Eglinton-Scarborough Crosstown LRT Update

Councillor Matlow and Councillor Stintz Town Hall
February 28 2012

Presented by:
Anna Pace, Director Strategic Partnerships,
TTC Transit Expansion Department
2/28/2012
Eglinton 32 & 34 buses carry 68,500 riders every weekday.
Eglinton has one of the highest ridership of all bus and streetcar routes.
Importance of Transit to Cities

- increase City’s competitive (World Bank, OECD, FCM, UN) stimulate economic growth, attract business
- generate, support employment
- provide accessibility for mobility impaired
- reduce automobile congestion, costs
- reduce pollution, improve air quality
- influence land uses, create more-efficient city
Toronto Transit Projects

Metrolinx Funding Commitment
$8.4 Billion for Transit in Toronto

- Metrolinx approves scope, budget and schedule, contracts
- Metrolinx owns the transit assets

TTC delivers Crosstown on behalf of Metrolinx

- project manages: design, engineering, construction, community relations
Toronto City Council Decision February 8, 2012

Light Rail Transit for Toronto – 52 km

Pending Metrolinx Decision

Alignment connecting to the Eglinton Maintenance Storage Facility (MSF) is under review

Expert Advisory Panel to advise City Council on transit for Sheppard Avenue

$1.0 B

$0.94 B

$1.8 B

$4.98 B

$8.7 B Total

$8.4 B Province/Metrolinx

$0.3 B Federal
The Crosstown LRT
As per City Council decision February 8, 2012
Pending Metrolinx approval (Stations and stops under review)

10 km central underground:
Keele – Laird

9 km at-grade
Jane – Keele
Laird - Kennedy

6 km SRT conversion
Crosstown LRT Benefits

Faster transit service
- 15 minutes Keele – Yonge

More reliable
- underground and separate right-of-way

Integrated with TTC network
- Connects with 3 subway lines and 54 bus routes (40% of all TTC routes)

Accessible
- Low floor vehicle and accessible stations
Crosstown Transit Project - Progress

Planning

- Eglinton Crosstown and Scarborough RT EAs approved 2010
Crosstown Transit Project – Progress

West Launch Shaft – Construction started August 2011

- Piling rigs are building concrete support walls for the future tunnel launch shaft
- Soil testing for the tunnel and stations continues from Keele Street to Kennedy Station in Scarborough
Crosstown Launch Shaft Rendering

Launch Shaft: 60m Long; 20m wide; 16m deep
Crosstown Transit Project - Progress

Tunnel Boring Machines

• Machines will commence midtown tunnel in mid-2012
• Manufactured by Lovat Inc., a Toronto company employs 380 people in Etobicoke
• A single machine’s average mining rate for lined tunnel is 75 metres a week
Crosstown Transit Project – Progress

West Tunnel Contract – Keele St. to Yonge St.
• To be awarded mid 2012
Crosstown Transit Project – Progress

Station Design

7 stations under design

Public consultations held:

- Bathurst (November 28, 2011)
- Dufferin (January 25, 2012)
- Eglinton West (February 2, 2012)
- Keele (February 9, 2012)
Conceptual Design Study
Station Layout

Cross-Section

Eglinton In-Line Station

2/28/2012

Town Hall Meeting
Urban Design Principles

Respond to and integrate with the neighbourhood
• Not a “One size fits all”
• Minimizing impacts & enhance access

Preserve opportunities for future development
• Preserve for intensification and redevelopment
Urban Design Principles

Promote a safe and enjoyable user experience

- Creating safer environments
- Promoting user comfort
- Opportunities for enjoyment through art and design

Facilitate access by a full range of transit users

- Accessible
- Legible and easy to use
Urban Design Principles

Design for the long-term sustainability of the system
• Sustainably designed
• Maintainable over the long term

Reinforce and enhance the local “sense of place”
• Balancing branding and neighbourhood identity
• High quality design
• Opportunities for place-making
Public Realm
Public Realm Elements

Wayfinding

Bicycle Facilities
Architectural Design
Below-Grade Elements

• Create memorable, safe environment
• Opportunity to provide individual station identity through art, materials, textures, color, and creative lighting.
• Use of standard elements

• Maintainable and cost effective
• Daylighting / creative artificial lighting
• Wayfinding
• Integrated artwork
Crosstown Transit Project - Progress

Eglinton Corridor Avenue Study
• City Planning dedicated staff team
• stations and land use integrated two-year study

Metrolinx Mobility Hub
• Mount Dennis/Black Creek
• Kennedy Station
Crosstown Station Construction

