

## Recommended Plan - Trillium Line Functional Design

### Summary of Recommended Plan

The Recommended Plan consists of an 8-km extension of the existing single-track diesel-powered Trillium Line from Greenboro Station to Bowesville Road, with a 3-km branch line connecting to the Ottawa Macdonald-Cartier International Airport (OMCIA) as well as the addition of additional passing tracks. The expanded service will continue to use diesel multiple unit (DMU) technology until ridership growth warrants the conversion of this single-track facility into twin-track electric LRT.

The main elements of the Recommended Plan include:

- Extending the single-track Trillium Line from Greenboro Station to a new BRT/Rail terminus station and park-and-ride lot at a new station at Bowesville Road;
- New stations at South Keys and the Leitrim Park and Ride;
- New stations at Gladstone Avenue and Walkley Road on the existing line;
- Protecting for the extension of the existing platforms at Bayview, Carling, Carleton and Greenboro stations to 70 metres to eventually accommodate two-car trains;
- A plan for a future relocation of Confederation Station to better accommodate and integrate with future redevelopment of surrounding lands by the federal government;
- New passing tracks to ensure that the level of service can support ridership growth along the main line as well as service to the Airport Rail Link;
- Grade-separated crossings at Lester Road and Leitrim Road; and an ecological crossing south of Leitrim Station;
- New Park and Ride lot at Bowesville Road, and expansion of the existing Leitrim Park and Ride to accommodate opening day demand with the potential to ultimately house a total of 3,100 new spots at Bowesville and 925 at Leitrim;
- A new branch line starting at a junction south of Hunt Club Road extending to the Ottawa Macdonald-Cartier International Airport, with new stations at the EY Centre and the Airport terminal. The branch line incorporates grade-separated crossings at the Airport Parkway and Uplands Drive, and a viaduct structure over the internal roads and parking lots as the line approaches the Airport terminal;

- A plan for new multi-use pathway (MUP) segments, including a new grade-separated crossing over Hunt Club Road to provide continuous facility along the length of the extended main line and Airport rail link; and,
- An expanded Walkley Yard maintenance facility sized to accommodate the increased number of rail vehicles, maintenance activities and staff required to operate the expanded service.

### **Design Considerations**

The N-S LRT Planning and Environmental Assessment Study (2005) developed an approved plan for twin-track electric LRT within the study corridor. This plan was used as the starting point for the current study, which seeks approval to extend diesel multiple unit (DMU) service using a single track and passing sidings. To develop the Recommended Plan, design alternatives for new and relocated stations, grade separations, Airport Rail Link alignments and the Walkley Yard were developed and evaluated based on transportation, natural environment, social/economic environment and cost/constructability considerations.

A functional design was then developed for each element. Major design considerations at stations included compliance with the City of Ottawa Accessibility Design Standards and the AODA; space requirements for ramps, stairs, elevators and turnstiles; connections to adjacent MUPs and pedestrian routes, and providing a passenger experience compatible with the Confederation Line, including weather protection and fare-paid zones. As two-car trains may be required to meet peak ridership demand, new stations also include either the implementation or protection for 70-metre platforms at existing and planned stations. Additional design considerations included structural design standards for grade separations; minimum and maximum track curvature and grading; the provision of passing sidings to maintain reliable headways as ridership grows; and ease of future conversion to twin-track electric LRT.

### **Main Line**

All new stations will provide weather-protected access concourses and sheltered platforms, while grade-separated stations will include elevator and stairway access between street level and the platforms. New station access concourses will include fare-paid zone control systems and ticketing machines. Stations will also include pedestrian connections to nearby roadways and/or MUPs.

Ultimately, a new grade-separated station will be situated on the north side of Gladstone Avenue when warranted by future development, providing direct access from the pedestrian plaza proposed in the Gladstone CDP, as well as from the existing

MUP on the east side of the tracks and a proposed MUP on the west side. Sheltered bicycle parking will be provided at entrances. This station will consist of two side platforms below grade, accessed from street level via station houses containing redundant elevators and staircases, as well as indoor ticketing machines. Turnstiles will delineate a fare-paid zone within the station. This station will be designed with common wayfinding elements to Confederation Line stations as well as weather protection, including a roof and side paneling extending over the tracks to increase the station's visual presence. Beyond the station houses, smaller canopies will extend the length of the platform to provide additional weather protection.

