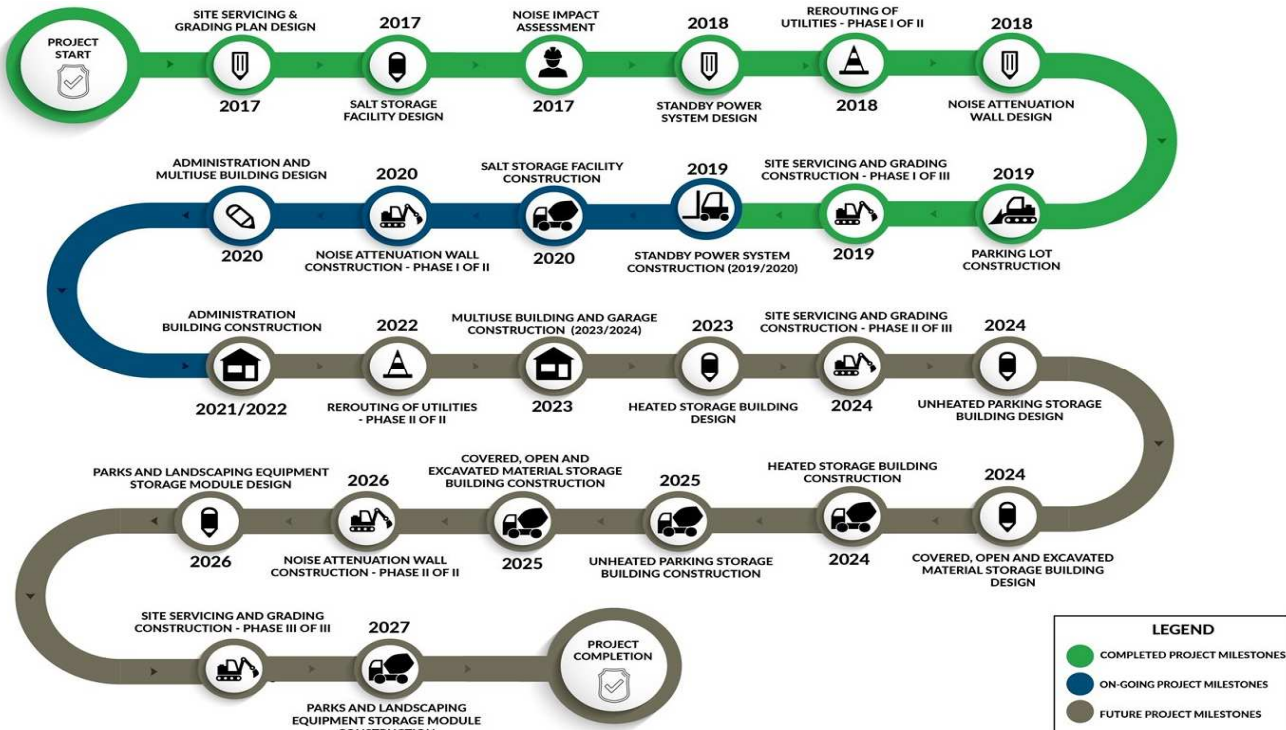


City of Cornwall Municipal Works Redevelopment Project - Status Report Dashboard as of Feb 29, 2020

