

Waterfront East LRT – Segment 2 (Queens Quay East from Bay St to Street A)

Schematic Design | November 2024

The Waterfront East LRT (WELRT)

- Extends high-order transit service from Union Station to Ookwemin Minising, enhancing connectivity to the eastern waterfront.
 - Connects an estimated 100,000 residents and creates 50,000 jobs in the eastern waterfront, serving a projected daily ridership of 53,000 passengers
 - Would be among the most popular routes in the TTC surface network.
- The project consists of three segments:
 - Segment 1: Underground Union Station and Portals
 - Segment 2: Transitway and related street reconstruction on QQE, and reconfiguration of Yonge Slip. Segment 3: Cherry Street North Connection and Portal, Cherry and Commissioners Guideways and Ookwemin Minising On-Street LRT Loop

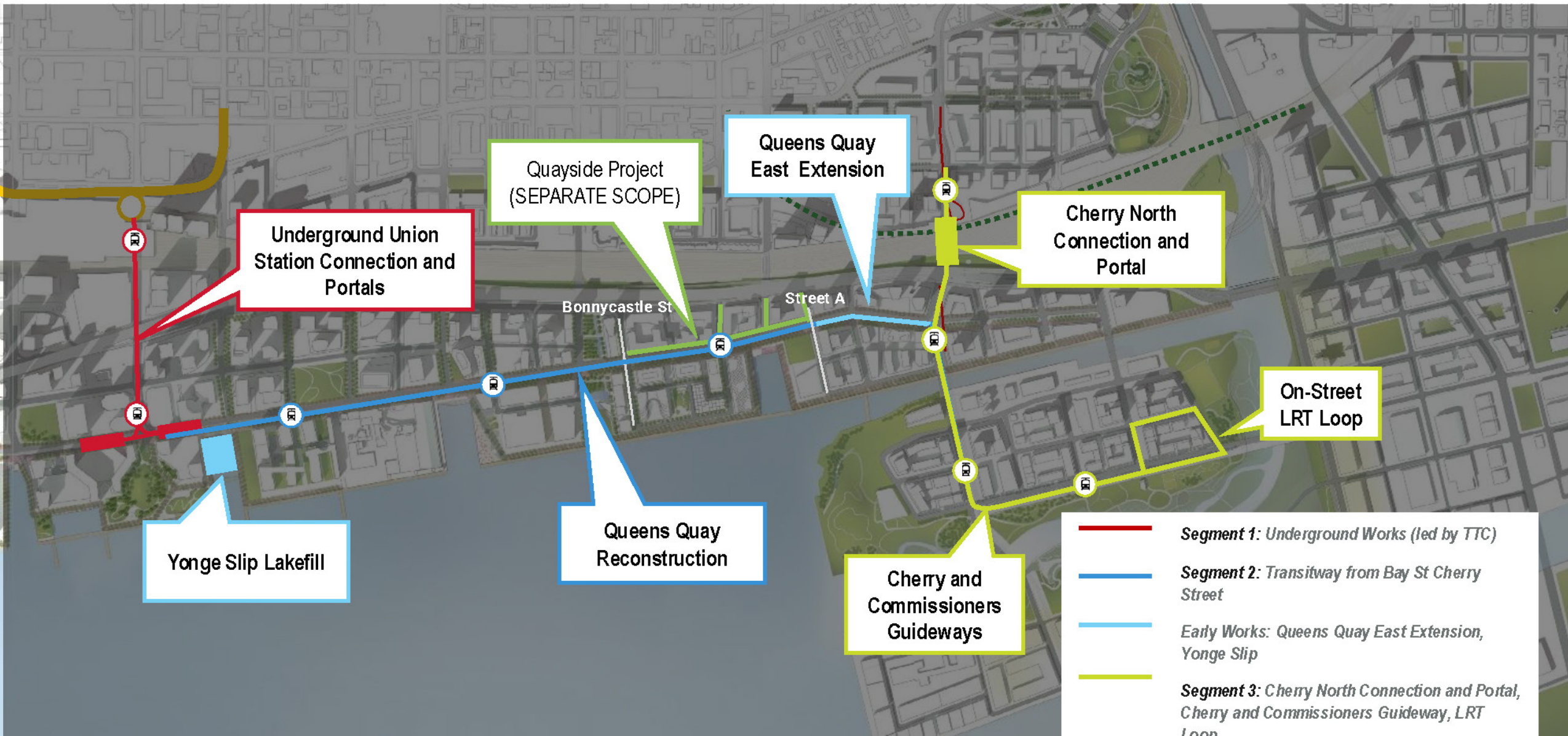
Waterfront East LRT (WELRT)

WELRT: Segment 2

Proponent: Waterfront Toronto

Design Team: West8/DTAH

Review Stage: Detailed Design



Segment 1 : Underground Union Station and Portal

- As part of this work, a **new portal** will be located along Queens Quay east of Bay St to **bring streetcars from the underground station to Queens Quay**
- The underground components of the WELRT (Segment 1) are **led by the City of Toronto** in collaboration with the **TTC**
- Designed to 30%**

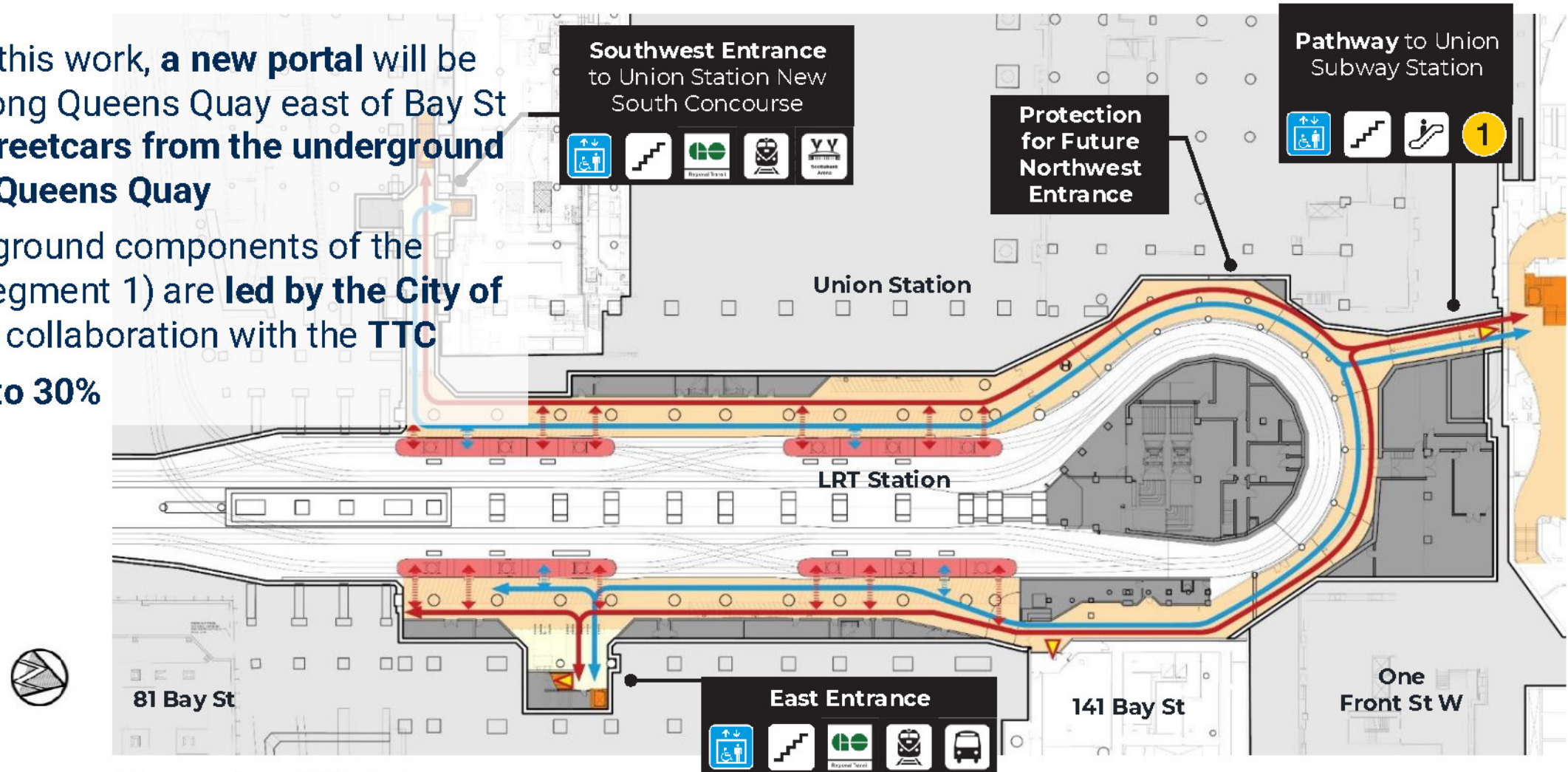


Diagram from 30% design

Segment 2: Queens Quay East Reconstruction and Extension

- Redesign of QQE to **include an LRT guideway**
- **Extends QQE** from Small St to Cherry St
- Enhances **Martin-Goodman Trail**
- Aims to **improve transit, pedestrian, and cyclist experience** and **delineations**
- Integrates **green infrastructure** and prioritizes **pedestrian experience** of streetscape
- Currently undergoing **60% Design**



Rendering from 30% design

Segment 3: Cherry Connection North and Portal, Cherry and Commissioners Guideway and On Street LRT Loop

- Connects Queens Quay LRT **north** along Cherry St. to the existing Distillery Loop
- Connects Queens Quay LRT **south** along Cherry St. and Commissioners St. to Oowewmin Minising LRT Loop
- Aims to provide **higher order transit** through **existing and future transit infrastructure**.
- Currently undergoing **60% Design**

Rendering from 30% design

Project Team

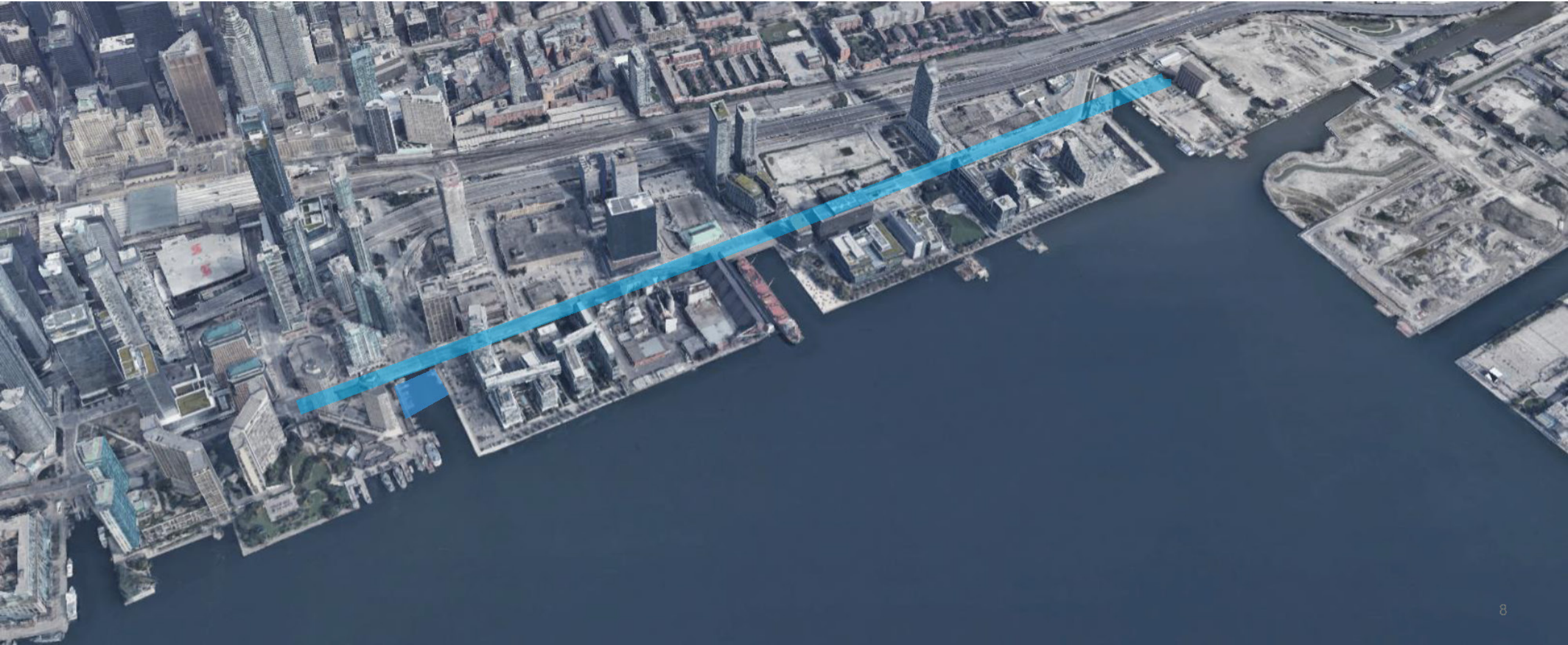


- Led by the City of Toronto (Transit Expansion), in partnership with Waterfront Toronto and the Toronto Transit Commission (TTC)
- Waterfront Toronto is managing the project design for Yonge Slip enabling work, the transitway from Bay Street to the Ookwemin Minising LRT Loop, and the Cherry St North connection.
- TTC is managing the project design for the Underground Union Station Connection and Portals
- The TTC is the planned operator of the future WELRT service



Existing LRT and Public Realm along Queens Quay West

Focus of Today: Queens Quay East from Bay Street to Street A



Connector from the Central Waterfront to the East



Session Structure

WELRT: Segment 2

Proponent: Waterfront Toronto

Design Team: West8/DTAH

Review Stage: Detailed Design



Part 1: QQE

Part 2: Yonge
Slip

Team Organization



Queens Quay East

Bay Street to Street A

Project Description

Description:

- 60% design for transit, streetscape and Public Realm for QQE from Bay Street to Street A, extension from Street A to Cherry Street was an early work, and presented to DRP by Public Work in October 2024)
- This work is an update from the work previously completed in 2022 for Queens Quay East and 2024 for Quayside (Bonnycastle Street to Street A)
- Integrate best practices in ecology, mobility, and accessibility integrating lessons learned from QQW, past DRP comments, and comments from our Accessibility Advisory Group (March 2025)

Timeline:

- Full 60% Design Development Package complete with Risk Assessment, and Costing by September 2025
- Future phases of design and implementation subject to funding.
- Estimated project timeline (assuming funding pro

Queens Quay East Project Objectives:

Create a Connected Waterfront: Extend a primary lakefront boulevard that links existing and emerging precincts, parks, and public spaces while establishing a cohesive and recognizable identity across the waterfront

Establish an Active Transportation Corridor: Improve safety and legibility at intersections and enhance cycling conditions throughout the corridor

Integrate Urban Ecology: Integrate green infrastructure, expand the tree canopy, and establish an eco-corridor to support urban biodiversity and habitat

Strengthen Placemaking: Ensure continuity with Queens Quay West through the use of durable materials and high-quality craftsmanship; design for flexibility to accommodate closures and programming; and foster spaces that support social interaction



Queens Quay East Today

QQE at Yonge St facing East



QQE at Redpath facing East



Queens Quay East Today

QQE at Jarvis facing East



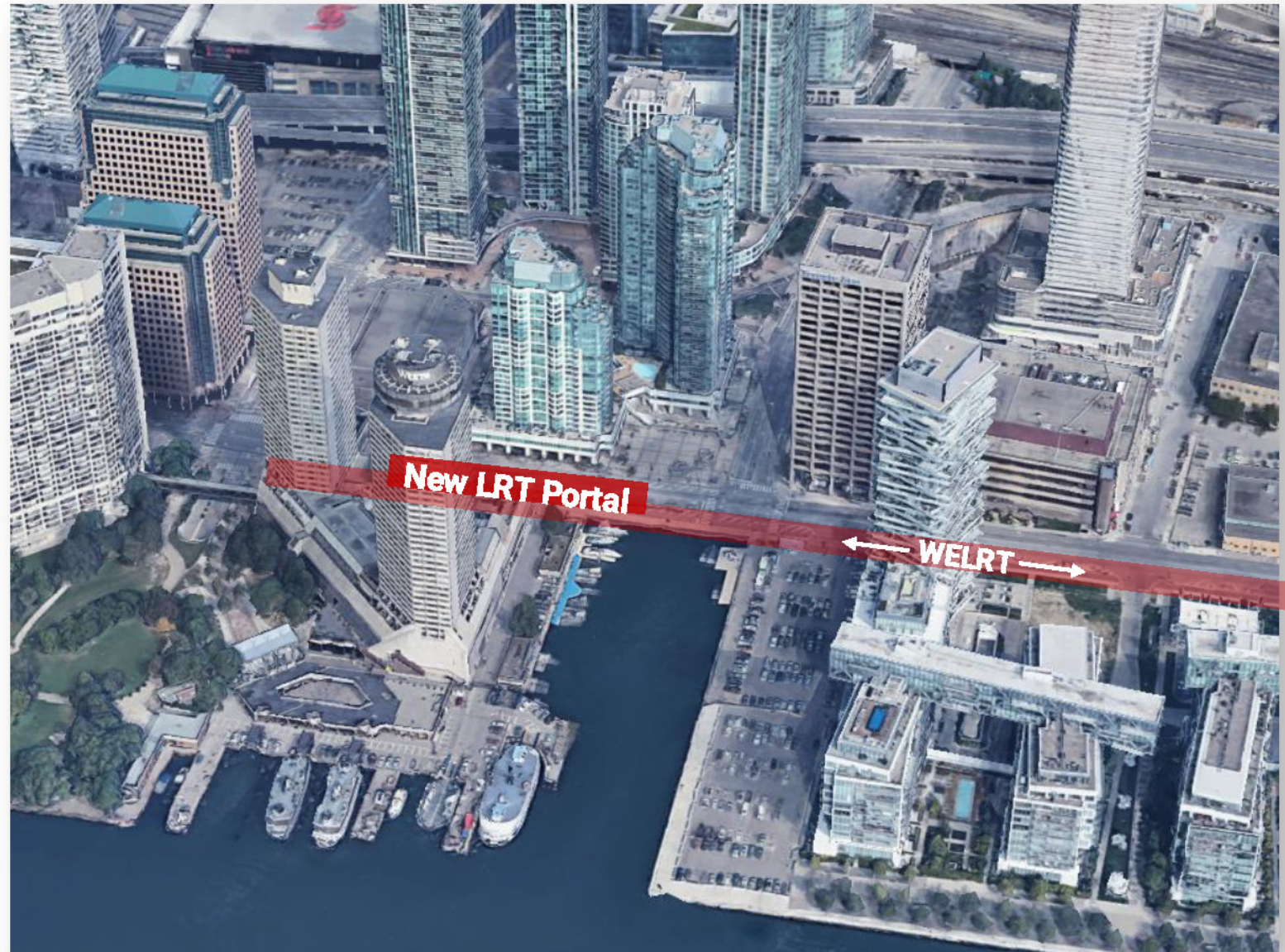
QQE at Sherbourne facing East



Yonge Slip

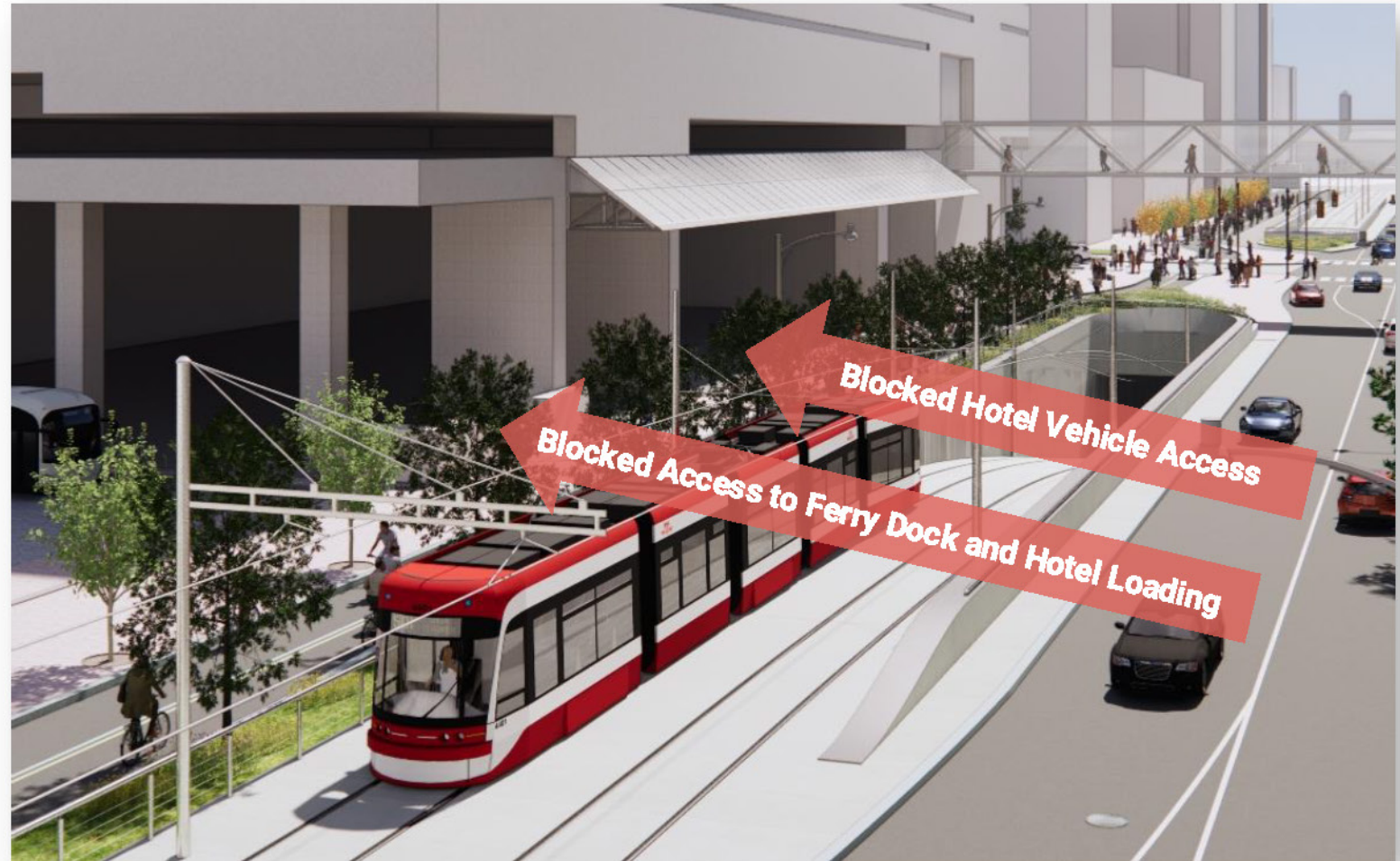
Location & Context

- Will be just southeast of the new LRT Portal



Yonge Slip Lakefill Considerations

- **Access Reconfiguration:** Vehicle access from Queens Quay East (QQE) to the Ferry Terminal and Westin Harbour Castle Hotel will be blocked once TTC builds the LRT portal connecting Union Station to QQE.
- **New Road Construction:** A new road will be constructed south of QQE, connecting to the QQE/Yonge Street intersection, to maintain vehicle access to the hotel and ferry terminal.
- **Lake Fill Requirement:** Some lake infill at Yonge Slip is required to build this new roadway.
- **Early Works:** The lake infill is a critical early phase of the LRT project, allowing vehicular access to the Hotel and the Ferry Terminal once the LRT portal is constructed.



