



***Going Electric:  
Transforming Ottawa's  
Transit***

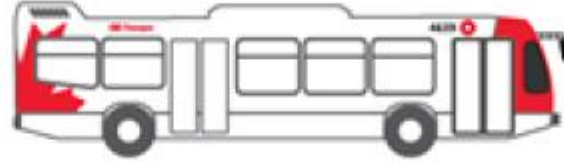
MEA Conference

Nov. 21, 2024



# OC Transpo at a glance

**From 855 to 738**  
fully accessible  
conventional buses



**80** *Para Transpo*  
minibuses providing  
door-to-door service (+taxis)



**4 battery-electric buses in 2022 with goal  
of 100% zero-emission bus fleet by 2036**

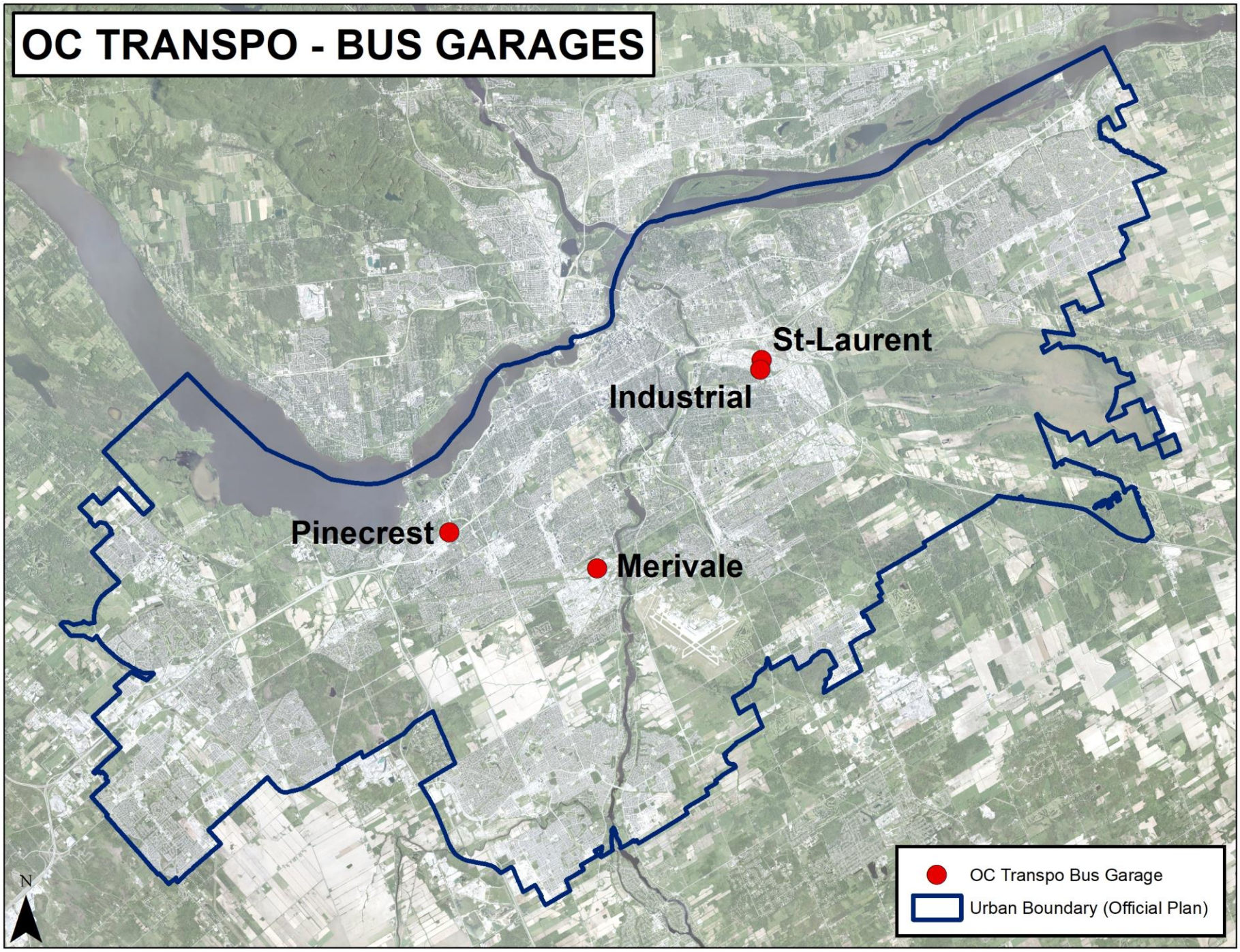
**From 12.5 to 28.5 KM**

**of new high-frequency  
O-Train service with fully  
accessible trains and stations**



Line 2/4 in 2024

# OC TRANSPO - BUS GARAGES



● OC Transpo Bus Garage  
□ Urban Boundary (Official Plan)

# ZEB Pilot and Program Background | Journey to Date



**June 2019**

Pilot Bus Project Approved

**June 2021**

City Council approval converting bus fleet to zero-emission buses subsidiaries for supply of charging infrastructure



**September 2021**

Pilot buses Arrive in Ottawa

**February 2022**

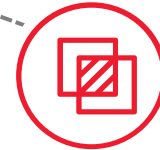
Pilot buses enter service



