



January 10, 2022

Jo-Anne Rudy, Committee Clerk
City of Burlington
426 Brant Street, PO Box 5013
Burlington, ON L7R 3Z6

Via email: jo-anne.rudy@burlington.ca;

**Re: Major Transit Station Area – Area Specific Recommended Preferred
Precinct Plans (Report Number: PL-02-22)
Comment Letter on Behalf of CN Rail – Aldershot Yard
January 11, 2022 Community Planning, Regulations and Mobility
Committee Meeting**

Dear Ms. Rudy,

We are pleased to have the opportunity to participate in the City of Burlington's Major Transit Station Area (MTSA) Area-Specific recommended Preferred Precinct Plans. It is our understanding that the land use planning exercise has been on-going for a period of time and that additional work remains outstanding, and as such the final policy direction for the MTSA's will not be determined at this committee meeting. We have had the opportunity to review the staff report and associated materials being presented to Committee and wish to provide comments on the material provided to date as Committee considered the endorsement of the various MTSA plans and proposed policy directions before them.

There is an established and growing Provincial emphasis on promoting the movement of people and goods by rail and integrating multimodal goods movement into land use and transportation system planning. In particular, our focus is on policy and/or infrastructure initiatives with potential implications to existing and/or future CN Rail facilities, operations and infrastructure. Provincial policy indicates that planning for land uses in the vicinity of *rail facilities*, as defined in the Provincial Policy Statement, 2020 (PPS), be undertaken in such a way that the economic function and long-term operation of rail systems is protected. Provincial policy also sets out that sensitive land uses be appropriately designed, buffered and/or separated from rail facilities. More specifically, the PPS requires that sensitive land uses be planned and developed to avoid *major facilities*, which, by definition, includes *rail facilities*, and where avoidance is not possible, a needs and alternative location assessment needs to be completed to justify the introduction of sensitive land uses in

addition to the requirement to minimize and mitigate potential adverse effects from odour, noise and other contaminants.

Provincial guidance on ensuring land use compatibility between industrial and sensitive land uses is provided by the D-6 Guidelines, as developed by the Ontario Ministry of Environment, Conservation and Parks (MECP). It is our opinion that rail yards would be classified by the D-6 Guidelines as Class III Industrial Facilities because of their scale, sound and vibration profile, and continuous operation. The D-6 Guidelines recommend that no incompatible development should occur within 300 metres of a Class III facility. In addition to the provincial policy test above, a feasibility analysis is required for any proposed sensitive land use within 300 metres of a Class III facility. The Province of Ontario has issued Freight-Supportive Guidelines that also speak to the need for appropriate land uses around freight facilities.

We note that the Province was previously consulting on new land use compatibility guidelines that integrate the Province's new approach to land use compatibility, but this process was put on hold. CN Rail reserves the right to update these comments accordingly once those guidelines are finalized. It is our position that the City needs to incorporate policies and complete additional studies with respect to the MTSA Precinct Plans that reflect the new PPS.

About CN Rail, Railway Noise and other Adverse Effects

CN Rail is a federally regulated railway company, and is governed by various federal legislation, including the *Canada Transportation Act* (CTA) and the *Railway Safety Act* (RSA), among others. Therefore, CN is not governed by provincial legislation, such as legislation that requires obtaining an Environmental Compliance Approval for emissions into the Environment. Therefore, CN Rail, must be assessed differently when considering land use planning impacts than provincially regulated industries. The CTA requires federally regulated railway companies to only make such noise and vibration as is reasonable. The test of reasonableness under the CTA takes into consideration the railway company's operational requirements and its level of service obligation under the CTA, as well as the area where the construction or operation takes place. It is important to understand that there is no specific decibel limit for CN operations contained in federal guidelines related to the construction or operation of rail facilities. The Canadian Transportation Agency is the federal body that assesses the reasonableness of noise associated with the construction or operation of a federal railway company. Those federal guidelines clearly state that, while the Agency may take provincial and municipal noise and vibration guidelines into account in its deliberations, the Agency is not bound by those guidelines.

Rail Proximity Guidelines are available at the following: <https://www.proximityissues.ca/>

Guidelines for the Resolution of Complaints Over Railway Noise and Vibration are available at the following: https://otc-cta.gc.ca/sites/all/files/altformats/books/guidelines-noise-and-vibration_e_0.pdf

As the City of Burlington is aware, CN Rail owns and operates the Aldershot Yard located adjacent to the Aldershot GO Station and is therefore impacted by the proposed land uses in the Aldershot GO MTSA.

