

35, 40 and 55 Silvercreek Parkway South, Guelph

OZS19-016 Draft Plan of Subdivision 23T-19001

Comment Response Matrix for **Third** Submission

Responses last updated on **September 28, 2022**

<b>Jim Hall Development Engineering (April 5, 2022)</b> <b>519-822-1260 x3514 jim.hall@guelph.ca</b>		
<b>#</b>	<b>Comment</b>	<b>Response</b>
1	Draft Plan 1. Blocks 28 & 29: Additional internal discussions are ongoing concerning how these sidewalks should be developed. While there is no change to the development requirements, we are working with other groups to confirm if Blocks are needed. We will provide an update on this under separate cover.	The City has confirmed that Walkway Blocks 28 and 29 are not required. The Draft Plan of Subdivision has been revised accordingly.
2	Functional Servicing and Stormwater Management Report Sanitary Servicing 2. The Sewer Design Sheet is missing the pipe segments downstream of MH03A: capacity unknown at this time. Please continue design sheet to WW MH ID 8790 so that we can confirm capacity in the receiving sewer (within the Silvercreek/Waterloo intersection).	The existing sanitary pipes downstream of the proposed development up to the Silvercreek/Waterloo intersection have been included within the sanitary design sheet. The existing flows have been calculated for this downstream area and it has been determined that the system has capacity to accept the proposed sanitary flows from the development.
3	Storm Servicing & Stormwater Management 3. The "TSS Removal Efficiency – Treatment Train" table and calculations found in Appendix E needs to be corrected. All catchment areas that collect stormwater that require treatment must be treated to enhanced TSS (80% removal) levels. While this section is improved, please review: the table still appears incorrect: how was the total efficiency of the SWMF calculated to be 92% when it was designed to provide 80%? a) Additional clarity provided in the 3rd submission highlights the confusion: the infiltration basin downstream of the main pond should not be designed as if it were a separate/additional quality control structure, as it has not been (and is not needed to be). There is no permanent pool in the infiltration basin; this should be designed for infiltration only. Please update the language in the report to reflect this. Additional design	The proposed Wet Pond SWM facility has been designed to provide Enhanced Level 1 water quality treatment which achieves the 80% TSS removal efficiency requirement. While we submit that the infiltration basin provides additional water quality benefit through runoff volume reduction, we have removed it from the Treatment Train table in Appendix E, acknowledging that the SWM facility provides the required water quality treatment.

	refinement will be discussed/reviewed during detail design.	
4	<p>4. By-Pass SWM – OGS &amp; Enhanced Grass Swale:</p> <p>a) It appears the OGS is undersized for the anticipated flows.</p> <ul style="list-style-type: none"> <li>• How do the anticipated flow rates (at various storm events) compare with the treatment efficiency as tested through the ETV program? How do they compare with flow rates stated by the manufacturer (treatment efficiency and maximum capacity)?</li> </ul> <p>b) There are insufficient details provided in the report to show the design of the swale meets MECP and CVC guidance for this type of infrastructure: guidance material from CVC indicates that swale lengths should equal or exceed the length of contributing roadway/drainage area to be effective, which is not provided in this design. While we may not need a full detail design at this time (prior to Draft Plan approval) we do need sufficient design details to ensure the sizing, location and land allocated to this facility is sufficient.</p> <p>c) “CB Shields” have not been tested at the flow rates anticipated at this location. Performance is unknown for both TSS removal and scour prevention. We have additional concerns about the potential for the devices to increase surface ponding during high flows. Additional details and literature review will be required before this device should be considered in this setting.</p>	<p>Flow rates used to size the OGS units were calculated in the Stormceptor sizing software provided through Forterra. The sizing software computes the anticipated flow rates using continuous rainfall data through a SWMM engine. The nearest rainfall station to our site was the Waterloo Wellington AP rainfall station, which contains 34 years of rainfall data. The Stormceptor sizing software sizes the unit to accommodate the contributing 1.14 ha drainage area at a runoff coefficient of 0.65. The anticipated water quality flow rate, based on the continuous rainfall data, is 28.08 L/s. This methodology of sizing the Stormceptor has been approved through the ETV verification program. As a comparison, the 25 mm rainfall event from the MIDUSS model generates an event flow of 133 L/s, however, we submit the two flows cannot be compared since they are derived using two different methods. We trust the flows from the Stormceptor sizing program, approved by ETV Canada, to be appropriate in this regard. Notwithstanding the above, further to two virtual meetings were held with the Mr. Jim Hall (City of Guelph) and representatives from Burnside, we understand the OGS sizing at this time will remain, acknowledging the treatment train of water quality measures now proposed will sufficiently provide the minimum 80% TSS removal requirement.</p> <p>The use of CB shields will be further investigated at the detailed design stage. Again, based on the virtual meetings held with Mr. Jim Hall (City of Guelph), we understand that the CB shields will need to be appropriately sized to accommodate the anticipated flowrates to the storm</p>

sewer. At this time, we can confirm that the full 100-year flow rate from the underpass (i.e. 526 L/s) can be accommodated via 4 CBs on grade and 4 double CBs in sag, all equipped with CB shield units. Further documentation on the CB Shield units has been included in Appendix E of the revised FSR. We also note that the CB shields provide supplementary/ redundant water quality treatment in the treatment train, as the required 80% TSS removal rate is achieved via the OGS unit and the downstream wet detention forebay that is now proposed (and summarized below).

The enhanced grassed swale has been replaced with a small wet detention forebay that has been sized to provide Basic (Level 3) protection per MECP guidelines (i.e. 60% TSS removal). The combination of the water quality measures provided will achieve the required 80% TSS removal for the 1.14 ha drainage from the underpass. A screenshot of the updated table in Appendix E has been provided for ease of reference.

It is noted that during the detailed design phase, there are potential options to increase the size of the proposed wet detention forebay by revising the size of the centralized SWM facility and infiltration basin. The increase in size would provide additional wet detention volume, intended to provide the required volume associated with Enhanced (Level 1) water quality protection.



### TSS Removal Efficiency - Treatment Train

Catchment Area Description	Treated Drainage Area (ha)	Removal Efficiency				Total Efficiency
		CB Shield	Oil/Grit Separator	Wet Pond (Basic)	Wet Pond (Enhanced)	
Silvercreek Parkway North Catchment (Underpass)	1.14	50%	50%	60%		90%
Drainage Area to SWMF	16.58				80%	80%

5 Table 3 indicates “SWM Pond Stage-Storage-Discharge” but the text in the preceding section seems to indicate this table includes all outflow combined (from all sources, including uncontrolled). Please update the table to only include the main SWM pond details, as per the table heading, and add additional table(s) as necessary to provide the outflow information for the uncontrolled areas (should be split so as to isolate uncontrolled areas by discharge point.)

Further to your comment, we have added a Table 5 to the report (subsequent existing tables have been renumbered accordingly), to summarize the various discharge flows from the site, including the SWM facility, the uncontrolled areas and the underpass. The total site flow, as computed in the MIDUSS model was also provided. A screenshot of Table 5 has been provided for ease of reference.

A discharge flow summary, provided in Table 5 below, identifies the various discharge flows throughout the site, with a combined outflow as computed in the MIDUSS model.

**Table 5: Post-Development Discharge Flows Summary**

Return Period Storm	SWM Facility Outflow (m <sup>3</sup> /s)	Uncontrolled Areas (UN1-UN5) (m <sup>3</sup> /s)	Underpass Flow (m <sup>3</sup> /s)	Total Site Outflow (m <sup>3</sup> /s)
25 mm	0.041	0.047	0.133	0.203
5-Year	0.160	0.157	0.248	0.406
100-Year	0.533	0.427	0.526	1.143
Regional	2.227	0.128	0.154	2.509

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As requested, Table 3 has been revised to remove the combined outflow from the site. A screenshot of the revised Table 3 has been included.

**Table 3: SWM Pond Stage-Storage-Discharge**

Return Period Storm	Pond Inlet Flow (m <sup>3</sup> /s)	Pond Outlet Flow (m <sup>3</sup> /s)	Storage Volume Required (m <sup>3</sup> )	Water Level Elevation (m)
25 mm*	2.146	0.041	2,311	315.90
5-Year	3.813	0.160	5,062	316.41
100-Year	7.573	0.533	9,893	317.20
Regional	2.229	2.227	10,452	317.29

\*See Section 4.3.5 for extended detention details.

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Thank you for providing the information in Table 4 (as per our previous comment). Please also include the outlet of the infiltration gallery and the outlet of the enhanced swale (by-pass flow). Please also review the value provided for the Regional storm at the inlet of the infiltration gallery: design details included in the submission show that the ponding elevation of the Regional storm is higher than the 100-year storm, and based on the SWMF design this implies that there will be inflow to the infiltration gallery (and some level of infiltration) during a Regional storm event, therefore this value is not expected to be "N/A".

