



Bentway Bridge Re-design

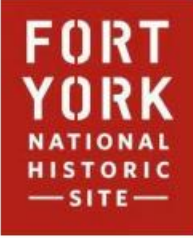
Schematic Design

April 21st, 2021

Introductions / Project Partners

Bentway Bridge Re-design

Proponent: Waterfront Toronto on behalf of the City of Toronto
Design Team: Public Work
Review Stage: Schematic Design



Project Background

March 2020 update

- The City decided to defer the construction of the Bentway Bridge project until after the Gardiner Expressway maintenance and rehab are complete in this area (scheduled for beyond 2026).
- The City indicated requirement for a grounded structure (vs suspended, as previously designed).
- The Team was to revise the bridge design to be a grounded structure which captures the Bentway spirit.

December 2020 restart

- The redesign resumed in December 2020.
- Project partners (City, Bentway, Fort York) all contributed to lists of requirements and objective for the project.

Project Background

Project History

- This is the 4th time the bridge project has come to DRP as part of a formal review process, however the first three times it was part of the larger overall project.
- Phase 1 of the project has since completed with good success.

Current Scope

- Design of the Pedestrian and cycling bridge to Issue for Tender drawings for end of July 2021 due to PTIF funding expiry date.
- Landing area Schematic Design.

Application and DRP History

- March 2016 Initial
- May 2016 Schematic Design
- July 2016 Design Development (Vote in support)
- Future: Targeting June 23, 2021 for Detailed Design

Project Background & Description

Key Objectives

- To support a safe connection and extension of the multi-use trail further east, via a bridge straddling Fort York Blvd for pedestrian and cyclists.
- To find a solution that supports the ongoing operations and maintenance requirements of the Gardiner Expressway.
- To equip the East and West landing sites with required infrastructure to support the operations, maintenance and programming for a vibrant public space to act as the eastern gateway for the Bentway/Fort York sites.

Design Requirements (summarized from the Design Brief):

- Safe crossing of Fort York Boulevard for pedestrians and cyclists.
- Substructure and superstructure structurally independent from the Gardiner structure.
- Allow a 2m clearance between the bridge edges and any structural component including foundation of the existing Gardiner structure including at both landings.
- Accessibility- meets or exceeds AODA requirements.
- The bridge and the landing should be fully integrated.
- Provide viewing onto Fort York National Historic site.
- Provide storage to meet Bentway storage requirements in the Landing.

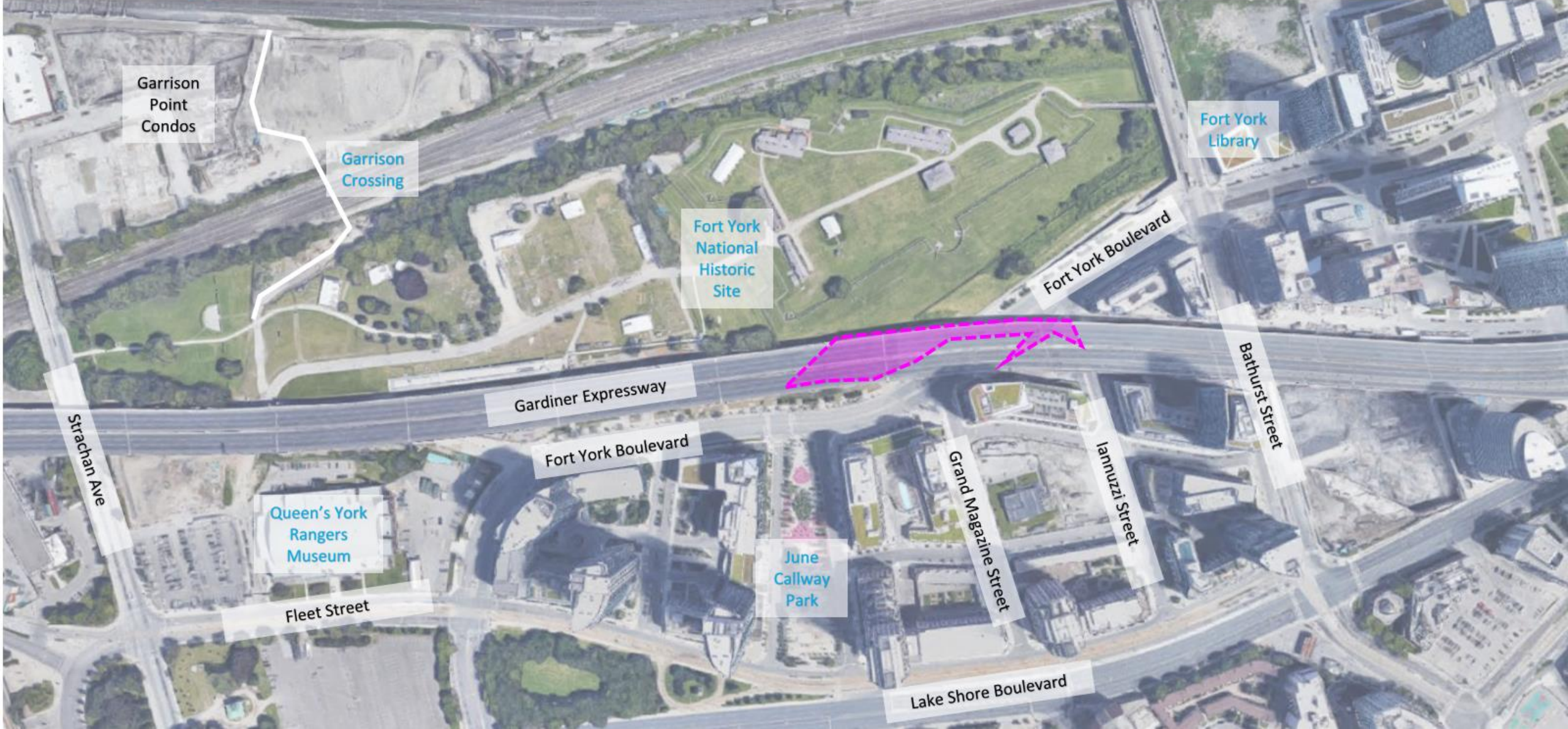
Project Site Existing Context

Bentway Bridge Re-design

Proponent: Waterfront Toronto on behalf of the City of Toronto

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Review Stage: Schematic Design



Project Site

Bentway Phase 1 Context

Bentway Bridge Re-design

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Design Team: Public Work

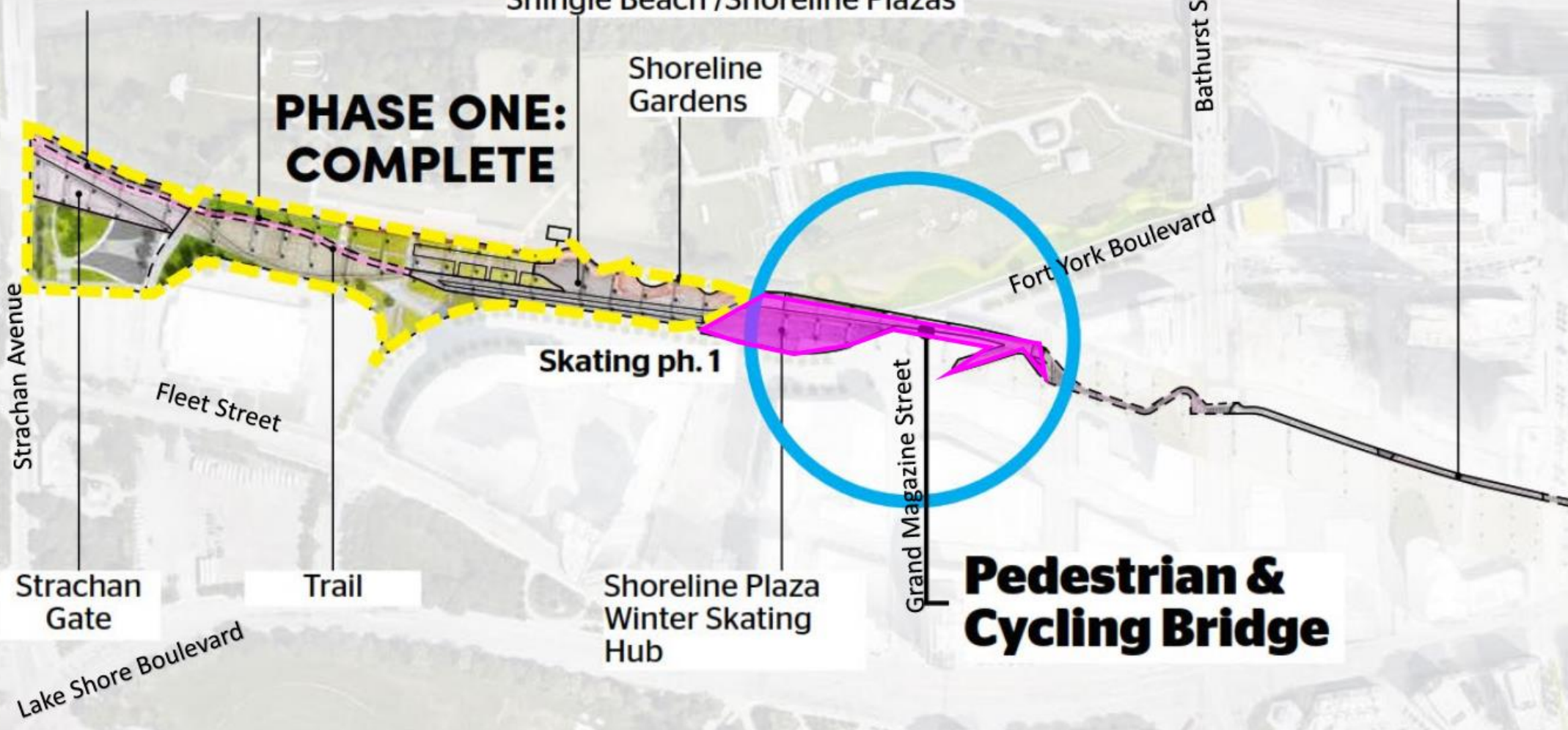
Review Stage: Schematic Design

Landscape, Rigging/ Lights
Strachan Performance
Rooms

Enhance Finish
Fort Active Rooms

**Landscape +
Rigging/Lights**
Shingle Beach /Shoreline Plazas

**Trail
Connection**



Site Context

Looking South along Fort York Blvd.

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Review Stage: Schematic Design



Site Context Looking East

Bentway Bridge Re-design

Proponent: Waterfront Toronto on behalf of the City of Toronto

Design Team: Public Work

Review Stage: Schematic Design



Site Context

Looking West towards Landing

Bentway Bridge Re-design

Proponent: Waterfront Toronto on behalf of the City of Toronto

Design Team: Public Work

Review Stage: Schematic Design



Site Context

Looking Northeast from Landing

Bentway Bridge Re-design

Proponent: Waterfront Toronto on behalf of the City of Toronto

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Review Stage: Schematic Design



Project Approval Stage

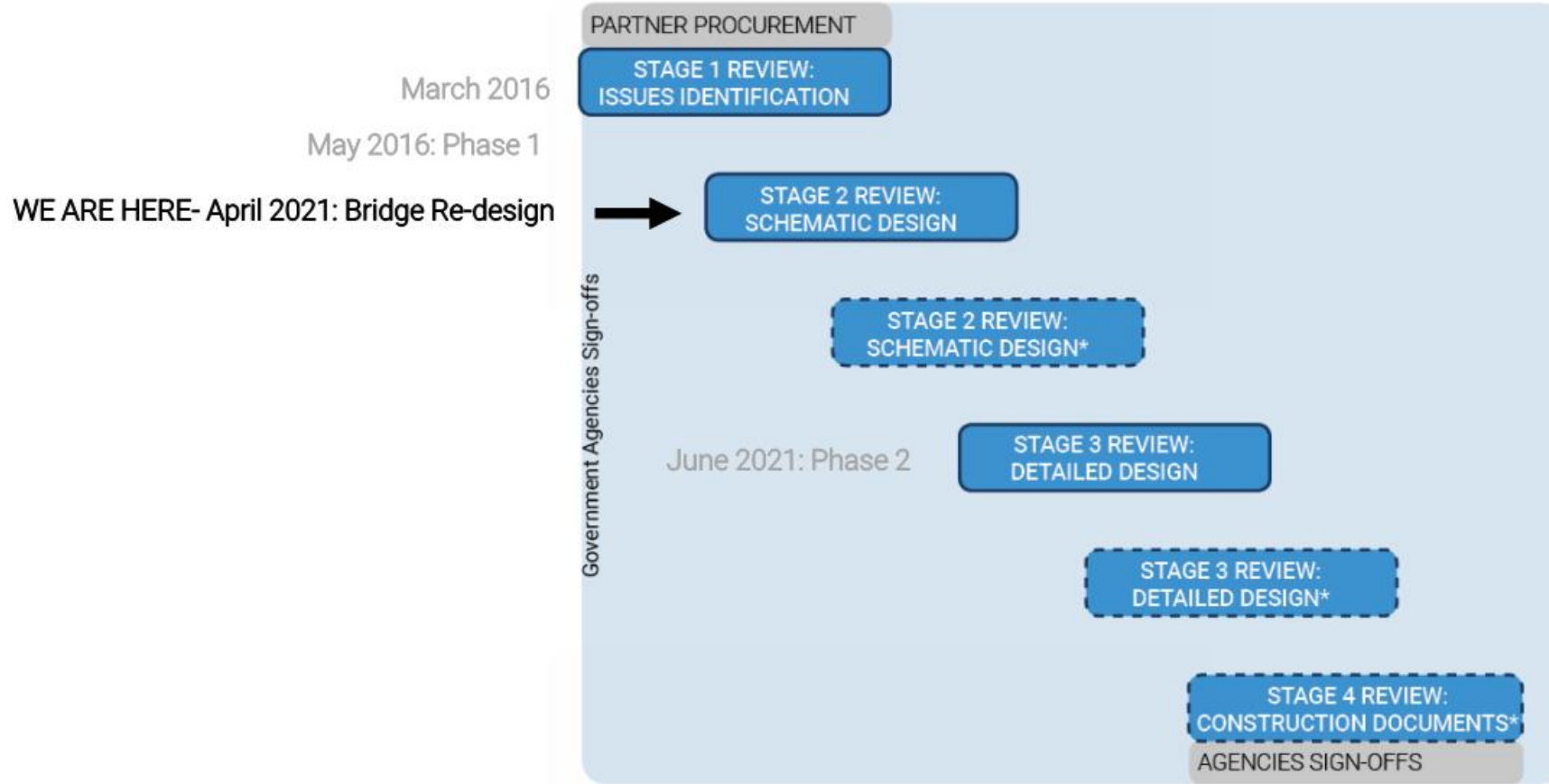
DRP Stream 2: Public land

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Review Stage: Schematic Design



Areas for Panel Consideration

Waterfront Toronto

Bentway Bridge Re-design

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Review Stage: Schematic Design

Does the redesign of the bridge meet the primary goals and design requirements?

