



Report to: General Committee

Date Report Authored: May 11, 2017

SUBJECT: Status of Capital Projects as of April 30, 2017
PREPARED BY: Andrea Tang – Senior Manager, Financial Planning (Ext. 2433)
Alison Yu – Senior Financial Analyst (Ext. 2498)

RECOMMENDATION:

- 1) THAT the report dated May 11, 2017 entitled “Status of Capital Projects as of April 30, 2017” be received;
- 2) AND THAT the amount of \$6,529,809 from the closure of capital projects be transferred to the sources of funding as listed on Exhibit A;
- 3) AND THAT the closure of projects as outlined on Exhibit B and C be approved;
- 4) AND THAT the surplus funds of \$236,008 from open capital projects be returned to the sources of funding as listed on Exhibit D;
- 5) AND THAT the Non-Development Charge Capital Contingency Project be topped up from the Lifecycle Replacement and Capital Reserve Fund by \$266,567 to the approved amount of \$250,000;
- 6) AND THAT the Engineering Capital Contingency Project be topped up, from the City-Wide Hard Development Charges Reserve, by \$63,611 to the approved amount of \$100,000;
- 7) AND THAT the Design Capital Contingency Project be topped up, from the Development Charges Reserve, by \$13,952 to the approved amount of \$100,000;
- 8) AND THAT the Planning Capital Contingency Project be topped up, from the Development Charges Reserve, by \$81,193 to the approved amount of \$50,000;
- 9) AND THAT additional funding requirement of \$140,000 from the Lifecycle Replacement and Capital Reserve Fund be approved for project #17064 “Core IT Infrastructure”, increasing the budget from \$1,396,290 to \$1,536,290;
- 10) AND THAT the following in-year new capital project, subsequent to the approval of the 2017 capital budget, be received;

Project Number	Name	Budget	Funding Source
17326	Thornhill CC Dectron Coil Replacement	\$18,610	Non-DC Capital Contingency

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- 11) AND 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 provide a status update of capital projects as of April 30, 2017, and obtain Council approval for the transfer of funds to and from Reserves and Reserve Funds.

DISCUSSION/OPTIONS:

CAPITAL PROJECTS TO BE CLOSED

In an effort to promote timely closure of projects and the return of surplus funds, Staff conducted a status review of all open capital projects as of April 30, 2017. As a result, 194 projects are identified for closure, with a total budget remaining of \$6,529,809 to be returned to the original sources of funding.

A detailed listing of projects to be closed and the funding amounts to be transferred are included in the following exhibits:

- Exhibit A – Summary of funding from closed capital projects to be returned to funding sources as of April 30, 2017
- Exhibit B – Details of capital projects to be closed with funding to be returned to funding sources as of April 30, 2017
- Exhibit C – Summary of capital projects to be closed that are fully expended as of April 30, 2017
- Exhibit D – Details of open capital projects with surplus funding to be returned to funding sources as of April 30, 2017

Details within Exhibit A include the following:

Lifecycle Replacement & Capital Reserve Fund

The closure of capital projects identifies funds in the amount of \$2,128,871 to be returned to the Lifecycle Replacement & Capital Reserve Fund. Below are highlights of the capital projects listed in Exhibit B with surplus funds of more than 50% of the approved budget as well as other projects that will be returned to the Lifecycle Replacement & Capital Reserve Fund. The amount represents approximately 59% of the total funds to be returned to this funding source. The remaining 41% are funded from capital projects with remaining funds less than \$100,000.

- a) Operations - Parks
 - Project 16169 — Goal Posts Replacement – Budget of \$28,900 with remaining funds of \$15,953 (55% of project budget). The actual incurred was lower than budgeted due to favourable pricing.

b) Recreation Services

Project 16096 – Armadale Community Centre Facility Painting – Budget of \$46,500 with remaining funds of \$33,444 (72% of project budget). The actual incurred was lower than budgeted.

Project 16103 – Centennial Community Centre Painting – Budget of \$80,700 with remaining funds of \$52,004 (64% of project budget). The actual incurred was lower than budgeted.

