



# Noise Feasibility Study

**Block 16 – Pier 8, Hamilton, Ontario**

The Waterfront Shores Corporation

October 25, 2021

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# Executive summary

GHD Limited (GHD) was retained by Waterfront Shores Corporation (WSC) to prepare a Noise Feasibility Study (Study) for the proposed high-rise residential development located at Block 16 of the Pier 8 lands in Hamilton, Ontario (Development). This Study has been prepared in support of an Official Plan Amendment and Zoning By-Law Amendment for the Development.

Block 16 is located at the northwest corner of the Pier 8 lands. The proposed concept of the Block 16 Development consists of one 45-storey residential tower above a 3-storey podium. Outdoor amenity spaces are located on the roof of the podium and on the 31<sup>st</sup> floor level.

Based on MECP guideline D-6, some industries surrounding the Development were identified as having potential areas of influence intersecting the Block 16 site. However, a quantitative stationary noise assessment has been carried out and concludes that the Development will not limit the ability of the existing industries to operate. Any potential future industrial developments or expansions would be required to comply with Class 1 sound level limits at existing sensitive receptors that are closer to the industrial lands than the Development, and would thereby comply with the higher Class 4 limits at the Development. Since the Development is in a designated Class 4 area, central air conditioning is required to allow occupants to close their windows to reduce noise levels within indoor living spaces.

Road traffic noise was assessed based on future traffic projections on existing local roadways and future roads on the Pier 8 lands. Road traffic noise levels at the Development are minor, but nevertheless central air conditioning will be provided.

Nuisance noise from ship sources at the P&H Facility to the east of the Development was assessed. A Settlement Agreement dated August 14, 2020 (Agreement) has been established between the City of Hamilton, P&H, and WSC that addresses the noise abatement requirements for noise from the ship sources. Façades and air intakes/exhausts are required to be designed to achieve the indoor sound level criteria of the Agreement. Based on the predicted noise levels from ship sources, these design requirements will be feasible for the Block 16 Development. A solid parapet with a height of 1.1 metres above the finished roof level will be sufficient to protect the outdoor amenity space on the 31<sup>st</sup> floor level in accordance with the Agreement. Warning clauses are also required to inform occupants of potential audibility of industries.

There are several existing residential uses nearby to the Development, including two high-rise residential towers approximately 300 metres southeast, and GHD is not aware of any history of complaints. It is anticipated that the potential risk of noise nuisance related to sources not subject of MECP approval will be effectively managed due to the City's community liaison and complaint protocol.

It is GHD's opinion that the proposed Block 16 Development is feasible with respect to noise, and that noise should not limit the City from approving the Official Plan Amendment and Zoning By-Law Amendment to permit the high-rise concept of the development.

This report is subject to, and must be read in conjunction with, the limitations set out in Section 1.2 and the assumptions and qualifications contained throughout the Report.

# Contents

<b>1.</b>	<b>Introduction</b>	<b>1</b>
1.1	Purpose of this Report	1
1.2	Scope and Limitations	1
<b>2.</b>	<b>Background and Development Design</b>	<b>2</b>
2.1	Block 16 Development Concept	3
<b>3.</b>	<b>Land Use Compatibility</b>	<b>3</b>
3.1.1	Classification of Industries	4
3.1.2	Guideline D-6 Assessment Conclusions	5
<b>4.</b>	<b>Sound Level Criteria</b>	<b>5</b>
4.1	Noise By-Law	5
4.2	Stationary Noise Limits	5
4.2.1	Steady Noise	5
4.2.2	Impulse Noise	6
4.3	Transportation Noise Criteria	6
4.3.1	Road Traffic Criteria	6
4.4	Settlement Agreement Requirements	7
<b>5.</b>	<b>Stationary Noise Impact Assessment</b>	<b>8</b>
5.1	Methodology	8
5.2	Stationary Noise Input Parameters	8
5.3	Results	8
5.4	Noise Impacts from the Development	9
5.4.1	Outdoor Noise Impacts	9
5.4.2	Indoor Noise Impacts	10
<b>6.</b>	<b>Transportation Noise Impact Assessment</b>	<b>10</b>
6.1	Methodology	10
6.2	Traffic Input Parameters	10
6.3	Results	11
6.3.1	Plane of Window Receivers	11
6.3.2	Outdoor Living Areas	11
6.4	Transportation Noise Mitigation	12
6.4.1	Ventilation	12
<b>7.</b>	<b>Ship Sources</b>	<b>12</b>
7.1	Methodology	12
7.2	Results	12
7.2.1	Plane of Window Receivers	12
7.2.2	Outdoor Living Areas	13
7.3	Noise Mitigation Measures for Ship Sources	13
7.3.1	Façade Construction and Ventilation Design	13
7.3.2	Acoustic Barriers	13

<b>8. Noise Nuisance</b>	<b>13</b>
<b>9. Recommendations</b>	<b>14</b>
9.1 Building Façade Construction	14
9.2 Ventilation	14
9.3 Acoustic Barriers	15
9.4 Warning Clauses	15
<b>10. Conclusions</b>	<b>15</b>
<b>11. References</b>	<b>16</b>

## Figure index

Figure 2.1	Site Location	2
Figure 2.2	Key Plan	
Figure 3.1	Guideline D-6 Setbacks	
Figure 5.1	Stationary Noise Levels from Nearby Industries (16.5 M A.G.)	
Figure 5.2	Stationary Noise Levels from Nearby Industries (70.5 M A.G.)	
Figure 6.1	Future Road Traffic Sound Levels	
Figure 7.1	Noise Levels from Ship Sources (16.5 M A.G.)	
Figure 7.2	Noise Levels from Ship Sources (70.5 M A.G.)	

## Table index

Table 3.1	Guideline D-6 Industry Separation Distances	3
Table 3.2	Summary of Key Industries nearby to the Development	4
Table 4.1	MECP Minimum Exclusionary Sound Level Limits for Steady Sound – Class 1 and 4 Areas	6
Table 4.2	MECP Minimum Exclusionary Sound Level Limits for Impulsive Sound	6
Table 4.3	Road Traffic – Outdoor Sound Level Limits	7
Table 4.4	Road Traffic – Indoor Sound Level Limits	7
Table 5.1	Cumulative Stationary Noise Levels	8
Table 6.1	Future (2032) Road Traffic Input Parameters	10
Table 6.2	Future Road Noise Levels – Plane of Window	11
Table 6.3	Future Road Noise Levels – Outdoor Living Area	11
Table 7.1	Noise Levels from Ship Sources – Plane of Window	12
Table 7.2	Future Road Noise Levels – Outdoor Living Area	13

## Appendices

Appendix A	Zoning Map and Concept Drawings
Appendix B	Relevant MECP Industrial Noise Permits / Registrations
Appendix C	Stationary Noise Model Inputs and Sample CadnaA Calculation Output
Appendix D	Road Traffic Data and Sample STAMSON Calculation Output
Appendix E	Settlement Agreement between P&H, WSC, and the City of Hamilton

# 1. Introduction

## 1.1 Purpose of this Report

GHD Limited (GHD) was retained by Waterfront Shores Corporation (WSC) to prepare a Noise Feasibility Study (Study) for the proposed high-rise residential Development located at Block 16 of the Pier 8 lands in Hamilton, Ontario (Development). This Study has been prepared in support of an Official Plan Amendment and Zoning By-Law Amendment for the proposed high-rise concept of the Block 16 Development.

## 1.2 Scope and Limitations

*This report: has been prepared by GHD for WSC and may only be used and relied on by WSC for the purpose agreed between GHD and WSC as set out in Section 1.1 of this report.*

*GHD otherwise disclaims responsibility to any person other than WSC arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.*

*The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.*

*The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report.*

*The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.*

## 2. Background and Development Design



Figure 2.1 Site Location

Figure 2.1 above identifies the location of the Block 16 site within the Pier 8 lands. The Block 16 site is currently zoned as "Community Institutional" (I2). The remainder of the Pier 8 lands are zoned "Waterfront Multiple Residential" (WF1), "Waterfront Mixed Use" (WF2), and "Waterfront Prime Retail" (WF3). The properties surrounding the Pier 8 lands include properties zoned as "Open Space" (P4) to the north, east, and west; "Waterfront Recreational" (F-1) to the east; "Urban Protected Residential – One and Two Family Dwellings, etc." (D) to the south; "Light and Limited Heavy Industry, etc." (J) and "Shipping and Navigation (Port Lands)" (M13) farther east. A zoning map is included in Figure A.2 of Appendix A.

Existing noise sources surrounding the Development are summarized as follows:

- **Road Traffic:** The Pier 8 lands are located on the north side of Guise Street, and new roads will be constructed on the lands to connect the various blocks to Guise Street. Burlington Street carries more significant road traffic volumes and is located approximately 230 metres south of the Pier 8 lands. Refer to Figure 2.2 for road locations in relation to the Block 16 site.
- **Stationary:** The primary sources of stationary noise in the area of the Pier 8 lands are heavy industries located to the east, including Parrish and Heim Becker (P&H), Berminghammer Foundation Equipment (Berminghammer), and Bunge.

There are no rail lines within 300 metres of the Development, therefore rail traffic noise and ground-borne vibration impacts are considered insignificant and have not been assessed in this Study. Similarly, the Development is not located nearby to any airports, so aircraft noise has not been assessed in this Study.

It is understood that nearby industries P&H, Bunge, and Berminghammer previously raised concerns to the City of Hamilton with respect to the overall Pier 8 development and potential impacts to their operations, including potential



noise compliance and nuisance issues. P&H and Bunge were parties in LPAT case no. PL170742 regarding the development of the Pier 8 lands as well as the City of Hamilton and WSC. No other industries elected to participate in the LPAT hearing. Following agreement to mediate in 2019, a Settlement Agreement was established between WSC, the City of Hamilton, and P&H (dated August 14, 2020), which contains obligations for all three parties to help ensure a suitable acoustical environment for future occupants of the Pier 8 lands. A copy of the Agreement is included in Appendix E.

## 2.1 Block 16 Development Concept

The proposed concept of the Pier 8 Development includes a mix of residential, mixed-use, and retail uses. Block 16 is located immediately west of Block 1. The proposed concept for Block 16 comprises one 45-storey residential tower above a 3-storey podium, with a pedestrian mews connecting Block 16 and Block 1. The planned phasing of the Pier 8 Development will involve construction of Blocks 3 and 6 prior to Block 16. A site plan drawing for the current concept of Block 16 of the development is included in Appendix A.

## 3. Land Use Compatibility

The MECP Guideline D-6 "Compatibility Between Industrial Facilities and Sensitive Land Uses" (Guideline D-6) provides recommended minimum separation distances (RMSD) and potential areas of influence (AOI) based on the class of the industrial facility. RMSDs are provided based on the industry size and operation type. The guideline provides direction for land use planning to maximize compatibility of industrial uses with adjacent land uses. The goal of Guideline D-6 is to minimize encroachment of sensitive land uses on industrial facilities and vice versa, in order to address potential incompatibility due to adverse effects such as noise, odour, and dust.

Guideline D-6 separates industry into three broad categories, depending on the nature of their operations and the types of potential impacts:

- **Class I industries** are small scale, self-contained plants or buildings, which produce and store products internally, and have low probability of fugitive emissions. They have daytime operations only, with infrequent movements of products and/or heavy trucks. Some examples include furniture repair and refinishing, electronics manufacturing, auto parts supply, distribution of dairy products, and beverages bottling.
- **Class II industries** perform medium scale processing, with occasional outputs of point source or fugitive emissions. Activities may include some outdoor storage of wastes and materials, frequent movement of products and/or heavy trucks during the daytime, and shift work. Some examples include paint spray booths, feed packing plant, dairy product manufacturing, and dry-cleaning services.
- **Class III industries** conduct large-scale manufacturing and are characterized by persistent and/or intense dust and/or odour, frequent outputs of major annoyances, and have a high probability of fugitive emissions. Activities may include continuous operations and movements of products, outside storage of raw and finished goods, and high levels of production. Some examples include manufacturing of paint and varnish, manufacturing of resins and coatings, solvent recovery plants, organic chemicals manufacturing, breweries, and metal manufacturing.

Table 3.1 below summarizes the recommended minimum setback distances and areas of potential influence which represents the distance within which adverse effects could potentially occur.

*Table 3.1 Guideline D-6 Industry Separation Distances*

Industry Classification	RMSD (metres)	AOI (metres)
Class I	20	70
Class II	70	300
Class III	300	1,000

Guideline D-6 provides criteria for classifying industrial land uses, based on their outputs, scale of operations, processes, schedule, and intensity of operations. Often an industry will fall between two Classes. Guideline D-6 states that no incompatible development should occur within the recommended minimum separation distance as noted in Table 3.1. If a development is proposed within the recommended minimum separation distance of an industry, then further detailed assessment is warranted to ensure compatibility as stated in guideline D-6.

### 3.1.1 Classification of Industries

Golder Associates Limited (Golder) evaluated the size and operations of the commercial/industrial facilities in the general vicinity of the Pier 8 lands to determine the appropriate classification per Guideline D-6, as summarized in Golder’s Draft Noise and Vibration Feasibility Study (Golder’s Study) prepared for the City for the Pier 8 Development (Golder, August 2021). GHD reviewed aerial imagery and MECP noise permit / registration documents for the industries and concurs with the classifications of Golder’s Study. A summary of the classifications of these facilities is included in Table 3.2 below.

**Table 3.2** Summary of Key Industries nearby to the Development

Index	Facility Name	Address	MECP Permit / Registration with Acoustic Assessment	D-6 Class	Distance from Block 16
1	HMCS Haida National Historic Site	658 Catharine St N	None	I	310 m
2	HMCS Star Canadian Armed Forces Reserve Barracks	650 Catharine St N	None	I	310 m
3a	Birmingham Foundation Equipment	600 Ferguson Ave	R-010-3110689743 (EASR)	III	590 m
3b	Attic Mechanical Maintenance Ltd.	600 Ferguson Ave	None	II	590 m
4	Parrish and Heimbecker	231 Burlington St E	5953-AHJKB6 (ECA)	III	590 m
5a	Sucro Can Canada	560 Ferguson Ave	R-010-8113138778 (EASR)	III	690 m
5b	HCE Energy	560 Ferguson Ave	R-010-2110255537 (EASR)	III	690 m
6	Collective Arts Brewing	207 Burlington St E	None	II	720 m
7	Bunge	515 Victoria Ave N	5444-BCMP9X (ECA)	III	900 m
8	Lafarge	525 Victoria Ave N	1760-7ULP9W (C of A)	III	890 m
9	IKO Industries	628 Victoria Ave N	None	III	870 m
10	Vopak Terminals of Canada Inc.	655 Victoria Ave N	6968-8NMPM5 (ECA)	II	1050 m
11	Name Unknown	240 Burlington St E	None	I	950 m
12	Bunge	400 Burlington St E	1828-762PCG (C of A)	III	1160 m
13	Shell Hamilton Terminal	391 Burlington St E	3151-A52RT2 (ECA)	III	1300 m
14	Federal Marine Terminals	95 Flank Rd	7164-BD4PUV (ECA)	III	1280 m
15	Sylvite Agri-Services Ltd.	Pier 12	None	III	1270 m
16	Econo Storage Hamilton	562 Catharine St N	None	I	520 m
17	Tudor Cana Distributors Ltd.	68 Burlington St	None	I	540 m
18	Harbour West Marina	1 Guise St W	None	II	76 m
19	Royal Hamilton Yacht Club	555 Bay St N	None	II	320 m

Index	Facility Name	Address	MECP Permit / Registration with Acoustic Assessment	D-6 Class	Distance from Block 16
20	Macassa Bay Yacht Club	80 Harbour Front Dr	None	II	750 m

Notes:

- "EASR" means Environmental Activity Sector Registration
- "ECA" means Environmental Compliance Approval
- "C of A" means Certificate of Approval

Copies of the relevant MECP industrial noise permits and registrations noted above are included in Appendix B for reference.

### 3.1.2 Guideline D-6 Assessment Conclusions

The Development is located outside of the recommended minimum separation distances of all the nearby industries identified above; however, some of the industries are within the respective potential area of influence setbacks and warrant further quantitative noise assessment as recommended by MECP guideline D-6. A quantitative assessment of stationary noise emissions from all of the industries identified above is included in Section 5 of this Study.

GHD notes that there are several existing residential uses that are located much closer to the industries in comparison to the Development, which suggests that the actual influence areas of the industries may be smaller than the assumed influence areas of guideline D-6. Additionally, due to the presence of existing residential uses nearby to these industries, any potential future industrial development would be required to install noise mitigation to ensure compatibility with these existing residential uses.

## 4. Sound Level Criteria

### 4.1 Noise By-Law

The City of Hamilton By-Law No. 11-285 "Noise Control By-Law" (Noise By-Law), consolidated with amendments to April 26, 2017, has been reviewed in the context of this Study. Section 4 of the Noise By-Law states that "no person shall make or permit to be made noise that contravenes:

- a. an applicable Noise Pollution Control Publication of Ontario's Ministry of the Environment; or
- b. a permission, such as an environmental compliance approval, under federal or provincial legislation"

The Noise By-Law makes reference to the Provincial noise pollution control guidelines; therefore, sound level criteria contained in the Ontario Ministry of the Environment, Conservation and Parks (MECP) guideline NPC-300 "Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning" (August 2013) are appropriate to be used as the basis for assessment of potential noise impacts.

### 4.2 Stationary Noise Limits

#### 4.2.1 Steady Noise

NPC-300 defines stationary noise sources as sound from all sources that are normally operated within the property lines of a facility. The noise impact from stationary sources is evaluated based on operations during a predictable worst-case hour. Stationary noise assessment criteria are generally determined based on the MECP's minimum

exclusionary sound level limits, as presented in NPC-300, in comparison to the background sound levels experienced in the area (whichever is higher).

The Pier 8 lands have previously been designated an acoustic Class 4 area by the City of Hamilton. The areas surrounding the Pier 8 lands would be best described as Class 1 areas, which are typically urban areas where the ambient noise levels are generally dominated by human activity (e.g., road traffic). Table 4.1 below summarizes the MECP's minimum exclusionary sound level limits for Class 1 and Class 4 areas, which are expressed in terms of 1-hour equivalent sound levels (1-hour Leq):

**Table 4.1** MECP Minimum Exclusionary Sound Level Limits for Steady Sound – Class 1 and 4 Areas

Point of Reception Type	Class 1 Sound Level Limits (dBA)		Class 4 Sound Level Limits (dBA)	
	Day (7am – 11pm)	Night (11pm – 7am)	Day (7am – 11pm)	Night (11pm – 7am)
Plane of window	50	45	60	55
Outdoor living space	50	--	55	--

Note that the Class 4 sound level limits are 10 dBA higher at plane of window PORs and 5 dBA higher at outdoor PORs compared to Class 1 noise limits.

The applicable guideline sound level limits for regular scheduled testing of emergency equipment (e.g., standby generator) are 5 dBA higher than the corresponding values above.

## 4.2.2 Impulse Noise

Impulse noise sources are evaluated separately from steady noise sources. For impulse noise, the sound level limit at a point of reception expressed in terms of the Logarithmic Mean Impulse Sound Level ( $L_{LM}$ ) and is dependent on the number of impulses in a given hour. The impulse sound level limits for a Class 1 and Class 4 Areas are summarized as follows:

**Table 4.2** MECP Minimum Exclusionary Sound Level Limits for Impulsive Sound

Number of Impulses Per Hour	Class 1 Area Sound Level Limits (dBAI)		Class 4 Area Sound Level Limits (dBAI)	
	Plane of Window POR (7am – 11pm / 11pm – 7pm)	Outdoor POR (7am – 11pm)	Plane of Window POR (7am – 11pm / 11pm – 7pm)	Outdoor POR (7am – 11pm)
9 or more	50 / 45	50	60 / 55	55
7 to 8	55 / 50	55	65 / 60	60
5 to 6	60 / 55	60	70 / 65	65
4	65 / 60	65	75 / 70	70
3	70 / 65	70	80 / 75	75
2	75 / 70	75	85 / 80	80
1	80 / 75	80	90 / 85	85

## 4.3 Transportation Noise Criteria

### 4.3.1 Road Traffic Criteria

Under NPC-300, road traffic noise impacts are evaluated separately for exterior receptors and interior receptors based on the average day (07:00 to 23:00) and night (23:00 to 07:00) noise impacts. The sound levels are expressed in terms of A-weighted equivalent sound levels ( $L_{eq}$ ).

NPC-300 defines two categories of receivers for transportation noise:

- **Plane of Window (POW):** Point corresponding with the centre of a window of a sensitive space.
- **Outdoor Living Area (OLA):** Outdoor location intended and designed for quiet enjoyment of the outdoor environment that is readily accessible from the building (e.g., backyards, front yards, gardens, terraces, patios). Private balconies and terraces are only considered OLAs if they are greater than 4 metres in depth and if they are the only outdoor living area for the occupant(s).

NPC-300 specifies sound level limits for POW and OLA receivers as summarized in Table 4.3 below:

*Table 4.3 Road Traffic – Outdoor Sound Level Limits*

Receiver Category	Sound Level Limit (dBA)	
	Day (16-hour Leq)	Night (8-hour Leq)
Plane-of-Window (POW)	55	50
Outdoor Living Area (OLA)	55	N/A

For POWs, combined road and rail traffic sound levels exceeding the corresponding criteria above would require additional controls for MECP compliance. Depending on the magnitude of the exceedances, additional controls may include ventilation requirements, requirements for building envelope elements, and/or noise warning clauses.

For OLAs, road traffic sound levels exceeding the daytime limit indicated above would require design of noise barriers to achieve the target, and/or warning clauses.

If POW sound levels from future road traffic exceed 65 dBA during the day or 60 dBA at night, then building envelope components must be designed to achieve the indoor sound level limits of NPC-300. The indoor sound level limits for road and rail traffic are summarized in Table 4.4 below.

*Table 4.4 Road Traffic – Indoor Sound Level Limits*

Receiver Category	Road Sound Level Limits (dBA)	
	Day (16-hour Leq)	Night (8-hour Leq)
Indoor living areas (excluding sleeping quarters)	45	45
Sleeping quarters	45	40

## 4.4 Settlement Agreement Requirements

The Agreement between the P&H, WSC, and the City contains obligations for each of the three parties. WSC is responsible to design and construct mitigation at the Pier 8 development to attenuate noise from Ship Sources (as defined in the Agreement), including the following primary requirements:

- Outdoor Living Areas must be sufficiently screened to achieve a sound level of 55 dBA or less due to the ship sources
- Building facades must be designed in accordance with Schedule "F" of the Agreement
- Air intakes and exhausts must be designed in accordance with Schedule "G" of the Agreement
- P&H warning clauses must be included in all offers to sell, agreements of purchase and sale, all offers to lease, and all tenancy agreements

# 5. Stationary Noise Impact Assessment

## 5.1 Methodology

As identified in Section 3, there are several industries of varying scale nearby to the Development that have potential to result in noise impacts, including some Class III (heavy) industries to the east of the Development. Substantial work has been completed to study potential noise impacts from nearby industries to the Pier 8 development, including a review of MECP industrial noise permits/registrations, a long-term sound level monitoring program, site visits, and predictive modelling (Golder, August 2021).

Based on the information included in Golder’s Study, GHD prepared a model of noise emissions from nearby industries using CadnaA version 2021 MR 1 (CadnaA). CadnaA is the industry standard for noise modelling of industrial and commercial facilities and is based on ISO standard 9613 2 "Acoustics – Attenuation of Sound during Propagation Outdoors". CadnaA modelling assumptions used in this Study include:

- Reflection Order: A maximum reflection order of 2 was used to evaluate indirect noise impact from reflecting surfaces.
- Ground Absorption: The model was set up with conservative ground absorption coefficients of 0 for asphalt and water, 0.5 for gravel, and 1.0 for absorptive areas of grass.
- Receptor Elevation: POR receptor heights were modelled based on an assumed storey height of 3 metres.
- Building Surfaces: The buildings are modelled as reflective surfaces.
- Sources: Source sound power levels and locations were obtained from Golder’s Study (Golder, August 2021).

## 5.2 Stationary Noise Input Parameters

Stationary noise emissions from the commercial/industrial facilities identified in Section 3 have been assessed based on the CadnaA acoustic model information summarized in Golder’s Draft Noise and Vibration Feasibility Study for the Pier 8 Development (Golder, August 2021). Golder’s study is based on the best available information, including Golder’s observations from field work and long-term sound level monitoring. Each industry is represented using a single point source with a sound power level assigned based on its Guideline D-6 industry classification. Where necessary, the sound power level for each source was adjusted to achieve compliance with the Class 1 exclusionary sound level limits of NPC-300 at existing points of reception. Noise source locations are identified in Figure C.1 of Appendix C. Source sound levels and heights are summarized in Table C.1 of Appendix C. A sample CadnaA calculation output is also included in Appendix C.

## 5.3 Results

Predicted future road traffic noise impacts at the worst-case POW receivers of the Development are summarized as follows:

*Table 5.1 Cumulative Stationary Noise Levels*

POR Location	Future Noise Levels (dBA)		Sound Level Limits (dBA)		Limits Exceeded?
	Day	Night	Day	Night	
Northwest façade	38	35	60	55	No
North façade of podium	31	26	60	55	No
Northeast façade of tower	51	45	60	55	No
Southeast façade of tower	51	46	60	55	No

POR Location	Future Noise Levels (dBA)		Sound Level Limits (dBA)		Limits Exceeded?
	Day	Night	Day	Night	
Southwest façade of tower	48	44	60	55	No
Outdoor amenity space on roof of podium	48	--	55	--	No
Outdoor amenity space on 31 <sup>st</sup> floor level	51	--	55	--	No

As seen above, predicted cumulative stationary noise levels at the worst-impacted façades are up to 51 dBA during the day and 46 dBA at night at the plane of window PORs, and up to 51 dBA during the day at outdoor amenity space PORs. These sound levels are well below the applicable Class 4 sound level limits on a cumulative basis. Figures 5.1 and 5.2 show the predicted cumulative stationary noise levels throughout the façades of Block 16.

Note that the sound level results presented above are cumulative, inclusive of all industries identified in Section 3 of this Study. GHD understands that the City of Hamilton does not require cumulative assessments for land use planning purposes; therefore, the results presented above are conservative. Predicted sound levels from individual industries are lower, which further supports the conclusion that the Development would not impact the ability of the existing industries to comply with the stationary sound level limits of NPC-300.

Some industries to the east of the Development are understood to include sources of impulse noise. These industries are required by the Noise By-Law to comply with the Class 1 impulse sound level limits of NPC-300 at existing points of reception, including the condominium towers located at 600 John Street North; therefore, GHD anticipates that impulse noise will not be a concern at the Development.

Since the Development is located within a Class 4 area, all residential dwellings within the Development must have central air conditioning installed prior to occupancy. A warning clause is also required to inform the future occupants of the Class 4 designation (see wording included in Section 9.4).

## 5.4 Noise Impacts from the Development

### 5.4.1 Outdoor Noise Impacts

Base building cooling and ventilation systems for the Development have the potential to result in noise impacts on noise sensitive spaces within the Development itself and at existing residential uses surrounding the Development. The specific equipment selections are not available at the time of writing; therefore, it is anticipated that noise emissions from rooftop equipment will be evaluated as part of the detailed design of the Development. GHD recommends that WSC carry the necessary contingencies for the following noise controls, which may be necessary to achieve compliance with the sound level limits of NPC-300 at all worst-case points of reception both on-site and off-site:

- Acoustic louvers and/or barriers to surround large rooftop mechanical equipment (e.g., cooling towers, chillers, make up air units). Cost contingencies should account for structural requirements due to snow and wind loads associated with the barriers.
- Acoustic enclosures for any standby emergency generator sets (Level 2 minimum).
- Silencers for parking exhaust shafts.

Performance specifications of the above controls is dependent on equipment locations and sound power levels, which may vary. Therefore, the full scope and details of the required noise mitigation should be evaluated during detailed design.

## 5.4.2 Indoor Noise Impacts

Mechanical equipment and other building services also have the potential to cause annoyance due to noise and vibration transmission to residences. The American Society of Heating, Refrigerating, and Air conditioning Engineers (ASHRAE) guidelines specify acceptable noise levels from such equipment. Specification of noise controls (e.g., silencers, floating concrete slabs, acoustic ceilings, vibration isolators) to achieve these criteria is typically completed as part of the detailed building design, once equipment selections are made and floor layouts are more developed.

The Ontario Building Code stipulates minimum STC and apparent sound transmission class (ASTC) rating requirements for demising partitions separating residential suites from other spaces inside the building. For demising partitions separating suites from elevator shafts or garbage chutes, constructions meeting a minimum STC-55 rating must be used. For demising partitions separating suites from any other space in the building, constructions meeting a minimum STC-50 rating must be used. Suite demising partitions must also achieve a minimum rating of ASTC-47.

# 6. Transportation Noise Impact Assessment

## 6.1 Methodology

The roadways near the Development were modelled as sources of sound using the road noise source element in CadnaA set to predict noise emission rates in accordance with the United States of America's (US) Department of Transportation's Traffic Noise Model (TNM).

To demonstrate that the model is generally consistent with the STAMSON model that is the standard in Ontario, a sample STAMSON calculation is included in Appendix D representing the north façade of the podium (worst-case location). The prediction results are within  $\pm 1$  dBA of the CadnaA noise predictions, indicating that the CadnaA model is consistent with STAMSON.

## 6.2 Traffic Input Parameters

Future road traffic model parameters used in this Study are summarized in Table 6.1 below:

*Table 6.1 Future (2032) Road Traffic Input Parameters*

Road Segment	Future AADT	Speed Limit (km/h)	Day / Night Split	Commercial Vehicle Rates (medium trucks / heavy trucks)
Discovery Dr	3,355	30	90% / 10%	3% / 1%
John St (north of Guise St), Haida Ave, and Harbourside Way	4,039	30	90% / 10%	3% / 1%
Burlington St (west of Ferguson Ave)	10,925	50	90% / 10%	2% / 4%
Catharine St	1,802	50	90% / 10%	2% / 0%
Dock Service Rd / Ferguson Ave	3,127	30	90% / 10%	3% / 1%
Guise St (west of Street A)	5,664	30	90% / 10%	3% / 1%
Guise St (between Street A and Street B)	2,558	30	90% / 10%	2% / 0%
Guise St (east of Street B)	1,905	30	90% / 10%	2% / 0%
John St (between Guise St and Burlington St)	2,516	30	90% / 10%	2% / 0%



Road traffic volumes were obtained from data the Traffic Impact Study (IBI, 2016) in the form of peak hour turning movement count (TMC) volumes for the year 2025. GHD assumed that the peak hour volumes represent 10% of the AADT and applied an assumed annual growth rate of 0.5% to the volumes to estimate the future 2032 volumes based on the Traffic Impact Study. A day / night split of 90% / 10% was assumed for all roadways. Commercial vehicle rates and speed limits were assumed based on Golder's Study (Golder, August 2021). Future projected traffic volumes for John Street (north of Guise St) were also applied to Haida Ave and Harbourside Way.

Figure 2.2 shows the location of the roadways noted above in relation to the Development. Road traffic data referenced in this Study is included in Appendix D.

## 6.3 Results

### 6.3.1 Plane of Window Receivers

Predicted future road traffic noise impacts at the worst-case POW receivers of the Development are summarized in Table 6.2 below:

Table 6.2 Future Road Noise Levels – Plane of Window

Location	Future Noise Levels (dBA)		Sound Level Criteria (dBA)		Criteria Exceeded?
	Day	Night	Day	Night	
Northwest façade	56	49	55	50	Yes
North façade of podium	56	50	55	50	Yes
Northeast façade of tower	53	47	55	50	No
Southeast façade of tower	52	45	55	50	No
Southwest façade of tower	54	47	55	50	No

As seen above, future road noise levels at the worst-impacted façades generally range from 52 dBA to 56 dBA during the day and 45 dBA to 50 dBA at night. These sound levels are sufficiently high that the Development must incorporate ventilation and noise warning clauses in accordance with NPC-300, which are described further in Section 6.4. Figure 6.1 shows the predicted road noise levels at the façades throughout the Development.

### 6.3.2 Outdoor Living Areas

Predicted future road traffic noise impacts at the worst-case OLA receivers of the Development are summarized in Table 6.3 below:

Table 6.3 Future Road Noise Levels – Outdoor Living Area

Receiver ID	Receiver Description	Future Daytime Noise Level (dBA)	Daytime Sound Level Criteria (dBA)	Criteria Exceeded?
OLA-01a	Outdoor amenity space on roof of podium (north end)	53	55	No
OLA-01b	Outdoor amenity space on roof of podium (centre)	45	55	No
OLA-01c	Outdoor amenity space on roof of podium (south end)	51	55	No
OLA-02a	Outdoor amenity space on 31 <sup>st</sup> floor level (north end)	48	55	No
OLA-02b	Outdoor amenity space on 31 <sup>st</sup> floor level (centre)	47	55	No
OLA-02c	Outdoor amenity space on 31 <sup>st</sup> floor level (south end)	48	55	No

As seen above, predicted road noise levels at the OLAs range from 47 dBA to 53 dBA during the daytime. These levels are below the applicable limits of NPC-300 and do not require mitigation. Figure 6.1 shows the locations of the OLA receivers.

## 6.4 Transportation Noise Mitigation

### 6.4.1 Ventilation

Predicted future traffic noise levels at the façades of the Development are sufficiently high that, at a minimum, provisions would need to be made to enable installation of central air conditioning at the occupant’s discretion (i.e., ductwork must be designed and installed to accommodate a future central air conditioning system installation) to allow windows and doors to remain closed to help ensure that the indoor sound level limits of NPC-300 are met. However, the Pier 8 lands have been designated as a Class 4 Area per NPC-300, and therefore require central air conditioning to be installed prior to occupancy. The **Class 4 Residential Warning Clause** (see warning clause wording in Section 9.4) is required to be used for all residential dwellings in the Pier 8 lands, and appropriately informs occupants that acceptable indoor noise levels can be achieved with windows kept closed.

## 7. Ship Sources

### 7.1 Methodology

The Ship Sources were included in the model using the CadnaA file defined in the Agreement.

### 7.2 Results

#### 7.2.1 Plane of Window Receivers

Predicted noise levels from the ship sources at the worst-case POW receivers of Block 16 are summarized as follows:

*Table 7.1 Noise Levels from Ship Sources – Plane of Window*

Location	Noise Levels from Ship Sources (dBA)
Northwest façade	42
North façade of podium	55
Northeast façade of tower	55
Southeast façade of tower	55
Southwest façade of tower	45

As seen above, predicted noise levels from the ship sources are up to 55 dBA at the worst-case façades of Block 16. Figures 7.1 and 7.2 show the predicted noise levels throughout the façades of the Development due to ship sources. The façades and air intakes/exhausts for the building are required to be designed to achieve acceptable indoor sound levels from the ship sources, as discussed further in Sections 7.3.1.

## 7.2.2 Outdoor Living Areas

Predicted noise levels from the ship sources at OLAs of Block 16 are summarized as follows:

Table 7.2 Future Road Noise Levels – Outdoor Living Area

Receiver ID	Receiver Description	Future Daytime Noise Level (dBA)	Sound Level Limit (dBA)	Limit Exceeded?
OLA-01a	Outdoor amenity space on roof of podium (north end)	52	55	No
OLA-01b	Outdoor amenity space on roof of podium (centre)	39	55	No
OLA-01c	Outdoor amenity space on roof of podium (south end)	45	55	No
OLA-02a	Outdoor amenity space on 31 <sup>st</sup> floor level (north end)	55	55	No
OLA-02b	Outdoor amenity space on 31 <sup>st</sup> floor level (centre)	55	55	No
OLA-02c	Outdoor amenity space on 31 <sup>st</sup> floor level (south end)	<b>56</b>	55	<b>Yes</b>

As seen above, predicted noise levels at the OLAs range from 39 dBA to 56 dBA due to ship sources. The predicted noise level at OLA-02c slightly exceeds the 55 dBA criteria of the Agreement and requires mitigation in the form of an acoustic barrier (see Section 7.3.2).

## 7.3 Noise Mitigation Measures for Ship Sources

### 7.3.1 Façade Construction and Ventilation Design

Detailed floor plans, elevations, and mechanical drawings for Block 16 are not yet available; therefore, façade construction and ventilation design requirements will be analyzed at a further detailed stage of the design. However, GHD has previously analyzed mitigation requirements for noise levels as high as 63 dBA due to the ship sources and confirmed that mitigation was feasible for a wide range of window-to-floor area ratios with appropriately selected glazing and exterior wall assemblies. Therefore, mitigation will also be feasible with predicted noise levels up to 55 dBA at the façades of Block 16.

### 7.3.2 Acoustic Barriers

Predicted future traffic noise levels at OLA-02c are sufficiently high that an acoustic barrier is required to screen the OLA. Based on the model predictions, a solid parapet with a height of 1.1 metres above the finished roof level of the OLA would be sufficient to achieve sound levels of 55 dBA or lower throughout the Outdoor Amenity Space on the 31<sup>st</sup> floor. The extents of the required solid parapet are shown on Figures 7.1 and 7.2.

The solid parapet may vary in construction, provided it meets the following requirements:

- A minimum surface density of 20 kg/m<sup>2</sup> or meet compliance with requirement and certification CAN/CSA-Z107.9-00 (R2004) – Standard for Certification of Noise Barriers (Reaffirmed 2004).
- Be structurally sound and appropriately designed to withstand wind and snow loading as applicable.
- Constructed without any cracks or surface gaps at grade. If gaps are necessary for drainage purposes, they should be minimized to mitigate the impact on the acoustical performance of the barrier.

## 8. Noise Nuisance

Noise nuisance is a potential concern whenever a new sensitive use is introduced nearby to existing industry. Golder's Study identifies noise sources that were observed during field visits which are not subject of MECP approval, and

have the potential to cause noise nuisance, including back-up beepers, auditory signalling devices, and railway crossings (Golder, August 2021). Marine shipping and related activities are federally regulated and are also not subject of MECP approval.

The following controls are required, and will help to minimize the potential for noise nuisance at Block 16:

- WSC is required to design the Development to protect indoor and outdoor sensitive spaces in accordance with the Agreement. By doing so, a high degree of sound isolation will be achieved, which will help to minimize indoor noise levels.
- Warning clauses are required to be used for all sensitive uses of the Pier 8 lands as specified in the Agreement (see warning clause wording included in Section 9.4). These warning clauses will warn prospective owners and occupants of potential audibility of industrial activities from time-to-time, and advise them that windows may be closed if they experience disturbance from noise outside the building.
- As specified in the Agreement, the City of Hamilton is required to maintain a community liaison and complaint protocol regarding industries and related activities located in the vicinity of the Pier 8 lands. It is anticipated that the complaint protocol will help to communicate concerns raised to the relevant parties to resolve such issues.

There is an existing high-rise building located at 600 John Street North, which is located closer to the heavy industrial facilities to the east and would therefore have greater exposure to noise emissions from those industries, including sources not subject of MECP approval. GHD is not aware of any complaints from occupants of this high-rise residential building. Considering this, in addition to the controls noted above, GHD anticipates that the potential risk of noise nuisance related to these noise sources will be managed effectively.

The model of ship sources defined in the Agreement includes three ships loading and unloading while moored at the P&H Facility. This is anticipated to represent worst-case noise emissions from marine shipping activities, as the duration of noise emissions from ships in transit would be considerably lower. Therefore, the requirements of the Agreement are considered sufficient to limit the risk of noise nuisance related to marine shipping activities.

## **9. Recommendations**

### **9.1 Building Façade Construction**

The façade construction requirements in relation to noise from the ship sources will be evaluated at further detailed stages of design. GHD has evaluated mitigation requirements for sound levels of up to 63 dBA due to ship sources, and the predicted sound levels at Block 16 are much lower at 55 dBA. Therefore, it will be feasible to design the façades of Block 16 to achieve the indoor sound level requirements, as specified in the Agreement.

Predicted future road traffic noise levels at the façades of Block 16 are sufficiently low that upgraded façade construction is not necessary to achieve the applicable indoor sound level limits for road traffic.

### **9.2 Ventilation**

The Development is located in a designated Class 4 area; therefore, central air conditioning is required to be installed prior to occupancy for all residential dwellings. This will allow windows and doors to remain closed to help ensure that the indoor sound level limits of NPC-300 are met.

Ductwork for air intakes and exhausts connected to living spaces (excluding bathroom exhausts and laundry dryers) are required to be designed in accordance with Schedule "G" of the Agreement.

## 9.3 Acoustic Barriers

The outdoor amenity space on the 31<sup>st</sup> floor level will require a solid parapet with a height of 1.1 m above the finished roof level to mitigate noise from the ship sources. The extents of this solid parapet are shown in Figures 7.1 and 7.2.

## 9.4 Warning Clauses

The following warning clauses are recommended to be included in agreements of Offers of Purchase and Sale, lease/rental agreements, and condominium declarations for all residential dwellings of the Development:

**Class 4 Residential Warning Clause:** "Warning: This development has been classified as a Class 4 receptor under MECP noise guideline NPC-300. The noise limits for a Class 4 receptor in this MECP guideline are based on sensitive windows (such as to bedrooms) being closed. This dwelling unit has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed. Occupants are advised to close windows if they experience disturbance from noise outside the building."

**P&H General Warning Clause:** "Warning: Purchasers/tenants are advised that this development is in proximity to an industrial grain handling facility and flour mill on Pier 10 (the "P&H Facility") which operates 24 hours a day, 7 days a week. Activities include loading and unloading of ships, rail cars and trucks. There may be industrial emissions, such as noise, dust and odour, emanating from the P&H Facility that may be detectable within this development from time to time.

Notwithstanding the inclusion of certain mitigation features within this development to lessen potential noise, dust and odour impacts from the P&H Facility, from time-to-time noise from the P&H Facility is likely to be audible, odours may be unpleasant, and dust may be bothersome.

P&H advises that it will not be responsible for any complaints or claims, arising from any of the activities at or relating to the P&H Facility, property or operations thereon."

# 10. Conclusions

The key findings of this Study are summarized as follows:

- The Development is not expected to limit the ability of existing industries to continue to operate within the stationary noise requirements of NPC-300.
- Per the Agreement between P&H, WSC, and the City, the façade construction and ventilation of the Development will be designed to protect indoor living spaces from noise due to ship sources. Screening of noise due to ship sources will also be required to protect outdoor living areas.
- The potential risk noise nuisance from sources not subject of MECP approval is anticipated to be managed effectively through noise warning clauses and the City's liaison and complaint protocol.

Therefore, it is GHD's opinion that the proposed Block 16 development is feasible with respect to noise, and that noise should not limit the City from approving the Official Plan Amendment and Zoning By-Law Amendment to permit the high-rise concept of the development.

# 11. References

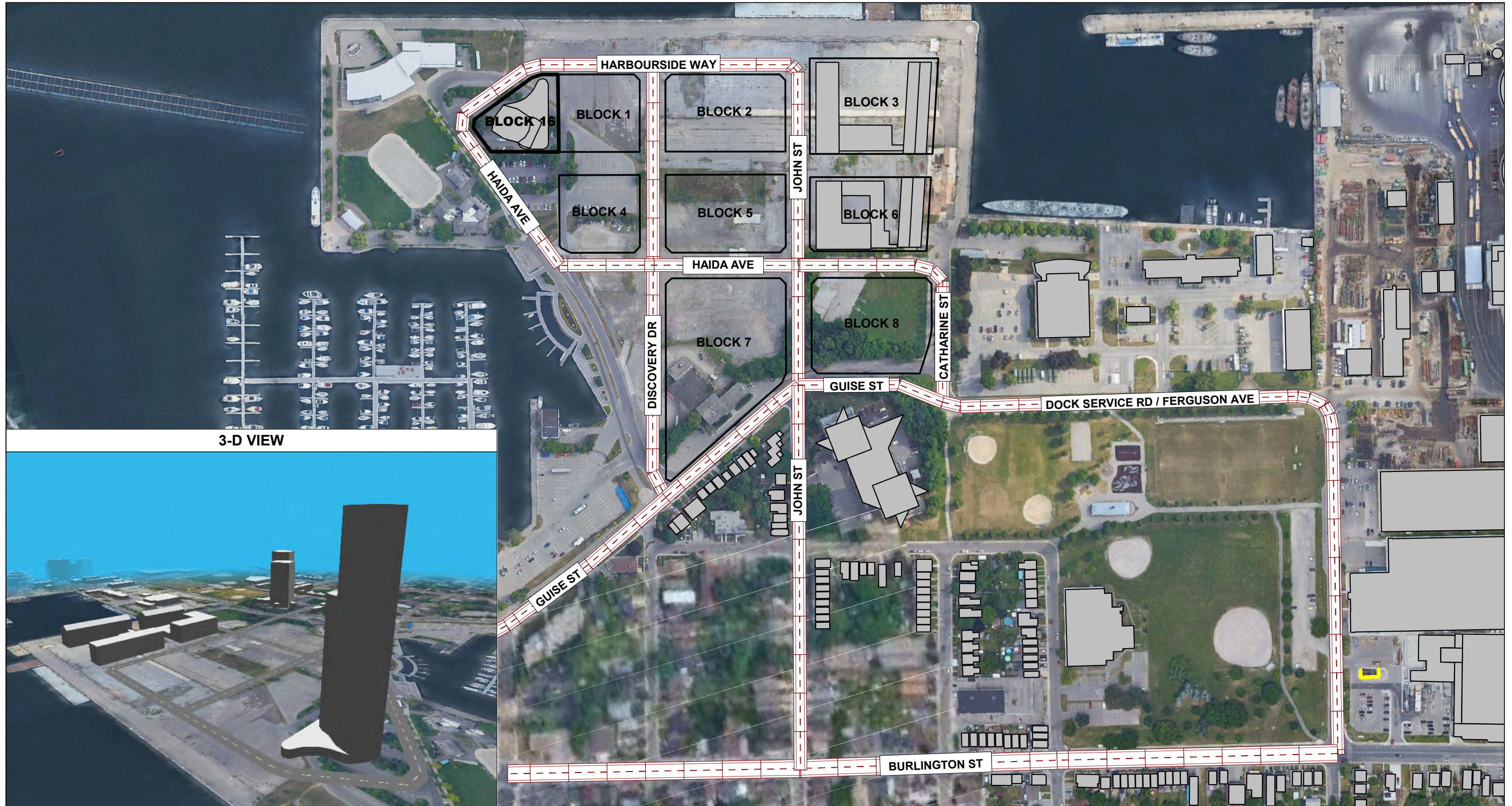
City of Hamilton By-Law No. 11-285 (Hamilton, 2017), *Noise Control By-Law*

Golder Associates Ltd. (Golder, August 2021), *Noise and Vibration Feasibility Study – Proposed Pier 8 Development – West Harbour, Hamilton, Ontario*

IBI Group (IBI, 2016), *Pier 7/8 Transportation Impact Study*

Ontario Ministry of Environment, Conservation and Parks (MECP, 1995), *Guideline D-6: Compatibility Between Industrial Facilities and Sensitive Land Uses*

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



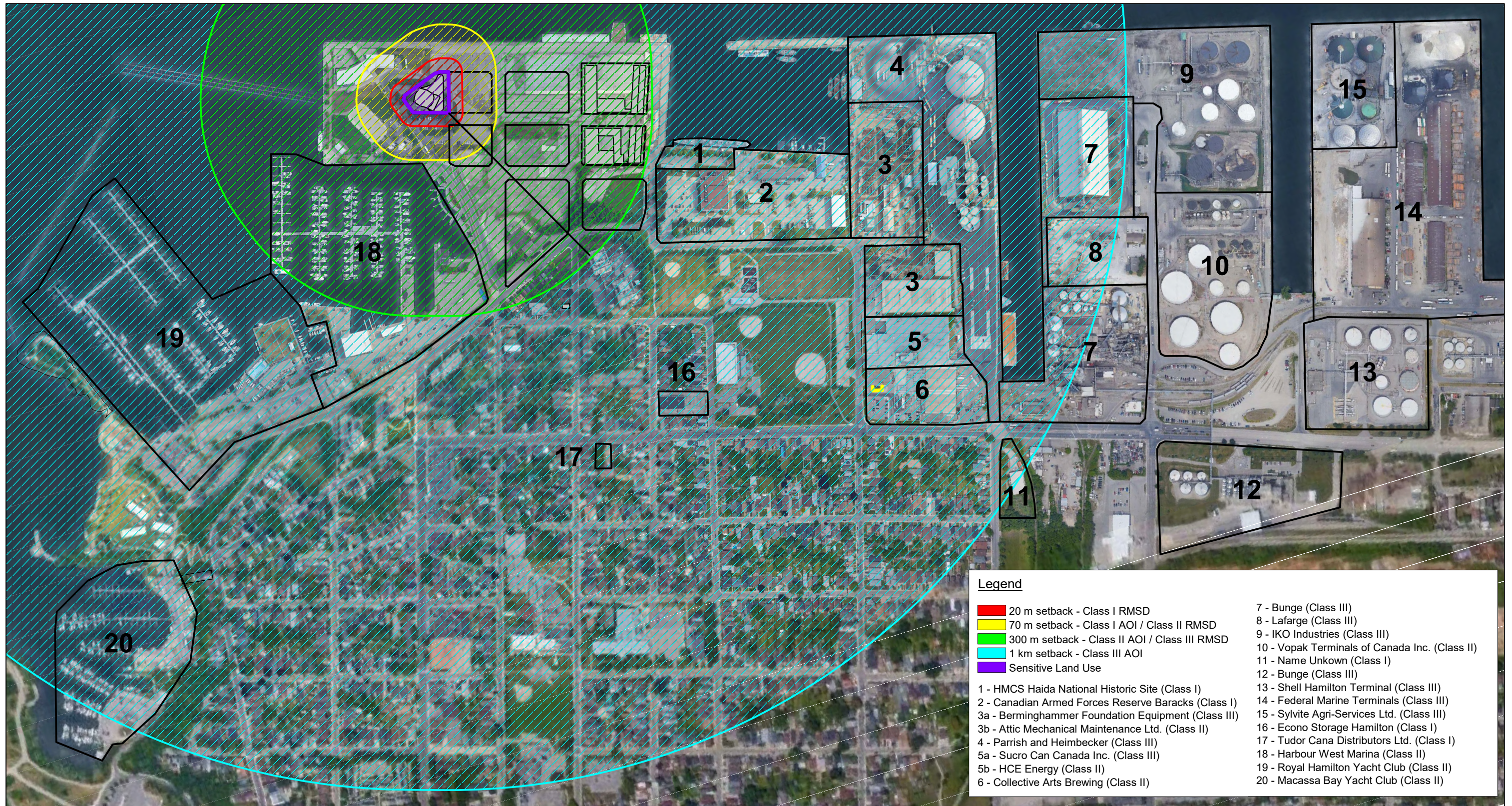
Source: Google Satellite



NOISE IMPACT STUDY  
 WATERFRONT SHORES CORPORATION  
 BLOCK 16 - PIER 8, HAMILTON, ONTARIO  
 KEY PLAN

11182471  
 27.10.2021

FIGURE 2.2



Source: Google Satellite

Notes:  
 RMSD = Recommended Minimum Separation Distance  
 AOI = Potential Area of Influence

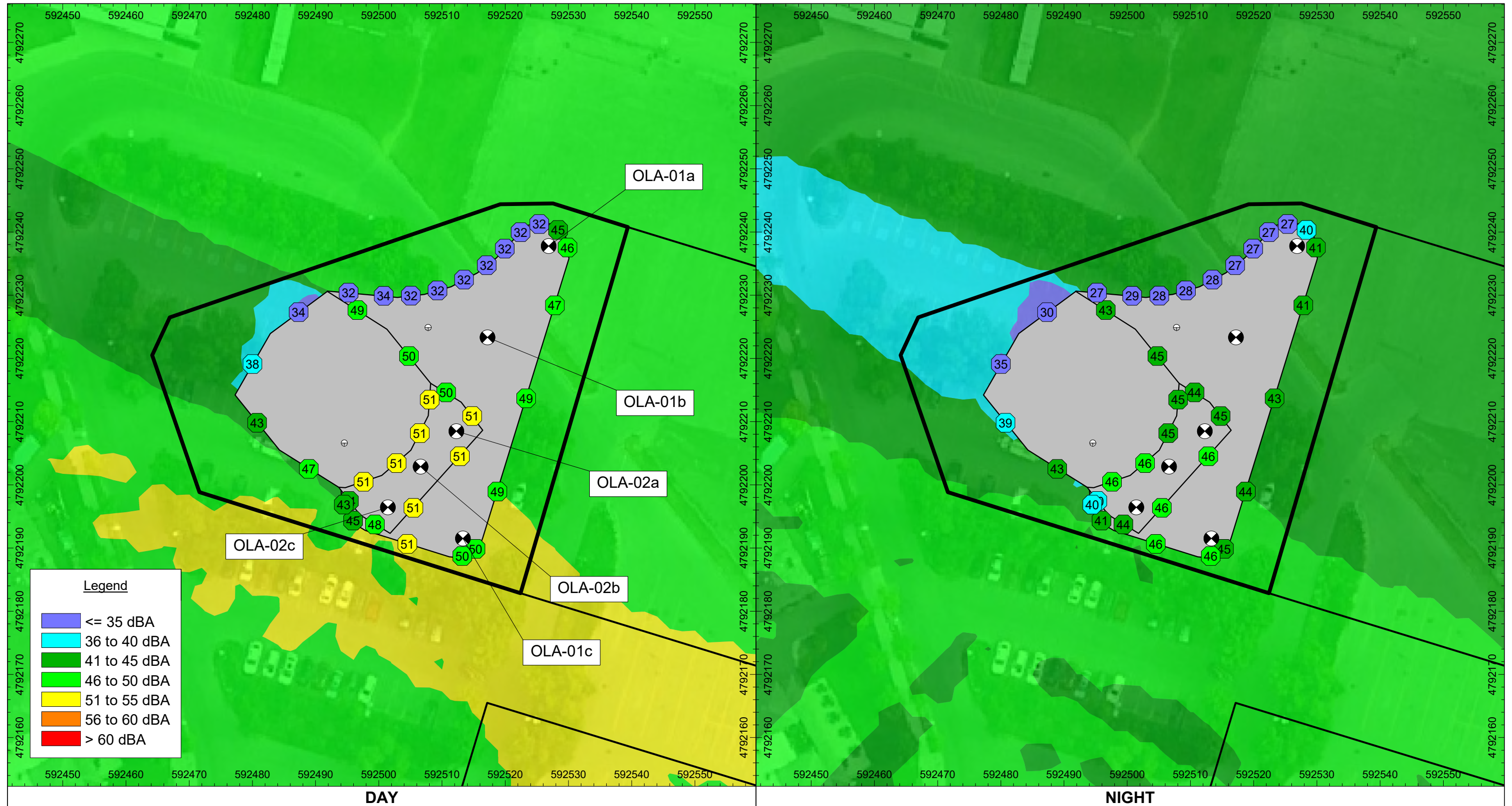


NOISE IMPACT STUDY  
 WATERFRONT SHORES CORPORATION  
 BLOCK 16 - PIER 8, HAMILTON, ONTARIO  
 GUIDELINE D-6 SETBACKS

11182471  
 27.10.2021

FIGURE 3.1





Source: Google Satellite

Notes:  
Sound level values presented above are in terms of 1-hour Leq

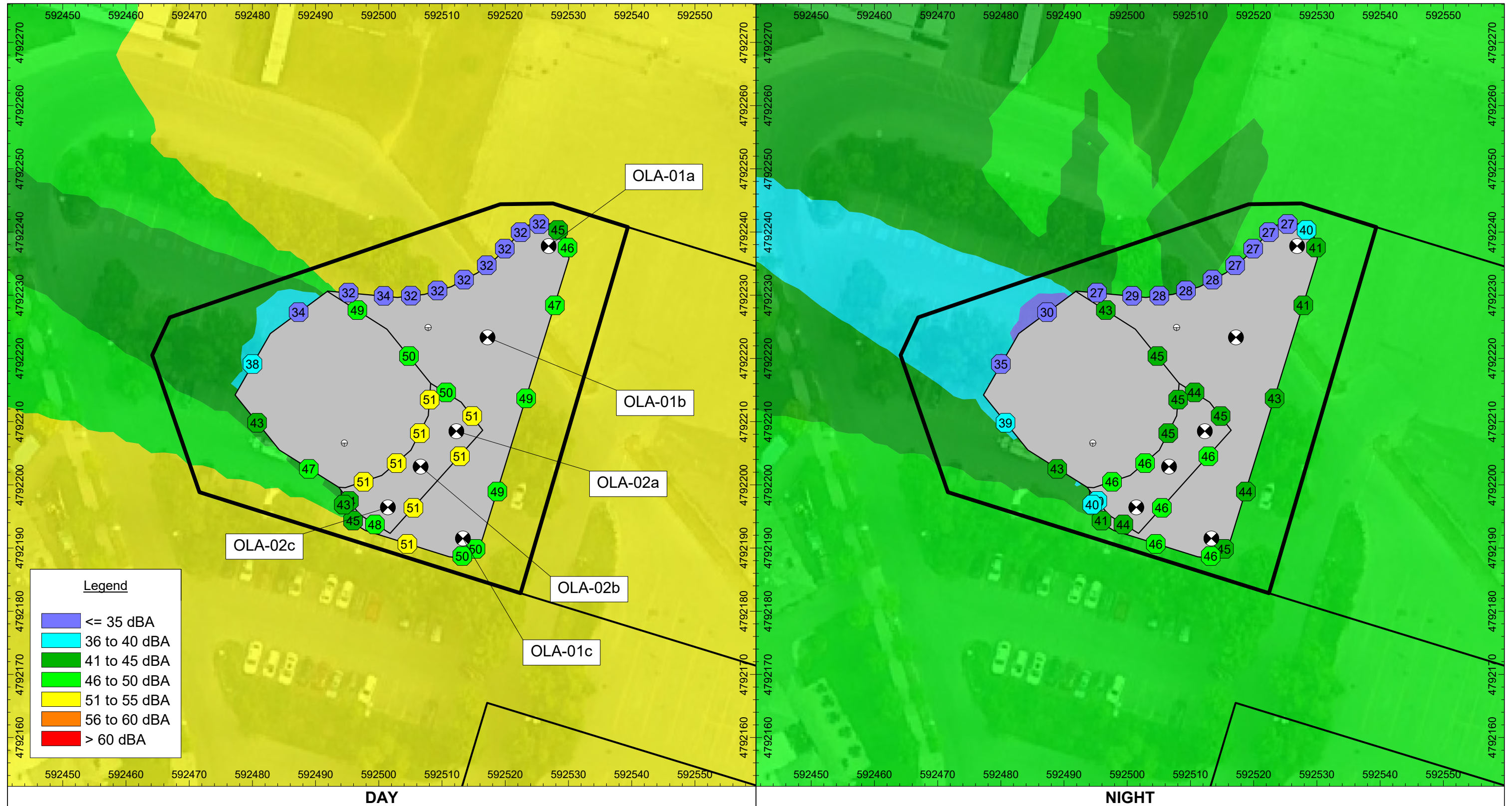


NOISE IMPACT STUDY  
WATERFRONT SHORES CORPORATION  
BLOCK 16 - PIER 8, HAMILTON, ONTARIO

STATIONARY NOISE LEVELS FROM NEARBY INDUSTRIES (16.5 m A.G.)

11182471  
27.10.2021

FIGURE 5.1



Source: Google Satellite



Notes:  
Sound level values presented above are in terms of 1-hour Leq

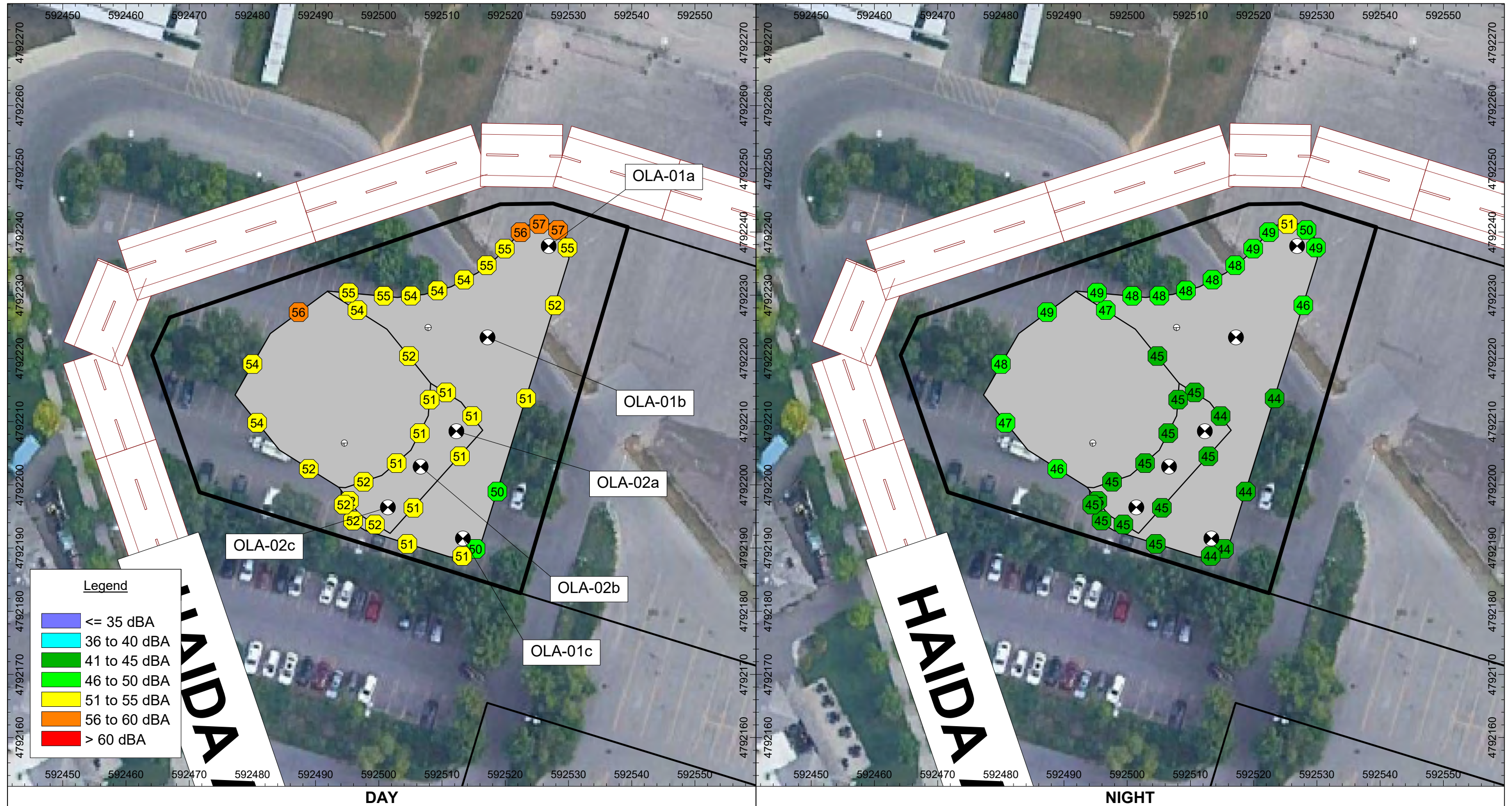


NOISE IMPACT STUDY  
WATERFRONT SHORES CORPORATION  
BLOCK 16 - PIER 8, HAMILTON, ONTARIO

STATIONARY NOISE LEVELS FROM NEARBY INDUSTRIES (70.5 m A.G.)

