The Importance of Streetcars in the TTC’s Integrated Transit Network

Date: July 11, 2016
To: TTC Board
From: Chief Executive Officer

Summary

Street level transit in the core of Toronto is delivered, almost exclusively, by streetcar routes that have existed for more than 100 years. Streetcars are hugely efficient and move large numbers of customers safely and quickly. How streetcars work on downtown streets and their efficient operations are critical to meeting the goals of the TOCore work.

The attached presentation outlines the importance of streetcars to the TTC’s integrated network.

Staff are available to present if requested.

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Attachments
Presentation
The Importance of Streetcars in the TTC’s Integrated Transit Network

July 11, 2016
Development Followed Streetcars
Blue Night Streetcar Routes
**Fleet Capacity**

The new streetcars will increase the total capacity of the TTC's streetcar fleet and on the fastest-growing routes in the TTC system.

Current fleet has a total rush hour capacity of 20,040.

- **195** CLRVs each with capacity of 74
- **52** ALRVs each with capacity of 108

New fleet has a total rush hour capacity of 26,520, a **32% increase**.

**204** New low-floor streetcars each with capacity of 130
TTC’s 10 Most Productive Routes
Passengers Per Service Hour

510 Spadina
7 Bathurst
512 St Clair
64 Main
505 Dundas
509 Harbourfront
22 Coxwell
504 King
126 Christie
92 Woodbine South
Toronto’s Streetcars Today

• 96 million riders per year
  – 10% of total system route kilometres
  – 14% of total system operating hours
  – 19% of total TTC passengers
Growth in Shoulder Areas

- Ridership grew 80% between 2004 and 2014 on King Street in shoulder areas:
  - Dufferin-Bathurst
  - Sherbourne-DVP
504 KING

504 King

On Time Departures

On Time Arrivals

Short Turns

Missed Trips

Improved Reliability

12/7/2015
Streetcars are durable, rugged

- Streetcars – 30 years typical life
- Buses – 18 years or less

- Over 90 years:
  - 4 streetcar series
  - 20+ bus series
Streetcar Improvements Increase Ridership

Ridership Growth on Streetcar Right-of-Ways
After Replacing Mixed-Traffic Operation

Ridership per day

Queens Quay – 1990
Spadina – 1997
St Clair – 2010

Before
After
Lessons Learned – Spadina/Harbourfront

- Motorist/streetcar physical separation
- Automobile turns only at signalised intersections
St Clair

- Implemented lessons learned from Spadina
- Centre of road right-of-way most effective
- Good transit signal priority required
- Competition for scarce road space forces compromises
Lessons Learned – Queens Quay West (2012-2014)

- Driven by public realm and urban design issues
- Resulted in side of road transit right-of-way
  - Requires signals at every access
  - Limits effectiveness of transit signal priority
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- Different/confusing for motorists
- Speed restriction to mitigate safety issues
- Slower service than pre-construction
Lessons learned – Mixed traffic

Mixed traffic

- Curbside management – cabs, deliveries
- Development access – vehicle access / turns
- Car parking times
- Left turns

Roncesvalles is a successful mixed-traffic example
Waterfront Transit “Reset”
Phase 1 Study

Coordinated Transit Consultation Program
Public Information & Consultation Meeting
May 25 & 26 2016

A NEW RELIEF LINE IN TORONTO
Linking the Network Together

NEW TRANSIT LINE.
The City of Toronto and the TTC are beginning to study a new rapid transit line connecting downtown Toronto to the Bloor-Danforth Subway east of the Don River.

LEARN MORE ABOUT THE RELIEF LINE >
Lessons learned

- Transit operational details are important
- Public realm improvements must still permit transit to work effectively and safely
- Separation/spacing from automobiles, cyclists, pedestrians necessary for rights-of-way
- Effective transit signal priority is an integral component of a successful redesign