

Keating Channel Precinct Plan

Keating Channel Precinct
Toronto, Ontario

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WATERFRONToronto

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Purpose of the Precinct Plan

The Keating Channel Precinct Plan provides a vision and rationale for the Keating Channel Precinct, including objectives for the Precinct's built form and public realm, and how it will relate to adjacent neighbourhoods and districts.

The Central Waterfront Secondary Plan requires Precinct Implementation Strategies as a mechanism to define more specific planning parameters for smaller areas located within the Central Waterfront. Section 2.2 of the Secondary Plan lists elements that must be addressed in Precinct Implementation Strategies or Precinct Plans. These include:

- Streets and block structure that support a broad range of development and appropriate connections to adjacent communities.
- Strategies for a balance between residential and employment uses.
- Strategies for affordable housing.
- Details on regional and local parks along with other open space elements including public use areas, linkages, and trails.
- Locations for community facilities and services.
- Environmental performance standards for buildings.
- Strategies for retention of cultural heritage elements and provision of public art.
- Urban design guidelines, including standards for buildings and parking.
- Balanced transportation with provisions to secure necessary roads, transit, trails and bicycling routes as well as parking.
- Implementation mechanisms.

This Precinct Plan both addresses many of these required elements as well as providing the rationale for the rules that make up the Zoning By-Law for the Precinct.

Vision for the Keating Channel Precinct

Building on the legacy and amenity of the historic Keating Channel, the Keating Channel Precinct will be the first community developed in the Lower Don Lands. It will draw the urban fabric around the northeast corner of Toronto Inner Harbour, forming a new gateway into the thousand acre Port Lands in a bold and harmonious integration of neighbourhoods, infrastructure, and parks and open spaces that will frame the altered course of the Lower Don River.



Figure 1
View from the Keating Channel looking
West toward Cherry Street and the
Inner Harbour



Almost every major city is now undertaking or initiating landmark projects that vigorously pursue a more sustainable approach to city building. In Toronto, this effort is being led by Waterfront Toronto, a revitalization corporation jointly established by the Federal, Provincial and Municipal governments, and is currently centred on the redevelopment of a vast band of obsolescent port industrial land stretching across the city's central waterfront.

The next logical redevelopment site along the Toronto Waterfront is the Lower Don Lands, the northeast quadrant of the Port Lands. The Lower Don Lands undertaking is unique among similar post-industrial urban revitalization efforts by virtue of its size, scope, and complexity. The Lower Don Lands are flood prone, contaminated, and deficient in services and transportation but at the same time occupy a highly strategic location close to downtown.

Waterfront Toronto, with the support of the City, held an international design competition in 2007 to tackle the entire set of challenges—flood protection, redevelopment, municipal infrastructure, and parks—simultaneously, recognizing that these could only really be successfully addressed in a comprehensive design.

The solution began with the river itself. Because of decades of wetland filling, the original mouth of the Don River is no longer adjacent to Lake Ontario. The current mouth of the Don River is an artificial remnant of an era of city building in which a lakefilled industrial port was considered the highest priority, although the Great Depression and changes in marine technology frustrated that goal. In addition, major transportation corridors have created a vacuum between the struggling industrial port and historic and

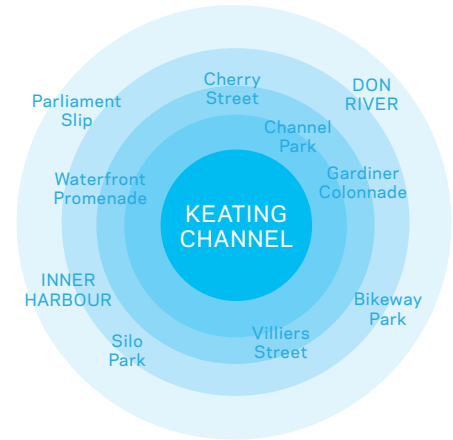


Figure 2
The Keating Channel is the Core of the Precinct Public Realm



emerging city neighbourhoods. Reflecting a vastly different set of values, the competition sought an integrated solution that would renaturalize the river mouth, remediate contaminated sites, provide flood control for a large area of downtown Toronto, and forge a compelling identity for new mixed-use neighbourhoods.

The entire Lower Don Lands will become an urban estuary, a sustainable district where city, lake, and river interact in a dynamic and balanced relationship. The plan heralds a relationship between the urban and the natural in a design that introduces urban development, native ecologies, and public infrastructure to 125 hectares (310 acres) of Toronto's post-industrial waterfront. By comprehensively restructuring the course of the river and the surrounding urban infrastructure, the plan greatly expands the district's public realm, opening up the Toronto waterfront for public use and access. Connections to the surrounding city will be enhanced by a confluence of pedestrian, bike, transit and vehicular rights-of-way including a continuous riverfront park system and several bridges. The Lower Don Lands will have strong urban links to Don River Park, the Martin Goodman Trail, and the Don River trail system.

An undertaking of this magnitude requires vision, fortitude and sustained community support. In fact, the desire to restore the Don River mouth has been a longstanding goal of groups like the Task Force to Bring Back the Don, which has been advocating on the river's behalf for decades and which, along with many other stakeholders, has played a vital role in the elaboration and refinement of the plan. The benefits of this project will reverberate throughout

Figure 3

Keating Channel Precinct
Lining both sides of the historic Keating Channel, a 21st century neighbourhood reflective of Toronto's evolving character and welcoming and memorable to its inhabitants, neighbours, and visitors is envisioned.

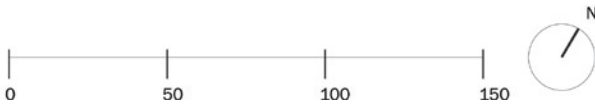
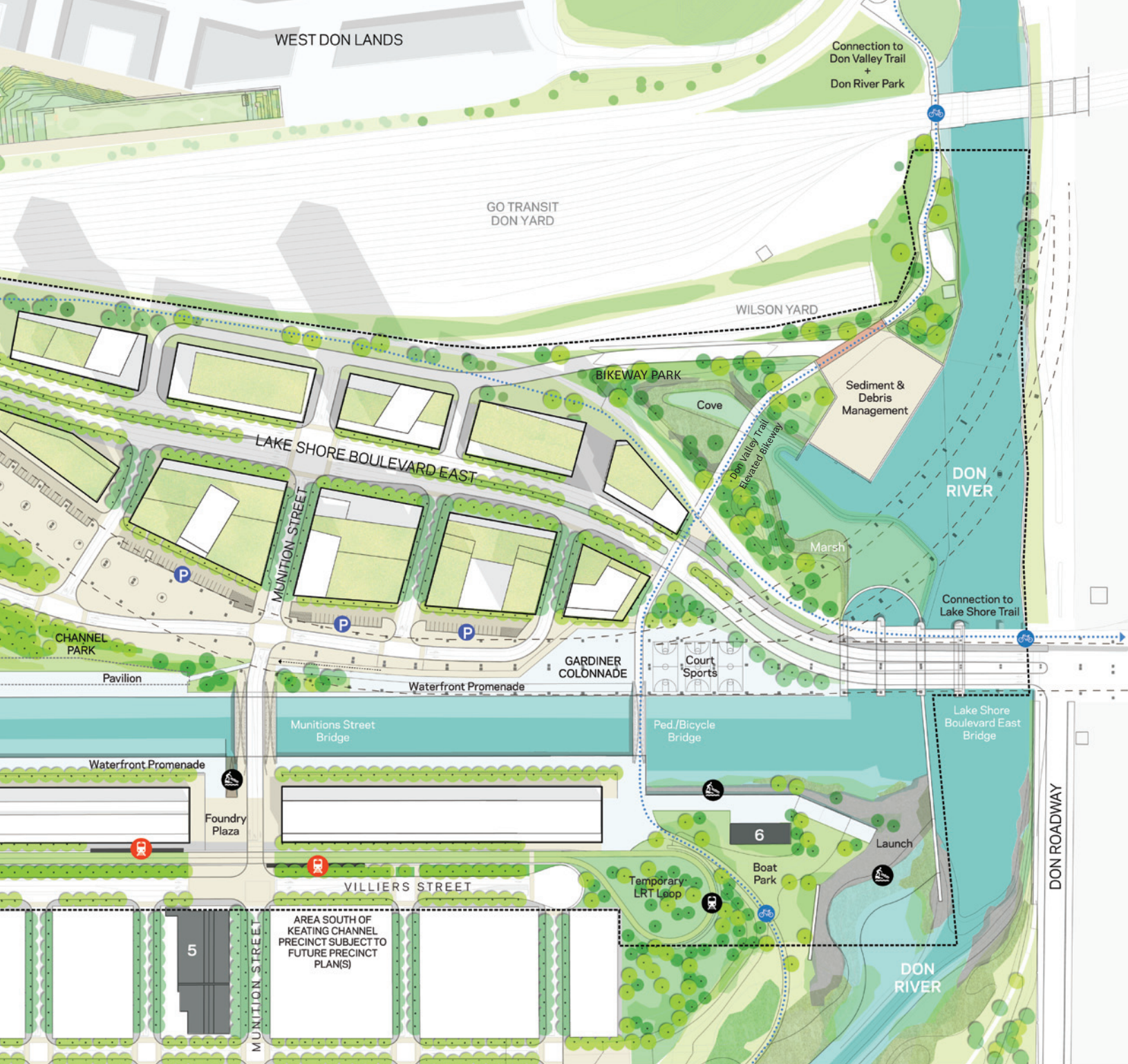


Figure 4
Keating Channel Precinct
 A major expansion of the public realm will open up the Toronto waterfront for public use and access. Connections to the surrounding city will be enhanced by a nexus of pedestrian, bike, transit and vehicular rights-of-way and bridges. A continuous riverfront park system will provide strong linkages to the Don River Park, the Martin Goodman Trail, and the Don River trail system.

greater Toronto. By shifting the Don River from the confined Keating Channel to a new meandering course through 40 hectares (100 acres) of new park land, the plan forges critical links between existing neighbourhoods and the emerging waterfront communities in the adjacent East Bayfront and West Don Lands. With an iconic harbour mouth and a restored green promontory, the Don River will once again take its place as the site of the founding of the city.

The Keating Channel Precinct is the area of the Lower Don Lands north of Villiers Street, and represents the implementation of the first phase of the Lower Don Lands plan. Structured around the historic Keating Channel, the Precinct will be a 21st-century neighbourhood that reflects Toronto’s evolving character and is welcoming and memorable to its inhabitants, neighbours, and visitors. It will provide strategic development opportunities along with significant open space amenities. With a diversity of building types, land uses, and programming—underwritten by a significant investment in public transportation and infrastructure—the Precinct will form a template on which a new neighbourhood will organically flourish.

The plan for the Precinct will create countless opportunities for social interaction on broad tree-lined sidewalks and in a generous network of open spaces lining the Channel, punctuated by cafés, specialty markets, and festivals that will serve as a memorable backdrop for a new expression of urban life. The plan will provide



not only places to live, work, and recreate but also the social infrastructure - schools, daycare, community centres, local shopping, and amenities—that supports daily neighbourhood life. Buildings and open spaces will be partners of equal importance in safeguarding the quality of the environment by creating sun-filled, wind-protected circulation networks that favour pedestrians and cyclists. By mandating built forms that meet stringent environmental standards, the plan will cultivate a green, civic-minded architecture in keeping with the broad environmental and sustainability goals adopted by Waterfront Toronto and the City.

The Lower Don Lands plan has won many prestigious awards and has been selected as one of 16 founding projects for the Climate Positive Development Program, a project of former U.S. President Bill Clinton’s Climate Initiative and the U.S. Green Building Council, a global initiative to demonstrate a model for sustainable urban growth. As part of the Clinton Initiative, Waterfront Toronto and the other participating partners will seek to reduce the net greenhouse gas emissions of their projects to below zero by working collaboratively on specific points of interest, including innovations in construction, clean energy, waste management, water management, and transportation.

- LEGEND**

 - TTC (LRT) PLATFORM**
 - PARKING**
 - REGIONAL BIKE TRAIL**
 - NON-MOTORIZED PUBLIC BOAT LAUNCH**
 - PLAYGROUND**
 - CULTURAL HERITAGE RESOURCES**
- 1. VICTORY SOYA MILLS SILOS
 - 2. ESSROC SILOS
 - 3. CHERRY STREET BANK
 - 4. W.M. MCGILL AND COMPANY
 - 5. QUEEN CITY FOUNDRY
 - 6. HARBOUR COMMISSIONERS STORAGE

Relationship to Other Planning Documents

This document serves to implement the Central Waterfront Secondary Plan as it pertains to the Keating Channel Precinct. The Secondary Plan has legal status under the Planning Act, and will guide the development of an area-specific Zoning By-Law Amendment, which will also have legal status and enforceability under the Planning Act.

This document will furthermore guide the City's consideration of other planning approvals, including land division consent applications, plans of subdivision and site plan approvals, as described further in the Phasing and Implementation Chapter. This Precinct Plan and the Don Mouth Naturalization and Port Lands Flood Protection Individual Environmental Assessment (DMNP EA) were developed in tandem. As such, the land use planning recommendations are compatible with the plans to create a new naturalized mouth of the Don River in a magnificent waterfront parks setting. This Precinct Plan also takes into consideration the approvals and planning processes currently being undertaken by other Waterfront Toronto, City of Toronto, and the Toronto Transit Commission projects, including the waterfront transit environmental assessments.

There are a number of other parallel documents that will serve to assist the implementation of this Precinct Plan. A brief summary of the goals of each of these parallel documents is as follows:

Lower Don Lands Class Environmental Assessment Master Plan

Waterfront Toronto and the City of Toronto are required to obtain approval under the Environmental Assessment Act before they can deploy changes to or build new water, wastewater, stormwater, road, cycling trails and transit infrastructure. The Class Environmental Assessment Master Plan considers several possible transportation, water, wastewater and stormwater systems and analyses the environmental impacts of each, in order to recommend a servicing approach for the entire Lower Don Lands. The Master Plan considers the infrastructure elements in the Keating Channel Precinct in further detail, and completes all of the EA requirements for the infrastructure in this area, to permit implementation in support of development.

Lower Don Lands Framework Plan

This Framework Plan is intended to demonstrate the broader objectives and plan elements for the Lower Don Lands so that multiple more specific studies and approval documents can be completed. The Framework Plan ensures that individual elements within future plans and studies reflect and promote the goals and intentions for the Lower Don Lands as a whole.

The Framework Plan for the Lower Don Lands takes the renaturalized Don River as the organizing element for new urban neighbourhoods surrounding a river and an open space system that provides for

flood protection, restoration of lost habitat, and the creation of open spaces and parks. The Framework Plan guides the structure of the new districts that integrate neighbourhoods, water's edge green spaces, and connecting infrastructure.

The Keating Channel Precinct Plan was developed with respect to the broader design moves described in the Framework Plan.

Lower Don Lands Amendment to the Central Waterfront Secondary Plan

The Central Waterfront Secondary Plan, currently before the Ontario Municipal Board, was adopted by City Council on April 16, 2003, well before planning for the Lower Don Lands was under way. The subsequent plans for the Lower Don Lands conflict with the Central Waterfront Secondary Plan in a number of places. The current Secondary Plan shows the Don River in a different location, prohibits development on the 480 Lakeshore lands, shows Commissioners Park as the major public open space, and includes a road network that is not compatible with the Lower Don Lands plans. Since the Secondary Plan is still before the Ontario Municipal Board, these discrepancies can be resolved through an amendment to the Secondary Plan. The Amendment will be endorsed by City Council, and then presented to the Ontario Municipal Board with the request that it be incorporated in the Board's final approval of the Secondary Plan.

Keating Channel Precinct Urban Design Guidelines (In-Progress)

The Central Waterfront Secondary Plan calls for the publication of Urban Design Guidelines as an element to be addressed as part of precinct implementation. The Guidelines are designed to be useful to developers and architects as a supplement to the Precinct Plan. They include recommendations about how to deploy building height to maximize sunlight accessibility, articulate building frontages to manage wind, and plan effectively for parking and desirable building details. The Urban Design Guidelines will guide built form and produce a desired outcome for the public realm.

Don Mouth Naturalization and Port Lands Flood Protection EA (DMNP EA), an Integrated Planning Process

Naturalizing the mouth of the Don River and providing flood protection to the Port Lands were identified as top priorities for all three levels of government when they first announced the establishment of the Toronto Waterfront Revitalization Corporation (now Waterfront Toronto) in 2001.

Toronto and Region Conservation Authority (TRCA), is leading the DMNP EA. The goal of the DMNP EA is to establish and sustain the form, features, and functions of a natural river mouth within the context of a revitalized urban environment while providing flood protection up to and including the Regulatory Flood.

As part of the DMNP EA process, several alternative river alignments and outlets were evaluated against the project objectives. The technically preferred alignment involved the creation of a new mouth of the river in the central Port Lands, outletting into the Inner Harbour. As the DMNP EA progressed, it became apparent that lands within the Keating Channel Precinct area are required to provide flood relief and sediment management facilities at the eastern end of the Precinct. The lands necessary for flood protection have been integrated within both the DMNP EA and Keating Channel Precinct Plan design processes and continue to be approached through both of these studies as they progress in tandem. Lands in the western portion of the Keating Channel Precinct are not required to support any specific functions for the river project, and as such, planning for other land uses can proceed independently.

The Lower Don River West Remedial Flood Protection Project provides the essential flood protection works for the lands north of the rail embankment, but there are lands within the Lower Don Lands that also benefit from these works; specifically, it also facilitates the creation of a significant public open space on the west side of the Don River which is linked to the Port Lands and Central Waterfront.

Waterfront Sanitary Master Servicing Plan

This study is being undertaken by the City of Toronto and is developing a comprehensive plan for servicing the existing and future developments along the waterfront. The Master Plan will provide recommendations for the existing sanitary sewer system in regards to adequacy, capacity constraints, upgrades, and modifications. The study area is from Bathurst Street in the west to Leslie Street in the east, and from the lake in the south to King Street in the north.

Gardiner Expressway and Lakeshore Boulevard Reconfiguration Environmental Assessment (EA) and Integrated Urban Design Study

The Central Waterfront Secondary Plan identifies the redesign of the Gardiner Expressway Corridor with a modified road network as one of the most important ingredients in revitalizing the Central Waterfront. The future of the Gardiner is being studied over the next several years under an Individual Environmental Assessment process. This Precinct Plan is based on the assumption that the existing elevated Gardiner Expressway structure within the Precinct remains in place. Careful consideration has been given in this Precinct Plan to ensure that the block pattern proposed is compatible with a reconfigured Gardiner-Lakeshore Corridor west of Cherry Street. With only minor modifications, this plan will be able to accommodate and be viable under a wide variety of outcomes of the Gardiner EA.

The Gardiner EA process may result in a different configuration of the block pattern, transportation system and the parks and public spaces east of Cherry Street.

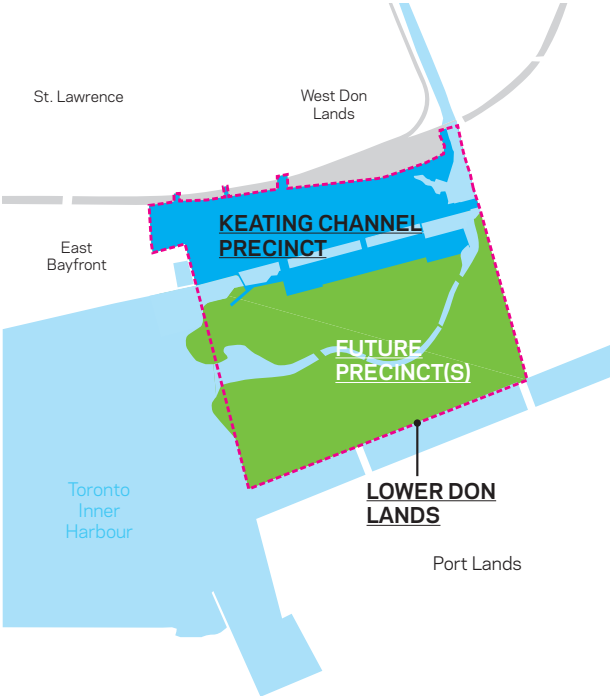


Figure 5
Geographic Scope of the Lower Don Lands and Keating Channel Precinct Documents
The Keating Channel Precinct is the northern 40 hectares (100 acres) of the overall 125 hectare (310 acre) Lower Don Lands

Planning Principles for the Keating Channel Precinct

The Keating Channel Precinct will become a viable development through an extraordinary effort in reworking the existing city infrastructure in an area of industrial obsolescence close to downtown Toronto. Flood protection, earthwork, soil remediation, major extensions to the transit system, utility connections, bridges, openings through the rail berm and sewer, stormwater and district energy systems are all essential elements for the entire Lower Don Lands and neighbouring planned developments.



Figure 6
Cherry Street Crossing at the Keating Channel

Sustainability

Sustainability, in all its forms, is not just a core value but the conceptual engine behind much of the vision for the Keating Channel Precinct. A commitment to resourcefulness has guided and will continue to guide decisions about the adaptive reuse of heritage structures, including the Victory Soya Mills Silos and the Keating Channel itself. Attention to microclimate and comfort have been the main consideration in the establishment of building footprints and neighbourhood massing plans, and global environmental concerns have been behind much of the larger-scale district energy and carbon-neutral development planning efforts. Finally, attention to sustainable design practices has been central to decisions regarding neighbourhood density and use, transportation mode splits, and the integration and conservation of water. The Lower Don Lands will continually strive towards sustainability as new technologies and tools become available.

Diversity

Both economic and social diversity are at the heart of the design and planning of the Keating Channel Precinct. The Precinct will include an intensity and mix of use and program—including a wide range of residential types and affordable housing—that will be sufficient to support a vibrant urban community. A broad range of land uses at transit-supportive densities will enable people to live, recreate, work, and shop in close proximity, and the variety of living and working options will encourage a neighbourhood composed of people at all stages of life and involved in a wide range of fields of work. To support this composition, the Precinct will include cultural venues, restaurants and cafés, community amenities, and services such as schools, parks, and playgrounds.

Connectivity

One of the unique characteristics of the Keating Channel Precinct is its location at the crossroads of natural and civic infrastructure, making it a keystone connection to East Bayfront, the Central Waterfront, West Don Lands, the communities north of the rail line, the neighbourhoods east of the Don River, and the future neighbourhoods of the Lower Don Lands. The plan for the Precinct represents the resolution of the current Gordian knot of existing road and block patterns that inhibits access to individual sites and frustrates the deployment of transit, making the thoughtful development of this Precinct beneficial to Torontonians well beyond the boundaries of the neighbourhood.

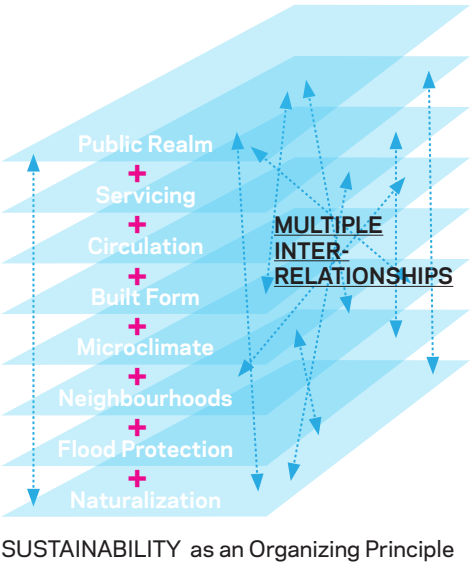


Figure 7
Sustainability as an Organizing Principle in the Planning Process

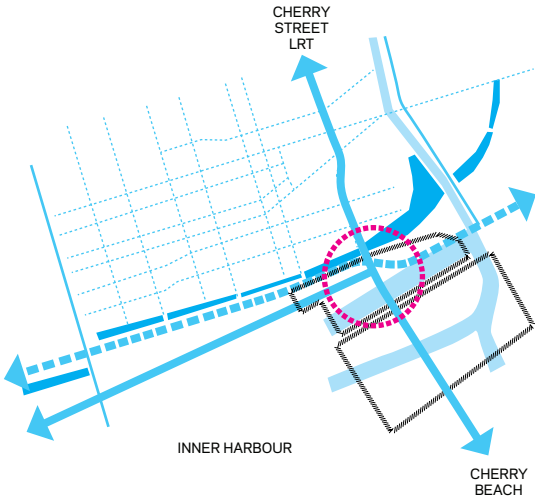


Figure 8
Connectivity
The linear form of development emerging in the central waterfront acknowledges and responds to the impact of the rail bank and Gardiner Expressway as a barrier to the ongoing evolution of the waterfront. The immediate adjacency of the rail berm and the Gardiner Expressway is compounded by the low height of the Gardiner and the development directed along its edge.

Transportation

The Keating Channel Precinct will privilege public transit and non-motorized transportation over private automobile use. There will be new and enhanced connections to surrounding neighbourhoods via all forms of transportation. The extension of Queens Quay to Cherry Street and into the area east of Cherry Street will form the “main street” of the Keating Channel Precinct, while a realigned Lakeshore Boulevard East will link the Precinct to employment areas to its east and west. The Keating Channel Precinct will also be the central interchange for a fine-grained pedestrian network that includes an extension of the Martin Goodman Trail, and the Waterfront Promenade, and will provide LRT transit access, an extensive network of bicycle lanes, while also accommodating vehicular and waterbourne access. This is consistent with the Official Plan objective for a mature transportation system that has policies to make transit, cycling and walking attractive alternatives to private automobile use.

Open Spaces

Beginning with the dramatic park at the base of the Victory Soya Mills Silos at Parliament Slip, the Keating Channel’s wide range of public open spaces will form the backbone of the Precinct, providing strong links to Don River Park, the Martin Goodman Trail, and the Don River trail system. Keating Channel Precinct will share its open spaces with adjacent developments, facilitating connections between the Precinct and surrounding neighbourhoods, and enhancing the role of the Precinct as the threshold between the communities of the Central Waterfront and the Port Lands.

Infrastructure

Attention to the integration of systems, in which resources and space are conserved and shared, both within the Precinct and with other neighbourhoods and districts, has been a guiding principle in the design of the Precinct’s water, wastewater, and stormwater infrastructure.

Built Form

Critical to the success of the Precinct will be the development of an architecture that achieves overall coherence while responding to the great variety of found conditions in the plan, accommodating a broad range of uses, and expressing the diversity of an authentic city neighbourhood. The combination of zoning provisions and Urban Design Guidelines call for a predominantly mid-rise building mass, with carefully positioned high-rise elements. All buildings will be environmentally high-performance, and the overall massing is intended to frame and animate significant public spaces at grade level—including streets, parks and the Waterfront Promenade—while minimizing shadows in public spaces and enhancing important views.

Waterfront Toronto's Mission for the Keating Channel Precinct

The Government of Canada, the Province of Ontario and the City of Toronto created Waterfront Toronto to oversee and lead the revitalization of Toronto's waterfront. Public accessibility, design excellence, sustainable development, economic development and fiscal sustainability are the key drivers of waterfront revitalization.



Figure 9
The Keating Channel Precinct and
Lower Don Lands set within the
context of the Central Waterfront and
the Port Lands



Figure 10
 Waterfront Toronto
 Discover Our New Blue Edge

Waterfront Toronto's Mission

Waterfront Toronto's mission, through its work with the community and public and private sector partners, is to put Toronto at the forefront of global cities in the 21st century by transforming the waterfront into a series of beautiful, sustainable new communities, parks and public spaces. Waterfront Toronto also aims to foster economic growth in knowledge-based creative industries and ultimately to redefine how the city, province and country are perceived by the rest of the world.

As part of the City of Toronto's participation in the Clinton Foundation's Clinton Climate Initiative, Waterfront Toronto will support the growth of the Keating Channel Precinct and the Lower Don Lands as communities designed around goals of substantially reduced energy consumption. Waterfront Toronto's work will support these sustainability goals through important public policy objectives that are endorsed at the municipal, provincial, and federal levels. These objectives include:

- Reducing urban sprawl
- Developing sustainable communities, particularly in the area of energy efficiency
- Redeveloping brownfields and cleaning up contaminated land
- Building more affordable housing
- Increasing economic competitiveness
- Creating more parks and public spaces

Keating Channel Precinct Study Area

The entire Lower Don Lands site encompasses the large area of land south of the CN main rail line to the Ship Channel in the Port Lands, extending from the Don Roadway on the eastern edge to the Inner Harbour on the west.

The Keating Channel Precinct is located within the Lower Don Lands and is centred around the Keating Channel. It is primarily bound by Villiers Street to the south, GO Transit yards to the north, Small Street to the west, and Don Valley Parkway to the east. The Precinct includes bridges that cross the Channel, the parcels of land adjacent to the Channel north of Villiers Street, as well as Villiers Street itself. It also includes the Parliament Street and Cherry Street underpasses at its northern border and a new proposed underpass at Trinity Street.

The Lower Don Lands Innovative Design Competition

In February 2007, Waterfront Toronto launched an Innovative Design Competition to bring new perspective to the Lower Don Lands site. There were two goals for submissions to the Competition:

1. Creation of an iconic identity for the Don River that accommodates crucial flood protection and habitat restoration requirements with a focus on the transformation of the mouth of the Don River from a spillway into a powerful landscape that orients people coming to and from the area.
2. Creation of a bold and comprehensive concept design that integrates development, transportation infrastructure, and the river mouth into a harmonious whole.

The design was also intended to propose a plan for the area that would give it a clear identity as a unique destination.

Four teams representing a range of different urban and architectural design philosophies submitted entries for reimagining a sustainable Don River. They were asked to address an unprecedented combination of ten required design elements:

- Naturalize the Don River
- Create a Continuous Riverfront Park System
- Provide for a Harmonious New Development
- Extend Queens Quay Eastward and Enhance the Road Network
- Prioritize Public Transit
- Develop a Gateway into the Port Lands
- Humanize Existing Infrastructure
- Enhance the Martin Goodman Trail
- Expand Opportunities for Interaction with the Water
- Promote Sustainable Development

The challenge of applying these design elements was heightened by the need to consider remedial work to address contamination issues and to prepare the site for revitalization. The winning design by the MVVA team forms the basis of the Lower Don Lands plan, and provides a new direction for achieving flood protection and naturalization goals while also imparting an urban context to the Don Mouth Naturalization and Port Lands Flood Protection Project EA (DMNP EA). The competition design has been developed to a higher level of detail for the Keating Channel Precinct Plan.



Figure 11
MVVA Team Competition Plan



Figure 12
The Keating Channel Dock Wall
An iconic heritage element of the Keating Channel Precinct from the MVVA Team Competition entry.



Figure 13
*Queens Quay Linear Park (View east from
Parliament Street LRT platform)*
Will be a gateway crossing for all modes of travel
from the Keating Channel Precinct to the future Port
Lands development. It also affords direct connections
from the Channel esplanades to the sidewalk and LRT
platform at Cherry Street.



Neighbourhood Building

The Keating Channel Precinct will be the first community of the Lower Don Lands. It will build on the legacy and amenity of the Keating Channel and draw the city fabric around the northeast corner of the Toronto Inner Harbour. As a Gateway to a revitalized Port Lands, it will provide many new and improved connections to the existing communities to the north and east and the emerging communities of East Bayfront and the West Don Lands. The Precinct will contain a bold and harmonious mix of city amenities, new and improved infrastructure, and parks and open spaces serving a diverse population of residents, workers, and visitors.



