Stage 2 Light Rail Transit Project and Procurement Update

Transportation Services Department

Finance and Economic Development Committee
September 5, 2017
The report focuses on three key areas:

1. Scope and Design of Stage 2 Project Elements
   1. Confederation Line – Bayshore to Moodie; and,
   2. Trillium Line – Earl Armstrong/Bowesville and potential extension to Limebank;
2. Long-Term Debt Cost Avoidance; and,
3. Project Governance.
Defining Stage 2 Projects
Bayshore to Moodie LRT & LMSF

- Includes:
  - 2.5 km LRT extension farther west to Moodie and conversion of existing BRT;
  - New Moodie LRT Station (expansion of BRT Station); and,
  - New Moodie LMSF.

- Staff have initiated the EA consultation process, including the organization of Technical and Public Advisory Committees, two public open houses, and issued the Notice of Commencement.
Moodie LMSF Options
Recommended Moodie LMSF

- A variation of Option 3 is being recommended for the LMSF site in the Moodie to Bayshore Environmental Project Report (EPR) further to additional stakeholder discussions and technical analysis;

- The new LMSF site is located in the area between Highway 417 and Corkstown Road west of Moodie Drive, and provides the following benefits:
  - Smaller overall opening day (2023) footprint;
  - Does not impact forested wildlife corridor north of Abbott Laboratories;
  - Provides greater distance from the residential community, and no requirement for noise mitigation as ambient noise level increases are not anticipated to result from operations;
  - Reduces impact on vistas by taking advantage of Highway 417 corridor; and,
  - Supports operational requirements for opening day, accommodating up to 36 light rail vehicles (LRV), with capacity of housing interim capacity if necessary of up to 40 additional LRVs without impact to adjacent federal lands.
Recommended Moodie LMSF (Cont’d)

• Further work required to finalize more detailed design and performance requirements for 2023 operations, such as a potential special events platform, through the procurement process including additional consultation with Ontario’s Ministry of Transportation; and,

• Future expansion requirements have been relayed to NCC and Wesley Clover to be considered in the context of their longer term visions, and will be included as an option in Kanata Light Rail Transit Planning and Environmental Assessment Study.
Recommended Moodie LMSF (Cont’d)
Potential Ultimate Footprint
Moodie LRT Station Options

Diagram showing Moodie LRT Station Options with areas labeled such as Bus Terminal, Bus Layby Area, LRT Platforms (100m), and Corkstown Road.
Recommended Moodie LRT Station

• A future east side Moodie Station location was identified through this evaluation as the preferred option, primarily due to the potential ridership within a 600 m catchment area.

• Other advantages of an east side station location include:
  – Re-use of some of the BRT facilities;
  – Better connection to NCC trails;
  – Shorter distance for DND transit service;
  – Less impact on views and vistas / lower visibility for “capital arrivals”; and,
  – Lower impact on existing land uses.

• Moodie LRT station connectivity study took place on August 21, 2017; public input being assessed and will inform ultimate station design at Moodie.
Recommended Moodie LRT Station (Cont’d)
Moodie LRT Conclusion and Next Steps

• Bayshore to Moodie conversion, 2023 LMSF facility and east side station location functional design to be inserted via an addendum to the Confederation Line RFP in October;
• Final EPR approval by MOECC is anticipated by the end of 2017;
• Property agreements and agency approvals by Spring 2018, prior to Financial Close in August 2018; and,
• Functional design and EA approvals for an ultimate LMSF facility to be included within the scope of work for the current Kanata Light Rail Transit Planning and Environmental Assessment Study.
Trillium Line Realignment

- Leitrim Station
- Previously Approved Bowesville Station and Park & Ride
- New Earl Armstrong/Bowesville Station and Park & Ride
- Grade separation at Earl Armstrong
- Potential Limebank Extension and Station
- Approximately 3km potential extension into Riverside South
Trillium Line Realignment (Cont’d)

