13.1	9.4	78	33	4	24.1	99.16			Mainly Clear
05:00	12.1	9.5	84	4	4	24.1	99.13			NA
06:00	11.9	9.3	84	36	1	24.1	99.17			NA
07:00	14.4	10.7	78	36	2	24.1	99.20			Mainly Clear
08:00	18.3	11.7	65	3	5	24.1	99.19			NA
09:00	21.1	10.1	49	8	10	24.1	99.15			NA
10:00	21.9	6.3	36	12	9	24.1	99.18			Mainly Clear
11:00	21.4	8.8	44	12	12	24.1	99.17			NA
12:00	22.5	6.0	34	13	14	24.1	99.08			NA
13:00	23.2	7.5	36	12	20	24.1	99.03			Mainly Clear
14:00	22.7	7.8	38	16	17	24.1	99.00			NA
15:00	22.3	6.3	35	11	11	24.1	98.95			NA
16:00	22.8	7.5	37	13	13	24.1	98.93			Mainly Clear
17:00	22.7	7.1	36	9	12	24.1	98.91			NA
18:00	21.4	7.8	41	13	10	24.1	98.89			NA
19:00	19.6	8.1	47	13	8	24.1	98.88			Mostly Cloudy
20:00	19.2	9.2	52	10	3	24.1	98.90			NA
21:00	18.9	8.7	51	14	3	24.1	98.89			NA
22:00	18.3	10.0	58	23	3	24.1	98.89			Mainly Clear
23:00	17.4	10.6	64	0	1	24.1	98.88			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

Hourly Data Report for September 11, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	16.0	10.6	70	36	3	24.1	98.83			NA
01:00 ‡	13.8	10.4	80	30	3	24.1	98.79			Clear
02:00 ‡	13.0	10.4	84	36	3	24.1	98.72			NA
03:00 ‡	13.2	10.2	82	35	3	24.1	98.76			NA
04:00 ‡	13.8	10.6	81	36	2	24.1	98.80			Mainly Clear
05:00 ‡	14.3	10.8	79	36	4	24.1	98.77			NA
06:00 ‡	14.0	10.3	78	35	7	24.1	98.84			NA
07:00 ‡	16.6	9.4	62	34	10	24.1	98.87			Mostly Cloudy
08:00 ‡	19.0	14.3	74	35	11	24.1	98.86			NA
09:00 ‡	18.4	14.9	80	34	18	24.1	98.89			NA
10:00 ‡	19.3	13.6	69	1	13	24.1	98.89			Mostly Cloudy
11:00 ‡	18.5	14.1	75	35	9	24.1	98.90			NA
12:00 ‡	19.8	14.3	70	35	7	24.1	98.87			NA
13:00 ‡	21.5	13.0	58	4	6	24.1	98.83			Mostly Cloudy
14:00 ‡	20.7	13.5	63	35	22	24.1	98.79			NA
15:00 ‡	20.9	12.7	59	1	12	24.1	98.77			NA
16:00 ‡	20.5	11.0	54	36	13	24.1	98.79			Cloudy
17:00 ‡	18.9	11.1	60	34	22	24.1	98.81			NA
18:00 ‡	17.2	10.2	63	34	20	24.1	98.84			NA
19:00 ‡	16.3	10.0	66	34	22	22.5	98.88			Rain Showers
20:00 ‡	16.0	9.3	64	34	18	24.1	98.92			NA
21:00 ‡	14.8	10.3	74	34	18	22.5	98.96			Rain Showers
22:00 ‡	14.1	10.9	81	35	17	20.9	98.90			Rain Showers
23:00 ‡	13.8	11.4	85	33	14	8.1	98.91			Rain,Fog

Notes on Data Quality.

Hourly Data Report for September 12, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	13.6	12.0	90	33	9	6.4	98.96			Rain Showers,Fog
01:00 ‡	13.5	12.2	92	3	13	4.8	98.89			Rain,Fog
02:00 ‡	12.4	10.5	88	3	9	4.8	98.89			Rain,Fog
03:00 ‡	12.0	10.8	92	36	12	4.8	98.84			Rain,Fog
04:00 ‡	12.2	11.1	93	2	5	12.9	98.85			Rain
05:00 ‡	12.6	11.5	93	3	5	11.3	98.88			Rain
06:00 ‡	12.6	11.7	94	4	8	16.1	98.86			Rain
07:00 ‡	12.7	11.8	94	36	8	19.3	98.88			Rain
08:00 ‡	13.0	11.7	92	1	16	24.1	98.84			Rain
09:00 ‡	13.6	11.8	89	1	18	24.1	98.84			NA
10:00 ‡	13.4	11.3	87	36	22	24.1	98.85			Cloudy
11:00 ‡	14.6	11.6	82	1	19	24.1	98.82			NA
12:00 ‡	15.4	10.6	73	3	22	24.1	98.79			NA
13:00 ‡	15.4	10.4	72	2	24	24.1	98.75			Cloudy
14:00 ‡	15.1	9.9	71	2	25	24.1	98.72			Rain Showers
15:00 ‡	14.4	10.3	76	1	23	19.3	98.67			Rain Showers
16:00 ‡	14.3	10.2	76	2	19	24.1	98.62			Cloudy
17:00 ‡	14.1	9.4	73	1	22	24.1	98.59			NA
18:00 ‡	13.4	9.3	76	1	17	19.3	98.57			Rain Showers
19:00 ‡	12.9	9.8	81	36	19	24.1	98.60			Rain Showers
20:00 ‡	11.8	9.9	88	36	15	11.3	98.65			Rain Showers
21:00 ‡	11.4	9.8	90	1	17	12.9	98.58			Rain Showers
22:00 ‡	11.7	9.6	87	34	10	24.1	98.61			Rain Showers
23:00 ‡	11.7	9.5	86	33	13	19.3	98.60			Rain Showers

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

- NA = Not Available

Hourly Data Report for September 13, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	11.6	9.5	87	2	20	19.3	98.48			Rain Showers
01:00 ‡	11.5	9.4	87	35	22	19.3	98.41			Rain Showers
02:00 ‡	11.3	9.4	88	33	20	12.9	98.42			Rain Showers
03:00 ‡	10.8	9.1	89	32	21	24.1	98.42			Rain Showers
04:00 ‡	10.4	8.7	89	33	18	24.1	98.40			Rain Showers
05:00 ‡	10.6	8.4	86	33	16	19.3	98.36			Rain Showers
06:00 ‡	10.7	8.6	87	34	23	19.3	98.36			Rain Showers
07:00 ‡	10.7	8.8	88	33	17	19.3	98.40			Cloudy
08:00 ‡	11.0	8.6	85	32	18	24.1	98.40			NA
09:00 ‡	11.5	9.1	85	31	19	24.1	98.42			NA
10:00 ‡	12.2	10.0	86	33	27	19.3	98.44			Cloudy
11:00 ‡	13.4	9.7	78	32	18	24.1	98.46			NA
12:00 ‡	14.2	8.9	70	32	23	24.1	98.49			NA
13:00 ‡	14.2	9.7	74	33	21	24.1	98.50			Cloudy
14:00 ‡	13.5	10.5	82	32	21	16.1	98.54			Rain
15:00 ‡	13.1	10.7	85	34	26	16.1	98.58			Rain
16:00 ‡	13.4	11.3	87	34	11	19.3	98.62			Rain
17:00 ‡	13.9	10.5	80	33	17	19.3	98.65			NA
18:00 ‡	14.4	9.1	70	30	12	24.1	98.70			NA
19:00 ‡	14.0	8.7	70	32	13	24.1	98.75			Mostly Cloudy
20:00 ‡	14.0	7.8	66	29	16	24.1	98.81			NA
21:00 ‡	13.2	7.5	68	29	14	24.1	98.86			NA
22:00 ‡	11.9	6.9	71	28	13	24.1	98.89			Mainly Clear
23:00 ‡	11.1	6.9	75	29	14	24.1	98.91			NA

Hourly Data Report for September 14, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	11.0	6.6	74	30	12	24.1	98.93			NA
01:00 ‡	10.6	6.8	77	29	17	24.1	98.96			Clear
02:00 ‡	10.6	7.1	79	29	13	24.1	99.01			NA
03:00 ‡	10.2	7.1	81	26	13	24.1	99.07			NA
04:00 ‡	9.9	7.2	83	25	9	24.1	99.13			Clear
05:00 ‡	9.1	6.9	86	23	3	24.1	99.23			NA
06:00 ‡	9.3	7.1	86	25	8	24.1	99.31			NA
07:00 ‡	10.7	7.8	82	27	8	24.1	99.39			Mainly Clear
08:00 ‡	14.1	10.0	76	27	10	24.1	99.45			NA
09:00 ‡	16.9	10.8	67	26	15	24.1	99.50			NA
10:00 ‡	19.2	9.5	53	28	17	24.1	99.54			Clear
11:00 ‡	20.4	9.2	48	28	17	24.1	99.55			NA
12:00 ‡	21.2	7.6	41	26	18	24.1	99.54			NA
13:00 ‡	22.2	8.5	41	27	16	24.1	99.54			Mainly Clear
14:00 ‡	22.3	9.3	43	29	21	24.1	99.52			NA
15:00 ‡	23.1	10.0	43	26	18	24.1	99.53			NA
16:00 ‡	23.0	9.2	41	28	18	24.1	99.52			Clear
17:00 ‡	22.8	9.0	41	27	19	24.1	99.53			NA
18:00 ‡	21.9	8.2	41	27	13	24.1	99.56			NA
19:00 ‡	19.9	9.0	49	29	5	24.1	99.59			Clear
20:00 ‡	17.7	8.9	56	36	2	24.1	99.67			NA
21:00 ‡	17.3	9.1	58	24	5	24.1	99.74			NA
22:00 ‡	17.0	10.5	65	26	4	24.1	99.79			Clear
23:00 ‡	14.9	10.6	75		0	24.1	99.84			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

Hourly Data Report for September 15, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	13.4	10.2	81	0	1	24.1	99.88			NA
01:00	12.6	10.2	85	36	1	24.1	99.90			Clear
02:00	13.6	10.4	81	29	4	24.1	99.93			NA
03:00	13.5	10.3	81	36	2	24.1	99.97			NA
04:00	11.7	9.8	88	36	1	24.1	100.01			Clear
05:00	11.7	9.8	88		0	24.1	100.04			NA
06:00	11.3	9.7	90	36	1	24.1	100.09			NA
07:00	13.9	11.3	84	36	3	24.1	100.13			Clear
08:00	17.5	12.3	71	24	6	24.1	100.17			NA
09:00	20.7	13.0	61	23	7	24.1	100.20			NA
10:00	23.3	13.6	54	20	8	24.1	100.21	26		Clear
11:00	25.1	12.9	46	24	10	24.1	100.18	28		NA
12:00	27.0	15.6	49	20	11	24.1	100.16	31		NA
13:00	26.8	15.4	49	18	16	24.1	100.14	31		Clear
14:00	26.6	15.2	49	17	16	24.1	100.10	31		NA
15:00	27.2	14.8	46	18	18	24.1	100.07	31		NA
16:00	27.1	16.0	50	18	17	24.1	100.05	32		Mainly Clear
17:00	25.9	16.6	56	18	17	24.1	100.06	31		NA
18:00	24.4	16.8	62	18	13	24.1	100.08	30		NA
19:00	22.5	16.6	69	19	10	24.1	100.12	28		Mainly Clear
20:00	23.6	13.9	54	24	11	24.1	100.19	27		NA
21:00	22.2	13.4	57	23	8	24.1	100.24	25		NA
22:00	21.5	13.3	59	25	4	24.1	100.25			Mainly Clear
23:00	19.2	13.5	69	23	3	24.1	100.26			NA

Notes on Data Quality.

Legend

- E = Estimated

Hourly Data Report for September 16, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	18.2	13.6	74	36	1	24.1	100.26			NA
01:00 ‡	17.3	13.1	76	19	5	24.1	100.25			Mainly Clear
02:00 ‡	16.4	12.8	79	21	3	24.1	100.24			NA
03:00 ‡	15.6	12.6	82	36	2	24.1	100.26			NA
04:00 ‡	14.5	12.4	87	34	4	24.1	100.27			Clear
05:00 ‡	14.4	11.9	85	36	3	24.1	100.28			NA
06:00 ‡	14.8	12.0	83	36	2	24.1	100.31			NA
07:00 ‡	16.2	13.2	82	0	1	24.1	100.35			Mainly Clear
08:00 ‡	20.4	12.7	61	22	6	24.1	100.36			NA
09:00 ‡	22.7	14.1	58	20	6	24.1	100.34	26		NA
10:00 ‡	24.8	13.2	48	23	7	24.1	100.32	28		Mainly Clear
11:00 ‡	26.3	13.6	45	20	12	24.1	100.31	29		NA
12:00 ‡	27.2	13.8	43	20	10	24.1	100.24	30		NA
13:00 ‡	28.2	14.7	43	22	13	24.1	100.16	32		Mainly Clear
14:00 ‡	28.1	15.3	45	22	12	24.1	100.08	32		NA
15:00 ‡	28.1	15.3	45	20	10	24.1	100.01	32		NA
16:00 ‡	27.7	16.2	49	19	17	24.1	99.95	32		Clear
17:00 ‡	26.9	15.8	50	19	18	24.1	99.94	31		NA
18:00 ‡	25.2	15.1	53	18	14	24.1	99.91	29		NA
19:00 ‡	23.2	15.6	62	19	11	24.1	99.91	28		Clear
20:00 ‡	22.0	15.2	65	18	10	24.1	99.91	26		NA
21:00 ‡	21.1	15.3	69	19	7	24.1	99.91	25		NA
22:00 ‡	19.6	14.9	74	7	4	24.1	99.91			Clear
23:00 ‡	17.2	14.9	86	36	4	24.1	99.90			NA

Notes on Data Quality.

Legend

Hourly Data Report for September 17, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	16.8	15.2	90	35	7	24.1	99.88			NA
01:00 ‡	15.7	14.6	93	36	3	19.3	99.88			Clear
02:00 ‡	15.5	14.7	95	36	3	16.1	99.83			NA
03:00 ‡	15.0	14.5	97	34	5	16.1	99.84			NA
04:00 ‡	15.0	14.5	97	36	2	16.1	99.83			Clear
05:00 ‡	14.2	13.4	95	34	6	16.1	99.83			NA
06:00 ‡	14.6	14.0	96	36	1	4.0	99.81			Fog
07:00 ‡	15.8	14.7	93	36	2	9.7	99.78			Fog
08:00 ‡	20.1	14.3	69	21	4	19.3	99.77			NA
09:00 ‡	23.2	14.6	58	20	8	22.5	99.75	27		NA
10:00 ‡	25.0	14.3	51	23	8	24.1	99.70	29		Clear
11:00 ‡	26.7	14.3	46	19	14	24.1	99.64	30		NA
12:00 ‡	27.4	13.6	42	20	12	24.1	99.56	31		NA
13:00 ‡	27.5	12.9	40	20	16	24.1	99.51	30		Clear
14:00 ‡	27.4	13.2	41	16	18	24.1	99.45	30		NA
15:00 ‡	27.8	14.0	42	18	18	24.1	99.41	31		NA
16:00 ‡	27.4	15.3	47	18	17	24.1	99.37	32		Clear
17:00 ‡	26.4	15.3	50	18	17	24.1	99.34	31		NA
18:00 ‡	24.9	15.4	55	17	16	24.1	99.29	29		NA
19:00 ‡	24.0	15.1	57	17	16	24.1	99.24	28		Clear
20:00 ‡	23.4	13.7	54	21	12	24.1	99.28	27		NA
21:00 ‡	20.9	13.2	61	19	10	24.1	99.26			NA
22:00 ‡	20.5	13.1	62	19	8	24.1	99.26			Clear
23:00 ‡	19.4	14.5	73	18	10	24.1	99.23			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

- NA = Not Available
- ‡ = Partner data that is not subject to review by the National Climate Archives

Hourly Data Report for September 18, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	19.2	14.5	74	20	5	24.1	99.21			NA
01:00 ‡	17.0	14.1	83	36	1	24.1	99.16			Clear
02:00 ‡	15.0	12.7	86	35	5	24.1	99.15			NA
03:00 ‡	14.7	12.8	88	34	3	24.1	99.16			NA
04:00 ‡	14.3	12.9	91	36	3	24.1	99.11			Clear
05:00 ‡	14.6	12.8	89	34	4	24.1	99.11			NA
06:00 ‡	14.4	12.6	89	2	3	16.1	99.11			NA
07:00 ‡	15.1	13.8	92	36	1	24.1	99.10			Mainly Clear
08:00 ‡	18.7	15.6	82	7	4	17.7	99.10			NA
09:00 ‡	22.1	16.9	72	17	10	19.3	99.06	27		NA
10:00 ‡	24.1	17.5	66	17	13	22.5	99.02	30		Mostly Cloudy
11:00 ‡	24.5	16.6	61	18	18	24.1	98.98	30		NA
12:00 ‡	25.0	15.8	56	19	19	24.1	98.95	29		NA
13:00 ‡	25.5	16.0	55	20	23	24.1	98.89	30		Mostly Cloudy
14:00 ‡	25.4	13.8	48	18	29	24.1	98.86	29		NA
15:00 ‡	25.3	13.7	48	19	18	24.1	98.86	28		NA
16:00 ‡	24.5	13.6	50	20	13	22.5	98.85	28		Cloudy
17:00 ‡	24.5	13.3	49	23	13	22.5	98.87	27		NA
18:00 ‡	22.6	14.3	59	21	8	24.1	98.89	26		NA
19:00 ‡	19.8	16.5	81	36	2	16.1	98.87			Cloudy
20:00 ‡	20.4	16.9	80	15	4	19.3	98.82	26		NA
21:00 ‡	19.7	17.5	87	36	2	19.3	98.83			NA
22:00 ‡	20.1	17.4	84	36	1	16.1	98.85	26		Cloudy
23:00 ‡	18.5	16.9	90	34	5	19.3	98.82			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

Hourly Data Report for September 19, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	18.1	16.5	90	36	1	19.3	98.78			NA
01:00	17.6	16.0	90	33	4	16.1	98.70			Clear
02:00	17.1	16.0	93	4	3	16.1	98.60			NA
03:00	15.8	14.7	93	34	7	16.1	98.56			NA
04:00	16.7	15.6	93	36	1	12.9	98.47			Mostly Cloudy
05:00	17.8	16.2	90	12	6	11.3	98.40			NA
06:00	18.4	17.1	92	20	7	9.7	98.38			Fog
07:00	19.3	17.8	91	19	10	16.1	98.37			Cloudy
08:00	20.0	18.5	91	19	23	16.1	98.32	26		Rain
09:00	20.6	18.8	89	22	14	24.1	98.32	27		NA
10:00	21.9	19.3	85	19	17	19.3	98.24	29		Cloudy
11:00	23.3	19.1	77	19	20	24.1	98.23	30		NA
12:00	22.9	19.3	80	19	24	19.3	98.17	30		NA
13:00	24.2	19.2	73	20	20	19.3	98.08	31		Cloudy
14:00	22.3	18.9	81	23	25	16.1	98.04	29		Moderate Rain Showers
15:00	19.0	16.6	86	29	18	16.1	98.18			Rain Showers
16:00	18.9	15.4	80	30	23	24.1	98.31			Mostly Cloudy
17:00	16.7	12.5	76	33	25	24.1	98.50			NA
18:00	16.6	11.8	73	30	15	24.1	98.61			NA
19:00	16.0	11.6	75	31	18	24.1	98.77			Mostly Cloudy
20:00	15.1	10.8	75	30	18	24.1	98.92			NA
21:00	14.5	10.9	79	32	22	24.1	99.02			NA
22:00	13.7	11.3	85	30	10	24.1	99.12			Mostly Cloudy
23:00	13.6	10.4	81	32	16	24.1	99.19			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

- NA = Not Available

Hourly Data Report for September 20, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	12.6	9.6	82	33	10	24.1	99.27			NA
01:00 ‡	11.8	9.0	83	29	3	24.1	99.35			Clear
02:00 ‡	10.6	7.9	83	32	8	24.1	99.40			NA
03:00 ‡	10.1	7.5	84	33	5	24.1	99.47			NA
04:00 ‡	9.6	7.6	87	33	11	24.1	99.56			Clear
05:00 ‡	8.9	7.4	90	34	13	24.1	99.65			NA
06:00 ‡	8.1	6.9	92	35	8	24.1	99.74			NA
07:00 ‡	9.8	8.3	90	35	8	24.1	99.83			Clear
08:00 ‡	12.1	7.2	72	2	10	24.1	99.90			NA
09:00 ‡	13.9	7.0	63	3	10	24.1	99.93			NA
10:00 ‡	15.6	6.7	55	5	8	24.1	99.98			Mainly Clear
11:00 ‡	16.2	6.1	51	34	4	24.1	99.96			NA
12:00 ‡	17.0	5.1	45	8	5	24.1	99.93			NA
13:00 ‡	18.3	5.6	43	36	3	24.1	99.89			Mostly Cloudy
14:00 ‡	19.1	6.0	42	24	7	24.1	99.83			NA
15:00 ‡	18.2	8.8	54	17	14	24.1	99.82			NA
16:00 ‡	18.9	8.4	50	19	10	24.1	99.81			Mostly Cloudy
17:00 ‡	18.6	9.2	54	36	1	24.1	99.81			NA
18:00 ‡	16.2	8.8	61	17	10	24.1	99.80			NA
19:00 ‡	14.5	8.9	69	20	10	24.1	99.84			Mostly Cloudy
20:00 ‡	13.9	9.0	72	17	3	24.1	99.90			NA
21:00 ‡	12.9	9.2	78	36	1	24.1	99.91			NA
22:00 ‡	12.1	9.2	82	1	4	24.1	99.92			Mainly Clear
23:00 ‡	11.3	8.9	85	35	5	24.1	99.91			NA

Notes on Data Quality.

Legend

- E = Estimated

Hourly Data Report for September 21, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	10.8	8.7	87	34	6	24.1	99.93			NA
01:00 ‡	10.6	8.4	86	36	3	24.1	99.94			Mostly Cloudy
02:00 ‡	9.6	8.1	90	36	2	24.1	99.92			NA
03:00 ‡	9.8	7.9	88	36	4	24.1	99.92			NA
04:00 ‡	9.5	8.0	90	1	3	24.1	99.93			Mostly Cloudy
05:00 ‡	9.3	7.8	90	1	4	24.1	99.99			NA
06:00 ‡	9.8	7.9	88	1	4	24.1	100.02			NA
07:00 ‡	10.8	8.4	85	1	7	24.1	100.04			Mostly Cloudy
08:00 ‡	13.4	9.3	76	4	4	24.1	100.06			NA
09:00 ‡	15.2	10.0	71	8	6	24.1	100.09			NA
10:00 ‡	16.8	10.0	64	8	13	24.1	100.11			Mostly Cloudy
11:00 ‡	17.7	9.4	58	13	17	24.1	100.11			NA
12:00 ‡	19.0	9.0	52	10	15	24.1	100.08			NA
13:00 ‡	19.0	9.9	55	10	26	24.1	100.01			Mostly Cloudy
14:00 ‡	18.9	11.8	63	10	19	24.1	99.96			NA
15:00 ‡	18.4	11.8	65	12	16	24.1	99.94			NA
16:00 ‡	18.0	9.7	58	12	18	24.1	99.90			Mainly Clear
17:00 ‡	17.7	6.4	47	10	13	24.1	99.90			NA
18:00 ‡	16.3	9.6	64	10	8	24.1	99.91			NA
19:00 ‡	14.8	10.7	76	12	11	24.1	99.94			Clear
20:00 ‡	14.0	9.7	75	7	8	24.1	99.97			NA
21:00 ‡	12.0	9.1	82	1	5	24.1	99.97			NA
22:00 ‡	10.9	8.5	85	36	7	24.1	99.94			Clear
23:00 ‡	10.8	8.4	85	2	7	24.1	99.92			NA

Notes on Data Quality.

Legend

Hourly Data Report for September 22, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	10.3	8.3	87	35	6	24.1	99.88			NA
01:00 ‡	10.5	8.4	87	2	4	24.1	99.84			Clear
02:00 ‡	10.4	8.7	89	35	4	24.1	99.85			NA
03:00 ‡	10.2	8.8	91	33	5	24.1	99.86			NA
04:00 ‡	10.1	9.0	93	33	4	24.1	99.90			Clear
05:00 ‡	10.0	8.9	93	36	4	24.1	99.95			NA
06:00 ‡	9.8	8.7	93	36	4	24.1	100.02			NA
07:00 ‡	11.0	9.9	93	35	4	24.1	100.06			Clear
08:00 ‡	14.0	11.9	87	36	1	24.1	100.10			NA
09:00 ‡	17.2	13.0	76	21	11	24.1	100.11			NA
10:00 ‡	18.5	12.8	69	27	8	24.1	100.12			Clear
11:00 ‡	19.9	12.8	63	23	3	24.1	100.09			NA
12:00 ‡	21.5	12.2	55	12	7	24.1	100.05			NA
13:00 ‡	21.7	11.3	51	21	10	24.1	100.01			Mainly Clear
14:00 ‡	22.4	13.6	57	15	15	24.1	99.98	26		NA
15:00 ‡	22.2	13.4	57	18	13	24.1	99.96	25		NA
16:00 ‡	21.3	12.6	57	14	15	24.1	99.95			Mainly Clear
17:00 ‡	20.8	11.8	56	17	11	24.1	99.99			NA
18:00 ‡	19.4	11.8	61	16	8	24.1	100.02			NA
19:00 ‡	17.7	13.5	76	13	6	24.1	100.04			Clear
20:00 ‡	16.4	14.4	88	13	6	24.1	100.08			NA
21:00 ‡	14.7	13.8	94	5	7	19.3	100.09			NA
22:00 ‡	13.5	12.4	93	1	5	19.3	100.11			Clear
23:00 ‡	14.1	13.2	94	33	3	16.1	100.11			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

Hourly Data Report for September 23, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	14.6	13.5	93	33	5	16.1	100.12			NA
01:00	15.6	14.8	95	30	5	4.0	100.13			Fog
02:00	15.1	14.3	95	34	6	6.4	100.12			Fog
03:00	14.6	14.3	98	36	4	0.6	100.10			Fog
04:00	13.6	13.3	98	35	3	0.4	100.13			Fog
05:00	13.0	12.7	98	0	1	0.4	100.15			Fog
06:00	13.1	12.8	98	36	4	0.2	100.21			Fog
07:00	12.9	12.6	98	36	3	0.2	100.25			Fog
08:00	14.0	13.7	98	26	4	0.2	100.30			Fog
09:00	15.4	15.1	98	21	3	11.3	100.34			NA
10:00	19.5	15.2	76	21	6	16.1	100.36			Clear
11:00	22.1	13.6	58	8	5	24.1	100.33	25		NA
12:00	23.0	9.9	43	36	3	24.1	100.25			NA
13:00	24.1	10.9	43	8	8	24.1	100.19	26		Clear
14:00	24.6	9.2	37	5	4	24.1	100.16	26		NA
15:00	25.3	12.7	45	21	9	24.1	100.11	28		NA
16:00	24.5	13.6	50	19	14	24.1	100.12	28		Mainly Clear
17:00	23.3	11.8	48	18	12	24.1	100.13	25		NA
18:00	21.1	11.8	55	20	10	24.1	100.13			NA
19:00	19.9	10.7	55	18	5	24.1	100.18			Clear
20:00	18.4	10.8	61	35	5	24.1	100.22			NA
21:00	17.2	12.0	71	36	4	24.1	100.24			NA
22:00	16.7	12.3	75	35	5	24.1	100.24			Clear
23:00	15.8	12.0	78	36	2	24.1	100.24			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

- NA = Not Available

Hourly Data Report for September 24, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	15.2	12.2	82	0	1	24.1	100.22			NA
01:00 ‡	15.4	12.6	83	35	5	24.1	100.23			Clear
02:00 ‡	14.8	12.7	87	35	5	24.1	100.25			NA
03:00 ‡	15.0	13.9	93	34	7	24.1	100.27			NA
04:00 ‡	15.1	14.2	94	35	9	24.1	100.30			Clear
05:00 ‡	14.5	13.9	96	1	3	19.3	100.36			NA
06:00 ‡	14.3	13.8	97	35	5	1.6	100.41			Fog
07:00 ‡	15.0	14.5	97	35	4	9.7	100.47			Fog
08:00 ‡	17.0	15.4	90	2	8	20.9	100.50			NA
09:00 ‡	19.1	14.6	75	10	11	24.1	100.54			NA
10:00 ‡	20.5	14.5	68	11	16	24.1	100.52			Mainly Clear
11:00 ‡	21.8	15.3	66	12	11	24.1	100.51	26		NA
12:00 ‡	22.2	14.9	63	12	16	24.1	100.50	26		NA
13:00 ‡	22.9	14.6	59	14	14	24.1	100.46	27		Mostly Cloudy
14:00 ‡	22.6	15.1	62	11	20	24.1	100.42	27		NA
15:00 ‡	21.6	14.4	63	12	21	24.1	100.42	25		NA
16:00 ‡	20.7	14.7	68	11	20	24.1	100.43			Mostly Cloudy
17:00 ‡	19.9	14.6	71	11	18	24.1	100.45			NA
18:00 ‡	19.4	14.7	74	10	7	24.1	100.46			NA
19:00 ‡	18.6	14.6	77	8	9	24.1	100.45			Mostly Cloudy
20:00 ‡	18.3	14.3	77	11	12	24.1	100.46			NA
21:00 ‡	17.6	14.2	80	8	7	24.1	100.47			NA
22:00 ‡	17.3	14.4	83	8	8	24.1	100.47			Mostly Cloudy
23:00 ‡	17.0	13.8	81	9	11	24.1	100.49			NA

Notes on Data Quality.

Legend

Hourly Data Report for September 25, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	16.3	11.3	72	10	10	24.1	100.51			NA
01:00 ‡	15.7	10.7	72	7	9	24.1	100.51			Mostly Cloudy
02:00 ‡	15.3	10.1	71	6	8	24.1	100.47			NA
03:00 ‡	14.9	9.1	68	6	11	24.1	100.44			NA
04:00 ‡	14.3	8.3	67	6	5	24.1	100.42			Mostly Cloudy
05:00 ‡	13.4	8.5	72	3	7	24.1	100.43			NA
06:00 ‡	12.9	8.4	74	2	7	24.1	100.45			NA
07:00 ‡	13.3	8.2	71	3	8	24.1	100.49			Mostly Cloudy
08:00 ‡	15.6	7.9	60	5	10	24.1	100.52			NA
09:00 ‡	16.5	8.0	57	9	12	24.1	100.55			NA
10:00 ‡	18.0	9.7	58	9	11	24.1	100.57			Mostly Cloudy
11:00 ‡	19.8	10.9	56	9	15	24.1	100.52			NA
12:00 ‡	21.0	10.6	51	13	16	24.1	100.49			NA
13:00 ‡	21.5	11.9	54	12	11	24.1	100.45			Mostly Cloudy
14:00 ‡	21.1	12.4	57	13	13	24.1	100.38			NA
15:00 ‡	20.7	12.5	59	15	12	24.1	100.37			NA
16:00 ‡	20.2	11.5	57	10	14	24.1	100.36			Mainly Clear
17:00 ‡	19.2	11.1	59	11	13	24.1	100.40			NA
18:00 ‡	17.6	11.3	66	10	13	24.1	100.45			NA
19:00 ‡	16.7	11.3	70	10	10	24.1	100.49			Mainly Clear
20:00 ‡	15.9	11.1	73	6	6	24.1	100.55			NA
21:00 ‡	14.9	10.4	74	6	5	24.1	100.59			NA
22:00 ‡	14.4	7.0	61	7	10	24.1	100.61			Mainly Clear
23:00 ‡	13.6	6.3	61	10	6	24.1	100.63			NA

Notes on Data Quality.

Legend

Hourly Data Report for September 26, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	12.8	6.0	63	8	9	24.1	100.64			NA
01:00 ‡	10.9	6.1	72	3	6	24.1	100.64			Mainly Clear
02:00 ‡	10.1	5.9	75	3	8	24.1	100.64			NA
03:00 ‡	9.6	5.4	75	3	7	24.1	100.64			NA
04:00 ‡	9.6	5.0	73	3	7	24.1	100.65			Mainly Clear
05:00 ‡	9.0	5.0	76	2	6	24.1	100.67			NA
06:00 ‡	8.1	4.9	80	1	4	24.1	100.72			NA
07:00 ‡	9.2	6.0	80	1	7	24.1	100.75			Mostly Cloudy
08:00 ‡	12.5	6.4	66	7	9	24.1	100.78			NA
09:00 ‡	14.8	6.7	58	8	17	24.1	100.81			NA
10:00 ‡	16.6	7.4	54	12	17	24.1	100.82			Mainly Clear
11:00 ‡	18.0	8.4	53	11	13	24.1	100.79			NA
12:00 ‡	19.0	8.2	49	11	20	24.1	100.75			NA
13:00 ‡	19.2	7.7	47	12	17	24.1	100.70			Mainly Clear
14:00 ‡	19.8	8.0	46	12	19	24.1	100.62			NA
15:00 ‡	19.8	8.3	47	10	19	24.1	100.56			NA
16:00 ‡	19.6	9.9	53	14	14	24.1	100.52			Mostly Cloudy
17:00 ‡	18.4	9.8	57	12	19	24.1	100.51			NA
18:00 ‡	17.2	10.4	64	11	12	24.1	100.49			NA
19:00 ‡	16.4	11.6	73	10	10	24.1	100.48			Mainly Clear
20:00 ‡	15.5	11.9	79	8	9	24.1	100.48			NA
21:00 ‡	14.9	12.1	83	9	7	24.1	100.48			NA
22:00 ‡	14.4	12.1	86	8	7	24.1	100.47			Mainly Clear
23:00 ‡	13.7	11.9	89	5	4	24.1	100.46			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

Hourly Data Report for September 27, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	13.5	11.9	90	5	4	24.1	100.42			NA
01:00	13.3	12.0	92	11	4	24.1	100.38			Clear
02:00	12.8	11.7	93	5	4	24.1	100.36			NA
03:00	11.8	10.9	94	4	3	24.1	100.31			NA
04:00	11.5	11.1	97	35	3	24.1	100.29			Clear
05:00	10.0	9.2	95	1	4	24.1	100.28			NA
06:00	10.6	10.2	97	33	5	8.1	100.32			Fog
07:00	11.1	10.8	98	36	4	0.8	100.35			Fog
08:00	15.0	13.7	92	11	3	24.1	100.34			NA
09:00	18.6	13.3	71	17	12	24.1	100.31			NA
10:00	19.8	12.2	61	18	9	24.1	100.27			Mainly Clear
11:00	20.1	11.2	56	17	19	24.1	100.24			NA
12:00	20.5	11.3	55	16	15	24.1	100.19			NA
13:00	20.8	11.3	54	14	17	24.1	100.09			Mostly Cloudy
14:00	20.9	11.1	53	15	17	24.1	99.99			NA
15:00	20.9	11.7	55	16	16	24.1	99.92			NA
16:00	20.3	11.9	58	16	17	24.1	99.86			Mainly Clear
17:00	19.1	12.5	65	14	14	24.1	99.83			NA
18:00	18.3	13.0	71	15	12	24.1	99.82			NA
19:00	17.9	13.9	77	15	11	24.1	99.83			Mostly Cloudy
20:00	17.7	14.3	80	13	8	24.1	99.81			NA
21:00	17.7	14.4	81	14	6	24.1	99.78			NA
22:00	18.0	14.7	81	15	4	24.1	99.76			Cloudy
23:00	18.5	14.5	77	14	5	24.1	99.73			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

Hourly Data Report for September 28, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	18.7	14.4	76	15	7	24.1	99.70			NA
01:00 ‡	18.6	15.3	81	19	6	24.1	99.69			Cloudy
02:00 ‡	19.3	15.2	77	20	8	24.1	99.68			NA
03:00 ‡	18.8	15.5	81	21	9	24.1	99.64			NA
04:00 ‡	18.6	15.9	84	21	10	24.1	99.60			Cloudy
05:00 ‡	18.8	15.9	83	20	11	24.1	99.60			NA
06:00 ‡	18.3	16.8	91	19	12	16.1	99.62			NA
07:00 ‡	18.1	17.1	94	18	13	11.3	99.63			Cloudy
08:00 ‡	18.5	17.5	94	18	14	11.3	99.61			NA
09:00 ‡	18.7	17.6	93	20	14	16.1	99.61			NA
10:00 ‡	18.9	17.8	93	19	18	12.9	99.59			Cloudy
11:00 ‡	19.5	18.0	91	19	13	19.3	99.57			NA
12:00 ‡	19.9	17.7	87	21	12	24.1	99.55			NA
13:00 ‡	20.5	18.5	88	19	10	19.3	99.48	27		Drizzle
14:00 ‡	21.3	18.2	82	18	16	24.1	99.40	27		NA
15:00 ‡	20.9	18.1	84	18	15	24.1	99.34	27		NA
16:00										
17:00 ‡	20.9	18.0	83	19	12	24.1	99.26	27		NA
18:00 ‡	20.4	17.7	84	18	14	24.1	99.22	26		NA
19:00 ‡	19.9	17.7	87	18	13	24.1	99.22			Mostly Cloudy
20:00 ‡	19.8	17.6	87	20	8	24.1	99.27			NA
21:00 ‡	19.8	17.6	87	21	8	19.3	99.28			NA
22:00 ‡	19.5	17.5	88	18	8	16.1	99.25			Cloudy
23:00 ‡	19.2	17.6	90	18	9	16.1	99.21			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

- NA = Not Available

Hourly Data Report for September 29, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	19.0	17.7	92	18	9	16.1	99.19			NA
01:00	19.0	17.7	92	21	8	16.1	99.16			Cloudy
02:00	18.8	17.7	93	19	10	12.9	99.11			NA
03:00	18.5	17.7	95	20	6	11.3	99.07			NA
04:00	19.0	18.0	94	20	7	12.9	99.05			Cloudy
05:00	19.0	18.0	94	23	3	11.3	99.01			NA
06:00	18.9	17.9	94	19	5	11.3	99.04			NA
07:00	19.2	18.2	94	17	8	9.7	99.06			Fog
08:00	19.5	18.5	94	21	7	4.0	99.08			Rain,Fog
09:00	20.4	19.3	93	36	3	8.1	99.05	27		Fog
10:00	21.2	19.2	88	23	7	9.7	99.07	28		Fog
11:00	22.2	19.8	86	18	9	9.7	99.06	30		Fog
12:00	21.1	19.4	90	18	17	4.8	99.02	28		Rain,Fog
13:00	19.3	18.2	93	33	17	12.9	99.06			Cloudy
14:00	17.2	14.1	82	36	23	19.3	99.06			NA
15:00	16.5	13.3	81	2	21	12.9	99.04			Rain
16:00	15.2	13.1	87	34	13	19.3	99.08			Cloudy
17:00	15.1	12.3	83	35	14	19.3	99.10			NA
18:00	15.2	11.8	80	36	14	24.1	99.13			NA
19:00	15.4	10.6	73	36	17	24.1	99.19			Mostly Cloudy
20:00	15.1	10.4	73	2	17	24.1	99.21			NA
21:00	14.9	10.2	73	2	17	24.1	99.25			NA
22:00	14.6	10.7	77	2	15	24.1	99.26			Mostly Cloudy
23:00	14.4	11.0	80	2	16	24.1	99.28			NA

Notes on Data Quality.

