



Toronto 2016 BUDGET

CAPITAL BUDGET NOTES



Toronto Fire Services

2016 – 2025 CAPITAL BUDGET AND PLAN OVERVIEW

Toronto Fire Services (TFS) is dedicated to protect life, property and the environment from the effects of fires, illnesses, accidents, natural disasters and other hazards.

TFS currently operates 83 fire stations and 9 support facilities with a total area of approximately 775,125 sq. ft. with an estimated replacement value of \$387.562 million.

Fire Services' 10-Year Capital Plan of \$57.240 million provides funding for the replacement of equipment such as portable radios, defibrillators and bunker suits, the construction of 3 new fire stations based on forecasted population density and associated emergency response times and technological changes to improve efficiency in response to service demands.

Some of the technology advancements include the implementation of predictive modelling tool and enhancements to the Computer Aided Dispatch (CAD) that will aid in ensuring operational resources are positioned across the city in the most optimal locations.

Highlights

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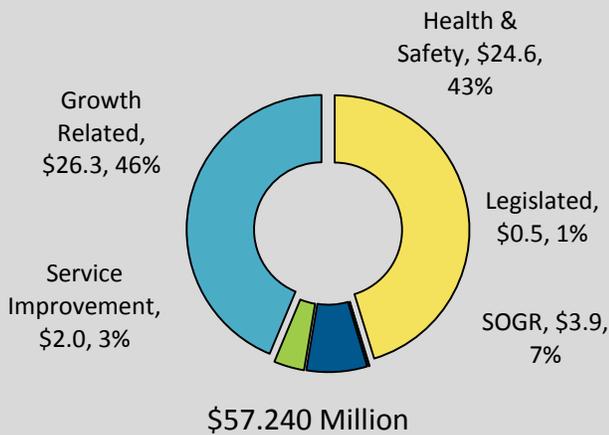
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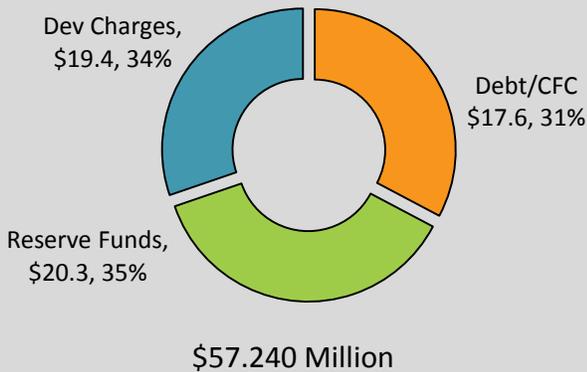
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Capital Spending and Financing

2016-2025 Capital Budget and Plan by Expenditures Category



2016-2025 Capital Budget and Plan by Funding Source



Where does the money go?

The 2016–2025 Capital Budget and Plan totalling \$57.240 million provides funding for:

- Health and Safety projects which include the replacement purchase of medical equipment and a legislated project for the annual replacement of Heavy Urban Search & Rescue equipment.
- Growth related projects for the construction of 3 new fire stations and the purchase of specialized trucks and equipment.
- Service Improvements include the rebuild of Chaplin Fire Station, South District consolidation and enhancements to the Emergency Communication System.
- State of Good Repair (SOGR) projects include funding for the maintenance of training equipment and facilities and enhancements to the Computer Aided Dispatch system.

Where does the money come from?

The 10-year Capital Plan of \$57.240 is funding from the following sources:

- New debt funding of \$17.618 million comprises 30.8% of total funding which is below the debt guideline over the 10-year planning period;
- Development Charge funding of \$19.362 million or 33.8% based on the portion of projects that are eligible for growth related funding;
- Reserve/Reserve funding of \$20.260 million or 35.4% from three reserves, the Equipment Reserve Fund, Capital Financing Reserve, and the Land Acquisition Reserve Fund.

State of Good Repair Backlog

- The 10-Year 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 Management & Real Estate (FM&RE) in 2010 to ensure that consistency in maintenance standards are applied through City facilities.
- Facility Management & Real Estate' 10-Year Capital Plan includes \$32.369 million over 10 years to address Fire Services' SOGR backlog for facilities occupied by TFS which is estimated at \$104.398 million or 26.9% as a percentage of asset value of \$387,563 million by 2024.
- TFS does not have a state of good repair backlog for its equipment as these are replaced according to TFS' Equipment Replacement schedule which is required to maintain service continuity, staff safety and regulatory compliance.

Key Issues & Priority Actions

Fire Services Master Fire Plan - Calls for strategic placement of fire stations and the required fire apparatus and equipment to address anticipated growth.

- ✓ The 2016-2025 Capital Plan includes the construction of three new fire stations and the rebuild of an existing fire station in areas within the City which is consistent with the Fire Master Plan

Fire Services/EMS Efficiency Review & Fire Underwriters Survey (FUS) - Identified improvements in emergency communication and alerting systems to assist in the deployment of fire resources and apparatus to improve overall response time.

- ✓ The 2015-2024 Capital Plan included investment in technology such as dynamic staging/predictive modelling capability, enhancement to the Computer Aided Dispatch (CAD) that will aid in the deployment of fire resources and increased deployment of mobile technology in the field.
- ✓ The 2016-2025 Capital Plan includes the purchase of specialized trucks and equipment such as Trench Rescue Roll-Off truck, high-rise response truck, decontamination truck, ground ladder tenders, etc. in response to service demands.

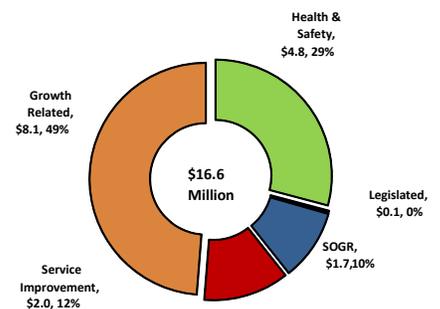
2016 Capital Budget Highlights

The 2016 Capital Budget for Toronto Fire Services of \$16.634 million, excluding carry forward funding, will:

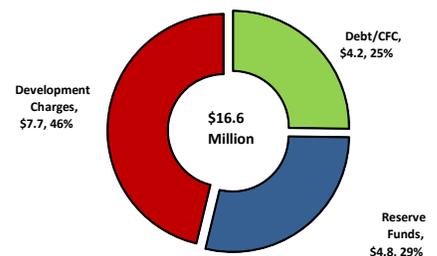
- Begin three new multi-year projects which include the purchase of gas meters, CBRNE equipment; and replacement of the Emergency Fire Communication Workstation Consoles (\$0.270 million).
- Complete thirteen capital projects such as the purchase of bunker suits; thermal imaging cameras and specialized trucks and equipment, upgrades to the computer aided dispatch and the emergency communication system, renovation of the South Command Fire Prevention Office consolidation, and the acquisition of pulse oximeters. (\$10.035 million).
- Continue the construction of two previously approved fire station projects, Station B (Downsview), and Station A (Woodbine) with completion estimated in 2017 (\$6.329 million).



2016 Capital Project by Project Category



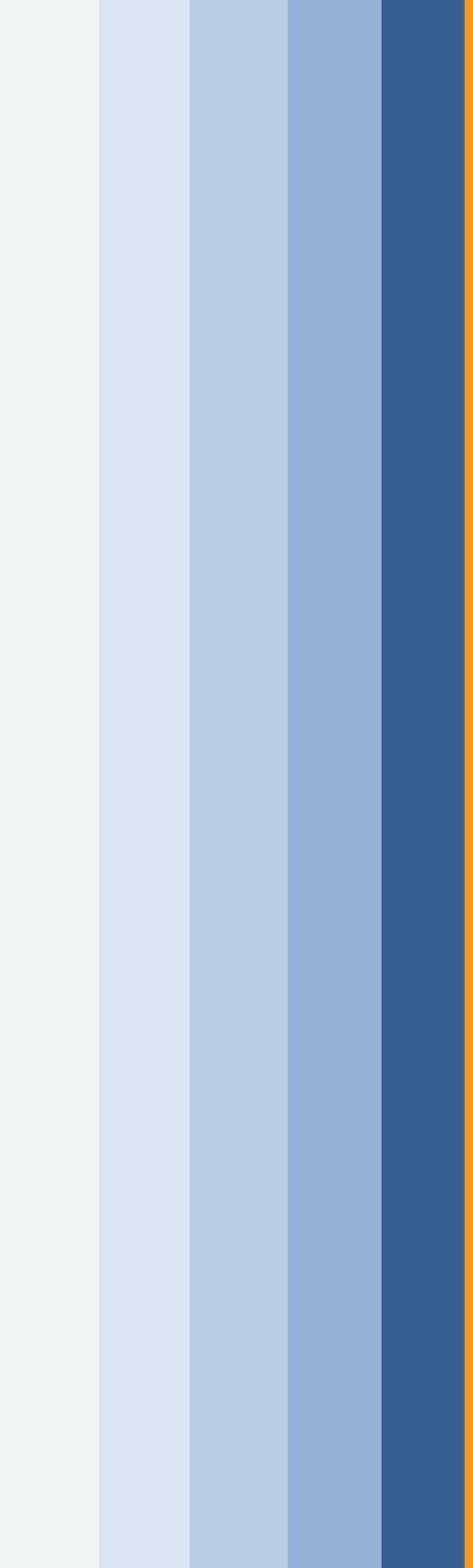
2016 Capital Project by Funding Source



Actions for Consideration

Approval of the 2016 Preliminary Budget as presented in these notes requires that:

1. City Council approve the 2016 Capital Budget for Toronto Fire Services with a total project cost of \$2.780 million, and 2016 cash flow of \$20.983 million and future year commitments of \$6.235 million comprised of the following:
 - a) New Cash Flow Funds for:
 - i. 10 new / change in scope sub-projects with a 2016 total project cost of \$2.780 million that requires cash flow of \$1.870 million in 2016 and future year cash flow commitments of \$0.740 million for 2017; and \$0.170 million for 2018;
 - ii. 9 previously approved sub-projects with a 2016 cash flow of \$10.933 million; and future year cash flow commitments of \$5.325 million for 2017;
 - iii. 3 previously approved sub-project with carry forward funding from 2014 and prior years requiring 2016 cash flow of \$3.831 million that requires Council to reaffirm its commitment; and
 - b) 2015 approved cash flow for 8 previously approved sub-projects with carry forward funding from 2015 into 2016 totalling \$4.349 million.
2. City Council approve the 2017 - 2025 Preliminary Capital Plan for Toronto Fire Services totalling \$34.371 million in project estimates, comprised of \$6.400 million in 2017; \$0.750 million for 2018; \$1.150 million for 2019; \$4.650 million for 2020; \$0.150 million for 2021; \$1.250 million for 2022; \$8.186 million for 2023; \$9.118 million for 2024; and \$2.717 million in 2025.
3. City Council approve the 2016 Preliminary Capital Budget for the Radio Communication System Replacement project with a 2016 cash flow of \$3.630 million comprised of the 2015 approved cash flow for 1 previously approved sub-projects with carry forward funding from 2015 into 2016 totalling \$3.630 million.

