

Port Lands Flood Protection & Enabling Infrastructure Public Consultation #2

18 July 2018

Michael Van Valkenburgh Associates, Inc.
Landscape Architects

Meeting Agenda

Parks + River



MVVA

Bike + Pedestrian
Circulation; Ecology; Park
+ River Programming

Roads + Municipal Infrastructure



WSP / DTAH

Cherry St,
Commissioners St, +
Don Roadway

Bridges



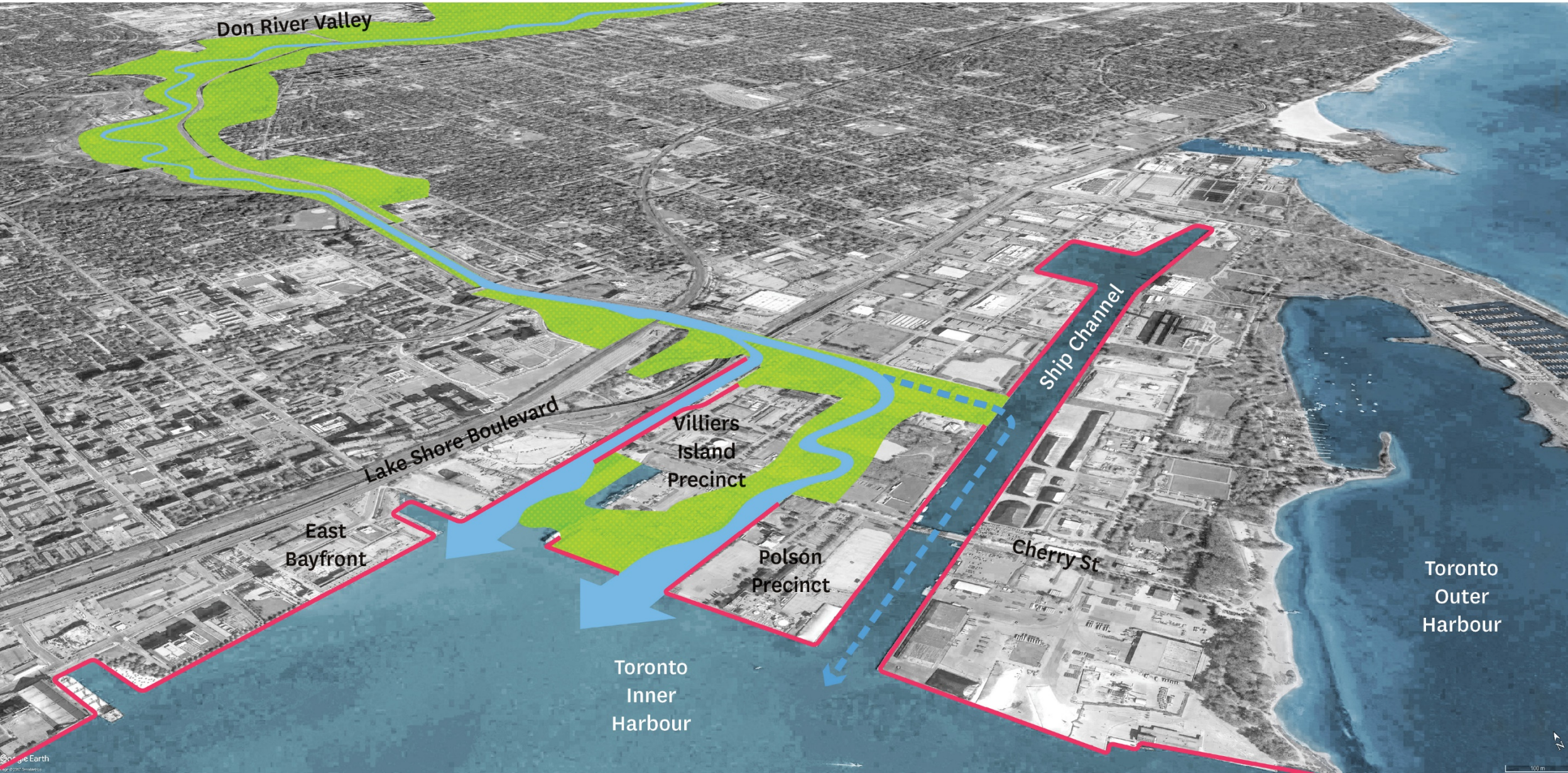
Grimshaw / Entuitive

Cherry St South and
North, Commissioners St,
+ Lake Shore Bridges

Toronto's Large Urban Parks



Bringing The Don River Valley to the City



Public Consultation #1 - 22 February 2018



The Fundamental Challenge

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

Flood Control

Naturalization

Place Making

Project Feedback - Parks and River

Community (Survey + Consultation)

- **Integrate the natural and the urban.**
- **Maximize naturalization opportunities (immersive nature)** and ensure connections for wildlife.
- Consider a mix of hardscaping (e.g. public squares for gathering, plazas) and natural green space.
- **Vibrancy/animation, especially along the water's edge.**
- Facilitate public water activities and connections/**access to the water.**
- Create active transportation/recreational opportunities
- Connection to surrounding neighbourhoods and the broader waterfront park system.
- Accessibility by transit and multiple modes.
- Accessibility for diverse groups of people.
- Integrate history through preserving local heritage and culture (adaptive reuse, art.)
- **Create views of the inner harbour and city.**
- Maintenance.
- **All season use.**

SAC/TAC/LUAC

- **Water access** and watercraft storage.
- Don't over program to allow for **nature to be the primary experience.**
- **Flexibility of spaces** to accommodate economic diverse population.
- Recognition of First Nations and industrial heritage.
- Universal access.
- **Protection of habitat and limiting access to naturalized areas.**
- Integrated transportation solutions.

Design Review Panel (01/24)

- Landscape ecology and **the connection of the river to the lake** could become part of **Toronto's signature identity.**
- Continue to **develop** the spatial, conceptual and programmatic **connectivity between the new naturalized river and** the larger ecological and spatial condition coming down through **the Don Valley.** Link those two more strongly.
- Keep developing the **river as a catalytic concept.**
- Tie programing and river armouring.

Valley Frame



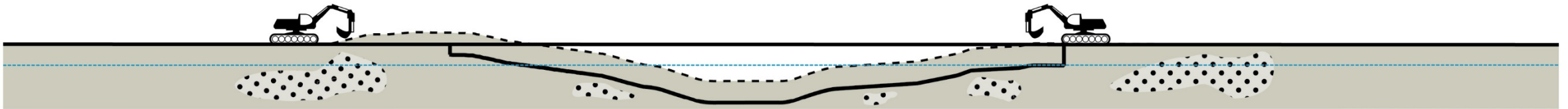
Urban Frame



The River as a Catalytic Concept

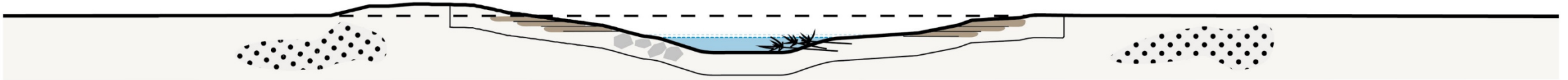


Constructing an Urban River Park



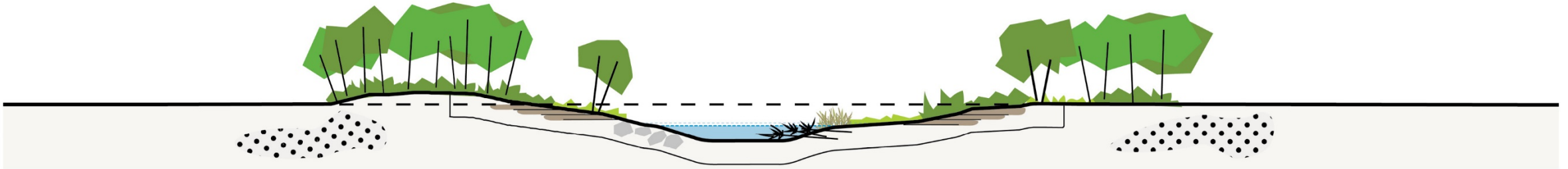
1. Soil Cleaning + Earthworks

Constructing an Urban River Park



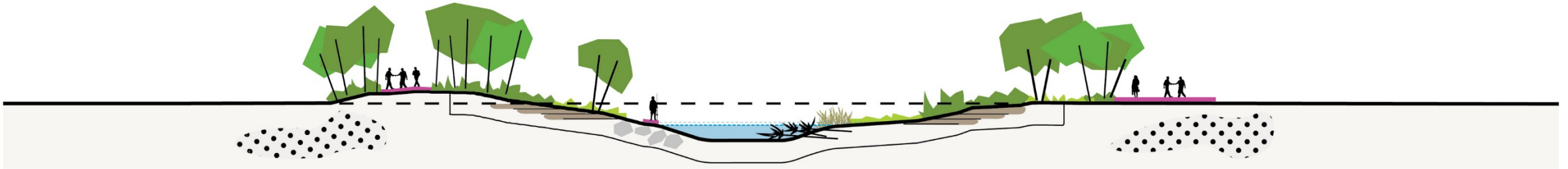
2. Shaping + Stabilizing the River

Constructing an Urban River Park



3. River Ecologies + Habitat

Constructing an Urban River Park



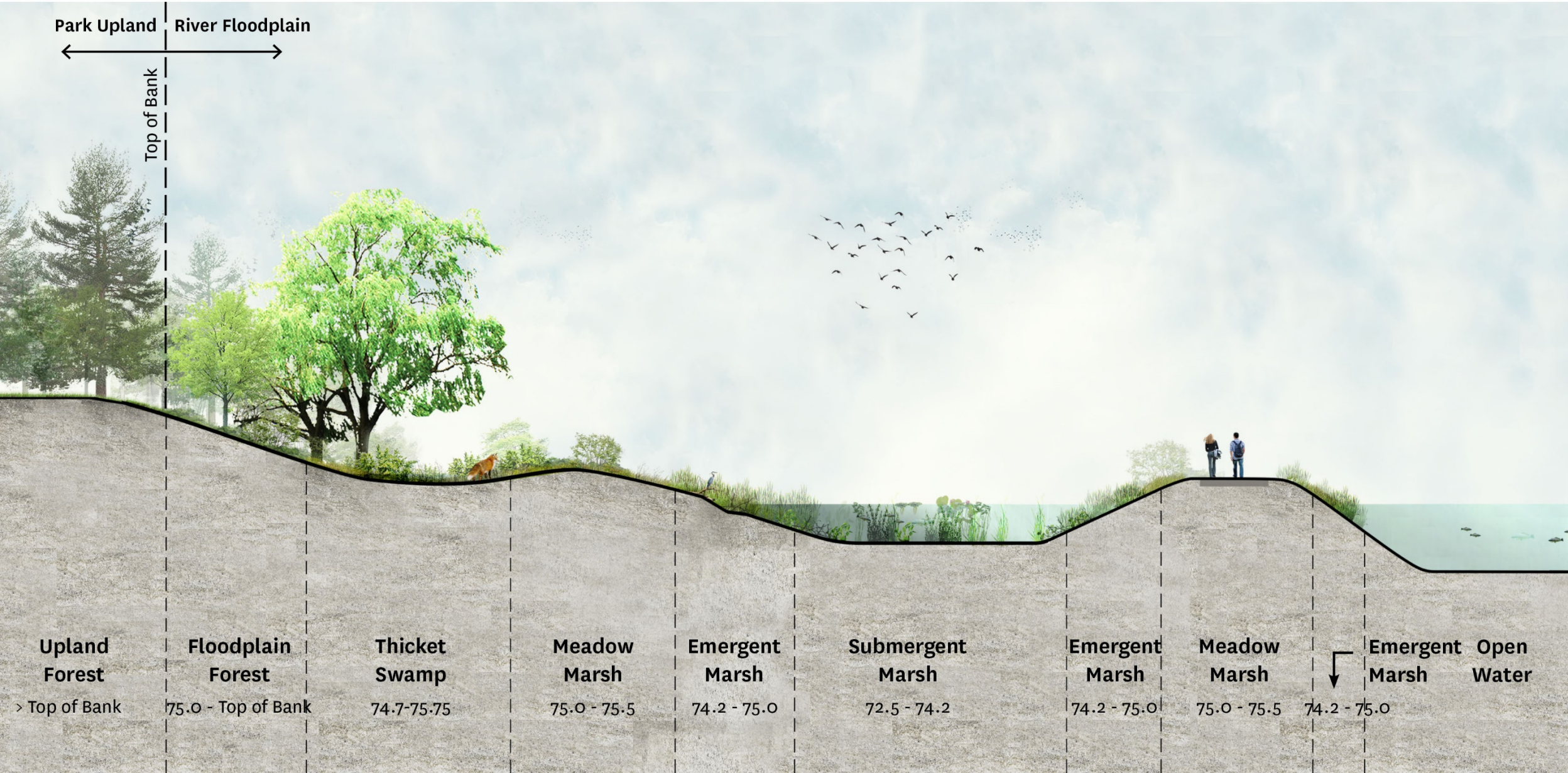
4. Park + River Programming

Constructing an Urban River Park



5. Building + Precinct Infrastructure

Engineering an Ecological System



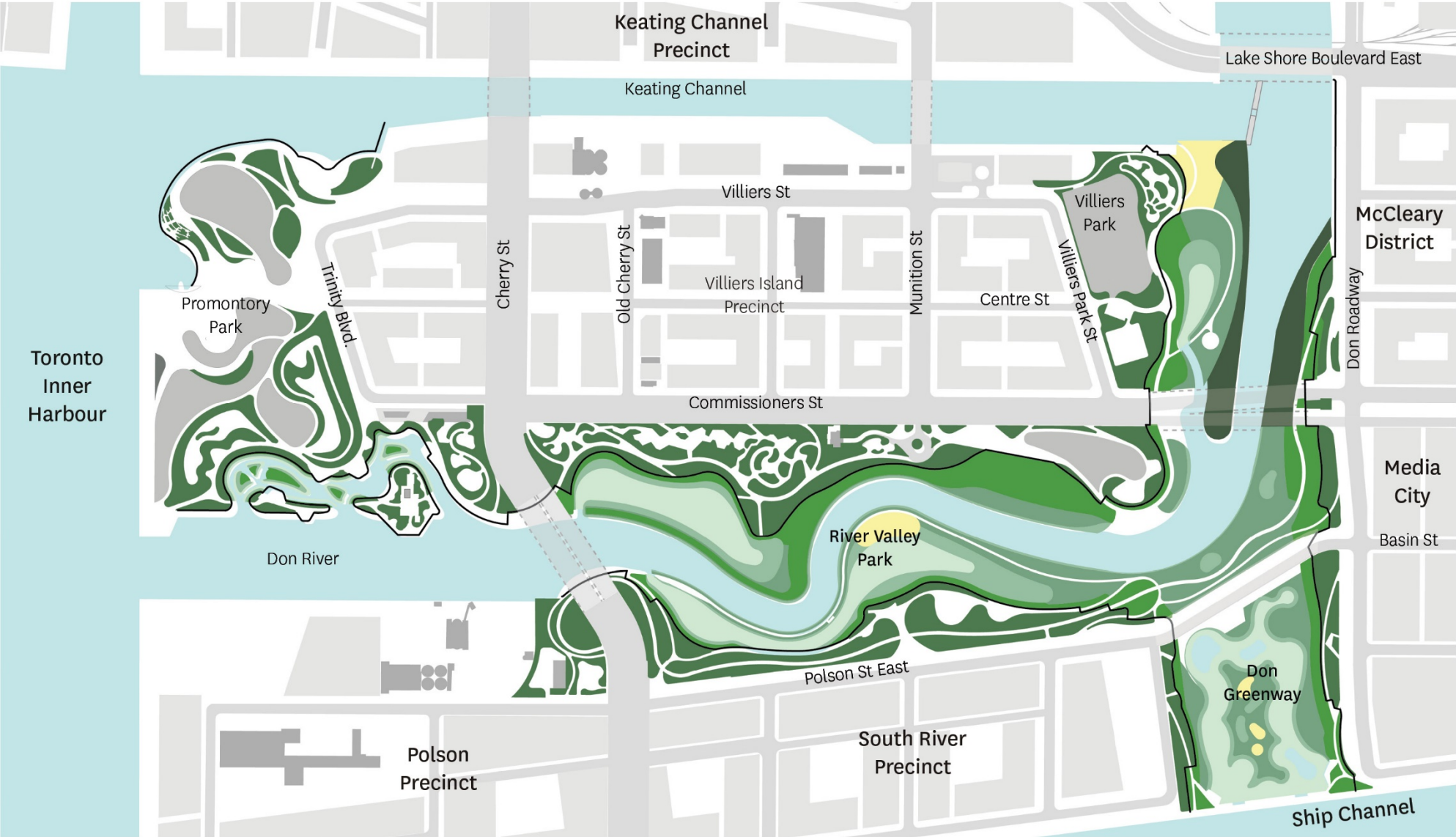
Engineering an Ecological System for the Don River

- Submergent Marsh:
72.5 - 74.2
- Emergent Marsh:
74.2 - 75.0
- Meadow Marsh:
75 - 75.50
- Thicket Swamp:
74.7 - 75.75
- Floodplain Forest:
75.0 - TOB
- Upland Forest:
> TOB
- Planted Armour Stone
- Top of Bank (TOB)



