TATHAM ENGINEERING

5335 Canotek Road, Unit 100
Ottawa, Ontario K1J 9L4

T 613-747-3636
E info@tathameng.com
tathameng.com

File 517651

May 2, 2024

Kent Randall, B.E.S., MCIP, RPP
Principal Planner
EcoVue Consulting Services Inc.
311 George Street North
Peterborough, Ontario K9J 3H3
krandall@ecovueconsulting.com

Re: 3358 Lakefield Road, Township of Selwyn, County of Peterborough
Response to 2nd Submission Comments

Dear Kent:

We have reviewed the following comment letters from Otonabee Region Conservation Authority (ORCA), the County, and the Township and the County and Township's peer review consultant:

1. Stantec Peer Review - Lakefield South Subdivision Traffic Impact Study Addendum, November 21, 2023
2. ORCA Summary Applicability of the Clean Water Act, November 24, 2023
3. ORCA Review of the 2nd Submission of the Draft Plan of Subdivision and Official Plan and Zoning By-law Amendments, December 22, 2023
4. County and Township Review of the 2nd Submission of the Draft Plan of Subdivision and Official Plan and Zoning By-law Amendments, January 8, 2024
5. Stantec Peer Review of the 2nd Submission of the Functional Servicing and Preliminary SWM Report, February 6, 2024

This letter provides a summary of our responses to the above comment letters. Note that the *Lakefield South Subdivision – Traffic Impact Study Addendum*[1] has been revised in the context of the received peer review comments. The Functional Servicing and Preliminary SWM Report has not been updated on the basis that the 2nd submission comments do not impact the recommendations of the report and revisions to the planning applications are adequately reflected on the revised Draft Plan of Subdivision drawing.

[1] *Lakefield South Subdivision – Traffic Impact Study Addendum*. Tatham Engineering Limited. June 28, 2023.

Our responses to each comment letter are as follows:

STANTEC PEER REVIEW – LAKEFIELD SOUTH SUBDIVISION TRAFFIC IMPACT STUDY ADDENDUM NOVEMBER 21, 2023

1. **Minor discrepancies were found between the number of vehicular trips generated in Table 3 (Trip Estimates – Net Trips) in the TIS Addendum, and the site-generated vehicular volume at the three (3) site access intersections as exhibited in Figure 7 in the TIS Addendum. The discrepancies between the two sources are depicted in Table 1. The discrepancies should be further clarified.**

   Item 7 - Discrepancies in Site-Generated Traffic Volumes

   A minor typo is found in Table 1: Trip Rate under ITE 220 low-rise apartments; the total weekday AM peak hour trip generation rate is provided as 0.36, when the value under the ITE Trip Generation Manual is 0.46. Please update the table accordingly. Item can be closed following this correction.

The peer review noted that discrepancies of up to 11 trips were identified between the trip generation stated in Table 3 of the Addendum report and assigned to the road network in Figure 7 of the Addendum report. This was determined to be a result rounding of values during both the trip generation calculations and trip assignment (i.e. double rounding of values). Rounding of values has now been applied only at the trip assignment stage. This results in an overall difference of 1 to 3 inbound/outbound trips per peak hour, which is not considered significant (i.e. will not have a material impact on the operational review).

In addition, the typo noted in the apartment trip generation rates (stated incorrectly at 0.36 trips per unit rather than 0.46 trips per unit) has been corrected.

2. **Given that the full buildout of the proposed development is postponed to 2045, it is recommended that traffic signal warrant and left turn lane warrant analyses previously conducted at the 2029 Total Traffic Conditions be updated to the 2045 horizon year. It has to be noted that the proposed transportation network mitigations shall be completed before the full buildout by the developer.**

Traffic signal warrants based on OTM Book 12 methodologies were completed under 2045 total conditions. Warrants for left and right turn lanes at select intersections were reviewed under 2045 total conditions. Commentary on results and completed warrants are provided in the Addendum report.