Legend

- E = Estimated
- M = Missing

Hourly Data Report for September 30, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	13.8	11.2	84	2	16	24.1	99.29			NA
01:00 ‡	13.4	10.8	84	1	17	24.1	99.26			Mostly Cloudy
02:00 ‡	13.2	10.2	82	1	17	24.1	99.27			NA
03:00 ‡	12.7	9.9	83	1	19	24.1	99.28			NA
04:00 ‡	12.0	8.7	80	1	19	24.1	99.28			Mostly Cloudy
05:00 ‡	11.3	7.8	79	36	22	24.1	99.28			NA
06:00 ‡	10.7	7.2	79	1	18	24.1	99.34			NA
07:00 ‡	10.5	7.2	80	1	21	24.1	99.39			Cloudy
08:00 ‡	10.5	6.7	77	1	21	24.1	99.48			NA
09:00 ‡	11.8	5.7	66	2	26	24.1	99.55			NA
10:00 ‡	13.4	5.6	59	1	22	24.1	99.61			Mostly Cloudy
11:00 ‡	14.3	5.7	56	2	21	24.1	99.63			NA
12:00 ‡	15.2	6.3	55	1	23	24.1	99.64			NA
13:00 ‡	16.0	6.8	54	2	20	24.1	99.65			Mostly Cloudy
14:00 ‡	16.7	6.0	49	1	21	24.1	99.67			NA
15:00 ‡	16.7	5.4	47	2	19	24.1	99.70			NA
16:00 ‡	15.8	3.0	42	3	23	24.1	99.76			Mostly Cloudy
17:00 ‡	14.9	1.9	41	36	22	24.1	99.79			NA
18:00 ‡	13.1	2.1	47	1	14	24.1	99.85			NA
19:00 ‡	11.5	2.0	52	1	13	24.1	99.90			Mainly Clear
20:00 ‡	10.3	2.4	58	2	12	24.1	99.99			NA
21:00 ‡	9.8	2.4	60	2	14	24.1	100.05			NA
22:00 ‡	8.9	1.6	60	3	12	24.1	100.12			Clear
23:00 ‡	8.1	0.8	60	4	15	24.1	100.13			NA

Notes on Data Quality.

Legend

Hourly Data Report for October 01, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00	6.9	1.0	66	2	11	24.1	100.15			NA
01:00	6.2	1.2	70	1	13	24.1	100.14			Clear
02:00	5.6	1.0	72	2	12	24.1	100.18			NA
03:00	5.1	0.9	74	1	15	24.1	100.20			NA
04:00	4.5	0.5	75	1	14	24.1	100.20			Clear
05:00	4.2	0.4	76	2	15	24.1	100.24			NA
06:00	3.7	0.1	77	1	14	24.1	100.28			NA
07:00	4.1	0.1	75	2	16	24.1	100.34			Mainly Clear
08:00	6.2	1.0	69	4	17	24.1	100.40			NA
09:00	8.3	1.5	62	3	22	24.1	100.43			NA
10:00	9.7	1.1	55	6	24	24.1	100.42			Mainly Clear
11:00	10.7	0.7	50	4	17	24.1	100.40			NA
12:00	12.3	-0.2	42	3	30	24.1	100.42			NA
13:00	13.2	0.0	40	3	23	24.1	100.37			Mainly Clear
14:00	14.4	-0.8	35	6	21	24.1	100.34			NA
15:00	14.9	0.4	37	5	19	24.1	100.34			NA
16:00	14.7	-0.5	35	7	24	24.1	100.33			Clear
17:00	14.2	-0.2	37	5	18	24.1	100.36			NA
18:00	12.6	0.1	42	5	15	24.1	100.44			NA
19:00	10.6	0.4	49	4	11	24.1	100.50			Clear
20:00	9.3	0.8	55	3	15	24.1	100.58			NA
21:00	8.8	0.0	54	3	15	24.1	100.63			NA
22:00	7.7	0.0	58	1	14	24.1	100.63			Clear
23:00	6.5	0.2	64	1	12	24.1	100.59			NA

Notes on Data Quality.

Legend

- E = Estimated

Hourly Data Report for October 02, 2015

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

TORONTO BUTTONVILLE A ONTARIO					
Latitude:	43°51'39.000" N	Longitude:	79°22'07.000" W	Elevation:	198.10 m
Climate ID:	6158410	WMO ID:	71639	TC ID:	YKZ

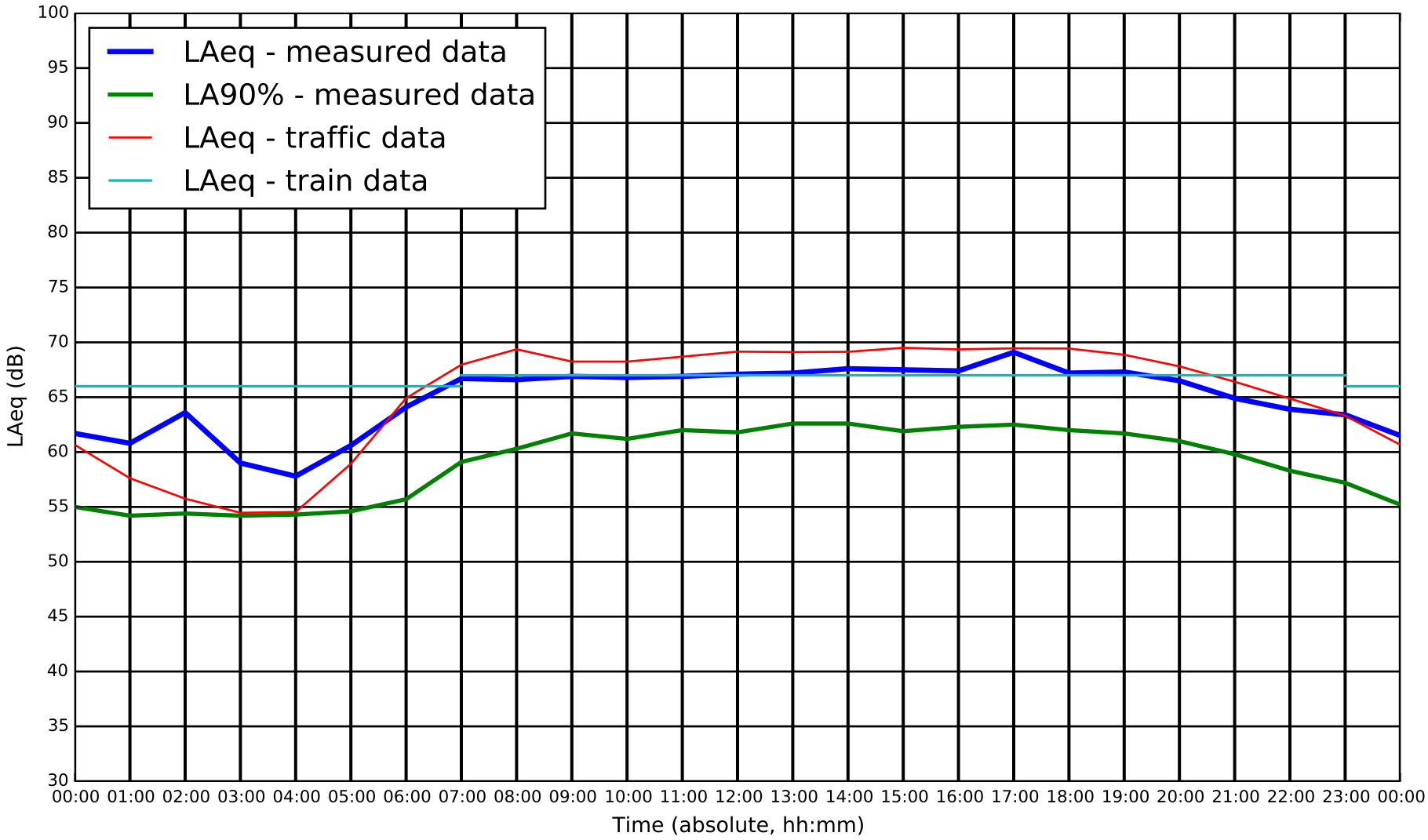
	Temp °C	Dew Point Temp °C	Rel Hum %	Wind Dir 10's deg	Wind Spd km/h	Visibility km	Stn Press kPa	Hmdx	Wind Chill	Weather
TIME										
00:00 ‡	6.3	0.4	66	2	12	24.1	100.61			NA
01:00 ‡	5.8	0.4	68	1	14	24.1	100.63			Clear
02:00 ‡	5.8	0.4	68	2	15	24.1	100.61			NA
03:00 ‡	4.8	0.4	73	1	11	24.1	100.64			NA
04:00 ‡	4.2	0.2	75	1	15	24.1	100.64			Clear
05:00 ‡	4.0	-0.2	74	1	15	24.1	100.65			NA
06:00 ‡	3.5	-0.3	76	1	15	24.1	100.71			NA
07:00 ‡	3.8	-0.2	75	1	20	24.1	100.72			Mostly Cloudy
08:00 ‡	5.5	0.1	68	3	23	24.1	100.76			NA
09:00 ‡	6.8	0.3	63	4	23	24.1	100.78			NA
10:00 ‡	8.9	-0.7	51	5	24	24.1	100.81			Mostly Cloudy
11:00 ‡	9.7	-1.0	47	5	24	24.1	100.77			NA
12:00 ‡	10.4	-1.9	42	4	32	24.1	100.75			NA
13:00 ‡	10.7	-1.7	42	6	23	24.1	100.71			Mostly Cloudy
14:00 ‡	10.8	-1.2	43	3	28	24.1	100.66			NA
15:00 ‡	11.7	-2.1	38	6	26	24.1	100.68			NA
16:00 ‡	11.2	-1.9	40	4	27	24.1	100.68			Mostly Cloudy
17:00 ‡	10.8	-2.2	40	6	22	24.1	100.72			NA
18:00 ‡	9.7	-2.6	42	5	21	24.1	100.76			NA
19:00 ‡	8.8	-2.2	46	5	16	24.1	100.77			Mostly Cloudy
20:00 ‡	8.2	-1.9	49	5	14	24.1	100.78			NA
21:00 ‡	7.8	-1.7	51	4	14	24.1	100.75			NA
22:00 ‡	7.3	-0.9	56	5	12	24.1	100.76			Cloudy
23:00 ‡	7.5	-1.7	52	5	15	24.1	100.75			NA

Notes on Data Quality.

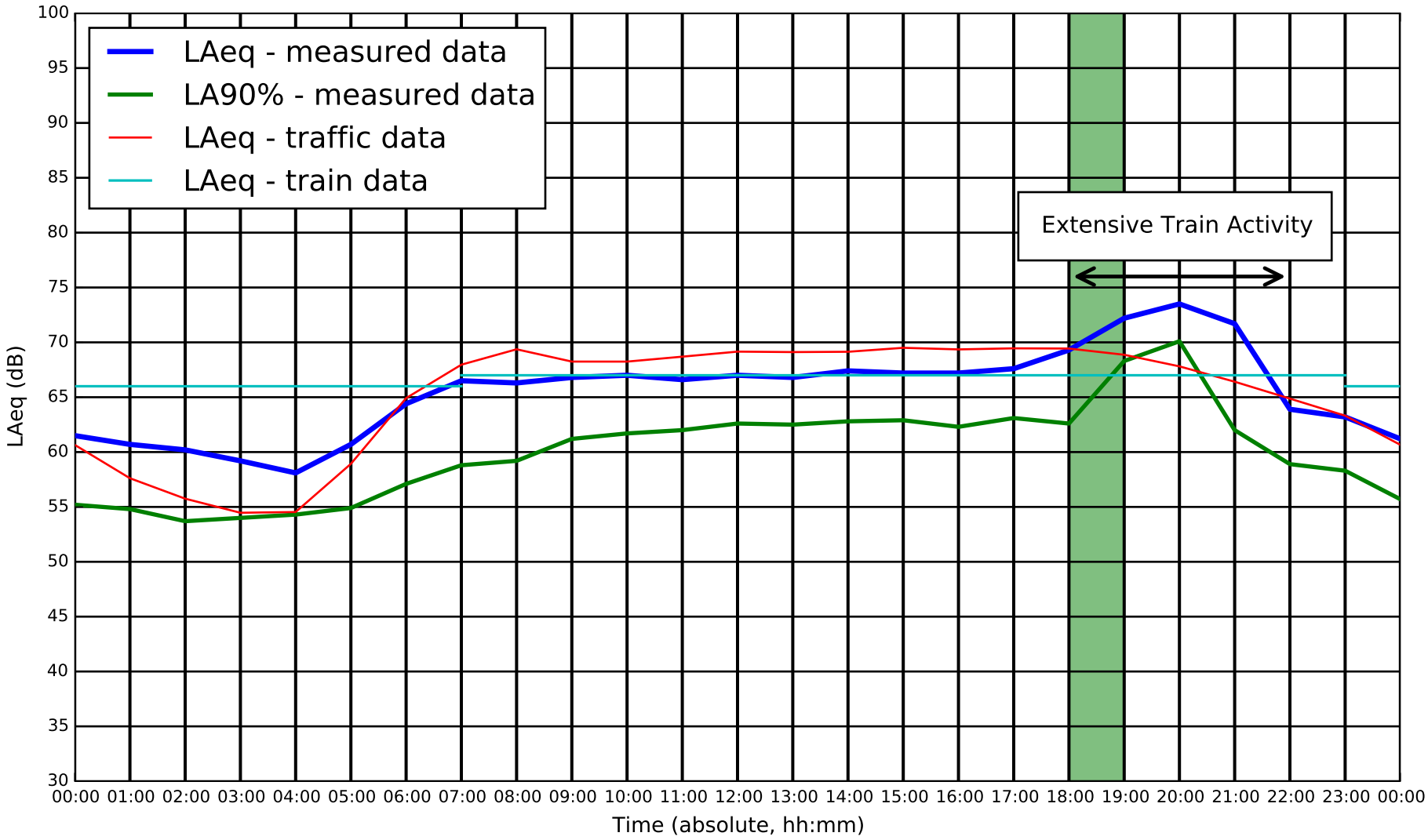
Legend

APPENDIX E

SOUND LEVEL MONITORING TIME HISTORIES

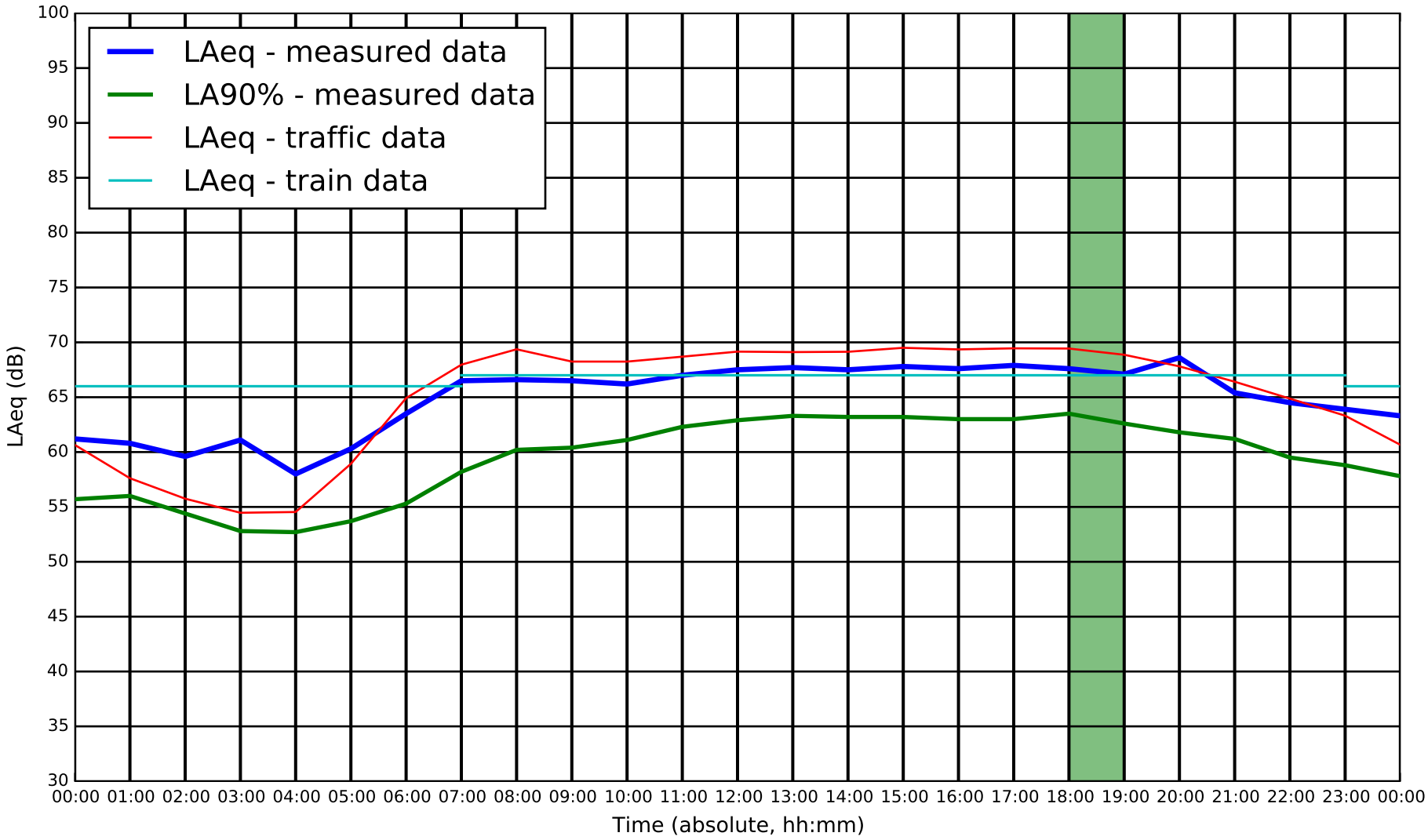


VALCOUSTICS Canada Ltd.	Title Sound Measurements - 2015	Measurement Date 2015-09-01	Figure 1
	Project Name Glen Watford Drive	Project Num. 114-053	



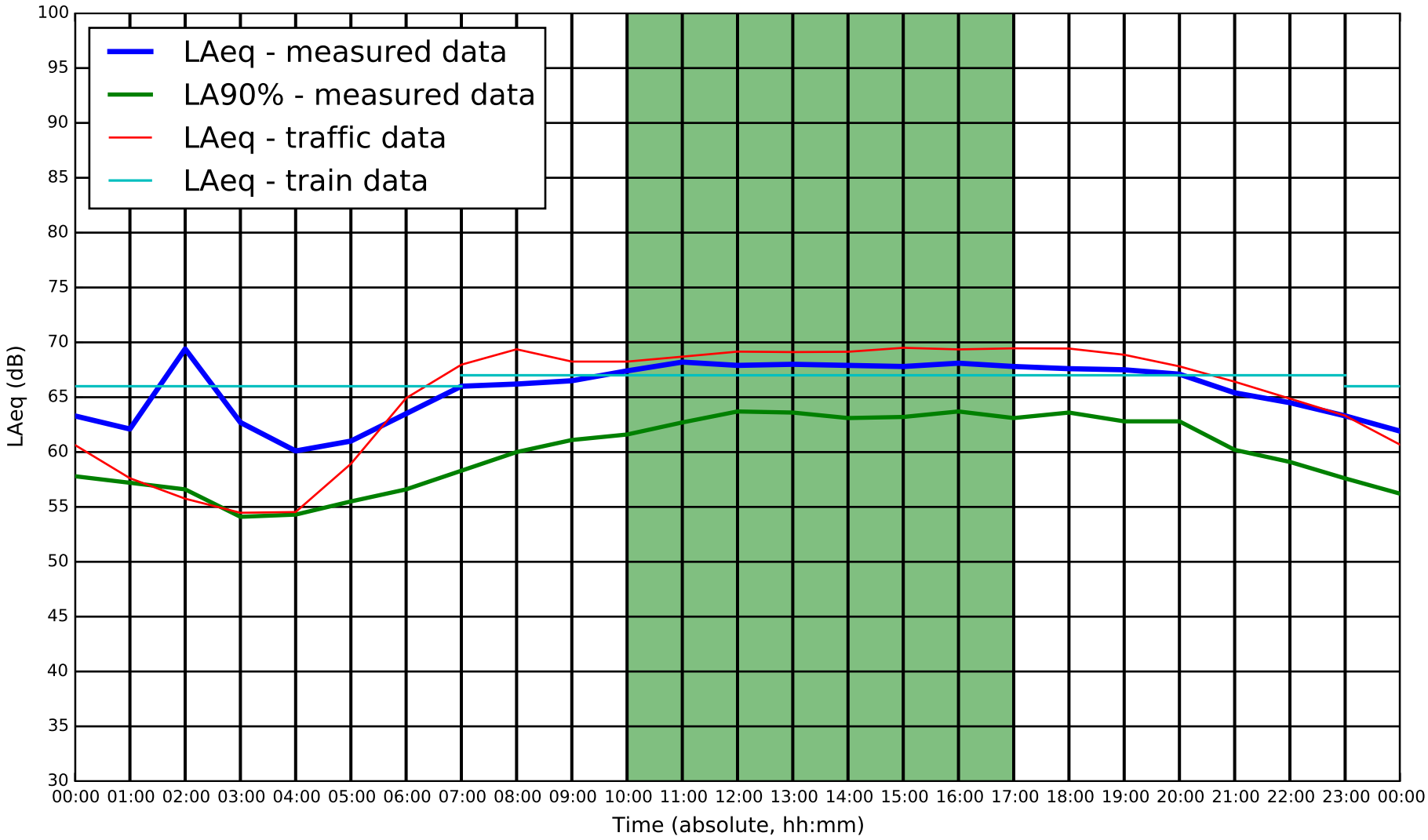
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-02	Figure: 2
	Project Name: Glen Watford Drive	Project Num.: 114-053	



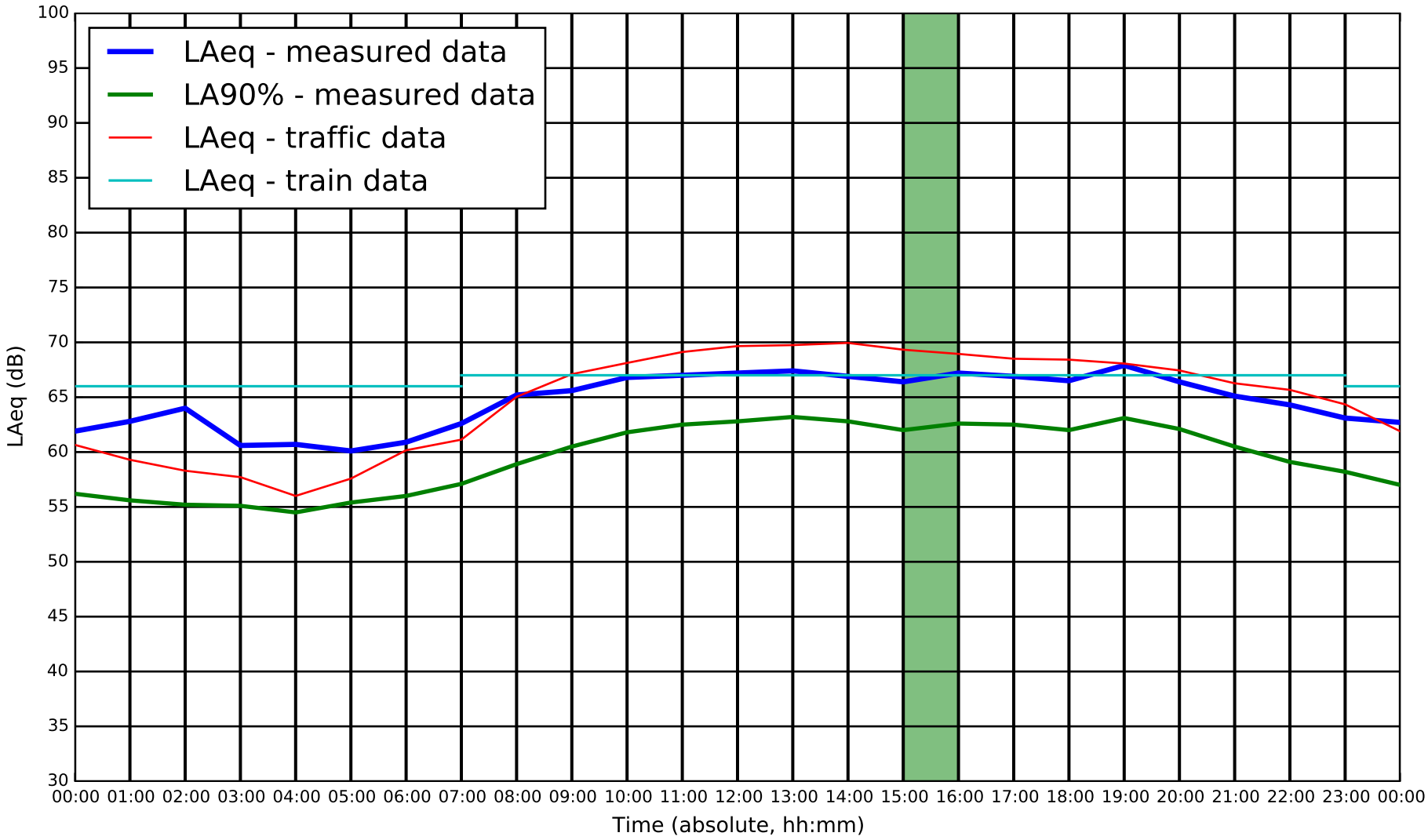
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-03	Figure: 3
	Project Name: Glen Watford Drive	Project Num.: 114-053	

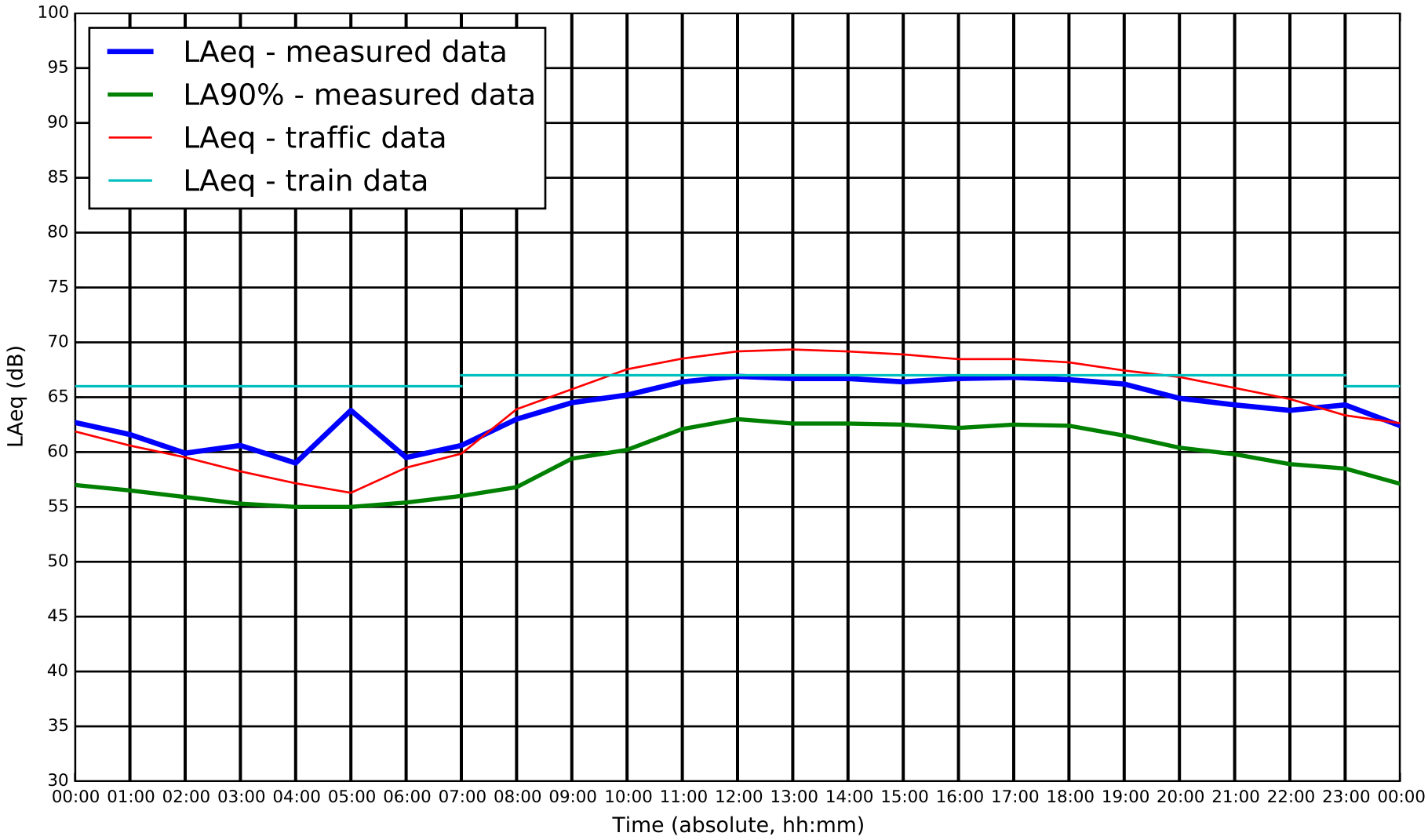


* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

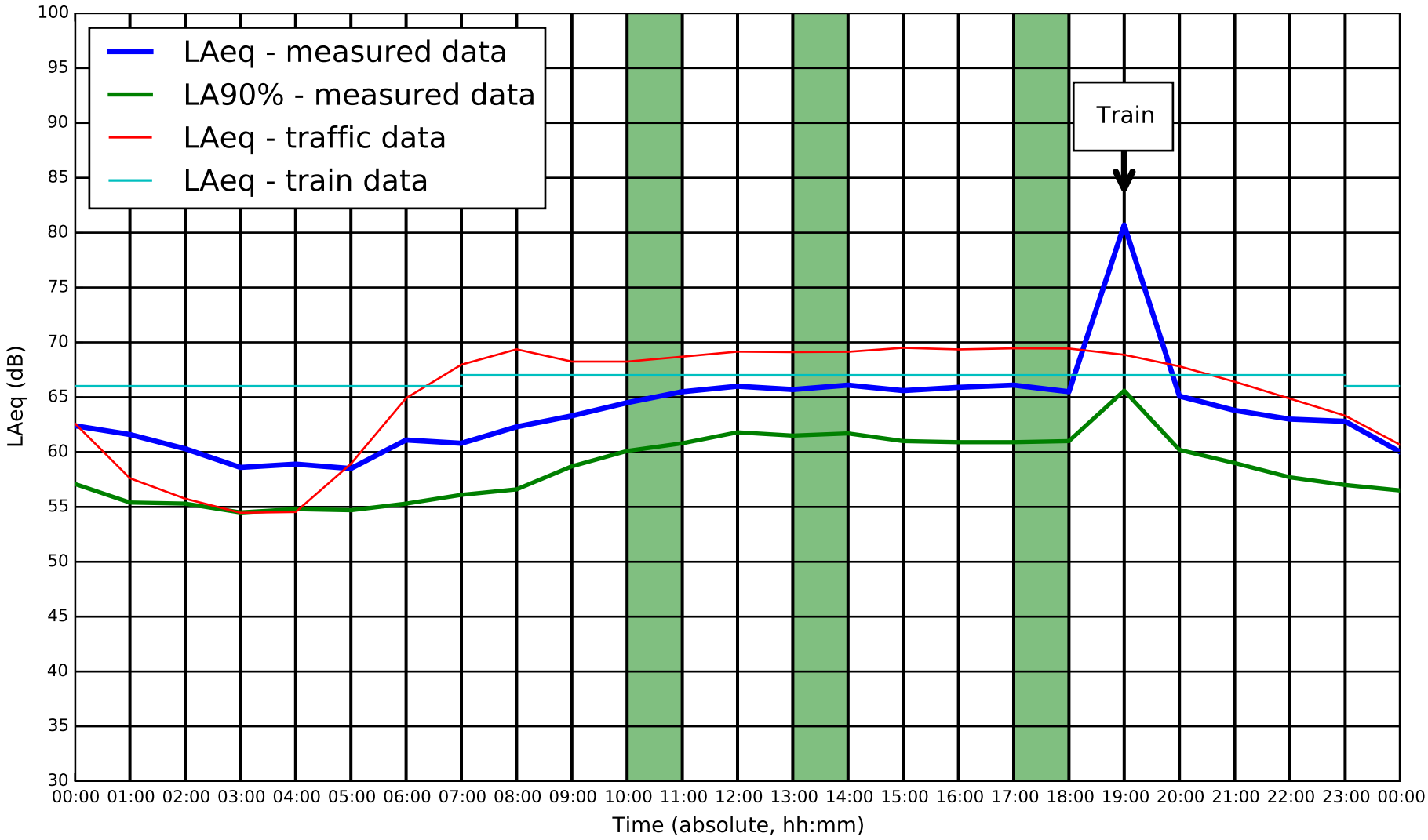
	Title	Measurement Date	Figure
VALCOUSTICS Canada Ltd.	Sound Measurements - 2015	2015-09-04	4
	Project Name	Project Num.	
	Glen Watford Drive	114-053	



VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-05	Figure: 5
	Project Name: Glen Watford Drive	Project Num.: 114-053	

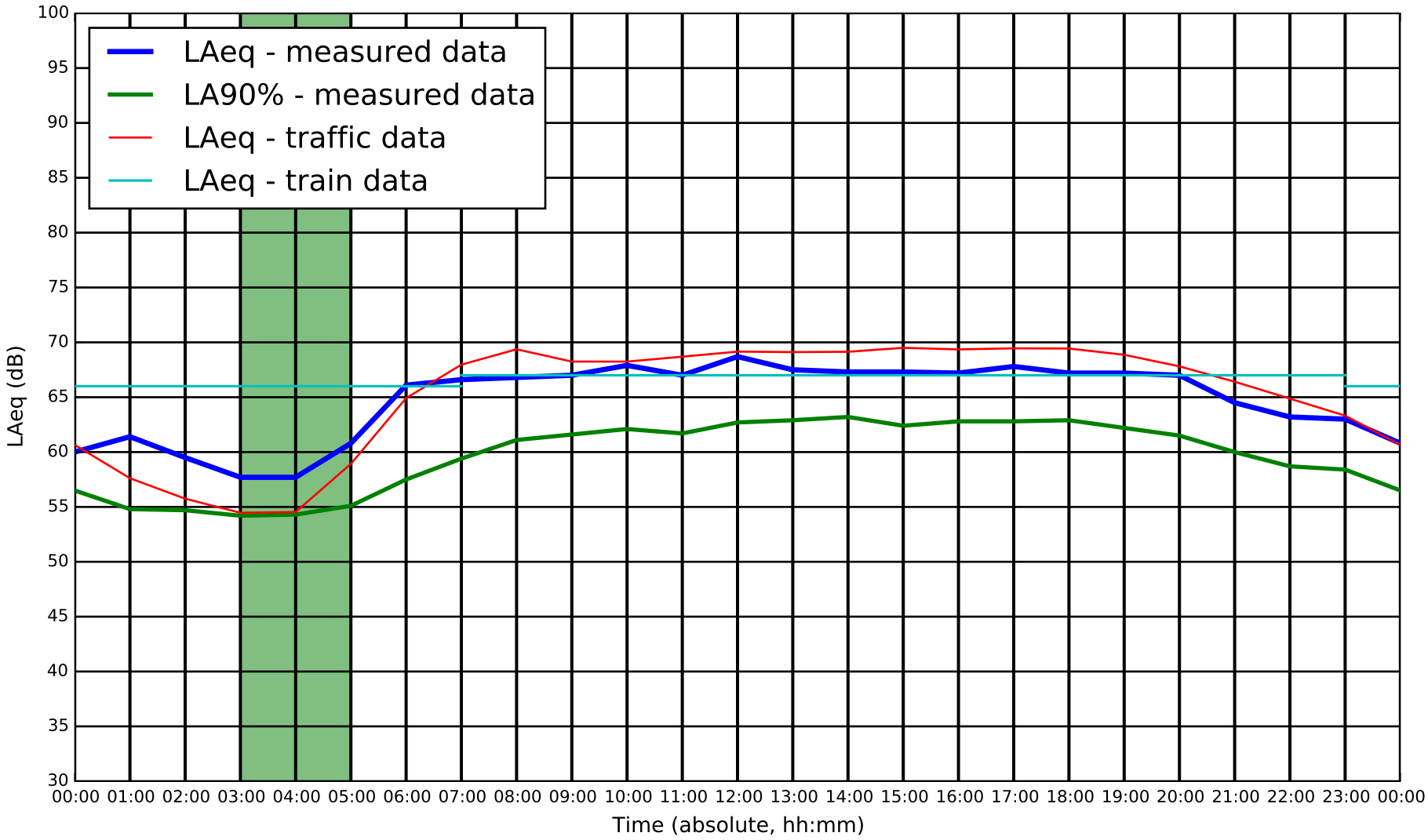


VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-06	Figure: 6
	Project Name: Glen Watford Drive	Project Num.: 114-053	



