



Report to: General Committee

Meeting Date: December 12, 2016

SUBJECT: Project Management Coordination and Reporting
PREPARED BY: Phoebe Fu, Ext: 3010

RECOMMENDATION:

- 1) That the report entitled “Project Management Coordination and Reporting” be received;
- 2) That the “Major Project Status Tracking” Dashboard report (Attachment “A”) be received;

That Staff be authorized and directed to do all things necessary to give effect to this resolution.

EXECUTIVE SUMMARY:

n/a

PURPOSE:

The purpose of this report is to provide Council with a semi-annual status report of major projects using the dashboard report format.

BACKGROUND:

As part of the 2009 Auditor General’s audit on construction management, it was recommended that the City adopt and implement a project management methodology, and that Staff report to Council on the status of major projects on a regular basis.

As a result of the Auditor General’s recommendations, a Project Management Team consisting of Staff from Asset Management, Engineering, Operations, Environmental Services, Urban Design, Purchasing and ITS was created to share project management practices and lessons learned. The chair is rotated among members of the team. The current chair is the Director of Asset Management. The team developed a project management methodology consistent with the Project Management Institute’s “Project Management Body of Knowledge” (PMBOK). PMBOK is a set of standard terminology and guidelines for the practice of project management that includes five process groups and ten knowledge areas:

- The five process groups in a project life cycle are: initiating, planning, executing, monitoring and controlling, and closing.
- The ten knowledge areas are: integration management, project scope management, project time management, cost management, quality management, human resources management, communication management, risk management, procurement management, and stakeholder management.

The project management methodology adopted by Council in December, 2013 included the following governance practices:

- Establishing a Project Management Team to adopt standard project management practices; establish continuous improvement processes, and sharing of lessons learned / best practices.
- Establishing project-specific Executive Steering Committees (if criteria are met), to provide an escalated level of oversight on projects where the City has significant exposure.
- Establishing a project reporting framework with standard templates for project charter, project status report, and dashboard reporting (major project status) through Eclipse software.

The Project Management Team has adopted the above governance practices, including regular project reporting to Council on the status of major projects.

DISCUSSION:

The current Dashboard reports (Attachment “A”) provide a status as of October 31, 2016 of all Asset Management, ITS and Environmental Services projects currently open with an approved capital budget greater than \$350,000. These reports provide an overview for Commissioners, the Executive Leadership Team (ELT) and Council of summarized financial and schedule information. Colour coded Budget Concern and Schedule Concern Indexes provide an indication of project health at a glance, in accordance with established criteria (see Attachment “B”).

Two projects showed concern index “yellow” that requires attention. They are discussed below:

- Markham Pan Am Centre – Schedule concern: The project was Substantially Completed in October 2014, however, a number of deficiencies and warranty items remained. The contractor has returned to the site and rectification of the deficiencies is progressing and remains ongoing. At the time of this report, the schedule to complete the remaining works is tentatively March, 2017 and, is therefore a concern in being so long beyond the original expectation. There are no financial concerns for the project as it is within budget.
- Southeast Community Centre and Library (SECCL) – Cost concern: The Council approved contingency budget has since been increased to \$4,959,212M, representing 10.38% of construction as-awarded contract amount. Schedule concern remains, at the September 2015 project update to Council, it was communicated that the forecast Beneficial Use date will be delayed to 2016 Q4 from 2015 Q4. The General Contractor has not provided a construction schedule update since then. Substantial Performance continues to be projected to be by the end of March 2017 with Beneficial Use about the end of June 2017. This cumulative delay represents an overall delay of about 17 months since commencement of the construction phase of the project. Staff is diligently working with Bondfield to encourage them to mitigate the issues and maintain their schedule.

FINANCIAL CONSIDERATIONS AND TEMPLATE: (external link)

n/a

HUMAN RESOURCES CONSIDERATIONS

n/a

ALIGNMENT WITH STRATEGIC PRIORITIES:

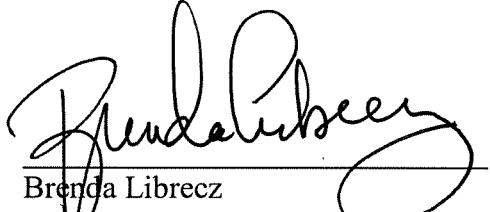
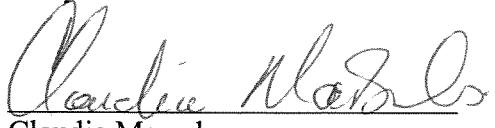
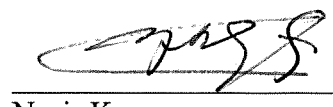
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BUSINESS UNITS CONSULTED AND AFFECTED:

The follow up implementation plan for expanding and completing the “Major Project Status Tracking” Dashboard reporting for semi-annual submission is as follows:

- Asset Management and ITS – 2013 (complete)
- Environmental Services – Q4 2014 (complete)
- Engineering – training and implementation underway, with completion target in 2016
- Urban Design – Training and implementation starting in 2015, with completion target in 2016

RECOMMENDED BY:


Phoebe Fu, P. Eng.
Director, Asset Management
Brenda Librecz
Commissioner, Community and Fire Services
Claudia Marsales
Acting Director, Environmental Services
Nasir Kenea
Director, ITS

ATTACHMENTS:

Attachment “A” – Major Project Status Tracking (Asset Management, ITS and Environmental Services Dashboard)

Attachment “B” – Budget and Schedule Concern Index

Major Project Status Tracking (Asset Management, ITS and Environmental Services Dashboard)

Update as of October 31st, 2016

Key project update for CAO and Council

PROJECT NUMBER	PROJECT NAME	COST INDEX	APPROVED BUDGET	EXPENDITURES TO DATE	REMAINING BUDGET	SCHED INDEX	BASELINE END DATE	FORECAST END DATE	% COMPLETE	STATUS	BUSINESS UNIT	PROJECT OWNER
11318	South East Community Centre & Library	On Target	\$65,818,145.00	\$58,330,893.66	\$7,487,251.34	Needs Attention	04/04/2016	09/23/2017	80%	In Progress - Construction	Asset Management	Tse, Henry
12365	Markham Pan Am Pool & Field Hse	On Target	\$49,922,434.66	\$48,766,083.95	\$1,156,350.71	Needs Attention	09/02/2014	03/02/2017	81%	Close-out (GL Open)	Asset Management	Stanford, Max
14271	Flood Control Implementation - West Thornhill Phase 1A	On Target	\$12,361,413.00	\$12,338,201.87	\$23,211.13	On Target	05/05/2016	05/05/2016	100%	Close-out (GL Open)	Asset Management	Khan, Jawaid
15014	Flood Control Implementation-W. Thornhill Ph.1B -Storm	On Target	\$8,191,000.00	\$7,157,752.10	\$1,033,247.90	On Target	06/30/2016	12/22/2016	87%	In Progress	Asset Management	Khan, Jawaid
13346	LED Conversion of Cobra-Head Fixtures	On Target	\$6,927,402.00	\$6,926,298.32	\$1,103.68	On Target	02/15/2016	12/15/2016	100%	Close-out (GL Open)	Asset Management	Mehar, Samina
16210	West Thornhill Flood Control Construction - Phase 2A	On Target	\$5,641,200.00	\$4,607,536.49	\$1,033,663.51	On Target	06/30/2017	06/30/2017	61%	In Progress	Asset Management	Khan, Jawaid
8659	Portal	On Target	\$4,790,950.00	\$4,301,689.83	\$489,260.17	On Target	09/15/2017	09/15/2017	79%	In Progress	Information Technology Services	Chau, Kent
16246	Watermain Construction and Replacement Program	On Target	\$4,201,822.00	\$4,200,589.48	\$1,232.52	On Target	06/30/2017	06/30/2017	24%	In Progress	Asset Management	Khan, Jawaid
15279	Streetlight Underground Cable - Replacement/Repair	On Target	\$2,466,819.00	\$2,466,818.34	\$0.66	On Target	12/04/2015	12/30/2016	80%	In Progress - Construction	Asset Management	Mehar, Samina
14286	Streetlight Underground Cable - Replacement/Repair	On Target	\$2,227,736.00	\$2,198,577.25	\$29,158.75	On Target	11/03/2015	12/29/2016	89%	In Progress - Construction	Asset Management	Mehar, Samina
15301	West Thornhill Phase 1B (Watermain Replacement)	On Target	\$1,886,979.00	\$1,878,472.34	\$8,506.66	On Target	05/17/2016	12/22/2016	57%	In Progress	Asset Management	Khan, Jawaid
15261	Fuel Facilities Improvements	On Target	\$1,607,478.00	\$105,578.04	\$1,501,899.96	On Target	04/19/2018	04/19/2018	39%	In Progress	Asset Management	Vasilaki, Jason
15621	Watermain Replacement (2015)-Construction	On Target	\$1,607,478.00	\$1,320,233.35	\$287,244.65	On Target	12/21/2015	12/21/2015	100%	Close-out (GL Open)	Asset Management	Zhang, Philip
14277	ROW Culverts Rehabilitation (9 Structures)	On Target	\$1,571,814.00	\$1,552,765.66	\$19,048.34	On Target	12/31/2015	06/30/2016	100%	Close-out (GL Open)	Asset Management	Sharif, Hossein
16060	Electronic Plan Implementation	On Target	\$1,390,800.00	\$772,981.69	\$617,818.31	On Target	07/17/2017	07/21/2017	15%	In Progress	Information Technology Services	Al-Hasan, Nabil
16213	Culverts Rehabilitation (5 Structures) - Design & Construction	On Target	\$1,375,106.00	\$160,828.72	\$1,214,277.28	On Target	05/06/2016	09/15/2017	43%	In Progress - Design	Asset Management	Sharif, Hossein
16062	ACR Replacement/CRM System	On Target	\$1,250,300.00	\$0.00	\$1,250,300.00	On Target		12/29/2017	17%	In Progress - Planning	Information Technology Services	Ignacio, Lyrae
