

Via email: jordand@fieldgateproperties.com

August 31, 2026

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**RE: Peer Review Response 2 – Preliminary Noise Study
2809 Townline Road, Twp of Puslinch ON (25021383)**

A Preliminary Noise Study (PNS), dated February 3, 2026, was completed by Thornton Tomasetti (TT), as part of the development application for the proposed commercial/retail development located 2809 Townline Road in the Township of Puslinch Ontario. At the request of the Township of Puslinch, the study was completed as a “preliminary” assessment of impacts.

Upon review, comments were provided by Valcoustics on behalf of the Township of Puslinch in the following letter:

- Valcoustics Letter regarding “Peer Review of Preliminary Noise Study, 2809 Townline Road, Puslinch Ontario, VCL File: 123-0460”, dated March 10, 2026 (Valcoustics Letter 1).

A response to the Valcoustics Letter was provided by TT in the following letter:

- TT Letter regarding “Peer Review Response – 2809 Townline Road, Twp of Puslinch ON (25021383), dated March 26, 2026 (TT Response Letter).

Upon review, revised comments were provided by Valcoustics on behalf of the Township of Puslinch in the following letter:

- Valcoustics Letter regarding “Peer Review of Preliminary Noise Study, 2809 Townline Road, Puslinch Ontario, VCL File: 123-0460”, dated May 27, 2026 (Valcoustics Letter 2).

In addition, an on-line meeting between Valcoustics (John Emeljanow) and TT (Marcus Li) was completed on July 2, 2026 (July Meeting) as well as August 18, 2026 (August Meeting).

The Peer Review comments requiring additional clarification from the Valcoustics Letter 2 are shown in italics, followed by the TT response.

Comment b) a.

Ambient sound levels, which have been used as the guideline limit, are provided in Table 2 and in Appendix E. TT have confirmed that the existing sound barriers have not been taken into account in calculating the ambient sound levels. Since the existing sound barriers will reduce the ambient and applicable guideline limits, the sound barrier must be accounted for in the assessment.

TT has stated that the height of the existing sound barrier was confirmed to be 1.5 m in height (3 panels that are each 0.5 m high). Review of the images on Google Earth seem to show 3 panels atop a precast panel along Jamieson Parkway. The precast panel appears to be replaced by a 4th panel along Townline Road. Further investigation is requested.

Response

On review, the pre-cast panel height was measured to range from 0 m to 0.33 m in height by TT personnel. As discussed during the July Meeting, the application of 0.25 m was considered acceptable to both Valcoustics and TT to account for the range in pre-cast panel height. A total height of 1.75 m will be included in future assessments of the ambient noise and facility impact noise.

Nevertheless, as the road and facility each have a line-of-sight to the worst-case 2nd floor windows, the inclusion of a 1.5 m or 1.75 m acoustic barrier should not change the results of the noise modelling. In addition, at-grade receptors would result in reduced noise levels from both ambient noise and facility truck noise (the most significant facility noise) with the increased acoustic barrier height. Therefore, inclusion of the existing noise barrier is not expected to affect the mitigation recommendations of the PNS.

As this is a preliminary study to support feasibility of the facility and line-of-sight to worst-case receptor locations is not impacted by an increase in the acoustic barrier height, the inclusion of a higher acoustic barrier would not support the in-feasibility of the current plan. An updated analysis is not considered necessary at this time.

The future Site Plan Control approval (Site Plan Control) noise assessment will include a more detailed analysis and include the effect of the acoustic barrier at a total height of 1.75 m, accounting for the variability of the pre-cast base.

Comment b) b.

The ambient calculations appear to have been done on the rear (east facing) facades of the dwellings. This likely is not the worst-case location. It is likely that the north-facing facades receive similar worst-case noise levels but a lower ambient sound level/guideline limit. TT has indicated that an updated assessment including for the existing sound barrier and for all facades of the residential dwellings will be completed.

Response

A revised analysis was included in response to **Comment b) b** of the TT Response Letter, including all façades of the worst-case buildings for the worst-case condition (night-time). As shown in those results, the ambient and facility noise impacts both decrease for the “sides” of the building with a predicted excess of 1 dBA.

