Queens Quay East Extension & Cherry St.

Waterfront LRT Area 2B/C

Schematic Design – Oct 20, 2021

Project Description & Background

Queens Quay East Extension & Cherry St.

Proponent: Waterfront Toronto
Design Team: Stantec, Public Work
Review Stage: Schematic Design

Background

- 30% Preliminary Design and Engineering and Class 3 Costing is required to report to council with an updated business case for the Waterfront East LRT (WELRT) to secure implementation funding
- Transit Project Assessment Process (TPAP) is required to update previous East Bayfront and Lower Don Lands EA
- First DRP appearance was June 2021 for Issues Identification, returning in October 2021 for Schematic Design
- Transit Phasing study recommended scope shift from the Cherry North connection to Cherry South to Polson Loop for Phase 1
- Cherry North connection is still undergoing feasibility study and will be presented at a future review

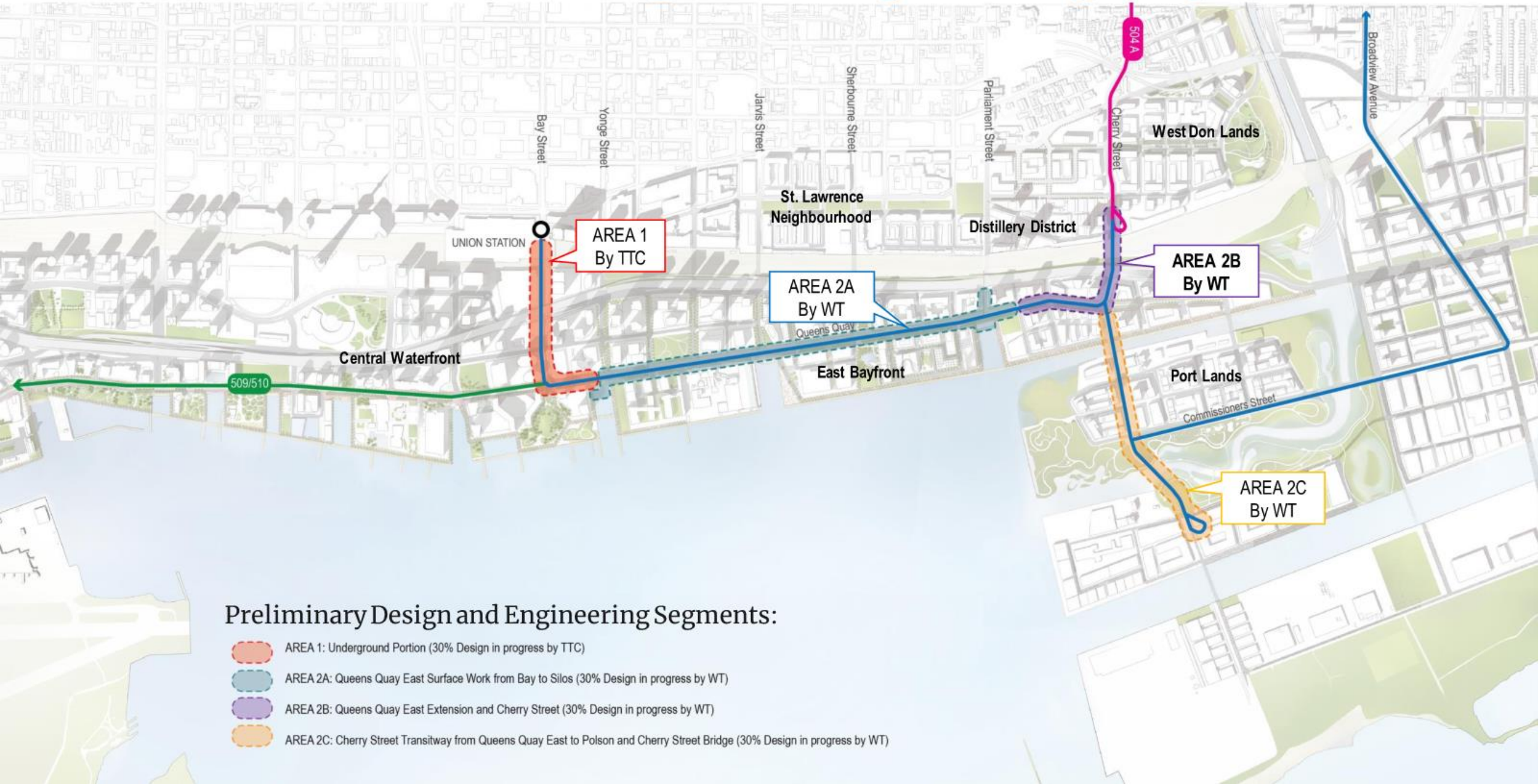
Scopes of Work

- 2B: Extension of Queens Quay East from Silo St. to new Cherry St.
- 2B: Addition of LRT infrastructure on Cherry St. from Queens Quay to Distillery Loop, including transit connection under rail corridor and Distillery Loop modifications
- 2C: Addition of LRT infrastructure and east side public realm on Cherry St. from Queens Quay to Shipping Channel including a new Polson loop

Project Status & Anticipated Timeline

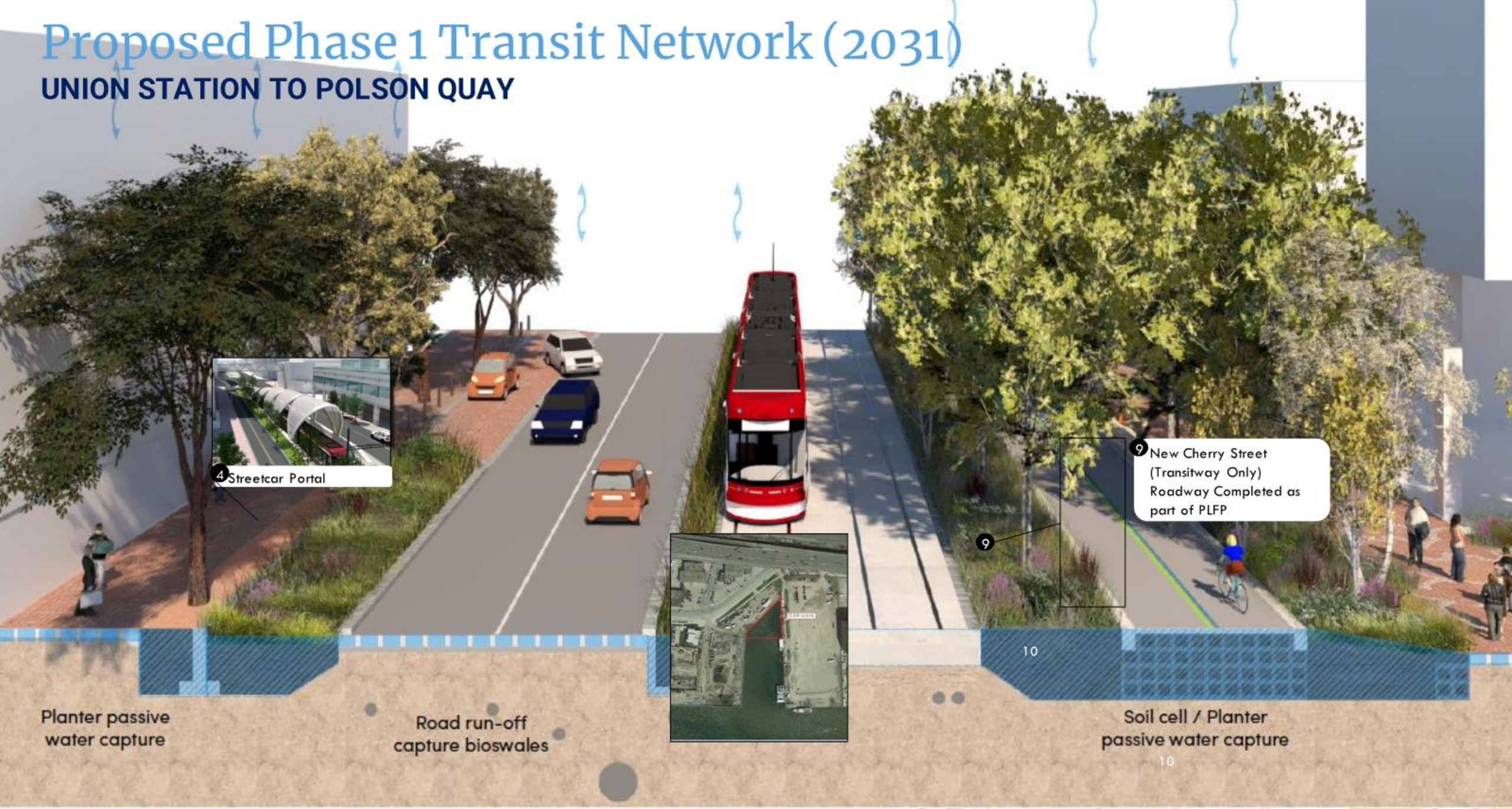
- 30% design and Class 3 costing for Phase 1 scope by Nov. 2021
- Full WELRT program 30% design, costing and business case and TPAP commencement by end of 2021 / beginning of 2022
- Estimated construction timeline 2024-2026 for Queens Quay East, subject to funding and coordination with other projects

Waterfront East LRT - Design and Engineering Scope



Proposed Phase 1 Transit Network (2031)

UNION STATION TO POLSON QUAY



Existing Context & Streetscape Continuity

Queens Quay West at Central Waterfront

Existing Context & Boulevard Continuity

Design by West8 / DTAH, WSP, Arup

Queens Quay East at East Bayfront (Area 2A)

Future Context & Boulevard Continuity

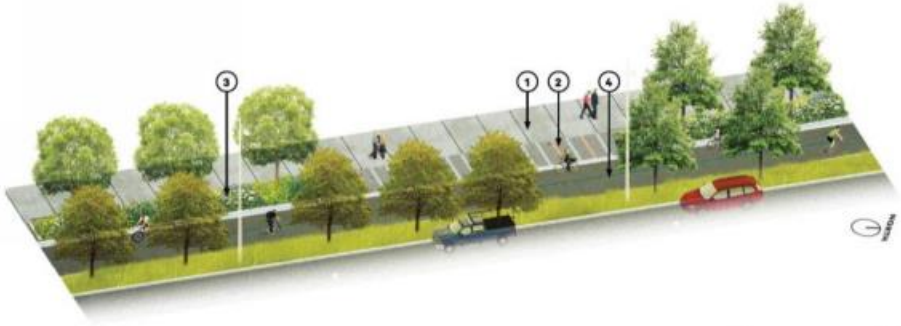
Design by West8 / DTAH, WSP, Arup

Cherry Street Design (PLFP)

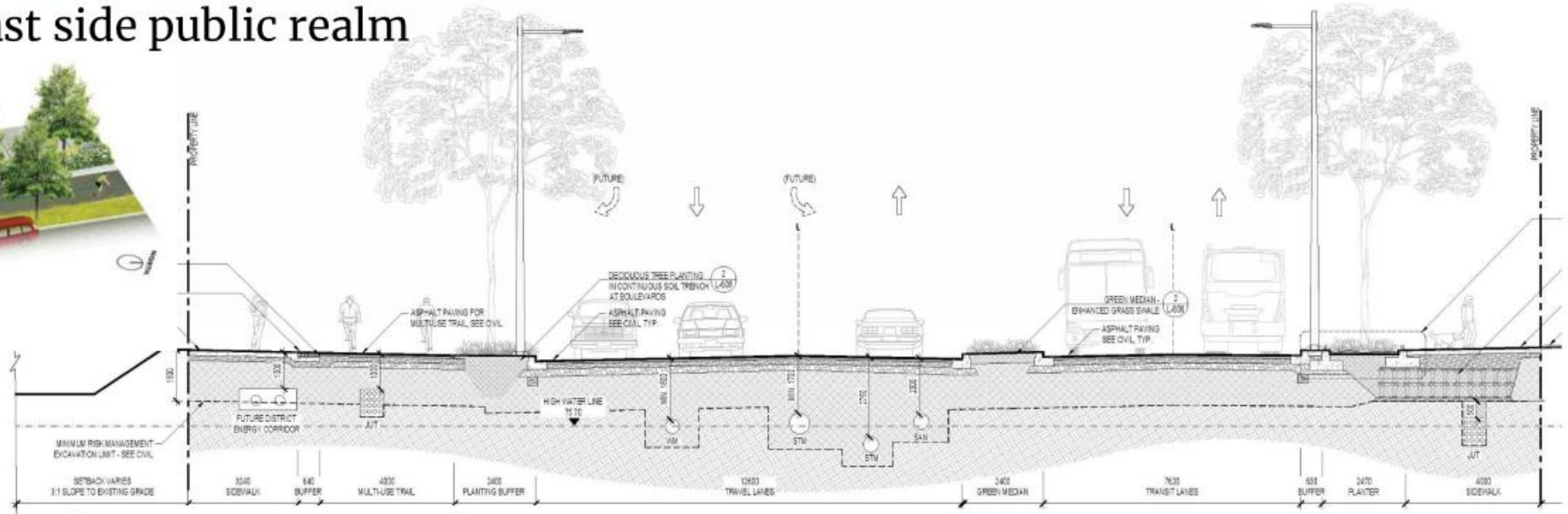
Future Context & Street Continuity

Cherry Street Design (PLFP)

Deferral of transitway and east side public realm

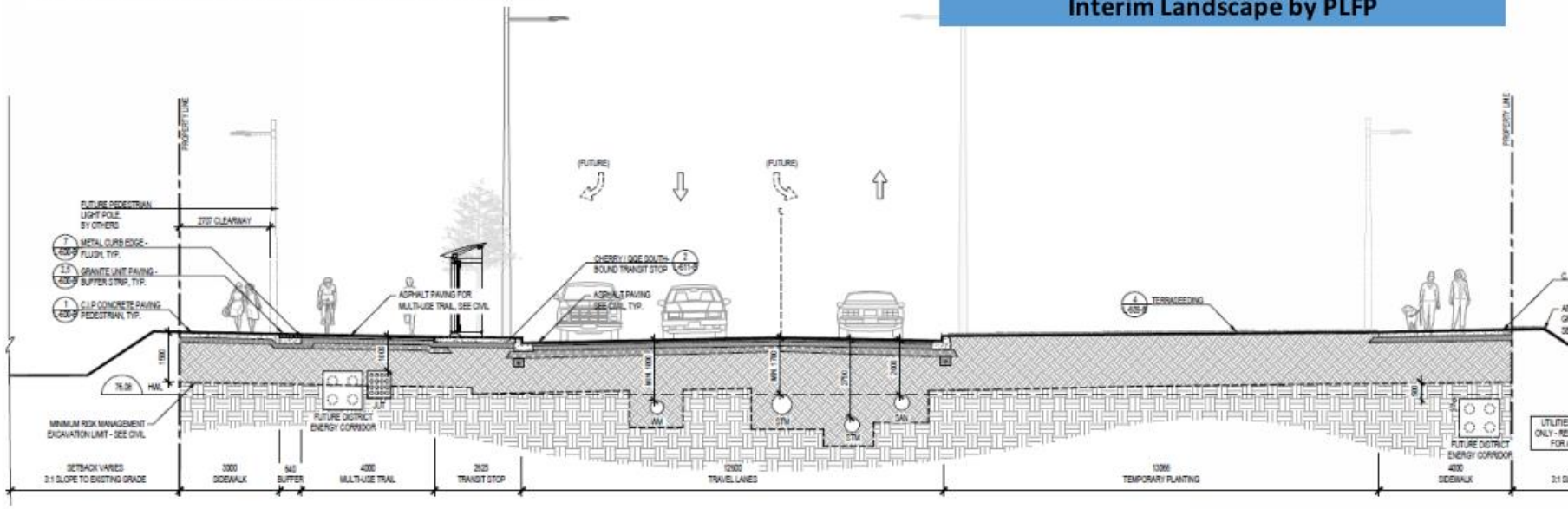


Bidirectional trail on west side of street



Full Design With BRT and East side Green Infrastructure

Interim Landscape by PLFP

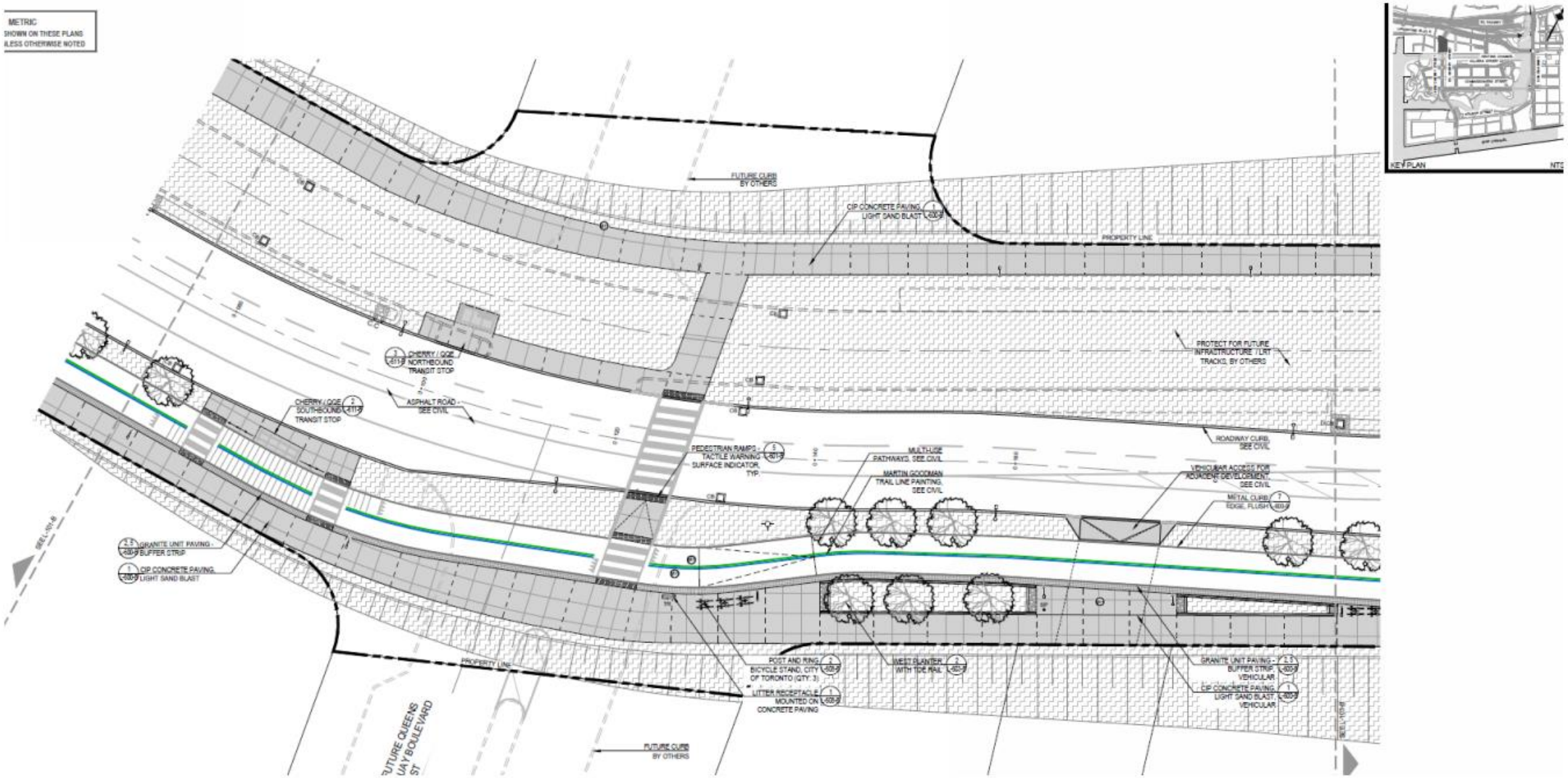


Final Design to be Constructed with deferred BRT and interim east landscape

Design by DTAH, WSP

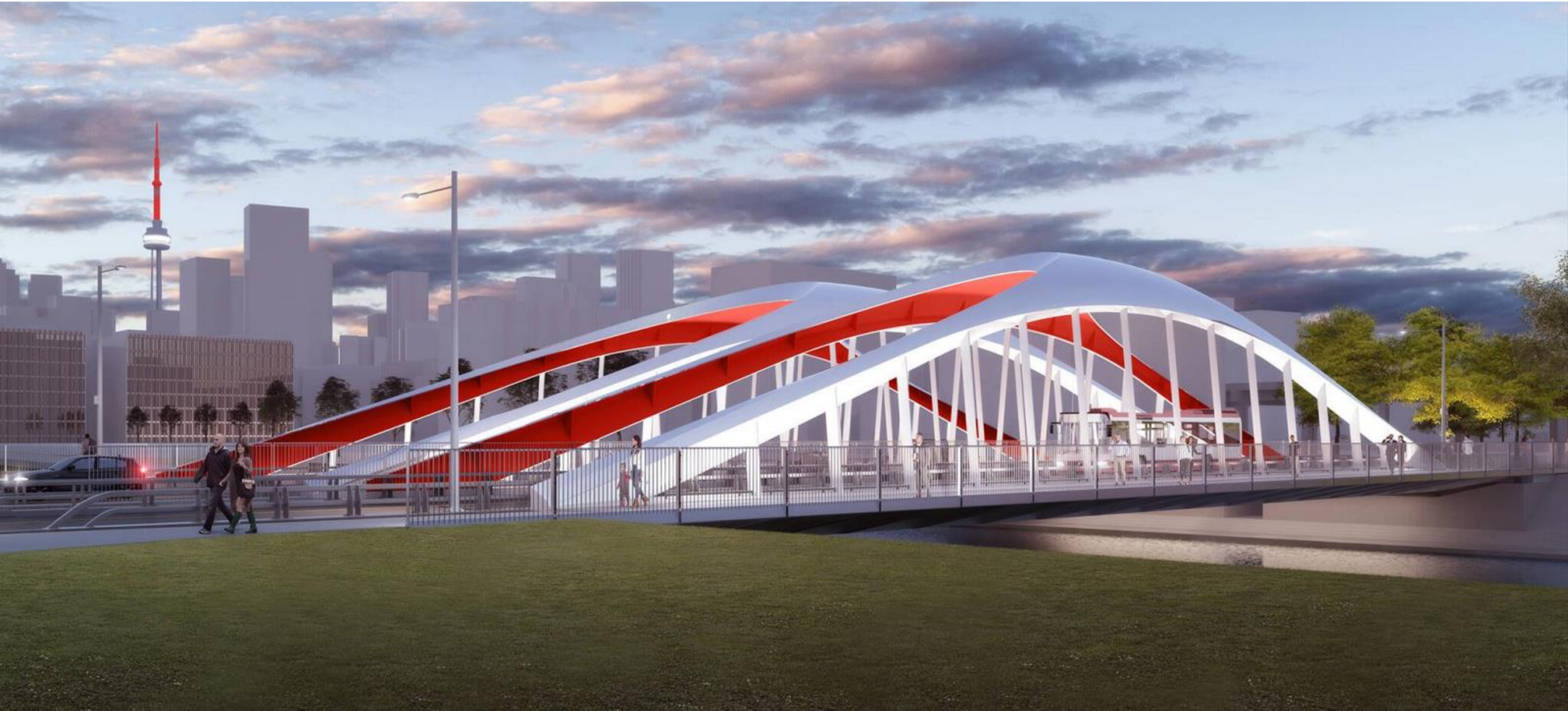
Cherry Street Design (PLFP)

