



## **TTC 15-Year Capital Investment Plan, Real Estate Investment Plan Update and 2023 – 2032 Capital Budget & Plan**

**Date:** January 9, 2023  
**To:** TTC Board  
**From:** Chief Financial Officer

### **Summary**

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The purpose of this report is to:

1. Seek the Board's endorsement of the 2023-2037 Capital Investment Plan that lays out a 15-year outlook of TTC's funded and unfunded capital needs in relation to the recommended 10-year Capital Budget and Plan, and is updated annually for progress made to date, the refinement of project estimates through the stage gate process, state of good repair capital requirements through condition assessments and any emergent priorities;
2. Seek the Board's endorsement of the 2023-2037 Real Estate Investment Plan (REIP), a rolling 15-year strategic roadmap and implementation plan, introduced in concert with the 2022-2036 Capital Investment Plan, that outlines the TTC's real estate needs, planning and management initiatives in support of the implementation of funded capital investments identified in the CIP; and
3. Seek the Board's approval for the recommended 2023-2032 TTC Capital Budget and Plan to provide funding for the acquisition, renewal and improvement of TTC's assets that enable the TTC's delivery of a safe, reliable, and resilient integrated transit service.

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 and priorities 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. This recognition has translated into a doubling of the TTC's 10-year capital funding since 2020, with significant investments made by all three orders of government towards major and critical state of good repair, vehicle procurement and capacity improvement projects.

The 2023-2037 CIP builds upon the major update to the 2022 CIP, which identified TTC's most immediate unfunded priorities under five programmatic areas bringing together critical project interdependencies for larger programs of investment that, if unfunded, will jeopardize the larger program. Some of these critical priority funding requirements have been addressed in the 2023 to 2032 Capital Budget and Plan, while the TTC continues to work with our intergovernmental partners to seek funding for others. As a rolling plan, the CIP has been updated and further refined in accordance

with Board and Council direction, resulting in a 2023 to 2037 CIP that totals \$38.046 billion. The 2023-2037 CIP summary by mode and funding status is detailed in Appendix A.

As a companion document to the CIP, the REIP lays out property-focused strategies and objectives for the planning and management of TTC's real estate assets to ensure that TTC's real estate asset portfolio is optimized. The TTC has already begun to realize benefits since the REIP's inception in 2022. By providing a clear roadmap of TTC real estate needs and timing that can be shared with City partners, scarce industrial land in the City was acquired for the TTC's future 10<sup>th</sup> bus garage facility.

Beyond its alignment with the 2023- 2037 CIP, the REIP's 2023 update has added critical projects in support of the Lines 1 and 2 Capacity Enhancement Programs. It also reflects the progress made in achieving real estate objectives for TTC's Easier Access program and finding long-term solutions for TTC's warehousing needs. Appendix B provides an update of the TTC's Real Estate Investment requirements and implementation plan to support the TTC's 10-year Capital Plan and 15-year Outlook.

Together, these two 15-year planning documents guide the TTC's stewardship of its assets by enabling the staff to focus time, effort and available funding on priority capital investments that will most effectively meet the outcome of providing a safe, reliable and seamless transit network to move its riders today and into the future. To that end, the 2023-2032 Capital Budget and Plan of \$12.491 billion, with the 2023 Capital Budget of \$1.341 billion in its first year, begins to advance the critical priorities identified in the 2022-2036 CIP. The 2023-2032 Capital Plan:

- Maintains and/or improves steady state funding for essential SOGR capital work to ensure safety and reliability of our system by adding \$750 million of funding in the last five years of the Capital Plan;
- Tops up funding to provide the City/TTC's one third share for the subway car procurement, in the event the TTC is successful in securing funding from the other orders of government;
- Continues funding to deliver 60 new Streetcars and the Hillcrest Facility, with funding support from other orders of government, in addition to fully funding the Russell Carhouse renewal to support the new streetcars;
- Continues funding for 336 Hybrid Buses; and includes matching funding to procure zero emission buses and associated charging infrastructure, with quantities subject to confirmation of potential matching intergovernmental funding; and
- Fully funds the Greenwood Carhouse Modifications and Yard Resignalling (Line 2 Capacity Enhancement) projects, which are requisite investments prior to the delivery of subway car vehicles.

As well, the 10-year Capital Plan:

- Provides funding to meet commitments made for the infrastructure required to replace Line 3 with bus service in late 2023 and to implement digital advertising in the subway network;
- Advances work on major capacity improvement projects (Bloor-Yonge, Line 1 and Line 2);
- Fully funds cost escalations for in-flight projects including Easier Access, and

- Lines 1 and 2 Capacity Enhancement projects;
- Completes the close out phase of Automatic Train Control (ATC) signalling on Line 1 and fully funds ATC on Line 2 over the 10-year period;
  - Continues business modernization such as SAP; Maximo; Vision, Wheel-Trans and Stations Transformation.

The recommended 2023-2032 Capital Budget and Plan allocates 62.5% or \$7.811 billion of capital funding to critical SOGR, Health and Safety and Legislated capital needs to ensure the safety and reliability of existing assets necessary for the delivery of TTC's current transit service and 37.5% or \$4.680 billion to Service Improvement and Growth projects to increase future TTC service capacity. The 2023-2032 Capital Budget and Plan funds the TTC's capital priorities in the first 10 years of the Capital Investment Plan, based on available sources of funding. This was made possible by tightly aligning cashflow estimates with project schedules, reviewing planning assumptions, the timing of key facility requirements, project priorities and dependencies and maximizing all available funding sources, including Development Charges for newly eligible projects. The annual cashflows of the TTC's 2023-2032 Capital Budget and Plan are summarized in Appendix C.

In order to ensure the TTC has the capacity to successfully deliver its capital program, a total of 240 capital positions, to be funded from the 2023 Capital Budget and third-party recoveries, will be added to TTC's capital complement in 2023. These capital delivery positions are required, particularly as the Bloor-Yonge, Lines 1 and 2 Capacity Improvement projects ramp up their respective project delivery activities; the TTC continues its technology modernization with its SAP program; vehicle overhaul requirements evolve with the age of the fleet; and service is adjusted to address the significant construction activity planned throughout the city. The capital workforce complement is summarized in Appendix F.

The cost to operate and maintain new infrastructure, rehabilitated or expanded facilities as well as to sustain new technology impacts the TTC's Operating Budget. As well, many projects also accrue benefits, financial and otherwise, once capital projects are completed. All costs and benefits (savings) to be realized from the completion of capital projects have been identified over the 10-year period. The completion of these capital projects will result in an estimated net savings of \$29.2 million to be realized over the 10 years and \$3.18 million in net savings in 2023, which has been incorporated in the recommended 2023 Operating Budget. The TTC is committed to realizing and capturing all benefits arising from capital investments.

Investing in the TTC's capital works results in economic, environmental, social and health benefits beyond those to be realized from the completion of capital projects. Approval of the recommended 10-year Capital Budget and Plan will add \$12.6 billion in additional GDP, \$29.7 million in economic activity (gross output) and will create 180,000 jobs. The electrification of the TTC's fleet that is funded in the recommended 10-year Capital Plan will reduce GHG emissions by 30,278 tonnes per year once these vehicles are in service.

The funding required to address the TTC's unmet capital needs is significant. However, the necessary funding to ensure the TTC's continued viability today and adaptability in

the future should be considered an investment, as the funding will accrue economic, environmental and social benefits that not only contribute to the vitality and well being of the city but also for the GTA, Province of Ontario and Canada.

Investing in the electrification of TTC's bus fleet beyond what is funded in the recommended 10-year Capital Plan would reduce GHG emissions by an additional 135,114 tonnes per year, once all fleet are in service, which will be a major contributor to meeting the City of Toronto's NetZero Target by 2040. As well, not investing in the TTC will result in foregone economic benefits as transit spending contributes to local, provincial and national economies and every \$1 million in spending creates 15 jobs.

## **Recommendations**

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It is recommended that the TTC Board:

1. Endorse the TTC 2023-2037 Capital Investment Plan of \$38.046 billion, as outlined in Appendix A of this report;
2. Endorse the TTC 2023-2037 Real Estate Investment Plan Update, including the implementation timeline, as outlined in Appendix B of this report;
3. Approve the staff recommended 2023 Capital Budget of \$1.253 billion and future year planned estimates of \$11.087 billion, for a total TTC 2023-2032 Base Capital Budget and Plan of \$12.340 billion, as outlined in Appendix C of this report;
4. Approve the staff recommended TTC 2023 Capital Budget of \$88.186 million and future year planned estimates of \$62.780 million, for a total TTC 2023-2032 Capital Budget and Plan of \$150.966 million for Transit-Related Expansion Projects including the completion of the remaining scope for the Toronto-York Spadina Subway Extension, the SRT Life Extension Overhaul and Line 3 bus replacement plan; and the Waterfront Transit planning, also outlined in Appendix C of this report;
5. Approve a 2023 year-end capital complement of 2,910 positions, reflecting an increase of 240 positions for capital project delivery as summarized in Appendix F of this report;
6. Renew its delegated authority to the TTC Chief Executive Officer to:
  - a. Enter into contribution agreement(s), where required, with government partners to receive any net new funding / financing for the TTC's Green Bus program; and
  - b. Subject to commitment of matching funds from provincial and/or federal government partners, amend existing and pending contract(s) to increase the eBus procurement quantity and associated infrastructure works in proportion to any additional funds committed;
7. Endorse the TTC's request to the provincial and federal government for ongoing intergovernmental funding support to address the TTC's unfunded state of good repair backlog as identified in the 2023-2037 Capital Investment plan, including as priority, to provide provincial and federal matching funds totalling \$1.7 billion for the

new subway train procurement, and up to \$2.4 billion in funding for the requisite Train Maintenance Storage Facility (TMSF);

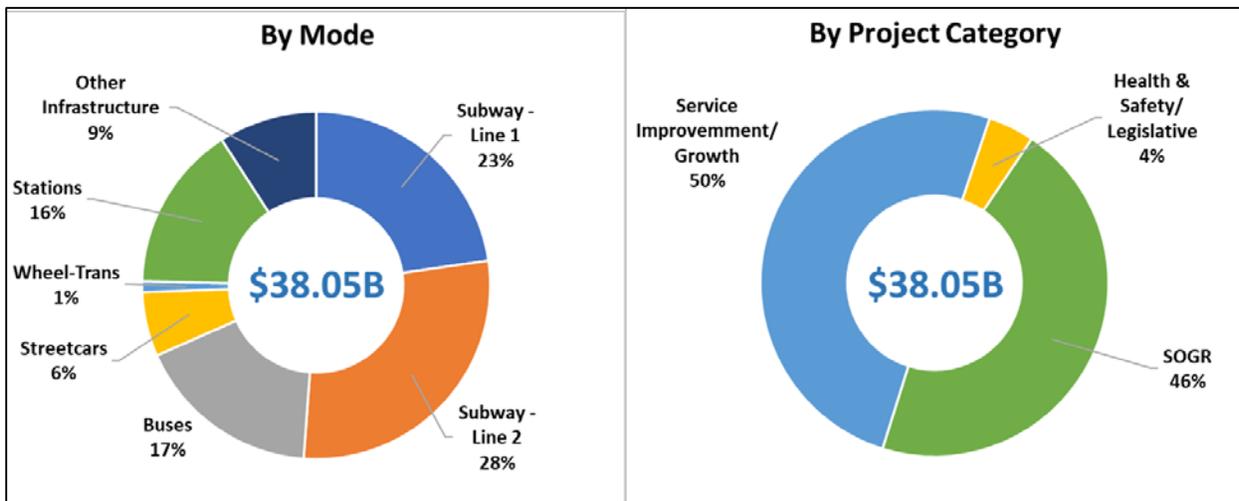
8. Forward this report to the City Budget Committee and the City Manager as the official 2023-2032 Capital Budget and Plan submission for the Toronto Transit Commission; and,
9. Forward the 2023-2037 Real Estate Investment Plan Update to CreateTO and City Real Estate Management staff for their information.

## Financial Summary

### 2023-2037 Capital Investment Plan

The 2023-2037 Capital Investment Plan (CIP) totals \$38.046 billion in base capital needs over a 15-year period. The following chart summarizes the TTC’s capital investment requirements by mode and project category.

**Chart 1**  
**2023-2037 Capital Investment Plan**



Given this is a rolling plan, the 2023-2037 Capital Investment Plan (CIP) is approximately \$827 million higher than the \$37.219 billion presented in the 2022-2036 CIP, as summarized in Table 1.

**Table 1**  
**2022 vs. 2023 Capital Investment Plan Comparison**

2022 vs. 2023 Capital Investment Plan Comparison									
Description (\$ Billions)	2022-2036			2023-2037			Change		
	Years 1-10	Years 11-15	15 Year Total	Years 1-10	Years 11-15	15 Year Total	Years 1-10	Years 11-15	15 Year Total
<b>Total Funded</b>	12,051.4	0.0	12,051.4	12,491.2	0.0	12,491.2	439.8	0.0	439.8
<b>Total Unfunded</b>	11,256.6	13,910.6	25,167.2	11,760.7	13,794.0	25,554.7	504.1	(116.6)	387.5
<b>Total CIP</b>	<b>23,308.0</b>	<b>13,910.6</b>	<b>37,218.6</b>	<b>24,251.9</b>	<b>13,794.0</b>	<b>38,045.9</b>	<b>943.9</b>	<b>(116.6)</b>	<b>827.3</b>

The sum of the \$827 million increase in this CIP is made up of a \$440 million increase to the funded portion and \$387 million increase to the unfunded portion of the 15-year Capital Investment Plan. The increase to the funded portion of the CIP reflects significant progress made to critical priorities identified in the 2022-2036 CIP that were previously unfunded, which includes, critical SOGR projects, fleet procurements, Greenwood Carhouse Modifications and Yard Resignalling (Line 2 Capacity Enhancement), and Russel Carhouse Renewal projects. These priorities were accommodated primarily due to the net increase in the most recent Development Charges (DC) bylaw study. The outcome of this study provided new DC funding for a number of projects that were not part of the previous study, and freed up other sources of funding from fully funded projects with new DC funding eligibility that could be used towards funding these critical priorities.

Unfunded priorities increased by \$504 million over the first ten years of the CIP, but decreased in years 11 to 15 by \$117 million for a net increase in unfunded amounts of \$387 million over the 15-year period. This is primarily due to 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.

### **Real Estate Investment Plan**

The 2022 Real Estate Investment Plan outlined a comprehensive implementation plan of over 70 projects and initiatives to achieve TTC’s strategic real estate goals and objectives. The 2022 implementation plan assisted in acquiring property to accommodate TTC’s future 10<sup>th</sup> garage, and identify key real estate priorities with partners at the City and CreateTO. In addition to its alignment to the CIP, this 2023 update has added critical projects in support of the Lines 1 and 2 Capacity Enhancement Programs, and reflects the progress made in achieving real estate objectives for TTC’s Easier Access program and finding long-term solutions for TTC’s warehousing needs.

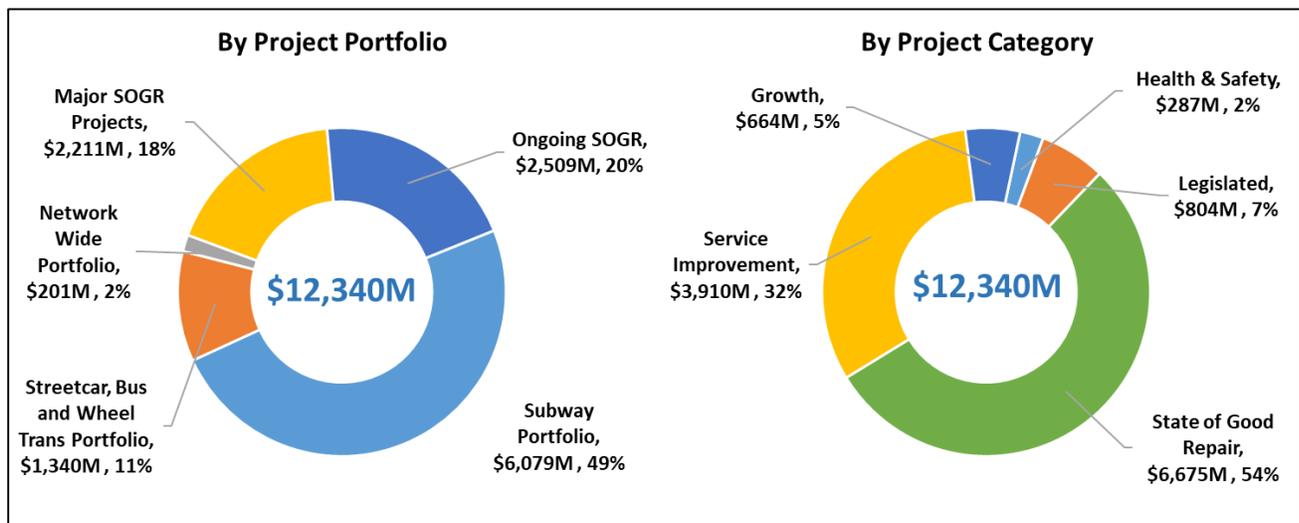
## 2023-2032 Capital Budget and Plan

The recommended 2023-2032 Capital Budget and Plan totals \$12.491 billion, providing \$12.340 billion to fund the TTC's base capital program and \$151.0 million for transit expansion-related projects, as outlined in Table 2.

**Table 2**  
**2023-2032 Capital Budget and Plan Summary**

(\$ Millions)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	10-Year Total
<b>Base Program</b>	1,253.3	1,601.5	1,513.3	1,224.8	1,124.8	1,316.0	1,252.4	1,117.9	1,058.8	877.4	<b>12,340.2</b>
<b>Expansion Related Prj.</b>	88.2	36.2	-	13.3	13.3	-	-	-	-	-	<b>151.0</b>
<b>Total</b>	<b>1,341.5</b>	<b>1,637.7</b>	<b>1,513.3</b>	<b>1,238.1</b>	<b>1,138.1</b>	<b>1,316.0</b>	<b>1,252.4</b>	<b>1,117.9</b>	<b>1,058.8</b>	<b>877.4</b>	<b>12,491.2</b>

**Chart 2**  
**2023-2032 Base Capital Plan**



The TTC has also strategically bundled major capital projects in a portfolio view, bringing together conventional SOGR, Service Improvement and Growth project categories for the Subway and Vehicles portfolios. On this basis, the remaining SOGR portfolios have been delineated between Major and Ongoing SOGR. The Major SOGR project portfolio comprises of 16 discrete SOGR projects including but not limited to subway and surface track replacement, roofing rehabilitation, on-grade paving, structure rehabilitation as well as elevator and escalator overhaul and replacement programs and overhauls for all modes of transit.

On a portfolio basis, \$6.079 billion or 49% of the 10-year Capital Budget and Plan's funding is invested in the Subway system to provide multi-year funding for the Bloor-Yonge Capacity Improvements, Lines 1 and 2 Capacity Enhancement major projects. It also provides funding for the completion of the Easier Access, Islington and Warden

Redevelopment projects and the annual Fire Ventilation Upgrades and Second Exits capital works. \$1.340 billion or 11% of the 10-year Capital Budget and Plan is dedicated to funding the streetcar, bus and Wheel-Trans portfolio, enabling the TTC to complete the purchase of 60 new accessible LRVs and the necessary modifications to the Hillcrest and Russell Yard and Carhouse facilities to ensure they are able to maintain and store the added streetcars.

When combined, a total of \$4.720 billion or 38% of the 10-year Capital Plan’s funding is allocated to the State of Good Repair Portfolio. \$2.211 billion or 18% will be used for major SOGR capital works such as Subway and Surface Track Replacement and \$2.509 billion or 20% for ongoing SOGR work in order to maintain and ensure Toronto’s transit system is safe and reliable such as Traction Power, Communications and Signal Systems projects. Appendix E provides a full summary of the 10-year Capital Plan at the Major Project Portfolio level.

