

February 7, 2023

Robert MacFarlane  
2683421 Ontario Limited  
2300 Yonge Street, Suite 904  
Toronto, ON M4P 1E4

SLR Project No.: 241.30010.00000

Dear Mr. MacFarlane,

**RE: Environmental Noise Mitigation Measures  
7449 Montrose Road – Niagara Falls**

At the request of 2683421 Ontario Limited, SLR Consulting (Canada) Ltd. (SLR) has conducted additional noise measurements, modelling and noise mitigation measure investigation for the proposed 7449 Montrose Road development in Niagara. SLR previously completed an environmental noise assessment for the site, per SLR's report entitled *Environmental Noise Assessment – 7449 Montrose Road – Niagara Falls, ON - SLR Project #241.30010.00000*, dated February 24, 2021 and a Drawing Review & Addendum Letter for Environmental Noise, dated July 13, 2022.

This letter presents the results and discussions/recommendations of the investigation.

**ADDITIONAL NOISE MEASUREMENTS**

Discussions have occurred between 2683421 Ontario Limited and the owner of the Petro-Canada gas station to the west of the Project site. A summary of the discussions and interactions to date are attached. During discussions it was identified that upgrades to the equipment in the Petro-Canada carwash may have occurred since SLR's original site visit in December 2022. Additional noise measurements were conducted by staff on November 3, 2022. The noise model was updated with the new carwash measurements. The result of the modelling shows that the carwash sound level had increased by 1-2 dB compared to the results of the SLR 2021 report. The results of the updated modelling are presented in **Table 1**.

**Table 1: Summary of Stationary Façade Sound Levels**

Building	Façade <sup>[1]</sup>	Stationary Sound Levels <sup>[2]</sup>	
		Day and Evening	Night
Building A - 3 storey Section	North	45	41
	East	36	40
	South	48	41
	West	46	41
Building A – North Tower	North	44	41
	East	43	40
	South	49	43
	West	48	43
	North	42	37

Building	Façade <sup>[1]</sup>	Stationary Sound Levels <sup>[2]</sup>	
		Day and Evening	Night
Building A – South Tower	East	35	37
	South	49	43
	West	48	43
Building B	North	49	43
	East	49	46
	South	53	46
	West	60	52
Building C1	North	41	37
	East	41	37
	South	49	45
	West	50	44
Building C2	North	47	40
	East	50	45
	South	50	46
	West	46	42
Building C3	North	46	40
	East	44	40
	South	51	46
	West	51	46
Building C4	North	55	48
	East	46	41
	South	52	47
	West	52	48
Building C5	North	58	51
	East	50	45
	South	54	45
	West	59	51

**Notes:** - All values are  $L_{eq}$  (1 hr) sound levels, in dBA.

[1] Façade locations are identified on **Figures 6 and 7** of the SLR February 2021 Report.

[2] Sound levels shown represent the worst-case impact along the identified facade.

The above results show that the predicted noise levels due to current operations of the surrounding stationary sources of noise would not meet the applicable guideline limits.

## STATIONARY NOISE MITIGATION MEASURES

The predicted excess of the applicable limits is caused by the carwash operations at the Petro-Canada site. A preliminary review of feasible mitigation options was undertaken as discussed in the following sections.

### SOURCE-BASED NOISE CONTROLS

A discussion of possible source-based noise controls measures is provided below.

- *Installation of acoustic barriers* – Given the height requirements needed to screen elevated receptors, the extent and height of the barriers would be impractical.

- *Physical mitigation measures to the sources* – A simple noise mitigation to reduce the sound level of the carwash noise levels is to replace the existing dryer system with quieter units. We have found in our experience and based on manufacturer specifications, that the Aerodry systems as models A45 and A120 generally has a sound Power Level of approximately 99 to 101 dBA. The installation of a system like this at the carwash will allow compliance at the proposed project development during all periods of the day (day, evening and night-time). The sound results of the installation of the conservative Aerodry Model A120 with a sound power level of 101 dBA are presented in Table 2. Figures A and B (attached) show the difference between the predicted sound levels and the applicable guidelines is attached (anything equal to or less than 0 dB is compliant), during the daytime/evening and night-time, respectively.