• Requires an addendum to the existing Trillium Line Extension Environmental Project Report (EPR), which is underway;

• Earl Armstrong/Bowesville Station connectivity study to occur late 2017; and,

• Facilitates a potential future extension beyond Earl Armstrong/Bowesville to Limebank Road to better integrate with the community of Riverside South as it grows.
Potential Extension to Limebank

• Outside of the City’s Transit Affordability model and dependent on alternative funding source;
• Could be included in the Trillium procurement subject to the following:
  • **Cost.** The extension privately or alternately financed to a maximum cost of $40 million, which includes the provision of the additional vehicle required to operate this extended service. This would include costs associated with debt financing;
  • **Operations and maintenance.** The extension will not undermine system operability, and can be incorporated within the City’s long-term affordability model for operations and maintenance of the LRT system; and,
  • **Legislative approvals.** Approval of the updated CDP by Committee and Council as well as MOECC for adjusted EA.
• Approval for the final scope and financial arrangements will be sought from City Council at contract award in Q2 2018.
Long Term Debt Cost Avoidance
Long Term Debt Cost Avoidance

• Council approved Design Build Finance maintain (DBFM) procurement based on IO P3/AFP model for the Confederation Line project. Long-term project financing provided by RTG, who entered into arrangement with long term lenders.

• The model not currently designed to accommodate large scale expansions, such as Stage 2.

• An alternative financing solution was required to obtain consent from the long term lenders to implement the MOU with RTG and maintain the integrity of the original Stage 1 risk profile.

• Staff have assessed options and determined that the most efficient option is to have the City assume the role of long-term lender.
Long Term Debt Cost Avoidance  (Cont’d)

• This solution allows the City to continue to meet the timelines associated with the MOU, and was informed based on several considerations:
  – **No increased costs.** From a financial perspective, a major injection of additional equity would have been required to satisfy existing long-term lenders under the current arrangement;
  – **No change to project risk profile.** All incentives and security structures provided to the long-term lenders remain intact;
  – **Timing.** As most of the project risks associated with construction have been addressed, day-to-day enforcement of performance will become a greater consideration; and,
  – **Supplementary oversight benefits.** As long-term lender, the City will now have access to additional financial and technical reporting, including accelerated updates to enhance project oversight.

• To achieve this, staff require Council to approve the reassignment of the Lender rights to the City in the existing credit agreement with RTG and enact a debenture by-law to authorize a debenture directly with the lenders.
Current Payment Flow (30-year concession period)

City
Maintenance Payments – includes debt repayment

RTG
Cost of Service (RTM)
• Long Term Lenders ($225M)
• Equity ($75M)

Long Term Lenders

Proposed Payment Flow (30-year concession period)

City
Maintenance Payments – includes debt repayment

RTG
Cost of Service (RTM)
• Long Term Lenders ($225M)
• Equity ($75M)

City
Repay long term lenders

Long Term Lenders
Governance
Executive Steering Committee (ESC)

• ESC will be maintained and has in its scope the procurement and implementation of the Stage 2 expansion project, including the authority to confirm and recommend the preferred proponent for Stage 2 to Council at the close of the Request for Proposals.
Executive Steering Committee (ESC) (Cont’d)

- ESC’s mandate also includes the role of the former Contingency Management Committee and ESC’s terms of reference will be amended to include the following functions formally associated with the Committee:
  - Reviewing and approving expenditures against the Confederation Line Contingency Fund;
  - Ensuring that variations and risks are properly accounted for as potential draws against the account; and,
  - Approving requests for:
    - Increased project funding outside of approved funds (including project contingency); and,
    - Design changes requiring funding outside of the existing delegated authority (substantial design changes).
ESC Composition

• The composition of ESC includes:
  – City Manager (Chair);
  – General Manager, Transportation Services Department;
  – Director, Rail Construction Program;
  – City Clerk and Solicitor; and,
  – General Manager, Corporate Services and City Treasurer.

