

Gardiner Expressway
and Lake Shore Boulevard Reconfiguration

EA Terms of Reference **DRAFT**



WATERFRONToronto



DILLON CONSULTING LIMITED . PERKINS+WILL . MORRISON HERSHFIELD

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1.0 Introduction and Background

1.1 Introduction

Waterfront Toronto and the City of Toronto (City), the project co-proponents, are jointly undertaking a major study to determine the future of the eastern portion of the elevated Gardiner Expressway and Lake Shore Boulevard from approximately Lower Jarvis Street to just east of the Don Valley Parkway (DVP) at Logan Avenue.

Waterfront Toronto and the City are committed to a fully-integrated study process that consists of:

1. An urban design that yields a vision or multiple visions for the future of the area occupied presently by the elevated Gardiner Expressway and Lake Shore Boulevard; and,
2. An Environmental Assessment (EA) pursuant to the Ontario *Environmental Assessment Act* for proposed changes to the existing Gardiner Expressway and Lake Shore Boulevard.

This unique, fully integrated study process is intended to ensure that strong city-building objectives remain at the centre of the technical analysis and that a successful urban environment characterized by design excellence results from this effort.

The project co-proponents have elected to conduct the study as an Individual EA. Through this EA, the 'undertaking' (or project) will be determined. The first step of the EA process is to prepare a Terms of Reference (ToR). This document fulfills that requirement. The ToR sets out the study process to be followed in conducting the Individual EA, including a description of how the public, stakeholders (interest groups) and agencies will be consulted.

1.2 Historical Background

The Frederick G. Gardiner Expressway was constructed at a time when Toronto's downtown waterfront was still considered a heavy industrial area, providing the City with goods and materials but not a civic waterfront destination. In 1955, after more than a decade of planning, construction began on the at-grade segments of the

Gardiner Expressway west of the City. In 1958, construction began on the elevated segments from Dufferin Street through the central downtown area, reaching York Street by 1962, the Don Valley Parkway by 1964, and finally Leslie Street by 1966.

The route of the Gardiner Expressway required the taking of substantial amounts of parkland, including Sunnyside Amusement Park, removal of the Jameson Avenue portion of the Parkdale residential neighbourhood, and elimination of many local access routes to the waterfront. It also necessitated the complete reconfiguration of Lake Shore Boulevard through the central downtown to allow the Gardiner Expressway to be built above it. In the process, Lake Shore Boulevard changed from a tree-lined waterfront avenue to an expressway collector route.

The removal of a segment of the Gardiner Expressway east of the Don River, between Bouchette Street and Leslie Street, was completed in 2003.

1.3 Project Co-Proponents

Waterfront Toronto and the City are jointly conducting this EA and will act as co-proponents. The decision to undertake this study was made by the Waterfront Toronto Board of Directors and Toronto City Council in 2008.

1.3.1 Waterfront Toronto's Mission

Waterfront Toronto was established by the Government of Canada, the Province of Ontario and the City of Toronto as the “Toronto Waterfront Revitalization Corporation” in 2001 to lead and oversee the renewal of Toronto’s waterfront. Waterfront Toronto has jurisdiction over a portion of the lands that extend from Ontario Place in the west to Ashbridges Bay in the east. This area is about 810 ha in size, making it one of the largest urban redevelopment opportunities in North America.

Waterfront Toronto’s mandate is to put Toronto at the forefront of global cities in the 21st century by transforming the waterfront into beautiful and sustainable communities, fostering economic growth in knowledge-based, creative industries,



View of Gardiner Expressway and Downtown Toronto from the south-east.

and ultimately redefining how Toronto, Ontario, and Canada are perceived by the world. A core part of that mission includes building high-quality public infrastructure, including parks, promenades, boulevards, and other amenities needed to generate vibrant urban activity.

1.3.2 City of Toronto's Waterfront Objectives

The City, which owns and operates the Gardiner Expressway and Lake Shore Boulevard, established the Waterfront Secretariat in 2001. This department leads and oversees the City's participation in the revitalization of Toronto's waterfront and serves as the "one window" for Waterfront Toronto to the City. The Secretariat advises City Council on the activities of Waterfront Toronto, ensures collaboration across divisions, agencies, boards, and commissions in the planning and delivery of waterfront initiatives, and provides strategic direction on the management of municipal assets in the Central Waterfront. It also ensures that the City's policies, priorities and regulations are respected and reflected in all decision-making processes associated with waterfront revitalization, including tri-governmental negotiations.

The vision in the City of Toronto's Official Plan is for a more liveable city created by integrating future growth with viable transportation and green space networks. The Central Waterfront area is guided by the policies and direction of the Official Plan, the Central Waterfront Secondary Plan, and numerous other reports, studies and precinct plans, which direct City staff to seek the improvement of the public realm and the pedestrian environment and to provide for improved physical and visual access to the waterfront. A reduction in auto dependency and a greater reliance on walking, cycling and transit is a key principle when considering modifications to roadways and remaking streets as "places".

2.0 Description of the Environmental Assessment Process

2.1 Ontario Environmental Assessment Act

This project is subject to the Ontario *Environmental Assessment Act* (EA Act). An EA is a planning study that assesses potential environmental effects and benefits of an ‘undertaking’ (the intended project). The term ‘environment’ is broadly defined in the EA Act to include the natural environment, as well as, the social, cultural, built and economic aspects of the environment. As an Individual EA, the first stage is to prepare the ToR which is submitted to the MOE for review and approval. Following the approval of the ToR by the Minister of the Environment, the EA study can commence.

The project co-proponents intend to conduct the EA study in accordance with all of the general requirements of subsections 6(2)(a) and 6.1(2) of the Ontario EA Act. As such the EA will consider the following:

- *A description of the purpose of the undertaking;*
- *A description and statement of the rationale for the proposed undertaking, alternatives to the undertaking, and alternative methods for carrying out the undertaking;*
- *A description of:*
 - o *the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly, by the undertaking, the alternatives to the undertaking, and the alternative methods of carrying out the undertaking;*
 - o *the effects that will be caused or that might reasonably be expected to be caused to the environment, by the undertaking, the alternatives to the undertaking, and the alternative methods of carrying out the undertaking;*
 - o *the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment, by the undertaking, the alternatives to the undertaking, and the alternative methods of carrying out the undertaking;*
- *An evaluation of the advantages and disadvantages to the environment of the undertaking, the alternatives to the undertaking and the alternative methods of carrying out the undertaking; and,*
- *A description of the consultation undertaken by the proponent and the results of the consultation.*

Other EA approvals (e.g. Municipal Class EA) identified through the course of this EA may be required for changes to infrastructure that will be required to accommodate this project. The scope of this EA study may be expanded to incorporate these changes. Other provincial approvals may be required to implement the project (the ‘undertaking’) and will be determined in the EA study.

Further, it will be important while conducting this EA to consider the recommendations of other EA planning processes that have been commenced and/or undertaken in and adjacent to the study area (including for example the Queens Quay EA, the Don Mouth Naturalization and Port Lands Flood Protection Project EA, Lower Don Lands Class EA, and the York-Bay-Yonge Ramps EA).

2.2 Canadian Environmental Assessment Act

In anticipation of the potential applicability of the *Canadian Environmental Assessment Act* (CEAA) to the project, the EA study will consider and document Federal EA considerations including for example, the potential for effects of the environment on the project.

Should it be determined during the EA that the project will require CEAA 'approval', it is anticipated that both governments will coordinate their respective EA processes as outlined in the *Canada-Ontario Agreement on EA Cooperation (November, 2004)*. This proposed approach is designed to address the information requirements of both Federal and provincial EA requirements.

2.3 EA Study Process Overview

Figure 2.1 presents a flowchart of the intended EA process to be followed to select and develop a preferred design (the 'undertaking'). All of the steps of the intended EA process are discussed in this EA ToR as briefly outlined below.

Chapter 3.0 - Purpose of the Study and Undertaking outlines why the study is being undertaken and presents the problems and opportunities to be addressed.

In **Chapter 4.0 – Description and Rationale for the Undertaking**, an initial *description of the 'undertaking'* is provided. As well, a set of project goals have been developed and are presented. The *rationale for the 'undertaking'* that is to be defined in the EA study, will reflect and capture the project goals. These goals shape the 'undertaking' and provide guidance and direction to the study and project.

The description of *baseline conditions* provides the foundation for the assessment and evaluation of the alternatives. It allows for the potential effects of the project on the environment to be fully understood. In **Chapter 5.0 – Existing Environment and Potential Effects**, an overview description of baseline conditions is provided.

In conducting the EA study, more detailed data collection activities and analyses will be undertaken. The proposed EA work plan is presented in **Appendix A**. It is expected that the EA work plan will be further refined once the EA is initiated.

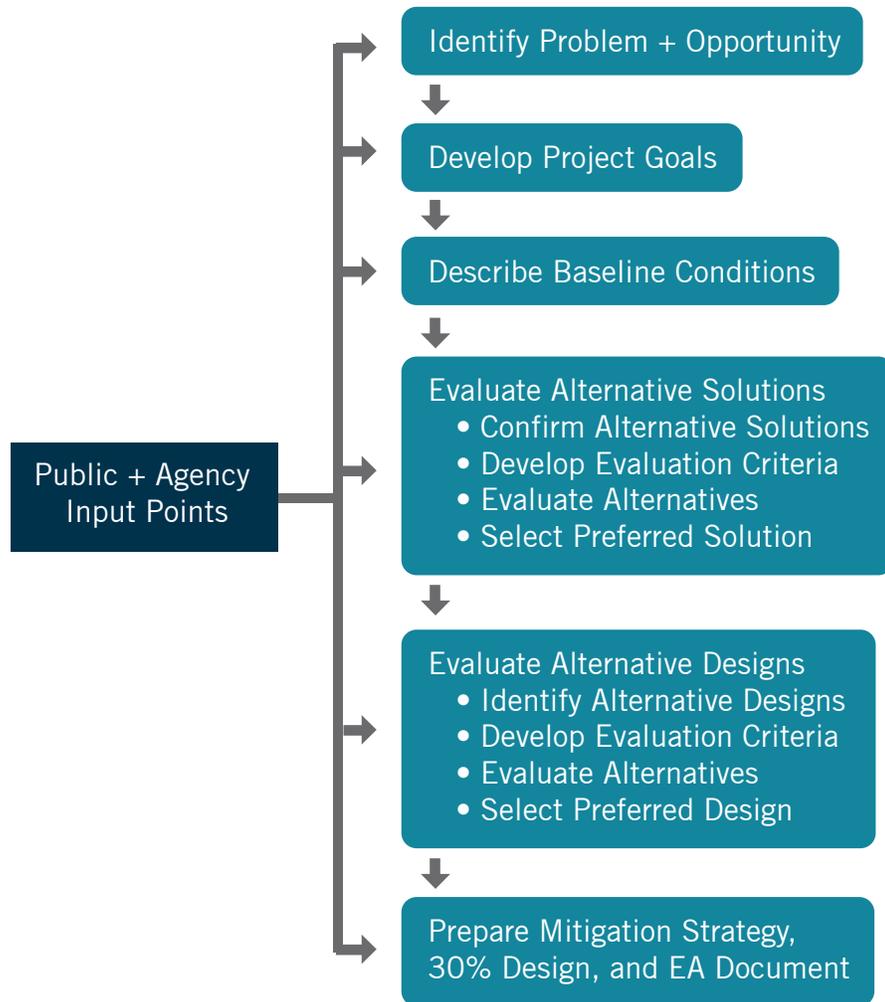
In this EA study, both *Alternative Solutions and Alternative Designs* will be developed and evaluated. As presented in **Chapter 6.0 - Alternatives to be Considered**, four alternative solutions are being proposed for assessment. Preliminary descriptions of these alternative solutions have been provided in this EA ToR. The alternative solutions will be developed and described in further detail in the EA study. The preferred solution, once selected, will then form the basis for the development of alternative designs which will be defined in the EA study.

