



TTC 15-Year Capital Investment Plan, Real Estate Investment Plan and 2022 – 2031 Capital Budget & Plan

Date: December 20, 2021
To: TTC Board
From: Interim Chief Financial Officer

Summary

The purpose of this report is to:

1. Provide the Board with an update on the Toronto Transit Commission's Capital Investment Plan's (CIP) 15-year Outlook (2022-2036) and how the recommended 10-year Capital Budget and Plan (2022-2031) relates to the funding progress being made in addressing unmet capital needs in the CIP;
2. Introduce the TTC's first ever Real Estate Investment Plan (REIP), a 15-year strategic roadmap and plan aligned with, and in support of the implementation of funded and unfunded capital investments identified in the CIP as well as seek the Board's endorsement of the guiding principles of this inaugural plan; and,
3. Seek approval for the staff-recommended 2022-2031 TTC Capital Budget and Plan to provide funding for the acquisition, renewal and improvement of TTC's assets that support Toronto's transit service delivery.

Since its inception, the TTC's Capital Investment Plan (CIP) has been key to providing all orders of government a comprehensive view and understanding of the TTC's capital needs over a 15-year period. There is confirmed recognition that safe, reliable, seamless and resilient transit contributes to the environmental, social and economic well being and vitality of the city, and more recently, is deemed critical to post-COVID recovery. As a result, significant progress has been made in securing tri-partite funding and commitments allowing the TTC to enhance subway capacity, procure new vehicles for our fleet, electrify the bus network, modify facilities and supplement SOGR funding for critical capital works.

As part of its continuous improvement efforts, the TTC has been adopting best practices for an integrated approach to asset management, capital planning, capital project management, and financial management. The result is clarity regarding the TTC's requirements, which can enable steadier-state investment in public transit. As a rolling plan, the CIP has been updated and further refined in accordance with Board and Council direction, resulting in a 2022 to 2036 CIP that totals \$37.22 billion. The 2022-2036 CIP summary by mode is contained in Appendix A.

The resultant clarity in TTC capital investment needs has also brought about a more strategic and integrated approach to capital investment planning. The updated CIP for

2022 begins to bring together critical project interdependencies for larger programs of investment, that if unfunded can jeopardize the larger program. As part of this evolution, the TTC is also introducing its first ever 15-year Real Estate Investment Plan (REIP) as a companion document to the 2022 CIP. The REIP will enable the TTC to strategically plan, manage and optimize its real estate portfolio and, like the CIP, will identify funded and unfunded real estate needs over the same 15-year period necessary to meet TTC's current capital and future growth needs in support of, the TTC's CIP. The REIP's Implementation Action Plan detailed in Appendix B, lays out TTC's real estate requirements. The REIP will be submitted annually to the Board together with the CIP. Individual real estate matters in the REIP will continue to be submitted to the Board for its consideration and approval as they arise.

Work undertaken during the 2022 Budget process that recalibrated annual cash flow profiling of base capital needs to align with project timelines, spending capacity and project activities; revisited planning assumptions and timing of key facility requirements; and, confirmed project priorities and dependencies, has enabled the TTC to reallocate \$314.5 million to accommodate critical capital needs in the 2022-2031 Capital Budget & Plan. Of this amount, 57% of the funding is being added for Health and Safety, Legislated and State of Good Repair projects which were previously unfunded in the CIP. The balance, of 43%, is funding for Service Improvement and Growth projects.

The recommended 2022 - 2031 Capital Budget and Plan of \$12.051 billion funds 52% of the critical capital needs identified and cash flowed in the first 10 years of the Capital Investment Plan, based on available sources of funding.

The 2022-2031 Capital Budget and Plan:

- Maintains steady state funding for essential safety and SOGR capital work to ensure safety and reliability of our system
- Ensures funding to meet legislative requirements within timelines
- Advances delivery of the fleet procurement strategy for the procurement of 60 Streetcars, 300 hybrid and 300 ebuses as well as 70 Wheel-Trans buses
- Continues to advance work on three major capacity improvement projects (Bloor-Yonge, Line 1 and Line 2) plus ATC implementation on Lines 1 and 2
- Continues business modernization such as SAP; Maximo; Vision, Wheel-Trans and Stations Transformation
- Builds capacity within our major projects/programs to enhance coordination of activities and resourcing given that 27 major projects/programs account for 74% of the total \$12.1 billion Capital Plan

The 10-year Capital Budget & Plan includes \$149.531 million for the following transit expansion related projects included in the TTC's Capital Works Program:

- SRT Life Extension Overhaul – \$22.495 million in 2022 and \$21.369 million in 2023-2024 to keep train service operating on Line 3, reconfigure bus bays at Kennedy Station and Scarborough Centre Station and evaluate proposed alternatives for service replacement;

- Waterfront Transit – \$40.873 million in the 10-year Capital Plan to complete the preliminary design for the Exhibition to Dufferin Gate Loop as well as the East Bayfront Area 1 Concept design with funding between 2022 and 2025;
- Toronto-York Spadina Subway Extension (TYSSE): Following the opening on December 17, 2017, \$63.967 million will be spent in 2022 and \$0.827 million in 2023 to support project closeout commitments. This funding is consistent with prior budget approval and does not reflect any additional project funding.

The year-over-year cashflows of the TTC’s 2022-2031 Capital Budget and Plan Summary is contained in Appendix C.

The cost of maintaining and operating new infrastructure, rehabilitated or expanded facilities as well as the cost to sustain new technology are some key drivers that impact the TTC’s Operating Budget. All costs and savings arising from the completion of capital projects have been identified over the 10-year period and 2022 operating impacts of \$1.8 million have been incorporated in the staff recommended 2022 Operating Budget.

As well, a total of 131 capital positions to be funded from this 10-year Capital Plan will be added to TTC’s capital complement and 15 capital positions to the City’s complement to provide the necessary TTC and City resourcing required to build capacity for the successful delivery of the major capital programs funded in the 2022-2031 Capital Budget and Plan.

Recommendations

It is recommended that the TTC Board:

1. Endorse the TTC 2022-2036 Capital Investment Plan of \$37.22 billion, as outlined in Appendix A of this report;
2. Endorse the following principles that will guide a TTC-wide approach to planning and managing the TTC’s real estate portfolio:
 - a. Optimize existing property before acquiring new property;
 - b. Acquire property rather than expropriate
 - c. Own property rather than lease
 - d. Separate timing of acquisition from construction timing
 - e. Include “back of house” support and training needs when planning for growth
 - f. Integrate resiliency into projects and processes to mitigate environmental impacts over the long-term
 - g. Provide flexible and sustainable solutions that support innovation
 - h. Maximize value creation opportunities for TTC surplus properties in partnership with the City.
3. Endorse the TTC 2022-2036 Real Estate Investment Plan’s implementation timeline, as outlined in Appendix C of this report;
4. Approve the staff recommended TTC 2022-2031 Base Capital Budget & Plan of \$11.902 billion, as outlined in Appendix C of this report;

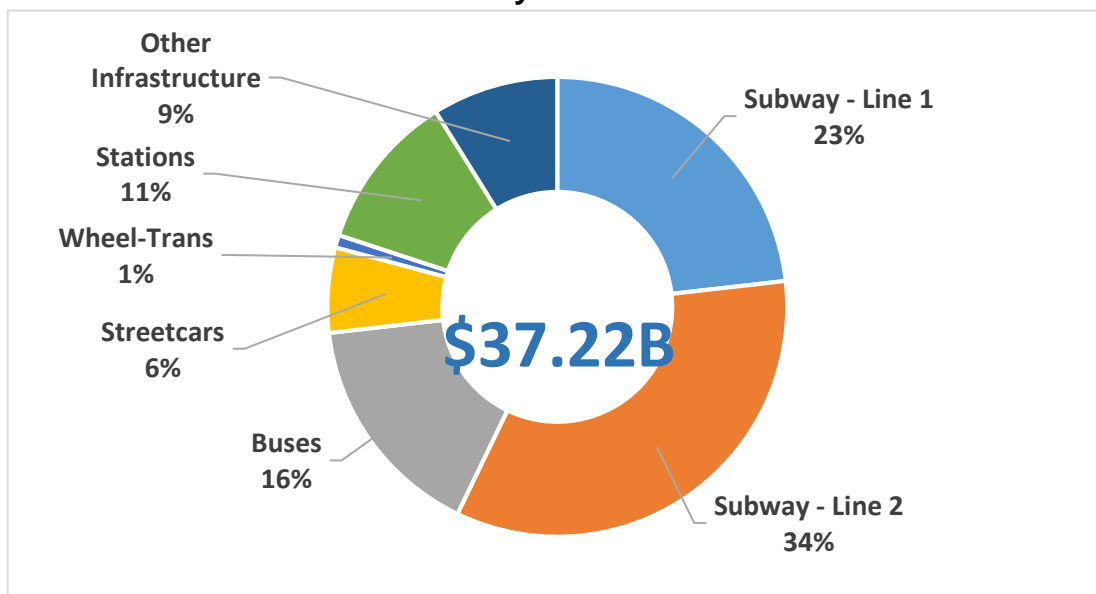
5. Approve the staff recommended TTC 2022-2031 Capital Budget & Plan of \$149.531 million for Transit Expansion Projects including the completion of the remaining scope for the Toronto-York Spadina Subway Extension, SRT Life Extension Overhaul for Line 2 Subway Extension (formerly Scarborough Subway Extension) and Waterfront Transit also outlined in Appendix C of this report;
6. Forward this report to the City Budget Committee and the City Manager as the official 2022-2031 Capital Budget and Plan submission for the Toronto Transit Commission; and,
7. Forward the 2022-2036 Real Estate Investment Plan to CreateTO and City Real Estate Management staff for their information.

Financial Summary

2022-2036 Capital Investment Plan

The 2022-2036 Capital Investment Plan (CIP) totals \$37.22 billion in base capital needs over a 15-year period. The following table summarizes the capital investment requirements by mode.

**2022-2036 Capital Investment Plan
By Mode**



2022-2036 Recommended Capital Investment Plan			
Description (\$ Billions)	2022-2036		
	Years 1-10	Years 11-15	15 Year Total
Funded	12.051	2.627	14.678
Unfunded	11.257	11.284	22.541
Total Program Requirement	23.308	13.911	37.219

**Funding sources in years 11-15 based are based on current levels of city, provincial and federal funding included in the 10-year capital budget and plan*

Given this is a rolling plan, the 2022-2036 Capital Investment Plan (CIP) is approximately \$555 million lower than the \$37.77 billion presented in the 2021-2035 CIP. The Capital Investment Plan has been updated to reflect:

- Revised project estimates and/or timing for major capital works such as Bloor-Yonge Capacity Improvements; Line 1 and Line 2 Capacity Enhancements and ATC Line 2 projects based on a stage gate methodology;
- The addition of a new information management capital project to begin preparing TTC for the implementation of the City’s ModernTO program;
- The addition of the Russell Yard & Carhouse Modifications and Extension project to provide maintenance capacity for the additional 60 new streetcars;
- The deletion of costs for the New Streetcar Maintenance & Storage Facility and the Streetcar Facility Upgrade Leslie Second Exit projects; and
- Revised cashflow requirements for years 11 to 15.

Real Estate Investment Plan

As a companion document to the CIP, the REIP sets out the strategic direction for the planning and management of the TTC’s real estate assets and sets out the 15-year priorities in support of TTC’s capital programs and operational needs. The REIP provides property-focused strategies and objectives to ensure that the TTC’s real estate asset portfolio is fully optimized to maximize facility and operational efficiencies; incorporates resiliency into projects and processes to advance sustainability and provides a roadmap for TTC and City partners to ensure TTC service needs are integrated into City building initiatives. It further classifies each program by funding status, consistent with the CIP, and includes a property implementation timeline that maps out property timing identified over the 15-year planning horizon of the REIP.

2022-2031 Capital Budget and Plan

The table below shows the staff recommended 2022-2031 Capital Budget and Plan totaling \$12.051 billion allocation by project category.

**2022-2031 Capital Budget & Plan
By Project Category**

Category (\$ Millions)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Total	% of Total
Health & Safety/Legis.	169.60	254.77	252.48	168.27	158.10	58.03	32.31	25.21	12.18	7.06	1,138.00	9.44%
SOGR	1,001.19	952.87	819.38	729.02	598.98	509.43	484.76	464.92	343.74	306.19	6,210.47	51.53%
SI/Growth	527.47	493.95	567.65	450.34	449.62	451.34	445.50	539.38	380.43	397.24	4,702.92	39.02%
Total	1,698.27	1,701.58	1,639.50	1,347.63	1,206.70	1,018.80	962.56	1,029.51	736.35	710.49	12,051.40	100.00%

Over \$7.348 billion or almost 61% of the base capital plan for the ten-year period is committed to Health and Safety; Legislated and State of Good Repair (SOGR) capital projects, with \$6.21 billion or 52% of the proposed funding allocated to SOGR. This will fund the most critical needs to keep the Commission’s capital assets in good repair while also providing a safe and reliable transit service within existing funding sources, including the implementation of Automatic Train Control on Lines 1 (\$123 million) and Line 2 (\$723 million). Approximately \$1.14 billion or 9% is allocated to meet health and

safety legislative requirements and timelines to complete the Easier Access project (\$621 million), including costs associated with the redevelopment plans for Warden and Islington Stations, Subway Station Second Exits (\$180 million) and Greenwood Shop End of Life Replacement (\$96 million).

The remaining 39% or \$4.70 billion of the staff-recommended 2022-2031 Capital Budget & Plan is allocated to service improvement and growth related capital projects, funding such major capital projects as the Bloor-Yonge Capacity Improvement; Line 1 and Line 2 Capacity Enhancement projects.

2022 Capital Budget

The 2022 staff-recommended Capital Budget is \$1.698 billion, comprising \$1.173 billion for Infrastructure projects and \$525 million for Vehicle projects. Consistent with the 10-year Capital Plan, almost 59% is dedicated to state of good repair funding while the balance enables the TTC to begin or continue work on critical service improvement projects and complete vehicle related procurements.

2022-2031 TTC Expansion Capital Plan

Additionally, staff are recommending funding of \$149.5 million between 2022 and 2025 in the 10-year Capital Plan to complete the preliminary design for Waterfront Transit; the SRT Life Extension Overhaul and fund close-out costs for the Toronto York Spadina Subway Extension (TYSSE).

The following table summarizes the cash flow funding estimates for Transit Expansion-related projects over the next 10 years.

