



STAFF REPORT ACTION REQUIRED

Allocation of the Public Realm Amount - Finch West LRT

Date:	February 24, 2016
To:	Executive Committee
From:	Deputy City Manager, Cluster B
Wards:	Wards 1, 7 and 8
Reference Number:	P:\2016\Cluster B\DCM\EX16003

SUMMARY

This report seeks authority for the Deputy City Manager, Cluster B, to inform Metrolinx of the City's preferences for investment of the Public Realm Amount allocated by Metrolinx to the Finch West LRT project.

This report seeks authority for City divisions and the Toronto Parking Authority to implement a number of complementary measures that will improve the streetscape and public realm along Finch Avenue West concurrently with the introduction of the Finch West LRT project.

The Master Agreement between the City, TTC and Metrolinx (executed in November 2012) prescribes the role of each party to plan, design and construct the Metrolinx Rapid Transit Program (the "LRT Program") which includes the Finch West LRT. The Master Agreement states that a Public Realm Amount (the "PRA") will be provided by Metrolinx to plan, design and construct capital improvements on the City's property and right-of-way that will be impacted by construction of the LRT Program. The improvements must be requested by the City and meet eligibility requirements prescribed by Metrolinx.

The Master Agreement states that the value of the PRA is 1.5% of the construction cost of the LRT Program as defined by Metrolinx. In May 2014, City Council determined that it was appropriate to allocate the PRA proportionally between the LRT projects that were planned on Eglinton, Finch and Sheppard based on the length of each transit corridor. Accordingly, the value of the PRA for the Finch West LRT is approximately \$18 million (\$2012).

Proposed uses of the PRA on Finch Avenue West represent streetscape and public realm enhancements that will address specific needs and opportunities determined by City staff, and include in order of preference:

- a) Right-of-way improvements to preserve six traffic lanes under the CP Rail Bridge west of Highway 400, rather than a reduction to four lanes as shown in the approved Environmental Project Report (the "EPR");
- b) Right-of-way improvements for enhanced pedestrian and cycling infrastructure through the Highway 400/Finch Avenue interchange between Norfinch Drive and Weston Road;
- c) Right-of-way improvements for enhanced cycling infrastructure on both sides of Finch Avenue between Norfinch Drive/Oakdale Road and Tangiers Road, and between Highway 27 and Weston Road;
- d) Improved pedestrian and cycling connections to existing multi-use paths that run north and south from Finch Avenue West at Black Creek Ravine, and between Finch Avenue West and the existing multi-use path in the hydro corridor to the north through the Metrolinx Maintenance and Storage Facility; and
- e) Enhanced streetscape details and aesthetic improvements along the corridor, which may include upgraded BIA infrastructure.

Metrolinx intends to issue a request for proposals early in 2016 for a private consortium to design, build, finance and maintain the Finch West LRT project. With reference to that process and schedule, this report seeks authority from City Council to prescribe the foregoing list and ranking of PRA candidate projects for inclusion in the Metrolinx procurement documents.

Following the precedent that was established in prescribing the City's preferred uses of the PRA for the Eglinton Crosstown LRT project, some of the preceding objectives will be mandated by Metrolinx to be incorporated in the proposals of all bidders. This condition applies to some of the PRA requests by the City that have significant design implications (to be discussed below). The balance of the City's preferred uses of the PRA will be presented to bidders as discretionary elements of their bids.

The recommended uses of the PRA cited above (and to be provided by Metrolinx) do not preclude: (i) the City; (ii) related organizations including the Toronto Parking Authority; and (iii) business improvement areas, from making other investments to improve the streetscape and public realm to mitigate impacts of the LRT project or enhance utilization of the new transit infrastructure. This report sets out several opportunities that are being implemented by the City and others.

RECOMMENDATIONS

The Deputy City Manager, Cluster B, recommends that:

1. City Council advise Metrolinx of the following list and ranking of public realm improvements along Finch Avenue West that should be obtained using the PRA allocated to the Finch West LRT project, and which will be incorporated in the project-specific output specifications as mandatory elements of the LRT project:
 - a. Provision of three traffic lanes in each direction under the Canadian Pacific Railway Bridge east of Weston Road (rather than a reduction to two lanes in each direction), together with the provision of a box culvert tunnel through the embankment of the CPR rail line, on the south side of Finch Avenue (Attachment 2), to accommodate a multi-use path at least 3.5 metres in width, the design of which is acceptable to the General Manager of Transportation Services and Canadian Pacific Railway.
 - b. Provision of a continuous multi-use path having a width of at least 3.5 metres, to be located on the south side of Finch Avenue between Weston Road and Norfinch Drive/Oakdale Road (Attachment 3), the design of which is acceptable to the General Manager of Transportation Services, and will include:
 - i. A grade-separated crossing, in a tunnel at least 3.5 metres in width, of the eastbound to southbound Highway 400 on-ramp (Attachment 3);
 - ii. An at-grade crossing of the eastbound to northbound Highway 400 on-ramp, including relocation of this ramp to be adjacent to the northbound off-ramp from Highway 400 (Attachment 3), provided that such a relocation is approved by the Ministry of Transportation;
 - iii. A signalized crossing of the northbound off-ramp from Highway 400 at Finch Avenue (Attachment 3);
 - iv. A signalized crossing of Signet Drive/Arrow Road on the south approach only (Attachment 3);
 - v. Signalized crossings of Weston Road and Norfinch Drive/Oakdale Road on all four approaches of both intersections (Attachment 3); and
 - vi. A physical barrier between the multi-use path and traffic lanes where the multi-use path is immediately adjacent to traffic lanes.

