

# Stage 2

# Belfast Yard Expansion

May 17, 2017



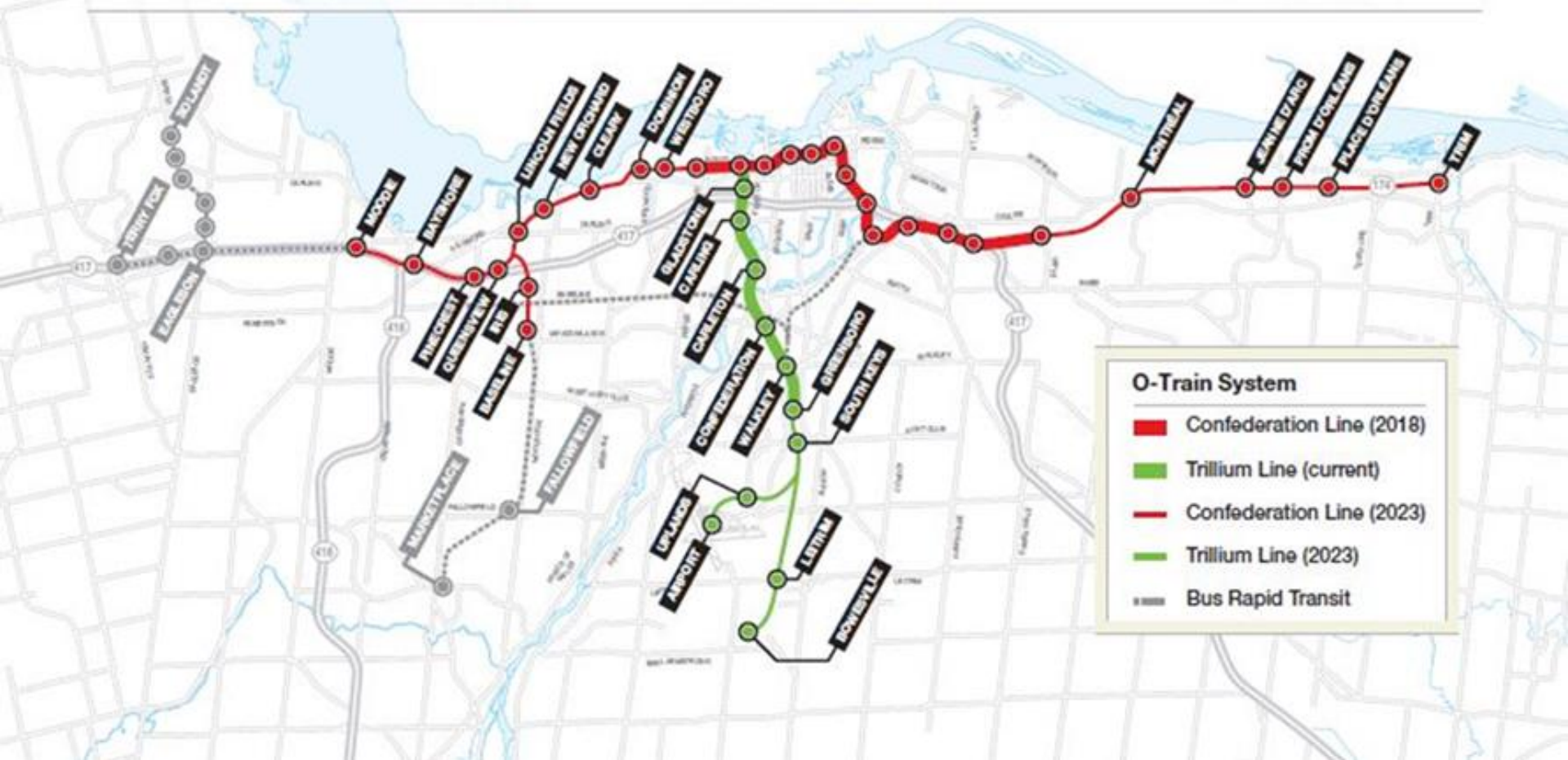
- Overview of Stage 2 Rail Project
- Stage 2 & The Rideau Transit Group
- Belfast Yard Expansion
- Mitigation Measures
- Construction Timelines
- Questions