Bringing the Banks of the Don River to the City

- Submergent Marsh:
72.5 - 74.2
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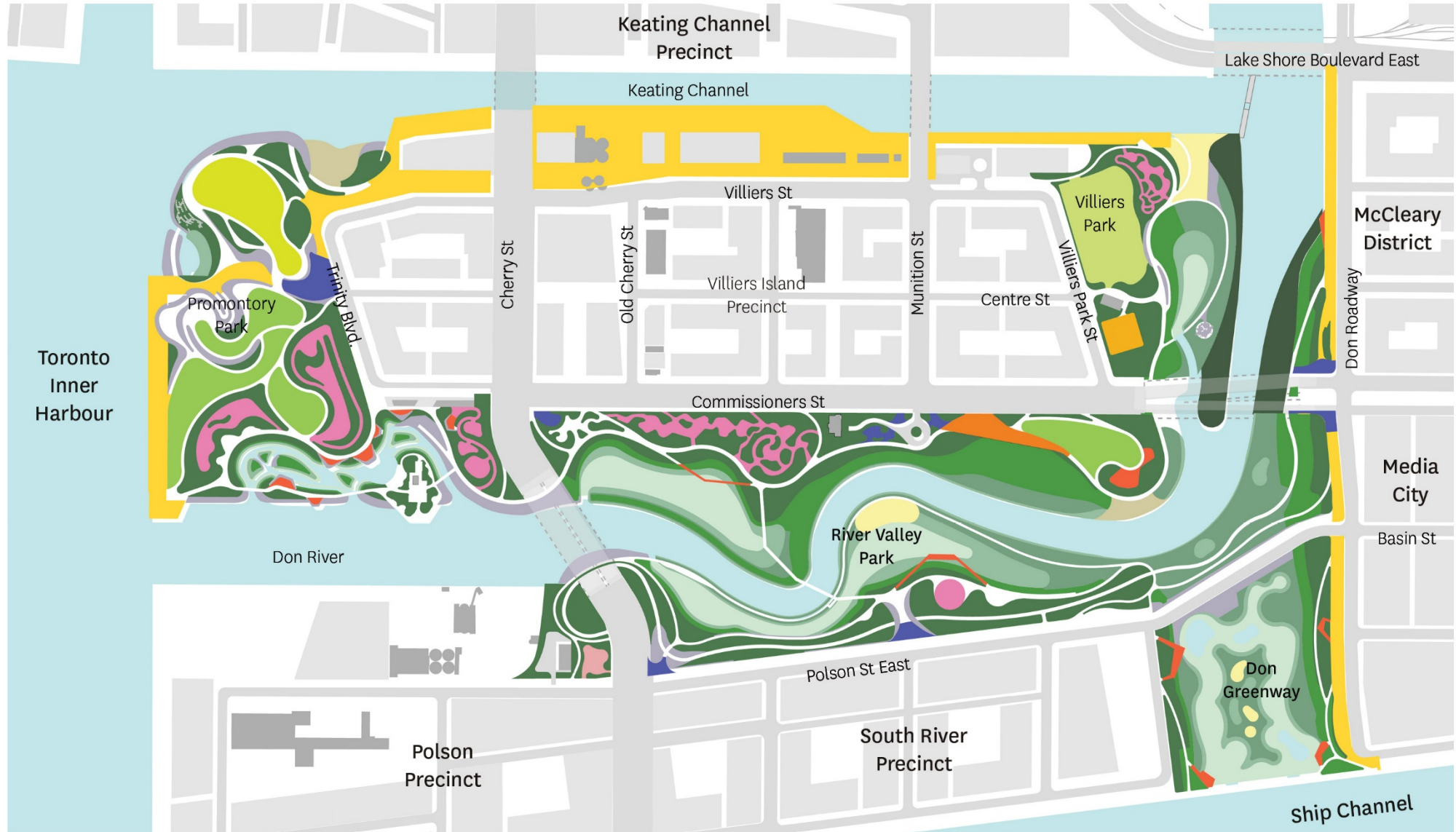


Diverse Programming within the Landscape Framework









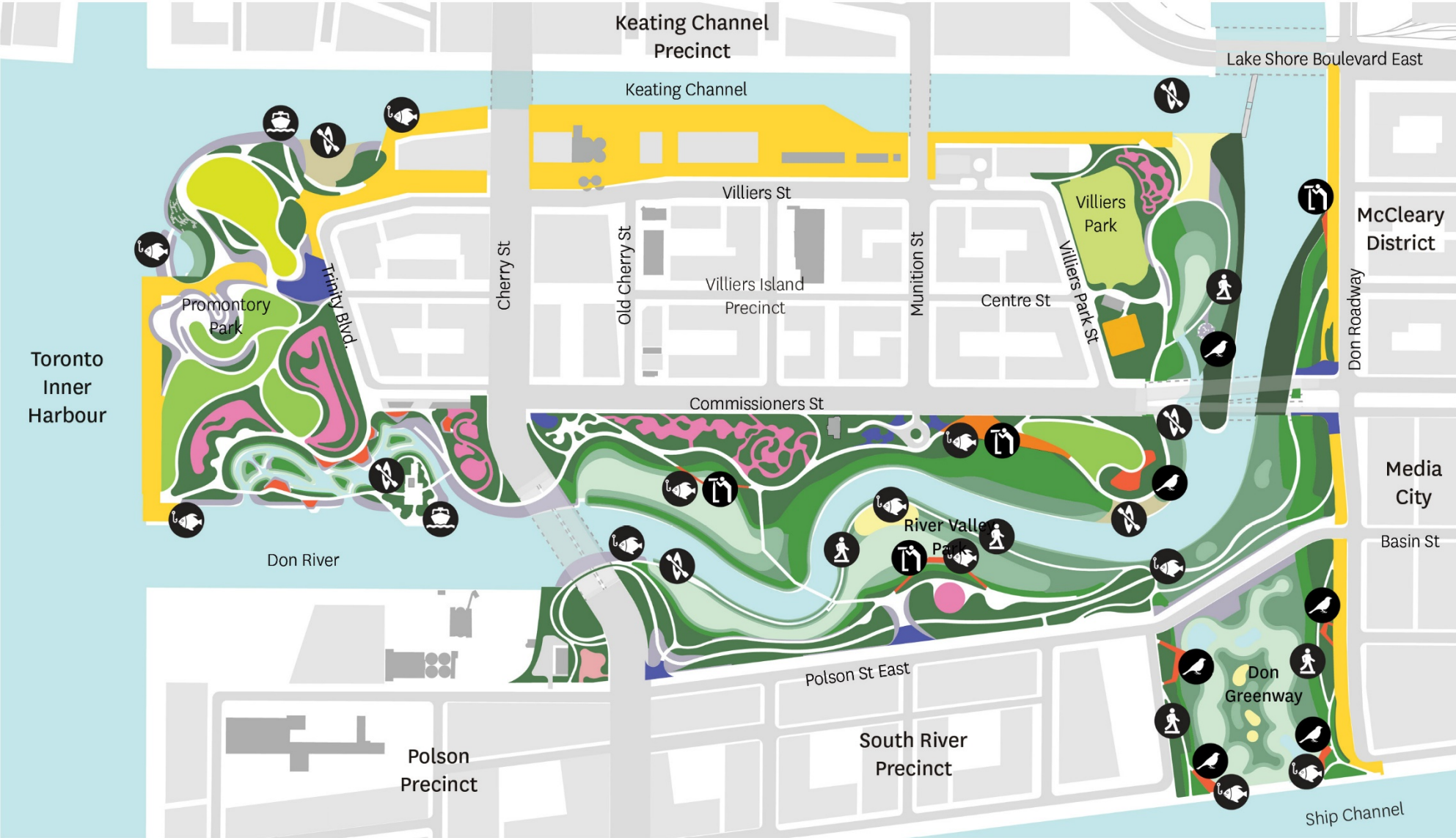
Park Programming - Full Vision

- New Building
- Playscape
- Court Sports
- Dog Park
- Overlook
- Picnic Terrace
- Urban Promenade
- Plaza
- Event Lawn
- Passive Use Lawn
- Multi-use Field
- Rocky Harbour Edge
- Submergent Marsh
- Emergent Marsh
- Meadow Marsh
- Thicket Swamp
- Vernal Pool
- Planted Armour Stone
- Wooded Upland
- Floodplain Forest
- Gravel Beach



River Programming - Full Vision

-  Fishing Node
-  Water Taxi Landing
-  Nature Exploration
 - Nature Trail
 - Snowshoeing
 - Cross Country Skiing
-  Boating
-  Bird Watching
-  Overlook
 - Eco Education / Interpretation



A Park for People - Full Vision



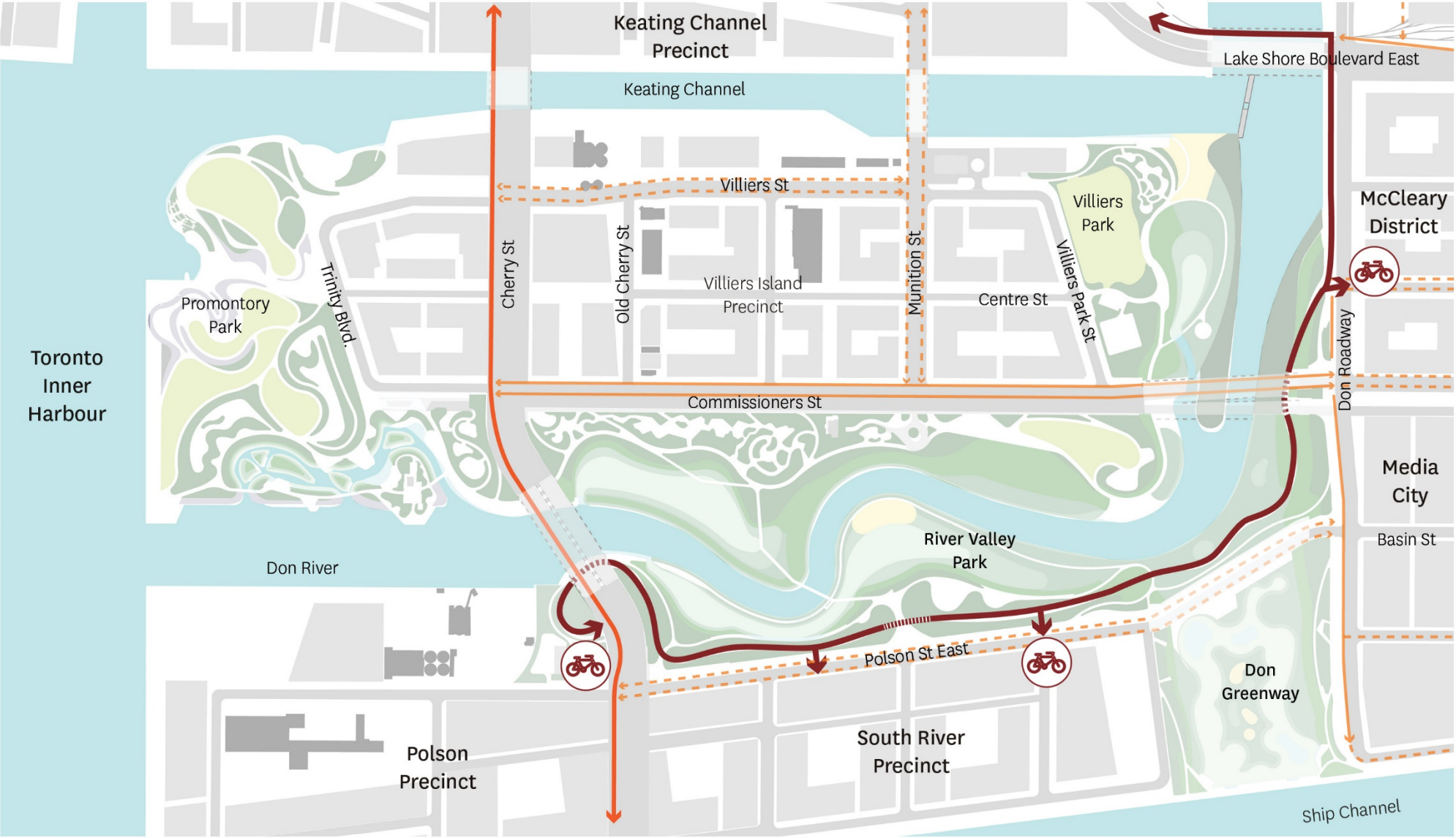
Pedestrian and Bicycle Circulation

Reconnecting The Lower Don Trail To The River



Bicycle Path Network Diagram

- Lower Don Trail
- Bicycle Entrance
- Martin Goodman Trail
- Commuter Bike Lane
- Future Commuter Bike Lane