Project 16274 – Markham Village Arena Brine Pump Replacement – Budget of \$14,895 all unspent. The expenses were charged to the 2016 operating budget.

Project 16278 – Cornell Community Centre Pool Dectron Air Handling – Budget of \$18,200 all unspent. The expenses were charged to the 2016 operating budget.

c) ITS

Project 15086 – Library - Upgrade of Telecirc and Server – Budget of \$18,800 with remaining funds of \$10,789 (57% of project budget). The actual incurred was lower than budgeted.

d) Culture and Economic Development

Project 16085 – Gallery Kathleen McKay Art Centre Accessibility & Upgrades – Budget of \$48,300 with remaining funds of \$41,760 (86% of project budget). A portion of the work was completed as part of the Asset Management Accessibility Program.

Project 16087 – Gallery Window/Door/Envelope Repair – Budget of \$32,600 all unspent. The budget was not required as the issues were addressed through minor adjustments as suggested by Asset Management.

e) Design

Project 11051 – Woodbine North Community Park - Deficiencies – Budget of \$489,800 with remaining funds of \$257,692 (53% of project budget). \$250,769 will be returned to the Lifecycle Replacement & Capital Reserve Fund, and the remaining balance of \$6,923 will be returned to DC Reserves. A portion of the project costs was recovered.

f) Planning

Project 11010 – Greenway System Boundary Confirmation – Budget of \$183,900 with remaining funds of \$130,401 (71% of project budget). \$4,925 will be returned to the Lifecycle Replacement & Capital Reserve Fund, \$120,066 will be returned to DC Reserves, and the remaining balance of \$5,410 will be returned to Development Fees. Project was completed and no additional study was required.

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- g) Fire
Project 16088 – Bunker Gear Lifecycle Replacement – Budget of \$27,900 all unspent. Project will be requested as part of a future budget process as the current contract has expired.
 - h) Engineering
Project 8441 – Woodbine By-Pass Road Construction, Phase 2A, 2B & 3A – Budget of \$7,706,422 with remaining funds of \$378,973 (5% of project budget). Funds will be returned to the Lifecycle Replacement & Capital Reserve Fund. The actual incurred was lower than budgeted.
 - i) Asset Management
Project 5047 – Centennial Community Centre – Budget of \$15,327,083 with remaining funds of \$200,162 (1% of project budget). Funds will be returned to the Lifecycle Replacement & Capital Reserve Fund. The actual incurred was lower than budgeted.
 - j) Sustainability Office & Asset Management
Project 16190 – Civic Centre Safety & Accessibility Impr - Phase 2 of 2 – Budget of \$471,000 with remaining funds of \$170,293 (36% of project budget). Funds will be returned to the Lifecycle Replacement & Capital Reserve Fund. The actual incurred was lower than budgeted.

Return of Funds to the Lifecycle Replacement & Capital Reserve Fund

It is the City's practice to return all surplus funds to the original funding source at time of award. Since the last report on Status of Capital Projects tabled at General Committee in November 2016, \$1,321,954 has been returned to the Lifecycle Replacement & Capital Reserve Fund from contract awards.

Development Charges (DC) Reserves

Funds in the amount of \$1,219,407 will be returned to the DC Reserves from the closure of capital projects.

There are seven (7) projects listed in Exhibit B with surplus funds of more than 50% of the approved budget as well as other projects that will be returned to original sources. The amount represents approximately 92% of the total funds to be returned to this funding source.

- a) Engineering
Project 15040 – Church Street - Ninth Line to Bur Oak Ave Utility Relocate – Budget of \$198,900 with remaining funds of \$153,297 (77% of project budget). Project has been cancelled as bids were higher than budgeted. Project will be requested as part of a future budget process.

Project 15067 – Transportation Demand Management Studies – Budget of \$110,200 all unspent. Project funds are not required as the scope will be covered under Project #9328 “Parking and Loading Study” which is currently underway.