- provide a safe crossing for pedestrians and cyclists.
- accessible for all different age groups.

Does the Panel support the design integration between the bridge and landing?

Does the redesign reflect the character and quality of the first phase of the Bentway? Does the proposed materiality support the delivery of a cohesive vision?

Does the Panel have any feedback on the ecological performance of the landscape?

BENTWAY 2021-04-21

**The Bentway Bridge
- Design Update -
Waterfront Toronto DRP**

**PUBLIC
WORK**

**THE BENTWAY AMIDST A GROWING NETWORK
OF PUBLIC CONNECTIONS**

STRACHAN

SPADINA

DRAFT



**THE BENTWAY AMIDST A GROWING NETWORK
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STRACHAN

SPADINA

DRAFT

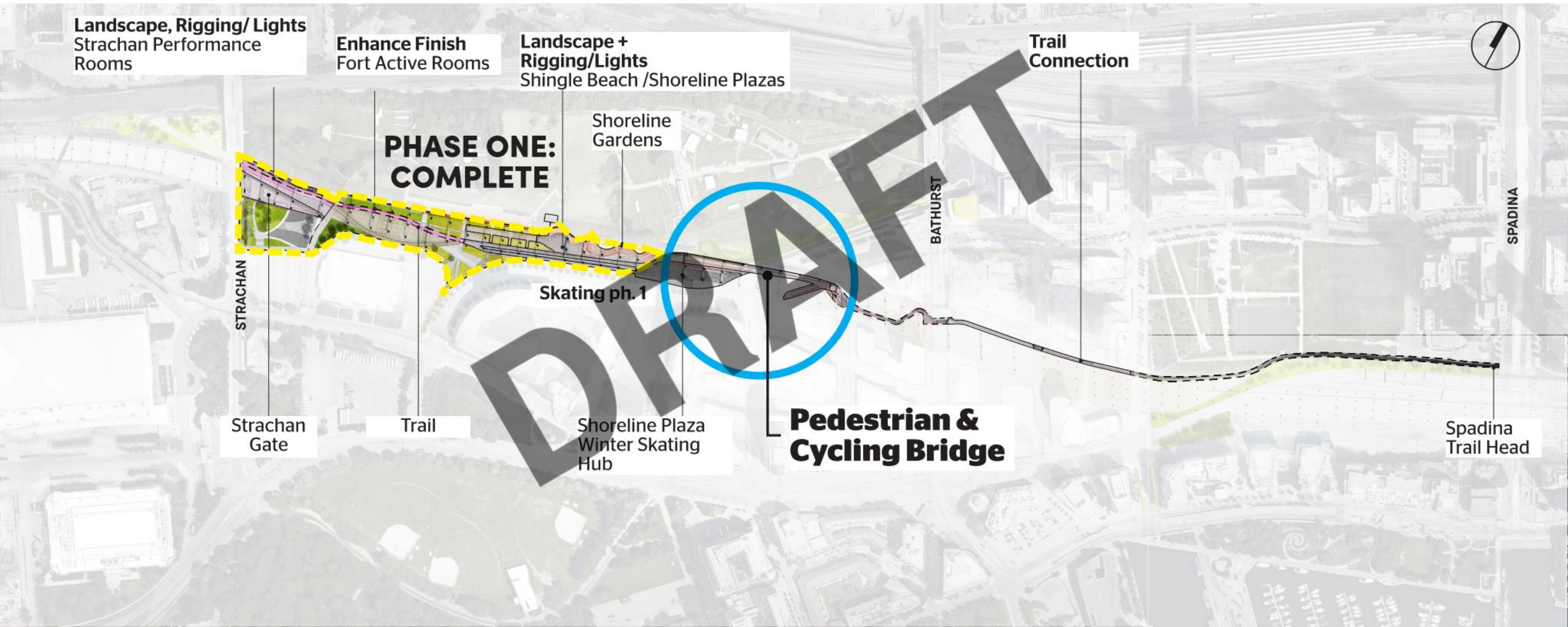


We're glad
you made it.

Welcome to
the Bentway!

DRAFT

HEART OF THE BENTWAY PROGRAMMING



Bents 38-52

West Edge
Creative Action Hub

Bents 53-97

Fort Central
Programmed Landscape

Bents 98-118

East Community
Community Link and Amenities

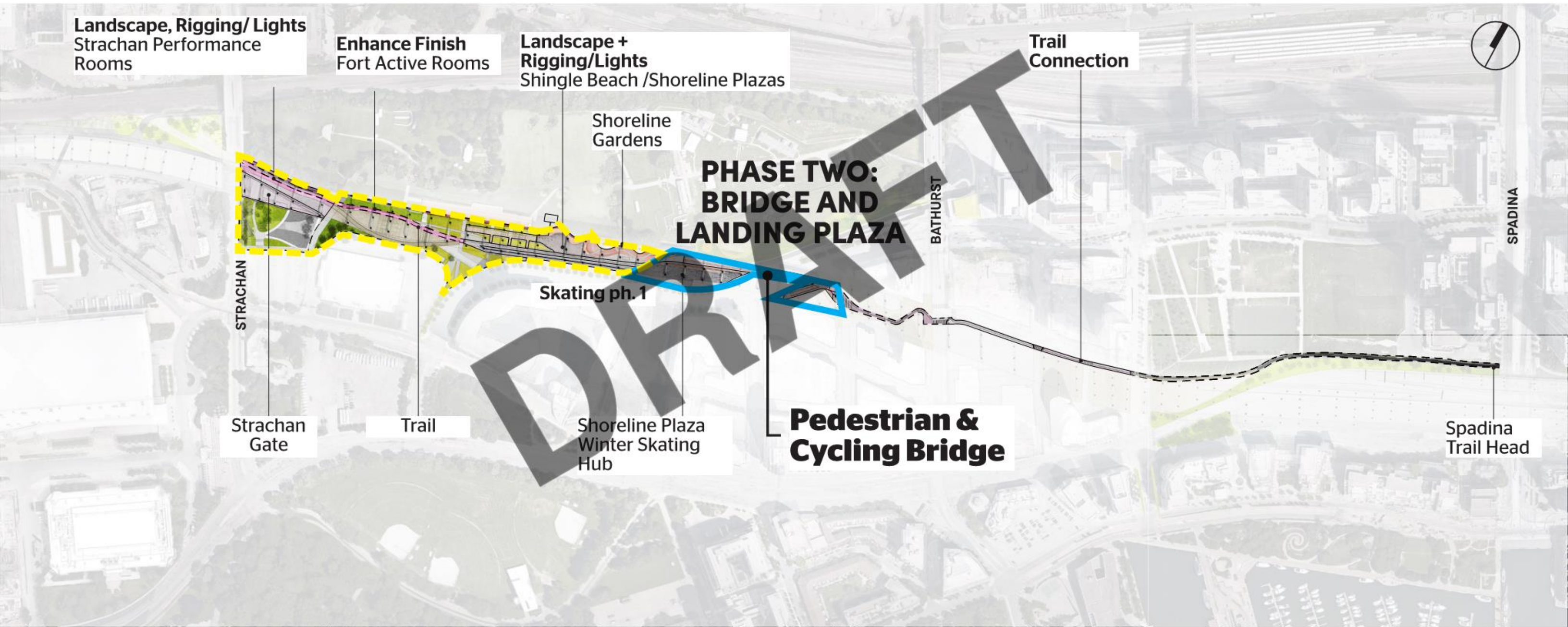
HEART OF THE BENTWAY PROGRAMMING



The Bentway



THE BENTWAY BRIDGE & LANDING PLAZA PROJECT



Bents 38-52

West Edge
Creative Action Hub

Bents 53-97

Fort Central
Programmed Landscape

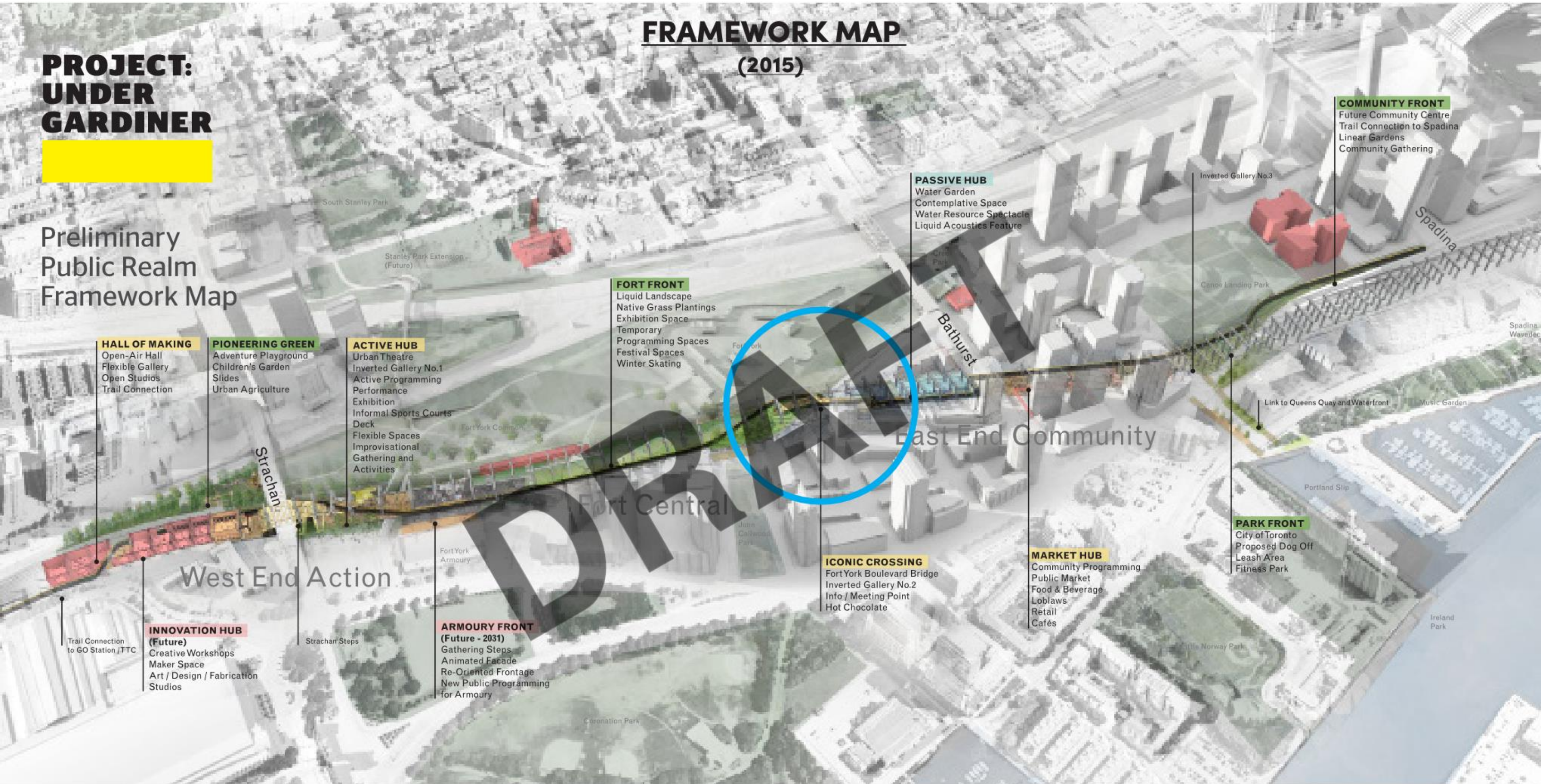
Bents 98-118

East Community
Community Link and Amenities

PROJECT: UNDER GARDINER

Preliminary Public Realm Framework Map

FRAMEWORK MAP (2015)



HALL OF MAKING
Open-Air Hall
Flexible Gallery
Open Studios
Trail Connection

PIONEERING GREEN
Adventure Playground
Children's Garden
Slides
Urban Agriculture

ACTIVE HUB
Urban Theatre
Inverted Gallery No.1
Active Programming
Performance
Exhibition
Informal Sports Courts
Deck
Flexible Spaces
Improvisational
Gathering and
Activities