- c. Provision of bicycle lanes separated from vehicular traffic on both sides of Finch Avenue between Norfinch Drive/Oakdale Road and Tangiers Road, and between Weston Road and Highway 27, in a manner that is acceptable to the General Manager of Transportation Services and the Fire Chief/General Manager of Fire Services. The separation will be accomplished through the construction of an elevated and curb-protected cycle track, either at the same elevation as the adjoining sidewalk or at an intermediate level between the roadway and sidewalk using a mountable curb, as may be deemed appropriate at each location.
2. City Council advise Metrolinx of the following list and ranking of public realm improvements along Finch Avenue West that should be obtained using the PRA allocated to the Finch West LRT project, and which will be identified in the Request for Proposals as discretionary elements of the LRT project.
 - a. Provision of the following multi-use paths and trail connections, all of which are to be acceptable to the General Manager of Parks, Forestry & Recreation, the General Manager of Transportation Services, and the Toronto Region Conservation Authority, as warranted in each circumstance.
 - i. Between two existing multi-use paths in the Black Creek Ravine on the north and south sides of Finch Avenue, construct a box culvert under Finch Avenue that will provide a direct trail connection, or provide an extension of the multi-use path on the south side of Finch Avenue with a minimum width of 3.5 metres along its entire length to an existing signalized intersection across Finch Avenue (Attachment 4);
 - ii. Between Finch Avenue and the existing multi-use path in the hydro corridor to the north, located along Norfinch Drive boulevard and the western boundary of the Finch West LRT Maintenance and Storage Facility (Attachment 5), and
 - iii. Connections where feasible to potential new bike trails running south from Finch Avenue, east and west of Weston Road.
 - b. Provision of streetscape and public realm enhancements identified in the Finch West Streetscape Plan (currently being undertaken by Metrolinx and the City) and streetscape guidelines developed jointly by the City and the Emery Village and Duke Heights business improvement areas that exceed current City standards, and all of which are to be acceptable to the General Manager of Transportation Services, in the following priority ranking:
 - i. Tree planting infrastructure;
 - ii. Street lighting poles and fixtures;

- iii. Street furniture;
 - iv. Pavement and markings that contribute to the identity of business improvement areas;
 - v. Aesthetic enhancements to the multi-use path tunnels under the CP Rail Bridge and the eastbound to southbound Highway 400 on-ramp;
 - vi. Aesthetic enhancements to the Highway 400 Bridge, provided such improvements are acceptable to the Ministry of Transportation; and
 - vii. Aesthetic enhancements to the vehicular portion of the CP Rail Bridge.
3. City Council authorize the Deputy City Manager, Cluster B, in consultation with the Director, Major Capital Infrastructure Coordination:
 - a. To determine whether the winning bidder's PRA submission is fair and reasonable, and provides good value to the City for the PRA, and on that basis to determine whether to accept the winning bidder's PRA proposal; and
 - b. If the determination is made to not accept the winning bidder's PRA proposal, to negotiate alternative public realm improvements with Metrolinx that are consistent with the recommendations of this report.
 4. If the determination is made to accept the winning bidder's PRA proposal, City Council authorize the Deputy City Manager, Cluster B, to negotiate and enter into any agreements, amendments and renewals with Metrolinx as may be necessary, in accordance with the Master Agreement and the recommendations of this report, in respect of the use of the PRA in accordance with the winning bidder's submission.
 5. In support of the PRA strategy set out in this report, City Council authorize and direct the Toronto Parking Authority to acquire a property located at the southeast corner of Finch Avenue West and Arrow Road (near Highway 400) for municipal parking and ancillary uses including proposed Bike Share Toronto infrastructure, and to permit construction of a possible gateway feature for the Emery Village BIA. Acquisition will be on terms and conditions to be negotiated by the President of the Toronto Parking Authority, at fair market value plus associated costs such as land transfer tax, title insurance and other fees, and approved by the Toronto Parking Authority Board. The City Solicitor is authorized to complete the purchase transaction, deliver any notices, pay any expenses and amend the closing and other dates, on such terms and conditions as the City Solicitor may determine.

6. City Council direct the Chief Planner and Executive Director, City Planning and the Director, Major Capital Infrastructure Coordination to report to City Council on a priority list of PRA candidate projects for the Sheppard East LRT project once Metrolinx advises the City of the procurement schedule for that project.

Financial Impact

The Public Realm Improvements that are described in this report will be obtained from Metrolinx at no cost to the City, funded from the capital budget that Metrolinx will expend to construct the Finch West LRT project.

Additional investments in public realm and streetscape improvements may be made by the City in conjunction with the LRT project. This report identifies several potential investments that are the subject of negotiations on capital and operating cost-sharing with Metrolinx and other parties including the Emery Village BIA. Action by the City to implement any of these supplemental improvements will be 1) subject to the satisfaction of the General Manager, Transportation Services, and 2) subject to sufficient funding being identified in the capital and operating budgets of City divisions and considered through the budget review process.

Streetscape improvements within business improvement areas will comply with established BIA cost-sharing principles, which require full responsibility for ongoing operation, maintenance and repair being negotiated in a cost-sharing agreement or memorandum of understanding between the affected parties.

Financial implications arising from the acquisition of property by the Toronto Parking Authority will be addressed in accordance with reporting and budgeting practices of the Toronto Parking Authority.