11182471  
27.10.2021

FIGURE 5.2



Source: Google Satellite



Notes:  
 Daytime sound level values in terms of 16-hour Leq (7:00 am to 11:00 pm)  
 Nighttime sound level values in terms of 16-hour Leq (11:00 pm to 7:00 am)

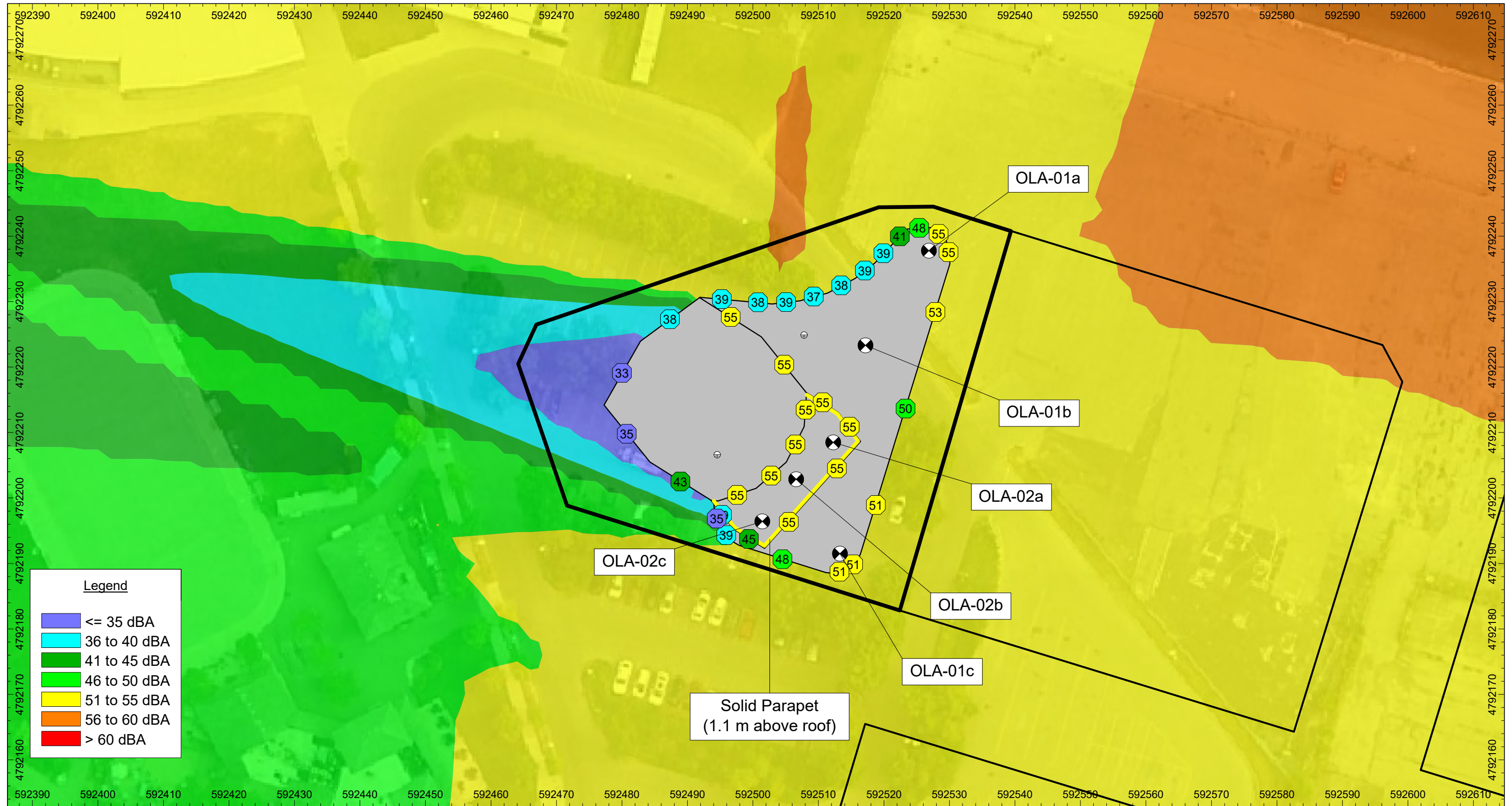


NOISE IMPACT STUDY  
 WATERFRONT SHORES CORPORATION  
 BLOCK 16 - PIER 8, HAMILTON, ONTARIO

FUTURE ROAD TRAFFIC SOUND LEVELS

11182471  
 27.10.2021

FIGURE 6.1



Source: Google Satellite

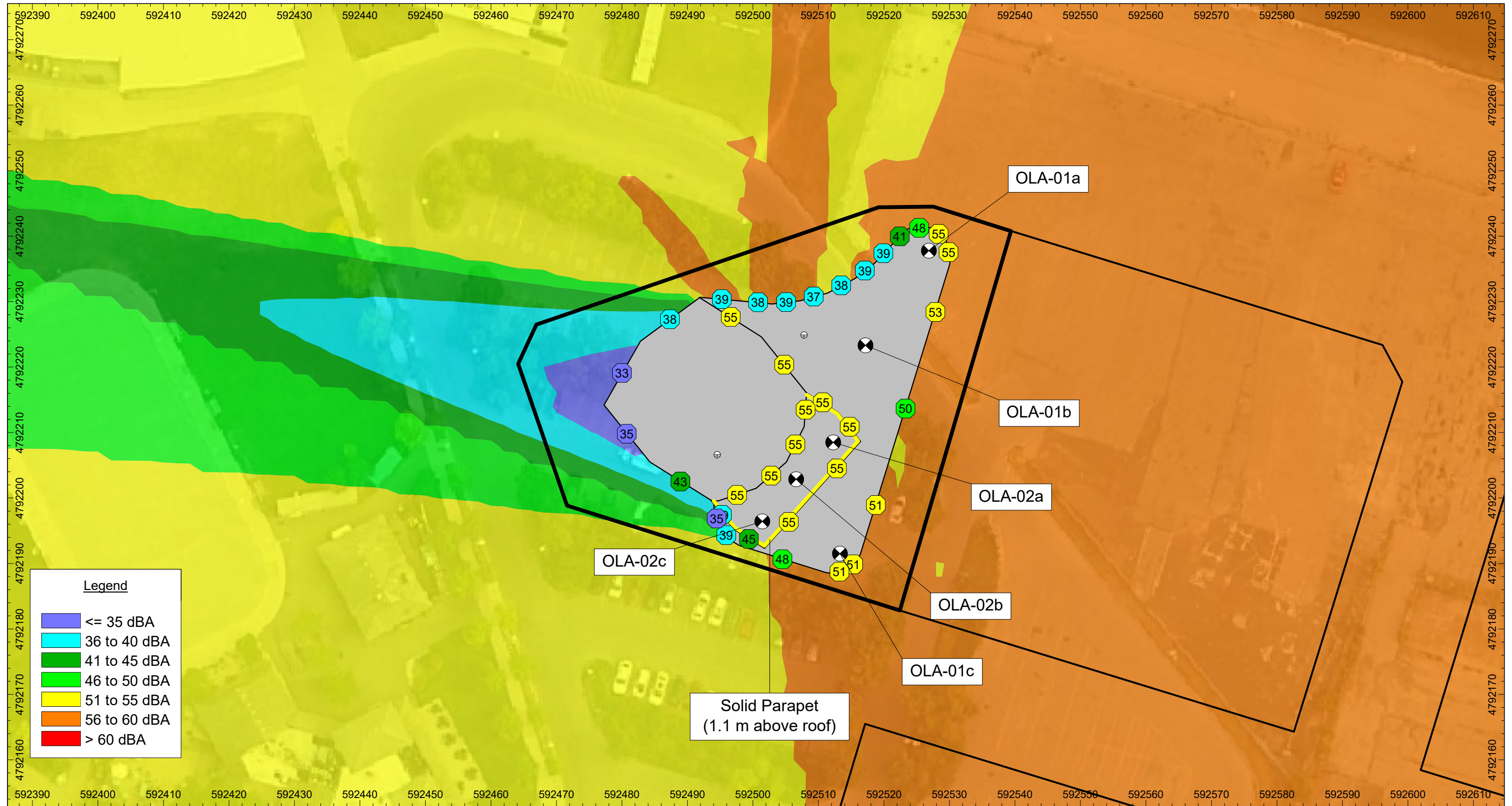


NOISE IMPACT STUDY  
 WATERFRONT SHORES CORPORATION  
 BLOCK 16 - PIER 8, HAMILTON, ONTARIO

NOISE LEVELS FROM SHIP SOURCES (16.5 m A.G.)

11182471  
 27.10.2021

FIGURE 7.1



Source: Google Satellite

Notes:  
Sound level values presented above are in terms of 1-hour Leq



NOISE IMPACT STUDY  
WATERFRONT SHORES CORPORATION  
BLOCK 16 - PIER 8, HAMILTON, ONTARIO

NOISE LEVELS FROM SHIP SOURCES (70.5 m A.G.)

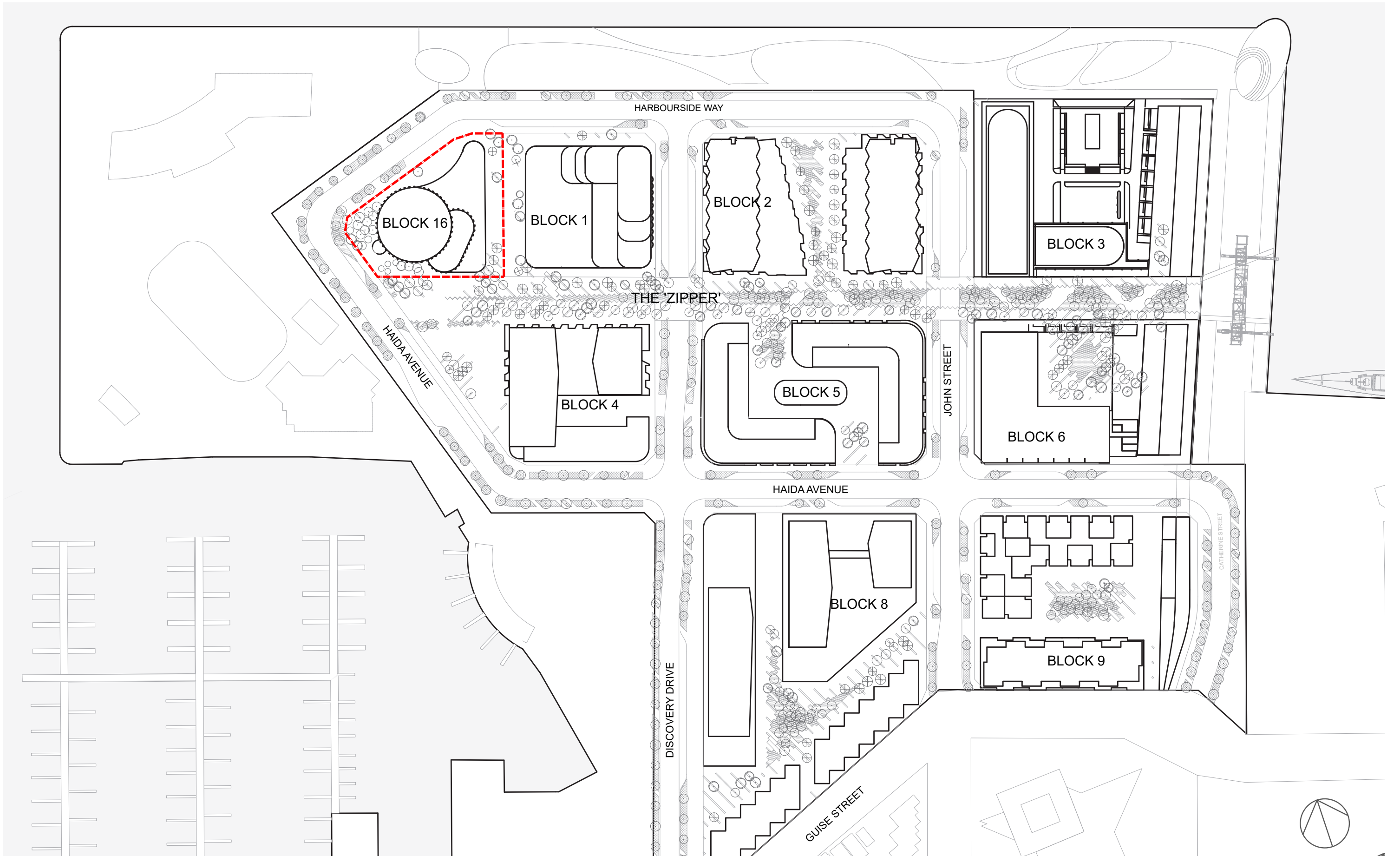
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27.10.2021

FIGURE 7.2

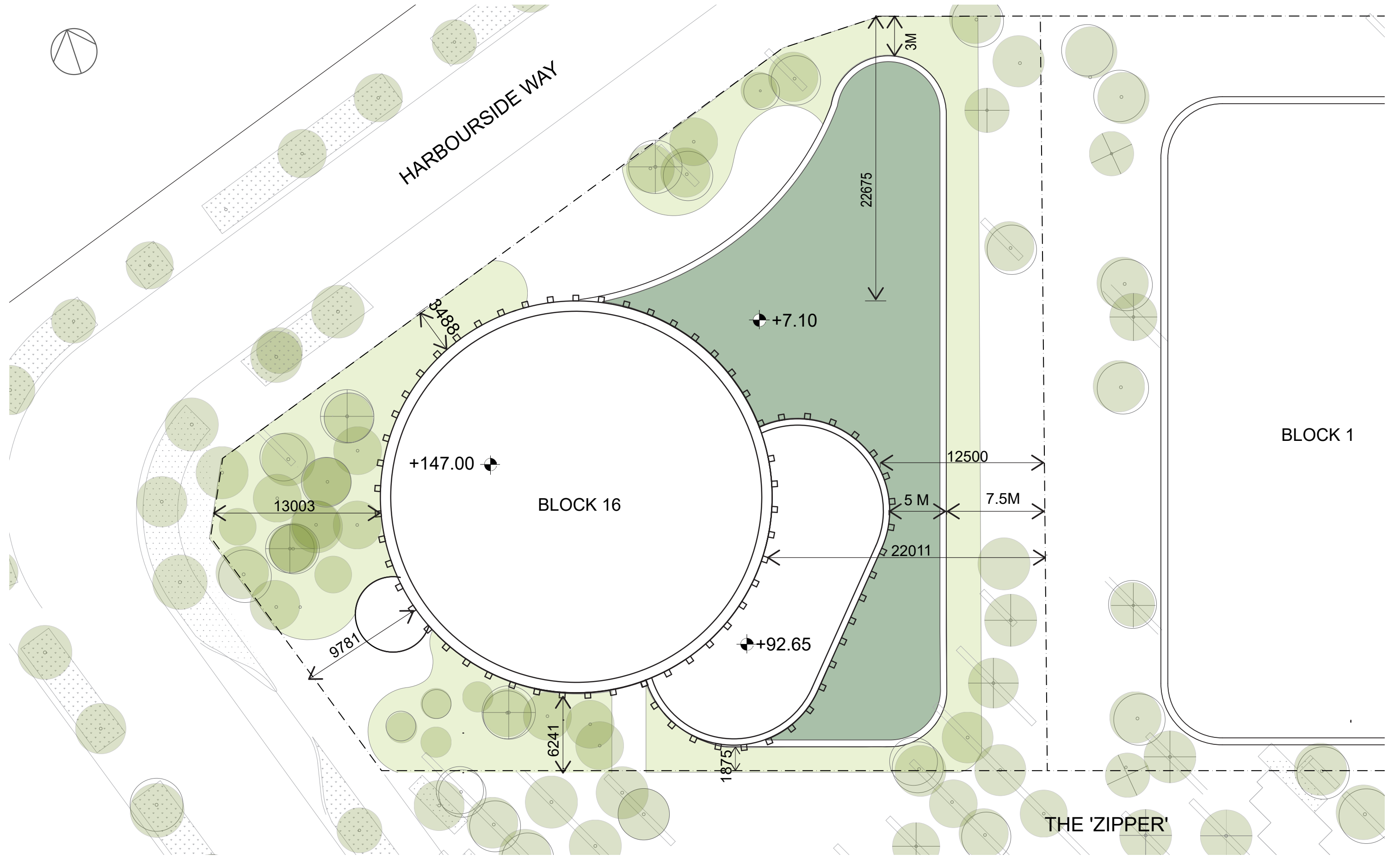
# Appendices

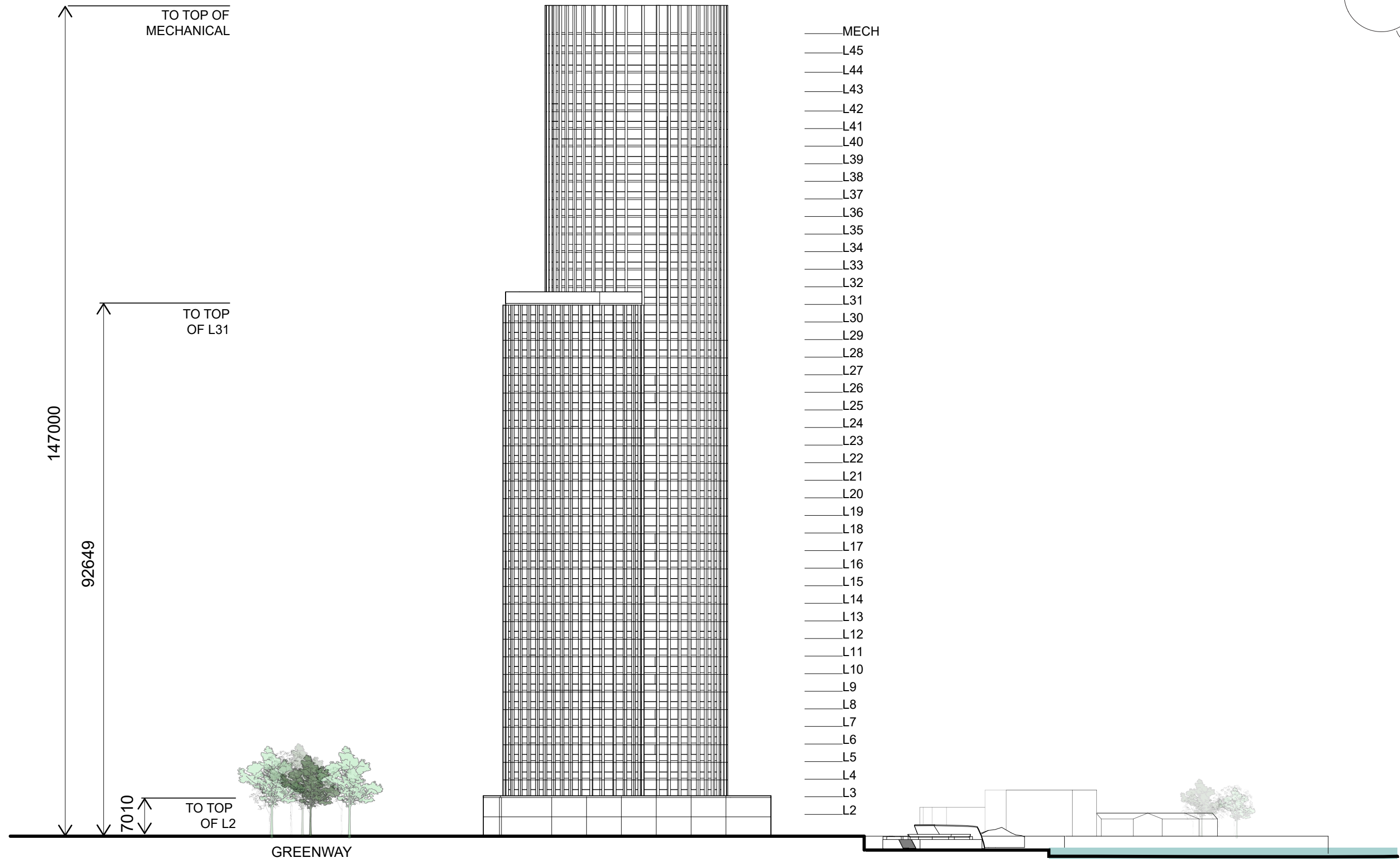
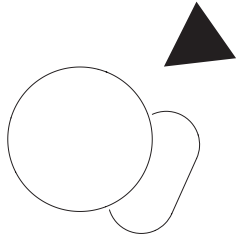
# **Appendix A**

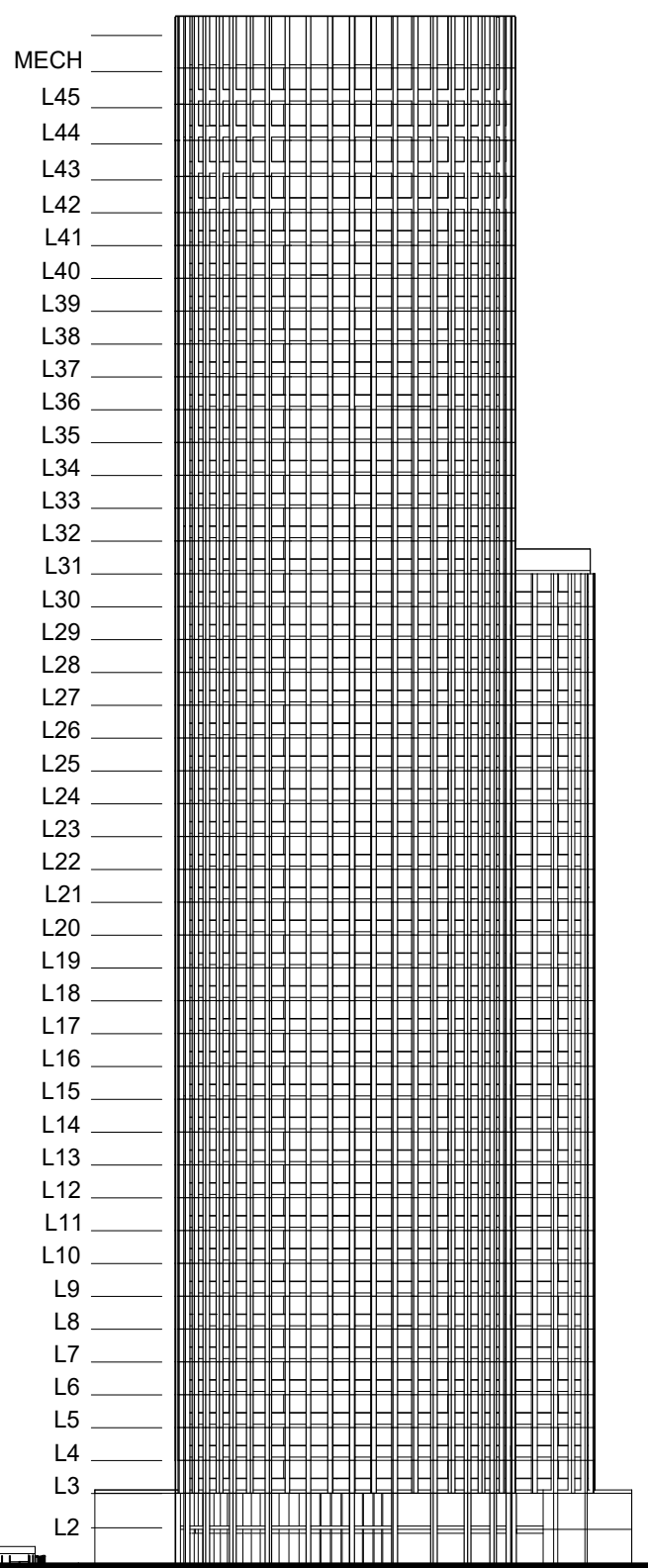
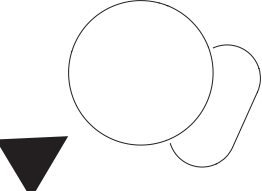
**Zoning Map and Concept Drawings**











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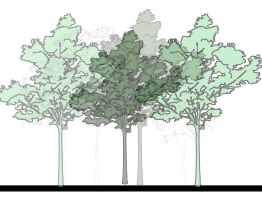
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TO TOP OF L2

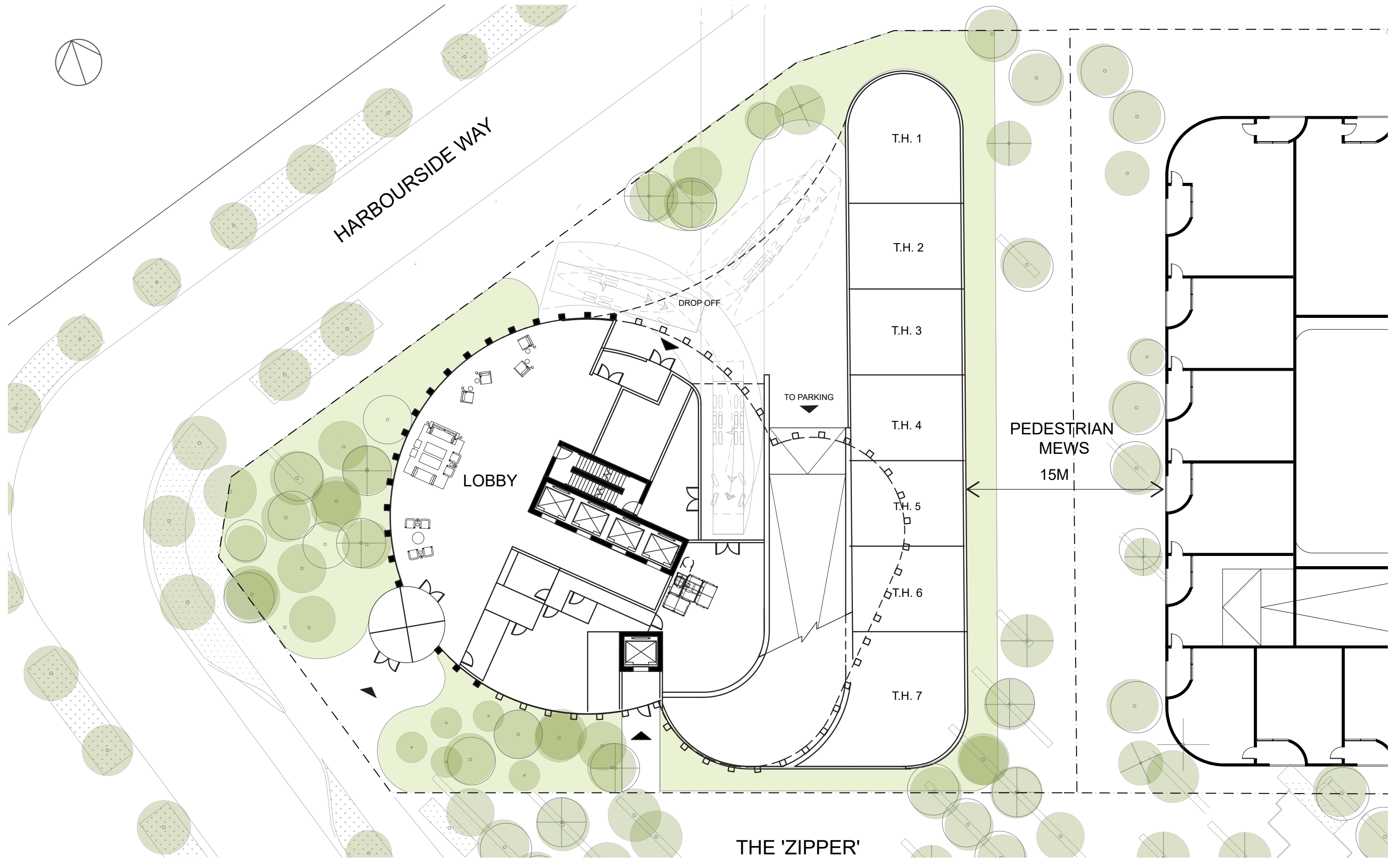
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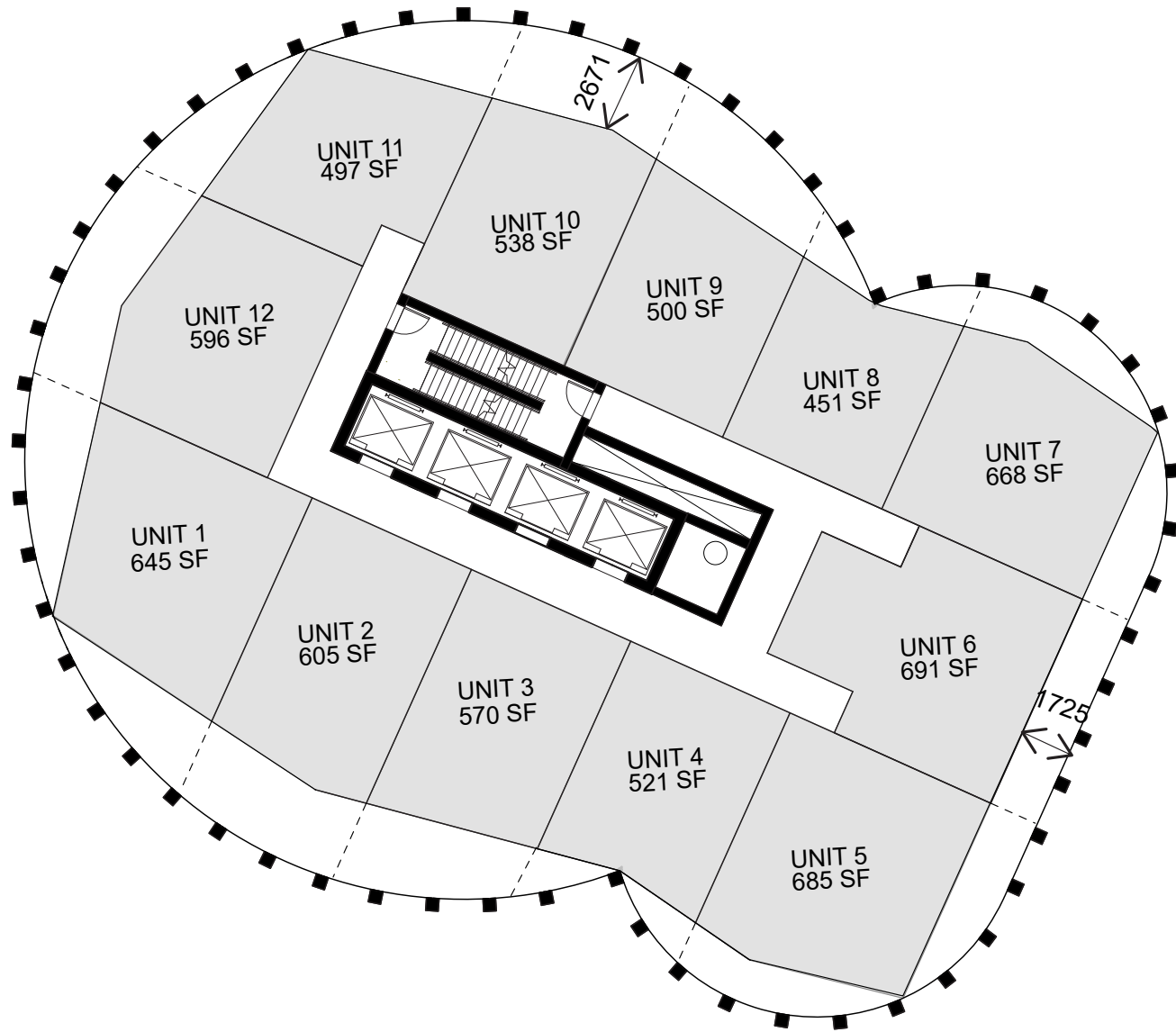
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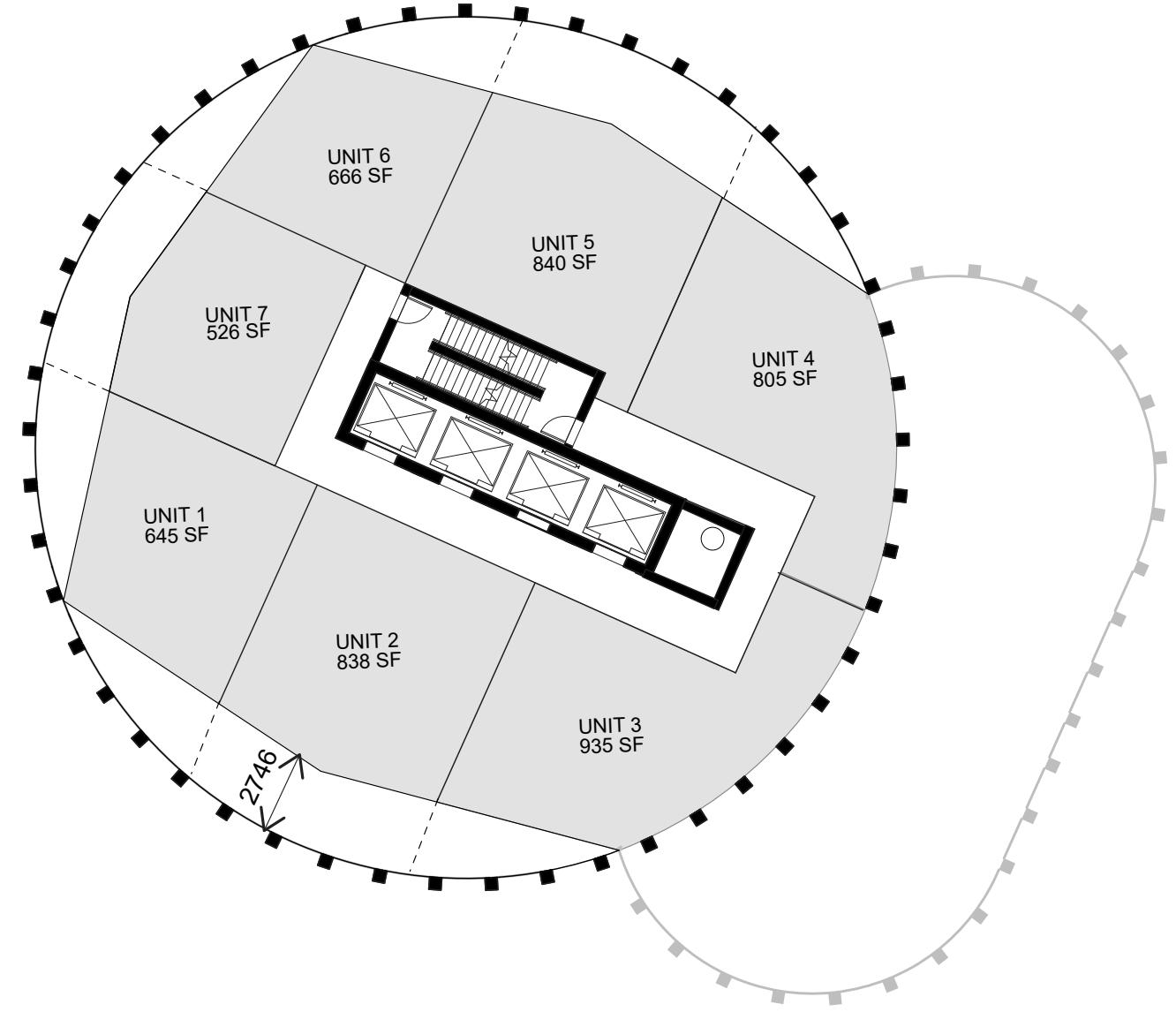
THE 'ZIPPER'



L3-L30  
FLOORPLATE SIZE  
802 SQM



L31-L45  
FLOORPLATE SIZE  
618 SQM





**Legend**

- Pier 8 Lands
- 1 KM Radius

**City of Hamilton Zoning By-Law No. 6593**

- Agricultural
- Institutional
- Park
- Commercial
- Conservation / Hazard Lands
- Downtown Central Business District
- Industrial/Industry
- Residential
- Open Space
- Planned
- Shipping And Navigation (Port Lands) Zone
- Utility
- Waterfront Mixed Use
- Waterfront Recreation

Paper Size ANSI B 0 60 120 180 240 Meters			<b>PIER 8 HAMILTON, ONTARIO</b>	Project No. 11182471 Revision No. - Date Oct 25, 2021
Map Projection: Transverse Mercator Horizontal Datum: North American 1983 Grid: NAD 1983 UTM Zone 17N			<b>ZONING MAP</b>	<b>FIGURE A.2</b>

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 Data source: City of Hamilton Zoning By-Law No. 6593, Accessed 2021, Google Earth Imagery, Date: 06/30/2018

# **Appendix B**

**Relevant MECP Industrial Noise  
Permits / Registrations**

Content Copy Of Original



Ministry of the Environment  
Ministère de l'Environnement

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 6968-8NMPM5

Issue Date: June 6, 2012

Vopak Terminals of Canada Inc.  
655 Victoria Ave North  
Hamilton, Ontario  
L8L 8G7

Site Location: 655 Victoria Avenue North  
Hamilton City,  
L8L 8G7

*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:*

A bulk storage facility for fuels, asphalt, organic and inorganic chemicals consisting of the following processes and support units:

- tank farms;
- storage; and
- shipping and receiving

including the *Equipment* and any other ancillary and support processes and activities, operating at a **Facility Production Limit of up to 38,900 employee-hours per year** exhausting to the atmosphere as described in the *ESDM Report*.

*For the purpose of this environmental compliance approval, the following definitions apply:*

1. "*Acceptable Maximum Ground Level Concentration*" means a concentration accepted by the *Ministry*, as described in the *Guide to Applying for Approval (Air & Noise)*, for a *Compound of Concern* listed in the *Original ESDM Report* that has no *Ministry Point of Impingement Limit* and no *Jurisdictional Screening Level*, or the concentration at a *Point of Impingement* exceeds the *Jurisdictional Screening Level*.
2. "*Air Standards Manager*" means the Manager, Human Toxicology and Air Standards Section, Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Human Toxicology and Air Standards Section, Standards Development Branch, as those duties relate to the conditions of this *Approval*.
3. "*Approval*" means this entire Approval document and any Schedules to it, including the application and *Supporting Documentation*.
4. "*Basic Comprehensive User Guide*" means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended.
5. "*Company*" means **Vopak Terminals of Canada 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*.



6. "*Compound of Concern*" means a contaminant that, based on generally available information, may be emitted to the atmosphere in a quantity from the *Facility* that is non-negligible in accordance with section 8 of *O. Reg. 419/05* either in comparison to the relevant *Ministry Point of Impingement Limit* or if a *Ministry Point of Impingement Limit* is not available for the compound then, based on generally available toxicological information, the compound may cause an adverse effect as defined by the *EPA* at a *Point of Impingement*.
7. "*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*.
8. "*Director*" means a person appointed by the Minister pursuant to section 5 of the *EPA*.
9. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located.
10. "*Emission Summary Table*" means the most updated table contained in the *ESDM Report*, which is prepared in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document* listing the appropriate *Point of Impingement* concentration for each *Compound of Concern* from the *Facility* and providing comparison to the corresponding *Ministry Point of Impingement Limit* or *Maximum Concentration Level Assessment*, or *Jurisdictional Screening Level*.
11. "*Environmental Assessment Act*" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended.
12. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended.
13. "*Equipment*" means equipment or processes described in the *ESDM Report*, this *Approval* and in the *Supporting Documentation* referred to herein and any other equipment or processes.
14. "*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*.
15. "*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*, is prepared after the issuance of this *Approval* in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document* by the *Company* or its consultant, and is periodically updated to incorporate all *Modifications* to and changes on discharge from the *Facility*, as required by the Documentation Requirements conditions of this *Approval*.
16. "*Facility*" means the entire operation located on the property where the *Equipment* is located.
17. "*Facility Production Limit*" means the production limit placed on the main product(s) or raw materials used by the *Facility* that represents the design capacity of the *Facility* and assists in the definition of the operations approved by the *Director*.
18. "*Jurisdictional Screening Level*" means a screening level for a *Compound of Concern* that is listed in the Ministry publication titled "Jurisdictional Screening Level (JSL) List, A Screening Tool for Ontario Regulation 419: Air Pollution - Local Air Quality", dated February 2008, as amended.
19. "*Log*" means the up-to-date log that is used to track all *Modifications* to the *Facility* since the date of this *Approval* as required by the Documentation Requirements conditions of this *Approval*.
20. "*Maximum Concentration Level Assessment*" means the Maximum Concentration Level Assessment for the purposes of an *Approval*, described in the *Basic Comprehensive User Guide*, prepared by a *Toxicologist* using currently available toxicological information, that

demonstrates that the concentration at any *Point of Impingement* for a *Compound of Concern* that does not have a *Ministry Point of Impingement Limit* is not likely to cause an adverse effect as defined by the *EPA*. The concentration at *Point of Impingement* for a *Compound of Concern* must be calculated in accordance with *O. Reg. 419/05*.

21. "*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.

22. "*Ministry Point of Impingement Limit*" means the applicable Standard listed in Schedule 2 or 3 of *O.Reg. 419/05* or a limit listed in the *Ministry* publication titled "Summary of Standards and Guidelines to support Ontario Regulation 419: Air Pollution - Local Air Quality (including Schedule 6 of *O. Reg. 419* on Upper Risk Thresholds)", dated February 2008, as amended.

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 atmosphere or discharge or alter noise or vibration emissions from the *Facility*.

24. "*O. Reg. 419/05*" means the Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended.

25. "*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 Alyssa Ambrose and Paul Fleischer of O'Connor Associates Environmental Inc. and dated July 05, 2010 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval*.

26. "*Performance Limits*" means the performance limits specified in Condition 3.2 of this *Approval* titled Performance Limits.

27. "*Point of Impingement*" has the same meaning as in section 2 of *O. Reg. 419/05*.

28. "*Procedure Document*" means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2009, as amended.

29. "*Processes with Significant Environmental Aspects*" means the *Equipment* which, during regular operation, would discharge a contaminant or contaminants into the atmosphere at an amount which is not considered as negligible in accordance with section 8 of *O. Reg. 419/05* and the *Procedure Document*.

30. "*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.

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-232*" means the *Ministry* Publication NPC-232, "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)", October, 1995, as amended.

33. "*Schedules*" means the following schedules attached to this *Approval* and forming part of this *Approval* namely:

#### Schedule A - Supporting Documentation

34. "*Supporting Documentation*" means the documents listed in Schedule A of this *Approval* which forms part of this *Approval*.

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 the *Compound of Concern* in question.

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 that must be submitted annually to the *Ministry* as required by the section of this *Approval* titled Reporting Requirements.

*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. 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*

### 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 alterations, extensions or replacements are approved in this *Approval* if the future alterations, extensions or replacements are *Modifications* to the *Facility* that:

(a) are within the scope of the intended 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*.

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*. The *Company* shall operate any *Equipment with Specific Operational Limits* approved by this *Approval* in accordance with the *Original ESDM Report* and Conditions in this *Approval*; 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 February 01, 2020, 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* that incorporate all *Modifications* made to the *Facility* as of the date of the renewal application and an Acoustic Assessment Report, if required, in the application as supporting information.

### 3. REQUEST FOR MAXIMUM CONCENTRATION LEVEL ASSESSMENT AND PERFORMANCE LIMITS

#### 3.1 REQUEST FOR MAXIMUM CONCENTRATION LEVEL ASSESSMENT

3.1.1 If the *Company* proposes to make a *Modification* to the *Facility*, the *Company* shall determine if the proposed *Modification* will result in:

- (a) a discharge of a *Compound of Concern* that was not previously discharged; or
- (b) an increase in the concentration at a *Point of Impingement* of a *Compound of Concern*.

3.1.2 If a proposed *Modification* mentioned in Condition 3.1.1 will result in the discharge of a *Compound of Concern* that was not previously discharged, the *Company* shall submit a *Maximum Concentration Level Assessment* to the *Director* for review by the *Air Standards Manager* in the following circumstances:

- (a) The *Compound of Concern* does not have a *Ministry Point of Impingement Limit* or a *Jurisdictional Screening Level*.
- (b) The *Compound of Concern* does not have a *Ministry Point of Impingement Limit* and the concentration at a *Point of Impingement* will exceed the *Jurisdictional Screening Level*.
- (c) Prior to the proposed *Modification*, a contaminant was discharged in a negligible amount and the proposed *Modification* will result in the discharge of the contaminant being considered a *Compound of Concern* and the *Compound of Concern* does not have a *Ministry Point of Impingement Limit* or a *Jurisdictional Screening Level*.
- (d) Prior to the proposed *Modification*, a contaminant was discharged in a negligible amount and the proposed *Modification* will result in the discharge of the contaminant being considered a *Compound of Concern*. Additionally, the *Compound of Concern* does not have a *Ministry Point of Impingement Limit* and the concentration at a *Point of Impingement* will exceed the *Jurisdictional Screening Level*.

3.1.3 If a proposed *Modification* mentioned in Condition 3.1.1 will result in an increase in the concentration at a *Point of Impingement* of a *Compound of Concern*, the *Company* shall submit a *Maximum Concentration Level Assessment* to the *Director* for review by the *Air Standards Manager* in the following circumstances:

- (a) The *Compound of Concern* does not have a *Ministry Point of Impingement Limit* or a *Jurisdictional Screening Level* and the concentration at a *Point of Impingement* will exceed the *Acceptable Maximum Ground Level Concentration*.
- (b) The *Compound of Concern* does not have a *Ministry Point of Impingement Limit* or a *Jurisdictional Screening Level* and the concentration at a *Point of Impingement* will exceed the most recently accepted *Maximum Concentration Level Assessment* submitted under Condition 3.1.2 or this Condition.
- (c) The *Compound of Concern* does not have a *Ministry Point of Impingement Limit* and the concentration at a *Point of Impingement* will exceed the *Jurisdictional Screening Level* and the *Acceptable Maximum Ground Level Concentration*.
- (d) The *Compound of Concern* does not have a *Ministry Point of Impingement Limit* and the concentration at a *Point of Impingement* will exceed the *Jurisdictional Screening Level* and the most recently accepted *Maximum Concentration Level Assessment* submitted under Condition 3.1.2 or this Condition.
- (e) The *Compound of Concern* does not have a *Ministry Point of Impingement Limit*, *Acceptable Maximum Ground Level Concentration* or a *Maximum Concentration Level Assessment* and the concentration at a *Point of Impingement* will exceed the *Jurisdictional Screening Level*.

3.1.4 Subject to the Operational Flexibility set out in Condition 2 of this *Approval*, the *Company* may make the *Modification* if the submission of a *Maximum Concentration Level Assessment* under Condition 3.1.2 or 3.1.3 is not required.

3.1.5 A *Company* that is required to submit an assessment under Condition 3.1.2 or 3.1.3 shall submit the assessment at least thirty (30) days before the proposed *Modification* occurs.

3.1.6 The *Ministry* shall provide to the *Company* written confirmation of the receipt of the assessment under Condition 3.1.2 or 3.1.3.

3.1.7 If the *Ministry* notifies the *Company* that it does not accept the assessment submitted under Condition 3.1.2 or 3.1.3, the *Company* shall:

(a) revise and resubmit the assessment; or

(b) notify the *Ministry* that the *Company* will not be modifying the *Facility*.

3.1.8 The re-submission under Condition 3.1.7(a) is considered by the *Ministry* as a new submission.

3.1.9 If an assessment is submitted under Condition 3.1.2, the *Company* shall not modify the *Facility* unless the *Ministry* accepts the assessment.

3.1.10 If an assessment is submitted under Condition 3.1.3, the *Company* shall not modify the *Facility* unless the *Ministry*:

(a) accepts the assessment; or

(b) does not respond to the *Company* with respect to the assessment within thirty (30) days from the date of the written confirmation mentioned in Condition 3.1.6.

## 3.2. **PERFORMANCE LIMITS**

3.2.1 Subject to Condition 3.2.2, the *Company* shall, at all times, ensure that all *Equipment* that is a source of a *Compound of Concern* is operated to comply with the following *Performance Limits*:

(a) for a *Compound of Concern* that has a *Ministry Point of Impingement Limit*, the maximum concentration of that *Compound of Concern* at any *Point of Impingement* shall not exceed the corresponding *Ministry Point of Impingement Limit*;

(b) for a *Compound of Concern* that has an *Acceptable Maximum Ground Level Concentration* and no *Maximum Concentration Level Assessment*, the maximum concentration of that *Compound of Concern* at any *Point of Impingement* shall not exceed the corresponding *Acceptable Maximum Ground Level Concentration*;

(c) for a *Compound of Concern* that has a *Maximum Concentration Level Assessment*, the maximum concentration of that *Compound of Concern* at any *Point of Impingement* shall not exceed the most recently accepted corresponding *Maximum Concentration Level Assessment*.

3.2.2 If the *Company* has modified the *Facility* and was not required to submit a *Maximum Concentration Level Assessment* with respect to a *Compound of Concern* under Condition 3.1.2 or 3.1.3, the *Company* shall, at all times, ensure that all *Equipment* that is a source of the *Compound of Concern* is operated such that the maximum concentration of the *Compound of Concern* shall not exceed the concentration listed for the *Compound of Concern* in the most recent version of the *ESDM Report*. *ESDM Reports* are required to be updated to reflect all *Modifications* under Condition 4.1(a).

3.2.3 The *Company* shall, at all times, ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-205* or *Publication NPC-232*.

3.2.4 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. **DOCUMENTATION REQUIREMENTS**

4.1 The *Company* shall, at all times, maintain documentation that describes the current operations of

the *Facility*, including but not limited to:

(a) a current *ESDM Report* that demonstrates compliance with the *Performance Limits* for the *Facility* regarding all *Compounds of Concern* and reflects all *Modifications* made at the *Facility*;

(b) an up-to-date *Log* that describes each *Modification* to the *Facility*; and

(c) a record of the changes to the *ESDM Report* that documents how each *Modification* is in compliance with the *Performance Limits*.

4.2 The *Company* shall, during regular business hours, make the current *Emission Summary Table* available for inspection at the *Facility* by any interested member of the public.

4.3 Subject to Condition 4.5, the *Company* shall prepare and complete no later than August 15 of each year documentation that describes the activities undertaken at the *Facility* in the previous calendar year, including but not limited to:

(a) a list of all *Compounds of Concern* for which a *Maximum Concentration Level Assessment* was submitted to the *Director* for review by the *Air Standards Manager* pursuant to Condition 3.1.2 or 3.1.3 of this *Approval*;

(b) if the *Company* has modified the *Facility* and was not required to submit a *Maximum Concentration Level Assessment* with respect to a *Compound of Concern* under Condition 3.1.2 or 3.1.3, a list and concentration level of all such *Compounds of Concern*;

(c) a review of any changes to *Ministry Point of Impingement Limits* that affect any *Compounds of Concern* emitted from the *Facility*; and

(d) a table of the changes in the emission rate of any *Compound of Concern* and the resultant increase or decrease in the *Point of Impingement* concentration reported in the *ESDM Report*.

4.4 Subject to Condition 4.5, the *Company* shall, at all times, maintain the documentation described in Condition 4.3.

4.5 Conditions 4.3 and 4.4 do not apply if Condition 2.1 has expired.

4.6 The *Company* shall, within three (3) months after the expiry of Condition 2.1 of this *Approval*, update the *ESDM Report* such that it describes the *Facility* as it was at the time that Condition 2.1 of this *Approval* expired.

## **5. REPORTING REQUIREMENTS**

5.1 Subject to Condition 5.2, the *Company* shall provide the *Ministry* and the *Director* no later than August 15 of each year, a *Written Summary Form* that shall include the following:

(a) a declaration that 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* that took place in the previous calendar year that resulted in a change in the previously calculated concentration at the *Point of Impingement* for any *Compound of Concern*.

5.2 Condition 5.1 does not apply if Condition 2.1 has expired.

## **6. OPERATION AND MAINTENANCE**

6.1 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 emission; and
- (f) procedures for record keeping activities relating to the operation and maintenance programs.

6.2 The *Company* shall ensure that all *Processes with Significant Environmental Aspects* are operated and maintained at all times in accordance with this *Approval*, the operating procedures and maintenance programs.

## **7. COMPLAINTS RECORDING PROCEDURE**

7.1 If at any time, the *Company* receives any environmental complaints from the public regarding the operation of the *Equipment* approved by this *Approval*, the *Company* shall respond to these complaints according to the following procedure:

- (a) the *Company* shall record and number each complaint, either electronically or in a log book, and 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) the *Company*, upon notification of a complaint, shall initiate appropriate steps to determine all possible causes of the complaint, and shall proceed to take the necessary actions to appropriately deal with the cause of the subject matter of the complaint; and
- (c) the *Company* shall complete and retain on-site a report written within one (1) week of the complaint date, listing the actions taken to appropriately deal with the cause of the subject matter of the complaint and any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents.

## **8. RECORD KEEPING REQUIREMENTS**

8.1 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.

8.2 The *Company* shall retain, for a minimum of seven (7) years from the date of their creation, except as noted below, all reports, records and information described in this *Approval* and shall include but not be limited to:

- (a) If the *Company* has updated the *ESDM Report* in order to comply with Condition 4.1(a) of this *Approval*, a copy of each new version of the *ESDM Report*;
- (b) supporting information used in the emission rate calculations performed in the *ESDM Reports* to document compliance with the *Performance Limits* (superseded information must be retained for a period of three (3) years after *Modification*);
- (c) the *Log* that describes each *Modification* to the *Facility*;
- (d) all documentation prepared in accordance with Condition 4.3 of this *Approval*;
- (e) copies of any *Written Summary Forms* provided to the *Ministry* under Condition 5.1 of this *Approval*;

- (f) the operating procedures and maintenance programs, including records on the maintenance, repair and inspection of the *Equipment* related to all *Processes with Significant Environmental Aspects*; and
- (g) the complaints recording procedure, including records related to all environmental complaints made by the public as required by Condition 7.1 of this *Approval*.

## **9. REVOCATION OF PREVIOUS APPROVALS**

9.1 This *Approval* replaces and revokes all Certificates of Approval (Air) issued under section 9 of the EPA to the *Facility* and dated prior to the date of this *Approval*.

## **SCHEDULE A**

### ***Supporting Documentation***

(a) Application dated June 23, 2010, signed by Melanie Sering and submitted by the *Company* for a Certificate of Approval (Air & Noise);

(b) Emission Summary and Dispersion Modelling Report, dated July 05, 2010; and email updates provided by Phil Romeril, O'Connor Associates Environmental Inc. on August 09, October 11 and November 18, 2011.

*The reasons for the imposition of these terms and conditions are as follows:*

### **GENERAL**

Condition No. 1 is included to require the *Approval* holder to build, operate and maintain the *Facility* in accordance with the *Supporting Documentation* considered by the *Director* in issuing this *Approval*.

### **LIMITED OPERATIONAL FLEXIBILITY, REQUEST FOR MAXIMUM CONCENTRATION LEVEL ASSESSMENT AND PERFORMANCE LIMITS**

Conditions No. 2 and 3 are included to limit and define the *Modifications* permitted by this *Approval*, and to set out the circumstances in which the *Company* shall submit a *Maximum Concentration Level Assessment* 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**

Condition No. 4 is included to require the *Company* to maintain ongoing documentation that demonstrates compliance with the *Performance Limits* 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* that describes the *Facility* at all times and make the *Emission Summary Table* from that report available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the *Facility*.

### **REPORTING REQUIREMENTS**

Condition No. 5 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**

Condition No. 6 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 PROCEDURE**

Condition No. 7 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**

Condition No. 8 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* is necessary.

## **REVOCAION OF PREVIOUS APPROVALS**

Condition No. 9 is included to identify that this *Approval* replaces all Section 9 Certificate(s) of Approval that have been previously issued for this *Facility*.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 7338-67ALSC issued on January 17, 2005.**

*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  
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) 212-6349, Fax: (416) 314-4506 or [www.ert.gov.on.ca](http://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](http://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 6th day of June, 2012

Ian Greason, P.Eng.  
Director  
appointed for the purposes of Part II.1 of  
the *Environmental Protection Act*

BS/

c: District Manager, MOE Hamilton - District

Alyssa Ambrose/ Paul Fleisher, O'Connor Associates Environmental Inc.



Ministry of the Environment, Conservation and Parks  
Operations Division

## Confirmation of Registration

**Registration Number: R-010-8113138778**

**Version Number: 001**

**Date Registration Filed: Apr 24, 2021 14:48:56 PM**

Dear Sir/Madam,

SUCRO CAN CANADA INC.

560 FERGUSON AVENUE  
HAMILTON ON L8L 4Z9

You have registered, in accordance with Section 20.21(1) (a) of the *Environmental Protection Act*, the use, operation, construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing that is located at the facility noted below, or the alteration of a process or rate of production at the facility, including the activities set out in schedule 'A'.

560 FERGUSON Avenue (ave) North HAMILTON ON L8L 4Z9

Please note that the facility noted above is subject to the applicable provisions of O. Reg. 245/11, and O. Reg.1/17.

The activity related information provided during the registration process is included as part of the confirmation of registration as schedule 'A'.

Dated on Apr 24, 2021

Director

Environmental Approvals Access and Service Integration Branch  
Ministry of the Environment, Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto ON M4V 1P5

Any questions related to this registration and the Environmental Activity and the Sector Registry should be directed to:

Ministry of the Environment, Conservation and Parks

Customer Service Representative

Environmental Approvals Access and Service Integration Branch

Phone:(416) 314-8001

Toll free: 1-800-461-6290

## Schedule 'A'

### Part 3 - Activity Information

#### 3.1 Industry Eligibility Check

- a. Please select the facility's primary North American Industry Classification System (NAICS) code. 311310
- 
- b. Does the facility have any other applicable NAICS codes?  Yes  No
- 
- b. i. If yes, please select the facility's secondary NAICS code(s), and confirm any other applicable NAICS code(s).
- 
- c. Are you engaged in an activity at the facility that may discharge or from which may be discharged a contaminant into any part of the natural environment other than water?  Yes  No
- 
- d. Is the activity exempt from requiring an Environmental Compliance Approval (ECA) under section 9 (1) of the Environmental Protection Act (EPA) other than an activity that has been prescribed by an EASR regulation under Part II.2 of the Act?  Yes  No
- 
- e. Are the only activities engaged in at the facility, other than activities described in question 3.1d above, prescribed under a single other EASR regulation?  Yes  No
- 
- f. Is an alternative low-carbon fuel site within the meaning of Ontario Regulation (O. Reg.) 79/15 (Alternative Low-Carbon Fuels) operated at the facility?  Yes  No
- 
- g. Is the activity a renewable energy project as defined in the EPA?  Yes  No
- 
- h. Is an end-of-life vehicle waste disposal site within the meaning of O. Reg. 85/16 operated at the facility?  Yes  No

#### 3.2 Facility Related Information

- a. Has a site-specific air standard ever been set for a contaminant discharged from the facility? (section 35 of O. Reg. 419/05 (Air Pollution -- Local Air Quality))  Yes  No
- 
- b. Has a person ever been registered in the Ministry's Technical Standards Registry – Air Pollution under section 39 of O. Reg. 419/05 (Air Pollution – Local Air Quality) in respect of the facility?  Yes  No
- 
- c. Do all of the activities to be registered occur exclusively at the site?  
*Please Note: Discrete activities that involve the use of equipment that is intended to be moved from one site to another to perform the same function (such as the use of mobile rock crushing equipment or mobile PCB destruction equipment) are not prescribed for the purpose of the Environmental Activity and Sector Registry, and an Environmental Compliance Approval may be required.*  Yes  No
- 
- d. Is the facility located on a property that has been deemed a single property under subsection 4 (2) of O. Reg. 419/05?  Yes  No
- 
- e. Is the facility located in an area of development control within the Niagara Escarpment Planning Area?  Yes  No
- 
- e. i. If yes, has a development permit required under section 24 of the Niagara Escarpment Planning and Development Act (NEPDA) in respect of the facility been issued?  Yes  No
- 
- f. Is there a landfilling site that is no longer permitted to accept waste for disposal located on the site on which the facility is located?  Yes  No
- 
- g. Is the activity part of an undertaking to which the Environmental Assessment Act applies?  Yes  No
- 
- g. i. If yes, is one or more of the following conditions met:  
 - All class EA requirements have been completed, including decisions on any Part II order requests; OR  
 - The facility has received approval to proceed with the undertaking.  Yes  No
- 
- h. Please provide a description of the facility. The description should include a summary of operations and activities at the facility that discharge contaminants, as well as what is produced, if applicable.

Sucro Can Canada Inc. is a raw sugar refinery operating at 560 Ferguson Avenue North in the Port of Hamilton. Sucro Can conducts granular sugar refining operations using proprietary process technology to allow the operations to be conducted at a smaller scale than typical sugar refineries. Raw sugar is brought on site using trucks, processed/refined and shipped

out using bulk loadout (trucks). Drying/sifting operations emit sugar dust (suspended particulate matter) which is collected and managed via a baghouse dust collection system. Cleaned air is discharged to the atmosphere. Intermittently, fugitive odours associated with cleaning operations or wastewater treatment transfers may be released through open overhead doors or general exhausts.

i. Please enter the date on which the facility commenced or will commence operations.

2014-05-01

j. Is the facility located in a multi-tenant building?

Yes  No

### 3.3 Activity Related Information

a. Does the land disposal of waste as defined in Regulation 347 General – Waste Management occur at the facility?

Yes  No

b. Does the facility process or dispose of waste by way of thermal treatment, other than the thermal treatment of wood fuel that meets the specifications in Chapter 5 of the EASR publication in a wood-fired combustor?

Yes  No

c. Does the facility use a wood-fired combustor?

Yes  No

c. i. If yes, does the wood-fired combustor have a nominal load heat input capacity of less than 3 megawatts?

Yes  No

c. ii. If yes, was the wood-fired combustor installed at the facility on or after January 31, 2017?

Yes  No

c. iii. If yes, does the wood-fired combustor exclusively use one or more of the following as fuel:

- Wood chips that meet the specifications set out in Chapter 5 of the EASR publication.
- Wood briquettes that meet the specifications set out in Chapter 5 of the EASR publication.
- Wood pellets that meet the specifications set out in Chapter 5 of the EASR publication.

Yes  No

d. Does the facility have any plating processes that use cadmium, cyanide, chromium or nickel, including chrome plating, electroplating or electroless plating?

Yes  No

e. Is an electrolytic stripping process that removes cadmium, chromium or nickel from an object used at the facility?

Yes  No

f. Are metals processed outdoors at the facility, including torching, shearing, shredding or plasma cutting, other than for the purpose of routine maintenance carried out at the facility on any plant, structure, equipment, apparatus or thing?

Yes  No

g. Is a fossil-fuel electric power generation facility with a maximum electrical power output capacity equal to or greater than 25 megawatts operated at the facility?

Yes  No

h. Is a combustion source that uses biogas, biomass, coal, petroleum coke or waste as a fuel, or that uses a fuel derived from biogas, biomass, coal, petroleum coke or waste other than a small wood-fired combustor operated at the facility?

Yes  No

i. Is a combustion turbine used at the facility?

Yes  No

Part 4 - Operational Information

4.1 Air

a. Does the EASR Emission Summary and Dispersion Modelling (ESDM) Report provide for modifications that have not yet been implemented at the facility?  Yes  No

a. i. If yes, please provide the date on which the modifications will be completed.

b. Has an instrument under O. Reg. 419/05 been issued in respect of the facility?  Yes  No

b. i. If yes, what type(s) of instruments (including any notices, orders or approvals) has (have) been issued? (select all that apply)

ss. 7(1) Specified Dispersion Models

ss. 8(2) Negligible Sources

ss. 10(2) Operating Conditions

ss. 11(2) Refined Emission Rates

ss. 13.1 Value of Dispersion Modelling Parameters

ss. 13(1) Meteorological Data

ss. 14(6) Area of Modelling Coverage

ss. 20(5) Speed-up Order

Other

List all that have been issued

c. To what standard did the licensed engineering practitioner assess compliance of the facility's emissions (please select the applicable box(es)):

Section 19 of O. Reg. 419/05 (Schedule 2)

Section 20 of O. Reg. 419/05 (Schedule 3)

N/A – The amount of any contaminant discharged from the site is negligible

N/A – Source(s) discharge only sound as a contaminant

N/A – Source(s) discharge sound as a contaminant and the amount of any other contaminant discharged is negligible

d. Please select all applicable boxes that apply to a discharge of a contaminant(s) to air from the facility:

Contaminant(s) belonging to Benchmark 1 category of ACB list is at or below the concentration for each specified averaging period set out for the contaminant

Contaminant(s) belonging to Benchmark 1 category of ACB list is above the concentration for a specified averaging period set out for the contaminant

By exceeding a Benchmark 1 contaminant limit(s), you must also notify your local District Office and take appropriate action in accordance with Reg. 419/05. Please see <https://www.ontario.ca/page/rules-air-quality-and-pollution#section-4> for more details under "Notification of Exceedances".

Contaminant(s) belonging to Benchmark 2 category of ACB list is at or below the concentration for each specified averaging period set out for the contaminant

Contaminant(s) belonging to Benchmark 2 category of ACB list is above the concentration for a specified averaging period set out for the contaminant

The concentration of the contaminant(s) does not have a Ministry standard, guideline, or screening level set out for the contaminant

N/A – The amount of any contaminant discharged from the site is negligible

N/A – Source(s) discharge only sound as a contaminant

N/A – Source(s) discharge sound as a contaminant and the amount of any other contaminant discharged is negligible

e. Does the facility operate a generator for non-emergency purposes?  Yes  No

f. Does the facility use or operate a large boiler or heater greater than 10.5 gigajoules per hour?  Yes  No

g. Will an Emissions Summary Table be uploaded?  Yes  No  
*Please Note: An Emissions Summary Table is required to be uploaded at the time of registration. An Emissions Summary Table is also required to be uploaded if any modifications to the facility require an update to the EASR ESDM. Additionally, as part of the 10 year review required by O. Reg. 1/17, an updated Emissions Summary Table is required to be uploaded.*

h. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the EASR ESDM Report and made statements in the EASR ESDM Report Supplement and the date signed.

First Name	Last Name	Licence Number(s)	Date Signed
Antje	Hurlburt	100077333	2021-03-17

**4.2 Fugitive Dust Control**

a. Does the EASR ESDM Report prepared for the facility identify a source of fugitive dust?  Yes  No

a. i. If yes, has a licensed engineering practitioner signed and sealed a Best Management Practice Plan (BMPP) for fugitive dust control?  Yes  No

b. Has a BMPP for fugitive dust control been prepared as a result of a written notice from the Director issued under O. Reg. 1/17?  Yes  No

c. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the BMPP for fugitive dust control and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
------------	-----------	-------------------	-------------

**4.3 Noise**

a. Please select the noise assessment method that was completed for the facility:  
The facility meets the 1000m setback distance

Primary Noise Screening Method

Secondary Noise Screening Method

Acoustic Assessment Report

a. i. If the Primary Noise Screening Method was used, is the actual separation distance from the facility to the closest Point of Noise Reception equal to or greater than the minimum separation distance as determined by the Primary Noise Screening Method?  Yes  No

a. ii. If the Secondary Noise Screening Method was used, is the combined sound level from the facility at each affected Point of Noise Reception as determined by the Secondary Noise Screening Method less than or equal to the applicable sound level limit set out in Chapter 3 of the EASR publication?  Yes  No

a. iii. If an acoustic assessment was completed, did the acoustic assessment determine that the combined sound level from the facility at each affected Point of Noise Reception less than or equal to of the applicable sound level limit set out in Chapter 3 of the EASR publication?  Yes  No

a. iii. a) If no, has a Noise Abatement Action Plan been developed for the facility?  Yes  No

a. iii. b) If yes, please provide the title of the Noise Abatement Action Plan and the date it was prepared.