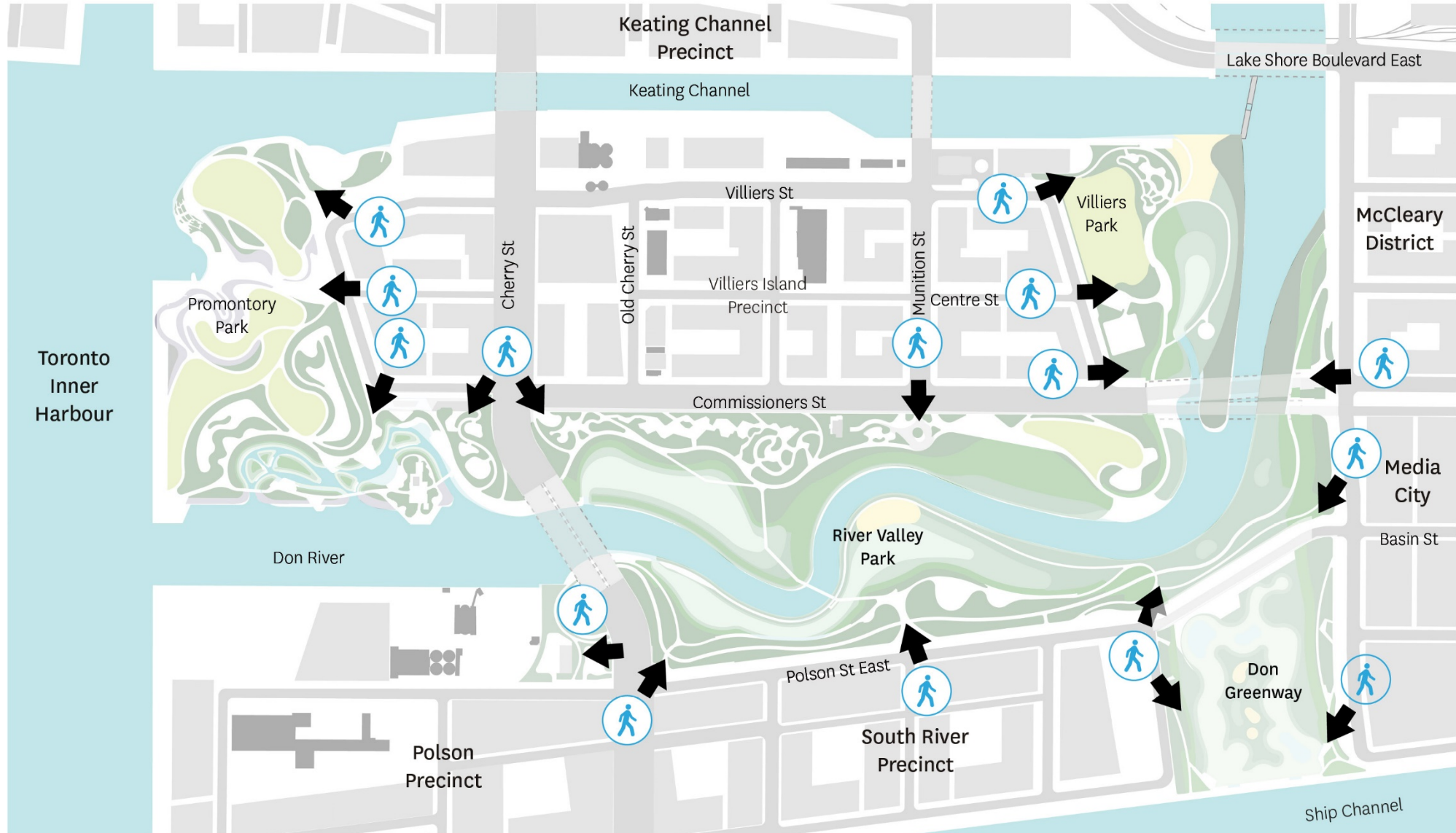
View Looking South At River Valley Park



Pedestrian Park Entrances

➔ Accessible Park Entrance

🚶 Pedestrian Access



View Looking Southeast from Main Park Entry at Commissioners Street

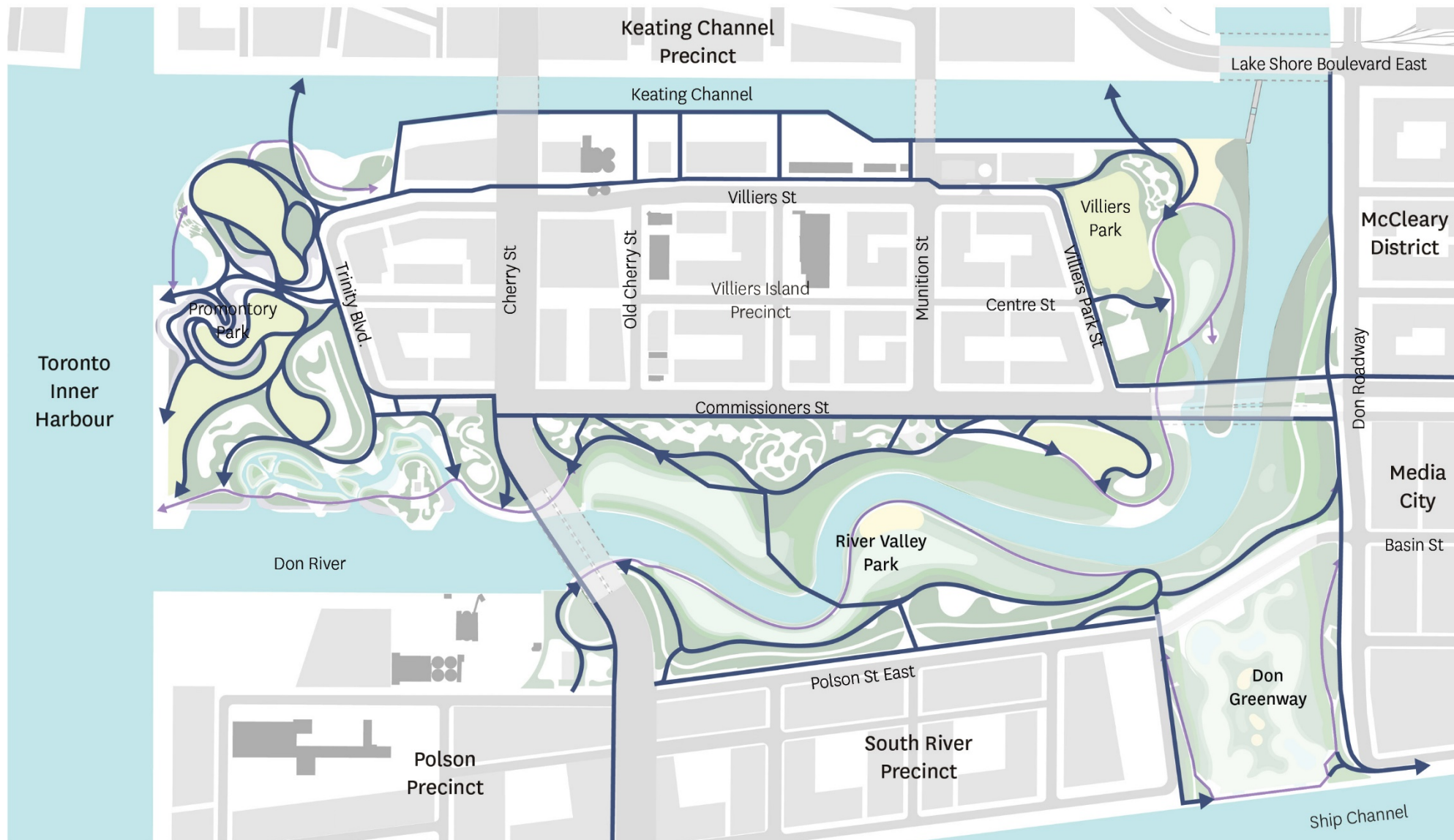


View Looking West from Main Park Entry at Centre Street



Upland Path Network

- Upland Path
- River's Edge Trail



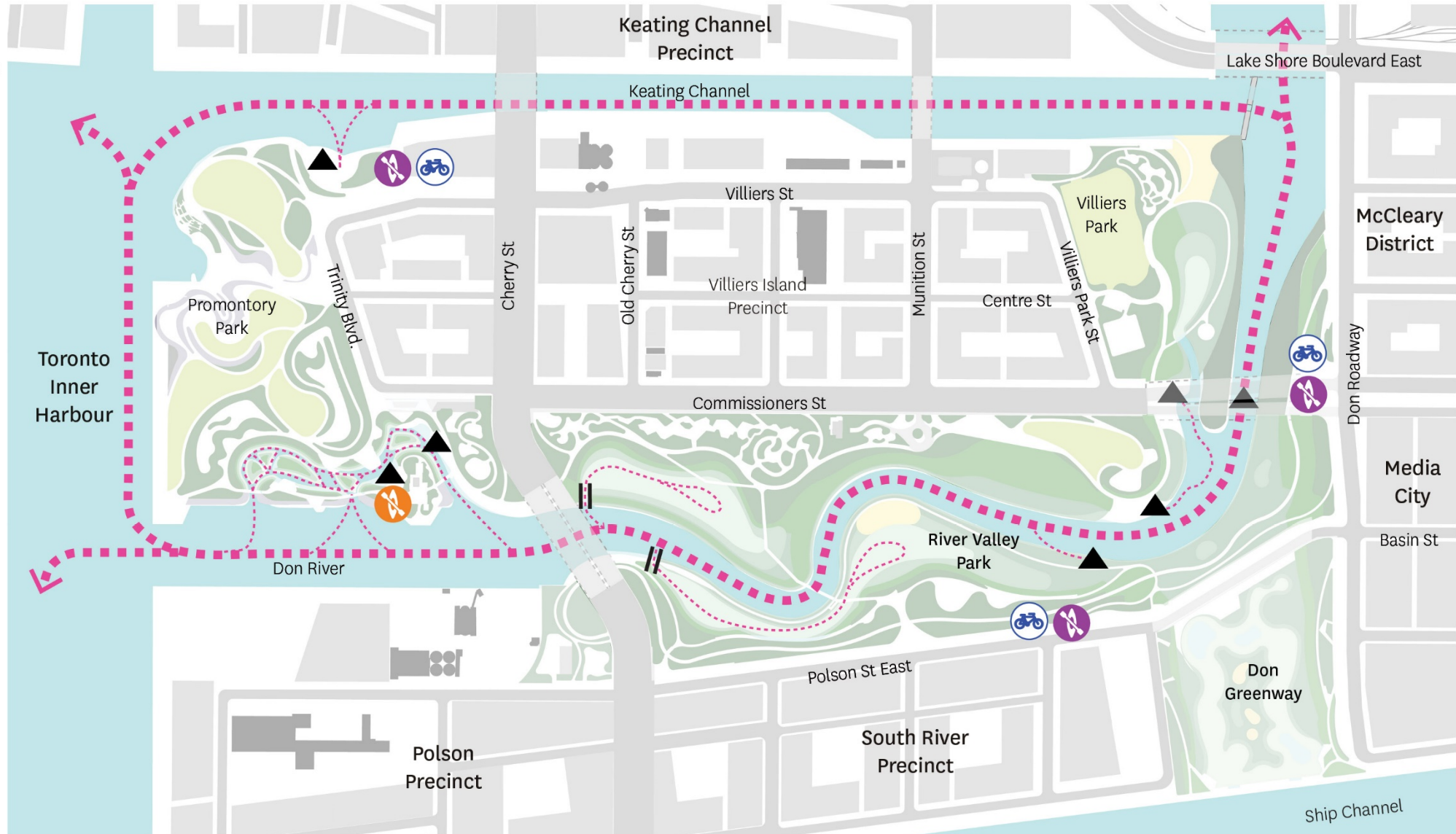
Water's Edge Trail

→ River's Edge Trail



Water Circuit

- Primary Kayak Circulation
- Secondary Kayak Circulation
- Kayak Launch
- Kayak Share
- Canoe Cove Rental
- Bike Share @ Kayak Share
- Portage



Ecological Systems

Performance Criteria and Design Considerations for the River



Design Considerations:

- Immobile channel form under regulatory flood
- Urban estuary hydrology and hydraulics
- Recreation use/park programming



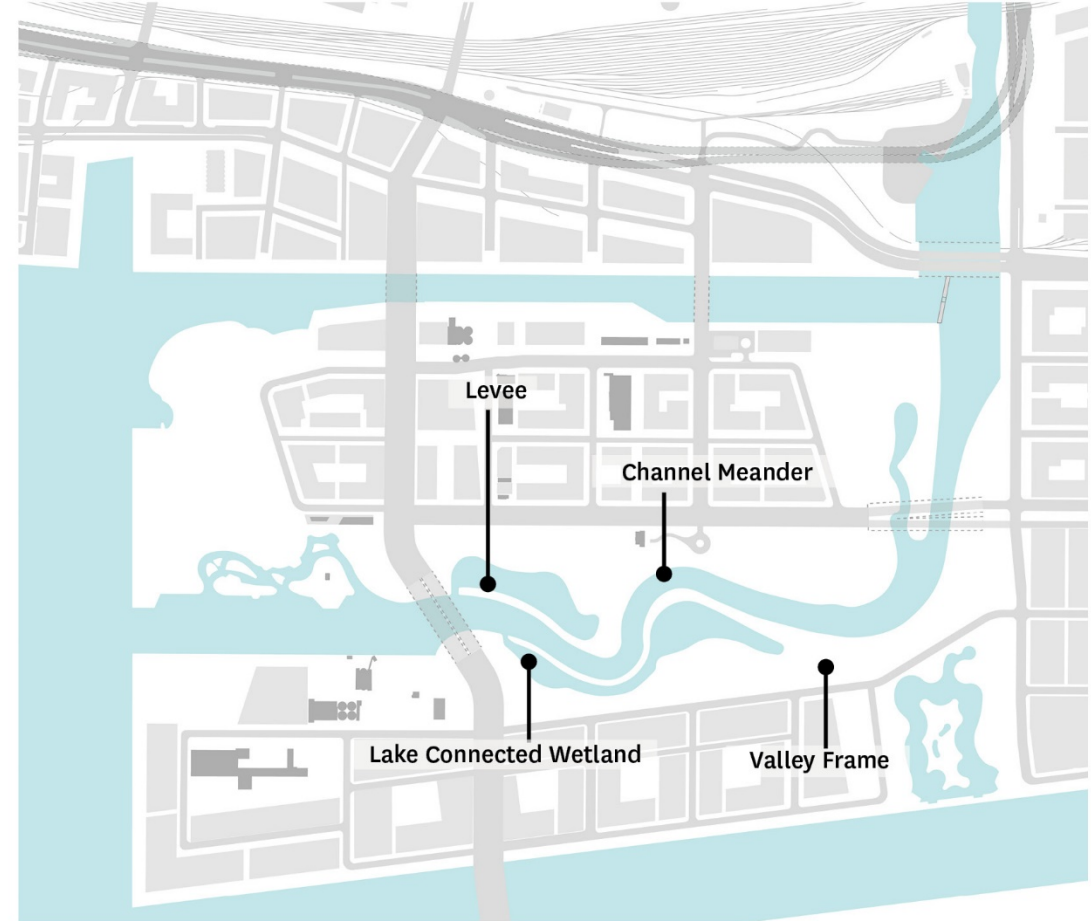
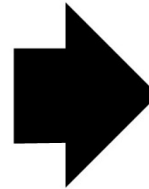
Performance criteria:

- Flood conveyance and capacity
- Contiguous riparian corridor
- Habitat complexity
- Analog idea for geomorphology, hydraulics, and ecology
- Analytical approaches

Design Shapes and Features Informed by Research



Rouge River



Lower Don Mouth



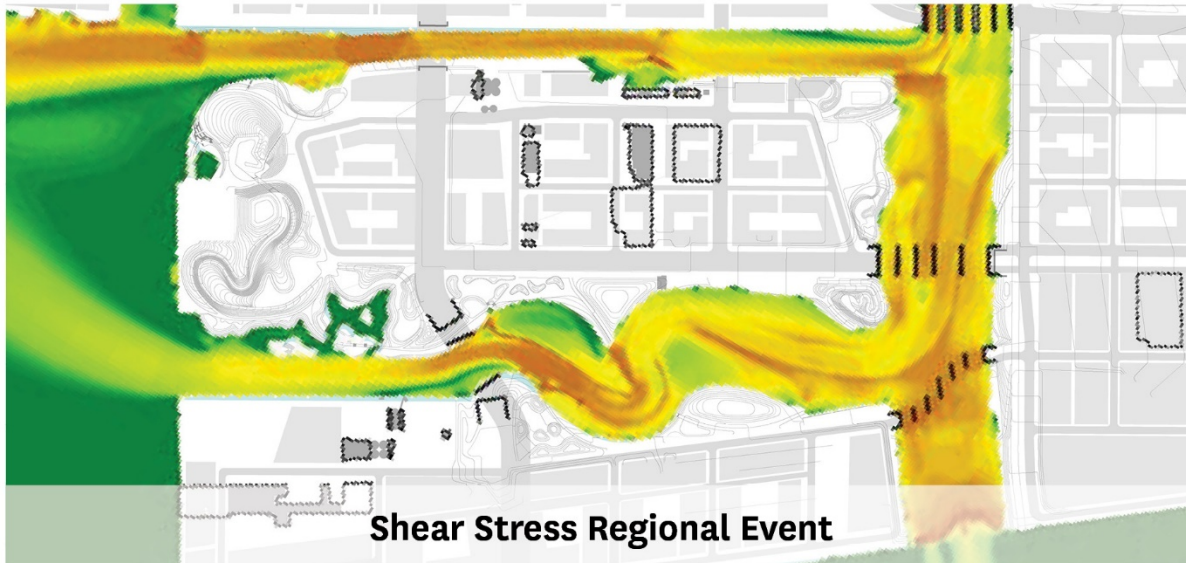
Wetland Levee Trail



View Looking Northeast from Levee Trail at River Valley Park

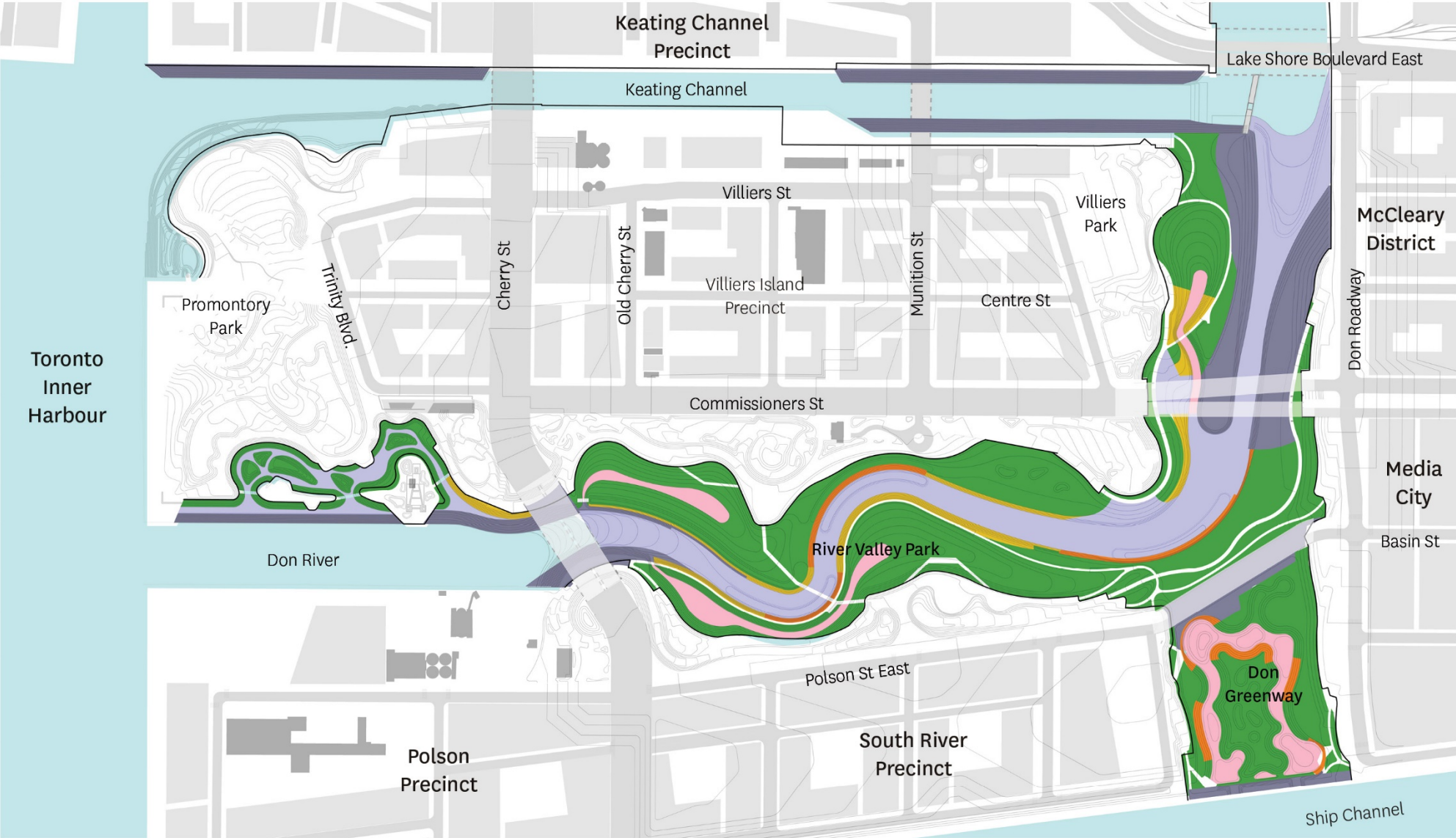


River Flow: Engineering and Resilience



River Stabilization Strategies

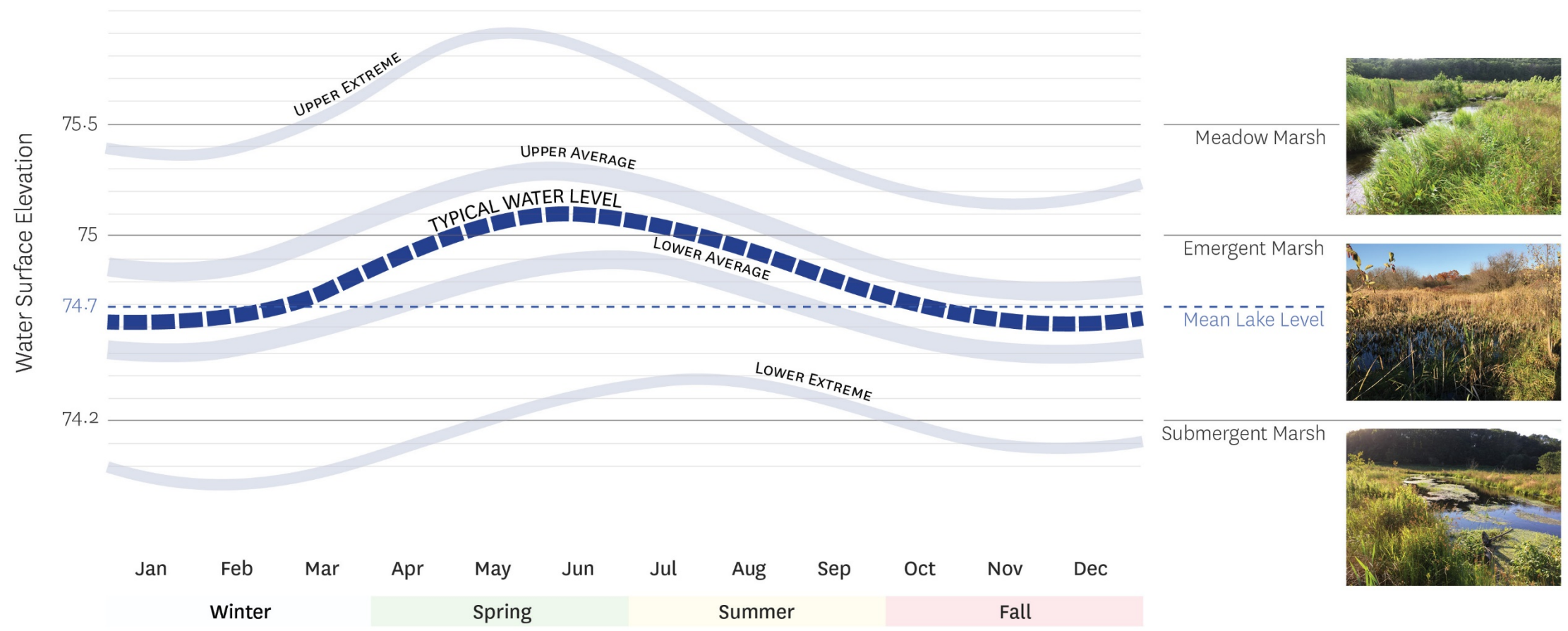
- Open Water
- Floodplain Planting
- Bioengineered Bank (FES)
- Crib Wall
- Stone Armour
- Habitat Gravel
- Spawning Gravel
- Top of Bank (TOB)