The recommended cycling infrastructure and multi-use path improvements that will be funded by Metrolinx will subsequently require ongoing maintenance by Transportation Services. This maintenance will include winter snow clearing to a level similar to the adjacent roadway and sweeping during other periods of the year. Based on Transportation Services' experience with similar facilities, the annual winter maintenance costs are estimated at \$7,000 per lane-kilometre, while annual sweeping costs are estimated at \$12,000 per lane-kilometre. Accordingly, the 22 lane-kilometres of cycling infrastructure contained in this report would result in additional annual maintenance costs of approximately \$420,000 (\$2015) that would be incorporated in future operating budget requirements of Transportation Services.

DECISION HISTORY

At its meetings of March 21 and 22, 2012, and October 30, 31 and November 1, 2012, City Council authorized the City Manager to enter into a Master Agreement with

Metrolinx and the Toronto Transit Commission ("TTC") for the Metrolinx Light Rail Transit projects in Toronto (Attachment 1). This Agreement includes the terms and conditions that will govern the amount and use of the PRA. The Agreement and background reports can be read at the following links:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2012.CC20.1>
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2012.CC27.6>

At its meeting of May 6 to 8, 2014, City Council adopted the recommendations, as amended, for allocation of the Public Realm Amount related to the Metrolinx Rapid Transit Program in Toronto. The recommendations included allocation of the PRA proportionally according to the length of each transit line, identification of PRA projects for the Eglinton Crosstown LRT, and direction to staff to report back on PRA projects for the Finch West LRT and Sheppard East LRT. The report and recommendations are found at the following link:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.EX41.2>

ISSUE BACKGROUND

The Master Agreement requires Metrolinx to restore to the City's prevailing standards, and at no cost to the City, any City infrastructure that is impacted by construction of the LRT projects.

The Master Agreement also stipulates that Metrolinx will spend its own funds to improve the City's streetscape and public realm where that investment will mitigate impacts of LRT construction. This budget for additional work is termed the Public Realm Amount (the "PRA") and the City, at its discretion, can request Metrolinx to construct streetscape and public realm improvements funded from the PRA. Metrolinx must be in agreement with the candidate projects.

The Master Agreement sets out the purposes for and general locations in which the PRA can be used. Improvements must be in the immediate vicinity of the transit projects. Eligible streetscape elements are sidewalks, paved surfaces, pavement structures, curbs, boulevards, public areas, pavers, trees, plantings, landscaping, specialized lighting, street furniture, decorative signage, paint markings, traffic signals, loop detectors, traffic calming devices, retaining walls and seat walls.

The Master Agreement also contains a formula (1.5% of the eligible transit project construction costs) to establish the amount of the PRA. Metrolinx estimates that the aggregate amount of the PRA for the Eglinton Crosstown LRT, Finch West LRT and Sheppard East LRT will be approximately \$70 million.

City Council directed that the PRA should be allocated to the Metrolinx LRT projects in proportion to the length of each line. Based on construction budgets estimated by Metrolinx, the value of the PRA equates to approximately \$18 million of capital expenditure in conjunction with the Finch West LRT (26% of the total length). The PRA

value previously allocated to the Eglinton Crosstown LRT was roughly \$30 million (as it represents 46% of the total length).

It is important to note that these figures were used to establish the approximate value of PRA investments if obtained through public tender. In fact, the consortium that successfully bid to construct the Eglinton Crosstown LRT, and other consortia that will subsequently bid to construct other LRT projects, are not required to disclose their actual cost to construct each requested component of the PRA. Accordingly, the City uses the budget estimates for the PRA on each LRT line to prescribe a realistic and attainable range of PRA investments for inclusion in the Metrolinx bid documents.

COMMENTS

Through an inter-divisional consultation process led by the Major Capital Infrastructure Coordination Office ("MCIC"), City staff considered potential uses for the PRA on Finch Avenue West.

The uses identified by City staff fall into two categories: (a) those that alter in some way the physical scope or dimensions of the LRT project; and (b) those that are layered upon the base LRT project as an enhancement to the streetscape or public realm.

As with the PRA for the Eglinton Crosstown LRT, City staff recommend that the PRA for the Finch West LRT be devoted to projects that are consistent with planning objectives for the transit corridor established by City Council, and that can make a positive contribution to the public realm along the LRT line.

The Scope for Public Realm Improvements

The Master Agreement commits Metrolinx to rebuild, at its expense, portions of Finch Avenue West that are physically disturbed by construction of the LRT project.

Reconstruction of the right-of-way will generally conform to the configurations specified in the Environmental Project Report ("EPR"), subject to modifications requested by the City and refinements made during detailed design. In this context, additional details regarding reconstruction of the public realm will be provided by the Finch West LRT Streetscape Plan that is currently being undertaken by Metrolinx in consultation with the City and other stakeholders in the community including the Emery Village and Duke Heights Business Improvement Areas.

Metrolinx will also provide landscape, streetscape and street furniture on its property at the Keele West station (which is the only underground station on this corridor), the underground portal west of Keele Street, the LRT Maintenance and Storage Facility to be located between Norfinch Drive and York Gate Boulevard, and at all LRT stops, as part of the Metrolinx project budget and at no cost to the City.

Mandated and Discretionary Public Realm Improvements

Several uses of the PRA that are sought by the City have implications for design and construction of the LRT project (the "mandated improvements"). Alternatively, some of the recommended uses of the PRA are accessory to the LRT project (the "discretionary improvements").

Mandated improvements comprise work that will affect both the design and cost of the LRT project, and in turn must be reflected in each competitive bid submitted to Metrolinx. To ensure that each bidder addresses the same scope of work, Metrolinx has determined that public realm improvements which could fundamentally alter the design and construction of the project must be incorporated as mandatory design features of the project.

