STAFF REPORT
INFORMATION ONLY

Federal Public Transit Infrastructure Fund (PTIF)

Date:	September 6, 2016
To:	TTC Budget Committee
From:	Chief Executive Officer

Summary

This report provides details on the Federal Public Transit Infrastructure Fund (PTIF) and the projects funded.

Financial Summary

The financial impacts of the Federal PTIF are referenced in the body of the report. Links to the subject budgets are also found in the report.

Accessibility/Equity Matters

Under this 10-year Capital Program, all required capital expenditures needed to make the TTC fully complied with AODA requirements and to meet all of the TTC equity goals have been fully provided for.

Comments

2016 Federal Budget

On March 22, 2016, the 2016 Federal Budget was announced and included a plan to invest more than $120 billion in infrastructure over the next 10 years. This plan will be implemented in two phases.

Phase I – Canada's New Infrastructure Plan – the government will focus primarily on infrastructure investments to modernize and rehabilitate public transit, water and wastewater systems, provide affordable housing, and protect existing infrastructure from the effects of climate change.

This phase of the Government's infrastructure plan proposes to provide $11.9 billion over five years, starting right away. Budget 2016 puts this plan into action with an immediate down payment on this plan, including $3.4 billion over three years to upgrade and improve public transit systems across Canada.

To get projects moving quickly, the Government announced that they will fund up to 50 per cent of eligible costs for projects. Funding under the Public Transit Infrastructure Fund (PTIF) program will be allocated to municipalities based on ridership. Based on this formula, it is estimated that the City of Toronto will receive up to $840 million in funding through the PTIF program.

The allocation of this new funding initiative is based on ridership levels and must meet the following criteria:

- Project is approved within the 10-Year Capital Budget and Plan, with consideration given to whether the capital financing strategy assumed future provincial/federal funding;
- Projects will only be considered eligible if awarded and incurred after April 1, 2016 and all work must be completed by March 31, 2018 (note: Infrastructure Canada (INFC) may consider and grant extensions beyond the 2 year program framework for specific projects that require additional time to achieve substantial completion).
- Project meets criteria of funding program objectives, including project readiness, deliverability and timeline for completion;
- City Council gave direction to seek funding for unfunded (below-the-line) projects;
- Application of best practices in capital planning and budgeting, including prioritizing projects that maintain assets in a state of good repair; and
- Alignment with Council's Long-Term Fiscal Direction and Strategic Actions.

In August 2016, the Government of Canada and the Government of Ontario signed a bilateral agreement that will provide Ontario with $1.49 billion of Federal funding to cover up to 50 per cent of initiatives supported under this agreement. To date, the City of Toronto has identified approximately $474 million of Federal funding of which approximately $360 million consists of infrastructure maintenance and improvements within Toronto's Transit system.

At its meeting on July 11, 2016, the TTC presented to the Board an overview of the 2016 Provincial and Federal budgets and Announcements, including a high level overview of the PTIF program and funding parameters. The following table provides a high level summary of the anticipated federal funding that the TTC and the City will be receiving under the PTIF Program.

Project Title	Ancitipated Federal Funding *
Toronto Transit Commission	
Subway State of Good Repair	126,878,500
Streetcar State of Good Repair	52,737,000
Bus State of Good Repair	85,756,000
Customer Service Improvements	23,040,000
Accessibility	31,452,500
Structures and Stations	40,005,500
Sub-Total - Toronto Transit Commission	**359,869,500**
City of Toronto	
Surface Transit Improvements	1,000,000
Cycling Network Expansion	42,000,000
Pedestiran Improvements & Road Safety Plan	6,000,000
Transit Expansion Initiatives	65,500,000
Sub-Total - City of Toronto	**114,500,000**
Total	**474,369,500**

* Federal funding represents 50% of total eligible costs, with the remainder to be funded by the City of Toronto

** Additional projects are currently being reviewed for consideration by the Federal Government

A detailed description of each project (including gross and anticipated Federal funding dollars) is included in Appendix A.

The City is required to submit a final list to INFC in the fall. City and TTC staff continue to work on the project list to maximize the federal funding based on the program's terms and conditions.