In **Chapter 7.0 - Assessment and Evaluation Process**, the proposed *evaluation approach* is presented. Both the alternative solutions and alternative designs will be subject to an evaluation process to select a preferred alternative. Four study "lenses" are proposed to provide the structure for the evaluation of the alternatives. The evaluation criteria will be organized on the basis of the study lenses and reflect the project goals. Both the evaluation approach and criteria will be further defined during the EA study process.

Once a preferred design (the 'undertaking') is selected, a mitigation strategy and 30% preliminary engineering and public realm design for the 'undertaking' will be developed.

The EA process provides for public, stakeholder, agency and First Nations consultation at key input points as is illustrated in Figure 2.1. In **Chapter 9.0 - Development of the Consultation Plan**, the proposed plan for consultation during the EA is presented.

Figure 2.1 - EA Study Process



3.0 Purpose of the Study and Undertaking

3.1 Purpose of the Study

The purpose of this study is to determine the future of the eastern portion of the elevated Gardiner Expressway and Lake Shore Boulevard from approximately Lower Jarvis Street to just east of the Don Valley Parkway (DVP) at Logan Avenue.

A number of studies have been conducted regarding the future of the Gardiner Expressway. It has been nearly 20 years since the release of the initial Crombie Commission recommendation to remove the entire elevated Gardiner Expressway, and it is now becoming increasingly difficult to plan and develop the waterfront in the face of this uncertainty. This study is intended to identify a plan of action that can be fully coordinated with other waterfront efforts. While the waterfront can be revitalized with the Gardiner Expressway retained or replaced or removed, a decision is needed now so development can be conducted in a coordinated and comprehensive fashion in this area and other waterfront neighbourhoods. The decision on the Gardiner Expressway and Lake Shore Boulevard pair is an important one that will influence development in the City's waterfront area for many years.

New York, Boston, San Francisco, and Portland are examples of cities that have successfully addressed the challenges presented by aging elevated expressway systems. In each case, changes to such systems have proven to be a catalyst for revitalizing neighbourhoods, enhancing the public realm, and stimulating the city's economy. These case studies and others around the world demonstrate the opportunities afforded by the redesign of single-use pieces of infrastructure into urban elements that provide broader public benefits.

3.2 Purpose of the Undertaking

The purpose of the 'undertaking' is to address current problems and opportunities in the Gardiner Expressway and Lake Shore Boulevard study area. Key problems include a deteriorated Gardiner Expressway that needs major repairs and a disconnected waterfront. Key opportunities include revitalizing the waterfront through city building, creating new urban form and character and new public realm space. The purpose of the undertaking will be refined and described in more detail in the EA study.

3.3 Problems

3.3.1 Deteriorated Structure

The Gardiner Expressway from Lower Jarvis Street to east of the DVP is an elevated roadway, comprising simple spans supported on steel or concrete bents. The City Transportation Department has been repairing the structure since the 1980s. Except for the two connecting ramps from the DVP to the Expressway, structure rehabilitation was mainly restricted to local patching including the deck and the bridge barriers. Chloride from road salts has already permeated into the concrete components and

caused deterioration of the structure and loss of structural capacities. The recent revisions of bridge codes to address heavier vehicles on our streets also require some structural strengthening where needed and better traffic containment devices (bridge barriers).

This section of the elevated Gardiner Expressway was one of the first few sections rehabilitated in the 1980's and a new round of repairs is again required. This may include comprehensive deck and pier rehabilitation to keep the expressway in a safe and operable condition. It is expected that this investment would be in the order of \$50 million over the next 10 years between Jarvis Street and the DVP. The investment cost could be significantly higher if a deck replacement solution is chosen by the City to extend the life of this structure to avoid frequent maintenance.



Some corroded concrete columns have been repaired.



The elevated structure is a barrier.



The railroad viaduct and easement pose a second waterfront barrier.

3.3.2 Disconnected Waterfront

The Gardiner Expressway and Lake Shore Boulevard in combination with the rail line viaduct create a barrier between the city and the waterfront/lake. While the rail line serves as a physical barrier (access is limited to a few narrow street openings), the Gardiner Expressway/Lake Shore Boulevard also acts as a psychological barrier with “dead space” located underneath it. Lake Shore Boulevard can only be crossed at a few north/south streets. The Gardiner Expressway, with its ramps and elevated structure, restricts views and creates a gap in the urban fabric between the city and the waterfront and between existing and planned communities. The project will address this gap.



There are few pedestrian and vehicular connections under the viaduct.

3.4 Opportunities

3.4.1 Revitalize the Waterfront

Reconfiguring the Gardiner Expressway and Lake Shore Boulevard presents opportunities to help re-shape the character of the urban environment, to create new connections between existing city neighbourhoods and new waterfront districts, and to make long-term quality infrastructure investments. What is now in need of repair and viewed as an obstacle between the City and its waterfront can become both a connector and place in its own right. This is an opportunity for city-building: the inherent strength of cities lies in their ability to create and facilitate connections. Connections are more than just high quality roadways and pedestrian routes between desired centres; they include visual corridors and markers, continuous active uses, vibrant civic and commercial destinations and spaces that foster communication and interactions.

3.4.2 Create a Sustainable Waterfront

Such large scale and long-term projects are an opportunity to apply sustainable practices at the social, economic and natural environment levels. The modified Gardiner Expressway/Lake Shore Boulevard and the surrounding development it catalyses, can be guided and evaluated by sustainable practices.

While environmental conditions in the study area are degraded, there are a number of projects taking place within the waterfront area which will finally achieve the vision that the City of Toronto has for this area - green, healthy and energy efficient. Waterfront Toronto and TRCA have taken the lead in integrating many habitat improvement projects along the waterfront. Among these is the Don Mouth Naturalization and Port Lands Flood Protection project. This project provides a unique opportunity to support and build on these plans to create natural habitats around the study area.



The Don River is a current site of waterfront environmental restoration.

3.4.3 Generate and Capture Economic Value

The project presents opportunities for positive net value creation in a local, regional, and global context. These may manifest through public and private investments that create value for the public sector and the community, in terms of streets, open space, and catalysts for private development, and can achieve regional competitiveness and global brand equity for Toronto. The combined value can globally position Toronto to attract investment capital, talent, and tourism.



The waterfront offers multiple revitalization opportunities.

3.4.4 Rebalance Transportation Modes

This project also creates an opportunity through the reconfiguration of transportation infrastructure to allow for a rebalancing of transportation modes from an automotive focus to one that has high reliance on pedestrian, cycling, and transit (local and regional) modes. In the coming decades it is expected that there will be decreased dependence on the private automobile and an increase in the use of active public modes and transit. The proposed 'undertaking' can assist in achieving balanced transportation opportunities.

4.0 Description and Rationale for the Undertaking

4.1 Description of the Undertaking

The ‘undertaking’ will include the proposed changes to the existing Gardiner Expressway and Lake Shore Boulevard from approximately Lower Jarvis Street to just east of the Don Valley Parkway (DVP) at Logan Avenue to address the identified problems and opportunities described previously. A more detailed description of the ‘undertaking’ will be developed and detailed in the EA study.

Further, while not within the scope of this EA study, consideration will be given to potential opportunities to improve connections across the rail corridor to complement the recommended ‘undertaking’.

4.2 Rationale for the Undertaking (Project Goals)

A set of project goals has been developed to provide guidance for the project and to communicate the promise of the project to the larger community. The rationale for the ‘undertaking’ (project) will be determined and described through the EA process. It will reflect and capture the project goals that have been developed in preparing this EA ToR. These goals will shape the ‘undertaking’ and provide guidance and direction to the study and project. In particular, it is expected that they will provide guidance to the development of the alternative solutions and designs, the criteria to be used to evaluate the alternatives, and the design of the project or ‘undertaking’.

The project goals were developed considering Waterfront Toronto’s guiding principles, the City’s Official Plan and Central Waterfront Secondary Plan, and with public and stakeholder input.

Waterfront Toronto’s guiding principles include:

- *Sustainable development;*
- *Public accessibility;*
- *Economic prosperity;*
- *Design excellence; and,*
- *Fiscal sustainability.*

The Toronto Official Plan is both visionary and strategic and focuses on opportunities for renewal and reinvestment. Key “themes” from the City’s Official Plan include:

- *Promoting growth that is less reliant on the private automobile;*
- *Developing transit-based growth strategies that support development in areas with good transit and improve transit in major growth areas;*
- *Emphasizing environmentally sustainable development;*



Future configuration and streetscape for Queens Quay, proposed as part of the Central Waterfront.

- *Having design policies to guide the physical form of development and public realm improvements; and,*
- *Ensuring the social and environmental infrastructure is in place to serve Toronto's present and future residents.*

The **City's Central Waterfront Secondary Plan** provides policies for future road patterns, transit routes, natural areas, regeneration areas and redevelopment areas. The plan has four core principles which act as a framework for waterfront renewal activities:

- *Removing Barriers and Making Connections;*
- *Building a Network of Spectacular Waterfront Parks and Public Spaces;*
- *Promoting a Clean and Green Environment; and,*
- *Creating a Dynamic and Diverse Community.*

Each core principle is accompanied with a series of “Big Moves” that will define the Central Waterfront. Of these principles, Removing Barriers and Making Connections is particularly significant to the Gardiner Expressway and Lake Shore Boulevard reconfiguration. This principle includes Big Moves for “Redesigning the Gardiner Corridor” and transforming Lake Shore Boulevard into “An Urban Waterfront Avenue.” The plan states that the final configuration will depend on the outcome of a detailed study. The plan also includes policies for a new waterfront transit network, the prioritization of sustainable modes of transportation, the remaking of waterfront streets into “places” with distinct identities, and the implementation of a standard of excellence for the design of public realm and built form.

The five project goals are presented on the following pages. They may be revised during the EA study.



Future waterfront esplanade proposed as part of the Central Waterfront.

Goal 1: Revitalize the Waterfront



21st Century Waterfront, Chattanooga, TN,



Hudson River Park, New York, NY.



Future precincts on Toronto waterfront.



Proposed waterfront esplanade, Central Waterfront.