3. **As mentioned in the first peer review document, dated July 5, 2021, multiple ideal flow rates were found in the Synchro HCM reports for the 7th Line & County Road 29 and Clementi Street & County Road 29 intersections. For example, at the intersection of 7th Line and County Road 29, the north and south approaches were analyzed with a flow rate of 1,900 veh/hr/lane (vphpl), while the east and west approaches were analyzed with a flow rate of 1,700 vphpl. According to Exhibit 5 in the first peer review response document, adjustment was made to the intersection capacity analysis such that all lane capacities were set to 1,900 vphpl. But upon review of the updated Synchro HCM reports, this adjustment was not implemented in this TIS Addendum. Please re-apply the adjustment,**

or provide the rationale behind the revision to the original ideal flow rates in the subsequent submission.

Item 3 – Stantec's Differences with Report Intersection Geometrics

Intersection lane geometries was provided as field measurement reports in Appendix B. However, lane geometrics was not included in the Synchro intersection operations worksheets. It is recommended that lane geometrics be included as part of Synchro intersection operations worksheet outputs in the subsequent submission.

Item 23 – Source for use of 15% Heavy Vehicle and 10% on the 7th Line

According to Exhibit 5 in the first peer review response document, the following adjustments were made to the heavy vehicle percentages:

- County Road 18, County Road 29, and Bridge Street – 15%

- County Road 29, south of County Road 18 – 10%

- 7th Line, Water Tower Road, and Clementi Street – 5%

- Intersection of William Street & Clementi Street left at default value of 2% as low level collectors in a mainly residential area

But upon review of the updated Synchro HCM reports, the above adjustments were not implemented in this TIS Addendum. Please re-apply the adjustments, or provide the rationale behind the revision to the original heavy vehicle percentages in the subsequent submission.

The peer reviewer noted that multiple ideal flow rates were used in the Synchro model for the study road network, rather than the default value of 1,900 vphpl. It was also identified that heavy vehicle percentages used in model varied from values agreed upon for each road. The Synchro model has been updated as follows:

- Ideal flow rate of 1,900 vphpl applied to all movements at each intersection; and
- Heavy vehicle percentages revised as necessary per Item 23 of the peer review document.

All operations in the Addendum report were reassessed considering these revisions. In addition, outputs of lane geometrics used in the model were included as per Item 3 of the peer review document.

4. **Item 21 – Signal Timing Plans Appended to the Technical Appendix**

   This comment requested the existing signal timing plans (STPs) for the two existing signalized intersections to be appended to the report. The signal timing plans then will be reviewed against the timing plans coded in the Synchro input sheets and provided as part of Appendix D in the TIS Addendum. One of the main items that need to be reviewed is the permitted + protected phase used for the westbound left turn movement at the intersection of CR 29 & Clement Street in 2029 and

2045 horizons against the existing signal and its controller. If any changes to the signal infrastructure including its controller unit will be required, it has to be implemented prior to 25% construction (2029) and all costs associated shall be borne by the developer.

The peer reviewer requested that existing signal timing plans for existing signalized intersections be provided. Existing signal timing plans were requested from the County of Peterborough and are appended to Addendum report.

5. **Item No. 29 – A specific exhibit illustrating the Active Transportation Links should be included in the study report.**

   An exhibit illustrating the active transportation links, as previously suggested by TranPlan, is not included in the TIS Addendum. It is recommended that this exhibit be provided in the subsequent submission.

The peer reviewer requested an exhibit be provided to show active transportation links. A figure illustrating proposed active transportation facilities within the proposed development has been added to the Addendum report.

ORCA SUMMARY APPLICABILITY OF THE CLEAN WATER ACT, NOVEMBER 24, 2023

1. **The Property is partially within the Intake Protection Zone (IPZ-2) for the Lakefield Municipal Surface Water System (blue area on inset map). IPZs are based on setbacks from a municipal surface water intake (in a lake or river) and the time for flows to reach intake. Low, Moderate and Significant drinking water threats are possible, however, Trent Source Protection Plan policies only apply to those that are Significant which are possible in the darker blue area of the map at right. There are no apparent Significant Threats.**

Noted.