From a project categorization perspective, over \$1.091 billion or almost 9% of the Capital Plan for the 10-year period is committed to Health and Safety and Legislated project funding while State of Good Repair (SOGR) capital projects make up 54% or \$6.675 billion of the total recommended Capital Plan’s funding. The remaining 37% or \$4.574 billion of the recommended 2023-2032 Capital Budget & Plan is allocated to Service Improvement and Growth capital projects, including the Bloor-Yonge Capacity Improvement; Lines 1 and 2 Capacity Enhancement projects; and the close out of the Automated Train Control (ATC) signaling on Line 1 and start-up on Line 2 ATC.

**2023-2032 TTC Expansion Related Capital Plan**

In addition to the TTC’s base capital program, there are three transit expansion-related projects that require funding until their completion. Funding of \$151.0 million is being recommended, to be cash flowed between 2023 and 2027 to complete the preliminary design for Waterfront East (Area 1); the SRT Life Extension Overhaul and Replacement; and to fund close-out costs for the Toronto York Spadina Subway Extension (TYSSE) project.

Table 3 summarizes the cash flow funding estimates for Transit Expansion-related projects over the next 10 years.

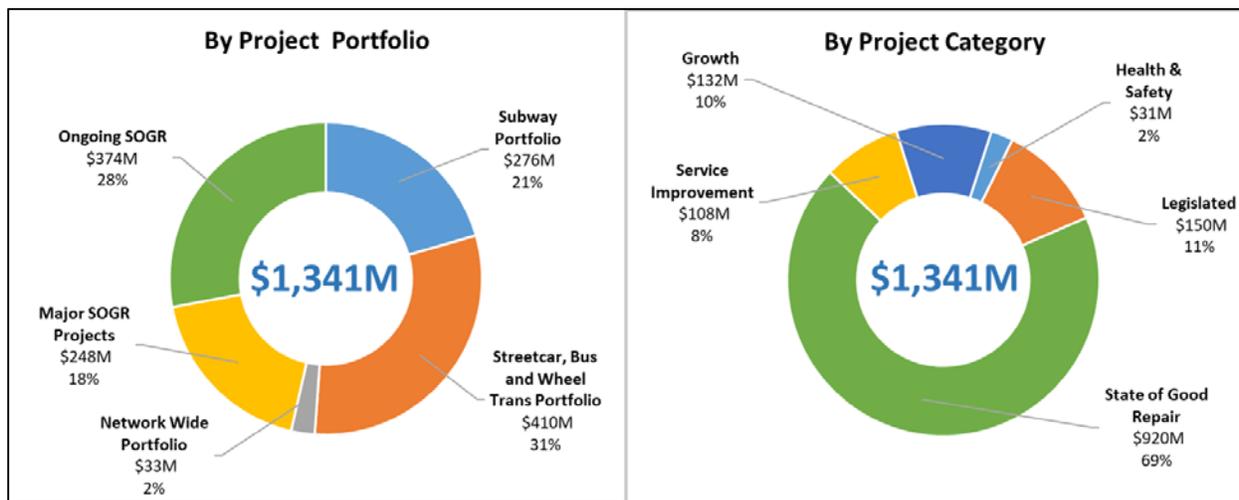
**Table 3  
2023-2032 TTC Expansion Capital Plan**

(\$ Millions)	2023	2024	2025	2026	2027	2028-2032	10-Year Total
Toronto York Spadina Subway Extension	56.1	15.0	-	-	-	-	71.1
SRT Life Extension Overhaul & Replacement	27.3	18.2	-	-	-	-	45.5
Waterfront Transit Design	4.8	3.0	-	13.3	13.3	-	34.4
<b>Total</b>	<b>88.2</b>	<b>36.2</b>		<b>13.3</b>	<b>13.3</b>		<b>151.0</b>

## 2023 Capital Budget

The recommended 2023 Capital Budget is \$1.341 billion. Chart 3 below provides an overview of the 2023 Capital Budget's allocation of funding from both a portfolio and project categorization perspective.

**Chart 3**  
**2023 Capital Budget**



From a portfolio perspective, just over 50% or \$686 million of the 2023 Capital Plan's funding will be used for Subway and Streetcar, Bus and Wheel-Trans portfolio projects. A combined \$622 million or 46% will be allocated to Major and Ongoing State of Good Repair projects, and the balance of \$33 million or 2% will be dedicated to continue Network Wide projects.

Almost \$181 million or approximately 13% of the 2023 Capital Budget is committed to Health, Safety and Legislated project funding while State of Good Repair (SOGR) capital projects total \$920 million or 69% of the proposed funding. The remaining 18% or \$240 million of the recommended 2023 Capital Budget is allocated to Service Improvement and Growth capital projects.

## Capital Funding Sources

City funding represents nearly 66% of total capital funding for the TTC while provincial funding contributes 12% and federal funding provides 20%, representing 32% or approximately one-third of the total capital funding provided by these two funding partners, while other funding provides 2% of the total capital funding. In addition to the annual receipt of gas tax funding from both the federal and provincial governments, project-specific funding has also been provided for 60 new streetcars, the Hillcrest Facility and the Bloor-Yonge Capacity Improvement project.

Compared to the 2022-2031 Capital Budget and Plan, the most significant increase in City funding sources is Development Charges (DC), where approximately \$805 million has been added to the 2023-2032 Capital Plan's funding availability. The net funding

increase is a result of the most recent DC bylaw study, in which a number of TTC projects were added to the study, making them eligible for DC funding. While the increase is significant and has enabled the TTC to reallocate freed up debt funding, particularly for SOGR priorities in the latter half of the 10-year Capital Plan, it is still insufficient to fully fund TTC's capital needs in the 2023-2032 planning period. In addition, the TTC and City are still assessing the DC revenue impacts of the recent provincial legislation, Bill 23.

TTC's capital funding sources over the 10-year period are summarized in Table 4:

**Table 4**  
**2023-2032 Capital Plan by Funding Source**

Funding Sources (\$ Millions)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	10-Year Total	%
<b>City:</b>												
City Building Fund	681.0	816.6	788.9	569.2	458.4	846.8	764.9	341.7	288.6	139.1	5,695.2	45.6%
Debt	59.5	16.0	17.5	7.1	4.1	5.1	3.8	336.7	347.9	345.0	1,142.7	9.1%
Development Charges	182.1	303.8	261.8	266.4	266.0	19.4	22.0	24.7	25.0	6.3	1,377.5	11.0%
Reserves/ Reserve Funds	<u>56.1</u>	<u>9.9</u>	<u>0.0</u>	<u>0.0</u>	66.0	0.5%						
<b>Total City Funding</b>	<b>978.7</b>	<b>1,146.3</b>	<b>1,068.2</b>	<b>842.7</b>	<b>728.5</b>	<b>871.3</b>	<b>790.7</b>	<b>703.1</b>	<b>661.5</b>	<b>490.4</b>	<b>8,281.4</b>	<b>66.3%</b>
Provincial	123.1	183.3	157.0	134.9	144.3	164.1	175.2	152.9	145.3	139.6	1,519.7	12.2%
Federal	196.3	260.2	257.1	237.3	250.3	270.1	273.0	248.1	239.5	234.0	2,465.9	19.7%
Other Revenue	43.4	47.9	31.0	23.2	15.0	10.5	13.5	13.8	12.6	13.3	224.2	1.8%
<b>Total Funding</b>	<b>1,341.5</b>	<b>1,637.7</b>	<b>1,513.3</b>	<b>1,238.1</b>	<b>1,138.1</b>	<b>1,316.0</b>	<b>1,252.4</b>	<b>1,117.9</b>	<b>1,058.9</b>	<b>877.3</b>	<b>12,491.2</b>	<b>100%</b>

Tri-partite investment in public transit is critical to a well-functioning, inclusive and sustainable city, region and country. The TTC recognizes that all orders of government need to work collaboratively to ensure the success of the network through long-term funding commitments. Given that key priorities identified in the CIP for funding in the immediate term such as, the purchase of subway trains and Line 1 Train Maintenance and Storage Facility; increased investment in the State of Good Repair of aging assets; and the electrification of TTC's bus and Wheel-Trans fleets remain unfunded. The TTC will continue to work with the City of Toronto to continue to advocate for a long-term sustainable funding model for public transit.

### Capital Complement

In order to ensure TTC has the capacity to successfully deliver its capital program, a total of 240 capital positions, to be funded from the 2023 Capital Budget and third party recoveries, will be added to TTC's capital complement in 2023. The capital delivery positions are critical to meeting TTC's capital program particularly as the Bloor-Yonge, Lines 1 and 2 Capacity Improvement projects ramp up their respective project delivery activities; the TTC continues its technology modernization with its SAP program; vehicle overhaul requirements evolve with the age of the fleet; and service is adjusted to address the significant construction activity planned throughout the city. These changes are summarized in Appendix F.

## Operating Impacts of Completed Capital Projects

Once a capital project is completed, there is a business requirement to sustain, maintain and operate the asset. All operating costs, staffing and non-labour costs are identified and funded in the Operating Budget. Completed capital projects may also result in savings from changes in how service is provided from modernization or transformation initiatives; reduced fuel consumption from the procurement of hybrid or electric vehicles replacing clean diesel fuel buses and any possible revenue generation.

Many capital projects also have projected benefits to be realized. The TTC requires the identification of sustainment costs and all benefits for all major capital project investments to assess the full return on investment (ROI) and ensure project plans include the identification and realization of all benefits. The TTC is committed to capturing and realizing the benefits from all capital investments.

Table 5 details the Operating Budget Impacts of completed Capital Projects based on the 2023-2032 Capital Budget and Plan.

**Table 5**  
**Operating Impacts of Capital**

Projects	2023 Budget		2024 Plan		2025 Plan		2026 Plan		2027 Plan		2023-2027		2023-2032	
	\$000s	positions	\$000s	positions	\$000s	positions	\$000s	positions	\$000s	positions	\$000s	positions	\$000s	positions
<b>Previously Approved</b>														
Information Technology System-Infrastructure	5,270.0		5,323.9	1.0	4,517.1	21.0	1,418.8		899.6		17,429.4	22.0	14,217.5	22.0
Purchases of Buses	(1,983.9)		(5,016.1)		(7,500.0)		(8,590.4)		(8,590.4)		(31,680.8)		(81,085.3)	
Purchase of Street car			5,640.5	7.0	404.2	44.0	2,078.0		47.6		8,170.3	51.0	8,004.7	70.0
Signal System	500.0		84.0		17.0		19.0				620.0		299.0	
OPTO	(7,255.6)													
Other Various OBIs	290.0	2.0	960.6		2,017.0		3,400.0		3,500.0		10,167.6	2.0	29,370.0	
<b>Sub-Total: Previously Approved</b>	<b>(3,179.5)</b>	<b>2.0</b>	<b>6,992.9</b>	<b>8.0</b>	<b>(544.7)</b>	<b>65.0</b>	<b>(1,674.6)</b>		<b>(4,143.2)</b>		<b>4,706.5</b>	<b>75.0</b>	<b>(29,194.1)</b>	<b>92.0</b>
<b>New Projects - 2023</b>														
<b>Sub-Total: New Projects - 2023</b>														
<b>New Projects - Future Years</b>														
<b>Sub-Total: New Projects - Future Years</b>														
<b>Total (Net)</b>	<b>(3,179.5)</b>	<b>2.0</b>	<b>6,992.9</b>	<b>8.0</b>	<b>(544.7)</b>	<b>65.0</b>	<b>(1,674.6)</b>		<b>(4,143.2)</b>		<b>4,706.5</b>	<b>75.0</b>	<b>(29,194.1)</b>	<b>92.0</b>

The completion of previously approved capital projects will result in an overall operating savings of \$3.18 million in 2023. These savings are primarily due to the implementation of the One Person Train Operation (OPTO) project and the purchase of hybrid/electric buses, as the consumption of diesel fuel is reduced. The \$7.3 million in OPTO savings in 2023 represents the third and final year of realized savings, bringing the cumulative savings to \$10 million and a reduction of 100 positions.

The overall operating savings to be realized over the 10-year period are mainly the result of a projected reduction in fuel consumption resulting from the replacement of clean diesel buses with hybrid and electric buses at approximately \$81.1 million. These savings are offset by operating and maintenance costs resulting from the completion of cybersecurity technology implementation, the Purchase of Streetcars, Signal Systems and various other capital projects, and it is anticipated that this will result in a net 10-year operating budget savings of \$29.2 million. Furthermore, there is an incremental

requirement for 92 positions to maintain the new 60 streetcars as well as sustain information technology systems.

The TTC is committed to realizing and capturing all benefits arising from capital investments. The 2023 operating impact of \$3.18 million in savings from completed capital projects has been included in the recommended 2023 Operating Budget.

## **Equity/Accessibility Matters**

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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 2023-2032 Capital Budget and Plan provides full funding of \$582.01 million to complete the TTC's Easier Access Program, which is underway to make all subway stations accessible with elevators, wide fare-gates and automatic sliding doors.

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 making an additional 322 bus and streetcar stops accessible.

## **Decision History**

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At its meeting of December 15, 2021, City Council adopted the Net Zero Strategy that builds on the initial Transform TO Strategy to reduce community wide greenhouse gas (GHG) emissions in Toronto, establishing a new net zero goal of 2040 from the original 2050 goal and critical steps to achieve the revised goal.

[TransformTO: Critical Steps for Net Zero by 2040](#)

At its meeting of December 20, 2021, the TTC Board approved the 2022-2031 TTC Capital Budget and Plan of \$12.051 billion over the 10-year period. In addition, the Board endorsed the 2022-2036 Capital Investment Plan and the principles of the TTC's first ever 2022-2036 Real Estate Investment Plan and implementation timeline.

[TTC 15-Year Capital Investment Plan, Real Estate Investment Plan and 2022-2031 Capital Budget and Plan](#)

At its meeting on February 10, 2022, the TTC Board approved an increase in complement of 12 temporary positions to undertake the Queen Streetcar Infrastructure work for the Ontario Line Project, with costs to be fully recovered from Metrolinx.

[Transit Network Expansion Update](#)

Subsequently on February 17, 2022, City Council approved the 2022-2031 TTC Capital Budget and Plan of \$12.051 billion over the 10-year period.

[City of Toronto 2022 Capital and Operating Budgets](#)

At its meeting of December 15, 2022, City Council approved the Capital Variance Report for the Nine Months Ended September 30, 2022. The 2022 Capital Budget was

reduced by \$185.2 million due to the delayed delivery schedule of the bus procurement and the 10-year Capital Budget and Plan was reduced by \$42.688 million to reflect the revised project costs for the 204 LRV procurement and the property acquisition of the 10<sup>th</sup> Bus Garage at 800 Kipling.

[City of Toronto Capital Variance Report for the Nine Months Ended September 30, 2022](#)

At its meeting on December 15, 2022, City Council was provided with Appendix 6 to the Capital Variance Report for the Nine Months Ended September 30, 2022 that outlines the preliminary list of projects that will be paused or applied underspending pending COVID-19 Funding. Of the City's total \$300 million of estimated COVID adjustments, the TTC's total impact is a reduction of approximately \$87 million.

[Preliminary List of Projects Paused or Applied Underspending Pending COVID-19 Funding](#)

## **Issue Background**

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### **Capital Investment Plan**

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.

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.

The TTC has benefitted from having a CIP. 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 Region and the necessity for investments to ensure that transit service is safe, reliable, seamless, and adaptable to meeting future change. To date, the TTC has been the recipient of funding and/or funding commitments totalling more than \$6 billion for critical capital projects that otherwise would have remained unfunded. This includes tripartite funding for the Bloor-Yonge Capacity Improvements and the TTC's Streetcar Program, and most significantly, the City of Toronto's tax levy increase to raise funds in the City Building Fund dedicated to TTC's capital needs.

The 2022-2036 Capital Investment Plan was a major update to the previous CIP iterations, reflecting the progress made since the CIP's inception in 2019. It took a strategic approach to capital investment planning by bringing together project dependencies within larger capital programs. The 2022-2036 CIP identified TTC's most immediate unfunded priorities under the following four programmatic areas:

<b>Modernizing the Subway &amp; Expanding Capacity</b>	<b>Funding Required</b>	
Purchase subway trains	\$1.7B	by 2022
Maintenance & Storage Facility	\$2.4B	by 2023
Modify Greenwood Yard	\$95M	by 2023
<b>Transforming &amp; Electrifying Bus Service*</b>		
Purchase electric buses	\$1.6B	by 2022
Purchase Wheel-Trans buses	\$174M	by 2022
Install charging infrastructure	\$509M	by 2022
Implement transit priority measures	\$356M	by 2023
<b>Supporting a Larger Streetcar Fleet</b>		
Renew Russell Carhouse	\$71M	by 2024
Upgrade overhead power	\$19M	by 2023
Maximize Hillcrest Complex	\$3M	by 2023
<b>Upholding the State-of-Good-Repair*</b>		
Scheduled fleet maintenance	\$1.2B	by 2023
Safety and legislative	\$39M	by 2023
System maintenance	\$45M	by 2023
Operational infrastructure	\$135M	by 2023

\*Funding required starting in the year identified with opportunity to phase in multi-year commitments over the 10-year horizon and/or to establish steady-state, predictable funding.

Each project within the programmatic areas 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. If investments are not made in a timely manner, then:

- Maintenance and replacement will fall further behind and the SOGR backlog will grow;
- System breakdowns will occur more often, Customer trust will fall;
- Costs to fix assets will balloon; and
- Transit reliability will be at risk.

It is essential, in order to get the most value from the capital investments in transit that they proceed in a coordinated manner. Key investments in fleet, operations/facilities, systems/network and real estate must advance in lockstep because, if one falls behind, the entire system is weakened.

These key priority investment programs have guided TTC's intergovernmental discussions and its capital planning and budgeting in an effort to make advance on these critical investments.

## **Real Estate Investment Plan Update**

In recognition that the TTC's real estate portfolio is large and complex, and that real estate needs are a critical interdependency for the implementation of TTC's capital works, the TTC's first ever 15-year REIP was established in 2022. The TTC Board endorsed the REIP's guiding principles, implementation plan and timelines over the REIP's 15-year planning horizon.

The following guiding principles were 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 the following three pillars or property types that work together to deliver a safe, reliable and seamless transit system:

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

For each property pillar, the REIP lays out strategies, and service objectives, with 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. The 2022 Real Estate Investment Plan outlined a comprehensive set of principles, strategies and an implementation plan with over 70 projects and initiatives to achieve TTC's strategic real estate goals and objectives. The 2022 REIP's implementation plan was key in garnering support from City and CreateTO staff and ultimately City Council for the acquisition of scarce industrial real estate to accommodate TTC's future 10<sup>th</sup> bus garage, and identify key real estate priorities with partners at the City and CreateTO.

Both the updated 2022 CIP and new REIP documents were distributed to City elected officials and senior staff as well as to key provincial and federal representatives to provide understanding of TTC's key capital investment priorities, their respective interdependencies and the impact of not funding them.

## **2022-2032 Capital Plan – Financial Results**

The TTC's 2022-2031 Capital Budget and Plan was approved by the TTC Board on December 20, 2021 and by City Council on February 17, 2022. Subsequent adjustments have been made to the 2022-2031 approved Capital Budget and Plan through the City's quarterly variance reporting process to City Council in order to account for significant project deferral impacts, incremental funding and minor project accelerations. As a result, the 2022 Capital Budget was reduced from \$1.698 million to

\$1.434 million and the overall 10-year Capital Plan increased from \$12.051 billion to \$12.322 billion, as reflected in the table below.

