

Toronto 2018 BUDGET



CAPITAL BUDGET NOTES



Toronto Fire Services

2018 – 2027 CAPITAL BUDGET AND PLAN OVERVIEW

Toronto Fire Services (TFS) is dedicated to protecting life, property and the environment from the effects of fires, illnesses, accidents, natural disasters and other hazards. TFS currently operates 83 fire stations and 8 support facilities with a total area of approximately 836,000 sq. ft. with an estimated replacement value of \$401.912 million

The 10-Year Preliminary Capital Plan provides investments of \$49.712 million for Health & Safety and Legislated upgrades that include the replacement of emergency protective equipment, funding for two new Service Improvement projects to modernize and integrate IT systems and funding for the construction of three new fire stations based on forecasted population density and associated emergency response times.

The 10-Year Preliminary Capital Plan will increase future year Operating Budgets by \$5.498 million net over the 2018 - 2027 period, primarily due to the completion of two new fire stations expected to open in 2019.

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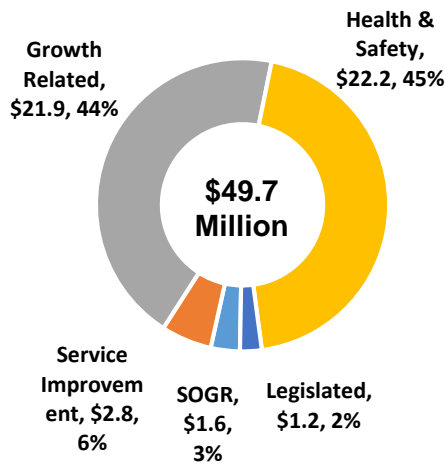
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CAPITAL SPENDING AND FINANCING

2018 - 2027 Preliminary Capital Budget and Plan By Project Category

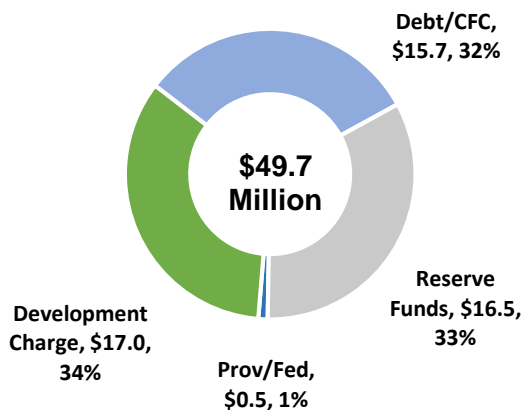


Where the money goes:

The 2018 - 2027 Preliminary Capital Budget and Plan totalling \$49.712 million provides funding for:

- \$22.214 million in Health and Safety projects that fund the replacement of personal protection equipment, radio equipment, defibrillators, safety and other emergency protective equipment.
- \$1.188 million in Legislated projects that fund the replacement of emergency response equipment required by the HUSAR team.
- \$1.600 million to continue SOGR projects that include burn house technology replacement, training equipment and facility replacement.
- \$2.780 million in Service Improvement projects that modernize and integrate IT systems.
- \$21.930 million in Growth related projects that fund the construction of three new fire stations.

By Funding Source



Where the money comes from:

The 10-Year Preliminary Capital Plan requires:

- Debt funding of \$15.697 million (31.6%) reflecting an increase in debt funding of \$3.102 million above debt guidelines, as new debt was allocated to two projects after a City-wide review of unmet capital priorities.
- Additional capital financing of \$16.530 million (33.3%) to be provided from reserves/reserve funds, primarily from the Equipment Reserve Fund (\$16.082 million).
- Funding from Development Charges (\$16.969 million or 34.1%) and Fed/Prov funding (\$0.516 million or 1.0%).

State of Good Repair Backlog

- The 10-Year Preliminary Capital Plan does not include funding to address the state of good repair backlog for TFS facilities, as asset management capital funding was transferred to Facilities, Real Estate, Environment & Energy (FREEE) to ensure that consistency in maintenance standards are applied throughout City facilities.
- FREEE's 10-Year Preliminary Capital Plan includes \$26.917 million over 10 years to address TFS' SOGR backlog for facilities occupied by TFS, which is estimated at \$105.449 million or 26.2% as a percentage of asset value of \$401.912 million by 2026.
- TFS does not have a state of good repair backlog for its equipment as the equipment is replaced according to TFS' Equipment Replacement schedule which is required by legislation to maintain service continuity, staff safety and regulatory compliance.

OUR KEY ISSUES & PRIORITY ACTIONS

- **Evaluate existing infrastructure** as a number of TFS facilities are not able to meet the needs of TFS operations without significant renovation, expansion or relocation.
 - ✓ An evaluation of completed comprehensive building assessment audits will determine the feasibility of renovating the existing facilities that are beyond the point of cost-viable repair or renovation.
 - ✓ The TFS Transformation Plan identifies infrastructure funding opportunities that optimize fire station locations and deployment effectiveness and are potentially cost neutral to construct and maintain.
 - ✓ Work is currently underway, in collaboration with FREEE and Toronto Real Estate Agency (TRA), to evaluate opportunities for fire station location optimization and will be reported back as part of the 2019 Budget process.

- **Enhance service delivery and operational efficiency** through continued investment into technology in response to increasing fiscal pressures.

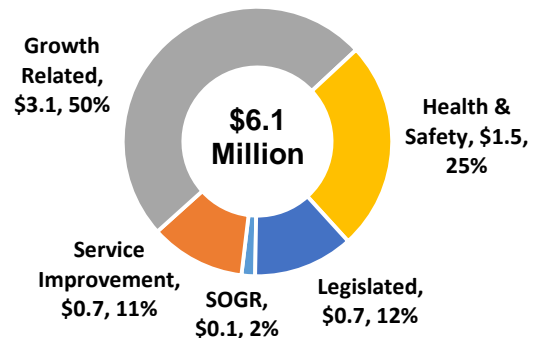


2018 CAPITAL BUDGET HIGHLIGHTS

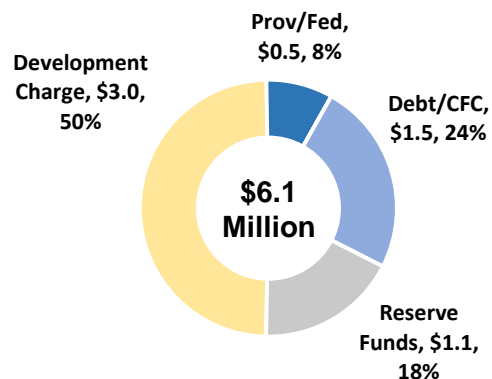
The 2018 Preliminary Capital Budget for TFS of \$6.138 million, excluding carry forward funding, will:

- Continue the next phase of 3 multi-year projects: Training Simulators and Facilities Rehabilitation, Firefighter Helmet Multi-year Replacement; and the HUSAR Equipment Replacement (\$1.138 million).
- Continue the construction of 2 new fire stations, Station A-Woodbine, and Station B-Downsview (\$3.053 million).
- Begin to deliver new projects, including the Replacement of one Breathing Air Compressor; Fire Prevention Technology Integration; Operational BI Data Architecture Modernization; and replace Defibrillators (\$1.777 million).
- Complete 1 previously approved project to replace Chemical, Biological, Radiological, Nuclear & Explosive (CBRNE) equipment (\$0.170 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:

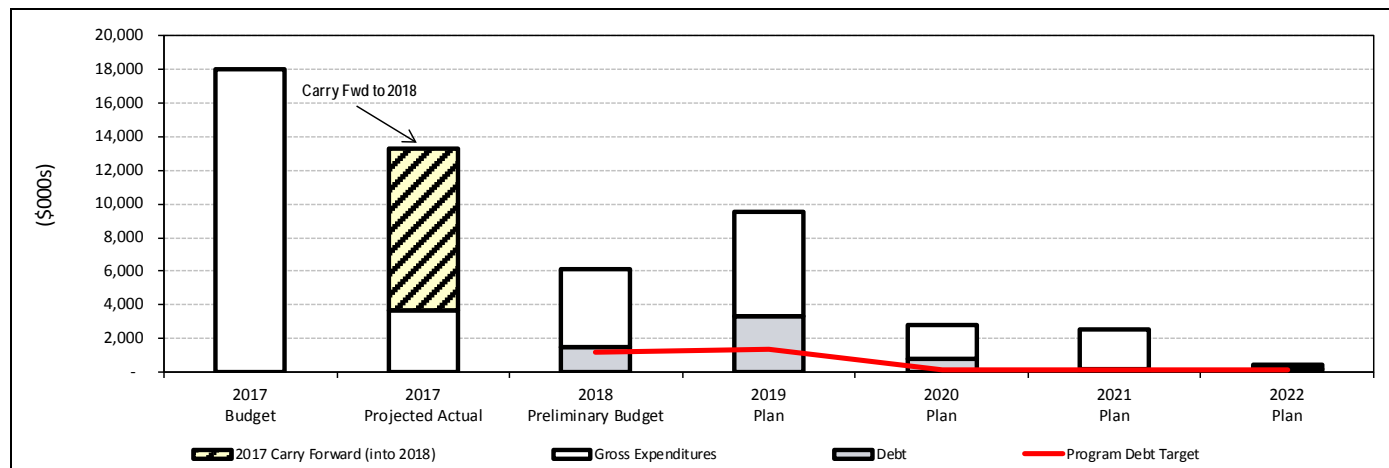
1. City Council approve the 2018 Capital Budget for Toronto Fire Services with a total project cost of \$4.693 million, and 2018 cash flow of \$15.731 million and future year commitments of \$8.334 million comprised of the following:
 - a) New Cash Flow Funds for:
 - i. Seven new / change in scope sub-projects with a 2018 total project cost of \$4.693 million that requires cash flow of \$2.615 million in 2018 and future year cash flow commitments of \$1.390 million for 2019; and \$0.688 million for 2020;
 - ii. Four previously approved sub-projects with a 2018 cash flow of \$0.470 million; and future year cash flow commitments of \$5.144 million for 2019;
 - iii. Two previously approved sub-projects with carry forward funding from 2016 and prior years requiring 2018 cash flow of \$3.053 million and 2019 cash flow of \$1.112 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 \$9.593 million.
2. City Council approve the 2019 - 2027 Preliminary Capital Plan for Toronto Fire Services \$35.240 million in project estimates, comprised of \$1.927 million for 2019; \$2.128 million for 2020; \$2.530 million for 2021; \$0.431 million for 2022; \$8.269 million for 2023; \$9.302 million for 2024; \$4.703 million for 2025; \$3.800 million for 2026 and \$2.150 million for 2027.
3. City Council consider the operating costs of \$0.355 million net in 2018; \$4.426 million net in 2019; \$0.591 million net in 2020; and \$0.126 million net in 2021 resulting from the approval of the 2018 Preliminary Capital Budget for inclusion in the 2018 and future year operating budgets.
4. City Council request Toronto Fire Services, in collaboration with Facilities, Real Estate, Environment & Energy and Toronto Real Estate Agency, provide to the Chief Financial Officer an update on the Fire Station Optimization and Real Estate Rationalization Plans with the Fire Services' 2019 Capital submission.