Name of NAAP	Date Prepared

b. Has an Acoustic Audit Report been prepared as a result of a written notice from the Director?  Yes  No

b. i. If yes, please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the acoustic audit report, and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

c. Will an Acoustic Assessment Summary Table be uploaded?  Yes  No

*Please Note: An Acoustic Assessment Summary Table is required to be uploaded at the time of registration if an Acoustic Assessment was completed for the facility. An Acoustic Assessment Summary Table is also required to be uploaded if any modifications to the facility require an update to the facility's noise report. Additionally, as part of the 10 year review required by O. Reg. 1/17, an updated Acoustic Assessment Summary Table is required to be uploaded.*

d. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the noise report, and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
Antje	Hurlburt	100077333	2020-09-24

#### 4.4 Odour

a. Did the Odour Screening Report indicate that a circumstance which requires a BMPP for odour to be prepared exists at the facility?  Yes  No

b. Did the Odour Screening Report indicate that a circumstance which requires an Odour Control Report (OCR) to be prepared exists at the facility?  Yes  No

b. i. If yes, please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the Odour Control Report and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
Antje	Hurlburt	100077333	2021-04-23

c. Has a BMPP for odour been prepared as a result of a written notice from the Director issued under O. Reg. 1/17?  Yes  No

d. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the BMPP for odour and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
Antje	Hurlburt	100077333	2021-04-23



STEADY-UNMITIGATED

POR ID	POR Description	Time of Day	Sound Level at POR (dBA)(L <sub>eq</sub> )	Sound Level Limit (dBA) (Leq)	Compliance with Sound Level Limit?	Class Number	Verified by Acoustic Audit
P541WEL	Residence 3rd Storey	Day	51	50	No	1	No
		Evening	51	50	No	1	No
		Night	48	45	No	1	No
P551WEL	Residence 2nd Storey	Day	51	66	Yes	1	No
		Evening	51	63	Yes	1	No
		Night	50	55	Yes	1	No
P210BURL	Residence 2nd Storey	Day	52	62	Yes	1	No
		Evening	52	59	Yes	1	No
		Night	52	51	No	1	No
P222BURL	Residence 2nd Storey	Day	48	50	Yes	1	No
		Evening	48	50	Yes	1	No
		Night	48	45	No	1	No
P208BURL	Residence 2nd Storey	Day	52	66	Yes	1	No
		Evening	52	63	Yes	1	No
		Night	51	55	Yes	1	No
P196BURL	Residence 2nd Storey	Day	52	66	Yes	1	No
		Evening	52	63	Yes	1	No
		Night	51	55	Yes	1	No
P164BURL	Residence 2nd Storey	Day	50	66	Yes	1	No
		Evening	50	63	Yes	1	No
		Night	49	55	Yes	1	No
P540FERG	Residence 2nd Storey	Day	51	62	Yes	1	No
		Evening	51	59	Yes	1	No
		Night	50	51	Yes	1	No
P545FERG	Residence 2nd Storey	Day	49	56	Yes	1	No
		Evening	49	53	Yes	1	No
		Night	48	45	No	1	No
P537FERG	Residence 2nd Storey	Day	47	50	Yes	1	No
		Evening	47	50	Yes	1	No
		Night	46	45	No	1	No
P569MARY	Residence 2nd Storey	Day	41	50	Yes	1	No
		Evening	41	50	Yes	1	No
		Night	41	45	Yes	1	No
P35BROCK	Residence 2nd Storey	Day	40	50	Yes	1	No
		Evening	40	50	Yes	1	No
		Night	39	45	Yes	1	No

STEADY-MITIGATED

POR ID	POR Description	Time of Day	Sound Level at POR (dBA)(L <sub>eq</sub> )	Sound Level Limit (dBA) (Leq)	Compliance with Sound Level Limit?	Class Number	Verified by Acoustic Audit
P541WEL	Residence 3rd Storey	Day	50	50	Yes	1	No
		Evening	50	50	Yes	1	No
		Night	45	45	Yes	1	No
P551WEL	Residence 2nd Storey	Day	49	66	Yes	1	No
		Evening	49	63	Yes	1	No
		Night	47	55	Yes	1	No
P210BURL	Residence 2nd Storey	Day	49	62	Yes	1	No
		Evening	49	59	Yes	1	No
		Night	49	51	Yes	1	No
P222BURL	Residence 2nd Storey	Day	45	50	Yes	1	No
		Evening	45	50	Yes	1	No
		Night	45	45	Yes	1	No
P208BURL	Residence 2nd Storey	Day	49	66	Yes	1	No
		Evening	49	63	Yes	1	No
		Night	49	55	Yes	1	No
P196BURL	Residence 2nd Storey	Day	49	66	Yes	1	No
		Evening	49	63	Yes	1	No
		Night	47	55	Yes	1	No
P164BURL	Residence 2nd Storey	Day	48	66	Yes	1	No
		Evening	48	63	Yes	1	No
		Night	46	55	Yes	1	No
P540FERG	Residence 2nd Storey	Day	48	62	Yes	1	No
		Evening	48	59	Yes	1	No
		Night	47	51	Yes	1	No
P545FERG	Residence 2nd Storey	Day	47	56	Yes	1	No
		Evening	47	53	Yes	1	No
		Night	45	45	Yes	1	No
P537FERG	Residence 2nd Storey	Day	44	50	Yes	1	No
		Evening	44	50	Yes	1	No
		Night	42	45	Yes	1	No
P569MARY	Residence 2nd Storey	Day	39	50	Yes	1	No
		Evening	39	50	Yes	1	No
		Night	39	45	Yes	1	No
P35BROCK	Residence 2nd Storey	Day	38	50	Yes	1	No
		Evening	38	50	Yes	1	No
		Night	37	45	Yes	1	No

IMPULSIVE

POR ID	POR Description	Time of Day	Sound Level at POR (dBAI)(L <sub>LM</sub> )	Sound Level Limit (dBAI) (LLM)	Compliance with Sound Level Limit?	Class Number	Verified by Acoustic Audit
P541WEL	Residence 3rd Storey	Day	38	50	Yes	1	No
		Evening	38	50	Yes	1	No
		Night	38	45	Yes	1	No
P551WEL	Residence 2nd Storey	Day	40	66	Yes	1	No
		Evening	40	63	Yes	1	No
		Night	40	55	Yes	1	No
P210BURL	Residence 2nd Storey	Day	43	62	Yes	1	No
		Evening	43	59	Yes	1	No
		Night	43	51	Yes	1	No
P222BURL	Residence 2nd Storey	Day	39	50	Yes	1	No
		Evening	39	50	Yes	1	No
		Night	39	45	Yes	1	No
P208BURL	Residence 2nd Storey	Day	43	66	Yes	1	No
		Evening	43	63	Yes	1	No
		Night	43	55	Yes	1	No
P196BURL	Residence 2nd Storey	Day	43	66	Yes	1	No
		Evening	43	63	Yes	1	No
		Night	43	55	Yes	1	No
P164BURL	Residence 2nd Storey	Day	41	66	Yes	1	No
		Evening	41	63	Yes	1	No
		Night	41	55	Yes	1	No
P540FERG	Residence 2nd Storey	Day	42	62	Yes	1	No
		Evening	42	59	Yes	1	No
		Night	42	51	Yes	1	No
P545FERG	Residence 2nd Storey	Day	40	56	Yes	1	No
		Evening	40	53	Yes	1	No
		Night	40	45	Yes	1	No
P537FERG	Residence 2nd Storey	Day	38	50	Yes	1	No
		Evening	38	50	Yes	1	No
		Night	38	45	Yes	1	No
P569MARY	Residence 2nd Storey	Day	32	50	Yes	1	No
		Evening	32	50	Yes	1	No
		Night	32	45	Yes	1	No
P35BROCK	Residence 2nd Storey	Day	28	50	Yes	1	No
		Evening	28	50	Yes	1	No
		Night	28	45	Yes	1	No

## Content Copy Of Original



Ministry of the Environment and Climate Change  
Ministère de l'Environnement et de l'Action en matière de changement  
climatique

### ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 3151-A52RT2

Issue Date: December 11, 2015

Shell Canada Limited, for and on behalf of Shell Canada Products  
391 Burlington Street East  
Hamilton, Ontario  
L8L 4H6

Site Location: 391 Burlington Street East  
Hamilton City

*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 petroleum distribution terminal, consisting of the following processes and support units:

- tank farm;
- loading area;
- laboratory;

including the *Equipment* and any other ancillary and support processes and activities, operating at a *Facility Production Limit* of up to 2.9 billion litres of petroleum hydrocarbon products 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. "*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) has no *Ministry Point of Impingement Limit* and no *Jurisdictional Screening Level*, or

(b) has a concentration at a *Point of Impingement* that exceeds the *Jurisdictional Screening Level*.

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*.

2. "*Acoustic Assessment Report*" means the report, prepared in accordance with *Publication NPC-233* and Appendix A of the *Basic Comprehensive User Guide*, by Mike Collicut / SNC-Lavalin Inc. and dated November 6, 2015 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*.

3. "*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*.

4. "*Approval*" means this entire Environmental Compliance Approval and any *Schedules* to it.

5. "*Basic Comprehensive User Guide*" means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended.

6. "*Company*" means Shell Canada Limited, for and on behalf of Shell Canada Products 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*.

7. "*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.

8. "*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*.

9. "*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*.

10. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located.

11. "*Emission Summary Table*" means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05*; namely a table in the *ESDM Report* that compares the *Point of Impingement* concentration for each *Compound of Concern* to the corresponding *Ministry Point of Impingement Limit*, *Acceptable Point of Impingement Concentration*, or *Jurisdictional Screening Level*.

12. "*Environmental Assessment Act*" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended.

13. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended.

14. "*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.

15. "*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*.

16. "*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*.

17. "*Facility*" means the entire operation located on the property where the *Equipment* is located.

18. "*Facility Production Limit*" means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility*.

19. "*Jurisdictional Screening Level*" means a screening level for a *Compound of Concern* that is listed in the *Ministry* publication titled "Jurisdictional Screening Level (JSL) List, A Screening Tool for Ontario Regulation 419: Air Pollution - Local Air Quality", dated February 2008, as amended.

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. "*Ministry Point of Impingement Limit*" means the applicable Standard set out in Schedule 2 or 3 of *O. Reg. 419/05* or a limit set out in the *Ministry* publication titled "Summary of Standards and Guidelines to support Ontario Regulation 419/05: Air Pollution - Local Air Quality (including Schedule 6 of *O. Reg. 419/05* on Upper Risk Thresholds", dated April 2012, as amended.

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, as amended.

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 Chris Bestfather of SNC-Lavalin Environment and dated October 2014 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 2009, 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. "*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.

37. "*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

### 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 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

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* does not have a *Ministry Point of Impingement*

*Limit* 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* is higher than the *Jurisdictional Screening Level* for the contaminant; or

(ii) there is no *Jurisdictional Screening Level* for the contaminant .

(b) The concentration of the *Compound of Concern* in the updated *ESDM Report* is higher than:

(i) the most recent *Acceptable Point of Impingement Concentration*, and

(ii) the *Jurisdictional Screening Level* if a *Jurisdictional Screening Level* exists.

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* has a *Ministry Point of Impingement Limit* and the discharge results in the concentration at a *Point of Impingement* exceeding the *Ministry Point of Impingement Limit*; or

(b) the *Compound of Concern* does not have a *Ministry Point of Impingement Limit* 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 *Jurisdictional Screening Level* if a *Jurisdictional Screening Level* exists.

4.2 Condition 4.1 does not apply if the *Ministry Point of Impingement Limit* 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 ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300*.

4.4 The *Company* shall 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*.

## 5. DOCUMENTATION REQUIREMENTS

5.1. The *Company* shall maintain an up-to-date *Log*.

5.2. No later than June 30 for other facilities 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 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 (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. 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 May 4, 2012, signed by Ken Tigchelaar and submitted by the *Company*;
- (b) Emission Summary and Dispersion Modelling Report, prepared by Chris Bestfather of SNC-Lavalin Environment and dated October 2014;
- (c) *Acoustic Assessment Report*, prepared by SNC-Lavalin Inc., dated November 6, 2015 and signed by Mike Collicut; and
- (d) The additional information, prepared by Chris Bestfather of SNC-Lavalin Environment and dated May 15, 2015.

*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* 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* is necessary.

## **REVOCAION OF PREVIOUS APPROVALS**

8. 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*.

*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](http://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](http://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 11th day of December,  
2015

Ian Greason, P.Eng.  
Director  
appointed for the purposes of Part II.1 of  
the *Environmental Protection Act*

FL/  
c: District Manager, MOECC Hamilton - District  
Chris Bestfather, SNC-Lavalin Environment

## Content Copy Of Original



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 5953-AHJKB6

Issue Date: January 17, 2017

Parrish & Heimbecker Limited  
1060 Fountain Street North  
Cambridge, Ontario  
N3E 0A1

Site Location: P & H Hamilton  
231 Burlington Street East  
Hamilton City  
L8L 4H2

*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**

An intermodal grain hub and flour mill facility, consisting of the following processes and support units:

- receiving pre-cleaned and pre-dried various types of grain (soybean, corn and wheat);
  
- shipping various types of grain (soybean, corn and wheat);
- flour milling operations;
- grain and by-products transfer operations;

including the *Equipment* and any other ancillary and support processes and activities, operating at a *Facility Production Limit up to 5.26 million tonnes of received grain per year, according to the limits included in the operating scenarios (Scenario 1, Scenario 2, Scenario 3 and Scenario 4) listed in the Section 1.2.3 of the ESDM Report*, discharging to the air as described in the *Original ESDM Report*.

*For the purpose of this environmental compliance approval, the following definitions apply:*

1. "*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) has no *Ministry Point of Impingement Limit* and no *Jurisdictional Screening Level*, or
- (b) has a concentration at a *Point of Impingement* that exceeds the *Jurisdictional Screening Level*.

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*.

2. "*Acoustic Assessment Report*" means the report, prepared in accordance with *Publication NPC-233* and Appendix A of the *Basic Comprehensive User Guide*, by Anthony Amarra, Sam Du and Vic Schroter, Valcoustics Canada Ltd. and dated January 12, 2017, 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*.

3. "*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*.

4. "*Acoustic Audit*" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the *Facility*, assessed to determine compliance with the *Performance Limits* for the *Facility* regarding noise emissions, completed in accordance with the procedures set in *Publication NPC-103* and reported in accordance with *Publication NPC-233*

5. "*Acoustic Audit Report*" means a report presenting the results of an *Acoustic Audit*, prepared in accordance with *Publication NPC-233*.

6. "*Acoustical Consultant*" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with *Ministry noise guidelines* and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a *Facility*.

7. "*Approval*" means this entire Environmental Compliance Approval and any *Schedules* to it.

8. "*Basic Comprehensive User Guide*" means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended.

9. "*BMPP*" means the document entitled "Management Practice Plan for Fugitive Dust Control", Version 3.1 dated January 16, 2017, prepared by Airzone One Ltd. and signed by Lucas Neil and Franco DiGiovanni, included in the *ESDM Report*.

10. "*Company*" means Parrish & Heimbecker Limited operating as Parrish & Heimbecker Limited 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*.

11. "*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.

12. "*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*.

13. "*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*.

14. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located.

15. "*Emission Summary Table*" means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05*; namely a table in the *ESDM Report* that compares the *Point of Impingement* concentration for each *Compound of Concern* to the corresponding *Ministry Point of Impingement Limit*, *Acceptable Point of Impingement Concentration*, or *Jurisdictional Screening Level*.

16. "*Environmental Assessment Act*" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended.

17. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended.

18. "*Equipment*" means equipment or processes described in the *ESDM Report*, the *Acoustic Assessment Report*, this *Approval* and in the *Schedules* referred to herein and any other equipment or

processes.

19. "*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*.

20. "*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*.

21. "*Facility*" means the entire operation located on the property where the *Equipment* is located.

22. "*Facility Production Limit*" means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility*.

23. "*Independent Acoustical Consultant*" means an *Acoustical Consultant* not representing the *Company*, and not involved in the noise impact assessment or the design/implementation of *Noise Control Measures* for the *Facility/Equipment*. The *Independent Acoustical Consultant* shall not be retained by the consultant involved in the noise/vibration impact assessment or the design/implementation of noise/vibration control measures for the *Facility/Equipment*.

24. "*Jurisdictional Screening Level*" means a screening level for a *Compound of Concern* that is listed in the *Ministry* publication titled "Jurisdictional Screening Level (JSL) List, A Screening Tool for Ontario Regulation 419: Air Pollution - Local Air Quality", dated February 2008, as amended.

25. "*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.

26. "*Manager*" means the Manager, Technology Standards Section, Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Technology Standards Section, Standards Development Branch, as those duties relate to the conditions of this *Approval*.

27. "*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.

28. "*Ministry*" means the ministry of the *Minister*.

29. "*Ministry Point of Impingement Limit*" means the applicable Standard set out in Schedule 2 or 3 of *O. Reg. 419/05* or a limit set out in the *Ministry* publication titled "Summary of Standards and Guidelines to support Ontario Regulation 419/05: Air Pollution - Local Air Quality (including Schedule 6 of *O. Reg. 419/05* on Upper Risk Thresholds", dated April 2012, as amended.

30. "*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*.

31. "*Noise Control Measures*" means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvers, enclosures, absorptive treatment, plenums and barriers. It also means the *Noise Control Measures* as outlined within the *Acoustic Assessment Report* and detailed in *Schedule "C"* of this *Approval*.



32. "O. Reg. 419/05" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended.
33. "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 Lucas Neil (Airzone One Ltd.) and dated May 20, 2016 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval*.
34. "Point of Impingement" has the same meaning as in section 2 of O. Reg. 419/05.
35. "Point of Reception" means Point of Reception as defined by *Publication NPC-300*.
36. "Pre-Test Plan" means a plan for the *Source Testing* including the information required in Section 5 of the *Source Testing Code*.
37. "Procedure Document" means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2009, as amended.
38. "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*.
39. "Publication NPC-103" means the *Ministry* Publication NPC-103, Procedures, August 1978.
40. "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, August 1978, published by the *Ministry*.
41. "Publication NPC-233" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995 as amended.
42. "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.
43. "Schedules" means the following schedules attached to this *Approval* and forming part of this *Approval* namely:
- Schedule A - Supporting Documentation  
Schedule B - *Source Testing* Procedures  
Schedule C - *Noise Control Measures*
44. "Source Testing" means sampling and testing to measure emissions resulting from operating the *Targeted Sources* under conditions which yield the worst case emissions within the approved operating range of the *Targeted Sources* which satisfies paragraph 1 of subsection 11(1) of O. Reg. 419/05.
45. "Source Testing Code" means the Ontario Source Testing Code, dated June 2010, prepared by the *Ministry*, as amended.
46. "Targeted Sources" means the sources described in the letter from Derek Jamieson, President & C.O.O. (P&H Milling Group) dated January 16, 2017.
47. "Test Contaminants" means the Suspended Particulate Matter of diameter equal or less than 44 micrometer (SPM); Particulate Matter of diameter equal or less than 2.5 micrometer (PM2.5) and Particulate Matter of diameter equal or less than 10 micrometer (PM10).
48. "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.

49. "Trucks" means the grain delivery trucks and the flour tanker trucks.

50. "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 - *Source Testing* Procedures

Schedule C - *Noise Control Measures*

### **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 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**

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* does not have a *Ministry Point of Impingement*

*Limit* 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* is higher than the *Jurisdictional Screening Level* for the contaminant; or

(ii) there is no *Jurisdictional Screening Level* for the contaminant .

(b) The concentration of the *Compound of Concern* in the updated *ESDM Report* is higher than:

(i) the most recent *Acceptable Point of Impingement Concentration*, and

(ii) the *Jurisdictional Screening Level* if a *Jurisdictional Screening Level* exists.

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* has a *Ministry Point of Impingement Limit* and the discharge results in the concentration at a *Point of Impingement* exceeding the *Ministry Point of Impingement Limit*; or

(b) the *Compound of Concern* does not have a *Ministry Point of Impingement Limit* 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 *Jurisdictional Screening Level* if a *Jurisdictional Screening Level* exists.

4.2 Condition 4.1 does not apply if the *Ministry Point of Impingement Limit* 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:

(a) implement and operate the *Equipment* as outlined in the *Acoustic Assessment Report* dated January 12, 2017 and signed by Anthony Amarra, Sam Du and Vic Schroter, Valcoustics Canada Ltd.;

(b) implement the *Noise Control Measures* as outlined in the *Acoustic Assessment Report* and detailed in Schedule C of this *Approval*;

(c) ensure, subsequent to the implementation of the proposed *Noise Control Measures*, that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300*; and

(d) ensure that only one (1) ship can be loaded/unloaded at a time;

(e) restrict the trommel operation, to the location at the north-east side of the storage domes, as depicted in Figure 2 of the Valcoustics Canada Ltd. *Acoustic Assessment Report* dated January 12, 2017;

(f) limit number of the *Trucks* arrivals and departures, during any per sixty (60) minute period, in accordance with the following:

(i) a maximum of fifty (50) *Trucks* per sixty (60) minute period during the day-time hours of 7 a.m. to 7 p.m.;

(ii) a maximum of twenty five (25) *Trucks* per sixty (60) minute period during during the evening-time hours of 7 p.m to 11 p.m.; and

(iii) a maximum of ten (10) *Trucks* per sixty (60) minute period during the night-time hours of 11 p.m. to 7 a.m..

(g) ensure that the *Noise Control Measures* are properly maintained and continue to provide the acoustical performances outlined in the *Acoustic Assessment Report*.

4.4 The *Company* shall 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*.

4.6 The *Company* shall implement proposed *BMPP*. The *BMPP* shall be updated/revised as per *District Manager* request.

## 5. DOCUMENTATION REQUIREMENTS

5.1. The *Company* shall maintain an up-to-date *Log*.

5.2. 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.

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 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 (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. 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*.

## **11. SOURCE TESTING**

The *Company* shall perform *Source Testing* in accordance with the procedures in Schedule C to determine the rates of emissions of the *Test Contaminants* from the *Targeted Sources* listed in Schedule B.

## **12. ACOUSTIC AUDIT**

12.1 The *Company* shall carry out *Acoustic Audit* measurements on the actual noise emissions due

to the operation of the *Facility*, following the implementation of the *Noise Control Measures*. The *Company*:

(a) shall carry out *Acoustic Audit* measurements in accordance with the procedures in *Publication NPC-103*; and

(b) shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*, prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233*, to the *District Manager* and the *Director*, not later than three (3) months after the commencement of operation of the new *Equipment*.

12.2 The *Director*:

(a) may not accept the results of the *Acoustic Audit* if the requirements of *Publication NPC-233* were not followed; and

(b) may require the *Company* to repeat the *Acoustic Audit* if the results of the *Acoustic Audit* are found

unacceptable to the *Director*.

## **SCHEDULE A**

### **Supporting Documentation**

(a) Environmental Compliance Approval Application, dated May 9, 2016, signed by Derek Jamieson, President and C.O.O., P&H Milling Group and submitted by the *Company*;

(b) Emission Summary and Dispersion Modelling Report, prepared by Lucas Neil (Airzone One Ltd.) and dated May 20, 2016;

(c) *Acoustic Assessment Report*, prepared by Anthony Amarra, Sam Du and Vic Schroter, Valcoustics Canada Ltd., and dated January 12, 2017.

(d) The letters (e-mails) dated July 7 and 13, August 15, 22, 25 and 31, September 7, October 17, December 29, 2016 and January 6, 11, 12, 13 and 16, 2017, all provided by Anthony Amarra, Sam Du and Vic Schroter, Valcoustics Canada Ltd., and the letters (e-mails) dated January 17, 2017 provided by Franco DiGiovanni, Airzone One Ltd.

(e) Revised RESDM Report prepared by Airzone One Ltd., and dated January 17, 2017 and signed by Lucas Neil and Franco DiGiovanni.

(f) The letter from Derek Jamieson, President & C.O.O. (P&H Milling Group) dated January 13, 2017;

(g) The letter from Derek Jamieson, President & C.O.O. (P&H Milling Group) dated January 16, 2017.

## **SCHEDULE B**

### **Source Testing Procedures**

1. The *Company* shall submit, not later than three (3) months after the date of this Approval 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 (3) months after the *Manager* has approved the *Pre-Test Plan* or three (3) months after commencement of operation of the *Targeted Sources*, whichever occurs later, or within a period as directed or agreed to in writing by the *Manager*, the *District Manager*, and the Director.

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 (hardcopy 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:

(1) an executive summary;  
(2) an identification of the applicable North American Industry Classification System code (NAICS) for the *Facility*;  
(3) records of operating conditions at the time of *Source Testing*, including but not limited to the following:

- production data;
- *Facility* /process information related to the operation of the *Targeted Sources*;
- description of the emission sources controlled by the *Targeted Sources* at the time of testing;
- and
- operational description of the general building ventilation at the time of testing;

(4) results of *Source Testing*, including the emission rate, emission concentration, and relevant emission factor of the *Test Contaminants* from the *Targeted Sources*; and

(5) a tabular comparison of *Source Testing* results for the *Targeted Sources* 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:

(1) the *Source Testing Code* or the requirements of the *Manager* were not followed;  
(2) the *Company* did not notify the *Manager*, the *District Manager* and *Director* of the *Source Testing*; or  
(3) 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 C**  
**Noise Control Measures**



### 1. Silencer for the Receiving Pits 4 & 5 Dust Collector (BH2) Exhaust

The dust collector exhaust (BH2) for two new receiving pits shall be equipped with a silencer. The proposed silencer shall have at least the following minimum acoustical performance specifications in terms of sound insertion loss (IL in dB) throughout the octave bands:

Source ID	Source name and description	Octave Band Centre Frequency [Hz]							
		63	125	250	500	1 k	2 k	4 k	8 k
BH2	Receiving Pits 4 & 5 Dust Collector Exhaust	4	6	13	21	29	28	18	12

### 2. Silencer for the New Grain Silos Dust Collector (BH3) Exhaust

The dust collector exhaust (BH3) for three new grain silos shall be equipped with a silencer. The proposed silencer shall have at least the following minimum acoustical performance specifications in terms of sound insertion loss (IL in dB) throughout the octave bands:

Source ID	Source name and description	Octave Band Centre Frequency [Hz]							
		63	125	250	500	1 k	2 k	4 k	8 k
BH3	Grain Silos Dust Collector Exhaust	4	8	16	23	29	24	12	9

### 3. Silencers for the Mill Pneumatic Fans (A4140 & A4146)

Each new mill pneumatic fan (A4140 & A4146) shall be equipped with a silencer (2 silencers in total). Each proposed silencer shall have at least the following minimum acoustical performance specifications in terms of sound insertion loss (IL in dB) throughout the octave bands:

Source ID	Source name and description	Octave Band Centre Frequency [Hz]							
		63	125	250	500	1 k	2 k	4 k	8 k
A4140 & A4146	Mill Pneumatic Fans	6.5	12	21	23	32.5	27.5	18.5	12.5

### 4. Silencer for the Mill Aspiration Exhaust Fan (A4134)

The new mill aspiration exhaust fan (A4134) shall be equipped with a silencer. The proposed silencer shall have at least the following minimum acoustical performance specifications in terms of sound insertion loss (IL in dB) throughout the octave bands:

Source ID	Source name and description	Octave Band Centre Frequency [Hz]							
		63	125	250	500	1 k	2 k	4 k	8 k
A4134	Mill Aspiration Exhaust Fan	6.5	12	21	23	32.5	27.5	18.5	12.5

### 5. Clearing Aspiration Exhaust Fan (A2098)

The new clearing aspiration exhaust fan (A2098) shall be equipped with the silencer. The proposed silencer shall have at least the following minimum acoustical performance specifications in terms of sound insertion loss (IL in dB) throughout the octave bands:

Source ID	Source name and description	Octave Band Centre Frequency [Hz]							
		63	125	250	500	1 k	2 k	4 k	8 k

A2098	Clearing Aspiration Exhaust Fan	6.5	12	21	23	32.5	27.5	18.5	12.5
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## 6. Silencer for the Spot Filter Exhaust Fan (A6115)

The new mill spot filter exhaust fan (A6115) shall be equipped with the silencer. The proposed silencer shall have at least the following minimum acoustical performance specifications in terms of sound insertion loss (IL in dB) throughout the octave bands:

Source ID	Source name and description	Octave Band Centre Frequency [Hz]							
		63	125	250	500	1 k	2 k	4 k	8 k
A6115	New Mill Spot Filter Exhaust Fan	7.5	13.5	24	39	50	50	37.5	25

## 7. White and Brown Flour Blending Filter Exhaust Fans (A5097 & A5105)

The white and brown flour blending filter exhaust fans (A5097 & A5105) will be equipped with the silencers (2 silencers in total). Each of the proposed silencers shall have at least the following minimum acoustical performance specifications in terms of sound insertion loss (IL in dB) throughout the octave bands:

Source ID	Source name and description	Octave Band Centre Frequency [Hz]							
		63	125	250	500	1 k	2 k	4 k	8 k
A5097 & A5105	White and Brown Flour Blending Filter Exhaust Fans	7	12	20	25	28	18	12	10

## 8. Intake Building Exhaust (A1103)

The intake building rooftop exhaust (A1103) shall be equipped with a silencer. The proposed silencer shall have at least the following minimum acoustical performance specifications in terms of sound insertion loss (IL in dB) throughout the octave bands:

Source ID	Source name and description	Octave Band Centre Frequency [Hz]							
		63	125	250	500	1 k	2 k	4 k	8 k
A1103	Intake Building rooftop Exhaust	7	12	20	25	28	18	12	10

## 9. Silencers for the Bin Filter Exhaust (ISF)

The three (3) exhaust stacks serving the bin filters (ISF) shall be equipped with one silencer each (3 silencers in total). Each of the proposed silencers shall have at least the following minimum acoustical performance specifications in terms of sound insertion loss (IL in dB) throughout the octave bands:

Source ID	Source name and description	Octave Band Centre Frequency [Hz]							
		63	125	250	500	1 k	2 k	4 k	8 k
ISF	Bin Filter Exhaust (ISF)	7	12	20	25	28	18	12	10

## 10. Silencers for the New Grain Silos Intake Fans (NGS1\_INT1/2, NGS2\_INT1/2, NGS3\_INT1/2)

The Facility shall install the intake fans (NGS1\_INT1/2, NGS2\_INT1/2, NGS3\_INT1/2) for three new

grain silos, with the manufacturer's prescribed silencers (6 silencers in total) , in order to ensure that each intake fan sound power level not exceeds 88 dBA, and/or the intake fan sound pressure level not exceeds 44 dBA (including 5 dBA tonal penalty) at 60 metres at any time.

**The *Company* shall implement above noted *Noise Control Measures* prior to commencement of operation of the new *Equipment*.**

*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.

## **REVOCAION OF PREVIOUS APPROVALS**

8. 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*.

## **SOURCE TESTING**

9. Condition No. 11 is included to require the *Company* to gather accurate information so that compliance with the *EPA*, the regulations and this *Approval* can be verified.

## **ACOUSTIC AUDIT**

10. Condition No. 12.1 is included 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.

11. Condition No. 12.2 is included to ensure that the Acoustic Audit is carried out in accordance with procedures set in the *Ministry's* Noise Guidelines.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 2789-8S7LUW issued on March 21, 2012.**

*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
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**\* 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](http://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](http://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 17th day of January, 2017

Rudolf Wan, P.Eng.  
Director  
appointed for the purposes of Part II.1 of  
the *Environmental Protection Act*

JK/  
c: District Manager, MOECC Hamilton - District  
Lucas Neil, Airzone One Ltd.

**AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 5953-AHJKB6

Notice No. 1

Issue Date: June 13, 2018

Parrish & Heimbecker Limited  
1060 Fountain St N  
Cambridge, Ontario  
N3E 0A1

**Site Location:** P&H Hamilton  
231 Burlington E  
Hamilton City,  
L8L 4H2

*You are hereby notified that I have amended Approval No. 5953-AHJKB6 issued on January 17, 2017 for the intermodal grain hub and flour mill facility , as follows:*

**TERMS AND CONDITIONS****I. The following Condition 12.1:**

12.1 The *Company* shall carry out *Acoustic Audit* measurements on the actual noise emissions due to the operation of the *Facility*, following the implementation of the *Noise Control Measures*. The *Company*:

(a) shall carry out *Acoustic Audit* measurements in accordance with the procedures in *Publication NPC-103*; and

(b) shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*, prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233*, to the *District Manager* and the *Director*, not later than three (3) months after the commencement of operation of the new *Equipment*.

**is revoked and replaced by the following:**

12.1 The *Company* shall carry out *Acoustic Audit* measurements on the actual noise emissions due to the operation of the *Facility*, following the implementation of the *Noise Control Measures*. The *Company*:

(a) shall carry out *Acoustic Audit* measurements in accordance with the procedures in *Publication NPC-103*; and

(b) shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*, prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233* and specific *Acoustic Audit* requirements from the letter addressed to Derek Jamieson, President and C.O.O, P&H Milling Group, Parrish & Heimbecker Limited, dated January 17, 2017, and signed by Rudolf Wan, P. Eng., *Director*, Section 9, *Environmental Protection Act*, to the *District Manager* and the *Director*, not later than September 14, 2018.

**All other Terms and Conditions remain the same.**

The reason(s) for this amendment to the Approval is (are) as follows:

application for approval dated May 16, 2018 and signed by Brad Wallaker, General Manager, Ontario terminals, Parrish & Heimbecker Limited.

**This Notice shall constitute part of the approval issued under Approval No. 5953-AHJKB6 dated January 17, 2017**

*In accordance with Section 139 of the Environmental Protection Act, 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:*

- 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 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](http://www.ert.gov.on.ca)

*The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.*

DATED AT TORONTO this 13th day of June,  
2018

Ian Greason, P.Eng.  
Director  
appointed for the purposes of Part  
II.1 of the *Environmental Protection  
Act*

DZ/  
c: District Manager, MOECC Hamilton - District  
Nigel Taylor, Novus Environmental Inc.



**AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 5953-AHJKB6

Notice No. 2

Issue Date: January 10, 2019

Parrish & Heimbecker Limited  
104 Cooper Dr Unit 2  
Guelph, Ontario  
N1C 0A4

**Site Location:** P&H Hamilton  
231 Burlington E  
Hamilton City,  
L8L 4H2

*You are hereby notified that I have amended Approval No. 5953-AHJKB6 issued on January 17, 2017 for intermodal grain hub and flour mill facility , , as follows:*

**TERMS AND CONDITIONS****I. The following Condition 12.1:**

12.1 The *Company* shall carry out *Acoustic Audit* measurements on the actual noise emissions due to the operation of the *Facility*, following the implementation of the *Noise Control Measures*. The *Company*:

- (a) shall carry out *Acoustic Audit* measurements in accordance with the procedures in *Publication NPC-103*; and
- (b) shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*, prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233* and specific *Acoustic Audit* requirements from the letter addressed to Derek Jamieson, President and C.O.O, P&H Milling Group, Parrish & Heimbecker Limited, dated January 17, 2017, and signed by Rudolf Wan, P. Eng., *Director*, Section 9, *Environmental Protection Act*, to the *District Manager* and the *Director*, not later than September 14, 2018.

**is revoked and replaced by the following:**

12.1 The *Company* shall carry out *Acoustic Audit* measurements on the actual noise emissions due to the operation of the *Facility*, following the implementation of the *Noise Control Measures*. The *Company*:

- (a) shall carry out *Acoustic Audit* measurements in accordance with the procedures in *Publication NPC-103*; and
- (b) shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*,

prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233* and specific *Acoustic Audit* requirements from the letter addressed to Derek Jamieson, President and C.O.O, P&H Milling Group, Parrish & Heimbecker Limited, dated January 17, 2017, and signed by Rudolf Wan, P. Eng., *Director*, Section 9, *Environmental Protection Act*, to the *District Manager* and the *Director*, not later than April 1, 2019.

**All other Terms and Conditions remain the same.**

The reasons for this amendment to the Approval are as follows:

application for approval dated October 30, 2018, signed by Matt Gardner, Director of Operations, Parrish & Heimbecker Limited; and

the letter (e-mail) dated January 9, 2019, provided by Nygel Taylor, Novus Environmental Inc.

**This Notice shall constitute part of the approval issued under Approval No. 5953-AHJKB6 dated January 17, 2017.**

*In accordance with Section 139 of the Environmental Protection Act, 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:*

- 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 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](http://www.ert.gov.on.ca)**

*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  
January, 2019

Christina Labarge, P.Eng.  
Director  
appointed for the purposes of Part  
II.1 of the *Environmental Protection  
Act*

DZ/  
c: District Manager, MECP Hamilton - District  
Nigel Taylor, Novus Environmental Inc.

**AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 5953-AHJKB6

Notice No. 3

Issue Date: May 21, 2019

Parrish & Heimbecker Limited  
104 Cooper Dr Unit 2  
Guelph, Ontario  
N1C 0A4

**Site Location:** P&H Hamilton  
231 Burlington E  
Hamilton City,  
L8L 4H2

*You are hereby notified that I have amended Approval No. 5953-AHJKB6 issued on January 17, 2017 for an intermodal grain hub and flour mill facility , as follows:*

**TERMS AND CONDITIONS****I. The following Condition 12 is revoked:****12. ACOUSTIC AUDIT**

12.1 The *Company* shall carry out *Acoustic Audit* measurements on the actual noise emissions due to the operation of the *Facility*, following the implementation of the *Noise Control Measures*. The *Company*:

(a) shall carry out *Acoustic Audit* measurements in accordance with the procedures in *Publication NPC-103*; and

(b) shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*, prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233*, to the *District Manager* and the *Director*, not later than three (3) months after the commencement of operation of the new *Equipment*.

12.2 The *Director*:

(a) may not accept the results of the *Acoustic Audit* if the requirements of *Publication NPC-233* were not followed; and

(b) may require the *Company* to repeat the *Acoustic Audit* if the results of the *Acoustic Audit* are found

unacceptable to the *Director*.

**All other Terms and Conditions remain the same.**

The reasons for this amendment to the Approval are as follows:

Acoustic Audit Report dated March 28, 2019 and signed by Aaron Haniff and Scott Penton, Novus Environmental Inc.; and

The letters (e-mails) dated April 1 and May 10, 2019 and provided by Aaron Haniff, Nigel Taylor and Scott Penton, Novus Environmental Inc.

**This Notice shall constitute part of the approval issued under Approval No. 5953-AHJKB6 dated January 17, 2017.**

*In accordance with Section 139 of the Environmental Protection Act, 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:*

- 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

AND

The Director appointed for the purposes of Part II.1 of the Environmental Protection Act  
Ministry of the Environment, Conservation and

Toronto, Ontario  
M5G 1E5

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](http://www.ert.gov.on.ca)**

*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 May,  
2019

Jeffrey McKerrall, P.Eng.  
Director  
appointed for the purposes of Part  
II.1 of the *Environmental Protection  
Act*

DZ/  
c: District Manager, MECP Hamilton - District  
Nigel Taylor, Novus Environmental Inc.

**CERTIFICATE OF APPROVAL****AIR**

NUMBER 1760-7ULP9W

Issue Date: October 29, 2009

Lafarge Canada Inc.  
7880 Keele Street, 5th Floor  
Vaughan, Ontario  
L4K 4G7

Site Location: Hamilton Dock Facility  
525 Victoria Avenue North  
City of Hamilton, Ontario  
L8L 7Y1

*You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:*

one ready-mix concrete batching plant, having a maximum ready-mix concrete production capacity of 100 cubic metres per hour, and consisting of the following emission sources:

- one (1) natural gas-fired steam boiler, having a maximum heat input capacity of 1,412,628 kilojoules per hour, discharging passively into the atmosphere through a stack having an exit diameter of 0.6 metre, extending 2.0 metres above the roof and 6.5 metres above grade;
- one (1) natural gas-fired hot water heater, having a maximum heat input capacity of 3,689,700 kilojoules per hour, discharging passively into the atmosphere through a stack having an exit diameter of 0.9 metre, extending 1.0 metre above the roof and 5.5 metres above grade;
- one (1) natural gas-fired comfort heating unit, having a maximum heat input capacity of 131,775 kilojoules per hour, discharging passively into the atmosphere through a side vent having an exit diameter of 0.2 metre, extending 4.5 metres above grade;
- one (1) natural gas-fired comfort heating unit, having a maximum heat input capacity of 131,775 kilojoules per hour, discharging passively into the atmosphere through a side vent having an exit diameter of 0.2 metre, extending 4.0 metres above grade;
- two (2) natural gas-fired comfort heating units, each having a maximum heat input capacity of 84,453 kilojoules per hour, discharging passively into the atmosphere through individual stacks having an exit diameter of 0.4 metre, extending 1.0 metre above the roof and 2.0 metres above grade;
- one (1) natural gas-fired comfort cooling unit, having a maximum heat input capacity of 73,794 kilojoules per hour, discharging into the atmosphere at a maximum volumetric flow rate of 0.14 cubic metre per second through a stack having an exit diameter of 0.5 metre, extending 1.0 metre above grade;
- two (2) fumehoods, serving the QA/QC laboratory, each discharging into the atmosphere at a maximum volumetric flow rate of 0.4 cubic metre per second through individual side vents, each having an exit diameter of 0.3 metre, extending 2.5 metres above the roof and 3 metres above grade;
- fugitive emissions resulting from the delivery, storage, and transfer of materials associated with the concrete batching operations;

all in accordance with the Application for Approval (Air & Noise) submitted by Lafarge Canada Inc., dated October 18,

## CONTENT COPY OF ORIGINAL

2007, and signed by Tom Baumgarten, Environmental Compliance Manager; the supporting Emission Summary and Dispersion Modelling report submitted by Pottinger Gaherty Environmental Consultants Ltd., dated October 15, 2007, and signed by Bridget Mills, P.Eng. and Winnie Song; the supporting Acoustic Assessment Report submitted by Howe Gastmeier Chapnik Limited, dated October 12, 2007, and signed by Corey Kinart, P.Eng. and Robert Stevens, P.Eng.; the amended information submitted by Pottinger Gaherty Environmental Consultants Ltd., dated May 26, 2008, and signed by Bridget Mills, P.Eng. and Winnie Song; the amendment to the Acoustic Assessment Report submitted by Howe Gastmeier Chapnik Limited, dated May 23, 2008, and signed by Corey Kinart, P.Eng.; and the revised information submitted by Pottinger Gaherty Environmental Consultants Ltd., dated August 4, 2009 and October 23, 2009, and signed by Neil Chan;

*For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:*

1. "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.
2. "Certificate" means this entire certificate of approval document, issued in accordance with section 9 of the EPA.
3. "Company" means Lafarge Canada Inc. that is responsible for the construction or operation of the Facility and includes any successors and assigns.
4. "Director" means any Ministry employee appointed by the Minister pursuant to Section 5 of the EPA.
5. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located.
6. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19.
7. "Equipment" means the equipment and processes described in the Company's application, this Certificate and in the supporting documentation submitted with the application, to the extent approved by this Certificate.
8. "Facility" means the entire operation located on the property where the Equipment is located.
9. "Manual" means a document or set of documents that provide written instructions to the staff of the Company.
10. "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.
11. "Publication NPC-205" means Ministry Publication NPC-205, "Sound Level Limits for Stationary Sources Class 1 & 2 Areas (Urban)", October, 1995 as amended.

*You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:*

### **TERMS AND CONDITIONS**

#### **OPERATION AND MAINTENANCE**

##### **Noise Emissions**

1. 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.

##### **Operation and Maintenance Manual**

2. 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 Certificate, 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) the frequency of inspection and replacement of the filter material in the Equipment;
- (e) all appropriate measures to minimize noise and odorous emissions from all potential sources; and
- (f) procedures for recording and responding to environmental complaints relating to the operation of the Facility;

(2) implement the recommendations of the Manual.

### **Fugitive Dust Control**

3. The Company shall develop in consultation with the District Manager and acceptable to the Director, a Best Management Practices Plan for the control of fugitive dust emissions. This Best Management Practices Plan shall include, but not be limited to:

(1) identification of the main sources of fugitive dust emissions such as:

- (a) on-site traffic;
- (b) paved roads/areas;
- (c) unpaved roads/areas;
- (d) material stock piles;
- (e) loading/unloading areas and loading/unloading techniques;
- (f) material spills;
- (g) material conveyance systems;
- (h) exposed openings in process and storage buildings; and
- (i) general work areas;

(2) potential causes for high dust emissions and opacity resulting from these sources;

(3) preventative and control measures in place or under development to minimize the likelihood of high dust emissions and opacity from the sources of fugitive dust emissions identified above. Details of the preventative and control measures shall include:

- (a) a description of the control equipment to be installed;
- (b) a description of the preventative procedures to be implemented; and/or
- (c) the frequency of occurrence of periodic preventative activities, including material application rates, as applicable.

(4) an implementation schedule for the Best Management Practices Plan, including training of facility personnel;

(5) inspection and maintenance procedures and monitoring initiatives to ensure effective implementation of the preventative and control measures; and

(6) 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.

4. The Company shall submit the Best Management Practices Plan to the Director and the District Manager not later than

six months after the date of this Certificate.

(1) The Director may not accept the Best Management Practices Plan if the minimum requirements described in Condition No. 3 were not included in the Best Management Practices Plan.

(2) If the Best Management Practices Plan is not accepted by the Director, the Company shall submit a Best Management Practices Plan acceptable to the Director not later than nine months after the date of this Certificate;

5. Upon acceptance of the Best Management Practices Plan by the Director, 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.

#### **DOCUMENTATION REQUIREMENTS**

6. The Company shall record, in a log book, each time a specific preventative and control measure described in the Best Management Practices Plan is implemented. The Company shall record, as a minimum:

(1) the date when each emission control measure is installed, including a description of the control measure;

(2) the date when each new preventative measure or operating procedure to minimize emissions is implemented, including a description of the preventative measure or operating procedure; and

(3) the date, time of commencement, and time of completion of each periodic activity conducted to minimize emissions, including a description of the preventative measure/procedure and the name of the individual performing the periodic activity.

#### **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 the Certificate, 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;

(2) all records of any upset conditions associated with the operation of the Equipment;

(3) the log book which contains all records on the preventative and control measures implemented for each sources of fugitive dust emission identified in the Best Management Practices Plan;

(4) all records of any environmental complaints, including:

(a) a description, time, date and location of each incident;

(b) operating conditions (e.g. upset conditions, etc.) at the time of the incident;

(c) wind direction and other weather conditions at the time of the incident;

(d) the name(s) of Company personnel responsible for handling the incident;

(e) the cause of the incident;

(f) the Company response to the incident; and

(g) a description of the measures taken to address the cause of the incident and to prevent a similar occurrence in the future, and the outcome of the measures taken.

#### **NOTIFICATION REQUIREMENTS**

## 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;
- (2) the time, date and location of the incident to which the complaint relates;
- (3) the wind direction and other weather conditions at the time of the incident; and
- (4) the name(s) of Company personnel responsible for handling the incident.

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition No. 1 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility.
2. Condition Nos. 2 to 5, inclusive, are included to emphasize that the Facility must be maintained and operated according to a procedure that will result in compliance with the EPA, the Regulations and this Certificate.
3. Condition Nos. 6 and 7 are 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 Certificate can be verified.
4. Condition No. 8 is included to require the Company to notify staff of the Ministry so that compliance with the EPA, the Regulations and this Certificate can be verified.

*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, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, S.O. 1993, Chapter 28, 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 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  
655 Bay Street, 15th Floor  
Toronto, Ontario  
M5G 1E5

AND

The Environmental Commissioner  
1075 Bay Street, 6th Floor  
Suite 605  
Toronto, Ontario  
M5S 2B1

AND

The Director  
Section 9, *Environmental Protection Act*  
Ministry of the Environment  
2 St. Clair Avenue West, Floor 12A  
Toronto, Ontario  
M4V 1L5

CONTENT COPY OF ORIGINAL

\* 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](http://www.ert.gov.on.ca)

*This instrument is subject to Section 38 of the Environmental Bill of Rights, 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.ene.gov.on.ca](http://www.ene.gov.on.ca), you can determine when the leave to appeal period ends.*

*The above noted works are approved under Section 9 of the Environmental Protection Act.*

DATED AT TORONTO this 29th day of October, 2009

Ian Greason, P.Eng.  
Director

ES/  
c: District Manager, MOE Hamilton District Office  
Bridget Mills, P.Eng., Pottinger Gaherty Environmental Consultants



Ministry  
of the  
Environment

Ministère  
de  
l'Environnement

AMENDED CERTIFICATE OF APPROVAL  
AIR  
NUMBER 0610-63TQWC

Ontario

IKO Industries Ltd.  
628 Victoria Avenue North  
Hamilton, Ontario  
L6L 8B3

Site Location: 628 Victoria Avenue North  
Hamilton, Ontario

*You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:*

- one (1) asphalt storage tank (T1), heated by hot oil, having a capacity of 22,000 tonnes, exhausting into the atmosphere at a maximum volumetric flow rate of 0.11 cubic metre per second through a stack, having an exit diameter of 0.25 metre, extending 0.6 metre above the tank roof and 14.6 metres above grade,
- one (1) asphalt storage tank (T2), heated by hot oil, having a capacity of 12,500 tonnes, exhausting into the atmosphere at a maximum volumetric flow rate of 0.11 cubic metre per second through a stack, having an exit diameter of 0.25 metre, extending 0.6 metre above the tank roof and 13.4 metres above grade,
- two (2) asphalt storage tanks (T3/4), heated by hot oil, each having a capacity of 550 tonnes and exhausting into the atmosphere at a maximum volumetric flow rate of 0.05 cubic metre per second through a stack, having an exit diameter of 0.25 metre and extending 0.6 metre above grade,
- one (1) asphalt storage tank (T5), heated by hot oil, having a capacity of 5,500 tonnes, exhausting into the atmosphere at a maximum volumetric flow rate of 0.11 cubic metre per second through a stack, having an exit diameter of 0.25 metre, extending 0.6 metre above the tank roof and 15.3 metres above grade,
- one (1) asphalt storage tank (T6), heated by hot oil, having a capacity of 2,300 tonnes, exhausting into the atmosphere at a maximum volumetric flow rate of 0.11 cubic metre per second through a stack, having an exit diameter of 0.25 metre, extending 0.6 metre above the tank roof and 15.2 metres above grade,
- four (4) truck load-out stations (LO1-LO4), each capable of loading out 24 tonnes of asphalt per hour and exhausting into the atmosphere passively through a truck hatch, having an exit diameter of 0.40 metre and extending 4.0 metres above grade,
- one (1) natural gas/diesel fired hot oil heater (H1), having a maximum heat input of 6,858,000 kilojoules per hour, exhausting into the atmosphere through a stack, having an exit diameter of 0.30 metre and extending 6.1 metres above grade,
- one (1) natural gas fired pre-heater (H2), having a maximum heat input of 10,287,000 kilojoules per hour, exhausting into the atmosphere through a stack, having an exit diameter of 0.76 metre and extending 12.8 metres above grade,
- one (1) natural gas fired hot oil heater (H3), having a maximum heat input of 2,638,000 kilojoules per hour, exhausting into the atmosphere through a stack, having an exit diameter of 0.25 metre and extending 5.6 metres above grade,

all in accordance with two electronic messages from Nicole Vadori of Rowan Williams Davies & Irwin Inc. dated August 6, 2004 and August 10, 2004 and the Application for Approval (Air) submitted by IKO Industries Ltd., dated December 16, 2003, including the supporting documentation and the additional information associated with the application.

*For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:*

**CONTENT COPY OF ORIGINAL**

- (1) "Act" means the Environmental Protection Act.
- (2) "Certificate" means this Amended Certificate of Approval (Air) issued in accordance with Section 9 of the Act.
- (3) "Company" means IKO Industries Ltd.
- (4) "Equipment" means the asphalt storage tanks and the truck load-out stations as described in the Company's application, this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate.
- (5) "Manual" means a document or set of documents that provide written instructions to staff of the Company.
- (6) "Ministry" means Ontario Ministry of the Environment.

*You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:*

**TERMS AND CONDITIONS**

1. The Company shall ensure that the Equipment is properly operated at all times. The Company shall:

(1) prepare, not later than three months from the date of this Certificate, and update as necessary, a Manual outlining the operating procedures and a maintenance program for the Equipment, including:

- (a) the routine and emergency operating and maintenance procedures in accordance with good engineering practices and as recommended by equipment suppliers;
- (b) the procedures for any record keeping activities relating to the operation and maintenance of the Equipment;
- (c) the procedures to record and respond to environmental complaints;

(2) implement the recommendations of the Manual.

2. The Company shall retain, for a minimum of two years from the date of their creation, the following:

(1) all records on the maintenance, repair, inspection and cleaning of the Equipment;

(2) all records on the environmental complaints; including:

- (a) a description, time and date of the incident,
- (b) estimation of wind direction at the time of the incident,
- (c) a description of the measures taken to address the cause of the incident and to prevent a similar occurrence in the future.

These records shall be made available for inspection by the Ministry staff upon request.

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition 1 is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, the regulations and this Certificate.

2. Condition 2 is included to require the Company to keep records to assist the Ministry in determining whether or not the Equipment is being operated and maintained as required by the Act, the regulations and this Certificate.

**This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 2144-62WNFA issued on July 19, 2004**

*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](http://www.ert.gov.on.ca)**

*The above noted works are approved under Section 9 of the Environmental Protection Act.*

DATED AT TORONTO this 19th day of August, 2004

Neil Parrish, P.Eng.  
Director  
Section 9, *Environmental Protection Act*

KW/

c: District Manager, MOE Hamilton - District  
Nicole Vadori, Environmental Project Coordinator, Rowan Williams Davies & Irwin Inc.



Ministry of the Environment and Climate Change  
Operations Division

## Confirmation of Registration

**Registration Number: R-010-2110255537**

**Version Number: 001**

**Date Registration Filed: Oct 10, 2017 15:31:27 PM**

Dear Sir/Madam,

HCE ENERGY INC.

79 BAY ST N  
HAMILTON ON L8R 3P8

You have registered, in accordance with Section 20.21(1) (a) of the *Environmental Protection Act*, the use, operation, construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing that is located at the facility noted below, or the alteration of a process or rate of production at the facility, including the activities set out in schedule 'A'.

560 Ferguson Avenue (ave) hamilton ON L8L 4V9

Please note that the facility noted above is subject to the applicable provisions of O. Reg. 245/11, and O. Reg.1/17.

The activity related information provided during the registration process is included as part of the confirmation of registration as schedule 'A'.

Dated on Oct 10, 2017

Director  
Environmental Approvals Access and Service Integration Branch  
Ministry of the Environment and Climate Change  
135 St. Clair Avenue West, 1st Floor  
Toronto ON M4V 1P5

Any questions related to this registration and the Environmental Activity and the Sector Registry should be directed to:

Ministry of the Environment and Climate Change  
Customer Service Representative  
Environmental Approvals Access and Service Integration Branch  
Phone:(416) 314-8001  
Toll free: 1-800-461-6290



## Schedule 'A'

### Part 3 - Activity Information

#### 3.1 Industry Eligibility Check

- a. Please select the facility's primary North American Industry Classification System (NAICS) code. 221112
- b. Does the facility have any other applicable NAICS codes?  Yes  No
- b. i. If yes, please select the facility's secondary NAICS code(s), and confirm any other applicable NAICS code(s).
- c. Are you engaged in an activity at the facility that may discharge or from which may be discharged a contaminant into any part of the natural environment other than water?  Yes  No
- d. Is the activity exempt from requiring an Environmental Compliance Approval (ECA) under section 9 (1) of the Environmental Protection Act (EPA) other than an activity that has been prescribed by an EASR regulation under Part II.2 of the Act?  Yes  No
- e. Are the only activities engaged in at the facility, other than activities described in question 3.1d above, prescribed under a single other EASR regulation?  Yes  No
- f. Is an alternative low-carbon fuel site within the meaning of Ontario Regulation (O. Reg.) 79/15 (Alternative Low-Carbon Fuels) operated at the facility?  Yes  No
- g. Is the activity a renewable energy project as defined in the EPA?  Yes  No
- h. Is an end-of-life vehicle waste disposal site within the meaning of O. Reg. 85/16 operated at the facility?  Yes  No

#### 3.2 Facility Related Information

- a. Has a site-specific air standard ever been set for a contaminant discharged from the facility? (section 35 of O. Reg. 419/05 (Air Pollution -- Local Air Quality))  Yes  No
- b. Has a person ever been registered in the Ministry's Technical Standards Registry – Air Pollution under section 39 of O. Reg. 419/05 (Air Pollution – Local Air Quality) in respect of the facility?  Yes  No
- c. Do all of the activities to be registered occur exclusively at the site?  
*Please Note: Discrete activities that involve the use of equipment that is intended to be moved from one site to another to perform the same function (such as the use of mobile rock crushing equipment or mobile PCB destruction equipment) are not prescribed for the purpose of the Environmental Activity and Sector Registry, and an Environmental Compliance Approval may be required.*  Yes  No
- d. Is the facility located on a property that has been deemed a single property under subsection 4 (2) of O. Reg. 419/05?  Yes  No
- e. Is the facility located in an area of development control within the Niagara Escarpment Planning Area?  Yes  No
- e. i. If yes, has a development permit required under section 24 of the Niagara Escarpment Planning and Development Act (NEPDA) in respect of the facility been issued?  Yes  No
- f. Is there a landfilling site that is no longer permitted to accept waste for disposal located on the site on which the facility is located?  Yes  No
- g. Is the activity part of an undertaking to which the Environmental Assessment Act applies?  Yes  No
- g. i. If yes, is one or more of the following conditions met:  
- All class EA requirements have been completed, including decisions on any Part II order requests; OR  
- The facility has received approval to proceed with the undertaking.  Yes  No
- h. Please provide a description of the facility. The description should include a summary of operations and activities at the facility that discharge contaminants, as well as what is produced, if applicable.  
HCE Energy Inc. is proposing to install and operate a combined heat and power operation.  
The processes at the site include natural gas combustion. Expected airborne emissions from the facility include by-products of combustion.
- i. Please enter the date on which the facility commenced or will commence operations. 2017-09-22

j. Is the facility located in a multi-tenant building?  Yes  No

---

### 3.3 Activity Related Information

a. Does the land disposal of waste as defined in Regulation 347 General – Waste Management occur at the facility?  Yes  No

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b. Does the facility process or dispose of waste by way of thermal treatment, other than the thermal treatment of wood fuel that meets the specifications in Chapter 5 of the EASR publication in a wood-fired combustor?  Yes  No

---

c. Does the facility use a wood-fired combustor?  Yes  No

---

c. i. If yes, does the wood-fired combustor have a nominal load heat input capacity of less than 3 megawatts?  Yes  No

---

c. ii. If yes, was the wood-fired combustor installed at the facility on or after January 31, 2017?  Yes  No

---

c. iii. If yes, does the wood-fired combustor exclusively use one or more of the following as fuel:  
- Wood chips that meet the specifications set out in Chapter 5 of the EASR publication.  
- Wood briquettes that meet the specifications set out in Chapter 5 of the EASR publication.  
- Wood pellets that meet the specifications set out in Chapter 5 of the EASR publication.  Yes  No

---

d. Does the facility have any plating processes that use cadmium, cyanide, chromium or nickel, including chrome plating, electroplating or electroless plating?  Yes  No

---

e. Is an electrolytic stripping process that removes cadmium, chromium or nickel from an object used at the facility?  Yes  No

---

f. Are metals processed outdoors at the facility, including torching, shearing, shredding or plasma cutting, other than for the purpose of routine maintenance carried out at the facility on any plant, structure, equipment, apparatus or thing?  Yes  No

---

g. Is a fossil-fuel electric power generation facility with a maximum electrical power output capacity equal to or greater than 25 megawatts operated at the facility?  Yes  No

---

h. Is a combustion source that uses biogas, biomass, coal, petroleum coke or waste as a fuel, or that uses a fuel derived from biogas, biomass, coal, petroleum coke or waste other than a small wood-fired combustor operated at the facility?  Yes  No

---

i. Is a combustion turbine used at the facility?  Yes  No

---

## Part 4 - Operational Information

### 4.1 Air

a. Does the EASR Emission Summary and Dispersion Modelling (ESDM) Report provide for modifications that have not yet been implemented at the facility?  Yes  No

a. i. If yes, please provide the date on which the modifications will be completed.

b. Has an instrument under O. Reg. 419/05 been issued in respect of the facility?  Yes  No

b. i. If yes, what type(s) of instruments (including any notices, orders or approvals) has (have) been issued? (select all that apply)

ss. 7(1) Specified Dispersion Models

ss. 8(2) Negligible Sources

ss. 10(2) Operating Conditions

ss. 11(2) Refined Emission Rates

ss. 13.1 Value of Dispersion Modelling Parameters

ss. 13(1) Meteorological Data

ss. 14(6) Area of Modelling Coverage

ss. 20(5) Speed-up Order

Other

List all that have been issued

c. To what standard did the licensed engineering practitioner assess compliance of the facility's emissions (please select the applicable box(es)):

Section 19 of O. Reg. 419/05 (Schedule 2)

Section 20 of O. Reg. 419/05 (Schedule 3)

N/A – The amount of any contaminant discharged from the site is negligible

N/A – Source(s) discharge only sound as a contaminant

N/A – Source(s) discharge sound as a contaminant and the amount of any other contaminant discharged is negligible

d. Please select all applicable boxes that apply to a discharge of a contaminant(s) to air from the facility:

Contaminant(s) belonging to Benchmark 1 category of ACB list is at or below the concentration for each specified averaging period set out for the contaminant

Contaminant(s) belonging to Benchmark 2 category of ACB list is at or below the concentration for each specified averaging period set out for the contaminant

Contaminant(s) belonging to Benchmark 2 category of ACB list is above the concentration for a specified averaging period set out for the contaminant

The concentration of the contaminant(s) does not have a Ministry standard, guideline, or screening level set out for the contaminant

N/A – The amount of any contaminant discharged from the site is negligible

N/A – Source(s) discharge only sound as a contaminant

N/A – Source(s) discharge sound as a contaminant and the amount of any other contaminant discharged is negligible

e. Does the facility operate a generator for non-emergency purposes?  Yes  No

f. Does the facility use or operate a large boiler or heater greater than 10.5 gigajoules per hour?  Yes  No

g. Will an Emissions Summary Table be uploaded?  Yes  No  
*Please Note: An Emissions Summary Table is required to be uploaded at the time of registration. An Emissions Summary Table is also required to be uploaded if any modifications to the facility require an update to the EASR ESDM. Additionally, as part of the 10 year review required by O. Reg. 1/17, an updated Emissions Summary Table is required to be uploaded.*

h. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the EASR ESDM Report and made statements in the EASR ESDM Report Supplement and the date signed.

First Name	Last Name	Licence Number(s)	Date Signed
Andrew	Chan	100101534	2017-09-22

#### 4.2 Fugitive Dust Control

a. Does the EASR ESDM Report prepared for the facility identify a source of fugitive dust?  Yes  No

a. i. If yes, has a licensed engineering practitioner signed and sealed a Best Management Practice Plan (BMPP) for fugitive dust control?  Yes  No

b. Has a BMPP for fugitive dust control been prepared as a result of a written notice from the Director issued under O. Reg. 1/17?  Yes  No

c. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the BMPP for fugitive dust control and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
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#### 4.3 Noise

a. Please select the noise assessment method that was completed for the facility:

The facility meets the 1000m setback distance

Primary Noise Screening Method

Secondary Noise Screening Method

Acoustic Assessment Report

a. i. If the Primary Noise Screening Method was used, is the actual separation distance from the facility to the closest Point of Noise Reception equal to or greater than the minimum separation distance as determined by the Primary Noise Screening Method?  Yes  No

a. ii. If the Secondary Noise Screening Method was used, is the combined sound level from the facility at each affected Point of Noise Reception as determined by the Secondary Noise Screening Method less than or equal to the applicable sound level limit set out in Chapter 3 of the EASR publication?  Yes  No

a. iii. If an acoustic assessment was completed, did the acoustic assessment determine that the combined sound level from the facility at each affected Point of Noise Reception less than or equal to of the applicable sound level limit set out in Chapter 3 of the EASR publication?  Yes  No

a. iii. a) If no, has a Noise Abatement Action Plan been developed for the facility?  Yes  No

a. iii. b) If yes, please provide the title of the Noise Abatement Action Plan and the date it was prepared.

Name of NAAP	Date Prepared

b. Has an Acoustic Audit Report been prepared as a result of a written notice from the Director?  Yes  No

b. i. If yes, please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the acoustic audit report, and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

c. Will an Acoustic Assessment Summary Table be uploaded?  Yes  No

*Please Note: An Acoustic Assessment Summary Table is required to be uploaded at the time of registration if an Acoustic Assessment was completed for the facility. An Acoustic Assessment Summary Table is also required to be uploaded if any modifications to the facility require an update to the facility's noise report. Additionally, as part of the 10 year review required by O. Reg. 1/17, an updated Acoustic Assessment Summary Table is required to be uploaded.*

d. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the noise report, and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
Aidan	Maher	100132772	2017-09-22

#### 4.4 Odour

a. Did the Odour Screening Report indicate that a circumstance which requires a BMPP for odour to be prepared exists at the facility?  Yes  No

b. Did the Odour Screening Report indicate that a circumstance which requires an Odour Control Report (OCR) to be prepared exists at the facility?  Yes  No

b. i. If yes, please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the Odour Control Report and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

c. Has a BMPP for odour been prepared as a result of a written notice from the Director issued under O. Reg. 1/17?  Yes  No

d. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the BMPP for odour and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

**Table 3: Acoustic Assessment Summary Table**

Point of Reception ID	Point of Reception Description	Time Period <sup>[1]</sup>	Total Level at POR ( $L_{eq}$ , 1-hr) <sup>[2]</sup>	Verified by Acoustic Audit (Yes/No)	Performance Limit ( $L_{eq}$ 1-hr) <sup>[3]</sup>	Compliance with Performance Limit (Yes/No)
R1	Two-Storey House	Daytime	42	No	50	Yes
		Evening	42	No	50	Yes
		Nighttime	42	No	45	Yes

**Notes:**

- [1] The predictable worst-case one (1) hour period was considered in the study.
- [2] Worst-case one hour equivalent sound level from all applicable sources operating in dBA.
- [3] EASR Publication Chapter 3 exclusionary sound level limits of one hour  $L_{eq}$  for Class 1 Areas.