As requested, Table 4 has been updated to better clarify the flows at key locations. To clarify, the inflow to the Infiltration Basin is limited to the controlled orifice flows from the wet pond. As shown on the Drawing 4.3, an overflow weir, set at the 100-year ponding elevation, has been provided from the wet pond to an overland flow channel to convey flows above the 100-year storm event. Additionally, a berm has been provided between the wet pond and the infiltration basin to prevent Regional flows from spilling into the infiltration basin. The head acting on the orifices was used to calculate the inflow to the Infiltration Basin during a Regional Storm event. The remaining Regional flows will spill over the wet pond overflow weir as noted.

We have added the outflows from the centralized SWM facility and the outflows from the infiltration basin to Table 4.

We trust the above better explains the operating characteristics of both the wet pond and infiltration basin.

A screenshot of the revisions to Table 4 is provided below for ease of reference.

**Table 4: Post-Development Flow Rates at Key Locations**

Return Period Storm	Inlet to by-pass OGS (Underpass Flow) <sup>1</sup> (m <sup>3</sup> /s)	Inlet/Headwall at Pond <sup>2</sup> (m <sup>3</sup> /s)	Pond Outlet <sup>3</sup> (m <sup>3</sup> /s)	Inlet at Infiltration Gallery <sup>5</sup> (m <sup>3</sup> /s)	Infiltration Gallery Outlet <sup>7</sup> (m <sup>3</sup> /s)
25 mm	0.133	1.995	0.041	0.041	0.041
5-Year	0.248	3.507	0.160	0.160	0.160
100-Year	0.526	6.807	0.553	0.553	0.553
Regional	0.154	2.008	2.227 <sup>4</sup>	0.574 <sup>6</sup>	0.574 <sup>6</sup>

1. Flow generated in MIDUSS model from 1.14 ha underpass drainage, captured and conveyed within the bypass storm sewer and treated for water quality via CB Shield units, an OGS unit and a Basic Level wet detention pond prior to combining with SWM facility discharge flows and discharging offsite.
2. Flow generated in MIDUSS model for areas draining to the SWM facility (not including the SWM block).
3. Preliminary design of control outlet includes two orifices (i.e. 150 mm diameter orifice set at the normal water level of 315.40 and a 410 mm diameter orifice set at an elevation of 316.05 m) and one overflow weir set at the 100-year ponding elevation of 317.20 m.
5. Flow control outlet from the wet pond discharges to the infiltration gallery. Controlled flows (per MIDUSS model) achieved using a combination of two orifices as part of the functional design process. Overflow weir from wet pond does NOT spill to the infiltration facility.
6. Calculated inflow (and outflow) of the infiltration gallery based on combined wet pond orifice outflows at the Regional ponding depth of 1.89m.
7. No attenuation in the infiltration gallery. Inflow and outflow are equal.

7	Values in Table 5 and Section 4.3.6.2 do not match those in the WSP water balance assumptions for infiltration. Please review and update the appropriate document.	As requested, the water balance and FSR have been revised to match each other.
8	Please coordinate updates with the Environmental Impact Study to ensure mitigation, if necessary, for the receiving system due to the proposed doubling of infiltration. The updated EIS does not address this comment, nor is there any description of the receiving system's ability to handle this flow in the EIS, FSR, or Hydrogeological report.	The groundwater throughout the site generally flows from the north to the south of the site", and will not flow through or into any natural features along this pathway, nor impact any features from the increase in groundwater entering the system. No mitigation is required for the increase in infiltration as there are no natural heritage features present within the runoff trajectory of the site that may be impacted by a reduction in overland flows or increase in groundwater within the system. As such, it is the opinion of AA that no mitigation measures are necessary for the increase in site infiltration caused by the receiving system.
9	Grading 9. Additional details on the proposed retaining wall at the new grade separation of Silvercreek/rail corridor are required prior to	Retaining wall design is unchanged from the original designs prepared in 2013 for the City of Guelph.



	Draft Plan approval to ensure sufficient space/land is provided for the wall system, including footings, tiebacks, etc. Additional details are still required: what space is needed for retaining wall protection system (tiebacks, etc.)? The additional details requested were not provided. a) Please ensure the retaining wall (and all structure) is shown placed within private property, and identify the anticipated space needed for the structure (tiebacks, foundation, etc.).	Adjustments and an update will be required during detailed design, but it is anticipated that the design is effectively the same.
10	Hydrogeological Assessment 10. Infiltration testing was not completed as per DEM requirements.	WSP Infiltration testing completed using (2012) MW falling head tests, and (2019) Nova Scotia permeameter constant head tests (also called ETC Pask permeameter).  Client decision: <ul style="list-style-type: none"> <li>- Option 1 - Argue validity of NSP (previously used methodology) to City of Guelph</li> <li>- Option 2: Complete confirmatory infiltration rate testing using Guelph permeameter or double ring infiltrometer</li> </ul>
11	In Section 2.10.1, the geometric mean saturated hydraulic conductivity is identified as $3.0 \times 10^{-6}$ m/s; please review the calculation: the values listed in the table result in a geometric mean of only $2.4 \times 10^{-6}$ m/s.	WSP change will have to occur in reissue of Hydrog report, geomean should be $2.4E-6$
12	Please coordinate updates with the Environmental Impact Study to ensure mitigation, if necessary, for the receiving system due to the proposed doubling of infiltration.	The groundwater generally flows from the north to the south of the site. There are no significant environmental features near or adjacent to the site that might be impacted by an increase in the amount of groundwater entering the system
13	An updated memorandum was submitted, but it did not address the above comments: these are still considered outstanding and need to be addressed. Without updates and/or clarification for the above, the correct design infiltration rate is unknown.	WSP Above comments 10-12 need to be addressed in a Hydrog report reissue.
14	Geotechnical Investigation	WSP

	<p>14. The submitted report was completed based on a previous site concept and road layout and may require an update based on the current land use concept and layout. We will require either an updated study, or a professional statement from the report author confirming their recommendations and conclusions based on the current site concept.</p>	
<p>15</p>	<p>Environmental Engineering  15. WSP Canada Inc's Phase I Environmental Site Assessment (ESA) report for 55 Silvercreek Parkway South, Guelph, Ontario identified the former property use of the Site to be Industrial. As the proposed property use is Residential a Record of Site Condition (RSC) is required to be completed for the property and submitted to the Ministry of the Environment, Conservation, and Parks (MECP) under Ontario Regulation (O. Reg.) 153/04 (as amended) to allow a change of property use from Industrial to Residential. Proof of RSC filing and MECP acknowledgement for 55 Silvercreek Parkway South along with pertinent environmental reports (i.e., Phase Two ESA, Remediation, and/or Risk Assessment reports) used in filing the RSC must be submitted to the City.</p>	<p>WSP</p>
<p>16</p>	<p>Golder Associates Ltd's Phase II ESA and Supplemental Phase II ESA reports dated July, 2004, for 35 and 40 Silvercreek Parkway South, Guelph, Ontario (former Lafarge Property) identified that both surface and subsurface soil and groundwater contain elevated concentrations of petroleum hydrocarbons (TPH) including free product, several volatile organic compounds (VOCs), and inorganic compounds in excess of the MECP criteria in use at the time (i.e., Table A). Subsequently, the City was provided with RSC's 45206 and 36700 for 35 and 40 Silvercreek Parkway South, respectively. However, the Phase II ESA report dated October 19, 2007, and Remedial report dated March 17, 2008, completed by Barenco Inc. and listed in RSC's 36700 and 56206, respectively, have not been provided to the City. <b>A copy of the Phase II ESA and Remedial reports completed by Barenco Inc. and listed in RSCs 45206 and 36700 must be submitted to the City.</b></p>	<p>Fieldgate</p>





	<p>c) traffic geometric plans for larger design vehicles making turning maneuvers at the circle. The design vehicles include fire trucks, school bus, waste pickup trucks, and transit buses;</p> <p>d) a cross-section for all of Silvercreek that supports cycle tracks and sidewalks on both sides and including the traffic circle;</p> <p>e) emergency response for Phase 1 without the grade separation; and</p> <p>f) an interim active transportation connection at the north rail crossing for Phase 1 without the grade separation.</p>	
18	<p><b>Comments for later use (drafting conditions, detail design and/or site plan application)</b></p> <p>1. Development Review Engineering</p> <p>a) Please note that city support for a draft plan approval does not mean acceptance of design shown in submitted documents: further discussion and refinement of the design will be required during the detail design stage.</p> <p>b) The reports reference water monitoring, but there is less ground water monitoring data reported in the reports than is required by the DEM. Please continue groundwater monitoring, (we suggest continuous monitoring) and update future reports submitted as part of the Detail Design with complete (4 seasons) of data. Some of WSP's data was plotted on Figure 4.5 in the FSR, but not all locations were plotted (and some locations show very shallow groundwater). Please update the information for future submissions.</p> <p>c) Additional confirmation of external drainage areas on Silvercreek Parkway south of the site will be required as part of Detail Design: most recent plan &amp; profile drawings for this road segment place the road high point south of the rail crossing, however the assumption made with this submission is that</p>	Noted.

