

Toronto 2018 BUDGET



CAPITAL BUDGET NOTES



Information & Technology

2018 – 2027 CAPITAL BUDGET AND PLAN OVERVIEW

The Information & Technology Division provides city-wide leadership in modernizing City services through the strategic investment, development and management of the City's Information & Technology (I&T) systems. Key elements of the 10-year Capital Plan include:

- Ensuring a secure, reliable and high performance I&T Infrastructure that is modernized and well positioned to respond to growing business needs and citizen demands.
- Improving the City's business processes and systems with a focus on opportunities to streamline, integrate and deliver business value to clients.
- Driving City business transformation initiatives and innovation to improve customer experience associated with the delivery of City Programs and Services.

The 10-year Preliminary Capital Plan, totaling \$420.977 million, has been developed in alignment with, and as a part of, the City's overall eCity Strategy and I&T Portfolio Integrated Plan that sets direction for prioritized I&T investments across the City. The 10-Year Preliminary Capital Plan will increase the I&T Division's future year Operating Budgets by a total of \$0.736 million net over the period from 2018 - 2020, for maintenance & support and hosting costs for new systems, services and infrastructure.

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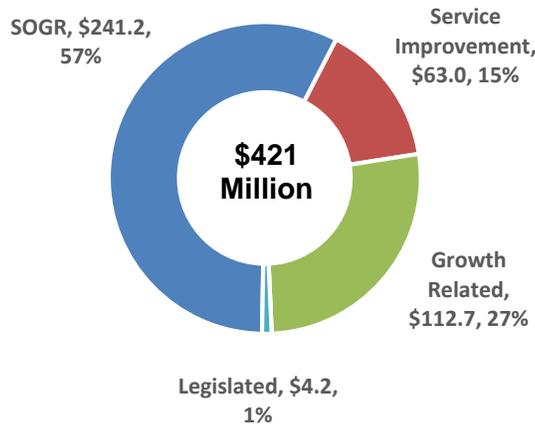
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CAPITAL SPENDING AND FINANCING

**2018 - 2027 Preliminary Capital Budget and Plan
By Project Category**

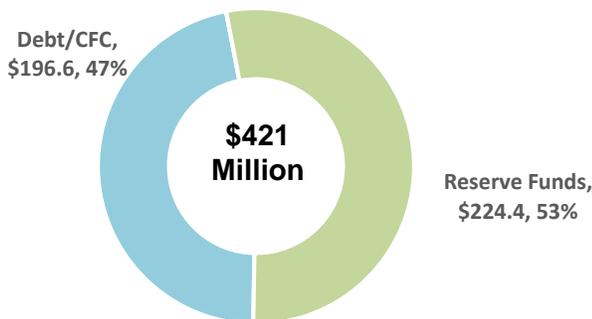


Where the money goes:

The 2018 - 2027 Preliminary Capital Budget and Plan totalling \$420.977 million provides funding of:

- \$241.208 million to continue the State of Good Repair projects that ensure the reliability and security of IT services, infrastructure, and applications including the replacement of hardware and software assets, as well as network infrastructure and security. Other projects include Domino Decommissioning, SAP System Upgrade, Directory Services Implementation and File Services Migration.
- \$62.962 million in Service Improvement projects that transform how the City delivers services to internal and external clients. Projects in this category include the modernization of the Municipal Licensing and Standards (MLS) licensing system, the Enterprise Work Management Solution, eTime Enterprise Rollout, Open Data Master Plan Implementation, Enterprise Collaboration Foundation and Enterprise Business Intelligence Implementation.
- \$112.656 million in Growth related initiatives that primarily consist of the Consolidated Data Centre project, and I&T foundational projects that expand the City's technology infrastructure, improve I&T service processes, enterprise solution design and information security.

By Funding Source



Where the money comes from:

The 10-Year Preliminary Capital Plan requires:

- Debt funding of \$196.550 million (46.7%) to support the growing demand of I&T assets to keep pace with the expansion of services using technology and digital innovations and drive efficiencies and modernization across City Programs and Services.
- Additional capital financing of \$224.427 million (53.5%) to be provided from reserve/reserve funds, primarily to fund the City's Technology Asset Lifecycle Management program.

State of Good Repair Backlog

The City has established a well-defined Lifecycle Management plan for I&T assets prioritized for program needs to replace equipment before end of life and as a result does not have a backlog of State of Good Repair for I&T capital assets. Funding in the 10-Year Capital Plan addresses State of Good Repair based on planned lifecycle and ensures business continuity of the City's technology.

OUR KEY ISSUES & PRIORITY ACTIONS

To ensure continuous service excellence and effective delivery of public facing services, the I&T Division will focus on:

- **Integrated Service Delivery and Digital Enablement**
 - ✓ Projects such as Enterprise Collaboration Foundation and Electronic Service Delivery ensure solutions are aligned with corporate strategic priorities, are appropriately timed and provide progression towards integration to meet business objectives, gain service efficiencies and improve the customer experience associated with the delivery of City Programs and Services.
 - ✓ Focus on optimal and high value investments and ensure priority is given through the I&T Governance process to projects that demonstrate potential for benefits realization and are positioned for strong performance.
- **Ability to Sustain Business Solutions**
 - ✓ With growing demands from City Programs, there is an increased need for sustainment of systems. New or enhanced systems provide value in City Program services and deliver efficiencies, and there is a resultant need to ensure operating impacts are funded in technology sustainment.
- **Secure, Agile and Accelerated I&T Delivery Model**
 - ✓ Cyber-security complexity continues to increase with a need to ensure investments and processes are in place to prevent and respond to security demands.
 - ✓ Need to address varying levels of divisional readiness.

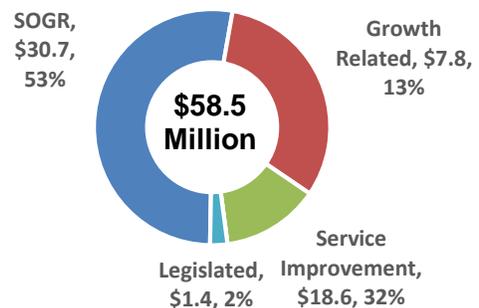


2018 CAPITAL BUDGET HIGHLIGHTS

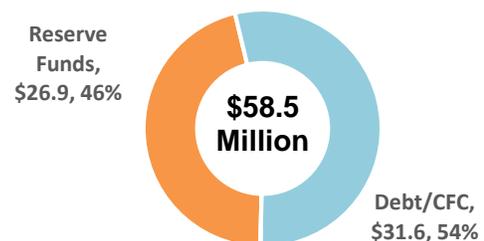
The 2018 Preliminary Capital Budget for Information Technology of \$58.518 million, excluding carry forward funding, will:

- Invest \$18.361 million to replace aging enterprise servers, network assets, and the City's workplace technology to better position the City to serve its clients through technological innovations.
- Continue funding the Consolidated Data Centre project (\$4.105 million). This will eliminate the need to continue leasing space and provision for smaller City divisions to rationalize into a primary, more resilient site, with a secondary backup and non-critical applications site. It will also allow Agencies and Corporations to relocate or offload additional capacity onto the City-managed sites.
- Continue initiatives to improve service levels such as the modernization of the MLS licensing system (\$2.972 million), roll out of the Enterprise Electronic Timesheet system (\$1.441 million) and provide for Disaster Recover/Business Continuity planning (\$1.680 million)

2018 Preliminary Capital Budget By Project Category



By Funding Source



Actions for Consideration

Approval of the 2018 Preliminary Capital Budget as presented in these notes requires that:

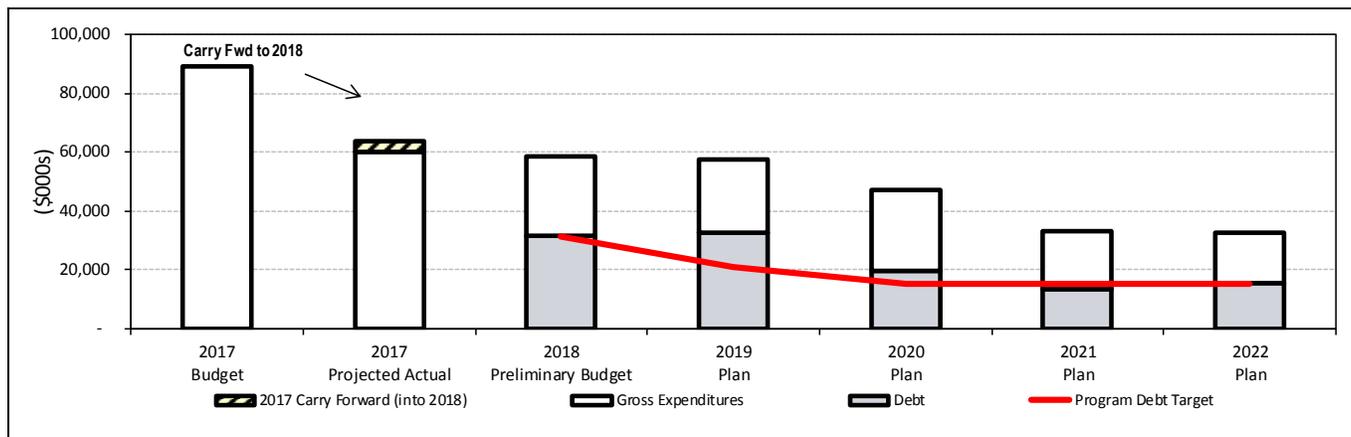
1. City Council approve the 2018 Capital Budget for Information & Technology with a total project cost of \$78.310 million, and 2018 cash flow of \$62.262 million and future year commitments of \$59.896 million comprised of the following:
 - a) New Cash Flow Funds for:
 - i. 40 new / change in scope sub-projects with a 2018 total project cost of \$78.310 million that requires cash flow of \$32.756 million in 2018 and future year cash flow commitments of \$23.836 million for 2019; \$14.366 million for 2020; \$4.384 million for 2021; \$2.062 million for 2022; \$0.340 million for 2023; \$0.340 million for 2024; and \$0.226 million for 2025.
 - ii. 26 previously approved sub-projects with a 2018 cash flow of \$22.003 million; and future year cash flow commitments of \$10.522 million for 2019; \$2.141 million for 2020; and \$1.679 million for 2021.
 - iii. 8 previously approved sub-projects with carry forward funding from 2016 and prior years requiring 2018 cash flow of \$3.759 million that requires Council to reaffirm its commitment; and
 - b) 2017 approved cash flow for 10 previously approved sub-projects with carry forward funding from 2017 into 2018 totalling \$3.744 million.
2. City Council approve the 2019 - 2027 for Information & Technology totalling \$302.563 million in project estimates, comprised of \$22.960 million in 2019; \$30.853 million for 2020; \$26.917 million for 2021; \$30.638 million for 2022; \$37.997 million for 2023; \$33.841 million for 2024; \$45.997 million for 2025; \$37.950 million for 2026; and \$35.430 million in 2027.
3. City Council consider the operating costs of \$0.632 million net in 2018; \$0.092 million net in 2019; and \$0.014 million net in 2020 resulting from the approval of the 2018 Preliminary Capital Budget for inclusion in the 2018 and future year operating budgets.



Part 1

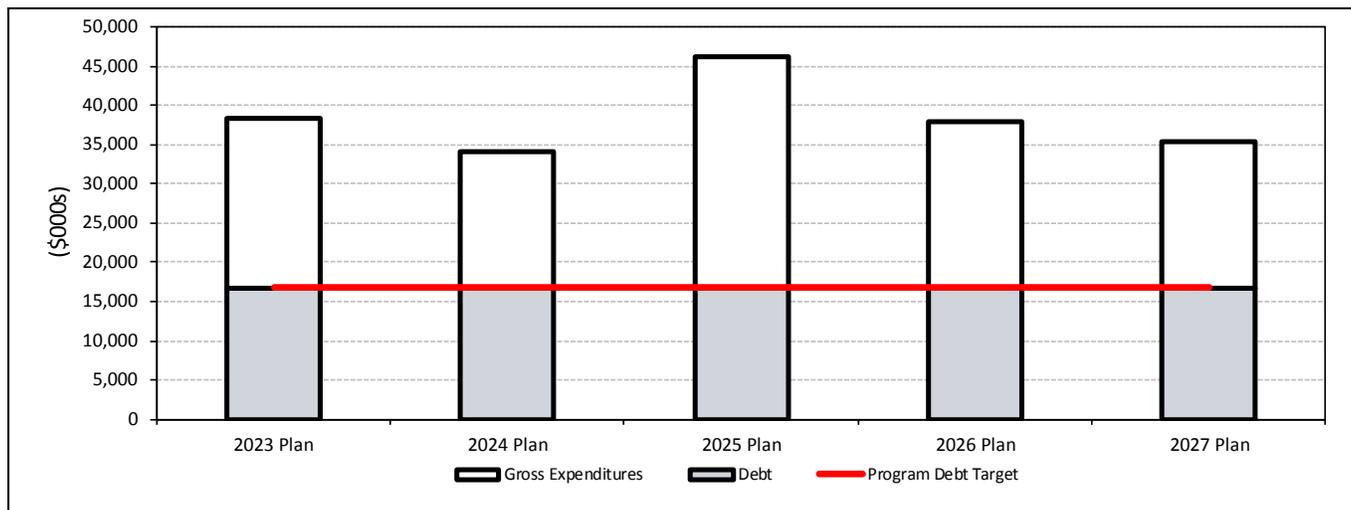
10-Year Preliminary Capital Plan

**Table 1a
10-Year Capital Plan
2018 Preliminary Capital Budget and 2019 - 2022 Capital Plan (in \$000s)**



		2018 Preliminary Capital Budget and 2019 - 2022 Capital Plan									
		2017		2018	2019	2020	2021	2022	2018 - 2022	5-Year Total Percent	
		Budget	Projected Actual								
Gross Expenditures:											
2017 Capital Budget & Approved FY Commitments		88,881	59,862	30,734	5,032	1,424			37,190	16.2%	
Changes to Approved FY Commitments				(8,731)	5,490	717	1,679		(845)	-0.4%	
2018 New/Change in Scope and Future Year Commitments				32,756	23,836	14,366	4,384	2,062	77,404	33.8%	
2019 - 2022 Capital Plan Estimates					22,960	30,853	26,917	30,638	111,368	48.7%	
2-Year Carry Forward for Reapproval				3,759					3,759	1.6%	
1-Year Carry Forward to 2018			3,744								
Total Gross Annual Expenditures & Plan		88,881	59,862	58,518	57,318	47,360	32,980	32,700	228,876	100.0%	
Program Debt Target				31,376	20,986	15,146	15,500	15,500	98,508		
Financing:											
Debt				31,616	32,428	19,466	13,540	15,500	112,550	49.2%	
Reserves/Reserve Funds				26,902	24,890	27,894	19,440	17,200	116,326	50.8%	
Development Charges											
Provincial/Federal											
Debt Recoverable											
Other Revenue											
Total Financing				58,518	57,318	47,360	32,980	32,700	228,876	100.0%	
By Project Category:											
Health & Safety											
Legislated				1,383	1,384	1,384			4,151	1.8%	
SOGR		33,275	24,856	30,729	25,134	31,622	25,272	18,250	131,007	57.2%	
Service Improvement		48,637	32,240	18,564	21,503	12,294	5,733	3,162	61,256	26.8%	
Growth Related		6,968	4,278	7,842	9,297	2,060	1,975	11,288	32,462	14.2%	
Total by Project Category		88,880		58,518	57,318	47,360	32,980	32,700	228,876	100.0%	
Asset Value (\$) at year-end		70,648		70,648	70,648	70,648	70,648	70,648	70,648		
Yearly SOGR Backlog Estimate (not addressed by current plan)											
Accumulated Backlog Estimate (end of year)											
Backlog: Percentage of Asset Value (%)		0.0%		0.0%	0.0%	0.0%	0.0%	0.0%			
Debt Service Costs				474	3,864	3,851	2,358	1,762	12,309		
Operating Impact on Program Costs				631	91	14			736		
New Positions											