Preliminary Comments and Concerns

We note the following comments and concerns with the preferred Aldershot GO MTSA concept and (MTSA) policy direction:

1. Request revised Recommendation Endorsement in Principle of additional Residential near Aldershot Yard

The staff report is requesting that the City of Burlington “endorse in principle” the recommended precinct plans which include identifying mid-rise residential in vicinity of the Aldershot Yard. However, Section 4.4 of the staff report notes that changes to precinct heights, boundaries and uses may still occur once on-going technical work is complete.

It is our opinion based on the comments below that the recommendation be revised to state that “*Endorse in principle, subject to on-going technical work related to the proposed land uses, that the recommended Preferred Precinct Plans for the Downtown UGC/ Burlington GO MTSA, Appleby GO MTSA, and Aldershot GO MTSA (December 2021) as detailed in Appendix A of community planning department report PL-02-22 (Interim Report) and Appendix B of community planning department report PL-02-22.*”

CN’s concern is that the proposed Precinct Plan for the Aldershot GO MTSA with the introduction of additional residential uses is not consistent with the 2020 PPS, nor with the results of the technical studies already completed to date before Committee. As such, Committee should not endorse the Precinct Plans as proposed, or only endorse them with the acknowledgement that more work is outstanding, and that the plans will evolve.

2. Inconsistency Between Interim Report Findings, the Staff Report and the Proposed Precinct Plan

As a general concern, the Major Transit Station Area, Area Specific Planning Project – Interim Report (Final) dated December 2021 (“Interim Report”) findings note that the Land Use Compatibility Review is still on-going. The Interim Report references the typical separation requirement of 300 m for sensitive land uses from freight rail yards. It also references that sensitive land uses should be setback from active rail lines. However, the Interim Report makes no reference to the fact that land use recommendations in the Precinct Plans could evolve based on the report findings. Furthermore, the Interim Report does not recommend any non-sensitive land uses to act as a transition to the yard and instead proposes sensitive land uses to the south of the Aldershot Yard. In lieu, the precinct plans identify

mid rise residential as the recommended land use in vicinity of the south side of the Aldershot Yard abutting the rail line. The Staff Report, however, with recommending endorsement in principle, does reference that the land uses may still evolve.

This inconsistency is a concern to CN and it is recommended that the recommended Precinct Plans be modified to address this concern by noting that the final land uses within 300 m of the freight rail yard are “To Be Determined.”

3. Demonstration that Avoidance is not possible and the Needs and Alternative Location test per PPS Requirements

The 2020 PPS has specific policy requirements with respect to development near Major Facilities, such as Aldershot Yard. While the staff report references that the Land Use Compatibility assessment is underway, the Interim Report findings do not appear to address or speak to the land use compatibility requirements in their entirety, as discussed below:

- a) There is not a clear assessment that sensitive land uses near Major Facilities cannot be avoided per Section 1.2.6.1 of the PPS. The 2020 PPS establishes avoidance as a first principle to address land use compatibility conflicts. At present the lands in vicinity of Aldershot GO are designated for Employment uses. Within the City of Burlington both employment growth and residential growth is anticipated to occur over the lifespan of the Growth Plan. Within an MTSA, the Growth Plan does permit and encourage the development of high density non-sensitive land uses. The Interim Report references that the MTSAs are intended to accommodate a significant share of employment growth. The Interim Report also notes that the Aldershot GO Station has the potential to exceed the ROPA 48 target by 50 persons and jobs/ha, suggesting that there is room to adjust land uses and still meet Growth Plan objectives. As such, there does not appear to be any justification for not identifying the lands in vicinity of the Aldershot yard (both the north and south side) for non-sensitive land uses that would meet the avoidance policy test per the PPS.
- b) The Interim Report, while it does mention the 2020 PPS requirement for avoidance and the need to mitigate negative impacts, it does ***not*** reference the needs and alternative location tests for Land Use Compatibility which are equally important policy components. This is a key omission. In summary, Section 1.2.6.2 notes that where avoidance is not possible that in addition to the mitigation of impacts that a demonstration of need is required for the sensitive land use and the determination that there is no reasonable alternative location for the sensitive land use. In this case, the Interim Report does not reference this policy requirement. It is our opinion that this assessment needs to be completed on a municipal wide basis. As stated above, based on the Interim Report findings, Aldershot GO has more density than is “needed” to meet Growth Plan targets. Furthermore, it is not clear that in the City of Burlington that there is no reasonable alternative location in the entire City to

locate mid-rise residential other than near the south side of the Aldershot Yard or why the MTSA concepts could not be modified to shift density and/or land uses to protect the yard.

