

# Consultation on the City of Ottawa O-Train Trillium Line extension project (Case No. 17-05428)

## Submissions of the National Research Council Canada

**WHEREAS** the City of Ottawa submitted to the Canadian Transportation Agency (the “CTA”) an application for approval to construct a railway line under Section 98 of the *Canada Transportation Act*;

**WHEREAS** the CTA is requesting public comments on the application by the City of Ottawa for approval to construct a railway line as part of its Stage 2 O-Train Trillium Line Project;

**WHEREAS** the National Research Council Canada (“NRC”) is a federal departmental corporation incorporated pursuant to the *National Research Council Act*;

**WHEREAS** NRC operates the Automotive and Surface Transportation Research Centre located at 2320 Lester Rd. in Ottawa, Ontario;

**AND WHEREAS** NRC’s operations will be directly impacted by the Stage 2 O-Train Trillium Line Project;

**CONSEQUENTLY** NRC submits the following for consideration by the CTA in relation to its consideration of the City of Ottawa’s Stage 2 O-Train Trillium Line Project.

### Background

1. Since 1965, Canadian businesses, the Canadian Railway industry and other Canadian federal government departments have relied upon NRC to provide vital and exclusive rail testing and research services at its rail testing and research facility located at 2320 Lester Rd. in Ottawa (“Lester Road Facility”).
2. NRC is dependent on the heavy rail access link that connects NRC’s Lester Road Facility to the broader North American railway network.

### Importance of NRC’s Lester Road Facility

3. NRC's Lester Road Facility performs research and certification work that is unique in Canada. NRC performs regimented tests that are designed to determine the safety of new and existing freight car designs.
4. Ensuring unimpeded rail access to NRC’s Lester Road rail facilities has allowed NRC research staff to conduct first-in-Canada, and in some cases, world-leading research, which includes the ability to monitor and investigate the performance of full-size rail cars. The facility offers the ability to conduct tests on full-scale, loaded freight cars in

a controlled environment, in which variables such as temperature and humidity can be controlled and properly isolated.

5. Pursuant to Transport Canada's Railway Freight Car Inspection & Safety Rules, every new freight car must be designed and constructed in accordance with the "Association of American Railroads (AAR) Manual of Standards and Recommended Practices" (or to an equivalent standard to provide for safe operation of freight cars).
6. Several of the testing facilities located at NRC's Lester Road Facility offer the only means in Canada to test rail cars according to these AAR requirements. NRC's Lester Road Facility performs testing that allows rail car manufacturers to certify compliance with the following standards: Transport Canada, American Association of Railroads, American Bureau of Shipping, Bureau Veritas and Military Standard.
7. Consequently, NRC's Lester Road Facility is of vital importance to the Canadian rail industry. NRC requires additional information as outlined below in order to properly understand how the City of Ottawa's proposed O-Train Trillium Line extension project may affect NRC's Lester Road Facility.

**How would the proposed railway lines affect your interests? Describe any expected benefits or concerns you have with the proposed line.**

**A. Lester Road Crossing**

8. In section 3.5 of the City of Ottawa's application under the heading of "Grade Separations", three separate options are outlined for the Lester Road crossing.
9. The three options are written as follows in the City's application:

"Lester Road

Three alternatives were developed for the grade separation at Lester Road. The identified footprint of all three options could be reduced by retaining walls at an additional cost.

Option 1:

All Tracks and MUP over Road would carry the Trillium Line and freight tracks, as well as the MUP, over Lester Road. As the bridge would be designed to freight standards (a substantial structure with large embankments), it would have a significant visual impact and 1.1 ha of footprint impact to the adjacent Lester PSW.

Option 2:

Trillium Line Tracks and MUP over Road, Freight at Grade would carry the Trillium Line track(s) and MUP over Lester Road, while the freight rail track would cross the road at grade. A retaining wall would be required on the west side of the structure to eliminate the embankment on that side and allow the freight line to remain at grade within the existing right-of-way.

Occasional, brief road closures would be required to permit freight passage to the NRC facility south of Lester Road. The overpass structure would be smaller than in Option 1, as it would not need to accommodate freight, with an estimated 0.8 ha of footprint within the Lester PSW; however, the overall cost of the structure is approximately 15% higher than Option 1 due to the cost of the retaining wall.

Option 3:

Road over Rail would carry Lester Road over the Trillium Line track(s), freight rail track and MUP. This option would require a taller structure than Options 1 or 2, as clearance requirements over freight rail are higher than clearance requirements over roads. This option would have an estimated 3 ha of footprint impact within the Lester PSW, and would require a road detour during construction.”

