



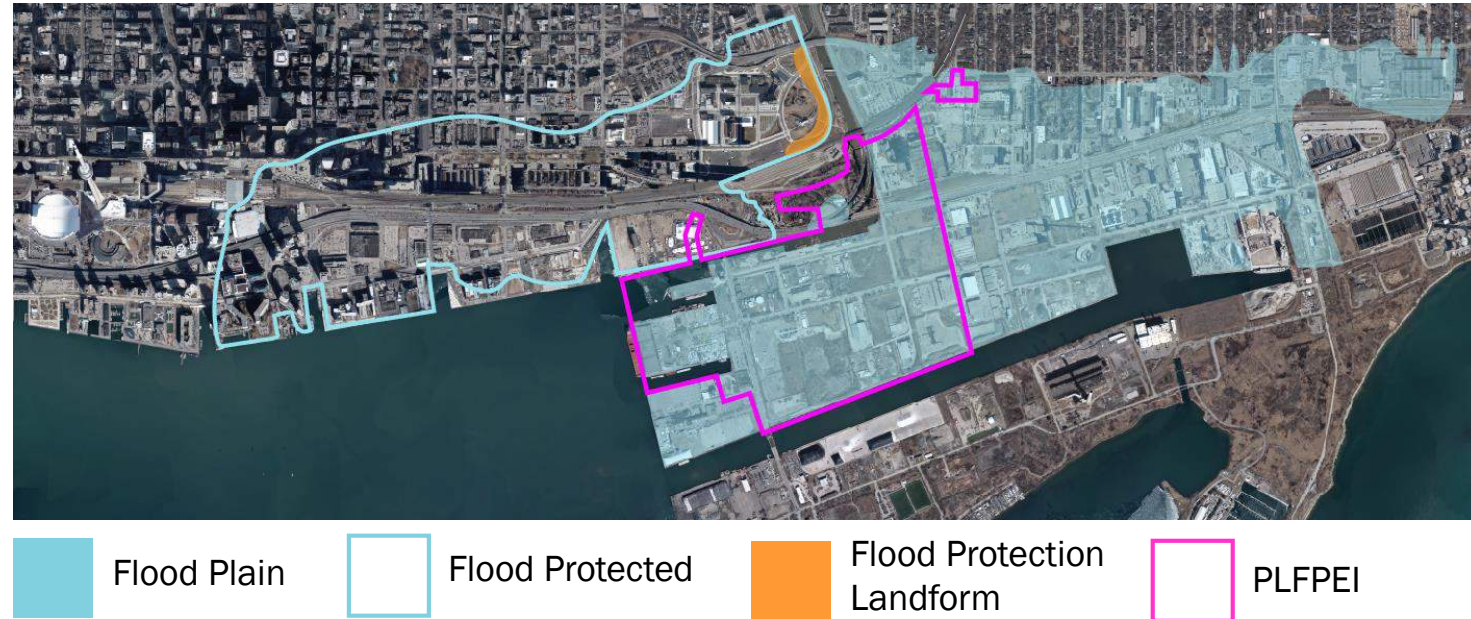
Port Lands Flood Protection and Enabling Infrastructure: River Valley Flood Protection and Parks

Schematic Design

January 24, 2018

Project Description & Background

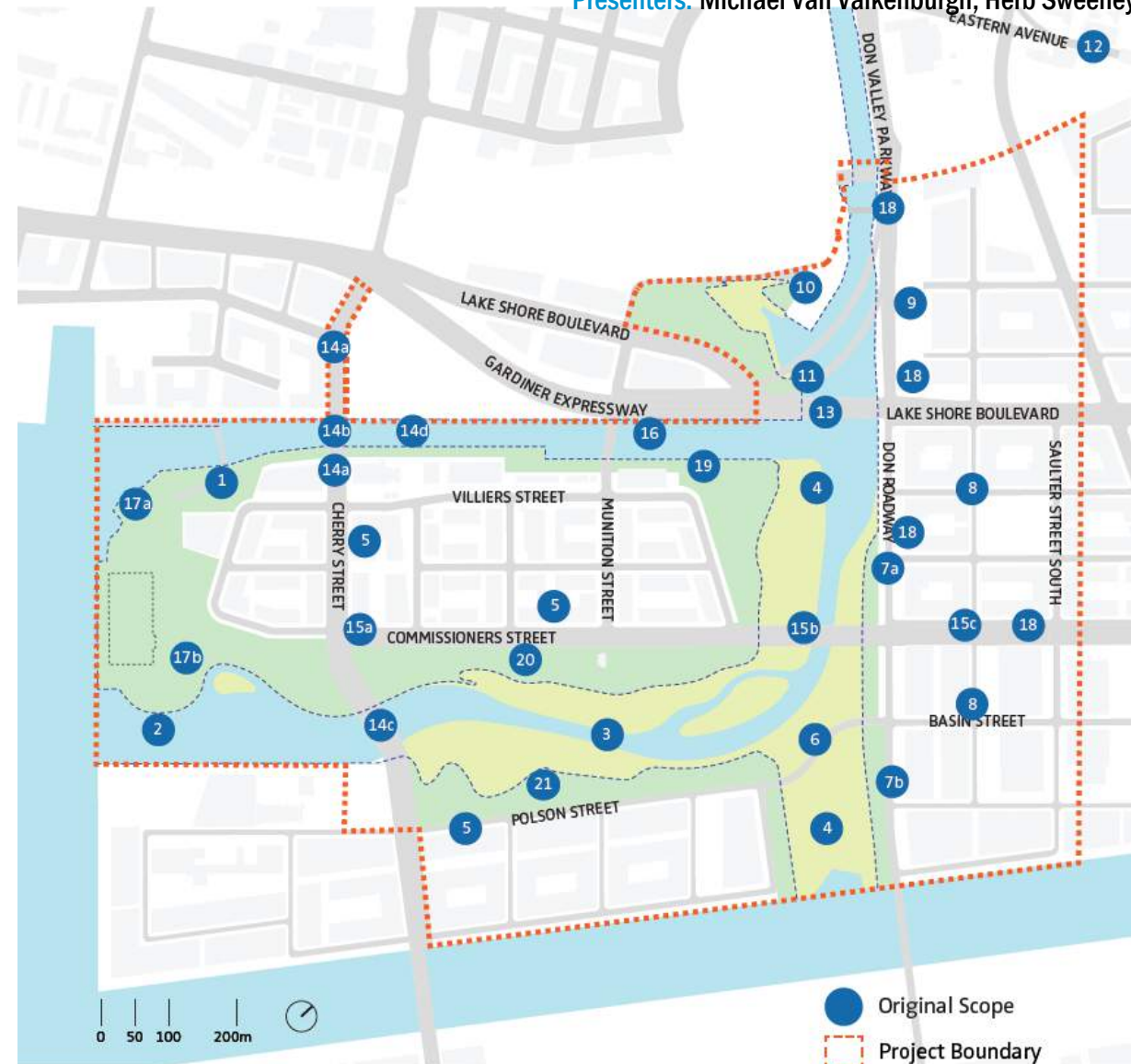
- 290 hectares of southeastern downtown Toronto are at risk of flooding from the Don River watershed
- The Port Lands Flood Protection and Enabling Infrastructure Project is a comprehensive solution to flood protection
- The project has previously presented the EA and Master Planning process to the Panel
- This is the project's second time presenting the River Valley and Parks Design
- The team is presenting Schematic Design



Site Context - Project Scope

Legend

- 1 Essroc Quay Lakefilling
- 2 Polson Slip Naturalization
- 3 River Valley System
- 4 Don Greenway (Spillway & Wetland)
- 5 Site Wide Municipal Infrastructure
- 6 Basin Street Bridge
- 7a Don Roadway North
- 7b Don Roadway South
- 8 Don Roadway Valley Wall Feature
- 9 First Gulf/Unilever Site Flood Protection Land Form
- 10 Sediment and Debris Management Area
- 11 Flow Control Weirs
- 12 Eastern Ave. Flood Protection
- 13 Lake Shore Road & Rail Bridge Modifications
- 14a Cherry Street Re-alignment
- 14b Cherry Street Bridge North
- 14c Cherry Street Bridge South
- 14d Old Cherry Street Bridge Demolition
- 15a Commissioners Street West to New Cherry Street
- 15b Commissioners Street Bridge
- 15c Commissioners Street East to Saulter Street
- 16 Keating Channel Modifications
- 17a Promontory Park North
- 17b Promontory Park South
- 18 Hydro One Integration
- 19 Villiers Island Grading
- 20 River Park North
- 21 River Park South

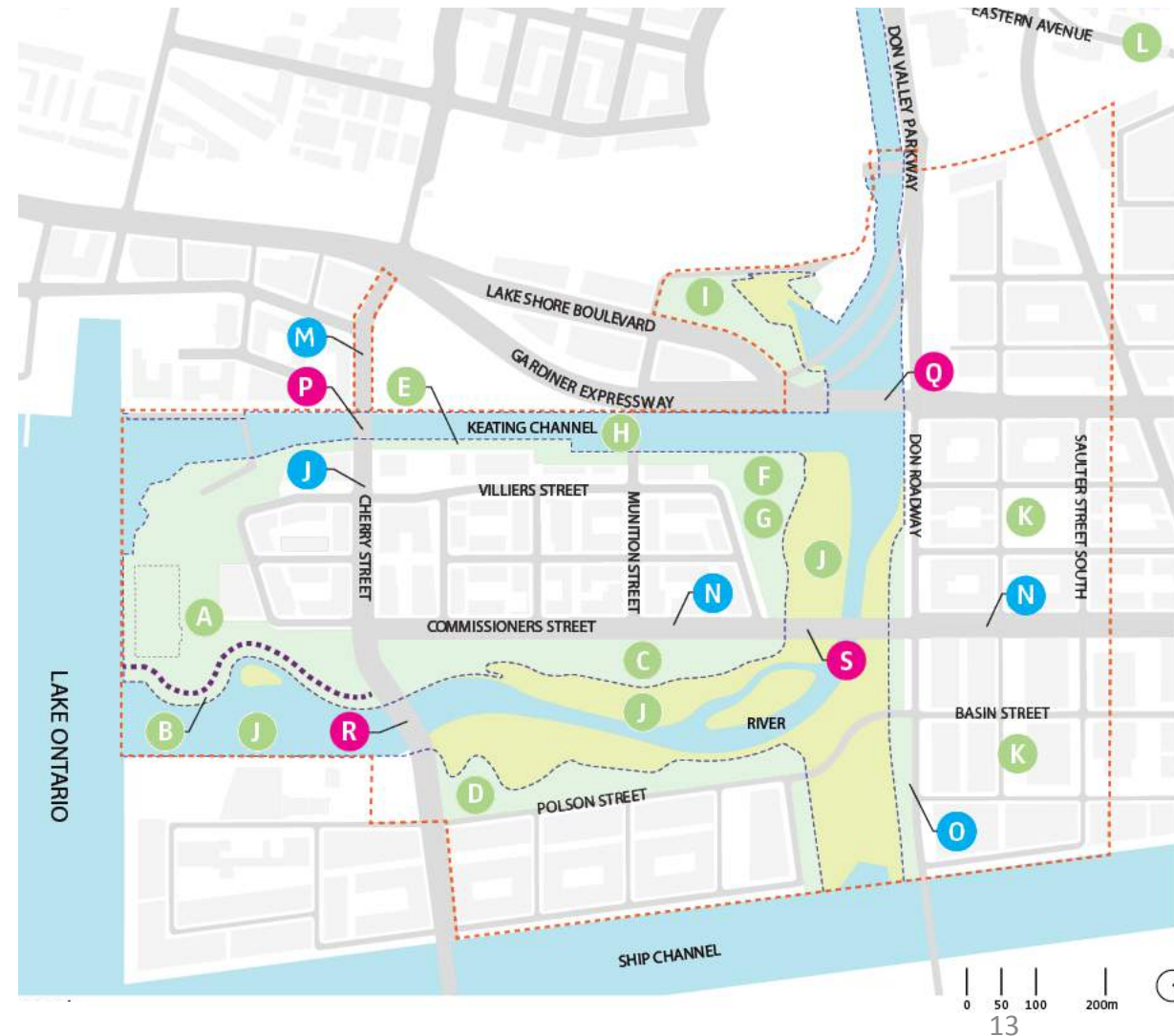


Site Context - Project Scope

Legend

- A Promontory Park Design Alignment
- B Promontory Park South (17b)
June 2021-Sept 2023
- C River Park North (20)
June 2021-Sept 2023
- D River Park South (21)
June 2021-Sept 2023
- E Keating Channel Promenade Flood Protection (19) Nov 2020-Aug 2021
- F Villiers Park Design Alignment
- G Villiers Park Flood Protection (19)
Nov 2020-Aug 2021
- H Keating Channel Dockwalls & Aquatic Habitat (16) May 2022-2023
- I Sediment and Debris Management Area (10) Sept 2019-June 2021
- J River (2,3,4,11) Jan 2018-Oct 2021
- K Don Roadway Valley Wall Feature (8)
Jan 2020-May 2021
- L Eastern Avenue Flood Protection (12)
Mar 2021-May 2022
- M Cherry Street and Municipal Infrastructure (7a, 7b, 13, 14a, 15a, 15c)
Oct 2018-Aug 2022
- N Commissioners Street and Municipal Infrastructure (7a, 7b, 13, 14a, 15a, 15c)
Oct 2018-Aug 2022
- O Don Roadway and Municipal Infrastructure (7a, 7b, 13, 14a, 15a, 15c)
Oct 2018-Aug 2022
- P Cherry Street Bridge North (14b)
Oct 2017-Nov 2018
- Q Lake Shore Boulevard Bridge (13)
Mar 2018-Dec 2019
- R Cherry Street Bridge South (14c)
Oct 2017-Sept 2019
- S Commissioners Street Bridge (15b)
Oct 2017-Oct 2019

- Parks, Flood Protection & River Valley
- Roads and Municipal Infrastructure
- Bridges



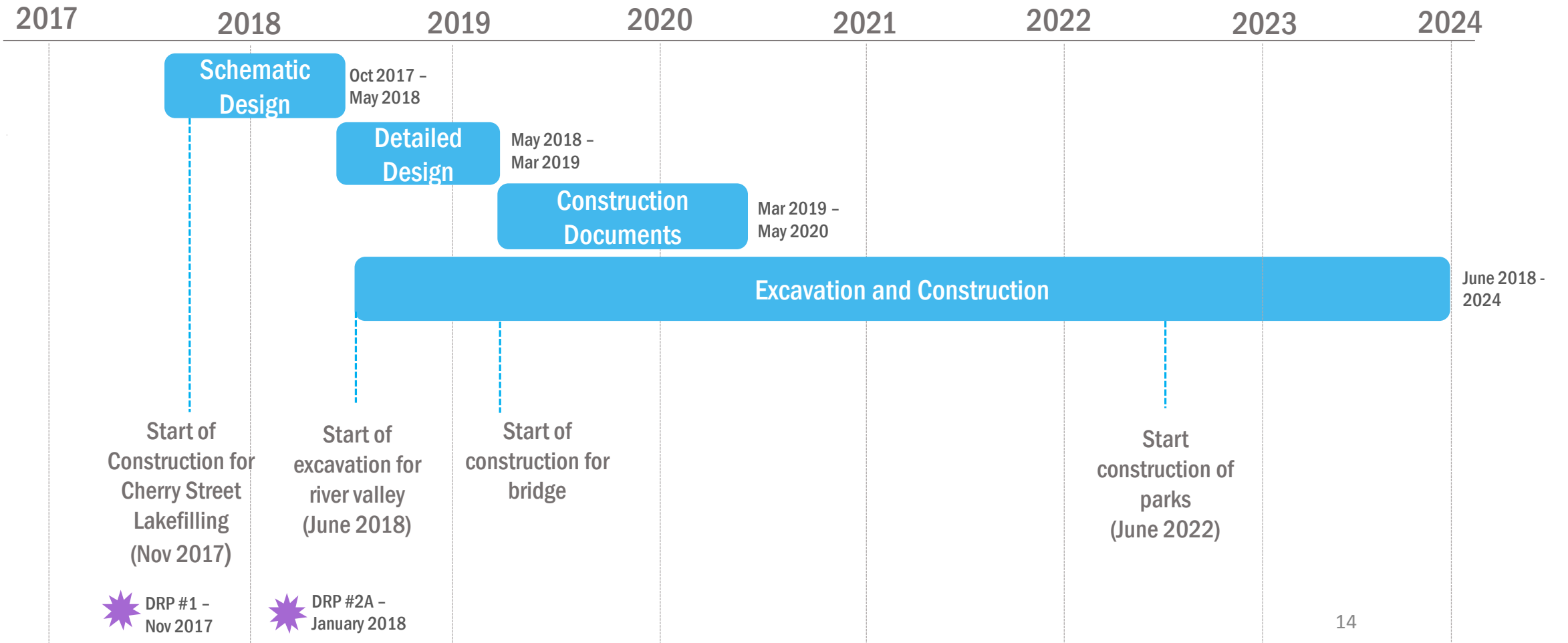
Schedule - Draft

Review Stage: Schematic Design

Proponent: Waterfront Toronto

Design Team: MVA

Presenters: Michael Van Valkenburgh, Herb Sweeney



Team Structure



Policy Context – Central Waterfront Secondary Plan

C21_RENATURALIZING THE MOUTH OF THE DON RIVER - This project is part of the approved plan for the naturalization of the mouth of the Don River.

(P28) Lakefilling will be considered only for stabilizing shorelines, improving open spaces, creating trail connections, preventing siltation and improving natural habitats and is subject to Provincial and Federal Environmental Assessment processes. Consideration will be given to the impact of such lakefilling on recreational uses.

D22_OPENING UP THE PORT LANDS TO URBAN DEVELOPMENT - The vast Port Lands, an area more than 14 times the size of London's Canary Wharf, will be cleaned up and opened to a range of urban development opportunities. The Port Lands will become Toronto's springboard to the future, a place for wealth creation, originality and creativity in all aspects of living, working and having fun. The Port Lands will be transformed into a number of new urban districts set amid the hustle and bustle of Toronto's port activities. An enticing environment conducive to the creation of an international Centre for Creativity and Innovation for knowledge-based industries, film and new media activities will be nurtured. It will be a part of the city where "green" industries can be incubated and thrive. The new Port districts will be supported by a rich infrastructure of recreational, cultural and tourist amenities.

Port Lands Planning Framework Plan: Parks and Open Space



- Major Public Parks and Open Space
- Natural Open Space and Don Greenway
- Future Naturalization
- Parks and Open Spaces in Context Area
- Local Parks and Open Space*
- Public Promenade
- Future Public Promenade
- Publicly Accessible Open Spaces (POPs)*
- Linear Green within ROW
- Hydro

*Local parks and open spaces and POPs are conceptually shown. Precinct planning or concept planning would define the location, size and programming for these spaces

Port Lands Planning Framework Plan: Community Infrastructure

Presenters: Michael Van Valkenburgh, Herb Sweeney



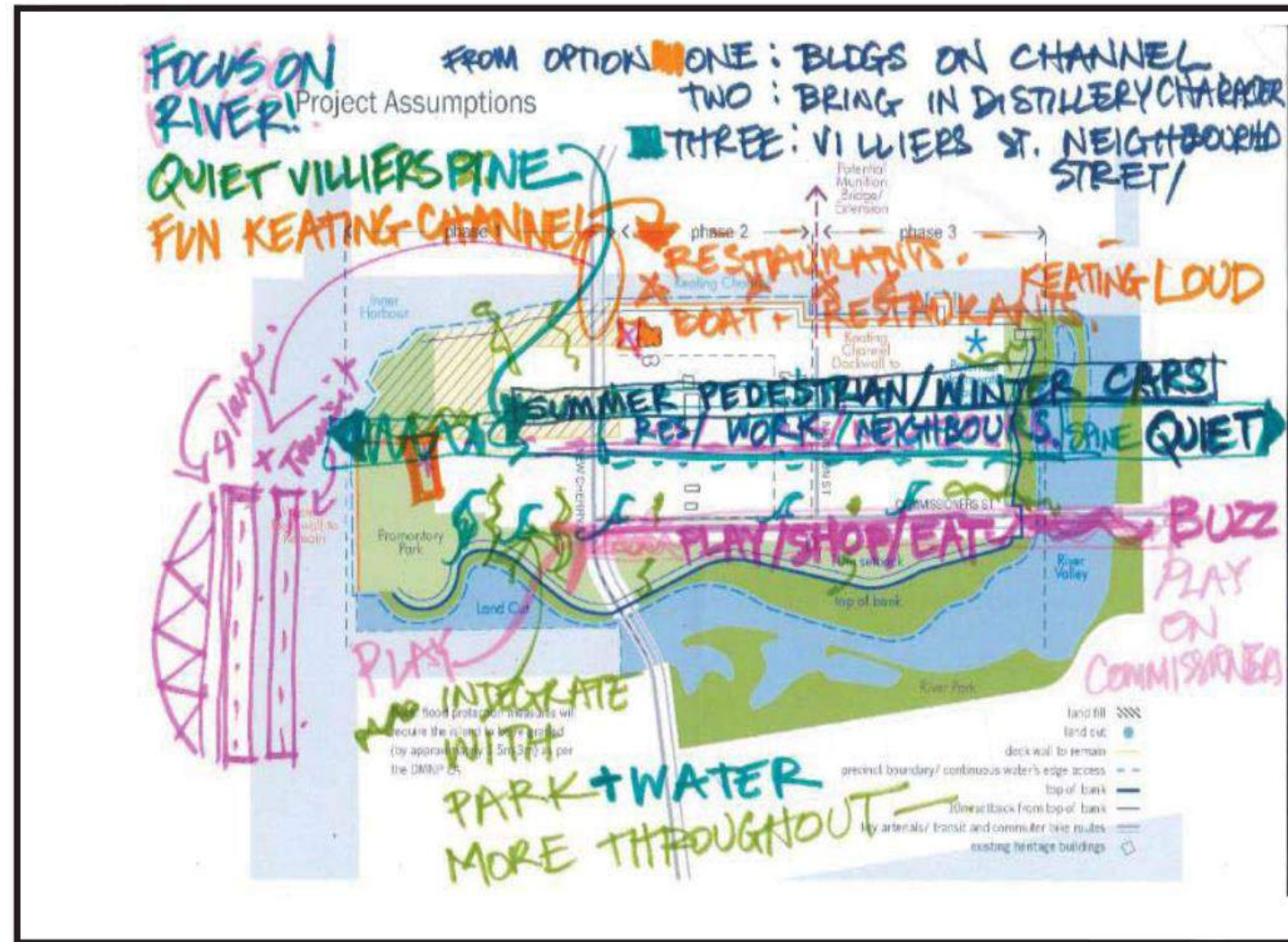
Past Consultation: Parks and Public Spaces in the Port Lands

