

December 14, 2022

CFN: 62544.03

**BY EMAIL: Kaitlyn.graham@richmondhill.ca**

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

Dear Ms. Kaitlyn Graham,

**Re: D01-20004 (Official Plan Amendment)  
D02-20010 (Zoning By-law Amendment)  
10684 and 10692 Yonge Street, Richmond Hill  
Owner: Sabella Ridge Estates Inc.  
Agent: Malone Given parsons Ltd.**

Further to our letters dated August 25, 2020, March 8, 2021, March 21, 2021 and July 20, 2022, Toronto and Region Conservation Authority (TRCA) staff have reviewed the materials relating to the above-noted applications and offer the following comments. A list of materials reviewed can be found in Appendix A.

**Purpose of the Application**

It is our understanding that the purpose of these applications is to facilitate the development of a high-density residential development comprised of 25 storey purpose built residential rental units and associated amenity and parking (surface, underground and above grade). The existing subject lands are vacant.

**Background**

For background on applicable policies and regulations related to these applications please refer to our previous letter dated August 25, 2020.

**Application Fee**

Please note that TRCA reserves the right to request additional / an increased fee rate should the review require a substantially greater level of effort than anticipated for a Standard application in accordance with our fee schedule. Our standard fee currently covered up to 3 submissions for review.

**Flood Vulnerable Area**

The proponent should demonstrate to the satisfaction of the City that the FVA policies have been satisfied. TRCA staff have reviewed the FVA policies under the purview that the proposed building is appropriately floodproofed and safe access has been achieved.

**Floodplain**

TRCA is supportive of redevelopment and intensification in a designated intensification / transit corridor as per Provincial Policy while making sure we are protecting life and property. As the site is located at the edge of the floodplain and in a highly urbanized area, TRCA has accepted

a reduced setback from the floodplain. The applicant has demonstrated the floodplain has been dealt with adequately to TRCA's satisfaction. It has been demonstrated that filling in the spill area (within their property limit) will not have a downstream and upstream impact (no offsite impact). The mitigation proposed will match back to the existing floodplain. In addition, the development will provide vertical freeboard (adequate floodproofing) and safe access to the west which is required to be maintained.

The applicant has demonstrated that the building will be outside the proposed floodplain as a result of minimal filling, therefore the building will not be what holds back the floodplain.

**Recommendation**

TRCA staff reviewed the materials submitted in support of these applications and offer the following comments, which are identified in Appendix 'B'. Please have the applicant address TRCA's comments and include a detailed response letter within the resubmission outlining how the comments have been addressed.

I trust these comments are of assistance. Should you have any questions, please do not hesitate to contact me 437-880-2286 or [linda.bui@trca.ca](mailto:linda.bui@trca.ca).

Sincerely,



Linda Bui  
Planner  
Development Planning and Permits | Development and Engineering Services

## **Appendix 'A'** **Materials Reviewed**

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- HEC-RAS, Dated October 26, 2022
- Floodplain Risk Assessment, Prepared by WSP, Dated August 10, 2022
- Stormwater Management Report, Prepared by WSP, Dated August 4, 2022
- Functional Servicing Report, Prepared by WSP, Dated August 10, 2022
- Reissued for Rezoning, Prepared by Turner Fleischer, Dated May 17, 2022
- HEC-RAS Zip, Dated October 26, 2022