Project 9300 – Rodick Road Extension - PH III (14th to Esna Park) – Budget of \$1,616,626 with remaining funds of \$181,837 (11% of project budget). Funds will be returned to the DC Reserves. The actual incurred was lower than budgeted.

Project 13027 – Transportation Studies – Budget of \$275,300 with remaining funds of \$120,985 (44% of project budget). Funds will be returned to the DC Reserves. The actual incurred was lower than budgeted.

b) Planning

Project 11010 – Greenway System Boundary Confirmation – Budget of \$183,900 with remaining funds of \$130,401 (71% of project budget). \$120,066 will be returned to DC Reserves, \$4,925 will be returned to the Lifecycle Replacement & Capital Reserve Fund, and the remaining balance of \$5,410 will be returned to Development Fees. Project was completed and no additional study was required.

Project 14001 - OMB Development Application Hearings - Budget of \$400,000 with remaining funds of \$314,741 (79% of project budget). \$283,267 will be returned to DC Reserves, and the remaining balance of \$31,474 will be returned to Development Fees. This project can be closed as there is a 2017 open capital project to address OMB development application hearings.

c) Operations - Fleet

Project 16183 — New Fleet Fire – Budget of \$25,400 all unspent. Project is cancelled as the new fleet is not required at this time.

Project 13403 – Two New Fleet Vehicles - Fire – Budget of \$1,591,156 with remaining funds of \$129,077 (8% of project budget). Funds will be returned to the DC Reserves. The actual incurred was lower than budgeted.

Waterworks Stabilization/Capital Reserve

Funds in the amount of \$2,706,299 will be returned to the Waterworks Stabilization/Capital Reserve resulting from the closure of capital projects.

There are eleven (11) projects listed in Exhibit B with surplus funds of more than 50% of the approved budget that will be returned to the Waterworks Stabilization/Capital Reserve and represent approximately 85% of the total funds to be returned to this funding source, details of which are outlined below.

a) ITS

Project 16071 – Waterworks - Hansen/EAM and ON1Call Integration – Budget of \$147,600 all unspent. Project was deferred pending implementation of the corporate Enterprise Asset Management system.

b) Environmental Services – Waterworks

Project 12329 – Watermain Construction Design – Budget of \$871,821 with remaining funds of \$744,306 (85% of project budget). \$730,135 will be returned to Waterworks Stabilization/Capital Reserve, and the remaining balance of \$14,171 will be returned to DC Reserves. Work was completed under another watermain design project.

Project 14321 – Water System Process Audit - Non-Revenue Water – Budget of \$139,780 with remaining funds of \$131,839 (94% of project budget). Project was completed with internal staff.

Project 15285 – Annual Leak Detection Program - Phase 3 of 5 – Budget of \$179,100 all unspent. Program did not commence as the initial explored technology was not cost effective. Subsequently, City entered an agreement with University of Waterloo to explore a more advanced leak detection methodology and technology.

Project 16229 – Advanced Water & Wastewater Asset Management – Budget of \$503,700 all unspent. Project was deferred pending completion of business case.

Project 16230 – Automated ICI High Consumption Water Meter Data Logging – Budget of \$155,600 all unspent. Project was deferred pending completion of business case.

Project 16234 – Manhole Sealing - Phase 2 of 5 – Budget of \$100,700 all unspent. Manhole sealing was not required based on condition assessment.

Project 16240 – SCADA Master Plan – Budget of \$69,500 all unspent. Project was delayed due to other priorities. Project will be requested as part of a future budget process.

Project 16242 – SMA / DMA data Management and Analysis – Budget of \$87,300 all unspent. Business plan is still being developed.

Project 16244 – Water System Process Audit - Non Revenue Water – Budget of \$101,800 all unspent. Project was deferred pending completion of business case.

c) Environmental Services - Environmental Assets

Project 16228 – 12 Month Wastewater Flow Monitoring - Ph 4 of 8 – Budget of \$81,400 all unspent. Work will be completed under project 15284 “12 Month Wastewater Flow Monitoring - Ph 3 of 8”.