FORT FRONT
Liquid Landscape
Native Grass Plantings
Exhibition Space
Temporary
Programming Spaces
Festival Spaces
Winter Skating

PASSIVE HUB
Water Garden
Contemplative Space
Water Resource Spectacle
Liquid Acoustics Feature

COMMUNITY FRONT
Future Community Centre
Trail Connection to Spadina
Linear Gardens
Community Gathering

ICONIC CROSSING
Fort York Boulevard Bridge
Inverted Gallery No.2
Info / Meeting Point
Hot Chocolate

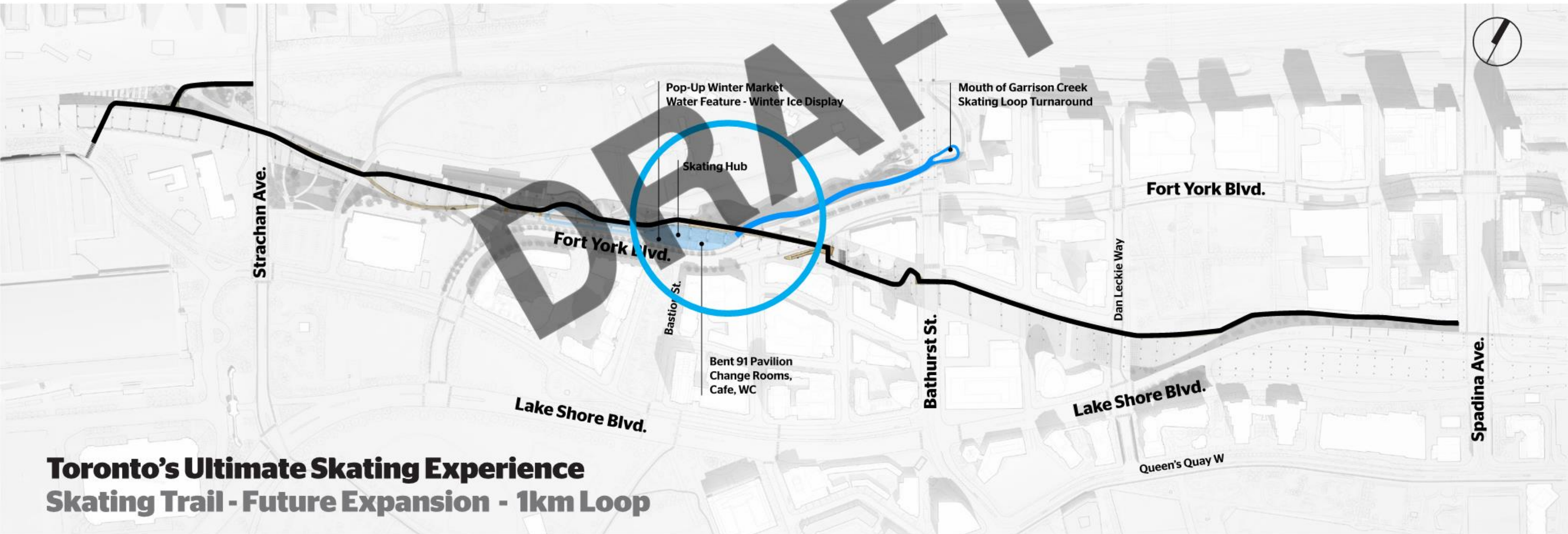
MARKET HUB
Community Programming
Public Market
Food & Beverage
Loblaws
Retail
Cafés

PARK FRONT
City of Toronto
Proposed Dog Off
Leash Area
Fitness Park

**ARMOURY FRONT
(Future - 2031)**
Gathering Steps
Animated Facade
Re-Oriented Frontage
New Public Programming
for Armoury

**INNOVATION HUB
(Future)**
Creative Workshops
Maker Space
Art / Design / Fabrication
Studios

REINFORCING THE CULTURAL LANDSCAPE FUTURE PROJECTS - SKATING EXTENSION



Toronto's Ultimate Skating Experience
Skating Trail - Future Expansion - 1km Loop

THE BENTWAY CURRENT DIS-CONNECT

Strachan Ave.

Fort York Blvd.

Lake Shore Blvd.

Bathurst St.

DRAFT

PUBLIC WORK



**PREVIOUS BRIDGE STRATEGY:
'SUSPENDED' - LEVERAGING THE GARDINER STRUCTURE**



**CURRENT BRIDGE STRATEGY:
'GROUNDED' - RENEWED EMPHASIS ON PLACEMAKING
AND PROGRAMMING**



**BACK TO THE BENTWAY ROOTS -
WORKING WITH THE STRUCTURE WE'VE INHERITED**

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**PUBLIC
WORK**

Design Review Panel

NET - F

PT



TELESCOPIC EXPERIENCE

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PUBLIC WORK

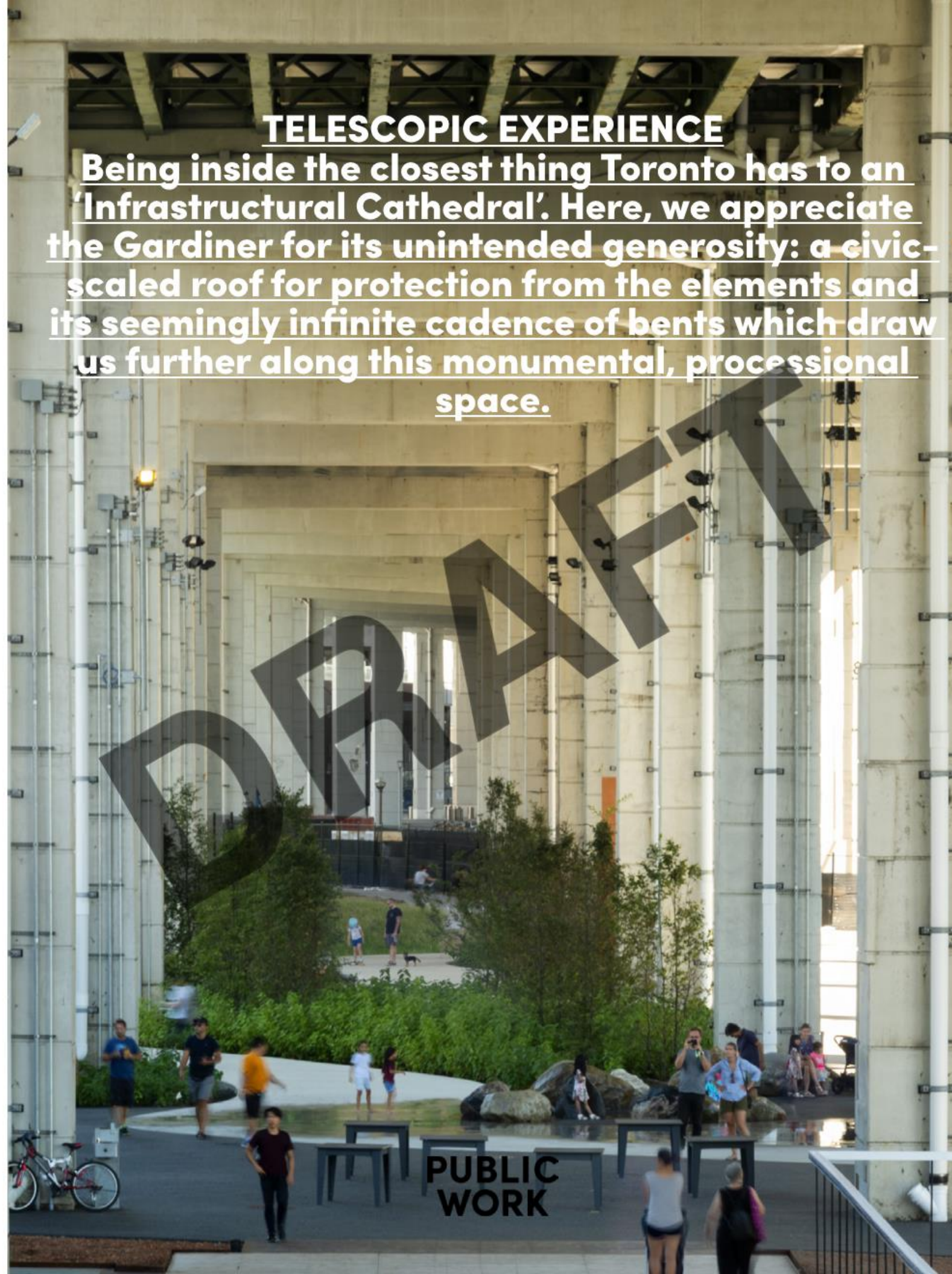
MATCH LINE - SECTION 'B'

MATCH LINE - SECTION 'C'



TELESCOPIC EXPERIENCE

Being inside the closest thing Toronto has to an 'Infrastructural Cathedral'. Here, we appreciate the Gardiner for its unintended generosity: a civic-scaled roof for protection from the elements and its seemingly infinite cadence of bents which draw us further along this monumental, processional space.



**PUBLIC
WORK**

TELESCOPIC EXPERIENCE

Being inside the closest thing Toronto has to an 'Infrastructural Cathedral'. Here, we appreciate the Gardiner for its unintended generosity: a civic-scaled roof for protection from the elements and its seemingly infinite cadence of bents which draw us further along this monumental, processional space.

