788 March RESPONSE TO COMMENTS May, 2020

No	Comment	Responsibility	Response
No. 0.0		All	Tresponse
0.0	received December 23, 2018 for the proposed apartment buildings.	IAII	
	Please provide a resubmission that addresses each of the comments or issues listed above. Please		
	include 6 copies of all revised drawings and 2 copies of revised reports. A cover letter must also be		
	included that states how each provided comment was addressed in the resubmission. Please co-		
	ordinate the numbering of each resubmission comment or issue, with the above noted comment		
	number. All addenda or revisions to any studies and plans, must be accompanied by a PDF copy,		
	either by USB or e-mail.		
	Please contact me at Kathy.Rygus@ottawa.ca or at 613-580-2424 ext. 28318 if you have any		
	questions regarding design, site plan or landscaping comments. Please contact Project Manager Julie		
	Candow directly for questions regarding engineering comments at Julie.candow@ottawa.ca or at 613-		
	580-2424, Ext. 13850.		
	Planning and Urban Design		
1.	We have concerns regarding the requested reduction of the rear yard setback from 7.5 m to 3.0 m.	Fotenn	The Site Plan has been revised to provide a 7.5m rear yard setback.
	This has not been addressed in the re-submission and the rationale that it functions as a side yard is		
	insufficient. The units are oriented toward the southerly property boundary as would be the case in a		
	rear yard condition. We also provided a demonstration of how this could be addressed as part of our		
	original comments. As noted, this condition could have a negative impact on the abutting site (760		
	March Road) and may leave insufficient room for a pathway as proposed. We have recently received a		
	site plan application from Minto & request that FoTenn provide a drawing illustrating the relationship		
	between the two sites based on Minto's proposal, so we can properly assess the impact. Perhaps this relationship is acceptable based on Minto's site design.		
2	Details and responsibility for the construction of a continuous stone dust pathway across the rear of the	Fotenn/Project1	Please see revised Landscape Plan, which shows a continuous stone dust pathway across
 	site is required as part of site plan approval. This was required of Minto in their site plan application for		the rear of the site.
	the lands directly south of the subject site.		
	Engineering		
	A. General Plan Comments:		
1.	, , , , , , , , , , , , , , , , , , , ,	All	Noted; please see revised drawings.
	bottom, right corner using BOLD BLACK TEXT as per sample below.		
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	B. List of Drawings:		
	Landscape Plan, drawing no. L1-1, prepared by Fotenn, revision 2, dated Dec. 19/18		
2.	Proposed swale and terracing is still shown at the north edge of the building, adjacent to Klondike	Fotenn LA	Please see revised Landscape Drawings.
	Road, however this swale was removed from the Grading and Servicing Plans (update on all landscape		
	plans).		

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3.	The detail labelled 7/L3-2 Light Duty Concrete Unit Paving at the amenity space should be 6/L3-2.	Fotenn LA	Please see revised Landscape Drawings.
	Grading Plan, drawing no. GP-1, prepared by DSEL, project no. 18-1039, revision 1, dated Aug. 17/18		
4.	Original Comment: Indicate T/W and B/W elevations at the east side of the parking garage entrance. The B/W is indicated as 74.39, which does not tie in with the surrounding grades.	DSEL	Please note that due to the updates site plan the parking garage entrance is at grade. T/W and B/W elevations have been added to the ramp.
5.	Original Comment: There is a note for the barrier curb on Klondike Road to be removed and replaced with a depressed curb however no barrier curb exists along Klondike Road. Please correct. It appears that a new curb is proposed along Klondike Road and the existing asphalt is to be extended for the bike path, however there are no notes reflecting this work. Existing and proposed grades should be provided at the edge of curb line.	DSEL	Please note that a curb and new MUP are proposed along Klondike Road. Refer to drawing GP-1 for existing and proposed grades.
6.	Additional grading information is required at the section of roof located east of the parking area. It is unclear what elevation this area is at and whether the roof area will serve any function (does the parking area look over a blank roof?). The parapet wall separating the parking area from the roof area should include T/W and B/W grading information. Site Servicing Plan, drawing no. SSP-1, prepared by DSEL, project no. 18-1039, revision 3, dated Dec	DSEL	Please note that roof controls are proposed as part of the revised stormwater management strategy. Roof design to be prepared by mechanical and structural engineers during the building's detailed design stage.