Ultimately, Confederation Station will be relocated to the north side of Heron Road when warranted by future redevelopment. The station configuration will be similar to Gladstone Station, although only one station house and platform will be built in advance of conversion to electric LRT. It will be built as a grade-separated station with redundant elevators and a staircase providing more direct access to Heron Road transit service, and will also be accessible via at-grade pathway connections at the north end, providing pedestrian access to the existing underpass under Heron Road. The station will include a fare-paid zone delineated by turnstiles, a weather-protected platform, and sheltered bicycle parking adjacent to the entrances.

A new grade-separated station is also planned on the south side of Walkley Road, adjacent to the existing hotel/condominium development. The station configuration will be similar to Gladstone and Confederation stations, with only one station house and platform built in advance of LRT conversion. It will be a grade-separated station with redundant elevators and a staircase providing access to Walkley Road, local bus routes and the Transitway station houses. Opportunities for pathway connections to the adjacent development and other nearby land uses to the south may be explored during future phases of design. This station will also include a fare-paid zone defined by turnstiles, a weather-protected platform, and sheltered bicycle parking.

The segment of the main line between Walkley Yard and the NRC-CSTT facility immediately south of Lester Road must also accommodate a freight rail connection, which is used for vehicle deliveries to the NRC facility 10 to 12 times per year. South Keys Station, the Lester Road grade separation, and the track configuration between Walkley Yard and the NRC facility have been designed with regard to freight requirements.

South of Greenboro Station, the track is to be extended along the existing Prescott Subdivision right-of-way. A new grade-separated station will be built at South Keys, adjacent to the existing Transitway station. This station will be located within a passing

siding and incorporate a centre platform and pocket track to serve as the transfer station to/from the Airport Rail Link. It will be accessed via redundant elevators and a staircase from the existing pedestrian underpass, and provide access via the underpass to the adjacent Transitway Station. Like the other stations, it will incorporate a fare-paid zone delineated by turnstiles and sheltered platforms.

The main Trillium Line extension, the connection to the Airport Rail Link spur, and the freight service to the NRC facility will continue to cross over Hunt Club Road on the existing rail bridge. In accordance with the previously approved N-S LRT EA plan, a new parallel rail bridge situated immediately east of this bridge will be required to accommodate the conversion to twin-track electric LRT. When that happens, the existing bridge will be used to maintain the freight service connection to the NRC facility.

Immediately south of South Keys Station, a new pedestrian underpass will carry the Sawmill Creek MUP to the east side of the corridor, where it will then cross over Hunt Club Road via a new overpass. This overpass will be constructed such that it can be shifted east when required to accommodate the above-noted future twin-track electric LRT bridge. The pathway will continue south for the full length of the extension, parallel to the east side of the rail corridor.

At Lester Road, a single-track steel plate girder bridge designed to accommodate both DMU and freight vehicles will carry the rail over the roadway. Through the use of retaining walls, the footprint of the structure will remain within the existing rail corridor right-of-way in order to minimize impacts on the adjacent Lester Provincially Significant Wetland. A separate pre-fabricated steel bridge will be constructed on the east side of the rail bridge to provide for the MUP grade separated crossing of Lester Road. In the future when the line is converted to twin-track electric LRT, the MUP crossing will be relocated to the east and a second rail bridge will be installed to accommodate a second track. Property will be required on the north east side of the railway approach fill for a connection between Lester Road and the north-south MUP. This plan accommodates the relocation of the freight crossing of Lester Road – either at-grade or on a separate bridge to the west side of the original rail bridge when the line is converted to twin-track electric LRT. The design was developed with input from the Airport Parkway/Lester Road Widening EA team to ensure compatibility with their plan. The first span of the Lester Road crossing is the only new Trillium Line bridge to be designed to freight rail standards.

The Airport's existing emergency services road crossing of the railway corridor, between Leitrim Road and Lester Road, will be maintained as a controlled at-grade crossing.

At Leitrim Road, the rail line will pass under a new bridge which carries the roadway over the rail and parallel MUP. Property will be required in all four quadrants to accommodate the approach embankments. On the west side of the corridor, this will affect Transport Canada lands, while in the northeast quadrant, the lands are owned by the National Capital Commission (NCC). Affected lands in these three quadrants are wetlands, but are not considered provincially significant. In the southeast quadrant, five properties between the rail corridor and Gilligan Way will be impacted and lose their access to Leitrim Road. To compensate for the loss of access, a service road will be constructed off Gilligan Way at the rear of the properties. However, two properties that do not extend through to this road cannot be accessed; the City must work with these landowners to negotiate access rights or acquire the properties. The study team met with the owners of all affected properties to inform them of the study and proposed impacts, and will work with them as required to resolve property issues. Notably, this grade separation is anticipated to be temporary, and will be removed when Leitrim Road is realigned to accommodate a planned additional runway at the Ottawa International Airport, in approximately 2040. The Trillium Line and MUP will be retained at grade when this occurs. To minimize the throwaway costs of the grade separation, it will use a two-lane rural cross-section.