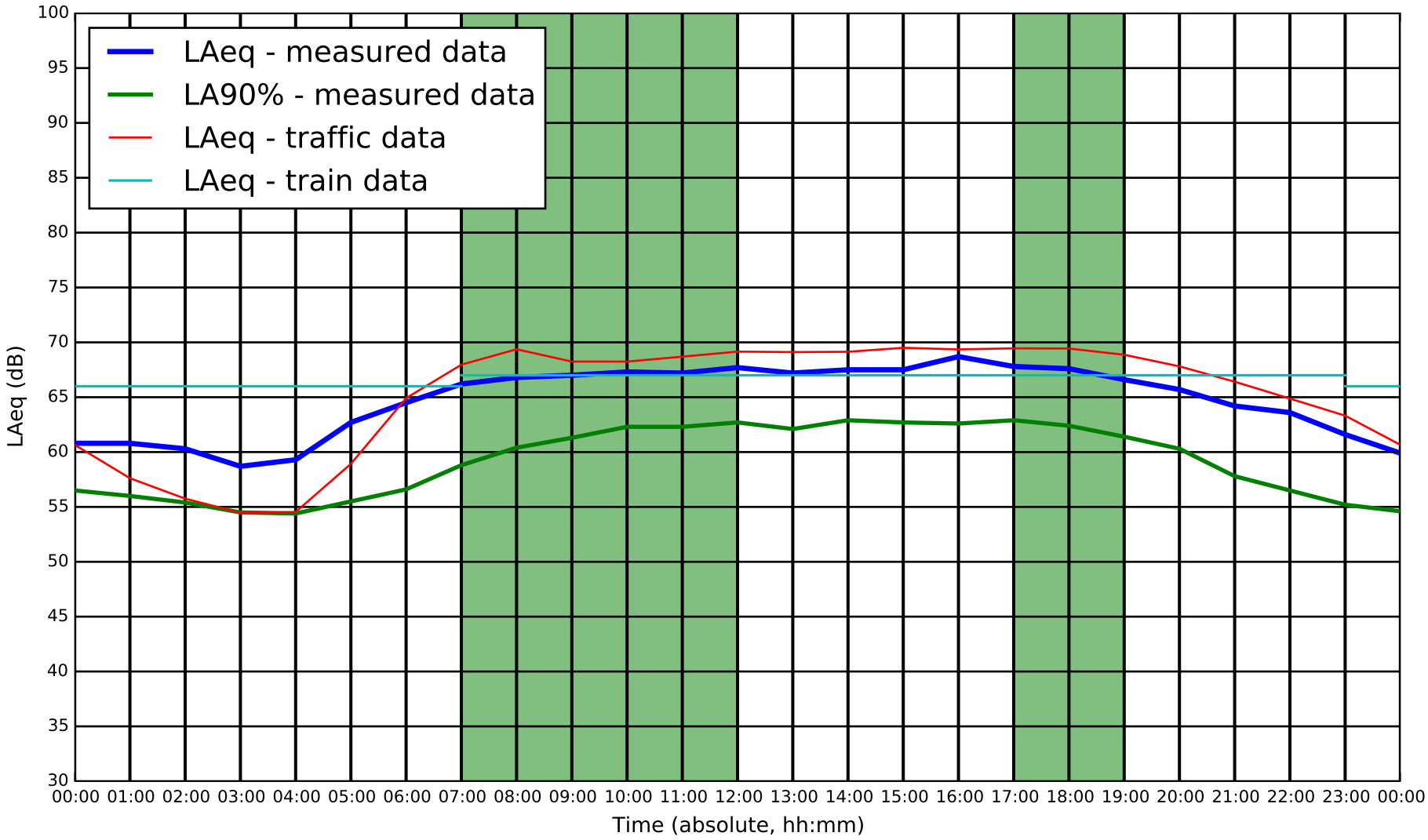
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-07	Figure: 7
	Project Name: Glen Watford Drive	Project Num.: 114-053	



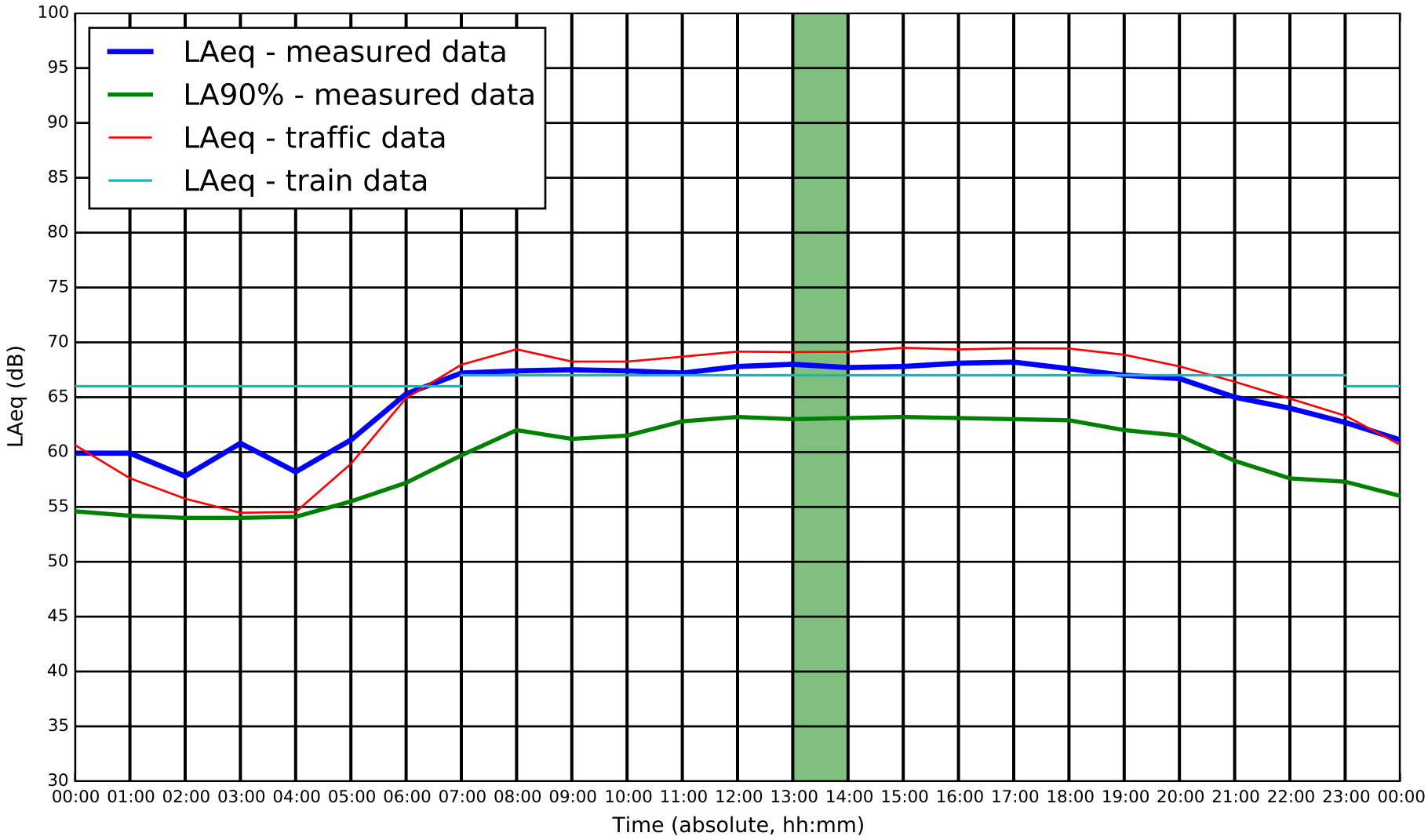
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-08	Figure: 8
	Project Name: Glen Watford Drive	Project Num.: 114-053	



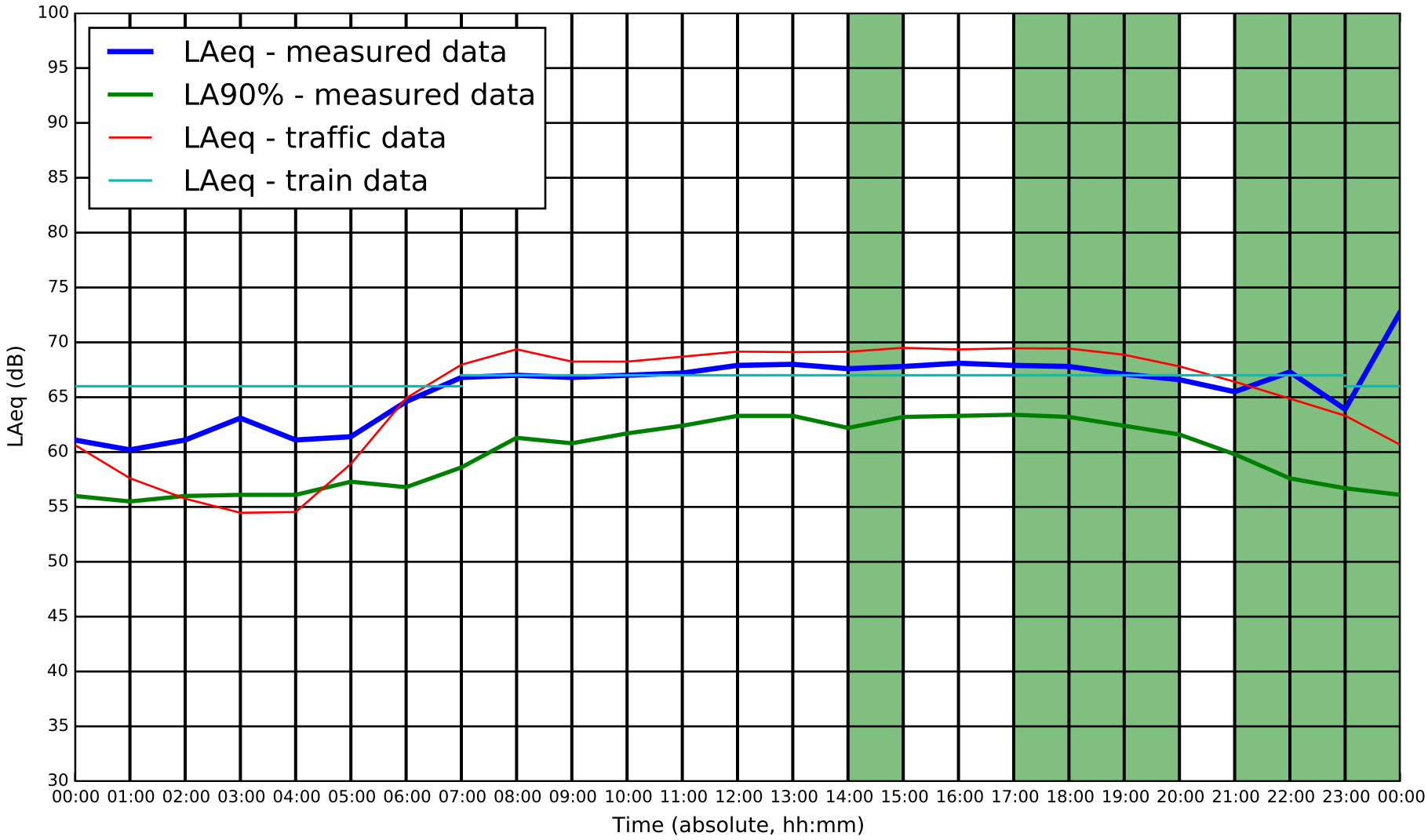
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-09	Figure: 9
	Project Name: Glen Watford Drive	Project Num.: 114-053	



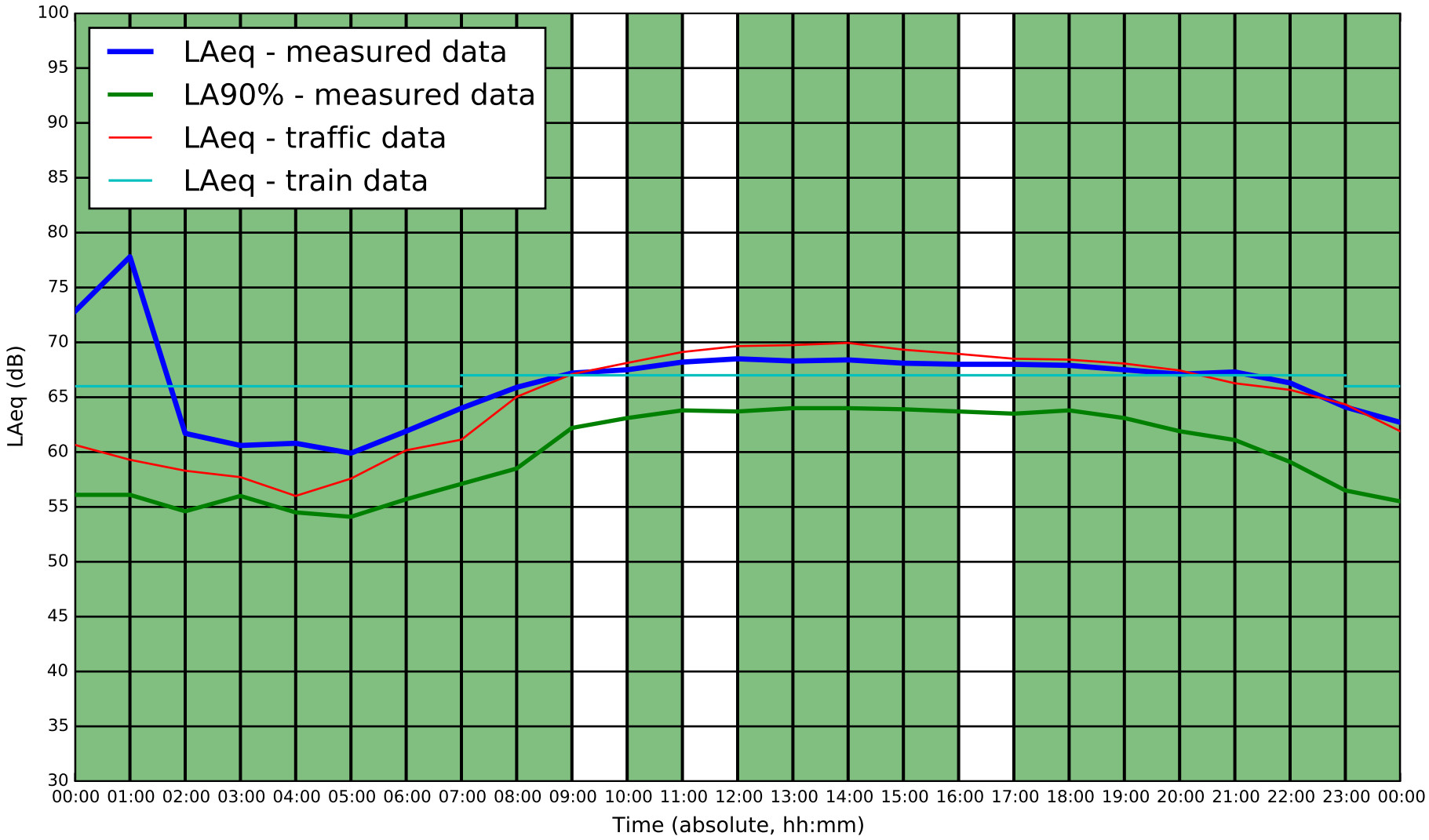
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-10	Figure: 10
	Project Name: Glen Watford Drive	Project Num.: 114-053	



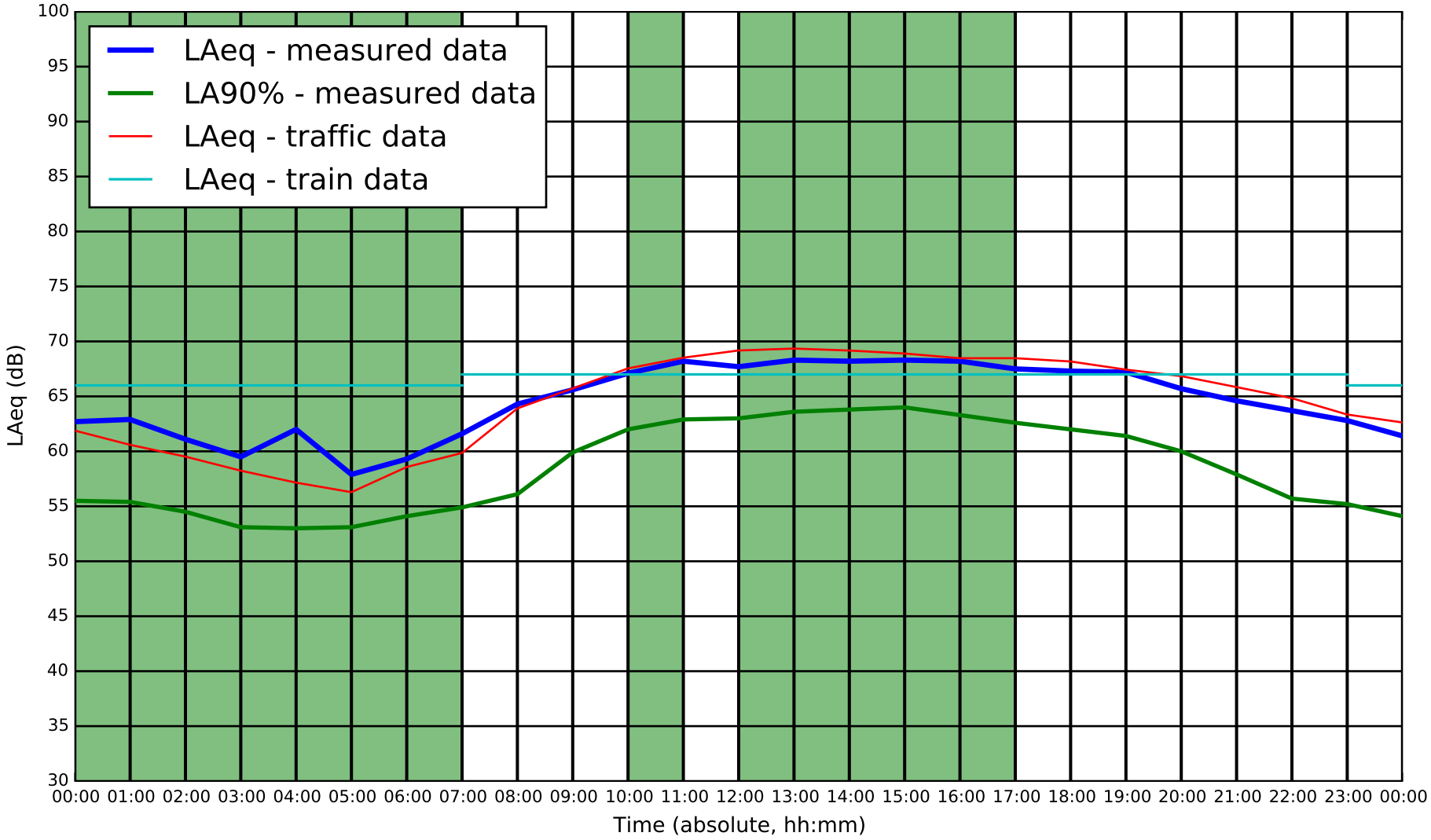
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-11	Figure: 11
	Project Name: Glen Watford Drive	Project Num.: 114-053	



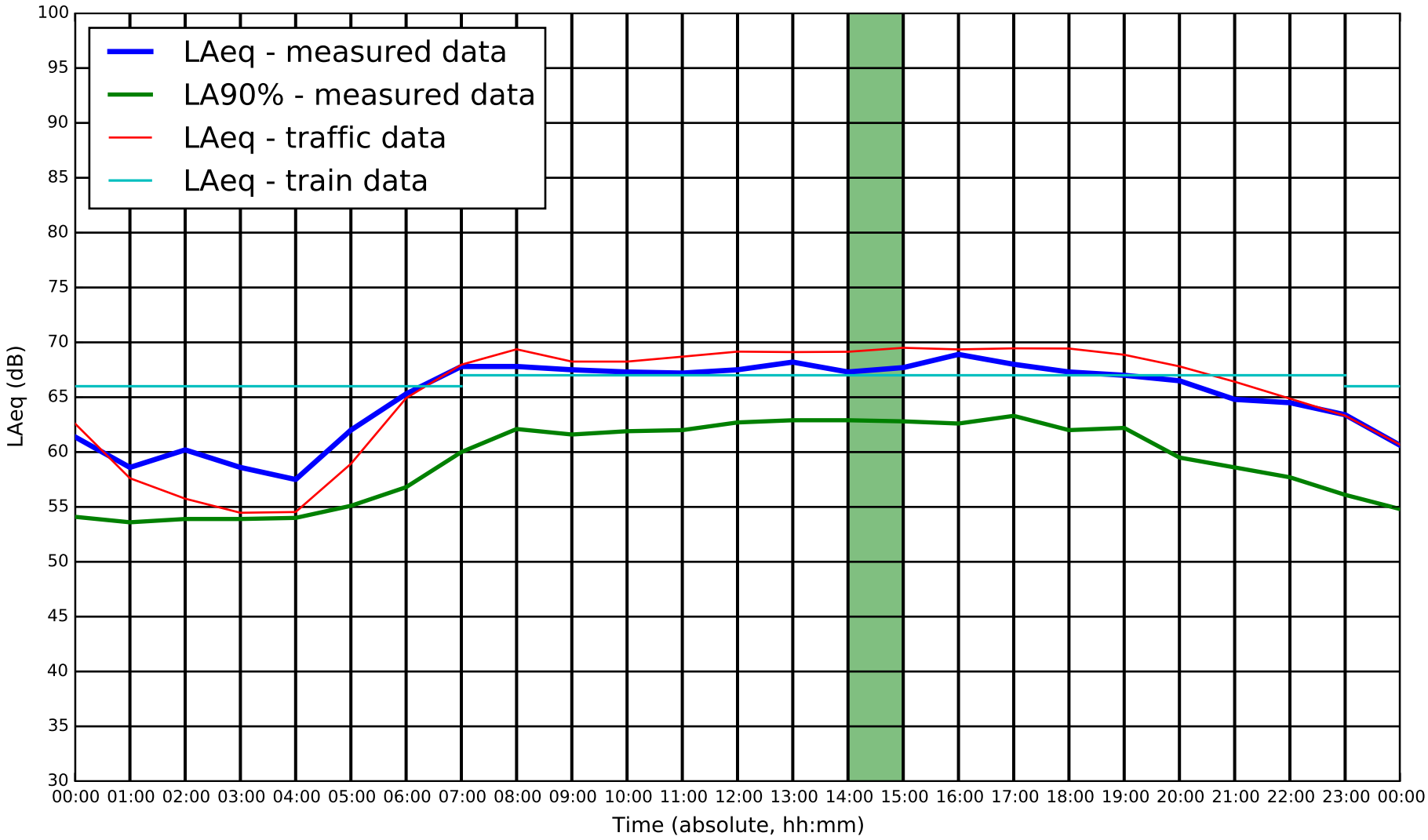
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-12	Figure: 12
	Project Name: Glen Watford Drive	Project Num.: 114-053	



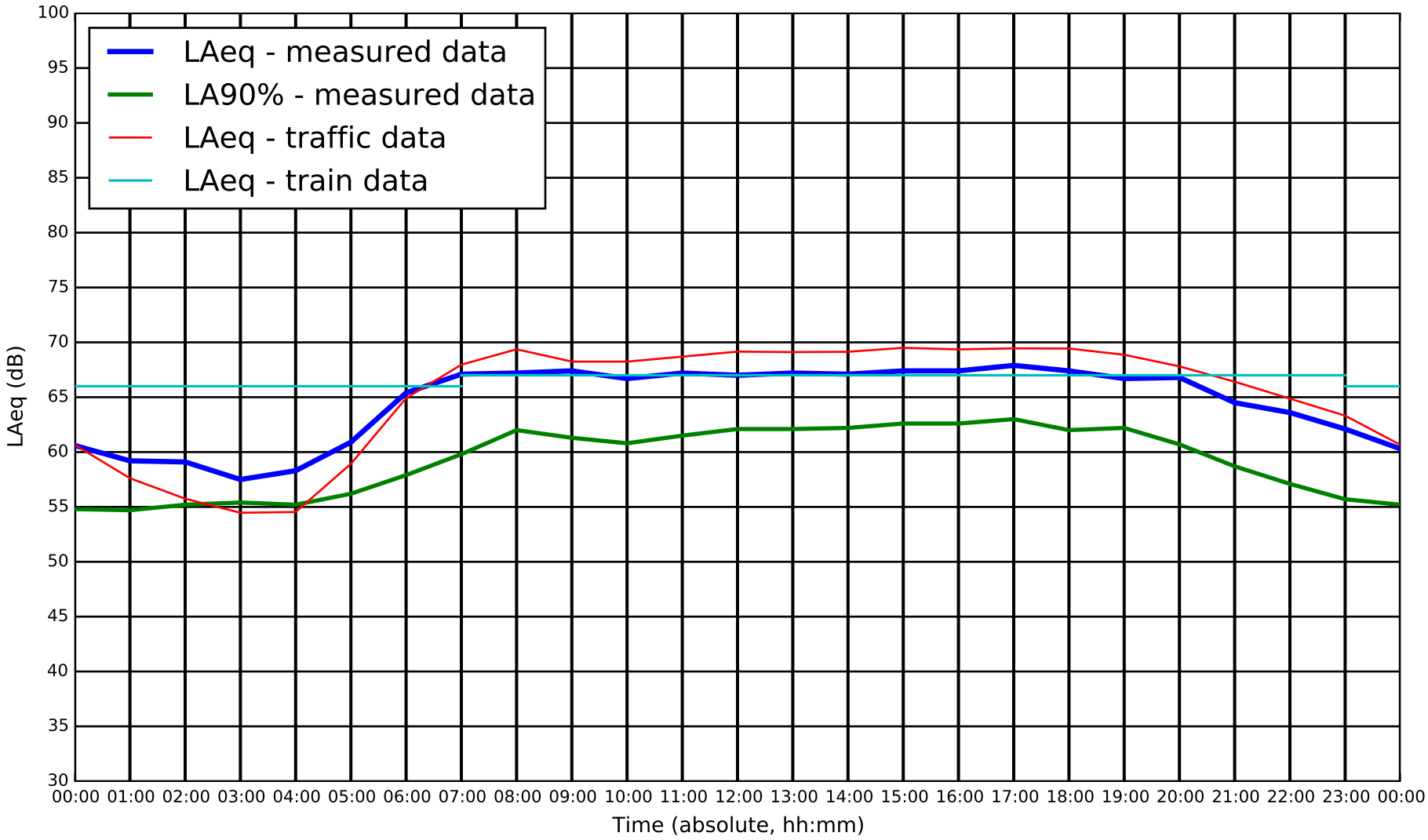
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-13	Figure: 13
	Project Name: Glen Watford Drive	Project Num.: 114-053	

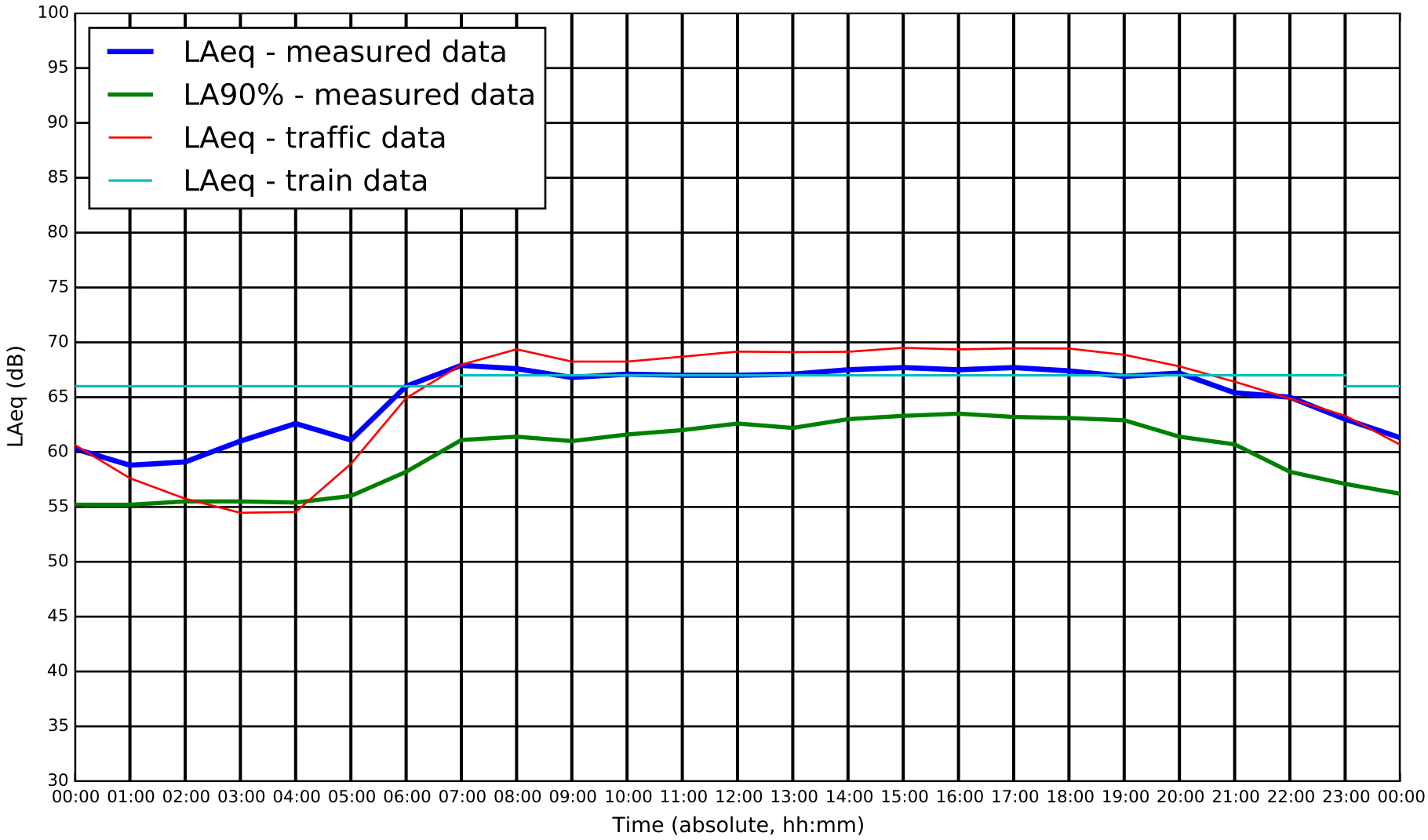


* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

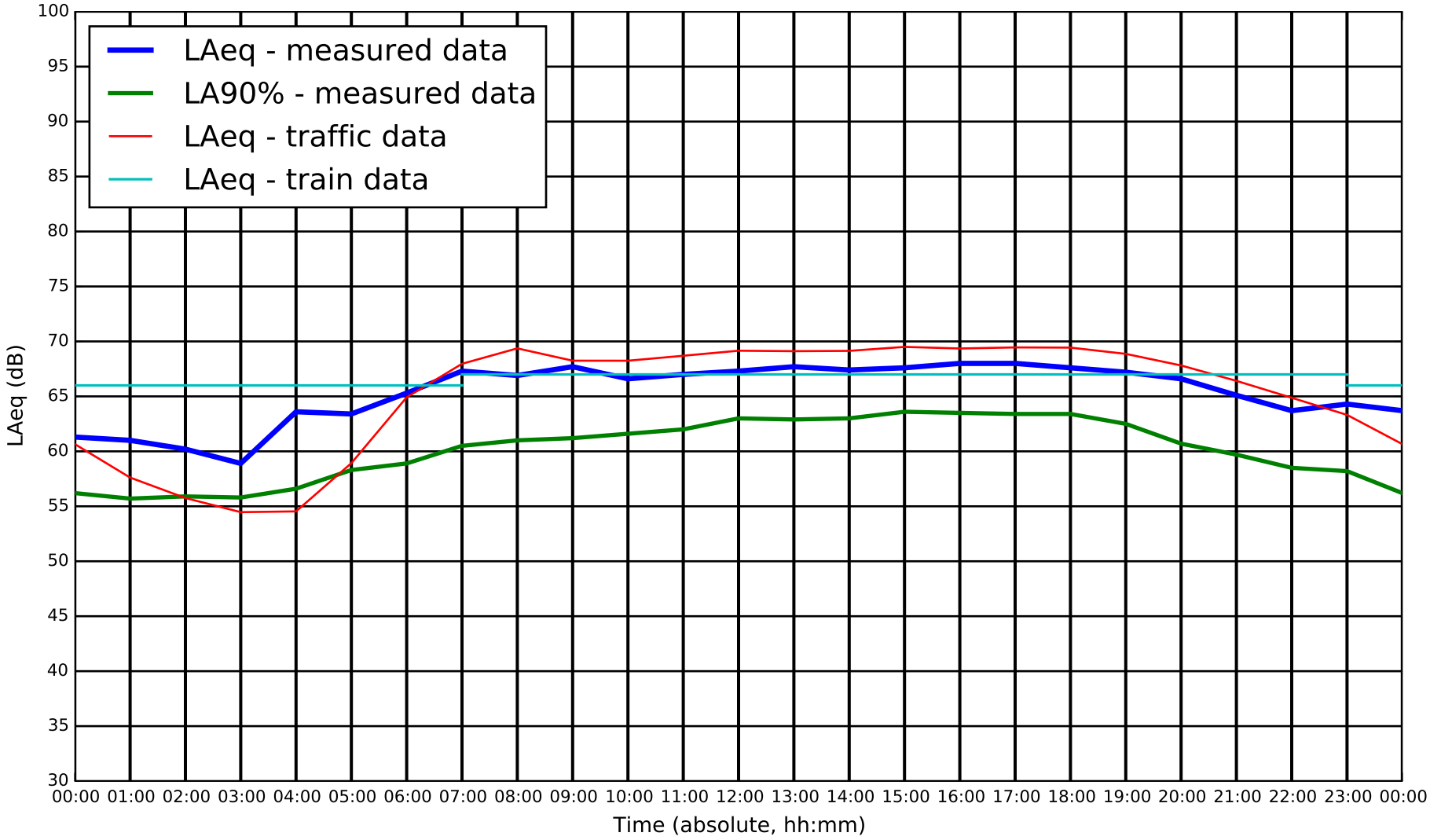
VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-14	Figure: 14
	Project Name: Glen Watford Drive	Project Num.: 114-053	



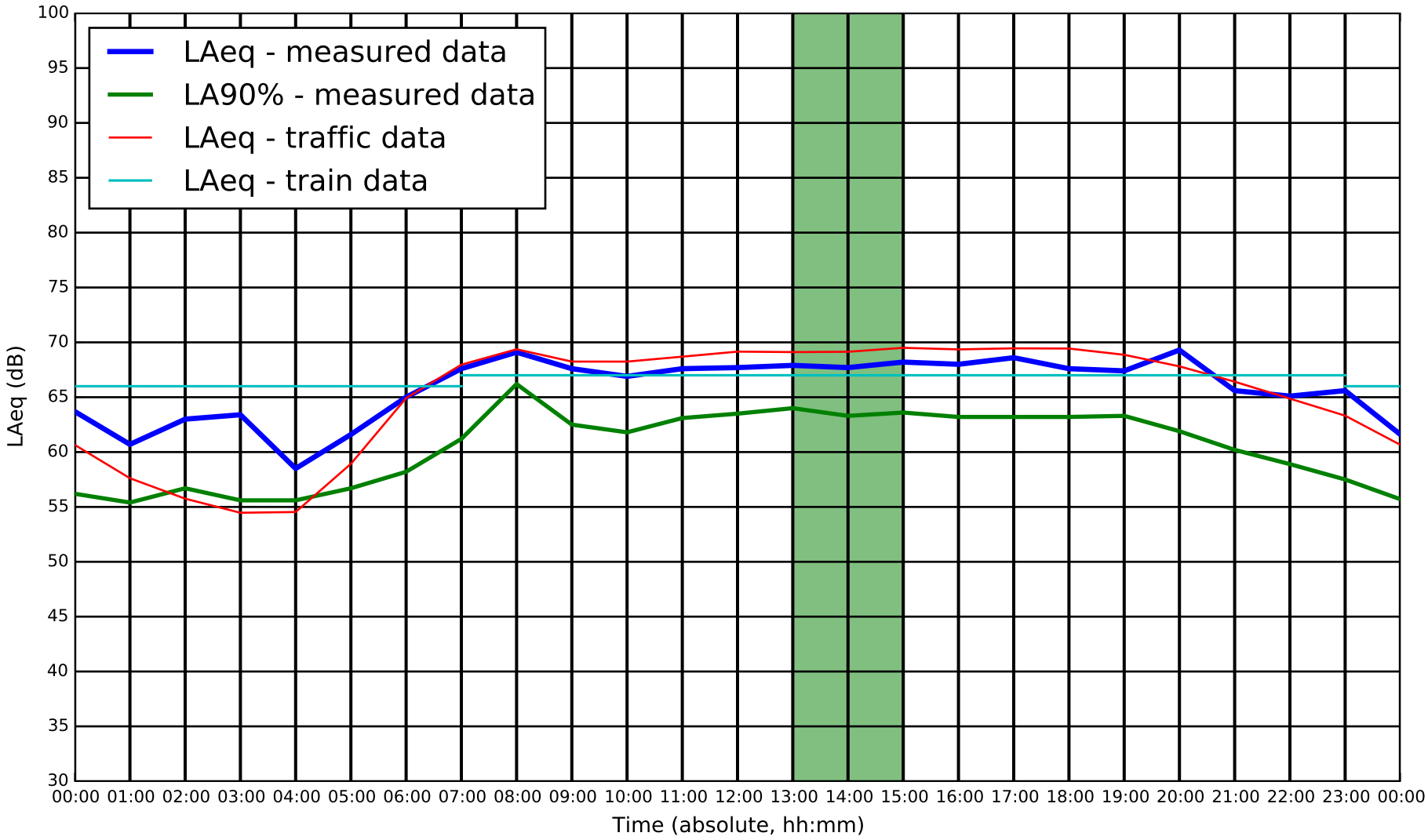
VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-15	Figure: 15
	Project Name: Glen Watford Drive	Project Num.: 114-053	



VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-16	Figure: 16
	Project Name: Glen Watford Drive	Project Num.: 114-053	