4. Concerns Regarding the Pre-Feasibility Noise and Vibration Study

CN Rail has requested that Jade Acoustics conducted a peer review of the Pre-Feasibility Noise and Vibration Study prepared by Wood (August 2021). Jade Acoustics' review is attached to this letter and identifies significant concerns with the study. One concern of note is that the study appears to mischaracterize certain noises from the yard as transportation noise source when they are in fact stationary noise sources. In addition, based on the anticipated decibel levels, the mitigation required for sensitive uses from the stationary sources would have significant influence on building design and the public realm (i.e. blank walls/single loaded corridors) and the appropriateness of sensitive land uses near the yard.

Jade Acoustics notes that the conclusion of the report is appropriate from a noise perspective, but not complete. Given the significant noise predicted, leaving mitigation to subsequent approvals may result in land use permissions that cannot be implemented or are not desirable land use planning outcomes. This is particularly the case where the proposed Precinct Plan identifies lands for mid-rise residential land uses in the vicinity of the Aldershot Yard.

5. Land Use Compatibility Not Completed, including Air Quality

As the Interim Report and Staff Report note in a few places, the Land Use Compatibility study is still on-going.

However, in absence of that review, the Interim Report anticipates conclusions that are potentially concerning. Section 6.1.5 states that Land Use Compatibility will be addressed at the Development Stage. While correct, this is an incomplete assessment of the Land Use Compatibility requirements in the PPS and is not consistent with provincial Freight Supportive Guidelines (as an example) which recommend transitional land uses from heavy industrial uses. As the report notes, the PPS requires that sensitive land uses and Major Facilities avoid each other. However, the report does not reference that this is the first principle, and that only if avoidance is not possible then the municipality must consider the need for the sensitive land use, alternative locations of the sensitive lands in addition to minimizing or mitigating adverse effects to proposed sensitive use and impacts on the industry.

Furthermore, the Interim Report states that "A key output of the Land Use Compatibility Review that is currently underway is a framework for further technical studies to be completed by development proponents to demonstrate that compatibility between the existing industrial uses and the proposed sensitive land

uses can be achieved.” (pg. 76) Such a conclusion is of concern to CN for a variety of reasons, as stated below:

- a) Based on the review by Jade Acoustics, the decibel levels already anticipated will have fundamental implications on the proposed land use/community design which should be addressed as part of determining the appropriate land use in the vicinity of the yard.
- b) Such a conclusion does not consider the PPS requirements to assess the need and alternative locations as part of the development approval process. Such a conclusion only focuses on mitigation which is an incomplete view of current Provincial policy. In addition, should the Precinct Plan support residential or other sensitive land uses as the sole land use, developers will then be challenged to assess the alternatives' location test when, through this planning exercise, the City has already identified numerous other reasonable alternative locations where sensitive land use development could occur in the City.
- c) It is important that the City understand the design implications to address land use compatibility and whether those design implications are appropriate for this location when alternative non-sensitive land uses would be more appropriate.
- d) The preliminary results of the Air Quality study noted in the Interim Report do not make it clear that exhaust from locomotives in the rail yard was reviewed and assessed. However, it does note that Class II and III land uses may result in incompatibilities with any future sensitive land uses.

6. Separation of Sensitive Land Uses from Aldershot Yard

Section 6.1.5 of the Interim Report states that within 300 m of an active heavy rail right-of-way that a land use compatibility assessment shall be required. This is correct; however, it does not reference freight rail yards which require such an assessment within 1 km of the freight rail yard and no sensitive land uses within 300 m of the freight rail yard. The setback from freight rail yards is referenced in Section 6.2.4.3 of the report, however, there is no clear rationale as to why sensitive land uses are still recommended within 300 m of the freight rail yard.

CN requests a clear policy direction that no new sensitive land uses be located within 300 m of the freight rail yard; this should include a land use designation for that area that does not permit sensitive land uses so it can buffer other existing and or proposed sensitive land uses.