Don Mouth Naturalization Environmental Assessment (2006-2010)

- 9 public events
- Lower Don Lands Community Stakeholder Committee meetings
- Consultation with City agencies, utilities, property owners
- Port Lands Planning Framework and Villiers Island Precinct Plan (2013-2016)

About 45 public meetings with approximately 4,000 participants. Including:

- 6 Port Lands Stakeholder Advisory Committee (SAC) meetings;
- 5 Landowner and User Advisory Committee (LUAC) meetings
- Individual meetings with stakeholders, agencies and industry
- “What Makes a Great Park?” Survey (2017)



Past Consultation: Parks and Public Spaces in the Port Lands

Summary of Feedback:

- Maximize naturalization opportunities and ensure connections for wildlife
- Ensure many access points/connections for people across the Don River, Channels and river valley
- Facilitate public water activities and connections to the water
- Create views of the inner harbour and city
- Preserve local heritage and culture through adaptive reuse, art
- Focus on sustainability / water as a resource
- Consider a mix of hardscaping (e.g. public squares for gathering, plazas) and natural green space
- Create active transportation/recreational opportunities
- Vibrancy/animation, especially along the water's edge

Update on MT-35 Building

- On June 2, 2017 a fire at the GFL recycling facility destroyed half of the MT-35 building
- TPLC and the City are undertaking a study to determine the go forward approach for the MT35 building
- They will determine if the remainder of the building can be maintained and if not, what elements can be preserved for commemoration

Topics for Panel Consideration

- The revised river design
- Appropriateness of the 6 Big Moves
- The proposed river modifications regarding sinuosity and ecology
- Park program balance and proposed location
- Appropriateness of entry and arrival points

Port Lands Flood Protection & Enabling Infrastructure Design Review Submission

Phase 2

24 January 2018

DRAFT

Michael Van Valkenburgh Associates, Inc.
Landscape Architects

Contents

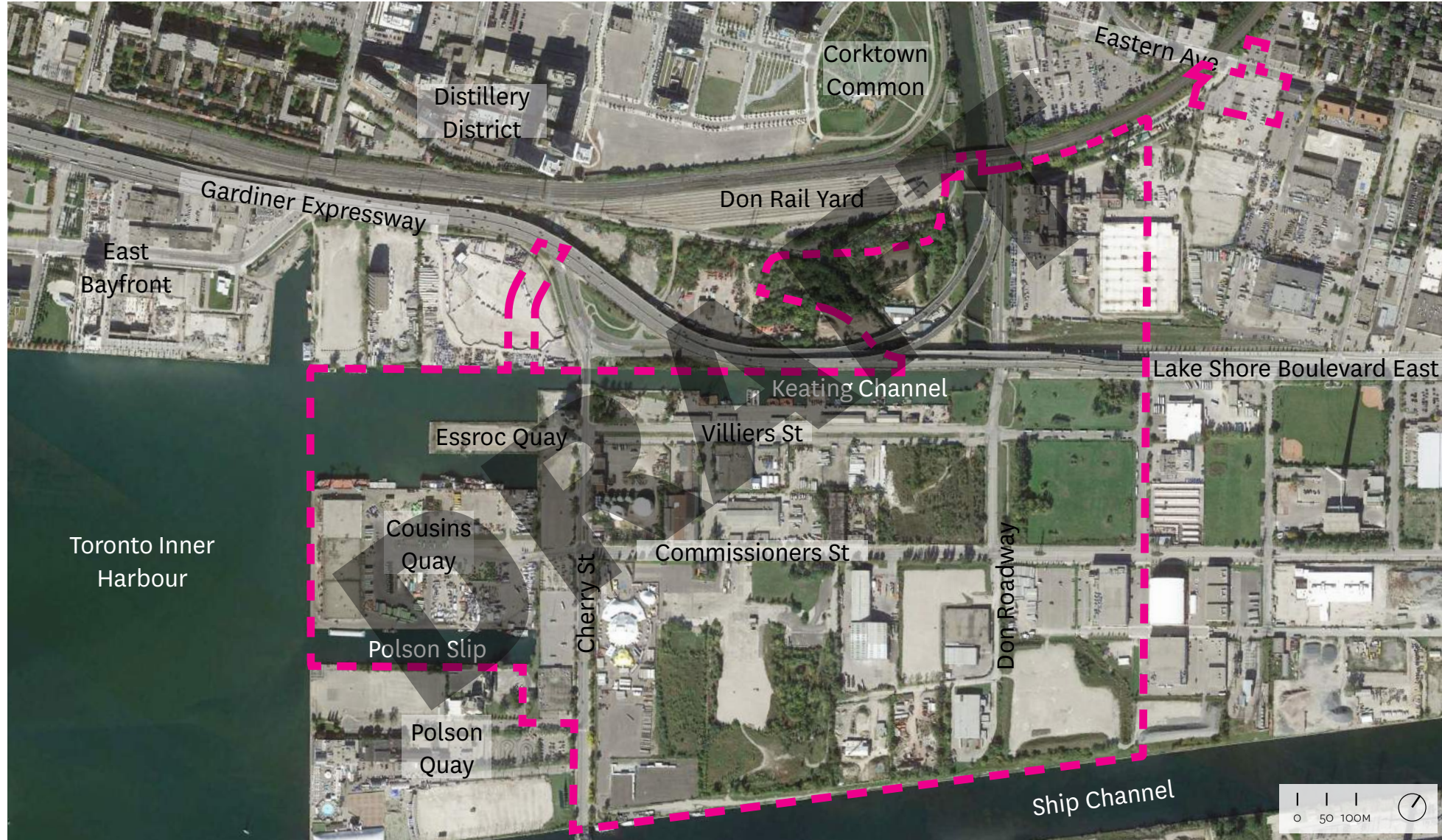
Design Advancement
River Sinuosity and Ecology
Park Program Development and Distribution
Connectivity with Urban Edges
Character of the Park

DRAFT

Design

Advancement

Project Area - Existing Conditions



Lower Don River Full Vision Plan - June 2017



Phase 1 Design Review Panel Discussion - November 2017

- This is a **fabulous** and **unique** opportunity and **one of a kind** in the country
- Ensure **seamless integration** of all **urban**, **historic** and **natural features**
- Allow for the **flexibility** of how Villiers Island will integrate with the park over time
- Ensure the landscape has a **balance** between **resilience** and **resistance**
- There should be a **balance** of **active** and **passive programming** of the parks
- **Maintenance** of the parks over time is **critical**
- **Delineate** which areas of the park **permit access** to the **water's edge** and which areas are **restricted**
- Consider the **potential** for **renewable energy generation**
- **Demonstrate** what the landscape will look like after a **significant flood** and how long it will take to **recover**
- Bring **scale references** of the park with **known parkland** and **urban areas** to the next meeting

The Fundamental Challenge

A **Coherent** and **Integrated** Solution;

Flood Control

Naturalization

Place Making

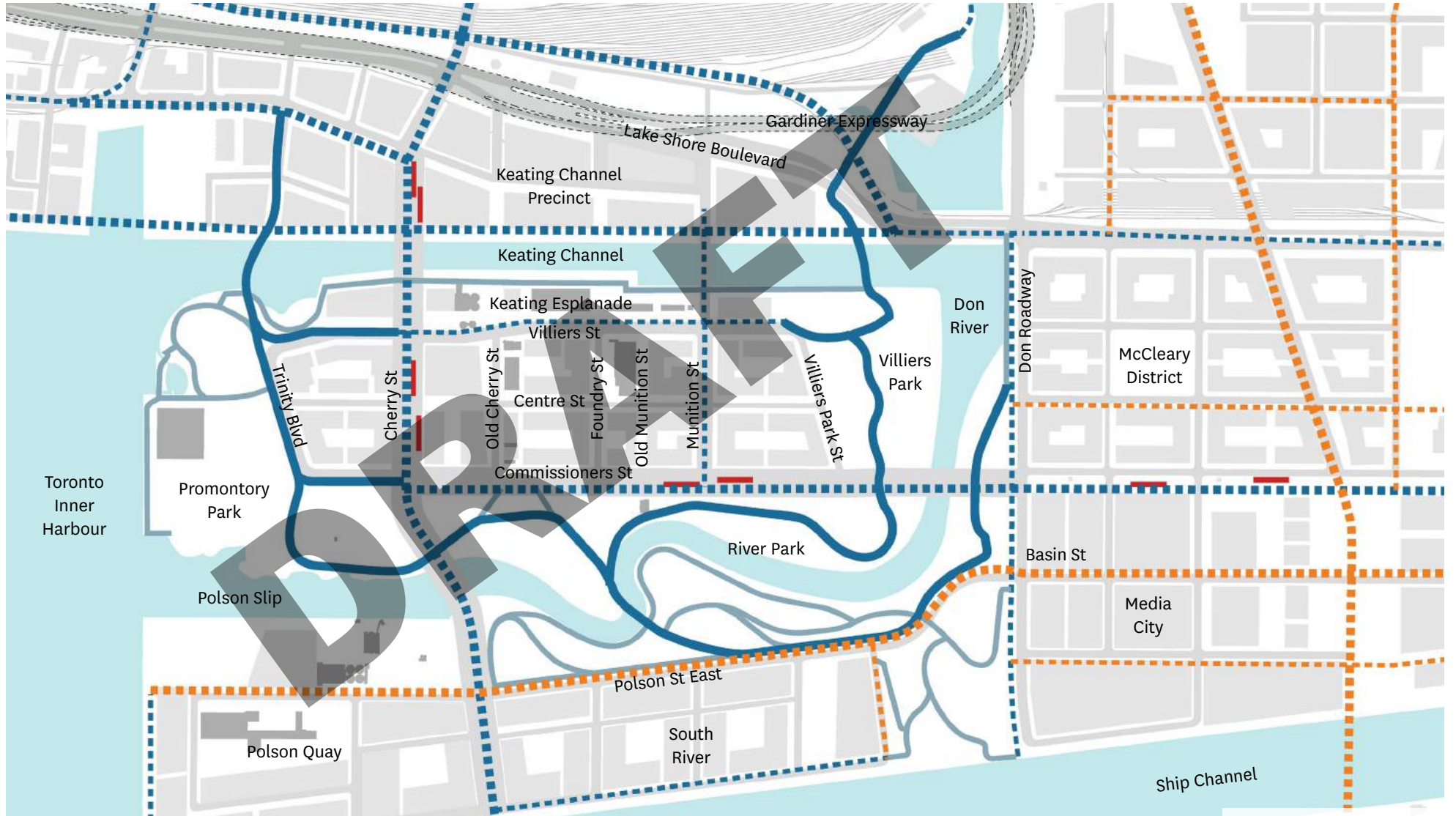
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6 Big Moves

1. Connected to the Urban Context

Legend

- City Primary Cycle Track
- City Secondary Cycle Track
- City Primary Multi-use Trail
- City Secondary Multi-use Trail
- Proposed Primary Park Trail
- Proposed Secondary Park Trail
- LRT Station



2. Generously Responsive to Needs



Event Lawn



Accessibility to Water

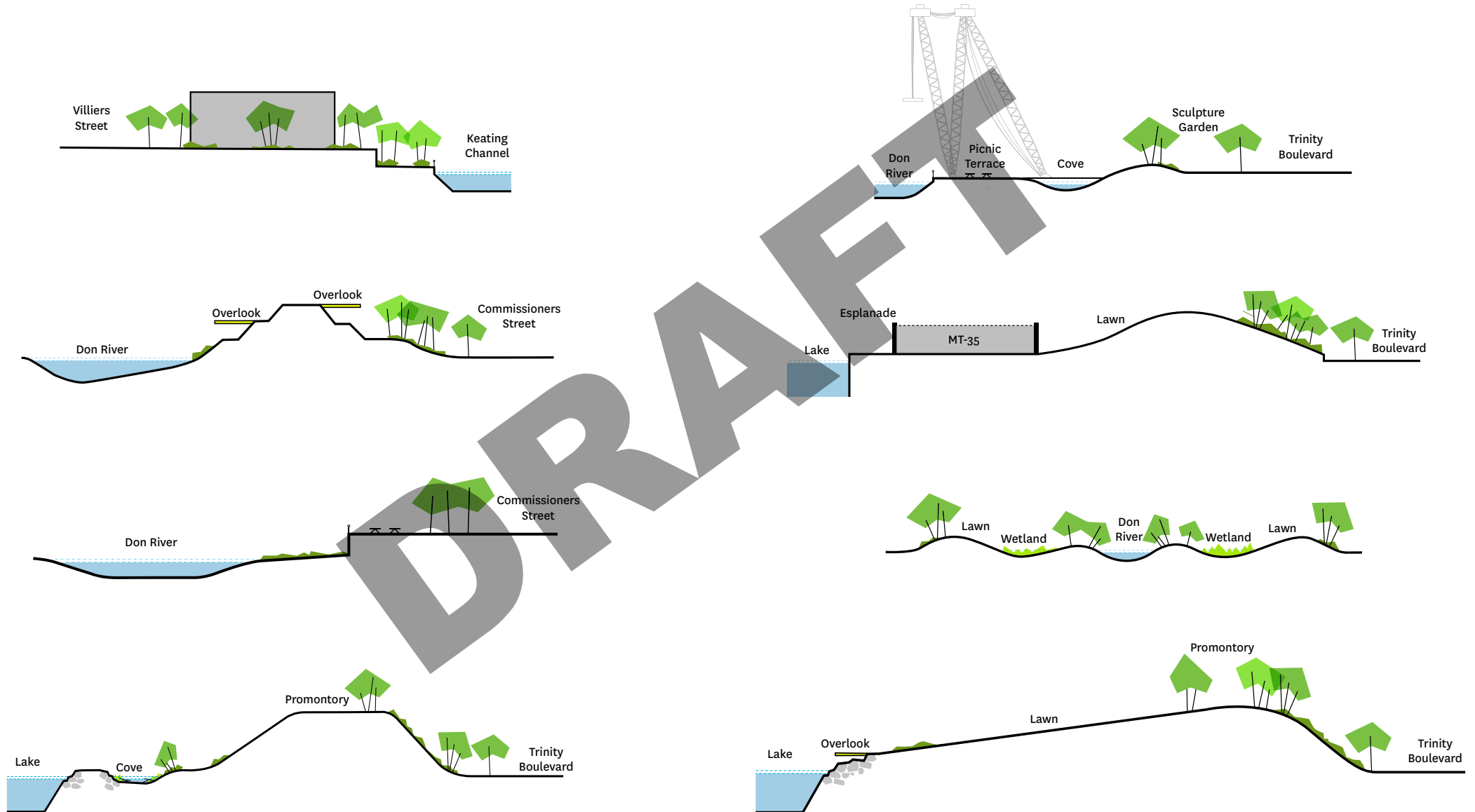


Meandering Paths



Sports

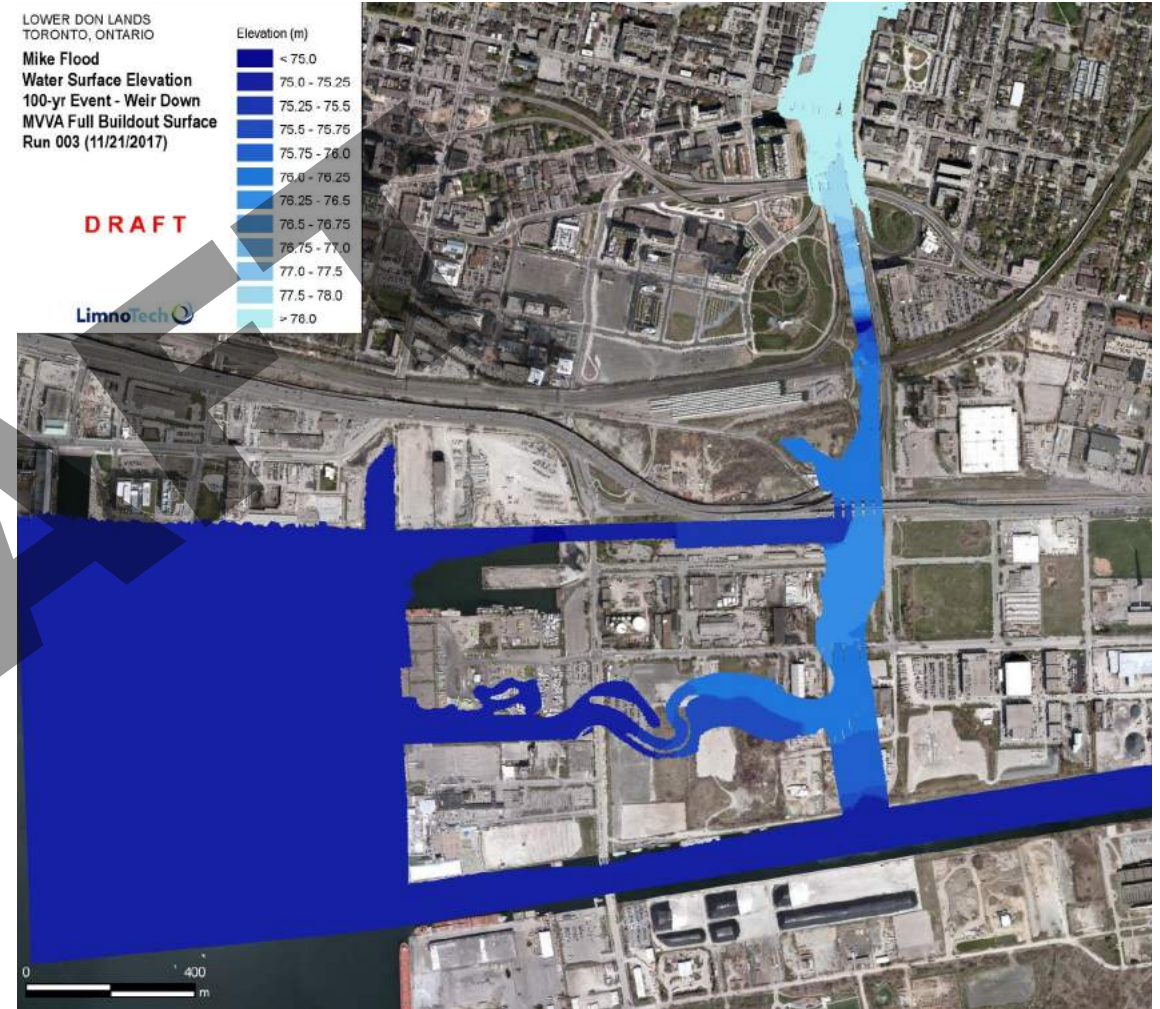
3. Composed with Spatial and Sectional Variety



4. Designed and Engineered with Nature

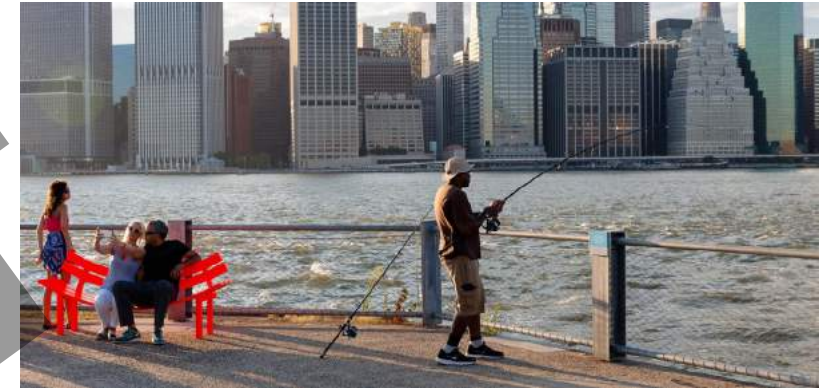


Sinuosity



Flood Event Modelling

5. Orchestrated as a Complete Ensemble



6. Grounded in WT Sustainability Principles



Climate Positive

- Support a C40 climate positive development
- Consider renewable energy generation
- Increase carbon sequestration strategies
- Reduce Heat Island Effect



Inclusive Resilience

- Protect 290 hectares of the city from flooding
- Develop inclusive programming to relieve the stresses of city living



Intelligent + Connected

- Explore opportunities for WIFI in Parks and Public Realm
- Connect to larger transportation systems
- Use innovative, sustainable materials and systems



Human

Experience-Driven

- Enhance physical, mental and social well-being for the Port Lands community
- Provide access to the Don River and Inner Harbour



Biophilic

- Improve and augment ecosystem health and rehabilitate fish and wildlife habitat

Revised Plan - January 2018



River Sinuosity and Ecology

- How will the landscape achieve a balance between resilience and resistance?
- How will the river look during various storm events?
- How much access will the public have to the river habitats?
- What kind of maintenance will be needed for the river vs. top of bank parkland?

