



September 6, 2022

City of Waterloo
100 Regina Street South
Waterloo, ON N2J 4A8

Attention: Mr. Darren Scott
Senior Project Engineer, Development Engineering

Dear Mr. Scott,

**Re: Response to Third Preliminary Submission
556 and 576 Conservation Drive
City of Waterloo**

In response to your comments received, we offer the following:

ENGINEERING SERVICES, DARREN SCOTT, January 19, 2021

SANITARY

- 1. The Beaver Creek Road Sewage Pumping Station must be in place prior to registration / issuance of building permits.*

We generally concur with this statement; however, it is worth noting that the northeast portion of the proposed development may be serviced by existing infrastructure within the Activa subdivision to the east, which would not require the Beaver Creek Road Sewage Pumping Station to be in place. Please refer to our "Quick Start" memo included with this submission.

- 2. Please coordinate with Caroline Amyot regarding final design elevation of sanitary invert connection Conservation Drive.*

As shown on our Preliminary Servicing Plan, the required invert for the sanitary sewer at Street A at the roundabout on Conservation Drive is 349.44m. This is the same elevation provided in earlier email correspondence to Caroline Amyot.

This elevation is derived from a minimum depth of cover at the interface of the lands with the Brohman lands, along with the shortest routing possible.

3. *On the Conceptual Servicing Plan, please show general invert elevations for storm, sanitary, and clean water collection manholes at road intersections. We require a general sense of the potential pipe depth at the functional level.*

Infrastructure inverts have been added to the Preliminary Servicing Plan included in the submission accompanying this letter.

4. *Proposed services on Roy Schmidt Drive are to be coordinated between the Cook-Mattamy Subdivision and the adjacent Activa Subdivision. Proposed lots within both subdivisions front Roy Schmidt Drive and will require services to be coordinated.*

It is intended that our servicing design will be coordinated with Activa's consultant (Stantec) through the detailed design process.

5. *Proposed service connections extending from the Cook-Mattamy Subdivision are to be coordinated with the adjacent Brohman Subdivision.*

We are in regular contact with Mr. Brohman's planner, Andrew Head, and we continue to coordinate regarding the design for the east half of the Brohman subdivision. Our current submission is being forwarded to them.

WATER

6. *Please provide a functional figure showing the proposed distribution system modeling in relation to the proposed draft plan street layout with existing infrastructure. Key nodes discussed in the report should be labelled on this figure.*

A figure showing the proposed distribution model of the subdivision and the connection points to existing infrastructure has been added to the servicing report accompanying this submission.

7. *The ultimate water distribution scenario should be modelled, which includes the future watermain distribution system along Conservation Drive and Beaver Creek Road. Please confirm that the intent of modelling the scenario in the report was to show that if demands can be met under current conditions, then they can be met under ultimate conditions. The subdivision will not be able to advance without Conservation Drive/Beaver Creek Road infrastructure in place.*

The ultimate water distribution scenario will be modeled as soon as boundary conditions are made available from the Region of Waterloo. The intent of the scenarios currently presented is to demonstrate that demands of the first stage can be met under current conditions.

Water distribution modelling has been updated in the servicing report accompanying this submission. Preliminary information provided by the Region of Waterloo suggests that the proposed interconnection of pressure zones 4 and 5 will result in an adequate supply for future development, with special consideration for the future employment lands. This interconnection will be achieved through implementation of Phase 1 of the Conservation Drive/Beaver Creek Road (EA) infrastructure project currently underway.

Implementation of Phase 1 of the EA includes a north-south watermain that will connect the existing watermain south of the Beaver Creek Meadows District with the Cook-Mattamy subdivision along Beaver Creek Road and through the proposed roundabout at the Conservation Drive/Beaver Creek Road intersection.

In our opinion, the implementation of the EA beyond Phase 1 is not required to support this development, since the interconnection of pressure zones 4 and 5 will be achieved with Phase 1. In addition, development of the school block is not anticipated to be immediate; it is our understanding that construction of a school would happen perhaps several years after registration of the first stage. Full implementation of the EA is expected to be complete by then.