Financial Summary									Project Milestones
Year	Original Class D Estimate	Annual Budget (A)	Revised Budget (B)	Outstanding Committed Funds (C)	Expenses To Date (D)	Forecast to Year End (E = User Input)	Total Spent and Forecast F=(D+E)	Variance (B - F)	For additional information on completed and on-going Project Milestones, refer to the 'Project Milestones' Sheet
2017	\$ 455,000.00	\$ 1,000,000.00	\$ 1,000,000.00	\$ -	\$ 177,732.70	\$ -	\$ 177,732.70	\$ 822,267.30	
2018	\$ -	\$ 2,305,000.00	\$ 2,489,750.00	\$ 1,626,297.19	\$ 559,597.86	\$ -	\$ 559,597.86	\$ 1,930,152.14	
2019	\$ 1,304,750.00	\$ 4,080,000.00	\$ 6,053,623.00	\$ 4,597,868.95	\$ 1,572,360.54	\$ -	\$ 1,572,360.54	\$ 4,481,262.46	
2020	\$ 2,978,240.00	\$ 1,565,000.00	\$ 1,565,000.00	\$ -	\$ 77,652.29	\$ 7,156,264.47	\$ 7,233,916.76	-\$ 5,668,916.76	
2021	\$ 6,232,240.00		\$ 2,905,339.61						
2022	\$ 6,210,000.00		\$ 100,000.00						
2023	\$ 4,861,270.00		\$ 11,940,748.00						
2024	\$ 736,500.00		\$ 4,949,333.00						
2025	\$ 494,000.00		\$ 1,107,450.00						
2026	\$ 2,156,250.00		\$ 1,307,406.00						
2027	\$ 1,275,430.00		\$ 1,147,887.00						
Contingency	\$ 5,340,736.00	\$ -	\$ 2,345,816.36						
Project Total	\$ 32,044,416.00	\$ 8,950,000.00	\$ 36,912,352.97	\$ 6,224,166.14	\$ 2,387,343.39	\$ 32,179,193.22	\$ 34,566,536.61	-\$ 2,522,120.61	
General Comments									
<p>The Original Class D Estimate prepared by AECOM in 2016 reflected the anticipated building demolition and construction costs for the redevelopment of the Municipal Works (MW) Yard,</p> <ul style="list-style-type: none">complete with a 20% contingency fund. The 2016 AECOM Class 'D' estimate was designed to provide the Corporation with an overall replacement value for each of the buildings within the MW Yard.									
<p>According to <i>Public Services and Procurement Canada</i> , a Class 'D' (Indicative) Estimate is "to be in unit cost analysis format (such as cost per m² or other measurement unit) based upon a comprehensive list of project requirements (i.e. scope) and assumptions; the Class D estimate is evolved throughout the phases of the project identification stage, finally being incorporated into the cash flows in the Analysis Phase[...]"¹ In other words, a Class D estimate is designed to provide a summary of projected costs and must be updated and evolve as the project progresses.</p>									
<ul style="list-style-type: none">The list of project requirements and assumptions included as part of the cost estimate prepared by AECOM consisted of only building construction and demolition costs, other project requirements were not included as part of the projected cost estimate. A summary of additional project requirements can be found under the 'Project Changes' sheet.									
<ul style="list-style-type: none">The forecasted values indicated in the Financial Summary from 2021 to Project Completion are estimates only and will be updated as each phase of the project progresses and additional information becomes available.									
<p>The forecasted costs for future years <u>do not</u> include the following: LEED or Net Zero building design and construction costs, reinforced and/or non-standard foundation designs, costs</p> <ul style="list-style-type: none">associated with the removal and disposal of contaminated soil/groundwater, designated substances or landfill material, unanticipated construction cost increases in future years or any additional interim measures required during each of the various phases of construction to ensure that the MW Yard and offices are fully functional and accessible for the duration of the project.									
Financial Summary Definitions									
<ul style="list-style-type: none">Annual Budget (A): A projection of project costs approved by Council each year during budget deliberations					<ul style="list-style-type: none">Forecast to Year End (E): Provides an estimate of expenditures to be spent by year end based on year to date results and other assumptions				
<ul style="list-style-type: none">Revised Budget (B): Includes all approvals by Council (Annual Budget, Tenders, RFPs, etc.)					<ul style="list-style-type: none">Total Spent and Forecast (F): Totals the expenditures to date and the estimated expenditures to year end to project the annual spend				
<ul style="list-style-type: none">Outstanding Committed Funds (C): Funds committed through Tendering, RFPs, Purchase Orders, etc.					<ul style="list-style-type: none">Variance (I): The difference between the revised budget (monies committed to the project) and projected annual spend, excluding contingency.				
<ul style="list-style-type: none">Expenses To Date (D): Includes all expenditures incurred to date.					<ul style="list-style-type: none">Project Total Row: Provides the total amounts of budget, forecast and spent for the entire project to date (Projected amounts including upcoming years are in grey and apply to the whole project)				
Project Risks									
Risk Description				Probability	Impact	Mitigation			
If contaminated soil is encounter it must be handled according to current regulations for soil management (Re: O.Reg 153/04 for additional information on soil regulations and requirements).				M	H	As part of the design for future phase of redevelopment, an environmental assessment will be completed to determine the likelihood of contaminated material within the project extents.			
If poor geotechnical conditions are encountered, non standard building foundations will be required.				H	H	A comprehensive geotechnical investigation will be completed as part of the design process for each of the proposed buildings in future phases; cost projections will be updated accordingly.			
Risk Level: L=Low Risk, M=Medium Risk, H=High Risk				For additional information on Project Risks, refer to the 'Project Risk Register' Sheet.					
¹ Public Works and Government Services Canada, Public Services and Procurement Canada, Real Property Branch, https://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/conn-know/couts-cost/definition-eng.html									