Analogous River Mouth Site Visits



Bill Norris,
Interfluve

Emily Alcott,
Interfluve

Jonathon Kusa,
Interfluve

Nick Nelson,
Interfluve

Brendan Cousino,
LimnoTech

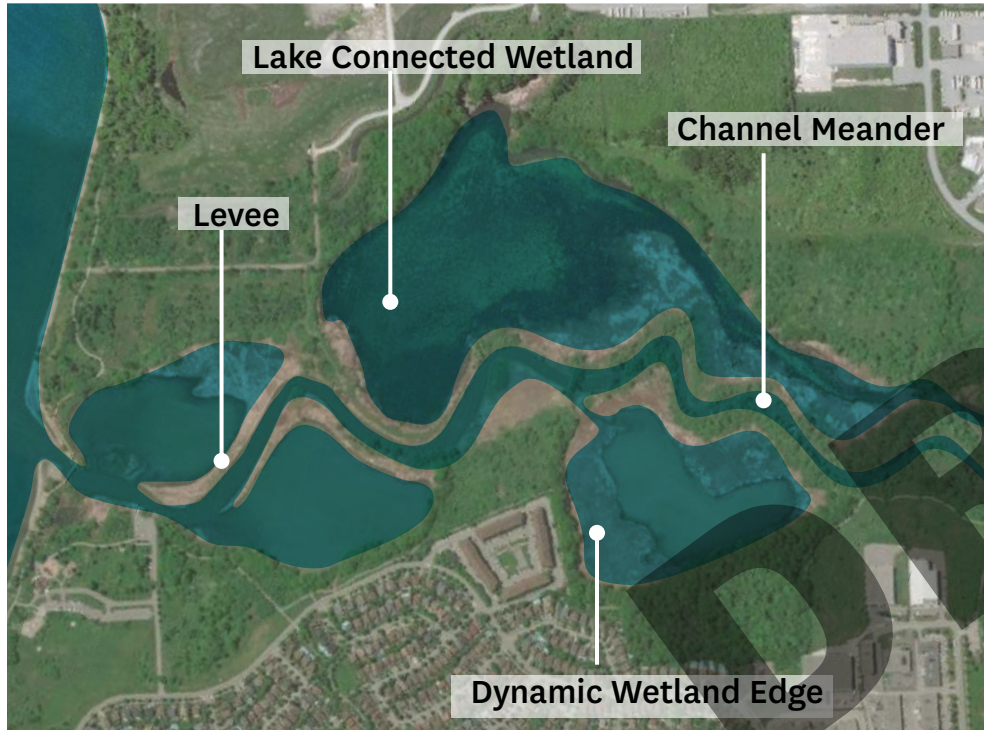
Gord MacPherson, TRCA

Tom Sciscione, TRCA

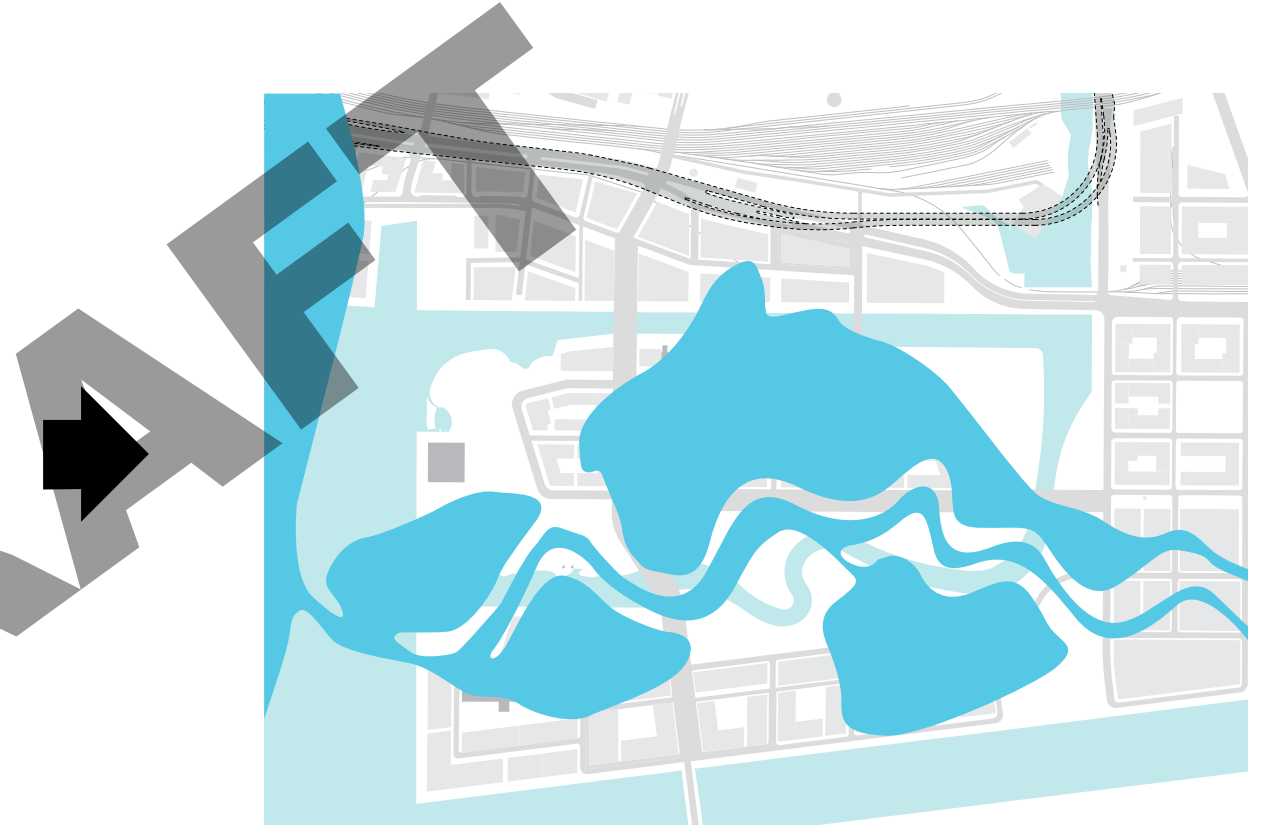
Rick Portiss, TRCA

Neil Budzinski,
MVVA

River Mouth Comparison to Lower Don Mouth



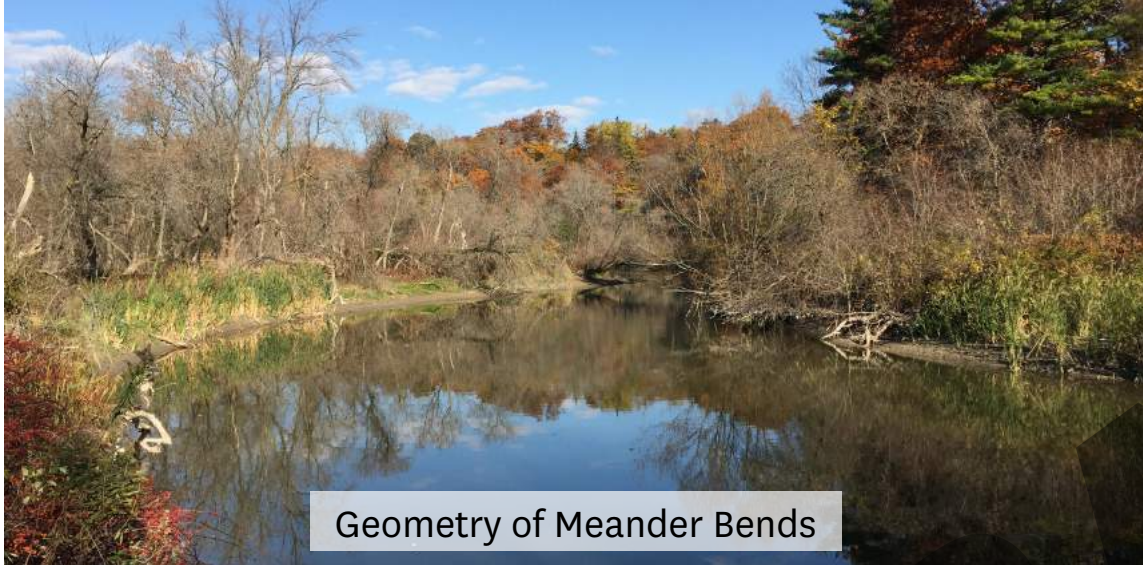
Duffins Creek, Ajax, Ontario



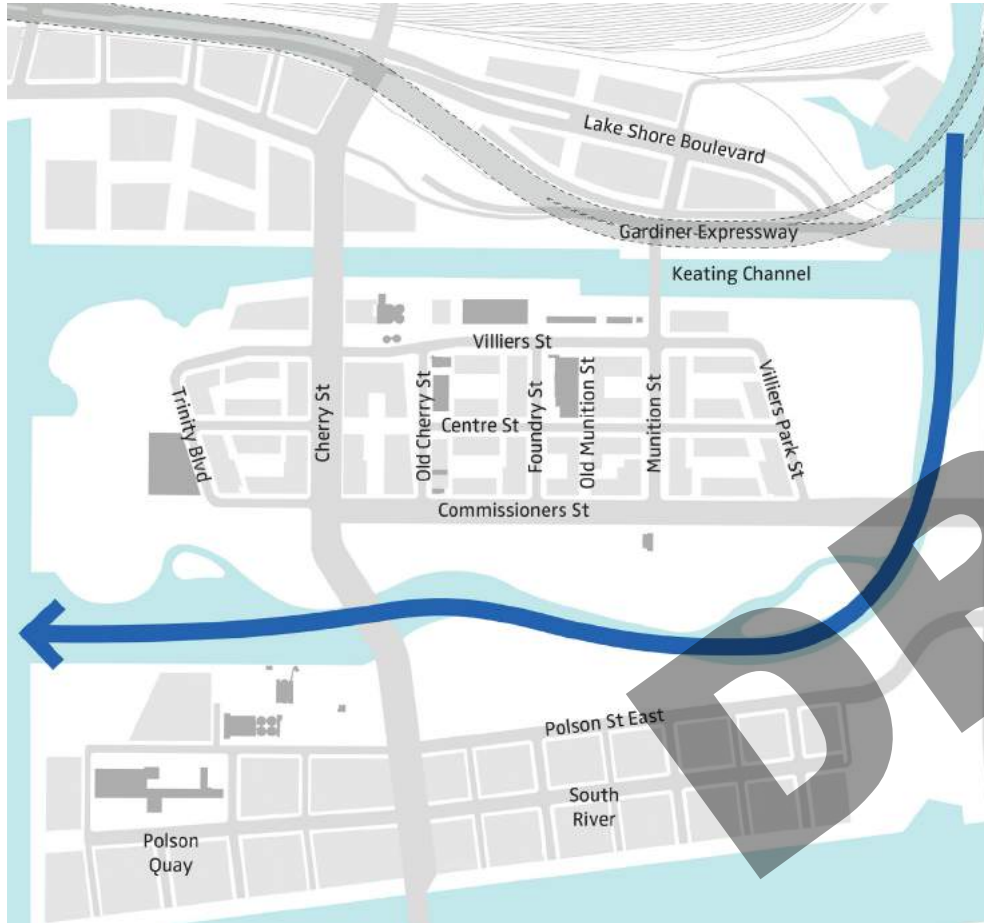
Duffins Creek Overlay on PLFPEI Site



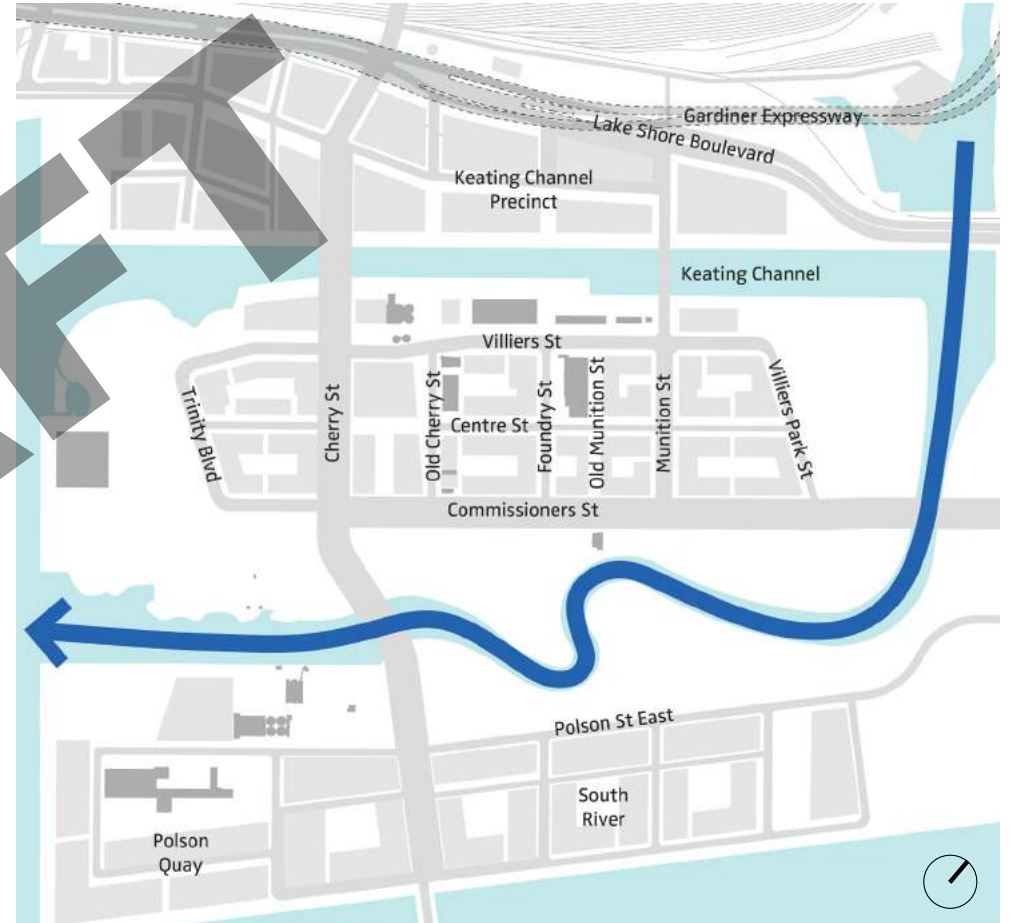
Relevant Observations



River Sinuosity at Base Flow



June 2017



January 2018



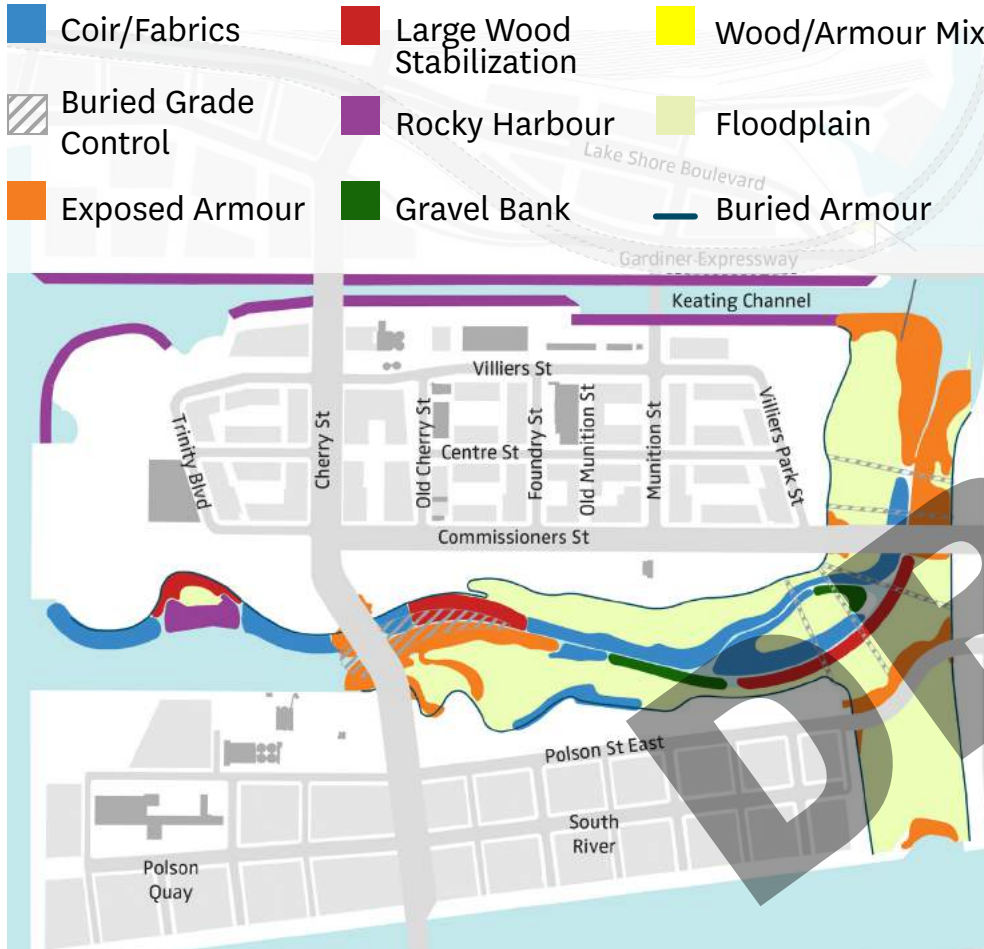
River Floodplain at Milestone Storm Events



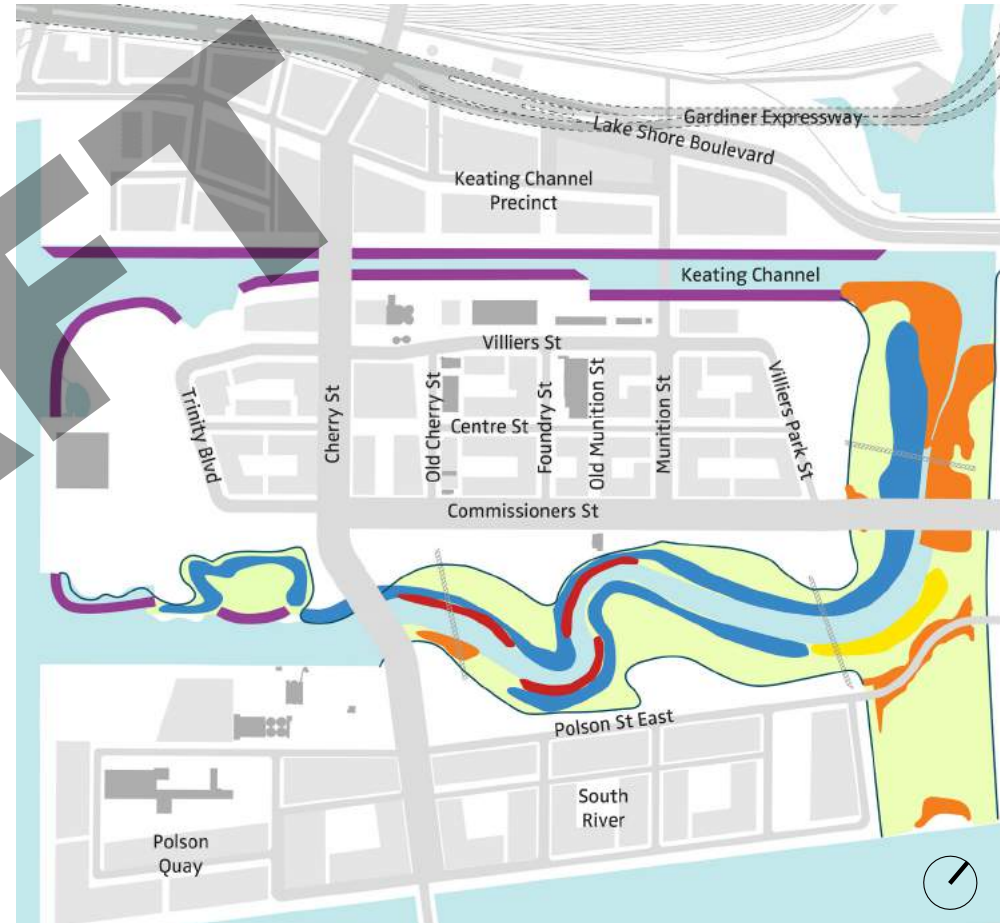
Calibration of Floodplain Stabilization Features

Legend

- Coir/Fabrics
- Large Wood Stabilization
- Wood/Armour Mix
- Buried Grade Control
- Rocky Harbour
- Floodplain
- Exposed Armour
- Gravel Bank
- Buried Armour



June 2017



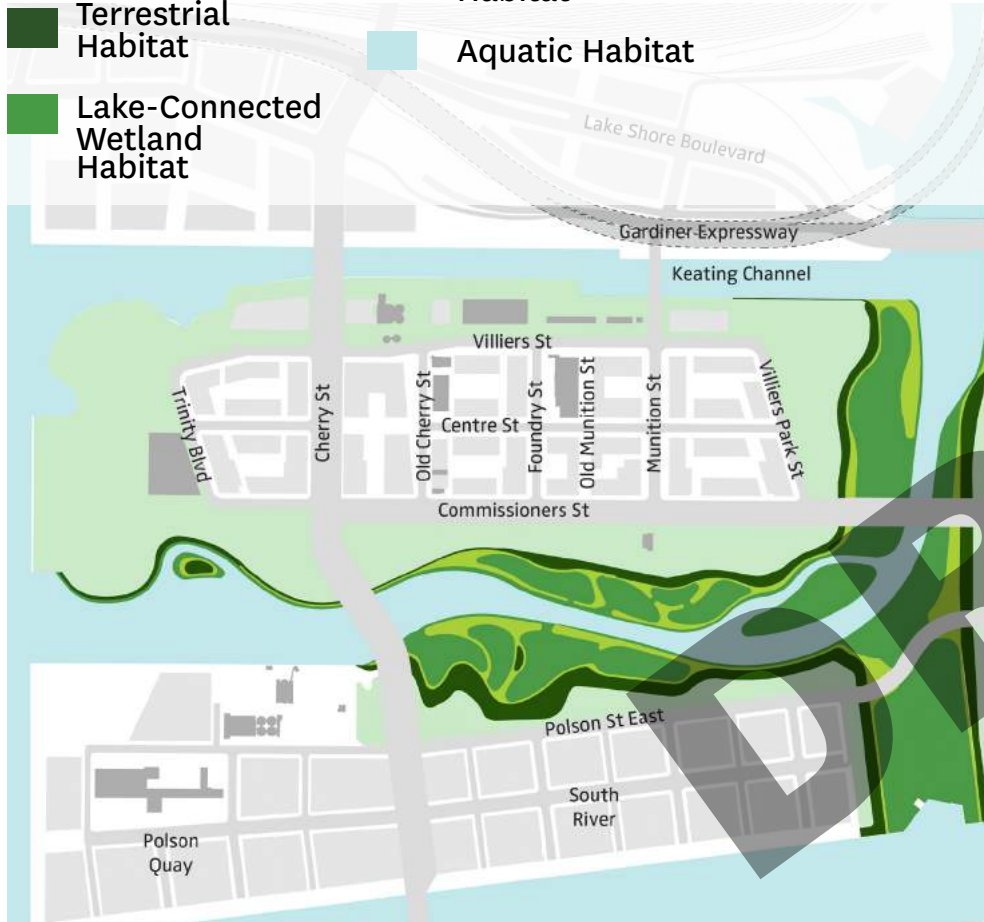
January 2018



Larger and More Continuous Habitat Zones

Legend

- Parkland
- Levee System Wetland Habitat
- Terrestrial Habitat
- Aquatic Habitat
- Lake-Connected Wetland Habitat