Please note as well that a portion of the subdivision may be serviced through existing infrastructure to the east (see response to Comment 1 above) as described in the "Quick Start Option" contained in Appendix G of the servicing report included in this submission.

8. *Please model the daily demand scenarios to check for pressures. Although not likely an issue here, the results for the Max Day and Peak Hour scenarios showing that they are meeting the MOE pressure guidelines of 350-550kPa, are required (especially in the areas of the elevation extremes and at the subdivision extents).*

These scenarios have been added to the report and the pressures fall within the allowable range, please refer to the updated Preliminary Servicing Report for details.

9. *In Table 3 of the Servicing Strategy Report, a fire flow of 88L/s has been assumed for higher density area. Please confirm modelling at a minimum 100 L/s for single family homes <3m and 133L/s for any block that has the potential to be developed as townhouses. If we can't meet the 100 L/s and 133L/s then it makes it hard to develop singles <3m apart and towns which could have an impact on Planning's density calculations.*

We have revised our calculations and added this potential fire flow at each node, please refer to updated Preliminary Servicing Report for details.

STORMWATER MANAGEMENT

10. *The Communal SWM Facility must be constructed prior to subdivision servicing for stormwater quality control.*

The acquisition of land for the Communal SWM Facility has recently been secured and is undergoing a separate planning process. It is our understanding that the detailed design of the facility is well advanced. We expect that the downstream Communal SWM Facility will be in place to service the subdivision as planned.

In the event of delays caused by the design, approval, or construction of the Communal SWM Facility and/or implementation of Phase 1 of the EA, a "Quick Start" for Stage 1A is being proposed. This alternative would require a temporary SWM facility to service Stage 1A while full implementation of the Communal SWM Facility takes place. The Quick Start alternative is described in detail in Appendix G of the Preliminary Servicing Report accompanying this submission.

11. *Review of the Communal SWM Facility Report prepared by MTE Consultants has not been fully completed. Any comments resulting in revisions, changes, or modifications to that report, which effect this subdivision submission, must be adhered to.*

We have provided our preliminary design information to MTE in support of their design of the Communal SWM Facility.

12. *It has been noted that the Hydrogeological Assessment is currently undergoing updates and that a final version is expected at the detailed design stage. Please provide a schedule as to when the updated Hydrogeological Assessment will be completed. Typically, this is required prior to advancing detailed design.*

The Hydrogeological Assessment has been completed and is part of the submission package accompanying this letter.

13. *A continuous SWM model to confirm sizing will be required in the final SWM Report at the detailed design stage.*

A continuous model will be provided at the detailed design stage to confirm sizing of various components of the SWM design.

CLEAN WATER COLLECTION SYSTEM / INFILTRATION

14. *As per the Engineering Services letter dated December 11, 2020, our preferred method of infiltration is via a third pipe clean water collection system within the municipally owned right-of-way. Therefore, the overarching approach to infiltration outlined within the Servicing Strategy Report is acceptable.*

Our preliminary design will be enhanced through the detailed design process.

15. *Generally, the City does not support private subsurface lot level infiltration designs on private lands where they can be avoided. Therefore, the approach taken along the northern limits of the subdivision with respect to locating infiltration galleries off of the rear yards of walkout lots at Block 3 and onto the adjacent municipally owned trail Block 39 is acceptable.*

Our preliminary design will be enhanced through the detailed design process.

16. *Please confirm that infiltration galleries within rear yards of walkout lots on Block 4 are required to meet infiltration targets. It is understood that given the elevation of the rear yards of the walkout lots, there would be no other feasible way to infiltrate water from rear downspouts. It is also recognized that there is no opportunity to push these proposed infiltration galleries onto public land. Generally, the City does not support private subsurface lot level infiltration designs on private individual lots where they can be avoided.*

Rear yard infiltration galleries are proposed in areas where drainage to a storm sewer is not possible and there are no suitable publicly owned lands available as a location for the galleries. These galleries are primarily intended to provide the necessary quantity control in the 2-year design storm event by reducing the outflows from these small catchments to 0; however, as noted, they also contribute towards groundwater recharge.