A new at-grade station is to be constructed south of Leitrim Road, adjacent to the existing Leitrim Park and Ride. The design of this station reflects its rural context and will include a small station house for ticketing machines and turnstiles, a covered walkway across the bus lanes to the rail platform, and weather protected platforms. The fare-paid zone at this station will include both bus and rail platforms, which will be oriented north-south. A loop at the northwest corner of the Park and Ride will provide turnaround and lay-by space. To avoid crossing through the fare-paid zone, the parallel MUP will diverge from the corridor south of the station, pass in front of the station entrance (with appropriate signage and pavement markings at bus and pedestrian crossings), and rejoin the corridor north of the station platforms. The Park and Ride lot will be expanded to 460 spaces in the interim and 925 spaces in the ultimate configuration.

A passing siding is required in the vicinity of Leitrim Station. The final location and length of this passing siding will be determined during future design phases of this project.

South of Leitrim Road, a segment of the existing Osgoode Trail will be shifted slightly east within the existing right-of-way and converted to a paved MUP, with fencing to separate it from the rail corridor. This MUP will diverge from the corridor to provide access to Leitrim Station before returning to the right-of-way. Approximately 500 m south of Leitrim Station, the Trillium Line and parallel MUP curve west out of the former Prescott Subdivision to follow the right-of-way protected under the N-S LRT Corridor EA, while the existing Osgoode Trail will be maintained to the south. At this location, which is adjacent to NCC Greenbelt lands on both sides, an ecological and pathway crossing will be constructed at the request of the NCC to allow people and wildlife to cross the corridor and access the Osgoode Trail and proposed NCC pathways.

A new at-grade station and Park and Ride lot are to be constructed approximately 150 metres east of Bowesville Road, on land that must be acquired from the OMCIAA. Like Leitrim Station, the design of this station reflects a rural context and includes a station house for ticketing machines, turnstiles, a covered walkway across the bus lanes to the rail platform, and glazed shelters on all platforms. The fare-paid zone at this station also includes both bus and rail platforms. A loop and bus layup area will be located at the east end of the station. The Park and Ride will accommodate 400 spaces on opening day with the potential to accommodate 3,100 spaces in the ultimate configuration.

### **Airport Rail Link**

The airport rail link alignment protects for an ultimate double track configuration but will be constructed initially as a single track railway. The alignment branches off from the main rail corridor at a point approximately 1,200 m south of South Keys Station. Its alignment in this area has been designed to reduce property impacts to OMCIA lands on the east side of the Airport Parkway and to accommodate potential roadway design option considerations for the ongoing Airport Parkway Widening EA. As it transitions around the curve from south to west, the alignment rises and passes over the Airport Parkway on a new structure, which will accommodate future widening of the Airport Parkway.

West of the Airport Parkway, the proposed LRT alignment will be bundled with a future roadway link identified in the City's Transportation Master Plan. Eventually this roadway may be extended further west from Uplands Drive to serve as the main roadway access to OMCIA. The OMCIAA has identified an 85 m wide land corridor west of Uplands Drive for the combined road and rail facilities.

West of Airport Parkway, the alignment remains elevated on an embankment through the proposed Uplands Station and over Uplands Drive. Between Airport Parkway and

Uplands Drive a passing track (approximately 500 m in length) will be provided that will include the proposed Uplands Station.

Uplands Station will be located along a passing siding, and will be designed as a grade-separated station with two side platforms to reduce property impacts. A station house, designed to accommodate Ernst & Young Centre (EY) Centre event traffic, will incorporate ticketing machines and turnstiles, street-level doors on the south side providing access to a bus transfer platform within the fare-paid zone, and staircases and switchback ramps (or redundant elevators, if required) providing access to each rail platform. On the upper level, the full length of the rail platforms will be covered. A street-level connection will be provided from the south entrance of the station to the EY Centre, and a MUP connection will be provided to Uplands Drive.