Other Reserves and Reserve Funds

Funds in the amount of \$475,232 will be returned to other Reserves and Reserve Funds resulting from the closure of capital projects. There are three (3) projects listed in Exhibit B with surplus funds of more than 50% of the approved budget that will be returned to original sources.

a) Planning (*Development Fee Reserve*)

Project 11010 – Greenway System Boundary Confirmation – Budget of \$183,900 with remaining funds of \$130,401 (71% of project budget). \$5,410 will be returned to Development Fees, \$120,066 will be returned to DC Reserves, and the remaining balance of \$4,925 will be returned to the Lifecycle Replacement & Capital Reserve Fund. Project was completed and no additional study was required.

Project 14001 - OMB Development Application Hearings - Budget of \$400,000 with remaining funds of \$314,741 (79% of project budget). \$31,474 will be returned to Development Fees, and the remaining balance of \$283,267 will be returned to DC Reserves. This project can be closed as there is a 2017 open capital project to address OMB development application hearings.

b) ITS (*Development Fee Reserve*)

Project 16058 – Planning - AutoStore software for MFD – Budget of \$40,700 with remaining funds of \$29,864 (73% of project budget). An alternative solution was identified that resulted in lower cost than budgeted.

RETURN OF SURPLUS FUNDS FROM OPEN PROJECTS

Staff have identified 3 open projects that have unencumbered surplus funds available to return to sources, with a total budget remaining of \$236,008 to be returned to the original sources of funding as listed on Exhibit D.

a) Environmental Services - Environmental Assets

Project 14277 – Culverts Rehabilitation (9 Structures) - Design & Construction – Budget of \$1,571,814 with remaining funds of \$19,993 (1% of project budget). Work is completed and project is in warranty period. The actual incurred was lower than budgeted.

b) Environmental Services - Waterworks

Project 15287 – Carlton Road Pumping Station Upgrade – Budget of \$834,679 with remaining funds of \$72,385 (9% of project budget). Work is completed and project is in warranty period. The actual incurred was lower than budgeted.

c) Engineering

Project 15043 – Downstream Improvement Work Program – Budget of \$639,244 with remaining funds of \$143,630 (22% of project budget). Work is in progress; however remaining funds of \$143,630 can be returned to source.

CAPITAL CONTINGENCY PROJECTS

In accordance with the Capital Budget Control Policy, the five (5) Capital Contingency Projects are topped up to the maximum approved funding amount through the semi-annual Status of Capital Projects Report to Council.

1. Non-DC Capital Contingency

The Non-DC Capital Contingency Project was approved to a maximum of \$250,000. Currently, the account has a negative balance of (\$16,567). Therefore a top-up of \$266,567 is required from the Lifecycle Replacement & Capital Reserve Fund.

The use of the contingency account was necessitated by various projects as follows:

- Satellite Community Centre Improvements - \$90,583 – Increase of \$66,350 for installation of a fire separation and a fire-rated floor in the mechanical room of the Markham Train Station, an increase of \$24,233 for usage of type 3 abatement and replacement of insulation affected by bat guano at the Cedar Grove Community Centre;
- Milliken Mills Community Centre External Library walls - \$66,185 – Increase of \$49,954 for the replacement of curtain wall, insulation and galvanized angle on the library external walls, an increase of \$16,231 for the installation of new metal flashing and new self-adhere Air Vapor Barrier;
- ITS Technology Strategic Review - \$34,436 – Research and facilitation of five focus groups;
- Emergency Repairs - \$20,953 – Higher volume of emergency storm sewer repairs than budgeted;
- Thornhill Community Centre Dectron Coil Replacement - \$18,610 – Replacement of the re-heat and evaporative coils of the Dectron unit at the Thornhill Community Centre;
- Streetlights - Pole Condition Inspection Program - \$12,986 – The contract awarded was higher than budget due to pricing.

The remaining draws totaling \$22,814 were under \$10,000.