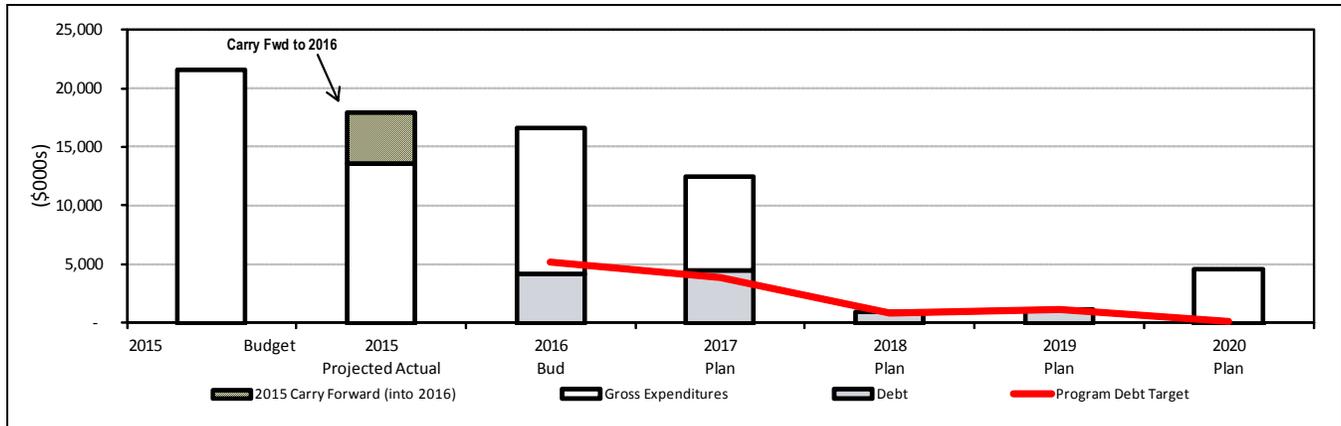


Part I:

10-Year Capital Plan

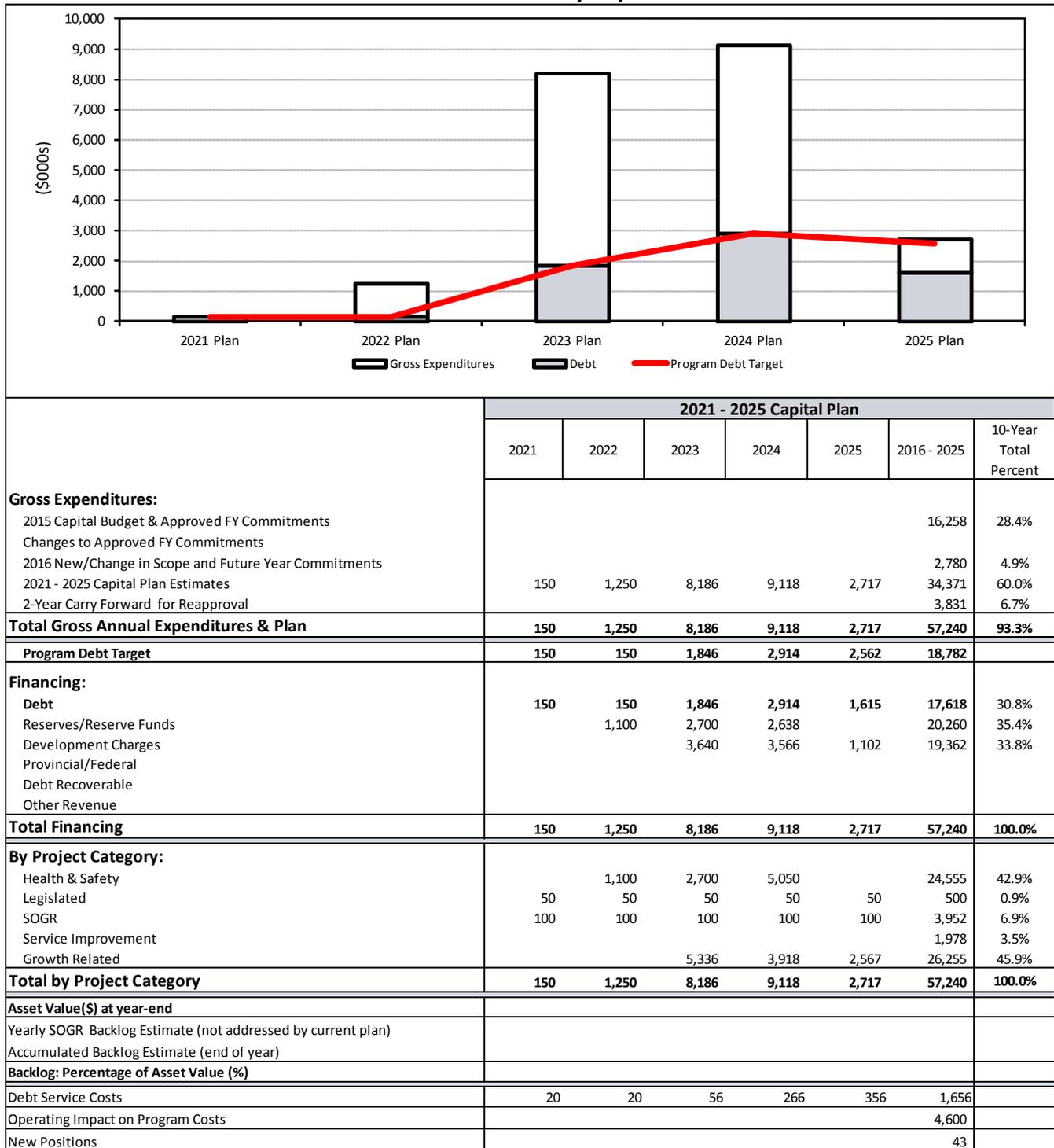
10 Year Capital Plan

Table 1a
2016 Preliminary Budget, 2017-2020 Preliminary Capital Plan



	2016 Capital Budget and 2017 - 2020 Capital Plan								5-Year Total Percent
	2015		2016	2017	2018	2019	2020	2016 - 2020	
	Budget	Projected Actual							
Gross Expenditures:									
2015 Capital Budget & Approved FY Commitments	21,636	13,629	12,933	3,325				16,258	45.4%
Changes to Approved FY Commitments			(2,000)	2,000					
2016 New/Change in Scope and Future Year Commitments			1,870	740	170			2,780	7.8%
2017 - 2020 Capital Plan Estimates				6,400	750	1,150	4,650	12,950	36.2%
2-Year Carry Forward for Reapproval			3,831					3,831	10.7%
1-Year Carry Forward to 2016		4,349							
Total Gross Annual Expenditures & Plan	-	4,349	16,634	12,465	920	1,150	4,650	35,819	100.0%
Program Debt Target			5,142	3,898	820	1,150	150	11,160	
Financing:									
Debt			4,195	4,528	920	1,150	150	10,943	30.6%
Reserves/Reserve Funds			4,746	4,576			4,500	13,822	38.6%
Development Charges			7,693	3,361				11,054	30.9%
Provincial/Federal									
Debt Recoverable									
Other Revenue									
Total Financing			16,634	12,465	920	1,150	4,650	35,819	100.0%
By Project Category:									
Health & Safety			4,845	6,190	170		4,500	15,705	43.8%
Legislated			50	50	50	50	50	250	0.7%
SOGR			1,652	900	700	100	100	3,452	9.6%
Service Improvement			1,978					1,978	5.5%
Growth Related			8,109	5,325		1,000		14,434	40.3%
Total by Project Category			16,634	12,465	920	1,150	4,650	35,819	100.0%
Asset Value (\$) at year-end		387,563							
Yearly SOGR Backlog Estimate (not addressed by current plan)									
Accumulated Backlog Estimate (end of year)									
Backlog: Percentage of Asset Value (%)									
Debt Service Costs			25	258	399	126	130	938	
Operating Impact on Program Costs			176	2,345	2,077	2		4,600	
New Positions			1	21	21			43	

Table 1b
2021 - 2025 Preliminary Capital Plan

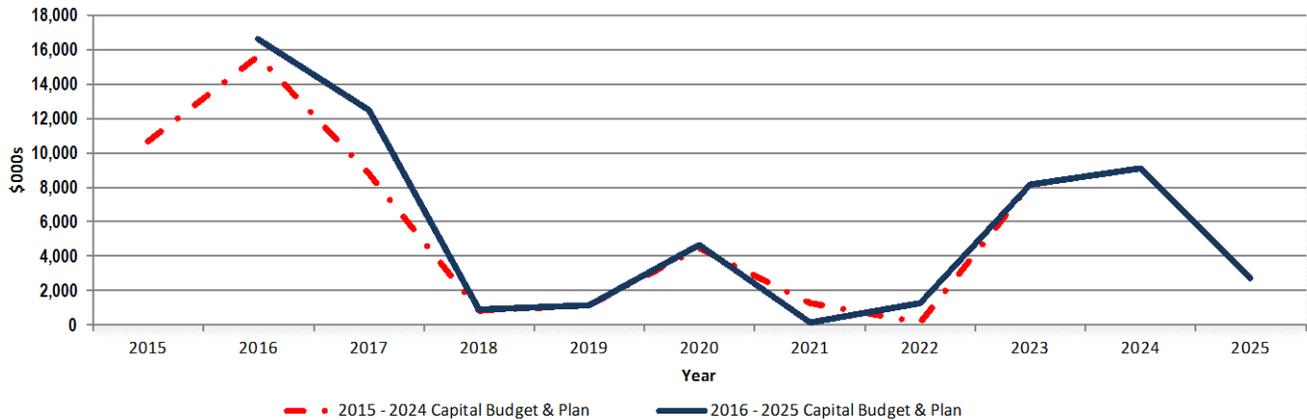


Key Changes to the 2015 - 2024 Approved Capital Plan

The 2016 Capital Budget and the 2017 - 2025 Capital Plan reflects a decrease of \$2.953 million in capital expenditures from the 2015 - 2024 Approved Capital Plan.

The table and chart below provide a breakdown of the \$2.953 million or 4.9% decrease in the Capital Program on an annual basis from 2015 to 2025.

Chart 1
Changes to the 2015 -2024 Approved Capital Plan (In \$000s)



(\$000s)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	10-Year Total
2015 - 2024 Capital Budget & Plan	10,661	15,633	8,775	820	1,150	4,450	1,250	150	8,186	9,118		60,193
2016 - 2025 Capital Budget & Plan		16,634	12,465	920	1,150	4,650	150	1,250	8,186	9,118	2,717	57,240
Change %		6.4%	42.1%	12.2%	0.0%	4.5%	(88.0%)	733.3%	0.0%	0.0%		(4.9%)
Change \$		1,001	3,690	100	0	200	(1,100)	1,100	0	0		(2,953)

As made evident in the chart above, the \$2.953 million decrease is reflective of lower capital needs and smoothing of cash flows for capital projects based on updated information and previous purchasing experience.

As reflected in Table 2 on the following page, changes to the 2015 – 2024 Approved Capital Plan, specifically the \$4.991 million increase in capital funding over the nine common years of the Capital Plan (2016 – 2024) arise from the reprioritization of Toronto Fire Services' capital projects based on the following factors:

- Updated construction schedules for the new fire station projects, Station A (Woodbine) and Station B (Downsview) due to delays in land acquisition and unanticipated preliminary work requirements such as the re-location of underground sewers and electrical lines that were not considered during the planning stage.
- Deferral of cash flow funding for the purchase of defibrillators by 1 year as current defibrillators can still be used for another year prior to replacement.
- The addition of two new projects that will provide funding for equipment to ensure the health and safety of fire fighters.