Figure 14
Downtown Toronto Mixed-Use
Community



Neighbourhood Elements: The Essential DNA

Because of its unique natural setting and history, this site is one of the few areas in Toronto where it is possible to use a full range of planning principles to create a new neighbourhood out of whole cloth. One of the key criteria for success will be to provide for an appropriate mix of uses and a diversity of households and employment opportunities for future residents. The proposed housing and employment composition is designed to reflect the overall proportion of the city as a whole, so that people will have the choice of living and working in the same neighbourhood. In order to foster a thriving community in this way, it will be necessary not just to provide the right kinds of spaces and settings, but also to time the provision of service in such a way that complete communities can emerge even during early stages of implementation.

The Keating Channel Precinct's DNA—the elements that will be recombined and multiply to create an organic and vital community—will include:

- A mix of uses: housing, jobs, community services, recreational and cultural facilities
- Social and economic diversity: opportunities for people of all incomes and backgrounds to live together

- Beauty, comfort and environmental responsibility: an attractive and comfortable environment with buildings that are beautiful to look at and environmentally sustainable
- Multi-modal: inherently superior and highly competitive transit and active transportation options
- Open space, parks and recreation: direct access to adjacent natural areas including Lake Ontario, the Don River Valley, the naturalized mouth of the Don River, Lake Ontario Park, and Tommy Thompson Park
- A system of healthy and beautiful street trees that contribute to Toronto's urban forest and provide shelter from the otherwise harsh elements of the high-density neighbourhood.



Figure 15
Neighbourhoods Starting Points
 The Keating Channel Precinct will form a neighbourhood that embodies the many characteristics that are essential to good city building. Its essential DNA which combines a mix of uses; social and economic diversity; beauty, comfort and environmental responsibility; multi-modal options for walking, cycling and transit; and open space, parks and recreation will be present in all phases of development.

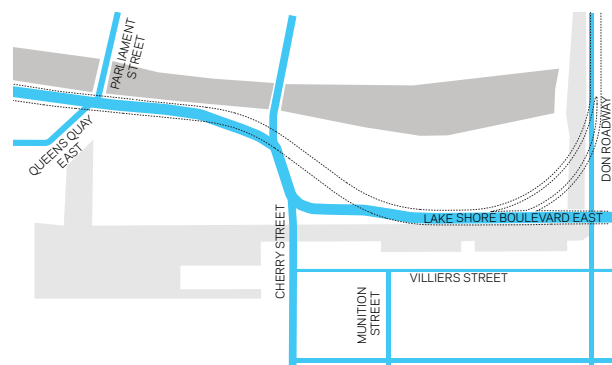
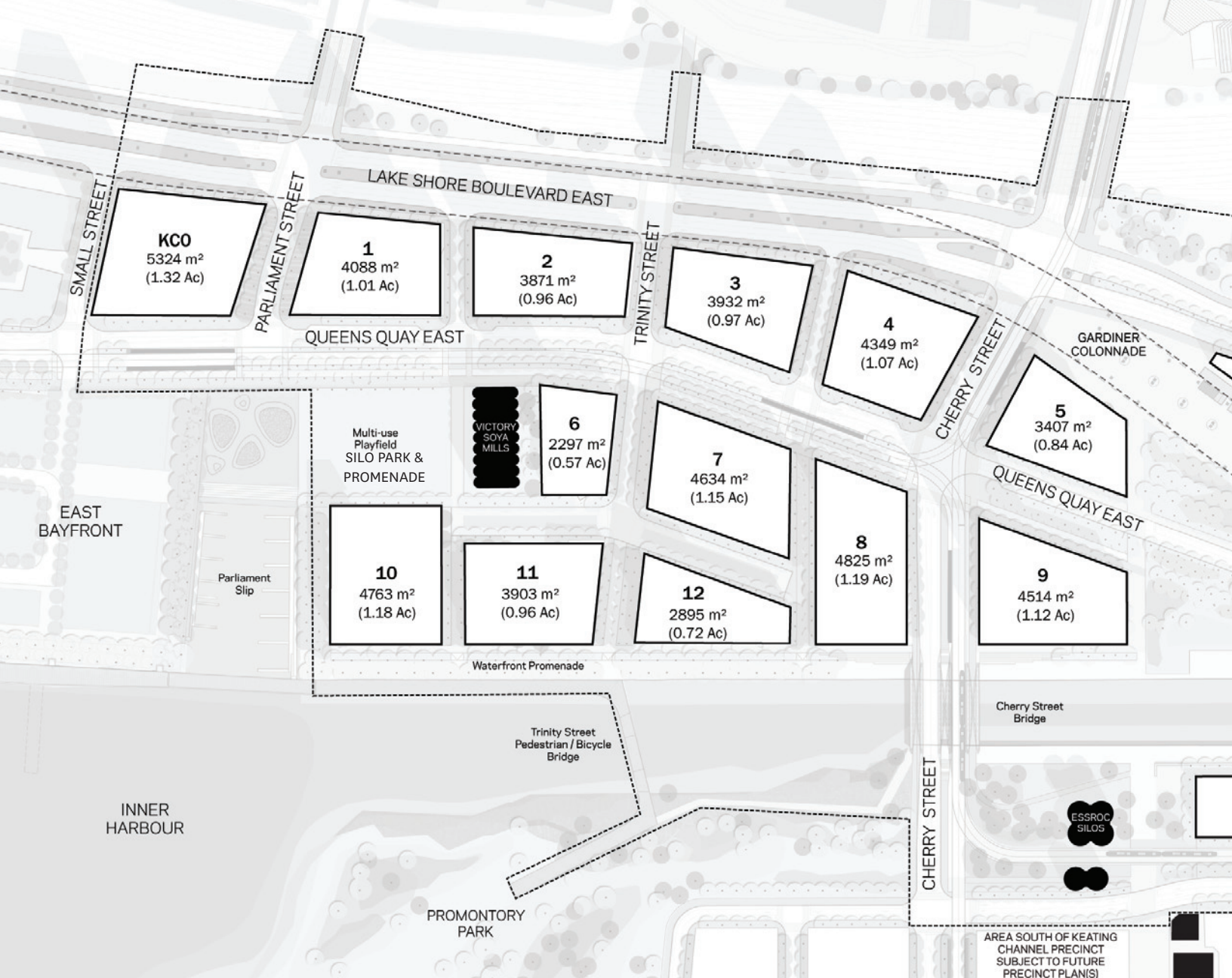


Figure 16
Existing Roadway Network

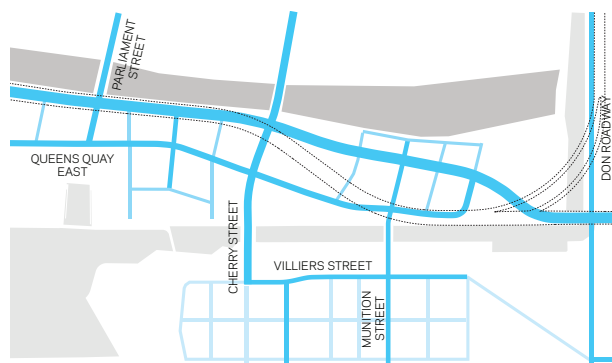


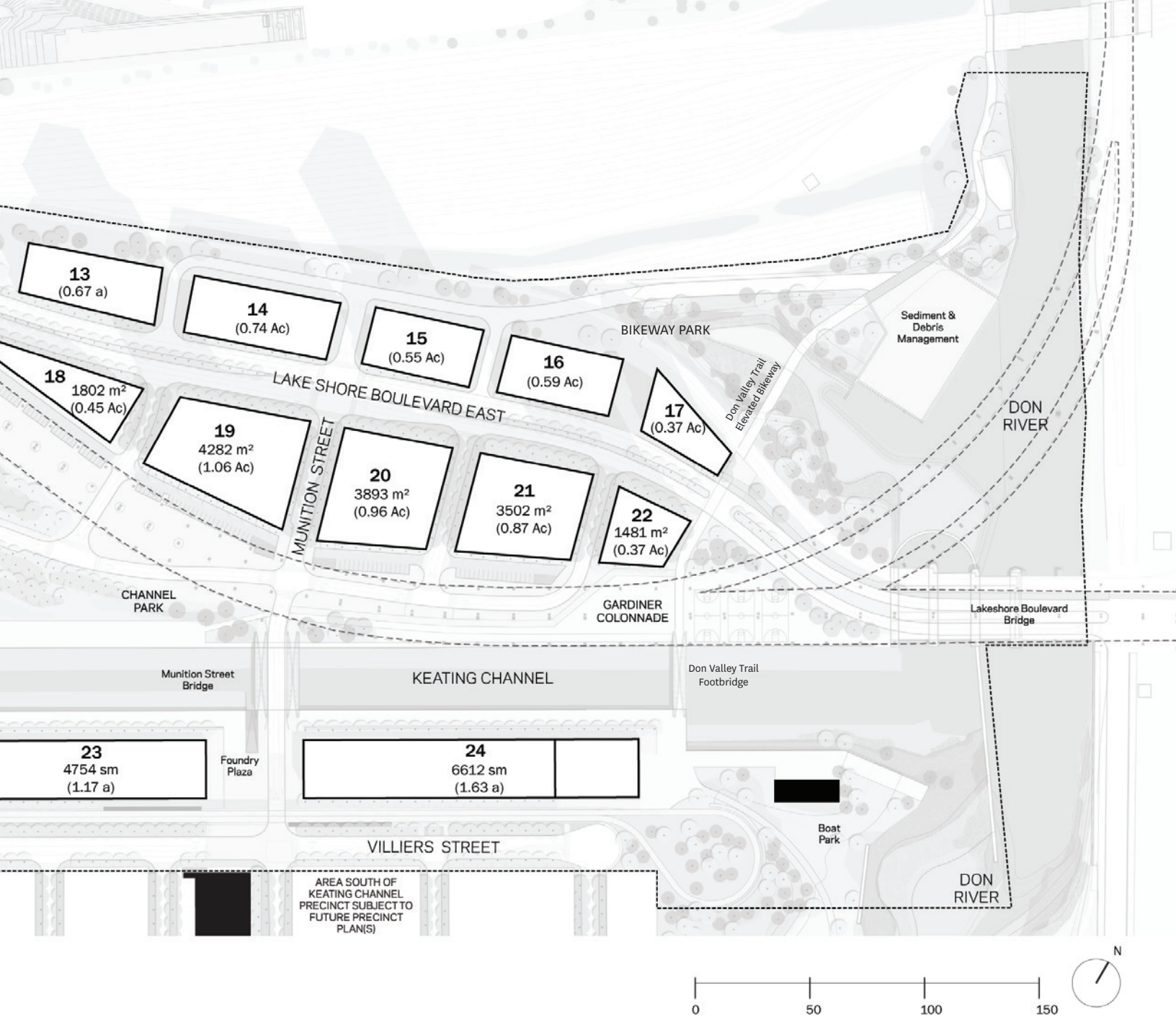
Figure 17
Proposed Roadway Network Changes

Block Pattern

The basic layout of streets and blocks in the Keating Channel Precinct is the most fundamental guideline for new development in the neighbourhood. This pattern provides the foundation for a layering of buildings and uses that will give the Precinct a thriving and distinctive personality.

Enhancing the Specificity of the Site

The Keating Channel Precinct site has many existing natural and built features that have constrained and guided the layout of streets and blocks. The Precinct stretches 1.2 kilometres from Small Street to the Don River, ranging in width from 270 metres to 360 metres along the way. The Precinct is a transitional area surrounded and traversed by major regional transportation corridors and infrastructure, including the rail corridor, the elevated Gardiner Expressway, Lakeshore Boulevard, and the Channel itself. These features preclude a conventional grid layout; instead, the Precinct's basic layout will be an extension of the circulation corridors at its borders. Extending, and in some cases restructuring, these arteries will tie the Precinct to adjacent neighbourhoods—East Bayfront, the Distillery District, and the West Don Lands.



Microclimate

To ensure summer and winter pedestrian comfort, block size and orientation have been designed to equitably distribute sunlight, mitigate winter winds and encourage summer breezes. The precinct-wide distribution of building mass will also help manage noise pollution—for example, the taller buildings at the northern edge of the Precinct will shield the neighbourhood from noise generated by transportation corridors. These relationships are illustrated in greater detail in the Urban Design Guidelines.

Fine-Grained Urban Texture

Short blocks with frequent entrances and active ground floors will establish a compact urban streetscape that provides clarity of circulation, a variety of interest, an animated public realm and a comfortable pedestrian environment. Block dimensions have been tested to accommodate a variety of programmatic combinations, building types, and architectural designs. The continuity of the public realm and the permeability of the block pattern will be guaranteed by a full network of clearly delineated public ways. The Precinct will be made up of a variety of street types, from wide arterial thoroughfares to pedestrian-only passages. No matter the street type, however, maintaining visual and physical continuity is crucial to ensuring that the public realm has a consistent and coherent identity.

Figure 18
Block Plan and Area of Development
 Blocks
 The 25 blocks of the Precinct have a combined land area of 22.45 acres. See Zoning By-Law Amendment for legal description of blocks and the Urban Design Guidelines for a description of the roadway network with associated street sections.



LEGEND

- WOODED PROSPECT
- PASSIVE USE LAWN
- MULTI-USE RECREATION
- ESPLANADE
- PLAYGROUND
- PUBLIC GARDEN
- EVENT SPACE
- WATER ACCESS
- HERITAGE STRUCTURE

- LRT STOP
- BICYCLE TRAIL
- SCHOOL
- DAYCARE
- CULTURAL USES
- LIBRARY
- SPECIAL COMMERCIAL
- COMMUNITY CENTRE
- SPORTS CENTRE

- NON-MOTORIZED PUBLIC BOAT LAUNCH
- SMALL BOATING
- PARTY BOATS
- COURT SPORTS

Figure 19

Lower Don Lands Neighbourhood Plan
This Neighbourhood Plan for the Lower Don Lands shows how the array of uses, community services, and amenities that will serve the daily life needs of a diverse population are distributed to provide ready access from all parts of the neighbourhood fabric. The Keating Channel Precinct has been developed to a higher level of detail than the rest of the Lower Don Lands, which will be subject to further analysis and review.

Neighbourhood Program

A complete and sustainable community includes more than just buildings, roads and public spaces. The quality of a neighbourhood is measured by the way in which its mixture of uses and amenities make the place inviting to a varied population of different ages and backgrounds. The entire Lower Don Lands area will have a population of between 20,480 and 21,390 residents in approximately 13,000 units. Within the Keating Channel Precinct, the population will be 7,520 people in approximately 4,700 units. This population projection is consistent with the desire, as expressed in the City's Official Plan and the Central Waterfront Secondary Plan, to establish new areas for growth on sites that are central and well-served by public transit and other infrastructure. The Keating Channel Precinct will not be a purely residential community. Roughly 25% of the floor area of the Precinct will be devoted to employment uses and the amenities required for a successful residential neighbourhood. This ensures that there will be opportunities for people to live and work in close proximity, creating a more sustainable organization of land uses that will help reduce the reliance on private automobiles.

Effective use of transit is critical to supporting mixed-use development. The diversity of neighbourhood program, including amenities, retail opportunities and community facilities, is key to achieving the desired modal split for the Keating Channel Precinct. Programmatic variety will reduce the frequency with which residents need leave the Precinct for basic needs, and the plan calls for the level of neighbourhood density required to support public transit. Land use with a retail focus concentrated around transit stops and along main streets will further support non-automotive modes of transportation.

Cultural Heritage Resources

The Lower Don Lands Framework Plan provides an overview of the history of the area at the north east corner of Toronto's Inner Harbour. The area has a rich history of early-20th-century industrial use, but few built elements remain from that era. However, those that do remain are located largely in the Keating Channel Precinct. The design of the Keating Channel Precinct includes at its heart an enthusiasm for the adaptive reuse of the many heritage and cultural resources that give the site its unique identity. The plan seeks to not only preserve these elements, but to reinvent them as actively programmed landmarks that enhance the character of the neighbourhood. The redevelopment of the listed heritage structures will be subject to the review and approval of the City of Toronto Heritage Preservation Services. Each heritage building will require a thoughtful conservation strategy which best conserves the structure while allowing for its adaptive reuse.

There are also a number of potential archaeological resources in the Precinct. Since the area includes remnants of landforms around the former Ashbridges Bay Marsh, it is possible that there are deeply buried remains or artifacts left by one or more First Nations groups, dating from before European settlement. There

may also be remains of the 1870 Don breakwater, the 1882 Government breakwater, which roughly followed the current line of Cherry Street, and/or the Toronto Dry Dock from the 1880s. It is likely that there are also remnants of several historic industrial operations, such as the National Iron Works, the Toronto Iron Works, and the Toronto Ship Building Company, on the site. Prior to the development of any buildings or any buried infrastructure, the City may require further archaeological investigations to identify, document, or conserve buried resources.

The Keating Channel

The Keating Channel, the dominant built feature on the site, will be retained and repurposed as an iconic public space as described in other sections of this plan. There may be minor alterations to the structure for aesthetic, safety or structural purposes, and there will also be modifications on the southern side to create a consistent edge with logical parcel sizes north of Villiers Street.

The Waterfront Silos

The Framework Plan for the Lower Don Lands presents the case for preserving and repurposing all of the site's silos, which have the potential to serve as important landmarks and anchor open space programming at threshold moments between urban development areas and parkland.

The historic silos continue to stand as symbolic landmarks of the city's economic expansion as a shipping port. As such, the development guidelines for the built form of this Precinct reinforce viewsheds of the structures as landmarks and give them addresses upon major public open spaces. Moreover, there is a concentration of open space programming opportunities present in the plan located at the silos including bike trails, recreational programming, community facilities, and public art.

Lastly, this plan advocates investigating the potential reuse of the silos in a new infrastructural capacity. Many new sustainable or low carbon emission technologies rely on finding ways to store resources—from waste heat energy to stormwater—and so it might be feasible to repurpose the structures in a way that both honors their historic use as storage facilities and looks toward the future. Any adaptation of the existing silo structures will be subject to detailed feasibility studies and approval by Toronto City Council, as any alteration of a designated heritage structure requires Council approval if it affects the features that were the reasons for its designation.

Victory Soya Mills Silos

The Victory Soya Mills Silos at 351-369 Lakeshore Boulevard East were constructed between 1944 and 1948. The structures are listed on the City Inventory of Heritage Properties. They will be featured as the eastern feature of a prominent open space at the terminus of Parliament Street, and on the south side of the newly extended Queens Quay Boulevard East. A variety of possible adaptive reuses will be explored in collaboration with the City of Toronto Heritage Preservation Services.



Figure 20
Retail

	Keating Channel	Keating Channel West	Keating Channel East
Number of Units	4,700	3,140	1,560
Affordable Housing Units	940	628	312
“Low End of Market Units”	235	157	78
Population	7,520	5,020	2,500
Employment (Area)	168,000-197,000 sq m	85,000-105,000 sq m	83,000-92,000 sq m
Total Employment	6,000-7,020	3,040-3,740	2,960-3,280
Retail Employment	200-250	105-130	95-120

Figure 21
Population and Employment Projections for the entire Keating Channel Precinct as well as the East and West subareas

Essroc Silos

The silos at 312 Cherry Street were built as part of the Century Coal Company in 1920. They are listed in the City’s heritage inventory as significant for both architectural and contextual reasons. The concrete silos are some of the few remaining examples of a particular industrial building style. They are also a visually prominent landmark on the northeast corner of the Inner Harbour, marking the entrance to the Keating Channel. The redevelopment of the Villiers Street right-of-way will position the Essroc Silos as the gateway landmark between the Central Waterfront and the Port Lands, and the site of the silos may serve as a launch point for some of the water-based recreation proposed for the Channel.

Harbour Commissioners Storage

There are two buildings at the eastern edge of the Toronto Port Authority Works Yard that have been identified as being of heritage interest and are listed in the City Inventory of Heritage Properties. The office building to the east and the workshop to its immediate west were purportedly constructed in 1916 for the Toronto Harbour Commissioners and are likely the oldest remaining buildings in the Port Lands.

The workshop will likely be retained in its existing location, but the structure will need to be raised so that it is protected from flooding under the Lower Don Lands’ new regulatory floodplain. The workshop could be converted into a small boating facility that would serve as a launch point for the Precinct’s waterborne recreation. The office building will need to be relocated to another location, likely somewhere adjacent to the river in the same general vicinity, but above the regulatory floodplain. Raising and/or moving these structures represents a last resort and a special exception to standard preservation procedure; many other less invasive options were considered and ultimately discarded as ineffective.

Development Opportunities

The Keating Channel Precinct, located along the eastern edge of the Central Waterfront and near Downtown, will provide strategic development opportunities along with significant open space amenities. The development program is premised on a balance of employment and residential activities that is needed in order for a neighbourhood to flourish and sustain itself within this context. The density and programming must support the transit investment and reflect the high percentage of land area dedicated to public infrastructure. The reduced impacts on immediately adjacent areas, due to the presence of the rail corridor, create potential for deploying a range of building typologies, including those allowing for generous height in the development areas.

A number of factors aim to ensure that the Precinct will be an attractive location for developers. Normalized development blocks and building massing will predominate, with signature sites (unique in both shape and mass) punctuating the site in key locations without compromising neighbourhood cohesion. Buildings will provide sufficient concentration of units within a block (i.e., critical mass) to support some retail services at-

grade. Perhaps most importantly, the massing guidelines allow for multiple development strategies so that developers may respond flexibly to changing market conditions.

Density

The total area of development blocks is approximately 9.03 hectares (22.45 acres). The proposed overall gross density for the Keating Channel West is proposed as 4.0 FSI. These densities reflect a level of development appropriate to each site’s unique conditions and location within the surrounding urban context, and the strategic importance of this Precinct from a smart growth perspective. The aggregated development in the Precinct totals about 682,780 square metres or 7.35 million square feet. A combination of 75% residential and 25% employment has been targeted to produce a balance of residents and employees that will be analogous to current City averages in areas surrounding the downtown core. This ratio would translate into approximately 174,140 square metres (1.87 million square feet) of non-residential and 508,640 square metres (5.4 million square feet) of residential development.

Employment

The Keating Channel Precinct will likely be the focal point of the commercial activity for the entire Lower Don Lands. This area is ideally suited for employment uses because of its proximity to the downtown and its higher-density built form. The residential/commercial balance in this neighbourhood, therefore, is projected to be somewhat more commercial than the city-wide average. Subsequent development of neighbourhoods south of the Keating Channel Precinct is expected to have a more residential emphasis, bringing the Lower Don Lands as a whole in line with the city-wide average.

As mentioned above, the total floor space in the Keating Channel Precinct will be approximately 75% residential and 25% non-residential. The employment mix will include office commercial, professional office, and retail uses. This will generate approximately between 168,000 and 197,000 square metres (1.8 to 1.9 million square feet) of non-residential space with an employment of between approximately 6,000 and 7,020 persons, with between 200 and 250 working in retail. The employment uses will be located either in stand-alone buildings or in mixed-use buildings, depending on market conditions, and could be spread throughout the neighbourhood or concentrated at locations with the most accessible transit. Job-creating development will be encouraged along Lakeshore Boulevard and Queens Quay.

Retail

The plan of the Keating Channel Precinct calls for retail to be located at-grade, primarily along Queens Quay, Lakeshore Boulevard, Cherry Street and the south side of the Keating Channel. Retail activity will also be clustered at key transit stations, in particular at the corner of Queens Quay and Cherry Street. Retail activity at-grade is a key element in creating active and vibrant

spaces along key public roads and at transit station locations. From a neighbourhood building perspective, the intent is also to provide access to service retail for all residents within easy walking distance of their housing and to provide for retail locations at key transit locations that may draw visitors or residents from a wider area. A particular highlight is the vision for the south side of the Keating Channel as a signature location for outdoor related restaurant and entertainment uses due to its unique positioning along the canal-like setting of the Keating Channel.

Housing

Waterfront Toronto is committed to creating mixed-income neighbourhoods (a goal outlined in the Central Waterfront Secondary Plan), both by using its own resources and by working with private landowners. In pursuit of these objectives within the Keating Channel Precinct, Waterfront Toronto will:

- Provide housing suitable for families with children within neighbourhoods that contain adequate daycare and school facilities
- Provide opportunities for aging in place, including housing for seniors and appropriate support services
- Provide for a mix of tenure types
- Provide for the distribution of affordable housing throughout the Keating Channel Precinct
- Provide units with a range of sizes to meet the needs of families
- Provide for a variation of densities and building typologies to reflect diverse building forms.

As mentioned previously, at full build-out the Keating Channel Precinct will contain approximately 4,700 residential units, providing housing for up to 7,520 people. Because of the high density of development in this area, many households will be small, reflecting the current average household size across the waterfront. On the other hand, there will also be a number of grade-related units and units in lower buildings, particularly south of Queens Quay, which will likely generate housing for families. Current estimates are that this population will generate up to 330 school-age children and up to 210 pre-school-age children.



Figure 22
Harbourfront School and Community Centre

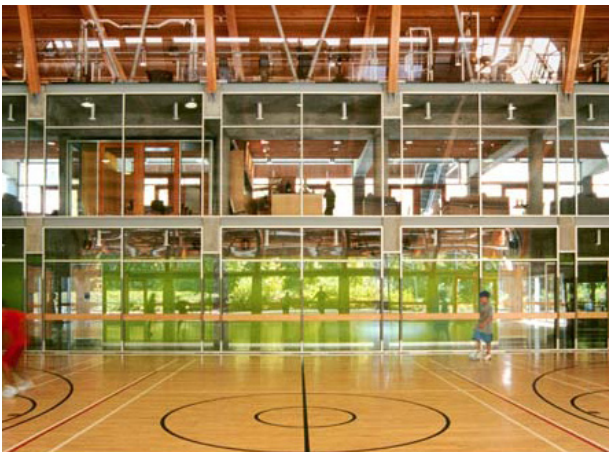


Figure 23
Gleneagles Community Centre
Environmentally sustainable community centre

Affordable Housing

As referenced in the City’s ten-year affordable housing plan, the *Housing Opportunities Toronto HOT Action Plan 2010-2020*, the provision of affordable housing represents a cornerstone for achieving the economic, social, health and environmental benefits of city building and creating successful neighbourhoods. The affordable housing plan also contains specific references to achieving affordable housing on the waterfront, including Action 4.1, which identifies waterfront revitalization as a priority for City benefits such as expediting approvals, coordinating City actions, and providing incentives. Action 4.7 lists Waterfront Toronto as a priority recipient of affordable housing program money.

Waterfront Toronto will work with the City of Toronto and private landowners to, at a minimum, achieve the affordable housing targets identified in the Central Waterfront Secondary Plan. To meet this objective, Waterfront Toronto will provide fully serviced and remediated land at no cost towards the construction of developments that commit to making 20% of their units into affordable rental housing (defined in the Official Plan as housing with total monthly costs that do not exceed the average rent across the City of Toronto for each unit size, as calculated by Canada and Mortgage Corporation). Waterfront Toronto will work with the City of Toronto to explore ways to achieve equivalent contribution towards affordable rental housing from private owners.

In addition, Waterfront Toronto will work with private owners and development proponents on its own lands to make an additional 5% of the units in the North Keating Precinct into “low end of market” housing, defined in the Official Plan as housing that is smaller than the average unit size for each unit type, but that is otherwise unregulated.

Based on the total number of units expected to be built in the Keating Channel Precinct, and subject to the availability of funding programs, it is projected that 940 units of affordable rental housing will be built in the Keating Channel Precinct. An additional 235 units will be “low end of market” housing.

Delivery of Affordable Housing

In order to achieve the levels of affordable rental housing called for in the Central Waterfront Plan, Waterfront Toronto will require funding assistance from the provincial and federal government. To address this need, Waterfront Toronto will work with the City of Toronto to approach the provincial and federal government to secure funding commitments towards the construction of affordable housing in the Keating Channel Precinct. In addition, Waterfront Toronto will:

- Explore a variety of approaches to delivering affordable housing in partnership with a wide variety of housing providers, particularly non-profit and cooperative affordable housing developers
- Provide land at no cost to private, non-profit and cooperative housing developers to build affordable housing

- Identify opportunities to mix affordable and market housing on its lands through the proposal call process
- Work with the City to secure agreements as part of the development approval process regarding levels of affordable housing on all land in the Precinct
- Work with the City to reduce rents for persons with low incomes by seeking subsidies from higher levels of government (e.g. rent-gear-to-income, rent supplements or equivalent capital subsidies which reduce rents) to help achieve a higher level of affordability and a more economically diverse neighbourhood
- Explore creative ways to deliver affordable ownership housing

Community Services

A key objective in the planning of community services for the Keating Channel neighbourhood is to ensure that these services are integrated with services that are available or planned in the wider area. The services described below will be provided, or are already provided in surrounding neighbourhoods. For example, the Toronto Library Board is planning to build a major facility at the corner of Parliament Street and Front Street in the West Don Lands neighbourhood. This will serve as the local library branch for much of the population in the Keating Channel neighbourhood and for the Lower Don Lands as a whole. On the other hand, a number of services, such as the proposed school facility at the Parliament Street Slip, will serve both the Keating Channel and East Bayfront neighbourhoods.

The overall principles guiding the provision of community services include:

- To provide key services such as schools and daycares at the earliest possible opportunity
- To integrate the community space into the neighbourhood fabric
- To co-locate services where appropriate
- To locate community services adjacent to parks where appropriate
- To ensure accessibility for all, including seniors, children, and persons with disabilities

Schools and Child Care

Based on the number of school-aged children projected at full build out, the planned school facility in the Keating Channel neighbourhood, which will be located just east of the Parliament Street Slip, will serve both the East Bayfront and the Keating Channel neighbourhood. The location of the school is adjacent to the proposed park north of the Slip, which will allow a portion of the park facility to be used both by the general public and as a school playground. There are two daycare centres proposed for the Keating Channel neighbourhood, in accordance with the Central Waterfront Secondary Plan. One will be co-located in the school facility proposed for the east side of Parliament Street Slip. The other will be located near the park east of Cherry Street.

Recreation Centres

Proposed recreational facilities in adjacent communities are expected to be able to serve the Keating Channel Precinct population. If an additional facility is required in the Lower Don Lands, it will be located in the area just north of the Ship Channel, to be the subject of later Precinct planning. In the short term, a small local facility with programs designed for the immediate community could be co-located with the school facility adjacent to the Parliament Street Slip.

Library Facilities

With the proposed regional facility to be located near Front and Parliament Streets, there is no additional requirement for library services in the Keating Channel neighbourhood.

Community Agency Space

Community agency space is space provided to local community organizations for administrative or program-delivery purposes that meet neighbourhood needs. These organizations provide direct community services to City residents aligned with the goals and objectives of the City. Accessible and affordable community space is a basic prerequisite for building strong neighbourhoods. In the Keating Channel Precinct it is estimated that there will be a need for between 1,000-1,500 square metres of community agency space. This space will be incorporated into City-owned or school facilities or in rented facilities elsewhere and be made available as the neighbourhood evolves, based on need and responses to City-initiated requests for proposals.

Emergency Services

Fire stations are currently located in the vicinity of Front Street, Jarvis Street, Eastern Avenue, and Knox Street. Toronto Fire has indicated the need for additional service in the area as a result of the anticipated increase in population. The Fire Master Plan document (2007) indicated that consideration be given to locating a new facility in the southeast area of the East Bayfront/ West Don Lands developments. This will need to be accommodated on the Keating Channel Precinct lands, most likely in the area east of Cherry Street. The exact location will be confirmed as more detailed planning proceeds.

