



Department of Public Works
Building Infrastructure Design & Construction

SITE INVESTIGATION TECHNICAL SUMMARY BEECHVILLE LAKESIDE TIMBERLEA

September 5, 2024

Beechville Lakeside Timberlea School – Site Investigation Summary

Section 14B of the [Governor in Council Regulations](#) under the Education Act defines the process by which site selection must be conducted. At the request of the Minister of Education and Early Childhood Development (EECD), the Department of Public Works (DPW) has completed an evaluation of a site in the Beechville Lakeside Timberlea area.

Student enrolment in the Halifax Regional Centre for Education (HRCE) has increased by 12% over the last 5 years. In order to give as much flexibility as possible in determining the needs for the community, given increased enrollment growth, EECD requested that DPW explore sites that would be appropriate for various grade configurations comprising PP-8 students.

The site review includes PIDs 41327859, 41436486, and 41464694.

The recommended site to meet the program is provincially owned land located on Maple Grove Avenue in Timberlea. Figure 1 identifies the locations of site:



Figure 1 – Site Location

Maple Grove Avenue Site:

The Province executed an Agreement of Purchase and Sale in 2024 for three land parcels totalling 11.69 acres, see Figure 2.

- Block 4R-R-R-R, PID 41327859 - 7.28 acres.
- Parcel R4-2-R2, PID 41436486 – 2.22 acres.
- Parcel R4-2-R3, PID 41464694 – 2.19 acres.



Figure 2 - Land Parcels

1. Site Location and Size

The site is located between Maple Grove Avenue to the north, Maple Drive to the south, Cabernet Court to the east, and an existing HRM sports field to the west. Immediately adjacent to the HRM sports field is Timberlea Village Parkway. The existing zoning is CDD – Comprehensive Development District under the Timberlea/Lakeside/Beechville Plan Area. The site is otherwise surrounded by residential developments. The contiguous site is approximately 9.5 acres in size, and there is sufficient area on site to accommodate parking, driveways and school bus access. The new school could potentially use the existing HRM sports field to the west. The 3rd parcel, although not attached, is also owned by the Province and is potentially reserved for future expansion.

2. General Terrain & Topography

The land at the site is relatively flat and is currently occupied by a combination of wooded area and a prepared gravel building pad. The wooded land to the south and adjacent to the sports field generally slopes towards the sports field. The site is at a higher elevation than Maple Grove Avenue.

3. Transportation & Accessibility

The site currently has driveway access from Maple Grove Avenue and Amalfi Way, and both streets currently have pedestrian sidewalks. It is anticipated that there will be bussing for a portion of the student population. A Traffic Impact Study (TIS) will be completed in 2024. DPW's internal review indicates that the existing municipal road network and traffic infrastructure can accommodate the proposed increase in the student population at the school. Traffic will also be reviewed by HRM's Traffic Management group.

4. Active Transportation

The site is well located for Active Transportation; the grades of adjacent streets are not excessive, many students are within walking distance, and there are existing sidewalks on nearby pedestrian routes. The TIS report will also identify infrastructure such as strategically placed crosswalks, traffic calming measures, and active transportation identified in HRM's Integrated Mobility Plan and Active Transportation Priorities Plan.

5. Hazards, Legal Issues, & Environmental Concerns

- PID 41327859 formerly contained a wetland which was altered under an approval from NSECC by the previous landowner. The Province was provided with a copy of the wetland alteration permit and closure report. There are no watercourses or wetlands immediately down gradient from the site.
- HRM has received complaints from residents regarding parking congestion on the streets surrounding other existing school sites. The nature of the complaints is generally related to illegal parking during student drop-off and pick-up times. Discussions with HRM Traffic Management indicate that accommodating these drop-offs and pick-ups within the site as much as possible would minimize the risks associated with parking congestion during drop off and pick up times. This will be reviewed with the project team during the design process.

6. Access to Services

Power:

Three phase power is available to the site via infrastructure on Amalfi Way and Maple Grove Avenue.

Water:

Municipal water is available at the site. The new school would be serviced via a new water lateral to supply the domestic water and sprinkler systems. The nearest fire hydrants are at the intersection of Amalfi Way and Maple Grove Avenue and on Maple Grove Avenue. It is anticipated that a fire hydrant on the site will be installed as part of the school construction.

Sanitary sewer:

There is sanitary infrastructure in Amalfi Way and Maple Grove Avenue, providing multiple options for connection to municipal services. The new school would connect to this infrastructure with a new sanitary lateral. The elevation of the existing land indicates that a gravity-based sewer lateral connection to municipal infrastructure is anticipated.

Storm Sewer:

There is municipal stormwater collection infrastructure at Amalfi Way and Maple Grove Avenue. A stormwater management plan would be required for the school site.

Communications:

Communication services are available from existing services on Amalfi Way and Maple Grove Avenue.

7. Adjacencies

The site is centrally located in the large residential area of Beechville Lakeside Timberlea and is expected to see significant residential growth. The site is adjacent to an existing HRM sports field that is available for school use.