2022-2031 TTC Expansion Capital Plan

Project (\$ Millions)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Total
Toronto York Spadina Subway Extension	63.97	0.83	-	-	-	-	-	-	-	-	64.80
SRT Life Extension Overhaul	22.50	12.99	8.38	-	-	-	-	-	-	-	43.87
Waterfront Transit	7.09	33.29	0.37	0.11	-	-	-	-	-	-	40.86
Total	93.56	47.11	8.75	0.11	-	-	-	-	-	-	149.53

Capital Funding Sources

Recoverable debt of \$6.2 billion to be funded by the City Building Fund is TTC's primary capital funding source and represents 79% of the \$7.8 billion of City Funding. This reflects an almost \$4.7 billion infusion of funding from City Council with the approval of the incremental tax levy increase during the 2020 Budget process. This will fund approximately \$4.2 billion in base capital expenditures over the 10-year capital planning period for TTC's major subway capital works and vehicle program and \$500 million for the City's one third share of the priority Bloor-Yonge Capacity Improvement project.

Provincial and Federal funding of \$1.0 billion is also expected to fund their respective one-third share Bloor-Yonge Capacity Improvements project under the ICIP PTIF2 program. These funding partners will also fund \$180 million each as their respective contributions towards the Streetcar Program, as approved in 2021.

Given the funding and commitments above, City funding represents almost 65% of total capital funding for the TTC while provincial funding contributes 13% and federal funding provides 22%, representing 35% of the total capital funding provided by these two funding partners for priority fleet procurements and capacity enhancements.

TTC's capital funding sources over the 10-year period are summarized below.

2022-2031 Capital Funding Sources

Funding Sources (\$ Millions)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Total
Recoverable Debt	787.72	1,123.50	970.13	828.08	741.15	570.95	527.60	597.24	40.42	0.00	6,186.79
Debt	115.47	79.09	23.31	16.08	8.76	4.14	5.07	3.01	279.69	347.85	882.49
Provincial	132.09	129.47	223.30	181.70	160.44	160.44	160.44	160.44	153.86	127.28	1,589.45
Federal	379.37	214.50	296.47	272.27	260.98	252.32	248.55	248.55	241.97	215.38	2,630.35
Development Charges	168.70	130.92	111.82	34.97	22.98	19.71	12.73	12.46	11.96	11.78	538.02
TTC Internal Depreciation	27.34	21.44	14.48	14.54	12.38	11.23	8.18	7.81	8.45	8.20	134.03
Other	87.58	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.26
Total Funding	1,698.27	1,701.58	1,639.50	1,347.63	1,206.70	1,018.80	962.56	1,029.51	736.35	710.49	12,051.40

Operating Impacts of Completed Capital Projects

The cost of maintaining and operating new infrastructure, rehabilitated or expanded facilities as well as the cost to sustain new technology are some key drivers that impact the TTC's Operating Budget. As well, many projects also accrue benefits, financial and otherwise. The costs and benefits of capital projects are established and form part of their evaluation.

Operating Impacts of Capital

Projects	2022 Budget		2023 Plan		2024 Plan		2025 Plan		2026 Plan		2022-2026		2022-2031	
	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions	\$000s	Positions
Total (Net)	1,833.6	(59.0)	(9,974.3)	9.7	46.9	45.0	(1,889.3)	37.0	4,511.8	2.0	(5,471.3)	34.7	(49,176.5)	43.5

The completion of previously approved capital projects in 2022 will result in an operating cost of \$1.8 million in 2022 but savings of \$49.2 million over the 10-year period, with \$14.6 million of the total savings to be realized from the completion of the train door monitoring system project (OPTO) and the balance of the savings to be realized from the reduction in fuel consumption resulting from the replacement of clean diesel buses with hybrid and electric buses.

Although 2022 will result in an operating cost as indicated above, there will be a reduction of 66 positions due to the savings from the Train Door Monitoring project (OPTO). Over the 10-year period an incremental 43.5 positions will be required for the purchase of streetcars, information technology systems and signal systems.

The 2022 operating impacts of capital have been included in the staff-recommended 2022 Operating Budget

Equity/Accessibility Matters

The TTC is deeply committed to making Toronto's transit system barrier-free and accessible to all so all customers can enjoy the freedom, independence and flexibility to travel anywhere on the public transit system. One of the cornerstones of the Capital Investment Plan is accessibility, ensuring the customer journey is easy and barrier-free, regardless of accessibility needs.

The 2022-2031 Capital Budget and Plan provides full funding of \$621 million to complete the TTC's Easier Access Program, which is underway to make all subway stations accessible by 2025 with elevators, wide fare-gates and automatic sliding doors. With reduced ridership demands due to COVID-19, the TTC is accelerating Easier Access construction activities.

It also provides funding for several improvements elsewhere across the transit system, including Warden and Islington stations, low-floor streetcars, bus and new Wheel-Trans fleet, as well as a growing number of accessible bus and streetcar stops.

Decision History

At its meeting on December 21, 2020, the TTC Board approved the 2021-2030 TTC Capital Budget and Plan of \$11.689 billion in funding over the 10-year period, with \$1.315 billion approved in the 2021 Capital Budget.

https://ttc-cdn.azureedge.net/-/media/Project/TTC/DevProto/Documents/Home/Public-Meetings/Board/2020/December_21/Reports/Decisions/2050_2_TTC_15_Year_Capital_Investment_Plan_and_2021_to_2030_.pdf?rev=f0a091ad80cc4b988392d5b952567a82&hash=EB38F88EADCEF4DC25511E67327AE9A8

At its meeting on May 25, 2021, The TTC Board approved an amendment to the TTC Streetcar Program by increasing the 2021-2030 Approved Capital Budget and Plan by \$425.785 million for the procurement of an additional 47 streetcars at an incremental cost of \$328.248 million, and the modifications to the Hillcrest Facility to accommodate the additional fleet at an additional cost of \$97.537 million.

https://ttc-cdn.azureedge.net/-/media/Project/TTC/DevProto/Documents/Home/Public-Meetings/Board/2021/May_25/2054_1_TTC_Streetcar_Program_Procurement_of_60_Streetcars_Decision.pdf?rev=702297ecb0934414a524c333c8db6c85&hash=04D8E152062262C5E1A3FB53182DA943

Issue Background

In January 2019, the TTC introduced a supplemental report entitled *Making Headway: Capital Investments to Keep Transit Moving*. This report outlined the results of a comprehensive review of TTC's state of good repair needs and capital requirements necessary to provide transit service that is safe, efficient, reliable, affordable and equitable over a longer-term time horizon.

A 15-year Capital Investment Plan (CIP) presented the TTC's state-of-good-repair needs required for asset lifecycle replacement and capital requirements to increase transit capacity and support future ridership growth. The CIP, for the first time, outlined TTC's capital needs across all of its asset categories over a 15-year period, requiring a \$33.5 billion investment over the 2019-2033 period of which \$23.7 billion was unfunded due to limited sources of funding.

The Capital Investment Plan provides:

- Awareness, education, and better understanding of required capital needs;
- A clear view of required capital investments over the next 15 years;
- Increased focus on (base) state of good repair and projects to improve ridership capacity and support growth;
- A distinction between what capital requirements are funded vs. unfunded;
- The value of investing and the risks of failing to invest; and,
- A multi-year planning tool that forms the basis for the annual capital budgeting process.

The benefits of having a CIP have produced results. All three orders of government have clearly acknowledged the central role transit plays in contributing to the economic, environmental and social well-being and vitality of the City of Toronto and the necessity for investments to ensure that transit service is safe, reliable, seamless, and adaptable to meeting future change.

To date:

- The new Toronto-Ontario Transit Partnership (October 2019) recognized the need for critical unfunded subway SOGR;
- The Bloor-Yonge Capacity Improvements project was deemed a priority project with a commitment to funding from all three orders of government (1/3 each of \$1.5 billion total);
- City Council approved a tax levy increase to raise \$4.7 billion in new City Building Funds dedicated to TTC's capital needs:
 - \$500 million to fund the City's 1/3 share of the Bloor-Yonge Capacity Improvements Project
 - \$3.1 billion for subway infrastructure and capacity improvement projects
 - \$1.1 billion for fleet procurement and overhaul;
- The TTC has been the recipient of funding and/or funding commitments totalling \$5.7 billion to fund critical capital projects that otherwise would have remained unfunded; and
- The TTC has secured a total of \$568 million for its Streetcar Program for the purchase of 60 Streetcars (\$468 million) and modifications to its Hillcrest Facility

(\$100 million), with Provincial and Federal funding partners each committing to a \$180 million contribution and the City funding the balance for the Streetcar Program

Consequently, this new funding has enabled the TTC to achieve the following results during 2021:

- Completed and received Board approval of Stage Gate 3 deliverables for the Bloor-Yonge Capacity Improvements project and submitted the business case to the Provincial and Federal governments.
- Completed Stage Gate 1 activities for the Line 1 Capacity Enhancement project.
- Initiated Stage Gate 0 planning and an assessment for the Line 2 Capacity Enhancement Program, in collaboration with regional and municipal partners examining changes to: subway trains, maintenance and storage facilities, stations, signals, electrical power, subway tracks and operating strategies, including the necessary staffing that will be required to meet ridership demands.
- Exercised the option for the additional 47 streetcars with the supplier; and
- Began the assessment of the Hillcrest Facility for scope requirements and required phasing of improvements.
- Accelerated the asbestos abatement program and reduced the need to have 20 to 30 weekend closures, however;
 - The larger benefit was saving an estimated 2 years of “bypassing” station platforms while abatement would be taking place behind the barrier/platform.
 - Subway Infrastructure utilized these closures and it has helped accelerate the traction power cable replacement at Osgoode by 6 months.

As recommended by the TTC Board and as directed by City Council, the CIP is updated annually as part of the budget process. The CIP will continue to be updated on an annually to reflect refined estimates, changes to the plan as well as provide an update on the progress being made on addressing the Commission’s SOGR backlog and unmet capital needs.

Comments

2022-2036 Capital Investment Plan

As a rolling plan, the CIP is updated annually to reflect refined estimates based on capital planning progress made through stage gating; changes to planned timing or requirements and resultant costs as well as the addition of emergent capital needs due to new priorities or revised SOGR needs based on updated condition assessments.

This update to the TTC’s Capital Investment Plan reflects progress made since 2019 and takes a more strategic approach to capital investment planning by bringing together project dependencies within larger capital programs. The 2022-2036 CIP identifies TTC’s most immediate unfunded priorities under five programmatic areas, as follows:

- Modernizing the Subway and Expanding Capacity
 - Purchase 80 subway trains

- Modify Greenwood Yard
- Add auxiliary maintenance and storage capacity in time for the delivery of subway trains
- Supporting a Larger Streetcar Fleet
 - Renew Russell Carhouse
 - Continue to upgrade overhead power
- Transforming & Electrifying Bus Service
 - Purchase electric buses
 - Install charging infrastructure
 - Implement transit priority measures
- Upholding the State-of-Good-Repair
 - Scheduled fleet maintenance
 - Safety and legislative improvements
 - System maintenance
 - Operational infrastructure
- Maintaining Current Wheel-Trans Service.
 - Purchase Wheel-Trans buses

Each project belongs to a larger program of investment that is essential for future transit service. Most represent critical interdependencies that, if delayed, would jeopardize the larger program.

The Capital Investment Plan for the 2022-2036 period is \$37.22 billion, reflecting a decrease of \$555 million from last year's Plan. The decrease in the Capital Investment Plan was driven by the following key changes in total requirements:

Key Changes to Capital Investment Plan (\$ billions)	Years 1-10	Years 11-15	15 Year Total
2021-2035 Capital Investment Plan	22.25	15.52	37.77
Capital Investment Plan Changes			
New Streetcar Maintenance & Storage Facility	(0.78)	(0.12)	(0.90)
Streetcar Facility Upgrade: Leslie Second Exit	(0.30)	0.00	(0.30)
Russell Carhouse Modifications & Extension	0.13	0.00	0.13
Non-Revenue Vehicle Electric Charge Systems	0.11	0.04	0.15
Line 1 Capacity Enhancement	0.75	(0.42)	0.33
Line 2 Capacity Enhancement	0.33	(0.34)	(0.01)
Other Changes	0.82	(0.77)	0.05
Total Capital Investment Plan Changes	1.06	(1.61)	(0.55)
2022-2036 Capital Investment Plan	23.31	13.91	37.22

In many cases, CIP capital cost estimates are preliminary rough order of magnitude projections intended for planning purposes only. The planning and design of large capital projects proceeds through a series of "stage gates", which increase certainty and accountability and reduce risk. At each gate, estimates are further refined. As a result of this practice, estimates will inevitably be subject to change.

The updated CIP for 2022 reflects the further refinement of estimates, particularly for the Line 1 and Line 2 Capacity Improvements projects. The Russell Yard & Carhouse Modifications & Extension projects were added to support the Streetcar Program, and costs required to install electric charging systems for Non-Revenue Vehicles Electric Charge Systems were added to support the electric vehicle program. Costs for the New Streetcar Maintenance and Storage Facility and the Streetcar Facility Upgrade Leslie Second Exit were removed.

Further details on the Capital Investment Plan can be referenced in Appendix A.

As a result of the 2022 budget process, \$12.051 billion of the \$23.308 billion in the CIP will be funded in the first 10 years. Based on extending current funding levels to the outer five years, another \$2.627 billion of this CIP can also be funded. This leaves a total of \$22.541 billion unfunded, as summarized in the table below.

2022-2036 Recommended Capital Investment Plan			
Description (\$ Billions)	2022-2036		
	Years 1-10	Years 11-15	15 Year Total
Funded	12.051	2.627	14.678
Unfunded	11.257	11.284	22.541
Total Program Requirement	23.308	13.911	37.219

**Funding sources in years 11-15 based are based on current levels of city, provincial and federal funding included in the 10-year capital budget and plan*

Real Estate Investment Plan

TTC’s property requirements to keep transit moving are unique and complex, and the TTC faces a number of challenges with respect to its real estate needs. Facilities need to be in proximity to the service they support, and the size, type, and location of required property to support TTC’s functions are not commonly available, particularly in a dense and highly constrained urban environment. There is also typically a long lead time required to purchase property, placing additional time constraints for project implementation. The TTC has multiple property needs to serve a variety of users, making it challenging to find the right property in the right location to accommodate these needs.

The REIP provides a strategic approach to identifying and planning for the protection, preservation, and acquisition of property for the next 15-year period with an outcome to have a strategically planned, managed, and optimized real estate portfolio that meets TTC’s current needs and ensures sustainable growth resulting in TTC’s ability to:

- Maximize facility and operational efficiencies;
- Incorporate resiliency to advance the City and TTC’s shared sustainability outcomes;
- Work with third party developments to meet TTC’s needs; and
- Integrate TTC service into City building initiatives;

The following guiding principles have been established to provide a TTC-wide approach to planning and managing the TTC's real estate portfolio:

- Optimize existing property before acquiring new property
- Acquire property rather than expropriate
- Own property rather than lease
- Separate timing of acquisition from construction timing
- Include “back of house” support and training needs when planning for growth
- Integrate resiliency into projects and processes to mitigate environmental impacts over the long-term
- Provide flexible and sustainable solutions that support innovation
- Maximize value creation opportunities for TTC surplus properties

The REIP classifies TTC's real estate portfolio into three “pillars” or property types that work together to deliver a safe, reliable and seamless transit system. These pillars include:

- **Facilities** that house the operations which support the fleet;
- **System Network** properties required to deliver transit service; and
- **Office Space** which house the staff that support the TTC Facilities and System Network.