**Q1 2023**

Council approved budget authority for the ZEB program

- \$380M CIB low-interest financing
- \$350M Infrastructure Canada grant funding for ZEB Program



**June 2023**

Design-Build Contract established with Envari Holding Inc for coordination of ZEB Program Charging and Electrical Infrastructure



**Implementation Period**

350 E-Buses

Construction and implementation works including bus procurement and structural, charging and electrical infrastructure commissioning



# Electric Bus Specifications 4 Pilot Buses

## New Flyer XE40

- 40' buses
- Long Range - 525kWh
- In-depot charging
- 36 seats
- Diesel auxiliary heater for winter weather
- White noise generating system for AODA requirements

# Pilot Charger

## Plug-in

- 3 ABB plug-in charger
- 1 Siemens Plug-in charger
- 2 ABB pantograph in-depot chargers



# Zero-Emission Bus Program

## Key Items

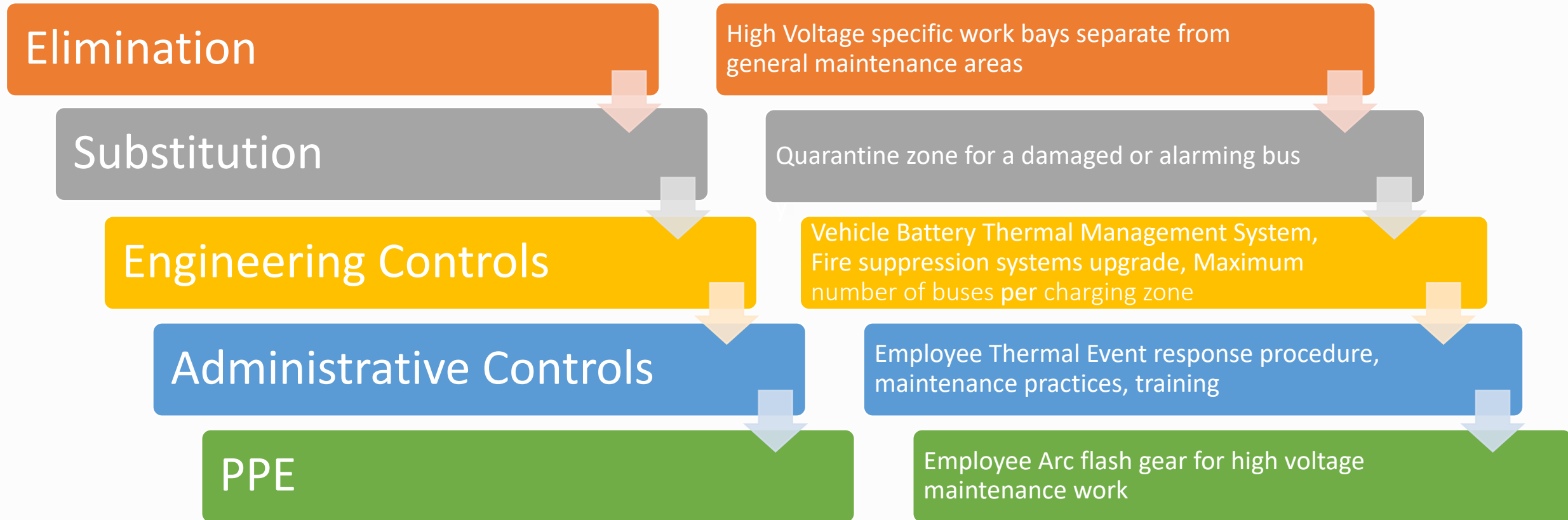
- 350 bus
- Facilities Infrastructure (new build / Structural Upgrades/ fit up/)
- Electrical Infrastructure (charging equipment work expected at all sites within the Depot)