A summary of project changes for the years 2016 to 2024 totalling \$4.991 million are provided in Table 2 below:

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

\$000s	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016 - 2024 Total
2015 - 2024 Capital Budget & Plan	10,661	15,633	8,775	820	1,150	4,450	1,250	150	8,186	9,118		49,532
2016 - 2025 Capital Budget & Plan		16,634	12,465	920	1,150	4,650	150	1,250	8,186	9,118	2,717	54,523
Capital Budget & Plan Changes (2016 - 2024)		1,001	3,690	100	-	200	(1,100)	1,100	-	-		4,991

	Total Project Cost	2016	2017	2018	2019	2020	2021	2022	2023	2024	2016 - 2024	2025	Revised Total Project Cost
Previously Approved													
Station B (Stn 144) Keele St. (Downsview)	9,885	194	500								694		9,885
Station A (Stn 414) Hwy 27 and Rexdale Blvd	8,342	137	2,000								2,137		8,342
Defibrillators Lifecycle Replacement	1,000	(1,000)	1,000				(1,100)	1,100			-		1,000
Renovation/Repurposing of Fire Station 424	980	250									250		1,230
Purchase of Gas Metres for Fire Investigators	70	50	20	(70)							-		70
Specialized Trucks & Equipment*	3,250	1,000									1,000		3,250
Bunker Suits Lifecycle Replacement	4,300					200					200		4,500
Replacement of HUSAR Equipment	50											50	450
Training Simulators	100											100	1,000
Station G (New Station 124) - Sunnybrook	9,254											2,567	11,821
Total Previously Approved	37,231	631	3,520	(70)		200	(1,100)	1,100			4,281	2,717	41,548
New													
Handheld Oximeter and Accessories		200									200		200
Replacement of CBRNE		170	170	170							510		510
Total New		370	170	170							710		710
Total Changes		1,001	3,690	100		200	(1,100)	1,100			4,991	2,717	42,258

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:

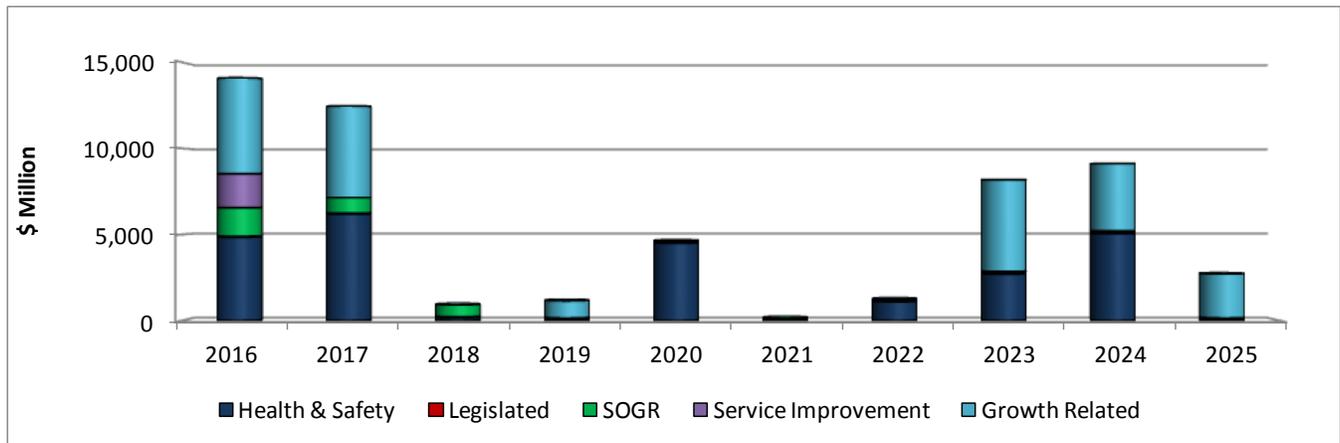
- Cash flow funding for 2 new station projects, *Station B (Downsview) and Station A (Woodbine)* projects have been deferred by 1 year from 2016 to 2017 based on revised construction schedules.
- The *Renovation/Re-purposing of Station 424* project will require additional funding of \$0.250 million to maintain swing space serviceability as a fire station. The station, with 6 to 8 Fire Prevention /Public Education personnel, will serve as alternative space for fire stations that may need to be temporarily closed for repairs.
- The *Purchase of Gas Meters for Fire Investigators* project is being accelerated from 2018 to 2016 based on the outcome of a recent meeting with current OFMEM fire investigators and its Health and Safety representatives. This equipment is required to protect the health and safety of staff during post-fire origin and cause investigations.
- The two *Replacement Purchase of 167 Defibrillators* projects are being deferred by one year from 2016-to 2017 and 2021 to 2022. TFS recently evaluated the defibrillators currently being used and were deemed to be serviceable for another year.
- The *Bunker Suit Replacement* project cost has been adjusted based on revised cost estimates.
- Three projects, *Station B (Downsview), Station A (Woodbine)* and the *Purchase of Specialized Trucks* projects include 2-year carry forward funding totalling \$3.831 million.

Two new projects totalling \$0.710 million have been added to the 2015 – 2024 Approved Capital Plan:

- The *Handheld Pulse Oximeter and Accessories* project will provide funding for the purchase of 177 handheld pulse oximeter & accessories that will be used in all frontline apparatus. The equipment is a non-invasive method of monitoring a person's oxygen levels/saturation. Currently, the equipment is used by the TFS Hazardous Materials unit when responding to haz-mat related medical emergencies.
- The *Replacement of Chemical, Biological, Radiological and Nuclear Explosives (CBRNE) equipment* project will fund the replacement of Chemical Biological Radiological Nuclear Explosives (CBRNE) equipment over a 3-year period which includes the Hazmat ID 360 - a primary piece of technology for the detection of unknown CBRNE materials.

2016 – 2025 Preliminary Capital Plan

Chart 2
2016 – 2025 Capital Plan by Project Category (In \$000s)



As illustrated in the chart above, the 10-Year Capital Plan for Toronto Fire Services of \$57.240 million provides 42.9% funding for Health & Safety projects and 45.9% for Growth Related projects as priorities. State of Good Repair (SOGR) projects represent 6.9%, Service Improvement projects represent 3.5% and the Legislative mandated project represents the remaining 0.9% over the 10-year period.

- Healthy and Safety projects account for \$24.555 million with higher spending levels in 2015 to 2017 reflecting the scheduled replacement of portable radios, defibrillators and bunker suits used by fire fighters. The next major replacement of bunker suits is scheduled in 2020 while the equipment replacement schedule is mainly in 2023 and 2024.
- State of Good Repair and Service Improvement projects require \$3.952 million and \$1.978 million respectively mainly for the renovation of Fire Station 135 (Chaplin), Station 424 (Runnymede) and South Command Fire Prevention Consolidation, and various repairs to TFS' training facilities (burn houses) and equipment.
- Growth Related projects account for \$26.255 million of total funding, the majority of which is to fund the construction of three new fire stations including the purchase of specialized fire trucks

and equipment. Most of the funding is required between 2015 - 2017 for the completion of 2 new fire stations and the purchase of specialized fire trucks and equipment. The construction of the 3rd new fire station is scheduled to begin in 2023.

The following table provides details by project category within the 2016 – 2025 Capital Budget and Plan for Toronto Fire Services:

**Table 3
Summary of Capital Projects by Category (In \$000s)**

	Total App'd Cash Flows to Date*	2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2016 - 2025 Total	Total Project Cost
Total Expenditures by Category													
Health & Safety													
<i>Thermal Imaging Cameras</i>	725	725										725	1,450
<i>Replacement of Portable Radios</i>			5,000							5,050		10,050	10,050
<i>Mobile Radios Lifecycle Replacement</i>									2,700			2,700	2,700
<i>Bunker Suits Lifecycle Replacement-2015</i>	200	3,700										3,700	3,900
<i>Bunker Suits Lifecycle Replacement-2020</i>						4,500						4,500	4,500
<i>Defibrillators Lifecycle Replacement</i>			1,000					1,100				2,100	2,100
<i>Purchase of Gas Metres for Fire Investigators</i>		50	20									70	70
<i>The Handheld Oximeter and Accessories</i>		200										200	200
<i>Replacement of CBRNE Equipment</i>		170	170	170								510	510
Sub-Total		4,845	6,190	170		4,500		1,100	2,700	5,050		24,555	25,480
Legislated													
<i>Replacement of HUSAR Equipment</i>		50	50	50	50	50	50	50	50	50	50	500	500
Sub-Total		50	50	50	50	50	50	50	50	50	50	500	500
State of Good Repair													
<i>Training Simulators Rehabilitation</i>		100	100	100	100	100	100	100	100	100	100	1,000	1,000
<i>Computer Aided Dispatch Upgrade</i>	703	552										552	1,255
<i>Renovation/Repurposing of Fire Station 424</i>	780	450										450	1,230
<i>Emergency Fire Communication Workstation Console Replacement</i>		50	550									600	600
<i>Technical Rescue Simulator Repair</i>		250										250	250
<i>Replace Aging Propane Pumps and Vaporizers</i>		250										250	250
<i>The East/West Burn Houses - Wall Flame Protection</i>			250									250	250
<i>Existing East Training Bldg - Extend Bays</i>					400							400	400
<i>Burn House Burners/Technology Replacement</i>					200							200	200
Sub-Total	1,483	1,652	900	700	100	100	100	100	100	100	100	3,952	5,435
Service Improvements													
<i>Replacement of Fire Station 135 - Chaplin Fire Station</i>	6,304	1,030										1,030	7,334
<i>Emergency Communication System Enhancement</i>	447	448										448	895
<i>Fire Prevention - South District Consolidation</i>		500										500	500
Sub-Total	6,751	1,978										1,978	8,729
Growth Related													
<i>Station B (Stn 144) Keele St (Downsview)</i>	5,887	4,192	500									4,692	9,885
<i>Station A (Stn 414) - Hwy 27 and Rexdale Blvd</i>	3,517	2,137	4,825									6,962	8,342
<i>Specialized Trucks & Equipment</i>	2,470	1,780										1,780	3,250
<i>East Training - New Bulding of the Fire Ground</i>					1,000							1,000	1,000
<i>Station G (New Station 124) - Sunnybrook</i>									5,336	3,918	2,567	11,821	11,821
Sub-Total		8,109	5,325	-	1,000	-	-	-	5,336	3,918	2,567	26,255	34,298
Total Expenditures by Category (excluding carry forward)	8,234	16,634	12,465	920	1,150	4,650	150	1,250	8,186	9,118	2,717	57,240	74,442

*Life to Date approved cash flows are provided for multi-year capital projects with cash flow approvals prior to 2016, excluding ongoing capital projects (i.e. Training Simulators Rehabilitation project and Replacement of HUSAR Equipment).

2016 – 2025 Capital Projects

The 10-Year Capital Plan supports Toronto Fire Services' capital strategy to address the service gaps within the community which drives the need for new fire stations, the use of the latest technology to better respond to emergency calls and the lifecycle demands of fire stations, training facilities and equipment.