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 7164-BD4PUV

Issue Date: June 30, 2020

Fednav Limited/Fednav Limitée  
1000 de la Gauthetière Street West  
Suite 3500  
Montreal, Québec  
H3B 4W5

**Site Location:** Federal Marine Terminal, A division of Fednav Limited  
95 Flank Road, Piers 12 and 14  
Hamilton City  
L8L 6B6

*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) baghouse dust collector (identified as S1), to control emissions from hoppers serving a packaging/bagging operation for ferromanganese, silicomanganese, ferrochromium, and ferrosilicon alloys, complete with:
  - high efficiency cyclone installed prior to the dust collector;
  - HEPA after-filter; and;
  - carbon impregnated cellulose and synthetic filter material having a filtering area of 357 square metres and a pulse jet cleaning system, discharging into the air at a volumetric flow rate of 4.09 actual cubic metres per second, through a capped stack having an exit diameter of 0.9 metre, extending 2.5 metres above grade;
- one (1) rooftop general exhaust (identified as SESF) serving Shed E, discharging into the air at a volumetric flow rate of 21.2 actual cubic metres per second, through a vertical stack having an exit diameter of 1.5 metres, extending 1.5 metres above the roof and 12.2 metres above grade;
- one (1) rooftop general exhaust (identified as SENF) serving Shed E and used for standby purposes only, discharging into the air at a volumetric flow rate of 21.2 actual cubic metres per second, through a vertical stack having an exit diameter of 1.5 metres, extending 1.5 metres above the roof and 12.2 metres above grade;
- fugitive emissions from vessel off-loading occurring at north-end of Pier 12;
- fugitive emissions from truck loading occurring at north-end of Pier 12;

- fugitive emissions from road dust;
- fugitive emissions from maintenance welding activities;

all in accordance with the Application for Approval (Air & Noise) dated May 5, 2016 signed by Bernie Mailloux and all supporting information associated with the application, including an Emission Summary and Dispersion Modelling report prepared by LAW Consultants Ltd., dated November 2017; additional information provided via email by Ahmed Naderi / LAW Consultants Ltd. and dated August 7, 2018, August 31, 2018, January 9, 2019, September 3, 21, 24 & 26, 2019 and February 21, 2020; the additional information provided via email by Carolyn Ropp / WSP and dated December 3, 2018; the *Acoustic Assessment Report* prepared by LAW Consultants Limited, dated April 23, 2020 and signed by Ahmed Naderi, P.Eng.; and all other documentation associated with the application.

*For the purpose of this environmental compliance approval, the following definitions apply:*

1. "*Abatement Plan*" means the document titled "Abatement Plan for Particulate Matter Mitigation", dated November 2017 and prepared by the *Company*, that includes the identification and assessment of methods to reduce or prevent emissions of particulate matter from operations at the *Facility*, and that includes, but is not limited to, methods such as pollution prevention, process modification, alternative production methods, product modification, product substitution, and/or add-on controls;
2. "*Acoustic Assessment Report*" means the report, prepared in accordance with *Publication NPC-233* submitted in support of the application, that documents all sources of noise emissions and *Noise Control Measures* present at the *Facility*. "*Acoustic Assessment Report*" also means the *Acoustic Assessment Report* prepared by LAW Consultants Limited, dated April 23, 2020 and signed by Ahmed Naderi, P.Eng.;
3. "*Approval*" means this Environmental Compliance Approval, including the application and supporting documentation listed above;
4. "*Best Management Practices Plan*" means the document titled "Best Management Practices Plan for the Control of Fugitive Dust Emissions", dated November 2017 and prepared by LAW Consultants Ltd.;
5. "*Company*" means Fednav Limited/Fednav Limitée, that is responsible for the construction or operation of the *Facility* and includes any successors and assigns;
6. "*District Manager*" means the District Manager of the appropriate local district



office of the *Ministry*, where the *Facility* is geographically located;

7. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended ;
8. "*Equipment*" means the off-loading operations, vehicle routes, and equipment and/or processes described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application, to the extent approved by this *Approval*;
9. "*Facility*" means the entire operation located on the property where the *Equipment* is located;
10. "*Manual*" means a document or a set of documents that provide written instructions to staff of the *Company*;
11. "*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;
12. "*Noise Control Measures*" means measures to reduce the noise emission from the *Facility* and/or *Equipment* including, but not limited to silencers, acoustic louvers, enclosures, absorptive treatment, plenums and barriers. It also means the noise control measures outlined in the *Acoustic Assessment Report*;
13. "*Publication NPC-233*" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
14. "*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.

*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. OPERATION AND MAINTENANCE

1. The *Company* shall ensure that the *Equipment* is properly operated and maintained at all times. The *Company* shall:
  - a. 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:
    - i. routine operating and maintenance procedures in accordance with

good engineering practices and as recommended by the *Equipment* suppliers;

- ii. emergency procedures, including spill clean-up procedures;
- iii. procedures for any record keeping activities relating to operation and maintenance of the *Equipment*;
- iv. all appropriate measures to minimize noise and odorous emissions from all potential sources; and
- v. the frequency of inspection and replacement of the filter material in the *Equipment*;

b. implement the recommendations of the *Manual*.

- 2. The *Company* shall ensure the off-loading operations are restricted to the daily rates listed in Schedule A of this *Approval*.
- 3. The *Company* shall ensure vehicle routes are restricted to the time periods and number of trips listed in Schedule B of this *Approval*.
- 4. The *Company* shall implement the *Abatement Plan* for the mitigation of particulate matter emissions.

## 2. FUGITIVE DUST CONTROL

- 1. The *Company* shall implement the *Best Management Practices Plan* for the control of fugitive dust emissions resulting from the operation of the *Facility*. The *Company* shall update the *Best Management Practices Plan* as necessary or at the direction of the *District Manager*.

## 3. RECORD RETENTION

- 1. 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:
  - a. a record of the daily maximum amount processed for all processes listed in Schedule A;
  - b. all records on the maintenance, repair and inspection of the *Equipment*; and
  - c. all records of any environmental complaints, including:
    - i. a description, time and date of each incident to which the complaint relates;
    - ii. wind direction at the time of the incident to which the complaint

relates; and

- iii. 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.

#### 4. NOTIFICATION OF COMPLAINTS

1. 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:
  - a. a description of the nature of the complaint; and
  - b. the time and date of the incident to which the complaint relates.

#### 5. NOISE

1. The *Company* shall:
  - a. implement by not later than May 31, 2021, the *Noise Control Measures* as outlined in the *Acoustic Assessment Report*;
  - b. ensure, subsequent to the implementation of the *Noise Control Measures*, that the noise emissions from the *Facility* comply with the limits set in *Ministry Publication NPC-300*; and
  - c. ensure that the *Noise Control Measures* are properly maintained and continue to provide the acoustical performance outlined in the *Acoustic Assessment Report*.
2. The *Company* shall restrict the operations of the bulk cargo "C" trucks, bulk cargo "D" trucks and bulk alloy material trucks to the day-time hours of 7 a.m. to 7 p.m.
3. The *Company* shall restrict the operations of the cargo steel trucks to the day-time and evening hours of 7 a.m. to 11 p.m.
4. The *Company* shall limit truck arrivals and departures during the day-time hours of 7 a.m. to 7 p.m., in accordance with the following:
  - a. a maximum of eight (8) non-alloy bulk cargo "A" trucks per sixty (60) minute period;
  - b. a maximum of seven (7) non-alloy bulk cargo "B" trucks per sixty (60) minute period;
  - c. a maximum of six (6) non-alloy bulk cargo "C" trucks per sixty (60) minute period;
  - d. a maximum of six (6) non-alloy bulk cargo "D" trucks per sixty (60) minute period;

- e. a maximum of twenty-two (22) cargo steel trucks per sixty (60) minute period; and
  - f. a maximum of three (3) bulk alloy material trucks per sixty (60) minute period.
5. The *Company* shall limit truck arrivals and departures during the evening-time hours of 7 p.m. to 11 p.m., in accordance with the following:
- a. a maximum of eight (8) non-alloy bulk cargo "A" trucks per sixty (60) minute period;
  - b. a maximum of seven (7) non-alloy bulk cargo "B" trucks per sixty (60) minute period; and
  - c. a maximum of seventeen (17) cargo steel trucks per sixty (60) minute period.
6. The *Company* shall limit truck arrivals and departures during the night-time hours of 11 p.m. to 7 a.m., in accordance with the following:
- a. a maximum of eight (8) non-alloy bulk cargo "A" trucks per sixty (60) minute period; and
  - b. a maximum of seven (7) non-alloy bulk cargo "B" trucks per sixty (60) minute period.

## SCHEDULE A

Process	Maximum amount processed (metric tonnes per day)
Alloy vessel off-loading	3,000
Non-alloy bulk cargo "A" truck loading	5,760
Ferromanganese alloy truck off-loading in Shed E	490
Ferrochromium alloy truck off-loading in Shed E	175

## SCHEDULE B

Vehicle Route	Operating Time Period	Maximum Number of Vehicle Round-Trips per Day
(R1) Alloy truck off-loading, Shed E	all year	19
(R3) Alloy vessel front-end loader off-loading	Spring, Summer, Autumn	200
(R4) Non-alloy bulk cargo "A" truck hauling	all year	180

(R5) Cargo steel truck hauling, Pier 12/14	all year	209
(R6) Cargo steel truck hauling - Pier 12 west of slip	all year	19
(R7) Cargo steel truck hauling - Spine Road and west of slip	all year	31
(R8) Non-alloy bulk cargo "B" truck hauling	all year	160
(R9) Front-end loader route between Shed E and Shed 2	all year	10
(R10) Non-alloy bulk cargo "C" truck hauling	all year	48
(R11) Non-alloy cargo "D" truck hauling	all year	50
(R12) Front-end loader route, Pier 12	all year	20

*The reasons for the imposition of these terms and conditions are as follows:*

1. Conditions No. 1 and 2 are 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*.
2. Condition No. 3 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.
3. Condition No. 4 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.
4. Condition No. 5 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the *Facility*.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 6291-6XWKV4 issued on March 19, 2007.**

*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
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**\* 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](http://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](http://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 30th day of June,

2020

Rudolf Wan, P.Eng.  
Director  
appointed for the purposes of Part  
II.1 of the *Environmental Protection  
Act*

MS/  
c: District Manager, MECP Hamilton - District  
Ahmed Naderi, M.Eng, LAW Consultants Ltd.



Ministry  
of the  
Environment

Ministère  
de  
l'Environnement

CERTIFICATE OF APPROVAL  
AIR  
NUMBER 1828-762PCG  
Issue Date: October 12, 2007

Bunge Canada Holdings I ULC  
515 Victoria Avenue North  
Hamilton, Ontario  
L8L 8G7

Site Location: 400 Burlington Street East  
Hamilton City,  
L8L 4H7

*You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:*

- forty (40) outdoor above-ground, nitrogen blanketed edible oils storage tanks, having a total nominal capacity of 13,380 metric tonnes;
- four (4) outdoor above-ground, edible oils storage tanks, having a total nominal capacity of 4,195 metric tonnes;
- fourteen (14) indoor nitrogen blanketed edible oils storage tanks, having a total nominal capacity of 630 metric tonnes;
- seven (7) indoor edible oils storage tanks, having a total nominal capacity of 174 metric tonnes;
- one (1) indoor edible oils storage tank, having a nominal capacity of 757 litres;
- one (1) natural gas fired boiler (source B-1), having a maximum heat input of 19,517,500 kilojoules per hour, venting into the atmosphere through a stack, having an exit diameter of 0,61 metre, extending 23.78 metres above the roof and 33.84 metres above grade;
- one (1) roof top installed cooling tower (source CT-1), having a nominal volumetric water flow rate of 153.9 litres per second;
- one (1) roof top installed evaporative condenser (source EC-1), having a nominal volumetric water flow rate of 24.3 litres per second;
- one (1) charcoal air filter system (source E-14), to control emissions from a wastewater treatment room, equipped with 0.328 cubic metre of various chemical media, venting into the atmosphere at a nominal volumetric flow rate of 2.83 actual cubic metres per second, through a stack, having exit dimensions of 0.36 metre by 0.49 metre, extending 1.37 metres above the roof and 11.43 metres above grade;
- one (1) biofilter system (source BF), to control emissions from air collected by hood above hotwell of deodorizer vacuum system, a hood above D.A.F. water treatment system, vents coming off the distillates, skimming and wastewater surge tanks, exhaust from vacuum pump, and vent from bleaching/drying operations, venting into the atmosphere at a nominal volumetric flow rate of 0.52 actual cubic metre per second through a stack, having an exit diameter of 0.30 metre, extending 3.05 metres above the roof and 13.11 metres above grade;
- one (1) bleaching clay silo baghouse (source BL-1), equipped with 26.0 square metres of polyester felt cartridge filter media, venting into the atmosphere at a nominal volumetric flow rate of 0.54 actual cubic metre per second through a stack, having dimensions of 0.61 metre by 0.16 metre, extending 19.20 metres above grade;
- one (1) Venturi type wet scrubber (source BL-2, bleaching scrubber), to control emissions from bleaching filter process, venting into the atmosphere at a nominal volumetric flow rate of 0.85 actual cubic metre per second at an ambient temperature through a stack, having an exit diameter of 0.25 metre, extending 3.05 metre above the roof and 13.11 metres



above grade;

- one (1) maintenance welding exhaust fan (source E-11), venting into the atmosphere at a nominal volumetric flow rate of 0.33 actual cubic metre per second through a side wall opening, having an exit diameter of 0.15 metre, extending 5.49 metres above grade;

- one (1) laboratory exhaust fan (source E-19), serving two (2) laboratory fume hoods and one (1) chemical storage cabinet), venting into the atmosphere at a nominal volumetric flow rate of 0.80 actual cubic metre per second through a stack, having an exit diameter of 0.36 metre, extending 6.83 metres above the roof and 16.76 metres above grade;

all in accordance with the application for a Certificate of Approval (Air) dated June 29, 2006 and signed by Tom Ryan, Engineering Manager, the letters from Water and Earth Science Associates Ltd., dated January 4, 2007, January 17, 2007, and July 23, 2007 and signed by Gayle Giesbrecht, P.Eng., the letter from Arctic Combustion Limited, dated June 6, 2007 and signed by Peter Barhydt, P.Eng., and Acoustic Assessment Report, prepared by Aercoustics Engineering, dated January 2, 2007, revised September 26, 2007, and all information associated with the application.

*For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:*

1. "Act" means the *Environmental Protection Act*;
2. "Certificate" means this Certificate of Approval (Air), issued in accordance with Section 9 of the Act;
3. "Company" means Bunge Canada Holdings I ULC.;
4. "Director" means any Ministry employee appointed by the Minister pursuant to Section 5 of the Act;
5. "District Manager" means the District Manager, Hamilton District Office, West Central Region of the Ministry;
6. "Equipment" means all emission control equipment, and the boiler (source B-1), described in the Company's application, this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate;
7. "Facility" means the entire operation located on the property where the Company is located;
8. "Manual" means a document or a set of documents that provide written instructions to staff of the Company;
9. "Ministry" means the Ontario Ministry of Environment.
10. "Manager" means the Manager, Technical Services Section, Standards Development Branch, or any other person who represents and carries out the duties of the Manager, as those duties relate to the conditions of this Certificate;
11. "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 Schedule "A" of this Certificate;
12. "Noise Report" means the report prepared by Aercoustics Engineering, dated January 2, 2007, revised September 26, 2007;
13. "Point of Impingement" means any point outside the facility in the natural environment and as defined by s. 2 of O. Reg. 419/05. The point of impingement for the purposes of verifying compliance with the Act shall be chosen as the point located outside the company's property boundaries at which the highest concentration is expected to occur, when that concentration is calculated in accordance with the Ontario Regulation 419/05, or any other method accepted by the Director;
14. "Publication NPC-205" means Publication NPC-205, Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban), October, 1995;

15. "Pre-test Information" means the information outlined in Section 1 of the Source Testing Code;
16. "Source Testing Code" means the Source Testing Code, Version 2, Report No. ARB-66-80, dated November 1980, prepared by the Ministry, as amended;
17. "Source Testing" means sampling and testing to measure emissions resulting from the operation of the Facility . identified in this Certificate and when the associated production lines and equipment are operating at a maximum production level;

*You are hereby notified that this 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 Certificate , 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;
    - (c) the frequency of inspection and replacement of the filter material in the Equipment;
    - (d) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and
    - (e) all appropriate measures to minimize noise and odorous emissions from all potential sources;
    - (f) most effective fugitive dust control measures to minimize fugitive dust emissions from all potential sources;
  - (2) Implement the recommendations of the Manual.

### **ODOUR CONTROL MEASURES**

2. The Company shall take measures to minimize odorous emissions from all potential sources at the Facility.

### **RECORD RETENTION**

3. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records related to recording activities required by this Certificate, and make these records available for review by staff of the Ministry upon request. The Company shall retain all records of process upsets causing increased emissions to the atmosphere, failure of air pollution control equipment and any environmental complaints, including:
  - (1) a description, time and date of the incident causing the complaint;
  - (2) wind direction and wind speed at the time of the incident;
  - (3) a description of the measures taken to address the cause of incident and to prevent a similar occurrence in the future.

### **NOTIFICATION OF COMPLAINTS**

4. 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.

### **SOURCE TESTING**

5. The Company shall perform Source Testing to determine the rates of emission of the Test Contaminants from the following sources;
  - bleaching scrubber (source BL-2) - Odour and PM;
  - biofilter system (BF) - Odour only;
6. The Company shall submit, not later than three (3) months after commencement of operation of the Equipment, to the Manager a test protocol, including the Pre-Test Information for the Source Testing required by the Source Testing Code.
7. The Company shall finalize the test protocol in consultation with the Manager.
8. The Company shall not commence the Source Testing until the Manager has accepted the test protocol.
9. The Company shall complete the Source Testing not later than three (3) months after the Manager has accepted the test protocol.

### **Notification of Upcoming Source Testing**

10. The Company shall notify the District Manager and the Manager, in writing, of the location, date and time of any impending Source Testing required by this Certificate, at least ten (10) business days prior to the Source Testing.

### **Report on Source Testing**

11. The Company shall submit a report on the Source Testing to the District Manager and the Manager not later than two (2) months after completing the Source Testing. The report shall be in the format described in the Source Testing Code, and shall also include:
  - (1) an executive summary;
  - (2) records of all operating conditions;
  - (3) results of the Source Testing; and
  - (4) the results of dispersion calculations in accordance with the dispersion model accepted by the Director, indicating the maximum concentration of the Test Contaminant at the Point of Impingement.

### **Refusal of Source Testing**

12. The Director may not accept the results of the Source Testing if:
  - (1) the Source Testing Code or the requirements of the Manager were not followed; or
  - (2) the Company did not notify the District Manager and the Manager of the Source Testing; or
  - (3) the Company failed to provide a complete report on the Source Testing.
13. If the Director does not accept the results of the Source Testing, the Director may require re-testing.

### **NOISE**

14. The Company shall ensure that the noise emissions from the Facility comply with the limits set in Publication NPC-205.

**SCHEDULE "A"**

**Noise Control Measures**

**General Air Louvre Openings, twelve (12) louvres 006 – 014 and 021 - 023:**

- Maximum allowable sound power level for each individual louvre shall be 84 dBA

<b>Louvre</b>	<b>Location</b>
Louvre 6	Plant Zone 1, South Elevation, Melt Room
Louvre 7	Plant Zone 2, South Elevation, "Geka Generator" Room
Louvre 8	Plant Zone 2, South Elevation, Bleaching 1st Floor
Louvre 9	Plant Zone 2, South Elevation, Cooling Tower "Utility Room"
Louvre 10	Plant Zone 2, South Elevation, Warehouse/Storage Facility
Louvre 11	Plant Zone 2, West Elevation, Waste Water Treatment Room
Louvre 12	Plant Zone 2, North Elevation, Waste Water Treatment Room
Louvre 13	Plant Zone 2, North Elevation, Heat Recovery Room
Louvre 14	Plant Zone 2, North Elevation, Heat Recovery Room
Louvre 22	Plant Zone 2, North Elevation, Bleaching 3rd Floor
Louvre 23	Plant Zone 2, North Elevation, Bleaching 3rd Floor

**Four (4) Large Deodorizer Louvres, located on the South façade of deodorizer tower with 4 louvres from bottom to top of tower:**

- Maximum allowable sound power level for the louvre openings at the Deodorizer area shall be 89 dBA

**Cooling Tower CT-1:**

- The sound power level of CT-1 shall not exceed the following values in 1/1 octave frequency bands:

O.B. Freq (Hz)	31.5	63	125	250	500	1000	2000	4000	8000	dBA
Sound Power Level (dB)	85	94	91	92	89	84	80	75	68	90

**Charcoal Air Filter Fan E-14**

- The sound power level of E-14 shall not exceed the following values in 1/1 octave frequency bands:

O.B. Freq (Hz)	31.5	63	125	250	500	1000	2000	4000	8000	dBA
Sound Power Level (dB)	105	104	104	103	101	100	98	87	79	105

*The reasons for the imposition of these terms and conditions are as follows:*

1. Conditions No.1 and No. 2 are included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, the regulations, and this Certificate. In addition, the Company is required to keep records and provide information to staff of the Ministry so that compliance with the Act, the regulations and this Certificate can be verified.

2. Conditions No. 3 and No. 4 are included to require the Company to keep records and provide information to staff of the

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Ministry so that compliance with the Act, the regulations and this Certificate can be verified.

3. Conditions No. 5 to No. 13, inclusive, are included to require the Company to gather accurate information so that compliance with the Act, the regulations and this Certificate can be verified.

4. Condition No. 14 is included to provide the minimum performance requirement considered necessary to prevent an adverse effect resulting from the operation of the Facility.

*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, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, S.O. 1993, Chapter 28, 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 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., Suite 1700  
P.O. Box 2382  
Toronto, Ontario  
M4P 1E4

AND

The Environmental Commissioner  
1075 Bay Street, 6th Floor  
Suite 605  
Toronto, Ontario  
M5S 2B1

AND

The Director  
Section 9, *Environmental Protection Act*  
Ministry of the Environment  
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](http://www.ert.gov.on.ca)**

*This instrument is subject to Section 38 of the Environmental Bill of Rights, 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.ene.gov.on.ca](http://www.ene.gov.on.ca), you can determine when the leave to appeal period ends.*

*The above noted works are approved under Section 9 of the Environmental Protection Act.*

DATED AT TORONTO this 12th day of October, 2007

Victor Low, P.Eng.  
Director  
Section 9, *Environmental Protection Act*

JK/

**CONTENT COPY OF ORIGINAL**

c: District Manager, MOE Hamilton - District  
Gayle Giesbrecht, Water and Earth Science Associates Ltd.

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 5444-BCMP9X

Issue Date: July 8, 2019

Bunge Canada Holdings I ULC  
515 Victoria Ave N  
Hamilton, Ontario  
L8N 3K7

**Site Location:** 515 Victoria Avenue North  
Hamilton City,  
L8N 3K7

*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

Oilseeds processing facility, consisting of the following processes and support units:

- oilseeds receiving and handling operations;
- oilseeds cleaning and conditioning operations;
- oils expelling, extraction, degumming and bleaching operations;
- by-products grinding and handling operations;
- one (1) natural gas fired primary boiler, having a maximum heat input rating of 79.0 Gigajoules per hour;
- one (1) natural gas fired primary boiler, using No. 2 fuel oil as a stand-by fuel, having a maximum heat input rating of 79.0 Gigajoules per hour;
- two (2) natural gas fired back-up boilers, each having a maximum input heat rating of 27.4 Gigajoules per hour;
- three (3) peak shaving diesel fired electrical generators, each rated at 2.5 MWe of electrical output, each equipped with Selective Catalytic Reduction (SCR) unit;

including the *Equipment* and any other ancillary and support processes and activities, operating at a *Facility Production Limit* of up to **3,700 tonnes of processed oilseeds (including up to 1,200 tonnes of canola seeds) 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 Petr Chocensky and Robert D. Stevens / HGC Engineering and dated January 31, 2019 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. "*Acoustic Audit*" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the *Facility*, assessed to determine compliance with the Performance Limits for the *Facility* regarding noise emissions, completed in accordance with the procedures set in *Publication NPC-103* and reported in accordance with *Publication NPC-233*;
6. "*Acoustic Audit Report*" means a report presenting the results of an *Acoustic Audit*, prepared in accordance with *Publication NPC-233*;
7. "*Acoustical Consultant*" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with *Ministry* noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a *Facility*;
8. "*Approval*" means this entire Environmental Compliance Approval and any *Schedules* to it;
9. "*Basic Comprehensive User Guide*" means the *Ministry* document titled "Basic



Comprehensive Certificates of Approval (Air) User Guide” dated March 2011, as amended;

10. "*Company*" means Bunge Canada Holdings I ULC operating as Bunge Canada Holdings I ULC 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*;
11. "*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;
12. "*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*;
13. "*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*;
14. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located;
15. "*Emission Summary Table*" means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05*;
16. "*Environmental Assessment Act*" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended;
17. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
18. "*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;
19. "*Equipment with Specific Operational Limits*" means primary boilers, back-up boilers and peak shaving generators 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*;
20. "*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*;
21. "*Facility*" means the entire operation located on the property where the *Equipment* is located;

22. "*Facility Production Limit*" means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility*;
23. "*Independent Acoustical Consultant*" means an *Acoustical Consultant* not representing the *Company*, and not involved in the noise impact assessment or the design/implementation of *Noise Control Measures* for the *Facility/Equipment*. The *Independent Acoustical Consultant* shall not be retained by the consultant involved in the noise/vibration impact assessment or the design/implementation of noise/vibration control measures for the *Facility/Equipment*;
24. "*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;
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 louvers, enclosures, absorptive treatment, plenums and barriers, described in the *Company's* application, this *Approval* and in the supporting documentation referred to herein, to the extent approved by this *Approval*. It also means the *Noise Control Measures* outlined in the *Acoustic Assessment Report*;
30. "*Odour Abatement Plan*" means the document entitled "Odour Abatement Plan for the Bunge Hamilton Crush Facility" dated June 20, 2019 and signed by Rene Lemay, Facility Manager, and includes any future amendments to the plan

reviewed and accepted by the District Manger.

31. "O. Reg. 419/05" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;
32. "*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 Paul Geisberger, P.Eng. (Ramboll Canada Inc) and dated January 30, 2019 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval*;
33. "*Point of Impingement*" has the same meaning as in section 2 of O. Reg. 419/05;
34. "*Point of Reception*" means Point of Reception as defined by *Publication NPC-300*;
35. "*Pre-Test Plan*" means a plan for the *Source Testing* including the information required in Section 5 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-103*" means the *Ministry* Publication NPC-103 of the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the *Ministry*, as amended;
39. "*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;
40. "*Publication NPC-233*" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
41. "*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;
42. "*Schedules*" means the following schedules attached to this *Approval* and forming part of this *Approval* namely:
  - Schedule A - Supporting Documentation

- Schedule B - Emission Limits of contaminants for Internal Combustion Engines used for Non-Emergency Power Generation;
  - Schedule C - Source Testing Procedures;
43. "*Source Testing*" means sampling and testing to measure emissions resulting from operating the *Targeted Sources* under conditions which yield the worst case emissions within the approved operating range of the *Targeted Sources* which satisfies paragraph 1 of subsection 11(1) of O. Reg. 419/0;
44. "*Source Testing Code*" means the Ontario Source Testing Code, dated June 2010, prepared by the *Ministry*, as amended;
45. "*Targeted Sources*" means the three (3) peak shaving diesel fired electrical generators;
46. "*Test Contaminants*" means Nitrogen Oxides (expressed as nitrogen dioxide equivalent), Total Suspended Particulate Matter, Non-Methane Hydrocarbons (total hydrocarbons excluding methane), and Carbon Monoxide;
47. "*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
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
  - Schedule B - Emission Limits of contaminants for Internal Combustion Engines used for Non-Emergency Power Generation;
  - Schedule C - Source Testing Procedures;

## 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:
  - a. implement, not later than thirty-six (36) months after the date of this *Approval*, the *Noise Control Measures* as outlined in the *Acoustic Assessment Report*;
  - b. ensure that following the implementations of the *Noise Control Measures* outlined in the *Acoustic Assessment Report*, the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300*; and,
  - c. ensure that the *Noise Control Measures* are properly maintained and continue to provide the acoustical performance outlined in the *Acoustic Assessment Report*.
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*;
5. The *Company* shall operate any *Equipment with Specific Operational Limits* approved by this *Approval* in accordance with the *Original ESDM Report*;
6. The *Company* shall ensure that the fuel used to operate the three (3) peak shaving diesel fired electrical generators contains a maximum sulphur content of no more than fifteen (15) parts per million.
7. The *Company* shall ensure that the three (3) peak shaving diesel fired electrical generators meet the in-stack emission limits specified in Schedule B during peak shaving operations;
8. The *Company* shall ensure that the three (3) peak shaving diesel fired electrical generators operates in accordance with the *Original ESDM Report*, including start-up procedures for peak shaving operations; and

9. The *Company* shall implement the *Odour Abatement Plan*.

## 5. ACOUSTIC AUDIT

1. The *Company* shall carry out *Acoustic Audit* measurements on the actual noise emissions due to the operation of the *Facility*, following the implementation the *Noise Control Measures*. The *Company*:
  - a. shall carry out *Acoustic Audit* measurements in accordance with the procedures in *Publication NPC-103*; and,
  - b. shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*, prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233*, to the *District Manager* and the *Director*, not later than six (6) months after the full implementation of the *Noise Control Measure*.
2. The *Director*:
  - a. may not accept the results of the *Acoustic Audit* if the requirements of *Publication NPC-233* were not followed; and
  - b. may require the *Company* to repeat the *Acoustic Audit* if the results of the *Acoustic Audit* are found unacceptable to the *Director*.

## 6. 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 6.1 and 6.2 do not apply if Condition 2.1 has expired.

## 7. REPORTING REQUIREMENTS

1. Subject to Condition 7.2, 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 7.1 does not apply if Condition 2.1 has expired.

## 8. 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.

## 9. 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.

## **10. 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*;
  - g. copy of start-up procedures and records of operating hours of peak shaving electrical generators; and
  - h. all records related to environmental complaints made by the public as required by Condition 8 of this *Approval*.

## **11. SOURCE TESTING**

1. The *Company* shall perform *Source Testing* in accordance with the procedures in Schedule "C" to determine the rates of emissions of the *Test Contaminants* from the *Targeted Sources*.

## **12. 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 January 30, 2019, signed by Rene Lemay, Plant Manager and submitted by the *Company*;
2. Emission Summary and Dispersion Modelling Report, prepared by Paul Geisberger, P.Eng. (Ramboll Canada Inc) and dated January 30, 2019;
3. Updated ESDM Report (Bunge ESDM Addendum No.1 - Generator Modelling) dated June 7, 2019 and signed by Paul Geisberger, P.Eng., principal Consultant (Ramboll Canada Inc.);
4. *Acoustic Assessment Report*, prepared by Petr Chocensky, PhD and Robert D. Stevens, MAsc, P.Eng (HGC Engineering) and dated January 31, 2019.
- 5.

## SCHEDULE B

### Emission Limits of Contaminants for Internal Combustion Engines Used for Non-Emergency Power Generation

Contaminant Name	Maximum Limit (kilogram per megawatt hour)
Nitrogen Oxides (expressed as nitrogen dioxide equivalent)	0.4
Particulate Matter	0.02
Total Hydrocarbons excluding methane Non-Methane Hydrocarbons (NMHC)	0.19
Carbon Monoxide	3.5

## SCHEDULE C

### Source Testing Procedures

1. The *Company* shall perform *Source Testing* once every two (2) years to determine the rate of emission of the *Test Contaminants* from the *Targeted Sources*.

2. The *Company* shall submit, not later than three (3) months after the date of this *Approval*, to the *Manager* a *Pre-Test Plan* for the *Source Testing* of the *Targeted Source*. The *Company* shall finalize the *Pre-Test Plan* in consultation with the *Manager*.
3. The *Company* shall not commence the *Source Testing* required under this *Approval* until the *Manager* has approved the *Pre-Test Plan*.
4. The *Company* shall complete the *Source Testing* not later than three (3) months after the *Manager* has approved the *Pre-Test Plan* or within a period as directed or agreed to in writing by the *Manager* and the *District Manager*.
5. 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*.
6. The *Company* shall submit a report (hardcopy 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. records of operating conditions at the time of *Source Testing*, including but not limited to the following:
    - i. production data;
    - ii. *Facility*/process information related to the operation of the *Targeted Sources*;
    - iii. description of the emission sources controlled by the *Targeted Sources* at the time of testing;
    - iv. control equipment/stacks operating parameters at the time of *Source Testing* and recommended operating parameters range;
    - v. operational description of the general building ventilation at the time of testing;
  - d. results of *Source Testing*, including the emission rate, emission concentration, and relevant emission factors of the *Test Contaminants* from the *Targeted Sources*; and

e. a tabular comparison of *Source Testing* results for the *Targeted Sources* and *Test Contaminants* to original emission estimates/emission limits described in the *Company's* application and the *ESDM Report*.

7. 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*.

8. 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.

9. If the *Source Testing* results are higher than the emission estimates in the *Company's* *ESDM 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*.

10. The *District Manager* may not require subsequent *Source Testing* or relax the frequency of subsequent *Source Testing* if the results of the *Source Testing* indicate that the environmental impact from the *Test Contaminants* are insignificant.

*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. **ACOUSTIC AUDIT**

Condition No. 5 is included to require the *Company* to gather accurate information and submit an *Acoustic Audit Report* in accordance with procedures set in the *Ministry's* noise guidelines, so that the environmental impact and subsequent compliance with the *EPA*, the regulation and this *Approval* can be verified.

### 4. **DOCUMENTATION REQUIREMENTS**

Condition No. 6 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*.

### 5. **REPORTING REQUIREMENTS**

Condition No. 7 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*.

### 6. **OPERATION AND MAINTENANCE**

Condition No. 8 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.

### 7. **COMPLAINTS RECORDING AND REPORTING PROCEDURE**

Condition No. 9 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.

### 8. **RECORD KEEPING REQUIREMENTS**

Condition No. 10 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.

**9. SOURCE TESTING**

Condition No. 11 is included to require the *Company* to gather and retain accurate information so that compliance with the *EPA*, the regulations and this *Approval* can be verified.

**10. REVOCATION OF PREVIOUS APPROVALS**

Condition No. 12 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). 3908-8GCKJZ issued on May 13, 2011.**

*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*		The Minister of the Environment, Conservation and Parks		The Director appointed for the purposes of Part II.1 of the Environmental Protection Act
Environmental Review Tribunal				Ministry of the Environment, Conservation
655 Bay Street, Suite 1500	AND	777 Bay Street, 5th Floor	AND	and Parks
Toronto, Ontario		Toronto, Ontario		135 St. Clair Avenue West, 1st Floor
M5G 1E5		M7A 2J3		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](http://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](http://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 8th day of July,  
2019

Jeffrey McKerrall, P.Eng.  
Director  
appointed for the purposes of Part  
II.1 of the *Environmental Protection  
Act*

JK/  
c: District Manager, MECP Hamilton - District  
Paul Geisberger, Ramboll Canada Inc





Ministry of the Environment, Conservation and Parks  
Operations Division

## Confirmation of Registration

**Registration Number: R-010-3110689743**

**Version Number: 001**

**Date Registration Filed: Nov 21, 2018 10:50:43 AM**

Dear Sir/Madam,

BERMINGHAM FOUNDATION SOLUTIONS

600 FERGUSON Avenue (ave)  
HAMILTON ON L8L 4Z9

You have registered, in accordance with Section 20.21(1) (a) of the *Environmental Protection Act*, the use, operation, construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing that is located at the facility noted below, or the alteration of a process or rate of production at the facility, including the activities set out in schedule 'A'.

600 Ferguson Avenue (av) North Hamilton ON L8L 4Z9

Please note that the facility noted above is subject to the applicable provisions of O. Reg. 245/11, and O. Reg.1/17.

The activity related information provided during the registration process is included as part of the confirmation of registration as schedule 'A'.

Dated on Nov 21, 2018

Director  
Environmental Approvals Access and Service Integration Branch  
Ministry of the Environment, Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto ON M4V 1P5

Any questions related to this registration and the Environmental Activity and the Sector Registry should be directed to:

Ministry of the Environment, Conservation and Parks  
Customer Service Representative  
Environmental Approvals Access and Service Integration Branch  
Phone:(416) 314-8001  
Toll free: 1-800-461-6290

## Schedule 'A'

### Part 3 - Activity Information

#### 3.1 Industry Eligibility Check

- a. Please select the facility's primary North American Industry Classification System (NAICS) code. 33312
- b. Does the facility have any other applicable NAICS codes?  Yes  No
- b. i. If yes, please select the facility's secondary NAICS code(s), and confirm any other applicable NAICS code(s).
- c. Are you engaged in an activity at the facility that may discharge or from which may be discharged a contaminant into any part of the natural environment other than water?  Yes  No
- d. Is the activity exempt from requiring an Environmental Compliance Approval (ECA) under section 9 (1) of the Environmental Protection Act (EPA) other than an activity that has been prescribed by an EASR regulation under Part II.2 of the Act?  Yes  No
- e. Are the only activities engaged in at the facility, other than activities described in question 3.1d above, prescribed under a single other EASR regulation?  Yes  No
- f. Is an alternative low-carbon fuel site within the meaning of Ontario Regulation (O. Reg.) 79/15 (Alternative Low-Carbon Fuels) operated at the facility?  Yes  No
- g. Is the activity a renewable energy project as defined in the EPA?  Yes  No
- h. Is an end-of-life vehicle waste disposal site within the meaning of O. Reg. 85/16 operated at the facility?  Yes  No

#### 3.2 Facility Related Information

- a. Has a site-specific air standard ever been set for a contaminant discharged from the facility? (section 35 of O. Reg. 419/05 (Air Pollution -- Local Air Quality))  Yes  No
- b. Has a person ever been registered in the Ministry's Technical Standards Registry – Air Pollution under section 39 of O. Reg. 419/05 (Air Pollution – Local Air Quality) in respect of the facility?  Yes  No
- c. Do all of the activities to be registered occur exclusively at the site?  
*Please Note: Discrete activities that involve the use of equipment that is intended to be moved from one site to another to perform the same function (such as the use of mobile rock crushing equipment or mobile PCB destruction equipment) are not prescribed for the purpose of the Environmental Activity and Sector Registry, and an Environmental Compliance Approval may be required.*  Yes  No
- d. Is the facility located on a property that has been deemed a single property under subsection 4 (2) of O. Reg. 419/05?  Yes  No
- e. Is the facility located in an area of development control within the Niagara Escarpment Planning Area?  Yes  No
- e. i. If yes, has a development permit required under section 24 of the Niagara Escarpment Planning and Development Act (NEPDA) in respect of the facility been issued?  Yes  No
- f. Is there a landfilling site that is no longer permitted to accept waste for disposal located on the site on which the facility is located?  Yes  No
- g. Is the activity part of an undertaking to which the Environmental Assessment Act applies?  Yes  No
- g. i. If yes, is one or more of the following conditions met:  
- All class EA requirements have been completed, including decisions on any Part II order requests; OR  
- The facility has received approval to proceed with the undertaking.  Yes  No

h. Please provide a description of the facility. The description should include a summary of operations and activities at the facility that discharge contaminants, as well as what is produced, if applicable.

The Birmingham facility manufactures custom foundation equipment for applications pertaining to pile foundations, excavation and shoring, marine construction, and other related operations. The facility consists of a sandblasting building, a paint booth, machine shops, storage buildings, an equipment wash pad, and a pile driving hammer test area.

i. Please enter the date on which the facility commenced or will commence operations. 2012-02-28

j. Is the facility located in a multi-tenant building?  Yes  No

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### 3.3 Activity Related Information

a. Does the land disposal of waste as defined in Regulation 347 General – Waste Management occur at the facility?  Yes  No

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b. Does the facility process or dispose of waste by way of thermal treatment, other than the thermal treatment of wood fuel that meets the specifications in Chapter 5 of the EASR publication in a wood-fired combustor?  Yes  No

---

c. Does the facility use a wood-fired combustor?  Yes  No

---

c. i. If yes, does the wood-fired combustor have a nominal load heat input capacity of less than 3 megawatts?  Yes  No

---

c. ii. If yes, was the wood-fired combustor installed at the facility on or after January 31, 2017?  Yes  No

---

c. iii. If yes, does the wood-fired combustor exclusively use one or more of the following as fuel:  
- Wood chips that meet the specifications set out in Chapter 5 of the EASR publication.  
- Wood briquettes that meet the specifications set out in Chapter 5 of the EASR publication.  
- Wood pellets that meet the specifications set out in Chapter 5 of the EASR publication.  Yes  No

---

d. Does the facility have any plating processes that use cadmium, cyanide, chromium or nickel, including chrome plating, electroplating or electroless plating?  Yes  No

---

e. Is an electrolytic stripping process that removes cadmium, chromium or nickel from an object used at the facility?  Yes  No

---

f. Are metals processed outdoors at the facility, including torching, shearing, shredding or plasma cutting, other than for the purpose of routine maintenance carried out at the facility on any plant, structure, equipment, apparatus or thing?  Yes  No

---

g. Is a fossil-fuel electric power generation facility with a maximum electrical power output capacity equal to or greater than 25 megawatts operated at the facility?  Yes  No

---

h. Is a combustion source that uses biogas, biomass, coal, petroleum coke or waste as a fuel, or that uses a fuel derived from biogas, biomass, coal, petroleum coke or waste other than a small wood-fired combustor operated at the facility?  Yes  No

---

i. Is a combustion turbine used at the facility?  Yes  No

---

## Part 4 - Operational Information

### 4.1 Air

a. Does the EASR Emission Summary and Dispersion Modelling (ESDM) Report provide for modifications that have not yet been implemented at the facility?  Yes  No

a. i. If yes, please provide the date on which the modifications will be completed.

b. Has an instrument under O. Reg. 419/05 been issued in respect of the facility?  Yes  No

b. i. If yes, what type(s) of instruments (including any notices, orders or approvals) has (have) been issued? (select all that apply)

ss. 7(1) Specified Dispersion Models

ss. 8(2) Negligible Sources

ss. 10(2) Operating Conditions

ss. 11(2) Refined Emission Rates

ss. 13.1 Value of Dispersion Modelling Parameters

ss. 13(1) Meteorological Data

ss. 14(6) Area of Modelling Coverage

ss. 20(5) Speed-up Order

Other

List all that have been issued

c. To what standard did the licensed engineering practitioner assess compliance of the facility's emissions (please select the applicable box(es)):

Section 19 of O. Reg. 419/05 (Schedule 2)

Section 20 of O. Reg. 419/05 (Schedule 3)

N/A – The amount of any contaminant discharged from the site is negligible

N/A – Source(s) discharge only sound as a contaminant

N/A – Source(s) discharge sound as a contaminant and the amount of any other contaminant discharged is negligible

d. Please select all applicable boxes that apply to a discharge of a contaminant(s) to air from the facility:

Contaminant(s) belonging to Benchmark 1 category of ACB list is at or below the concentration for each specified averaging period set out for the contaminant

Contaminant(s) belonging to Benchmark 2 category of ACB list is at or below the concentration for each specified averaging period set out for the contaminant

Contaminant(s) belonging to Benchmark 2 category of ACB list is above the concentration for a specified averaging period set out for the contaminant

The concentration of the contaminant(s) does not have a Ministry standard, guideline, or screening level set out for the contaminant

N/A – The amount of any contaminant discharged from the site is negligible

N/A – Source(s) discharge only sound as a contaminant

N/A – Source(s) discharge sound as a contaminant and the amount of any other contaminant discharged is negligible

e. Does the facility operate a generator for non-emergency purposes?  Yes  No

f. Does the facility use or operate a large boiler or heater greater than 10.5 gigajoules per hour?  Yes  No

g. Will an Emissions Summary Table be uploaded?  Yes  No  
*Please Note: An Emissions Summary Table is required to be uploaded at the time of registration. An Emissions Summary Table is also required to be uploaded if any modifications to the facility require an update to the EASR ESDM. Additionally, as part of the 10 year review required by O. Reg. 1/17, an updated Emissions Summary Table is required to be uploaded.*

h. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the EASR ESDM Report and made statements in the EASR ESDM Report Supplement and the date signed.

First Name	Last Name	Licence Number(s)	Date Signed
Akhter	Iqbal	100106827	2018-11-14

#### 4.2 Fugitive Dust Control

a. Does the EASR ESDM Report prepared for the facility identify a source of fugitive dust?  Yes  No

a. i. If yes, has a licensed engineering practitioner signed and sealed a Best Management Practice Plan (BMPP) for fugitive dust control?  Yes  No

b. Has a BMPP for fugitive dust control been prepared as a result of a written notice from the Director issued under O. Reg. 1/17?  Yes  No

c. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the BMPP for fugitive dust control and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
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#### 4.3 Noise

a. Please select the noise assessment method that was completed for the facility:

The facility meets the 1000m setback distance

Primary Noise Screening Method

Secondary Noise Screening Method

Acoustic Assessment Report

a. i. If the Primary Noise Screening Method was used, is the actual separation distance from the facility to the closest Point of Noise Reception equal to or greater than the minimum separation distance as determined by the Primary Noise Screening Method?  Yes  No

a. ii. If the Secondary Noise Screening Method was used, is the combined sound level from the facility at each affected Point of Noise Reception as determined by the Secondary Noise Screening Method less than or equal to the applicable sound level limit set out in Chapter 3 of the EASR publication?  Yes  No

a. iii. If an acoustic assessment was completed, did the acoustic assessment determine that the combined sound level from the facility at each affected Point of Noise Reception less than or equal to of the applicable sound level limit set out in Chapter 3 of the EASR publication?  Yes  No

a. iii. a) If no, has a Noise Abatement Action Plan been developed for the facility?  Yes  No

a. iii. b) If yes, please provide the title of the Noise Abatement Action Plan and the date it was prepared.

Name of NAAP	Date Prepared

b. Has an Acoustic Audit Report been prepared as a result of a written notice from the Director?  Yes  No

b. i. If yes, please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the acoustic audit report, and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

c. Will an Acoustic Assessment Summary Table be uploaded?  Yes  No

*Please Note: An Acoustic Assessment Summary Table is required to be uploaded at the time of registration if an Acoustic Assessment was completed for the facility. An Acoustic Assessment Summary Table is also required to be uploaded if any modifications to the facility require an update to the facility's noise report. Additionally, as part of the 10 year review required by O. Reg. 1/17, an updated Acoustic Assessment Summary Table is required to be uploaded.*

d. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the noise report, and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed
Buddy	Ledger	100115575	2018-11-14

#### 4.4 Odour

a. Did the Odour Screening Report indicate that a circumstance which requires a BMPP for odour to be prepared exists at the facility?  Yes  No

b. Did the Odour Screening Report indicate that a circumstance which requires an Odour Control Report (OCR) to be prepared exists at the facility?  Yes  No

b. i. If yes, please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the Odour Control Report and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

c. Has a BMPP for odour been prepared as a result of a written notice from the Director issued under O. Reg. 1/17?  Yes  No

d. Please provide the Name(s) and Licence Number(s) of the Licensed Engineering Practitioner(s) that signed and sealed the BMPP for odour and the date signed and sealed.

First Name	Last Name	Licence Number(s)	Date Signed

**Table 3: Acoustic Assessment Summary**

Project: Birmingham  
 Location: Hamilton, ON

Point of Reception ID	Point of Reception Description	Time Period <sup>[1]</sup>	Total Sound Level at POR <sup>[2]</sup> (dBA)	Verified by Acoustic Audit <sup>[3]</sup> (Yes/No)	Performance Limit <sup>[4]</sup> (dBA)	Performance Limit Source <sup>[5]</sup> (C / M / D)	Compliant with Performance Limit (Yes/No)
POR 1	Two-Storey House	Daytime - Steady	36	No	50	D	Yes
		Night-time - Steady	25	No	45		Yes
		Daytime - Impulsive	37	No	50		Yes
		Daytime - Emergency	18	No	55		Yes
POR 2	Two-Storey House	Daytime - Steady	45	No	50	D	Yes
		Night-time - Steady	37	No	45		Yes
		Daytime - Impulsive	43	No	50		Yes
		Daytime - Emergency	38	No	55		Yes
POR 3	One-Storey House	Daytime - Steady	44	No	50	D	Yes
		Night-time - Steady	35	No	45		Yes
		Daytime - Impulsive	44	No	50		Yes
		Daytime - Emergency	40	No	55		Yes
POR 4	Existing Condo	Daytime - Steady	45	No	50	D	Yes
		Night-time - Steady	38	No	45		Yes
		Daytime - Impulsive	51	No	50		No
		Daytime - Emergency	37	No	55		Yes
POR 5	Proposed Condo 1	Daytime - Steady	40	No	60	D	Yes
		Night-time - Steady	38	No	55		Yes
		Daytime - Impulsive	52	No	60		Yes
		Daytime - Emergency	34	No	65		Yes
POR 6	Proposed Condo 2	Daytime - Steady	39	No	60	D	Yes
		Night-time - Steady	38	No	55		Yes
		Daytime - Impulsive	52	No	60		Yes
		Daytime - Emergency	34	No	65		Yes
POR 7	Proposed Condo 3	Daytime - Steady	40	No	60	D	Yes
		Night-time - Steady	38	No	55		Yes
		Daytime - Impulsive	50	No	60		Yes
		Daytime - Emergency	29	No	65		Yes

Notes on Table:

- 1 Daytime occurs from 07:00 to 23:00. Night-time occurs from 23:00 to 07:00.
- 2 Worst-case cumulative sound level from all applicable sources operating. The hammer/dust collector and generators are assessed individually.
- 3 Has an acoustic audit (as defined in Publication NPC-233) been conducted with the source in place and operating?
- 4 Applicable worst-case NPC-300 sound level limit.
- 5 Performance limit (aka guideline limit) based on following:  
 C = Calculated based on road traffic volumes in compliance with NPC-206 requirements.  
 M = Measured based on monitoring for a minimum 48 hour period, in accordance with NPC-233 requirements.  
 D = Default guideline minima per NPC-300, as applicable (e.g., 50 dBA daytime for Class 2 Area)

# **Appendix C**

**Stationary Noise Model Inputs and Sample  
CadnaA Calculation Output**





Source: Google Satellite



NOISE IMPACT STUDY  
 WATERFRONT SHORES CORPORATION  
 BLOCK 16 - PIER 8, HAMILTON, ONTARIO  
 GUIDELINE D-6 SETBACKS

11182471  
 27.10.2021

FIGURE C.1

Table C.1

**Stationary Noise Source Summary  
Waterfront Shores Corporation  
Block 16 - Pier 8, Hamilton, Ontario**

Cadna A ID	Source Description	Sound Power Level		Source Type
		Day (dBA)	Night (dBA)	
S-1	Friends of HMCS Haida	88.0	88.0	Point
S-2	Canadian Armed Forces Reserve Barracks	88.0	88.0	Point
S-3a1	Birmingham Office	108.7	95.7	Point
S-3a2	Birmingham Yard	112.7	100.3	Point
S-3b	Attic Mechanical Maintenance Limited	108.0	107.1	Point
S-4	Parrish and Heimbecker	112.5	107.5	Point
S-5a	Sucro Can Canada Inc.	102.7	101.7	Point
S-5b	HCE Energy	93.8	93.8	Point
S-6	Collective Arts Brewing	92.2	87.2	Point
S-7	Bunge (515 Victoria Ave N)	108.0	103.0	Point
S-8	Lafarge Canada	108.2	103.2	Point
S-9	IKO Industries	112.6	107.6	Point
S-10	Vopak Terminals of Canada Inc.	108.0	105.1	Point
S-11	Name Unknown	88.0	87.7	Point
S-12	Bunge (400 Burlington St E)	109.5	104.5	Point
S-13	Shell Hamilton Terminal	104.4	99.4	Point
S-14	Federal Marine Terminals	110.1	105.1	Point
S-15	Sylvite Agri-Services Ltd.	113.3	108.3	Point
S-16	Econo Storage	88.0	88.0	Point
S-17	Tudor Can Distributors Ltd.	88.0	86.9	Point
S-18	Harbour West Hamilton	98.0	94.1	Point
S-19	Royal Hamilton Yacht Club	98.0	96.5	Point
S-20	Macassa Bay Yacht Club	95.7	90.7	Point

Receiver  
 Name: (untitled)  
 ID: !03!OLA-02a  
 X: 592512.27 m  
 Y: 4792208.49 m  
 Z: 170.40 m

Point Source, ISO 9613, Name: "Parrish and Heimbecker", ID: "!0G!S-4"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	l/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
4	593206.61	4791939.81	86.00	0	D	32	85.0	0.0	0.0	0.0	0.0	68.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	19.5
4	593206.61	4791939.81	86.00	0	D	63	94.4	0.0	0.0	0.0	0.0	68.5	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	28.8
4	593206.61	4791939.81	86.00	0	D	125	103.0	0.0	0.0	0.0	0.0	68.5	0.3	-3.0	0.0	0.0	0.0	0.0	0.0	37.2
4	593206.61	4791939.81	86.00	0	D	250	108.6	0.0	0.0	0.0	0.0	68.5	0.8	-3.0	0.0	0.0	0.0	0.0	0.0	42.3
4	593206.61	4791939.81	86.00	0	D	500	105.9	0.0	0.0	0.0	0.0	68.5	1.4	-3.0	0.0	0.0	0.0	0.0	0.0	39.0
4	593206.61	4791939.81	86.00	0	D	1000	103.3	0.0	0.0	0.0	0.0	68.5	2.7	-3.0	0.0	0.0	0.0	0.0	0.0	35.1
4	593206.61	4791939.81	86.00	0	D	2000	101.3	0.0	0.0	0.0	0.0	68.5	7.2	-3.0	0.0	0.0	0.0	0.0	0.0	28.6
4	593206.61	4791939.81	86.00	0	D	4000	98.0	0.0	0.0	0.0	0.0	68.5	24.6	-3.0	0.0	0.0	0.0	0.0	0.0	8.0
4	593206.61	4791939.81	86.00	0	D	8000	90.5	0.0	0.0	0.0	0.0	68.5	87.6	-3.0	0.0	0.0	0.0	0.0	0.0	-62.6
4	593206.61	4791939.81	86.00	0	N	32	80.0	0.0	0.0	0.0	0.0	68.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	14.5
4	593206.61	4791939.81	86.00	0	N	63	89.4	0.0	0.0	0.0	0.0	68.5	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	23.8
4	593206.61	4791939.81	86.00	0	N	125	98.0	0.0	0.0	0.0	0.0	68.5	0.3	-3.0	0.0	0.0	0.0	0.0	0.0	32.2
4	593206.61	4791939.81	86.00	0	N	250	103.6	0.0	0.0	0.0	0.0	68.5	0.8	-3.0	0.0	0.0	0.0	0.0	0.0	37.3
4	593206.61	4791939.81	86.00	0	N	500	100.9	0.0	0.0	0.0	0.0	68.5	1.4	-3.0	0.0	0.0	0.0	0.0	0.0	34.0
4	593206.61	4791939.81	86.00	0	N	1000	98.3	0.0	0.0	0.0	0.0	68.5	2.7	-3.0	0.0	0.0	0.0	0.0	0.0	30.1
4	593206.61	4791939.81	86.00	0	N	2000	96.3	0.0	0.0	0.0	0.0	68.5	7.2	-3.0	0.0	0.0	0.0	0.0	0.0	23.6
4	593206.61	4791939.81	86.00	0	N	4000	93.0	0.0	0.0	0.0	0.0	68.5	24.6	-3.0	0.0	0.0	0.0	0.0	0.0	3.0
4	593206.61	4791939.81	86.00	0	N	8000	85.5	0.0	0.0	0.0	0.0	68.5	87.6	-3.0	0.0	0.0	0.0	0.0	0.0	-67.6
4	593206.61	4791939.81	86.00	0	E	32	85.0	0.0	0.0	0.0	0.0	68.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	19.5
4	593206.61	4791939.81	86.00	0	E	63	94.4	0.0	0.0	0.0	0.0	68.5	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	28.8
4	593206.61	4791939.81	86.00	0	E	125	103.0	0.0	0.0	0.0	0.0	68.5	0.3	-3.0	0.0	0.0	0.0	0.0	0.0	37.2
4	593206.61	4791939.81	86.00	0	E	250	108.6	0.0	0.0	0.0	0.0	68.5	0.8	-3.0	0.0	0.0	0.0	0.0	0.0	42.3
4	593206.61	4791939.81	86.00	0	E	500	105.9	0.0	0.0	0.0	0.0	68.5	1.4	-3.0	0.0	0.0	0.0	0.0	0.0	39.0
4	593206.61	4791939.81	86.00	0	E	1000	103.3	0.0	0.0	0.0	0.0	68.5	2.7	-3.0	0.0	0.0	0.0	0.0	0.0	35.1
4	593206.61	4791939.81	86.00	0	E	2000	101.3	0.0	0.0	0.0	0.0	68.5	7.2	-3.0	0.0	0.0	0.0	0.0	0.0	28.6
4	593206.61	4791939.81	86.00	0	E	4000	98.0	0.0	0.0	0.0	0.0	68.5	24.6	-3.0	0.0	0.0	0.0	0.0	0.0	8.0
4	593206.61	4791939.81	86.00	0	E	8000	90.5	0.0	0.0	0.0	0.0	68.5	87.6	-3.0	0.0	0.0	0.0	0.0	0.0	-62.6

Point Source, ISO 9613, Name: "Bermingham Yard", ID: "!0G!S-3a2"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	l/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
11	593119.94	4791921.14	81.18	0	D	32	61.0	0.0	0.0	0.0	0.0	67.6	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-3.6
11	593119.94	4791921.14	81.18	0	D	63	82.3	0.0	0.0	0.0	0.0	67.6	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	17.6
11	593119.94	4791921.14	81.18	0	D	125	94.3	0.0	0.0	0.0	0.0	67.6	0.3	-2.9	0.0	0.0	0.0	0.0	0.0	29.3
11	593119.94	4791921.14	81.18	0	D	250	94.4	0.0	0.0	0.0	0.0	67.6	0.7	-3.0	0.0	0.0	0.0	0.0	0.0	29.0
11	593119.94	4791921.14	81.18	0	D	500	103.6	0.0	0.0	0.0	0.0	67.6	1.3	-3.0	0.0	0.0	0.0	0.0	0.0	37.6
11	593119.94	4791921.14	81.18	0	D	1000	109.2	0.0	0.0	0.0	0.0	67.6	2.5	-3.0	0.0	0.0	0.0	0.0	0.0	42.1
11	593119.94	4791921.14	81.18	0	D	2000	108.3	0.0	0.0	0.0	0.0	67.6	6.6	-3.0	0.0	0.0	0.0	0.0	0.0	37.1
11	593119.94	4791921.14	81.18	0	D	4000	99.3	0.0	0.0	0.0	0.0	67.6	22.2	-3.0	0.0	0.0	0.0	0.0	0.0	12.4
11	593119.94	4791921.14	81.18	0	D	8000	75.6	0.0	0.0	0.0	0.0	67.6	79.3	-3.0	0.0	0.0	0.0	0.0	0.0	-68.3
11	593119.94	4791921.14	81.18	0	N	32	48.6	0.0	0.0	0.0	0.0	67.6	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-16.0
11	593119.94	4791921.14	81.18	0	N	63	69.9	0.0	0.0	0.0	0.0	67.6	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	5.2
11	593119.94	4791921.14	81.18	0	N	125	81.9	0.0	0.0	0.0	0.0	67.6	0.3	-2.9	0.0	0.0	0.0	0.0	0.0	16.9
11	593119.94	4791921.14	81.18	0	N	250	82.0	0.0	0.0	0.0	0.0	67.6	0.7	-3.0	0.0	0.0	0.0	0.0	0.0	16.6
11	593119.94	4791921.14	81.18	0	N	500	91.2	0.0	0.0	0.0	0.0	67.6	1.3	-3.0	0.0	0.0	0.0	0.0	0.0	25.2
11	593119.94	4791921.14	81.18	0	N	1000	96.8	0.0	0.0	0.0	0.0	67.6	2.5	-3.0	0.0	0.0	0.0	0.0	0.0	29.7
11	593119.94	4791921.14	81.18	0	N	2000	95.9	0.0	0.0	0.0	0.0	67.6	6.6	-3.0	0.0	0.0	0.0	0.0	0.0	24.7
11	593119.94	4791921.14	81.18	0	N	4000	86.9	0.0	0.0	0.0	0.0	67.6	22.2	-3.0	0.0	0.0	0.0	0.0	0.0	0.0
11	593119.94	4791921.14	81.18	0	N	8000	63.2	0.0	0.0	0.0	0.0	67.6	79.3	-3.0	0.0	0.0	0.0	0.0	0.0	-80.7
11	593119.94	4791921.14	81.18	0	E	32	61.0	0.0	0.0	0.0	0.0	67.6	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-3.6
11	593119.94	4791921.14	81.18	0	E	63	82.3	0.0	0.0	0.0	0.0	67.6	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	17.6
11	593119.94	4791921.14	81.18	0	E	125	94.3	0.0	0.0	0.0	0.0	67.6	0.3	-2.9	0.0	0.0	0.0	0.0	0.0	29.3

Point Source, ISO 9613, Name: "Birmingham Yard", ID: "I0G!S-3a2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
11	593119.94	4791921.14	81.18	0	E	250	94.4	0.0	0.0	0.0	0.0	67.6	0.7	-3.0	0.0	0.0	0.0	0.0	0.0	29.0
11	593119.94	4791921.14	81.18	0	E	500	103.6	0.0	0.0	0.0	0.0	67.6	1.3	-3.0	0.0	0.0	0.0	0.0	0.0	37.6
11	593119.94	4791921.14	81.18	0	E	1000	109.2	0.0	0.0	0.0	0.0	67.6	2.5	-3.0	0.0	0.0	0.0	0.0	0.0	42.1
11	593119.94	4791921.14	81.18	0	E	2000	108.3	0.0	0.0	0.0	0.0	67.6	6.6	-3.0	0.0	0.0	0.0	0.0	0.0	37.1
11	593119.94	4791921.14	81.18	0	E	4000	99.3	0.0	0.0	0.0	0.0	67.6	22.2	-3.0	0.0	0.0	0.0	0.0	0.0	12.4
11	593119.94	4791921.14	81.18	0	E	8000	75.6	0.0	0.0	0.0	0.0	67.6	79.3	-3.0	0.0	0.0	0.0	0.0	0.0	-68.3
14	593119.94	4791921.14	81.18	1	D	125	94.3	0.0	0.0	0.0	0.0	67.8	0.3	-2.9	0.0	0.0	4.8	0.0	1.0	23.4
14	593119.94	4791921.14	81.18	1	D	250	94.4	0.0	0.0	0.0	0.0	67.8	0.7	-3.0	0.0	0.0	4.8	0.0	1.0	23.1
14	593119.94	4791921.14	81.18	1	D	500	103.6	0.0	0.0	0.0	0.0	67.8	1.3	-3.0	0.0	0.0	4.8	0.0	1.0	31.7
14	593119.94	4791921.14	81.18	1	D	1000	109.2	0.0	0.0	0.0	0.0	67.8	2.5	-3.0	0.0	0.0	4.8	0.0	1.0	36.1
14	593119.94	4791921.14	81.18	1	D	2000	108.3	0.0	0.0	0.0	0.0	67.8	6.7	-3.0	0.0	0.0	4.8	0.0	1.0	31.1
14	593119.94	4791921.14	81.18	1	D	4000	99.3	0.0	0.0	0.0	0.0	67.8	22.6	-3.0	0.0	0.0	4.8	0.0	1.0	6.2
14	593119.94	4791921.14	81.18	1	D	8000	75.6	0.0	0.0	0.0	0.0	67.8	80.4	-3.0	0.0	0.0	4.8	0.0	1.0	-75.4
14	593119.94	4791921.14	81.18	1	N	125	81.9	0.0	0.0	0.0	0.0	67.8	0.3	-2.9	0.0	0.0	4.8	0.0	1.0	11.0
14	593119.94	4791921.14	81.18	1	N	250	82.0	0.0	0.0	0.0	0.0	67.8	0.7	-3.0	0.0	0.0	4.8	0.0	1.0	10.7
14	593119.94	4791921.14	81.18	1	N	500	91.2	0.0	0.0	0.0	0.0	67.8	1.3	-3.0	0.0	0.0	4.8	0.0	1.0	19.3
14	593119.94	4791921.14	81.18	1	N	1000	96.8	0.0	0.0	0.0	0.0	67.8	2.5	-3.0	0.0	0.0	4.8	0.0	1.0	23.7
14	593119.94	4791921.14	81.18	1	N	2000	95.9	0.0	0.0	0.0	0.0	67.8	6.7	-3.0	0.0	0.0	4.8	0.0	1.0	18.7
14	593119.94	4791921.14	81.18	1	N	4000	86.9	0.0	0.0	0.0	0.0	67.8	22.6	-3.0	0.0	0.0	4.8	0.0	1.0	-6.2
14	593119.94	4791921.14	81.18	1	N	8000	63.2	0.0	0.0	0.0	0.0	67.8	80.4	-3.0	0.0	0.0	4.8	0.0	1.0	-87.8
14	593119.94	4791921.14	81.18	1	E	125	94.3	0.0	0.0	0.0	0.0	67.8	0.3	-2.9	0.0	0.0	4.8	0.0	1.0	23.4
14	593119.94	4791921.14	81.18	1	E	250	94.4	0.0	0.0	0.0	0.0	67.8	0.7	-3.0	0.0	0.0	4.8	0.0	1.0	23.1
14	593119.94	4791921.14	81.18	1	E	500	103.6	0.0	0.0	0.0	0.0	67.8	1.3	-3.0	0.0	0.0	4.8	0.0	1.0	31.7
14	593119.94	4791921.14	81.18	1	E	1000	109.2	0.0	0.0	0.0	0.0	67.8	2.5	-3.0	0.0	0.0	4.8	0.0	1.0	36.1
14	593119.94	4791921.14	81.18	1	E	2000	108.3	0.0	0.0	0.0	0.0	67.8	6.7	-3.0	0.0	0.0	4.8	0.0	1.0	31.1
14	593119.94	4791921.14	81.18	1	E	4000	99.3	0.0	0.0	0.0	0.0	67.8	22.6	-3.0	0.0	0.0	4.8	0.0	1.0	6.2
14	593119.94	4791921.14	81.18	1	E	8000	75.6	0.0	0.0	0.0	0.0	67.8	80.4	-3.0	0.0	0.0	4.8	0.0	1.0	-75.4