Part 1

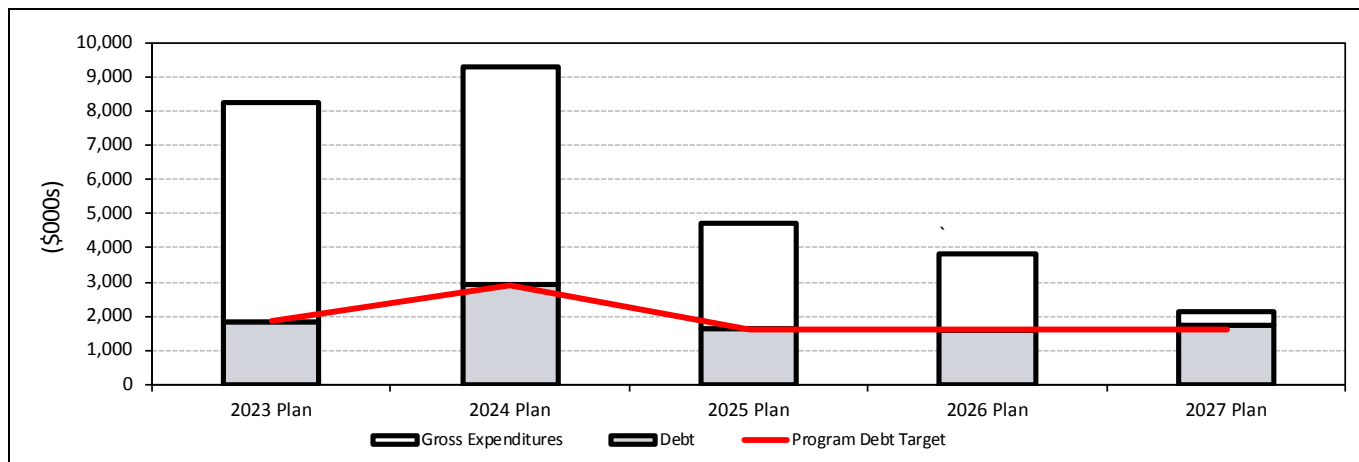
10-Year Preliminary Capital Plan

**Table 1a
10-Year Capital Plan
2018 Preliminary Capital Budget and 2019 - 2022 Capital Plan**



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 Future Year (FY) Commitments	17,981	3,710	5,414	200				5,614	26.1%
Changes to Approved FY Commitments			(4,944)	4,944					
2018 New/Change in Scope & FY Commitments			2,615	1,390	688			4,693	21.8%
2019 - 2022 Capital Plan Estimates				1,927	2,128	2,530	431	7,016	32.7%
2-Year Carry Forward for Reapproval		4,165	3,053	1,112				4,165	19.4%
1-Year Carry Forward to 2018		9,593							
Total Gross Annual Expenditures & Plan	17,981		6,138	9,573	2,816	2,530	431	21,488	100.0%
Program Debt Target			1,220	1,350	150	150	150	3,020	
Financing:									
Debt			1,494	3,340	838	150	150	5,972	27.8%
Reserves/Reserve Funds			1,091	609	1,978	2,380	281	6,339	29.5%
Development Charges			3,037	5,624				8,661	40.3%
Provincial/Federal			516					516	2.4%
Debt Recoverable									
Other Revenue									
Total Financing			6,138	9,573	2,816	2,530	431	21,488	100.0%
By Project Category:									
Health & Safety			1,545	377	1,978	2,380	281	6,561	30.5%
Legislated			738	50	50	50	50	938	4.4%
SOGR			100	700	100	100	100	1,100	5.1%
Service Improvement			702	1,390	688			2,780	12.9%
Growth Related			3,053	7,056				10,109	47.0%
Total by Project Category			6,138	9,573	2,816	2,530	431	21,488	100.0%
Asset Value (\$) at year-end									
Yearly SOGR Backlog Estimate (not addressed by current plan)									
Accumulated Backlog Estimate (end of year)									
Backlog: Percentage of Asset Value (%)									
Debt Service Costs			22	214	373	93	19	722	
Operating Impact on Program Costs			355	4,426	591	126		5,498	
New Positions			21	21				42	

**Table 1b
10-Year Capital Plan
2023 - 2027 Preliminary Capital Plan**



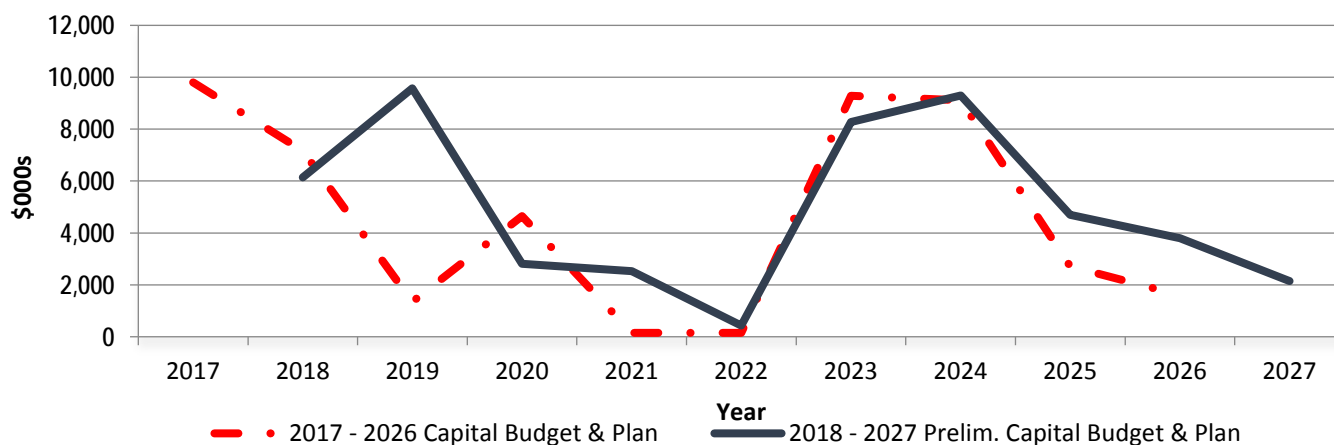
	2023 - 2027 Preliminary Capital Plan						10-Year Total Percent
	2023	2024	2025	2026	2027	2018 - 2027	
Gross Expenditures:							
2017 Capital Budget & Approved Future Year (FY) Commitments						5,614	11.3%
Changes to Approved FY Commitments							
2018 New/Change in Scope & FY Commitments						4,693	9.4%
2023 - 2027 Capital Plan Estimates	8,269	9,302	4,703	3,800	2,150	35,240	70.9%
2-Year Carry Forward for Reapproval						4,165	8.4%
Total Gross Annual Expenditures & Plan	8,269	9,302	4,703	3,800	2,150	49,712	91.6%
Program Debt Target	1,846	2,914	1,615	1,600	1,600	12,595	
Financing:							
Debt	1,846	2,914	1,615	1,600	1,750	15,697	31.6%
Reserves/Reserve Funds	2,783	2,822	1,986	2,200	400	16,530	33.3%
Development Charges	3,640	3,566	1,102			16,969	34.1%
Provincial/Federal						516	1.0%
Debt Recoverable							
Other Revenue							
Total Financing	8,269	9,302	4,703	3,800	2,150	49,712	100.0%
By Project Category:							
Health & Safety	2,783	5,234	1,986	3,650	2,000	22,214	44.7%
Legislated	50	50	50	50	50	1,188	2.4%
SOGR	100	100	100	100	100	1,600	3.2%
Service Improvement						2,780	5.6%
Growth Related	5,336	3,918	2,567			21,930	44.1%
Total by Project Category	8,269	9,302	4,703	3,800	2,150	49,712	100.0%
Asset Value(\$) at year-end							
Yearly SOGR Backlog Estimate (not addressed by current plan)							
Accumulated Backlog Estimate (end of year)							
Backlog: Percentage of Asset Value (%)							
Debt Service Costs	53	256	345	205	207	1,787	
Operating Impact on Program Costs						5,498	
New Positions						42	

Key Changes to the 2017 - 2026 Approved Capital Plan

The 2018 Preliminary Capital Budget and the 2019 - 2027 Preliminary Capital Plan reflects an increase of \$3.725 million in capital funding from the 2017 - 2026 Approved Capital Plan.

