

Reference Number	Comment	Responding Firm	Response
BURNSIDE ENGINEERING			
DEVELOPMENT CONCEPT PLAN			
1	The 15.3 unobstructed radius is for vehicular movement (i.e., it is fully paved however we will allow the gutter to be included). Typically, the Town's roadway will extend another 5.7 m to accommodate above and below ground infrastructure as well as a space for snow which will accumulate there from the plows. Some form of boulevard needs to be provided. We would be open to reducing the boulevard in this area to 3 m. They could potentially consider changing Lots 1 and 2 to a townhouse block if it assists due to the additional land needed to accommodate the turnaround.	Cube	The 15.3 m unobstructed radius (gutter included) for vehicular movement at the cul-de-sac of Scott street is provided. 3 m boulevard is provided except the south-east corner of townhouse is 1.5 m. Lot 1 and Lot 2 have enough land to accommodate a single detached house for each lot. Common Elements' radius is 13.8 m.
2	The construction of the turning circle at the end of Scott Street including re-location of utilities as required (including fire hydrant) should be included as a draft plan condition.	Hrycyna	Comment noted
DEVELOPMENT CONCEPT PLAN (with footprints)			
1.	A zoning amendment would be required for the proposed setbacks, particularly the townhouses and Lot 1 which will be further impacted by the adjustments needed for the turning circle.	Weston	Comment noted
2.	A draft plan condition should require double car garages and double car driveways on Lots A, B, and C as well as Lots 1 – 9.	Cube	Comment noted, double car driveways and garages are provided.

3.	It appears the 7 m front yard setback is shown to the front of the garage and not the porch. Please review where the front yard setback is to be measured to, so the sketch can be updated accordingly.	Cube	The front yard setback is measured from the front of the garage.
ARCHITECTURAL CONCEPT PLAN			
1.	There are issues on the plan (such as 44% grades) that would need to be addressed/not consistent with the grading plan submitted.	Cube	Updated report to be provided.
WASTEWATER TREATMENT ALLOCATION REQUEST			
		Hrycyna/Weston	Application submitted.
ARBORIST REPORT			
1.	The previous Woodland Assessment report included a note indicating “there is a local depression in this polygon where a history of dumping refuse is evident”. Hrycyna has indicated in their response matrix as part of this submission that “garbage is located in this area” A Phase 2 Environmental Site Assessment should be required.	Hrycyna	A site visit was conducted on May 8, 2019. The dumping refuse was of household contents which included: garbage bags, plastic bottles and planters. Pictures of site visit along with items found are enclosed.
2.	The Scoped Environmental Impact Assessment provided in the first submission indicated that “The trees in the hedgerow running along Crozier Drive do contain features that may be suitable for maternity roosting by Species at Risk bats. These trees are not proposed for removal under the current site plan.” However, all trees along Crozier Street are proposed to be removed. The report noted that NSE will continue conversations with the MNFR in order to confirm and finalize this determination. NSE should provide the results of these conversations.	NSE	We have spoken to the MNRF and received a response that states: “MNRF does not consider the proposed tree removals in this case to represent habitat damage/destruction for listed bat species. To avoid the active season for listed bat species, we recommend that no tree removals occur from April 1 to September 30.”

	<p>The response from NSE in the Comment Response Matrix (no 30) indicates that that the survey NSE completed did not reveal presence of cavities and only minor occurrences of broken branches and peeling bark. If that is the case, NSE should provide clarification on why their Scoped Environmental Impact Assessment included the information noted in the first bullet above.</p>		<p>Cavity surveys (per MNRF 2017 protocol) were completed for the property. Inventories within proposed removal areas of treed ecosites (FOD5-7) more commonly associated with Ontario’s SAR bats (protocol considers treed ecosites suitable) did not reveal presence of cavities and only minor occurrences of broken branches and peeling bark. No evidence of use by bats was noted (no feces, no urine stains, no greasy entrances) in treed ecosites. This is to say that in the ELC polygons considered habitat by the MNRF, which on site is only the FOD5-7, does not contain cavities.</p> <p>Correspondence with MNRF dated January 17, 2019 is enclosed.</p>
GEOTECHNICAL INVESTIGATION FEB 2019			
1.	<p>Section 6.5 notes that it is anticipated that excavations will be carried out above the observed groundwater table. At BH2, the groundwater elevation is noted at 465.79. The infrastructure proposed to be installed in</p>	<p>Chung and Vander Doelen</p>	<p>The BH2 water level of 465.79 mASL is approximately 0.45 m below the interface between the upper sands and the</p>

