

GARDINER EXPRESSWAY AND LAKE SHORE BOULEVARD EAST RECONFIGURATION ENVIRONMENTAL ASSESSMENT

Appendix R - Third Party Proposals Assessment

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WATERFRONToronto



TORONTO



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1. THIRD-PARTY PROPOSALS

While developing the Hybrid design concepts (see Chapter 4.0 for their description), the study team received unsolicited proposals from stakeholders and community members. Two third-party proposals were submitted to the study team during the period that the alternative designs for the Hybrid concept were being developed including: 1) The Viaduct Concept and 2) the Green Gardiner Concept. These concepts describe alternate visions for the future of the Gardiner Expressway. Both concepts explore alternative approaches to minimize (in varying degrees) the physical footprint, maintenance costs, and visual impacts associated with reconstructing an elevated expressway, while improving public access to the water's edge and maximizing opportunities for high-quality neighbourhood planning and development. These two third-party concepts were described in the Progress Report on Design Concepts for the Hybrid EA Preferred Alternative) presented at a Special Meeting of Public Works and Infrastructure Committee (PWIC) on September 22, 2015. The PWIC received this item for information, and directed staff to: "Undertake further evaluation of the third-party proposals as part of the EA study process". The work that was undertaken to evaluate these proposals is presented below in Sections 3.1.1 and 3.1.2.

While the original third-party concepts extended from Jarvis to the Don River, the concepts were revised to focus on the portion of the study area that is located west of Cherry Street following analysis and discussion. In so doing, it was envisioned that either of these concepts could be combined with the Hybrid concepts that lies to the east of Cherry Street. Both concepts enhance the area from Yonge Street to Cherry Street and would free up sections of Lake Shore Boulevard. The work undertaken by the study team to review these third-party concepts involved the following:

- Met with the third-party concept development teams on several occasions from mid-2015 to early 2016;
- Met with other stakeholders regarding these concepts including Metrolinx;
- Provided road design, road alignment and traffic operations input resulting in the refinement of the third-party concept designs to ensure that they would adequately function and connect with other roadway infrastructure;
- Assessed the feasibility and constraints of each concept including impacts to private land;
- Determined ballpark cost estimates, land acquisition costs, and potential land value from sale of surplus City-owned lands;
- Provided a recommendation regarding the further consideration of these concepts in the EA study; and,
- Presented the results of the above to the third-party development teams, the Stakeholder Advisory Committee (SAC), and to the public at the January 19, 2016 Public Information Centre.

1.1. Overview of Third-Party Proposals

1.1.1. The Viaduct

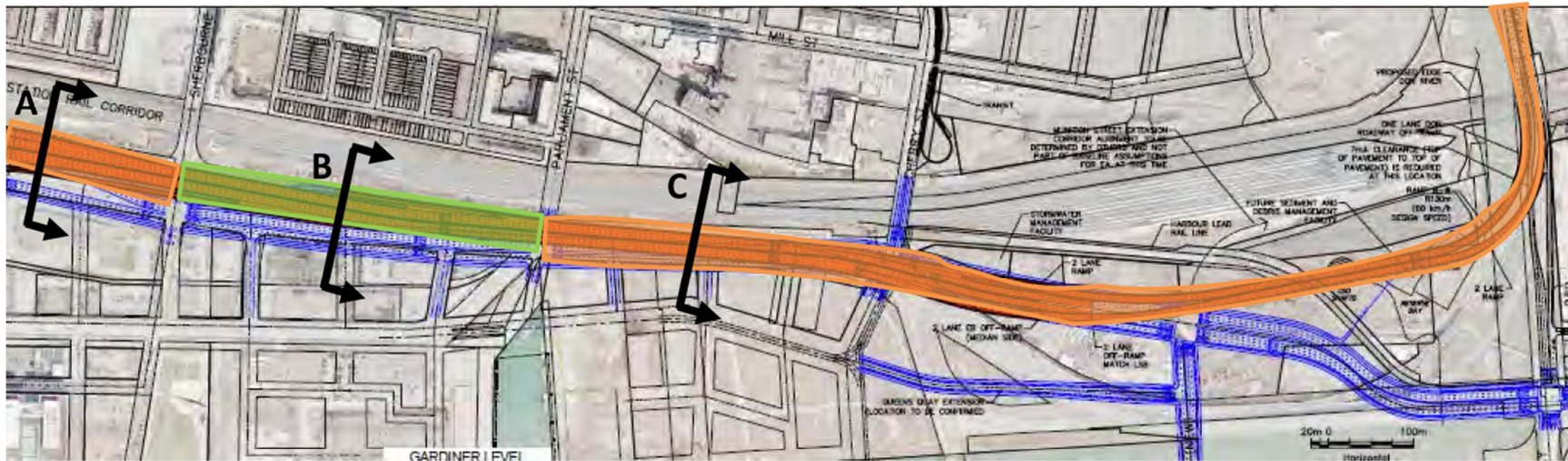
The first proposal, called "The Viaduct", was submitted by a team of consultants including Robert E. Millward, David Dennis Design, DTAH and Paul Bedford. The original proposal called for the Gardiner Expressway to be reconstructed on a new berm located south of the rail lands between Jarvis Street and Munition Street. It was proposed that the height of the expressway would be similar to the rail berm. Part of the rationale for supporting the expressway with a berm was to reduce long-term maintenance costs. A fully landscaped Lake Shore Boulevard (LSB) would run parallel to and south of the expressway. It was also originally proposed by the Viaduct team that new Gardiner–DVP ramps would be constructed to fly over the east-west Metrolinx rail corridor that would result in a Gardiner-DVP ramp at a much greater height than they are today.