Financial Report										
	Site Servicing	Environmental Remediation	Site Reconfiguration	Salt Storage Facility	Rerouting of Utilities	Standby Power System	Parking Lot Construction	New Administration and Multiuse Building Design & CA	Total	Commentary
Year	C2	C3	C4	C5	C6	C7	C8	C9		
2017	\$425,000.00	\$300,000.00	\$150,000.00	\$125,000.00					\$1,000,000.00	2017 Annual Budget
2018		\$875,000.00		\$1,000,000.00	\$400,000.00	\$30,000.00			\$2,305,000.00	2018 Annual Budget
2019				\$2,500,000.00		\$900,000.00	\$230,000.00	\$450,000.00	\$4,080,000.00	2019 Annual Budget
2020								\$1,565,000.00	\$1,565,000.00	2020 Annual Budget
Total Annual Budgets (A)	\$425,000.00	\$1,175,000.00	\$150,000.00	\$3,625,000.00	\$400,000.00	\$930,000.00	\$230,000.00	\$2,015,000.00	\$8,950,000.00	
2017									\$0.00	
2018		\$184,750.00							\$184,750.00	Refer to Project Changes C3-5 and C3-7
2019	\$1,019,583.00		\$380,040.00	\$574,000.00					\$1,973,623.00	Refer to Project Changes C2-2, C4-2 and C5-5
2020									\$0.00	
Project Changes (Budget/Cost)	\$1,019,583.00	\$184,750.00	\$380,040.00	\$574,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,158,373.00	
2017	\$425,000.00	\$300,000.00	\$150,000.00	\$125,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,000,000.00	
2018	\$0.00	\$1,059,750.00	\$0.00	\$1,000,000.00	\$400,000.00	\$30,000.00	\$0.00	\$0.00	\$2,489,750.00	
2019	\$1,019,583.00	\$0.00	\$380,040.00	\$3,074,000.00	\$0.00	\$900,000.00	\$230,000.00	\$450,000.00	\$6,053,623.00	Annual budget adjusted based on 19-T40 tender award
2020	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,565,000.00	\$1,565,000.00	
Revised Budget (B)	\$1,444,583.00	\$1,359,750.00	\$530,040.00	\$4,199,000.00	\$400,000.00	\$930,000.00	\$230,000.00	\$2,015,000.00	\$11,108,373.00	
2017	\$0.00	\$0.00	\$0.00	\$0.00					\$0.00	
2018		\$465,091.31		\$899,530.54	\$261,675.34	\$0.00			\$1,626,297.19	
2019	\$565,836.31		\$7,609.53	\$3,074,000.00		\$854,683.66	\$95,739.45		\$4,597,868.95	Tender 19-T40
2020									\$0.00	
Outstanding Committed Funds (C)	\$565,836.31	\$465,091.31	\$7,609.53	\$3,973,530.54	\$261,675.34	\$854,683.66	\$95,739.45	\$0.00	\$6,224,166.14	
2017	\$26,675.92	\$118,825.83	\$254.40	\$31,976.55					\$177,732.70	
2018	\$9,002.44	\$474,464.82	\$0.00	\$33,572.13	\$42,558.47				\$559,597.86	
2019	\$817,572.81	(\$2,971.79)	\$302,709.45	\$152,559.09	\$95,647.13	\$75,010.71	\$131,833.14		\$1,572,360.54	
2020	\$27,926.02	\$1,830.53	\$13,380.61	\$28,711.99	\$119.06	\$305.63	\$5,378.45		\$77,652.29	
Expenditures To Date (D)	\$881,177.19	\$592,149.39	\$316,344.46	\$246,819.76	\$138,324.66	\$75,316.34	\$137,211.59	\$0.00	\$2,387,343.39	
2017									\$0.00	
2018									\$0.00	
2019									\$0.00	
2020	\$547,135.81	\$817,566.48	\$223,767.00	\$4,177,375.75	\$195,000.00	\$852,631.02	\$92,788.41	\$250,000.00	\$7,156,264.47	Forecast values include costs associated with remaining work under Tender 19-T40 as well as additional design, construction administration and geotechnical materials testing fees.
Forecast to Year End (E=User Input)	\$547,135.81	\$817,566.48	\$223,767.00	\$4,177,375.75	\$195,000.00	\$852,631.02	\$92,788.41	\$250,000.00	\$7,156,264.47	
2017	\$26,675.92	\$118,825.83	\$254.40	\$31,976.55	\$0.00	\$0.00	\$0.00	\$0.00	\$177,732.70	
2018	\$9,002.44	\$474,464.82	\$0.00	\$33,572.13	\$42,558.47	\$0.00	\$0.00	\$0.00	\$559,597.86	
2019	\$817,572.81	(\$2,971.79)	\$302,709.45	\$152,559.09	\$95,647.13	\$75,010.71	\$131,833.14	\$0.00	\$1,572,360.54	
2020	\$575,061.83	\$819,397.01	\$237,147.61	\$4,206,087.74	\$195,119.06	\$852,936.65	\$98,166.86	\$250,000.00	\$7,233,916.76	
Estimated Total Spent to Year End (F=D+E)	\$1,428,313.00	\$1,409,715.87	\$540,111.46	\$4,424,195.51	\$333,324.66	\$927,947.36	\$230,000.00	\$250,000.00	\$9,543,607.86	
2017	\$398,324.08	\$181,174.17	\$149,745.60	\$93,023.45	\$0.00	\$0.00	\$0.00	\$0.00	\$822,267.30	
2018	(\$9,002.44)	\$585,285.18	\$0.00	\$966,427.87	\$357,441.53	\$30,000.00	\$0.00	\$0.00	\$1,930,152.14	
2019	\$202,010.19	\$2,971.79	\$77,330.55	\$2,921,440.91	(\$95,647.13)	\$824,989.29	\$98,166.86	\$450,000.00	\$4,481,262.46	
2020	(\$575,061.83)	(\$819,397.01)	(\$237,147.61)	(\$4,206,087.74)	(\$195,119.06)	(\$852,936.65)	(\$98,166.86)	\$1,315,000.00	(\$5,668,916.76)	
Year End Variance (B-F)	\$16,270.00	(\$49,965.87)	(\$10,071.46)	(\$225,195.51)	\$66,675.34	\$2,052.64	\$0.00	\$1,765,000.00	\$1,564,765.14	
2021+	(\$17,488.75)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	(\$1,765,000.00)	(\$1,782,488.75)	
Project Variance	(\$1,218.75)	(\$49,965.87)	(\$10,071.46)	(\$225,195.51)	\$66,675.34	\$2,052.64	\$0.00	\$0.00	(\$217,723.61)	