West of Uplands Drive, the LRT alignment remains elevated as it climbs towards Paul Benoit Driveway. At this location, the proposed alignment transitions to an elevated structure (viaduct) approximately 550 m in length to cross over internal airport roadways and the ramp serving the departures level of the airport terminal. This portion of the alignment will provide a single track in both the interim and ultimate design. Based on the length of single track and terminal time required at the airport station, train headways on the Airport Rail Link will be limited to approximately 6-8 minutes, which is considered acceptable based on likely demand and operations on the combined portion of the Trillium Line.

The Airport terminal station is located between the Airport terminal and parking garage structures, at the top level of the parking garage. It will consist of a single platform, with a short length of track provided beyond the platform. The station will be connected to existing ramps, elevators and pedestrian walkways to provide weather-protected access to the terminal building. Public washroom facilities for this station will be those found within the terminal building.

### **Maintenance and Storage Facility**

Additional storage and maintenance capacity is required to accommodate the additional vehicles required for the expanded Trillium Line and Airport Link service. The existing Walkley Yard facility will be expanded to accommodate up to 18 trains, using an additional 0.5 ha of property from lands north of the yard on which the City already holds an option. A separate jacking bay, a new inspection pit, additional storage tracks and additional office space will be constructed between existing buildings where space permits, and at the north end of the yard on the additional property.

The potential construction of a maintenance and storage facility at Bowesville will be deferred until the Trillium Line is converted to twin-track electric LRT. Currently, this facility is to be located adjacent to the proposed Bowesville Station, on land to be acquired from the OMCIAA.

## **Operations**

### Train Operations

Operation of Trillium Line services to both the OMCIA and Bowesville will require branching of train service. Given the relatively wide headways which the single track imposes on train operations, branching of train service will have a significant impact on headways which can be operated on each branch. Based on existing 10 minute train headways on the Trillium Line north of the Airport Junction, the minimum headway on each branch would be 20 minutes. This is not considered sufficient to meet expected demand to/from Bowesville during weekday peak periods.

Thus, the preferred operating model for train service on the Trillium Line is a “mixed operating model” which adjusts the destination of through train service depending on time of day to match greatest demand. Under this model, it is suggested that during weekday morning and afternoon peak periods through trains would operate between Bayview and Bowesville, with the airport link operated as a shuttle service from South Keys Station. At other times of day, and on weekends, through trains would operate between Bayview and OMCIA, with service to Bowesville operated as a shuttle from South Keys.

It is noteworthy that the final decision on operating model is outside of EA process as an operational decision by OC Transpo, with input from stakeholders (e.g. OMCIAA) and the public. At South Keys, which would be the connection point between shuttle and through trains, the most efficient service pattern is considered to involve the following sequence to minimize transfer wait times:

1. Northbound shuttle train arrives and unloads, then proceeds to pocket track north of station;
2. Northbound and southbound through trains arrive simultaneously, serve the platform and proceed;
3. Southbound shuttle train exits pocket track, serves the platform and proceeds.

Based on preliminary operating results, two trains plus a spare are required to support the operation of the Airport Rail Link, at 10-minute headways. Results also indicate that fleet requirements will be the same under either operating model. Based on the shorter



length of the airport link, trains would have a longer terminal time at this location to balance out the longer distance of the South Keys-Bowesville segment.

### Special Trackwork

Passing sidings allow for opposing trains on the single track railway to pass each other, and must be located to support operation at planned headways. They must also allow for flexibility in operating schedules (e.g. a change from 10-minute to 15-minute headways in late evening and weekend time periods). The length of sidings should be long enough to allow trains to maintain a reasonable speed through the siding, taking into account signal clearance times. Passing sidings on the main line are required in the vicinity of South Keys and Leitrim stations. A passing siding on Airport Rail Link is proposed between Airport Parkway and Uplands Drive, through Uplands Station.

The junction between the main line and the Airport Rail Link will be located approximately 1,200 m south of South Keys Station. The diverging route, which will be the Airport Rail Link due to track geometry, requires a slower train speed through the junction.

Pocket tracks allow for “on-line” storage of disabled/out of service trains and support intermediate turnback operations. A pocket track is proposed at South Keys Station, to support the operation of branch and through trains.

### **Key Issues**

#### Ottawa International Airport Planning Considerations

There are two potential issues requiring discussion with the Ottawa Macdonald-Cartier International Airport Authority (OMCIAA).