Point Source, ISO 9613, Name: "Attic Mechanical Maintenance Limited", ID: "I0G!S-3b"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
21	593116.21	4791768.26	82.00	0	D	32	76.5	0.0	0.0	0.0	0.0	68.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	10.9
21	593116.21	4791768.26	82.00	0	D	63	86.8	0.0	0.0	0.0	0.0	68.5	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	21.2
21	593116.21	4791768.26	82.00	0	D	125	95.3	0.0	0.0	0.0	0.0	68.5	0.3	-1.4	0.0	0.0	0.0	0.0	0.0	27.9
21	593116.21	4791768.26	82.00	0	D	250	99.0	0.0	0.0	0.0	0.0	68.5	0.8	-2.1	0.0	0.0	0.0	0.0	0.0	31.8
21	593116.21	4791768.26	82.00	0	D	500	102.3	0.0	0.0	0.0	0.0	68.5	1.5	-2.3	0.0	0.0	0.0	0.0	0.0	34.6
21	593116.21	4791768.26	82.00	0	D	1000	103.5	0.0	0.0	0.0	0.0	68.5	2.8	-2.3	0.0	0.0	0.0	0.0	0.0	34.5
21	593116.21	4791768.26	82.00	0	D	2000	100.2	0.0	0.0	0.0	0.0	68.5	7.3	-2.3	0.0	0.0	0.0	0.0	0.0	26.7
21	593116.21	4791768.26	82.00	0	D	4000	90.1	0.0	0.0	0.0	0.0	68.5	24.7	-2.3	0.0	0.0	0.0	0.0	0.0	-0.8
21	593116.21	4791768.26	82.00	0	D	8000	64.2	0.0	0.0	0.0	0.0	68.5	88.0	-2.3	0.0	0.0	0.0	0.0	0.0	-90.0
21	593116.21	4791768.26	82.00	0	N	32	75.6	0.0	0.0	0.0	0.0	68.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	10.0
21	593116.21	4791768.26	82.00	0	N	63	85.9	0.0	0.0	0.0	0.0	68.5	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	20.3
21	593116.21	4791768.26	82.00	0	N	125	94.4	0.0	0.0	0.0	0.0	68.5	0.3	-1.4	0.0	0.0	0.0	0.0	0.0	27.0
21	593116.21	4791768.26	82.00	0	N	250	98.1	0.0	0.0	0.0	0.0	68.5	0.8	-2.1	0.0	0.0	0.0	0.0	0.0	30.9
21	593116.21	4791768.26	82.00	0	N	500	101.4	0.0	0.0	0.0	0.0	68.5	1.5	-2.3	0.0	0.0	0.0	0.0	0.0	33.7
21	593116.21	4791768.26	82.00	0	N	1000	102.6	0.0	0.0	0.0	0.0	68.5	2.8	-2.3	0.0	0.0	0.0	0.0	0.0	33.6
21	593116.21	4791768.26	82.00	0	N	2000	99.3	0.0	0.0	0.0	0.0	68.5	7.3	-2.3	0.0	0.0	0.0	0.0	0.0	25.8
21	593116.21	4791768.26	82.00	0	N	4000	89.2	0.0	0.0	0.0	0.0	68.5	24.7	-2.3	0.0	0.0	0.0	0.0	0.0	-1.7
21	593116.21	4791768.26	82.00	0	N	8000	63.3	0.0	0.0	0.0	0.0	68.5	88.0	-2.3	0.0	0.0	0.0	0.0	0.0	-90.9
21	593116.21	4791768.26	82.00	0	E	32	76.5	0.0	0.0	0.0	0.0	68.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	10.9
21	593116.21	4791768.26	82.00	0	E	63	86.8	0.0	0.0	0.0	0.0	68.5	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	21.2
21	593116.21	4791768.26	82.00	0	E	125	95.3	0.0	0.0	0.0	0.0	68.5	0.3	-1.4	0.0	0.0	0.0	0.0	0.0	27.9
21	593116.21	4791768.26	82.00	0	E	250	99.0	0.0	0.0	0.0	0.0	68.5	0.8	-2.1	0.0	0.0	0.0	0.0	0.0	31.8
21	593116.21	4791768.26	82.00	0	E	500	102.3	0.0	0.0	0.0	0.0	68.5	1.5	-2.3	0.0	0.0	0.0	0.0	0.0	34.6
21	593116.21	4791768.26	82.00	0	E	1000	103.5	0.0	0.0	0.0	0.0	68.5	2.8	-2.3	0.0	0.0	0.0	0.0	0.0	34.5
21	593116.21	4791768.26	82.00	0	E	2000	100.2	0.0	0.0	0.0	0.0	68.5	7.3	-2.3	0.0	0.0	0.0	0.0	0.0	26.7
21	593116.21	4791768.26	82.00	0	E	4000	90.1	0.0	0.0	0.0	0.0	68.5	24.7	-2.3	0.0	0.0	0.0	0.0	0.0	-0.8
21	593116.21	4791768.26	82.00	0	E	8000	64.2	0.0	0.0	0.0	0.0	68.5	88.0	-2.3	0.0	0.0	0.0	0.0	0.0	-90.0
26	593116.21	4791768.26	82.00	1	D	125	95.3	0.0	0.0	0.0	0.0	68.6	0.3	-1.4	0.0	0.0	4.8	0.0	1.0	22.0
26	593116.21	4791768.26	82.00	1	D	250	99.0	0.0	0.0	0.0	0.0	68.6	0.8	-2.1	0.0	0.0	4.8	0.0	1.0	25.9
26	593116.21	4791768.26	82.00	1	D	500	102.3	0.0	0.0	0.0	0.0	68.6	1.5	-2.3	0.0	0.0	4.8	0.0	1.0	28.7
26	593116.21	4791768.26	82.00	1	D	1000	103.5	0.0	0.0	0.0	0.0	68.6	2.8	-2.3	0.0	0.0	4.8	0.0	1.0	28.6
26	593116.21	4791768.26	82.00	1	D	2000	100.2	0.0	0.0	0.0	0.0	68.6	7.4	-2.3	0.0	0.0	4.8	0.0	1.0	20.7

Point Source, ISO 9613, Name: "Attic Mechanical Maintenance Limited", ID: "I0G!S-3b"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
26	593116.21	4791768.26	82.00	1	D	4000	90.1	0.0	0.0	0.0	0.0	68.6	25.0	-2.3	0.0	0.0	4.8	0.0	1.0	-7.0
26	593116.21	4791768.26	82.00	1	D	8000	64.2	0.0	0.0	0.0	0.0	68.6	89.1	-2.3	0.0	0.0	4.8	0.0	1.0	-97.0
26	593116.21	4791768.26	82.00	1	N	125	94.4	0.0	0.0	0.0	0.0	68.6	0.3	-1.4	0.0	0.0	4.8	0.0	1.0	21.1
26	593116.21	4791768.26	82.00	1	N	250	98.1	0.0	0.0	0.0	0.0	68.6	0.8	-2.1	0.0	0.0	4.8	0.0	1.0	25.0
26	593116.21	4791768.26	82.00	1	N	500	101.4	0.0	0.0	0.0	0.0	68.6	1.5	-2.3	0.0	0.0	4.8	0.0	1.0	27.8
26	593116.21	4791768.26	82.00	1	N	1000	102.6	0.0	0.0	0.0	0.0	68.6	2.8	-2.3	0.0	0.0	4.8	0.0	1.0	27.7
26	593116.21	4791768.26	82.00	1	N	2000	99.3	0.0	0.0	0.0	0.0	68.6	7.4	-2.3	0.0	0.0	4.8	0.0	1.0	19.8
26	593116.21	4791768.26	82.00	1	N	4000	89.2	0.0	0.0	0.0	0.0	68.6	25.0	-2.3	0.0	0.0	4.8	0.0	1.0	-7.9
26	593116.21	4791768.26	82.00	1	N	8000	63.3	0.0	0.0	0.0	0.0	68.6	89.1	-2.3	0.0	0.0	4.8	0.0	1.0	-97.9
26	593116.21	4791768.26	82.00	1	E	125	95.3	0.0	0.0	0.0	0.0	68.6	0.3	-1.4	0.0	0.0	4.8	0.0	1.0	22.0
26	593116.21	4791768.26	82.00	1	E	250	99.0	0.0	0.0	0.0	0.0	68.6	0.8	-2.1	0.0	0.0	4.8	0.0	1.0	25.9
26	593116.21	4791768.26	82.00	1	E	500	102.3	0.0	0.0	0.0	0.0	68.6	1.5	-2.3	0.0	0.0	4.8	0.0	1.0	28.7
26	593116.21	4791768.26	82.00	1	E	1000	103.5	0.0	0.0	0.0	0.0	68.6	2.8	-2.3	0.0	0.0	4.8	0.0	1.0	28.6
26	593116.21	4791768.26	82.00	1	E	2000	100.2	0.0	0.0	0.0	0.0	68.6	7.4	-2.3	0.0	0.0	4.8	0.0	1.0	20.7
26	593116.21	4791768.26	82.00	1	E	4000	90.1	0.0	0.0	0.0	0.0	68.6	25.0	-2.3	0.0	0.0	4.8	0.0	1.0	-7.0
26	593116.21	4791768.26	82.00	1	E	8000	64.2	0.0	0.0	0.0	0.0	68.6	89.1	-2.3	0.0	0.0	4.8	0.0	1.0	-97.0

Point Source, ISO 9613, Name: "IKO Industries", ID: "I0G!S-9"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
32	593522.69	4791853.47	82.00	0	D	32	60.9	0.0	0.0	0.0	0.0	71.6	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-7.8
32	593522.69	4791853.47	82.00	0	D	63	82.2	0.0	0.0	0.0	0.0	71.6	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	13.4
32	593522.69	4791853.47	82.00	0	D	125	94.2	0.0	0.0	0.0	0.0	71.6	0.4	-3.0	0.0	0.0	0.0	0.0	0.0	25.1
32	593522.69	4791853.47	82.00	0	D	250	94.3	0.0	0.0	0.0	0.0	71.6	1.1	-3.0	0.0	0.0	0.0	0.0	0.0	24.6
32	593522.69	4791853.47	82.00	0	D	500	103.5	0.0	0.0	0.0	0.0	71.6	2.1	-3.0	0.0	0.0	0.0	0.0	0.0	32.8
32	593522.69	4791853.47	82.00	0	D	1000	109.1	0.0	0.0	0.0	0.0	71.6	3.9	-3.0	0.0	0.0	0.0	0.0	0.0	36.5
32	593522.69	4791853.47	82.00	0	D	2000	108.2	0.0	0.0	0.0	0.0	71.6	10.4	-3.0	0.0	0.0	0.0	0.0	0.0	29.2
32	593522.69	4791853.47	82.00	0	D	4000	99.2	0.0	0.0	0.0	0.0	71.6	35.2	-3.0	0.0	0.0	0.0	0.0	0.0	-4.6
32	593522.69	4791853.47	82.00	0	D	8000	75.5	0.0	0.0	0.0	0.0	71.6	125.6	-3.0	0.0	0.0	0.0	0.0	0.0	-118.7
32	593522.69	4791853.47	82.00	0	N	32	55.9	0.0	0.0	0.0	0.0	71.6	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-12.8
32	593522.69	4791853.47	82.00	0	N	63	77.2	0.0	0.0	0.0	0.0	71.6	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	8.4
32	593522.69	4791853.47	82.00	0	N	125	89.2	0.0	0.0	0.0	0.0	71.6	0.4	-3.0	0.0	0.0	0.0	0.0	0.0	20.1
32	593522.69	4791853.47	82.00	0	N	250	89.3	0.0	0.0	0.0	0.0	71.6	1.1	-3.0	0.0	0.0	0.0	0.0	0.0	19.6
32	593522.69	4791853.47	82.00	0	N	500	98.5	0.0	0.0	0.0	0.0	71.6	2.1	-3.0	0.0	0.0	0.0	0.0	0.0	27.8
32	593522.69	4791853.47	82.00	0	N	1000	104.1	0.0	0.0	0.0	0.0	71.6	3.9	-3.0	0.0	0.0	0.0	0.0	0.0	31.5
32	593522.69	4791853.47	82.00	0	N	2000	103.2	0.0	0.0	0.0	0.0	71.6	10.4	-3.0	0.0	0.0	0.0	0.0	0.0	24.2
32	593522.69	4791853.47	82.00	0	N	4000	94.2	0.0	0.0	0.0	0.0	71.6	35.2	-3.0	0.0	0.0	0.0	0.0	0.0	-9.6
32	593522.69	4791853.47	82.00	0	N	8000	70.5	0.0	0.0	0.0	0.0	71.6	125.6	-3.0	0.0	0.0	0.0	0.0	0.0	-123.7
32	593522.69	4791853.47	82.00	0	E	32	60.9	0.0	0.0	0.0	0.0	71.6	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-7.8
32	593522.69	4791853.47	82.00	0	E	63	82.2	0.0	0.0	0.0	0.0	71.6	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	13.4
32	593522.69	4791853.47	82.00	0	E	125	94.2	0.0	0.0	0.0	0.0	71.6	0.4	-3.0	0.0	0.0	0.0	0.0	0.0	25.1
32	593522.69	4791853.47	82.00	0	E	250	94.3	0.0	0.0	0.0	0.0	71.6	1.1	-3.0	0.0	0.0	0.0	0.0	0.0	24.6
32	593522.69	4791853.47	82.00	0	E	500	103.5	0.0	0.0	0.0	0.0	71.6	2.1	-3.0	0.0	0.0	0.0	0.0	0.0	32.8
32	593522.69	4791853.47	82.00	0	E	1000	109.1	0.0	0.0	0.0	0.0	71.6	3.9	-3.0	0.0	0.0	0.0	0.0	0.0	36.5
32	593522.69	4791853.47	82.00	0	E	2000	108.2	0.0	0.0	0.0	0.0	71.6	10.4	-3.0	0.0	0.0	0.0	0.0	0.0	29.2
32	593522.69	4791853.47	82.00	0	E	4000	99.2	0.0	0.0	0.0	0.0	71.6	35.2	-3.0	0.0	0.0	0.0	0.0	0.0	-4.6
32	593522.69	4791853.47	82.00	0	E	8000	75.5	0.0	0.0	0.0	0.0	71.6	125.6	-3.0	0.0	0.0	0.0	0.0	0.0	-118.7

Point Source, ISO 9613, Name: "Sylvite Agri-Services Ltd.", ID: "I0G!S-15"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
40	593772.16	4791827.93	81.04	0	D	32	61.6	0.0	0.0	0.0	0.0	73.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-8.8
40	593772.16	4791827.93	81.04	0	D	63	82.9	0.0	0.0	0.0	0.0	73.4	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	12.3
40	593772.16	4791827.93	81.04	0	D	125	94.9	0.0	0.0	0.0	0.0	73.4	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	24.0
40	593772.16	4791827.93	81.04	0	D	250	95.0	0.0	0.0	0.0	0.0	73.4	1.4	-3.0	0.0	0.0	0.0	0.0	0.0	23.2
40	593772.16	4791827.93	81.04	0	D	500	104.2	0.0	0.0	0.0	0.0	73.4	2.5	-3.0	0.0	0.0	0.0	0.0	0.0	31.3
40	593772.16	4791827.93	81.04	0	D	1000	109.8	0.0	0.0	0.0	0.0	73.4	4.8	-3.0	0.0	0.0	0.0	0.0	0.0	34.6
40	593772.16	4791827.93	81.04	0	D	2000	108.9	0.0	0.0	0.0	0.0	73.4	12.7	-3.0	0.0	0.0	0.0	0.0	0.0	25.7
40	593772.16	4791827.93	81.04	0	D	4000	99.9	0.0	0.0	0.0	0.0	73.4	43.2	-3.0	0.0	0.0	0.0	0.0	0.0	-13.7
40	593772.16	4791827.93	81.04	0	D	8000	76.2	0.0	0.0	0.0	0.0	73.4	154.2	-3.0	0.0	0.0	0.0	0.0	0.0	-148.4
40	593772.16	4791827.93	81.04	0	N	32	56.6	0.0	0.0	0.0	0.0	73.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-13.8
40	593772.16	4791827.93	81.04	0	N	63	77.9	0.0	0.0	0.0	0.0	73.4	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	7.3
40	593772.16	4791827.93	81.04	0	N	125	89.9	0.0	0.0	0.0	0.0	73.4	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	19.0

Point Source, ISO 9613, Name: "Sylvite Agri-Services Ltd.", ID: "I0GIS-15"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
40	593772.16	4791827.93	81.04	0	N	250	90.0	0.0	0.0	0.0	0.0	73.4	1.4	-3.0	0.0	0.0	0.0	0.0	0.0	18.2
40	593772.16	4791827.93	81.04	0	N	500	99.2	0.0	0.0	0.0	0.0	73.4	2.5	-3.0	0.0	0.0	0.0	0.0	0.0	26.3
40	593772.16	4791827.93	81.04	0	N	1000	104.8	0.0	0.0	0.0	0.0	73.4	4.8	-3.0	0.0	0.0	0.0	0.0	0.0	29.6
40	593772.16	4791827.93	81.04	0	N	2000	103.9	0.0	0.0	0.0	0.0	73.4	12.7	-3.0	0.0	0.0	0.0	0.0	0.0	20.7
40	593772.16	4791827.93	81.04	0	N	4000	94.9	0.0	0.0	0.0	0.0	73.4	43.2	-3.0	0.0	0.0	0.0	0.0	0.0	-18.7
40	593772.16	4791827.93	81.04	0	N	8000	71.2	0.0	0.0	0.0	0.0	73.4	154.2	-3.0	0.0	0.0	0.0	0.0	0.0	-153.4
40	593772.16	4791827.93	81.04	0	E	32	61.6	0.0	0.0	0.0	0.0	73.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-8.8
40	593772.16	4791827.93	81.04	0	E	63	82.9	0.0	0.0	0.0	0.0	73.4	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	12.3
40	593772.16	4791827.93	81.04	0	E	125	94.9	0.0	0.0	0.0	0.0	73.4	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	24.0
40	593772.16	4791827.93	81.04	0	E	250	95.0	0.0	0.0	0.0	0.0	73.4	1.4	-3.0	0.0	0.0	0.0	0.0	0.0	23.2
40	593772.16	4791827.93	81.04	0	E	500	104.2	0.0	0.0	0.0	0.0	73.4	2.5	-3.0	0.0	0.0	0.0	0.0	0.0	31.3
40	593772.16	4791827.93	81.04	0	E	1000	109.8	0.0	0.0	0.0	0.0	73.4	4.8	-3.0	0.0	0.0	0.0	0.0	0.0	34.6
40	593772.16	4791827.93	81.04	0	E	2000	108.9	0.0	0.0	0.0	0.0	73.4	12.7	-3.0	0.0	0.0	0.0	0.0	0.0	25.7
40	593772.16	4791827.93	81.04	0	E	4000	99.9	0.0	0.0	0.0	0.0	73.4	43.2	-3.0	0.0	0.0	0.0	0.0	0.0	-13.7
40	593772.16	4791827.93	81.04	0	E	8000	76.2	0.0	0.0	0.0	0.0	73.4	154.2	-3.0	0.0	0.0	0.0	0.0	0.0	-148.4

Point Source, ISO 9613, Name: "Birmingham Office", ID: "I0GIS-3a1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
43	593069.67	4791786.56	82.00	0	D	32	81.2	0.0	0.0	0.0	0.0	68.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	16.2
43	593069.67	4791786.56	82.00	0	D	63	90.6	0.0	0.0	0.0	0.0	68.0	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	25.6
43	593069.67	4791786.56	82.00	0	D	125	99.2	0.0	0.0	0.0	0.0	68.0	0.3	-0.9	0.0	0.0	0.0	0.0	0.0	31.9
43	593069.67	4791786.56	82.00	0	D	250	104.8	0.0	0.0	0.0	0.0	68.0	0.7	-1.8	0.0	0.0	0.0	0.0	0.0	37.9
43	593069.67	4791786.56	82.00	0	D	500	102.1	0.0	0.0	0.0	0.0	68.0	1.4	-2.1	0.0	0.0	0.0	0.0	0.0	34.9
43	593069.67	4791786.56	82.00	0	D	1000	99.5	0.0	0.0	0.0	0.0	68.0	2.6	-2.1	0.0	0.0	0.0	0.0	0.0	31.1
43	593069.67	4791786.56	82.00	0	D	2000	97.5	0.0	0.0	0.0	0.0	68.0	6.8	-2.1	0.0	0.0	0.0	0.0	0.0	24.9
43	593069.67	4791786.56	82.00	0	D	4000	94.2	0.0	0.0	0.0	0.0	68.0	23.1	-2.1	0.0	0.0	0.0	0.0	0.0	5.3
43	593069.67	4791786.56	82.00	0	D	8000	86.7	0.0	0.0	0.0	0.0	68.0	82.4	-2.1	0.0	0.0	0.0	0.0	0.0	-61.5
43	593069.67	4791786.56	82.00	0	N	32	68.2	0.0	0.0	0.0	0.0	68.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	3.2
43	593069.67	4791786.56	82.00	0	N	63	77.6	0.0	0.0	0.0	0.0	68.0	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	12.6
43	593069.67	4791786.56	82.00	0	N	125	86.2	0.0	0.0	0.0	0.0	68.0	0.3	-0.9	0.0	0.0	0.0	0.0	0.0	18.9
43	593069.67	4791786.56	82.00	0	N	250	91.8	0.0	0.0	0.0	0.0	68.0	0.7	-1.8	0.0	0.0	0.0	0.0	0.0	24.9
43	593069.67	4791786.56	82.00	0	N	500	89.1	0.0	0.0	0.0	0.0	68.0	1.4	-2.1	0.0	0.0	0.0	0.0	0.0	21.9
43	593069.67	4791786.56	82.00	0	N	1000	86.5	0.0	0.0	0.0	0.0	68.0	2.6	-2.1	0.0	0.0	0.0	0.0	0.0	18.1
43	593069.67	4791786.56	82.00	0	N	2000	84.5	0.0	0.0	0.0	0.0	68.0	6.8	-2.1	0.0	0.0	0.0	0.0	0.0	11.9
43	593069.67	4791786.56	82.00	0	N	4000	81.2	0.0	0.0	0.0	0.0	68.0	23.1	-2.1	0.0	0.0	0.0	0.0	0.0	-7.7
43	593069.67	4791786.56	82.00	0	N	8000	73.7	0.0	0.0	0.0	0.0	68.0	82.4	-2.1	0.0	0.0	0.0	0.0	0.0	-74.5
43	593069.67	4791786.56	82.00	0	E	32	81.2	0.0	0.0	0.0	0.0	68.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	16.2
43	593069.67	4791786.56	82.00	0	E	63	90.6	0.0	0.0	0.0	0.0	68.0	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	25.6
43	593069.67	4791786.56	82.00	0	E	125	99.2	0.0	0.0	0.0	0.0	68.0	0.3	-0.9	0.0	0.0	0.0	0.0	0.0	31.9
43	593069.67	4791786.56	82.00	0	E	250	104.8	0.0	0.0	0.0	0.0	68.0	0.7	-1.8	0.0	0.0	0.0	0.0	0.0	37.9
43	593069.67	4791786.56	82.00	0	E	500	102.1	0.0	0.0	0.0	0.0	68.0	1.4	-2.1	0.0	0.0	0.0	0.0	0.0	34.9
43	593069.67	4791786.56	82.00	0	E	1000	99.5	0.0	0.0	0.0	0.0	68.0	2.6	-2.1	0.0	0.0	0.0	0.0	0.0	31.1
43	593069.67	4791786.56	82.00	0	E	2000	97.5	0.0	0.0	0.0	0.0	68.0	6.8	-2.1	0.0	0.0	0.0	0.0	0.0	24.9
43	593069.67	4791786.56	82.00	0	E	4000	94.2	0.0	0.0	0.0	0.0	68.0	23.1	-2.1	0.0	0.0	0.0	0.0	0.0	5.3
43	593069.67	4791786.56	82.00	0	E	8000	86.7	0.0	0.0	0.0	0.0	68.0	82.4	-2.1	0.0	0.0	0.0	0.0	0.0	-61.5
47	593069.67	4791786.56	82.00	1	D	125	99.2	0.0	0.0	0.0	0.0	68.1	0.3	-1.3	0.0	0.0	4.8	0.0	1.0	26.4
47	593069.67	4791786.56	82.00	1	D	250	104.8	0.0	0.0	0.0	0.0	68.1	0.7	-2.0	0.0	0.0	4.8	0.0	1.0	32.2
47	593069.67	4791786.56	82.00	1	D	500	102.1	0.0	0.0	0.0	0.0	68.1	1.4	-2.3	0.0	0.0	4.8	0.0	1.0	29.1
47	593069.67	4791786.56	82.00	1	D	1000	99.5	0.0	0.0	0.0	0.0	68.1	2.6	-2.3	0.0	0.0	4.8	0.0	1.0	25.3
47	593069.67	4791786.56	82.00	1	D	2000	97.5	0.0	0.0	0.0	0.0	68.1	6.9	-2.3	0.0	0.0	4.8	0.0	1.0	19.0
47	593069.67	4791786.56	82.00	1	D	4000	94.2	0.0	0.0	0.0	0.0	68.1	23.4	-2.3	0.0	0.0	4.8	0.0	1.0	-0.8
47	593069.67	4791786.56	82.00	1	D	8000	86.7	0.0	0.0	0.0	0.0	68.1	83.5	-2.3	0.0	0.0	4.8	0.0	1.0	-68.4
47	593069.67	4791786.56	82.00	1	N	125	86.2	0.0	0.0	0.0	0.0	68.1	0.3	-1.3	0.0	0.0	4.8	0.0	1.0	13.4
47	593069.67	4791786.56	82.00	1	N	250	91.8	0.0	0.0	0.0	0.0	68.1	0.7	-2.0	0.0	0.0	4.8	0.0	1.0	19.2
47	593069.67	4791786.56	82.00	1	N	500	89.1	0.0	0.0	0.0	0.0	68.1	1.4	-2.3	0.0	0.0	4.8	0.0	1.0	16.1
47	593069.67	4791786.56	82.00	1	N	1000	86.5	0.0	0.0	0.0	0.0	68.1	2.6	-2.3	0.0	0.0	4.8	0.0	1.0	12.3
47	593069.67	4791786.56	82.00	1	N	2000	84.5	0.0	0.0	0.0	0.0	68.1	6.9	-2.3	0.0	0.0	4.8	0.0	1.0	6.0
47	593069.67	4791786.56	82.00	1	N	4000	81.2	0.0	0.0	0.0	0.0	68.1	23.4	-2.3	0.0	0.0	4.8	0.0	1.0	-13.8
47	593069.67	4791786.56	82.00	1	N	8000	73.7	0.0	0.0	0.0	0.0	68.1	83.5	-2.3	0.0	0.0	4.8	0.0	1.0	-81.4
47	593069.67	4791786.56	82.00	1	E	125	99.2	0.0	0.0	0.0	0.0	68.1	0.3	-1.3	0.0	0.0	4.8	0.0	1.0	26.4
47	593069.67	4791786.56	82.00	1	E	250	104.8	0.0	0.0	0.0	0.0	68.1	0.7	-2.0	0.0	0.0	4.8	0.0	1.0	32.2
47	593069.67	4791786.56	82.00	1	E	500	102.1	0.0	0.0	0.0	0.0	68.1	1.4	-2.3	0.0	0.0	4.8	0.0	1.0	29.1

Point Source, ISO 9613, Name: "Birmingham Office", ID: "I0GIS-3a1"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
47	593069.67	4791786.56	82.00	1	E	1000	99.5	0.0	0.0	0.0	0.0	68.1	2.6	-2.3	0.0	0.0	4.8	0.0	1.0	25.3
47	593069.67	4791786.56	82.00	1	E	2000	97.5	0.0	0.0	0.0	0.0	68.1	6.9	-2.3	0.0	0.0	4.8	0.0	1.0	19.0
47	593069.67	4791786.56	82.00	1	E	4000	94.2	0.0	0.0	0.0	0.0	68.1	23.4	-2.3	0.0	0.0	4.8	0.0	1.0	-0.8
47	593069.67	4791786.56	82.00	1	E	8000	86.7	0.0	0.0	0.0	0.0	68.1	83.5	-2.3	0.0	0.0	4.8	0.0	1.0	-68.4

Point Source, ISO 9613, Name: "Lafarge Canada", ID: "I0GIS-8"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
54	593368.06	4791702.64	82.00	0	D	32	56.5	0.0	0.0	0.0	0.0	71.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-11.5
54	593368.06	4791702.64	82.00	0	D	63	77.8	0.0	0.0	0.0	0.0	71.0	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	9.7
54	593368.06	4791702.64	82.00	0	D	125	89.8	0.0	0.0	0.0	0.0	71.0	0.4	-2.9	0.0	0.0	0.0	0.0	0.0	21.3
54	593368.06	4791702.64	82.00	0	D	250	89.9	0.0	0.0	0.0	0.0	71.0	1.0	-2.9	0.0	0.0	0.0	0.0	0.0	20.7
54	593368.06	4791702.64	82.00	0	D	500	99.1	0.0	0.0	0.0	0.0	71.0	1.9	-2.9	0.0	0.0	0.0	0.0	0.0	29.1
54	593368.06	4791702.64	82.00	0	D	1000	104.7	0.0	0.0	0.0	0.0	71.0	3.7	-2.9	0.0	0.0	0.0	0.0	0.0	32.9
54	593368.06	4791702.64	82.00	0	D	2000	103.8	0.0	0.0	0.0	0.0	71.0	9.6	-2.9	0.0	0.0	0.0	0.0	0.0	26.0
54	593368.06	4791702.64	82.00	0	D	4000	94.8	0.0	0.0	0.0	0.0	71.0	32.7	-2.9	0.0	0.0	0.0	0.0	0.0	-6.0
54	593368.06	4791702.64	82.00	0	D	8000	71.1	0.0	0.0	0.0	0.0	71.0	116.7	-2.9	0.0	0.0	0.0	0.0	0.0	-113.7
54	593368.06	4791702.64	82.00	0	N	32	51.5	0.0	0.0	0.0	0.0	71.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-16.5
54	593368.06	4791702.64	82.00	0	N	63	72.8	0.0	0.0	0.0	0.0	71.0	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	4.7
54	593368.06	4791702.64	82.00	0	N	125	84.8	0.0	0.0	0.0	0.0	71.0	0.4	-2.9	0.0	0.0	0.0	0.0	0.0	16.3
54	593368.06	4791702.64	82.00	0	N	250	84.9	0.0	0.0	0.0	0.0	71.0	1.0	-2.9	0.0	0.0	0.0	0.0	0.0	15.7
54	593368.06	4791702.64	82.00	0	N	500	94.1	0.0	0.0	0.0	0.0	71.0	1.9	-2.9	0.0	0.0	0.0	0.0	0.0	24.1
54	593368.06	4791702.64	82.00	0	N	1000	99.7	0.0	0.0	0.0	0.0	71.0	3.7	-2.9	0.0	0.0	0.0	0.0	0.0	27.9
54	593368.06	4791702.64	82.00	0	N	2000	98.8	0.0	0.0	0.0	0.0	71.0	9.6	-2.9	0.0	0.0	0.0	0.0	0.0	21.0
54	593368.06	4791702.64	82.00	0	N	4000	89.8	0.0	0.0	0.0	0.0	71.0	32.7	-2.9	0.0	0.0	0.0	0.0	0.0	-11.0
54	593368.06	4791702.64	82.00	0	N	8000	66.1	0.0	0.0	0.0	0.0	71.0	116.7	-2.9	0.0	0.0	0.0	0.0	0.0	-118.7
54	593368.06	4791702.64	82.00	0	E	32	56.5	0.0	0.0	0.0	0.0	71.0	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-11.5
54	593368.06	4791702.64	82.00	0	E	63	77.8	0.0	0.0	0.0	0.0	71.0	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	9.7
54	593368.06	4791702.64	82.00	0	E	125	89.8	0.0	0.0	0.0	0.0	71.0	0.4	-2.9	0.0	0.0	0.0	0.0	0.0	21.3
54	593368.06	4791702.64	82.00	0	E	250	89.9	0.0	0.0	0.0	0.0	71.0	1.0	-2.9	0.0	0.0	0.0	0.0	0.0	20.7
54	593368.06	4791702.64	82.00	0	E	500	99.1	0.0	0.0	0.0	0.0	71.0	1.9	-2.9	0.0	0.0	0.0	0.0	0.0	29.1
54	593368.06	4791702.64	82.00	0	E	1000	104.7	0.0	0.0	0.0	0.0	71.0	3.7	-2.9	0.0	0.0	0.0	0.0	0.0	32.9
54	593368.06	4791702.64	82.00	0	E	2000	103.8	0.0	0.0	0.0	0.0	71.0	9.6	-2.9	0.0	0.0	0.0	0.0	0.0	26.0
54	593368.06	4791702.64	82.00	0	E	4000	94.8	0.0	0.0	0.0	0.0	71.0	32.7	-2.9	0.0	0.0	0.0	0.0	0.0	-6.0
54	593368.06	4791702.64	82.00	0	E	8000	71.1	0.0	0.0	0.0	0.0	71.0	116.7	-2.9	0.0	0.0	0.0	0.0	0.0	-113.7
61	593368.06	4791702.64	82.00	1	D	125	89.8	0.0	0.0	0.0	0.0	71.1	0.4	-2.9	0.0	0.0	0.0	0.0	1.0	20.2
61	593368.06	4791702.64	82.00	1	D	250	89.9	0.0	0.0	0.0	0.0	71.1	1.1	-2.9	0.0	0.0	0.0	0.0	1.0	19.6
61	593368.06	4791702.64	82.00	1	D	500	99.1	0.0	0.0	0.0	0.0	71.1	1.9	-2.9	0.0	0.0	0.0	0.0	1.0	28.0
61	593368.06	4791702.64	82.00	1	D	1000	104.7	0.0	0.0	0.0	0.0	71.1	3.7	-2.9	0.0	0.0	0.0	0.0	1.0	31.8
61	593368.06	4791702.64	82.00	1	D	2000	103.8	0.0	0.0	0.0	0.0	71.1	9.7	-2.9	0.0	0.0	0.0	0.0	1.0	24.9
61	593368.06	4791702.64	82.00	1	D	4000	94.8	0.0	0.0	0.0	0.0	71.1	33.0	-2.9	0.0	0.0	0.0	0.0	1.0	-7.4
61	593368.06	4791702.64	82.00	1	D	8000	71.1	0.0	0.0	0.0	0.0	71.1	117.8	-2.9	0.0	0.0	0.0	0.0	1.0	-115.9
61	593368.06	4791702.64	82.00	1	N	125	84.8	0.0	0.0	0.0	0.0	71.1	0.4	-2.9	0.0	0.0	0.0	0.0	1.0	15.2
61	593368.06	4791702.64	82.00	1	N	250	84.9	0.0	0.0	0.0	0.0	71.1	1.1	-2.9	0.0	0.0	0.0	0.0	1.0	14.6
61	593368.06	4791702.64	82.00	1	N	500	94.1	0.0	0.0	0.0	0.0	71.1	1.9	-2.9	0.0	0.0	0.0	0.0	1.0	23.0
61	593368.06	4791702.64	82.00	1	N	1000	99.7	0.0	0.0	0.0	0.0	71.1	3.7	-2.9	0.0	0.0	0.0	0.0	1.0	26.8
61	593368.06	4791702.64	82.00	1	N	2000	98.8	0.0	0.0	0.0	0.0	71.1	9.7	-2.9	0.0	0.0	0.0	0.0	1.0	19.9
61	593368.06	4791702.64	82.00	1	N	4000	89.8	0.0	0.0	0.0	0.0	71.1	33.0	-2.9	0.0	0.0	0.0	0.0	1.0	-12.4
61	593368.06	4791702.64	82.00	1	N	8000	66.1	0.0	0.0	0.0	0.0	71.1	117.8	-2.9	0.0	0.0	0.0	0.0	1.0	-120.9
61	593368.06	4791702.64	82.00	1	E	125	89.8	0.0	0.0	0.0	0.0	71.1	0.4	-2.9	0.0	0.0	0.0	0.0	1.0	20.2
61	593368.06	4791702.64	82.00	1	E	250	89.9	0.0	0.0	0.0	0.0	71.1	1.1	-2.9	0.0	0.0	0.0	0.0	1.0	19.6
61	593368.06	4791702.64	82.00	1	E	500	99.1	0.0	0.0	0.0	0.0	71.1	1.9	-2.9	0.0	0.0	0.0	0.0	1.0	28.0
61	593368.06	4791702.64	82.00	1	E	1000	104.7	0.0	0.0	0.0	0.0	71.1	3.7	-2.9	0.0	0.0	0.0	0.0	1.0	31.8
61	593368.06	4791702.64	82.00	1	E	2000	103.8	0.0	0.0	0.0	0.0	71.1	9.7	-2.9	0.0	0.0	0.0	0.0	1.0	24.9
61	593368.06	4791702.64	82.00	1	E	4000	94.8	0.0	0.0	0.0	0.0	71.1	33.0	-2.9	0.0	0.0	0.0	0.0	1.0	-7.4
61	593368.06	4791702.64	82.00	1	E	8000	71.1	0.0	0.0	0.0	0.0	71.1	117.8	-2.9	0.0	0.0	0.0	0.0	1.0	-115.9

Point Source, ISO 9613, Name: "Harbour West Hamilton", ID: "I0GIS-18"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
65	592379.71	4791926.43	81.00	0	D	32	59.1	0.0	0.0	0.0	0.0	61.2	0.0	-3.0	0.0	0.0	2.1	0.0	0.0	-1.2
65	592379.71	4791926.43	81.00	0	D	63	73.1	0.0	0.0	0.0	0.0	61.2	0.0	-3.0	0.0	0.0	2.3	0.0	0.0	12.5
65	592379.71	4791926.43	81.00	0	D	125	85.5	0.0	0.0	0.0	0.0	61.2	0.1	-3.0	0.0	0.0	2.8	0.0	0.0	24.4

Point Source, ISO 9613, Name: "Harbour West Hamilton", ID: "10GIS-18"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
65	592379.71	4791926.43	81.00	0	D	250	85.0	0.0	0.0	0.0	0.0	61.2	0.3	-3.0	0.0	0.0	3.5	0.0	0.0	23.0
65	592379.71	4791926.43	81.00	0	D	500	89.6	0.0	0.0	0.0	0.0	61.2	0.6	-3.0	0.0	0.0	4.4	0.0	0.0	26.3
65	592379.71	4791926.43	81.00	0	D	1000	94.7	0.0	0.0	0.0	0.0	61.2	1.2	-3.0	0.0	0.0	5.7	0.0	0.0	29.6
65	592379.71	4791926.43	81.00	0	D	2000	91.7	0.0	0.0	0.0	0.0	61.2	3.1	-3.0	0.0	0.0	7.4	0.0	0.0	23.0
65	592379.71	4791926.43	81.00	0	D	4000	84.9	0.0	0.0	0.0	0.0	61.2	10.6	-3.0	0.0	0.0	9.4	0.0	0.0	6.6
65	592379.71	4791926.43	81.00	0	D	8000	74.0	0.0	0.0	0.0	0.0	61.2	37.9	-3.0	0.0	0.0	11.9	0.0	0.0	-34.0
65	592379.71	4791926.43	81.00	0	N	32	55.2	0.0	0.0	0.0	0.0	61.2	0.0	-3.0	0.0	0.0	2.1	0.0	0.0	-5.1
65	592379.71	4791926.43	81.00	0	N	63	69.2	0.0	0.0	0.0	0.0	61.2	0.0	-3.0	0.0	0.0	2.3	0.0	0.0	8.6
65	592379.71	4791926.43	81.00	0	N	125	81.6	0.0	0.0	0.0	0.0	61.2	0.1	-3.0	0.0	0.0	2.8	0.0	0.0	20.5
65	592379.71	4791926.43	81.00	0	N	250	81.1	0.0	0.0	0.0	0.0	61.2	0.3	-3.0	0.0	0.0	3.5	0.0	0.0	19.1
65	592379.71	4791926.43	81.00	0	N	500	85.7	0.0	0.0	0.0	0.0	61.2	0.6	-3.0	0.0	0.0	4.4	0.0	0.0	22.4
65	592379.71	4791926.43	81.00	0	N	1000	90.8	0.0	0.0	0.0	0.0	61.2	1.2	-3.0	0.0	0.0	5.7	0.0	0.0	25.7
65	592379.71	4791926.43	81.00	0	N	2000	87.8	0.0	0.0	0.0	0.0	61.2	3.1	-3.0	0.0	0.0	7.4	0.0	0.0	19.1
65	592379.71	4791926.43	81.00	0	N	4000	81.0	0.0	0.0	0.0	0.0	61.2	10.6	-3.0	0.0	0.0	9.4	0.0	0.0	2.7
65	592379.71	4791926.43	81.00	0	N	8000	70.1	0.0	0.0	0.0	0.0	61.2	37.9	-3.0	0.0	0.0	11.9	0.0	0.0	-37.9
65	592379.71	4791926.43	81.00	0	E	32	59.1	0.0	0.0	0.0	0.0	61.2	0.0	-3.0	0.0	0.0	2.1	0.0	0.0	-1.2
65	592379.71	4791926.43	81.00	0	E	63	73.1	0.0	0.0	0.0	0.0	61.2	0.0	-3.0	0.0	0.0	2.3	0.0	0.0	12.5
65	592379.71	4791926.43	81.00	0	E	125	85.5	0.0	0.0	0.0	0.0	61.2	0.1	-3.0	0.0	0.0	2.8	0.0	0.0	24.4
65	592379.71	4791926.43	81.00	0	E	250	85.0	0.0	0.0	0.0	0.0	61.2	0.3	-3.0	0.0	0.0	3.5	0.0	0.0	23.0
65	592379.71	4791926.43	81.00	0	E	500	89.6	0.0	0.0	0.0	0.0	61.2	0.6	-3.0	0.0	0.0	4.4	0.0	0.0	26.3
65	592379.71	4791926.43	81.00	0	E	1000	94.7	0.0	0.0	0.0	0.0	61.2	1.2	-3.0	0.0	0.0	5.7	0.0	0.0	29.6
65	592379.71	4791926.43	81.00	0	E	2000	91.7	0.0	0.0	0.0	0.0	61.2	3.1	-3.0	0.0	0.0	7.4	0.0	0.0	23.0
65	592379.71	4791926.43	81.00	0	E	4000	84.9	0.0	0.0	0.0	0.0	61.2	10.6	-3.0	0.0	0.0	9.4	0.0	0.0	6.6
65	592379.71	4791926.43	81.00	0	E	8000	74.0	0.0	0.0	0.0	0.0	61.2	37.9	-3.0	0.0	0.0	11.9	0.0	0.0	-34.0

Point Source, ISO 9613, Name: "Federal Marine Terminals", ID: "10GIS-14"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
69	593717.94	4791641.46	81.65	0	D	32	58.4	0.0	0.0	0.0	0.0	73.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-12.2
69	593717.94	4791641.46	81.65	0	D	63	79.7	0.0	0.0	0.0	0.0	73.5	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	9.0
69	593717.94	4791641.46	81.65	0	D	125	91.7	0.0	0.0	0.0	0.0	73.5	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	20.6
69	593717.94	4791641.46	81.65	0	D	250	91.8	0.0	0.0	0.0	0.0	73.5	1.4	-3.0	0.0	0.0	0.0	0.0	0.0	19.9
69	593717.94	4791641.46	81.65	0	D	500	101.0	0.0	0.0	0.0	0.0	73.5	2.6	-3.0	0.0	0.0	0.0	0.0	0.0	27.9
69	593717.94	4791641.46	81.65	0	D	1000	106.6	0.0	0.0	0.0	0.0	73.5	4.9	-3.0	0.0	0.0	0.0	0.0	0.0	31.2
69	593717.94	4791641.46	81.65	0	D	2000	105.7	0.0	0.0	0.0	0.0	73.5	12.9	-3.0	0.0	0.0	0.0	0.0	0.0	22.3
69	593717.94	4791641.46	81.65	0	D	4000	96.7	0.0	0.0	0.0	0.0	73.5	43.8	-3.0	0.0	0.0	0.0	0.0	0.0	-17.6
69	593717.94	4791641.46	81.65	0	D	8000	73.0	0.0	0.0	0.0	0.0	73.5	156.1	-3.0	0.0	0.0	0.0	0.0	0.0	-153.6
69	593717.94	4791641.46	81.65	0	N	32	53.4	0.0	0.0	0.0	0.0	73.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-17.2
69	593717.94	4791641.46	81.65	0	N	63	74.7	0.0	0.0	0.0	0.0	73.5	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	4.0
69	593717.94	4791641.46	81.65	0	N	125	86.7	0.0	0.0	0.0	0.0	73.5	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	15.6
69	593717.94	4791641.46	81.65	0	N	250	86.8	0.0	0.0	0.0	0.0	73.5	1.4	-3.0	0.0	0.0	0.0	0.0	0.0	14.9
69	593717.94	4791641.46	81.65	0	N	500	96.0	0.0	0.0	0.0	0.0	73.5	2.6	-3.0	0.0	0.0	0.0	0.0	0.0	22.9
69	593717.94	4791641.46	81.65	0	N	1000	101.6	0.0	0.0	0.0	0.0	73.5	4.9	-3.0	0.0	0.0	0.0	0.0	0.0	26.2
69	593717.94	4791641.46	81.65	0	N	2000	100.7	0.0	0.0	0.0	0.0	73.5	12.9	-3.0	0.0	0.0	0.0	0.0	0.0	17.3
69	593717.94	4791641.46	81.65	0	N	4000	91.7	0.0	0.0	0.0	0.0	73.5	43.8	-3.0	0.0	0.0	0.0	0.0	0.0	-22.6
69	593717.94	4791641.46	81.65	0	N	8000	68.0	0.0	0.0	0.0	0.0	73.5	156.1	-3.0	0.0	0.0	0.0	0.0	0.0	-158.6
69	593717.94	4791641.46	81.65	0	E	32	58.4	0.0	0.0	0.0	0.0	73.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-12.2
69	593717.94	4791641.46	81.65	0	E	63	79.7	0.0	0.0	0.0	0.0	73.5	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	9.0
69	593717.94	4791641.46	81.65	0	E	125	91.7	0.0	0.0	0.0	0.0	73.5	0.5	-3.0	0.0	0.0	0.0	0.0	0.0	20.6
69	593717.94	4791641.46	81.65	0	E	250	91.8	0.0	0.0	0.0	0.0	73.5	1.4	-3.0	0.0	0.0	0.0	0.0	0.0	19.9
69	593717.94	4791641.46	81.65	0	E	500	101.0	0.0	0.0	0.0	0.0	73.5	2.6	-3.0	0.0	0.0	0.0	0.0	0.0	27.9
69	593717.94	4791641.46	81.65	0	E	1000	106.6	0.0	0.0	0.0	0.0	73.5	4.9	-3.0	0.0	0.0	0.0	0.0	0.0	31.2
69	593717.94	4791641.46	81.65	0	E	2000	105.7	0.0	0.0	0.0	0.0	73.5	12.9	-3.0	0.0	0.0	0.0	0.0	0.0	22.3
69	593717.94	4791641.46	81.65	0	E	4000	96.7	0.0	0.0	0.0	0.0	73.5	43.8	-3.0	0.0	0.0	0.0	0.0	0.0	-17.6
69	593717.94	4791641.46	81.65	0	E	8000	73.0	0.0	0.0	0.0	0.0	73.5	156.1	-3.0	0.0	0.0	0.0	0.0	0.0	-153.6

Point Source, ISO 9613, Name: "Bunge (515 Victoria Ave N)", ID: "10GIS-7"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
75	593366.67	4791601.52	85.00	0	D	32	56.3	0.0	0.0	0.0	0.0	71.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-12.2
75	593366.67	4791601.52	85.00	0	D	63	77.6	0.0	0.0	0.0	0.0	71.4	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	9.0
75	593366.67	4791601.52	85.00	0	D	125	89.6	0.0	0.0	0.0	0.0	71.4	0.4	-2.8	0.0	0.0	0.0	0.0	0.0	20.5
75	593366.67	4791601.52	85.00	0	D	250	89.7	0.0	0.0	0.0	0.0	71.4	1.1	-2.8	0.0	0.0	0.0	0.0	0.0	19.9



Point Source, ISO 9613, Name: "Bunge (515 Victoria Ave N)", ID: "10GIS-7"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
75	593366.67	4791601.52	85.00	0	D	500	98.9	0.0	0.0	0.0	0.0	71.4	2.0	-2.8	0.0	0.0	0.0	0.0	0.0	28.2
75	593366.67	4791601.52	85.00	0	D	1000	104.5	0.0	0.0	0.0	0.0	71.4	3.8	-2.8	0.0	0.0	0.0	0.0	0.0	32.0
75	593366.67	4791601.52	85.00	0	D	2000	103.6	0.0	0.0	0.0	0.0	71.4	10.2	-2.8	0.0	0.0	0.0	0.0	0.0	24.8
75	593366.67	4791601.52	85.00	0	D	4000	94.6	0.0	0.0	0.0	0.0	71.4	34.5	-2.8	0.0	0.0	0.0	0.0	0.0	-8.5
75	593366.67	4791601.52	85.00	0	D	8000	70.9	0.0	0.0	0.0	0.0	71.4	122.9	-2.8	0.0	0.0	0.0	0.0	0.0	-120.7
75	593366.67	4791601.52	85.00	0	N	32	51.3	0.0	0.0	0.0	0.0	71.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-17.2
75	593366.67	4791601.52	85.00	0	N	63	72.6	0.0	0.0	0.0	0.0	71.4	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	4.0
75	593366.67	4791601.52	85.00	0	N	125	84.6	0.0	0.0	0.0	0.0	71.4	0.4	-2.8	0.0	0.0	0.0	0.0	0.0	15.5
75	593366.67	4791601.52	85.00	0	N	250	84.7	0.0	0.0	0.0	0.0	71.4	1.1	-2.8	0.0	0.0	0.0	0.0	0.0	14.9
75	593366.67	4791601.52	85.00	0	N	500	93.9	0.0	0.0	0.0	0.0	71.4	2.0	-2.8	0.0	0.0	0.0	0.0	0.0	23.2
75	593366.67	4791601.52	85.00	0	N	1000	99.5	0.0	0.0	0.0	0.0	71.4	3.8	-2.8	0.0	0.0	0.0	0.0	0.0	27.0
75	593366.67	4791601.52	85.00	0	N	2000	98.6	0.0	0.0	0.0	0.0	71.4	10.2	-2.8	0.0	0.0	0.0	0.0	0.0	19.8
75	593366.67	4791601.52	85.00	0	N	4000	89.6	0.0	0.0	0.0	0.0	71.4	34.5	-2.8	0.0	0.0	0.0	0.0	0.0	-13.5
75	593366.67	4791601.52	85.00	0	N	8000	65.9	0.0	0.0	0.0	0.0	71.4	122.9	-2.8	0.0	0.0	0.0	0.0	0.0	-125.7
75	593366.67	4791601.52	85.00	0	E	32	56.3	0.0	0.0	0.0	0.0	71.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-12.2
75	593366.67	4791601.52	85.00	0	E	63	77.6	0.0	0.0	0.0	0.0	71.4	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	9.0
75	593366.67	4791601.52	85.00	0	E	125	89.6	0.0	0.0	0.0	0.0	71.4	0.4	-2.8	0.0	0.0	0.0	0.0	0.0	20.5
75	593366.67	4791601.52	85.00	0	E	250	89.7	0.0	0.0	0.0	0.0	71.4	1.1	-2.8	0.0	0.0	0.0	0.0	0.0	19.9
75	593366.67	4791601.52	85.00	0	E	500	98.9	0.0	0.0	0.0	0.0	71.4	2.0	-2.8	0.0	0.0	0.0	0.0	0.0	28.2
75	593366.67	4791601.52	85.00	0	E	1000	104.5	0.0	0.0	0.0	0.0	71.4	3.8	-2.8	0.0	0.0	0.0	0.0	0.0	32.0
75	593366.67	4791601.52	85.00	0	E	2000	103.6	0.0	0.0	0.0	0.0	71.4	10.2	-2.8	0.0	0.0	0.0	0.0	0.0	24.8
75	593366.67	4791601.52	85.00	0	E	4000	94.6	0.0	0.0	0.0	0.0	71.4	34.5	-2.8	0.0	0.0	0.0	0.0	0.0	-8.5
75	593366.67	4791601.52	85.00	0	E	8000	70.9	0.0	0.0	0.0	0.0	71.4	122.9	-2.8	0.0	0.0	0.0	0.0	0.0	-120.7

Point Source, ISO 9613, Name: "Vopak Terminals of Canada Inc.", ID: "10GIS-10"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
83	593504.26	4791586.26	81.51	0	D	32	76.5	0.0	0.0	0.0	0.0	72.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	7.1
83	593504.26	4791586.26	81.51	0	D	63	86.8	0.0	0.0	0.0	0.0	72.4	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	17.3
83	593504.26	4791586.26	81.51	0	D	125	95.3	0.0	0.0	0.0	0.0	72.4	0.5	-2.9	0.0	0.0	0.0	0.0	0.0	25.3
83	593504.26	4791586.26	81.51	0	D	250	99.0	0.0	0.0	0.0	0.0	72.4	1.2	-2.9	0.0	0.0	0.0	0.0	0.0	28.3
83	593504.26	4791586.26	81.51	0	D	500	102.3	0.0	0.0	0.0	0.0	72.4	2.3	-2.9	0.0	0.0	0.0	0.0	0.0	30.5
83	593504.26	4791586.26	81.51	0	D	1000	103.5	0.0	0.0	0.0	0.0	72.4	4.3	-2.9	0.0	0.0	0.0	0.0	0.0	29.7
83	593504.26	4791586.26	81.51	0	D	2000	100.2	0.0	0.0	0.0	0.0	72.4	11.3	-2.9	0.0	0.0	0.0	0.0	0.0	19.3
83	593504.26	4791586.26	81.51	0	D	4000	90.1	0.0	0.0	0.0	0.0	72.4	38.5	-2.9	0.0	0.0	0.0	0.0	0.0	-17.9
83	593504.26	4791586.26	81.51	0	D	8000	64.2	0.0	0.0	0.0	0.0	72.4	137.3	-2.9	0.0	0.0	0.0	0.0	0.0	-142.6
83	593504.26	4791586.26	81.51	0	N	32	73.6	0.0	0.0	0.0	0.0	72.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	4.2
83	593504.26	4791586.26	81.51	0	N	63	83.9	0.0	0.0	0.0	0.0	72.4	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	14.4
83	593504.26	4791586.26	81.51	0	N	125	92.4	0.0	0.0	0.0	0.0	72.4	0.5	-2.9	0.0	0.0	0.0	0.0	0.0	22.4
83	593504.26	4791586.26	81.51	0	N	250	96.1	0.0	0.0	0.0	0.0	72.4	1.2	-2.9	0.0	0.0	0.0	0.0	0.0	25.4
83	593504.26	4791586.26	81.51	0	N	500	99.4	0.0	0.0	0.0	0.0	72.4	2.3	-2.9	0.0	0.0	0.0	0.0	0.0	27.6
83	593504.26	4791586.26	81.51	0	N	1000	100.6	0.0	0.0	0.0	0.0	72.4	4.3	-2.9	0.0	0.0	0.0	0.0	0.0	26.8
83	593504.26	4791586.26	81.51	0	N	2000	97.3	0.0	0.0	0.0	0.0	72.4	11.3	-2.9	0.0	0.0	0.0	0.0	0.0	16.4
83	593504.26	4791586.26	81.51	0	N	4000	87.2	0.0	0.0	0.0	0.0	72.4	38.5	-2.9	0.0	0.0	0.0	0.0	0.0	-20.8
83	593504.26	4791586.26	81.51	0	N	8000	61.3	0.0	0.0	0.0	0.0	72.4	137.3	-2.9	0.0	0.0	0.0	0.0	0.0	-145.5
83	593504.26	4791586.26	81.51	0	E	32	76.5	0.0	0.0	0.0	0.0	72.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	7.1
83	593504.26	4791586.26	81.51	0	E	63	86.8	0.0	0.0	0.0	0.0	72.4	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	17.3
83	593504.26	4791586.26	81.51	0	E	125	95.3	0.0	0.0	0.0	0.0	72.4	0.5	-2.9	0.0	0.0	0.0	0.0	0.0	25.3
83	593504.26	4791586.26	81.51	0	E	250	99.0	0.0	0.0	0.0	0.0	72.4	1.2	-2.9	0.0	0.0	0.0	0.0	0.0	28.3
83	593504.26	4791586.26	81.51	0	E	500	102.3	0.0	0.0	0.0	0.0	72.4	2.3	-2.9	0.0	0.0	0.0	0.0	0.0	30.5
83	593504.26	4791586.26	81.51	0	E	1000	103.5	0.0	0.0	0.0	0.0	72.4	4.3	-2.9	0.0	0.0	0.0	0.0	0.0	29.7
83	593504.26	4791586.26	81.51	0	E	2000	100.2	0.0	0.0	0.0	0.0	72.4	11.3	-2.9	0.0	0.0	0.0	0.0	0.0	19.3
83	593504.26	4791586.26	81.51	0	E	4000	90.1	0.0	0.0	0.0	0.0	72.4	38.5	-2.9	0.0	0.0	0.0	0.0	0.0	-17.9
83	593504.26	4791586.26	81.51	0	E	8000	64.2	0.0	0.0	0.0	0.0	72.4	137.3	-2.9	0.0	0.0	0.0	0.0	0.0	-142.6

Point Source, ISO 9613, Name: "Bunge (400 Burlington St E)", ID: "10GIS-12"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
95	593470.26	4791309.23	83.00	0	D	32	57.8	0.0	0.0	0.0	0.0	73.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-12.6
95	593470.26	4791309.23	83.00	0	D	63	79.1	0.0	0.0	0.0	0.0	73.4	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	8.5
95	593470.26	4791309.23	83.00	0	D	125	91.1	0.0	0.0	0.0	0.0	73.4	0.5	-2.8	0.0	0.0	0.0	0.0	0.0	19.9
95	593470.26	4791309.23	83.00	0	D	250	91.2	0.0	0.0	0.0	0.0	73.4	1.4	-2.8	0.0	0.0	0.0	0.0	0.0	19.2
95	593470.26	4791309.23	83.00	0	D	500	100.4	0.0	0.0	0.0	0.0	73.4	2.5	-2.8	0.0	0.0	0.0	0.0	0.0	27.2

Point Source, ISO 9613, Name: "Bunge (400 Burlington St E)", ID: "!0G!S-12"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
95	593470.26	4791309.23	83.00	0	D	1000	106.0	0.0	0.0	0.0	0.0	73.4	4.8	-2.8	0.0	0.0	0.0	0.0	0.0	30.5
95	593470.26	4791309.23	83.00	0	D	2000	105.1	0.0	0.0	0.0	0.0	73.4	12.7	-2.8	0.0	0.0	0.0	0.0	0.0	21.7
95	593470.26	4791309.23	83.00	0	D	4000	96.1	0.0	0.0	0.0	0.0	73.4	43.2	-2.8	0.0	0.0	0.0	0.0	0.0	-17.7
95	593470.26	4791309.23	83.00	0	D	8000	72.4	0.0	0.0	0.0	0.0	73.4	153.9	-2.8	0.0	0.0	0.0	0.0	0.0	-152.2
95	593470.26	4791309.23	83.00	0	N	32	52.8	0.0	0.0	0.0	0.0	73.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-17.6
95	593470.26	4791309.23	83.00	0	N	63	74.1	0.0	0.0	0.0	0.0	73.4	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	3.5
95	593470.26	4791309.23	83.00	0	N	125	86.1	0.0	0.0	0.0	0.0	73.4	0.5	-2.8	0.0	0.0	0.0	0.0	0.0	14.9
95	593470.26	4791309.23	83.00	0	N	250	86.2	0.0	0.0	0.0	0.0	73.4	1.4	-2.8	0.0	0.0	0.0	0.0	0.0	14.2
95	593470.26	4791309.23	83.00	0	N	500	95.4	0.0	0.0	0.0	0.0	73.4	2.5	-2.8	0.0	0.0	0.0	0.0	0.0	22.2
95	593470.26	4791309.23	83.00	0	N	1000	101.0	0.0	0.0	0.0	0.0	73.4	4.8	-2.8	0.0	0.0	0.0	0.0	0.0	25.5
95	593470.26	4791309.23	83.00	0	N	2000	100.1	0.0	0.0	0.0	0.0	73.4	12.7	-2.8	0.0	0.0	0.0	0.0	0.0	16.7
95	593470.26	4791309.23	83.00	0	N	4000	91.1	0.0	0.0	0.0	0.0	73.4	43.2	-2.8	0.0	0.0	0.0	0.0	0.0	-22.7
95	593470.26	4791309.23	83.00	0	N	8000	67.4	0.0	0.0	0.0	0.0	73.4	153.9	-2.8	0.0	0.0	0.0	0.0	0.0	-157.2
95	593470.26	4791309.23	83.00	0	E	32	57.8	0.0	0.0	0.0	0.0	73.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-12.6
95	593470.26	4791309.23	83.00	0	E	63	79.1	0.0	0.0	0.0	0.0	73.4	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	8.5
95	593470.26	4791309.23	83.00	0	E	125	91.1	0.0	0.0	0.0	0.0	73.4	0.5	-2.8	0.0	0.0	0.0	0.0	0.0	19.9
95	593470.26	4791309.23	83.00	0	E	250	91.2	0.0	0.0	0.0	0.0	73.4	1.4	-2.8	0.0	0.0	0.0	0.0	0.0	19.2
95	593470.26	4791309.23	83.00	0	E	500	100.4	0.0	0.0	0.0	0.0	73.4	2.5	-2.8	0.0	0.0	0.0	0.0	0.0	27.2
95	593470.26	4791309.23	83.00	0	E	1000	106.0	0.0	0.0	0.0	0.0	73.4	4.8	-2.8	0.0	0.0	0.0	0.0	0.0	30.5
95	593470.26	4791309.23	83.00	0	E	2000	105.1	0.0	0.0	0.0	0.0	73.4	12.7	-2.8	0.0	0.0	0.0	0.0	0.0	21.7
95	593470.26	4791309.23	83.00	0	E	4000	96.1	0.0	0.0	0.0	0.0	73.4	43.2	-2.8	0.0	0.0	0.0	0.0	0.0	-17.7
95	593470.26	4791309.23	83.00	0	E	8000	72.4	0.0	0.0	0.0	0.0	73.4	153.9	-2.8	0.0	0.0	0.0	0.0	0.0	-152.2