2016 Federal budget – March 22, 2016
http://www.budget.gc.ca/2016/docs/plan/budget2016-en.pdf

New: Federal Public Transit Infrastructure Fund
http://www.infrastructure.gc.ca/plan/ptif-fitc/ptif-program-programme-eng

Board Meeting – July 11, 2016
http://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2016/July_11/Reports/4_2016_Provincial_and_Federal_Budgets_and_Announcements.pdf

Attachments

Appendix A –Toronto Transit Commission/City of Toronto Preliminary Project List

Contact

Vincent Rodo – Chief Financial and Administration Officer, Vincent.rodo@ttc.ca, 416-393-3914
Michael Roche – Head of Finance & Treasurer, Michael.roche@ttc.ca, 416-393-3654

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Appendix A – TTC/City of Toronto Preliminary PTIF Project List

Project Title	Project Description	Gross	Anticipated Fed Funding*
Bridges/ Structures Maintenance	Rehabilitation of deteriorated bridges and tunnels. The Commission's subway and rapid transit system relies on the sound structural integrity of an extensive network of elevated and underground structures. This program is comprised of the assessment, design and rehabilitation of the Commission's bridges, retaining walls, vent shafts, tunnels and underground station structures at various locations within the transit system.	9,463,000	4,731,500
Toronto Rocket / T1 Rail Yard Accommodation	Design and construction of various Subway car facilities and yards to ensure the proper delivry, maintenance and storage of the new fixed 6-car Toronto Rocket (TR) subway trains at Wilson. This will also include the consolidation of the T1 trains on the Bloor-Danforth (BD) line and related impacts of the TR/T1/H series cascading plan on the applicable maintenance facilities.	9,820,000	4,910,000
Subway Facility Renewal Program	Modifications/renewals at 7 subway facilities across the transit system.	8,527,000	4,263,500
Fire Main Replacement at Wilson Yard	Design preparation for the replacement of the firemain in Wilson Yard. The design will focus on replacement of the firemain system in the rail storage portion of the Wilson Yard. Replacement of the firemain in the remaining portions of the yard (around the bus garage and north of the run-around track) will not be addressed as part of this project.	8,019,000	4,009,500
Retrofit of CH & Shop Traction Power Pendant System	To address safety concerns related to the hand connection of 600 Volt DC traction power to revenue and non revenue subway vehicles in the carhouses and shops (e.g., the application of the main power), the retrofit of all carhouse and shop connection devices to the current design standard as utilized at Wilson Carhouse is required.	1,239,000	619,500

Project Title	Project Description	Gross	Anticipated Fed Funding*
Line 2 (Bloor-Danforth) ATC Resignalling	The preferred method of implementing this increase in headway is to introduce Automatic Train Control (ATC) and to adopt Automatic Train Operation (ATO).	9,000,000	4,500,000
Subway Escalator Overhaul Program	The TTC maintains 293 escalators. The design life of escalators operating in mass transit environments is 25 years. The refurbishment program started in 1997 for escalators with more than 30 years of operation.	11,069,000	5,534,500
Escalator Replacement Program	Replacement/retrofit of escalators.	2,600,000	1,300,000
Subway Pump Replacement Program	This project includes the replacement of existing subway sanitary and storm drainage pumping systems. The Commission has over 500 pumps in the subway system, many of which have exceeded or are approaching the end of their useful service life, and will be replaced on a priority based condition assessment.	6,753,000	3,376,500
Fire Ventilation Upgrade	Upgrade the existing subway ventilation system to provide sufficient ventilation capacity to protect patrons and employees in the event of a major fire in the subway system. This includes installation of new fans in vent shafts and existing fan shafts, upgrading of vent shaft dampers and installation of portal doors. The project also includes providing a second means of egress from the station platform to the exterior of the stations where required.	2,750,000	1,375,000
Backflow Preventers	Backflow preventer installation on water lines supplying TTC properties. Two studies completed in 2013 and 2014 identified the following number of locations: 2 Shops; 3 Garages; 1 Carhouse; 3 Buildings; 42 Substations; 6 Emergency Service Buildings; and 65 Passenger Stations. The TTC is required to upgrade incoming water systems to conform to the City by-law.	2,487,000	1,243,500