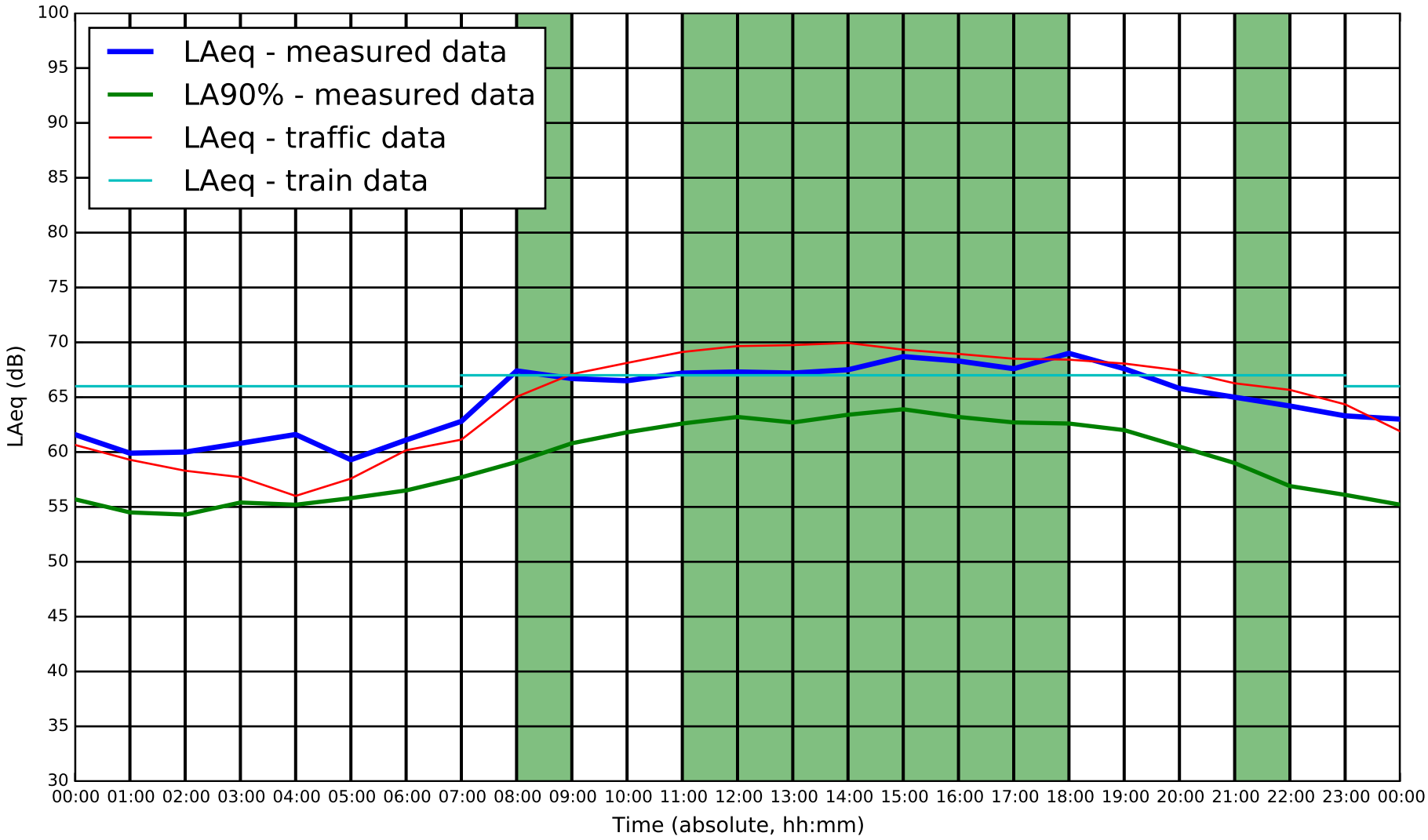


VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-17	Figure: 17
	Project Name: Glen Watford Drive	Project Num.: 114-053	



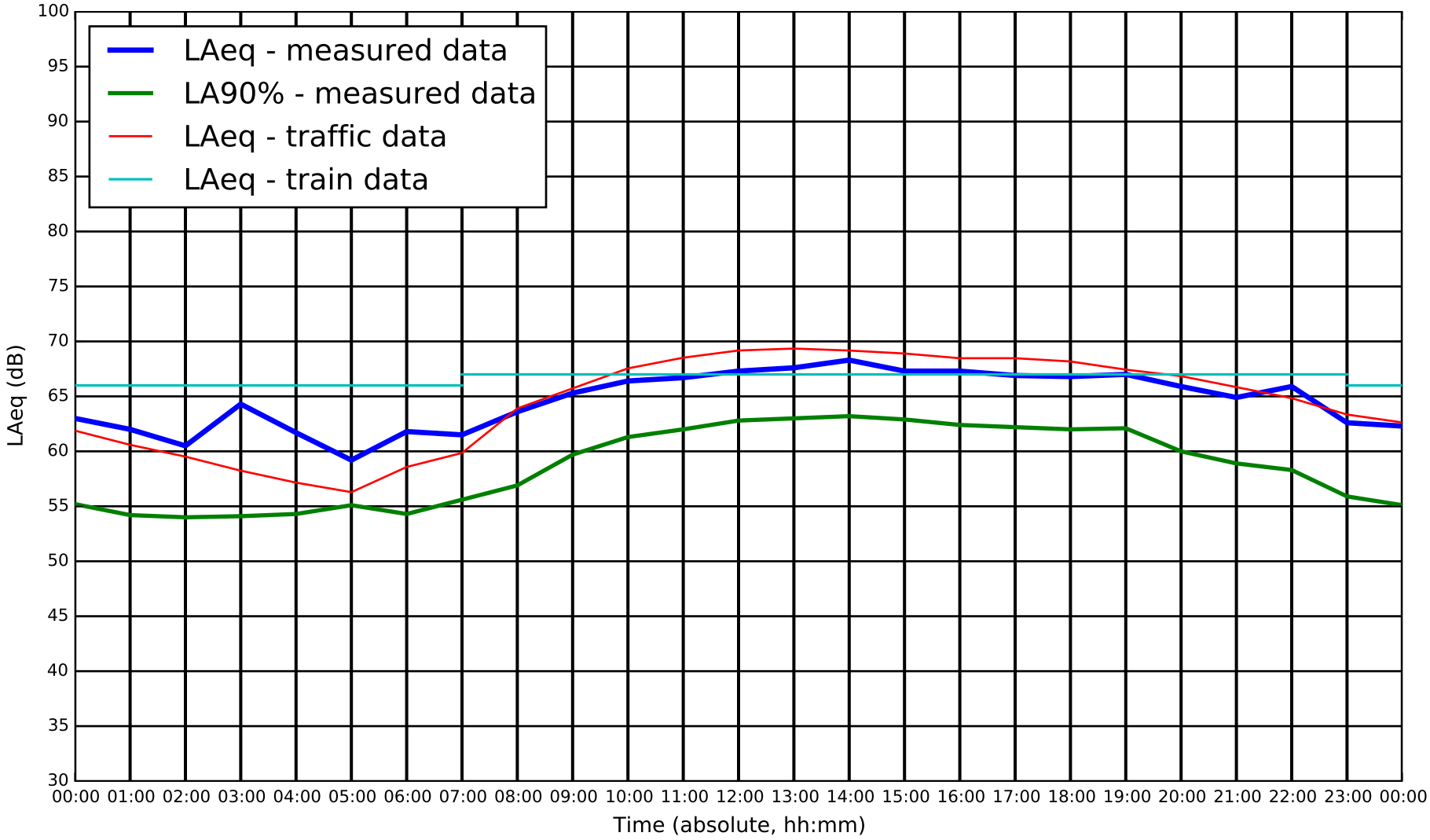
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-18	Figure: 18
	Project Name: Glen Watford Drive	Project Num.: 114-053	

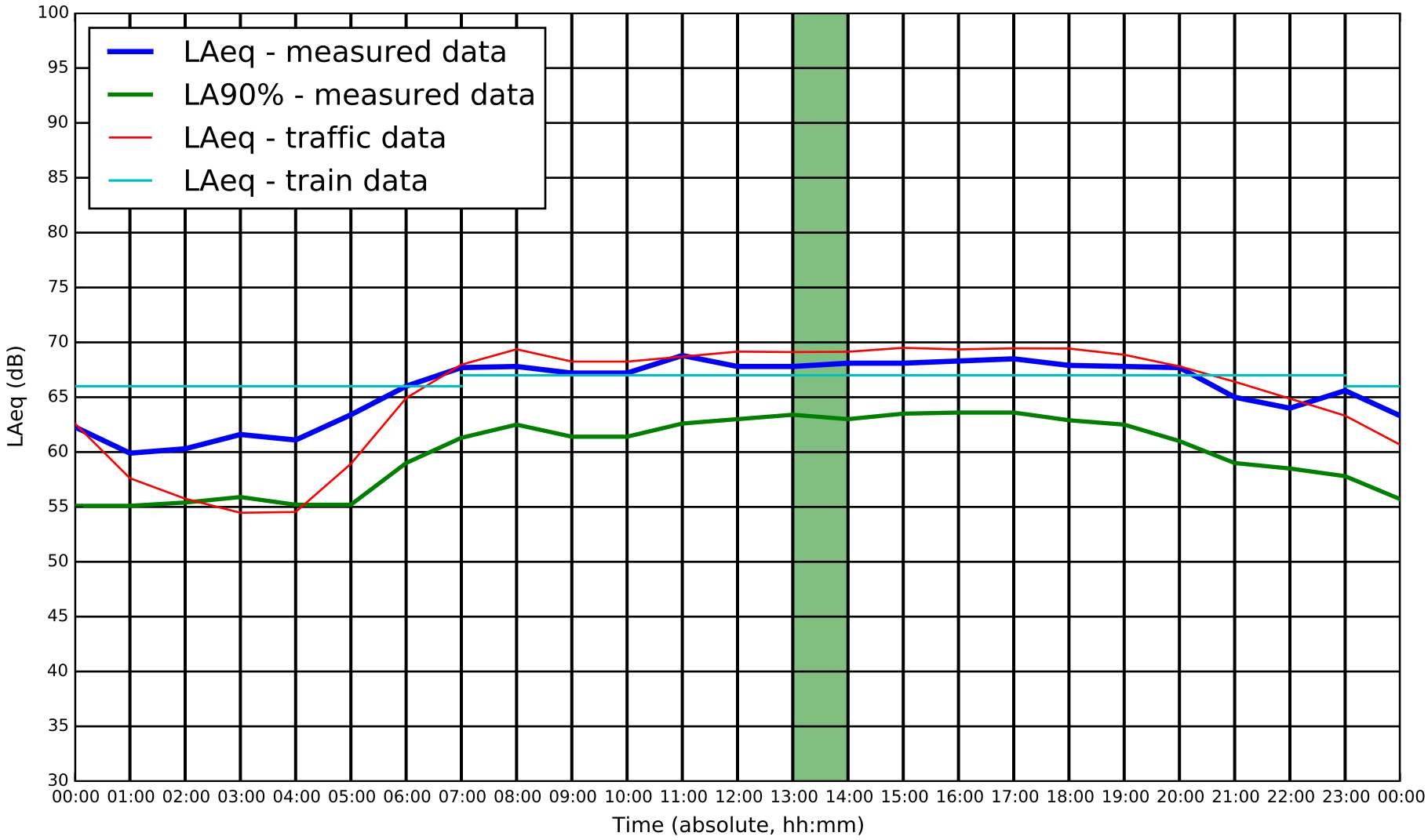


* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-19	Figure: 19
	Project Name: Glen Watford Drive	Project Num.: 114-053	

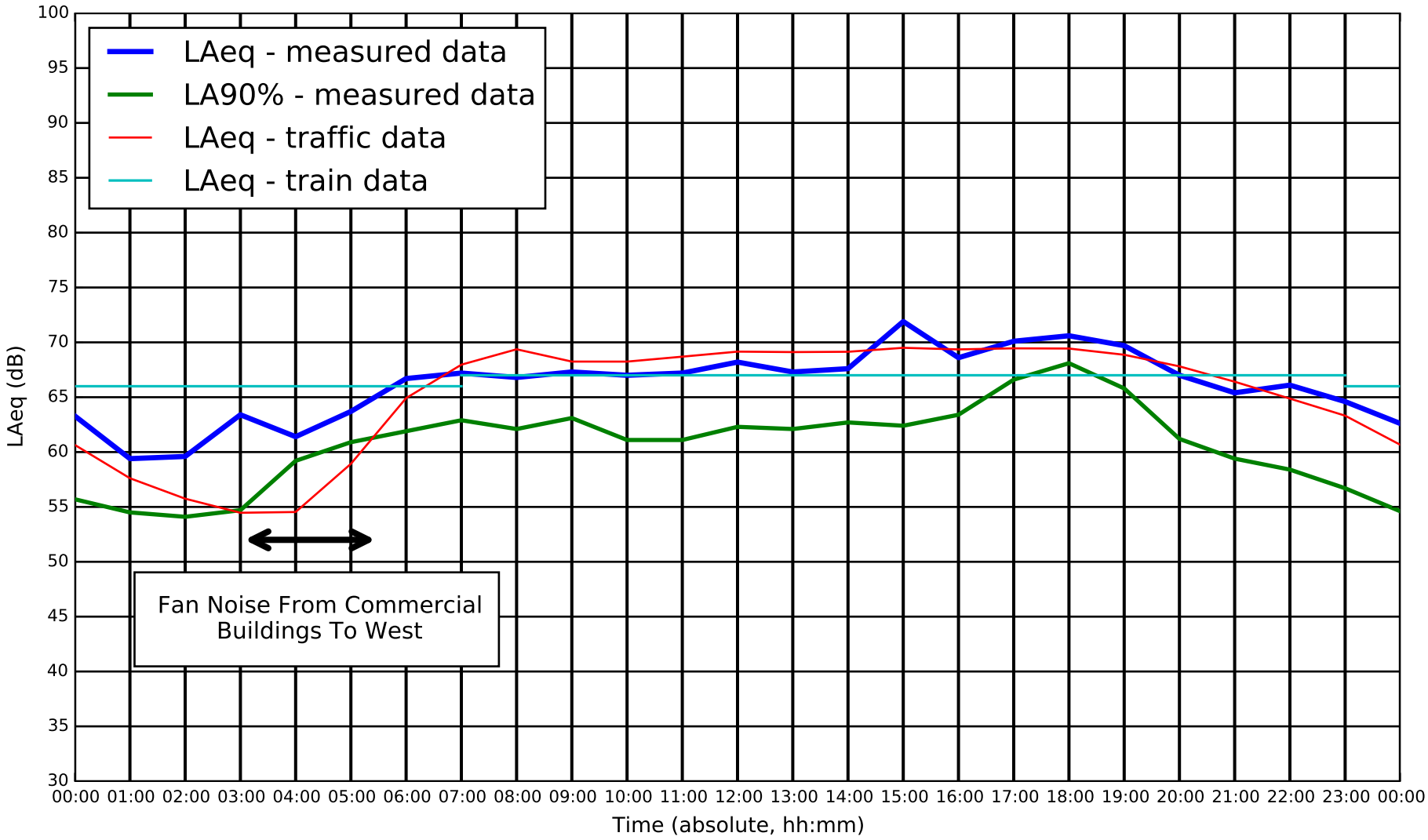


VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-20	Figure: 20
	Project Name: Glen Watford Drive	Project Num.: 114-053	

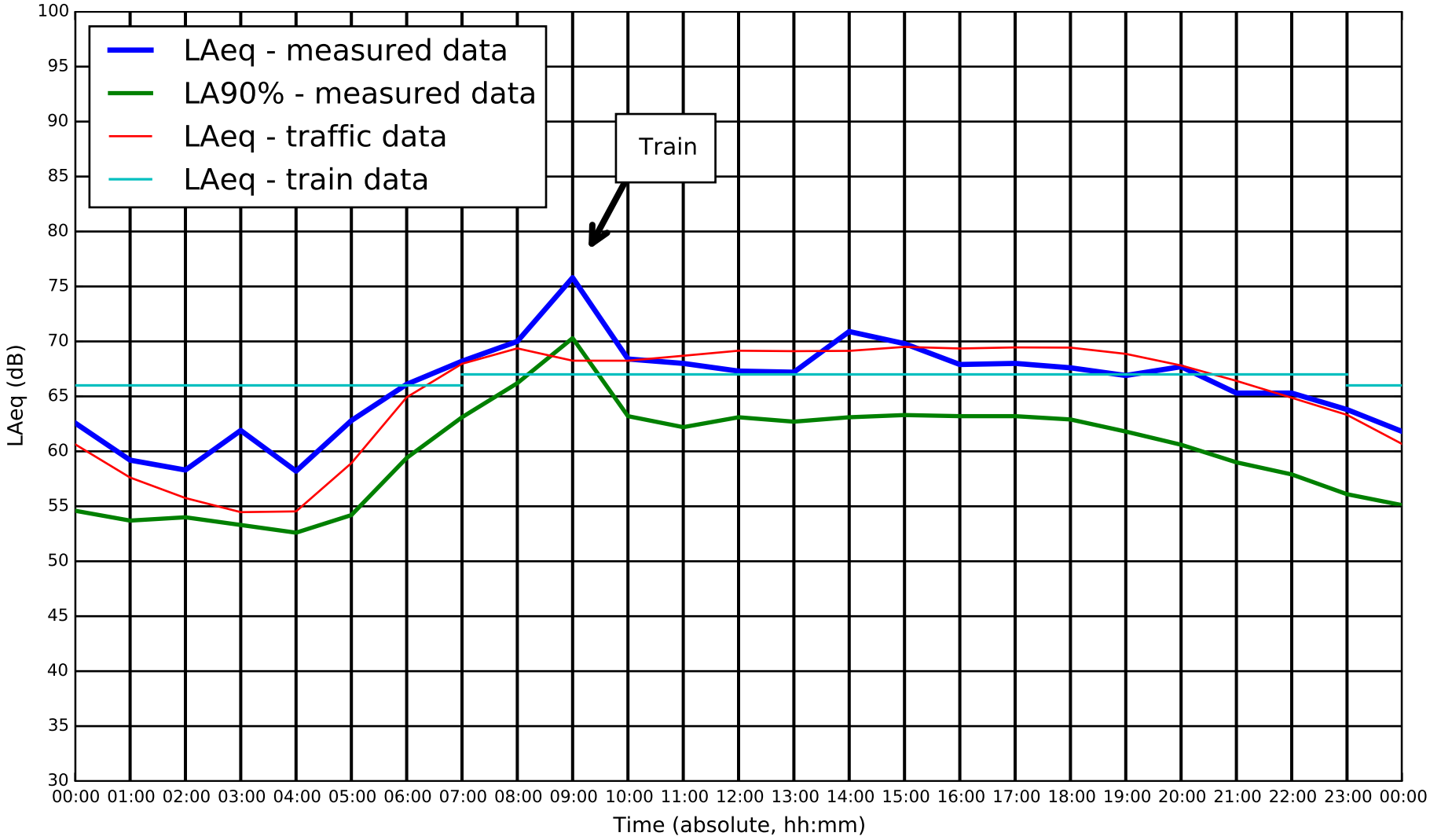


* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

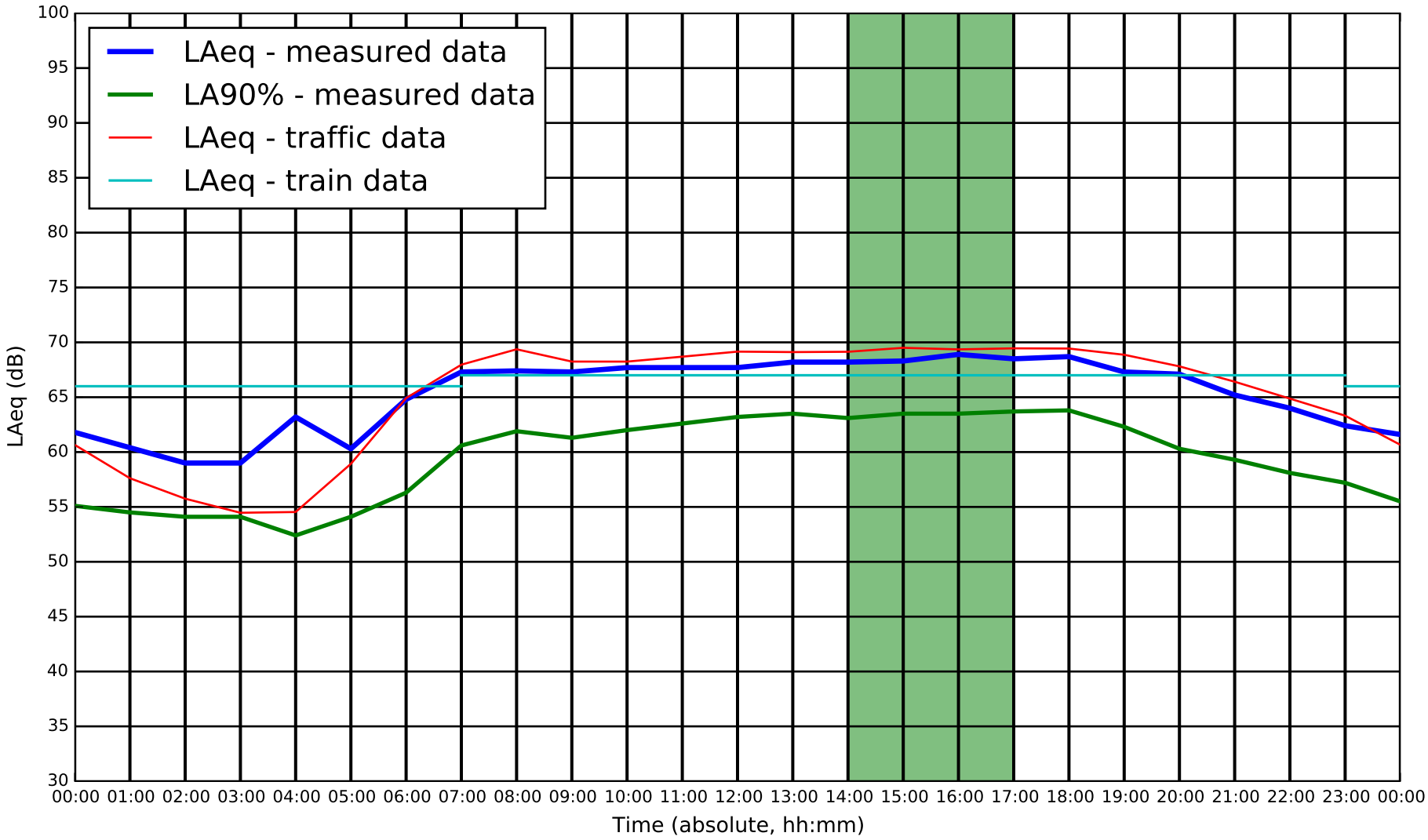
VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-21	Figure: 21
	Project Name: Glen Watford Drive	Project Num.: 114-053	



VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-22	Figure: 22
	Project Name: Glen Watford Drive	Project Num.: 114-053	

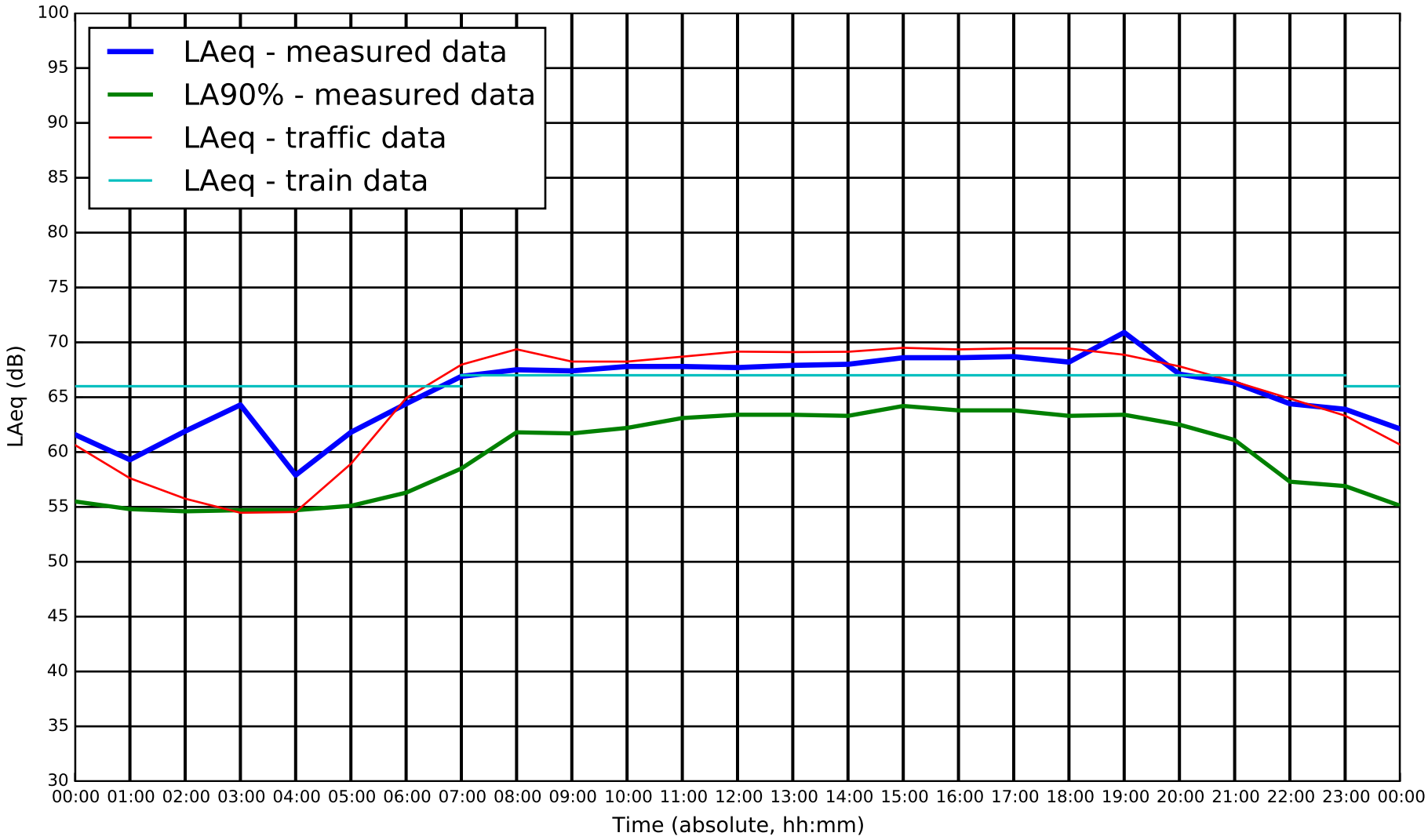


VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-23	Figure: 23
	Project Name: Glen Watford Drive	Project Num.: 114-053	

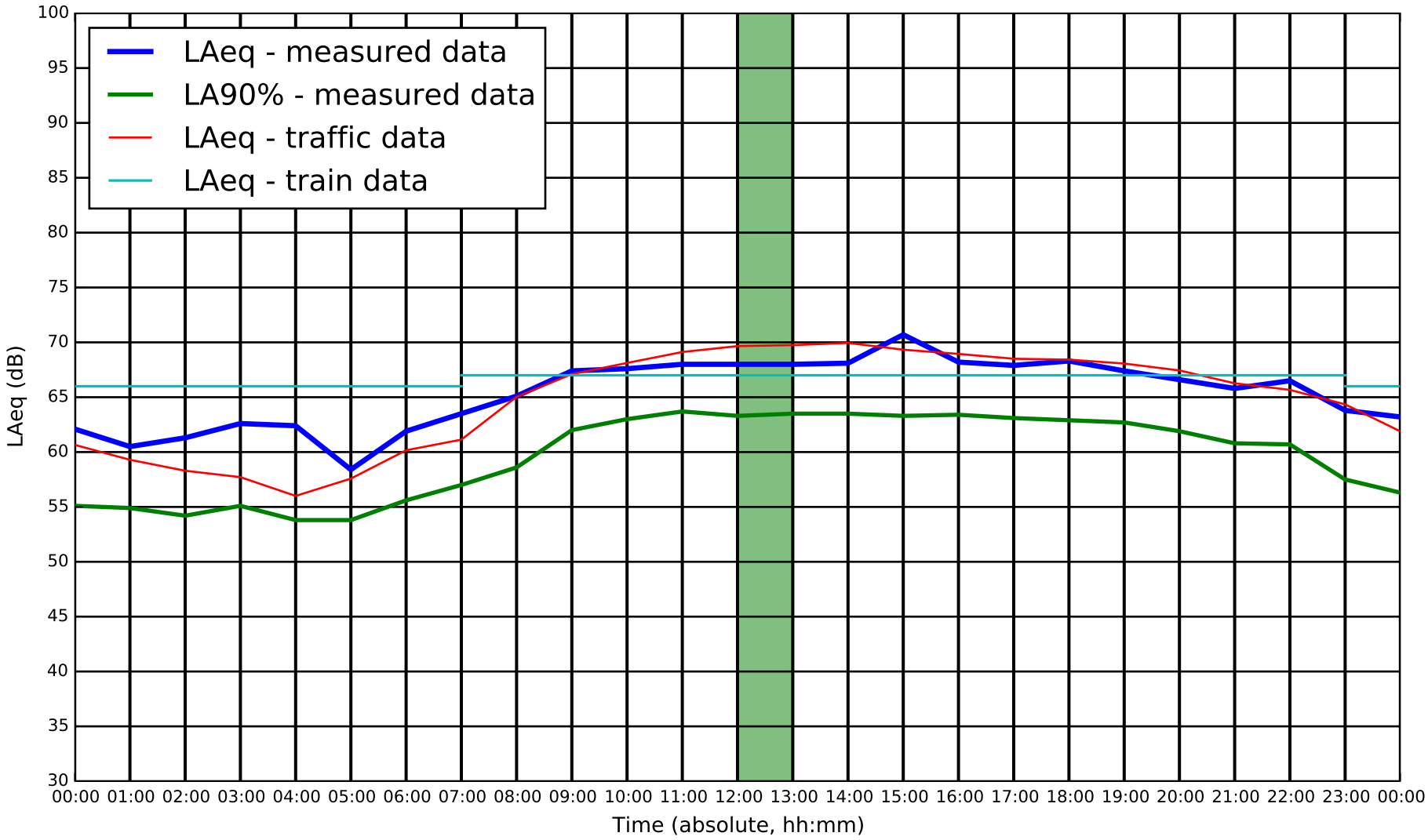


* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-24	Figure: 24
	Project Name: Glen Watford Drive	Project Num.: 114-053	

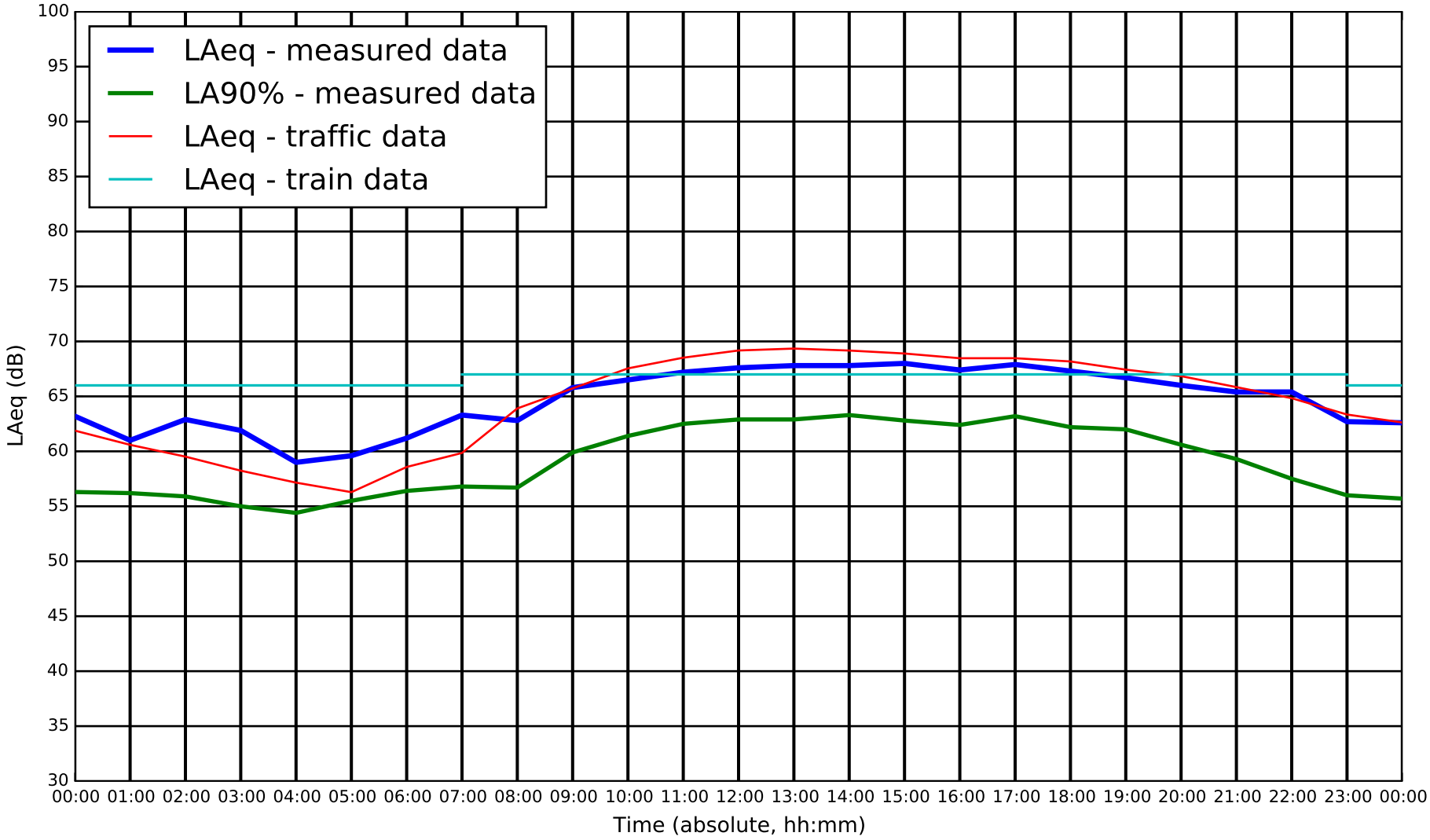


VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-25	Figure: 25
	Project Name: Glen Watford Drive	Project Num.: 114-053	

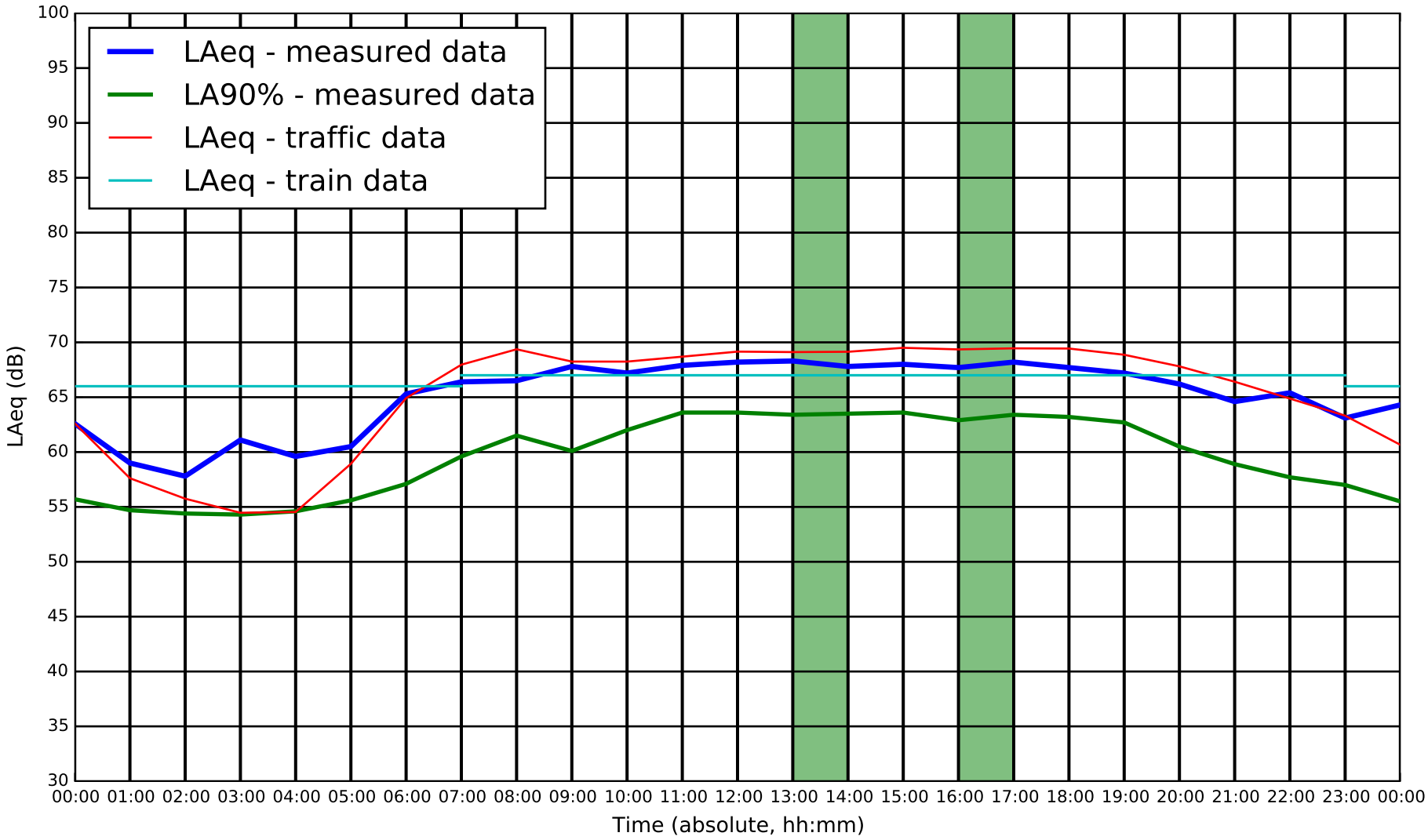


* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-26	Figure: 26
	Project Name: Glen Watford Drive	Project Num.: 114-053	