Point Source, ISO 9613, Name: "Sucro Can Canada Inc.", ID: "!0G!S-5a"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
98	593071.58	4791657.99	87.48	0	D	32	75.2	0.0	0.0	0.0	0.0	68.9	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	9.2
98	593071.58	4791657.99	87.48	0	D	63	84.6	0.0	0.0	0.0	0.0	68.9	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	18.6
98	593071.58	4791657.99	87.48	0	D	125	93.2	0.0	0.0	0.0	0.0	68.9	0.3	-1.7	0.0	0.0	0.0	0.0	0.0	25.6
98	593071.58	4791657.99	87.48	0	D	250	98.8	0.0	0.0	0.0	0.0	68.9	0.8	-1.7	0.0	0.0	0.0	0.0	0.0	30.8
98	593071.58	4791657.99	87.48	0	D	500	96.1	0.0	0.0	0.0	0.0	68.9	1.5	-1.7	0.0	0.0	0.0	0.0	0.0	27.4
98	593071.58	4791657.99	87.48	0	D	1000	93.5	0.0	0.0	0.0	0.0	68.9	2.9	-1.7	0.0	0.0	0.0	0.0	0.0	23.4
98	593071.58	4791657.99	87.48	0	D	2000	91.5	0.0	0.0	0.0	0.0	68.9	7.6	-1.7	0.0	0.0	0.0	0.0	0.0	16.7
98	593071.58	4791657.99	87.48	0	D	4000	88.2	0.0	0.0	0.0	0.0	68.9	25.9	-1.7	0.0	0.0	0.0	0.0	0.0	-4.9
98	593071.58	4791657.99	87.48	0	D	8000	80.7	0.0	0.0	0.0	0.0	68.9	92.2	-1.7	0.0	0.0	0.0	0.0	0.0	-78.7
98	593071.58	4791657.99	87.48	0	N	32	74.2	0.0	0.0	0.0	0.0	68.9	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	8.2
98	593071.58	4791657.99	87.48	0	N	63	83.6	0.0	0.0	0.0	0.0	68.9	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	17.6
98	593071.58	4791657.99	87.48	0	N	125	92.2	0.0	0.0	0.0	0.0	68.9	0.3	-1.7	0.0	0.0	0.0	0.0	0.0	24.6
98	593071.58	4791657.99	87.48	0	N	250	97.8	0.0	0.0	0.0	0.0	68.9	0.8	-1.7	0.0	0.0	0.0	0.0	0.0	29.8
98	593071.58	4791657.99	87.48	0	N	500	95.1	0.0	0.0	0.0	0.0	68.9	1.5	-1.7	0.0	0.0	0.0	0.0	0.0	26.4
98	593071.58	4791657.99	87.48	0	N	1000	92.5	0.0	0.0	0.0	0.0	68.9	2.9	-1.7	0.0	0.0	0.0	0.0	0.0	22.4
98	593071.58	4791657.99	87.48	0	N	2000	90.5	0.0	0.0	0.0	0.0	68.9	7.6	-1.7	0.0	0.0	0.0	0.0	0.0	15.7
98	593071.58	4791657.99	87.48	0	N	4000	87.2	0.0	0.0	0.0	0.0	68.9	25.9	-1.7	0.0	0.0	0.0	0.0	0.0	-5.9
98	593071.58	4791657.99	87.48	0	N	8000	79.7	0.0	0.0	0.0	0.0	68.9	92.2	-1.7	0.0	0.0	0.0	0.0	0.0	-79.7
98	593071.58	4791657.99	87.48	0	E	32	75.2	0.0	0.0	0.0	0.0	68.9	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	9.2
98	593071.58	4791657.99	87.48	0	E	63	84.6	0.0	0.0	0.0	0.0	68.9	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	18.6
98	593071.58	4791657.99	87.48	0	E	125	93.2	0.0	0.0	0.0	0.0	68.9	0.3	-1.7	0.0	0.0	0.0	0.0	0.0	25.6
98	593071.58	4791657.99	87.48	0	E	250	98.8	0.0	0.0	0.0	0.0	68.9	0.8	-1.7	0.0	0.0	0.0	0.0	0.0	30.8
98	593071.58	4791657.99	87.48	0	E	500	96.1	0.0	0.0	0.0	0.0	68.9	1.5	-1.7	0.0	0.0	0.0	0.0	0.0	27.4
98	593071.58	4791657.99	87.48	0	E	1000	93.5	0.0	0.0	0.0	0.0	68.9	2.9	-1.7	0.0	0.0	0.0	0.0	0.0	23.4
98	593071.58	4791657.99	87.48	0	E	2000	91.5	0.0	0.0	0.0	0.0	68.9	7.6	-1.7	0.0	0.0	0.0	0.0	0.0	16.7
98	593071.58	4791657.99	87.48	0	E	4000	88.2	0.0	0.0	0.0	0.0	68.9	25.9	-1.7	0.0	0.0	0.0	0.0	0.0	-4.9
98	593071.58	4791657.99	87.48	0	E	8000	80.7	0.0	0.0	0.0	0.0	68.9	92.2	-1.7	0.0	0.0	0.0	0.0	0.0	-78.7
103	593071.58	4791657.99	87.48	1	D	125	93.2	0.0	0.0	0.0	0.0	69.0	0.3	-1.6	0.0	0.0	0.0	0.0	1.0	24.5
103	593071.58	4791657.99	87.48	1	D	250	98.8	0.0	0.0	0.0	0.0	69.0	0.8	-1.7	0.0	0.0	0.0	0.0	1.0	29.7
103	593071.58	4791657.99	87.48	1	D	500	96.1	0.0	0.0	0.0	0.0	69.0	1.5	-1.7	0.0	0.0	0.0	0.0	1.0	26.2
103	593071.58	4791657.99	87.48	1	D	1000	93.5	0.0	0.0	0.0	0.0	69.0	2.9	-1.7	0.0	0.0	0.0	0.0	1.0	22.3
103	593071.58	4791657.99	87.48	1	D	2000	91.5	0.0	0.0	0.0	0.0	69.0	7.7	-1.7	0.0	0.0	0.0	0.0	1.0	15.5
103	593071.58	4791657.99	87.48	1	D	4000	88.2	0.0	0.0	0.0	0.0	69.0	26.2	-1.7	0.0	0.0	0.0	0.0	1.0	-6.3
103	593071.58	4791657.99	87.48	1	D	8000	80.7	0.0	0.0	0.0	0.0	69.0	93.4	-1.7	0.0	0.0	0.0	0.0	1.0	-81.0
103	593071.58	4791657.99	87.48	1	N	125	92.2	0.0	0.0	0.0	0.0	69.0	0.3	-1.6	0.0	0.0	0.0	0.0	1.0	23.5
103	593071.58	4791657.99	87.48	1	N	250	97.8	0.0	0.0	0.0	0.0	69.0	0.8	-1.7	0.0	0.0	0.0	0.0	1.0	28.7
103	593071.58	4791657.99	87.48	1	N	500	95.1	0.0	0.0	0.0	0.0	69.0	1.5	-1.7	0.0	0.0	0.0	0.0	1.0	25.2

Point Source, ISO 9613, Name: "Sucro Can Canada Inc.", ID: "!0G!S-5a"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
103	593071.58	4791657.99	87.48	1	N	1000	92.5	0.0	0.0	0.0	0.0	69.0	2.9	-1.7	0.0	0.0	0.0	0.0	1.0	21.3
103	593071.58	4791657.99	87.48	1	N	2000	90.5	0.0	0.0	0.0	0.0	69.0	7.7	-1.7	0.0	0.0	0.0	0.0	1.0	14.5
103	593071.58	4791657.99	87.48	1	N	4000	87.2	0.0	0.0	0.0	0.0	69.0	26.2	-1.7	0.0	0.0	0.0	0.0	1.0	-7.3
103	593071.58	4791657.99	87.48	1	N	8000	79.7	0.0	0.0	0.0	0.0	69.0	93.4	-1.7	0.0	0.0	0.0	0.0	1.0	-82.0
103	593071.58	4791657.99	87.48	1	E	125	93.2	0.0	0.0	0.0	0.0	69.0	0.3	-1.6	0.0	0.0	0.0	0.0	1.0	24.5
103	593071.58	4791657.99	87.48	1	E	250	98.8	0.0	0.0	0.0	0.0	69.0	0.8	-1.7	0.0	0.0	0.0	0.0	1.0	29.7
103	593071.58	4791657.99	87.48	1	E	500	96.1	0.0	0.0	0.0	0.0	69.0	1.5	-1.7	0.0	0.0	0.0	0.0	1.0	26.2
103	593071.58	4791657.99	87.48	1	E	1000	93.5	0.0	0.0	0.0	0.0	69.0	2.9	-1.7	0.0	0.0	0.0	0.0	1.0	22.3
103	593071.58	4791657.99	87.48	1	E	2000	91.5	0.0	0.0	0.0	0.0	69.0	7.7	-1.7	0.0	0.0	0.0	0.0	1.0	15.5
103	593071.58	4791657.99	87.48	1	E	4000	88.2	0.0	0.0	0.0	0.0	69.0	26.2	-1.7	0.0	0.0	0.0	0.0	1.0	-6.3
103	593071.58	4791657.99	87.48	1	E	8000	80.7	0.0	0.0	0.0	0.0	69.0	93.4	-1.7	0.0	0.0	0.0	0.0	1.0	-81.0

Point Source, ISO 9613, Name: "Royal Hamilton Yacht Club", ID: "!0G!S-19"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
107	592117.10	4791881.16	81.16	0	D	32	59.1	0.0	0.0	0.0	0.0	65.3	0.0	-3.0	0.0	0.0	2.8	0.0	0.0	-6.0
107	592117.10	4791881.16	81.16	0	D	63	73.1	0.0	0.0	0.0	0.0	65.3	0.1	-3.0	0.0	0.0	3.4	0.0	0.0	7.3
107	592117.10	4791881.16	81.16	0	D	125	85.5	0.0	0.0	0.0	0.0	65.3	0.2	-3.0	0.0	0.0	4.0	0.0	0.0	19.0
107	592117.10	4791881.16	81.16	0	D	250	85.0	0.0	0.0	0.0	0.0	65.3	0.5	-3.0	0.0	0.0	4.6	0.0	0.0	17.6
107	592117.10	4791881.16	81.16	0	D	500	89.6	0.0	0.0	0.0	0.0	65.3	1.0	-3.0	0.0	0.0	4.9	0.0	0.0	21.3
107	592117.10	4791881.16	81.16	0	D	1000	94.7	0.0	0.0	0.0	0.0	65.3	1.9	-3.0	0.0	0.0	5.3	0.0	0.0	25.1
107	592117.10	4791881.16	81.16	0	D	2000	91.7	0.0	0.0	0.0	0.0	65.3	5.0	-3.0	0.0	0.0	5.9	0.0	0.0	18.4
107	592117.10	4791881.16	81.16	0	D	4000	84.9	0.0	0.0	0.0	0.0	65.3	17.1	-3.0	0.0	0.0	6.8	0.0	0.0	-1.3
107	592117.10	4791881.16	81.16	0	D	8000	74.0	0.0	0.0	0.0	0.0	65.3	60.9	-3.0	0.0	0.0	8.2	0.0	0.0	-57.4
107	592117.10	4791881.16	81.16	0	N	32	57.6	0.0	0.0	0.0	0.0	65.3	0.0	-3.0	0.0	0.0	2.8	0.0	0.0	-7.5
107	592117.10	4791881.16	81.16	0	N	63	71.6	0.0	0.0	0.0	0.0	65.3	0.1	-3.0	0.0	0.0	3.4	0.0	0.0	5.8
107	592117.10	4791881.16	81.16	0	N	125	84.0	0.0	0.0	0.0	0.0	65.3	0.2	-3.0	0.0	0.0	4.0	0.0	0.0	17.5
107	592117.10	4791881.16	81.16	0	N	250	83.5	0.0	0.0	0.0	0.0	65.3	0.5	-3.0	0.0	0.0	4.6	0.0	0.0	16.1
107	592117.10	4791881.16	81.16	0	N	500	88.1	0.0	0.0	0.0	0.0	65.3	1.0	-3.0	0.0	0.0	4.9	0.0	0.0	19.8
107	592117.10	4791881.16	81.16	0	N	1000	93.2	0.0	0.0	0.0	0.0	65.3	1.9	-3.0	0.0	0.0	5.3	0.0	0.0	23.6
107	592117.10	4791881.16	81.16	0	N	2000	90.2	0.0	0.0	0.0	0.0	65.3	5.0	-3.0	0.0	0.0	5.9	0.0	0.0	16.9
107	592117.10	4791881.16	81.16	0	N	4000	83.4	0.0	0.0	0.0	0.0	65.3	17.1	-3.0	0.0	0.0	6.8	0.0	0.0	-2.8
107	592117.10	4791881.16	81.16	0	N	8000	72.5	0.0	0.0	0.0	0.0	65.3	60.9	-3.0	0.0	0.0	8.2	0.0	0.0	-58.9
107	592117.10	4791881.16	81.16	0	E	32	59.1	0.0	0.0	0.0	0.0	65.3	0.0	-3.0	0.0	0.0	2.8	0.0	0.0	-6.0
107	592117.10	4791881.16	81.16	0	E	63	73.1	0.0	0.0	0.0	0.0	65.3	0.1	-3.0	0.0	0.0	3.4	0.0	0.0	7.3
107	592117.10	4791881.16	81.16	0	E	125	85.5	0.0	0.0	0.0	0.0	65.3	0.2	-3.0	0.0	0.0	4.0	0.0	0.0	19.0
107	592117.10	4791881.16	81.16	0	E	250	85.0	0.0	0.0	0.0	0.0	65.3	0.5	-3.0	0.0	0.0	4.6	0.0	0.0	17.6
107	592117.10	4791881.16	81.16	0	E	500	89.6	0.0	0.0	0.0	0.0	65.3	1.0	-3.0	0.0	0.0	4.9	0.0	0.0	21.3
107	592117.10	4791881.16	81.16	0	E	1000	94.7	0.0	0.0	0.0	0.0	65.3	1.9	-3.0	0.0	0.0	5.3	0.0	0.0	25.1
107	592117.10	4791881.16	81.16	0	E	2000	91.7	0.0	0.0	0.0	0.0	65.3	5.0	-3.0	0.0	0.0	5.9	0.0	0.0	18.4
107	592117.10	4791881.16	81.16	0	E	4000	84.9	0.0	0.0	0.0	0.0	65.3	17.1	-3.0	0.0	0.0	6.8	0.0	0.0	-1.3
107	592117.10	4791881.16	81.16	0	E	8000	74.0	0.0	0.0	0.0	0.0	65.3	60.9	-3.0	0.0	0.0	8.2	0.0	0.0	-57.4

Point Source, ISO 9613, Name: "Shell Hamilton Terminal", ID: "!0G!S-13"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
116	593698.44	4791413.34	82.44	0	D	32	52.7	0.0	0.0	0.0	0.0	74.1	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-18.5
116	593698.44	4791413.34	82.44	0	D	63	74.0	0.0	0.0	0.0	0.0	74.1	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	2.7
116	593698.44	4791413.34	82.44	0	D	125	86.0	0.0	0.0	0.0	0.0	74.1	0.6	-2.8	0.0	0.0	0.0	0.0	0.0	14.1
116	593698.44	4791413.34	82.44	0	D	250	86.1	0.0	0.0	0.0	0.0	74.1	1.5	-2.8	0.0	0.0	0.0	0.0	0.0	13.3
116	593698.44	4791413.34	82.44	0	D	500	95.3	0.0	0.0	0.0	0.0	74.1	2.8	-2.8	0.0	0.0	0.0	0.0	0.0	21.2
116	593698.44	4791413.34	82.44	0	D	1000	100.9	0.0	0.0	0.0	0.0	74.1	5.2	-2.8	0.0	0.0	0.0	0.0	0.0	24.4
116	593698.44	4791413.34	82.44	0	D	2000	100.0	0.0	0.0	0.0	0.0	74.1	13.8	-2.8	0.0	0.0	0.0	0.0	0.0	14.9
116	593698.44	4791413.34	82.44	0	D	4000	91.0	0.0	0.0	0.0	0.0	74.1	46.9	-2.8	0.0	0.0	0.0	0.0	0.0	-27.2
116	593698.44	4791413.34	82.44	0	D	8000	67.3	0.0	0.0	0.0	0.0	74.1	167.2	-2.8	0.0	0.0	0.0	0.0	0.0	-171.2
116	593698.44	4791413.34	82.44	0	N	32	47.7	0.0	0.0	0.0	0.0	74.1	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-23.5
116	593698.44	4791413.34	82.44	0	N	63	69.0	0.0	0.0	0.0	0.0	74.1	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	-2.3
116	593698.44	4791413.34	82.44	0	N	125	81.0	0.0	0.0	0.0	0.0	74.1	0.6	-2.8	0.0	0.0	0.0	0.0	0.0	9.1
116	593698.44	4791413.34	82.44	0	N	250	81.1	0.0	0.0	0.0	0.0	74.1	1.5	-2.8	0.0	0.0	0.0	0.0	0.0	8.3
116	593698.44	4791413.34	82.44	0	N	500	90.3	0.0	0.0	0.0	0.0	74.1	2.8	-2.8	0.0	0.0	0.0	0.0	0.0	16.2
116	593698.44	4791413.34	82.44	0	N	1000	95.9	0.0	0.0	0.0	0.0	74.1	5.2	-2.8	0.0	0.0	0.0	0.0	0.0	19.4
116	593698.44	4791413.34	82.44	0	N	2000	95.0	0.0	0.0	0.0	0.0	74.1	13.8	-2.8	0.0	0.0	0.0	0.0	0.0	9.9
116	593698.44	4791413.34	82.44	0	N	4000	86.0	0.0	0.0	0.0	0.0	74.1	46.9	-2.8	0.0	0.0	0.0	0.0	0.0	-32.2

Point Source, ISO 9613, Name: "Shell Hamilton Terminal", ID: "10GIS-13"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
116	593698.44	4791413.34	82.44	0	N	8000	62.3	0.0	0.0	0.0	0.0	74.1	167.2	-2.8	0.0	0.0	0.0	0.0	0.0	-176.2
116	593698.44	4791413.34	82.44	0	E	32	52.7	0.0	0.0	0.0	0.0	74.1	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-18.5
116	593698.44	4791413.34	82.44	0	E	63	74.0	0.0	0.0	0.0	0.0	74.1	0.2	-3.0	0.0	0.0	0.0	0.0	0.0	2.7
116	593698.44	4791413.34	82.44	0	E	125	86.0	0.0	0.0	0.0	0.0	74.1	0.6	-2.8	0.0	0.0	0.0	0.0	0.0	14.1
116	593698.44	4791413.34	82.44	0	E	250	86.1	0.0	0.0	0.0	0.0	74.1	1.5	-2.8	0.0	0.0	0.0	0.0	0.0	13.3
116	593698.44	4791413.34	82.44	0	E	500	95.3	0.0	0.0	0.0	0.0	74.1	2.8	-2.8	0.0	0.0	0.0	0.0	0.0	21.2
116	593698.44	4791413.34	82.44	0	E	1000	100.9	0.0	0.0	0.0	0.0	74.1	5.2	-2.8	0.0	0.0	0.0	0.0	0.0	24.4
116	593698.44	4791413.34	82.44	0	E	2000	100.0	0.0	0.0	0.0	0.0	74.1	13.8	-2.8	0.0	0.0	0.0	0.0	0.0	14.9
116	593698.44	4791413.34	82.44	0	E	4000	91.0	0.0	0.0	0.0	0.0	74.1	46.9	-2.8	0.0	0.0	0.0	0.0	0.0	-27.2
116	593698.44	4791413.34	82.44	0	E	8000	67.3	0.0	0.0	0.0	0.0	74.1	167.2	-2.8	0.0	0.0	0.0	0.0	0.0	-171.2

Point Source, ISO 9613, Name: "HCE Energy", ID: "10GIS-5b"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
121	593005.71	4791607.16	80.61	0	DEN	32	62.3	0.0	0.0	0.0	0.0	68.9	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-3.6
121	593005.71	4791607.16	80.61	0	DEN	63	72.6	0.0	0.0	0.0	0.0	68.9	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	6.6
121	593005.71	4791607.16	80.61	0	DEN	125	81.1	0.0	0.0	0.0	0.0	68.9	0.3	-2.5	0.0	0.0	0.0	0.0	0.0	14.4
121	593005.71	4791607.16	80.61	0	DEN	250	84.8	0.0	0.0	0.0	0.0	68.9	0.8	-2.5	0.0	0.0	0.0	0.0	0.0	17.6
121	593005.71	4791607.16	80.61	0	DEN	500	88.1	0.0	0.0	0.0	0.0	68.9	1.5	-2.5	0.0	0.0	0.0	0.0	0.0	20.3
121	593005.71	4791607.16	80.61	0	DEN	1000	89.3	0.0	0.0	0.0	0.0	68.9	2.9	-2.5	0.0	0.0	0.0	0.0	0.0	20.1
121	593005.71	4791607.16	80.61	0	DEN	2000	86.0	0.0	0.0	0.0	0.0	68.9	7.6	-2.5	0.0	0.0	0.0	0.0	0.0	12.1
121	593005.71	4791607.16	80.61	0	DEN	4000	75.9	0.0	0.0	0.0	0.0	68.9	25.7	-2.5	0.0	0.0	0.0	0.0	0.0	-16.1
121	593005.71	4791607.16	80.61	0	DEN	8000	50.0	0.0	0.0	0.0	0.0	68.9	91.5	-2.5	0.0	0.0	0.0	0.0	0.0	-107.9
127	593005.71	4791607.16	80.61	1	DEN	125	81.1	0.0	0.0	0.0	0.0	69.0	0.3	-2.5	0.0	0.0	0.0	0.0	1.0	13.3
127	593005.71	4791607.16	80.61	1	DEN	250	84.8	0.0	0.0	0.0	0.0	69.0	0.8	-2.5	0.0	0.0	0.0	0.0	1.0	16.5
127	593005.71	4791607.16	80.61	1	DEN	500	88.1	0.0	0.0	0.0	0.0	69.0	1.5	-2.5	0.0	0.0	0.0	0.0	1.0	19.1
127	593005.71	4791607.16	80.61	1	DEN	1000	89.3	0.0	0.0	0.0	0.0	69.0	2.9	-2.5	0.0	0.0	0.0	0.0	1.0	19.0
127	593005.71	4791607.16	80.61	1	DEN	2000	86.0	0.0	0.0	0.0	0.0	69.0	7.7	-2.5	0.0	0.0	0.0	0.0	1.0	10.9
127	593005.71	4791607.16	80.61	1	DEN	4000	75.9	0.0	0.0	0.0	0.0	69.0	26.0	-2.5	0.0	0.0	0.0	0.0	1.0	-17.5
127	593005.71	4791607.16	80.61	1	DEN	8000	50.0	0.0	0.0	0.0	0.0	69.0	92.6	-2.5	0.0	0.0	0.0	0.0	1.0	-110.0
134	593005.71	4791607.16	80.61	2	DEN	500	88.1	0.0	0.0	0.0	0.0	69.0	1.5	-2.5	0.0	0.0	0.0	0.0	3.0	17.1
134	593005.71	4791607.16	80.61	2	DEN	1000	89.3	0.0	0.0	0.0	0.0	69.0	2.9	-2.5	0.0	0.0	0.0	0.0	3.0	16.9
134	593005.71	4791607.16	80.61	2	DEN	2000	86.0	0.0	0.0	0.0	0.0	69.0	7.7	-2.5	0.0	0.0	0.0	0.0	3.0	8.8
134	593005.71	4791607.16	80.61	2	DEN	4000	75.9	0.0	0.0	0.0	0.0	69.0	26.1	-2.5	0.0	0.0	0.0	0.0	3.0	-19.7
134	593005.71	4791607.16	80.61	2	DEN	8000	50.0	0.0	0.0	0.0	0.0	69.0	93.0	-2.5	0.0	0.0	0.0	0.0	3.0	-112.5
138	593005.71	4791607.16	80.61	1	DEN	500	88.1	0.0	0.0	0.0	0.0	68.9	1.5	-2.5	0.0	0.0	0.0	0.0	2.0	18.2
138	593005.71	4791607.16	80.61	1	DEN	1000	89.3	0.0	0.0	0.0	0.0	68.9	2.9	-2.5	0.0	0.0	0.0	0.0	2.0	18.0
138	593005.71	4791607.16	80.61	1	DEN	2000	86.0	0.0	0.0	0.0	0.0	68.9	7.6	-2.5	0.0	0.0	0.0	0.0	2.0	10.0
138	593005.71	4791607.16	80.61	1	DEN	4000	75.9	0.0	0.0	0.0	0.0	68.9	25.8	-2.5	0.0	0.0	0.0	0.0	2.0	-18.3
138	593005.71	4791607.16	80.61	1	DEN	8000	50.0	0.0	0.0	0.0	0.0	68.9	91.9	-2.5	0.0	0.0	0.0	0.0	2.0	-110.3

Point Source, ISO 9613, Name: "Friends of HMCS Haida", ID: "10GIS-1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
141	592870.54	4792014.35	81.07	0	DEN	32	49.1	0.0	0.0	0.0	0.0	63.4	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-11.3
141	592870.54	4792014.35	81.07	0	DEN	63	63.1	0.0	0.0	0.0	0.0	63.4	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	2.6
141	592870.54	4792014.35	81.07	0	DEN	125	75.5	0.0	0.0	0.0	0.0	63.4	0.2	-1.9	0.0	0.0	0.0	0.0	0.0	13.8
141	592870.54	4792014.35	81.07	0	DEN	250	75.0	0.0	0.0	0.0	0.0	63.4	0.4	-2.4	0.0	0.0	0.0	0.0	0.0	13.5
141	592870.54	4792014.35	81.07	0	DEN	500	79.6	0.0	0.0	0.0	0.0	63.4	0.8	-2.6	0.0	0.0	0.0	0.0	0.0	18.0
141	592870.54	4792014.35	81.07	0	DEN	1000	84.7	0.0	0.0	0.0	0.0	63.4	1.5	-2.6	0.0	0.0	0.0	0.0	0.0	22.3
141	592870.54	4792014.35	81.07	0	DEN	2000	81.7	0.0	0.0	0.0	0.0	63.4	4.0	-2.6	0.0	0.0	0.0	0.0	0.0	16.8
141	592870.54	4792014.35	81.07	0	DEN	4000	74.9	0.0	0.0	0.0	0.0	63.4	13.7	-2.6	0.0	0.0	0.0	0.0	0.0	0.4
141	592870.54	4792014.35	81.07	0	DEN	8000	64.0	0.0	0.0	0.0	0.0	63.4	48.8	-2.6	0.0	0.0	0.0	0.0	0.0	-45.6
142	592870.54	4792014.35	81.07	1	DEN	125	75.5	0.0	0.0	0.0	0.0	63.6	0.2	-1.9	0.0	0.0	4.9	0.0	1.0	7.7
142	592870.54	4792014.35	81.07	1	DEN	250	75.0	0.0	0.0	0.0	0.0	63.6	0.4	-2.4	0.0	0.0	4.9	0.0	1.0	7.4
142	592870.54	4792014.35	81.07	1	DEN	500	79.6	0.0	0.0	0.0	0.0	63.6	0.8	-2.6	0.0	0.0	5.1	0.0	1.0	11.6
142	592870.54	4792014.35	81.07	1	DEN	1000	84.7	0.0	0.0	0.0	0.0	63.6	1.6	-2.6	0.0	0.0	5.4	0.0	1.0	15.7
142	592870.54	4792014.35	81.07	1	DEN	2000	81.7	0.0	0.0	0.0	0.0	63.6	4.1	-2.6	0.0	0.0	5.9	0.0	1.0	9.6
142	592870.54	4792014.35	81.07	1	DEN	4000	74.9	0.0	0.0	0.0	0.0	63.6	14.0	-2.6	0.0	0.0	6.8	0.0	1.0	-8.0
142	592870.54	4792014.35	81.07	1	DEN	8000	64.0	0.0	0.0	0.0	0.0	63.6	49.9	-2.6	0.0	0.0	8.2	0.0	1.0	-56.2

Point Source, ISO 9613, Name: "Canadian Armed Forces Reserve Barracks", ID: "I0G!S-2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
144	592919.04	4791937.31	81.57	0	DEN	32	49.1	0.0	0.0	0.0	0.0	64.9	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-12.8
144	592919.04	4791937.31	81.57	0	DEN	63	63.1	0.0	0.0	0.0	0.0	64.9	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	1.1
144	592919.04	4791937.31	81.57	0	DEN	125	75.5	0.0	0.0	0.0	0.0	64.9	0.2	0.2	0.0	0.0	0.0	0.0	0.0	10.2
144	592919.04	4791937.31	81.57	0	DEN	250	75.0	0.0	0.0	0.0	0.0	64.9	0.5	-1.3	0.0	0.0	0.0	0.0	0.0	10.8
144	592919.04	4791937.31	81.57	0	DEN	500	79.6	0.0	0.0	0.0	0.0	64.9	1.0	-1.8	0.0	0.0	0.0	0.0	0.0	15.5
144	592919.04	4791937.31	81.57	0	DEN	1000	84.7	0.0	0.0	0.0	0.0	64.9	1.8	-1.8	0.0	0.0	0.0	0.0	0.0	19.8
144	592919.04	4791937.31	81.57	0	DEN	2000	81.7	0.0	0.0	0.0	0.0	64.9	4.8	-1.8	0.0	0.0	0.0	0.0	0.0	13.8
144	592919.04	4791937.31	81.57	0	DEN	4000	74.9	0.0	0.0	0.0	0.0	64.9	16.3	-1.8	0.0	0.0	0.0	0.0	0.0	-4.5
144	592919.04	4791937.31	81.57	0	DEN	8000	64.0	0.0	0.0	0.0	0.0	64.9	58.1	-1.8	0.0	0.0	0.0	0.0	0.0	-57.2
148	592919.04	4791937.31	81.57	1	DEN	125	75.5	0.0	0.0	0.0	0.0	65.1	0.2	0.2	0.0	0.0	4.6	0.0	1.0	4.4
148	592919.04	4791937.31	81.57	1	DEN	250	75.0	0.0	0.0	0.0	0.0	65.1	0.5	-1.3	0.0	0.0	4.8	0.0	1.0	4.9
148	592919.04	4791937.31	81.57	1	DEN	500	79.6	0.0	0.0	0.0	0.0	65.1	1.0	-1.8	0.0	0.0	4.8	0.0	1.0	9.6
148	592919.04	4791937.31	81.57	1	DEN	1000	84.7	0.0	0.0	0.0	0.0	65.1	1.9	-1.8	0.0	0.0	4.8	0.0	1.0	13.8
148	592919.04	4791937.31	81.57	1	DEN	2000	81.7	0.0	0.0	0.0	0.0	65.1	4.9	-1.8	0.0	0.0	4.8	0.0	1.0	7.7
148	592919.04	4791937.31	81.57	1	DEN	4000	74.9	0.0	0.0	0.0	0.0	65.1	16.6	-1.8	0.0	0.0	4.9	0.0	1.0	-10.9
148	592919.04	4791937.31	81.57	1	DEN	8000	64.0	0.0	0.0	0.0	0.0	65.1	59.2	-1.8	0.0	0.0	5.0	0.0	1.0	-64.6

Point Source, ISO 9613, Name: "Macassa Bay Yacht Club", ID: "I0G!S-20"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
158	591837.41	4791465.42	81.57	0	D	32	56.8	0.0	0.0	0.0	0.0	71.1	0.0	-3.0	0.0	0.0	4.8	0.0	0.0	-16.1
158	591837.41	4791465.42	81.57	0	D	63	70.8	0.0	0.0	0.0	0.0	71.1	0.1	-3.0	0.0	0.0	4.8	0.0	0.0	-2.2
158	591837.41	4791465.42	81.57	0	D	125	83.2	0.0	0.0	0.0	0.0	71.1	0.4	-3.0	0.0	0.0	4.8	0.0	0.0	9.9
158	591837.41	4791465.42	81.57	0	D	250	82.7	0.0	0.0	0.0	0.0	71.1	1.1	-3.0	0.0	0.0	4.8	0.0	0.0	8.8
158	591837.41	4791465.42	81.57	0	D	500	87.3	0.0	0.0	0.0	0.0	71.1	1.9	-3.0	0.0	0.0	4.8	0.0	0.0	12.5
158	591837.41	4791465.42	81.57	0	D	1000	92.4	0.0	0.0	0.0	0.0	71.1	3.7	-3.0	0.0	0.0	4.8	0.0	0.0	15.9
158	591837.41	4791465.42	81.57	0	D	2000	89.4	0.0	0.0	0.0	0.0	71.1	9.7	-3.0	0.0	0.0	4.8	0.0	0.0	6.8
158	591837.41	4791465.42	81.57	0	D	4000	82.6	0.0	0.0	0.0	0.0	71.1	33.0	-3.0	0.0	0.0	4.8	0.0	0.0	-23.3
158	591837.41	4791465.42	81.57	0	D	8000	71.7	0.0	0.0	0.0	0.0	71.1	117.8	-3.0	0.0	0.0	4.8	0.0	0.0	-118.9
158	591837.41	4791465.42	81.57	0	N	32	51.8	0.0	0.0	0.0	0.0	71.1	0.0	-3.0	0.0	0.0	4.8	0.0	0.0	-21.1
158	591837.41	4791465.42	81.57	0	N	63	65.8	0.0	0.0	0.0	0.0	71.1	0.1	-3.0	0.0	0.0	4.8	0.0	0.0	-7.2
158	591837.41	4791465.42	81.57	0	N	125	78.2	0.0	0.0	0.0	0.0	71.1	0.4	-3.0	0.0	0.0	4.8	0.0	0.0	4.9
158	591837.41	4791465.42	81.57	0	N	250	77.7	0.0	0.0	0.0	0.0	71.1	1.1	-3.0	0.0	0.0	4.8	0.0	0.0	3.8
158	591837.41	4791465.42	81.57	0	N	500	82.3	0.0	0.0	0.0	0.0	71.1	1.9	-3.0	0.0	0.0	4.8	0.0	0.0	7.5
158	591837.41	4791465.42	81.57	0	N	1000	87.4	0.0	0.0	0.0	0.0	71.1	3.7	-3.0	0.0	0.0	4.8	0.0	0.0	10.9
158	591837.41	4791465.42	81.57	0	N	2000	84.4	0.0	0.0	0.0	0.0	71.1	9.7	-3.0	0.0	0.0	4.8	0.0	0.0	1.8
158	591837.41	4791465.42	81.57	0	N	4000	77.6	0.0	0.0	0.0	0.0	71.1	33.0	-3.0	0.0	0.0	4.8	0.0	0.0	-28.3
158	591837.41	4791465.42	81.57	0	N	8000	66.7	0.0	0.0	0.0	0.0	71.1	117.8	-3.0	0.0	0.0	4.8	0.0	0.0	-123.9
158	591837.41	4791465.42	81.57	0	E	32	56.8	0.0	0.0	0.0	0.0	71.1	0.0	-3.0	0.0	0.0	4.8	0.0	0.0	-16.1
158	591837.41	4791465.42	81.57	0	E	63	70.8	0.0	0.0	0.0	0.0	71.1	0.1	-3.0	0.0	0.0	4.8	0.0	0.0	-2.2
158	591837.41	4791465.42	81.57	0	E	125	83.2	0.0	0.0	0.0	0.0	71.1	0.4	-3.0	0.0	0.0	4.8	0.0	0.0	9.9
158	591837.41	4791465.42	81.57	0	E	250	82.7	0.0	0.0	0.0	0.0	71.1	1.1	-3.0	0.0	0.0	4.8	0.0	0.0	8.8
158	591837.41	4791465.42	81.57	0	E	500	87.3	0.0	0.0	0.0	0.0	71.1	1.9	-3.0	0.0	0.0	4.8	0.0	0.0	12.5
158	591837.41	4791465.42	81.57	0	E	1000	92.4	0.0	0.0	0.0	0.0	71.1	3.7	-3.0	0.0	0.0	4.8	0.0	0.0	15.9
158	591837.41	4791465.42	81.57	0	E	2000	89.4	0.0	0.0	0.0	0.0	71.1	9.7	-3.0	0.0	0.0	4.8	0.0	0.0	6.8
158	591837.41	4791465.42	81.57	0	E	4000	82.6	0.0	0.0	0.0	0.0	71.1	33.0	-3.0	0.0	0.0	4.8	0.0	0.0	-23.3
158	591837.41	4791465.42	81.57	0	E	8000	71.7	0.0	0.0	0.0	0.0	71.1	117.8	-3.0	0.0	0.0	4.8	0.0	0.0	-118.9

Point Source, ISO 9613, Name: "Econo Storage", ID: "I0G!S-16"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
160	592723.09	4791672.15	84.70	0	DEN	32	49.1	0.0	0.0	0.0	0.0	66.3	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-14.2
160	592723.09	4791672.15	84.70	0	DEN	63	63.1	0.0	0.0	0.0	0.0	66.3	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	-0.3
160	592723.09	4791672.15	84.70	0	DEN	125	75.5	0.0	0.0	0.0	0.0	66.3	0.2	0.9	0.0	0.0	0.0	0.0	0.0	8.0
160	592723.09	4791672.15	84.70	0	DEN	250	75.0	0.0	0.0	0.0	0.0	66.3	0.6	-0.9	0.0	0.0	0.0	0.0	0.0	8.9
160	592723.09	4791672.15	84.70	0	DEN	500	79.6	0.0	0.0	0.0	0.0	66.3	1.1	-1.5	0.0	0.0	0.0	0.0	0.0	13.7
160	592723.09	4791672.15	84.70	0	DEN	1000	84.7	0.0	0.0	0.0	0.0	66.3	2.1	-1.5	0.0	0.0	0.0	0.0	0.0	17.8
160	592723.09	4791672.15	84.70	0	DEN	2000	81.7	0.0	0.0	0.0	0.0	66.3	5.6	-1.5	0.0	0.0	0.0	0.0	0.0	11.3
160	592723.09	4791672.15	84.70	0	DEN	4000	74.9	0.0	0.0	0.0	0.0	66.3	19.1	-1.5	0.0	0.0	0.0	0.0	0.0	-9.0
160	592723.09	4791672.15	84.70	0	DEN	8000	64.0	0.0	0.0	0.0	0.0	66.3	68.1	-1.5	0.0	0.0	0.0	0.0	0.0	-68.9
162	592723.09	4791672.15	84.70	1	DEN	250	75.0	0.0	0.0	0.0	0.0	66.4	0.6	-0.8	0.0	0.0	4.8	0.0	1.0	3.0
162	592723.09	4791672.15	84.70	1	DEN	500	79.6	0.0	0.0	0.0	0.0	66.4	1.1	-1.5	0.0	0.0	4.8	0.0	1.0	7.8
162	592723.09	4791672.15	84.70	1	DEN	1000	84.7	0.0	0.0	0.0	0.0	66.4	2.2	-1.5	0.0	0.0	4.8	0.0	1.0	11.8

Point Source, ISO 9613, Name: "Econo Storage", ID: "I0G!S-16"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
162	592723.09	4791672.15	84.70	1	DEN	2000	81.7	0.0	0.0	0.0	0.0	66.4	5.7	-1.5	0.0	0.0	4.8	0.0	1.0	5.3
162	592723.09	4791672.15	84.70	1	DEN	4000	74.9	0.0	0.0	0.0	0.0	66.4	19.3	-1.5	0.0	0.0	4.8	0.0	1.0	-15.1
162	592723.09	4791672.15	84.70	1	DEN	8000	64.0	0.0	0.0	0.0	0.0	66.4	69.0	-1.5	0.0	0.0	4.8	0.0	1.0	-75.7

Point Source, ISO 9613, Name: "Tudor Can Distributors Ltd.", ID: "I0G!S-17"																					
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr	
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
166	592594.78	4791626.03	85.79	0	D	32	49.1	0.0	0.0	0.0	0.0	66.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-14.4	
166	592594.78	4791626.03	85.79	0	D	63	63.1	0.0	0.0	0.0	0.0	66.5	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5
166	592594.78	4791626.03	85.79	0	D	125	75.5	0.0	0.0	0.0	0.0	66.5	0.2	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	9.2
166	592594.78	4791626.03	85.79	0	D	250	75.0	0.0	0.0	0.0	0.0	66.5	0.6	-1.5	0.0	0.0	0.0	0.0	0.0	0.0	9.4
166	592594.78	4791626.03	85.79	0	D	500	79.6	0.0	0.0	0.0	0.0	66.5	1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	13.9
166	592594.78	4791626.03	85.79	0	D	1000	84.7	0.0	0.0	0.0	0.0	66.5	2.2	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	18.0
166	592594.78	4791626.03	85.79	0	D	2000	81.7	0.0	0.0	0.0	0.0	66.5	5.7	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	11.4
166	592594.78	4791626.03	85.79	0	D	4000	74.9	0.0	0.0	0.0	0.0	66.5	19.5	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	-9.2
166	592594.78	4791626.03	85.79	0	D	8000	64.0	0.0	0.0	0.0	0.0	66.5	69.5	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	-70.0
166	592594.78	4791626.03	85.79	0	N	32	48.0	0.0	0.0	0.0	0.0	66.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	-15.5
166	592594.78	4791626.03	85.79	0	N	63	62.0	0.0	0.0	0.0	0.0	66.5	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.6
166	592594.78	4791626.03	85.79	0	N	125	74.4	0.0	0.0	0.0	0.0	66.5	0.2	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	8.1
166	592594.78	4791626.03	85.79	0	N	250	73.9	0.0	0.0	0.0	0.0	66.5	0.6	-1.5	0.0	0.0	0.0	0.0	0.0	0.0	8.3
166	592594.78	4791626.03	85.79	0	N	500	78.5	0.0	0.0	0.0	0.0	66.5	1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	12.8
166	592594.78	4791626.03	85.79	0	N	1000	83.6	0.0	0.0	0.0	0.0	66.5	2.2	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	16.9
166	592594.78	4791626.03	85.79	0	N	2000	80.6	0.0	0.0	0.0	0.0	66.5	5.7	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	10.3
166	592594.78	4791626.03	85.79	0	N	4000	73.8	0.0	0.0	0.0	0.0	66.5	19.5	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	-10.3
166	592594.78	4791626.03	85.79	0	N	8000	62.9	0.0	0.0	0.0	0.0	66.5	69.5	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	-71.1
166	592594.78	4791626.03	85.79	0	E	32	49.1	0.0	0.0	0.0	0.0	66.5	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	-14.4
166	592594.78	4791626.03	85.79	0	E	63	63.1	0.0	0.0	0.0	0.0	66.5	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5
166	592594.78	4791626.03	85.79	0	E	125	75.5	0.0	0.0	0.0	0.0	66.5	0.2	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	9.2
166	592594.78	4791626.03	85.79	0	E	250	75.0	0.0	0.0	0.0	0.0	66.5	0.6	-1.5	0.0	0.0	0.0	0.0	0.0	0.0	9.4
166	592594.78	4791626.03	85.79	0	E	500	79.6	0.0	0.0	0.0	0.0	66.5	1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	13.9
166	592594.78	4791626.03	85.79	0	E	1000	84.7	0.0	0.0	0.0	0.0	66.5	2.2	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	18.0
166	592594.78	4791626.03	85.79	0	E	2000	81.7	0.0	0.0	0.0	0.0	66.5	5.7	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	11.4
166	592594.78	4791626.03	85.79	0	E	4000	74.9	0.0	0.0	0.0	0.0	66.5	19.5	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	-9.2
166	592594.78	4791626.03	85.79	0	E	8000	64.0	0.0	0.0	0.0	0.0	66.5	69.5	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	-70.0

Point Source, ISO 9613, Name: "Collective Arts Brewing", ID: "I0G!S-6"																					
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr	
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	
169	593032.05	4791583.80	83.55	0	D	32	60.7	0.0	0.0	0.0	0.0	69.2	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-5.6	
169	593032.05	4791583.80	83.55	0	D	63	71.0	0.0	0.0	0.0	0.0	69.2	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
169	593032.05	4791583.80	83.55	0	D	125	79.5	0.0	0.0	0.0	0.0	69.2	0.3	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
169	593032.05	4791583.80	83.55	0	D	250	83.2	0.0	0.0	0.0	0.0	69.2	0.9	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	14.9
169	593032.05	4791583.80	83.55	0	D	500	86.5	0.0	0.0	0.0	0.0	69.2	1.6	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	17.8
169	593032.05	4791583.80	83.55	0	D	1000	87.7	0.0	0.0	0.0	0.0	69.2	3.0	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	17.6
169	593032.05	4791583.80	83.55	0	D	2000	84.4	0.0	0.0	0.0	0.0	69.2	7.9	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	9.4
169	593032.05	4791583.80	83.55	0	D	4000	74.3	0.0	0.0	0.0	0.0	69.2	26.8	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	-19.6
169	593032.05	4791583.80	83.55	0	D	8000	48.4	0.0	0.0	0.0	0.0	69.2	95.5	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	-114.3
169	593032.05	4791583.80	83.55	0	N	32	55.7	0.0	0.0	0.0	0.0	69.2	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	-10.6
169	593032.05	4791583.80	83.55	0	N	63	66.0	0.0	0.0	0.0	0.0	69.2	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3
169	593032.05	4791583.80	83.55	0	N	125	74.5	0.0	0.0	0.0	0.0	69.2	0.3	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
169	593032.05	4791583.80	83.55	0	N	250	78.2	0.0	0.0	0.0	0.0	69.2	0.9	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	9.9
169	593032.05	4791583.80	83.55	0	N	500	81.5	0.0	0.0	0.0	0.0	69.2	1.6	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	12.8
169	593032.05	4791583.80	83.55	0	N	1000	82.7	0.0	0.0	0.0	0.0	69.2	3.0	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	12.6
169	593032.05	4791583.80	83.55	0	N	2000	79.4	0.0	0.0	0.0	0.0	69.2	7.9	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	4.4
169	593032.05	4791583.80	83.55	0	N	4000	69.3	0.0	0.0	0.0	0.0	69.2	26.8	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	-24.6
169	593032.05	4791583.80	83.55	0	N	8000	43.4	0.0	0.0	0.0	0.0	69.2	95.5	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	-119.3
169	593032.05	4791583.80	83.55	0	E	32	60.7	0.0	0.0	0.0	0.0	69.2	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.6
169	593032.05	4791583.80	83.55	0	E	63	71.0	0.0	0.0	0.0	0.0	69.2	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
169	593032.05	4791583.80	83.55	0	E	125	79.5	0.0	0.0	0.0	0.0	69.2	0.3	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
169	593032.05	4791583.80	83.55	0	E	250	83.2	0.0	0.0	0.0	0.0	69.2	0.9	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	14.9
169	593032.05	4791583.80	83.55	0	E	500	86.5	0.0	0.0	0.0	0.0	69.2	1.6	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	17.8
169	593032.05	4791583.80	83.55	0	E	1000	87.7	0.0	0.0	0.0	0.0	69.2	3.0	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	17.6
169	593032.05	4791583.80	83.55	0	E	2000	84.4	0.0	0.0	0.0	0.0	69.2	7.9	-2.1	0.0	0.0	0.0	0.0	0.0	0.0	9.4

Point Source, ISO 9613, Name: "Collective Arts Brewing", ID: "!0G!S-6"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
169	593032.05	4791583.80	83.55	0	E	4000	74.3	0.0	0.0	0.0	0.0	69.2	26.8	-2.1	0.0	0.0	0.0	0.0	0.0	-19.6
169	593032.05	4791583.80	83.55	0	E	8000	48.4	0.0	0.0	0.0	0.0	69.2	95.5	-2.1	0.0	0.0	0.0	0.0	0.0	-114.3
173	593032.05	4791583.80	83.55	1	D	125	79.5	0.0	0.0	0.0	0.0	69.3	0.3	-1.2	0.0	0.0	0.0	0.0	1.0	10.0
173	593032.05	4791583.80	83.55	1	D	250	83.2	0.0	0.0	0.0	0.0	69.3	0.9	-1.9	0.0	0.0	0.0	0.0	1.0	13.9
173	593032.05	4791583.80	83.55	1	D	500	86.5	0.0	0.0	0.0	0.0	69.3	1.6	-2.1	0.0	0.0	0.0	0.0	1.0	16.7
173	593032.05	4791583.80	83.55	1	D	1000	87.7	0.0	0.0	0.0	0.0	69.3	3.0	-2.1	0.0	0.0	0.0	0.0	1.0	16.5
173	593032.05	4791583.80	83.55	1	D	2000	84.4	0.0	0.0	0.0	0.0	69.3	8.0	-2.1	0.0	0.0	0.0	0.0	1.0	8.2
173	593032.05	4791583.80	83.55	1	D	4000	74.3	0.0	0.0	0.0	0.0	69.3	27.1	-2.1	0.0	0.0	0.0	0.0	1.0	-21.0
173	593032.05	4791583.80	83.55	1	D	8000	48.4	0.0	0.0	0.0	0.0	69.3	96.6	-2.1	0.0	0.0	0.0	0.0	1.0	-116.4
173	593032.05	4791583.80	83.55	1	N	125	74.5	0.0	0.0	0.0	0.0	69.3	0.3	-1.2	0.0	0.0	0.0	0.0	1.0	5.0
173	593032.05	4791583.80	83.55	1	N	250	78.2	0.0	0.0	0.0	0.0	69.3	0.9	-1.9	0.0	0.0	0.0	0.0	1.0	8.9
173	593032.05	4791583.80	83.55	1	N	500	81.5	0.0	0.0	0.0	0.0	69.3	1.6	-2.1	0.0	0.0	0.0	0.0	1.0	11.7
173	593032.05	4791583.80	83.55	1	N	1000	82.7	0.0	0.0	0.0	0.0	69.3	3.0	-2.1	0.0	0.0	0.0	0.0	1.0	11.5
173	593032.05	4791583.80	83.55	1	N	2000	79.4	0.0	0.0	0.0	0.0	69.3	8.0	-2.1	0.0	0.0	0.0	0.0	1.0	3.2
173	593032.05	4791583.80	83.55	1	N	4000	69.3	0.0	0.0	0.0	0.0	69.3	27.1	-2.1	0.0	0.0	0.0	0.0	1.0	-26.0
173	593032.05	4791583.80	83.55	1	N	8000	43.4	0.0	0.0	0.0	0.0	69.3	96.6	-2.1	0.0	0.0	0.0	0.0	1.0	-121.4
173	593032.05	4791583.80	83.55	1	E	125	79.5	0.0	0.0	0.0	0.0	69.3	0.3	-1.2	0.0	0.0	0.0	0.0	1.0	10.0
173	593032.05	4791583.80	83.55	1	E	250	83.2	0.0	0.0	0.0	0.0	69.3	0.9	-1.9	0.0	0.0	0.0	0.0	1.0	13.9
173	593032.05	4791583.80	83.55	1	E	500	86.5	0.0	0.0	0.0	0.0	69.3	1.6	-2.1	0.0	0.0	0.0	0.0	1.0	16.7
173	593032.05	4791583.80	83.55	1	E	1000	87.7	0.0	0.0	0.0	0.0	69.3	3.0	-2.1	0.0	0.0	0.0	0.0	1.0	16.5
173	593032.05	4791583.80	83.55	1	E	2000	84.4	0.0	0.0	0.0	0.0	69.3	8.0	-2.1	0.0	0.0	0.0	0.0	1.0	8.2
173	593032.05	4791583.80	83.55	1	E	4000	74.3	0.0	0.0	0.0	0.0	69.3	27.1	-2.1	0.0	0.0	0.0	0.0	1.0	-21.0
173	593032.05	4791583.80	83.55	1	E	8000	48.4	0.0	0.0	0.0	0.0	69.3	96.6	-2.1	0.0	0.0	0.0	0.0	1.0	-116.4

Point Source, ISO 9613, Name: "Name Unknown", ID: "!0G!S-11"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
175	593162.72	4791414.46	83.16	0	D	32	49.1	0.0	0.0	0.0	0.0	71.3	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-19.2
175	593162.72	4791414.46	83.16	0	D	63	63.1	0.0	0.0	0.0	0.0	71.3	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	-5.3
175	593162.72	4791414.46	83.16	0	D	125	75.5	0.0	0.0	0.0	0.0	71.3	0.4	-0.0	0.0	0.0	0.0	0.0	0.0	3.8
175	593162.72	4791414.46	83.16	0	D	250	75.0	0.0	0.0	0.0	0.0	71.3	1.1	-1.3	0.0	0.0	0.0	0.0	0.0	4.0
175	593162.72	4791414.46	83.16	0	D	500	79.6	0.0	0.0	0.0	0.0	71.3	2.0	-1.8	0.0	0.0	0.0	0.0	0.0	8.1
175	593162.72	4791414.46	83.16	0	D	1000	84.7	0.0	0.0	0.0	0.0	71.3	3.8	-1.8	0.0	0.0	0.0	0.0	0.0	11.5
175	593162.72	4791414.46	83.16	0	D	2000	81.7	0.0	0.0	0.0	0.0	71.3	10.0	-1.8	0.0	0.0	0.0	0.0	0.0	2.3
175	593162.72	4791414.46	83.16	0	D	4000	74.9	0.0	0.0	0.0	0.0	71.3	33.8	-1.8	0.0	0.0	0.0	0.0	0.0	-28.3
175	593162.72	4791414.46	83.16	0	D	8000	64.0	0.0	0.0	0.0	0.0	71.3	120.4	-1.8	0.0	0.0	0.0	0.0	0.0	-125.9
175	593162.72	4791414.46	83.16	0	N	32	48.8	0.0	0.0	0.0	0.0	71.3	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-19.5
175	593162.72	4791414.46	83.16	0	N	63	62.8	0.0	0.0	0.0	0.0	71.3	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	-5.6
175	593162.72	4791414.46	83.16	0	N	125	75.2	0.0	0.0	0.0	0.0	71.3	0.4	-0.0	0.0	0.0	0.0	0.0	0.0	3.5
175	593162.72	4791414.46	83.16	0	N	250	74.7	0.0	0.0	0.0	0.0	71.3	1.1	-1.3	0.0	0.0	0.0	0.0	0.0	3.7
175	593162.72	4791414.46	83.16	0	N	500	79.3	0.0	0.0	0.0	0.0	71.3	2.0	-1.8	0.0	0.0	0.0	0.0	0.0	7.8
175	593162.72	4791414.46	83.16	0	N	1000	84.4	0.0	0.0	0.0	0.0	71.3	3.8	-1.8	0.0	0.0	0.0	0.0	0.0	11.2
175	593162.72	4791414.46	83.16	0	N	2000	81.4	0.0	0.0	0.0	0.0	71.3	10.0	-1.8	0.0	0.0	0.0	0.0	0.0	2.0
175	593162.72	4791414.46	83.16	0	N	4000	74.6	0.0	0.0	0.0	0.0	71.3	33.8	-1.8	0.0	0.0	0.0	0.0	0.0	-28.6
175	593162.72	4791414.46	83.16	0	N	8000	63.7	0.0	0.0	0.0	0.0	71.3	120.4	-1.8	0.0	0.0	0.0	0.0	0.0	-126.2
175	593162.72	4791414.46	83.16	0	E	32	49.1	0.0	0.0	0.0	0.0	71.3	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	-19.2
175	593162.72	4791414.46	83.16	0	E	63	63.1	0.0	0.0	0.0	0.0	71.3	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	-5.3
175	593162.72	4791414.46	83.16	0	E	125	75.5	0.0	0.0	0.0	0.0	71.3	0.4	-0.0	0.0	0.0	0.0	0.0	0.0	3.8
175	593162.72	4791414.46	83.16	0	E	250	75.0	0.0	0.0	0.0	0.0	71.3	1.1	-1.3	0.0	0.0	0.0	0.0	0.0	4.0
175	593162.72	4791414.46	83.16	0	E	500	79.6	0.0	0.0	0.0	0.0	71.3	2.0	-1.8	0.0	0.0	0.0	0.0	0.0	8.1
175	593162.72	4791414.46	83.16	0	E	1000	84.7	0.0	0.0	0.0	0.0	71.3	3.8	-1.8	0.0	0.0	0.0	0.0	0.0	11.5
175	593162.72	4791414.46	83.16	0	E	2000	81.7	0.0	0.0	0.0	0.0	71.3	10.0	-1.8	0.0	0.0	0.0	0.0	0.0	2.3
175	593162.72	4791414.46	83.16	0	E	4000	74.9	0.0	0.0	0.0	0.0	71.3	33.8	-1.8	0.0	0.0	0.0	0.0	0.0	-28.3
175	593162.72	4791414.46	83.16	0	E	8000	64.0	0.0	0.0	0.0	0.0	71.3	120.4	-1.8	0.0	0.0	0.0	0.0	0.0	-125.9

# **Appendix D**

**Road Traffic Data and Sample STAMSON  
Calculation Output**



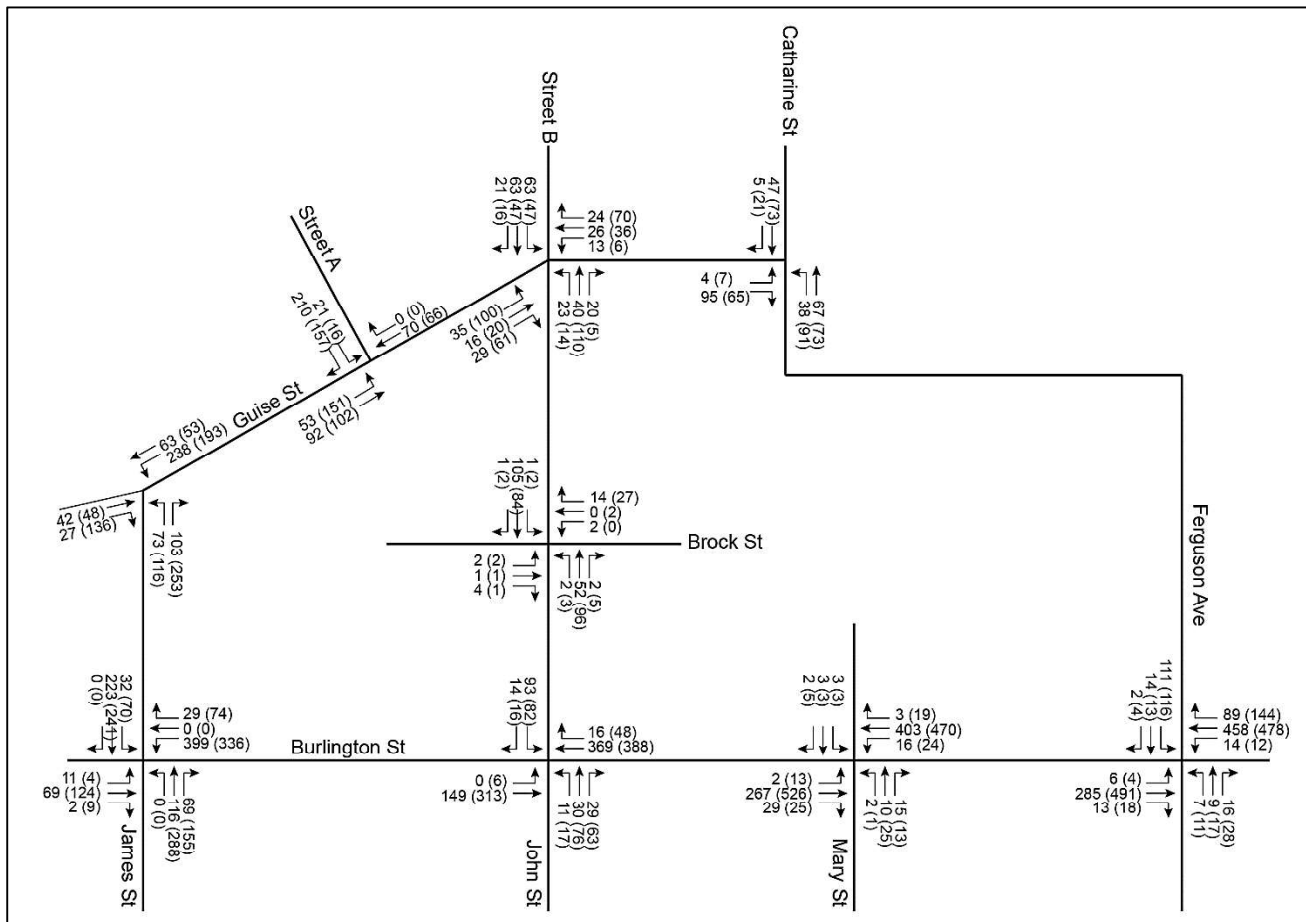
Exhibit 4-2: Future Background Conditions (2025) Intersection Operational Performance Summary AM (PM)

Intersection	2025 Future Background AM (PM)				
	Overall LOS	Overall Delay (s)	Mvmt	LOS	95 <sup>th</sup> Queue
Ferguson Avenue at Burlington Street	A (A)	1 (2)	(SB)	(D)	(9)
Mary Street at Burlington Street	A (A)	4 (4)			
John Street at Burlington Street	A (A)	7 (9)			
James Street at Burlington Street	A (A)	14 (16)			
Brock Street at John Street	A (A)	2 (2)			
Catharine Street at Guise Street	A (A)	4 (3)			
John Street at Guise Street	A (A)	7 (7)			
James Street at Guise Street	A (A)	5 (5)			

## 4.2 Total Traffic Operations

Site generated traffic was added to future background traffic to determine the total future traffic volumes. The future (2025) operations analysis was conducted for the weekday a.m. and p.m. peak hours for the study area intersections. Exhibit 4-3 shows the future total traffic volumes for the a.m. and p.m. peak hours.