Project Milestones					
As of February 29, 2020					
Phase	Milestone	Project Start Year	Project Completion Year	Status	Comments
C9	Administration & Multiuse Building Design and Construction Administration	2020	2021	In Progress	Refer to Project Schedule for Additional Information
C3	19-T40 - Noise Barrier Wall Construction	2020	2020	In Progress	Refer to Project Schedule for Additional Information
C5	19-T40 - Salt Storage Facility Construction	2020	2020	In Progress	Refer to Project Schedule for Additional Information
C2/C4	19-T40 - Construction of MW Yard Site Servicing and Grading	2019	2020	In Progress	Refer to Project Schedule for Additional Information
C7	19-T40 - Utility Compound and Standby Power System Construction	2019	2020	In Progress	Refer to Project Schedule for Additional Information
C5	17-P04 - Salt Storage Facility Design	2017	2019	Completed	Duration of project was extended due to poor geotechnical conditions within the MW Yard and additional design requirements.
C2/C4	16-P17 - Municipal Works Site Servicing and Grading Plan	2016	2019	Completed	Work included a complete multi-phase grading and servicing plan for all proposed buildings and interim measures throughout the multi-year plan.
C4	18-T12 - St. Michel Ave Site Servicing	2018	2018	Completed	Work included servicing tie-ins from St. Michel Ave. for watermain, storm sewer and sanitary sewer.
C6	18-T12 - Utility Trench Construction	2018	2018	Completed	A new underground utility trench was constructed along Twelfth St. and St Michel Ave. in order to reroute utilities from the pole line along the former Ontario St.
C8	19-T40 - Parking Lot Construction	2018	2018	Completed	Parking lot construction for City staff on Twelfth St. was required in order to accommodate grading/servicing works and the construction of the utility compound in the area of the former parking lot.
C6	Rerouting of Utilities - Phase I	2018	2018	Completed	Work included the removal of the existing pole line along the former Ontario St. in order to accommodate the future salt storage facility and other proposed buildings, as well as the construction of a new overhead transmission parallel to Lemay St.
C3	17-P05 - Municipal Works Yard Noise Impact Assessment	2017	2018	Completed	Noise impact assessment determined that a noise attenuation fence would be required in multiple locations along the MW Yard property boundaries.
C7	17-P20 - Design of Standby Power System	2017	2018	Completed	Standby Power System (Generator) designed to provide power for all proposed buildings within the MW Yard, as well as the fueling station.