The REIP lays out strategies, service objectives, and actions for each property pillar with the actions organized into one of the following four actionable classifications that are grounded in the REIP's guiding principles:

- *Optimize* existing real estate assets first
- *Acquire* land where TTC cannot optimize
- *Explore* opportunities for best use
- *Support* city-building objectives where possible

As a result, the REIP's implementation action plan is structured to include all TTC programs and initiatives that have a direct impact on the TTC's real estate portfolio and incorporates:

- Capital projects that have a real estate need; the timing required and funding status consistent with the 15-year CIP;
- Proactive actions, which are not identified in the CIP but reflect strategic and ongoing actions to support TTC's real estate needs; and
- Functional changes, which reflect future work envisioned beyond the 15-year CIP horizon or are presently being scoped, to support TTC's facilities, system, and office spaces.

Over 70 projects and initiatives are identified to implement the REIP. These projects range from new facilities to support TTC's growing fleet; new and expanded system infrastructure such as bus and streetcar loops, and the Bloor-Yonge Capacity Enhancement project to proactive initiatives that will focus on long-term optimization of TTC's existing real estate assets, such as the highest and best use for Hillcrest

Complex, modernizing and optimizing existing office space, and incorporating eBus charging systems as TTC expands its electric vehicle fleet.

As the real estate needs of the TTC continue to evolve and expand, the REIP will be updated to reflect TTC's real estate priorities in support of its capital programs and operational needs. The REIP will be submitted annually to the Board together with the CIP. Individual real estate matters in the REIP will continue to be submitted to the Board for its consideration and approval as they arise.

2022-2031 Capital Budget and Plan

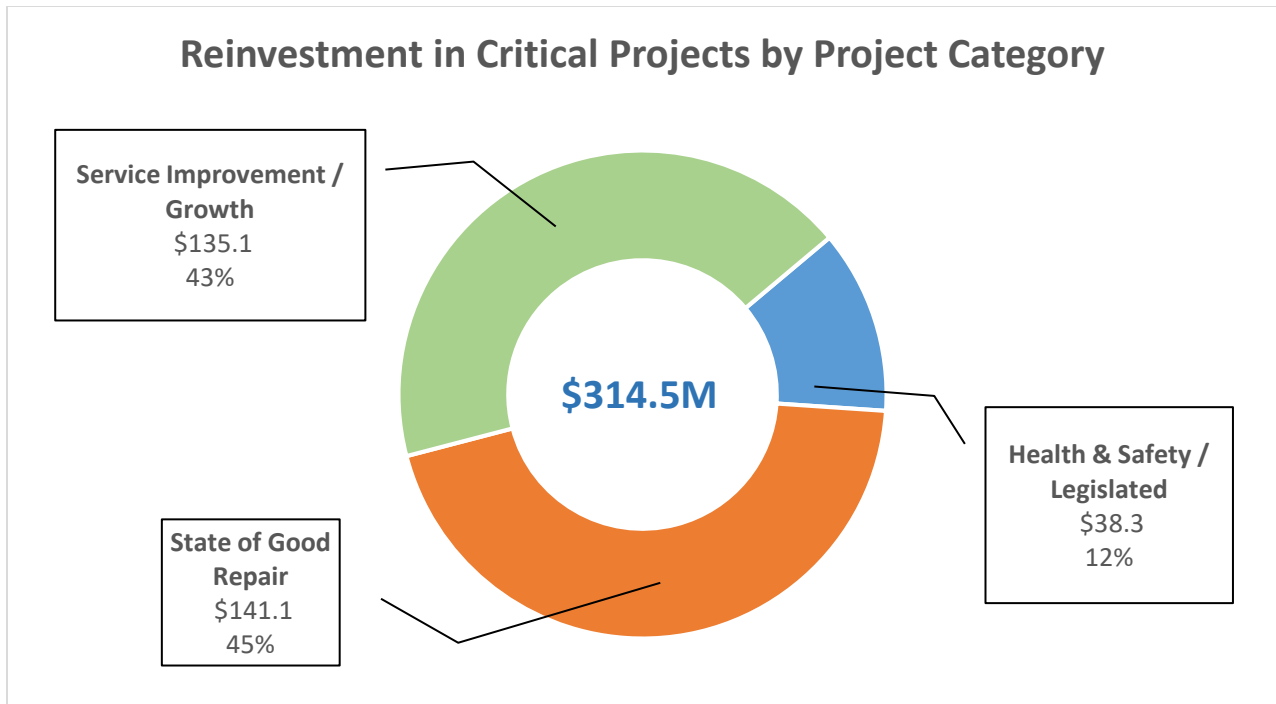
The 10-year Capital Budget & Plan establishes a steady state investment plan to ensure critical assets are maintained in a state of good repair to preserve system safety and reliability and improve capacity to meet service objectives. To achieve an optimal outcome within available funding sources, it was important to:

- Recalibrate the 10-year Capital Plan's project estimates based on capacity to spend and project readiness and smooth annual cash flow estimates to match cash flow spending to project activities and timelines;
- Review requirements for major capital projects based on the progress made through the stage gating process;
- Revisit assumptions on needs, scope, and timing to confirm existing capital priorities and requirements, some of which have been moved beyond the 10-year timeframe;
- Identify any emergent capital priorities that must be funded to address critical health, safety or state of good repair requirements.

These efforts have provided additional "funding room" of \$314.5 million which has enabled TTC staff to reallocate existing funding for critical capital priorities and needs starting in 2022, with 57% of the funding be added for Health and Safety, Legislated and State of Good Repair projects which were previously unfunded. This includes the design and modifications for the Russell Yard & Carhouse Modifications & Extension project necessary to accommodate the future servicing need of an expanding streetcar fleet; increased funding to accelerate the Bus Mid-Life Overhaul activities; the property acquisition required for a tenth garage and operational needs; and the Storage Tank Replacements project for oil and convault tank replacements at various locations.

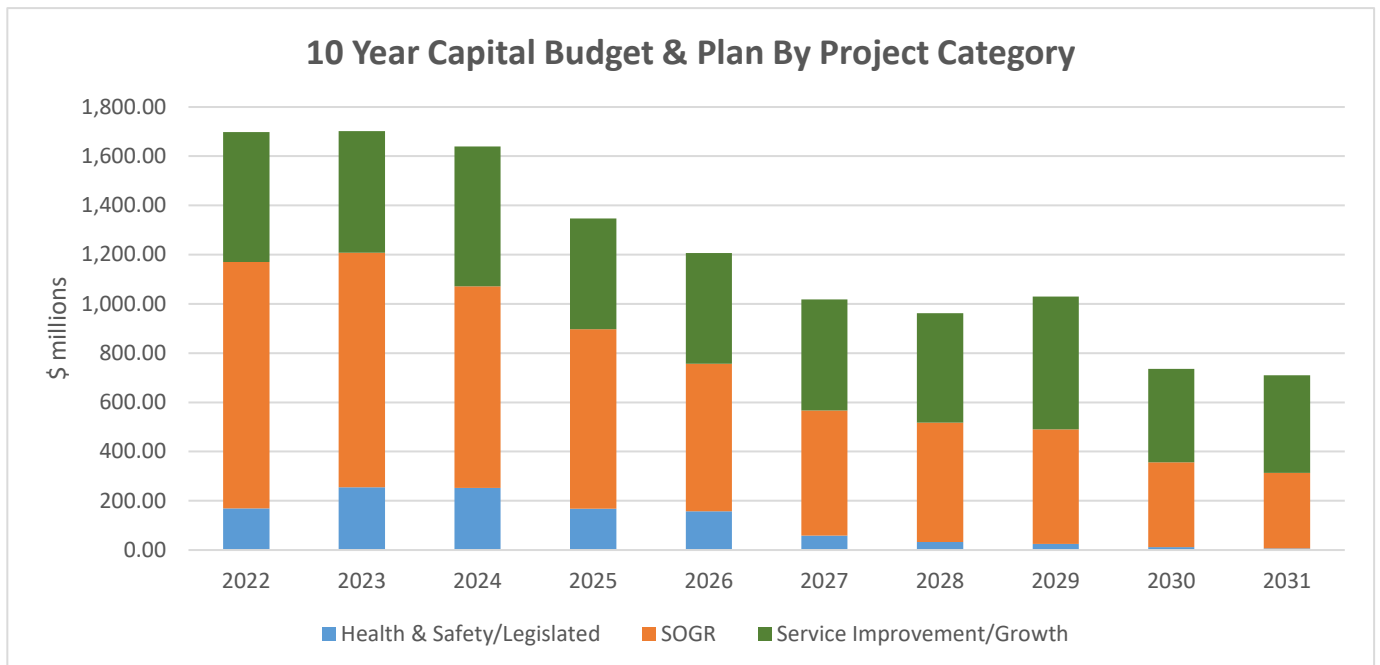
The chart below shows the breakdown of the additional "funding room" of \$314.5 million allocated by project category.

Reinvestment in Critical Projects by Project Category



Of the added amount, \$179.4 million or 57% is attributable to Health and Safety, Legislated and State of Good Repair projects and \$135.1 million or 43% is for Service Improvement and Growth capital projects, making progress in the amount of unfunded capital works that could be accommodated in the 2022-2031 Capital Budget & Plan within current funding availability.

The following tables provide the breakdown of the \$12.051 billion funded 10 Year Capital Budget & Plan by project category.



**2022-2031 Capital Budget & Plan
By Project Category**

Category (\$ Millions)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Total	% of Total
Health & Safety/Legis.	169.60	254.77	252.48	168.27	158.10	58.03	32.31	25.21	12.18	7.06	1,138.00	9.44%
SOGR	1,001.19	952.87	819.38	729.02	598.98	509.43	484.76	464.92	343.74	306.19	6,210.47	51.53%
SI/Growth	527.47	493.95	567.65	450.34	449.62	451.34	445.50	539.38	380.43	397.24	4,702.92	39.02%
Total	1,698.27	1,701.58	1,639.50	1,347.63	1,206.70	1,018.80	962.56	1,029.51	736.35	710.49	12,051.40	100.00%

Of the total \$12.051 billion recommended for the 2022-2031 Capital Budget and Plan, \$6.21 billion or 52% is allocated to SOGR work and \$1.14 billion or 9% to Health & Safety and Legislated work. These categories are decreasing each year in both absolute value as well as a percentage of the Capital Plan's total. Service Improvement and Growth projects account for \$4.7 billion or 39% for the 10-year period and is maintained at steady amount year over year given the multi-year cashflow requirements for the major capacity programs such as the Bloor-Yonge, ATC Line 1 and 2 and the Line 1 and 2 Capacity Enhancement projects. As a result, much of the SOGR funding is provided in the first five years of the Capital Plan for the procurement of TTC's fleet with lesser amounts allocated in the following five years for steady state SOGR needs. Any subsequent increases in SOGR funding is limited by the funding needs of the major capital projects and overall funding availability.

As a result, the 2022-2031 Capital Budget and Plan:

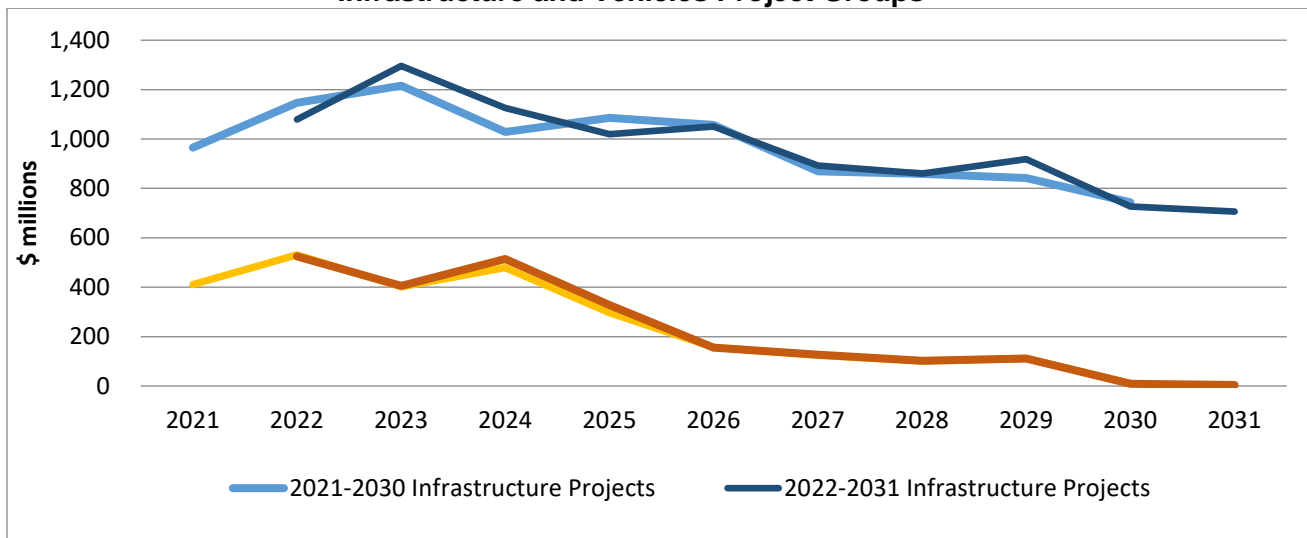
- Advances TTC's ability to establish steady state funding for essential safety and SOGR capital works such as:
 - Maintaining funding to complete ATC Line 1 and ensuring 10-year funding for ATC Line 2
 - Increasing funding for the Russell Yard & Carhouse Modifications & Extension project to provide increased maintenance capacity for the new Streetcars
- Provides funding to ensure TTC is compliant with legislative requirements, such as:
 - Making all 72 stations accessible, including Warden and Islington stations in accordance with redevelopment plans for those sites;
 - Improving accessibility at Bus stops;
 - Implementing asset management requirements in accordance with provincial prescribed timelines.
- Aligns with the Fleet Procurement Strategy timing and requirements, providing City portion of funding for vehicle procurements
- Continues business modernization:
 - SAP; Maximo; Vision, Wheel Trans and Stations Transformation
- Reflects revised timing and requirements based on work completed to date for:
 - Bloor-Yonge Capacity Improvements
 - Line1 and Line 2 Capacity Enhancements

The TTC's recommended 2022-2031 Capital Budget & Plan, totalling \$12.051 billion, is the product of the actions outlined above. The TTC's capital works program can be categorized into 2 project groups:

- Infrastructure
- Vehicles

The following table compares the staff recommended 10-year Capital Budget & Plan to last year's Council approved 10-year Capital Budget & Plan for Infrastructure and Vehicles projects.