The police station at Parliament and Jarvis will adequately serve the Keating Channel neighbourhood. There are no additional Emergency Medical Service facilities required for the Keating Channel neighbourhood, though a new facility will be required to serve the neighbourhoods planned south of the Keating Channel. Certain emergency watercraft will continue to be accommodated in the Keating Channel.

Public Realm

The organization of the Lower Don Lands plan, and within it the Keating Channel Precinct, starts with the realignment of the Don River and the preservation of the Keating Channel. These two great naturalized and engineered features form the basic public realm armature around which the plan is structured.



Figure 24
Keating Channel Promenade



Figure 25
Lachine Canal, Montreal



Figure 26
Rideau Canal, Ottawa



Figure 27
Canal St. Martin, Paris

The Keating Channel

The Keating Channel itself is an exceptional artifact: an historic collection of authentic marine constructions including dockwalls, cribs, mooring ties, and crane pads which line a unique water body and provide tremendous opportunities for new recreational waterborne uses connected to the harbour and relocated channel.

With the implementation of the Lower Don Lands plan and the diversion of the Don River to an expansive green corridor to the south, the function of the Keating Channel will change dramatically. The Channel will no longer convey the primary flow of the river, but will be retained to serve as a secondary channel for flood protection in high water events. Protected by a weir to control flow, and with some adjustments to the elevations of the vertical seawalls that contain it, the Channel becomes the central feature and public gathering space that defines the Precinct.

Urban Artifact

In its new role, the Keating Channel will be a rich and interesting addition to Toronto's public realm. The Channel's highly attractive marine setting, along an engineered channel paired with intimate relationships between land and water, make it comparable to portions of the Rideau Canal in Ottawa, the Lachine Canal in Montreal, and Canal St. Martin in Paris.

The Keating Channel will be the centrepiece of the new Precinct. Solar access and sightlines to the Channel, as well as right-of-ways and provision for marine activities, including small craft launching, will be carefully preserved. The Precinct's land use provisions will allow the Keating Channel to become a focal point for cultural venues, cafés and restaurants that open onto and engage the waterfront. The Channel will serve as the key east-west pedestrian artery through the Precinct, connecting the Martin Goodman Trail, the Don River Trail network, the Lakeshore bike trail, and the Central Waterfront boardwalk.

The size and character of the expanded public realm embracing the Channel will allow it to function virtually as the Lower Don Lands' second major urban park. This new 13-acre open space will be the complement to the more pastoral park setting along the relocated river to the south. The urban park will become the central and defining feature of an exceptional mixed-use waterfront neighbourhood.

Integrated Infrastructure

Since the Keating Channel site is defined by transitions between spaces, neighbourhoods, and types of use, accommodating the performance criteria for each constituent infrastructural system individually risks awkward transitions at the expense for the public realm. To combat this, the Precinct will creatively combine elements of structure, flood protection, safety, public space, marine activity, heritage preservation and habitat.

The Channel has far more value as a heritage structure than as a functional commercial marine edge. Not only would the required restoration of the dockwalls be an unwieldy burden to the infrastructure costs of the project, but the industrial massiveness, materiality, and patina of almost 100 years of use would be impossible to equal.

With the goals of preservation and resourcefulness as key drivers, the proposed marine repair and improvement strategy calls for stabilizing the existing concrete dockwalls using stone revetments in the Channel itself. The use of inclined revetments saves money, is uncomplicated to implement, and preserves a generous public realm. The stabilization of the walls from the exterior allows the length of historic dockwall to be retained for aesthetic purposes and also significantly reduces—and in some places eliminates—the need for interventions within the existing wall structure, which consists of tiebacks that reach as far as 25 metres inland. (Depending on the condition of the dockwalls in specific locations, though, additional reinforcement, in the form of repairing or expanding the tiebacks, may still be required.)

The piled stone reinforcements will also create new “mini-reefs” that will serve as valuable habitat for fish, facilitate use of the Channel by canoes and kayaks, and serve as safety measures by creating footholds at shallow depths for anyone who enters the Channel, intentionally or unintentionally.



Figure 28
Keating Channel and Existing Concrete Dockwall with Timber Sheetpile

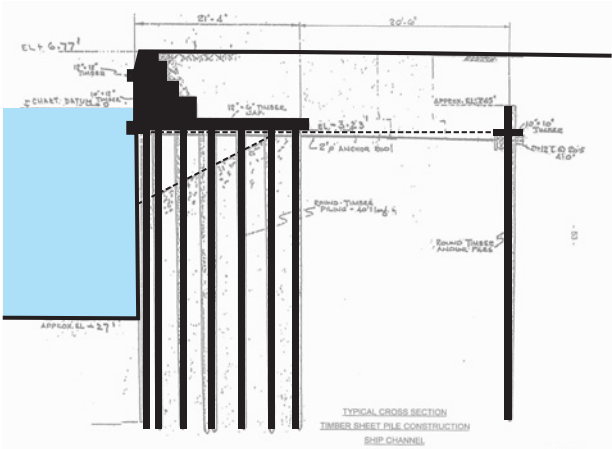
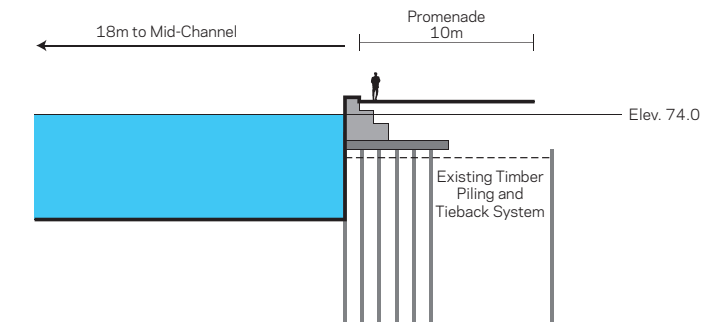
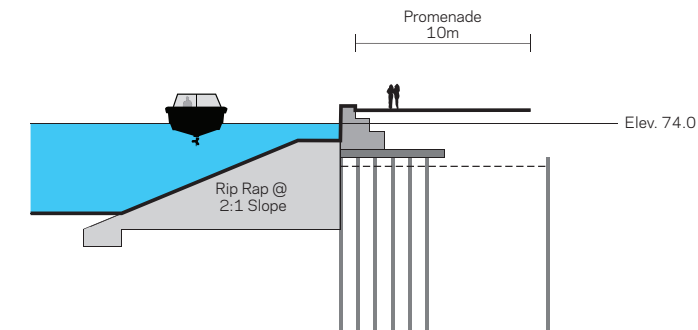


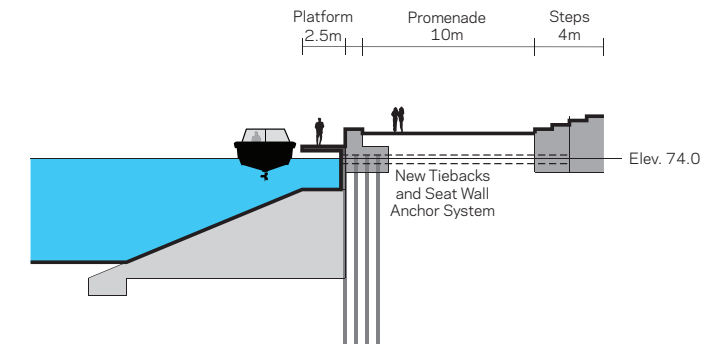
Figure 29
Existing Keating Channel Dockwall Construction circa 1910
The Channel has far more value as a unique heritage structure than rebuilt as a functional commercial marine edge



A. EXISTING DOCKWALL



B. RIP RAP REVETMENT AND LOWERED CHANNEL BOTTOM



C. SEAT WALL ANCHOR SYSTEM

Figure 30
Dockwall Stabilization Approaches

(A) Timber sheet pile wall, piles and platform

(B) Cast-in-place concrete pile cap

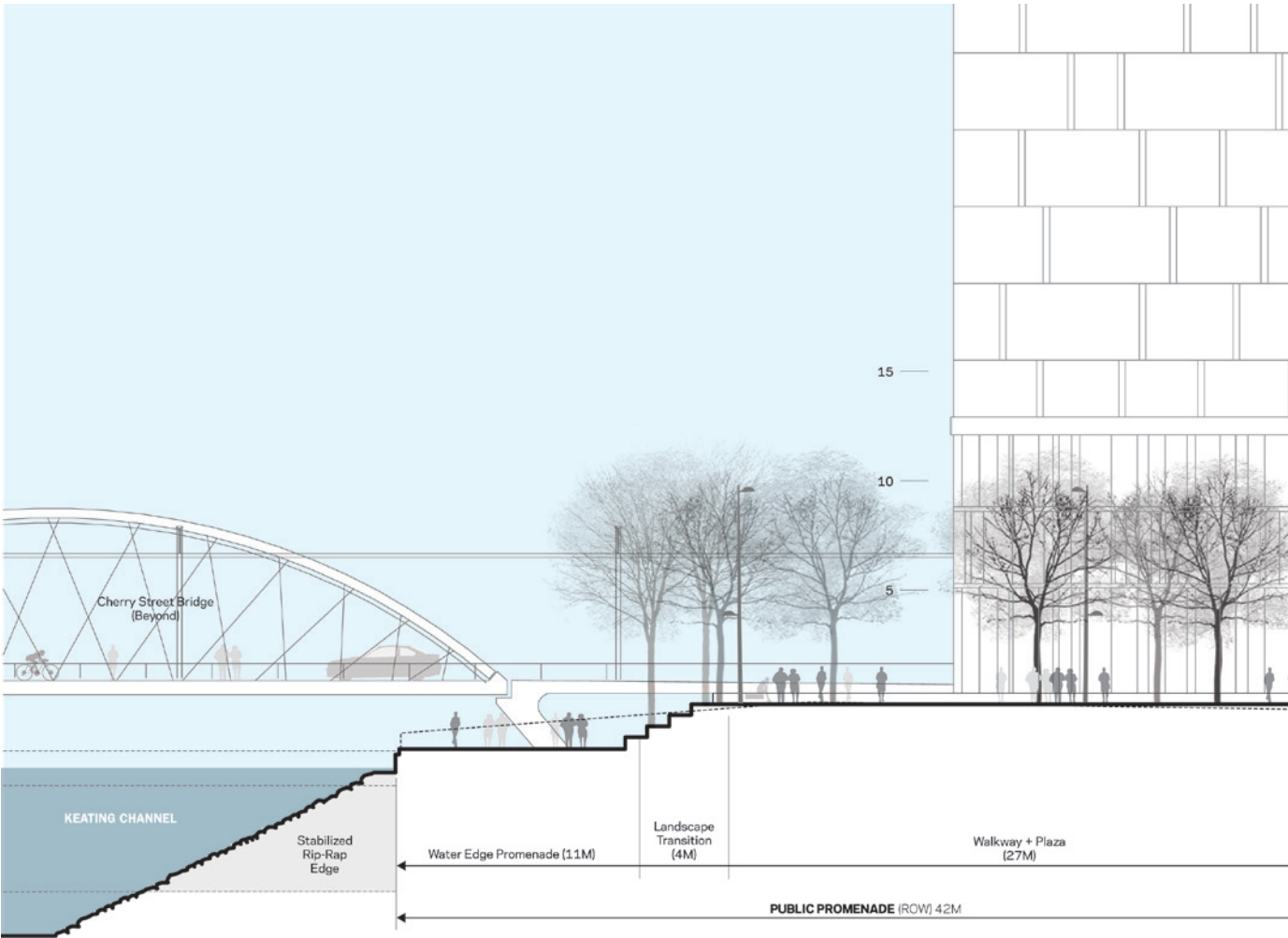
(C) Dockwall tieback, estimated to exist as far back from the sheet pile as 25 metres. The tiebacks are integrated into the foundation of the Gardiner Expressway columns.

Keating Channel and Flood Conveyance

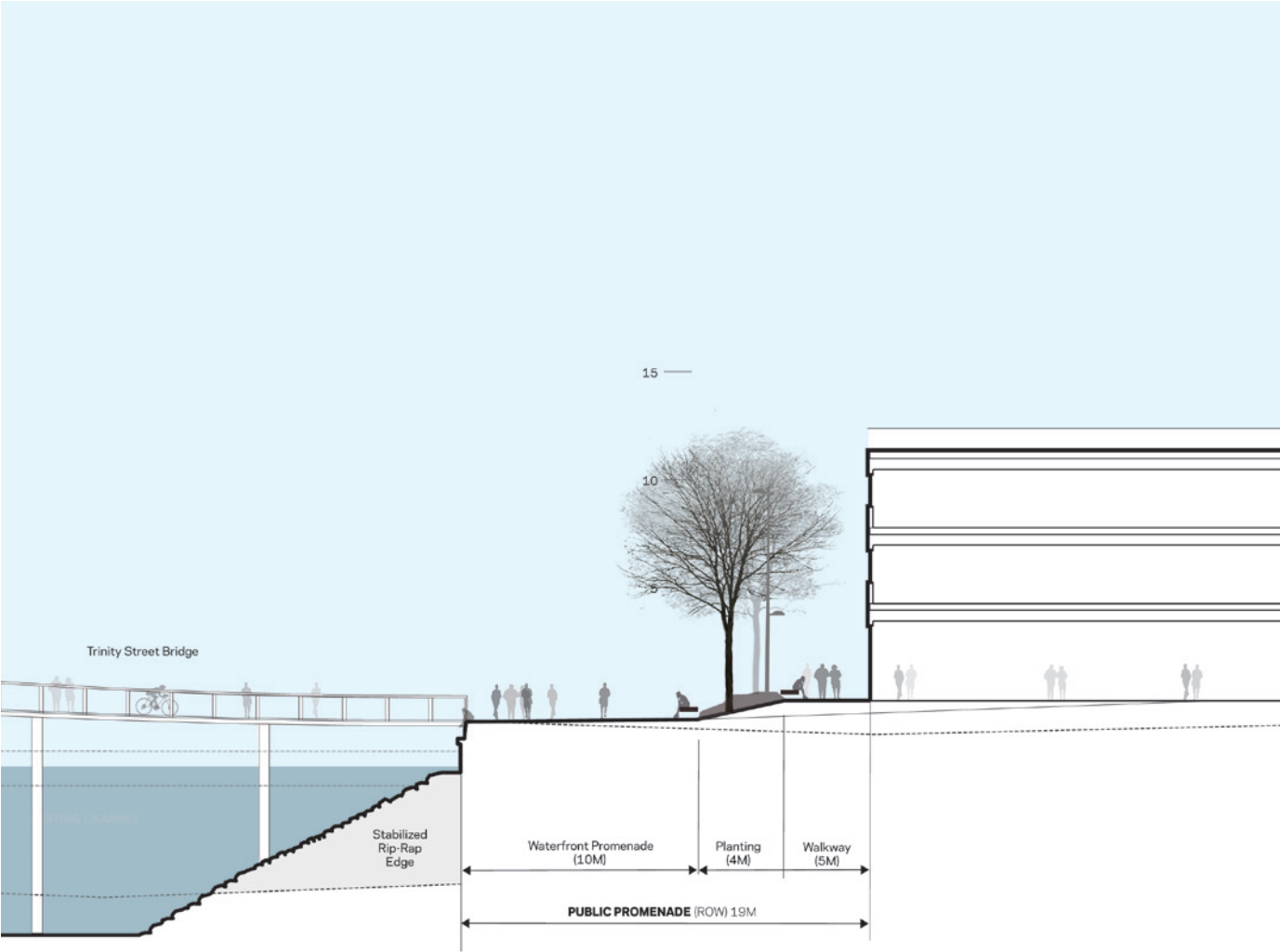
In order to play these defining roles in the development of the Precinct, the Keating Channel watercourse itself must satisfy the flood conveyance parameters as per the DMNP EA and the navigational requirements to support small recreational boating and emergency access. These requirements include:

- Spanning Requirements: No spanning structure may fall within a navigational clearance of 3 metres high and 6 metres wide, calculated from High Lake Level.
- Development Requirements: Top of bank requirements, as established by the TRCA, state that development areas may not be located closer than 10 metres horizontally and 0.5 metres vertically from the regulatory flood elevation.

In addition to its many new roles, the new Keating Channel must continue to function as an essential component of the flood control system for the new mouth of the Don River. While the dockwall revetments reduce the cross-sectional volume of the Channel, and thus the amount of water it can absorb during a flood, a range of passive and active techniques for ensuring circulation within the Channel are being considered, including changes in depth, the use of stormwater, modifications to the weirs, and active pumping.

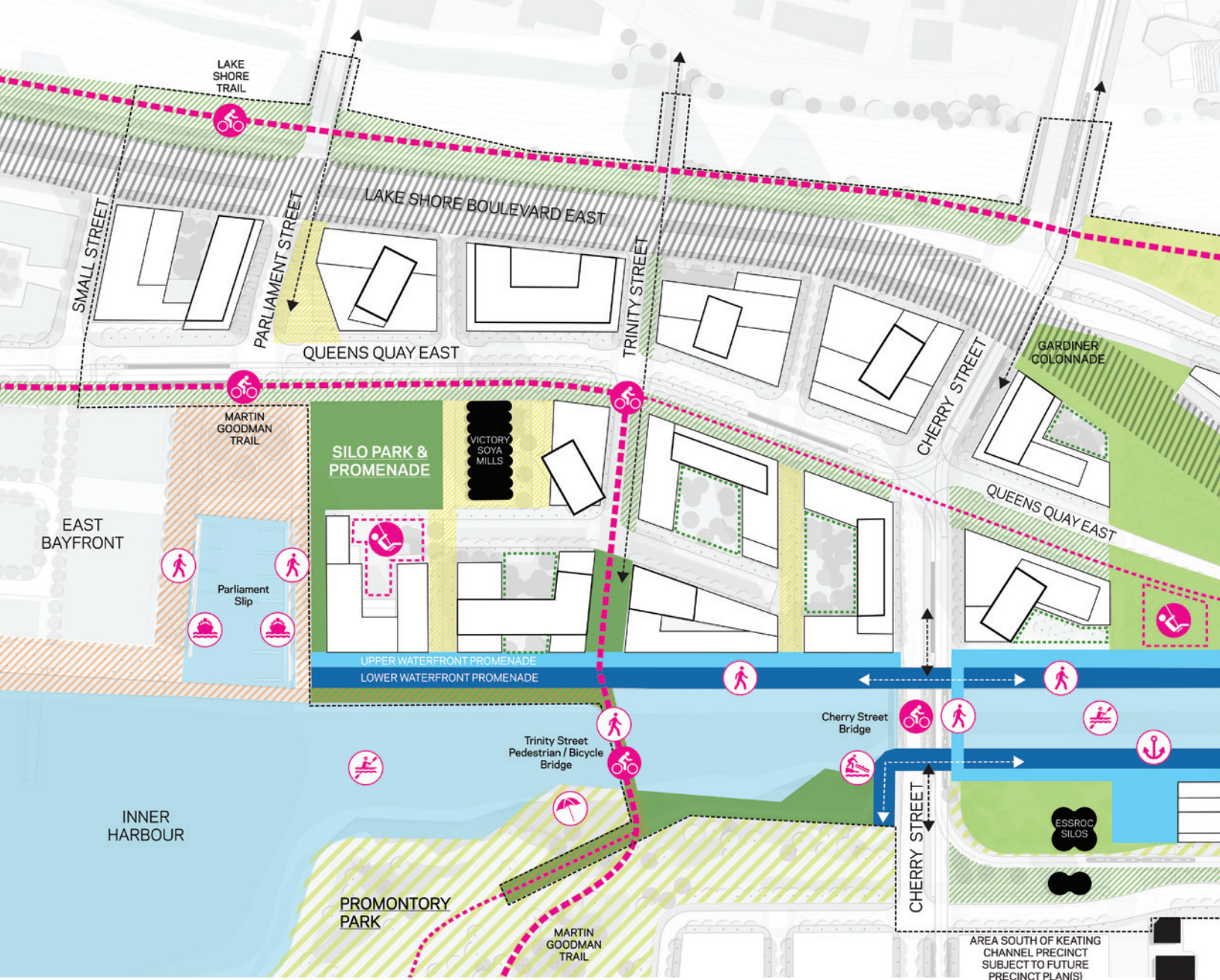


KEATING CHANNEL ESPLANADE AT CHERRY STREET





















KEATING CHANNEL ESPLANADE AT TRINITY STREET

Figure 31
Keating Channel Sections



LEGEND

- | | | | |
|---|--|---|---|
|  Silo Park and Promenade |  Public Passage (privately owned) |  Regional Bicycle Trail |  Playground |
|  Channel Park |  Public Open Space |  Secondary Bicycle Trail |  Recreational Boating |
|  Bikeway Park |  Central Waterfront |  Pedestrian Promenade |  Non-motorized Boat Launch |
|  Upper Promenade |  Courtyard |  Bicycle Path/Lane |  Motorized Boat Launch |
|  Lower Promenade |  Playground/School Yard |  Rocky Shore |  Boat Mooring Area |
| | |  Pavilion |  Charter Boat Docking |

Keating Channel Precinct Park System

The Keating Channel Parks and Open Spaces are centred around the spine formed by the promenades along both edges of the Keating Channel. These parks accommodate both passive and active recreation, while also tying the Keating Channel Precinct into the Lower Don Lands and the Central Waterfront Promenade.

Three substantial parks and open spaces branch off of the promenades and include: Silo Park, Channel Park, and Bikeway Park. Silo Park will host a multiuse recreational field which will be used by children at the neighbouring school as well as residents of the Precinct. Channel Park will allow for events and gatherings along the Keating Channel at the pavilion and will also provide a neighbourhood playground in close proximity to a daycare facility. Bikeway Park includes passive green space connections for essential bike trail connections.

Silo Park and Promenade

Silo Park and Promenade is approximately 2 hectares (5 acres) of parkland located at the western boundary of the Keating Channel Precinct. The open space areas consist of Silo Park, a green expanse to the west of the Victory Soya Mills Silos and the terminus of the Central Waterfront Promenade as it arrives in the Keating Channel and transitions over the Trinity Street bridge into Promontory Park. The intention of Silo Park is to remain as open space in order to preserve views of the Victory Soya Mills Silos as well as to fulfill a recreational function as a multi-use playfield. The dramatic size and mass of the historic silos will be emphasized by the scale of the adjacent open space. The Promenade itself brings the Central Waterfront to the new Promontory Park, continuing the public realm along the water's edge past the charter boat dock at the Parliament Slip, the waterfront school and the Trinity Street connection to the distillery, the Martin Goodman Trail and Promontory Park.

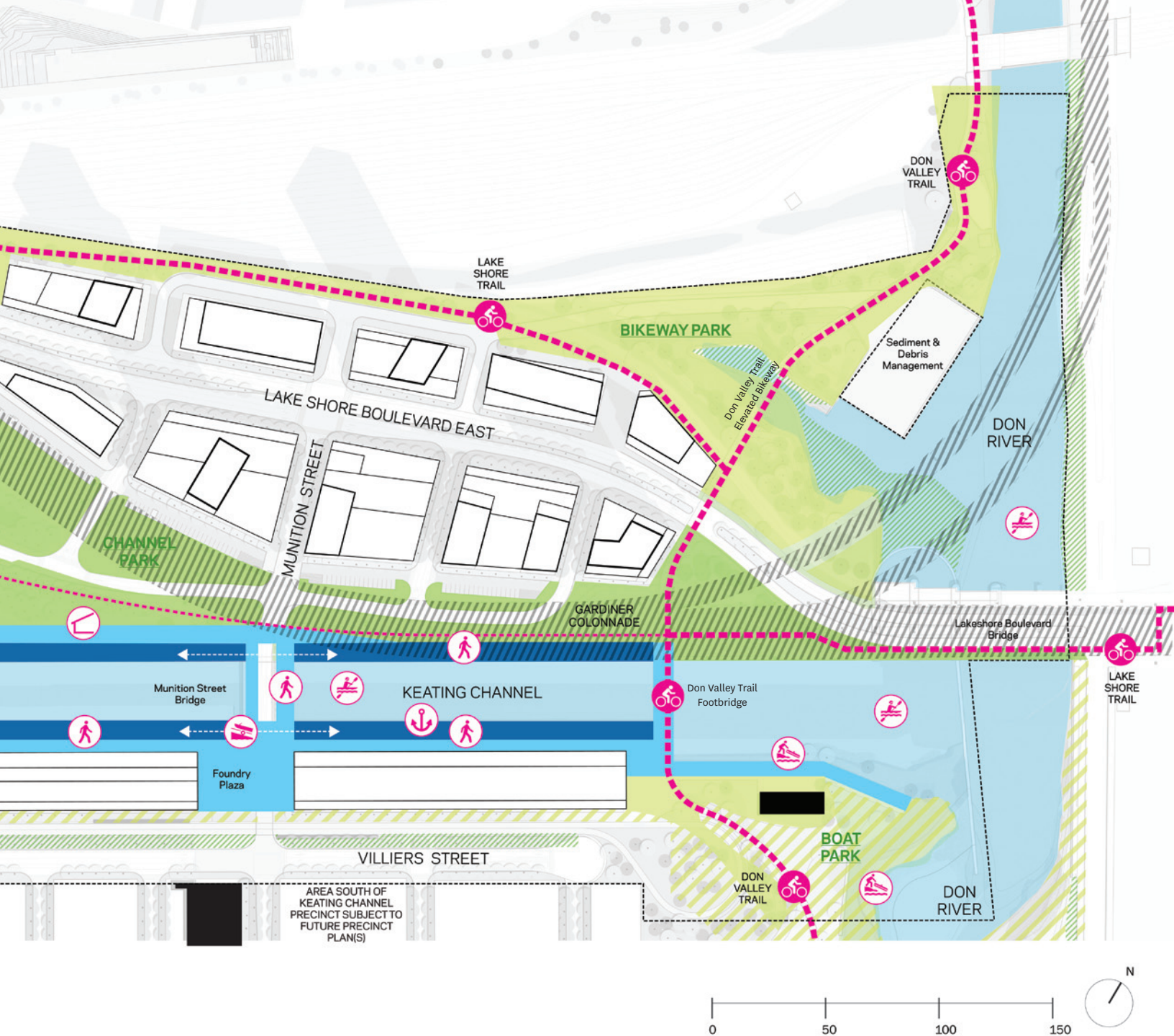


Figure 32
Parks and Publicly Accessible Open Spaces

Channel Park

Channel Park is approximately 5.4 hectares (13.3 acres) of parkland located at the heart of the Keating Channel Precinct and along the north and south edges of the Keating Channel, forming the Keating Channel Upper and Lower Promenades and connecting the three precinct character areas. Channel Park also includes the open spaces beneath the Gardiner Expressway.

The upper promenade will be consistent with that of the Central Waterfront Promenade, building up above the dockwall elevations to create an upper tier of “slow” waterfront activity that focuses on moments of leisurely interchange with the environment and other people. Adjacent to waterfront developments, this upper promenade will create opportunities for informal seating areas, market spaces, or other public spaces that reflect and encourage the City’s and Waterfront Toronto’s directives for animating the waterfront edge. In many locations, the presence of the upper promenade will ensure that, as per the TRCA’s restrictions, all buildings will be set back no less than 10 metres from the Channel edge.

The lower promenade, again consistent with the Central Waterfront Promenade, will be the pedestrian “express lane,” with an 8-metre-wide continuous open walkway to accommodate faster traffic oriented towards the Channel, rather than inland. Different from the Central Waterfront, the lower promenade will, for most of the length of the Channel, be defined by the existing water’s edge. As such, the marine walls will be featured prominently as monumental remnants of an industrial archaeology. The dockwalls, which will allow for boat mooring in selected locations, will need to be stabilized in concert with the development of the lower promenade. While the continuity of the upper promenade will be interrupted at the Keating Channel bridge crossings, the lower promenade—where continuous pedestrian passage is most needed—will continue unimpeded underneath the bridges.

The south bank of the Channel Park’s promenade system connects this linear park element with Promontory Park to the west through a woodland grove at the base of the Essroc Silos. Channel Park’s



Figure 33
The Don Valley Trail Elevated Bikeway
 View north towards sediment and debris management area

largest area of open spaces occurs at the heart of the Keating Channel Precinct in the triangle of land created by the Gardiner Colonnade’s sweep south towards the edge of the Channel. This open space is envisioned as the park’s gathering and event space, potentially housing a pavilion that will be a flexible space with many roles including: picnics, festivals, stage events, or a warming hut for skaters. This central gathering spot is also envisioned as being home to a playground for the Precinct.

Connecting the Precinct from west to east, the channel promenades, all three of the Precinct’s park spaces as well as the large event space in the Channel Park, is the open space beneath the Gardiner Colonnade. If retained, the Gardiner’s monumental structure provides opportunities for sheltered programmatic uses such as court sports, markets and arts related uses.

Bikeway Park

The Bikeway Park is an area of approximately 3.0 hectares (7.4 acres) at the eastern edge of the Precinct that includes the passive green space surrounding the

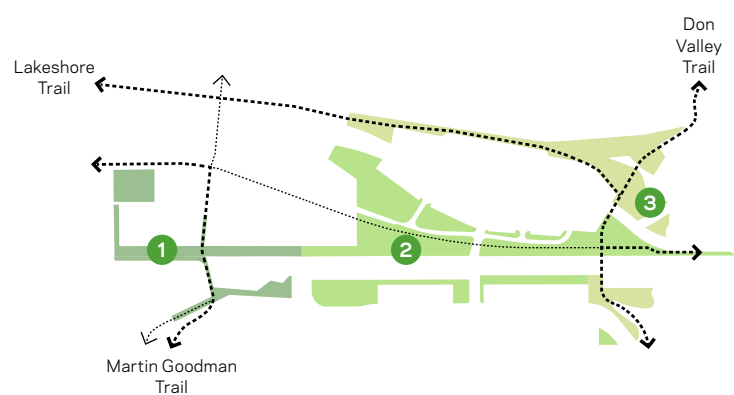
sediment and debris management area, the Boat Park, the Don Valley Trail connection, and the Lakeshore bikeway that carries this important trail from the Don River west to the Cherry Street portal.

The collection of river infrastructure adjacent to the Bikeway Park is significant in that it coexists with a number of essential elements of circulation infrastructure, making the workings of the river into an urban spectacle. The nature of the open space in the Bikeway Park will be that of a rugged recreational junction serving as a locus of activity at a river fork. The raw infrastructure will reinforce a sense of independence in this gathering of elements. The major recreational bike connection from the River Park, through Boat Park and Channel Park links into the Don Valley Trail system in the midst of the river management zone by means of a grade-separated trail and the repurposed Don River pedestrian bridge which will traverse the sediment management area. The Don Valley Trail connection will preserve the vital bicycle link between the Don River Valley trail system, Don River Park and the Port Lands, and eventually to the planned Greenway connection to Lake Ontario.



This crisscrossing of systems rewards cyclists with an experience of the full spectrum of river and wetland workings, a microcosm of the larger project, all within a condensed area.

To the south of the Keating Channel, Boat Park will act as a launch point for kayaks and canoes into both the Keating Channel as well as into the new Don River. The essential connection of the Don Valley Trail also makes its way through the Boat Park at the eastern edge of the Channel Park, acting as a key linkage between the Keating Channel Precinct's open spaces with the Don River's northerly and southerly park systems.