Impact of new LRT portal on existing access to hotel and Ferry Terminal

Existing Uses at Yonge Slip



18,000+
pedestrians/day



7,000+
cyclists/day



1,000+
vehicles/day entering
hotel and ferry
terminal



25
water taxis docked in
slip



65
trucks/day
accessing the hotel
loading dock



2
buses loading
at a time

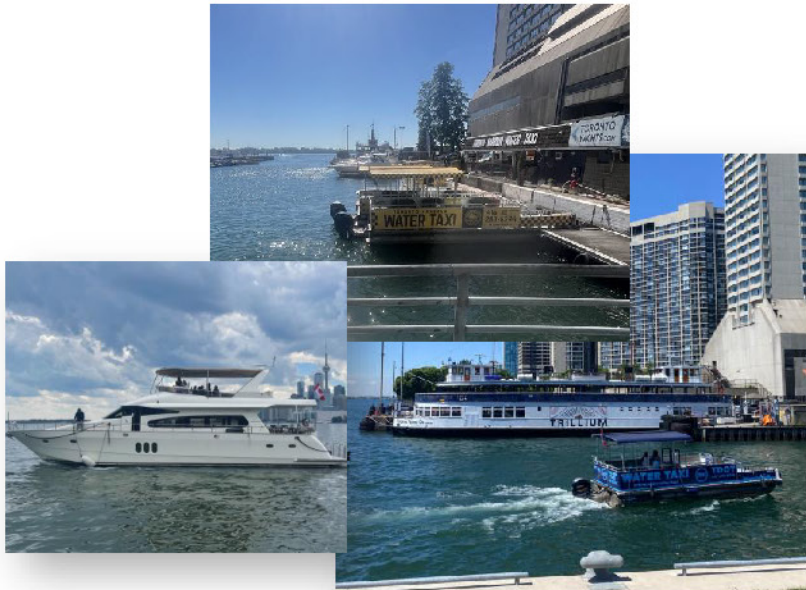


Daily Peak data informed through video analysis from summer 2024

An Existing Marine Hub

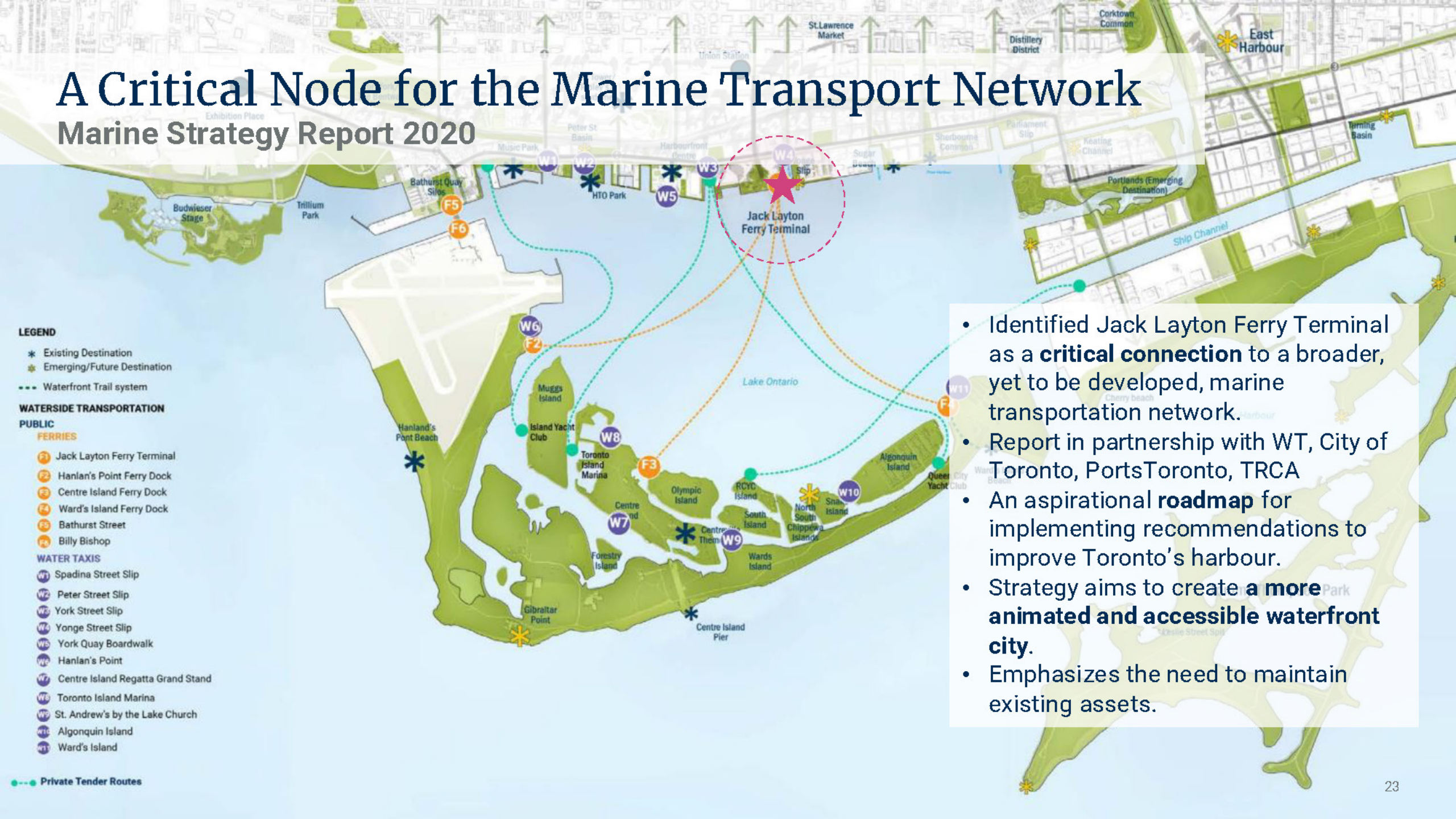
Yonge Slip serves as an **important marine hub** along the waterfront, and its activity is expected to continue to **grow**.

- Ferry Terminal
- Water taxis
- Private boat rental



A Critical Node for the Marine Transport Network

Marine Strategy Report 2020



- Identified Jack Layton Ferry Terminal as a **critical connection** to a broader, yet to be developed, marine transportation network.
- Report in partnership with WT, City of Toronto, PortsToronto, TRCA
- An aspirational **roadmap** for implementing recommendations to improve Toronto's harbour.
- Strategy aims to create a **more animated and accessible waterfront city**.
- Emphasizes the need to maintain existing assets.

Yonge Slip Design Objectives

Design & User Experience

- Deliver a balanced design that serves all users
- Ensure safety, legibility, and accessibility throughout the site
- Provide shade and comfort for water taxi passengers that is off the street and on the WaveDeck
- Create a centralized water taxi hub for pickup/drop-off only
- Offer seating and flexible public space on the WaveDeck
- Accommodate HSU, bus, and vehicle access for the Westin and ferry terminal
- Include a dedicated loading zone for one bus

Site Optimization

- Minimize lakefill to reduce environmental and cost impacts
- Rationalize dockwall geometry to form a straight slip head
- Establish a delineated driveway for Westin and Ferry Terminal vehicles only
- Reduce the driveway footprint and enable vehicle turning on the WaveDeck where needed
- Balance pedestrian and vehicle needs to improve safety while organizing the Westin drop-off and encouraging the hotel to better connect to the waterfront

Placemaking & Integration

- Mark the foot of Yonge with a bold, unifying concept that ties the elements together and resonates with visitors, and also ties into the family of heads of slips already established along the waterfront
- Connect the WaveDeck to marine activation
- Revise the gangway design for the floating dock to fully integrate Waterfront Accessibility Design Guidelines and support an accessible waterfront

WDRP Consensus Comments from March 2021

Queens Quay Corridor

- Ensure the mandate of **“leading with landscape”** is at the forefront of the design.
- The **winter experience** of the street is important, ensure specific design elements such as the heated elements are thoroughly considered, and the cost benefits are carefully evaluated.
- Consider the **slips as “windows” to the lake** as they are key vista opportunities for pedestrians and ensure the designs strongly support this idea. Provide views down the key slips for review.
- Consider further development on the **heads of slips**. It is important for the heads of slips to have a common design language as special places related to the cottage country and Georgian Bay concept developed in the competition.

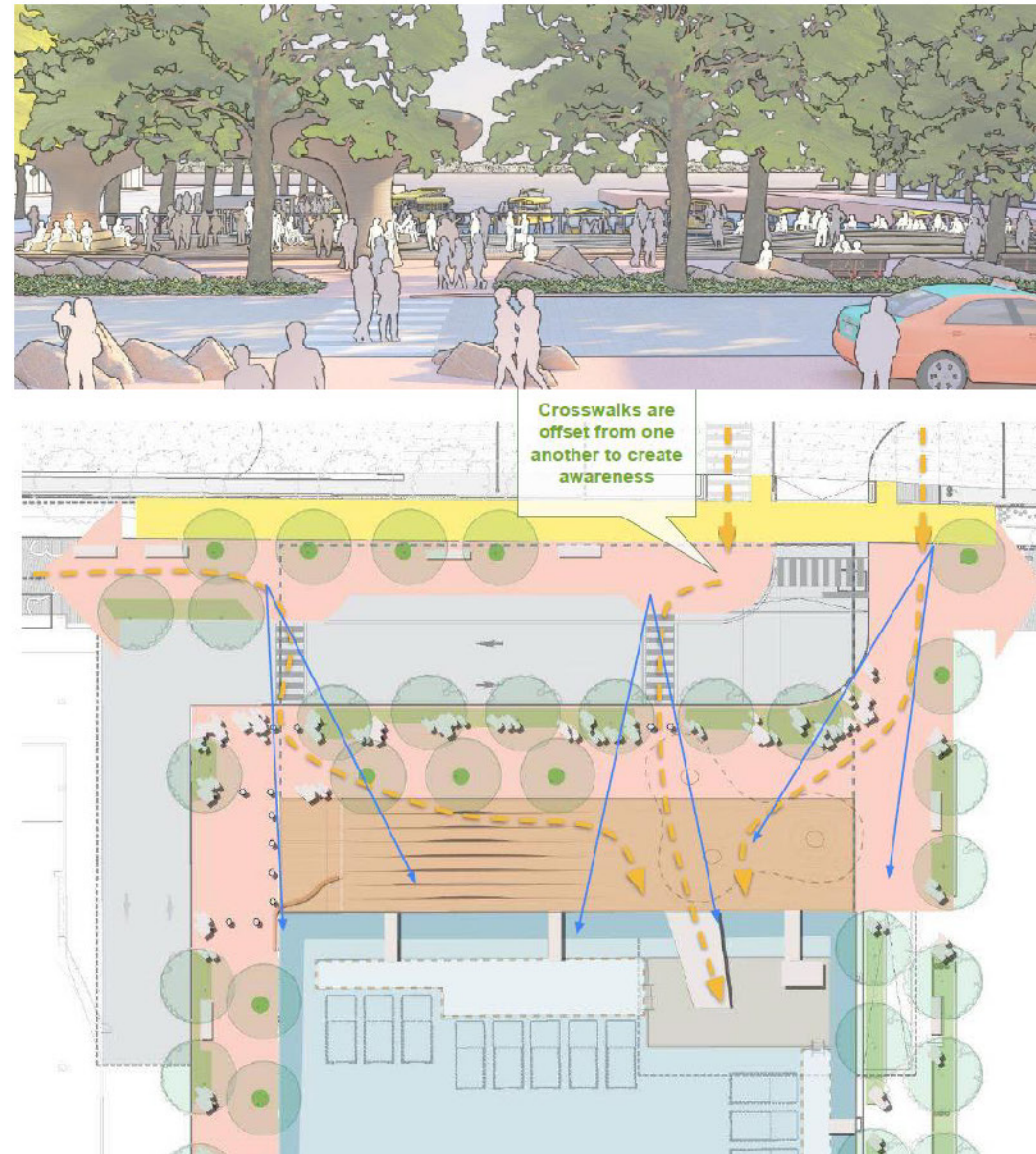


View from 30% Design

WDRP Consensus Comments from November 2024

Yonge Slip

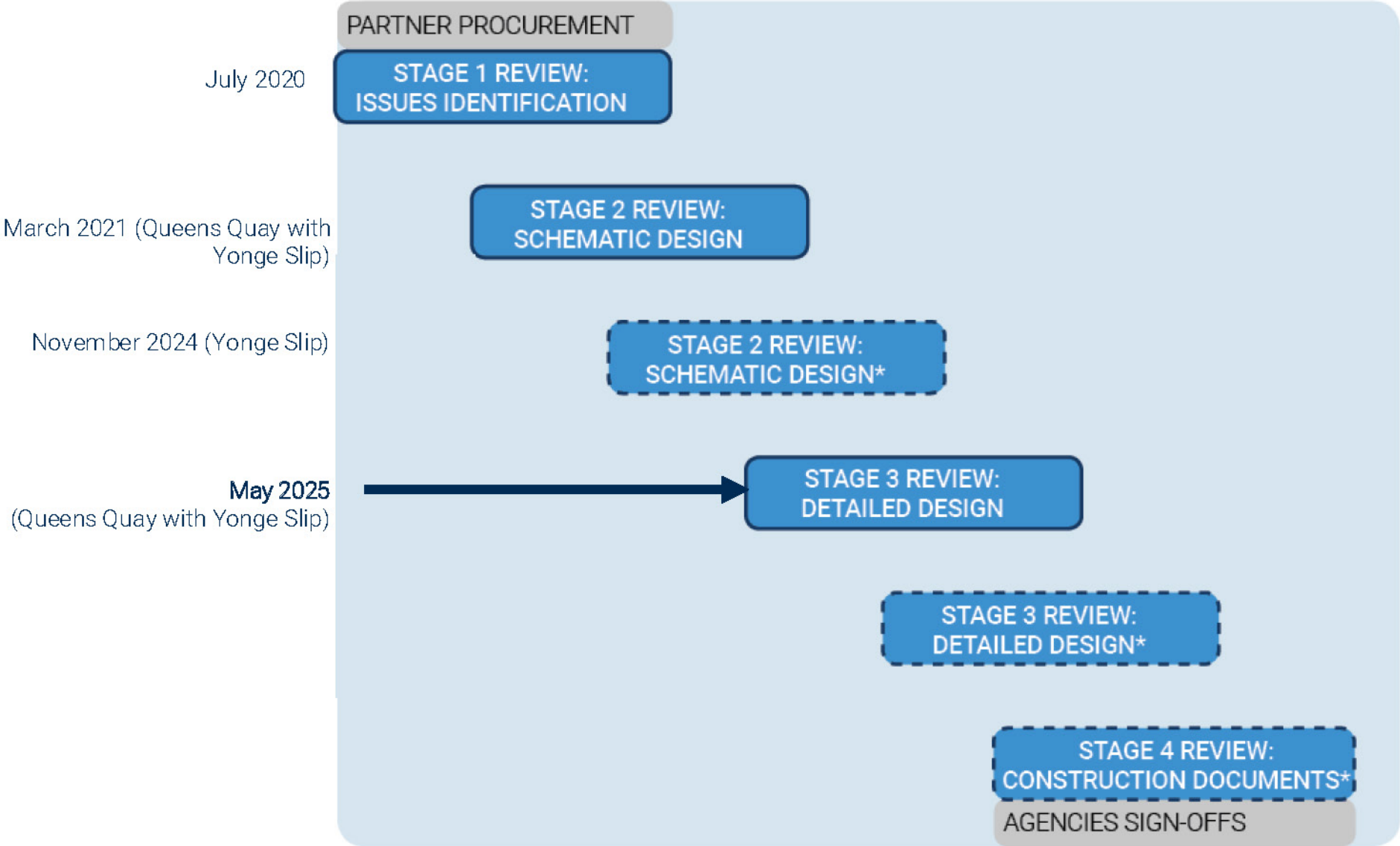
- The site is one of the **most important sites in the waterfront** and a culmination of all of the previous WaveDecks, the design has to both respond to complex site conditions while creating a very special place.
- The Panel questioned whether this is the best we can do in **celebrating the foot of Yonge Street** and felt that more could be done.
- Plan for very **high pedestrian traffic**, utilize traffic data that considers future density of the immediate context.
- Consider the future Yonge Street Park in the **long-term vision of the slip** and ensure the two will work together to celebrate Yonge Street.
- Provide more information on the **aquatic habitat** conditions of the design at the next review.
- Consider the important **Indigenous history and importance of Yonge Street** – connecting Lake Ontario and Lake Simcoe – in the design.
- Continue to develop the design further to maximize **pedestrian public realm and minimize vehicular intrusion**
- Consider an “upper” and “lower” WaveDeck strategy where the **floating dock feel part of the language of the WaveDeck**.
- Consider **year-round use** and seasonality in both the design and material selections.
- Some Panel members felt it is important for the WaveDeck to not be cluttered with water taxi related infrastructure like advertising and kiosks, and recommended strong signage regulation to protect the public nature of the WaveDeck.
- Some Panel members felt the railing is not necessary, instead toe-rail is likely sufficient based on other slips.
- The bus/ taxi layby inhibits pedestrian movement, consider its need and if it can be relocated and replaced for more landscaping.



DRP Stream 2: Public land

Project Approval Stage

WELRT: Segment 2
Proponent: Waterfront Toronto
Design Team: West8/DTAH
Review Stage: Detailed Design



Areas for Consideration

- How can the **connection between the WaveDeck and Marine life** be further enhanced?
- Is this proposal **cohesive and well-integrated** with the broader waterfront revitalization efforts? (wavedecks/water's edge promenades/future ferry terminal upgrades/future Yonge slip park)

Areas for Consideration: Queens Quay Corridor

- How might we strengthen the **integration of green infrastructure** and enhance the site's ecological performance?
- What additional strategies could improve the **arrival experience** at intersections and slip heads?
- Have we successfully achieved safety and delineation between pedestrian / cyclists / transit / vehicles?

QQE 2A 60% Design Design Review Panel

May 28, 2025

WEST 8 + dtah

Enhancing Toronto's unique waterfront spine

Design brief for Queen's Quay Boulevard East



Queens Quay West public realm

Queens Quay East Design Brief:

1. Keep what is **special and iconic** about Queens Quay West.
2. Enhance the **consistent yet distinct identity** of Queens Quay East.
3. Update design with **best practices and lessons learned** since 2012.

DRAFT

Context & Introduction

Design Brief and Scope

The 15 year legacy of Queens Quay Boulevard as the Spine of the Secondary Waterfront



Central Waterfront Masterplan

Three interwoven threads activate the waterfront



QQE connects 1.6km of new communities

New social and green spine of public life



Queens Quay Boulevard: transforming West to East



Before: urban canyon effect, unsafe for vulnerable users



After: shared, civic space



Culture and placemaking



Innovative urban forestry

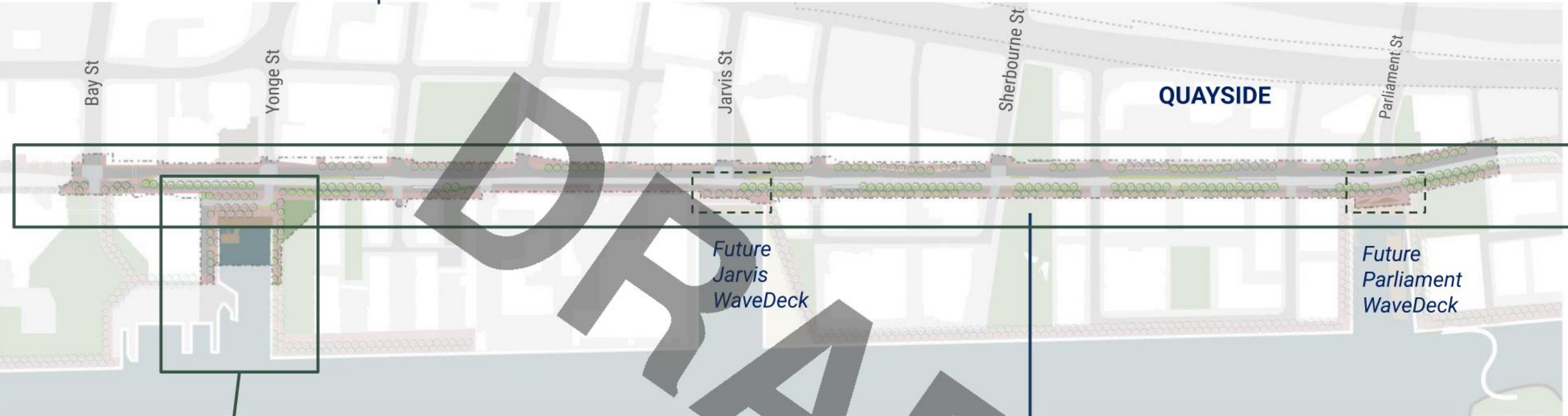
Social connective tissue for new and upcoming communities



Robust streetscape as a park-like public space

Extents of the design

WELRT Area 2A Scope of Work



YONGE SLIP EARLY WORKS



QUEENS QUAY EAST (BAY to STREET A)

Agenda

1. Design Vision

- What's changed since 30%?