Future Context & Street Continuity – Interim East Side Landscape



Cherry Bridge at Keating Channel

Future Context & Street Continuity

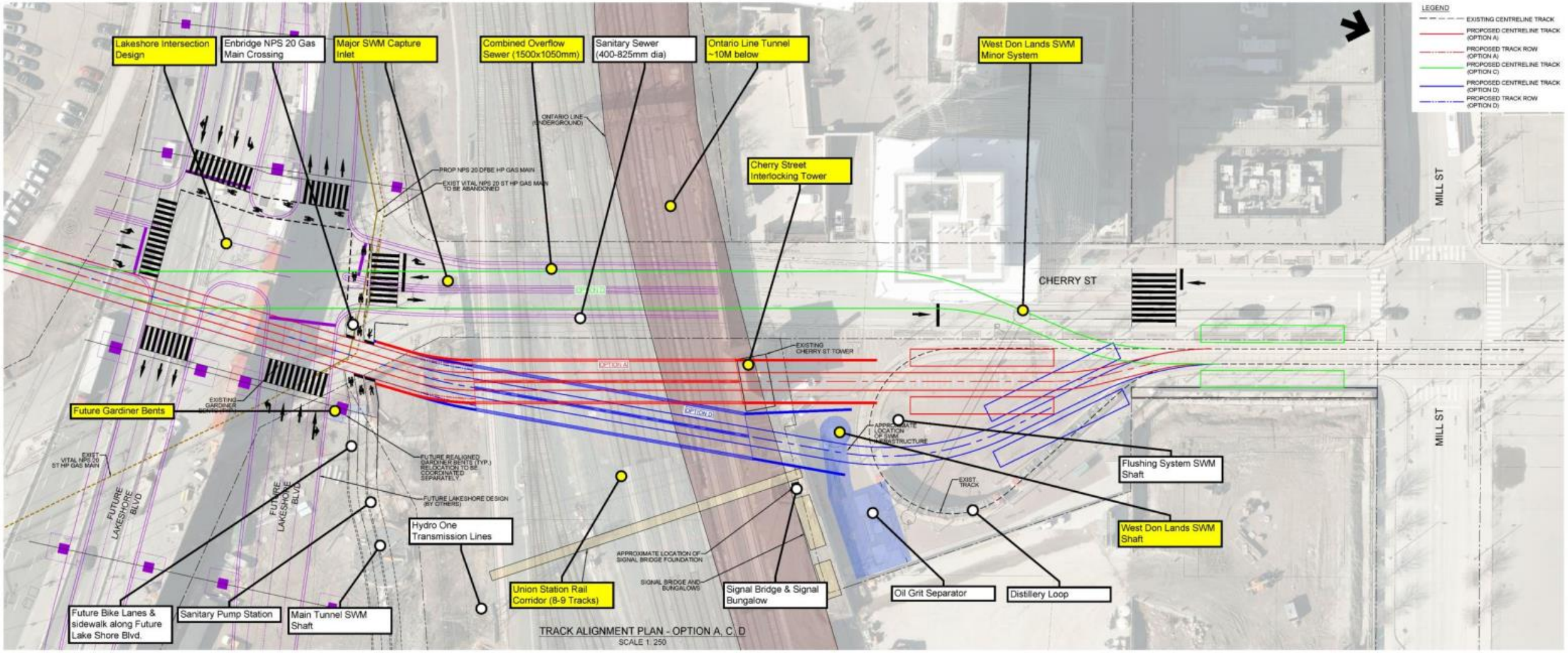


Cherry Bridge at Don River Mouth

Future Context & Street Continuity

Cherry North Transit Portal Update

Alternative alignments under consideration and feasibility study

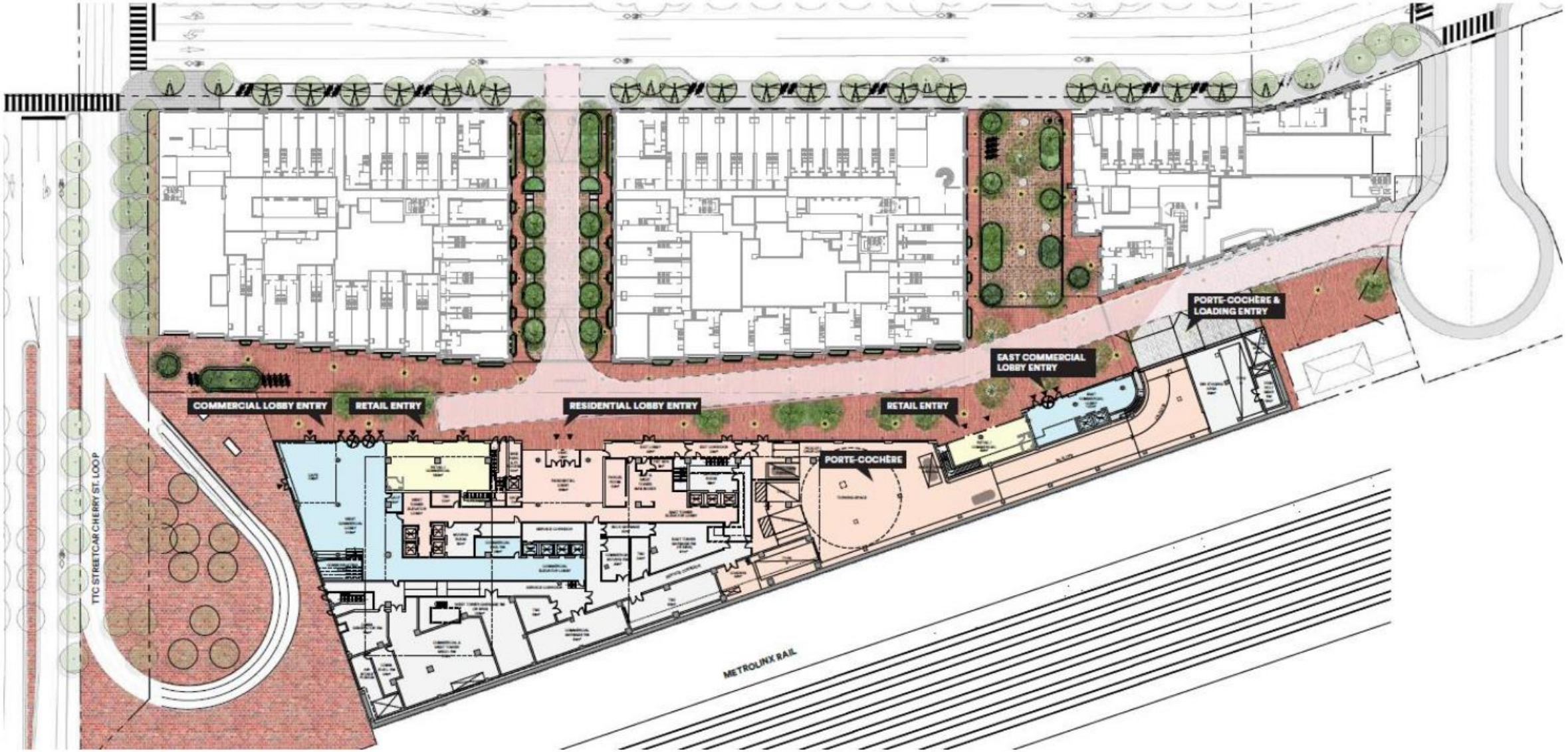


West Don Lands Block 20

Adjacent Projects

QQE Extension & E. Waterfront LRT Area 2B

Proponent: Waterfront Toronto
Design Team: Stantec, Public Work
Review Stage: Issues ID

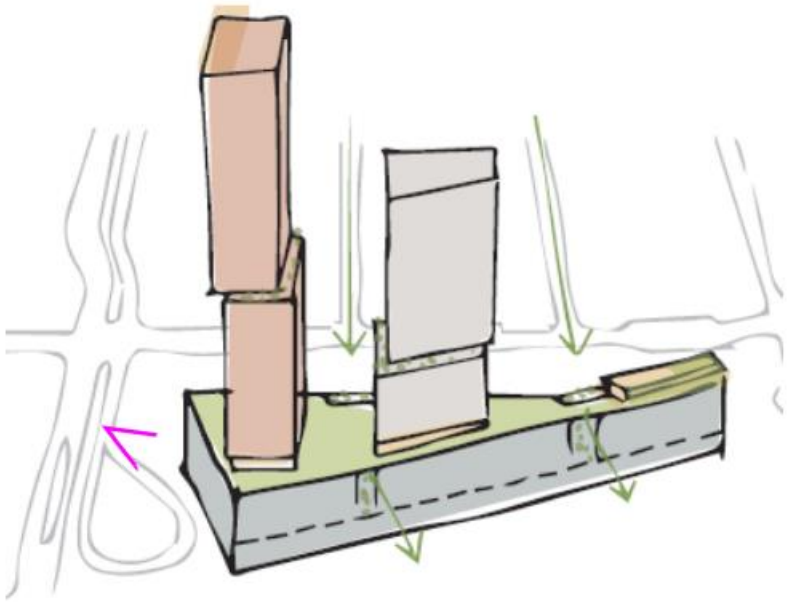


Proposed ground floor site plan from May 2021 Schematic Design DRP

West Don Lands Block 20

Adjacent Projects

View from Tank House Lane looking southwest

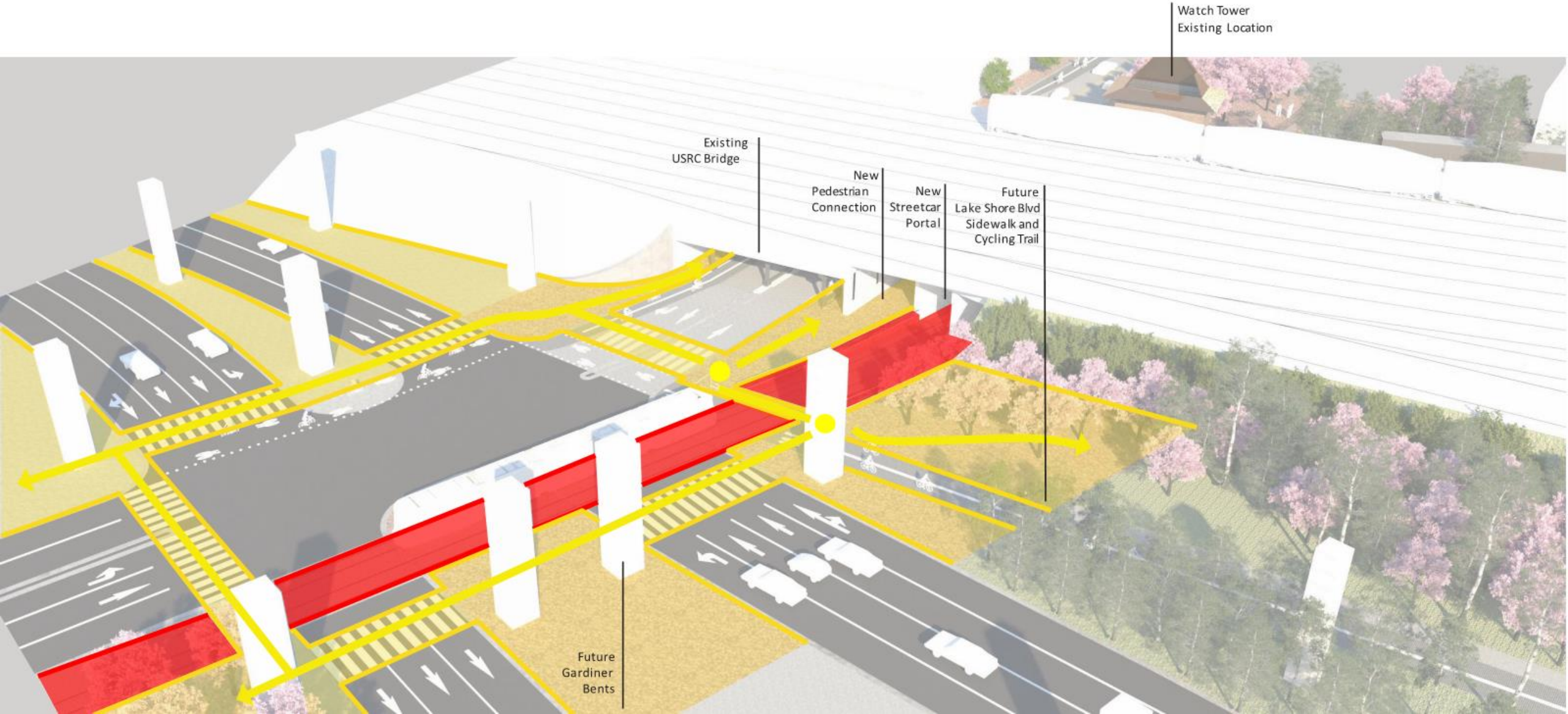


Cherry North Transit Portal Update

Integration with Distillery Loop Plaza

Cherry North Transit Portal Update

Integration with Lake Shore Intersection



Lake Shore Public Realm

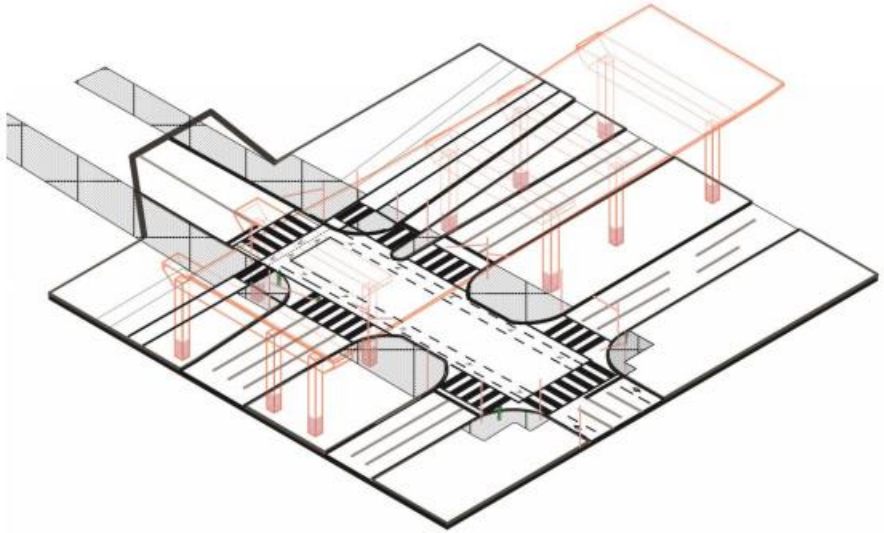
Future Context

Design by West8 / Dillon

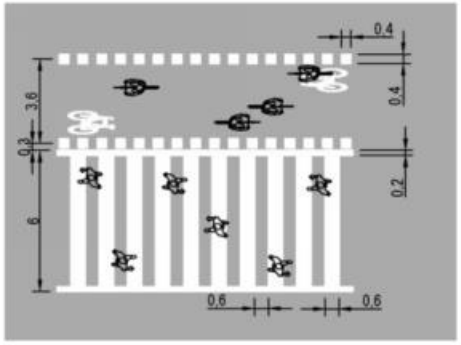
*This rendering shows Lake Shore at Jarvis St. but is representative of the Lake Shore Public Realm intersections design

Lake Shore Public Realm

Cherry St. Intersection – Coordination of PLFP, Future Gardiner & Lake Shore alignments, and LRT



Intersection Enhancements

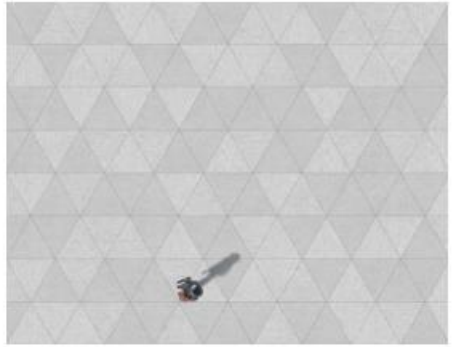


PROPOSED FAT GRAPHICS

+Typical zebra width doubled

+Bi-directional bicycle cross ride wider

+ Elephants' feet dimensions from



SPECIAL CONCRETE PAVING

+Exposed granite aggregate concrete

+Sawcut & sandblast pattern

Pedestrian & Cycling Connectivity Study

Future Context

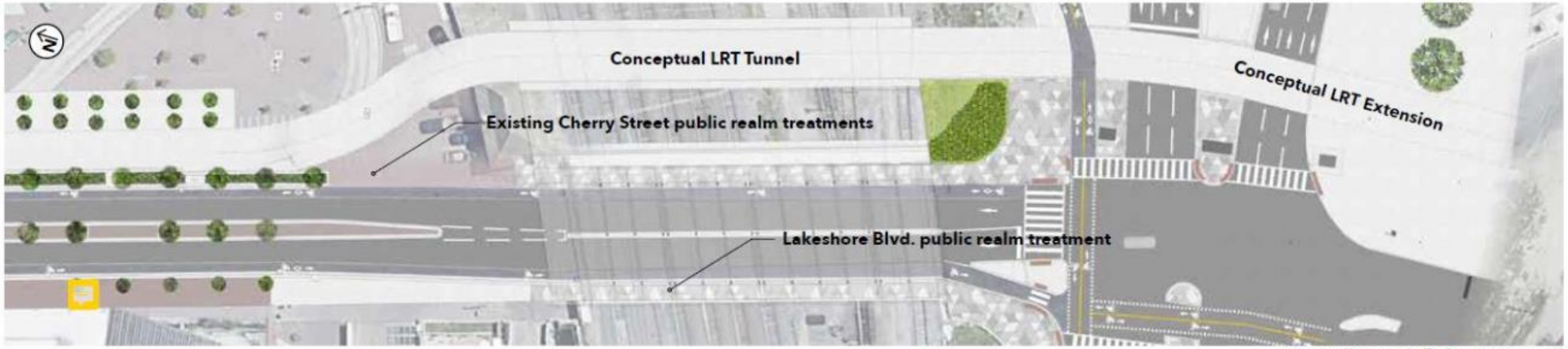
PLANNED CHERRY LRT TUNNEL

The Cherry LRT is planned to be extended south across the USRCE and into the developing Port Lands.

At this preliminary stage in planning the LRT extension, plans are high-level and subject to change. The PCCS initially carried forward plans for the existing Cherry underpass to be reconstructed to add an LRT crossing, but this assumption changed during the course of the study. The latest planning keeps the existing Cherry underpass intact, while building a new LRT tunnel and pedestrian access to its east.

The recommendation for the Cherry corridor is to focus investments on public realm improvements aimed at enhancing the pedestrian and cycling experience/safety, in addition to the existing plans for a Trinity Tunnel and Cherry LRT Tunnel.

A FRAMEWORK FOR GREATER CONNECTIVITY ACROSS THE USRCE



Conceptual landscape plan (for illustrative purposes only)

Stormwater Management Facility

Architectural Context

View from the Gardiner and from above

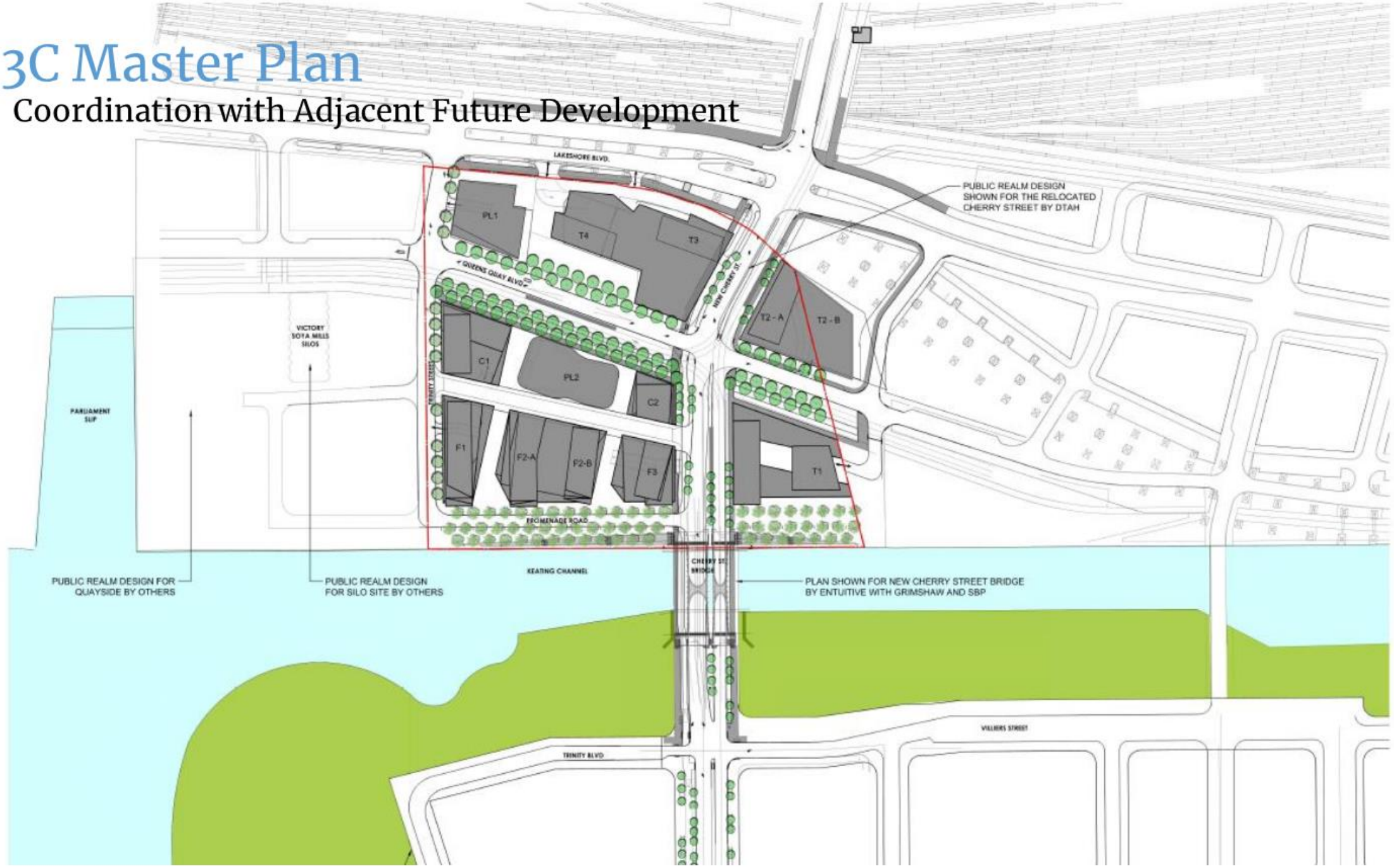
3C PL1 (324 Cherry Street)

Coordination with Adjacent Development

Leverage Passageway to Capture Terminus Views on Queens Quay

3C Master Plan

Coordination with Adjacent Future Development



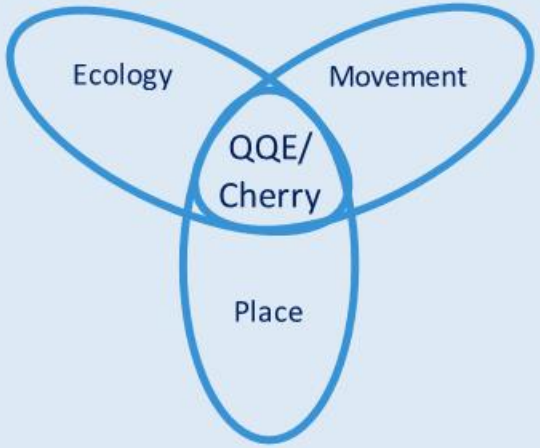
Design Brief

Vision

Queens Quay is Toronto's **primary lakefront boulevard** connecting its existing and emerging precincts, parks and public spaces and **establishing a strong cohesive character across the waterfront**. Building on the successful revitalization of the western section, Queens Quay East will further integrate **urban ecology, active transportation, and place-making** to create a street that is resilient to future change.

Core Objectives:

1. Integrating with Urban Ecology
2. Moving People
3. Building a Destination



Design Brief

1 / Integrating with Urban Ecology:

Design for ecological performance

- Expanded tree canopy and planting
- Integrated green infrastructure
- More permeable ground surface
- Enhanced user comfort
- Habitat and eco-corridors for biodiversity
- Resilient species selection for waterfront
- Customized details for variable lake levels
- Low-maintenance landscape
- Monitoring and adaptive maintenance

2 / Moving People: Design for safety, convenience and flexibility

- Improve clarity at intersections
- Improve pedestrian crossings
- Safe intermodal interactions
- More convenient cycling environment
- Accommodate new micro-mobility
- Flexibility to accommodate new trends
- Performance review & adaptive management

3 / Building a Destination:

Design for character and experience

- Continuity of design language with QQW
- Greater coherence of paving materials
- Durable materials and craftsmanship
- Slips and intersections as destinations
- Flexibility for closures & programming
- Consistent palette of furniture, lighting, etc.
- Integrated infrastructure for programming
- Encourage social interaction

DRP Stream 2: Public land

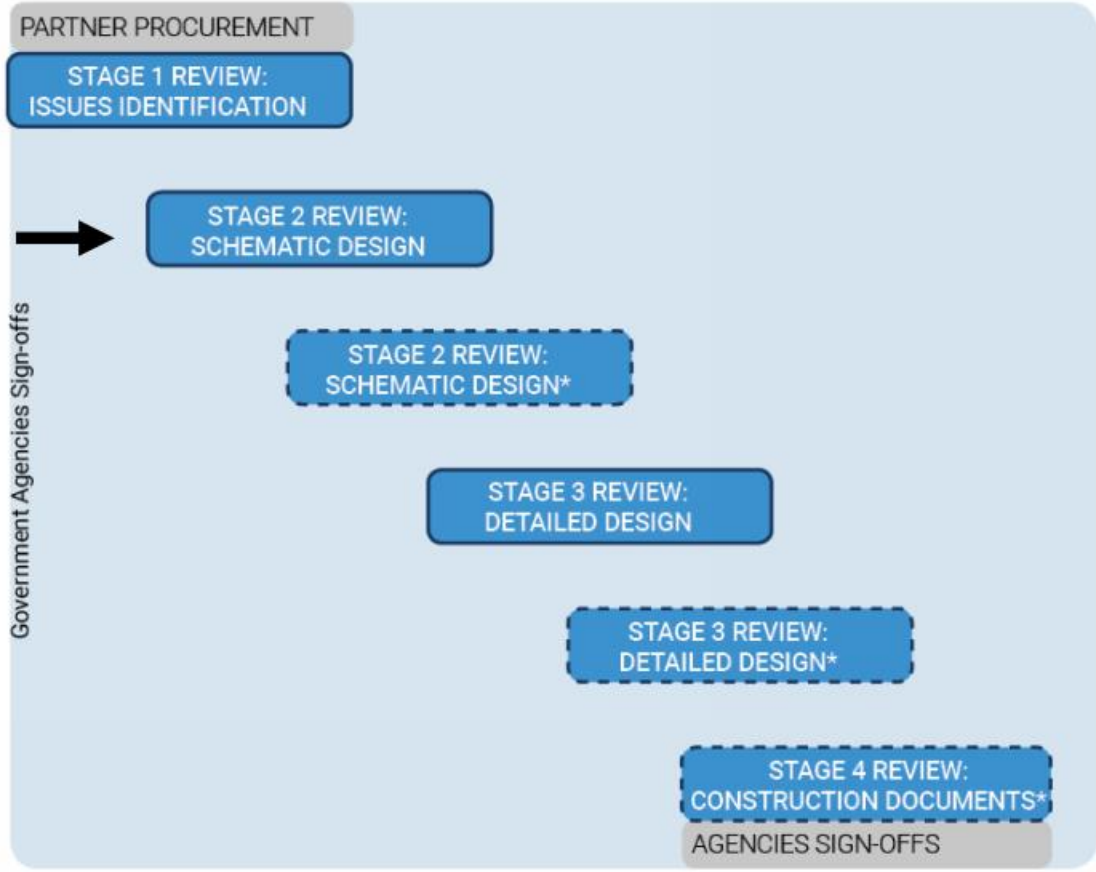
Project Approval Stage

Queens Quay East Extension & Cherry St.

Proponent: Waterfront Toronto
Design Team: Stantec, Public Work
Review Stage: Schematic Design

June 2021
Queens Quay East & Cherry St.
Area 2B

October 2021
Queens Quay East & Cherry St.
Area 2B/C



June 2021 DRP Consensus Comments

Queens Quay 2B – Issues ID

General

- Appreciated the excellent presentation, the project has great potential.
- It is **important to lead with landscape and create a strong public realm**.
- Strong **support for the ecological approach** and emphasis on greening the streetscape.