	that area will be below this elevation. Please comment on any requirements for construction.		underlying low permeability till at 466.24 mASL. There is no expectation for any significant shallow groundwater to enter the excavations in this area. For example, there would be no need to dewater with well-points for the installation of any below water table services.
FUNCTIONAL SERVICING AND PRELIMINARY STORMWATER MANAGEMENT REPORT MARCH 2019			
1.	Drawings and Reposts submitted for municipal approval should be stamped.	Crozier	Drawings and Reports will be stamped once the Town is satisfied with the proposed engineering materials.
2.	The report indicates that private lands are owned by Thomasfields Homes Ltd. Our information shows it to be Ariss Glen Developments Ltd. The Town should confirm ownership prior to finalizing draft plan conditions to ensure the correct owner name is included.	Hrycyna	Comment Noted
3.	The comments indicate that storm sewer services have been proposed but we do not see reference with the FSR or the drawings. Please provide confirmation on whether the hydraulic gradeline (which was not submitted) supports the use of gravity storm services or whether sump pumps are required.	Crozier	Existing and proposed storm sewers are shown on the Preliminary Servicing Plan (Figure 1). Gravity storm sewers are proposed to collect and convey stormwater internal to the site (Catchment 202) and outlet to the existing

			drainage channel at the north west corner of the site. Sump pumps will be required for the single-family dwellings if basements are constructed.
4.	We have confirmed through the sanitary sewer modelling that the sewers can accommodate this development without sanitary sewer upgrades.	Hrycyna	Comment Noted
	For simplicity, additional comments have been provided directly on the Preliminary Servicing Plan and on the Preliminary Grading Plan:		
	<i>Comments on Preliminary Servicing Plan (Figure 1)</i>		
	<i>Note: a clear separation of 2.5 m needs to be provided. So from C/L to C/L at least 2.7 m of separation is needed.</i>	Crozier	Acknowledged. 2.7 m of separation is provided as shown on Figure 1.
	<i>Permanent dead ends are usually not permitted. During site plan approval stage, the feasibility of connecting the last units to Crozier Street will be required to be investigated.</i>	Crozier	Acknowledged.
	<i>Turning circle needs to be shifted to accommodate boulevard.</i>	Crozier	Acknowledged. The site plan has been updated to accommodate the sifted cul-de-sac and boulevard..
	<i>3m min boulevard</i>	Crozier	Acknowledged. The site plan has been updated to accommodate this.
	<i>Flip driveway location</i>	Crozier	Acknowledged. The site plan has been updated to accommodate this.

	<i>Hydrant will likely be required near this location.</i>	Crozier	Acknowledged. A hydrant is proposed at the end of the internal cul-de-sac, as shown on Figure 1.
	<i>A connection via a MH, and then headwall will be required.</i>	Crozier	Acknowledged. A maintenance hole and head wall are now proposed within the existing municipal drainage channel to connect the Site storm sewer.
	<i>Comments on Preliminary Grading Plan (Figure 2)</i>		
	<i>If the Town ever wanted to put in curb during a road reconstruction the would not be able to. The front of the units should be placed 0.15 m higher.</i>	Crozier	Acknowledged. The proposed re-grading of the boulevard is at approximately 4%, which allows room for a curb to be installed in the future and maintain a minimum 2% slope within the boulevard.
	<i>Along this boundary, grades show this coming into the property which differs from your catchment areas.</i>	Crozier	Acknowledged. Field reconnaissance indicates this area adjacent to the Site is bermed up and keeps water contained within the municipal block draining east along the existing lane, which is not captured by the survey. Additionally, a note has been added to Figure 2 indicating the existing berm to be upgraded to ensure municipal drainage stays