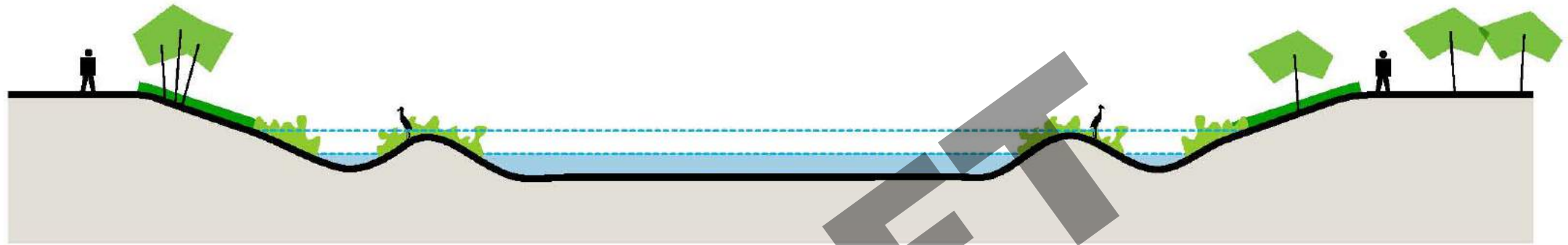
June 2017



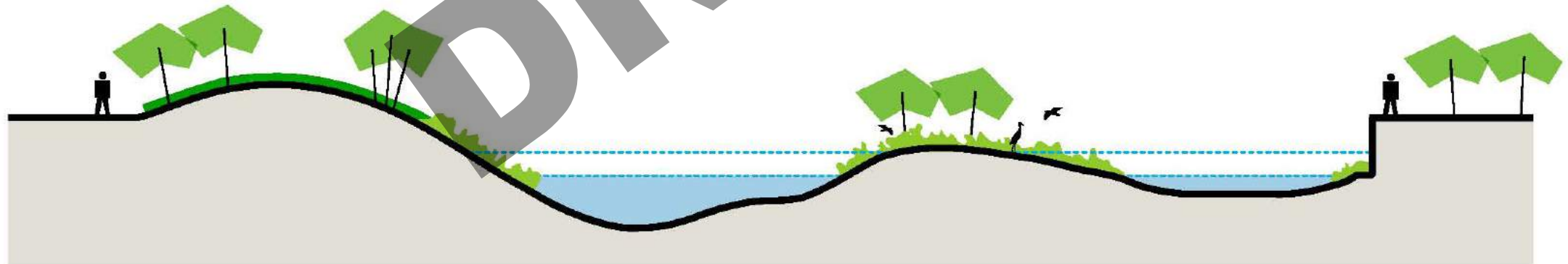
January 2018

0 150 300m

Ecological and Experiential Complexity






June 2017
River Park Section

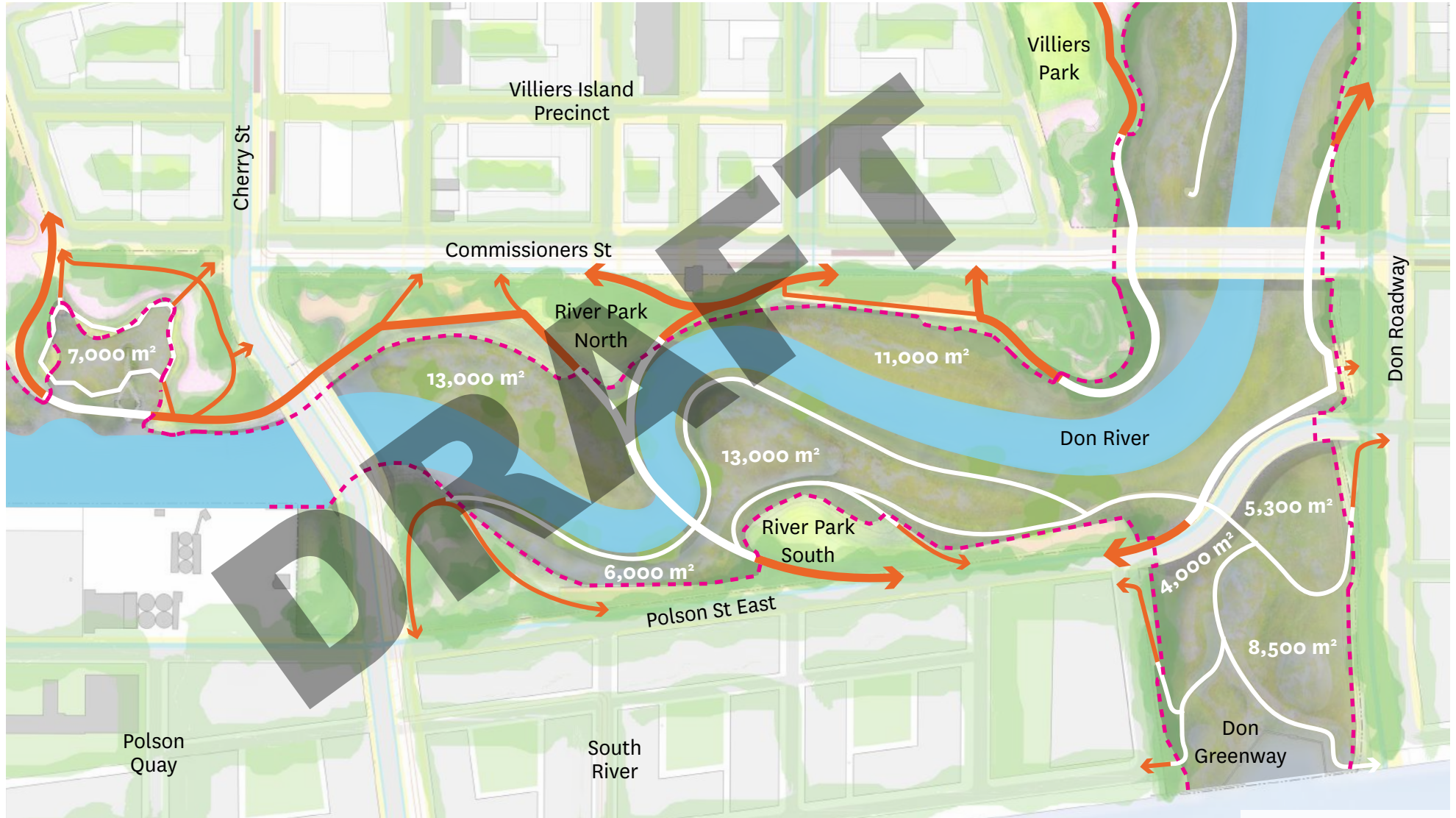
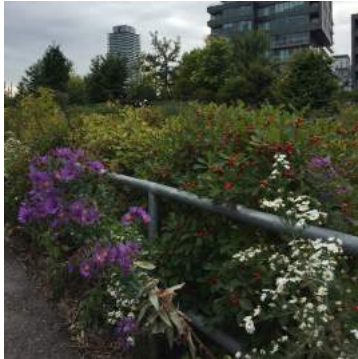


January 2018
River Park Section

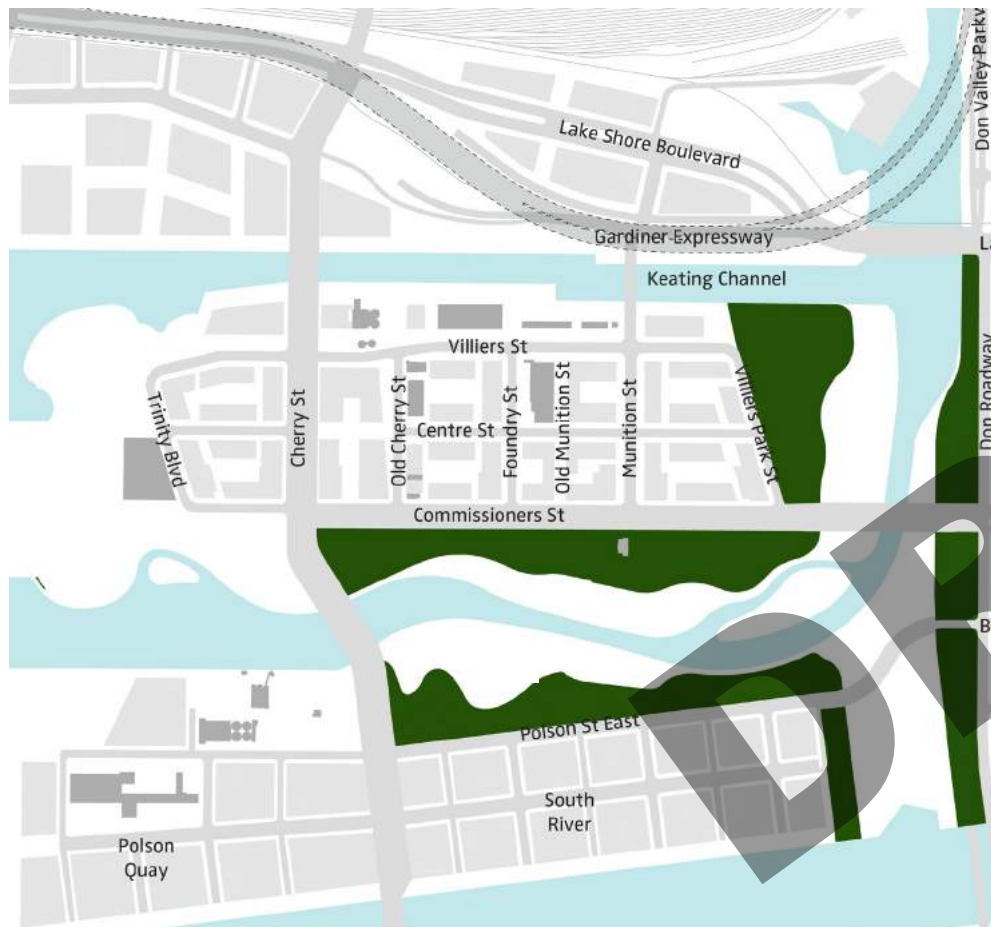
A Balance Between Accessible and Inaccessible River Habitats

Legend

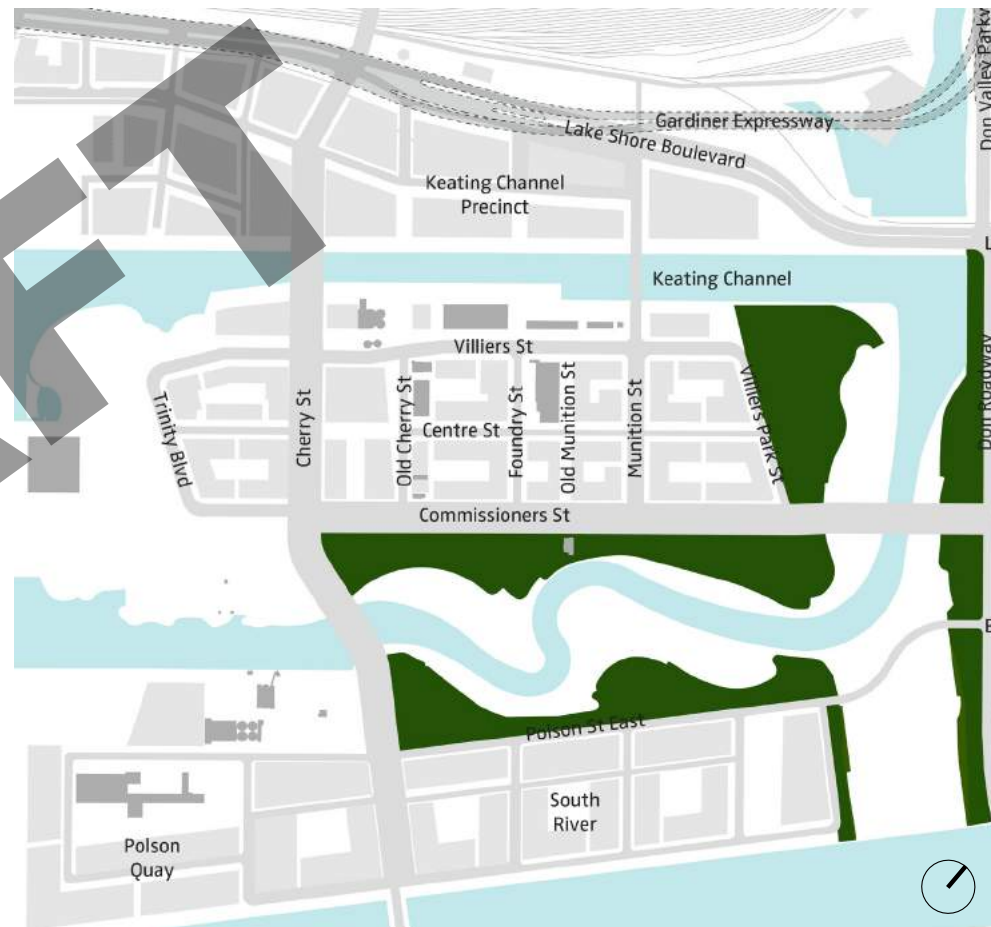
-  Park Trails
-  Park Trails with Habitat Barriers
-  Regulatory Flood Line



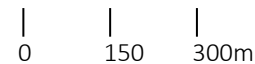
Variations in Width Between Urban Edge and Top of River Banks



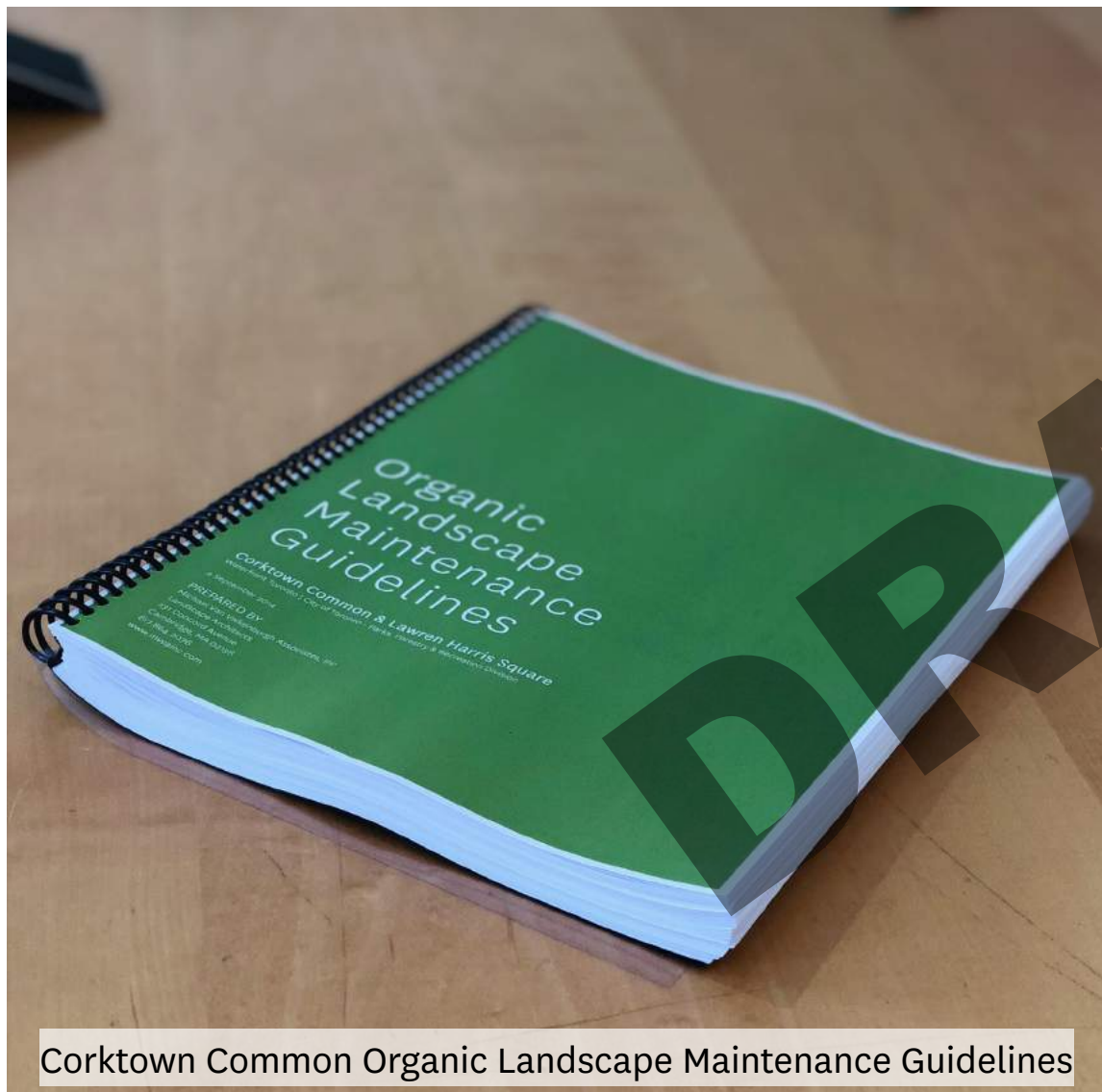
June 2017



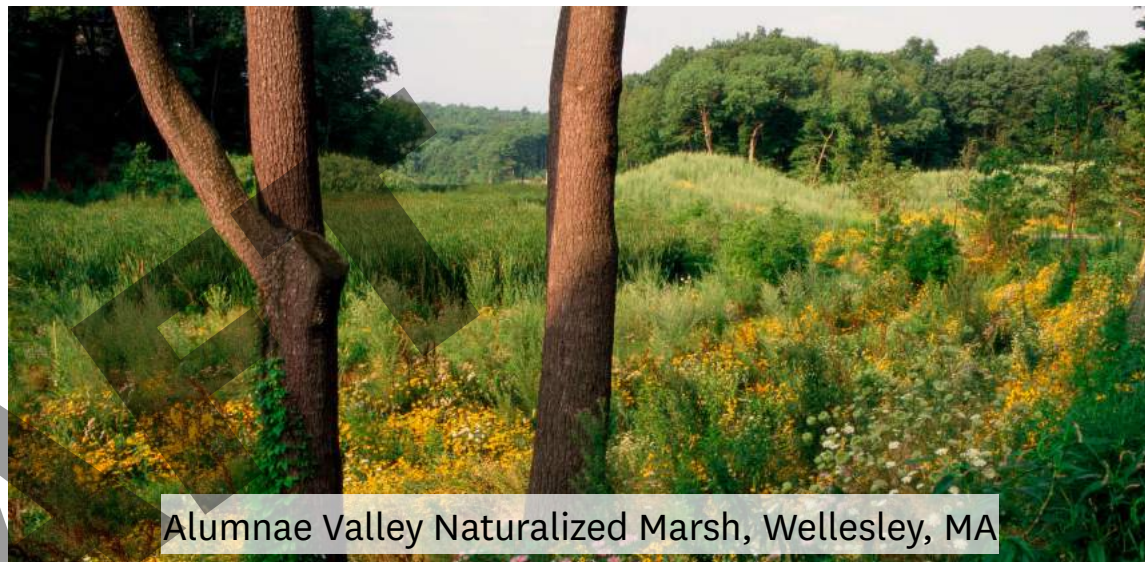
January 2018



Approaching Maintenance and Operations to Accept Ecological Succession



Corktown Common Organic Landscape Maintenance Guidelines



Park Program Development and Distribution

- What will be the balance between active and passive program?
- What is the balance of program complexity and overall park scale?
- How will the park program relate to Villiers Island Public Realm?
- Will there be opportunities to have building program or retail at the edge of the water?

What Does Toronto Need More Of?



Event Lawn



Regional Playscape



Outdoor Cafes



Picnicking

What Does Toronto Need More Of?