2020 Project Schedule					
As of February 29, 2020					
Phase	Project Component	Scope of Work	Proposed Start Date	Proposed Completion Date	Comments
C2/C4	Site Servicing and Grading	Install Natural Gas Main	April, 2020 (Q2)	September, 2020 (Q3)	Gas Main installation to begin in Q2; coordination with Enbridge (Union Gas) is required and may impact schedule.
		Excavate existing road base and reinstate with new granular material.	October, 2020 (Q4)	December, 2020 (Q4)	Phase I Site Grading partially complete; remaining site grading works to be completed following the completion of the construction of the Salt Storage Facility
C3	Construct Noise Attenuation Wall	Revise grading plan in area of utility compound and noise barrier wall.	January, 2020 (Q1)	March, 2020 (Q1)	Revised grading plan in area of proposed noise barrier wall complete.
		Review and Approval of Shop Drawings	April, 2020 (Q2)	June, 2020 (Q2)	Review of shop drawings to be completed by March 30, 2020; review could not begin until revised grading plan complete.
		Excavation for Strip Footing Foundation	July, 2020 (Q3)	September, 2020 (Q3)	
		Construct Strip Footing Foundation	July, 2020 (Q3)	September, 2020 (Q3)	
		Construct Noise Attenuation Wall	October, 2020 (Q4)	December, 2020 (Q4)	
		Install Gate System	October, 2020 (Q4)	December, 2020 (Q4)	
C5	Construct Salt Storage Facility	Review of Shop Drawings	January, 2020 (Q1)	March, 2020 (Q1)	Shop drawing review in progress
		Demolition of Existing Salt Sheds and Equipment Storage Building	April, 2020 (Q2)	June, 2020 (Q2)	Contractor has put forward the request to the City for the removal of one of the existing salt sheds in order to commence excavation as soon as possible (early April) in order to begin work as soon as possible and minimize the likelihood of delays impacting overall project timeline and completion date.
		Foundation Excavation	April, 2020 (Q2)	June, 2020 (Q2)	
		Construction of Engineered Fill Foundation	July, 2020 (Q3)	September, 2020 (Q3)	
		Construction of Salt Storage Facility Foundation Walls and Footings	July, 2020 (Q3)	September, 2020 (Q3)	
		Construct Pre-Engineered Fabric Covered Building	October, 2020 (Q4)	December, 2020 (Q4)	
		Interior Works - Electrical, Mechanical	October, 2020 (Q4)	December, 2020 (Q4)	
		Final Grading Works and Paving of Interior & Exterior	October, 2020 (Q4)	December, 2020 (Q4)	
C7	Construct Utility Compound	Review and Approval of Shop Drawings	January, 2020 (Q1)	March, 2020 (Q1)	Shop drawing review for standby power system complete; unit is on order (approximate lead time is 26 weeks). Shop drawing review for precast concrete utility buildings in progress.
		Complete grading works surrounding utility compound area	April, 2020 (Q2)	June, 2020 (Q2)	
		Construct concrete pads for utility buildings and standby power system	April, 2020 (Q2)	June, 2020 (Q2)	
		Install precast utility buildings	April, 2020 (Q2)	April, 2020	
		Install standby power system	July, 2020 (Q3)	September, 2020 (Q3)	
		Complete electrical and mechanical works for utility buildings and standby power system	July, 2020 (Q3)	September, 2020 (Q3)	
		Install fence surrounding utility compound	October, 2020 (Q4)	December, 2020 (Q4)	
C9	Design & Construction Administration of the Administration & Multiuse Building	Prepare RFP for Design & Construction Administration	January, 2020 (Q1)	March, 2020 (Q1)	Preparation of RFP document underway.
		Issue RFP	April, 2020 (Q2)	June, 2020 (Q2)	
		Predesign Phase - Administration & Multiuse Buildings	July, 2020 (Q3)	September, 2020 (Q3)	
		Schematic Design Phase - Administration & Multiuse Buildings	October, 2020 (Q4)	March, 2021 (Q1)	
		Detailed Design Phase - Administration Building			Timelines and schedule for detailed design and tendering to be updated following the completion of the geotechnical investigation and predesign phase of the project.
		Contract Preparation & Tendering Phase - Administration Building			
		Detailed Design Phase - Multiuse Building			
		Construction of Administration Building			
		Contract Preparation & Tendering Phase - Multiuse Building			
		Construction of Multiuse Building			