17. *Engineered infiltration systems proposed within multiple residential/ condo Block 29 are acceptable. Engineered infiltration systems proposed for site plan developments will be reviewed further at site plan application*

Additional details will be provided at the site plan application stage.

18. *Engineered infiltration systems proposed within school Block 31 are acceptable. Infiltration system details and location are to be reviewed further at site plan application.*

Additional details will be provided at the site plan application stage.

19. *Infiltration systems within municipally owned Stormwater Management Blocks are encouraged. General principles utilized in the infiltration design within Stormwater Management Block 35 are acceptable. However, infiltration galleries / clean water collection pipes are to be located outside of the 30m wetland buffer.*

All infiltration infrastructure within the SWM block is located outside the wetland buffer; please refer to the latest version of the drawings accompanying this letter for details.

20. *Please confirm if any other locations for infiltration are being proposed that have not been explicitly identified on the Conceptual Servicing Plan.*

All infiltration locations are shown on the updated conceptual servicing plan in the submission package accompanying this letter.

ROADS / GRADING

21. *Blocks 24 and 30 are to be frozen until such time that Roy Schmidt Road is upgraded to an urban cross-section.*

We anticipate this to be written into the Draft Plan Conditions.

22. *Please coordinate with Caroline Amyot regarding final grading elevations along the ultimate Conservation Drive / subdivision boundary.*

To date, grading along the Conservation Drive frontage has been in keeping with the preliminary road design (plan and profile drawings) dated April 2017 and confirmed on March 19, 2021 by Ms. Amyot to be the current design. We will continue to coordinate our design with others as each project advances.

Comments related to Environmental Planning

Engineering Services was requested to provide response on comments noted by Environmental Planning. Original comments from Environmental Planning below in black text; Engineering Services response below in red text.

1. (2) *While the Comment-Response Matrix submitted by GSP notes that the Hydrogeological Assessment was included in the resubmission package, it was not and further, the Revised Preliminary Stormwater Management Report notes that the Hydrogeological Assessment is currently undergoing updates and that a final version is expected at the detailed design stage. I defer to Engineering Services staff as well as the Region on whether the Hydrogeological Assessment is needed in advance of detailed design.*

Engineering Services requests a schedule as to when the updated Hydrological Assessment will be completed, and an understanding of the updates that are being made. Typically, this is required prior to advancing detailed design. We will need to have an understanding of the potential impacts prior to signing off on this requirement.

The finalized Hydrogeological Assessment is included in the submission package accompanying this letter.

2. (3) Section 5.4.6 of the Revised EIS recommends the following with respect to the City's eventual operation of the stormwater management pond: "City Engineering staff to consult MECP prior to pond maintenance to ensure no negative impact to Blanding's Turtle. Assess wildlife use of the pond prior to cleanout. Avoid in-water maintenance of SWM pond during the summer season when turtles may be using the pond. Activities should be restricted to the time outside of May 1 to August 31. Implement wildlife and fish salvage immediately prior to maintenance work, as required". These recommendations need to be highlighted for Engineering Services staff and carried forward from the detailed design state to the operations stage. Accordingly, the need to avoid in-water maintenance work for the stormwater management pond between May 1 and August 31, or where maintenance work cannot be avoided, to implement wildlife salvage immediately prior to work, will be included as a clause in the Subdivision Agreement. This will also be included as a condition of draft plan approval.

Engineering Services is in agreement that these recommendations need to be highlighted as part of Operations/Maintenance/Monitoring protocol.

Recommendations will be implemented in the Final SWM report and associated Operations and Maintenance manual that will be required to clear Draft Plan Conditions.

3. (8) Engineering Services staff need to confirm that the proposed grading is acceptable and the slopes are stable, provide sufficient growing area and are able to be planted and maintained. For Block 39, it is possible that plantings may need to be enhanced and be bare root in nature, necessitating appropriate timing and developer maintenance. Erosion control blankets may also be warranted to help with seeding. Consideration could also be given to accepting smaller and more densely planted material to help re-establish the hedgerow. Lastly, as part of detailed design and consistent with past discussions, consideration should be given to making the trail 2½ metres wide instead to 3 metres to help balance the needs to the trail and the hedgerow.