Landscape

- Supported planting Cherry Trees at the Cherry plaza.
- Consider **plant species that are resilient, indigenous to the site, and require little to no maintenance**.
- Consider enlarging or consolidating the street side planting beds to avoid narrow stripes and create wider, more **robust areas for planting**.
- Strong **support for the crossing at Tank House Lane**.

Cherry Street Streetcar Portal

- Several Panel members supported **keeping the portal close to Cherry Street** to not break up the plaza.
- Other Panel members supported **keeping the tower in place** so the streetcar will run east of the existing building. The plaza can be conceived as a shared public amenity space. Additionally, it is more economical to keep the building in place.
- Strong support for the **tower being conceptualized as a beacon** to mark Cherry Street and help place-make the plaza.
- **Further investigate the plaza** design, provide a proof of concept, and **explore functional and public programming opportunities** at the next review.

Queens Quay

- While Queens Quay East might function differently than the West, the **design must anticipate and plan for a large volume of users,** ensure adequate right-of-ways are provided for various modes of use.
- Continue to **coordinate the streetscape design with adjacent developments** and identify the **future ground floor character** of the area.
- Provide **key cross sections with adjacent building massing** at the next review.
- General **support for reducing turning lanes, but ensure essential ones are included**.
- Strong **support for the green streetcar tracks** if it can be implemented.
- Provide a more detailed site plan indicating various modes of traffic and directions.

Areas for Panel Consideration

Waterfront Toronto

1. Is the proposed street design achieving the **right balance between our objectives for enhanced ecological performance, active transportation, and place-making?**

2. Does the proposed streetscape approach **successfully stitch together the Central Waterfront, East Bayfront, West Don Lands, Keating Precinct, and the Port Lands**?

3. Does the design of the extension of Queens Quay East achieve **continuity with Queens Quay West and East Bayfront** (Area 2A)? Does it feel like a cohesive boulevard?

4. Do the proposed modifications and **material palette** on Cherry St. (LRT transitway and east landscape) **integrate well with the PLFP Cherry St. streetscape design and greater waterfront context**?

5. Is the proposed approach to **planting robust enough for the tough conditions** of these highly used urban streets?

Queens Quay East and Cherry Street

DRP #2 Schematic Design
2021.10.20

PUBLIC WORK

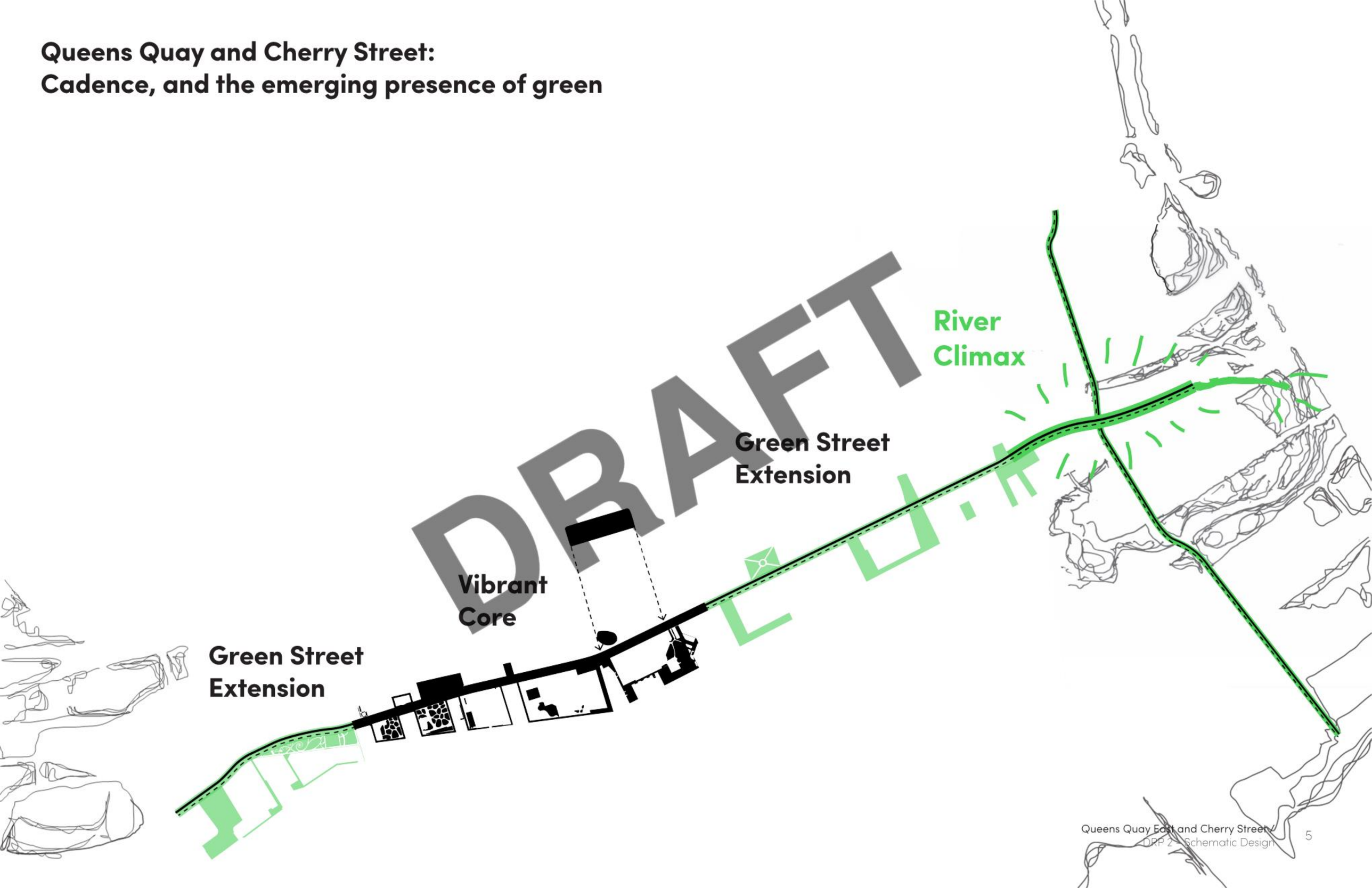
Stantec

The hinge between the Central Waterfront and the Don River Valley; the gateway between the City and the Port Lands.

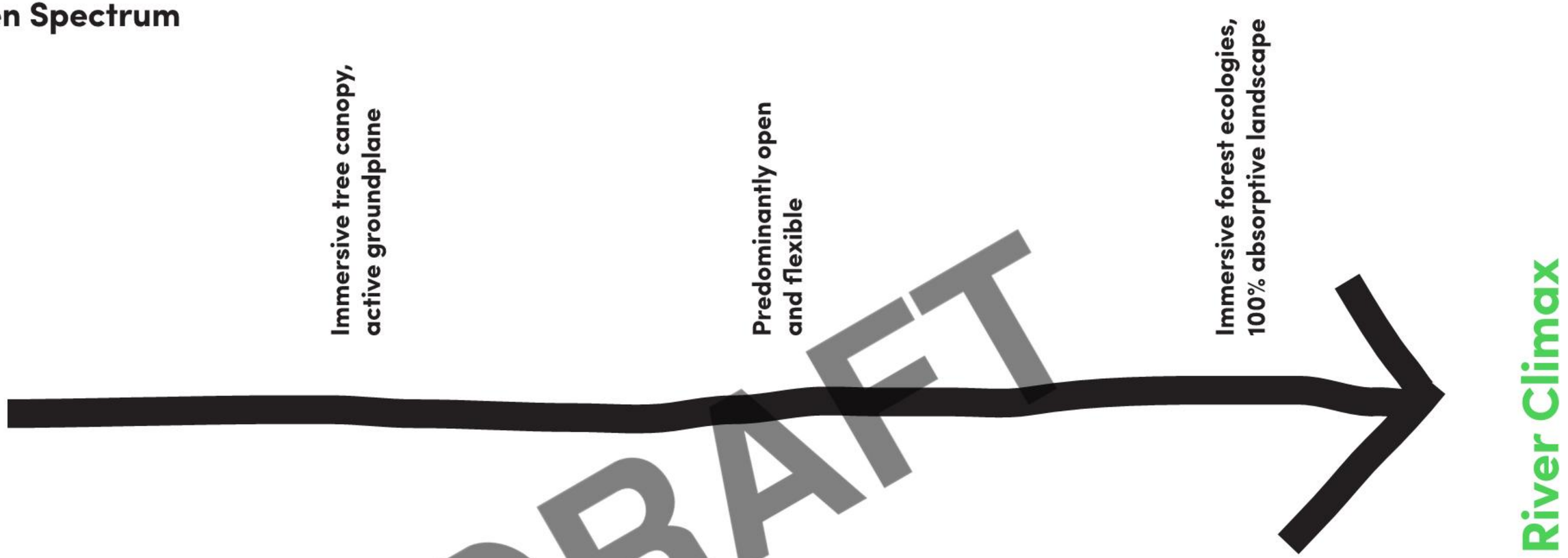
Central Core


East:
River Mouth

Queens Quay and Cherry Street:
Cadence, and the emerging presence of green



Queens Quay and Cherry Street: Green Spectrum



Queens Quay Green Street, Music Garden and Garrison Creek

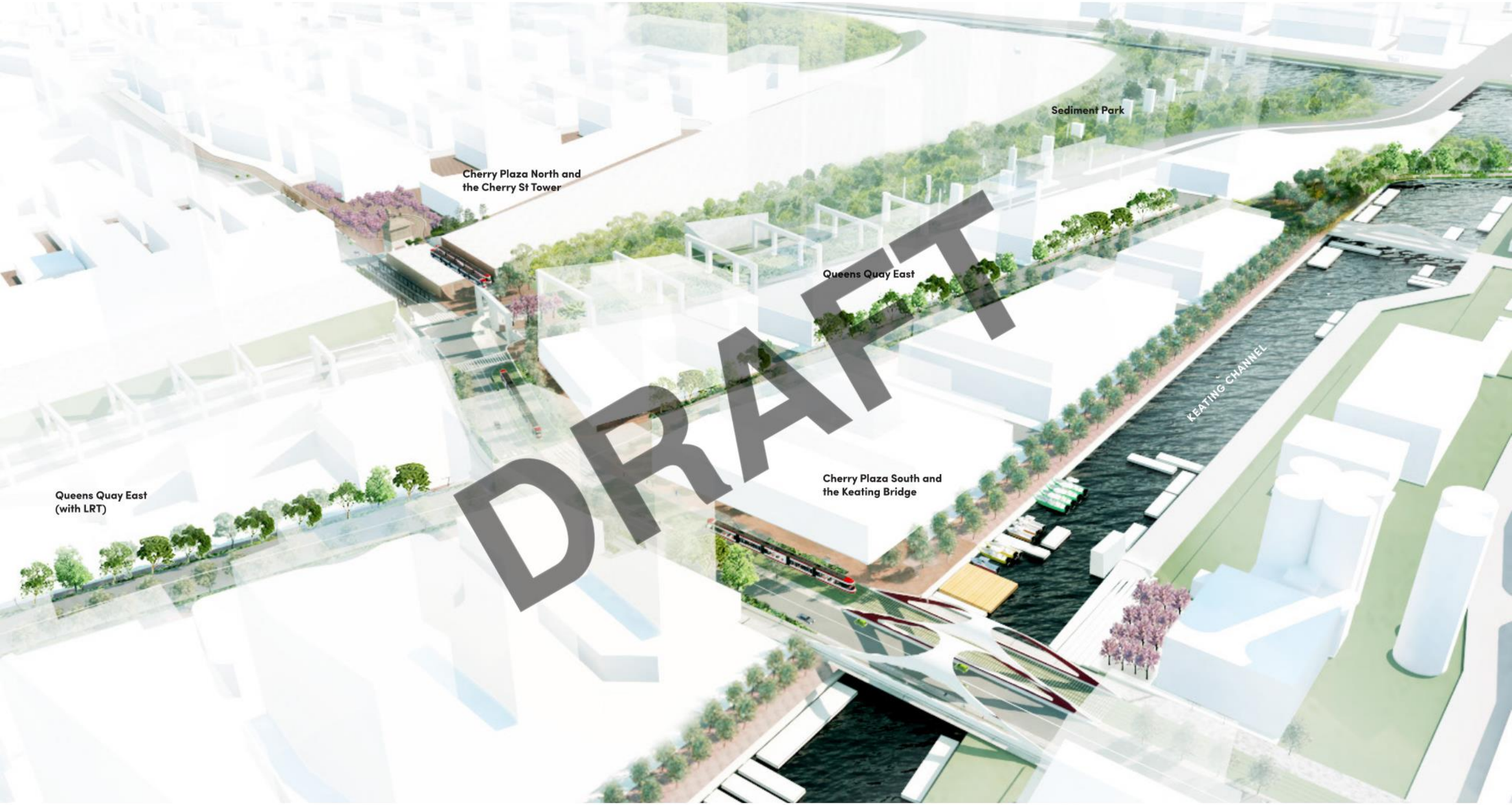
Queens Quay Vibrant Core, Central Waterfront

Queens Quay Green Street, East Bayfront

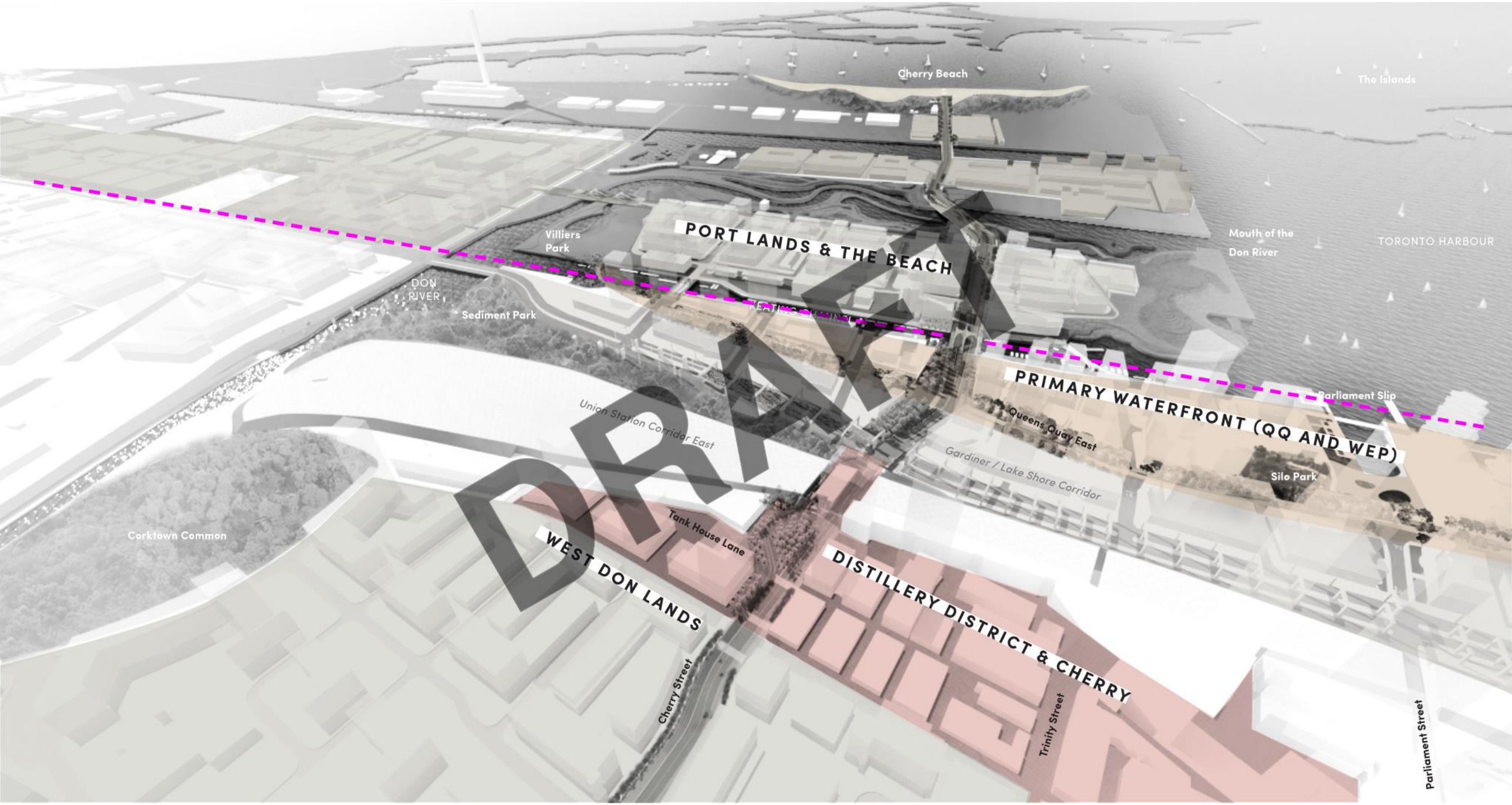
Queens Quay and Cherry Street, Green Climax at the Don River Delta

Cherry Street


Leslie Street Spit
Cherry Beach
The Islands
Villiers Park
Mouth of the Don River
TORONTO HARBOUR
DON RIVER
Sediment Park
KEATING CHANNEL
Queens Quay East
Parliament Slip
Union Station Corridor East
Gardiner / Lake Shore Corridor
Silo Park
Corktown Common
Tank House Lane
Cherry Street
Trinity Street
Parliament Street
DRAFT


Sediment Park
Cherry Plaza North and
the Cherry St Tower
Queens Quay East
KEATING CHANNEL
Queens Quay East
(with LRT)
Cherry Plaza South and
the Keating Bridge
DRAFT

Cherry Street Material Palette: Zones of Influence




West Don Lands


GOODERHAM & WORTS LIMITED
GRISTMILL LANE
SHOPS SERVICES
GALLERIES · CAFÉS
SAKE BREWERY
GREG'S ICE CREAM
Distillery District & Cherry


BICYCLE SIGNAL
Queens Quay & Water's Edge Promenade


Port Lands & the Beach

Cherry South of Keating Channel: Interim Landscape Design (by others)

Sandblasted Concrete Sidewalks

Asphalt Trail

Meadow Landscape (Placeholder for LRT)

Cherry South of Keating Channel:
Proposed, including Re-introduction of Transitway

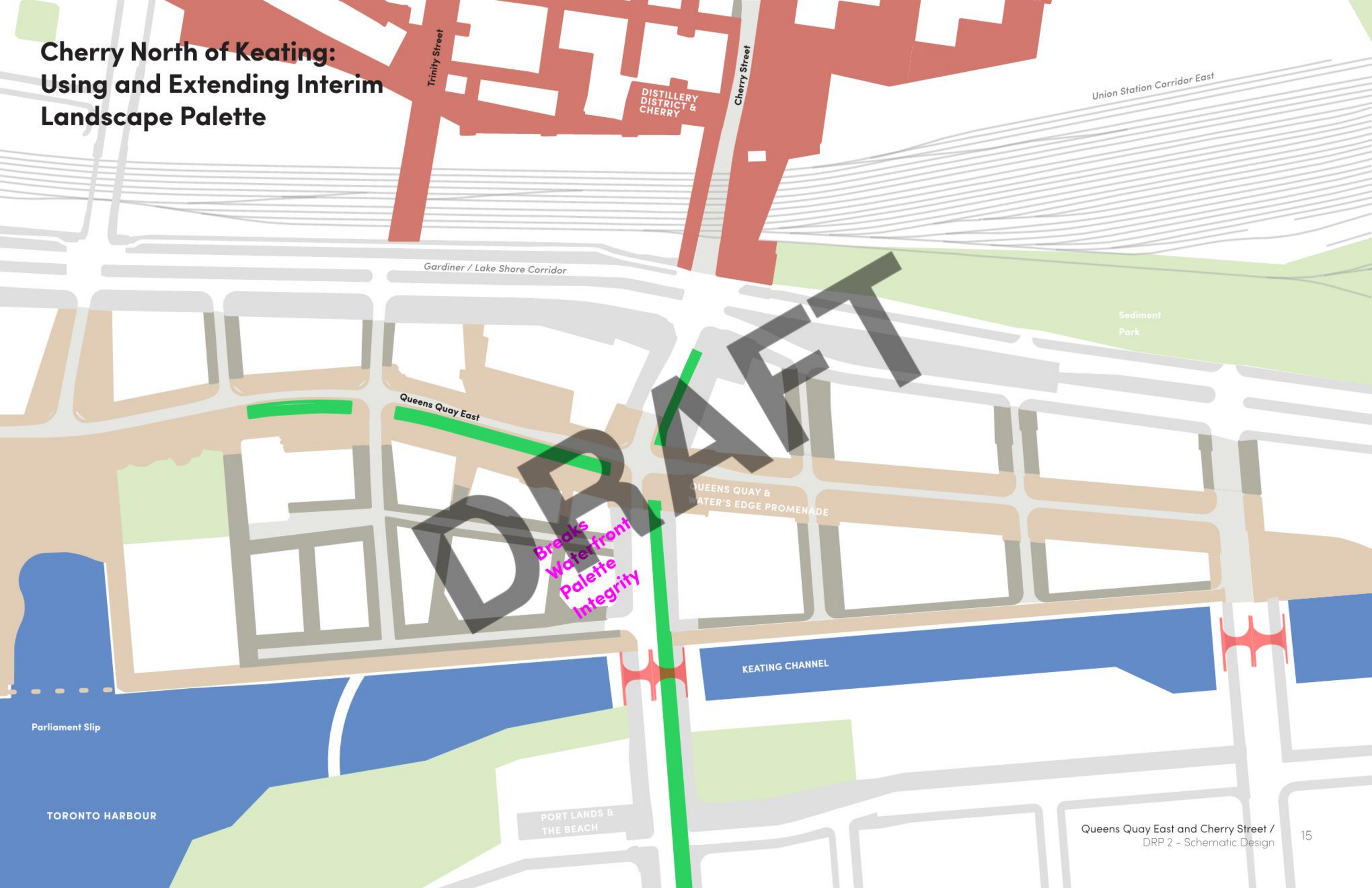
Sandblasted Concrete Sidewalks

Asphalt Trail

LRT Greenway


WEST DON LANDS
DISTILLERY DISTRICT & CHERRY
The Esplanade
Corktown Common
Gardiner / Lake Shore Corridor
Union Station Corridor East
Sediment Park
DON RIVER
QUEENS QUAY & WATER'S EDGE PROMENADE
KEATING CHANNEL
Sugar Beach
Sherbourne Common
Parliament Slip
Mouth of the Don River
PORT LANDS & THE BEACH
TORONTO HARBOUR
The Islands
Cherry Beach
DRAFT

Cherry North of Keating: Using and Extending Interim Landscape Palette



Cherry North of Keating: Using Paleotech Unit Pavers from Interior Street Network

Cherry North of Keating: Lock-in and Wrap the Granite Waterfront Palette to the Water's Edge Promenade

Cherry North of Keating Channel: Interim Landscape Design (by others)

Sandblasted Concrete Sidewalks

Asphalt Trail

Meadow Landscape (Placeholder for LRT)

Cherry North of Keating Channel:
Option 1: Paleotech Unit Pavers and LRT Greenway

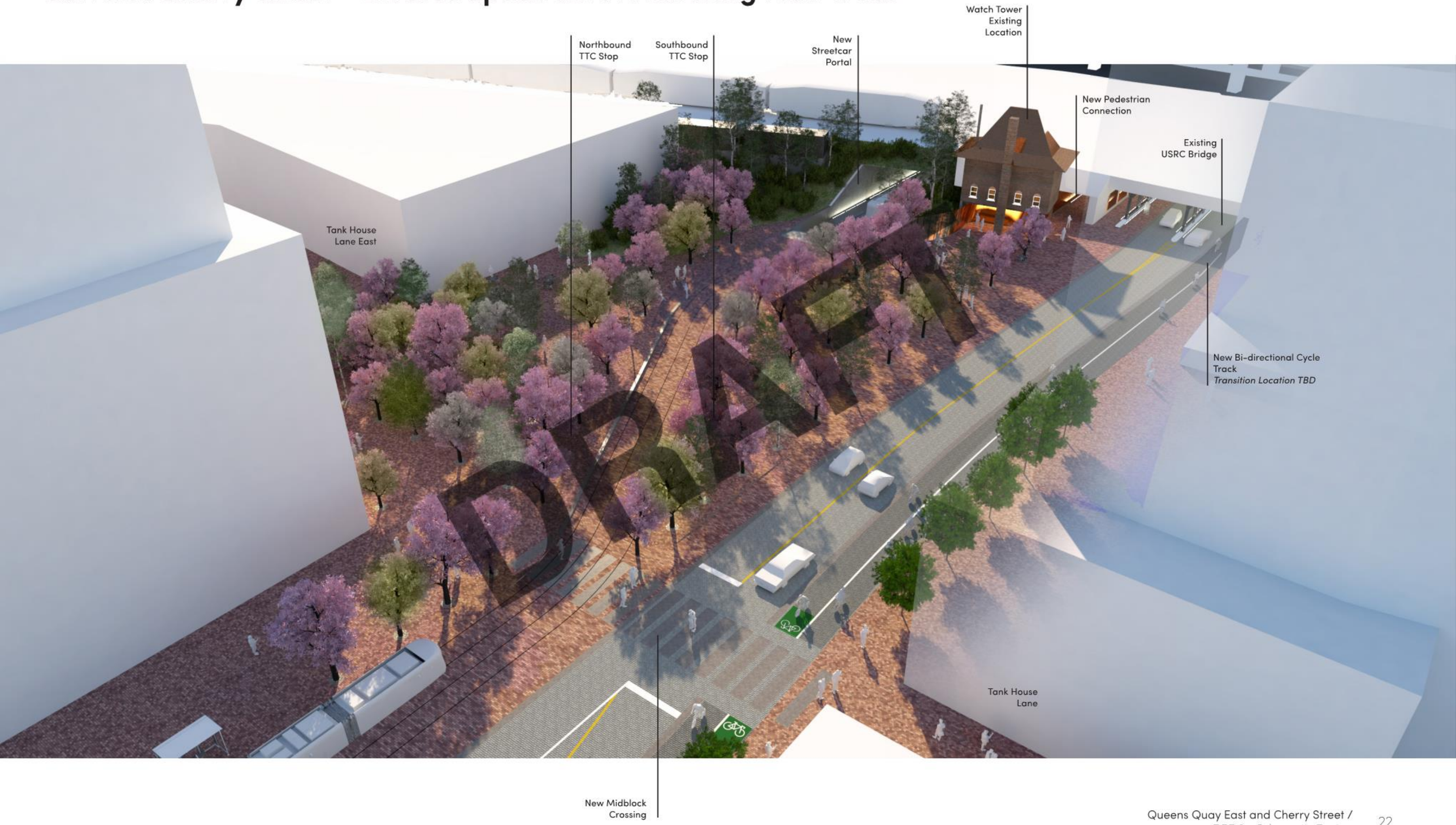
Paleotech Unit Pavers | **Asphalt Trail** | **Bioswales** | **Paleotech Roadbed** | **LRT Greenway** | **Paleotech Unit Pavers**