• An Executive Advisor to the ESC may be appointed at the discretion of the City Manager and other City General Managers/Directors may be invited to participate as required.
External Rail Expertise Advisory Board

- An External Rail Expertise Advisory Board will form a key part of the Stage 2 project governance;
- This group is composed of three external rail executives with previous rail construction and operations expertise. With their diverse and significant experience, the Advisory Board will help shape decisions, anticipate challenges and be a sounding board for the General Manager and ESC; and,
- The Advisory Board will be a strategic resource supporting program outcomes, assisting with complex financial elements of the agreement, proactively managing risk, and ensuring continuity of commercial elements from Stage 1 to Stage 2 of the program.
Report Recommendations
Key Report Recommendations

That the Finance and Economic Development Committee recommend Council:

1. Receive the functional design for the Bayshore to Moodie LRT as described in this report;

2. Direct staff to initiate an Environmental Project Report (EPR) Addendum to Trillium Line Extension approved EPR, as described in this report, and file the Addendum with the Ministry of the Environment and Climate Change in accordance with section 15 of Ontario Regulation 231/08, Transit Projects and Metrolinx Undertakings;

3. Delegate authority to the City Manager to include the extension of the Trillium Line to Limebank Road in the Trillium procurement documents via an addendum, subject to the recommended cost, operational and maintenance, legislative approval and assessment parameters, as described in this report, and direct staff to undertake the necessary supporting activities required to bring forward a recommendation to Committee and Council as part of the contract award, as described in this report;
Key Report Recommendations (Cont’d)

4. Approve the Stage 2 governance plan and additions to the Executive Steering Committee’s mandate, as further described in this report;

5. Approve the plan to refinance the long term debt on Confederation Line, as further described in this report, and delegate authority to the City Treasurer to execute an Assignment and Assumption Agreement to assume the Lenders’ obligations under the existing Credit Agreement to Project Co., and to execute and issue debentures directly to each of the Long Term Lenders to finance capital works previously approved;

6. Enact a Debenture By-law substantially in the form attached as Document 2 to authorize debentures in the total principal amount of $225,000,000; and,

7. Approve the amended funding source for project 908650 Stage 2 LRT – RTG MOU, changing the Development Charge funding component to Development Charge debt, as described in this report.
QUESTIONS?
## 2017 Milestones

<table>
<thead>
<tr>
<th>Stage 2 LRT Milestone</th>
<th>Timeline</th>
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<tbody>
<tr>
<td>Commence EA process for Moodie Extension</td>
<td>March 2017</td>
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<tr>
<td>Release Confederation Line Extensions RFQ</td>
<td>March 2017</td>
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<tr>
<td>Release Trillium Line Extension RFQ</td>
<td>March/April 2017</td>
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<tr>
<td>Partner Funding Confirmation – Federal Funding Announcement</td>
<td>June 16, 2017</td>
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<tr>
<td>Release Confederation Line Extensions RFP</td>
<td>June 2017</td>
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<tr>
<td>Release Trillium Line Extension RFP</td>
<td>July 2017</td>
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# Next Steps

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<tr>
<th>Contract</th>
<th>Timeline</th>
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<tbody>
<tr>
<td>Contract Award</td>
<td>Q2 2018</td>
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<tr>
<td>Construction Commences</td>
<td>2019</td>
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<tr>
<td>Revenue Service Trillium Line</td>
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<tr>
<td>Revenue Service Confederation Line East</td>
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<tr>
<td>Revenue Service Confederation Line West</td>
<td>2023</td>
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### Budget

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<tr>
<td>Confederation Line Extensions (with Moodie and Trim Extensions, and Highway 417)</td>
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<td>RTG Capital Scope</td>
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<td>Trillium Line Extension</td>
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<td>Bundled Projects</td>
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<td><strong>TOTAL</strong></td>
<td><strong>$3 615 000 000</strong></td>
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- Staff will implement an affordability cap to ensure the project stays on budget, as was done on the Confederation Line.