



Report to: General Committee

Meeting Date: Jan 31, 2022

SUBJECT: 555 Miller Operations Yard – Stormwater Management
Emergency Repairs
PREPARED BY: Renée England, Senior Manager Facilities Assets, x 2674

RECOMMENDATION:

- 1) THAT the report entitled “555 Miller Operations Yard – Stormwater Management Emergency Repairs” be received; and
- 2) THAT due to this emergency, a new Environmental Services project be established for the interim solution for the stormwater management repairs in the amount of \$361,919.86 (Inclusive of HST) and be funded from the Life Cycle Replacement and Capital Reserve; and
- 3) THAT the current Purchase Order for routine and emergency infrastructure repairs with FDM Contracting Ltd. be increased by \$315,894.48. (inclusive of HST) ; and
- 4) THAT \$46,056.38 be retained to fund the vegetative cutback in the tributary and remove the blockage at the 3 outfall culverts under Rodick Road and be awarded in compliance with the purchasing by-law; and
- 5) THAT a new Sustainability & Asset Management project be established for a stormwater management study at a cost of \$59,885.76, inclusive of contingency and HST , funded from the Life Cycle Replacement and Capital Reserve; and
- 6) THAT the staff awarded stormwater management study contract to AECOM Canada in the amount of \$59,885.76 (Inclusive of HST) under the declaration of emergency be received; and
- 7) THAT authority be given to the Sr. Manager of Procurement & Accounts Payable and the applicable Director(s) to expedite the procurement process when necessary; and
- 8) THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to notify Council of an emergency purchase made by the Director of Sustainability and Asset Management for the interim and long term solutions to the flooding issue at the 555 Miller Operations Yard and the necessary emergency measures taken by Staff and the funding requirements for these solutions.

BACKGROUND:

The City's main Operations Yard at 555 Miller Avenue (Operations Yard) is experiencing a greater number of flooding events in the parking areas. Flooding is now creeping into the building through the mechanical and vehicle repair bay doors, surcharging up through building pipes and increasing depth of ponding on the roof due to a non-functioning stormwater system which does not allow water to drain from the site (see Attachment 1).

A study was carried out June 2021, by Counterpoint Engineering, to determine condition of the stormwater management system for the entire site and identify opportunities to improve. The study revealed that:

- The majority of the site drains overland with a very minor underground stormwater drainage system. The underground system does not meet current City engineering standards.
- The underground system is blocked in several locations and the pipe has deteriorated and is not functioning as it should (see Attachment 2).
- The tributary outfall for the underground system on the East side of Rodick Rd. is blocked and may not be at the elevation required for proper drainage. A new outfall for the Operations Yard is being planned within the proposed Miller SWM Pond project on the Hydro One lands to the east that is being undertaken by the Engineering Department. Design for this new outfall is yet to be completed.

All of the above factors are contributing to the flooding that is being experienced by the Operations Yard.

A declaration of emergency was established by the Sustainability & Asset Management Department in September of 2021 via briefing note to the Executive Leadership Team.

OPTIONS/ DISCUSSION:

Upon completion of the stormwater study at the Operation Yard, the Sustainability & Asset Management (SAM) Department convened several meetings with Operations, Environmental Services and Engineering Departments to communicate the issue, develop options, strategies, and eventually the solutions proposed in this report.

Interim Solution

The Operations Yard is a significant City asset. This yard services the City's winter operations, roads and parks services. It is also the sole location for fleet mechanics. A building flood event would greatly hamper Operations' services for the entire City.

As such we propose the following for immediate action;

- Remove the blockage in the underground system in several locations (see Attachment 2), sections of pipe that are deteriorated would be replaced, in order to restore function to the system. The cost of these works in the amount of \$315,894.48 (inclusive of HST) will be undertaken utilizing the City's current existing underground pipe repair contractual pricing with FDM Contracting Ltd. Staff are able to use unit's rates under the current contract to complete these works negating the need to go to the market.

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- Cut back the vegetation in the tributary adjacent the outfall and remove the blockage at the 3 outfall culverts under Rodick Road at an estimate cost of \$46,025.38 inclusive of HST Impact. This cost will be confirmed upon retender of the sewer inspection contract in Q1 by Environmental Services.

The total cost of these works is \$361,919.86 inclusive of HST Impact.

These emergency measures will allow water to flow away from the structures and off the site with no back up in the parking lot areas or excessive water ponding on the roof. This project will be managed by the Environmental Services Department and construction will take place in Q2 of 2022 in advance of the spring thaw while not interrupting Winter Operations.