9330	Thornhill Storm Sewer Upgrades	On Target	\$1,197,506.00	\$1,186,857.15	\$10,648.85	On Target	04/29/2016	12/30/2016	97%	In Progress	Asset Management	Muir, Robert
13333	Structures Design (2013) & Construction (2014)	On Target	\$1,147,300.00	\$709,131.82	\$438,168.18	On Target	10/15/2014	12/15/2014	100%	Close-out (GL Open)	Asset Management	Sharif, Hossein
16237	Sanitary Sewer System Upgrade/Rehab Program	On Target	\$1,091,738.00	\$1,065,937.28	\$25,800.72	On Target	12/15/2016	12/30/2016	88%	In Progress	Environmental Services	Huynh, David
16202	Roofing Replacement Projects	On Target	\$1,035,783.00	\$812,299.41	\$223,483.59	On Target	12/29/2017	12/29/2017	80%	In Progress	Asset Management	Ryan, Michael
16254	Digital Markham (IT Strategic Implementation)	Not Set	\$923,694.00	\$0.00	\$923,694.00	Not Set		12/28/2018	0%	Approved & Not Started	Information Technology Services	Kenea, Nasir
15272	SWM Pond Cleaning ID#7 & 59	On Target	\$845,852.00	\$841,162.46	\$4,689.54	On Target	11/22/2017	12/30/2016	83%	In Progress	Asset Management	Manlucu, Alan
15287	Carlton Road Pumping Station Upgrade	On Target	\$834,679.00	\$834,663.20	\$15.80	On Target	08/26/2016	09/02/2016	100%	Close-out (GL Open)	Environmental Services	Thakur, Vikas
16089	Fire Station Renos for Gender Diversity - Phase 1 of 2	On Target	\$813,586.00	\$710,903.36	\$102,682.64	On Target	01/09/2017	01/09/2017	77%	In Progress	Asset Management	Vasilaki, Jason
15266	Roof Replacement Projects	On Target	\$805,683.00	\$712,854.88	\$92,828.12	On Target	07/29/2016	07/29/2016	100%	Close-out (GL Open)	Asset Management	Ryan, Michael
14256	Roofing Replacement	On Target	\$735,178.00	\$694,223.60	\$40,954.40	On Target	12/31/2015	12/31/2015	100%	Close-out (GL Open)	Asset Management	Liu, Amaris
16243	Water Meter Replacement/Upgrade - Annual Program	On Target	\$655,000.00	\$654,999.97	\$0.03	On Target	12/30/2016	12/30/2016	86%	In Progress	Environmental Services	Huynh, David
16207	Rehabilitation of Storm Sewers (2016)	On Target	\$617,969.00	\$617,968.51	\$0.49	On Target	12/15/2017	12/15/2017	59%	In Progress	Asset Management	Zhang, Philip
16231	Cathodic Protection of Iron Watermains Program - Annual	On Target	\$555,500.00	\$471,154.22	\$84,345.78	On Target	10/06/2016	09/22/2016	100%	In Progress	Environmental Services	Thakur, Vikas
16236	Sanitary Sewer Construction	On Target	\$532,705.00	\$532,704.80	\$0.20	On Target	10/28/2016	11/28/2016	71%	In Progress - Construction	Environmental Services	Li, Paul
16192	Corporate Security Operations & System Upgrades	On Target	\$524,872.00	\$304,991.20	\$219,880.80	On Target	02/15/2017	02/15/2017	17%	In Progress	Asset Management	Liu, Amaris
16214	Erosion Restoration at 85 Steelcase Road (Construction)	On Target	\$516,400.00	\$44,300.71	\$472,099.29	On Target	12/28/2016	06/02/2017	70%	In Progress - Construction	Asset Management	Manlucu, Alan
16229	Advanced Water &Wastewater Asset Management	On Target	\$503,700.00	\$0.00	\$503,700.00	On Target	08/12/2019	08/09/2019	15%	In Progress	Environmental Services	Gao, Shu Min
16190	Civic Centre Safety & Accessibility Improvements - Phase 2 of 2	On Target	\$471,000.00	\$386,017.01	\$84,982.99	On Target	12/13/2016	12/13/2016	97%	In Progress	Asset Management	Vasilaki, Jason
16198	Operations Facilities Improvements	On Target	\$466,000.00	\$130,025.42	\$335,974.58	On Target	05/12/2017	05/12/2017	34%	In Progress	Asset Management	Vasilaki, Jason
11116	Enterprise Asset Management-Phase 2 Implementation	Not Set	\$442,600.00	\$14,495.72	\$428,104.28	Not Set		09/14/2016	0%	In Progress - On Hold	Information Technology Services	Rahman, Mustafa
15120	Museum Site Improvements	On Target	\$413,937.00	\$399,958.00	\$13,979.00	On Target	09/28/2015	06/07/2016	100%	Close-out (GL Open)	Asset Management	Xu, Lijing
15271	Rehabilitation of Storm Sewers (2015 & 2016)	On Target	\$412,242.00	\$362,796.12	\$49,445.88	On Target	12/15/2017	12/15/2017	59%	In Progress	Asset Management	Zhang, Philip
15618	Library 3M Lifecycle	On Target	\$360,010.00	\$0.00	\$360,010.00	On Target	07/13/2016	01/16/2017	73%	In Progress - Planning	Information Technology Services	Fry, June
13363	Sediment Cleaning at Two SWM Ponds (#40 8-13364)	On Target	\$242,547.00	\$188,739.53	\$53,807.47	On Target	11/10/2015	11/10/2015	100%	Close-out (GL Open)	Asset Management	Khan, Jawaid