The same rule applied when developing the list of public realm improvements for the Eglinton Crosstown LRT project. The first improvement on the City's list was enhanced landscaping at LRT stations. The City and Metrolinx agreed on the cost that would be applied from the PRA to achieve the desired level of construction above City standards.

The balance of the PRA was subsequently available for all other public realm improvements on Eglinton that each bidder would commit to deliver for the remaining budget. In that circumstance, the balance of the PRA was available to fund discretionary public realm improvements (i.e., improvements the City wanted but had no means to compel the bidders to deliver).

The same logic will apply to use of the PRA for the Finch West LRT. All public realm improvements that are sought by the City and not designated as mandated will be delivered to the extent that each bidder chooses to apply the residual of the PRA.

Business Improvement Area Streetscape Elements

There are two Business Improvement Areas (BIAs) along the Finch West LRT corridor (Emery Village and Duke Heights). Metrolinx is required to restore pre-existing BIA assets that will be disturbed by LRT construction, on a like-for-like basis at no cost to the City or BIA.

The City has also advised Metrolinx that restoration of the road right-of-way and streetscape should incorporate BIA design standards where those standards are: (a) known and acceptable to the City at the design stage of the LRT project; (b) referred to in the City's Streetscape Manual; and (c) eligible for cost-sharing between the BIA and the City. No cost implications of BIA streetscape elements have been assumed in this report with the understanding that upgrades beyond pre-existing BIA conditions will be provided exclusively through the PRA or by separate cost-sharing agreements with the City.

The Emery Village BIA and other parties have been proactive in developing plans for other public realm improvements that will not be funded by Metrolinx through the PRA. Recommendations include:

1. Commissioning a goods movement study that will examine steps that may be taken to support more efficient movement of truck-bound goods and services through the area, and appropriate separation of trucks from other road users;
2. Construction of a new road connection (referred to as "Road 2A") between Toryork Drive and Finch Avenue (west of Weston Road);
3. Creation of parkland west of Road 2A on a portion of City-owned land on the north side of Finch Avenue;
4. A gateway feature near Finch Avenue and Arrow Road (west of Highway 400);
5. Extensions of multi-use trails and public art commemorating historical aboriginal settlement; and
6. Construction of new pedestrian bridges.

BIA-sponsored initiatives that are eligible for inclusion in the PRA are contained in the recommendations of this report. Other initiatives (cited above) that are not eligible for PRA funding are nevertheless being pursued by the City:

1. The goods movement study is being jointly funded by the City and Metrolinx.
2. The advancement and delivery of Road 2A is being pursued in a cost-sharing negotiation with Metrolinx to the extent that Road 2A will facilitate work on a portion of the Finch West LRT project.
3. Parks, Forestry and Recreation and Transportation Services are jointly pursuing a strategy to consolidate their shared works yard situated west of the proposed Road 2A. Real Estate Services has commissioned an environmental assessment to determine the nature and extent of known hazardous materials on the site and establish a plan for remediation. (Until that exercise is complete, the City cannot remove an existing fence on the boundary of the property that prevents public access to a contaminated site and active municipal works yard.)
4. The gateway feature will be designed and constructed in conjunction with the acquisition of property by the Toronto Parking Authority in the vicinity of Finch Avenue and Arrow Road (see below).
5. Extension of multi-use trails identified in the "Proposed Emery Village BIA Bike Path Report, 2016", which include a proposal for trail features that will support those with visual impairments, are being considered by Transportation Services as part of the Ten Year Cycling Network Plan currently under development, and .
6. Transportation Services has agreed in principle to allow the Emery Village BIA to design, construct and maintain two pedestrian bridges across Finch Avenue. (Metrolinx must also be consulted on those plans to ensure that the structures do not interfere with the construction or operation of the Finch West LRT.)

As noted above, the City is actively pursuing independent and shared investments that will expand the measures being taken to improve integration of LRT operations along the Finch West corridor. The Toronto Parking Authority is engaged in a process to acquire a site at the southeast corner of Finch Avenue West and Arrow Road (near Highway 400). While their primary goal is to deliver on the strategic plan and mandate of the TPA to provide parking in support of local business, this investment would have the added benefit of complementing the public realm goals set out in this report. This acquisition will contribute to public use of the Finch West LRT service, support integration of the LRT within the community, facilitate proposed Bike Share Toronto infrastructure, and permit construction of a gateway feature for the Emery Village BIA (<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2010.EX46.29>).

Accordingly, to support the PRA initiatives, this report seeks approval from City Council to enable the Toronto Parking Authority to execute the property acquisition subject to terms and conditions negotiated by the President, including fair market value and approval by the TPA Board.

Delegated Authority to Accept the PRA Proposal

Metrolinx has advised the City that the failure of any bidder to deliver any part of the mandated list of PRA improvements will be deemed a non-compliant bid and subject to action that Metrolinx may consider necessary to correct the deficiency or disqualify the proponent.

Metrolinx will also evaluate and award points to the PRA proposals based on the extent to which each bidder is willing to maximize the value of discretionary PRA projects identified in this report. These points will form part of the overall evaluation of each bid by Metrolinx.

Through this process, the bidders will be encouraged to deliver maximum value for the PRA budget, while remaining compliant with the City's directions.

Once Metrolinx has determined which bid to accept, the City will be presented with the proposed use of the PRA contained in the successful bid. As was the case with the PRA for Eglinton, this report seeks authority from City Council for the Deputy City Manager, Cluster B, to be satisfied that the successful bidder's PRA submission is fair and reasonable, and provides good value to the City, and on that basis to accept the successful bidder's PRA submission and enter into any necessary agreements with Metrolinx.