**Appendix 'B'**  
**Application Specific Comments**

	Submission 1 – August 25, 2021	Submission 2 – March 2, 2021	Submission 3 – May 21, 2021	Submission 4 – July 20, 2022	Submission 5 – December 8, 2022
1.	<p><i>Water Quantity</i></p> <p>As the subject site is located within the Don River Watershed, controls are required to ensure post-development flow rates are equal to, or below, pre-development levels for the 2-year through 100-year flow rates. Please clearly show how in the post-development the pre-development levels are met. Further the Appendix (Stormwater Management Report, prepared by WSP, dated April 15, 2020) clearly shows the pre-development flow rates and external flow rates, please provide a summary table for post-development as well.</p>	<p><b>Not Addressed.</b> TRCA staff have concerns with the “Target Flow Rate” for the 2 year storm event which appears to be a combination of the 2 year pre-development “External Flow Rate” and the subject site’s 5 year pre-development flow rate. Please revise the 2 year “Target Flow Rate” so that it is based on 2 year pre-development conditions.</p>	<p><b>Addressed.</b> The Target Flow Rate calculations have been revised.</p>	<p><b>Not Addressed.</b> It was noted that the allowable peak flow rates have been recalculated and are no longer accounting for the external drainage area from the north. Please confirm where the external flows will drain if they are no longer entering the subject development. Additionally, the Don River quantity control criteria is to control the pre-development levels for the 2 year through 100 year flow rates. As such, please revise the 2 year allowable peak flow to the pre-development 2 year peak flow. Please note that Figure 4.1 does not appear to have been updated based on the altered allowable peak flow.</p>	<p><b>Addressed.</b></p>
2.	<p>Please provide further clear and concise summary for the parameters used in the HydroCAD model.</p>	<p><b>Addressed.</b></p>	<p><b>Addressed.</b></p>	<p><b>Advisory.</b> It was noted that the storm duration and intensity appear to</p>	<p><b>Addressed.</b> Defer to City to be satisfied.</p>

				have been altered since the previous submission. Given the HYDROCAD modeling applies the rational method to calculate the peak flows, TRCA defers to the City of Richmond Hill for the storm parameters.	
3.	Please provide calculations for the stage-storage-discharge information.	<p><b>Not Addressed.</b> The pump's rating curve suggests a variable flow rate that varies with depth within the cistern. It is noted during detailed design, please ensure that the manufacturer provides further information regarding the pump's discharge and that this information is provided to verify the HydroCAD model rating curve.</p> <p>For clarity, please confirm the function of the orifice tube as the HydroCAD results appear to indicate no reduction in peak flows for all modelled storm events.</p>	<p><b>Addressed.</b> TRCA thanks the proponent for clarification of the orifice tube. At detail design please ensure manufacture provided information regarding the pump's discharge and that this information is provided to verify the HydroCAD model rating curve.</p>	<p><b>Addressed.</b> TRCA thanks the proponent for clarification of the orifice tube. At detail design please ensure manufacture provided information regarding the pump's discharge and that this information is provided to verify the HydroCAD model rating curve</p>	<p><b>Deferred to detail design.</b> TRCA thanks the proponent for clarification of the orifice tube. At detail design please ensure manufacture provided information regarding the pump's discharge and that this information is provided to verify the HydroCAD model rating curve</p>
4.	<p><i>Water Quality</i></p> <p>The proponent has proposed an oil grit separator to achieve the enhanced level of protection for water quality control. Please note that TRCA has taken a position parallel to the City of Toronto whereby OGS units, regardless of manufacturer, as a stand-alone measure can achieve up to a 50% TSS removal. Thus, please provide</p>	<p><b>Addressed.</b></p>	<p><b>Addressed.</b></p>	<p><b>Addressed.</b></p>	<p><b>Addressed.</b></p>