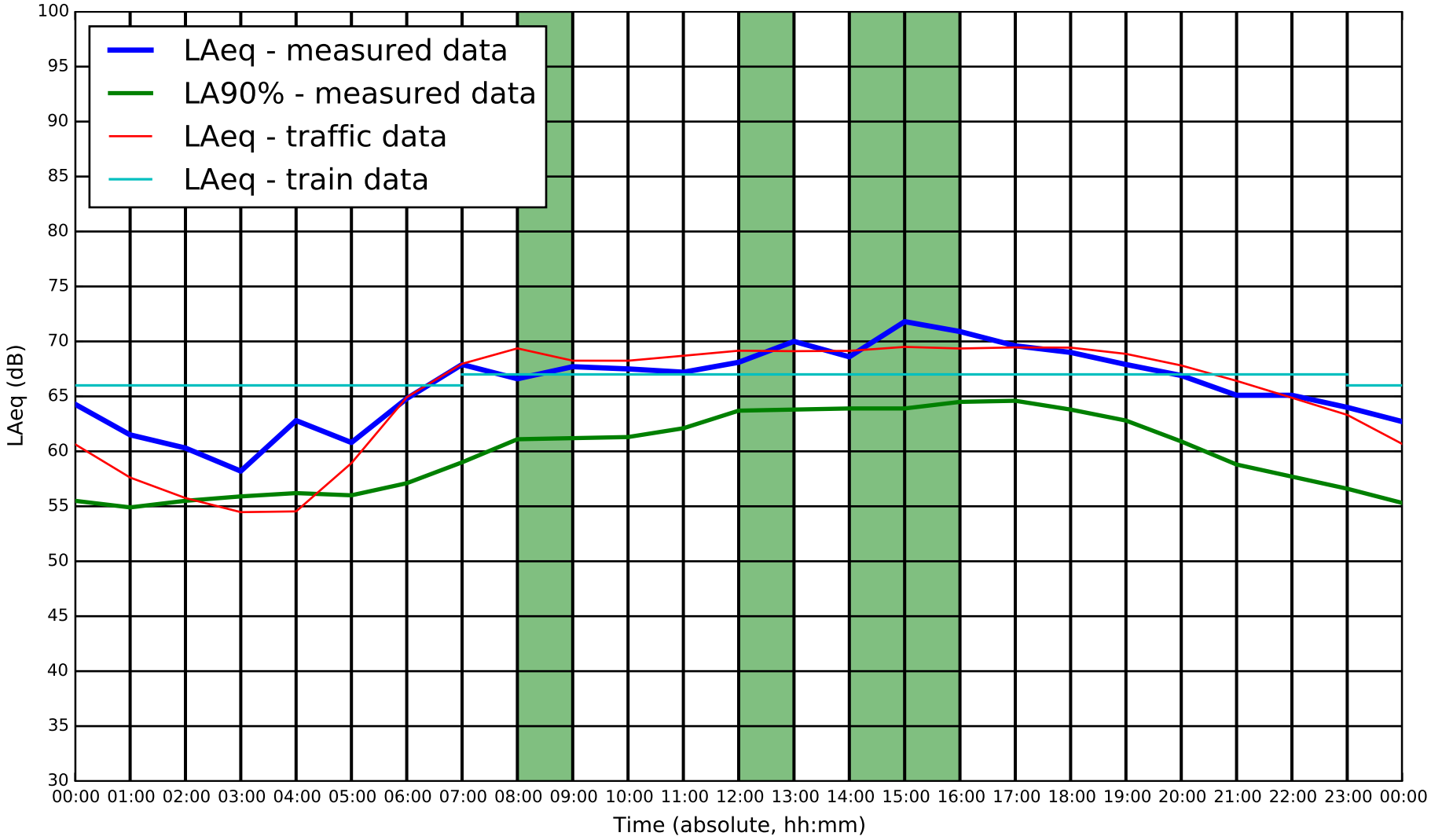


VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-27	Figure: 27
	Project Name: Glen Watford Drive	Project Num.: 114-053	



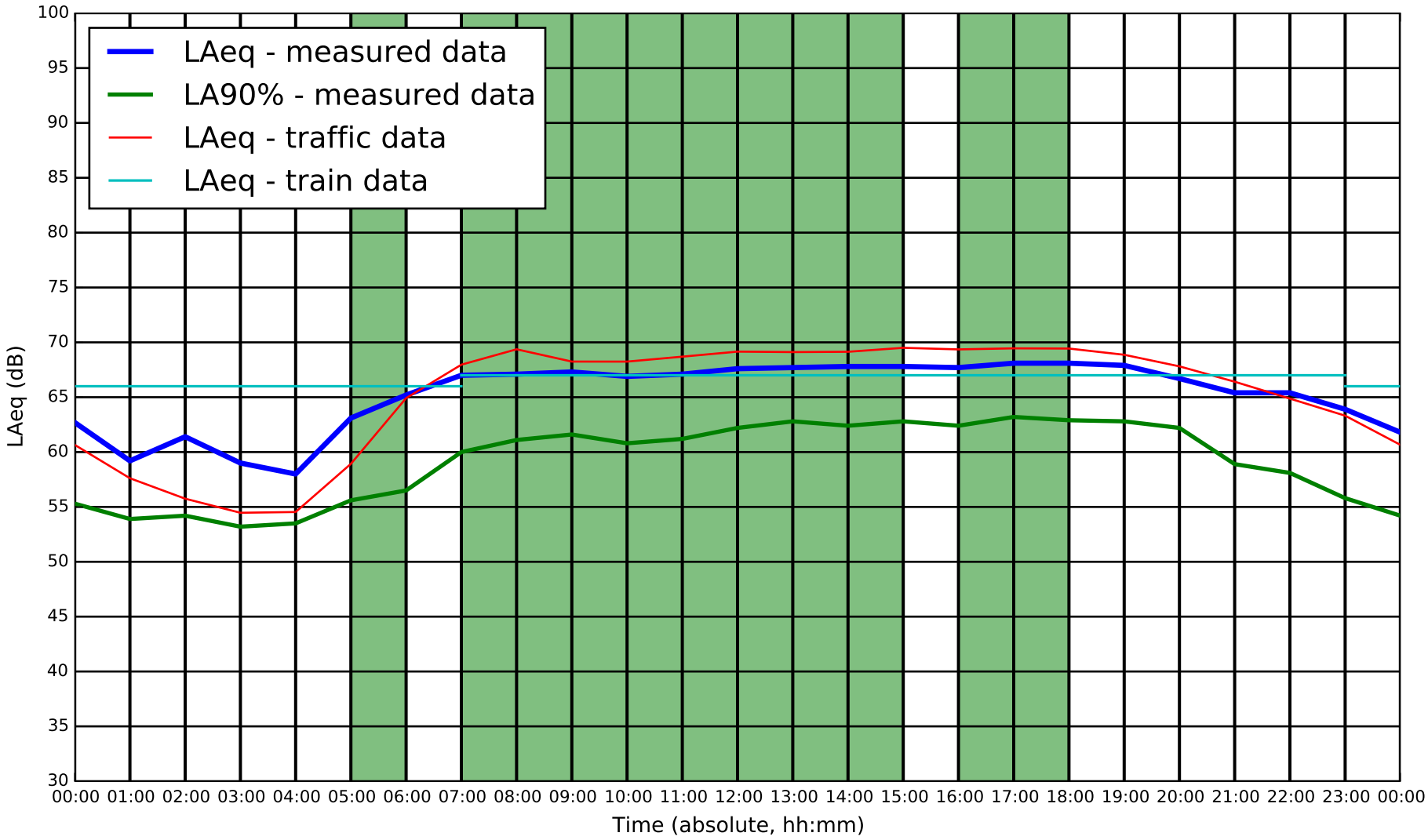
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-28	Figure: 28
	Project Name: Glen Watford Drive	Project Num.: 114-053	



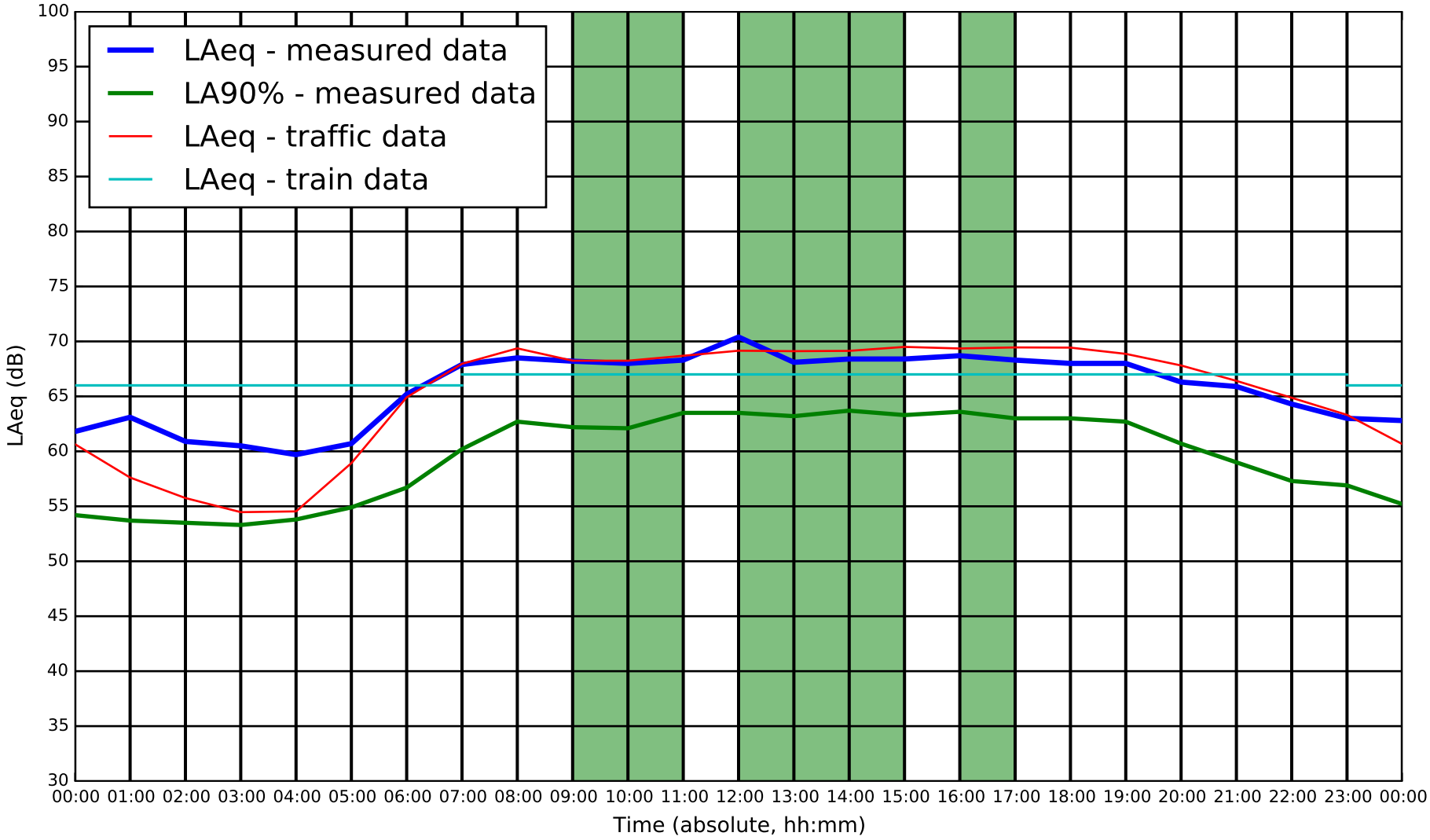
* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-29	Figure: 29
	Project Name: Glen Watford Drive	Project Num.: 114-053	



* Highlighted hours indicate periods where measurement data is ignored due to weather conditions

VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-09-30	Figure: 30
	Project Name: Glen Watford Drive	Project Num.: 114-053	



VALCOUSTICS Canada Ltd.	Title: Sound Measurements - 2015	Measurement Date: 2015-10-01	Figure: 31
	Project Name: Glen Watford Drive	Project Num.: 114-053	

APPENDIX F

IGI ECA #9915-B2UK7G

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER 9915-B2UK7G
Issue Date: November 21, 2018

The International Group, Inc.
50 Salome Drive
Toronto, Ontario
M1S 2A8

Site Location: 50 Salome Drive
Toronto, Ontario.

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act , R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

Description Section

A wax refining facility, consisting of the following processes and support units:

- raw material storage and handling;
- crystallization;
- filtration;
- solvent recovery;
- decolouring and deodorizing;
- blending and manufacturing;
- white oil blending;
- product packaging, storage and shipping;
- waste water treatment complete with an air stripper;
- clay drying furnaces, equipped with a natural gas fired *Fume Incinerator* and a pulse jet baghouse dust collector, with cyclones as back up;
- one (1) *Co-generation Unit,* rated at 3.8 Megawatts, consisting of a natural gas fired Low NOx combustion turbine having a maximum heat input of 43.9 Gigajoules per hour, complete with a natural gas fired heat recovery steam generator with duct burners, having a maximum heat input of 74.4 Gigajoules per hour, producing electricity and steam for use on site, discharging into the air via an exhaust stack having an exit diameter of 1.21 metres, extending 10.7 metres above the roof and 19.2 metres above grade;

including the *Equipment* and any other ancillary and support processes and activities, operating at a *Facility Production Limit* of up to 90 million kilograms of fully refined

wax produced per year, discharging to the air as described in the *Original ESDM Report.*

For the purpose of this environmental compliance approval, the following definitions apply:

1. "*ACB list"* means the document entitled “Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants”, as amended from time to time and published by the *Ministry* and available on a Government website;
2. "*Acceptable Point of Impingement Concentration"* means a concentration accepted by the *Ministry* as not likely to cause an adverse effect for a *Compound of Concern* that,
    a. is not identified in the *ACB list,* or
    b. is identified in the *ACB list* as belonging to the category “Benchmark 2” and has a concentration at a *Point of Impingement* that exceeds the concentration set out for the contaminant in that document.
    With respect to the *Original ESDM Report,* the *Acceptable Point of Impingement Concentration* for a *Compound of Concern* mentioned above is the concentration set out in the *Original ESDM Report;*
3. "*Acoustic Assessment Report"* means the report, prepared in accordance with *Publication NPC-233* and Appendix A of the *Basic Comprehensive User Guide,* by Timothy Gully / Golder Associates Ltd. and dated May 2018 submitted in support of the application, that documents all sources of noise emissions and *Noise Control Measures* present at the *Facility,* as updated in accordance with Condition 5 of this *Approval;*
4. "*Acoustic Assessment Summary Table"* means a table prepared in accordance with the *Basic Comprehensive User Guide* summarising the results of the *Acoustic Assessment Report,* as updated in accordance with Condition 5 of this *Approval;*
5. "*Approval"* means this entire Environmental Compliance Approval and any *Schedules* to it;
6. "*Basic Comprehensive User Guide"* means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide” dated March 2011, as amended;
7. *"Co-generation Unit"* means the power co-generation equipment including the natural gas fired Low NOx combustion gas turbine (CGT) and the natural gas fired Heat Recovery Steam Generator (HRSG), described in the *Company's* application, this *Approval* and in the supporting documentation referred to herein,

to the extent approved by this *Approval*;

8. "*Company"* means The International Group, Inc. that is responsible for the construction or operation of the *Facility* and includes any successors and assigns in accordance with section 19 of the *EPA;*
9. "*Compound of Concern"* means a contaminant described in paragraph 4 subsection 26 (1) of *O. Reg. 419/05,* namely, a contaminant that is discharged from the *Facility* in an amount that is not negligible;
10. "*Description Section"* means the section on page one of this *Approval* describing the *Company's* operations and the *Equipment* located at the *Facility* and specifying the *Facility Production Limit* for the *Facility;*
11. "*Director"* means a person appointed for the purpose of section 20.3 of the *EPA* by the *Minister* pursuant to section 5 of the *EPA;*
12. "*District Manager"* means the District Manager of the appropriate local district office of the *Ministry,* where the *Facility* is geographically located;
13. "*Emission Summary Table"* means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05;*
14. "*Environmental Assessment Act"* means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended;
15. "*EPA"* means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
16. "*Equipment"* means equipment or processes described in the *ESDM Report,* this *Approval* and in the *Schedules* referred to herein and any other equipment or processes;
17. "*Equipment with Specific Operational Limits"* means the *Fume Incinerator, the Co-Generation Unit* and any *Equipment* related to the thermal oxidation of waste or waste derived fuels, fume incinerators or any other *Equipment* that is specifically referenced in any published *Ministry* document that outlines specific operational guidance that must be considered by the *Director* in issuing an *Approval;*
18. "*ESDM Report"* means the most current Emission Summary and Dispersion Modelling Report that describes the *Facility.* The *ESDM Report* is based on the *Original ESDM Report* and is updated after the issuance of this *Approval* in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document;*
19. "*Facility"* means the entire operation located on the property where the *Equipment* is located;
20. "*Facility Production Limit"* means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility;*

21. *"Fume Incinerator"* means the gas fired fume incinerator used to control emissions from the clay drying furnaces described in the *ESDM Report,* this *Approval* and in the *Supporting Documentation* referred to herein and any other equipment or processes;
22. *"Heat Output"* means the total useful heat energy recovered from the combustion turbine as heat, expressed in megawatts;
23. "*Log"* means a document that contains a record of each change that is required to be made to the *ESDM Report* and *Acoustic Assessment Report,* including the date on which the change occurred. For example, a record would have to be made of a more accurate emission rate for a source of contaminant, more accurate meteorological data, a more accurate value of a parameter that is related to a source of contaminant, a change to a *Point of Impingement* and all changes to information associated with a *Modification* to the *Facility* that satisfies Condition 2;
24. *"Lower Heating Value"* means the energy released during combustion of the fuel, excluding the latent heat content of the water vapour component of the products of combustion, expressed in megajoules per cubic metre at standard temperature and pressure, or megajoules per kilogram;
25. "*Manager"* means the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, as those duties relate to the conditions of this *Approval;*
26. "*Minister"* means the Minister of the Environment, Conservation and Parks or such other member of the Executive Council as may be assigned the administration of the *EPA* under the Executive Council Act;
27. "*Ministry"* means the ministry of the *Minister;*
28. "*Modification"* means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a process or rate of production at the *Facility* that may discharge or alter the rate or manner of discharge of a *Compound of Concern* to the air or discharge or alter noise or vibration emissions from the *Facility;*
29. "*Noise Control Measures"* means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers;
30. "*O. Reg. 419/05"* means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;
31. "*Original ESDM Report"* means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of *O. Reg. 419/05* and

the *Procedure Document* by Golder Associates Ltd. and dated May 4, 2018, submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval;*

32. "*Point of Impingement"* has the same meaning as in section 2 of *O. Reg. 419/05;*
33. "*Point of Reception"* means Point of Reception as defined by *Publication NPC-300;*
34. *"Power Output"* means the electricity and shaft power production of the combustion turbine, expressed in megawatts;
35. "*Pre-Test Plan"* means a plan for the *Source Testing* including the information required in Section 1.1 of the *Source Testing Code;*
36. "*Procedure Document"* means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated February 2017, as amended;
37. "*Processes with Significant Environmental Aspects"* means the *Equipment* which, during regular operation, would discharge one or more contaminants into the air in an amount which is not considered as negligible in accordance with section 26 (1) 4 of *O. Reg. 419/05* and the *Procedure Document;*
38. "*Publication NPC-207"* means the *Ministry* draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, published by the *Ministry,* August 1978, as amended;
39. "*Publication NPC-233"* means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
40. "*Publication NPC-300"* means the *Ministry* Publication NPC-300, “Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300”, August 2013, as amended;
41. "*Schedules"* means the following schedules attached to this *Approval* and forming part of this *Approval* namely:
    - Schedule A - Supporting Documentation;
    - Schedule B - Emission Limits;
    - Schedule C - Source Testing Procedure;
    - Schedule D - Thermal Efficiency Verification;
    - Schedule E - Temperature Monitor;
42. "*Source Testing"* means sampling and testing to measure emissions resulting from operating the *Equipment* under conditions which yield the worst case emissions,

as practically possible, within the approved operating range of the *Equipment* and satisfies paragraph 1 of subsection 11(1) *of O. Reg. 419,* as determined in consultation with the *Manager;*

43. "*Source Testing Code"* means the Ontario Source Testing Code, dated June 2010, prepared by the *Ministry,* as amended;
44. *"Thermal Efficiency"* means the fraction of the total energy input into the *Co-generation Unit* which is transformed into useful energy output expressed as a percentage on a lower heating value basis;
45. "*Toxicologist"* means a qualified professional currently active in the field of risk assessment and toxicology that has a combination of formal university education, training and experience necessary to assess contaminants; and
46. "*Written Summary Form"* means the electronic questionnaire form, available on the *Ministry* website, and supporting documentation, that documents the activities undertaken at the *Facility* in the previous calendar year.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. **GENERAL**
    1. Except as otherwise provided by this *Approval,* the *Facility* shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this *Approval* and in accordance with the following *Schedules* attached hereto:
        - Schedule A - Supporting Documentation
        - Schedule B - Emission Limits;
        - Schedule C - Source Testing Procedure;
        - Schedule D - Thermal Efficiency Verification;
        - Schedule E - Temperature Monitor;

2. **LIMITED OPERATIONAL FLEXIBILITY**
    1. Pursuant to section 20.6 (1) of the *EPA* and subject to Conditions 2.2 and 2.3 of this *Approval,* future construction, alterations, extensions or replacements are approved in this *Approval* if the future construction, alterations, extensions or replacements are *Modifications* to the *Facility* that:

a. are within the scope of the operations of the *Facility* as described in the *Description Section* of this *Approval;*

b. do not result in an increase of the *Facility Production Limit* above the level specified in the *Description Section* of this *Approval;* and

c. result in compliance with the performance limits as specified in Condition 4.

2. Condition 2.1 does not apply to,
   a. the addition of any new *Equipment with Specific Operational Limits* or to the *Modification* of any existing *Equipment with Specific Operational Limits* at the *Facility;* or

   b. *Modifications* to the *Facility* that would be subject to the *Environmental Assessment Act.*

3. Condition 2.1 of this *Approval* shall expire ten (10) years from the date of this *Approval,* unless this *Approval* is revoked prior to the expiry date. The *Company* may apply for renewal of Condition 2.1 of this *Approval* by including an *ESDM Report* and an *Acoustic Assessment Report* that describes the *Facility* as of the date of the renewal application.

3. **REQUIREMENT TO REQUEST AN *ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION***
   1. Prior to making a *Modification* to the *Facility* that satisfies Condition 2.1.a. and 2.1.b., the *Company* shall prepare a proposed update to the *ESDM Report* to reflect the proposed *Modification.*

   2. The *Company* shall request approval of an *Acceptable Point of Impingement Concentration* for a *Compound of Concern* if the *Compound of Concern* is not identified in the *ACB list* as belonging to the category “Benchmark 1” and a proposed update to an *ESDM Report* indicates that one of the following changes with respect to the concentration of the *Compound of Concern* may occur:
      a. The *Compound of Concern* was not a *Compound of Concern* in the previous version of the *ESDM Report* and
         i. the concentration of the *Compound of Concern* exceeds the concentration set out for the contaminant in the *ACB list;* or

         ii. the *Compound of Concern* is not identified in the *ACB list;* or

      b. The concentration of the *Compound of Concern* in the updated *ESDM Report* exceeds the higher of,
         i. the most recent *Acceptable Point of Impingement Concentration,*

and

ii. the concentration set out for the contaminant in the *ACB list,* if the contaminant is identified in that document.

3. The request required by Condition 3.2 shall propose a concentration for the *Compound of Concern* and shall contain an assessment, performed by a *Toxicologist,* of the likelihood of the proposed concentration causing an adverse effect at *Points of Impingement.*
4. If the request required by Condition 3.2 is a result of a proposed *Modification* described in Condition 3.1, the *Company* shall submit the request, in writing, to the *Director* at least 30 days prior to commencing to make the *Modification.* The *Director* shall provide written confirmation of receipt of this request to the *Company.*
5. If a request is required to be made under Condition 3.2 in respect of a proposed *Modification* described in Condition 3.1, the *Company* shall not make the *Modification* mentioned in Condition 3.1 unless the request is approved in writing by the *Director.*
6. If the *Director* notifies the *Company* in writing that the *Director* does not approve the request, the *Company* shall,
    a. revise and resubmit the request; or
    b. notify the *Director* that it will not be making the *Modification.*
7. The re-submission mentioned in Condition 3.6 shall be deemed a new submission under Condition 3.2.
8. If the *Director* approves the request, the *Company* shall update the *ESDM Report* to reflect the *Modification.*
9. Condition 3 does not apply if Condition 2.1 has expired.

4. **PERFORMANCE LIMITS**
    1. Subject to Condition 4.2, the *Company* shall not discharge or cause or permit the discharge of a *Compound of Concern* into the air if,
        a. the *Compound of Concern* is identified in the *ACB list* as belonging to the category "Benchmark 1" and the discharge results in the concentration at a *Point of Impingement* exceeding the Benchmark 1 concentration; or
        b. the *Compound of Concern* is not identified in the *ACB list* as belonging to the category “Benchmark 1” and the discharge results in the concentration at a *Point of Impingement* exceeding the higher of,

i. if an *Acceptable Point of Impingement Concentration* exists, the most recent *Acceptable Point of Impingement Concentration,* and

ii. the concentration set out for the contaminant in the *ACB list,* if the contaminant is identified in that document.

2. Condition 4.1 does not apply if the benchmark set out in the *ACB list* has a 10-minute averaging period and no ambient monitor indicates an exceedance at a *Point of Impingement* where human activities regularly occur at a time when those activities regularly occur.
3. The *Company* shall ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300.*
4. The *Company* shall ensure that the vibration emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-207.*
5. The *Company* shall operate any *Equipment with Specific Operational Limits* approved by this *Approval* in accordance with the *Original ESDM Report*and Condition No. 10 in this *Approval.*

5. **DOCUMENTATION REQUIREMENTS**

1. The *Company* shall maintain an up-to-date *Log.*
2. No later than March 31 in each year, the *Company* shall update the *Acoustic Assessment Report* and shall update the *ESDM Report* in accordance with section 26 of *O. Reg. 419/05* so that the information in the reports is accurate as of December 31 in the previous year.
3. The *Company* shall make the *Emission Summary Table* (see section 27 of *O. Reg. 419/05)* and *Acoustic Assessment Summary Table* available for examination by any person, without charge, by posting it on the Internet or by making it available during regular business hours at the *Facility.*
4. The *Company* shall, within three (3) months after the expiry of Condition 2.1 of this *Approval,* update the *ESDM Report* and the *Acoustic Assessment Report* such that the information in the reports is accurate as of the date that Condition 2.1 of this *Approval* expired.
5. Conditions 5.1 and 5.2 do not apply if Condition 2.1 has expired.

6. **REPORTING REQUIREMENTS**

1. Subject to Condition 6.2, the *Company* shall provide the *Director* no later than June 30 of each year, a *Written Summary Form* to be submitted through the *Ministry's* website that shall include the following:
    a. a declaration of whether the *Facility* was in compliance with section 9 of the *EPA, O. Reg. 419/05* and the conditions of this *Approval;*

b. a summary of each *Modification* satisfying Condition 2.1.a. and 2.1.b. that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a *Point of Impingement* for any *Compound of Concern* or resulted in a change in the sound levels reported in the *Acoustic Assessment Summary Table* at any *Point of Reception.*

2. Condition 6.1 does not apply if Condition 2.1 has expired.

7. **OPERATION AND MAINTENANCE**

1. The *Company* shall prepare and implement, not later than three (3) months from the date of this *Approval,* operating procedures and maintenance programs for all *Processes with Significant Environmental Aspects,* which shall specify as a minimum:
   a. frequency of inspections and scheduled preventative maintenance;
   b. procedures to prevent upset conditions;
   c. procedures to minimize all fugitive emissions;
   d. procedures to prevent and/or minimize odorous emissions;
   e. procedures to prevent and/or minimize noise emissions; and
   f. procedures for record keeping activities relating to the operation and maintenance programs.

2. The *Company* shall ensure that all *Processes with Significant Environmental Aspects* are operated and maintained in accordance with this *Approval,* the operating procedures and maintenance programs.

8. **COMPLAINTS RECORDING AND REPORTING**

1. If at any time, the *Company* receives an environmental complaint from the public regarding the operation of the *Equipment* approved by this *Approval,* the *Company* shall take the following steps:
   a. Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.
   b. Notify the *District Manager* of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the *District Manager.*
   c. Initiate appropriate steps to determine all possible causes of the

complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.

d. Complete and retain on-site a report written within one (1) week of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

9. **RECORD KEEPING REQUIREMENTS**
    1. Any information requested by any employee in or agent of the *Ministry* concerning the *Facility* and its operation under this *Approval,* including, but not limited to, any records required to be kept by this *Approval,* shall be provided to the employee in or agent of the *Ministry,* upon request**,** in a timely manner.
    2. Unless otherwise specified in this *Approval,* the *Company* shall retain, for a minimum of five (5) years from the date of their creation all reports, records and information described in this *Approval,* including,
        a. a copy of the *Original ESDM Report* and each updated version*;*
        b. a copy of each version of the *Acoustic Assessment Report;*
        c. supporting information used in the emission rate calculations performed in the *ESDM Reports* and *Acoustic Assessment Reports;*
        d. the records in the *Log;*
        e. copies of each *Written Summary Form* provided to the *Ministry* under Condition 6.1 of this *Approval;*
        f. records of maintenance, repair and inspection of *Equipment* related to all *Processes with Significant Environmental Aspects;* and
        g. all records related to environmental complaints made by the public as required by Condition 8 of this *Approval.*

10. **EQUIPMENT WITH SPECIFIC OPERATIONAL LIMITS**
    1. ***Co-generation Unit***
        a. The *Company* shall ensure that the *Co-generation Unit* is designed and operated to comply, at all times during normal operating conditions, except during start-up and shutdown, with the following performance requirements:
            i. The concentrations of nitrogen oxides and carbon monoxide, in the undiluted gas emitted from the *Co-generation Unit* stacks are not greater than the limits specified in Schedule B attached to this *Approval.*

ii. The *Thermal Efficiency* of the *Co-generation Unit* is not less than the *Thermal Efficiency* specified in Schedule B of this *Approval.*

b. The *Company* shall perform *Source Testing*, in accordance with the procedures outlined in Schedule C to determine the rate of emission of Nitrogen Oxides from the *Co-generation Unit*.

c. The *Company* shall perform a test in conjunction with the above *Source Testing*, in accordance with the procedures outlined in Schedule D, to determine the *Thermal Efficiency* of the *Co-generation Unit*.

2. ***Fume Incinerator.***

a. The *Company* shall ensure that the temperature in the oxidation chamber of the *Fume Incinerator*, as measured by the thermocouple, is maintained at a minimum of 871 degrees Celsius at all times when the clay drying furnaces are in operation.

b. The *Company* shall continuously monitor and record the temperature in the combustion chamber of the *Fume Incinerator*, when the *Fume Incinerator* is in operation. The continuous temperature monitoring and recording system shall comply with the requirements in Schedule E.

11. **REVOCATION OF PREVIOUS APPROVALS**

1. This *Approval* replaces and revokes all Certificates of Approval (Air) issued under section 9 *EPA* and Environmental Compliance Approvals issued under Part II.1 *EPA* to the *Facility* in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval.*

SCHEDULE A

Supporting Documentation

1. Environmental Compliance Approval Application, dated April 26, 2018, signed by Dorin Marian and submitted by the *Company;*
2. Emission Summary and Dispersion Modelling Report, prepared by Golder Associates Ltd. and dated May 4, 2018, 2018;
3. *Acoustic Assessment Report,* prepared by Timothy Gully / Golder Associates Ltd. and dated May 2018;
4.

SCHEDULE B

Emission Limits For *Co-generation Unit.*

Parameter	Limit
Nitrogen Oxides (1)	32.5 ppmvd (2)
Carbon Monoxide	60 ppmvd
Thermal Efficiency	87.7 percent

(1) "Nitrogen oxides" means oxides of nitrogen, including nitric oxide (NO) and nitrogen dioxide (NO2).

(2) "ppmv" means parts per million by volume on a dry basis normalized to 15 per cent oxygen.

SCHEDULE C

***Source Testing* Procedures**

1. The *Company* shall submit, at least sixty (60) days prior to the scheduled date of the *Source Testing* to the *Manager* a *Pre-Test Plan* for the *Source Testing* required under this *Approval.* The *Company* shall finalize the *Pre-Test Plan* in consultation with the *Manager.*
2. The *Company* shall not commence the *Source Testing* required under this *Approval* until the *Manager* has approved the *Pre-Test Plan.*
3. The *Company* shall complete the *Source Testing* not later than three months (3) after the commencement of operation of the *Co-generation Unit*, or three (3) months after the *Manager* has approved the *Pre-Test Plan*, whichever occurs later

and every two (2) calendar years thereafter.

4. The *Company* shall notify the *Manager*, the *District Manager* and the *Director* in writing of the location, date and time of any impending *Source Testing* required by this *Approval*, at least fifteen (15) days prior to the *Source Testing.*
5. The *Company* shall submit a report (hard copy and electronic format) on the *Source Testing* to the *Manager*, the *District Manager* and the *Director* not later than three (3) months after completing the *Source Testing*. The report shall be in the format described in the *Source Testing Code*, and shall also include, but not be limited to:

    a. an executive summary;
    b. an identification of the applicable North American Industry Classification System code (NAICS) for the *Facility;*
    c. Date, time and duration of each test;
    d. Records of operating conditions at the time of *Source Testing*;
    e. Oxygen concentration (percent by volume);
    f. Stack gas volumetric flowrate (cubic metres per second at reference conditions);
    g. Stack gas temperature (degrees Celsius);
    h. Average of emission concentration readings of the Test Contaminants (part per million by volume);
    i. results of *Source Testing,* including the emission rate, emission concentration, and relevant emission factor of the Test Contaminants from the *Co-generation Unit* or the *Power Generators,* as applicable; and
    j. a tabular comparison of *Source Testing* results for the *Co-generation Unit* or the *Power Generators,* as applicable and Test Contaminants to original emission estimates described in the *Company's* application and the *ESDM Report.*

6. The *Director* may not accept the results of the *Source Testing* if:

    a. the *Source Testing Code* or the requirements of the *Manager* were not followed;
    b. the *Company* did not notify the *Manager*, the *District Manager* and *Director* of the *Source Testing;* or
    c. the *Company* failed to provide a complete report on the *Source*

Testing.

7. If the *Director* does not accept the results of the *Source Testing*, the *Director* may require re-testing. If re-testing is required, the *Pre-Test Plan* strategies need to be revised and submitted to the *Manager* for approval. The actions taken to minimize the possibility of the *Source Testing* results not being accepted by the *Director* must be noted in the revision.
8. If the *Source Testing* results are higher than the emission estimates in the *Company's* E*SDM Report*, the *Company* shall update their *ESDM Report* in accordance with Section 26 of *O. Reg. 419/05* with the results from the *Source Testing* report and make these records available for review by staff of the *Ministry* upon request. The updated Emission Summary Table from the updated *ESDM Report* shall be submitted with the report on the *Source Testing.*

SCHEDULE D

Thermal Efficiency Verification

The *Company* shall, as a minimum:

1. Determine the following parameters:
    a. Power Output (megaWatts)
    b. Heat Output (megaWatts)
    c. Fuel Flow Rate (in cubic metres per second at standard temperature and pressure, or kilograms per second)
    d. Lower Heating Value of the Fuel (megajoules per cubic metre)
    e. Ambient air temperature (degree of Celsius)
    f. Barometric pressure (kilopascal)
    g. Relative humidity (per cent)
    h. Date, time and duration of test.
2. Calculate the *Thermal Efficiency* of the *Co-generation Unit* according to the following formula:
    - Thermal Efficiency = (Power Output + Heat Output) x 100% / (Fuel Flow Rate x Lower Heating Value).
3. Prepare a summary of the results of the *Thermal Efficiency* testing no later than three (3) months after completing the test. The summary shall indicate the *Thermal Efficiency* of the *Co-generation Unit* and include all parameters described above in (1).

4. If the measured *Thermal Efficiency* is less than the anticipated *Thermal Efficiency* specified in Schedule "B" of this *Approval* (with a tolerance of 0.05 multiplied by the anticipated *Thermal Efficiency*), notify the *Ministry* so that the concentration limits specified in Schedule B of this *Approval* can be revised accordingly.
5. *Thermal Efficiency* testing should be conducted at maximum rating or at the maximum load achievable at the time of testing and shall employ an average time of not less than three hours.

SCHEDULE E

PARAMETER:

Temperature

LOCATION:

The sample point for the continuous temperature monitoring and recording shall be located at a location where the measurements are representative of the minimum temperature of the gases leaving the combustion chamber of the *Fume Incinerator.*

PERFORMANCE:

The Continuous Temperature Monitoring and recording system shall meet the following minimum performance specifications for the following parameters.

PARAMETERS	SPECIFICATION
Type	shielded "K" type thermocouple, or equivalent
Accuracy	± 1.5 percent of the minimum gas temperature
Calibration	Per manufacturer's recommendations

RECORDER:

The data recorder must be capable of registering continuously the measurement of the monitor without a significant loss of accuracy and with a time resolution of 1 minute or better. All records produced by the continuous temperature monitoring system shall be retained for a minimum of two (2) years.

RELIABILITY:

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 95 percent of the time for each calendar quarter.

The reasons for the imposition of these terms and conditions are as follows:

1. **GENERAL**
   Condition No. 1 is included to require the *Approval* holder to build, operate and maintain the *Facility* in accordance with the Supporting Documentation in Schedule A considered by the *Director* in issuing this *Approval.*
2. **LIMITED OPERATIONAL FLEXIBILITY, REQUIREMENT TO REQUEST AN *ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION* AND PERFORMANCE LIMITS**
   Conditions No. 2, 3 and 4 are included to limit and define the *Modifications* permitted by this *Approval,* and to set out the circumstances in which the *Company* shall request approval of an *Acceptable Point of Impingement Concentration* prior to making *Modifications.* The holder of the *Approval* is approved for operational flexibility for the *Facility* that is consistent with the description of the operations included with the application up to the *Facility Production Limit.* In return for the operational flexibility, the *Approval* places performance based limits that cannot be exceeded under the terms of this *Approval. Approval* holders will still have to obtain other relevant approvals required to operate the *Facility,* including requirements under other environmental legislation such as the *Environmental Assessment Act.*
3. **DOCUMENTATION REQUIREMENTS**
   Condition No. 5 is included to require the *Company* to maintain ongoing documentation that demonstrates compliance with the performance limits as specified in Condition 4 of this *Approval* and allows the *Ministry* to monitor on-going compliance with these performance limits. The *Company* is required to have an up to date *ESDM Report* and *Acoustic Assessment Report* that describe the *Facility* at all times and make the *Emission Summary Table* and *Acoustic Assessment Summary Table* from these reports available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the *Facility.*
4. **REPORTING REQUIREMENTS**
   Condition No. 6 is included to require the *Company* to provide a yearly *Written Summary Form* to the *Ministry,* to assist the *Ministry* with the review of the site's compliance with the *EPA,* the regulations and this *Approval.*
5. **OPERATION AND MAINTENANCE**
   Condition No. 7 is included to require the *Company* to properly operate and maintain the *Processes with Significant Environmental Aspects* to minimize the impact to the environment from these processes.
6. **COMPLAINTS RECORDING AND REPORTING PROCEDURE**
   Condition No. 8 is included to require the *Company* to respond to any

environmental complaints regarding the operation of the *Equipment,* according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.