A Restricted Land Use Notice from this office is required for each municipal development application that requires approval under the Planning Act, Condominium Act and/or the Building Code Act. The Notice is not a form of permission, however, the municipality cannot issue an approval without it. There is no fee, it can typically be issued in 4-5 business days after the online application for a Notice has been submitted and will remain valid for one year.

Noted. A Restricted Land Use Notice will be applied for at the appropriate stage.

2. **The Property is partially within a Significant Groundwater Recharge Area (SGRA) (green and yellow area on inset map). SGRAs are known to replenish aquifers (e.g. sand and gravel deposits) and may be considered in planning decisions to protect sensitive groundwater features and hydrologic functions such as recharge.**

Noted.

According to provincial guidance, planning authorities should consider the location of SGRAs to protect aquifers from depletion and may choose to require additional information or studies (e.g. planning justification report, hydrogeology, environmental impact statement) to ensure that proposed development or site alteration will not pose a risk to sources of drinking water.

Noted.

3. **The Property is partially within a Highly Vulnerable Aquifer (HVA) (pink hatched area on inset map). HVAs are make an aquifer susceptible to contamination such as fractured bedrock or sand and gravel deposits. They may be considered in decisions on planning matters to protect sensitive groundwater features and sources of drinking water other than those included in source protection plans.**

Noted.

According to provincial guidance, planning authorities should consider the location of HVAs to protect aquifers from contamination and may choose to require additional information or studies (e.g. planning justification report, hydrogeology, environmental impact statement*) to ensure that proposed development or site alteration will not pose a risk to sources of drinking water.*

Noted.

4. **Transport Pathway (TP) Considerations: A TP is a condition of land resulting from human activity that increases the vulnerability of the raw water supply of the municipal drinking water system. The creation of a TP can negatively impact the quality and/or quantity of a drinking water source by reducing the time for water to flow to a municipal surface water intake pipe.**

   Subsection 27(3) of O. Reg 287 /07, states that if the municipality receives an application for approval of a proposal to engage in an activity in an Intake Protection Zone (or Wellhead Protection Area) that may result in the creation of a TP (or the modification of an existing TP), the municipality shall notify the source protection authority and the source protection committee of the proposal. Their notification must include a description of the proposal, identity of the person responsible for the proposal and a description of the approvals the person requires to engage in the proposed activity. O. Reg 287/07, subsection 27(4) requires the municipality to give a copy of the notice to the person responsible for the proposal.

Noted. The Township shall notify the source protection authority and the source protection committee of the proposal at the appropriate stage.

ORCA REVIEW OF THE 2ND SUBMISSION OF THE DRAFT PLAN OF SUBDIVISION AND OFFICIAL PLAN AND ZONING BY-LAW AMENDMENTS, DECEMBER 22, 2023

We acknowledge receipt of the following comments which will be addressed at the detailed design stage.

1. **It is suggested that the level of information provided for the stormwater management ponds is sufficient to establish the size and limits within the proposed development. However, plan & profile views for SWM Facility #2, SWM Facility #3, SWM Facility #4, suggest the ponds have a combination of 5:1 and 3:1 side slope.**
    a. **With no actual grading information on the drawings, please demonstrate within the proposed limits of the SWM Blocks how a large portion of the facility side slope will be converted from 5:1 & 3:1 to 10:1 slope to create a sediment drying area.**
2. **Figure 1.1 Natural Features, Vegetation Communities, Surveys & Constraints identifies wetland and/or woodland areas within drainage area 103 & area 104.**
    a. **Why doesn't the hydrologic parameter calculation page assign an area and runoff value for the features?**
    b. **Please make the appropriate corrections to both hydrologic parameter tables and the pre-development condition VO model.**
3. **Post development drainage area 206 represents the wetland and the associated 15m setback.**
    a. **Why has the hydrologic parameter calculation page assigned the entire drainage area as pasture? Please modify the table to include the runoff values to accurately represent the wetland, the woodland and the remainder of the setback area.**
    b. **Please make the appropriate corrections to both hydrologic parameter tables and the pre-development condition VO model.**
4. **Please provide the stage-storage-discharge table for SWMF # 1, SWMF #2, SWMF #3, SWMF #4, SWMF #5.**
5. **Please provide all of the outlet control structure components (orifices, control pipes, inlets, and weirs) including diameters, dimensions and inverts for SWMF # 1, SWMF #2, SWMF #3, SWMF #4, SWMF #5.**
6. **With the water quality control for drainage areas 201 & 205 being done through a treatment train approach with the dry pond and oil grit separator (OGS) the minimum detention time should be closer to 48 hours.**
7. **The impervious area calculation page does not provide the breakdown for drainage areas 204 & 205. Please provide the appropriate corrections.**