2. Engineering DC Capital Contingency

The Engineering DC Capital Contingency Project was approved to a maximum of \$100,000. The project currently has a balance of \$36,389 therefore requiring a top up of \$63,611 from the City-Wide Hard DC Reserve.

The use of the contingency account was necessitated by the following project:

- 2015 Engineering - Roads Warranty - \$37,655 – Installation of a weeping tile to eliminate water seepage from a retaining wall, installation of a radar detection system, and adjustment of line painting to address safety concerns of residents;

- Existing Woodbine Avenue (By-Pass to By-Pass) EA - \$25,956 – Costs of TRCA fee as well as advertisement and venue rental for two public information centre meetings.

3. Design DC Capital Contingency

The Design DC Capital Contingency Project was approved to a maximum of \$100,000. The project currently has a balance of \$86,048 therefore requiring a top-up of \$13,952 from the Design DC Reserve.

The use of the contingency account was necessitated by the following project:

- Berczy Square Park - Design & Construction - \$13,952 – Additional costs related to additional analysis, as well as higher contract administration cost due to increase in construction cost.

4. Planning DC Capital Contingency

The Planning DC Capital Contingency Project was approved to a maximum of \$50,000. The project currently has a negative balance of (\$31,193), therefore requiring a top-up of \$81,193 from the Planning DC Reserve.

The use of the contingency account was necessitated by the following project:

- Consultant Studies - \$45,550 – Consultant to assist on the coordination, review and update of the Langstaff Master Plan, Secondary Plan and Precinct Plan;
- Development Charges Background Study- \$36,634 – Additional analysis required to determine the future operating budget impact on park maintenance for future parks.

5. Waterworks Capital Contingency

The Waterworks Capital Contingency Project was approved to a maximum of \$100,000. It is currently at the maximum balance and as such, no top-up is required at this time.

STATUS OF OPEN CAPITAL PROJECTS

After the closure of 194 projects, there are 621 open capital projects/project groups with a total budget of \$670.9M as of April 30, 2017 (April 2016 status update: 703 open projects with a total budget of \$572.7M).

The term “open” refers to approved projects that have not started, or they are at various stages of project completion.

Of the 621 open capital projects, 253 were approved in 2017 (41%), 148 were approved in 2016 (24%) and 220 were approved in 2015 & prior (35%) (refer to **TABLE A**).

The following summarizes the status of open capital:

Encumbered/Committed	\$441.9M	66%
Unencumbered/Uncommitted	<u>\$229.0M</u>	34%
Total Open Capital	\$670.9M	

Encumbered/Committed

The total encumbered amount of \$441.9M includes expenditures of \$367.4M and commitments of \$74.5M. (Expenditures refer to payments issued for goods/services received and commitments refer to purchase orders on file with the Purchasing Department.)

Unencumbered/Uncommitted

Of the unencumbered/uncommitted amount of \$229.0M, approximately 28% were approved in 2017, 45% were approved in 2016 while 27% were approved in 2015 & prior.

TABLE A

Year of approval	# of Open Projects	% of Open Projects	Unencumbered \$ in M	% of Unencumbered \$
2017	253	41%	\$64.0	28%
2016	148	24%	\$103.2	45%
2015 & Prior	220	35%	\$61.8	27%
	621	100%	\$229.0	100%

Major projects, defined as a multi-year one time project, account for \$205.2M (90%) of the total unencumbered amount which includes the following projects:

- Highway 404 Ramp Extension, North of Hwy 7
- West Thornhill Flood Control Implementation
- Miller Avenue - Woodbine Avenue to Rodick Road (Construction)
- Rodick Road Reconstruction - Phase 2 of 3 - Miller to 14th Avenue
- Anti-Whistling
- Hwy 404 Mid-Block Crossing, North of Hwy 7
- Aaniin Community Centre & Library
- Watermain Construction and Replacement Program
- Miller Avenue - CN to Kennedy Road - Phase 4
- Emerald Ash Borer Program
- Kirkham Drive Park Construction
- Cornell Community Park Construction
- Box Grove Community Park

Compliant non-major projects account for the remaining \$23.8M (10%) of the total unencumbered amount.