Confederation Line **WEST**

Trillium Line **SOUTH**

Confederation Line **EAST**



## Stage 2 & RTG

# Memorandum of Understanding (MOU)

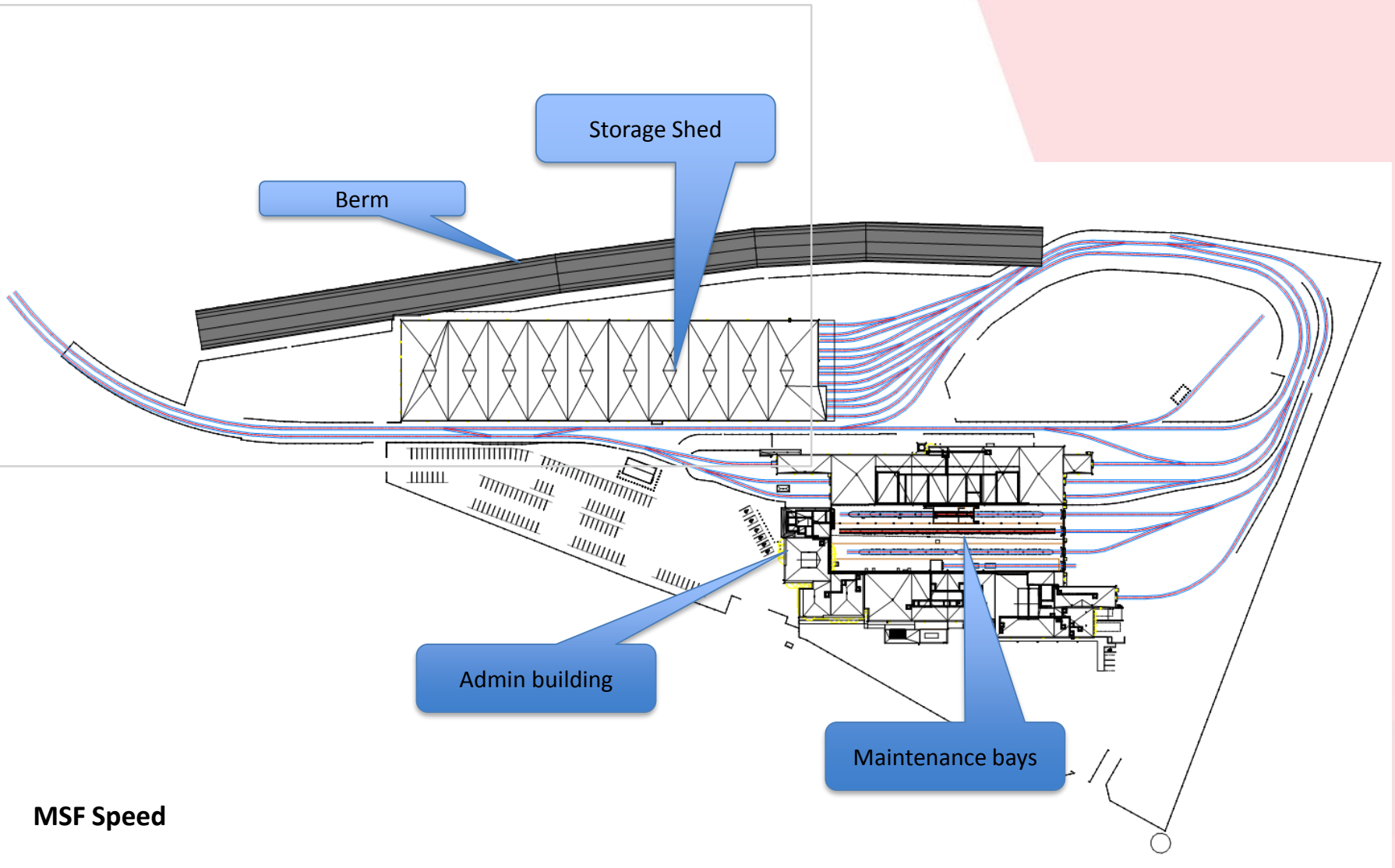
- MOU with the Rideau Transit Group includes:
  - Procurement support
  - Stage 2 LRV fleet of 38 new vehicles
  - Belfast Yard Expansion
  - Communication equipment supply
  - Interface services
  - Operation & Maintenance of expanded network
- Stage 2 work must not impact substantial completion & revenue service of Stage 1