Engineering Services confirms that preliminary grading design for Block 39. We are in agreement that plantings may need to be enhanced, erosion control blanket may be warranted. Given that infiltration galleries are also proposed along the block, it is imperative that stability and maintenance of the area be thoroughly considered throughout the detailed design phase.

The recommendations contained in this comment will be addressed at the detailed design stage. We note that Block numbering has been updated and that the trail block is now Block 114.

4. (13) As outlined in the Revised Preliminary Stormwater Management Report, at-source measures are proposed to include side and rear yard infiltration galleries and amended top soil. Engineering Services staff will need to determine the acceptability of these measures. Relevant to this decision will be the discussion that took place between Engineering Services and Planning staff on February 27, 2020 regarding infiltration galleries on private property.

Engineering Services comments on infiltration strategies and techniques have been provided above.

No further action required. Our approach to infiltration is consistent with the City's direction dated December 11, 2020. We are not proposing the use of augmented topsoil.

5. (14) *Engineering Services staff will need to confirm the acceptability of the proposed infiltration rates relative to the targets confirmed through the memo prepared by MTE for the communal SWM facility study process. I also look to Engineering Services staff to confirm whether impervious cover limits should be included within the zoning to ensure water balance is met.*

Engineering Services has confirmed that infiltration rates within the Preliminary Stormwater Management Report reflect the targets outlined in the memo prepared by MTE for the communal SWM facility study process. We will look to Planning regarding whether impervious cover limits should be included with the zoning (as this isn't standard). Further discussions may be required.

No further action required.

6. (15) *The Revised Preliminary Stormwater Management Report outlines the approach for the Pre-, During- and Post-Construction surface and groundwater monitoring programs. The During- and Post-Construction programs do not appear to align with the City's Development Monitoring Protocol (attached). For example, for the During-Construction phase, samples from the inlet and outlet of the SWM facility will require analysis for Total Suspended Solids and during each monitoring year (March to November), at least one sample per month should be taken within 24 hours of a rainfall event, and where appropriate, at least three dry weather events should be sampled. The Clean Water Collector System and infiltration galleries will also need to be monitored as part of this stage. The proposed During- and Post-Construction surface and groundwater monitoring programs need to be revised to be consistent with the City's Development Monitoring Protocol. If it would be helpful, a copy of the monitoring protocol being used for the Clean Water Collector System in the Vista Hills subdivision can be provided.*

Engineering Services is in agreement – Monitoring Programs need to adhere to City protocol. Engineering Services can provide a copy of the protocol being used for the Clean Water Collector System in the Vista Hills Subdivision.

Currently our recommendations for the monitoring program have been derived from the NWSSS and are considered high-level overall targets. Specific recommendations about the proposed monitoring plan should be provided at the detailed design stage, so that they can be added to the plan.

7. (16) *As shown on Figure 9 in the Revised Preliminary Stormwater Management Report, the third pipe/clean water collector system runs through the buffer. If possible, this pipe should be moved to outside the buffer.*

Engineering Services comments on the CWC within the buffer lands have been provided above.

The third pipe/clean water collector has been relocated outside the buffer, please refer to the updated drawings in the submission package accompanying this letter.

Comments related to Landscape

Engineering Services was requested to provide response on comments noted by Landscape. Original comments from Landscape below in black text; Engineering Services response below in red text.

1. (4) *The Preliminary Park Plan still shows two sanitary sewer options. City preference is for the sanitary easement be installed along the western property line.*

Engineering Services prefers a single easement for sanitary and storm pipes. It was originally commented by Engineering services that a sanitary easement was preferred on the east side of the park as this alignment was conducive to a straight pipe run. However, given the context of the storm sewer outlet to the SWM Pond along the southwestern edge of the park, it is preferred that the sanitary and storm pipes run side-by-side. The sanitary sewer can then follow the proposed pathway running north-south on the western side of the park. Further to this, please confirm the extents of any storm sewer / third pipe system / infiltration galleries proposed along the southwestern edge of the park.

