

Noise and Vibration Impact Study - Addendum

**925 Main Street W, Hamilton,
Ontario
240009605**

Prepared For
Laura Drennan

**925 Main Street West (Hamilton) Ltd.
c/o Mr. David Horwood
50 King Street East
Hamilton, L8N 1A6
Tel: 647.229.6355
ldrennan@urbansolutions.info**

Prepared By
Jediael Pagtalunan, M.Sc., P.Eng.

**Thornton Tomasetti
23-366 Revus Avenue
Mississauga, Ontario L5G 4S5
Tel: +1 905.487.7387
JPagtalunan@ThorntonTomasetti.com
www.ThorntonTomasetti.com**

Reviewed By
**Robert Fuller, P.Eng.
Project Engineer**

June 10, 2026

Table of Contents

1.0 Introduction.....	1
2.0 Transportation Noise Assessment	1
3.0 Stationary Noise Assessment.....	1
3.1 Critical Stationary Noise Receptors	1
3.1.1 Project Receptors	1
3.2 Stationary Noise Sources	2
3.3 Project Area Classification	2
3.3.1 Class 1 Area Exclusionary Sound Level Limits.....	2
3.4 Stationary Sound Level Predictions	3
3.4.1 Unmitigated Stationary Noise Impacts on the Project	3
3.5 Stationary Noise Control Recommendations	4
3.5.1 Mitigation for Project Receptors	4
4.0 Concluding Comments	5

Appendix A : Figures

Appendix B : CadnaA Calculation Output

List of Tables

Table 1: Class 1 Exclusionary Sound Level Limits – Steady Noise	3
Table 2: Predicted Stationary Noise Source Impacts to the Project from Surrounding Sources	3
Table 3: Predicted Stationary Noise Source Impacts to the Project from Project Sources	4

List of Figures

Figure 1: Project Outdoor Receptor Locations.....	7
---	---

1.0 Introduction

TT has previously prepared the following report for the subject Project:

- *Noise and Vibration Impact Study, 925 Main Street W, Hamilton, Ontario, 240009605*, dated January 29, 2026, prepared by Jedrael Pagtalunan of Thornton Tomasetti. (NVIS Report)

The purpose of the report was to support an application for Official Plan Amendment and Zoning By-Law Amendment (OPA/ZBA) for the subject Project for the City of Hamilton.

The Project includes a new mixed use apartment building, comprised of two towers. The east tower will have 29 stories while the west tower will have 26 stories, and has a maximum height of approximately 99m. A connecting bridge connects the two towers and the building will include ground floor commercial spaces. Additional analysis for the outdoor receptors is required, and is included in this addendum to the NVIS report.

2.0 Transportation Noise Assessment

NPC-300 defines an outdoor point of reception for the assessment of transportation noise sources as an Outdoor Living Area (OLA) representing an area of a noise sensitive land use intended for quiet enjoyment of the outdoor environment.

For receptors located at-grade, NPC-300 defines an OLA as:

1. *3 metres from the building façade;*
2. *1.5 metres above grade or floor level; and*
3. *aligned with the midpoint of the subject façade.*

Based on this definition, no additional outdoor amenity area is required apart from those assessed in the NVIS Report. The large open park space south of the building is not considered an OLA for the assessment of transportation noise.

3.0 Stationary Noise Assessment

3.1 Critical Stationary Noise Receptors

NPC-300 defines a point of reception for the assessment of stationary noise sources as any location on a noise sensitive land use where noise from a stationary source is received. This typically includes both points of reception on building façades, representing the plane-of-window of noise sensitive spaces (POR) and outdoor points of reception representing areas such as balconies, gardens, patios, and terraces (OPOR). These locations may be the same or different from the POW and OLA receptors identified as part of a transportation noise assessment.

3.1.1 Project Receptors

TT understands that a total of 2 potential POPORs will be present: the Level 7 Rooftop Amenity, and the dining area located south of the Project. The second POPOR was assessed in this Addendum report.