1. Airport Zoning Regulations enacted in 2009 impact land outside the airport boundary. AZRs are enacted under the authority of the Aeronautics Act to protect airspace around existing runways at airports, and to protect for development of future runways, by limiting heights of structures in the airspace surrounding the facility. AZRs are considered federal regulations and supersede provincial and municipal land use bylaws and regulations.
  - The Trillium Line alignment encroaches on a surface protected by the AZRs approximately 800 metres north of Leitrim Road. The proposed Leitrim Road grade separation structure also encroaches on a protected surface, although the at-grade rail line in this location does not. Both these surfaces protect for potential future runway development under the most restrictive possible scenario, and are not associated with an existing runway.

- The Trillium Line rail corridor is designated as an “active federally regulated rail corridor” by Transport Canada, and this designation was in place before the implementation of the 2009 AZRs. Discussions are ongoing with the OMCIAA to agree on the most effective and cost efficient strategy for ensuring compatibility between Trillium Line operations and future runway requirements.
2. New federal regulations will soon require construction of Runway End Safety Areas extending beyond the runways at the airport, and potentially encroaching on the Trillium Line corridor. A RESA provides a cleared and graded area for aircraft in the event of an aircraft undershoots or overruns the runway and extend a distance of 90 m (Canadian standard) to 240 m (international standard) beyond the end of the runway strip. A RESA does not normally form part of the AZRs, as RESAs are usually encompassed within the airport property boundary, and AZRs protect lands outside of airport property. Discussions with the OMCIAA are required to agree on future runway expansion distances and the use of RESAs, or equivalent safety measures, at some time in the future.

### Capacity Considerations

Train operations on the Trillium Line extension are governed by the single track corridor, which limits the train frequencies which can be provided. Currently, 8-10 minute frequencies appear to be upper limit based on recent and ongoing operating experience. Improving the reliability of headways may be possible as part of Stage 2 with selected infrastructure upgrades, such as longer passing sidings at Gladstone and Carleton Stations to accommodate two-car trains and improvements to signal systems. Options are currently being assessed by OC Transpo and will be carried forward as part of Stage 2 project advancement.

Current ridership forecasts project up to 2,100 passengers during the 2048 AM peak hour, depending on the headways provided. Each Trillium Line car can accommodate approximately 260 passengers. The peak loads generated by the TRANS model for the 2031 weekday morning peak hour are as follows:

- 8-minute service: 2100 demand (1820 capacity using 260 per train = 280 deficit)
- 10-minute service: 2000 demand (1560 capacity using 260 per train = 440 deficit)
- 12-minute service: 1900 demand (1300 capacity using 260 per train = 600 deficit)

The peak load point is located in the northbound direction between Confederation and Carleton Stations. Although the peak load is the only segment on the route where the TRANS model indicates a capacity shortfall, ridership is close to capacity at other points along the line.

In light of infrastructure / operating costs and the objectives of the Trillium Line service, increasing train lengths by operating two-car trains on 10-minute headways is considered the most feasible solution. The following considerations were therefore incorporated into the functional design and Environmental Assessment:

- Train headways of 10 minutes were used as the basis for planning and design of the Trillium Line extension;
- All of the Trillium Line stations are designed with 70 m long platforms;
- The Maintenance and Storage Facility is designed to accommodate a minimum of 18 41m LINT vehicles.

#### Vehicle Considerations

The Alstom LINT vehicles currently in production incorporate crash management (CM) specifications that are more stringent than the six vehicles currently operating on the Trillium Line. The City must engage Transport Canada closer to project implementation to determine if the new LINT vehicles will be acceptable to Transport Canada, and if there are issues with running vehicles with a mix of CM specifications on the same line. This will require a detailed review of vehicle specifications and the preparation of a risk assessment by the City, and is estimated to take 12-18 months. There is a risk of incurring additional cost if an entirely new fleet must be procured. The current EA identifies infrastructure footprint and total number of vehicles only, to ensure yard facilities are sized appropriately.

#### Cost Saving Considerations

Numerous options may be considered to reduce the estimated costs of the main line and bring it into line with available funding. These include right sizing stations and features based on ridership levels, phasing Park and Ride lot implementation, potentially deferring the construction of lower-ridership stations on the existing line, and undertaking fewer upgrades at Walkley Yard, or reducing contingencies. The costs of increasing platform lengths and procuring additional vehicles for 2-car trains will also need to be evaluated against the costs of passing sidings and signals permitting greater service frequency, to identify the most cost-effective model that can serve projected ridership.