8. **The SWM Facility 1 Plan View provides absolutely no information. At a minimum, the plan should delineate:**
    a. **Existing grades and contour data (labeled),**
    b. **All proposed grades and elevations,**
    c. **Ray's Creek regulatory floodplain with label,**
    d. **The wetland buffer,**
9. **There should be a detail for each outlet structure including the orifice plate location, dimensions, pipe sizes, and all inverts.**
10. **Section D-D 10m Wide Drainage Easement will convey overland runoff between drainage area PEXT-3 and a portion of drainage area 204.**
    a. **How was the contributing drainage area calculated?**
    b. **How was the target 100-year storm peak flow of 6.21 m3/s established?**
    c. **Please modify the above information to properly define the target 100-year storm peak flow.**
11. **The proposed sanitary pipe, as delineated on drawing SAN-1, has the pipe traversing under SWMF #1. The SWM Facility 1 Profile View should include the location of the sanitary pipe.**
12. **The pre and post development VO model schematics are not within the Functional Servicing and Preliminary Stormwater Management Report.**
13. **The VO model summary output provides little model input information. As a minimum, detailed output should be provided.**
14. **As presented within the Response to 1st Submission Comments, the design of the stormwater management facilities will include input from a geotechnical engineer to confirm they will remain stable.**
15. **The proposed sanitary pipe, as delineated on drawing SAN-1, will be constructed within the Ray's Creek floodplain and within the wetland and 30m buffer.**
    a. **What is the width of the sanitary corridor?**
    b. **How is the corridor being maintained?**
    c. **How is the corridor being revegetated?**
    d. **Has the corridor area been included within the wetland compensation?**

30 metre Vegetation Buffer Around Hydrological Features

16. **The sanitary sewer crosses into the buffer at multiple locations including the buffer, watercourse/HDFs, and wetland areas (yellow circles highlight in Figure 2). Technical staff generally concur with GHD to minimize impacts with directional drilling pending confirmation of Geotech and engineering servicing assessments.**

17. **In previous comments, technical staff mentioned that SWM inputs should be directed to permanent lotic/flowing systems to minimize impacts to intermittent flows and wetland hydroperiods from too much or too little water, especially in the absence of downstream data from adjacent lands.**

    a. **Technical staff note that SWM pond 3 and 5 outlets to Habitat Zone 6 which consists of a HDF that had interstitial flow, minimal flow or was dry as noted by GHD in Section 3.2.9.3.**

18. **Section 5.1 (pg. 86) of the EIA mentions that the outfalls from the SWM ponds will need to pass through a portion of the 30 metre buffers. This needs to be displayed on the drawings and include how far into the buffers they will be placed.**

COUNTY AND TOWNSHIP REVIEW OF THE 2ND SUBMISSION OF THE DRAFT PLAN OF SUBDIVISION AND OFFICIAL PLAN AND ZONING BY-LAW AMENDMENTS, JANUARY 8, 2024

1. **Please provide a phasing plan as a separate standalone document. The FSR includes a phasing plan titled "LSDA Sewer Catchment Area Plan." Please provide an explanation for the location of the phases, in particular phase 7.**