7.	The existing storm manhole labels provided on the Servicing Plan do not match the manhole labels provided in Appendix D of the report (March Road Reconstruction – Minor System Drainage Plan). The manholes should be re-labelled to match the March Road Reconstruction plans. In addition, the 100 yr HGL of the existing manhole for which the proposed storm service discharges to is 77.08m instead of 76.63m. Please correct all plan and report HGL numbers accordingly.	DSEL	Please note that the storm maintenance structure IDs have been updated to correspond to the March Road reconstruction as builts as this is where the structure was extracted from. The 1:100yr HGL has been added to the drawing within the existing ST11 storm structure note.
8.	The location of the overflow discharge catch basin connecting to the proposed cistern should be shown on the Servicing Plan and Grading Plan.	DSEL	Please note that the location of cistern overflow is currently being discussed with the development team. The final location will be confirmed in a subsequent application.
	Stormwater Management Plan, Drawing No. SWM-1, prepared by DSEL, Project No. 18-1039, revision 3, dated Dec 20/18.		
9.	What is proposed on the roof of the canopy? Will the storm runoff be captured by roof drains?	DSEL	The building canopy is proposed to be controlled via roof drains, however please note that the canopy area was not included in the stormwater calculations.
10.	Please provide a table on the Stormwater Management Plan which shows the 1:5yr and 1:100 year release rate for each drainage area as well as where the drainage area is allocated (internal mechanical system, uncontrolled, etc.). The table should include the minimum storage requirement for the cistern and associated allocated release rate.	DSEL	A stormwater management summary table has been added to drawing SWM-1. The Table identifies, the drainage area, where the drainage area is allocated, the 1:5yr release rate, the 1:100yr release rate, and the minimum storage requirement.
	C. List of Reports: Functional Servicing and Stormwater Management Report, prepared by DSEL, Project No. 18-		
	1039, dated December 2018 (Rev. 2).		
11.	Original Comment: Section 4.2, it is noted that the proposed development results in an increase of 1.79 L/s to the future sanitary sewer within March Road. Please consult with Novatech to inform them of the increase release rate for the proposed development. Provide email correspondence with Novatech within Appendix C of the report which confirms that Novatech will accommodate the increased release rate from 788 March Road in their design of the trunk sanitary sewer. Please follow up with Fern from Novatech, as the excess sanitary capacity of the future 600mm sanitary sewer was not reconfirmed.	DSEL	Please note that the updated population density equates to a 0.07 L/s increase from Novatech's contemplated wastewater flow. As discussed with City staff, this is an insignificant increase and therefore the receiving sewer is expected to be sufficient sized to accommodate the development. Additional correspondence with Novatech is not expected to be required.
12.	Original Comment: The storm sewer design sheets and hydraulic grade line analysis provided in Appendix D are not legible, please provide revised copies. In addition, please make reference to Stantec's report, which these documents are extracted from in Section 2.0 and provide a PDF copy of the Report with the next submission. Please make reference to Stantec's report, which these documents are extracted from.	DSEL	Please note that a reference to the Stantecs design has been added to Section 2.1 of the report.

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13.	Original Comment: Provide a schematic diagram, including proposed elevations, which details the proposed stormwater cistern, 300mm storm lateral, submersible pump, etc. to represent the proposed configuration of the system. - The sketch should be updated to show a 300mm storm lateral instead of a 200mm storm lateral. - The storm discharge flow control orifice - maximum flow is listed as 6.1 L/s. Provide supporting calculations to justify this release rate. - Will the pumps be connected to a generator system in the event of a power outage?	DSEL	Please note that an updated cistern detail is currently being coordinated with the mechanical engineer and architect. An updated detail will be supplied subsequent this application.