The chart and table below provide a breakdown of the \$3.725 million or 8.1% increase 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	9,802	7,164	1,350	4,650	150	150	9,286	9,118	2,717	1,600		45,987
2018 - 2027		6,138	9,573	2,816	2,530	431	8,269	9,302	4,703	3,800	2,150	49,712
Change %		(14.3%)	609.1%	(39.4%)	1,586.7%	187.3%	(11.0%)	2.0%	73.1%	137.5%		8.1%
Change \$		(1,026)	8,223	(1,834)	2,380	281	(1,017)	184	1,986	2,200		3,725

As made evident in Chart 1 above, the \$3.725 million increase in the Capital Plan over the nine common years of the Capital Plan (2018 – 2026) is due to the addition of five new projects and re-budgeting of the two year debt carry forward funding for the two stations as a result of construction delays. This increase has been offset by a decrease in capital investments for 2027 as compared to the capital spending approved in 2017 for the initial design, and construction for 2 fire stations.

As reflected in Table 2 on the following page, changes to the 2017 - 2026 Approved Capital Plan - specifically the \$11.377 million increase in capital funding over the nine common years of the Capital Plans (2018 – 2026), arise from the level of increased investment in capital projects, based on the following factors:

1. The inclusion of two year carry forward funding from development charges for the two new fire stations due to revised construction schedules, with previously approved commitments moved to 2019.
2. Cash flow funding adjustments for seven previously approved projects due to revised scheduled lifecycle replacements.
3. Additional funding allocated to two new technology projects based on the City-wide review of IT projects and unmet capital priorities.
4. New Federal funding addressed by Public Safety Canada for the lifecycle replacement of HUSAR equipment.

A summary of project changes for the common years of 2018 - 2026 totalling \$11.377 million are provided 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	9,802	7,164	1,350	4,650	150	150	9,286	9,118	2,717	1,600		36,185
2018 - 2027 Preliminary Capital Budget & Plan	-	6,138	9,573	2,816	2,530	431	8,269	9,302	4,703	3,800	2,150	47,562
Capital Budget & Plan Changes (2018 - 2026)		(1,026)	8,223	(1,834)	2,380	281	(1,017)	184	1,986	2,200		11,377

	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													
Station B (Stn 144) Keele St (Downsview)	7,519	(781)	3,147								2,366		9,885
Station A (Stn 414) - Woodbine	6,543	(1,110)	2,909								1,799		8,342
Total Changes to Previously Approved Commitments		(1,891)	6,056	-	-	-	-	-	-	-	4,165	-	
Changes to Previously Approved Plan Estimates													
Existing East Training Bldg Extended bays	400	(400)	400								-		400
The East/West Burn-House Technology Replacement	200	(200)	200								-		200
Purchase of Gas Meters for Fire Investigators	-										-	100	100
Lifecycle Replacement of CBRNE Equipment	-										-	500	500
Helmet Replacement -2024-2027	-										-	1,000	1,000
Replacement of HUSAR Equipment-Future Years	400										-	50	450
Training Simulators & Facilities Rehab Future Years	800										-	100	900
Personal Protection Equipment Replacement-2024 - 2027	-							100	1,900	2,200	4,200	400	4,600
Personal Protection Equipment Replacement-2019-2022	4,500		100	(2,600)	2,300	200					-		4,500
Defibrillators Lifecycle Replacement	2,100						(1,100)				(1,100)		1,000
Total Changes to Previously Approved Plan Estimates		(600)	700	(2,600)	2,300	200	(1,100)	100	1,900	2,200	3,100	2,150	
New to the 10-Year Capital Plan													
Breathing Air Compressor Replacement-2018	-	75									75		75
Breathing Air Compressor Replacement-Future Years	-		77	78	80	81	83	84	86		569		569
HUSAR Federal Public Safety Canada Funding	-	688									688		688
Fire Prevention Technology Integration	-	202	1,140	668							2,010		2,010
Operational BI Data Architecture Modernization	-	500	250	20							770		770
Total New	-	1,465	1,467	766	80	81	83	84	86	-	4,112	-	4,112
Total Changes		(1,026)	8,223	(1,834)	2,380	281	(1,017)	184	1,986	2,200	11,377	2,150	

Significant Capital Project Changes in Toronto Fire Services:

Cash flow funding for the following previously approved capital projects have 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

Deferrals/Accelerations:

- Due to revised construction schedules for *Station B-Downsview and Station A-Woodbine*, \$4.165 million in funding from development charges previously approved in 2016 will be re-budgeted for 2018, with previously planned cash flow funding for 2018 deferred to 2019.

Changes to Previously Approved Planned Project Estimates

- Planned *East Training Building* cash flow funding of \$0.400 million and *East/West Burn-House* cash flow funding of \$0.200 million have been deferred from 2018 to 2019 to reflect the project's readiness to proceed.
- Funding for five projects were added in 2027 based on scheduled lifecycle replacement: *Purchase of Gas Meters for Fire Investigators* (\$0.100 million), *Lifecycle Replacement of CBRNE Equipment* (\$0.500 million), *Helmet Replacement* (\$1.000 million), *Replacement of HUSAR Equipment* (\$0.050 million) and *Training Simulators & Facilities Rehab* (\$0.100 million).

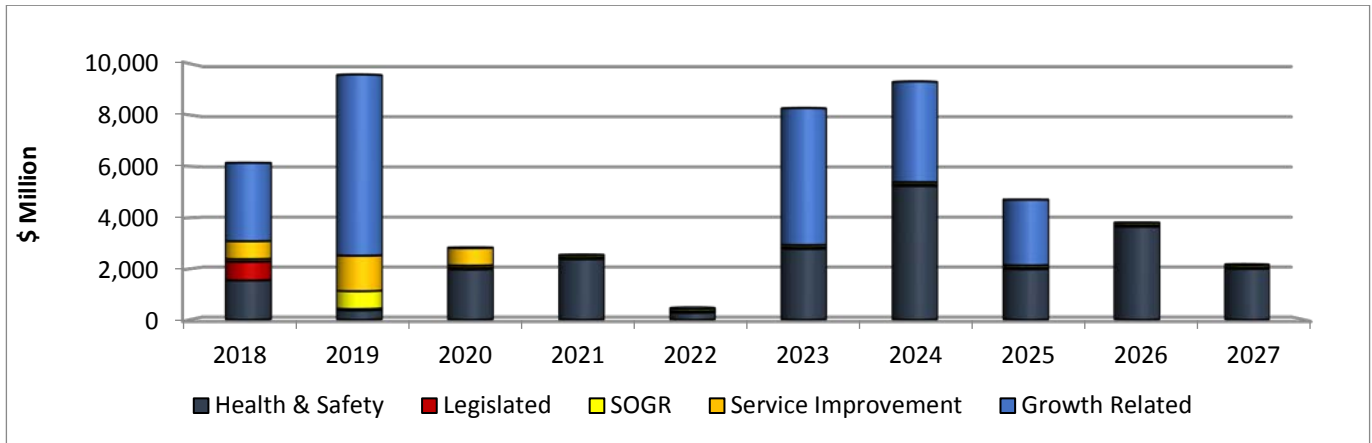
- *Personal Protection Equipment Replacement* cash flow of \$2.600 million has been realigned to better match the timing of replacement needs, while \$4.600 million has been added (2024 – 2027) to reflect project award in 2017 for the next replacement cycle.
- *Defibrillators Lifecycle Replacement* project expenditures of \$1.100 million have been deferred from 2023 to 2028 based on the change in replacement cycle from 5 to 10 years.

New to the 10-Year Preliminary Capital Plan

- The following capital projects are new to the 10-Year Preliminary Capital Plan. Following a City-wide review of unmet capital priorities, debt funding of \$2.952 million was added for three projects:
 - *The Fire Prevention Technology Integration* project at a cost of \$2.010 million requires \$0.202 million in 2018 and \$1.140 million in 2019 and \$0.668 million in 2020 to enhance existing systems to fully integrate and modernize Fire Prevention, Inspection, Investigation & Enforcement technology platforms.
 - *The Operational Business Intelligence Data Architecture Modernization Strategy Execution* project of \$0.770 million requires \$0.500 million in 2018 and \$0.250 million in 2019 and \$0.020 million in 2020 to connect systems and data architecture to improve efficiency and effectiveness, and to provide a consolidated view of critical data for decision making.
 - *The Toronto HUSAR Federal Public Safety Canada Funding* project of \$0.688 million gross and \$0.172 million debt in 2018 is required to acquire or maintain Heavy Urban Search and Rescue (HUSAR) equipment that is in need of replacement to ensure the team can operate in a safe and effective manner under the most adverse conditions. Federal funding of \$0.516 million will support 75% of the project cost through application to Public Safety Canada, with the City contributing 25% or \$0.172 million of the project cost.
- In addition, the following Health & Safety project has been added to the 10-Year Preliminary Capital Plan with funding from reserves:
 - *The Breathing Air Compressors (\$0.644 million)* for 8 stations that have reached end of life (10 years) and require replacement to be in compliance with regulatory requirements. The compressors provide access to clean certified high pressure air for firefighters entering areas deemed immediately dangerous to health & safety.