The sanitary sewer has been relocated, as per discussions with City staff. Please refer to the revised Preliminary Servicing Report for details.

2. (5) *There is a 3rd pipe shown within the Park Block. All encumbrances including the sanitary easement, SWM maintenance access and storm sewer outlet should be installed on one side of the park.*

Engineering Services commented above.

Please refer to updated drawings showing that all infrastructure is located on one side of the park. The CWC pipe has been removed in favour of an infiltration basin.

3. (7) *Show the locations of all infiltration galleries within the Park Block and Stormwater Management Block if proposed so we can make comments.*

Engineering Services commented above.

Please refer to updated drawings showing the location of all infiltration galleries. The CWC pipe has been removed in favour of an infiltration basin.

4. (28) *The stormwater management pond maintenance road is typically designed to form part of the overall pedestrian trail system, but typically do not turn into the Park Block or use park trail system. Remove the north section of the 4.0 m wide stormwater access connecting to Pinery Trail. This is a safety concern and the SWM Access should only be included in the park block where necessary.*

Engineering Services confirms that a stormwater management pond maintenance road running from Pinery Trail near Street 'C' through the SWM Block and connecting through to Street E is sufficient. The north path running through the park block can be constructed as a typical pedestrian trail.

Further to discussions with City staff a 4.0m wide SWM access is proposed from Pinery Trail to the south limit of the SWM block and connect to the other pedestrian trail within the park. The 3.0m wide pedestrian trail through the park is from Street F to Pinery Trail along the west side of the park. Bollards and P-loop gates will be integrated between the SWM block and the park block.

5. (30) *Engineering Services staff need to confirm whether a truck performing tree, trail or other maintenance would be able to turn the corner between Block 39 and Block 36 and ultimately determine if the stub portion of Block 39 that extends past Block 36 should be more of a bulb. It is anticipated that that stub portion would not need to be built as a trail yet (or ever depending on the layout of the trail network on the adjacent property). A sign should be installed at this location (with wording and construction to be approved by Engineering Services) that indicates the trail does not continue west. Should be detailed as part of block plan in draft plan.*

Engineering Services confirms that a turning radius analysis will need to be completed on the stub to confirm that a maintenance truck can either make the noted turn or be able to sufficiently turn around.

Truck turning analysis for a standard maintenance pickup truck has been completed and compiled in Appendix D of the updated Preliminary Servicing Report accompanying this letter.

ENGINEERING SERVICES, BROOKE MILSOM, FEB 3, 2021

Park Block

- 1. These comments are to be used as guidance in the concept plan for the park block. A full comprehensive review will be undertaken once a complete package is received. Applicant should refer to the Landscape Design Process & Requirements Manual for City requirements.*

To be addressed by others.

- 2. Block 32 (Park) must be a minimum dedication of 5% of the Draft Plan lands. The Draft Plan of Subdivision from GSP (dated June 10, 2019) identifies the Park Block as 1.34 ha. on the drawing, but 1.49 ha. in the land use table. Please confirm which number is correct.*

It has been confirmed, the park is now 1.41ha on the plan and in the table.

- 3. Block 32 (Park) must be unencumbered and for recreational purposes only. Portions of the park that do not provide useable parkland should be eliminated from the overall park calculation and/or moved out of the park block and/or provided as cash in lieu. These include the sanitary easement, infiltration galleries, stormwater pond maintenance access, and storm sewer outlet to pond. These facilities are not typically permitted in parkland. Provide the revised Park Land dedication with all encumbrances removed from the calculation.*

To be addressed by others.

- 4. The Preliminary Park Plan still shows two sanitary sewer options. City preference is for the sanitary easement be installed along the western property line.*

The sanitary sewer has been located along the western property line.

- 5. There is a 3rd pipe shown within the Park Block. All encumbrances including the sanitary easement, SWM maintenance access and storm sewer outlet should be installed on one side of the park.*

All infrastructure is now located on one side of the park.