**Table 6**  
**2022-2031 Capital Plan Budget Adjustments Summary**

Capital Plan and Adjustment (\$ Millions)	2022 Budget	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Total
Council Approved Capital Plan	1,698.3	1,701.6	1,639.5	1,347.6	1,206.7	1,018.8	962.6	1,029.5	736.4	710.5	12,051.5
Subsequent Council Approved Adjustments:											
Incremental Carryforward Adjustment	45.8	258.4	-	-	-	-	-	-	-	-	304.2
4M Variance Report Adjustment	(125.0)	132.4	-	-	-	-	-	-	-	-	7.4
6M Variance Report Adjustment	0.1	0.1	1.1	0.2	-	-	-	-	-	-	1.5
9M Variance Report Adjustment	(185.2)	-89.6	152.9	5.2	10.1	64.0	-	-	-	-	(42.6)
<b>Revised Capital Plan</b>	<b>1,434.0</b>	<b>2,002.9</b>	<b>1,793.5</b>	<b>1,353.0</b>	<b>1,216.8</b>	<b>1,082.8</b>	<b>962.6</b>	<b>1,029.5</b>	<b>736.4</b>	<b>710.5</b>	<b>12,322.0</b>

In the Capital Variance Report for the Four Months Ended April 30, 2022, the 2022 Capital Budget was reduced by \$125 million due to delays in the expected closing of property settlements and the 10-year Capital Budget and Plan was increased by \$7.5 million to reflect additional funding from Metrolinx for expansion project enabling works on Queen Street and at Kennedy Station.

As part of the Capital Variance Report for the Six Months Ended June 30, 2022, the TTC's 10-year Capital Budget and Plan was increased by \$1.5 million to add matching funds from Independent Electricity System Operator for the wayside renewable energy storage study.

In the Capital Variance Report for the Nine months Ended September 30, 2022, the 2022 Capital Budget was reduced by \$185.2 million due to the delayed delivery schedule of the bus procurement and deferred to 2023 and the 10-year Capital Budget and Plan was reduced by \$42.688 million net to reflect the revised project costs for the 204 LRVs and property acquisition of the 10<sup>th</sup> garage at 800 Kipling.

The year-to-date and year-end projections summarized in Table 7 as well as in Appendix G are based on the revised 2022 Capital Budget that accounts for the Council-approved budget adjustments described above

Spending for the TTC's base capital program by year-end is projected to be \$1.22 billion or 89% of the 2022 approved Capital Budget. In addition, it is expected that the TTC will incur \$56.1 million in expenditures by year-end for transit expansion-related projects, reflecting 96% of the approved 2022 funding for TTC's expansion projects being spent, as summarized in the Table below.

**Table 7**  
**2022 Capital Budget Variance as of Period 9**

Description (\$ Millions)	2022 Budget	Year-to-Date Actuals		Year-End Projection	
		\$	%	\$	%
<b>TTC Base Capital</b>					
Infrastructure Projects	1,022.6	374.5	36.6%	934.9	91.4%
Vehicle Related Projects	352.9	179.5	50.8%	284.8	80.7%
<b>Total - Base Capital</b>	<b>1,375.5</b>	<b>554.0</b>	<b>40.3%</b>	<b>1,219.7</b>	<b>88.7%</b>
<b>TTC Transit Expansion</b>					
Toronto York Spadina Subway Extension	38.0	11.0	29.0%	38.0	100.0%
SRT Life Extension / Transition	16.4	4.1	24.9%	14.0	85.6%
Waterfront Transit - Design	4.1	2.3	55.9%	4.1	100.8%
<b>Total - Transit Expansion Related Proj.</b>	<b>58.5</b>	<b>17.4</b>	<b>29.7%</b>	<b>56.1</b>	<b>95.9%</b>
<b>Total</b>	<b>1,434.0</b>	<b>571.4</b>	<b>39.8%</b>	<b>1,275.8</b>	<b>89.0%</b>

The majority of the projected underspending is based on the Federal/Provincial COVID-19 backstop funding plan included in the 2022 COVID-19 Intergovernmental Funding Update that was presented to City Council at its meeting on April 6, 2022 and again on December 15, 2022. The TTC was required to pause/cancel capital projects in the amount of \$87 million to contribute towards the \$300 million in capital expenditure reductions to help address the City of Toronto's COVID-19 related funding gap. The planned underspending will be carried forward and subsequently reduced as part of the 2023 Budget process to secure the capital-related funding for the backstop plan.

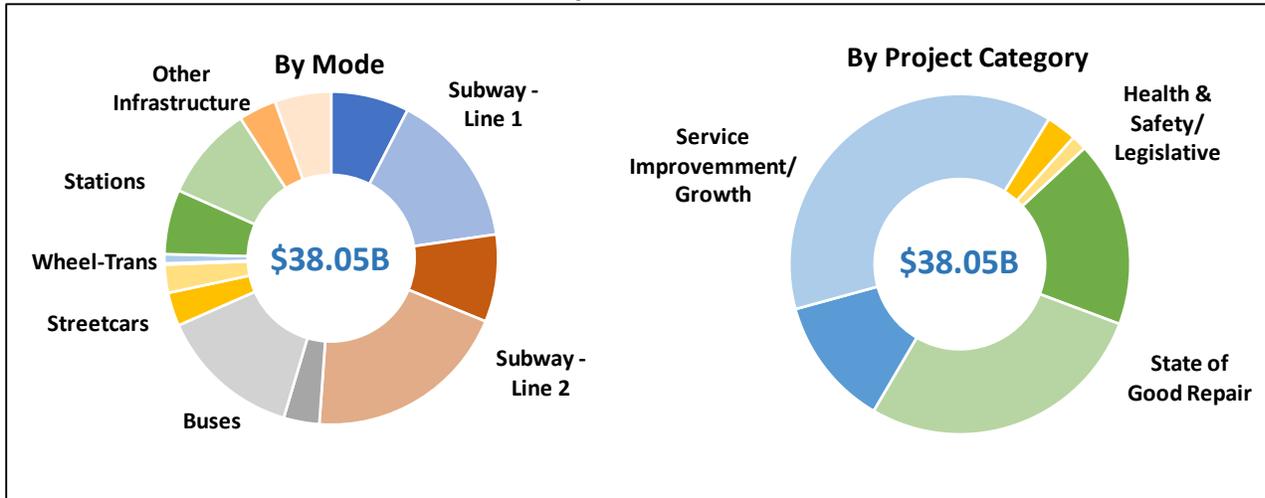
In order to achieve the projected spend rate of \$1.276 billion or 89% overall, significant expenditures for property, hybrid buses, and City coordinated work are expected in the final quarter of 2022, in addition to continued progress on base and expansion capital projects. The 2022 capital spending informed the 2023 Capital budget process and the subsequent recalibration of the 2023-2032 Capital Budget and Plan.

## Comments

### 2023-2037 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 capital needs due to new priorities or revised state of good repair needs based on updated condition assessments. The 2023-2037 Capital Investment Plan reflects progress made and takes a strategic approach to capital investment planning by bringing together project dependencies within larger capital programs. Chart 4 presents the TTC's 2023-2037 Capital Investment Plan by Mode and by Project Category with the dark and light shading representing the funded and unfunded portions, respectively.

**Chart 4  
2023-2037 Capital Investment Plan**



Mode	Funded		Unfunded	
	\$	%	\$	%
Subway - Line 1	2,880.0	23.1%	5,760.2	22.5%
Subway - Line 2	3,230.6	25.9%	7,587.0	29.7%
Buses	1,314.1	10.5%	5,249.3	20.5%
Streetcars	1,239.4	9.9%	1,037.1	4.1%
Wheel-Trans	47.6	0.4%	336.7	1.3%
Stations	2,387.8	19.1%	3,498.2	13.7%
Other Infrastructure	1,391.7	11.1%	2,086.2	8.2%
<b>Total</b>	<b>12,491.2</b>	<b>100%</b>	<b>25,554.7</b>	<b>100%</b>

Project Category	Funded		Unfunded	
	\$	%	\$	%
Health & Safety/Legislated	1,090.6	8.7%	543.1	2.1%
State of Good Repair	6,720.5	53.8%	10,546.8	41.3%
Service Improvement/Growth	4,680.1	37.5%	14,464.8	56.6%
<b>Total</b>	<b>12,491.2</b>	<b>100%</b>	<b>25,554.7</b>	<b>100%</b>

The Capital Investment Plan for the 2023-2037 period is \$38.046 billion, reflecting an increase of \$827 million from last year's Plan, as summarized in the Table 8 below.

**Table 8**

2022 vs. 2023 Capital Investment Plan Comparison									
Description (\$ Billions)	2022-2036			2023-2037			Change		
	Years 1-10	Years 11-15	15 Year Total	Years 1-10	Years 11-15	15 Year Total	Years 1-10	Years 11-15	15 Year Total
<b>Total Funded</b>	12,051.4	0.0	12,051.4	12,491.2	0.0	12,491.2	439.8	0.0	439.8
<b>Total Unfunded</b>	11,256.6	13,910.6	25,167.2	11,760.7	13,794.0	25,554.7	504.1	(116.6)	387.5
<b>Total CIP</b>	<b>23,308.0</b>	<b>13,910.6</b>	<b>37,218.6</b>	<b>24,251.9</b>	<b>13,794.0</b>	<b>38,045.9</b>	<b>943.9</b>	<b>(116.6)</b>	<b>827.3</b>

In many cases, the capital cost estimates included in the CIP are preliminary order of magnitude estimates intended for planning purposes only. The planning and design of large capital projects proceed 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 2023 reflects numerous changes as detailed in Table 9:

**Table 9**

2022 vs. 2023 Capital Investment Plan Comparison									
Description (\$ Billions)	2022-2036			2023-2037			Change		
	Years 1-10	Years 11-15	15 Year Total	Years 1-10	Years 11-15	15 Year Total	Years 1-10	Years 11-15	15 Year Total
No Change	192.3	-	192.3	192.3	-	192.3	-	-	-
Additions	-	-	-	256.6	69.7	326.3	256.6	69.7	326.3
Deletions	590.5	-	590.5	-	-	-	(590.5)	-	(590.5)
Completions	27.3	-	27.3	-	-	-	(27.3)	-	(27.3)
Increases	13,009.0	5,730.6	18,739.6	15,019.7	8,541.9	23,561.6	2,010.7	2,811.3	4,822.0
Decreases	9,488.9	8,180.0	17,668.9	8,783.3	5,182.4	13,965.7	(705.6)	(2,997.6)	(3,703.2)
<b>Total</b>	<b>23,308.0</b>	<b>13,910.6</b>	<b>37,218.6</b>	<b>24,251.9</b>	<b>13,794.0</b>	<b>38,045.9</b>	<b>943.9</b>	<b>(116.6)</b>	<b>827.3</b>

Some project estimates have remained the same between both versions of the CIP, where as others have been completed and removed. New projects estimated at \$326.3 million were added, mostly to address innovation and sustainability initiatives, which were offset by the deletion of \$590.4 million in project estimates mostly related to the Toronto Rocket Train Midlife Overhaul project where the scope was refined and added to the Toronto Rocket Train SOGR program. However, the most significant impacts are related to increases and decreases to existing projects in the CIP for various reasons.

Notable increases to the CIP include Line 1 Capacity Enhancement as additional property requirements were identified, some scope was deferred and costs were escalated; Purchase of eBuses due to revised pricing estimates per bus; Bus Rebuilds to reflect an increased quantity of buses per year; and various cost estimate increases throughout the CIP. Significant decreases include Fire Ventilation Upgrades as post 10-year plan estimates were rebaselined and shifted beyond the 15-year planning period; Line 2 Capacity Enhancements as the scope has been verified and refined; and as a result of progress made in the 2022 budget on finite projects.

The CIP also reflects significant progress made on critical priorities identified in the 2022-2036 CIP that were previously unfunded and are now funded in the 2023 Capital Budget and Plan by:

- Establishing and/or improving steady state funding for essential SOGR capital work by adding \$750 million of funding in the last five years of the Capital Plan;
- Topping up funding to provide the City/TTC's one third share for the subway car procurement, in the event the TTC is successful in securing funding from the other orders of government;
- Ensuring continued funding to deliver 60 new Streetcars and the Hillcrest Facility, with funding support from other orders of government, in addition to providing full funding for the Russell Carhouse renewal to support the new streetcars;
- Continuing funding for the purchase of 336 Hybrid Buses; and providing matching funding to procure zero emission buses and associated charging infrastructure, with quantities subject to confirmation of potential matching intergovernmental funding;

- Fully funding the Greenwood Carhouse Modifications and Yard Resignalling (Line 2 Capacity Enhancement) projects, which are requisite investments prior to the delivery of subway car vehicles.

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

### **2023-2037 Real Estate Investment Plan**

TTC's property requirements to keep transit moving are unique and complex and the TTC continues to face number of challenges with respect to its real estate needs. Facilities need to be in proximity to the services 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. Long lead times to purchase property continue to place 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 requirements.

The 2022 Real Estate Investment Plan outlined a comprehensive set of principles, strategies and an implementation plan with over 70 projects and initiatives to achieve TTC's strategic real estate goals and objectives. The 2022 REIP's implementation plan was key in garnering support from City and CreateTO staff and ultimately City Council for the acquisition of the property to accommodate TTC's future 10<sup>th</sup> garage, and identify key real estate priorities with partners at the City and CreateTO. In addition to its alignment to the CIP, the 2023 REIP update has added critical projects in support of the Lines 1 and 2 Capacity Enhancement Programs, and reflects the progress made in achieving real estate objectives for TTC's Easier Access program and finding long-term solutions for TTC's warehousing needs.

### **2023-2032 Capital Budget and Plan**

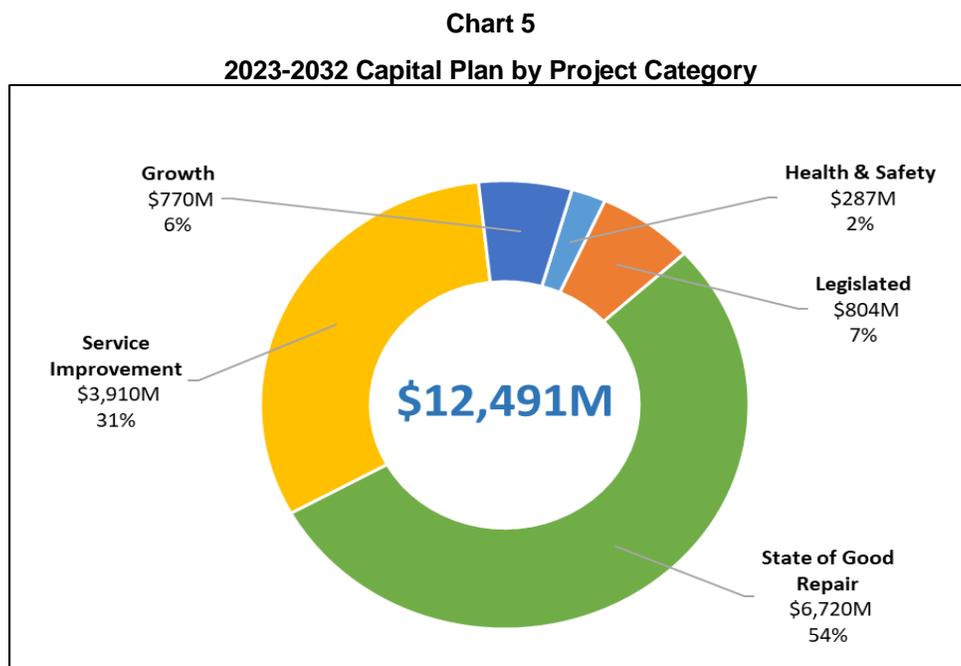
The 10-year Capital Plan establishes a steady state investment plan to ensure critical assets are maintained in a state of good repair to preserve system safety and reliability and improve capacity to meet service objectives. To achieve an optimal outcome within available funding sources, it was important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

- Recalibrate the 10-year Capital Plan's project estimates based on previous spending results and project readiness and adjust annual cash flow estimates to tightly align cash flow spending with project schedules;
- 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 and one project cancelled to reallocate funds;
- Ensure funding commitments are fully funded, including cost escalation for in-flight projects;
- Identify any emergent capital priorities that must be funded to address critical health, safety or state of good repair requirements; and
- Maximize development charge funding for eligible transit projects and reallocate incremental freed-up debt funding to make progress on unfunded capital investment priorities.

As a result of the work undertaken for the 2023 Budget process, the TTC’s recommended 2023-2032 Capital Budget & Plan, totalling \$12.491 billion:

- Begins to address critical priorities identified in the 2022-2036 CIP by funding critical SOGR projects; fleet procurements; the Greenwood Carhouse Modifications and Yard Resignalling (Line 2 Capacity Enhancement), and Russell Carhouse Renewal projects;
- Provides funding to meet commitments made for the infrastructure required to replace Line 3 with bus service in late 2023 and to implement digital advertising in the subway network;
- Advances work on major capacity improvement projects (Bloor-Yonge, Lines 1 and 2);
- Completes the close out phase of Automatic Train Control (ATC) signalling on Line 1 and fully funds ATC on Line 2 over the 10-year period;
- Maintains and/or improves steady state funding for essential safety and SOGR capital work to ensure safety and reliability of our system;
- Continues business modernization such as SAP; Maximo; Vision, Wheel-Trans and Stations Transformation;
- Fully funds cost escalations for in-flight projects including Easier Access, and Line 1 and 2 Capacity Enhancement projects.

The following chart summarizes the 2023-2032 Capital Budget and Plan by project category.



Health, Safety and Legislated projects account for \$1.09 billion or 9% of capital spending and \$6.72 billion or 54% of the recommended 10-year Capital Plan is committed to SOGR work, bringing the total funding for critical capital works to sustain the current system to \$7.81 billion or 63% over the 10-year period. \$3.9 billion or 31% of the Capital Plan funds Service Improvement projects while \$770 million or 6% of the Capital Plan’s funding is allocated to Growth capital works. Together, 37% or \$4.68 billion will be spent to improve service and provide additional capacity for future growth.

In addition to the above categorization used to identify the purpose or nature of the project work, the TTC has also strategically organized its capital program into project portfolios in order to effectively manage critical interdependencies to ensure the successful delivery of these major projects and the realization of the investments' deliverables and benefits. As a result, the TTC is advancing the fleet, operations/facilities, systems/network and real estate within key portfolios in a coordinated manner.

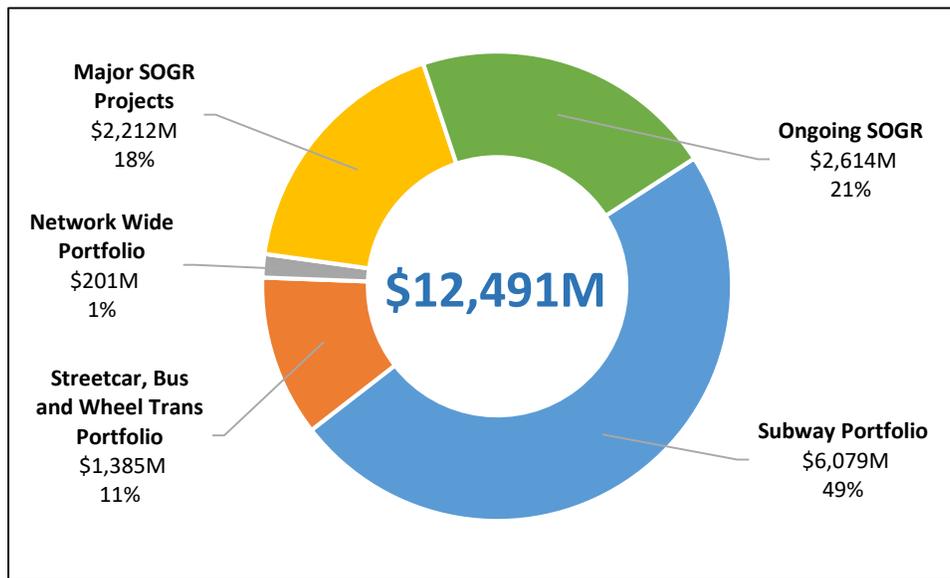
The major project portfolios consist of 28 major projects, which relate to interdependent, priority capital works which have been strategically bundled and 16 major SOGR projects, as itemized below:

- Subway Portfolio
  - Bloor-Yonge Capacity Improvements
  - Line 1 Capacity Enhancement
  - Line 2 Capacity Enhancement
  - Purchase of Subway Cars
  - Automatic Train Control (Line 1 and 2)
  - Easier Access (including Warden and Islington Redevelopments), Fire Ventilation and Subway Station Second Exits and Stations Transformation
- Streetcar, Bus and Wheel Trans Portfolio
  - TTC Streetcar Program
  - SRT Line 3
  - Green Bus Program
  - Wheel Trans
- Network Wide Portfolio (SAP ERP, VISION, and TTC Presto Implementations)
- Major SOGR Projects
  - Subway and Surface Track Replacement
  - Vehicle Overhauls
  - Roofing Rehabilitation
  - Elevator Overhaul, Escalator Replacement and more.