	<b>Bus Acquisition (ZEBs)</b> [OC <a href="#">Transo</a> ]
	<b>New Build</b> [City Infrastructure Services]
	<b>Structural Upgrades</b> [City Infrastructure Services]
	<b>Building Fit-up</b> [City Infrastructure Services]
	<b>Electrical Infrastructure, Charging Equipment and related Civil Works</b> [Envari coordinated]
	<b>Hydro Ottawa On-site Substation</b> (transformer, generators, switchgears, etc.) [Envari coordinated]



# Fire and safety control

## Hierarchy of Controls



\* Working in collaboration with the Industry, Transit Agencies, Professional Organizations, OFS, Ottawa Building Code, Infrastructure Services

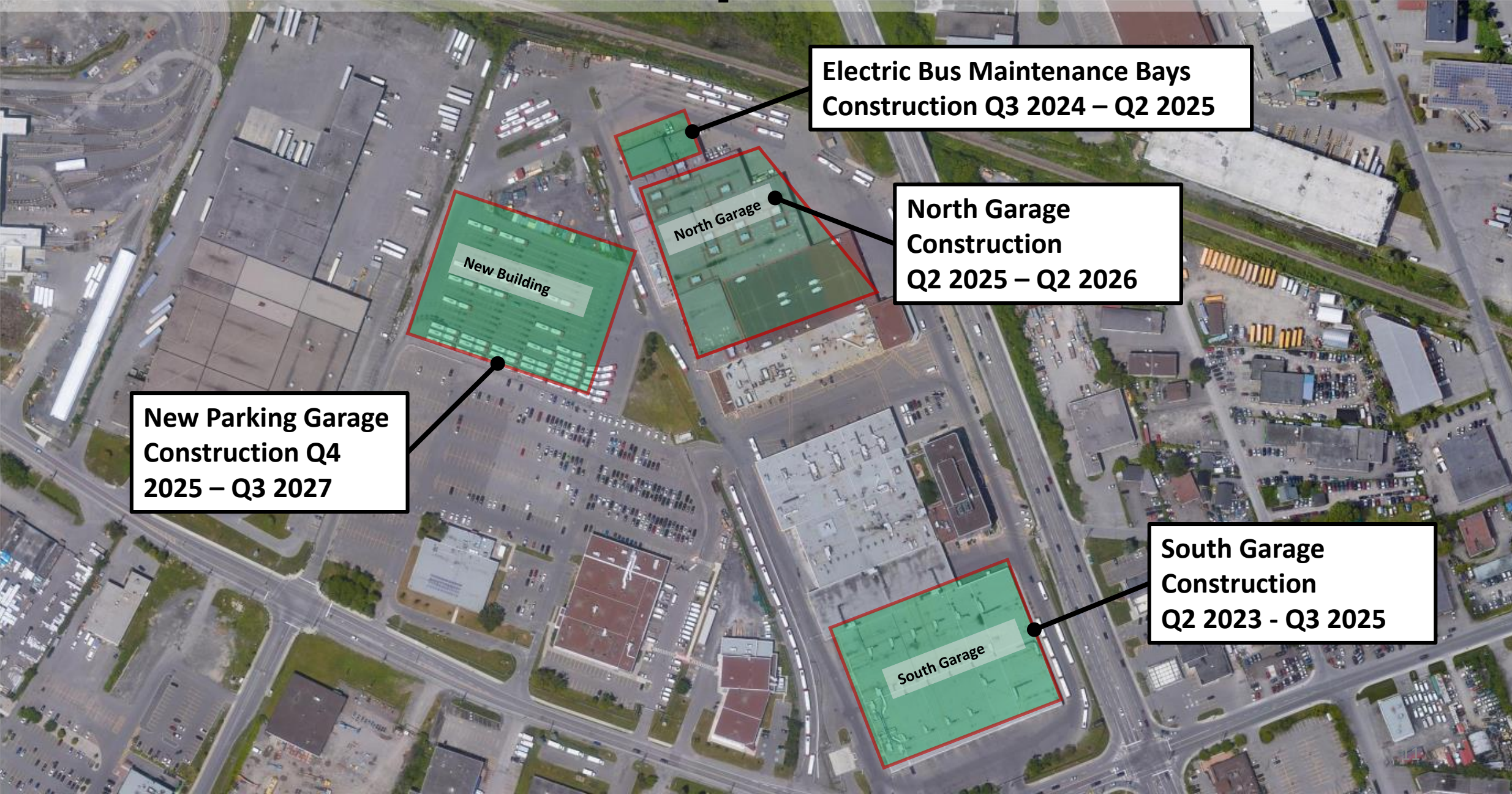