2. Placemaking and Ecology

- QQE's Unique Identity
- Systems approach
- Moment typologies
- Planting
- Paving Pattern

3. Arrival and Welcome

- Heads of Slip
- Trees as Accents
- Intersection Design
- Wayfinding

4. Transit Connections

- Transit Stop Design
- Intersection Design

5. Sitewide Strategies

- Furnishing
- Lighting
- Stormwater
- Snow Storage
- Pickup and Dropoff

6. Block-By-Block Walkthrough

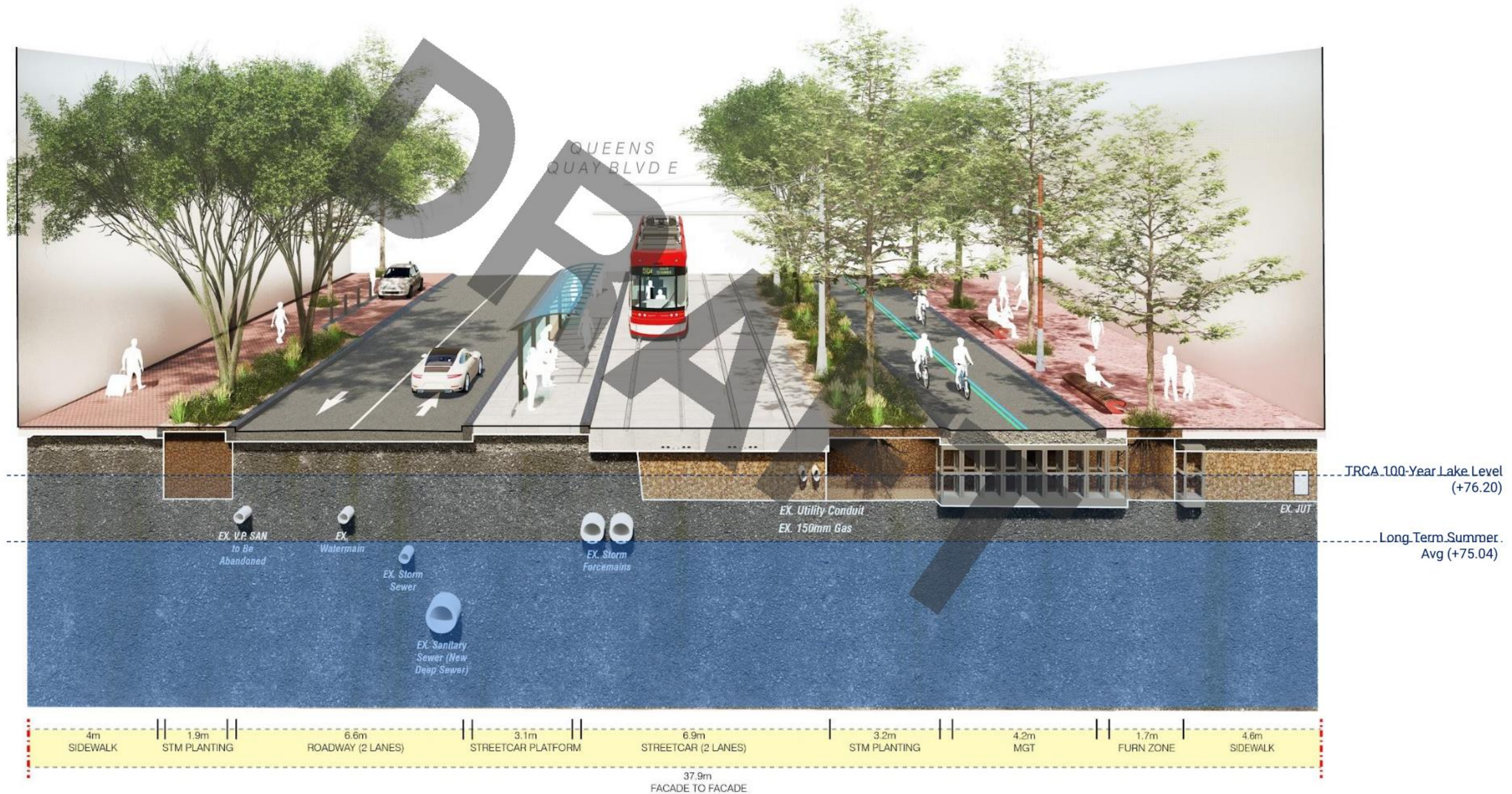
- Bay to Yonge
- Yonge to Redpath
- Redpath East
- Jarvis Slip
- Jarvis to Sherbourne
- Sherbourne Arrival
- Bayside/Quayside
- Parliament Slip

Design Vision

Design Development from 30% to 60%

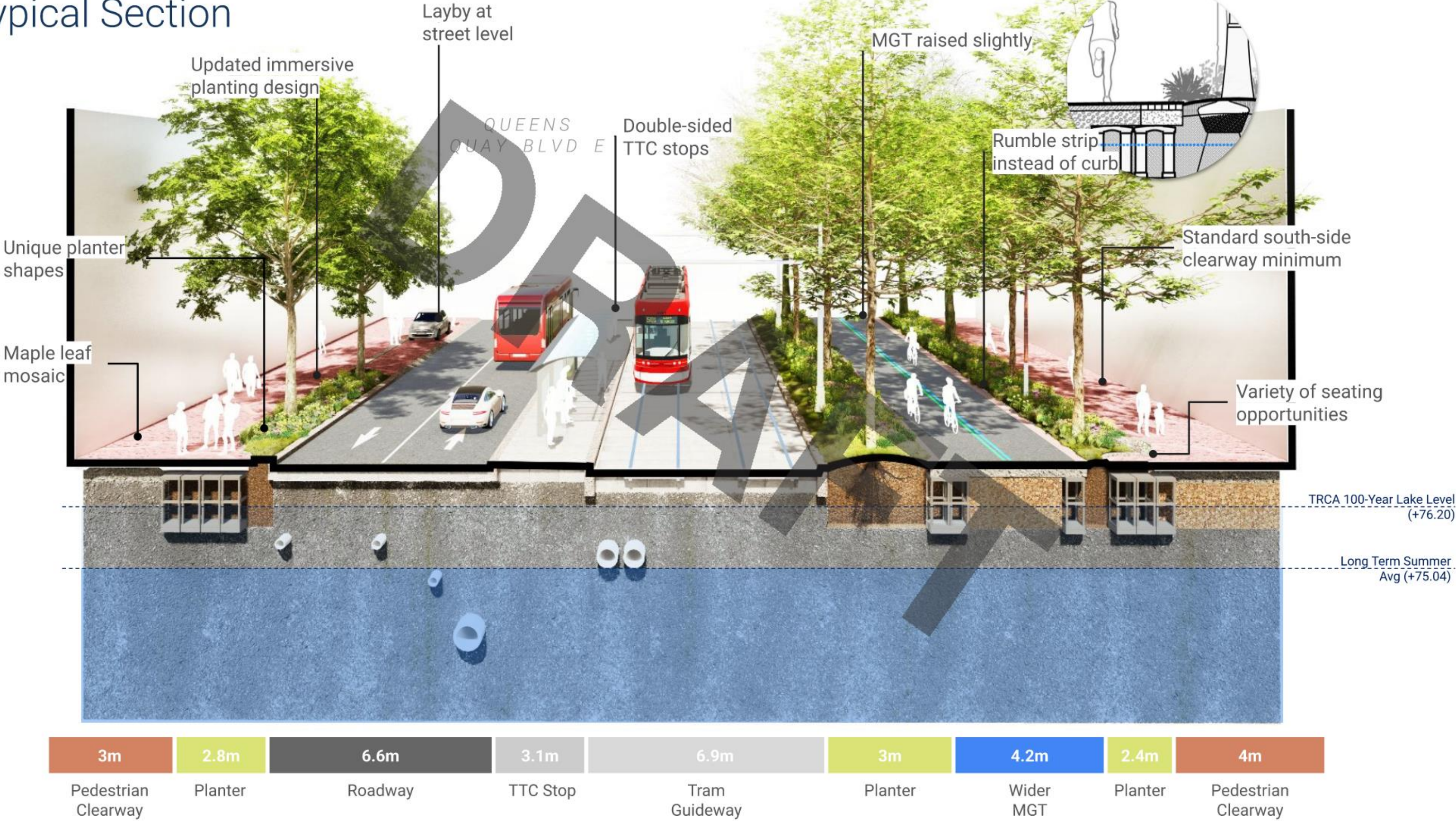
30% Design

Typical section



60% Design Vision

Typical Section



An immersive, engaging, and inclusive green corridor whose identity is born from Queens Quay West's iconic success



Building on Indigenous Engagement

Key takeaways for Queen's Quay



Stone

Relationship to the narrative of Quayside

Stone is the foundation, the grandparent

- Provide structural base for planting
- Provide protection for planting where vulnerable
- Provide places for rest, respite and play



Create Spaces to Gather

Feedback is for the waterfront, not just Quayside
Look to provide recreation in larger spaces

- Access to water
- Spaces for recreation, ceremony
- Spaces for intimate gatherings



Healing Forest

Urban savannah planting, more space for green, and careful plant choice

7 Generations

Accessibility for all ages, places to meet, and open ended play

Gathering Together

Meaningful spaces to foster public life and connect to the water

Two distinct characters and functions

Supporting placemaking and ecology

Immersive green

Support public life with inclusive, active parklike spaces on the street



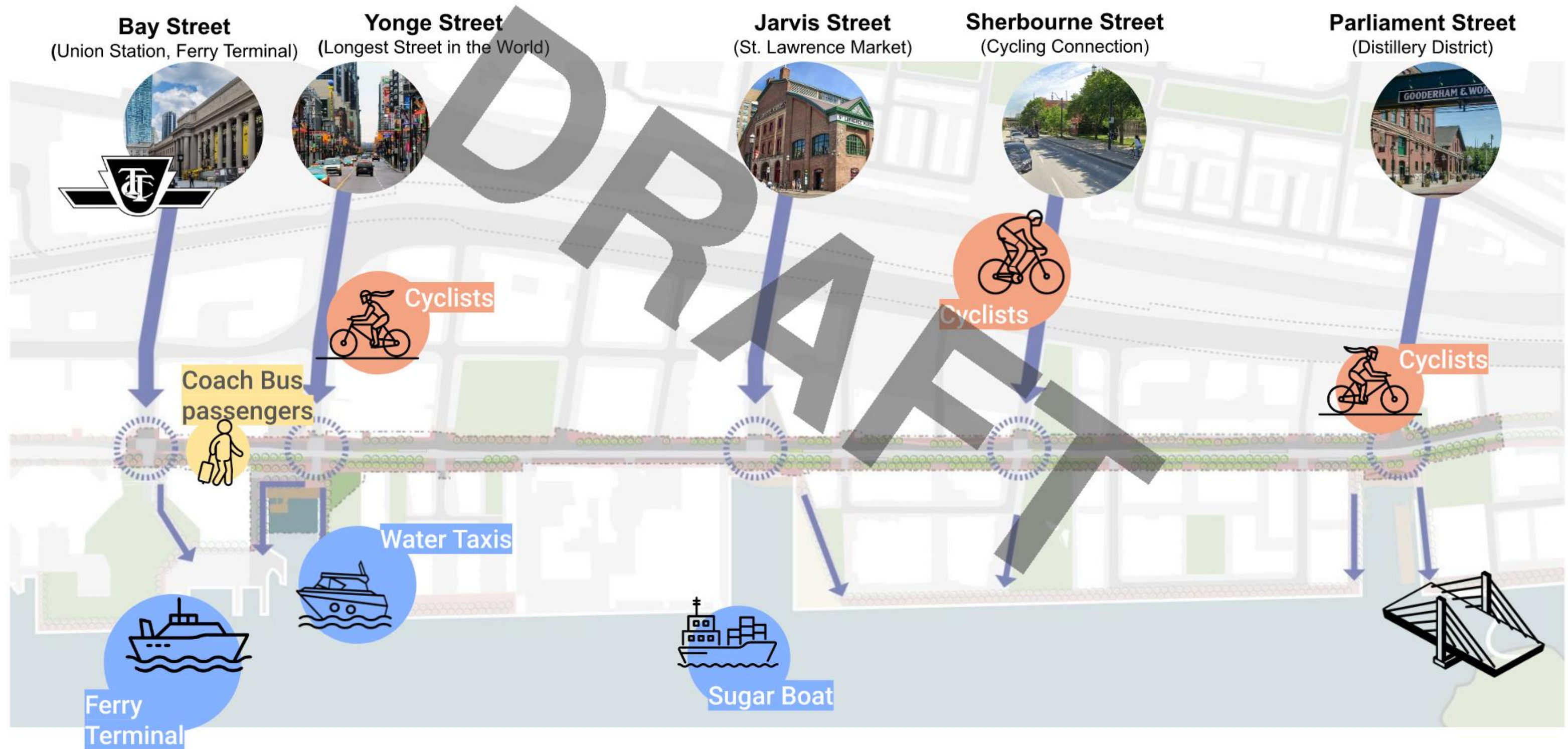
Waterfront welcome

Direct connections to the water with broad vistas and sticky plaza-like atmospheres supporting current and future WaveDecks



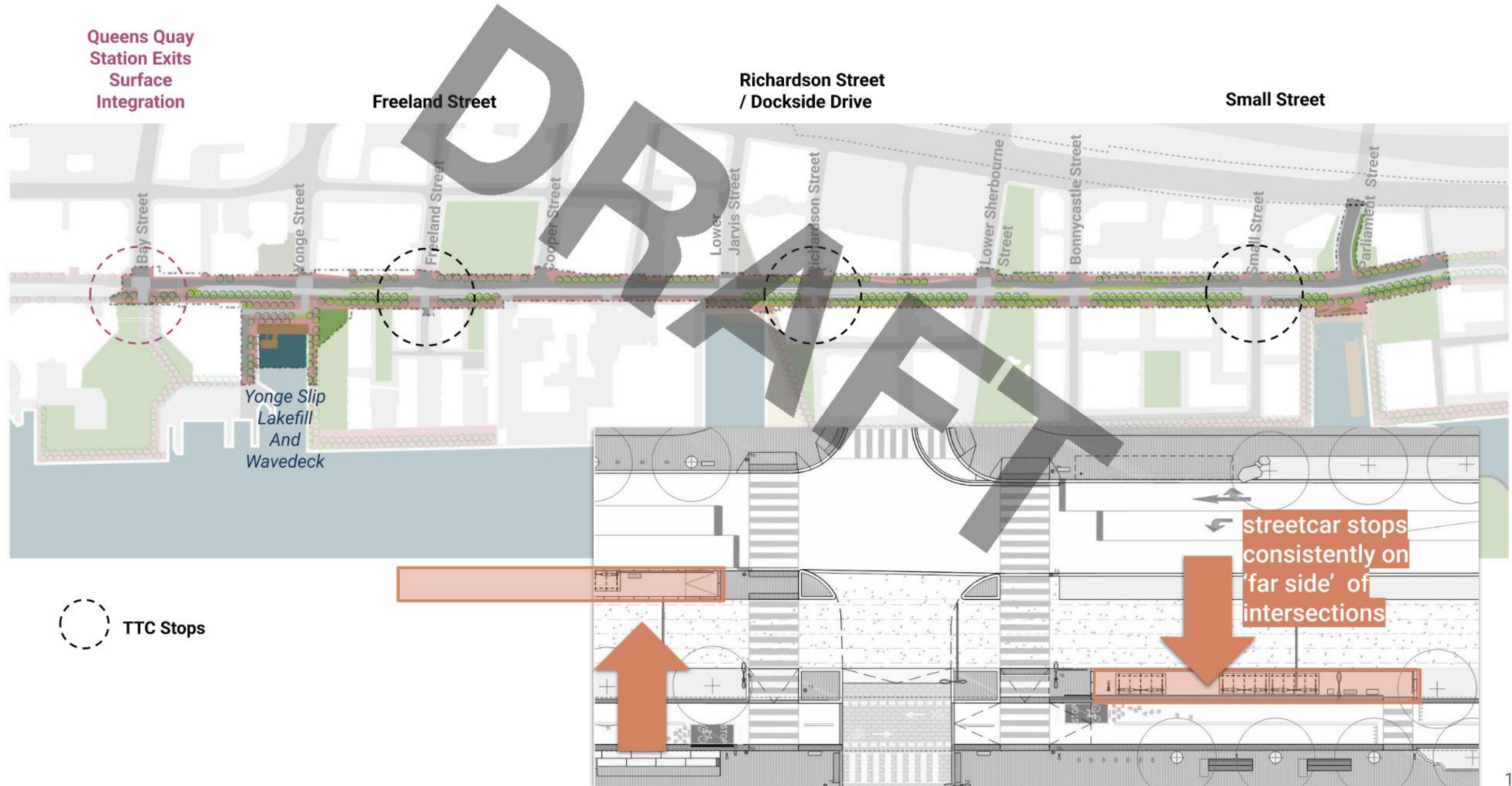
5 Major Waterfront Arrival Intersections

Mix of modalities and waterfront connections



4 recognizable and consistent transit arrivals

Station entrance and streetcar stops provide a consistent experience



Immersive Character

A distinctive yet cohesive identity for the East

An immersive, engaging, and inclusive green corridor whose identity is born from Queens Quay West's iconic success



Consistent identity, distinct character

Adapting the QQE palette to enhance a sense of place



Granite Setts on Concrete Base

With maple leaf pattern on south boulevard



Granite planter "leaf edge" curbs

Edge protection and immersive character



Waterfront Signature Benches

Thermally modified wood and aluminium with new armrest detail and companion space



City Standard Bike Rings

Classic and robust

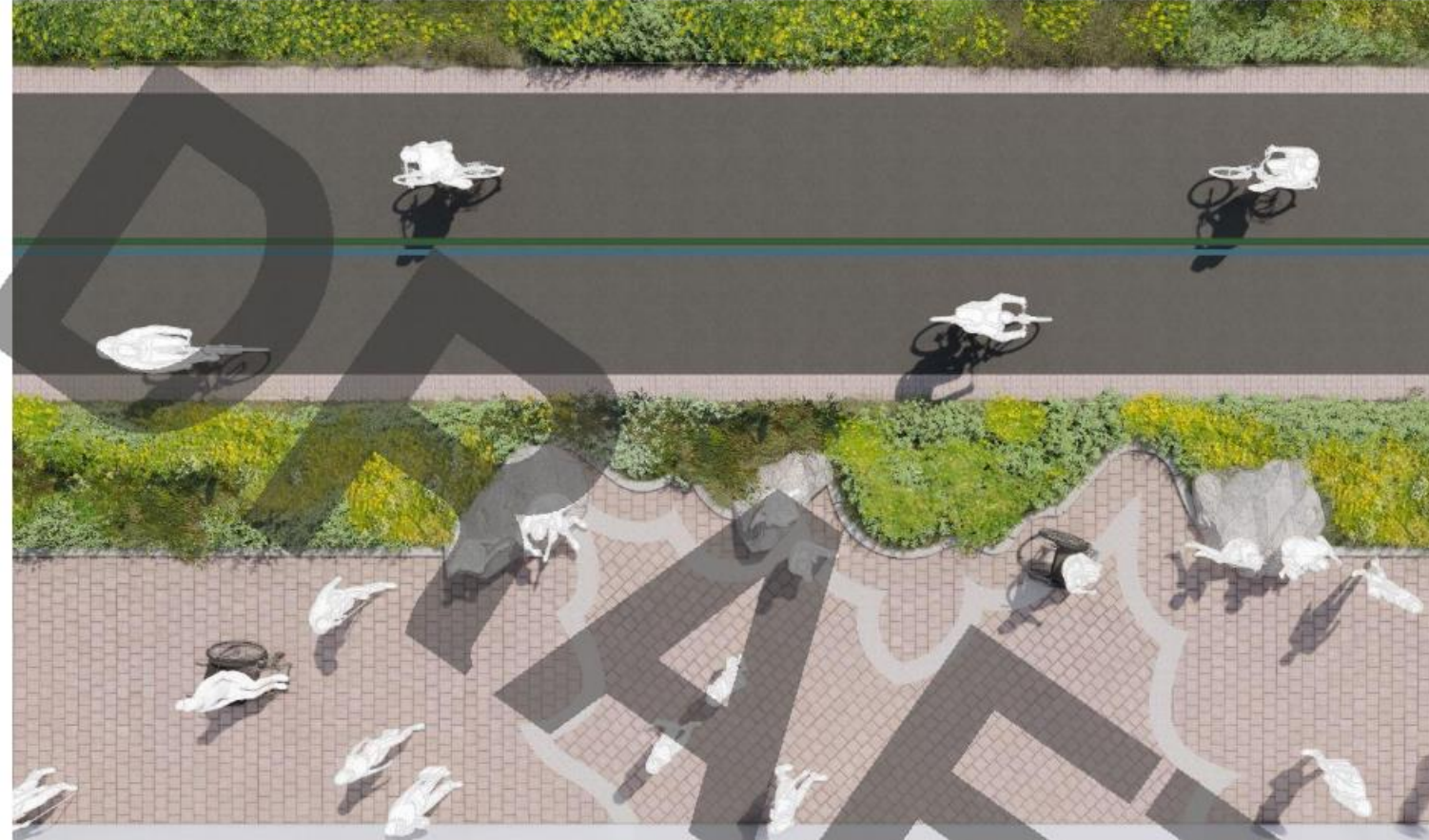


Natural Boulders

Informal seating edges and placemaking elements

A new expression of the iconic maple leaf typology

The “leaf edge” planter brings the iconic pattern to life



Queen's Quay West
The iconic maple leaf



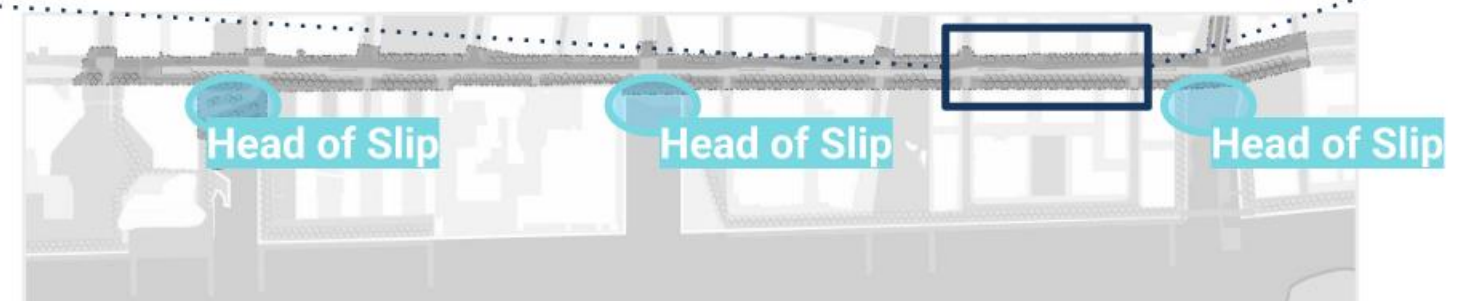
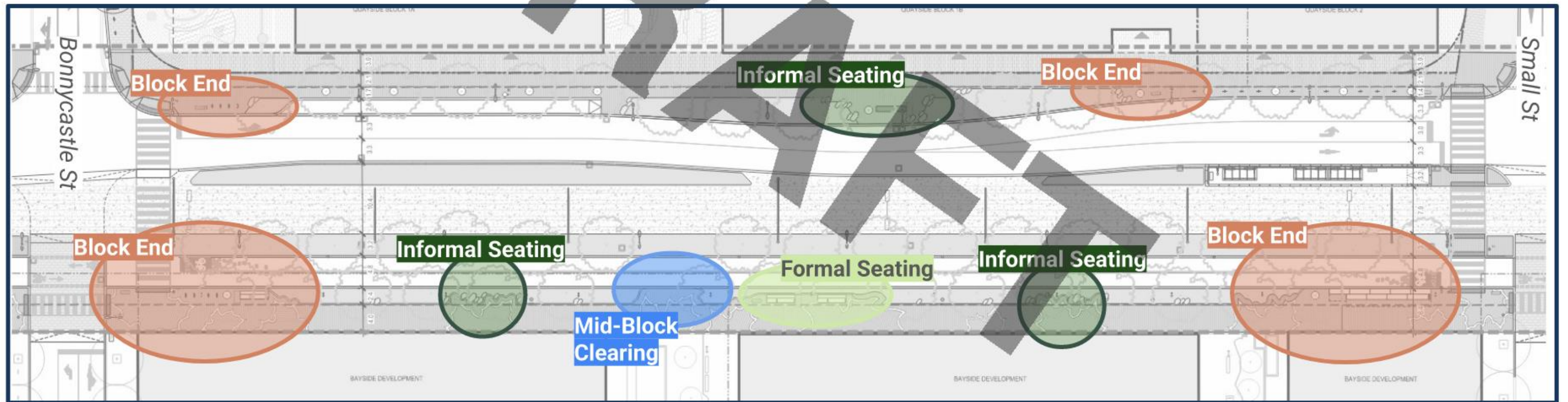
The East Lakefront
Lush, green, inviting