Exhibit 4-3: Future Total Traffic Volumes AM (PM) Peak Hour



Filename: B16\_N.te Time Period: Day/Night 16/8 hours  
 Description: North facade 2nd floor of podium

Road data, segment # 1: Street E (day/night)

-----  
 Car traffic volume : 3489/388 veh/TimePeriod  
 Medium truck volume : 109/12 veh/TimePeriod  
 Heavy truck volume : 36/4 veh/TimePeriod  
 Posted speed limit : 40 km/h %Actual speed limit is 30 km/h (limitation of STAMSON)  
 Road gradient : 0 %  
 Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Street E (day/night)

-----  
 Angle1 Angle2 : -90.00 deg 90.00 deg  
 Wood depth : 0 (No woods.)  
 No of house rows : 0 / 0  
 Surface : 2 (Reflective ground surface)  
 Receiver source distance : 15.00 / 15.00 m %Actual distance is 10 m (limitation of STAMSON)  
 Receiver height : 4.50 / 4.50 m  
 Topography : 1 (Flat/gentle slope; no barrier)  
 Reference angle : 0.00

Result summary (day)

-----

	! source !	Road	Total
	! height !	Leq	Leq
	! (m) !	(dBA)	(dBA)
1.Street E	! 1.00 !	56.52	56.52
Total		56.52 dBA	

Result summary (night)

-----

	! source !	Road	Total
	! height !	Leq	Leq
	! (m) !	(dBA)	(dBA)
1.Street E	! 1.00 !	49.98	49.98
Total		49.98 dBA	

TOTAL Leq FROM ALL SOURCES (DAY): 56.52  
(NIGHT): 49.98

Correction for distance =  $10 \cdot \log(15/10) = 1.76$  dBA  
Correction for speed =  $\sim 10 \cdot \log(30/40) = -1.25$  dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.03 dBA  
(NIGHT): 50.49 dBA

# **Appendix E**

**Settlement Agreement between P&H, WSC,  
and the City of Hamilton**

**SETTLEMENT AGREEMENT**

This Settlement Agreement is effective as of August 14, 2020

**BETWEEN:**

**CITY OF HAMILTON**

**(“City”)**

**- and -**

**THE WATERFRONT SHORES  
CORPORATION**

**(“WSC”)**

**- and -**

**PARRISH & HEIMBECKER, LIMITED**

**(“P&H”)**

**WHEREAS** the City is the owner of the lands in the City of Hamilton known as Pier 8 (the “**Pier 8 Lands**”, as further defined herein);

**AND WHEREAS** WSC is the prospective purchaser of certain lands and premises which form part of the Pier 8 Lands (the “**WSC Lands**”, as further defined herein) and proposes to redevelop the said WSC Lands pursuant to an agreement with the City;

**AND WHEREAS** P&H is the owner and operator of a grain handling terminal and state of the art flour mill located on the P&H Lands (as defined below) including the dockwalls and finger pier, which operation includes the loading and unloading of ships (the “**P&H Facility**”, as further defined herein);

**AND WHEREAS** the West Harbour (Setting Sail) Secondary Plan (the “**Secondary Plan**”) which is in force and applies to the Pier 8 Lands, contemplates the redevelopment of the WSC Lands for residential, institutional and mixed uses;

**AND WHEREAS** the City passed the Zoning Amendment (as defined below) to permit the redevelopment of Pier 8 in accordance with the Secondary Plan;

**AND WHEREAS** the City approved a plan of subdivision and associated draft plan conditions for the Pier 8 Lands (the “**Subdivision**”, as further defined herein);

**AND WHEREAS** P&H appealed the Zoning Amendment and the Subdivision to the Ontario Municipal Board (now continued as the Local Planning Appeal Tribunal) (collectively the “**P&H Appeals**”, as further defined herein);

**AND WHEREAS** the Tribunal granted WSC party status in regard to the P&H Appeals;

**AND WHEREAS** through mediation the Parties have reached agreement on the means to resolve the P&H Appeals, the principal terms of which agreement are contained in a Memorandum of Understanding dated August 28, 2019, a copy of which is attached as **Schedule “C”** hereto (the “**MOU**”);

**AND WHEREAS** the Parties agreed to incorporate the terms of the MOU in this Agreement;

**NOW WITNESSETH** that in exchange for the payment of two dollars (\$2.00) of lawful money of Canada each paid to the other, the receipt and sufficiency being hereby acknowledged, the mutual covenants herein, and other good and valuable consideration, the Parties agree as follows:

### **General**

1. The Parties confirm that the foregoing recitals are correct and form part of this Settlement Agreement.

### **Definitions**

2. The following terms, whenever used in this Settlement Agreement, shall have the meanings set out in this Section:
  - (a) “**Bedroom**” means sleeping quarters, but does not include bathrooms;
  - (b) “**Block**” or “**Blocks**” means the Blocks depicted in Figure 10 of the Zoning Amendment as adopted on May 24, 2017, a copy of which is attached to this Settlement Agreement as **Schedule “E”**, and the reference herein to any one Block or Block number shall correspond to the Block number and location shown in **Schedule “E”** hereto;
  - (c) “**Building Permit Plans**” means mechanical and architectural building permit drawings showing buildings and mechanical systems, but does not include below-ground and foundation permit plans;
  - (d) “**City**” means the City of Hamilton;
  - (e) “**Daytime Living Area**” means those portions of a residential dwelling unit comprising the kitchen, eating area and living area but does not include sleeping quarters or bathrooms;
  - (f) “**Draft Plan**” means the draft plan of subdivision attached as **Schedule “A-1”**;

- (g) “**Excess Lands**” means the excess lands which form part of the Pier 8 Lands but do not form part of the WSC Lands;
- (h) “**Façade**” means an exterior-facing portion of a building, including windows, walls, doors and ventilation openings;
- (i) “**General Warning Clause**” has the meaning ascribed to it in Section 32 of this Settlement Agreement;
- (j) “**HOPA Lands**” means the lands owned by Hamilton Oshawa Port Authority (formerly known as the Hamilton Port Authority), known as Pier 10 in Hamilton and located to the east of the Pier 8 Lands, as more particularly described in **Schedule “B”** attached to this Settlement Agreement;
- (k) “**Industrial and Mining Lands Compensation Act Agreement**” means the agreement entered into between the City, WSC and P&H pursuant to the *Industrial and Mining Lands Compensation Act*, R.S.O. 1990, c.I.5, as amended, re-enacted or replaced from time to time, as required by Section 4 of this Settlement Agreement;
- (l) “**Mitigation Works**” means the windows and non-window exterior wall components and outdoor living area components constructed in accordance with Sections 6 to 11 herein, the mechanical room air intakes constructed in accordance with Sections 12 to 14 herein, and the balconies constructed in accordance with Section 15 herein;
- (m) “**MOU**” has the meaning ascribed to such term in the recitals to this Settlement Agreement;
- (n) “**NC-25 Sound Level**” means a sound pressure level spectrum whose Octave Band sound levels are equal to or lower than the Noise Criterion (NC) 25 curve. The NC-25 curve Octave Band sound levels are included in **Schedule “F”**;
- (o) “**NC-30 Sound Level**” means a sound pressure level spectrum whose Octave Band sound levels are equal to or lower than the Noise Criterion (NC) 30 curve. The NC-30 curve Octave Band sound levels are included in **Schedule “F”**;
- (p) “**NPC-300**” means the MECP *Environmental Noise Guideline, Stationary and Transportation Sources - Approval and Planning - Publication NPC-300* (August 2013), and all guidelines and other documents referenced therein, in each case, as amended and replaced from time to time;
- (q) “**Octave Band**” means a portion of the sound frequency range which has an upper cutoff frequency twice that of the lower cutoff frequency. Octave

Bands shall have centre frequencies of 63 Hz, 125 Hz, 250 Hz, 500 Hz, 1000 Hz, 2000 Hz and 4000 Hz;

- (r) "**Outdoor Living Area**" has the meaning ascribed to it in NPC-300;
- (s) "**Outdoor Courtyard Living Area**" means an Outdoor Living Area which is surrounded by walls on two or more sides;
- (t) "**Noise Sensitive Land Use**" has the meaning ascribed to it in NPC-300;
- (u) "**P&H**" means Parrish & Heimbecker, Limited;
- (v) "**P&H Appeals**" means P&H's appeals of the Zoning Amendment and the Subdivision to the Tribunal (Board Case File Number PL170742);
- (w) "**P&H Facility**" means a grain handling terminal and state of the art flour mill on the P&H Lands on Pier 10 in Hamilton, including the dockwalls and the finger pier, which operation includes the loading and unloading of ships, rail cars and trucks and other related facilities, operations and related uses;
- (x) "**P&H Lands**" means certain lands and premises leased by Hamilton Oshawa Port Authority to P&H pursuant to the P&H Lease and forming part of the HOPA Lands, and more particularly described in Schedule "B" attached to this Settlement Agreement;
- (y) "**P&H Lease**" means a lease, dated May 12, 2010, between Hamilton Port Authority (as it was then named), as landlord, and P&H as tenant, pursuant to which Hamilton Oshawa Port Authority leases the P&H Lands to P&H and upon which the P&H Facility is located;
- (z) "**Parties**" means the City of Hamilton, Waterfront Shores Corporation and Parrish & Heimbecker, Limited and their respective successors and assigns and "**Party**" means any one of them;
- (aa) "**Pier 8 Lands**" means the lands described in **Schedule "A"** attached to this Settlement Agreement;
- (bb) "**Residential Warning Clause**" has the meaning ascribed to it in Section 33 of this Settlement Agreement;
- (cc) "**Settlement Agreement**" and "**Agreement**" means this agreement and all Schedules attached to this agreement, and the expressions "hereof", "herein", "hereto", "hereunder", "hereby" and similar expressions refer to this agreement as a whole and not to any particular part hereof, unless the context otherwise requires;
- (dd) "**Secondary Plan**" means the West Harbour (Setting Sail) Secondary Plan which is in force and applies to the Pier 8 Lands;



- (ee) **“Site Plan Approval Application Materials”** means the plans and drawings prepared in accordance with the City’s standard site plan approval application requirements including the entirety of the Site Plan Notes Details set out in **Schedule “I”**;
- (ff) **“Subdivision”** means the Draft Plan and all draft plan conditions applicable thereto, approved by the City on May 24, 2017, as may be amended by the City or the Tribunal;
- (gg) **“TL Values”** means sound transmission loss values, as measured in accordance with ASTM standard E90. Where TL values tested in accordance with ASTM standard E90 are not available for an exterior wall assembly, TL values shall be calculated using the INSUL software computer program. For physical configurations that cannot be modeled due to limitations of the INSUL software, representative configurations shall be deemed acceptable;
- (hh) **“Tribunal”** means the Ontario Municipal Board and its successor the Local Planning Appeal Tribunal;
- (ii) **“WSC”** means The Waterfront Shores Corporation;
- (jj) **“WSC Lands”** means Blocks 1 through 8 and 16 shown on the Draft Plan; and
- (kk) **“Zoning Amendment”** means Zoning By-law No. 17-095 enacted by the City on May 24, 2017, as may be amended by the City or Tribunal.

**Schedules**

3. The following is a list of the schedules which forms part of this Settlement Agreement for all purposes:

- (a) Schedule “A” - Legal Description of the Pier 8 Lands
- (b) Schedule “A-1” - Draft Plan of Subdivision
- (c) Schedule “B” - Legal Description of the HOPA Lands and the P&H Lands
- (d) Schedule “C” - Memorandum of Understanding
- (e) Schedule “D” - Industrial and Mining Lands Compensation Act Agreement
- (f) Schedule “E” - Schedule 10 to Zoning Amendment as adopted, Block Plan
- (g) Schedule “F” - Method of Calculating Residential Façade Sound Isolation Requirements

- (h) Schedule “G” - Method for Calculating Sound Transmission from Exterior to Interior Via Air Intakes and Exhausts
- (i) Schedule “H” - City’s Community Liaison and Complaint Protocol
- (j) Schedule “T” - Site Plan Notes Details
- (k) Schedule “J” - Form of Assumption Agreement
- (l) Schedule “K” - Form of Declaration and Undertaking Re Confidential Information

**Industrial and Mining Lands Compensation Act Agreement**

4. Simultaneously with the execution of this Settlement Agreement, the Parties shall execute the Industrial and Mining Lands Compensation Act Agreement attached to this Settlement Agreement as **Schedule “D”**. The City agrees to register the Industrial and Mining Lands Compensation Act Agreement, or a notice thereto with a note referring to the Act, on title to the Pier 8 Lands within 30 days of execution of said agreement.

Upon receipt by P&H of a written request from the City or WSC that:

- (a) any of the Excess Lands be released from the registration of the Industrial and Mining Lands Compensation Act Agreement, or a notice thereto, as applicable; and
- (b) the registration of the Industrial and Mining Lands Compensation Act Agreement, or a notice thereto (as applicable) be amended to remove the Excess Lands from the description of the subject lands set forth therein,

P&H shall, upon delivery of:

- (i) a proposed amendment to the Industrial and Mining Lands Compensation Act Agreement to amend the definition of the subject lands to exclude the Excess Lands therefrom;
- (ii) a registered copy of the Draft Plan;
- (iii) evidence satisfactory to P&H that the Draft Plan demonstrates that the Excess Lands are not used by WSC, its successors and assigns, for the purpose of residential or commercial development within the Subdivision; and
- (iv) a certificate signed by an authorized officer of WSC certifying that (A) no event of default has occurred and is continuing under the Industrial and Mining Lands Compensation Act Agreement, and (B) the Draft Plan demonstrates that there are Excess Lands and that the Excess Lands are

not used by WSC, its successors and assigns, for the purpose of residential or commercial development within the Subdivision,

execute and deliver, at the expense of the requesting party, such deeds or other instruments as shall be requisite to release such Excess Lands from the registration of the Industrial and Mining Lands Compensation Act Agreement or a notice thereto, and to register a notice of an amendment of the Industrial and Mining Lands Compensation Act Agreement, or a notice thereto, as applicable.

### **Pier 8 Development and Mitigation Works**

5. The Parties agree that the obligations in this Settlement Agreement relate only to air and noise emissions from the P&H Facility and not to air or noise emissions from any other industrial facility or source. For greater certainty, the noise level limits herein are understood and agreed to be non-cumulative with respect to any other facility or noise source.

### **Outdoor Living Areas**

6. WSC covenants and agrees that it shall orient the buildings on Block 3 and Block 8 such that any Outdoor Courtyard Living Area on said Blocks shall not face the P&H Facility. The foregoing restriction does not apply to any Outdoor Living Area which is located on a rooftop.
7. WSC covenants and agrees that there shall be no Outdoor Courtyard Living Areas, including at grade and on roof tops, on the WSC Lands unless they are designed and constructed to meet the standards set out in **Schedule “F”**, such standards to be calculated using the method set out in **Schedule “F”**.
8. The Parties agree that WSC shall not be obligated to provide a visual barrier to the P&H Facility from any Outdoor Living Area located on a rooftop on a building within the WSC Lands.

### **Mitigation of Indoor Noise Levels**

9. WSC covenants and agrees that no portion of the WSC Lands may be used for residential Noise Sensitive Land Uses unless WSC designs and constructs all buildings containing residential Noise Sensitive Land Uses, and all portions of mixed-use buildings containing residential Noise Sensitive Land Uses, on the WSC Lands to achieve a maximum indoor sound level of NC-25 in Bedrooms at nighttime (11 pm to 7 am) and NC-30 in Daytime Living Areas in the daytime (7 am to 11 pm), in accordance with the standards and methods set out in **Schedule “F”**. This obligation shall include the design and construction of the windows and the non-window exterior wall components of the building(s) excluding vents, air intakes and exhausts. The details of the maximum noise level permitted and the rules for design of windows and building Façades other than ventilation openings for noise sensitive residential uses are set out in **Schedule “F”** attached to this Settlement Agreement.

10. Sound transmission via any air openings in a Façade for air exhausts or intakes with potential to conduct exterior sound (noise) to Bedrooms and Daytime Living Areas (e.g. kitchen exhausts, fresh air intakes) shall be evaluated independently of sound transmitted through the windows and non-window exterior wall components. Exterior noise transmitted through bathroom exhaust fans and laundry dryers in utility rooms is excluded. The air exhausts and intakes shall be designed so that interior sound levels due to Ship Sources (as defined in **Schedule “F”**), at a location in the centre of the associated Bedroom or Daytime Living Area and at a height of 1.5 metres above the floor, shall not exceed the Octave Band sound levels of NC-25. The analysis/calculation of transmission of exterior sound from Ship Sources to the interior shall be done separately and independently of any analysis of sound transmission through the exterior Façade as in Section 9 above, and shall be done using the method/equations outlined in **Schedule “G”** attached hereto.
11. WSC covenants and agrees that no portion of the WSC Lands may be used for non-residential Noise Sensitive Land Uses unless WSC designs and constructs all portions of buildings on the WSC Lands containing a non-residential Noise Sensitive Land Use to achieve an indoor sound level of 40 dBA from Ship Sources, as defined in **Schedule “F”** attached hereto. WSC further covenants and agrees that it shall ensure that any Transfer of a building or unit containing a non-residential Noise-Sensitive Land Use obliges the Transferee to meet a maximum sound level target of NC-30 for air exhaust connections to the exterior due to Ship Sources. Notwithstanding Sections 17 through 26 of this Settlement Agreement, P&H will not have the right to review site plan or building permit applications for interior construction of such non-residential Noise-Sensitive Land Uses.

### **Mechanical and Ventilation**

12. WSC covenants and agrees that no portion of Block 3, Block 8, Block 12 or Block 13 may be used for residential or non-residential purposes unless WSC designs and constructs central HVAC systems with mechanical room air intakes on rooftops or at ground level for buildings on Block 3, Block 8, Block 12 and Block 13, with the intakes to be oriented away from the P&H Facility. If construction of the buildings on both of Block 3 and Block 8 has not been commenced at the time that the construction of a building on Block 6 or Block 7 commences, WSC covenants and agrees that no portion of Block 6 or Block 7 may be used for residential or non-residential purposes unless WSC designs and constructs central HVAC systems with mechanical room air intakes on rooftops or at ground level for buildings on Block 6 and Block 7 with the intakes to be oriented away from the P&H Facility. If construction of the building on Block 3 has not been commenced at the time that the construction of a building on Block 2 commences, WSC covenants and agrees that no portion of Block 2 may be used for residential or non-residential purposes unless WSC designs and constructs central HVAC systems with mechanical room air intakes on rooftops or at ground level for buildings on Block 2 with the intakes to be oriented away from the P&H Facility.
13. WSC covenants and agrees that no portion of Block 1, Block 2, Block 3 or Block 8 may be used for residential or non-residential purposes unless WSC designs and constructs

the buildings on said Blocks to have positive pressurization in the interior hallways of the buildings pursuant to the requirements of the Building Code.

14. WSC covenants and agrees that no portion of Block 3 or Block 8 may be used for residential or non-residential purposes unless WSC designs and constructs the north and east Façades of the buildings on Block 3 and Block 8 such that sufficient space is provided to install an odour filtration system at the fresh air intakes of any individual dwelling unit HVAC systems on those Façades, and unless WSC designs and constructs the buildings on Block 3 and Block 8 such that sufficient space is provided to install an odour filtration system at the fresh air intake of any central HVAC system, to address odour from the ships at the P&H Facility.

### **Balconies**

15. WSC covenants and agrees that no portion of Block 3 or Block 8 may be used for residential or non-residential purposes unless WSC designs and constructs all buildings on Block 3 and Block 8 such that any balconies on the most easterly façade of said buildings have a maximum depth of 1.8 metres measured perpendicular from the exterior wall of the building to which the balcony is attached. For greater certainty, no such balcony may have a total depth exceeding 1.8 metres including any recess in the exterior wall.

### **Maintenance and Replacement**

16. WSC shall maintain, repair, replace and reconstruct, as reasonably required, any and all Mitigation Works in accordance with this Agreement, including without limitation **Schedule “F”**.

### **Site Plan Approval Application**

17. The provisions in the following Sections 18 to 21 shall apply to Block 3, Block 8, Block 12 and Block 13. Sections 18 to 21 herein shall also apply to Block 2 if construction of the buildings on Block 3 has not commenced at the time that an application for site plan approval is made for Block 2, and further, Sections 18 to 21 herein shall also apply to Blocks 6 and 7 if construction of the buildings on both of Block 3 and Block 8 has not commenced at the time that an application for site plan approval is made for either or both of Block 6 and Block 7.
18. All Site Plan Approval Application Materials prepared for the purposes of obtaining site plan approval for development shall include the entirety of the Site Plan Notes Details set out in **Schedule “I”** hereto and shall be supported by a noise report dealing with the P&H Facility in accordance with this Settlement Agreement. WSC shall not be required to prepare additional drawings beyond the Site Plan Approval Application Materials incorporating the Site Plan Notes Details set out in **Schedule “I”** in order to satisfy its obligations under this Settlement Agreement. WSC shall file a duplicate set of the Site Plan Approval Application Materials with the General Manager’s Office of the Planning and Economic Development Department simultaneously with any application filed with the Planning Division.

19. The City shall provide to P&H the duplicate set of Site Plan Approval Application Materials for a building containing Noise Sensitive Land Uses on any of the Blocks identified in accordance with Section 17 to P&H no later than seven (7) days after the Site Plan Approval Application Materials that are submitted by WSC for said building have been deemed complete by the City. Simultaneously, WSC shall provide to P&H: (i) the complete noise model incorporating the CadnaA Model referenced in **Schedule “F”**; (ii) the actual building massing for which site plan approval is sought; and (iii) any noise reports dealing with the P&H Facility prepared for WSC in support of the application.
20. Within forty-five (45) days of the receipt of the Site Plan Approval Application Materials by P&H, P&H may provide written notice to the other Parties if it is of the opinion that the Site Plan Approval Application Materials are not in accordance with the terms of the Settlement Agreement. Any such notice delivered by P&H shall provide a detailed description of the manner in which the Site Plan Approval Application Materials are not in accordance with the Settlement Agreement.
21. The foregoing Sections 17 to 20 shall apply to subsequent resubmissions of Site Plan Approval Application Materials but any notice delivered by P&H pursuant to Section 20 shall be limited to comments arising from any changes made to the Site Plan Application Materials since the previous submission.

### **Building Permit Applications**

22. The provisions in Sections 23 to 26 shall apply to Block 3, Block 8, Block 12 and Block 13. Sections 23 to 26 shall also apply to Block 2 if construction of the buildings on Block 3 has not commenced at the time that an application for a building permit is made for a building on Block 2, and further, Sections 23 to 26 herein shall also apply to Blocks 6 and 7 if construction of buildings on both of Block 3 and Block 8 has not commenced at the time that an application for a building permit is first made for a building on either or both of Block 6 and Block 7.
23. For any buildings containing Noise Sensitive Land Uses on the Blocks identified in accordance with Section 22, WSC shall file a duplicate set of the Building Permit Plans with the General Manager’s Office of the Planning and Economic Development Department simultaneously with any application filed with the Building Division. The City shall then provide to P&H the duplicate set of Building Permit Plans within seven (7) days of the City’s receipt of same. Simultaneously, WSC shall provide to P&H: (i) the complete noise model incorporating the CadnaA Model referenced in **Schedule “F”**; (ii) the actual building massing for which permits are sought; and (iii) any noise reports dealing with the P&H Facility prepared for WSC in support of the application.
24. Within thirty (30) days of the receipt of the Building Permit Plans, P&H may provide written notice to the other Parties if it is of the opinion that the Building Permit Plans are not in accordance with the terms of the Settlement Agreement. Any such notice delivered by P&H shall provide a detailed description of the manner in which the Building Permit Plans are not in accordance with the Settlement Agreement.

25. P&H agrees that all Building Permit Plans circulated to P&H shall remain strictly confidential as among the Parties and their respective consultants. The Building Permit Plans shall not be disclosed by any of the Parties and said consultants except to the extent that their disclosure is compelled by law and upon prior written notice to all other Parties.
26. The foregoing provisions in Sections 22 to 25 shall apply to subsequent resubmissions of Building Permit Plans but any notice delivered by P&H pursuant to Section 24 shall be limited to comments arising from any changes made to the Building Permit Plans since the previous submission.

### **City's Public Space**

27. The Parties acknowledge that there is a potential for dust emissions from the P&H Facility to be visible from the Pier 8 Lands and to settle in the public dockside park space on the Pier 8 Lands.

### **City's Community Liaison and Complaint Protocol**

28. The City shall, at no cost to P&H or WSC, maintain a community liaison and complaint protocol regarding industries and related activities located in the vicinity of the Pier 8 Lands, substantially in accordance with the outline contained in **Schedule "H"** to this Settlement Agreement ("**Complaint Protocol**").
29. The City shall ensure that the Complaint Protocol is operational, including the designation of the City Staff member tasked with implementing the Complaint Protocol, before the occupation of the first building with residential units on the WSC Lands.
30. The Complaint Protocol shall be maintained in operation by the City at least until four (4) years after the last residential occupancy certificate is issued for the last building containing residential units constructed last among Block 2, Block 3, Block 7, Block 8, Block 12 and Block 13 as fully developed (the "**Protocol Review Date**"). After the Protocol Review Date, the City shall consult with P&H and WSC and may consult with other interested parties including the Hamilton Oshawa Port Authority and existing industries, regarding continuation of the Complaint Protocol. The City's decision whether to continue the Complaint Protocol after the Protocol Review Date shall be made in good faith having regard to the foregoing consultation input, the volume of inquiries and complaints previously addressed under the Complaint Protocol, the extent to which Pier 8 residents have engaged in what the Complaint Protocol offers, and the extent to which a peaceful co-existence between residential and industrial uses has been achieved.

### **Final Studies**

31. WSC agrees that prior to the issuance of a building permit for any building on the WSC Lands it shall submit to the City final noise and odour and dust studies that identify all required mitigation methods as required by Subdivision draft plan condition 47. WSC

agrees to provide copies of any such reports that deal with the P&H Facility to P&H at the same time they are submitted to the City.

### **Warning Clauses**

32. WSC agrees, prior to the issuance of a building permit for any building on the WSC Lands, to register the following warning clause (“**General Warning Clause**”) on title to the WSC Lands, and WSC further agrees to insert the General Warning Clause into all offers to sell, all agreements of purchase and sale, all offers to lease and all tenancy agreements, in regard to any portion of the WSC Lands:

“*Warning:*

*Purchasers/tenants are advised that this development is in proximity to an industrial grain handling facility and flour mill on Pier 10 (the “P&H Facility”) which operates 24 hours a day, 7 days a week. Activities include loading and unloading of ships, rail cars and trucks. There may be industrial emissions, such as noise, dust and odour, emanating from the P&H Facility that may be detectable within this development from time to time.*

*Notwithstanding the inclusion of certain mitigation features within this development to lessen potential noise, dust and odour impacts from the P&H Facility, from time to time noise from the P&H Facility is likely to be audible, odours may be unpleasant, and dust may be bothersome.*

*P&H advises that it will not be responsible for any complaints or claims, arising from any of the activities at or relating to the P&H Facility, property or operations thereon.”*

33. WSC agrees, prior to the issuance of a building permit for any building on the WSC Lands, to register the following warning clause (“**Residential Warning Clause**”) on title to the WSC Lands, and WSC further agrees to insert the Residential Warning Clause in all offers to sell for residential units, all agreements of purchase and sale for residential units and all residential tenancy agreements in regard to any portion of the WSC Lands:

“*Warning:*

*This development has been classified as a Class 4 receptor under MECP noise guideline NPC-300. The noise limits for a Class 4 receptor in this MECP guideline are based on sensitive windows (such as to bedrooms) being closed. This dwelling unit has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed. Occupants are advised to close windows if they experience disturbance from noise outside the building.”*



34. P&H acknowledges and agrees that the General Warning Clause and the Residential Warning Clause may be deleted from title to the WSC Lands and no longer included in offers to sell, agreements of purchase and sale, offer to lease or tenancy agreements in the event the P&H Facility is no longer in operation on the P&H Lands.

**Agreement Shall Run With the Lands**

35. The Parties acknowledge and covenant with each other that it is their intention that: (a) the burden of this Settlement Agreement, the rights, privileges, restrictions, obligations and duties contained herein, and all of the covenants to be observed and performed by WSC herein shall run with and shall be construed as covenants and restrictions running with the WSC Lands; and (b) the benefit of this Settlement Agreement, the rights, privileges, restrictions, obligations and duties contained herein, and all of the covenants and obligations to be observed and performed by WSC herein shall run with (and shall be construed as covenants and restrictions running with) the P&H Lands.
36. The Parties further agree that this Settlement Agreement is intended to ensure that no building on the Pier 8 Lands can be occupied or used by WSC or its successors and assigns, or by the City's successors and assigns to its interest in the Pier 8 Lands, unless the building has been designed, constructed and maintained in accordance with the procedures and other requirements of this Settlement Agreement.
37. The Parties agree that this Settlement Agreement shall be registered on title to the Pier 8 Lands and P&H Lands pursuant to section 119 of the *Land Titles Act* (Ontario) within 30 days of execution of this Agreement. In the event the Land Titles Registrar will not accept registration of this Settlement Agreement, the Parties shall separately register the restrictions set out in Sections 6 to 15 and 32 to 36 herein in a form that is acceptable to the Land Titles Registrar. Should that not be acceptable to the Land Titles Registrar, the City and P&H shall register notice of this Settlement Agreement on title to the Pier 8 Lands and the P&H Lands. The Parties further acknowledge and agree that registration of the Settlement Agreement or the restrictions on title to the P&H Lands are each subject to the prior written consent of the Hamilton Oshawa Port Authority pursuant to the terms of the P&H Lease. P&H agrees to use reasonable commercial efforts to apply for such consent but shall incur no liability for failure to secure such consent and shall not be obligated to incur any costs in connection with the consent. The Parties agree that failure or refusal of the Hamilton Oshawa Port Authority to consent to registration of this Agreement shall not affect the validity of, and the rights and obligations of the Parties under, this Agreement.

Upon receipt by P&H of a written request from the City or WSC that:

- (a) any of the Excess Lands be released from the registrations set out above; and
- (b) the registrations set out above be amended to remove the Excess Lands from the description of the subject lands set forth therein,

P&H shall upon delivery of:

- (i) a registered copy of the Draft Plan;
- (ii) evidence satisfactory to P&H that the Draft Plan demonstrates that the Excess Lands are not used by WSC, its successors and assigns, for the purpose of residential or commercial development within the Subdivision; and
- (iii) a certificate signed by an authorized officer of WSC certifying that (A) no event of default has occurred and is continuing under Settlement Agreement, and (B) the Draft Plan demonstrates that there are Excess Lands and that the Excess Lands are not used by WSC, its successors and assigns, for the purpose residential or commercial development within the Subdivision,

execute and deliver, at the expense of the requesting Party, such deeds or other instruments as shall be requisite to release such Excess Lands from the registration of the Settlement Agreement or a notice thereto or the restrictions set out in Sections 6 to 15 and 32 to 36 herein, as applicable, and to register a notice of an amendment of such registrations, as applicable.

#### **Withdrawal of P&H Appeals**

- 38. Immediately upon the execution of the Settlement Agreement and the Industrial and Mining Lands Compensation Act Agreement by all Parties, P&H shall provide written notice to the Tribunal of its withdrawal of the P&H Appeals.
- 39. Each Party agrees not to request a costs award from the Tribunal in respect of the P&H Appeals.

#### **Confidential Information**

- 40. The Parties agree nothing in this Agreement shall affect any Declaration and Undertaking Re: Confidential Information (**Schedule “K”**) executed by the Parties and their respective counsel and consultants in relation to Confidential Information (as defined in said Declaration and Undertaking) in the P&H Appeals.
- 41. The Parties agree that Confidential Information, as defined in **Schedule “K”** hereto and including without limitation the CadnaA Model and all noise models and noise, dust or air quality reports delivered by WSC to P&H pursuant to this Agreement (all of which is hereby agreed to be Confidential Information), shall not be disclosed to any person, including without limitation their legal counsel and retained consultants (as defined in the Declaration and Undertaking), without first delivering to the other Parties, or their respective counsel, an executed Declaration and Undertaking Re: Confidential Information in the form attached hereto as **Schedule “K”**. Counsel receiving an executed Declaration and Undertaking shall expeditiously deliver same to counsel for the other Parties.

## Enurement

42. The Parties agree that the covenants, rights, duties, provisos, conditions and obligations herein contained, as they apply to the City and WSC or to P&H, as the case may be, shall enure to the benefit of and be binding upon the City and WSC, or to P&H, as the case may be, and their respective successors and assigns. For the purpose of this Agreement, “successors and assigns” means, as the context requires, the heirs, executors, administrators, successors and assigns of the City and WSC or P&H, as the case may be, including all subsequent owners of all or any portion of the WSC Lands or the P&H Lands, as the case may be.
43. Assumption/Transfer
- (a) For the purposes of this Agreement, a “**Transfer**” means any transfer, sale, lease, sublease or assignment of lease with an unexpired term including entitlement to renewal of 21 years or more, mortgage, charge or conveyance of any interest, provided that:
    - (i) none of the following shall, for the purposes of this Agreement, be a Transfer:
      - A. any transfer, sale, lease, mortgage, charge or conveyance of a residential condominium unit, inclusive of any parking, bicycle or storage unit associated with such residential condominium unit (for clarity, including any interim unit occupancy lease); or
      - B. any transfer of an easement or other conveyance of an easement.
  - (b) “**Transferee**” means a person to whom a Transfer has been or is to be effected. “**Transferor**” means the person effecting the Transfer. For the purpose of this Section, the term “person” is to be broadly interpreted and includes an individual, corporation, limited liability company, joint stock company, firm, partnership, joint venture, trust, unincorporated organization, governmental authority, quasi-governmental authority, unincorporated body of persons or association and any other entity having legal capacity, and the heirs, beneficiaries, executors, administrators or other legal representatives of a person in such capacity.
  - (c) No Transfer of all or any part of P&H’s leasehold interest in the P&H Lands or P&H’s interest in the P&H Facility shall be made or be effective unless and until the Transferee thereof has delivered a signed assumption agreement to the City and WSC agreeing to assume and be bound by the obligations of P&H under this Agreement in respect of the property that is the subject of the Transfer in the form attached as **Schedule “J”**. For the purpose of this requirement, where any condominium corporation has been created with respect to all or any part of the WSC Lands, references in this Section to “City and WSC” shall mean such condominium corporation.

- (d) No Transfer of all or any part of the WSC Lands shall be made or be effective unless and until the Transferee thereof has delivered a signed assumption agreement to P&H in the form attached as **Schedule “J”** agreeing to assume and be bound by the obligations of the City and WSC under this Agreement, save and except Sections 19, 21, 23, 26, 28, 29 and 30 which shall in any event remain the obligations of the City, in respect of the property that is the subject of the Transfer in a form and substance reasonably satisfactory to P&H.
- (e) In respect of a charge or mortgage of the WSC Lands or P&H’s leasehold interest in the P&H Lands, as the case may be, the assumption agreement to be delivered pursuant to subsection 43(c) or (d) above shall provide that the chargee or mortgagee is only to be bound by the covenants and obligations, and is only responsible for the liabilities, under this Agreement for so long as it is the owner of or has possession or control of such lands, provided that upon the Transfer of the land by the mortgagee or chargee it must comply with subsection 43(c) or (d) as applicable.
- (f) With respect to any condominiums to be created on all or any part of the WSC Lands, the City and WSC hereby agree that:
  - (i) The disclosure statement for such condominium shall disclose the existence of this Agreement;
  - (ii) The declaration for such condominium will require the condominium corporation to enter into an assignment and assumption agreement whereby it agrees to be bound by the obligations of WSC under this Agreement in respect of the property governed by such declaration and that the condominium corporation will deliver a copy of the same to P&H; and
  - (iii) The declaration for such condominium shall provide that the condominium corporation is responsible for maintaining, repairing and replacement of the Mitigation Works in accordance with this Agreement and has the right to enter into units and exclusive use common element areas in order to implement compliance with the WSC’s obligations in this Agreement with respect to the installation, operation, maintenance, repair and replacement of the Mitigation Works.
- (g) Upon delivery of the assumption agreement pursuant to subsection 43(d), other than an assumption agreement in respect of a lease, WSC shall be released from its obligations pursuant to this Agreement as it relates to that part of the WSC Lands subject to such assumption agreement.
- (h) Upon termination or expiry without renewal of the P&H Lease and cessation of operation of the P&H Facility, P&H shall be released from its obligations pursuant to this Agreement, and P&H agrees to use reasonable commercial

efforts to register a discharge of the registration of this Settlement Agreement.

### **General**

44. Nothing in this Settlement Agreement shall have the intent or effect of fettering the legislative discretion of City Council or any Committee of Council in a manner contrary to law.
45. It is acknowledged and agreed by the Parties that each is satisfied as to the jurisdiction of the City and each other to enter into this Agreement. WSC and P&H therefore covenant and agree that they shall not question the jurisdiction of the City to enter into this Agreement, nor question the legality of any portion thereof. The Parties, their successors, assigns, and sub-lessees are and shall be estopped from contending otherwise in any proceeding before a court of competent jurisdiction.
46. This Agreement is expressly conditional upon compliance with the *Planning Act* (Ontario) and any amendments thereto. The Parties hereby declare that the WSC Lands or any use of or right therein is being acquired and/or disposed of by a municipality in accordance with section 50(3)(c) of the *Planning Act* (Ontario).
47. It is intended that the Parties shall be bound by and shall perform the obligations set out in this Settlement Agreement and the Parties covenant and agree at each Party's sole cost and upon written request of the other Party, to duly execute and deliver or cause to be duly executed and delivered to the other Party such further contracts, agreements, documents, filings and instruments and do and cause to be done such further acts as may be necessary or proper in the reasonable opinion of the other Party to carry out more effectively the provisions of the Settlement Agreement.
48. The Parties agree to act reasonably and in good faith in carrying out the terms of this Settlement Agreement.
49. This Settlement Agreement is governed by the laws of the Province of Ontario and the laws of Canada applicable therein.
50. The Parties acknowledge that in this Settlement Agreement words importing the singular include the plural and vice versa as may be required for the context.
51. The Parties acknowledge that in this Settlement Agreement, words importing gender include all genders as may be required for the context.
52. The Parties acknowledge that in this Settlement Agreement, the headings contained herein form no part of this Settlement Agreement but shall be deemed to be inserted for convenience of reference only.
53. This Settlement Agreement and all other documents to be executed and delivered pursuant to this Settlement Agreement, which for greater clarity includes any form of agreement that is a schedule to this Settlement Agreement, constitute the entire

agreement between the Parties as to the matters dealt with herein and supersede all prior agreements, understandings, negotiations and discussions of the Parties, whether oral or in writing.

54. In the event of any conflict or inconsistency between the provisions of this Settlement Agreement and the provisions of the MOU, the provisions contained in this Settlement Agreement shall prevail to the extent of such conflict or inconsistency and the provisions of the MOU shall be deemed to be amended to the extent necessary to eliminate such conflict or inconsistency.
55. This Settlement Agreement may be amended, supplemented or otherwise modified only by written agreement of all of the Parties.
56. No waiver of any of the provisions of this Settlement Agreement will constitute a waiver of any other provision and no waiver will be binding unless executed in writing by the Party granting the waiver.
57. If any provision of this Settlement Agreement is deemed illegal, invalid or unenforceable, by an arbitrator or any court of competent jurisdiction from which no appeal exists or is taken, that provision will be severed from this Settlement Agreement and the remaining provisions will remain in full force and effect.
58. Any notice, direction or other communication (each a “**Notice**”) given regarding the matters contemplated by this Settlement Agreement must be in writing, sent by personal delivery, courier, or electronic mail and addressed:

- (a) to City of Hamilton at:

City of Hamilton  
71 Main Street West  
Hamilton, ON L8P 4Y5

Attention: City Clerk and Solicitor  
Tel: (905)546-2424  
Email: clerk@hamilton.ca

- (b) to Waterfront Shores Corporation at:

Waterfront Shores Corporation  
c/o Tercot Management Inc.  
56 The Esplanade, Suite 406  
Toronto, ON M5E 1A7

Attention: Joe Valela  
Tel: (416) 230-9951  
Email: jvalela@tercot.com

- (c) to Parrish & Heimbecker, Limited at both locations:

Parrish & Heimbecker, Limited  
104 Cooper Drive  
Guelph, ON N1C 0A4

Attention: Matt Gardner, Director  
of Operations, P&H Eastern Grain  
Division  
Tel: (519) 780-4954

Email: mgardner@pandh.ca

P&H Milling Group  
1060 Fountain Street North  
Cambridge, ON N3E 0A1

Attention: Bruce MacIntyre,  
President & COO

Tel: (519) 650-6402

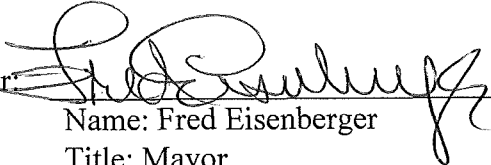
Email: bmacintyre@phmilling.com

59. A Notice is deemed to be delivered and received:
- (a) if sent by personal delivery, on the date of delivery if it is sent on any day of the year other than a Saturday, a Sunday, or any day on which major banks are closed for business in the City of Hamilton (“**Business Day**”) and the delivery was made prior to 4:00 p.m. (local time in place of receipt), and otherwise on the next Business Day;
  - (b) if sent by same-day service courier, on the date of delivery if sent on a Business Day and delivery was made prior to 4:00 p.m. (local time in place of receipt) and otherwise on the next Business Day;
  - (c) if sent by overnight courier, on the next Business Day; or
  - (d) if sent by electronic mail (including e-mail and Internet or intranet websites), at such time as the Party sending the Notice receives confirmation of receipt via reply electronic mail or pursuant to such other procedure approved by the Parties, each acting reasonably.
60. Any Party may change its address for service from time to time by providing a Notice in accordance with the foregoing. Any subsequent Notice must be sent to the Party at its changed address.
61. This Settlement Agreement may be executed in several counterparts, each of which so executed will be deemed to be an original copy of this Settlement Agreement and such counterparts together will constitute one and the same instrument. Counterparts may be executed either in original or electronically transmitted form and the Parties adopt any signatures received by facsimile machine or other means of electronic communication as original signatures of the Parties; provided, however, that the Party providing its signature in such manner shall promptly forward to the other Party an original of the signed copy of this Settlement Agreement which was so delivered.

**IN WITNESS WHEREOF** an authorized representative of each of the Parties has executed this Settlement Agreement.


IN WITNESS WHEREOF an authorized representative of each of the Parties has executed this Settlement Agreement.

CITY OF HAMILTON

Per:   
Name: Fred Eisenberger  
Title: Mayor

Per:   
Name: Janet Pilon  
Title: Acting City Clerk

I/We have authority to bind the Company.

OFFICE OF THE CLERK  
APPROVED BY COUNCIL  
DATE Sept. 11, 2019  
AUTHORITY G1C 19-015 Item 10  
INT.  YEAR FILE 2020-14855

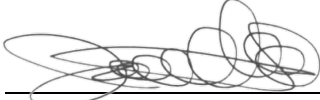


**CITY OF HAMILTON**

Per: \_\_\_\_\_  
Name:  
Title:

I have authority to bind the Company.

**WATERFRONT SHORES CORPORATION**

Per:  \_\_\_\_\_  
Name: Giuseppe Valela  
Title: ASO

I have authority to bind the Company.

**PARRISH & HEIMBECKER, LIMITED**

Per: \_\_\_\_\_  
Name:  
Title:

I have authority to bind the Company.

Name:  
Title:

I have authority to bind the Company.

**WATERFRONT SHORES CORPORATION**

Per: \_\_\_\_\_  
Name:  
Title:

I have authority to bind the Company.

**PARRISH & HEIMBECKER, LIMITED**

Per:   
Name:  
Title: **JOHN HEIMBECKER**  
**Chief Executive Officer**

I have authority to bind the Company.

**SCHEDULE "A"**

**LEGAL DESCRIPTION OF PIER 8 LANDS**

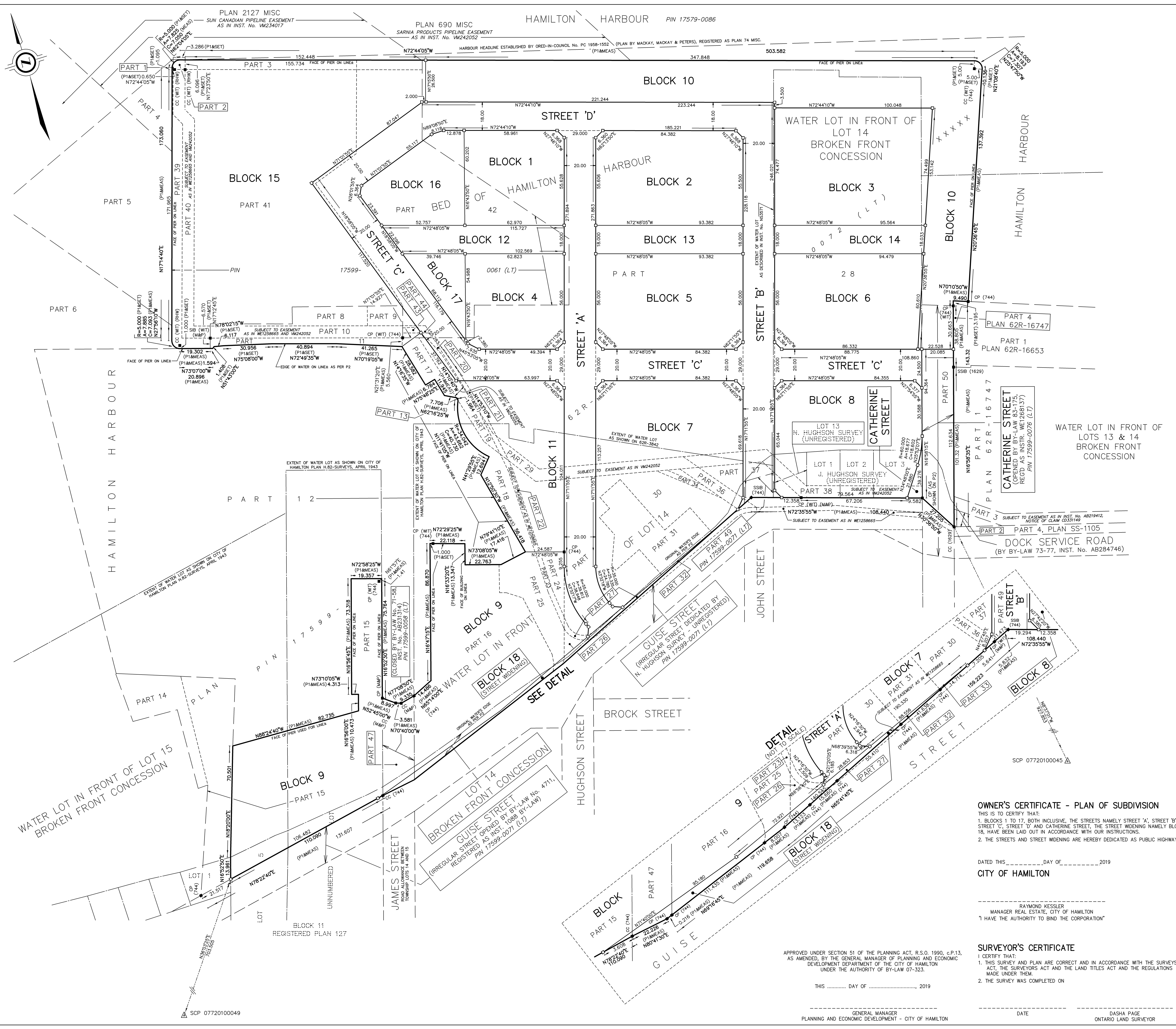
**FIRSTLY:** PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 15, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 14 & 15, BROKEN FRONT CONCESSION, PART OF WATER LOT IN FRONT OF LOT 14 & 15, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 14, BROKEN FRONT CONCESSION, PART OF WATER LOT IN FRONT OF LOT 14, BROKEN FRONT CONCESSION, PART OF LOT 14, BROKEN FRONT CONCESSION, PART OF LOT 13, NATHANIEL HUGHSON SURVEY (UNREGISTERED), PART LOTS 1, 2 AND 3, JAMES HUGHSON SURVEY (UNREGISTERED), DESIGNATED AS, PARTS 1, 2, 3, 8, 9, 10, 11, 13, 17, 18, 19, 20, 21, 22, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, AND 38 , PLAN 62R-21152; SUBJECT TO AN EASEMENT OVER PARTS 1, 2, 4, 10, 20, 21, 22, 23, 27, 32, 33, PLAN 62R-21152 AS IN WE1258665; CITY OF HAMILTON, BEING PART OF PIN 17579-0165 (LT)

**SECONDLY:** PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 15, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 15, BROKEN FRONT CONCESSION AND IN FRONT OF THE ROAD ALLOWANCE BETWEEN LOTS 14 AND 15, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOTS 14 AND 15, BROKEN FRONT CONCESSION AND IN FRONT OF ROAD ALLOWANCE BETWEEN LOTS 14 AND 15, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 14, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 14, BROKEN FRONT CONCESSION AND IN FRONT OF THE ROAD ALLOWANCE BETWEEN LOTS 14 AND 15, BROKEN FRONT CONCESSION, DESIGNATED AS PARTS 39 TO 46, PLAN 62R-21152; SUBJECT TO AN EASEMENT OVER PARTS 40, 45 AND 46, PLAN 62R-21152 AS IN WE1258665; CITY OF HAMILTON, BEING ALL OF PIN 17579-0156 (LT)

**THIRDLY:** PART GUISE STREET, NATHANIEL HUGHSON SURVEY (UNREGISTERED), DESIGNATED AS PARTS 48 AND 49, PLAN 62R-21152; CITY OF HAMILTON, BEING ALL OF PIN 17579-0162 (LT)

**FOURTHLY:** PART WATER LOT IN FRONT OF LOT 14, BROKEN FRONT, CONCESSION, PART LOT 14, BROKEN FRONT CONCESSION, DESIGNATED AS PART 50, PLAN 62R-21152; CITY OF HAMILTON, BEING ALL OF PIN 17579-0159 (LT)

**SCHEDULE "A-1"**  
**DRAFT PLAN OF SUBDIVISION**



**PLAN 62M-**

I CERTIFY THAT THIS PLAN IS REGISTERED IN THE LAND REGISTRY OFFICE FOR THE LAND TITLES DIVISION OF WENTWORTH (No. 62) AT \_\_\_\_\_ O'CLOCK ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 2019 AND ENTERED IN THE PARCEL REGISTER FOR PROPERTY IDENTIFIER \_\_\_\_\_ AND THE REQUIRED CONSENTS ARE REGISTERED AS PLAN DOCUMENT No. \_\_\_\_\_

REPRESENTATIVE FOR LAND REGISTRAR

THIS PLAN COMPRISES ALL OF PIN 17579-0058 (LT), ALL OF PIN 17579-0061 (LT), PART OF PIN 17579-0071 (LT), PART OF PIN 17579-0072 (LT), AND PART OF PIN 17579-0076 (LT).

PIN 17579-0058 (LT) PART OF BLOCKS 9 & 18  
 PIN 17579-0061 (LT) PART OF BLOCKS 1, 4, 11, 12, 15, 16 & 17 AND PART OF STREET 'C' & STREET 'D'  
 PIN 17579-0071 (LT) PART OF STREET 'B'  
 PIN 17579-0072 (LT) PART OF BLOCKS 1, 4, 9, 10, 11, 12, 15, 16, 17 & 18 AND PART OF STREET 'A', STREET 'B', STREET 'C' & STREET 'D'; ALL OF BLOCKS 2, 3, 5, 6, 7, 8, 13 & 14  
 PIN 17579-0076 (LT) PART OF BLOCK 10, PART OF CATHERINE STREET

PART OF BLOCKS 7, 8, 11, 15, STREET 'A', STREET 'B', STREET 'C' & CATHERINE STREET ARE SUBJECT TO AN EASEMENT RESERVED BY INSTR. No. VM242052

PART OF BLOCKS 9, 11, 15, 18, STREET 'A' & STREET 'C' ARE SUBJECT TO AN EASEMENT RESERVED BY INSTR. No. WE1258665

PLAN OF SUBDIVISION OF  
**PART LOT 5 AND UNNUMBERED LOT, BLOCK 11 REGISTERED PLAN 127**

**ALL OF LOT 13 (NORTH OF GUISE STREET) PART OF GUISE STREET NATHANIEL HUGHSON SURVEY (UNREGISTERED)**

**ALL OF LOTS 1, 2 & 3 (NORTH OF GUISE STREET) JAMES HUGHSON SURVEY (UNREGISTERED)**

**PART OF THE BED OF HAMILTON HARBOUR IN FRONT OF LOTS 14 & 15 AND THE ROAD ALLOWANCE BETWEEN LOTS 14 & 15 BROKEN FRONT CONCESSION**

**PART OF WATER LOTS IN FRONT OF LOTS 14 & 15 BROKEN FRONT CONCESSION**

**PART OF LOT 14 BROKEN FRONT CONCESSION**

**PART OF THE ROAD ALLOWANCE BETWEEN LOTS 14 & 15 (GEOGRAPHIC TOWNSHIP OF BARTON)**

**CITY OF HAMILTON**  
 SCALE 1 : 1000  
 MATTHEWS, CAMERON, HEYWOOD - KERRY T. HOWE SURVEYING LTD.  
 METRIC DISTANCES AND/OR COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

**NOTES**  
 BEARINGS ARE UTM GRID, DERIVED FROM SPECIFIED CONTROL POINTS (SCPs) 07720100045 AND 07720100049, UTM ZONE 17, NAD83 (ORIGINAL). DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99998987.

**INTEGRATION DATA**

POINT ID	EASTING	NORTHING
SCP 07720100045	592 902.201	4 790 990.054
SCP 07720100049	591 845.307	4 791 260.837

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

**LEGEND**

■	NOTES	SURVEY MONUMENT FOUND
□	NOTES	SURVEY MONUMENT SET
SIB	NOTES	STANDARD IRON BAR
SSIB	NOTES	SHORT STANDARD IRON BAR
IB	NOTES	IRON BAR
CC	NOTES	CUT CROSS
CC	NOTES	CONCRETE PIN AND WASHER
WT	NOTES	WITNESS
QU	NOTES	ORIGIN UNKNOWN
744	NOTES	MATTHEWS, CAMERON, HEYWOOD - KERRY T. HOWE SURVEYING LTD.
1629	NOTES	B.A. JACOBS, O.L.S.
M&P	NOTES	MACKAY, MACKAY AND PETERS LTD.
RHW	NOTES	CITY OF HAMILTON
MEAS	NOTES	MEASURED
P1	NOTES	PLAN 62R-XXXXX
P2	NOTES	PLAN 62R-15663

**OWNER'S CERTIFICATE - PLAN OF SUBDIVISION**

THIS IS TO CERTIFY THAT:  
 1. BLOCKS 1 TO 17, BOTH INCLUSIVE, THE STREETS NAMED 'STREET 'A', STREET 'B', STREET 'C', STREET 'D' AND CATHERINE STREET, THE STREET WIDENING NAMED 'LOT 18, HAVE BEEN LAID OUT IN ACCORDANCE WITH OUR INSTRUCTIONS.  
 2. THE STREETS AND STREET WIDENING ARE HEREBY DEDICATED AS PUBLIC HIGHWAY.

DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2019

**CITY OF HAMILTON**

RAYMOND KESSLER  
 MANAGER REAL ESTATE, CITY OF HAMILTON  
 I HAVE THE AUTHORITY TO BIND THE CORPORATION

**SURVEYOR'S CERTIFICATE**

I CERTIFY THAT:  
 1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.  
 2. THE SURVEY WAS COMPLETED ON \_\_\_\_\_

DATE \_\_\_\_\_

DASHA PAGE  
 ONTARIO LAND SURVEYOR

APPROVED UNDER SECTION 51 OF THE PLANNING ACT, R.S.O. 1990, c.P.13, AS AMENDED, BY THE GENERAL MANAGER OF PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT OF THE CITY OF HAMILTON UNDER THE AUTHORITY OF BY-LAW 07-323.

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2019

GENERAL MANAGER  
 PLANNING AND ECONOMIC DEVELOPMENT - CITY OF HAMILTON

**MATTHEWS, CAMERON, HEYWOOD - KERRY T. HOWE SURVEYING LIMITED**

A wholly owned subsidiary of J.D. Barnes Limited  
 5233 STANLEY AVENUE, UNIT 1, NIAGARA FALLS, ON L2E 7C2  
 T: (905) 358-3693 F: (905) 358-6224 www.jdbarnes.com

DRAWN BY: AP/AT CHECKED BY: AC REFERENCE NO.: 15-16-546-00-MPLAN  
 FILE: G:\2015\15-16-546\00\Drawing\15-16-546\_mplan.dgn DATED: NOV.1, 2018  
 PLOTTED: 11/01/18

## SCHEDULE "B"

### LEGAL DESCRIPTION OF THE HOPA LANDS

#### **PIN 17579-0086 (LT)**

THE BED OF HAMILTON HARBOUR IN FRONT OF LT 14, 15, 16, 17, 18, 19, 20 CON 1 & BF BARTON; LT 37-38, 115-119 PL 32; PT LT 10 CON BF BARTON AS IN HL129085; PT WATER LT IN FRONT OF LT 10 CON BF BARTON; PT LT 11 CON BF BARTON; PT WATER LT IN FRONT OF LT 11 CON BF BARTON; PT LT 12 CON BF BARTON; PT WATER LT IN FRONT OF LT 12 CON BF BARTON; PT LT 13 CON BF BARTON; PT WATER LT IN FRONT OF LT 13 CON BF BARTON PT 1 TO 6 62R5568 & AS IN HA154384, HA160724, HA272117, DP10947, NS15849, NS39819, NS120959, NS143483, NS170676, NS203749, NS260144, NS267325, HL49923, HL50417, HL97631, HL119030, HL129085, AB64335, AB166226, CD225080; PT RDAL BTN LT 12 & 13 CON BF BARTON (CLOSED BY AB267183) AS IN AB321448, S/T AB147043, S/T CD352691, S/T CD108156, S/T CD86924, S/T CD61176, S/T AB305049, S/T AB175255, S/T HL319845, S/T CD86924; PT LT 1 CON BF BARTON PT LT 32, 33, 34 CON BF SALTFLEET, PT WATER LT IN FRONT OF LT 1, 2, 3 CON BF BARTON AS IN NS205927 EXCEPT NS290232, NS205929 & AS IN HL276542, AB50005 & EXCEPT AB110034, NS180603, NS188406, NS286294; PT LANDS COVERED WITH WATER IN FRONT OF LT 4 CON BF BARTON AS IN AB286178; PT LANDS COVERED WITH WATER IN FRONT OF LT 31 TO 34 CON BF SALTFLEET & IN FRONT OF RDAL BTN LT 32 & 33 CON BF SALTFLEET AS IN AB37900 & AS IN AB286174 EXCEPT PT 1 TO 7 & 9 TO 11 62R15661 & EXCEPT NS230407; PT LT 34 CON BF SALTFLEET , PT WATER LT IN FRONT OF LT 34 CON BF SALTFLEET AS IN HL95285 & NS283117 EXCEPT AB38912; PT BURLINGTON BEACH (UNREGISTERED) W/S BEACH RD PT OF PT 2 62R5825; PT THE BED OF HAMILTON HARBOUR AKA LAND COVERED WITH WATER ALL OF THE BAY IN FRONT OF THE CITY AS IN NS143483, AB286173, AB286177,HL146208, HL262724, NS36883, NS76043, NS87000, NS87001, NS87002, NS103789, NS120267, NS138923, NS205927, NS283117, HL40092, HL49923, HL50417, HL95285, HL97631, HL119031, HL261206, HL276542, HL319845, AB37900 PT 13, 14 62R6918, PT 1 62R6974 EXCEPT PT 12 62R6918, NS290232, NS205929, NS230407, SA44098, HL269474, AB38912, AB286179, AB286180, CD280084, AB15552, PT 1 62R1159, 62R15663, 62R15142, 62R5914; S/T AB219412, AB321448E, CD175577, CD207475, CD210245, CD280243, CD280244, HL261206, SA19615, VM213672, VM234017, VM250815; CITY OF HAMILTON; SUBJECT TO AND EASEMENT OVER PART 1 ON 62R20633 IN FAVOUR OF PT LOT 13, CONCESSION 5 EAST FLAMBOROUGH , AS IN AB224920, EF26738, SAVE AND EXCEPT PT 16, MISC PLAN 1576, S/T EF23925, IF ANY, PARTIALLY QUIT CLAIMED BY EF28738, SEE DEPOSIT HL78676, RE LOCATION OF PIPE LINE ; S/T EF17227,EF29042 FLAMBOROUGH CITY OF HAMILTON AS IN WE1241304; SUBJECT TO AN EASEMENT OVER PARTS 6, 7, 8, 9 & 10 ON 62R3841 IN FAVOUR OF PT LOT 13, CONCESSION 5 EAST FLAMBOROUGH , AS IN AB224920, EF26738, SAVE AND EXCEPT PT 16, MISC PLAN 1576, S/T EF23925, IF ANY, PARTIALLY QUIT CLAIMED BY EF28738, SEE DEPOSIT HL78676, RE LOCATION OF PIPE LINE ; S/T EF17227,EF29042 FLAMBOROUGH CITY OF HAMILTON AS IN WE1241304; SUBJECT TO AN EASEMENT OVER PARTS 1, 2 & 3 ON 62R20631 IN FAVOUR OF PT LOT 13, CONCESSION 5 EAST FLAMBOROUGH , AS IN AB224920, EF26738, SAVE AND

EXCEPT PT 16, MISC PLAN 1576, S/T EF23925, IF ANY, PARTIALLY QUIT CLAIMED BY EF28738, SEE DEPOSIT HL78676, RE LOCATION OF PIPE LINE ; S/T EF17227,EF29042 FLAMBOROUGH CITY OF HAMILTON AS IN WE1241304; SUBJECT TO AN EASEMENT IN GROSS OVER PTS 1,2,3,4 & 5 ON 62R19121 AS IN WE826418; SUBJECT TO AN EASEMENT AS IN AB38912

**LEGAL DESCRIPTION OF THE P&H LANDS**

PART OF PIN 17579-0086 (LT)

PART OF WATER LOT IN FRONT OF LOT 13, BROKEN FRONT CONCESSION, IN THE GEOGRAPHIC TOWNSHIP OF BARTON, IN THE CITY OF HAMILTON, DESIGNATED AS PARTS 1, 2, 3, 4, AND 30 ON PLAN 62R-18793, SUBJECT TO AN EASEMENT OVER PART 1 AND 2, PLAN 62R-18793, AS IN VM250815, SUBJECT TO AN EASEMENT OVER PART 30, PLAN 62R-18793, AS IN HL97631

**SCHEDULE "C"**

**MEMORANDUM OF UNDERSTANDING**



**Local Planning Appeal Tribunal**

**PROCEEDING COMMENCED UNDER** subsection 34(19) of the *Planning Act*, R.S.O. 1990, c. P.13, as amended

Appellant: Bunge Canada  
Appellant: Harbour West Neighbours Inc. & Herman Turkstra  
Appellant: Parrish & Heimbecker Ltd.  
Subject: By-law No. BL 17-095  
Municipality: City of Hamilton  
OMB Case No.: PL170742  
OMB File No.: PL170742  
OMB Case Name: Bunge Canada v. Hamilton (City)

**PROCEEDING COMMENCED UNDER** subsection 34(19) of the *Planning Act*, R.S.O. 1990, c. P.13, as amended

Appellant: Harbour West Neighbours Inc. & Herman Turkstra  
Subject: By-law No. BL 17-096  
Municipality: City of Hamilton  
OMB Case No.: PL170742  
OMB File No.: PL170743

**PROCEEDING COMMENCED UNDER** subsection 51(39) of the *Planning Act*, R.S.O. 1990, c. P.13, as amended

Appellant: Bunge Canada  
Appellant: Harbour West Neighbours Inc. & Herman Turkstra  
Appellant: Parrish & Heimbecker Ltd.  
Subject: Proposed Plan of Subdivision  
Property Address/Description: 65 Guise St. E  
Municipality: City of Hamilton  
Municipal File No.: 25T201605  
OMB Case No.: PL170742  
OMB File No.: PL170744

**MEMORANDUM OF UNDERSTANDING**

**B E T W E E N:**

**CITY OF HAMILTON**

**(“City”)**

**- and -**

**WATERFRONT SHORES CORPORATION.**

**(“WSC”)**

**- and -**

**PARRISH & HEIMBECKER LTD.**

**(“P&H”)**

**WHEREAS** the City, WSC and P&H are collectively referred to herein as the **“Parties”**;

**AND WHEREAS** the City is the owner of the lands in the City of Hamilton known as Pier 8;

**AND WHEREAS** WSC is the purchaser of the Pier 8 lands and proposes to redevelop the said lands pursuant to an agreement with the City;

**AND WHEREAS** P&H is the owner and operator of a grain handling terminal and state of the art flour mill on Pier 10 in Hamilton to the east of Pier 8 which operation includes the loading and unloading of ships (the **“P&H Facility”**);

**AND WHEREAS** the West Harbour (Setting Sail) Secondary Plan (the **“Secondary Plan”**) which is in force and applies to Pier 8, contemplates the redevelopment of Pier 8 for residential, institutional and mixed uses;

**AND WHEREAS** the City passed Zoning By-law 17-095 (the **“ZBLA”**) to permit the redevelopment of Pier 8 in accordance with the Secondary Plan;

**AND WHEREAS** the City approved the plan of subdivision for Pier 8 (the **“Subdivision”**);

**AND WHEREAS** P&H appealed the ZBLA and the Subdivision to the Ontario Municipal Board (now continued as the Local Planning Appeal Tribunal (**“LPAT”**)), collectively the **“P&H Appeals”**;

**AND WHEREAS** the LPAT granted WSC party status in regard to the P&H Appeals;

**AND WHEREAS** through mediation the Parties have reached agreement on the means to resolve the P&H Appeals, the substance of which agreement is contained in this Memorandum of Understanding (the **“MOU”**);

**AND WHEREAS** the Parties agree to incorporate the terms of this MOU in an agreement (the “**Settlement Agreement**”);

**NOW WITNESSETH** that in exchange for the payment of two dollars (\$2.00) of lawful money of Canada each paid to the other, the receipt and sufficiency being hereby acknowledged, and other good and valuable consideration the Parties agree as follows:

General

1. The recitals above are correct and form part of the terms of this MOU.
2. This MOU is without prejudice to all Parties and shall remain strictly confidential as among the Parties and their respective consultants retained in the P&H Appeals. It shall not be disclosed by any of the Parties and said consultants except to the extent that its disclosure is compelled by law and upon prior written notice to all other Parties.
3. The Blocks in Pier 8 referred to in this MOU are the Blocks as shown on Figure 10 to the ZBLA, a copy of which is attached hereto as **Schedule “A”**.
4. The Parties will incorporate the terms of this MOU into a final settlement agreement (the “**Settlement Agreement**”) and will make their best efforts to finalize and execute the Settlement Agreement as soon as reasonably possible.
5. The Parties agree that the obligations in this MOU and the Settlement Agreement relate only to air and noise emissions from the P&H Facility and not to any other industrial facility or noise source.
6. The Settlement Agreement shall be registered on the title to the lands in Pier 8.

Outdoor Living Areas

7. The buildings on Block 3 and Block 8 shall be oriented such that any outdoor living area (courtyard) does not face the P&H Facility. The forgoing restriction does not apply to any rooftop outdoor living area.
8. All outdoor courtyard living areas, including at grade and on roof tops, shall be dealt with in accordance with the method set out in **Schedule “B”**.
9. WSC shall not be obligated to provide a visual barrier to the P&H Facility from any roof top outdoor living area.

Warning Clauses

10. The City and WSC agree that warning clauses shall be registered on title to the Pier 8 lands and that such warning clauses shall be in accordance with NPC-300 and draft plan condition 48 for the Subdivision, with a strengthened Class 4 warning clause, that will contain a specific reference to shipping and potential dust and odour exposure from the P&H Facility. The warning clauses shall also be included in all offers to sell and lease. P&H agrees that the warning clauses may be removed from title and no longer included in offers to sell and lease in the event that the P&H Facility is no longer in operation at Pier 10. The specific wording of such warning clauses will be subject to agreement amongst the Parties and included in the Settlement Agreement.

Mitigation of Indoor Noise Levels

11. All buildings containing noise sensitive residential uses, or portions of mixed-use buildings containing noise sensitive residential uses, shall be designed to achieve a maximum indoor sound level of NC-25 in bedrooms at nighttime and NC-30 in daytime living areas in the daytime, in accordance with the method set out in, **Schedule “B”**. Any portion of a building containing a non-residential noise sensitive use shall be designed to achieve an indoor sound level of 40 dBA. This will include the design of the windows and the façade of the building. The details of the maximum noise level permitted and the rules for design of windows and building facades for noise sensitive residential uses are set out in **Schedule “B”** attached, and will be included in the Settlement Agreement.

Mechanical and Ventilation

12. Mechanical room air intakes on rooftops or at ground level on Block 3, Block 8, Block 12 and Block 13 shall be oriented away from the P&H Facility. If construction of the buildings on both of Block 3 and Block 8 has not been commenced, the rooftop or ground level air intakes on Block 2 and Block 6/7 shall also be oriented away from the P&H Facility.
13. The buildings on Block 1, Block 2, Block 3 and Block 8 shall have positive pressurization in the hallways of the buildings pursuant to the requirements of the Building Code.
14. The buildings on Block 3 and Block 8 shall be constructed such that they provide sufficient space to install an odour filtration system at the fresh air intakes to address odour from the ships at the P&H Facility.

Balconies

15. Balconies on the most easterly façade of the buildings on Block 3 and Block 8 shall have a maximum depth of 1.8 metres measured perpendicular from the exterior wall of the building to which the balcony is attached. For greater certainty, no such balcony may have a total depth exceeding 1.8 metres including any recess in the exterior wall.

IMLCA Agreement

16. The Parties shall enter into a standard form of agreement pursuant to the *Industrial and Mining Lands Compensation Act*.

Site Plan Approval and Building Permit Applications

17. Site Plan Approval

- (a) The provisions in the following subparagraphs shall apply to Block 3, Block 8, Block 12 and Block 13. It shall also apply to Block 2 and Block 6/7 if construction of the building on both Block 3 and Block 8 has not commenced at the time that the application for site plan approval is made for either Block 2 or Block 6/7.
- (b) The City shall circulate the site plan approval application materials for a building containing noise sensitive land uses on the aforementioned Blocks to P&H within 7 days of the application materials having been submitted by WSC and deemed complete by the City.
- (c) The site plan drawings shall indicate the mitigation measures incorporated in accordance with sections 7, 8, and 11 to 15 inclusive herein and as further set out in the Settlement Agreement. WSC shall not be required to prepare additional drawings beyond a standard site plan approval application drawing set, but shall include notes on the drawings to specify the mitigation measures, as further set out in the Settlement Agreement. Within 45 days of the receipt of the site plan application materials, P&H may provide written notice to the other Parties if it is of the opinion that the site plans are not in accordance with the terms of the Settlement Agreement. Such notice will provide a detailed description of the manner in which the site plans are not in accordance with the Settlement Agreement.
- (d) The foregoing provisions shall apply to subsequent resubmissions of site plan application materials.