10. Limited details are available for the three options outlined, and consequently, the exact impacts of these proposed options on NRC’s Lester Road Facility are unclear.
11. For options 1 and 2 (option #2 being recommended by the City of Ottawa), bridge clearances must be sufficiently high to ensure that deliveries of large heavy vehicles on flat beds to NRC’s Lester Road Facility are possible in the future.
12. For option 3, the design of the structure could limit the movement of heavy freight rail equipment such as excess height autorack cars and five (5) unit deep well cars.

## **B. Lester Road Crossing and Hours of Movement of NRC Rail Cars**

13. In section 6 of the City of Ottawa’s application under the heading of “Operational Activities”, the following is stated:

“Crossings

As noted in Section 5.0, on the Bowesville Subdivision, grade separations will be constructed at Leitrim, Earl Armstrong, Bowesville and Limebank Roads to provide separation of the rail operations from the road crossings in these areas.

Additionally, an at-grade crossing will remain along the alignment at the Lester Road crossing (National Research Council spur track). The Lester Road grade crossing will only be used for occasional freight movements to and from the NRC facility and during non-revenue hours.”

14. NRC is concerned about how freight movements “during non-revenue hours” will operate. There is a lack of details on this key point, which directly affects NRC’s Lester Road Facility.
15. NRC is concerned about the prospect of only being able to receive rail car deliveries “during non-revenue hours” and what expectations will be placed on NRC to enable the receipt of rail cars during the proposed delivery window. NRC requires considerable more information on this proposal in order to properly understand how this will affect NRC operations.

### **C. Proposed Construction Timeline**

16. In section 1.3 of the City of Ottawa’s application under the heading of “Construction Timelines”, the following is written:

“The construction of the Trillium Line Project is expected to begin in Q2 2019, with passenger service operation anticipated to commence in 2021. The Trillium Line Project and related works is being tendered as a full Public-Private Partnerships (P3) Design-Build-Finance-Maintain (DBFM) contract with Project Agreement (PA) contract award expect in Q1 2019. The contract includes a 27-year maintenance contract with an end date on or near 2048. Capital Railway, on behalf of the City of Ottawa, will continue to operate the service.”

17. NRC is concerned that it may not be able to receive heavy vehicle delivery via rail or road during some phases of the proposed construction. The inability to receive heavy vehicle delivery during construction would have a severe and lasting negative impact on NRC’s Lester Road Facility. It is also unclear to NRC the level of service and railcar deliveries options available to it during the construction period.
18. Additionally in section 1.3, it is stated that the contract includes a 27-year maintenance contract and that City of Ottawa will operate the service. This raises a concern from

NRC's perspective about the future cost of the rail delivery service to NRC's Lester Road Facility.

### **If you have concerns, what could be done to address them?**

19. NRC would like to see the following items prescribed to address its aforementioned concerns:

- I. To be provided with a copy of the City's detailed design plans for the expansion for all sections of rail track that could affect the required rail car delivery service from the broader Canadian rail network and road delivery of heavy duty vehicle(s) to NRC's Lester Road Facility.
- II. Prior to final sign-off on the detailed design, NRC requests that its stated needs and concerns be addressed to its satisfaction and incorporated into the final design plans.
- III. NRC would like to be provided with a detailed statement outlining the City of Ottawa's plan to coordinate rail car movements to and from NRC's Lester Road Facility during the construction period and during the full operation of the line. This would include a clear breakdown of the anticipated costs to NRC as allowable under the relevant provisions of the *Canada Transportation Act*—Part III Railway Transportation.
- IV. NRC would like to be provided with a detailed proposed payment schedule and any associated fees that NRC will be expected to pay for delivery of rail cars, and other intended transfer of financial responsibility otherwise reserved for federally regulated railway owners.

### **Do you need additional information, beyond what the City has provided in its application and supplemental documents, in order to understand how the construction and operation of the proposed railway line would affect you? Describe what type of information you require.**

20. NRC is requesting detailed design specifications for the three (3) options outlined for the Lester Road crossing. This is particularly the case for option number two (2), which is the City of Ottawa's recommended option.

21. Given the City of Ottawa's reference in its application that freight deliveries to NRC's Lester Road Facility will be "during non-revenue hours", NRC is requesting detailed information concerning the O-Train planned operational hours on the Trillium Line extension. Only with this information can NRC properly understand what the potential impact is of this portion of the City's application.
22. To the extent it is the City of Ottawa's intention to seek financial compensation from NRC in relation to the aforementioned items; NRC requires clarification of the City of Ottawa's intent with respect to responsibilities for maintenance and associated costs for all aspects of the Trillium Line extension project. This includes the provision of all related documentation for NRC's review and comment. These details are very important to NRC.
23. NRC reserves the right to file additional written representations with the CTA following receipt of the detailed information requested herein.