Major Project Status Tracking (Asset Management, ITS and Environmental Services Dashboard)

Update as of October 31st, 2016

Key project update for CAO and Council

Definition:

- 1. Cost Index: The project manager’s assessment of the financial health of the project with consideration to expenditure forecasts and risks.
- 2. Approved Budget: budget approved through capital budget process, or Expenditure Control Policy
- 3. Expenditures to date: Includes actual expenditure and commitments.
- 4. Remaining Budget: Calculated based on “Approved Budget” less “Expenditures To Date”
- 5. Schedule Index: The project manager’s assessment of the Schedule health of the project with consideration to schedule forecast and risks
- 6. Baseline End Date: Set at the time the project starts, and it is the initial or approved projected end date of the project.
- 7. Forecast End Date: Revised end date of the project.
- 8. % complete: this is calculated based the Schedule and is based on the amount of work completed in the schedule.
- 9. Status: Indicates the stage of work the project is at:
 - a. Pending Approval, Approved & Not started, In Progress, In Progress – Planning, In Progress – Tender/Award, In Progress – Construction, Close- out, Completed

Report Title: Project Management Coordination and Reporting
Attachment B: Budget and Schedule Concern Index

Budget Concern Index Rating Criteria				
Budget Variance	Concern Index			
	<5% Committed	5-15% Committed	25-75% Committed	>75% Committed
Below Budget	0	0	0	0
≤0	1	1	1	1
0.1-2% Over Budget	2	2	3	4
2-4% Over Budget	3	3	4	5
4-6% Over Budget	4	4	5	5
>6% Over Budget	5	5	5	5

Schedule Concern Index Rating Criteria				
Schedule Variance	Concern Index			
	At Tender	<25% Complete	25-89% Complete	>90% Complete
<0 days	0	0	0	0
0 days	1	1	1	1
1-30 days	2	2	3	4
31-60 days	3	3	4	5
>60 days	4	4	5	5
>90 days	5	5	5	5