After reviewing this concept further with the Gardiner study team, the Viaduct concept was revised to extend west of Cherry Street only as it would not be possible to place an expressway supported by a berm immediately south of the rail corridor all the way to the DVP because of the need:

- 1) for a DVP connection ramp at a suitable design speed (with a larger radius curve);
- 2) to avoid impacting the approved City stormwater management facility that is located immediately east of Cherry Street / south of the rail corridor and which has partially been constructed; and,
- 3) to avoid impacting the approved Don Mouth Sediment Management Facility.

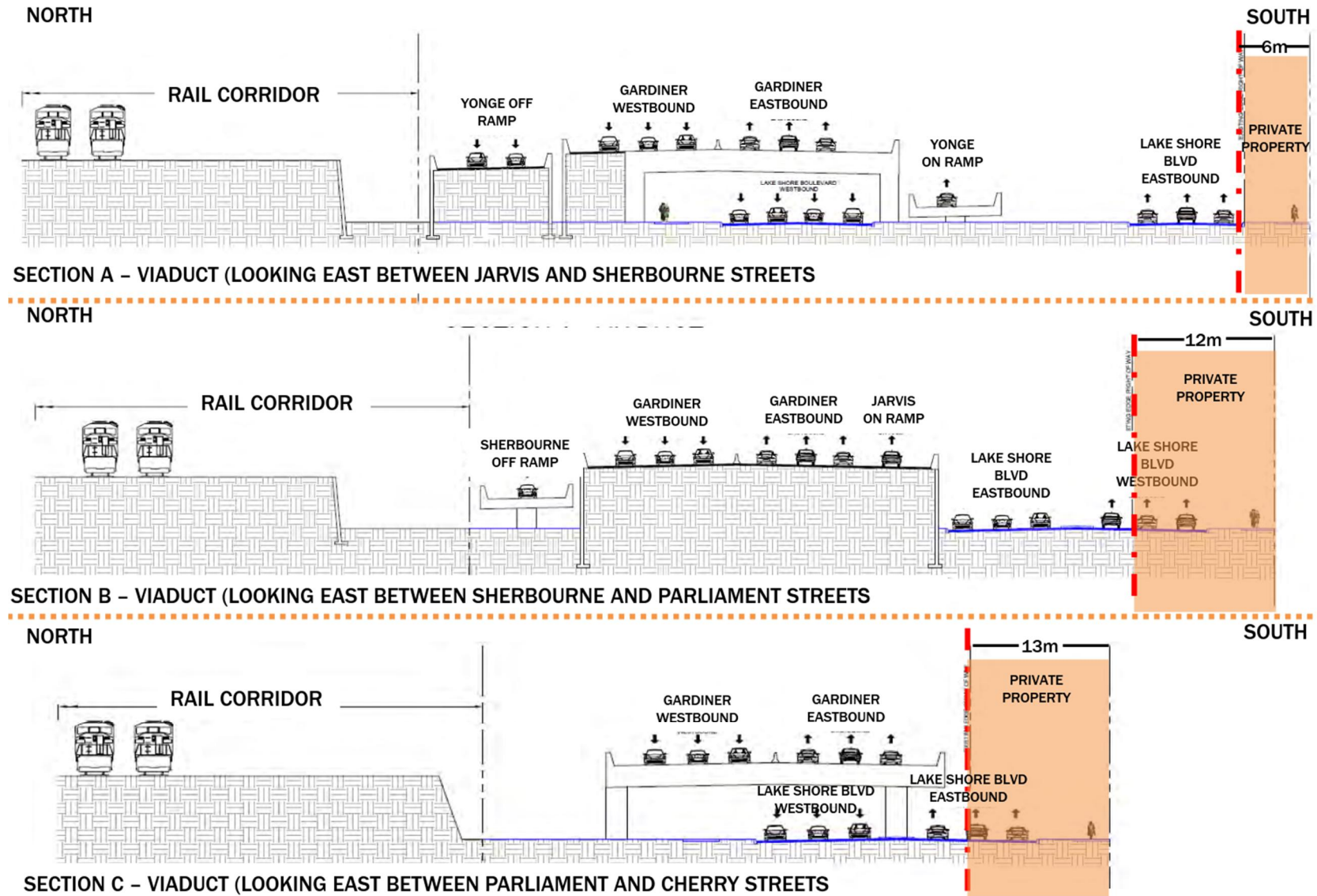
Upon further review of the concept, it was also determined that a full viaduct with LSB running south of a berm supported expressway would require significant private land as the existing right-of-way is not wide enough to accommodate a full berm/parallel LSB configuration (as the corridor ranges in width from approximately 65 m to 35 m and the full Viaduct concept with LSB running parallel to it would require about 75 m). To reduce private property requirements, the Viaduct was revised by assuming that portions of the elevated expressway would be supported by a "bridge structure" allowing sections of LSB to be placed under the elevated expressway in a "stacked" configuration either entirely or partially. Due to corridor width restrictions, the only section of the expressway that could reasonably be placed on a berm with LSB located immediately to the south, without significant property requirements, is between Parliament Street and Sherbourne Street (about a 425 meter section). Figures 1 and 2 illustrate the Viaduct concept. Other components included in the Viaduct include westbound off-ramps at Sherbourne and Yonge Streets and an eastbound on-ramp at Jarvis Street.