Project Changes									
As of February 29, 2020									
Project Phase	Project Component	Change No.	Change Description	Change Type	Impact Type	Impact Description	Year	Status	Additional Comments
N/A	Proposed Stores Building Module	NA-1	The construction of a new Stores building module was removed from the scope of work in the MW Yard Redevelopment Plan, as the need to maintain stocks of various materials and supplies to be consumed by Municipal departments has been minimized and the building is no longer required.	Scope	Budget	The removal of the Stores building module resulted in a cost savings of \$2,100,000. Funds allocated to the design/construction of the Stores module are allocated to other components of the MW Yard Redevelopment project to offset any budget overages incurred in other phases.	2018	Complete	
C2	Site Servicing and Grading	C2-1	Site Servicing and grading requirements were not identified as separate component in the 2016 AECOM Report. In order to ensure the successful redevelopment of the MW Yard, the servicing, grading and phasing of the individual components of the project must be designed and constructed as an interconnected system rather than independent services.	Scope	Budget	In 2017 a budget submission sheet was prepared and approved for Site Servicing and Grading of the Municipal Works Yard.	2017	Complete	
		C2-2	The Site Servicing and Grading Plan included a four (4) phase plan for the redevelopment of the Municipal Works Yard, including temporary grading and servicing requirements throughout the duration of the project. Following the completion of the Site Servicing and Grading Plan, it was determined that approximately 50% of regrading and 80% of the construction of site services (watermain, storm sewer, sanitary sewer, gas main, communications, etc.) within the MW Yard should be completed as part of Phase I. Accordingly, Site Servicing Grading works (Phase I of III) were included as part of tender 19-T40; tender values exceeded the annual budget amount allocated to Phase C2.	Scope	Budget	Tender 19-T40 was submitted for review and approval to Council	2019	Complete	Council approved the tender amount for the construction of Phase I Site Servicing and Grading of the MW Yard.
C3	Environmental Remediation	C3-1	Noise attenuation measures were not considered as part of the 2016 AECOM Report. Concerns were raised regarding the location of the Municipal Works Yard (zoned Residential) and impacts to neighborhood.	Scope	Budget	In 2017 a budget submission sheet was prepared and approved for Environmental Remediation within the Municipal Works Yard.	2017	Complete	An RFP for the completion of a Noise Impact Assessment (17-P05) was prepared in 2017.
		C3-2	The Noise Impact Assessment completed in 2017 determined that a 3.0m attenuation fence along sections of the MW Yard perimeter would be required to meet the Ministry of Environment, Conservation and Parks standards for noise abatement.	Scope	Design	Costs associated with the design and construction of a noise attenuation fence were not considered in the 2016 AECOM Report and estimate.	2017	Complete	
					Budget				
		C3-3	A detailed geotechnical investigation of project area location(s) of the proposed noise attenuation fence was completed to determine if additional foundation requirements for the noise attenuation fence would necessary.	Scope	Design	The results of the geotechnical investigation concluded that specialized foundation requirements would be necessary to ensure the structural stability of the proposed noise barrier wall (NBW).	2018	Complete	The consultant retained for the design of the NBW was also retained to complete the detailed design of the proposed foundation.
					Budget	Reinforced foundation requirements were not included in the original scope of work for the NBW. In addition the cost of construction for the NBW would increase significantly with the addition of the specialized foundation.			
		C3-4	Detailed Design of Noise Attenuation Fence	Scope	Budget	A consultant was retained to complete the detailed design of the noise attenuation wall.	2018	Complete	
		C3-5	Excavation along the northern limits of the MW Yard uncovered a significant amount of landfill and contaminated material that required removal.	Cost	Budget	The landfill material encountered was transported the City Landfill on Vincent Massey Drive; the tipping fees associated with bringing the material to the Landfill were not budgeted for or taken into consideration in early phases of the MW Yard Redevelopment project.	2018	Complete	The removal and disposal of Landfill material and contaminated material encountered during excavation results in a number associated costs. Contaminated material must be tested to determine the levels of contaminants prior to being accepted at the City Landfill. In addition, there are costs associated with hauling the material to the landfill, as well as tipping fees.
		C3-6	Additional funds for the construction of the noise attenuation fence were requested for construction following the completion of the detailed design and comprehensive estimate for the proposed noise attenuation wall.	Cost	Budget	Council approved the 2019 budget submission for Noise Remediation within the Municipal Works yard.	2019	Complete	
		C3-7	Additional landfill material was encountered during excavation for the construction of the proposed Twelfth St. Parking Lot. Contaminated material was also found during excavation for the construction of the watermain; all contaminated and landfill material was transported to the City Landfill.	Cost	Budget	The landfill material encountered was transported the City Landfill on Vincent Massey Drive; the tipping fees associated with bringing the material to the Landfill were not included in annual budget submissions.	2019	Complete	