			contained within the existing block.
	<i>A swale should be provided as far back as possible to ensure there is a positive drainage between the homes. This is a potential suggestion. Obtain permission from owner to get positive drainage to swale from 459.04.</i>	Crozier	Noted. The proposed interim stormwater management design addresses this concern by providing a positive outlet from the property line of the adjacent lot to the infiltration facility. Further review of the proposed grading in this area will be completed through the storm drawing coordination with the Town and Burnside.
	<i>The footprint of the house on the adjacent property should be shown as the infiltration trench cannot be within 5 m of the house foundation per OBC requirements.</i>	Crozier	Acknowledged. The footprint of the adjacent house is now shown on the Figures. Additionally, 5 m separation is labelled per OBC requirements.
	<i>Retaining wall should not extend into easement. Confirm if turning circle location has to be adjusted to accommodate its re-location. Watermain will need to be in a carrier pipe where it crosses the wall.</i>	Crozier	Acknowledged. The retaining wall is now located along the easement limits and the turning circle has been adjusted to accommodate this. A note has been added to Figure 1 to address detailed design of the watermain crossing under the wall.
	<i>The runoff from the adjacent property use to flow onto the property. It appears it is proposed to terrace</i>	Crozier	Noted. Runoff from the adjacent property will be

	<i>directly to property line, which does not allow that external drainage on the property to match existing conditions. This needs to be addressed. The Water Resources Management Report should be updated to confirm that the trench size is adequate and details should be provided as to its design requirements.</i>		received by the proposed infiltration trench (refer to Section D on Figure 6). Additionally, a perforated underdrain within the infiltration trench is proposed to connect to the interim infiltration facility to provide a positive outlet from this area.
	<i>Adjust terracing to provide a swale to contain runoff. Maximum slope on terracing to be 4:1. This is in the engineering standards.</i>	Crozier	Acknowledged. A swale is proposed along the top of the slope (refer to Section D on Figure 6). The terracing slopes are revised to 4:1 (refer to Figure 2).
	<i>Is a ditch present all the way to Thomasfield's lands? The capacity of the ditch should be verified to be adequate as more runoff is being directed this way.</i>	Crozier	The existing ditch extends approximately 80 m beyond the Site property line towards the Thomasfields lands. A Flowmaster section was provided in Appendix C indicating the minimum channel design required to convey the flows from the site. Additional survey may be required during detailed design to confirm if any re-grading or channelization is required for the existing channel.
5.	A draft plan condition will require drawings prepared by a qualified structural professional engineer for all	Hrycyna	Comment noted

	retaining walls. All retaining walls are to be included as part of the common elements.		
6.	The lower area on the site will now be raised with houses, eliminating an existing low area where runoff likely infiltrated. We have the following comments:	Crozier	Previously proposed Lot C is now proposed as an interim infiltration facility to retain and infiltrate contributing stormwater from the proposed development. Refer to Figure 4 and the Stormwater Management Brief included with this submission for additional details.
7.	For EXT2 that does not have a positive drainage outlet. What was the original “emergency overflow” elevation and has that changed as a result of the proposed grading?	Crozier, Hrycyna	Drainage Catchment EXT2 will drain to the proposed interim infiltration facility, located on the previously proposed "Lot C". The original 'emergency overflow' elevation is approximately 458.93 and is not proposed to change under the proposed interim infiltration solution. Refer to Figure 4 for the existing and proposed ponding limits. Please also refer to the Stormwater Management Brief included in Appendix D.
8.	We would like the applicant to confirm if the-proposed infiltration trenches will be owned/maintained by the Condominium?	Crozier, Hrycyna	The proposed infiltration trenches will be