# E-Bus Procurement Update



# Civil infrastructure update



**Electric Bus Maintenance Bays**  
Construction Q3 2024 – Q2 2025

**North Garage**  
Construction  
Q2 2025 – Q2 2026

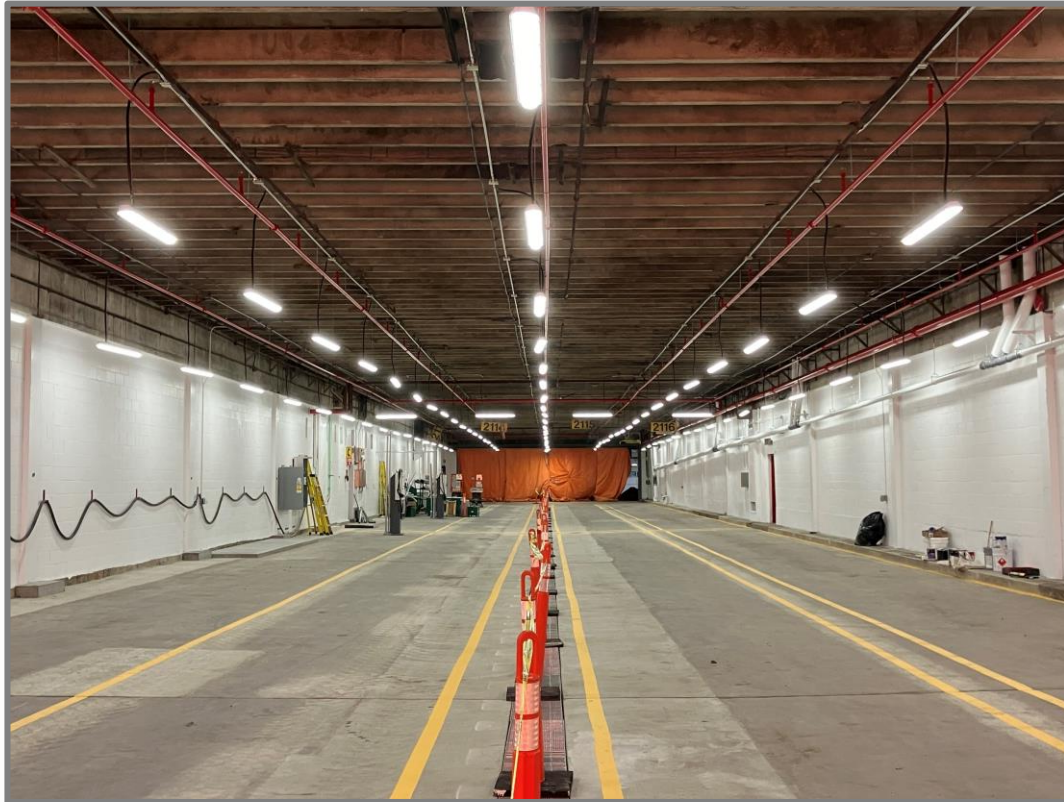
**New Building**

**New Parking Garage**  
Construction Q4  
2025 – Q3 2027

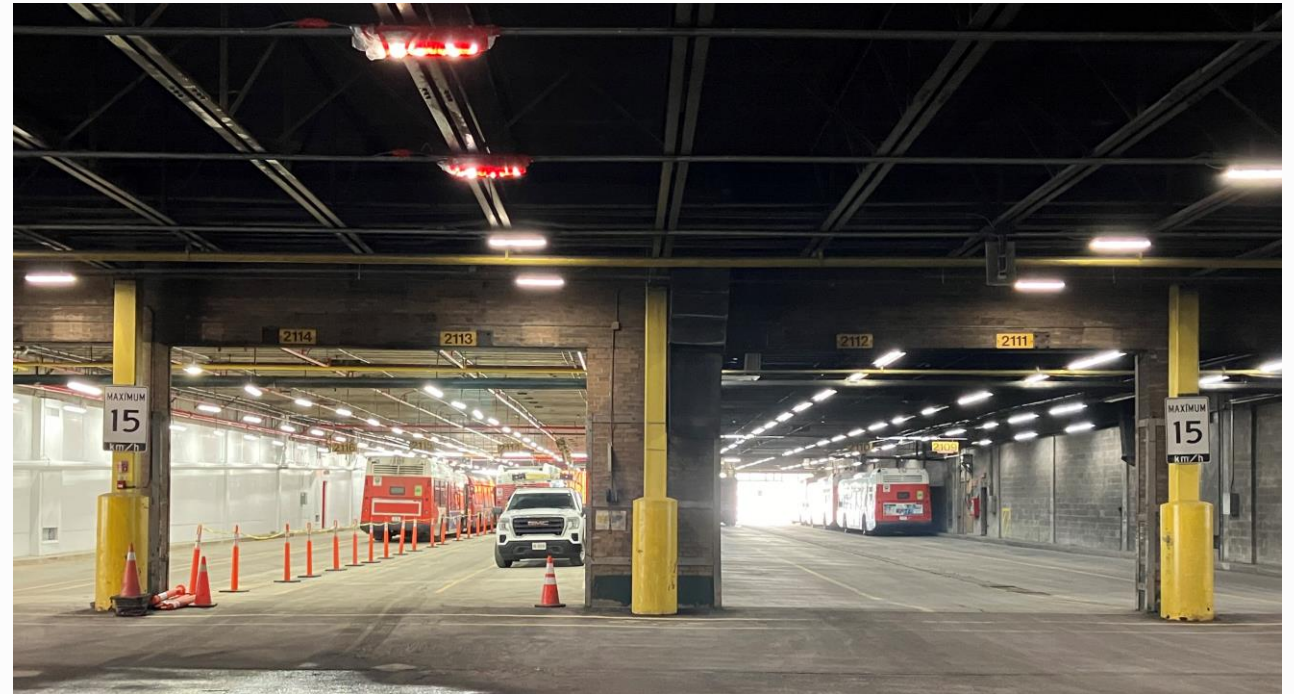
**South Garage**  
Construction  
Q2 2023 - Q3 2025