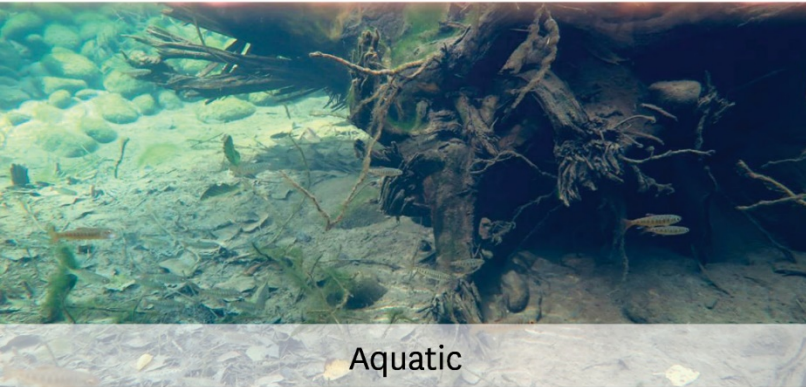


Baseflow

Seasonal Water Fluctuations Influence on Plant Community Distribution



River Ecology: Target Plant Communities



Aquatic



Submergent Marsh



Emergent Marsh



Meadow Marsh



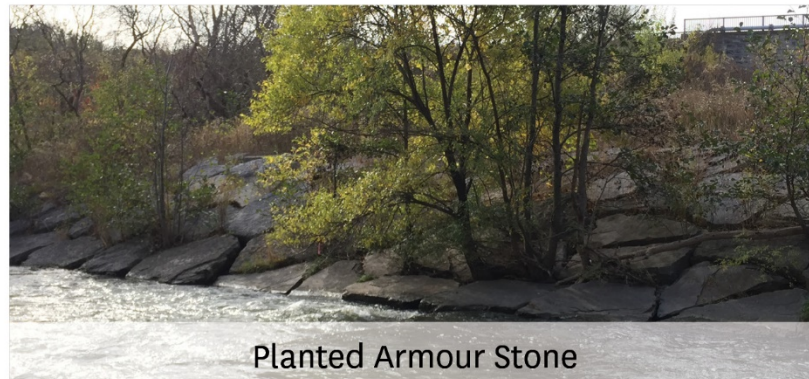
Thicket Swamp



Floodplain Forest



Upland Forest



Planted Armour Stone



Vernal Pool

River Ecology: Constructed Habitat



Bird Boxes



Anchored Wood



Osprey Platforms

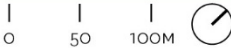
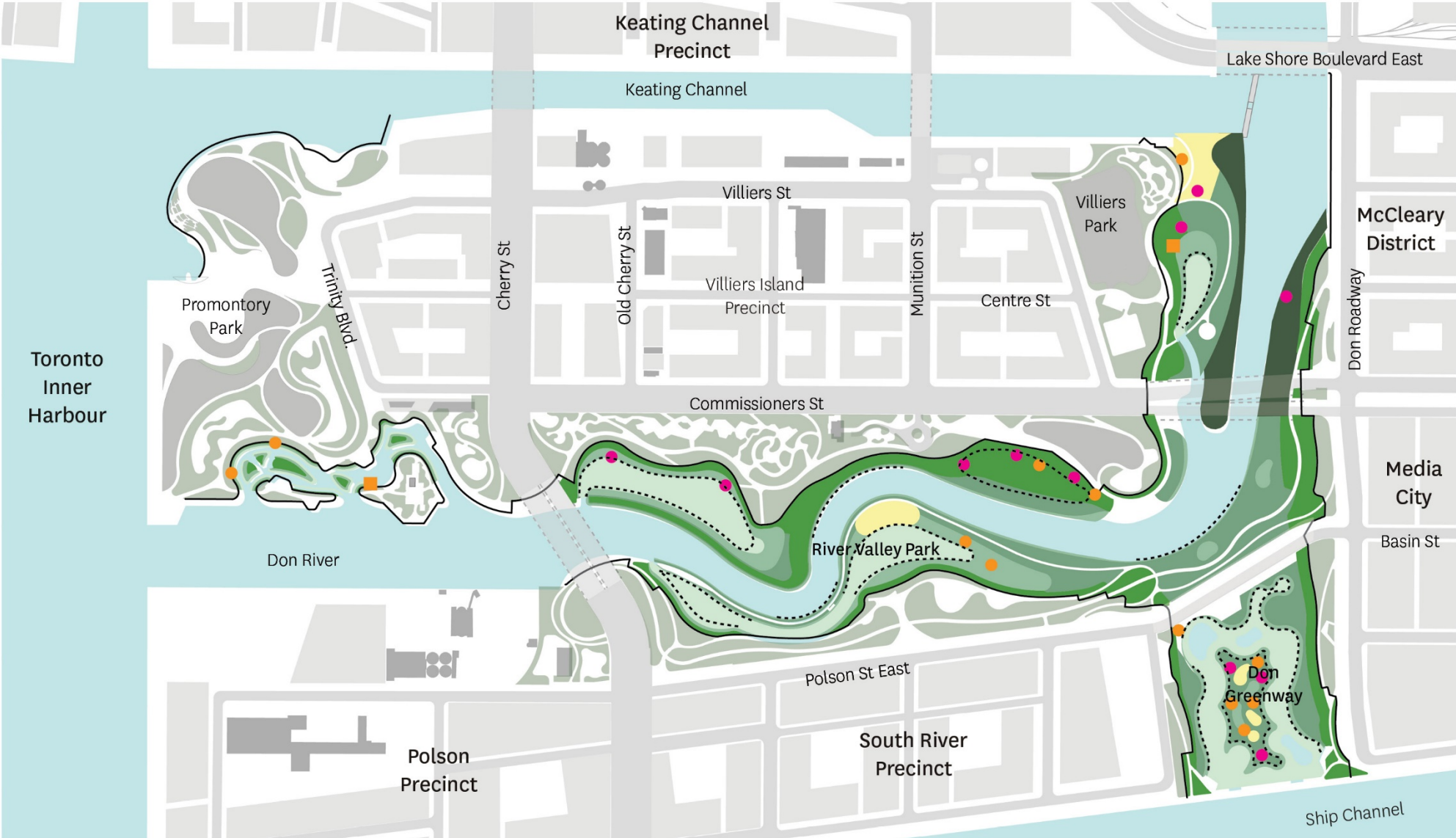


Turtle Habitat



River Ecology: Plant Communities and Habitat

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- Planted Armour Stone
- Vernal Pool
- Nest Boxes
- Turtle Bank Habitat
- Anchored Wood Habitat
- Nesting Platform
- Top of Bank (TOB)