**Table 2: Summary of Stationary Façade Sound Levels**

Building	Façade [1]	Stationary Sound Levels [2]		Applicable Guideline Limits	
		Day and Evening	Night		
Building A - 3 storey Section	North	44	41	≤ 64	≤ 53
	East	43	40	≤ 64	≤ 55
	South	45	39	≤ 61	≤ 52
	West	45	41	≤ 59	≤ 49
Building A – North Tower	North	44	41	≤ 63	≤ 53
	East	43	40	≤ 62	≤ 53
	South	48	43	≤ 56	≤ 48
	West	48	43	≤ 58	≤ 48
Building A – South Tower	North	42	37	≤ 62	≤ 53
	East	42	39	≤ 63	≤ 54
	South	48	43	≤ 60	≤ 51
	West	48	43	≤ 52	≤ 45
Building B	North	49	43	≤ 63	≤ 53
	East	49	46	≤ 60	≤ 51
	South	53	46	≤ 58	≤ 50
	West	56	47	≤ 60	≤ 50
Building C1	North	41	37	≤ 60	≤ 51
	East	41	37	≤ 62	≤ 53
	South	49	45	≤ 60	≤ 51
	West	46	42	≤ 55	≤ 47
Building C2	North	43	37	≤ 55	≤ 46
	East	49	45	≤ 60	≤ 52
	South	50	46	≤ 58	≤ 50
	West	46	42	≤ 53	≤ 45
Building C3	North	43	37	≤ 55	≤ 47
	East	43	40	≤ 54	≤ 46

Building	Façade [1]	Stationary Sound Levels [2]		Applicable Guideline Limits	
		Day and Evening	Night		
	South	50	45	≤ 57	≤ 49
	West	50	45	≤ 53	≤ 45
Building C4	North	51	44	≤ 54	≤ 45
	East	46	41	≤ 56	≤ 48
	South	52	46	≤ 57	≤ 48
	West	52	42	≤ 53	≤ 45
Building C5	North	53	46	≤ 57	≤ 47
	East	50	44	≤ 54	≤ 45
	South	54	45	≤ 56	≤ 47
	West	56	46	≤ 58	≤ 47

**Notes:** - All values are  $L_{eq}$  (1 hr) sound levels, in dBA.

[1] Façade locations are identified on **Figures 6 and 7** of the SLR February 2021 Report.

[2] Sound levels shown represent the worst-case impact along the identified façade.

Compliance with the applicable guideline limits can be obtained with the replacement of the existing dryer system with the option presented. Discussions between 2683421 Ontario Limited and the Petro-Canada owner have not come to the agreement for the replacement of the fans, as described in the attached history document.

#### RECEIVER-BASED NOISE CONTROLS

The following is summary of the possible development (i.e., receptor-based) noise controls considered to addresses excesses from nearby stationary sources.

#### Site Configuration

- Change design of proposed buildings facing Petro-Canada site to entirely Commercial/Office Buildings – The inclusion of non-noise sensitive buildings will provide additional screening from the industries to other proposed development buildings. This is unlikely considered a feasible option, as the objective of the proposed development lands is to include high-density uses.
- Increase set back distances of residential units to Petro-Canada site – Given the size of the development site, any increase in distance would reduce the total number of units and the development would likely not be economically justifiable.

#### Blank Facades

- Blank facades or corridors along the facades with significant excesses would require single-loaded corridor designs for the westerly buildings of the development. This would reduce the total number of units and the development and may not be economically feasible.