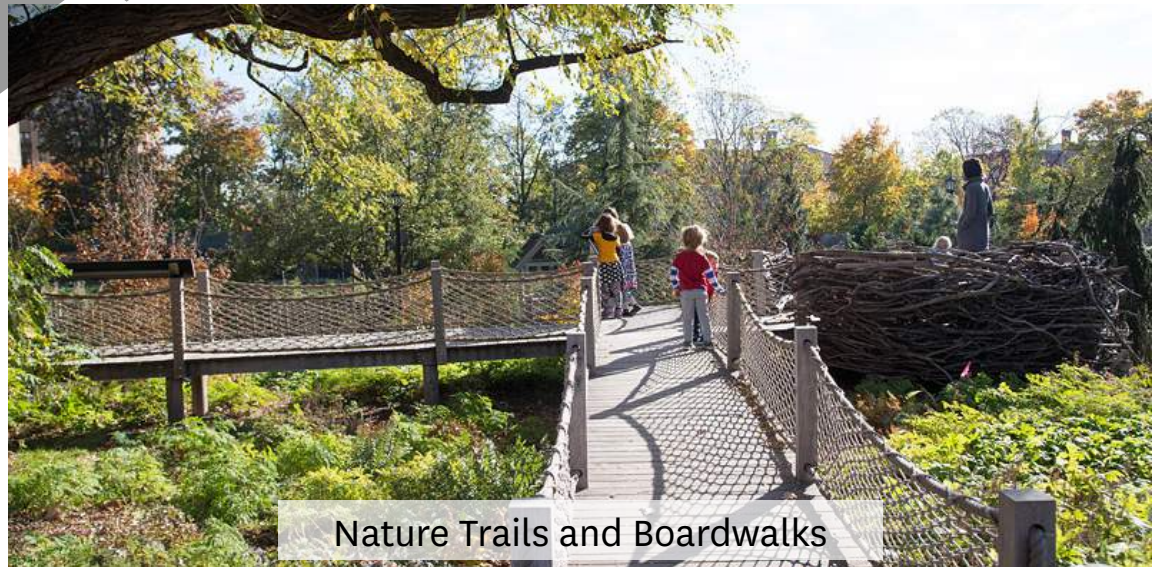
Downtown Prospect



Access to Water

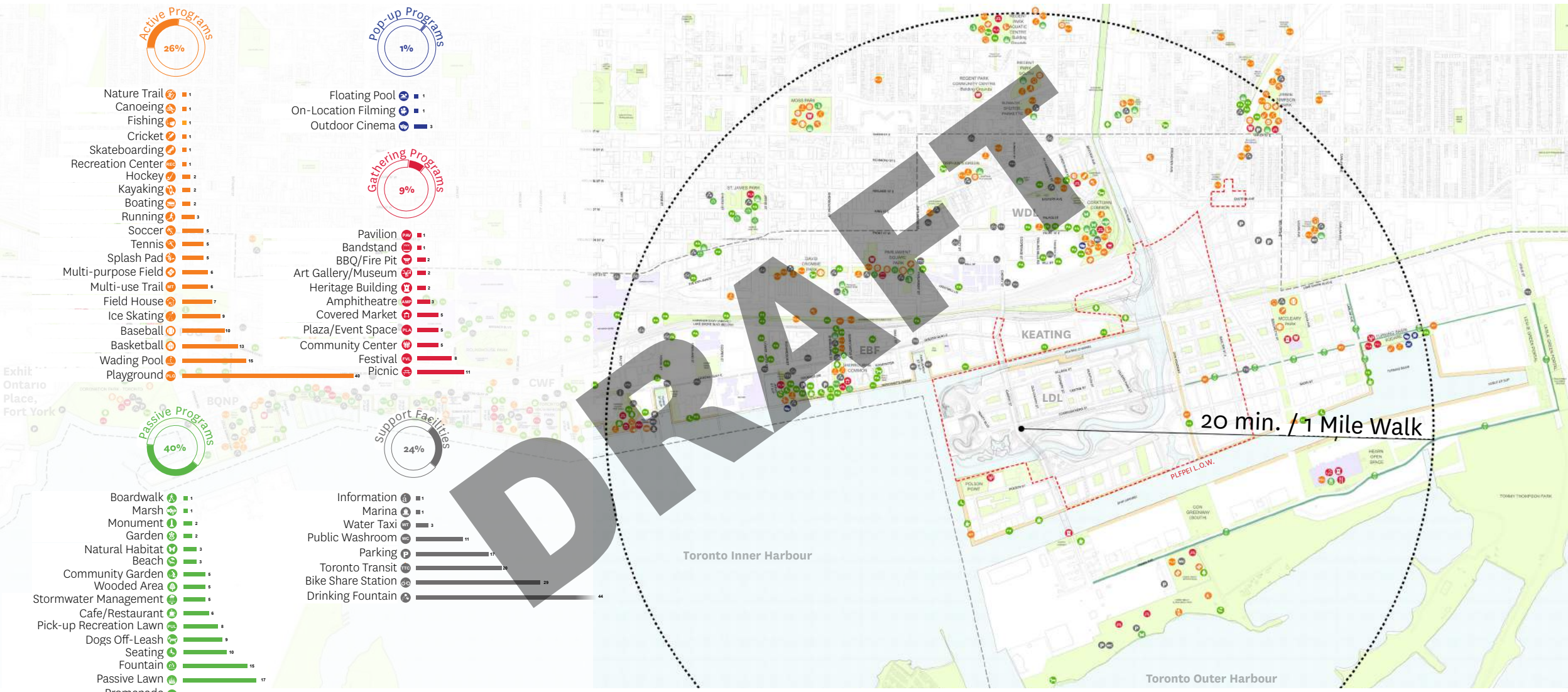


Nature Play

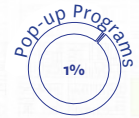


Nature Trails and Boardwalks

Distribution of Current and Future Park and Public Realm Programs



- Nature Trail 1
- Canoeing 1
- Fishing 1
- Cricket 1
- Skateboarding 1
- Recreation Center 1
- Hockey 2
- Kayaking 2
- Boating 2
- Running 3
- Soccer 5
- Tennis 5
- Splash Pad 5
- Multi-purpose Field 6
- Multi-use Trail 7
- Field House 7
- Ice Skating 8
- Baseball 10
- Basketball 13
- Wading Pool 14
- Playground 40



- Floating Pool 1
- On-Location Filming 1
- Outdoor Cinema 3



- Pavilion 1
- Bandstand 1
- BBC/Fire Pit 2
- Art Gallery/Museum 2
- Heritage Building 2
- Amphitheatre 2
- Covered Market 5
- Plaza/Event Space 5
- Community Center 5
- Festival 8
- Picnic 11



- Boardwalk 1
- Marsh 1
- Monument 2
- Garden 2
- Natural Habitat 3
- Beach 3
- Community Garden 3
- Wooded Area 3
- Stormwater Management 3
- Cafe/Restaurant 6
- Pick-up Recreation Lawn 8
- Dogs Off-Leash 8
- Seating 10
- Fountain 15
- Passive Lawn 17
- Promenade 17



- Information 1
- Marina 1
- Water Taxi 3
- Public Washroom 11
- Parking 17
- Toronto Transit 23
- Bike Share Station 25
- Drinking Fountain 44

20 min. / 1 Mile Walk



Defining Landscape Types



City-wide Destination



Neighbourhood Park



Sports

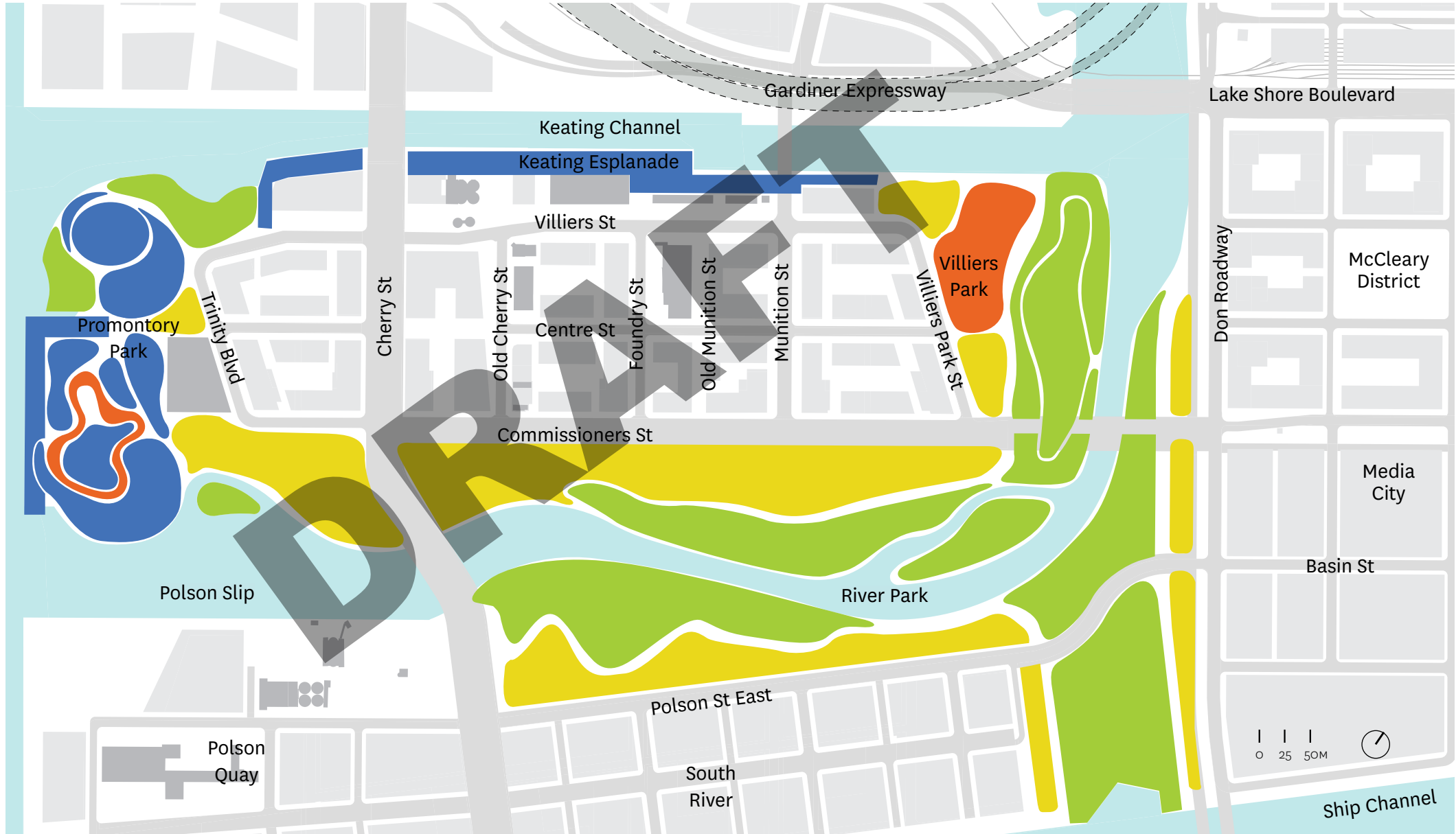


Accessible Nature

Re-Balancing the Distribution of Landscape Types - June 2017

Legend

- City-wide Destination
- Neighbourhood Park
- Sports
- Accessible Nature



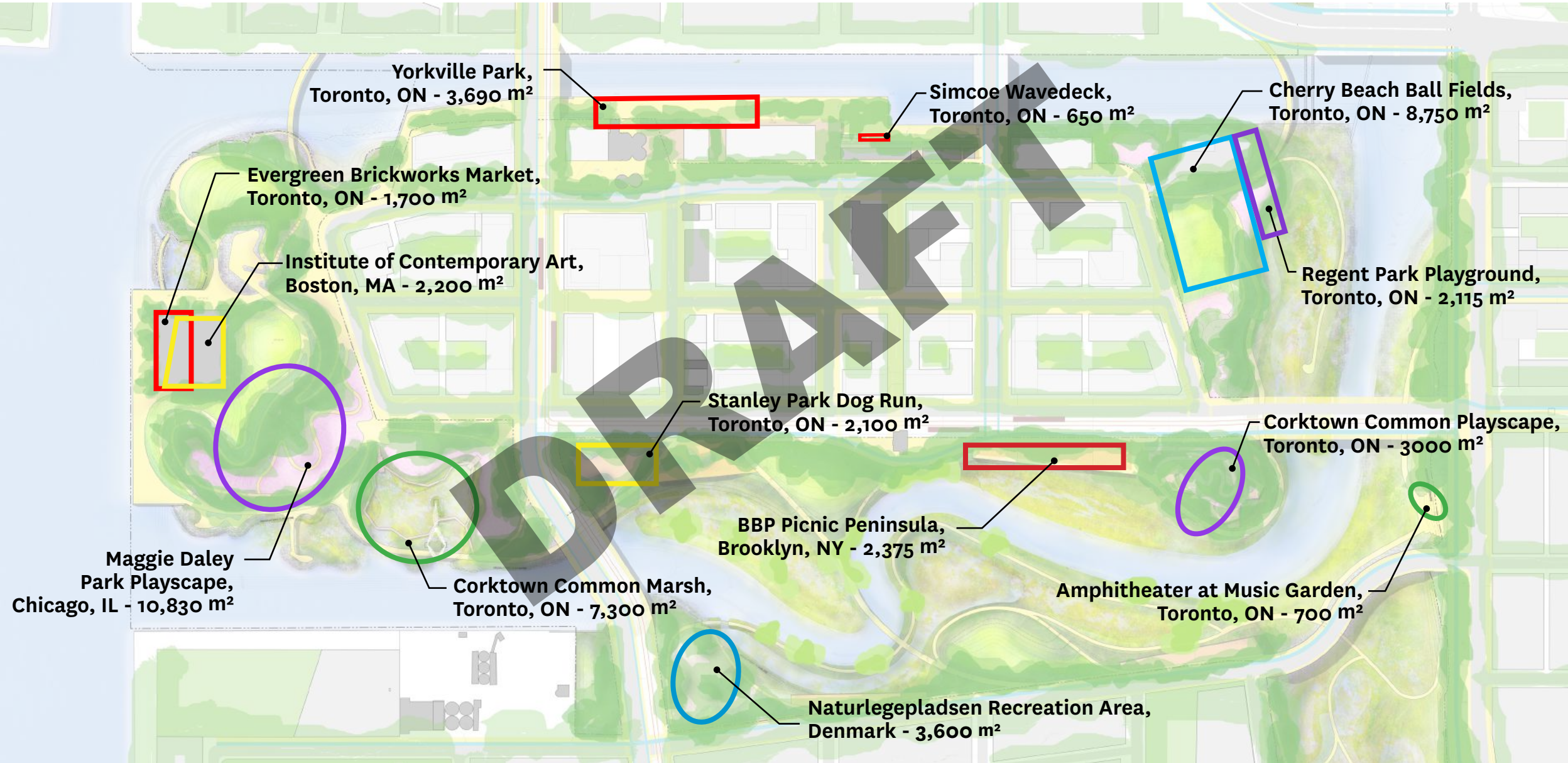
Re-Balancing the Distribution of Landscape Types - January 2018

Legend

-  City-wide Destination
-  Neighbourhood Park
-  Sports
-  Accessible Nature



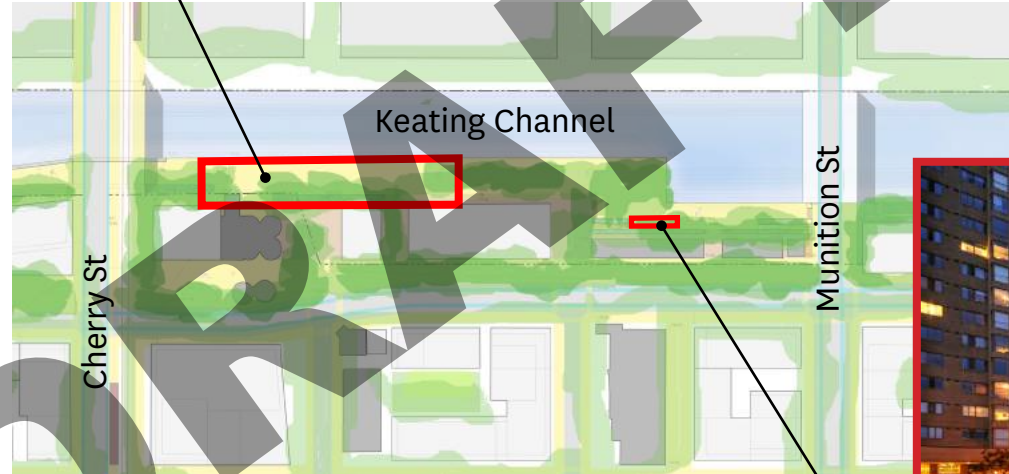
Scale Comparison Overlays



Keating Esplanade

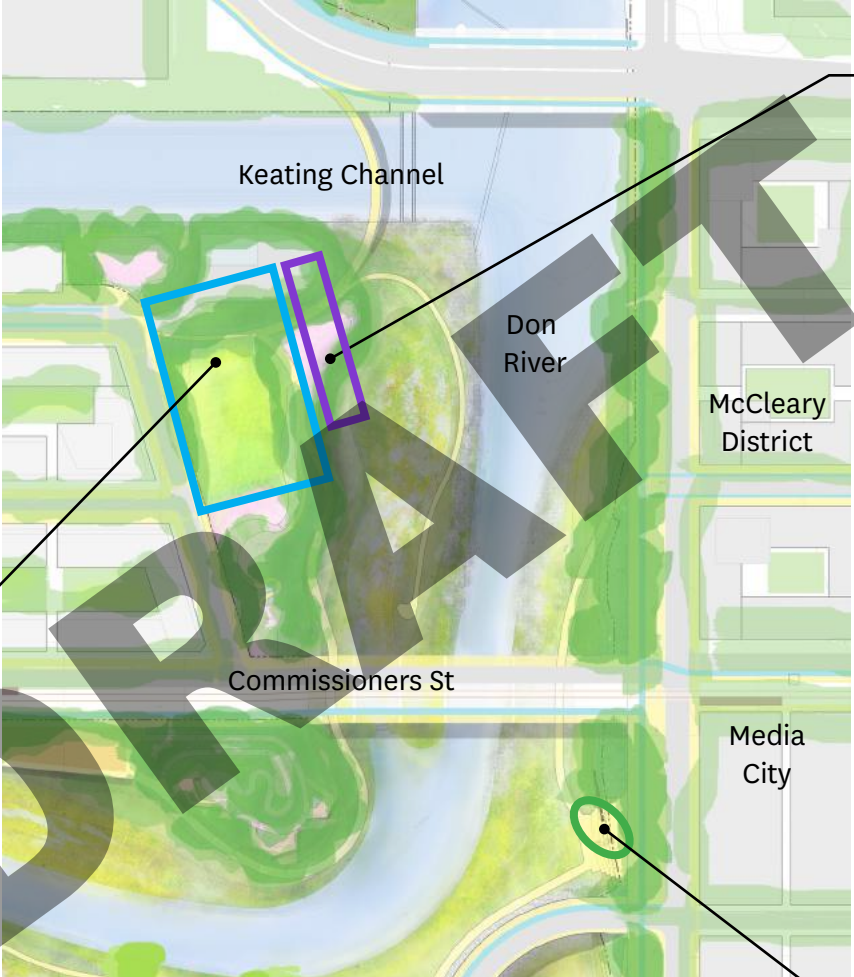


Village of Yorkville Park
Toronto, ON - 3,690 m²



Simcoe Wavedeck
Toronto, ON - 650 m²

Villiers Park



Cherry Beach Sports Fields
Toronto, ON - 8,750 m²



Regent Park Playground,
Toronto, ON - 2,115 m²

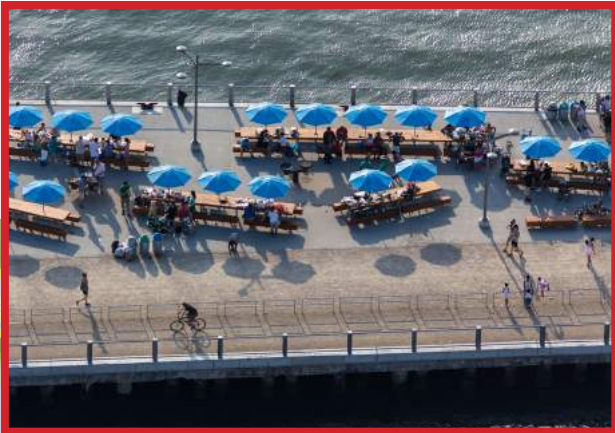
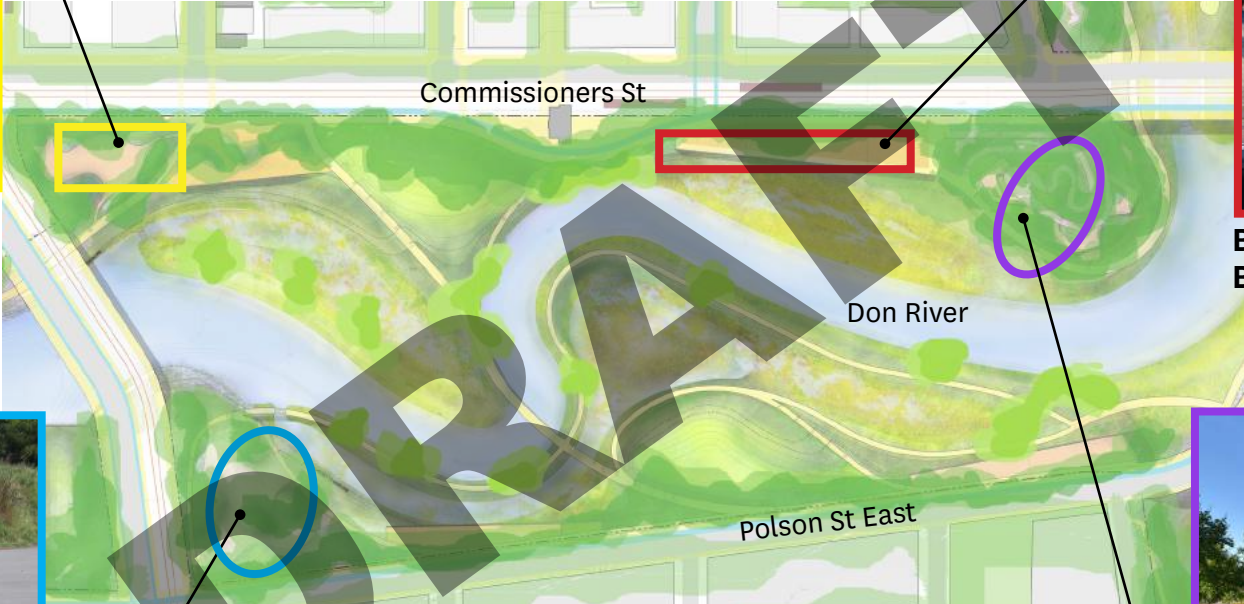