7. Policy Directions Summary Table

Section 6.5 of the Interim Report provides a summary of policy direction. With respect to Aldershot GO, the direction proposed is for “consideration for mitigation



measures from the CN works yard...". It is our opinion that this direction is inadequate, in addition to the reasons already stated above and referenced by Jade Acoustics, the MTSA policies and land use schedule will outline the City of Burlington's preferred development approach for this area. As outlined by the PPS, mitigation measures alone do not address Land Use Compatibility, the default approach is avoidance of land use compatibility issues and that appropriate uses near the Major Facilities that are compatible with the Major Facilities need to be considered first.

Conclusion

We would like to thank you again for the opportunity to participate in the City of Burlington MTSA Review. We look forward to continuing to work with the City of Burlington throughout this process to ensure that this important industry is protected in the land use framework in Ontario. Please forward all future documents to proximity@cn.ca and the undersigned.

Thank your time and we look forward to receiving further information on this initiative.

Yours very truly.

WSP CANADA INC.

A handwritten signature in black ink that reads "C.B. John-Baptiste". The signature is written in a cursive, flowing style.

Chad B. John-Baptiste, MCIP, RPP
Director, Planning – Ontario

Copy: Eric Harvey, CN Rail
Ms. Katarzyna Sliwa, Dentons Canada LLP
Jenna Puletto, City of Burlington

Encl: Jade Acoustics Pre-Feasibility Noise and Vibration Study Per Review – January 6, 2022

January 6, 2022

CN
c/o WSP
1600 Boulevard Rene-Levesque West
11th Floor
Montreal, Quebec
H3H 1P9

Attention: Mr. Ashkan Matlabi/Ms. Saadia Jamil

VIA E-MAIL
proximity@cn.ca

Ladies and Gentlemen:

Re: Pre-Feasibility Noise and Vibration Study
Peer Review
Burlington Mobility Hubs
City of Burlington
Our File: 21-237

As requested, Jade Acoustics Inc. has reviewed the *Pre-Feasibility Noise and Vibration Study* dated August 21, 2021, prepared by Wood Environmental & Infrastructure Solutions a Division of Wood Canada Limited (Wood) on behalf of the City of Burlington, through Brook McIlroy Inc.

The City of Burlington is reviewing the land-use options as it approaches full build-out of the urban area. The purpose of the work conducted in the Wood report is to assist in the development of area specific land-use plans for each mobility hub. The Wood report was prepared to evaluate the noise and vibration issues, on a preliminary basis, for the noise and vibration sources located within and around the Burlington, Aldershot and Appleby Mobility Hub areas.

As noted above, three sites are assessed in the Wood report:

Burlington Mobility Hub – located in proximity to the Burlington GO Station. This hub is located in the area from the Queen Elizabeth Way (QEW) to Graham's Lane and Drury Lane to the Hydro Corridor.

Aldershot Mobility Hub – located in proximity to the Aldershot GO Station and the CN Aldershot Rail Yard. This hub is located in the area from Highway 403 to Gallagher Road and Plains Road to Daryl Drive.





Appleby Mobility Hub – located in proximity to the Appleby GO Station. This hub is located from the QEW/Highway 403 to the north to the Centennial Bikeway to the south.

We have reviewed the report with respect to noise/vibration issues related to rail traffic and CN. Other sources of noise/vibration have not been evaluated as part of this peer review.

The CN, the Federation of Canadian Municipalities (FCM) and Railway Association of Canada (RAC) "Guidelines for New Development in Proximity to Railway Operations" (RAC/FCM guidelines) and the Ministry of the Environment, Conservation and Parks (MOE) guidelines, including NPC-300 and the D-Series Guidelines, have been used in this review. No original analyses have been conducted.

We find that the Wood report has generally addressed the noise and vibration issues appropriately in accordance with the RAC/FCM, CN and MOE guidelines, with the noted exceptions summarized below. These noted exceptions are significant in that they may alter the recommendations with respect to the land-uses to be located adjacent to the rail facilities, in particular, the Aldershot Rail Yard.

1. The vibration assessment was conducted using the FTA approach to predict the vibration levels at the future developments. The resulting predictions are significant and indicate that residential developments may be difficult to build in proximity to the rail lines as significant mitigation will be needed to meet the guidelines. As the purpose of this assessment is to assist in determining the locations of the various land-uses, we recommend that on-site vibration measurements be conducted to verify the predictions, prior to the approval of sensitive receptors this close to rail operations.
2. The report references the 2006 FTA. For completeness, it is noted that the most current FTA document is dated September 2018. The use of the 2018 FTA document is not expected to change the results.
3. The predicted sound levels due to the through train operations are significant and will result in significant mitigation in the form of building orientation, sound barriers, window and exterior wall upgrades. The report acknowledges that upgraded façade components will be needed, but the magnitude of the upgrades should be acknowledged in the report. In some cases, it may not be feasible to mitigate the sound levels to achieve the indoor sound level limits for transportation sources. This is important to address at this stage of development as land-use decisions are being made.