Table 1b
10-Year Capital Plan
2023 - 2027 Preliminary Capital Plan (in \$000s)



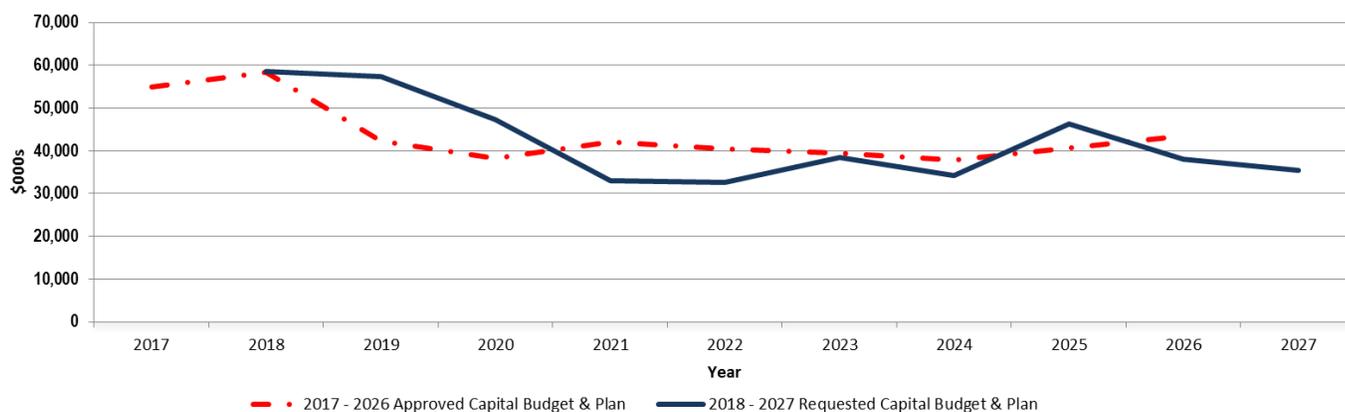
	2023 - 2027 Preliminary Capital Plan						10-Year Total Percent
	2023	2024	2025	2026	2027	2018 - 2027	
Gross Expenditures:							
2017 Capital Budget & Approved FY Commitments						37,190	8.8%
Changes to Approved FY Commitments						(845)	-0.2%
2018 New/Change in Scope and Future Year Commitments	340	340	226			78,310	18.6%
2023 - 2027 Capital Plan Estimates	37,997	33,841	45,977	37,950	35,430	302,563	71.9%
2-Year Carry Forward for Reapproval						3,759	0.9%
Total Gross Annual Expenditures & Plan	38,337	34,181	46,203	37,950	35,430	420,977	99.1%
Program Debt Target	16,800	16,800	16,800	16,800	16,800	182,508	
Financing:							
Debt	16,800	16,800	16,800	16,800	16,800	196,550	46.7%
Reserves/Reserve Funds	21,537	17,381	29,403	21,150	18,630	224,427	53.3%
Development Charges							
Provincial/Federal							
Debt Recoverable							
Other Revenue							
Total Financing	38,337	34,181	46,203	37,950	35,430	420,977	100.0%
By Project Category:							
Health & Safety							
Legislated						4,151	1.0%
SOGR	22,587	18,431	29,403	21,150	18,630	241,208	57.3%
Service Improvement	740	740	226			62,962	15.0%
Growth Related	15,010	15,010	16,574	16,800	16,800	112,656	26.8%
Total by Project Category	38,337	34,181	46,203	37,950	35,430	420,977	100.0%
Asset Value(\$) at year-end	70,648	70,648	70,648	70,648	70,648	70,648	
Yearly SOGR Backlog Estimate (not addressed by current plan)							
Accumulated Backlog Estimate (end of year)							
Backlog: Percentage of Asset Value (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Debt Service Costs	1,998	2,137	2,137	2,137	2,137	22,855	
Operating Impact on Program Costs							
New Positions							

Key Changes to the 2017 - 2026 Approved Capital Plan

The 2018 Preliminary Capital Budget and the 2019 - 2027 Preliminary Capital Plan reflects a decrease of \$16.683 million in capital funding from the 2017 - 2026 Approved Capital Plan.

The chart and table below provide a breakdown of the \$16.683 million or 3.8% decrease in the Capital Program on an annual basis from 2017 - 2027.

Chart 1
Changes to the 2017 - 2026 Approved Capital Plan (In \$000s)



(\$000s)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	10-Year Total
2017 - 2026	54,992	58,408	42,311	38,286	41,980	40,343	39,514	37,754	40,619	43,453	0	437,660
2018 - 2027	0	58,518	57,318	47,360	32,980	32,700	38,337	34,181	46,203	37,950	35,430	420,977
Change %		0.2%	35.5%	23.7%	(21.4%)	(18.9%)	(3.0%)	(9.5%)	13.7%	(12.7%)		(3.8%)
Change \$		110	15,007	9,074	(9,000)	(7,643)	(1,177)	(3,573)	5,584	(5,503)		(16,683)

As made evident in Chart 1 above, the \$16.683 million decrease in the Capital Plan is largely attributed to a difference in capital spending approved in 2017 as compared to planned capital investments in the year 2027. The decrease is a result of the I&T Governance process that selects the optimal portfolio of I&T projects for the City and takes into consideration resourcing, value and alignment with City strategic objectives.

The Capital Program also reflects the reallocation of funding to earlier years in support of the transformation and modernization initiatives that are being planned.

As reflected in Table 2 on the following page, changes to the 2017 - 2026 Approved Capital Plan totalling a \$2.879 million increase in capital funding over the nine common years of the Capital Plans (2018 – 2026) arise from the reprioritization of I&T capital projects based on the following factors:

- Ensure effectiveness in achieving overall City goals and objectives as recommended by Business Executive Committee through the I&T Portfolio Integrated Plan;
- Realignment of cash flows to better reflect actual spending experience for major capital projects based on planned readiness to proceed, capacity to deliver and spend and meet project timelines; and
- Asset Lifecycle Management with a view that information & technology is crucial in support of the City in the delivery of integrated solutions for City programs and services as well as the management of the overall technology foundation of the organization.

A summary of project changes for the years 2018 - 2026 totalling \$2.879 million are provided in Table 2 below:

**Table 2
Summary of Project Changes (In \$000s)**

\$000s	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018 - 2026 Total
2017 - 2026 Capital Budget & Plan	54,992	58,408	42,311	38,286	41,980	40,343	39,514	37,754	40,619	43,453	-	382,668
2018 - 2027 Preliminary Capital Budget & Plan	-	58,518	57,318	47,360	32,980	32,700	38,337	34,181	46,203	37,950	35,430	385,547
Capital Budget & Plan Changes (2018 - 2026)		110	15,007	9,074	(9,000)	(7,643)	(1,177)	(3,573)	5,584	(5,503)		2,879

	Total Project Cost	2018	2019	2020	2021	2022	2023	2024	2025	2026	2018 - 2026	2027	Revised Total Project Cost
Changes to Previously Approved Projects' Future Year Commitments													
Application Portfolio Tools & Rationalization	2,450		(650)								(650)		1,800
Asset Management Solution - Transportation	715	475											475
Business Applications Service Monitoring	700	(150)	(150)	(150)	(250)						(700)		1,190
Business Continuity	2,100												2,100
Business Enablement Process & Tools Upgrade				(1,420)	(1,098)	(2,750)	(3,250)	(3,200)	(3,400)	(3,400)	(18,518)		
Business Sys Improvements - ECS Phase 2	300												300
Capital Portfolio Resource Requirements	10,869	(974)	974										10,869
Capital Project Planning Sys Enhancements	1,450												1,450
Consolidated Data Centre			3,534								3,534		13,600
Data Center Scope Change	5,153	(2,198)	2,198										5,153
Directory Services - Implementation	1,250	(1,202)	19	183	1,000								1,250
Directory Services Transition - Design		150									150		150
Domino Decommissioning Strat & Implementation	4,017												4,017
eCity Program Renewal													
ECS Capital Project and Program Management Process	400												400
Enterprise Collaboration Foundation	5,849	(1,394)	331	1,147	523						607		6,456
Enterprise eLearning HR	2,800												2,800
Enterprise Mobility Platform	2,470	(950)	230								(720)		1,750
eRecruitment	4,671	485	340								825		5,496
File Services Migration			(70)	30	40								
HR Electronic Skills Solution	463	87									87		550
I&T PPM Solution (Cloud) Implementation	1,476	(500)	(226)	(430)	1,156								1,476
IBMS Upgrade - Planning		(500)	(379)								(879)		
Intranet Refresh (Phase 1 ITWeb)		(470)									(470)		
IT Risk Mgmt Framework	5,555												5,555
IT Service Process Improvement Program	2,637												2,637
Major Cap Infrastructure Project Coord. (TOINView)	175												175
MLS Centralized Datamart	3,442	603									603		4,045
MLS Modernization-Phase 2	12,117	(3,444)	347	2,489							(608)		11,509
Occupation Health & Safety App	1,478	(483)	483										1,478
OnLine Portal Services for City Planning	2,030	400	(320)	(480)							(400)		1,630
Open Data Visualization	700												700
Review and Improve Document Management Capabilitie	400												400
Shared Services		(594)									(594)		
TEMS Replacement - Design	600	(150)	150										600
WAN High Speed Fibre Data Services	833	(250)	250										833
Work Mgmt Solution-Transportation	6,367	(1,556)	3,709	4,835	3,094	2,062	340	340	226		13,050		19,417
Workflow Automation & Tracking	746	104											850
Workforce (HR) Business Intelligence	2,440	753									753		3,193
Total Changes to Previously Approved Commitments	86,653	(11,758)	10,770	6,204	4,465	(688)	(2,910)	(2,860)	(3,174)	(3,400)	(3,351)		113,829
Changes to Previously Planned Project Estimates													
Asset Lifecycle Management	200,635	1,293	(3,777)	3,403	(7,040)	(7,643)	(1,177)	(3,573)	5,584	(5,503)	(18,433)	18,630	200,832
Data Centre Zones Implementation	3,500		(2,400)	(584)	750						(2,234)		1,266
Disaster Recovery	36,432												36,432
Electronic Self Service Licensing-MLS	1,479	(516)	516										1,479
Electronic Service Delivery Portal-Bldg Permits	4,380	(617)	617										4,380
Employee Performance Management	1,308	(345)	(417)	762									1,308
Enterprise Architecture	3,752	500		500	500	500	500	500	500	500	4,000	500	8,252
Enterprise Information Security Pgm													
Enterprise Portfolio & Project Mgmt Upgrade 2021	1,860	150									150		2,010
Enterprise Project Risk & Performance Tools	1,900												1,900
Enterprise Solution Delivery Management Framework	1,623	396									396		2,019
Enterprise Solutions Design & Implementation	19,250		564	(1,500)	(2,000)	2,000	2,210	4,260	2,000	2,000	9,534	5,500	34,284
IT Planning & Mgmt Transformation Tools	20,700			(1,900)	(3,000)	(2,112)	(2,100)	(2,000)	(900)	(900)	(12,912)	2,500	10,288
SAP System Upgrade	4,864	1,330		(1,500)	1,500								6,194
Quality Assurance Testing Software Supgrade	2,222												2,222
Technology Infrastructure Growth	36,800			(3,000)	(4,425)	300	2,300	100	1,574	1,800	(1,351)	8,300	43,749
Total New	340,705	2,191	(4,897)	(3,819)	(13,715)	(6,955)	1,733	(713)	8,758	(2,103)	(19,520)		35,430
New to the 10-Year Capital Plan													
AODA Compliance for City Applications		1,383	1,384	1,384							4,151		4,151
Business Applications Service Monitoring		150	150	150	250						700		700
DLAN Cloud Services Implementation		165									165		165
Enterprise Business Intelligence Implementation		1,698	1,715	1,585							4,998		4,998
eTime Enterprise Rollout		1,441	1,441								2,882		2,882
Geospatial Tool Enhancements		250	295								545		545
IBMS Review & Transformation		2,467	2,087	2,534							7,088		7,088
Open Data Master Plan Implementation		707	1,036	1,036							2,779		2,779
S DFA- Online Grant Management System		230	50								280		280
TOP - Online Donation Application		389	201								590		590
Toronto Building-CRM-Enhanced Compliant Management		347	775								1,122		1,122
Wellbeing Toronto		450									450		450
Total New		9,677	9,134	6,689	250						25,750		25,750
Total Changes	427,358	110	15,007	9,074	(9,000)	(7,643)	(1,177)	(3,573)	5,584	(5,503)	2,879	35,430	496,194

Significant Capital Project Changes in Information & Technology:

Cash flow funding for the following previously approved capital projects has been adjusted based on historical spending rates, capacity and expected progress and completion of the projects, as outlined below:

Changes to Previously Approved Projects' Future Year Commitments

Project Cost Increases:

- *Workforce Management Solution* – The original project budget was established in 2014. The contract was signed in 2017. The budget is being increased to accommodate the actual vendor pricing, costs of licences and the future phases.

Deferrals/Accelerations:

- *I&T Portfolio and Project Management Solution (Cloud) Implementation* – The upgrade to the existing enterprise project management solution is being deferred for an additional year. In order to ensure stability, the existing system will be migrated to a new virtualized environment. Business requirements will be completed in 2018 and a subsequent decision made to upgrade or replace the existing system.

Changes to Previously Planned Project Estimates

Project Cost Decreases:

- *I&T Planning & Management Transformation Tools* – This project was reduced by \$10.412 million and funding reassigned to new projects to better align with enterprise goals and priorities and bring value to the enterprise and support the ability of management to innovate while controlling risks.

Project Cost Increases:

- *Enterprise Architecture* – Based on thorough review of City-wide requirements for information technology, the project was increased by \$4.500 million to implement and sustain an enterprise architecture program.

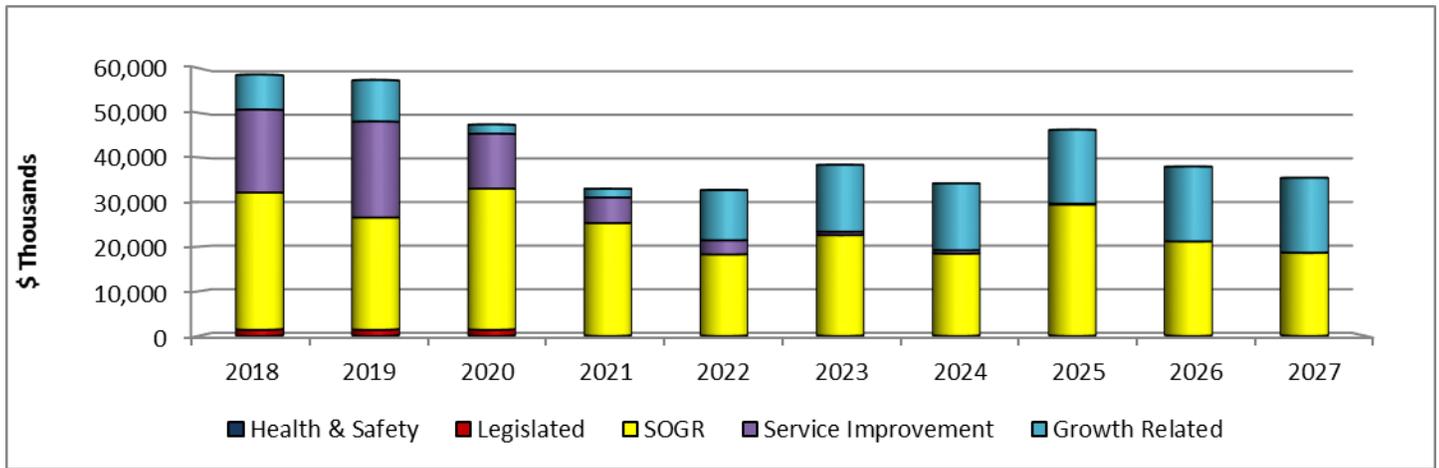
New to the 10-Year Preliminary Capital Plan

New projects totalling \$25.750 million have been added to the 10-Year Preliminary Capital Plan that includes the following projects recommended by the Business Executive Committee:

- *Enterprise Business Intelligence Implementation* – New funding of \$4.998 million will enable the City of Toronto to ensure data quality across the City for the use and integration into a single source, allowing self-serve access and enabling effective evidence-based decision making.
- *Integrated Business Management System Review and Transformation* – New funding of \$7.088 million is required to drive the transformation of the services supported through the Integrated Business Management System to best meet the City's needs. The current legacy system is at end-of-life and vendor support ended in 2014.
- *AODA Compliance for City Applications* – New funding of \$4.151 million is required to ensure City applications are compliant with the Accessibility for Ontarians with Disabilities Act (AODA)

2018 – 2027 Preliminary Capital Plan

Chart 2
2018 – 2027 Preliminary Capital Plan by Project Category (In \$000s)



As illustrated in Chart 2 above, the 10-Year Preliminary Capital Plan for Information & Technology of \$420.977 million provides 57.3% funding for State of Good Repair (SOGR) projects as priorities and 26.8% for Growth Related projects. Service Improvement and Legislated mandated projects represent the remaining 15.0% of projects over the 10-year period.