## **Impacts and Mitigation**

A comprehensive assessment of environmental, social, and cultural impacts was undertaken as part of the study. Key findings are summarized below.

A natural environment assessment found that impacts to aquatic habitat are expected to consist of culvert extensions and some channel realignment, which are not expected to result in permanent habitat effects. Impacts to terrestrial habitat are expected to include edge vegetation removals adjacent to the right-of-way at Lester and Leitrim roads, as well as more extensive removals at the Bowesville Park and Ride lot. Additional assessments will be required in future design phases of the project to update existing habitat conditions and refine the appropriate mitigation measures.

A preliminary assessment of environmental contamination identified several potentially contaminated sites within the study area. Follow-up work will be required at future design phases of the study to assess the soil and groundwater quality in the identified areas and identify any appropriate mitigation measures.

A noise and vibration assessment found that noise and vibration levels associated with the extended Trillium Line will remain within the City's Environmental Noise Control Guidelines and the Federation of Canadian Municipalities' Guidelines for New Development in Proximity to Railway Operations. An air quality assessment found that concentrations of airborne contaminants will remain below the thresholds identified in the Ontario Ministry of the Environment and Climate Change's (MOECC) Ambient Air Quality Criteria (AAQC).

Preliminary archaeological investigations completed for this study have not identified any archaeological impacts within the study area, but have identified areas of archaeological potential that will require follow-up work at future design phases of the study.

## **Construction Staging**

The construction of the new stations and extension of station platforms on the existing line will require service to be suspended. The most significant traffic impacts are associated with the implementation of segregated crossings at Lester and Leitrim Roads. Work to integrate connections between the LRT station and the Transitway station at South Keys may cause some temporary alterations to bus boarding and drop off areas. Further, service will likely have to be halted to facilitate the construction of Gladstone and Walkley Stations during the commissioning and testing phases. Recognizing this, it may be possible to limit potential shutdowns to weekends or over

consecutive summers when ridership capacity can more easily be served by the 107 replacement bus route.

### **Consultation Summary**

A comprehensive consultation program took place as part of this study. It consisted of a rail planning and design workshop; three rounds of Agency, Business, and Public Consultation Group meetings; and two Public Open Houses delivered in conjunction with the second round of Consultation Group (CG) meetings. The consultation event dates, locations, comments and responses are summarized below.

#### Consultation Events

The rail planning and design workshop took place on June 26, 2014 at City Hall. Workshop participants consisted of invited City and agency technical staff and consisted of a discussion of existing Trillium Line operations and design opportunities/constraints relevant to the extension of the line. Ten agency representatives, in addition to members of the study team, participated in the workshop.

The first round of CG meetings was held on July 10, 2014 at City Hall. This round provided an introduction to the study and its context, as well as a summary of existing conditions within the study area. In addition, it established the groundwork for subsequent rounds of consultation. There were 26 participants in the ACG meeting, 10 in the BCG meeting and 17 in the PCG meeting.

The second round of CG meetings took place on December 9 (ACG) and 10 (BCG/PCG), 2014 at City Hall. This round provided an overview of design alternatives considered for various stations, grade separations and other design elements along the line, and identified potential impacts of each alternative and a preliminary preferred alternative for each location. There were 20 participants in the ACG meeting, 10 in the BCG meeting and 19 in the PCG meeting.

Following the second CG meetings, two Public Open Houses (POHs) were held in January 2015 to present the evaluation of design options and a preliminary Recommended Plan for public review and comment. The dates, locations and attendance at these POHs were as follows:

January 13, 2015  
Jim Durrell Recreation Centre  
75 people signed the registry

January 15, 2015  
St. Anthony's Soccer Club  
51 people signed the registry

The third ACG meeting took place on May 5, 2015 at City Hall, while the third BCG and PCG meetings took place on May 7, 2015 at Jim Durrell Recreation Centre. This round presented a preliminary functional design of the Recommended Plan and an overview of impacts and mitigation measures. There were 20 participants in the ACG meeting, 7 in the BCG meeting and 13 in the PCG meeting.

### General Comments/Responses

Generally, participants in the consultation events supported the extension of the Trillium Line to Riverside South and to the Airport, and the addition of new stations on the existing line. Specific comments and issues of interest are summarized in the table below.