#### Class 4 Designation

“Class 4 area classification is based on the principle of formal confirmation of the classification by the land use planning authority. Such confirmation would be issued at the discretion of the land use planning authority and under the procedures developed by the land use planning authority, in the exercise of its responsibility and authority under the Planning Act.

The following considerations apply to new noise sensitive land uses proposed in a Class 4 area:

- an appropriate noise impact assessment should be conducted for the land use planning authority as early as possible in the land use planning process that verifies that the applicable sound level limits will be met;
- noise control measures may be required to ensure the stationary source complies with the applicable sound level limits at the new noise sensitive land use;
- noise control measures may include receptor-based noise control measures and/or source-based noise control measures;
- source based noise control measures may require an MECP approval;
- receptor based noise control measures may require agreements for noise mitigation, as described in Part A of this guideline;
- prospective purchasers should be informed that this dwelling is in a Class 4 area through appropriate means and informed of the agreements for noise mitigation. Registration on title of the agreements for noise mitigation is recommended. Additionally, registration on title of an appropriate warning clause to notify purchasers that the applicable Class 4 area sound level limits for this dwelling are protective of indoor areas and assume of closed windows, such as warning clause F in Section C8.3 is also recommended; and
- any final agreements for noise mitigation as described in Part A of this guideline and all other relevant documentation are to be submitted to the MECP by the stationary source owner(s) when applying for an MECP approval. These agreements will be assessed during the review of the application for MECP approvals.”

The Project meets the definitions and requirements for a Class 4 area listed in Publication NPC-300:

- the Project site is close proximity to an area that contains existing and proposed mixed-use developments and is intended for new high-intensity developments.
- the Project site is in proximity to existing lawfully established noise generating sources.
- the Project site does not contain existing noise-sensitive land-uses.
- An appropriate, detailed noise impact assessment will be conducted as part of the zoning by-law amendment application (i.e., this study and report).

Therefore, it could be appropriate for the Municipal Authority to declare the development property as a Class 4 area, under their role as the land use planning authority, in the exercise of its responsibility and authority under the Planning Act.

The table below set out the exclusion limits from the guideline for continuous, non-impulsive sounds in Class 1 and Class 4 areas.

**Table 3: NPC-300 Exclusion Limits for Non-Impulsive Sounds ( $L_{eq}$  (1-hr), dBA)**

Time of Day	Class 1 Area		Class 4 Area	
	Plane of Window of Noise Sensitive Spaces	Outdoor Points of Reception	Plane of Window of Noise Sensitive Spaces	Outdoor Points of Reception
Daytime (7 am to 7 pm)	50	50	60	55
Evening (7 pm to 11 pm)	50	45	60	55
Night-time (11 pm to 7 am)	45	n/a	55	n/a

A comparison of the existing stationary source noise to the Class 4 limits are presented below for informational purposes.

**Table 4: Summary of Stationary Façade Sound Levels**

Building	Façade <sup>[1]</sup>	Stationary Sound Levels <sup>[2]</sup>		Applicable Guideline Limit	
		Day and Evening	Night	Day and Evening	Night
Building A - 3 storey Section	North	45	41	60	55
	East	36	40		
	South	48	41		
	West	46	41		
Building A – North Tower	North	44	41		
	East	43	40		
	South	49	43		
	West	48	43		
Building A – South Tower	North	42	37		
	East	35	37		
	South	49	43		
	West	48	43		
Building B	North	49	43		
	East	49	46		
	South	53	46		
	West	60	52		
Building C1	North	41	37		
	East	41	37		
	South	49	45		
	West	50	44		
Building C2	North	47	40		
	East	50	45		
	South	50	46		
	West	46	42		
Building C3	North	46	40		
	East	44	40		
	South	51	46		
	West	51	46		
Building C4	North	55	48		

Building	Façade <sup>[1]</sup>	Stationary Sound Levels <sup>[2]</sup>		Applicable Guideline Limit	
		Day and Evening	Night	Day and Evening	Night
	East	46	41		
	South	52	47		
	West	52	48		
Building C5	North	58	51		
	East	50	45		
	South	54	45		
	West	59	51		

**Notes:**

- All values are  $L_{eq}$  (1 hr) sound levels, in dBA.
- [1] Façade locations are identified on **Figures 6 and 7** of the SLR February 2021 Report.
- [2] Sound levels shown represent the worst-case impact along the identified façade.