Given this portfolio bundling, some of the key portfolios, such as the Subway and Streetcar, Bus and Wheel-Trans portfolios, combine State of Good Repair, Service Improvement and Growth projects together. Major SOGR programs have also been bundled together and distinguished from ongoing SOGR capital works.

The following chart provides an overview of how the 10-year Capital Plan is allocated according to these project portfolio categories:

**Chart 6**  
**2023-2032 Capital Plan by Project Portfolio**



Given the notable scope of capital investment being made within the Subway portfolio, almost half of the \$12.491 billion funding within the 2023-2032 Capital Budget & Plan is dedicated to the various programs of work that address critical state of good repair of the subway network, legislated requirements to ensure accessibility and service improvement and growth programs to provide future capacity in the system.

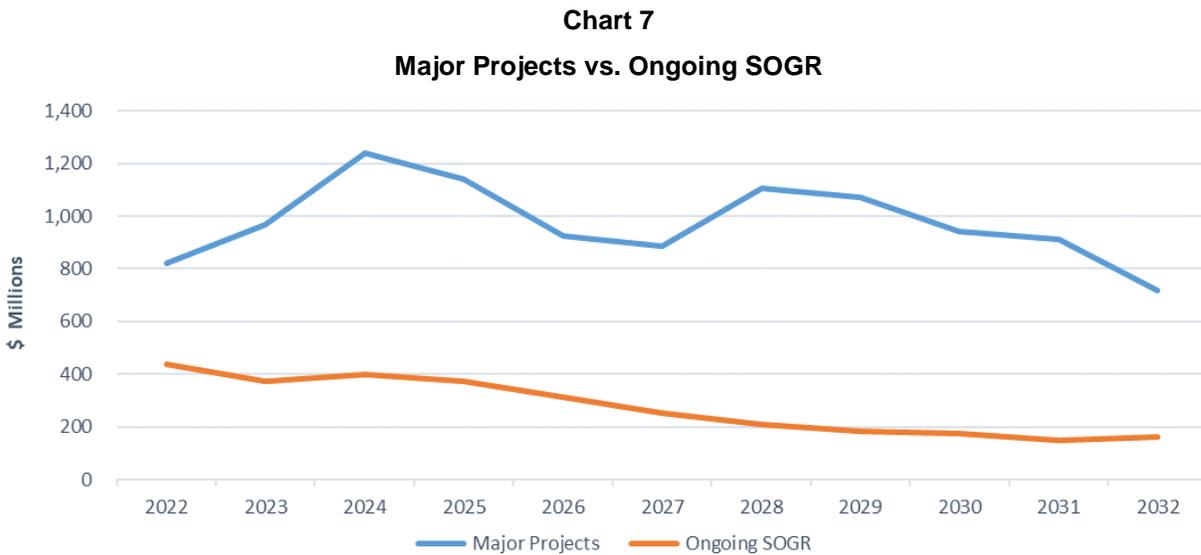
Approximately \$1.385 billion or 11% of the 10-year capital funding is allocated to the Streetcar, Bus, and Wheel-Trans portfolio. With just 1% or \$201 million allocated to ensuring the TTC continues network modernization, the balance of the 10-year funding of \$4.826 billion or 39% is provided for major and ongoing state of good repair of the transit network.

Table 10 summarizes the cashflow funding by year for each of the project portfolios. As noted below, nearly 80% (\$9.877 billion) of the total recommended funding is dedicated to the key major project portfolios, while almost 20% or \$2.614 billion is allocated to ongoing State of Good Repair projects.

**Table 10**  
**2023-2032 Capital Plan by Major Project Category**

(\$ Millions)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	10-Year Total
<b>Major Projects Portfolio:</b>											
Subway Portfolio	275.8	490.9	537.5	627.5	679.9	858.5	809.4	681.7	661.0	457.1	<b>6,079.3</b>
Major SOGR Projects	248.0	273.1	199.1	133.1	107.5	219.4	261.1	260.1	250.2	259.7	<b>2,211.3</b>
Streetcar, Bus and Wheel Trans Portfolio	410.3	412.9	358.1	131.3	45.3	27.6					<b>1,385.5</b>
Network Wide Portfolio	32.8	56.4	38.5	19.7	53.8						<b>201.2</b>
<b>Subtotal Major Projects</b>	<b>966.9</b>	<b>1,233.3</b>	<b>1,133.2</b>	<b>911.6</b>	<b>886.5</b>	<b>1,105.5</b>	<b>1,070.5</b>	<b>941.8</b>	<b>911.2</b>	<b>716.8</b>	<b>9,877.3</b>
<b>Major Projects as % of Total Budget</b>	<b>72%</b>	<b>75%</b>	<b>75%</b>	<b>74%</b>	<b>78%</b>	<b>84%</b>	<b>85%</b>	<b>84%</b>	<b>86%</b>	<b>82%</b>	<b>79%</b>
Ongoing SOGR	374.6	404.4	380.1	326.5	251.6	210.5	181.9	176.1	147.7	160.5	<b>2,613.9</b>
<b>Grand Total</b>	<b>1,341.5</b>	<b>1,637.7</b>	<b>1,513.3</b>	<b>1,238.1</b>	<b>1,138.1</b>	<b>1,316.0</b>	<b>1,252.4</b>	<b>1,117.9</b>	<b>1,058.9</b>	<b>877.3</b>	<b>12,491.2</b>

The following graph presents the spending pattern for the Major Project portfolio against the spending for ongoing State of Good Repair projects over the 10-year Capital Plan's timeframe.



The cashflow spending trend line profiled for major projects align with project deliverables which results in the peaks and valleys associated with each major project's multi-year delivery plan and associated spending. Conversely, ongoing state of good repair projects tend to be more steady state in nature, reflecting the annual implementation of needed repair and rehabilitation.

The profiling of ongoing state of good repair capital works over the 10-year period clearly shows a higher level of spending in the first four years of the 2023-2032 capital planning period. Spending peaks at \$404.40 million in 2024, but then begins to decline over the balance of the capital planning horizon, with \$160.54 million planned for 2032, representing a 60.3% reduction from its peak. This is even with the addition of \$750 million in incremental funding provided in this 10-year Capital Plan. Given available funding sources, the higher funding required for the major projects crowd out the funding available for ongoing system state of good repair.

In 2021, the TTC celebrated its 100th anniversary, which hints at the advanced age of many of these assets. Today, as one of the world's most integrated transit systems, the TTC is responsible for the stewardship of over \$22 billion in assets to serve a region of more than 6 million people. As stewards of these assets and the provider of transit service in the City of Toronto, it is incumbent upon the TTC to provide a safe, reliable and seamless transit network.

Maintaining these assets in a state of good repair continues to be the key capital investment priority for the TTC. There is a continued need for increased funding for state of good repair, as \$6.285 billion remains unfunded in the CIP and the SOGR backlog continues to grow for both vehicles and infrastructure as discussed below. Increased funding is required for critical investments on Line 2, in our facilities and for our fleet overhauls as identified in the CIP.

The 10-year cash flow estimates for each project within the project portfolios and for ongoing SOGR projects can be found in Appendix E.

## **2023 Capital Budget**

The recommended 10-year Capital Plan of \$12.491 billion includes \$1.341 billion in project expenditures required for 2023. The 2023 Capital Budget allocates \$967 million to fund the major projects portfolio and \$374 million for ongoing SOGR projects. The following highlights the planned work in each of these categories for 2023:

### **Major Projects Portfolio - \$967 million**

- **Subway Portfolio - \$276 million**
  - Advances work on major capacity improvement projects (Bloor-Yonge, Lines 1 and 2)
  - Continues Easier Access capital works at multiple subway stations to make them accessible with elevators, wide fare-gates and automatic sliding doors
  - Continues the replacement of fire ventilation and second exit construction at multiple station locations
- **Streetcar, Bus and Wheel Trans Portfolio - \$410M**
  - Continues production of sub-assemblies, first article inspection and preliminary acceptance of 8 streetcars
  - Funds the projected delivery 336 hybrid buses and notice to proceed payment for the electric bus procurement
  - Continues the installation of bus charging systems
- **Network Wide Portfolio - \$33 million**
  - Continues the implementation of business modernization projects such as SAP's Time and Attendance and Vision projects
- **Major SOGR Projects - \$248 million**
  - Delivers the ongoing replacement and rehabilitation of subway and surface track
  - Delivers the planned SOGR overhauls for Bus, Subway and Streetcar fleet
  - Continues the On-grade Paving and Structure Rehabilitation programs

### **Ongoing SOGR Projects - \$374 million**

- Funds small to medium sized SOGR projects, including but not limited to, Traction Power, Power Distribution/Electric Systems, Communications, Signal Systems, Equipment, Buildings and Structures and Shop Equipment capital works.

## Capital Funding Sources

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

**Table 11**  
**2023-2032 Capital Plan by Funding Source**

Funding Sources (\$ Millions)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	10-Year Total	%
<b>City:</b>												
City Building Fund	681.0	816.6	788.9	569.2	458.4	846.8	764.9	341.7	288.6	139.1	5,695.2	45.6%
Debt	59.5	16.0	17.5	7.1	4.1	5.1	3.8	336.7	347.9	345.0	1,142.7	9.1%
Development Charges	182.1	303.8	261.8	266.4	266.0	19.4	22.0	24.7	25.0	6.3	1,377.5	11.0%
Reserves/ Reserve Funds	56.1	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.0	0.5%
<b>Total City Funding</b>	<b>978.7</b>	<b>1,146.3</b>	<b>1,068.2</b>	<b>842.7</b>	<b>728.5</b>	<b>871.3</b>	<b>790.7</b>	<b>703.1</b>	<b>661.5</b>	<b>490.4</b>	<b>8,281.4</b>	<b>66.3%</b>
Provincial	123.1	183.3	157.0	134.9	144.3	164.1	175.2	152.9	145.3	139.6	1,519.7	12.2%
Federal	196.3	260.2	257.1	237.3	250.3	270.1	273.0	248.1	239.5	234.0	2,465.9	19.7%
Other Revenue	43.4	47.9	31.0	23.2	15.0	10.5	13.5	13.8	12.6	13.3	224.2	1.8%
<b>Total Funding</b>	<b>1,341.5</b>	<b>1,637.7</b>	<b>1,513.3</b>	<b>1,238.1</b>	<b>1,138.1</b>	<b>1,316.0</b>	<b>1,252.4</b>	<b>1,117.9</b>	<b>1,058.9</b>	<b>877.3</b>	<b>12,491.2</b>	<b>100%</b>

The funding sources utilized in the 2023-2032 Capital Budget and Plan is based on the following key assumptions:

- Continuation of Provincial Gas Tax Fund and the Canada Community-Building Fund (CCBF) funding based on current funding levels;
- Federal PTIF Phase 2 funding and matching funding from the Province and the City (through recoverable debt) for the Bloor-Yonge Capacity Improvements Project; and
- Tri-party funding for the Streetcar Program (60 new streetcars and Hillcrest).
- Increase in Development Charge funding of \$805 million based on the eligibility of additional capital projects in the revised DC Bylaw and forecast.

As a result, the TTC's 2023-2032 Capital Budget and Plan will be funded from the following sources:

- City funding sources contribute to 66.3% of total funding required for this 10-year plan. This includes:
  - City Building Funding of \$5.695 billion, representing 45.6% of total funding plus base debt of almost \$1.143 billion or 9.1% of total funding, bringing the total City Debt funding to \$6.838 billion, representing 54.7% of all funding sources;
  - Development charges (including reserves) will provide \$1.443 billion or 11.6% of total funding sources;
- Provincial funding will contribute \$1.520 billion or 12.2%
- Federal funding will contribute approximately \$2.466 billion or 19.7%; and
- Other Revenue including TTC internal depreciation totals approximately \$224.2 million or 1.8% of the total funding.

While the TTC expects to have significant funding to advance on the 10-year capital plan, it is not sufficient to fully fund the 10-year requirements. Available funding may also be impacted by the following factors:

- Current economic environment impacting City affordability and ability to borrow;
- Provincial Gas tax and Canada Community Building Fund assumed to be constant could be adjusted for gas consumption in the future;
- DC revenue collection resulting from the Province of Ontario's Bill 23, which is still being assessed by the City of Toronto.

Existing committed/secured provincial and federal funding are project specific in nature. Any additional funding for TTC projects will be dependent upon meeting funding program priority outcomes and requirements.

Given the above, it essential that the TTC continue to work with its funding partners to maximize funding opportunities to continue to advance unmet needs and critical capital investment priorities.

### **Priority TTC Projects and Programs for Intergovernmental Funding**

Tri-partite investment in public transit is critical to a well-functioning, inclusive and sustainable city, region and country. The TTC recognizes that all orders of government need to work collaboratively to ensure the success of the network through long-term funding commitments. The new federal Permanent Transit Fund expected to commence in 2026 is potentially a key funding source that can contribute to long-term sustainable funding for public transit. The TTC will continue to work with the City of Toronto to continue to advocate to all orders of government for a long-term sustainable funding model for public transit.

The TTC's CIP outlines the key funding requirements of the TTC over the next 15 years. Some of the key priorities for funding in the immediate term are as follows:

- In early 2023, a funding commitment is required to procure 80 new subway trains to replace the nearly 30-year T1 trains operating on Line 2, which are approaching the end of design life, and provide additional capacity to accommodate forecasted ridership growth on Line 1 (\$2.5 billion total, requiring \$1.7 billion from provincial and federal partners). A new Line 1 Train Maintenance Storage Facility (TMSF) is also required to meet storage, maintenance and fleet requirements for an expanded subway fleet (an additional \$2.4 billion in new funding is required);
- The TTC's SOGR funding diminishes over the 10-year period contributing to growth in the SOGR Backlog and funding is required to ensure prudent asset management through proactive maintenance (fix before failure); and,
- Electrification of the TTC's bus and Wheel-Trans fleets is also necessary to transform the TTC's bus fleet to zero emissions before 2040. The TTC has submitted an application under the federal Zero Emission Transit Fund (ZETF) for ebus procurement and associated charging infrastructure that would address requirements until 2025 if successful. Bus and charging infrastructure post-2025 also remains unfunded in the CIP.

Municipal matching funding has been included in the 2023-2032 Capital Budget and Plan for Toronto's one-third share of the 80 new subway train procurement, and matching contribution towards zero emission bus requirements to 2025. Final quantities

of ZEBs that may be procured is subject to confirmation of potential matching federal funding under the Zero Emission Transit Fund. The TTC will continue to work with all orders of government to secure new funding to advance critical TTC infrastructure investments.

This report recommends the Board endorse ongoing advocacy efforts to secure intergovernmental funding for key priorities in the CIP, including seeking matching funding for the TTC to procure 80 new subway trains as a priority in 2023. The report also seeks Board support to renew prior authorities to enable the transformation of the bus fleet to zero emissions. Specifically, by renewing delegated authority provided to the CEO in April 2022, to the TTC Chief Executive Officer to:

- a. Enter into contribution agreement(s), where required, with government partners to receive any net new funding / financing for the TTC’s Green Bus program; and
- b. Subject to commitment of matching funds from provincial and/or federal government partners, amend existing and pending contract(s) to increase the eBus procurement quantity and associated infrastructure works in proportion to any additional funds committed.

## Implications for TTC’s Unmet Capital Needs

### Unfunded Capital Needs

Given the \$12.491 billion of available funding for the 10-year Capital Plan, a total of \$11.761 billion remains unfunded in the first ten years of the CIP and a total of \$25.555 billion over the 15-year period. However, if one were to extend existing funding sources based on current levels of City and ongoing Provincial and Federal (gas tax, CCBF) funding to years 11 to 15, a total of \$3.891 billion of assumed funding would be available in the last five years of the 15-year CIP period. On this basis, the assumed funding reduces the total unfunded portion of the CIP over the 15-year period to \$21.664 billion, resulting in unfunded balances of \$11.761 million in the first ten years and an additional \$9.903 million in the last five years of the CIP, as summarized in Table 12 below.

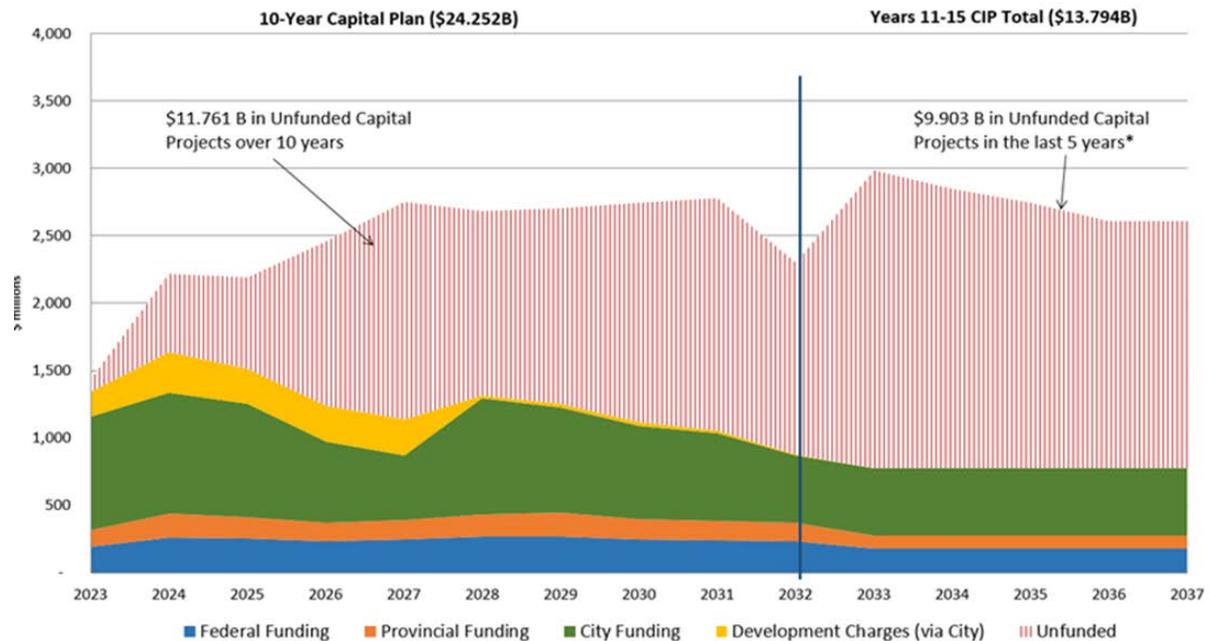
Table 12

2023-2037 Recommended Capital Investment Plan			
Description (\$ Billions)	2023-2037		
	Years 1-10	Years 11-15	15 Year Total
Funded	12.491	3.891	16.382
Unfunded	11.761	9.903	21.664
<b>Total Program Requirement</b>	<b>24.252</b>	<b>13.794</b>	<b>38.046</b>

*\* 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*

Chart 8 presents the total CIP over the 15-year period and highlights the funded and unfunded portions of the CIP.