If the Deputy City Manager, Cluster B, is of the opinion that the successful bidder's PRA submission is not fair or reasonable, or does not provide good value to the City, this report recommends that City Council delegate authority to the Deputy City Manager, Cluster B, to refuse the successful bidder's proposal. It would then be necessary for the City to negotiate with Metrolinx to develop a package of PRA-funded projects that can be added to the LRT contract after the contract has been awarded.

Rationale for Selecting and Ranking PRA Projects

The Emery Village BIA and Canadian Fuels Dealers Association ("CFDA") (representing the petroleum companies that operate the tank farms east of Keele on the north side of Finch) expressed serious concerns about the potential increase in truck travel times along Finch Avenue between Keele Street and Weston Road, which includes the Highway 400 interchange, that could result from the addition of LRT guideway in the right-of-way. Members of the BIA and CFDA include industrial operations generating a significant volume of heavy truck traffic.

The mandated PRA projects are recommended as mitigation measures to address concerns expressed by those groups, and to accomplish other improvements for the safety of pedestrians and cyclists.

Priority 1: Maintain 6 vehicular lanes through CPR underpass plus add a multi-use tunnel

The Canadian Pacific Railway underpass is located between Weston Road and Signet Drive/Arrow Road. The approved EPR for the Finch West LRT reduced the number of traffic lanes crossing under the CPR underpass from three lanes to two lanes in each direction. This was necessary to accommodate the LRT right-of-way, traffic lanes, cycling infrastructure and sidewalks between the existing abutments of the span.

An alternative configuration involves the provision of a multi-use path on the south side of Finch Avenue (this would effectively be a westerly continuation of the multi-use path described in Priority 2 below). The multi-use path would pass through the CPR embankment in its own passageway (*Attachment 2*).

Metrolinx estimates that travel time savings for road users in the peak period would be approximately 3 minutes by maintaining three lanes in each direction. The Emery Village BIA and CFDA strongly support this change to the project scope as the single most effective measure to mitigate their travel time concerns.

City staff recommend that the PRA be used to cover the incremental cost of providing a separate passageway for the multi-use path through the embankment of the CPR line on the south side of Finch Avenue West, to accommodate the sidewalks and cycling infrastructure at this location.

Priority 2a: Multi-use path between Weston Road and Norfinch Drive/Oakdale Road

The approved EPR for the Finch West LRT includes street-level painted bicycle lanes on both sides of Finch Avenue between Weston Road and Norfinch Drive/Oakdale Road. The painted separation includes a segment under the CPR Bridge where vehicular traffic speeds increase due to the downward slope of the road, and a

segment through the Highway 400 interchange where vehicles are diverging off Finch Avenue West onto the Highway 400 ramps.

A multi-use path separated from traffic would be a safer alternative than street-level bicycle lanes. The multi-use path would be a bi-directional path located on the south side of Finch, providing a mixed pedestrian and cycling function, and have a pavement width of at least 3.5 metres (except under the Highway 400 Bridge where the pavement width would be at least 3 metres).

The end points of the multi-use path at Weston Road and Norfinch Drive/Oakdale Road would provide separate pedestrian and bicycle crossings at all quadrants of the intersection, allowing pedestrians and cyclists to transition to sidewalks and bicycle lanes on either side of the street.

No sidewalk or bicycle lane would be provided on the north side of the street; all pedestrians and cyclists would be directed to the safer south side multi-use path. A south side alignment for the multi-use path is preferred for several reasons. The free-flow on-ramps on the north side of Finch experience higher traffic volumes, reducing the availability of gaps for cyclists and pedestrians crossing the ramps. There are currently no land uses accessed from the north side of Finch in this segment (and none are planned or anticipated to be developed in the future), whereas two significant developments have access from the south side of the street with the potential for a third in the future. Finally, a south side alignment would provide better connectivity to a potential future multi-use path that could be developed in the hydro corridor and parks leading southwest from Finch near Weston Road as identified in the "Proposed Emery Village BIA Bike Path Report, 2016" produced by the Emery Village BIA.

City staff recommend that the PRA be used for the incremental cost of building a separated multi-use path along the south side of Finch Avenue West between Weston Road and Norfinch Drive/Oakdale Road (*Attachment 3*).

Priority 2b: Grade separation for multi-use path at Highway 400 on-ramp

The multi-use path project described above includes crossings of two free-flow ramps (and one signal-controlled ramp) at the Highway 400 interchange.

To improve the safety of pedestrians and cyclists crossing the eastbound to southbound ramp off Finch, the multi-use path would be grade-separated from the ramp by providing a tunnel for the multi-use path under the ramp. Bidders will be required to design the tunnel in accordance with current public safety principles, including lighting and visibility considerations for user safety and security. Metrolinx has undertaken a preliminary analysis of the potential design of the grade separation and determined the project is feasible.

The potential to provide a grade separation of the eastbound to northbound ramp has also been examined, but was determined to be more difficult and expensive. However, the southbound terminal ramp from Highway 400 will be signalized, stopping eastbound traffic flow on Finch Avenue before accessing the ramp. The availability of gaps in the traffic created by the signal will help mitigate safety concerns.

Another configuration would involve relocating the eastbound to northbound on-ramp with the northbound off-ramp, thereby allowing crossing of both ramps at a signal. City staff prefer this approach and are working with Ministry of Transportation staff to determine if it will be feasible in this location.

City staff recommend that the PRA be used to provide a grade separation for the multi-use path crossing the eastbound to southbound ramp leading from Finch Avenue West to Highway 400 and to combine the eastbound to northbound on-ramp with the northbound off-ramp if such a configuration is approved by the Ministry of Transportation.