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 Toronto Fire Services of \$49.712 million provides 47.1% funding for Health & Safety and legislated projects as priorities, and 44.1% for Growth Related projects. State of Good Repair (SOGR) and Service Improvement projects represent the remaining 8.8% of capital works over the 10-year period.

- High level of cash flow funding of \$23.402 million has been dedicated to Health & Safety and Legislated projects to fund the scheduled replacement of portable and mobile radios, defibrillators, thermal imaging cameras and protective equipment used by fire fighters.
- Growth Related projects account for 44.1% or \$21.930 million in capital funding for projects such as the construction of *Station B-Downsview* (\$4.677 million), *Station A-Woodbine* (\$4.432 million), *Station G-Sunnybrook* (\$11.821 million) and the construction of the *East Training Building* (\$1.000 million).
- Service Improvement projects account for \$2.780 million of capital funding for projects such as *Fire Prevention Technology Integration* (\$2.010 million) and *Operational BI Data Architecture Modernization* (\$0.770 million).
- State of Good Repair projects account for \$1.600 million with the funding required to repair TFS' training facilities.

Table 3 below details all capital projects, by category, included in the 2018 - 2027 Preliminary Capital Budget and Plan for Toronto Fire Services:

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

	Total App'd Cash Flows to Date*	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
Total Expenditures by Category													
Health & Safety													
Replacement of Portable Radios-2024								5,050				5,050	5,050
Personal Protection Equipment Replacement-2024 - 2027								100	1,900	2,200	400	4,600	4,600
Personal Protection Equipment Replacement-2019-2022												4,500	4,500
Defibrillators Lifecycle Replacement		1,000	100	1,900	2,300	200						1,000	1,000
Mobile Radios Lifecycle Replacement -2023							2,700					2,700	2,700
Purchase of Gas Meters for Fire Investigators											100	100	100
Thermal Imaging Cameras										1,450		1,450	1,450
Replacement of CBRNE Equipment	340	170										170	510
Lifecycle Replacement of CBRNE Equipment											500	500	500
Helmet Replacement -2024 -2027											1,000	1,000	1,000
Helmet Replacement 2017-2019	800	300	200									500	800
Breathing Air Compressor Replacement-2018		75										75	75
Breathing Air Compressor Replacement-Future Years			77	78	80	81	83	84	86			569	569
Sub-Total	1,140	1,545	377	1,978	2,380	281	2,783	5,234	1,986	3,650	2,000	22,214	
Legislated													
Replacement of HUSAR Equipment 2018		50										50	50
Replacement of HUSAR Equipment-Future Years			50	50	50	50	50	50	50	50	50	450	450
HUSAR Federal Public Safety Canada Funding		688										688	688
Sub-Total		738	50	50	50	50	50	50	50	50	50	1,188	
State of Good Repair													
Training Simulators & Facilities Rehab 2018		100										100	100
Training Simulators & Facilities Rehab Future Years			100	100	100	100	100	100	100	100	100	900	900
Existing East Training Bldg Extended bays			400									400	400
The East/West Burn-House Technology Replacement			200									200	200
Sub-Total		100	700	100	100	100	100	100	100	100	100	1,600	1,600
Service Improvements													
Fire Prevention Technology Integration		202	1,140	668								2,010	2,010
Operational BI Data Architecture Modernization		500	250	20								770	770
Sub-Total		702	1,390	688								2,780	2,780
Growth Related													
Station B (Stn 144) Keele St (Downsview)	7,574	1,530	3,147									4,677	9,885
Station G Sunnybrook							5,336	3,918	2,567			11,821	11,821
Station A (Stn 414) - Woodbine	5,709	1,523	2,909									4,432	8,342
East Training - New Building on the Ground Floor			1,000									1,000	1,000
Sub-Total	13,283	3,053	7,056				5,336	3,918	2,567			21,930	31,048
Total Expenditures by Category (excluding carry forward)	14,423	6,138	9,573	2,816	2,530	431	8,269	9,302	4,703	3,800	2,150	49,712	35,428

*Life to Date approved cash flows are provided for multi-year capital projects with cash flow approvals prior to 2017, excluding ongoing capital projects (i.e. Civic Improvement projects)

2018 - 2027 Capital Projects

The 10-Year Preliminary Capital Plan is critical to reducing risk to both life and property and ensuring the efficiency, responsiveness, and health & safety of firefighters.

Health and Safety

- Health and Safety projects account for \$22.214 million or 44.7% of the total 10-Year Preliminary Capital Plan's expenditures:
 - *The Replacement of Portable Radios* project (\$5.050 million) in 2024 will address the lifecycle requirement to replace portable radios every seven years.
 - *The Personal Protection Equipment Replacement* project (\$9.100 million) will enable Fire Services to address the lifecycle requirement to replace 3,000 bunker suits every five years in accordance with NFPA standards.
 - *The Defibrillators Lifecycle Replacement* project (\$1.000 million) will provide funding to purchase and replace 180 defibrillators that were originally acquired in 2006 and have reached end of life.
 - *The Mobile Radios Lifecycle Replacement* project (\$2.700 million) will ensure that mobile radios past their expected life cycle of ten years will be replaced and installed in all front line emergency response vehicles as well as some support areas.
 - *The Purchase of Thermal Imaging Cameras (TIC)* project (\$1.450 million) for lifecycle replacement. The TIC devices translate thermal energy (heat) into visible light and enable firefighters to analyze objects through smoke. The use of TICs by TFS will measurably improve firefighter safety, public safety, and reduction of property loss and general efficiency of emergency operations.
 - *The Helmet Replacement* project (\$1.500 million) will ensure that firefighting helmets are replaced, every ten years from the date of manufacture, as required by NFPA.
 - *The Replacement of CBRNE Equipment* project (\$0.670 million) enables Fire Services to replace critical detectors used to detect the presence of unknown hazardous materials and substances that have reached the end of their reliable life cycle.
 - *The Purchase of Gas Meters required for Fire Investigators* project (\$0.100 million) provides funding for the purchase of air monitoring and detection equipment.
 - *The Breathing Air Compressors* (\$0.644 million) located in 8 fire stations have reached end of life (10 years) and require replacement. These breathing air compressors provide clean, certified, high pressure breathing air for firefighters entering areas which are immediately dangerous and a threat to health & safety.

Legislated

- Legislated projects total \$1.188 million or 2.8% of the total 10-Year Preliminary Capital Plan's expenditures:
 - *The Replacement of HUSAR Equipment* project (\$0.500 million) provides annual funding of \$0.050 million over the 10-year period for the continued replacement of emergency response equipment required by Fire Services' Heavy Urban Search and Rescue (HUSAR) team.
 - *The Toronto HUSAR Federal Public Safety Canada Funding* project (\$0.688 million) reflects additional funding in 2018 to acquire or maintain HUSAR equipment that is in need of replacement, in accordance with current standards. Federal funding of \$0.516 million is available through application to Public Safety Canada, provided the City contributes 25% or \$0.172 million of the project cost.

State of Good Repair (SOGR)

- SOGR projects account for \$1.600 million or 3.2% of the total 10-Year Preliminary Capital Plan's expenditures:

- *The Training Simulators / Facilities Rehabilitation* project (\$1.000 million) provides annual cash flows funding of \$0.100 million for the capital maintenance of the East & West Burn-houses training simulators and other training facilities. Burn-houses are used continually in live fire training exercises. High temperature exposure and flame impingement causes deterioration of concrete, steel and brick components, protection panels and burn pads requiring remediation.
- *The East Training Building – Garage Bay Extension* project (\$0.400 million) will fund the extension of garage bays in the existing facility to accommodate the storage of aerials and pumpers used for training, especially during the winter season. Inside storage will maximize the use of trucks for staff training.
- *The Burn House Burners/Technology Replacement* project (\$0.200 million) is required for the replacement of burn-house live fire simulators at the Toronto Fire Academy. The project will ensure year round training of newly hired fire fighters in the basic skills of firefighting, and seasoned fire fighters to maintain their acquired skills and to develop new techniques and tactics.

Service Improvements

- Service Improvement projects amount to \$2.780 million or 5.6% of the total 10-Year Preliminary Capital Plan's expenditures.
 - *The Fire Prevention Technology Integration* project (\$2.010 million) will update the existing system in order to fully integrate and develop new technology platforms relating to public education, fire prevention & inspection, and investigation & enforcement required to achieve the re-directed priorities identified in the Pomax Study. The project will enable a number of outcomes including market segmentation and data driven public education programming, evidence based fire safety inspection programs, increased data integrity and data mining capability for fire investigations, compliance with disclosure requirements and all other ancillary judicial necessities required in the enforcement of the Ontario Fire Code.
 - *The Operational BI Data Architecture Modernization* project (\$0.770 million) will create a target business intelligence environment and build identified "Extract/Transform/Load" processes with the goal of integrating systems and data architecture to provide critical data that is adaptable and accessible for all levels of decision making. Further, as directed by Executive Committee, this initiative will enhance TFS' ability to provide publicly-accessible fire prevention inspection data moving forward.