Based on a preliminary assessment of stationary noise impacts, the predicted sound levels are predicted to meet the applicable Class 4 exclusionary guideline limits. No additional noise mitigation measures are required.

A warning clause is required for notification that the proposed development is located within an MECP NPC-300 Class 4 Area. An MECP NPC-300 **Type F** warning clause must be included in all agreements of purchase and sale or lease and all rental agreements.

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

## CONCLUSIONS AND RECOMMENDATIONS

A summary of the additional results are as follows:

- Replacement of the dryer fan system on the Petro-Canada carwash with something similar to those provided within. Given that communications to date have not resulted in an agreement to replace the existing fan, this may option may not be feasible, or
- Alternatively, a Class 4 designation can be sought for the proposed development and compliance can be demonstrated without the replacement of the carwash dryer fan system. A **Type F** warning clauses must be included in all agreements of purchase and sale or lease and all rental agreements.
- Other forms of abatement measures were determined to not be feasible for this potential development.

## CLOSING

This Report has presented a number of alternatives that have been evaluated as it relates to possible noise mitigation, including carwash dryer fan replacement, Class 4 land designation, acoustic barriers, site reconfiguration, and blank facades. For the reasons discussed in this letter, we find the only feasible noise mitigation is replacement of the existing fan, and alternatively, identification of the lands as a Class 4 designation.

Should you have any questions or comments, please feel free to contact me.

Yours sincerely,

**SLR Consulting (Canada) Ltd.**



**Aaron Haniff, P.Eng.**

Principal – Acoustics

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2683421 ONTARIO LIMITED

7449 MONTROSE ROAD

MODELLED EXCESS OF THE GUIDELINE LIMITS STATIONARY NOISE – DAYTIME/EVENING  
(MITIGATED)

True North



Scale:

1:900

METRES

Date: Jan 23, 2023

Rev 1.0

Figure No.

Project No. 241.30010.00000

**A**







2683421 ONTARIO LIMITED

7449 MONTROSE ROAD

MODELLED EXCESS OF THE GUIDELINE LIMITS STATIONARY NOISE – NIGHTTIME  
(MITIGATED)

True North



Scale:

1:900

METRES

Date: Jan 23, 2023

Rev 1.0

Figure No.

**B**

Project No. 241.30010.00000





40 Eglinton Avenue East, Suite 300. Toronto, ON M4P 3A2

January 30, 2023

Planning Division  
City of Niagara Falls  
4310 Queen Street, PO Box 1023  
Niagara Falls, ON  
L2E 6X5

Attention: Julie Hannah, Planner 2

Dear Ms. Hannah:

**Re: Noise Compatibility  
City File AM-2021-010  
Bayfield Realty Advisors  
7449 Montrose Road  
City of Niagara Falls, Ontario**

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We are the owner of the lands located at 7449 Montrose Road, which is subject to City File AM-2021-010. We are proposing to redevelop our lands for residential purposes as generally described in the materials prepared and submitted in relation to File AM-2021-010.

## **BACKGROUND**

In support of our application, we had a number of technical reports and studies prepared and submitted, including an Environmental Noise Assessment, dated February 2021, and authored by SLR Consulting. Additionally, in response to Staff comments, SLR Consulting prepared a Drawing Review & Addendum Letter for Environmental Noise—July 13, 2022 (“SLR Report”), which was submitted to the City for review.