Toronto Music Garden Amphitheatre
Toronto, ON - 700 m²

River Park



Stanley Park Dogs Off-Leash Area
Toronto, ON - 2,100 m²



Brooklyn Bridge Park Picnic Peninsula
Brooklyn, NY - 2,375 m²



Valbyparken Naturlegepladsen
Copenhagen, DK - 3,600 m²



Corktown Common Playscape
Toronto, ON - 3,000 m²

Promontory Park



Evergreen Brick Works Farmers Market
Toronto, ON - 1,700 m²



Institute of Contemporary Art
Boston, MA - 2,200 m²

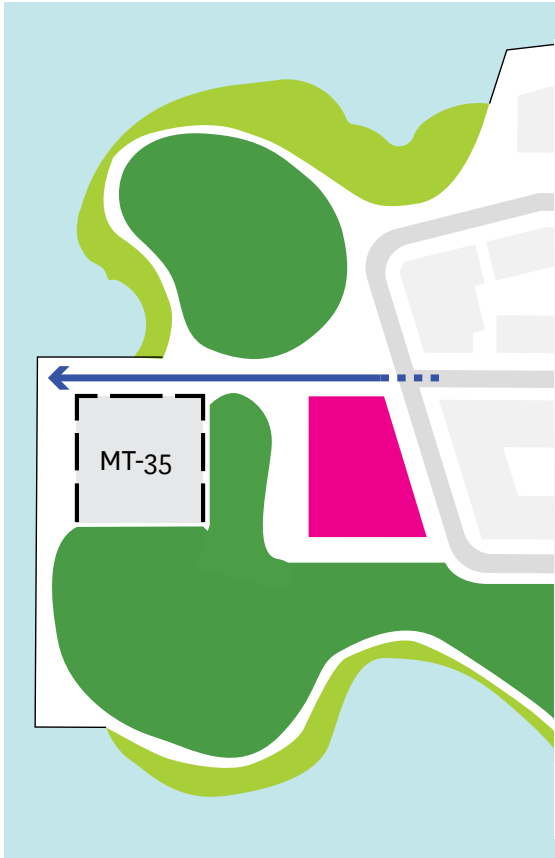


Maggie Daley Park Playscape
Chicago, IL - 10,830 m²

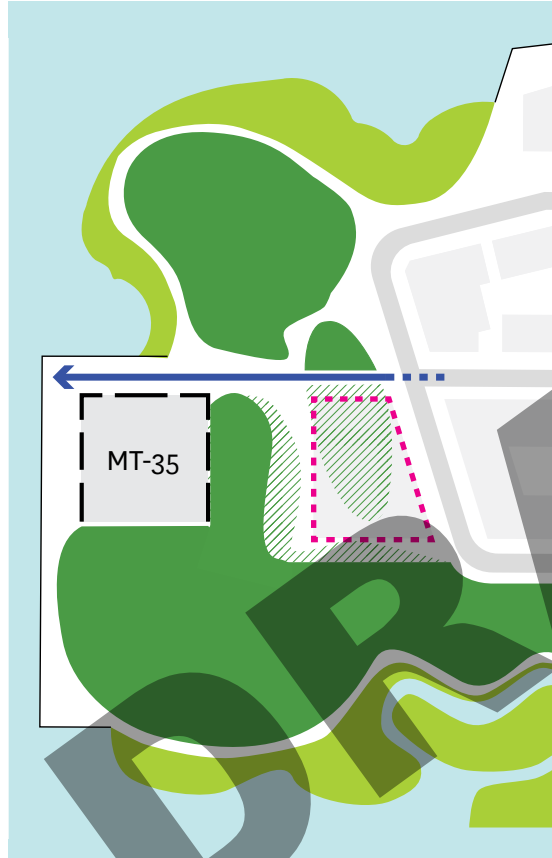


Corktown Common Marsh
Toronto, ON - 7,300 m²

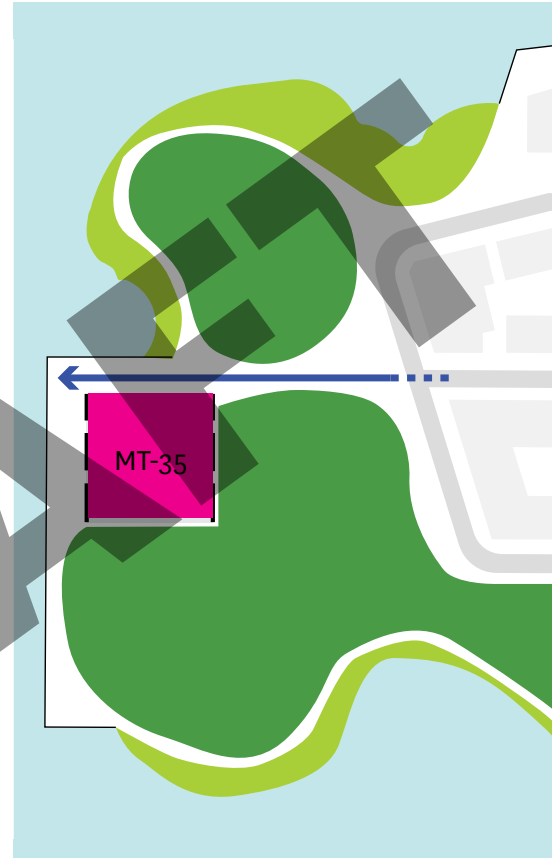
Catalyst Building Studies



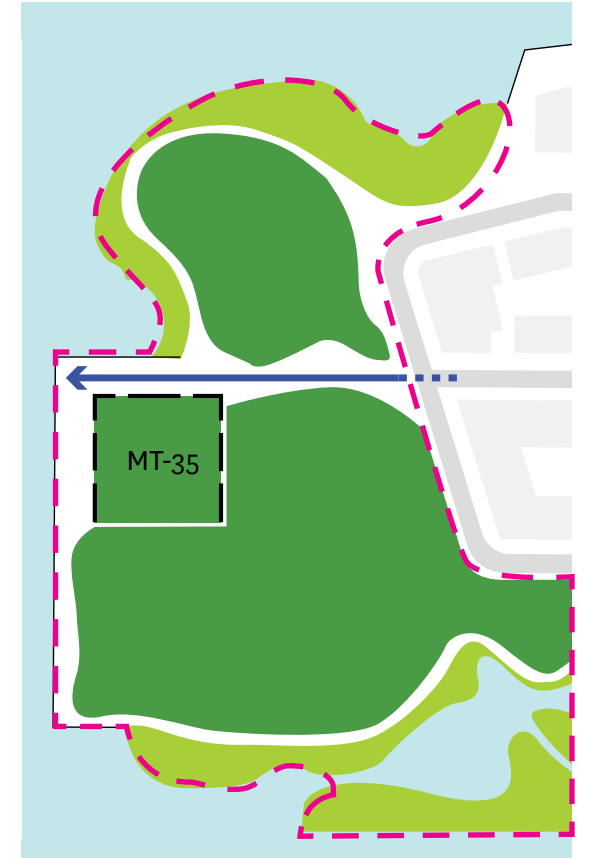
Catalyst Building



Temporary Landscape



MT-35 as Catalyst

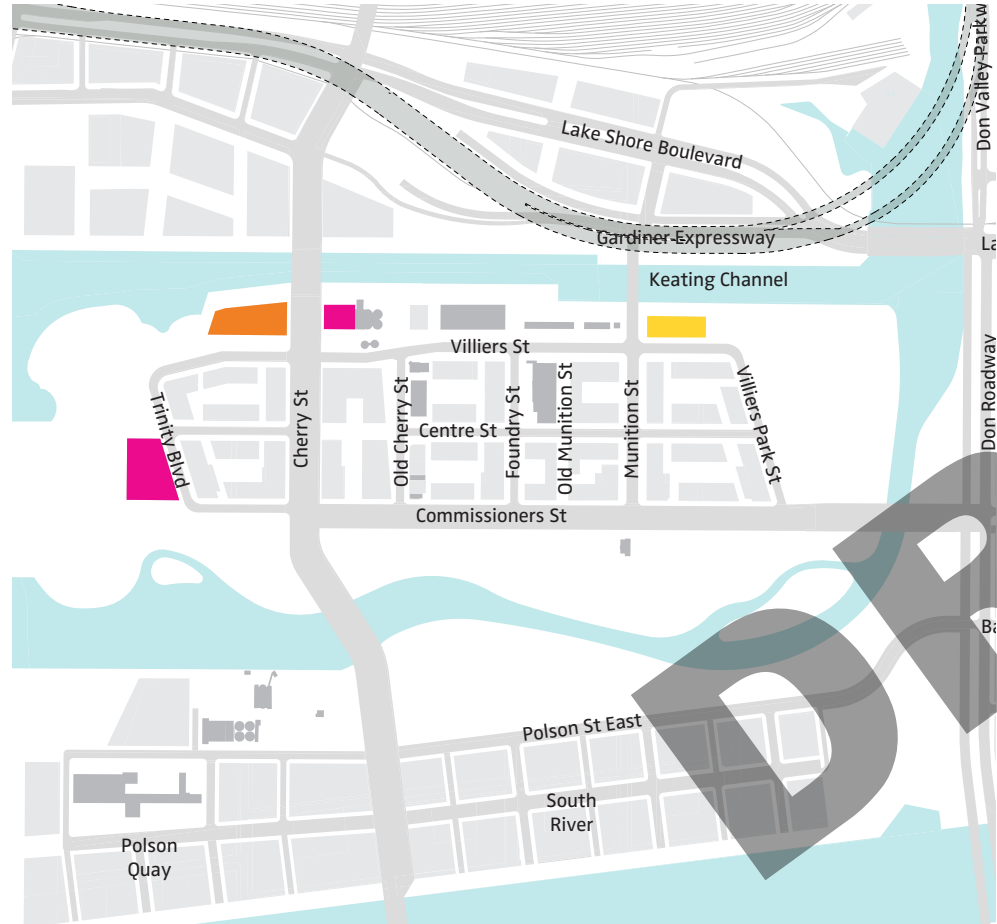


City-wide Attraction Landscape as Catalyst

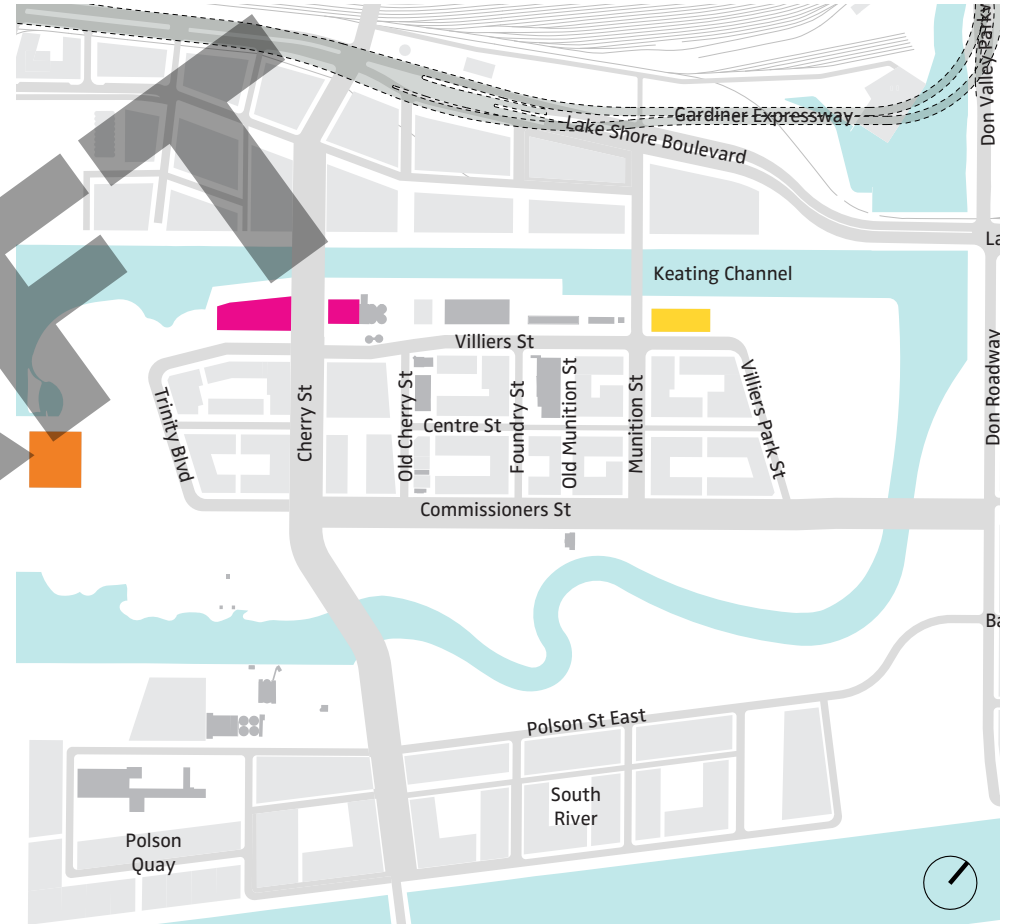
Catalyst Building Studies

Legend

- Catalyst Building
- Community Centre
- School



June 2017



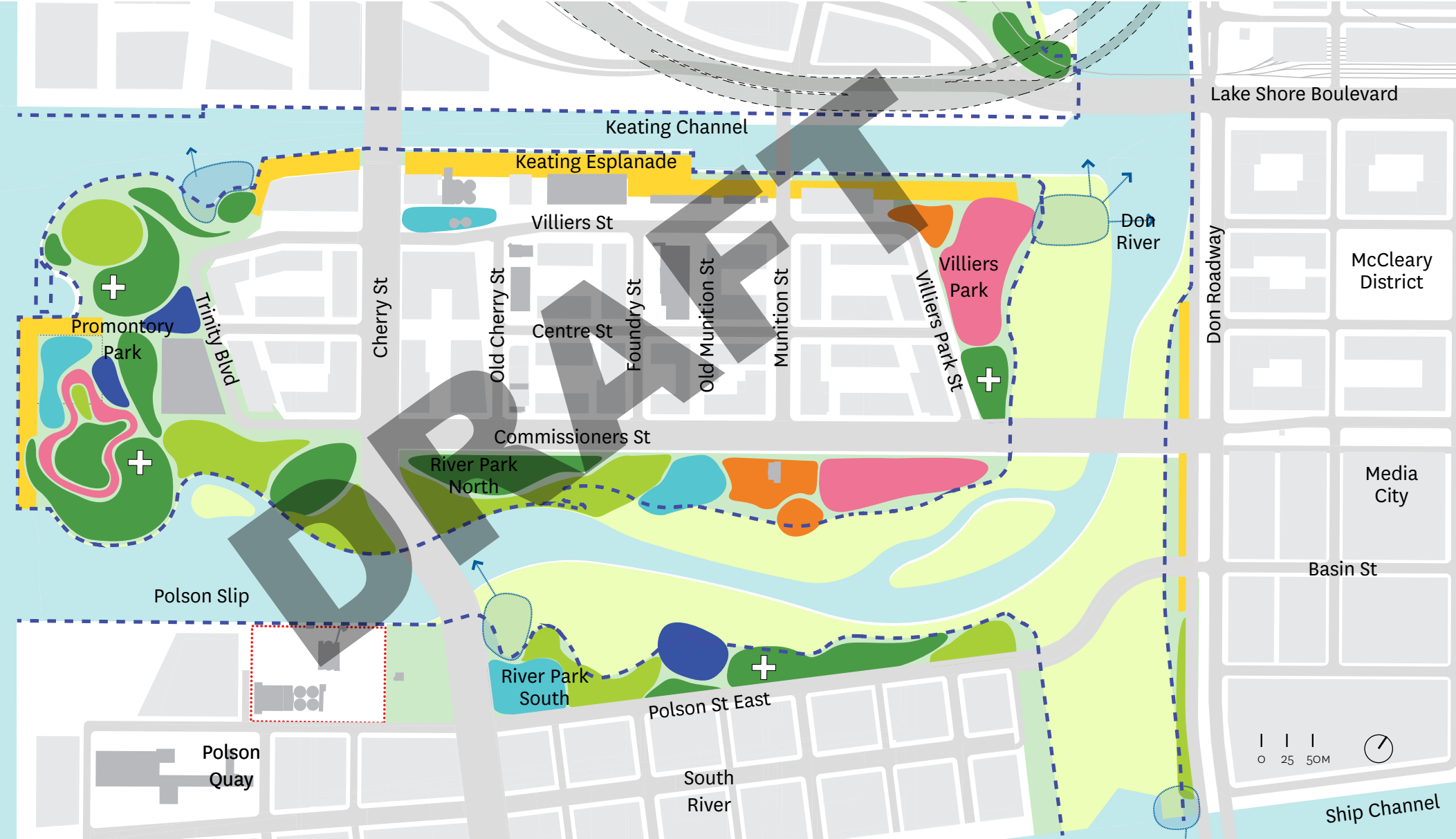
January 2018



Program Distribution - June 2017

Legend

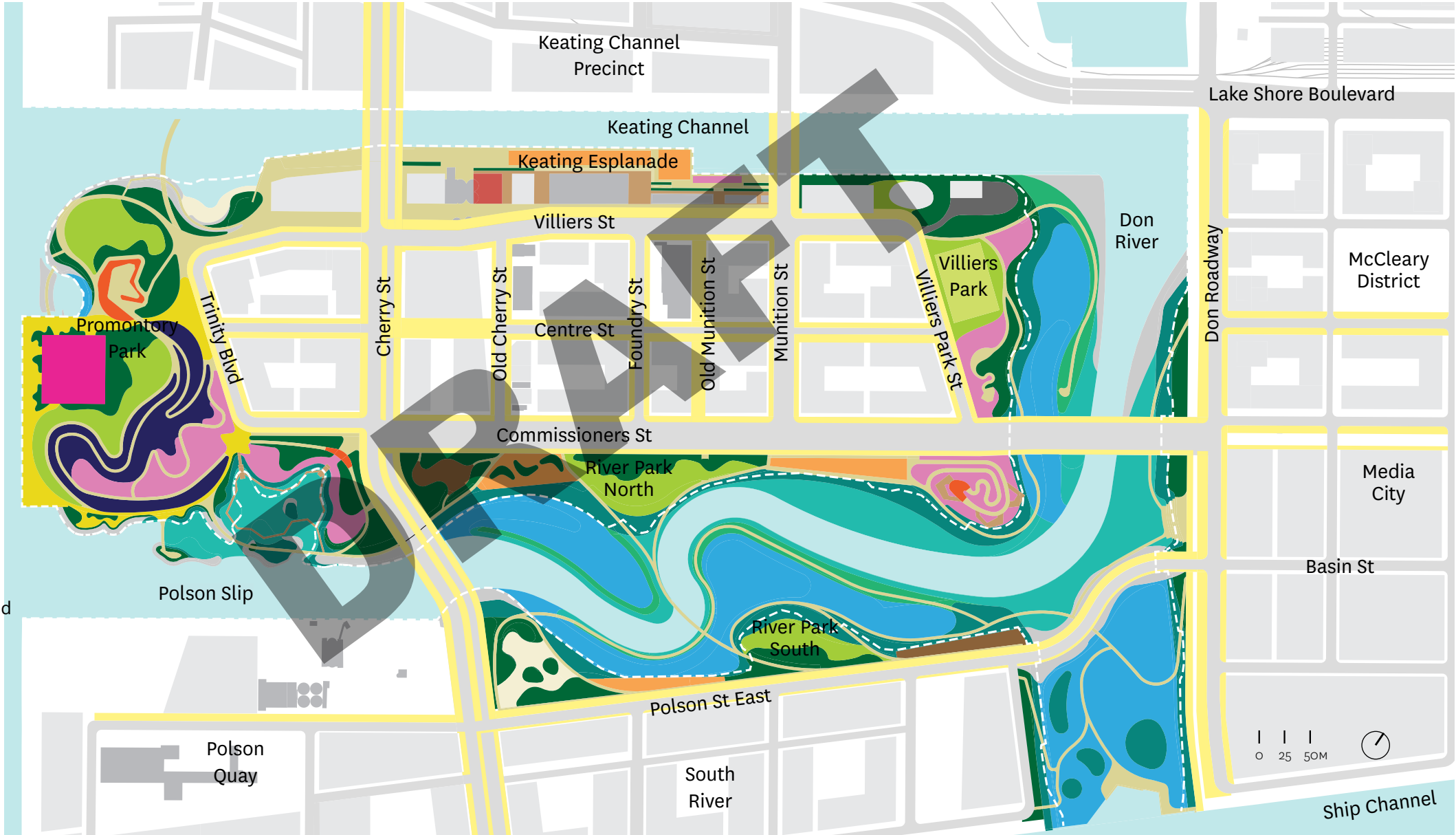
- Wooded Upland
- Passive Use Lawn
- Active Recreation
- Water Access
- Esplanade
- Playscape
- Public Gardens
- Event Space
- Prospect / Overlook
- Other Parkland
- River Valley + Wetlands
- Private Land
- Regulatory Flood Line



Program Distribution - January 2018

Legend

- MT-35 Program
- Playscape
- Art Loop
- Prospect Ridge
- Beach / Volleyball
- Park Peak
- Silo Recreation
- Picnic Overlook
- Urban Promenade
- Dog Run
- Paths
- Wood Decking
- Armour
- Lawn
- Sport Fields
- Riverine Wetland
- Controlled Wetland
- Levee Wetland
- Upland Planting
- Transition Wetland
- +Regulatory Flood Line



Connectivity with Urban Edges

- What is our strategy for a seamless integration of all urban, historic and natural features?
- How will the land surrounding Villiers Island contribute to its identity?
- How can the park edges be flexible to respond to the phased development of Villiers Island?