**2022-2031 Recommended Budget Compared to the 2021-2030 Approved Capital Plan
Infrastructure and Vehicles Project Groups**



The staff recommended 10-Year Capital Plan allocates almost \$9.769 billion or 81% to Infrastructure Projects and \$2.282 billion or 19% to Vehicle Projects.

Infrastructure Projects:

2022 - 2031 Capital Budget and Plan												
(\$ Millions)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Total
2021-2030 Infrastructure Projects	965	1,147	1,216	1,029	1,085	1,057	869	858	841	744		9,811
2022-2031 Infrastructure Projects		1,173	1,296	1,125	1,020	1,051	892	861	918	727	706	9,769
Variance	(965)	26	80	96	(65)	(6)	23	3	77	(17)	706	(42)
Total Change in Nine Common Years											217	

The cashflow profile of infrastructure projects for the 2022-2031 Capital Budget and Plan has remained consistent with the 2021-2030 Capital Budget and Plan for these projects. However, key increases are evident in the 2023-2024 period, to align the timing of scope as well as the funding requirements to reflect the inclusion of the Russell Yard and Carhouse Modifications and Extension project required to accommodate the future servicing need of the TTC's expanding streetcar fleet. Cash flow funding adjustments were also made in the same period for the Easier Access III,

Exhibition Loop Dufferin Gates Loop Streetcar Connection and the ATC Line 1 Resignalling projects.

Vehicle Projects:

2022 - 2031 Capital Budget and Plan												
(\$ Millions)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Total
2021-2030 Vehicle Projects	411	531	401	478	297	156	125	101	112	10		2,622
2022-2031 Vehicle Projects		525	406	514	328	156	127	102	111	9	4	2,282
Variance	(411)	(6)	5	36	31	0	2	1	(1)	(1)	4	(340)
Total Change in Nine Common Years											67	

Funding for Vehicle Projects has changed by \$67 million over the nine common years mainly a result of the reallocation of funding, from infrastructure projects, to add \$57 million to the Bus Midlife Overhaul to accelerate this critical work.

Capital Funding Sources

The following table summarizes the available sources of funding over the next 10 years:

Funding Sources (\$ Millions)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Total
Recoverable Debt	787.72	1,123.50	970.13	828.08	741.15	570.95	527.60	597.24	40.42	0.00	6,186.79
Debt	115.47	79.09	23.31	16.08	8.76	4.14	5.07	3.01	279.69	347.85	882.49
Provincial	132.09	129.47	223.30	181.70	160.44	160.44	160.44	160.44	153.86	127.28	1,589.45
Federal	379.37	214.50	296.47	272.27	260.98	252.32	248.55	248.55	241.97	215.38	2,630.35
Development Charges	168.70	130.92	111.82	34.97	22.98	19.71	12.73	12.46	11.96	11.78	538.02
TTC Internal Depreciation	27.34	21.44	14.48	14.54	12.38	11.23	8.18	7.81	8.45	8.20	134.03
Other	87.58	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.26
Total Funding	1,698.27	1,701.58	1,639.50	1,347.63	1,206.70	1,018.80	962.56	1,029.51	736.35	710.49	12,051.40

The 2022-2031 Capital Budget and Plan reflects the following key assumptions:

- Assumed approved level of debt in the absence of debt targets over the 10-year period;
- Continuation of Provincial and Federal Gas Tax funding based on current funding levels;
- Federal PTIF Phase 2 funding and equal cost sharing from the Province and the City (through recoverable debt) for the Bloor-Yonge Capacity Improvements Project; and
- Tri-party funding for the Streetcar Program.

As a result, funding of the TTC's 2022-2031 Capital Budget and Plan will come from the following sources:

- Recoverable Debt funding of \$6.187 billion, representing 51% of total funding plus base debt of \$882 million bringing total City Debt funding to \$7.069 billion represents 59% of all funding sources

- Provincial and Federal funding will contribute \$1.589 billion or 13% and \$2.630 billion or 22%, respectively;
- Development charges (including reserves) will provide \$538 million or 4%
- TTC Internal (Depreciation) will provide \$134 million or 1%; and
- Other funding, including TYSSE Reserves, will provide \$90 million or 1% to round out the funding required for this 10-Year Capital Plan.

Operating Impacts of Completed Capital Projects

The cost of maintaining and operating new infrastructure, rehabilitated, or expanded facilities as well as the cost to sustain new technology are some key drivers that impact the TTC's Operating Budget. These impacts must be identified when evaluating capital projects to determine the costs and benefits of proposed capital projects.

Approval of the 2022-2031 Capital Plan will result in costs and/or savings arising from the completed capital projects. The completion of various capital projects included in the 2022-2031 Capital Plan will result in an incremental addition of approximately 43.5 positions over the next 10 years.

Operating costs of \$1.8 million are required in 2022 and an overall \$49.2 million in savings over the next 10 years is expected to be realized from the implementation of the train door monitoring project (OPTO) and the reduction of fuel consumption from the purchase of hybrid and electric buses.

The 2022 operating impacts of capital have been reflected in the staff-recommended 2022 Operating Budget.

Operating Impacts of Completed Capital Projects

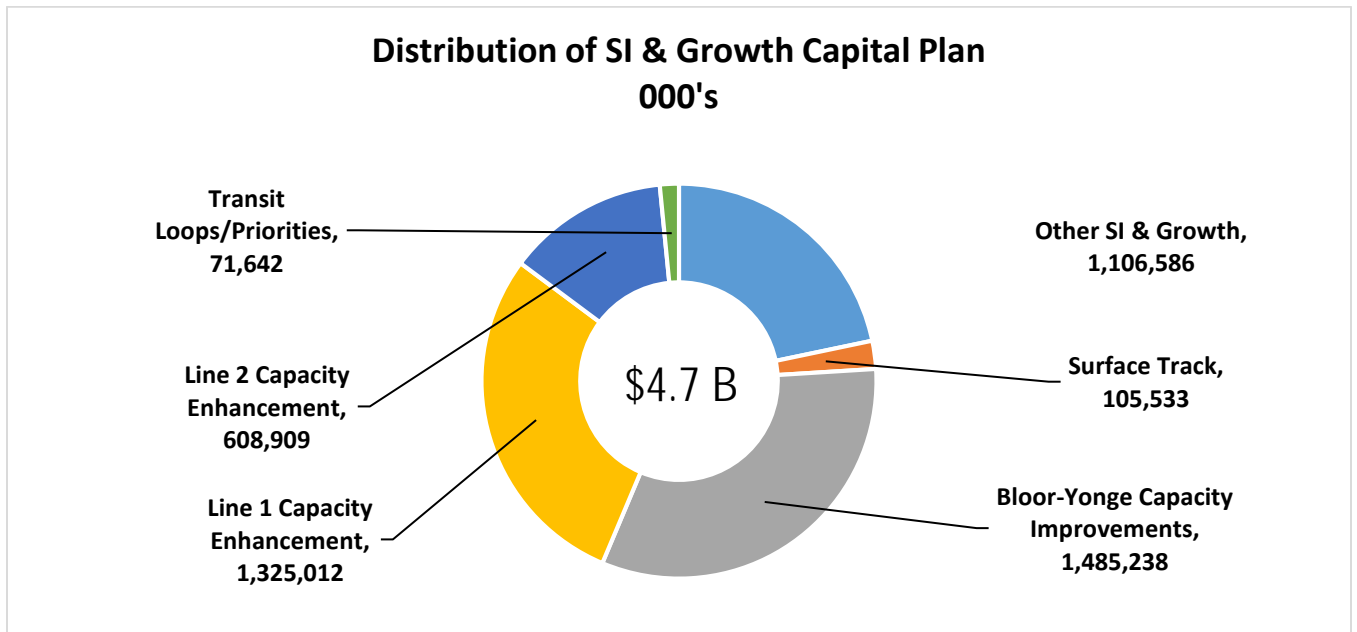
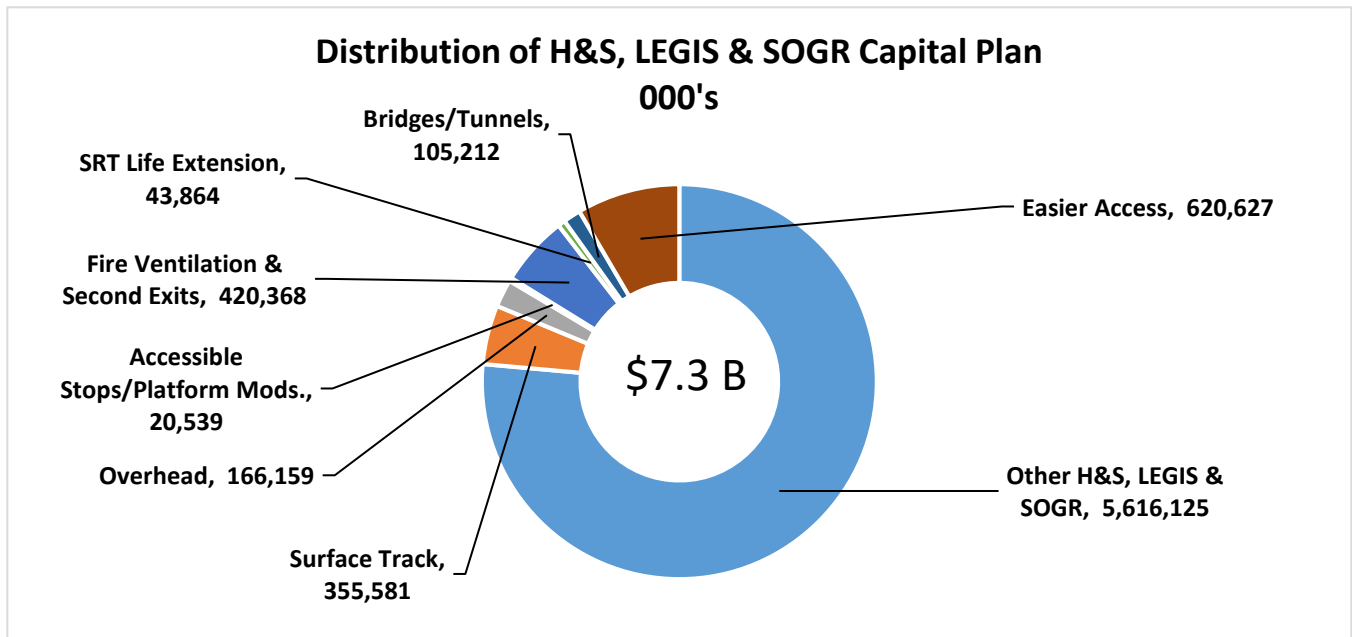
Projects	2022 Budget		2023 Plan		2024 Plan		2025 Plan		2026 Plan		2022-2026		2022-2031	
	\$000s	Position	\$000s	Position	\$000s	Position	\$000s	Position	\$000s	Position	\$000s	Position	\$000s	Position
Previously Approved														
Fare Handling Equipment	999.8		294.0		115.0		114.0		69.0		1,591.8		1,591.8	
Information Technology System-Infrastructure	1,424.5		6,854.4	3.0	748.5		1,931.3	16.0	1,194.8	1.0	12,153.5	20.0	13,504.0	20.0
Train Door Monitoring	(2,642.0)	(66.0)	(12,000.0)								(14,642.0)	(66.0)	(14,642.0)	(66.0)
eBus Charging System	407.6		375.6		788.8	1.0	1,869.3	3.0	2,063.3		5,504.6	4.0	12,156.9	
Purchases of Buses			(4,807.0)		(6,394.0)		(8,028.0)		(8,150.0)		(27,379.0)		(70,424.0)	
Purchase of Street car			767.0	7.0	4,859.1	44.0	2,078.4	19.0	47.6		7,752.1	70.0	8,005.3	70.0
Signal Systems - Various	644.6	2.0	129.0	0.5	31.0		33.0		29.0		866.6	2.5	1,034.0	2.5
Other Various OBIs	999.1	5.0	(1,587.3)	(0.8)	(101.5)		112.7	(1.0)	9,258.1	1.0	8,681.1	4.2	(402.4)	17.0
Sub-Total: Previously Approved	1,833.6	(59.0)	(9,974.3)	9.7	46.9	45.0	(1,889.3)	37.0	4,511.8	2.0	(5,471.3)	34.7	(49,176.5)	43.5
New Projects - 2022														
Sub-Total: New Projects - 2022														
New Projects - Future Years														
Sub-Total: New Projects - Future Years														
Total (Net)	1,833.6	(59.0)	(9,974.3)	9.7	46.9	45.0	(1,889.3)	37.0	4,511.8	2.0	(5,471.3)	34.7	(49,176.5)	43.5

Building Capacity Within the Capital Program

The TTC capital project portfolio is comprised of project and programs in varying scale, and complexity. These range from significant major construction, procurement and technology projects and programs, to more routine ongoing state of good repair

programs. As part of the TTC's commitment to continuous improvement in the planning, management, and delivery of capital projects, the TTC has undertaken an internal review of major projects and programs to identify areas of opportunity to further develop the organization's capability in project delivery.

The following charts show the distribution of key capital projects/programs within each capital project category that require significant planning, management and delivery plans, which requires the appropriate capacity to ensure appropriate governance, project delivery, oversight and coordination.



Given the amount of funding, complexity and variation in project and program scope, risk profile and type, the TTC is employing a variety of strategies to ensure that measures are being taken to provide oversight, assurance, proper resourcing and coordination and control appropriate to the nature of the capital project work underway. Building capacity within the TTC to implement these measures will help achieve the commitment to continuous improvement in the planning, management, and delivery of capital projects.

As reported to the Board on December 8, 2021, in the report entitled “*Continuous Improvement in Capital Project Management*” one of the priority actions identified was the need for a consistent approach to resource planning by taking a programmatic view and ensuring projects are adequately staffed to provide the necessary control and oversight, project delivery, by including corporate services roles as well as roles for City partners needed to support project delivery. As a result, a total of 131 capital positions are being funded in the TTC’s 2022 Capital Budget to build the necessary capacity within the TTC and an additional 15 positions for dedicated resources required by our City partners.

2022 Capital Budget

The recommended 10-year Base Capital Plan of \$12.051 billion includes \$1.698 billion in project expenditures required for 2022. The following chart outlines the cashflow funding recommended for 2022.