Cherry North of Keating Channel:
Option 2: Wrap the Waterfront Palette to Meet the Keating Water's Edge Promenade

Waterfront Granite Mosaic | **Asphalt Trail** | **Bioswales** | **Paleotech Roadbed** | **LRT Greenway** | **Waterfront Granite Mosaic**

Previous: Cherry Street – Monoculture of Cherry Blossoms

Current: Cherry Street – Diverse Spectrum of Flowering Fruit Trees



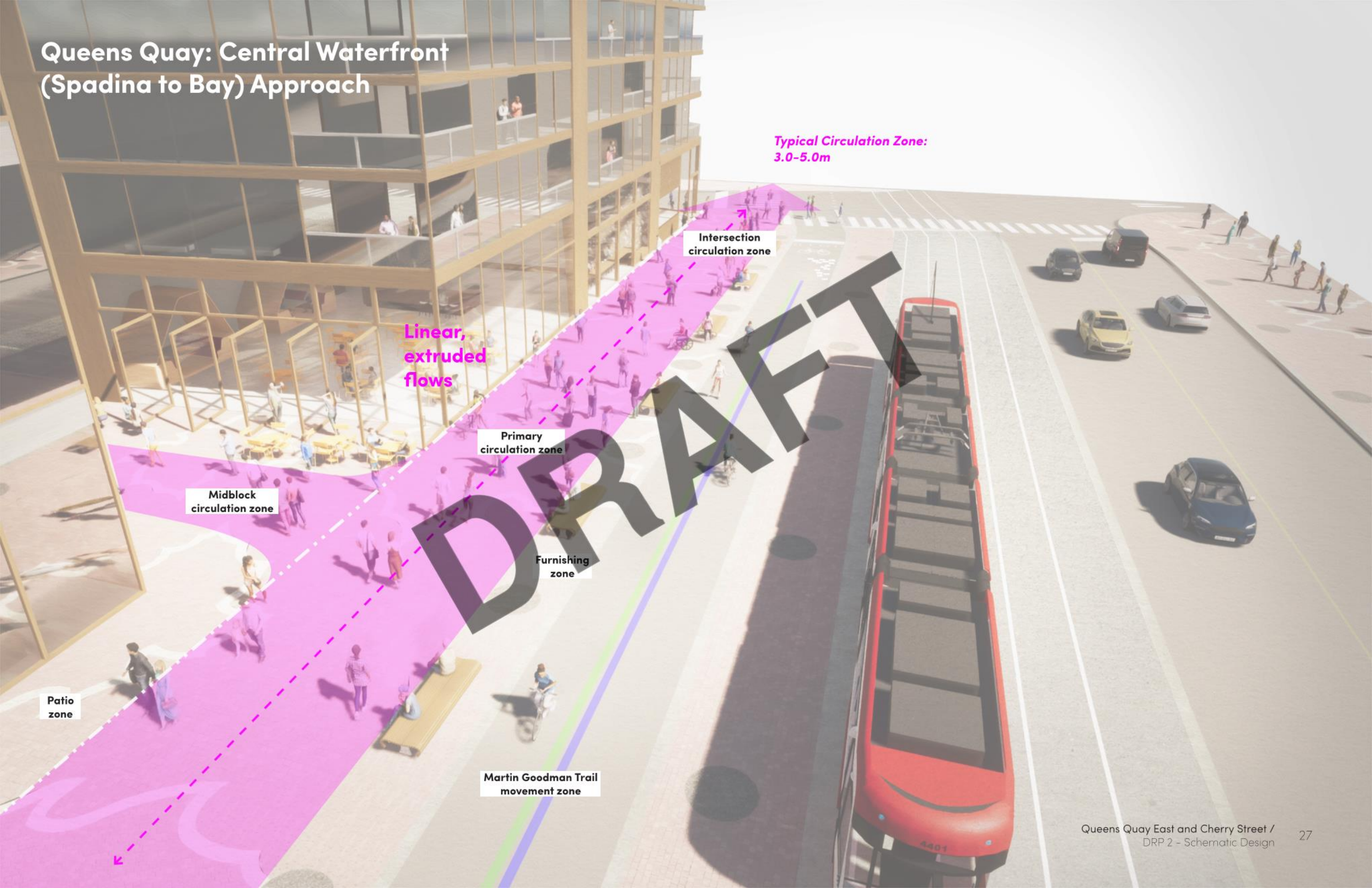
Current: Cherry Street – Diverse Spectrum of Flowering Fruit Trees

Queens Quay East in the River Valley

Queens Quay: Central Waterfront (Spadina to Bay) Approach

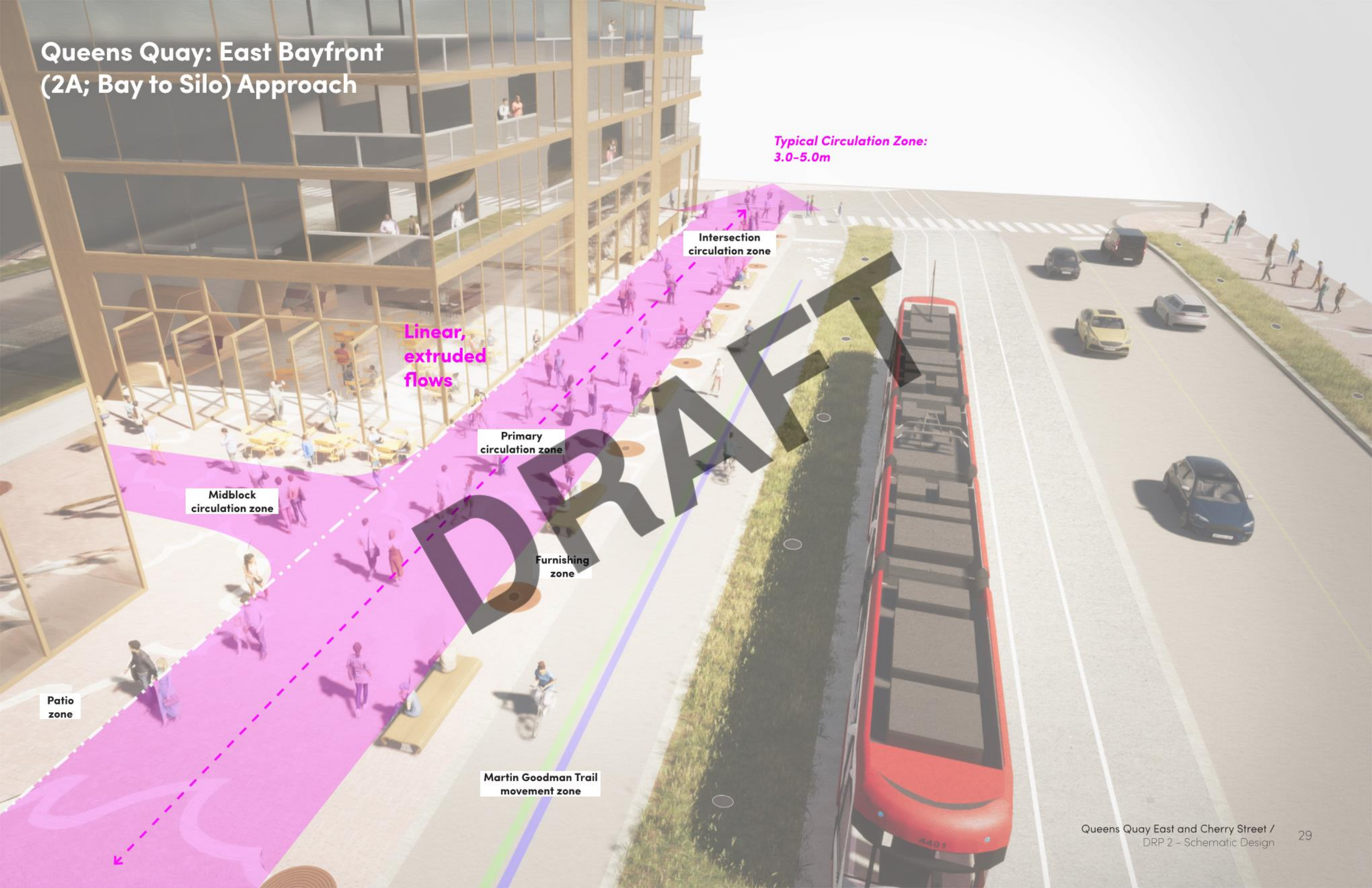
Queens Quay: Central Waterfront (Spadina to Bay) Approach

Queens Quay: Central Waterfront (Spadina to Bay) Approach



Queens Quay: East Bayfront (2A; Bay to Silo) Approach

Queens Quay: East Bayfront (2A; Bay to Silo) Approach

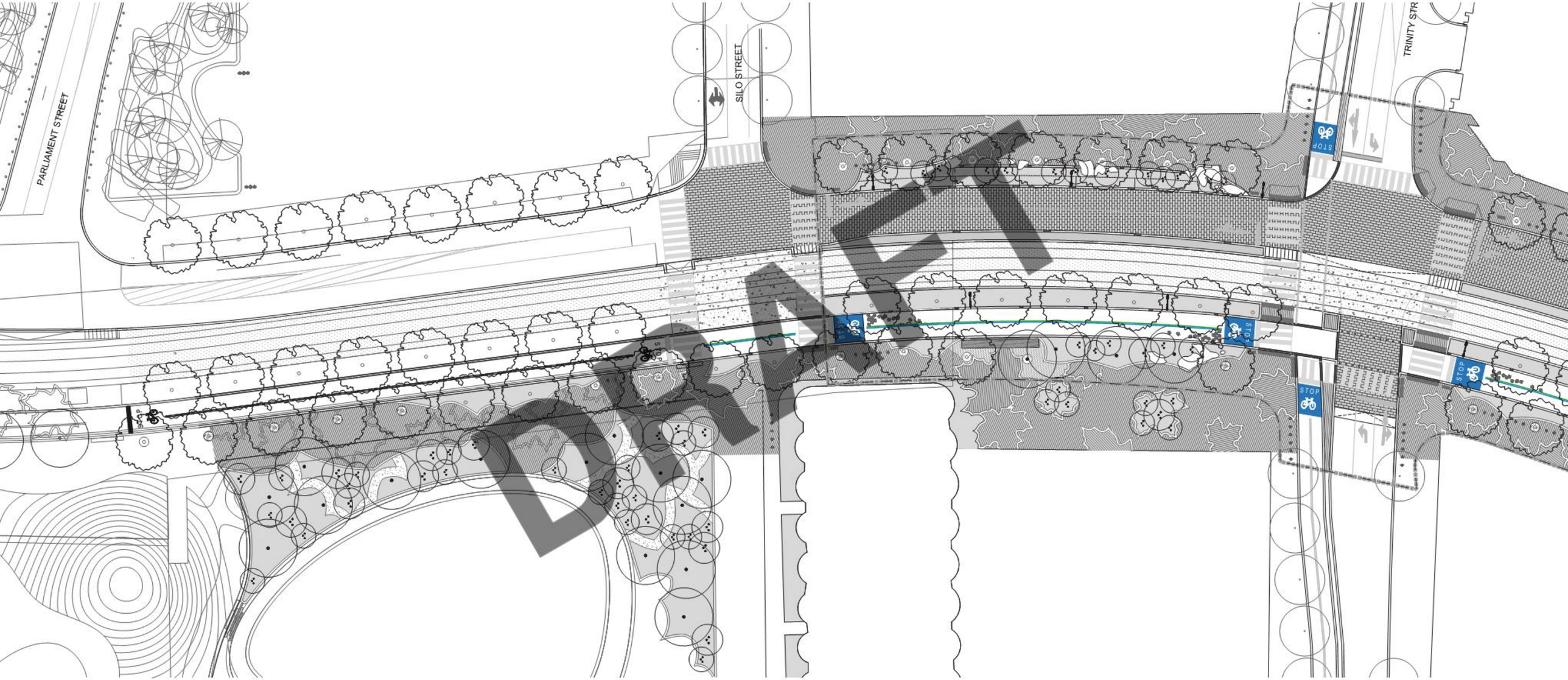


Queens Quay: River District (2B) Approach

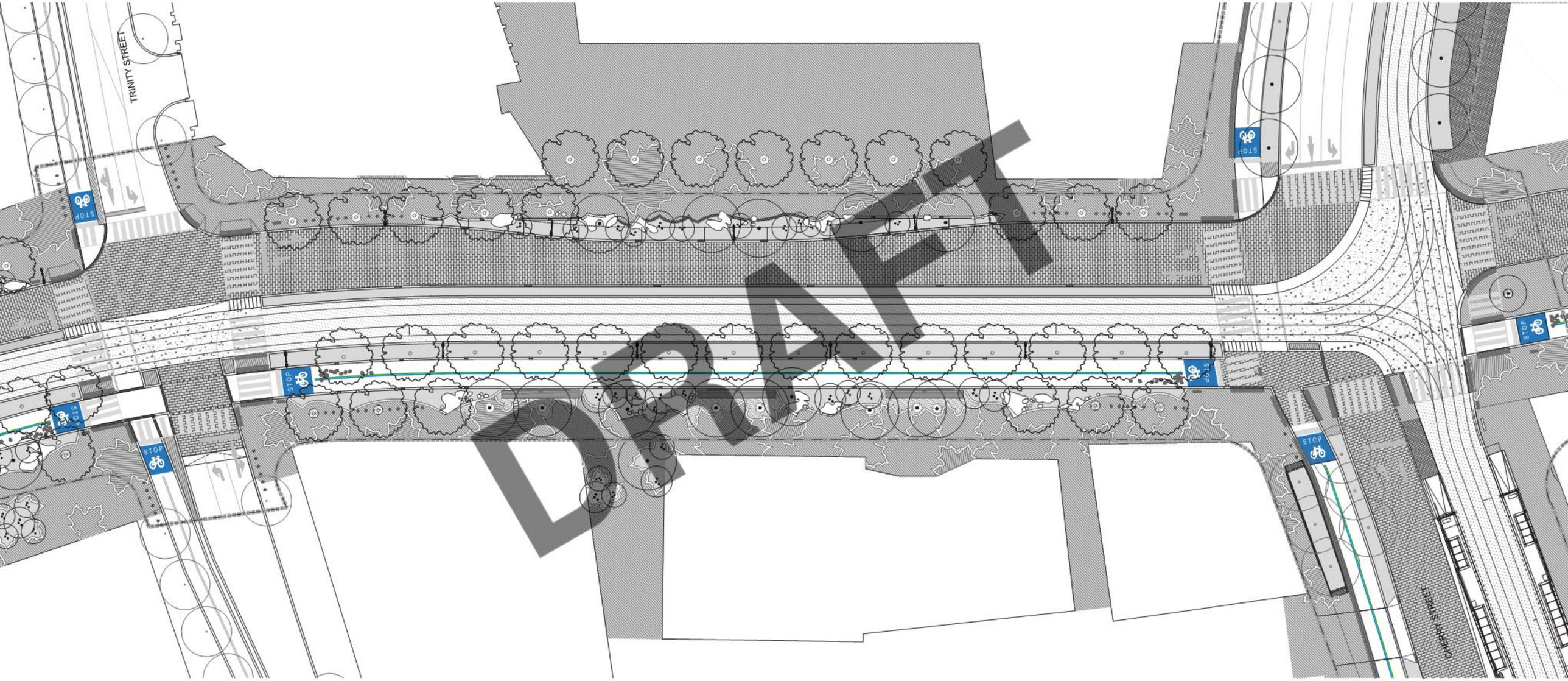
Queens Quay: River District (2B) Approach

Queens Quay: River District (2B) Approach

Queens Quay: Parliament to Trinity Street



Queens Quay: Trinity to Cherry Street




Midblock circulation zone
Primary circulation zone
Native planting zone
Patio zone
Native planting zone

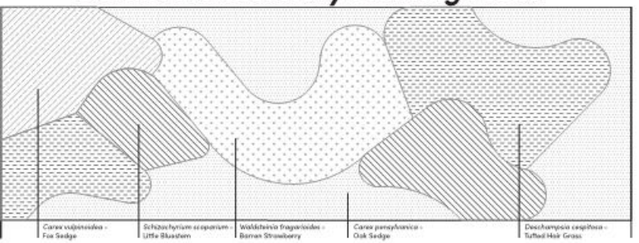

Granite outcrop seating
Midblock circulation zone
DRAFT


Midblock circulation zone
Movable seating zone
Inside-outside seating zone

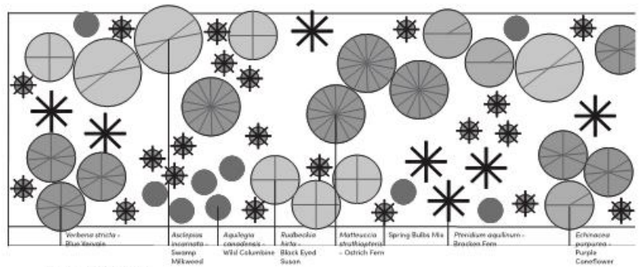
Resilient Planting Design: Strategy Update

More Resilient and Immersive:
Dynamic urban forest ecologies that change through time

Detailed Understory Planting Plans

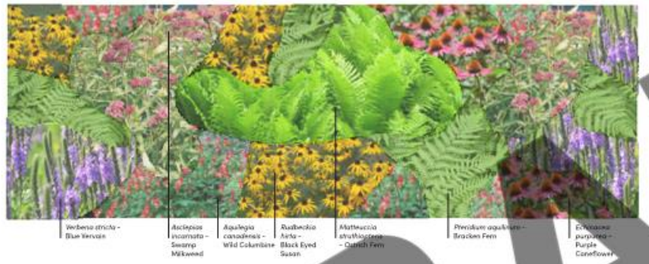


Grass and Groundcover Layer

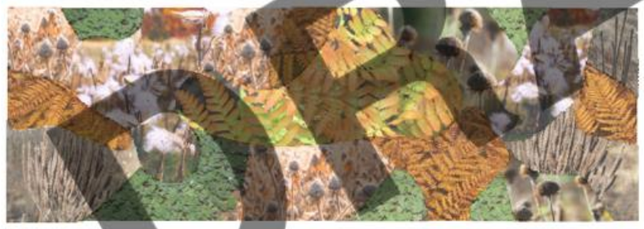


Perennial Layer

Summer



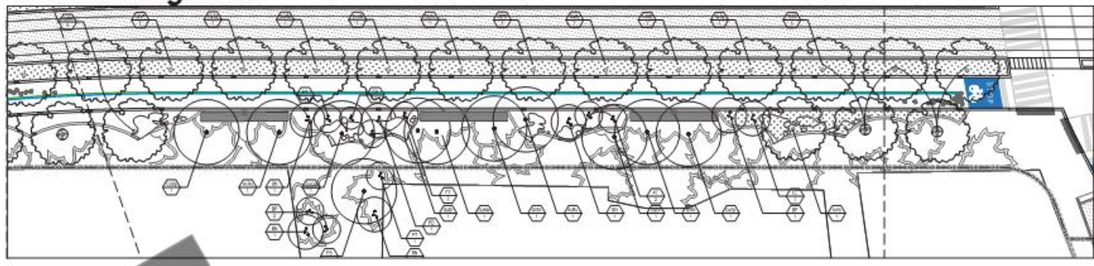
Fall

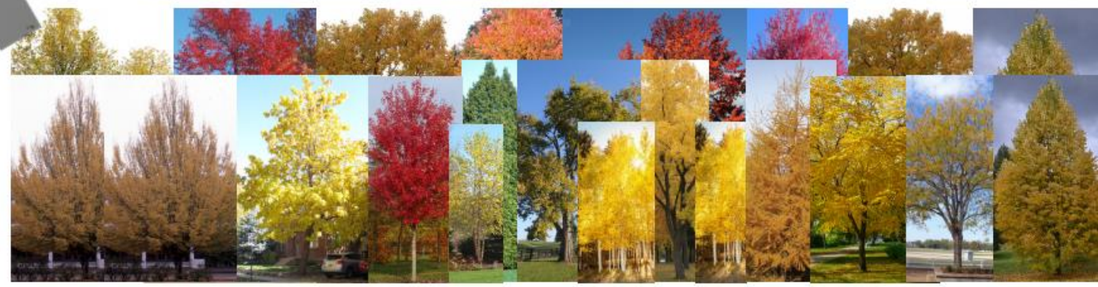


Winter

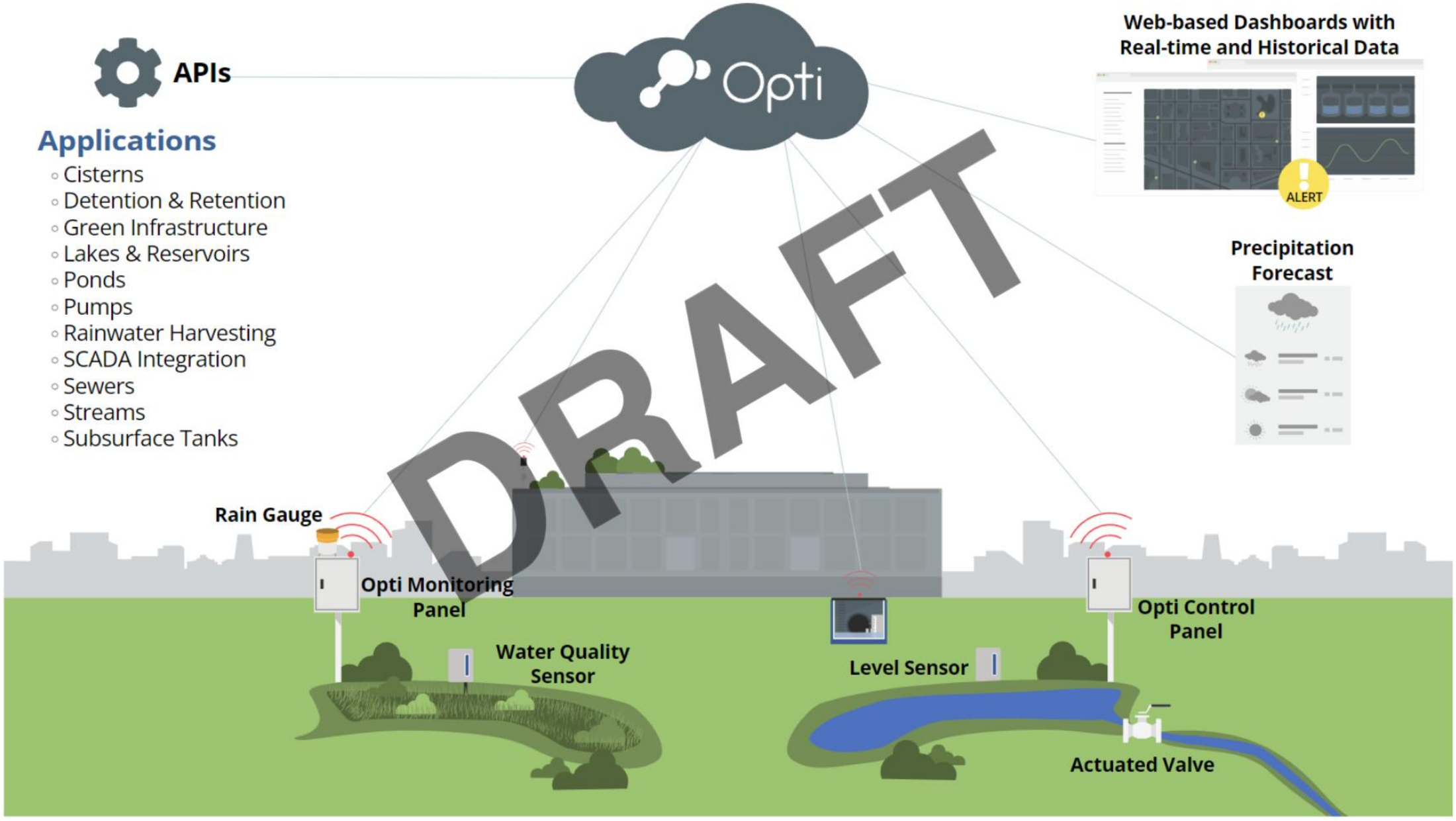
Spring

Tree Planting Plan

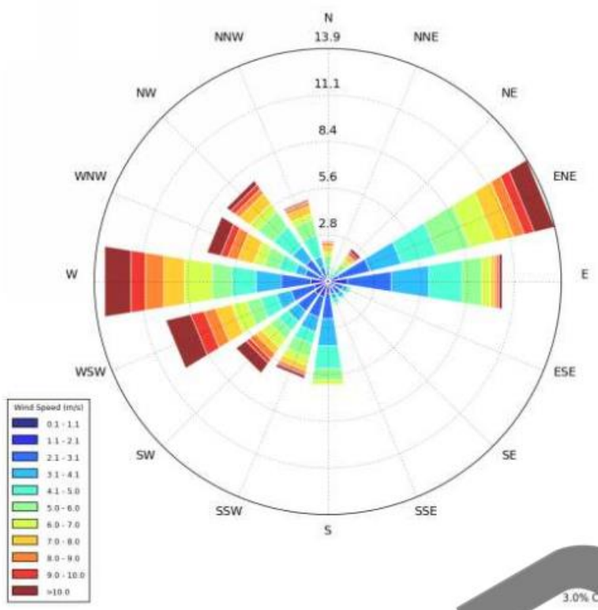


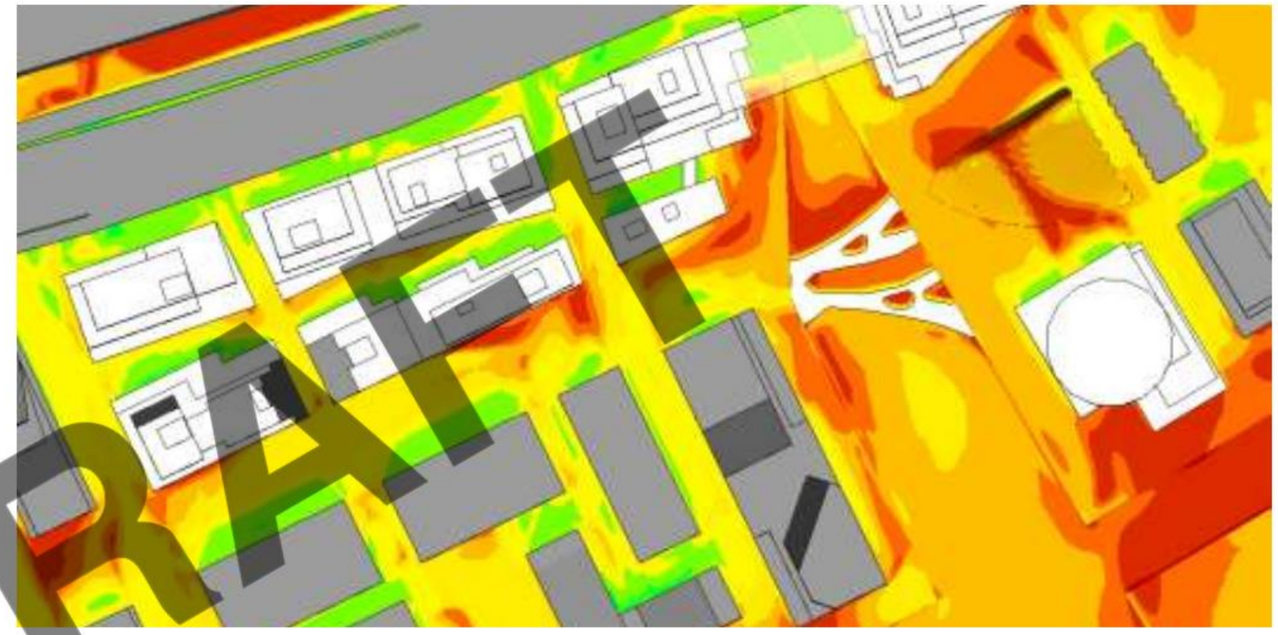


More Resilient: Performance Monitoring
OPTI monitoring systems and performative analysis for tree health (moisture, salt)



More Resilient: Outdoor Comfort
Leveraging natural systems to extend public life outdoors further into shoulder seasons






Primary circulation zone
Martin Goodman Trail
DRAFT


DRAFT


Native planting zone
Martin Goodman Trail
Primary circulation zone
Intersection circulation zone

Proposed


Martin Goodman Trail
Trees in pavement, Native planting zone beyond
Primary circulation zone
Intersection circulation zone
DRAFT


Martin Goodman Trail
Native planting zone
Primary circulation zone


Proposed
Martin Goodman Trail
Trees in pavement furnishing zone
Primary circulation zone

Image courtesy of Hines/Tridel

Achieve Toronto Green Standard, Tier 3

1.1

INTENT

Ensure a comprehensive suite of sustainability and energy efficiency measures are incorporated into all buildings, in alignment with the Toronto Green Standard (TGS).