			owned/maintained by the Condominium.
9.	We are unable to support the application without securing a drainage outlet for this low area.	Crozier, Hrycyna	A viable and engineered interim drainage outlet is proposed to address this concern. The proposed interim solution resolves the existing ponding issues on Scott Street and allows the proposed development to move forward. Lisgar (Grand Valley) Inc. is working collaboratively with the Town to determine a permanent gravity storm sewer solution.
PARKING STUDY DRAWING/TRAFFIC OPINION LETTER			
1.	Should the items below be accommodated for we would have no further comments on parking: 1) Double car driveways and garages for all the single detached dwellings 2) A front yard setback of 11.09m for the townhouses.	Cube	Comment noted, double car driveways and garages are provided.
WATER RESOURCE MANAGEMENT REPORT			
1.	An updated report/memo solely related to the proposed infiltration trenches related to this latest submission should be provided: 1) A mounding analysis and the area of influence identified on the drawings. 2) Identification of impacts to the water table 3) A survey in the area of influence of mounding to confirm no impacts 4) A proposed monitoring program.	Chung and Vander Doelen	Based on the pre and post development stormwater management analysis by Crozier, the catchment area contributing water (i.e. total 'water balance' of surface water runoff + groundwater recharge) to the low area at Lot C (and the infiltration

	<p>5) Detailed calculations would be needed to support the sizing of the infiltration galleries with detailed calculations related to mounding.</p>		<p>area surrounding the adjacent residential lot to the east), is expected to be significantly reduced during post-development (roughly 30% of the pre-development amount, per the SWN calculations).</p> <p>In pre-development, the area of Lot C served to recharge the larger “water balance” without any apparent impact to the neighbouring residence, noting that the catch basin in this area has not been functional, thereby forcing all the water reaching this area to be recharged and evapotranspired. The lack of impact is undoubtedly related to the very permeable soils in this area that extend to the south and east, as described in the previous Water Resource Management report. Also, the basement of the adjacent house is estimated to be at an elevation of about 457 mASL based on the survey data around the house and</p>
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			the water table at BH12 (on Lot C) is about 3.1 m deeper. This is a very significant separation distance and considering the post-development recharge quantity in this area will be significantly reduced, we don't expect any impact to the neighbouring residence from groundwater mounding.
CONSENT APPLICATION			
1.	A site plan agreement must be entered into for the condo lands. The response from the applicant was 'Disagree'. We need to ensure that the grading between each of the lots are consistent with one another so our recommendation remains. Lot B and C will cover an existing low area on the site, and we cannot approve construction until a drainage outlet is constructed for the existing catchbasin on Scott St.	Hrycyna	Site plan application has been submitted.
2.	Lot A driveway should be relocated to the opposite side due to changes at the cul-de-sac.	Weston	Comment noted and site plan updated.
3.	Demolition and removal of utilities associated with the existing dwelling and auxiliary building should be a condition of the consent application.	Hrycyna	Comment Noted
FIRE DEPARTMENT			
1.	Access to the rear of the Townhouses (future fencing)	Hrycyna	Comment Noted
2.	Driveway and turning radius for emergency vehicles?	Hrycyna	Comment Noted
3.	Lack of sufficient number of parking spaces	Hrycyna	A surplus of parking spaces is proposed on site. Per the zoning by-law, 50 parking

			spaces are required. Per the updated site plan, the development proposes 76 parking spaces exceeding the zoning by-law requirements by 26 spaces.
4.	Inability to access 4 th floor of townhouses for firefighting operations.	Hrycyna	Reduced to 3 storeys.
5.	Location of fire hydrants needs to be addressed as well as another on installed.	Crozier	An additional fire hydrant has been added at the end of the internal turning circle. Please see Figure 1 for additional details.
6.	More “no parking” signs needed	Crozier	In Traffic Opinion Letter
7.	Reflective markers to installed on all fire hydrants at owners cost.	Hrycyna	Comment Noted