6. *Applicant to reconsider the proposed phasing of the park development. The park should be included in Stage 1 to ensure residents have access to greenspace when they move in. The Developer shall install pre-construction signage for the park/open space development and signage shall remain in place until the park/open space construction is complete.*

The park is included in Stage 1 on the Draft Plan. Park construction details to be addressed by others and secured in the appropriate conditions of the subdivision agreement.

7. *No topsoil to be stockpiled on Park Block prior to development. Stockpiles should be situated on late-stage residential lands. Proposed locations to be shown on engineering submission for City Approval.*

Stockpile locations will be determined during detailed design in accordance with this guidance.

8. *Provide shade in playground areas and seating areas. The provision of shade for park areas is of concern to the City and must be provided in and around areas where people sit, children play, etc. Applicant is to note the City concern and address the provision of shade in this park in a meaningful way. All pipes and other encumbrances should be strategically planned to permit shade trees along the trails and throughout the park.*

To be addressed by others.

9. *Show the locations of all infiltration galleries within the Park Block and Stormwater Management Block if proposed so we can make comments.*

Infiltration galleries have been removed from park block. The locations of all proposed infiltration facilities are shown in the updated drawings accompanying this letter.

10. *Block 23 (Park) should be 80% flat tableland with grades no steeper than 2%. Areas of steep slopes will not be acceptable.*

Grading within the park block is designed within the requirements provided. Refer to the preliminary grading plan.

11. *There is some inconsistency between the walkways shown on the Preliminary Park Plan, Draft Plan and Grading Plan. Coordination between plans and consulting firms is required.*

The observed inconsistencies have been addressed.

12. *All walkways within the park block must be 3.0 m in width asphalt, as per City Standard Detail. Future walkway connection from the School Block to the Park Block should be indicated.*

Please refer to the revised drawings showing 3.0 m walkways within the park block.

13. *Recommend that there is a minimum of 3.0 m flat planted area between the top of slope from the stormwater management pond and the proposed walkway (Near Residential Block 14) for safety of the user. A barrier of some sort should be explored such as heavy planting.*

A 6.0m setback is provided between the SWM block and top of slope to the walkway. Suitable vegetation will be specified at the detailed design stage.

14. *Include the location of permanent signage, bollard gates, Molok's, trail entrances, etc., when refining your design. Reference Section 9.0 Park / Open Space Design Guidelines & Specifications in the Landscape and Design Process Requirements Manual.*

To be completed by others.

15. *Show the stormwater, hydro, and water stub just past the property line on both park frontages for playground and future ice rink. Ensure this is coordinated with Engineering and shown on the Servicing Plan and is constructed as the subdivision is serviced for park usage.*

Services are shown on the preliminary drawings accompanying this letter. Exact locations will be coordinated during detailed design. Services on the south will be constructed as part of Stage 1.

16. *The south side of the park frontage is partially blocked by Block 29 (Street Townhouses). Park frontage must be clearly demonstrated.*

The revised Draft Plan provides clear park frontage on the south side.

17. *City standard 1.5 meter high black vinyl chain-link fencing shall be provided at all public private interfaces where private lands abut wetlands, buffer lands, environmental lands, woodlots and open spaces meant to be living fence shall be provided. All fencing will need to be coordinated with the Blanding's Turtle Mitigation Plan.*

The fencing will be noted on plans during detailed design.

18. *Sufficient deterrents need to be designed into the shared property line between Block 23 (Park) and Block 35 (SWM) to maintain safety given the slopes of the pond and the proximity to the pond.*

The landscape plan will show sufficient separation/barriers as requested.

19. *Senior play structure and full-size basketball court should be designed as a connected space with shared seating and walkways. Avoid circulation through safety zones, etc. The Preliminary Park Plan is showing two basketball courts, while only one full size basketball court is required.*

To be completed by others.

20. *Overland flow is not permitted across the entire Park Block. This will flow across the walkways and could freeze in the fall/winter/spring. Swales and catch basins are required.*

Swales and a catchbasin have been shown in a preliminary fashion to ensure flows will not be crossing the path, please refer to the revised drawings accompanying this letter. Further refinement will be provided with our future detailed design submission.