Project Title	Project Description	Gross	Anticipated Fed Funding*
On Grade Paving	On-going rehabilitation of the Commission's pavement surfaces at various locations within the transit system, including divisional paved facilities.	9,573,000	4,786,500
Structural Paving	On-going Rehabilitation of the Commission's Structural Pavement Surfaces. The Commission has various paved surfaces applied directly to structural slabs or separated by a thin layer of engineered fill forming elevated roadways or roof structures spanning over subway stations and mezzanines. Continuous effect of leached roadway salts can cause the concrete slabs to undergo major deterioration such as concrete delaminations, corrosion of reinforcing steel, deterioration of waterproofing and through slab leaks. This program is comprised of the on-going assessment, design and rehabilitation of the these structural pavements located at various locations within the transit system, including bus roadways, ramps, loops and parking facilities.	3,775,000	1,887,500
Skylight Replacement Program	Repairs or replacement of leaking skylight systems at numerous locations. The scope of the project includes the repairs of the Yorkdale station skylight. The skylight glazing, glazing gaskets and sealants have deteriorated allowing rainwater to leak through to the interior. The water is leaking onto subway platforms and mezzanine floors inconveniencing customers and creating unacceptable slipping hazards. The water leaks have been raised as a concern by both customers and Joint Health & Safety Committee.	170,000	85,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
Stations Transformation (incl. Zone Hubs)	Stations Hubs will be built at key interchange and line stations. The Station Hubs will be fitted with the following physical and technical characteristics: approximately 20x25 feet and will house three complete workstations, desks, large screens to monitor all video feeds, phones, storage for emergency equipment and supplies for the zone, backup radio equipment and tablets, lockers for the storage of lost articles and employee items. Technological upgrades to support this initiative includes (but are not limited to) upgraded CCTV equipment and extensive CCTV coverage, digital phone network, stations access controls, improved customer help points (PAIs), connectivity (wifi), tablets/applications, alarm monitoring and public security video display units.	18,371,000	9,185,500
Subway Track Rehabilitation Program	If track is not replaced once rail wear has reached its maximum allowable head or gauge wear of one-half inch, a safe reliable track system cannot be assured. Ties and ballast must be replaced to ensure stable and secure foundation for train operation	28,195,000	14,097,500
Subway Turnout Rehabilitation Program	The special track work components are heavily worn and are approaching their service limits. If not replaced, a safe reliable track system cannot be assured. Locations where vehicles change tracks are particularly susceptible to derailments.	22,940,000	11,470,000
Subway Rail Grinding	In certain areas of the mainline Subway, the running rail is damaged by normal train operation. In these areas, the unique nature of the wheel/rail interaction results in two predominate types of rail wear conditions; rolling contact fatigue and rail corrugation.	5,749,000	2,874,500
Train Door Monitoring System - T1 & TR (Overhaul and Communications)	As part of TTC's new 5-Year Plan, a "Single Person Operation" for the TR trains on the Yonge-University-Spadina and Sheppard lines by the year 2019 was identified as one of the initiatives. To support this initiative, a Train Door Monitoring System (TDM)	35,138,000	17,569,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
	system is required and the modifications to the TR trains are needed to support the installation of the TDM system.		
T1 Subway Cars - 20 Year Overhaul	To ensure that the existing Subway Car fleet is in a state of good repair, comprehensive overhaul programs are scheduled at 5-year intervals until their retirement at 30 years. These programs incorporate work recommended by the Original Equipment Manufacturer (OEM) together with that found necessary by service experience. This project includes the 20 year overhaul of 370 T1 cars which will commence in 2015 and will be completed in 2022.	11,544,000	5,772,000
T1 Subway Cars - 15 Year Overhaul	To ensure that the existing Subway Car fleet is in a state of good repair, comprehensive overhaul programs are scheduled at 5-year intervals until their retirement at 30 years. These programs incorporate work recommended by the Original Equipment Manufacturer (OEM) together with that found necessary by service experience. This project includes the 15 year overhaul of T1 cars.	22,383,000	11,191,500
TR Subway Cars - 7 Year Overhaul	To ensure that the new Toronto Rocket (TR) subway car fleet is maintained in a state of good repair, comprehensive overhaul programs are scheduled for the vehicles at 3.5, 5 or 7-year intervals for most major components until their retirement at 30 years. These programs incorporate work recommended by the Original Equipment Manufacturer (OEM) and work found necessary through service experience. The project includes the 3.5, 5 and 7-year intervals of TR components listed below, which will commence in 2015 and will be completed in 2024.	8,772,000	4,386,000
Subway Workcars	Retrofit of existing workcars (27) and purchase of the following types of workcars:	15,420,000	7,710,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
	production tamper, vacuum excavator, geometric/NDT track inspection workcar (1), paper vacuum workcar and crane flatcar (2).		
LRV Carhouse Facility & Renewal	Provide additional facilities to existing carhouses and yards to accommodate service and maintenance requirements of the new Low Floor LRV vehicles. Prior years scope for Roncesvalles and Russell Carhouse Renovations (6897), Surface Carhouse / Shops Facility Renewal Program (6190) and Streetcar Facility for LRT (6289) transferred to Carhouse Modifications - New LRV Program (6097).	756,000	378,000
Surface Track Replacement Program	Rail/Roadbed at the noted location is beyond acceptable standards. In order to maintain this track in a safe, reliable operating condition and to reduce risk of derailment/delays, it is necessary to replace the track structure	46,065,000	23,032,500