**Chart 8**  
**2023-2037 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*

Table 13 outlines the key unfunded capital programs over the 15-year period based on current funding availability and affordability constraints. The list of unfunded capital investments totalling \$25.555 billion over the 15-Year Capital Investment Plan represents the total project expenditures that are required to be funded prior to any assumed ongoing funding being applied post-2032.

**Table 13**  
**Unfunded Capital Requirements**

Project Description	Cash Flow (In \$ Millions)									
	2023	2024	2025	2026	2027	5 Year Total	2028 to 2032	10 year Total	2033 to 2037	15 Year Total
<b>HEALTH &amp; SAFETY/LEGISLATIVE</b>	0.6	28.2	60.8	75.8	59.8	<b>225.2</b>	<b>132.6</b>	<b>357.8</b>	106.0	<b>463.8</b>
<b>FLEET PURCHASE PROGRAMS</b>	<b>52.3</b>	<b>257.9</b>	<b>202.3</b>	<b>214.9</b>	<b>415.1</b>	<b>1,142.5</b>	<b>2,502.8</b>	<b>3,645.3</b>	<b>1,619.1</b>	<b>5,264.4</b>
PURCHASE OF BUSES	52.3	76.4	145.7	144.1	226.8	<b>645.3</b>	<b>1,381.3</b>	<b>2,026.6</b>	1,562.1	<b>3,588.7</b>
PURCHASE OF SUBWAY CARS	0.0	181.5	56.6	70.8	188.3	<b>497.2</b>	<b>1,121.5</b>	<b>1,618.7</b>	57.0	<b>1,675.7</b>
<b>OVERHAUL PROGRAMS</b>	<b>0.0</b>	<b>37.6</b>	<b>49.0</b>	<b>159.5</b>	<b>70.7</b>	<b>316.8</b>	<b>149.6</b>	<b>466.4</b>	<b>771.6</b>	<b>1,238.0</b>
BUS OVERHAUL	0.0	32.8	40.9	67.9	13.3	<b>154.9</b>	<b>9.2</b>	<b>164.1</b>	409.0	<b>573.1</b>
STREETCAR OVERHAUL	0.0	4.8	8.1	54.0	15.1	<b>82.0</b>	<b>107.0</b>	<b>189.0</b>	238.8	<b>427.8</b>
SUBWAY OVERHAUL	0.0	0.0	0.0	37.6	42.3	<b>79.9</b>	<b>33.4</b>	<b>113.3</b>	123.8	<b>237.1</b>
<b>SERVICE PLANNING</b>	<b>0.0</b>	<b>43.9</b>	<b>67.1</b>	<b>56.3</b>	<b>76.0</b>	<b>243.3</b>	<b>250.5</b>	<b>493.8</b>	<b>11.2</b>	<b>505.0</b>
<b>KEY BUILDINGS AND STRUCTURES</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>273.4</b>	<b>467.7</b>	<b>741.1</b>	<b>1,858.5</b>	<b>2,599.6</b>	<b>3,822.6</b>	<b>6,422.2</b>
Line 1 Capacity Enhancement	0.0	0.0	0.0	273.4	467.7	<b>741.1</b>	<b>1,664.0</b>	<b>2,405.1</b>	2,113.8	<b>4,518.9</b>
Line 2 Capacity Enhancement	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>	<b>194.5</b>	<b>194.5</b>	1,708.8	<b>1,903.3</b>
<b>STATE OF GOOD REPAIR</b>	<b>40.2</b>	<b>200.2</b>	<b>234.1</b>	<b>363.0</b>	<b>460.0</b>	<b>1,297.5</b>	<b>1,298.5</b>	<b>2,596.0</b>	<b>1,888.7</b>	<b>4,484.7</b>
<b>SERVICE IMPROVEMENTS</b>	<b>0.0</b>	<b>8.3</b>	<b>31.0</b>	<b>39.1</b>	<b>39.6</b>	<b>118.0</b>	<b>151.2</b>	<b>269.2</b>	<b>2,766.5</b>	<b>3,035.7</b>
<b>GROWTH</b>	<b>0.0</b>	<b>3.3</b>	<b>30.8</b>	<b>37.0</b>	<b>21.6</b>	<b>92.7</b>	<b>1,240.0</b>	<b>1,332.7</b>	<b>2,808.2</b>	<b>4,140.9</b>
<b>Total Unmet Needs (Not Included)</b>	<b>93.1</b>	<b>579.4</b>	<b>675.1</b>	<b>1,219.0</b>	<b>1,610.5</b>	<b>4,177.1</b>	<b>7,583.7</b>	<b>11,760.8</b>	<b>13,793.9</b>	<b>25,554.7</b>

Notwithstanding the progress being made on TTC's Fleet Plan, there still is a need for \$3.645 billion in the 10-year period to fully fund the balance of fleet replacements: 1,415 eBuses, 278 Wheel-Trans buses and 80 subway trains, which are nearing the end of their useful life. An additional \$1.562 billion in the 5-year period post-2032 (2033-2037) for 975 eBuses and 278 Wheel-Trans buses. The annual cashflow funding estimates are based on the timing of their respective lifecycle replacements.

Once obtained, the fleet must be maintained to ensure the continued safety and reliability of the network. To maintain TTC's existing fleet in a state of good repair, \$466.4 million is required in the 10-year period to complete vehicle overhauls and an additional \$771.6 million is needed in the 5-year period post-2032 (2033-2037). Should the TTC be unsuccessful in receiving funding for the subway car purchase, then the majority of the existing funding of \$812 million will need to be utilized for a T1 Life Extension Overhaul to extend the useful life of the T1 trains from 30 to 40 years instead. This will defer and increase the cost of the subway train procurement that will inevitably be required.

Approximately \$493.8 million is required for Service Planning initiatives such as Bus Lane Implementation and Transit Priority Measures in the 10-year period and an additional \$11.2 million in 5-year period post-2032.

In order for the TTC to increase its network capacity, particularly given the ridership impact expected from population growth and planned network expansions, Line 1 requires up to \$2.4 billion beginning in 2026 for the construction of the Train Maintenance and Storage Facility and \$2.1 billion in the post years to complete the program of work. Line 2 requires a total of \$1.9 billion with dependencies on completing ATC Line 2 and new subway trains. Combined, Lines 1 and 2 need a total of \$2.6 billion in the 10-year period plus an additional \$3.8 billion in the 5-year period post-2032.

Table 14 outlines by project category, the unfunded capital needs over the 15-year timeframe. Nearly \$11.090 billion or about 43.4% of unfunded projects in the 15-year Capital Investment Plan time horizon can be attributed to State-of-Good-Repair (41.27%) and Health & Safety/Legislated (2.13%) capital needs and 56.6% is required for Service Improvement and Growth projects.

**Table 14**  
**Unfunded Capital Requirements by Project Category**

Category (\$ Millions)	2023	2024	2025	2026	2027	5 Year Total	10 Year Total	15 Year Total	15 Year Total %
Health & Safety/Legislated	0.6	34.5	71.3	88.0	75.2	269.6	437.2	543.1	2.1%
SOGR	92.5	445.5	477.8	727.0	902.8	2,645.6	6,285.0	10,546.8	41.3%
Service Improvement/Growth	-	99.5	126.0	404.0	632.4	1,261.9	5,038.5	14,464.8	56.6%
<b>Total</b>	<b>93.10</b>	<b>579.5</b>	<b>675.1</b>	<b>1,219.0</b>	<b>1,610.4</b>	<b>4,177.1</b>	<b>11,760.7</b>	<b>25,554.7</b>	<b>100.00%</b>

### Impact on SOGR Backlog

The TTC has stewardship over an asset inventory of fleet, facilities, tunnels, structures, systems and equipment valued at over \$22 billion, most of which are aging and require state of good repair capital works or at or near the end of their lifecycle and require replacement. The TTC’s capital program is driven largely by the cost of maintaining these physical assets in a state of good repair.

Managing the accumulated SOGR backlog is a key capital strategic objective and priority for the TTC in order to ensure that current assets are able to support the delivery of transit services and meet service outcomes. When capital funding for planned SOGR capital works is less than the annual SOGR need, the unfunded balance is added to the accumulated SOGR backlog. Conversely, should the capital funding in SOGR exceed the planned SOGR need, the excess is applied against the accumulated SOGR backlog, effectively reducing the balance.

In the absence of comparable benchmarks, the City has established its own state of good repair performance measure; "backlog as a percentage of total asset value (replacement value)" that is applied across its portfolio of assets. The benefits of gathering accurate asset data is that it:

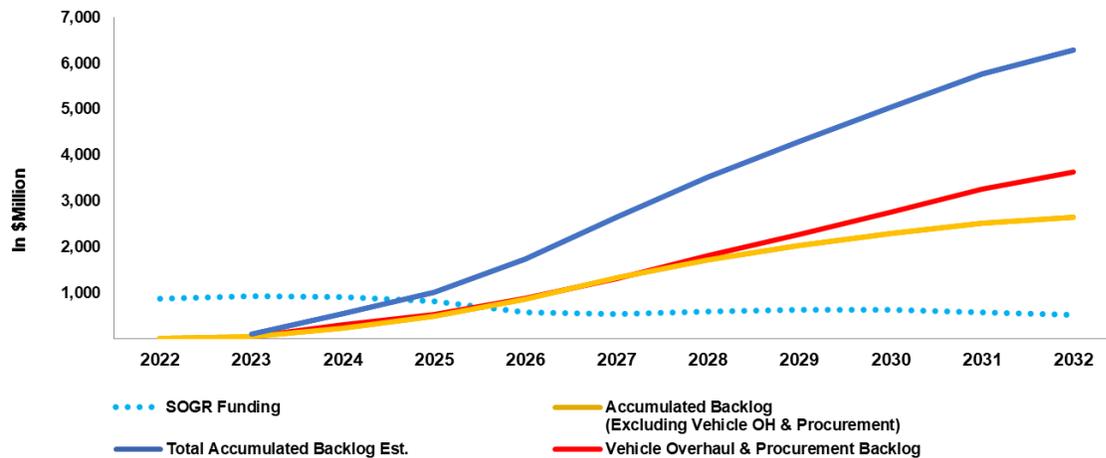
- provides a true picture of what the accumulated SOGR backlog is;
- identifies areas of growing need and attention to the TTC’s asset condition;
- shows the impact of SOGR planned funding on the TTC’s accumulated SOGR backlog for the capital planning period.

Unlike other City Divisions and Agencies, TTC’s SOGR Backlog was not documented until 2019. This was made possible with the establishment of TTC’s CIP that identified the funded and unfunded SOGR projects over the 15-year period. With this information now available, the TTC’s “SOGR backlog as a percentage of asset value” can provide the TTC’s backlog and year-over-year comparisons and trends that can assist TTC staff, the TTC Board and City Council in determining how best to apply scarce

resources in making strategic investments to reduce the SOGR Backlog. SOGR backlog funding pressures will continue to rise as the TTC continues to mature its asset management best practices and better information is received about the condition of TTC assets. SOGR needs will continue to be updated based on condition assessments and new assets that are acquired.

The following graph outlines the impact available funding has on the unmet SOGR needs identified in the CIP, charting TTC’s SOGR Backlog trend over the 2023 to 2032 timeframe. Current projections detail that failure to continue to increase funding in SOGR will result in further growth of the SOGR backlog of \$6.285 billion by 2032. Chart 9 below depicts the SOGR funding and accumulated backlog estimates for key infrastructure and vehicle asset classes based on the 2023-2037 CIP:

**Chart 9**  
**SOGR Backlog**



**Table 15**  
**State of Good Repair Backlog**

\$ Million	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SOGR Funding	879.3	920.2	908.3	809.7	580.5	535.5	600.6	638.2	636.0	579.8	511.7
Accumulated Backlog (Excluding Vehicle OH & Procurement)		40.2	237.9	482.1	857.3	1,329.7	1,713.3	2,032.6	2,299.3	2,514.2	2,645.1
Backlog (Excluding Vehicle OH & Procurement) as % of Asset Value	0.0%	0.2%	1.0%	1.9%	3.2%	4.8%	5.9%	6.7%	7.2%	7.5%	7.5%
Vehicle Overhaul & Procurement Backlog		52.3	300.1	533.7	885.5	1,315.9	1,812.6	2,276.5	2,752.8	3,260.8	3,640.0
Vehicle Overhaul & Procurement Backlog as % of Asset Value	0.0%	0.2%	1.2%	2.1%	3.3%	4.7%	6.2%	7.5%	8.6%	9.7%	10.4%
<b>Total Accumulated Backlog Est.</b>		<b>92.5</b>	<b>538.0</b>	<b>1,015.8</b>	<b>1,742.8</b>	<b>2,645.6</b>	<b>3,525.9</b>	<b>4,309.0</b>	<b>5,052.1</b>	<b>5,774.9</b>	<b>6,285.0</b>
<b>Backlog as % of Asset Value</b>	<b>0.0%</b>	<b>0.4%</b>	<b>2.2%</b>	<b>4.0%</b>	<b>6.5%</b>	<b>9.5%</b>	<b>12.1%</b>	<b>14.1%</b>	<b>15.8%</b>	<b>17.2%</b>	<b>17.9%</b>
<b>Total Asset Value</b>	<b>22,152.9</b>	<b>23,194.1</b>	<b>24,284.2</b>	<b>25,425.6</b>	<b>26,620.6</b>	<b>27,871.8</b>	<b>29,181.7</b>	<b>30,553.3</b>	<b>31,989.3</b>	<b>33,492.8</b>	<b>35,066.9</b>

Despite a combined investment of \$7.766 billion for critical Health, Safety, Legislated and State of Good Repair projects in the next 10 years, the TTC has a significant backlog of unfunded SOGR needs of \$6.285 billion in the 10-year period and a total of \$10.547 billion over the CIP’s 15-year period. Starting from 2023, the SOGR backlog will grow from \$92.5M (or 0.4% of total asset value) to \$6.285 billion (or 17.9% of total

asset value) by 2032 if no additional funding for SOGR is provided. Of this amount, \$2.645 billion is attributable to the backlog of SOGR funding for TTC infrastructure and \$3.640 billion is associated with unfunded vehicle replacement and overhaul requirements.

**The Benefits of Investing in Transit**

Funding the TTC is not only critical for the viability of the transit system today and its adaptability in the future but should be considered sound investments. These investments have a significant impact on the local, regional, provincial and national economies and yield environmental, social and health benefits that overall contribute to the vitality and well-being of the city, the Greater Toronto Area (GTA), Ontario and Canada.

In 2022, the TTC partnered with the University of Toronto’s Mobility Network to undertake an analysis of economic and other benefits resulting from investment in the transit network. The work is ongoing, however, some of the preliminary economic findings are presented below.

**Economic Benefits**

Toronto is the economic engine of Canada. Toronto’s gross domestic product (GDP) accounts for approximately 51% of the Greater Toronto Area’s GDP, 27% of Ontario’s GDP and 10% of all of Canada’s GDP. The TTC is a big contributor to Toronto’s GDP. TTC’s combined 2022 projected year end operating and capital spending will account for 1.5% of Toronto’s GDP. The 2023 Capital Budget of \$1.3 billion, alone will add 0.6% to Toronto’s GDP.

As one part of the overall benefits analysis underway, a new analysis of the macroeconomic impacts of investment in the TTC was undertaken by Professor Richard DiFrancesco (2022). A Multi Region Input Output model was run using the 2022-2032 Capital Plan and the 2022 15-year Capital Investment Plan. Table 16 below takes the model output and applies it to the 2023-2032 Capital Budget & Plan and the 2023 15-year Capital Investment Plan (Noting the 2023-2032 Capital Budget & Plan and 2023 Capital Investment Plan are about 1.5% higher than the 2022 counterparts):

**Table 16  
Economic Benefits**

<b>In \$ Billions</b>	<b>TTC Investment</b>	<b>Value Added (GDP)</b>	<b>Gross Output</b>	<b>Jobs Output</b>
2023-2032 Capital Budget and Plan	\$12.5	\$12.6	\$29.7	183,171
Unfunded Portion of CIP	\$25.5	\$26.0	\$61.7	376,668
<b>Total 2023 15-Year Capital Investment Plan</b>	<b>\$38.0</b>	<b>\$38.6</b>	<b>\$91.4</b>	<b>559,839</b>

The key findings show that investment in TTC capital works translate into:

- Every dollar invested would add an additional \$1 dollar in GDP, generating a value added impact resulting in an increase in profit, taxes and spending on labour;
- Every dollar invested would create the equivalent of \$2.40 of economic activity (Gross Output)
- Every \$1 million invested creates 15 new jobs

Based on Table 16, approval of the recommended 10-year Capital Budget and Plan will add \$12.6 billion in additional GDP, \$29.7 billion in economic activity (gross output) and over 180,000 jobs.

If the TTC were to secure additional funding for the key critical unfunded priorities alone, as outline in Table 2, these investments would spur an additional \$7.9 billion in GDP, \$18.7 billion in economic activity and over 114,000 additional jobs.

As per Table 16 above, if the 15-year Capital Investment Plan were to be *fully funded* it would add \$38.6 billion in GDP, create \$91.4 billion in economic activity and add almost 560,000 jobs over the 15-year time horizon.

**Table 17**  
**Benefits of Unfunded Key Priorities**

	<b>TTC Investment</b>	<b>Value Added</b>	<b>Gross Output</b>	<b>Job Impact</b>
Modernizing Subway & Expanding Capacity	\$4.1 B	\$4.2 B	\$9.9 B	60,433
Transforming & Electrifying Bus Service	\$3.1 B	\$3.1 B	\$7.4 B	44,971
Upholding the State-of-Good-Repair	\$0.6 B	\$0.6 B	\$1.4 B	8,792
<b>Total</b>	<b>\$7.7 B</b>	<b>\$7.9 B</b>	<b>\$18.7 B</b>	<b>114,195</b>

From a regional perspective, the investment in the TTC’s Capital Budget and Plan has an economic impact on all of Canada. 89% of TTC spending is within Ontario (with 52% of that being in the GTA) and 11% is spent nationally. The figures above illustrate the TTC’s investments in capital spending have a significant impact on Toronto, Ontario and the Canadian economies.

While the primary focus of this analysis was conducted on the Capital Budget and Plan, it should be noted that the TTC has a significant economic impact through ongoing operational expenditures. The TTCs operational expenditures on goods and services amount to approximately \$702 million. Applying the MRIO multiplier for Urban Transit Systems of 2.26 would generate more than \$1.59 billion in additional economic activity.

### **Environmental Benefits**

Along with economic benefits, the TTC’s capital investments will also generate significant environmental benefits. The TTC is in the process of electrifying its fleet and reducing is greenhouse gas (GHG) emissions. The table below provides an overview of these investments by year.

The 2023-2032 Capital Plan funds the purchase of 336 Hybrid buses, 240 electric buses and 10 Wheel Trans electric buses. When all buses are delivered and in service, GHG emissions will be reduced by 30,278 tonnes per year.

Fully funding the TTC's bus electrification program that includes the procurement of 336 hybrid buses, 1,850 electric buses and 209 Wheel Trans electric buses would yield a reduction of 165,392 tonnes of GHG emissions per year once in service and would be a major contributor to meeting the City's NetZero target by 2040.