21. *The centre area of the park block should be graded flat to accommodate a variety of activities or play. Maintain 1-2% slope for positive drainage.*

2% slopes across the park are able to be provided and are shown on the Preliminary Grading Plan.

22. *Park should not drain towards the back yard of private properties.*

The park does not drain towards the back yard of any private properties.

23. Please provide a Molok garbage receptacle at the north entrance to the park off Pinery Road, as per the City standard detail.
Location to be indicated in the landscape plan, by others.
24. Dog waste receptacle will be required at the north entrance of the park off Pinery Road. City to provide detail.
Location to be indicated in the landscape plan, by others.
25. Educational signage is required to be designed / approved / installed in buffer area to educate property owners regarding encroachment and dumping, turtle barrier fencing, ownership, no winter maintenance, etc. Signage plan to be submitted for approval.
To be completed by others.
26. The Draft Plan does not show a 1.5 meter wide bike lane on Pinery Trail. Provide a cross section to illustrate how this will be accommodated.
Cross-sections have been prepared and are included in the Preliminary Servicing Report for review and approval. Additionally, some discussion was added to the "Transportation" section of the report.
27. If the Developer would like the City to plant the street trees, documentation must be provided which indicates that the City Forester has approved this request.
To be completed by others.
28. The stormwater management pond maintenance road is typically designed to form part of the overall pedestrian trail system, but typically do not turn into the Park Block or use park trail system. Remove the north section of the 4.0 m wide stormwater access connecting to Pinery Trail. This is a safety concern and the SWM Access should only be included in the park block where necessary.
As per discussion with the City, the 4.0m wide SWM access will run from Pinery Trail to the south limit of the SWM block and connect to the pedestrian trail. The 3.0m wide pedestrian trail will run from Street F to Pinery Trail along the west side of the park. Bollards and P-loop gates will be integrated between the SWM block and the park block.
29. The Trail Planting Concept Plan (dated May 9, 2019) prepared by GSP does not show Block 38 (Walkway).
To be completed by others.

30. *Engineering Services staff need to confirm whether a truck performing tree, trail or other maintenance would be able to turn the corner between Block 39 and Block 36 and ultimately determine if the stub portion of Block 39 that extends past Block 36 should be more of bulb. It is anticipated that that stub portion would not need to be built as trail yet (or ever depending on the layout of the trail network on the adjacent property). A sign should be installed at this location (with wording and construction to be approved by Engineering Services) that indicates the trail does not continue west. Should be detailed as part of block plan in draft plan.*

Maintenance truck turning analysis has been completed, see above response to Comment 5 of the "comments related to landscape" for details.

31. *Staff have reviewed the Block 39 plan and have determined that the asphalt trail (Avon Trail) should be 2.5 m in width not 3.0 m as shown. This provides a little more room to lessen the side slopes of the landscape buffers. Engineering Services staff need to confirm that the proposed grading is acceptable and the slopes are stable, provide sufficient growing area and are able to be planted and maintained.*

The trail width has been reduced to 2.5m to allow for sufficient growing areas that are able to be maintained.

32. *City staff would like to explore the possibility of varying the sizes of native plant material to ensure they can be planted on the slopes and thrive. We would consider a variety of ball and burlapped, whips, bare root, container grown stock depending on the slopes. Increasing the density of the proposed planting where possible should be undertaken to help re-establish the hedgerow. Appropriate timing of planting and maintenance will be required to ensure survivability. Erosion control blankets may also be warranted to help establish the seed on steep slopes.*

To be completed by others.

ENVIRONMENTAL PLANNING, ROBYN MCMULLEN, FEB 12, 2021

These comments are to be addressed by others.

Yours very truly,

MERITECH ENGINEERING



Chris H. Togeretz, P.Eng.
Manager, Design Services

on behalf of
Abraham Barrios, P.Eng.
Project Manager

CHT/sb
Enclosures (0)

cc