Figure 1: The Viaduct Plan



-  Viaduct
-  Elevated Structure

Figure 2: The Viaduct Sections Drawings

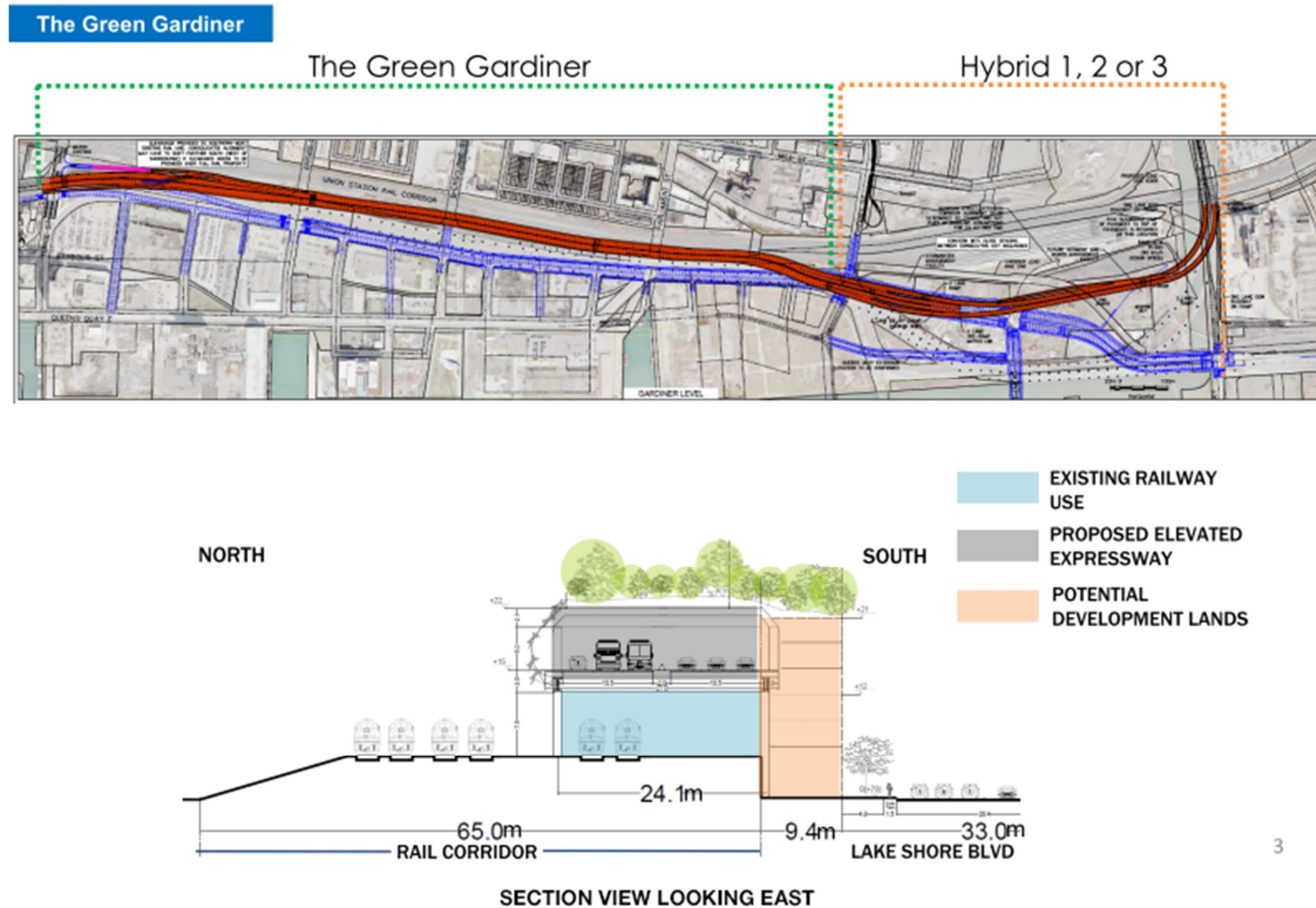


1.1.2. The Green Gardiner

The Green Gardiner concept was developed and submitted by a team of consultants including BrookMcIlroy, Planning Alliance (SVN) and Entuitive. The proposal calls for the consolidation of railway and road infrastructure with surplus lands in the road right-of-way being used for land development. Specifically, the Gardiner between Yonge Street and Cherry Street would be stacked above the rail corridor and incorporated into new development that would be located on surplus City-owned right-of-way located south of the rail corridor. Lake Shore Boulevard would then be free of the elevated expressway and be developed as a landscaped six-lane roadway with development on both sides of it. To allow westbound traffic access to Sherbourne and Jarvis Streets, similar to current conditions, a westbound exit ramp in the Keating Precinct was added to the concept.

A plan view and section view of the Green Gardiner Concept is presented in Figure 3. The concept also includes the possibility to include linear open/green space that would be supported on a platform sitting above the expressway lands as illustrated in the section view below. Figure 4 provides a rendered plan view that shows conceptual new development lands positioned south of the rail corridor and the possibility of a linear green space that would lie overtop of the expressway deck running along the south side of the rail corridor.

Figure 3: Green Gardiner Plan and Section Drawing



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Figure 4: Green Gardiner Rendered Plan



1.2. Third-Party Proposals Assessment

An assessment of the third-party concepts was undertaken by the Gardiner Study team. The purpose of this assessment was to determine the feasibility and value of these two concepts. As part of this assessment, ballpark costs were developed for each of the concepts. As well an independent land valuation consultant was retained to determine the value of the lands that would need to be acquired (for the Viaduct concept) and/or would be made available for development (for the Green Gardiner concept). The following presents a summary of the opportunities and challenges of each of the concepts.