Surface Special Trackwork Replacement Program	Special trackwork castings and roadbed are beyond acceptable standards at the noted locations. In order to maintain this trackwork in a safe, reliable condition, and to reduce the potential for derailments or other service delays, it is necessary to replace this worn special trackwork as it approaches the end of its useful life.	16,305,000	8,152,500
Reconstruction of Streetcar Overhead	Upgrades to the existing Overhead Contact System (OCS) on revenue service routes, as well as the three legacy yards, are part of the scope of this project. These upgrades are driven by the planned replacement of the existing streetcars with new Low Floor Light Rail Vehicles (LFLRV	16,438,000	8,219,000
Life Extension Overhaul of 40 Articulated Light Rail Vehicles (ALRVs)	This project is required to ensure sufficient streetcars are available for revenue service. Due to deteriorating state of the ageing vehicles the mechanical condition (wheels and trucks) as well as body condition (roof leaks) necessitate their overhaul before these vehicle fail while in service.	25,910,000	12,955,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
Bus Hoists	Bus hoist replacements. There are over 140 bus hoists located in bus garages throughout the Commission. These hoists are in varying degrees of age and condition. A condition assessment was completed in 2011 identifying 123 hoists requiring replacement at the following bus garages which are being replaced under this project: 1. Arrow Road Garage (16) 2. Duncan Shop (40) 3. Lakeshore Garage (15) 4. Malvern Garage (17) 5. Wilson Garage (16) 6. Eglinton Garage (16) 7. Mount Dennis Garage (2) 8. Birchmount Garage (1) Other work covered under this project includes Implementation of bus hoist safety zones at all hoist positions and the required facility modifications which include lubertoriums, exhaust ducts, lighting, line painting, repositioning of doorways and walkways to facilitate scheduled maintenance of the new fleet of articulated buses.	16,168,000	8,084,000
Bus Washracks	This project will upgrade existing bus washing system to improve the quality of washes and to reduce the amount of maintenance required at garages.	5,947,000	2,973,500
Platform Modifications to Accommodate Articulated Buses	This program covers the cost to reconstruct bus pads and lengthen bus bays on up to 6000 bus stops on bus routes where articulated buses are currently deployed and are planned to be deployed.	20,000,000	10,000,000
Transit Signal Priorities	This program covers the costs to construct up to 30 queue jump lanes and farsde bus bays and to implement transit signal priority at up to 240 signalized intersections to reduce transit delays and improve transit speed and reliability.	26,990,000	13,495,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
Purchase of 4 of 99 Low Floor 40 ft Diesel Buses for Customer Service Initiatives	This includes providing a means to reduce passenger wait times and crowding and to provide more reliable and expanded services. This, in turn will support the objectives of Toronto's "Official Plan" by helping to entice commuters away from automobiles and towards public transit.	2,630,000	1,315,000
Orion VII Diesel & Nova Artic Bus Rebuild Program	This program involves the mid-life rebuild of the Orion VII Diesel, Orion VII Hybrid and Nova Articulated Bus Fleets. The bus mid-life rebuild includes the overhaul of major mechanical systems (engine, transmission, suspension and door systems) & the overhaul of structural members, exterior body panels, & interior items (flooring, passenger seating & operator cab).	82,930,000	41,465,000
Replacement of Orion VII Hybrid Bus Components	This program covers the cost of the Orion VII Hybrid Bus Fleet components. These include the following major hybrid components: AC Traction Generator, AC Traction Motor & Propulsion Control System. Replacement of these components are on an as fail basis.	16,847,000	8,423,500
APC expansion to remainder of TTC 60' bus fleet	This is for the purchase and installation (by TTC coach techs) 118 Automatic Passenger Counting (APC) systems for our articulated bus fleet currently without APC equipment. The goal is to have APC on the entire bus and streetcar fleet. APC is now standard equipment on all new vehicle purchases.	1,062,000	531,000
APC expansion to remainder of TTC 40' bus fleet and ALRVs	This is for the purchase and installation (by TTC coach techs) approx. 1160 Automatic Passenger Counting (APC) systems for our 40' bus fleet currently without APC equipment. The goal is to have APC on the entire bus and streetcar fleet. APC is now standard equipment on all new vehicle purchases.	9,318,000	4,659,000
APC equipment on LRV fleet order	This is to expand the APC equipment program from 60 LRVs to the entire 204 LRV order. Expect to have 100 LRV fleet by 2019. The goal is to have APC on the entire bus and streetcar fleet. APC is now	700,000	350,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
	standard equipment on all new vehicle purchases.		
Customer Facing Information Screens (CFIS)	Deploy (a) LED displays at up to 250 shelters, (b) LED/LCD displays at 6 TYSSE stations and (c) Alternate Energy Pilot at 5 stops.	5,000,000	2,500,000
VISION (CAD/AVL)	This project will deliver: CAD/AVL functionality; integrated vehicle borne systems; integration with automated stop displays; automated stop announcements; onboard camera replacement or integration with existing; tools and automation of selected business rules for route management; mobile supervision tools; integration with maintenance system to automate work order generation, Asset Management; Yard Management System; KPI reporting; system interfaces to existing enterprise applications including the planned enterprise data warehouse for reporting; dashboards and analytics.	30,000,000	15,000,000
Easier Access Phase III	Modifications to make all remaining subway/SRT stations accessible to persons with disabilities, through the addition of elevators easier access fare gates, automatic sliding doors and minor modifications.	6,950,000	3,475,000
AODA Requirements - Subway Fleet, Buses, Streetcars	The TR contractor, Bombardier, will be contracted to develop an electronic display and audio announcement systems for the TR fleet. This system is to be installed by the TTC resources. A SWIS for fleet installation will be accordingly provided by the RVE group. Install a system on all city transit buses to provide automatic electronic voice announcements of the route number and name, direction of travel and terminal destination over an external speaker located near the front door. TTC is planning on vehicle retrofits with some components targeted for completion over a relatively	10,327,000	5,163,500