<b>Comment / Issue</b>	<b>How it was addressed</b>
Trillium Line should not end at Bowesville, but either end at Leirim or be extended into Riverside South.	Analysis performed for the City's 2013 TMP update found that operational savings could be realized by eliminating buses and replacing them with rail in this area. Additionally, as Riverside South was designed as a transit-dependent community, it is important to provide rail service nearby. The Recommended Plan is consistent with these objectives. However, the Trillium Line cannot be extended into Riverside South along the approved N-S alignment due to noise impacts and the technical limitations of diesel trains.
Concern about necessity and cost of grade-separated crossings.	The Study Team has been informed that Transport Canada will consider level crossings that can be shown to be as safe as a grade-separated crossing. The Recommended Plan includes functional designs and cost estimates for grade-separated crossings; however, the City may elect to continue to discuss this issue with Transport Canada during subsequent design/implementation phases. Construction of level crossings will not require additional EA approval but may require significant changes to the Trillium Line operating rules.
Need to ensure convenient transfers from train to bus and other modes.	Station locations were selected with transfer requirements in mind. Pathway and pedestrian connections have been incorporated into the Recommended Plan and will be refined in future design stages of the project.
Need for full station accessibility and public	All stations include redundant elevators or at-grade access, as applicable, and Park and Rides include

washrooms at stations.	accessible parking spaces. Public washrooms are not required for diesel transit systems under the Ontario Building Code, and represent a significant additional expense. Therefore, they have not been included in the Recommended Plan. Accessibility measures will be confirmed and refined in future design stages of the project.
Need for a pathway connection across Hunt Club Road.	The Recommended Plan includes a grade-separated pathway structure linking the Sawmill Creek pathway with the proposed Trillium Line pathway along the east side of the corridor south of Hunt Club Road.
The Airport Link should be built immediately.	The Airport Link is not part of the City's Stage 2 affordable network. The timing of the Airport Link will depend on funding availability from external sources.
Operating model should be easy for users to understand and provide appropriate service to the Airport and to Riverside South. The mixed model may be confusing, and branch models may require too many transfers.	The current study is not seeking approval for an operating model. However, the Recommended Plan has been designed not to preclude any of the potential operating models identified.
Concern for impacts to Provincially Significant Wetland due to Lester Road grade separation.	The Recommended Plan at this location ensures that the bridge embankments remain within the City-owned right-of-way, except for a small section in the northeast quadrant that accommodates a MUP ramp.
Wildlife crossings are required at Lester and Leitrim roads.	Crossings at Lester are being considered as part of the ongoing Lester Road Widening EA. No crossings are proposed at Leitrim; however, following consultation with the NCC, the Recommended Plan includes an ecological and pathway crossing within the Greenbelt south of Leitrim Station.

Three Aboriginal organizations (the Algonquins of Ontario Consultation Office, the Ottawa Region Métis Council, and the Métis Nation of Ontario) also received notification of the study commencement and invitations to the Public Open Houses. To date, no comments have been received from any of the organizations.