Health and Safety

- Health and Safety projects account for \$24.555 million or 42.9% of the total 10-Year Capital Plan.
 - Replacement purchase projects funding is included for portable radios (\$10.050 million), bunker suits (\$8.200 million); defibrillators (\$2.100 million), and mobile radios (\$2.700 million).

- *Purchase of 75 Thermal Imaging Cameras (TIC) (\$0.725 million)* to enable firefighters to see through smoke. The use of TICs by TFS will measurably improve firefighter safety, public safety, reduction of property loss and general efficiency of fire ground emergency operations.
- *Purchase of Handheld Pulse Oximeter (\$0.200 million)* which will be able to detect and treat poisoning due to carbon monoxide and smoke inhalation as well as measure the blood oxygen saturation of TFS personnel during rehabilitation operations.
- *Purchase of CBRNE equipment (\$0.510 million)* which can detect the presence of unknown CBRNE materials.

Legislated

- The Legislated project included in the 10-Year Capital Plan provides annual funding of \$0.050 million or total funding of \$0.500 million over the 10-year period for the continued replacement of emergency response equipment required by Fire Services' HUSAR team.

State of Good Repair (SOGR)

- SOGR projects account for \$3.952 million or 6.9% of the total 10-Year Capital Plan's expenditures.
- The 10-Year Capital Plan incorporates an investment of \$3.952 million dedicated to the following new SOGR capital projects:
 - *Training Simulators / Facilities Rehabilitation* project (\$1.000 million) includes annual cash flows of \$0.100 million for the capital maintenance of the East & West Burn-houses training simulators and other training facilities. These burn-houses are used continually in live fire training exercises by both Operations Division and Recruit Induction. High temperature exposure and flame impingement causes deterioration of concrete, steel and brick *components, protection panels and burns pads that need remediation.*
 - *Computer Aided Dispatch (CAD) Upgrade* project (\$0.552 million) will ensure the current TFS CAD system is upgraded from version 9.1 to version 9.3 and transition from an Oracle database to an SQL database format. Data generated by the CAD system will be utilized in conjunction with the Dynamic Staging/Predictive Modelling project to aid in the deployment of fire apparatus.
 - *Renovation and Repurposing of Station 424* project (\$0.450 million) will provide funding to renovate the current fire station to provide additional space for Emergency Planning / Fire Prevention / Public Education personnel. The station, in addition to 6 to 8 Fire Prevention /Public Education personnel will serve as an alternative space for fire stations that may be temporarily closed for repairs. The renovation will include new dormitories/locker room and washrooms and will address significant SOGR deficiencies.
 - *Emergency Fire Communication Workstation Console Replacement* project (\$0.600 million) will fund the replacement of emergency dispatch consoles to address ergonomic issues, technology, workflow and workspace requirements in TFS' 24/7 Communications Dispatch Centre.
 - *Technical Rescue Simulator* project (\$0.250 million) will provide TFS with a more suitably climate controlled training area for year round training utilizing the simulators in the Dome (Technical Rescues).
 - *Replace Aging Propane Pumps and Vaporizers* project (\$0.250 million) will replace the current equipment which was installed over 20 years ago and has reached the end of its life cycle.

- *East/West Burn Houses – Wall Flame Protection* project (\$0.250 million) will fund the repair of existing wall protection in the East and West Burn Houses as concrete spalling was observed during the recent structural audit conducted on the facility.
- *East Training Bldg – 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 ensure trucks are in good condition to maximize the use of these trucks for staff training.
- *Burn House Burners/Technology Replacement* project (\$0.200 million) is required for the replacement of burn-house & simulators at the Toronto Fire Academy. The project will ensure year round training of newly hired fire fighters in the basic skills of fire fighting and seasoned fire fighters to maintain their learned skills and to develop new techniques and tactics.

Service Improvements

- Service Improvement projects account for \$1.978 million or 3.5%.
 - The *Rebuild of Chaplin Fire Station #135* project (\$1.030 million) will ensure the completion of the project in 2016. The rebuild was required as the station was deemed unsafe due to structural problems with the garage floor which could not support the weight of fire trucks.
 - The *Emergency Communication System Enhancement* project (\$0.448 million) will provide funding to increase the functionality of mobile applications of frontline apparatus that require additional bandwidth.
 - The *Fire Prevention - South District Consolidation* project (\$0.500 million) will fund the renovation of an existing Fire Services location to accommodate the consolidation of Fire prevention staff in one mid-city location allowing for enhanced coverage by Fire Prevention staff doing site visits and inspections across the South District.

Growth Related

- Growth Related projects total \$26.255 million or 45.9% of the total 10-Year Capital Plan's expenditures.
 - The *Station B (Downsview)* project (\$4.692 million) will provide funding to complete the construction of a new fire station (2013-2016) as recommended by the KPMG report of 1999 and Toronto Fire Services' (TFS) Master Plan 2007.
 - The *Station A (Woodbine)* project (\$6.962 million) will provide funding to complete the construction of a new fire station in the Woodbine Racetrack at Hwy 27 and Rexdale that will allow Fire Services to respond to emergency calls with a four-minute road response time in 90% of instances. Funding of \$3.517 million was approved in 2014 for the purchase of land and the initial design and preparation of the site.
 - The *Specialized Trucks and Equipment* project (\$1.780 million) will fund the purchase of the remaining 6 specialized trucks and equipment in 2016.
 - The *East Training – New Building of the Fire Ground* project (\$1.000 million) requires funding to provide a climate controlled facility to *ensure 12 months of continuous fire fighter training*.
 - The *Station G (Sunnybrook)* project (\$11.821 million) is a new fire station scheduled to begin in 2023 to address the gaps in service levels in the Sunnybrook area.

2016 Capital Budget and Future Year Commitments

Included as a sub-set of the 10-Year Capital Plan is the 2016 Capital Budget and Future Year Commitments, that consists of 2016 and future year cash flows for projects previously approved by Council; adjustments (Scope Change) to those previously approved projects; as well as new projects that collectively require Council approval to begin, continue or complete capital work.

- Table 3a below lists the 2016 Cash Flow and Future Year Commitments for Toronto Fire Services

Table 3a
2016 Cash Flow & Future Year Commitments (in \$000s)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total 2014 Cash Flow & FY Commits
Expenditures											
Previously Approved											
<i>Bunker Suits Lifecycle Replacement-2015</i>	3,700										3,700
<i>Thermal Imaging Cameras</i>	725										725
<i>Renovation/Repurposing of Fire Station 424</i>	200										200
<i>Computer Aided Dispatch Upgrade</i>	552										552
<i>Replacement of Fire Station 135 - Chaplin Fire Station</i>	1,030										1,030
<i>Emergency Communication System Enhancement</i>	448										448
<i>Station B (Stn 144) Keele St (Downsview)</i>	4,192	500									4,692
<i>Station A (Stn 414) - Hwy 27 and Rexdale Blvd</i>	2,137	4,825									6,962
<i>Specialized Trucks& Equipment</i>	1,780										1,780
Sub-Total	14,764	5,325									20,089
Change in Scope											
<i>Renovation/Repurposing of Fire Station 424</i>	250										250
Sub-Total	250										250
New / New w/ Future Year											
<i>The Handheld Oximeter amd Accessories</i>	200										200
<i>Replacement of HUSAR Equipment</i>	50										50
<i>Training Simulators Rehabilitation</i>	100										100
<i>Technical Rescue Simulator Repair</i>	250										250
<i>Replace Aging Propane Pumps and Vaporizers</i>	250										250
<i>Fire Prevention - South District Consolidation</i>	500										500
<i>Purchase of Gas Metres for Fire Investigators</i>	50	20									70
<i>Emergency Fire Communication Workstation Console Replace</i>	50	550									600
<i>Replacement of CBRNE Equipment</i>	170	170	170								510
Sub-Total	1,620	740	170								2,530
Total Expenditure	16,634	6,065	170								22,869
Financing											
Debt/CFC	4,195	1,753	170								6,118
Debt Recoverable											
Other											
Reserves/Res Funds	4,746	951									5,697
Development Charges	7,693	3,361									11,054
Provincial/Federal											
Total Financing	16,634	6,065	170								22,869

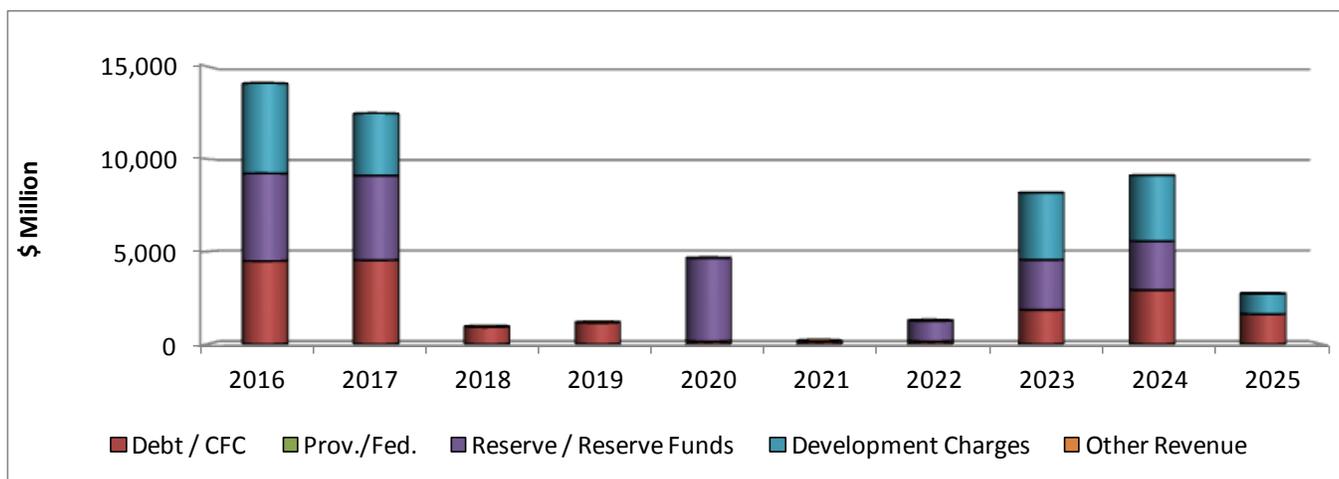
Approval of the 2016 Capital Budget of \$16.634 million will result in the future cash flow commitments of \$6.065 million in 2017 and \$0.170 million in 2018 for a total of \$22.869 million

- The 2016 Capital Budget provides funding of \$14.764 million for previously approved projects that are already underway with future year commitments of \$5.325 million in 2017 for a total of

\$20.089 million. Cash flow funding is dedicated to ongoing and multi-year projects for nine projects including *Bunker Suits Lifecycle Replacement, Station B (Downsview) project, Station A (Woodbine), Computer Aided Dispatch Upgrade, etc.* (Please refer to Table 3a for more details.)

- *The change in scope funding of \$0.250 million has been added for the previously approved Renovation and Repurposing of the Fire Station 424 project.*
- New and multi-year funding of \$1.620 million has been added to the 2016 Capital Budget for nine new initiatives such as *the Purchase of Gas Metres for Fire Investigators, Emergency Fire Communication Workstation Console Replacement, Fire Prevention – South District Consolidations, etc.* (Please refer to Table 3a for more details.)

