

# AUDITOR GENERAL

Halifax Regional Municipality



## *Halifax Transit Bus Maintenance Audit*

November 28, 2018

# Overview of Audit

- Overall positive results with some areas for improvement
  - Bus fleet preventative maintenance program



*Have preventative maintenance checklists*



*Burnside: 2/3 or more scheduled maintenance done more than 1,000 kms after it is due*



*Key performance indicators established, more work needed*



*Ensure value-for-money in replacing buses*



*Capital decision-making reasonable*



*Inventory security: Access to storerooms not limited to those who need it*

# Detailed Results



- Has a preventative maintenance program
  - Developed informally
  - Formal process going forward
- Issues arise, management takes steps to determine possible causes
- Common preventative maintenance checklists for all buses
- Selected preventative maintenance tasks from manufacturer manuals
  - Tested against Halifax Transit checklists
  - Most covered or reasonable explanation why excluded

# Detailed Results



- Preventative maintenance set up in fleet management system to prompt management to schedule
- Halifax Transit addressed most issues on preventative maintenance checklists
- Good process to track vendor communications requiring urgent action
- Many (1/3) warranty items (79 of 201) for 30 buses tested either not recorded, or recorded incorrectly

# Detailed Results



- Preventative maintenance checklists often completed late
  - Ragged Lake improved significantly in 2017-18
  - Burnside performed two-thirds or more, more than 1,000 kilometres late

<b>Timeliness of Preventative Maintenance 2017-18</b>		
<b>Garage</b>	<b>Overdue by at least 1,000 km</b>	<b>Overdue by at least 2,000 km</b>
Burnside	66%	41%
Ragged Lake	2%	1%

- Burnside over capacity for bus maintenance
  - Not expected to meet Halifax Transit's needs
  - Management told us lack of capacity impacts maintenance
  - Consultant engaged to look at options for Transit's maintenance facilities

# Detailed Results



- Six key performance indicators for bus maintenance activities
- Indicator calculations reasonably accurate
  - Mean distance between failures
  - Multiple ways to define
- Warranty dollars recovered: dollar value, based on budget
  - Better: percentage warranty dollars claimed versus recovered
- Percent comeback
  - How often buses return for same issue
  - Data limitations

# Detailed Results



- Standard repair times – useful for evaluating ongoing work efficiency
- Halifax Transit uses but not developed for all significant tasks



# Detailed Results



- Decisions to replace buses considered value-for-money
  - Performed condition assessments
  - Well-documented, systematic process
- Process to identify, prioritize, and plan long-term capital needs reasonable
- Complete formal asset management strategy for buses
  - Detailed project plan
  - Timelines for completion

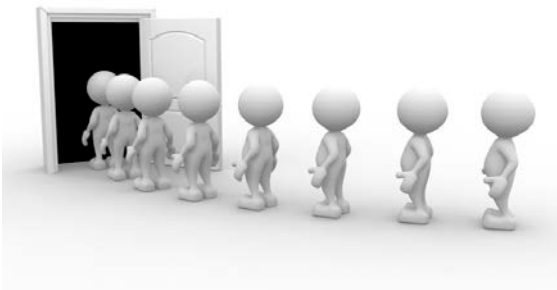


# Detailed Results



- No small equipment inventory
  - No process to track and identify items which may be missing
  - Assess whether worthwhile to track
- Parts inventory levels monitored
- Inventory count discrepancies not investigated
  - Expected follow up of large dollar value or significant quantity differences

# Detailed Results



- Access to the Halifax Transit maintenance storerooms not limited to those who require
  - 296 access cardholders with access
  - During audit, management limited access to 46 staff who require for jobs
- Seventeen cardholders could adjust inventory quantities
  - Inventory adjustments not monitored
- Other users with access to fleet system not required for job duties
  - 29 users could adjust inventory
  - 53 users had access to issue parts from inventory

# Wrap-up



- 10 Recommendations
- All accepted by Management
- Follow-up in 18 months

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*Questions?*