8. Cost Factors

The site was purchased in a pad ready state, negating the potential cost impacts of tree clearing, grading, placement of structural fill and alteration of the wetland. There is bedrock at the site, however this is not considered a risk to the site development costs as the previous owner removed a significant portion of the existing rock during preparation of the building pad. There is an opportunity to minimize the impact of any remaining subsurface rock through the site layout and design process.

9. Site Geotechnical Characteristics

The Province has received the geotechnical report that was prepared for the previous site owner as part of the preparation of the building pad. The pad construction included cut and fill operations such as blasting of rock at the cut areas, some of which was used as fill in the low areas. Nova Scotia bedrock mapping indicates that the site is underlain with granite, and Sulphide bearing slate materials are not expected at the site. The new construction may require removal of some bedrock, design of the building configuration will aim to minimize rock removal. A comprehensive Geotechnical Investigation will be completed on confirmation of the school site.

10. Site Test Fit

A concept level test fit exercise was completed and can be found in Appendix A. The purpose of the test fit exercise is to confirm that the school program and construction activities can be accommodated on the site. It is not intended to represent an actual design plan. Final site layout and building configuration would be determined during the design phase of the project.

The test fit took into consideration several factors including:

- a. Optimize parking for staff and visitors.
- b. Provide age-appropriate play areas.
- c. Provide a means for school buses to drop off and pick up students adjacent to the building.
- d. Provide a space for student drop off and pick up.
- e. Provide sufficient space for construction activities and access.

11. Challenges

There are several challenges that will require attention during the planning, design, and construction phases. These challenges include:

- Minimizing traffic congestion on adjacent streets by accommodating student drop off and pick up within the site as much as possible.
- Consideration of building elevation relative to municipal services.

Relevant Information:

Number of students and	<ul style="list-style-type: none">• The target student population is 800 students. The exact number will be confirmed during the design process.• A daycare is expected to be part of the program, thus impacting the
------------------------	--

Beechville Lakeside Timberlea School
 Technical Site Investigation Summary

expected program	size of site required.
Topographic	<ul style="list-style-type: none"> • Existing HRM sports field is relatively flat and in good condition. • Site is higher than Amalfi Way and Maple Grove Avenue, and generally lower than Maple Drive to the south. • Elevation of adjacent properties between the site and Amalfi Way and Maple Grove Avenue vary and are slightly lower than or level with the site. • Significant infilling is not anticipated. • A topographic survey will be completed by the Province on confirmation of the site.
Environmental	<ul style="list-style-type: none"> • Confirmed wetland was altered by previous owner under a wetland alteration approval issued by NSECC. • A Phase 1 ESA will be completed on confirmation of the site. Based on information provided by the previous owner and observation of the surrounding areas, significant environmental concerns requiring a Phase II ESA are not anticipated. • The information gathered and observations of the site revealed no evidence of actual or potential environmental contamination at the site.
Legal Survey	<ul style="list-style-type: none"> • A boundary survey will be completed by the Province on confirmation of the site.
Transportation	<ul style="list-style-type: none"> • A Traffic Impact Study (TIS) will be completed upon confirmation of the site. • Two access driveways are anticipated. • The maximum speed is posted for 50 kph; anticipate a new 30 kph speed limit for a new school. • The addition of crosswalks on surrounding streets would be beneficial. • Restricting on-street parking during school hours would be beneficial in reducing congestion and minimizing safety risks during student drop off and pick up. • Buses will require access to the site. • There are opportunities for active transportation. • The projected number of parking stalls will be identified through the design process. It is anticipated that there is sufficient space on the site to accommodate parking requirements. • HRM Traffic will expect to see a student drop off area accommodated within the site.

Beechville Lakeside Timberlea School
Technical Site Investigation Summary

Geotechnical	<ul style="list-style-type: none">• The presence of bedrock was documented by the previous owner.• The site previously underwent a cut and fill operation, including removal of bedrock.• The current state of the site is a prepared gravel building pad.• Sulphide bearing materials are not expected at the site.• The geotechnical reviews completed during placement of the gravel building pad and alteration of the wetland indicated the recommended design bearing resistances of SLS 200kPa and factored ULS of 300 kPa on approved compacted rockfill and/or till.• Recommendations were provided regarding future floor slab elevations based on consideration of the former wetland at the site.• Additional geotechnical investigations required to inform specific design elements would be completed during the design phase.
--------------	---

Summary

The site evaluation and investigation completed for the Maple Grove Avenue site indicates that this site can be considered as a location for a new school building. Items to be noted and refined during the design phase include, but are not limited to:

- It is anticipated that the existing grades will need to be raised.
- Providing school bus access adjacent to the building.
- Minimizing traffic congestion on adjacent streets by accommodating student drop off and pick up within the site as much as possible.
- Consideration of building elevation relative to municipal services.
- Providing appropriate parking.

Recommendation

The Maple Grove Avenue Site, comprising three land parcels, is recommended as suitable for a new school. The site is adjacent to an existing sports field, is well located for community access, and is not currently an active school site. A new school and associated program can be accommodated.

Appendix A – Site Test Fit Maple Grove Avenue

Appendix A

Site Test Fit

NOTE: The following test fit sketch is not representative of the actual final site layout. Specifics such as driveway, parking, play spaces, building location, etc. would be determined during the design phase.

The test fit is strictly an exercise to determine if the site can support the program identified for a new school.