Planters bring patterns to life
Precedent: Avenida de Portugal

Systems approach

Replicable “moment” typologies along the boulevard



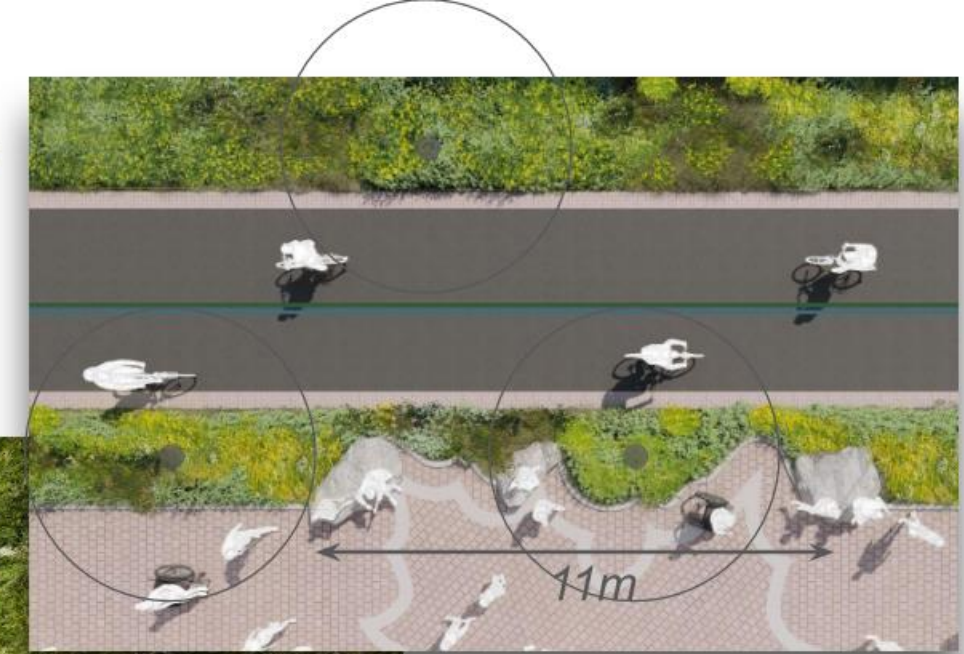
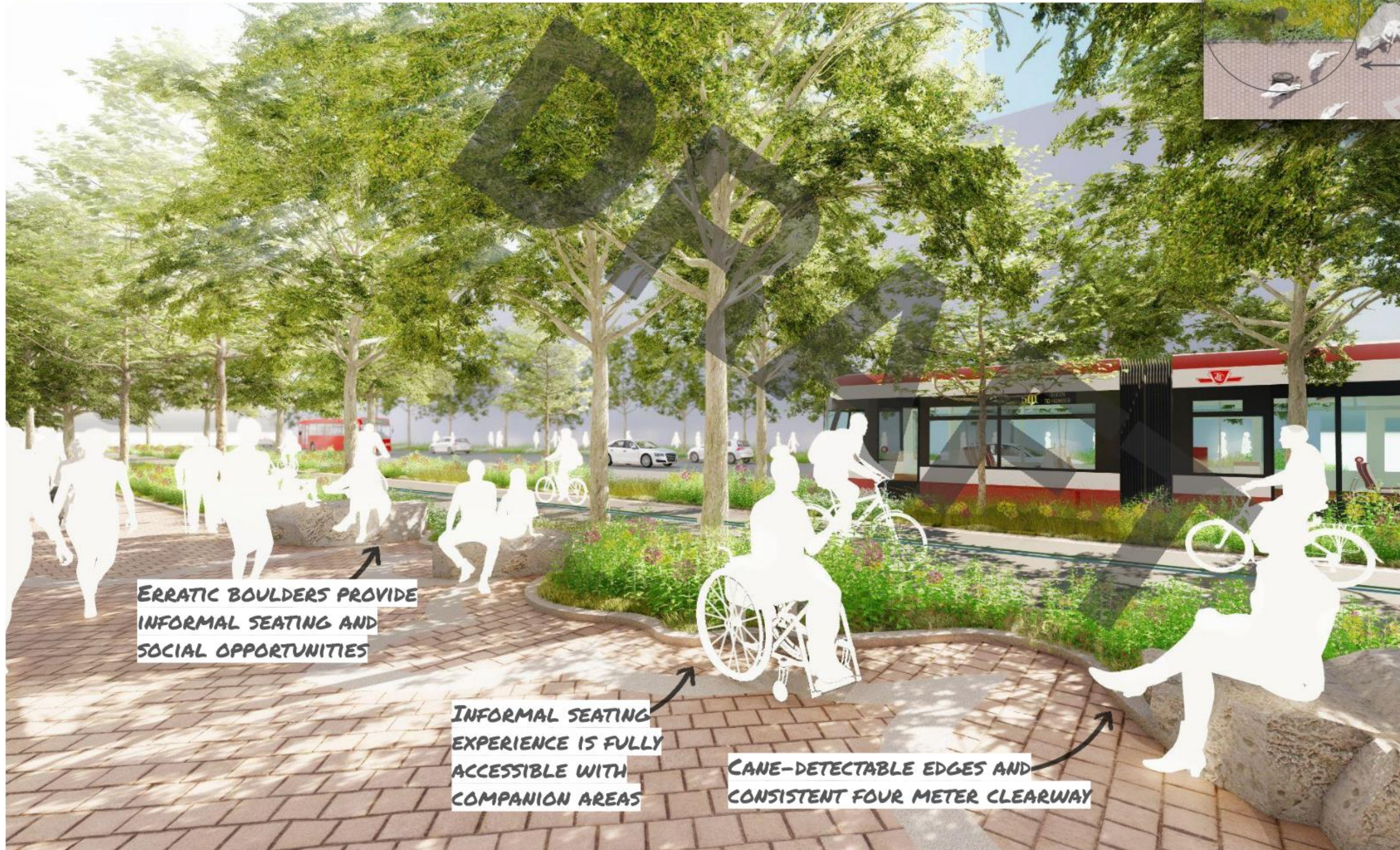
Block Ends: Transitional Character

Merging typical QQW treatments and functional furnishing with lush new QQE design language



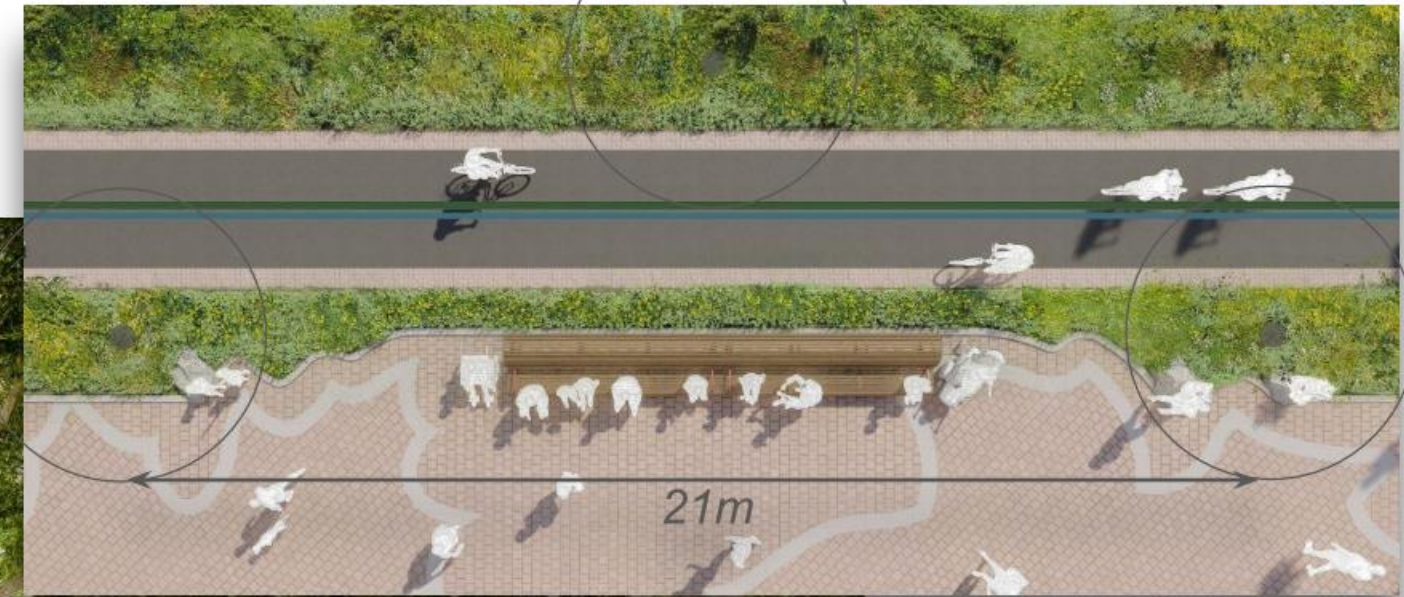
Informal Seating: Unique Social Character

Immersive nooks invite social connection and link communities together



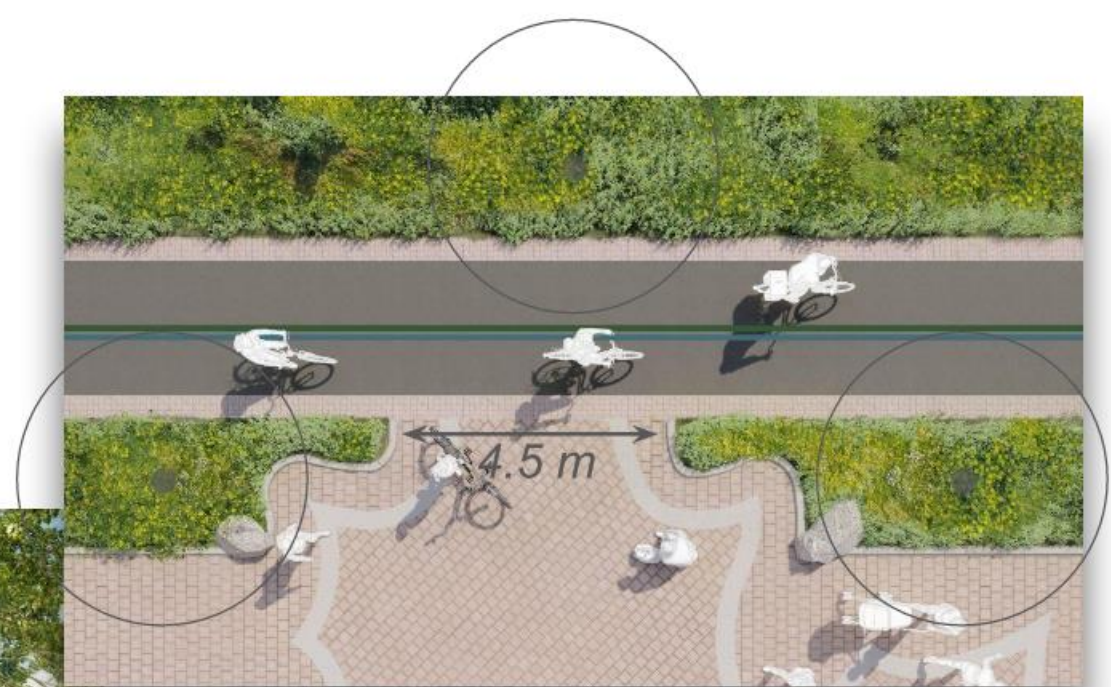
Formal Seating: Inclusive Public Gathering

Flexible-width modules can accommodate multiple bench arrangements for variety



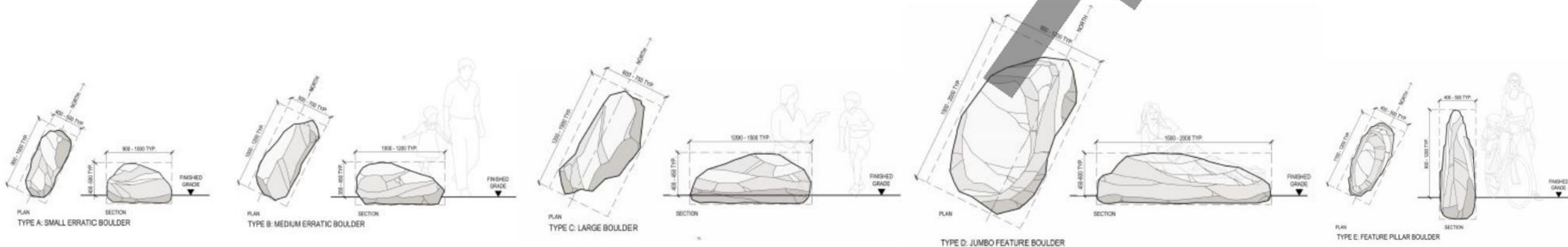
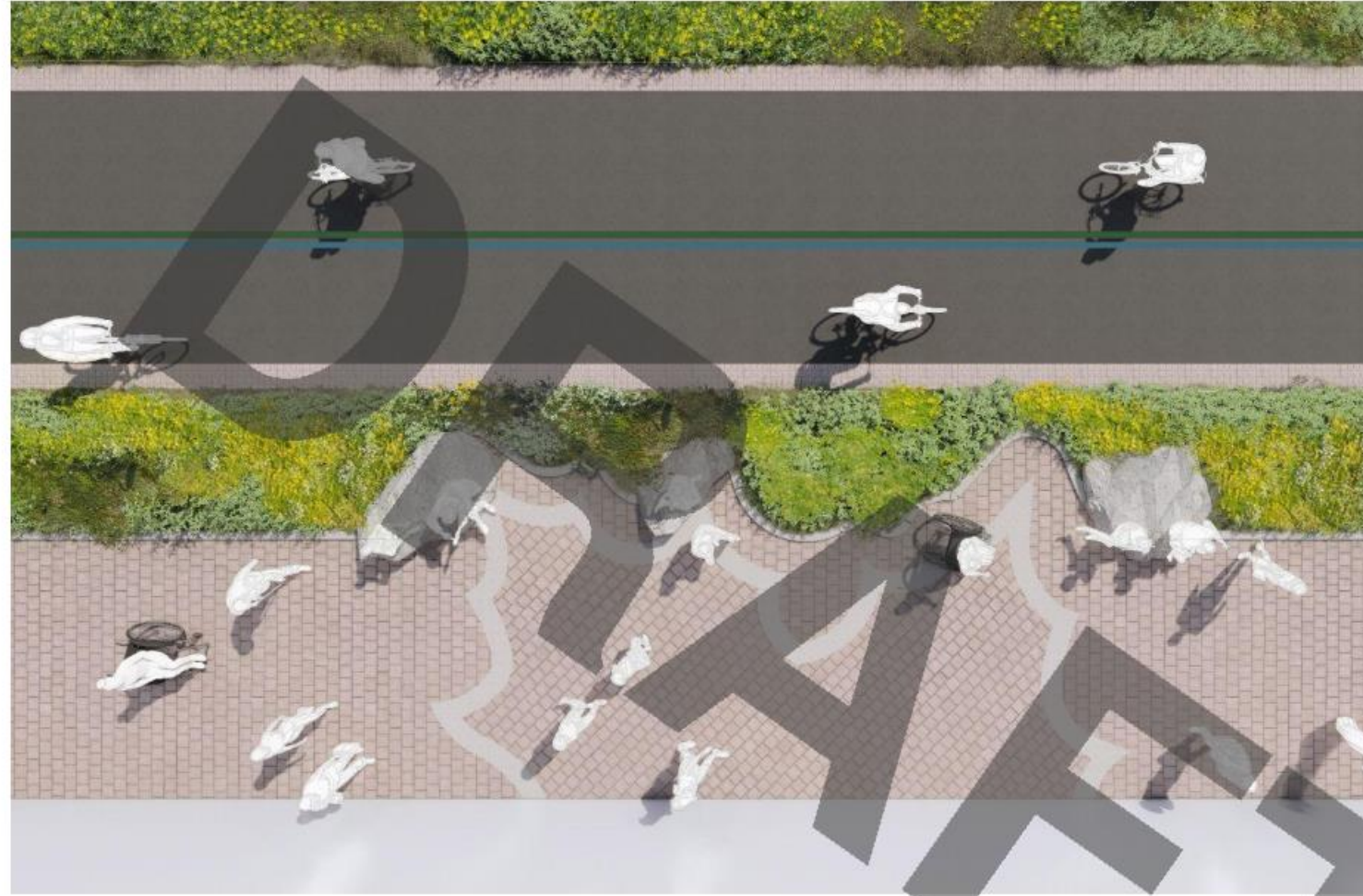
Midblock Clearing: Functional Pauses

Breaks in linear planters allow for emergency stops along the MGT



Glacial erratics enhance the unique character of QQE

Continuing the language of Quayside



Planting Approach

Promenade Allée



Tommy Thompson Park



Savanna

Savannas are characterized by a balance of legibility, visibility, and species diversity as a result of stewardship

Lake edges were more likely to be in savanna as **Indigenous populations** used **fire** to make these landscapes easier to navigate, hunt, and cultivate

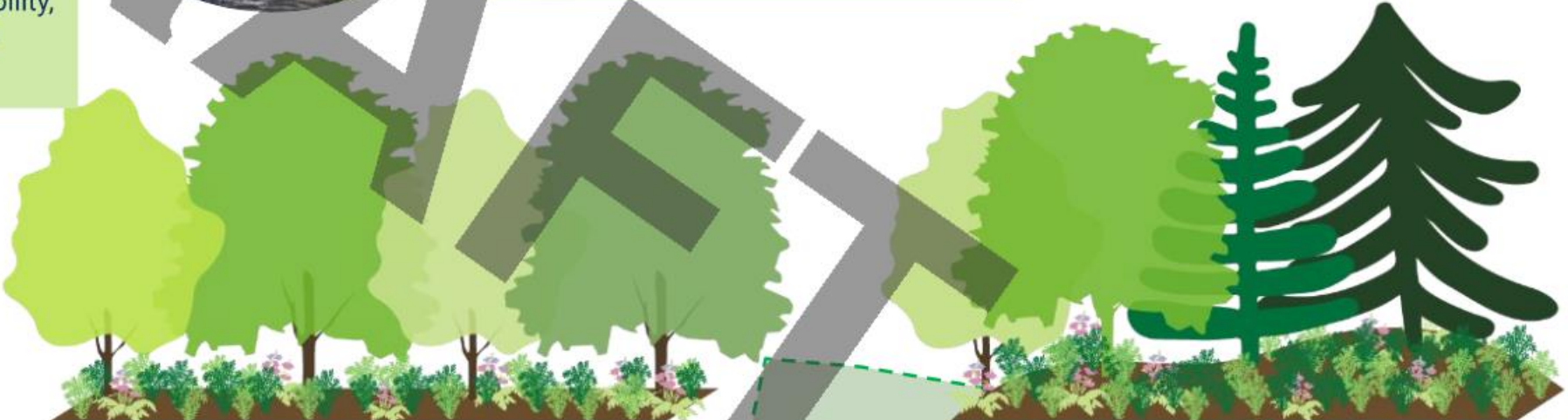
Downtown Seattle



Otomachi Urban Forest



Forests are characterized by multiple layers of canopy, mid-canopy, and understory, and shade



URBAN FOREST

Quayside: Mixed Use Neighbourhood

QQW

ICONIC ALLÉE

Urban Core: Bathurst → Yonge

QQE

URBAN SAVANNA

Urban Core Extension: Yonge → Street A

QQE to Don

RIVERINE

Keating Channel: Residential Neighbourhood

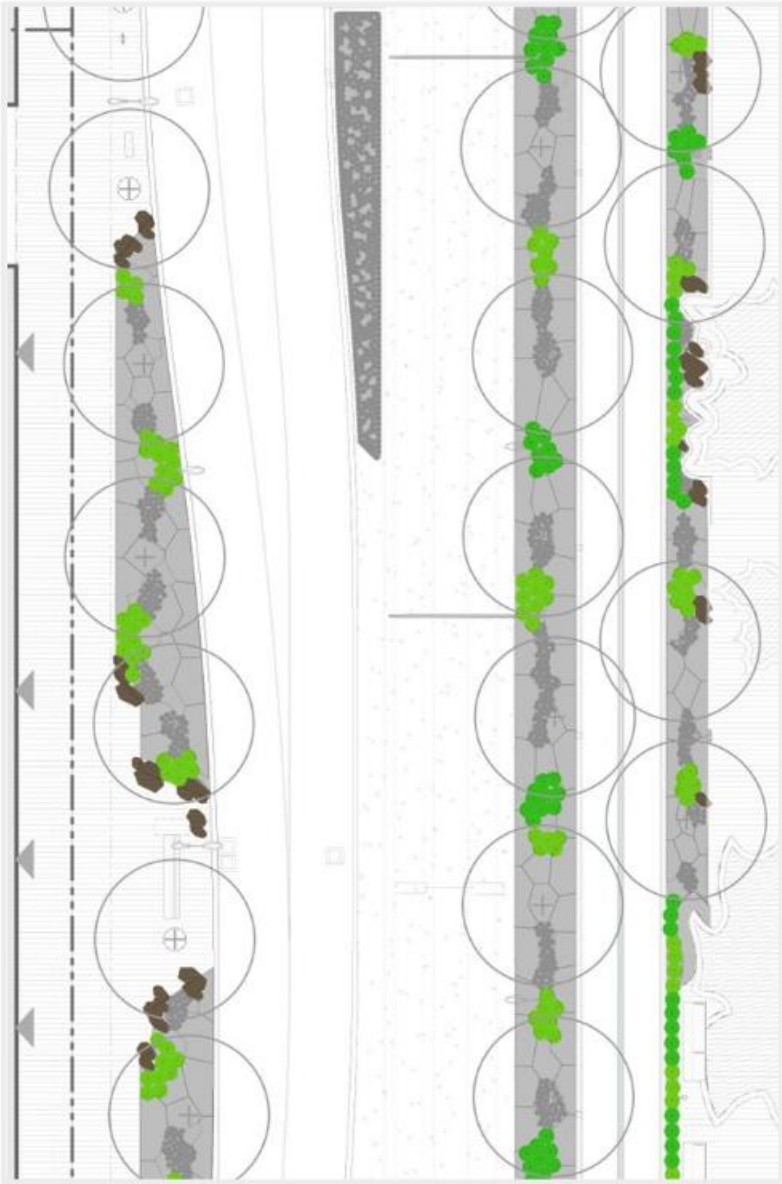
QQE Understory planting strategy

Matrix of grasses holding together clustered pockets of flowering forbs and shrubs for structure

