



STAFF REPORT INFORMATION ONLY

Presentation: Warehouse Needs Analysis

Date:	July 29, 2015
To:	TTC Board
From:	Chief Executive Officer

Summary

Staff will provide a power point presentation on TTC warehouse needs analysis.

Contact

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WAREHOUSE NEEDS ANALYSIS

July 2015





Agenda

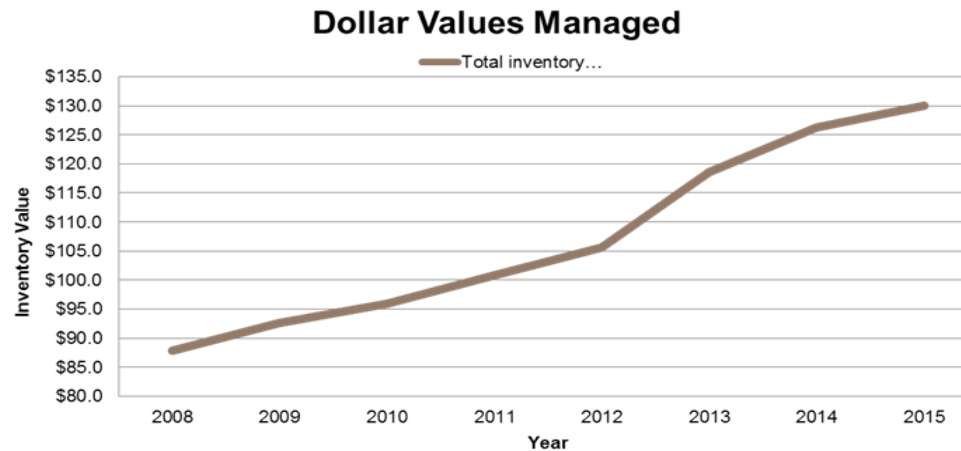
- Who we are
- Where we are
- What has changed
- What we have done
- Where we are going
- Summary





Who we are:

- Materials Management consists of 168 employees.
- We manage \$125M of inventory through 36K part codes



- We issue 10.5 Million pieces each year.
- We manage 366,000 sq. feet of warehouse space through 3 warehouses and 1 decommissioned bus garage.
- We distribute parts to 28 point-of-use locations across the GTA.





Where we are:

- We currently service a customer base that maintains a vehicle fleet consisting of 1850 buses; 886 Subway cars; 252 Streetcars; 221 Wheel Trans vehicles and 424 non-revenue vehicles.
- Service life for these vehicles are 18 yrs. for buses, 30 yrs. for subway and streetcars and 8 yrs. for Wheel trans vehicles.
- We also service a customer base that maintains our 69 Subway Stations (ie. Communications, Electrical and Escalators/Elevators)







What has changed:

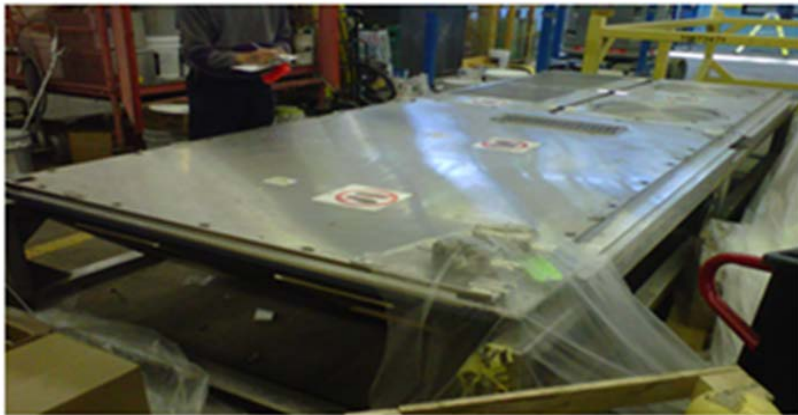
- Number of pieces issued has increased by 20.4% over the past 6 years to 10.5 Million pieces issued in 2014.
- Warehousing project material requirements, such as ATC signal equipment and capital spares for new TR trains, new Buses and new Streetcars.
- Town Hall meetings have identified a need to improve parts availability at bus garages.
- Parts demand has increased. A GM bus had 400-600 stocked parts, new hybrid bus has 3000 stocked parts. New articulated buses have 4000 stocked parts. New streetcars have 5000+ stocked parts.





What has changed:

- Danforth bus garage was decommissioned as an operating garage in the past.
- New fleet has greater complexity of part numbers.
- New vehicles have complex electronic/mechanical components compared to small mechanical parts.





What we have done:

- We have reduced aisle spacing of the Duncan warehouse which has given us additional racking.

Before



After





What we have done:

- We have removed 12 rows of bins and added vertical carousels which result in 3,360 sq. feet of additional racking
- We replaced a horizontal carousel that consumed a footprint of 1200 sq. ft.. with 4 vertical carousels.

Before



After





What we have done:

- TTC Engineering conducted a needs analysis study in Oct 2014, it concluded that M&P requires an additional 390,000 sq. feet of warehousing space.
- There has been an increase of 1.8 Million pieces that require storage since 2011.
- Downsview lease expires in Dec. 2016.





Where we are going:

- Develop exit strategy for Downsview W/H when current lease expires Dec 2016.
- Undertaken a warehouse optimization study to review TTC's warehousing and distribution processes to determine best practices.





Study Objectives:

- Examine number of W/H's and geographical locations.
- Types of Material to be stored.
- Planning for future W/H needs.
- Optimizes material handling operations.
- Efficiencies gain by re-organizing current store locations.
- Improved logistics.



Study Objectives (con't):

- Streamline inventory locations.
- Examine optimal use of vendor managed inventory.
- Increase use of Just-in-Time.
- Increase point-of-use locations (store material at the point of consumption, ideally within 6 feet)
- Report to the TTC board in Dec. 2015.





Where we are going

Leslie Barns:

- Open Leslie Barns which will include a 16,000 sq. ft. stock room to support new streetcar.
- Will supply daily requested parts.
- Will hold approximately 4,000 - 6,000 parts
- Example, new streetcars have 22 distinct pieces of glass.



SUMMARY

- Current needs require an additional 390K sq. ft..
- We are currently working on finalizing a lease agreement for approval at the September Board meeting for a facility in the southern part of the city for 225K sq. ft.. (about half of the current needs)
- Recommendations from Optimization Study will form long-term strategy which is expected by Dec. 2015.