- Legislated projects account for \$4.151 million, ending in 2020, to ensure City applications are compliant with the Accessibility for Ontarians with Disabilities Act (AODA).
- \$241.208 million in funding has been dedicated to State of Good Repair (SOGR) projects of with funding of \$206.843 million for the Asset Lifecycle Management to maintain the City's technology infrastructure including the network and application systems. Typical refresh cycles for various IT assets fall between 4-5 years, which can be seen in Chart 2. SOGR also includes \$7.088 million for the IBMS Review & Transformation project.
- Service Improvement projects account for \$62.962 million and include the Enterprise Collaboration Foundation project, the Transportation Work Management Solution project, the roll out of the Enterprise Electronic Time Sheet System, and the eRecruitment and MLS Licensing System Modernization Phase 2 projects.
- Growth Related projects account for \$112.656 million and include the Consolidated Data Centre project, the Major Capital Infrastructure Project Co-ordination (TOINView), and the Enterprise Solution Design and Implementation project as the City prepares for technological changes.

Table 3 below details all capital projects, by category, included in the 2018 - 2027 Preliminary Capital Budget and Plan for Information & Technology:

Table 3
2018 - 2027 Capital Plan by Project Category (In \$000s)

	2018 Budget	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2027 Plan	2018 - 2027 Total	Total Project Cost
Legislated												
<i>AODA Compliance for City Applications</i>	1,383	1,384	1,384								4,151	4,151
Sub-Total	1,383	1,384	1,384								4,151	4,151
State of Good Repair												
<i>Business Applications Service Monitoring</i>	150	150	150	250							700	700
<i>Business Continuity</i>	500										500	2,100
<i>Capital Portfolio Resource Requirements</i>	1,775	974									2,749	10,869
<i>Directory Services - Implementation</i>	800	1,000	183	1,000							2,983	1,250
<i>Directory Services Transition - Design</i>	150										150	150
<i>Disaster Recovery</i>	1,180	1,180	1,050	1,050	1,050	1,050	1,050				7,610	36,432
<i>DLAN Cloud Services Implementation</i>	165										165	165
<i>Domino Decommissioning Strat & Implementation</i>	620										620	4,017
<i>Enterprise Solution Delivery Management Framework</i>	766										766	2,019
<i>File Services Migration</i>	455	640	170	40							1,305	1,305
<i>Geospatial Tool Enhancements</i>	250	295									545	545
<i>IBMS Review & Transformation</i>	2,467	2,087	2,534								7,088	7,088
<i>Asset Lifecycle Management</i>	18,361	17,198	26,543	19,440	17,200	21,537	17,381	29,403	21,150	18,630	206,843	200,832
<i>IT Risk Mgmt Framework</i>	660	660									1,320	5,555
<i>Quality Assurance Testing Software Supgrade</i>	500	500	500								1,500	2,222
<i>SAP System Upgrade</i>	1,330		492	3,492							5,314	6,194
<i>TEMS Replacement - Design</i>	150	450									600	600
<i>Wellbeing Toronto</i>	450										450	450
Sub-Total	30,729	25,134	31,622	25,272	18,250	22,587	18,431	29,403	21,150	18,630	241,208	282,493
Service Improvements												
<i>Asset Management Solution - Transportation</i>	835										835	1,190
<i>Business Sys Improvements - ECS Phase 2</i>	530										530	300
<i>Capital Project Planning Sys Enhancements</i>	570										570	1,450
<i>ECS Capital Project and Program Management Process</i>	200										200	400
<i>Electronic Self Service Licensing-MLS</i>		516									516	1,479
<i>Electronic Service Delivery Portal-Bldg Permits</i>		617									617	4,380
<i>Employee Performance Management</i>		546	762								1,308	1,308
<i>Enterprise Portfolio & Project Mgmt Upgrade 2021</i>	150			460	600	400	400				2,010	2,010
<i>Enterprise Project Risk & Performance Tools</i>		460	440	500	500	-	-				1,900	1,900
<i>Enterprise Business Intelligence Implementation</i>	1,698	1,715	1,585								4,998	4,998
<i>Enterprise Collaboration Foundation</i>	607	2,001	1,147	523							4,278	6,456
<i>Enterprise eLearning HR</i>	646										646	2,800
<i>Enterprise Mobility Platform</i>	750	930									1,680	1,750
<i>eRecruitment</i>	1,470	1,135									2,605	5,496
<i>eTime Enterprise Rollout</i>	1,441	1,441									2,882	2,882
<i>HR Electronic Skills Solution</i>	87										87	550
<i>I&T PPM Solution (Cloud) Implementation</i>		500		1,156							1,656	1,476
<i>MLS Centralized Datamart</i>	1,065										1,065	4,045
<i>MLS Modernization-Phase 2</i>	2,972	4,629	2,489								10,090	11,509
<i>Occupation Health & Safety App</i>	600	762									1,362	1,478
<i>OnLine Portal Services for City Planning</i>	1,350	480									1,830	1,630
<i>Open Data Master Plan Implementation</i>	707	1,036	1,036								2,779	2,779
<i>Open Data Visualization</i>	206										206	700
<i>Review and Improve Document Management Capabilitie</i>	200										200	400
<i>S DFA- Online Grant Management System</i>	230	50									280	280
<i>TOP - Online Donation Application</i>	389	201									590	590
<i>Toronto Building-CRM-Enhanced Compliant Management</i>	347	775									1,122	1,122
<i>Work Mgmt Solution-Transportation</i>	657	3,709	4,835	3,094	2,062	340	340	226			15,263	19,417
<i>Workflow Automation & Tracking</i>	104										104	850
<i>Workforce (HR) Business Intelligence</i>	753										753	3,193
Sub-Total	18,564	21,503	12,294	5,733	3,162	740	740	226			62,962	88,818
Growth Related												
<i>Application Portfolio Tools & Rationalization</i>	500										500	1,800
<i>Consolidated Data Centre</i>	1,500	3,534									5,034	13,600
<i>Data Center Scope Change</i>	2,605	2,548									5,153	5,153
<i>Data Centre Zones Implementation</i>		100	166	1,000							1,266	1,266
<i>eCity Program Renewal</i>	459	311	316								1,086	1,540
<i>Enterprise Architecture</i>	1,000	500	500	500	500	500	500	500	500	500	5,500	8,252
<i>Enterprise Information Security Pgm</i>	400	400	400	400	400	400					2,400	400
<i>Enterprise Solutions Design & Implementation</i>		564			4,500	5,210	7,510	5,500	5,500	5,500	34,284	34,284
<i>IT Planning & Mgmt Transformation Tools</i>					888	900	1,000	2,500	2,500	2,500	10,288	10,288
<i>IT Service Process Improvement Program</i>	653	665	678								1,996	2,637
<i>Major Cap Infrastructure Project Coord. (TOINView)</i>	525	425									950	175
<i>Technology Infrastructure Growth</i>				75	5,000	8,000	6,000	8,074	8,300	8,300	43,749	43,749
<i>WAN High Speed Fibre Data Services</i>	200	250									450	833
Sub-Total	7,842	9,297	2,060	1,975	11,288	15,010	15,010	16,574	16,800	16,800	112,656	123,977
Total Expenditures by Category (excluding carry forward)	58,518	57,318	47,360	32,980	32,700	38,337	34,181	46,203	37,950	35,430	420,977	499,439

2018 - 2027 Capital Projects

The 10-Year Preliminary Capital Plan supports Information & Technology's objectives to provide and develop City-wide enterprise and divisional business I&T applications, along with an integrated and secure I&T infrastructure, in support of dependable services to City Programs and the Public.

Maintaining the City's technology network, application systems and technology infrastructure in a state of good repair and delivering key multi-year initiatives such as the Consolidated Data Centre, Business Continuity and Disaster Recovery, Enterprise Business Intelligence Implementation, Open Data Master Plan Implementation and the Enterprise Document and Records Management System drive City business transformation and modernization initiatives to meet City business objectives, gain service efficiencies and improve customer experience associated with the delivery City Programs and Services.

Legislated

- Legislated projects total \$4.151 million of the total 10-Year Preliminary Capital Plan's expenditures.
 - *AODA Compliance for City Applications* – New funding of \$4.151 million is required to ensure City applications are compliant with the Accessibility for Ontarians with Disabilities Act (AODA) which requires that public facing websites, content, and applications are compliant by 2021.

State of Good Repair (SOGR)

- SOGR projects account for \$241.208 million or 57.47% of the total 10-Year Preliminary Capital Plan's investments.
- The 10-Year Preliminary Capital Plan incorporates new investment dedicated to various SOGR project groupings that focus on required capital maintenance, including:
 - *Asset Lifecycle Management (\$206.843 million)* – Funding is included for I&T to upgrade/replace I&T infrastructure components to maintain state of good repair and to ensure compatibility with City applications and enterprise software. This will confirm all software is in line with corporate standards and includes licensing requirements of in-scope infrastructure requirements;
 - *Technology Infrastructure (\$5.738 million)*: – Funding includes \$3.133 million to review, assess and replace the legacy file management system in keeping with current technology standards and practices;
 - *Application Systems (\$6.479 million)* – Key subprojects include upgrades, rationalization and replacement of key I&T service delivery and management tools;
 - *Network Upgrade (\$8.110 million)* – The majority of funding is allocated to completing the Disaster Recovery capital project to implement the required hardware and software to ensure continuity of City services in the event of outages.
 - *Integrated Business Management System Review and Transformation (\$7.088 million)* – is required to assess and plan the upgrade or replacement of the current system which is at end-of-life and vendor support ended in 2014.

Service Improvements

- Service Improvement projects amount to \$62.962 million or 15.0% of the total 10-Year Preliminary Capital Plan's spending.
 - *Enterprise Collaboration Foundation, (\$4.278 million)* – Funding is provided to establish modern tools to promote communication, collaboration and information sharing between City employees and the public.

- *Work Management Solution - Transportation Services (\$15.263 million)* – Funding is provided to improve service delivery and management of work requests for Transportation Services as part of a cross-division enterprise work management program.
- *Municipal Licensing Services (MLS) Modernization Phase 2 (\$10.090 million)* – Funding is provided to implement a modern automated business, property, animal and service licences/permits system to support associated inspection, investigation and enforcement activities.

Growth Related

- Growth Related projects total \$112.656 or 26.8% of the total 10-Year Capital Plan's expenditures. Growth related projects are associated adding enhancements or capabilities to divisional or enterprise applications and the growing adoption of technology systems to support City Programs and Services and include:
 - *IT Planning & Management Transformation Tools (\$10.288 million)* – In order sustain growth and keep up to pace with the rapidly changing demands and expectations for information and services, City of Toronto needs to develop new solutions and provide new technologies and migrate from slower and outdated systems.
 - *Enterprise Solution Design & Implementation (\$34.284 million)* – Funding required to enable future enhancements and developments to the City's business application systems to meet growing demand from City Programs and Services. This project will also include the development of an enterprise solutions delivery management framework that will provide guidelines, policies, standards, methodology and processes to ensure the effective sustainment and operation of the City's business systems.
 - *Technology Infrastructure Growth (\$43.749 million)* – Funding is required for changing technology, improving and taking advantage of new capabilities to keep current with industry standards. Other key sub-projects include replacement of legacy file management services and implementing new security design for the data centre IT infrastructure

2018 Preliminary Capital Budget and Future Year Commitments

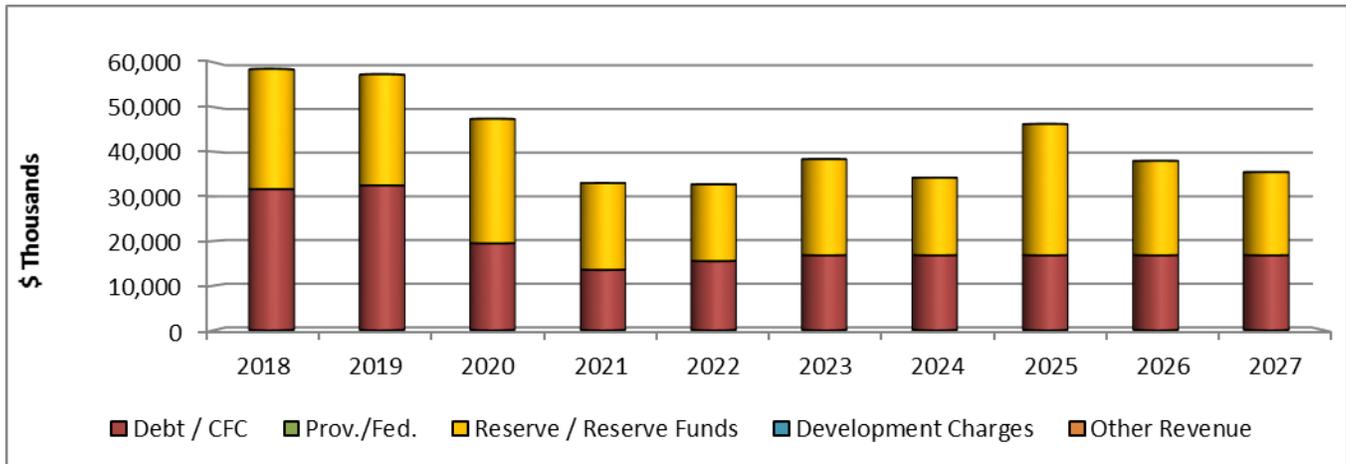
Included as a sub-set of the 10-Year Capital Plan is the 2018 Preliminary Capital Budget and Future Year Commitments, that consists of 2018 and future year cash flow funding estimates for projects previously approved by Council; adjustments (Scope Change) to those previously approved projects; as well as new projects which collectively, require Council approval to begin, continue or complete capital work.