DRAFT

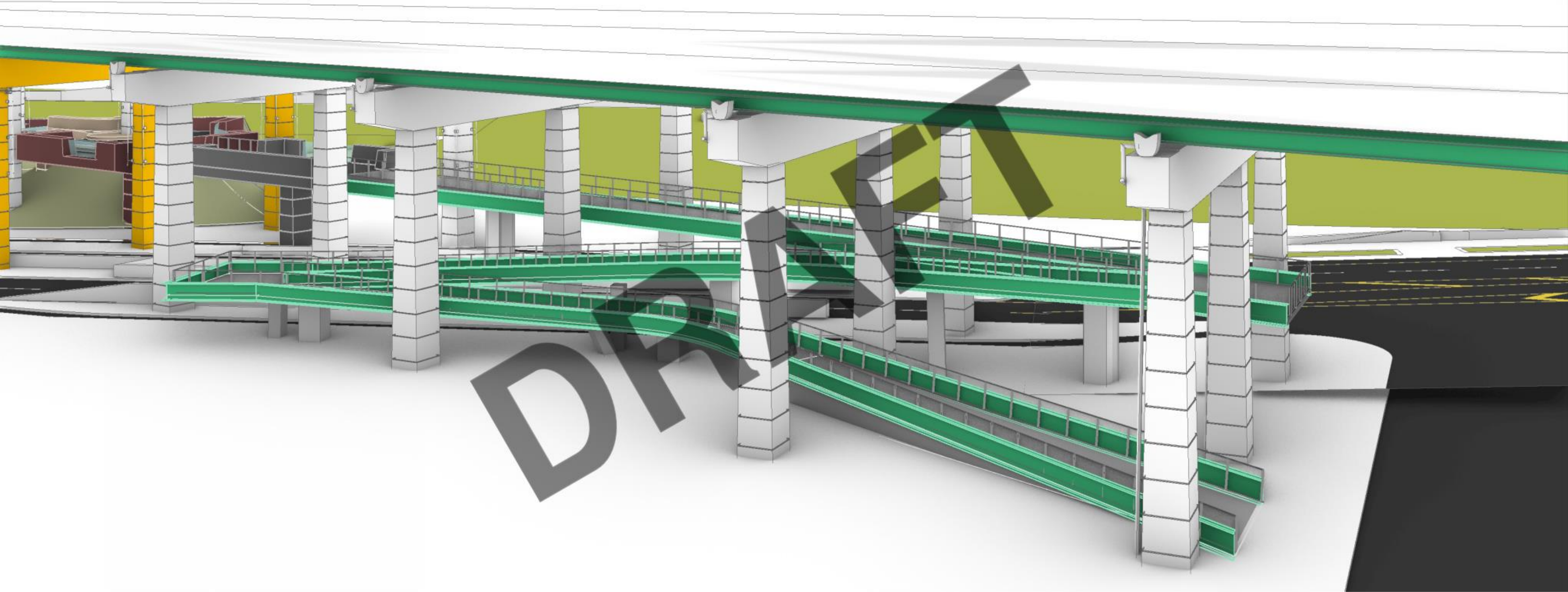
**PUBLIC
WORK**

NEW STRATEGIC EMPHASIS:
BRIDGE vs LANDINGS



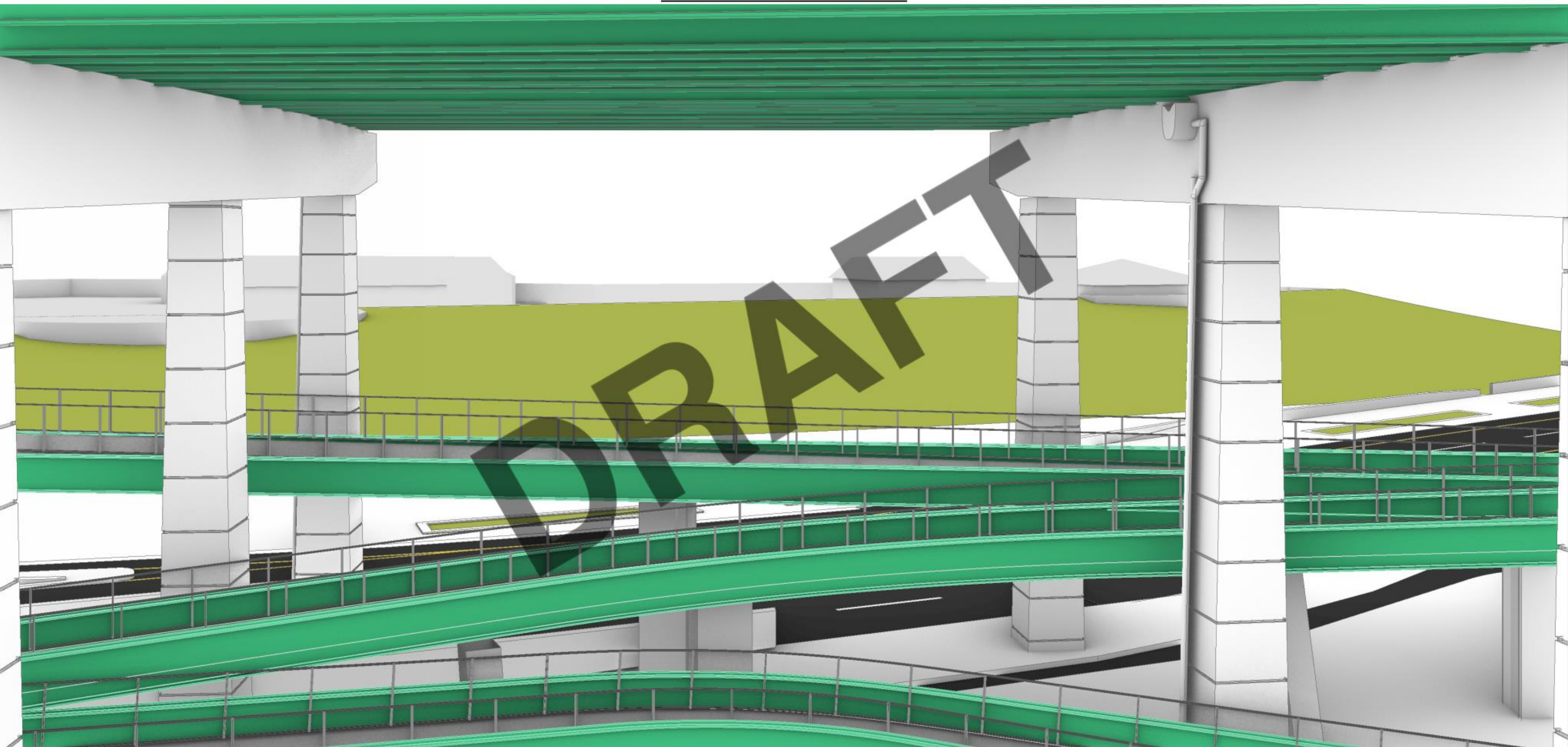
**PUBLIC
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EAST SWITCHBACK
'VERY GARDINER'



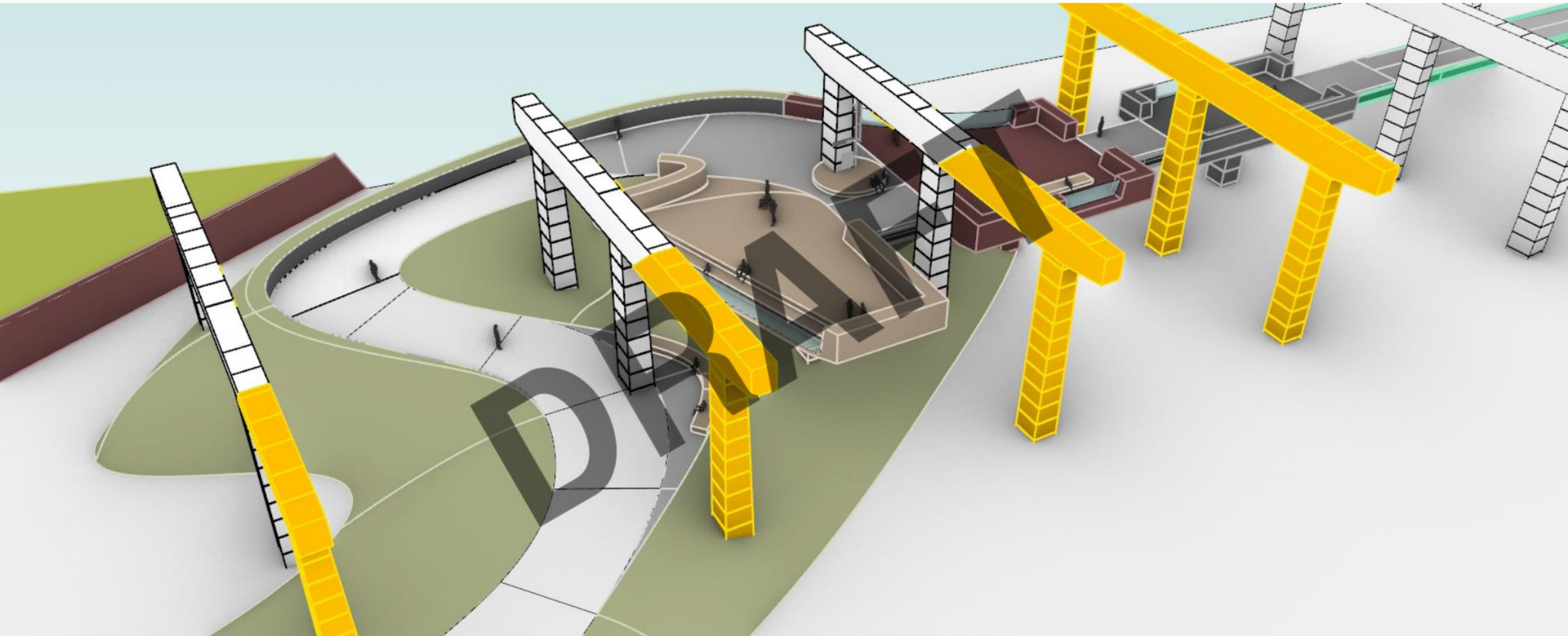
**PUBLIC
WORK**

EAST SWITCHBACK
'VERY GARDINER'



**PUBLIC
WORK**

WEST LANDING
WELCOME TO THE BENTWAY!



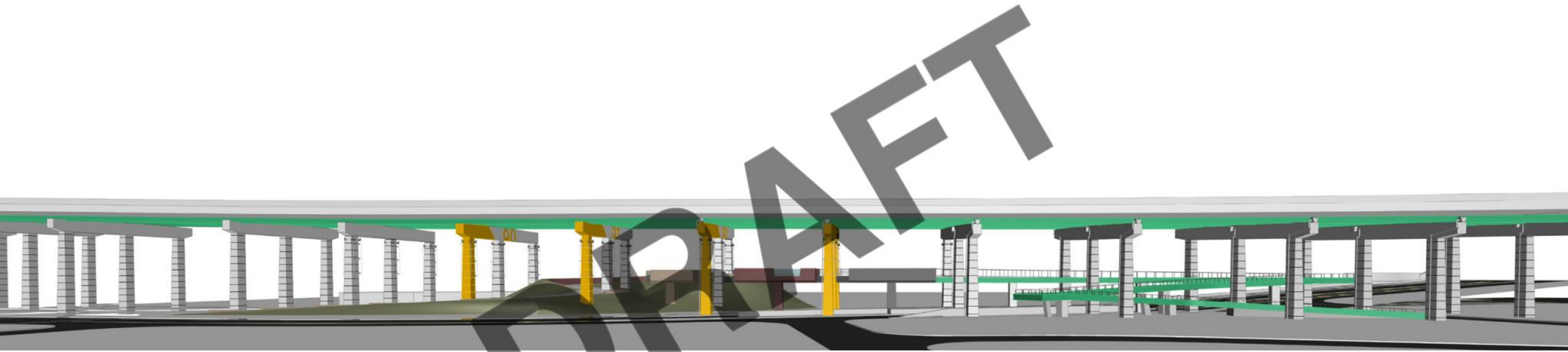
**PUBLIC
WORK**

WEST LANDING WELCOME SHORELINE LANDFORM SHAPING NEW PUBLIC SPACE



**PUBLIC
WORK**

NEW BRIDGE EMPHASIS:
ELEVATED ROOMS



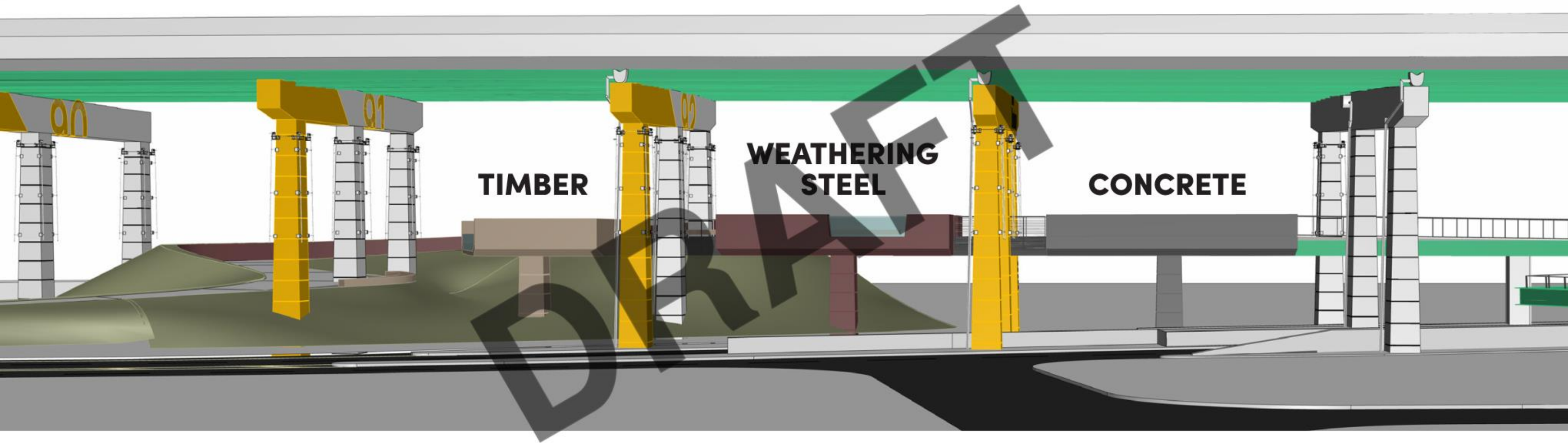
WEST LANDING

ELEVATED ROOMS

EAST SWITCHBACK

**PUBLIC
WORK**

NEW BRIDGE EMPHASIS: ELEVATED ROOMS



**PUBLIC
WORK**

NEW BRIDGE EMPHASIS: ELEVATED ROOMS



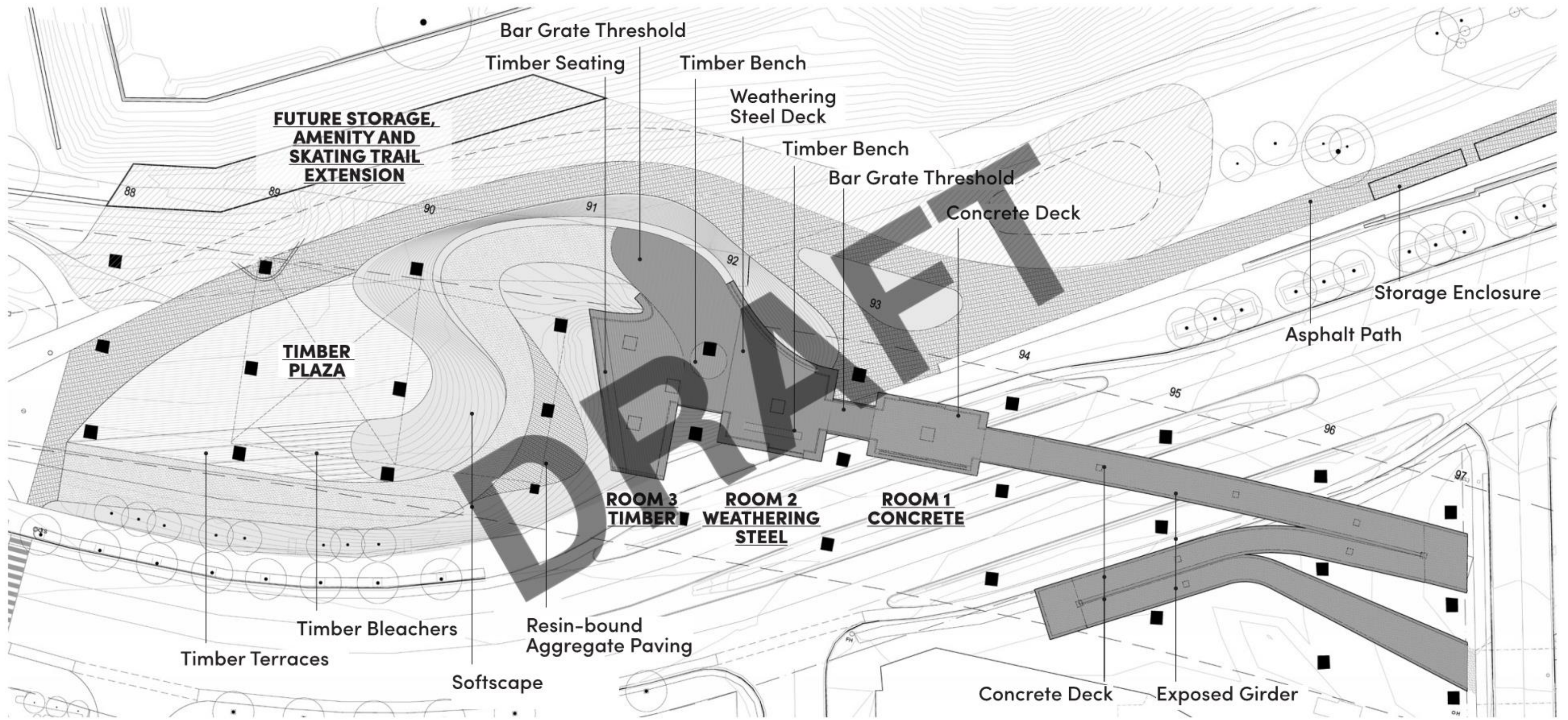
**PUBLIC
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NEW BRIDGE EMPHASIS:
ELEVATED ROOMS