7. **RECORD KEEPING REQUIREMENTS**
   Condition No. 9 is included to require the *Company* to retain all documentation related to this *Approval* and provide access to employees in or agents of the *Ministry,* upon request, so that the *Ministry* can determine if a more detailed review of compliance with the performance limits as specified in Condition 4 of this *Approval* is necessary.
8. **EQUIPMENT WITH SPECIFIC OPERATIONAL LIMITS**
   Condition No. 10 is is included to provide the minimum performance requirement considered necessary to prevent an adverse effect resulting from the operation of the *Co-generation Unit* and to require the *Company* to gather accurate information so that the environmental impact and subsequent compliance with the *EPA*, the regulations and this *Approval* can be verified.
9. **REVOCATION OF PREVIOUS APPROVALS**
   Condition No. 11 is included to identify that this *Approval* replaces all Section 9 Certificate(s) of Approval and Part II.1 Approvals in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval.*

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 5757-8VERGA issued on January 9, 2015.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993, S.O. 1993, c. 28 (Environmental Bill of Rights), the Environmental Commissioner, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary* Environmental Review Tribunal 655 Bay Street, Suite 1500 Toronto, Ontario M5G 1E5	AND	The Environmental Commissioner 1075 Bay Street, Suite 605 Toronto, Ontario M5S 2B1	AND	The Director appointed for the purposes of Part II.1 of the Environmental Protection Act Ministry of the Environment, Conservation and Parks 135 St. Clair Avenue West, 1st Floor Toronto, Ontario M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or** www.ert.gov.on.ca

This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at www.ebr.gov.on.ca*, you can determine when the leave to appeal period ends.*

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

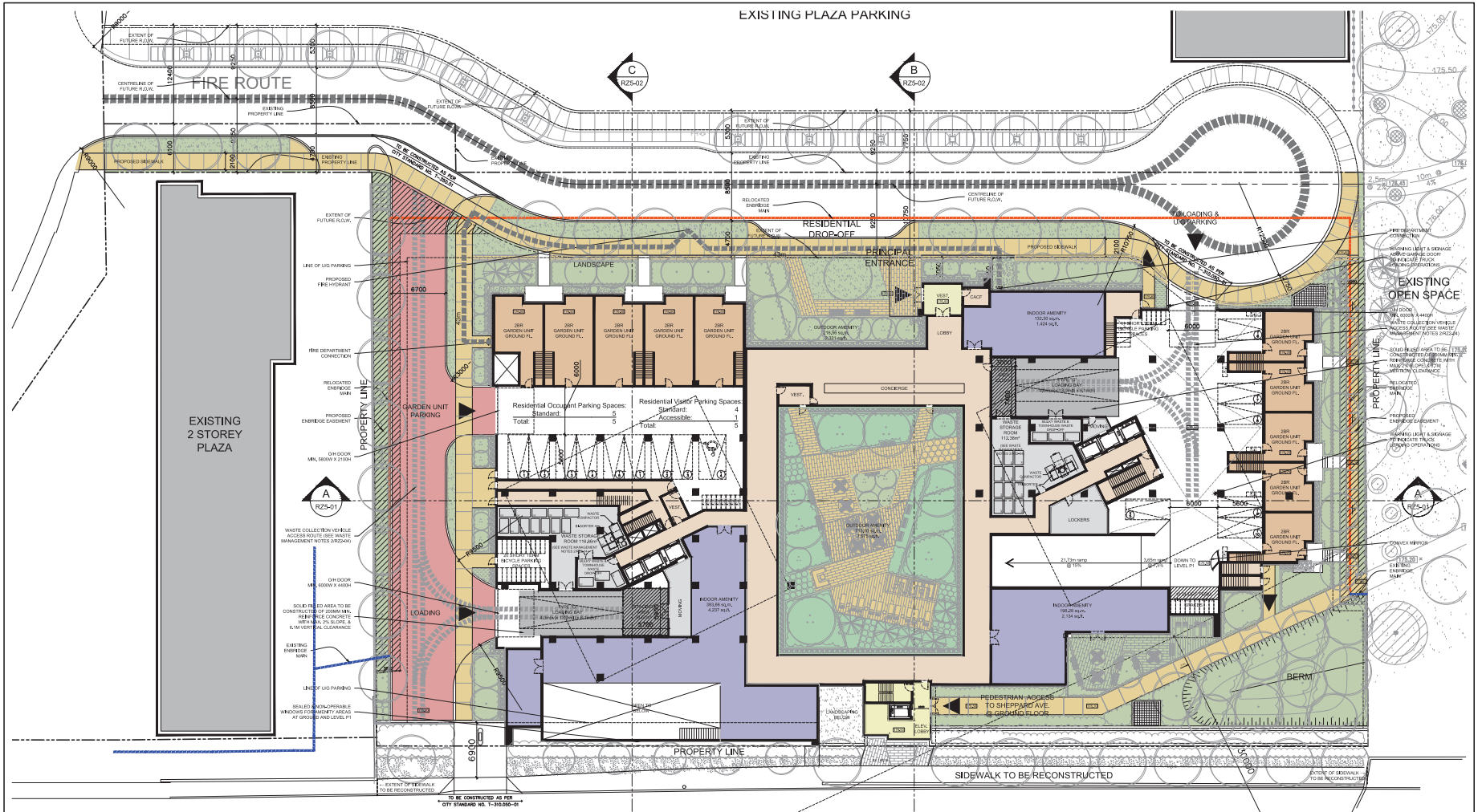
DATED AT TORONTO this 21st day of November, 2018

Jeffrey McKerrall, P.Eng.
Director
appointed for the purposes of Part II.1 of the *Environmental Protection Act*

QN/
c: District Manager, MECP Toronto - District
Katie Armstrong, Golder Associates Ltd.

APPENDIX G

DRAWINGS



City of Toronto Requirements for Garage, Recycling, and Organics Collection Services for New Developments & Redevelopment (Revised May 2012)
Compacted Front-End Collection& Storage Requirement: 25m² for first 50 units + 13m² for each additional 50 units + 10m²
Building A Calculation: 25m² + (13m² x ((278-50) / 50)) + 10m² = 25m² + 59.28m² + 10m² = 94.28m²
Building B Calculation: 25m² + (13m² x ((273-50) / 50)) + 10m² = 25m² + 57.98m² + 10m² = 92.98m²

System Proposed:
Building A: Dual Chute with Bi-sorter for Recycling and Organics
Building B: Single Chute with Tri-sorter
Bins Designation: G = Garbage, R = Recycling, O = Organic

Proposed access route for waste collection vehicle to have minimum 4.4m vertical clearance with maximum 8% slope throughout, and designed to safely support 35,000kg.
Structural engineer to design area to conform as follow:
(A) Design Code - Ontario Building Code
(B) Design Load - City bulk lift vehicle in addition to building code requirements
(C) Impact Factor - 5% for max vehicular speeds to 15km/h and 30% for higher speed

A trained on-site staff member must be available to maneuver bins for the collection driver and also act as a flagman when the truck is reversing. In the event the on-site staff is unavailable at the time the city collection vehicle arrives at the site, the collection vehicle will leave the site and not return until the next scheduled collection day.

Waste Management Notes — 2 / RZ2-04

Ground Floor Plan — 1 / RZ2-04 — 1:200

Date:

ONTARIO ASSOCIATION OF ARCHITECTS — BRENT F. WHITBY — LICENCE 6723 — SEAL MUST BE SIGNED TO BE VALID

KIRKOR ARCHITECTS AND PLANNERS
20 De Boers Dr. #400 Toronto, Ontario, M3J 0H1
T(416) 665-6060, F(416) 665-1234, www.kirkorarchitects.com

No.	Revision	Date
4	Rezoning Re-submission	April 18, 2019
3	Rezoning Re-submission	Aug. 28, 2017
2	Rezoning Re-submission	June 10, 2013
1	Rezoning Submission	Mar. 30, 2012

Drawing Title: Ground Floor Plan

Project: 4280 Sheppard Limited

23 Glen Watford Drive.
(4280/4288 Sheppard Ave. E.)
Residential Development

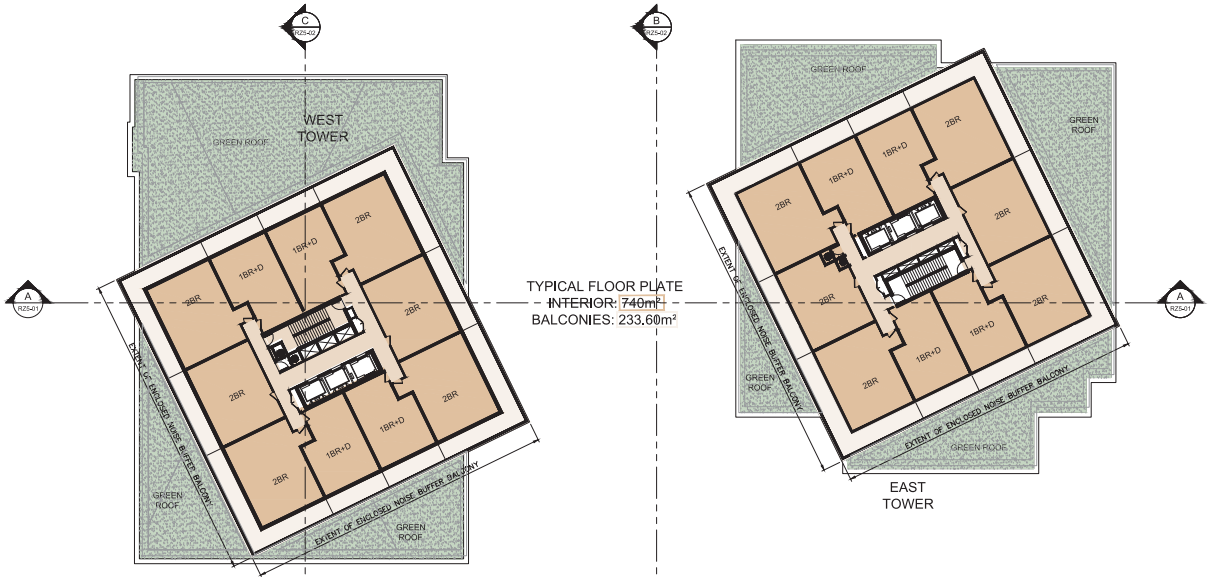
Toronto, Ontario.

Scale	1:200
Drawn by	D.S.
Checked by	S.K.
File No.	10-016
Plot Date	April 18, 2019

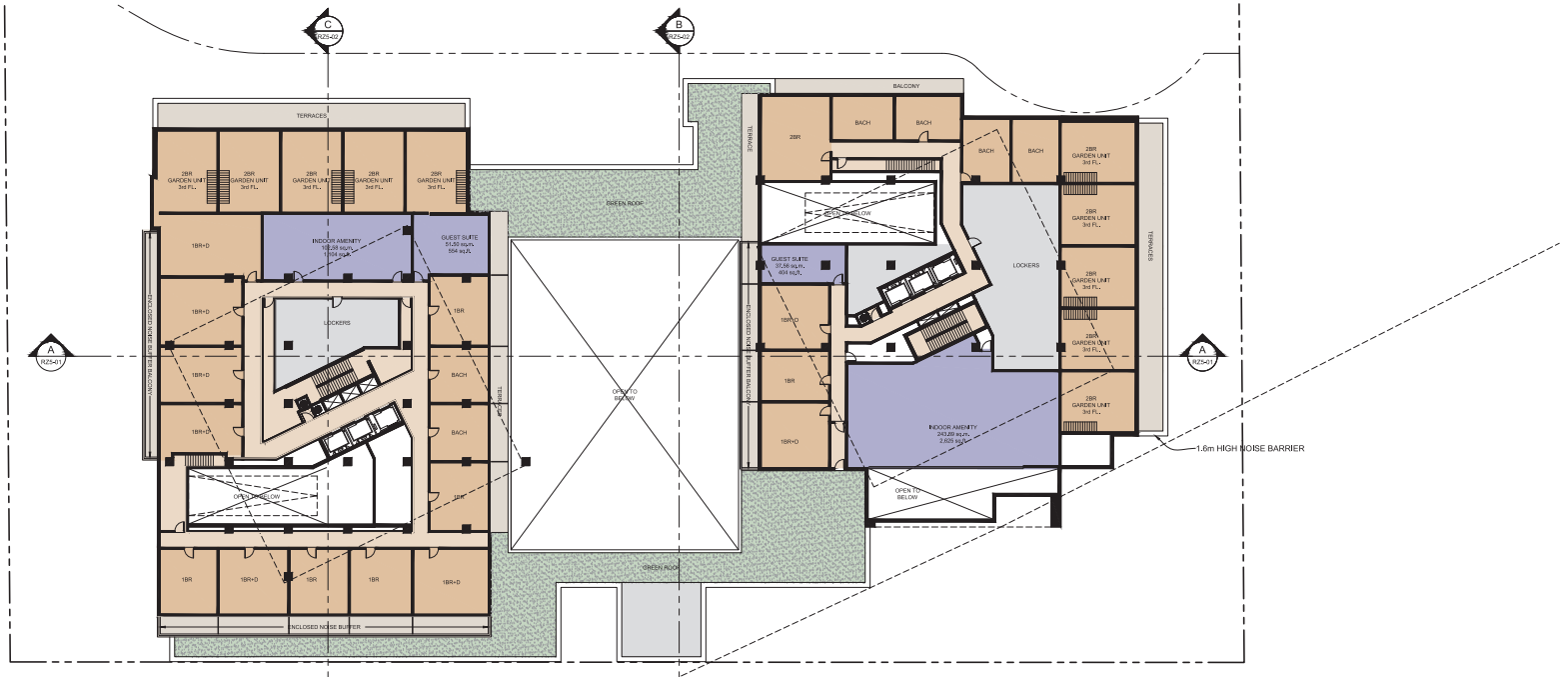
8 of 18

RZ2-04

FILENAME: K:\2010\10-016\CAD\Sheets\10016-RZ2-04.dwg



Level 3 Floor Plan
1:200
2
RZ2-05



Level 2 Floor Plan
1:200
1
RZ2-05

Date:

ONTARIO ASSOCIATION OF ARCHITECTS
BRENT P. WHITBY
LICENCE
6723
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2	Rezoning Re-submission	June 10, 2013
1	Rezoning Submission	Mar. 30, 2012
No.	Issued For	Date

Drawing Title

Level 2 & 3 Floor Plans

Project

4280 Sheppard Limited

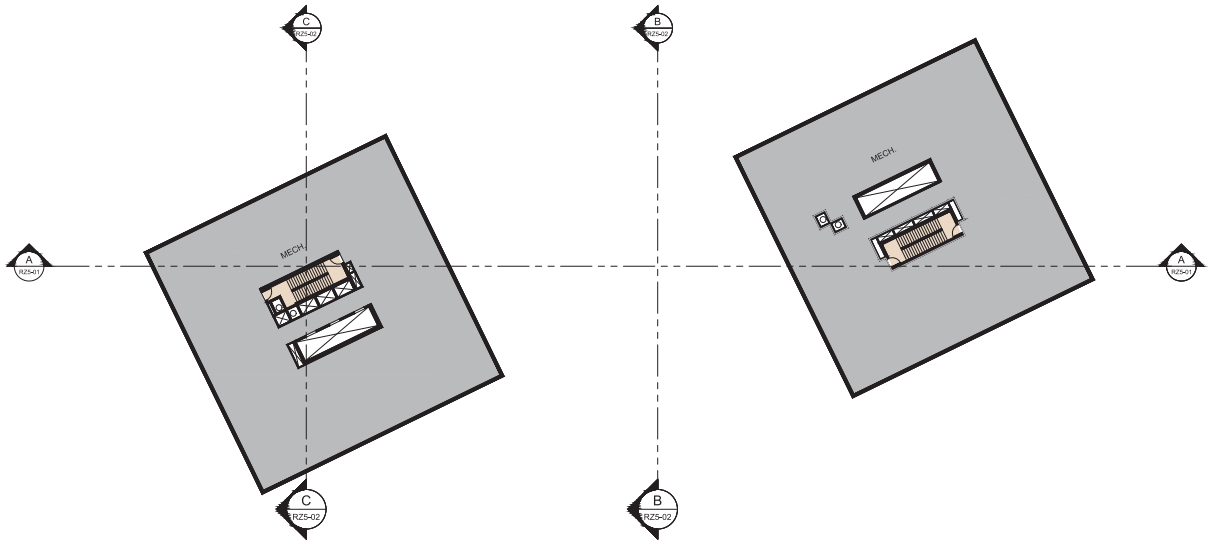
23 Glen Watford Drive.
(4280/4288 Sheppard Ave. E.)
Residential Development

Toronto, Ontario.

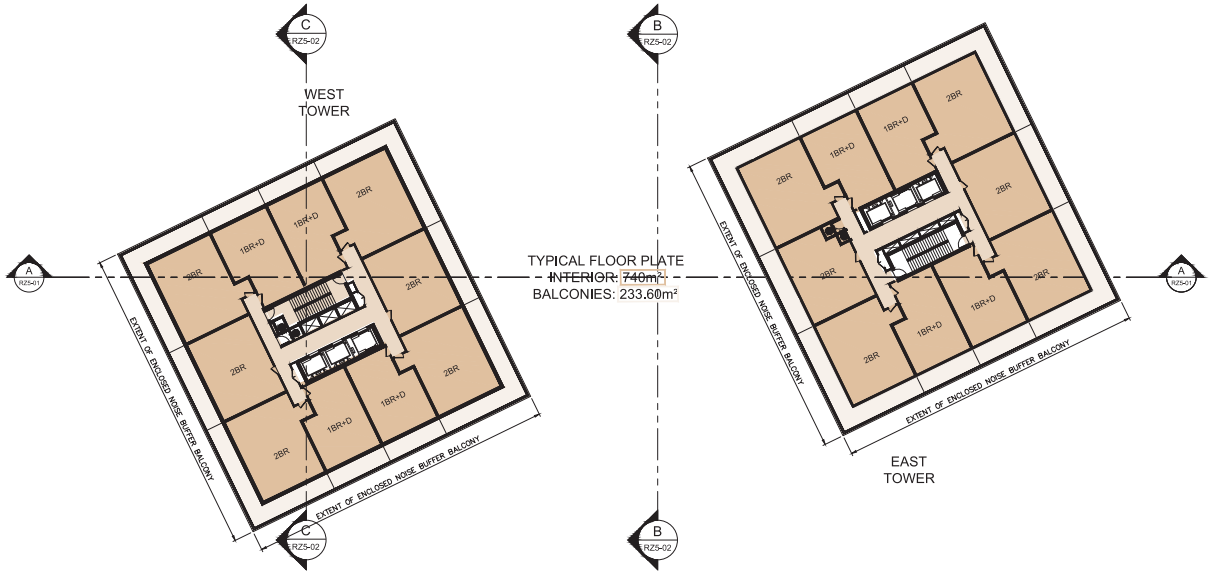
Scale: 1:200
Drawn by: D.S.
Checked by: S.K.
File No.: 10-016
Plot Date: April 18, 2019

RZ2-05

FILENAME:



Level MPH Floor Plan 2 / RZ2-06
1:200



Typical Floor Plan (Level 4 to 28) 1 / RZ2-06
1:200

Date:

ONTARIO ASSOCIATION OF ARCHITECTS
BRENT F. WHITBY
LICENCE
6723
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KIRKOR ARCHITECTS AND PLANNERS
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2	Rezoning Re-submission	June 10, 2013
1	Rezoning Submission	Mar. 30, 2012
No.	Issued For	Date

Drawing Title

Level 4 to 28 & Level MPH Floor Plans

Project

4280 Sheppard Limited

23 Glen Watford Drive.
(4280/4288 Sheppard Ave. E.)
Residential Development

Toronto, Ontario.

Scale: 1:200
Drawn by: D.S.
Checked by: S.K.
File No.: 10-016
Plot Date: April 18, 2019

RZ2-06

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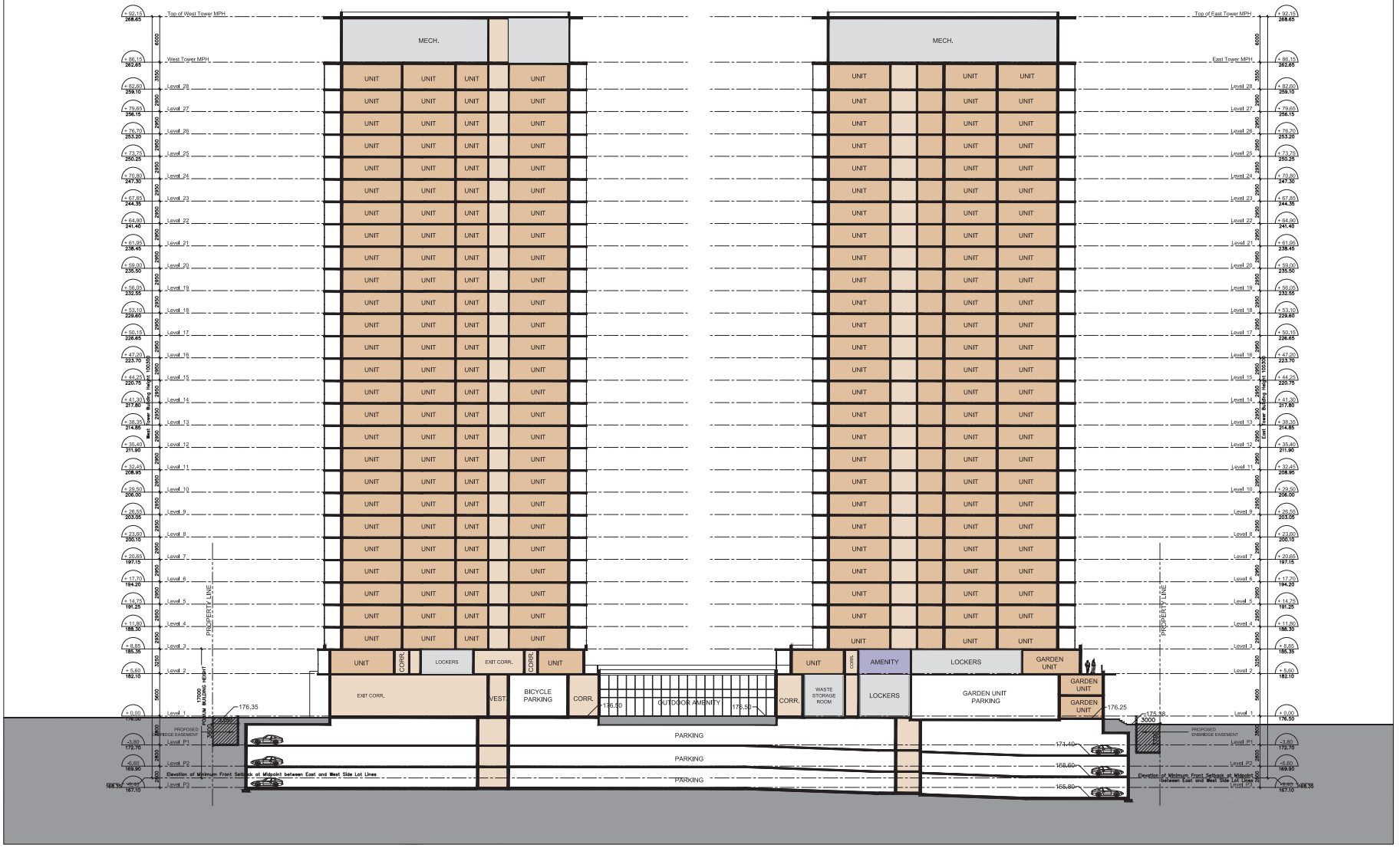

Section A-A 1
Section A-A RZ5-01

Date:

ONTARIO ASSOCIATION OF ARCHITECTS
BRENT P. WHITBY
LICENCE 6723
Revised
SEAL MUST BE SIGNED TO BE VALID

KIRKOR ARCHITECTS AND PLANNERS
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No.	Revision	Date
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2	Rezoning Re-submission	June 10, 2013
1	Rezoning Submission	Mar. 30, 2012
No.	Issued For	Date

Drawing Title
Building Section

Project
4280 Sheppard Limited

23 Glen Watford Drive.
(4280/4288 Sheppard Ave. E.)
Residential Development

Toronto, Ontario.

1:200	Scale
B.S.	Drawn by
S.K.	Checked by
10-016	File No.
April 18, 2019	Plot Date

RZ5-01

14 OF 18

FILENAME: K:\2010\10-016\CAD\Phase 10 – Concept Design\Arcad\Sheets\10016-RZ5-01.dwg

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

Ontario Road Noise Analysis Method for Environment and Transportation

Road Segment ID	Roadway Name	Link Description	Speed (kph)	Period (h)	2035 AADT Traffic Volumes	Auto %	Med %	Hvy %	Auto	Med	Heavy	Road Gradient (%)	Cadna/A Ground Absorption G	PWL Overall (dBA)	PWL (Per Line source)	Source Height, s (m)
McCowan_rd	McCowan Road, Average	Daytime Impacts	50	16	58183	93.7%	4.6%	1.7%	54505	2692	985	0	0.00	87.1	84.1	1.1
McCowan_rd	McCowan Road, Average	Nighttime Impacts	50	8	6465	93.7%	4.6%	1.7%	6056	299	109	0	0.00	80.5	77.5	1.1
Sheppard_avg	Sheppard Avenue, Average	Daytime Impacts	50	16	33759	87.5%	7.7%	4.8%	29550	2583	1626	0	0.00	87.4	84.4	1.5
Sheppard_avg	Sheppard Avenue, Average	Nighttime Impacts	50	8	3751	87.5%	7.7%	4.8%	3283	287	181	0	0.00	80.9	77.9	1.5
Nugget_avg	Nugget Avenue, Average	Daytime Impacts	50	16	14537	97.8%	1.7%	0.5%	14221	249	67	0	0.00	78.6	75.6	0.8
Nugget_avg	Nugget Avenue, Average	Nighttime Impacts	50	8	1615	97.8%	1.7%	0.5%	1580	28	7	0	0.00	72.0	69.0	0.8
McCowan_min	McCowan Drive, min	Daytime Ambient	50	1	1836	93.7%	4.6%	1.7%	1720	85	31	0	0.00	84.1	81.1	1.1
McCowan_min	McCowan Drive, min	Evening Ambient	50	1	1312	93.7%	4.6%	1.7%	1229	61	22	0	0.00	82.6	79.6	1.1
McCowan_min	McCowan Drive, min	Nighttime Ambient	50	1	155	93.7%	4.6%	1.7%	145	7	3	0	0.00	73.3	70.3	1.1
Sheppard_min	Sheppard Avenue, min	Daytime Impacts	50	1	1176	87.5%	7.7%	4.8%	1030	90	57	0	0.00	84.9	81.9	1.5
Sheppard_min	Sheppard Avenue, min	Evening Impacts	50	1	840	87.5%	7.7%	4.8%	736	64	40	0	0.00	83.4	80.4	1.5
Sheppard_min	Sheppard Avenue, min	Nighttime Impacts	50	1	99	87.5%	7.7%	4.8%	87	8	5	0	0.00	74.1	71.1	1.5

Summary of Required Window STC Ratings

Façade	Non-Glazing Veneer	Maximum Glazing Requirement									
		Daytime					Nighttime				
		Roadway	Loco	Wheel	Actual STC Number	Report Rating	Roadway	Loco	Wheel	Actual STC Number	Report Rating
North Living Room	45	23	29	24	31	31	17	31	26	32	32
East Living Room	45	28	25	20	30	30	21	27	22	29	OBC (29)
South Living Room	45	24	18	13	25	OBC (25)	18	20	15	23	OBC (23)
West Living Room	45	12	27	22	28	OBC (28)	6	30	25	31	31
North Bedroom	45	23	29	24	31	31	22	38	31	39	39
East Bedroom	45	28	25	20	30	30	26	33	27	35	35
South Bedroom	45	24	18	13	25	OBC (25)	23	25	20	28	OBC (28)
West Bedroom	45	12	27	22	28	OBC (28)	11	36	30	37	37

MCCOWAN RD AT NUGGET AVE (PX 1244)

Daily Traffic Volumes

Link	Name	AADT	Truck Percentages	
		2014	% Medium	% Heavy
North Link, N/B	NUGGET AVE (PX 1244) North Link, N/B	19114	5.1%	2.0%
North Link, S/B	NUGGET AVE (PX 1244) North Link, S/B	21852	3.8%	1.5%
South Link, N/B	NUGGET AVE (PX 1244) South Link, N/B	19827	5.2%	1.8%
South Link, S/B	NUGGET AVE (PX 1244) South Link, S/B	22827	4.1%	1.6%
East Link, E/B	MCCOWAN RD East Link, E/B	4967	1.4%	0.2%
East Link, W/B	MCCOWAN RD East Link, W/B	5691	2.0%	0.7%
West Link, E/B	MCCOWAN RD West Link, E/B	230	14.5%	1.2%
West Link, W/B	MCCOWAN RD West Link, W/B	692	2.1%	0.1%

Link	Name	AADT	Truck Percentages	
		2014	% Medium	% Heavy
North Link	NUGGET AVE (PX 1244) North Link	40966	4.4%	1.7%
South Link	NUGGET AVE (PX 1244) South Link	42653	4.6%	1.7%
East Link	MCCOWAN RD East Link	10657	1.7%	0.5%
West Link	MCCOWAN RD West Link	922	5.2%	0.4%

MCCOWAN RD AT SHEPPARD AVE (PX 938)

Daily Traffic Volumes

Link	Name	AADT 2019	Truck Percentages % Medium	% Heavy
North Link, N/B	SHEPPARD AVE (PX 938) North Link, N/B	19656	10.0%	5.9%
North Link, S/B	SHEPPARD AVE (PX 938) North Link, S/B	20735	7.7%	4.0%
South Link, N/B	SHEPPARD AVE (PX 938) South Link, N/B	21202	10.0%	5.9%
South Link, S/B	SHEPPARD AVE (PX 938) South Link, S/B	23022	7.6%	4.1%
East Link, E/B	MCCOWAN RD East Link, E/B	12004	7.6%	4.4%
East Link, W/B	MCCOWAN RD East Link, W/B	14005	7.4%	4.3%
West Link, E/B	MCCOWAN RD West Link, E/B	13032	7.5%	4.8%
West Link, W/B	MCCOWAN RD West Link, W/B	14292	7.8%	4.8%

Link	Name	AADT 2019	Truck Percentages % Medium	% Heavy
North Link	SHEPPARD AVE (PX 938) North Link	40390	8.8%	4.9%
South Link	SHEPPARD AVE (PX 938) South Link	44224	8.8%	5.0%
East Link	MCCOWAN RD East Link	26009	7.5%	4.4%
West Link	MCCOWAN RD West Link	27324	7.7%	4.8%

Appendix E York1 Nugget Transfer Station MECP Permit

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER 4099-C4GRBB
Issue Date: July 18, 2022

2264201 Ontario Inc.
175 Midwest Rd
Scarborough, Ontario
M1P 3A6

Site Location: 300 Nugget Avenue
300 Nugget Ave
Toronto City,
M1S 4A4

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act , R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

Description Section

A Waste Disposal Site (Processing and Transfer) that is being used for the processing and transfer of non-hazardous solid municipal waste, soil deliveries from hydro digging and supplying concrete trucks, consisting of the following processes and support units:

- receiving, sorting, baling, storage and shipping of non-hazardous solid municipal waste;
- wood chipping, storage and shipping;
- receiving, storage and supply of aggregates to volumetric cement trucks;
- solidification process of liquid-soils, including storage and transfer for dry soil; and
- sand and aggregates stockpiles;

including the Equipment and any other ancillary and support processes and activities, operating at a Facility Production Limit as follows and discharging to the air as described in the Original ESDM Report:

- 150 tonnes per day of sand;
- 150 tonnes per day of gravel;
- 150 tonnes per day of crushed (recycled concrete);
- annualized average of 1,000 tonnes of waste per day equivalent to a maximum of 365,000 tonnes of waste per year; and
- 2,000 tonnes of waste in any one day.

For the purpose of this environmental compliance approval, the following definitions apply:

1. "ACB list" means the document entitled “Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants”, as amended from time to time and published by the Ministry and available on a Government website;
2. "Acceptable Point of Impingement Concentration" means a concentration accepted by the Ministry as not likely to cause an adverse effect for a Compound of Concern that,
    a. is not identified in the ACB list, or
    b. is identified in the ACB list as belonging to the category “Benchmark 2” and has a concentration at a Point of Impingement that exceeds the concentration set out for the contaminant in that document.
    With respect to the Original ESDM Report, the Acceptable Point of Impingement Concentration for a Compound of Concern mentioned above is the concentration set out in the Original ESDM Report;
3. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 and Appendix A of the Basic Comprehensive User Guide, by Brent Miller of R. J. Burnside & Associates Limited and dated April 1, 2021, submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility, as updated in accordance with Condition 5 of this Approval;
4. "Acoustic Assessment Summary Table" means a table prepared in accordance with the Basic Comprehensive User Guide summarising the results of the Acoustic Assessment Report, as updated in accordance with Condition 5 of this Approval;
5. "Approval" means this entire Environmental Compliance Approval and any Schedules to it;
6. "Approval (Waste)" means Environmental Compliance Approval No. 1333-8W4Q5P, as amended, issued in respect of activities mentioned in subsection 27(1) of the EPA at the Facility;
7. "Basic Comprehensive User Guide" means the Ministry document titled "Basic Comprehensive Certificates of Approval (Air) User Guide” dated March 2011, as amended;
8. "Best Management Practices Plan" means a document or a set of documents which describe measures to minimize dust emissions from the Facility and/or Equipment;

9. "Company" means 2264201 Ontario Inc. that is responsible for the construction or operation of the Facility and includes any successors and assigns in accordance with section 19 of the EPA;
10. "Compound of Concern" means a contaminant described in paragraph 4 subsection 26 (1) of O. Reg. 419/05, namely, a contaminant that is discharged from the Facility in an amount that is not negligible;
11. "Description Section" means the section on page one of this Approval describing the Company's operations and the Equipment located at the Facility and specifying the Facility Production Limit for the Facility;
12. "Director" means a person appointed for the purpose of section 20.3 of the EPA by the Minister pursuant to section 5 of the EPA;
13. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;
14. "Emission Summary Table" means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;
15. "Environmental Assessment Act" means the *Environmental Assessment Act,* R.S.O. 1990, c.E.18;
16. "EPA" means the *Environmental Protection Act,* R.S.O. 1990, c.E.19;
17. "Equipment" means equipment or processes described in the ESDM Report, this Approval and in the Schedules referred to herein and any other equipment or processes;
18. "Equipment with Specific Operational Limits" means any Equipment related to the thermal oxidation of waste or waste derived fuels, fume incinerators or any other Equipment that is specifically referenced in any published Ministry document that outlines specific operational guidance that must be considered by the Director in issuing an Approval;
19. "ESDM Report" means the most current Emission Summary and Dispersion Modelling Report that describes the Facility. The ESDM Report is based on the Original ESDM Report and is updated after the issuance of this Approval in accordance with section 26 of O. Reg. 419/05 and the Procedure Document;
20. "Facility" means the entire operation located on the property where the Equipment is located;
21. "Facility Production Limit" means the production limit placed by the Director on the main product(s) or raw materials used by the Facility;
22. "Log" means a document that contains a record of each change that is required to be made to the ESDM Report and Acoustic Assessment Report, including the date on which the change occurred. For example, a record would have to be made of a

more accurate emission rate for a source of contaminant, more accurate meteorological data, a more accurate value of a parameter that is related to a source of contaminant, a change to a Point of Impingement and all changes to information associated with a Modification to the Facility that satisfies Condition 2;

23. "Minister" means the Minister of the Environment, Conservation and Parks or such other member of the Executive Council as may be assigned the administration of the EPA under the Executive Council Act;
24. "Ministry" means the ministry of the Minister;
25. "Modification" means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a process or rate of production at the Facility that may discharge or alter the rate or manner of discharge of a Compound of Concern to the air or discharge or alter noise or vibration emissions from the Facility;
26. "Municipal Solid Waste" or MSW means municipal waste as defined in Reg. 347;
27. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers, described in the Company's application, and in the supporting documentation referred to herein, including the Acoustic Assessment Report, to the extent approved by this Approval;
28. "O. Reg. 419/05" means Ontario Regulation 419/05: Air Pollution – Local Air Quality, made under the EPA;
29. "Original ESDM Report" means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of O. Reg. 419/05 and the Procedure Document by R.J. Burnside & Associates Limited and dated September 29, 2020 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this Approval;
30. "Point of Impingement" has the same meaning as in section 2 of O. Reg. 419/05;
31. "Point of Reception" means Point of Reception as defined by Publication NPC-300;
32. "Procedure Document" means Ministry guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;
33. "Processed Waste" means waste that has been sorted, baled, mulched or otherwise handled to allow the waste to be diverted for recycling;
34. "Processes with Significant Environmental Aspects" means the Equipment which, during regular operation, would discharge one or more contaminants into the air in

an amount which is not considered as negligible in accordance with section 26 (1) 4 of O. Reg. 419/05 and the Procedure Document;

35. "Publication NPC-207" means the Ministry draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, published by the Ministry, August 1978, as amended;
36. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
37. "Publication NPC-300" means the Ministry Publication NPC-300, “Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300”, August 2013, as amended;
38. "Putrescible Waste" means organic waste that rapidly decomposes, such as food waste; and consists of Source Separated Organics and/or Municipal Solid Waste;
39. "Reg. 347" means R.R.O. 1990, Reg. 347: General - Waste Management, made under the EPA;
40. "Residual Waste" means waste that is destined for final disposal or further processing at another approved waste disposal facility;
41. "Schedules" means the following schedules attached to this Approval and forming part of this Approval namely:
    - Schedule A - Supporting Documentation
42. "Silica" means silicon dioxide, quartz, crystabolite or tridymite;
43. "Source Separated Organics" or SSO means organic waste material that has been separated from non- compostable material at the point of generation;
44. "Technical Bulletin: Management Approaches for Industrial Fugitive Dust Sources" means the Ministry publication "Technical Bulletin: management approaches for industrial fugitive dust sources", March 8, 2017, as amended;
45. "Toxicologist" means a qualified professional currently active in the field of risk assessment and toxicology that has a combination of formal university education, training and experience necessary to assess contaminants;
46. "Unprocessed Waste" means waste that has not fully completed the Company's processing operations and is not yet in a form acceptable for diversion for recycling. Waste that is in-process is considered Unprocessed Waste;
47. "Waste" means waste described in the ESDM Report, this Approval, consisting of Municipal Solid Waste, Source Separated Organics, wood and soils (both liquid and solid); and does not include sand, gravel and crushed (recycled) concrete;

and

48. "Written Summary Form" means the electronic questionnaire form, available on the Ministry website, and supporting documentation, that documents the activities undertaken at the Facility in the previous calendar year.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. **GENERAL**
    1. Except as otherwise provided by this Approval, the Facility shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this Approval and in accordance with the following Schedules attached hereto:
        - Schedule A - Supporting Documentation

2. **LIMITED OPERATIONAL FLEXIBILITY**
    1. Pursuant to section 20.6 (1) of the EPA and subject to Conditions 2.2 and 2.3 of this Approval, future construction, alterations, extensions or replacements are approved in this Approval if the future construction, alterations, extensions or replacements are Modifications to the Facility that:
        a. are within the scope of the operations of the Facility as described in the Description Section of this Approval;

        b. do not result in an increase of the Facility Production Limit above the level specified in the Description Section of this Approval; and

        c. result in compliance with the performance limits as specified in Condition 4.

