



# Major Projects Update (MPU) Report:

## Spotlight on New Subway Train Procurement

June 20, 2024

# Current Status: New Subway Train Procurement

2

**55 Replacement Trains for Line 2:**

Current Project Status: **RED**

**Current Estimated Cost: \$2.274 Billion**



**Funding Available: \$1.52 Billion**

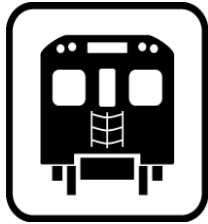
- \$758 million – City of Toronto;
- \$758 million - Provincial funding conditional on federal matching still to be confirmed (New Deal)

**Funding Required: \$758 million**

RFP for New Train Procurement and Automatic Train Control for Line 2 will launch with signal of full funding available for trains. Note – Line 2 ATC funded in plan.

RFP base order will include 55 replacement trains for Line 2, 15 Metrolinx Expansion Trains, and options for future growth trains on Line 1 and Line 2.

# Context: Line 2 Subway Capital Needs



**Existing T1 Trains:**  
30 Years (At Design Life) starting in 2026



**Fix Block Signal System:** approx. 60 years old in most sections (commissioned between 1966 and 1980).

Current challenges:  
Component obsolescence, deterioration of cabling, discontinuation of parts.

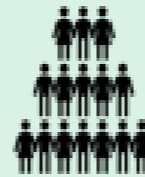
## Line 2 by the numbers:



TTC would need  
~600 bus trips  
per hour to  
replace capacity.



Approximately 130  
connections to  
TTC routes and 19  
regional routes.



559,000  
2019 daily  
boardings

419,000  
March 2024  
daily boardings

661,000  
2041 projected  
daily boardings



18% increase  
(2019 to 2041)

# Line 2 Modernization vs. Extend Asset Life

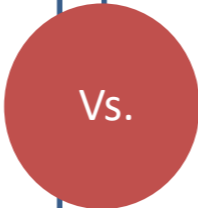
Recap of Line 2 Investment Options: [November 2023 Board Report](#)

### Recommended Option: Line 2 Modernization

Replace assets at end of design life and modernize for long term:

- 55 New Trains
- 30 Year T1 Train SOGR (existing trains)
- Automatic Train Control
- Greenwood Maintenance and Storage Facility

RFP for new trains to be issued in 2024 once full funding is available.



### Contingency Plan: Extend Asset Life

Fleet:

- 10 Year Life Extension Overhaul
- 30 Year T1 Train SOGR
- 35 Year Train SOGR

Signal Infrastructure:

- Extended SOGR Program for Fix Block System (under assessment)

*Note a new train procurement will need to launch by 2030 to replace trains that are 40 years old*