As indicated in **Comment b) b** of the TT Response Letter, other facility sources can be adjusted to address this 1 dBA excess, such as mitigation of mechanical equipment. In addition, the overall impacts are also expected to decrease with the revised decrease in heavy truck volumes (see response to **Comment b) d** below).

This 1 dBA excess is minor and can be addressed with various means, such as mechanical equipment noise controls, re-distribution of truck volumes, and the reduction in truck volumes (see response to **Comment b) d** below). Therefore, the 1 dBA excess would not demonstrate in-feasibility of the current plan, and a revised assessment is not considered necessary at this time.

The future Site Plan Control assessment will be completed to include all facades of the worst-case receptors surrounding the facility to support compliance for the more detailed design of the development. The ultimate building design, scale and final uses would obviously have to conform.

Comment b) c.

What noise mitigation is proposed for the levelling plate impulses, what amount of noise reduction has been accounted for and what is the resulting levelling plate impulsive noise level?

Response

As indicated in the PNS, Section 5.4.1 – Concept A Mitigation Measures and Section 5.4.2 – Concept B Mitigation Measures, rubber isolation pads are to be included to address the dock leveling plate impulsive noise.

Valcoustics has raised concerns regarding the effectiveness of rubber pads for metal-banging impulsive noise of the dock leveling plate. As discussed in the July meeting, the sound level reductions from rubber floor isolation pads and dropping heavy weights was considered to be an acceptable proxy for the effect of rubber isolation pads on the dock leveling plate impulsive noise.

Based on historical TT measured sound levels for pre and post rubber floor installation, an overall reduction of approximately 6 dBAI was determined within the work-out room.

As the above reduction in noise is for an excessively heavy weight dropped from a high location (height of over 1 m), the reduction in noise is expected to be significantly better than the 6 dBAI mentioned above for the banging of the dock level plate lip with the trailer (no height difference). Nevertheless, as a conservatively low approximation of the rubber pad isolation effect, a 6 dBAI reduction was considered for this discussion.

Based on a 6 dBAI reduction in noise from a rubber isolation pad, the mitigated dock leveling plate impulsive noise sound power level (PWL) is expected to range from 98 to 101 dBAI (avg PWL of 99.5 dBAI). It should be noted the mitigated PWL has the potential to be lower, with the rubber isolation pad.

Nevertheless, in comparison to the impulsive noise from truck coupling (PWL = 111 dBAI), the mitigated dock leveling plate would be notably quieter and not have higher impacts than truck coupling. Based on a preliminary assessment of dock leveling plate impulsive noise at 99.5 dBAI for a single building, the worst-case impacts at the closest receptor is predicted to be 45 dBAI. With the inclusion of the PNS mitigation for truck coupling (ie. acoustic barriers and self-screening) the predicted dock leveling plate impulsive noise from a single building would be further reduced to levels below 45 dBAI at the worst-case surrounding receptors.

Therefore, with the inclusion of dock leveling plate mitigation and a conservatively low approximation of the noise reduction, dock leveling plate impulsive noise is considered feasible for the current site layout.

As part of the Site Plan Control noise assessment, a more detailed analysis will be completed to confirm compliance with the NPC-300 guideline limits based on a more finalized design and site-specific details. Any refinements or adjustments to the acoustic barriers are not anticipated to be significant and affect the feasibility of the facility and will have to conform.

Comment b) d.

We are concerned about the assumed average speed of 40 km/hr when trucks are operating on site. Using too high of a speed results in less time on site and reduced off-site sound levels. In addition, our review of the Site Trip Generation tables in the November 18, 2025 Traffic Impact Study presents peak hour truck volumes significantly higher than those used in the Noise Study. Clarification is requested.

Response

Response regarding average speed:

As discussed during the July Meeting, a global 25 km/h speed will be applied to the on-site truck routes, irrespective of the justification for higher speeds along portions of the site in the TT Response letter by GHD Ltd. (the transportation consultant for the project). As the truck volumes have decreased, the net effect of lowered truck speeds is countered by the fewer trucks applied.