Chart 3
2016 – 2025 Capital Plan by Funding Source (In \$000s)



The 10-Year Capital Plan of \$57.240 million cash flow funding will be financed by the following sources:

- New debt funding of \$17.618 million, comprising 30.8% of total funding which is below the debt guideline over the 10-year planning period.
 - Development Charge funding was maximized for eligible growth related projects resulting in reducing debt funding by \$1.164 million over the 10-Year period.
- Reserve and Reserve Funds constitute \$20.260 million or 35.4% of required funding over 10 years for the following major projects:
 - Fire Services' Equipment Reserve fully funds the replacement of defibrillators, bunker suits and portable radios.
 - The Capital Financing Reserve contribution of \$0.967 million and the Land Acquisition Reserve Fund (LARF) contribution of \$1.030 million will partially fund the new fire station, Station A (Woodbine) at the Woodbine Racetrack and Hwy 7 and the rebuild of the Chaplin Fire Station respectively.
- Development Charges represent \$19.362 million or 33.8% of funding for the 10-Year Capital Budget and Plan. Development Charge funding has been maximized for the following:

- Construction of new station projects, Station A (Woodbine), Station B (Downsview), and Station G (Sunnybrook); and
- Purchase of specialized trucks and equipment.

State of Good Repair (SOGR) Backlog

The 10-Year Preliminary Capital Plan dedicates \$3.952 million to SOGR spending over the 10-year capital plan for the repair of training facilities and equipment to ensure year round training of firefighters, systems upgrade of Fire Services communication system.

TFS does not have a state of good repair backlog for its medical equipment and 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	2016 Budget		2017 Plan		2018 Plan		2019 Plan		2020 Plan		2016 - 2020		2016 - 2025	
	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions
Previously Approved														
<i>Emergency Phone System Replacement</i>	116.0	1.0									116.0	1.0	116.0	1.0
<i>Predictive Modelling Tool/Dynamic Staging</i>	60.0										60.0		60.0	
<i>Computer Aided Dispatch Upgrade</i>			15.0		1.0		1.0				17.0		17.0	
<i>Emergency Communication System Enhancement</i>			80.0		1.0		1.0				82.0		82.0	
<i>Station B (Stn 144) Keele St (Downsview)</i>			2,075.0	21.0							2,075.0	21.0	2,075.0	21.0
<i>Station A (Stn 414) Hwy 27 and Rexdale Blvd</i>					2,075.0	21.0					2,075.0	21.0	2,075.0	21.0
<i>Thermal Imaging Cameras</i>			145.0								145.0		145.0	
New Projects - 2016														
<i>Replacement of CBRNE Equipment</i>			30.0								30.0		30.0	
Total (Net)	176.0	1.0	2,345.0	21.0	2,077.0	21.0	2.0				4,600.0	43.0	4,600.0	43.0

The 10-Year Capital Plan will increase future year Operating Budgets by a total of \$4.600 million net over the 2016 – 2025 period, as shown in the table above.

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

- The *Emergency Phone System Replacement* project will require one permanent position (Systems Integrator) to manage and monitor the new IP based 911 system.
- The *Dynamic Staging/Predictive Modelling software* will require funding for system maintenance and licensing costs.
- The *Computer Aided Dispatch Upgrade and Emergency Communication System Enhancement* will result in additional \$0.099 million for maintenance and services costs
- 2 new fire stations (*Station B - Downsview*) and *Station A – Woodbine*) will require 21 new fire fighter positions per station in 2017 and 2018 respectively and will result in additional maintenance and utility costs.
- The purchase of *Thermal Imaging Cameras (TICs)* and CBRNE equipment will increase the Equipment Reserve contribution by \$0.175 million to fund the scheduled replacement of these equipment.

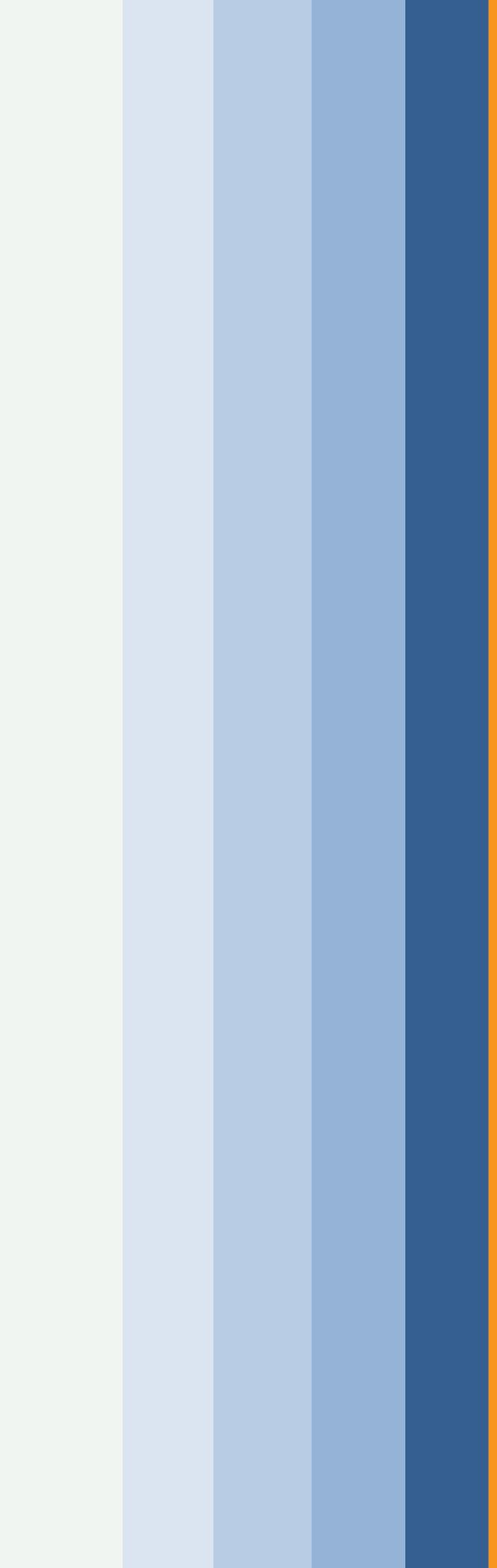
These future operating impacts will be reviewed each year as part of the annual Operating Budget process.

**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)	2016	2017	2018	2019	2020	2020 - 2025	
Captain Information & Communication	FIR908041	1.0	04/01/2015	12/31/2016	144.9						
Total		1.0			144.9						

Approval of the 2016 – 2025 Capital Budget and Capital Budget will require the extension of 1.0 temporary capital position, Captain, Information and Communications, that is already included in Toronto Fire Services' 2015 Approved Staff Complement.

- A temporary position will continue to 2016 to manage the Computer Aided Dispatch Upgrade systems' integration and testing and to ensure stability verification operations are completed as scheduled.



Part II: Issues for Discussion

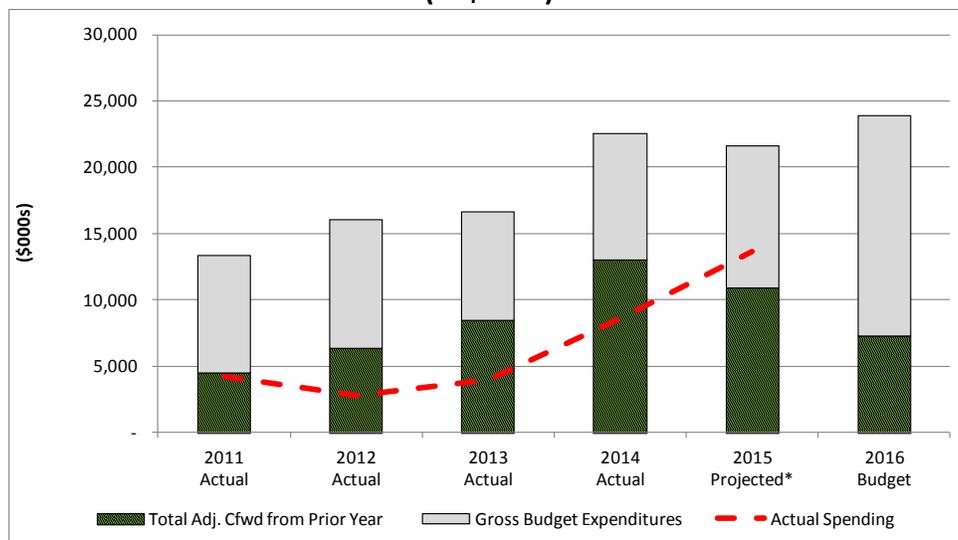
Issues for Discussion

Issues Impacting the 2016 Capital Budget

Review of 2016-2025 Capital Requirements:

- During the 2015 Budget process, City Council directed the Deputy City Manager & Chief Financial Officer to commence a detailed review of the City's 2016 – 2025 capital requirements as part of the City's 2016 Capital Budget process to ensure that debt affordability targets continue to be maintained, and report the results to Budget Committee early in the 2016 Budget process.
- The projects included in the 10-Year Capital Plan for Fire Services were reviewed and reprioritized based on the Program's requirements and readiness to proceed while ensuring that the debt requirements remain within or below the program's debt target for each year of the 10-year plan.
 - Development Charge funding was maximized for growth related projects to free up debt to accommodate the 2-year carry forward funding requirements for Station A, Station B and Specialized Trucks.
 - Cash flow funding for the defibrillators lifecycle replacement was deferred by 1 year as current defibrillators can still be used for another year prior to replacement.
- The cash flow estimates for all projects were reviewed and amended to align with spending capacity while taking into consideration historical spending rate as shown in the chart below which shows the spending trend of the total capital program for TFS since 2011. The bars in the chart below show annual spending on new projects versus carry forward funding for previously approved projects.

**Capacity to Spend - Budget vs. Actual
(In \$000s)**



**Capital Spending Rate
(In \$000s)**

Category	2011			2012			2013			2014			2015			Spending Rate 5 Year Avg.
	Approved Budget	Actual	Spending Rate %	Approved Budget	Actual	Spending Rate %	Approved Budget	Actual	Spending Rate %	Approved Budget	Actual	Spending Rate %	Approved Budget	Actual	Spending Rate %	
Health & Safety	2,909	2,808	96.5%	343		0.0%	5,824	216	3.7%	5,581	1,940	34.8%	4,567	3,652	80.0%	44.8%
Legislated	583	329	56.5%	200	23	11.5%	377	141	37.3%	50	50	100.0%	50	50	100.0%	47.0%
SOGR	1,758	251	14.3%	1,426	676	47.4%	200	183	91.7%	1,100	-	0.0%	2,653	1,170	44.1%	32.0%
Service Improvement	2,845	282	9.9%	4,808	786	16.3%	744	55	7.3%	3,743	1,450	38.7%	6,417	5,377	83.8%	42.8%
Growth Related	5,260	533	10.1%	9,303	1,307	14.0%	9,481	3,399	35.9%	12,069	5,112	42.4%	7,949	2,608	32.8%	29.4%
Total	13,355	4,203	31.5%	16,079	2,792	17.4%	16,626	3,993	24.0%	22,544	8,552	37.9%	21,636	12,857	59.4%	35.9%

Over the last five years, TFS has significantly under-spent its Approved Capital Budget with an average annual spending rate of 35.9%.