In its current form, the elevated Gardiner Expressway has become an eyesore. Its structural column grid, on- and off-ramp network, and architectural detailing were never intended to create a great public realm, but rather to carry vehicles along the waterfront area. A public realm that provides adequate access to open space, landscape, light and air, and contributes to the revitalization of the waterfront needs to be created. The project should:

- Prioritize urban design excellence, place-making, and quality of life as integral components of project design and evaluation.
- Contribute to the creation of the waterfront as a regional/ tourist destination.
- Rejuvenate the underutilized and derelict lands under and adjacent to the expressway.
- Balance provision of new amenities for both local and regional users recognizing that local and regional stakeholders may value amenities and infrastructure in different ways.
- Build on existing planning initiatives and conclusions. The study will coordinate and seek opportunities of mutual benefit with those initiatives.
- Acknowledge this project as an opportunity for City-building. Evaluate city-building investments, outcomes, and benefits in local, regional, and global contexts.

Goal 2: Reconnect the City with the Lake

The Gardiner Expressway and Lake Shore Boulevard pair have long been perceived as a barrier that disconnects the downtown from its waterfront. The railroad viaduct is a physical barrier, limiting waterfront area access to four underpasses. When combined these two facilities form a gap in the urban fabric. This gap needs to be addressed through street design, local transit, public realm, and mixed-use development strategies that enhance waterfront connections to downtown. Any reconfiguration of the Gardiner Expressway will need to include welcoming and accessible routes to the waterfront, breaking down the psychological and physical barriers that exist today and replacing them with inviting and engaging experiences. The project should:

- Create physical, visual, and cognitive connections to the waterfront for downtown, the City, and region. The waterfront is an amenity that belongs and should be accessible to the public.
- Design the public realm to be attractive, accessible and connected. The qualities of experience offered by streets, plazas, parks, promenades, pathways, bicycle routes, and visual corridors will be major drivers of design decisions. Public spaces should be accessible and perceived as public.
- The new urban fabric should become a connector between the downtown and new waterfront communities, one that uses transit, street design and new mixed-use communities to stitch the city with its unique waterfront experience.



East Bayfront Precinct – Existing.



East Bayfront Precinct – Proposed.



East Bayfront Precinct will connect downtown Toronto to the waterfront.



East River Esplanade, New York, NY.

Goal 3: Balance Modes of Travel



Embarcadero Boulevard, San Francisco, CA



Octavia Boulevard, San Francisco, CA



Proposed shared roadway for Queens Quay, Toronto, ON.

Any new configuration of the Gardiner Expressway will need to maintain an effective local and regional transportation system, including commuters and freight, and minimize negative impacts by balancing alternative travel modes, including transit (local and regional), cycling and walking within the system.

Further, over the coming decades it is expected that there will be decreased dependence on the private automobile and an increase in the use of active public modes and transit. This is due to a combination of factors, including lifestyle changes that are drawing people back downtown; increasing fuel prices; and climate change as people seek to reduce their “carbon footprint”. The project should:

- Acknowledge transportation initiatives for their impact – both positive and negative – on regional economic competitiveness, land-use, development character, settlement patterns, and environmental issues such as air quality and ambient noise.
- Maintain reliable access to the City and its neighbourhoods for commuters, freight trucks, and regional travelers. The corridor plays an important role in the movement of traffic through the City and larger region. The reconfiguration alternatives will address the through-traffic function of Gardiner Expressway and Lake Shore Boulevard.
- Acknowledge and integrate other planned transit (local and regional) initiatives being proposed for the City.
- Consider a combination of supply, system and demand management measures. Creatively maximize the performance of infrastructure through management and operation.

Goal 4: Achieve Sustainability

This project should advance the City's and Waterfront Toronto's commitment to green, healthy, and energy efficient development. Sustainable design solutions can improve environmental quality and biodiversity, and minimize public health risks. The project should:

- Consider Waterfront Toronto's and the City's sustainability policies and frameworks.
- Help contribute to development that has an overall positive impact. These benefits are to result in environmental enhancements, economic security, and social/cultural gains.
- Contribute to the improvement of environmental quality and public health, including air quality.
- Complement if not enhance other waterfront environmental naturalization initiatives.
- Accommodate the plans for flood storage and protection in the Don River mouth area.
- Promote social engagement and interaction.
- Promote the City's initiatives to reduce greenhouse gas emissions.
- Promote public awareness and education on environmental issues through the physical design of infrastructure and public realm.
- Integrate ecology and natural systems with urbanism.



The High Line, New York, NY.



21st Century Waterfront, Chattanooga, TN.



Lower Don Lands Precinct (proposed), Toronto, ON.

Goal 5: Create Value



Sherbourne Park is a proposed open space connection from upland neighborhoods to the waterfront in East Bayfront Precinct.

The future shape of the Gardiner Expressway and Lake Shore Boulevard can act as a catalyst for good development and contribute to an integrated, vibrant, and successful waterfront. Further, any changes to the Gardiner Expressway and Lake Shore Boulevard pair will require a significant public investment, whether in rehabilitation and enhancement of the existing structure or replacement with a new or alternative facility. That investment should be targeted to maximize opportunities for revitalization, and to leverage the economic benefits of the project, rather than simply preserving the single purpose Gardiner Expressway. The project should:

- Plan and design for positive net value creation in local, regional, and global contexts.
- Define a public and private investment structure that creates and captures value for the public sector. The public sector, through these city-building initiatives, creates value for the community, in terms of streets, open space, and catalysts for private development.
- Maximize net economic and environmental benefits.



View of Gardiner Expressway and the Inner Harbour from the east.

5.0 Existing Environment and Potential Effects

5.1 Study Areas

The section of the Gardiner Expressway and Lake Shore Boulevard that is being examined for reconfiguration extends 2.4 km from approximately Lower Jarvis Street to just east of the DVP at Logan Avenue. Two study areas have been initially developed:

Urban Design and Environmental Effects Study Area – includes the lands in the vicinity of the section of the Gardiner Expressway and Lake Shore Boulevard that is being considered for reconfiguration. These are the areas that could potentially experience disruption effects and be transformed through redevelopment opportunities. This is expected to include lands south of King Street to the waterfront, and from Lower Jarvis Street to Logan Avenue. This study area includes three precincts: East Bayfront; West Don Lands; and Keating Channel.

Transportation System Study Area – includes the area that could be affected by changes in traffic patterns and volumes. The lands that extend from Dundas Street to Lake Ontario and from Spadina Avenue to Woodbine Avenue will be subject to a detailed level transportation assessment. The study area includes the transportation network of transit (subway, streetcar, and GO Transit service), and vehicular traffic including goods movement and emergency vehicles, and the pedestrian and cycling networks. Further, transportation initiatives at a city-wide or regional level will also be considered in the transportation assessment.

Figure 5.1 illustrates the study areas. The study areas will be confirmed in the EA and will need to consider the alternatives to be examined and the geographic extent of the potential project effects (negative and positive).

Figure 5.1: Study Areas

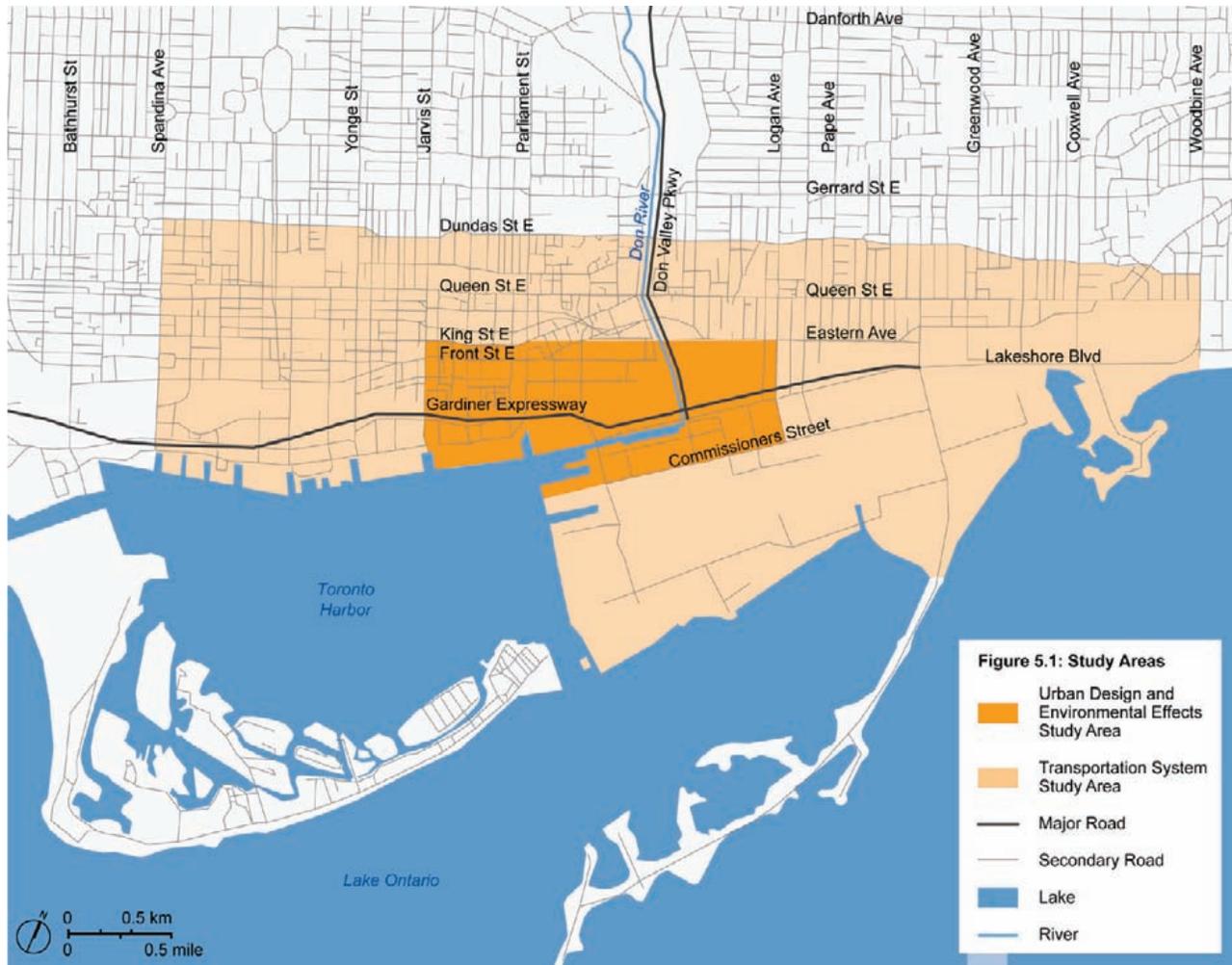
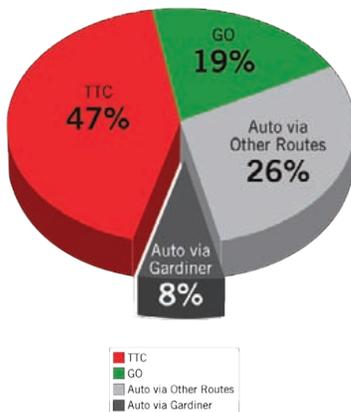


Figure 5.3
Central Area Person Trips by Mode
(Existing Morning 3-Hour Peak Period Inbound)



5.2 Overview of Existing Conditions

A description of the existing and future environment (baseline conditions) in the study areas will be completed as part of the EA. The description of baseline conditions will provide a context for the study, identify the issues that will need to be considered and resolved, and provide the foundation from which alternatives will be assessed and evaluated. With the exception of transportation considerations, baseline conditions will be described for the “Urban Design and Environmental Effects Study Area” as defined above. Transportation conditions will be described for the larger “Transportation System Study Area”.