4. The report addresses shunting activities in the Aldershot Yard, but no other yard activities such as idling locomotives have been assessed. CN should be contacted to obtain information regarding any other operations taking place in the Aldershot Yard or any future operations that may be conducted in this rail yard.
5. The report includes an analysis of the potential shunting activities at the Aldershot Yard. There is no information included in the report regarding the sound power level that was used in the analysis or the distance between the source and the receivers. The predicted sound levels summarized in Table 5.2-4 appear to be quite low if the shunting activities are taking place in close proximity to the proposed sensitive receptors.

Shunting activities should be assessed using L_{1m} (1-hr) with no correction for time/duty cycle and not Leq (1-hr). This may be the reason for the reported low sound levels due to the shunting activities. Details regarding how shunting was assessed should be provided.

Further, there seems to be a discrepancy between Table 5.2-4 and the summary of results in Section 6.2 (page 12) of the report. Section 6.2 indicates that the sound level limits in NPC-300 due to shunting are exceeded by 2-24 dB in the daytime, and by 7-29 dB in the nighttime; however, based on the results summarized in Table 5.2-4, there are 2 to 3 dB exceedances during the daytime and up to 8 dB exceedance at night.

6. Section 6.2 also indicates, *"Possible mitigation options are similar to those recommended for road/rail traffic noise; a noise barrier at the right of way of the rail line, and upgraded building components/glazing at building facades."*

This is not correct as mitigation at the receptor (central air conditioning, upgrade building components) similar to those for transportation sources, are not permitted to mitigate stationary sources. In accordance with NPC-300, as the shunting activity is a stationary source, this type of mitigation is not permitted.

In order to mitigate stationary sources, the permitted mitigation, in accordance with the MOE guidelines, includes:

- Increased setback;
- Sound barriers;
- Enclosed Noise Buffers (ENB);
- Mitigation at the sources;



- Blank walls, that is, no windows into sensitive spaces;
- Single loaded corridors for mid-rise/high-rise buildings;
- Intervening uses to increase the setback and act as sound barriers; and/or
- Designate the residential site as Class 4.

However, as the magnitude of the sound level due to shunting activities is high, the mitigation approach to address this type of source should be determined at an early stage of development as the mitigation requirements may not be feasible or desirable at a later stage.

7. The report notes in Section 6.2, *"However, it is important to note that a minimum setback distance of 300 m for dwellings are required for railway yards, which would extend past the study area boundary when measured perpendicular to the yard."* This is noted, however, it does not appear that it is a recommendation for the land-uses adjacent to the Aldershot Yard.
8. The report recommends the use of Class 4 to address stationary sources. This is a permitted approach in accordance with NPC-300. There are several concerns with this approach with respect to rail sources:
 - As CN is not subject to any provincial requirements with respect to noise and vibration and therefore does not need an ECA, the use of Class 4 is not of any benefit to CN.
 - The sound levels due to rail activities such as shunting, idling may be significant and significantly in excess of the Class 4 sound level limits. It should be determined at this stage if mitigation is feasible because it may be necessary to not include sensitive uses directly adjacent to the Aldershot rail yard.

Conclusions/Recommendations

The Wood report concludes:

"Detailed noise and vibration studies should be conducted for each noise-sensitive land-use as part of the land-use planning and approvals process for specific development applications. The studies should address both transportation and stationary noise and vibration impacts. The studies should be conducted in accordance with the requirements of the NPC-300 guidelines and should consider Class 4 designations, upgraded building components and strategic OLA placement."

This conclusion is appropriate, but not complete. The acoustic impact, both noise and vibration, is predicted to be significant. Therefore, it may not be feasible to implement mitigation at a later date or the required mitigation may not be desirable.

As this is an assessment to assist the City of Burlington in determining the land-uses that should be located adjacent to significant noise sources a more detailed review that includes the use of increased setbacks and/or the use of non-sensitive intervening uses should be assessed at this stage of planning, particularly for the lands adjacent to the Aldershot Rail Yard.



Yours truly,

JADE ACOUSTICS INC.

Per:


Dalila C. Giusti, P.Eng.



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