Growth Related

- Growth Related projects account for \$21.930 million or 44.1% of the total 10-Year Preliminary Capital Plan's expenditures.
 - *The Station B-Downsview* project (\$4.677 million) will provide funding to complete the construction of a new fire station (2013-2019) as recommended by the KPMG report of 1999 and TFS's Master Plan 2007.
 - *The Station A-Woodbine* project (\$4.432 million) will provide funding to complete the construction of a new fire station in the Woodbine Racetrack area at Hwy 27 and Rexdale, which will enhance fire protection service levels in the area. Funding was approved in 2014 for the purchase of land and the initial design and preparation of the site.
 - *The East Training – New Building of the Fire Ground* project (\$1.000 million) requires funding to provide a climate controlled facility to ensure that training is available for Fire Services staff on a 12 month basis.
 - *The Station G-Sunnybrook* project (\$11.821 million) is a new fire station scheduled to begin in 2023 to address the forecasted gaps in fire protection service levels in the Sunnybrook area.

2018 Preliminary Capital Budget and Future Year Commitments

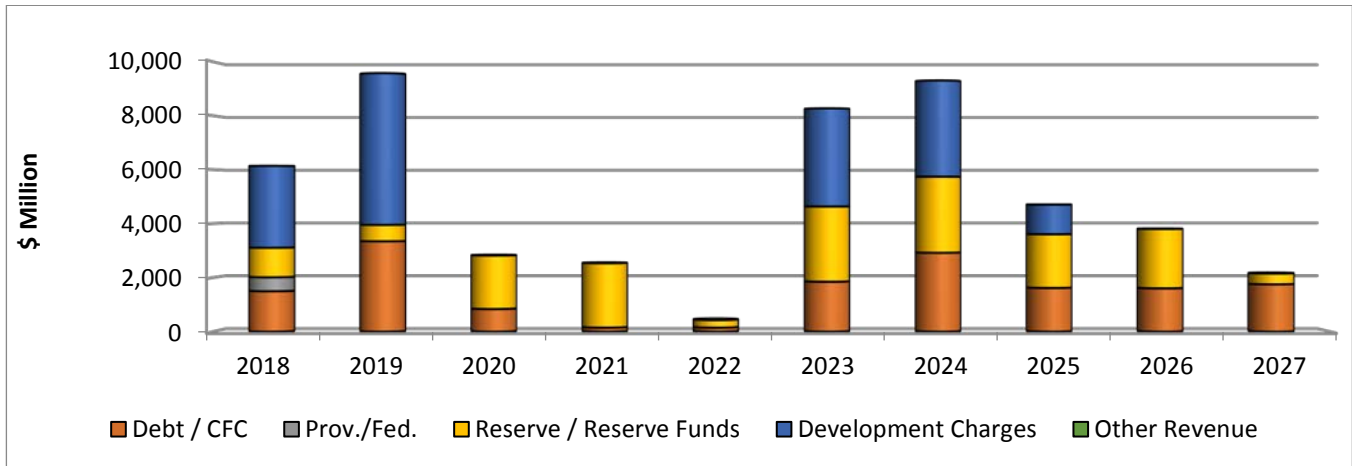
Included as a sub-set of the 10-Year Capital Plan is the 2018 Preliminary Capital Budget and Future Year Commitments, which consists of 2018 and future year cash flow funding estimates for projects previously approved by City Council; adjustments to the previously approved projects (scope change); as 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 Toronto Fire Services:

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											
<i>Station B (Stn 144) Keele St (Downsview)</i>	1,530	3,147									4,677
<i>Station A (Stn 414) - Woodbine</i>	1,523	2,909									4,432
<i>Replacement of CBRNE Equipment</i>	170										170
<i>Helmet Replacement 2017-2019</i>	300	200									500
Subtotal	3,523	6,256									9,779
New w/Future Year											
<i>Replacement of HUSAR Equipment 2018</i>	50										50
<i>HUSAR Federal Public Safety Canada Funding</i>	688										688
<i>Defibrillators Lifecycle Replacement</i>	1,000										1,000
<i>Training Simulators & Facilities Rehab 2018</i>	100										100
<i>Breathing Air Compressor Replacement-2018</i>	75										75
<i>Fire Prevention Technology Integration</i>	202	1,140	668								2,010
<i>Operational BI Data Architecture Modernization</i>	500	250	20								770
Subtotal	2,615	1,390	688								4,693
Total Expenditure	6,138	7,646	688								14,472
Financing:											
Debt/CFC	1,494	1,590	688								3,772
Debt Recoverable											
Other											
Reserves/Res Funds	1,091	432									1,523
Development Charges	3,037	5,624									8,661
Provincial/Federal	516										516
Total Financing	6,138	7,646	688								14,472

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



The 10-Year Preliminary Capital Plan of \$49.712 million will be financed by the following sources:

- Debt accounts for \$15.697 million or 31.6% of the financing over the 10-year period.
 - The debt funding is above the 10-year debt guidelines of \$12.595 million allocated to this Program by \$3.102 million as a result of the following:
 - Including two new IT Service Improvement projects based on the City-wide review of unmet capital priorities (\$2.780 million gross and debt).
 - Funding a new Legislated project to replace HUSAR equipment that has reached the end of life (\$0.688 million gross and \$0.172 million debt).
- Federal funding of \$0.516 million is available, constituting 1.0% of the 10-Year Preliminary Capital Plan's planned funding sources. This funding for the replacement of HUSAR equipment is available through application to Public Safety Canada, provided the City contributes 25% of the project cost.
- Reserve and Reserve Funds represent \$16.530 million or 33.3% of required funding over 10 years for the following major projects:
 - Fire Services' Equipment Reserve (XQ1020) will fully fund (\$16.082 million) the replacement of defibrillators (\$1.000 million); personal protective equipment (\$9.100 million); portable radios (\$2.638 million); mobile radios (\$2.700 million); and the breathing air compressors (\$0.644 million).
 - The Capital Financing Reserve (XQ0011) will partially fund the new fire station, Station A-Woodbine at the Woodbine Racetrack in the Rexdale and Hwy 27 area (\$0.448 million).
- Development Charges, which represent \$16.969 million or 34.1% of the 10-Year Preliminary Capital Budget and Plan's funding source, provides eligible funding for the three new fire stations.

State of Good Repair (SOGR) Backlog

The 10-Year Preliminary Capital Plan provides \$1.600 million for SOGR spending over the 10-year capital planning period, with \$1.000 million dedicated to the rehabilitation of training simulators and facilities at the East & West burn-houses; \$0.400 for garage bay extensions at the East training building; and \$0.200 million for the replacement of burn-house simulators at the Toronto Fire Academy.

TFS does not have a state of good repair backlog for its medical equipment or personal protective equipment as these are replaced according to TFS' Equipment Replacement schedule which is required to maintain service continuity, staff and patient safety and regulatory compliance.

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														
Replacement of CBRNE Equipment			30.0								30.0		30.0	
Station B (STN 144) Keele Street (Downsview)	260.0	21.0	2,067.0		255.0						2,582.0	21.0	2,582.0	21.0
Station A (Stn 414) Hwy 27 and Rexdale Blvd (Woodbine)			2,327.0	21.0	255.0						2,582.0	21.0	2,582.0	21.0
Computer Aided Dispatch Upgrade	15.0		1.0								16.0		16.0	
Emergency Communication System Enhancement	80.0		1.0		1.0		1.0				83.0		83.0	
Helmet Replacement					80.0						80.0		80.0	
Fire Prevention Technology Integration							125.0				125.0		125.0	
Total (Net)	355.0	21.0	4,426.0	21.0	591.0		126.0				5,498.0	42.0	5,498.0	42.0

The 10-Year Preliminary Capital Plan will increase future year Operating Budgets by a total of \$5.482 million net over the 2018 - 2027 period, as shown in the table above.

This is comprised of the following impacts to capital projects arising from the completion of capital projects:

- For 2018, The *Replacement of CBRNE Equipment* project will require an increase to the Equipment Reserve contribution to fund the scheduled replacement of this equipment.
- *Station B-Downsview* will require 21 new fire fighter positions in 2018 in preparation for the completion of the facility in early 2019, with an annualized impact in 2019, and will result in the need to fund additional maintenance and utility costs.
- *Station A-Woodbine* will require 21 new fire fighter positions in 2019 to coincide with the completion date of the facility and will result in additional maintenance and utility costs.
 - The completion of the *Computer Aided Dispatch Upgrade* and the *Emergency Communication Systems Enhancement* projects in 2018 will result in additional maintenance and service costs.
 - The *Fire Prevention Technology Integration* project will require software maintenance in 2021.
 - The *Helmet Replacement* project will require an increase to the Equipment Reserve contribution to fund the scheduled replacement of this equipment.