The following provides a summary description of study area baseline conditions. **Figure 5.2** highlights the study area and major geographic reference points.

5.2.1 Transportation and Infrastructure

Figure 5.3 shows the percentage of person trips made into the central area of the city by transit or automobile during the morning peak travel period (6am to 9am); eight percent are automobile using the Gardiner Expressway.

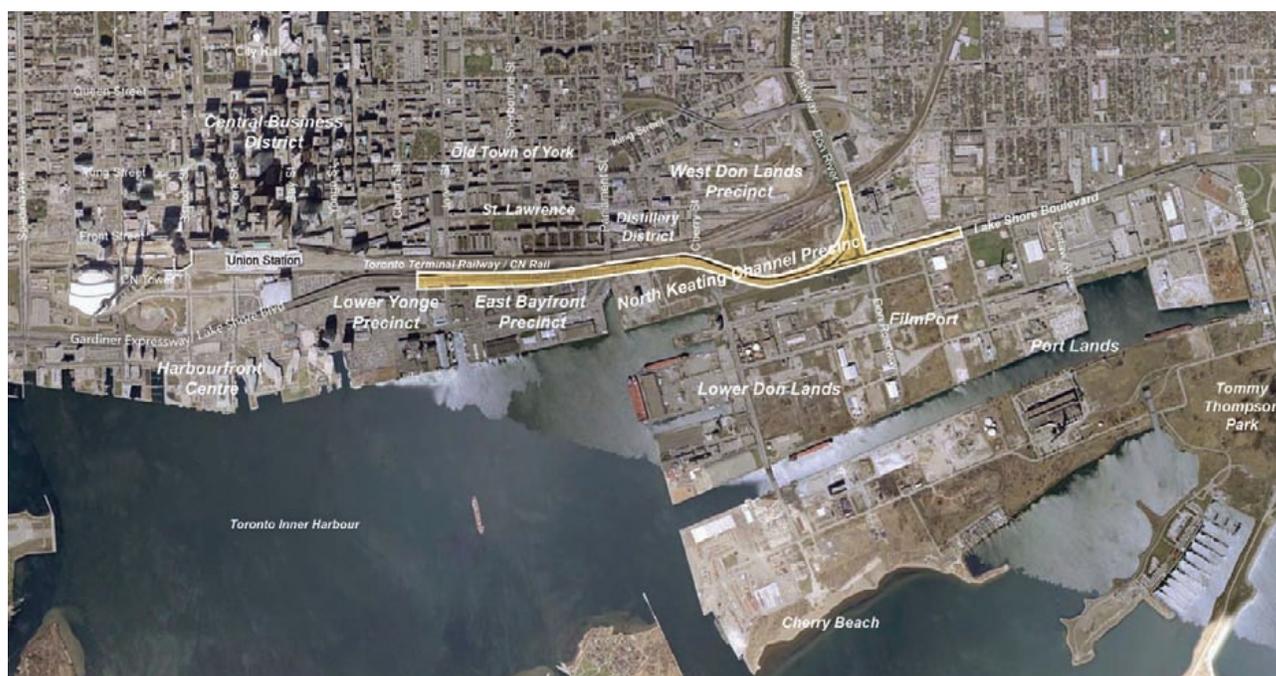
Road and Rail

The Gardiner Expressway – Lake Shore Boulevard pair is an integrated system of roadways and ramps providing service to both through and local traffic. The bridge deck is over 40 years old with comprehensive deck and pier rehabilitation required

on an annual basis to keep the expressway safe for use. The Gardiner Expressway extends approximately 18 km from the Queen Elizabeth Way at Highway 427 to Logan Avenue on the east side of the Don River. The majority of the Gardiner Expressway being studied for reconfiguration contains four west-bound lanes and four east-bound lanes and has no shoulder areas in either direction. At the eastern end of the Gardiner, before descending to ground-level, the expressway connects to the Don Valley Parkway, providing an east-west link to the north-south roadway and connecting to the regional road network.

Lake Shore Boulevard East is located beneath the Gardiner Expressway throughout most of this section and is classified as a major arterial street and is a six-lane divided roadway. For the most part, direct access from adjoining land uses to the Lake Shore Boulevard is restricted and intersections with major public streets are controlled by traffic signals.

Figure 5.2: Context Map



West of the downtown core (approximately York Street) and running in both directions, the Gardiner Expressway carries roughly 160,000 cars per day and Lake Shore Boulevard carries roughly 40,000 cars per day. Combined, these routes carry approximately 200,000 vehicles per day west of the downtown. East of the downtown core (west of Lower Jarvis Street) running in both directions, the Gardiner carries roughly 110,000 cars per day and Lake Shore Boulevard carries roughly 13,000 cars per day. Combined, these routes carry approximately 120,000 cars per day east of the downtown. Peak morning hour (approximately 8am to 9am) traffic flow along the section of the Gardiner Expressway proposed for reconfiguration is 5300 vehicles travelling west and 3050 vehicles travelling east. Although busy, the section of the expressway east of Lower Jarvis Street is typically under capacity during the peak hours.

The study area has a vast road network including major and minor arterial streets, collector streets, and local streets.

A series of heavy rail lines run east-west along the north side of the Gardiner/Lake Shore and include CN Rail lines, rail spur lines servicing local industrial and commercial uses, and multiple GO Transit lines. The area also contains a number of rail yards for handling local industrial rail traffic and GO Transit storage.



Light rail on King Street.

Transit

Public transit services in the study area are operated by GO Transit and the Toronto Transit Commission (TTC). The nearest GO terminal to the study area is located at Union Station, which is also the nearest TTC subway station. Union Station acts as a transportation hub for local, regional and provincial rail and bus services. Currently, plans for improvements to Union Station are in progress, with the number of users anticipated to increase. New regional rail routes are planned between destinations west and north of the city connecting to Union Station. GO Transit operates regional bus services that pass through the study area, and TTC operates a number of local bus and streetcar routes within the study area. Recently there have been proposed changes to the transit system to address TTC routes along King Street, Cherry Street, Sumach Street and Queens Quay. TTC has completed a long term transit plan for Toronto: Transit City. This plan includes seven new light rail transit (LRT) routes throughout the city that will connect to the existing subway system, GO Transit lines, and other Transit City routes.

Bicycle Network

There are a number of on-road and off-road bicycle lanes and multi-use pathways in the study area. Included in these are the Don River Trail, bicycle lanes on Eastern Avenue, Parliament and Sherbourne Streets, and lanes and pathways on both sides of Lake Shore Boulevard. The Martin Goodman Trail, which is located just south of Lake Shore Boulevard, is among the most heavily-used recreational and commuter trails in Toronto.¹ Various waterfront revitalization plans include additional bike routes/lanes along Cherry Street, Villiers Street, Queens Quay, Basin Street, and Keating Channel.



Despite lack of dedicate bicycle lanes, cyclists use the local road network.

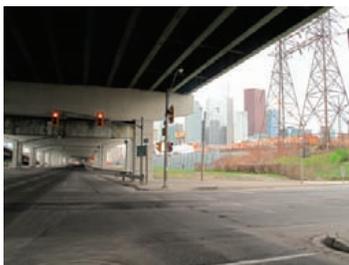
Services and Utilities

The area in which the Gardiner-Lakeshore corridor is located is also relatively congested in terms of services and utilities. These facilities consist of water mains, storm and combined sewers, sanitary sewers, gas mains, high voltage power lines and other electrical and communications facilities. Many of the pipe facilities are aged, having been constructed up to 100 years ago. Many older piped services are abandoned, but still in place. Trunk sanitary sewers are located just to the north of the study area, along Eastern Avenue crossing the Don River.² Storm sewers outlet to the Don River, the Keating Channel and the Toronto Harbour. Storm sewers, primarily on Lake Shore Boulevard, discharge directly through various storm sewer outfalls or indirectly through CSO trunks that cross the study area and intercept the storm drainage.

Hydro-electric facilities consist of both Hydro One and Toronto Hydro, above and below ground, running along Lake Shore Boulevard and the Don Roadway/DVP.

5.2.2 Urban Design

A number of residential and mixed-use neighbourhoods exist or are planned along the Gardiner Expressway and Lake Shore Boulevard. The Gardiner Expressway, Toronto Terminal Railway/ CN Rail viaduct, and the waterfront are significant physical features giving form to the study area. The relationship of the expressway and rail viaduct to the city presents a barrier between the City and the waterfront.



The elevated structure is a perceived barrier to the waterfront – pedestrians can walk under it, but public realm conditions are harsh.

¹ Waterfront Toronto. 2009. *Lower Don Lands Infrastructure Master Plan*. February.
 City of Toronto / Toronto Waterfront Revitalization Corporation. 2007. Toronto Waterfront East Bayfront Transit Environmental Assessment Terms of Reference (ToR). August.
² Toronto and Region Conservation Authority. *Lower Don River West Remedial Flood Protection Project*. Environmental Study Report. 2005.

Relevant Plans and Policies

The King Parliament Secondary Plan and Central Waterfront Plan provide policies for future road patterns, transit routes, natural areas, regeneration areas and redevelopment areas within the study area. The Central Waterfront Plan includes policies for reconfiguring of the Gardiner Expressway and Lake Shore Boulevard, a new waterfront transit network, and the remaking of waterfront streets into “places” with distinct identities. Many of the existing land uses in the study area are industrial/commercial or vacant brownfields, reflecting Toronto’s waterfront history as a port.

As part of the Central Waterfront Plan a number of redevelopment plans for mixed-use communities are being completed. Over the next two decades these districts will transform the waterfront into new communities and will directly influence the urban design and public realm characteristics of the area. These include: East Bayfront (approved plan), West Don Lands (approved plan), and the Keating Channel-Lower Don Lands (plan in progress). Included in the plans for Keating Channel-Lower Don Lands are plans for improving Keating Channel as a recreational waterway, improving flood protection plans, and naturalizing the mouth of the Don River. Flood protection and naturalization plans for the Don River mouth are being completed through a separate EA currently in progress.