Response Regarding Truck Volumes

A revised 2026 Traffic Study was prepared by GHD and entitled “2809 Townline Road Industrial/Commercial Development, Traffic Impact Study”, dated August 24, 2026 (2026 TIS). The 2026 TIS was prepared in response to reviewer comments, which updated the trip counts reflecting lower traffic than originally included in the PNS. The relevant excerpts are attached. The following table compares the PNS truck volumes and 2026 TIS truck volumes.

Table 1: Comparison of On-Site Truck Volumes – Plan A

Building	Period	Preliminary Noise Study (Trucks/hr)	Revised (Trucks/hr)	Change in dBA
Total (Buildings 1 to 6)	Day/Eve	123	28	-6.4
	Ngt	42	9.3	-6.5

Table 2: Comparison of On-Site Truck Volumes – Plan B

Building	Applicable Concept Plan	Period	Preliminary Noise Study (Trucks/hr)	Revised (Trucks/hr)	Change in dBA
Total (Buildings 1 to 8)		Day/Eve	209	37	-7.5
		Ngt	70.7	12.3	-7.6

Based on the above reduction in traffic volume only, predicted on-site truck traffic noise levels are expected to decrease by approximately 6.5 dBA for Plan A and approximately 7.5 dBA for Plan B.

Therefore, with the decrease in truck speed and the decrease in overall volumes for all buildings, a net decrease in on-site truck traffic sound level is anticipated to be approximately minus (-) 5 dBA for Plan A and approximately minus (-) 6 dBA for Plan B.

As the net result is a decrease in on-site truck traffic noise, a revision to the PNS is not considered necessary at this time. Future Site Plan Control application submissions will take into account the refined speeds and reduced on-site truck traffic volumes.

As part of the Site Plan Control noise assessment, a more detailed analysis will be completed with the revised traffic volumes to confirm compliance with the NPC-300 guideline limits. With the overall decrease in truck movement sound levels, compliance with the guideline limits would be met for on-site truck movement noise.

Comment b) e.

NPC-300 requires a predictable worst-case noise assessment. Assuming impulses are distributed across the entire site or a limited number of impulses at a single location do not reflect the predictable worst-case scenario. Other scenarios should also be considered. For example, it would be reasonable to assume that loading activities are only occurring at one of the warehouse buildings on the site. This would concentrate impulses closer to a receptor and likely result in somewhat higher noise impacts than those calculated by TT.

Response

Due to the difference in the criteria for continuous and impulsive noise sources, the predictable worst-case scenario for the facility may differ between the types of noise sources.

Continuous Noise

The full build-out of the facility is considered to be the predictable worst-case scenario for continuous noise, due to the high volume of traffic and total number of rooftop units. As the PNS was completed based on this condition, no additional analysis is considered necessary at this time for continuous noise.

Impulsive Noise

As requested by Valcoustics during the August Meeting, the worst-case scenario will be defined as the combined impulsive noise from a single building. This includes all impulsive noise sources averaged together for an overall impact. A 10:1 levelling plate impulse to truck coupling impulse ratio will be applied as an approximate ratio for the various degrees of loading activity.

A leveling plate impulse with rubber isolation pads is expected to have a sound power level of 99.5 dBAI (see response to **Comment b) c)**). With the averaging of 9 leveling plate impulses (PWL=99.5 dBAI) with a single truck coupling (111 dBAI), the resulting overall building impulsive noise PWL is approximately 103 dBAI.

Levelling plate impulsive noise (including rubber isolation pads) is predicted to meet the NPC-300 guideline limits for a single building at the worst-case receptors without acoustic barriers. With the inclusion of acoustic barriers, the sound levels are expected to be reduced a minimum of 5 dBAI. As the total combined PWL for leveling plate and truck coupling is approximately 3.5 dBAI higher than the levelling plate impulsive noise, the applicable guideline limits are expected to be met at the surrounding residential homes with the inclusion of the acoustic barriers currently recommended in the PNS.