Project Changes									
As of February 29, 2020									
Project Phase	Project Component	Change No.	Change Description	Change Type	Impact Type	Impact Description	Year	Status	Additional Comments
C4	Site Reconfiguration	C4-1	Interim measures and the decommissioning of the section of Ontario St. that extended through the MW Yard was not identified as separate component in the 2016 AECOM Report.	Scope	Budget	In 2017 a budget submission sheet was prepared and approved for Site Reconfiguration works within the MW Yard.	2017	Complete	
		C4-2	Works associated with the reconfiguration of the site were included as part of Tender 19-T40; tender values exceeded the annual budget amounts allocated to Phase C4.	Cost	Budget	Tender 19-T40 was submitted for review and approval to Council in 2019.	2019	Complete	Council approved the tender amount for the construction of site reconfiguration works included in tender 19-T40.
C5	Salt Storage Facility Design	C5-1	Complete additional geotechnical investigation to verify soil conditions in the area	Schedule	Budget	The results of the initial geotechnical investigation completed as part of the design of the salt storage facility concluded that due to poor soil conditions, a specialized building foundation would be required. An independent geotechnical engineering consulting firm was retained to complete additional testing within the project area and to provide options for the proposed foundation design of the structure. The additional geotechnical investigation was not included in the original project scope.	2018	Complete	
		C5-2	Determine preferred foundation design option based on summary of options presented by the geotechnical consultant	Scope	Budget	A specialized foundation was not included in the budget for the salt storage facility and impacts both design and construction costs.	2019	Complete	As part of the review process, the City considered alternative locations for the proposed salt storage facility. However, the MW Yard is located in a centralized area within the City and it was determined that current location is preferred for the proposed building.
					Design	A redesign of the salt storage facility and foundation was completed by the consultant and a detailed cost estimate was prepared.	2019	Complete	
		C5-3	Request additional funding as part of 2019 budget for salt storage facility construction	Cost	Budget	Council approved the 2019 budget submission for additional funding for the construction of the salt storage facility.	2019	Complete	
		C5-4	Complete a peer review of foundation design	Schedule	Time	An independent consultant was retained to complete a peer review of the structural design of the salt storage facility and to identify any possible changes or opportunities for cost savings. The time required to complete the peer review delayed issuing the tender.	2019	Complete	The peer review concluded that the proposed design met minimum standards and was the best option available to the City.
		C5-5	19-T40 - Salt Storage Facility Construction tender values exceeded the annual budget amount(s) allocated to Phase C5 for the work.	Cost	Budget	Tender 19-T40, which included the construction of the salt storage facility, was submitted for review and approval to Council in 2019.	2019	Complete	Council approved the tender amount for the construction of the salt storage facility
C6	Utility Relocations	C6-1	Utility relocation requirements were not identified as separate component in the 2016 AECOM Report. A significant number of utility relocations are required throughout the various phases of the MW Yard Redevelopment project. An overhead transmission line runs through the MW Yard adjacent to the former Ontario St. which requires relocation as part of the redevelopment project. In addition, there was also buried infrastructure owned by utilities that will require removal/relocation throughout the various phases of construction.	Scope	Budget	Funding for utility relocations were submitted as part of the 2018 budget.	2017	In Progress	Council approved the budget submission for Phase I Utility Relocations in 2018.
C7	Standby Power System	C7-1	The design and installation of an independent standby power system was not identified in the 2016 AECOM Report. Following a review of the current standby power options in place and future requirements it was determined that it would be in the best interest of the City to install a standby power system that would service all future buildings within the Municipal Works Yard.	Scope	Budget	Funding for the design of standby power system for the MW Yard was submitted as part of the 2018 budget. Additional funds were allocated for construction as part of the 2019 budget.	2017	Complete	Council approved budget submission sheets in 2018 and 2019 for the design and construction of the standby power system.

Project Risk Register As of February 29, 2020								
Phase	Risk	Impact Description	Impact L/M/H	Probability L/M/H	Cost Impact (if applicable)	Mitigation	Responsible	Status & Date Reviewed
C3	Contaminated Soil and/or Groundwater	If contaminated soil and/or groundwater is encountered it will impact both costs and project timelines during construction.	H	M	Yes; costs will be incurred in both the design phase (completion of a Phase II Environmental Site Assessment) and the construction phase (removal and disposal costs during construction).	A Phase II Environmental Assessment (EA) will be included as part of future phases of design; the EA will identify the presence and approximate quantity of contaminated material as well as procedures for removal and disposal. However, it will be difficult to anticipate the actual extents of contaminated material until excavation occurs during the construction phase of the project.	Project Manager/Consultant and on-site Project Supervisor	On-going
C3	Landfill Material	If landfill material is encountered during excavation it will increase the overall project cost and could impact construction timelines.	M	M	Yes; costs will be incurred in both the design phase (completion of a Phase II Environmental Site Assessment) and the construction phase (removal and disposal costs during construction).	A Phase II Environmental Assessment (EA) will be included as part of future phases of design; the EA will identify the presence and approximate quantity of landfill material as well as procedures for removal and disposal. However, it will be difficult to anticipate the actual extents of landfill material until excavation occurs during the construction phase of the project.	Project Manager/Consultant and on-site Project Supervisor	On-going
C3	Designated Substances	If designated substances are encountered during demolition it will increase the overall project cost and could impact construction timelines.	M	M	Yes; costs will be incurred in both the design phase (completion of a Designated Substance Study) and the construction phase (removal and disposal costs during construction).	A designated substances study will be included as part of future phases of design; the DSS will identify the presence and approximate quantity of designated substances as well as procedures for removal and disposal.	Project Manager/Consultant assigned to each future phase of redevelopment and design.	Not applicable in current phase; to be assessed in future phases.
Various	Poor Geotechnical Conditions	If poor geotechnical conditions are encountered, project costs will be impacted significantly during both design and construction. Project timelines could also be impacted if the conditions are very poor and additional investigations/reviews are required.	M	H	Yes; costs will be incurred in the design phase if specialized foundation design requirements are required. Construction costs will also increase significantly if specialized foundation requirements are necessary.	A comprehensive geotechnical investigation will be included as part of future phases of design; the investigation will identify the soil conditions in the project area and provide design recommendations and corresponding detailed construction estimates as early as reasonably possible in the design process.	Project Manager/Consultant assigned to each future phase of redevelopment and design.	On-going
Various	Increased Construction Costs	If construction costs increase, the overall project budget will be impacted.	M	H	Yes; increased construction costs will significantly impact the project budget and could potentially impact the project timelines.	Trends in construction costs will be tracked throughout the duration of the project and Forecast values will be updated accordingly.	Project Manager/Consultant assigned to each future phase of redevelopment and design.	On-going
Various	Changes to Environmental Regulations and Building Code Requirements	If regulations change, design requirements will be impacted and both project costs and timelines will be impacted.	M	M	Yes; changing regulations will impact design requirements and standards as well as construction costs in situations where regulations become more stringent.	As part of the design phase of future phases of redevelopment the Consultant will be responsible for identifying any changes to regulations/standards.	Project Manager/Consultant assigned to each future phase of redevelopment and design.	Not applicable in current phase; to be assessed in future phases.