	Area	Program
1	Silo Park and Promenade	1.9 ha (4.7 ac) Multi-use playfield, terminus of Central Waterfront Promenade, Martin-Goodman Trail connection, Trinity Street pedestrian connection to Distillery District, playground (at the school), charter boat docking
2	Channel Park	5.4 ha (13.3 ac) Promenade on both sides of the Channel, pavilion gathering/event space, playground, Gardiner Colonnade (court sports, public market, arts-related uses), environmental/cultural use at Essroc Silos, woodland grove at Essroc Silos
3	Bikeway Park	3.0 ha (7.4 ac) Wetland, Don Valley Trail connection, Lakeshore Bikeway connection, adjacent to sediment/debris management area, canoe/kayak storage and launch

Figures 34 & 35
Keating Channel Precinct Park Summary



LEGEND

- | | |
|---|--|
| Retail | School |
| Commercial | Cultural Heritage Resource |
| Residential | Primary Building Entrance |
| Live Work | Building Service Entrance |

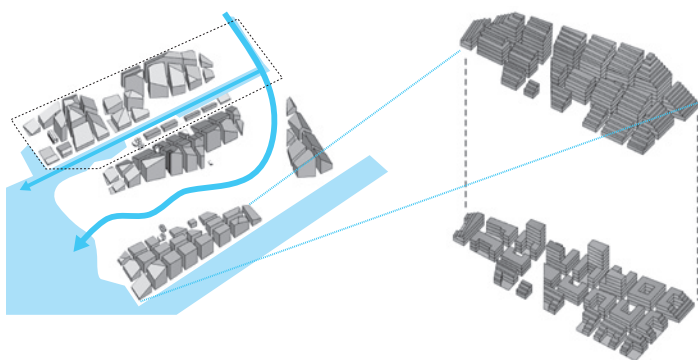
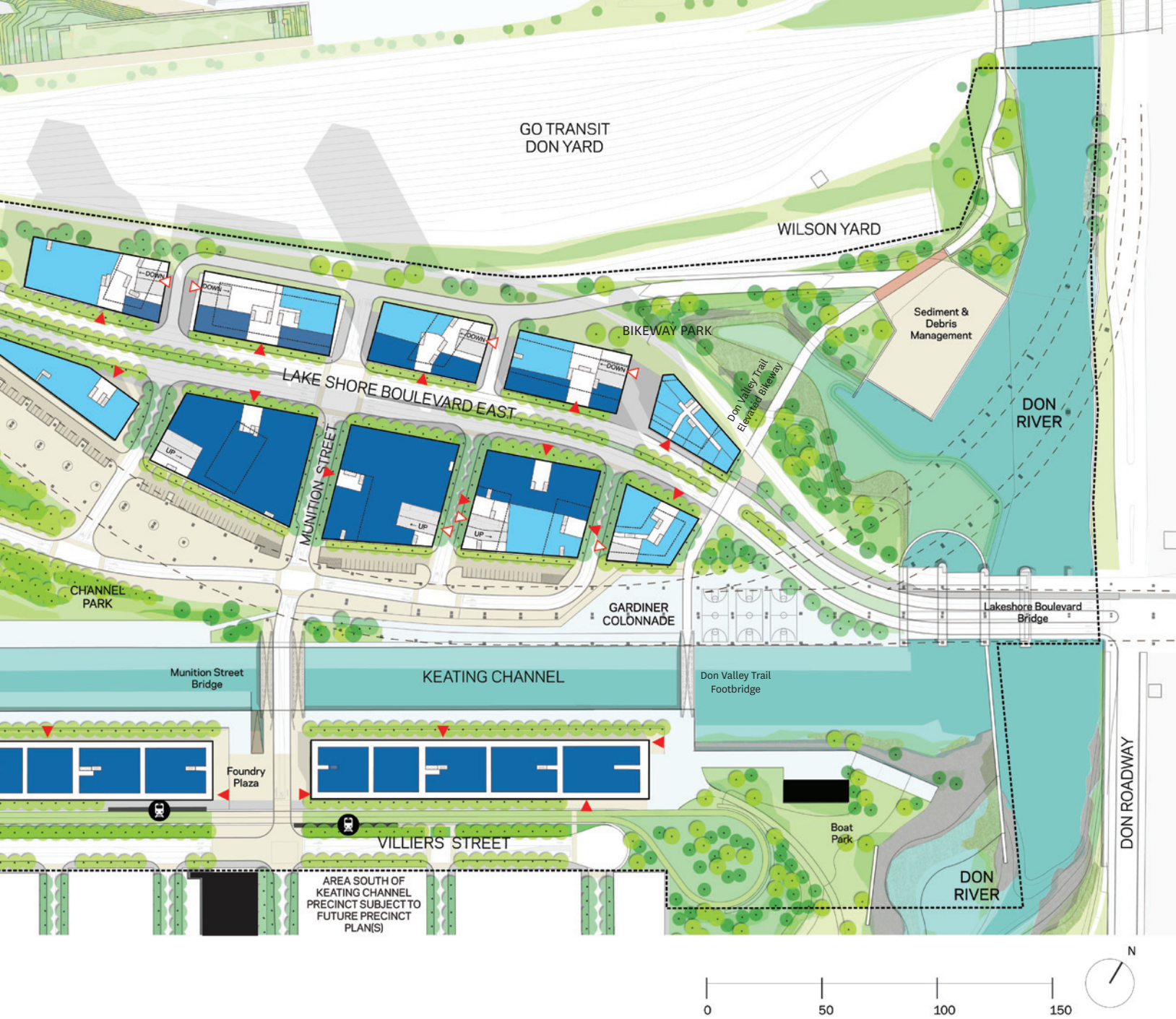


Figure 36
Solar Exposure Planes
Illustrating massing derived from solar exposure planes in a sample area of the Lower Don Lands.

Environmental Comfort

To be successful as a mixed-use neighbourhood, the Keating Channel Precinct must create an attractive and comfortable walking environment. Attention to microclimate in public spaces is a main concern of the Precinct Plan. A careful balancing of objectives has taken into account environmental conditions in public spaces as well as energy consumption and daylighting of interior spaces. Targeted goals for solar exposure and wind protection in the public realm are major factors in determining individual building envelopes, built form relations, and the relationships between buildings and public open space.

To maximize the environmental value in the Precinct's open spaces, Solar Exposure Planes (SEP's) were defined to ensure that 7 hours of direct sunlight will reach the key public spaces and 5 hours of direct sunlight will reach primary streets, where pedestrian and retail activity are anticipated, on September 21st. The SEPs have been tailored to allow for a desirable distribution of higher buildings within the Keating Channel Precinct while ensuring minimal shadow and wind impact on adjoining neighbourhoods. In their final



form, after testing against a range of design objectives, the SEPs maximize solar exposure and provide comfortable microclimates for the Precinct's public spaces.

In addition to requiring a minimum amount of direct sunlight, as spelled out in further detail in the Urban Design Guidelines, one of the main factors influencing the form of the SEPs was wind mitigation. The Lower Don Lands is exposed to northwesterly and westerly winter winds, creating the potential for uncomfortable downdraft along blocks that include tall buildings. The SEPs will help minimize the potential downdraft and wind corridor effects that can occur within an urban environment. The public realm will be protected from harsh winter conditions while simultaneously encouraging the desirable southeasterly summer breezes, creating a prioritized public environment through a careful choreographing of the Precinct's built form.

Figure 37
Public Realm Plan
A continuous public realm of fine-grained streets and sidewalks that are integrated into the surrounding neighbourhoods will structure the Precinct on both sides of the historic Keating Channel. The public realm will also be tied into the surrounding city on all sides – East Bayfront, St. Lawrence, the Distillery District, West Don Lands – and will provide a Gateway to the rest of the Lower Don Lands and the Port Lands.



Precinct Character Areas

Internally, the Keating Channel Precinct is organized along the Channel, and as such, is naturally divided into three core open space areas, defined by the form of the Channel as it flows from the river to the harbour. From west to east, the character areas are:

1. The **Channel Mouth**, the meeting of the Channel and the harbour, and the main point of connection between the Keating Channel Precinct and the rest of the city
2. The **Channel Narrows**, the middle section of the Precinct where the critical urban thoroughfares bridge the Channel
3. The **Head of the Channel**, where the Channel splits off from the Don River

Channel Mouth Public Realm

The Channel Mouth is the section of the Keating Channel Precinct most directly connected to the city. The structure of the Channel Mouth is closely tied to

pedestrian and recreational movements, with the Trinity underpass bringing visitors from St. Lawrence and the Distillery District into Promontory Park, and Queens Quay and the Central Waterfront boardwalk converging at Parliament Slip in the shadow of the Victory Soya Mills Silos as part of the Silo Park and Promenade. This corner of the Precinct is a threshold space, no longer associated with the Channel proper but also not quite on the harbourfront. It is the Precinct's front lawn, a newly created urban mix of heritage elements, water, urban development and park space.

The Victory Soya Mills Silos and Parliament Slip Head create an opportunity for a special combination of public space and community amenities at an important junction with the East Bayfront Precinct. The Waterfront School and its associated open spaces create programmatic continuity between the East Bayfront and the Keating Channel Precincts. The vision for this focal point at the border of these two neighbourhoods, along with its link to the Distillery District and St. Lawrence neighbourhoods to the north, emphasizes the potential for a cluster of community services in conjunction with the adaptive reuse of the silos themselves. The



Figure 38
Trinity Street Crossing at the Keating Channel
 View west towards downtown and East Bayfront from the Trinity Street Bridge

public realm creates many opportunities for a varied combination of programs including: school, community centre, daycare, district energy facility, and stormwater treatment.

From the slip head, Queens Quay continues as a planted right of way through the Precinct, crossing Trinity Street, the major point of transition between the central waterfront and the Keating Channel neighbourhood. Although Trinity is an intimate street, it is the central pedestrian connection from Corktown and the Distillery District to the fine-grained streets south of Queens Quay and west of Cherry.

Trinity Street is joined by the Martin Goodman Trail as it leaves the Central Waterfront and turns south towards the Promontory, looking back towards the inner harbour, the Islands and the expanse of the central waterfront on its journey into River Park. The Trinity Bridge continues the formal language of the central waterfront as it crosses the river and culminates as an entrance to the Promontory, River Park and the Port Lands. The bridge will provide a panorama of views down the Channel, into the park, back to the Central Waterfront and out to the Harbour.

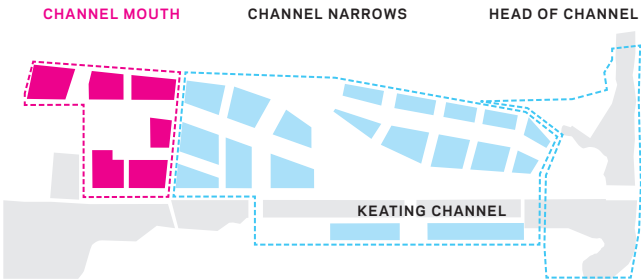


Figure 39
Three Core Open Space Areas of the Keating Channel Precinct Frame the Structure of the Block Plan



Figure 40
Trinity Street
 View south towards Promontory Park from the northern Keating Channel Promenade

Figure 41 (Right)
Channel Promenade
 View west towards the Inner Harbour and Promontory Park from the northern Keating Channel Promenade

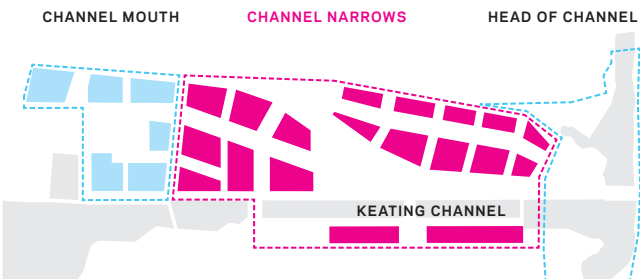


Figure 42
Three Core Open Space Areas of the Keating Channel Precinct Frame the Structure of the Block Plan

Channel Narrows Public Realm

The Channel Narrows is the stretch of the Precinct where the Keating Channel is at its most intensely urban. The Narrows is defined by many of the site's heritage and industrial elements, primarily the intact Channel walls. The Essroc Silos, Gardiner Colonnade, and the bank and foundry buildings along the southern edge of the channel will also serve as signature focal points. Flanked by buildings on both sides and spanned by multiple bridges, the Channel Narrows area will unite the city and the Port Lands. This area will be extremely active across a range of uses and modes of transportation, including commuters and residents travelling by automobile, LRT, and on foot. The Channel Narrows will be a nexus of pedestrian itineraries, collecting people in its assortment of plazas and green spaces among the bridges.

Channel Park is the terminus of Queens Quay beneath the Gardiner Colonnade. This central park space will collect pedestrian "tributaries" from the north, east, and west, and focus activity along the Channel in the heart of the Precinct. Like the western end of Queens Quay Boulevard, the terminus to the east will be framed by an open space.



The Essroc Silos and Villiers Street spine, which extends from the Don River to Promontory Park on the Harbour, will be redesigned as a major transit spine and pedestrian greenway centred on the former rail access clearance between the two groupings of the Essroc Silos. Bisecting Villiers Street, the Munitions Street connection will extend a key pedestrian link across the Keating Channel and through the Precinct into the new Don River Park to the north. The intersection of Villiers and Munitions Streets will take the form of a transit plaza in front of the Foundry Building, serving as a nexus for transit, bike, pedestrian, and vehicular traffic, with clear views of the Channel esplanade.

The Lakeshore Boulevard Bike Trail Connection will bring bike traffic to the Cherry Street pass-through. Lakeshore Boulevard itself, however, will be relocated out from under the Gardiner Expressway east of Cherry Street, forming a central artery serving the blocks on the 480 Lakeshore properties. The relocation of Lakeshore Boulevard away from the water, as well as out from under the Gardiner, will give new life to the edge of the Keating Channel. Relieved of its role as a major thoroughfare, the underside of the Gardiner Colonnade will be a large

pedestrian space that continues pedestrian connections that begin in David Crombie Park north of the rail berm, entering the site at Cherry Street and Lakeshore Boulevard and leading to the water's edge at the Keating Channel. Possible uses for this structure include arts-related and market activities. In addition to programs for the colonnade itself, it will serve as a natural pedestrian hub where Torontonians can meet up and walk in any number of directions to a variety of destinations—south to the new River Park, the Greenway, Lake Ontario Park and the Port Lands, north along the Don Valley Trails, east toward the neighbourhoods of South-Riverdale and Leslieville, or west along the boardwalks of the Central Waterfront.



Figure 43
Gardiner Colonnade
 Active recreation and other programs such as farmers markets, temporary festivals, and parking could activate the colonnade.

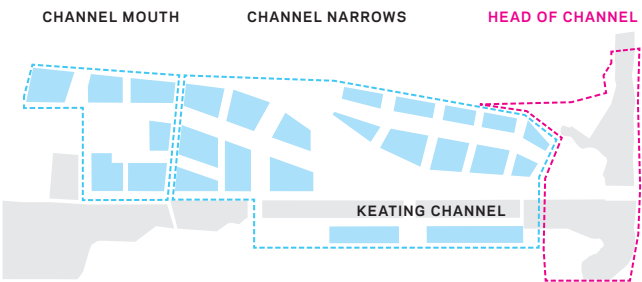


Figure 44
Three Core Open Space Areas of the Keating Channel Precinct Frame the Structure of the Block Plan

Head of Channel Public Realm

Programmatically, the Head of Channel is an industrial mix of circulation, infrastructure and inland riverway. Since this location features the junction of the Don River and the Keating Channel, it will be the site of a number of essential pieces of river-management and flood-control infrastructure: the sediment and debris management areas and the weir system. The sediment and debris programs are requirements of the DMNP EA and will be a base of operations for the management of the Don River, replacing the current site on the south side of the Keating Channel. The new river weir will sever the Don from the Keating Channel and redirect it to the new River Park (south of the Keating Channel Precinct) while still allowing flood waters to spill into the Keating Channel during storm events. The sediment collection area in this Precinct is one part of a system where sediment is collected in the river at this location and then piped to a slurry dewatering facility located in the Ship Channel, where it is loaded on barges for final disposal/reuse.



Figure 45
Don River Trail Connection
(View north toward the sediment management facility) The Don Valley Trail connection will preserve the vital connection of bike traffic between the Don River Valley trail system, Don River Park and the Port Lands, and ultimately to the planned Greenway connection to Lake Ontario.

Built Form

The built form concepts for the Keating Channel Precinct emphasize the social life of the Precinct, both in the public realm, through goals for creating comfort in common spaces, as well as in the private realm, through goals for the establishment of a varied community, in form as well as in composition. Attention to both the physical and programmatic organization of the Precinct is essential to the creation of a diverse mixed-use community at the cutting edge of environmental design.



Figure 46
*Keating Channel Precinct Looking
Southeast Toward Lake Ontario Park
and Lake Ontario*
Illustrating the planned built form of
the Keating Channel Precinct



Figure 47
Hybrid Building Form

The Precinct’s proposed hybrid typology of mid- and high-rise buildings allows for a variety of built forms within the overarching goals of sustainable design. While there will inevitably be many variations and idiosyncrasies, certain fundamental built form characteristics and relationships will be standardized in order to both support the environmental performance of the Precinct and ensure a vibrant neighbourhood. These essential built form relationships are divided into two categories—the legally binding requirements, described in full in the Zoning By-Law Amendment, and further recommendations and best practices, detailed in the Urban Design Guidelines.

Environmental Performance

The built form requirements of the Keating Channel Precinct have been shaped to facilitate compliance with green design goals and standards while simultaneously creating comfortable public spaces and developable sites. Waterfront Toronto’s Mandatory Green Building Requirements specify that all buildings must achieve a minimum of LEED Gold certification as the benchmark for measuring environmental performance. In addition to the LEED requirement, buildings in the Keating Channel Precinct must meet Tier 1 of the Toronto Green Standard and performance criteria for optimizing solar and wind conditions. Buildings over 2,000 square metres will be required to include a green roof. These additional requirements enhance the sustainability of the built form in the Precinct beyond what is achieved solely through LEED, and create comfortable microclimates in the Precinct’s public realm.

Using these environmental performance standards as a platform to continue the pursuit of sustainable neighbourhood building will be the keystone element in fulfilling the potential of energy savings for the Keating Channel Precinct. Ultimately, it will be the combination of advances in district energy technologies and high standards for individual buildings’ environmental performance that will allow the Keating Channel Precinct to approach the goal of carbon neutrality.

Public Realm

The creation of comfortable microclimates in the Keating Channel Precinct through attention to sun and wind modulation in the Precinct’s public spaces will facilitate active year round uses establishing an animated threshold to the Port Lands neighbourhoods. The Zoning By-Law Amendment for the Keating Channel Precinct specifies angular planes which carefully deploy the height and distribution of buildings as well as base and tower setback requirements, in order to effectively manage solar and wind exposure in the public realm. These Solar Exposure Planes and wind setbacks have been defined in broad geometric terms to allow for flexibility in built form while addressing and optimizing local solar and wind conditions. Within the Zoning By-Law Amendment, wind is addressed through the orientation of blocks and building setback requirements,

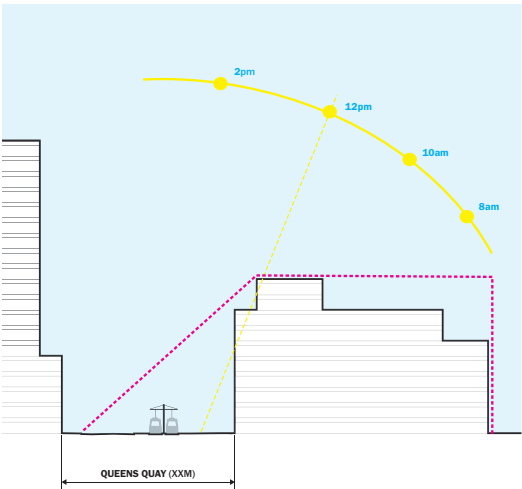


Figure 48
*Solar Planes in the Zoning By-Law
 Protect Sunlight Access in Public Spaces*

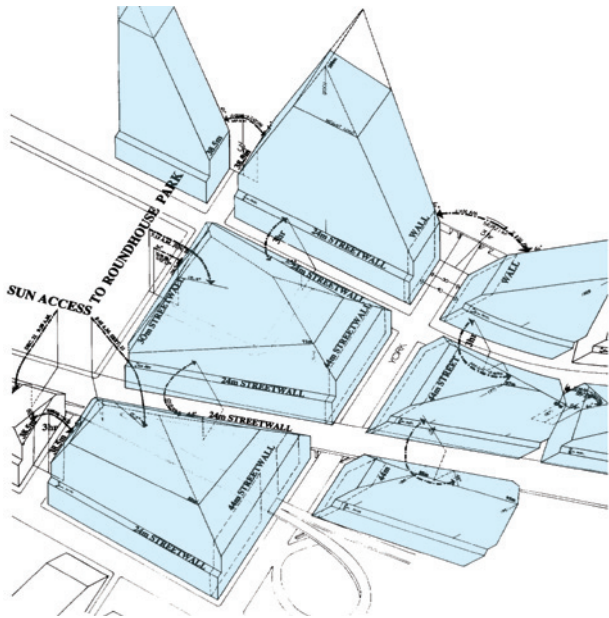


Figure 49
*Bosselmann Criteria Comfort Controls
 Allowable building height envelopes
 to ensure three hours of sunlight on at
 least one sidewalk of all streets during
 midday.*

while sunlight is addressed through angled vertical planes and tower locations and heights. These built form guidelines will contribute to a comfortable microclimate by providing physiological and psychological benefits for the Keating Channel community.

Private Realm

Through attention to tower and podium heights, locations, setbacks and floor plates, the built form of the Precinct is structured so that each building may harness daylight without interference from neighbouring buildings. Effective daylighting is critical both to reducing energy consumption and to providing the highest quality indoor environments. If sunlight is harnessed effectively in buildings, the potential energy savings on electrical lighting at this scale of development would be substantial. Therefore, within the broadly defined built form requirements, there are explicitly provided-for possibilities, such as the inclusion of internal and street-facing courtyards that are geared towards improving solar penetration in the private realm. In addition, building footprints and floor plate dimensions have been defined to ensure that the amount of interior daylight meets prescribed standards.



Figure 50
Keating Channel Precinct Massing



Figure 51
Keating Channel Precinct Massing within the Allowable Zoning Envelopes

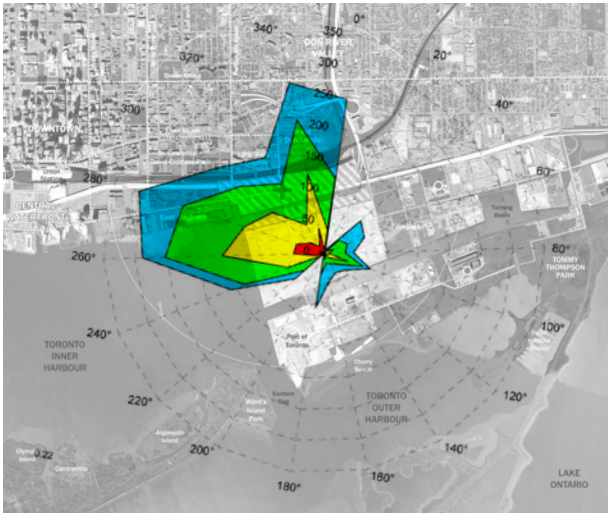
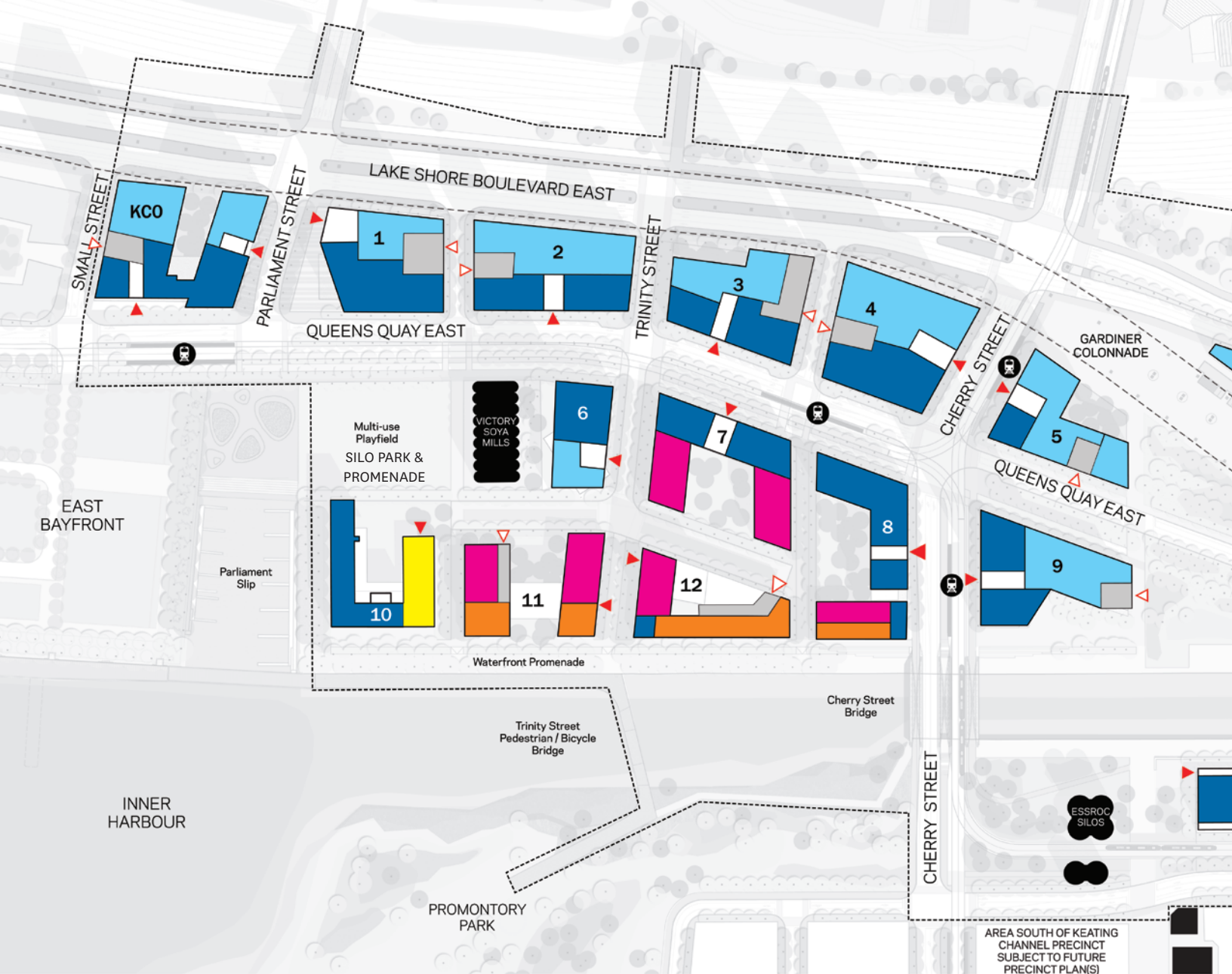


Figure 52
Wind is a Critical Factor in Forming a Comfortable Public Realm



LEGEND

- | | |
|---|--|
| Retail | School |
| Commercial | Cultural Heritage Resource |
| Residential | Primary Building Entrance |
| Live Work | Building Service Entrance |

Building Typology

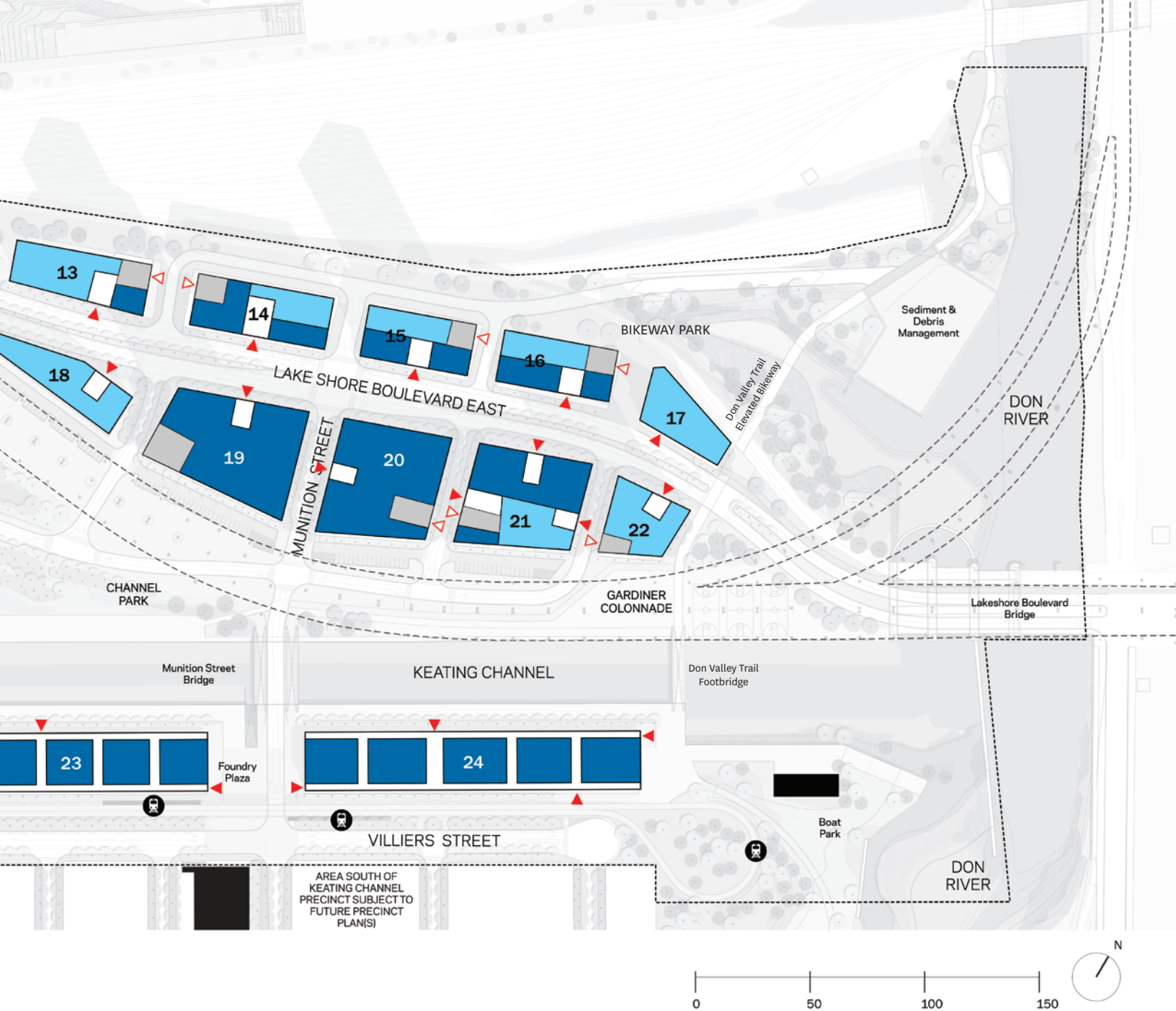
The urban design strategy for the Keating Channel Precinct draws on the successful mid-rise and high-rise building typologies that are so prevalent in Toronto. These elements will be combined within the Precinct to create a more sustainable model for a dense and compact built form that supports active pedestrian life. The interplay between the continuity of the mid-rise structures and the punctuation of the high-rise structures will allow the Precinct to achieve significant density while maintaining a high level of pedestrian comfort.