Urban Junctions

Legend



City-Wide Arrival



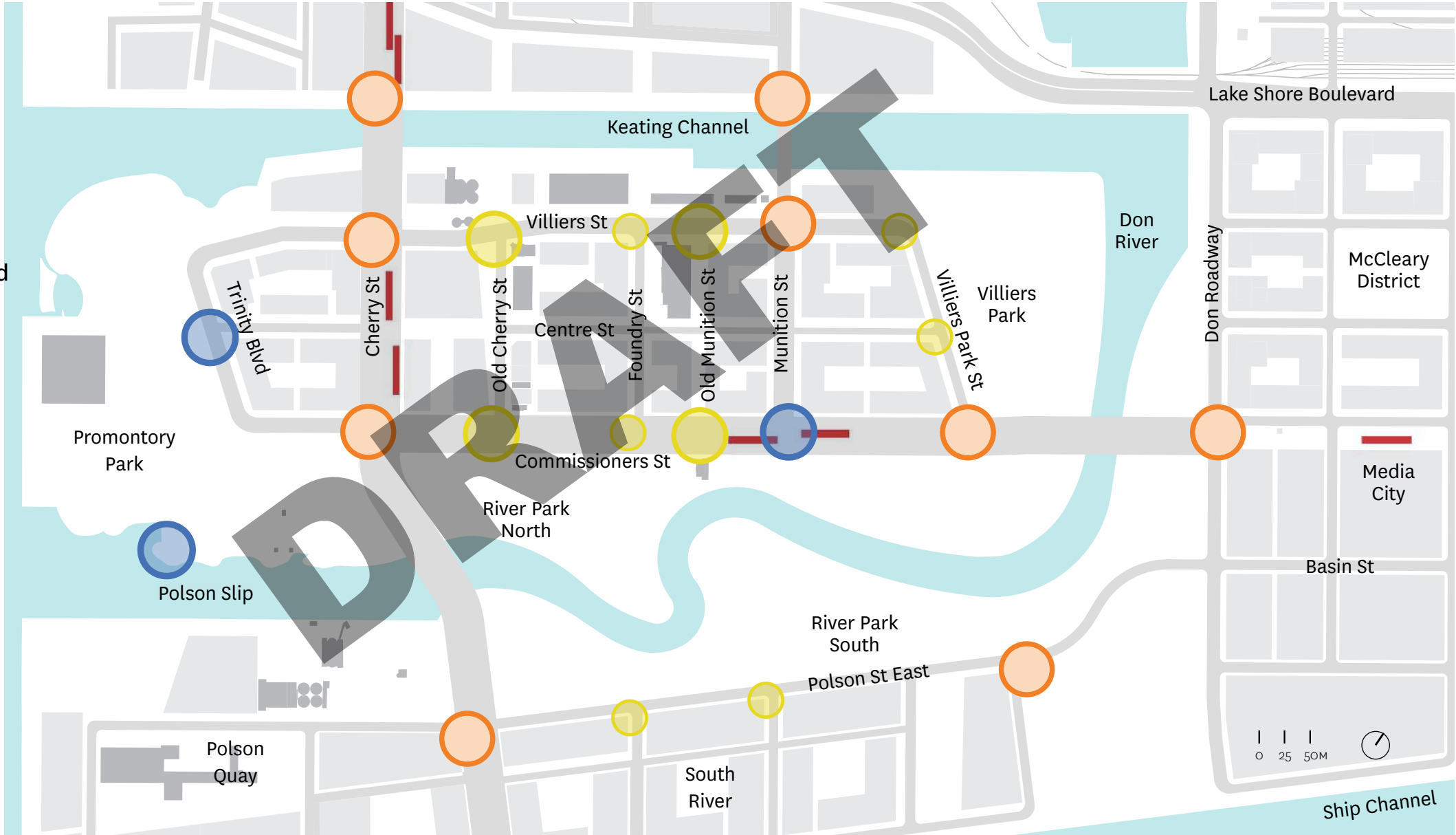
District Arrival



Neighbourhood Arrival







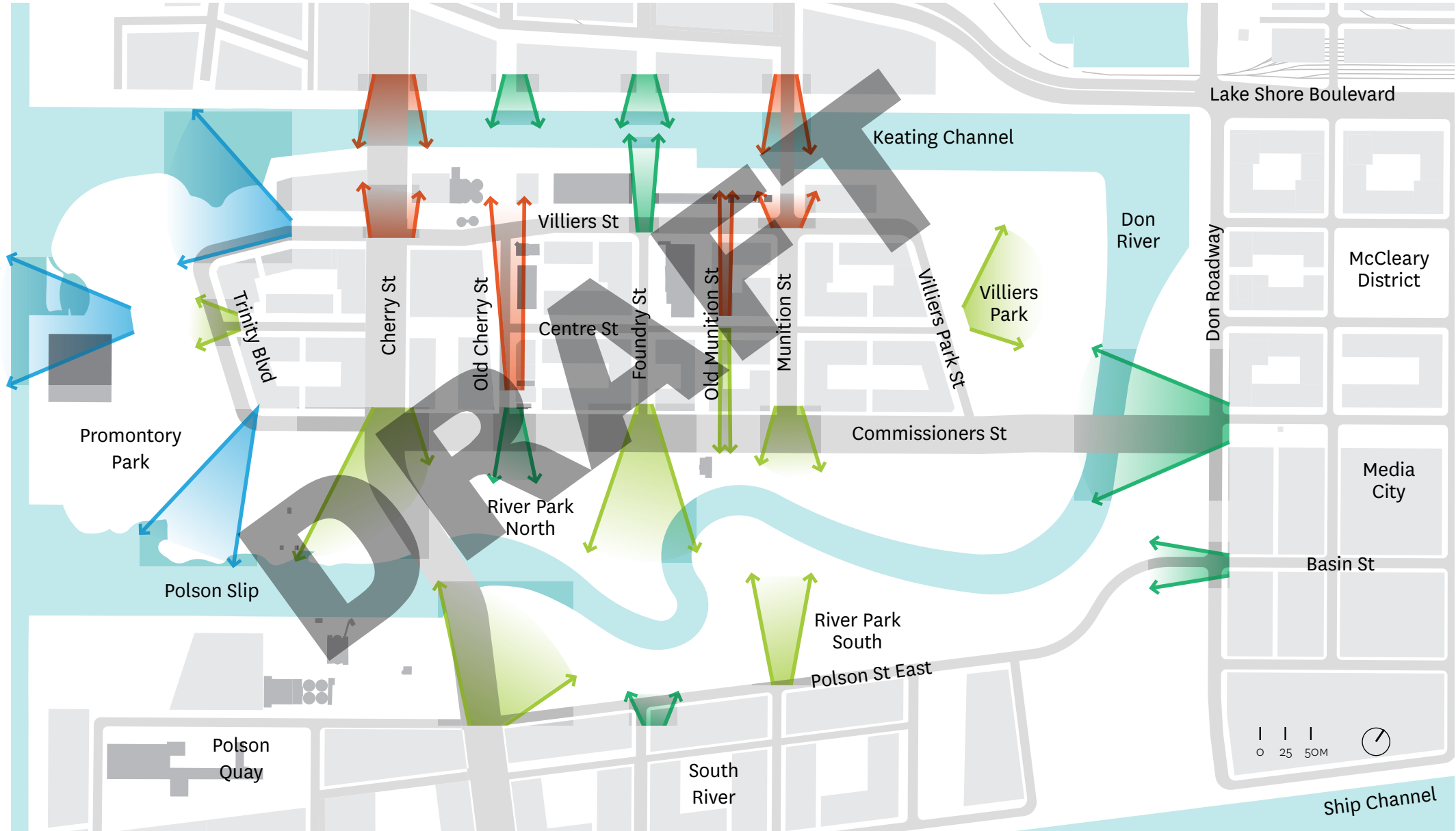
LRT Station



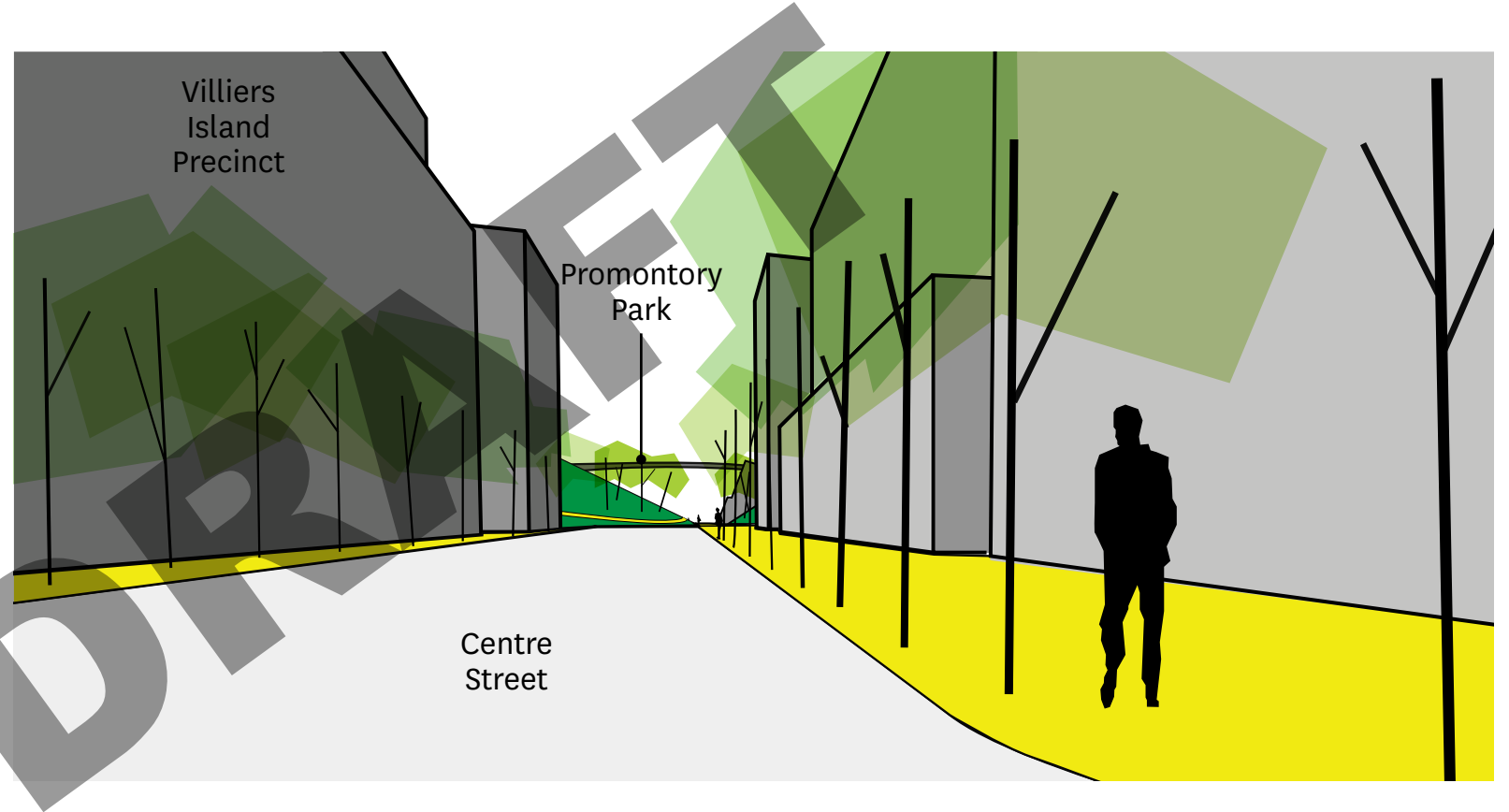
View Corridors from the Precincts into the Park

Legend

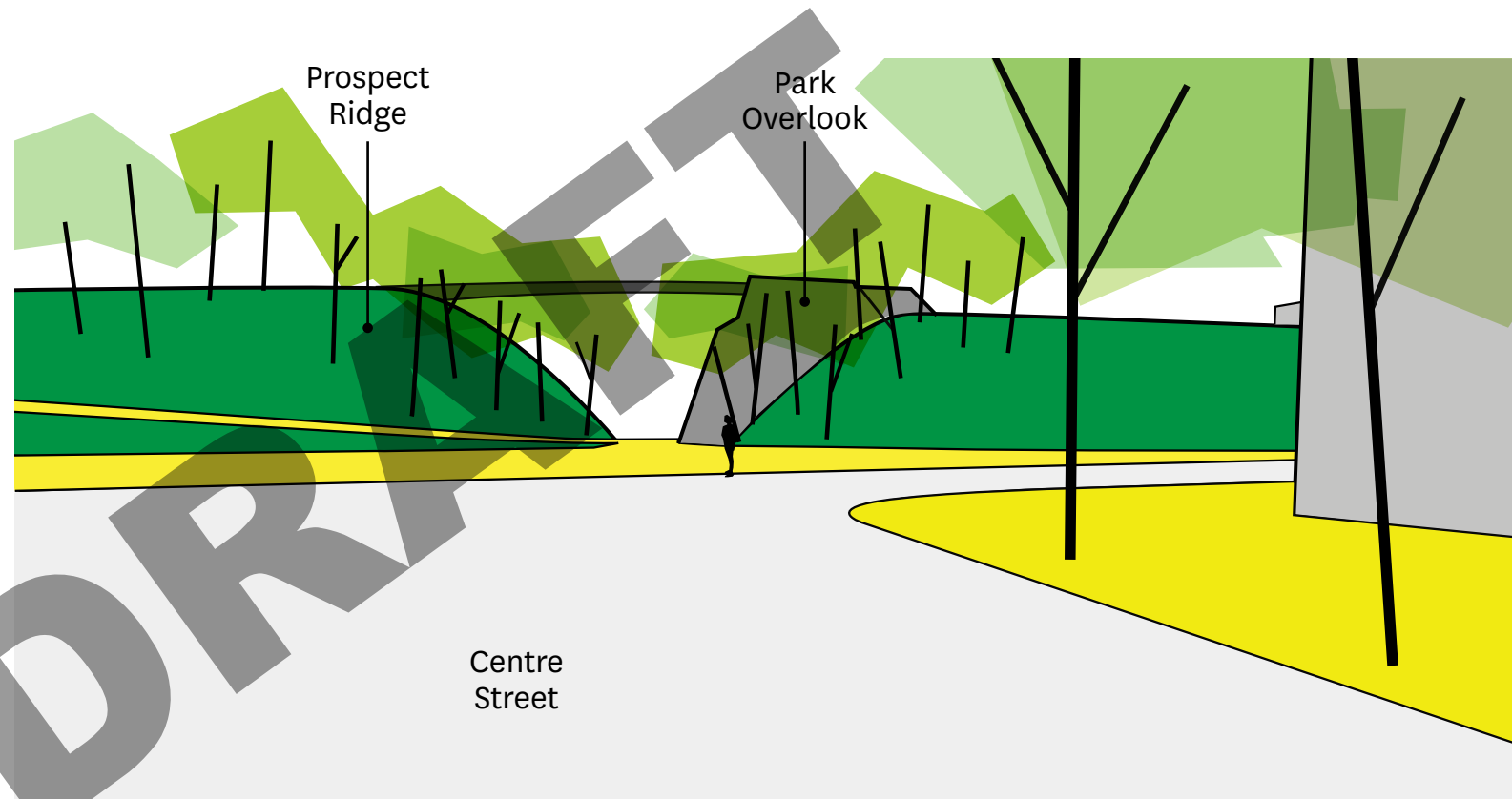
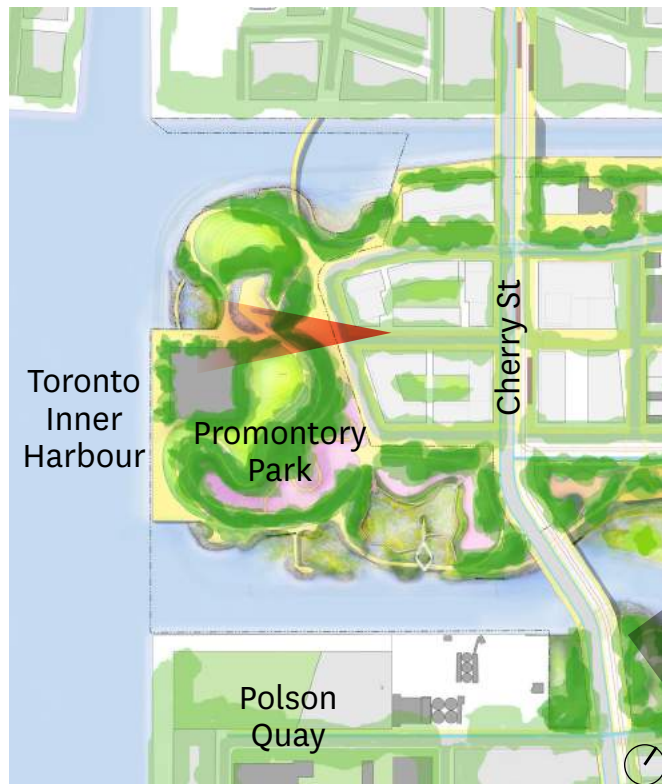
-  Lake
-  River/Channel
-  Park Foreground
-  Promenade/Plaza



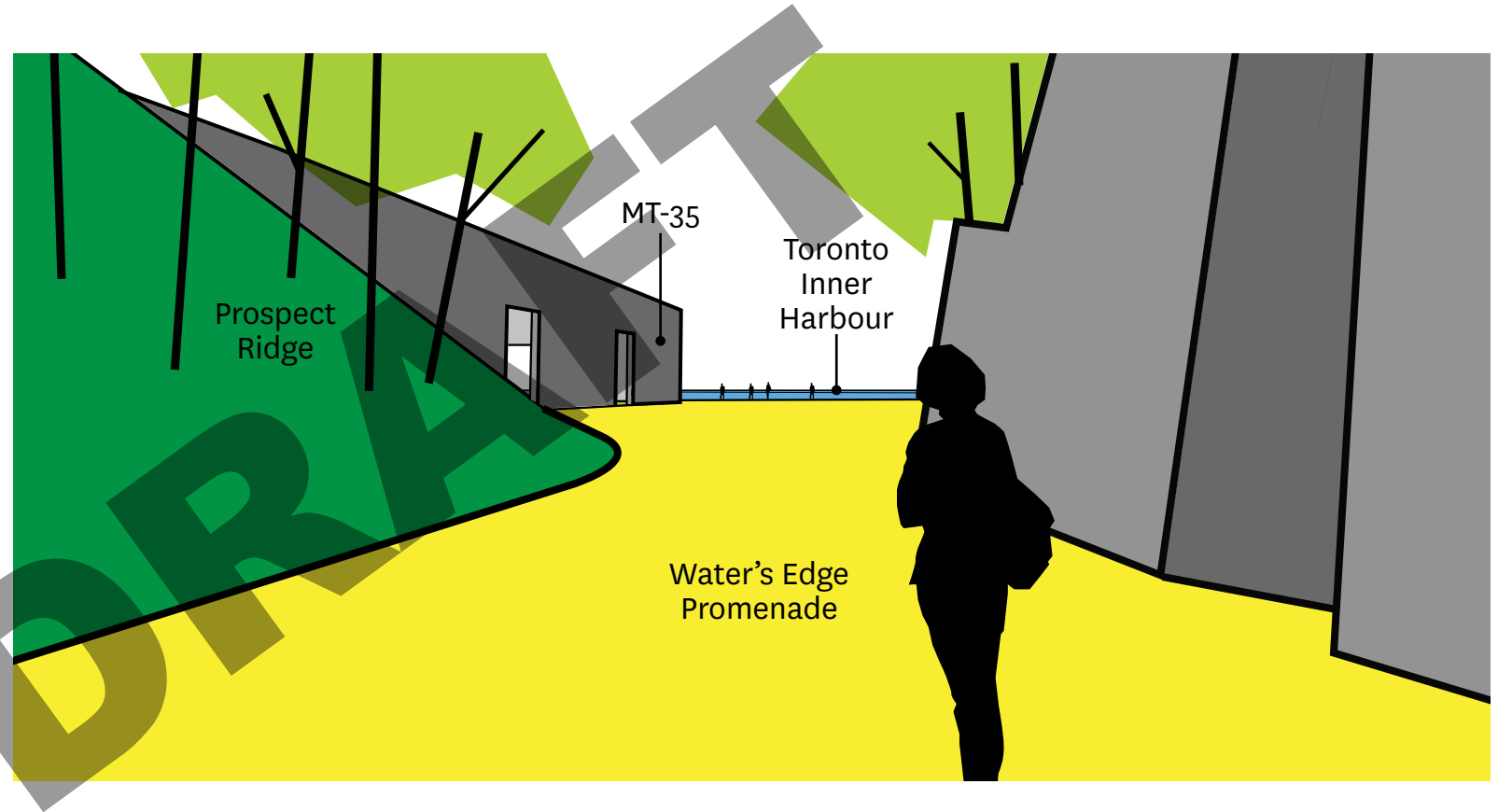
Promontory Park and Villiers Island Connections



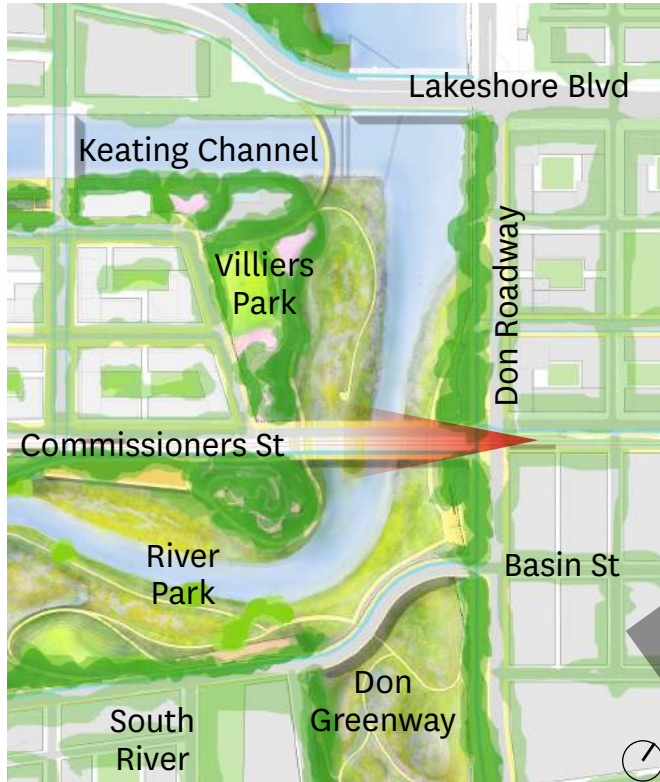
Promontory Park and Villiers Island Connections