No additional analysis is considered necessary at this time for impulsive noise. At Site Plan Control, a more detailed analysis will be completed to confirm compliance with the NPC-300 guideline limits based on a more finalized design and site-specific details. At this time, an assessment of individual buildings will be included as the predictable worst-case scenario for impulsive noise.

Comment b) f.

Assessment results that include the reefers are not included in Appendix E. Subsequent information provided by TT does not clarify whether refrigerated trucks will operate on the site.

Response

The PNS indicated that the operation of reefers while parked at the loading docks could not be reasonably mitigated for Buildings 1, 2 and 3, and building supplied cooling would be required. Therefore, analysis results for the reefer noise within the loading docks was not included in Appendix E.

Concerns were raised during the July meeting regarding truck pass-by noise for reefer trucks. As the truck pass-by noise assessment would result in an increased noise along the truck routes from the operating reefers, inclusion of reefers for Buildings 1 to 6 has the potential to increase truck route impacts by 4 dBA (i.e. Truck passby PWL of 100 dBA + average Reefer PWL of 101 dBA). This would be difficult to address with revised traffic volumes or changes in on-site truck patterns, and the decreased speed. At this time, the inclusion of reefers for Buildings 1 to 6 are no longer being considered as they would not comply with future Site Plan Control requirements.

Given the location for the Plan B Buildings 7 and 8 and current on-site truck route, the inclusion of Reefer Trucks is not anticipated to support in-feasibility of the Project as the PNS predicted impacts are at least 6 dBA below the applicable guideline limits at the worst-case receptors (POR2 and POR3).

As part of the Site Plan Control noise assessment, a more detailed analysis will be completed to confirm compliance with the NPC-300 guideline limits with the inclusion of reefer trucks for Buildings 7 and 8, based on a more finalized design and site-specific details. At this time, reefer trucks are no longer being considered for Buildings 1 to 6.

Conclusion

We trust the above responses are sufficient in addressing the comments provided for a preliminary zoning level assessment. Based on the responses above, the changes to the results and conclusions of the PNS are expected to be minor and can be addressed through site design, revised on-site truck operations and/or adjustments to the noise mitigation measures as part of the detailed Site Plan Control application.

Therefore, based on the current design, available information, and inclusion of mitigation measures, the development is considered feasible.

As part of the Site Plan Control noise assessment, a more detailed analysis will be completed to confirm compliance with the NPC-300 guideline limits based on a more finalized design and available site-specific details.

Should you have any questions or concerns, please do not hesitate to contact us to further discuss.

Yours Truly,

Thornton Tomasetti

Marcus Li, P.Eng.
Vice President



Reviewed by:
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DISCLAIMERS

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, with the exception of the local municipality or region as approval authority.

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 consultant.

On request, TT will provide a proposal for additional work such as to peer review mitigation 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.

Attachment A: Excerpts from the 2026 Traffic Impact Study



2809 Townline Road Industrial/Commercial Development

Traffic Impact Study

Fieldgate Properties

24 August 2026

Saturday peak hour generation will consist of 60% of the p.m. peak hour trip generation which has been approved for similar traffic studies in the County.

Additionally, as per the pass-by rates published by ITE, pass by rates were applied where applicable to the site traffic that is redistributed among the site accesses. The pass-by rates were applied to the generated trips for big box retailer and the gas station uses based on the ITE published document.

Table 2 summarizes the estimated trip generation for Site Plan A.