In summary, we understand from our consultant that there is an existing stationary noise source located west of our site, that is part of existing gas bar (specifically the fan for the car wash) operations. Based on the findings of the SLR Report, we understand that we have two options to demonstrate compliance with sound levels on site, based on the proposed development:

- 1) At-source mitigation can be proposed in the form of the installation of a new dryer fan (with lower sound emissions) at the car-wash; or
- 2) The municipality can identify our lands as a Class 4 designation, without the need for off-site mitigation.

Either of the above scenarios would include other recommendations, such as warning clauses, design matters for outdoor amenity, amongst other matters. These matters are described in the SLR Report.

Staff provided circulation comments on our application, including the following as it relates to the Environmental Noise Assessment:

- *“The Addendum Letter for Environmental Noise recommends that the stationary surrounding uses can meet Class 1 guidelines with noise mitigation or designate Class 4. The Addendum report should provide what noise mitigation measures should be implemented rather than suggesting the City consider designating the site Class 4.”*
- *“A revised Environmental Noise Addendum is required that demonstrates all off- and on-site mitigation measures have been explored and exhausted prior to considering support of a Class 4 area designation.”*
- *“The exceedance to the sound limit threshold for the proposed development is triggered by a stationary commercial noise source (car wash facility). An outstanding option to implement an off-site mitigation measure remains as a viable recommendation from the original Noise Study that should be further explored. As such, Regional staff requires a Revised Addendum that provides for additional justification which states that all options for on- and off-site mitigation measures have been explored and exhausted. Specifically, the Revised Addendum must indicate that the Owner of the off-site noise source has been approached to explore whether an Agreement to implement the off-site noise mitigation measure as recommended within the original Noise Study is feasible.”*

## **SUMMARY OF CORRESPONDENCE**

After becoming aware of the options for mitigation, we have made multiple attempts to connect with the operator of the car wash establishment, in an effort to agree to at-source mitigation. Bayfield is willing to incur all costs associated with the upgrading of at-source mitigation, including the installation of the new fan. We have made attempts to convey this information to the operator, without success.

In summary:

- I visited the gas bar in January 2022 and spoke to the owner of the gas bar. I was advised that the fan was recently installed and is the quietest on the market, and that installation was completed approximately 1 year prior to the visit.
- I visited the gas bar in June 2022 and spoke with the attendant who advised the same as the January 2022 visit, that the fan is the most recent. I left a business card and asked for the operator to call me to discuss specifics of the fan, and whether they would be willing to allow us to pay for upgrading the fan, should there be a quieter model available.
- I visited the gas bar in September 2022 and spoke to the attendant on duty, I left her my business card and asked for operator to call me, for the same reasons as noted in June 2022.
- I have not been contacted by the owner to discuss this matter further, despite these attempts.



- Our consultant (SLR Consulting) visited the site on November 2, 2022 and spoke with the attendant on site. Our consultant was granted access to walk around inside of the car wash and was able to discuss operations. The attendant at the time was unsure when the fan updates were modified, and while our consultant took photographs of the fans, their model numbers were worn off and illegible.

## **NEXT STEPS**

We are willing to work with our neighbour and pay for the at-source mitigation, which we understand is a new model of fan. In our opinion, we have exhausted all reasonable efforts to advance this discussion with our neighbour; however, have had no success. We ask that the municipality consider reasonable next steps, which we suggest as follows:

- As we have been unsuccessful in our attempts to discuss the mitigation with our neighbour, we would welcome intervention by the Municipality to help with arranging such discussions; and
- If we are unable to receive commitment from our neighbour to upgrade their fans, we would ask that the municipality continue to process our application and consider a Class 4 designation as appropriate.

We trust that the enclosed information is satisfactory and we look forward to working with Staff to achieve a reasonable solution on this matter in a timely fashion. If you have any questions, or require further information, please do not hesitate to call.

Yours very truly,

*G. Cicconi*

Gabe Cicconi  
Director of Development & Construction