

Study Description

A **Noise/Vibration Impact Analysis** is a technical report that provides a written description of the impact of noise and vibrations generated by a proposed development on the surrounding environment, the impact of noise from the surrounding environment on the proposed development, and the impact of noise from the proposed development on itself as well as mitigation measures to reduce any negative impacts.

Purpose

Development should be appropriately designed, buffered and/or separated from industries as necessary to mitigate adverse affects including those from noise/vibration to promote safety and security. In addition, the effects of nearby development should be minimized as necessary to preserve the quality of parks and open spaces.

Who should prepare this?

An accredited acoustic expert or a registered professional engineer qualified in accoustical engineer. All reports and drawings must be stamped, signed and dated by a qualified professional, licensed in the Province of Ontario.

When is this required?

A **Noise/Vibration Impact Analysis** may be required to support the following applications for developments:

- Official Plan Amendment
- Zoning By-law Amendment
- Site Plan Control
- Plans of Subdivision/Condominium
- Consent

Required Contents

During pre-application consultation, City Planning staff will work with the applicant's consultant to determine if such a report is required and, if so, the specific requirements of the Study, based on the nature of the proposed application and context of the study area.

The Study should include, but is not necessarily limited to:

Introduction

- Description of the subject site and the proposed development
- Location/context map
- Identification of the noise source(s)
- Description of the sound level guidelines/standards applied (methods)

Environmental Noise (and Vibration) Assessment

- Noise sources and noise level forecasts (e.g. Tables showing ultimate road traffic and predicted unmitigated sound energy exposures outdoors)
- Environmental noise guidelines
- Noise impact assessment (including low frequency noise impacts)
- Vibration assessment, if applicable

Noise (and Vibration) Mitigation Requirements and Recommendations

- Indoors: architectural requirements, ventilation requirements
- Outdoors: at source requirements, sound barriers (i.e. Description and site plan with noise mitigation)
- Warning clauses

Conclusions

- Appendix A – Base Noise Level Calculations (Noise Source Data)
- Appendix B – Ministry of Environment Noise Guidelines
- Appendix C – Sample Sound Exposure Calculation

What else should we know?

A **Noise/Vibration Impact Analysis** should be based on the applicable guidelines established by the Association of Professional Engineers of Ontario, the Ministry of the Environment, Conservation and Parks, Canadian National Railway, Go Transit (Metrolinx), Guidelines for New Development in Proximity to Railway Operations (May 2013), and City By-laws.

Please consult with any other affected agency to ensure the study captures the needs of all agencies.

What other resources are available?

Professional Engineers Ontario

To hire a professional engineering consultant, consult the directory:
<https://www.peo.on.ca/>

City of Barrie Noise By-law 2006-140

barrie.ca/NoiseBylaw

The Railway Association of Canada and Federation of Canadian Municipalities Guidelines for New Development in Proximity to Railway Operations:

https://www.proximityissues.ca/wp-content/uploads/2017/09/2013_05_29_Guidelines_NewDevelopment_E.pdf

Ministry of the Environment, Conservation and Parks - Environmental Noise Guideline - Stationary and Transportation Sources - Approval and Planning (NPC-300):

<https://www.ontario.ca/page/environmental-noise-guideline-stationary-and-transportation-sources-approval-and-planning>

Notes

If the proposed development is revised, the study/report shall reflect the revisions by an updated report or letter from the author indicating the recommendations and conclusions are the same.

Please note that a peer review may be required. The cost of the peer review will be borne by the applicant.

Please note that the requirements of this study may vary depending on the nature of the proposal. This will be determined through the pre-consultation process and in consultation with any applicable external agencies.

If the submitted study is incomplete, is authored by an unqualified individual, or does not contain adequate analysis, the application will be considered incomplete and returned to the applicant.