Priority 3: Separated bicycle lanes between Norfinch Drive/Oakdale Road and Tangiers Drive and between Highway 27 and Weston Road

The approved EPR for the Finch West LRT specified unidirectional street-level bicycle lanes on both sides of Finch Avenue along the entire length of the transit corridor, separated from vehicular traffic by a painted white line.

Finch Avenue, particularly the segment from Weston Road east to Tangiers Drive, experiences high truck volumes. Many stakeholders including BIAs, the CFDA and local Councillors have expressed concerns about the safety of cyclists using street-level bicycle lanes in proximity to high volumes of heavy truck traffic.

As a result, bicycle lanes that are physically separated from vehicular traffic will be provided on both sides of Finch Avenue between Norfinch Drive/Oakdale Road and Tangiers Road, and between Weston Road and Highway 27. The separation will be accomplished through the construction of an elevated and curb-protected cycle track, either at the same elevation as the adjoining sidewalk or at an intermediate level between the roadway and sidewalk using a mountable curb, as may be deemed appropriate at each location.

Similarly, an off-road two-way cycle track will be provided on Highway 27 between Humber College and Finch Avenue as part of the general reconfiguration of the Highway 27 right-of-way, to permit grade separation of cycling infrastructure in this area.

An important consideration in determining which alternative is appropriate at different locations along the LRT corridor is the need to provide sufficient passable space for emergency vehicles, especially large fire trucks. This concern will be

pronounced at intersections where the curb protecting the LRT guideway and the curb protecting the sidewalk-level cycle track create barriers for vehicles to clear a path for approaching emergency responders.

Although Metrolinx will permit emergency vehicles to drive partially on the LRT guideway where there is no platform, there is still a risk that at certain locations including intersections the introduction of a cycle track will delay the movement of fire trucks.

Solutions will be achieved prior to construction of the LRT project, which may include a combination of curb-protected cycle track at an intermediate level between the roadway and sidewalk using a mountable curb, the introduction of emergency vehicle cross-overs at the approach (east and west) to key intersections, and the introduction of traffic signal pre-emption technology that will allow fire trucks (and potentially other emergency service responders) to control vehicle turning and through movements at intersections ahead of their arrival.

The Major Capital Infrastructure Coordination Office is leading discussions with Toronto Fire Services, Paramedic Services, Transportation Services, City Planning, and Metrolinx to achieve a solution that will maximize the length of sidewalk-level cycle track along Finch Avenue.

City staff recommend that the PRA be used for the incremental cost of installing elevated cycle tracks between Norfinch Drive and Tangiers Road, and Highway 27 and Weston Road.

Priority 4: Multi-use path connections

The Black Creek Ravine contains a portion of the City's extensive multi-use path network running through parks and other open spaces. There is a gap in this network at Finch Avenue West. On the north side of Finch Avenue the multi-use path runs along the east side of Black Creek. On the south side of Finch Avenue the multi-use path runs along the west side of Black Creek. To continue on the trail, users are required to cross Black Creek and Finch Avenue.

The PRA provides an opportunity to improve connections to parks and trails. A multi-use path connection can be provided from the Derrydowns Park parking lot along the south side of Finch Avenue to the existing pedestrian signal just east of Black Creek Ravine where users can safely cross the street (*Attachment 4*).

Similarly, there is an opportunity to connect the western end of the existing multi-use path running through the east-west hydro corridor parallel to and just north of Finch Avenue with the new bike facilities on Finch. This is particularly useful as it would provide a safe way for users of that trail to cross Highway 400 which currently does not exist.

The connection would be made along the Norfinch Drive boulevard and the western edge of the Finch West LRT Maintenance and Storage Facility (MSF) (*Attachment 5*). Metrolinx will dedicate to the City the land necessary for this trail connection.

City staff recommend that the PRA be used to provide the multi-use paths and potential trail connections mentioned above. Metrolinx and the successful bidder would be required to work with staff in Parks, Forestry & Recreation, Transportation Services, and Toronto Region Conservation Authority on the detailed design of these facilities.

Priority 5a: Streetscape elements that exceed the City's standards

Implementation of the Finch West LRT project will require extensive reconstruction of the road right-of-way along Finch Avenue West. Metrolinx is currently undertaking work on a Streetscape Plan for the Finch West LRT corridor in consultation with City staff and community stakeholders, which will guide the reconstruction. Once the Streetscape Plan is complete, City staff will consult with Metrolinx to determine whether any elements of the plan are above City standard, which may represent further candidate projects that are eligible for PRA investment. In particular, this may include construction of BIA streetscape elements that have been recently developed and differ from approved City standards and may not be reflected in the Streetscape Manual.

Priority 5b: Aesthetic improvements along the Finch West corridor

Landmark or "gateway" features can also create a focal point for the Finch West LRT corridor and may be considered for PRA funding. In this case, bidders will be invited to recommend the introduction of assets or features that enhance the public realm and beautify or enliven areas along the transit corridor. The BIA Office in Economic Development & Culture, and representatives of the Emery Village BIA and Duke Heights BIA, will be consulted on the inclusion of suitable features.

CONCLUSION

The competitive tension between bidders to maximize the value-for-money of the PRA will determine how effectively Metrolinx will be able to deliver the public realm improvements described in this report. Identification of the City's priorities for use of the PRA, and a ranking of those priorities, will give direction to bidders and facilitate evaluation of their bids by Metrolinx.