# Belfast Yard Expansion

## Scope of Work

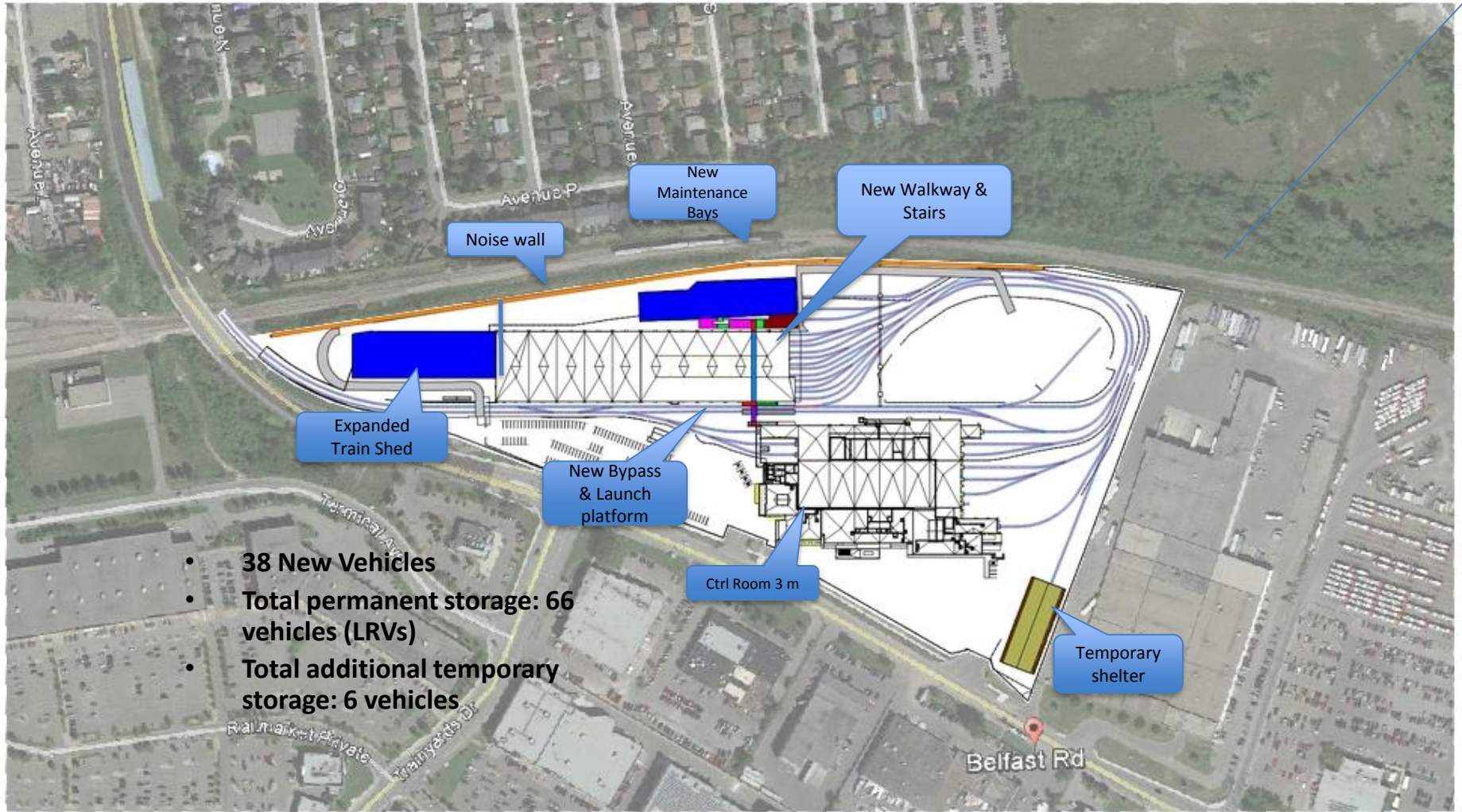
- Early works (Design, Noise & Vibration Report, Berm removal, Noise wall, etc)
- Train shed expansion for additional 16 vehicles (west of existing shed)
- Additional maintenance bays (north of existing MSF)
- Pedestrian walkway over the shed
- Extend existing control room
- Additional tracks, switches and OCS in yard for expansion
- New bypass track and addition launch platform