	<p>additional mitigation measures in addition to the OGS to achieve the 80% TSS removal. Please provide details, location and if applicable supporting calculations for the additional water quality mitigation measure(s).</p> <p>Please note that any LID measures required to meet the water balance/erosion control requirements can also be used to meet the water quality targets, especially for those used as part of a treatment train approach.</p>				
5.	<p><i>Water Balance</i></p> <p>Please note, source water policies are applicable as this site is located in a WHPA-Q area. The water balance will need to show how best efforts have been made to provide measures for mitigation of infiltration demonstrating the pre-development conditions will be met during post-development conditions. Please provide infiltration rate (or an included excerpt from Hydrogeological Assessment, prepared by WSP, dated April 3, 2020). Please note that infiltration measures can still be proposed, as infiltration will still occur even at a low rate, but will require an overflow measure below 15mm/hr as per LID design criteria. As such, in order for TRCA to determine best efforts have been made, all opportunities should be explored to provide infiltration measures to meet pre-development levels as per calculations outlined in the 2003 MOE Stormwater Planning and Design Manual.</p>	<p><b>Not Addressed.</b> TRCA acknowledges the recommended water reuse demand of a car wash which is to be confirmed at later design stage. If it is determined at a later stage that water reuse supply outweighs reuse demand then further measures are to be investigated/implemented.</p> <p>It is recommended that areas separated from the underground parking structure (e.g. the far-western portion of the subject site) be investigated as potential infiltration opportunities to help achieve water balance criteria</p>	<p><b>Not Addressed.</b> TRCA would like to reiterate that there are additional LIDs which can be provided for lower infiltration rates, as such please note that at detailed design should the reuse required exceed the provided, additional measures will be required.</p>	<p><b>Not Addressed.</b></p>	<p><b>Deferred to detail design.</b> TRCA would like to reiterate that there are additional LIDs which can be provided for lower infiltration rates, as such please note that at detailed design should the reuse required exceed the provided, additional measures will be required.</p>
6.	<p><i>Erosion Control</i></p> <p>The TRCA 5mm retention volume requirement should be above the initial abstraction (Chapter 4 – Figure 4-1, TRCA</p>	<p><b>Addressed.</b></p>	<p><b>Addressed.</b></p>	<p><b>Addressed.</b></p>	<p><b>Addressed.</b></p>

	<p><u>Stormwater Management Criteria</u>, 2012). Please revise the calculations in Appendix A (Stormwater Management Report, prepared by WSP, dated April 15, 2020) to provide storage for the 5mm of rainfall across the site for the <i>impervious</i> area. Therefore, at a minimum the required area is 5mm x impervious area which is approximately 21.9m<sup>3</sup>. Please review and revise accordingly.</p>				
7.	<p><i>Engineering Drawings</i></p> <p>Please provide all engineering drawings to TRCA for review and comment, including but not limited to the grading and servicing plans.</p>	<p><b>Released.</b> To be provided at detailed design.</p>	<p><b>Released.</b> To be provided at detailed design.</p>	<p><b>Released.</b> TRCA staff have reviewed Drawing No. 5.1, Preliminary Grading Plan, prepared by WSP, dated April 2022 and note a more detailed grading plan is required to confirm the delineation illustrated.</p>	<p><b>Deferred to detail design.</b> Additional grading and servicing drawings.</p>
8.	<p>Please ensure all mitigation measures to meet the SWM criteria are clearly identified and labeled on the drawings, including placement of all required footprints.</p>	<p><b>Not Addressed.</b> Please ensure all mitigation measures to meet the SWM criteria are clearly identified and labeled on the drawings, including the proposed Jellyfish filter.</p>	<p><b>Addressed.</b></p>	<p><b>Addressed.</b></p>	<p><b>Addressed.</b></p>
9.	<p><i>Erosion and Sediment Control</i></p> <p>Please note, at the detailed design stage erosion and sediment control plan(s) will be required that illustrates the location, details, standard notes as well as the phasing/staging of the ESC measures required for the construction of the site. TRCA staff strongly encourage the applicant to explore a multi-barrier approach to be incorporated into the ESC</p>	<p><b>Released.</b> To be provided at detailed design.</p>	<p><b>Released.</b> To be provided at detailed design.</p>	<p><b>Released.</b> To be provided at detailed design.</p>	<p><b>Deferred to detail design.</b></p>