The Precinct’s predominant mid-rise urban form, with a lower profile at the water’s edge, will frame streets and major public spaces, preserving views and incorporating courtyards and forecourts. (Many examples of this type of building fabric occur in areas like Liberty Village). On this mid-rise base, in a limited number of strategic locations, small-footprint high-rise residential towers and two non-residential towers will be introduced. These widely spaced towers, also a common Toronto type, will add to the diversity of built form and living and employment options without compromising the environmental qualities of the neighbourhood fabric. In

addition to mid and high-rise buildings throughout the majority of the Keating Channel Precinct, lower scale pavilion-like buildings will line the south side of the Keating Channel and allow sunlight into the Channel corridor, supporting active ground floor uses that animate the water’s edge promenade.

The combination of mid- and high-rise elements in the Precinct will blend into the surrounding city fabric by gradually increasing in average height from the water’s edge on the north side of the Keating Channel to the Gardiner Expressway and rail corridor. This increase in height and density to the north will shield the neighbourhood from noise generated by nearby transportation corridors. The building heights in the plan have been carefully developed to ensure that they do not cast extended shadows on surrounding areas. A required minimum of between 5 and 7 hours a day of sunlight will be available in major open spaces to ensure pedestrian comfort on the street and in public places.

A range of scales and building types are afforded by this combination of mid and high-rise elements, laying the groundwork for a socially and programmatically diverse neighbourhood. Living environments for a diverse population will include lofts, apartments and grade-



related townhouses. The variety of residential options will promote the integration of affordable housing and live/work ground level units will allow for the conversion of units from one use to another in locations where limited retail or public uses are desired. A wide range of employment environments will encourage a diverse economy. These employment spaces will include conventional office space, professional, research, media, and small business spaces as well as live/work units. Employment development, primarily office, research and development uses, and neighbourhood retail are essential for making the Keating Channel Precinct a sustainable and vital neighbourhood and for capitalizing on the transit investment. Therefore, grade level retail types in key locations with prominent entrances on public streets will also be part of the neighbourhood fabric.

Figure 53
Ground Floor Plan
 It is at street level that the public will experience the Keating Channel Precinct. Great stress has been placed on the ground floor level in the Precinct Plan in order to enhance these vital public spaces. Building design will support the street hierarchy and pedestrian circulation patterns, and will frame and animate public spaces. Sidewalks will be enhanced by courtyards in key locations and publicly accessible interconnected mid-block passages enlivened by retail activity and sidewalk public uses.



Figure 54
Lower Don Lands Massing



LEGEND

- | | |
|---|--|
| Edge Condition (1-3 Storeys) | Point Tower (21+ Storeys) |
| Podium (4-6 Storeys) | Cultural Heritage Resource |
| Mid-rise (7-10 Storeys) | Number of Storeys |
| Base Tower (11-20 Storeys) | Allowable Tower Location (per Zoning) |

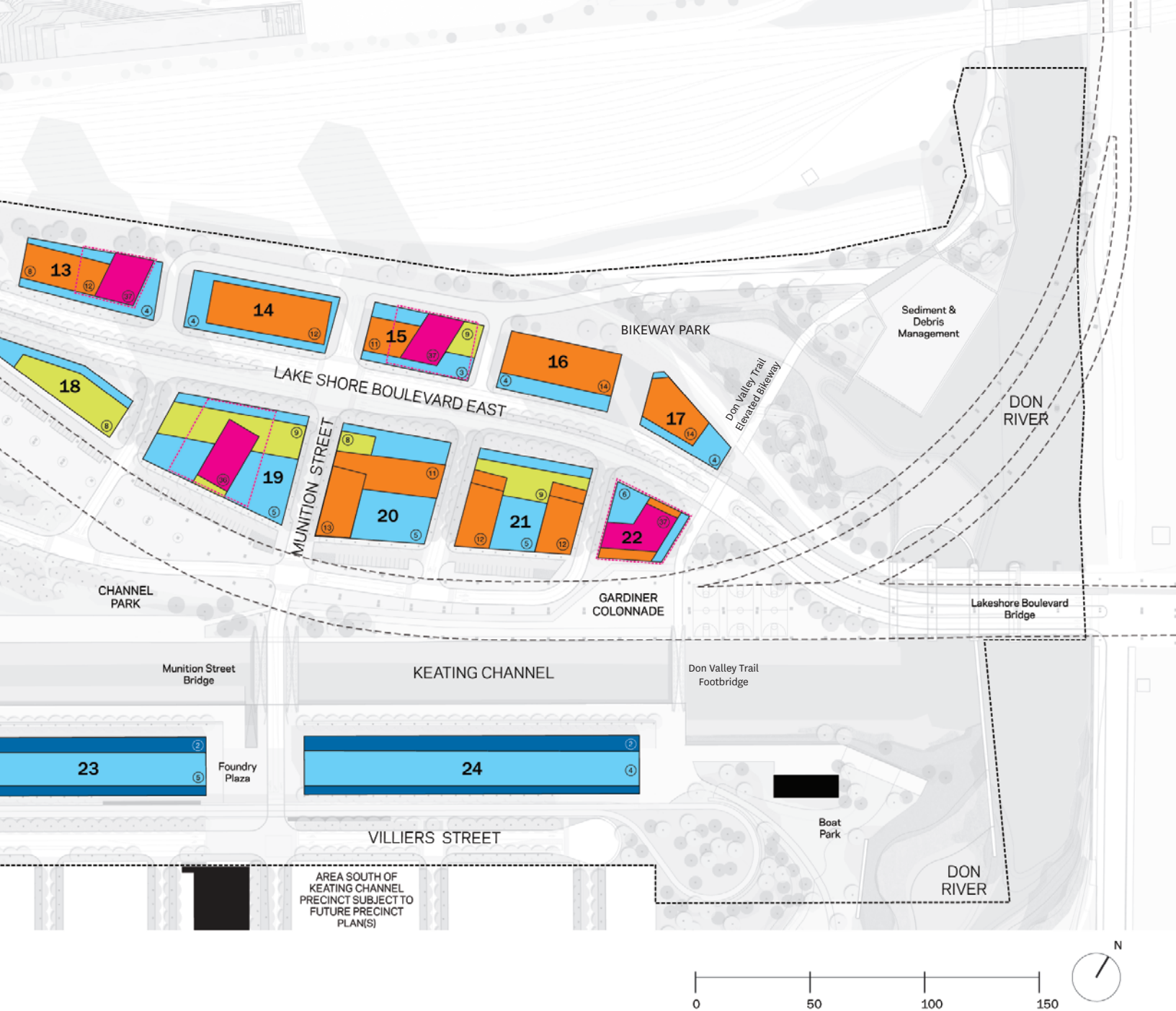
Ground Floor

It is at the street level or the ground floor that the public will experience the Precinct; therefore, great emphasis has been placed on the ground floor built form in order to enhance these vital public spaces. Building design will support the street hierarchy and pedestrian circulation patterns, and will frame and animate public spaces. Strategies to support this pedestrian environment include setbacks that will help create pockets of public-realm-enhancing space along the street, and courtyards that can provide places for assembly and repose. The inherent variety in the public realm and block plans will create a natural diversity of built form. Local determinants of the ground floor built form include orientation and views to the surrounding public spaces, integrated parking solutions, strategic program opportunities, integration of multiple uses, and public transit lines. However, even as each block develops its individual potential, they will continue to take into account their neighbourhood surroundings as well as the wider context of the Precinct and adjacent communities.

Mid-rise

The Keating Channel Precinct's mid-rise scale will define the basic three dimensional template of the public realm and provide a sense of enclosure. Mid-rise development is identified by the Official Plan as an appropriate way of accommodating a growing population along the waterfront and along the major avenues. Mid-rise structures are usually between 6 and 12 storeys in height, taller than a townhouse but no taller than the street right-of-way. These buildings are typically mixed-use buildings with tall, transparent, ground floor commercial spaces. In the Keating Channel Precinct, continuous mid-rise street walls will frame public spaces at a human scale without overpowering the street or limiting access to natural light and breezes.

Queens Quay and Lakeshore Boulevard, the prominent retail corridors that define the commercial heart of the precinct, will be framed by relatively continuous and active building edges, with some variation in scale and character reflecting the diversity of the Precinct. Specific opportunities for forecourts and strategic widenings of the sidewalk spaces will enhance the pedestrian experience.



High-rise

In addition to strategically increasing density around urban focal points such as transportation hubs, high-rise buildings—defined as buildings taller than the width of the adjacent road allowance—can help define the city’s image and act as important city landmarks when the high quality of architecture and site design are emphasized. In this regard, tall buildings should fit within their existing or planned context by animating the street level, providing floor plates at a scale appropriate to the site, and contributing to the character of the city’s skyline.

By combining taller and shorter built form and carefully spacing the high-rise elements, the Keating Channel Precinct can achieve significant density without blocking the skyline or creating a “wall of towers” blocking long views to the waterfront. The Keating Channel Precinct Plan designates a limited number of carefully spaced tower elements, preserving views and openness and creating opportunities for gateway or landmark buildings. Building heights and massing will be required to conform to the City’s Design Criteria for Review of All Tall Building Proposals and the Toronto Green Development Standard with respect to relationships between higher and lower buildings, building footprint sizes, facing distances, and setbacks.

Figure 55
Building Heights and Massing Plan
 The combination of base buildings framing streets and major public spaces and mid-rise and a few widely spaced high-rise elements in the Precinct will blend into the surrounding city fabric by generally stepping up in height from the water’s edge on the north side of the Keating Channel to the Gardiner and rail corridor, ensuring that solar access to the public realms and skyline views are preserved.

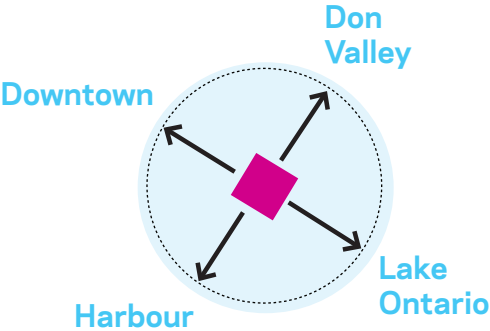
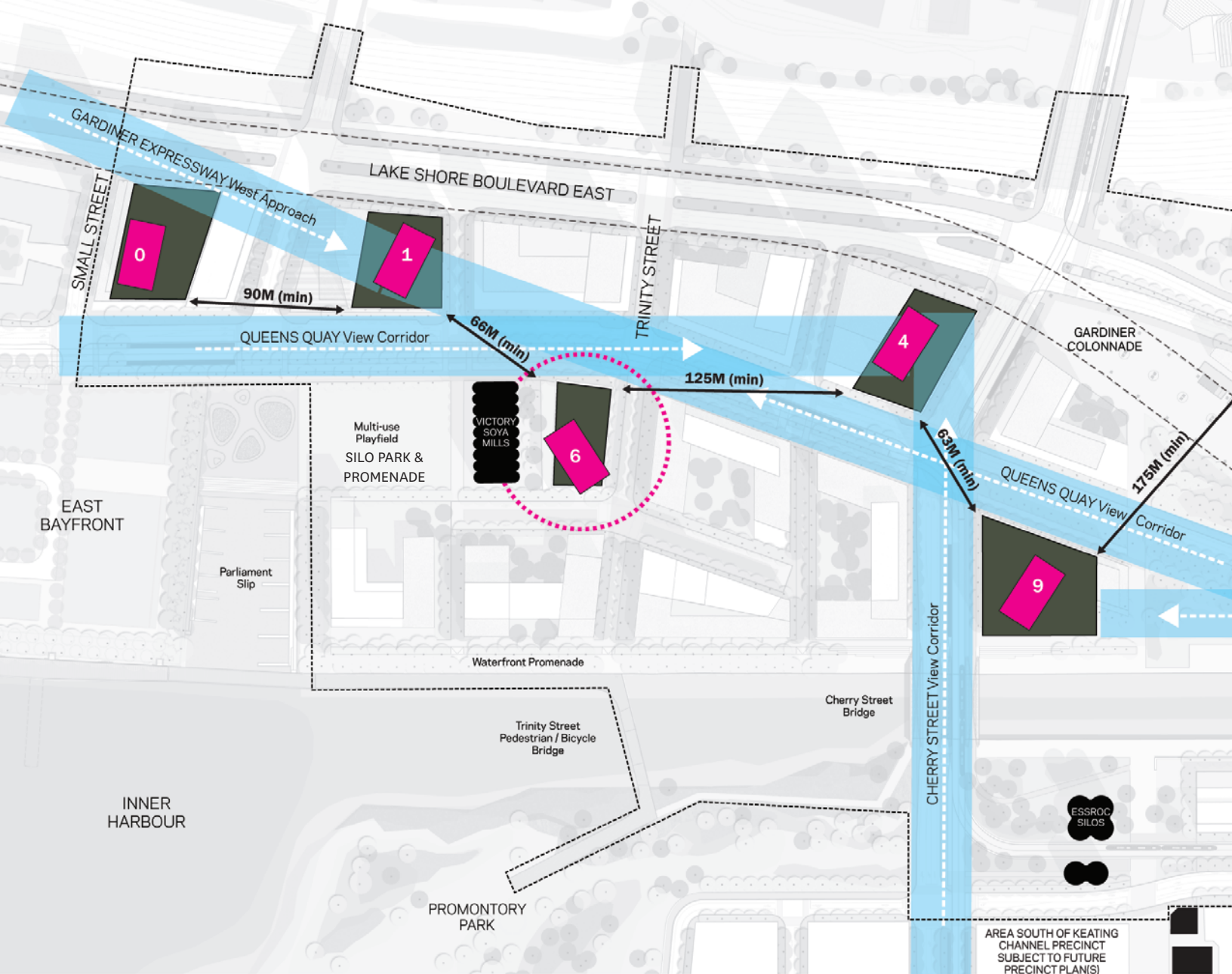


Figure 56
View Diagram



LEGEND

- Potential Tower Location (per Zoning By-Law)
- Allowable Tower Footprint
- Significant View Corridor
- Cultural Heritage Resource

Precinct Character Areas

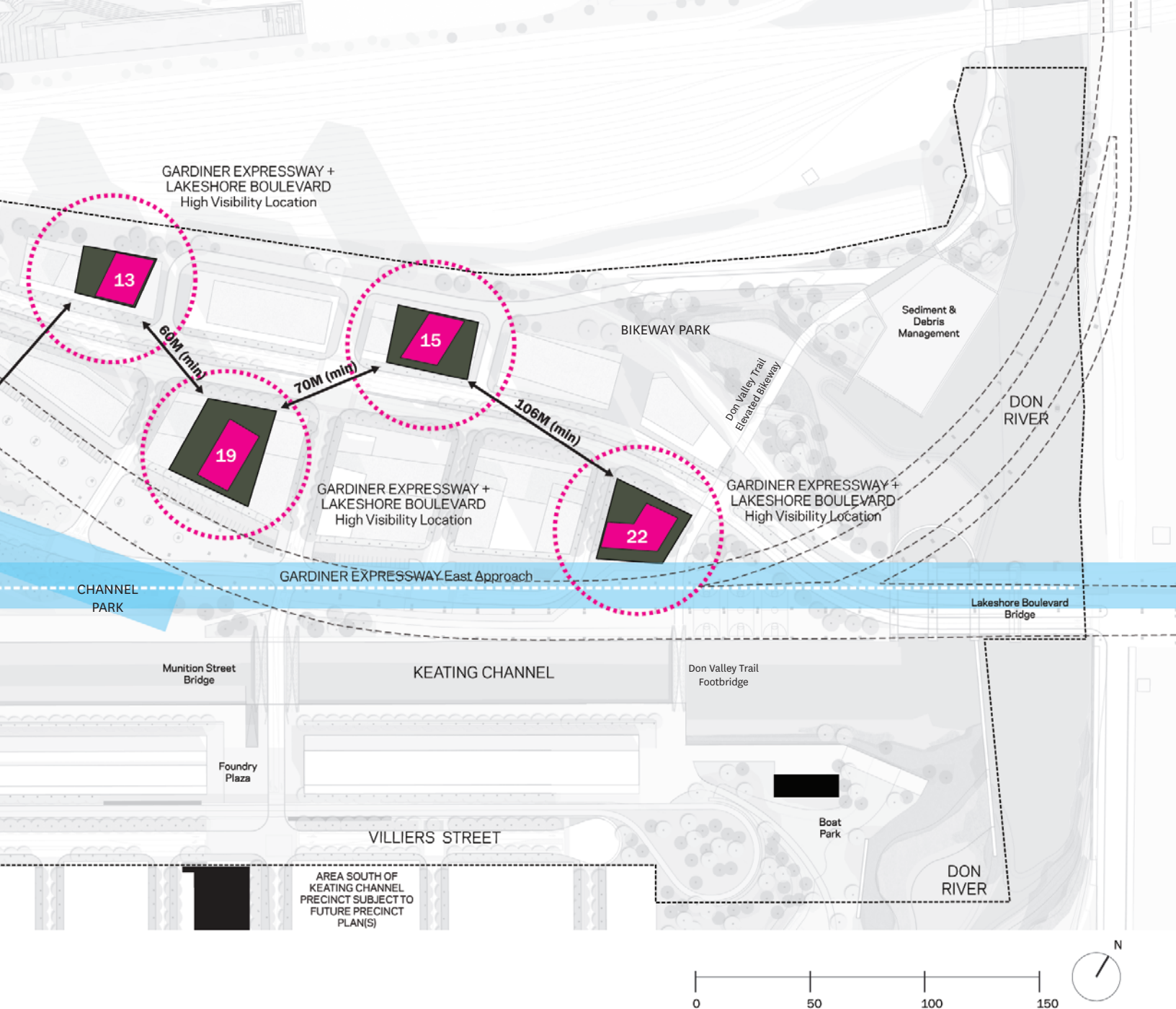
Channel Mouth Built Form

The Parliament Slip Head forms a key point of continuity between the East Bayfront and the Keating Channel Precincts. With remarkable views of the harbour, and a key transit stop on the LRT, this point where Parliament Street reaches the harbour will be a highly active space. The signature open space surrounding the Slip Head and the extended Silo Park Green will be framed and animated by a combination of built form elements, including the eastern edge of the slip along the Waterfront Promenade in East Bayfront, a pair of sites on the northwest and northeast corners of Queens Quay East and Parliament Street, the dramatic backdrop of the monumental Victory Soya Mills silos, and the mixed-use school site on the west edge of the slip. A pair of higher tower elements will flank Parliament Street, grounded by a continuous mid-rise street wall on the north side of Queens Quay. Along the length of this street wall there will be active publicly-oriented ground floor uses, with generous floor-to-ceiling heights and a high degree of transparency. A splayed base on the east side of Parliament will open a vista and enhance the sense of arrival at the water’s edge.

Moving east from the Slip Head, the blocks forming the western edge of the Trinity spine will frame this special connection to the water’s edge with a robust street wall building on the north side of Queens Quay, a special development site on the south side which will combine a tower block with the adaptively reused silos, and a lower scale block that will address the extension of the Waterfront Promenade as it moves along the Keating Channel. Public uses at grade level will animate the Trinity frontage as it progresses to the pedestrian/cycle bridge to Promontory Park.

Channel Narrows Built Form

The built form in the Channel Narrows consists of two very distinctive block formations bisected by the Gardiner Colonnade on the north side of the Keating Channel, and a lower-scaled edge on the south side of the Channel north of Villiers Street. From the active eastern edge of the Trinity Street axis to the western edge of Channel Park, the six blocks to the west of Gardiner Colonnade frame the very prominent intersection of Queens Quay and Cherry Street as a key transit hub and primary gateway to the Port Lands. Two more tower elements rise at this intersection from robust and continuous mid-rise street wall edges activated by



retail and public uses which will animate these major public spines and provide access to the waterfront. In the large blocks south of Queens Quay, there are opportunities for a more intimate residential feel, with a range of courtyard options framing smaller scale pedestrian-oriented streets leading to the continuation of the Waterfront Promenade.

To the north and east of the Gardiner Colonnade, 10 tight urban blocks shaped by the geometry of the rail corridor to the north and the Gardiner to the south are oriented toward the realigned Lakeshore Boulevard and populated by active retail and animated sidewalks. In this dense and active mixed-use area, four additional tower elements are located in a well-spaced checkerboard pattern atop base buildings that will be as tall as the Gardiner. Additional active uses will animate grade level along the Colonnade.

Head of Channel Built Form

Approaching the Keating Channel Precinct from the east, the Head of Channel neighbourhood will feature a signature point of entry, with the realigned Lakeshore Boulevard crossing the Don River and entering the urban fabric between two flanking blocks framed by a landmark tower on the south side.

Figure 57
Tower Locations and View Corridor Plan
 The Keating Channel Precinct Plan designates a limited number of carefully spaced tower elements, preserving views and openness with opportunities for gateway/landmark buildings. By combining higher and lower built form and carefully spacing the higher elements, significant densities can be achieved without obstructing long views to the waterfront, avoiding the enclosure effect seen elsewhere in the Central Waterfront.

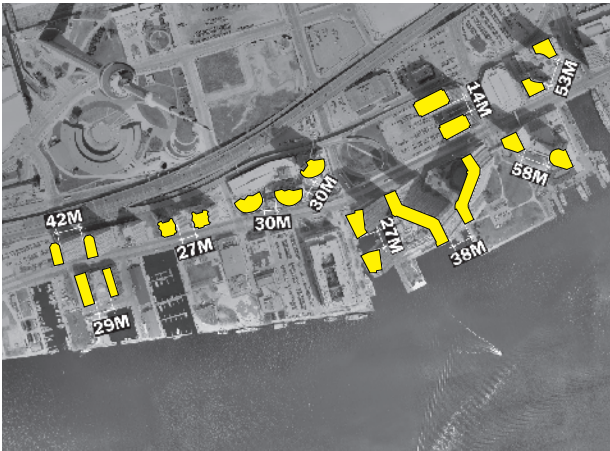


Figure 58
Central Waterfront Tower Spacing

Sustainable Infrastructure

Urban communities require a range of physical infrastructure to serve residents and responsibly manage the environmental implications of people who live and work in an area. Like much of the rest of the city, the services that currently exist in the area were built at a time when standards for conserving energy and managing water quality did not exist as they do today.



Figure 59
Extensive Green Roof Meadow
King Street, Toronto

Achieving Carbon Neutrality

Waterfront Toronto's Lower Don Lands has been selected as a founding project for the Clinton Climate Initiative Program (CCI). The program supports 'climate positive' development working to reduce greenhouse gas emissions. In line with this commitment, Toronto's Climate Change Action Plan sets a target of reducing the Toronto urban area's greenhouse gas emissions to 20 percent of 1990 levels by 2050.

As the first neighbourhood to be developed within the Lower Don Lands, the Keating Channel Precinct will be a leading model of commitment to this goal. The Toronto Green Standard (TGS) Tier 1 will be required for all development in the Keating Channel Precinct, subject to the planning approval process. Both Tier 1 and Waterfront Toronto's Mandatory Green Building Requirements must be met; where performance standards overlap, the higher standard will be applied.

Net zero greenhouse gas emissions can be achieved through a combination of low-energy buildings and a low-carbon district energy supply system. Both of these strategies are necessary to reach the reduced greenhouse gas emissions goals of the city of Toronto as well as the CCI. The district energy component will allow Toronto to implement low-carbon energy sources for entire communities. Without the low-energy building component, however, a low-carbon energy supply system becomes financially, and in some cases technically, unfeasible. Reducing the overall energy demand of buildings reduces the necessary size of the energy supply system, freeing capital for investment in more advanced low-carbon systems such as renewable energy, cogeneration, and lake-water cooling.

District Energy

District energy is an essential element of sustainable design for the Keating Channel Precinct and the Lower Don Lands. District energy will heat and cool the entire Keating Channel Precinct through a centralized system that will link to individual buildings as they are developed. This approach has efficiencies built into the system through the elimination of redundant individual building mechanical systems and the option for energy sources that are available only at the district scale. District energy also has the potential for improved pollution control. More importantly, however, it allows the selection of energy sources for the system as a whole to change and advance over time without requiring changes to individual building systems, making dramatic energy savings available to the entire district.

There is currently one district energy facility planned for the Keating Channel Precinct, north of the channel. The area south of the channel will be serviced by a future Port Lands district energy facility.

Municipal Servicing Infrastructure

Urban communities require a range of physical infrastructure to serve residents and to responsibly manage the environmental impact created by people who live and work in an area. Like much of the rest of Toronto, the Keating Channel Precinct's current infrastructure was built at a time when no standards existed for conserving energy and managing water quality. While the infrastructure that exists may have a relatively high capacity, it is not organized in a way that will optimally support the planned development, and there are no advanced approaches to managing wet weather flow built into the system. Additionally, most of the existing infrastructure is at or near the end of its service life. Choosing the right infrastructure solutions for the Keating Channel Precinct will play a key role in keeping with the sustainability goals for the community. The integrated approach of the Precinct's urban design and infrastructure development will promote the efficiency and quality of the infrastructure solutions.

As part of a concurrent Class Environmental Assessment Master Plan for the Lower Don Lands, Waterfront Toronto and the City of Toronto considered several possible water, wastewater, and stormwater systems for the Keating Channel Precinct. The evaluation of the alternatives is described in detail in the Master Plan, and the preferred solutions have been adopted as the basis for the Keating Channel Precinct Plan.

Infrastructure solutions for the Keating Channel Precinct will take into account projected population densities and planned land uses (including the percentage breakdown of residential space, retail-space and non-retail employment space). The proposed infrastructure solutions will tie into the infrastructure improvements that are already being implemented to support the East Bayfront and West Don Lands Precincts. They will also take into account other initiatives that the City has in progress, including the Don & Waterfront Trunk Sewers and Combined Sewer Outlet (CSO) Strategy, a project that aims to significantly improve water quality in the Lower Don River and Inner Harbour through the control of CSO and stormwater discharges.

The infrastructure solutions for the Keating Channel Precinct promote the efficient use of space by combining, where possible, a proposed or existing function with other programming and appropriately locating large infrastructural facilities such as stormwater storage, lake-water cooling, and solar panel reservoirs. As infrastructure plans evolve, every effort will be made to mitigate service disruptions during construction by implementing best practices for the management of utilities in public rights-of-way.

Utilidors

In the interests of efficiency, it would be desirable to locate sections of the municipal servicing infrastructure together. This can be achieved with the provision of a series of "utilidors," accessible structures that gather and

organize linear utilities under public rights-of-way. The utilidors would be subject to the approvals of the utility plant owners and could include the following municipal services: energy distribution network, water servicing, telecommunications, gas, hydro, and the provision for future vacuum waste collection pipework. The objectives of the utilidor system would be:

- Develop an integrated design approach for roadway and servicing systems which promote the coordination of capital investment in private and public infrastructure
- Provide crossings for the proposed Don River Valley and Mouth that minimize disruptions to the proposed aquatic environment of the river
- Protect the integrity of the newly constructed pavement structures within the Precinct
- Minimize disruptions and inconveniences to the public with future utility repairs

A comprehensive feasibility study and stakeholder buy-in will be necessary before the utilidor concept can be implemented.

Street Trees

A healthy system of street trees will be a crucial element of the Keating Channel Precinct's sustainable infrastructure. Particularly because of the potential for conflict between street tree beds and utility lines, special care will be taken to ensure the success of both these systems. The Toronto Green Development Standards and the Urban Design Streetscape Manual provide sample street tree bed designs, and street tree requirements and recommendations for the Keating Channel Precinct are further discussed in the Urban Design Guidelines.

Water

The current potable water infrastructure in the Keating Channel Precinct and the Lower Don Lands is very limited and over 80 years old, nearing the end of its lifespan. It needs to be replaced to adequately prepare for new development in this Precinct and the rest of the Lower Don Lands.

In addition to building new in-ground water distribution services, Waterfront Toronto aims to supplement traditional servicing with building design measures to promote the efficient use of water. To this end, there is ongoing exploration into the feasibility of supplementing a conventional potable water infrastructure with a pilot application of a non-potable water supply system.

Supplementing water servicing with an additional non-potable supply system would reduce the potable water demand, and thus the energy necessary to power the conventional system. This option is likely to have the most significant impact in reducing the potable water demand, in addition to satisfying other sustainability criteria. If this option is pursued, the non-potable water system should be publicly and privately operated. This

would allow the distributor to provide a non-potable water distribution system for irrigation and potentially as a fire-fighting supplement while allowing private entities to provide non-potable water through sources such as rooftop collection and lakewater use.

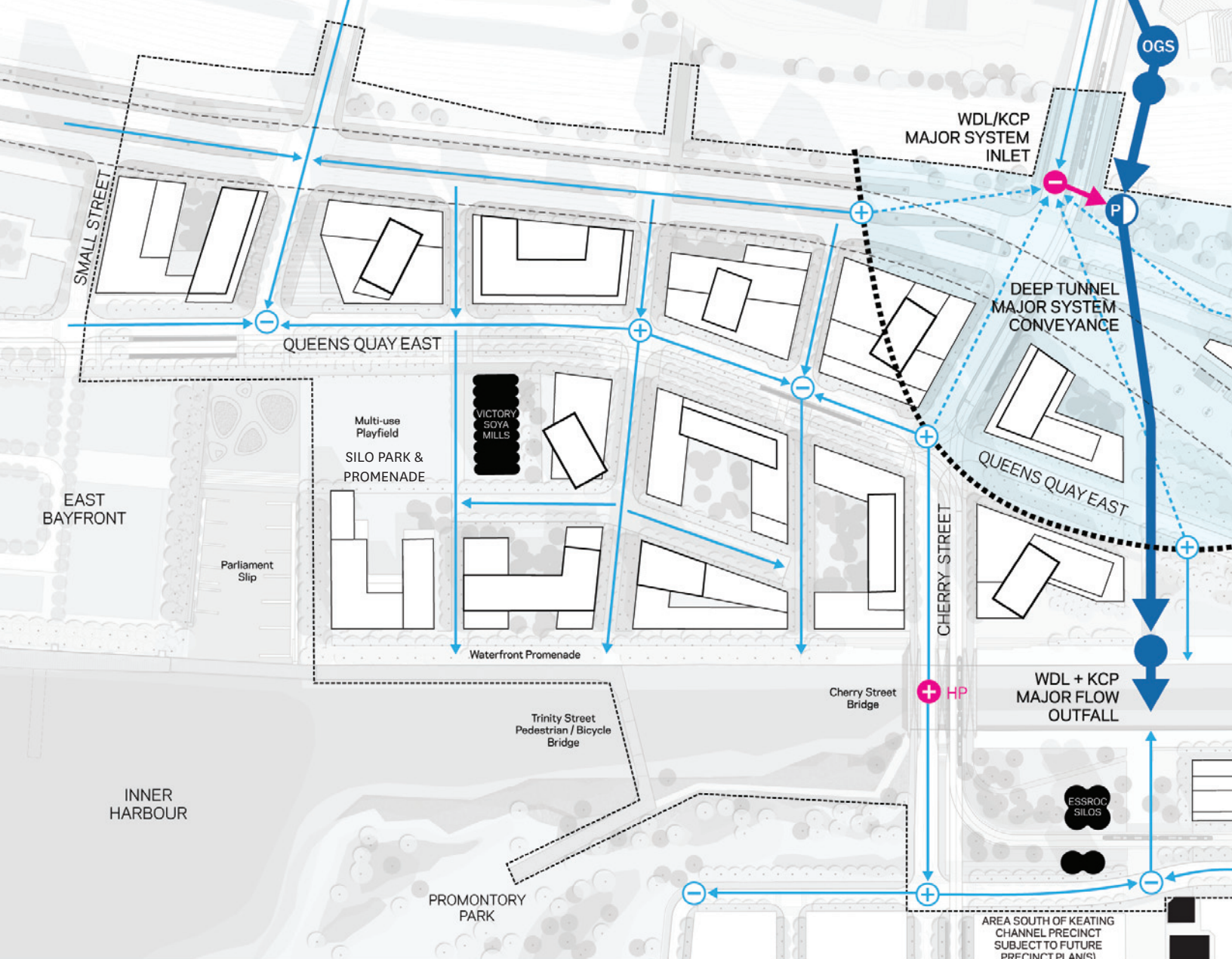
Wastewater

Two sanitary sewershed areas (or sewer service areas), divided by the Keating Channel, provide the existing wastewater servicing in the Lower Don Lands. The Keating Channel Precinct falls into the more northern of the two sewersheds. The sewers in this area were part of the East Harbour Development, and were constructed and installed in the late 1920's and early 1930's. Like the water infrastructure, the wastewater infrastructure is nearing the end of its lifespan. In addition to the age of the infrastructure, the configuration of the existing system is not conducive to supporting the proposed development for the Lower Don Lands.