14.	Original Comment: Section 5.3, it is noted that the 357 L/s major flow extracted from the Shirley's Brook SWMF Design Brief includes flow from a 1.21 Ha area that would not enter the Klondike ditch. Please provide supporting information to support this conclusion. It is stated that the overland flow route from March Road east be redirected onto Klondike Road. Does the existing cross section of Klondike Road have the capacity to accept this overland flow? Please also expand within this paragraph as to whether a new concrete curb along Klondike Road is proposed and how the existing and/or proposed bike lane will integrate into this cross section.	DSEL	Please note that curb and sidewalk are proposed along Klondike Road. As shown by drawing GP-1, stormwater will continue to enter the roadside ditch near the Klondike Road site entrance. As shown by the Grading Plan, stormwater along the north side of the side is proposed to be conveyed along the existing MUP towards the future culvert north of the parking garage entrance. The culvert will be located approximately 10m upstream of Shirley's Brook. In the existing condition, runoff within 1.22 ha of the site is directly tributary to Shirley's Brook. The revised grading strategy proposes to reduce this area to 0.11 ha, significantly decreasing the uncontrolled stormwater flow. Please refer to GP-1 for further information.
15.	Original Comment: In light of the above comments, consideration should be given to the use of rooftop storage and parking lot storage to reduce the amount of cistern storage required onsite. Controlled rooftop outlets could be directed to the surface and flow overland to March Road. A gravity outlet to Shirley's Brook should also be considered as a alternative storm outlet to reduce/eliminate the reliability on a mechanical pump to control all storm water onsite. A stormwater management strategy that relies solely on a mechanical system to discharge storm water is NOT the City's preferred approach. Please provide justification as to why the cistern strategy was chosen as opposed to a gravity outlet to Shirley's Brook.		Please note that the stormwater management system has been revised and now incorporates rooftop storage. An internal cistern is proposed solely for the outdoor ramp drainage. Outdoor parking areas will utilize surface storage. Refer to Section 5.3 for further details.
	Transportation		
1.	Clearly indicate the area where work is to be covered under the RMA drawings.	Parsons, Project1	Please see revised Site Plan.
	Environmental		
1.	Watercourse – The EIS indicates that a 30 m setback has been applied to the Shirley's Brook watercourse. The FoTenn response table provides further explanation and indicates that JD Barnes has confirmed that the 30 m setback is accurate. However, a review of the site plan provided has indicated that there is site alteration and development proposed in the 30 m setback in several locations (please see the attached image for an example).	Fotenn, McKinley	The 30 m setback has been redrawn and is now shown as a buffer instead of a line offset. The Site Plan and the Combined EIS and TCR have been updated accordingly. No development is proposed within the 30 m setback area, other than the 2 m wide pathway (discussed below).
2.	Blanding's Turtle – The IGF and AAF are required to confirm the design. Alternatively, the client can provide MNRF/MECP sign off on the site plan application and EIS as it indicates in the letter that they have reviewed the IGF and AAF but makes no reference in the correspondence to the site plan and EIS.	McKinley	The IGF and AAF were previously submitted to the OMNRF based on the previous project design. The previously submitted IGF and AAF were reviewed by the OMNRF, who confirmed that a permit under the Ontario Endangered Species Act (ESA) was not required to support the development. Due to the addition of the 2 m wide pathway (discussed below), the changes to the Site Plan, and the transition of the ESA review from the OMNRF to the MECP, the IGF and AAF have been updated and resubmitted to the MECP for additional review (resubmitted in April 2020). It is anticipated that it is unlikely that the development will require an Overall Benefit Permit, given that the overall impact to the Blanding's Turtle habitat has not substantially changed. Section 1.6 of the Combined EIS and TCR has been revised to provide an update on the ESA review process. Copies of the revised IGF and AAF will be provided to the City to accompany the revised Combined EIS and TCR.