- Utility and early works to start in summer 2012 (Keele Station)
- 2013-2017 – underground station construction
- 3-4 years for typical station, Eglinton West & Yonge more complex
Light Rail Vehicles

New LRVs will be:

- 100% low floor with level boarding at stations
- Air conditioned
- Audio and visual passenger information
- Manufactured in Thunder Bay
Light Rail Vehicles

Potential Interior Layout
TTC Approach to the Crosstown

• Focus on Community Relations
• City –TTC collaboration
  – Station design
  – City Avenues Study
• Use International Best Practices
  – Design and Construction
TTC Community Relations

• Dedicated Community Relations Team
• 2 way communications between community and project team
• Focus on proactive outreach and information
• Early consultation on elements important to communities
• Construction Liaison Committees
• Community and Business advocate
TTC Community Relations

1848 Eglinton Avenue West (at Dufferin St)
Eglinton Crosstown
LRT For The Future
Transit Technology Selection

<table>
<thead>
<tr>
<th>Mixed Traffic</th>
<th>Partially Exclusive Right-of-Way</th>
<th>Exclusive Right-of-Way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street car</td>
<td>2031 Forecast Eglinton Crosstown with transfer from Scarborough to Eglinton</td>
<td>SRT/Subway/GO</td>
</tr>
<tr>
<td>Bus</td>
<td></td>
<td>Max. subway capacity 30,000</td>
</tr>
</tbody>
</table>

- SRT/Subway/GO
- Maximum capacity: 30,000 passengers per hour

- LRT
- Capacity: 5,400 passengers per hour

- BRT
- Capacity: 2,000 passengers per hour

- Bus
- Capacity: 5,000 passengers per hour

- Street car
- Capacity: 0 passengers per hour
Light Rail Transit

- high capacity, expandable
- reliable fast service
  - 23-25 km/hr (streetcars 10-12 km/hr)
- affordable: 60% - 70% cheaper than subways
- high quality: quiet, comfortable
- attracts high ridership
- environmentally-friendly: zero local emissions
- increases land values, attracts development
- convenient community access
- Lower cost → 3-5 times coverage
Low-Floor Accessibility
Cities Implementing Light Rail

151 cities worldwide - 45 cities in North America

- Calgary
- Ottawa
- Vancouver
- Montreal
- Winnipeg
- Washington
- Tucson
- Honolulu
- Los Angeles
- Portland
- Florence
- Venice
- Toulouse
- Dunkerque
- Paris
- Hamburg
- Madrid
- Nottingham
- Edinburgh
- Galway
Cities Implementing Light Rail

- Brisbane
- Canberra
- Ho Chin Min City
- Hanoi
- Macau
- Copenhagen
- Luxembourg
- Dubai
- Jerusalem
- Tel Aviv
- Dakar
- Abu Dhabi
- Venice
- Malmo
- Bergen
- Buenos Aires
- Brasilia
- Rio de Janeiro
- San Salvador
- Panama City
### What Can We Achieve for $8.4 Billion?

<table>
<thead>
<tr>
<th></th>
<th>Eglinton (East) Underground</th>
<th>Eglinton (East) At Grade</th>
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<tbody>
<tr>
<td></td>
<td>No Finch</td>
<td>Finch LRT</td>
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<tr>
<td></td>
<td>No Sheppard</td>
<td>Sheppard LRT</td>
</tr>
<tr>
<td>Annual Ridership</td>
<td>14 million</td>
<td>46 million</td>
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<tr>
<td>Annual New Rides</td>
<td>12 million</td>
<td>23 million</td>
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<tr>
<td>Trip Time Savings</td>
<td>6 minutes</td>
<td>25 minutes</td>
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<tr>
<td>Total Travel Time Savings</td>
<td>5,000 hours per day</td>
<td>58,000 hours per day</td>
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<td>(average weekday)</td>
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<tr>
<td>Population Served</td>
<td>31,000</td>
<td>135,000</td>
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<tr>
<td>Priority Neighbourhoods</td>
<td>1</td>
<td>6</td>
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<tr>
<td>Total Network Capacity</td>
<td>60,000 pphpd</td>
<td>66,000 pphpd</td>
</tr>
</tbody>
</table>

“Eglinton (East) refers to section from Leslie to Kennedy”
Providing for Future Growth

Eglinton Crosstown LRT

Projected Ridership 2031

5,400 passengers at peak point

Capacity in Central Section

15,000 passengers

Room for significant growth!
LRT At-Grade
Existing
With LRT
Barcelona, Spain
Budapest, Hungary
Minneapolis, USA
Thank You