- The low spending rate for Health and Safety projects was due to the delay in the purchase of self-contained breathing apparatus in 2013 and 2014. Manufacturers of this product obtained final approval from the National Fire Protection Association (NFPA) in 2014 on the design changes to address health & safety issues.
- The low spending rate for Service Improvement and Growth Related projects was mainly due to the construction of 3 new fire stations and the renovation of an existing fire station. Factors that delayed the projects include:
 - Delays in land acquisition for new fire stations;
 - Delays in the issuance of building permit;
 - Lease contracts were not signed as scheduled;
 - Other unforeseen circumstances such presence of contaminated soil and oil tanks which required remediation, presence of sewer lines that needed to be moved prior to construction, etc.; and
 - Significant delays in the completion and execution of bid documents and contracts by Purchasing
- In determining the Program's readiness and capacity to spend, the projects included in the 10-Year Capital Plan were reviewed to ensure the projects are ready to proceed and that the cash flows reflected project timelines. The following resulted from the review:
 - Major construction projects such as Station A (Woodbine) and Station B (Downsview) have had their cash flows revised to reflect current construction progress.
 - Replacement purchase projects such as purchase of defibrillators and gas meters reprioritized based on project readiness.
 - State of good repair project cash flows were amended to ensure alignment with Program's spending capacity and historical spend rates.

Radio Communication System Replacement Project: Status Update

- The Radio Communications System Replacement project is a corporate initiative involving three Programs: Fire Services, Toronto Police Service and Emergency Medical Services and does not reside in any one of these Programs' Capital Plans.
- The project was originally approved in 2012 with a total project cost of \$70.000 million. However, in June 2012, the contract with Motorola Solutions Canada was finalized and the total project cost

was revised to \$51.705 million (approved in 2013 Capital Budget), a reduction \$18.295 million. The project was originally anticipated to be completed by mid-2014 but has now been delayed to mid-2016 due to the following:

- In 2013, the project experienced issues relating to civil construction work at tower sites which impacted both the schedule and funding such as:
 1. Several existing sites had space restrictions or landlord concerns which were not identifiable until in-project equipment layout designs were completed. Several steps were taken to address these issues including equipment room expansion, two new equipment shelters and a new site build (additional funding of \$1.500 million).
 2. An in-project audit of existing site equipment rooms indicated requirements for environmental upgrades prior to equipment installation, with examples including air conditioning, fire suppression and security alarms (additional funding of \$1.400 million).
- During a Project Steering Committee meeting held in December 2013, the financial impact of the issues identified was raised and the decision was to monitor the expenditure in 2014 as majority of the construction costs were estimates at that time.
- In 2015, as a result of the issues identified above, a funding increase of \$3.786 million was approved resulting in a total project cost of \$55.491 million to cover the remaining implementation milestone payments and management fees.
 - The infrastructure implementation is substantially completed with Toronto Police and Toronto Paramedic Services fully migrated to the new system early in 2015. Toronto Fire Services went live with Fire Station Alerting In July of 2015 and transitioned all radio users at the end of September 2015. Inter-operability testing with adjacent municipalities is targeted for completion and acceptance at the end of 2015.
- In 2016, the carry forward funding of \$3.630 million will fund the remaining project activities including decommissioning and implementation of an alternative wireless network component are expected to be completed by mid-2016.

Benefits of the New Radio Infrastructure System:

- The benefits of the project to the City of Toronto are significant, both operationally and in the long term. The new radio infrastructure brings vast improvements in coverage, capacity, resiliency and survivability. The City's first responders now have a radio system that has been designed and implemented to withstand any number of failures while continuing to provide mission critical communications to the city's emergency services during day to day activities or during large scale events.
- The new radio infrastructure system provides life cycle support that includes all software and hardware platforms for the next 15 years.

Issues Impacting the 10-Year Capital Plan

Master Fire Plan 2015-2019

- Toronto Fire Services (TFS) 2015-2019 Master Fire Plan was approved by City Council at its meeting of March 31, 2015. The updated Master Fire Plan considered and incorporated the research and recommendations brought forward by third party organizations (including the 2013 Fire Underwriters Survey, the 2013 POMAX Efficiency Study, and the 2013 Auditor General's Report on Recruitment and Training).
- The Master Fire Plan outlines the following major capital initiatives that are to be implemented over the next five years.

a) Construction of new Fire Stations:

- 3 new fire stations, Station A (Woodbine), B (Downsview) and G (Sunnybrook) were identified in the 1999 KPMG Study and the 2007 Master Fire Plan as fire station locations that will provide optimal fire protection for the City of Toronto. A review of the response time data validated the continuing need for these stations in the updated 2015-2019 Master Fire Plan.
 - Station A (Woodbine) project has commenced and is anticipated to be completed in Q4 2017. Land acquisition was completed in April 2015 and the design phase commenced in October 2015.
 - Station B (Downsview) projected has commenced and anticipated to be completed in Q1 2017. In 2015, the application for site plan approval and building permits has been submitted and construction is scheduled to start in December 2015
 - Station G (Sunnybrook) - currently planned to begin in 2023.

b) Technology Improvements:

- The following technology investments are expected to yield improvements in efficiency and service levels and were identified in the Fire/EMS Efficiency Study completed in 2013 well as the options provided by the Fire Underwriters Survey (FUS).
 - Dynamic Staging software uses current information from Computer Aided Dispatch (CAD) systems supported by historical emergency response data to determine the most strategic and efficient deployment of trucks in real-time. This approach will reduce service coverage gaps that can occur when multiple trucks are engaged in responding to emergency incidents. The project will be completed by the end of 2015.
 - The Predictive Modeling Tool will run in conjunction with TFS' Computer Aided Dispatch System to aid in the deployment of fire apparatus and crews that will assist in improving coverage and total response times. Predictive modelling will assist in ensuring operational resources are positioned across the City in the most optimal location. It will also be of significant importance in determining the best locations to plan for new fire stations, apparatus and staff resources. It is anticipated that the implementation of all program components will be completed by the year-end 2015.

- The installation of GPS repeaters at all stations, to be completed by December 2015, will provide uninterrupted satellite signals indoors that will eliminate delays to re-acquire satellite signals when front line vehicle's onboard GPS receivers lose signals in fire stations.
 - This project will ensure that GPS information is always available for TFS vehicles with no delays in acquiring signals when trucks leave the stations.
- Traffic Control Pre-emption is a future project being considered in partnership with other City Divisions including Transportation Services, TTC, Toronto Paramedic Services and Toronto Police Services.
 - Traffic control pre-emption gives emergency response vehicles a green light at specific signalized intersections and has shown to improve fire response times and reduce the risk of collision involving response vehicles, particularly in congested areas.

c) Fire Apparatus and Emergency Equipment:

- The Purchase of 10 specialized trucks and emergency equipment, expected to be delivered in 2016, to support the current fire equipment and operations and provide TFS with the necessary fire apparatus to ensure that the most appropriate vehicle is dispatched to effectively fight fires across the City.
- TFS is in the beginning stages of researching new technologies and procedures for high-rise urban fire suppression that may include the use of new-generation compressed air foam systems (CAFS) and the use of European-style frontline fire apparatus that support CAFS deployment in high-density urban areas.

d) Completion of the New Radio System

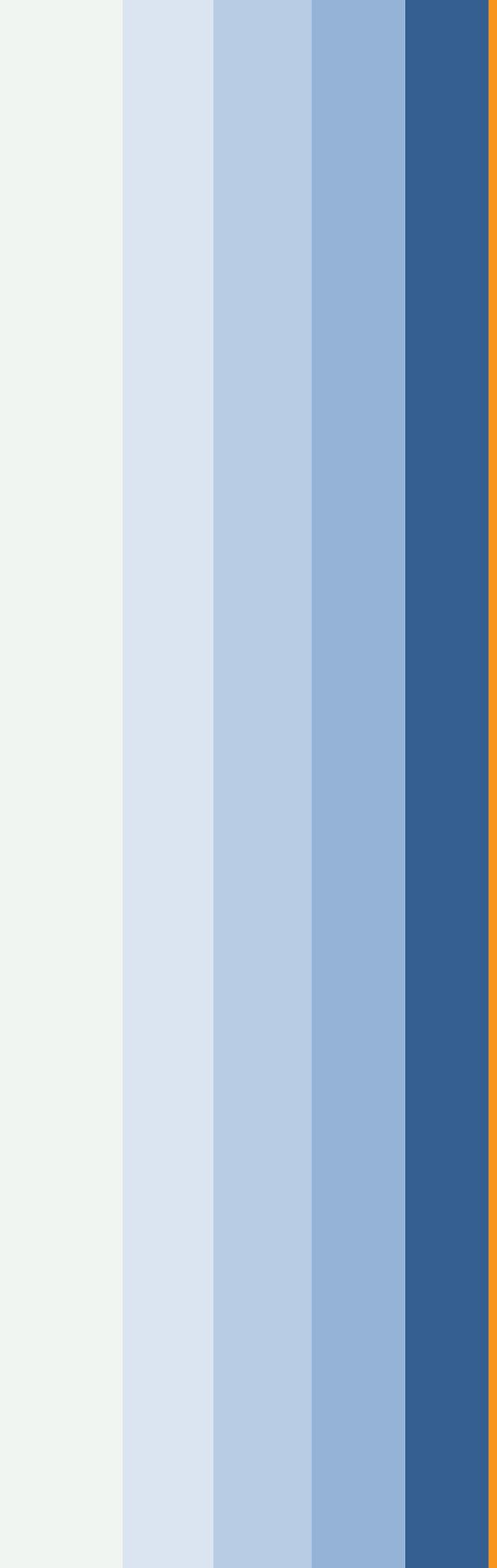
- The implementation of a new radio system in 2015 in conjunction with Toronto Police Service and Toronto Paramedic Services as well as the replacement of the current Fire Station Alerting System have the potential to reduce seconds off of the time it takes to dispatch vehicles on an emergency call which currently stands at 56 seconds.

TFS Long Term Capital Challenges and Opportunities

- TFS continues to face challenges managing 90+ facilities with a total of 775,125 square feet, a replacement value of \$387.562 million, and extensive maintenance needs. The recent City of Toronto Building Conditions Audit (BCA) identified that TFS infrastructure has an accumulated backlog (state of good repair deficit) that will increase from \$0.156 million in 2016 to \$104.398 million by 2025. This is mainly the result of the age of its fire stations; the average TFS fire station being 53 years old.
- The proliferation of high-rise developments across the City has also increased the need for re-assessing overall placement of stations and firefighting apparatus due to the impact on vertical response times.
- Emergency response travel times have and will continue to be impacted by the increased densification and traffic congestion in the City. While some of the planned technology projects included in the 10-year Capital Plan will assist in alleviating these pressures, new models for

meeting service demands are required. Specific requirements will be determined through the CFAI Accreditation project that is underway.

- With many of TFS' urban one and two-storey fire stations sitting on high value land, there is a need to explore development opportunities to incorporate storefront fire stations into high-rise and mid-rise in-filling projects that can address the state of good repair funding gaps and improve station location effectiveness at the same time. These partnerships can be extended to other municipal agencies or divisions as well.
- TFS will work in collaboration with Real Estate Services to review the placement of TFS' 83 fire stations that are geographically dispersed across the City as part of a long term plan strategy to assess the optimum location of existing fire stations, as well as new stations and posts that will enhance efficient use of staff resources and fire apparatus to improve response travel times.