Table 3a below lists the capital projects to be funded by the 2018 Preliminary Capital Budget and associated Future Year Commitments for Information & Technology:

Table 3a
2018 Cash Flow & Future Year Commitments (In \$000s)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total 2018 Cash Flow & FY Commits
Expenditures:											
Previously Approved											
Application Portfolio Tools & Rationalization	500	650									1,150
Asset Management Solution - Transportation	835										835
Capital Portfolio Resource Requirements	1,775	974									2,749
Consolidated Data Centre	1,500										1,500
Data Center Scope Change	2,605	2,548									5,153
Directory Services Transition-Design	150										150
Disaster Recovery	1,180										1,180
Domino Decommissioning Strat & Implementation	620										620
eCity Program Renewal	459	311	316								1,086
ECS Capital Project and Program Management Process	200										200
ENT Portfolio MGMT Tools-Phase 2	150										150
Enterprise Architecture	1,000										1,000
Enterprise Collaboration Foundation	607	2,001	1,147	523							4,278
Enterprise Information Security Pgm	400										400
Enterprise Solution Delivery Management Framework	766										766
HR Electronic Skills Solution	87										87
Integrated Business Mgmt System - Review and Trans	500										500
IT Risk Mgmt Framework	660	660									1,320
IT Service Process Improvement Program	653	665	678								1,996
Asset Lifecycle Management	18,361										18,361
MLS Centralized Datamart	462										462
Open Data Visualization	206										206
Quality Assurance Testing Software Supgrade	500										500
Review and Improve Document Management Capabilitie	200										200
Work Mgmt Solution-Transportation	657	2,213									2,870
Workflow Automation & Tracking	104										104
Workforce (HR) Business Intelligence	753										753
Subtotal	35,890	10,022	2,141	523							48,576
Change in Scope											
Application Portfolio T&R Scope Change		(650)									(650)
Consolidated Data Centre Scope Change		3,534									3,534
MLS Centralized Datamart Scope Change	603										603
Work Mgmt Solution-Transportation Scope Change		1,496	4,835	3,094	2,062	340	340	226			12,393
Subtotal	603	4,380	4,835	3,094	2,062	340	340	226			15,880
New w/Future Year											
AODA Compliance for City Applications	1,383	1,384	1,384								4,151
Business Applications Service Monitoring	150	150	150	250							700
Business Continuity	500										500
Business Sys Improvements - ECS Phase 2	530										530
Capital Project Planning Sys Enhancements	570										570
Directory Services - Implementation	800	1,000	183	1,000							2,983
DLAN Cloud Services Implementation	165										165
Enterprise Business Intelligence Implementation	1,698	1,715	1,585								4,998
Enterprise eLearning HR	646										646
Enterprise Mobility Platform	750	930									1,680
eRecruitment	1,470	1,135									2,605
eTime Enterprise Rollout	1,441	1,441									2,882
File Services Migration	455	640	170	40							1,305
Geospatial Tool Enhancements	250	295									545
IBMS Review & Transformation	1,967	1,708	2,534								6,209
I&T PPM Solution (Cloud) Implementation		500		1,156							1,656
Major Cap Infrastructure Project Coord. (TOINView)	525	425									950
MLS Modernization-Phase 2	2,972	4,629	2,489								10,090
Occupation Health & Safety App	600	762									1,362
OnLine Portal Services for City Planning	1,350	480									1,830
Open Data Master Plan Implementation	707	1,036	1,036								2,779
SAP Solution Manager v7.2 Upgrade (SOGR)	1,330										1,330
SDFA- Online Grant Management System	230	50									280
TEMS Replacement-Design	150	450									600
TOP - Online Donation Application	389	201									590
Toronto Building-CRM-Enhanced Compliant Management	347	775									1,122
WAN High Speed Fibre Data Services	200	250									450
Wellbeing Toronto	450										450
Subtotal	22,025	19,956	9,531	2,446							53,958
Total Expenditure	58,518	34,358	16,507	6,063	2,062	340	340	226			118,414
Financing:											
Debt/CFC	31,616	26,666	15,156	6,063	2,062	340	340	226			82,469
Reserves/Res Funds	26,902	7,692	1,351								35,945
Total Financing	58,518	34,358	16,507	6,063	2,062	340	340	226			118,414

Chart 3
2018 – 2027 Preliminary Capital Plan by Funding Source (In \$000s)



The 10-Year Preliminary Capital Plan of \$420.977 million will be financed by the following sources:

- Debt accounts for \$196.550 million or 46.7% of the financing over the 10-year period.
 - The debt funding exceeds the 10-year debt affordability guidelines of \$182.508 million by \$14.042 million as key capital priorities that were identified as necessary to address Citywide Program and Service requirements were included in the 10-year Preliminary Capital Plan. Debt funded projects have been categorized as:
 - Technology Infrastructure (\$60.163 million);
 - Application Systems and Business Sustainment (\$80.332 million); and
 - Corporate Initiatives (\$56.055 million).
- Reserve and Reserve Funds provide \$224.427 million or 53.5% of required funding over 10 years for the following major projects:
 - \$206.843 million for Asset Lifecycle Management; and
 - \$8.887 million for Data Centre Projects.

State of Good Repair (SOGR)

The City has established a well-defined Lifecycle Management plan for I&T assets, prioritized by program needs, to replace equipment before end of life. Cash Flow funding of \$206.843 million is allocated for the lifecycle replacement and refresh of I&T assets including software and hardware including servers, storage, network and desktops/notebooks. Currently, there is no backlog for these core I&T assets as there are sufficient funds in the next two years to replace/refresh these assets at the end of the respective lifecycles. As noted in the Issues for Discussion section, steps need to be taken to ensure the adequacy of the I&T Sustainment Equipment Reserve beyond 2020.

10-Year Capital Plan: Net Operating Budget Impact

Table 5
Net Operating Impact Summary (In \$000s)

Projects	2018 Budget		2019 Plan		2020 Plan		2021 Plan		2022 Plan		2018 - 2022		2018 - 2027	
	\$000s	Position	\$000s	Position	\$000s	Position	\$000s	Position	\$000s	Position	\$000s	Position	\$000s	Position
Previously Approved														
<i>Enterprise Collaboration Foundation</i>	140.9	1.0	3.7		3.7						148.3	1.0	148.3	1.0
<i>Web Revitalization Project</i>	251.5	2.0	8.6		7.2						267.2	2.0	267.2	2.0
<i>Cross Application Time Sheet (CATS) / Time, Attendance & Scheduling System (TASS)</i>	111.8		19.4		2.6						133.8	-	133.8	-
<i>Cloud Gateway Foundation Project</i>	26.0										26.0	-	26.0	-
<i>Access Anywhere (Employee WIFI Foundation)</i>	62.2		59.8								122.0	-	122.0	-
<i>Disaster Recovery Program (DRP)</i>	20.1										20.1	-	20.1	-
<i>Directory Services Transition Project</i>	19.0										19.0	-	19.0	-
Total (Net)	631.5	3.0	91.4	-	13.5	-	-	-	-	-	736.4	3.0	736.4	3.0

The 10-Year Preliminary Capital Plan will increase future year Operating Budgets by a total of \$0.736 million net over the 2018 - 2027 period, as shown in the table above.

This is comprised of the funding to sustain the following capital projects:

- *Enterprise Collaboration Foundation* – One (1) permanent support position is required to support Office 365 and its related applications and the integration with City infrastructure and services.
- *Web Revitalization Project* – As the project enters into its second phase to implement a new City of Toronto external website that uses different technologies than the current external website, two (2) permanent staff resources are required to develop and integrate content using the new web content management system and provide ongoing support to meet the City's legislated mandate of the AODA requirements and web content accessibility guidelines.
- *Cross Application Time Sheet - Time, Attendance & Scheduling (CATS/TASS)* – Additional funding is required for the maintenance and support of the additional software licences purchased by Toronto Paramedics Services to support their use of the Time, Attendance & Scheduling System.
- *Cloud Gateway Foundation Project* – Additional funding represents the annual maintenance and support costs related to the Internet Security Infrastructure that was put in place as part of the Cloud Gateway Foundation project to enable network connectivity to Cloud service providers.
- *Access Anywhere (Employee WIFI Foundation)* – The Access Anywhere project, to enable Employee Wi-Fi access at multiple City locations, includes the purchase of additional network and security infrastructure (Wireless Controllers, Wireless Access Points, Network Switches, Authentication appliances, etc.). The additional funding is for the annual software/hardware maintenance costs related to the project's infrastructure.
- *Disaster Recovery Program (DRP)* – Additional funding is required for maintenance & support costs related to the additional I&T infrastructure put in place in the disaster recovery data centre.
- *Directory Services Transition Project* – Additional funding is required for the annual maintenance support cost for the new Hardware Security Module (HSM) that was acquired for the Directory Services Transition project.

These future operating impacts will be reviewed each year as part of the annual Operating Budget process.

Table 6
Capital Project Delivery: New Temporary Positions

Position Title	CAPTOR Project Number	# of Positions	Project Delivery		Salary and Benefits \$ Amount(\$000s)						
			Start Date	End Date (m/d/yr)	2018	2019	2020	2021	2022	2023 - 2027	
Client Support, Advice & Consultation	ITP906881	1.0	Q1 2018	Q4 2018	125.0						
Total		1.0			125.0	-	-	-	-	-	-

Approval of the 2018 - 2027 Capital Budget and Capital Budget will require 1.0 temporary capital position to be added to Information & Technology's Approved Staff Complement.

- The new temporary position will continue to the end of 2018 to provide service for the implementation of the *Toronto Water Geometric Network* project, a new utility model leveraging the existing Geospatial Platform and to additionally provide operational support and technology sustainment for the Geometric Network.

It is recommended that Council approve this new 1.0 temporary capital position for the delivery of the above capital projects / sub-projects and that the duration for this temporary position not exceed the life of the funding of its respective capital projects / sub-projects.



Part 2

Issues for Discussion

Issues Impacting the 2018 Capital Budget

Review of Capital Projects and Spending

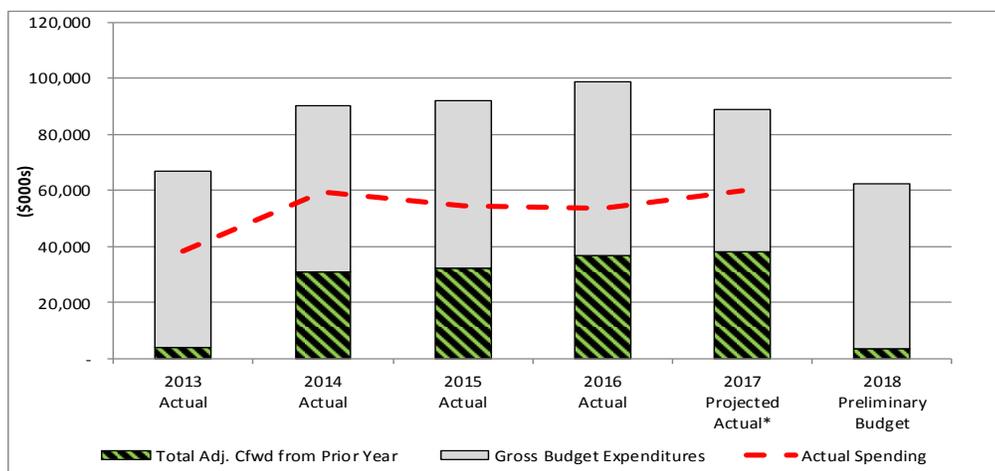
- City Council, at its meeting of May 25, 2017 considered the report entitled "2018 Budget Process – Budget Directions and Schedule EX25.18" and directed that City Programs and Agencies submit their 2018 – 2027 Capital Budget and Plans requiring that:
 - Annual cash flow funding estimates be examined to more realistically match cash flow spending to project activities and timing, especially in the first 5 years of the Capital Plan's timeframe. <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.EX25.18>
- The 2018 – 2027 Preliminary Capital Budget and Plan for Information & Technology (I&T) has been established following a review of capital requirements based on the reprioritization of capital needs; a review of the Program's spending capacity and the readiness to proceed of planned projects; as well as the ability to reduce overall debt funding and/or leverage non-debt funding sources.
 - I&T had an average annual spending rate over the past five years 2012 – 2016 of 58.5%, inclusive of large-scale, multi-year major capital programs such as the Asset Lifecycle Management program. Average spending rates over this period for SOGR projects has been 65.7%.
 - Following the review and prioritization of capital projects, the need of carry forward funding for 2018 (\$3.744 million) was reduced compared to the carry forward that was required in 2017 (\$38.358 million).
- The following tables illustrates I&T's rate of spending from 2012 to 2016 as well as the projected year end spending rate for 2017.

**Table 7
Capital Spending Rates (In \$000s)**

Category	2012			2013			2014			2015			2016			Spending Rate 5 Year 2012-2016	2017		
	Budget	Actual	Spending Rate %		Budget	Projected Actual *	Spending Rate %												
Health & Safety Legislated																			
SOGR	47,696	24,579	51.5%	51,934	31,681	61.0%	52,026	43,225	83.1%	37,272	26,008	69.8%	36,877	22,771	61.7%	65.7%	33,275	25,036	75.2%
Service Improvement	10,492	7,489	71.4%	14,939	6,588	44.1%	38,394	16,055	41.8%	54,591	28,391	52.0%	61,810	30,735	49.7%	49.5%	48,637	30,553	62.8%
Growth Related																	6,968	4,273	61.3%
Total	58,188	32,068	55.1%	66,873	38,269	57.2%	90,420	59,280	65.6%	91,863	54,399	59.2%	98,687	53,506	54.2%	58.5%	88,880	59,862	67.4%

* 2017 Projection based on the 2017 Q3 Capital Variance Report

**Chart 5
Capacity to Spend – Budget vs. Actual
(In \$000s)**



Note - Projection based on the 2017 Q3 Capital Variance Report

- Factors contributing to the average 58.5% spend rate over the past five years include:
 - Projects included in the City's I&T Capital Plan are transformational in nature, involving staff resources within I&T and from other City Programs and often involve significant changes to current business processes that require time to implement successfully. These factors make it difficult to accurately estimate the duration needed to deliver projects.
 - The demand for technology solutions is increasing within the City as Programs increasingly seek service efficiencies and modernization. The resource complement in I&T has not kept up with this pace. Although recruitment strategies are underway, it will take some time before the I&T division reaches adequate staffing with the necessary skillsets for emerging technologies. In addition, the City is competing with many other organizations (public and private) for speciality skilled staff to implement and deliver large complex projects.
- The I&T Division is currently implementing a number of initiatives and priority actions to improve capital spending rates in 2017. These actions include:
 - Establishment of the Integrated IT Portfolio Plan in which projects are reviewed for readiness, dependencies, capacity to deliver and historical spending. Cash flow funding is adjusted for many projects, including some being deferred or cancelled, to better align with expected delivery of projects.
 - Growing the Project Management Office, including recruitment of staff with the required skill set, to improve planning, procurement and overall coordination of capital project delivery across the IT Capital portfolio.
- The trend to improve spending is expected to increase annually over the next 3 years, attributable to improved project management controls, project resourcing, and I&T planning and governance processes.

2018 - 2027 Preliminary Capital Plan vs Debt Targets

- The Program's 2018 Preliminary Capital Budget and 2019 - 2027 Preliminary Capital Plan is above the debt target over the 10 years. As noted, I&T is enabling City business transformation, modernization and innovation initiatives. These investments are essential to improve customer experience and gain service efficiencies and are reflected in 2018 through 2020 as follows:

(\$000s)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
2018 - 2027 Preliminary Capital Plan	58,518	57,318	47,360	32,980	32,700	38,337	34,181	46,203	37,950	35,430	420,977
Debt Funding Required	31,616	32,428	19,466	13,540	15,500	16,800	16,800	16,800	16,800	16,800	196,550
Program Debt Target	31,376	20,986	15,146	15,500	15,500	16,800	16,800	16,800	16,800	16,800	182,508
Over/(Under) Debt Target	240	11,442	4,320	(1,960)	-	-	-	-	-	-	14,042

- Maximizing the I&T delivery capabilities by revising cash flows and resource plans for existing projects based on updated delivery schedules enabled reallocation of available funds and resources to projects that were previously excluded from the Capital Plan, due to a lack of funding and/or insufficient resources, such as the Social Development, Finance and Administration-Online Grant Management System project.