	plan. Please provide supporting calculations if applicable. Please refer to the 2006 ESC Guideline, which can be downloaded from TRCA's STEP website: <a href="http://www.sustainabletechnologies.ca/wp/">http://www.sustainabletechnologies.ca/wp/</a> .				
10.	<p><i>Floodplain</i></p> <p>Please provide additional information as to the changes in the MIKE model including but not limited to the model inputs, parameters and results.</p>	<p><b>Not Addressed.</b> It is TRCA's understanding that the 2 scenarios evaluated in the Floodplain Risk Assessment, prepared by WSP, dated November 9, 2020 are the "Existing" configuration (based on the information present in the MIKE model provided by TRCA) and the "Revised" configuration (incorporating updated peak flows, updated Yonge Street topography, and conceptual grades/roughness of the subject site) which appears to represent the proposed condition. Please confirm or provide clarification on this characterization.</p> <p>Please assess an "updated existing" condition which includes the changes external to the subject site (e.g. incorporating updated peak flows, updated Yonge Street topography, etc.) but with the subject site in an existing condition. Please update</p>	<p><b>Not Addressed.</b> It would appear as though the model has been revised as per the requests March 2021, as such the digital model should be provided for each submission where there are changes to the model. Water Resources has checked the report and have the comment below, however there may be further comments on the floodplain assessment and conclusions when the digital model is provided.</p> <p>The revised figures appear that there will not be any impacts. Please revise all drawings and figures to include the revised proposed floodline and the appropriate setbacks. Water Resources will provide additional comments on figures and the proposed floodline</p>	<p><b>Not Addressed.</b> The proposed floodplain limit delineated on the Preliminary Grading Plan Figure 5.1 provided via email June 17, 2022, does not match the floodline on Figure 5-1 in the Floodplain Risk Assessment (WSP, May 5, 2022). Please ensure all figures are consistent and provide additional grading information at the limit of the property to support the floodline delineation.</p>	<p><b>Addressed.</b> The proposed floodline must be delineated on the latest proposed detailed grading at detail design.</p>



		<p>figures in the Floodplain Risk Assessment to include this condition.</p> <p>Please provide a comparison figure of the proposed condition and the updated existing condition floodplain depths to demonstrate potential impacts due only to the proposed changes to the subject site. Please use a colour gradient and spot elevations to show the increase/decrease between updated existing and proposed floodplain depths.</p>	once the model is provided.		
11.	Please provide the output files and digital model with changes for review and comment. TRCA withholds further comments on floodplain assessment and conclusions for future submissions.	<b>Released.</b> It is our expectation digital models to be provided for subsequent submissions.	<b>Not Addressed.</b> As the model appears to have been revised for the “updated existing” condition, the model should have been provided. As such, please ensure the model is provided for all submissions where any revisions have been completed.	<b>Not Addressed.</b> As noted in comment 17, ensure the model has been updated to reflect the proposed grading.	<b>Addressed.</b>
12.	Please confirm and quantify if necessary if there is any filling proposed within the floodplain.	<b>Not Addressed.</b> TRCA staff acknowledge the anticipated fill volume of the subject site. Please confirm this fill volume during the detailed design stage.	<b>Released.</b> TRCA staff acknowledge the anticipated fill volume of the subject site. Please confirm this fill volume during the detailed design stage.	<b>Not Addressed.</b> Per the response to TRCA comments letter prepared by WSP dated May 6, 2022, the approximate volume of fill on the subject property in the floodplain is 400 m <sup>3</sup> , however in the Stormwater	<b>Addressed.</b>