Appendices

Appendix 1

2015 Performance

2015 Key Accomplishments

In 2015, Toronto Fire Services made significant progress and/or accomplished the following:

- ✓ The *Self-Contained Breathing Apparatus Replacement* project (\$3.641 million) allowed for the purchase of self-contained breathing apparatus in July 2015.
- ✓ The *Predictive Modelling/Dynamic Staging* project (\$0.645 million) will be completed and launched by year end. Predictive Modelling will assist in ensuring operational resources are positioned across the City in the most optimal locations. Dynamic Staging uses real-time information from CAD systems and historical data to determine the most strategic and efficient placement of apparatus.
- ✓ The *Emergency Phone System Replacement* project (\$0.720 million) allows for the replacement of TFS' telephone infrastructure required to support the migration to IP based 911 calls. Completion is expected by year end.
- ✓ The *Fire Station GPS Repeaters* project (\$0.425 million) is expected to be complete by year-end. The GPS repeaters will provide satellite signals indoors at all stations which will eliminate delays caused by the need for onboard GPS receivers to re-acquire satellite signals.
- ✓ The *Mobile Work Station Enhancement* project (\$0.307 million) provides wireless access points at TFS Stations and other points of presence to allow for high speed connectivity to mobile work stations.

2015 Financial Performance

Table 9
2015 Budget Variance Analysis (In \$000's)

2015 Approved	As of Sept. 30, 2015		Projected Actuals at Year End		Unspent Balance	
	\$	% Spent	\$	% Spent	\$ Unspent	% Unspent
21,636	7,744	35.8%	13,629	63.0%	8,007	37.0%

* Based on 2015 Third Quarter Capital Variance Report

2015 Experience

At its meeting on December 9, 2015, Council approved the 2015 Capital Variance Report for the nine months ended September 30, 2015. Please refer to the attached link for the staff report regarding the details of variance explanations and year-end projections for Toronto Fire Services:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.BU13.7>

Impact of the 2015 Capital Variance on the 2016 Preliminary Budget

- As a result of the delays in the capital projects, as described in the 2015 Q3 Capital Variance Report, funding of \$4.349 million is being carried forward to the 2016 Preliminary Capital Budget to continue the capital work.
- A detailed review of the 2016 – 2025 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 such as new station construction projects which are the major contributors to annual under expenditures. By deferring the cash flow funding to future years, the 2016 Preliminary Capital Budget reflects readiness to proceed and will lead to a higher rate of spending.

Appendix 2

Table 10
2016 Capital Budget; 2017 to 2025 Capital Plan (\$000s)

Project	Total Project Cost	Prior Year Carry Forward	2016	2017	2018	2019	2020	2016 - 2020	2021	2022	2023	2024	2025	2016 - 2025 Total
Health & Safety:														
Thermal Imaging Cameras	1,450	725	725					1,450						1,450
Replacement of Portable Radios	10,050			5,000				5,000				5,050		10,050
Mobile Radios Lifecycle Replacement	2,700										2,700			2,700
Bunker Suits Lifecycle Replacement-2015	3,900		3,700					3,700						3,700
Bunker Suits Lifecycle Replacement-2020	4,500						4,500	4,500						4,500
Defibrillators Lifecycle Replacement	2,100			1,000				1,000		1,100				2,100
Purchase of Gas Metres for Fire Investigator	70		50	20				70						70
The Handheld Oximeter amd Accessories	200		200					200						200
Replacement of CBRNE Equipment	510		170	170	170			510						510
Sub-Total		725	4,845	6,190	170		4,500	16,430		1,100	2,700	5,050		25,280
Legislated:														
Replacement of HUSAR Equipment	500		50	50	50	50	50	250	50	50	50	50	50	500
Sub-Total			50	50	50	50	50	250	50	50	50	50	50	500
State of Good Repair:														
Training Simulators Rehabilitation	1,000	100	100	100	100	100	100	600	100	100	100	100	100	1,100
Repair of Spec Ops Water Simulator	250	250						250						250
Computer Aided Dispatch Upgrade	1,255	503	552					1,055						1,055
Renovation/Repurposing of Fire Station 424	1,230	630	450					1,080						1,080
Emergency Fire Communication Workstation	600		50	550				600						600
Technical Rescue Simulator Repair	250		250					250						250
Replace Aging Propane Pumps and Vaporizers	250		250					250						250
The East/West Burn Houses - Wall Flame Protection	250			250				250						250
Existing East Training Bldg - Extend Bays	400				400			400						400
Burn House Burners/Technology Replacement	200				200			200						200
Sub-Total		1,483	1,652	900	700	100	100	4,935	100	100	100	100	100	5,435
Service Improvements:														
Replacement of Fire Station 135 - Chaplin Fire Station	7,334	593	1,030					1,623						1,623
Emergency Communication System Enhancement	895	447	448					895						895
Fire Prevention - South District Consolidation	500		500					500						500
Sub-Total		1,040	1,978					3,018						3,018
Growth Related:														
Station B (Stn 144) Keele St (Downsview)	9,885	1,101	4,192	500				5,793						5,793
Station A (Stn 414) - Hwy 27 and Rexdale Blvd	8,342		2,137	4,825				6,962						6,962
Specialized Trucks & Equipment	3,250		1,780					1,780						1,780
East Training - New Building of the Fire Group	1,000					1,000		1,000						1,000
Station G (New Station 124) - Sunnybrook	11,821									5,336	3,918	2,567		11,821
Sub-Total		1,101	8,109	5,325		1,000		15,535		5,336	3,918	2,567		27,356
Total		4,349	16,634	12,465	920	1,150	4,650	40,168	150	1,250	8,186	9,118	2,717	61,589

Appendix 3

2016 Capital Budget; 2017 to 2025 Capital Plan

CITY OF TORONTO

Gross Expenditures (\$000's)
Appendix 3

Fire Services

Sub- Project No. Project Name Priority SubProj No. Sub-project Name Ward Stat. Cat.						Current and Future Year Cash Flow Commitments						Current and Future Year Cash Flow Commitments Financed By														
						2016	2017	2018	2019	2020	Total 2016-2020	Total 2021-2025	Total 2016-2025	Provincial Grants and Subsidies	Federal Subsidy	Development Charges	Reserve Reserves	Reserve Funds	Capital from Current	Other 1	Other2	Debt - Recoverable Debt	Total Financing			
<u>FIR908043 Thermal Imaging Cameras</u>																										
1	1	Thermal Imaging Cameras	CW	S2	01	725	0	0	0	0	725	0	725	0	0	0	0	0	0	0	0	0	725	0	725	
Sub-total						725	0	0	0	0	725	0	725	0	0	0	0	0	0	0	0	0	725	0	725	
<u>FIR908144 The Handheld Oximeter and Accessories</u>																										
0	1	The Handheld Oximeter and Accessories	CW	S4	01	200	0	0	0	0	200	0	200	0	0	0	0	0	0	0	0	0	200	0	200	
Sub-total						200	0	0	0	0	200	0	200	0	0	0	0	0	0	0	0	0	0	200	0	200
<u>FIR908157 Replacement of CBRNE Equipment</u>																										
0	1	Replacement of CBRNE Equipment	CW	S4	01	170	170	170	0	0	510	0	510	0	0	0	0	0	0	0	0	0	510	0	510	
Sub-total						170	170	170	0	0	510	0	510	0	0	0	0	0	0	0	0	0	0	510	0	510
Total Program Expenditure						16,634	12,465	920	1,150	4,650	35,819	21,421	57,240	0	0	19,362	19,230	1,030	0	0	0	0	17,618	0	57,240	

Report Phase 2 - Program 13 Fire Services Program Phase 2 Sub-Project Category 01,02,03,04,05,06,07 Part B Sub-Project Status S5,S6 Part C Sub-Project Status S2,S3,S4

CITY OF TORONTO

Gross Expenditures (\$000's)

Appendix 3

Fire Services

Sub- Priority	Project No. SubProj No.	Project Name 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											
					2016	2017	2018	2019	2020	Total 2016-2020	Total 2021-2025	Total 2016-2025	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:																						
		Development Charges			7,693	3,361	0	0	0	11,054	8,308	19,362	0	0	19,362	0	0	0	0	0	19,362	
		Reserves (Ind. "XQ" Ref.)			3,716	4,576	0	0	4,500	12,792	6,438	19,230	0	0	19,230	0	0	0	0	0	19,230	
		Reserve Funds (Ind."XR" Ref.)			1,030	0	0	0	0	1,030	0	1,030	0	1,030	0	0	0	0	0	0	1,030	
		Debt			4,195	4,528	920	1,150	150	10,943	6,675	17,618	0	0	0	0	0	0	0	17,618	0	
Total Program Financing					16,634	12,465	920	1,150	4,650	35,819	21,421	57,240	0	0	19,362	19,230	1,030	0	0	0	17,618	0

- Status Code Description**
- S2 S2 Prior Year (With 2016 and/or Future Year Cashflow)
 - S3 S3 Prior Year - Change of Scope 2016 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 2017 & 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

2016 Cash Flow and Future Year Commitments

CITY OF TORONTO

Gross Expenditures (\$000's)

Fire Services

Sub- Priority	Project No. SubProj No.	Project Name Sub-project Name	Ward	Stat.	Cat.	Current and Future Year Cash Flow Commitments						Current and Future Year Cash Flow Commitments Financed By											
						2016	2017	2018	2019	2020	Total 2016-2020	Total 2021-2025	Total 2016-2025	Provincial Grants and Subsidies	Federal Subsidy	Development Charges	Reserves	Reserve Funds	Capital from Current	Other 1	Other2	Debt - Recoverable Debt	Total Financing
<u>FIR908018 Repair the Spec Ops Water simulator</u>																							
1	1	Repair the Spec Ops Water simulator	CW	S2	03	250	0	0	0	0	250	0	250	0	0	0	0	0	0	250	0	0	250
		Sub-total				250	0	0	0	0	250	0	250	0	0	0	0	0	0	250	0	0	250
<u>FIR908019 Technical Rescue Simulator-Repair</u>																							
1	1	Technical Rescue Simulator -Repair	CW	S4	03	250	0	0	0	0	250	0	250	0	0	0	0	0	0	0	250	0	250
		Sub-total				250	0	0	0	0	250	0	250	0	0	0	0	0	0	0	250	0	250
<u>FIR908023 Replace aging propane pumps & vaporizers</u>																							
1	1	Replace aging propane pumps and vaporizers	CW	S4	03	250	0	0	0	0	250	0	250	0	0	0	0	0	0	0	250	0	250
		Sub-total				250	0	0	0	0	250	0	250	0	0	0	0	0	0	0	250	0	250
<u>FIR908037 The purchase of gas metres for fire investigators</u>																							
1	1	The purchase of gas metres for fire investigators	CW	S4	01	50	20	0	0	0	70	0	70	0	0	0	0	0	0	0	70	0	70
		Sub-total				50	20	0	0	0	70	0	70	0	0	0	0	0	0	0	70	0	70
<u>FIR908038 Renovation and Repurposing of the Fire Station 4</u>																							
1	1	Renovation and Repurposing of the Fire Station 424	13	S2	03	830	0	0	0	0	830	0	830	0	0	0	0	0	0	630	0	200	830
0	2	Reno and Repur of the Fire Stn 424-Change in Scoop	13	S3	03	250	0	0	0	0	250	0	250	0	0	0	0	0	0	0	250	0	250
		Sub-total				1,080	0	0	0	0	1,080	0	1,080	0	0	0	0	0	0	630	0	450	1,080
<u>FIR908040 Emerg Fire Comm Workstation Console Replacer</u>																							
1	1	Emerg Fire Comm Workstation Console Replacement	CW	S4	03	50	550	0	0	0	600	0	600	0	0	0	0	0	0	0	600	0	600
		Sub-total				50	550	0	0	0	600	0	600	0	0	0	0	0	0	0	600	0	600
<u>FIR908041 Computer Aided Dispatch Upgrade</u>																							
1	1	Computer Aided Dispatch Upgrade	CW	S2	03	1,055	0	0	0	0	1,055	0	1,055	0	0	0	0	0	503	0	552	0	1,055
		Sub-total				1,055	0	0	0	0	1,055	0	1,055	0	0	0	0	0	503	0	552	0	1,055
<u>FIR908042 Emergency Communications System Enhanceme</u>																							
1	1	Emergency Communications System Enhancement	CW	S2	04	895	0	0	0	0	895	0	895	0	0	0	0	0	0	0	895	0	895
		Sub-total				895	0	0	0	0	895	0	895	0	0	0	0	0	0	0	895	0	895
<u>FIR908043 Thermal Imaging Cameras</u>																							