**PUBLIC
WORK**

THE BENTWAY BRIDGE - MATERIALS



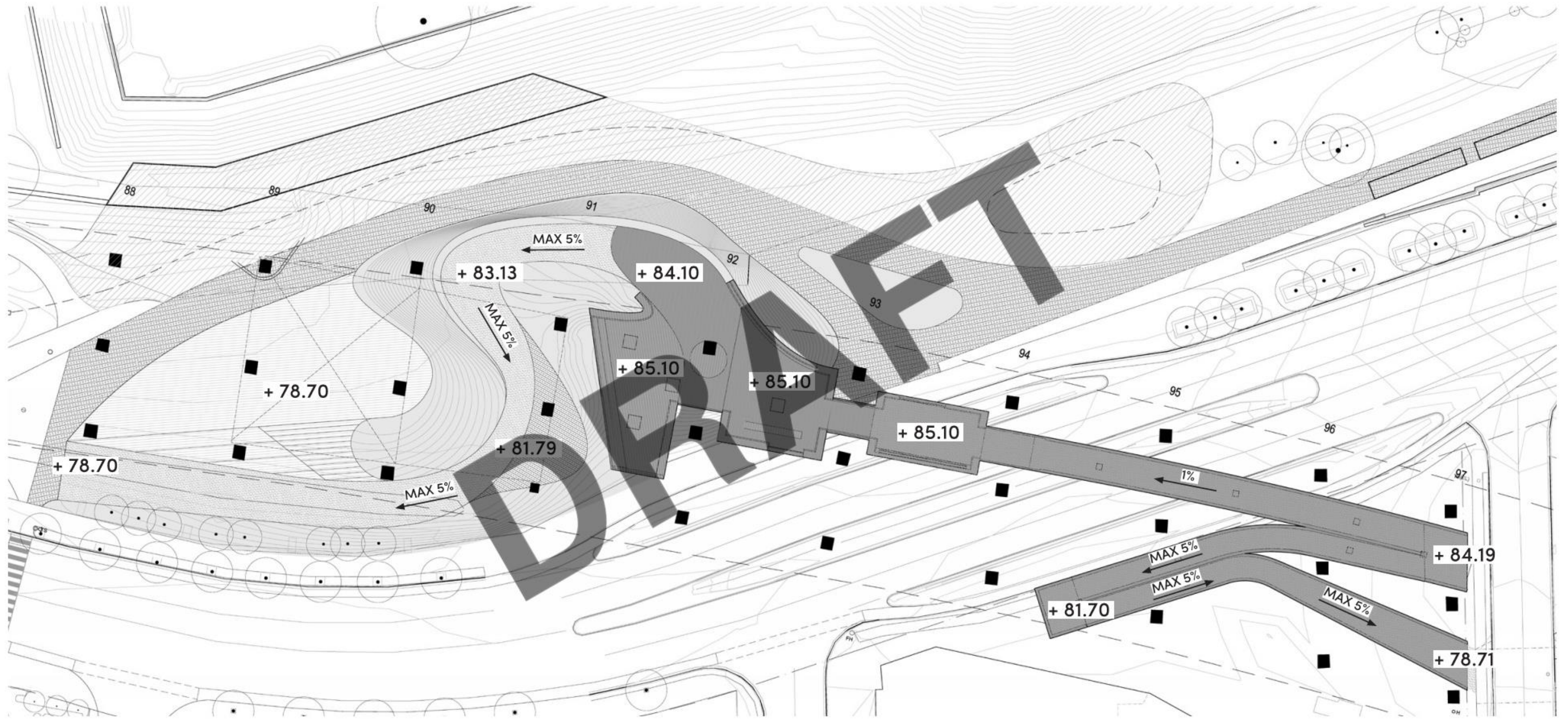
WEST LANDING

ELEVATED ROOMS

EAST SWITCHBACK



THE BENTWAY BRIDGE - GRADING



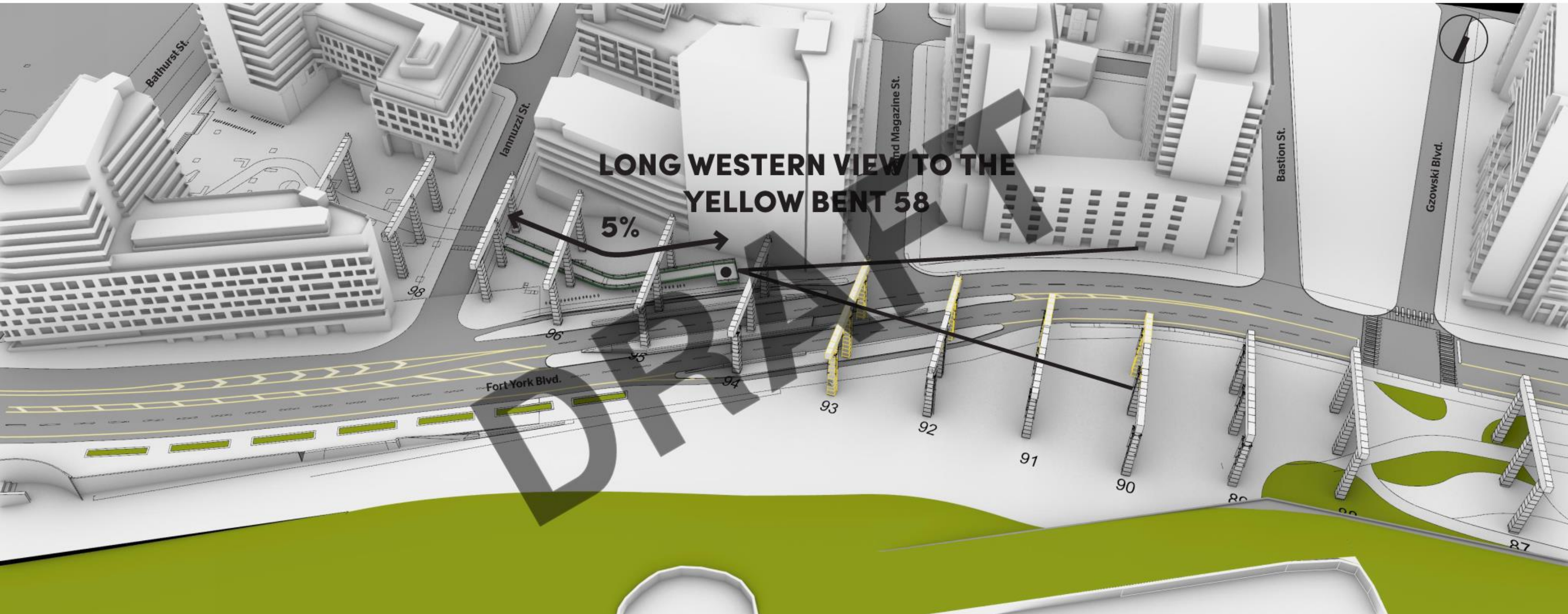
WEST LANDING

ELEVATED ROOMS

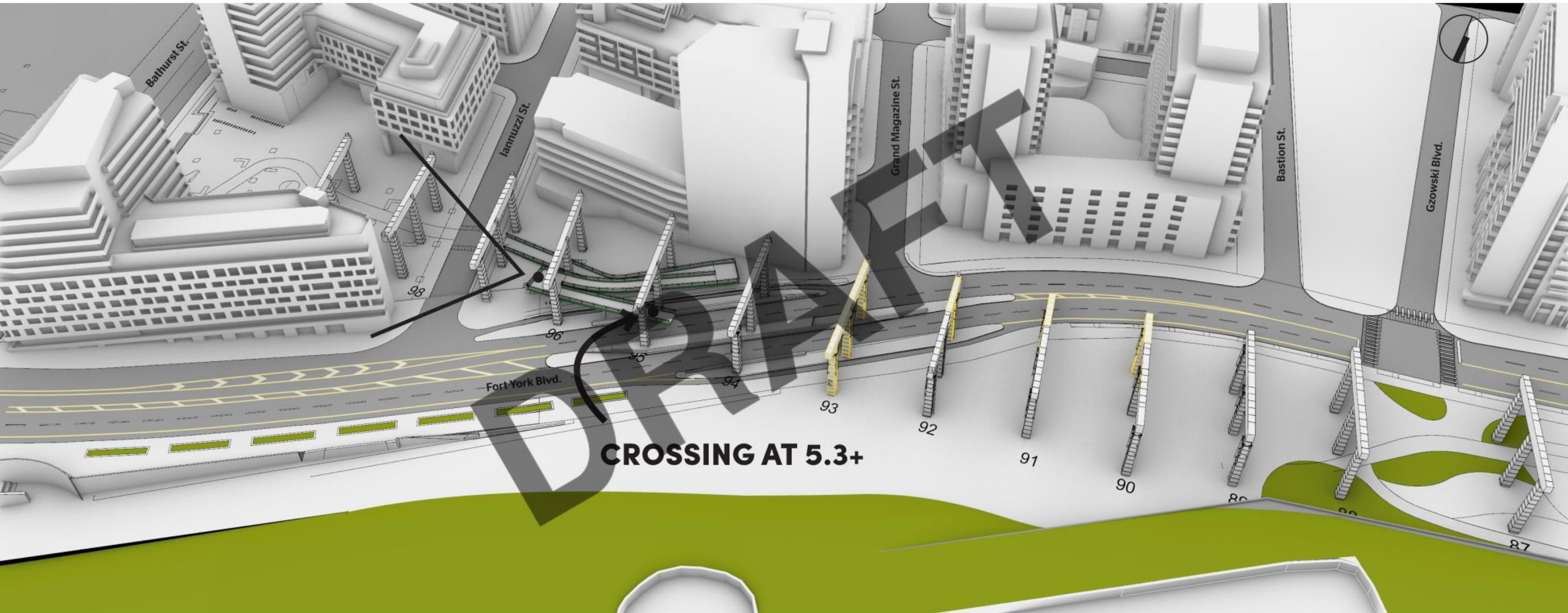
EAST SWITCHBACK

EAST SWITCHBACK

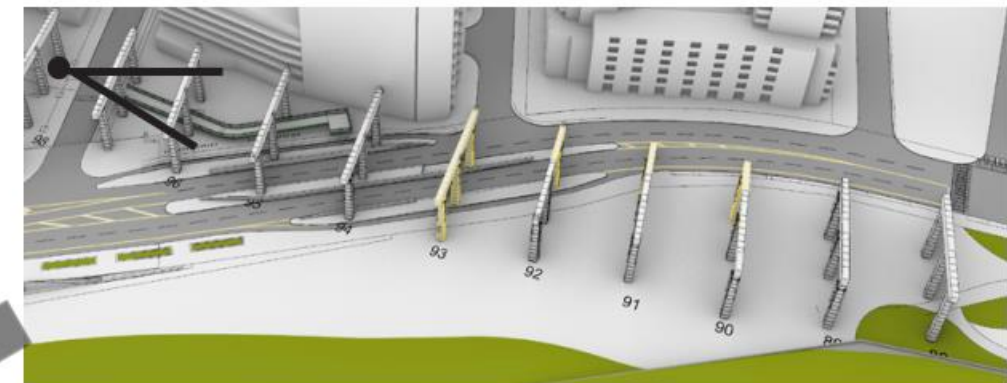
EAST SWITCHBACK TO FIRST PROSPECT



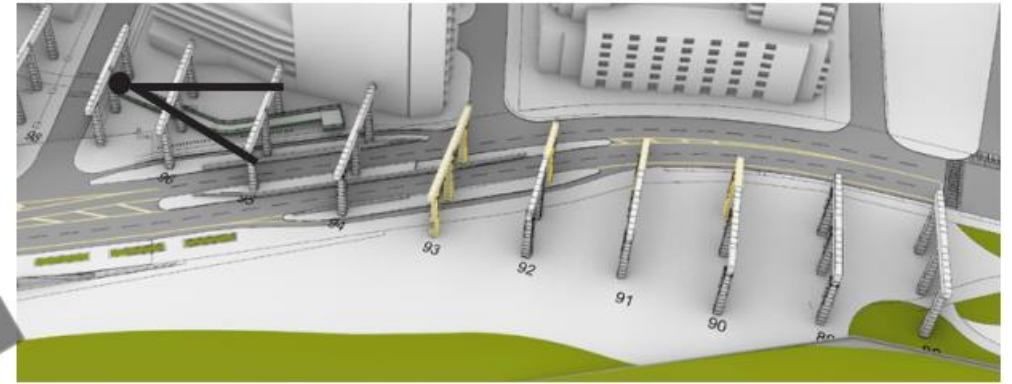