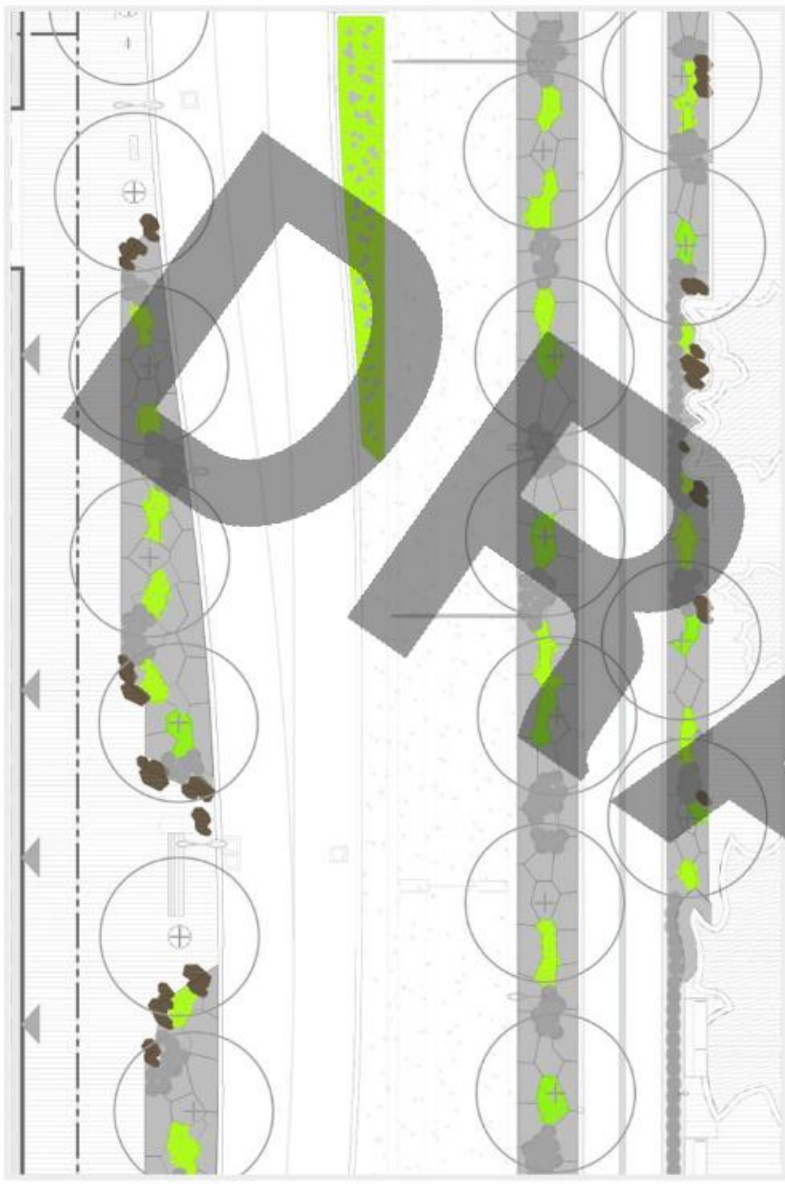


Resilient ground plane species are evocative of diverse savanna communities

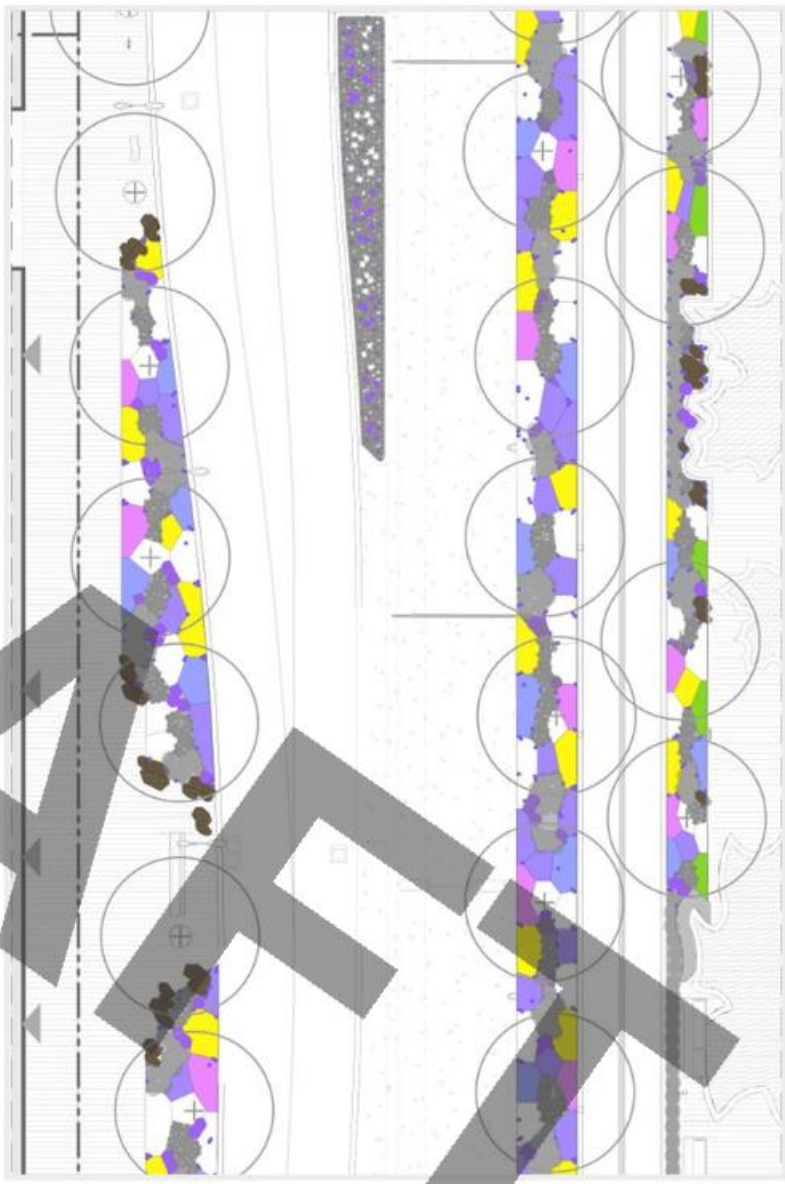
QQE Understorey planting strategy



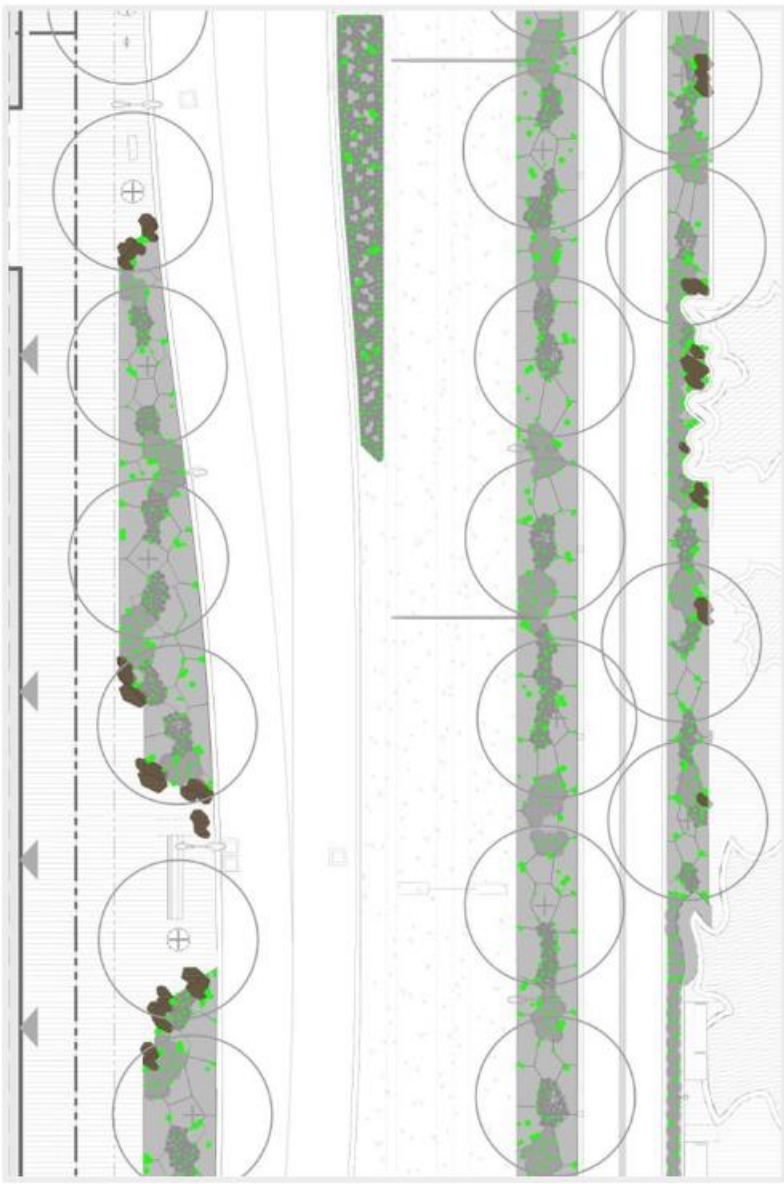
Low Shrub Massings



Spine of Grasses



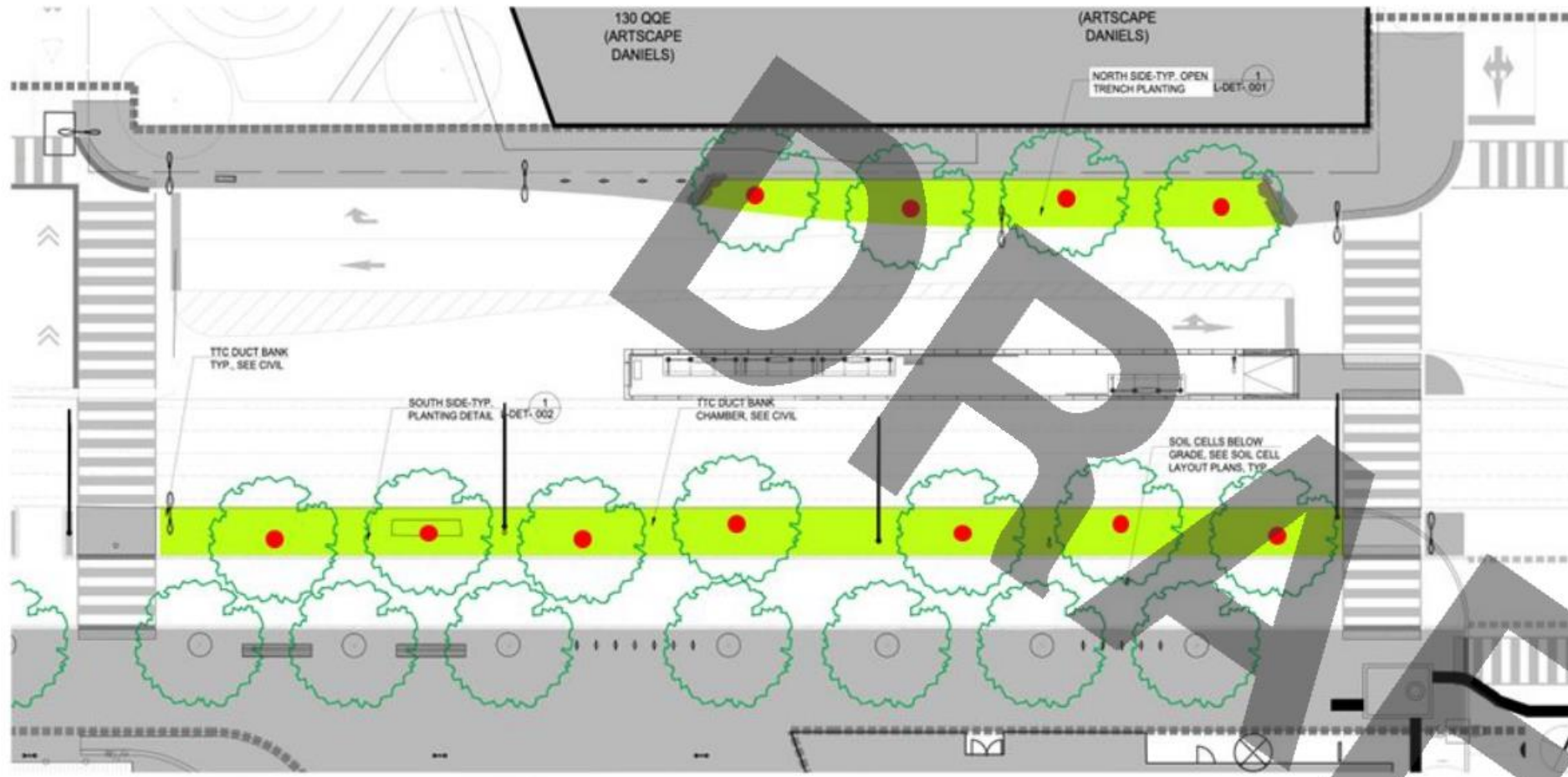
Seasonal Colour



Ground Cover



Planting Maintenance



“Dancing alignment” with mixed species

- Minimize competition between tree crowns and roots in narrow beds.
- Looser aesthetic appropriate for mixed species allee (≈ 25 tree species and cultivars).
- Future tree replacement less visually disruptive because of more complex aesthetic.

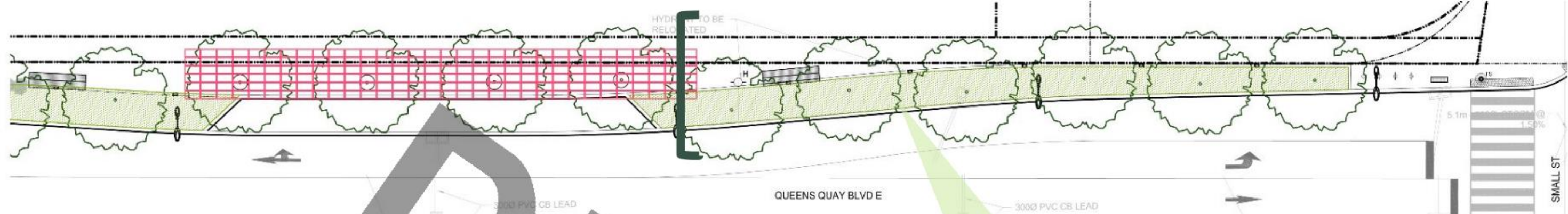


Longterm development of similar planting system. Dynamic species distribution is desirable.

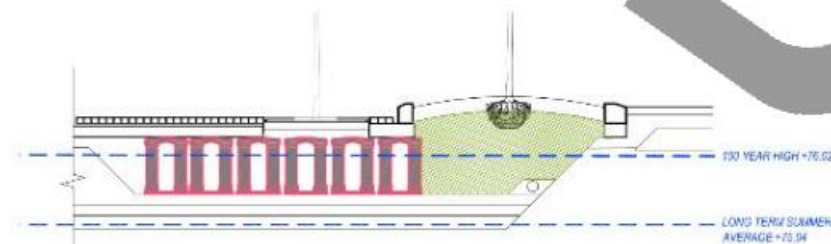
Adaptive planting approach

Soil Volume

NORTH BLVD



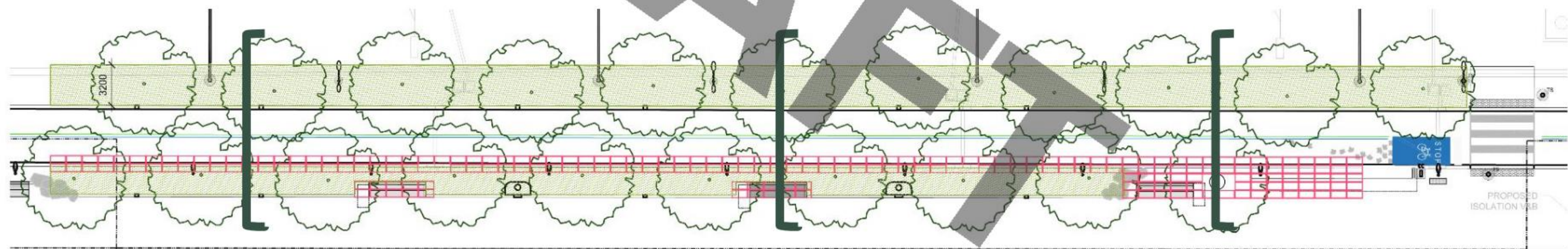
PLAN - NORTH BOULEVARD



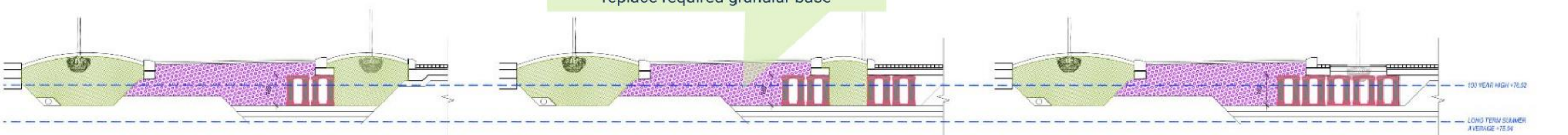
PROFILE

Use open planters where space allows, reducing below-grade infrastructure

SOUTH BLVD



PLAN - SOUTH BOULEVARD



PROFILES

Structural soil bridge under MGT to allow nutrient exchange, work around utilities, replace required granular base

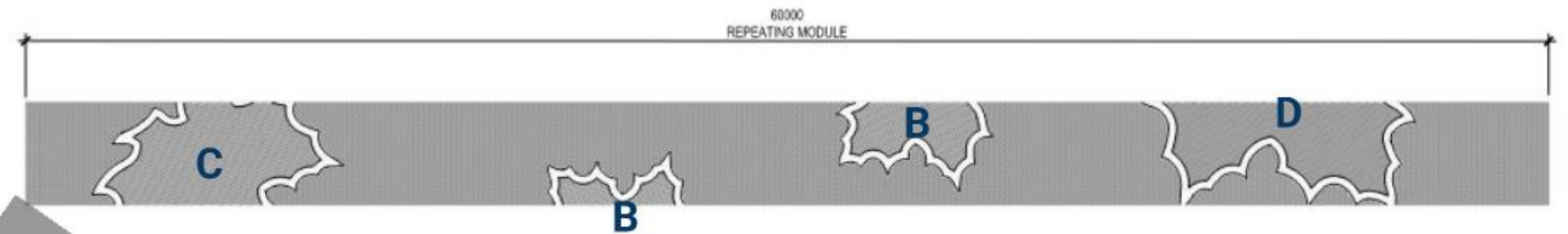
North and south leaf mosaics speak to one another

Simplified and reduced density on north side

QQE NORTH

- 3-4 leaves / 60m segments
- 3 Templates
- Some locations based on 'moments'

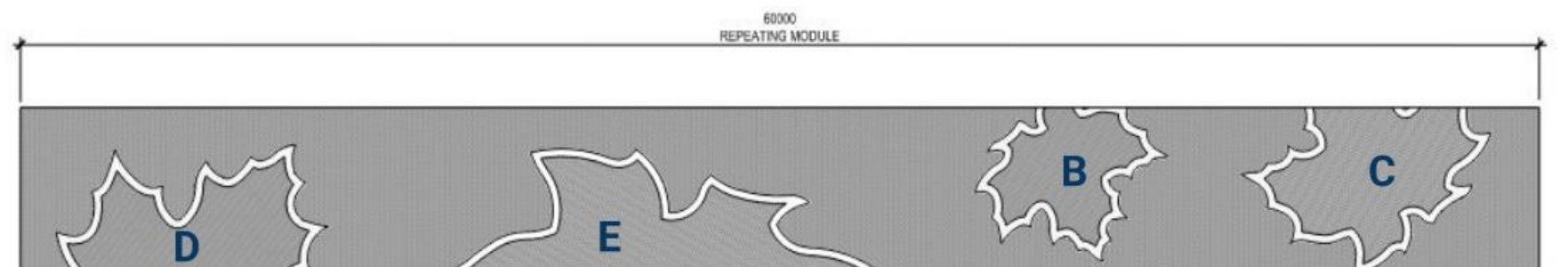
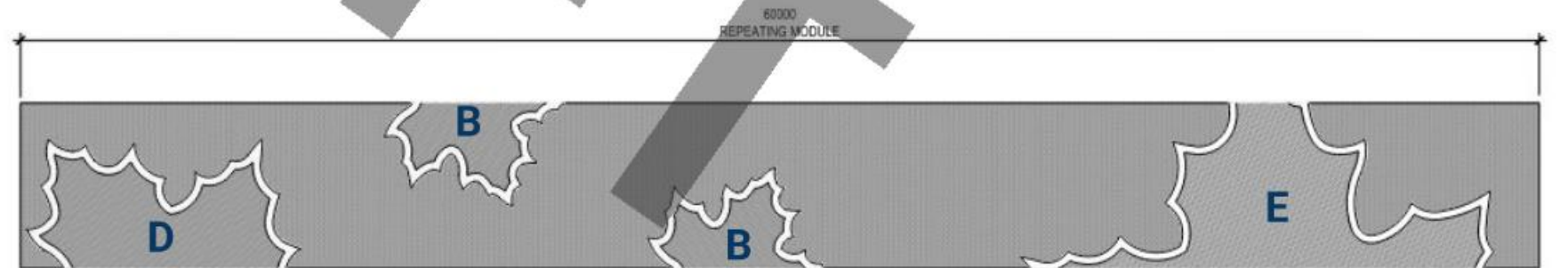
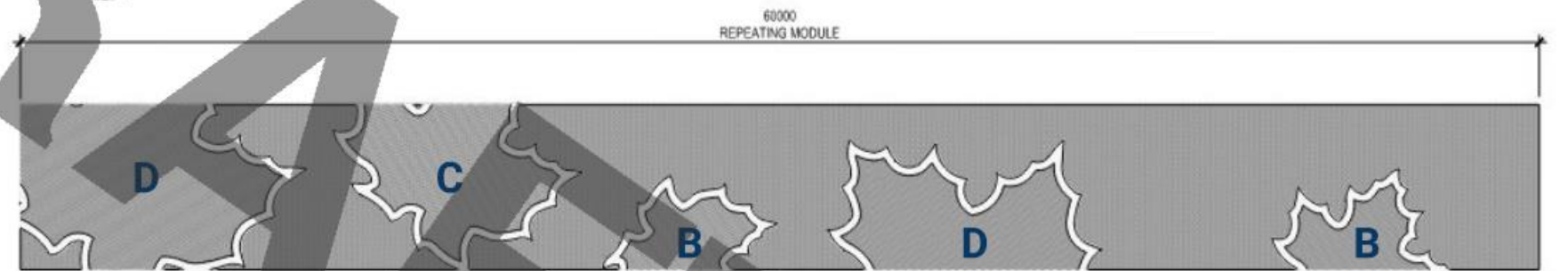
QQE NORTHSIDE



