City of Toronto

Don Mills Crossing Pedestrian and Cyclist Bridge Environmental Assessment

Background

Following the Municipal Class Environmental Assessment (MCEA) process, the City of Toronto completed the Don Mills Crossing Mobility Planning Study (DMC MPS) in 2019. The study, which satisfied requirements of the MCEA Phases 1 & 2, identified that the area lacks an active transportation network, and that opportunities to provide new active transportation connections in the area exist with the current terminus of the Don Mills Trail at the CP Rail Corridor.

As such, the City of Toronto is conducting Phases 3 and 4 of the MCEA for a new Pedestrian and Cycle Bridge to connect the existing Don Mills Trail to the future Crosstown community and broader Don Mills and Eglinton Area.

MCEA Process and Project Status

The project follows the MCEA process and will complete Phases 3 and 4. The DMC MPS satisfied requirements of the MCEA Phases 1 & 2 for the Crossing. Phase 1 developed the Problem & Opportunity to address *"a lack of coherent and integrated multi-modal transportation network".* Phase 2 explored underground (tunnel) and elevated (bridge) options to facilitate an active transportation crossing of the CP Rail Corridor.

The Elevated (bridge) option was chosen as the preferred alternative from Phase 2 of the DMC MPS. Phase 3 of the MCEA process undertaken as part of this project confirmed the Bridge with Straightened Ramps as the preferred option over the Bridge with Switchback Ramps. Subsequently, there were three Structural Bridge Alternatives considered, including a Steel I-Girder, Precast Concrete Box Girder, and Steel Truss. In addition, there were three structural ramp alternatives considered, including an elevated ramp on piers (concrete solid slab, and steel girders), and RSS wall-supported ramp.

In addition, a number of alternative designs were considered from the pedestrian and cyclist user perspective. The first is a shared multi-use trail, and the second is a separated pedestrian and cycling facility.

The alternative design concepts were evaluated based on the following eight evaluation criteria:

- Socio-Economic Environment
- Cultural Environment
- Accessibility
- Public Realm/Aesthetics
- Natural Environment
- Safety (including Crime Prevention through Environmental Design)
- Maintenance
- Cost

Each bridge alternative was evaluated on a 5-level scale from least preferred to most preferred based on a set of measures corresponding to each criteria. The Steel Truss and Precast Concrete Box Girder scored lower from a public realm/aesthetics perspective with regards to its design. The Precast Concrete Box Girder did not reflect the cultural heritage character of the study area, while the Steel Truss would require significant maintenance, and had the highest cost to construct.

The ramp alternatives were also evaluated using the same evaluation criteria. The Concrete Solid Slab elevated on piers was considered less visually appealing due to significant concrete visible. The RSS wall-supported alternative had the highest cost and had the most impacts to the surrounding environment.

The Emerging Preferred Solution

The emerging preferred solution for the bridge structure is the Steel I-Girder, which features a 'steel ribbon' concept, designed to conceal the substructure beneath the bridge. It features a 6.1 m wide bridge and has an 8 m clearance above the CP Rail tracks.

The emerging preferred solution for the ramp structure is the Steel I-Girders to support the ramp. It features 15m flat landing areas, with a maximum slope of 5% on the sloped segments. The elevated ramp on piers is approximately 200m long on each side of the CP Rail Corridor. The ramp will also contain a staircase that will match the ramp design by carrying on with the 'steel ribbon' design aesthetic. The ramp will provide a connection to Street F, and the staircase will provide a connection to Street C.

Cost Estimate

The preliminary cost estimate of the preferred alterative for the steel I-Girder is between \$1.0 mil and \$1.1 mil. The preferred ramp alternative is between \$6.5 mil and \$6.7 mil. In addition, the staircase to connect the bridge to Street C is estimated to cost \$500,000. The emerging preferred design high level cost estimate is between \$8.0 - \$8.3 mil, with the final cost to be shared between the developer and City of Toronto.

This EA will identify the functional design for the crossing and will set the parameters for the detailed design process to be carried out by the developer following the EA. During the detailed design stage, the following elements will be studied further:

- Integration of public art
- Signage and wayfinding
- Lighting
- Loading area; where the stairs meet the ground and where the ramp connects with Street C
- Landscaping; maintaining clear view of bridge, ramp and stairs from a safety perspective

Next Steps

City Led Next Steps include:

- Complete EA and 10% Design (2019-2021) January 2021: Public Consultation (online)
- Spring 2021: Report to Infrastructure and Environment Committee and City Council
- Spring 2021: Notice of Study Completion and start of 30-day Public Review

Developer Led Next Steps include:

- 100% Design and Construction (2021-2025)
- 2021: Detailed design (led by developer's team) begins
- 2024: Construction anticipated to begin
- 2025: Construction anticipated to end; project handed over to the City of Toronto

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Provide Your Feedback

Use the feedback form at <u>toronto.ca/DonMillsCrossingBridge</u> Please submit your comments by March 22, 2021 to be included in the consultation report.