TTC 2022 Capital Budget

<u>Infrastructure Projects:</u>	<u>(\$ Millions)</u>	
Track Programs	82.63	
Traction Power	27.95	
Electrical Systems	7.84	
Communications	13.40	
Signal Systems (Inc. Line 1 and Line 2 ATC)	70.29	
Finishes	27.12	
Equipment	68.89	
Yards & Roads	10.92	
Bridges & Tunnels	40.56	
Other Buildings & Structures		
Bloor Yonge Capacity Improvements	100.00	
10th Bus Garage - Property Purchase	127.80	
Easier Access Phase III	107.70	
Line 1 Capacity Enhancement	30.66	
Line 2 Capacity Enhancement	10.19	
Fire Ventilation Upgrade & 2nd Exits Program	47.43	
TR/T1 (Subway car) Rail Yard Accommodation (Subway Vehicle Facilities)	27.92	
Stations Transformation	7.38	
Wheel-Trans 10Yr Transformation Program	4.37	
Enterprise Asset Management	5.00	
Other Building & Structure Projects	137.25	
Fare System	12.67	
Information Technology	78.53	
Expansion Projects (TYSSE, Waterfront)	71.06	
Other Projects	55.84	
		1,173.4
		69%
 <u>Vehicles Projects:</u>		
Purchase of Buses	280.55	
Purchase of Future Wheel Trans Buses	25.45	
Purchase of Subway Cars	7.86	
Purchase of Streetcars	59.95	
Vehicle Overhaul Programs (Bus, Subway, Streetcar)	109.90	
Expansion Projects (SRT LE Overhaul)	22.50	
Other (Non-Revenue)	18.65	
 Total Programs	1,698.27	

Infrastructure Projects

In 2022, work will continue to maintain TTC infrastructure assets in a state of good repair, including subway and surface track, signal systems, yards/roads, and bridges/tunnels as well as the installation of ATC on Line 1. Planning and early works will continue on the following major projects: Line 1 and Line 2 Capacity Enhancements and ATC Line 2 and design work for the Bloor-Yonge Capacity Improvements project.

Projects scheduled for completion in 2022 include: the VISION implementation on buses and streetcars, the installation of LRT Faregates for Eglinton Crosstown and Finch West, King & Sumach Track Improvements, Bicycle Parking at Stations (Chester and Old Mill stations remaining), and POP Legacy Fare Collection.

Vehicle Projects

In 2022, 298 Hybrid buses are expected to be delivered as well as 110 Wheel-Trans buses. In addition, 180 bus overhauls, 74 T1 Subway Cars and 8 TR Trains will have state of good repair activities performed in 2022.

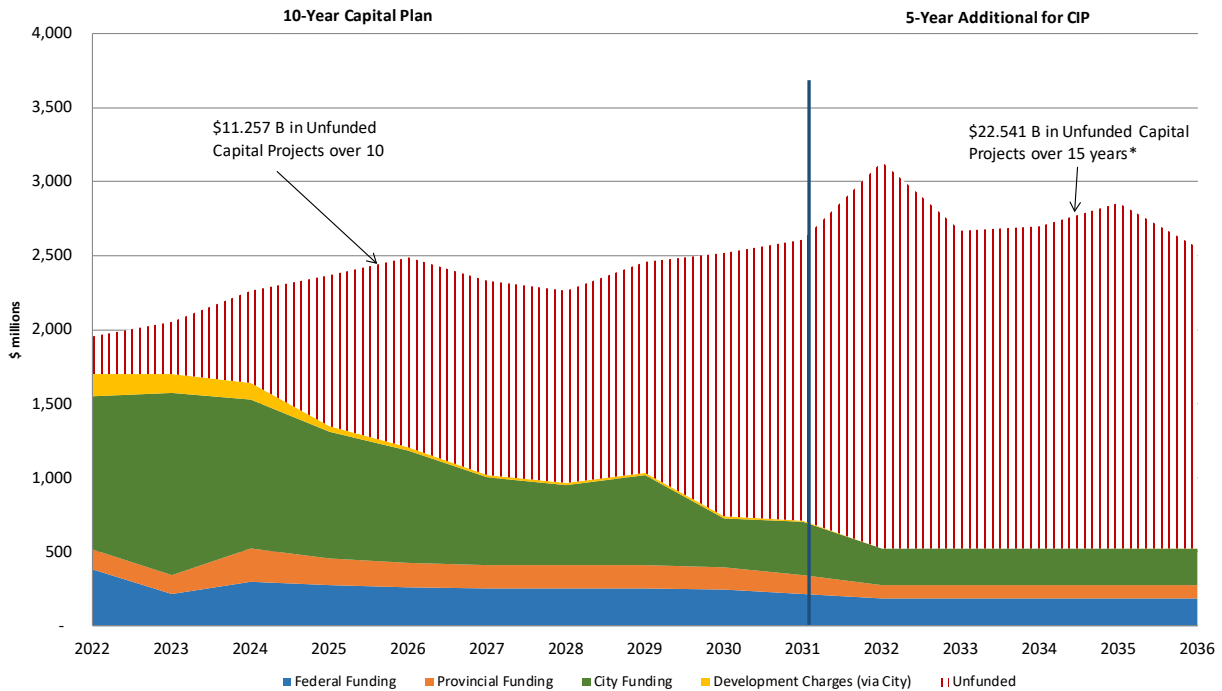
Implications for TTC's Unmet Capital Needs

The following table outlines by project category, the unfunded capital needs over the 15-year timeframe. Nearly \$11.89 billion or about 47.2% of unfunded projects in the 15-year Capital Investment Plan time horizon can be attributed to State-of-Good-Repair (SOGR 46.3%) and Health & Safety/Legislated (0.9%) capital needs.

Category (\$ Millions)	2022	2023	2024	2025	2026	5 Year Total	10 Year Total	15 Year Total	15 Year Total %
Health & Safety/Legislated	5.54	37.19	47.48	33.05	23.95	147.21	200.95	226.31	0.90%
SOGR	211.53	238.42	455.58	766.19	900.27	2,571.98	6,656.27	11,658.83	46.33%
Service Improvement/Growth	39.49	76.64	121.51	224.31	353.90	815.85	4,399.37	13,282.08	52.78%
Total Unfunded Recommended	256.56	352.25	624.58	1,023.54	1,278.11	3,535.04	11,256.59	25,167.22	100.00%

As noted above, a total of \$11.26 billion remains unfunded in the first 10 years of the CIP and \$25.164 billion over the 15-period. However, when extending existing funding assumptions based on current levels of City, Provincial and Federal funding (\$2.627 billion) to the last five years of the CIP period, the total 15-year capital needs constraints is reduced to \$22.54 billion with \$11.28 billion unfunded in years 11-15. The total CIP over the 15-year period is presented in the chart below, highlighting the funded and unfunded portions resulting from the recommended 10-year Capital Plan for the 2022 to 2031 capital planning period.

2022-2036 Recommended Capital Investment Plan



* Funding sources in years 11-15 are based on current levels of city, provincial and federal funding included in the 10-year capital budget and plan

The table below outlines the key program the unfunded capital programs over the 15-year period due to limited funding available:

Project Description	Cash Flow (In \$ Millions)									
	2022	2023	2024	2025	2026	5 Year Total	2027 to 2031	10 year Total	2032 to 2036	15 Year Total
HEALTH & SAFETY/LEGISLATIVE	5.5	32.6	43.1	28.6	19.4	129.3	50.4	179.7	25.4	205.0
FLEET PURCHASE PROGRAMS	168.3	92.4	62.7	314.4	527.0	1,164.7	2,294.7	3,459.4	1,450.8	4,910.3
PURCHASE OF BUSES	-	8,976	13,815	222,009	248,642	493.4	1,288.2	1,781.6	1,428.7	3,210.3
PURCHASE OF SUBWAY CARS	168,284	83,376	48,874	92,351	278,383	671.3	1,006.5	1,677.8	22.2	1,700.0
OVERHAUL PROGRAMS		36.5	58.3	89.0	175.3	359.2	840.6	1,199.8	701.4	1,901.2
BUS OVERHAUL			33.6	34.3	76.7	144.7	328.0	472.7	307.0	779.7
STREETCAR OVERHAUL			0.3	6.8	16.5	23.6	124.9	148.4	304.1	452.5
SUBWAY OVERHAUL		36.5	24.4	47.9	82.2	191.0	387.7	578.7	90.3	669.0
SERVICE PLANNING		42.6	54.3	40.6	55.0	192.5	187.4	379.9	14.0	393.9
KEY BUILDINGS AND STRUCTURES	3.6	8.5	19.2	109.6	102.4	243.4	2,094.7	2,338.1	4,440.0	6,778.0
Line 1 Capacity Enhancement	3.6	8.5	16.8	106.1	96.3	231.4	1,835.4	2,066.8	1,659.8	3,726.6
Line 2 Capacity Enhancement			2.4	3.5	6.1	12.0	259.2	271.3	2,780.2	3,051.4
STATE OF GOOD REPAIR	79.1	125.7	330.4	377.2	341.0	1,253.4	1,271.5	2,524.9	2,854.4	5,379.2
SERVICE IMPROVEMENTS		11.3	26.5	34.5	39.7	112.1	156.7	268.7	1,198.9	1,467.7
GROWTH		2.5	30.1	29.7	18.3	80.6	825.6	906.2	3,225.8	4,132.0
Total Unmet Needs (Not Included)	256.6	352.2	624.6	1,023.5	1,278.1	3,535.0	7,721.5	11,256.6	13,910.6	25,167.2

As a result, TTC’s capital needs have been constrained. There is a need for \$3.459 billion in the 10-year period to fully fund the balance 1,226 eBuses, 382 Wheel-Trans buses and 80 subway car purchases nearing the end of its useful life, as well as an additional \$1.451 billion in the 5-year period post-2031 (2032-2036) for 970 eBuses and 292 Wheel-Trans buses.

To maintain our existing fleet in a state of good repair \$1.2 billion is required in the 10-year period to complete vehicle overhauls mainly for the midlife rebuild of the Nova '40

Bus Fleets and for the midlife restoration and upgrade of the TR Subway cars. An additional \$701 million is needed in the 5-year period post-2031 (2032-2036). If TTC is unsuccessful in receiving funding for the subway car purchase, then the existing funding of \$619 million will need to be increased by \$100 million and utilized for T1 Life Extension Overhaul instead, to extend the useful life of the T1 trains from 30 to 40 years, thereby deferring the cost of subway trains that will inevitably be required.

Approximately \$380 million is required for Service Planning initiatives such as Bus Lane Implementation and Transit Priority Measures in the 10-year period and an additional \$14 million in 5-year period post-2031.

For the capacity enhancement projects, Line 1 requires up to \$2.1 billion for the acquisition and construction of two facilities beginning in 2022 with additional funding of \$1.7 billion to complete Line 1 in time for the delivery of the new subway trains. Line 2 requires a total of \$3.1 billion with dependencies on completing ATC Line 2 and new subway trains in time for the completion of the new provincial Ontario Line. Combined, Line 1 and Line 2 need a total of \$2.3 billion in the 10-year period plus an additional \$4.4 billion in the 5-year period post-2031; \$1.5 billion beyond the 15-year window for Line 2, resulting in a total of \$8.2 billion in new funding to complete both projects.

Next Steps

The Capital Investment Plan will be reviewed and updated on an annual basis. It is expected that the timing and costs of projects in the annual CIP will change from year to year given this is a rolling plan.

Significant progress was made during the 2022 Budget process to review the unfunded list of projects to confirm need, scope, timing and key interdependencies and priorities through the Investment Panel review, but more work is required.

The next step is to undertake the prioritization process that will take into consideration the interdependencies between various projects and begin the restructuring of the CIP and Capital Plan into major programs to manage risk and achieve desired benefits. The three values that form the cornerstone for capital investments at the TTC will be taken into consideration – safety and security; accessibility; and sustainability in determining TTC priorities.

As the TTC matures its asset management practices, new information regarding TTC's asset conditions will be used to update, refine SOGR or add new SOGR requirements as they are known. Finally, new priorities or needs may emerge that must also be added to the CIP. It is anticipated that TTC's CIP will continue to mature and evolve. These actions will result in changes in the CIP that will be reported annually along with the progress that will be made in the funded portion of the CIP.

Contact

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Signature

Josie La Vita
Interim Chief Financial Officer

Attachments

Appendix A – 2022 – 2036 Capital Investment Plan
Appendix B – Real Estate Investment Plan
Appendix C – 2022 – 2031 Capital Budget and Plan Summary
Appendix D – 2022 – 2031 Capital Budget and Plan Funding Summary

Appendix A – 2022 – 2036 Capital Investment Plan

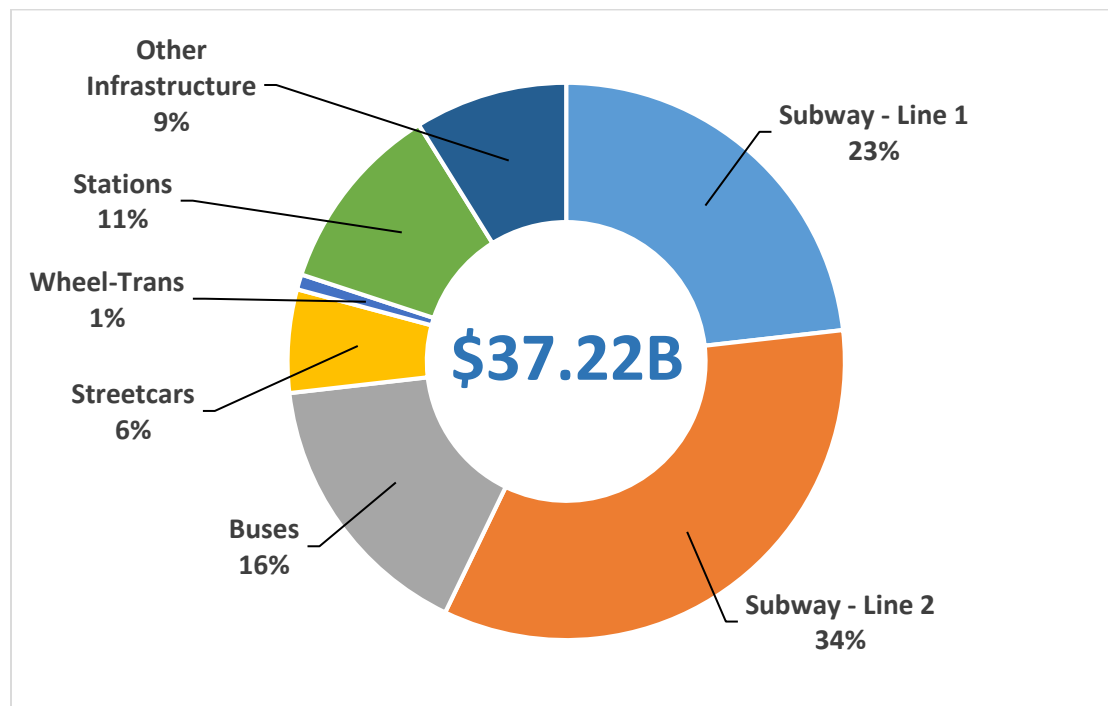
1. Background

In January 2019, the TTC introduced a 15 Year Capital Investment Plan (CIP) outlining the TTC's comprehensive state of good repair needs, and capital requirements to support asset lifecycle replacement and ridership growth. The CIP outlines capital needs across all TTC asset type categories including streetcars, buses, stations, Wheel-Trans and subway infrastructure. Required capital investments of \$33.5 billion over a 15-year period (2019-2033) were identified based on order of magnitude cost estimates.