				Management Report (WSP, March 3, 2022) the fill volume is stated as 40 m <sup>3</sup> . Please confirm the fill volume proposed on the subject property.	
13.	TRCA staff defer to the City of Richmond Hill to determine if they will provide emergency access to the proposed development from Arten Avenue or access the development in Regional storm event with ponded water on Yonge Street.	<b>Not Addressed. Please confirm how Section 8.4.13 of the Living City Policies have been met.</b>	<b>Released.</b> TRCA defer to the City.	<b>Released.</b> TRCA's expectation is the emergency access to Arten Avenue is to remain. Additionally, per the proposed conditions modeling, the floodplain depth on Yonge Street south of the subject property is less than 0.3 m.	<b>Addressed.</b>
14.	<i>Hydrogeology</i> Please provide additional information in the hydrogeological assessment, including but not limited to post-development mitigation measures analysis for the water balance section.	<b>Not Addressed.</b>	<b>Not Addressed.</b> TRCA would like to reiterate that there are additional LIDs which can be provided for lower infiltration rates, as such it may be necessary to explore all forms of LIDs in detailed design to provide mitigation measures for the water balance.	<b>Deferred.</b> The water balance assessment is acceptable, but no infiltration mitigation is proposed. The proponent has made no attempt at mitigation at all. The REC-1 policy has not been met. TRCA staff understand that recharge is low for the Halton Till, but it is not zero. Given that this is the fourth submission, TRCA staff defer the issue/comments to the City. TRCA staff support the City if they require further technical review/advice.	<b>Addressed.</b> Defer to City to be satisfied.

15.	Please provide additional information including but not limited to the infiltration rate for the SWM design to use in the design of the mitigation measures.	<b>Not Addressed.</b>	<b>Not Addressed.</b> TRCA would like to reiterate that there are additional LIDs which can be provided for lower infiltration rates, as such it may be necessary to explore all forms of LIDs in detailed design to provide mitigation measures for the water balance.	<b>Deferred.</b> The water balance assessment is acceptable, but no infiltration mitigation is proposed. The proponent has made no attempt at mitigation at all. The REC-1 policy has not been met. TRCA staff understand that recharge is low for the Halton Till, but it is not zero. Given that this is the fourth submission, TRCA staff defer the issue/comments to the City. TRCA staff support the City if they require further technical review/advice.	<b>Addressed.</b> Defer to City to be satisfied.
16.	The Preliminary Hydrogeologic Report (prepared by WSP, dated April 3, 2020) is not yet complete. As per this report, additional boreholes are required to assess potential dewatering requirements and evaluate possible LID options to maintain recharge. TRCA staff can provide more detailed comments once the required fieldwork and assessments are completed.	<b>Not Addressed.</b> The response matrix, prepared by Malone Given Parsons, dated December 18, 2020 note additional information will be available after the drilling of the boreholes in December 2020.	<b>Not Addressed.</b> Hydrogeology staff do not accept that infiltration is not possible. The proponents have based the hydraulic conductivity on the grain size, which is not appropriate for Halton Till. TRCA would strongly recommend single well response tests as part of their spring monitoring. TRCA staff will comment more fully when the report is provided.	<b>Deferred.</b> The water balance assessment is acceptable, but no infiltration mitigation is proposed. The proponent has made no attempt at mitigation at all. The REC-1 policy has not been met. TRCA staff understand that recharge is low for the Halton Till, but it is not zero. Given that this is the fourth submission, TRCA staff defer the issue/comments to the City. TRCA staff support the City if they require further	<b>Addressed.</b> Defer to City to be satisfied.

				technical review/advice.	
17.		<p><i>New Comments</i></p> <p>As noted in comment 10, please assess an “updated existing condition” and provide an updated site plan with the flood plain delineated and a 10 metre buffer. As the subject properties are vacant, the proposed development should be located outside the flood plain hazard. TRCA may consider a slight reduction in the buffer (i.e. provide vertical buffer) subject to demonstrating that no new hazard and off-site impacts are created.</p>	<p><b>Not Addressed.</b> Please plot the flood plain and setbacks.</p>	<p><b>Not Addressed.</b> Per the Preliminary Grading Plan Figure 5.1 provided via email June 17, 2022, it appears as if the proposed condition elevations in the model are not consistent with the proposed grading of the site. Please ensure the model has been updated to reflect the proposed grading, all figures are consistent, and ensure that the proposed development has no negative impacts to the floodplain on adjacent properties.</p>	<p><b>Addressed.</b></p>