Table 2 Total Site Trip Generation for Site Plan A

Peak Hour Trip Generation											
Land Use Code	GFA	Parameters	Weekday AM			Weekday PM			Saturday Midday		
			In	Out	Total	In	Out	Total	In	Out	Total
Industrial Park (LUC 130) Buildings 1 - 6	853, 233.65 ft² GFA	Trip Rate	0.222	0.065	0.287	0.082	0.212	0.294	0.082	0.212	0.294
		Trip Ratio	77%	23%	100%	28%	72%	100%	28%	72%	100%
		Passenger Vehicle Trips	175	44	219	54	169	223	42	109	151
		Truck Trips	14	12	26	16	12	28	0	0	0
		New Trips	189	56	245	70	181	251	42	109	151
Retail Component (LUC 820 Shopping Centre)	162, 427.40 ft² GFA	Trip Rate	0.887	0.542	1.428	2.192	2.284	4.476	2.943	2.826	5.769
		Trip Ratio	62%	38%	100%	49%	51%	100%	51%	49%	100%
		Gross Trips	144	88	232	356	371	727	478	459	937
		Pass-by Trips	0	0	0	-106	-106	-212	0	0	0
		Adjusted Trips	144	88	232	250	265	515	478	459	937
Gas Station (LUC 944)	24 Vehicle Fueling Stations	Trip Rate	5.667	5.667	11.333	7.083	7.167	14.250	6.250	5.917	12.167
		Trip Ratio	50%	50%	100%	50%	50%	100%	51%	49%	100%
		Gross Trips	136	136	272	170	172	342	150	143	293
		Pass-by Trips	-86	-86	-172	-98	-98	-196	-72	-72	-144
		Adjusted Trips	50	50	100	72	74	146	78	71	149
Total Passenger Vehicle Trips			455	268	723	580	712	1292	670	711	1381
Total Truck Trips			14	12	26	16	12	28	0	0	0
Total Trips			469	280	749	596	724	1320	670	711	1381
Total Pass-by Trips			-86	-86	-172	-204	-204	-408	-72	-72	-144
Total Trips (Pass-By Adjusted)			383	194	577	392	520	912	598	639	1,237

The **Table 3** below summarizes the estimated trip generation for site plan B.

Table 3 Site Trip Generation - Site Plan B

Peak Hour Trip Generation											
Land Use Code	GFA	Parameters	Weekday AM			Weekday PM			Saturday Midday		
			In	Out	Total	In	Out	Total	In	Out	Total
Industrial Park (LUC 130) Buildings 1 -8	1,273,241.44 ft² GFA	Trip Rate	0.222	0.065	0.287	0.082	0.212	0.294	0.082	0.212	0.294
		Trip Ratio	77%	23%	100%	28%	72%	100%	28%	72%	100%
		Passenger Vehicle Trips	214	52	266	68	213	279	53	137	190
		Truck Trips	20	18	38	21	16	37	0	0	0
		New Trips	234	70	304	89	229	318	53	137	190
Total Site Trips			234	70	304	89	229	318	53	137	190

The proposed Site Plan B development is expected to generate a total of 304 two-way site trips during the a.m. peak hour consisting of 234 inbound and 70 outbound trips. During the p.m. peak hour, it is expected to generate 318 new two-way site trips consisting of 89 inbound and 229 outbound trips. During the Saturday peak hour, it is expected to generate 190 new two-way site trips consisting of 53 inbound and 137 outbound trips.

5.3 Site Traffic Distribution and Assignment

The site generated traffic for the subject site was distributed based on the existing travel patterns at the study intersections and a review of the 2022 Transportation Tomorrow Survey (TTS) data. The TTS derived data can be found in **Appendix G**

The directional distribution used for site generated traffic for Site Plan A is summarized in **Table 4** and **Table 5**. The distribution for Site Plan B is summarized in **Table 6**.

Table 4 Site Traffic Distribution Industrial– Site Plan A

Peak Period	Direction	North (Townline Road)	South (Townline Road)	East (Ellis Road)	West (Ellis Road)	West (Jamieson Parkway)	West (401 EB Off Ramp)	East (401 WB Off ramp)	West (401 WB On Ramp)	West (401 EB On Ramp)
AM	Inbound	10%	20%	10%	5%	0%	30%	25%	0%	0%
	Outbound	10%	20%	10%	5%	5%	0%	0%	25%	25%
PM	Inbound	10%	20%	10%	5%	0%	30%	25%	0%	0%
	Outbound	10%	20%	10%	5%	5%	0%	0%	25%	25%
Sat	Inbound	10%	20%	10%	5%	0%	30%	25%	0%	0%
	Outbound	10%	20%	10%	5%	5%	0%	0%	25%	25%