L=Low, M=Medium, H=High

A risk is uncertain events that, if it occurs, has an effect on the project (cost, schedule, scope/quality).

The purpose of risk management is to identify, assess, and control uncertainty - as a result it will improve the ability of the project to succeed.

Risk management begins with **identifying** all the possible risks that could affect the project - the goal is to find potential problems before they happen.

Once risks have been identified they need to be analysed. This consists of rating their potential **impact** and **probability** of occurring and assigning them a risk score accordingly.

Actions, risk responses, need to be planned and carried out to **mitigate**, **avoid**, or **consciously accept** identified risks. Risks need to be monitored, re-assessed, and new risks identified throughout the project.

Risk: A description of the risk event

Impact description: A description of what would happen if the risk event happens, what would the impact be on costs, schedule, scope/quality?

Impact L/M/H: If the risk occurs will it have a low, medium, or high impact on the project (cost, schedule, scope/quality)?

Probability L/M/H: How likely to occur is the risk event?

Mitigation: What actions will be taken to mitigate (reduce the potential impact or probability), avoid, or accept the risk?

Responsible: The risk should be assigned to someone to monitor and report on

Status and date reviewed: Whether the risk is still applicable or relevant and the last time the risk was reviewed

Municipal Works Yard Redevelopment Project Photos

As of February 29, 2020



As part of the construction of the new parking lot located on Twelfth St. new light standards with concrete bases (as seen above) were installed.



During excavation for the construction of the new parking lot, garbage/landfill material was encountered and required removal.



As part of the site servicing of the MW Yard a new 200mm diameter PVC watermain was extended from St. Michel Ave. easterly to service both existing and future buildings.



As part of the site servicing of the MW Yard an oil/grit separator was installed south of the fuel station to minimize the likelihood of any fuel/oil spills or grit resulting from operations flowing into the City's storm sewer network.



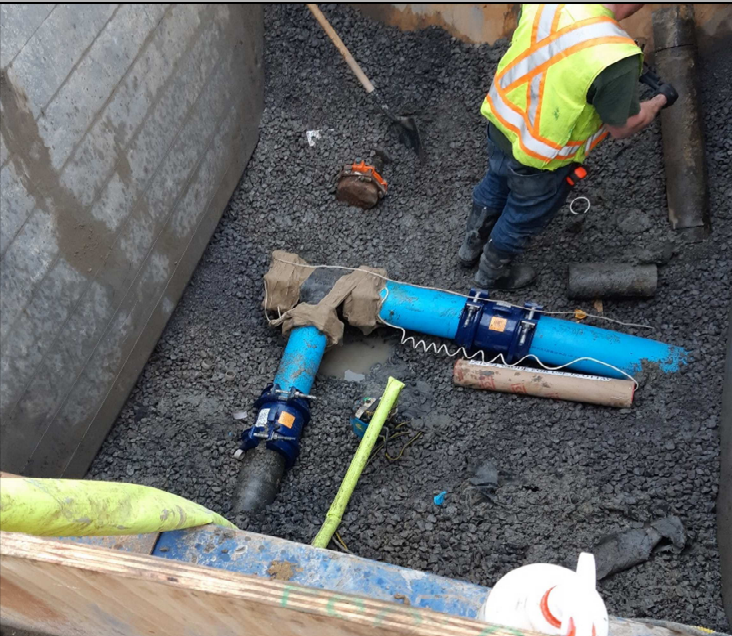
As part of the servicing for the MW Yard, a system of conduit for future electrical and communications services was constructed. Pictured above is an electrical maintenance hole which will provide access to the conduit.



During excavation the Contractor encountered a wet gray clay (see bottom left corner) that was removed and could not be reused as the material is not considered suitable for backfill or as a base for building.



As part of the work included in 2019, the new parking lot on Twelfth St. was paved. Above is a photo of paving operations in progress.



As part of the servicing of the MW Yard, a number of interim measures are required throughout the various phases of redevelopment. Pictured above is the connection of a section of new 200mm watermain to an existing watermain in order to provide service to the MW Garage.