POPOR2 was assessed at the most impacted point(s) within 30m of the building façade, 1.5m above ground/floor level.

3.2 Stationary Noise Sources

NPC-300 defines a stationary source of noise as one or more sources of sound that are normally operated within a given property. Stationary sources typically include mechanical equipment such as Heating, Ventilation and Air Conditioning (HVAC) equipment, standby power generators with routine testing, and heavy vehicle traffic (truck idling, driving, and loading), as well as sources from rail yards and other industrial facilities.

Project and surrounding stationary noise sources have been identified in the NVIS report and was used in the assessment of the outdoor receptors.

3.3 Project Area Classification

NPC-300 defines the applicable sound pressure level limit at a given receptor as the higher of a set exclusionary sound level limit based on the area classification of that receptor, or the actual background sound level at the location of the receptor, whichever is higher. In this report, the defined exclusionary limits were used for the purposes of assessing compliance.

The Project is currently located in a Class 1 area as defined in NPC-300, based on the surrounding area features and its distance from major roads.

3.3.1 Class 1 Area Exclusionary Sound Level Limits

NPC-300 defines a Class 1 area as having an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as “urban hum” during both day and night.

Table 1 provides a summary of the applicable exclusionary sound level limits for steady noise sources impacting receptors in a Class 1 area. Steady stationary noise sources are assessed against a 1 hour equivalent sound pressure level (L_{eq}) expressed in A-weighted decibels (dBA). Routine testing of emergency equipment, if applicable, is assessed separately from other stationary noise sources, and is compared to sound level limits that are 5 dBA higher than would otherwise apply.

Table 1: Class 1 Exclusionary Sound Level Limits – Steady Noise

Time Period	Normal Operations Steady Noise ($L_{eq,1hr}$, dBA)		Emergency Equipment Testing Steady Noise ($L_{eq,1hr}$, dBA)	
	POR	OPOR	POR	OPOR
Daytime (07:00 – 19:00)	50	50	55	55
Evening (19:00 – 23:00)	50	50	55	55
Nighttime (23:00 – 07:00)	45	-	50	-

3.4 Stationary Sound Level Predictions

Sound levels at the PORs due to the nearby stationary sources were calculated using the software CadnaA in accordance with the methods described in ISO 9613-2. The CadnaA calculation outputs are presented in Appendix B.

Testing of emergency equipment typically happens on a predictable, infrequent schedule, and can be done on one piece of equipment at a time. NPC-300 requires that these sources be assessed separately from other stationary noise sources. In the modelling conducted for the project, impacts from testing of each individual piece of emergency equipment have been reported separately. It is assumed that testing of emergency equipment will occur during daytime hours only (07:00 – 19:00).

The predicted noise impacts described below are based on the conditions identified in current drawings and information provided to TT at the time of this report and include any barriers, equipment specifications, or other measures currently planned for the Project.

3.4.1 Unmitigated Stationary Noise Impacts on the Project

Table 2 provides a summary of the modelling results for stationary noise impacts to the Project outdoor receptors from surrounding sources only and Table 3 provides a summary of Project stationary noise impacts to the Project. Appendix B contains the full modelling output and illustrations.

Table 2: Predicted Stationary Noise Source Impacts to the Project from Surrounding Sources

POR ID	Time Period	Steady Sound Level $L_{eq,1hr}$ (dBA)	Steady Sound Level Limit $L_{eq,1hr}$ (dBA)	Compliance
POPOR2	Daytime	45	50	Yes
	Evening	45	50	Yes

Noise due to stationary noise sources from surrounding sources are predicted to meet the applicable sound level limits at the outdoor Project receptors.