	<p>the road high point is north of the rail crossing, with no additional grading information south of the rail crossing provided.</p> <p>d) Additional details and review will be required for the SWMF. o Figure 4.2 identifies the outlet structure (from the infiltration basin) with a capacity of 1.7 cu-m/s: is this a controlled outlet (ICD or other structure) or is the stated capacity based on something else? Additional review and details will be needed for the quantity control structure, during detailed design.</p> <p>e) Design runoff coefficients will need to be reviewed and possibly further refined during Detail Design submission(s). More conservative design coefficients should be considered to ensure future site developments.</p> <p>f) Please separate future site plan blocks' drainage areas (i.e. the representation of these drainage areas on the drainage area plan), as these will be individually designed in the future. Additional details will need to be provided for these blocks during detail design, such as water and sanitary demands, permitted storm discharge rates, required infiltration quantities, etc.</p> <p>g) Based on the current design, the SWMF will require fencing and controlled access.</p> <p>h) Additional design refinement will be necessary to provide access to the SWMF outlet location (outlet from site @ culvert crossing) for maintenance.</p> <p>i) Further design details for the proposed sidewalks between Blocks 12 &amp; 13 and the Park Block will be required during detail design, including final location, cross section standard, required construction standard, lighting, etc. These works, regardless of where they are located on the Draft Plan (private, separate block, or park block) will be the developer's responsibility for design and construction costs.</p>	
19	<p>2. Source Water Protection</p> <p>a) The property is located in a WHPA-B with a vulnerability score of 10. It also is in an Issues Contributing Area for TCE.</p> <p>b) Please contact the Risk Management Official to complete a Section 59 Policy Applicability Review at 519-822-1260 ext.</p>	Noted.

	<p>2368 or peter.rider@guelph.ca  (<a href="http://guelph.ca/wpcontent/uploads/SWP_Section59ReviewRequest.docx">http://guelph.ca/wpcontent/uploads/SWP_Section59ReviewRequest.docx</a>) c) In accordance with Grand River Source Protection Policy CG-CW-29, please submit Salt Management Plan(s) for all paved parking lot areas. (Provide 5 hard copies and submit an electronic version.)  d) In accordance with Grand River Source Protection Policy CG-MC-12, please complete a Waste Survey Report (By-law (1996)-15202). (<a href="http://guelph.ca/wp-content/uploads/SWP_WasteSurveyReport_Web.pdf">http://guelph.ca/wp-content/uploads/SWP_WasteSurveyReport_Web.pdf</a>) (Please submit electronic version)  e) Ensure that any private water supply or monitoring wells that are no longer in use are abandoned in accordance with O. Reg. 903.  f) In accordance with Grand River Source Protection Policy CG-CW-37, the applicant will need to indicate what DNAPL (if any) or other potentially significant drinking water threats will be stored and/or handled on the property. A Risk Management Plan may need to be developed.</p>	
20	<p>3. Noise Study  a) A detailed noise study will be required as part of a complete detailed engineering submission prior to subdivision registration. Please see the GNCG for details of study requirements  b) When completing the detailed noise study, please update all road and rail traffic volumes based on updated information.  c) Noise predictions in the feasibility study did not take into account any effects of the required safety berm; please review options for use of this berm to assist with noise mitigation, including whether placing a noise barrier on this berm would assist in mitigation.  d) All noise barrier material and height specifications are to be as per the GNCG.</p>	Noted.
21	<p>4. Transportation Services a) See comments from Transportation/Traffic/TDM attached: some items are identified as needed during future submissions (detail design, site plan).</p>	Noted.
22	<p>5. Transit Planning  a) This location will be supported with the new Route 9 Silvercreek, which would be implemented in 2026, pending completion of construction. Transit service cannot be</p>	Noted.

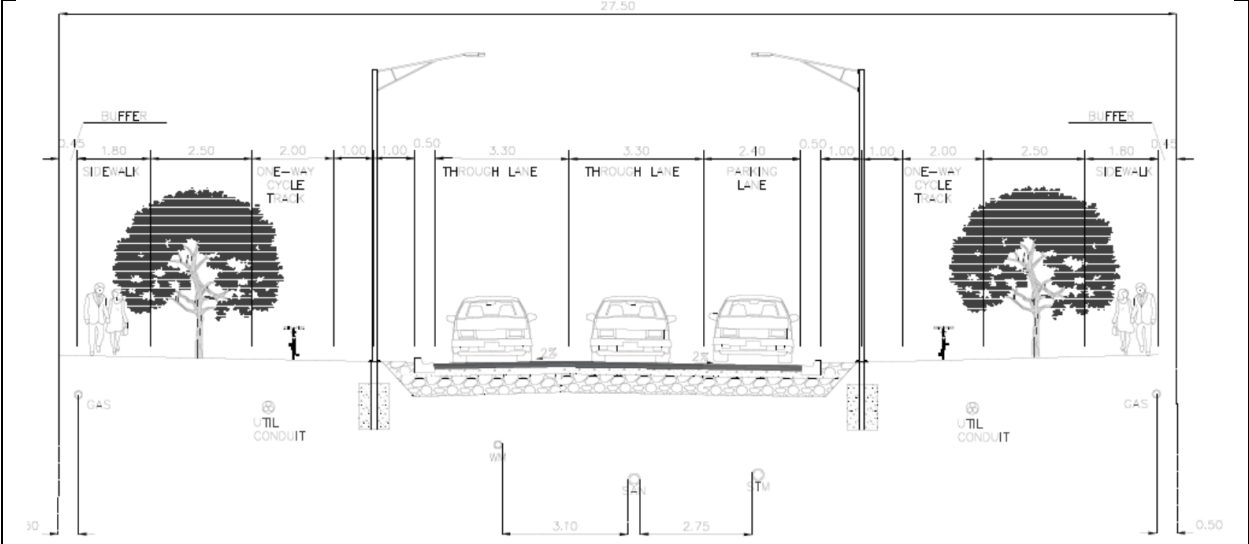
	<p>offered onsite without a connection to Paisley Road.</p> <p>b) To service this new development:</p> <ul style="list-style-type: none"> <li>o The Silvercreek right-of-way must be wide enough to accommodate a bus in both directions (curb lane width of minimum 3.3m, preferred 3.5m).</li> <li>o Two new bus stops will be required on either side of Silvercreek Pkwy at the proposed Street A/C intersection.</li> <li>o A concrete pad at a minimum measurement of 2.1m x 9m should be installed at both bus stop locations, with a 2m wide connection to the sidewalk (if needed).</li> <li>o Request that the developer provide funding for this and/or work with transit staff to ensure infrastructure standards are met if planning to install as part of construction.</li> </ul> <p>c) Transit is supportive of the sidewalk connections throughout the proposed site and the active transportation for cycling and walking as this will ensure new bus stops are accessible by AT.</p> <ul style="list-style-type: none"> <li>o Ensure bus stops are placed in boulevard, with cycling infrastructure behind the stop, to ensure pedestrian and cyclist traffic does not interfere with boarding and alighting passengers at bus stops.</li> </ul>	
23	6. Wastewater Services a) MH06A location may make it difficult to maintain/inspect the sanitary sewer: MH location may be subject to change based on roundabout detail design.	Noted.
24	7. Water Services a) Is the old 1960 cast iron watermain going to be abandoned or removed? b) There is an existing check valve to the north and water services would like for it to be captured as part of this works for replacement at the same time as the construction. c) Water Services would like the old cast iron watermain replaced.	Noted.
<p><b>Gwen Zhang, P.Eng., Transportation Planning Engineer Infrastructure, Development and Environmental Engineering 519-822-1260 x 2638 <a href="mailto:Gwen.Zhang@queph.ca">Gwen.Zhang@queph.ca</a></b>  <b>March 28, 2022</b></p>		
25	North Rail Crossing - Grade Separation The letter concluded that the future exposure index at the north rail crossing (Metrolinx Subdivision Kitchener Line) does not meet the threshold (1,000,000) set out by Transport Canada for grade separation. The letter also stated that the future exposure	The distance from the northbound stop line at the Silvercreek Parkway / Paisley Road intersection and the rail tracks is approximately 100 metres. The Synchro analysis outlined in the 2022 TIS projects 95th percentile queues of up to 33 metres in the