EAST SWITCHBACK TO SECOND PROSPECT AND UPPER HEIGHT CLEARANCE



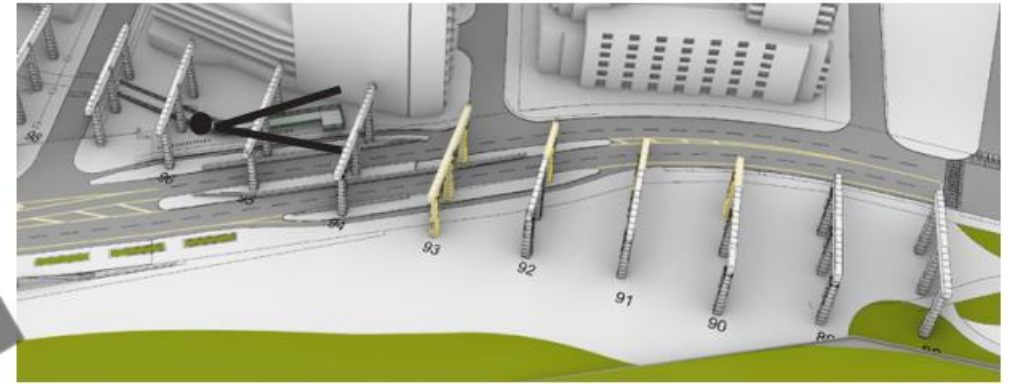
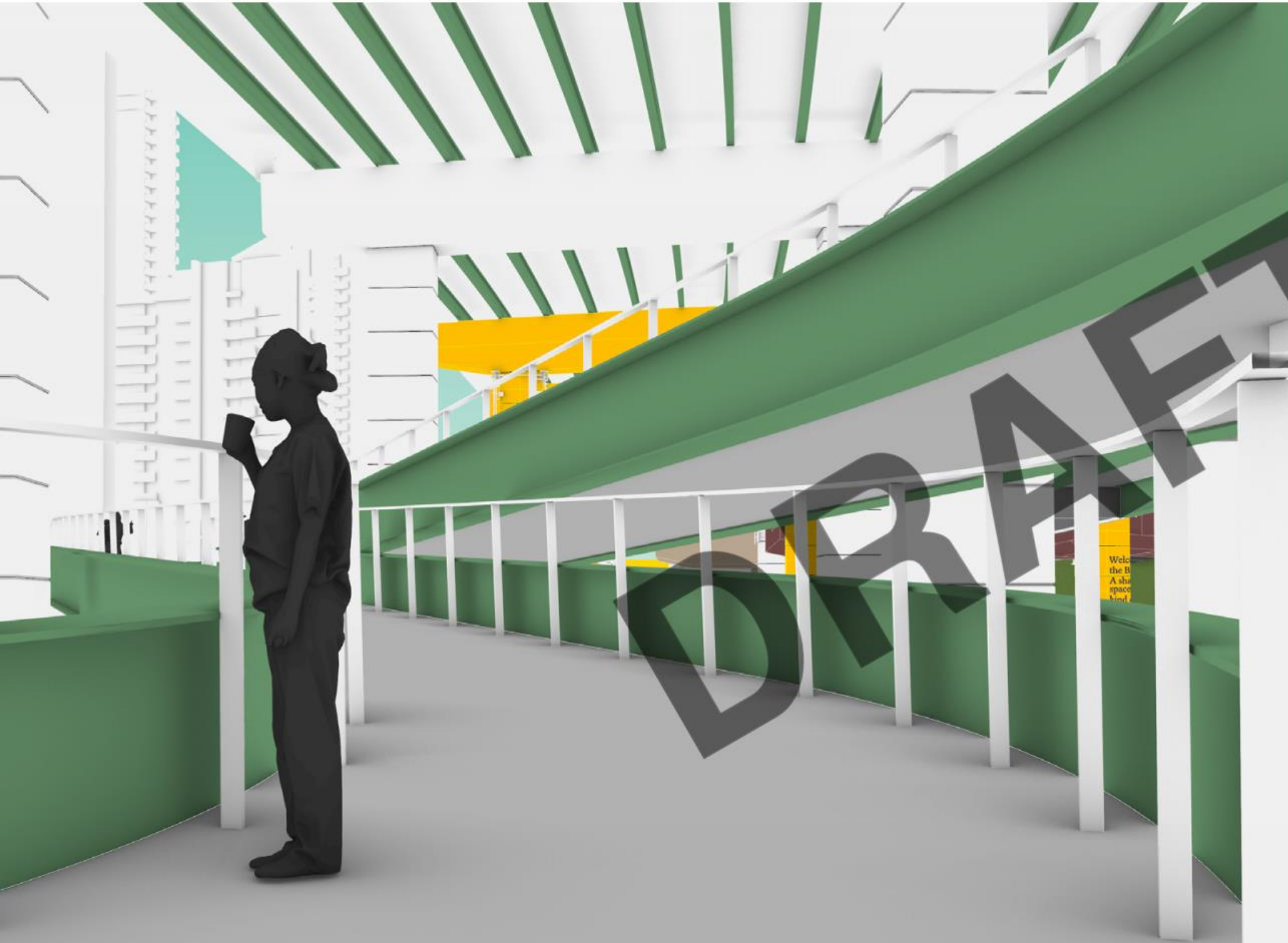
CROSSING AT 5.3+



**PUBLIC
WORK**

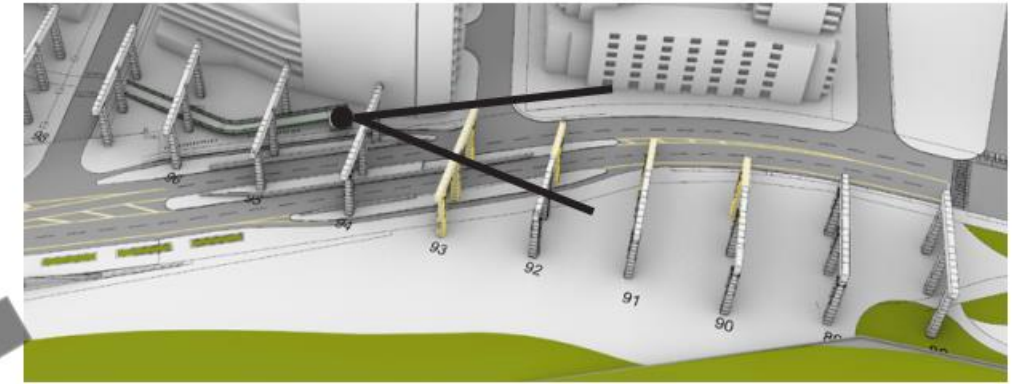
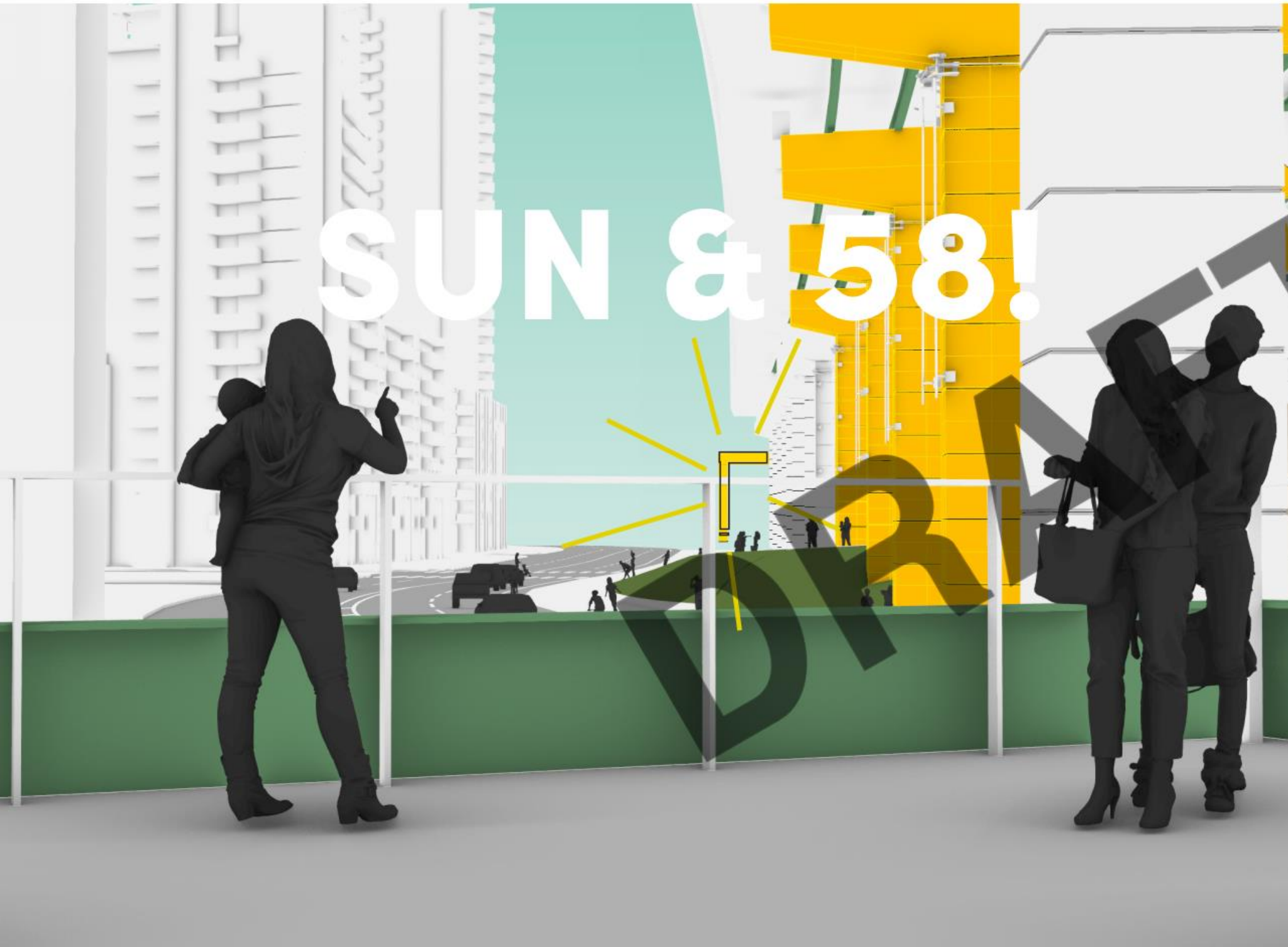


PUBLIC WORK



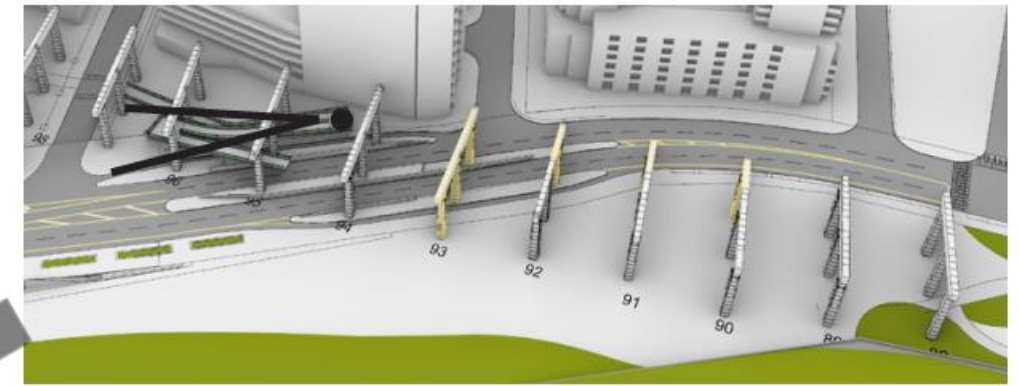
**PUBLIC
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EAST SWITCHBACK & PROSPECTS