QQE SOUTH

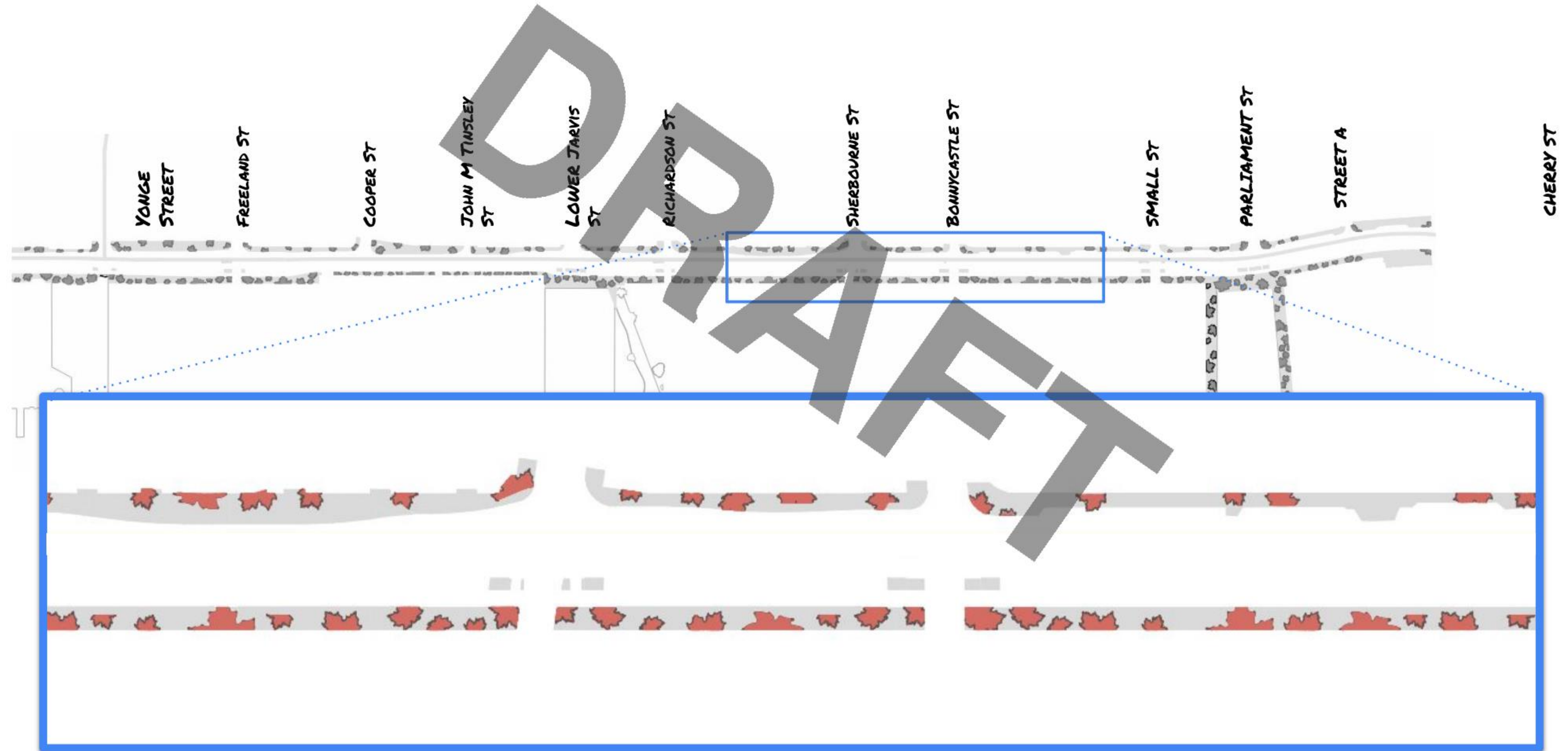
- 4-5 leaves / 60m segments
- 4 Templates
- Location based on 'moments'

QQE SOUTHSIDE



Northside leaves emphasize intersections

Reduced density compared with south side



Arrival

Iconic and functional connections to the lake

Head of Slip moments on QQW are established as open, connecting Toronto visually and functionally to the lake



Spadina



Rees



Simcoe

WaveBench activates Jarvis Head of Slip

Sticky public space anticipates future WaveDeck



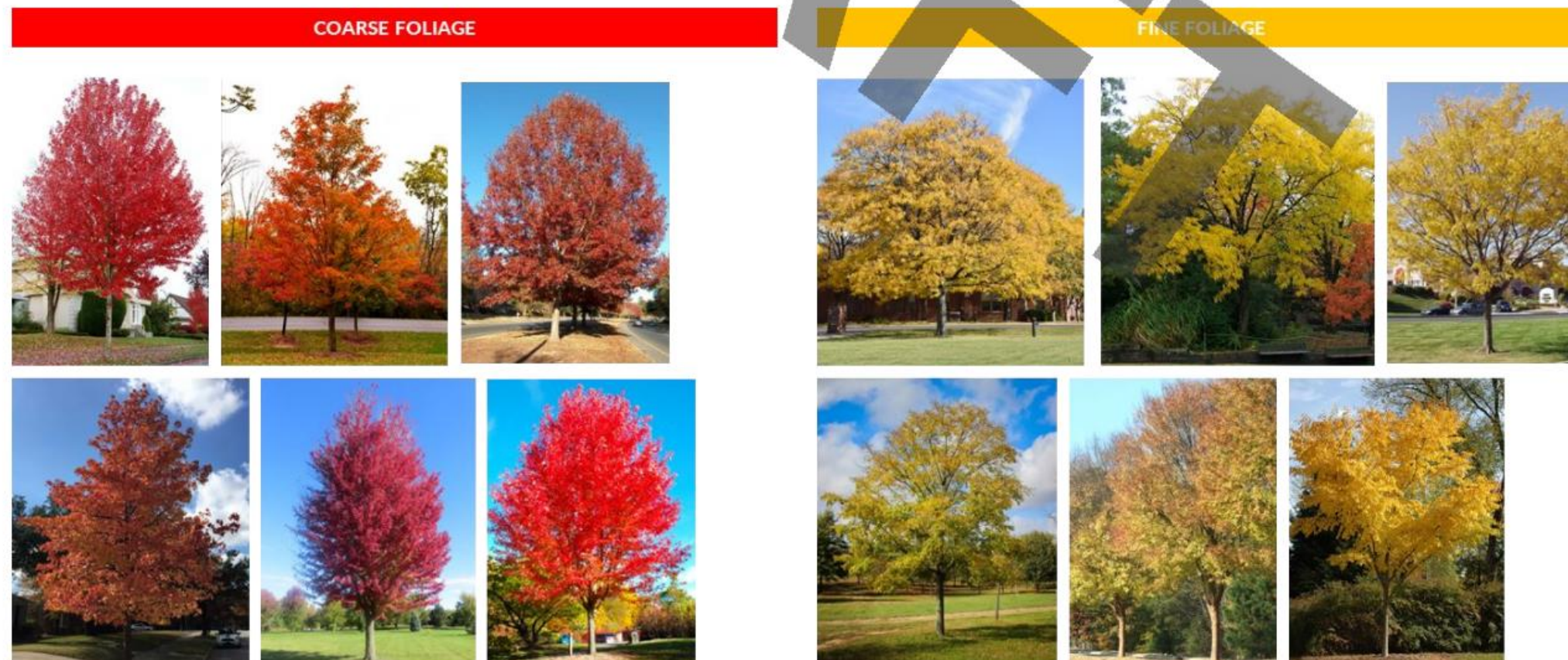
WaveBench activates Parliament Head of Slip

Special capstone moment for Queen's Quay East



Tree Planting Strategy

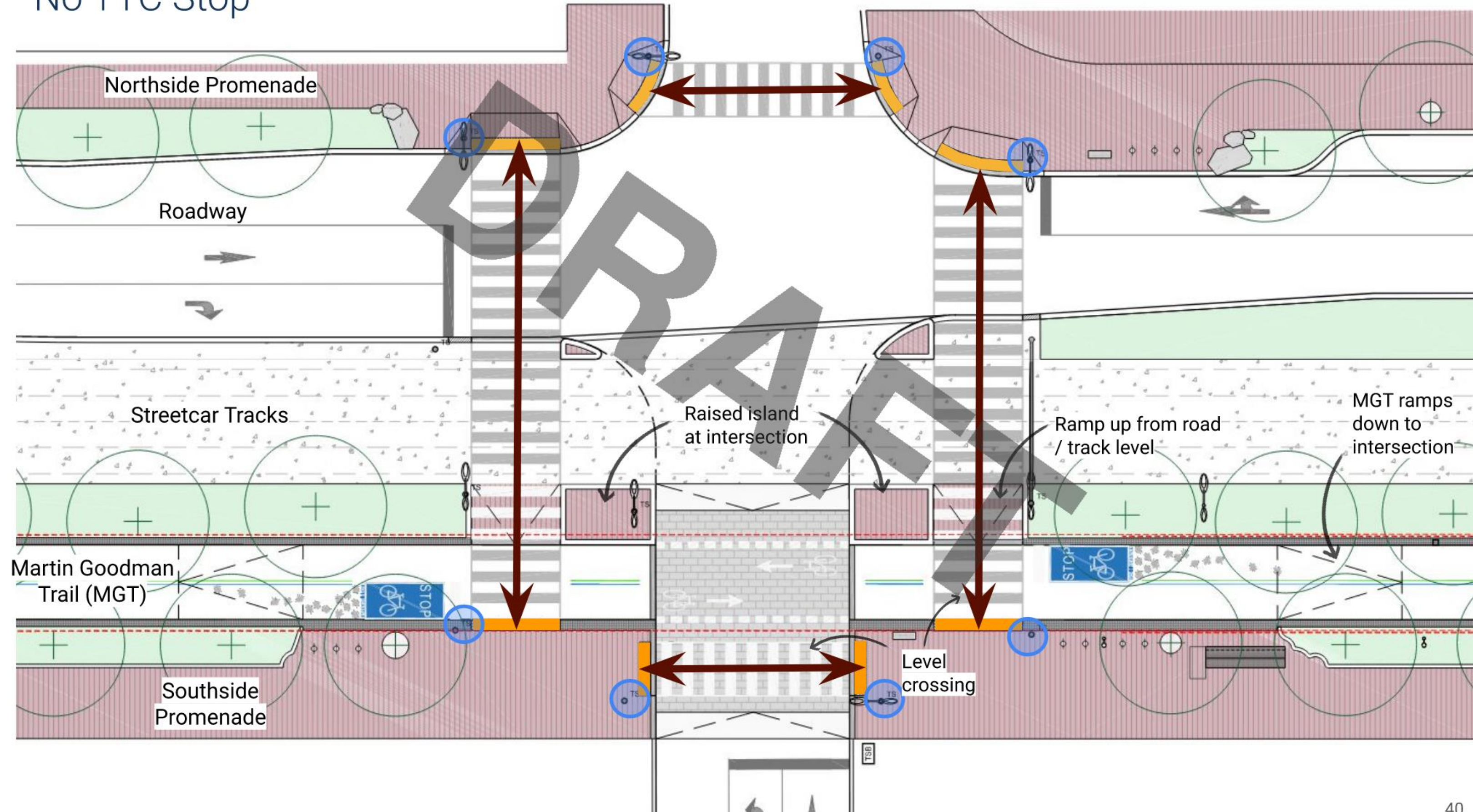
Clustering by leaf textures and fall colour



Typical Intersection

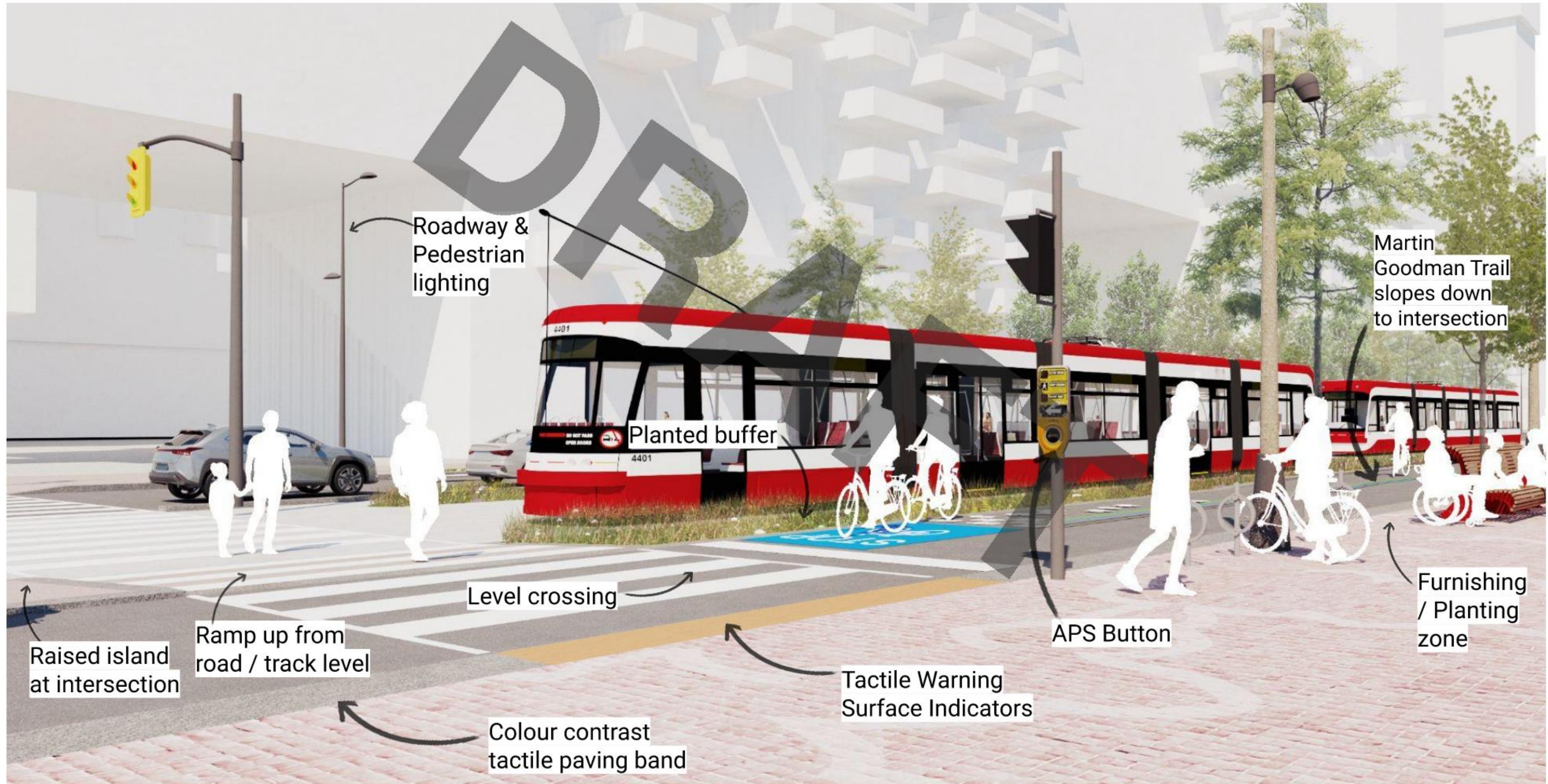
No TTC Stop

- APS Button
- Tactile Warning Surface Indicators

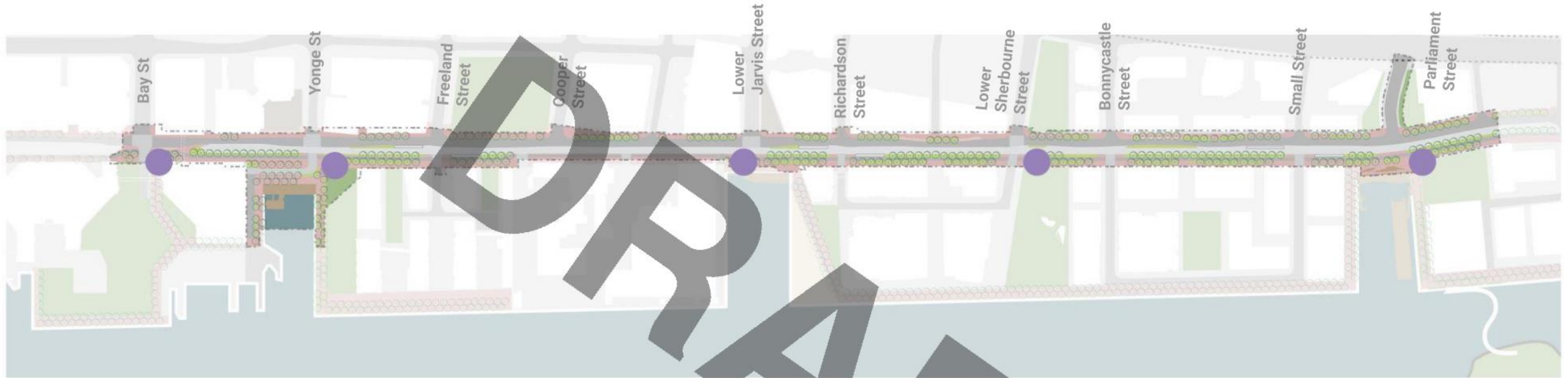


Intersections delineated with tactile and colour

Intersection without TTC Stop



Wayfinding Beacons for Improved Accessibility



- Proposed T0360 Wayfinding Location with Integrated CNIB Beacon

CNIB Beacon for Improved Waterfront Accessibility

- Canadian National Institute for the Blind (CNIB) outdoor wayfinding beacon
 - Battery powered
 - Bluetooth connection to smartphone app for blind users
- Partner with CNIB in planning and implementation, including script-writing of audio cues
- Can be embedded in a wayfinding signage post (ie. T0360, pedestrian push button pole)



Transit

Improved accessibility and functionality

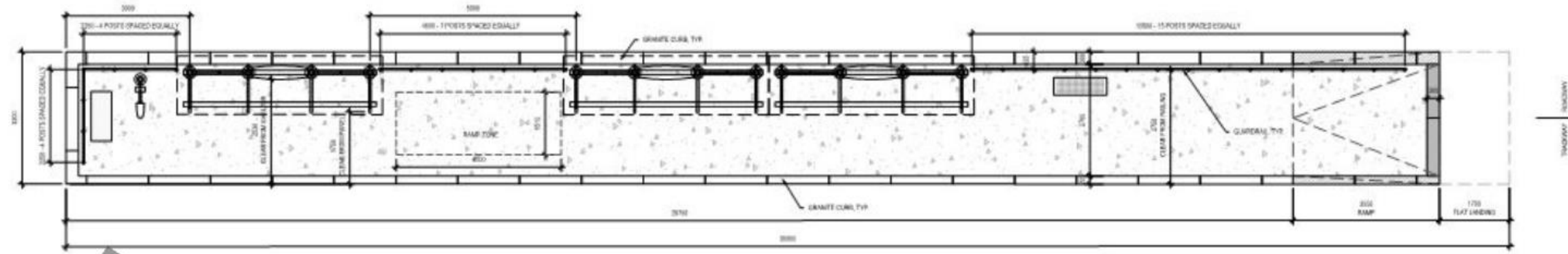
A complete street with ample room for transit

Queen's Quay East is future-proof and functional for TTC

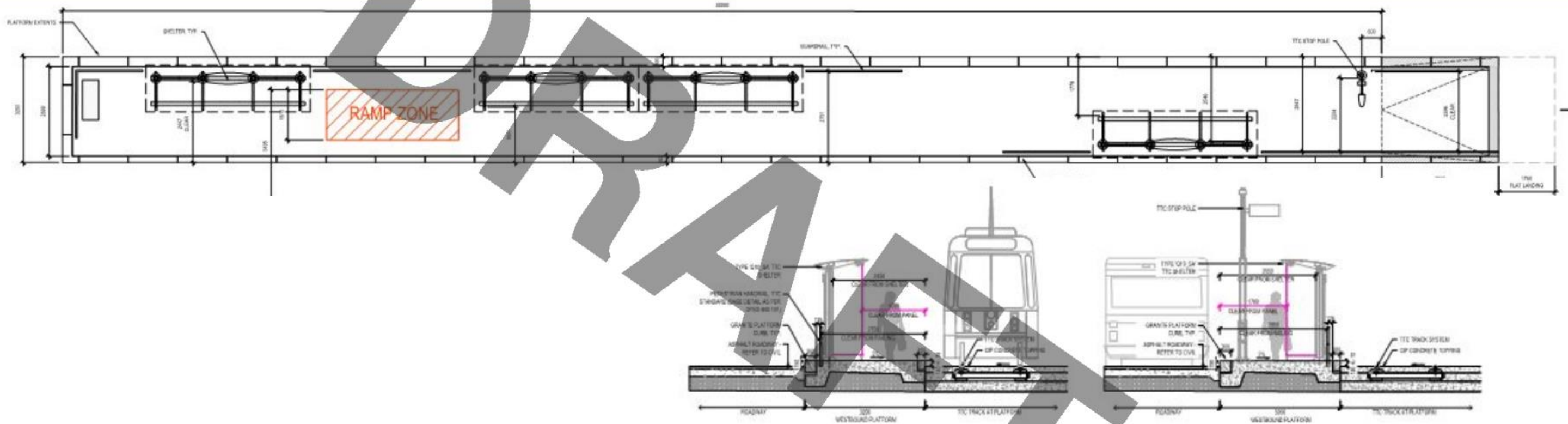


Transit Stops

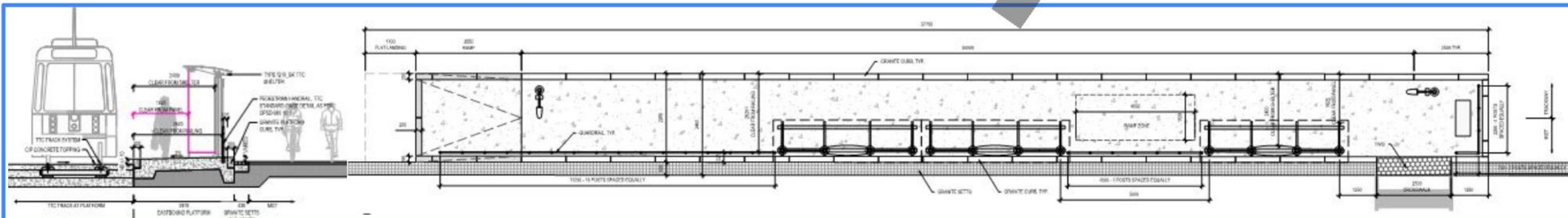
New Typologies



Typical Westbound Platform - Consistent with QQW



NEW: Double-Sided Westbound Platform

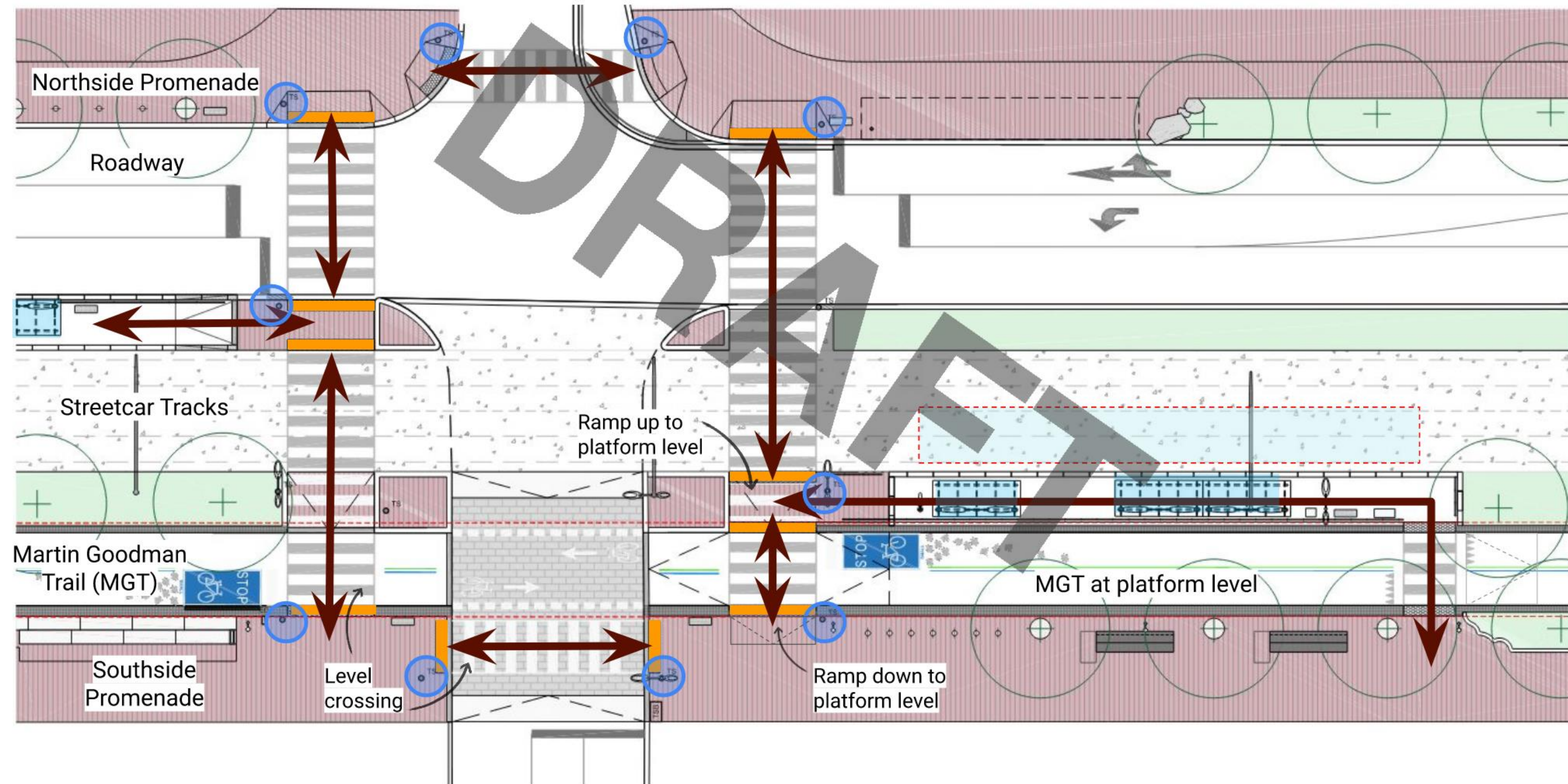


NEW: Eastbound Platform, with Secondary Access

Intersection with TTC Stop

Typical Intersection Design

-  APS Button
-  Tactile Warning Surface Indicators



DRAFT

Sitewide strategies

Lighting, stormwater, and snow storage

Key AAC Feedback

What we heard and how we responded - March 18th, 2025

Consistent clearway despite organic shapes; 4m best practice

Full “menu” of seating options should be accessible and feature companion seating