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



Part 2

Issues for Discussion

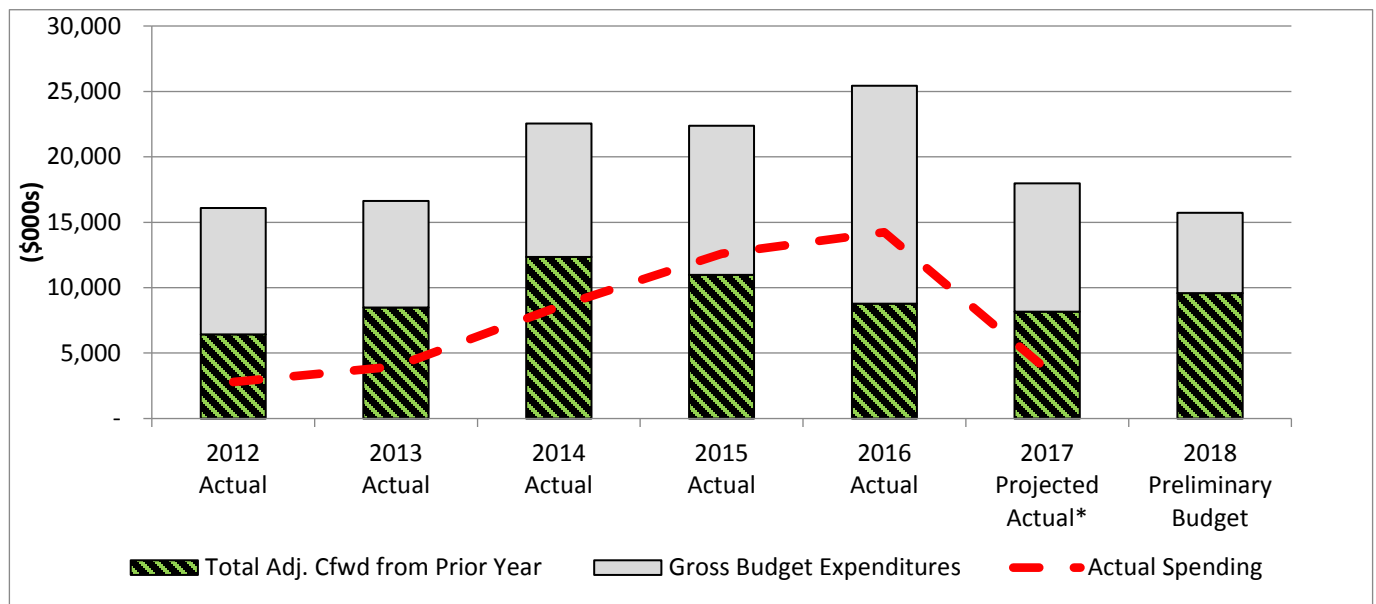
Issues Impacting the 2018 Capital Budget

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 Toronto Fire Services (TFS) 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 with planned projects; as well as the ability to leverage non-debt funding sources.
 - The 10-Year Preliminary Capital Plan includes carry forward funding of \$9.593 million in 2017 cash flows to future years based on project readiness and spending capacity by aligning to actual project timelines, and activities.
 - The Preliminary Capital Plan also reflects \$0.274 million in debt funding above the 2018 debt target of \$1.220 million and \$3.102 million over the 10-Year Capital Budget and Plan of \$12.595 million due to the addition of three new high priority legislated and service improvement projects following a corporate-wide review of urgent and unmet capital priorities.
 - TFS had an average annual spending rate over the past five years 2012 – 2016 of 38.9%, inclusive of multi-year major capital projects such as the construction of two new fire stations, Station A-Woodbine and Station B-Downsview, as well as purchase of specialized trucks. Average spending rates over this period for SOGR projects is 43.2%.
- The following tables illustrates TFS' rate of spending from 2012 to 2016 and the year-end projection for 2017.

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

Category	2012			2013			2014			2015			2016			Spending Rate 5 Year 2012-2016 Avg. %	2017		
	Budget	Actual	Spending Rate %	Budget	Actual	Spending Rate %	Budget	Actual	Spending Rate %	Budget	Actual	Spending Rate %	Budget	Actual	Spending Rate %		Budget	Projected Actual *	Spending Rate %
Health & Safety	343		0.0%	5,824	216	3.7%	5,581	1,940	34.8%	5,317	4,378	82.3%	5,035	4,582	91.0%	50.3%	5,914	501	8.5%
Legislated	200	23	11.5%	377	141	37.4%	50	50	100.0%	50	49	98.0%	50	46	92.0%	42.5%	54	54	100.0%
SOGR	1,426	676	47.4%	200	183	91.5%	1,100		0.0%	2,653	431	16.2%	3,832	2,687	70.1%	43.2%	2,231	747	33.5%
Service Improvement	4,808	786	16.3%	744	55	7.4%	3,743	1,450	38.7%	6,417	5,098	79.4%	3,243	2,460	75.9%	52.0%	781	567	72.6%
Growth Related	9,303	1,307	14.0%	9,481	3,399	35.9%	12,069	5,112	42.4%	7,949	2,646	33.3%	9,581	897	9.4%	27.6%	9,001	1,841	20.5%
Total	16,080	2,792	17.4%	16,626	3,994	24.0%	22,543	8,552	37.9%	22,386	12,602	56.3%	21,741	10,672	49.1%	38.9%	17,981	3,710	20.6%



- Factors contributing to the average 38.9% spend rate over the past five years include:
 - Delays in acquiring sites and building permits for the two fire stations, as well as design and scope changes due to unplanned events such as issues with site conditions that required the removal of sewer lines prior to construction.
 - Complexity of product specifications for specialized fire trucks and self-contained breathing apparatus that required prior approval from National Fire Protection Association (NFPA).
- Following a detailed review of planned cash flow estimates for all projects included in the 10-Year Preliminary Capital Plan, the following steps were taken to better align cash flow spending to project delivery schedules and activities:
 - Adjusting cash flows for projects based on progress-to-date and revised project schedules:
 - *Station A-Woodbine* and *Station B-Downsview*: a total of \$7.947 million was deferred to 2019 to reflect current construction timelines.
 - *The East/West Burn-House Technology replacement* and *Existing East Training Building Extended Bays* projects: \$0.600 million was deferred to 2019 to reflect the project's readiness to proceed.
 - Reprioritizing projects based on current needs and condition assessment:
 - *Defibrillators Lifecycle Replacement project*: \$1.100 million was deferred from 2023 to 2028 based on the updated replacement cycle from 5 to 10 years.
- Toronto Fire Services is currently implementing a number of initiatives and priority actions to improve capital spending rates in 2018. These actions include:
 - Better project planning and scheduling for Health and Safety projects that require detailed product specifications and approvals from other authorities to ensure there is proper alignment between project timelines and funding needs.
 - Better alignment of project cash flow funding for SOGR projects based on project readiness to proceed and project activities and timelines.

2018 - 2027 Preliminary Capital Plan vs Debt Targets

- The Program's 2018 Preliminary Capital Budget and 2019 - 2027 Preliminary Capital Plan is over the debt target over the 10 years as follows.

(\$000s)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
2018 - 2027 Preliminary Capital Plan	6,138	9,573	2,816	2,530	431	8,269	9,302	4,703	3,800	2,150	49,712
Debt Funding Required	1,494	3,340	838	150	150	1,846	2,914	1,615	1,600	1,750	15,697
Program Debt Target	1,220	1,350	150	150	150	1,846	2,914	1,615	1,600	1,600	12,595
Over/(Under) Debt Target	274	1,990	688							150	3,102

- As a result of the review of cash flows funding estimates based on the project's readiness to proceed, \$0.600 million in expenditures and associated debt for two state of good repair projects has been shifted from 2018 to 2019.
 - *The East/West Burn-House Technology replacement* (\$0.200 million) and *Existing East Training Building Extended Bays* (\$0.400 million).
 - The *Helmet Replacement project* for lifecycle replacement will require \$1.000 million in 2027 pushing the program over its debt target by \$0.150 million in 2027.
 - In addition, a total of \$7.947 million was deferred to 2019 for the Station A-Woodbine and Station B-Downsview projects.
- As a result of City-wide review of unmet capital priorities and the debt room created from the deferrals noted above, three new projects totalling \$3.468 million gross and \$2.952 million debt, were added to the 10-year Capital Plan.
 - *Operational BI Data Architecture Modernization* (\$2.010 million gross and debt).
 - *Fire Prevention Technology Integration* (\$0.770 million gross and debt).
 - *HUSAR Federal Public Safety Canada Funding* (\$0.688 million gross and \$0.172 million debt).

Issues Impacting the 10-Year Capital Plan

Unmet Needs

- The "Unmet Capital Needs" identified by Toronto Fire Services, are noted in the table below and will require additional debt funding to proceed.

Unmet Needs – Projects Excluded due to Funding Constraints (In \$000s)

Project Description (In \$000s)	Total Project Expenditure	Non-Debt Funding	Debt Required	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<i>Fire Prevention - Office Space Accomodation (3 Dohme)</i>	4,500.0		4,500.0	1,000.0	3,500.0								
<i>Business Continuity Improvement</i>	600.0		600.0	300.0	300.0								
<i>Video Project</i>	350.0		350.0	150.0	200.0								
<i>Battery Powered Auto-Extrication Tools</i>	580.0		580.0	580.0									
<i>Replacement of Fire Boat</i>	15,000.0		15,000.0								1,500.0	13,500.0	
Total	21,030.0		21,030.0	2,030.0	4,000.0						1,500.0	13,500.0	

- *Fire Prevention – South District Consolidation (3 Dohme)* project requires \$4.500 million to renovate current space located at 3 Dohme Ave. to accommodate the consolidated and expanded South District Fire Prevention office. This is a critical need as existing workspace is not meeting the needs of Fire Services staff. In February 2016, this City-owned property was transferred to Toronto Fire Services for this purpose, avoiding the need to build new space and to acquire new property. The renovation will provide office space to accommodate the recent addition of fire prevention and public education staff to TFS; and to support the consolidation of an existing fire prevention office, thereby enhancing overall efficiency.