Project Title	Project Description	Gross	Anticipated Fed Funding*
	short term (three years) while others are longer term projects. Proposed improvement scope may change upon a holistic review of the fleet plan based on the delivery of the AODA-compliant low floor streetcars		
T1 Pre-Boarding Announcement System	The TR contractor, Bombardier, will be contracted to develop an electronic display and audio announcement systems for the TR fleet, then the same solution will be adopted to the T1 fleet, and to be installed by the TTC resources. A SWIS for fleet installation will be accordingly provided by the RVE group.	3,146,000	1,573,000
201 Wheel-Trans Buses	The Wheel Trans fleet will be reaching the end of its design life by 2018/19 and will need replacement in order to maintain a reliable service for our customers. Without a replacement fleet bus availability will become less reliable and severely limit the number of buses available for service on a consistent basis	8,690,000	4,345,000
WT Friendly Bus Rebuild Program	Conduct a state of good repair overhaul program to address life cycles on major mechanical components and body refurbishment on 80 Wheel Trans generation 1 Friendly buses. This project will include engine replacement, front and rear axle overhaul, transmission, steering system, suspension and HVAC system.	4,231,000	2,115,500
Bus Stop Improvements for Accessibility	This program covers the cost to reconstruct the concrete pads at about 1400 bus stops to make them accessible to customers using Mobility devices and comply with AODA	20,000,000	10,000,000
Wheel Trans Transformation Program	Implementation of IT systems to provide improved abilities to manage customer information, customer relationships, ride reservations, scheduling and dispatch. Construction of Mobility Transfer Hubs - Under the Family of Services model, there	9,561,000	4,780,500