	<p>index is projected to exceed the threshold (200,000) that many agencies would consider as indicative of when grade separation should be considered.</p> <p>Staff have concerns that the northbound traffic queues at the Silvercreek Parkway and Paisley Road intersection could potentially extend beyond the railway tracks if the grade separation is not in place. Furthermore, Metrolinx has a policy that prohibits new at-grade crossings on their corridors.</p>	<p>Future Total 2031 horizon, which falls well within the available storage length.</p>
<p>26</p>	<p>South Rail Crossing – Grade Crossing The south rail crossing (CN Fergus Subdivision Line) should be equipped with additional safety measures as recommended in the letter. The proponent should collaborate with CN on how to implement these safety measures prior to the occupancy of the subdivision. - Crossing warning system including lights, bells, and gates; - Active “Prepare to Stop at Railway Crossing” signage for the north approach of the crossing; - “No Train Whistles at this Crossing” signage; - “Railway Advance Warning” signage indicating a skewed crossing; and - “Pedestrians Stop Here When Lights Are Flashing” signage.</p>	<p>Noted.</p>
<p>27</p>	<p>Silvercreek Parkway and Paisley Road Given that the current development proposal generates fewer trips than the previous proposals, the letter questioned whether the intersection modification is still needed under the grade separation scenario in accordance with the recommended solution in the Silvercreek Parkway EA. Staff is of opinion that the proponent should provide a technical memorandum to demonstrate the intersection operation analysis for the horizon year 2031 under the existing conditions and a modified configuration, should the modification be deemed necessary and different from that in the Silvercreek Parkway EA. Consideration should be given to mitigation measures that help reduce traffic queue length in the eastbound direction to prevent traffic spillback to Hanlon Expressway. The ultimate design and construction to the intersection will be undertaken in conjunction with the implementation of the grade separation.</p>	<p>The proposed intersection configuration of the Silvercreek Parkway / Paisley Road intersection is consistent with the Silvercreek Parkway EA recommended design dated February 15, 2022 undertaken by the City. The Proposal does not seek to change the recommended intersection design prepared as part of the 2012 City EA. This intersection configuration was designed to accommodate the original large-format retail uses proposed for the site and the associated higher traffic volumes. The current Proposal primarily contemplates residential uses which generates substantially less traffic, 625 fewer vehicle trips in the weekday afternoon peak hour. Consequently, with the EA design, this intersection operates acceptably given the fewer vehicle trips generated by the Proposal and as</p>



		demonstrated in the traffic analysis documented in the January 2022 TIS
28	<p>Silvercreek Parkway and Waterloo Avenue</p> <p>By the future horizon year 2031 with full built-out on both sides of Silvercreek Parkway, the forecast traffic is not expected to satisfy traffic signal warrants at this intersection. The proponent should continue to work with City staff on the intersection geometric improvements such as a potential roundabout or lane realignment. Considerations should be given to design elements that help minimize traffic queue length between this intersection and the intersection at Hanlon offramp / Wellington / Waterloo. A functional design plan should be submitted for City review and approval.</p>	<p>As documented in the 2012 Silvercreek Parkway EA completed by the City, the April 2012 TIS prepared by BA Group proposed a roundabout at this intersection which would operate acceptably with delays of less than ten seconds on all approaches and queues which did not extend back to upstream intersections, particularly the MTO ramp terminal. The results of this analysis and the roundabout design are attached for reference.</p>
29	<p>Draft Plan</p> <p>In a technical memorandum, please provide the inscribed circle diameter for the traffic calming circle. The proposed curb radii seem tight. To demonstrate operational feasibility of this circle, please provide traffic geometric plans for larger design vehicles making turning maneuvers at the circle. The design vehicles include fire trucks, school bus, waste pickup trucks, and transit buses.</p> <p>At the subdivision detail design stage, please identify appropriate controlled pedestrian crossings at the circle. Controlled crossings should be designed in accordance with the Ontario Traffic Manual (OTM) with appropriate signs, pavement markings and any other devices. Please provide details how these crossing facilities will accommodate road users with accessible needs.</p>	<p>The inscribed circle diameter of the traffic calming circle illustrated in the demonstration plan is 26.8 metres. Vehicle manoeuvring diagrams for these vehicles are included demonstrating these movements.</p> <p>Noted.</p>
30	<p>TDM</p> <p>There are inconsistencies among the documents in terms of the type of cycling infrastructure being provided on Silvercreek Parkway. The Traffic Impact Study suggests bike lanes will be provided on both sides, while figures shown in the updated Urban Design Brief show multi-use paths. The underpass cross sections show a combination of these infrastructure types. Please provide consistent cycling</p>	<p>Updated cross-sections of Silvercreek Parkway with cycletracks within the 30 metre right-of-way are included in this submission for reference.</p>

infrastructure in the form of cycle tracks adjacent to sidewalks for the entire length of Silvercreek Parkway, from Paisley Road to the existing south rail crossing. Refer to the Clair-Maltby Secondary Plan approved conceptual cross sections for a 27.5m ROW collector road. This conceptual cross section supports the 2022 Transportation March 28, 2022 Master Plan goals for complete streets, vision zero and improving connectivity for active modes.



31 Protected cycling infrastructure will need to be incorporated into the traffic circle design. The east-west pedestrian crossings at Streets E/D per the urban design brief are supported to enhance connectivity and provide high-quality active transportation options within the site.

Cycle paths have been added and reviewed in relation to appropriate connections across roundabout and intersections.

32 Phase 1 Development  
 Phase 1 includes all development on the east side of Silvercreek Parkway. Access to Phase 1 development is made via two intersections on Silvercreek Parkway. The North Driveway (Street C) intersection incorporates a traffic calming circle and the South Driveway (Street D) is under a two-way stop control. The north rail crossing is assumed to remain closed for vehicular traffic.

In general, the letter concluded that the existing surrounding street system is adequate to absorb the traffic generated by the proposed Phase 1 development with 280 residential units. However, the discussion on

Potential future phasing of the draft plan is proposed to be a condition of draft plan approval to the satisfaction of the City.

	<p>emergency response is missing from the letter and this should be addressed through the technical memorandum. In particular, staff have concerns over the single access connection to the surrounding road network (i.e., Silvercreek Parkway) for Phase 1.</p> <p>Since the north rail crossing remains closed for vehicular traffic, the proponent should work with Metrolinx on the feasibility of constructing an interim active transportation crossing such as an enhanced warning system with pedestrian gates. This active transportation connection is important for people trying to reach their destinations including schools, bus stops, shopping malls and religious institutions to the north. This enhanced warning system should be installed as part of Phase 1.</p>	
33	<p>In summary, <b>a technical memorandum is required to address the following outstanding issues prior to the Draft Plan approval:</b></p> <ol style="list-style-type: none"> <li>1. at the intersection of Silvercreek Parkway and Paisley Road, additional traffic operation analysis is required for the horizon year 2031 under the existing condition and a modified configuration, should the modification be deemed necessary and different from that in the Silvercreek Parkway EA. A functional design associated with this modified configuration is desirable but not mandatory for the Draft Plan approval;</li> <li>2. the inscribed circle diameter for the traffic calming circle;</li> <li>3. traffic geometric plans for larger design vehicles making turning maneuvers at the circle. The design vehicles include fire trucks, school bus, waste pickup trucks, and transit buses;</li> <li>4. a cross-section for all of Silvercreek that supports cycle tracks and sidewalks on both sides and including the traffic circle;</li> <li>5. emergency response for Phase 1 without the grade separation; and</li> <li>6. an interim active transportation connection at the north rail crossing for Phase 1 without the grade separation.</li> </ol>	<p>The technical memo prepared by BA is included with this submission.</p>
<p>Jason Elliott Environmental Planner Planning, Urban Design and Building Services IDE T 519-822-1260 x 2563 E jason.elliott@guelph.ca</p>		