**Table 18  
Summary of Bus Purchases and GHG Reduction by Year**

	2023 Budget	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
<b>Fleet Plan Quantities</b>												
<b>Funded</b>												
Hybrid Bus - Purchase	268	68										336
eBus - Purchase*		233	7									240
Wheel Trans - eBuses			10									10
<b>Sub-Total</b>	<b>268</b>	<b>301</b>	<b>17</b>									<b>586</b>
<b>Unfunded</b>												
Hybrid Bus - Purchase												
eBus - Purchase*			160	170	175	175	165	190	190	190	195	1,610
Wheel Trans - eBuses						50	59	17	16	11	46	199
<b>Sub-Total</b>			<b>160</b>	<b>170</b>	<b>175</b>	<b>225</b>	<b>224</b>	<b>207</b>	<b>206</b>	<b>201</b>	<b>241</b>	<b>1,809</b>
<b>Total</b>	<b>268</b>	<b>301</b>	<b>177</b>	<b>170</b>	<b>175</b>	<b>225</b>	<b>224</b>	<b>207</b>	<b>206</b>	<b>201</b>	<b>241</b>	<b>2,395</b>
<b>Fleet Plan GHG Reduction (Tonnes) Incremental</b>												
<b>Funded</b>												
Hybrid Bus - Purchase		6,164	1,564									7,728
eBus - Purchase			21,669	651								22,320
Wheel Trans - eBuses				230								230
<b>Sub-Total</b>		<b>6,164</b>	<b>23,233</b>	<b>881</b>								<b>30,278</b>
<b>Unfunded</b>												
Hybrid Bus - Purchase												
eBus - Purchase				14,880	15,810	16,275	16,275	15,345	17,670	17,670	17,670	131,595
Wheel Trans - eBuses							1,150	1,357	391	368	253	3,519
<b>Sub-Total</b>				<b>14,880</b>	<b>15,810</b>	<b>16,275</b>	<b>17,425</b>	<b>16,702</b>	<b>18,061</b>	<b>18,038</b>	<b>17,923</b>	<b>135,114</b>
<b>Total</b>		<b>6,164</b>	<b>23,233</b>	<b>15,761</b>	<b>15,810</b>	<b>16,275</b>	<b>17,425</b>	<b>16,702</b>	<b>18,061</b>	<b>18,038</b>	<b>17,923</b>	<b>165,392</b>

## Other Key Benefits

While not currently quantified and subject to future work, there are other important benefits associated with funding the TTC's capital investments.

These investments will improve and ensure safe, reliable and seamless integrated service within the network. Ensuring assets are maintained in a state of good repair, improving service and expanding capacity will continue to keep Toronto moving. Capacity on Line 1 for example is equivalent to 26 lanes of traffic on the Gardner Expressway. If Line 1 were to ever shut down, Toronto would grind to a halt.

Some of the other key benefits to be realized are noted below:

- Investing in state of good repair improves reliability, reduce delays and the cost of lost productivity
  - Studies in the San Francisco Bay area have found that investments in transit state of good repair yielded a cost benefit ratio of three. A

significant portion of the positive ratio came from preventing an increase in passenger delays. In other words, investing in existing system improvements is not only critical to the success of the existing system, but to the economy;

- Increasing capacity and expanding service will increase the number of riders within the network. There are significant cost savings to transit users who switch from personal automobiles to transit;
- Persons switching from personal automobile to transit will also have an impact on reducing greenhouse gases which will have a positive impact on climate, air quality and public health (Personal automobiles currently account for 96% of emissions in the GTA associated with household travel, whereas transit accounts for 4%);
- Improved service will create opportunities to travel to jobs and training that individuals might not otherwise be able to access;
- Transit allows more people to access leisure activities and cultural events, benefiting both individuals and business owners.

Progress has been made during the 2023 Budget process to advance the funding of some key unfunded priorities by maximizing existing funding sources and leveraging opportunities from funding partners. Advancing these priorities are critical to maintaining a safe, reliable and integrated transit system to move riders today and ensuring there is capacity and agility to respond to and support customer demand based on expected population growth and transit expansion plans.

With the integration of the CIP and REIP, the two 15-year planning documents identify the TTC's capital needs and guide the TTC's stewardship of its assets, enabling staff to focus time, effort and available funding sources on key capital investments and operational needs. However, due to unfunded capital needs to address ageing infrastructure, systems and vehicles, the SOGR backlog continues to rise and failure to continue to increase investment will result in further deterioration of existing assets, putting the system safety and reliability at risk due to possible failure.

The funding required to address the TTC's unmet capital needs is significant. However, the necessary funding to ensure the TTC's continued viability today and adaptability in the future is actually an investment, as the funding will accrue economic, environmental and social benefits that not only contribute to the vitality and well being of the city but also for the GTA, Province of Ontario and Canada.

## Contact

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## Signature

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Josie La Vita  
Chief Financial Officer

## Attachments

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Appendix A – 2023 – 2037 Capital Investment Plan (CIP)  
Appendix B – Real Estate Investment Plan Update  
Appendix C – 2023 – 2032 Capital Budget and Plan Summary  
Appendix D – 2023 – 2032 Capital Funding Summary  
Appendix E – Major Projects Portfolio Summary  
Appendix F – Capital Complement  
Appendix G – 2022 Capital Budget Variance for the Period Ended Sept. 30, 2022

## **Appendix A: 2023 – 2037 Capital Investment Plan (CIP)**

### **1. Background**

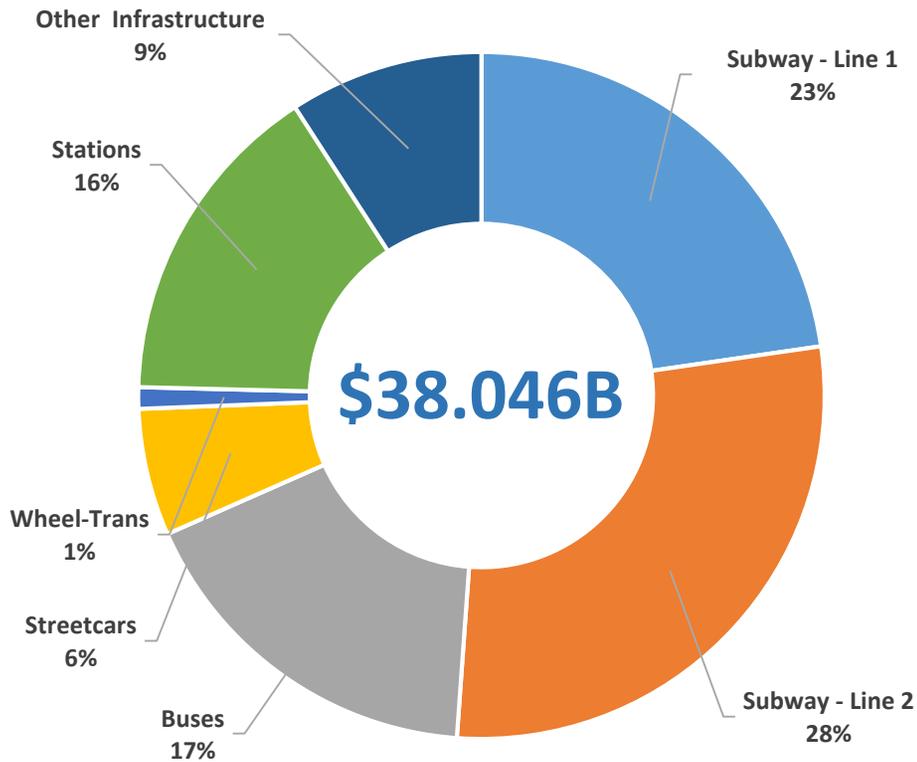
In January 2019, the TTC introduced a 15-year Capital Investment Plan (CIP) outlining the TTC's comprehensive state of good repair needs, and capital requirements to support asset lifecycle replacement and ridership growth. The CIP outlines capital needs across all TTC asset type categories including 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 2023 Budget process, the TTC's 15-year outlook of base capital requirements have been updated for the period 2023 to 2037. 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.

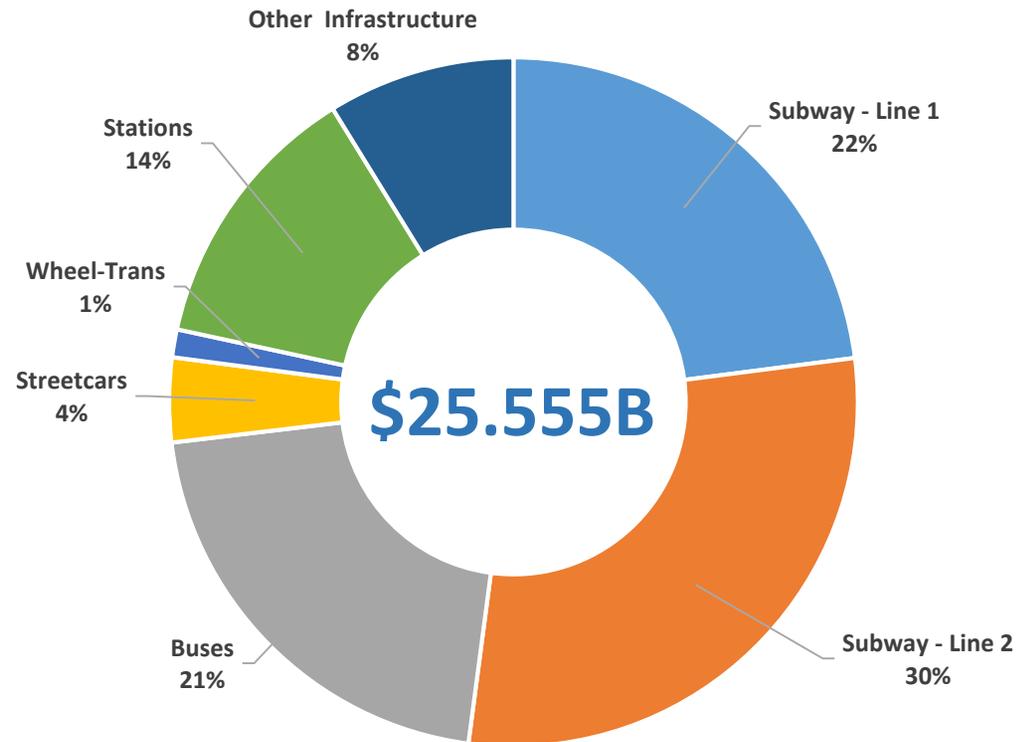
## 2. Summary – 2023 – 2037 Base Capital Requirements

The total base capital requirements for the TTC over the next 15 years (2023 to 2037) is in the order of \$38.046 billion of which approximately \$25.555 billion is currently unfunded.

**2023-2037 Total CIP  
(\$Billions)**



**2023-2037 Total CIP Unfunded  
(\$Billions)**



<b>Project/ Program</b>	<b>Summary Description</b>	<b>Estimated Cost</b>	<b>Funded</b>	<b>Unfunded</b>
<b>Line 1 - Subway</b>				
<b>Line 1 Capacity Enhancement</b>	Increasing capacity through Train Maintenance and Storage Facility and other station infrastructure enhancements	\$5.909 B	\$1.390 B	\$4.519 B
<b>Automatic Train Control (ATC) Resignalling-Line 1</b>	Increasing capacity by reducing headway, providing more reliable service	\$0.064 B	\$0.064 B	\$0.000 B
<b>Subway Track</b>	Subway track and turnout rehabilitation, rail grinding, rail vehicle-based inspection system	\$0.286 B	\$0.169 B	\$0.117 B
<b>Traction Power</b>	Replacement of electrical systems that power the subway, including substation electrical and cable rebuilds	\$0.144 B	\$0.060 B	\$0.084 B
<b>Subway Infrastructure</b>	Maintenance of bridges and tunnels, communications, signal systems	\$0.643 B	\$0.369 B	\$0.274 B
<b>Fire Ventilation Upgrade</b>	Increasing the capacity of the subway fire ventilation system and constructing second exits	\$0.225 B	\$0.170 B	\$0.055 B
<b>Toronto Rail/ T1 Rail Yard Accommodation (Line 1)</b>	Increasing subway train storage capacity at Wilson and Davisville Yards	\$0.077 B	\$0.055 B	\$0.022 B
<b>Purchase of Subway Trains- Ridership Growth</b>	Purchase of new subway trains to meet ATC requirements and ridership growth forecasts	\$0.769 B	\$0.251 B	\$0.518 B
<b>Subway Train Overhaul</b>	Overhaul of the subway fleet to maintain state-of-good-repair	\$0.282 B	\$0.164 B	\$0.118 B
<b>Other Subway</b>	Work car purchase and overhaul, subway asbestos removal, pump and lighting replacement	\$0.241 B	\$0.188 B	\$0.053 B
<b>Line 1 Total</b>		<b>\$8.640 B</b>	<b>\$2.880 B</b>	<b>\$5.760 B</b>

Project/ Program	Summary Description	Estimated Cost	Funded	Unfunded
<b>Line 2 - Subway</b>				
<b>Line 2 Capacity Enhancement</b>	Increasing capacity through traction power upgrades and other station infrastructure enhancements	\$2.752 B	\$0.849 B	\$1.903 B
<b>Automatic Train Control (ATC) Resignalling-Line 2</b>	Increasing capacity by reducing headway, providing more reliable service	\$0.808 B	\$0.620 B	\$0.188 B
<b>Subway Track</b>	Subway track and turnout rehabilitation, rail grinding, rail vehicle-based inspection system	\$0.286 B	\$0.169 B	\$0.117 B
<b>Traction Power</b>	Replacement of electrical systems that power the subway, including substation electrical and cable rebuilds	\$0.144 B	\$0.060 B	\$0.084 B
<b>Subway Infrastructure</b>	Maintenance of bridges and tunnels, communications, signal systems	\$0.643 B	\$0.369 B	\$0.274 B
<b>Fire Ventilation Upgrade</b>	Increasing the capacity of the subway fire ventilation system and constructing second exits	\$0.225 B	\$0.170 B	\$0.055 B
<b>Toronto Rail/ T1 Rail Yard Accommodation</b>	Increasing subway train storage capacity at Greenwood, Keele Yard and Kipling trail tracks	\$0.077 B	\$0.055 B	\$0.022 B
<b>Purchase of Subway Trains (T1 replacement)</b>	Initial payment for the end-of-life replacement of existing subway train fleet. This project will continue beyond the 15 year horizon	\$1.718 B	\$0.561 B	\$1.157 B
<b>Subway Train Overhaul</b>	Overhaul of the subway fleet to maintain state-of-good-repair	\$0.284 B	\$0.165 B	\$0.119 B
<b>Other Subway</b>	Work car purchase and overhaul, subway asbestos removal, pump and lighting replacement	\$0.241 B	\$0.188 B	\$0.053 B
<b>Western Yard</b>	Purchase of land, construction of maintenance and storage facility and connection to the main line to meet growth	\$3.640 B	\$0.025 B	\$3.615 B
<b>Line 2 Total</b>		<b>\$10.818 B</b>	<b>\$3.231 B</b>	<b>\$7.587 B</b>

Project/ Program	Summary Description	Estimated Cost	Funded	Unfunded
<b>Bus</b>				
<b>Bus Procurement Program</b>	Purchase of hybrid and electric buses	\$3.879 B	\$0.628 B	\$3.251 B
<b>Tenth Bus Garage</b>	Construct a double garage that will allow for several years of growth	\$0.461 B	\$0.007 B	\$0.454 B
<b>Bus Overhaul Program</b>	Mid-life rebuild of Orion and Nova bus fleets, including engine, transmission and suspension	\$1.087 B	\$0.514 B	\$0.573 B
<b>Bus Garages</b>	Bus hoist replacements and facility renewal programs	\$0.441 B	\$0.035 B	\$0.406 B
<b>Other Bus</b>	Transit signal priority measures, bus stop improvements, autonomous vehicle program	\$0.695 B	\$0.130 B	\$0.565 B
<b>Bus Total</b>		<b>\$6.563 B</b>	<b>\$1.314 B</b>	<b>\$5.249 B</b>

<b>Stations</b>				
<b>Bloor-Yonge Capacity Improvements</b>	Construction of additional platforms, escalators and elevators to improve vertical circulation	\$1.455 B	\$1.381 B	\$0.074 B
<b>Station Rehabilitation</b>	Roofing rehabilitation on subway rapid transit stations and station finish renewal	\$0.431 B	\$0.179 B	\$0.252 B
<b>Elevator and Escalator Overhaul and Replacement</b>	Replacement, modification and upgrades to escalators and elevators to extend their useful life	\$0.384 B	\$0.153 B	\$0.231 B
<b>Easier Access Phase III (AODA) and Enhanced Station Access</b>	Installing elevators to make all stations accessible and additional future elevator installations	\$0.627 B	\$0.582 B	\$0.045 B
<b>Platform Edge Doors</b>	Installation of doors on subway platforms to prevent passengers accessing subway tracks	\$2.868 B	\$0.000 B	\$2.868 B

Project/ Program	Summary Description	Estimated Cost	Funded	Unfunded
Other Stations	Station transformation, subway station fire alarms, bus platform ventilation	\$0.120 B	\$0.092 B	\$0.028 B
<b>Stations Total</b>		<b>\$5.885 B</b>	<b>\$2.387 B</b>	<b>\$3.498 B</b>

<b>Streetcar</b>				
Purchase of 204 Streetcars	Purchase of 204 accessible articulated low-floor streetcars	\$0.007 B	\$0.007 B	\$0.000 B
Purchase of 60 Streetcars for Ridership Growth	Purchase of 60 accessible articulated low-floor streetcars for growth	\$0.333 B	\$0.333 B	\$0.000 B
Streetcar Overhaul Program	Comprehensive overhaul program to ensure the state-of-good-repair of the new streetcar fleet	\$0.497 B	\$0.069 B	\$0.428 B
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.	\$0.098 B	\$0.098 B	\$0.000 B
Russell Yard & Carhouse Modifications	Carhouse extension at Russell, track replacement and interior modifications to accommodate servicing of new low floor LRVs	\$0.138 B	\$0.138 B	\$0.000 B
Surface Track and Traction Power	Ongoing surface track replacement and traction power upgrades	\$1.160 B	\$0.567 B	\$0.593 B
Streetcar Facility Upgrades	Enhancements to streetcar facilities	\$0.011 B	\$0.009 B	\$0.002 B
LRV Carhouse Facility Renewal Program	Modification, expansion, and/or addition of streetcar maintenance and shop facilities to accommodate the future servicing needs of an expanding mixed streetcar fleet.	\$0.033 B	\$0.019 B	\$0.014 B
<b>Streetcar Total</b>		<b>\$2.277 B</b>	<b>\$1.240 B</b>	<b>\$1.037 B</b>

Project/ Program	Summary Description	Estimated Cost	Funded	Unfunded
<b>Wheel-Trans</b>				
Purchase of Future Wheel-Trans Buses/ Transformation	Replacement of “Friendly” bus fleet and additional facilities based on the Family of Service model	\$0.385 B	\$0.048 B	\$0.337 B
<b>Wheel-Trans Total</b>		<b>\$0.385 B</b>	<b>\$0.048 B</b>	<b>\$0.337 B</b>
<b>Other Infrastructure</b>				
Facilities	Renewal projects for facilities, furniture, office equipment, paving and new industrial space	\$0.840 B	\$0.271 B	\$0.569 B
Information Systems	New Transit Control and ITS Centre, implementation of SAP, VISION, Enterprise Asset Management	\$0.838 B	\$0.439 B	\$0.399 B
Purchase of Automotive Non-Revenue Vehicles	Purchase of vehicles used by TTC staff for transit enforcement, plant maintenance, etc.	\$0.179 B	\$0.078 B	\$0.101 B
Health, Safety and Security Infrastructure	Storage tank replacement, backflow preventers, standby generator procurement	\$0.122 B	\$0.099 B	\$0.023 B
Other Infrastructure	Shop equipment, culvert rehabilitation, service planning and completing the implementation of the PRESTO Farecard program	\$1.499 B	\$0.504 B	\$0.995 B
<b>Other Infrastructure Total</b>		<b>\$3.478 B</b>	<b>\$1.391 B</b>	<b>\$2.087 B</b>
<b>GRAND TOTAL</b>		<b>\$38.046 B</b>	<b>\$12.491 B</b>	<b>\$25.555 B</b>

