Confederation Line
West LRT Extension
Maintenance and Storage Facility
Planning and EA Study

Community Information Session
September 21, 2015
Presentation Overview

• Introduction and Meeting Purpose
• Background
  • Stage 2 LRT expansion
  • Need for additional maintenance and storage capacity
  • Facility components
  • Site selection
  • Community impacts and mitigation
• Overview of conceptual design
• Next Steps
Meeting Purpose

- Provide background on the need for additional capacity for the maintenance and storage of light rail vehicles to support the City’s Stage 2 LRT project
- Overview of potential sites explored and evaluated for this additional capacity
- Illustrate potential design concepts to minimize community impacts of a potential MSF facility at the Woodroffe site and connection to the LRT network
- Summarize the process, variables with respect to timing, size and function, and next steps

We want to hear from you.

Please speak to a study team member, fill out a comment form or submit comments to stage2@ottawa.ca by October 9, 2015.
Stage 2 LRT
Background

• A Maintenance and Storage Facility (MSF) is essential for the operation and safe running of any LRT system

• Light Rail Vehicles (LRVs) require regular and routine maintenance to ensure reliability of service, safety of operation, upkeep of warranty and day-to-day cleaning

• The MSF also acts as a holding area in which LRVs can be stored when not needed for operation, such as during off-peak or overnight hours

• When the Confederation Line opens in 2018, all vehicle storage and maintenance will be performed at the Belfast MSF which is currently under construction; as the O-Train system expands an additional facility will be required to meet the City’s ultimate needs
Need for additional MSF Capacity

• Belfast MSF has the capacity to service the initial fleet requirement, accommodate early expansion, and provide heavy maintenance

• As part of Stage 2 LRT network planning, a requirement for additional light rail maintenance and storage capacity has been identified to accommodate the ultimate LRT fleet

• Fleet requirements for the LRT network will continue to be reviewed and updated to take into account phased opening and expansion of service in 2023, 2031 and beyond

• By 2031, there will likely be a requirement for additional light rail maintenance and/or storage capacity to service increased ridership at either an expanded Belfast MSF or the Woodroffe site, or both

• Any new MSF facility at this site will likely be constructed in phases over a number of years
MSF Components

- The MSF needs to accommodate the following major components:
  - Light Repair Area: For daily wear and tear repairs
  - Workshops: Smaller workshops isolated from other maintenance activities
  - Storage Yard: Tracks for storage of LRVs when not in use
  - Maintenance-of-Way Area: Space for storage of maintenance materials
  - Offices and staff/visitor parking area
MSF Site Selection
MSF Site Selection

• Each candidate site was reviewed through basic screening criteria:
  • Adequate size and configuration
  • No major environmental site issues
  • Reasonable costs to connect to the system
  • Compatibility with long term lane use plans
• Additional evaluation was undertaken for the top six sites, focused on four main categories:
  • Site Characteristics
  • Facility Operations
  • System Operations
  • Costs
Holly Acres
Belfast Expansion
Jeanne d’Arc
MSF Site Selection

<table>
<thead>
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<th>Site Characteristics</th>
<th>Woodroffe</th>
<th>Holly Acres</th>
<th>Pineview</th>
<th>Belfast</th>
<th>Aviation Parkway</th>
<th>Jeanne d’Arc</th>
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- Woodroffe and an expanded Belfast site, either on their own or in combination, were best suited to meet the ultimate requirements.
Why This Site?

Location:

• Within relative close proximity to the rail line as well as municipal services, utilities and power
• Its westerly location balances operational needs with Belfast Yards in the east, providing for quicker system start-up each morning, and wind-down at day’s end
• Will enable more light rail vehicles to be serviced more quickly
• Potential to re-use the CN Rail bridge overpass to access the site

Size:

• Is of adequate size and configuration to help accommodate the City’s ultimate LRT network requirements
Conceptual Design Overview
Why This Site?

Environmental:

• No major environmental issues with site
• More than half of the open space between Woodroffe Ave. and Merivale Rd. will remain untouched by what has been identified as the maximum potential footprint of this project
• Site is large enough to properly contain all stormwater; no threat of off-site drainage/seepage
• Continuity of future city-wide pathway connections can be maintained
Proposed Mitigation

- A vegetated berm (with trees) to provide a visual and sound buffer and to separate the site from residential properties; opportunities for advanced plantings
- A noise wall all around the site for additional noise mitigation, including at the high point of the berm along the north edge
- A multi-use pathway system built to provide formal east-west connectivity and to connect to local community access points
- Storage and office buildings enclosed to provide weather protection and community buffering
- Light Rail Vehicles will move at low speed, minimizing potential noise and vibration impact
- Site lighting minimized and controlled to reduce light spillage to the adjacent community
- Noise barriers along elevated tracks and bridge to minimize noise
Proposed Mitigation
Proposed Mitigation
Proposed Mitigation
Proposed Mitigation
MSF Connecting Track

• Extension of LRT corridor south from Baseline Station required to reach the MSF site

• Corridor already protected for rapid transit (Southwest Transitway Extension)

• Two options being protected for connection:
  • Below-grade (trench) alignment, and
  • Elevated alignment

• Both options will protect for a future LRT station where the alignment crosses Tallwood Avenue and allow future extension of LRT south along Woodroffe Avenue towards Barrhaven
MSF Connecting Track
Environmental Assessment

• The concept design presents the largest land footprint required to meet the ultimate expansion of Confederation Line
• The concept design also identifies how pathway continuity, noise, views, and screening from adjacent communities could be accommodated
• As part of the EA process, a full impact assessment will be conducted
• The following potential environmental interactions have been identified:
## Project Environmental Interactions

<table>
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<tr>
<th>Existing Condition</th>
<th>Consideration</th>
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| **Social Environment**           | Planning Policies  
                                 Land use  
                                 Land ownership  
                                 Cultural Heritage Resources  
                                 Air quality, noise, and vibration                                     |
| **Transportation Environment**   | Existing road network/transit networks  
                                 Existing pedestrian/cycling networks                                      |
| **Infrastructure and Utilities** | Water distribution system  
                                 Sanitary and combined sewers  
                                 Storm drainage  
                                 Structures  
                                 Hydro                                                    |
| **Economic Environment**         | City budgeting                                                                |
| **Natural Environment**          | Aquatic environment  
                                 Terrestrial environment  
                                 Wildlife  
                                 Species at risk                                              |
| **Physical Environment**         | Geophysical Conditions  
                                 Contamination and hazardous materials  
                                 Well Records                                                      |
Next Steps

• **Fall 2015** – Initiate provincial Transit Project Assessment Process
• **Early 2016** – Completion of documentation to fulfil the provincial and federal environmental assessment requirements

Please let us know what you think by completing the Comment-Questionnaire Form and placing it in the designated box before you leave.

All information is also available online at Ottawa/westernLRT.
Questions?

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