34	<p><b><u>Comments to be Addressed prior to OPA / ZBLA approval:</u></b></p> <p>1. The date of the FSR referenced throughout the Scoped EIS Addendum Report (Aboud, January 17, 2022) is not consistent with the date of the FSR (Burnside, January 2022) in the current submission. Confirm that the current FSR was reviewed and that no changes to the Scoped EIS Addendum Report are necessary.</p>	<p>Acknowledged. The January 2022 version of the Functional Stormwater Report has been reviewed and no changes to the EIS are necessary.</p>
35	<p>2. The infiltration values in Table 5 and Section 4.3.6.2 of the FSR (Burnside, January 2022) do not match the water balance provided in the Water Budget Submission (WSP, January 19, 2022). As the values set targets for subsequent planning and design stages, revise the report(s) to ensure consistency.</p>	<p>As requested, the water balance and FSR have been revised to match each other.</p>
36	<p>3. Section 4.3.6.2 of the FSR indicates that the design volume of the proposed infiltration basin (677m<sup>3</sup>) is greater than the design volume necessary to meet the water balance (543m<sup>3</sup>). Therefore, it appears that infiltration will be exceeded relative to the water balance. The proposed design volume must reflect the water balance and vice versa. As significant over-infiltration is proposed in the water balance, it is preferred that this isn't increased further</p>	<p>The infiltration basin has been preliminarily sized to accommodate the revised required water balance of 333 m<sup>3</sup>. We acknowledge that the basin offers some additional volume, however, this additional volume provided can be easily revised by lowering the outlet weir from the infiltration basin to prevent "over-infiltration" and accommodate the exact infiltration volume required. At this point of the design stage, we acknowledge that the basin volume can be reduced as needed during the detailed design stage. We respectfully request this revision be completed during the detailed design stage of the project as various elements will likely change as we refine the design. We can commit to only providing the required infiltration at the detailed design stage should 'over-infiltration' remain a concern.</p>
37	<p>4. Clarify what led to the changes in the water balance values from the previous submission.</p>	<p>The water balance values were revised based on an updated site plan and further coordination between Burnside and WSP to represent a synchronization and refinement of drainage areas and impervious fractions.</p>

38	<p><b><u>Comments to be Addressed at the Subdivision Stage:</u></b></p> <p>5. The revised Figure 1 displays the identified components of the NHS, including associated buffers, which are present along Howitt Creek. While the majority of the western limit of these components coincides with Open Space Blocks 24 and 25, Open Space block 24 extends further west near the northern property limit and is planned to be restored. This extension is supported as it will contribute to the form and function of the NHS. However, as the entire block is proposed to be designated Significant Natural Area and Natural Area (i.e. part of the NHS), <b>the City will include this extension of the NHS as Surface Water and Fish Habitat Buffer when we update our mapping.</b></p>	Noted.
39	<p>6. The EIR should include an updated TIPP to reflect the finalized subdivision grading (see comments below) and the EIS commitments regarding the Bur Oak in the urban square. Further, consideration should be given to removing the invasive tree species as part of the restoration works that will be detailed in the EIR.</p>	Noted.
40	<p>7. The grading plan in the FSR (Drawing 5.1) displays proposed grading within Open Space blocks 24 and 25. As these blocks comprise the NHS, grading to support the development is not permitted. However, grading to support restoration of these area is permitted. Additionally, it appears that there is an opportunity to move the existing ad hoc trail that parallels the creek out of the NHS and into the park. The grading must be revised at the subdivision stage to reflect restoration of the open space blocks including the potential for draining the entirety of the blocks uncontrolled to Howitt Creek via a gentle slope and to reflect altered trail alignments that maintains them in the park. These elements should also be captured in the EIR and associated restoration plans and appropriate mitigation recommended for trail construction.</p>	Acknowledged and will be addressed within the EIR.
41	<p>8. The potential need for cut-off collars to avoid impacts to the groundwater flow regime must be assessed at the subdivision stage. Similarly, it must be confirmed that the foundation drain collector system will be</p>	Noted.

	entirely above the seasonal high groundwater elevation.	
42	9. It is understood that Engineering staff have outstanding concerns with the water quality portion of the proposed SWM strategy. As this will be addressed through Engineering review, nothing further is needed in this regard from an Environmental Planning perspective.	Noted.
43	10. While it is recognized that all events will convey flows to the outlet culvert due to the proposed uncontrolled areas, as an analysis was not included in the FSR, it is not clear how pre to post flows at the outlet compare for various events. This should be provided at the subdivision stage so that the EIR can assess the potential for impacts to the flow regime in the receiving watercourse. If necessary, modifications to the SWM strategy may be required to mitigate identified impacts.	Acknowledged and will be addressed within the EIR.
<b>David de Groot Senior Urban Designer 519.822.1260 ext. 2358</b> <b>David.deGroot@guelph.ca</b>		
44	Urban Design Comments <ul style="list-style-type: none"> <li>• Staff acknowledges that the applicant has been working with City Staff and that overall design of the concept plan has been improved.</li> </ul>	Noted.
45	<ul style="list-style-type: none"> <li>• Through this process, staff has concentrated on a number of key issues which have been positively addressed by the applicant including: <ul style="list-style-type: none"> <li>o Introducing more public streets;</li> <li>o Improving pedestrian circulation;</li> <li>o Better built form relationship to the park blocks; and,</li> <li>o Better building articulation.</li> </ul> </li> </ul>	Noted.
46	<ul style="list-style-type: none"> <li>• The applicant has submitted a Sun Shadow Study Report prepared by MBTW. Staff have some concerns with some aspects of the shadow study (e.g. interpretation of some of the criteria). However, with the additional built form regulations outlined below, staff is of the opinion that there will not be any unacceptable adverse shadow impacts on adjacent properties, the proposed parks or the adjacent streetscapes.</li> </ul>	Noted.
47	<ul style="list-style-type: none"> <li>• Staff has the following comments regarding the urban design brief:</li> </ul>	<b>MBTW</b>



	<ul style="list-style-type: none"> <li>o Urban design staff do not support a multi-use trail along Silvercreek Parkway. Rather a sidewalk/cycle track approach should be shown. Please revise.</li> <li>o The active transportation plan (page 22) is missing the walkway blocks connect to Streets C and D. Staff understand that these walkway blocks will be provided as shown on the subdivision draft plan.</li> <li>o Staff do not agree with the angular planes as proposed. However, with the changes to the Zoning By-law implemented (as outlined below) urban design staff is supportive of the development.</li> <li>o Which blocks are being proposed for <b>architectural control</b>? What is the purpose of this versus the site plan process?</li> </ul>	<p>The walkway blocks have been added to the active transportation plan.</p> <p>Noted.</p> <p>No blocks are proposed for architectural control. The typical Site Plan process will be followed.</p>
48	<ul style="list-style-type: none"> <li>• Staff has the following comments on the grading plan: <ul style="list-style-type: none"> <li>o Please submit a detailed grading plan showing the integration between Urban Square (Block 21) and the adjacent Block (Block 20). The detail should demonstrate adequate space to permit exploration of alternatives to the retaining walls proposed, ideas such as grand staircase that acts like amphitheater seating. The goal is to ensure the visual and physical connection between urban square and block 20 is strengthened <b>while not impacting the Oak Tree (e.g. from the dripline, plus 2m).</b></li> </ul> </li> </ul> <p>Urban design staff also recommend a 6m setback to the building along this property line. Alternatively, the location of the block line (property line) may need to be adjusted to permit an adequate landing at the top and bottom of the stairs as well as the stairs themselves, all within City lands. In addition, the revised grading plan will avoid a long and continuous 8% slope from Silvercreek into the urban square along both the north and south side by demonstrating there is space to accommodate a ramping system that meets the City's Facility Accessibility Design Manual, while again, <b>not impacting the Oak Tree (e.g. from the dripline, plus 2m).</b></p>	<p>A revised grading design has been completed that no longer requires a retaining wall along the boundary of Block 20 and 21. In place of this, grading slopes will be required from the edge of the trail into Block 20. This solution provides all trail grades at 5% or less and includes a trail connection into Block 20. As with the previous design, existing grades will be matched 2m outside of the Oak tree dripline.</p> <p>6 m setback is proposed to the building from this lot line.</p> <p><b>Aboud</b></p>
49	<ul style="list-style-type: none"> <li>• Staff has the following comments on Silvercreek Underpass Design:</li> </ul>	<p>The proposed intersection configuration of the Silvercreek</p>

	<p>From an urban design perspective staff is concerned with introducing a “pork chop” design at the northwest corner of Silvercreek Parkway and Paisley Road given active transportation implications.</p>	<p>Parkway / Paisley Road intersection is consistent with the Silvercreek Parkway EA recommended design dated February 15, 2022 undertaken by the City. The Proposal does not seek to change the recommended intersection design prepared as part of the 2012 City EA.</p> <p>The City will have further input on this during the detailed engineering design.</p>
<p>50</p>	<p>• <b>As part of the <u>site plan</u> process further detailed comments will be discussed including:</b></p> <ul style="list-style-type: none"> <li>o Developing the elevations including materials and colours. The use of real masonry products within the first 3 or 4 storeys of the building should be used rather than replica materials.</li> <li>o Adequate soil volumes for trees in surface parking lots and over the underground parking is critical. Consideration of alternative technologies (Silva Cell) to achieve soil volumes, especially in areas where there is competing need for hard pavement, is strongly encouraged. Refer to the City’s Tree Technical Manual for further direction related to soil volumes and appropriate tree planting techniques.</li> <li>o Provide a detail for pedestrian level lighting and street lighting for the internal streets.</li> <li>o Street furniture such as bicycle parking, benches etc.</li> <li>o Further wind study information for taller buildings.</li> <li>o Keep in mind bird-friendliness strategies in the design of the elevations.</li> <li>o Street furniture such as bicycle parking, benches etc.</li> <li>o Rooftop mechanical screening details.</li> <li>o Architectural details.</li> <li>o Continued encouragement of green roofs and LID systems.</li> </ul>	<p>Noted.</p>
<p>51</p>	<p>Urban design staff support including subdivision conditions that address the following:</p> <ul style="list-style-type: none"> <li>o That an <b>on-street parking plan</b> to be provided. Further opportunities to provide on-street parking fronting the urban square and the park will be explored (e.g. Streets A and E).</li> </ul>	<p>Noted.</p>