Table 3: Predicted Stationary Noise Source Impacts to the Project from Project Sources

POR ID	Time Period	Steady Sound Level L _{eq,1hr} (dBA)	Steady Sound Level Limit L _{eq,1hr} (dBA)	Emergency Testing Sound Level (GEN01) L _{eq,1hr} (dBA)	Emergency Testing Sound Level (GEN02) L _{eq,1hr} (dBA)	Emergency Testing Sound Level Limit L _{eq,1hr} (dBA)	Compliance
POPOR2	Daytime	50	50	31	34	55	Yes
	Evening	50	50	-	-	-	Yes

*Truck idling was assumed to be 3min/hr per the Hamilton By-law No. 07-160.

Noise due to stationary noise sources from Project sources are predicted to meet the applicable sound level limits at the outdoor Project receptors.

3.5 Stationary Noise Control Recommendations

3.5.1 Mitigation for Project Receptors

No predicted exceedances of the applicable stationary sound level limits at the Project receptors from surrounding stationary noise sources have been identified; therefore, no additional mitigation is recommended at this time.

4.0 Concluding Comments

Noise impacts associated at the additional outdoor receptors with the proposed development at 925 Main Street West are expected to be able to meet all applicable LUPA noise requirements with the inclusion of noise control measures and warning clauses in the NVIS Report. The proposed development should therefore be approved.

As the design of the development proceeds, and mechanical equipment is selected, acoustical modelling of the impacts of this equipment should be confirmed in order to evaluate compliance with applicable sound limits at surrounding sensitive receptors, and confirm that impacts to the Project itself will be acceptable.

Please do not hesitate to contact us if there are any questions.

Yours Truly,

Thornton Tomasetti



Jedial Pagtalunan, M.Sc., P.Eng.
Senior Engineer

Reviewed by:

Robert Fuller, P.Eng.
Project Engineer

Disclaimer

This report is provided in accordance with the contractual agreement between TT and the Client. In addition to our contractual obligations TT notes the following general disclaimers and qualifications regarding the content of this report.

In preparing this report, TT has relied upon the accuracy and completeness of information provided by the Client and other third parties (manufacturers, other consultants, etc.) and accepts no responsibility for errors or omissions by other parties in the information provided to TT.