Project Title	Project Description	Gross	Anticipated Fed Funding*
	will be designated transfer points between modes of service. While many transfers will likely occur at stations or in other existing facilities, the need to provide a limited number of transfer points where no such facility currently exists has been identified.		
Maintenance of Joint TTC / Toronto Transportation Bridges	There are locations where TTC subway or streetcar service passes (in an exclusive or shared right-of-way), over a bridge structure under the jurisdiction of Toronto Transportation Services. These structures deteriorate over time and require major maintenance.	4,147,000	2,073,500
Tunnel & Station Leak Remediation Program	The Tunnel & Station Leak Remediation Program is necessary to ensure that water leak problems do not cause the underground structure and its subsystems to deteriorate to the point where they jeopardize the safety of the operating subway and associated pedestrian areas.	9,785,000	4,892,500
Structure Rehabilitation Program	The safe and efficient operation of the Commission's subway and rapid transit system relies on the sound structural integrity of an extensive network of elevated and underground structures. Deteriorated bridge and tunnel structures will be rehabilitated to ensure that an acceptable level of structural adequacy is maintained for the delivery of safe and reliable service.	32,959,000	16,479,500

Project Title	Project Description	Gross	Anticipated Fed Funding*
Storage Tanks - Oil Interceptors	Replacement of Underground Storage Tanks (UST) and Aboveground Storage Tanks (AST). There are over 140 Underground Storage Tanks (UST) and Aboveground Storage Tanks (AST). These tanks have capacities ranging from approximately 250 Liters to 45,000 Liters. Many of these tanks were installed 15 to 20 years ago, and are reaching the end of their life. Following the inspection of 144 tanks, 32 tanks were identified for priority replacement. The removal and replacement of these 32 tanks is currently underway under Phase 3 and Phase 4 of the program: Phase 3 – 20 Tanks - Eglinton: (2 tanks) - Wilson: (5 tanks) - ESB tanks (7): Hillcrest (2), McDonald Cartier 401(2), McCowan Station (1), Lawrence E. Station (1), Ellesmere Station (1) - Union Station (1) - Queensway (3) - Birchmount (2) Phase 4 – 12 Tanks - Queensway: (2 tanks) - Hillcrest: (8 tanks) - Duncan Shop: (2 tanks - Removal) - Greenwood Shop (2 tanks) - Condition Survey AST/UST	1,280,000	640,000
Subway Asbestos Removal Program	Thermal and acoustic asbestos bearing material has been used in varying quantities throughout the Commission facilities. In the subway system, asbestos was used in insulation material on tunnel walls, station ceilings and piping. The Commission implemented a program in the early 1980's to remove asbestos-containing insulation in the subway system.	7,587,000	3,793,500