River Ecology: Aquatic

Flora



Fauna



Rock Bass



Gizzard Shad



White Bass



White Sucker



Emerald Shiner



Northern Pike

River Ecology: Submergent Marsh

Flora



Fauna



Green Frog



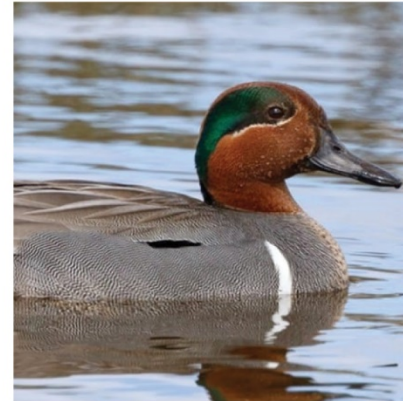
Painted Turtle



Muskrat



Belted Kingfisher



Green-winged Teal



Great Blue Heron

River Ecology: Emergent Marsh

Flora



Fauna



Long-tailed Weasel



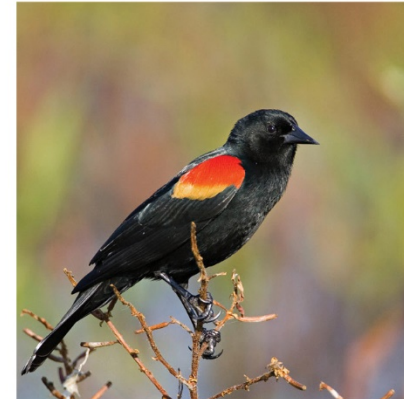
Marsh Hawk



Mallard



Common Yellowthroat



Red-winged Blackbird



Swamp Sparrow

River Ecology: Meadow Marsh

Flora



Fauna



American Toad



Meadow Vole



Monarch Butterfly



Coyote



American Goldfinch



Willow Flycatcher

River Ecology: Floodplain and Upland Forest

Flora



Fauna



Eastern Chipmunk



Eastern Cottontail



Eastern Grey Squirrel



Sharp Shinned Hawk



Red Fox



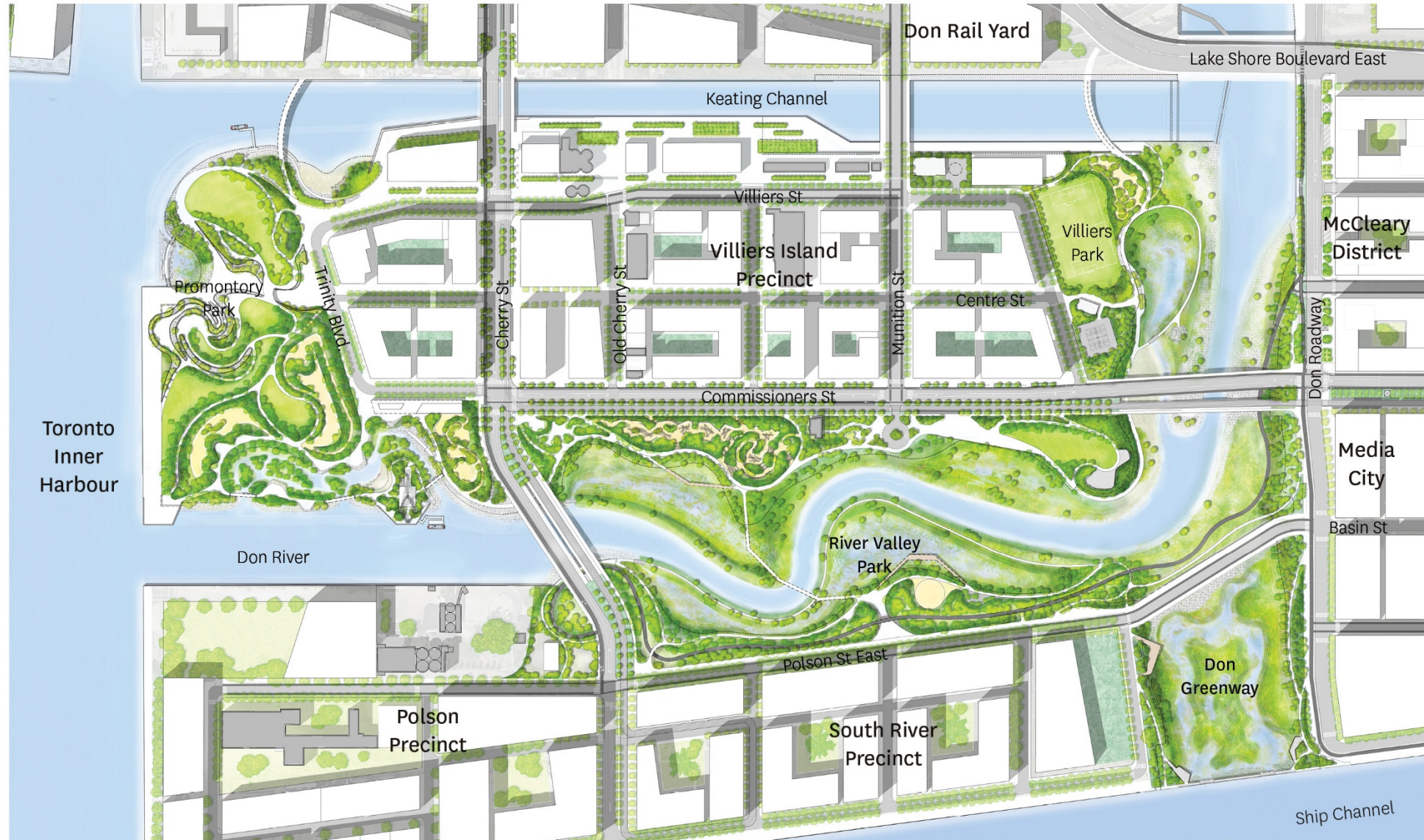
Wood Frog

View Looking East from Wetland at River Valley Park



Park and Programming

Full Vision Plan



Funded Project Areas



Program Opportunities at Park Uplands



Wooded Uplands



City Wide Destination Playscape



Heritage Commemoration



Prospect Overlook

Program Opportunities at Park Uplands



Water's Edge Promenade



Passive Use-Lawns

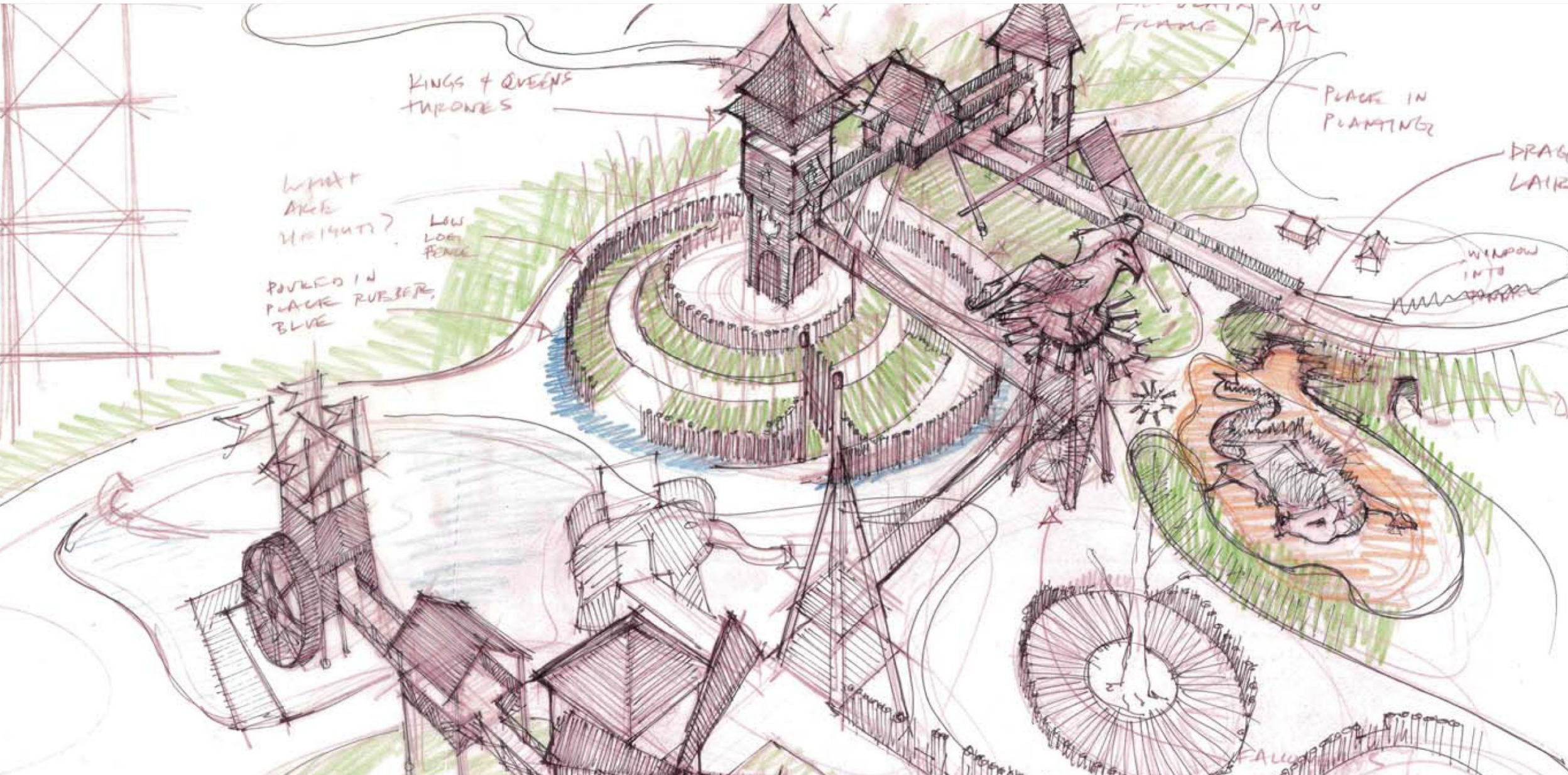


Civic Water Play Areas



Court Sports

Play Aspiration Precedents



Play Aspiration Precedents



Play Aspiration Precedents



Program Opportunities at Don River Valley



Nature Trails



Gravel Beaches



Picnics and Fire Pits



Aquatic Research

Program Opportunities at Don River Valley



Boardwalks



Fishing



Cross Country Skiing



Canoe/Kayak Access

Promontory Park - Plan



Promontory Park - Bird's Eye View



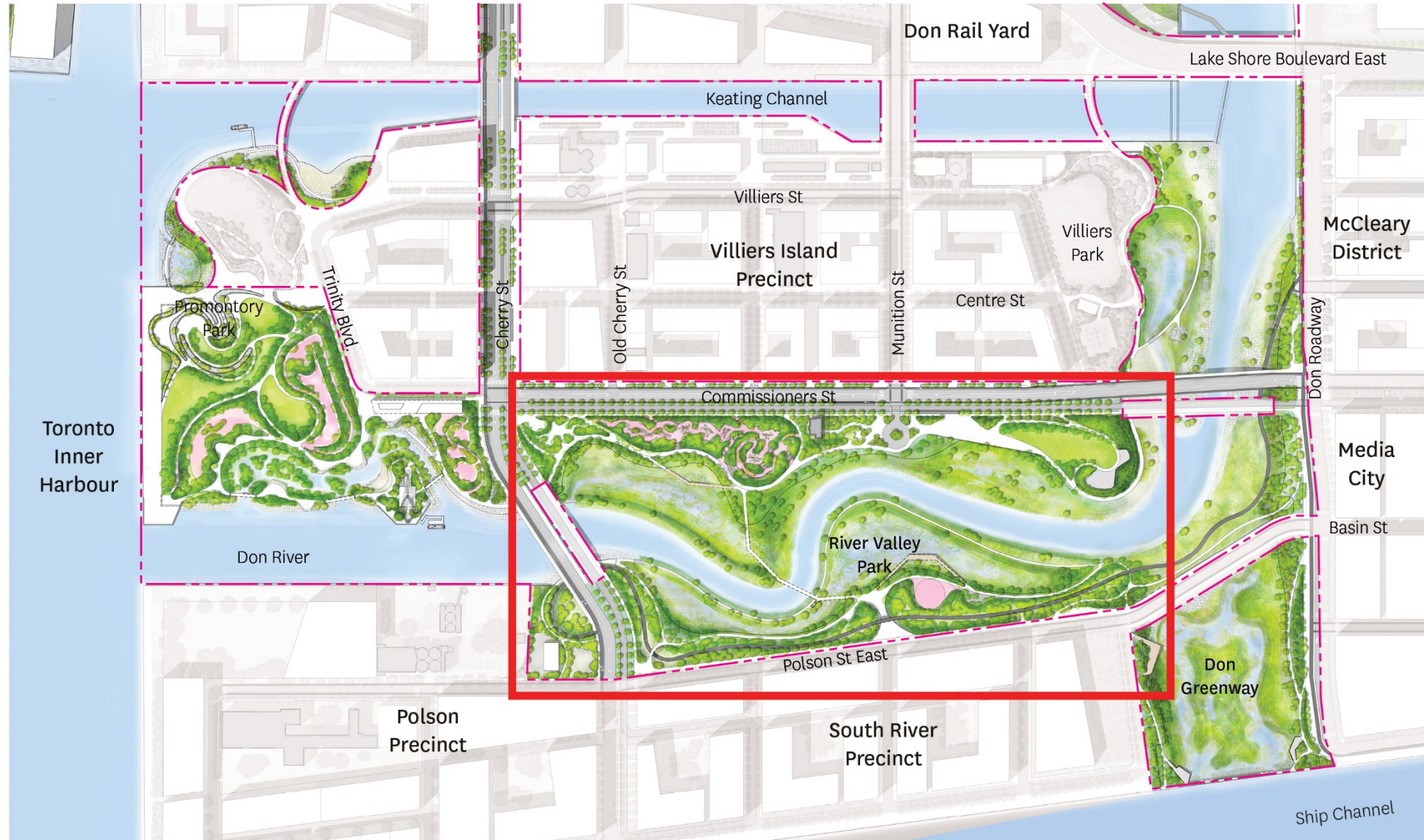
Canoe Cove - Bird's Eye View



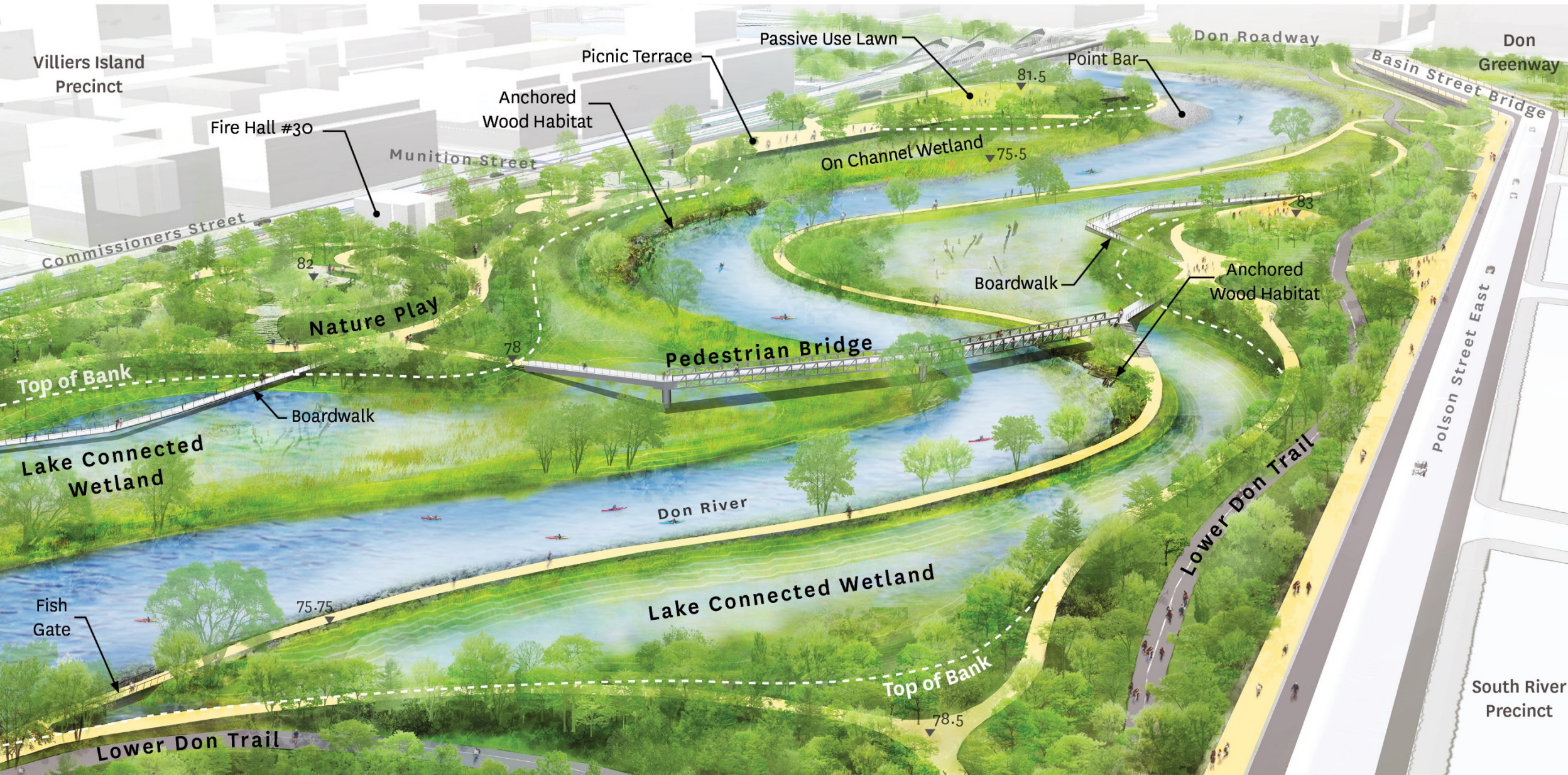
View Looking East from Canoe Cove at Promontory Park



River Valley Park - Plan



River Valley Park - Bird's Eye View



View Looking North from Pedestrian Bridge at River Valley Park



View Looking South from Picnic Terrace at River Valley Park



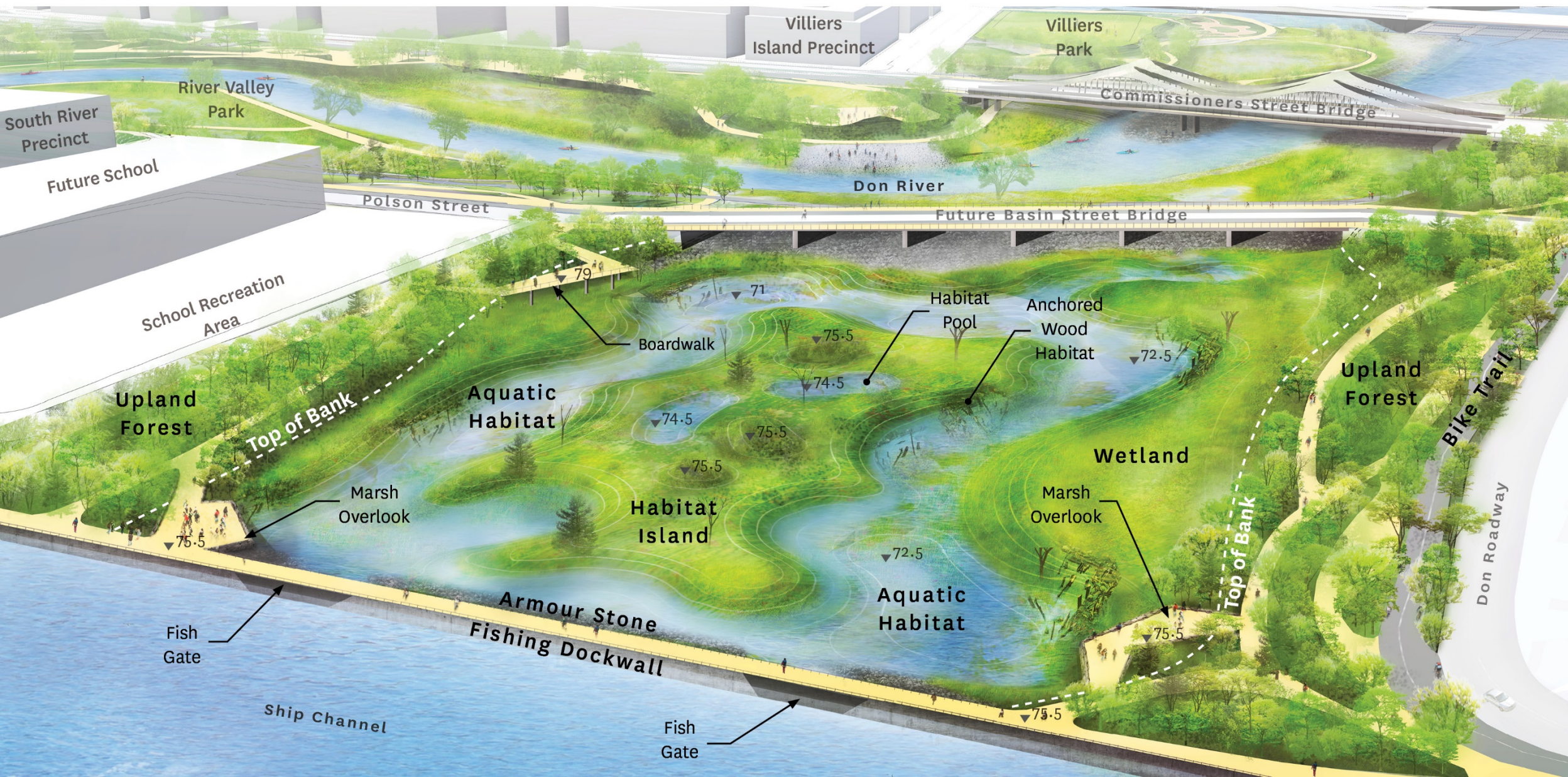
View Looking South from Point Bar at River Valley Park



Don Greenway - Plan



Don Greenway - Bird's Eye View



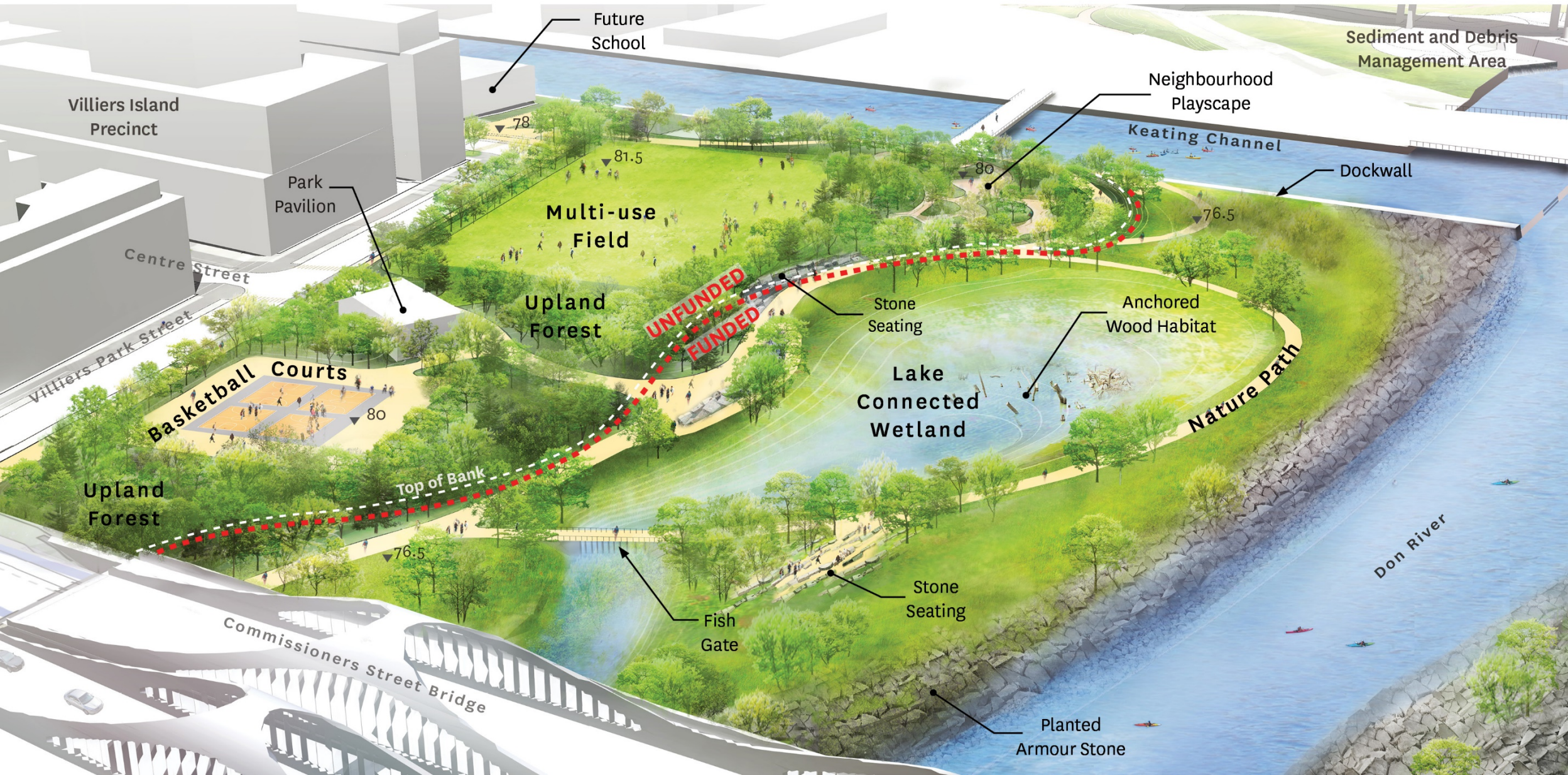
View Looking East from Overlook at Don Greenway



Villiers Park - Plan



Villiers Park - Bird's Eye View



View Looking South at Ice Management Area at Villiers Park



Roads and Public Realm

Project Feedback - Roads

SAC

- **Consider separating different modes of transportation.**
- **Provide familiar street typologies.**
- **Consider environmental conditions.**
- **Accessibility through the park to adjacent neighbourhoods.**
- **Materiality.**

Design Review Panel (01/24)

- Consider spilling the park onto the street and making the plantings more irregular.
- Distribute street elements differently to make the street feel less wide.
- Ensure pedestrians are brought forward with as much thought as vehicles and cyclists.