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3.	The pathway along Shirley's Brook should be provided. It is identified within the NCC's 'Pathway Network for Canada's Capital Region' document and the alignment is incorporated into the City's Official Plan Schedule C & Cycling Plan. The pathway is identified on the attached map as #46, the "South March – Shirley's Bay Pathway". Portions of this pathway have already been constructed upstream and downstream (e.g. Pathway in Shirley's Brook Park). The pathway alignment provides residents with a facility for travel by active modes within the local area. When connected up to the existing pathway segments to the north and south, the pathway could provide good access to the numerous parks, South March Public School and other community destinations as they develop & offer opportunities for recreation and enjoyment.	Fotenn, Project1	The 2 m wide pathway has been added to the Landscaping Plan. The potential habitat impacts of the pathway are discussed in Section 4.2.2 of the updated Combined EIS and TCR. The pathway requirement has also been integrated into the revised IGF and AAF submission to the MECP.
	Mississippi Valley Conservation Authority (MVCA)		
	Natural Heritage		
	30m Setback		
1.	MVCA previously recommended that the applicant confirm how the 30m setback shown from the high water mark of Shirley's Brook had been calculated and confirm that the setback shown was a 'buffer' rather than a 'line offset'. The spreadsheet titled 'Response to First Round Comments' prepared by FoTenn indicates that the surveyor, JD Barnes, "has confirmed that the location of the 30m setback line that was shown on the various plans was accurate and that this line was drawn as 30m from the normal high water mark." MVCA accepts the location of the high water mark identified by field work completed by JD Barnes. The setback shown in the plans is offset from the high water mark by 30m in a single direction. This approach does not result in all portions of the development achieving a 30m setback from all areas of the high water mark. The attached mapping provides an approximation of a 30m setback, when drawn as a 'buffer' rather than a 'line offset'. The attached mapping demonstrates that portions of the building are encroaching within the required 30m setback by approximately 7m. The application should be revised to ensure the required 30m setback has been defined as a 'buffer' rather than as a 'line offset'.	Fotenn	The 30 m setback has been redrawn and is now shown as a buffer instead of a line offset. The Site Plan and the Combined EIS and TCR have been updated accordingly. No development is proposed within the 30 m setback area, other than the 2 m wide pathway (discussed below).
	Corridor Planting		

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2.	MVCA previously recommended that the development include the planting of native tree and shrub species within the corridor to improve opportunities for stream shading, provide replacements for dead or dying Elm and Ash trees, and improve onsite native species diversity given the abundance of Manitoba Maple and other invasive species present within the corridor. The response document prepared by FoTenn indicates that additional planting is not required within the corridor, citing Sections 3.4, 4.1.2 and 4.2.1 of the EIS. Section 3.4 of the EIS discussed Shirley's Brook and notes "Although trees are present within the riparian corridor, there is very little vegetation overhanging the watercourse, and the majority of the stream length adjacent to the Site is unshaded." Section 4.1.2 discusses replanting and concludes that replanting within the 30m corridor is not necessary as the corridor contains significant woody vegetation. Whereas Section 4.2.1 of the EIS discusses the Shirely's Brook Setback and explains that: "The purpose of the 30m setback is to provide a buffer which will help to slow, filter and absorb overland stormwater flow, while also providing habitat for wildlife and wildlife movement. Trees growing within the setback help to protect the watercourse from edge effects including noise, pollution and other forms of human disturbance. Trees also provide shade which helps to cool surface water temperatures, while they also help to prevent erosion, stabilize banks and enhance absorption and filtration of overland stormwater flow."	Fotenn LA, McKinley	Section 3.4 of the Combined EIS and TCR has been revised to clarify the previous statement that 'very little vegetation overhangs the watercourse'. While the banks of the watercourse itself do not include many trees, as shown in Photographs 5 and 6 of the Combined EIS and TCR, the riparian area immediately adjacent to the watercourse is well vegetated with native aquatic and riparian groundcover. To clarify, while trees are not found growing along the majority of the channel banks, the majority of the area beyond the immediate vicinity of the channel (e.g. the majority of the 30 m wide vegetated setback) is forested and/or includes tree stands (described in Section 3.3.1 of the Combined EIS and TCR). Additional tree planting was not recommended due to the fact that the majority of the 30 m wide setback area already includes forest (the Cultural Woodlot) and other tree stands, whereas the area immediately surrounding the channel includes healthy aquatic and riparian groundcover. As shown in Photographs 5 and 6 of the Combined EIS and TCR, the vegetation growth and ecological conditions of the watercourse corridor in the vicinity of the Site are already comparatively good, and therefore additional tree planting was not recommended.