1.2.1. Viaduct Concept Assessment

Opportunities

- Creates a section of bermed expressway / open-air Lake Shore Boulevard from Sherbourne Street to Parliament Street with two-sided development;
- A lower elevated expressway profile through a portion of the corridor would improve views across the corridor to the waterfront; and,
- Reduces lifecycle costs for the bermed expressway section.

Challenges

- Due to right-of-way width restrictions, only 425meter of viaduct (expressway supported by a berm) is possible in the 1700 meter corridor (Jarvis Street to Don River);
- Requires property acquisition (12 sites) which would be costly and result in lengthy private landowner negotiations;
- Results in throwaway Gardiner rehabilitation costs (the existing Gardiner requires major rehabilitation to commence by 2018/2019. It is expected that construction on the Viaduct concept could not commence until about 2021/2022 and would take eight years to construct. As such, full east deck rehabilitation would be required;
- Extra \$485 million (2013\$) over Hybrid costs plus an estimated \$45-\$50 million for property acquisition from 12 parcels; and,
- Lengthens pedestrian crossing distances at some north-south streets and requires pedestrians to pass under an elevated expressway that is lower than current deck height.

1.2.2. Green Gardiner Concept Assessment

Opportunities

- 1.1 km of open-air Lake Shore Boulevard with the opportunity for two-sided development;
- Additional three hectares of public land released for development at an estimated value of \$130 - \$145 million; and,

- Possibility for new open space over the expressway deck.

Challenges

- Lengthy and uncertain Metrolinx approvals process – Metrolinx has indicated that they need flexibility for future expansion of rail tracks in the corridor to accommodate the planned Regional Express Rail project, and are not in a position to provide comment on the placement of columns/piers that would be needed to support an elevated expressway over the rail corridor;
- Results in throwaway Gardiner rehabilitation costs. The existing Gardiner requires major rehabilitation to commence by 2018/2019. It is expected that construction on the Green Gardiner concept could not commence until about 2021/2022 and would take 8-10 years to construct. As such, full east deck rehabilitation would be required;
- Extra \$735 million (2013\$) over Hybrid costs plus additional cost for rail corridor air rights;
- Potential for local neighbourhood noise, air quality and view impacts;
- Removal of westbound exit at Sherbourne/Jarvis increases travel time for some commuters; and,
- Required westbound off-ramp at Munition Street reduces open space and impacts Keating Precinct.

1.3. Third-Party Proposal Conclusions

The Viaduct and Green Gardiner concepts were received, refined and assessed by the Gardiner EA study team. This included a review of the concepts with respect to their transportation functionality, city building benefits, costs, potential impacts, and approval and construction timelines. It is noted that the third-party teams helped inform designs for the Hybrid east of Cherry Street, particularly with respect to new expressway alignments that are closer to the rail corridor.

Regarding the Viaduct concept, due to right-of-way width restrictions within the corridor, to avoid significant private land takings, a true “bermed” viaduct is only available for about 425 meter of the 1700 m length from Jarvis Street to the Don River. The rest of the expressway would need to be supported by a bridge structure with Lake Shore Boulevard lying under or partially under the expressway as in the current condition. Given the limited benefit of this option, its high cost and approvals uncertainty as a result of the significant land requirements, this concept is not recommended for further consideration in the EA.

The Green Gardiner concept would require the approval of Metrolinx which has advised that until their long term needs for the rail corridor are determined, they cannot support placement of road-related infrastructure in the rail corridor that might impact future rail expansion plans including the Regional Express Rail (RER) program. Even if Metrolinx was in a position to support this concept at this time, it is expected that approvals, design and construction of this concept would take until about 2030 thus it would be necessary to undertake the planned east Gardiner rehabilitation program, which needs to be initiated by 2018/2019 to ensure safe travel on the Gardiner. For these

reasons this proposal is not being considered further in this EA but could be considered in the longer term by City Council once Metrolinx has confirmed their RER plans and determined their long term rail corridor needs.