The proposed land use mix for the Lower Don Lands development, along with the assumed wastewater capacity demand, was used to develop options for providing wastewater servicing to the Keating Channel Precinct, as well as to the other neighbourhoods of the Lower Don Lands.

In the short term, a limited amount of development will be sustained by connecting to the sewer service that will be in place in the West Don Lands, leading north to the low level interceptor, which takes sewage east to the main treatment plant.

To support long-term development in the Port Lands, the Precinct Plan proposes a new gravity sewer along Commissioners Street, ending in a deep well and lift station that would take the sewage directly into the main treatment plant. If this service were on line before the first development was initiated, then the preferred servicing strategy would be to link the local sewers servicing the Keating Channel Precinct to this new sewer.



LEGEND

- Major System Deep Tunnel
- Major System Flow
- High Point
- Low Point
- Deep Tunnel Drainage Area
- Pumping Station
- Oil/Grit Separator

Stormwater

Stormwater management is a key component of the development of the Lower Don Lands, and will play a key role in mitigating the environmental impacts of the developed lands if properly implemented. This means adhering to requirements and standards established by:

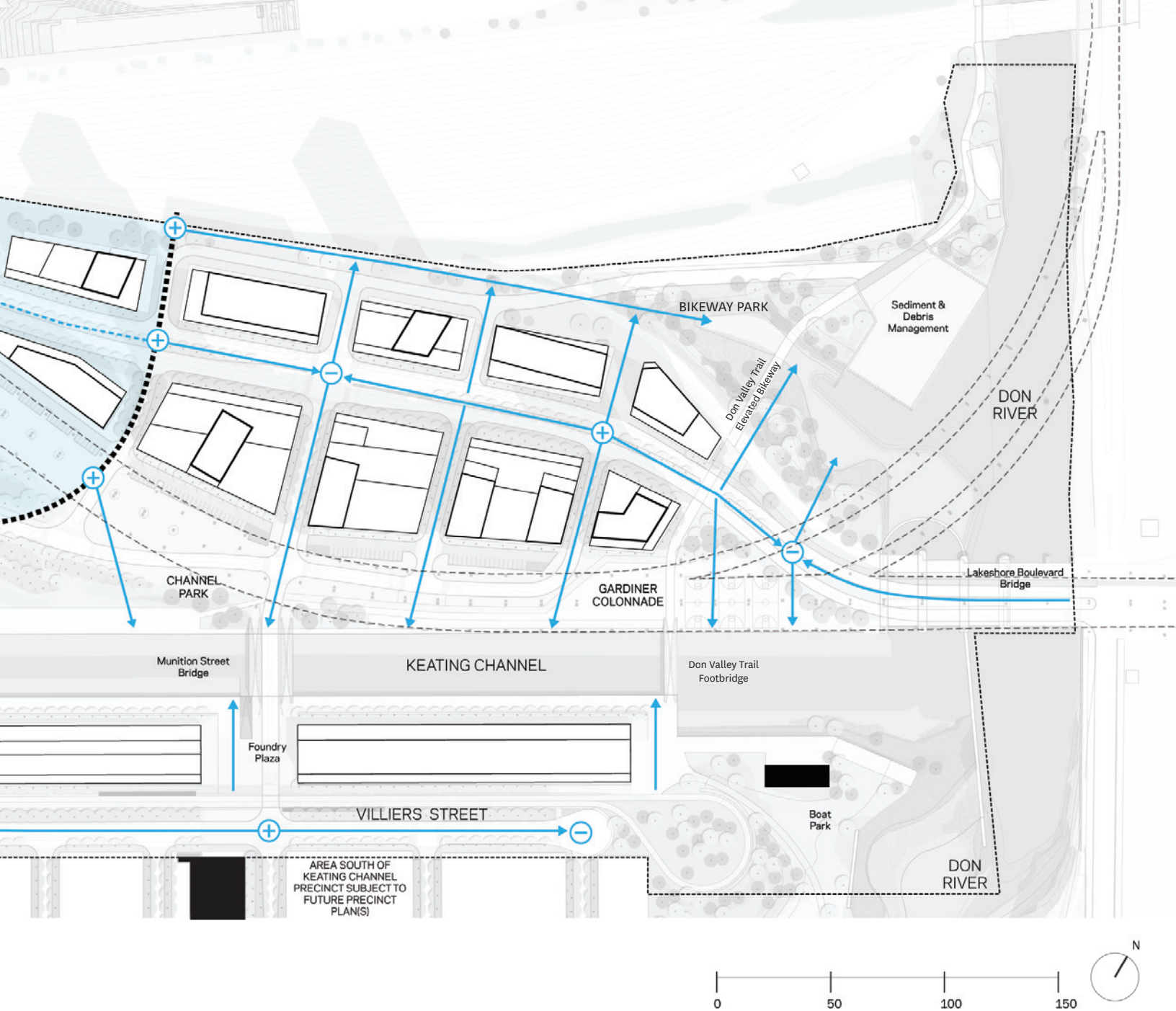
- The City of Toronto Wet Weather Flow Management Guidelines
- The Ontario Ministry of the Environment Planning and Design Manual
- The Toronto Green Standard
- Best Management Practices promoted by the TRCA

The stormwater management system will consist of two components: the minor flow drainage system and the major flow drainage system. The minor flow drainage system will manage more frequent minor storm events; its primary function is to collect and treat storm runoff and convey the treated runoff to an appropriate outlet—a place where the runoff will do no harm. The major flow drainage system will manage less frequent

major storm events, and is designed to be adequate to handle a 1:100-year storm event. The major storm flow generally exceeds the inlet capture capacity and conveyance capacity of the minor storm drainage system, and as such will result in overland flow. Overland flow is normally conveyed along public roadways and public walkways and managed such that the depth and velocity of the flow will do no harm to persons or property along the overland flow route.

The design of the new minor stormwater system to service the Keating Channel Precinct and all of the Lower Don Lands will require inclusion of three main components: these include source controls such as green roofs to retain, evapotranspire and/or improve the quality of runoff; conveyance controls such as biofiltration measures and oil/grit separators; and end-of-pipe controls such as settling tanks and disinfectant treatment to ensure a high standard for the quality of water discharged into Lake Ontario.

Opportunities to integrate the minor stormwater management solutions with the East Bayfront and West Don Lands Precincts are being explored. The integration process will result in a community-wide stormwater



management strategy whereby each precinct will have co-located sedimentation removal facilities serviced by a common disinfection facility. Source and conveyance controls will be implemented during the final design of each precinct.

A small area of both the East Bayfront lands and the Keating Channel Precinct may share a common major storm overland flow route at the intersection of the Parliament Street and Queens Quay. The Parliament Street Slip would be a potential outlet for the major storm overland flow collected at this intersection.

The West Don Lands and a portion of the North Keating Lands will share a common major storm outlet located at the sag in Cherry Street north of Lakeshore Boulevard. An integrated solution consisting of a deep storm tunnel that connects the Keating Channel to the major storm collection system in the Cherry Street sag will be shared by the West Don Lands and the North Keating Lands.

Figure 60
Stormwater Major Flow System

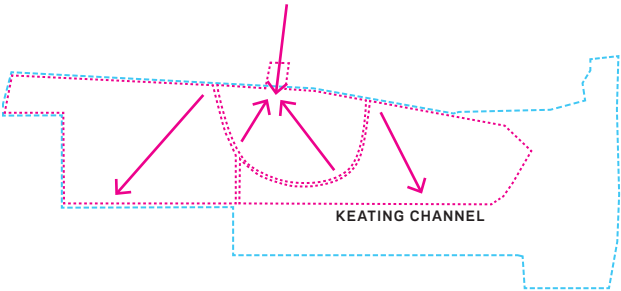
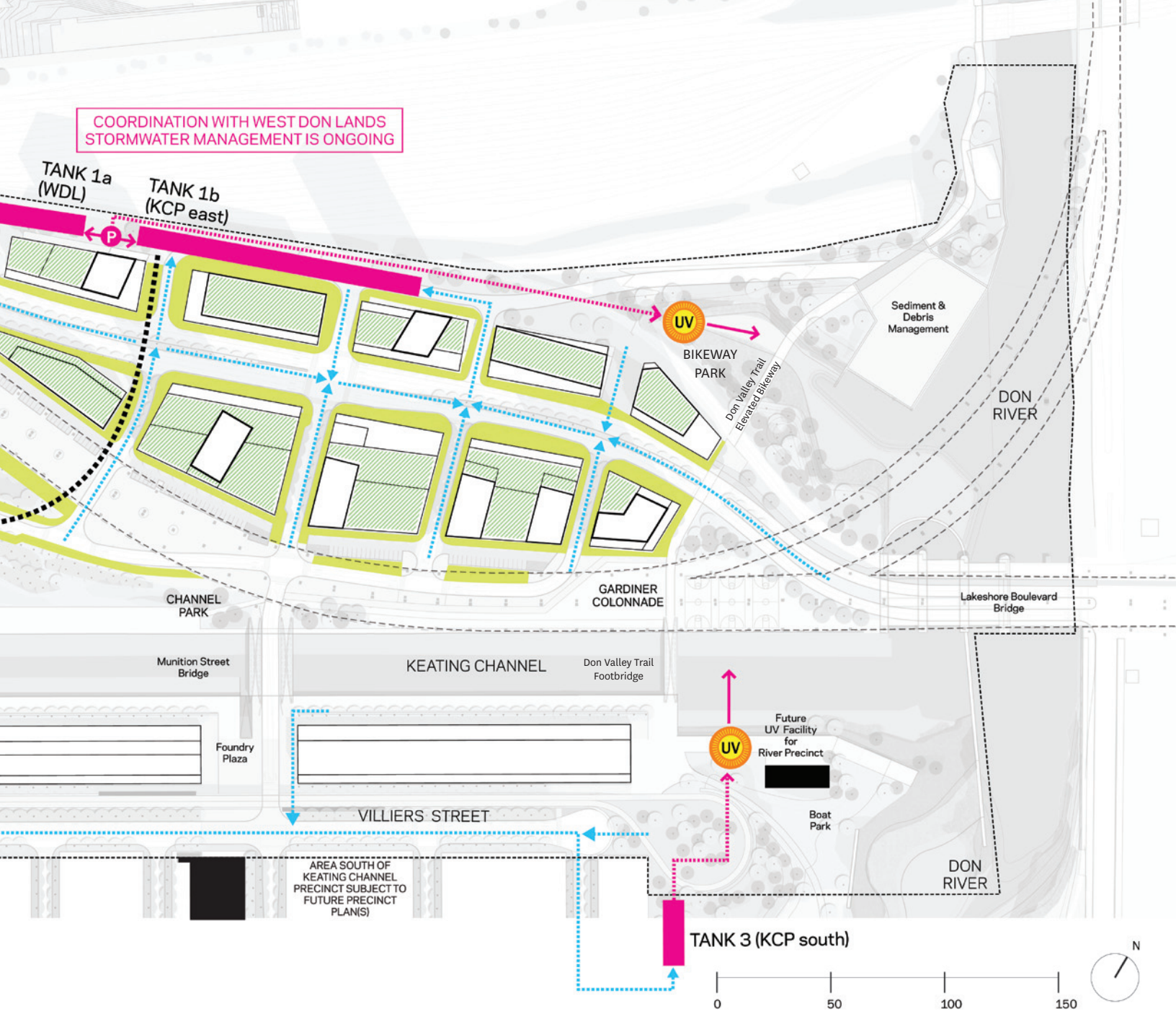


Figure 61
Stormwater in the Keating Channel Precinct drains to three separate watersheds.



Building Code requirements. A building permit is required for the construction of all green roofs in Toronto.

In addition to the City's Green Roof Bylaw, Waterfront Toronto's Mandatory Green Building Requirements provide complementary conditions that developments must meet, including a requirement that all buildings over 3 storeys must include vegetated green roofs with a minimum total area of 50% of the gross floor area of the ground floor.

Other Utilities

Waterfront Toronto is developing a plan to bring low cost ultra-broadband telecommunications infrastructure to all of its new communities. This would encompass a broad range of telephone, internet, voice-over internet, and other new applications. This technology will facilitate knowledge-based employment, live/work applications and high-end media industry opportunities within the Precinct, which is consistent with the sustainable balance of land uses that this Precinct Plan promotes. Waterfront Toronto will work with other utility providers to ensure that appropriate provision is made for utilities as development proceeds to further iterations of design.

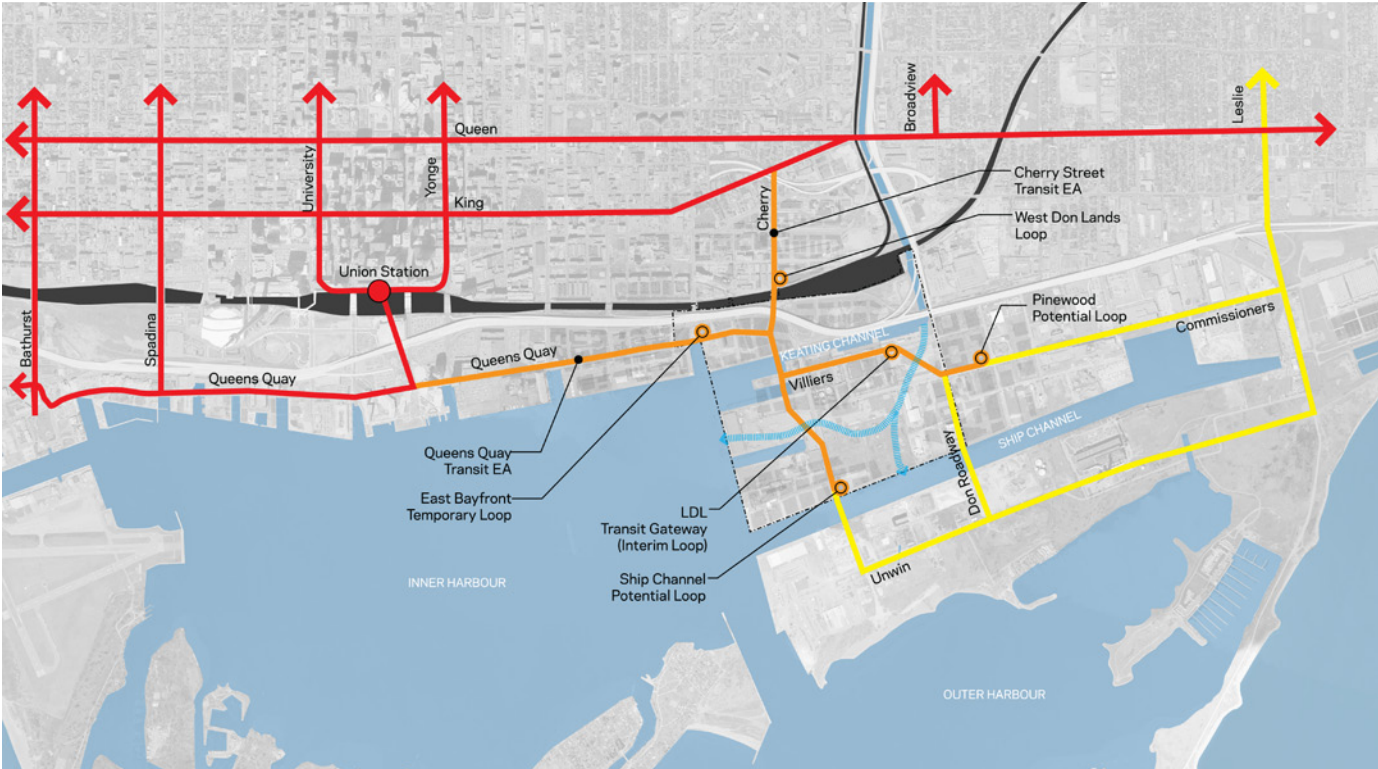
Figure 62
Stormwater Minor Flow System

Transportation Network

The Keating Channel Precinct is a keystone site between the Don River and the Inner Harbour, and between the downtown and future Port Lands development, at the crossroads of numerous planned transit, cycling, and pedestrian routes. The redevelopment of this critical area offers exceptional opportunities to integrate and extend these networks to overcome existing barrier conditions and re-knit existing and emerging city neighbourhoods on all sides with the opening up of the waterfront. It also provides a remarkable potential to create a vibrant new transit-oriented community in the heart of the city with a strong emphasis on walking and cycling and limited reliance on the automobile.

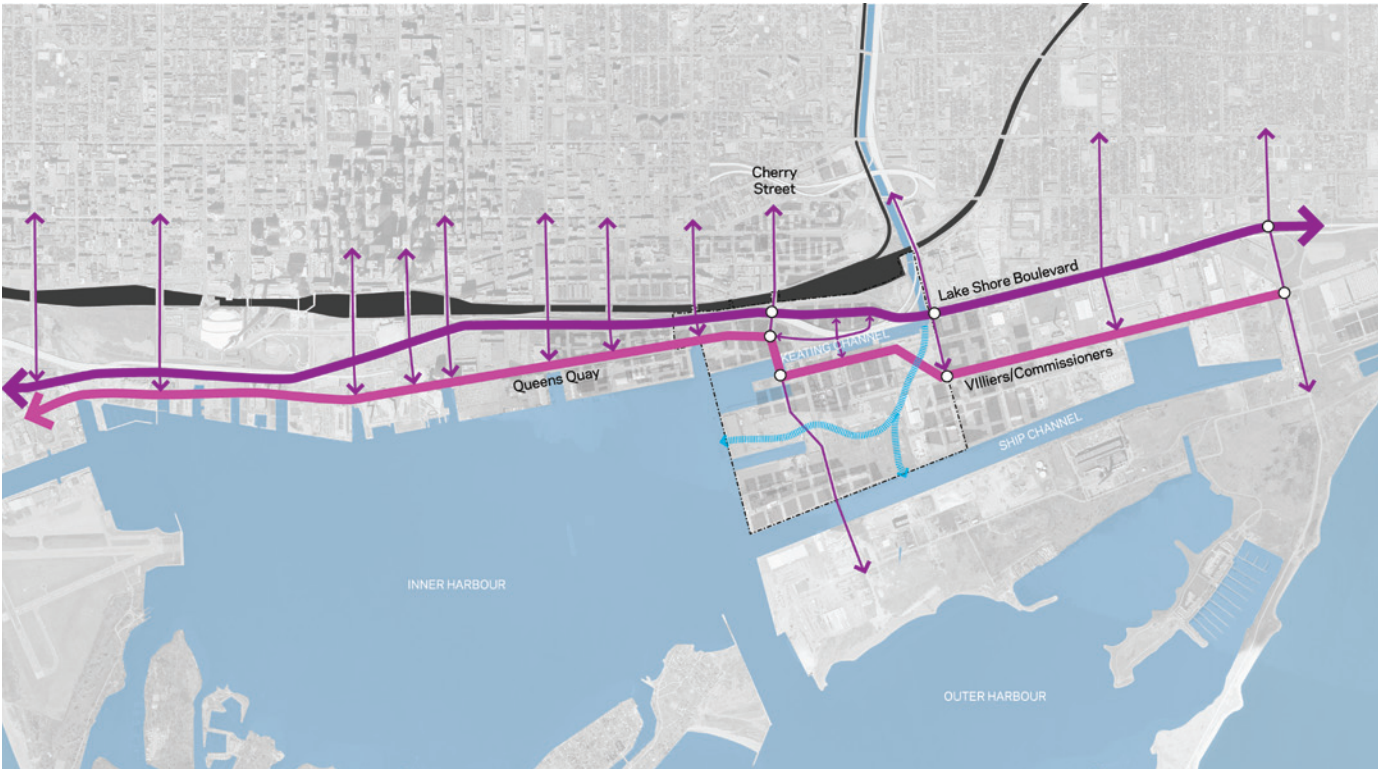


Figure 68
Toronto Streetcar



OPEN THE PORT LANDS WITH TRANSIT

- Existing Subway/LRT
- Planned LRT
- Potential/Future LRT



BALANCE E-W AND N-S ROADWAY CONNECTIONS

- N-S Road Connections
- Minor Waterfront Road (E-W)
- Major Waterfront Road (E-W)

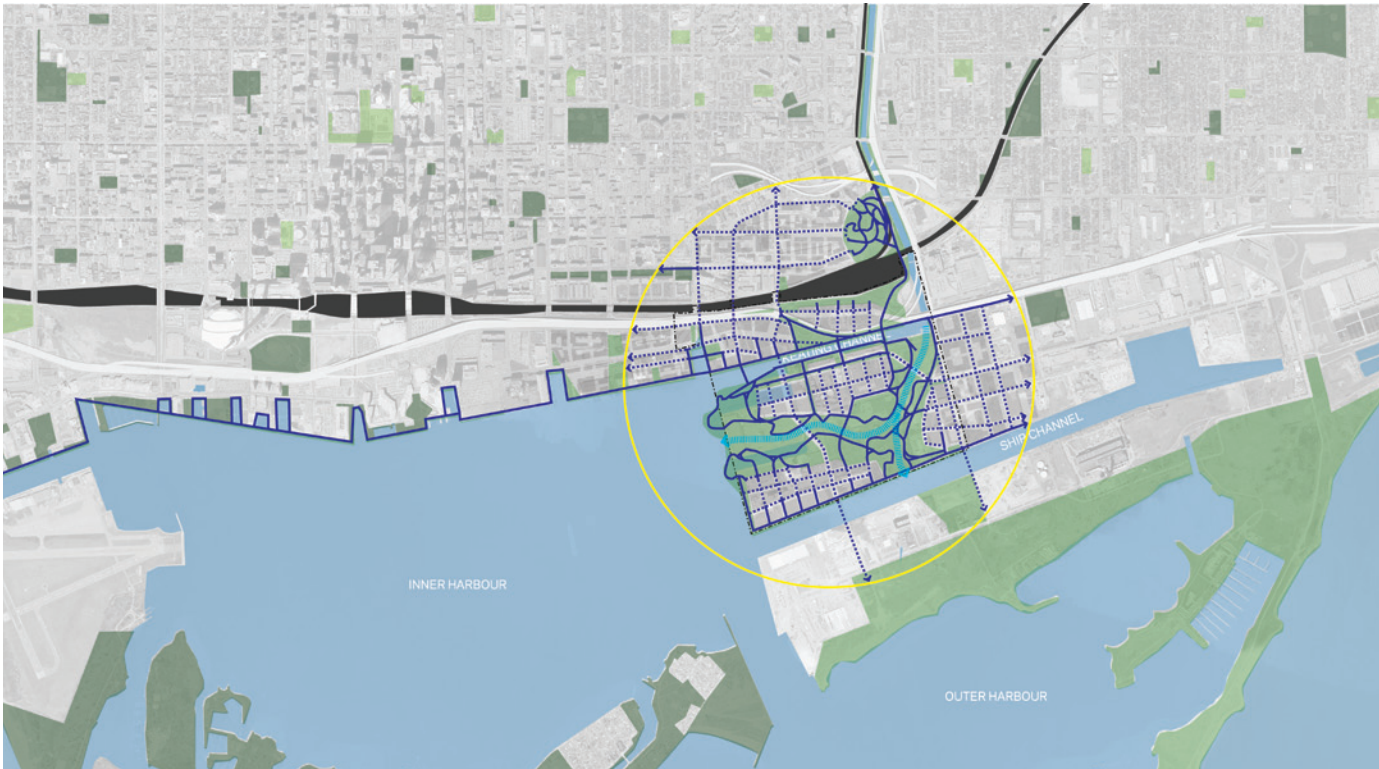
Figure 64-67
Connections
The 310 acre Lower Don Lands is a keystone site for connecting the downtown to the entire Port Lands—1000 acres of brownfield sites eligible for regeneration. For decades, the Lower Don Lands sat as under-utilized land because of the significant barriers and infrastructural challenges inherent to the site: an elevated rail berm and highway, existing bridge configuration and types, river sediment and debris management facilities, contaminated soils and a high water table relative to grade.

The Keating Channel Precinct is a keystone site between the Don River and the Inner Harbour, and between the downtown and future Port Lands developments. It is at the crossroads of numerous planned transit, cycling, and pedestrian routes. To create effective transportation networks that will support the vision for a vibrant, mixed-use community that prioritizes transit, the existing transportation network will be modified significantly. However, there will be exceptional opportunities for the redevelopment of this critical area as well as for the surrounding communities through the integration and extension of Toronto's downtown transportation network into the Keating Channel Precinct. The opening up of the waterfront through a new transportation network will



CREATE A BIKEWAY NEXUS

- Major Recreational Trail
- Minor Recreational Route
- Commuter Route
- Potential Commuter Route



ENABLE AN EXTENSIVE PEDESTRIAN NETWORK

- Dedicated Pedestrian or Multi-use Pathways
- Sidewalk Pedestrian Connections

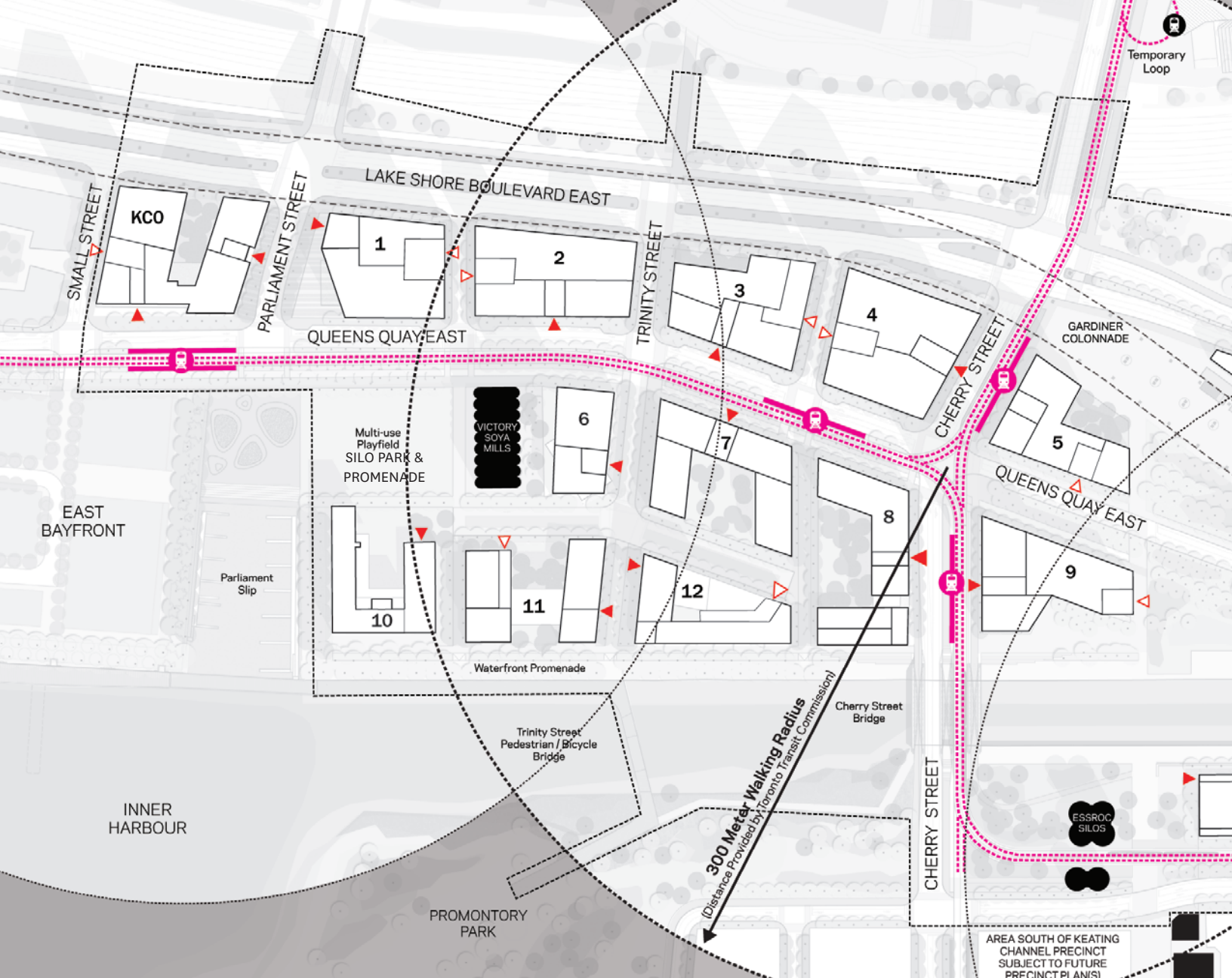
overcome existing barrier conditions and re-knit existing and emerging city neighbourhoods on all sides. The Keating Channel Precinct has remarkable potential to become a vibrant new transit-oriented community in the heart of the city with a strong emphasis on walking and cycling and limited reliance on the automobile.

Existing Circulation Network

The existing roadway and transportation systems within and leading to the Keating Channel Precinct create barriers between surrounding communities and the Precinct. The combination of above-grade and at-grade infrastructure (the Gardiner Expressway and Lakeshore Boulevard East, respectively, as well as the

GO Transit rail corridor) limits the ongoing evolution of the waterfront, and makes pedestrian access to the waterfront from the Distillery District and St. Lawrence neighbourhoods particularly difficult.