Through the 2022 budget process, the TTC's 15-year outlook of base capital requirements have been updated for the period 2022 to 2036. The following provides an update on the refined cost estimates across each category of the CIP, and highlights areas across each mode requiring investment. It is important to note some capital cost estimates continue to be preliminary order of magnitude projections intended for planning purposes. Estimates will continue to be refined as projects mature through the project lifecycle.

2. Summary – 2022 – 2036 Base Capital Requirements

The total base capital requirements for the TTC over the next 15 years (2022 to 2036) is in the order of \$37.22 billion of which approximately \$22.541 billion is currently unfunded.



Project	Description	Est. Cost	Funded	Unfunded
Subways				
Line 1				
Line 1 Capacity Enhancement	Increasing capacity through purchase of new trains, new northern yard and other station infrastructure enhancements	\$5.05B	\$1.33B	\$3.73B
Automatic Train Control (ATC) Resignalling- Line 1	Increasing capacity by reducing headway, providing more reliable service	\$0.12B	\$0.12B	\$0.00B
Subway Track	Subway track and turnout rehabilitation, rail grinding, rail vehicle-based inspection system	\$0.29B	\$0.17B	\$0.12B
Traction Power	Replacement of electrical systems that power the subway, including substation electrical and cable rebuilds	\$0.15B	\$0.06B	\$0.08B
Subway Infrastructure	Maintenance of bridges and tunnels, communications, signal systems	\$0.63B	\$0.37B	\$0.25B
Fire Ventilation Upgrade	Increasing the capacity of the subway fire ventilation system and constructing second exits	\$0.97B	\$0.21B	\$0.76B
Toronto Rail/ T1 Rail Yard Accommodation (Line 1)	Increasing subway train storage capacity at Wilson and Davisville Yards	\$0.07B	\$0.07B	\$0.00B
Purchase of Subway Trains- Ridership Growth	Purchase of new subway trains to meet ATC requirements and ridership growth forecasts	\$0.72B	\$0.16B	\$0.55B

Project	Description	Est. Cost	Funded	Unfunded
Subway Train Overhaul	Overhaul of the subway fleet to maintain state-of-good-repair	\$0.44B	\$0.10B	\$0.33B
Other Subway	Work car purchase and overhaul, subway asbestos removal, pump and lighting replacement	\$0.20B	\$0.19B	\$0.01B
Total Line 1		\$8.64B	\$2.79B	\$5.84B

Line 2				
Line 2 Capacity Enhancement	Increasing capacity through purchase of new trains, traction power upgrades and other station infrastructure enhancements	\$3.66B	\$0.61B	\$3.05B
Automatic Train Control (ATC) Resignalling- Line 2	Increasing capacity by reducing headway, providing more reliable service	\$0.81B	\$0.72B	\$0.09B
Subway Track	Subway track and turnout rehabilitation, rail grinding, rail vehicle-based inspection system	\$0.29B	\$0.17B	\$0.12B
Traction Power	Replacement of electrical systems that power the subway, including substation electrical and cable rebuilds	\$0.15B	\$0.06B	\$0.08B
Subway Infrastructure	Maintenance of bridges and tunnels, communications, signal systems	\$0.63B	\$0.37B	\$0.25B
Fire Ventilation Upgrade	Increasing the capacity of the subway fire ventilation system and constructing second exits	\$0.97B	\$0.21B	\$0.76B

Project	Description	Est. Cost	Funded	Unfunded
Toronto Rail/ T1 Rail Yard Accommodation	Increasing subway train storage capacity at Greenwood, Keele Yard and Kipling trail tracks	\$0.07B	\$0.07B	\$0.00B
Purchase of Subway Trains (T1 replacement)	End-of-life replacement of existing subway train fleet.	\$1.6B	\$0.46B	\$1.15B
Subway Train Overhaul	Overhaul of the subway fleet to maintain state-of-good-repair	\$0.44B	\$0.10B	\$0.33B
Other Subway	Work car purchase and overhaul, subway asbestos removal, pump and lighting replacement	\$0.20B	\$0.19B	\$0.01B
Western Yard	Purchase of land, construction of maintenance and storage facility and connection to the main line to meet growth	\$3.81B	\$0.20B	\$3.62B
Total Line 2		\$12.63B	\$3.20B	\$9.46B

Line 4				
Maintaining State-Of-Good-Repair	General maintenance to ensure a state-of-good-repair on Line 4	\$0.00B	\$0.00B	\$0.00B
Total Line 4		\$0.00B	\$0.00B	\$0.00B

Project	Description	Est. Cost	Funded	Unfunded
Bus				
Bus Procurement Program	Purchase of low-floor, low/zero emissions buses	\$3.53B	\$0.61B	\$2.92B
Tenth Bus Garage	Construct a double garage that will allow for several years of growth	\$0.57B	\$0.13B	\$0.45B
Bus Overhaul Program	Mid-life rebuild of Orion and Nova bus fleets, including engine, transmission and suspension	\$0.96B	\$0.18B	\$0.78B
Bus Garages	Heavy-overhaul bus facility equipment and garage upgrades	\$0.43B	\$0.05B	\$0.38B
Other Bus	Transit signal priority measures, bus stop improvements, autonomous vehicle program	\$0.48B	\$0.09B	\$0.39B
Total Bus		\$5.97B	\$1.05B	\$4.92B

Stations				
Bloor-Yonge Capacity Improvements	Construction of additional platforms, escalators and elevators to improve vertical circulation	\$1.49B	\$1.49B	\$0.00B
Station Rehabilitation	Roofing rehabilitation on subway rapid transit stations and station finish renewal	\$0.33B	\$0.09B	\$0.24B
Elevator and Escalator Overhaul and Replacement	Replacement, modification and upgrades to escalators and elevators to extend their useful life	\$0.25B	\$0.1B	\$0.15B

Project	Description	Est. Cost	Funded	Unfunded
Easier Access Phase III (AODA) and Enhanced Station Access	Installing elevators to make all stations accessible by 2025 and additional future elevator installations	\$0.62B	\$0.62B	\$0.00B
Platform Edge Doors	Installation of doors on subway platforms to prevent passengers accessing subway tracks	\$1.35B	\$0.00B	\$1.35B
Other Stations	Station transformation, subway station fire alarms, bus platform ventilation	\$0.09B	\$0.06B	\$0.02B
Total Stations		\$4.13B	\$2.36B	\$1.77B

Streetcar				
Purchase of 204 Streetcars	Purchase of 204 accessible articulated low-floor streetcars	\$0.05B	\$0.05B	\$0B
Purchase of 60 Streetcars for Ridership Growth	Purchase of 60 accessible articulated low-floor streetcars for growth	\$0.36B	\$0.36B	\$0B
Streetcar Overhaul Program	Comprehensive overhaul program to ensure the state-of-good-repair of the new streetcar fleet	\$0.49B	\$0.04B	\$0.45B
Hillcrest Facility Upgrade	Addition of tracks at Hillcrest to facilitate storage/parking of 25 LFLRVs, re-orientation of streetcars direction of travel around Harvey Shop and pre-servicing infrastructure.	\$0.10B	\$0.10B	\$0.00B
Russell Yard & Carhouse Modifications	Carhouse extension at Russell, track replacement and interior modifications to accommodate servicing of new low floor LRVs	\$0.13B	\$0.06B	\$0.07B

Project	Description	Est. Cost	Funded	Unfunded
Surface Track and Traction Power	Ongoing surface track replacement and traction power upgrades	\$1.07B	\$0.52B	\$0.55B
Streetcar Facility Upgrades	Enhancements to streetcar facilities	\$0.01B	\$0.01B	\$0.00B
LRV Carhouse Facility Renewal Program- Includes Russell, Roncesvalles	Modification, expansion, and/or addition of streetcar maintenance and shop facilities to accommodate the future servicing needs of an expanding mixed streetcar fleet.	\$0.02B	\$0.01B	\$0.01B
Total Streetcar		\$2.23B	\$1.15B	\$1.08B

Project	Description	Est. Cost	Funded	Unfunded
Wheel-Trans				
Purchase of Future Wheel-Trans Buses/ Transformation	Replacement of “Friendly” bus fleet and additional facilities based on the Family of Service model	\$0.33B	\$0.04B	\$0.29B
Total Wheel-Trans		\$0.33B	\$0.04B	\$0.29B

Project	Description	Est. Cost	Funded	Unfunded
Other Infrastructure				
Facilities	Renewal projects for facilities, furniture, office equipment, paving and new industrial space	\$0.63B	\$0.28B	\$0.36B
Information Systems	New Transit Control and ITS Centre, implementation of SAP, VISION, Enterprise Asset Management	\$0.89B	\$0.62B	\$0.28B
Purchase of Automotive Non-Revenue Vehicles	Purchase of vehicles used by TTC staff for transit enforcement, plant maintenance, etc.	\$0.19B	\$0.04B	\$0.15B
Health, Safety and Security Infrastructure	Storage tank replacement, backflow preventers, standby generator procurement	\$0.11B	\$0.07B	\$0.03B
Other Infrastructure	Shop equipment, culvert rehabilitation, service planning and completing the implementation of the PRESTO farecard program	\$1.48B	\$0.49B	\$0.99B
Total Other Infrastructure		\$3.30B	\$1.50B	\$1.80B
Total		\$37.22B	\$12.05B	\$25.16B

Appendix B – Real Estate Investment Plan

Facilities – Mode Support					
Implementation Action	IO/CIP #	Funded (Y/N)	Project Type	Property Timing	Project Finish
Bus Garages, Wheel-Trans, Heavy Repair and Storage					
Optimize Existing					
Assess expansion potential of bus garages to accommodate new technologies and changing fleet requirements		N	Proactive	Ongoing	Ongoing
Eliminate use of trailers and storage containers		N	Proactive	Ongoing	Ongoing
Acquire Land					
10 th Garage through purchase of property undergoing due diligence	7154	N	Capital	2022	2038
New Wheel-Trans Facility at 388 Evans (transfer from City)		N	Functional	2022	TBD
Explore Opportunities					
eBus Charging Systems	7166	Y	Capital	Ongoing	Ongoing
Streetcar					
Optimize Existing					
Eliminate use of trailers and storage containers		N	Proactive	Ongoing	Ongoing
Subway/LRT					
Optimize Existing					
Line 1 Capacity Enhancement Program					
a. Upgrades and expansion to Wilson Yard	7108	N	Capital	TBD	2028
b. Davisville Yard upgrades and modifications	7108	N	Capital	TBD	2028
Line 2 Capacity Enhancement Program – Greenwood Yard, Carhouse and Shop upgrades and modifications					
Eliminate use of trailers and storage containers		N	Proactive	Ongoing	Ongoing
Acquire Land					
Western Yard					
a. Train Maintenance and Storage Facility	6910/7110	Y	Capital	2022	2034
b. Yard Access Connection	6910/7110	N	Capital	2022	2034

Facilities – Mode Support

Implementation Action	IO/CIP #	Funded (Y/N)	Project Type	Property Timing	Project Finish
Line 1 Capacity Enhancement Program					
a. Train Maintenance and Storage Facility Capacity	7108	Y	Capital	2022	2027
Explore Opportunities					
Finalize end of service date for McCowan Carhouse and potential future TTC use	7107	N	Capital	TBD	TBD

Facilities – Cross System Support

Implementation Action	IO/CIP #	Funded (Y/N)	Project Type	Property Timing	Project Finish
Mode Support					
Explore Opportunities					
Hillcrest Complex Master Plan	7169	N	Capital	Ongoing	Ongoing
Training Space					
Optimize Existing					
Study to determine optimal indoor and outdoor training space for increased efficiencies and improved workforce training		N	Proactive	Ongoing	2024
Explore Opportunities					
Maximize utilization through shared usage with City partners		N	Proactive	Ongoing	Ongoing
Business Support					
Optimize Existing					
Continually monitor highest and best use of space and identify suitable relocation opportunities		N/A	Proactive	Ongoing	Ongoing
Determine extent of capacity for business support at Hillcrest Warehouse and storage rationalization and utilization		N	Proactive	Ongoing	Ongoing
		N	Proactive	Ongoing	Ongoing

Acquire Land

Replace existing leased space at Carl Hall, Caledonia, Don Roadway and Cartwright and loss of space at Eglinton and Danforth Garages through acquisition of property undergoing due diligence	7257	Y	Capital	2022	2022
Replace leased space at new property due to demolition for 10 th garage	7257	N	Capital	2033	2038

Support City-Building

Provide a new Major Control Centre to meet the needs of the expanded fleet, including the new data centre	6115	Y	Capital	2022	2028
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System

Implementation	IO/CIP #	Funded (Y/N)	Project Type	Property Timing	Project Finish
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Buses**Acquire Land**

Additional loops, as required		N	Proactive	Ongoing	Ongoing
Interim bus terminal until the Scarborough Subway Extension is operational		N	Functional	2022	2023
Intermodal connections for future LRT and subway lines (i.e. Eglinton Crosstown, Ontario Line, Waterfront East LRT, Yonge Subway Extension)		N	Proactive	Ongoing	Ongoing
a. Port Lands flood protection landform interim bus loop		N	Proactive	2023	2024

Explore Opportunities

Reconfigured Eglinton bus terminal	7139	Y	Capital	2026	2026
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Streetcar**Acquire Land**

Additional loops, as required		N	Proactive	Ongoing	Ongoing
Broadview Station Loop Expansion	7051	Y	Capital	2022	2022
Park Lawn GO Station Loop	7118	N	Capital	2023	2026
Exhibition – Dufferin Gate Loop Expansion	7035	Y	Capital	2025	2029