# Existing Belfast Yard



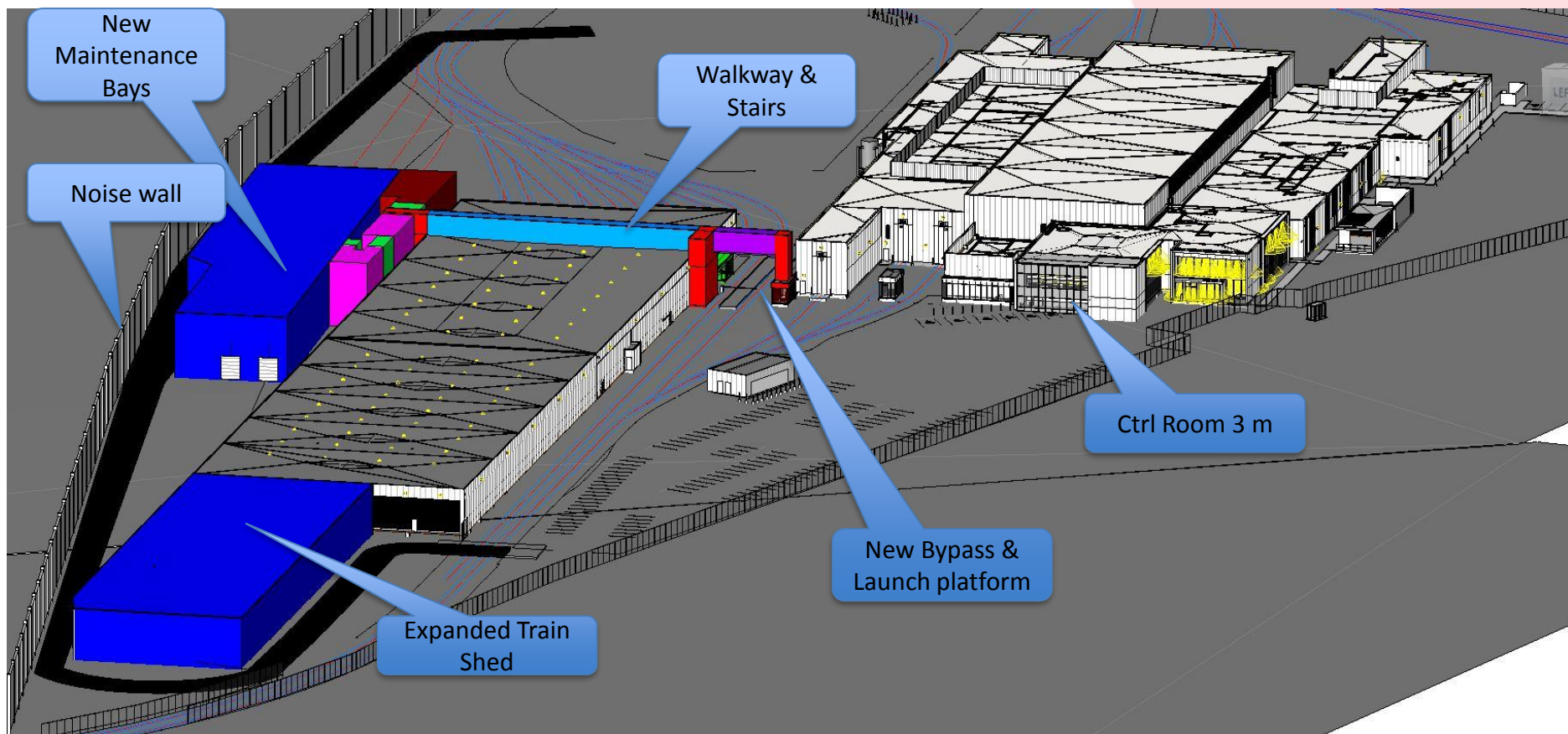
- MSF Speed

# Belfast Yard Expansion Scope of Work



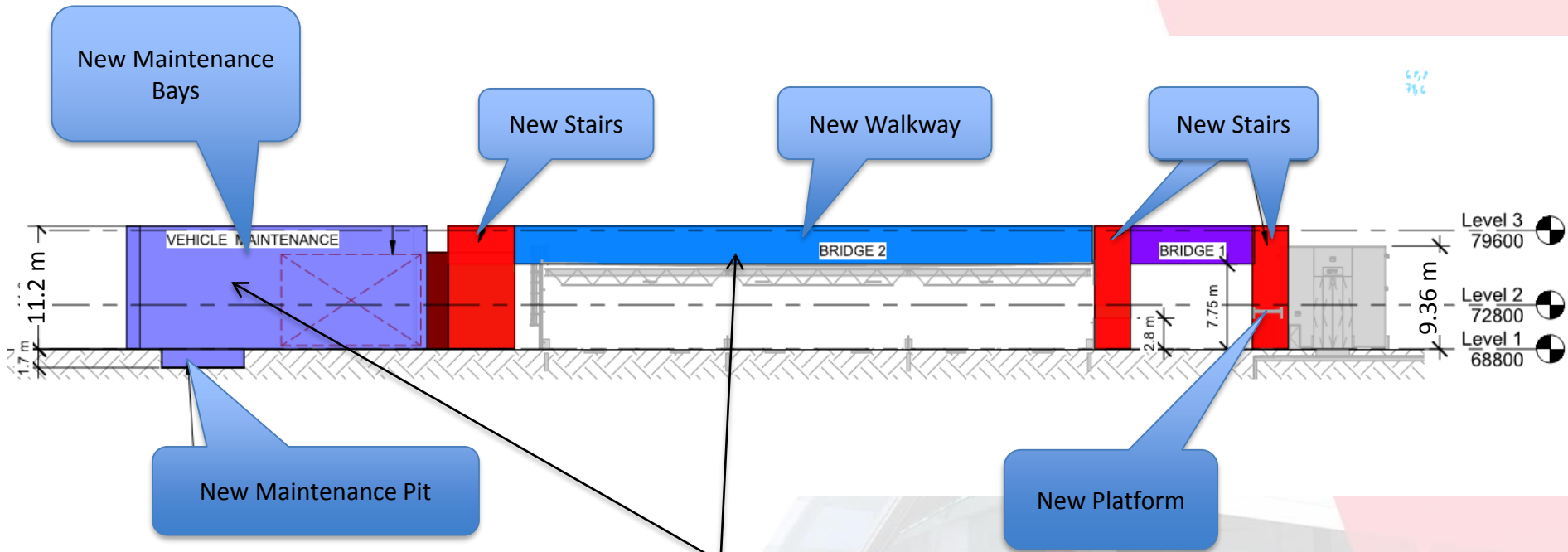
- **38 New Vehicles**
- **Total permanent storage: 66 vehicles (LRVs)**
- **Total additional temporary storage: 6 vehicles**

# Belfast Yard Expansion Scope of Work





# Belfast Yard Expansion Scope of Work



NO WINDOWS

# Belfast Yard Expansion

## Early Works

- Early works confirmed as part of MOU
- Design works are underway for the following:
  - Noise + Vibration study report (construction and operations)
  - Berm removal
  - Noise wall design & construction
  - Utilities relocation
  - Special tracks order
  - Foundation works

# Belfast Yard Expansion

## Key Milestones

- Start of design works Feb 2017
- Investigation on site March 2017
- Noise + vibration study report Spring 2017
- Start of berm removal Spring 2017
- Start of Noise wall Summer 2017
- Start of foundation works Summer 2017
- Start of steel structure Fall 2017
- Start of building envelope Winter 2017
- Start of interior outfitting (MEP) Spring 2018
- Start of testing & commissioning Fall 2018
- Expected substantial completion December 2018