18. Building Permit

- (a) The provisions in the following subparagraphs shall apply to Block 3, Block 8, Block 12 and Block 13. It shall also apply to Block 2 and Block 6/7 if construction of the buildings on both Block 3 and Block 8 has not commenced at the time that the application for building permit is made for either Block 2 or Block 6/7.
- (b) The City shall circulate the mechanical and architectural building permit drawings for any buildings containing noise sensitive land uses on the aforementioned Blocks (the “**Building Permit Plans**”) to P&H within 7 days of receipt of same.

- (c) Within 30 days of the receipt of the Building Permit Plans, P&H may provide written notice to the other Parties if it is of the opinion that the Building Permit Plans, are not in accordance with the terms of the Settlement Agreement. Such notice will provide a detailed description of the manner in which the Building Permit Plans are not in accordance with the Settlement Agreement.
- (d) P&H agrees that the Building Permit Plans shall remain strictly confidential as among the Parties and their consultants. They shall not be disclosed by any of the Parties and said consultants except to the extent that their disclosure is compelled by law and upon prior written notice to all other Parties.
- (e) The foregoing provisions shall apply to subsequent resubmissions of Building Permit Plans.

City's Public Space

- 19. The Settlement Agreement shall contain a provision whereby the Parties acknowledge that there is a potential for dust to be visible and to settle in the public dockside park space.

City's Complaint Protocol

- 20. The City shall maintain a complaint protocol regarding the P&H Facility, substantially in accordance with the outline provided at the mediation on February 11, 2019, and subject to further agreement on an appropriate duration for the protocol to remain in effect.

Noise Study

- 21. WSC agrees that it shall prepare the studies required by Subdivision condition # 47 and otherwise comply with the relevant draft plan conditions adopted by the City.

Withdrawal of P&H Appeals

- 22. Immediately upon the execution of the Settlement Agreement by all Parties, P&H shall provide written notice to LPAT of its withdrawal of the P&H Appeals.
- 23. Each Party agrees not to request a costs award from the Tribunal in respect of the P&H Appeals.

General

- 24. The Settlement Agreement contemplated by this MOU, and all rights and obligations set out therein, shall constitute the entire agreement between the Parties as to the matters dealt with herein. The Settlement Agreement shall also provide, *inter alia*, that nothing therein shall have the intent or effect of fettering the legislative discretion of City Council or any Committee of Council in a manner contrary to law.

25. This Memorandum of Understanding may be executed in several parts of the same form. Such parts as so executed shall together form one original of this Memorandum of Understanding. Such parts shall be read together and construed as if all the signing parties hereto had executed one copy of this Memorandum of Understanding. Executed counterparts may be delivered by email or facsimile transmission.

IN WITNESS WHEREOF the Parties have executed this MOU this 28<sup>th</sup> day of August 2019 by the hands of their proper signing officers who are duly authorized in that behalf.

APPROVED  
AS TO FORM  
*BW*  
LEGAL SERVICES

CITY OF HAMILTON

Per: *Fred Eisenberger*  
Name: Fred Eisenberger

Title: Mayor

Per: *A Holland*

Name: Andrea Holland

Title: City Clerk

WATERFRONT SHORES CORPORATION

Per: *Giuseppe Valela*

Name: Giuseppe Valela

Title: ASO

PARRISH & HEIMBECKER LTD.

Per: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

OFFICE OF THE CLERK  
APPROVED BY COUNCIL  
DATE April 11, 2018  
REPORT PL18-005 ITEM 8  
INTL B YEAR/FILE 2019-14287

25. This Memorandum of Understanding may be executed in several parts of the same form. Such parts as so executed shall together form one original of this Memorandum of Understanding. Such parts shall be read together and construed as if all the signing parties hereto had executed one copy of this Memorandum of Understanding. Executed counterparts may be delivered by email or facsimile transmission.

**IN WITNESS WHEREOF** the Parties have executed this MOU this \_\_\_\_ day of \_\_\_\_\_, 2019 by the hands of their proper signing officers who are duly authorized in that behalf.

**CITY OF HAMILTON**

Per: \_\_\_\_\_

Name: .....

Title: .....

Per: \_\_\_\_\_

Name: .....

Title: .....

**WATERFRONT SHORES CORPORATION**

Per: \_\_\_\_\_

Name: .....

Title: .....

**PARRISH & HEIMBECKER LTD.**

Per:  \_\_\_\_\_

Name: Kevin Klippenstein .....

Title: Chief Financial Officer .....



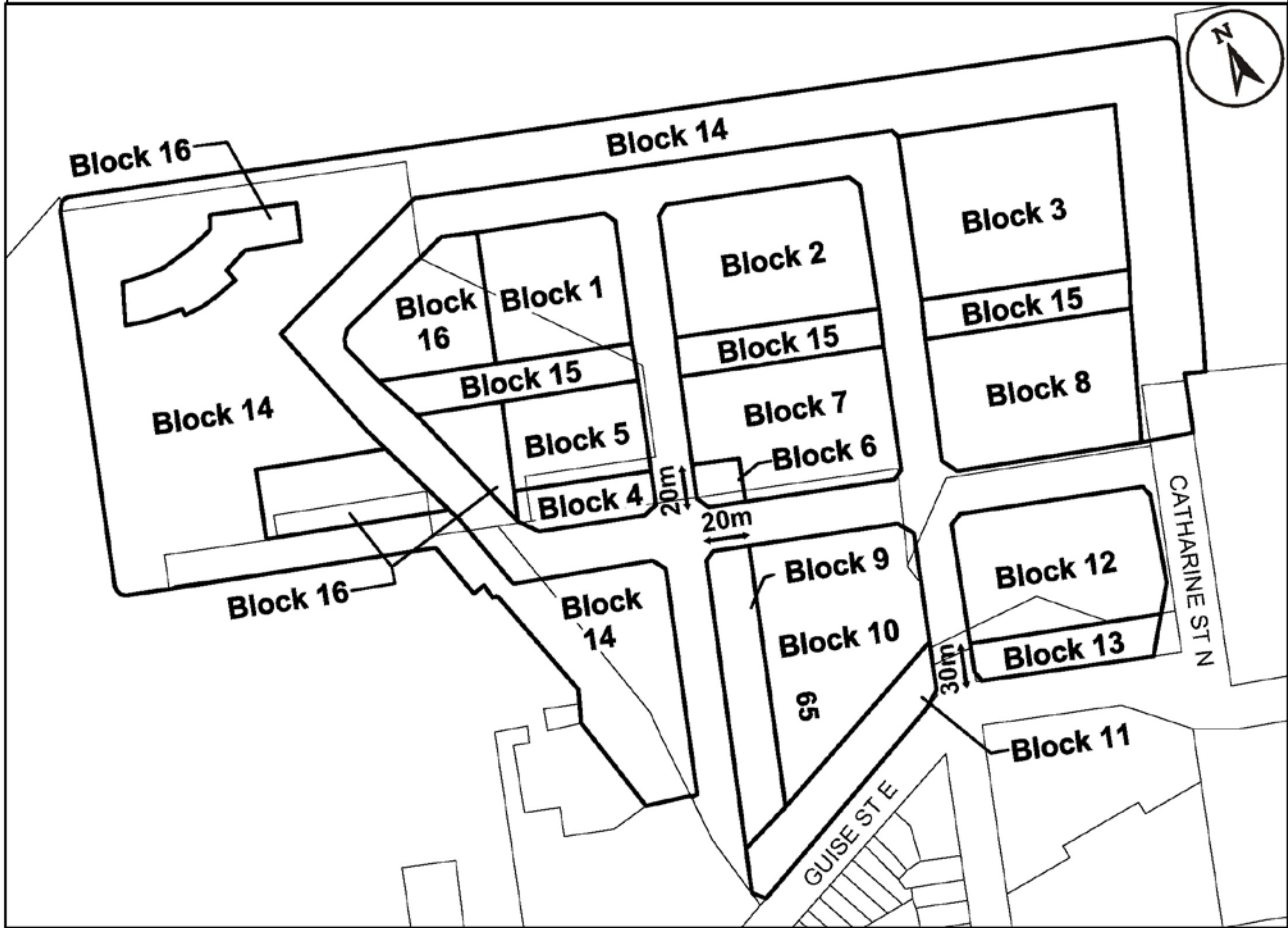
**SCHEDULE "A"**

**Block Map**

Figure 10: Waterfront Block Plan



Hamilton  
Planning & Economic  
Development Department



## Schedule B

### P&H Hamilton / Pier 8

## Method of Calculating Residential Facade Sound Isolation Requirements

File # 115-0443-200

**V0\_9A**

August 14, 2019

1. The acoustic model shall be CadnaA file "2019-08-13 PH Hamilton - Settlement Model to GHD.cna" emailed from Valcoustics to GHD on August 14, 2019 (herein referred to as the CadnaA Model). The CadnaA Model shall include three ships docked at the P&H facility, loading and/or unloading simultaneously and associated noise sources such as caustic trucks, etc., that are not subject to MECP approval (herein referred to as the Ship Sources).
2. The octave band sound levels at each residential point of reception (POR), shall be computed for day and night, using the CadnaA Model.
3. The indoor sound level target for sound from the Ship Sources, as per the CadnaA Model, to be used in item 5 below, is a maximum in any octave band as given by NC-25 at night for bedrooms and NC-30 during the day for other habitable spaces, as per the table below, subject to item 4.

MAXIMUM SOUND LEVEL (dB)							
Frequency (Hz)	63	125	250	500	1K	2K	4K
NC-25	54	44	37	31	27	24	22
NC-30	57	48	41	35	31	29	28

4. The following tolerances may be applied to the values in item 3:
  - 1) 3 dB in any one octave band centered at 500 Hz or lower; and
  - 2) 1 dB in each of the other octave bands centered at 500 Hz or lower (maximum 3 bands).
5. Verify that the octave band TL values for the actual, selected façade components will result in indoor sound levels no higher than the values in items 3 and 4 as applicable, for the cumulative effect of sound from the Ship Sources, using the equation below:

$$Lp_{\text{indoors},n} = Lp_{\text{outdoors},n} - TL_{W,n} + 10 \log (W_{p,n}/a) + 3$$

where	$TL_{W,n}$ =	Composite sound transmission loss values (octave band) for the actual, selected exterior façade components on the n <sup>th</sup> façade
	$Lp_{\text{outdoors},n}$ =	Outdoor octave band sound pressure level (dB) at the n <sup>th</sup> façade
	$Lp_{\text{indoors},n}$ =	Indoor octave band sound pressure level (dB) transmitted through the n <sup>th</sup> façade
	$W_{p,n}$ =	Size of n <sup>th</sup> façade as a % of floor area
	$a$ =	Room sound absorption factor
For	Low Sound Absorption	$a = 0.5$
For	Medium Sound Absorption	$a = 0.8$
For	High Sound Absorption	$a = 1.0$

Kitchens and bathrooms shall assume Low Sound Absorption. Bedrooms, dens, living and dining rooms shall assume Medium Sound Absorption.

The total indoor sound pressure level (octave band) is the logarithmic sum of  $Lp_{\text{indoors},n}$  values for all facades bounding a room.

6. Calculations, as in item 5 above, are to be done to represent each residential point of reception (POR) for which there is an excess over Class 1 receptor, exterior, plane of window sound limits as per NPC-300, based on the plane of window sound levels (hourly  $L_{eq}$ ) computed using the CadnaA Model.
7. Sound levels at the points of reception at Pier 8, due to the P&H noise sources that are subject to the MECP approval (herein referred to as the ECA sources) shall comply with NPC-300. For clarity, this means that P&H undertakes to ensure that its ECA sources will achieve compliance with the Class 4 Plane of Window and outdoor amenity area sound limits in dBA.
8. P&H undertakes to meet a maximum sound level of 55 dBA (hourly  $L_{eq}$ ) daytime at all rooftop and ground-level outdoor amenity areas due to the ECA sources at the P & H facility as calculated within 3 m of the outdoor amenity area boundary at a height of 1.5 m above the rooftop terrace or above grade as applicable.
9. Rooftop and ground-level outdoor amenity areas shall be sufficiently screened from sound from the Ship Sources using sound barriers or buildings of sufficient vertical and horizontal extent where necessary. The outdoor sound level shall be computed using the CadnaA Model and shall not exceed 55 dBA (hourly  $L_{eq}$ ), during any daytime hour. The Outdoor Point of Reception (OPOR) shall be 3 m from the outdoor amenity area boundary or the sound barrier where applicable, whichever results in higher sound level at the OPOR. The sound level shall be calculated at a location closest to the Ship Sources at a standing height of 1.5 m above grade or roof level as applicable.
10. Sound barriers shall be solid and continuous, with no gaps or cracks and have a minimum face density of 20 kg/m<sup>2</sup>.

11. Where possible, window octave frequency band TL values for use in the analysis shall be calculated from the corresponding three one-third octave band TL laboratory test values between the 50 Hz and 5000 Hz one third octave bands, inclusive. Where laboratory-tested TL values are not available for some or all of the 50 Hz to 80 Hz 1/3-octave bands, a 6 dB per octave slope shall be assumed to determine these values, provided it can be demonstrated that no mass-air-mass resonances occur in these bands.
12. TL values applicable to a specific non-window exterior wall component may be obtained from a laboratory test or obtained from the INSUL software computer program, based on its physical configuration.

SD\AL

J:\2015\1150443\200-OMB\Settlement\2019-08-15 V0.9 Method Schedule for MOU\Method for Facade SI 2019-08-15 V0\_9A.docx

**SCHEDULE "D"**

**INDUSTRIAL AND MINING LANDS COMPENSATION ACT AGREEMENT**

## AGREEMENT

Pursuant to the *Industrial and Mining Lands Compensation Act*, R.S.O. 1990, c. I. 5

An Agreement made effective this 14th day of August, 2020

**BETWEEN:**

**CITY OF HAMILTON**

(“City”)

- and -

**THE WATERFRONT SHORES  
CORPORATION**

(“WSC”)

- and -

**PARRISH & HEIMBECKER, LIMITED**

(“P&H”)

**WHEREAS** the City, WSC and P&H are collectively referred to herein as the “**Parties**”;

**AND WHEREAS** the City is the owner of the lands in the City of Hamilton known as Pier 8 and more particularly described in **Schedule “A”** to this Agreement (the “**Pier 8 Lands**”);

**AND WHEREAS** WSC is the purchaser of certain lands and premises forming part of the Pier 8 Lands and proposes to redevelop the said lands pursuant to an agreement with the City;

**AND WHEREAS** P&H is the owner and operator of a grain handling terminal and state of the art flour mill on Pier 10 in Hamilton to the east of the Pier 8 Lands, including the dockwalls and finger pier, which operation includes the loading and unloading of ships, rail cars and trucks and other related facilities, operations and related uses (the “**P&H Facility**”);

**AND WHEREAS** the lands and premises known as Pier 10 are owned by the Hamilton Oshawa Port Authority (“**HOPA**”) (formerly known as the Hamilton Port Authority) as more particularly described in **Schedule “B”** to this Agreement (“**HOPA Lands**”);

**AND WHEREAS** P&H is the lessee of the lands on Pier 10 municipally known as 231 Burlington Street East, Hamilton as described in a lease dated May 12, 2010 between HOPA and P&H (“**P&H Lease**”), which leased lands form part of the HOPA Lands and are more particularly described in **Schedule “B”** to this Agreement (the “**P&H Leased Lands**”), and P&H is a licensee of the Pier 10 dockwalls and finger pier (collectively, the P&H Leased Lands and licenced lands being the “**P&H Lands**”);

**AND WHEREAS** the West Harbour (Setting Sail) Secondary Plan (the “**Secondary Plan**”) which is in force and applies to Pier 8, contemplates the redevelopment of a portion of the Pier 8 Lands for residential, institutional and mixed uses;

**AND WHEREAS** the City passed Zoning By-law 17-095 (the “**Zoning Amendment**”) to permit the redevelopment of a portion of the Pier 8 Lands in accordance with the Secondary Plan;

**AND WHEREAS** the City approved a plan of subdivision and associated draft plan conditions for a portion of the Pier 8 Lands (the “**Subdivision**”);

**AND WHEREAS** P&H appealed the Zoning Amendment and the Subdivision to the Ontario Municipal Board (now continued as the Local Planning Appeal Tribunal) (“**Tribunal**”), said appeals being assigned Case File Number PL170742 (collectively the “**P&H Appeals**”);

**AND WHEREAS** the Tribunal granted WSC party status in regard to the P&H Appeals;

**AND WHEREAS** P&H has raised concerns about the proposed use of the Pier 8 Lands on numerous grounds, including that the proposed sensitive land uses are incompatible with the use and operation of the P&H Facility which may expose P&H to potential actions for damages or injunctions, or both, for damage or injury to, or interference with, the Pier 8 Lands and the City or WSC or their respective tenants, occupants, licensees and successors in title resulting from the use and/or occupation of the P&H Facility;

**AND WHEREAS** through mediation the Parties have reached agreement on the means to resolve the P&H Appeals, the principal terms of which agreement are contained in a Memorandum of Understanding dated August 28, 2019 (the “**MOU**”);

**AND WHEREAS** the Parties agreed to incorporate the terms of the MOU in an agreement (the “**Settlement Agreement**”);

**AND WHEREAS** the MOU and the Settlement Agreement require the Parties to enter into an agreement pursuant to the *Industrial and Mining Lands Compensation Act*, R.S.O. 1990, c. I.5, and the regulations made thereunder, if any, as same may have been or may be from time to time amended or re-enacted (the “**Act**”);

**NOW WITNESSETH** that in exchange for the payment of two dollars (\$2.00) of lawful money of Canada now paid by each Party to the other, the receipt and sufficiency being hereby acknowledged, and other good and valuable consideration, the Parties agree as follows:

**General**

1. The Parties confirm that the foregoing recitals are correct and form part of this Agreement.
2. The Parties acknowledge and agree that this Agreement is governed by and entered into under the provisions of the Act.



3. The Parties hereby acknowledge and agree that the settlement of the P&H Appeals and the commitments made by P&H in the MOU and the Settlement Agreement (collectively, the “**Compensation**”) constitute the compensation in full being provided to the City and WSC pursuant to Section 1 of the Act.
4. WSC acknowledges that the settlement of the P&H Appeals assists WSC in its efforts to obtain approval of the Zoning Amendment and Subdivision, with all the benefits related thereto, and WSC acknowledges the sufficiency of the Compensation. The City acknowledges that the settlement of the P&H Appeals assists the City in its efforts to implement the Secondary Plan and redevelop a portion of the Pier 8 Lands subject to the Zoning Amendment and the Subdivision, with all the benefits related thereto, and the City acknowledges the sufficiency of the Compensation.
5. The Parties hereby acknowledge and agree that, as provided for in Section 2 of the Act, this Agreement binds and enures to the benefit of the heirs, executors, administrators and assigns, or the successors and assigns of the Parties thereto relating to all existing and future works of the P&H Facility on and associated with the P&H Lands.
6. The Parties acknowledge and agree that, pursuant to Section 4 of the Act, the Compensation affords a complete answer to any application or action that may be brought against P&H for damages or for an injunction, or both, now or at any time in the future, relating to noise, dust, odour and other air emissions from the P&H Facility.
7. Pursuant to Section 3 of the Act, the City agrees to register this Agreement, or notice thereof with a note referring to the Act, on title to the Pier 8 Lands in a form satisfactory to the Land Registrar for the Land Registry Office of Wentworth No. 62 within 30 days of execution of this Agreement.
8. This Agreement is expressly conditional upon compliance with the *Planning Act* (Ontario) and any amendments thereto. The Parties hereby declare that the lands or any use of or right therein is being acquired and/or disposed of by a municipality in accordance with Section 50(3)(c) of the *Planning Act* (Ontario).
9. The Parties agree to provide copies of the registered documents to the other Parties, in accordance with the Notice provisions in section 20 below within 10 days of such registration.
10. Prior to any ground lease, transfer, conveyance or other grant of all or any interest in that portion of the Pier 8 Lands subject to the Zoning Amendment or the Subdivision (a “**Transfer**”) to any person (a “**Transferee**”), each transferring Party (the “**Transferor**”) shall obtain a covenant from such Transferee to be bound by the terms and conditions of this Agreement.
11. The schedules attached to this Agreement form an integral part of this Agreement for all purposes.
12. This Agreement is governed by the laws of the Province of Ontario and the laws of Canada applicable therein.

13. The Parties acknowledge that in this Agreement words importing the singular include the plural and vice versa as may be required for the context.
14. The Parties acknowledge that in this Agreement, words importing gender include all genders as may be required for the context.
15. This Agreement may only be amended, supplemented or otherwise modified by written agreement of the Parties.
16. No waiver of any of the provisions of this Agreement will constitute a waiver of any other provision and no waiver will be binding unless executed in writing by the Party to be bound by the waiver.
17. Nothing in this Agreement shall have the intent or effect of fettering the legislative discretion of City Council or any Committee of Council in a manner contrary to law.
18. If any provision of this Agreement is deemed illegal, invalid or unenforceable, by an arbitrator or any court of competent jurisdiction from which no appeal exists or is taken, that provision will be severed from this Agreement and the remaining provisions will remain in full force and effect.
19. Any notice, direction or other communication (each a “**Notice**”) given regarding the matters contemplated by this Agreement must be in writing, sent by personal delivery, courier, or electronic mail and addressed:

(a) to City of Hamilton at:

City of Hamilton  
71 Main Street West  
Hamilton, ON L8P 4Y5

Attention: City Clerk and Solicitor  
Tel: (905) 546-2424  
Email: clerk@hamilton.ca

(b) to Waterfront Shores Corporation at:

Waterfront Shores Corporation  
c/o Tercot Management Inc.  
56 The Esplanade, Suite 406  
Toronto, ON M5E 1A7

Attention: Joe Valela  
Tel: (416) 230-9951  
Email: jvalela@tercot.com

(c) to Parrish & Heimbecker, Limited at both locations:

Parrish & Heimbecker, Limited  
104 Cooper Drive  
Guelph, ON N1C 0A4

Attention: Matt Gardner, Director  
of Operations, P&H Eastern Grain  
Division

Tel: (519) 780-4954  
Email: mgardner@pandh.ca

P&H Milling Group  
1060 Fountain Street North  
Cambridge, ON N3E 0A1

Attention: Bruce MacIntyre,  
President & COO  
Tel: (519) 650-6402  
Email: bmacintyre@phmilling.com

20. A Notice is deemed to be delivered and received:
- (a) if sent by personal delivery, on the date of delivery if it is sent on any day of the year other than a Saturday, a Sunday, or any day on which major banks are closed for business in the City of Hamilton (“**Business Day**”) and the delivery was made prior to 4:00 p.m. (local time in place of receipt), and otherwise on the next Business Day;
  - (b) if sent by same-day service courier, on the date of delivery if sent on a Business Day and delivery was made prior to 4:00 p.m. (local time in place of receipt) and otherwise on the next Business Day;
  - (c) if sent by overnight courier, on the next Business Day; or
  - (d) if sent by electronic mail (including e-mail and Internet or intranet websites), at such time as the Party sending the Notice receives confirmation of receipt via reply electronic mail or pursuant to such other procedure approved by the Parties, each acting reasonably.
21. Any Party may change its address for service from time to time by providing a Notice in accordance with the foregoing. Any subsequent Notice must be sent to the Party at its changed address.
22. This Agreement may be executed in several counterparts, each of which so executed will be deemed to be an original copy of this Agreement and such counterparts together will constitute one and the same instrument. Counterparts may be executed either in original or electronically transmitted form and the Parties adopt any signatures received by facsimile machine or other means of electronic communication as original signatures of the Parties; provided, however, that the Party providing its signature in such manner shall promptly forward to the other Party an original of the signed copy of this Agreement which was so delivered.

**IN WITNESS WHEREOF** the Parties have executed this Agreement as of the date first written above.

**CITY OF HAMILTON**

Per: \_\_\_\_\_

Name:  
Title:

I have authority to bind the Company.

**WATERFRONT SHORES CORPORATION**

Per: \_\_\_\_\_  
Name:  
Title:

I have authority to bind the Company.

**PARRISH & HEIMBECKER, LIMITED**

Per: \_\_\_\_\_  
Name:  
Title:

I have authority to bind the Company.

**SCHEDULE "A"**

**LEGAL DESCRIPTION OF PIER 8 LANDS**

**FIRSTLY:** PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 15, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 14 & 15, BROKEN FRONT CONCESSION, PART OF WATER LOT IN FRONT OF LOT 14 & 15, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 14, BROKEN FRONT CONCESSION, PART OF WATER LOT IN FRONT OF LOT 14, BROKEN FRONT CONCESSION, PART OF LOT 14, BROKEN FRONT CONCESSION, PART OF LOT 13, NATHANIEL HUGHSON SURVEY (UNREGISTERED), PART LOTS 1, 2 AND 3, JAMES HUGHSON SURVEY (UNREGISTERED), DESIGNATED AS, PARTS 1, 2, 3, 8, 9, 10, 11, 13, 17, 18, 19, 20, 21, 22, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, AND 38 , PLAN 62R-21152; SUBJECT TO AN EASEMENT OVER PARTS 1, 2, 4, 10, 20, 21, 22, 23, 27, 32, 33, PLAN 62R-21152 AS IN WE1258665; CITY OF HAMILTON, BEING PART OF PIN 17579-0165 (LT)

**SECONDLY:** PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 15, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 15, BROKEN FRONT CONCESSION AND IN FRONT OF THE ROAD ALLOWANCE BETWEEN LOTS 14 AND 15, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOTS 14 AND 15, BROKEN FRONT CONCESSION AND IN FRONT OF ROAD ALLOWANCE BETWEEN LOTS 14 AND 15, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 14, BROKEN FRONT CONCESSION, PART OF BED OF HAMILTON HARBOUR IN FRONT OF LOT 14, BROKEN FRONT CONCESSION AND IN FRONT OF THE ROAD ALLOWANCE BETWEEN LOTS 14 AND 15, BROKEN FRONT CONCESSION, DESIGNATED AS PARTS 39 TO 46, PLAN 62R-21152; SUBJECT TO AN EASEMENT OVER PARTS 40, 45 AND 46, PLAN 62R-21152 AS IN WE1258665; CITY OF HAMILTON, BEING ALL OF PIN 17579-0156 (LT)

**THIRDLY:** PART GUISE STREET, NATHANIEL HUGHSON SURVEY (UNREGISTERED), DESIGNATED AS PARTS 48 AND 49, PLAN 62R-21152; CITY OF HAMILTON, BEING ALL OF PIN 17579-0162 (LT)

**FOURTHLY:** PART WATER LOT IN FRONT OF LOT 14, BROKEN FRONT, CONCESSION, PART LOT 14, BROKEN FRONT CONCESSION, DESIGNATED AS PART 50, PLAN 62R-21152; CITY OF HAMILTON, BEING ALL OF PIN 17579-0159 (LT)

## SCHEDULE "B"

### LEGAL DESCRIPTION OF THE HOPA LANDS

#### **PIN 17579-0086 (LT)**

THE BED OF HAMILTON HARBOUR IN FRONT OF LT 14, 15, 16, 17, 18, 19, 20 CON 1 & BF BARTON; LT 37-38, 115-119 PL 32; PT LT 10 CON BF BARTON AS IN HL129085; PT WATER LT IN FRONT OF LT 10 CON BF BARTON; PT LT 11 CON BF BARTON; PT WATER LT IN FRONT OF LT 11 CON BF BARTON; PT LT 12 CON BF BARTON; PT WATER LT IN FRONT OF LT 12 CON BF BARTON; PT LT 13 CON BF BARTON; PT WATER LT IN FRONT OF LT 13 CON BF BARTON PT 1 TO 6 62R5568 & AS IN HA154384, HA160724, HA272117, DP10947, NS15849, NS39819, NS120959, NS143483, NS170676, NS203749, NS260144, NS267325, HL49923, HL50417, HL97631, HL119030, HL129085, AB64335, AB166226, CD225080; PT RDAL BTN LT 12 & 13 CON BF BARTON (CLOSED BY AB267183) AS IN AB321448, S/T AB147043, S/T CD352691, S/T CD108156, S/T CD86924, S/T CD61176, S/T AB305049, S/T AB175255, S/T HL319845, S/T CD86924; PT LT 1 CON BF BARTON PT LT 32, 33, 34 CON BF SALTFLEET, PT WATER LT IN FRONT OF LT 1, 2, 3 CON BF BARTON AS IN NS205927 EXCEPT NS290232, NS205929 & AS IN HL276542, AB50005 & EXCEPT AB110034, NS180603, NS188406, NS286294; PT LANDS COVERED WITH WATER IN FRONT OF LT 4 CON BF BARTON AS IN AB286178; PT LANDS COVERED WITH WATER IN FRONT OF LT 31 TO 34 CON BF SALTFLEET & IN FRONT OF RDAL BTN LT 32 & 33 CON BF SALTFLEET AS IN AB37900 & AS IN AB286174 EXCEPT PT 1 TO 7 & 9 TO 11 62R15661 & EXCEPT NS230407; PT LT 34 CON BF SALTFLEET , PT WATER LT IN FRONT OF LT 34 CON BF SALTFLEET AS IN HL95285 & NS283117 EXCEPT AB38912; PT BURLINGTON BEACH (UNREGISTERED) W/S BEACH RD PT OF PT 2 62R5825; PT THE BED OF HAMILTON HARBOUR AKA LAND COVERED WITH WATER ALL OF THE BAY IN FRONT OF THE CITY AS IN NS143483, AB286173, AB286177,HL146208, HL262724, NS36883, NS76043, NS87000, NS87001, NS87002, NS103789, NS120267, NS138923, NS205927, NS283117, HL40092, HL49923, HL50417, HL95285, HL97631, HL119031, HL261206, HL276542, HL319845, AB37900 PT 13, 14 62R6918, PT 1 62R6974 EXCEPT PT 12 62R6918, NS290232, NS205929, NS230407, SA44098, HL269474, AB38912, AB286179, AB286180, CD280084, AB15552, PT 1 62R1159, 62R15663, 62R15142, 62R5914; S/T AB219412, AB321448E, CD175577, CD207475, CD210245, CD280243, CD280244, HL261206, SA19615, VM213672, VM234017, VM250815; CITY OF HAMILTON; SUBJECT TO AND EASEMENT OVER PART 1 ON 62R20633 IN FAVOUR OF PT LOT 13, CONCESSION 5 EAST FLAMBOROUGH , AS IN AB224920, EF26738, SAVE AND EXCEPT PT 16, MISC PLAN 1576, S/T EF23925, IF ANY, PARTIALLY QUIT CLAIMED BY EF28738, SEE DEPOSIT HL78676, RE LOCATION OF PIPE LINE ; S/T EF17227,EF29042 FLAMBOROUGH CITY OF HAMILTON AS IN WE1241304; SUBJECT TO AN EASEMENT OVER PARTS 6, 7, 8, 9 & 10 ON 62R3841 IN FAVOUR OF PT LOT 13, CONCESSION 5 EAST FLAMBOROUGH , AS IN AB224920, EF26738, SAVE AND EXCEPT PT 16, MISC PLAN 1576, S/T EF23925, IF ANY, PARTIALLY QUIT CLAIMED BY EF28738, SEE DEPOSIT HL78676, RE LOCATION OF PIPE LINE ; S/T EF17227,EF29042 FLAMBOROUGH CITY OF HAMILTON AS IN WE1241304; SUBJECT TO AN EASEMENT OVER PARTS 1, 2 & 3 ON 62R20631 IN FAVOUR OF PT LOT 13, CONCESSION 5 EAST FLAMBOROUGH , AS IN AB224920, EF26738, SAVE AND

EXCEPT PT 16, MISC PLAN 1576, S/T EF23925, IF ANY, PARTIALLY QUIT CLAIMED BY EF28738, SEE DEPOSIT HL78676, RE LOCATION OF PIPE LINE ; S/T EF17227,EF29042 FLAMBOROUGH CITY OF HAMILTON AS IN WE1241304; SUBJECT TO AN EASEMENT IN GROSS OVER PTS 1,2,3,4 & 5 ON 62R19121 AS IN WE826418; SUBJECT TO AN EASEMENT AS IN AB38912

**LEGAL DESCRIPTION OF THE P&H LEASED LANDS**

PART OF PIN 17579-0086 (LT)

PART OF WATER LOT IN FRONT OF LOT 13, BROKEN FRONT CONCESSION, IN THE GEOGRAPHIC TOWNSHIP OF BARTON, IN THE CITY OF HAMILTON, DESIGNATED AS PARTS 1, 2, 3, 4, AND 30 ON PLAN 62R-18793, SUBJECT TO AN EASEMENT OVER PART 1 AND 2, PLAN 62R-18793, AS IN VM250815, SUBJECT TO AN EASEMENT OVER PART 30, PLAN 62R-18793, AS IN HL97631

**SCHEDULE "E"**

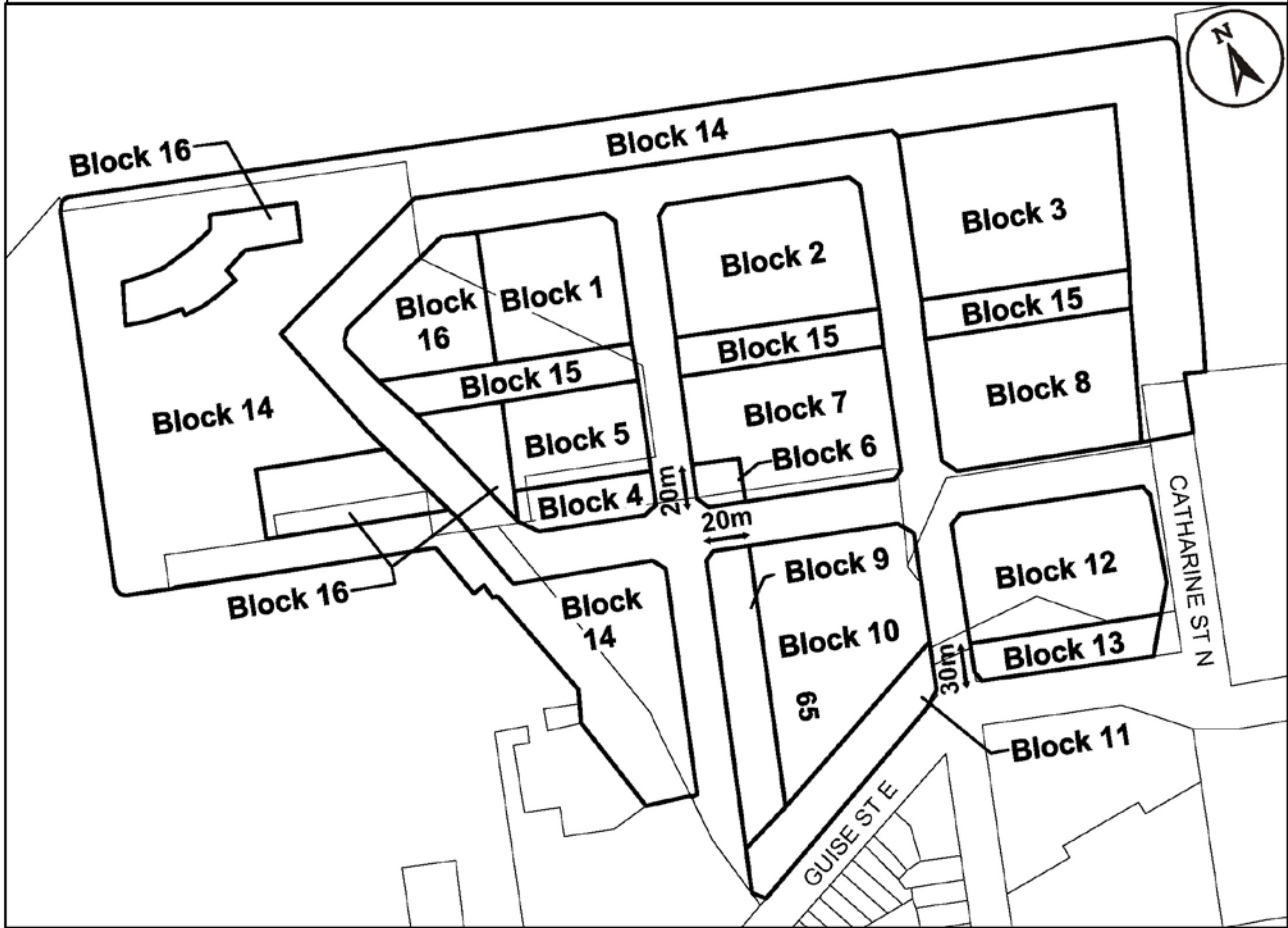
**SCHEDULE 10 TO ZONING AMENDMENT, BLOCK PLAN**



Figure 10: Waterfront Block Plan



Hamilton  
Planning & Economic  
Development Department



**SCHEDULE “F”**

**METHOD OF CALCULATING RESIDENTIAL FACADE SOUND ISOLATION REQUIREMENTS**

**P&H Hamilton / Pier 8**

**Method of Calculating Building Facade  
Sound Isolation Requirements**

**File # 115-0443-200**

**DRAFT V0\_10**

July \*, 2020

1. The acoustic model shall be CadnaA file “2019-08-13 PH Hamilton - Settlement Model to GHD.cna” emailed from Valcoustics to GHD on August 14, 2019 (herein referred to as the CadnaA Model). The CadnaA Model shall include three ships docked at the P&H facility, loading and/or unloading simultaneously and associated noise sources such as caustic trucks, etc., that are not subject to MECF approval (herein referred to as the Ship Sources).
2. The Octave Band sound levels at each residential point of reception (POR), shall be computed for day and night, using the CadnaA Model.
3. The indoor sound level target for sound from the Ship Sources, as per the CadnaA Model, to be used in section 5 below, is a maximum in any Octave Band as given by NC-25 at night for bedrooms and NC-30 during the day for Daytime Living Areas, as per the table below, subject to section 4.

<b>MAXIMUM SOUND LEVEL (dB)</b>							
Frequency (Hz)	63	125	250	500	1 K	2K	4 K
NC-25	54	44	37	31	27	24	22
NC-30	57	48	41	35	31	29	28

4. The following tolerances may be applied to the values in section 3:
  - 1) 3 dB in any one Octave Band centered at 500 Hz or lower; and

- 2) 1 dB in each of the other Octave Bands centered at 500 Hz or lower (maximum 3 bands).
5. Verify that the Octave Band TL values for the actual, selected façade components will result in indoor sound levels no higher than the values in sections 3 and 4 as applicable, for the cumulative effect of sound from the Ship Sources, using the equation below:

$$Lp_{\text{indoors},n} = Lp_{\text{outdoors},n} - TL_{w,n} + 10 \log (W_{p,n}/a) + 3$$

where	$TL_{w,n} =$	Composite sound transmission loss values (Octave Band) for the actual, selected exterior façade components on the $n^{\text{th}}$ Facade
	$Lp_{\text{outdoors},n} =$	Outdoor Octave Band sound pressure level (dB) at the $n^{\text{th}}$ Facade
	$Lp_{\text{indoors},n} =$	Indoor Octave Band sound pressure level (dB) transmitted through the $n^{\text{th}}$ Facade
	$W_{p,n} =$	Size of $n^{\text{th}}$ Facade as a % of floor area
	$a =$	Room sound absorption factor
For	Low Sound Absorption	$a = 0.5$
For	Medium Sound Absorption	$a = 0.8$
For	High Sound Absorption	$a = 1.0$

Kitchens shall assume Low Sound Absorption. Bedrooms, dens, living and dining rooms shall assume Medium Sound Absorption.

The total indoor sound pressure level (Octave Band) is the logarithmic sum of  $Lp_{\text{indoors},n}$  values for all Facades bounding a room.

6. Calculations, as in section 5 above, are to be done to represent each residential point of reception (POR) for which there is an excess over Class 1 receptor, exterior, plane of window sound limits as per NPC-300, based on the plane of window sound levels (hourly  $L_{eq}$ ) computed using the CadnaA Model.
7. Sound levels at the POR on any Block, due to the P&H noise sources that are subject to the MECP approval (herein referred to as the ECA sources) shall comply with NPC-300. For clarity, this means that P&H undertakes to ensure that its ECA sources will achieve compliance with the NPC-300 Class 4 Plane of Window and Outdoor Living Area sound limits in dBA.

8. P&H undertakes to meet a maximum sound level of 55 dBA (hourly  $L_{eq}$ ) daytime at all rooftop and ground-level Outdoor Living Areas due to the ECA sources at the P&H facility as calculated within 3 m of the outdoor amenity area boundary at a height of 1.5 m above the rooftop terrace or above grade as applicable.
9. WSC shall design rooftop and ground-level Outdoor Living Areas to be sufficiently screened from sound from the Ship Sources using sound barriers or buildings of sufficient vertical and horizontal extent where necessary. The outdoor sound level shall be computed using the CadnaA Model and shall not exceed 55 dBA (hourly  $L_{eq}$ ), during any daytime hour. The Outdoor Point of Reception (OPOR) shall be 3 m from the Outdoor Living Area boundary or the sound barrier where applicable, whichever results in higher sound level at the OPOR. The sound level shall be calculated at a location closest to the Ship Sources at a standing height of 1.5 m above grade or roof level as applicable.
10. Sound barriers shall be solid and continuous, with no gaps or cracks and have a minimum face density of 20 kg/m<sup>2</sup>.
11. The acoustical performance of windows must be verified by the supplier using independent acoustical lab tests from an accredited laboratory, such as in the example lab tests for State Window Corporation assemblies identified in the following laboratory test reports: (i) NGC Testing Services test report numbers NGC 2009034, NGC 2010022, NGC 2015055, NGC 2015056, NGC 2015057, NGC 2015058, NGC 2015059, NGC 2015060, NGC 2015061, and NGC 2018184; and (ii) Intertek test report number H8293.01-113-11-RO. These example window assemblies may or may not be suitable, subject to detailed analysis of the façade acoustic performance. Window options will be evaluated based on laboratory test data for the actual window configurations proposed at the time of building permit applications. Where laboratory tests are used to define TL values a copy of such tests shall be provided to P&H.
12. Where possible, window octave frequency band TL values for use in the analysis shall be calculated from the corresponding three one-third Octave Band TL laboratory test values between the 50 Hz and 5000 Hz one third Octave Bands, inclusive. Where laboratory-tested TL values are not available for some or all of the 50 Hz to 80 Hz 1/3-Octave Bands, a 6 dB per octave slope shall be assumed to determine these values, provided it can be demonstrated that no mass-air-mass resonances occur in these bands.
13. TL values applicable to a specific non-window exterior wall component may be obtained from a laboratory test or obtained from the INSUL software computer program, based on its physical configuration. Where a laboratory test is used, a copy of such test shall be provided to P&H. For buildings on Blocks identified in accordance with sections 17 and 22 of the Agreement to which this Schedule "F" is attached, where INSUL is used to determine TL/STC values of a building envelope element because a lab test is not available, the configuration of the architectural element and full INSUL calculation will be provided to P&H for review.
14. The indoor sound level target for a non-residential Noise Sensitive Land Use shall be a maximum of 40 dBA due to Ship Sources. The effects of any air connections to the outside will be determined separately using the noise criteria and method set out in Schedule G.



SCHEDULE “G”

**P&H Hamilton / Pier 8**

**Method For Calculating Sound Transmission From Exterior  
to Interior Via Air Intakes and Exhausts**

**File # 115-0443-200**

**DRAFT V0\_10**

1. Sound transmission via any air openings in a façade for air exhausts or intakes with the potential to conduct exterior sound (noise) to Bedrooms and Daytime Living Areas (e.g., kitchen exhausts, fresh air intakes) shall be evaluated independently of sound transmitted through the windows and non-window exterior wall components. Exterior noise transmitted through bathroom exhaust fans and laundry dryers in utility rooms is excluded. The air exhausts and intakes shall be designed so that interior sound levels due to Ship Sources (as defined in Schedule “F”), at a location in the centre of the associated Bedroom or Daytime Living Area and at a height of 1.5 m above the floor, shall not exceed the Octave Band sound levels of NC-25. The calculation of sound transmitted from the exterior to interior shall be done using standard HVAC ductwork sound propagation methods, including the clarifications provided in Sections 2, 3, 4 and 5 below.
2. Sound power levels transmitted into the openings of air exhausts or intakes shall be calculated using the following equation:

$$L_w = L_p + 10 \log(A) + 3$$

Where  $L_w$  = sound power level;  $L_p$  = façade sound level calculated using the CadnaA Model; and  $A$  = the cross-sectional area of the exhaust / intake opening ( $m^2$ ).

End Reflection Loss (ERL) shall be used for all duct terminations in suites, with the exception of terminations of non-metallic flexible duct where end reflection loss shall not be applied, using the simplified equation derived by Cunefare and Michaud (2008), which is included below, based on the actual size of the duct connected to the diffuser/grille/hood. For kitchen exhaust hoods, the duct termination shall be assumed to be the ‘Free Space’ type.

$$ERL = 10 \log \left[ 1 + \left( \frac{a_1 c}{\pi f D} \right)^{a_2} \right]$$

Where  $c$  is the speed of sound (metres per second),  $f$  is the Octave Band frequency (Hz),  $a_1$  and  $a_2$  are constants determined as follows:

Termination	$a_1$	$a_2$
-------------	-------	-------

Flush	0.7	2
Free space	1	2

And where D is the diameter of the duct (metres). For rectangular duct, D is calculated by:

$$D = \sqrt{4A/\pi}$$

Where A is the cross-sectional area of the duct (metres squared).

3. The receiver room sound correction shall be calculated using the following equation for normally furnished rooms derived by Schultz (1985):

$$L_p = L_w - 10 \log (r) - 5 \log (V) - 3 \log (f) + 12$$

Where  $L_p$  is the sound pressure level in the room,  $L_w$  is the sound power level at the duct termination including all duct propagation attenuation effects,  $r$  is the distance from the grille/diffuser to the receiver (metres),  $V$  is the room volume (metres cubed), and  $f$  is the Octave Band frequency (Hz).

4. Other attenuation effects for elements/fittings in the ductwork (e.g. grease filters for kitchen exhaust hoods) that are documented by testing, modelling or specifications shall also be acceptable.
5. WSC shall ensure that any Transfer of a building or unit containing a non-residential Noise-Sensitive Land Use obliges the Transferee to meet a maximum sound level target of NC-30 for air exhaust connections to the exterior due to Ship Sources. Notwithstanding Sections 17 through 26 of this Settlement Agreement, P&H will not have the right to review site plan or building permit applications for interior construction of such non-residential Noise-Sensitive Land Uses.

## **SCHEDULE “H”**

### **CITY’S COMMUNITY LIAISON AND COMPLAINT PROTOCOL**

#### **1. OBJECTIVES:**

- To provide a “one window” approach for addressing and responding to public complaints arising from actual or perceived impacts associated with existing industries and any related activities (e.g. shipping) in the vicinity of Pier 8;
- To operate as a point of contact for Pier 8 residents to get in touch with about issues/concerns/questions arising from neighbouring industries, and connect them with appropriate representatives or contact persons at area industries (such as P&H);
- To act as a liaison between Pier 8 residents and industries and facilitate an ongoing dialogue in order to ensure a better understanding of their respective needs, interests and concerns; and
- To provide a forum for public education and awareness of the ongoing and planned prominence of industrial operations in the North End and the City’s vision for “peaceful co-existence” as articulated in the Setting Sail Secondary Plan and other policy documents.

#### **2. POSITION AND RESPONSIBILITIES:**

A specific member of City Staff will be designated and tasked with the responsibility to implement the foregoing objectives, either on a full-time or part-time basis (to be determined by the City). The designated individual will have ready access to City Staff and resources as needed to deal with land use planning, public health and safety, industrial operations and economic development issues as and when they arise.

The designated individual is expected to have a sound working knowledge of the existing industries and ready access to sufficient information at his/her disposal to field questions/complaints/concerns and promote a better understanding among residents regarding the nature, role and importance of the retention and expansion of existing industries. Both residents and industries alike would have a clear sense of access to a friendly and attentive forum in which both believe they can “be heard”, thereby facilitating a harmonious environment in which both communities feel protected and respected.

Complaints and other inquiries could be made to the designated individual through a dedicated call number and website/email address established by the City and made available to Pier 8 residents. Information updates will also be posted as needed. The designated City individual will consult with representatives of P&H (or other affected industries) to obtain input into an appropriate response and follow-up.



In addition to the designated individual's day-to-day activities as set out above, other specific roles and responsibilities could include the following:

- Organizing educational programs and/or field trips to local industries;
- Organizing "town hall" meetings or seminars with invited speakers, such as industrial representatives or MOECP Staff; and
- Organizing joint community events for residents and industries such as barbecues, waterfront recreational activities, etc.

In all communications and other activities undertaken in accordance with this Protocol which relate specifically to P&H, the City's designated individual shall be clear that he/she has no authority, implied or express, to speak on behalf of P&H or otherwise represent P&H and its business, activities or interests. Further, responding to specific complaints regarding P&H shall only be done in consultation with, and with the approval of, P&H.

**SCHEDULE “I”**

**SITE PLAN NOTES**

The following notes shall be included as part of the Site Plan Approval Application Materials:

1. The acoustic model shall be CadnaA file “2019-08-13 PH Hamilton - Settlement Model to GHD.cna” emailed from Valcoustics to GHD on August 14, 2019 (herein referred to as the CadnaA Model). The CadnaA Model shall include three ships docked at the P&H Facility, loading and/or unloading simultaneously and associated noise sources such as caustic trucks, etc., that are not subject to MECP approval (herein referred to as the “Ship Sources”). Capitalized terms in these Notes are defined in, and Schedule references herein are to, an Agreement among the City of Hamilton, The Waterfront Shores Corporation and Parrish & Heimbecker, Limited effective August 14, 2020 as amended, restated, modified, supplemented, assigned and/or assumed from time to time.
2. Buildings on Block 3 and Block 8 shall be constructed such that any courtyard Outdoor Living Area does not face the P&H Facility. This does not apply to any Outdoor Living Area which is located on a rooftop.
3. Rooftop and ground-level Outdoor Living Areas shall be sufficiently screened from sound from the Ship Sources using sound barriers or buildings of sufficient vertical and horizontal extent where necessary. The outdoor sound level shall be computed using the CadnaA Model and shall not exceed 55 dBA (hourly  $L_{eq}$ ), during any daytime hour. The Outdoor Point of Reception (OPOR) shall be 3 m from the Outdoor Living Area boundary or the sound barrier where applicable, whichever results in higher sound level at the OPOR. The sound level shall be calculated at a location closest to the Ship Sources at a standing height of 1.5 m above grade or roof level as applicable.
4. Sound barriers shall be solid and continuous, with no gaps or cracks and have a minimum face density of 20 kg/m<sup>2</sup>.
5. All buildings containing residential Noise Sensitive Land Uses, or portions of mixed-use buildings containing residential Noise Sensitive Land Uses shall be designed to achieve a maximum indoor sound level of NC-25 in bedrooms at nighttime (11 pm to 7 am) and NC-30 in Daytime Living Areas in the daytime (7 am to 11 pm), as set out in the chart below:

MAXIMUM SOUND LEVEL (dB)							
Frequency (Hz)	63	125	250	500	1K	2K	4K

NC-25	54	44	37	31	27	24	22
NC-30	57	48	41	35	31	29	28

6. The following tolerances shall apply to the chart set out above:
- 3 dB in any one Octave Band centred at 500 Hz or lower; and
  - 1 dB in each of the other Octave Bands centered at 500 Hz or lower (maximum 3 bands).
7. The Octave Band TL values for the actual, selected façade components will result in total indoor sound levels no higher than the values in sections 5 and 6 as applicable, for the cumulative effect of sound from the Ship Sources, using the equation below for each Façade:

$$Lp_{\text{indoors},n} = Lp_{\text{outdoors},n} - TL_{W,n} + 10 \log \left( \frac{W_{p,n}}{a} \right) + 3$$

where  $TL_{W,n}$  = Composite sound transmission loss values (Octave Band) for the actual, selected exterior façade components on the  $n^{\text{th}}$  Façade

$Lp_{\text{outdoors},n}$  = Outdoor Octave Band sound pressure level (dB) at the  $n^{\text{th}}$  Façade

$Lp_{\text{indoors},n}$  = Indoor Octave Band sound pressure level (dB) transmitted through the  $n^{\text{th}}$  Façade

$W_{p,n}$  = Size of  $n^{\text{th}}$  Façade as a % of floor area

$a$  = Room sound absorption factor

For Low Sound Absorption  $a = 0.5$

For Medium Sound Absorption  $a = 0.8$

For High Sound Absorption  $a = 1.0$

Kitchens shall assume Low Sound Absorption. Bedrooms, dens, living and dining rooms shall assume Medium Sound Absorption.

The total indoor sound pressure level (Octave Band) is the logarithmic sum of  $Lp_{\text{indoors},n}$  values for all Facades bounding a room.

8. Calculations, as in section 7 above, are to be done to represent each residential point of reception (POR) for which there is an excess over NPC-300 Class 1 receptor, exterior, plane of window sound limits as per NPC-300, based on the plane of window sound levels (hourly  $L_{eq}$ ) computed using the CadnaA Model.
9. The acoustical performance of windows must be verified by the supplier using independent acoustical lab tests from an accredited laboratory, such as in the example lab tests for State Window Corporation assemblies identified in the following laboratory test reports: (i) NGC Testing Services test report numbers NGC 2009034, NGC 2010022, NGC 2015055, NGC 2015056, NGC 2015057, NGC 2015058, NGC 2015059, NGC 2015060, NGC 2015061, and NGC 2018184; and (ii) Intertek test report number H8293.01-113-11-RO. These example window assemblies may or may not be suitable, subject to detailed analysis of the façade acoustic performance. Window options will be evaluated based on laboratory test data for the actual window configurations proposed at the time of building permit applications. Where laboratory tests are used to define TL values such tests shall be provided to P&H.
10. Where possible, window octave frequency band TL values for use in the analysis shall be calculated from the corresponding three one-third Octave Band TL laboratory test values between the 50 Hz and 5000 Hz one third Octave Bands, inclusive. Where laboratory-tested TL values are not available for some or all of the 50 Hz to 80 Hz one-third Octave Bands, a 6 dB per octave slope shall be assumed to determine these values, provided it can be demonstrated that no mass-air-mass resonances occur in these bands.
11. Sound transmission via any air openings in a façade for air exhausts or intakes with the potential to conduct exterior sound (noise) to Bedrooms and Daytime Living Areas (e.g., kitchen exhausts, fresh air intakes) shall be evaluated independently of sound transmitted through the windows and non-window exterior wall components. Exterior noise transmitted through bathroom exhaust fans and laundry dryers in utility rooms is excluded. The air exhausts and intakes shall be designed so that interior sound levels due to Ship Sources (as defined in Schedule “F”), at a location in the centre of the associated Bedroom or Daytime Living Area and at a height of 1.5 m above the floor, shall not exceed the Octave Band sound levels of NC-25. The calculation of sound transmitted from the exterior to interior shall be done using the method/equations outlined in Schedule “G”.
12. Any portion of a building containing a non-residential Noise Sensitive Land Use shall be designed to achieve an indoor sound level of 40 dBA or less due to Ship Sources for sound transmitted through wall or window assemblies and NC-30 for air connections to the exterior due to Ship Sources.
13. Mechanical room air intakes on rooftops or at ground level on Block 3, Block 8, Block 12 and Block 13 shall be oriented away from the P&H Facility. If construction of the buildings on Block 3 has not been commenced at the time that the construction of a building on Block 2 commences, rooftop or ground level air intakes on buildings on Block 2 shall be

oriented away from the P&H Facility. If construction of the buildings on both of Block 3 and Block 8 has not been commenced at the time that the construction of a building on either or both of Block 6 and Block 7 commences, rooftop or ground level air intakes on buildings on Block 6 and Block 7 shall be oriented away from the P&H Facility.

14. The buildings on Block 1, Block 2, Block 3 and Block 8 shall have positive pressurization in the hallways of the buildings pursuant to the requirements of the Building Code.
15. Balconies on the most easterly façade of the buildings on Block 3 and Block 8 shall have a maximum depth of 1.8 metres measured perpendicular from the exterior wall of the building to which the balcony is attached. For greater certainty, no such balcony may have a total depth exceeding 1.8 metres including any recess in the exterior wall.
16. The north and east Facades of all buildings on Block 3 and Block 8 shall provide sufficient space to install an odour filtration system at the fresh air intakes of any individual dwelling unit HVAC systems on those Facades, and all buildings on Block 3 and Block 8 shall provide sufficient space to install an odour filtration system at the fresh air intakes of any central HVAC system, to address odour from the ships at the P&H Facility.

**SCHEDULE “J”**

**FORM OF ASSUMPTION AGREEMENT**

TO: [X]

AND TO: [X]

**[Note to Draft: Addressees to be the current Parties to the Settlement Agreement]**

The undersigned proposes to acquire an interest in the lands known municipally as and having the following legal description: [insert legal description, being part or all of the WSC Lands /or/ of the P&H Lands].

For good and valuable consideration (the receipt and sufficiency of which are hereby acknowledged), the undersigned hereby covenants and agrees, as of the date of Transfer, to be bound by the terms of the agreement dated August 14, 2020 between the City of Hamilton, The Waterfront Shores Corporation and Parrish & Heimbecker, Limited, as amended, restated, modified, supplemented, assigned and/or assumed from time to time (the “Settlement Agreement”) in like manner as  [Note to Drafting, insert name of Transferor] as a party to the Settlement Agreement and: (i) to be so bound to each party that is now bound by the Settlement Agreement; and (ii) from the time at which any other party becomes bound by the Settlement Agreement, to be so bound to such other party. The undersigned acknowledges that it has received a copy of the Settlement Agreement and has had an opportunity to review the same and to obtain such legal advice with respect thereto as the undersigned considers necessary or desirable.

IN WITNESS WHEREOF the undersigned has executed this Assumption Agreement as of this 14<sup>th</sup>, day of August, 2020.

Per: \_\_\_\_\_  
Name:

Title  
:

Per: \_\_\_\_\_  
Name:

Title  
:

[I/We have the authority to bind the corporation]

## SCHEDULE “K”

### DECLARATION AND UNDERTAKING RE CONFIDENTIAL INFORMATION

I, \_\_\_\_\_, a [consultant/lawyer/representative] for the [Party], declare and undertake that:

1. I understand that this Declaration and Undertaking applies to:

- a. All acoustical and emissions modelling for the Parrish & Heimbecker, Limited ("P & H") facility, the base data, and assumptions produced by P & H, other P & H provided emissions source information, including the ESDM, any other P & H provided information which is clearly marked by P & H as "Confidential", and any modelling, reports and/or analysis that is produced by signatories to this Declaration and Undertaking, or the Declaration and Undertaking for the Phase 2 Hearing of the P&H Appeals, that is based in whole or in part on Confidential Information provided by P & H, or that provides information regarding the operations and processes at P & H, provided or prepared for the purposes of implementing the Settlement Agreement among the City of Hamilton, Waterfront Shores Corporation (“WSC”) and P&H dated August 14, 2020 (the “Settlement Agreement”);
- b. All acoustical and emissions modelling prepared by consultants for WSC or its successors, including base data and assumptions, and all noise, dust or air quality reports, and any other WSC provided information which is clearly marked by WSC as "Confidential", and any modelling, reports and/or analysis that is produced by signatories to this Declaration and Undertaking, or the Declaration and Undertaking for the Phase 2 Hearing of the P&H Appeals, that is based in whole or in part on Confidential Information provided by WSC, provided or prepared by WSC or its successors for the purposes of implementing the Settlement Agreement;
- c. All documents that contain or refer to the information in subsections 1(a) and (b);  
and
- d. Any other information designated by the City, WSC or P&H as confidential;

(collectively, the information described in subsections 1 (a), (b), (c) and (d) is defined as "Confidential Information").

2. This Declaration and Undertaking shall not apply to the following information:

- a. Any information produced by the City, WSC or P&H (collectively herein the “Parties”, and each is a “Party”) that is not clearly marked as "Confidential". Such information shall be deemed not to be Confidential Information, save and except for all modelling which shall be deemed to be Confidential Information regardless of whether it is marked as such.

- b. Any information in the public domain or that is or may come to be in the lawful possession of a party without the need for any Party's permission;
  - c. Any Confidential Information required to be disclosed by an adjudicative entity including but not limited to the Local Planning Appeal Tribunal ("LPAT") or a court with competent jurisdiction or through the requirement and application of any laws of the Province of Ontario or Canada; and
  - d. Any information which is produced using Confidential Information but which does not itself expressly identify or disclose any Confidential Information.
3. I acknowledge and understand that where a Party is required to disclose Confidential Information in accordance with the Settlement Agreement, the Confidential Information shall be delivered to the legal counsel of record for the relevant Party, provided that said legal counsel of record has signed a Declaration and Undertaking. Such a receiving legal counsel of record may provide Confidential Information to individuals employed by said legal counsel's client, being a Party hereto, subject to Section 7 below and provided that such individuals have signed a Declaration and Undertaking in their personal capacity, and to retained consultants\*, provided such individuals have signed a Declaration and Undertaking.

\*A retained consultant is an individual who has scientific, technical, or other specialized knowledge gained through qualifications, including experience.

- 4. I will use Confidential Information exclusively for duties performed in respect of implementation of the Settlement Agreement.
- 5. I will not use the Confidential Information for any collateral or ulterior purpose, or in any other regulatory, criminal or civil proceeding.
- 6. I will not divulge Confidential Information except to a person granted access to such Confidential Information.
- 7. I will not divulge Confidential Information (for example, modelling, reports or analyses) to any party that is subject to the Freedom of Information and Protection of Privacy Act or the Municipal Freedom of Information and Protection of Privacy Act, such as the City of Hamilton or any employees or representatives thereof (collectively "Public Entities"), excluding their respective legal counsel and their internal or retained consultants\* who have signed a Declaration and Undertaking. For greater clarity, the foregoing prohibition shall not constrain legal counsel and consultants retained by such Public Entities from (i) verbally and/or visually communicating Confidential Information with their respective clients for the purposes of implementing the Settlement Agreement, or (ii) disclosing Confidential Information to their respective clients electronically through the provision of a secure drop box hosted outside the control of Public Entities, which drop box is read-only or contains read-only format Confidential Information, which in either instance would prevent the printing, reproduction, copying, transfer or amendment of such information, if the recipient of Confidential Information under (i) or (ii) has signed a Declaration and Undertaking. The recipient of Confidential Information under (i) or (ii) hereby agrees not to take notes or



otherwise prepare any form of record that expresses or could in any manner disclose the Confidential Information including in any format that would be subject to the Freedom of Information and Protection of Privacy Act or the Municipal Freedom of Information and Protection of Privacy Act, and agrees to comply with all other terms of the Declaration and Undertaking.

8. I will not reproduce, in any manner, Confidential Information without the prior written approval of the Party providing same or pursuant to any Order of the LPAT or court. For this purpose, reproducing Confidential Information includes scanning paper copies of Confidential Information, copying the Confidential Information onto a CD or other machine-readable media and saving the Confidential Information onto a computer system, except as may be required to prepare for and/or participate in the proceedings, in accordance with this Declaration and Undertaking.
9. I will protect Confidential Information from unauthorized access.
10. I acknowledge that the Confidential Information provided to me is expressly identified as Confidential Information because in the opinion of the disclosing Party:
  - a. It is of a highly sensitive nature, and may include trade secrets and scientific, technical, commercial, financial or labour relations information, or a combination thereof;
  - b. It would, if disclosed, significantly prejudice the disclosing Party's competitive position or interfere significantly with contractual or other negotiations;
  - c. It would, if disclosed, reasonably be expected to result in undue loss to the disclosing Party; and
  - d. It is being disclosed to me solely for the purpose of implementing the Settlement Agreement.
11. If I am no longer retained by a Party, or employed by a Party, in respect of the development of the Pier 8 Lands as defined in the Settlement Agreement, with respect to Confidential Information I have received and documents I have prepared incorporating Confidential Information, I will proceed on the basis of the following as it applies to me:
  - a. Legal counsel of record for a Party shall destroy all Confidential Information in his or her possession within 30 days of ceasing to act, unless such Confidential Information is transferred to another lawyer acting for that Party who has signed a Declaration and Undertaking prior to receipt of the Confidential Information;
  - b. Any other individual who is in possession of Confidential Information shall, within 30 days of ceasing to be retained or employed by a Party, forward all such Confidential Information, without keeping any copies thereof, to the legal counsel of record for that Party, and shall, subject to section 11c. herein, expunge any Confidential Information that is in the form of electronic media, save and except where such Confidential Information is transferred to another individual retained or

employed by that Party who has signed a Declaration and Undertaking prior to receipt of the Confidential Information and has delivered same to legal counsel for the Party; and

- c. Where Confidential Information is in the form of electronic media and cannot reasonably be expunged in accordance with this Section 11 from electronic apparatus and data storage media under my direction and control, I will continue to abide by the terms of this Declaration and Undertaking in relation to such documents and material to the extent that they subsist.

12. When I have destroyed, expunged or transferred the Confidential Information in accordance with Section 11, I will promptly notify legal counsel for the Party for whom I have acted that I have complied with my obligation and completed my undertaking.

Dated this day of \_\_\_\_\_.

Signature: [Name] \_\_\_\_\_

Company/Firm:

