

Appendix	D
SRPRS	19.152
File(s)	D02-19011 + D03-19003



October 4, 2019

CFN 62123

**By Email Only (email: [kaitlyn.graham@richmondhill.ca](mailto:kaitlyn.graham@richmondhill.ca))**

Ms. Kaitlyn Graham  
City of Richmond Hill  
225 East Beaver Creek Road  
Richmond Hill, ON L4B 3P4

Dear Ms. Graham:

**Re: D02-19011 (Zoning By-law Amendment)  
D03-19003 (Subdivision)  
D05-19005 (Condominium)  
D06-19041 (Site Plan)  
18 Elm Grove Avenue, City of Richmond Hill  
Owner: Robert Grabarczyk**

This letter will acknowledge receipt of the above noted applications. Toronto and Region Conservation Authority (TRCA) staff have reviewed the material provided in support of these applications and our comments are provided herein.

**Purpose of the Applications**

It is our understanding that the purpose of the applications is to facilitate the development of sixteen townhouse units on a private road on the subject lands. TRCA staff note that the Draft Plan of Subdivision prepared by Barich Grenkie, dated August 16, 2019 proposes the creation of seven blocks, consisting of two residential townhouse blocks, one road block, one landscaping area block, and three other blocks.

**Applicable TRCA Regulations and Policies**

The TRCA provides our technical review comments through a number of roles. This includes TRCA's commenting role under the *Planning Act*; the Conservation Authority's delegated responsibility of representing the provincial interest of natural hazards encompassed by Section 3.1 of the Provincial Policy Statement (2014); TRCA's Regulatory Authority under Ontario Regulation 166/06, as amended (Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses); and our Memorandum of Understanding with the Region of York where we advise our municipal partners on matters related to Provincial Policies relevant to TRCA's jurisdiction.

**Ontario Regulation 166/06, as amended:**

Based on the available information at this time, the subject property may be within TRCA's Regulated Area as there may be a wetland on the adjacent property to the east. Further information is required in order to determine if this is a regulated wetland under Ontario Regulation 166/06 (see Appendix A and B).

In accordance with Ontario Regulation 166/06, a permit is required from the TRCA prior to any of the following works taking place in the Regulated Area:

- a) a straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse, or for changing or interfering in any way with a wetland;
- b) development, if in the opinion of the Authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development.

Development is defined as:

- i. The construction, reconstruction, erection or placing of a building or structure of any kind;
- ii. Any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure;
- iii. Site grading, or;
- iv. The temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere.

#### **Living City Policies for Planning and Development in the Watersheds of the TRCA:**

The Living City Policies for Planning and Development in the Watersheds of the TRCA (LCP) is a TRCA policy document that guides the implementation of TRCA's legislated and delegated roles and responsibilities in the planning and development approvals process. The LCP describes a "Natural System" of water resources, natural features and areas, natural hazards, potential natural cover and/or buffers. TRCA policies generally require that natural features within the "Natural System" be protected from development, site alteration and infrastructure. Notwithstanding additional setbacks prescribed by federal, provincial or municipal requirements, TRCA defines the limit of the "Natural System" as the greater of, but not limited to the following:

- Valley and Stream Corridors: 10 metre buffer from the greater of the long-term stable top of slope, stable toe of slope, Regulatory Floodplain, meander belt and any contiguous natural features or areas;
- Woodlands: 10 metre buffer from the dripline and any contiguous natural features or areas;
- Wetlands: 30 metre buffer from Provincially Significant Wetlands and wetlands on the Oak Ridges Moraine, and a 10 metre buffer from all other wetlands and any contiguous natural features or areas.

#### **Oak Ridges Moraine Conservation Plan:**

Please be advised that the subject property is located on the Oak Ridges Moraine (ORM), within the Settlement Area land use designation of the Oak Ridges Moraine Conservation Plan (ORMCP). Based on TRCA's review, the subject property appears to be located within the 30 metre Minimum Vegetation Protection Zone (MVPZ) and 120 metre Minimum Area of Influence of Key Natural Heritage Features (KNHFs) and Key Hydrologic Features (KHF) on the ORM. In accordance with the ORMCP, development is generally prohibited within the MVPZ of a KNHF and KHF and a Natural Heritage Evaluation (NHE) is required in support of any development located within the MAI of any KNHFs or KHF. Additionally, as the proposed development qualifies as 'major development' under the ORMCP, a stormwater management report and water balance are required.



As technical advisors to the City, TRCA must be satisfied that there will be no negative impacts on the natural features resulting from the approval of the subject applications. Further, as municipalities are the Planning Approval Authority, the City should also ensure these applications conform to the ORCMP.

**Credit Valley, Toronto and Region and Central Lake Ontario Source Protection Plan:**

As noted in our letter dated January 29, 2018, the Source Protection Plan under the *Clean Water Act, 2006*, developed for the Credit Valley, Toronto and Region and Central Lake Ontario (CTC) Source Protection Region came into effect on December 31, 2015. The CTC Source Protection Plan contains policies to ensure that existing activities occurring when the Plan took effect cease to be significant drinking water threats, and to prevent future activities from becoming significant threats to drinking water.

The subject lands are located within Vulnerable Areas identified by the CTC Source Protection Plan, including a Wellhead Protection Area-Q (WHPA-Q), a Highly Vulnerable Aquifer and a Significant Groundwater Recharge Area. As such, the proposed development is subject to Policy REC-1 of the CTC Source Protection Plan, requiring a water balance.

**Application-Specific Comments**

Appendix A of this correspondence contains TRCA's comments on the first submission associated with the subject applications. In general, TRCA staff note that the subject property is adjacent to a wet area that may be categorized as a wetland; however, the Natural Heritage Evaluation provided with this submission did not assess the wet area. As such, TRCA staff require further information on the wet area in order to comment on the subject applications. Additionally, TRCA staff require further stormwater management and water balance information.

**Application Review Fee**

By way of this letter, the applicant is advised that TRCA Planning Services review fees are required for the subject applications. Typically, a review fee is required per application made; however, due to the combined nature of these applications, TRCA staff will combine the review fees.

TRCA's review fee at this time is \$21,000 (Draft Plan of Subdivision – 5 ha or less - Standard). The applicant is responsible for arranging payment of this fee to our office within 60 days of this letter. TRCA staff also advise that should the subdivision application receive draft plan approval from the City, a clearance fee will be required prior to registration of the subdivision. This fee will be determined based on our fee schedule in effect at the time of clearance.

**Recommendation**

On the basis of the comments provided in Appendix A, TRCA staff are of the opinion that the subject applications are premature until such time that technical information is provided to a basic feasibility level with due consideration to environmental constraints. To facilitate further TRCA review of this application TRCA staff will require the following:

- 1 hardcopy of a letter outlining in detail how each TRCA comment has been addressed;
- 1 hardcopy of the revised Natural Heritage Evaluation;
- 2 hardcopies of the revised Stormwater Management Report and Water Balance;
- 3 hardcopies of all revised drawings/plans;
- 1 digital copy of the re-submission;
- Confirmation that TRCA's review fee of \$21,000 has been remitted.

I trust this correspondence is of assistance. Should you have any questions, please do not hesitate to contact me at the undersigned.

Sincerely,

A handwritten signature in black ink that reads "MBates". The letters are cursive and connected.

Michelle Bates  
Planner  
Development Planning and Permits  
Extension 5618  
michelle.bates@trca.ca

MB/as



## Appendix A: TRCA Comments

### **Ecology**

Prior to providing comments on the subject applications, TRCA needs to confirm whether the stand of cattail on 16 Elm Grove Avenue is considered to be a wetland that would be regulated by TRCA or a wetland as defined by the Provincial Policy Statement (PPS) or ORMCP, which may require a buffer. TRCA Ecology staff have reviewed historical air photos of the subject site and surrounding area in an effort to determine how old the stand of cattail is. Historically, there is no evidence of a wetland being in the immediate area of 16 Elm Grove Avenue. From the 1940's through to the 1990's the lands were either agricultural (pasture/cropped) or lawn. The first evidence of moisture on the site is not until 1993 when wet patches appear on 16 Elm Grove Ave. As a result, we recommend that the Natural Heritage Evaluation be revised to include a section discussing the cattail stand located on the adjacent properties (16 Elm Grove Ave and 13234 Yonge Street), and confirm if this stand meets the TRCA, PPS and/or ORMCP definitions of "wetland". In order for TRCA to regulate this stand of cattail or provide advice to the City, it must meet one of these definitions of a wetland. Please see 'Appendix B' for the relevant definitions.

Once this has been completed, TRCA will be in a position to provide comments on the subject applications.

### **Hydrogeology**

1. The Source Protection Plan under the *Clean Water Act*, 2006, developed for the CTC Source Protection Region took effect on December 31, 2015 and as such, the site is subject to policies listed in the CTC Source Protection Plan. The purpose of a Source Protection Plan is to outline how water quality and quantity for municipal drinking water systems will be protected.

This subject application is located in a vulnerable area referred to as Wellhead Protection Area-Q2 (WHPA-Q2). This area was delineated to help manage activities that may reduce recharge to an aquifer (Prescribed Threat No. 20 under the Clean Water Act, 2006).

This specific site plan application is subject to policy REC-1 clause 2 (a) and (b) in the CTC Source Protection Plan and requires the submission of a site-specific water balance assessment for review by TRCA staff (on behalf of the City of Richmond Hill) to mitigate development related impacts to infiltration. The Functional Servicing Report provides some water budget information and potential mitigation, but the analysis is based on a 5 mm storm, not the average annual recharge. For additional information with respect to water balance assessments please refer to our webtool and guidance document, located at:

- <https://trca.ca/conservation/drinking-water-source-protection/trspa-water-balance-tool/>

Note that this site is also subject to the water budget policies associated with the Oak Ridges Moraine. Please contact Don Ford, Senior Manager, Hydrogeology, ext. 5369 for information regarding the site-specific water balance requirements.

## Water Resources Engineering

### General

1. Please provide additional information regarding the ultimate outlet for the proposed drainage. In addition, for open channel outlets, please demonstrate how the outlet will be protected against long-term erosion.
2. Please confirm the external area, and flow(s) generated. Please provide additional information that the flows will be adequately captured in the proposed DICB.

### Water Quantity

3. Please note that the site is located within the Humber River Watershed Sub Basin 15, and as such post-development peak flows are to be controlled to unit flow rates as per Equation D. It is recognized that based on the small drainage area, it would be difficult to meeting the unit flow rates without a stormwater management pond. The minimum allowable release rate would be to control the post-development peak flow rates to the pre-development levels for all storm events. As such, please demonstrate how close the site can get to the unit flow rates, and TRCA staff will determine if best efforts have been made to achieve the water quantity criteria.

For additional information please review the Stormwater Management Criteria document Version 1.0 dated August 2012 which can be downloaded from TRCA's STEP website: <https://sustainabletechnologies.ca/app/uploads/2013/01/SWM-Criteria-2012.pdf>.

4. It should be noted that the infiltration trenches cannot be used as quantity control as they are not designed for the full 100-year post-development volume to achieve the acceptable release rates. Please explore other opportunities to provide the required storage to meet the criteria as noted above.
5. Please demonstrate how the mitigation measures proposed meet the quantity control criteria for all storm events from the 2-year through the 100-year storm events (i.e. 2-year, 5-year, 10-year, 25-year, 50-year and 100-year storm events). Please include all supporting documentation and calculations.
6. Please note that the entire site areas should be accounted for to demonstrate how the site meets the quantity criteria. Should any area be proposing release of uncontrolled runoff, please demonstrate how the controlled release rates plus the uncontrolled flows will meet the criteria release rates.
7. Please note that the orifice calculations should be based on the spring line elevation versus the invert. Please revise accordingly.

### Water Quality

8. It is strongly recommended that a pre-treatment be included before the infiltration trenches (i.e. OGS prior to infiltration gallery for Area 1) as infiltration of dirty sediment laden runoff is not recommended.
9. Please note that TRCA has taken a position parallel to the City of Toronto where by OGS units, regardless of manufacturer, as a stand-alone measure can achieve up to a 50% TSS removal. Although the infiltration trench plus the OGS will provide additional quality controls, it is strongly recommended that in order to achieve the full 80% TSS removal,



the infiltration measures be designed for the 80% TSS removal based on the MOE Stormwater Management Planning & Design Manual (2003).

#### Water Balance

10. Please note, as this site is within the ORMCP boundaries, as well as subject to the WHPA-Q source water policies, a water balance is required. Please explore all opportunities to provide measures for mitigation of infiltration (recharge), evapotranspiration and runoff impacted by the development and provide the location, details and supporting calculations demonstrating the pre-development conditions will be met during post-development conditions. Please note that any infiltration measures required to meet the water balance and erosion control requirements can also be used to meet the water quality targets, especially for those used as part of a treatment train approach.

#### Erosion Control

11. Please provide a discussion and supporting documentation/calculations how the proposed site meets the TRCA erosion control criteria. Furthermore, TRCA is also looking for spatial requirements to be illustrated on a plan for all mitigation measures proposed to meet this storage volume required. At a minimum the erosion criteria for all watercourses within the TRCA's jurisdiction is the retention of the first 5mm of every rainfall event for the entire site area, not only the controlled area. Should you require additional information, please consult the TRCA Stormwater Management Criteria (2012) document.