URBAN

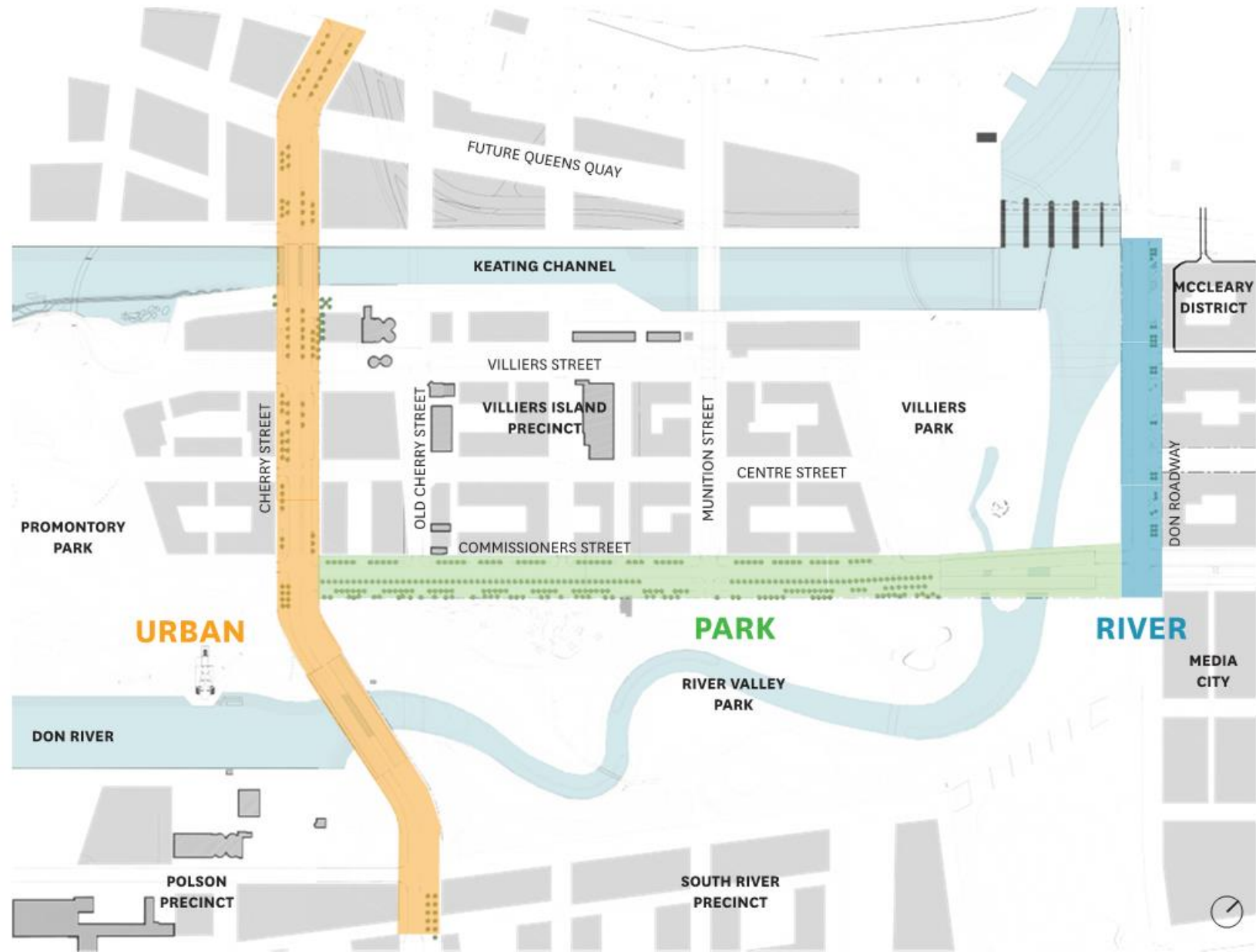


PARK

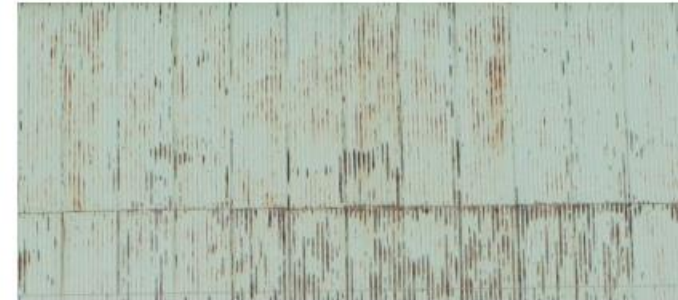


RIVER

Street Identities



Connecting the Industrial Heritage of the Past...



and the Naturalized Landscape of the Future River



Hunter's Point South Waterfront Park, Queens, NY



Portland, Oregon

Bringing Life to the Street...



Programmed Gathering

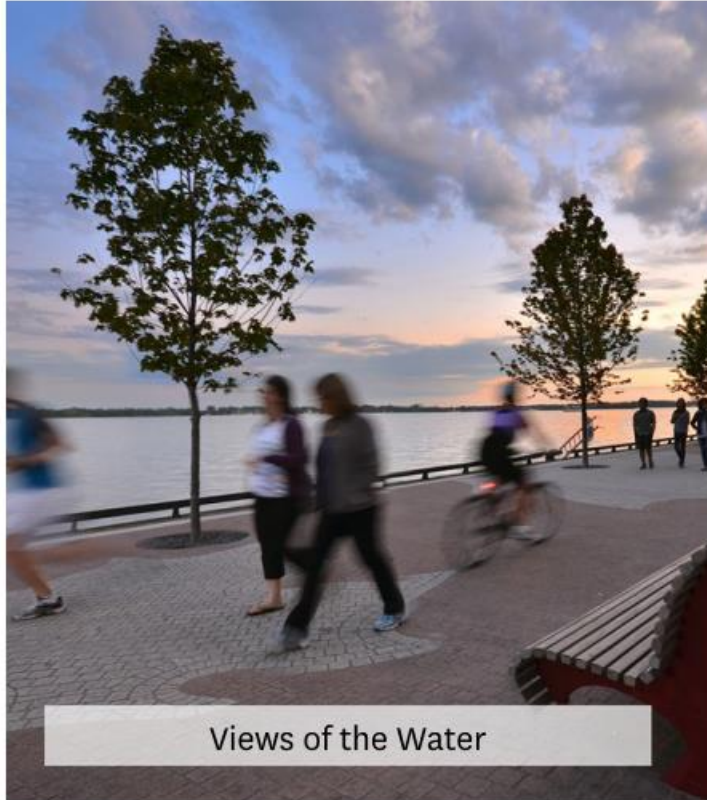


Moving People



Extension of Building Functions

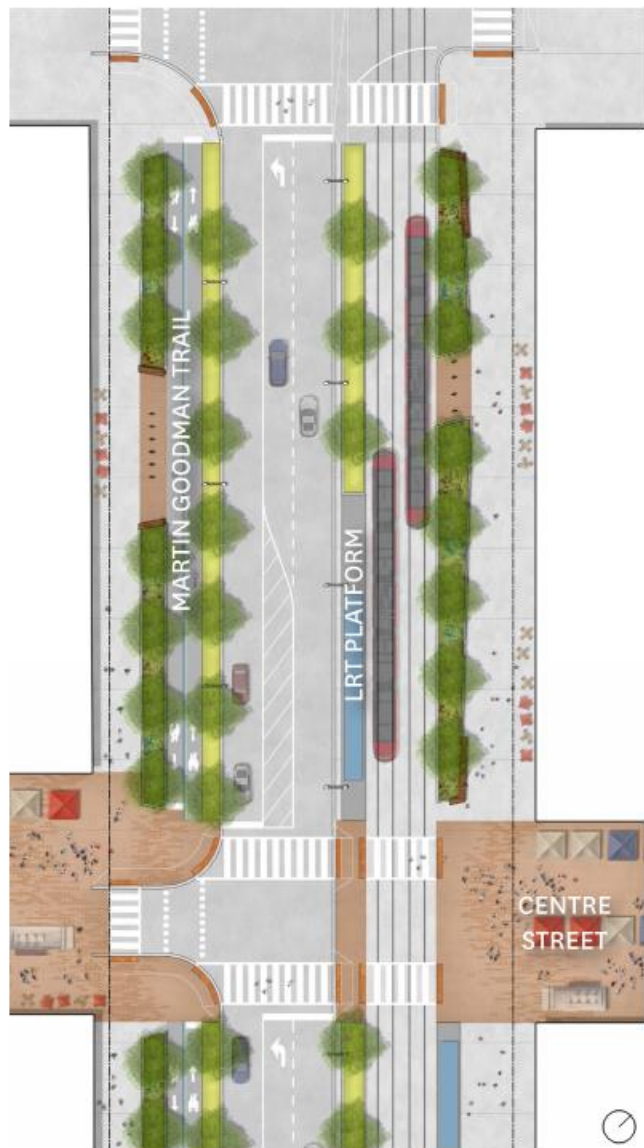
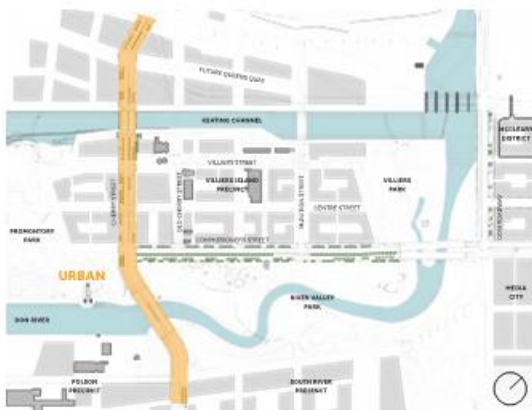
Creating Opportunities for...



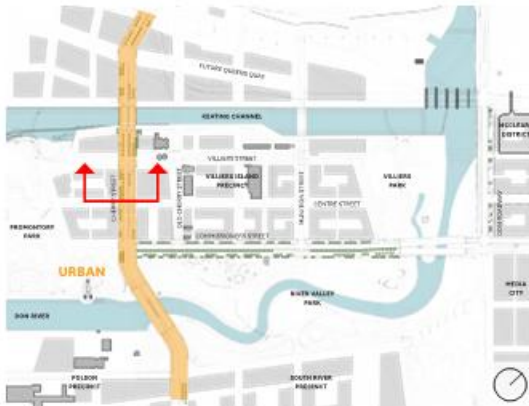
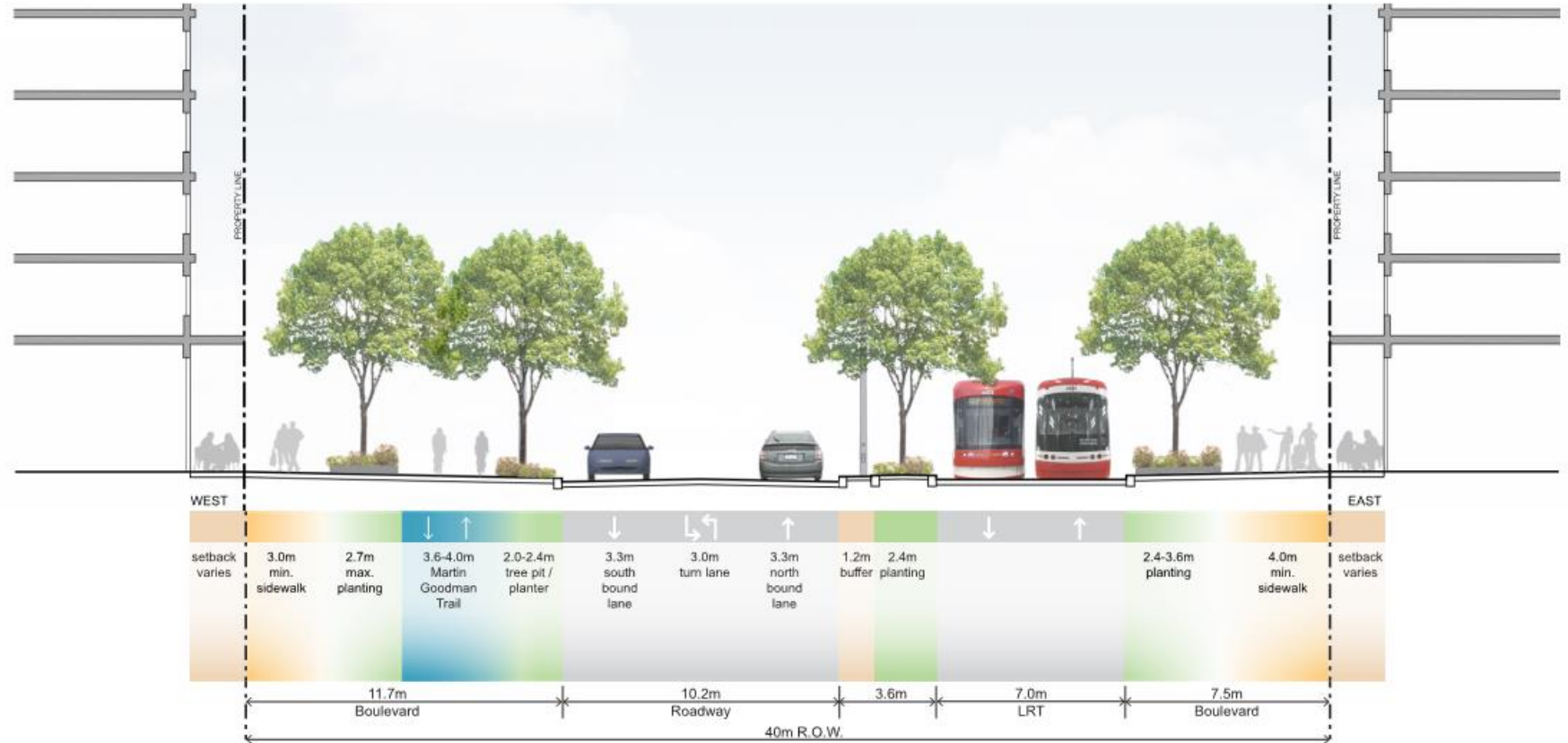
New Cherry Street

Urban Identity

- Extension of the City into the Port Lands
- Curated and formalized hardscape and softscape to respond to urban character
- Variable planting and pedestrian clearway width to suit surrounding uses
- Incorporate shade tolerant planting
- Group and shape planting to create varying scales and experiences through the street
- Create sequences of exterior rooms



New Cherry Street



New Cherry Street

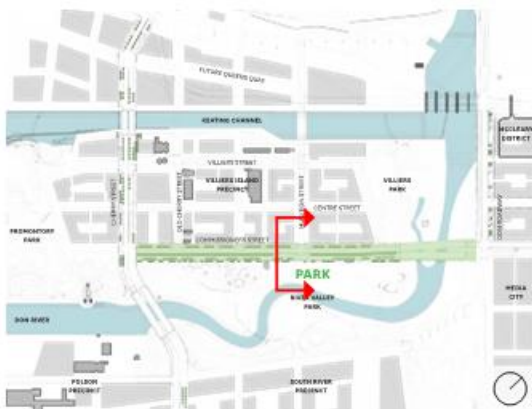
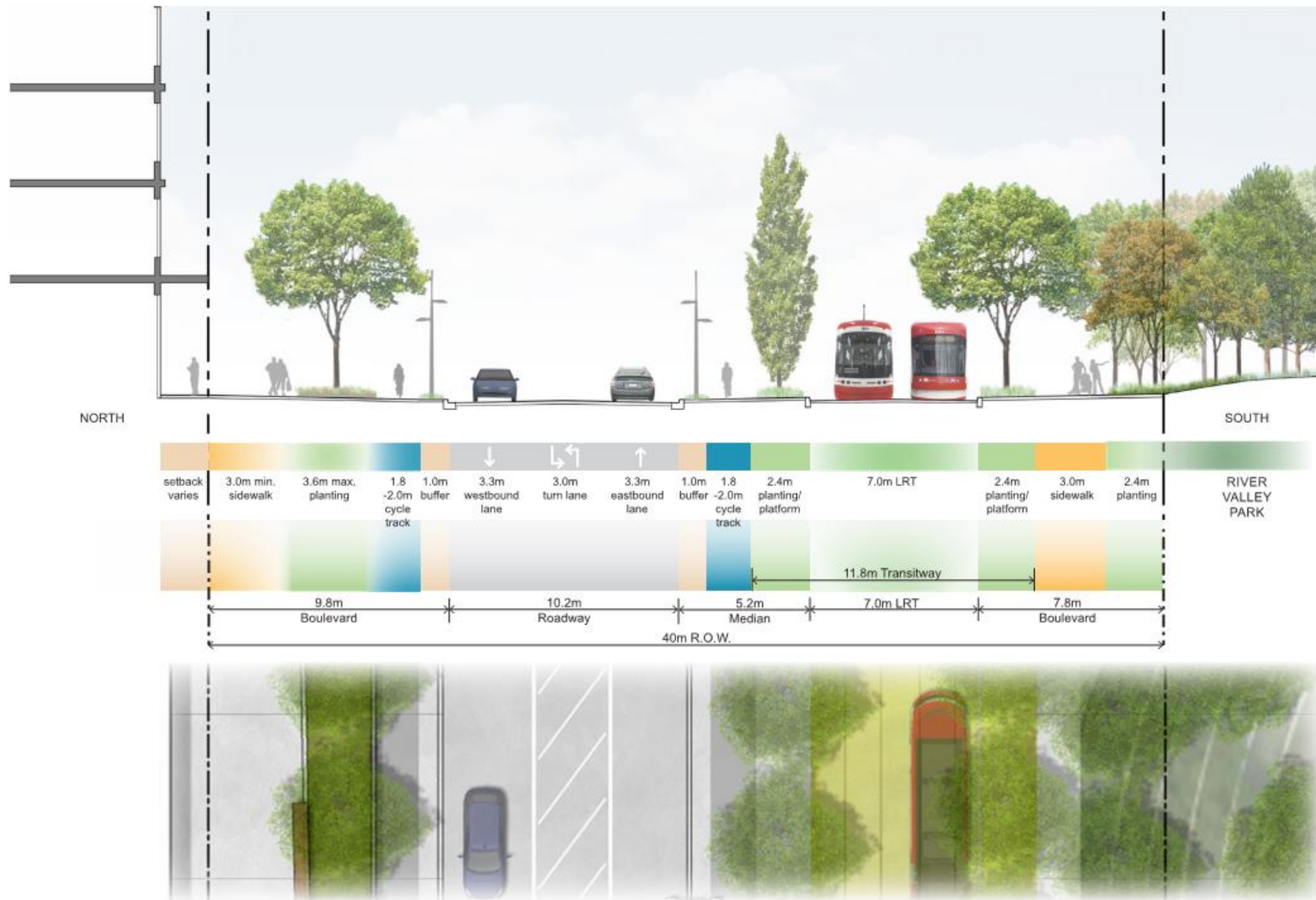