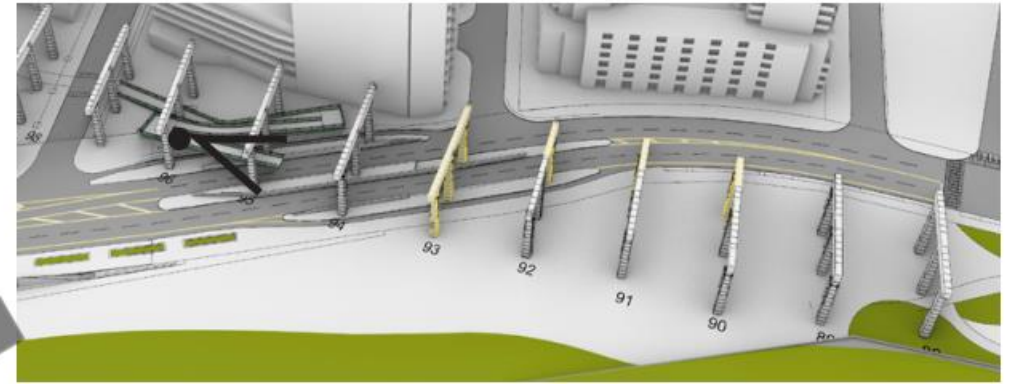
**PUBLIC
WORK**

EAST SWITCHBACK & PROSPECTS



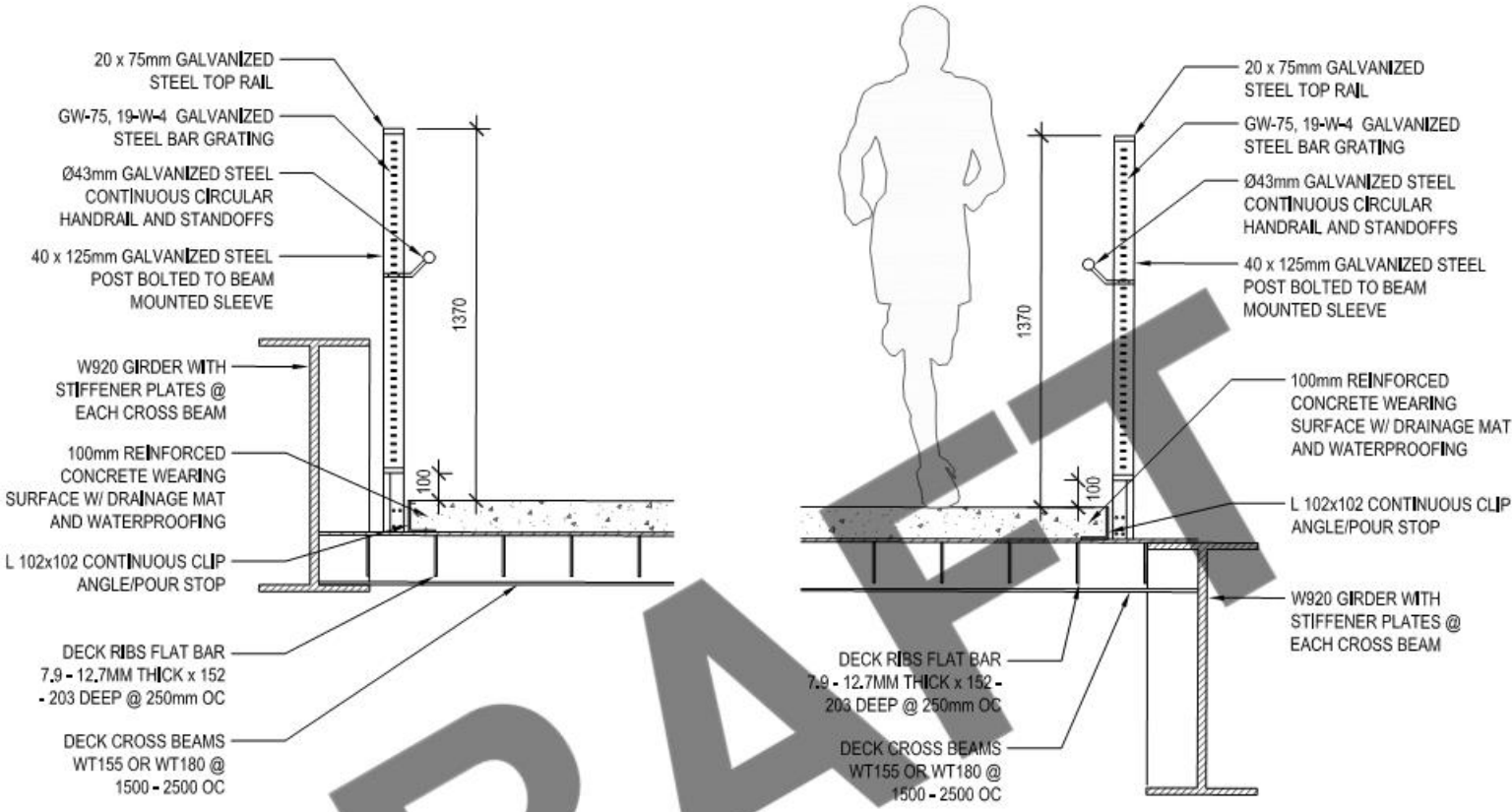
**PUBLIC
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EAST SWITCHBACK & PROSPECTS



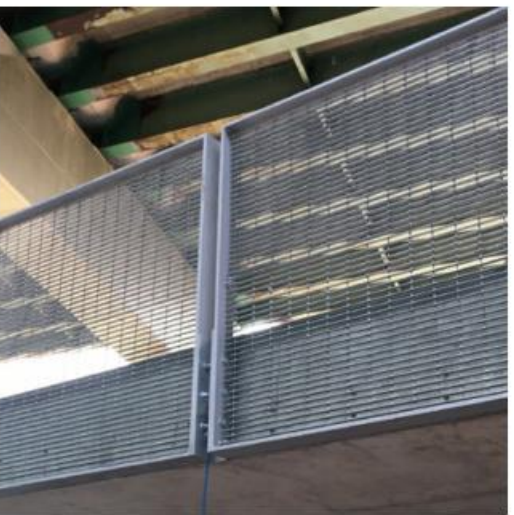
**PUBLIC
WORK**

VERY GARDINER



1 Typical Deck and Guardrail Details - Low Deck
1:20

2 Typical Deck and Guardrail Details - High Deck
1:20



ELEVATED ROOMS

CROSSING AS A PROCESSIONAL EXPERIENCE...



...INCREASING IN SCALE



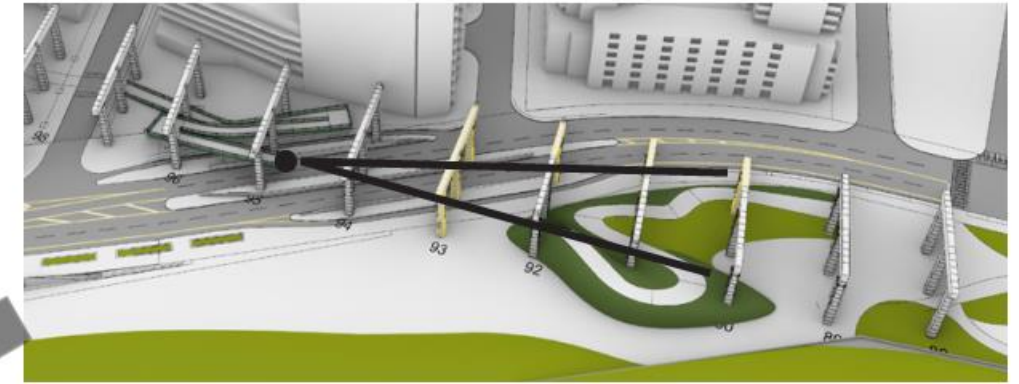
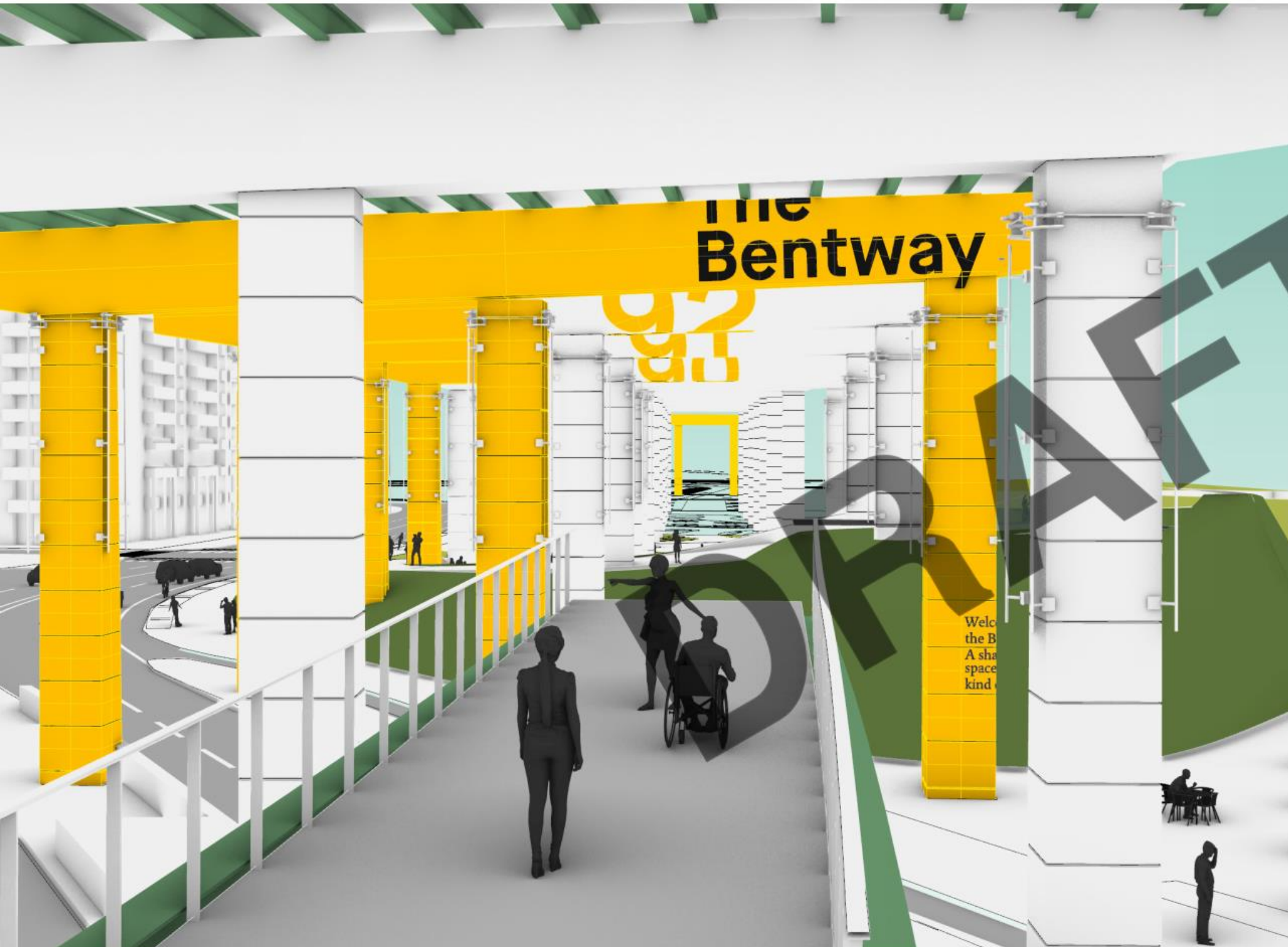
...BECOMING 'PLATFORMS'...



...CULMINATING IN THE ULTIMATE BENTWAY PROSPECT & DESCENT

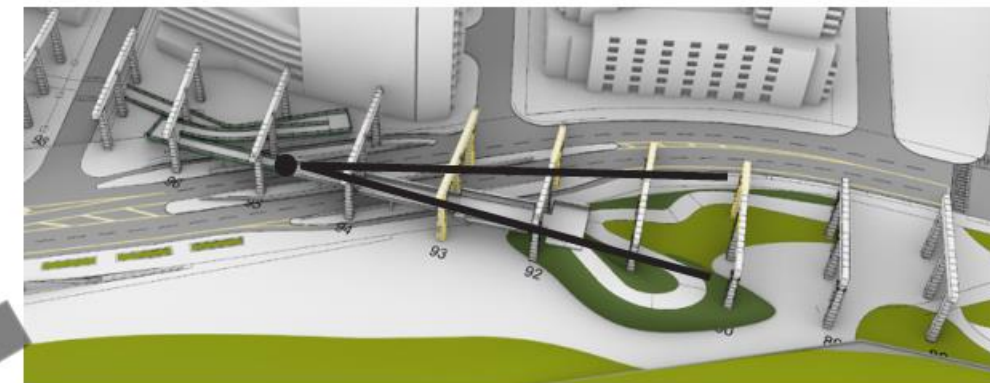
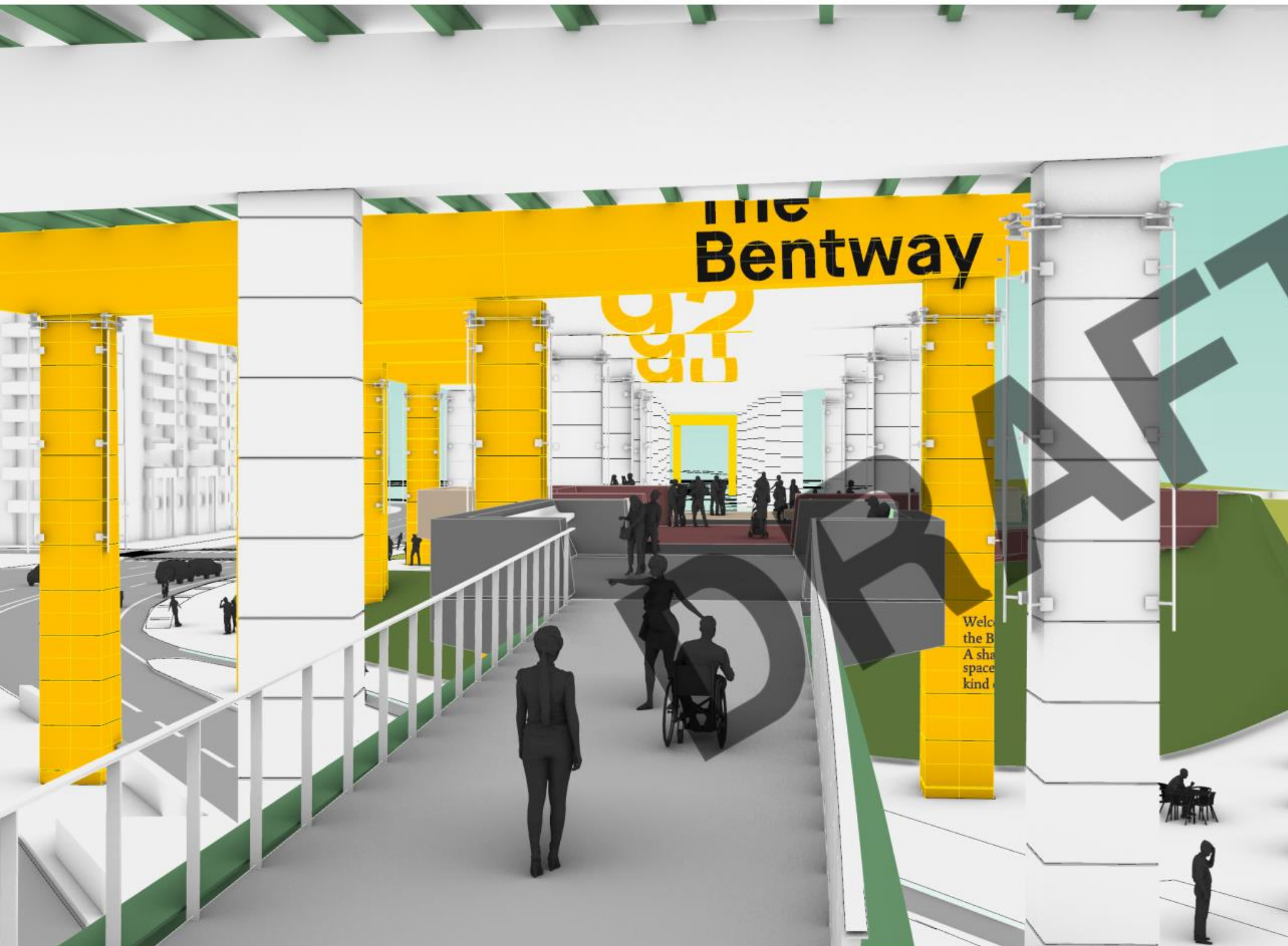