- The expanded office space will include: 1) a new multi-purpose classroom, 2) expanded kitchen and lunchroom, 3) new secured storage area, 4) expanded gender-appropriate and AODA compliant washroom facilities, and 5) the creation of a fire prevention hands-on training lab. The renovations will also provide: 2 fire prevention offices (14 staff), 1 public education office (7 staff), and a professional standards and training office (6 staff).
- *Business Continuity Improvement project* requires \$0.600 million to implement hardware, system software and network upgrades to improve the capacity of systems used in daily operations. These upgrades will significantly reduce or eliminate the magnitude of disruptive events, equipment failures, network outages or maintenance cycles required for service delivery and business continuity.
- *The Video Project* requires \$0.350 million to modernize the program's video display capability, including large scale video display, and switching technology and interfaces to display content from several sources. Operational benefits will result in improved situational awareness and incident management capabilities of the communications centres. In addition, the rollout of this project will result in improvements for call processing times for highway incidents, provide greater visibility of Dynamic Staging, and enhance traffic monitoring or system/operator display
- *Battery Powered Auto-Extrication Tools project* requires \$0.580 million to provide funding to purchase 19 rechargeable battery powered auto extrication tools. The addition of battery-powered auto extrication tools will improve the safety and speed of vehicle and industrial rescues, subway rescues and confined space rescues as they will be able to be accomplished without the weight, noise, fuel concerns and emissions associated with gas powered units.
- *The Fireboat Replacement project* at a cost of \$15.000 million will support the replacement of the current vessel, which was built in 1964, and refurbished in 2004. The current fireboat is expected to be in service until 2025. The fireboat is available 24/7 and provides critical emergency services within Toronto Harbour, the adjacent waters of Lake Ontario and waterfront areas of Toronto. Throughout the winter the fireboat is engaged in regular ice breaking services required to prevent ice build-up on ferry routes and the dock areas, as well as keeping lanes open to strategic points on the island.
- The "Unmet Capital Needs" identified above cannot be accommodated within the City's current debt targets given the limitations on debt servicing costs and therefore not included in the 2018 - 2027 preliminary Capital Plan for Toronto Fire Services. These projects will be included on the list of unfunded "Capital Priorities" considered for future funding in future budget process.

TFS Portfolio Optimization Strategy

- TFS has a portfolio of 91 facilities, including 83 fire stations and 3 training facilities totaling 836,000 square feet and a current estimated building replacement value (on existing lands) of \$401.912 million.
- In partnership with the FREEE and Toronto Real Estate Agency building conditions audits have been completed for all TFS facilities. These audits have been used to apply the Facilities Condition Index (FCI) evaluation matrix and a comprehensive FCI assessment of all TFS facilities has been produced.
 - The FCI assessments indicate that the current TFS facility SOGR backlog of approximately \$10.4 million is expected to rise to \$105.4 million, or 26.2% of TFS's asset value by 2027 and will require \$27.2 million in maintenance costs over the 10-year planning horizon. In the event that essential repairs are not completed, further physical damage and deterioration of property will occur.
 - The evaluation also indicates that 13 TFS facilities are in "poor" condition and may be beyond the point of cost-viable repair or renovation.

- The logistics and practical delivery of the repairs and renovations are complex, with a number of variables affecting the maintenance needs of the TFS facilities aside from additional funding requirements. Other issues associated with the viability of implementing major maintenance upgrades include:
 - Consideration of potentially building new stations, to replace existing fire stations deemed not worth renovating or repairing based upon the FCI, with new fire stations in optimized locations, resulting in enhanced fire protection service levels;
 - Standardization of fire station design and layout to improve turnout times and crew response;
 - Identification of potential "storefront" fire station sites in developing community locations that would enable TFS to better meet the needs of growing and expanding communities; and
 - Identification of community hub and multi-purpose design opportunities that would enable future fire stations to be integrated into various community hub and residential development proposals as opposed to maintaining the traditional stand-alone fire station model.
- In addition to the compounding state of good repair backlog, the 2015-2019 Toronto Fire Services Master Fire Plan also identified densification and congestion in the City as major issues requiring innovative solutions that support the program's ongoing efforts to achieve its strategic objective of keeping communities safe, empowering people, strengthening partnerships and improving performance.
- The TFS Portfolio Optimization Strategy project, in collaboration with FREEE and Toronto Real Estate Agency is underway. This will identify and evaluate opportunities to rationalize the portfolio through potential Public-Private partnership options for future fire station models and to undertake a comprehensive review of fire station placement in consideration of facility condition indexing of existing facilities.
 - The project's objectives are based on the following criteria:
 - Ensuring that the TFS facilities portfolio maintains optimal fire station locations;
 - Improving TFS response times;
 - Identifying and pursuing potential co-location synergies;
 - Identifying operational efficiencies; and
 - Unlocking land value opportunities in an effort to create a viable, non-tax based revenue source to address the TFS SOGR back log issues.
 - TFS is evaluating opportunities for fire station location optimization for the 13 TFS facilities that have been assessed as being in "poor" condition through the FCI process.
 - This evaluation will inform the process of identifying opportunities for portfolio development in conjunction with other city building priorities, planned developments and the city real estate rationalization strategy.
 - TFS is exploring colocation opportunities with other emergency services.

The outcomes from the TFS Portfolio Optimization Strategy project will inform the capital planning needs for TFS, FREEE and TRA in future years.

It is recommended that Toronto Fire Services, in collaboration with Facilities, Real Estate, Environment & Energy and Toronto Real Estate Agency, provide an update to the Chief Financial Officer on the Fire Station Optimization Plan with Fire Services' 2019 Capital Budget Submission



Appendices

Appendix 1

2017 Performance

2017 Key Accomplishments

In 2017, Toronto Fire Services made significant progress and/or accomplished the following:

- ✓ Completed *Computer Aided Dispatch* project that upgraded the current TFS CAD system from version 9.1 to version 9.3 and transitioned from an Oracle database to an SQL database format.
- ✓ Completed *Bunker Suit Lifecycle Replacement* project.
- ✓ Completed *Emergency Communication System Enhancement* project that will increase the functionality of mobile applications of frontline apparatus that require additional bandwidth.
- ✓ *High Rise Response Trucks* project is 95% completed with expected delivery in early January 2018.
- ✓ Developed the Business Cases for the newly approved IT projects.

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
17,981	749	4.2%	3,710	20.6%	14,271	79.4%

Three major projects are significantly underspent and underspent funding will be carried forward into 2018 from 2017. These projects include: *Station A-Woodbine* for \$2.192 million; *Station B-Downsview* for \$0.720 million and the *Replacement of Portable Radios* for \$5.000 million. The 2 new fire stations have been deferred primarily due to delays in the site plan approval and in the land title transfer. The RFQ for the *Replacement of Portable Radios* has been delayed due to the complexity of establishing user requirements within a Toronto Police Service's lead procurement process.

For additional information regarding the 2017 Q3 capital variances and year-end projections for Toronto Fire Services, 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

- As a result of the delays in the capital projects described in the 2017 Q3 Capital Variance Report, funding of \$9.593 million is being carried forward from 2017 for inclusion in the 2018 Preliminary Capital Budget to continue the capital work.
- In addition, \$4.165 million in cash flow funding for *Station A-Woodbine* and *Station B-Downsview* is being carried forward from 2016 and requires Council to reaffirm its commitment, consistent with the treatment of funding being carried forward 2 or more years.
- The 2018-2027 Preliminary Capital Budget and Plan includes revised cash flows for the construction projects. By delaying the cash flows for the projects requiring carry forward funding, the Program has realigned cash flow estimates in 2018 to match the revised spending projections.

Appendix 2

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

Project	Total Project Cost	Prior Year Carry Forward	2018	2019	2020	2021	2022	2018 - 2022	2023	2024	2025	2026	2027	2018 - 2027 Total
Health & Safety:														
Replacement of Portable Radios-2017	5,000	5,000						5,000						5,000
Replacement of Portable Radios-2024	5,050									5,050				5,050
Personal Protection Equipment Replacement-2024 - 2027	4,600									100	1,900	2,200	400	4,600
Personal Protection Equipment Replacement-2019-2022	4,500			100	1,900	2,300	200	4,500						4,500
Defibrillators Lifecycle Replacement	1,000		1,000					1,000						1,000
Mobile Radios Lifecycle Replacement -2023	2,700								2,700					2,700
Purchase of Gas Meters for Fire Investigators	100												100	100
Thermal Imaging Cameras	1,450											1,450		1,450
Replacement of CBRNE Equipment	510	29	170					199						199
Lifecycle Replacement of CBRNE Equipment	500												500	500
Helmet Replacement -2024 -2027	1,000												1,000	1,000
Helmet Replacement 2017-2019	800	300	300	200				800						800
Breathing Air Compressor Replacement-2018	75		75					75						75
Breathing Air Compressor Replacement-Future Years	569			77	78	80	81	316	83	84	86			569
Sub-Total	27,854	5,329	1,545	377	1,978	2,380	281	11,890	2,783	5,234	1,986	3,650	2,000	27,543
Legislated:														
Replacement of HUSAR Equipment 2018	50		50					50						50
Replacement of HUSAR Equipment-Future Years	450			50	50	50	50	200	50	50	50	50	50	450
HUSAR Federal Public Safety Canada Funding	688		688					688						688
Sub-Total	1,188		738	50	50	50	50	938	50	50	50	50	50	1,188
State of Good Repair:														
Emergency Fire Communication Workstation Console Replacement	600	545						545						545
Fire Prevention Office Space Accommodation	450	400						400						400
Training Simulators & Facilities Rehab 2017	100	100						100						100
Training Simulators & Facilities Rehab 2018	100		100					100						100
Training Simulators & Facilities Rehab Future Years	900			100	100	100	100	400	100	100	100	100	100	900
Existing East Training Bldg Extended bays	400			400				400						400
The East/West Burn-House Technology Replacement	200			200				200						200
The East/West Burn-House Wall Flame Protection	250	225						225						225
Sub-Total	3,000	1,270	100	700	100	100	100	2,370	100	100	100	100	100	2,870
Service Improvements:														
Fire Prevention Technology Integration	2,010		202	1,140	668			2,010						2,010
Operational BI Data Architecture Modernization	770		500	250	20			770						770
Sub-Total	2,780		702	1,390	688			2,780						2,780
Growth Related:														
Station B (Stn 144) Keele St (Downsview)	9,885	720	1,530	3,147				5,397						5,397
Station G Sunnybrook	11,821							-	5,336	3,918	2,567			11,821
Station A (Stn 414) - Woodbine	8,342	2,192	1,523	2,909				6,624						6,624
Specialized Trucks & Equipment	3,350	82						82						82
East Training - New Building on the Ground Floor	1,000			1,000				1,000						1,000
Sub-Total	34,398	2,994	3,053	7,056				13,103	5,336	3,918	2,567			24,924
Total	69,220	9,593	6,138	9,573	2,816	2,530	431	31,081	8,269	9,302	4,703	3,800	2,150	59,305