## Appendix B: Real Estate Investment Plan Update (REIP)

<b>Facilities – Mode Support</b>				
<b>Implementation Action</b>	<b>Funded (Y/N)</b>	<b>Project Type</b>	<b>Property Timing</b>	<b>Project Finish</b>
<b>Bus Garages, Wheel-Trans, Heavy Repair and Storage</b>				
<b>Optimize Existing</b>				
Assess expansion potential of bus garages to accommodate new technologies and changing fleet requirements	N	Proactive	Future Planning Initiative	TBD
Eliminate use of trailers and storage containers	N	Proactive	Future Planning Initiative	TBD
eBus Charging Systems Feasibility Study	Y	Capital	Pending Study Completion	2023
<b>Explore Opportunities</b>				
Evaluation of property needs for Wheel-Trans fleet as part of Fleet Plan, including 388 Evans	N	Functional	2024	2024
Monitor locations to accommodate needs of the Wheel-Trans fleet	N	Proactive	Ongoing	2033
<b>Streetcar</b>				
<b>Optimize Existing</b>				
Eliminate use of trailers and storage containers	N	Proactive	Future Planning Initiative	TBD
<b>Acquire Land</b>				
Re-evaluate property needs for Streetcar Way at 480 Unwin Ave	N	Functional	2026	2027
<b>Subway/LRT</b>				
<b>Optimize Existing</b>				
Line 1 Capacity Enhancement Program				
a. Upgrades and expansion to Wilson Yard	N	Capital	Planning Stages	2028
b. Davisville Yard upgrades and modifications	N	Capital	Planning Stages	2028
Line 2 Capacity Enhancement Program – Greenwood Yard, Carhouse, and Shop upgrades and modifications	Y	Capital	Planning Stages	2038
Eliminate use of trailers and storage containers	N	Proactive	Future Planning Initiative	TBD

Implementation Action	Funded (Y/N)	Project Type	Property Timing	Project Finish
<b>Acquire Land</b>				
Western Yard - Yard Access Connection	N	Capital	2023	2034
Line 1 Capacity Enhancement Program - Train Maintenance and Storage Facility Capacity	Y	Capital	2024	2031
Warehouse Space for ATC and Signals for Line 1 and Line 2	Y	Capital	2023	2032
<b>Explore Opportunities</b>				
Finalize end of service date for McCowan Carhouse and potential future TTC use	N	Capital	Planning Stages	TBD
<b>Facilities – Cross System Support</b>				
Implementation Action	Funded (Y/N)	Project Type	Property Timing	Project Finish
<b>Cross Mode Support</b>				
<b>Optimize Existing</b>				
Hillcrest Complex Master Plan	Y	Capital	2023	2023
Renewable Energy Storage System Installation	Y	Capital	2023	2025
Accommodate interim uses at Western Yard until subway yard required and 800 Kipling until 10 <sup>th</sup> garage is required	N	Proactive	Ongoing	2038
10 <sup>th</sup> garage at 800 Kipling	N	Capital	Planning Stages	2038
Integrate Employee Parking Charging Systems	N	Capital	Ongoing	Ongoing
<b>Explore Opportunities</b>				
Implement energy audits, decarbonization studies, renewable energy studies, and climate resiliency studies to scope TTC’s Green Facility Program	N	Proactive	Future Planning Initiative	2024
<b>Training Space</b>				
<b>Optimize Existing</b>				
Study to determine optimal indoor and outdoor training space for increased efficiencies and improved workforce training	N	Proactive	2024	2024

Implementation Action	Funded (Y/N)	Project Type	Property Timing	Project Finish
Maximize utilization through shared usage with City partners	N	Proactive	Ongoing	Ongoing
<b>Business Support</b>				
<b>Optimize Existing</b>				
Continually monitor highest and best use of space and identify suitable relocation opportunities	N/A	Proactive	Ongoing	Ongoing
Warehouse and storage rationalization and utilization	N	Proactive	Ongoing	Ongoing
<b>Acquire Land</b>				
Replace existing leased space at Carl Hall, and loss of space at Danforth Garage	N	Capital	2023	2027
Replace space at due to demolition for 10 <sup>th</sup> garage at 800 Kipling	N	Capital	2032	2038
<b>Explore Opportunities</b>				
Assess property requirements for a new Major Control Centre to meet the needs of the expanded fleet, including the new data centre	Y	Capital	2023	2023
<b>System</b>				
Implementation	Funded (Y/N)	Project Type	Property Timing	Project Finish
<b>Buses and Wheel-Trans</b>				
<b>Optimize Existing</b>				
Woodbine Station Bus Platform Expansion	N	Capital	Planning Stages	2039
<b>Acquire Land</b>				
Additional loops, as required	N	Proactive	Ongoing	Ongoing
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
<b>Explore Opportunities</b>				
Reconfigured Eglinton bus terminal	Y	Capital	2025	2026
<b>Streetcar</b>				
<b>Acquire Land</b>				

<b>System</b>				
<b>Implementation</b>	<b>Funded (Y/N)</b>	<b>Project Type</b>	<b>Property Timing</b>	<b>Project Finish</b>
Additional loops, as required	N	Proactive	Ongoing	Ongoing
Broadview Station Loop Expansion	Y	Capital	2023	2023
Park Lawn GO Station Loop	N	Capital	2023	2026
Exhibition – Dufferin Gate Loop Expansion	Y	Capital	2026	2027
<b>Explore Opportunities</b>				
Polson Loop	N	Functional	2024	2029
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
<b>Subway/LRT</b>				
<b>Optimize Existing</b>				
Ensure third party compliance with development and maintenance agreements	N/A	Proactive	Ongoing	Ongoing
<b>Acquire Land</b>				
Line 1 Capacity Enhancement Program				
a. Markdale Emergency Service Building	N	Capital	2024	2028
b. St. Clair West Fire Ventilation Upgrade	Y	Capital	2025	2028
c. New Siding Track (Rosedale – Bloor)	Y	Capital	2025	2028
d. New Substation (Pioneer Village – Vaughan)	Y	Capital	2025	2031
e. Lytton Emergency Service Building	N	Capital	2027	2031
f. Davisville North Track	N	Capital	2034	2041
g. VMC Pocket Track	N	Capital	2035	2041
Line 2 Capacity Enhancement Program				
a. Spadina Subway Platform Extension	Y	Capital	2023	2027
b. Warden Station Pocket Track	N	Capital	2029	2031
c. New Danforth Substation	N	Capital	2031	2039
Fire Ventilation Program	Y	Capital	2026	2029
Acquisition through third party developments:				
a. Line 2 westerly subway extension	N/A	Proactive	Future Planning Initiative	2041
b. Protecting existing system	N/A	Proactive	Ongoing	Ongoing

<b>System</b>				
<b>Implementation</b>	<b>Funded (Y/N)</b>	<b>Project Type</b>	<b>Property Timing</b>	<b>Project Finish</b>
Waterfront East LRT	N	Capital	Planning Stages	2031
a. Fire Ventilation			Planning Stages	2031
b. Fan Plant			Planning Stages	2031
c. Substation Facility			Planning Stages	2031
d. Acquisition of property with Waterfront Toronto for at-grade section			Planning Stages	2031
Obtain temporary property rights for SRT Conversion	N	Capital	2024	2025
<b>Explore Opportunities</b>				
Quantify surplus property once Line 3 Scarborough service has been terminated	N	Proactive	Future Planning Initiative	TBD
Implement TTCs Digital Connectivity Strategy and the City's ConnectTO initiative	N	Proactive	Future Planning Initiative	TBD
<b>Stations, Depots, Terminals, Stops, and Access Hubs</b>				
<b>Optimize Existing</b>				
Integrate Customer Parking Charging Systems	N	Capital	Future Planning Initiative	TBD
<b>Acquire Property</b>				
Easier Access Phase III programs including Spadina, Lawrence, Castle Frank, Rosedale, Glencairn, Old Mill, Warden, and Islington	Y	Capital	2023	2025
Second Exit Program	Y	Capital	2026	2029
Bloor-Yonge Capacity Improvement Project	Y	Capital	2024	2031
Line 1 Capacity Enhancement Program				
a. King Station – Concourse Expansion	Y	Capital	2024	2029
b. St. George Station – New Stacked Expansion	Y	Capital	2029	2037
c. St. Andrew Station Second Exit	N	Capital	2034	2037
Expand Eglinton Station through Oxford redevelopment	Partial	Capital	2025	2028
Runnymede Station Permanent Easements	N	Proactive	Planning Stages	TBD
Spadina North Entrance Temporary Easements	Y	Capital	2023	2022
Waterfront East LRT - New connections with Union Station, Queens Quay Station and third party developments	N	Capital	Planning Stages	2028

<b>System</b>				
<b>Implementation</b>	<b>Funded (Y/N)</b>	<b>Project Type</b>	<b>Property Timing</b>	<b>Project Finish</b>
<b>Explore Opportunities</b>				
Monitor station functionality and expand to meet increased capacity	N	Proactive	Ongoing	Ongoing
<b>Support City-Building</b>				
Work with CreateTO to:				
a. Coordinate commuter parking (i.e. Warden, Islington, Victoria Park, and Wilson Stations)	N/A	Proactive	Future Planning Initiative	TBD
b. Relocate the PPUDO at Victoria Park Station	N/A	Proactive	2023	2023
c. Assess parking at Finch Station due to Yonge North Extension	N/A	Proactive	Future Planning Initiative	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	Y	Capital	2023	2025
<b>Office Space</b>				
<b>Implementation</b>	<b>Funded (Y/N)</b>	<b>Project Type</b>	<b>Property Timing</b>	<b>Project Finish</b>
<b>Corporate Office Space</b>				
<b>Explore Opportunities</b>				
Monitor departmental structures and growth	N/A	Proactive	Ongoing	2028
<b>Support City-Building</b>				
Implement ModernTO consolidation of TTC offices	N	Functional	2023	2028
Transfer McBrien building to City	N	Functional	2028	2028
<b>Operational Office Space</b>				
<b>Optimize Existing</b>				
Minimize use of trailers	N	Proactive	Ongoing	Ongoing
Review to ensure that uses support the facility in an efficient manner	N	Proactive	Ongoing	Ongoing

Implementation Action	Funded (Y/N)	Project Type	Property Timing	Project Finish
<b>Explore Opportunities</b>				
Find permanent location for Structures group presently at Davisville	N	Proactive	Future Planning Initiative	TBD
Re-incorporate Divisional offices within the redeveloped Danforth Garage	Funded by City	Functional	Planning Stages	TBD
<b>Other Space</b>				
<b>Explore Opportunities</b>				
Locate construction offices within proximity to construction projects	N/A	Proactive	Ongoing	Ongoing
Long-term solution for Transit Enforcement and Revenue Protection	N	Capital	2025	2025
Determine uses that cannot be accommodated through ModernTO consolidation and find long-term solution	N	Proactive	Planning Stages	Ongoing
<b>Other Real Estate Opportunities</b>				
Implementation	Funded (Y/N)	Project Type	Property Timing	
<b>Other Real Estate</b>				
<b>Explore Opportunities</b>				
Ensure a robust antennae network to support TTC's communications infrastructure	N	Ongoing	Ongoing	
<b>Support City-Building</b>				
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	Future Planning Initiative	
Explore value creation opportunities with City and CreateTO on:	N/A	Proactive	Future Planning Initiative	
a. 7 Jackes Ave. and 16 Summerhill Ave.	N/A	Proactive	Future Planning Initiative	
b. 44 Jackes Ave. and 33 Rosehill Ave.	N/A	Proactive	Future Planning Initiative	
c. 15 Price St.	N/A	Proactive	Future Planning Initiative	

Implementation Action	Funded (Y/N)	Project Type	Property Timing
d. 15 Dundonald St.	N/A	Proactive	Future Planning Initiative
e. 21 Pleasant Blvd.	N/A	Proactive	Future Planning Initiative
f. 1155 Yonge St.	N/A	Proactive	Future Planning Initiative
g. 33 Bloor St. E	N/A	Proactive	Future Planning Initiative
h. 2 Bloor St. W	N/A	Proactive	Future Planning Initiative
i. Dundas St. W (Crossways)	N/A	Proactive	Future Planning Initiative
j. Existing open cut areas	N/A	Proactive	Future Planning Initiative

## Appendix C: 2023-2032 Capital Budget and Plan Summary

Programs (\$ millions)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023-2032
<b>Infrastructure Related Programs:</b>											
<b>Tracks:</b>											
1.1 Subway Track	34.088	33.089	34.064	34.624	34.112	33.346	33.481	34.719	33.000	33.549	338.072
1.2 Surface Track	51.795	57.101	61.671	61.999	67.355	42.778	23.238	45.000	45.000	44.999	500.937
<b>Signals, Electrical, Communications:</b>											
2.1 Traction Power	26.472	29.432	23.291	23.388	23.594	28.115	28.822	29.875	30.561	31.452	275.002
2.2 Power Distribution	8.007	11.516	11.309	19.071	23.517	23.402	22.274	17.354	7.821	8.050	152.320
2.3 Communications	13.825	17.341	18.278	16.835	12.556	14.310	13.066	13.072	12.569	11.580	143.432
2.4 Signal Systems	21.514	14.631	10.822	10.967	8.609	6.701	4.958	3.605	3.088	3.200	88.095
2.4 YUS/BD Resignalling	50.433	41.242	42.266	57.393	84.640	82.572	83.182	85.691	76.655	79.573	683.647
<b>Buildings and Structures:</b>											
3.1 Finishes	25.302	40.120	8.972	1.778	0.800	39.956	17.508	15.783	15.533	13.075	178.827
3.2 Equipment	72.194	64.276	46.789	48.742	27.566	19.857	18.853	18.346	48.017	44.729	409.369
3.3 Yards & Roads	12.670	16.207	18.240	9.804	5.983	26.009	12.693	12.705	0.718	15.430	130.461
3.4 Bridges & Tunnels	41.416	54.448	55.024	46.512	47.766	46.596	47.428	47.592	46.703	49.047	482.532
3.9 Fire Ventilation Upgrade	33.831	31.573	28.465	19.098	18.451	37.819	48.883	46.271	39.683	36.210	340.284
3.9 Easier Access Phase III	119.906	179.126	136.910	128.134	17.933						582.008
3.9 Sheppard Subway	0.500	3.205									3.705
3.9 Leslie Barns	0.650	4.571	2.896								8.117
3.9 Toronto Rocket (Subway Car) Yard & Storage Track Accommodation	30.251	47.475	17.067	12.928	2.792						110.513
3.9 McNicoll Bus Garage	0.550	2.016	1.762								4.327
3.9 Line 1 Capacity Enhancement	25.426	69.795	152.614	192.152	256.902	273.867	148.920	68.125	95.438	106.325	1,389.566
3.9 Line 2 Capacity Enhancement	14.794	13.730	48.416	69.990	56.220	131.850	133.572	151.139	148.587	80.714	849.011
3.9 Corporate Initiatives	8.000	7.250	8.250	8.250	9.000	10.000	10.250	10.250	10.500	11.000	92.750
3.9 Yonge-Bloor Capacity Improvement	20.655	33.928	97.905	125.353	151.596	213.893	262.916	185.094	152.165	137.832	1,381.337
3.9 Other Buildings & Structures	61.589	122.754	146.329	107.631	54.854	36.903	3.542	0.466	0.466	6.566	541.099
<b>Tooling, Machinery and Equipment</b>											
5.1 Shop Equipment	8.644	8.757	6.825	2.825	1.875	1.701	1.583	2.043	1.822	1.858	37.933
5.2 Revenue & Fare Handling Equipment	6.387	1.750	1.750	1.250	1.250	1.250	1.250	1.250	1.250	1.250	18.637
5.3 Other Maintenance Equipment	3.364	1.346	2.448	1.450	1.078	1.083	1.131	1.146	1.148	1.161	15.357
5.4 Fare System	6.508	3.830	0.914								11.252

Programs (\$ millions)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023-2032
<b>Environmental Issues</b>											
6.1 Environmental Program	13.778	19.032	11.617	14.192	12.842	10.626	8.583	9.307	7.900	6.200	114.077
6.1 Safety Program	1.479	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	10.479
<b>Computer Equipment &amp; Software</b>											
7.1 IT Systems/Infrastructure	67.360	87.656	64.254	39.979	72.147	10.305	15.937	15.219	13.206	16.429	402.491
<b>Other:</b>											
9.1 Furniture & Office Equipment	0.474	0.075	0.075	0.175	0.075	0.075	0.075	0.337	0.395	0.076	1.832
9.2 Service Planning	16.436	25.028	30.055	13.760	6.552	3.463	3.066	2.900	2.800	4.300	108.359
<b>Subtotal - Infrastructure Related Programs</b>	<b>798.297</b>	<b>1,043.300</b>	<b>1,090.279</b>	<b>1,069.281</b>	<b>1,001.066</b>	<b>1,097.478</b>	<b>946.210</b>	<b>818.288</b>	<b>796.023</b>	<b>745.606</b>	<b>9,405.828</b>
<b>Vehicle Related Programs:</b>											
4.11 Purchase of Buses	246.067	138.937	196.497	47.932	0.611	0.611	0.611	0.611	0.611	0.611	633.099
4.11 Purchase of Wheel Trans Buses	25.819	12.356	2.464	6.942							47.582
4.12 Purchase of Subway Cars	2.578	90.733	28.300	35.398	94.142	118.505	131.967	145.379	148.428	16.468	811.897
4.13 Bus Overhaul	59.670	38.634	28.845	3.441	1.182	44.904	90.982	96.675	72.769	76.910	514.012
4.15 Streetcar Overhaul	17.079	19.879	13.339	4.217		15.021	17.536				87.071
4.16 Subway Car Overhaul	32.552	40.023	41.024	19.445	7.287	22.983	53.223	41.642	36.437	34.185	328.802
4.18 Purchase of Streetcars	58.434	193.428	82.644	5.759							340.265
4.21 Purchase Non-Revenue Vehicles	9.482	16.803	17.967	18.128	2.680	2.678	2.701	2.705	2.706	1.940	77.791
4.22 Rail Non-Revenue Vehicle Overhauls	1.814	2.582	5.042	5.364	6.023	4.796	3.285	3.050	1.690	1.607	35.253
4.23 Purchase Rail Non-Revenue Vehicle	1.515	4.909	6.894	8.881	11.786	9.014	5.901	9.533	0.185		58.618
<b>Subtotal - Vehicle Related Programs</b>	<b>455.010</b>	<b>558.284</b>	<b>423.015</b>	<b>155.507</b>	<b>123.712</b>	<b>218.514</b>	<b>306.206</b>	<b>299.595</b>	<b>262.826</b>	<b>131.721</b>	<b>2,934.390</b>
<b>TOTAL - BASE PROGRAM</b>	<b>1,253.307</b>	<b>1,601.584</b>	<b>1,513.295</b>	<b>1,224.788</b>	<b>1,124.778</b>	<b>1,315.991</b>	<b>1,252.417</b>	<b>1,117.883</b>	<b>1,058.849</b>	<b>877.327</b>	<b>12,340.218</b>
<b>Transit Expansion Programs:</b>											
SRT Life Extension	27.355	18.150									45.505
Waterfront Transit	4.770	3.000		13.315	13.314						34.399
Toronto-York Spadina Subway Extension (TYSSE)	56.061	15.000									71.062
<b>TOTAL - TRANSIT EXPANSION PROGRAM</b>	<b>88.186</b>	<b>36.151</b>		<b>13.315</b>	<b>13.314</b>						<b>150.966</b>
<b>TOTAL - BASE &amp; EXPANSION</b>	<b>1,341.493</b>	<b>1,637.735</b>	<b>1,513.295</b>	<b>1,238.103</b>	<b>1,138.092</b>	<b>1,315.991</b>	<b>1,252.417</b>	<b>1,117.883</b>	<b>1,058.849</b>	<b>877.327</b>	<b>12,491.184</b>