    2. Condition 2.1 does not apply to,
        a. the addition of any new Equipment with Specific Operational Limits or to the Modification of any existing Equipment with Specific Operational Limits at the Facility; and

        b. Modifications to the Facility that would be subject to the Environmental Assessment Act.

    3. Condition 2.1 of this Approval shall expire ten (10) years from the date of this Approval, unless this Approval is revoked prior to the expiry date. The

Company may apply for renewal of Condition 2.1 of this Approval by including an ESDM Report and an Acoustic Assessment Report that describes the Facility as of the date of the renewal application.

3. **REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION**
    1. Prior to making a Modification to the Facility that satisfies Condition 2.1.a. and 2.1.b., the Company shall prepare a proposed update to the ESDM Report to reflect the proposed Modification.
    2. The Company shall request approval of an Acceptable Point of Impingement Concentration for a Compound of Concern if the Compound of Concern is not identified in the ACB list as belonging to the category “Benchmark 1” and a proposed update to an ESDM Report indicates that one of the following changes with respect to the concentration of the Compound of Concern may occur:
        a. The Compound of Concern was not a Compound of Concern in the previous version of the ESDM Report and
            i. the concentration of the Compound of Concern exceeds the concentration set out for the contaminant in the ACB list; or
            ii. the Compound of Concern is not identified in the ACB list; or
        b. The concentration of the Compound of Concern in the updated ESDM Report exceeds the higher of,
            i. the most recent Acceptable Point of Impingement Concentration, and
            ii. the concentration set out for the contaminant in the ACB list,if the contaminant is identified in that document.
    3. The request required by Condition 3.2 shall propose a concentration for the Compound of Concern and shall contain an assessment, performed by a Toxicologist, of the likelihood of the proposed concentration causing an adverse effect at Points of Impingement.
    4. If the request required by Condition 3.2 is a result of a proposed Modification described in Condition 3.1, the Company shall submit the request, in writing, to the Director at least 30 days prior to commencing to make the Modification. The Director shall provide written confirmation of receipt of this request to the Company.
    5. If a request is required to be made under Condition 3.2 in respect of a proposed Modification described in Condition 3.1, the Company shall not make the Modification mentioned in Condition 3.1 unless the request is

approved in writing by the Director.

6. If the Director notifies the Company in writing that the Director does not approve the request, the Company shall,
    a. revise and resubmit the request; or
    b. notify the Director that it will not be making the Modification.
7. The re-submission mentioned in Condition 3.6 shall be deemed a new submission under Condition 3.2.
8. If the Director approves the request, the Company shall update the ESDM Report to reflect the Modification.
9. Condition 3 does not apply if Condition 2.1 has expired.

4. **PERFORMANCE LIMITS**
    1. Subject to Condition 4.2, the Company shall not discharge or cause or permit the discharge of a Compound of Concern into the air if,
        a. the Compound of Concern is identified in the ACB list as belonging to the category "Benchmark 1" and the discharge results in the concentration at a Point of Impingement exceeding the Benchmark 1 concentration; or
        b. the Compound of Concern is not identified in the ACB list as belonging to the category “Benchmark 1” and the discharge results in the concentration at a Point of Impingement exceeding the higher of,
            i. if an Acceptable Point of Impingement Concentration exists, the most recent Acceptable Point of Impingement Concentration, and
            ii. the concentration set out for the contaminant in the ACB list, if the contaminant is identified in that document.
    2. Condition 4.1 does not apply if the benchmark set out in the ACB list has a 10-minute averaging period and no ambient monitor indicates an exceedance at a Point of Impingement where human activities regularly occur at a time when those activities regularly occur.
    3. The Company shall ensure that the vibration emissions from the Facility comply with the limits set out in Ministry Publication NPC-207.
    4. The Company shall ensure, subsequent to the completion of the Noise Control Measures, that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-300.
    5. The Company shall restrict outdoor operation of the excavator (excavator1) to the daytime period between 7:00 am to 7:00 pm.

6. The Company shall restrict operation of the wood chipper (EX003) to the daytime period between 7:00 am to 7:00 pm.
7. The Company shall operate any Equipment with Specific Operational Limits approved by this Approval in accordance with the Original ESDM Report.

5. **DOCUMENTATION REQUIREMENTS**
    1. The Company shall maintain an up-to-date Log.
    2. No later than June 30 of each year, the Company shall update the Acoustic Assessment Report and shall update the ESDM Report in accordance with section 26 of O. Reg. 419/05 so that the information in the reports is accurate as of December 31 in the previous year.
    3. The Company shall make the Emission Summary Table (see section 27 of O. Reg. 419/05) and Acoustic Assessment Summary Table available for examination by any person, without charge, by posting it on the Internet or by making it available during regular business hours at the Facility.
    4. The Company shall, within three (3) months after the expiry of Condition 2.1 of this Approval, update the ESDM Report and the Acoustic Assessment Report such that the information in the reports is accurate as of the date that Condition 2.1 of this Approval expired.
    5. Conditions 5.1 and 5.2 do not apply if Condition 2.1 has expired.

6. **REPORTING REQUIREMENTS**
    1. Subject to Condition 6.2, the Company shall provide the Director no later than August 31 of each year, a Written Summary Form to be submitted through the Ministry's website that shall include the following:
        a. a declaration of whether the Facility was in compliance with section 9 of the EPA, O. Reg. 419/05 and the conditions of this Approval;
        b. a summary of each Modification satisfying Condition 2.1.a. and 2.1.b. that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a Point of Impingement for any Compound of Concern or resulted in a change in the sound levels reported in the Acoustic Assessment Summary Table at any Point of Reception.
    2. Condition 6.1 does not apply if Condition 2.1 has expired.

7. **OPERATION AND MAINTENANCE**
    1. The Company shall prepare and implement, not later than three (3) months from the date of this Approval, operating procedures and maintenance programs for all Processes with Significant Environmental Aspects, which

shall specify as a minimum:

a. frequency of inspections and scheduled preventative maintenance;
b. procedures to prevent upset conditions;
c. procedures to minimize all fugitive emissions;
d. procedures to prevent and/or minimize odorous emissions;
e. procedures to prevent and/or minimize noise emissions; and
f. procedures for record keeping activities relating to the operation and maintenance programs.

2. The Company shall ensure that:
   a. all Processes with Significant Environmental Aspects are operated and maintained in accordance with this Approval, the operating procedures and maintenance programs; and
   b. all operators involved in operations, maintenance, Best Management Practice Plan and record keeping receive training and are aware of their roles and responsibilities.

8. **COMPLAINTS RECORDING AND REPORTING**
   1. If at any time, the Company receives an environmental complaint from the public regarding the operation of the Equipment approved by this Approval, the Company shall take the following steps:
      a. Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.
      b. Notify the District Manager of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the District Manager.
      c. Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.
      d. Complete and retain on-site a report written within one (1) week of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

9. **RECORD KEEPING REQUIREMENTS**

1. Any information requested by any employee in or agent of the Ministry concerning the Facility and its operation under this Approval, including, but not limited to, any records required to be kept by this Approval, shall be provided to the employee or agent of the Ministry, upon request**,** in a timely manner.
2. Unless otherwise specified in this Approval, the Company shall retain, for a minimum of five (5) years from the date of their creation all reports, records and information described in this Approval, including,
    a. a copy of the Original ESDM Report and each updated version;
    b. a copy of each version of the Acoustic Assessment Report;
    c. supporting information used in the emission rate calculations performed in the ESDM Reports and Acoustic Assessment Reports;
    d. types and quantities of materials and wastes received and processed, and types and quantities of materials and wastes stored and shipped off-site;
    e. the records in the Log;
    f. all records of training required under Condition 7.2.b;
    g. all documentation prepared in accordance with Conditions 7, 10 and 12 of this Approval;
    h. copies of each Written Summary Form provided to the Ministry under Condition 6.1 of this Approval;
    i. records of maintenance, repair and inspection of Equipment related to all Processes with Significant Environmental Aspects; and
    j. all records related to environmental complaints made by the public as required by Condition 8 of this Approval.

10. **WASTE STORAGE RESTRICTION**
    1. The maximum amount of waste, including Unprocessed Waste, Processed Waste and Residual Waste that may be stored at the Facility shall be in accordance with the quantity identified in Company's Approval (Waste).
    2. Any loads that contain or may contain Putrescible Wastes must be directed to the East Tipping Floor. Putrescible Wastes cannot be stored on the West Tipping Floor or outdoors.
    3. At any one time, with an exhaust fan that is being used to capture the odours inside the building, discharging to the air at a volumetric flow rate of 16.5 cubic metres per second through a stack, the maximum amount of waste, including Unprocessed Waste, Processed Waste and Residual Waste that

may be stored at the Facility on the tipping floors shall be limited as follows:

i. a maximum of 85 tonnes of Putrescible wastes; or

ii. a maximum of 261 tonnes of Municipal Solid Waste.

4. All Putrescible Waste shall be removed from the tipping floor within 48 hours of receipt and the tipping floor cleaned as necessary.
5. The Company may store Putrescible Waste for a maximum of up to 96 hours on the tipping floor during a long weekend or during operational upsets.
6. The Company can receive any amount of wood that is within the Company's overall 2,000 tonnes per day of waste limit, provided only 10 tonnes per week is chipped.

11. **INSTALLATION OF FUTURE ODOUR CONTROL EQUIPMENT**
    1. The Company shall not install any odour control equipment such as scrubber, biofilter etc. without obtaining a prior approval from the Ministry.

12. **FUGITIVE DUST CONTROL**
    1. The Company shall develop in consultation with the District Manager, a Best Management Practices Plan for the control of fugitive dust emissions. This Best Management Practices Plan shall:
        a. at minimum, be prepared in accordance with Ministry Technical Bulletin: Management Approaches for Industrial Fugitive Dust Sources;
        b. include a list of all Ministry comments received, if any, on the development of the Best Management Practices Plan, and a description of how each Ministry comment was addressed in the Best Management Practices Plan;
        c. include procedures to address the moisture content of received and processed materials to ensure that the weight percent moisture in these materials remain at or above the percent moisture content used in the Facility’s ESDM Report; and
        d. include procedures to address the Silica content of received and processed materials to ensure that the weight percent Silica in these materials remain at or below the percent Silica content used in the Facility’s ESDM Report.
    2. The Company shall submit the Best Management Practices Plan to the District Manager not later than three months after the date of this Approval or as otherwise indicated by the District Manager.
    3. Upon acceptance of the Best Management Practices Plan by the District

Manager, the Company shall immediately implement the Best Management Practices Plan for the control of fugitive dust emissions to provide effective dust suppression measures to any potential sources of fugitive dust emissions resulting from the operation of the Facility.

4. The Company shall update the Best Management Practices Plan as necessary or at the direction of the District Manager.

13. **REVOCATION OF PREVIOUS APPROVALS**
    1. This Approval replaces and revokes all Certificates of Approval (Air) issued under section 9 EPA and Environmental Compliance Approvals issued under Part II.1 EPA to the Facility in regards to the activities mentioned in subsection 9(1) of the EPA and dated prior to the date of this Approval.

14. **NOISE CONTROL MEASURES**
    1. The Company shall:
        a. fully implement the Noise Control Measures specified in the Acoustic Assessment Report prior to commencement of operation of the Equipment; and
        b. ensure that the Noise Control Measures are properly maintained and continue to provide the acoustical performance outlined in the Acoustic Assessment Report.

SCHEDULE A

Supporting Documentation

1. Environmental Compliance Approval Application, dated September 28, 2020, signed by Frank Gazze and submitted by the Company;
2. Emission Summary and Dispersion Modelling Report, prepared by R.J. Burnside & Associates Limited and dated September 29, 2020; and emails updates provided by Brent Miller of R.J. Burnside & Associates Limited, dated June 10, 2022;
3. Acoustic Assessment Report dated April 1, 2021, prepared by Brent Miller of R. J. Burnside & Associates Limited; and
4. Letter dated April 7, 2021 from Brent Miller of R. J. Burnside & Associates Limited.

The reasons for the imposition of these terms and conditions are as follows:

1. **GENERAL**
   Condition No. 1 is included to require the Approval holder to build, operate and

maintain the Facility in accordance with the Supporting Documentation in Schedule A considered by the Director in issuing this Approval.

2. **LIMITED OPERATIONAL FLEXIBILITY, REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION AND PERFORMANCE LIMITS**
   Conditions No. 2, 3 and 4 are included to limit and define the Modifications permitted by this Approval, and to set out the circumstances in which the Company shall request approval of an Acceptable Point of Impingement Concentration prior to making Modifications. The holder of the Approval is approved for operational flexibility for the Facility that is consistent with the description of the operations included with the application up to the Facility Production Limit. In return for the operational flexibility, the Approval places performance based limits that cannot be exceeded under the terms of this Approval. Approval holders will still have to obtain other relevant approvals required to operate the Facility, including requirements under other environmental legislation such as the Environmental Assessment Act.
3. **DOCUMENTATION REQUIREMENTS**
   Condition No. 5 is included to require the Company to maintain ongoing documentation that demonstrates compliance with the performance limits as specified in Condition 4 of this Approval and allows the Ministry to monitor on-going compliance with these performance limits. The Company is required to have an up to date ESDM Report and Acoustic Assessment Report that describe the Facility at all times and make the Emission Summary Table and Acoustic Assessment Summary Table from these reports available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the Facility.
4. **REPORTING REQUIREMENTS**
   Condition No. 6 is included to require the Company to provide a yearly Written Summary Form to the Ministry, to assist the Ministry with the review of the site's compliance with the EPA, the regulations and this Approval.
5. **OPERATION AND MAINTENANCE**
   Condition No. 7 is included to require the Company to properly operate and maintain the Processes with Significant Environmental Aspects to minimize the impact to the environment from these processes.
6. **COMPLAINTS RECORDING AND REPORTING PROCEDURE**
   Condition No. 8 is included to require the Company to respond to any environmental complaints regarding the operation of the Equipment, according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.
7. **RECORD KEEPING REQUIREMENTS**

Condition No. 9 is included to require the Company to retain all documentation related to this Approval and provide access to employees in or agents of the Ministry, upon request, so that the Ministry can determine if a more detailed review of compliance with the performance limits as specified in Condition 4 of this Approval is necessary.

8. **WASTE STORAGE RESTRICTION**
   Condition No. 10 is included to restrict the maximum amount of waste that can be stored on both tipping floors and handling of Putrescible Waste, MSW and SSO considered necessary to prevent an adverse effect resulting from the operation of the Facility.

9. **INSTALLATION OF FUTURE ODOUR CONTROL EQUIPMENT**
   Condition No. 11 is included to restrict the installation of any future odour control equipment to prevent an adverse effect resulting from the operation of the Facility and to ensure subsequent compliance with the EPA, the regulations and this Approval.

10. **FUGITIVE DUST CONTROL**
    Condition No. 12 is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the EPA, the Regulations and this Approval.

11. **REVOCATION OF PREVIOUS APPROVALS**
    Condition No. 13 is included to identify that this Approval replaces all Section 9 Certificate(s) of Approval and Part II.1 Approvals in regards to the activities mentioned in subsection 9(1) of the EPA and dated prior to the date of this Approval.

12. **NOISE CONTROL MEASURES**
    Condition No. 14 is included to require the Company to implement a Noise Control Measures designed to ensure that the noise emissions from the Facility will be in compliance with applicable limits set in the Ministry's noise guidelines.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 9644-954RSD issued on July 19, 2013.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary* Environmental Review Tribunal 655 Bay Street, Suite 1500 Toronto, Ontario M5G 1E5	AND	The Minister of the Environment, Conservation and Parks 777 Bay Street, 5th Floor Toronto, Ontario M7A 2J3	AND	The Director appointed for the purposes of Part II.1 of the Environmental Protection Act Ministry of the Environment, Conservation and Parks 135 St. Clair Avenue West, 1st Floor Toronto, Ontario M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or** www.ert.gov.on.ca

This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at https://ero.ontario.ca/, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 18th day of July, 2022

Nancy E Orpana, P.Eng.
Director
appointed for the purposes of Part II.1 of the *Environmental Protection Act*

AA/
c: District Manager, MECP Toronto District Office
Brent Miller, R.J. Burnside & Associates Limited

Appendix F Dufferin Concrete MECP Permit

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

Ontario

Ministry of the Environment, Conservation and Parks
Ministère de l'Environnement, de la Protection de la nature et des Parcs

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER 8513-CJEMRK
Issue Date: November 10, 2022

CRH Canada Group Inc.
2300 Steeles Ave W, No. 400
Vaughan, Ontario
L4K 5X6

Site Location: Dufferin Concrete Scarborough Plant
1940 McCowan Rd
Toronto City
Ontario

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act , R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

Description Section

A ready-mix concrete batching plant, consisting of the following processes and support units:

- aggregate material delivery, storage and handling;
- cementitious material delivery, storage and handling;
- ready-mix concrete batching;
- ready-mix concrete truck loading and shipping;
- dust collectors;

including the Equipment and any other ancillary and support processes and activities, operating at a Facility Production Limit of up to 2,880 cubic metres of ready-mix concrete per day discharging to the air as described in the Original ESDM Report.

For the purpose of this environmental compliance approval, the following definitions apply:

1. "ACB list" means the document entitled “Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants”, as amended from time to time and published by the Ministry and available on a Government website;

2. "Acceptable Point of Impingement Concentration" means a concentration accepted by the Ministry as not likely to cause an adverse effect for a Compound of Concern that,
    a. is not identified in the ACB list, or
    b. is identified in the ACB list as belonging to the category “Benchmark 2” and has a concentration at a Point of Impingement that exceeds the concentration set out for the contaminant in that document.
    With respect to the Original ESDM Report, the Acceptable Point of Impingement Concentration for a Compound of Concern mentioned above is the concentration set out in the Original ESDM Report;
3. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 and Appendix A of the Basic Comprehensive User Guide, by Corey Kinart, MBA, P.Eng. / HGC Engineering, and dated September 17, 2021 submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility, as updated in accordance with Condition 5 of this Approval;
4. "Acoustic Assessment Summary Table" means a table prepared in accordance with the Basic Comprehensive User Guide summarising the results of the Acoustic Assessment Report, as updated in accordance with Condition 5 of this Approval;
5. "Approval" means this entire Environmental Compliance Approval and any Schedules to it;
6. "Basic Comprehensive User Guide" means the Ministry document titled "Basic Comprehensive Certificates of Approval (Air) User Guide” dated March 2011, as amended;
7. "Best Management Practices Plan" means a document or a set of documents which describe measures to minimize dust emissions from the Facility and/or Equipment;
8. "Company" means CRH Canada Group Inc. that is responsible for the construction or operation of the Facility and includes any successors and assigns in accordance with section 19 of the EPA;
9. "Compound of Concern" means a contaminant described in paragraph 4 subsection 26 (1) of O. Reg. 419/05, namely, a contaminant that is discharged from the Facility in an amount that is not negligible;
10. "Description Section" means the section on page one of this Approval describing the Company's operations and the Equipment located at the Facility and specifying the Facility Production Limit for the Facility;
11. "Director" means a person appointed for the purpose of section 20.3 of the EPA by

the Minister pursuant to section 5 of the EPA;

12. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;
13. "Emission Summary Table" means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;
14. "Environmental Assessment Act" means the *Environmental Assessment Act,* R.S.O. 1990, c.E.18;
15. "EPA" means the *Environmental Protection Act,* R.S.O. 1990, c.E.19;
16. "Equipment" means equipment or processes described in the ESDM Report, this Approval and in the Schedules referred to herein and any other equipment or processes;
17. "Equipment with Specific Operational Limits" means any Equipment related to the thermal oxidation of waste or waste derived fuels, fume incinerators or any other Equipment that is specifically referenced in any published Ministry document that outlines specific operational guidance that must be considered by the Director in issuing an Approval;
18. "ESDM Report" means the most current Emission Summary and Dispersion Modelling Report that describes the Facility. The ESDM Report is based on the Original ESDM Report and is updated after the issuance of this Approval in accordance with section 26 of O. Reg. 419/05 and the Procedure Document;
19. "Facility" means the entire operation located on the property where the Equipment is located;
20. "Facility Production Limit" means the production limit placed by the Director on the main product(s) or raw materials used by the Facility;
21. "Log" means a document that contains a record of each change that is required to be made to the ESDM Report and Acoustic Assessment Report, including the date on which the change occurred. For example, a record would have to be made of a more accurate emission rate for a source of contaminant, more accurate meteorological data, a more accurate value of a parameter that is related to a source of contaminant, a change to a Point of Impingement and all changes to information associated with a Modification to the Facility that satisfies Condition 2;
22. "Minister" means the Minister of the Environment, Conservation and Parks or such other member of the Executive Council as may be assigned the administration of the EPA under the Executive Council Act;
23. "Ministry" means the ministry of the Minister;
24. "Modification" means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a

process or rate of production at the Facility that may discharge or alter the rate or manner of discharge of a Compound of Concern to the air or discharge or alter noise or vibration emissions from the Facility;

25. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers;
26. "O. Reg. 419/05" means Ontario Regulation 419/05: Air Pollution – Local Air Quality, made under the EPA;
27. "Original ESDM Report" means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of O. Reg. 419/05 and the Procedure Document by RWDI and dated October 25, 2021, submitted in support of the application, and includes any changes to the report made up to the date of issuance of this Approval;
28. "Point of Impingement" has the same meaning as in section 2 of O. Reg. 419/05;
29. "Point of Reception" means Point of Reception as defined by Publication NPC-300.
30. "Procedure Document" means Ministry guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;
31. "Processes with Significant Environmental Aspects" means the Equipment which, during regular operation, would discharge one or more contaminants into the air in an amount which is not considered as negligible in accordance with section 26 (1) 4 of O. Reg. 419/05 and the Procedure Document;
32. "Publication NPC-207" means the Ministry draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, published by the Ministry, August 1978, as amended;
33. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
34. "Publication NPC-300" means the Ministry Publication NPC-300, “Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300”, August 2013, as amended;
35. "Schedules" means the following schedules attached to this Approval and forming part of this Approval namely:
    - Schedule A - Supporting Documentation
36. "Technical Bulletin: Management Approaches for Industrial Fugitive Dust Sources"

means the Ministry publication "Technical Bulletin: management approaches for industrial fugitive dust sources", March 8, 2017, as amended;

37. "Toxicologist" means a qualified professional currently active in the field of risk assessment and toxicology that has a combination of formal university education, training and experience necessary to assess contaminants; and
38. "Written Summary Form" means the electronic questionnaire form, available on the Ministry website, and supporting documentation, that documents the activities undertaken at the Facility in the previous calendar year.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. **GENERAL**
    1. Except as otherwise provided by this Approval, the Facility shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this Approval and in accordance with the following Schedules attached hereto:
        - Schedule A - Supporting Documentation

2. **LIMITED OPERATIONAL FLEXIBILITY**
    1. Pursuant to section 20.6 (1) of the EPA and subject to Conditions 2.2 and 2.3 of this Approval, future construction, alterations, extensions or replacements are approved in this Approval if the future construction, alterations, extensions or replacements are Modifications to the Facility that:
        a. are within the scope of the operations of the Facility as described in the Description Section of this Approval;
        b. do not result in an increase of the Facility Production Limit above the level specified in the Description Section of this Approval; and
        c. result in compliance with the performance limits as specified in Condition 4.
    2. Condition 2.1 does not apply to,
        a. the addition of any new Equipment with Specific Operational Limits or to the Modification of any existing Equipment with Specific Operational Limits at the Facility; and
        b. Modifications to the Facility that would be subject to the Environmental

Assessment Act.

3. Condition 2.1 of this Approval shall expire ten (10) years from the date of this Approval, unless this Approval is revoked prior to the expiry date. The Company may apply for renewal of Condition 2.1 of this Approval by including an ESDM Report and an Acoustic Assessment Report that describes the Facility as of the date of the renewal application.

3. **REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION**
    1. Prior to making a Modification to the Facility that satisfies Condition 2.1.a. and 2.1.b., the Company shall prepare a proposed update to the ESDM Report to reflect the proposed Modification.
    2. The Company shall request approval of an Acceptable Point of Impingement Concentration for a Compound of Concern if the Compound of Concern is not identified in the ACB list as belonging to the category “Benchmark 1” and a proposed update to an ESDM Report indicates that one of the following changes with respect to the concentration of the Compound of Concern may occur:
        a. The Compound of Concern was not a Compound of Concern in the previous version of the ESDM Report and
            i. the concentration of the Compound of Concern exceeds the concentration set out for the contaminant in the ACB list; or
            ii. the Compound of Concern is not identified in the ACB list; or
        b. The concentration of the Compound of Concern in the updated ESDM Report exceeds the higher of,
            i. the most recent Acceptable Point of Impingement Concentration, and
            ii. the concentration set out for the contaminant in the ACB list,if the contaminant is identified in that document.
    3. The request required by Condition 3.2 shall propose a concentration for the Compound of Concern and shall contain an assessment, performed by a Toxicologist, of the likelihood of the proposed concentration causing an adverse effect at Points of Impingement.
    4. If the request required by Condition 3.2 is a result of a proposed Modification described in Condition 3.1, the Company shall submit the request, in writing, to the Director at least 30 days prior to commencing to make the Modification. The Director shall provide written confirmation of receipt of this request to the Company.

5. If a request is required to be made under Condition 3.2 in respect of a proposed Modification described in Condition 3.1, the Company shall not make the Modification mentioned in Condition 3.1 unless the request is approved in writing by the Director.
6. If the Director notifies the Company in writing that the Director does not approve the request, the Company shall,
    a. revise and resubmit the request; or
    b. notify the Director that it will not be making the Modification.
7. The re-submission mentioned in Condition 3.6 shall be deemed a new submission under Condition 3.2.
8. If the Director approves the request, the Company shall update the ESDM Report to reflect the Modification.
9. Condition 3 does not apply if Condition 2.1 has expired.

4. **PERFORMANCE LIMITS**
    1. Subject to Condition 4.2, the Company shall not discharge or cause or permit the discharge of a Compound of Concern into the air if,
        a. the Compound of Concern is identified in the ACB list as belonging to the category "Benchmark 1" and the discharge results in the concentration at a Point of Impingement exceeding the Benchmark 1 concentration; or
        b. the Compound of Concern is not identified in the ACB list as belonging to the category “Benchmark 1” and the discharge results in the concentration at a Point of Impingement exceeding the higher of,
            i. if an Acceptable Point of Impingement Concentration exists, the most recent Acceptable Point of Impingement Concentration, and
            ii. the concentration set out for the contaminant in the ACB list, if the contaminant is identified in that document.
    2. Condition 4.1 does not apply if the benchmark set out in the ACB list has a 10-minute averaging period and no ambient monitor indicates an exceedance at a Point of Impingement where human activities regularly occur at a time when those activities regularly occur.
    3. The Company shall ensure that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-300.
    4. The Company shall ensure that the vibration emissions from the Facility comply with the limits set out in Ministry Publication NPC-207.
    5. The Company shall operate any Equipment with Specific Operational Limits

approved by this Approval in accordance with the Original ESDM Report.

5. **DOCUMENTATION REQUIREMENTS**
    1. The Company shall maintain an up-to-date Log.
    2. No later than June 30 in each year, the Company shall update the Acoustic Assessment Report and shall update the ESDM Report in accordance with section 26 of O. Reg. 419/05 so that the information in the reports is accurate as of December 31 in the previous year.
    3. The Company shall make the Emission Summary Table (see section 27 of O. Reg. 419/05) and Acoustic Assessment Summary Table available for examination by any person, without charge, by posting it on the Internet or by making it available during regular business hours at the Facility.
    4. The Company shall, within three (3) months after the expiry of Condition 2.1 of this Approval, update the ESDM Report and the Acoustic Assessment Report such that the information in the reports is accurate as of the date that Condition 2.1 of this Approval expired.
    5. Conditions 5.1 and 5.2 do not apply if Condition 2.1 has expired.

6. **REPORTING REQUIREMENTS**
    1. Subject to Condition 6.2, the Company shall provide the Director no later than August 31 of each year, a Written Summary Form to be submitted through the Ministry's website that shall include the following:
        a. a declaration of whether the Facility was in compliance with section 9 of the EPA, O. Reg. 419/05 and the conditions of this Approval;
        b. a summary of each Modification satisfying Condition 2.1.a. and 2.1.b. that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a Point of Impingement for any Compound of Concern or resulted in a change in the sound levels reported in the Acoustic Assessment Summary Table at any Point of Reception.
    2. Condition 6.1 does not apply if Condition 2.1 has expired.

7. **OPERATION AND MAINTENANCE**
    1. The Company shall prepare and implement, not later than three (3) months from the date of this Approval, operating procedures and maintenance programs for all Processes with Significant Environmental Aspects, which shall specify as a minimum:
        a. frequency of inspections and scheduled preventative maintenance;
        b. procedures to prevent upset conditions;

c. procedures to minimize all fugitive emissions;

d. procedures to prevent and/or minimize odorous emissions;

e. procedures to prevent and/or minimize noise emissions; and

f. procedures for record keeping activities relating to the operation and maintenance programs.

2. The Company shall ensure that all Processes with Significant Environmental Aspects are operated and maintained in accordance with this Approval, the operating procedures and maintenance programs.

8. **COMPLAINTS RECORDING AND REPORTING**

1. If at any time, the Company receives an environmental complaint from the public regarding the operation of the Equipment approved by this Approval, the Company shall take the following steps:

a. Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.

b. Notify the District Manager of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the District Manager.

c. Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.

d. Complete and retain on-site a report written within five (5) business days of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

9. **RECORD KEEPING REQUIREMENTS**

1. Any information requested by any employee in or agent of the Ministry concerning the Facility and its operation under this Approval, including, but not limited to, any records required to be kept by this Approval, shall be provided to the employee in or agent of the Ministry, upon request**,** in a timely manner.

2. Unless otherwise specified in this Approval, the Company shall retain, for a minimum of five (5) years from the date of their creation all reports, records

and information described in this Approval, including,

a. a copy of the Original ESDM Report and each updated version;

b. a copy of each version of the Acoustic Assessment Report;

c. supporting information used in the emission rate calculations performed in the ESDM Reports and Acoustic Assessment Reports;

d. the records in the Log;

e. copies of each Written Summary Form provided to the Ministry under Condition 6.1 of this Approval;

f. records of maintenance, repair and inspection of Equipment related to all Processes with Significant Environmental Aspects; and

g. all records related to environmental complaints made by the public as required by Condition 8 of this Approval.

10. **REVOCATION OF PREVIOUS APPROVALS**

1. This Approval replaces and revokes all Certificates of Approval (Air) issued under section 9 EPA and Environmental Compliance Approvals issued under Part II.1 EPA to the Facility in regards to the activities mentioned in subsection 9(1) of the EPA and dated prior to the date of this Approval.

11. **FUGITIVE DUST CONTROL**

1. The Company shall prepare, not later than three (3) months after the date of this Approval, and update, as necessary, a Best Management Practices Plan for the control of fugitive dust emissions. This Best Management Practices Plan shall:

   a. at minimum, be prepared in accordance with Ministry Technical Bulletin: Management Approaches for Industrial Fugitive Dust Sources; and

   b. include a list of all Ministry comments received, if any, on the development of the Best Management Practices Plan, and a description of how each Ministry comment was addressed in the Best Management Practices Plan.

2. The Company shall implement the Best Management Practices Plan for the control of fugitive dust emissions to provide effective dust suppression measures to any potential sources of fugitive dust emissions resulting from the operation of the Facility.

SCHEDULE A

Supporting Documentation

1. Environmental Compliance Approval Application, dated November 16, 2021, signed by Jessica Ferri and submitted by the Company;
2. Emission Summary and Dispersion Modelling Report, prepared by RWDI and dated October 25, 2021;
3. Acoustic Assessment Report, prepared by HGC Engineering and dated September 17, 2021.

The reasons for the imposition of these terms and conditions are as follows:

1. **GENERAL**
   Condition No. 1 is included to require the Approval holder to build, operate and maintain the Facility in accordance with the Supporting Documentation in Schedule A considered by the Director in issuing this Approval.
2. **LIMITED OPERATIONAL FLEXIBILITY, REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION AND PERFORMANCE LIMITS**
   Conditions No. 2, 3 and 4 are included to limit and define the Modifications permitted by this Approval, and to set out the circumstances in which the Company shall request approval of an Acceptable Point of Impingement Concentration prior to making Modifications. The holder of the Approval is approved for operational flexibility for the Facility that is consistent with the description of the operations included with the application up to the Facility Production Limit. In return for the operational flexibility, the Approval places performance based limits that cannot be exceeded under the terms of this Approval. Approval holders will still have to obtain other relevant approvals required to operate the Facility, including requirements under other environmental legislation such as the Environmental Assessment Act.
3. **DOCUMENTATION REQUIREMENTS**
   Condition No. 5 is included to require the Company to maintain ongoing documentation that demonstrates compliance with the performance limits as specified in Condition 4 of this Approval and allows the Ministry to monitor on-going compliance with these performance limits. The Company is required to have an up to date ESDM Report and Acoustic Assessment Report that describe the Facility at all times and make the Emission Summary Table and Acoustic Assessment Summary Table from these reports available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the Facility.
4. **REPORTING REQUIREMENTS**
   Condition No. 6 is included to require the Company to provide a yearly Written

Summary Form to the Ministry, to assist the Ministry with the review of the site's compliance with the EPA, the regulations and this Approval.

5. **OPERATION AND MAINTENANCE**
   Condition No. 7 is included to require the Company to properly operate and maintain the Processes with Significant Environmental Aspects to minimize the impact to the environment from these processes.
6. **COMPLAINTS RECORDING AND REPORTING PROCEDURE**
   Condition No. 8 is included to require the Company to respond to any environmental complaints regarding the operation of the Equipment, according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.
7. **RECORD KEEPING REQUIREMENTS**
   Condition No. 9 is included to require the Company to retain all documentation related to this Approval and provide access to employees in or agents of the Ministry, upon request, so that the Ministry can determine if a more detailed review of compliance with the performance limits as specified in Condition 4 of this Approval is necessary.
8. **REVOCATION OF PREVIOUS APPROVALS**
   Condition No. 10 is included to identify that this Approval replaces all Section 9 Certificate(s) of Approval and Part II.1 Approvals in regards to the activities mentioned in subsection 9(1) of the EPA and dated prior to the date of this Approval.
9. **FUGITIVE DUST CONTROL**
   Condition No. 11 is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the EPA, the Regulations and this Approval.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 5084-757LAM issued on July 22, 2007.

In accordance with Section 139 of the *Environmental Protection Act,* you may by written notice served upon me, the Ontario Land Tribunal and in accordance with Section 47 of the *Environmental Bill of Rights,* 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;

b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the *Environmental Protection Act,* a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar*
Ontario Land Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5
OLT.Registrar@ontario.ca

and

The Minister of the Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3

and

The Director appointed for the purposes of Part II.1 of the *Environmental Protection Act*
Ministry of the Environment, Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or** www.olt.gov.on.ca

This instrument is subject to Section 38 of the *Environmental Bill of Rights,* 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at https://ero.ontario.ca/, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act.*

DATED AT TORONTO this 10th day of November, 2022

Nancy Orpana

Nancy E Orpana, P.Eng.

Director
appointed for the purposes of Part II.1 of the *Environmental Protection Act*

JL/
c: District Manager, MECP Toronto - District
Brian Sulley, RWDI

Appendix G Celplast MECP Permit

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

Ontario

Ministry of the Environment **Ministère de l'Environnement**

CERTIFICATE OF APPROVAL
AIR
NUMBER 3444-6GFJCU
Issue Date: September 30, 2005

Celplast Metallized Products Limited
67 Commander Blvd.
Toronto, Ontario
M1S 3M7

Site Location: 67 Commander Blvd.
Toronto City

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

- sixteen (16) natural gas fired unit heaters and six (6) natural gas fired air-conditioning units, having a maximum thermal input of 4,494,539 kilojoules per hour, exhausting into the atmosphere through a stack extending 1.0 metres above the roof and 8.0 metres above grade;

all in accordance with the Application for a Certificate of Approval (Air and Noise) dated July 26, 2005 and signed by Marc Jolicoeur, (Production Manager), Celplast Metallized Products Limited, and all supporting information associated with the application including additional information dated September 29, 2005 and provided by Izebela Hanak, on behalf of Envirovision Inc.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

(1) "Equipment" means the combustion Equipment described in the Company's application, this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate; and

(2) "Owner" means Celplast Metallized Products Limited, and includes its successors and assignees.

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. Except as otherwise provided by these Conditions, the Owner shall design, build, install, operate and maintain the Equipment in accordance with the description given in this Certificate, the application for approval of the Equipment and the submitted supporting documents and plans and specifications as listed in this Certificate.

2. Where there is a conflict between a provision of any submitted document referred to in this Certificate and the Conditions of this Certificate, the Conditions in this Certificate shall take precedence, and where there is a conflict between the listed submitted documents, the document bearing the most recent date shall prevail.

The reasons for the imposition of these terms and conditions are as follows:

1. Conditions No. 1 and 2 are imposed to ensure that the Equipment is built and operated in the manner in which they were described for review and upon which approval was granted. These conditions are also included to emphasize the precedence of Conditions in the Certificate and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by

written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
2300 Yonge St., 12th Floor
P.O. Box 2382
Toronto, Ontario
M4P 1E4

AND

The Director
Section 9, *Environmental Protection Act*
Ministry of Environment and Energy
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted works are approved under Section 9 of the Environmental Protection Act.

