

BY EMAIL

June 1st, 2020

City of Ottawa
Planning, Infrastructure and Economic Development
110 Laurier Avenue West, 4th Floor
Ottawa, Ontario, K1P 1J1

Attention: Kathy Rygus, Planner II

Dear Ms. Rygus:

**Reference: 5618 Hazeldean Road, Draft Plan of Subdivision
Response to City Comments
Our File No.: 108195-0
City File No.: D07-16-16-0020**

The following is in response to the City of Ottawa letter dated March 5, 2020 commenting on the Draft Plan of Subdivision application for 5618 Hazeldean Road (Kizell Development lands). City comments adequately addressed have been removed from the list, new or outstanding City comments are repeated, and the Novatech reply follows in bold font.

Servicing

1. According to Section 2 of the Carp River Model Protocol (Appendix 10), no adjustments are to be made to the model beyond the strict limits of the development application. Should what may be errors or other concerns with the model be identified, the proponent is to provide that information to the City's Project File Lead for clarification or revision, if warranted. On that basis, no changes should be made to the external drainage area located upstream of the proposed Kizell Lands (including the Granite Ridge pond configuration). Please also ensure to properly overlay the catchment delineation of the proposed subdivision with the Carp River catchments.

Novatech Response (July 20, 2017): Acknowledged

City Response (October 17, 2017): Appendix B, Novatech Memorandum July 19, 2019, Section 2.0: "Peaks flows entering and leaving the Granite Ridge SWM facility are significantly larger in the Carp River model". As previously commented, it appears that the increase of peak flow is mainly due to the different rainfall volumes and the increase of imperviousness:

- based on the 2000 Simmering Report, a total rainfall volume of 69.60 mm was used for the 12hr SCS 100-yr storm event, as opposed to 96 mm used in the Carp River PCSWMM model. For your model, please use the rainfall volume specified in the latest City of Ottawa Sewer Design Guidelines (i.e. 96 mm).
- the runoff coefficients used in the 2000 report are significantly lower than the actual imperviousness calculated based on the 2012 air photo. For example, a runoff coefficient of 0.2 was used for catchment 4, 7, 9 and 11 where the calculated imperviousness is approximately 40%.

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The above identifies some of the major shortcomings in the Simmering report, hence the significant difference of flow compared to the Carp River model. On that basis, no adjustments should be made to the Carp River PCSWMM model beyond the strict limits of the development application. For example:

- please use the rainfall from the Carp River PCSWMM model (Ptot= 96mm);
- remove the on-site storage nodes (see comment #7 below);
- use the rating curve from the Carp River PCSWMM model for the Granite Ridge SWMF.
- do not make any changes to the Sub-area Routing and the Percent Routed parameter.

Additional notes:

- There seems to be a capacity issue at the existing 1350 mm storm sewer. In case of surcharge, the major system flow will likely be conveyed around the soccer field and will outlet to the existing downstream tributary. This will have to be properly represented in the PCSWMM model.
- Please also be sure to properly overlay the catchment delineation of the proposed subdivision with the Carp River catchments (e.g. see the northeast corner of the subdivision).

Novatech (Feb. 2018): The Runoff Coefficient of 0.2 assigned to Catchments 4, 7, 9 and 11 on the Granite Ridge Storm Drainage Area Plan (Simmering, 2000) was intended to represent the allowable post-development release rate. The post-development SWMHYMO model for Granite Ridge included in the 2000 SWM report assigned these catchments a runoff coefficient representative of post-development conditions and included onsite storage to control the peak flows to pre-development levels. The on-site storage nodes for Iber Road has been retained in Novatech's Carp River PCSWMM model. ECAs documenting the allowable release rates and quantity control storage have been provided to the City's Project File Lead, along with additional information supporting the storage volumes and release rates used in the revised model. No changes have been made to the Subarea Routing and Percent Routed Parameters. The rainfall from the Carp River PCSWMM model has been used in the analysis.