<p>52</p>	<p>Zoning Recommendations For the townhouses:</p> <ul style="list-style-type: none"> <li>• Urban design staff recommend a 6m setback to accommodate for trees on private property. Urban design staff is concerned that providing a 4.5m setback will not be enough when factoring in front door sidewalk, utilities (gas, hydro), etc.</li> <li>• Urban design staff recommend a minimum side yard setback should be 1.5m. Providing 1.2m provides little room for utilities and walkways as well that lack of successful landscaping between blocks.</li> <li>• Back to back 7m width minimum.</li> <li>• Maximum building length of 48m.</li> </ul>	<p>Fieldgate has agreed to a 4.5 m setback for the habitable portion of the conventional townhouses and 6 m for the garage.</p> <p>1.2 m is the standard in the zoning that has worked for many years.</p> <p>Please see the submission from MBTW regarding width of the back-to-back t.h.</p> <p>Fieldgate has agreed to the maximum townhouse building length of 48m for the back-to-back townhouses</p> <p>6 m is proposed. The angular plane reflects a 6 m setback.</p>
<p>53</p>	<p>For the mixed-use blocks:</p> <ul style="list-style-type: none"> <li>• Minimum side yard of Block 20 abutting the urban square should be 6m. The angular plane should be adjusted accordingly. Require commercial/active uses along the urban square. This should also be considered for the mixed use blocks along Silvercreek Parkway.</li> <li>• That the 3m setback after the 4th storey (as proposed by the applicant) be added to the zoning bylaw.</li> <li>• That an additional 3m setback is provided after the eighth floor. The angular plane should be adjusted accordingly.</li> <li>• Maximum building length of 75m.</li> <li>• That the floorplates are limited as follows: <ul style="list-style-type: none"> <li>o 7th and 8th storeys - 1,200 m2</li> <li>o Above 8th storey - 1,000 m2</li> </ul> </li> <li>• Limit the amount of surface parking (e.g. For Block 20: The surface parking area abutting</li> </ul>	<p>The applicant did not propose any setbacks. The angular plane regulation covers this already in the zoning.</p> <p>Maximum building length and maximum floorplate should not be included in the zoning regulations.</p> <p>This should not be included in the zoning.</p> <p>This is already included in the zoning.</p>

	<p>Silvercreek Parkway shall not be greater in length than 25% of the length of this lot line).</p> <ul style="list-style-type: none"> <li>• Add a minimum distance between buildings (e.g. 15 m).</li> </ul>	
<p><b>Mallory Lemon, Park Planner Parks Public Services 519-822-1260 x 3560</b>  <b>mallory.lemon@guelph.ca</b></p>		
54	<p>Park and Trail Development offers the following comments:  Draft Plan Blocks 28 &amp; 29:  As per engineering comments, internal discussions are ongoing concerning how these sidewalks should be developed. While there is no change to the development requirements, we are working with other groups to confirm if Blocks are needed. We will provide an update on this under separate cover.</p>	<p>The City has confirmed that Walkway Blocks 28 and 29 are not required. The Draft Plan of Subdivision has been revised accordingly.</p>
55	<p>Parkland Dedication  The City requires conveyance of parkland at an alternative rate of 1 hectare per 300 units proposed, in accordance with the City of Guelph Official Plan Policy 7.3.5.1. The Draft Plan of Subdivision proposes 715 dwelling units. Based on the alternative rate of 1 ha per 300 dwelling units proposed, conveyance of 2.38 ha of parkland is required. The applicant has provided 2.48 ha of parkland in the Draft Plan of Subdivision in the form of Block 21, an Urban Square (0.59 ha), and Neighbourhood Park Blocks 22 (1.794 ha) and 23 (0.117 ha). Park and Trail Development finds this acceptable.</p>	<p>Noted.</p>
56	<p>Park Block Lot Frontage The current draft plan of proposed subdivision has identified approximately 466 metres of lot frontage for 2.48 ha of parkland. Park and Trail Development requires 1 metre of park lot frontage for every 100 square metres of park area (and a minimum of 50 metres) as identified in Section 9.2 of the Zoning Bylaw. The required Park Lot Frontage is calculated as follows: Park Area: 2.48 hectares @ 1m/100m<sup>2</sup> = 248 metres of street frontage required. The amount of lot frontage proposed is satisfactory to Park and Trail Development.</p>	<p>Noted.</p>
57	<p>Basic Park Development: The developer will be responsible for Basic Park Development. Basic Park Development will include clearing, grubbing, site grading, storm water drainage,</p>	<p>Noted.</p>

	<p>topsoil and sodding of the Park blocks. The costs of the following items shall be direct developer responsibilities as a local service:</p> <ul style="list-style-type: none"> <li>• clearing and grubbing;</li> <li>• servicing – water, hydro, stormwater, sanitary, electrical, fibre/phone, catch basins, meter and meter boxes to a point just inside the property line as per the City’s requirements. This includes providing a catch basin, manhole, access boxes and meter boxes within the park property; rough grading (pre-grading) and the supply of topsoil to the required depth as per City’s requirements;</li> <li>• parkland shall be conveyed free and clear of all encumbrances; all parks are to be developed to “basic park development” standard which includes all aspects up to fine grade, topsoil and sod; which is to be maintained up to park acceptance.</li> <li>• The park block shall be graded to meet approved parkland grade, including any associated infrastructure requirements (retaining walls, drainage, etc.) and sodded to minimize erosion and dust.</li> <li>• Temporary fencing may also be required where there is no permanent fence to prevent illegal dumping; temporary park sign advising future residents that the site is a future park. Perimeter fencing of parkland to the City’s standard located on the public property side of the property line adjacent land uses (residential or non-residential) as required by the City.</li> </ul>	
58	<p>Topsoil stripping and stockpiling (material stockpiling is not permitted on parkland without the approval of the City). Parkland shall be free of any contaminated soil or subsoil. Parkland shall not be mined for fill and replaced with fill or topsoil.</p>	Noted.
59	<p>Proposed Zoning Park and Trail Development is supportive of Blocks 21, 22, and 23 being zoned P.2 Neighbourhood park, and blocks 24, 25, and 26 being zoned P.1 Conservation Land. <b>Park and Trail Development is not supportive of Walkway Blocks 27 and 30 being zoned P.2 Neighbourhood Park.</b> Please adjust the Addendum to the Planning Report and any other relevant reports and plans accordingly.</p>	The proposed zoning map has been revised to include the remaining walkway Blocks in the P.1 Zone.

60	<p>Parkland and Trail Development</p> <p>The City of Guelph has been successful in working with Developers to complete new parkland development before or during the first occupancy of new homes within in their subdivisions. In order for parkland to be developed in this timely manner I recommend that the park(s) within this development is/are “Developer/Build” with appropriate compensation to the developer through the City’s Capital Budget process. This “Developer/Build” Park process would involve design and construction of the parks to Park and Trail Development specifications.</p> <p><b>Should the applicant not wish to pursue the “Developer/Build” option, Park and Trail Development would design the park internally and construct the parks as departmental scheduling permits.</b></p>	Noted.
61	<p>Environmental Impact Study City Trail</p> <p>An impact assessment and mitigation measures of the future trail between the development and Howitt Creek Flood Control Facility must be addressed in the EIR. <b>Please make note of this requirement in the EIS.</b> This will based on consideration of grading and cross section requirements of the Guelph Trail Master Plan and Facility Accessibility Design Manual. This includes 3m trail width, mow strips/clear zones on both sides of the trail with cross slopes of 2% max, and swales if required to intercept stormwater to prevent flow over the trail surface.</p>	Acknowledged. Detailed work involving the trail will meet the required standards as part of the detailed design and EIR.
62	<p>Please confirm in the EIS that the trail will be constructed in accordance with the Guelph Trail Master Plan and Facility Accessibility Design Manual standards. Please include discussion of trail installation timing in the EIS.</p>	<p>The trail detailed design must meet the requirements of the Guelph Trail Master Plan, Facility Accessibility Design Manual and EIR. Any required tree removals for the trail installation must occur outside the timing window for migratory birds (April 1 to September 1) and the maternity window for bat species at risk (April 1 to October 1).</p>
63	<p>Environmental Education: As per previous comments, note in the EIS that environmental education/interpretive signage will be provided at trail access points in the subdivision to provide resident education on the area’s environmental features and address many of the common resident impact</p>	Acknowledged. Environmental education/interpretive signage will be included at trail access points.