Granting delegated authority to the Deputy City Manager, Cluster B, to accept and implement the successful proposal, or negotiate alternative means to achieve those objectives, will allow the City to obtain the benefits of PRA investment during construction of the Finch West LRT project.

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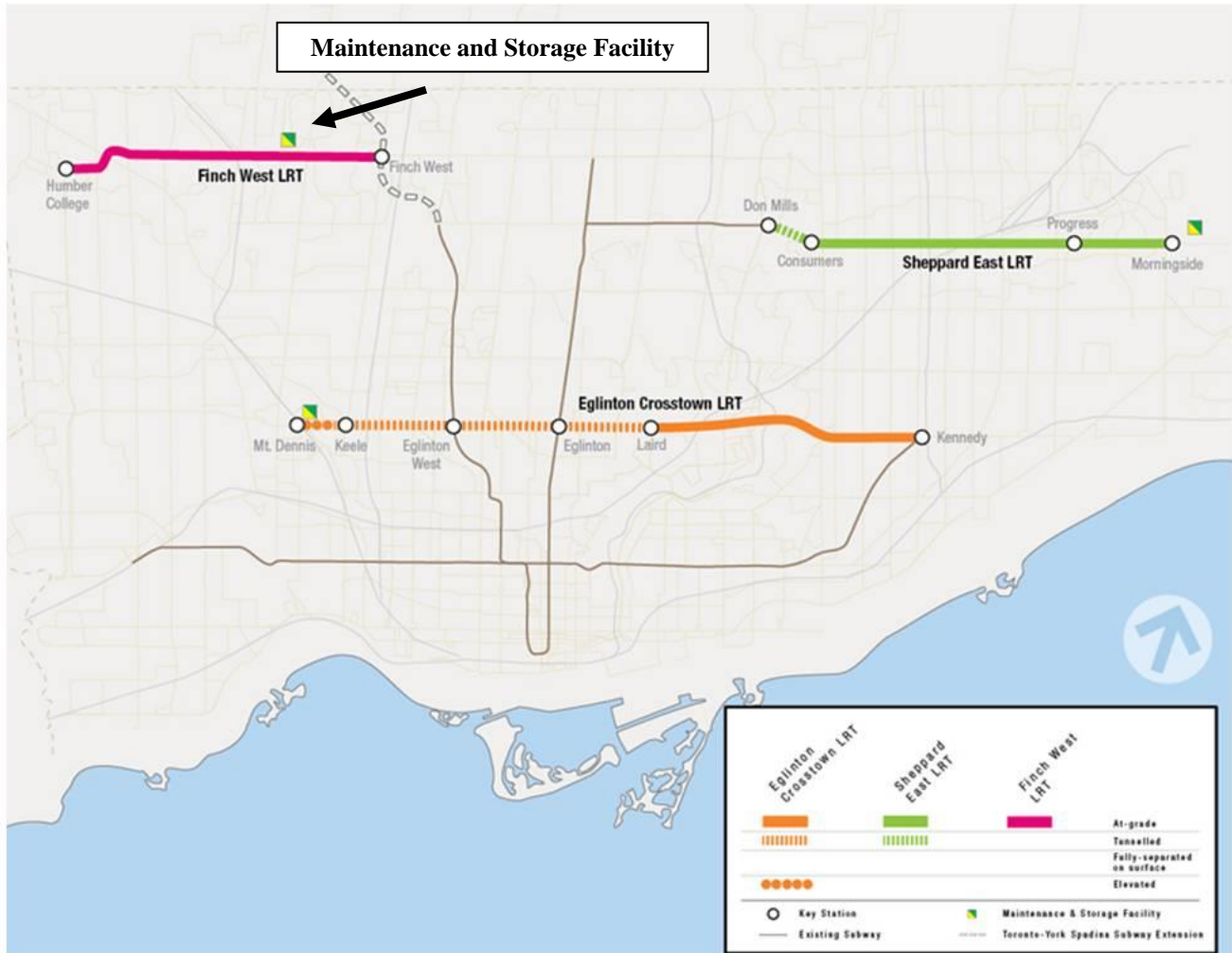
SIGNATURE

John W. Livey, F.C.I.P.
Deputy City Manager, Cluster B

ATTACHMENTS

Attachment 1: Approved Metrolinx LRT Program
Attachment 2: Multi-Use Path Passageway under CP Rail Line
Attachment 3: Multi-Use Path from Weston Road to Norfinch Drive/Oakdale Road
Attachment 4: Multi-Use Path Connection at Black Creek
Attachment 5: Multi-Use Path Connection to the Hydro Corridor