[illegible]

- Extension of the park into the street
- Seamless synthesis of urban character (north edge) and ecological park character (south edge)
- Soften/blur the edge of the park
- Integrate open and naturalized stormwater management systems such as bioswales and rain gardens

- Extension of the park into the street
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Commissioners Street



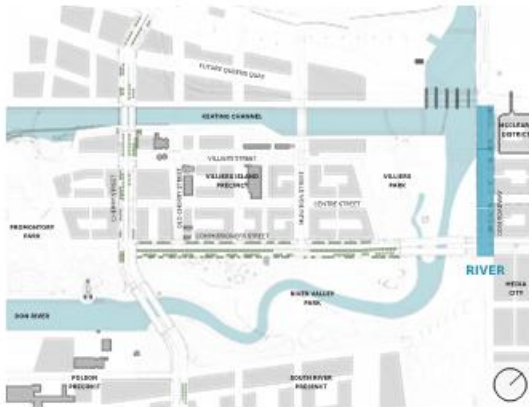
Commissioners Street



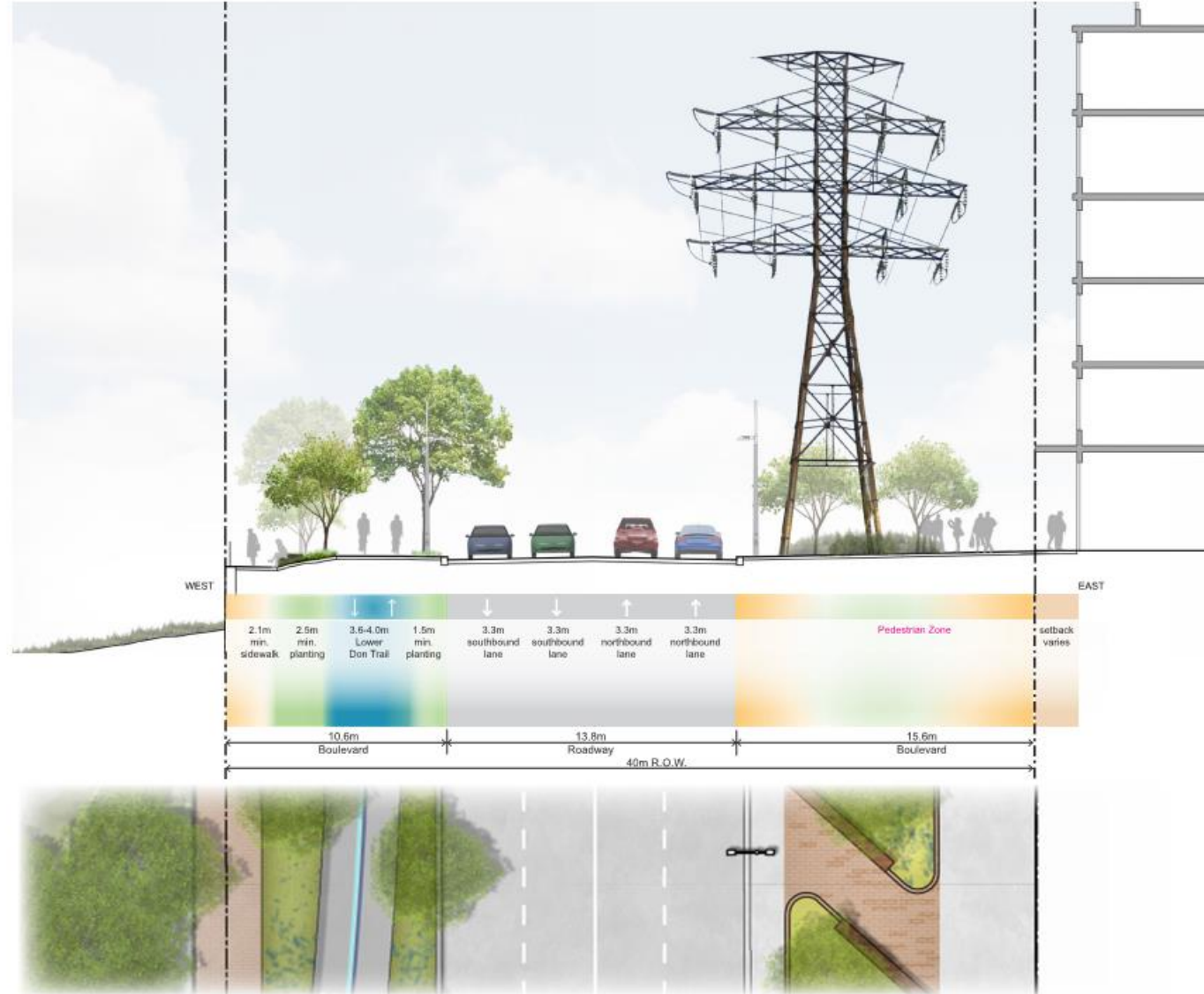
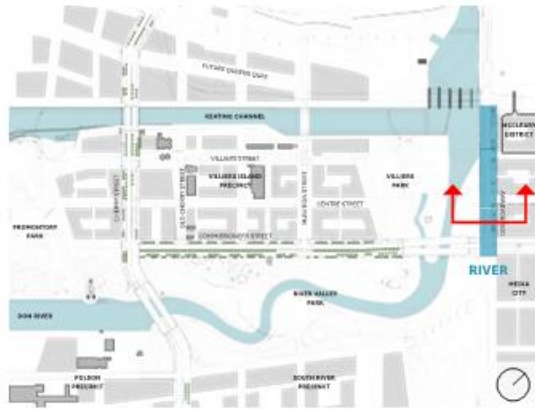
Don Roadway

River Identity

- Enhance expansive open vistas
- Maintain required clearances to existing Hydro One infrastructure
- Provide amenity space for adjacent commercial developments (eg. food trucks at curb side)
- Integrate naturalized planting strategy to reflect a river's edge ecosystem



Don Roadway



Don Roadway



A Collection of Bridges

Project Feedback - Bridges

Design Review Panel (02/21 + 04/18)

- Create an “open” form so as not to obstruct views of the water.
- Develop the bridge form to be elegant.
- Design must consider all components (e.g. light poles, LRT Overhead Contact System)
- Consider how weather affects the people crossing the bridge.

SAC

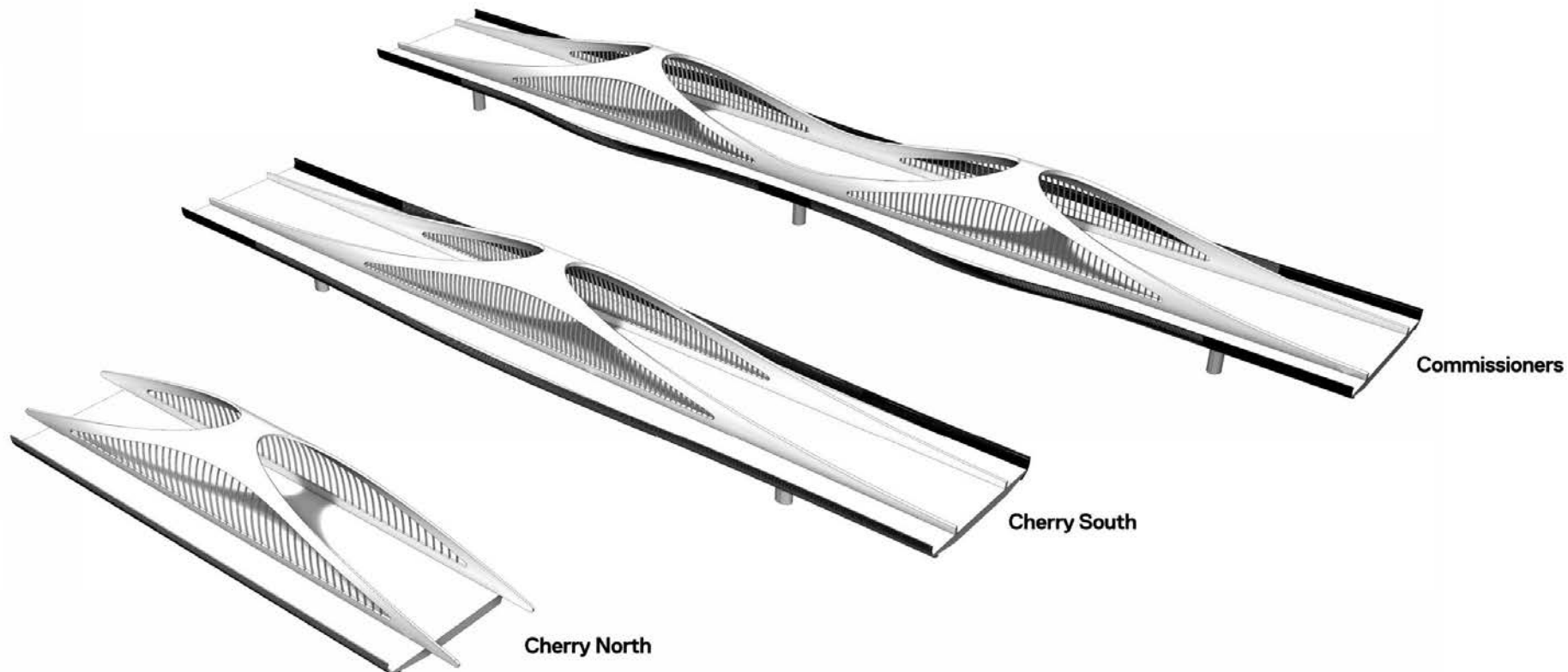
- Access to/from bridges should include stairs and ramps.
- Consider grade separation between pedestrian and cyclists.
- Consider wind breaks for pedestrian comfort.
- Bridge illumination considerations:
 - Restrict lighting of the water (fish habitat.)
 - Consider lighting impact on bird migration.

Full Vision (including funded and unfunded)



- 1. Cherry North
- 2. Cherry South
- 3. Commissioners

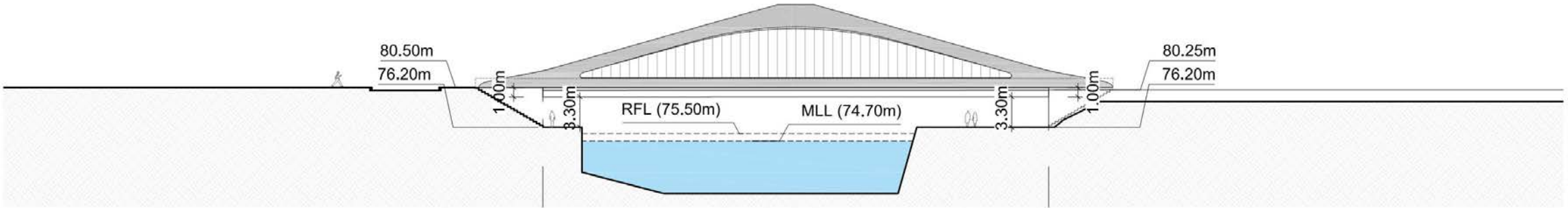
Family of Bridges



Cherry North Bridge

An architectural rendering of the Cherry North Bridge, a modern pedestrian bridge with a distinctive, undulating, ribbed design. The bridge spans a body of water, with a modern glass-walled building visible in the background. Several people are shown walking on the bridge and along the waterfront, providing a sense of scale. The entire image has a monochromatic blue tint.

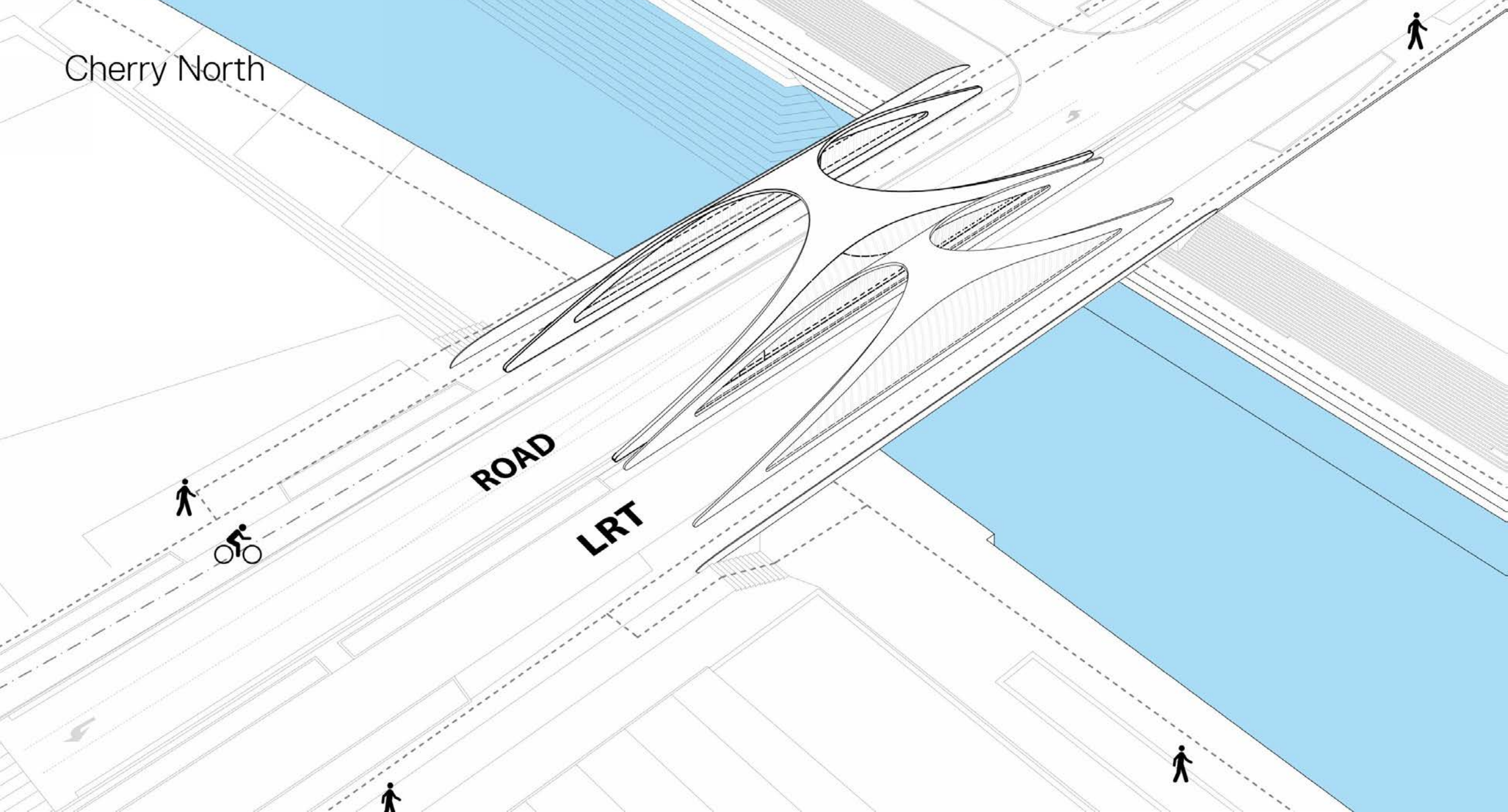
The drawing consists of two parts: a plan view (top) and an elevation view (bottom). The plan view shows a road intersection with a central intersection area. Dimensions are provided for the intersection area (20.30m) and the road width (13.17m). The elevation view shows the road profile with dimensions for the intersection area (7.20m, 13.10m, 1.01m, 9.57m, 3.60m) and the road width (55.00m). The drawing includes a scale bar (0m, 10m, 20m) and a north arrow.