Project Title	Project Description	Gross	Anticipated Fed Funding*
Roofing Rehabilitation Program	This program involves the on-going planned rehabilitation of full or partial roof replacement of Commission facilities as identified in a five-year matrix schedule developed based on maintenance requirement, life cycle, condition assessment of roof membrane and a long term plan to ensure the Commission's assets are maintained in a state of good repair and eliminate the backlog of repair to reach a steady state of approximately 17,100 sq meters annually of roof replacement by 2024.	24,253,000	12,126,500
	Sub-Total TTC	**719,739,000**	**359,869,500**
Union Station Infrastructure	Planning and study for Northwest PATH expansion, security infrastructure, and loading/tunnel access. Capital work on wayfinding/signage. The Northwest PATH expansion is planned to connect Union station to a portion of the existing PATH system in the Wellington Street area - the expansion will begin at Union station, cross Front Street, and travers Yorl Street northwards to Wellington Street. Design development and detailed design still needs to be completed.	1,500,000	750,000
Finch West LRT Early Works	City Share of Utility Relocation (force water main, etc.) related to construction of the Finch West Light Rail Transit Line.	50,000,000	25,000,000
SmartTrack Planning and Design	Remaining technical and planning analysis and any required Environmental Assessment/Transit Project Assessment Process for SmartTrack/Regional Express Rail (RER) Integration scenario with up to six new stations located at Finch, Lawrence, Gerrard and Unilever on the Stouffville/Lakeshore East GO corridors and Liberty Village and St. Clair West on the Kitchener GO corridor.	6,000,000	3,000,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
Eglinton West LRT Planning and Design	Remaining technical and planning analysis and any required Environmental Assessment/Transit Project Assessment Process for Eglinton West LRT extension with between 8 to 12 stops between Mount Dennis and Renforth Gateway, and potential grade separations located at Martin Grove Road, Kipling Avenue and the Eglinton Flats as well as the potential grade separations at Islington Avenue and Royal York Road and a review of their associated costs.	7,000,000	3,500,000
Scarborough Subway Extension Planning and Design	Third-party rail transit construction and cost –estimation risk assessment and detailed review of 5 percent design cost estimates for the McCowan corridor and other possible express subway alignment options. TPAP.	250,000	125,000
Eglinton East LRT Planning and Design	Technical and planning analysis with respect to an Eglinton East LRT extension to the UTSC, including: a. advancing the Eglinton East LRT to a minimum of 5 percent design; b. assessing the interface at Kennedy Station of the Eglinton East LRT, Metrolinx Eglinton Crosstown project, and the preferred Scarborough Subway Extension (SSE) option c. assessing the potential realignment of Military Trail through UTSC; and d. identifying the requirements for the next phase of the Eglinton East LRT extension to Malvern.	7,000,000	3,500,000
Relief Line Planning and Design	Undertake an additional assessment of an alignment west of Pape Avenue, starting immediately north of the GO tracks on Pape Avenue to south of Queen Street, with a station box at Queen Street and Carlaw Avenue; up to 15% design for phase one (Osgoode to Pape)	55,520,000	27,760,000
Waterfront Transit Design	Phase 2; 30% preliminary design for Exhbition to Dufferin Gate Loop	3,600,000	1,800,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
Eglinton Connects Streetscape Improvements and Cycle Tracks	100% detailed design of streetscape and cycle tracks along Eglinton Connects LRT project and construction of an 800 m segment of cycling facilities from Jane Street to Weston Road supporting multi-modal trips along this corridor. In total, the construction of this project is anticipated to cost approximately $15 million per year for 10 years for a total of $150 million, Along Eglinton Avenue from Weston Road to Brentcliffe Avenue (10.9 km)	17,800,000	8,900,000
West Toronto Railpath Extension	Southerly extension of West Toronto Railpath, connecting to several rapid transit stations including Bloor/Dundas GO / TTC and UP Express. $1.5 million funding in place (2016) for detailed design of southerly extension. Feasibilty study of northerly extension of West Toronto Railpath, providing a connectoin to St. Clair Streetcar is estimated at $500,000, included in expenditure total.	23,500,000	11,750,000
East Don Trail	Key connection in multi-use trail network, joining existing East Don Trail, Gatineau Corridor Trail and Lower Don Trail system. Forms part of the Pan Am Path. Connection to Eglinton Crosstown LRT. Project to complete Phases 1 -3. Phase 1 is estimated to cost $11 million, $8.5 million of which is currently funded. Phase 2 is estimated to cost $10 million. Phase 3 estimated to cost approximately $5 million. Lower Don Trail - East Don Trail: 1.85 km; East Don Trail - Gatineau Hydro Corridor: 1.84 km (flyover distance)	22,500,000	11,250,000
Surface Transit Operational Improvement Studies	Data collection, analysis, and preparation of recommendations for traffic regulations, traffic signal timing, roadway modifications, and transit operations, for reduction of delays and improved reliability of service on major surface routes	500,000	250,000