Attachment 1: Approved Metrolinx LRT Program

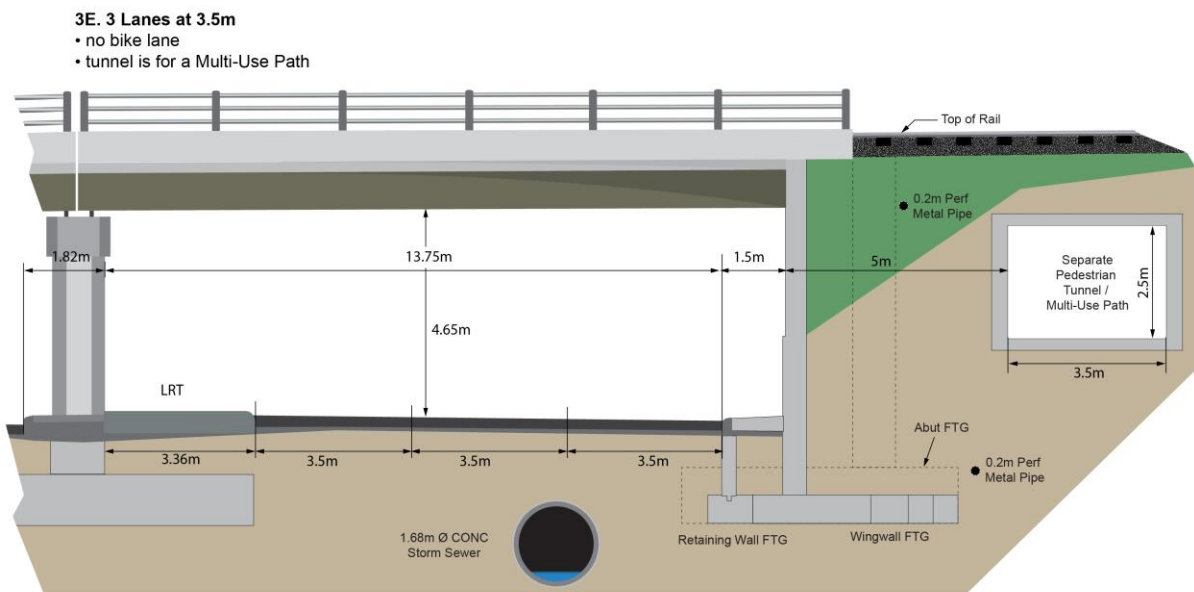


Attachment 1 Metrolinx Transit Projects

Allocation of the Public Realm Amount

Not to Scale
03/31/2014

Attachment 2: Multi-Use Path Passageway under CP Rail Line



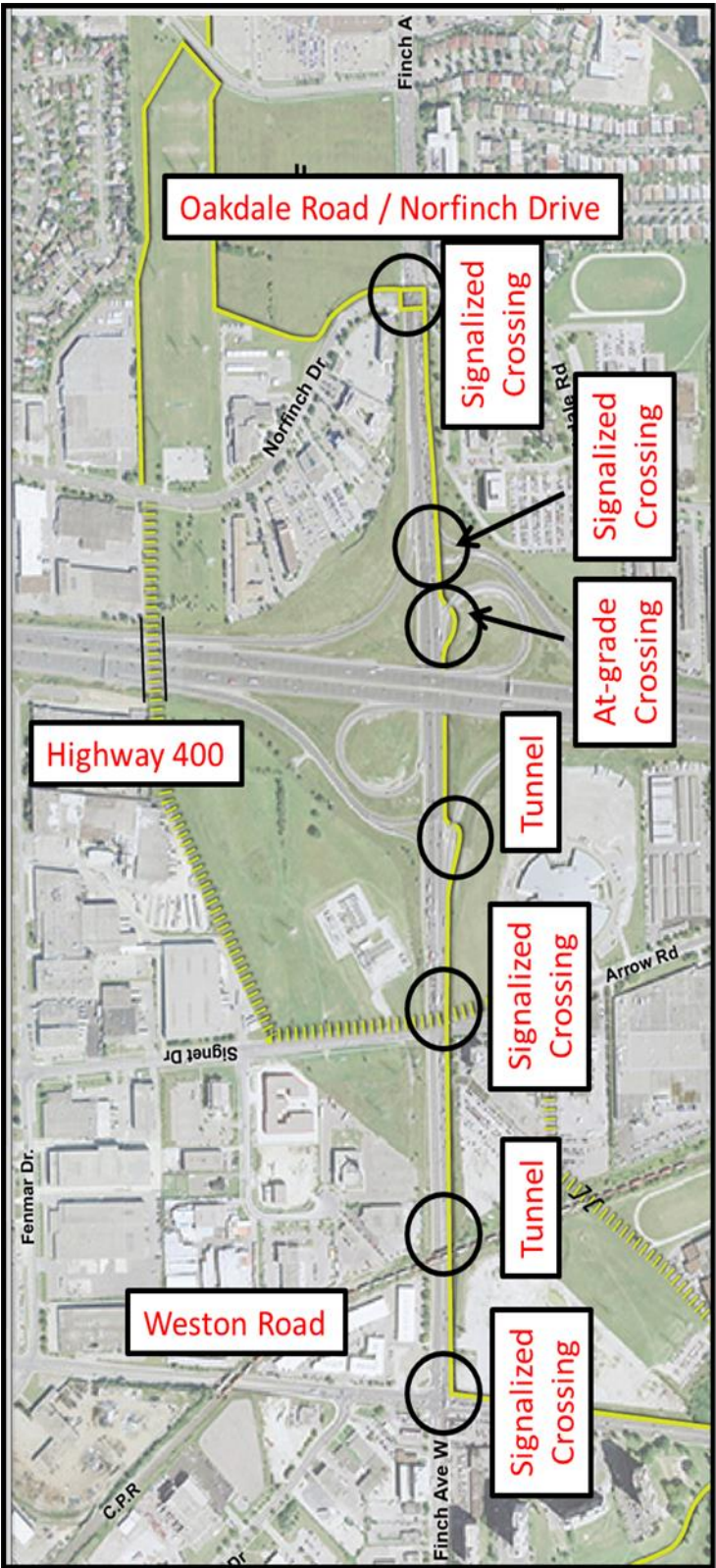
Looking East

Attachment 2: Multi-Use Path Passageway Under CP Rail Line (continued)



Looking West

Attachment 3: Multi-Use Path from Weston Road to Norfinch Drive/Oakdale Road



Attachment 4: Multi-Use Path Connection at Black Creek



Attachment 5: Multi-Use Path Connection to the Hydro Corridor