Reporting on Existing Major Capital Projects: Status Update

In compliance with the Auditor General's recommendations to strengthen accountability, additional status reporting on all major capital projects is required in order to strengthen accountability, manage risks, improve controls and ensure successful implementation/completion of major capital projects. The following projects have been reporting on a quarterly basis during 2017:

The Disaster Recovery Project

(\$000s) Total Project Cost			2017		2018	2019	Projection to End of Project	Completion Date		On Budget	On Time
Initial Approved Date	Approved	Life to Date Expenditures as at Dec 31, 2016	Budget	Year-End Projection*	Preliminary Budget	Plan		Approved	Projected		
2013	36,432	14,913	2,129	1,507	1,180	1,180	36,432	2024	2024	Ⓜ	Ⓢ

* Based on 2017 Q3 Capital Variance Report

On/Ahead of Schedule	Ⓢ	>70% of Approved Project Cost
Minor Delay < 6 months	Ⓜ	Between 50% and 70%
Significant Delay > 6 months	Ⓡ	< 50% or > 100% of Approved Project Cost

Project Scope:

- The *Disaster Recovery Project* is part of a business risk mitigation strategy to develop and maintain a harmonized Disaster Recovery and Business Continuity program for the City that ensures continuity of operations and service delivery to the public in the event of an unexpected outage of either business processes or associated information technology.
 - To date, I&T Business Continuity/Disaster Recovery Governance Committee established and implemented recovery requirements collected from the business divisions during the business impact analysis (BIA) workshops which will be used to evaluate disaster recovery strategies.
 - In 2017, the project was being reassessed to include establishing a governance framework, reviewing the DR strategy, and developing a 3 year work plan and re-scoped to be more integrated with the Consolidated Data Centre project.

Financial Update:

- As of December 31, 2016, total cumulative expenses since the inception of the project was \$14.913 million (including the Information & Technology costs) with an additional \$1.507 million projected to be spent by the end of 2017.
- The 2018 Preliminary Capital Plan includes \$1.180 million in 2018 and 2019; and \$1.050 million in years 2020 through 2024, reflecting the balance of the funds required for the project's total cost of \$36.432 million. The project is expected to be on budget.

The Consolidated Data Centre Project

(\$000s) Total Project Cost			2017		2018	2019	Projection to End of Project	Completion Date		On Budget	On Time
Initial Approved Date	Approved	Life to Date Expenditures as at Dec 31, 2016	Budget	Year-End Projection*	Preliminary Budget	Plan		Approved	Projected		
2014	13,600	7,445	2,345	900	1,500	3,534	13,379	2019	2019	Ⓜ	Ⓜ

* Based on 2017 Q3 Capital Variance Report

On/Ahead of Schedule	Ⓢ	>70% of Approved Project Cost
Minor Delay < 6 months	Ⓜ	Between 50% and 70%
Significant Delay > 6 months	Ⓡ	< 50% or > 100% of Approved Project Cost

Project Scope:

- The *Consolidated Data Centre Project* is a corporate project that was initiated to address the growing demand for new technologies, eliminate the dependency on leased data centre space, and improve the resiliency of the City's current infrastructure. Shared Services introduced the opportunity to evaluate provisioning for Agency and Corporation data centre consolidation and/or offloading of excess capacity to a City-managed site. The current data centres have been at capacity for years, due to the steady growth in the number of software applications and amount of data stored by City divisions. I&T has accommodated this growth by expanding into the data centre shared with Toronto Water as well as entering into a co-location lease at a third party data centre facility.

- The Data Centre project will define and implement a data centre strategy to migrate and consolidate these multiple data centres that currently exist in the City and are at full capacity together with other City Agencies and Corporations.
- With feasibility studies completed in 2016, the detailed design phase has begun and is expected to provide revisions to the project scope and cost estimate.

Project Challenges

- The project is experiencing some delays and budget pressures. This is due to additional costs identified during the detailed engineering reviews as well as IT Shared Services considerations. Together these resulted in additional time and effort needed to consider additional requirements to incorporate improved redundancy and automation which led to lower expenditures in 2017 and deferred spending to 2018. Detailed architectural, mechanical and engineering design is expected to be completed by Q1 2018.

Financial Update:

- As of December 31, 2016, total cumulative expenses incurred since the inception of the project was \$7.445 million (including the Information & Technology costs) with an additional \$0.900 million projected to be spent by the end of 2017.
- Cash flow funding is provided for 2018 (\$1.500 million) and 2019 (\$3.534 million), with a total projected cost of \$13.379 million.

The Work Management Solution Project

(\$000s)	(\$000s) Total Project Cost			2017		2018	2019	Projection to End of Project	Completion Date		On Budget	On Time
	Initial Approved Date	Approved	Life to Date Expenditures as at Dec 31, 2016	Budget	Year-End Projection*	Preliminary Budget	Plan		Approved	Projected		
Major Capital Project Name	2013	7,024	1,716	4,570	942	657	3,709	7,024	2025	2025	Ⓢ	Ⓢ
<i>Work Mgmt Solution-Transportation</i>												

* Based on 2017 Q3 Capital Variance Report

(768)

- On/Ahead of Schedule  >70% of Approved Project Cost
- Minor Delay < 6 months  Between 50% and 70%
- Significant Delay > 6 months  < 50% or > 100% of Approved Project Cost

Project Scope:

- The *Enterprise Work Management Program* is a multi-year program to implement a City-wide Work Management System to improve the maintenance and service delivery operations for 4 major divisions: Transportation Services, Toronto Water, Solid Waste Management and Parks, Forestry & Recreation.
 - The project has experienced significant delays during the procurement stage, however, a vendor has been engaged and began work in Q2 2017.

Financial Update:

- As of December 31, 2016, total cumulative expenses since the inception of the project was \$1.716 million (including the Information & Technology costs) with an additional \$0.942 million projected to be spent by the end of 2017.
- Cash flow funding for 2018 is \$0.657 million and \$3.709 million in 2019, with a total projected cost of \$7,024 million. The project is being reviewed to include other partnering Divisions. The total project cost will be revised once the project team assess the impact of the scope change.

The Enterprise Time, Attendance & Scheduling Management Solution Project

(\$000s) Total Project Cost			2017		2018	2019	Projection to End of Project	Completion Date		On Budget	On Time
Initial Approved Date	Approved	Life to Date Expenditures as at Dec 31, 2016	Budget	Year-End Projection*	Preliminary Budget	Plan		Approved	Projected		
2014	14,955	12,552	2,405	2,403	-	-	14,955	2017	2017	Ⓞ	Ⓞ

* Based on 2017 Q3 Capital Variance Report

On/Ahead of Schedule	Ⓞ	>70% of Approved Project Cost
Minor Delay < 6 months	Ⓜ	Between 50% and 70%
Significant Delay > 6 months	Ⓡ	< 50% or > 100% of Approved Project Cost

Project Scope:

- The *Enterprise Time, Attendance & Scheduling Management Solution Project* is an enterprise-wide time, attendance and scheduling system that addresses the City's complex business rules and collective agreement requirements, and replaces current outdated and inefficient application. The solution will provide a single point of integration with the enterprise attendance management system and will be first rolled out to meet the urgent needs for Toronto Paramedic Services (TPS) and Parks, Forestry and Recreation (PF&R) to manage their complex time, attendance and scheduling requirements.
 - The project was implemented for PF&R in 2016 and TPS in 2017. Post-implementation stabilization and change management issues are being addressed to mitigate user and operational impacts.

Financial Update:

- As of December 31, 2016, total cumulative expenses since the inception of the project was \$12.552 million (including the Information & Technology costs) with an additional \$2.405 million projected to be spent by the end of 2017. The total projected cost is \$7.024 million.

The Web Revitalization: Web Refresh Project

(\$000s) Total Project Cost			2017		2018	2019	Projection to End of Project	Completion Date		On Budget	On Time
Initial Approved Date	Approved	Life to Date Expenditures as at Dec 31, 2016	Budget	Year-End Projection*	Preliminary Budget	Plan		Approved	Projected		
2014	15,600	10,283	5,107	4,600			14,883	2017	2017	Ⓞ	Ⓞ

* Based on 2017 Q3 Capital Variance Report

On/Ahead of Schedule	Ⓞ	>70% of Approved Project Cost
Minor Delay < 6 months	Ⓜ	Between 50% and 70%
Significant Delay > 6 months	Ⓡ	< 50% or > 100% of Approved Project Cost

Project Scope:

- With the completion of Phase 1, The *Web Revitalization Phase 2 Project* will continue to revitalize the look and feel to enable client-centric accessible information and services to improve customer service and overall public user experience in accessing their City.
 - Phase 2 included a re-assessment of the platform, tools and architecture used to host the site in addition to reconstruction of services to deliver a modern, citizen and service oriented website.
 - The new Web Content Management application and search tool was implemented Q2 2017. The analytics tool is scheduled for Q4 2017. Final service themes and web site are expected to be launched mid-December.

Financial Update:

- As of December 31, 2016, total cumulative expenses incurred since the inception of the project was \$10.283 million (including the Information & Technology costs) with an additional \$4.600 million projected to be spent by the end of 2017. The total projected cost is \$14.883 million.

Issues Impacting the 10-Year Capital Plan

2018 – 2027 I&T Portfolio Integrated Plan

Strategic Decision Making:

- In order to move optimal investments in technology without impeding the foundational and transformational programs, the Information and Technology Division must account for its limited resource capacity. Through the application of Corporate and I&T Governance, fact-based decisions can be made to identify and review projects of low value and performance.
- In 2017, there was considerable effort undertaken to review newly proposed projects as part of the I&T Portfolio Integrated Planning process in parallel with assessing active projects underway. This involved significant engagement and collaboration between Information & Technology and City Programs and Financial Planning.
- The I&T governance process needs to continue to enable strategic investment agility to address project value and portfolio health. Ultimately effective and integrated solutions will require focus on high value investments.

Key Drivers for the I&T Portfolio

- The 2018-2027 I&T Portfolio is influenced by three drivers that are common to all City Programs: 1) the eCity Strategy and Programs, 2) the City's financial state, and 3) key initiatives and priorities identified by the Mayor and Council.
 - The I&T Governance Committees kept these drivers in mind as they reviewed, assessed, and approved projects as part of the 2018 I&T Capital Budget process.
- eCity Strategy and Programs
 - The eCity Strategy was approved in 2014 and is the City's corporate strategy for transforming service delivery through better use of I&T. The eCity Programs are aligned with the City's Strategic Actions. Its overarching goals are to improve in four key areas:
 - Access to government services and the City's Strategic Actions
 - Decision-making support
 - Workforce capabilities, and
 - Business processes.
 - The execution of the strategy is dependent upon eCity programs. Each eCity program has a vision, a mandate, and a 5-year roadmap that has been jointly developed by business and I&T. The programs were a key input to the 2018 Budget process as all projects were reviewed based on three guiding principles to ensure each new initiative or existing project was:
 - Aligned to eCity strategic goals and programs
 - Coordinated and integrated to deliver a seamless experience for the public or employees
 - Not duplicated or generating redundancies across solutions/platforms
- City's Financial State
 - In May 2016, a staff report was issued that addressed the City's long-term financial direction. The analysis focused on the overall (gross) expenses and revenues. The report confirmed two key influencers: notable expense challenges and slow revenue growth.
 - With these facts in mind, projects that identified significant efficiencies, revenue generation opportunities and modernization outcomes were given higher priority and included in the 2018-2027 I&T Portfolio.

- Key Initiatives and Priorities
 - In addition to the eCity Strategy and its supporting programs, some I&T initiatives are key priorities. Although these initiatives have high visibility and come with high costs, they also come with transformational opportunities for the City. Most notably projects noted below articulated urgency and were given a higher priority:
 - Enterprise Work and Asset Management Solution,
 - Electronic Documents and Records Management Solution,
 - Enterprise Collaboration,
 - Web Revitalization Phase 2,
 - Supply Chain Management,
 - Financial Planning Analysis and Reporting System (FPARS),
 - Consolidated Data Centre,
 - Business Continuity and Disaster Recover, and
 - eTime (Time, Attendance and Scheduling System).

Process to Develop the I&T Portfolio

- As part of the annual budget process, City Programs identify their I&T requirements and submit business cases to I&T Portfolio as a first step to securing capital funding for their initiatives. To ensure consistency, fairness, and transparency across divisions, the process in 2017 for business case submission was aligned to the annual I&T Capital Budget policy and with guidelines published by the Financial Planning Division.

The *I&T Project Review and Approval Process* sequences events that start with business case submission to the I&T Strategy & Portfolio Management office. Ultimately this proceeds through approval committees that assess the 2018-2027 I&T Portfolio composition and prepare recommendations for the Business Executive Committee (BEC) to endorse. BEC is comprised of the City Manager, the City Clerk, the Deputy City Managers, Executive Director Financial Planning and the Chief Information Officer (CIO).

- Divisional prioritization of I&T requirements was conducted in advance of the budget cycle to help manage the I&T demand and focus on high priority investments.
- Processes saw improved quality of business cases that clearly articulated the value of their investment. All new project submissions were required to submit a quantified cost benefit analysis.
- Coordination and alignment with Financial Planning at each step of the review and approval process resulted in a more integrated process.
- Critical review of in-flight I&T projects was executed to ensure the City's existing investments have clear value, are performing well and are set up for success.
- There was active participation of governance committees (Project Review Team (PRT) and the Strategy and Portfolio Review Committee (SPRC) to review new and in-flight projects based on the following criteria:
 - New Projects were reviewed and resulted in one of the following outcomes:
 - ✓ Tier 1 projects were approved to start in 2018 that demonstrated one of the following criteria:
 - "Must Do" projects that represent high urgency due to council/mayor priority or mandatory state of good repair
 - "High Value" projects with quantifiable benefits, high benefits: cost ratio, and that are public facing
 - "Quick Win" projects with short duration, low cost, and quantifiable benefit

- ✓ Tier 2 projects that demonstrated one or more of the following criteria were deferred to future years:
 - No urgency to start in 2018;
 - Benefits were not clear or quantified;
 - Benefits were not proportionate to cost or relatively lower value than Tier 1;
 - Not ready to start in 2018 (e.g. due to dependencies);
 - Overlap with other in-flight projects; and
 - Existing systems in place or having considerable investment to date
- A shortlist of active projects was reviewed and resulted in one of the following outcomes based on the project's cost-benefit analysis and performance:
 - ✓ Proceed – Projects able to clearly articulate value and performance were approved to continue in 2018.
 - ✓ Reduce the Budget – Projects underspent or with benefits that are disproportionate to budget were approved to continue subject to reducing their 2018 budgets and continuing to improve performance.
 - ✓ Defer – Projects with unclear urgency / value and showing no significant progress were deferred to future years with an action to refine their cost-benefit analysis and resubmit the business case as required.
 - ✓ Cancel – Projects with unclear urgency / value, poor performance and/or overlap with other projects were cancelled and asked to resubmit a new project business case if required.

Funding Model for Cloud Solutions

- *Preparing for the Shift to Operating from Capital to Operating Costs:*
 - The delivery of I&T solutions is steadily moving to new enterprise-wide cloud based solutions through subscriptions vs. traditional on premise licensing models. These cloud solutions require lower capital investment but result in higher operating costs.
 - The sustainment costs for these investments (licenses, maintenance and support costs) have primarily flowed through the I&T Operating Budget while the benefits derived are primarily being realized by the City Programs. These factors are eroding I&T's sustainment capacity and ability to absorb incremental and growing costs of technology implementation.
 - As the costs associated with cloud based solutions will be funded by the Operating Budget, the City needs to establish a new funding model for cloud services.
 - The Business Executive Committee has approved a framework that utilizes a Non-Program budget during an initial period of the subscription services to allow time for City Programs to realize benefits. Once the benefits start to become realized, the Programs operating budget will be adjusted accordingly, on an equitable basis.
 - The funding model focuses on supporting corporate strategic modernization objectives and helps address Program's budget constraints during the benefit realization period.
 - The Cloud funding framework will produce the following results:
 - Reduced financial pressure on Capital funds;

- Opportunity to leverage Cloud-based technology for renewal roadmap and meet current/future business needs across the corporation;
- Enable City to achieve strategic goals; and
- Require quantification of business benefits in business case development, project plan and project implementation and forces a framework to capture, realize and report the benefits.

