

March 6, 2020

City of Ottawa  
Development Review  
110 Laurier Ave. West, 4<sup>th</sup> Floor  
Ottawa, Ontario, K1P 1J1

**Attention: Jenny Kluge, Planner**

**Reference: 437 Donald B. Munro Drive  
Rail Safety Review  
Our File Number: 119023**

---

This letter provides a review of railway safety issues as it relates to the planned commercial and residential development at 437 Donald B. Monroe by Maple Leaf Custom Homes.

Railway safety standards are outlined in the report *Guidelines for New Development in Proximity to Railway Operations* prepared by the Railway Association of Canada on behalf of the Federation of Canadian Municipalities. The report is intended to provide greater consistency in the application of railway safety standards across Canada, establish an effective railway approvals process, and enhance the quality of living environments in proximity to railway operations. Following is our review of the planned development and our recommendations as they pertain to the above document.

### **Section 3.2 Consultation with the Railway**

We understand the Renfrew Line is operated by ARNCI as a Principal Branch Line on behalf of Nylene Canada Inc. with corridor maintenance by RailTerm. Currently there is one scheduled delivery per week to Arnprior with one locomotive and less than five cars. Train speed is limited to 10mph (16kph) near the Village Carp (adjacent the development). There is potential to convert the Renfrew Line to a commuter transit corridor with increased traffic and rail speeds (40kph), although no budget or construction timeline exists for this work.

The railway is classified as a Principal Branch Line because there is regularly scheduled traffic that typically operates with one locomotive at lower speeds (<30mph). The applicant should confirm the above operating conditions with the railway authority prior to final approvals.

### **Section 3.3 Building Setbacks for New Developments**

The standard recommended building setback for new residential developments in proximity to railway operations from a Principal Branch Line is 15 metres measured from the mutual property line to face of building. Appropriate land uses within the setback area include private roads and parking, storage sheds, recreational greenspace, and the like.

The Site Plan has a building setback of 26.6m to the property line and appropriate land uses within the setback area. We conclude the design is compliant with the criteria of Section 3.3.

### **Section 3.6 Safety Barriers**

Safety barriers are constructed to reduce the risk of railway incidents by deflecting derailed cars. The purpose is to minimize property damage and potential loss of life. The standard safety barrier is an earthen berm intended to absorb the energy of a derailed car. The berm should be constructed parallel to the railway corridor to a height of 2.0 meters above grade with side slopes not exceeding 2.5:1 (criteria provided for a Principal Branch Line). The berm height is typically measured from grade at the property line.

There is an existing ditch embankment that runs parallel to the railway corridor with side slopes of 30%-60% with the ditch located 0.25m-0.75m off the property line. The Grading Plan depicts a berm with side slopes of 2:1 at the closest driving isle that transitions to 3:1 near the east and west property lines. The proposed berm

height varies from 1.72m-2.00m measured from the bottom of ditch, or from 1.60m-1.64m if measured from the property line.

While close, the safety barrier proposed on the Grading Plan dated May 31, 2019 does not comply with the standard guidelines for height or side slope. That said, the guidelines do permit reduced berm height where larger setbacks are proposed; similarly, increased berm slopes are considered in tight situations. We recommend the developer contact the railway authority to explore permissible design solutions and obtain clearance.

### **Section 3.7 Security Fencing**

Security fencing should be installed to discourage trespass onto the railway corridor. A chain link fence 1.83m high is recommended at the top of the embankment near the south property line. The fence should enclose the property to the extent practical.

### **Next Steps and Recommendations**

The following actions are recommended by the proponent in regard to rail safety compliance:

- Confirm the railway traffic information outlined above is current (trains, cars, speed, frequency, etc.)
- Confirm the designation as a Principal Branch Line with the railway authority (ARNCI)
- Obtain railway authority concurrence on the safety berm high requirements for this development
- Obtain railway authority concurrence on maximum acceptable safety berm side slopes for this site
- Propose security fencing between the railway and private property
- Update the design plans and resubmit for approval

Please contact the undersigned with any questions or concerns.

Respectfully,

**NOVATECH**



Mark Bissett, P. Eng.  
Project Manager

Copy:

Mr. Brian Saumure, Maple Leaf Homes  
Ms. Christine McCuaig, Lloyd Phillips & Associates