The phasing plan was included as a standalone drawing in the second submission of the Functional Servicing and Preliminary SWM Report, titled "Phasing Plan", Drawing PH-1. Please note that the phases were prepared at a high level and are to be considered preliminary and hence are subject to revision as the detailed design stage advances. The currently proposed phasing is shown on the Draft Plan of Subdivision drawing which is provided with this submission. Our methodology for the currently proposed phasing is summarized as follows:

- Phase 1 – Readily serviceable with municipal water from Tower Road. It is noted that sanitary servicing of Phase 1 does require a short extension of the proposed Rays Creek sanitary sewer.
- Phase 2 – Readily serviceable with municipal water from Tower Road but would require a looped watermain connection to Coyle Crescent in order to avoid more than 50 units being serviced with municipal water from a dead end watermain. Phase 2 requires a further extension of the Rays Creek sanitary sewer.
- Phases 3 through 5 – Will create a roadway connection to the 7th Line for emergency access, while relying on the Rays Creek gravity sewer outlet (and requiring a further extension of such). Phase 3 and onward does require a looped watermain connection to Murray Street via the Phase 9 area and the AON Inc. property located north of Phase 9. Phase 4 provides beneficial watermain looping for Phase 3.

- Phase 6 – Completes development between Phases 3 and 4 and also relies on the Rays Creek gravity sewer.
- Phase 7 – Can be implemented at any time after watermain looping has been established in Phase 4 but due to Phases 5 and 6 having higher priority given our methodology, occurs after 6. Phase 7 is otherwise self contained as it relates to SWM with a dead-end watermain connected to Phase 3.
- Phases 9 and 10 require a temporary pumping station, or preferably a gravity sanitary sewer via the AON Inc. lands, which has not been fully resolved and thus is phased after Phase 8.

2. Please provide a description of when certain upgrades and/or improvements will be required at each phase i.e., road network improvements and servicing allocations.

It has been determined in the TIS addendum that no road network improvements are required through the 2029 horizon, with 200 units – prior to Phase 2. Road network improvements past this point will be determined in the future when more information is available.

Based on D.M.Wills' memo dated March 13, 2023, analysis of the existing water distribution system, considering the impacts of the proposed development, was completed and confirmed only minor impacts throughout the system during the average day, maximum day and peak hour scenarios. Regarding impacts to fire flow the results were varied however there are generally no areas of concern requiring external upgrades.

Also based on D.M. Wills' memo and the Functional Servicing and Preliminary SWM Report external wastewater collection system improvements are required and are summarized by Phase in Table 1 below. It is noted that all upgrades are assuming 450 L/c/d including extraneous flows (as is recommended in D.M.Wills' memo for estimating timing of future external infrastructure upgrades) and assuming that the 3358 Lakefield Road development is the only development within the LSDA contributing to sanitary flows.

Table 1: Phase by Phase Sanitary Flow Summary

PHASE	RESIDENTIAL UNITS (#)	COMMERCIAL AREA (m^2)	CUMULATIVE PEAK FLOW (L/s)	CUMULATIVE AVERAGE DAILY FLOW (m^3/day)	REQUIRED UPGRADES
1	110	0	4.6	99.0	-
2	132	0	11.2	244.8	-
3	87	0	17.0	381.8	-
4	39	0	19.4	440.8	-
5	79	0	22.9	526.1	1 - George Street SPS Upgrades 2- Gravity Sanitary Sewer Upgrades u/s of the George Street SPS
6	52	0	25.0	578.7	1- Upgrade to Lakefield Wastewater Treatment Lagoons
7	43	0	27.6	646.4	1 – Water Street SPS Upgrades
8	162	4,000	34.3	808.7	-
9	37	0	36.5	864.5	1 – Gravity Sewer Upgrades d/s of the George Street forcemain discharge at Burnham Street or twin forcemain from George Street SPS to Water Street SPS
10	169	0	42.3	1,021.1	-
Total	**910**	**4,000**	**42.3**	**1,021.1**	

Prior to Phase 5, as total combined peak flows exceed 20 L/s in the LSDA, the George Street SPS will require upgrades, and portions of the existing gravity sanitary sewers upstream of the George Street SPS (George Street from Fraser Street to Clementi Street) will be required to be replaced.