Appendix 3

2018 Preliminary Capital Budget; 2019 - 2027 Capital Plan

CITY OF TORONTO

Gross Expenditures (\$000's)

Fire Services

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	Reserve Reserves	Capital from Current Funds	Other 1	Other2	Debt - Recoverable Debt	Total Financing		
<u>FIR908457 Operational BI Data Architecture Modernization</u>																								
3	1	Operational BI Data Architecture Modernization	CW	S4	04	500	250	20	0	0	770	0	770	0	0	0	0	0	0	0	770	0	770	
Sub-total						500	250	20	0	0	770	0	770	0	0	0	0	0	0	0	770	0	770	
Total Program Expenditure						15,731	9,573	2,816	2,530	431	31,081	28,224	59,305	0	516	18,431	19,674	0	0	725	0	19,959	0	59,305

CITY OF TORONTO

Gross Expenditures (\$000's)

Fire Services						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
Sub- Priority	Project No. SubProj No.	Project Name Sub-project Name	Ward	Stat.	Cat.																	
Financed By:																						
		Federal Subsidy				516	0	0	0	0	516	0	516	0	0	0	0	0	0	516		
		Development Charges				4,499	5,624	0	0	0	10,123	8,308	18,431	0	0	18,431	0	0	0	18,431		
		Reserves (Ind. "XQ" Ref.)				4,235	609	1,978	2,380	281	9,483	10,191	19,674	0	0	19,674	0	0	0	19,674		
		Other1 (Internal)				725	0	0	0	0	725	0	725	0	0	0	725	0	0	725		
		Debt				5,756	3,340	838	150	150	10,234	9,725	19,959	0	0	0	0	0	19,959	19,959		
Total Program Financing						15,731	9,573	2,816	2,530	431	31,081	28,224	59,305	0	516	18,431	19,674	0	725	0	19,959	59,305

- 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)

Fire Services						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
Sub- Priority	Project No. SubProj No.	Project Name Sub-project Name	Ward	Stat.	Cat.																		
Financed By:																							
		Federal Subsidy				516	0	0	0	0	516	0	516	0	0	0	0	0	0	0	516		
		Development Charges				4,499	5,624	0	0	0	10,123	0	10,123	0	0	10,123	0	0	0	0	10,123		
		Reserves (Ind. "XQ" Ref.)				4,235	432	0	0	0	4,667	0	4,667	0	0	4,667	0	0	0	0	4,667		
		Other1 (Internal)				725	0	0	0	0	725	0	725	0	0	0	0	725	0	0	725		
		Debt				5,756	1,590	688	0	0	8,034	0	8,034	0	0	0	0	0	8,034	0	8,034		
Total Program Financing						15,731	7,646	688	0	0	24,065	0	24,065	0	0	10,123	4,667	0	0	725	0	8,034	24,065

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

(Phase 2) 13-Fire Services Sub-Project Category: 01,02,03,04,05,06,07 Type: B Sub-Project Status: S2 Type: C Sub-Project Status: S2,S3,S4,S5



CITY OF TORONTO

Fire Services
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
1	<u>FIR908301</u>	<u>Helmet Replacement</u>													
1	1	1 Helmet Replacement-2017-2019	01/01/2017	12/31/2019	600	0	0	0	0	0	0	0	0	600	0
		Project Sub-total:			600	0	0	0	0	0	0	0	0	600	0
1	<u>FIR908453</u>	<u>HUSAR Federal Public Safety Canada Funding</u>													
1	1	1 Toronto HUSAR Federal Public Safety Canada Funding	01/01/2018	12/31/2018	688	0	516	0	0	0	0	0	0	172	0
		Project Sub-total:			688	0	516	0	0	0	0	0	0	172	0
2	<u>FIR908302</u>	<u>Fire Prevention Office Space Accommodation</u>													
2	1	1 Fire Prevention Office Space Accommodation	01/01/2017	12/31/2018	400	0	0	0	0	0	0	400	0	0	0
		Project Sub-total:			400	0	0	0	0	0	0	400	0	0	0
2	<u>FIR908456</u>	<u>Fire Prevention Technology Integration</u>													
2	1	1 Fire Prevention Technology Integration	01/01/2018	12/31/2020	202	0	0	0	0	0	0	0	0	202	0
		Project Sub-total:			202	0	0	0	0	0	0	0	0	202	0
3	<u>FIR908457</u>	<u>Operational BI Data Architecture Modernization</u>													
3	1	1 Operational BI Data Architecture Modernization	01/01/2018	12/31/2020	500	0	0	0	0	0	0	0	0	500	0
		Project Sub-total:			500	0	0	0	0	0	0	0	0	500	0
4	<u>FIR908455</u>	<u>Breathing Air Compressor Replacement</u>													
4	1	1 Breathing Air Compressor Replacement	01/01/2018	12/31/2018	75	0	0	0	75	0	0	0	0	0	0
		Project Sub-total:			75	0	0	0	75	0	0	0	0	0	0
Program Total:					15,731	0	516	4,499	4,235	0	0	725	0	5,756	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 / Sub Project 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	
XQ1020 Vehicle Reserve-Fire Equipment	Beginning Balance	2,932	2,932	3,204	4,364	3,723	2,680	3,736	2,290	805	156	40	
	Withdrawals (-)												
	Defibrillators Lifecycle Replacement		(1,000)										(1,000)
	Personal Protection Equipment Replacement			(100)	(1,900)	(2,300)	(200)		(100)	(1,900)	(1,453)	(1,147)	(9,100)
	Replacement of Portable Radios								(2,638)				(2,638)
	Mobile Radios Lifecycle Replacement							(2,700)					(2,700)
	Breathing Air Compressor		(75)	(77)	(78)	(80)	(81)	(83)	(84)	(86)			(644)
	Total Withdrawals		(1,075)	(177)	(1,978)	(2,380)	(281)	(2,783)	(2,822)	(1,986)	(1,453)	(1,147)	(16,082)
	Contributions (+)		1,347	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	13,380
	Total Contributions		1,347	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	13,380
Total Reserve Fund Balance at Year-End		2,932	3,204	4,364	3,723	2,680	3,736	2,290	805	156	40	230	(2,702)

* Based on the 2017 Q3 Variance Report

Reserve / Reserve Fund Name	Project / Sub Project 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	
XR2023/XR2118 Development Charges RF-Fire	Beginning Balance	7,442	7,442	6,752	3,507	5,901	8,319	10,752	9,594	8,560	9,990	12,522	
	Withdrawals (-)												
	Station A (Woodbine)		(1,507)	(2,477)									(3,984)
	Station B (Downsview)		(1,530)	(3,147)									(4,677)
	Station G (Sunnybrook)							(3,640)	(3,566)	(1,102)			(8,308)
	Total Withdrawals		(3,037)	(5,624)				(3,640)	(3,566)	(1,102)			(16,969)
	Contributions (+)		2,347	2,379	2,394	2,418	2,433	2,482	2,532	2,532	2,532	2,532	24,581
Total Contributions		2,347	2,379	2,394	2,418	2,433	2,482	2,532	2,532	2,532	2,532	24,581	
Total Reserve Fund Balance at Year-End		7,442	6,752	3,507	5,901	8,319	10,752	9,594	8,560	9,990	12,522	15,054	7,612

* Based on the 2017 Q3 Variance Report

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

Reserve / Reserve Fund Name	Project / Sub Project 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	
XQ0011 Capital Financing Reserve	Beginning Balance	357,239	357,239	357,223	356,791	356,791	356,791	356,791	356,791	356,791	356,791	356,791	
	Withdrawals (-)												
	Station A (Woodbine)		(16)	(432)									(448)
Total Withdrawals		(16)	(432)									(448)	
Total Reserve Fund Balance at Year-End		357,239	357,223	356,791	356,791	356,791	356,791	356,791	356,791	356,791	356,791	356,791	(448)

* Based on the 2017 Q3 Variance Report