DATED AT TORONTO this 30th day of September, 2005

Aziz Ahmed, P.Eng.
Director
Section 9, *Environmental Protection Act*

AA/
c: District Manager, MOE Toronto - District
Marc Jolicoeur, Celplast Metallized Products Limited

Appendix H Richardson Industrial

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

Content Copy Of Original

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER 9205-A2LQ25
Issue Date: October 5, 2015

Richardson Industrial Finishers Limited
21 Commander Blvd
Toronto, Ontario
M1S 3E7

Site Location: 21 Commander Blvd
Toronto City
M1S 3E7

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

- one (1) three-stage washer that uses hot water which is heated by the natural gas fired hot water heater, discharging into the air at a total volumetric flow rate of 1.18 cubic metres per second, through a stack having an exit diameter of 0.50 metre, extending 1.52 metres above the roof and 6.12 metres above grade;

- one (1) natural gas fired dry-off oven, having a maximum heat input of 1,581,300 kilojoules per hour, discharging into the air at a volumetric flow rate of 0.94 cubic metre per second, through a stack, having an exit diameter of 0.40 metre, extending 1.52 metres above the roof and 6.12 metres above grade;

- one (1) natural gas fired curing oven, having a maximum heat input of 2,637,150 kilojoules per hour, discharging into the air at a volumetric flow rate of 0.94 cubic metre per second, through a stack, having an exit diameter of 0.40 metre, extending 1.52 metres above the roof and 6.12 metres above grade;

- one (1) natural gas fired hot water heater servicing the three-stage washer, having a maximum heat input of 1,581,300 kilojoules per hour, discharging into the air at a volumetric flow rate of 0.20 cubic metre per second through a stack, having an exit diameter of 0.10 metre, extending 1.52 metres above the roof and 6.12 metres above grade;

- one (1) powder coating booth for the Production Line and one (1) powder coating booth for the Batch Line;

- one (1) Primer Booth that is being used to spray solvent based paints with a maximum spray capacity of 7.6 litres per second for the Production Line, discharging into the air at a volumetric flow rate of 1.32 cubic metre per second, through a stack, having an exit diameter of 0.40 metre, extending 0.42 metres above the roof and 5.02 metres above grade;

- one (1) paint spray booth that is being used to spray solvent based paints with a maximum spray capacity of 7.6 litres per second for the Line # 1 (Production Line), discharging into the air at a volumetric flow rate of 2.16 cubic metre per second, through a stack, having an exit diameter of 0.50 metre, extending 2.0 metres above the roof and 6.6 metres above grade;

- one (1) paint spray booth that is being used to spray solvent based paints with a maximum spray capacity of 7.6 litres per second for the Line # 2 (Production Line), discharging into the air at a volumetric flow rate of 2.16 cubic metre per second, through a stack, having an exit diameter of 0.50 metre, extending 2.0 metres above the roof and 6.6 metres above grade;

- one (1) batch oven, having a total maximum heat input of 1,700,000 kilojoules per hour and exhausting into the air at a maximum volumetric flow rate of 0.5 actual cubic metre per second, through a stack having an exit diameter of 0.2 metre and extending 1.52 metres above roof and 6.12 metres above grade;
- one (1) exhaust system, serving the steam cleaner and exhausting into the air at a maximum volumetric flow rate of 2.4 actual cubic metres per second, through a stack having an exit diameter of 0.4 metre and extending 1.5 metres above roof and 6 metres above grade;

- one (1) Pyrolysis Heat Cleaning Oven, equipped with a natural gas fired primary burner having a maximum heat input of 142,425 kilojoules per hour and a natural gas fired secondary burner having a maximum heat input of 200,450 kilojoules per hour, discharging into the air through a stack having an exit diameter of 0.25 metre, extending 2.14 metres above the roof and 6.74 metres above grade;

- one (1) paint spray booth that is being used to spray solvent based paints with a maximum spray capacity of 3.8 litres per second for the Line # 1 (Batch Line), discharging into the air at a volumetric flow rate of 1.29 cubic metre per second, through a stack, having an exit diameter of 0.4 metre, extending 2.0 metres above the roof and 6.6 metres above grade;

- one (1) paint spray booth that is being used to spray solvent based paints with a maximum spray capacity of 3.8 litres per second for the Line # 2 (Batch Line), discharging into the air at a volumetric flow rate of 1.29 cubic metre per second, through a stack, having an exit diameter of 1.3 metre, extending 2.0 metres above the roof and 6.6 metres above grade;

all in accordance with the Application for Approval (Air) submitted by Richardson Industrial Finishers Limited, dated August 09, 2011 and signed by Richard Lothian; the supporting information, including the Emission Summary and Dispersion Modelling Report, dated January 14, 2015 and signed by Peter Piersol of ORTECH Environmental; and email updates provided by Peter Piersol of ORTECH Environmental on January 17 and 18, 2015; and email updates provided by Ainslie Murdock of ORTECH Environmental on September 01 and 14, 2015.

For the purpose of this environmental compliance approval, the following definitions apply:

1. "Approval" means this Environmental Compliance Approval, including the application and supporting documentation listed above;
2. "Company" means **Richardson Industrial Finishers Limited** that is responsible for the construction or operation of the Facility and includes any successors and assigns;

3. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;

4. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;

5. "Equipment" means the equipment described in the Company's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;

6. "Facility" means the entire operation located on the property where the Equipment is located;

7. "Pyrolysis Heat Cleaning Oven" means the heat cleaning oven complete with thermocouples and continuous temperature recorder, described in the Company's application, this Approval and in the

supporting documentation referred to herein, to the extent approved by this Approval;

8. "Manual" means a document or a set of documents that provide written instructions to staff of the Company;

9. "Ministry" means the ministry of the government of Ontario responsible for the EPA and includes all officials, employees or other persons acting on its behalf;

10. "Publication NPC-205" means the Ministry Publication NPC-205, "Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)", October, 1995 as amended; and

11. "Publication NPC-232" means the Ministry Publication NPC-232, "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)", October, 1995 as amended.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

OPERATION AND MAINTENANCE

1. The Company shall ensure that the Equipment is properly operated and maintained at all times. The Company shall:

(1) prepare, not later than three (3) months after the date of this Approval, and update, as necessary, a Manual outlining the operating procedures and a maintenance program for the Equipment, including:

(a) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;

(b) emergency procedures, including spill clean-up procedures;

(c) procedures for any record keeping activities relating to operation and maintenance of the Equipment;

(d) all appropriate measures to minimize noise and odorous emissions from all potential sources;

(e) the frequency of inspection and replacement of the filter material in the Equipment; and

(2) implement the recommendations of the Manual.

2. The Company shall not operate more than two paint spray booths, each for the Production Line and Batch Line at the same time.

3. The Company shall operate the Pyrolysis Heat Cleaning Oven in such a manner that:

(1) the burner flame in the secondary chamber is established before the primary chamber is turned on;

(2) the temperature in the secondary chamber, as measured by the thermocouple, is maintained at a minimum of 760 degrees Celsius at all times when the primary chamber is loaded and heat cleaning is in progress;

(3) the primary chamber is automatically turned off, if the secondary chamber fails;

(4) no substances containing chlorinated and/or fluorinated compounds, including polyvinyl chloride and Teflon, are loaded into the Pyrolysis Heat Cleaning Oven.

4. (1) The Company shall continuously monitor and record the temperature in the secondary chamber of the Pyrolysis Heat Cleaning Oven, when the Pyrolysis Heat Cleaning Oven is in operation. The continuous temperature monitoring system shall Company with the requirements outlined in the attached Schedule "A".

(2) The Company shall record the actual operating temperature in the secondary chamber once every

half hour.

NOISE

5. The Company shall, at all times, ensure that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-205 or Publication NPC-232, as applicable.

6. The Company shall restrict the operation of the Facility to the daytime hours from 7 a.m. to 7 p.m.

RECORD RETENTION

7. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording activities required by this Approval, and make these records available for review by staff of the Ministry upon request. The Company shall retain:

(1) all records on the maintenance, repair and inspection of the Equipment; and

(2) all records of any environmental complaints; including:

(a) a description, time and date of each incident to which the complaint relates;

(b) wind direction at the time of the incident to which the complaint relates; and

(c) a description of the measures taken to address the cause of the incident to which the complaint relates and to prevent a similar occurrence in the future.

NOTIFICATION OF COMPLAINTS

8. The Company shall notify the District Manager, in writing, of each environmental complaint within two (2) business days of the complaint. The notification shall include:

(1) a description of the nature of the complaint; and

(2) the time and date of the incident to which the complaint relates.

SCHEDULE "A"

Continuous Temperature Monitoring and Recording System Requirements for the Pyrolysis Heat Cleaning Oven

LOCATION:

The sample point for the continuous temperature monitoring system shall be located at a location

where the measurements are representative of the minimum temperature of the gases leaving the secondary chamber of the Pyrolysis Heat Cleaning Oven.
.

PERFORMANCE:
The continuous temperature monitoring system shall meet the following minimum performance specifications for the following parameters.

PARAMETERS SPECIFICATION

Type: shielded "K" type thermocouple, or equivalent.
Accuracy: ± 1.5 percent of the minimum gas temperature

DATA RECORDER:
The data recorder must be capable of registering continuously the measurement of the monitor without a significant loss of accuracy and with a time resolution of 1 minute or better.

RELIABILITY:
The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 95 percent of the time for each calendar quarter.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition Nos. 1 to 4 are included to emphasize that the Equipment must be operated and maintained according to a procedure that will result in compliance with the EPA, the regulations and this Approval.
2. Condition Nos. 5 and 6 are included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility.

3. Condition No. 7 is included to require the Company to keep records and to provide information to staff of the Ministry so that compliance with the EPA, the regulations and this Approval can be verified.

4. Condition No. 8 is included to require the Company to notify staff of the Ministry so as to assist the Ministry with the review of the site's compliance.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 8-3095-95-006, 8-3188-96-007, 8022-58NR8B issued on April 26, 1995, June 12, 1996 and April 26, 2002, respectively.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993 , S.O. 1993, c. 28 (Environmental Bill of Rights), the Environmental Commissioner, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and

conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Environmental Commissioner
1075 Bay Street, Suite 605
Toronto, Ontario
M5S 2B1

AND

The Director appointed for the purposes of Part II.1 of the Environmental Protection Act
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at www.ebr.gov.on.ca , you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 5th day of October, 2015

Rudolf Wan, P.Eng.
Director
appointed for the purposes of Part II.1 of the *Environmental Protection Act*

BS/
c: District Manager, MOECC Toronto - District
Peter Piersol, ORTECH Environmental

Appendix I Leland Industries MECP

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER 7611-AJTSLV
Issue Date: March 21, 2017

Leland Industries Inc.
95 Commander Blvd
Toronto, Ontario
M1S 3S9

Site Location: 95 Commander Blvd
Toronto City,
M1S 3S9

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act , R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

Description Section

A screws, nuts and bolts manufacturing facility, consisting of the following processes and support units:

- Cold forming process equipped with mist collectors;

- Painting process and oven curing equipped with one (1) regenerative thermal oxidizer (RTO), used to control air emissions from the painting and curing process, equipped with natural gas fired burners, having a maximum heat input of 1,677,539 kilojoules per hour;
- Powder painting; and
- Phosphate line for parts cleaning and coating

including the *Equipment* and any other ancillary and support processes and activities, operating at a ***Facility Production Limit*** **of up to 24,000 tonnes of steel processed per year** discharging to the air as described in the *Original ESDM Report.*

For the purpose of this environmental compliance approval, the following definitions apply:

1. " *ACB list* " means the document entitled "Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants", as amended from time to time and published by the *Ministry* and available on a Government website.
2. "*Acceptable Point of Impingement Concentration*" means a concentration accepted by the *Ministry* as not likely to cause an adverse effect for a *Compound of Concern* that,

(a) is not identified in the *ACB list,* or

(b) is identified in the *ACB list* as belonging to the category "Benchmark 2" and has a concentration at a *Point of Impingement* that exceeds the concentration set out for the contaminant in that document.

With respect to the *Original ESDM Report,* the *Acceptable Point of Impingement Concentration* for a

Compound of Concern mentioned above is the concentration set out in the *Original ESDM Report.*

3. "*Acoustic Assessment Report*" means the report, prepared in accordance with *Publication NPC-233* and Appendix A of the *Basic Comprehensive User Guide,* by Aidan Maher, P.Eng. / Pinchin Limited and dated November 28, 2016 submitted in support of the application, that documents all sources of noise emissions and *Noise Control Measures* present at the *Facility,* as updated in accordance with Condition 5 of this *Approval.*

4. "*Acoustic Assessment Summary Table*" means a table prepared in accordance with the *Basic Comprehensive User Guide* summarising the results of the *Acoustic Assessment Report,* as updated in accordance with Condition 5 of this *Approval.*

5. "*Approval*" means this entire Environmental Compliance Approval and any *Schedules* to it.

6. "*Basic Comprehensive User Guide*" means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended.

7. "*Company*" means Leland Industries Inc. that is responsible for the construction or operation of the *Facility* and includes any successors and assigns in accordance with section 19 of the *EPA.*

8. "*Compound of Concern*" means a contaminant described in paragraph 4 subsection 26 (1) of *O. Reg. 419/05,* namely, a contaminant that is discharged from the *Facility* in an amount that is not negligible.

9. "*Description Section*" means the section on page one of this *Approval* describing the *Company's* operations and the *Equipment* located at the *Facility* and specifying the *Facility Production Limit* for the *Facility.*

10. "*Director*" means a person appointed for the purpose of section 20.3 of the *EPA* by the *Minister* pursuant to section 5 of the *EPA.*

11. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry,* where the *Facility* is geographically located.

12. "*Emission Summary Table*" means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05.*

13. "*Environmental Assessment Act*" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended.

14. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended.

15. "*Equipment*" means equipment or processes described in the *ESDM Report,* this *Approval* and in the *Schedules* referred to herein and any other equipment or processes.

16. "*Equipment with Specific Operational Limits*" means the Regenerative Thermal Oxidizer and any *Equipment* related to the thermal oxidation of waste or waste derived fuels, fume incinerators or any other *Equipment* that is specifically referenced in any published *Ministry* document that outlines specific operational guidance that must be considered by the *Director* in issuing an *Approval.*

17. "*ESDM Report*" means the most current Emission Summary and Dispersion Modelling Report that describes the *Facility.* The *ESDM Report* is based on the *Original ESDM Report* and is updated after the issuance of this *Approval* in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document.*

18. "*Facility*" means the entire operation located on the property where the *Equipment* is located.

19. "*Facility Production Limit*" means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility.*

20. "*Log*" means a document that contains a record of each change that is required to be made to the *ESDM Report* and *Acoustic Assessment Report,* including the date on which the change occurred. For example, a record would have to be made of a more accurate emission rate for a source of contaminant, more accurate meteorological data, a more accurate value of a parameter that is related to a source of contaminant, a change to a *Point of Impingement* and all changes to information associated with a *Modification* to the *Facility* that satisfies Condition 2**.**

21. "*Minister*" means the Minister of the Environment and Climate Change or such other member of the Executive Council as may be assigned the administration of the *EPA* under the Executive Council Act.

22. "*Ministry*" means the ministry of the *Minister.*

23. "*Modification*" means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a process or rate of production at the *Facility* that may discharge or alter the rate or manner of discharge of a *Compound of Concern* to the air or discharge or alter noise or vibration emissions from the *Facility.*

24. "*Noise Control Measures*" means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers.

25. "*O. Reg. 419/05*" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended.

26. "*Original ESDM Report*" means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document* by Pinchin Ltd. and dated December 18, 2015 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval.*

27. "*Point of Impingement*" has the same meaning as in section 2 of *O. Reg. 419/05.*

28. "*Point of Reception*" means Point of Reception as defined by *Publication NPC-300.*

29. "*Procedure Document*" means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2009, as amended.

30. "*Processes with Significant Environmental Aspects*" means the *Equipment* which, during regular operation, would discharge one or more contaminants into the air in an amount which is not considered as negligible in accordance with section 26 (1) 4 of *O. Reg. 419/05* and the *Procedure Document.*

31. "*Publication NPC-207*" means the *Ministry* draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, published by the *Ministry,* August 1978, as amended.

32. "*Publication NPC-233*" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended.

33. "*Publication NPC-300*" means the *Ministry* Publication NPC-300, “Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300”, August 2013, as amended.

34. "*Schedules*" means the following schedules attached to this *Approval* and forming part of this *Approval* namely:

Schedule A - Supporting Documentation
Schedule B - Continuous Temperature Monitoring and Recording System Requirements

35. "*Toxicologist*" means a qualified professional currently active in the field of risk assessment and toxicology that has a combination of formal university education, training and experience necessary to assess contaminants.

36. "*Written Summary Form*" means the electronic questionnaire form, available on the *Ministry* website, and supporting documentation, that documents the activities undertaken at the *Facility* in the previous calendar year.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL

1.1 Except as otherwise provided by this *Approval,* the *Facility* shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this *Approval* and in accordance with the following *Schedules* attached hereto:

Schedule A - Supporting Documentation

Schedule B - Continuous Temperature Monitoring and Recording System Requirements

2. LIMITED OPERATIONAL FLEXIBILITY

2.1 Pursuant to section 20.6 (1) of the *EPA* and subject to Conditions 2.2 and 2.3 of this *Approval,* future construction, alterations, extensions or replacements are approved in this *Approval* if the future construction, alterations, extensions or replacements are *Modifications* to the *Facility* that:

(a) are within the scope of the operations of the *Facility* as described in the *Description Section* of this *Approval;*

(b) do not result in an increase of the *Facility Production Limit* above the level specified in the *Description Section* of this *Approval;* and

(c) result in compliance with the performance limits as specified in Condition 4.

2.2 Condition 2.1 does not apply to,

(a) the addition of any new *Equipment with Specific Operational Limits* or to the *Modification* of any existing *Equipment with Specific Operational Limits* at the *Facility;* or

(b) *Modifications* to the *Facility* that would be subject to the *Environmental Assessment Act.*

2.3 Condition 2.1 of this *Approval* shall expire on January 31, 2027,unless this *Approval* is revoked prior to the expiry date.

3. REQUIREMENT TO REQUEST AN *ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION*

3.1 Prior to making a *Modification* to the *Facility* that satisfies Condition 2.1 (a) and (b), the *Company* shall prepare a proposed update to the *ESDM Report* to reflect the proposed *Modification.*

3.2 The *Company* shall request approval of an *Acceptable Point of Impingement Concentration* for a *Compound of Concern* if the *Compound of Concern* is not identified in the *ACB list* as belonging to the category “Benchmark 1” and a proposed update to an *ESDM Report* indicates that one of the

following changes with respect to the concentration of the *Compound of Concern* may occur:

(a) The *Compound of Concern* was not a *Compound of Concern* in the previous version of the *ESDM Report* and

(i) the concentration of the *Compound of Concern* exceeds the concentration set out for the contaminant in the *ACB list;* or

(ii) the *Compound of Concern* is not identified in the *ACB list;* or

(b) The concentration of the *Compound of Concern* in the updated *ESDM Report* exceeds the higher of,

(i) the most recent *Acceptable Point of Impingement Concentration,* and

(ii) the concentration set out for the contaminant in the *ACB list,* if the contaminant is identified in that document.

3.3 The request required by Condition 3.2 shall propose a concentration for the *Compound of Concern* and shall contain an assessment, performed by a *Toxicologist,* of the likelihood of the proposed concentration causing an adverse effect at *Points of Impingement.*

3.4 If the request required by Condition 3.2 is a result of a proposed *Modification* described in Condition 3.1, the *Company* shall submit the request, in writing, to the *Director* at least 30 days prior to commencing to make the *Modification.* The *Director* shall provide written confirmation of receipt of this request to the *Company.*

3.5 If a request is required to be made under Condition 3.2 in respect of a proposed *Modification* described in Condition 3.1, the *Company* shall not make the *Modification* mentioned in Condition 3.1 unless the request is approved in writing by the *Director.*

3.6 If the *Director* notifies the *Company* in writing that the *Director* does not approve the request, the *Company* shall,

(a) revise and resubmit the request; or

(b) notify the *Director* that it will not be making the *Modification.*

3.7 The re-submission mentioned in Condition 3.6 shall be deemed a new submission under Condition 3.2.

3.8 If the *Director* approves the request, the *Company* shall update the *ESDM Report* to reflect the *Modification.*

3.9 Condition 3 does not apply if Condition 2.1 has expired.

4. PERFORMANCE LIMITS

4.1. Subject to Condition 4.2, the *Company* shall not discharge or cause or permit the discharge of a *Compound of Concern* into the air if,

(a) the *Compound of Concern* is identified in the *ACB list* as belonging to the category “Benchmark 1” and the discharge results in the concentration at a *Point of Impingement* exceeding the Benchmark 1 concentration; or

(b) the *Compound of Concern* is not identified in the *ACB list* as belonging to the category “Benchmark 1” and the discharge results in the concentration at a *Point of Impingement* exceeding the higher of,

(i) if an *Acceptable Point of Impingement Concentration* exists, the most recent *Acceptable Point of Impingement Concentration,* and

(ii) the concentration set out for the contaminant in the *ACB list,* if the contaminant is identified in that document.

4.2 Condition 4.1 does not apply if the benchmark set out in the *ACB list* has a 10-minute averaging period and no ambient monitor indicates an exceedance at a *Point of Impingement* where human activities regularly occur at a time when those activities regularly occur.

4.3 The *Company* shall, at all times, ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300.*

4.4 The *Company* shall, at all times, ensure that the vibration emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-207.*

4.5 The *Company* shall operate any *Equipment with Specific Operational Limits* approved by this *Approval* in accordance with the *Original ESDM Report* and Condition number 10 of this *Approval.*

5. **DOCUMENTATION REQUIREMENTS**

5.1. The *Company* shall maintain an up-to-date *Log.*

5.2. No later than March 31 in each year, the *Company* shall update the *Acoustic Assessment Report* and shall update the *ESDM Report* in accordance with section 26 of *O. Reg. 419/05* so that the information in the reports is accurate as of December 31 in the previous year.

5.3. The *Company* shall make the *Emission Summary Table* (see section 27 of *O. Reg. 419/05)* and *Acoustic Assessment Summary Table* available for examination by any person, without charge, by posting it on the Internet or by making it available during regular business hours at the *Facility.*

5.4 The *Company* shall, within three (3) months after the expiry of Condition 2.1 of this *Approval,* update the *ESDM Report* and the *Acoustic Assessment Report* such that the information in the reports is accurate as of the date that Condition 2.1 of this *Approval* expired.

5.5. Conditions 5.1 and 5.2 do not apply if Condition 2.1 has expired.

6. REPORTING REQUIREMENTS

6.1 Subject to Condition 6.2, the *Company* shall provide the *Director* no later than June 30 of each year, a *Written Summary Form* to be submitted through the *Ministry's* website that shall include the following:

(a) a declaration of whether the *Facility* was in compliance with section 9 of the *EPA, O. Reg. 419/05* and the conditions of this *Approval;*

(b) a summary of each *Modification* satisfying Condition 2.1 (a) and (b) that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a *Point of Impingement* for any *Compound of Concern* or resulted in a change in the sound levels reported in the *Acoustic Assessment Summary Table* at any *Point of Reception.*

6.2 Condition 6.1 does not apply if Condition 2.1 has expired.

7. OPERATION AND MAINTENANCE

7.1 The *Company* shall prepare and implement, not later than three (3) months from the date of this *Approval,* operating procedures and maintenance programs for all *Processes with Significant*

Environmental Aspects, which shall specify as a minimum:

(a) frequency of inspections and scheduled preventative maintenance;

(b) procedures to prevent upset conditions;

(c) procedures to minimize all fugitive emissions;

(d) procedures to prevent and/or minimize odorous emissions;

(e) procedures to prevent and/or minimize noise emissions; and

(f) procedures for record keeping activities relating to the operation and maintenance programs.

7.2 The *Company* shall ensure that all *Processes with Significant Environmental Aspects* are operated and maintained in accordance with this *Approval,* the operating procedures and maintenance programs.

8. COMPLAINTS RECORDING AND REPORTING

8.1 If at any time, the *Company* receives an environmental complaint from the public regarding the operation of the *Equipment* approved by this *Approval,* the *Company* shall take the following steps:

(a) Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.

(b) Notify the *District Manager* of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the *District Manager.*

(c) Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.

(d) Complete and retain on-site a report written within one (1) week of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

9. RECORD KEEPING REQUIREMENTS

9.1 Any information requested by any employee in or agent of the *Ministry* concerning the *Facility* and its operation under this *Approval,* including, but not limited to, any records required to be kept by this *Approval,* shall be provided to the employee in or agent of the *Ministry,* upon request**,** in a timely manner.

9.2 Unless otherwise specified in this *Approval,* the *Company* shall retain, for a minimum of five (5) years from the date of their creation all reports, records and information described in this *Approval,* including,

(a) a copy of the *Original ESDM Report* and each updated version*;*

(b) a copy of each version of the *Acoustic Assessment Report;*

(c) supporting information used in the emission rate calculations performed in the *ESDM Reports* and *Acoustic Assessment Reports;*

(d) the records in the *Log;*

(e) copies of each *Written Summary Form* provided to the *Ministry* under Condition 6.1 of this *Approval;*

(f) records of maintenance, repair and inspection of *Equipment* related to all *Processes with Significant Environmental Aspects;* and

(g) all records related to environmental complaints made by the public as required by Condition 8 of this *Approval.*

10. REGENERATIVE THERMAL OXIDIZER (RTO)

10.1 The *Company* shall ensure that the RTO is designed and operated to comply, at all times, with the following requirements:

(a) The combustion chamber of the RTO shall be preheated to a minimum of 870 degrees Celsius, as measured by the continuous monitoring and recording system, prior to introducing the process exhaust gases;

(b) The temperature in the combustion chamber of the RTO is maintained at a minimum of 870 degrees Celsius, as measured by the continuous monitoring and recording system specified in Schedule B of this *Approval,* at all times when the regenerative thermal oxidizer is in operation;

(c) The residence time of the process gases in the combustion chamber of the RTO shall not be less than one (1) second at a minimum temperature of 870 degrees Celsius;

(d) The concentration of organic matter in the undiluted gas emitted from the RTO, being an average of ten measurements taken at approximately one minute intervals, shall not be greater than 100 parts per million by volume.

(e) No chlorinated or fluorinated compounds shall be incinerated in the RTO.

10.2. The *Company* shall continuously monitor and record the operating temperature in the combustion chamber of the RTO when the RTO is in operation. The continuous temperature monitoring and recording system shall comply with the requirements outlined in Schedule B of this *Approval.*

11. REVOCATION OF PREVIOUS APPROVALS

This *Approval* replaces and revokes all Certificates of Approval (Air) issued under section 9 *EPA* and Environmental Compliance Approvals issued under Part II.1 *EPA* to the *Facility* in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval.*

SCHEDULE A

Supporting Documentation

(a) Environmental Compliance Approval Application, dated December 23, 2015, signed by Juan Andrejin and submitted by the *Company.*

(b) Emission Summary and Dispersion Modelling Report, prepared by Pinchin Limited and dated December 18, 2015.

(c) Air emissions and dispersion modelling data for new sources and additional air emissions related clarifications provided on November 18, 2016 by Pinchin Limited, and signed by Kerri Bennett-Ferdinand.

(d) *Acoustic Assessment Report,* prepared by Pinchin Limited, dated November 28, 2016, and signed by Aidan Maher, P.Eng.

SCHEDULE B
Continuous Temperature Monitoring and Recording System Requirements

PARAMETER: Temperature

LOCATION:
The sample point for the continuous temperature monitoring and recording system shall be located at a location where the measurements are representative of the minimum temperature of the gases leaving the combustion chamber of the regenerative thermal oxidizer.

PERFORMANCE:
The continuous temperature monitoring and recording system shall meet the following minimum performance specifications for the following parameters.

Type: shielded "K" type thermocouple, or equivalent

Accuracy: ±1.5 percent of the minimum gas temperature

DATA RECORDER:
The data recorder must be capable of registering continuously the measurement of the monitoring system without a significant loss of accuracy and with a time resolution of one (1) minute or better.

RELIABILITY:
The monitoring system shall be operated and maintained so that accurate data is obtained during a minimum of 95 percent of the time for each calendar quarter.

The reasons for the imposition of these terms and conditions are as follows:

GENERAL
1. Condition No. 1 is included to require the *Approval* holder to build, operate and maintain the *Facility* in accordance with the Supporting Documentation in Schedule A considered by the *Director* in issuing this *Approval.*

LIMITED OPERATIONAL FLEXIBILITY, REQUIREMENT TO REQUEST AN *ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION* AND PERFORMANCE LIMITS

2. Conditions No. 2, 3 and 4 are included to limit and define the *Modifications* permitted by this *Approval,* and to set out the circumstances in which the *Company* shall request approval of an *Acceptable Point of Impingement Concentration* prior to making *Modifications.* The holder of the *Approval* is approved for operational flexibility for the *Facility* that is consistent with the description of the operations included with the application up to the *Facility Production Limit.* In return for the operational flexibility, the *Approval* places performance based limits that cannot be exceeded under the terms of this *Approval. Approval* holders will still have to obtain other relevant approvals required to operate the *Facility,* including requirements under other environmental legislation such as the *Environmental Assessment Act.*

DOCUMENTATION REQUIREMENTS

3. Condition No. 5 is included to require the *Company* to maintain ongoing documentation that demonstrates compliance with the performance limits as specified in Condition 4 of this *Approval* and allows the *Ministry* to monitor on-going compliance with these performance limits. The *Company* is required to have an up to date *ESDM Report* and *Acoustic Assessment Report* that describe the *Facility* at all times and make the *Emission Summary Table* and *Acoustic Assessment Summary Table* from these reports available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the *Facility.*

REPORTING REQUIREMENTS

4. Condition No. 6 is included to require the *Company* to provide a yearly *Written Summary Form* to the *Ministry,* to assist the *Ministry* with the review of the site's compliance with the *EPA,* the regulations and this *Approval.*

OPERATION AND MAINTENANCE

5. Condition No. 7 is included to require the *Company* to properly operate and maintain the *Processes with Significant Environmental Aspects* to minimize the impact to the environment from these processes.

COMPLAINTS RECORDING AND REPORTING PROCEDURE

6. Condition No. 8 is included to require the *Company* to respond to any environmental complaints regarding the operation of the *Equipment,* according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.

RECORD KEEPING REQUIREMENTS

7. Condition No. 9 is included to require the *Company* to retain all documentation related to this *Approval* and provide access to employees in or agents of the *Ministry,* upon request, so that the *Ministry* can determine if a more detailed review of compliance with the performance limits as specified in Condition 4 of this *Approval* is necessary.

REGENERATIVE THERMAL OXIDIZER (RTO)

8. Condition No. 10 is included to emphasize that the *Equipment* must be operated and maintained according to a procedure that will result in compliance with the *EPA,* the Regulations and this *Approval.*

REVOCATION OF PREVIOUS APPROVALS

9. Condition No. 11 is included to identify that this *Approval* replaces all Section 9 Certificate(s) of Approval and Part II.1 Approvals in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval.*

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993 , S.O. 1993, c. 28 (Environmental Bill of Rights), the Environmental Commissioner, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Environmental Commissioner
1075 Bay Street, Suite 605
Toronto, Ontario
M5S 2B1

AND

The Director appointed for the purposes of Part II.1 of the Environmental Protection Act
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at www.ebr.gov.on.ca , you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 21st day of March, 2017

Ian Greason, P.Eng.
Director
appointed for the purposes of Part II.1 of the *Environmental Protection Act*

SA/
c: District Manager, MOECC Toronto - District
Kerri Bennett-Ferdinand, Pinchin Inc.

Appendix J EPI/FOI Request

Compatibility Mitigation Study Air Quality, Noise and Vibration

1936 McCowan Road

Bousfields Inc.

SLR Project No.: 241.031222.00001

December 5, 2023

Ontario

Ministry of the Environment, Conservation and Parks

Corporate Management Division

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Division de la gestion ministérielle

November 9, 2023

Alice Najjar
SLR Consulting Ltd.

Dear Alice Najjar
RE: Request #: EPI-2023-2000003297
Requestor provided Client Reference: 241.031222.00001
Site address: 1940 McCowan Road, Toronto

This letter confirms that, after conducting a thorough search of its source system applications, the ministry has identified potential records related to your property request. Our search indicates that the ministry may hold the following records:

- Sector Inspection
- Waste Generator number/classes
- Correspondence, Abatement, Occurrence reports
- Air Approval[1]
- Information Reporting
- Inspections
- Incident Reporting
- Industrial Approval[1]
- Noise Approval[1]
- Waste and Air Inspection

If you would like to submit a Freedom of Information (FOI) request to the ministry, please return to the table on the Requests tab of the EPI application and select “Submit FOI” under the Actions column in the row identified by EPI-2023-2000003297.

If you have any questions regarding the matter, please contact the ministry at eproperty@ontario.ca.

Sincerely,

Environmental Property Information (EPI) Program

Disclaimer

This search result is provided for informational purposes only and is not intended to provide specific advice or recommendations. The Ministry of the Environment, Conservation and Parks (MECP) cannot and does not guarantee that the information provided is current, accurate, complete, or free of errors. Any reliance upon this information is solely at the risk of the user.

[1] In addition to the core reports (e.g Environmental Compliance Approval), there may be extensive supporting documentation associated with this record type. When transferring your request over to FOI, we encourage you to refine the scope of your request to only the supporting documentation required for your purposes, as the inclusion of this additional documentation can add significant processing time.

Ontario

Ministry of the Environment, Conservation and Parks

Corporate Management Division

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Division de la gestion ministérielle

Le 9 novembre 2023

Alice Najjar
SLR Consulting Ltd.

Madame,
Monsieur, Alice Najjar
Objet : No de demande : EPI-2023-2000003297
Le demandeur a fourni une référence client: 241.031222.00001
Adresse du site: 1940 McCowan Road, Toronto

La présente lettre confirme que, après avoir effectué une recherche exhaustive dans ses applications de système source, le ministère a circonscrit des dossiers potentiels reliés à votre demande concernant des biens immobiliers. Notre recherche indique que les dossiers suivants peuvent être en possession du ministère:

- Sector Inspection
- Waste Generator number/classes
- Correspondence, Abatement, Occurrence reports
- Air Approval[1]
- Information Reporting
- Inspections
- Incident Reporting
- Industrial Approval[1]
- Noise Approval[1]
- Waste and Air Inspection

Si vous souhaitez soumettre une demande de liberté d'information (FOI) au ministère, veuillez retourner au tableau de l'onglet Requêtes de l'application EPI et sélectionner "Soumettre FOI" dans la colonne Actions de la ligne identifiée par EPI-2023-2000003297.

Si vous avez des questions concernant votre demande, nous vous invitons à communiquer avec le ministère à l’adresse électronique suivante : eproperty@ontario.ca.

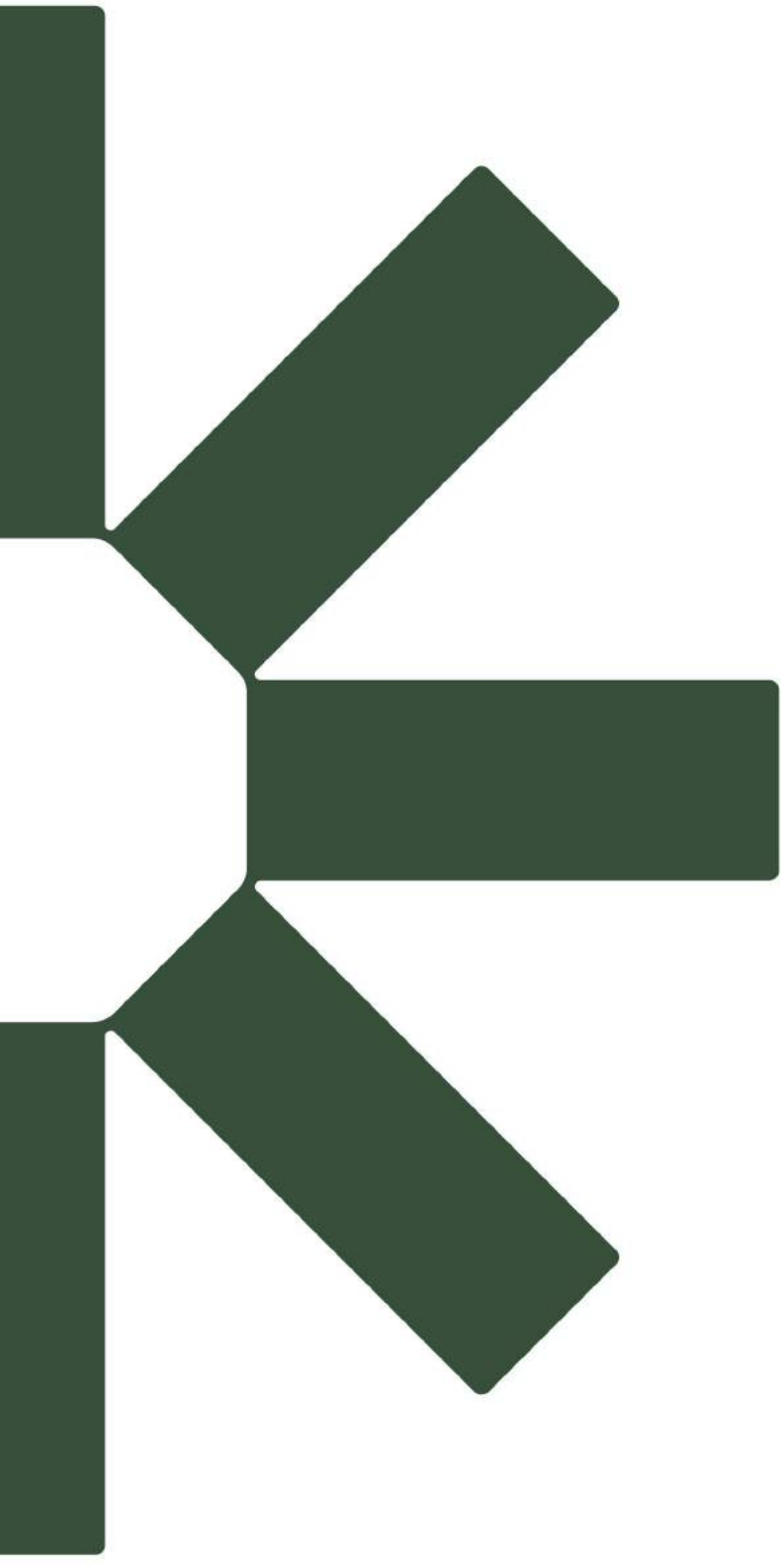
Veuillez recevoir mes salutations les plus sincères,

Programme d’Information Environnementale de la propriété

Avertissement

Ce résultat de recherche est fourni uniquement à titre informatif et n’a aucunement pour but de donner des conseils particuliers ou des recommandations. Le ministère de l’Environnement de la Protection de la nature et des Parcs (MEPP) ne peut pas garantir que les renseignements fournis sont à jour, exacts, complets et exempts d’erreurs. L’utilisateur qui se fie à ces renseignements le fait à ses seuls risques.

[1] En plus des rapports de base (par exemple, l'approbation de conformité environnementale), il peut y avoir de nombreux documents justificatifs associés à ce type d'enregistrement. Lors du transfert de votre demande vers FOI, nous vous encourageons à affiner la portée de votre demande en ne tenant compte que des pièces justificatives requises pour vos besoins, car l'inclusion de ces documents supplémentaires peut ajouter un temps de traitement important.



Making Sustainability Happen