**South Garage**

# Infrastructure update: South Garage



Ceiling beam reinforcement, concrete repairs, new lines, cleaned ceiling, new trench, repaired rainfall drains , fresh paint



South Garage – currently under construction





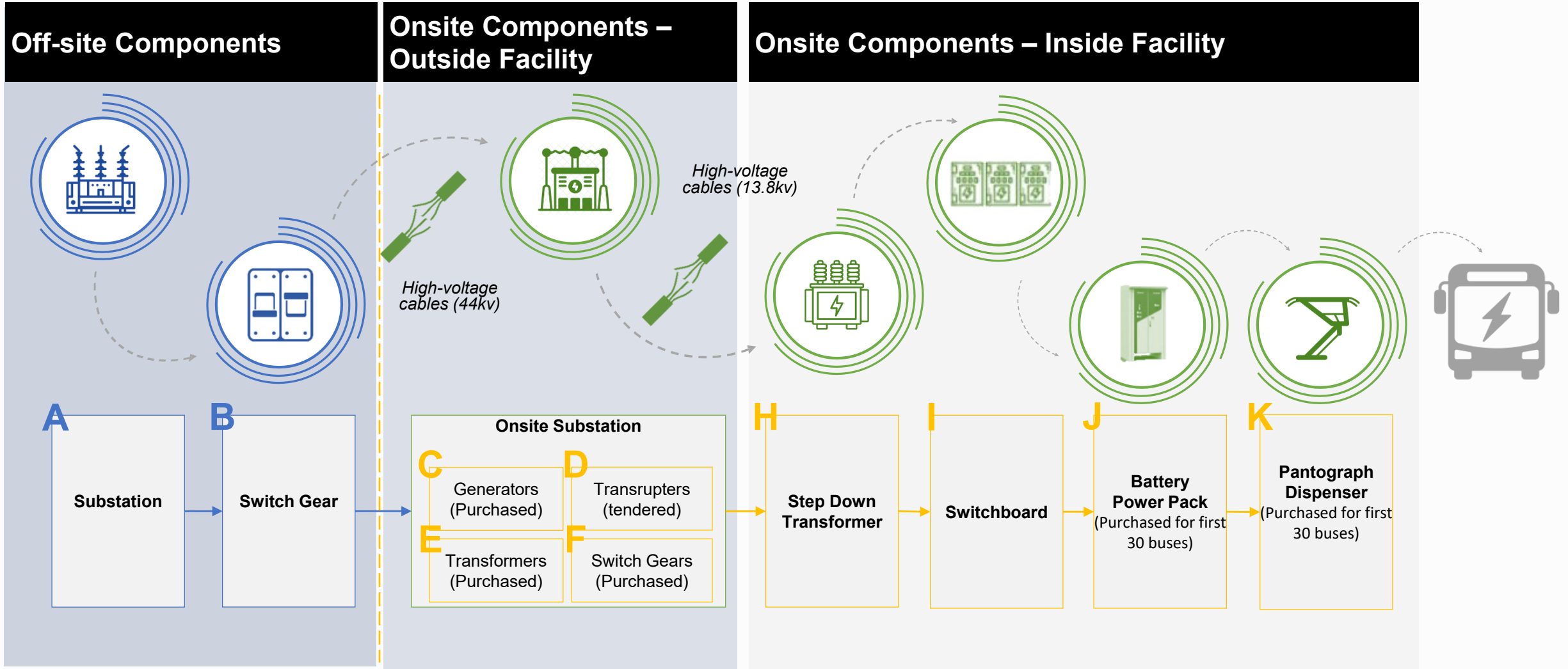
OC Transpo ZEB Garage  
Ottawa, ON

3D View of South-East Corner - Option 4

**AECOM**  
in association with  
**grc architects**



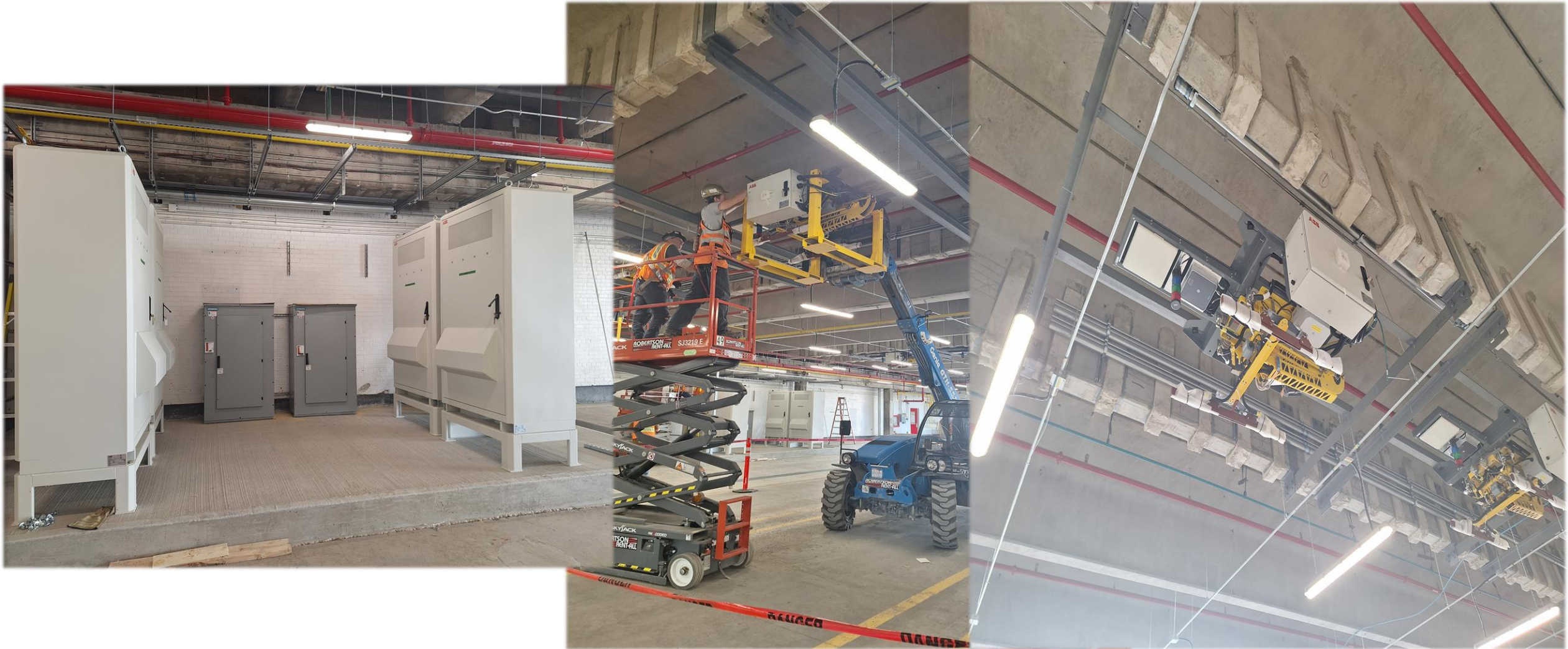
# Charging and electrical infrastructure update