REQUIREMENTS: TGS TIER 3 COMPLIANCE

1. **Register for and achieve Tier 3 under the Toronto Green Standard (TGS) Version 3.**

2. **TGS Options: All projects must pursue and achieve all of the following TGS Optional performance measures in the project design:**

- GHG 4.4 – Submetering
- GHG 5.2 – Refuge Area and Backup Generation (residential)
- EC 4.4 – Bird Friendly Glazing
- SW 1.5 – In-suite Waste Storage Space (residential)
- SW 4.1 – Sustainable Building Materials
- AQ 2.5 – Bicycle Parking Rates (residential)
- AQ 1.5 – Electric Vehicle Infrastructure
- AQ 2.6 – Public Bicycle Parking Spaces

The third-party project evaluator will review three of the above optional performance measures as part of construction stage and post-construction TGS reviews. Residential projects must also submit the Refuge Area and Backup Power Optional performance measure for review. All remaining Tier 2 Optional performance measures to be submitted for third-party review may be selected by the project team.

3. **Provide Waterfront Toronto with copies of all TGS submission documents provided to the City and/or third-party project evaluator.**

FURTHER GUIDANCE

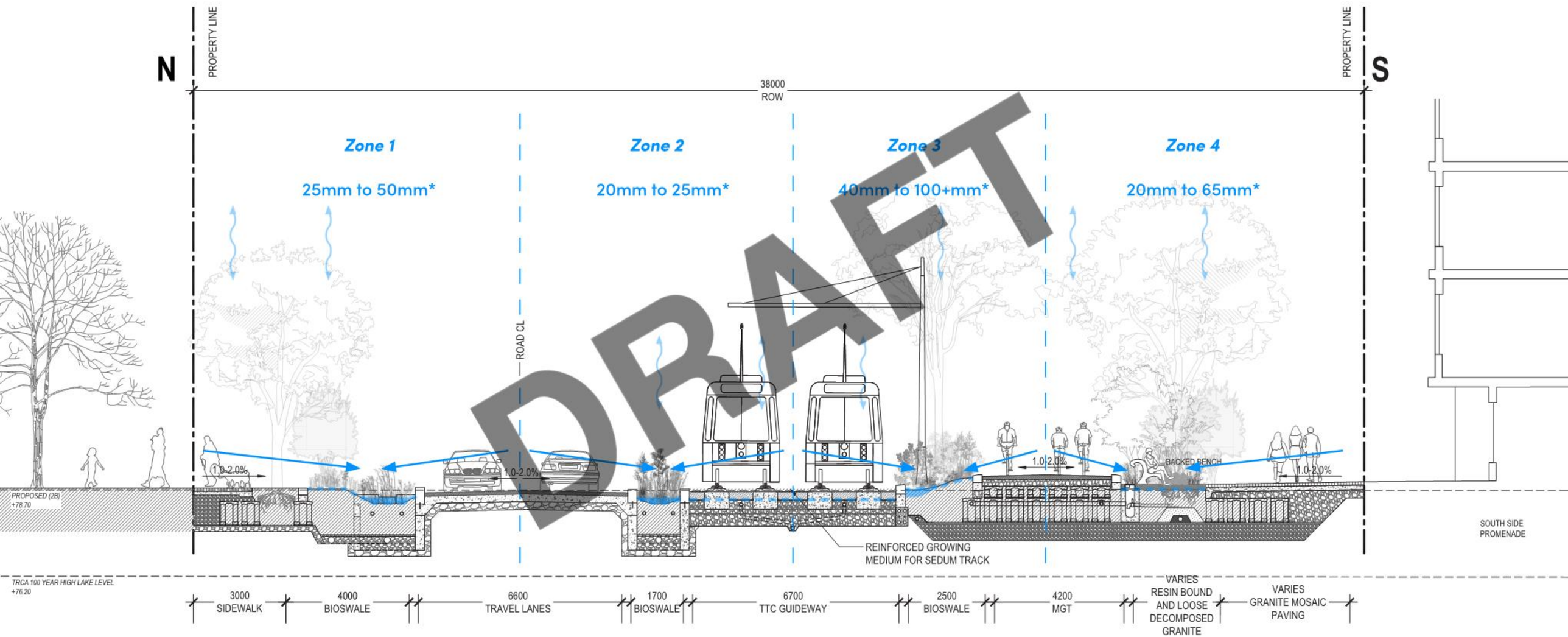
- The TGS requires the selection of and compliance with three optional performance measures for Tier 2, and an additional three for Tier 3. The number of TGS Optional performance measures required under the GBR goes beyond these requirements.
- Projects that achieve Tier 2 or above are eligible for a development charge rebate from the City of Toronto.
- Version 4 of the TGS will be released in 2022. An accompanying addendum to the GBR will be issued at that time.

ADDITIONAL RESOURCES

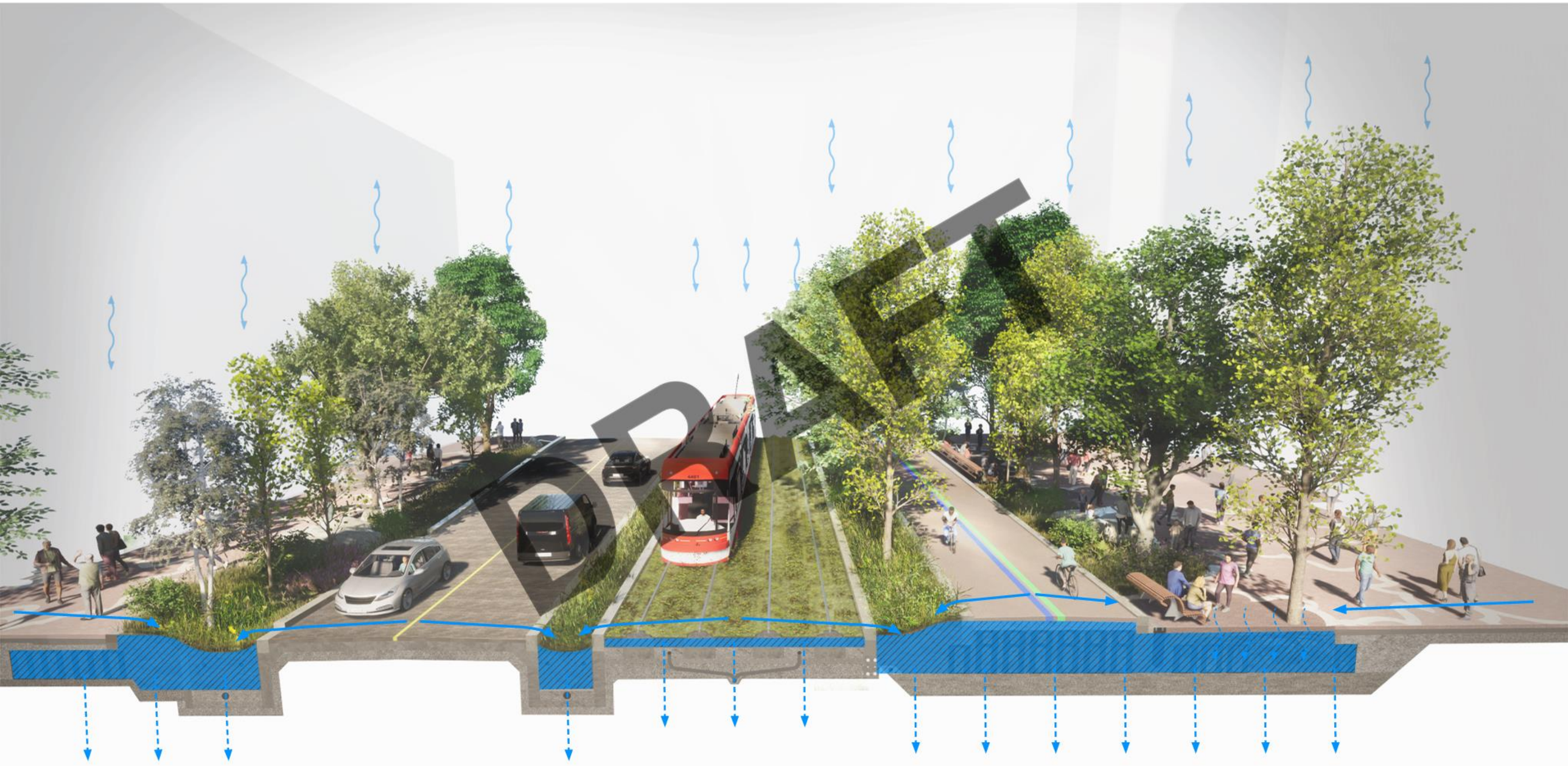
- Toronto Green Standard Version 3
- Toronto Green Standard, Development Charge Refund Program

More Resilient and Didactic

100% of Surface Runoff from the ROW Captured?



**Lower number is for bioretention storage only; upper number includes an assumed 20% water volume within the tree cells. Numbers do not account for evapotranspiration. Assumes the native soil infiltration rates are 15mm/hr or more and there are no soil contamination concerns to prevent infiltration within the ROW.*


DRAFT

North Side Promenade Mid-Block

North Side Promenade Toward Trinity Intersection


DRAFT

North Side Promenade Mid-Block - No Layby

Zone 1 Retention - 25mm to 50mm

North Side Promenade - With Midblock Layby

North Side Promenade - With Layby East of Bioswale

Zone 1 Retention - 12mm to 40mm (20mm to 45mm with soil cells or storage/infiltration below layby)

North Side Promenade - With Midblock Layby

Zone 1 Retention - 12mm to 40mm (20mm to 45mm with soil cells or storage/infiltration below layby)


Scarborough
DRAFT

More Resilient: Green Track vs Concrete

Eglinton Crosstown LRT

7.5 km of surface track

5.5 km with grass treatment, representing over 70% of the surface section of the line

Bordeaux, France

Berlin, Germany

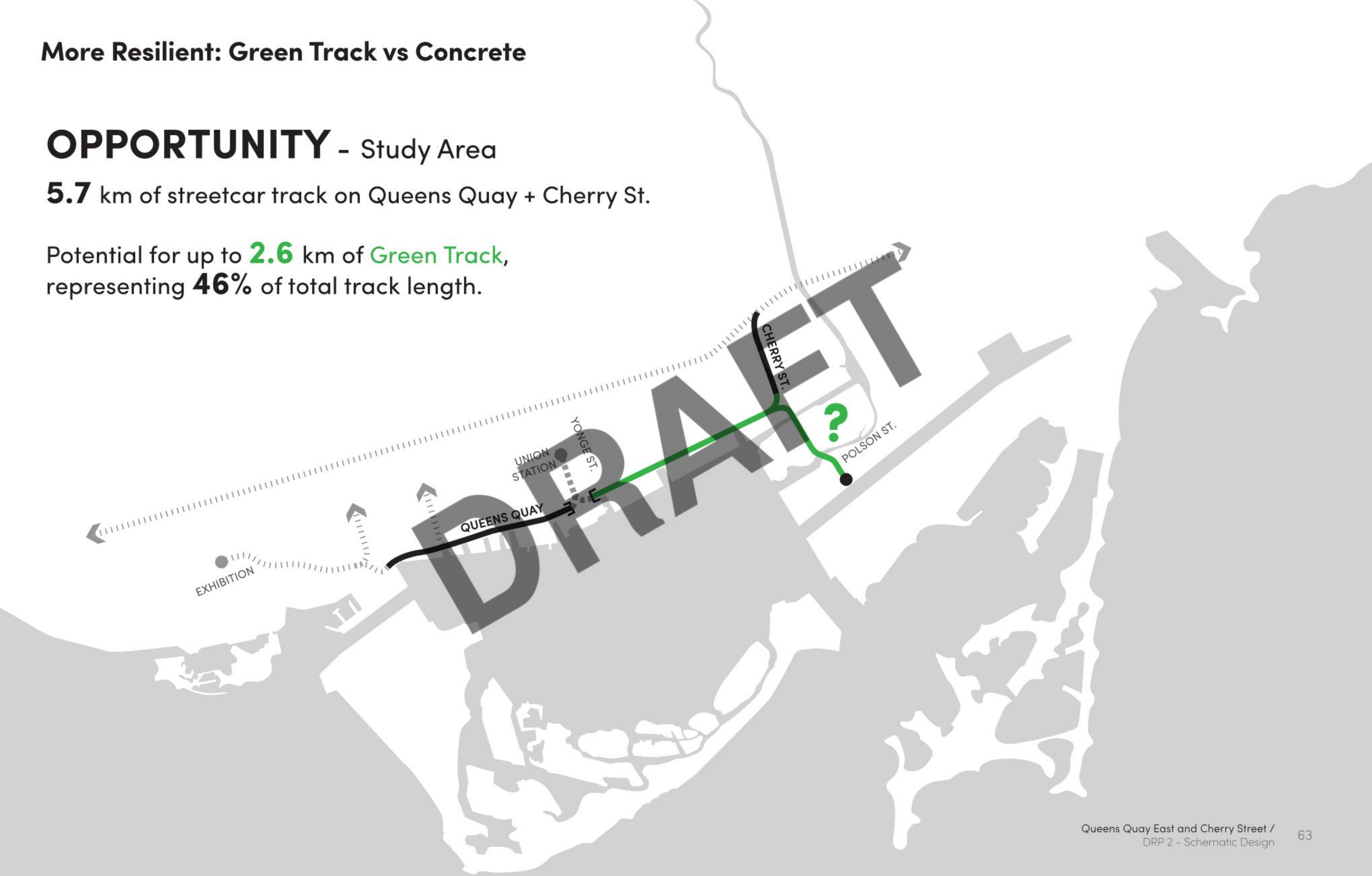
Le Mans, France

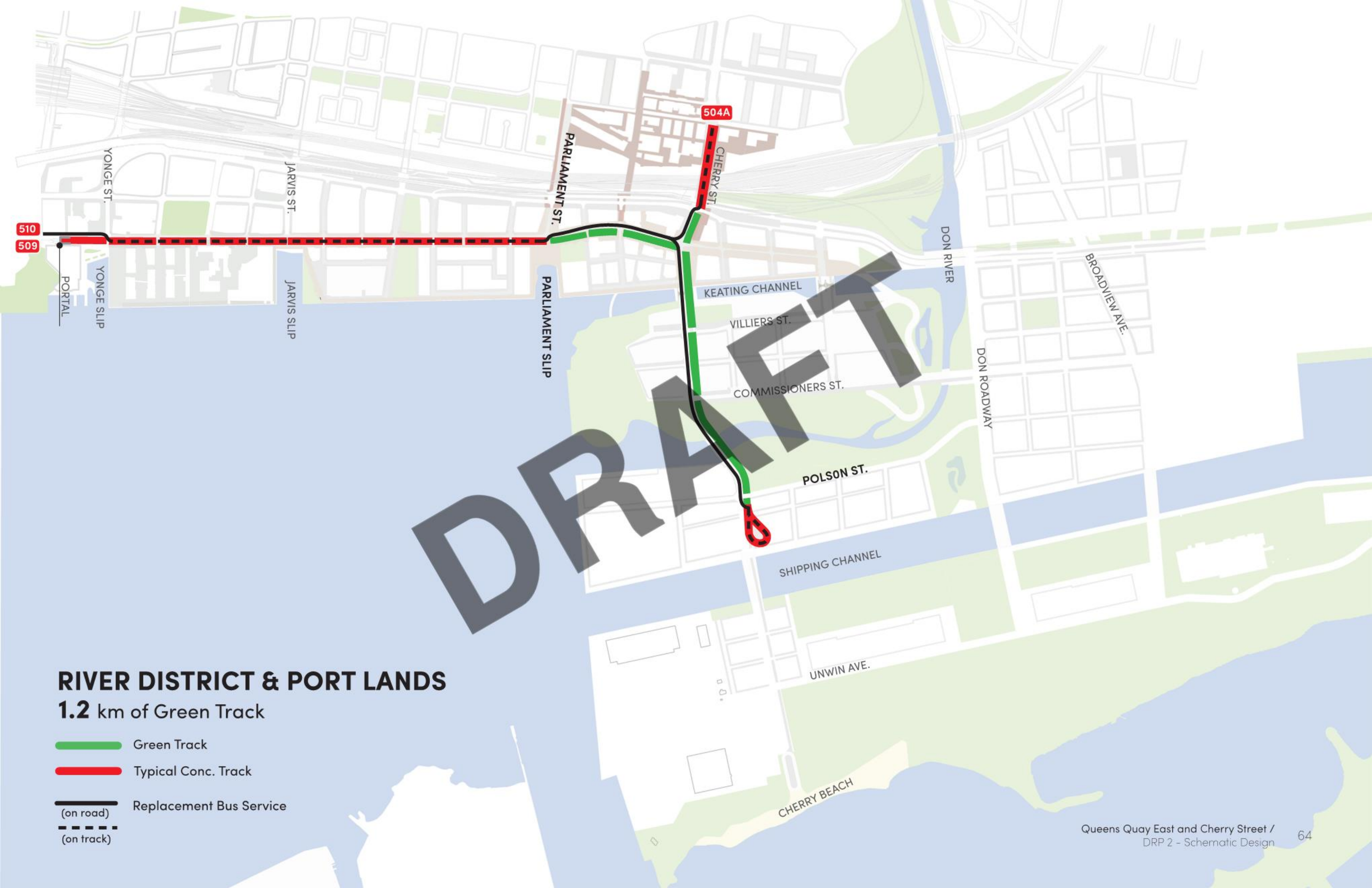
Le Mans, France

OPPORTUNITY - Study Area

5.7 km of streetcar track on Queens Quay + Cherry St.

Potential for up to **2.6** km of Green Track, representing **46%** of total track length.




504A
510
509
YONGE ST.
JARVIS ST.
PARLIAMENT ST.
CHERRY ST.
PORTAL
YONGE SLIP
JARVIS SLIP
PARLIAMENT SLIP
KEATING CHANNEL
VILLIERS ST.
COMMISSIONERS ST.
POLSON ST.
SHIPPING CHANNEL
UNWIN AVE.
CHERRY BEACH
DON RIVER
DON ROADWAY
BROADVIEW AVE.
DRAFT
RIVER DISTRICT & PORT LANDS
1.2 km of Green Track
Green Track
Typical Conc. Track
Replacement Bus Service
(on road)
(on track)

Reinforced Green Track?

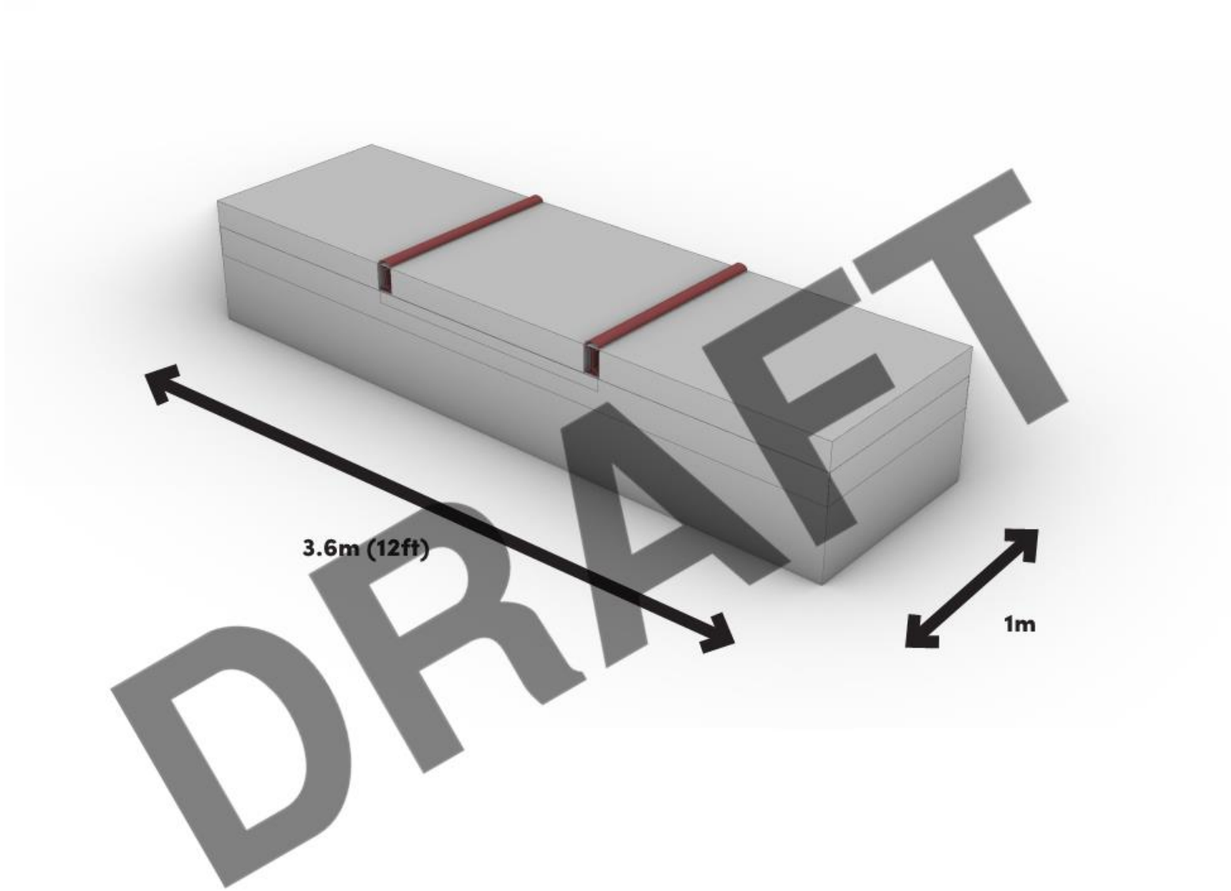
Planted Geogrid System for Fire and Emergency Vehicles
Case Study: Graz Liebenau, Austria (2800m²)

Figure 139: Installation of ECORASTER® plastic grass grid system for seeding of grass (Picture: [27])

Figure 140: Plastic grass grid system after seeding (Picture: [27])

Figure 141: Plastic grass grid system after seeding (Picture: [27])