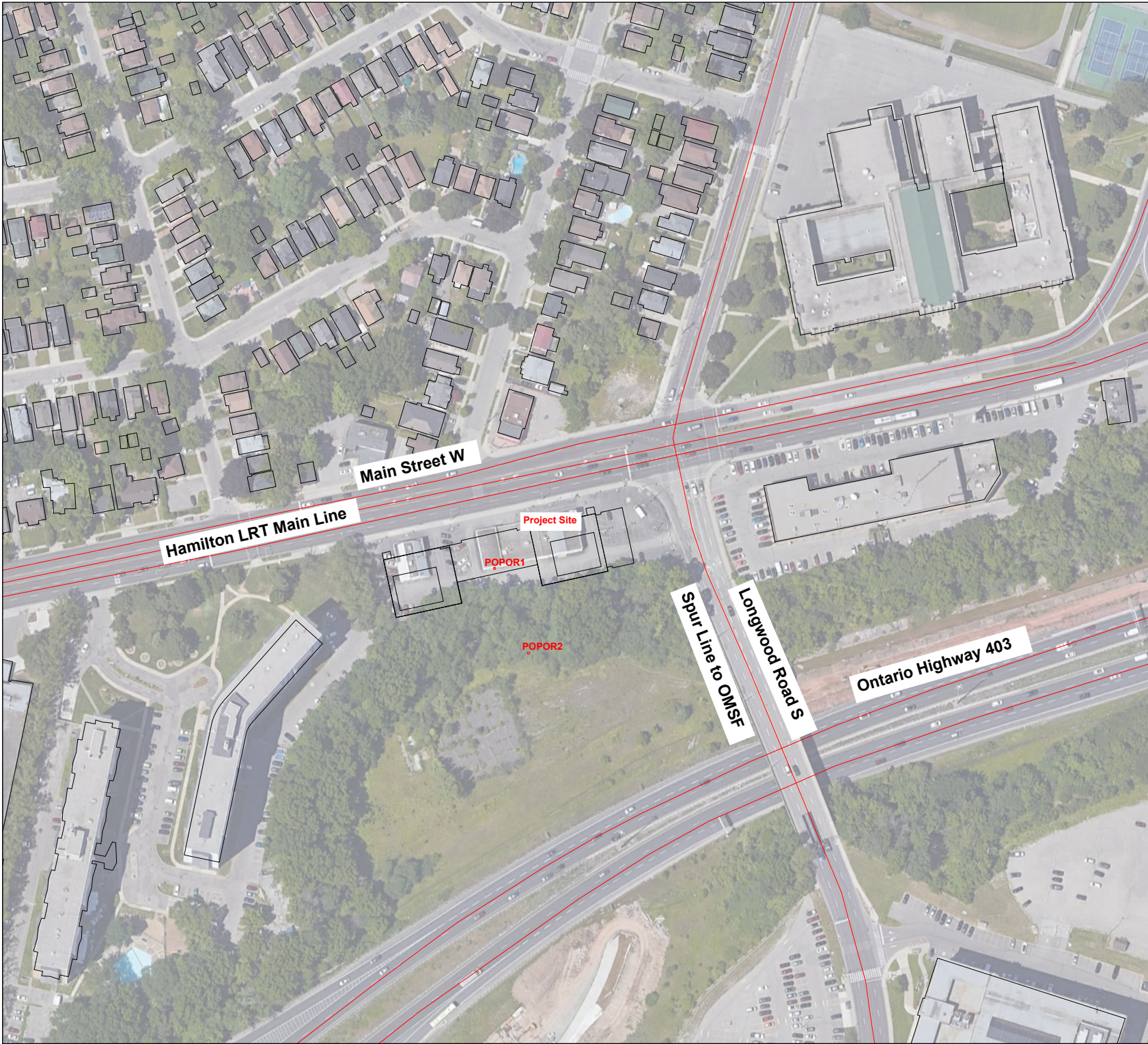
This report has been prepared solely for the benefit of the Client and the content of this report is intended for informational purposes only. This report shall not be relied upon by any other parties, including but not limited to other consultants retained by the Client, or utilized for any other purposes.

Ultimate responsibility for the design and construction remains solely with the architect/engineer of record and/or the contractor(s). Achieving the required mitigation requirements relies on correct incorporation of mitigation recommendations into Architectural and Mechanical drawings and specifications, as well as correct installation during construction. It is recommended that the implementation of mitigation measures be reviewed by a qualified acoustical consultant.

On request, TT will provide a proposal for additional work such as to peer review noise control measures or observe on-site conditions as appropriate; however, notwithstanding the foregoing, it is expressly understood and agreed that TT shall not have control or charge of, and shall not be responsible for the acts or omissions, including but not limited to means, methods, techniques, sequences and procedures, of the Design Professionals and/or Contractors performing design and/or construction on the Project. Accordingly, TT shall not be held responsible for the failure of any party to properly incorporate the mitigation measures stated in this report.

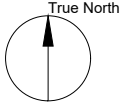
Appendix A: Figures

Figure 1: Project Outdoor Receptor Locations



Thornton Tomasetti

366 Revus Avenue, Unit 23
Mississauga, ON Canada L5G 4S5
Tel: 905.271.7888 Fax: 905.271.1846
www.thorntontomasetti.com



TT PROJECT CODE

240009605

DRAWN BY: JP

REVIEWED BY:

REVISION		DESCRIPTION
#	DATE	
0	2024/06/08	FOR INFORMATION ONLY, NOT FOR CONSTRUCTION

PROJECT NAME
925 MAIN STREET
WEST
HAMILTON, ON

DRAWING NAME
FIGURE 1:
PROJECT OUTDOOR
RECEPTOR LOCATIONS

SCALE ON DRAWING	DATE 2026/06/08
Project SK. No	SHEET 1 OF 1

Appendix B: CadnaA Calculation Output