Explore Opportunities

Polson Loop		N	Functional	2024	2029
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System					
Implementation	IO/CIP #	Funded (Y/N)	Project Type	Property Timing	Project Finish
Pape/Carlaw Loop (Ontario Line)		N	Functional	2025	2027
Broadview Ave. Streetcar Extension Loop		N	Functional	2025	2030
Queen – Broadview Loop		N	Functional	2025	2030
Subway/LRT					
Optimize Existing					
Ensure third party compliance with development and maintenance agreements		N/A	Proactive	Ongoing	Ongoing
Acquire Land					
Line 1 Capacity Enhancement Program					
a. Markdale Emergency Service Building	7108	N	Capital	TBD pending design	2028
b. New Substation (Pioneer Village – Vaughan)	7108	Y	Capital	2025	2031
c. Lytton Emergency Service Building	7108	N	Capital	TBD pending design	2031
d. Vaughan Tunnel Tail Track Extension	7108	N	Capital	2025	2037
Line 2 Capacity Enhancement Program					
a. Warden Station Pocket Track	7148	N	Capital	2029	2031
b. Traction Power Substation (Warden – Kennedy)	7148	Y	Capital	2032	2034
Fire Ventilation Program (Line 1)	5776/7242	Y	Capital	2026	2029
Acquisition through third party developments:					
a. Line 2 westerly subway extension		N/A	Proactive	Ongoing	2041
b. Protecting existing system		N/A	Proactive	Ongoing	Ongoing
Waterfront East LRT	7186	Y	Capital	Ongoing TBD	2029
a. Fire Ventilation				pending design	2029

System						
Implementation	IO/CIP #	Funded (Y/N)	Project Type	Property Timing	Project Finish	
b. Fan Plant				TBD pending design	2029	
c. Substation Facility				TBD pending design	2029	
d. Distillery Loop/Streetcar Railway Underpass				TBD pending design	2029	
e. Acquisition of property with Waterfront Toronto for at-grade section				Ongoing	TBD	
Explore Opportunities						
Quantify surplus property once Line 3 Scarborough is out of service		N	Proactive	TBD pending SSE opening	TBD	
Implement TTCs Digital Connectivity Strategy and the City's ConnectTO initiative		N	Proactive	Ongoing	Ongoing	
Stations, Depots, Terminals, Stops, and Access Hubs						
Acquire Property						
Easier Access Phase III programs including Donlands, College, Greenwood, Summerhill, Museum, King, Spadina, Christie, Lawrence, Castle Frank, Rosedale, Glencairn, High Park, Old Mill, Warden, and Islington	5666	Y	Capital	2022	2025	
Second Exit Program	5776/7242	Y	Capital	2026	2029	
Bloor-Yonge Capacity Improvement Project	6285	Y	Capital	2023	2031	
Line 1 Capacity Enhancement Program						
a. King Station – Concourse Expansion	7108	Y	Capital	2024	2028	
b. St. George Station – New Stacked Expansion	7108	Y	Capital	2029	2037	
c. St. Andrew Station Second Exit	7108	N	Capital	2034	2037	
Expand Eglinton Station through Oxford redevelopment	7139	Partial	Capital	2026	2028	
Runnymede Station Permanent Easements		N	Proactive	Ongoing	N/A	
Spadina North Entrance Temporary Easements	6963	Y	Capital	2022	2022	

System					
Implementation	IO/CIP #	Funded (Y/N)	Project Type	Property Timing	Project Finish
New connections with Union Station, Queens Quay Station and third party developments for Waterfront East LRT extension	7186	Y	Capital	TBD pending design	2028
Dundas West Permanent Easement (Crossways)	5776	Y	Capital	2022	2022
Explore Opportunities					
Monitor station functionality and expand to meet increased capacity		N	Proactive	Ongoing	Ongoing
Update Entrance Connection Guide with newly revised Entrance Connection Policy		N/A	Proactive	N/A	2022
Support City-Building					
Work with CreateTO to:					
a. Coordinate commuter parking (i.e. Warden, Islington, Victoria Park, and Wilson Stations)		N/A	Proactive	Ongoing	As required
b. Relocate the PPUDO at Victoria Park Station		N/A	Proactive	2022	As required
c. Assess parking at Finch Station due to Yonge North Extension		N/A	Proactive	TBD	TBD
Work with Metrolinx on the integration of the provincial LRT and transit expansion programs at interchange stations		N/A	Proactive	Ongoing	Ongoing
New bus depots through Warden Station and Islington Station redevelopments	7240/7241	Y	Capital	2022	2025

Office Space					
Implementation	IO/CIP #	Funded (Y/N)	Project Type	Property Timing	Project Finish
Corporate Office Space					
Explore Opportunities					
Monitor departmental structures and growth		N/A	Proactive	Ongoing	2028

Support City-Building

Implementation of ModernTO consolidation of TTC offices		N	Functional	2022	2028
Transfer of McBrien building to City		N	Functional	2028	2028

Office Space

Implementation	IO/CIP #	Funded (Y/N)	Project Type	Property Timing	Project Finish
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Operational Office Space

Explore Opportunities

Review to ensure that uses support the facility in an efficient manner		N	Proactive	Ongoing	Ongoing
Re-incorporate Divisional offices within the redeveloped Danforth Garage		Funded by City	Functional	TBD	TBD
Minimize use of trailers		N	Proactive	Ongoing	Ongoing

Other Space

Explore Opportunities

Locate construction offices within proximity to construction projects		N/A	Proactive	Ongoing	Ongoing
Long-term solution for Transit Enforcement and Revenue Protection	7258	Y	Capital	2025	2025
Determine uses that cannot be accommodated through ModernTO consolidation and find long-term solution		N	Proactive	Ongoing	Ongoing

Other Real Estate Opportunities

Implementation	IO/CIP #	Funded (Y/N)	Project Type	Property Timing
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Other Real Estate

Support City-Building

Monitor compliance of third party obligations		N/A	Proactive	Ongoing
Execute required agreements for future third party developments		N/A	Proactive	Ongoing
Value creation underway at southwest corner of Yonge St. and Eglinton Ave. West		N/A	Functional	Ongoing
Explore value creation opportunities with City and CreateTO on:		N/A	Proactive	Ongoing
a. 7 Jackes Ave. and 16 Summerhill Ave.		N/A	Proactive	Ongoing
b. 44 Jackes Ave. and 33 Rosehill Ave.		N/A	Proactive	Ongoing
c. 15 Price St.		N/A	Proactive	Ongoing
d. 15 Dundonald St.		N/A	Proactive	Ongoing
e. 21 Pleasant Blvd.		N/A	Proactive	Ongoing

f.	1155 Yonge St.	N/A	Proactive	Ongoing
g.	33 Bloor St. E	N/A	Proactive	Ongoing
h.	2 Bloor St. W	N/A	Proactive	Ongoing
i.	Dundas St. W (Crossways)	N/A	Proactive	Ongoing

Appendix C – 2022-2031 Capital Budget and Plan

TORONTO TRANSIT COMMISSION 2022-2031 CAPITAL BUDGET & PLAN SUMMARY

\$Millions

Programs		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2031
Infrastructure Related Programs:												
Tracks:												
1.1 Subway Track	Staff Recommended 2022-2031 Capital Budget & Plan	32.481	32.195	32.889	35.064	35.316	34.872	34.243	34.666	35.905	33.829	341.460
	CIP Unfunded											
	Total Capital Investment Plan	32.481	32.195	32.889	35.064	35.316	34.872	34.243	34.666	35.905	33.829	341.460
1.2 Surface Track	Staff Recommended 2022-2031 Capital Budget & Plan	50.152	56.057	71.042	66.723	62.323	46.199	35.296	26.417	28.871	27.978	471.058
	CIP Unfunded		4.204	10.148	20.867	25.119	10.000	9.704	19.815	18.128	19.962	137.947
	Total Capital Investment Plan	50.152	60.261	81.190	87.590	87.442	56.199	45.000	46.232	46.999	47.940	609.005
Signals, Electrical, Communications:												
2.1 Traction Power	Staff Recommended 2022-2031 Capital Budget & Plan	27.951	33.338	29.513	24.670	25.492	24.717	24.957	26.746	27.754	27.570	272.708
	CIP Unfunded		7.656	7.589	8.411	8.852	2.679	2.860	3.067	3.558	3.743	48.415
	Total Capital Investment Plan	27.951	40.994	37.102	33.081	34.344	27.396	27.817	29.813	31.312	31.313	321.123
2.2 Power Distribution	Staff Recommended 2022-2031 Capital Budget & Plan	7.839	10.706	13.734	15.339	20.860	27.688	27.306	20.105	9.309	8.974	161.860
	CIP Unfunded		0.600	2.692	4.558	4.558	4.558	4.558	4.556	3.920	4.323	34.322
	Total Capital Investment Plan	7.839	11.306	16.426	19.897	25.418	32.246	31.864	24.661	13.229	13.297	196.182
2.3 Communications	Staff Recommended 2022-2031 Capital Budget & Plan	13.397	15.344	15.551	13.670	15.223	13.364	12.808	11.406	10.988	9.027	130.777
	CIP Unfunded		0.538	0.275	1.153	1.068	0.742	3.671	4.990	6.574	5.911	24.922
	Total Capital Investment Plan	13.397	15.882	15.826	14.823	16.291	14.106	16.479	16.396	17.562	14.938	155.699
2.4 Signal Systems	Staff Recommended 2022-2031 Capital Budget & Plan	15.037	17.951	13.871	12.361	10.552	5.624	3.576	3.770	4.005	3.388	90.135
	CIP Unfunded		8.153	15.851	33.137	30.699	17.005	24.464	30.705	31.075	31.374	222.462
	Total Capital Investment Plan	15.037	26.104	29.722	45.498	41.251	22.629	28.040	34.475	35.080	34.762	312.597
2.4 YUS/BD Resignalling	Staff Recommended 2022-2031 Capital Budget & Plan	55.255	100.409	60.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	845.664
	CIP Unfunded											
	Total Capital Investment Plan	55.255	100.409	60.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	845.664
Buildings and Structures:												
3.1 Finishes	Staff Recommended 2022-2031 Capital Budget & Plan	27.118	31.021	17.354	11.579	0.917	0.800	0.800	0.800	0.800	0.800	91.989
	CIP Unfunded		11.612	45.074	58.748	44.920	31.358	20.154	10.184	10.233	10.233	242.516
	Total Capital Investment Plan	27.118	42.633	62.428	70.327	45.837	32.158	20.954	10.984	11.033	11.033	334.505
3.2 Equipment	Staff Recommended 2022-2031 Capital Budget & Plan	68.893	68.666	48.640	30.408	23.453	23.079	20.104	21.814	12.951	12.970	330.978
	CIP Unfunded	3.882	42.289	133.901	135.975	88.850	146.143	72.806	104.497	60.329	78.832	867.504
	Total Capital Investment Plan	72.775	110.955	182.541	166.383	112.303	169.222	92.910	126.311	73.280	91.802	1,198.482
3.3 Yards & Roads	Staff Recommended 2022-2031 Capital Budget & Plan	10.924	20.345	12.678	5.174	12.765	12.545	12.545	12.565	12.652	10.665	122.858
	CIP Unfunded		9.042	16.433	17.108	12.330	0.795					55.708
	Total Capital Investment Plan	10.924	29.387	29.111	22.282	25.095	13.340	12.545	12.565	12.652	10.665	178.566
3.4 Bridges & Tunnels	Staff Recommended 2022-2031 Capital Budget & Plan	40.564	54.137	56.592	47.283	46.702	45.313	48.595	49.382	50.916	48.354	487.838
	CIP Unfunded		1.050	4.210	4.590	5.750	0.100	1.300	1.300	1.300	1.300	20.900
	Total Capital Investment Plan	40.564	55.187	60.802	51.873	52.452	45.413	49.895	50.682	52.216	49.654	508.738
3.9 Fire Ventilation Upgrade	Staff Recommended 2022-2031 Capital Budget & Plan	47.430	52.924	36.295	38.903	30.006	45.262	60.675	56.784	39.715	12.374	420.368
	CIP Unfunded			2.980	1.872	1.872	4.122	8.634	0.500		3.002	22.982
	Total Capital Investment Plan	47.430	52.924	39.275	40.775	31.878	49.384	69.309	57.284	39.715	15.376	443.350

\$Millions

Programs		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2031
3.9 Easier Access Phase III	Staff Recommended 2022-2031 Capital Budget & Plan	107.699	159.073	151.469	94.169	102.360	5.857					620.627
	CIP Unfunded											
	Total Capital Investment Plan	107.699	159.073	151.469	94.169	102.360	5.857					
3.9 Sheppard Subway	Staff Recommended 2022-2031 Capital Budget & Plan		3.705									3.705
	CIP Unfunded											
	Total Capital Investment Plan		3.705									3.705
3.9 Leslie Barns	Staff Recommended 2022-2031 Capital Budget & Plan	1.610	2.330	7.012								10.952
	CIP Unfunded											
	Total Capital Investment Plan	1.610	2.330	7.012								10.952
3.9 Toronto Rocket (Subway Car) Yard & Storage Track Accommodation	Staff Recommended 2022-2031 Capital Budget & Plan	27.918	37.179	39.520	22.908	15.043						142.568
	CIP Unfunded				0.830							0.830
	Total Capital Investment Plan	27.918	37.179	39.520	23.738	15.043						143.398
3.9 McNicoll Bus Garage	Staff Recommended 2022-2031 Capital Budget & Plan	0.500	4.864									5.364
	CIP Unfunded											
	Total Capital Investment Plan	0.500	4.864									5.364
3.9 Line 1 Capacity Enhancement	Staff Recommended 2022-2031 Capital Budget & Plan	30.661	180.627	112.364	83.896	126.570	143.282	162.637	183.924	120.156	180.894	1,325.012
	CIP Unfunded	3.606	8.543	16.818	106.068	96.327	190.364	226.769	400.045	590.077	428.177	2,066.794
	Total Capital Investment Plan	34.267	189.170	129.182	189.964	222.897	333.646	389.406	583.969	710.233	609.071	3,391.806
3.9 Line 2 Capacity Enhancement	Staff Recommended 2022-2031 Capital Budget & Plan	10.191	13.595	35.203	50.036	31.026	47.079	78.957	152.932	77.390	112.500	608.909
	CIP Unfunded			2.415	3.510	6.083	8.210	31.415	70.468	96.425	52.730	271.256
	Total Capital Investment Plan	10.191	13.595	37.618	53.546	37.109	55.289	110.372	223.400	173.815	165.230	880.165
3.9 Corporate Initiatives	Staff Recommended 2022-2031 Capital Budget & Plan	8.000	8.000	8.250	8.250	8.250	9.000	9.000	9.250	9.250	9.500	86.750
	CIP Unfunded											
	Total Capital Investment Plan	8.000	8.000	8.250	8.250	8.250	9.000	9.000	9.250	9.250	9.500	86.750
3.9 Yonge-Bloor Capacity Improvement	Staff Recommended 2022-2031 Capital Budget & Plan	100.000	26.000	132.000	154.000	198.550	198.550	198.550	198.550	179.000	100.038	1,485.238
	CIP Unfunded											
	Total Capital Investment Plan	100.000	26.000	132.000	154.000	198.550	198.550	198.550	198.550	179.000	100.038	1,485.238
3.9 Other Buildings & Structures	Staff Recommended 2022-2031 Capital Budget & Plan	277.676	193.013	128.958	141.123	149.824	93.770	21.474	1.909	0.563	0.548	1,008.857
	CIP Unfunded	75.250	12.547	90.321	118.541	156.939	143.246	145.233	138.278	246.746	643.099	1,770.199
	Total Capital Investment Plan	352.926	205.560	219.279	259.664	306.763	237.016	166.707	140.187	247.309	643.647	2,779.057
Tooling, Machinery and Equipment												
5.1 Shop Equipment	Staff Recommended 2022-2031 Capital Budget & Plan	5.124	3.246	2.609	2.847	1.824	1.764	1.644	1.561	2.021	1.768	24.408
	CIP Unfunded		5.790	2.503	2.198	2.298	2.527	3.372	3.586	3.601	4.369	30.245
	Total Capital Investment Plan	5.124	9.036	5.112	5.045	4.122	4.291	5.016	5.147	5.622	6.137	54.653
5.2 Revenue & Fare Handling Equipment	Staff Recommended 2022-2031 Capital Budget & Plan	6.151	1.750	1.800	1.800	1.800	1.800	1.300	1.300	1.300	1.300	20.301
	CIP Unfunded											
	Total Capital Investment Plan	6.151	1.750	1.800	1.800	1.800	1.800	1.300	1.300	1.300	1.300	20.301
5.3 Other Maintenance Equipment	Staff Recommended 2022-2031 Capital Budget & Plan	2.718	1.091	1.186	1.121	1.137	1.144	1.173	1.236	1.297	1.301	13.404
	CIP Unfunded											
	Total Capital Investment Plan	2.718	1.091	1.186	1.121	1.137	1.144	1.173	1.236	1.297	1.301	13.404
5.4 Fare System	Staff Recommended 2022-2031 Capital Budget & Plan	6.521	6.013	4.744								17.278
	CIP Unfunded		2.000	27.000	20.000							49.000
	Total Capital Investment Plan	6.521	8.013	31.744	20.000							66.278