City Response (April 18, 2018):

- The drainage area comprised between catchment CS252 and P1-01 should also be added to the model (see figure 1).

Novatech (Dec. 13, 2019): This drainage area has been added to the PCSWMM models

City (Jan. 10, 2020): The imperviousness for catchment CS251_1a should be approximately 45% as opposed to 0.3% currently coded in PCSWMM. In addition, the drainage area from this catchment should be directed north-west toward Granite Ridge pond's outlet channel.

Models have been updated accordingly.

- On-site storage: on-site storage should only be accounted for the areas listed in Table 1 and 2 of Appendix B for which an ECA was provided. The total storage volume east and west of Iber Road should be 1066 m³ and 1288 m³ respectively. Supporting documentation must be provided for any additional on-site storage (e.g. ECA or design

brief). The extrapolation calculation presented in Appendix B cannot be used.
Novatech (Dec. 13, 2019): The Iber Road storage curves have been updated accordingly.
City (Jan. 10, 2020): Comment addressed however please use a discharge coefficient of 1.8 for Weir-1 and IberEast_OVF and ensure the total storage indicated in Table 1 and 2 are not exceeded.

Models have been updated accordingly.

New Comment:

25. Please be advised that phasing consideration is required as it relates to adjusting phasing on an interim basis to only initiate phases which will be able to function without the presence of Robert Grant Avenue. Please revise.

Novatech (December 13, 2019): Acknowledged. Phasing of the development will take into account the status of the Robert Grant Avenue extension with only portions able to function without it being initiated.

City (March 2, 2020): A Front Ending Agreement will be required, the process for this agreement has not been initiated yet. Details of Robert Grant design will need to be sorted out in parallel with ensuring that corridor widths are adequate along entire length including intersections. This shall be required prior to Draft Approval.

Acknowledged.

26. There will need to be coordination in order to leave room for a public art piece that is to be constructed at the corner of Abbott and Robert Grant (southeast side of the roundabout at Abbott and Robert Grant).

Acknowledged.

27. The Stormwater Management Facility block requires enlargement by 4m at the North and South side. A 4m wide buffer between the sediment management area and property line is required.

Novatech (December 13, 2019): Sediment management areas have been adjusted and will be finalized at the detailed design stage.

City (March 2, 2020): Block size considerations must be resolved before Draft plan approval.

Sediment management areas have been adjusted to the required sizes and are located 4.0m from the property line.

Stormwater Management Unit (SMU)

Comments for Draft Plan review TO BE ADDRESSED NOW: Conceptual Servicing report

7.5 Sediment Forebay/Permanent Pool

1. There are major discrepancies between sizing of sediment forebays in the Conceptual Servicing Report and Engineering Drawing. Please review and clarify.

Conceptual servicing calculations for the sediment forebays has been updated accordingly.

2. The Northern Forebay design drawing indicates the forebay's length at 68m compared to the report at 75m.

The drawing and report have been updated with forebay lengths of 62m.

3. Southern Sediment Forebay drawing illustrates 108m long forebay compared the report's of 85m. Please shorten the southern sediment forebay at the Stormwater Management Pond Layout.

The drawing and report have been updated with forebay lengths of 85m.

4. Provide the maintenance access with the vehicular turnaround close to the outlet structure for the inspection and maintenance and ensure it fits within the Stormwater Management facility block.

The maintenance access has been updated and is shown on the SWM plan.

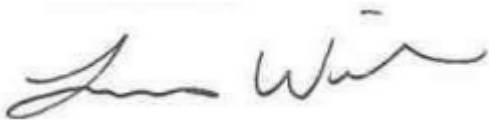
5. What is the purpose of the arrow near the outlet pipe pointing south?

The arrow near the outlet pipe represents the major system overland flow path.

Enclosed for review and approval is our updated submission that incorporates City of Ottawa comments and recommendations. Please call with any questions or concerns.

Respectfully,

NOVATECH



Lucas Wilson, P. Eng.
Project Coordinator

Attachments:

- Concept Servicing Report