Urban design components of the study area include the following physical characteristics:

- **Street and Block Network:** To the north of the railway viaduct the street grid is dense, fine-grained, and walkable. To the south, the street grid takes on a much larger scale, consisting mostly of local and collector streets. Jarvis, Sherbourne, Parliament, and Cherry Streets are the only north-south streets that connect under the rail viaduct through tunnels, limiting waterfront access for upland neighbourhoods. The street grid also has a larger scale east of Parliament Street. Gardiner Expressway and Lake Shore Boulevard are prominent components in the regional street hierarchy.
- **Building Types:** The diverse types reflect changing uses and character of the area. These include industrial uses, commercial office towers, and mixed-income residential neighbourhoods of varying densities.
- **Open Space:** Open spaces in the downtown are currently amongst the lowest in Toronto neighbourhoods and are concentrated in the Old Town of York and St. Lawrence Area. In East Bayfront, there is no public waterfront access from Jarvis to Parliament Streets.^{3[1]}
- **Views:** The most prominent landmarks for view corridors are the waterfront and Downtown Toronto. The elevated Gardiner Expressway affords views into both. Significant view corridors of the skyline are available from Front Street and Keating Channel. The railroad viaduct and the Gardiner Expressway present a visual barrier to the waterfront. New public spaces are planned for the bottom of Jarvis, Sherbourne, and Parliament Streets and will offer views of the Inner Harbour and Toronto Islands.^{4[2]} Queens Quay is also currently being planned as a scenic water-view drive^{5[3]}.
- **Adjacencies/Edge conditions:** There are no natural edges in the study area – boundaries are characterized by infrastructure (Gardiner Expressway and rail viaduct), neighbourhoods, and water (Don River, Keating Channel, and the Inner Harbour).

^{3[1]} City of Toronto / Toronto Waterfront Revitalization Corporation. 2005. *East Bayfront Precinct Plan*. November.

^{4[2]} City of Toronto. 2008. “Further Report on Removal of the Gardiner Expressway East from Jarvis.” Memorandum. September 26.

City of Toronto. 2003. *Central Waterfront Secondary Plan*. April.

City of Toronto / Toronto Waterfront Revitalization Corporation. 2006. *Toronto Waterfront East Bayfront Class Environmental Assessment Master Plan*. January.

^{5[3]} City of Toronto. 2008. “Further Report on Removal of the Gardiner Expressway East from Jarvis.” Memorandum. September 26.

City of Toronto. 2003. *Central Waterfront Secondary Plan*. April.



Building types in the Study Area range from residential to mixed-use to industrial.



Parking is a common use on waterfront parcels.



The Study Area includes several historic neighborhoods – Old Town of York (top), St. Lawrence (middle), and the Distillery District (bottom).



St. Lawrence neighborhood.



Historic Gooderham & Worts building in the Distillery District.

- Neighbourhood/District character: Neighbourhood types and districts range from 19th-century industrial enclaves (Old Town of York; Distillery District) to a late 20th-century mixed-income housing development (St. Lawrence).

5.2.3 Environment

Community

According to the 2006 Census, Ward 28 (east of Jarvis to DVP) has a total population of 59,920 people and Ward 30 (DVP to Logan Avenue) has a total population of 51,235 people.⁶ In Ward 28, there are 0.5 vehicles per household with 31% of work trips made by auto and 40% made by transit. In Ward 30, there are 0.9 vehicles per household with 49% of work trips made by auto and 38% by transit.⁷

Waterfront redevelopment is projected to increase the Waterfront population from approximately 14,200 persons in 2001 to approximately 103,900 persons in 2021.⁸ To address some of this growth, the West Don Lands plan includes 5,800 residential units; the East Bayfront plans include 7,000 residential units; and, the Keating Channel neighbourhood plan includes approximately 4,000 residential units.

Cultural

The history of the study area is rooted in the Euro-Canadian settlement that began along Toronto's waterfront in 1793. With growth and development of the civilian town, the waterfront grew as a commercial and industrial area. Lake Shore Boulevard was created through successive waves of lakefill. When it was first built, it provided road access to waterfront areas during the first half of the twentieth century. The Don River has also played a critical role in the city's history beginning with First Nations in the 1600s, and expanded with Euro-Canadian industrial settlement. There is no apparent current use of the lands by First Nations for traditional purposes; however, the Mississaugas of the New Credit First Nation have an accepted Specific Claim which is currently undergoing negotiations with the Federal Government.

Although the precincts within the study area contain a number of significant archaeological and cultural heritage features, the study area has few such features known that overlap the section of the Gardiner Expressway-Lake Shore Boulevard proposed for reconfiguration. The only two located directly along the roadway are Knapp's Roller Boat and the head of the Polson's wharf.⁹

Natural Environment

For the most part, natural environmental conditions in the study area are significantly degraded as a result of past and recent human activities. Natural habitat areas in the study area are primarily located on the Lower Don River, an estuarine habitat, and Lake Ontario. Existing vegetation typically consists of cultural woodlands, thickets, and meadow habitat within a disturbed environment of the lakeshore which includes both native and non-native vegetation. The Don River has been reconfigured and altered over the years and now drains into the Keating Channel.

Flood risk in this area is proposed to be mitigated by flood protection measures, including the naturalization of the mouth of the Don River, the Port Lands Flood Protection Project and construction of a series of flood protection landforms at key points along the river banks. Storm drainage from the study area discharges to various

⁶ City of Toronto. "2006 City of Toronto Ward Profiles: Ward 28 Toronto Danforth Profile." Retrieved March 25, 2009. <http://www.toronto.ca/wards2000/ward28.htm>.

⁷ City of Toronto. "2006 City of Toronto Ward Profiles: Ward 30 Toronto Danforth Profile." Retrieved March 25, 2009. <http://www.toronto.ca/wards2000/ward30.htm>.

⁸ Toronto Waterfront Revitalization Corporation and City of Toronto. West Don Lands Class Environmental Assessment Master Plan. March 2005.

⁹ Waterfront Toronto and Archaeological Services Inc. Waterfront Toronto Archaeological Conservation and Management Strategy. 2008.

surface water bodies including the Don River, the Keating Channel and the Toronto Harbour. With the exception of management practices such as street sweeping and sediment traps on the Gardiner Expressway collection system, discharges occur without any stormwater management quantity or quality controls. Modifications to stormwater systems are planned for West Don Lands, East Bayfront and Lower Don Lands, including provisions for stormwater treatment to meet the City of Toronto's Wet Weather Flow Management Master Plan (WWFMMP).

Soil and Groundwater

Locally, the overburden soils consist of 8 to 10 m of fill placed through historical lakefilling during the late 19th and early 20th centuries. Groundwater is generally found within 1 to 2 m of ground surface within the fill materials. Materials lakefilled included dredged sediment and construction debris, excavated soil, sewage sludge, incinerator refuse, timber, concrete, and municipal garbage. Investigations in the study area have revealed that the fill materials contain varying amounts of cinders, coal tar and other industrial byproducts.¹⁰

Subsurface contaminants that are of concern and potentially present in the study area are those associated with the quality of fill, industrial operations and historical harbour operations. Soil and groundwater investigations have detected surface or near-surface soil and groundwater impacted at levels exceeding the MOE industrial/commercial standards. Exceeded parameters include petroleum hydrocarbons (PHCs), polyaromatic hydrocarbons (PAHs), volatile organic compounds (VOCs) and various metals. Previous assessments conducted in the general area, have identified the potential for methane gas generation within the site soils, either fill materials or the native lake bottom sediments.¹¹

Air and Noise

Air pollutants in the City of Toronto originate from a variety of sources including industry, transportation, fuel combustion, and miscellaneous activities (primarily dry cleaning, painting, solvent use, and fuel marketing). In addition, soil and ground water conditions also impact air quality. Due to Toronto's dense population, large number of vehicles, industry, light winds, and summer temperatures, the city provides good conditions for the formation of ground-level ozone and thus air-quality issues arise periodically. In 1999 a study that involved ambient air quality monitoring and atmospheric dispersion modelling for three Gardiner Expressway reconfiguration scenarios was conducted.¹² The monitoring showed that some forms of particulate matter exceeded the MOE's health-based Ambient Air Quality Criterion (AAQC).

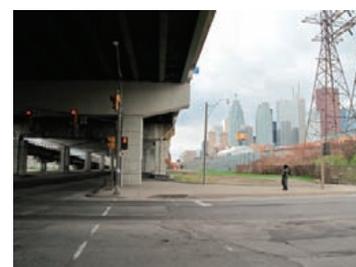
The existing acoustic environment in the study area is influenced by noise generated by road, rail, and marine traffic, loading and unloading of vehicles, HVAC units and rooftop noise, industrial and construction sources, and intermittent aircraft noise. The study area can be classified as a Class 1 Area as defined by the MOE, that is "an area with an acoustical environment typical of a major population centre, where the background noise is dominated by the urban hum."¹³



The Don River is undergoing restoration.



View of Lower Don Lands and Gardiner Expressway from the south-east.



View of Lower Don Lands and Gardiner Expressway from the south-east.

¹⁰ Toronto Waterfront Revitalization Corporation and City of Toronto. *East Bayfront Class Environmental Assessment Master Plan*. January 2006

¹¹ Dillon Consulting Limited. "Phase II Environmental Site Assessment, TEDCO Lands East Bayfront." May 2008.

¹² SENES Consultants Limited. "Air Quality Assessment of Various Options for the Future of the F.G. Gardiner Expressway East Phase III." May 1999.

¹³ MOE, 1995: NPC-205 Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban).



The Distillery District and St. Lawrence Market are examples of neighborhood destinations that advance economic development.



West Don Lands, East Bayfront and Keating Channel areas.

5.2.4 Economic Base

Employment and Business Activity

In Ward 28, 61.5% of the population are employed and 73.4% of them work in the City of Toronto.¹⁴ In Ward 30, 63.3% of the population are employed and 71% of them work in the City of Toronto.¹⁵ As the City grows, the number of jobs along the waterfront is projected to increase from 38,200 to 78,200 from 2001 to 2021.¹⁶

Currently, business activity surrounding the study area is dominated with industrial and commercial activity, and scattered entertainment, film and cultural businesses. The central business district of downtown Toronto is located just to the west of the study area.

Redevelopment in the study area over the next two decades will significantly increase employment and business opportunities. Plans include:

- West Don Lands, which is an approved plan including 750,000 square feet of employment space with the ability to accommodate up to 4000 jobs¹⁷;
- East Bayfront, which is being planned as a prime site to attract significant new employment to the city. The new district will have jobs for 8,000 people, and one million square feet of commercial space¹⁸; and,
- Keating Channel-Lower Don Lands, which is being planned with approximately 1.8 million square feet of commercial/non-residential development.¹⁹

Tourism and Recreation

The City's downtown and waterfront are primary recreation and tourism resources, with parks, boating activities, hotels and arts and culture venues. Key recreational trails and open spaces include the Don River, Cherry Beach, Leslie Street Spit, Tommy Thompson Park, Harbourfront and in neighbourhood pockets such as St. Lawrence and David Crombie Park.

5.3 Potential Environmental Effects of the Undertaking

Potential environmental effects, including to the social and natural environment, of the alternatives and the proposed 'undertaking' will be identified and examined as part of the EA. While the nature of the effects will depend on the design of the proposed 'undertaking' (and mitigation opportunities), the following provides a preliminary listing of the types of positive and negative effects that could occur for the project.