Secure, Agile and Accelerated I&T Delivery Model

- *Increasing Cyber-Security complexity:*
 - The demands to ensure a secure and protected City I&T infrastructure and availability of City systems to ensure City Program and service delivery for citizens, businesses and visitors, requires an effective approach to address ever increasing cyber threats. The increase in cybercrime and impacts on business and government is a global issue.
 - Toronto, as Canada's largest City, is subject to ongoing threats and annually the City addresses over 50 million security events, from malware and viruses to attacks on our network and technology environment. The City needs to continue to be proactive and vigilant to monitor and address security vulnerabilities within this ever increasing complex cyber-security environment. Protection from incidents and prevention mean impacts and outages are avoided and costs from down-time saved.
 - Moving forward, the City needs to continue to invest in effective cyber-security measures with a balanced approach to also drive openness in government as well and allow for innovative and new technology solutions to be adopted. This will also require continued corporate efforts in business continuity planning and readiness as well.
 - Within the City there is a federated I&T service delivery model, meaning in several divisions there is a divisional I&T team delivering a portion of I&T services to meet City Program requirements. This is in addition to the Information & Technology Division to fulfill corporate requirements and divisional needs where no divisional I&T unit exists. The maturity and capacity of divisional I&T units vary and capacity and capability to address the ever-growing and complex cyber-security demands also varies, meaning divisions are at different readiness levels to meet security requirements. This adds risk and needs to be addressed through additional compliance and where required corrective action to ensure gaps and threats are managed including accountability to standards and authority to direct actions.

Adequacy of the I&T Sustainment Equipment Reserve

- The I&T Sustainment Equipment Reserve is continually being drawn on for a growing inventory of items being added to the City technology inventory and therefore requires lifecycle replacement (computers, multi-function printing devices, tablets, core city infrastructure in network/servers, telephony, etc.).
- The current forecast has the reserve being depleted in 2020, despite having the annual contribution increased by \$2.000 million, starting in 2018. Although created in 2004, the contribution to the reserve has remained constant and the increase in demand due to growth and an ever-expanding portfolio of assets being maintained has not been addressed. Citywide IT assets increased by 31% from 52,023 units in 2008 to 68,286 in 2017. Business demand for service efficiencies and public expectation for online services impacts infrastructure capacity and sustainment.
- The IT Equipment Reserve requires additional funding contributions from 2020 onwards to sustain the increase in technology sustainment costs due to usage growth and license model changes (cloud subscription).
- Information & Technology Division will work with the Financial Planning Division to introduce policy changes, including contributions from City Programs for added inventory associated with new hires. I&T will also continue to work with City Divisions to assess applications to optimize I&T technology investments and work through the I&T governance process.



Appendices

Appendix 1 2017 Performance

2017 Key Accomplishments

- ✓ Municipal Licensing digital transformation and innovation by implementing an end to end digital process for over 60,000 Vehicle for Hire licenses since 2016 supporting the ride sharing economy, providing modernized service delivery and operational efficiencies.
- ✓ Implemented numerous City website www.toronto.ca enhancements for over 16,000,000+ visitors annually, improving public access to City services.
- ✓ Enhanced the Online Citizen experience improving access to Solid Waste Management Services to help residents and business determine how to sort and properly dispose of their unwanted items.
- ✓ Winter road Maintenance Online Map now allows residents to see when Toronto roads have been cleared and de-iced to support effective commuting.
- ✓ MyWaterToronto allows residents to view their household water usage online by day, week, month or year, helping foster water conservation.
- ✓ RentSafeTO helps inform the public and prospective tenants on information concerning a building maintenance and upkeep.
- ✓ Automated data entry to the Fleet Fuel Management System used by the City and Agencies thereby increasing accuracy, reliability of data saving 1,820 person hours and approximately \$388,000
- ✓ Supported the Permit Parking Renewal process for Transportation Services for 53,000 citizens to renew over \$105,000 permits annually, generating over \$9.0 million in revenue.
- ✓ Expanded Open Data for the City to 246 datasets and 1,108 published providing greater accessibility and transparency to citizens.
- ✓ Responded to 186,000 IT service desk calls annually.
- ✓ Resolved 37,000+ application requests and 1,300+ changes for over 850 City applications.
- ✓ Developed new Open Data Portal (in Beta) that will fundamentally improve and transform how citizens engage and visualize data.
- ✓ Launched a new Online Tax & Water Certificate service that is available 24/7 and allows clients to obtain a certificate within 30 minutes (as compared to the previous time of 5 days).
- ✓ Enhanced MLS Licensing System to automate Council-ordered refunds for 1000+ licensees, accept digitized documents in Licensing Mobile App and enable multi-offence long-form to summon from the system.
- ✓ Refreshed IT equipment across the City as part of life cycle management including 2,200 desktops/notebooks/tablets, 162 servers, 411 printers, 4,774 monitors, and upgraded 103 network devices.
- ✓ Provided business application infrastructure (security, the internet, database, servers, and storage) for over 850 applications City-wide including many 7/24/365 requirements.
- ✓ The I&T Division has also been the recipient of two Municipal Information Systems Association Awards, one Digital Transformation Award, one Open Cities Index Aware and two City Manager Awards.

2017 Financial Performance**2017 Budget Variance Analysis (in \$000's)**

2017 Budget	As of Sept. 30, 2017		Projected Actuals at Year-End		Unspent Balance	
	\$	% Spent	\$	% Spent	\$ Unspent	% Unspent
88,881	24,364	27.4%	59,862	67.4%	29,019	32.6%

* Based on 2017 Q3 Capital Variance Report

For additional information regarding the 2017 Q3 capital variances and year-end projections for Information & Technology, please refer to the attached link for the report entitled "*Capital Variance Report for the Nine-Month Period Ended September 30, 2017*" considered by City Council at its meeting on November 27, 2017.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.BU37.1>

Impact of the 2017 Capital Variance on the 2018 Preliminary Capital Budget

- A detailed analysis of the projected underspend at year end revealed that some of these capital projects are expected to be completed below budget due to savings on resource costs or scope reductions. There were also a number of projects that experienced delays, primarily due to resource constraints and delays in finalizing project assessments and deliverables. The division is making every attempt to get these projects back on track through discussions with project sponsors, expediting the hiring processes, and continuous project monitoring.
- As a result of the delays in the capital projects, as described in the 2017 Q3 Capital Variance Report, funding of \$3.744 million is being carried forward to the 2018 Preliminary Capital Budget to continue the capital work.
- A detailed review of the 2018 – 2027 Preliminary Capital Budget and Plan has been conducted and the necessary adjustments has been made to the timing of cash flow funding for unique and major capital projects which are the major contributors to annual under-expenditures. By deferring the cash flow funding to future years, the 2018 Preliminary Capital Budget reflects readiness to proceed and will lead to a higher rate of spending.

Appendix 2

2018 Preliminary Capital Budget; 2019 - 2027 Capital Plan Including Carry Forward Funding (\$000s)

Project	Prior Year Carry Forward	2018	2019	2020	2021	2022	2018 - 2022	2023	2024	2025	2026	2027	2018 - 2027 Total
Legislated:													
AODA Compliance for City Applications		1,383	1,384	1,384			4,151						4,151
Sub-Total		1,383	1,384	1,384			4,151						4,151
State of Good Repair:													
Business Applications Service Monitoring		150	150	150	250		700						700
Business Continuity		500	-	-	-	-	500						500
Capital Portfolio Resource Requirements		1,775	974	-	-	-	2,749						2,749
Directory Services - Implementation		800	1,000	183	1,000		2,983						2,983
Directory Services Transition-Design		150	-	-	-	-	150						150
Disaster Recovery		1,180	1,180	1,050	1,050	1,050	5,510	1,050	1,050				7,610
DLAN Cloud Services Implementation		165	-	-	-	-	165						165
Domino Decommissioning Strat & Implementation		620	-	-	-	-	620						620
Enterprise Solution Delivery Management Framework		766	-	-	-	-	766						766
File Services Migration		455	640	170	40		1,305						1,305
Geospatial Tool Enhancements		250	295	-	-	-	545						545
IBMS Review & Transformation		1,967	1,708	2,534			6,209						6,209
Integrated Business Mgmt System - Review and Trans		500	379	-	-	-	879						879
Asset Lifecycle Management		18,361	17,198	26,543	19,440	17,200	98,742	21,537	17,381	29,403	21,150	18,630	206,843
IT Risk Mgmt Framework		660	660	-	-	-	1,320						1,320
Quality Assurance Testing Software Upgrade		500	500	500			1,500						1,500
SAP Solution Manager v7.2 Upgrade (SOGR)	2,069	1,330	-	492	3,492		7,383						7,383
TEMS Replacement-Design		150	450	-	-	-	600						600
Wellbeing Toronto		450	-	-	-	-	450						450
Sub-Total	2,069	30,729	25,134	31,622	25,272	18,250	133,076	22,587	18,431	29,403	21,150	18,630	243,277
Service Improvements:													
Asset Management Solution - Transportation	25	835	-	-	-	-	860						860
Business Sys Improvements - ECS Phase 2		530	-	-	-	-	530						530
Capital Project Planning Sys Enhancements		570	-	-	-	-	570						570
ECS Capital Project and Program Management Process		200	-	-	-	-	200						200
Electronic Self Service Licensing-MLS		-	516	-	-	-	516						516
Electronic Service Delivery Portal-Bldg Permits	134	-	617	-	-	-	751						751
Employee Performance Management		-	546	762	-	-	1,308						1,308
Ent Portfolio & Project Mgmt Upgrade		-	-	-	460	600	1,060	400	400				1,860
ENT Portfolio MGMT Tools-Phase 2		150	-	-	-	-	150						150
Ent. Project Risk & Performance Tools		-	460	440	500	500	1,900						1,900
Enterprise Business Intelligence Implementation		1,698	1,715	1,585	-	-	4,998						4,998
Enterprise Collaboration Foundation	622	607	2,001	1,147	523		4,900						4,900
Enterprise eLearning HR		646	-	-	-	-	646						646
Enterprise Mobility Platform		750	930	-	-	-	1,680						1,680
eRecruitment		1,470	1,135	-	-	-	2,605						2,605
eTime Enterprise Rollout		1,441	1,441	-	-	-	2,882						2,882
HR Electronic Skills Solution		87	-	-	-	-	87						87
IT Foundational Components	809	-	-	-	-	-	809						809
I&T PPM Solution (Cloud) Implementation		-	500	-	1,156	-	1,656						1,656
MLS Centralized Datamart		1,065	-	-	-	-	1,065						1,065
MLS Modernization-Phase 2		2,972	4,629	2,489	-	-	10,090						10,090
Occupation Health & Safety App		600	762	-	-	-	1,362						1,362
OnLine Portal Services for City Planning		1,350	480	-	-	-	1,830						1,830
Open Data Master Plan Implementation		707	1,036	1,036	-	-	2,779						2,779
Open Data Visualization		206	-	-	-	-	206						206
Review and Improve Document Management Capabilities		200	-	-	-	-	200						200
S DFA- Online Grant Management System		230	50	-	-	-	280						280
Short Term Business Improvements - Transportation	85	-	-	-	-	-	85						85
TOP - Online Donation Application		389	201	-	-	-	590						590
Toronto Building-CRM-Enhanced Compliant Management		347	775	-	-	-	1,122						1,122
Work Mgmt Solution-Transportation		657	3,709	4,835	3,094	2,062	14,357	340	340	226			15,263
Workflow Automation & Tracking		104	-	-	-	-	104						104
Workforce (HR) Business Intelligence		753	-	-	-	-	753						753
Sub-Total	1,675	18,564	21,503	12,294	5,733	3,162	62,931	740	740	226			64,637
Growth Related:													
Application Portfolio Tools & Rationalization		500	-	-	-	-	500						500
Consolidated Data Centre		1,500	3,534	-	-	-	5,034						5,034
Data Center Scope Change		2,605	2,548	-	-	-	5,153						5,153
Data Centre Zones Implementation		-	100	166	1,000	-	1,266						1,266
eCity Program Renewal		459	311	316	-	-	1,086						1,086
Enterprise Architecture		1,000	500	500	500	500	3,000	500	500	500	500	500	5,500
Enterprise Information Security Pgm		400	400	400	400	400	2,000	400					2,400
Enterprise Solutions Design & Implementation		-	564	-	-	4,500	5,064	5,210	7,510	5,500	5,500	5,500	34,284
IT Planning & Mgmt Transformation Tools		-	-	-	-	888	888	900	1,000	2,500	2,500	2,500	10,288
IT Service Process Improvement Program		653	665	678	-	-	1,996						1,996
Major Cap Infrastructure Project Coord. (TOINView)		525	425	-	-	-	950						950
Technology Infrastructure Growth		-	-	-	75	5,000	5,075	8,000	6,000	8,074	8,300	8,300	43,749
WAN High Speed Fibre Data Services		200	250	-	-	-	450						450
Sub-Total	-	7,842	9,297	2,060	1,975	11,288	32,462	15,010	15,010	16,574	16,800	16,800	112,656
Total	3,744	58,518	57,318	47,360	32,980	32,700	232,620	38,337	34,181	46,203	37,950	35,430	424,721

Appendix 3

2018 Preliminary Capital Budget; 2019 - 2027 Capital Plan

CITY OF TORONTO

Gross Expenditures (\$000's)