Typical Track Embodied Carbon

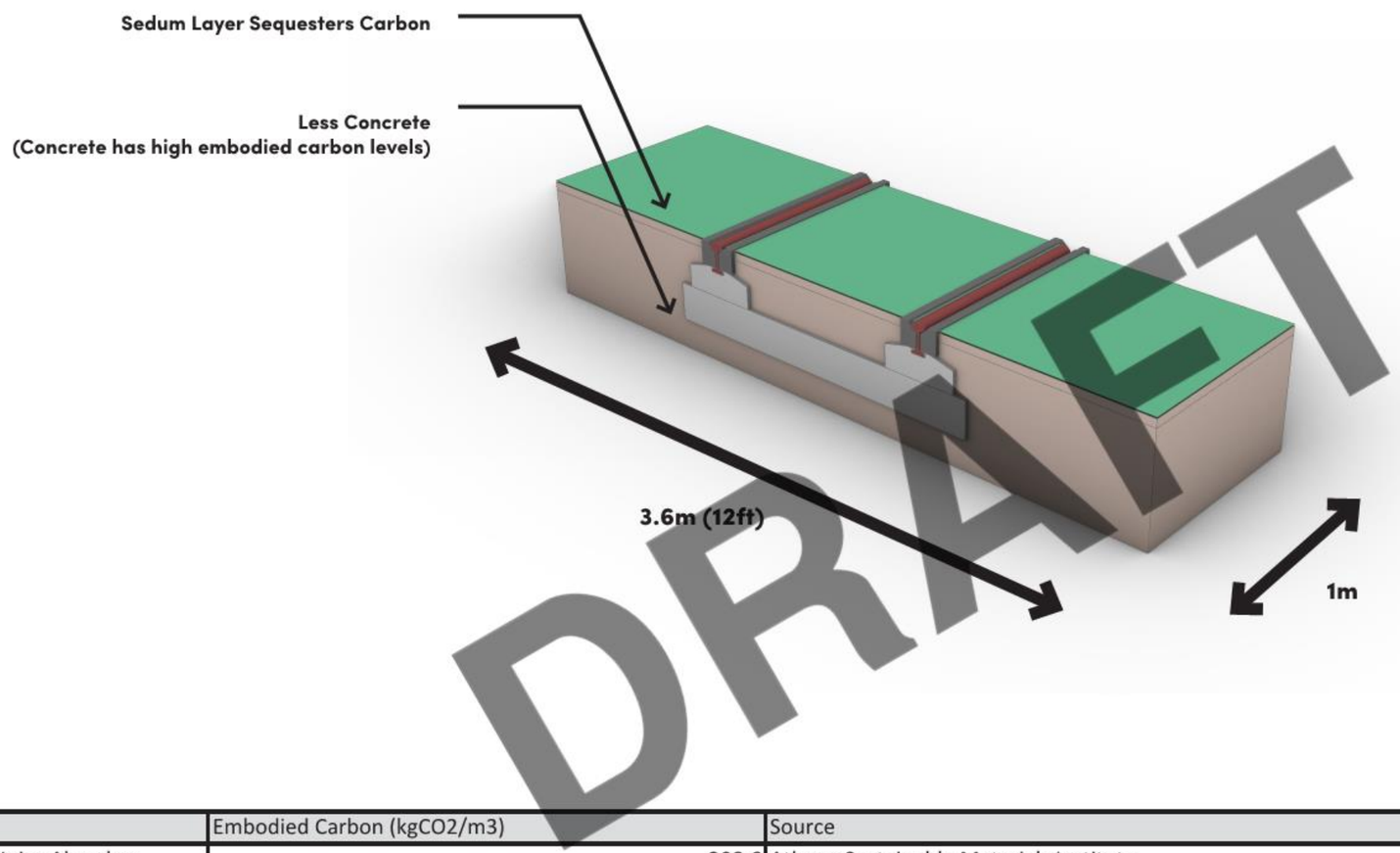


Material	Embodied Carbon (kgCO2/m3)	Source	Volume	Total (kgcO2)
Concrete	625.2	Athena Sustainable Materials Institute	2.14	1337.928
Steel Street Car Rail	20881	Institut Bauen und Umwelt	0.02	417.62

Total	1755.548

Traditional concrete track beds carry a significant amount of embodied carbon

Green Track Embodied Carbon



Approximately 524 metric tonnes less embedded carbon than traditional concrete track

Material	Embodied Carbon (kgCO2/m3)	Source	Volume	Total (kgcO2)
Porous Rubber Noise Absorber	208.6	Athena Sustainable Materials Institute	0.05	10.43
Concrete Footing	625.2	Athena Sustainable Materials Institute	0.12	75.024
Substrate	22	Athena Sustainable Materials Institute	1.47	32.34
Ashphalt Concrete Support Layer	601.5	Athena Sustainable Materials Institute	0.5	300.75
Steel Street Car Rail	20881	Institut Bauen und Umwelt	0.02	417.62

Plant Material	Sequestered Carbon kgCO2/m2) 25 year lifespan	Source	Area	Total
Sedum	7.5	Center for Environment, Health and Field Sciences, Chiba University	3.6	27

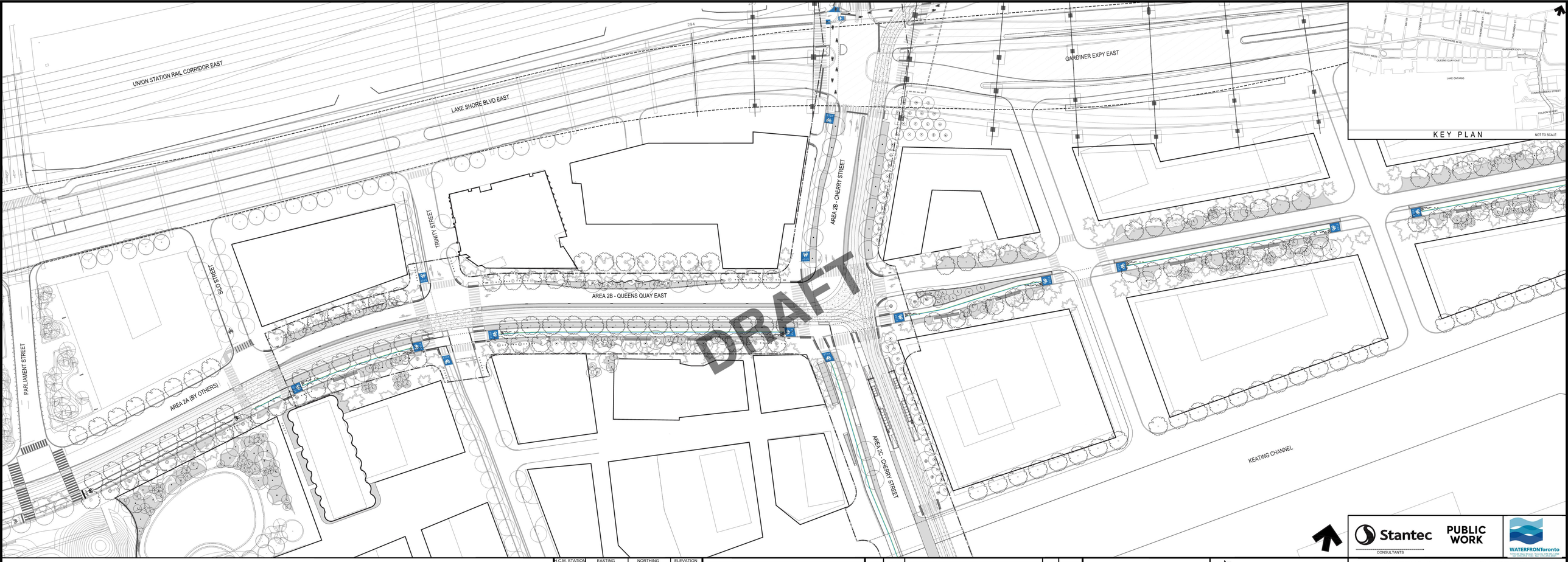
Total	836.164

Making a change at Parliament Slip – the River Valley 'shift' – to a green track system can save considerably on embodied carbon


DRAFT

Appendix: Plans and Sections


MILL ST.
YONGE ST.
JARVIS ST.
PARLIAMENT ST.
CHERRY ST.
DON RIVER
BROADVIEW AVE.
YONGE SLIP
JARVIS SLIP
PARLIAMENT SLIP
KEATING CHANNEL
VILLIERS ST.
COMMISSIONERS ST.
DON ROADWAY
POLSON ST.
SHIPPING CHANNEL
TORONTO HARBOUR
UNWIN AVE.
CHERRY BEACH
DRAFT
Stations
Cycling Network
Waterfront LRT Network
Waterfront Bus Network



NOTES:
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H.C.M. STATION	EASTING	NORTHING	ELEVATION
B.M. STATION			

HORIZONTAL \ VERTICAL CONTROL MONUMENTS

DIGITAL INFORMATION

No.	DATE	REVISIONS	INITIAL	SIGNED
3	10/15/21	ISSUED FOR 30% COSTING	A.N.	
2	08/31/21	ISSUED FOR DRAFT 30% COSTING	A.N.	
1	06/07/21	ISSUED FOR 10% DESIGN	A.N.	

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Fax: 416-392-4754 E-mail: info@waterfrontoronto.ca

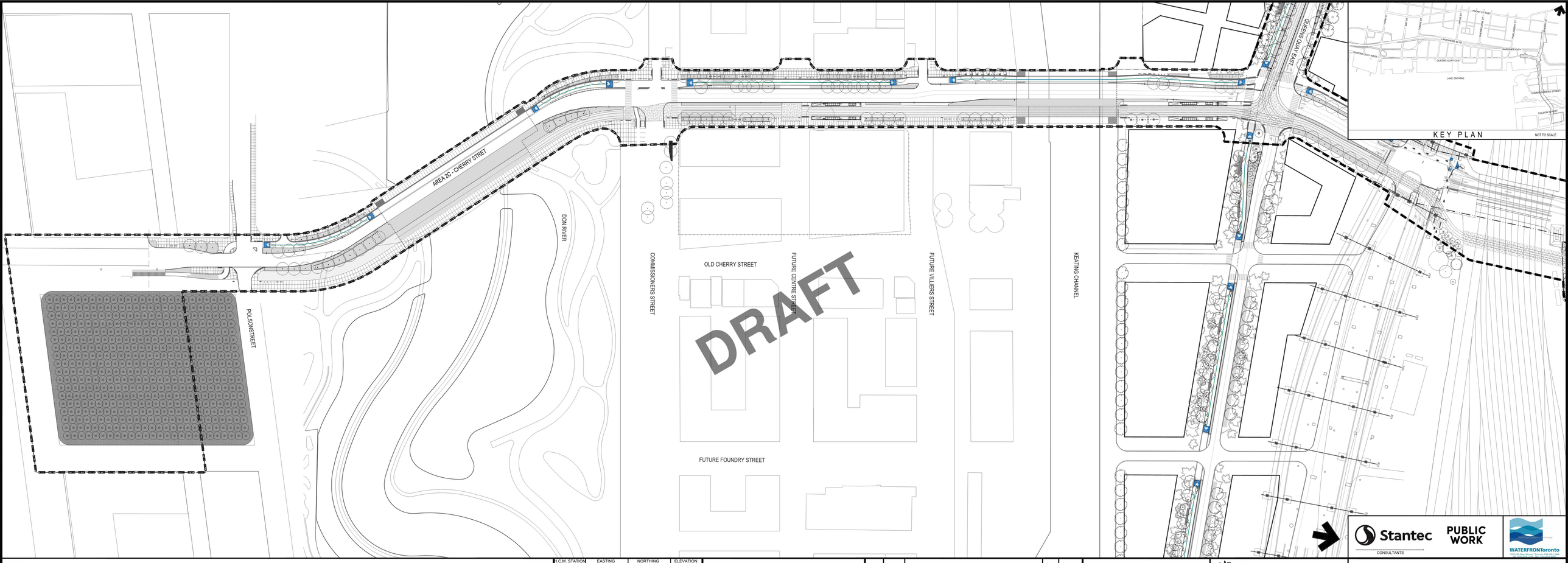
QUEENS QUAY EAST/CHERRY ST

PRELIMINARY DESIGN AND ENGINEERING

Context Plan - Queens Quay

DESIGN	PW	DRAWN	PW	CHECKED	A.N.	CONTRACT No.
SCALE:	HORIZ. 1:500			DRAWING NUMBER	L-GEN-001	
DATE:	OCTOBER 15, 2021					

Mo.Day.Yr



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H.C.M. STATION	EASTING	NORTHING	ELEVATION
B.M. STATION			

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QUEENS QUAY EAST/CHERRY ST

PRELIMINARY DESIGN AND ENGINEERING

Context Plan - Cherry Street South

DESIGN	PW	DRAWN	PW	CHECKED	A.N.	CONTRACT No.
SCALE:	HORIZ. 1:750			DRAWING NUMBER	L-GEN-002b	
DATE:	OCTOBER 15, 2021					

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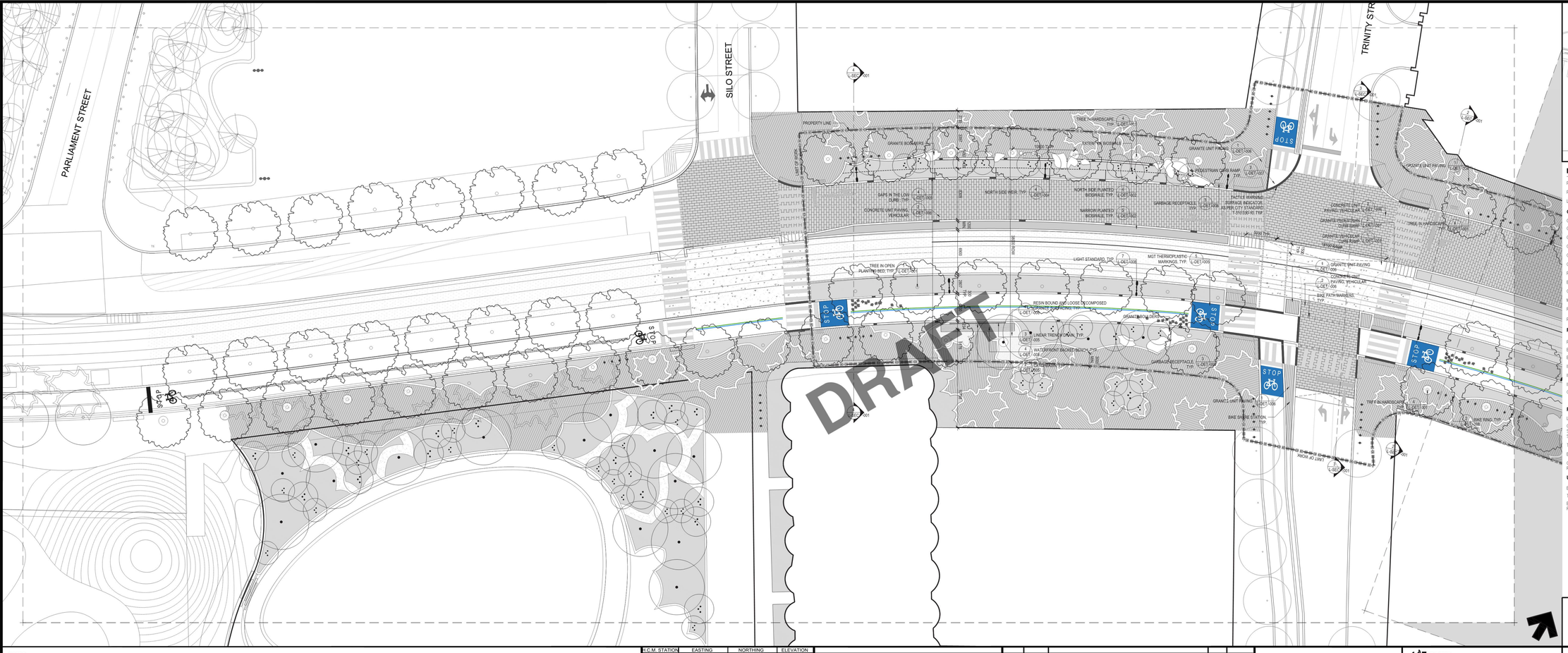

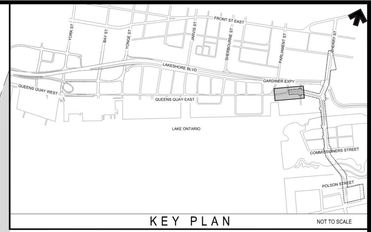

KEY PLAN NOT TO SCALE

LEGEND

PROPERTY LINE
PROPERTY LINE – EXISTING PRIOR TO ROW EXTENTION
LIMIT OF WORK

CURBS AND PAVING

GRANITE RAMP
CURB CUT AND VEHICULAR RAMP
GRANITE UNIT PAVER – SMOOTH
GRANITE UNIT PAVER–ROUGH
GRANITE MOSAIC
GREY GRANITE UNIT PAVER
PALEOTECH CONCRETE VEHICULAR UNIT PAVER
BRICK UNIT PAVER
C.I.P. CONCRETE PAVING
MARTIN GOODMAN TRAIL – ASPHALT
REINSTATED EXISTING UNIT PAVING
PLANTED AREA

PLANTING

PROPOSED TREE
EXISTING TREE
EXISTING TREE TO BE RELOCATED
IMMERSIVE PLANTING MIX 1
IMMERSIVE PLANTING MIX 2
IMMERSIVE PLANTING MIX 3
GREEN TRACK

FURNITURE, FIXTURES AND TRANSIT ELEMENTS

LIGHT POST
COMBINED TRAFFIC AND STREET LIGHT – SEE ELECTRICAL
TRAFFIC POLE– SEE ELECTRICAL — TS
BENCH
GARBAGE AND RECYCLING RECEPTACLES
MGT INTERSECTION MARKERS
BIKE RINGS
OVERHEAD TTC WIRE AND POLE
CANTILEVER TTC POLE
FENCE

UTILITIES

BIA PANEL — BIA
TRANSFORMER — TX
EVENT POWER – 3ø, 208V, 60A RECEPTACLE CENTRES
CATCHBASIN/CURB INLET CATCHBASIN
MGT TRENCH DRAIN — TD

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www.waterfrontoronto.ca

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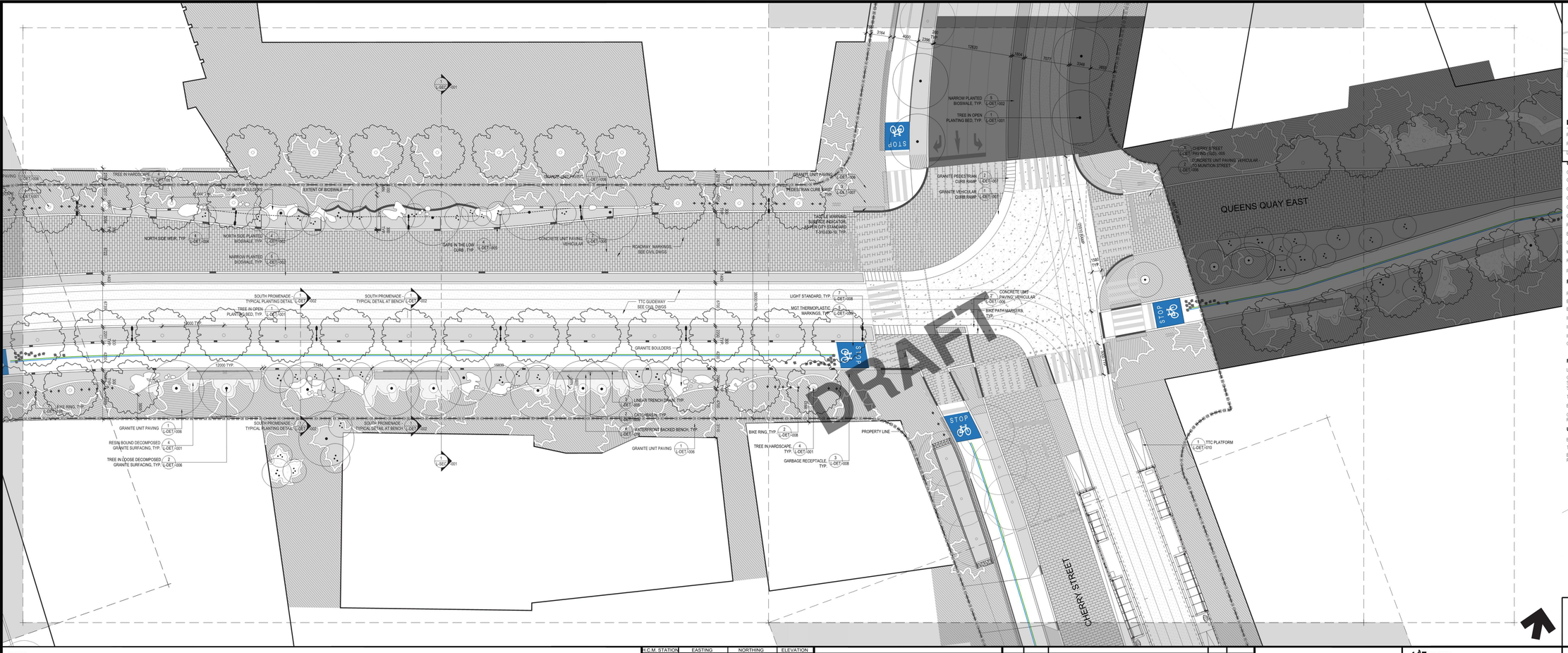
TORONTO

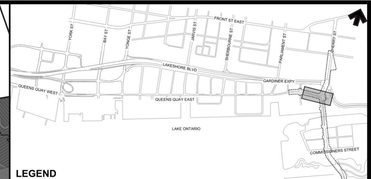
QUEENS QUAY EAST/CHERRY ST

PRELIMINARY DESIGN AND ENGINEERING

Layout and Materials Plan

DESIGN	PW	DRAWN	PW	CHECKED	A.N.	CONTRACT No.
SCALE:	HORIZ. 1:200			DRAWING NUMBER	L-LA-001	
DATE:	OCTOBER 15, 2021					





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PALEOTECH CONCRETE VEHICULAR UNIT PAVER
BRICK UNIT PAVER
C.I.P. CONCRETE PAVING
MARTIN GOODMAN TRAIL – ASPHALT
REINSTATED EXISTING UNIT PAVING
PLANTED AREA

PLANTING

PROPOSED TREE
EXISTING TREE
EXISTING TREE TO BE RELOCATED
IMMERSIVE PLANTING MIX 1
IMMERSIVE PLANTING MIX 2
IMMERSIVE PLANTING MIX 3
GREEN TRACK

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COMBINED TRAFFIC AND STREET LIGHT – SEE ELECTRICAL
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GARBAGE AND RECYCLING RECEPTACLES
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BIKE RINGS
OVERHEAD TTC WIRE AND POLE
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UTILITIES

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TRANSFORMER
EVENT POWER – 3ø, 208V, 60A RECEPTACLE CENTRES
CATCHBASIN/CURB INLET CATCHBASIN
MGT TRENCH DRAIN

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H.C.M. STATION	EASTING	NORTHING	ELEVATION
B.M. STATION			

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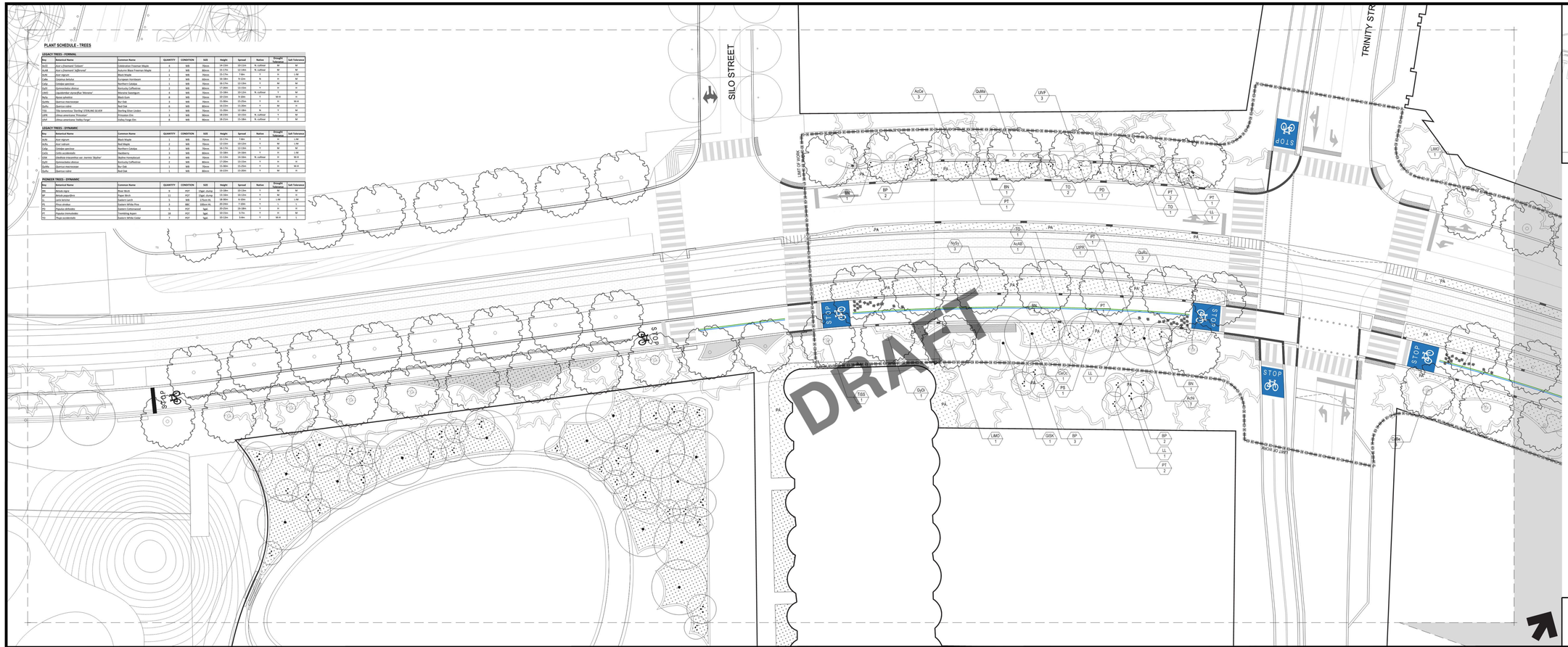
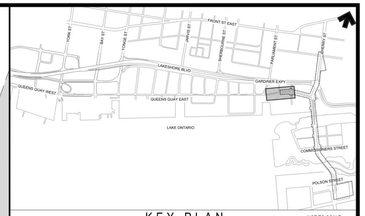
QUEENS QUAY EAST/CHERRY ST