Bicycle parking at 40 TTC stations	New and enhanced bike parking at 40 rapid transit stations supporting multi-modal trips	850,000	425,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
Bike Share Toronto Expansion at 50 TTC stations	Expansion of Bike Share Toronto stations at 50 rapid transit stations	2,500,000	1,250,000
Flemingdon Park-Thorncliffe Park Neighbourhood Connections	Neighbourhood connections to Eglinton Crosstown LRT. Projects include boulevard multi-use trails and/or cycle tracks in this high-density neighbourhood with the most New Canadians anywhere in Canada. A bridge, which would service both cyclists and pedestrians, is badly needed here to link the two sides of the Don Valley.	3,000,000	1,500,000
Eglinton Avenue East Bicycle Lanes	Proposed bicycle lanes or cycle tracks on the section of Eglinton Avenue east of the terminus of the Crosstown LRT; Eglinton Avenue East - East of Kennedy Road and Kennedy Subway Station.	1,082,000	541,000
Burnhamthorpe/ Renforth Boulevard multi-use trail to Kipling Station	Proposed boulevard multi-use trail connection to Kipling TTC station, the reconstruction of Six Points and to the City of Mississauga in conjunction with other capital projects.	2,090,000	1,045,000
York University Cycling Connections	Various cycling improvements near York University, which would improve cycling access to the Toronto - York Spadina Subway Extension.	223,000	111,500
Dufferin Street North Trail/Cycle Track	Proposed boulevard multi-use trail or cycle tracks to be implemented in conjunction with other capital projects. Provides connections to frequent bus service on Steeles Ave. West and Finch Ave West.	1,400,000	700,000
Midland Avenue Multi-Use Trail	Proposed boulevard multi-use trail cycling facility. This cycling facility includes connections to Sheppard East LRT, Scarborough GO station (via Reeves), and Scarborough RT/future smart track stations which may use this corridor; Kennedy, Lawrence Ave East, Midland, Ellesmere etc.	9,000,000	4,500,000
Transit Signal Priority System Renewal	Architecture and Design for Transit Signal Priority System (Part of Congestion Management Plan) - pilot deployment at up to 6 intersections	100,000	50,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
Accessible Pedestrian Signals Expansion	Expansion of APS to improve access to transit stops for visually impaired and deafblind pedestrians. Program to undertake 20 locations per year.	2,400,000	1,200,000
Automated Pedestrian Detection Upgrades	Upgrades to traffic signals to automatically detect waiting pedestrians and ensure that they have enough time to safely cross the street at 10 locations per year	300,000	150,000
New mid-block crossings to transit stops	Provide additional controlled crossing opportunities to improve safe pedestrian access to transit stops at 10 locations per year.	3,000,000	1,500,000
Reductions of curb radii at key intersections	Reduce the corner radii at 5 key intersections per year in order to shorten pedestrian crossing distances and times, and reduce the speeds of vehicles making right turns	250,000	125,000
Geometric Safety Improvements - Removal of Channelized Right Turns	Removal of right-turn channels and islands at 5 intersections per year to reduce vehicle speeds and add accessible pedestrian signals at key intersections	1,800,000	900,000
Missing sidewalk links - 2017	Construction of new sections of sidewalk, curb cuts, and tactile pavers to improve access to transit stops	1,320,000	660,000
Missing sidewalk links - 2018	Construction of new sections of sidewalk, curb cuts, and tactile pavers to improve access to transit stops	1,710,000	855,000
Missing sidewalk links - 2018 Road Safety Plan	Construction of new sections of sidewalk, curb cuts, and tactile pavers to improve access to transit stops	500,000	250,000
Increase Crossing Times - Modification of signals and timings	Modify walk speeds and re-time traffic signals to allow more time for pedestrians to safely cross a signalized intersection at 40 locations per year	230,000	115,000
Reduced Crossing Distance - Curb extensions/ neckdowns	Implement curb extensions/neckdowns to reduce pedestrian crossing distances on local and collector roads and improve visibility and protection of pedestrians at 5 locations per year	180,000	90,000

Project Title	Project Description	Gross	Anticipated Fed Funding*
Sidewalk extensions for accessibility	Widen sidewalks to better accommodate mobility devices and provide improved access to transit stops	150,000	75,000
Signalized Crossings for Cyclists	Expand the installation of dedicated traffic signals for cyclists at 5 locations per year	180,000	90,000
Pavement Marking Improvements	Provide additional and improved pavement markings to improve the visibility of pedestrians at 14 corridors per year within the City	400,000	200,000
Real-time alternative transportation information screens	Installation and maintenance of screens showing real-time status of transit, carsharing, bike share, etc. (based on pilot project already completed)	60,000	30,000
LED Blank-Out Signs for turn restrictions	Expand the installation of illuminated prohibited turn signs on additional streetcar corridors to improve compliance to turn restrictions at up to 40 locations	760,000	380,000
	Sub-Total City	**228,655,000**	**114,327,500**
	Total - TTC & City	**948,394,000**	**474,197,000**

** Federal funding represents 50% of total eligible costs, with the remainder to be funded by the City of Toronto*

** Note: Additional projects are currently being reviewed for consideration by the Federal government.*