Clear **separation of MGT** to avoid danger of drifting onto trail

Snow removal strategy should allow for adequate clearway

Consider **drainage** to avoid pooling at TTC stops and on the boulevard

What We Heard

4m clearway on south side is consistent and legible

All formal and informal seating options feature **companion areas** and a range of **pull-off zones** for chair users

MGT raised from boulevard level and features **tactile edge bands**

Snow storage areas designated along MGT and TTC tracks

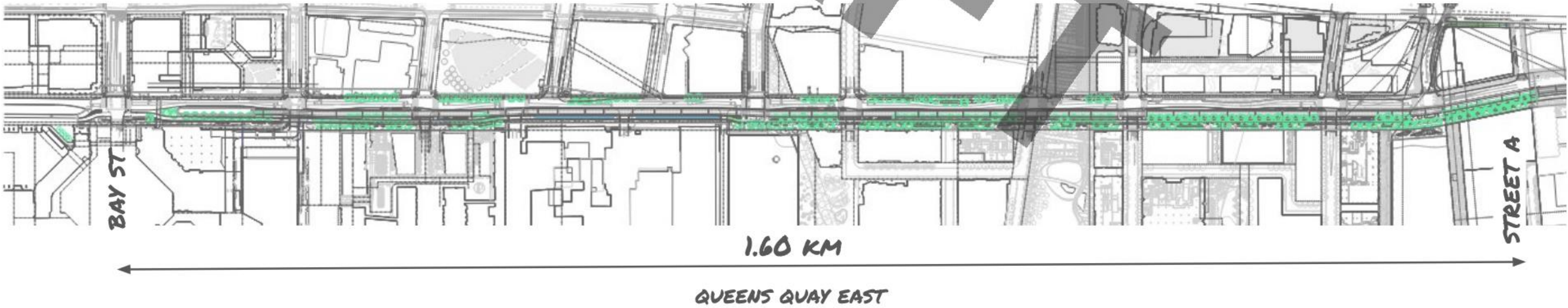
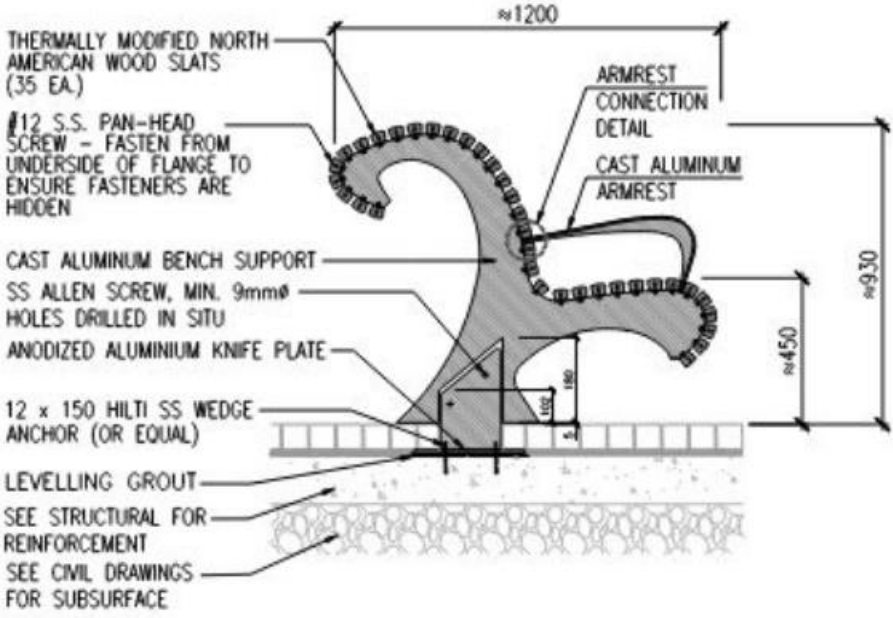
Grading plan **maximizes drainage** and avoids risk of pooling

How We Responded

Furnishing encourages socialization and mobility

Expanded bike sharing and seating variety vs QQW

Furnishing	Total QQE	Total QQW
Backed Benches	10	–
Backless Benches	19	21
Informal Seating Nooks	6	–
Bike Rings	127	279
Bike Share Docking Points	144	–
Bike Footrests	5	–
Waste Bins	30	33



Lighting Strategy



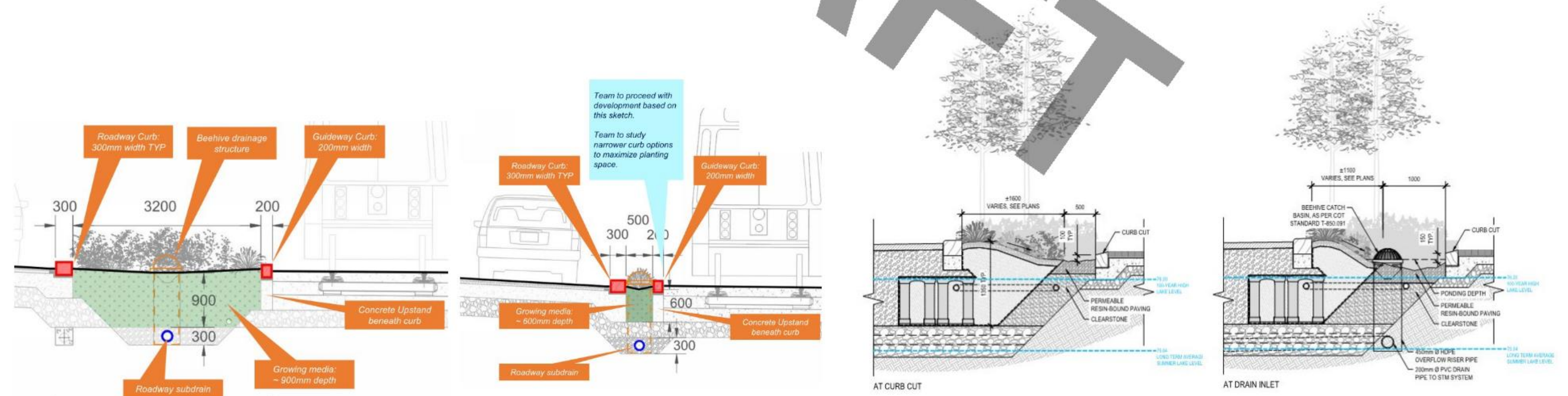
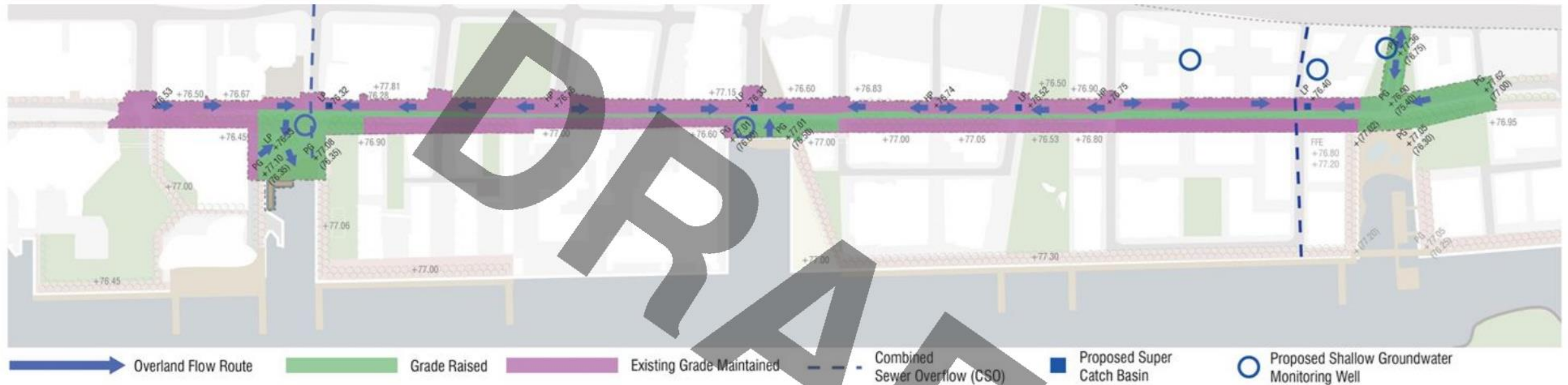
North side lighting

- Shared road and pedestrian pole
- Capella fixtures (like Lower Donlands)
- Better roadway lighting performance

South side lighting

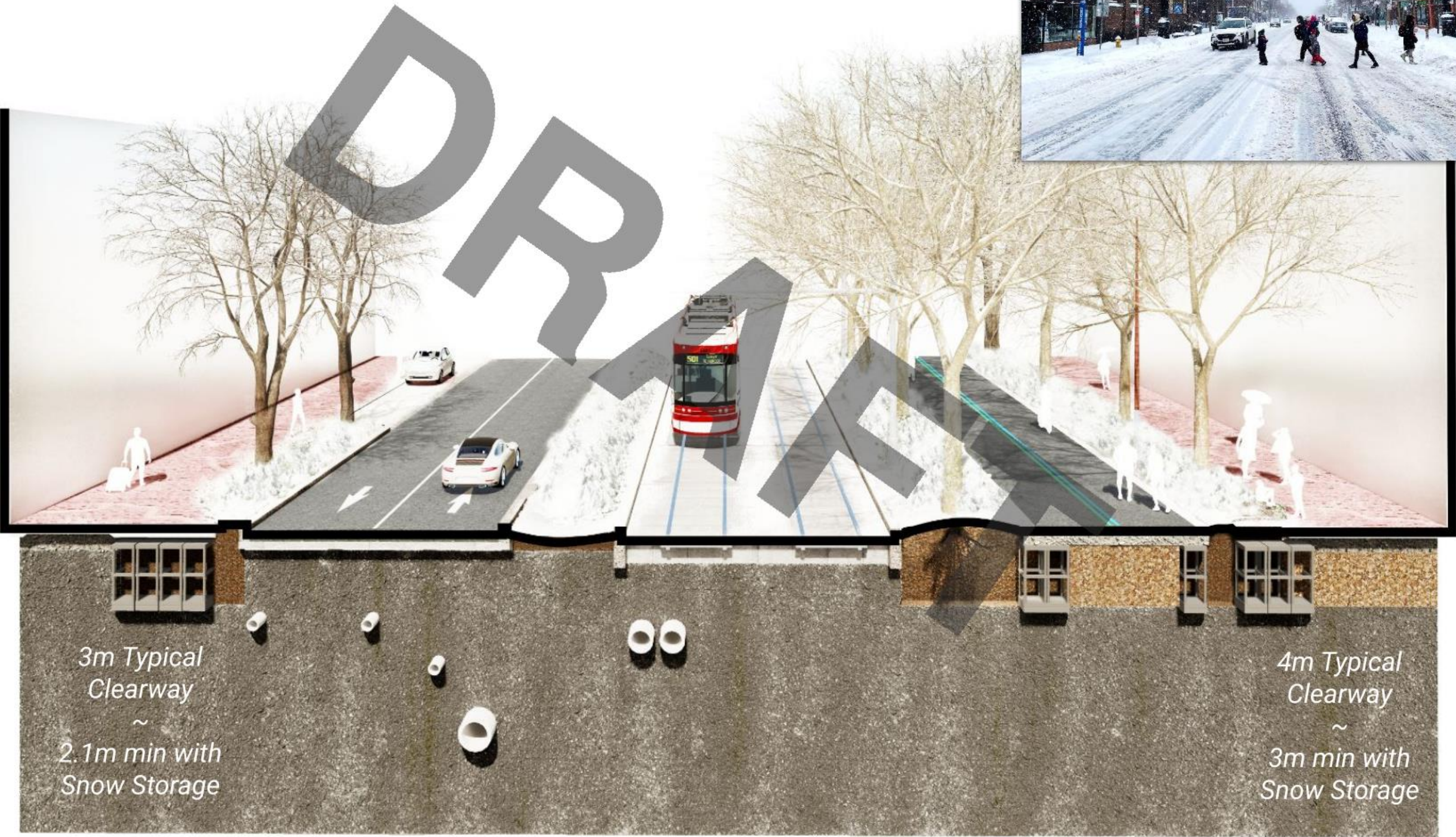
- Dedicated pedestrian pole improves visibility (min. 10 lux)
- Olivio fixture (like QQW and Water's Edge Promenade)
- Similar to Queens Quay West and Water's Edge Promenade poles

Stormwater Strategy



Accessibility Year Round

Clearway and Snow Storage



Pick-up / Drop-off Strategy

Layby Areas



■ Fire Truck Access / Bus Layby ■ Bus Layby ■ Vehicular Layby

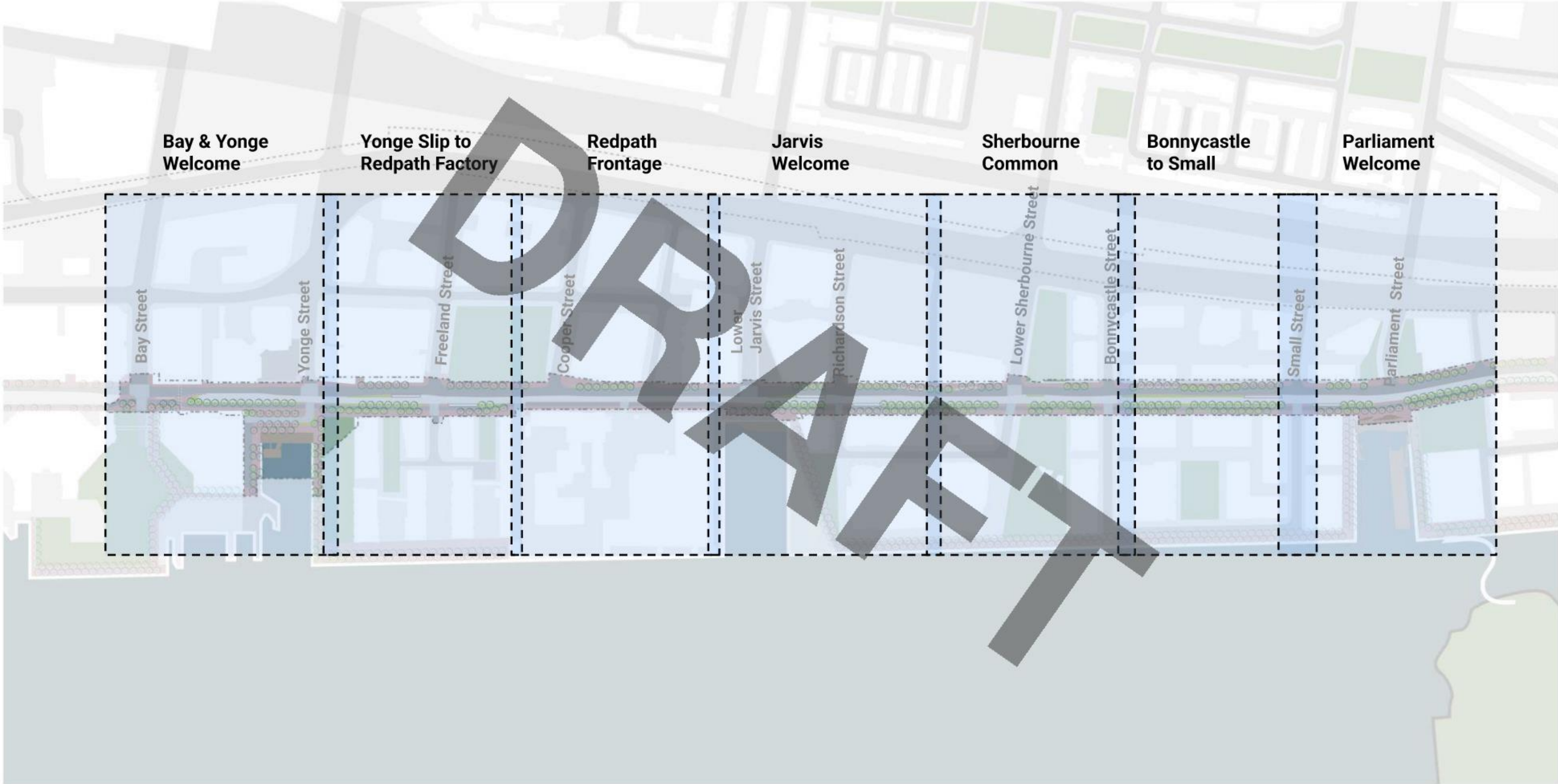
- Laybys at an intermediate grade between sidewalk and roadway.
- A detectable mountable curb delineate the edge of the layby at the roadway and at the sidewalk.



QQE Block-By-Block

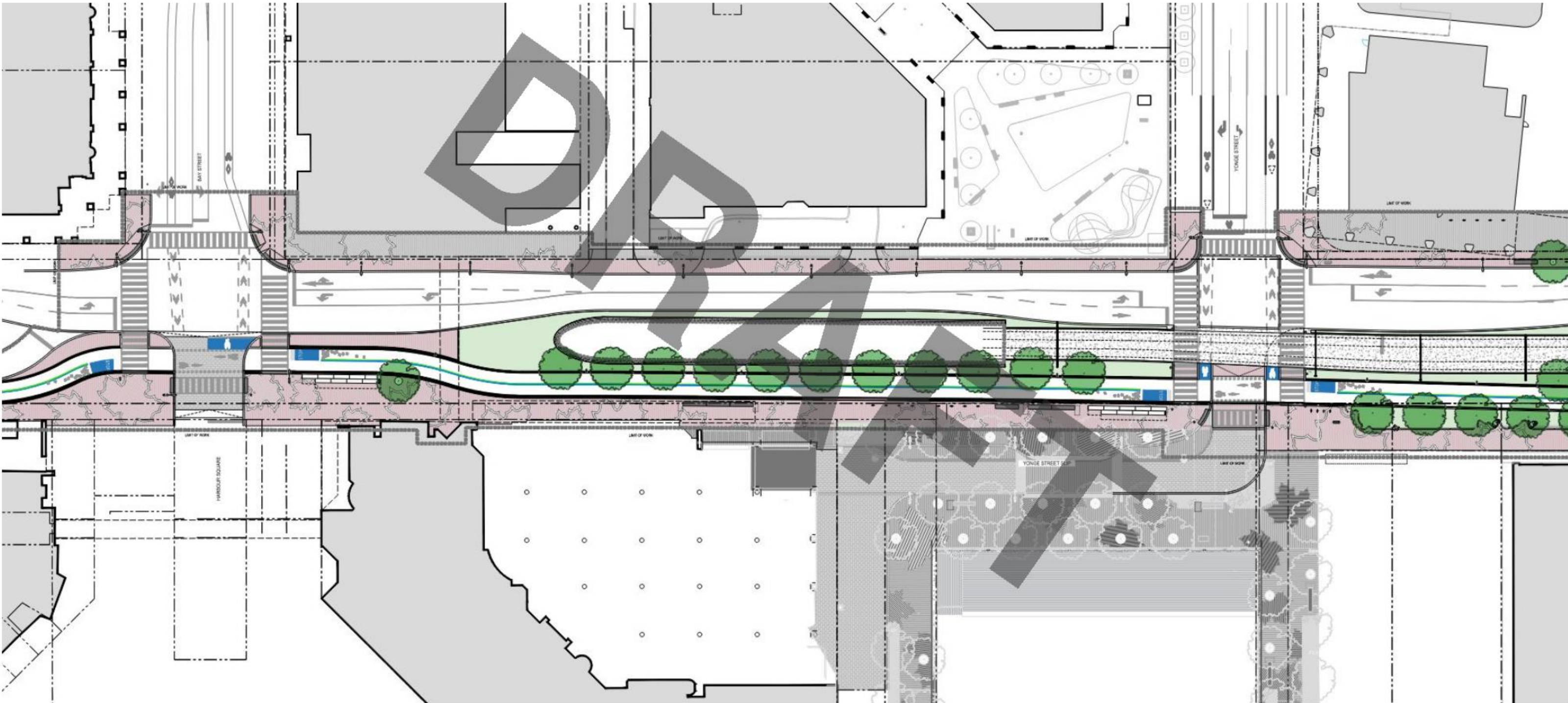
Applying the design to QQE's changing conditions