PRELIMINARY DESIGN AND ENGINEERING

Layout and Materials Plan

DESIGN	PW	DRAWN	PW	CHECKED	A.N.	CONTRACT No.
SCALE:	HORIZ. 1:200			DRAWING NUMBER	L-LA-002	
DATE:	AUGUST 31, 2021					





KEY PLAN

NOT TO SCALE

PLANT SCHEDULE - TREES

LEGACY TREES - FORMAL

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
AcCa	*Acer x freemanii 'Celebration'*	Celebration Freemanii Maple	3	WB	90mm	14-15m	10-11m	N cultivar	M	M
AcNi	*Acer x freemanii 'Jeffersred'*	Autumn Blaze Freemanii Maple	2	WB	90mm	15-17m	12-14m	N cultivar	M	M
AcPl	*Acer platanoides*	Norway Maple	1	WB	90mm	14-16m	9-11m	N	H	M
AcSa	*Acer saccharum*	Sugar Maple	1	WB	90mm	14-16m	9-11m	N	H	M
CeSp	*Celtis occidentalis*	Northern Catalpa	1	WB	90mm	16-17m	12-15m	Y	M	M
GyDi	*Gymnocladus dioicus*	Kentucky Coffeetree	2	WB	90mm	17-20m	12-15m	Y	H	H
LMO	*Liquidambar styraciflua 'Moraine'*	Moraine Sweetgum	4	WB	90mm	15-18m	10-12m	N cultivar	Y	M
NySy	*Nyssa sylvatica*	Black Gum	8	WB	90mm	20-25m	9-20m	Y	M-H	H
QuRu	*Quercus rhemoriana*	Bur Oak	3	WB	90mm	15-30m	15-25m	Y	H	M-H
QuRu	*Quercus rubra*	Red Oak	1	WB	90mm	14-25m	15-30m	Y	M	H
TiSi	*Tilia cemoniana 'Sterling' STERLING SILVER*	Sterling Silver Linden	1	WB	90mm	14-18m	12-16m	Y	M	H
TiTo	*Tilia tomentosa 'Brabant'*	Brabantia Elm	1	WB	90mm	20-25m	15-20m	N cultivar	Y	M
UlPr	*Ulmus parvifolia 'Drake Forge Elm'*	Drake Forge Elm	3	WB	90mm	18-21m	15-18m	N cultivar	Y	M

LEGACY TREES - DYNAMIC

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
AcNi	*Acer nigrum*	Black Maple	1	WB	90mm	15-17m	7-8m	Y	M	L-M
AcRu	*Acer rubrum*	Red Maple	2	WB	90mm	12-15m	10-12m	Y	M	L-M
CeSp	*Celtis occidentalis*	Northern Catalpa	2	WB	90mm	16-17m	12-15m	Y	M	M
CoSt	*Cornus stolonifera*	Redosier	3	WB	80mm	15-18m	14-16m	Y	H	L-M
CrLe	*Crataegus laevigata var. Inermis 'Wyfleet'*	Wyfleet Hawthornself	3	WB	80mm	11-15m	14-16m	N cultivar	H	M-H
GyDi	*Gymnocladus dioicus*	Kentucky Coffeetree	2	WB	80mm	17-20m	12-15m	Y	H	H
GyRa	*Gymnos rhemoriana*	Bur Oak	1	WB	90mm	15-30m	15-25m	Y	M	M-H
QuRu	*Quercus rubra*	Red Oak	1	WB	80mm	14-25m	15-30m	Y	M	L

PIONEER TREES - DYNAMIC

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
BN	*Betula nigra*	River Birch	4	HOT	15gal. clump	13-16m	10-13m	Y	M	M
BP	*Betula papyrifera*	Paper Birch	11	HOT	15gal. clump	13-16m	10-13m	Y	M	H
LL	*Larix laricina*	Eastern Larch	5	WB	175cm Ht.	16-40m	6-10m	Y	L-M	L-M
PS	*Pinus strobus*	Eastern White Pine	3	BBC	300cm Ht.	20-24m	7-10m	Y	L	L
PA	*Populus deltoides*	Eastern Cottonwood	5	HOT	5gal.	20-25m	20-30m	Y	H	H
PT	*Populus tremuloides*	Trembling Aspen	18	HOT	5gal.	20-25m	5-7m	Y	H	M
TO	*Thuja occidentalis*	Eastern White Cedar	3	HOT	5gal.	10-15m	3-4m	Y	M-H	L

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H.C.M. STATION	EASTING	NORTHING	ELEVATION
B.M. STATION			

HORIZONTAL \ VERTICAL CONTROL MONUMENTS

DIGITAL INFORMATION

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1	06/07/21	ISSUED FOR 10% DESIGN	A.N.	

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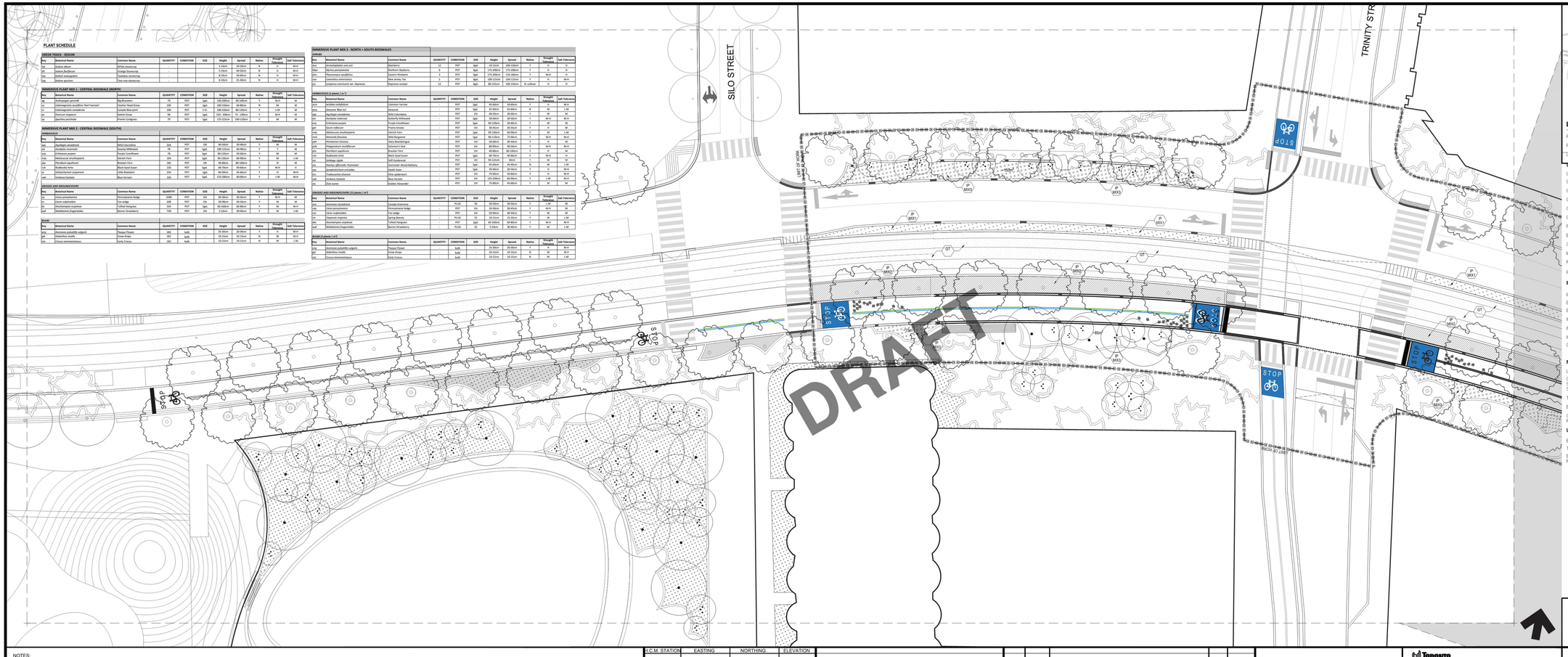
QUEENS QUAY EAST/CHERRY ST

PRELIMINARY DESIGN AND ENGINEERING

Planting Plan - Trees

DESIGN	PW	DRAWN	PW	CHECKED	A.N.	CONTRACT No.
SCALE:	HORIZ. 1:200			DRAWING NUMBER	L-PL-001a	
DATE:	AUGUST 31 2021					



PLANT SCHEDULE

GREEN TRACK - SEDUM

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
Sal	Sedum album	White stonecrop	-			5-10cm	20-30cm	N	H	M-H
Sif	Sedum floriferum	Orange Stonecrop	-			5-10cm	40-50cm	N	H	M-H
Tsp	Sedum sexangulare	Tasteless stonecrop	-			8-10cm	30-40cm	N	H	M-H
Dsp	Sedum spurium	Two-row stonecrop	-			8-10cm	25-30cm	N	H	M-H

IMMERSIVE PLANT MIX 1 - CENTRAL BIODIWALE (NORTH)

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
Ag	Andropogon gerardii	Big Bluestem	75	POT	1gal.	150-200cm	60-120cm	Y	M-H	M
Ce	Calamagrostis canadensis 'Karl Foerster'	Feather Reed Grass	75	POT	1gal.	100-150cm	60-90cm	Y	M	M
Cl	Calamagrostis canadensis	Canada Blue grass	100	POT	1 ltr.	100-150cm	30-120cm	Y	L-M	M
pv	Panicum virgatum	Switch Grass	99	POT	1gal.	120 - 200cm	75 - 100cm	Y	M-H	M
sa	Spartina pectinata	Prairie Cordgrass	79	POT	1gal.	175-225cm	100-150cm	Y	M	M

IMMERSIVE PLANT MIX 2 - CENTRAL BIODIWALE (SOUTH)

HERBACEOUS										
Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
ape	Aquilegia canadensis	Wild Columbine	216	POT	1ltr	40-50cm	30-40cm	Y	M	M
ast	Aster ptarmicus	Sneezy Willkweed	78	POT	1gal.	100-125cm	50-80cm	Y	Y	M
ceg	Echinacea purpea	Purple Coneflower	78	POT	1gal.	90-120cm	50-60cm	Y	M	M
rma	Matteuccia struthiopteris	Ostrich Fern	104	POT	1gal.	90-120cm	60-90cm	Y	M	L-M
pka	Pteridum aquilinum	Bracken Fern	182	POT	1ltr	45-80cm	80-150cm	Y	H	M
rsh	Rudbeckia hirta	Black Eyed Susan	130	POT	1gal.	60-70cm	40-60cm	Y	M-H	Y
sc	Schizachyrium scoparium	Little Bluestem	234	POT	1gal.	80-90cm	45-60cm	Y	H	M-H
yah	Verbena hastata	Blue Vervain	156	POT	1gal.	125-200cm	60-90cm	Y	L-M	M-H

GRASSES AND GROUNDCOVERS										
Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
cp	Carex pensylvanica	Pennsylvania Sedge	1040	POT	1ltr	20-30cm	30-45cm	Y	M-H	M
cs	Carex stipata	Awl Sedge	208	POT	1ltr	5-20cm	45-55cm	Y	H	M
ds	Deschampsia cespitosa	Tufted Hairgrass	234	POT	1gal.	60-100cm	60-80cm	Y	M	M-H
ssf	Waldsteinia fragarioides	Barren Strawberry	728	POT	1ltr	5-10cm	30-40cm	Y	M	L-M

BULBS										
Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
ecp	Erythronium americanum	Yellow Trout Lily	182	bulb	-	25-30cm	20-30cm	Y	M	M-H
ga	Galanthus nivalis	Snow Drops	182	bulb	-	10-15cm	10-15cm	N	M	M-H
cv	Crocus vernus/versicolus	Early Crocus	182	bulb	-	10-15cm	10-15cm	N	M	L-M

IMMERSIVE PLANT MIX 3 - NORTH + SOUTH BIOSWALES

SHRUBS										
Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
Aur	Aronia/Amelanchier x prunifolia	Blackberry	12	POT	3gal	1ltr 15-25cm	100-150cm	Y	M	M
Myw	Myrica pensylvanica	Northern Bayberry	6	POT	3gal.	175-250cm	175-250cm	Y	H	H
Ptd	Physocarpus opulifolius 'Dart's Gold'	Dwarf Ninebark	6	POT	3gal.	100-125cm	100-125cm	Y	M-H	M-H
Ptm	Potentilla fruticosa 'Mandarin'	Tetra Artists Tea	6	POT	3gal.	100-125cm	100-125cm	Y	H	M-H
Jvt	Juniperus communis var. Depressa	Depressa Juniper	12	POT	3gal.	40-125cm	100-150cm	N. cultivar	H	H

HERBACEOUS (3 plants / m ²)										
Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
acm	Achillea millefolium	Common Yarrow	-	POT	1gal.	45-60cm	30-60cm	Y	M-H	M-H
ame	Amsonia tabernaemontana	Willow Blue star	-	POT	1gal.	80-90cm	45-60cm	N	M	L-M
ape	Aquilegia canadensis	Wild Columbine	-	POT	1ltr	40-50cm	30-40cm	Y	M	M
ast	Aster/Symphyotrichum lateriflorum	Starfire/Lady Willowweed	-	POT	1gal.	30-40cm	30-50cm	Y	M-H	M-H
ceg	Echinacea purpea	Purple Coneflower	-	POT	1gal.	90-120cm	50-60cm	Y	M	M
gvr	Geum rivale/ urbanum	Praying Woody	-	POT	1ltr	30-45cm	30-35cm	Y	H	M
mse	Mitella/Tiarella cordifolia/grandis	Diotrich Fern	-	POT	1gal.	90-120cm	50-90cm	Y	M	L-M
rmf	Filipendula rubra	Wild Bergamot	-	POT	1gal.	90-150cm	75-90cm	Y	M-H	M-H
pph	Penstemon hirsutus	Hairy Beardtongue	-	POT	1ltr	50-60cm	40-50cm	Y	H	M
pcb	Polygonatum biflorum	Solomon's Seal	-	POT	1ltr	80-90cm	40-50cm	Y	M-H	M-H
rfu	Rudbeckia fulgida	Orange Coneflower	-	POT	1ltr	60-70cm	40-50cm	Y	M	M
rsh	Rudbeckia hirta	Black Eyed Susan	-	POT	1gal.	60-70cm	40-60cm	Y	M-H	H
sgi	Solidago sigida	Stiff Goldenrod	-	POT	1ltr	90-120cm	30cm	Y	M	M
ssc	Stachys officinalis 'Hummelo'	Hummelo' Wood Betony	-	POT	1gal.	45-60cm	45-60cm	N	M	L-M
tpd	Symphyotrichum prenanthoides	Depth Aster	-	POT	1gal.	90-80cm	30-50cm	Y	H	M-H
tfo	Tradescantia ohiensis	Ohio spiderwort	-	POT	1ltr	75-90cm	50-60cm	Y	H	M-H
vhb	Verbena hastata	Blue Vervain	-	POT	1ltr	125-200cm	60-90cm	Y	L-M	M-H
zle	Zizia aurea	Golden Alexander	-	POT	1ltr	75-80cm	45-60cm	Y	M	M

GRASSES AND GROUNDCOVERS (12 plants / m²)										
Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
aca	Acorus calamus	Calmdo Acoricrow	-	PLUG	50	30-50cm	30-50cm	Y	L-M	M
cpe	Carex pensylvanica	Pennsylvania Sedge	-	POT	1ltr	20-30cm	30-45cm	Y	M-H	M
ccc	Carex castaneicola	Tire sedge	-	POT	1ltr	50-90cm	40-50cm	Y	M	M
ccr	Chasmanthium latifolium	Spring Bounty	-	PLUG	72	10-15cm	15-25cm	Y	M	L-M
dce	Deschampsia cespitosa	Tufted Hairgrass	-	POT	1gal.	60-100cm	60-80cm	Y	M-H	M-H
ssf	Waldsteinia fragarioides	Barren Strawberry	-	PLUG	72	5-10cm	30-40cm	Y	M	L-M

BULBS (5 plants / m²)										
Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
ecp	Erythronium americanum polystylis subspecies	Yellow Trout Flower	-	bulb	-	25-30cm	20-30cm	Y	M	M-H
ga	Galanthus nivalis	Snow Drops	-	bulb	-	10-15cm	10-15cm	N	M	M-H
cv	Crocus vernus/versicolus	Early Crocus	-	bulb	-	10-15cm	10-15cm	N	M	L-M

NOTES:
ALL WORKS OUTSIDE ROAD AND PROMENADE RIGHT-OF-WAY ARE SUBJECT TO AGREEMENTS WITH PROPERTY OWNERS, PENDING OR OTHERWISE.

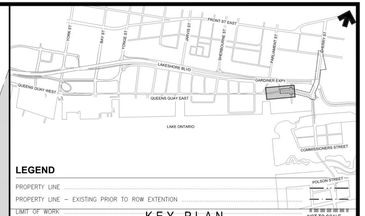
H.C.M. STATION	EASTING	NORTHING	ELEVATION
B.M. STATION			

HORIZONTAL \ VERTICAL CONTROL MONUMENTS

DIGITAL INFORMATION

No.	DATE	REVISIONS	INITIAL	SIGNED
2	08/31/21	ISSUED FOR DRAFT 30% COSTING	A.N.	
1	06/07/21	ISSUED FOR 10% DESIGN	A.N.	

TORONTO



KEY PLAN
NOT TO SCALE

LEGEND

PROPERTY LINE
PROPERTY LINE – EXISTING PRIOR TO ROW EXTENTION
LIMIT OF WORK

CURBS AND PAVING

GRANITE RAMP
CURB CUT AND VEHICULAR RAMP
GRANITE UNIT PAVER – SMOOTH
GRANITE UNIT PAVER–ROUGH
GRANITE MOSAIC
GREY GRANITE UNIT PAVER
PALEOTECH CONCRETE VEHICULAR UNIT PAVER
BRICK UNIT PAVER
C.I.P. CONCRETE PAVING
MARTIN GOODMAN TRAIL – ASPHALT
REINSTATED EXISTING UNIT PAVING
PLANTED AREA

PLANTING

PROPOSED TREE
EXISTING TREE
EXISTING TREE TO BE RELOCATED
IMMERSIVE PLANTING MIX 1
IMMERSIVE PLANTING MIX 2
IMMERSIVE PLANTING MIX 3
GREEN TRACK

FURNITURE, FIXTURES AND TRANSIT ELEMENTS

LIGHT POST
COMBINED TRAFFIC AND STREET LIGHT – SEE ELECTRICAL
TRAFFIC POLE– SEE ELECTRICAL
BENCH
GARBAGE AND RECYCLING RECEPTACLES
MGT INTERSECTION MARKERS
BIKE RINGS
OVERHEAD TTC WIRE AND POLE
CANTILEVER TTC POLE
FENCE

UTILITIES

BIA PANEL
TRANSFORMER
EVENT POWER – 3ø, 208V, 60A RECEPTACLE CENTRES
CATCHBASIN/CURB INLET CATCHBASIN
MGT TRENCH DRAIN

Stantec
CONSULTANTS

PUBLIC WORK

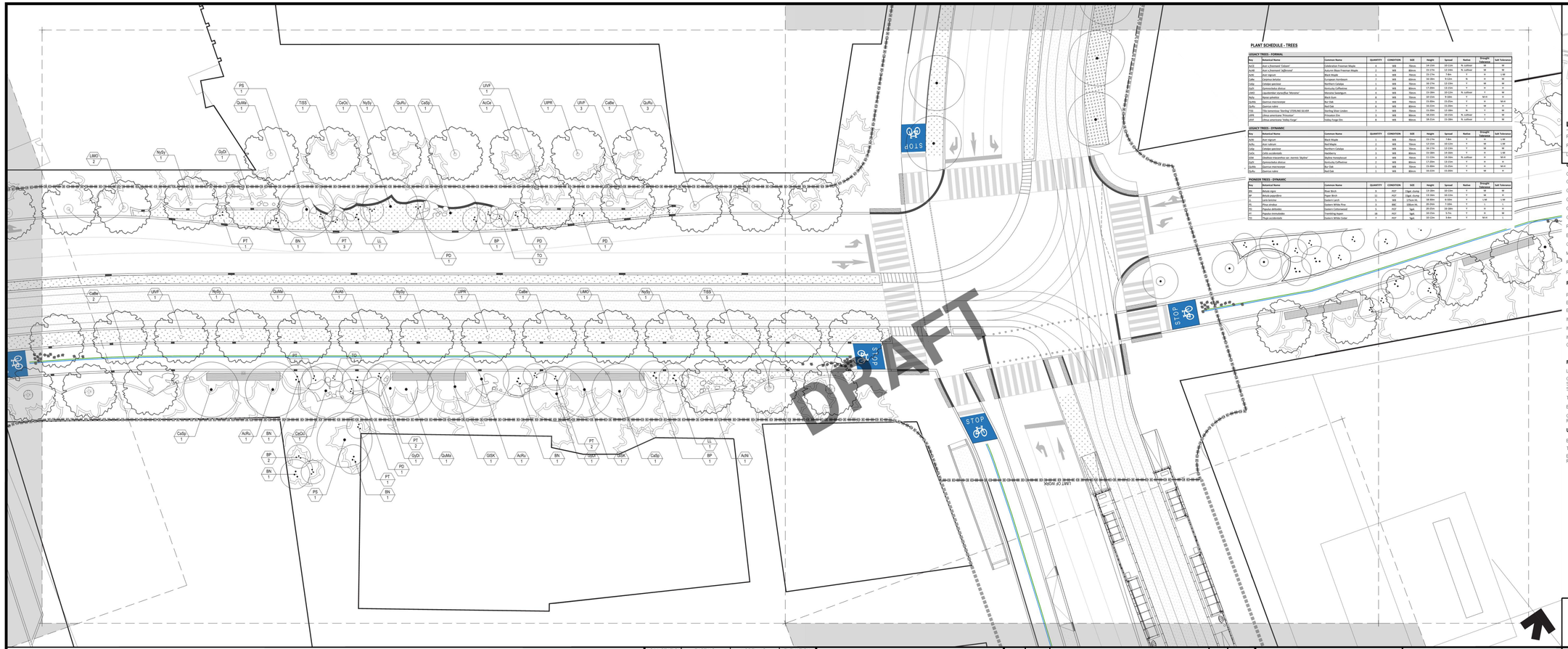
WATERFRONTToronto
The Waterfront Toronto Design Review Panel
Chair: Ms. Ann Sussman, Vice-Chair: Mr. Paul Bedford

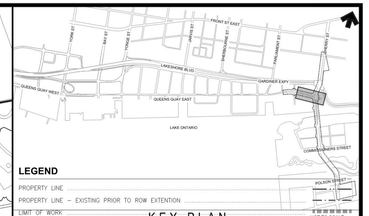
QUEENS QUAY EAST/CHERRY ST

PRELIMINARY DESIGN AND ENGINEERING

Planting Plan - Understory

DESIGN	PW	DRAWN	PW	CHECKED	A.N.	CONTRACT No.
SCALE:	HORIZ. 1:200					
DATE:	AUGUST 31, 2021			DRAWING NUMBER	L-PL-001b	





PLANT SCHEDULE - TREES

LEGACY TREES - FORMAL

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
AcCa	*Acer x freemanii 'Celebration'*	Celebration Freeman Maple	4	WB	70mm	18-21m	12-15m	N. native	M	M
AcAB	*Acer x freemanii 'Jeffersred'*	Autumn Blaze Freeman Maple	2	WB	80mm	15-17m	12-14m	N. native	M	M
AcNi	*Acer nigrum*	Black Maple	1	WB	70mm	18-21m	9-12m	N	M	M
CeOc	*Celtis occidentalis*	Common Hackberry	7	WB	80mm	16-18m	9-12m	N	H	M
GiGa	*Gleditsia ganeiensis*	Goldenrain Catalpa	3	WB	70mm	18-21m	12-15m	Y	M	M
GoCo	*Gymnocladus dioicus*	Kentucky Coffeetree	3	WB	80mm	17-20m	12-15m	Y	H	H
LMO	*Liquidambar styraciflua 'Moraine'*	Moraine Sweetgum	4	WB	70mm	15-18m	10-12m	N. native	T	M
NySy	*Nyssa sylvatica*	Black Gum	1	WB	70mm	20-25m	9-20m	Y	M-H	H
QuMa	*Quercus macrocarpa*	Bur Oak	3	WB	70mm	15-30m	15-20m	Y	H	M-H
QuRu	*Quercus rubra*	Red Oak	6	WB	80mm	18-21m	15-20m	Y	M	M
TSS	*Tilia tomentosa 'Sterling' STERLING SILVER*	Sterling Silver Linden	3	WB	70mm	18-21m	9-12m	N	M	H
UPR	*Ulmus parvifolia 'Prospector'*	Prospector Elm	3	WB	80mm	18-21m	12-15m	N. native	T	M
UVF	*Ulmus x wilsoniana 'Valley Forge'*	Valley Forge Elm	6	WB	80mm	18-21m	12-18m	N. native	T	M

LEGACY TREES - DYNAMIC

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
AcN	*Acer nigrum*	Black Maple	1	WB	70mm	15-17m	7-8m	Y	L-M	L
AcRu	*Acer rubrum*	Red Maple	2	WB	70mm	12-15m	10-12m	Y	M	L-M
GiGa	*Gleditsia ganeiensis*	Northern Catalpa	3	WB	70mm	18-21m	12-15m	Y	M	M
GiSK	*Gleditsia x texacanthos var. inermis 'Skyline'*	Hardlocusta	3	WB	80mm	15-18m	14-16m	Y	H	L-M
GiD	*Gleditsia triacanthos var. inermis 'Shademaster'*	Skyline Honeylocust	1	WB	70mm	15-21m	14-16m	Y	M-H	M-H
GoCo	*Gymnocladus dioicus*	Kentucky Coffeetree	2	WB	80mm	17-20m	12-15m	Y	H	H
GoRa	*Quercus macrocarpa*	Bur Oak	1	WB	70mm	15-30m	15-20m	Y	M-H	H
QuRu	*Quercus rubra*	Red Oak	1	WB	80mm	18-21m	15-20m	Y	M	M

POWER TREES - DYNAMIC

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
BN	*Betula nigra*	River Birch	3	2GT	2.5gal. clump	10-18m	10-15m	Y	M	H
BP	*Betula papyrifera*	Paper Birch	11	2GT	2gal. clump	15-18m	10-12m	Y	M	H
CeOc	*Celtis occidentalis*	Common Hackberry	5	WB	150cm ht.	18-30m	6-10m	Y	L-M	L-M
PS	*Pinus strobus*	Eastern White Pine	3	BBC	300cm ht.	20-25m	7-10m	Y	L	L
PT	*Populus tremuloides*	Eastern Cottonwood	5	2GT	3gal.	20-25m	10-18m	Y	H	H
PO	*Populus tremuloides*	Trembling Aspen	18	2GT	3gal.	20-25m	5-7m	Y	H	M
TO	*Thuja occidentalis*	Eastern White Cedar	2	2GT	3gal.	10-12m	3-4m	Y	M-H	L

NOTES:
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2	08/31/21	ISSUED FOR DRAFT 30% COSTING	A.N.	
1	06/07/21	ISSUED FOR 10% DESIGN	A.N.	