## Appendix D: 2023 to 2032 Capital Funding Summary

FUNDING SOURCE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023-2032
<b>2023-2032 Budget Submission</b>	<b>1,341,493</b>	<b>1,637,735</b>	<b>1,513,295</b>	<b>1,238,103</b>	<b>1,138,092</b>	<b>1,315,991</b>	<b>1,252,417</b>	<b>1,117,883</b>	<b>1,058,849</b>	<b>877,327</b>	<b>12,491,184</b>
Provincial Gas Tax Subsidies	93,540	93,540	93,540	93,540	93,540	93,540	93,540	93,540	93,540	93,540	935,400
Provincial Subsidies - PTIF 2	6,816	8,880	29,992	41,366	50,775	70,585	81,678	59,379	51,736	46,063	447,270
Provincial Subsidies - Streetcar Program	19,564	80,871	33,482	-	-	-	-	-	-	-	133,917
204 LRV Funding	3,158	-	-	-	-	-	-	-	-	-	3,158
<b>Total Provincial Subsidies</b>	<b>123,078</b>	<b>183,291</b>	<b>157,014</b>	<b>134,906</b>	<b>144,315</b>	<b>164,125</b>	<b>175,218</b>	<b>152,919</b>	<b>145,276</b>	<b>139,603</b>	<b>1,519,745</b>
Canada Community-Building Fund	181,706	181,706	181,706	181,706	181,706	181,706	181,706	181,706	181,706	181,706	1,817,060
Federal Subsidy - Streetcar Program	7,789	69,592	45,364	10,481	10,440	7,140	-	-	-	-	150,805
Federal Subsidy - PTIF 2	6,816	8,880	29,992	45,127	58,125	81,279	91,287	66,365	57,823	52,376	498,070
<b>Total Federal Subsidies</b>	<b>196,311</b>	<b>260,178</b>	<b>257,062</b>	<b>237,314</b>	<b>250,270</b>	<b>270,125</b>	<b>272,993</b>	<b>248,071</b>	<b>239,529</b>	<b>234,082</b>	<b>2,465,935</b>
TTC Internal - Depreciation	33,461	35,310	30,879	23,222	15,022	10,491	13,472	13,772	12,558	13,260	201,447
Development Charges	182,131	303,770	261,776	266,338	265,952	19,447	22,048	24,745	25,023	6,262	1,377,491
MX Recovery	3,471	12,059	-	-	-	-	-	-	-	-	15,530
CFC	5,004	-	-	-	-	-	-	-	-	-	5,004
Other - IESO	570	380	200	-	-	-	-	-	-	-	1,150
NR Canada	883	203	-	-	-	-	-	-	-	-	1,086
<b>Total Other Funding</b>	<b>225,520</b>	<b>351,721</b>	<b>292,854</b>	<b>289,560</b>	<b>280,974</b>	<b>29,938</b>	<b>35,520</b>	<b>38,517</b>	<b>37,581</b>	<b>19,522</b>	<b>1,601,708</b>
City Building Fund	680,997	816,639	788,860	569,230	458,389	846,731	764,896	341,703	288,612	139,120	5,695,177
Debt	59,526	16,004	17,504	7,092	4,144	5,072	3,789	336,673	347,851	345,000	1,142,654
TYSSE Reserve	56,061	9,902	-	-	-	-	-	-	-	-	65,964
<b>Total City Funding</b>	<b>796,584</b>	<b>842,545</b>	<b>806,364</b>	<b>576,322</b>	<b>462,533</b>	<b>851,803</b>	<b>768,685</b>	<b>678,376</b>	<b>636,463</b>	<b>484,120</b>	<b>6,903,795</b>
<b>Total Projected Funding</b>	<b>1,341,493</b>	<b>1,637,735</b>	<b>1,513,295</b>	<b>1,238,103</b>	<b>1,138,092</b>	<b>1,315,991</b>	<b>1,252,417</b>	<b>1,117,883</b>	<b>1,058,849</b>	<b>877,327</b>	<b>12,491,184</b>

## Appendix E: Major Project Portfolio Summary

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023 - 2032 Total
<b>Streetcar, Bus and Wheel Trans Portfolio</b>											
<b>TTC Streetcar Program</b>											
Streetcar - Purchase (up to 60 cars)	51,137	193,428	82,644	5,759	-	-	-	-	-	-	332,969
Hillcrest Maintenance & Storage Facility	2,273	4,175	26,039	23,503	25,356	17,000	-	-	-	-	98,346
Russell Yard & Carhouse Modifications	14,463	24,151	36,474	32,915	19,246	10,546	-	-	-	-	137,795
<b>SRT Line 3</b>											
SRT Bus Replacement Infrastructure	14,700	18,150	-	-	-	-	-	-	-	-	32,850
SRT LE Overhaul	12,655	-	-	-	-	-	-	-	-	-	12,655
<b>Green Bus Program</b>											
Hybrid Bus - Purchase	192,341	63,790	10,086	-	-	-	-	-	-	-	266,217
eBus - Purchase	52,345	74,536	186,411	47,932	-	-	-	-	-	-	361,224
eBus Charging System - Purchase	43,773	21,291	8,222	13,696	-	-	-	-	-	-	86,982
<b>Wheel Trans</b>											
Gasoline Wheel-Trans Bus - Purchase	25,819	9,906	2,093	1,345	-	-	-	-	-	-	39,163
Wheel-Trans 10 Yr Transformation Prgm	750	3,500	6,132	6,132	744	-	-	-	-	-	17,258
<b>Subtotal: Streetcar, Bus and Wheel Trans Portfolio</b>	<b>410,256</b>	<b>412,927</b>	<b>358,101</b>	<b>131,282</b>	<b>45,346</b>	<b>27,546</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,385,458</b>
<b>Subway Portfolio</b>											
<b>Bloor Yonge Capacity Improvements</b>											
Yonge-Bloor Capacity Improvements	20,655	33,928	97,905	125,353	151,596	213,893	262,916	185,094	152,165	137,832	1,381,337
<b>Line 1</b>											
Subway Cars Addtns - Purch (Growth)	799	28,127	8,773	10,973	29,184	36,736	40,756	44,914	45,859	4,952	251,074
Line 1 Capacity Enhancement	11,344	15,077	27,160	78,277	139,004	172,152	148,920	68,125	95,438	106,325	861,824
Line 1 Maintenance & Storage Facility	14,082	54,718	125,454	113,875	117,898	101,715	-	-	-	-	527,742
YUS ATC Resignalling	35,598	13,300	7,711	3,300	3,800	-	-	-	-	-	63,709
<b>Line 2</b>											
Subway Cars Repl - Purchase (T1 Repl)	1,779	62,606	19,527	24,425	64,958	81,768	91,211	100,465	102,569	11,516	560,823
Line 2 Capacity Enhancement	11,008	24,113	11,189	16,766	17,224	12,153	19,303	25,485	22,205	22,297	181,742
Greenwood Yard Modifications & Signalling	6,452	9,361	39,880	53,224	38,996	119,697	114,269	125,654	126,382	58,417	692,332
Line 2 ATC Resignalling	14,835	27,942	34,555	54,093	80,840	82,572	83,182	85,691	76,655	79,573	619,938
<b>Subway: Buildings &amp; Structures</b>											
Easier Access Phase III	95,022	112,631	50,135	17,149	4,264	-	-	-	-	-	279,201
Warden Station Redevelopment	12,699	34,745	41,486	59,676	5,059	-	-	-	-	-	153,665
Islington Station Redevelopment	12,185	31,749	45,289	51,308	8,610	-	-	-	-	-	149,141
Fire Ventilation Upg & 2nd Exits Program	13,105	5,055	9,082	8,200	14,251	34,320	42,238	34,866	18,332	15,951	195,400
Subway Station Second Exits	20,725	26,518	19,383	10,897	4,200	3,500	6,645	11,406	21,351	20,259	144,883
Stations Transformations	5,479	11,033	-	-	-	-	-	-	-	-	16,512
<b>Subtotal: Subway Portfolio</b>	<b>275,767</b>	<b>490,903</b>	<b>537,529</b>	<b>627,518</b>	<b>679,885</b>	<b>858,506</b>	<b>809,440</b>	<b>681,700</b>	<b>660,956</b>	<b>457,122</b>	<b>6,079,325</b>

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023 - 2032 Total
<b>Network Wide Portfolio</b>											
TTC Presto Project	6,508	3,830	914	-	-	-	-	-	-	-	11,252
VISION - CAD/AVL System	7,641	11,075	-	-	-	-	-	-	-	-	18,716
SAP - ERP Implementation	18,646	41,457	37,619	19,749	53,850	-	-	-	-	-	171,320
<b>Subtotal: Network Wide Portfolio</b>	<b>32,795</b>	<b>56,362</b>	<b>38,533</b>	<b>19,749</b>	<b>53,850</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>201,289</b>
<b>Major SOGR Projects</b>											
Subway/SRT Track Rehabilitation Prgm	27,422	27,220	27,653	28,624	28,112	27,346	27,481	28,719	27,000	27,000	276,577
Tangent Surf Track Replacement Program	37,414	36,188	31,644	36,996	41,999	25,779	23,238	45,000	45,000	44,999	368,256
Station Finish Renewal	12,568	29,774	7,010	-	-	-	-	-	-	-	49,352
Roofing Rehabilitation Program	7,582	4,620	-	-	-	37,020	14,524	12,750	12,500	9,800	98,796
Elevator Overhaul Program	640	2,675	1,840	-	-	-	-	-	22,880	24,000	52,035
Escalator Replacement Program	3,497	4,844	2,874	2,403	-	-	600	1,830	12,620	8,070	36,739
On-Grade Paving Rehabilitation Program	11,837	14,913	15,955	9,233	5,400	25,328	12,000	12,000	-	14,700	121,366
Structure Rehabilitation Program	18,480	18,657	19,554	19,995	20,755	20,974	21,551	21,493	21,000	20,000	202,459
Toronto Rocket/T1 Rail Yd Accommodation	30,251	47,475	17,067	12,928	2,792	-	-	-	-	-	110,513
Bus Rebuild	58,963	36,264	26,469	1,059	934	44,651	90,982	96,675	72,769	76,910	505,676
Bus - Midlife Overhaul	707	2,370	2,376	2,382	248	253	-	-	-	-	8,336
New LRVs Overhaul	11,104	12,217	7,373	-	-	15,021	17,536	-	-	-	63,252
Streetcar - Midlife Overhaul	250	500	-	-	-	-	-	-	-	-	750
TR Subway SOGR Program	12,919	21,514	24,422	4,256	-	7,983	38,223	38,593	36,437	34,185	218,531
TR Subway - Midlife Overhaul	-	-	-	-	-	-	-	-	-	-	-
T1 Vehicle SOGR Program	14,402	13,849	14,821	15,189	7,287	15,000	15,000	3,050	-	-	98,598
<b>Subtotal: Major SOGR Projects</b>	<b>248,036</b>	<b>273,080</b>	<b>199,058</b>	<b>133,065</b>	<b>107,527</b>	<b>219,355</b>	<b>261,136</b>	<b>260,109</b>	<b>250,206</b>	<b>259,664</b>	<b>2,211,237</b>
<b>Total Major Projects</b>	<b>966,854</b>	<b>1,233,273</b>	<b>1,133,220</b>	<b>911,614</b>	<b>886,608</b>	<b>1,105,407</b>	<b>1,070,576</b>	<b>941,809</b>	<b>911,162</b>	<b>716,787</b>	<b>9,877,310</b>
<b>% of Total Budget</b>	<b>72%</b>	<b>75%</b>	<b>75%</b>	<b>74%</b>	<b>78%</b>	<b>84%</b>	<b>85%</b>	<b>84%</b>	<b>86%</b>	<b>82%</b>	<b>79%</b>
<b>Total 10 Year Budget</b>	<b>1,341,493</b>	<b>1,637,735</b>	<b>1,513,295</b>	<b>1,238,103</b>	<b>1,138,092</b>	<b>1,315,991</b>	<b>1,252,417</b>	<b>1,117,883</b>	<b>1,058,849</b>	<b>877,327</b>	<b>12,491,184</b>

## Appendix F: Capital Complement

In order to ensure TTC has the capacity to successfully deliver its capital program, a total of 240 capital positions, to be funded from the 2023 Capital Budget and third party recoveries, will be added to TTC's capital complement in 2023. These capital delivery positions are required, particularly as the Bloor-Yonge, Line 1 and Line 2 Capacity Improvement projects ramp up their respective project delivery activities; the TTC continues its technology modernization with its SAP program; vehicle overhaul requirements evolve with the age of the fleet; and service is adjusted to address the significant construction activity planned throughout the city.

<b>2022 TTC Capital Complement</b>	<b>2,670</b>
<b>Bus Shuttle Requirements to facilitate closures to complete capital work</b>	
Operators	117
Supervisors	12
<b>Direct Project Work</b>	
Line 1 & 2 Capacity Enhancements	30
Streetcar Overhaul Program	25
Engineering and Construction	22
Trackwork	14
New Technology & Innovation (SAP-ERP)	7
Workcar Overhaul Program	6
Bloor Yonge Capacity Improvements	4
Purchase of Streetcars	3
<b>2023 Total Capital Complement Change</b>	<b>240</b>
<b>2023 TTC Capital Complement</b>	<b>2,910</b>

## Appendix G: 2022 Capital Budget Variance for the Period Ended Sept. 30, 2022

2022 Capital Budget Variance For the Period Ended September 30, 2022							
EXPENDITURES BY PROGRAM	2022 Budget	Year-to-Date			Year End		
		Actuals	Variance	%	Projection	Variance	%
1.1 Subway Track	35.172	29.241	5.931	83%	35.172	0.000	100%
1.2 Surface Track	52.860	21.535	31.325	41%	49.512	3.348	94%
<b>TRACK</b>	<b>88.031</b>	<b>50.776</b>	<b>37.255</b>	<b>58%</b>	<b>84.684</b>	<b>3.348</b>	<b>96%</b>
2.1 Traction Power	27.379	14.640	12.739	53%	27.369	0.010	100%
2.2 Power Distribution/Electric Systems	11.272	4.291	6.981	38%	10.706	0.567	95%
2.3 Communications	15.718	10.149	5.569	65%	12.882	2.836	82%
2.4 Signal Systems	16.193	9.325	6.868	58%	16.193	0.000	100%
ATC Resignalling	41.760	26.975	14.785	65%	39.343	2.417	94%
<b>ELECTRICAL SYSTEMS</b>	<b>112.323</b>	<b>65.381</b>	<b>46.942</b>	<b>58%</b>	<b>106.492</b>	<b>5.830</b>	<b>95%</b>
3.1 Finishes	29.949	11.870	18.079	40%	20.322	9.627	68%
3.2 Equipment	76.310	22.449	53.861	29%	64.689	11.621	85%
3.3 Yards & Roads							
Streetcar Network Upgrades	0.616	(0.265)	0.881	-43%	0.326	0.290	53%
On-Grade Paving Rehabilitation Program	10.431	5.020	5.412	48%	10.431	0.000	100%
Bicycle Parking at Stations	0.100	0.066	0.034	66%	0.100	0.000	100%
Transit Shelters & Loops	0.500	0.000	0.500	0%	0.000	0.500	0%
3.4 Bridges & Tunnels	38.345	23.181	15.164	60%	34.993	3.352	91%
3.9 Buildings and Structures Projects							
Fire Ventilation Upgrades & Second Exits	48.236	22.702	25.534	47%	48.236	0.000	100%
Easier Access Phase III	82.652	44.548	38.104	54%	81.188	1.464	98%
Leslie Barrs	2.916	0.264	2.653	9%	2.916	0.000	100%
Toronto Rocket/T1 Rail Yard Accommodation	31.032	15.936	15.095	51%	31.032	0.000	100%
McNicol New Bus Garage	1.676	0.613	1.063	37%	1.676	0.000	100%
Warehouse Consolidation	0.587	0.076	0.511	13%	0.458	0.129	78%
Bloor-Yonge Capacity Enhancement	32.023	5.668	26.355	18%	32.023	0.000	100%
Line 1 Capacity Enhancement	18.319	9.680	8.639	53%	18.319	0.000	100%
Line 2 Capacity Enhancement	10.191	7.056	3.135	69%	10.191	0.000	100%
Other Buildings and Structures	301.353	45.678	255.675	15%	283.567	17.786	94%
<b>BUILDINGS &amp; STRUCTURES</b>	<b>685.237</b>	<b>214.542</b>	<b>470.694</b>	<b>31%</b>	<b>640.467</b>	<b>44.770</b>	<b>93%</b>
REVENUE VEHICLES							
4.11 Purchase of Buses	180.639	77.824	102.815	43%	126.741	53.898	70%
4.11 Purchase Wheel-Trans Buses	22.184	10.237	11.947	46%	17.070	5.114	77%
4.12 Purchase of Subway Cars	2.780	1.741	1.039	63%	2.780	0.000	100%
4.13 Bus Overhaul	56.998	39.017	17.981	68%	56.998	0.000	100%
4.15 Streetcar Overhaul	6.331	4.270	2.060	67%	5.819	0.512	92%
4.16 Subway Car Overhaul	32.207	22.422	9.785	70%	28.632	3.575	89%
4.18 Purchase of Streetcars	36.552	20.193	16.359	55%	36.552	0.000	100%
NON-REVENUE VEHICLES							
4.21 Purchase Automotive Non-Revenue Vehicles	9.671	2.182	7.489	23%	7.737	1.934	80%
4.22 Rail Non-Revenue Vehicle Overhaul	3.471	1.144	2.328	33%	1.738	1.733	50%
4.23 Purchase Rail Non-Revenue Vehicles	2.117	0.429	1.687	20%	0.755	1.361	36%
<b>VEHICLES</b>	<b>352.950</b>	<b>179.459</b>	<b>173.491</b>	<b>51%</b>	<b>284.821</b>	<b>68.128</b>	<b>81%</b>
TOOLING, MACHINERY & EQUIPMENT							
5.1 Shop Equipment	9.325	3.471	5.854	37%	7.878	1.447	84%
5.2 Revenue & Fare Handling Equipment	5.984	0.328	5.656	5%	5.619	0.364	94%
5.3 Other Maintenance Equipment	3.426	0.656	2.769	19%	1.087	2.339	32%
5.4 Fare System	6.420	0.584	5.836	9%	5.925	0.495	92%
ENVIRONMENTAL PROGRAMS							
6.1 Environmental Programs	9.338	5.460	3.878	58%	8.772	0.566	94%
6.1 Safety and Reliability	1.477	0.585	0.892	40%	1.477	0.000	100%
COMPUTER EQUIPMENT & SOFTWARE							
7.1 Computer Equipment & Software	75.365	28.289	47.076	38%	60.340	15.025	80%
OTHER							
9.1 Furniture & Office Equipment	0.366	0.000	0.366	0%	0.157	0.209	43%
9.2 Service Planning	25.324	4.429	20.895	17%	11.996	13.328	47%
<b>TOTAL OTHER</b>	<b>137.024</b>	<b>43.802</b>	<b>93.222</b>	<b>32%</b>	<b>103.251</b>	<b>33.773</b>	<b>75%</b>
<b>Total Base Programs</b>	<b>1,375.565</b>	<b>553.960</b>	<b>821.604</b>	<b>40%</b>	<b>1,219.716</b>	<b>155.849</b>	<b>89%</b>
Toronto York Spadina Subway Extension	38.001	11.050	26.951	29%	38.001	0.000	100%
SRT Life Extension / Transition	16.358	4.076	12.283	25%	13.995	2.363	86%
Waterfront Transit - Design	4.066	2.273	1.793	56%	4.066	0.000	100%
<b>Total Transit Expansion Projects</b>	<b>58.425</b>	<b>17.399</b>	<b>41.026</b>	<b>30%</b>	<b>56.061</b>	<b>2.363</b>	<b>96%</b>
<b>Total Base &amp; Transit Expansion Projects</b>	<b>1,433.990</b>	<b>571.359</b>	<b>862.631</b>	<b>40%</b>	<b>1,275.777</b>	<b>158.213</b>	<b>89%</b>