	Given the stated purpose of the 30m setback, MVCA continues to recommend that additional planting be accommodated within the corridor to provide stream shading benefits, mitigate against the erosion hazard identified by Matrix Solutions in their Meander Belt Width Assessment and to introduce healthy native species into a corridor dominated by invasive species (Manitoba Maple) and disease-prone native species (Elm, Ash) that are likely to decline in health in the near future. Natural Hazards		
	Meander Belt		
3.	MVCA previously requested the applicant prepare a Meander Belt Width Assessment to review the erosion hazard applicable to Shirley's Brook. MVCA reviewed a reported titled "788 March Road – Shirley's Brook Meander Belt Width" prepared by Matrix Solutions and dated December 4, 2018. MVCA offers no substantial comments on the report and is willing to accept the findings, however requests that the report authors apply their professional seals to the document. Flood Plain	Matrix Solutions	Please find attached the revised report, which includes professional seals applied to the document.

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4.	MVCA previously advised of the flood proofing requirements for structures within and adjacent to the floodplain of Shirley's Brook. The response document prepared by FoTenn states that: - All building openings will be at least 0.3m above the 100 year flood level; - There is no habitable space below the regulatory flood level will be designed to withstand hydrostatic pressures associated with the flood; - Construction materials will be of a type not subject to deterioration by alternate wetting and drying; and - All mechanical and electrical service shut-off shall be located on or above level B1, which the submitted plans indicate will be above the required height of 74.3m. The intent of the flood proofing measures is to ensure that a building and its contents will not sustain flood damages and that continued occupancy of the building can occur. While our flood proofing requirements may permit electrical and mechanical services in Basement Level 2, we request that the two mechanical rooms on that level be relocated to Basement Level 1, being above the flood plain design elevation of 74.3m. Alternatively, detailed plans should be provided demonstrating the nature of these mechanical rooms and how they would be flood proofed to prevent damages and to ensure continued occupancy of the building during a flooding event. We acknowledge that the response document prepared by FoTenn indicates that the building will conform to our flood proofing requirements, but the applicant should be advised that MVCA will require detailed information on the building design as part of our permit process. We are available to discuss flood proofing requirements with the applicant directly, should they wish.	DSEL	Based on floodplain mapping provided by the MVCA, the regulatory floodplain of Shirley's Brook is 74.00m. As illustrated by drawing GP-1, no building openings or habitable spaces are proposed below an elevation of 74.30m.
5.	Stormwater Management MVCA engineering staff reviewed the report titled "Functional Servicing & Stormwater Management Report for 788 March Road" prepared by David Schaefer Engineering Limited and dated December, 2018 (Rev2) and offer the following comments:	DSEL	-
5.1.	There are references made to a design sheet (page 11) and capture rate of surface drainage (page 21) in Appendix D which cannot be found. Please clarify.	DSEL	Please note that references to documents included in Appendix D have been updated to reflect the information used for the stormwater management design.
5.2.	Please provide details of the calculations summarized in Tables 5 and 6. The unattenuated and attenuated areas are not clear in the report.	DSEL	Additional details on the stormwater management system have been added to Section 5.3 of the report.
5.3.	The required enhanced quality control (80% TSS removal) for the overland flows toward northwest of Klondike Road (U2) and northeast of the property (U1) are unclear in the report. Please clarify. Regulated Areas	DSEL	Please note that the stormwater management design has been revised in an effort to collect runoff from asphalt areas towards the Shirley's Brook SWMF. Runoff from landscaped areas (U1, U2, U3, EX1) will be directed towards Shirley's Brook as stormwater quality from these areas is expected to meet the MVCA's requirements.
6.	As shown in the attached mapping, MVCA has identified floodplain and meander belt hazards along Shirley's Brook. The proposed development falls within MVCA's regulation limit and a permit under Ontario Regulation 153/06 "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" will be required to authorize this development.	McKinley	Acknowledged - this is noted in Section 1.6 of the Combined EIS and TCR