# Belfast Yard Expansion Mitigation Measures

- Noise and vibration analysis (construction and operations)
- Noise attenuation wall
- Construction hours and techniques
- Landscaping features to be determined, subject to further access and maintenance discussions
- Dedicated stakeholder relations contact throughout construction and implementation

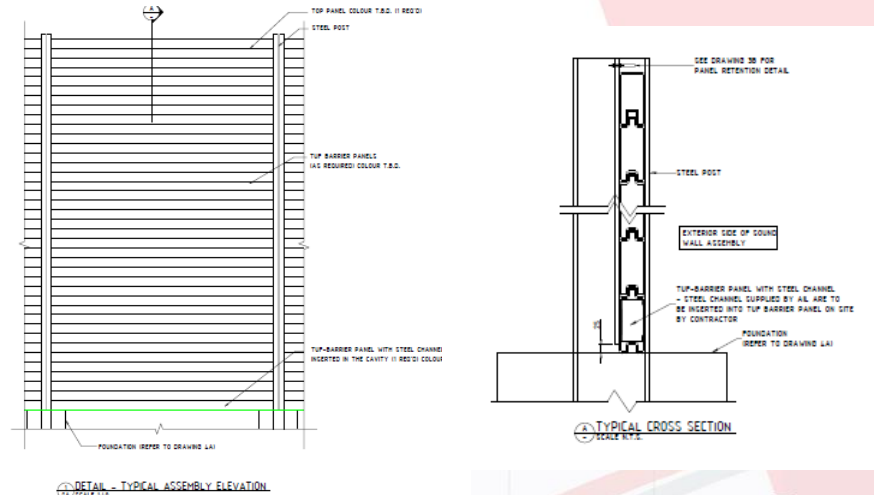
## Noise and Vibration

- Ambient noise level analysis has been undertaken by RTG
  - Recorded before construction of Belfast yard (2012)
  - Recent updated measurements in the community taken this spring (2017)
- Prescribed operational noise and vibration performance thresholds determined by province and captured in the project agreement between the City and RTG
- There are noise and vibration levels for both residential and commercial areas
- City regularly monitors to ensure thresholds not exceeded

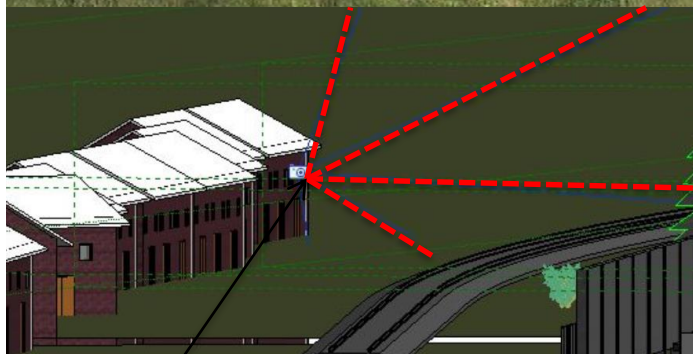
# Belfast Yard Expansion

## Mitigation Measures – Noise Wall

- Extension of the existing wall
- Adjustment of height to ensure performance criteria is met
- Implementation to start after berm removal
- Lighting installed inside of wall (focused toward building)



# Belfast Yard Expansion Mitigation Measures – Noise Wall



Point of view

- Height of the wall to be adjusted according to the noise analysis (current view 6m height)

# Belfast Yard Expansion

## Mitigation Measures – Landscaping Features



- Exploring reuse of the prefab bloc walls to profile part of berm
- Exploring options for north side of wall, subject to further maintenance and access discussions:
  - Screening and/or greening of exterior of wall
  - Acoustic treatments to exterior of the wall



# Update - Tremblay Station



# Update - Tremblay Station



# Update - St-Laurent Station



# Questions?

[Stage2Irt.ca](http://Stage2Irt.ca)