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											
<u>Sub-Project No.</u>	<u>Project Name</u>	<u>Ward</u>	<u>Stat.</u>	<u>Cat.</u>	2016	2017	2018	2019	2020	Total 2016-2020	Total 2021-2025	Total 2016-2025	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:																						
	Development Charges				8,629	3,361	0	0	0	11,990	0	11,990	0	0	11,990	0	0	0	0	0	0	11,990
	Reserves (Ind. "XQ" Ref.)				3,716	951	0	0	0	4,667	0	4,667	0	0	0	4,667	0	0	0	0	0	4,667
	Reserve Funds (Ind."XR" Ref.)				1,623	0	0	0	0	1,623	0	1,623	0	0	0	0	1,623	0	0	0	0	1,623
	Other1 (Internal)				1,483	0	0	0	0	1,483	0	1,483	0	0	0	0	0	0	1,483	0	0	1,483
	Debt				5,532	1,753	170	0	0	7,455	0	7,455	0	0	0	0	0	0	0	0	7,455	7,455
Total Program Financing					20,983	6,065	170	0	0	27,218	0	27,218	0	0	11,990	4,667	1,623	0	1,483	0	7,455	27,218

Status Code	Description
S2	S2 Prior Year (With 2016 and/or Future Year Cashflow)
S3	S3 Prior Year - Change of Scope 2016 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

2016 Capital Budget with Financing Detail



CITY OF TORONTO

Appendix 5

Fire Services

Sub-Project Summary

Project/Financing Priority Project	Project Name	Start Date	Completion Date	2016 Cash Flow	Financing															
					Provincial Grants Subsidies	Federal Subsidy	Developmt Charges	Reserves	Reserve Funds	Capital From Current	Other 1	Other 2	Debt	Debt - Recoverable						
1	<u>FIR908018</u>	<u>Repair the Spec Ops Water simulator</u>																		
1	1	Repair the Spec Ops Water simulator	01/01/2015	12/31/2015	250	0	0	0	0	0	0	250	0	0	0	0	0	0	0	0
		Project Sub-total:			250	0	0	0	0	0	0	250	0	0	0	0	0	0	0	0
1	<u>FIR908019</u>	<u>Technical Rescue Simulator-Repair</u>																		
1	1	Technical Rescue Simulator -Repair	01/01/2016	12/31/2016	250	0	0	0	0	0	0	0	0	0	250	0	0	250	0	0
		Project Sub-total:			250	0	0	0	0	0	0	0	0	0	250	0	0	250	0	0
1	<u>FIR908023</u>	<u>Replace aging propane pumps & vaporizers</u>																		
1	1	Replace aging propane pumps and vaporizers	01/01/2016	12/31/2016	250	0	0	0	0	0	0	0	0	0	250	0	0	250	0	0
		Project Sub-total:			250	0	0	0	0	0	0	0	0	0	250	0	0	250	0	0
1	<u>FIR908037</u>	<u>The purchase of gas metres for fire investigators</u>																		
1	1	The purchase of gas metres for fire investigators	01/01/2016	12/31/2017	50	0	0	0	0	0	0	0	0	0	50	0	0	50	0	0
		Project Sub-total:			50	0	0	0	0	0	0	0	0	0	50	0	0	50	0	0
1	<u>FIR908038</u>	<u>Renovation and Repurposing of the Fire Station 424</u>																		
0	2	Reno and Repur of the Fire Stn 424-Change in Scoop	01/01/2016	12/31/2016	250	0	0	0	0	0	0	0	0	250	0	0	250	0	0	0
1	1	Renovation and Repurposing of the Fire Station 424	01/01/2015	12/31/2016	830	0	0	0	0	0	0	630	0	200	0	0	0	200	0	0
		Project Sub-total:			1,080	0	0	0	0	0	0	630	0	450	0	0	450	0	0	0
1	<u>FIR908040</u>	<u>Emerg Fire Comm Workstation Console Replacement</u>																		
1	1	Emerg Fire Comm Workstation Console Replacement	01/01/2016	12/31/2017	50	0	0	0	0	0	0	0	0	50	0	0	50	0	0	0
		Project Sub-total:			50	0	0	0	0	0	0	0	0	50	0	0	50	0	0	0
1	<u>FIR908041</u>	<u>Computer Aided Dispatch Upgrade</u>																		
1	1	Computer Aided Dispatch Upgrade	01/01/2015	12/31/2016	1,055	0	0	0	0	0	0	503	0	552	0	0	552	0	0	0
		Project Sub-total:			1,055	0	0	0	0	0	0	503	0	552	0	0	552	0	0	0
1	<u>FIR908042</u>	<u>Emergency Communications System Enhancement</u>																		
1	1	Emergency Communications System Enhancement	01/01/2015	12/31/2016	895	0	0	0	0	0	0	0	0	895	0	0	895	0	0	0
		Project Sub-total:			895	0	0	0	0	0	0	0	0	895	0	0	895	0	0	0
1	<u>FIR908043</u>	<u>Thermal Imaging Cameras</u>																		
1	1	Thermal Imaging Cameras	01/01/2015	12/31/2016	1,450	0	0	0	0	0	0	0	0	1,450	0	0	1,450	0	0	0
		Project Sub-total:			1,450	0	0	0	0	0	0	0	0	1,450	0	0	1,450	0	0	0
Program Total:					20,983	0	0	8,629	3,716	1,623	0	1,483	0	5,532	0	0	5,532	0	0	0

Status Code	Description
S2	S2 Prior Year (With 2016 and/or Future Year Cashflow)
S3	S3 Prior Year - Change of Scope 2016 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

**Table 11: Reserve / Reserve Fund – Program Specific
(\$000s)**

Reserve / Reserve Fund Name	Project / SubProject Name and Number	Projected Balance as at Dec 31, 2015 *	Contributions / (Withdrawals)										2016 - 2025 Total Contributions / (Withdrawals)
			2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	
XQ1020 Vehicle Reserve - Fire Equipment	Beginning Balance	7,181	7,181	4,703	2,300	3,522	4,744	1,466	2,688	2,810	1,332	(84)	
	Withdrawals (-)												
	Replacement of Portable Bunker Suits Lifecycle		(3,700)	(2,625)			(4,500)				(2,638)		(5,263)
	Defibrillators Lifecycle			(1,000)					(1,100)				(2,100)
	Mobile Radios Lifecycle Replacement									(2,700)			(2,700)
	Total Withdrawals		(3,700)	(3,625)			(4,500)		(1,100)	(2,700)	(2,638)		(18,263)
	Contributions (+)		1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222
Total Contributions		1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	
Total Reserve Fund Balance at Year-End		7,181	4,703	2,300	3,522	4,744	1,466	2,688	2,810	1,332	(84)	1,138	(18,263)

* Based on the 2015 Q3 Variance Report

Reserve / Reserve Fund Name	Project / SubProject Name and Number	Projected Balance as at Dec 31, 2015 *	Contributions / (Withdrawals)										2016 - 2025 Total Contributions / (Withdrawals)
			2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	
XR2023/XR2118 Development Charges RF - Fire	Beginning Balance	7,622	7,622	2,128	1,076	3,423	5,802	8,196	10,614	13,047	11,889	10,855	
	Withdrawals (-)												
	Station A (Stn 414) - Highway 27/Rexdale		(2,121)	(2,861)									(4,982)
	Station B - (Stn 144) Keele St. (Downsview)		(4,192)	(500)									(4,692)
	Specialized Trucks		(1,380)										(1,380)
	Station G (Stn 124)- Sunnybrook									(3,640)	(3,566)	(1,102)	(8,308)
	Total Withdrawals		(7,693)	(3,361)						(3,640)	(3,566)	(1,102)	(19,362)
Contributions (+)		2,199	2,309	2,347	2,379	2,394	2,418	2,433	2,482	2,532	2,532	24,025	
Total Contributions		2,199	2,309	2,347	2,379	2,394	2,418	2,433	2,482	2,532	2,532	24,025	
Other Program/Agency Net Withdrawals (-) and Contributions (+)													
Total Reserve Fund Balance at Year-End		7,622	2,128	1,076	3,423	5,802	8,196	10,614	13,047	11,889	10,855	12,285	

* Based on the 2015 Q3 Variance Report

**Table 12: Reserve / Reserve Fund Review - Corporate
(\$000s)**

Reserve / Reserve Fund Name	Project / SubProject Name and Number	Projected Balance as at Dec 31, 2015 *	Contributions / (Withdrawals)											2016 - 2025 Total Contributions / (Withdrawals)	
			2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan			
XQ0011 Capital Financing Reserve	Beginning Balance														
	Withdrawals (-)														
	<i>Station A - Highway 27/Rexdale</i>		(16)	(951)											(967)
	Total Withdrawals			(951)											(967)
	Contributions (+)														
Total Contributions															
Other Program/Agency Net Withdrawals (-) and Contributions (+)															
Total Reserve Fund Balance at Year-End			(16)	(951)											(967)

* Based on the 2015 Q3 Variance Report

Reserve / Reserve Fund Name	Project / SubProject Name and Number	Projected Balance as at Dec 31, 2015 *	Contributions / (Withdrawals)											2016 - 2025 Total Contributions / (Withdrawals)	
			2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan			
XR1012 Land Acquisition Reserve Fund	Beginning Balance														
	Withdrawals (-)														
	<i>Replacement of Fire Station 135-(Chaplin Fire Station)</i>		(1,030)												(1,030)
	Total Withdrawals		(1,030)												(1,030)
	Contributions (+)														
Total Contributions															
Other Program/Agency Net Withdrawals (-) and Contributions (+)															
Total Reserve Fund Balance at Year-End			(1,030)												(1,030)

* Based on the 2015 Q3 Variance Report