SMillions

Programs		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2031
Environmental Issues												
6.1 Environmental Program	Staff Recommended 2022-2031 Capital Budget & Plan	12.923	17.487	11.074	6.368	6.642	6.820	6.963	6.183	5.000	5.100	84.560
	CIP Unfunded		0.100	5.414	7.200							12.714
	Total Capital Investment Plan	12.923	17.587	16.488	13.568	6.642	6.820	6.963	6.183	5.000	5.100	97.274
6.1 Safety Program	Staff Recommended 2022-2031 Capital Budget & Plan	0.975	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	9.975
	CIP Unfunded											
	Total Capital Investment Plan	0.975	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	9.975
Computer Equipment & Software												
7.1 IT Systems/Infrastructure	Staff Recommended 2022-2031 Capital Budget & Plan	78.531	72.288	71.316	57.310	30.002	9.292	3.570	3.365	3.494	3.494	332.660
	CIP Unfunded	5.539	47.000	49.772	27.680	31.313	17.339	22.377	21.289	20.303	23.371	265.982
	Total Capital Investment Plan	84.069	119.288	121.087	84.990	61.315	26.631	25.947	24.653	23.797	26.865	598.643
Other:												
9.1 Furniture & Office Equipment	Staff Recommended 2022-2031 Capital Budget & Plan	0.366	0.320	0.141	0.305	0.157	0.149	0.302	0.035	0.084	0.084	1.943
	CIP Unfunded											
	Total Capital Investment Plan	0.366	0.320	0.141	0.305	0.157	0.149	0.302	0.035	0.084	0.084	1.943
9.2 Service Planning	Staff Recommended 2022-2031 Capital Budget & Plan	27.755	37.108	8.097	3.200	3.200	3.100	3.100	3.000	2.900	2.800	94.259
	CIP Unfunded		42.606	54.285	40.581	55.000	56.779	36.037	48.150	44.428	2.000	379.866
	Total Capital Investment Plan	27.755	79.714	62.382	43.781	58.200	59.879	39.137	51.150	47.328	4.800	474.125
Subtotal - Infrastructure Related Programs	Staff Recommended 2022-2031 Capital Budget & Plan	1,102.357	1,261.782	1,124.902	1,019.506	1,050.994	892.070	860.575	918.700	727.321	706.256	9,664.463
	CIP Unfunded	88.276	203.731	487.679	613.027	571.978	635.968	613.355	861.429	1,136.697	1,312.425	6,524.565
	Total Capital Investment Plan	1,190.634	1,465.513	1,612.581	1,632.533	1,622.972	1,528.038	1,473.930	1,780.128	1,864.018	2,018.681	16,189.028
Vehicle Related Programs:												
4.11 Purchase of Buses	Staff Recommended 2022-2031 Capital Budget & Plan	280.550	158.659	162.176	8.743	0.611	0.611	0.611	0.611	0.611	0.611	613.794
	CIP Unfunded				208.281	233.834	208.382	210.790	201.162	233.800	311.758	1,608.006
	Total Capital Investment Plan	280.550	158.659	162.176	217.024	234.445	208.993	211.401	201.773	234.411	312.369	2,221.799
4.11 Purchase of Wheel Trans Buses	Staff Recommended 2022-2031 Capital Budget & Plan	25.448	11.345									36.793
	CIP Unfunded		8.976	13.815	13.728	14.808	21.791	58.306	30.330	5.917	5.965	173.634
	Total Capital Investment Plan	25.448	20.321	13.815	13.728	14.808	21.791	58.306	30.330	5.917	5.965	210.427
4.12 Purchase of Subway Cars	Staff Recommended 2022-2031 Capital Budget & Plan	7.859	18.089	49.227	153.710	116.294	111.011	83.885	79.394			619.469
	CIP Unfunded	168.284	83.376	48.874	92.351	278.383	295.922	248.660	145.438	194.078	122.412	1,677.778
	Total Capital Investment Plan	176.143	101.465	98.101	246.061	394.677	406.933	332.545	224.832	194.078	122.412	2,297.247
4.13 Bus Overhaul	Staff Recommended 2022-2031 Capital Budget & Plan	70.911	53.891	21.164	26.469	1.059	0.934	0.951	0.967	1.065		177.411
	CIP Unfunded			33.646	34.338	76.683	48.924	58.730	75.207	75.395	69.756	472.679
	Total Capital Investment Plan	70.911	53.891	54.810	60.807	77.742	49.858	59.681	76.174	76.460	69.756	650.090
4.15 Streetcar Overhaul	Staff Recommended 2022-2031 Capital Budget & Plan	6.651	17.529	17.250	8.373	0.620						50.424
	CIP Unfunded			0.250	6.838	16.472	16.560	25.021	25.296	20.000	38.000	148.439
	Total Capital Investment Plan	6.651	17.529	17.500	15.212	17.092	16.560	25.021	25.296	20.000	38.000	198.862
4.16 Subway Car Overhaul	Staff Recommended 2022-2031 Capital Budget & Plan	32.336	47.319	35.357	30.265	15.806	8.205	10.000	22.460			201.748
	CIP Unfunded		36.497	24.444	47.873	82.171	82.433	82.603	84.619	107.671	30.378	578.689
	Total Capital Investment Plan	32.336	83.816	59.801	78.138	97.977	90.638	92.603	107.079	107.671	30.378	780.437

\$Millions

Programs		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2031
4.18 Purchase of Streetcars	Staff Recommended 2022-2031 Capital Budget & Plan	59.950	64.494	194.289	87.006	4.217						409.956
	CIP Unfunded											
	Total Capital Investment Plan	59.950	64.494	194.289	87.006	4.217						409.956
4.21 Purchase Non-Revenue Vehicles	Staff Recommended 2022-2031 Capital Budget & Plan	10.314	8.379	2.812	2.812	2.812	2.812	2.812	2.841	2.841	2.841	41.276
	CIP Unfunded		19.668	15.867	7.109	3.782	3.384	3.806	5.290	5.336	8.558	72.800
	Total Capital Investment Plan	10.314	28.047	18.679	9.921	6.594	6.196	6.618	8.131	8.177	11.399	114.076
4.22 Rail Non-Revenue Vehicle Overhauls	Staff Recommended 2022-2031 Capital Budget & Plan	4.184	7.388	7.187	6.360	3.821	1.779	1.375	0.761	1.918	0.784	35.557
	CIP Unfunded											
	Total Capital Investment Plan	4.184	7.388	7.187	6.360	3.821	1.779	1.375	0.761	1.918	0.784	35.557
4.23 Purchase Rail Non-Revenue Vehicle	Staff Recommended 2022-2031 Capital Budget & Plan	4.151	5.592	16.392	4.273	10.466	1.376	2.356	3.774	2.594		50.973
	CIP Unfunded											
	Total Capital Investment Plan	4.151	5.592	16.392	4.273	10.466	1.376	2.356	3.774	2.594		50.973
Subtotal - Vehicle Related Programs	Staff Recommended 2022-2031 Capital Budget & Plan	502.354	392.685	505.854	328.011	155.706	126.728	101.990	110.808	9.029	4.236	2,237.401
	CIP Unfunded	168.284	148.517	136.896	410.518	706.133	677.395	687.915	567.342	642.198	586.826	4,732.024
	Total Capital Investment Plan	670.638	541.202	642.750	738.529	861.838	804.123	789.905	678.150	651.227	591.062	6,969.425
TOTAL - BASE PROGRAM	Staff Recommended 2022-2031 Capital Budget & Plan	1,604.712	1,654.467	1,630.756	1,347.518	1,206.700	1,018.798	962.564	1,029.507	736.350	710.492	11,901.864
	CIP Unfunded	256.560	352.248	624.575	1,023.545	1,278.111	1,313.363	1,301.270	1,428.770	1,778.895	1,899.251	11,256.589
	Total Capital Investment Plan	1,861.272	2,006.715	2,255.331	2,371.063	2,484.811	2,332.161	2,263.835	2,458.278	2,515.245	2,609.743	23,158.453
Transit Expansion Programs:												
SRT Life Extension	Staff Recommended 2022-2031 Capital Budget & Plan	22.495	12.994	8.375								43.864
	CIP Unfunded											
	Total Capital Investment Plan	22.495	12.994	8.375								43.864
Waterfront Transit	Staff Recommended 2022-2031 Capital Budget & Plan	7.093	33.292	0.373	0.115							40.873
	CIP Unfunded											
	Total Capital Investment Plan	7.093	33.292	0.373	0.115							40.873
Toronto-York Spadina Subway Extension (TYSSE)	Staff Recommended 2022-2031 Capital Budget & Plan	63.967	0.827									64.794
	CIP Unfunded											
	Total Capital Investment Plan	63.967	0.827									64.794
TOTAL - TRANSIT EXPANSION PROGRAM	Staff Recommended 2022-2031 Capital Budget & Plan	93.555	47.113	8.748	0.115							149.531
	CIP Unfunded											
	Total Capital Investment Plan	93.555	47.113	8.748	0.115							149.531
TOTAL - BASE & TRANSIT EXPANSION PROGRAMS	Staff Recommended 2022-2031 Capital Budget & Plan	1,698.267	1,701.580	1,639.504	1,347.632	1,206.700	1,018.798	962.564	1,029.507	736.350	710.492	12,051.395
	CIP Unfunded	256.560	352.248	624.575	1,023.545	1,278.111	1,313.363	1,301.270	1,428.770	1,778.895	1,899.251	11,256.589
	Total Capital Investment Plan	1,954.827	2,053.828	2,264.079	2,371.177	2,484.811	2,332.161	2,263.835	2,458.278	2,515.245	2,609.743	23,307.984

Appendix D – 2022 to 2031 Capital Funding Summary

2022-2031 Capital Budget and Plan Funding Summary (000's)											
Funding Source	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Total
2022-2031 Capital Budget & Plan Submission	1,698,267	1,701,580	1,639,504	1,347,632	1,206,700	1,018,798	962,564	1,029,507	736,350	710,492	12,051,395
Provincial Gas Tax Subsidies	93,601	93,601	93,601	93,601	93,601	93,601	93,601	93,601	93,601	93,601	936,010
Provincial Subsidies - PTIF 2	32,558	9,859	44,437	51,844	66,841	66,841	66,841	66,841	60,260	33,677	500,000
Provincial Subsidies - Streetcar Program	5,926	26,006	85,257	36,252	-	-	-	-	-	-	153,440
Total Provincial Subsidies	132,085	129,466	223,295	181,696	160,442	160,442	160,442	160,442	153,861	127,278	1,589,450
Federal Gas Tax Subsidy	341,556	181,706	181,706	181,706	181,706	181,706	181,706	181,706	181,706	181,706	1,976,910
Federal Subsidies - Streetcar Program	5,256	22,933	70,326	38,718	12,433	3,774	-	-	-	-	153,440
Federal Subsidy - PTIF 2	32,558	9,859	44,437	51,844	66,841	66,841	66,841	66,841	60,260	33,677	500,000
Total Federal Subsidies	379,370	214,498	296,469	272,268	260,980	252,321	248,547	248,547	241,966	215,383	2,630,350
TTC Internal - Depreciation	27,335	21,441	14,478	14,536	12,382	11,233	8,176	7,807	8,447	8,198	134,034
Development Charges	146,104	130,915	111,822	34,970	22,979	19,707	12,728	12,460	11,963	11,780	515,429
Total Other Funding	173,439	152,356	126,300	49,506	35,361	30,940	20,904	20,267	20,410	19,978	649,463
Debt Recoverable	626,403	1,123,496	970,126	828,077	741,151	570,950	527,598	597,244	40,421	-	6,025,467
Debt	92,426	79,086	23,314	16,085	8,765	4,144	5,073	3,007	279,692	347,852	859,443
Other Partner Funding	12,322	2,678									15,000
Land Acquisition Reserve Fund (LARF)	18,600										18,600
Capital Financing Reserve	14,400										14,400
TYSSE Reserve	42,263	-	-	-	-	-	-	-	-	-	42,263
Carryforward Funding	206,959										206,959
Development Charges CF	22,595										22,595
Debt CF	23,044										23,044
Debt Recoverable CF	161,320										161,320
Total City Funding	1,013,372	1,205,260	993,439	844,162	749,916	575,095	532,671	600,251	320,113	347,852	7,182,132
Total Projected Funding	1,698,267	1,701,580	1,639,504	1,347,632	1,206,700	1,018,798	962,564	1,029,507	736,350	710,492	12,051,395
Total Surplus/(Shortfall)	-	-	-	-	-	-	-	-	-	-	-