TORONTO

Stantec CONSULTANTS

PUBLIC WORK

WATERFRONTToronto
Suite 4100, 20 Bay Street, Toronto, Ontario, M5J 2W3
416-314-9037 www.waterfrontoronto.ca

QUEENS QUAY EAST/CHERRY ST

PRELIMINARY DESIGN AND ENGINEERING

Planting Plan - Trees

DESIGN	PW	DRAWN	PW	CHECKED	A.N.	CONTRACT No.
SCALE:	HORIZ. 1:200			DRAWING NUMBER	L-PL-002a	
DATE:	AUGUST 31, 2021					

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LEGEND

PROPERTY LINE
PROPERTY LINE – EXISTING PRIOR TO ROW EXTENTION
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CURB CUT AND VEHICULAR RAMP
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REINSTATED EXISTING UNIT PAVING
PLANTED AREA

PLANTING

PROPOSED TREE
EXISTING TREE
EXISTING TREE TO BE RELOCATED
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GREEN TRACK

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MGT TRENCH DRAIN

PLANT SCHEDULE

GREEN TRACK - SEDUM

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
Sal	*Sedum album*	White stonecrop	-			5-10cm	20-50cm	N	H	M-H
Sfl	*Sedum floriferum*	Orange Stonecrop	-			5-10cm	40-50cm	N	H	M-H
Sse	*Sedum sexangulare*	Tasteless stonecrop	-			8-10cm	30-60cm	N	H	M-H
Ssp	*Sedum spurium*	Two-row stonecrop	-			8-10cm	25-30cm	N	H	M-H

IMMERSIVE PLANT MIX 1 - CENTRAL BIOSWALE (NORTH)

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
ag	*Andropogon gerardii*	Big Bluestem	79	POT	1gal.	150-200cm	60-100cm	Y	M-H	M
ca	*Calamagrostis acutiflora 'Karl Foerster'*	Feather Reed Grass	105	POT	1gal.	100-150cm	60-80cm	N	M	M
cc	*Calamagrostis canadensis*	Canada Blue-joint	190	POT	1 ltr.	100-150cm	80-120cm	Y	L-M	M
pv	*Panicum virgatum*	Switch Grass	99	POT	1gal.	120 - 200cm	75 - 100cm	Y	M-H	M
sp	*Spartina pectinata*	Prairie Cordgrass	79	POT	1gal.	175-225cm	100-120cm	Y	M	M

IMMERSIVE PLANT MIX 2 - CENTRAL BIOSWALE (SOUTH)

HERBACEOUS

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
aqc	*Aquilegia canadensis*	Wild Columbine	234	POT	1ltr	40-50cm	30-40cm	Y	M	M
asi	*Asclepias incarnata*	Swamp Milkweed	78	POT	1gal.	100-125cm	60-90cm	Y	Y	M
ecp	*Echinacea purpea*	Purple Coneflower	78	POT	1gal.	90-120cm	50-60cm	Y	M	M
mas	*Matteuccia struthiopteris*	Ostrich Fern	104	POT	1gal.	90-130cm	60-90cm	Y	M	L-M
pta	*Pteridium aquilinum*	Bracken Fern	182	POT	1ltr	40-80cm	80-100cm	Y	H	M
ruh	*Rudbeckia hirta*	Black-Eyed Susan	130	POT	1gal.	60-70cm	40-60cm	Y	M-H	H
ss	*Schizachyrium scoparium*	Little Bluestem	234	POT	1gal.	60-90cm	45-60cm	Y	H	M-H
veh	*Verbena hastata*	Blue Vervain	156	POT	1gal.	125-200cm	60-90cm	Y	L-M	M-H

GRASSES AND GROUNDCOVERS

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
cp	*Carex pensylvanica*	Pennsylvania Sedge	1040	POT	1ltr	20-30cm	30-45cm	Y	M-H	M
cv	*Carex vulpinoidea*	Fox sedge	208	POT	1ltr	50-90cm	40-50cm	Y	M	M
dc	*Deschampsia cespitosa*	Tufted Hairgrass	234	POT	1gal.	60-100cm	60-80cm	Y	M	M-H
waf	*Waldsteinia fragarioides*	Barren Strawberry	728	POT	1ltr	5-10cm	30-40cm	Y	M	L-M

BULBS

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
anp	*Anemone pulsatilla vulgaris*	Pasque Flower	182	bulb	-	25-30cm	20-30cm	Y	H	M-H
gal	*Galanthus nivalis*	Snow drops	182	bulb	-	10-15cm	10-15cm	N	M	M-H
cto	*Crocus tommasinianus*	Early Crocus	182	bulb	-	10-15cm	10-15cm	N	M	L-M

IMMERSIVE PLANT MIX 3 - NORTH + SOUTH BIOSWALES

SHRUBS

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
Auv	*Arctostaphylos uva-ursi*	Bearberry	12	POT	3gal.	10-15cm	100-150cm	Y	H	H
Mpe	*Myrica pensylvanica*	Northern Bayberry	6	POT	3gal.	175-200cm	175-200cm	Y	H	H
pho	*Physocarpus opulifolius*	Eastern Ninebark	3	POT	3gal.	175-200cm	120-180cm	Y	M-H	H
cea	*Ceanothus americanus*	New Jersey Tea	5	POT	3gal.	100-125cm	100-125cm	Y	H	M-H
juc	*Juniperus communis var. Depressa*	Depressa Juniper	12	POT	3gal.	80-125cm	100-150cm	N. cultivar	H	H

HERBACEOUS (3 plants / m ²)

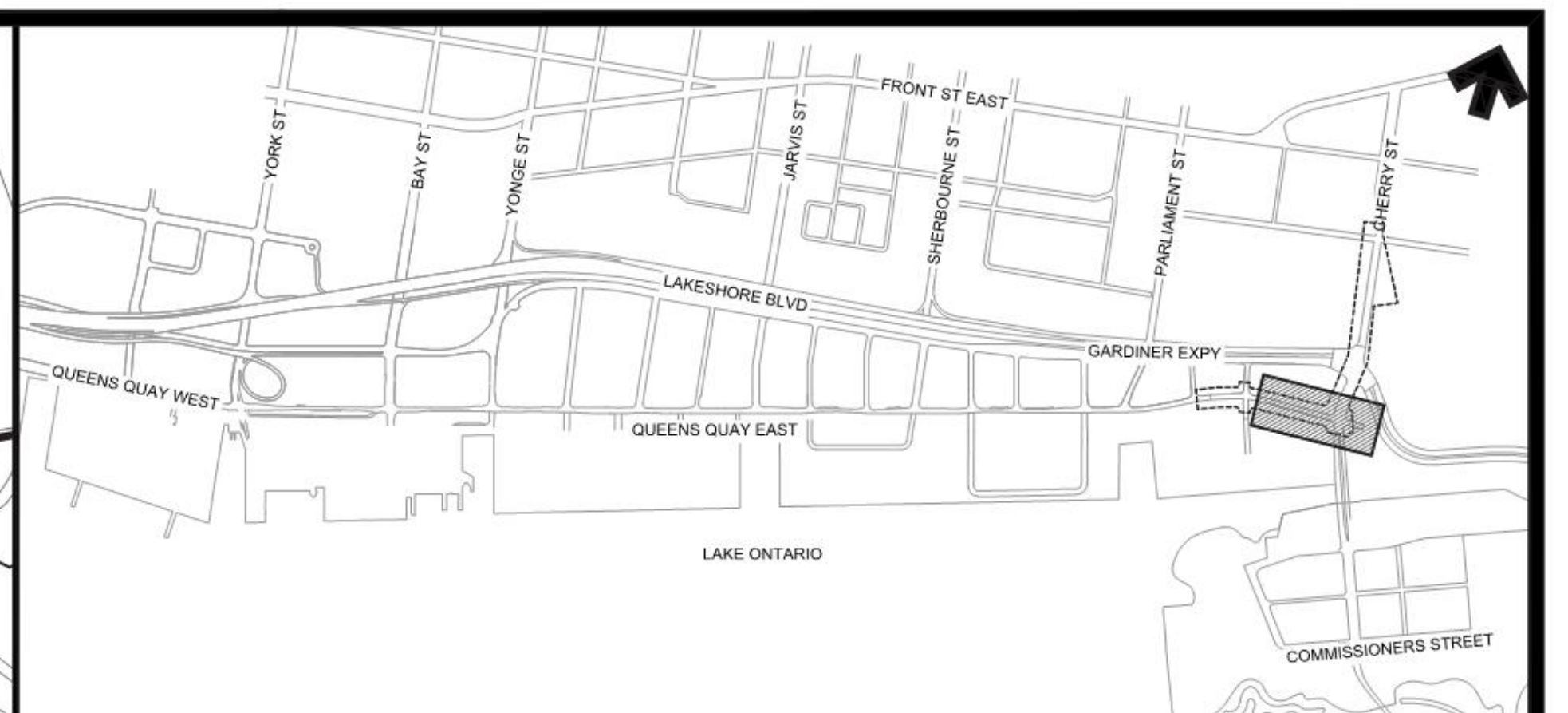
Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
acm	*Achillea millefolium*	Common Yarrow	-	POT	1gal.	45-60cm	50-60cm	Y	H	M-H
ams	*Amsonia 'Blue Ice'*	Amsonia	-	POT	1gal.	35-40cm	45-60cm	N	M	L-M
aqc	*Aquilegia canadensis*	Wild Columbine	-	POT	1ltr	40-50cm	30-40cm	Y	M	M
ast	*Asclepias tuberosa*	Butterfly Milkweed	-	POT	1gal.	30-60cm	30-50cm	Y	M-H	M-H
ecp	*Echinacea purpea*	Purple Coneflower	-	POT	1gal.	90-120cm	50-60cm	Y	M	M
get	*Geum triflorum*	Prairie Smoke	-	POT	1ltr	30-45cm	30-35cm	Y	H	M
mas	*Matteuccia struthiopteris*	Ostrich Fern	-	POT	1gal.	90-130cm	60-90cm	Y	M	L-M
mof	*Monarda fistulosa*	Wild Bergamot	-	POT	1gal.	90-110cm	75-90cm	Y	M-H	M-H
peh	*Penstemon hirsutus*	Hairy Beardtongue	-	POT	1ltr	50-60cm	40-50cm	Y	H	M
pob	*Polygonatum multiflorum*	Solomon's Seal	-	POT	1ltr	80-90cm	40-50cm	Y	M-H	M-H
pta	*Pteridium aquilinum*	Bracken Fern	-	POT	1ltr	40-80cm	80-100cm	Y	H	M
ruh	*Rudbeckia hirta*	Black-Eyed Susan	-	POT	1gal.	60-70cm	40-60cm	Y	M-H	H
sor	*Solidago rigida*	Stiff Goldenrod	-	POT	1ltr	90-125cm	60cm	Y	M	M
sto	*Stachys officinalis 'Hummelo'*	Hummelo' Wood Bettony	-	POT	1gal.	45-60cm	45-60cm	N	M	L-M
sye	*Symphotrichum ericoides*	Heath Aster	-	POT	1gal.	30-60cm	30-50cm	Y	H	M-H
tro	*Tradescantia ohiensis*	Ohio spiderwort	-	POT	1ltr	75-90cm	50-60cm	Y	H	M-H
veh	*Verbena hastata*	Blue Vervain	-	POT	1ltr	125-200cm	60-90cm	Y	L-M	M-H
zia	*Zizia aurea*	Golden Alexander	-	POT	1ltr	75-80cm	45-60cm	Y	M	M

GRASSES AND GROUNDCOVERS (15 plants / m²)

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
anc	*Anemone canadensis*	Canada Anemone	-	PLUG	50	30-50cm	30-50cm	Y	L-M	M
cap	*Carex pensylvanica*	Pennsylvania Sedge	-	POT	1ltr	20-30cm	30-45cm	Y	M-H	M
cav	*Carex vulpinoidea*	Fox sedge	-	POT	1ltr	50-90cm	40-50cm	Y	M	M
clv	*Claytonia virginica*	Spring Beauty	-	PLUG	32	10-15cm	15-25cm	Y	M	L-M
dec	*Deschampsia cespitosa*	Tufted Hairgrass	-	POT	1gal.	60-100cm	60-80cm	Y	M-H	M-H
waf	*Waldsteinia fragarioides*	Barren Strawberry	-	PLUG	32	5-10cm	30-40cm	Y	M	L-M

BULBS (3 plants / m²)

Key	Botanical Name	Common Name	QUANTITY	CONDITION	SIZE	Height	Spread	Native	Drought Tolerance	Salt Tolerance
anp	*Anemone pulsatilla vulgaris*	Pasque Flower	-	bulb	-	25-30cm	20-30cm	Y	H	M-H
gal	*Galanthus nivalis*	Snow drops	-	bulb	-	10-15cm	10-15cm	N	M	M-H
cto	*Crocus tommasinianus*	Early Crocus	-	bulb	-	10-15cm	10-15cm	N	M	L-M



KEY PLAN

NOT TO SCALE

LEGEND

PROPERTY LINE
PROPERTY LINE – EXISTING PRIOR TO ROW EXTENTION
LIMIT OF WORK

CURBS AND PAVING

GRANITE RAMP
CURB CUT AND VEHICULAR RAMP
GRANITE UNIT PAVER – SMOOTH
GRANITE UNIT PAVER–ROUGH
GRANITE MOSAIC
GREY GRANITE UNIT PAVER
PALEOTECH CONCRETE VEHICULAR UNIT PAVER
BRICK UNIT PAVER
C.I.P. CONCRETE PAVING
MARTIN GOODMAN TRAIL – ASPHALT
REINSTATED EXISTING UNIT PAVING
PLANTED AREA

PLANTING

PROPOSED TREE
EXISTING TREE
EXISTING TREE TO BE RELOCATED
IMMERSIVE PLANTING MIX 1
IMMERSIVE PLANTING MIX 2
IMMERSIVE PLANTING MIX 3
GREEN TRACK

FURNITURE, FIXTURES AND TRANSIT ELEMENTS

LIGHT POST
COMBINED TRAFFIC AND STREET LIGHT – SEE ELECTRICAL
TRAFFIC POLE– SEE ELECTRICAL ● TS
BENCH
GARBAGE AND RECYCLING RECEPTACLES
MGT INTERSECTION MARKERS
BIKE RINGS
OVERHEAD TTC WIRE AND POLE
CANTILEVER TTC POLE
FENCE

UTILITIES

BIA PANEL BIA
TRANSFORMER TX
EVENT POWER – 3ø, 208V, 60A RECEPTACLE CENTRES E
CATCHBASIN/CURB INLET CATCHBASIN
MGT TRENCH DRAIN

NOTES:
ALL WORKS OUTSIDE ROAD AND PROMENADE RIGHT-OF-WAY ARE SUBJECT TO AGREEMENTS WITH PROPERTY OWNERS, PENDING OR OTHERWISE.

H.C.M. STATION	EASTING	NORTHING	ELEVATION
B.M. STATION			
HORIZONTAL \ VERTICAL CONTROL MONUMENTS			

DIGITAL INFORMATION

No.	DATE	REVISIONS	INITIAL	SIGNED
2	08/31/21	ISSUED FOR DRAFT 30% COSTING	A.N.	
1	06/07/21	ISSUED FOR 10% DESIGN	A.N.	

TORONTO

Stantec
CONSULTANTS

PUBLIC WORK

WATERFRONToronto
1310-20 Bay Street, Toronto ON M5J 2N8
tel: 416.214.1344 fax: 416.214.4591

QUEENS QUAY EAST/CHERRY ST

PRELIMINARY DESIGN AND ENGINEERING

Planting Plan - Understory

DESIGN	PW	DRAWN	PW	CHECKED	A.N.	CONTRACT No.
SCALE:	HORIZ. 1:200			DRAWING NUMBER	L-PL-002b	
DATE:	AUGUST 31, 2021					

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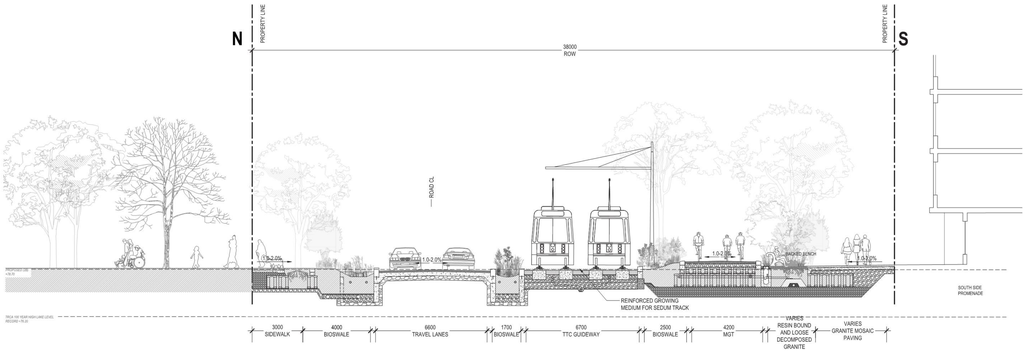

1 Queens Quay East - Section Mid-block Bioswale
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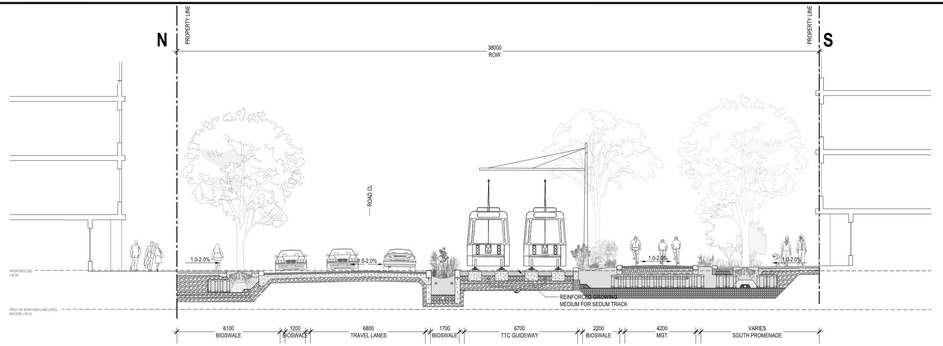

2 Queens Quay East - Section Near Intersection
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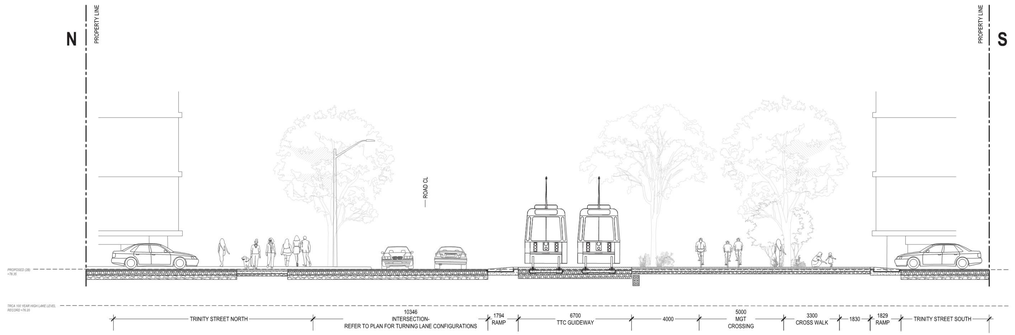

3 Queens Quay East - Section At Trinity Intersection
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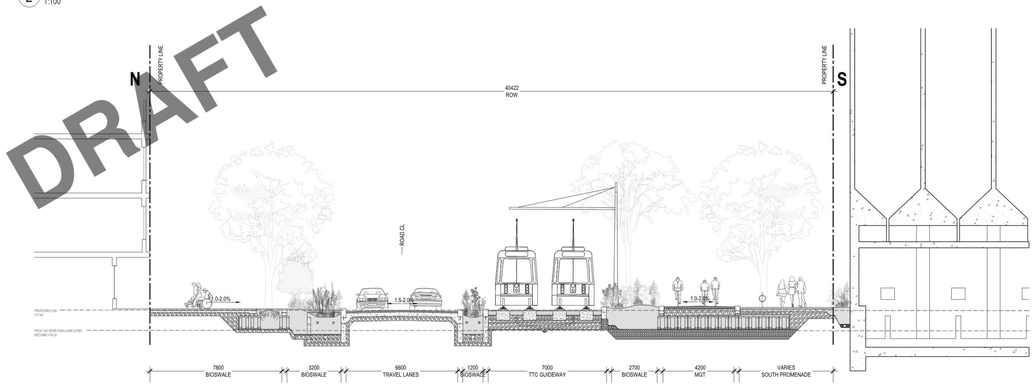

4 Queens Quay East - Section At Silo
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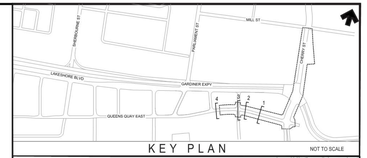

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PUBLIC WORK

WATERFRONTToronto
The Waterfront Toronto Design Review Panel plays an advisory role to Waterfront Toronto

NOTES:
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H.C.M. STATION	EASTING	NORTHING	ELEVATION
B.M. STATION			

HORIZONTAL \ VERTICAL CONTROL MONUMENTS

DIGITAL INFORMATION

No.	DATE	REVISIONS	INITIAL	SIGNED
2	08/31/21	ISSUED FOR DRAFT 30% COSTING	A.N.	
1	06/07/21	ISSUED FOR 10% DESIGN	A.N.	

TORONTO

QUEENS QUAY EAST/CHERRY ST
PRELIMINARY DESIGN AND ENGINEERING
Typical Sections

DESIGN	PW	DRAWN	PW	CHECKED	A.N.	CONTRACT No.
SCALE:	HORIZ. 1:200			DRAWING NUMBER	L-SEC-001	
DATE:	AUGUST 21, 2021					

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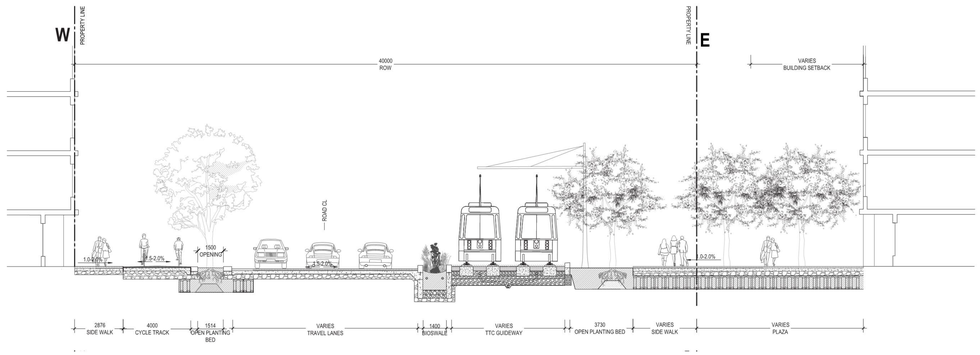

1 Cherry Street - Section North of Keating Channel
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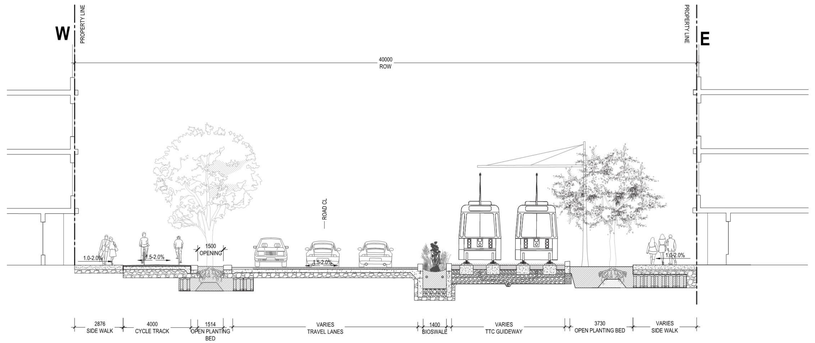
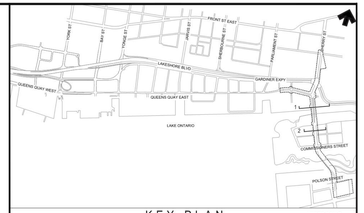


2 Cherry Street - Section South of Keating Channel
1:100

DRAFT



KEY PLAN

NOT TO SCALE

Stantec
CONSULTANTS

PUBLIC WORK

WATERFRONTToronto
THE CITY OF TORONTO, THE TORONTO PORT LANDS COMPANY, THE TORONTO ZOO

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H.C.M. STATION	EASTING	NORTHING	ELEVATION
B.M. STATION			
HORIZONTAL \ VERTICAL CONTROL MONUMENTS			

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TORONTO

QUEENS QUAY EAST/CHERRY ST
PRELIMINARY DESIGN AND ENGINEERING
Typical Sections

DESIGN	PW	DRAWN	PW	CHECKED	A.N.	CONTRACT No.
SCALE:	HORIZ. 1:200			DRAWING NUMBER	L-SEC-002	
DATE:	AUGUST 31 2021					

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