Prior to Phase 6, as total combined average daily flows exceed 565 m³/day, upgrades to the Lakefield Wastewater Treatment Lagoons will be required.

Prior to Phase 7, as total combined peak flows exceed 27.5 L/s, the Water Street SPS will require upgrades.

Prior to Phase 9, as total combined peak flows exceed 35 L/s, portions of the existing gravity sewers downstream of the George Street forcemain discharge on Burnham Street (Water Street to Queen Street) and Queen Street (Burnham Street to Albert Street) will be required to be replaced or alternatively, new twin forcemains will be constructed between the George Street SPS and the Water Street SPS to avoid upsizing the above gravity sewers as is described in D.M.Wills' memo.

Replacement of portions of existing gravity sewers downstream of the George Street forcemain discharge on Albert Street (Queen Street to Regent Street), Regent Street (Albert Street to Duff Street) and Duff Street (Regent Street to Division Street) will be required after a combined peak flow of approximately 50 L/s from the LSDA. Similarly, replacement of the existing Tower Road gravity sewer between SAN MH 243 and SAN MH 250, which has been flagged as a 'bottleneck', will be required after a combined peak flow of 21.8 L/s (which is the existing sewer capacity when it is flowing 80% full). These improvements are not triggered by peak flows from the 3358 Lakefield Road development alone but may be required with the addition of peak flows from other developments within the LSDA.

We note that the Township is also planning to twin of the existing forcemain under the Otonabee River with a new 250 mm diameter forcemain to provide system redundancy, however this work is not specifically related to or triggered by future development with the LSDA.

STANTEC PEER REVIEW OF THE 2ND SUBMISSION OF THE FUNCTIONAL SERVICING AND PRELIMINARY SWM REPORT, FEBRUARY 6, 2024

1. **Stantec pg. 4/17**

   The proposed watermain location at the southern limit indicates looping through a private parking lot. Township requests that this be adjusted and routed through future Township owned lands (possibly near SWM Pond #4).

Noted. The proposed watermain will be relocated through the SWM Pond #4 block.

2. **Stantec pg. 4/17**

   Notwithstanding Tatham's response comments that the proposed Rays Creek gravity sanitary sewer has increased from 300 to 375 mm in diameter and includes excess capacity so as to not constrain

the future development potential of the skating oval property (as a recreational facility), in the event the zoning and land use designations for this parcel of change to the extent that medium density residential units could be constructed (similar to what is proposed for lot 363 in the Draft Plan of Subdivision), this could result in additional peak sanitary flows directed to the Rays Creek Sewer of 12 – 15 litres per sec. This is based on the area of this parcel being approximately 4.2 hectares and assuming 200 units minimum and 500 persons at 450 litres/per/capita/day. The grading contours of this parcel are such that gravity sewers would be directed to the Rays Creek sewer. Tatham states in FSSWMR2 that the peak sanitary flows to the sewer are 54 litres per sec and with a minimum slope of 0.4% and the increased size the sewer can convey flows of 88.7 litres per sec. at 80% capacity. With 15 litres per sec. added the peak flows would be 69 litres per sec. Therefore, Tatham should take this eventuality into account during the detailed design of the Rays Creek sanitary sewer and the gravity sewers further downstream in terms of sizing and capacity and potential downstream surcharging.

Noted. We will include allowances for higher density development peak flows from the skating oval property at the detailed design stage and track any such sewer capacity allowances in terms of eligibility for future development charge credits.

