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File 121295

October 19, 2023

Carter Triana
Planner
Town of The Blue Mountains
32 Mill Street, Box 310
Thornbury, Ontario N0H 2P0
ctriana@thebluemountains.ca

Re: Part Lot 25, Concession 4, Town of The Blue Mountains

Functional Servicing Brief

Dear Carter:

#### INTRODUCTION

This Functional Servicing Brief has been prepared in support of an application for site-specific rezoning of a portion of the subject property for the purpose of building a new dwelling on the property, the details of which are as follows:

- The development site is located at Part Lot 25, Concession 4 in The Town of The Blue Mountains.
- The existing site is wooded with a wetland in its center. The site is bordered by the Georgian Trail to the north and Highway 26 further north, James Street and Hidden Lake Road to the East, Hidden Lake Road to the south and Barclay Boulevard to the west. The area surrounding the site is composed of low-density residential homes and brush/woodland.
- The existing site is currently zoned as a combination of D-Development, H-Hazard and WL-Wetland.

The location for the proposed dwelling has not been selected by the owner. There are two potential locations for a dwelling within the property, being on the northwest corner of the subject property via access from Barclay Boulevard and the unopened road allowance of Railway Street, or at the south of the site via access from James Street.

## **ACCESS**

Access to the northeast corner of the subject property is available from Barclay Boulevard through a short (45 metre) unopened dead-end portion of Railway Street. An entrance permit and municipal land use permit would be required for the construction of a new driveway to access the property.





Access to the south side of the subject property is available from James Street. An entrance permit is required for the construction of a new driveway; however, a municipal land use permit is not required as the property currently fronts the opened municipal right of way.

### FLOOD HAZARD STUDY

A flood hazard study was conducted for the subject property to assess the existing flood hazards and establish the developable limits across the subject property. The existing and proposed flood hazards and mitigation measures were analysed and designed in accordance with relevant Town, Grey Sauble Conservation Authority (GSCA), and Ministry of Natural Resources and Forestry (MNRF) standards and guidelines. The flood hazard study should be read in conjunction with this functional servicing brief.

# **GRADING AND DRAINAGE**

To floodproof the proposed developable areas and mitigate potential flood conditions, the grade throughout the developable areas will be raised, and an area adjacent to the wetland will be lowered to compensate for floodplain storage volume lost through the placement of fill. All areas to be raised or lowered will require existing vegetation to be removed. Areas that are lowered will be revegetated in accordance with a restoration plan prepared by the Natural Heritage Consultant and approved by GSCA.

Minimum ground and building elevations are specified on the overall grading plan included within the Flood Hazard Assessment to ensure the residential building areas are located above expected maximum (regional) flood elevations within the wetland area. In addition, the residential building areas will be located a minimum of 300 mm above the low point over the adjacent Georgian Trail ensuring major flows exceeding a regional storm event can continue to follow the existing flow route and not impact the residential lot areas. If the owner decides to build on the south side of the property, the existing drainage channel west of the developable area will be improved, and an interceptor swale will be constructed along the south limit of the developable area. If the developer decides to build on the north side of the property, the improvements on the south side are not required.

## **SOILS AND GROUNDWATER**

A geotechnical soils investigation was completed at the subject property with two boreholes and monitoring wells being installed in both the north and south sides of the property near to where the proposed dwelling may be located. The findings of the investigation confirmed the existing soils can support a residential dwelling and are also suitable for on-site sewage disposal. Groundwater elevations were measured and recorded on three occasions during the spring of 2023 from April through to June. The highest groundwater elevations were recorded on April 25, with groundwater being measured at 0.28 m to 1.17 m below existing ground surface. The geotechnical report recommends the underside of floor slab be located a minimum of 1.0 m above the highest seasonal groundwater elevation, which is more



conservative than Town engineering standards. The geotechnical report should be read in conjunction with this functional servicing brief.

# **WATER SERVICING**

There are existing 150 mm diameter municipal watermains on Barclay Boulevard and on James Street. A new water service connection to the proposed dwelling on the north from can be provided from Barclay Boulevard and on the south from James Street.

# SANITARY SERVICING

There are no existing sanitary sewers surrounding or in the vicinity of the subject property that can be extended to provide a municipal sewage outlet for the subject property. An on-site septic system will be required for the treatment and disposal of sanitary sewage. The geotechnical investigation confirms the existing soils area suitable for in-ground septic tile bed construction, but considering the high groundwater table on the site, the septic bed will likely have to be raised. The bottom of the absorption trenches, or the surface of a filter medium must be located a minimum of 0.9 m above the highest groundwater elevation.

### **UTILITES**

There are existing electrical, communication, and gas distribution systems on Barclay Boulevard and James Street which are available to extend these services into the subject property.

# **SUMMARY**

There are two locations within the subject property that are suitable for the construction of a residential dwelling, one in the northwest corner of the property and one at the south side of the property. A flood hazard study was completed, and mitigation measures were designed to ensure the subject property can be developed for a residential dwelling unit located above expected maximum water levels during a regional storm event which may occur within the wetland area. The residential lot areas are elevated a minimum of 300 mm above the low point on the adjacent Georgian Trail ensuring major flows exceeding a regional storm event can continue to follow the existing flow route and not impact the residential lot areas. The geotechnical soils investigation confirmed the soils can support a residential dwelling unit and on-site septic system, which will likely need to be raised to ensure minimum separation requirements from groundwater. A municipal water service, electrical, communications and gas services can be extended to the proposed dwelling via connections from adjacent municipal roads. A sewage treatment and disposal system can be constructed on site.



We trust the above provides the required information to support a rezoning of the project site to residential for the construction of the proposed single family residential home.

Yours truly,

**Tatham Engineering Limited** 

Jeremy Acres, C.E.T. Project Manager

JPA: rlh

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