The existing railroad embankment running along the northern edge of the Keating Channel Precinct has acted as a significant barrier between the Precinct and lands south of the Keating Channel and the rest of the city since it was built in the early 1900s. This viaduct along the eastern edge of the Inner Harbour enforces the separation of these lands, both physically and visually. There are insufficient existing points of access under the viaduct to the Keating Channel Precinct and Port Lands south of the Keating Channel. These limited access



LEGEND

- Proposed LRT
- ▶ Primary Building Entrance
- ▷ Building Service Entrance
- ⓉⓈ TTC (LRT) Platform

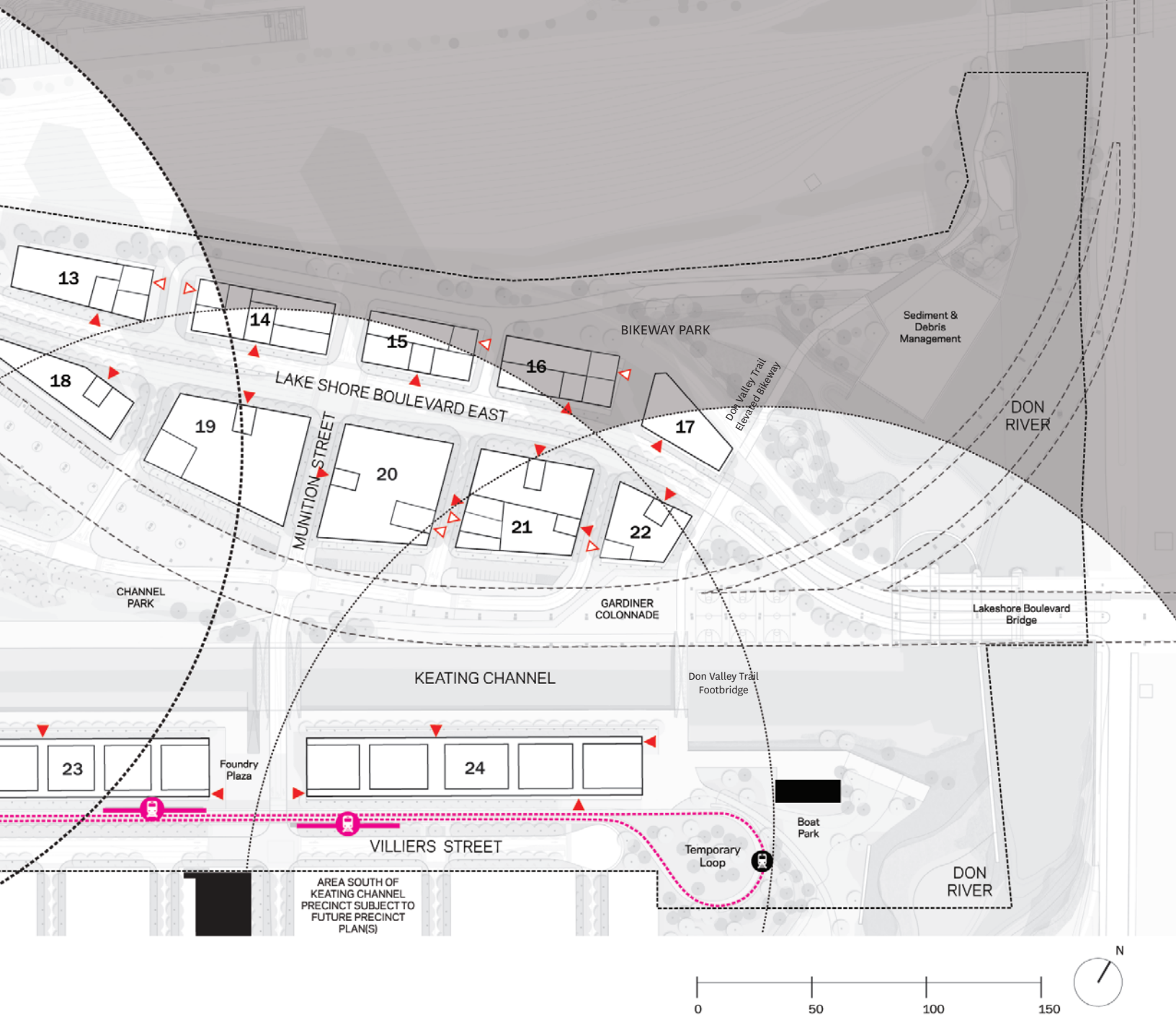
Figure 68

Transit Network

Illustrates platform locations, transit routing, and desirable walking distances from the platforms to the proposed development

points across the rail berm restrict the connectivity required to integrate this area with the surrounding Distillery District, main Harbourfront, and the rest of the city.

Access to the proposed new waterfront developments to the south of the Keating Channel is currently possible via Cherry Street and the Don Roadway. At the western boundary of the Precinct, Queens Quay East and Lakeshore Boulevard East lead to the Central Waterfront; they represent a gateway between the Precinct and the residential and employment areas of East Bayfront. The presence of the Don River defines the eastern edge of the Precinct. The river impedes movement between the Keating Channel Precinct and neighbourhoods to the east, including the residential and retail uses located in Riverdale, and the creative enterprises in Filmport. The Keating Channel Precinct's location at the current mouth of the Don River makes the realignment of the river mouth and the establishment of the new river and Keating Channel crossings an essential factor in reconnecting Toronto's downtown with the communities across the Don River.



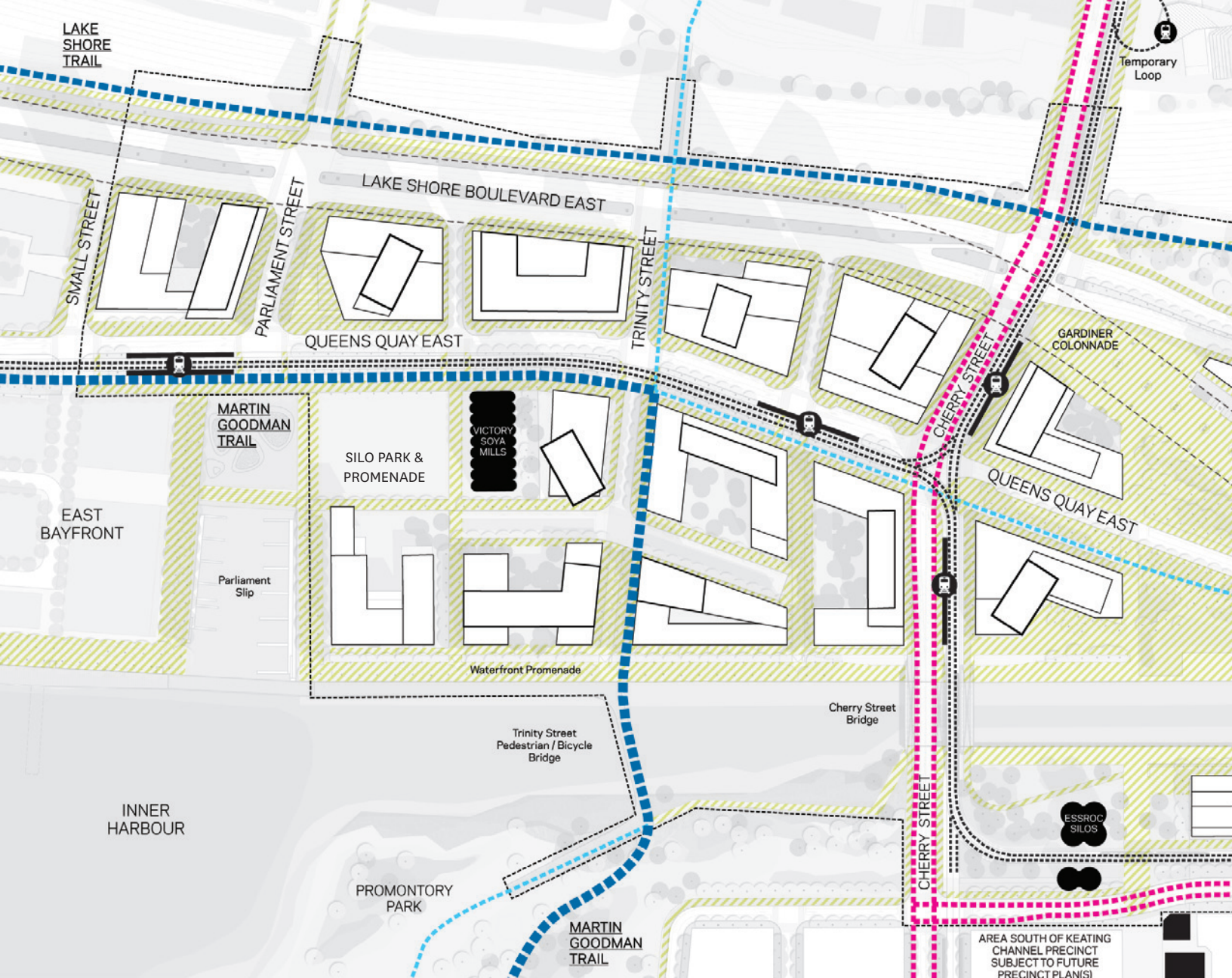
Proposed Circulation Network

To develop the Keating Channel Precinct and the Precinct(s) south of the Keating Channel, significant transportation-related challenges, including lack of connectivity, insufficient grid networks, and lack of a pedestrian-oriented public realm, need to be addressed. As part of the concurrent Class Environmental Assessment (EA) Master Plan for the Lower Don Lands, Waterfront Toronto and the City of Toronto considered several alternatives, each for different elements of the transportation system. The evaluation of alternatives is described in detail in the Class EA Master Plan, and this Precinct Plan adopts the preferred network solution as its basis.

More than most sites, the transportation decisions made with respect to the Keating Channel Precinct affect the future viability of surrounding communities. Development patterns, street access and crossings can influence the effectiveness of transit service coming from East Bayfront into the Port Lands. The Keating Channel crossings provided for by the road network in this Precinct affect the pattern of development into the Port Lands. The pedestrian and bicycle networks are

part of a much larger commuter and recreational network extending from the Central Waterfront into the Port Lands, east to the Beaches, and up the Don Valley. All of these transportation networks need to be seamlessly integrated into a well-connected and user-friendly network. Transportation capacity in this area must be sufficient to serve local needs and provide connections to adjacent communities, as well as to accommodate major regional connections. However, this must be balanced delicately with the need to preserve the quality of the Precinct as a future community itself.

Waterfront Toronto and the City of Toronto are in the midst of an Individual Environmental Assessment to study ways to reconfigure the elevated Gardiner Expressway and at-grade Lakeshore Boulevard East west of the Don River through the Keating Channel Precinct. That process may result in a different configuration of the transportation systems east of Cherry Street. However, the basic template of connections across the site from west to east and south to north as shown in this Precinct Plan will remain.



- Proposed LRT
- Primary Regional Bicycle Trail
- ... Secondary Bicycle Trail
- ... Commuter Bicycle Route
- Public Space

Sustainable Transportation: Towards a Multi-Modal Neighbourhood

The Keating Channel Precinct aims to become a neighbourhood built on sustainable transportation strategies and reduced automobile dependency. First and foremost, the land use distribution within the Precinct is mixed-use, with 75% of gross floor area intended for residential and 25% for non-residential uses. This ratio promotes a more balanced distribution of trips in the area, and enables residents to make trips for daily necessities on foot, thereby reducing the dependence on the private automobile. In addition, the block pattern is arranged to create comfortable walking distances to transit stops. The building massing pattern, as described earlier, will privilege sunlight and manage harsh winds in these key public spaces so that walking will be a pleasant experience.

Extensive multiuse trails will run along the edge of the reinvented Keating Channel, the existing alignments of Cherry Street and the new alignments for Villiers Street. These routes will act as major connecting links between the Don Valley Trail, the Lakeshore Boulevard Trail, the Don Greenway, and the Martin Goodman Trail. They will maintain continuity and enhance the

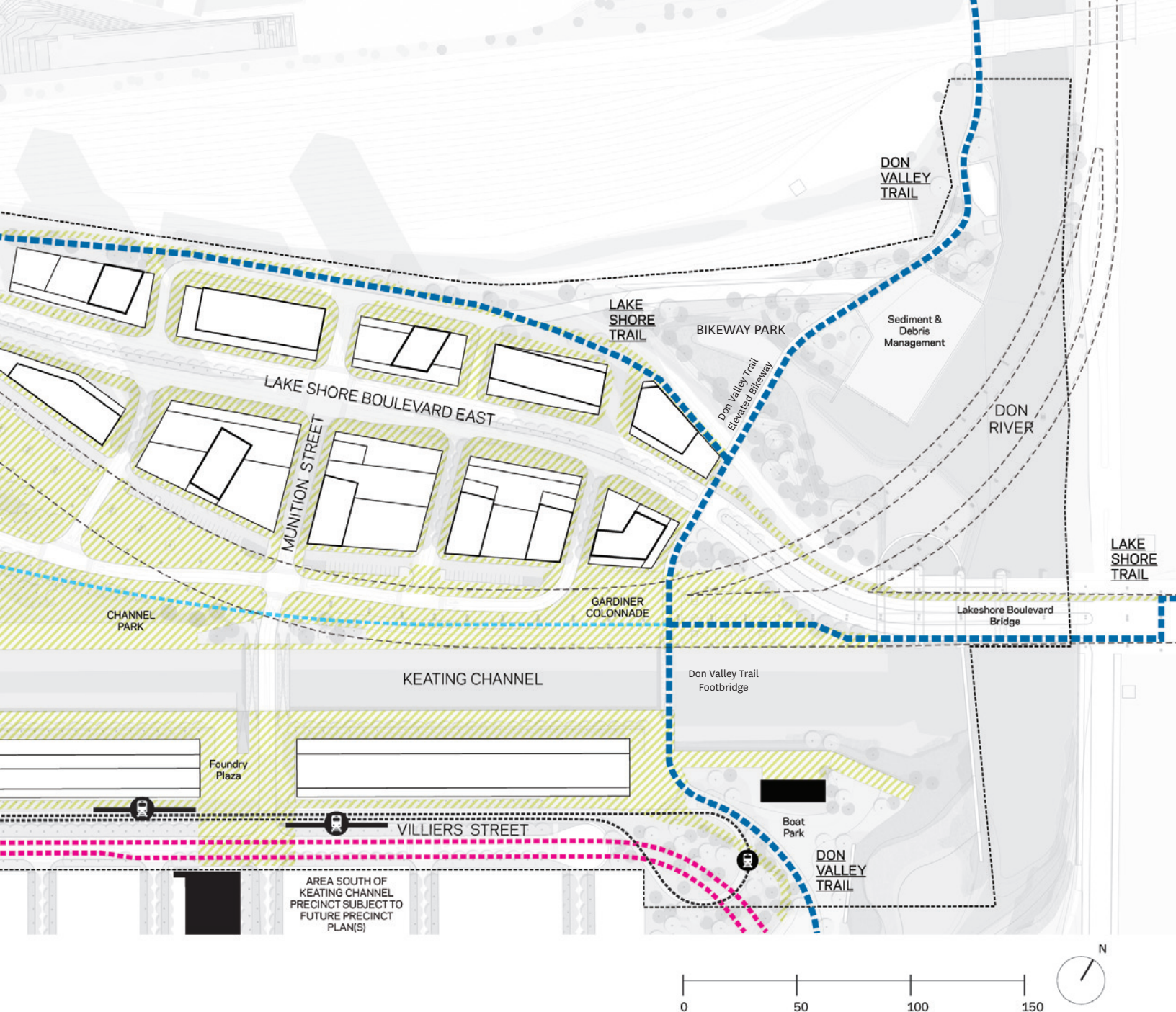
public realm by connecting various urban and natural communities. The incorporation of LRT and the enhanced pedestrian and bicycle circulation into the Keating Channel Precinct will encourage access to the area through sustainable means of transport. Parking facilities in the Precinct will be limited to reduce automobile dependency and encourage use of more sustainable modes of transportation. All of these factors combine to create an environment where an estimated 60% of commuters leaving the Lower Don Lands will not be using a car.

Roadways

Roadways are described at length in the Lower Don Lands Class EA Master Plan. The following is a summary of the key characteristics of the roads in the Keating Channel Precinct.

Queens Quay East (West of Cherry)

Building on the Queens Quay reconfiguration proposal for the Central Waterfront, and consistent with the Secondary Plan, Queens Quay will be extended to Cherry Street as a wide boulevard, which acts as a waterfront “main street,” animated by ground floor retail on both



sides. This configuration will enhance the experience of the denticulated harbourfront of quays and slips by keeping vehicular traffic on the north side of the street and providing more intimate edges and green spaces on the water.

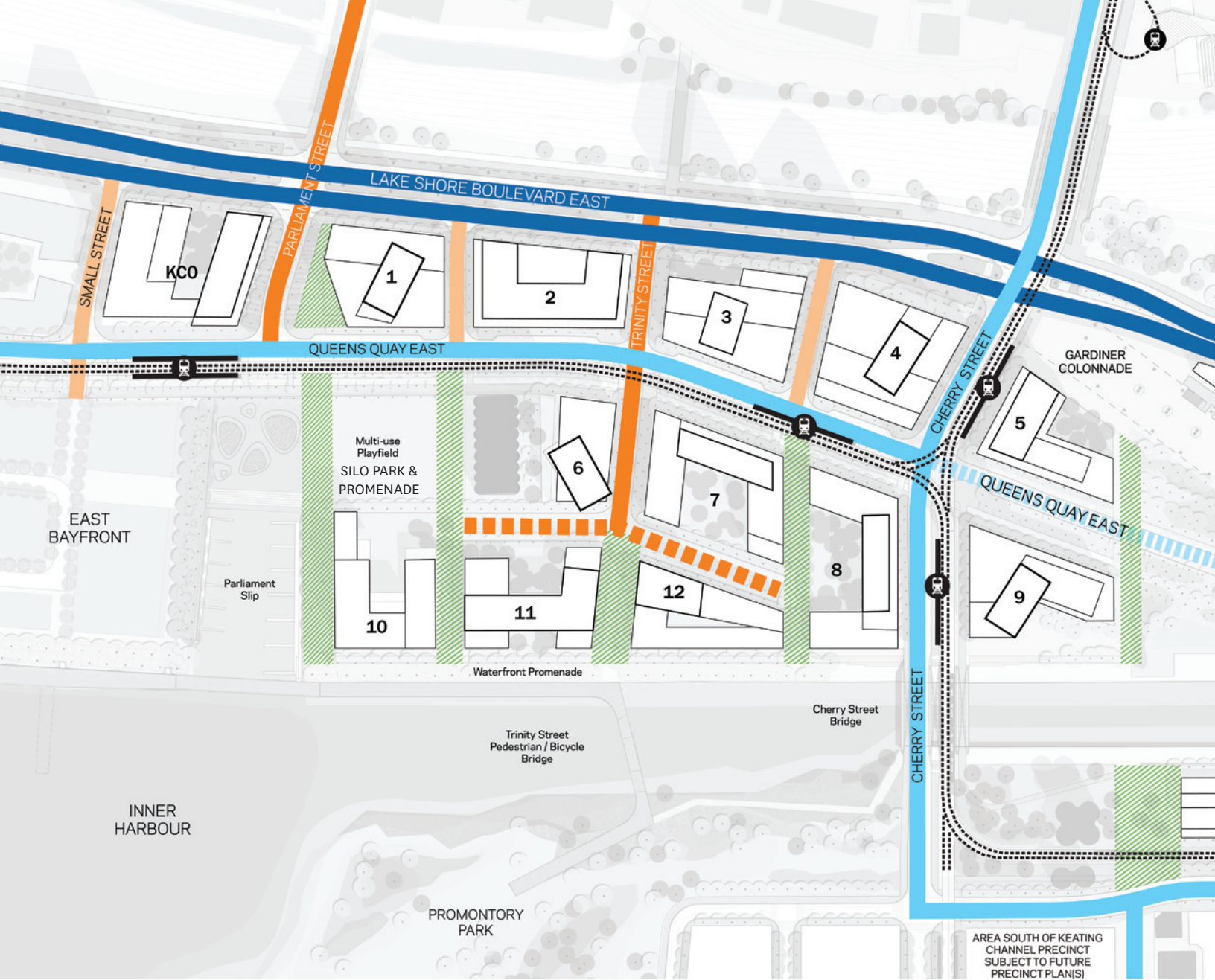
Within the Keating Channel Precinct, Queens Quay runs from Small Street to where it bends to connect with Lakeshore Boulevard just west of the Don River. The Queens Quay cross-section from Small Street to Cherry Street, as a continuation of the preferred alternative for the Queens Quay Environmental Assessment, consists of two vehicular travel lanes with parking along the north side of the street and shared turn lanes at intersections. The Queens Quay LRT runs in a dedicated lane along the south side of the street. A generous public realm is afforded by 5 metre sidewalks on both sides of the street and the Martin Goodman Trail, which runs along the south side of the LRT tracks.

Queens Quay East Extension (East of Cherry)

Since the LRT will turn at Cherry Street, and the Martin-Goodman Trail will turn south down Trinity Street, Queens Quay will become more of a local road east of Cherry Street. This extension of Queens Quay will run

Figure 69

Bicycle and Pedestrian Network
Extensive multi-use trails run along the edge of the naturalized mouth of the Don River, along the existing alignments of Cherry Street, as well as along the new alignments for Villiers Street and Basin Street. These additional routes act as major connecting links to the Don Valley Trail, the Lakeshore Boulevard Trail, the Don Greenway, and the Martin Goodman Trail.



LEGEND

- | | | | |
|--|--------------------------------|--|---------------------------------|
| | Major Waterfront Arterial Road | | Local Street and Parking Median |
| | Minor Waterfront Arterial Road | | Service Roadway |
| | Primary Local Street | | |
| | Internal Local Street | | |
| | Pedestrian Passage | | |
| | LRT | | |

along the north side of Channel Park and subsequently underneath the south side of the Gardiner for several blocks before connecting to Lakeshore Boulevard at a signalled intersection.

Queens Quay East (Gardiner Colonnade)

Queens Quay East will pass underneath the Gardiner Expressway before bending north to meet Lakeshore Boulevard East. This two-lane road will be bordered on both sides by the pedestrian-oriented Gardiner Colonnade. On the north side of Queens Quay, a parking area provides access to ground level retail and commercial uses.

Lakeshore Boulevard East

Lakeshore Boulevard East will be generously landscaped and will maximize the opportunities for pedestrian crossings through frequent intersections with streets connecting into the downtown core; and will provide ample room for commuter cycling and pedestrians. The 480 Lakeshore lands will accommodate street-related retail and commercial development on both sides of Lakeshore Boulevard East to create an attractive and pedestrian-oriented urban avenue.

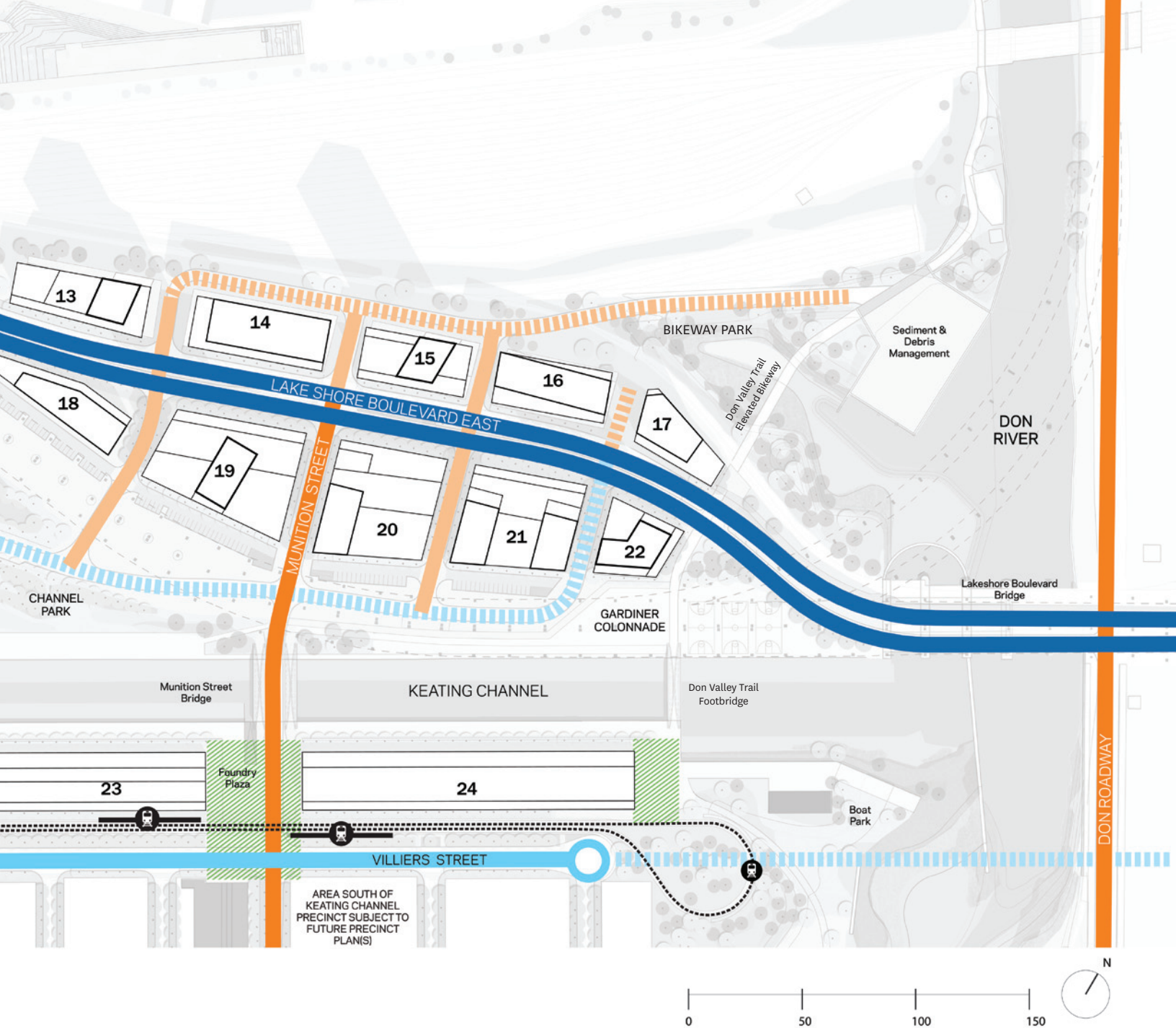
Lakeshore Boulevard is a key transportation connection to areas east of the site, such as Leslieville and Riverdale, and areas west of the site, like East Bayfront and the Central Waterfront. Within the Keating Channel Precinct, Lakeshore Boulevard runs from Small Street to Don Roadway. Lakeshore Boulevard consists of four vehicular travel lanes, shared turning lanes at intersections, and generous amounts of off-peak parking. Five metre sidewalks run along both sides of the street.

Lakeshore Boulevard East (Under the Gardiner Expressway)

Lakeshore Boulevard will run underneath the Gardiner Expressway west of Cherry Street. This major road is bordered on the north side by the Lakeshore Bike Trail and a public walkway. Buildings will be set back 7 metres from the road on the south side, and support commercial uses at grade.

Villiers Street (LRT)

Villiers Street, as the east-west axis of the Precinct's LRT line, will be a central organizing spine for the Keating Channel Precinct. Villiers Street's generous curve and grade change meets the minimum engineering



requirements for the LRT. Its location will enable it to direct traffic and transit service to both the North and South Keating neighbourhoods, while taking advantage of an existing wide public right of way.

Villiers Street will be the main transportation corridor for the neighbourhoods south of the Keating Channel. Within the Keating Channel Precinct, it runs from just west of Cherry Street to an interim terminus just east of the Don Valley Trail footbridge. The street will have a dedicated LRT line running along the north side of the right-of-way. There are two vehicular travel lanes, on-street bike lanes, and sidewalks on both sides of the street. The sidewalk on the north side of the street will be animated by adjacent ground floor retail uses. A linear park separates the LRT tracks from the vehicular traffic while providing a generous pedestrian amenity.

Cherry Street

Cherry Street will be the main north-south artery serving the Lower Don Lands, connecting the neighbourhood to the West Don Lands to the north and to Lake Ontario Park to the south. Within the Keating Channel Precinct, Cherry Street runs from just north of the rail corridor to Villiers Street. The cross-section of Cherry Street is a

Figure 70
Roadway Network
There are many important givens which shape the block pattern. The Keating Channel Precinct is a transitional area surrounded and traversed by major regional transportation corridors and infrastructure including the rail corridor, the curvilinear east-west path of the overhead Gardiner Expressway and Lakeshore Boulevard. As a narrow band of land extending approximately 1.2 kilometres east from Parliament Street to the Don River, and ranging in width from 270 metres to 360 metres, it will serve as a gateway to the Port Lands for the city to the north and west.

continuation of the one established in West Don Lands. Between Mill Street and Lakeshore Boulevard, Cherry Street has two vehicular travel lanes and a turning lane at intersections. The LRT runs in a dedicated transit lane along the east side of the street. On-street bike lanes exist on either side of the vehicular traffic and 5 metre wide sidewalks exist on both sides of the street. As it passes underneath the rail corridor, Cherry Street will be lowered and widened to provide for a future street car line and an improved pedestrian and cycling environment. As Cherry Street extends past Lakeshore Boulevard, it will be redirected roughly one block west of its current alignment, due to various infrastructural constraints outlined in the Framework Plan. Between Lakeshore Boulevard and Villiers Street, a wider right of way affords an additional sidewalk west of the LRT tracks. The street will be lined largely with retail at grade.

Trinity Street

Trinity Street has an important role in connecting the Lower Don Lands to the Distillery District through a new pedestrian tunnel passing under the rail tracks. It will also be the key point at which major east-west pedestrian and cycling routes—the Martin Goodman Trail and the Waterfront Promenade—cross the Keating Channel on a pedestrian-and-cycling-only bridge and continue south through the Lower Don Lands to Cherry Beach and Lake Ontario Park.

Within the Keating Channel Precinct, the street will be an important local connection. Between Lakeshore Boulevard and one block north of the waterfront, it will provide local vehicular access to the blocks north and south of Queens Quay, with one lane traveling each way and one parking lane. Of the 26.5 metre right-of-way, 15.5 metres will be dedicated to pedestrian and cycling circulation, with 5 metres of sidewalk on either side and 5.5 metres dedicated to the Martin Goodman Trail. There will be no vehicular access to the last block of the street, where it approaches the waterfront. Trinity Street will represent a commitment to walking and cycling as important modes of transportation within the Precinct, and to the role of streets as critical social and recreational spaces within the public realm. This area will have a mix of commercial, retail, residential and live/work uses at-grade, which will all contribute to a lively public realm.

Munition Street

The traffic analysis supporting the Class EA Master Plan demonstrated the benefit of an additional connection within the Lower Don Lands to connect areas south of the Keating Channel to Lakeshore Boulevard. (Given the location of the site, most traffic is oriented to the north, with much of it ending up on Lakeshore Boulevard.) The logical place for this new connection is somewhere between Cherry Street and the Don Roadway, to divide this large expanse and create new connectivity for pedestrians and cyclists as well. The Precinct Plan’s solution extends Munition Street, which currently runs only from Commissioners Street to Villiers Street, to the north across the Keating Channel with an intersection at Lakeshore Boulevard East.

Munition Street will be a key point of pedestrian access across the Keating Channel. Because the LRT runs along Villiers Street, the bridge will be used for access to transit from the blocks in the central area north of the channel. Munition Street will mostly feature retail at-grade, with some commercial uses located north of Lakeshore Boulevard. Munition Street has a generous cross section with two travel lanes, a turn lane at intersections, one parking lane, and 5 metre sidewalks. The intersection of Munition Street and Villiers Street will anchor the central open space of the south side of the Keating Channel. Because this street is an existing street south of Villiers, and passes the Foundry Building, a heritage building which will be adaptively reused, it has historic importance to the Port Lands.