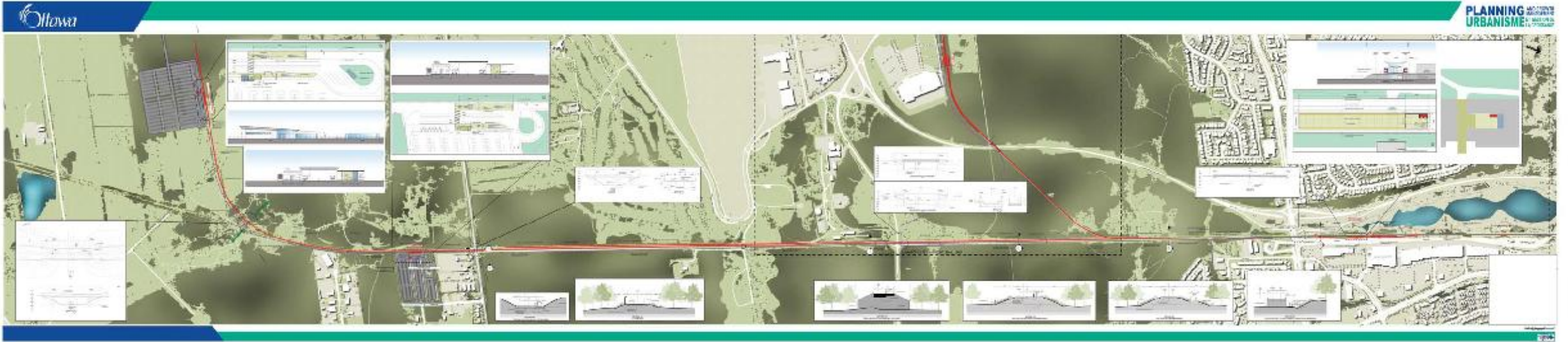


Figure 1: Trillium Line from Greenboro Station to Bowesville Station





Figure 2: Trillium Line from Bayview Station to Greenboro Station

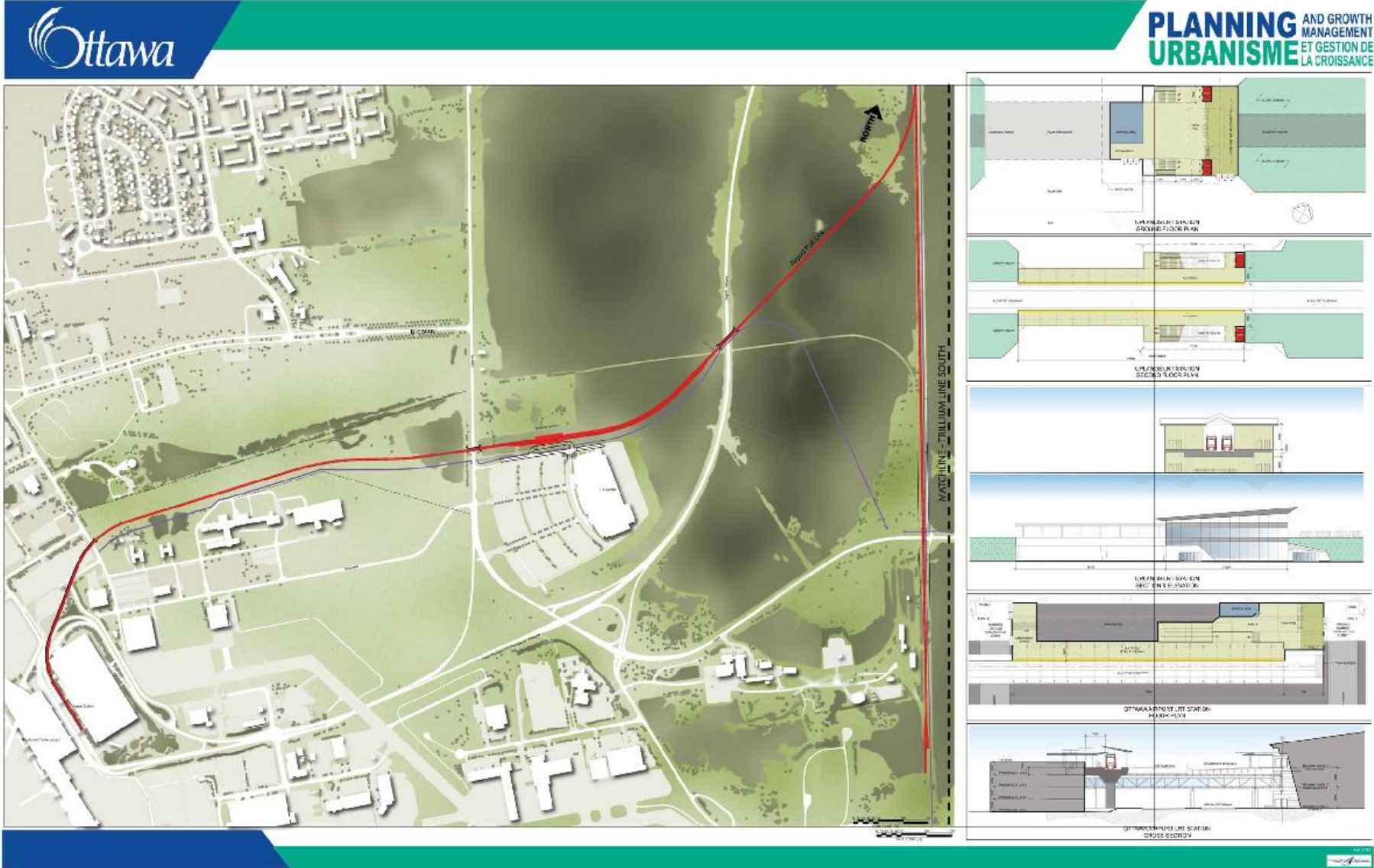


Figure 3: Airport Rail Link