Information & Technology

Sub- Project No. Project Name PrioritySubProj No. Sub-project Name Ward Stat. Cat.						Current and Future Year Cash Flow Commitments							Current and Future Year Cash Flow Commitments Financed By												
						2018	2019	2020	2021	2022	Total 2018-2022	Total 2023-2027	Total 2018-2027	Provincial Grants and Subsidies	Federal Subsidy	Development Charges	Reserves	Reserve Funds	Capital from Current	Other 1	Other2	Debt - Recoverable Debt	Total Financing		
<u>ITP906881 Application Systems</u>																									
20	140	Enterprise Collaboration Foundation	CW	S2	04	622	2,001	1,147	523	0	4,293	0	4,293	0	0	0	0	0	622	0	0	3,671	0	4,293	
0	141	Domino Decommissioning Strat & Implementation	CW	S2	03	620	0	0	0	0	620	0	620	0	0	0	0	0	0	0	0	620	0	620	
137	147	Enterprise Mobility Platform	CW	S4	04	750	930	0	0	0	1,680	0	1,680	0	0	0	0	0	0	0	0	1,680	0	1,680	
0	148	Enterprise Business Intelligence Implementation	CW	S4	04	1,698	1,715	1,585	0	0	4,998	0	4,998	0	0	0	0	0	0	0	0	4,998	0	4,998	
0	149	AODA Compliance for City Applications	CW	S4	02	1,383	1,384	1,384	0	0	4,151	0	4,151	0	0	0	0	0	0	0	0	4,151	0	4,151	
0	152	Open Data Master Plan Implementation	CW	S4	04	707	1,036	1,036	0	0	2,779	0	2,779	0	0	0	0	0	0	0	0	2,779	0	2,779	
0	153	SAP Solution Manager v7.2 Upgrade (SOG)	CW	S4	03	1,330	0	0	0	0	1,330	0	1,330	0	0	0	0	0	0	0	0	1,330	0	1,330	
0	154	Geospatial Tool Enhancements	CW	S4	03	250	295	0	0	0	545	0	545	0	0	0	0	0	0	0	0	545	0	545	
0	155	eTime Enterprise Rollout	CW	S4	04	1,441	1,441	0	0	0	2,882	0	2,882	0	0	0	0	0	0	0	0	2,882	0	2,882	
Sub-total						10,423	9,366	5,644	4,015	4,500	33,948	29,220	63,168	0	0	0	0	0	1,431	0	0	61,737	0	63,168	
<u>ITP906882 Corporate Planning & Management</u>																									
0	13	IT Planning & Mgmt Transformation Tools	CW	S6	05	0	0	0	0	888	888	9,400	10,288	0	0	0	0	0	0	0	0	10,288	0	10,288	
0	82	Ent. Project Risk & Performance Tools	CW	S6	04	0	460	440	500	500	1,900	0	1,900	0	0	0	0	0	0	0	0	1,900	0	1,900	
0	111	Ent Portfolio & Project Mgmt Upgrade 2021	CW	S6	04	0	0	0	460	600	1,060	800	1,860	0	0	0	0	0	0	0	0	1,860	0	1,860	
89	121	IT Risk Mgmt Framework	CW	S2	03	660	660	0	0	0	1,320	0	1,320	0	0	0	0	0	0	0	0	1,320	0	1,320	
0	132	I&T PPM Solution (Cloud) Implementation	CW	S2	04	0	500	0	1,156	0	1,656	0	1,656	0	0	0	0	0	0	0	0	1,656	0	1,656	
69	133	eCity Program Renewal	CW	S2	05	459	311	316	0	0	1,086	0	1,086	0	0	0	0	0	0	0	0	1,086	0	1,086	
0	135	IT Service Process Improvement Program	CW	S2	05	653	665	678	0	0	1,996	0	1,996	0	0	0	0	0	0	0	0	1,996	0	1,996	
20	141	Application Portfolio Tools & Rationalization	CW	S2	05	500	650	0	0	0	1,150	0	1,150	0	0	0	0	0	0	0	0	1,150	0	1,150	
46	144	Quality Assurance Testing Software Upgrade	CW	S5	03	500	500	500	0	0	1,500	0	1,500	0	0	0	0	0	0	0	0	1,500	0	1,500	
20	147	Application Portfolio T&R Scope Change	CW	S3	05	0	-650	0	0	0	-650	0	-650	0	0	0	0	0	0	0	0	-650	0	-650	
0	149	ENT Portfolio MGMT Tools-Phase 2	CW	S5	04	150	0	0	0	0	150	0	150	0	0	0	0	0	0	0	0	150	0	150	
127	150	Enterprise Solution Delivery Management Framework	CW	S5	03	766	0	0	0	0	766	0	766	0	0	0	0	0	0	0	0	766	0	766	
128	151	Enterprise Information Security Pgm	CW	S5	05	400	400	400	400	400	2,000	400	2,400	0	0	0	0	0	0	0	0	2,400	0	2,400	

CITY OF TORONTO

Gross Expenditures (\$000's)

Information & Technology

Sub- Project No. Project Name PrioritySubProj No. Sub-project Name Ward Stat. Cat.						Current and Future Year Cash Flow Commitments							Current and Future Year Cash Flow Commitments Financed By														
						2018	2019	2020	2021	2022	Total 2018-2022	Total 2023-2027	Total 2018-2027	Provincial Grants and Subsidies	Federal Subsidy	Development Charges	Reserves	Reserve Funds	Capital from Current	Other 1	Other2	Debt - Recoverable Debt	Total Financing				
<u>ITP906882 Corporate Planning & Management</u>																											
145	152	Enterprise Architecture	CW	S5	05	1,000	500	500	500	500	3,000	2,500	5,500	0	0	0	0	0	0	0	0	0	0	5,500	0	5,500	
Sub-total						5,088	3,996	2,834	3,016	2,888	17,822	13,100	30,922	0	0	0	0	0	0	0	0	0	0	30,922	0	30,922	
<u>ITP906883 Technology Infrastructure</u>																											
0	8	Technology Infrastructure Growth	CW	S6	05	0	0	0	75	5,000	5,075	38,674	43,749	0	0	0	0	0	0	0	0	0	0	43,749	0	43,749	
0	32	Data Centre Zones Implementation	CW	S6	05	0	100	166	1,000	0	1,266	0	1,266	0	0	0	0	0	0	0	0	0	0	1,266	0	1,266	
0	59	File Services Migration	CW	S4	03	455	640	170	40	0	1,305	0	1,305	0	0	0	0	0	0	0	0	0	0	1,305	0	1,305	
67	67	TEMS REPLACEMENT-Design	CW	S4	03	150	450	0	0	0	600	0	600	0	0	0	0	0	0	0	0	0	0	600	0	600	
68	68	DIRECTORY SERVICES TRANSITION-Design	CW	S2	03	150	0	0	0	0	150	0	150	0	0	0	0	0	0	0	0	0	0	150	0	150	
20	69	Consolidated Data Centre	CW	S2	05	1,500	0	0	0	0	1,500	0	1,500	0	0	0	1,500	0	0	0	0	0	0	0	0	1,500	
20	76	Data Center Scope Change	CW	S2	05	2,605	2,548	0	0	0	5,153	0	5,153	0	0	0	5,153	0	0	0	0	0	0	0	0	5,153	
20	77	Consolidated Data Centre Scope Change	CW	S3	05	0	3,534	0	0	0	3,534	0	3,534	0	0	0	2,234	0	0	0	0	0	0	1,300	0	3,534	
0	78	Business Applications Service Monitoring	CW	S4	03	150	150	150	250	0	700	0	700	0	0	0	0	0	0	0	0	0	0	700	0	700	
68	79	DIRECTORY SERVICES - Implementation	CW	S4	03	800	1,000	183	1,000	0	2,983	0	2,983	0	0	0	0	0	0	0	0	0	0	2,983	0	2,983	
75	80	WAN High Speed Fibre Data Services	CW	S4	05	200	250	0	0	0	450	0	450	0	0	0	450	0	0	0	0	0	0	0	0	450	
Sub-total						6,010	8,672	669	2,365	5,000	22,716	38,674	61,390	0	0	0	9,337	0	0	0	0	0	0	52,053	0	61,390	
<u>ITP907747 Corporate Initiatives</u>																											
0	34	Employee Performance Management (e	CW	S6	04	0	546	762	0	0	1,308	0	1,308	0	0	0	0	0	0	0	0	0	0	1,308	0	1,308	
42	42	Org Mgmt and SAP Security	CW	S2	04	2,069	0	0	0	0	2,069	0	2,069	0	0	0	0	2,069	0	0	0	0	0	0	0	2,069	
20	44	Work Mgmt Solution-Transportation	CW	S2	04	657	0	0	0	0	657	0	657	0	0	0	0	0	0	0	0	0	0	657	0	657	
0	54	HR ELECTRONIC SKILLS ASS. SOLUTION	CW	S2	04	87	0	0	0	0	87	0	87	0	0	0	0	0	0	0	0	0	0	87	0	87	
0	62	Workforce (HR) Business Intelligence	CW	S2	04	753	0	0	0	0	753	0	753	0	0	0	0	0	0	0	0	0	0	753	0	753	
0	69	WORKFLOW AUTOMATION & TRACKING	CW	S2	04	104	0	0	0	0	104	0	104	0	0	0	0	0	0	0	0	0	0	104	0	104	
20	75	Work Mgmt Solution-Transportation	CW	S2	04	0	2,213	0	0	0	2,213	0	2,213	0	0	0	0	0	0	0	0	0	0	2,213	0	2,213	
0	81	Major Cap Infrastructure Project Coord. (TOINView)	CW	S4	05	525	425	0	0	0	950	0	950	0	0	0	0	0	0	0	0	0	0	950	0	950	

CITY OF TORONTO

Gross Expenditures (\$000's)

Information & Technology

Sub- Project No. Project Name Priority SubProj No. Sub-project Name Ward Stat. Cat.						Current and Future Year Cash Flow Commitments and Estimates						Current and Future Year Cash Flow Commitments and Estimates Financed By											
						2018	2019	2020	2021	2022	Total 2018-2022	Total 2023-2027	Total 2018-2027	Provincial Grants and Subsidies	Federal Subsidy	Development Charges	Reserve Reserves	Reserve Funds	Capital from Current	Other 1	Other2	Debt - Recoverable Debt	Total Financing
Financed By:																							
Reserves (Ind. "XQ" Ref.)						25,506	23,204	26,543	19,440	17,200	111,893	114,291	226,184	0	0	0	226,184	0	0	0	0	0	226,184
Reserve Funds (Ind."XR" Ref.)						1,530	1,686	1,351	0	0	4,567	0	4,567	0	4,567	0	0	0	0	0	0	4,567	
Capital from Current						3,525	0	0	0	0	3,525	0	3,525	0	0	3,525	0	0	0	0	0	3,525	
Other1 (Internal)						85	0	0	0	0	85	0	85	0	0	0	85	0	0	0	0	85	
Debt						31,616	32,428	19,466	13,540	15,500	112,550	84,000	196,550	0	0	0	0	0	196,550	0	0	196,550	
Total Program Financing						62,262	57,318	47,360	32,980	32,700	232,620	198,291	430,911	0	0	0	226,184	4,567	3,525	85	0	196,550	430,911

Status Code	Description
S2	S2 Prior Year (With 2018 and/or Future Year Cashflow)
S3	S3 Prior Year - Change of Scope 2018 and/or Future Year Cost(Cashflow)
S4	S4 New - Stand-Alone Project (Current Year Only)
S5	S5 New (On-going or Phased Projects)
S6	S6 New - Future Year (Commencing in 2019 & Beyond)

Category Code	Description
01	Health and Safety C01
02	Legislated C02
03	State of Good Repair C03
04	Service Improvement and Enhancement C04
05	Growth Related C05
06	Reserved Category 1 C06
07	Reserved Category 2 C07

Appendix 4

2018 Cash Flow and Future Year Commitments

CITY OF TORONTO

Gross Expenditures (\$000's)

Information & Technology

Sub- Project No. Project Name PrioritySubProj No. Sub-project Name Ward Stat. Cat.						Current and Future Year Cash Flow Commitments							Current and Future Year Cash Flow Commitments Financed By											
						2018	2019	2020	2021	2022	Total 2018-2022	Total 2023-2027	Total 2018-2027	Provincial Grants and Subsidies	Federal Subsidy	Development Charges	Reserves	Reserve Funds	Capital from Current	Other 1	Other2	Debt - Recoverable Debt	Total Financing	
<u>EOL906983</u> <u>Asset Lifecycle Management</u>																								
39	39	Enterprise Storage Replacement	CW	S2	03	1,000	0	0	0	0	1,000	0	1,000	0	0	0	1,000	0	0	0	0	0	0	1,000
37	42	Enterprise Software Replacement	CW	S2	03	1,103	0	0	0	0	1,103	0	1,103	0	0	0	1,103	0	0	0	0	0	0	1,103
38	43	Enterprise Server Replacement	CW	S2	03	2,389	0	0	0	0	2,389	0	2,389	0	0	0	2,389	0	0	0	0	0	0	2,389
9	45	Network Security Replacement	CW	S2	03	463	0	0	0	0	463	0	463	0	0	0	463	0	0	0	0	0	0	463
15	46	Desktop Hardware Replacement	CW	S2	03	7,774	0	0	0	0	7,774	0	7,774	0	0	0	7,774	0	0	0	0	0	0	7,774
0	48	Network Asset Replacement	CW	S2	03	0	0	0	0	0	0	6,190	6,190	0	0	0	6,190	0	0	0	0	0	0	6,190
48	56	Network Asset Replacement	CW	S5	03	5,430	0	0	0	0	5,430	0	5,430	0	0	0	5,430	0	0	0	0	0	0	5,430
9	57	Network Security Replacement	CW	S5	03	202	0	0	0	0	202	0	202	0	0	0	202	0	0	0	0	0	0	202
Sub-total						18,361	0	0	0	0	18,361	6,190	24,551	0	0	0	24,551	0	0	0	0	0	0	24,551
<u>ITP000223</u> <u>Network Upgrade</u>																								
57	60	Disaster Recovery	CW	S5	03	1,180	0	0	0	0	1,180	0	1,180	0	0	0	0	0	0	0	1,180	0	1,180	
58	61	Business Continuity	CW	S4	03	500	0	0	0	0	500	0	500	0	0	0	0	0	0	0	500	0	500	
Sub-total						1,680	0	0	0	0	1,680	0	1,680	0	0	0	0	0	0	0	0	1,680	0	1,680
<u>ITP906881</u> <u>Application Systems</u>																								
20	116	Enterprise Collaboration Foundation	CW	S2	04	607	0	0	0	0	607	0	607	0	0	0	0	0	0	0	607	0	607	
0	120	Open Data Visualization	CW	S2	04	206	0	0	0	0	206	0	206	0	0	0	0	0	0	0	206	0	206	
0	125	IT Foundational Components	CW	S2	04	809	0	0	0	0	809	0	809	0	0	0	0	809	0	0	0	0	809	
20	140	Enterprise Collaboration Foundation	CW	S2	04	622	2,001	1,147	523	0	4,293	0	4,293	0	0	0	0	622	0	0	3,671	0	4,293	
0	141	Domino Decommissioning Strat & Implementation	CW	S2	03	620	0	0	0	0	620	0	620	0	0	0	0	0	0	0	620	0	620	
137	147	Enterprise Mobility Platform	CW	S4	04	750	930	0	0	0	1,680	0	1,680	0	0	0	0	0	0	0	1,680	0	1,680	
0	148	Enterprise Business Intelligence Implementation	CW	S4	04	1,698	1,715	1,585	0	0	4,998	0	4,998	0	0	0	0	0	0	0	4,998	0	4,998	
0	149	AODA Compliance for City Applications	CW	S4	02	1,383	1,384	1,384	0	0	4,151	0	4,151	0	0	0	0	0	0	0	4,151	0	4,151	
0	152	Open Data Master Plan Implementation	CW	S4	04	707	1,036	1,036	0	0	2,779	0	2,779	0	0	0	0	0	0	0	2,779	0	2,779	
0	153	SAP Solution Manager v7.2 Upgrade (SOG)	CW	S4	03	1,330	0	0	0	0	1,330	0	1,330	0	0	0	0	0	0	0	1,330	0	1,330	

CITY OF TORONTO

Gross Expenditures (\$000's)

Information & Technology

Sub- Project No. Project Name Priority SubProj No. Sub-project Name		Ward Stat. Cat.		Current and Future Year Cash Flow Commitments and Estimates									Current and Future Year Cash Flow Commitments and Estimates Financed By							
				2018	2019	2020	2021	2022	Total 2018-2022	Total 2023-2027	Total 2018-2027	Provincial Grants and Subsidies	Federal Subsidy	Development Charges	Reserve Reserves	Reserve Funds	Capital from Current	Other 1	Other2	Debt - Recoverable Debt
Financed By:																				
Reserves (Ind. "XQ" Ref.)		25,506	6,006	0	0	0	31,512	6,190	37,702	0	0	0	37,702	0	0	0	0	0	0	37,702
Reserve Funds (Ind."XR" Ref.)		1,530	1,686	1,351	0	0	4,567	0	4,567	0	0	0	0	4,567	0	0	0	0	0	4,567
Capital from Current		3,525	0	0	0	0	3,525	0	3,525	0	0	0	0	0	3,525	0	0	0	0	3,525
Other1 (Internal)		85	0	0	0	0	85	0	85	0	0	0	0	0	0	85	0	0	0	85
Debt		31,616	26,666	15,156	6,063	2,062	81,563	906	82,469	0	0	0	0	0	0	0	0	82,469	0	82,469
Total Program Financing		62,262	34,358	16,507	6,063	2,062	121,252	7,096	128,348	0	0	0	37,702	4,567	3,525	85	0	82,469	0	128,348