Potential Positive Effects/Benefits

- Enhanced urban form;
- Improved connection to the lake from the downtown;
- Creation of new streetscapes and public spaces;
- Opportunity for improved pedestrian connections;
- Creation of new or improved cycling facilities;

¹⁴ City of Toronto. "2006 City of Toronto Ward Profiles: Ward 28 Toronto Centre Rosedale Profile." Retrieved March 25, 2009. <http://www.toronto.ca/wards2000/ward28.htm>.

¹⁵ City of Toronto. "2006 City of Toronto Ward Profiles: Ward 30 Toronto Danforth Profile." Retrieved March 25, 2009. <http://www.toronto.ca/wards2000/ward30.htm>.

¹⁶ Toronto Waterfront Revitalization Corporation and City of Toronto. West Don Lands Class Environmental Assessment Master Plan. March 2005.

¹⁷ Toronto Waterfront Revitalization Corporation and Urban Design Associates. West Don Lands Precinct Plan. May 2005.

¹⁸ Toronto Waterfront Revitalization Corporation et. al. East Bayfront Precinct Plan. November 2005.

¹⁹ Waterfront Toronto. Keating Channel Precinct Plan, Draft. March 2009.

- Increased use of other modes of travel including transit;
- Enhancement of other naturalization efforts;
- Reduced greenhouse gas generation;
- Enhanced land redevelopment opportunities;
- Improved quality of surface water runoff;
- Increase in adjacent land values;
- Activation of existing and planned waterfront neighbourhoods;
- Increase in economic activity within the study area, the city, and the region;
- Employment generation; and
- Increase in tax revenues to the city, province and Federal government.

Potential Negative Effects

- Increased traffic travel times;
- Reduced connectivity in regional traffic movement;
- Increased traffic volumes in other communities;
- Change in traffic and public safety levels (during operation and construction);
- Effects on emergency service response times;
- Effects to city infrastructure including railways and utilities;
- Effects to property access;
- Change in ambient noise levels (could be negative or positive);
- Change in ambient air quality conditions (could be negative or positive);
- Vibration related effects;
- Potential health effects (due to changes in air quality – could be a positive effect);
- Disruption in use of recreation features;
- Effects on business activity due to changes in access and/or disruption effects (i.e. during construction);
- Effects to stormwater quantity, quality and drainage;
- Effects to built heritage features; and,
- Effects to archaeological resources.

6.0 Alternatives to be Considered

In contrast to some other EA studies, which seek to limit or scope the number of alternatives to be considered, the Gardiner Expressway and Lakeshore Boulevard Reconfiguration EA will bring a broad but defined range of options forward for study.

In the EA, both alternative solutions and alternative designs will be developed and evaluated in the EA study (See **Figure 2.1** for an overview of the EA process). **Alternative solutions** (also known as ‘alternatives to’ under the Ontario EA Act) are the functionally different ways of solving the problem and/or taking advantage of an opportunity. For road infrastructure projects, “alternatives to” could include different forms of transportation modes such as: transit (local and regional), road improvements, active forms (walking and cycling), and transportation demand management measures.

The alternative solutions will be subject to evaluation and a preferred solution will be carried forward. See **Section 7.0** for a description of this evaluation process. The preferred solution will form the basis of the **alternative designs** (also known as “alternative methods” under the Ontario EA Act). At the conclusion of the EA process, a preferred alternative design will be recommended to the MOE for implementation.

The alternative solutions and designs to be considered in the EA will be limited to “land based” travel modes and to those physically located in the study area. They will be developed to accommodate a transportation planning horizon year of 2031.

The following describes the approach to be followed in the EA to develop both the alternative solutions and alternative designs.

6.1 Alternatives Solutions (Alternatives to the Undertaking)

For this EA, the alternative solutions (“alternatives to”) will include a description of the Gardiner Expressway and Lake Shore Boulevard reconfigurations to address both the previously outlined problems and opportunities.

Waterfront Toronto and the City have undertaken studies in the past to examine potential alternatives for the reconfiguration of the Gardiner Expressway and Lake Shore Boulevard. These studies have included the development of conceptual designs to better understand the technical feasibility of and challenges to implementing the alternatives. Further, as part of this study, a case study analysis was undertaken that examined how other cities around the world have dealt with their aging elevated roadways. The March 2009 draft report that documents these cases studies is available on the project website: (www.GardinerConsultation.ca).

Based on this past work, as well as the input obtained through the EA ToR public and agency consultation process, four alternative solutions have been identified, including:

Alternative 1: “Do Nothing” (maintain the elevated expressway)

Alternative 2: Improve (the elevated expressway)

Alternative 3: Replace (with a new expressway)

Alternative 4: Remove (the elevated expressway)

These alternatives represent the range of alternatives available to address the problems and opportunities described in Sections 3.3 and 3.4. While four alternative solutions have been identified, it is possible that others could be identified and added for further consideration based on the public and agency consultation activities to be undertaken in the EA.

The alternative solutions will be further defined in the EA study. The following outlines some of the elements that would be described for each alternative solution:

- Master plan land development layouts will be created for each alternative solution. The layouts will address how the surrounding areas react and respond to the proposed road reconfigurations;
- Infrastructure will be defined in sufficient detail to for example, locate and position the new road elements and address conflicts with existing and proposed facilities;
- To address potential reductions in road capacity with some options, opportunities to encourage/improve other modes of transportation (e.g. transit) and manage changing traffic patterns would be considered; and,
- Opportunities to improve the local environment through reduction in ongoing effects (e.g. stormwater quality) and naturalization initiatives would be considered.

Finally, for each alternative solution there could be a large variation in the nature of its impacts and benefits. As an example, for the ‘Replace’ option, the nature of impacts/benefits could vary significantly whether the replaced expressway function is located above or below ground. The approach to dealing with this potential variation will be developed in the EA.



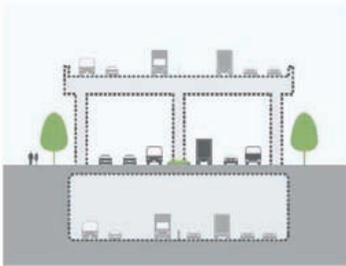
Alternative 1: “Do nothing” (maintain the elevated expressway)

The EA Act requires the consideration of the ‘Do Nothing’ alternative which serves as a base to compare against the other alternatives. The ‘Do Nothing’ alternative maintains the status quo, including the potential for significant maintenance costs of the elevated Gardiner Expressway deck and piers/support structure. Based on City estimates, these costs are expected to total \$50 million over the next ten years, and do not include major structural improvements (e.g. deck replacement) or any architectural or urban design enhancements.



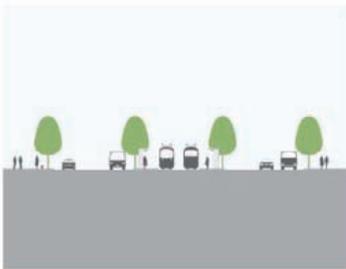
Alternative 2: Improve (the elevated expressway)

The second option is the “Improve” alternative, in which the elevated expressway function would be retained, but modifications to its configuration, as well as to Lake Shore Boulevard underneath, would be made as well. These could include the addition of an architecturally significant “wrapper” around the structure or suspended from its underside, re-cladding or relocation of the structural piers/supports to improve pedestrian, vehicular, and possibly transit flow on Lake Shore Boulevard, and relocation or elimination of one or more on- and off-ramps to remove physical barriers to north-south crossings.



Alternative 3: Replace (with a new expressway)

The third option is the “Replace” alternative, in which the existing elevated expressway structure would be eliminated, but the expressway function would be retained through construction of either an at-grade, limited access expressway, buried in a tunnel, or reconstructed above ground (e.g. proposal for a new elevated expressway above the rail corridor).



Alternative 4: Remove (the elevated expressway)

The fourth option is the “Remove” alternative, in which the elevated expressway function would be eliminated and replaced with a lower-capacity, lower-speed facility. Waterfront Toronto has publicly recommended this alternative, but as a co-proponent with the City, owner of the roadway, it is committed to conducting a fair and unbiased evaluation of all the options. This alternative would involve removing the elevated structure and reconfiguring Lakeshore Boulevard into a “grand street”.

6.2 Alternative Designs (Alternative Methods of Carrying out the Undertaking)

Once a preferred alternative solution is selected (See Section 7.0 for an outline of the evaluation process), the next step will be to develop the alternative designs (also known as 'alternative methods') for that preferred solution. The alternative designs are the different ways of implementing the preferred solution and are expected to include varying forms and locations for infrastructure.

The development of the alternative designs would be guided by the project goals and be developed to a higher level of detail than the alternative solutions. The alternative designs will include the reconfiguration of the Gardiner Expressway and Lake Shore Boulevard and be complemented with urban design/public realm designs and transportation solutions. Various transportation solutions (including non-auto solutions) may be required to address road capacity reductions created by the preferred solution.

The range of alternative designs to be developed will depend on the preferred alternative solution that is selected. For each alternative design, plans would be developed to illustrate in detail its various components and their location, and how it would be implemented.

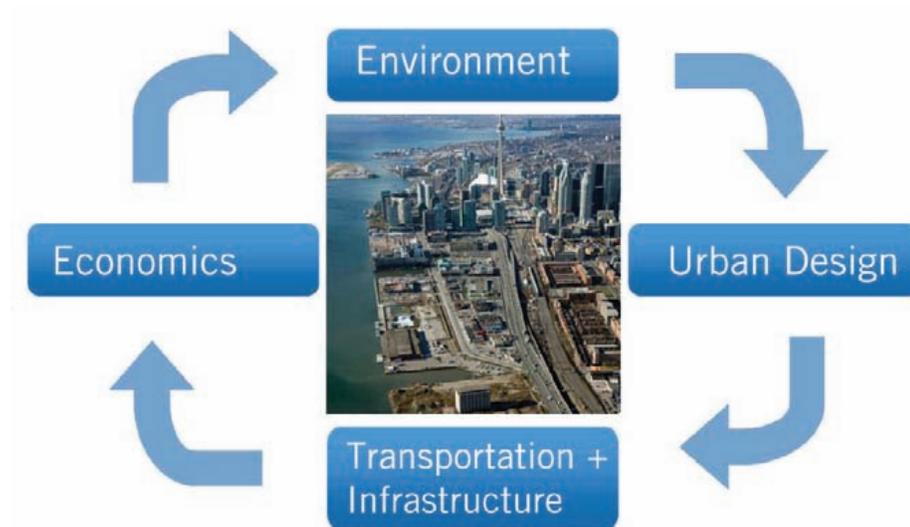
7.0 Assessment and Evaluation Process

7.1 Introduction

This section describes the proposed process to be followed to evaluate both alternative solutions ('alternatives to') and alternative designs ('alternative methods'). While it is recognized that EA approval is only required for the road related infrastructure components of the project or 'undertaking', the alternatives will be evaluated in terms of their ability to address transportation considerations and city building opportunities along with environmental and economic considerations.

7.2 Four Evaluation "Lenses"

Urban Design, Transportation & Infrastructure, Environment and Economics are the four "lenses" that will provide the structure for the evaluation of the alternatives in the EA. The decision-making process in the EA will consider opportunities for creating a new urban form and the creation of new public realm space along with transportation and infrastructure solutions and environmental and economic considerations. The four lenses are described below.



