

COVER PAGE

For Mayor and Councillors

Meeting March 24th, 2016

Presenter:

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TOPIC: Are existing Victoria Noise and Nuisance Bylaws Adequate to Protect Residents in Mixed Land Use Areas

Contents:

Area Map

Problems and Solutions

Acoustic Sound Barrier Example for Roof Top Chillers/HVACs

Unclear and technical existing bylaw examples

Successes and Failures over the years

Thank you for allowing me to address the meeting and for your commitment to our great city.

Nestle Bridge



Jutland

Google Maps

Imagery ©2016 Google, Map data ©2016 Google 20 m



Jutland Residences



Existing truck route



Avoid Jutland



Our condo - 4th floor

Garbally

Dunedin

Gorge Rd

The problems

Permitted hours of deliveries/garbage/recycle trucks within residential mixed area
– see other city hours

Difficulty of understanding current Noise/Nuisance Bylaws – too technical and too much reliance on Decibel levels

Lack of clarity and regulation means individuals and small groups have to fight similar issues all over the city

Insufficient protection for Residents' health and quality of life – especially during sleep hours

Suggested Solutions

Establish noise abatement as an important consideration in the planning process and design – from the very beginning, the prime question for Mixed areas should be “ How can we protect the Residents from the unnecessary and harmful noises expected from the non-residential components “ -include solutions in the plan submitted for approval for accountability

Revise existing Bylaws to include special considerations for residents in or abutting nonresidential sections such as commercial/offices/personal services ... found in mixed use areas in a neighbourhood

Keep a database of noise issue complaints throughout the city

Set vigorous requirements for noise abatement on rooftop HVAC systems of any kind in the original design and building stage and require current systems to be updated to meet revised expectations

Establish a temporary group to receive input from residents affected by noise from non resident sources in the neighbourhood. How can we do things better?

Reconsider the Noise District Map – the concept of “quiet” area misrepresents the number of residents in mixed areas which have the same quality of life needs and expectations as other areas – especially mixed use. It also helps to confuse the issue.

The purpose is not to try to prevent all noise for sure. Some noise is beautiful and some necessary especially for safety. BUT we can all do our utmost to prevent unnecessary and discomfiting noise.

CHILLER ROOFTOP SOUND ENCLOSURE

Chiller Rooftop Sound Enclosure – Case Study

[Download as PDF](#)

Air cooled chillers are efficient machines but notoriously loud and can be disruptive to neighbors. eNoise Control has worked on several projects to attenuate and remediate noise from air cooled screw chiller machines.

Situation:

This case history project involved a roof top Trane Chiller unit. The unit was installed on a roof to cool a large grocery store. The property line involved a neighboring condominium. The tenants of the condominium that faced the chiller were complaining about the sound from the roof top unit. Neighbor complaints stated such things as "not able to sleep", "disrupting noise at night", and "whining noise from the chiller".



Rooftop Chiller Sound Enclosure

Solution:

eNoise Control was hired to provide property line sound level readings, acoustic consulting, and generate a feasibility report on our findings for noise control remedies. Our conclusions were to provide a full steel sound enclosure to help abate the noise from the chiller fans and chiller compressors. Airflow was a consideration. Installed into the enclosure were [acoustic louvers](#) and an overhead noise baffle system. This system allowed for aggressive noise reduction and still allowed the machine ventilation and heat release.

The project was successful in meeting our reports acoustic goals.



Acoustic Louvers on Rooftop Chiller Enclosure

Call Today at
888.213.4711**E-mail Us**
nfo@enoisecontrol.com[Ask a Question](#)

Schedule B

Summary of Districts' Permitted Noise Levels

		NOISE RECEIVER DISTRICT							
		QUIET		INTER-MEDIATE		HARBOUR INTER-MEDIATE		ACTIVITY	
		Day	Night	Day	Night	Day	Night	Day	Night
NOISE SOURCE DISTRICT	QUIET	55	45	55	50	55	50	60	60
	INTER-MEDIATE	60	50	60	55	60	55	65	65
	HARBOUR INTER-MEDIATE	60	50	60	55	60	55	65	65
	ACTIVITY	60	55	65	60	67.5	60	70	70

Table 1: Equivalent Sound Level (L_{eq}) Limits (expressed in dBA) for sound or noise created and received in the "Quiet", "Intermediate" and "Activity" Noise Districts

- (b) for sounds that fluctuate in level or character in a repeatable fashion over periods of from three seconds to one minute, such as, without limitation, those sounds produced by industrial or manufacturing processes, the RTP is 5 minutes;
- (c) for sounds that fluctuate in level or character in a repeatable fashion over periods of from 1 to 5 minutes, such as, without limitation, sounds produced by an air compressor or other cyclical noise sources, the RTP is 15 minutes;
- (d) for sounds that fluctuate in level and/or character in a repeatable fashion over periods of between 5 and 10 minutes, the RTP is 30 minutes;
- (e) where several noise sources operate simultaneously, each with its own patterns of operation and or movement, such as, without limitation, in a shipyard or a recycling/materials-handling operation, the RTP is 30 minutes;
- (f) for a noise source that exhibits significant variations in output over a time period of one hour or more, the RTP is the period known to, or expected to, generate the maximum overall noise levels at the point of reception;

“residential premises”

means any parcel of real property utilized primarily for residential accommodation, and includes hotels and motels;

“tonal sound”

means any sound which contains one or more pure tone components including without limitation the “hum” or a fan or heat pump or the “whine” of a hydraulic pump or power saw.

Determining presence of tonal sound

- 4 For the purposes of the administration and enforcement of this Bylaw, the presence of tonal sound may be determined by conducting a one-third octave band frequency analysis of the noise (from 31.5 Hz. to 16 kHz.) and applying the following criteria if tonal sound is suspected but is not obvious:
 - (a) the level of the one-third octave band under consideration, or, in the case of a pair of bands, the arithmetic average of the levels of these two bands, is more than 1 dB higher than the level of each of the adjacent bands on either side of the band, or pair of bands, under consideration, and
 - (b) the difference between the level of the one-third octave band under consideration, or, in the case of a pair of bands, the arithmetic average of the levels of the two bands, and the arithmetic average of the two adjacent bands on either side of the band or pair of bands under consideration, is 3 dB or more.

Successes and failures after many years of phone calls, emails and meetings on the part of us and some of our neighbours. None of this should have been necessary.

Garbage and Recycle trucks

Originally work done between 4am and 6am
Now after 7am

By **verbal agreement only** – no Bylaw protection to date

Food Delivery Trucks

At around 6am

Ongoing but some abatement in numbers

HVAC noise – on and off as required according to temperatures

Originally from about 3am to 8pm - 7 days a week

Now weekdays only for the most part and start at around 8am depending on the weather – usually off by 8:30 pm

Again **verbal agreement** – no bylaw protection

Ongoing – on and off – on for between 5 and 8/9 hours in total especially on warm days. On hot days, we are lucky to get a 20 minute break each hour.

At my latest meeting with Karen Jawl on this ongoing disturbance late 2015, I played my audio of the HVACs and she has agreed to speak with their acoustic engineers – but that any solution had to be cost effective. I hope to hear soon that there is hope for us and our neighbours along Jutland