#### Infiltration Trenches

12. Please confirm and demonstrate a minimum 1m separation between the bottom of the trenches and high groundwater levels. The Geotechnical Investigation (GeoPro, June 2019) indicated the site is subject to high groundwater. Please confirm the effectiveness of the proposed trenches.

#### Civil Engineering Drawings

##### *Site Grading*

13. Please provide further information on the grading plan how the drainage will be conveyed to the mitigation measures, and offsite.

##### *Details*

14. Please provide additional information regarding the infiltration trenches, including, but not limited to a detail and cross-sections of the proposed trenches (overflow pipes, drains, inverts, etc.).
15. Please provide typical details for the orifices and any subsurface storage.

#### *Erosion and Sediment Control*

16. TRCA Water Resources Engineering staff have reviewed the sediment and erosion control plans provided with this submission and have the following comments. Please review and revise this plan accordingly:
  - a. Please include all of TRCA's standard notes.
  - b. Please note that the silt fence design detail must comply with the Erosion and Sediment Control Guideline for Urban Construction, December 2006. The most up-to-date guideline can be found at [www.sustainabletechnologies.ca](http://www.sustainabletechnologies.ca). The guidelines require that the geotextile material should have a non-woven density of 270R or equivalent (i.e. consistent with OPSD 219.130). Please adjust the silt fence design detail accordingly.

- c. Please include a full step by step process for construction including how the site will be appropriately protected. The erosion and sediment control (ESC) plan(s) should mimic the descriptions. Please revise the plan(s) accordingly to include phasing and staging information.
- d. It would appear as though the ESC plan includes only sediment controls. TRCA strongly recommends a multi-barrier approach to erosion and sediment control and as such request the proponent include additional erosion controls as per the 2006 ESC guideline. By making all efforts to minimize disruption of soils (erosion) during construction (i.e. smaller areas at a time, stabilization before moving onto next portion, and ultimately minimize bare soils), less sedimentation occurs.
- e. Please also provide a detailed description of the water management during construction (drainage patterns, treatment of runoff prior to release, minimizing sediment laden runoff from leaving the site).
- f. Further to the above-noted, please describe the outlet during construction.
- g. Please demonstrate that the catch basins will have appropriate ESC protection.
- h. Please provide additional information, and mitigation measures, regarding the protection of the infiltration galleries from clogging and compaction.
- i. Please confirm if there will be any stockpiles. If so, please provide additional details on protection and stabilization as necessary.
- j. Please ensure typical details are included for all mitigation measures.

#### **Geotechnical Investigation**

17. The Geotechnical Investigation by GeoPro (June 2019) recommends a Hydrogeological Investigation assessment be completed based on the high groundwater. Please circulate this study to TRCA once completed. This study should look at the feasibility of any Low Impact Development (LID) measures proposed, as well as confirm any infiltration rates used in the calculations.

#### **General**

1. TRCA staff advise the applicant that their next submission shall be accompanied by a detailed letter outlining how each of the above comments have been addressed.



## **Appendix B: Wetland Definitions**

### **Conservation Authorities Act, R.S.O. 1990, c. C.27**

“wetland” means land that,

- (a) is seasonally or permanently covered by shallow water or has a water table close to or at its surface,
- (b) directly contributes to the hydrological function of a watershed through connection with a surface watercourse,
- (c) has hydric soils, the formation of which has been caused by the presence of abundant water, and
- (d) has vegetation dominated by hydrophytic plants or water tolerant plants, the dominance of which has been favoured by the presence of abundant water, but does not include periodically soaked or wet land that is used for agricultural purposes and no longer exhibits a wetland characteristic referred to in clause (c) or (d).

### **Oak Ridges Moraine Conservation Plan (2017)**

“wetland” means land such as a swamp, marsh, bog or fen (not including land that is being used for agricultural purposes and no longer exhibits wetland characteristics) that,

- (a) is seasonally or permanently covered by shallow water or has the water table close to or at the surface,
- (b) has hydric soils and vegetation dominated by hydrophytic or water-(b)tolerant plants, and
- (c) has been further identified, by the Ministry of Natural Resources and (c)Forestry or by any other person, according to evaluation procedures established by the Ministry of Natural Resources and Forestry, as amended from time to time.

### **Provincial Policy Statement (2014)**

“wetland” means lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants. The four major types of wetlands are swamps, marshes, bogs and fens. Periodically soaked or wet lands being used for agricultural purposes which no longer exhibit wetland characteristics are not considered to be wetlands for the purposes of this definition.