Transportation and Infrastructure Lens – focuses on accommodating person-trip activity and non-discretionary vehicular trip-making including goods movement and through travel. Addresses potential effects on other infrastructure, including utilities and rail facilities, and issues relating to project constructability.

Urban Design Lens – focuses on the creation of opportunities for improved urban form and improved or new public realm/open space.

Environment Lens – focuses on the minimization of negative effects on the environment (social, cultural and natural) and natural environment enhancement opportunities.

Economics Lens – focuses on achieving a balance of project costs with project financial benefits that could include increased land values and benefits to the economy.

7.3 Evaluation Process Steps

The approach to the study process was previously presented in **Figure 2.1**. The project goals provide the basis from which alternatives are developed, assessed and evaluated (**Section 4**). Two assessment and evaluation phases are envisioned: **1) alternative solutions** (the “alternatives to”) and **2) alternative designs** (the “alternative methods”). Each of the two evaluation phases will follow three steps:

1. Develop evaluation criteria;
2. Assess potential effects and benefits; and,
3. Evaluate alternatives and select the preferred alternative.

These steps are described below:

Step 1. Develop Evaluation Criteria

The assessment and evaluation of the alternatives (solutions and designs) will be based on a set of evaluation criteria that represent the broad definition of the environment and consider both qualitative and quantitative (i.e. numerical) data. These criteria and indicators will be organized on the basis of the four study lenses and ten criteria groups (see **Table 7.1**).

This EA ToR does not include the specific evaluation criteria to be used, but rather presents some examples to illustrate the types of criteria that would be developed during the EA process (see **Table 7.1** for example criteria). Waterfront Toronto and the City consider it important to undertake as part of the EA study a comprehensive consultation process on the criteria prior to applying them.

It is noted that the criteria set used in the evaluation of alternative solutions may be revised for the evaluation of alternative designs.

Step 2. Assess Potential Effects and Benefits

The potential effects of the alternatives (solutions and designs) will be identified. Both short-term construction effects and long-term operations effects will be considered. Qualitative and quantitative data collected will be presented in a clear format to identify differences among the alternatives.

The effects assessment will need to consider the potential for effects on both the existing environment as well as the expected future conditions of the study area (as is reflected in current plans and proposals). Also to be considered are mitigation measures that could be implemented to reduce the effects.

Step 3. Evaluate Alternatives and Select the Preferred Alternative

Once the potential effects for each alternative are identified, the alternatives would then be compared relative to one another to determine on balance, what alternative has the most advantages and least disadvantages. To facilitate this, the project team will need to:

1. Determine the relative importance of the criteria groups/criteria;
2. Determine the order of preference ranking of the alternatives by criteria and/or criteria group; and,
3. Select and apply an appropriate evaluation methodology.

Regarding the first step, an exercise to determine the relative importance of the criteria group/criteria will be undertaken with input from stakeholders. The values of the affected communities would need to be considered in this process. The need for and the means to obtain this input, and there could be several, will be determined in the EA.

In the second step, the project team will evaluate and determine the relative order of preference of the alternatives for each individual criterion/criteria group (i.e. from most to least preferred). Both the negative and positive effects of each alternative would be considered.

The third and final step involves making the tradeoffs among the alternative preference rankings by criteria group/criterion. To do this requires the use of an appropriate evaluation method. The selection of this method depends on many considerations including for example:

- the number of criteria/alternatives;
- the type, nature and complexity of the data set;
- the degree of variation among the alternatives; and,
- level/form of stakeholder input.

It is anticipated that a mix of quantitative (numerical) and qualitative data would be collected; as such, it would not be possible to use a quantitative or numerical evaluation method. It is therefore proposed that the evaluation be conducted through a qualitative “paired-comparison” approach that would make trade-offs through reasoned argument. Under this approach, the alternatives would be evaluated in sets of two or pairs. The preferred alternative of each paired comparison is carried forward until an alternative is identified as being preferred over all the other alternatives.

Table 7.1:
Proposed Evaluation Criteria Groups

Study Lens	Criteria Group	Definition	Example Criteria
Transportation & Infrastructure	Transportation	The reconfiguration alternatives have the potential to affect travel flow (including automobile and local and regional transit) through the area and downtown, particularly commuter traffic. This criteria group will address transit, pedestrian, cycling and automobile travel requirements and opportunities through the area. It will consider both local and through traffic needs.	<ul style="list-style-type: none"> • Compare ability to accommodate local and through travel needs • Compare level of connectivity between the DVP and the Gardiner Expressway
	Infrastructure	Focused on issues that relate to the construction of new road infrastructure and the potential for impacts on existing utilities such as sewers and watermains, and rail infrastructure.	<ul style="list-style-type: none"> • Compare level of construction complexity
Urban Design	Urban Design	Opportunity for improved urban form and connections between downtown and the waterfront.	<ul style="list-style-type: none"> • Compare opportunity for development of an enhanced urban form
	Public Realm	Opportunity for creation of high quality public realm space within the Gardiner Expressway study area.	<ul style="list-style-type: none"> • Compare opportunity for creation of new public realm lands
	Land Use	Effects on existing and future land uses within the study area.	<ul style="list-style-type: none"> • Compare level of consistency with existing City initiatives, policies and plans
Environment	Social, Health, Recreation and Business	There is potential for effects to existing and future residents, public health, businesses and recreation facility users in the area as a result of roadway construction and operation activities. Included is the consideration of potential public health effects and the potential for health quality enhancement.	<ul style="list-style-type: none"> • Compare changes to air quality and potential for health effects from changes in traffic volumes / patterns • Compare opportunity to create new / enhanced recreation opportunities
	Natural Environment	Potential for effects on the existing environment as well as the potential to create opportunities for environmental enhancement (e.g. improved stormwater quality). Also to be considered is the need to minimize impacts on the initiatives of other environmental enhancement efforts (e.g. Don River Mouth Naturalization and Flood Protection EA).	<ul style="list-style-type: none"> • Compare ability to accommodate plans for environmental naturalization • Compare ability to accommodate flood storage / protection plans in the Don River mouth area
	Cultural Resources	Potential for impact on archaeological resources, built heritage features and cultural landscapes. As much of the study area consists of lake fill, the potential for archaeological resources is limited. There is some potential for effects on built heritage features that related to the industrial history of the area.	<ul style="list-style-type: none"> • Compare opportunity to enhance cultural landscapes

Table 7.1:
Proposed Evaluation Criteria Groups

Study Lens	Criteria Group	Definition	Example Criteria
Economics	Capital and Operating Costs	Includes the initial project construction and long-term operating cost estimates.	<ul style="list-style-type: none"> • Compare estimated capital and long term maintenance cost for the alternatives
	Direct Economic Benefits	The project is expected to create new opportunity for land development, increased surrounding land values, city revenue from increased taxes, economic activity; and employment generation.	<ul style="list-style-type: none"> • Compare opportunities for enhanced land development in area

8.0 Development of A Monitoring Strategy and Schedule

Waterfront Toronto and the City will prepare a comprehensive list of commitments during the EA process. The EA commitments could include impact management measures, additional works and studies to be carried out, monitoring plan, public consultation, and documentation.

A monitoring plan will be developed during the EA process. The plan will consider all relevant phases of the proposed 'undertaking', including planning, detailed design, tendering, construction, and operation. The plan will include compliance monitoring and effects monitoring. Compliance monitoring is an assessment of whether an 'undertaking' has been designed, constructed and operated in compliance with the commitments in the EA Document and conditions of EA Act approval. Effects monitoring consists of activities carried out after approval of the 'undertaking' to determine the environmental effects of the 'undertaking'.

9.0 Development of the Consultation Plan

9.1 Consultation in Preparation of the EA Terms of Reference

At the outset of the study process, a Consultation Strategy was prepared to guide public and agency consultations during the development of the Draft EA ToR. Waterfront Toronto and the City, along with representatives of the consulting team and a neutral third party facilitator participated in developing and implementing the Strategy. Consultation with the public, government agencies and ministries, and other interested persons was undertaken from March to May 2009. **Table 9.1** outlines the key consultation activities that were conducted during the preparation of the Draft EA ToR.

A detailed summary of the consultation undertaken during the preparation of the Draft EA ToR, including a summary of the comments received, will be provided in the *Consultation Record*, under separate cover.

Table 9.1:
Key Consultation Activities for EA ToR

Component	Approach
Notice of Commencement (NOC)	The NOC was published in March 2009. It announced the project start-up, described the dual focus on urban design and infrastructure, defined the study area, and promoted Public Forum #1.
Workshop #1: Stakeholder Orientation	Workshop #1 was held on March 12, 2009 to introduce stakeholder representatives to the project, the rationale for undertaking it, the proposed process and timelines. The workshop also enabled early stakeholder feedback on ideas, opportunities and issues.
Workshop #2: Feedback on Key Elements of EA ToR	Workshop #2 was held on May 2, 2009 to present key elements of the EA ToR and receive stakeholder input.
Public Forum #1	Public Forum #1 introduced the project, rationale, process and timelines, and case studies. Four meetings were held on the following dates: March 28, 30, April 2 and 4.
Public Forum #2	Public Forum #2 was held to present and seek feedback on key components of the EA ToR, including: Goals, Alternative Solutions, Evaluation Process and Criteria Groups, and approach for EA Consultation. Four meetings were held on the following dates: April 23, 25, 27 and 28.
Web-based Consultations	A web-based portal (www.gardinerconsultation.ca) was established to enable online consultation. Two rounds of e-consultation took place during the development of the Draft EA ToR, mirroring the face-to-face consultations in Public Forum #1 and #2.
Meetings with Specific Stakeholders	The Project team attended meetings when invited by specific organizations as appropriate.
First Nations Consultations	A protocol was developed specifying when and how First Nations and relevant government departments should be contacted and consulted as the study progresses. Notification of the study commencement was provided to organizations identified in the protocol.
Input Management and Reporting	A “One-window” point of contact for the project was established, with a dedicated phone/fax/email and a link to the consultation web portal. The “Neutral Community Facilitator’s Office” is a customer service centre that provides basic information about the project and a focal point for receiving questions / comments and providing responses.

9.2 Process for Consultation During the EA

The involvement of community residents, stakeholders and those who may be potentially affected by a project is an integral part of the EA process. Consultation forms a key component of this study in keeping all stakeholders, agencies and the public informed and involved. Waterfront Toronto and the City recognize the importance of engaging stakeholders and the public to provide multiple and ongoing opportunities for feedback throughout the upcoming EA.

Although the EA process specifies certain mandatory points of contact, the level of effort for consultation depends on the complexity of the project being considered and the needs of the public (such as the level of interest and concern). Consultation activities will not be limited to what is described in this section. As the project

moves through the EA process, Waterfront Toronto and the City may consider additional enhancements to the consultation plan. Consultation will be undertaken in accordance with the Ontario EA Act.