	items including dumping of yard waste, encroachments, pet waste, etc.	
64	<p>Preliminary Servicing and Stormwater Management Report Preliminary Park Block Grading The applicant is encouraged to consider a grading scheme over blocks 20 and 21 and building setback in block 20 that will improve the interface and pedestrian/public realm between the two blocks. Refer to Urban Design comments. Please be advised that swales will be required where trails are downward of steep slopes, to intercept stormwater avoid surface drainage over trails. This may be addressed during detailed design.</p>	<p>The trail detailed design must meet the requirements of the Guelph Trail Master Plan, Facility Accessibility Design Manual and EIR. Any required tree removals for the trail installation must occur outside the timing window for migratory birds (April 1 to September 1) and the maternity window for bat species at risk (April 1 to October 1).</p>
65	<p><b>Conditions for Subdivision Development Agreement</b>  <b>Based on my review of the Proposed Draft Plan of Subdivision, I recommend the following subdivision approval conditions:</b>  Conditions to be met prior to execution of subdivision agreement</p> <ol style="list-style-type: none"> <li>1. The Developer shall be responsible for the cost of design and development of the Basic Park Development as per the City of Guelph current "Specifications for Parkland Development", which includes clearing, grubbing, topsoiling, grading, sodding and any required servicing including water, storm, sanitary and hydro for any phase containing a Park block to the satisfaction of the Deputy CAO of Public Services. The Developer shall provide the City with cash or letter of credit to cover the City approved estimate for the cost of development of the Basic Park Development for the Park Block to the satisfaction of the Deputy CAO of Public Services.</li> <li>2. The Developer shall be responsible for the cost of design and development of the demarcation of all lands conveyed to the City in accordance with the City of Guelph Property Demarcation Policy. This shall include the submission of drawings and the administration of the construction contract up to the end of the warrantee period completed by an Ontario Association of Landscape Architect (OALA) member for approval to the satisfaction of the Deputy CAO of Public Services. The Developer shall provide the City with cash or letter of credit to cover the</li> </ol>	<p>Noted.</p>

	<p>City approved estimate for the cost of development of the demarcation for the City lands to the satisfaction of the Deputy CAO of Public Services.</p> <p>3. The Developer shall be responsible for the cost of design and implementation of the Open Space Works and Restoration in accordance with the “Environmental Implementation Report” to the satisfaction of the Deputy CAO of Public Services. This shall include the submission of drawings and the administration of the construction contract up to the end of the warranty period completed by an Ontario Association of Landscape Architects (OALA) member for approval to the satisfaction of the Deputy CAO of Public Services. The Developer shall provide the City with cash or letter of credit to cover the City approved estimate for the cost of the Open Space works and restoration for the City lands to the satisfaction of the Deputy CAO of Public Services.</p> <p>4. The Developer shall design and develop the Storm Water Management Facility Landscaping in accordance with the City’s current “Design Principles for Storm Water Management Facilities” to the satisfaction of the Deputy CAO of Public Services and the City Engineer. This shall include the submission of drawings and the administration of the construction contract up to the end of the warranty period completed by an Ontario Association of Landscape Architects (OALA) member for approval to the satisfaction of the Deputy CAO of Public Services. The Developer shall provide the City with cash or letter of credit to cover the City approved estimate for the cost of development of the Storm Water Management Facility Landscaping for the City lands to the satisfaction of the Deputy CAO of Public Services.</p> <p>5. The Developer shall be responsible for the cost of detailed design of the Pedestrian Trail System for the Storm Water Management &amp; Open Space Blocks. This shall include obtaining any required permits, submitting drawings for approval, identifying the trail system, interpretative signage and trail design details, to the satisfaction of the Deputy CAO of Public Services and the City</p>	
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<p>Engineer. This shall include the submission of drawings for approval completed by a full member, with seal, of Ontario Association of Landscape Architects (OALA) to the satisfaction of the Deputy CAO of Public Services.</p> <p>6. The Developer shall provide Public Services with a digital file in either AutoCAD - DWG format or DXF format containing the following final approved information: parcel fabric, street network, grades/contours and landscaping of the park, open space and storm water management blocks.</p> <p>7. The Developer shall install, at no cost to the City, chain link fencing, adjacent to open space and park blocks. The Developer further agrees that the fencing will be installed following grading operations of the subdivision in accordance with the current standards and specification of the City and to the satisfaction of the General Manager of Planning and Building Services. Further, all property lines must be accurately surveyed and clearly marked in the field prior to establishing all fence line locations. Fences shall be erected directly adjacent to the established property line within the City owned lands.</p> <p>Conditions to be met prior to registration of the plan</p> <p>8. The Developer shall place the following notifications in all offers of purchase and sale for all lots and/or dwelling units and agrees that these same notifications shall be placed in the City's subdivision agreement to be registered on title:</p> <ul style="list-style-type: none"><li>• "Purchasers and/or tenants of all lots or units abutting City owned lands are advised that abutting City owned lands may be fenced in accordance with the current standards and specifications of the City".</li><li>• "Purchasers and/or tenants of all lots or units abutting City owned lands are advised that no private gates will be allowed into Blocks 22, 23, 24, 25, and 26, and Lots XX that abut these Blocks and Lots".</li><li>• "Purchasers and/or tenants of all lots or units are advised that a public trail will be installed or exists abutting or in close proximity to Blocks 24 and 25 and Lots XX</li></ul>	
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<p>and that public access to this trail will occur in Block 22.</p> <ul style="list-style-type: none"><li>• “Purchasers and/or tenants of all lots are advised that the Stormwater Management Block has been vegetated to create a natural setting. Be advised that the City will not carry out routine maintenance such as grass cutting. Some maintenance may occur in the areas that are developed by the City for public walkways, bikeways and trails.”</li><li>· “Purchasers and/or tenants of all lots are advised that the Open Space Block has been retained in its natural condition. Be advised that the City will not carry out regular maintenance such as grass cutting. Periodic maintenance may occur from time to time to support the open space function and public trail system.”</li><li>• “Purchasers and/or tenants of all lots are advised that the Park Block has been designed for active public use and may include sportsfields, playgrounds, trails and other park amenities. Be advised that the City may carry out regular maintenance such as grass cutting. Periodic maintenance may also occur from time to time to support the park functions.”</li><li>• “Purchasers and/or tenants of all lots or units are advised that the boundaries of the open space, stormwater management and park blocks will be demarcated in accordance with the City of Guelph Property Demarcation Policy. This demarcation will consist of black vinyl chain link fence adjacent to lot numbers *.” The Developer shall also send written notification of proposed demarcation types to any existing homeowners in lots adjacent to open space, stormwater management and park blocks. 9. The Developer agrees to provide temporary signage describing the existing/proposed park, open space, trail and required fencing on all entrance signs for the development, at the street frontage of park blocks 21, 22, and 23 and open space blocks 24, 25, and 26, and entrance/exit of trails, to the satisfaction of the General Manager of Planning and Building Services. The signage shall:<ul style="list-style-type: none"><li>• advise prospective purchasers of dwellings in the area of the type of park, open space</li></ul></li></ul>	
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	<p>and/or trail and level of maintenance of these parcels of land by the City;</p> <ul style="list-style-type: none"> <li>• clearly state that the maintenance of the park block and/or trail are the responsibility of the Developer until such time as the City accepts the park and/or trail, and</li> <li>• clearly state that all questions relating to the maintenance of the park block and/or trail shall be directed to the Developer. The signage shall be erected when rough grading on and adjacent to the building lots has begun and must be maintained by the Developer until acceptance of the Blocks by the City. The Developer further agrees that the proposed park block, open space block(s), trails and fencing be identified on any marketing or promotional materials. 10. The Developer shall dedicate Blocks 21,22, and 23 for park purposes in accordance with the City's Official Plan Policies.</li> </ul>	
66	<p>Summary The above comments represent Park &amp; Trail Development's review of the proposed development. <b>We request that additional information be provided to address the above comments <u>before approval of the application.</u></b></p>	<p>Aboud Burnside</p>
<p>Fred Natolochny MCIP RPP Supervisor of Resource Planning March 18, 2022</p>		
67	<p>As previously noted, the Grand River Conservation Authority has no objection to the proposed Official Plan and Zoning Bylaw Amendment applications. We have now received information for spring monitoring of well MW20-9 and are satisfied with the reports provided.</p>	<p>Noted.</p>
68	<p>We are proving the following suggestions for Draft Plan Conditions to the City of Guelph as you continue to consider this subdivision application:</p>	<p>Noted.</p>
69	<p>The GRCA would have no objection to the issuance of Draft Plan Conditions, subject to the following condition being included: 1. Prior to any grading or construction on the site and prior to registration of the plan, the owners or their agents submit the following plans and reports to the satisfaction of the Grand River Conservation Authority. a) A detailed Stormwater Management Report in accordance with the 2003 MOE Guidelines and the Silvercreek Junction</p>	<p>Noted.</p>