3. **Stantec pg. 5/17**

   D. M. Wills memo verified a capacity constraint in the Tower Road sanitary sewer from MH 246 to MH 250 and will require upgrading from 200 mm to 300 mm. They indicated that from MH 250 to MH 253 at Lakefield Road there is capacity for full buildout. Stantec is suggesting that the entire existing 200 mm sewer on Tower Road from existing MH 243 at the south end of Tower Road to MH 250 be replaced with a 300 mm sewer with appropriate design grades right from the start of the development at the responsibility of the developer. And with the potential scenario of the Speed Skating Oval undergoing a different kind of development as discussed, the Tower Road sewer from MH 250 to MH 253 should be further investigated to determine if it needs to be upsizing from 300 mm as it intercepts the Rays Creek sewer at MH 250. Further the short section of sewer from MH 253 to the next MH east should be verified as to if it has sufficient capacity or if it will have to be upgraded. Wills memo also indicated (from their Lakefield Sanitary Serving Upgrades EA 2016) that gravity sewer on George Street leading to the George Street Sanitary Pumping Station needs to be upgraded.

Replacement of the existing Tower Road gravity sewer between SAN MH 243 and SAN MH 250, which has been flagged as a 'bottleneck', is not triggered by peak flows from the 3358 Lakefield Road development alone. Specifically, peak flows from the 3358 Lakefield Road development were estimated to be approximately 13.6 L/s in the sanitary design calculations provided in Appendix C of the FSSWMR2 whereas the capacity of the existing Tower Road gravity sewer within the bottleneck is 21.8 L/s, when it is flowing 80% full. Only with the addition of the AON Inc. peak flow of 16.3 L/s and/or peak flows from

the LSDA to the northeast will the capacity of the existing Town Road gravity sewer be exceeded. Based on our review of the sewage flow rate calculations, and our projection for development within the LSDA, the earliest phase of the 3358 development that would require the existing Tower Road gravity sewer within the bottleneck to be replaced would be Phase 9 and this estimate assumes that the Aon Inc. lands are fully developed prior to Phase 9. Based on the above, replacing the 'bottleneck' sections of sanitary sewer at the start of development is not warranted and having the sewer replacement the responsibility of the developer of the 3358 Lakefield Road lands, our Client, is not appropriate.

The need to upsize the 300 mm Towner Road sanitary sewer downstream of SAN MH 250 will not be triggered by the ultimate 3358 Lakefield Road and the ultimate AON Inc. developments combined, even considering the speed skating oval undergoing a different (higher density) development. Accordingly, we recommend that the downstream sanitary sewer capacity be investigated on a regular basis as development advances so that the Township can properly plan for and implement the required sanitary upgrades.

Timing for when downstream sanitary sewer upgrades are required on George Street leading to the George Street SPS is Phase 5 of the 3358 Lakefield Road development as is summarized in Table 1 of our responses to the County and Township Review Letter.

4. **Stantec pg. 6/17**

   It is highly recommended that the Developer be responsible for installing the surface asphalt layer on full width and length of Tower Road after sewer upgrade are completed, as mentioned above in this letter, as there is only base asphalt now between the curbs and then the Maintenance Hole frames and covers can be set to the proper and final roadway surface elevation.

As explained in the above response, sewer upgrades on Tower Road to address the identified 'bottleneck' at the start of development, is not warranted. The Developer's responsibilities in terms of installing surface asphalt on Tower Road will be resolved in the future.

5. **Stantec pg. 6/17**

   The maintenance access roads for all the stormwater ponds in addition to being 3.0 meters wide must be able to accommodate the appropriate type of service vehicle(s) and equipment that may be needed to facilitate all types of maintenance activities on the ponds and access the entire perimeter of the ponds.

Noted. This will be addressed at the detailed design stage.

CLOSING

We trust the above responses and adjusted materials, in conjunction with the updated *Lakefield South Subdivision TIS Addendum*, are sufficient to confirm the feasibility of the proposed development, in support of the Official Plan and Zoning By-Law Amendment and Draft Plan of Subdivision applications. If you have any questions or require additional clarification, do not hesitate in contacting the undersigned.

Yours truly,
Tatham Engineering Limited

Jeremy Ash, B.Sc.Eng., P.Eng.
Director, Manager - Ottawa Office
JA:akm

O:\Ottawa\2017 Projects\517651 - 3358 Lakefield Road\Documents\Correspondence\2nd submission comment response\SWM Letter\L - I. Mudd - 2nd submission comment response - May 2 2024.docx