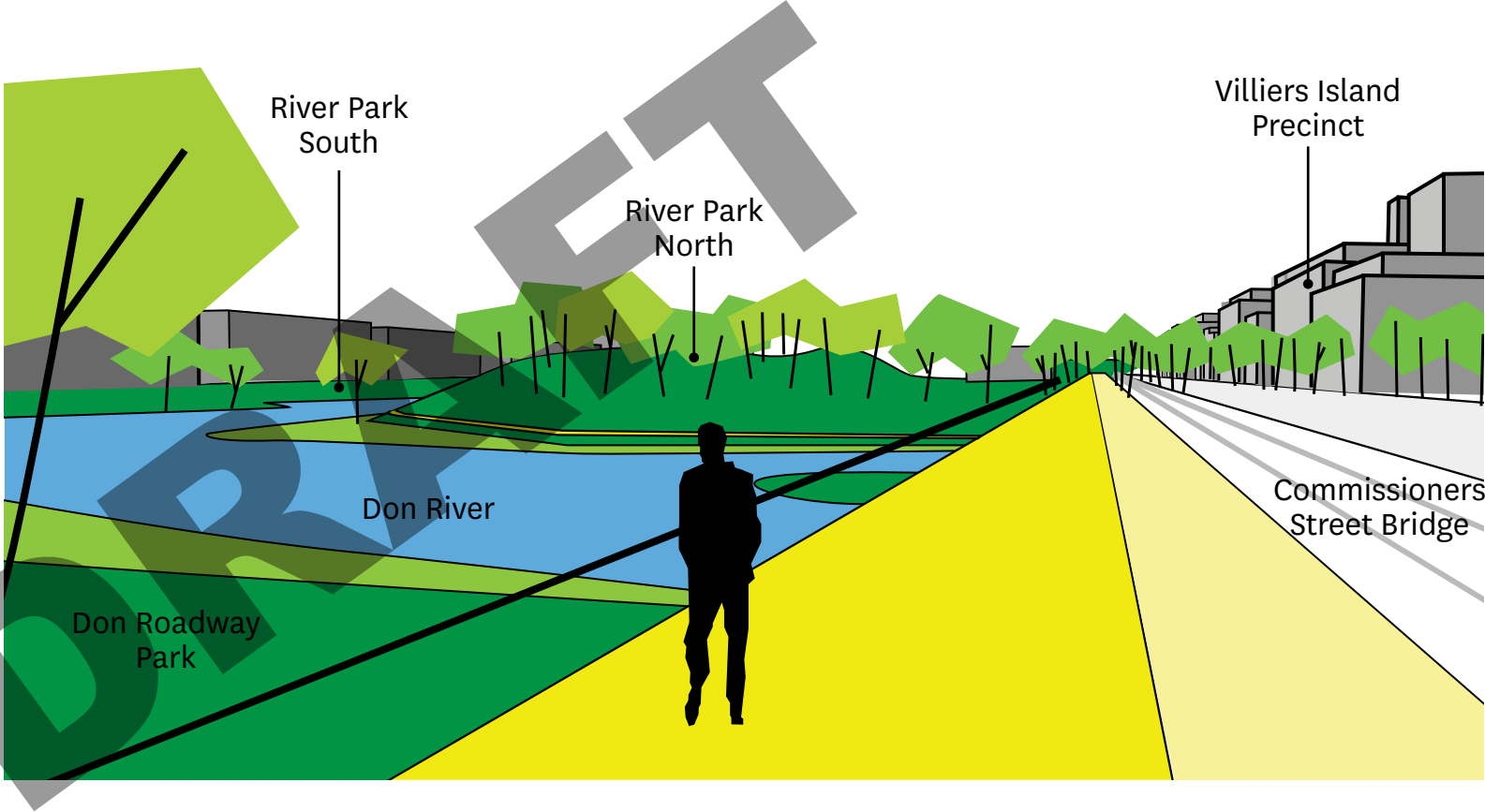
Promontory Park and Villiers Island Connections



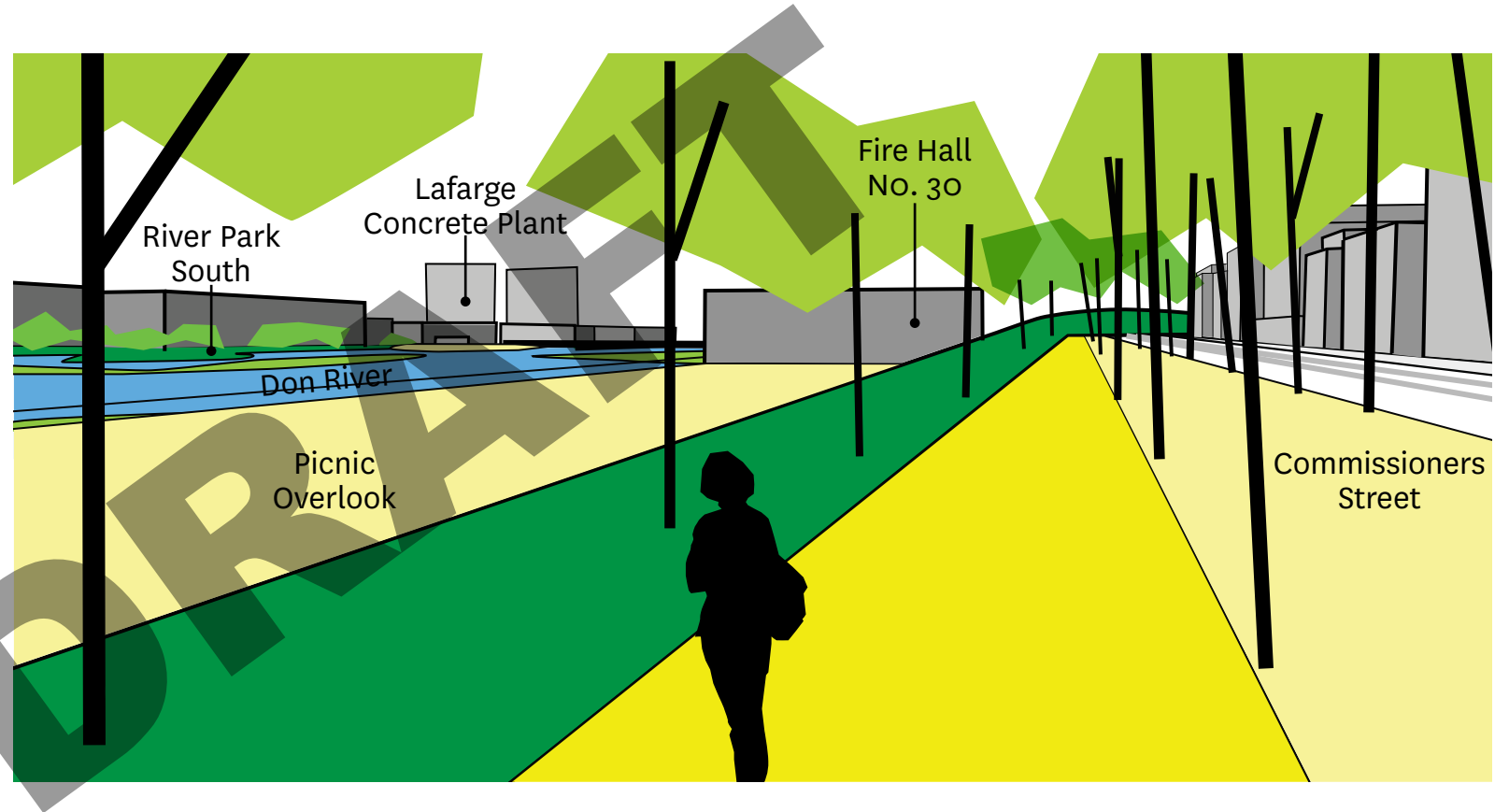
Media City and Villiers Island Connections



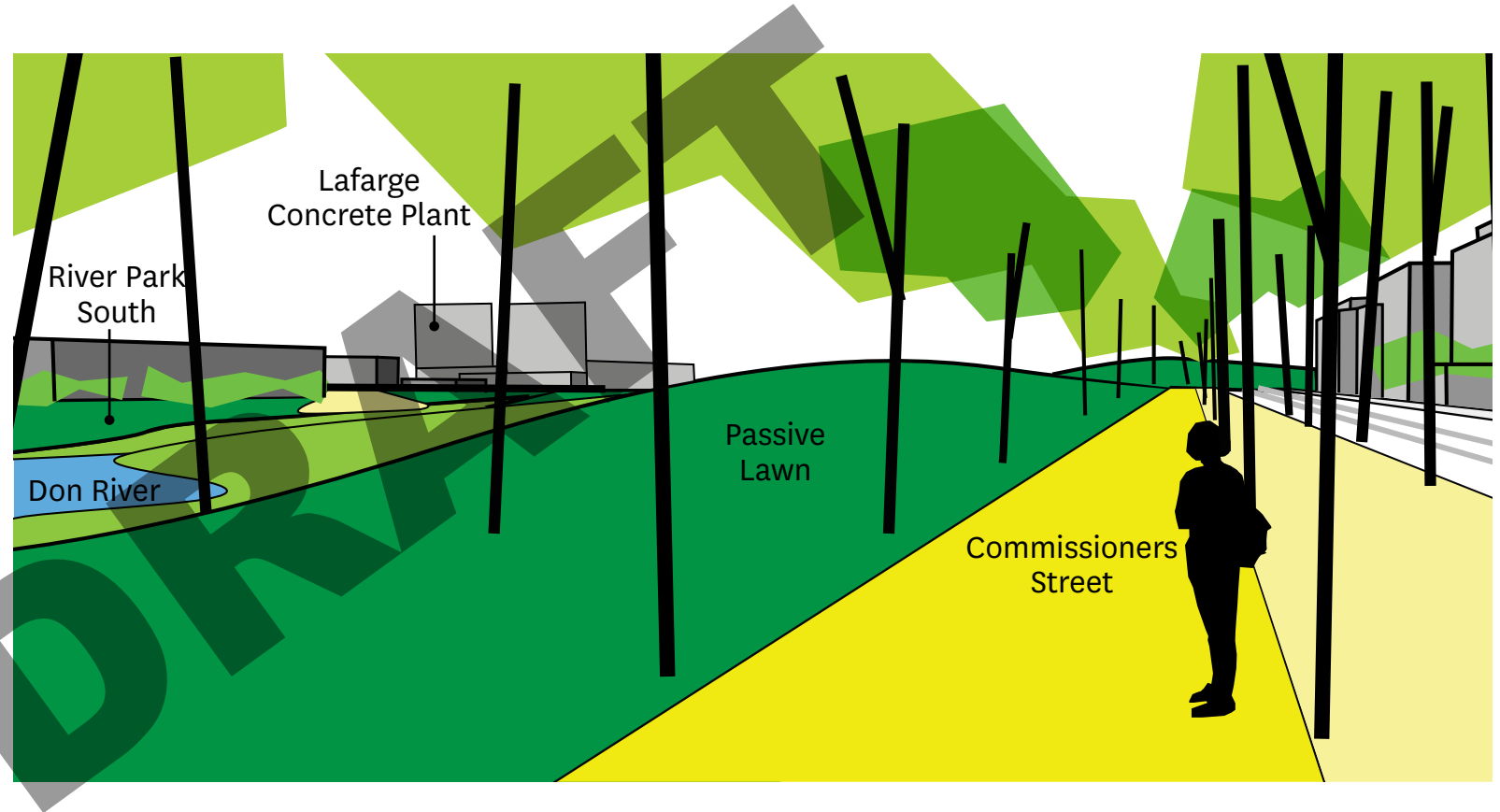
River Park and Media City Connections



River Park and Villiers Island Connections



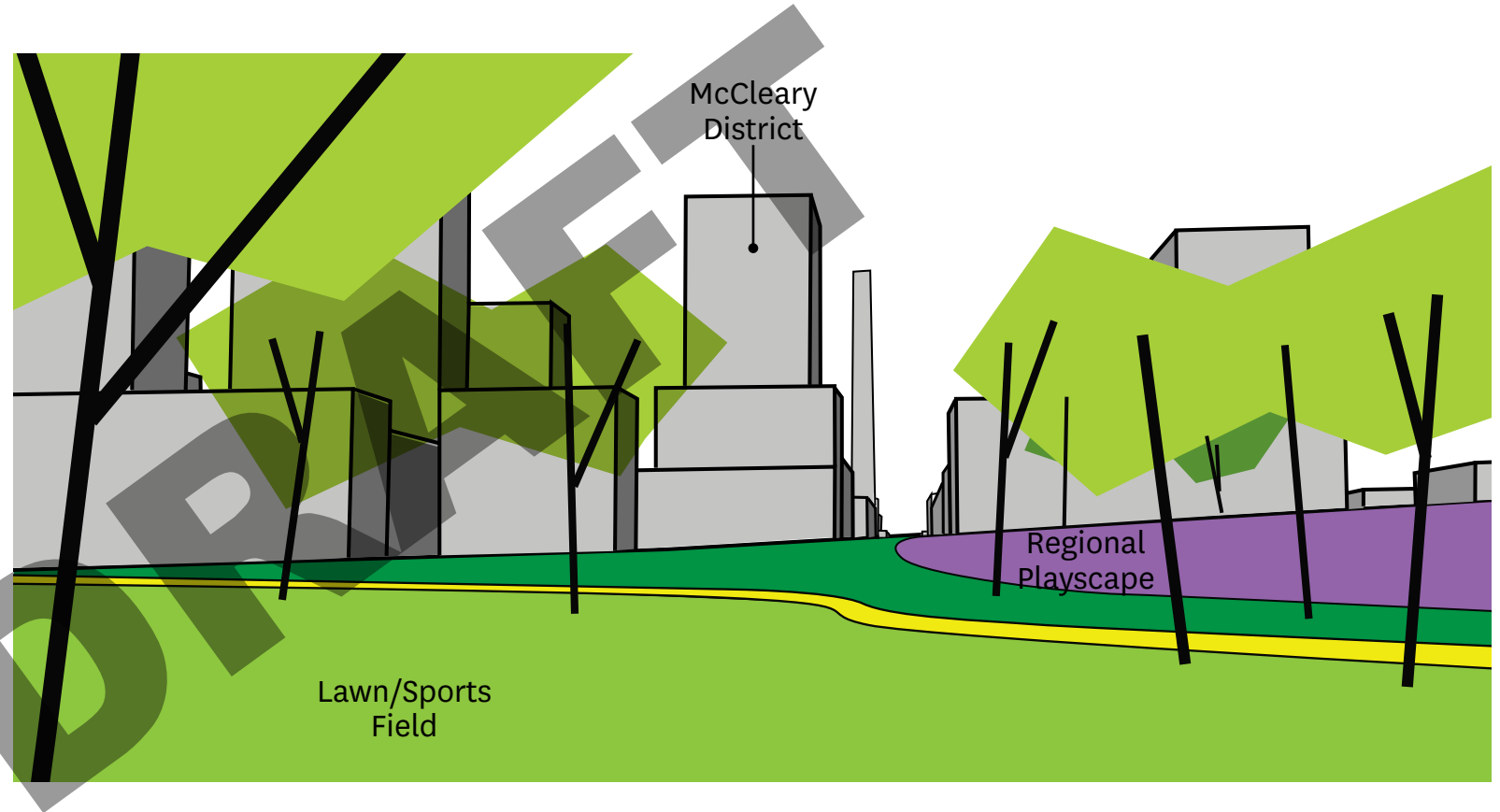
River Park and Villiers Island Connections



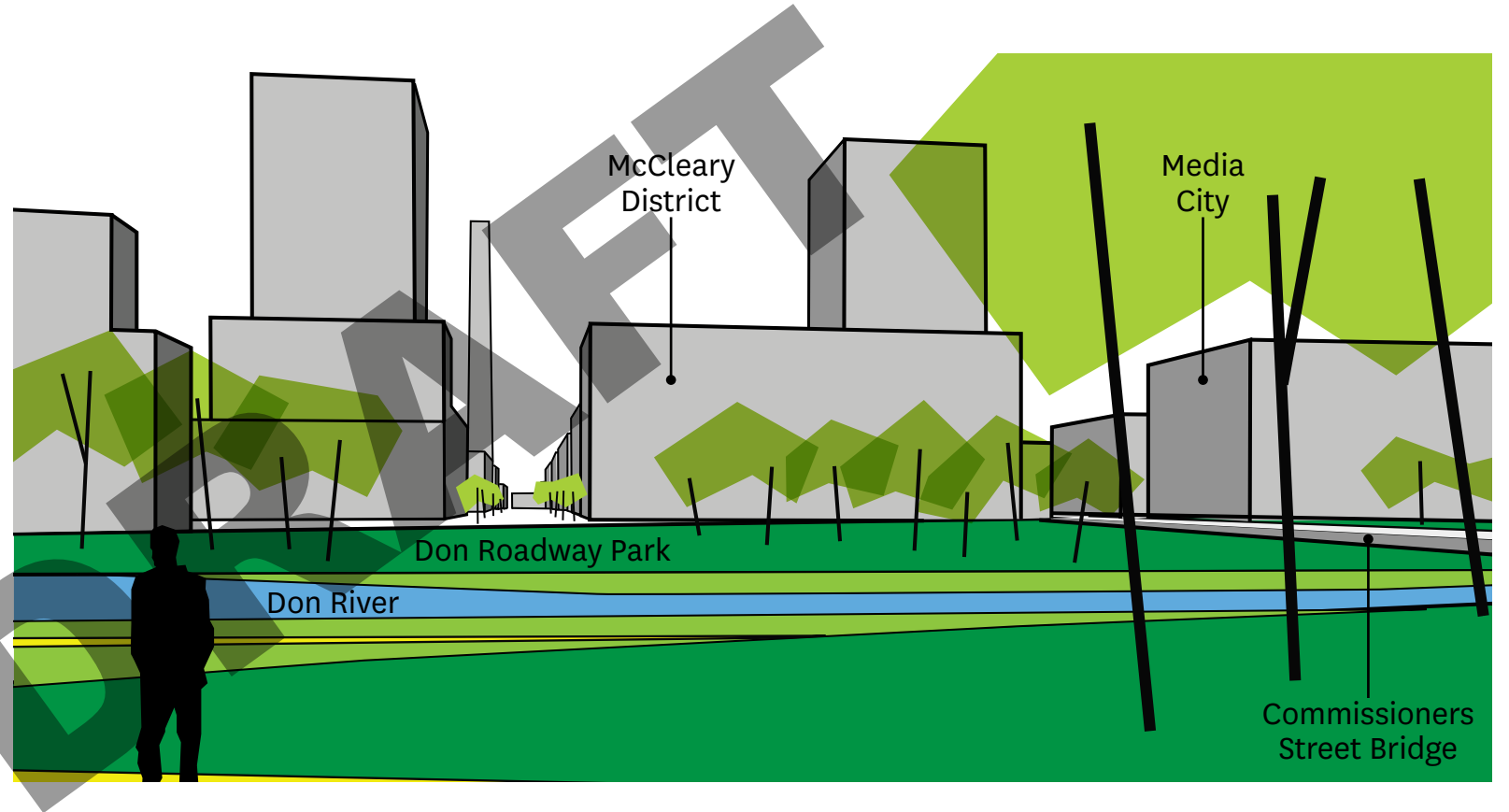
Villiers Park and Villiers Island Connections



Villiers Park and Villiers Island Connections



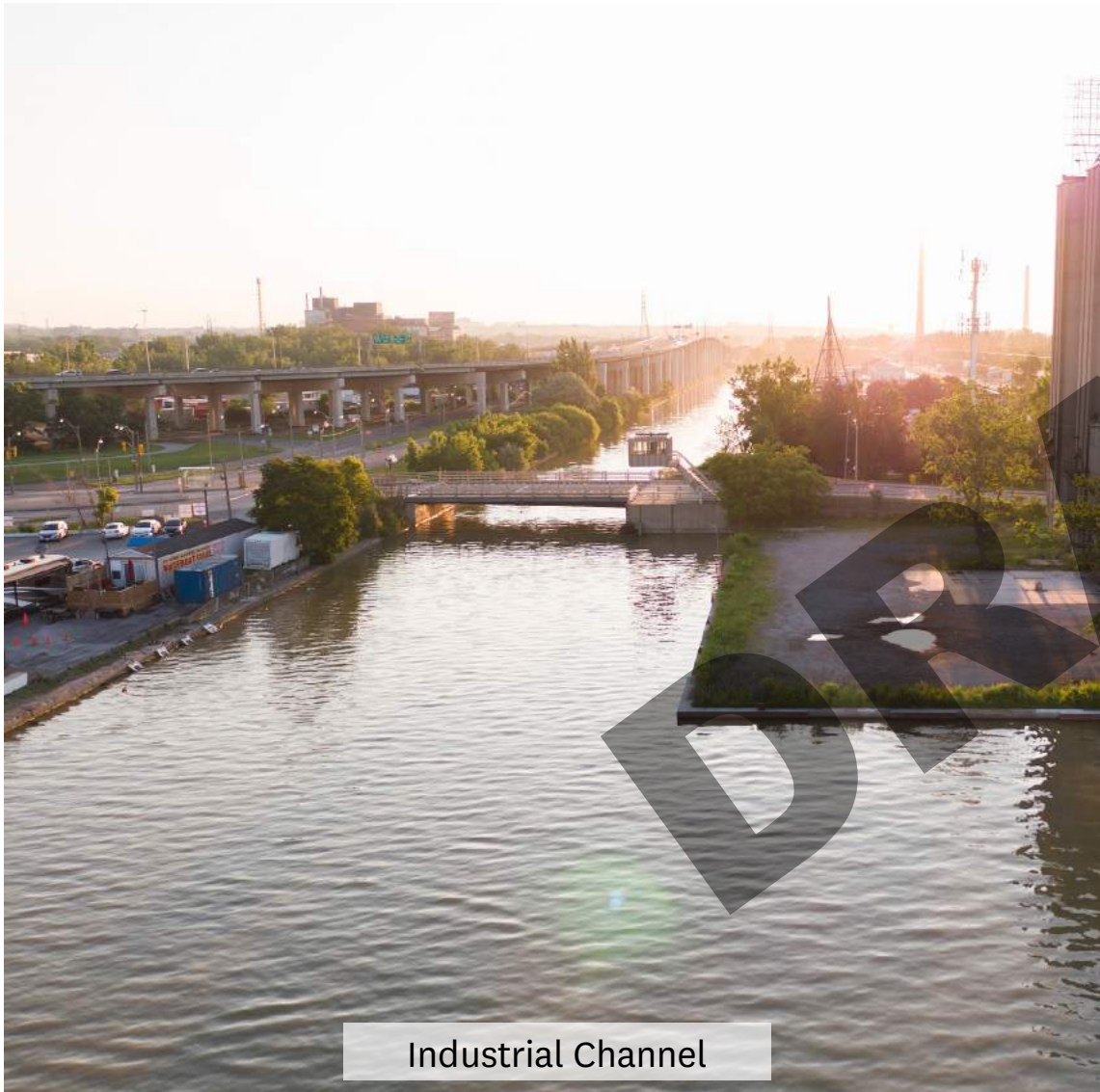
Villiers Park and Villiers Island Connections



Character of The Park

- How will remnants of industrial history yield a creative tension in the overall design of the park?
- How is the industrial/urban context a counterpoint to the robust naturalistic expression?

Embrace the Site's Inherent Dialectic of Constructed Nature



Industrial Channel



Naturalized River

Amplify Experience by Juxtaposing Landscape Types



Promontory Park



River Park



DRAFT