Long Term Solution

The Engineering Department has been working on the proposed Miller SWM Pond project on the Hydro One lands to the east. This proposed SWM pond will also function as the outfall for the Operations Yard. Until the proposed Miller SWM pond is completed, the underground stormwater management system will continue to require maintenance as needed to prevent blockages within it.

The Engineering Department is also conducting two more projects that are critical to the Operations Yard. The reconstruction of Rodick Road, from 14th Avenue to Miller Avenue and the reconstruction of Miller Avenue, Woodbine Avenue to Rodick Road. Both projects include new sanitary and storm sewers as well as watermains, required for the future development of the lands in the area.

Developers in the area have engaged both our Engineering Department and Engineering Consultants to prepare servicing studies to ensure their lands are able to drain to the final stormwater outfall and/or elevations on Rodick Road or Miller Avenue. Knowing that the stormwater management system at the Operations Yard is suboptimal and that it does not meet current city standards, we recommend conducting a similar stormwater management study for the Operations Yard.

The cost of this study is \$59,885.76, including contingency and HST Impact and was included in the emergency declaration. The contract was awarded to AECOM Canada in December 2021 under the declaration of emergency. AECOM Canada is the engineering consultant currently working on both the design of Rodick Road, from 14th Avenue to Miller Avenue, and the proposed Miller SWM Pond project.

The study will commence in Q1 2022 and should take 6-8 months to complete. It will look at how the Operations Yard site would function with a stormwater system that meets current city standards, and if it would align with the outfall locations at the pond and/or on Rodick Road and Miller Avenue.

Staff recommend conducting this work now as the Engineering Department is finalizing the details with respect to Miller SWM Pond project and the Rodick Road Design in 2022. Any delay in undertaking the stormwater management study would also impact proposals for the re-development or updating of this site in the future.

The Sustainability and Asset Management Department will work with the Engineering Department to mitigate, through the stormwater management study, any impacts to the surrounding designs on Rodick Road, Miller Ave or the Miller SWM Pond projects.

Although there is no future plan to execute the findings of the stormwater management study, the Sustainability and Asset Management Department will monitor the Operations Yard for a period of 1-2 years after the interim solution is implemented and report back should the flooding situation persist at this site.

FINANCIAL CONSIDERATIONS

Recommended Supplier	FDM Contracting Ltd.	
Budget established for Stormwater Management Repairs	\$361,919.86	New Project in Environmental Services
Less cost of award	\$315,894.48 incl. HST	PO increase to FDM Contracting Ltd. (PB18028)
Balance remaining after this award	\$46,025.38	**

The costs of the stormwater management repairs will be funded by the Life Cycle Replacement and Capital Reserve

** The remaining budget of \$46,025.38 will be retained in the account to fund the vegetation cut back and blockage removal of culverts under Rodick Road

Recommended Supplier	AECOM Canada	
Budget established for Stormwater Management Study	\$59,885.76	New Project in Sustainability & Asset Management
Less cost of award	\$54,441.60 Award \$ 5,444.16 10% Contingency \$59,885.76 Total	Awarded to AECOM Canada (incl. HST Impact)
Balance remaining after this award	\$0.00	

The costs of the stormwater management study will be funded by the Life Cycle Replacement and Capital Reserve

OPERATING BUDGET AND LIFE CYCLE RESERVE IMPACT

The total costs of the stormwater management repairs and stormwater management study in the amount of \$421,805.62 (\$361,919.86 + \$59,885.76) will be funded by the Life Cycle Replacement and Capital Reserve.

There is no incremental operating budget impact.

HUMAN RESOURCES CONSIDERATIONS

Not Applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

Safe and Sustainable Community

- Enable Operations Department to run uninterrupted.
- Prepare for the impacts of climate change in this area of the City.

BUSINESS UNITS CONSULTED AND AFFECTED:

The following business units have been consulted:

Operations Department
Environmental Services Department
Finance Department
Engineering Department

RECOMMENDED BY:

Graham Seaman
Director Sustainability & Asset
Management

Trinela Cane
Commissioner
Corporate Services

Alice Lam
Director Operations

Eddy Wu
Director Environmental Services

Frank Clarizio
Director Engineering

ATTACHMENTS:

Attachment 1 - 555 Miller Flooding Photos
Attachment 2 - 555 Miller SWM Pipe Map