There are 4 projects that meet the criteria for closure; however they will remain open as these projects will be completed by year-end and they will be included in the June 2018 Status of Capital Projects report.

Staff will continue to monitor the status of all capital projects to promote the timely closure and return of surplus funds, and will report to Council in November 2017.

ADDITIONAL FUNDING FOR COMPUTER REPLACEMENT

Capital Project 17064 “Core IT Infrastructure” was approved as part of the 2017 Capital Budget which included the component for computer replacements with an approved budget of \$1,396,290 to replace desktops, laptops, tablets and rugged laptops.

The computer replacement project is currently underway. ITS conducted a survey and feedback included issues of the large size and heavy weight of the laptops to the extent that limited their usability as mobile devices. Almost all of the users indicated the requirement to have a light weight device similar to the Surface Pro (“Surface”) which is a 2-in-1 device that functions as a laptop and a tablet. The Surface is 3lbs lighter than a laptop, and a laptop case adds approximately 5lbs for off-site use.

Furthermore, the additional funding will allow us to obtain higher capacity devices that will facilitate remote security and related patching over 6 years lifecycle with minimal deterioration. This additional capacity is also required to accommodate the new way of pushing Microsoft Operating system enhancements during this period.

Based on the above facts, ITS recommends replacing laptops (excluding Performance laptops) with Surface Pro 4 and the purchase of an additional 2 year warranty for a total of a 3 year warranty (the device comes with a 1 year warranty). The change in scope from laptop to Surface provides Staff the opportunity to benefit from the flexibility and versatility of the device. The recommendation also aligns with the City’s Digital Markham Strategy, a move towards a digital workplace that provides Staff the appropriate tools for their jobs.

The recommended change in scope requires additional funding of \$140,000 from the Lifecycle Replacement and Capital Reserve Fund to Capital Project #17064 “Core IT Infrastructure”, increasing the budget from \$1,396,290 to \$1,536,290.

FINANCIAL CONSIDERATIONS AND TEMPLATE:

The net amount of \$6,200,494 as summarized in the following table will be transferred to Reserves and Reserve Funds as a result of closing capital projects, return of surplus funds from open projects and top-up of capital contingency projects.

	Return to Reserves / Reserve Funds from Closed Projects (A)	Return to Reserves / Reserve Funds from Open Projects (B)	Top up Contingency Projects from Reserves / Reserve Funds (C)	Additional Funding for Computer Replacement (D)	Net Change to Reserves / Reserve Funds (E)=(A)+(B) +(C)+(D)
Lifecycle Replacement & Capital Reserve	\$2,128,871	\$70,314	(\$266,567)	(\$140,000)	\$1,792,618
Development Charge Reserves	\$1,219,407	\$93,309	(\$158,756)		\$1,153,960
Waterworks Stabilization / Capital Reserve	\$2,706,299	\$72,385	-		\$2,778,684
Other Reserves & Reserve Funds	\$475,232	-	-		\$475,232
Net Change to Reserves & Reserve Funds	\$6,529,809	\$236,008	(\$425,323)	(\$140,000)	\$6,200,494

HUMAN RESOURCES CONSIDERATIONS:

Not applicable.

ALIGNMENT WITH STRATEGIC PRIORITIES:

Not applicable.

BUSINESS UNITS CONSULTED AND AFFECTED:

All business units managing capital projects have been consulted in the development of the capital status update.

RECOMMENDED BY:

X 

Joel Lustig
Treasurer

X 

Trinela Cane
Commissioner, Corporate Services

ATTACHMENTS:

[Exhibit A – Summary of funding from closed capital projects to be returned to original funding sources as of April 30, 2017](#)

[Exhibit B – Details of capital projects to be closed with funding to be returned to original funding sources as of April 30, 2017](#)

[Exhibit C – Summary of capital projects to be closed that are fully expended as of April 30, 2017](#)

[Exhibit D – Details of open capital projects with surplus funding to be returned to funding sources as of April 30, 2017](#)