	<p>Functional Servicing and Stormwater management Report, R.J. Burnside and Associates January 2022.</p> <p>b) Detailed Lot Grading and Drainage Plans showing existing and proposed grades. c) An Erosion and Siltation Control Plan in accordance with the Grand River Conservation Authority's Guidelines for sediment and erosion control, indicating the means whereby erosion will be minimized and silt maintained on-site throughout all phases of grading and construction.</p> <p>d) An Environmental Implementation Report (EIR) to the satisfaction of the Grand River Conservation Authority in consultation with the City in accordance with the Environmental Impact Study, Aboud and Associates 2020 with subsequent addendum January 2022.</p> <p>e) The submission and approval of a Development, Interference with Wetlands and Alterations to Shorelines and Watercourses permit from the GRCA prior to any grading within the regulated area. Note that e) above appears to be applicable only to the storm water block located on the south west corner of the proposed development.</p>	
70	We are confirming receipt of the remainder of the GRCA review fee in the amount of \$6,610.92.	Noted.
<p><b>Jessica Pegelo, Corridor Management Planner, MTO (519) 379-4397</b>  <a href="mailto:Jessica.Pegelo@ontario.ca">Jessica.Pegelo@ontario.ca</a> <b>July 26, 2022</b></p>		
71	<p>MTO reviewed the 35 Silvercreek Transportation Update and Response to City Comments January 2022 – Prepared By: BA Group, Dated: January 19, 2022 and have the following comments:</p> <p>1. <b>MTO has concerns regarding the future operation of the intersections. It does not appear that the road network can accommodate the traffic generated by the proposed development.</b> Presently, there is no timeline for improvements to Highway 6 in the study area. <b>The current configuration of the intersections must be used in the preparation of the new TIS.</b></p>	<b>BA Group</b>
72	<p>2. The data used in the updated report dated January 19, 2022 is from 2018 (the same the TIS dated November 14, 2019). <b>A TIS containing data older than 3 years is insufficient documentation for potential</b></p>	<b>BA Group</b>

	impacts of a development proposal on the provincial highway network.	
73	3. Study horizons were not updated. Full buildout occurs in the past.	BA Group
74	4. Section 4.1.2 Future Background Traffic. MTO has concerns with the traffic diversions assumed in the report. If the diversions are tied to the grade separation of Highway 6 – Paisley Road they are not applicable as this improvement is not programmed or funded by MTO. Assumptions of volume diversions that include intersections under MTO jurisdiction require ministry approval.	BA Group
75	5. MOE tables must include the v/c ratio for all movements.	BA Group
76	6. Queues/storage lengths were not calculated for all movements for the intersections under MTO jurisdiction. Queue assessment shall include a review to determine if the thru queues impede access to auxiliary lanes or if they reach the adjacent intersection. Volume distribution for queue/storage length assessment for multilane approaches: 60/40 for dual left turn lanes and 50/50 for through volumes distributed in a 2 lane cross section 6.1. Use the arrival rate method to estimate the queues at the west approach at Paisley Road – Silvercreek Parkway. 6.2. Provide the results in tabular form. For thru and left turn queues include: peak period, movement, volume, cycle length, %trucks, pcph, m value, number of vehicles and total length. For right turn storage length include: peak period, volume, cycle length, design speed, total length.	BA Group
77	7. Synchro files: 7.1. Use a PHF of 0.92 for intersections under MTO jurisdiction. 7.2. Synchro optimization functions such as lead/lag optimized cannot be used.	BA Group
78	8. The report suggests the addition of a SB through lane at the intersection of Highway 6 – Paisley Road. The ministry has concerns about the feasibility of this improvement	BA Group
79	9. The report suggests the removal of the split phasing at the Highway 6 NB off ramp – Waterloo Avenue -Wellington Street intersection. The split phasing cannot be removed as it's in place to avoid vehicles going the wrong way on the ramp.	BA Group

<p>80</p>	<p>10. The following comments were not addressed:</p> <ul style="list-style-type: none"> <li>• Proposed future conditions may not be feasible: <ul style="list-style-type: none"> <li>o Widening of Paisley Rd between Highway 6 and Silvercreek Parkway. This has several issues: grading, utilities, property, and access to those properties.</li> <li>♣ If the widening is not possible then the eastbound queues will extend beyond the available storage between Highway 6 and Silvercreek Parkway for 2031 Total Traffic conditions. In addition, they will prevent northbound right turning vehicles at Highway 6 – Paisley Road from accessing Paisley Road.</li> <li>♣ The ministry is concerned about the weaving movements that will be introduced by the implementation of the proposed right turn lane at Paisley Road and Silvercreek Parkway.</li> </ul> </li> <li>• Movements that experience a v/c ratio of 0.85 or greater should be evaluated for possible operational improvements.</li> <li>• Synchro model does not reflect existing or future conditions.</li> <li>• Given the complexity of the study area MTO requires the use of microsimulation to assess the operations of the network. For guidance on MTO standards for microsimulation models the consultant should contact Jeanne-Marie Deletsu at <a href="mailto:Jeanne-Marie.Deletsu@ontario.ca">Jeanne-Marie.Deletsu@ontario.ca</a>.</li> <li>• The results indicate operational issues. The “#” footnote indicates that the volume of the 95th percentile cycle exceeds capacity and queues may be longer. These results are unacceptable.</li> <li>• Update to last comment. The model provided for the TIS dated January 19, 2022 also shows the following: <ul style="list-style-type: none"> <li>o The “m” footnote indicates that the queue for that movement is metered by the upstream signal.</li> <li>o The “~” footnote indicates that the volume exceeds capacity and the queues are theoretically infinite.</li> </ul> </li> </ul> <p>The conclusions and recommendations of the report will be affected by the implementation of the comments above. Therefore, MTO will</p>	<p>BA Group</p>
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	<p>require the submission of a new TIS. Prior to the commencement of the TIS, MTO, the developer and the City of Guelph need to meet to discuss a TOR. MTO must review and approve the data to be used for the preparation of the TIS. The above comments were provided to the developer and their consultants in June 2022.</p>	
81	<p><b>Storm Water Management</b> MTO reviewed the Functional Servicing Report and Stormwater Management Report and have no concerns at this time. If there are any proposed changes, MTO review and approval will be required.</p>	Noted.
82	<p><b>Signs</b> Any/all signage visible from Highway 6, including temporary development signs, must be identified on the plans, must conform to MTO policies and guidelines, and will require a valid MTO Sign Permit before installation.</p>	Noted.
83	<p><b>Encroachments</b> Any encroachments and works identified within the Highway 6 property limits are subject to MTO conditions, approval and permits, prior to construction. All provincial highway property encroachments are strictly regulated and must meet all conditions set out by MTO.</p>	Noted.
84	<p><b>Conditions of Draft Plan Approval</b></p> <p>It is anticipated that the following may be MTO's Conditions of Draft Plan Approval. Other Conditions may be required once MTO have reviewed an official circulation:</p> <ol style="list-style-type: none"> <li>1. That prior to final approval, the Owner shall submit to the Ministry of Transportation for their review and approval, a copy of a Stormwater Management Report indicating the intended treatment of the calculated stormwater runoff.</li> <li>2. That prior to final approval, the Owner shall submit to the Ministry of Transportation for their review and approval, a copy of a Traffic Impact Study.</li> <li>3. That prior to final approval, the Owner shall enter into a legal agreement with the Ministry of Transportation whereby the owner agrees to assume financial responsibility for the design and construction of all highway</li> </ol>	Noted.

<p>improvements identified in the Ministry of Transportation approved Traffic Impact Study.</p> <p>4. That prior to final approval, the Owner shall submit a Grading Plan, Drainage Plan and Site Servicing Plan for MTO review and approval.</p> <p>5. That prior to final approval, the Owner shall submit to the Ministry of Transportation for review and approval, a draft copy of the M-Plan for the subdivision.</p> <p>6. That prior to final approval the Owner will submit to the Ministry of Transportation for review and approval, a draft copy of the Subdivision Agreement.</p> <p>MTO reserve the right to request additional conditions.</p> <p><b>Notes to Draft Plan Approval</b></p> <p>The owner should be made aware that under the Public Transportation and Highway Improvement Act, Ministry Building and Land Use permits are required for all new developments located within 45m of our highway property line and located within 395m of a provincial highway intersection/interchange.</p>	
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