QQE Character Blocks



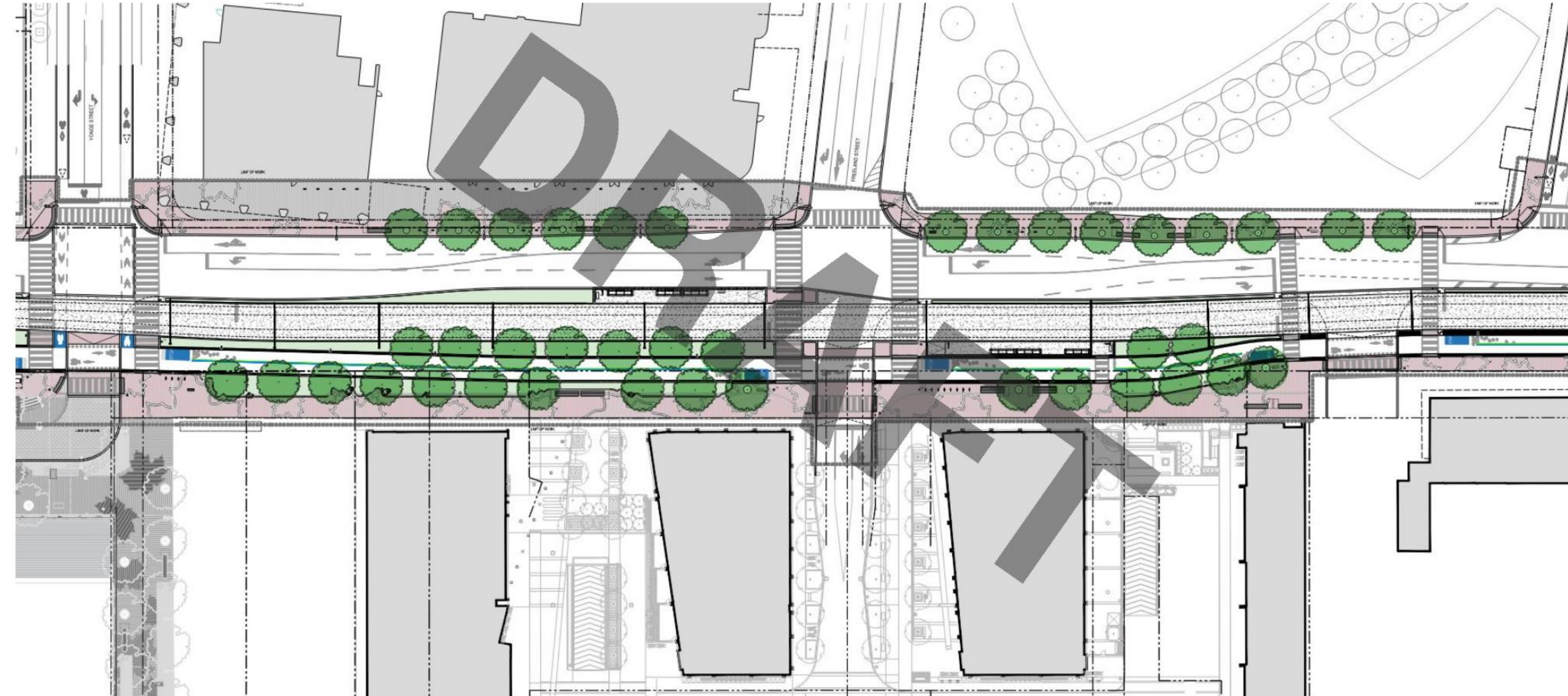
Bay & Yonge Welcome

60% Design



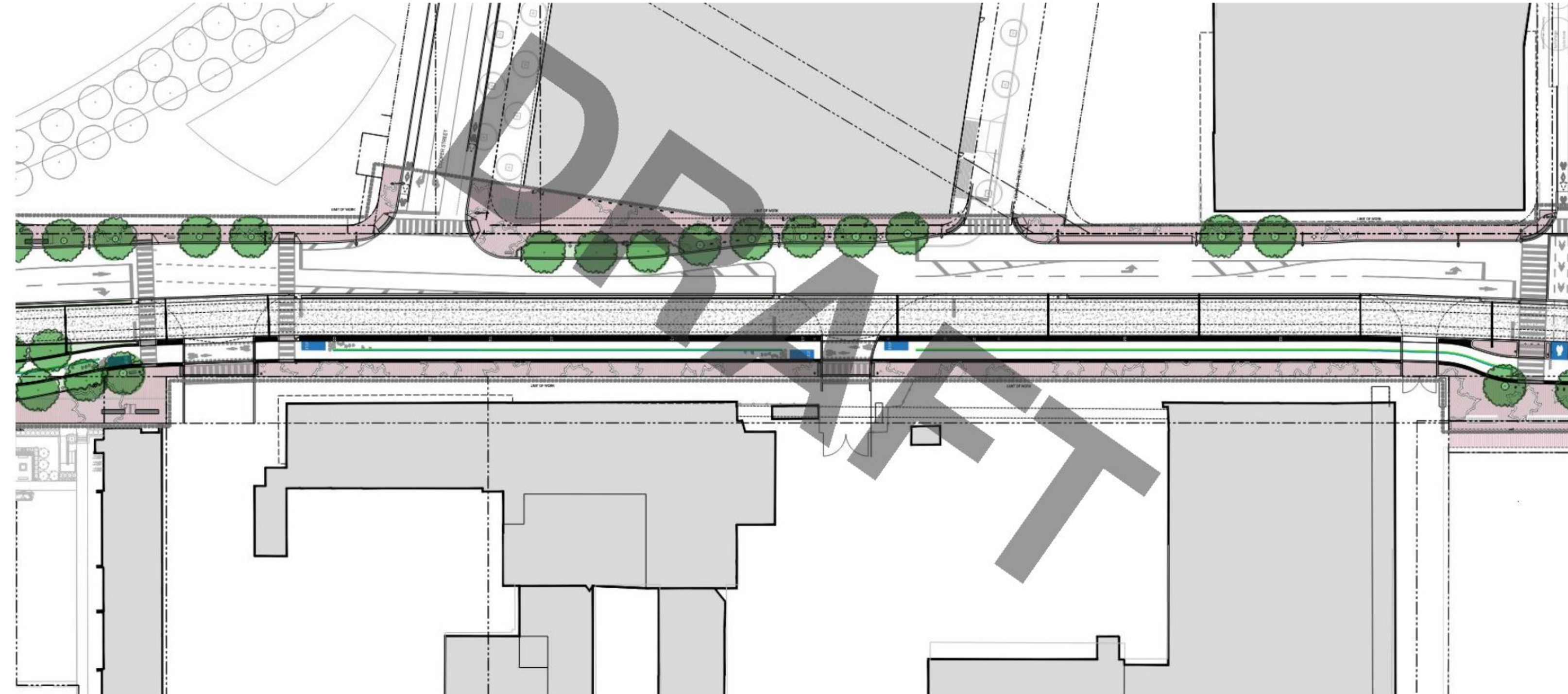
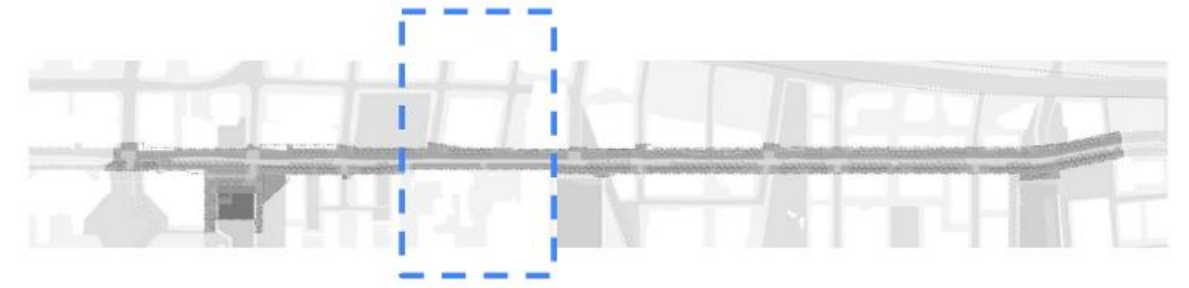
Yonge to Redpath

60% Design



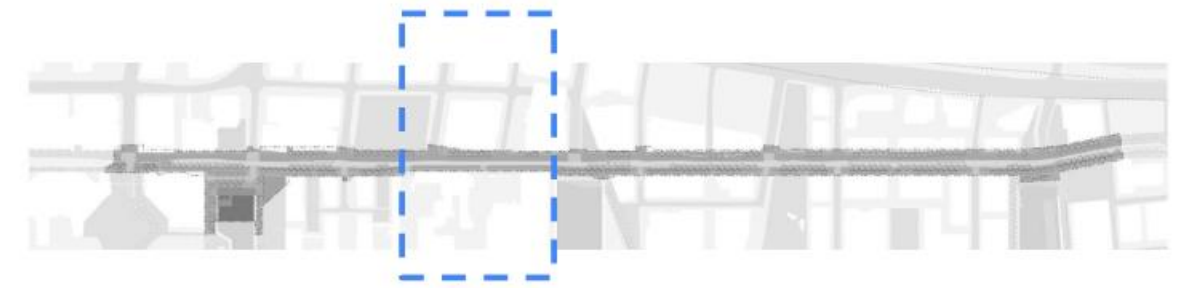
Redpath frontage

60% Design

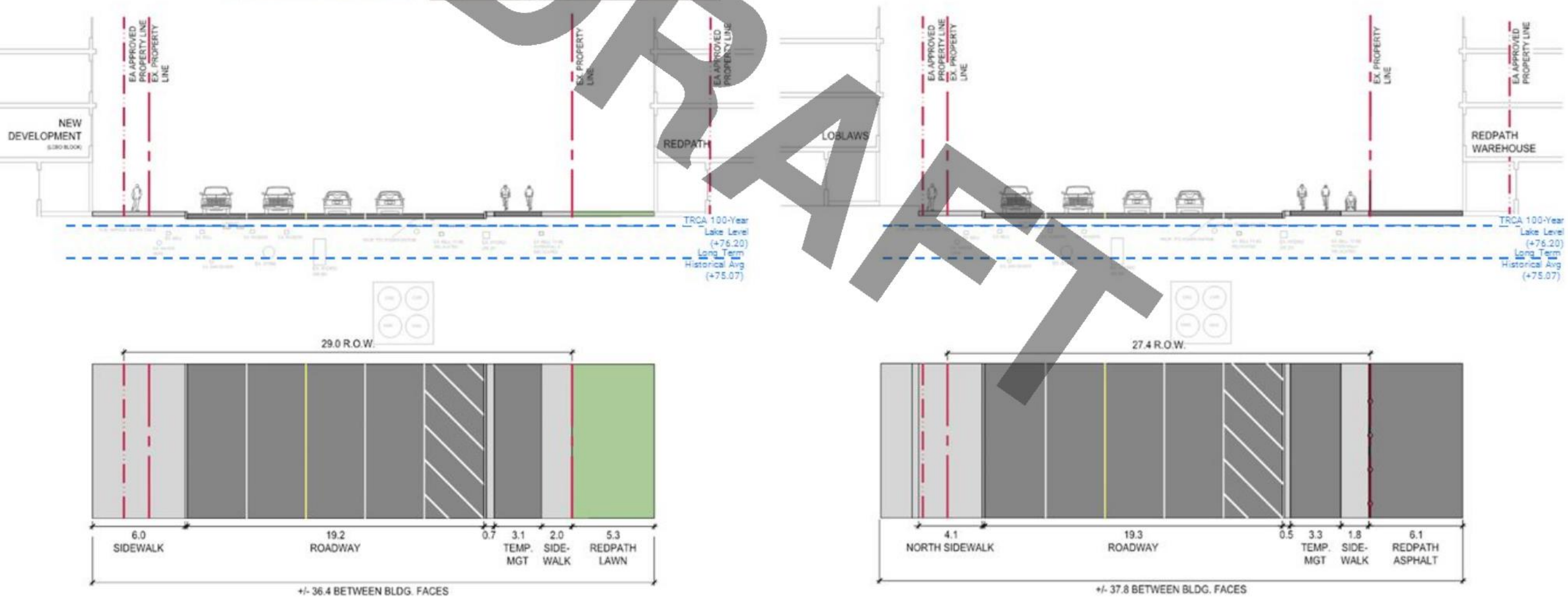


Redpath frontage

Site and Operational Constraints

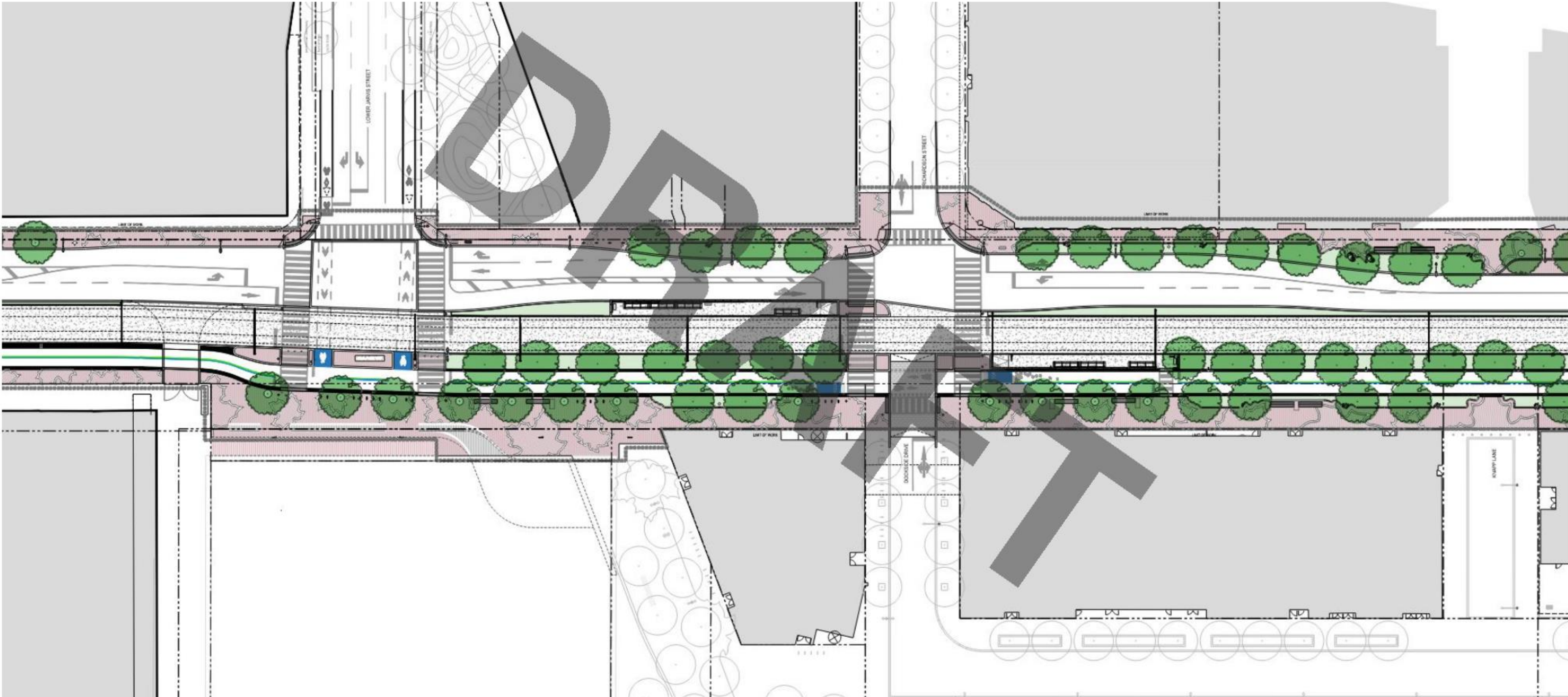
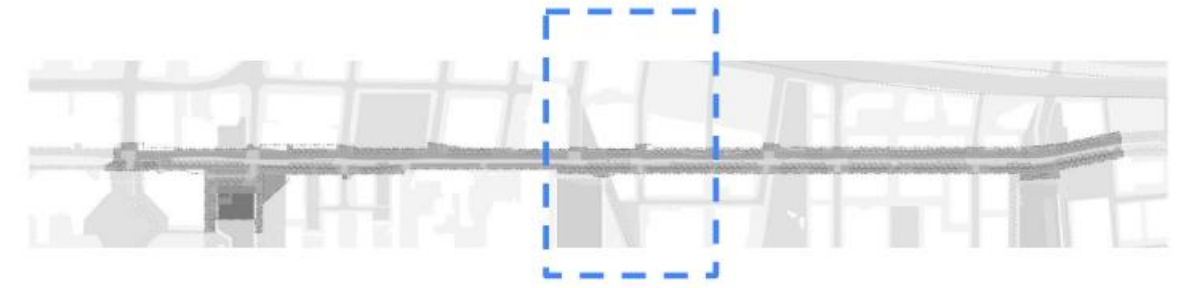


West Block



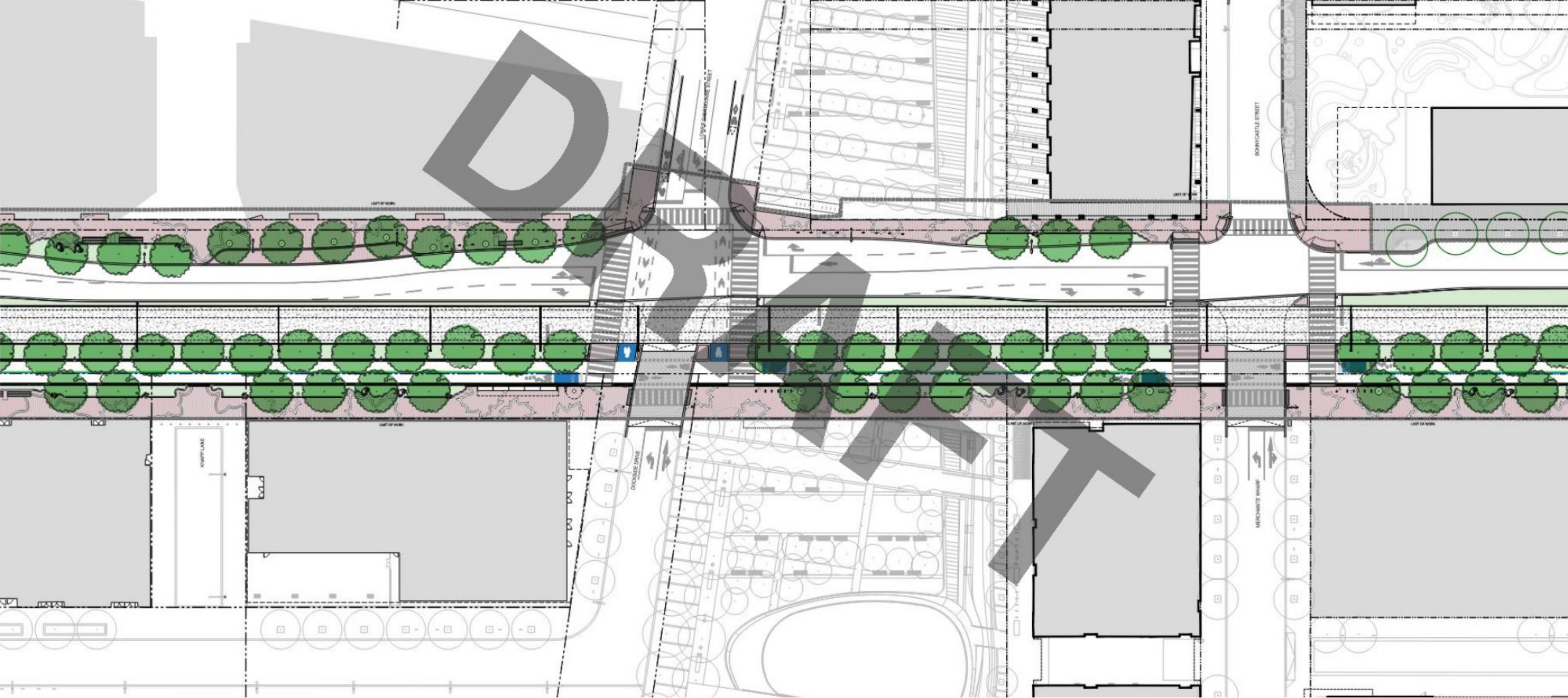
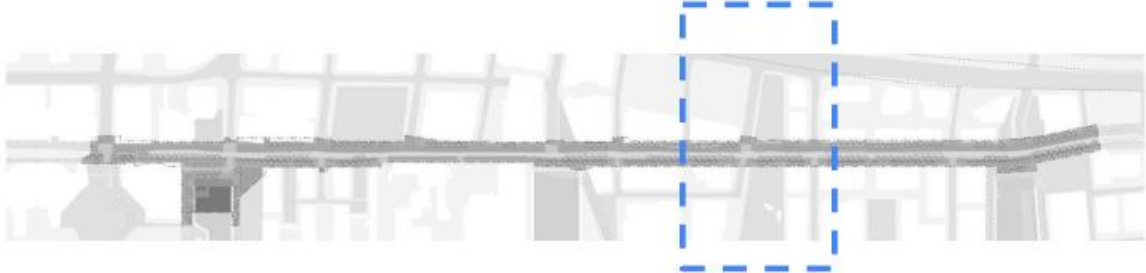
Jarvis Welcome

60% Design



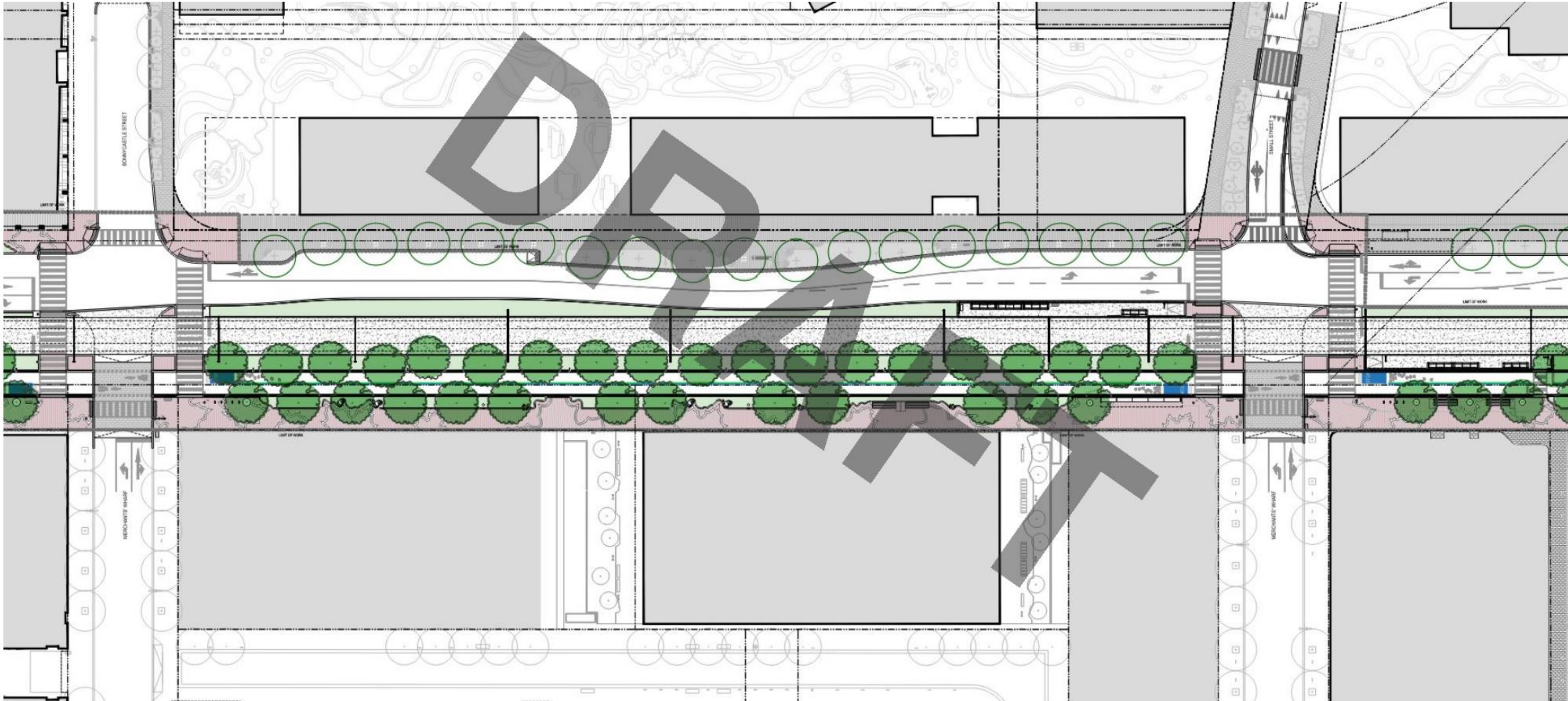
Sherbourne Commons

60% Design



Bonnycastle to Small

60% Design



Parliament Welcome

60% Design