Consultation for this EA is based on the following Guiding Principles and Objectives:

Guiding Principles

- Inclusion - The consultation program will engage the widest possible audience by offering multiple consultation opportunities and mechanisms for participation.
- Timeliness - The program will offer early and ongoing opportunities for participation, well before decisions are made.
- Transparency - Opportunities for participation will be widely communicated through multiple communications channels.
- Balance - The program will provide opportunities for a diversity of perspectives and opinions to be raised and considered.
- Flexibility - The program will be adapted as required to meet the needs of consultation participants, Waterfront Toronto, the City of Toronto, and the Project Team.
- Traceability - The impact of the consultation program and participant input on decision-making will be clearly demonstrated.



Public Information Centers offer opportunities for a range of stakeholders to provide project input

Objectives

1. To generate broad awareness of the project and opportunities for participation throughout the EA process.
2. To facilitate constructive input from consultation participants at key points in the EA process, well before decisions are made.
3. To provide ongoing opportunities for feedback and input, and for issues and concerns to be raised, discussed, and resolved to the extent possible.
4. To document input received through the consultation process and to demonstrate the impact of consultation on decision-making.

9.2.1 Government and Agencies

A Technical Advisory Committee has been established to provide input at key milestones during the EA process. It includes representatives from various City of Toronto Departments, TTC, GO Transit/Metrolinx, and TRCA. A Government Review Team (GRT) has also been established to review EA documentation (draft and final).

9.2.2 First Nations

Waterfront Toronto and the City are committed to following a protocol for First Nations Consultation. The protocol spells out when and how First Nations and relevant government departments should be contacted and consulted as the study progresses. With input from First Nations, consultation activities will be tailored to meet the particular needs of specific First Nations as these needs are communicated by the First Nations themselves. At a minimum, each of the identified First Nations that may have an interest in the project will be contacted at the outset of the project to determine their interest in participating during the EA. Individual meetings will be offered to each First Nation (including the option to travel to First Nations for the meeting). Interested First Nations will be contacted and asked for feedback around each round of Public Forums.

9.2.3 Public and Stakeholders

Public Forums

Public forums will provide an opportunity for the public to give feedback and comments on study components, results, and ideas as they develop over the course of the study. The format will include: panel displays; presentations; small table discussions/ feedback on key questions.

Web-Enabled Consultations

A web-based portal (www.gardinerconsultation.ca) has been established to enable online consultation as the study progresses. This consultation website was established in the EA ToR phase and will continue throughout the EA. The e-consultations will mirror the face-to-face consultations at Public Forums. The web-portal will also include any final published background reports, individual study reports, and public notices as they are developed.

Stakeholder Workshops

Interactive workshops will be convened to seek input from stakeholder representatives on key issues and opportunities during the project.

Face-to-face Meetings

The Project Team will attend meetings when invited by specific organizations, as appropriate.

Input Management and Reporting

A “One-window” point of contact for the project was established during the development of the ToR, with dedicated phone/fax/ email and a link to web portal. A “One-window” customer service centre (hot-line) will provide basic information about the project and a focal point for receiving questions/comments and providing responses.

Stakeholder Advisory Committee

The mandate of the Stakeholder Advisory Committee (SAC) is to provide an ongoing forum for feedback, guidance and advice to the Project Team at key points during the EA process. The SAC will be established at the outset of the EA.

Notice of Completion

A notice will be issued when the study has been completed, documentation has been submitted to Government review agencies, and is available for public review.

Table 9.2 summarizes the EA consultation and communications activities in the three major phases of the EA process.

Table 9.2: EA Consultation and Communications Activity Summary

	Identify and Evaluate Alternative Solutions	Identify and Evaluate Alternative Designs	Effects Assessment, Mitigation & EA Documentation
CONSULTATION			
• Stakeholder Advisory Committee Formation	√		
• Stakeholder Advisory Committee Meetings	√	√	√
• Technical Advisory Committee Meeting	√	√	√
• Public Workshop	√	√	√
• Public Forum	√	√	√
• Online Consultation	√	√	√
• Additional face-to-face Meetings (as necessary)	√	√	√
• First Nations and Agency Consultation	√	√	√
• One-Window Consultation and Issues Response	√	√	√
COMMUNICATIONS			
• Notice to apply to participate on SAC	√		
• Notice of acceptance to SAC participants	√		
• SAC meeting invitations, meeting documents and presentations	√	√	√
• Workshop invitation, meeting documents and presentations	√	√	√
• Public Forum notice, and display boards	√	√	√
• Website updates	√	√	√
• Advertisements	√	√	√
DOCUMENTS			
• Workshop meeting summary	√	√	√
• SAC meeting minutes	√	√	√
• Public Forum summary	√	√	√
• Additional meeting minutes	√	√	√
• Website consultation report	√	√	√

9.3 Record of Consultation and Supporting Documents

Summary reports of public comments will be available for review and feedback after workshops, public forums, and other consultation events. Public comments, and the responses given, will be documented in a database by the independent facilitation team.

10.0 Modifications During the EA Process

This EA ToR has a wide scope, providing room for flexibility in the EA process in order to accommodate potential circumstances that could prevent the commitments of the EA ToR from being met. It is understood that once the EA ToR is approved by the Minister that it cannot be amended. With the complexity of this project, it is important to provide flexibility in the study design in order to modify the EA process as issues arise. For this reason, the EA ToR has not established specifics for the alternatives, detailed existing conditions, or provided the final evaluation criteria groups, criteria, or indicators. These will be determined in the EA as the details of the project are defined.

11.0 Other Approvals Required

In addition to the MOE EA approval and as the proposed EA evolves, the need to obtain other approvals may arise. The Canadian Environmental Assessment Act (CEAA) is triggered if a Federal department provides funding, grants an interest in Federal land, or exercises a regulatory duty (i.e. issuing permits, approvals or authorizations) for the project. The need for CEAA approval will depend on whether one of these triggers is present. Additional required approvals will depend on the final 'undertaking' that is proposed and will be detailed in the EA. Approvals from Federal, provincial and municipal agencies may be required.

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Appendix A - Proposed EA Work Plan

Appendix A – Proposed EA Work Plan		
Study Component	Sub-Components	Proposed Work Scope (to be confirmed in the EA)
Urban Design, Public Realm, and Land Use	Relationship to Existing City Plans; Urban Form and Character; Public Realm; Users; Microclimate	<ul style="list-style-type: none"> Assess regulatory framework - plans, policies, bylaws Assess physical constraints on development – including the local development market and recent development applications Prepare master plan land development layouts as part of the alternatives development Develop urban design and 30% public realm design for the preferred alternative design
Transportation	Transit; Cyclists; Pedestrians; Vehicles; Goods Movement; Road Safety	<ul style="list-style-type: none"> Review current and planned transportation initiatives and policies (Transit City, MoveOntario 2020, The Big Move, City of Toronto Bike Plan: Shifting Gears, etc.) Complete an initial macro-demand forecasting exercise using EMME/2 model for each alternative Complete micro-simulation modeling using Paramics software for each alternative Prepare non-auto/transit solutions as part of the alternatives development Develop the transportation strategy that will complement the preferred alternative design
Natural Environment	Terrestrial; Aquatic; Wildlife; Water Quality	<ul style="list-style-type: none"> Review and/or assess background information, including: <ul style="list-style-type: none"> Recent study area precinct plans and the Don Mouth Naturalization and Port Lands Flood Protection Project Toronto and Region Conservation Authority (TRCA) previous species inventory studies; aquatic monitoring programs; and wildlife inventories Ecological land classification Provincial Monitoring Water Quality Network Assess natural environment effects of alternatives and proposed 'undertaking'
Infrastructure	Roadways; Structures; Railways	<ul style="list-style-type: none"> Review and/or assess background information, including: <ul style="list-style-type: none"> Plans and profiles of roads and structures; and as-constructed structural drawings for the Gardiner Expressway and other major structures Study area precinct plans and planned and proposed modifications and improvements from other EA studies Railway infrastructure, including overhead and buried facilities Geotechnical and foundations information Prepare functional plans for road infrastructure as part of alternatives development Complete a 30% road infrastructure design for the preferred alternative design

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Study Component	Sub-Components	Proposed Work Scope (to be confirmed in the EA)
Stormwater/Municipal Services	Utilities; Stormwater Management; Flood Control	<ul style="list-style-type: none"> Review and/or assess background information, including: <ul style="list-style-type: none"> Storm and sanitary sewers, including inspection records and condition ratings Existing utilities plans Background documents completed for recent study area precinct plans and the Don Mouth Naturalization and Port Lands Flood Protection Project – including planned and proposed modifications and improvements Flood plain mapping and existing and planned protection facilities Provide input to the functional plans and the 30% design for road infrastructure
Socio-Economics	Residential; Employment; Emergency Services; Recreation; Tourism	<ul style="list-style-type: none"> Review and/or assess background information, including: <ul style="list-style-type: none"> Historical, existing and planned/proposed land uses Property ownership Business activities Existing and proposed trail networks and recreational facilities Existing and proposed tourism destinations Assess socio-economic effects of alternatives and proposed 'undertaking'
Archaeology/Heritage	Built Heritage; Cultural Landscapes; Archaeology	<ul style="list-style-type: none"> Review and/or assess background information, including: <ul style="list-style-type: none"> Ontario Archaeological Sites Database and City of Toronto Archives Waterfront Toronto Archaeological Conservation and Management Strategy Available primary and secondary sources Assess cultural resource effects of alternatives and proposed 'undertaking'
Soils/Geo-Environmental		<ul style="list-style-type: none"> Review site investigation reports, remediation reports, existing Records of Site Condition and existing regulatory Orders and Directives, and geo-technical information Prepare property specific inventory of geo-environmental and geo-technical information. Assess soil and groundwater contamination Assess permeability and load bearing capacity of in-situ soils
Noise and Air Quality	Noise, Vibration, Air Quality, Public Health	<ul style="list-style-type: none"> Regarding Noise: <ul style="list-style-type: none"> Establish existing background noise levels at select receptors through monitoring and/or modelling

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Study Component	Sub-Components	Proposed Work Scope (to be confirmed in the EA)
		<ul style="list-style-type: none"> Conduct an acoustic assessment for each alternative using the MOE STAMSON road traffic model and/or CADNA-A acoustic model Compare acoustic assessment outcomes for each alternative to MTO and MOE noise requirements Regarding Air Quality: <ul style="list-style-type: none"> Review available air quality reports completed in study area and for the City of Toronto Conduct background ambient air monitoring at 3 locations for a duration of 6 to 8 weeks Conduct air quality impact assessment for each alternative using computer modeling tools: MOBILE 6.2C and CAL3QHCR
Cost/Financial Analysis	Costing; Real Estate Value Creation	<ul style="list-style-type: none"> Review market analysis background documents Review and assess recent sales data and real estate conditions For alternatives solutions stage, develop Order-of-Magnitude estimates for: capital investments for each alternative, infrastructure investments, land and real estate investments, direct and indirect return to the public sector, and public value creation. A high level cost-benefit analysis model to be used to identify relative economic value of each alternative on a net present value (NPV) basis Complete a more in-depth market analysis of residential, commercial and retail segments in the study area for the alternatives design phase

Gardiner Expressway
and Lake Shore Boulevard Reconfiguration

EA Terms of Reference **DRAFT**



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