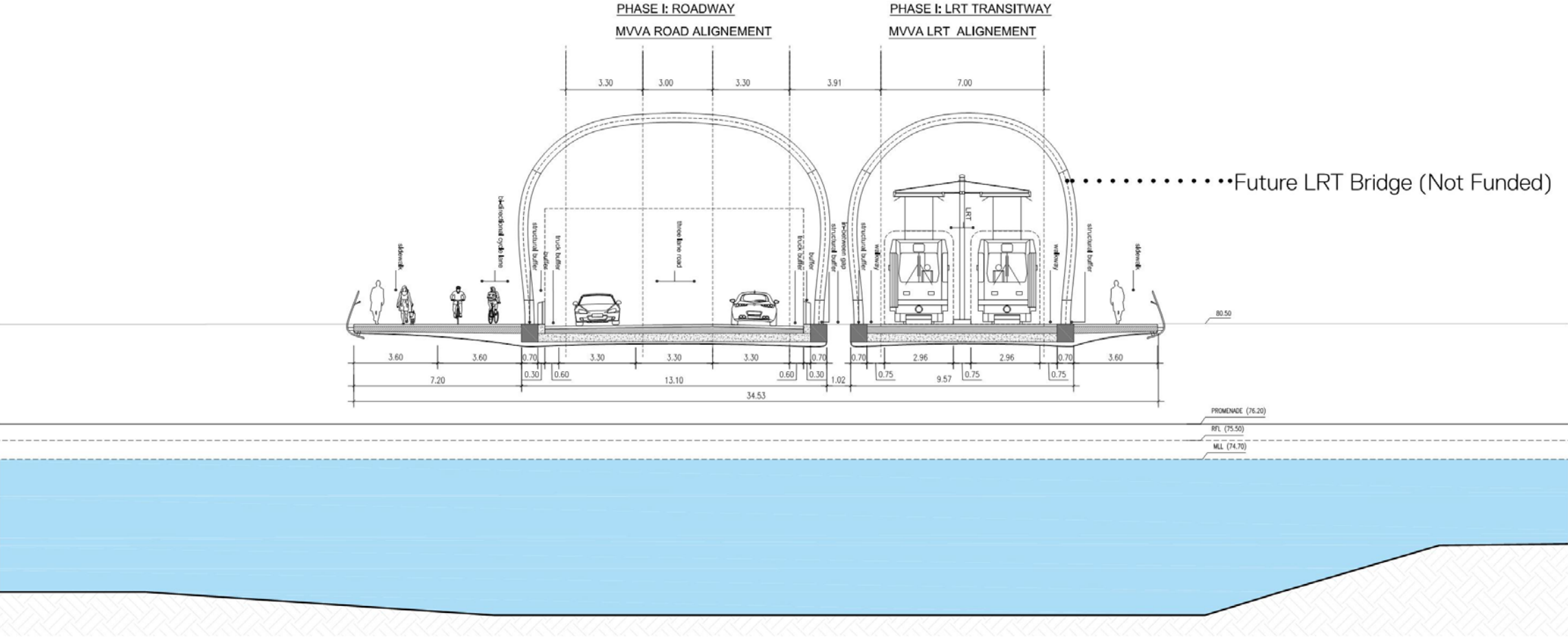
Cherry North

ROAD

LRT



Cherry North



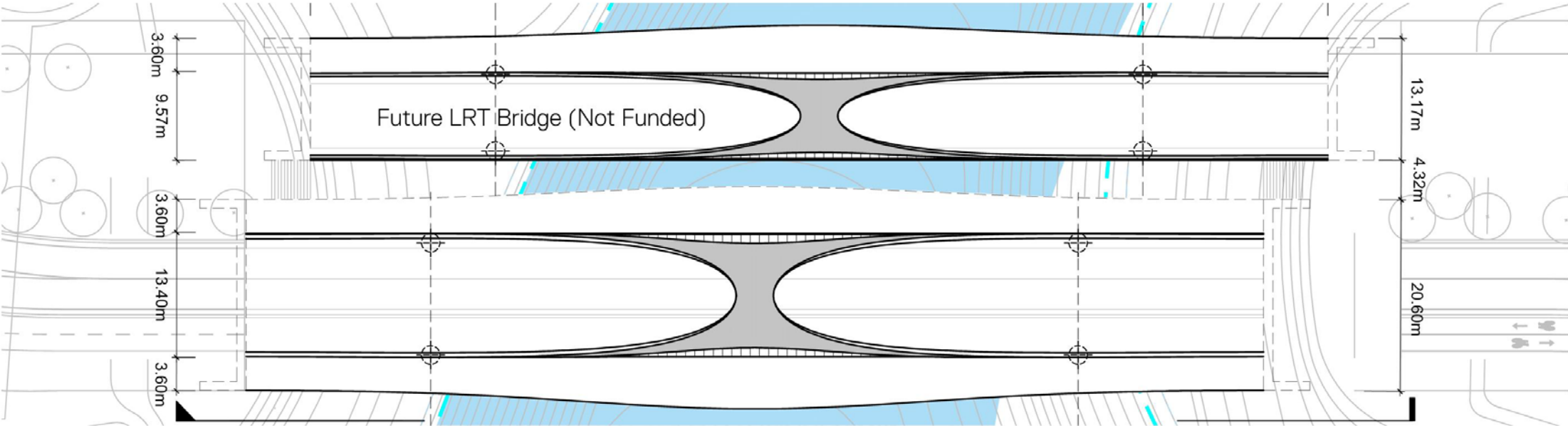
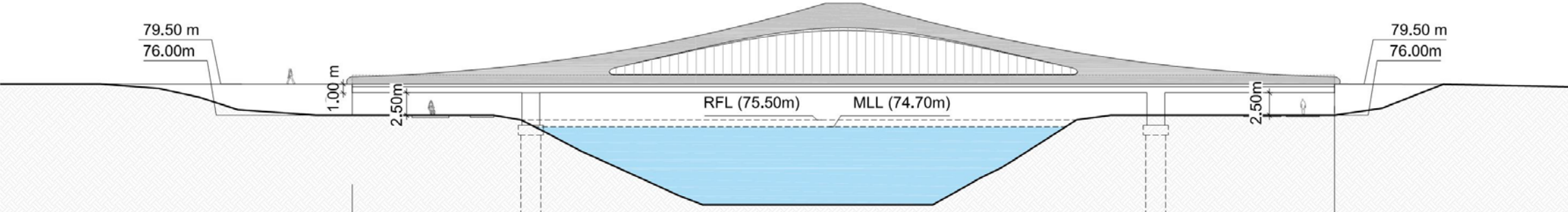
Cherry North
View from Keating Channel Promenade





Cherry South Bridge

Cherry South



Cherry South

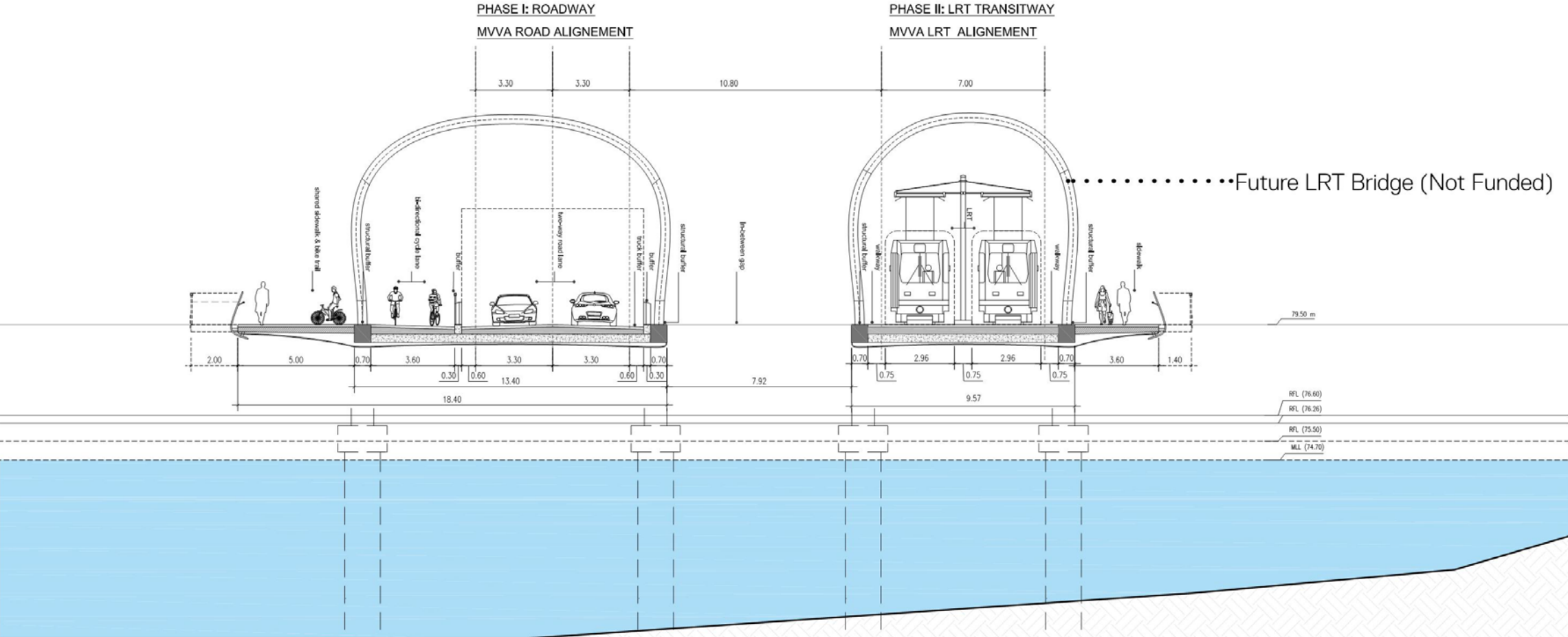


.....Future LRT Bridge (Not Funded)

ROAD

LRT

Cherry South



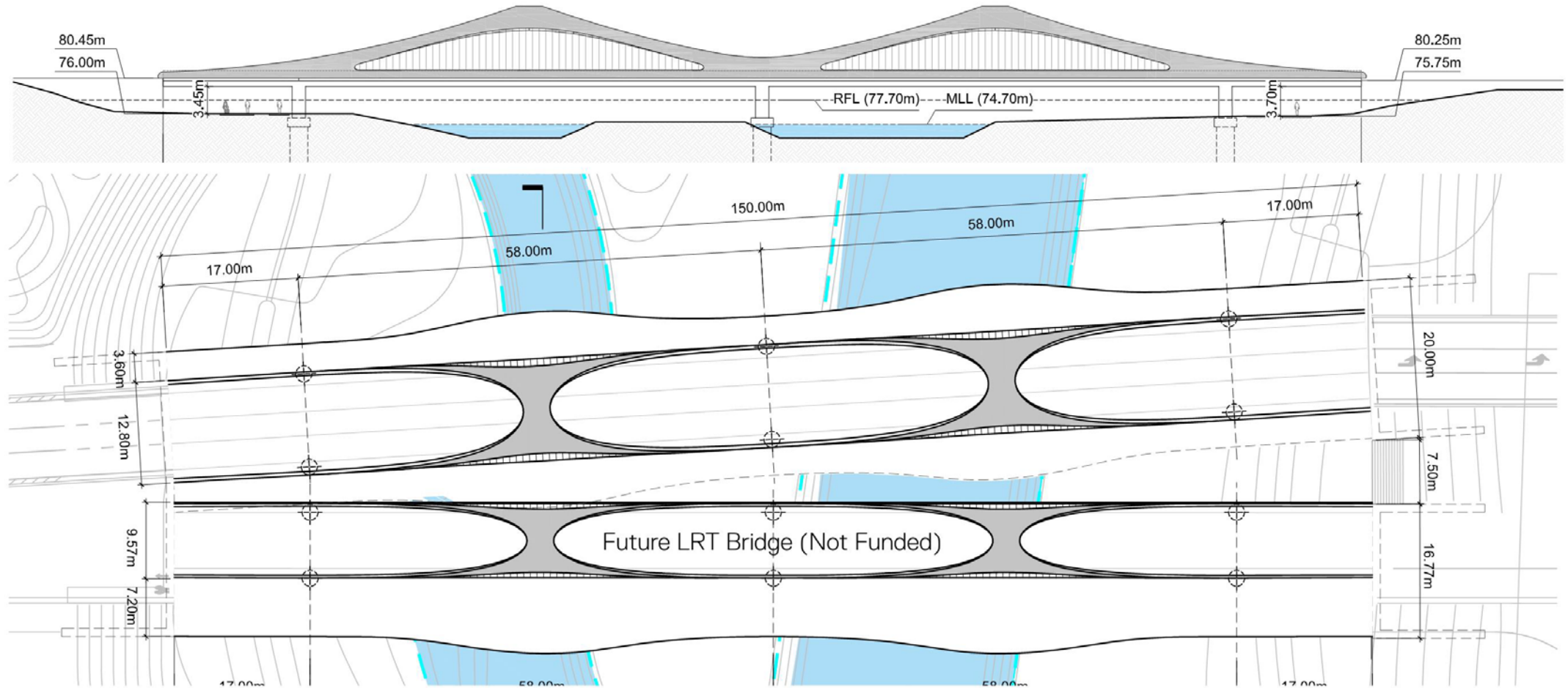
Cherry South
View from River Valley Park



An architectural rendering of a modern bridge with a white, undulating, wave-like upper structure and a dark, ribbed lower deck. The bridge is supported by several thick, white, cylindrical pillars. In the background, a city skyline with various rectangular buildings is visible under a cloudy sky. The foreground shows a grassy area with some water and reeds. The title 'Commissioners Bridge' is centered in white text.

Commissioners Bridge

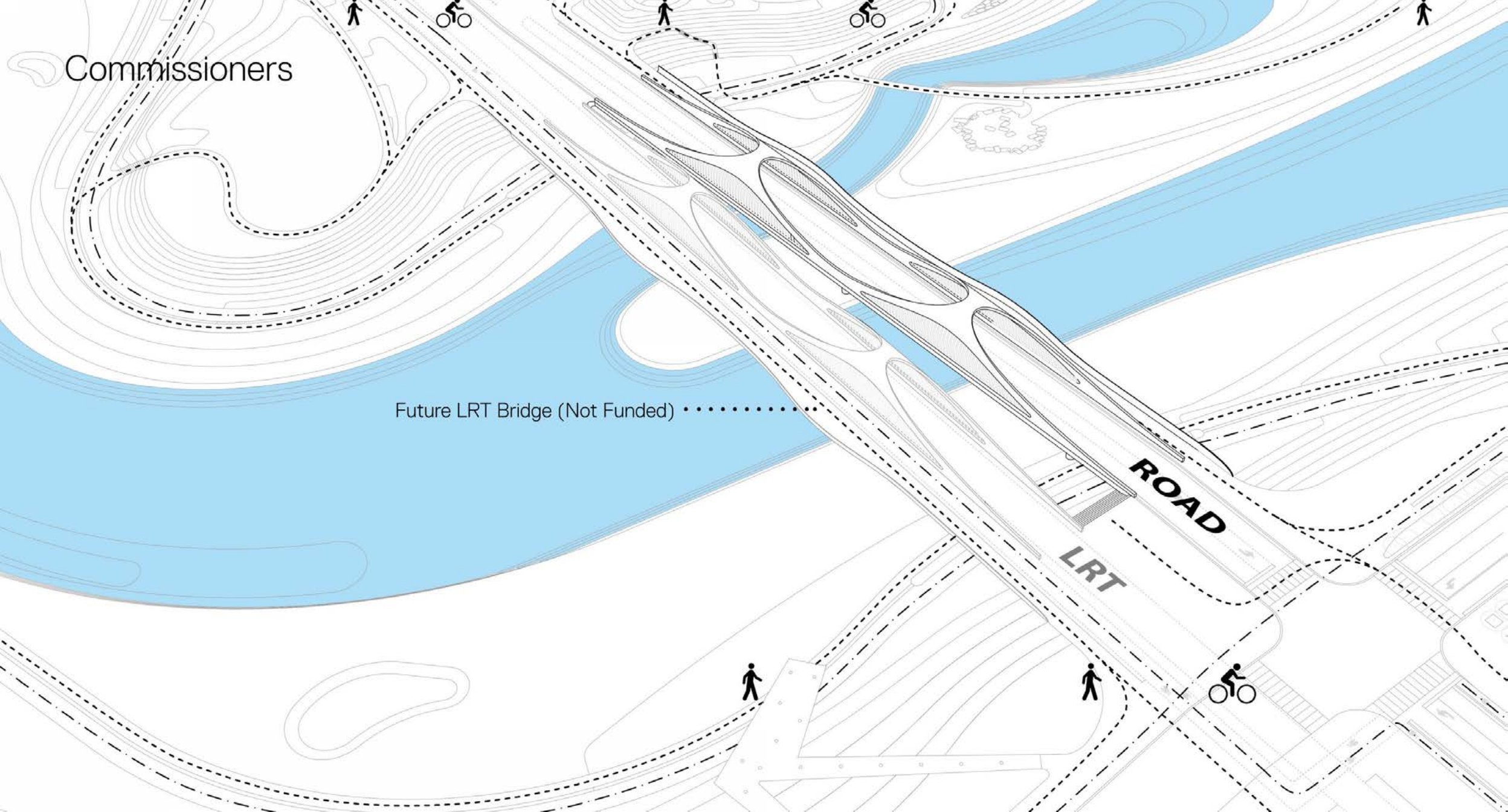
Commissioners



Commissioners

Future LRT Bridge (Not Funded)

ROAD
LRT



Commissioners
View from River Valley Park



Future LRT Bridge
(Not Funded)

Furniture Studies