Typical Internal Local Street

Though there are few “typical” streets in the Keating Precinct due to its diversity of adjacencies and edges, there are several short streets within the Precinct which do not carry any unique significance, but rather will simply complete the local vehicular, pedestrian and cycling network of the city. These streets will have a limited amount of vehicular traffic and will be designed for pedestrian comfort at a neighbourhood scale.

Local Street with Parking Median

In one location south of Queens Quay and west of Cherry Street, a series of blocks will be connected to the larger street grid at only one point, on Trinity Street. Vehicles will need to be able to circulate back around to this access point, so the streets will form a long loop, with a parking median in the centre. This street design will encourage slower traffic, which is desirable due to the proximity of the school at Parliament Slip, the at-grade residential uses, and the character of the neighbourhood in general.

Pedestrian Passages

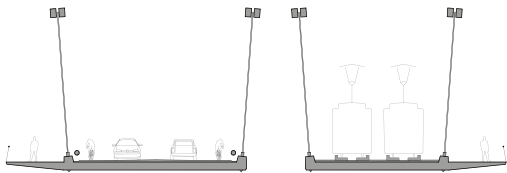
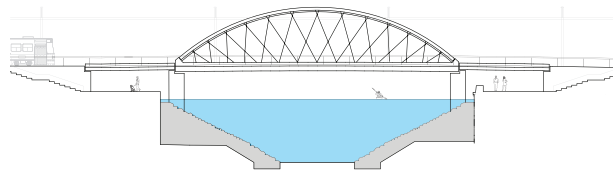
These passages will be closed to regular vehicular traffic, but open to service and emergency vehicles. This arrangement is optimal because it avoids burdening Queens Quay with further intersections, which, since they require traffic to cross the LRT tracks, slow the flow of traffic. These passages will have an intimate pedestrian scale and could be used in a variety of ways as a public space. At-grade, the passages will be lined on both sides with both residential and live/work uses.

Service Roadways and Pedestrian Passages

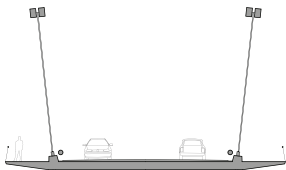
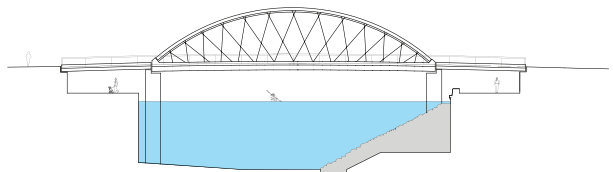
This section of road runs along the rear of three blocks which front onto Lakeshore Boulevard. It provides important service access for the commercial uses at grade. To the north of the service roadway, the Lakeshore Bike Trail runs alongside the landscape buffer associated with the rail berm.



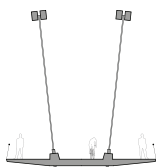
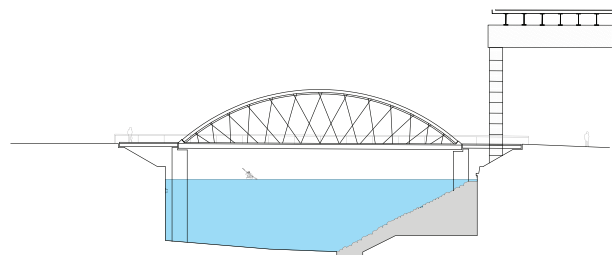
Figure 71
Villiers Street LRT (View west from Villiers Street LRT platform)
The Precinct Plan incorporates strategies to reduce auto-dependency. First and foremost, the land use distribution within the Precinct is mixed-use, with 75% of gross floor area intended for residential and 25% for non-residential uses.



CHERRY STREET BRIDGE



MUNITION STREET BRIDGE



PEDESTRIAN & BICYCLE BRIDGE

Figure 72
Keating Channel Family of Bridges

Bridges

Bridges are described at length in the Lower Don Lands Class EA Master Plan. The following is a summary of the key characteristics of the bridges in the Keating Channel Precinct.

Lakeshore Boulevard Bridge

Lakeshore Boulevard Bridge crosses the Don River just north of the Keating Channel. The existing bridge structure will be modified and extended in order to ensure adequate hydraulic conveyance. The bridge consists of two vehicular travel lanes in each direction and one two-way pedestrian walkway. Since the bridge’s piers cannot be extended downstream without affecting hydrology, a two-way bikeway will run on a separate structure suspended from the Gardiner Expressway’s pier bents, on the south side of the main bridge structure.

Cherry Street Bridge

The Cherry Street Bridge crosses the Keating Channel and is a key transportation connection between the North and South Keating neighbourhoods. The new Cherry Street Bridge will be located one block west of the existing Cherry Street Bridge; the existing bridge structure is an impediment to hydraulic conveyance in the Keating Channel and must be removed. The new bridge will consist of two separate and twin parallel arch superstructures. One structure will accommodate two vehicular travel lanes, two on-street bicycle lanes and one pedestrian walkway. The other structure will accommodate LRT tracks as well as a pedestrian walkway.

Munition Street Bridge

Munition Street Bridge will provide a second vehicular crossing of the Keating Channel joining the North and South Keating neighbourhoods. It will consist of two lanes of vehicular traffic as well as pedestrian sidewalks on both sides of the street. The Munition Street Bridge will provide non-motorized access to the Villiers/Munition LRT stop for development north of the Keating Channel. The bridge’s clearance envelope will ensure adequate hydraulic conveyance.

Don Valley Trail Footbridge

The Don Valley Trail Footbridge crosses the Keating Channel between Munition Street and Don Roadway. The bridge will accommodate only bicycle and pedestrian traffic, allowing the Don Valley Trail to continue southward along the new Don River and Greenway. This footbridge will also form an important connection between the promenades along the north and south edges of the Keating Channel.

Trinity Street Footbridge

The Trinity Street Footbridge will be the terminus of the boardwalk that runs along the water’s edge in East Bayfront. The bridge will act as a major link between the Central Waterfront boardwalk, the promenade along the Keating Channel, and Promontory Park. The generous width of the Trinity Street bridge will accommodate

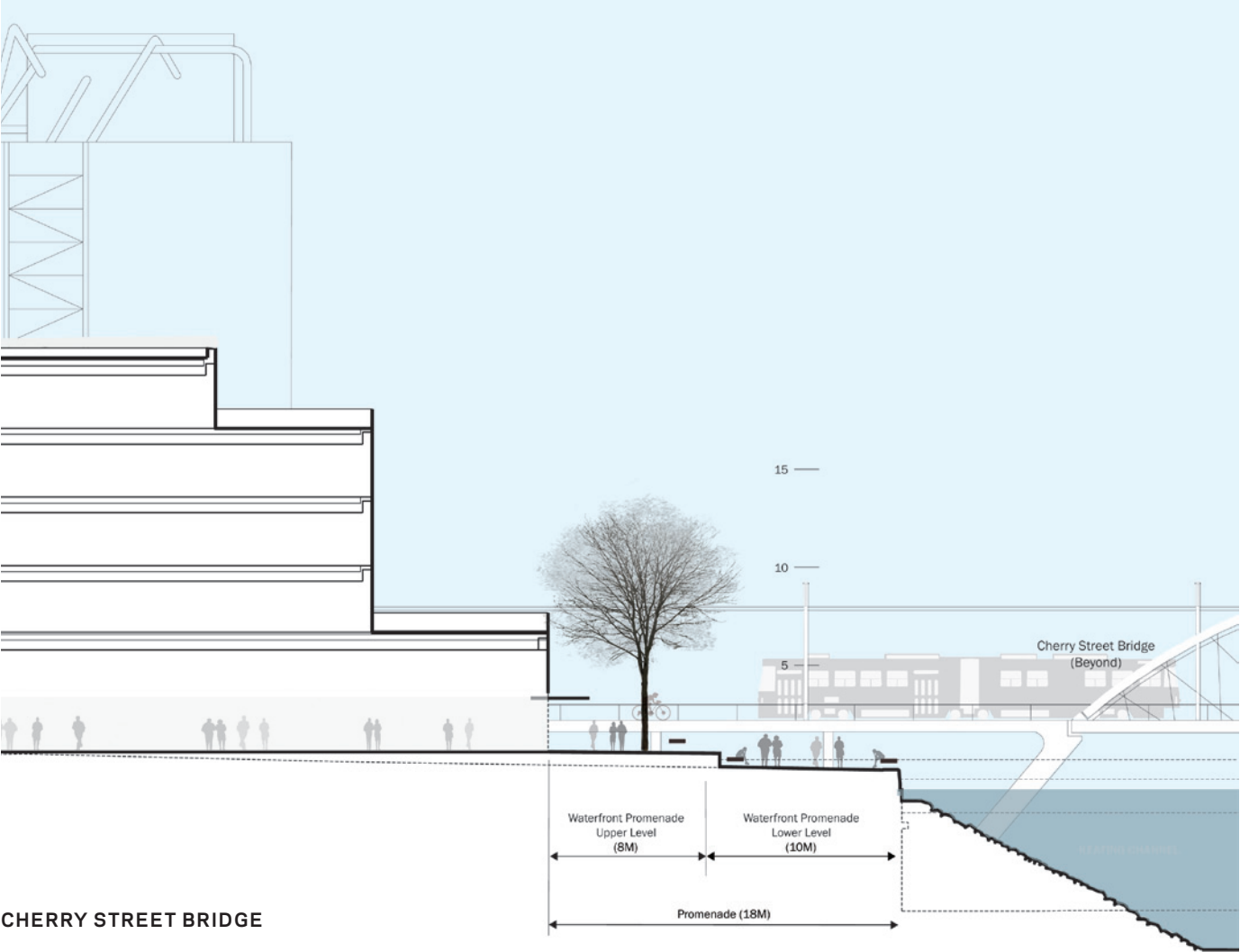
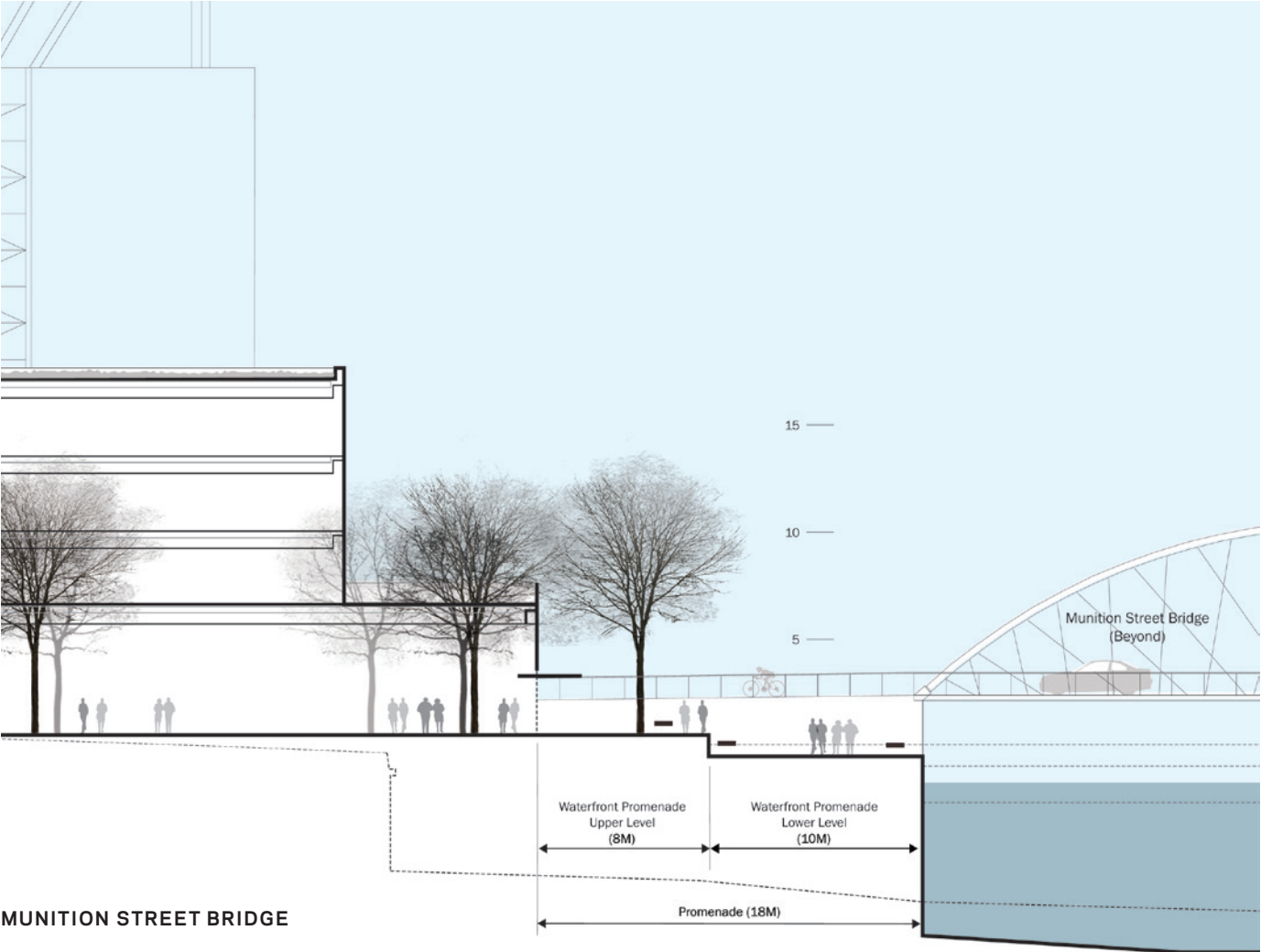
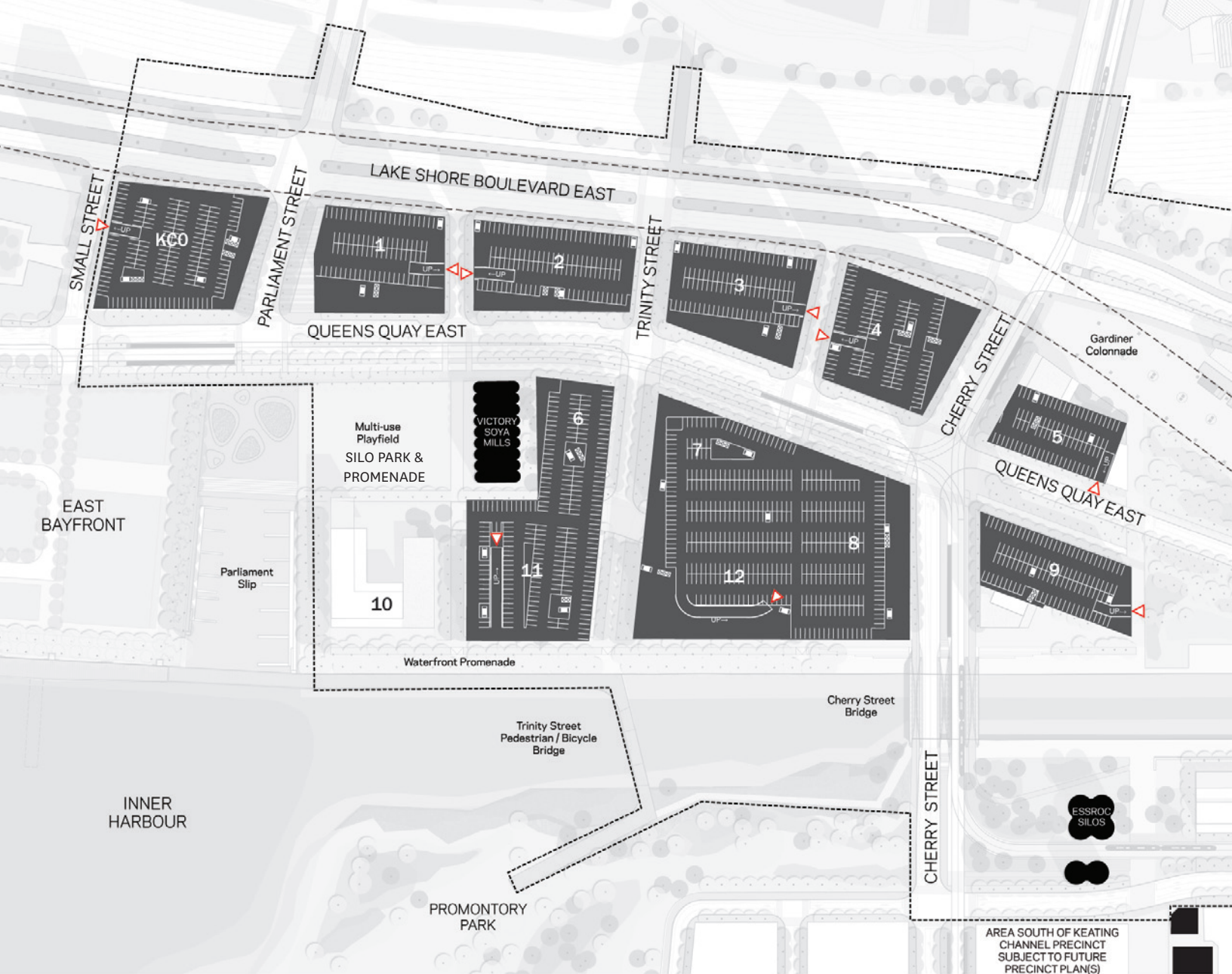


Figure 73
Keating Channel Sections





Figure 74
Cherry Street Crossing at the Keating Channel
(View south from Cherry Street LRT platform)
Will be a gateway crossing for all modes of travel from the Keating Channel Precinct to the future Port Lands development. It also affords direct connections from the channel esplanades to the sidewalk and LRT platform at Cherry Street.





LEGEND

-  Below-Grade Parking
-  Building Service Entrance

bicycle traffic associated with the Martin Goodman Trail as well as pedestrian activity. The bridge will also be a public gathering space in its own right, affording picturesque views towards the Central Waterfront, the Inner Harbour, Downtown Toronto, and along the Keating Channel.

Underpasses

The Keating Channel Precinct will be accessible via two existing passages below the Toronto Terminals Rail Viaduct, at Cherry Street and Parliament Street. Both links are critical for ensuring the viability of the neighbourhood. The Precinct Plan recommends that the underpasses at Parliament Street and Cherry Street be improved and renovated to better accommodate pedestrian and vehicular traffic. The plan also recommends a third underpass be constructed at Trinity Street, linking the Precinct to the Distillery District.

Parliament Street Portal

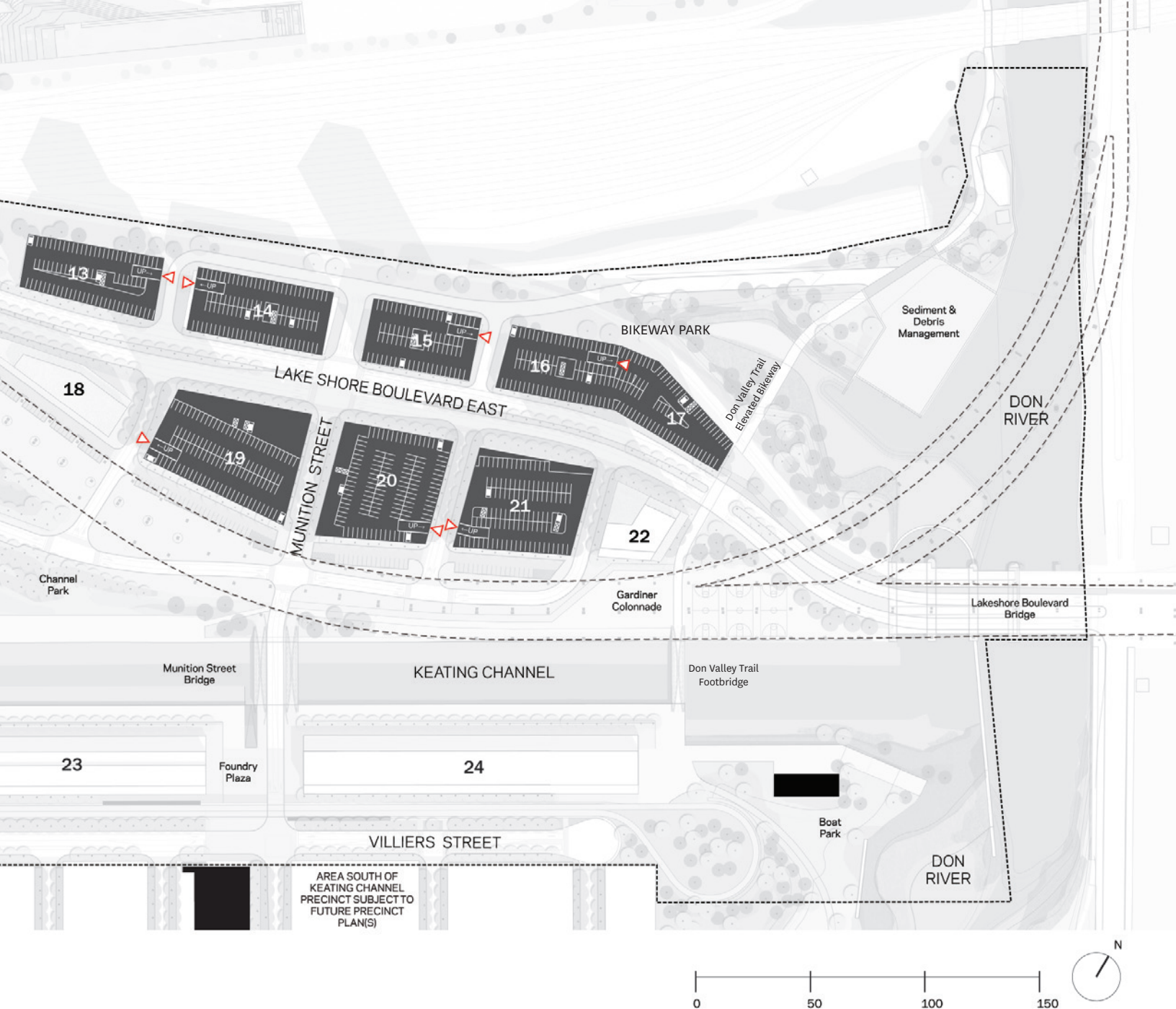
The Parliament Street Portal currently exists and will be renovated, primarily to enhance the pedestrian connection across the rail berm to the Queens Quay LRT and the waterfront.

Cherry Street Portal

The Cherry Street Portal is a critical piece of infrastructure that connects the Lower Don Lands and the West Don Lands. The existing structure is approximately 80 years old and has substandard horizontal and vertical clearances as well as inadequate provisions for pedestrians. This underpass will be improved and will contain two vehicular travel lanes, on-street bicycle lanes, sidewalks, and a dedicated LRT line. The renovated Cherry Street Portal will meet technical requirements and will also enhance the experience of traveling to and from the waterfront.

Trinity Street Pedestrian Underpass

The Trinity Street Pedestrian Underpass will be a new connection bridging the rail berm and connecting the Lower Don Lands to the Distillery District. The underpass will accommodate pedestrian and bicycle traffic and facilitate a direct north-south connection across the rail berm to the Trinity Street Footbridge and Promontory Park, south of the Keating Channel.



Parking

Parking facilities must be located below-grade in the Keating Channel Precinct. All sites must provide their own parking. Large contiguous sites are encouraged to share parking facilities.

Figure 75

Below-Grade Parking Plan

All sites must provide their own below-grade parking.



Figure 76

Precedent for Trinity Street Underpass
The pedestrian/bike underpass should incorporate copious amounts of light as well as imaginative art and materials to animate the space.

Phasing and Implementation

The Keating Channel Precinct has three distinct sub-areas that will all proceed on different schedules. The orderly development of each of the sub-areas is dependent on a number of critical infrastructure moves and on the early provision of key public realm elements.



Figure 77
Keating Channel Precinct and Parliament Slip

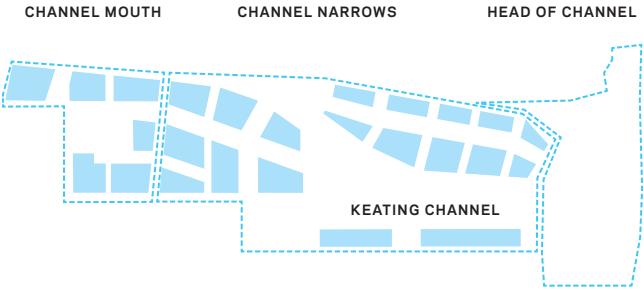


Figure 78
Precinct Character Areas

Precinct Character Areas

The three character areas of the Keating Channel Precinct will each proceed on a different schedule. The orderly development of each character area is dependent on a number of critical infrastructure moves and on the early provision of key public realm elements. Development in all areas is dependent upon the provision of proper services and strategies to remediate contaminated soils.

Channel Mouth Phasing

The area west of Cherry Street and south of Lakeshore Boulevard East is a logical extension of the implementation of East Bayfront. Since this area has both public and private landowners, it should proceed to implementation fairly quickly, depending upon market conditions and the speed of implementation of East Bayfront. Provided that the DMNP EA is approved on the basis of the current Preferred Alternative for the river, the implementation of this area can proceed once hydraulic clearance and structural issues for all crossings are addressed as required by the DMNP EA, and the area must have adequate grading to remain outside of the Special Policy Area.

The preconditions for the opening of the lands in this area for development are: construction of the new Cherry Street alignment north of the Keating Channel to address the crossing of the Channel; completion of the extension of Queens Quay to the new Cherry Street with transit, which will serve as the primary access route to the area; the provision of the water’s edge promenade to establish the public realm; and the new park at the head of the Parliament Street Slip, a requirement of Community Facilities and the Toronto District School Board.

Channel Narrows Phasing

The area east of Cherry Street and north of the Keating Channel (the “480 Lakeshore” lands) is owned by the City of Toronto and the Province of Ontario, and currently sits in the area of the Gardiner/Lakeshore Boulevard Reconfiguration Individual Environmental Assessment (EA). Implementation will be dependent on the timing and ultimate outcome of the Gardiner/Lakeshore EA. The block plan and massing may change as a result of that process.

The “480 Lakeshore” lands and the land south of the Keating Channel can only be developed once transit has been put in place along Villiers Street.

The reconstruction of Keating Channel itself will most likely occur sooner, and concurrently with the construction of the river, as it serves an essential role in flood protection for flood zones 1 & 2. Like the area west of Cherry Street, the grading and the crossings must meet the requirements of the DMNP EA.

The area on the south side of the Keating Channel will likely be the last portion to be implemented. This section is dependent on the completion of the new Don River and the flood protection that this provides, as well as the water’s edge promenade.

Head of Channel Phasing

The development of a significant portion of this area is dependent on the construction of the flood protection measures set forth in the DMNP EA. The sediment basin and weir structures which will regulate the waterflow between the main river channel and the Keating Channel will all need to be complete to ensure adequate flood protection. Development of this area is also dependent on the construction of a new Lakeshore Boulevard East alignment that will provide access to the site.

Approvals

A series of approvals will be necessary as any plans are carried forward including Environmental Assessment, Municipal Planning, the Waterfront Toronto Design Review Panel, and Developer Proposal Calls for Public Lands.

Environmental Assessment Approvals

As described above, the implementation of this Precinct is dependent upon the approval of the DMNP EA, and a portion of this Precinct is dependent upon the completion of the Gardiner/Lakeshore EA process.

The implementation of these areas is also dependent upon the approval of the Class EA Master Plan for Infrastructure (Phases 3 & 4), which addresses the Ontario Environmental Assessment Act approvals requirements for municipal infrastructure throughout the Precinct. These relate to new road alignments, new surface transit service, and buried municipal services.

Municipal Planning Approvals

There are a number of municipal planning approvals required for implementing this Precinct Plan:

- A proposed Official Plan Amendment to the Central Waterfront Secondary Plan will be brought for Council’s consideration concurrently with this Precinct Plan. This amendment is required to redesignate the lands east of Cherry Street and north of the Keating Channel (the “480 Lakeshore lands”) from “Open Space” to “Revitalization Area.” This reflects the change in direction for the alignment of the new Don River mouth from what was contemplated at the time of the original adoption of the Secondary Plan. The Official Plan

Amendment will be adopted at this point in time with a “force and effect clause” (holding provision) that does not make the land use change effective until:

- a) The DMNP EA is approved by the Minister of the Environment, and
- b) the Ministers of Natural Resources and Municipal Affairs and Housing approve a modification to the City of Toronto’s Special Policy Area policies.
- Ultimately, a subsequent Official Plan Amendment will be required to remove the Special Policy Area from the lands north and south of the Keating Channel and west of the Don Roadway. The timing of that further amendment is under discussion with the Ministries of Municipal Affairs and Housing and Natural Resources, who must also approve that amendment. The timing of future development is likely linked to the implementation schedule for the Don Mouth Naturalization and Port Lands Flood Protection EA.
- A Zoning By-Law Amendment for the lands west of Cherry Street will be submitted for Council’s consideration at the same time as this Precinct Plan. This amendment will establish permitted uses, maximum gross floor area, building heights and setbacks, building massing details, build-to-lines, and ground floor animation areas. The zoning will be subject to a “Holding” provision, which is a tool under the Planning Act that requires certain conditions to be fulfilled before development is permitted. The Zoning By-Law will address the following matters:
 - Permitted uses – the permitted uses will be changed to include mixed-use development opportunities;
 - Density limits will be set based on a series of larger development blocks within the Precinct, with separate limits for residential and non-residential gross floor areas;
 - Heights will be limited, with special tower location areas clearly identified. There will be a minimum

- separation distance between the tower locations;
- Heights and massing will also be controlled through a series of angular planes, which will protect key sightlines, sun access, and wind mitigation.
- The rules regarding parking and loading facilities will be specified, along with requirements for residential amenity space, setbacks, ground floor animation areas, and mandatory build to lines;

The Zoning By-Law will set out the requirements for Section 37 agreements for affordable housing. It will also include matters that must be addressed prior to the removal of the Holding Symbol (h) on the site such as:

- Infrastructure provision
- Streets and blocks and built form context plans
- Conveyance of land for public purposes
- Phasing plan
- Public art contribution
- Provisions of sustainable performance measures
- Connection to district energy, if available at comparable costs
- Site plans for review by the Waterfront Design Review Panel
- Noise, wind studies, soil and groundwater management studies
- Heritage easements and conceptual designs for schools, community centres and associated spaces on certain parcels

The rezoning of the lands east of Cherry Street will occur at a later date, after the recommended alternatives for the Gardiner Expressway and Lakeshore Boulevard Reconfiguration Environmental Assessment (EA) and Integrated Urban Design Study are known, in addition to other factors (such as market conditions) that may influence the timing of the City’s release of these lands for development.

In addition to the Municipal Planning Approvals, the developments will also have to meet any applicable TRCA approvals, such as those under the Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses

Design Review Panel

All buildings, site development, and public realm plans will be required to complete Waterfront Toronto’s Design Review Panel process. The Design Review Panel is an advisory body to Waterfront Toronto, and it regularly provides advice on ways to enhance design to improve the overall aesthetic and public realm benefits of any project within the waterfront area.

Developer Proposal Calls for Public Lands

Where the lands are publicly owned, Waterfront Toronto will likely impose additional requirements, such as enhanced sustainability performance measures, through a developer proposal call process that it uses to select a development proponent for any individual building or site.

Further Plans

The following Precinct documents will be developed at a later date:

- Parks and Public Spaces Plan
- Heritage Plan
- Public Art Plan
- Community Services Plan