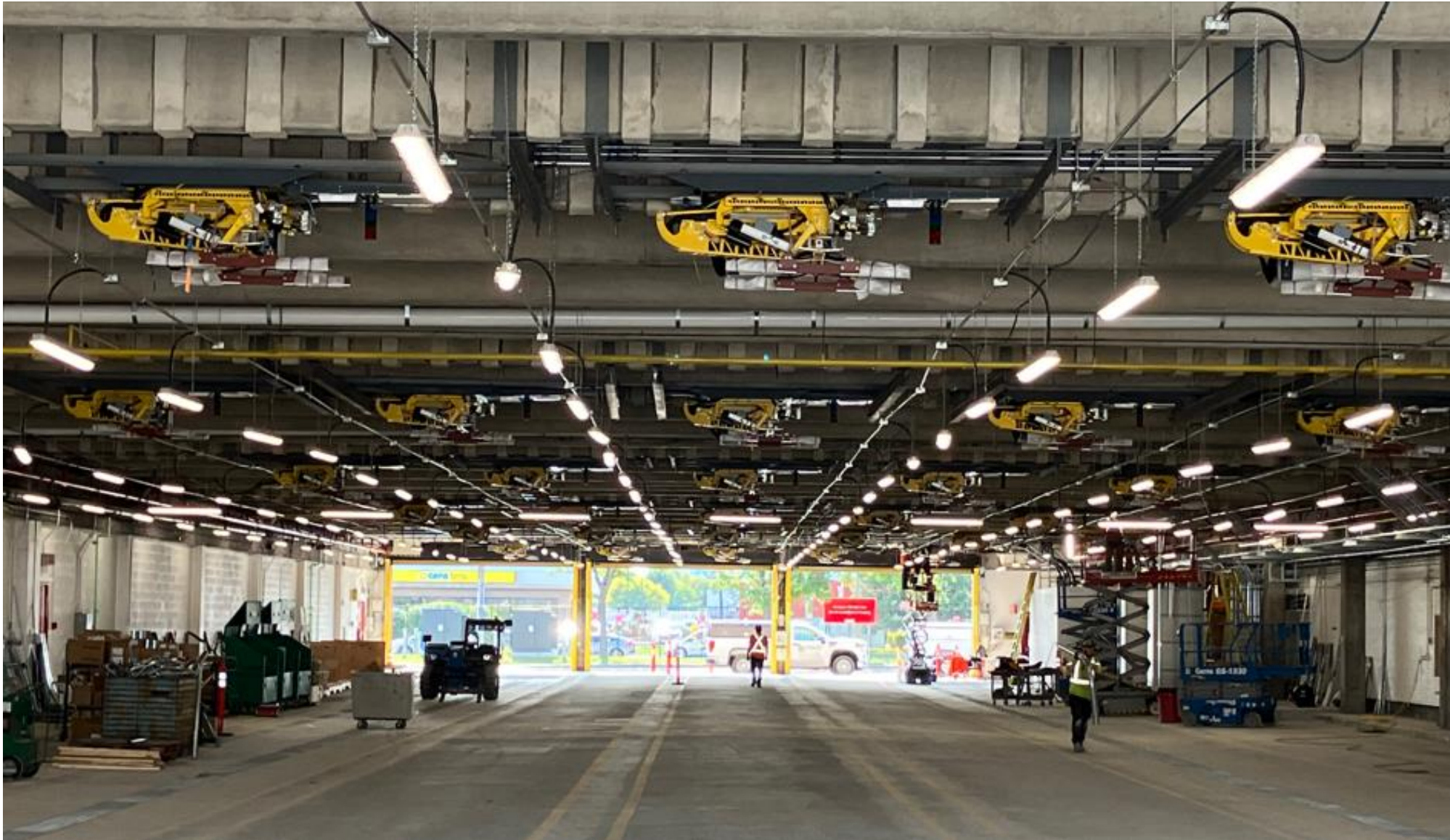


Hydro Ottawa Asset City Asset











Questions?