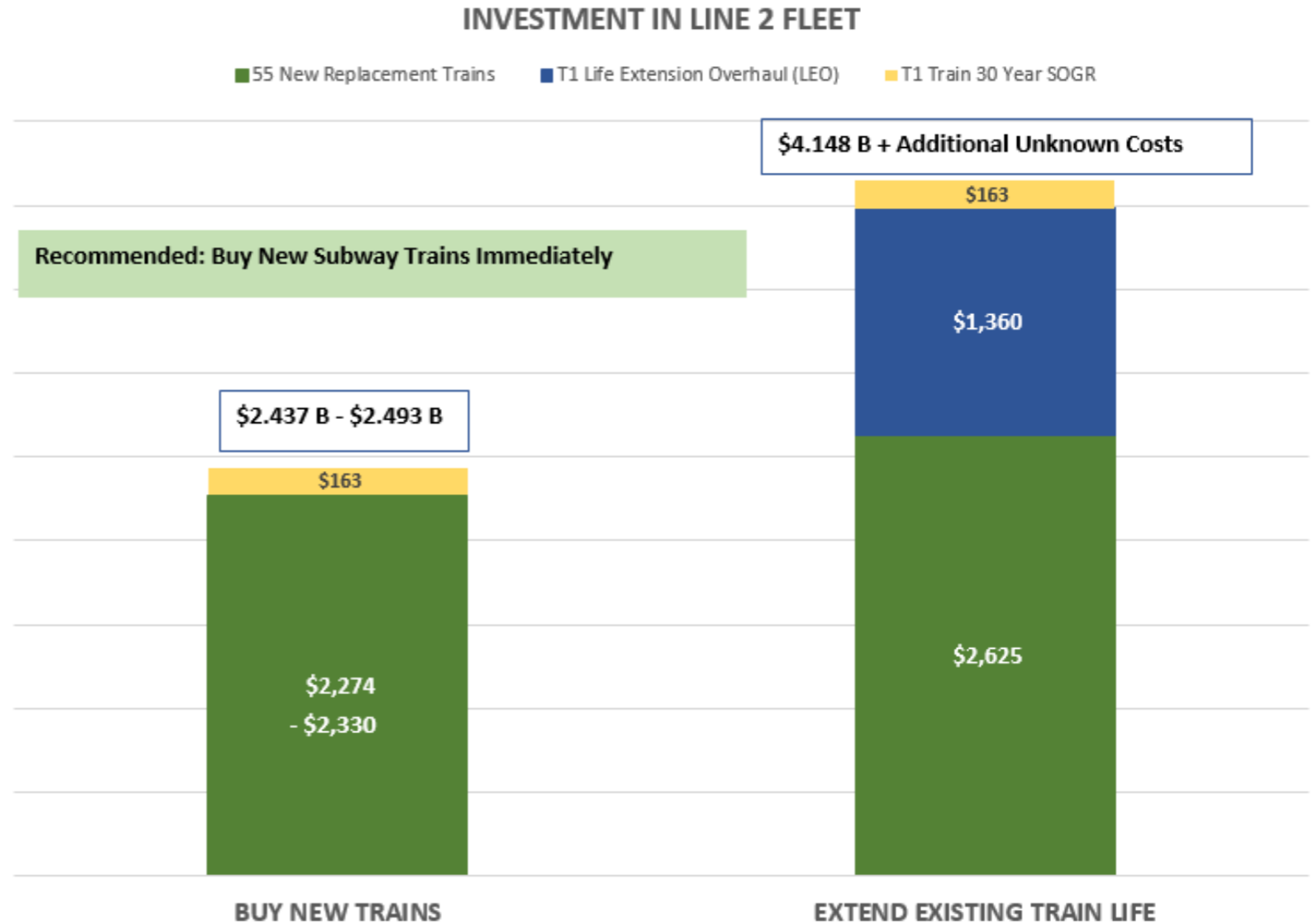
**Final Decision:** Q1 2025 will need to execute contingency plan if unable to restart train procurement due to insufficient funding. Available city funding for trains and ATC to be redirected to contingency plan.



# Cost Comparison of Options for Line 2 Fleet Investment

**Recommended Option:**  
\$2.4 - \$2.5 B  
Estimated Cost

**Contingency Plan:**  
\$4.15 B + additional costs to be identified



\*Note chart shows fleet costs only. See November 2023 Board report for further details.



# | Impact to Interdependent Capital Projects

The following projects will be impacted if a train procurement does not proceed by Q1 2025:



**Automatic Train Control (ATC):** ATC cannot be implemented without new trains on Line 2

**Scarborough Subway Extension (SSE):** Metrolinx reliant on TTC procurement for 7 trains for SSE.

**Line 2 Capacity Enhancement Program (L2CEP):** Long term growth cannot be accommodated without active train procurement to purchase future growth trains . Insufficient capacity to meet demand.

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**Growth Trains:** No option to procure 25 growth trains needed for Line 1

**Yonge North Subway Extension (YNSE):** Metrolinx reliant on TTC procurement for 8 trains for YNSE.

**Line 1 Capacity Enhancements (L1CEP):** Long term growth cannot be accommodated without active train procurement to purchase future growth trains . Insufficient capacity to meet demand.

# | Key Risks

**Key risks and impacts of not proceeding with an NST procurement are:**



- Crowding and Degraded Customer Experience
- Service reliability impacts

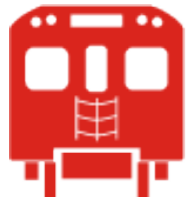


- Insufficient Trains - capacity does not meet future demand
- Impacts to interdependent capital projects in flight (SSE, YNSE, etc.)
- Social and economic costs due to foregone ridership



- Increasing sunk costs due to delay in procurement; opportunity cost for other unfunded capital priorities

# | Next Steps



1. Report to the Board in September with update on Line 2 Modernization Plan and recommended next steps. (Note - Ideally RFP launch in Fall 2024)
2. Continue discussions with federal government for funding opportunities through the Permanent Transit Fund
3. Final decision required no later than Q1 2025 to procure new subway trains or proceed to a Life Extension Overhaul (LEO).