Status Code Description
 S2 S2 Prior Year (With 2018 and/or Future Year Cashflow)
 S3 S3 Prior Year - Change of Scope 2018 and/or Future Year Cost(Cashflow)
 S4 S4 New - Stand-Alone Project (Current Year Only)
 S5 S5 New (On-going or Phased Projects)

Category Code Description
 01 Health and Safety C01
 02 Legislated C02
 03 State of Good Repair C03
 04 Service Improvement and Enhancement C04
 05 Growth Related C05
 06 Reserved Category 1 C06
 07 Reserved Category 2 C07

Appendix 5

2018 Preliminary Capital Budget with Financing Detail



CITY OF TORONTO

**Information & Technology
Sub-Project Summary**

Project/Financing

Priority Project Project Name

Project/Financing	Priority	Project	Project Name	Start Date	Completion Date	2018	Financing							Debt	Debt - Recoverable	
						Cash Flow	Provincial Grants Subsidies	Federal Subsidy	Developmt Charges	Reserves	Reserve Funds	Capital From Current	Other 1			Other 2
0 ITP000223 Network Upgrade																
	57		60 Disaster Recovery	06/15/2017	06/15/2017	1,180	0	0	0	0	0	0	0	0	1,180	0
	58		61 Business Continuity	06/15/2017	06/15/2017	500	0	0	0	0	0	0	0	0	500	0
Project Sub-total:						1,680	0	0	0	0	0	0	0	0	1,680	0
0 ITP906881 Application Systems																
	0		120 Open Data Visualization	05/01/2015	12/31/2017	206	0	0	0	0	0	0	0	0	206	0
	0		125 IT Foundational Components	02/22/2015	12/31/2017	809	0	0	0	0	0	809	0	0	0	0
	0		141 Domino Decommissioning Strat & Implementation	01/01/2015	12/31/2018	620	0	0	0	0	0	0	0	0	620	0
	0		148 Enterprise Business Intelligence Implementation	06/19/2017	06/19/2017	1,698	0	0	0	0	0	0	0	0	1,698	0
	0		149 AODA Compliance for City Applications	06/19/2017	06/19/2017	1,383	0	0	0	0	0	0	0	0	1,383	0
	0		152 Open Data Master Plan Implementation	06/19/2017	06/19/2017	707	0	0	0	0	0	0	0	0	707	0
	0		153 SAP Solution Manager v7.2 Upgrade (SOG)	06/19/2017	06/19/2017	1,330	0	0	0	0	0	0	0	0	1,330	0
	0		154 Geospatial Tool Enhancements	06/19/2017	06/19/2017	250	0	0	0	0	0	0	0	0	250	0
	0		155 eTime Enterprise Rollout	09/27/2017	09/27/2017	1,441	0	0	0	0	0	0	0	0	1,441	0
	20		116 Enterprise Collaboration Foundation	01/01/2015	12/31/2018	607	0	0	0	0	0	0	0	0	607	0
	20		140 Enterprise Collaboration Foundation	01/01/2015	12/31/2018	622	0	0	0	0	0	622	0	0	0	0
	137		147 Enterprise Mobility Platform	06/15/2017	06/15/2017	750	0	0	0	0	0	0	0	0	750	0
Project Sub-total:						10,423	0	0	0	0	0	1,431	0	0	8,992	0
0 ITP906882 Corporate Planning & Management																
	0		135 IT Service Process Improvement Program	01/01/2016	01/01/2020	653	0	0	0	0	0	0	0	0	653	0
	0		149 ENT Portfolio MGMT Tools-Phase 2	06/13/2017	06/13/2017	150	0	0	0	0	0	0	0	0	150	0
	20		141 Application Portfolio Tools & Rationalization	02/01/2016	12/31/2019	500	0	0	0	0	0	0	0	0	500	0
	46		144 Quality Assurance Testing Software Supgrade	01/01/2016	12/31/2019	500	0	0	0	0	0	0	0	0	500	0
	69		133 eCity Program Renewal	01/01/2015	12/31/2019	459	0	0	0	0	0	0	0	0	459	0
	89		121 IT Risk Mgmt Framework	01/01/2014	12/31/2019	660	0	0	0	0	0	0	0	0	660	0
	127		150 Enterprise Solution Delivery Management Framework	06/15/2017	06/15/2017	766	0	0	0	0	0	0	0	0	766	0
	128		151 Enterprise Information Security Pgm	06/15/2017	06/15/2017	400	0	0	0	0	0	0	0	0	400	0
	145		152 Enterprise Architecture	06/15/2017	06/15/2017	1,000	0	0	0	0	0	0	0	0	1,000	0
Project Sub-total:						5,088	0	0	0	0	0	0	0	0	5,088	0
0 ITP906883 Technology Infrastructure																
	0		59 File Services Migration	01/01/2018	12/31/2020	455	0	0	0	0	0	0	0	0	455	0
	0		78 Business Applications Service Monitoring	06/15/2017	06/15/2017	150	0	0	0	0	0	0	0	0	150	0
	20		69 Consolidated Data Centre	01/01/2016	12/31/2018	1,500	0	0	0	1,500	0	0	0	0	0	0
	20		76 Data Center Scope Change	01/01/2017	12/31/2019	2,605	0	0	0	2,605	0	0	0	0	0	0



CITY OF TORONTO

**Information & Technology
Sub-Project Summary**

Project/Financing Priority Project	Project Name	Start Date	Completion Date	2018	Financing									
				Cash Flow	Provincial Grants Subsidies	Federal Subsidy	Developmt Charges	Reserves	Reserve Funds	Capital From Current	Other 1	Other 2	Debt	Debt - Recoverable
0	<u>ITP906883</u>	<u>Technology Infrastructure</u>												
67	67 TEMS REPLACEMENT-Design	01/01/2016	12/31/2017	150	0	0	0	0	0	0	0	0	150	0
68	68 DIRECTORY SERVICES TRANSITION-Design	01/01/2016	05/25/2015	150	0	0	0	0	0	0	0	0	150	0
68	79 DIRECTORY SERVICES - Implementation	06/15/2017	06/15/2017	800	0	0	0	0	0	0	0	0	800	0
75	80 WAN High Speed Fibre Data Services	06/15/2017	06/15/2017	200	0	0	0	200	0	0	0	0	0	0
	Project Sub-total:			6,010	0	0	0	4,305	0	0	0	0	1,705	0
0	<u>ITP907747</u>	<u>Corporate Initiatives</u>												
0	54 HR ELECTRONIC SKILLS ASS. SOLUTION	01/01/2016	12/31/2017	87	0	0	0	0	0	0	0	0	87	0
0	62 Workforce (HR) Business Intelligence	01/01/2016	12/31/2017	753	0	0	0	0	0	0	0	0	753	0
0	69 WORKFLOW AUTOMATION & TRACKING	01/01/2016	12/31/2016	104	0	0	0	0	0	0	0	0	104	0
0	81 Major Cap Infrastructure Project Coord. (TOINView)	01/31/2016	12/31/2018	525	0	0	0	0	0	0	0	0	525	0
0	105 DLAN Cloud Services Implementation	07/06/2017	07/06/2017	165	0	0	0	0	0	0	0	0	165	0
0	106 Toronto Building-CRM-Enhanced Compliant Management	07/06/2017	07/06/2017	347	0	0	0	0	347	0	0	0	0	0
0	107 TOP - Online Donation Application	07/06/2018	07/06/2019	389	0	0	0	0	0	0	0	0	389	0
0	108 SDFA- Online Grant Management System	01/02/2018	02/01/2019	230	0	0	0	0	0	0	0	0	230	0
0	109 Wellbeing Toronto v3 2018	01/01/2018	12/31/2019	450	0	0	0	0	0	0	0	0	450	0
6	100 Enterprise eLearning HR	06/15/2017	06/15/2017	646	0	0	0	0	0	0	0	0	646	0
20	44 Work Mgmt Solution-Transportation	01/01/2016	12/31/2020	657	0	0	0	0	0	0	0	0	657	0
30	102 OCC HEALTH & SAFETY APP 2016-2019	06/15/2017	06/15/2017	600	0	0	0	0	0	0	0	0	600	0
42	42 Org Mgmt and SAP Security	01/01/2015	12/31/2018	2,069	0	0	0	0	0	2,069	0	0	0	0
80	99 CAPITAL PROJECT PLANNING SYS ENHANCEMENTS	06/15/2017	06/15/2017	570	0	0	0	0	0	0	0	0	570	0
84	101 eRecruitment	06/15/2017	06/15/2017	1,470	0	0	0	0	0	0	0	0	1,470	0
	Project Sub-total:			9,062	0	0	0	0	347	2,069	0	0	6,646	0
0	<u>ITP907907</u>	<u>Resources to Deliver IT Capital Projects</u>												
0	1 Capital Portfolio Resource Requirements	01/01/2013	12/31/2017	1,775	0	0	0	1,775	0	0	0	0	0	0
	Project Sub-total:			1,775	0	0	0	1,775	0	0	0	0	0	0
0	<u>ITP907951</u>	<u>2012 Core Service Review - Service Efficiencies</u>												
0	6 Short Term Business Improvements - Transportation	01/01/2013	12/31/2019	85	0	0	0	0	0	0	85	0	0	0
0	7 Asset Management Solution - Transportation	02/01/2015	12/31/2019	860	0	0	0	0	0	25	0	0	835	0
	Project Sub-total:			945	0	0	0	0	0	25	85	0	835	0
8	<u>EOL906983</u>	<u>Asset Lifecycle Management</u>												
9	45 Network Security Replacement	01/01/2016	12/31/2018	463	0	0	0	463	0	0	0	0	0	0
9	57 Network Security Replacement	06/14/2017	06/14/2017	202	0	0	0	202	0	0	0	0	0	0
15	46 Desktop Hardware Replacement	01/01/2016	12/31/2018	7,774	0	0	0	7,774	0	0	0	0	0	0



CITY OF TORONTO

**Information & Technology
Sub-Project Summary**

Project/Financing				2018	Financing										
Priority	Project	Project Name	Start Date	Completion Date	Cash Flow	Provincial Grants Subsidies	Federal Subsidy	Developmt Charges	Reserves	Reserve Funds	Capital From Current	Other 1	Other 2	Debt	Debt - Recoverable
8	EOL906983	Asset Lifecycle Management													
37	42	Enterprise Software Replacement	01/01/2016	12/31/2025	1,103	0	0	0	1,103	0	0	0	0	0	0
38	43	Enterprise Server Replacement	01/01/2016	12/31/2025	2,389	0	0	0	2,389	0	0	0	0	0	0
39	39	Enterprise Storage Replacement	01/01/2014	12/31/2023	1,000	0	0	0	1,000	0	0	0	0	0	0
48	56	Network Asset Replacement	06/14/2017	06/14/2017	5,430	0	0	0	5,430	0	0	0	0	0	0
Project Sub-total:					18,361	0	0	0	18,361	0	0	0	0	0	0
107	WES90712E	BUSINESS SUSTAINMENT SYSTEMS													
0	138	Toronto Building Electronic Service Delivery	01/01/2014	12/31/2017	134	0	0	0	0	134	0	0	0	0	0
0	167	OnLine Portal Services for City Planning	01/01/2016	12/31/2018	1,350	0	0	0	0	0	0	0	0	1,350	0
0	174	ECS Capital Project and Program Management Process	10/26/2016	10/26/2016	200	0	0	0	0	0	0	0	0	200	0
0	175	Review and Improve Document Management Capabilitie	10/26/2016	10/26/2016	200	0	0	0	0	0	0	0	0	200	0
0	181	MLS Modernization-Phase 2	06/15/2017	06/15/2017	2,972	0	0	0	0	0	0	0	0	2,972	0
0	184	Integrated Business Mgmt System - Review and Trans	06/15/2017	06/15/2017	500	0	0	0	0	0	0	0	0	500	0
142	153	MLS Centralized Datamart	01/01/2016	12/31/2018	462	0	0	0	462	0	0	0	0	0	0
142	179	MLS Centralized Datamart Scope Change	06/12/2017	06/12/2017	603	0	0	0	603	0	0	0	0	0	0
155	185	IBMS Review & Transformation	06/15/2017	06/15/2017	1,967	0	0	0	0	1,049	0	0	0	918	0
160	182	Business Sys Improvements - ECS Phase 2	06/15/2017	06/15/2017	530	0	0	0	0	0	0	0	0	530	0
Project Sub-total:					8,918	0	0	0	1,065	1,183	0	0	0	6,670	0
Program Total:					62,262	0	0	0	25,506	1,530	3,525	85	0	31,616	0

Status Code	Description
S2	S2 Prior Year (With 2018 and/or Future Year Cashflow)
S3	S3 Prior Year - Change of Scope 2018 and/or Future Year Cost/Cashflow)
S4	S4 New - Stand-Alone Project (Current Year Only)
S5	S5 New (On-going or Phased Projects)

Category Code	Description
01	Health and Safety C01
02	Legislated C02
03	State of Good Repair C03
04	Service Improvement and Enhancement C04
05	Growth Related C05
06	Reserved Category 1 C06
07	Reserved Category 2 C07

Appendix 6

Reserve / Reserve Fund Review

Reserve / Reserve Fund – Program Specific
(\$000s)

Reserve / Reserve Fund Name	Project / Subproject Name and Number	Projected Balance as at Dec 31, 2017 *	Contributions / (Withdrawals)										2018 - 2027 Total Contributions / (Withdrawals)	
			2018 Budget	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2027 Plan		
IT Equipment Reserve (XQ1508)	Beginning Balance		15,505	7,152	6,774	(2,615)	(4,901)	(4,947)	(9,330)	(9,557)	(21,806)	(25,802)		
	Withdrawals (-)													
	Technology Assets Lifecycle Management Resource to Deliver IT Capital Projects		(27,875)	(21,675)	(30,686)	(23,583)	(21,343)	(25,680)	(21,524)	(33,546)	(25,293)	(22,773)	(253,978)	
			(1,775)											(1,775)
	Total Withdrawals		(29,650)	(21,675)	(30,686)	(23,583)	(21,343)	(25,680)	(21,524)	(33,546)	(25,293)	(22,773)	(255,753)	
Total Reserve Fund Balance at Year-End			15,505	7,152	6,774	(2,615)	(4,901)	(4,947)	(9,330)	(9,557)	(21,806)	(25,802)	(27,278)	(42,783)

* Based on the 2017 Q3 Variance Report

Reserve / Reserve Fund Review – Corporate
(\$000s)

Reserve / Reserve Fund Name	Project / Subproject Name and Number	Projected Balance as at Dec 31, 2017 *	Contributions / (Withdrawals)										2018 - 2027 Total Contributions / (Withdrawals)	
			2018 Budget	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2027 Plan		
Capital Financing Reserve (XQ0011)	Beginning Balance		228,202	220,987	220,637	220,637	220,637	220,637	220,637	220,637	220,637	220,637	220,637	
	Withdrawals (-)													
	Consolidated Data Centre ITP906883		(4,105)	(4,782)										(8,887)
	WAN High Speed Fibre Data Services ITP906883-75/76		(200)	(250)										(450)
	MLS Centralized DataMart WES907128-153		(1,065)											(1,065)
	Total Withdrawals		(5,370)	(5,032)										(10,402)
Total Reserve Fund Balance at Year-End			222,832	215,955	220,637	(10,402)								

* Based on the 2017 Q3 Variance Report

In addition to the above reserve funding, a portion of the IBMS Review & Transformation project will be funded by City Planning and Toronto Building program specific reserve funds.