THE MIDSPAN THRESHOLD OF THE GARDINER / BENTWAY



**PUBLIC
WORK**

Increasing Width of Bridge Deck to Heighten the Experience of a Dramatic 'Forced Perspective'



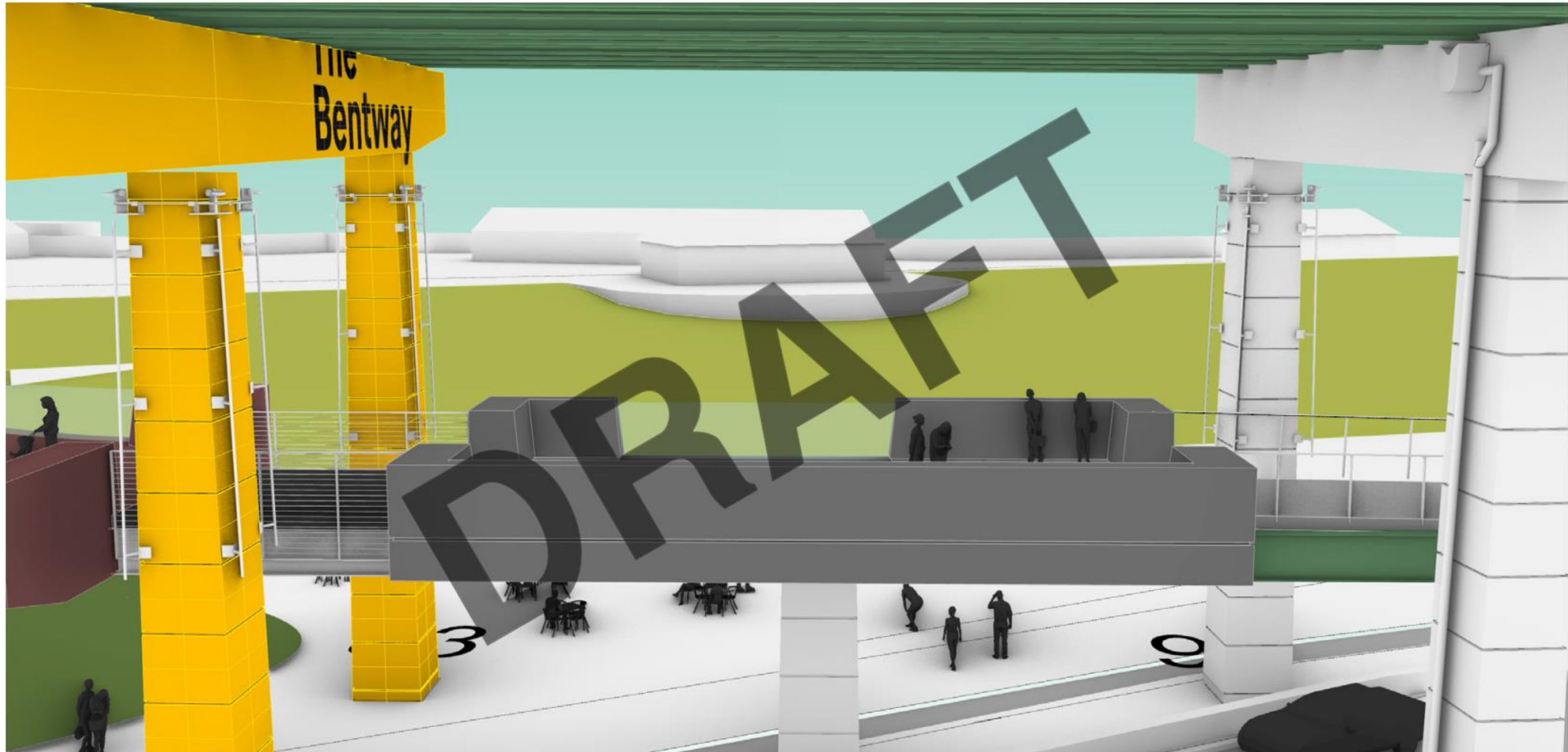
**PUBLIC
WORK**

The Bentway

92
at

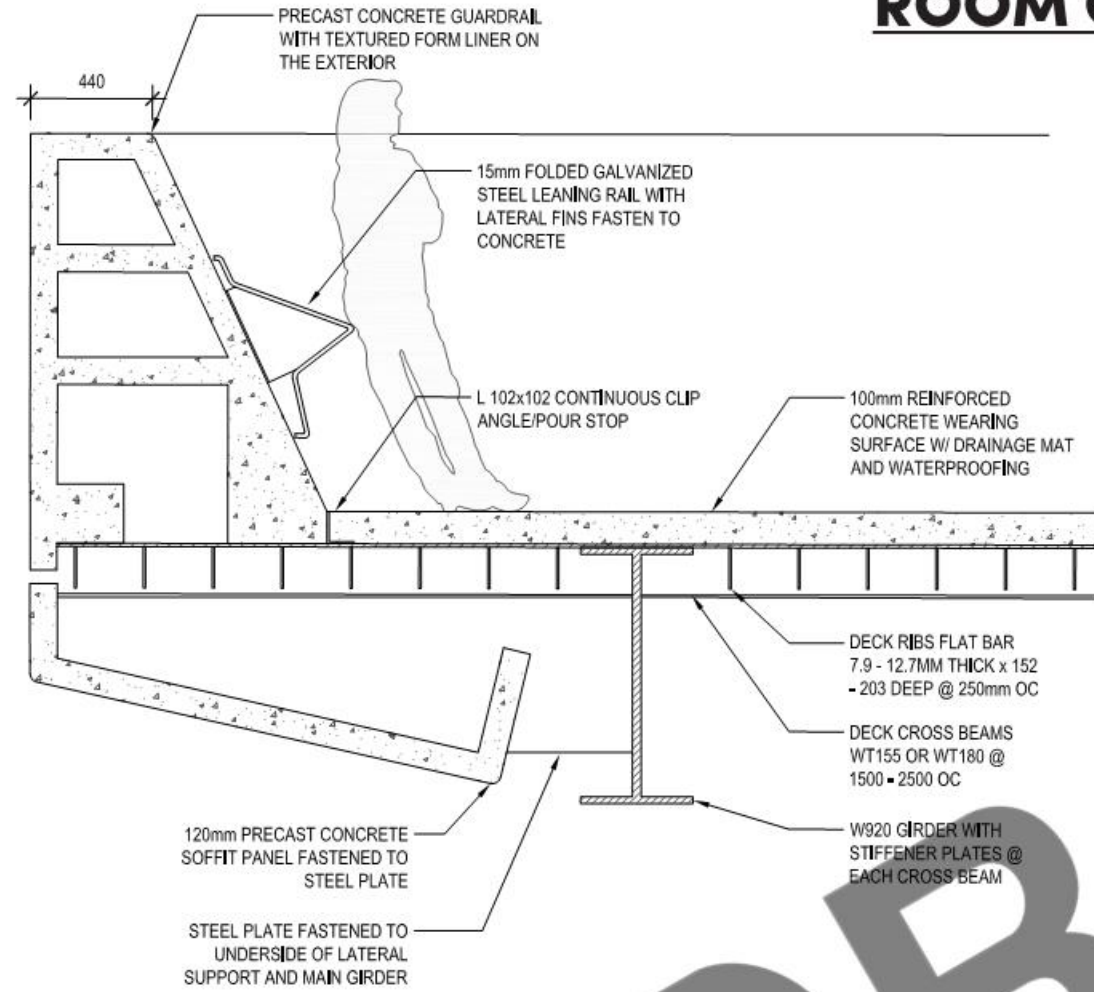
**PUBLIC
WORK**

ROOM ONE: CONCRETE

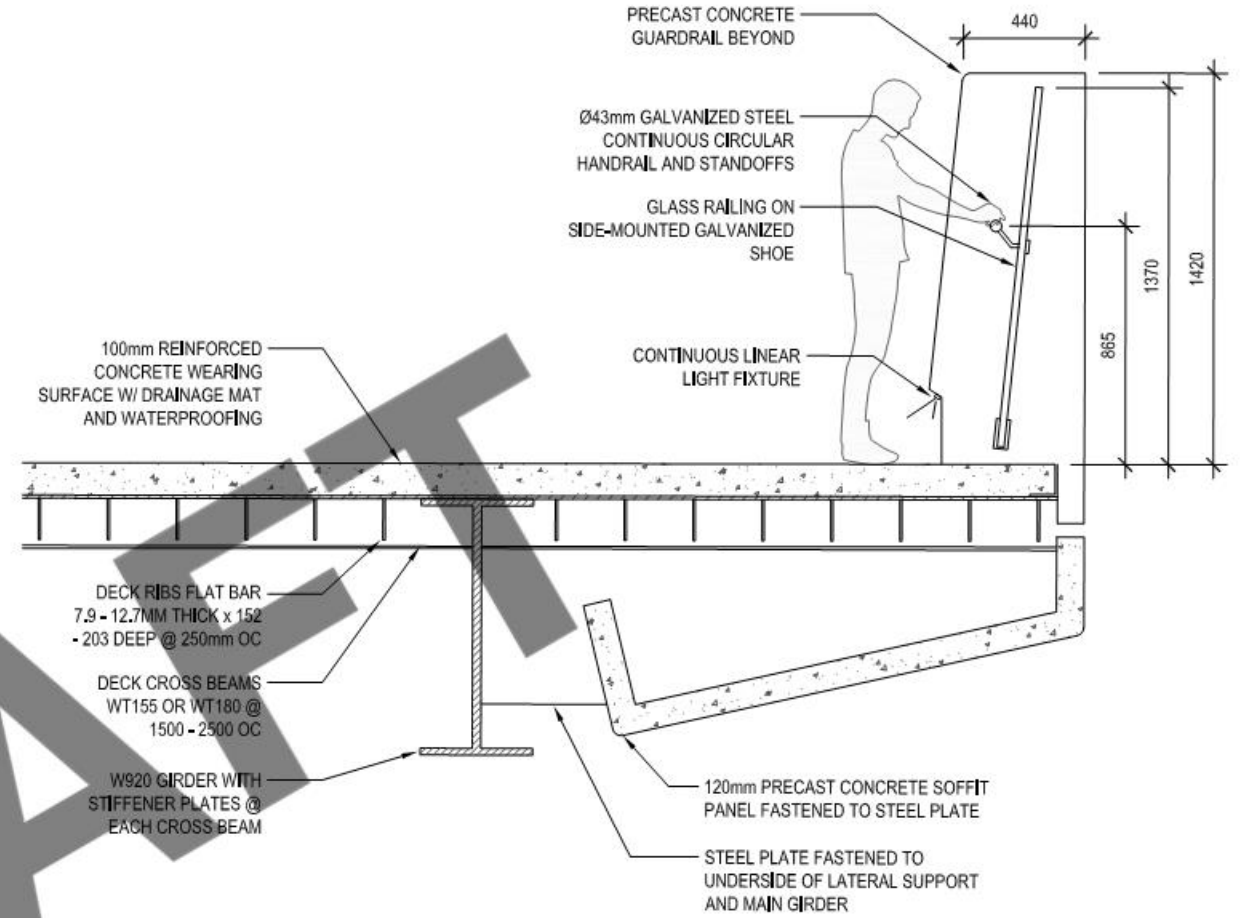


**PUBLIC
WORK**

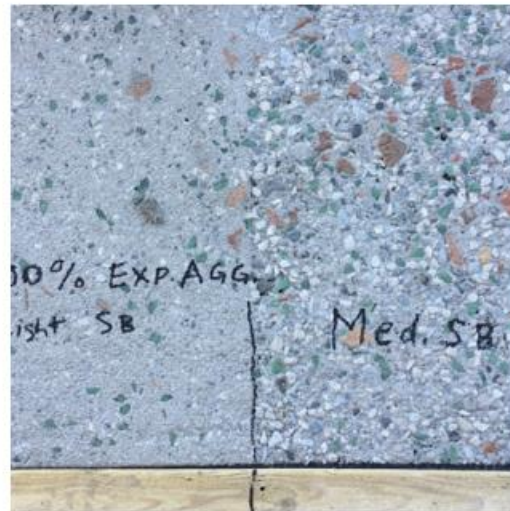
ROOM ONE: CONCRETE



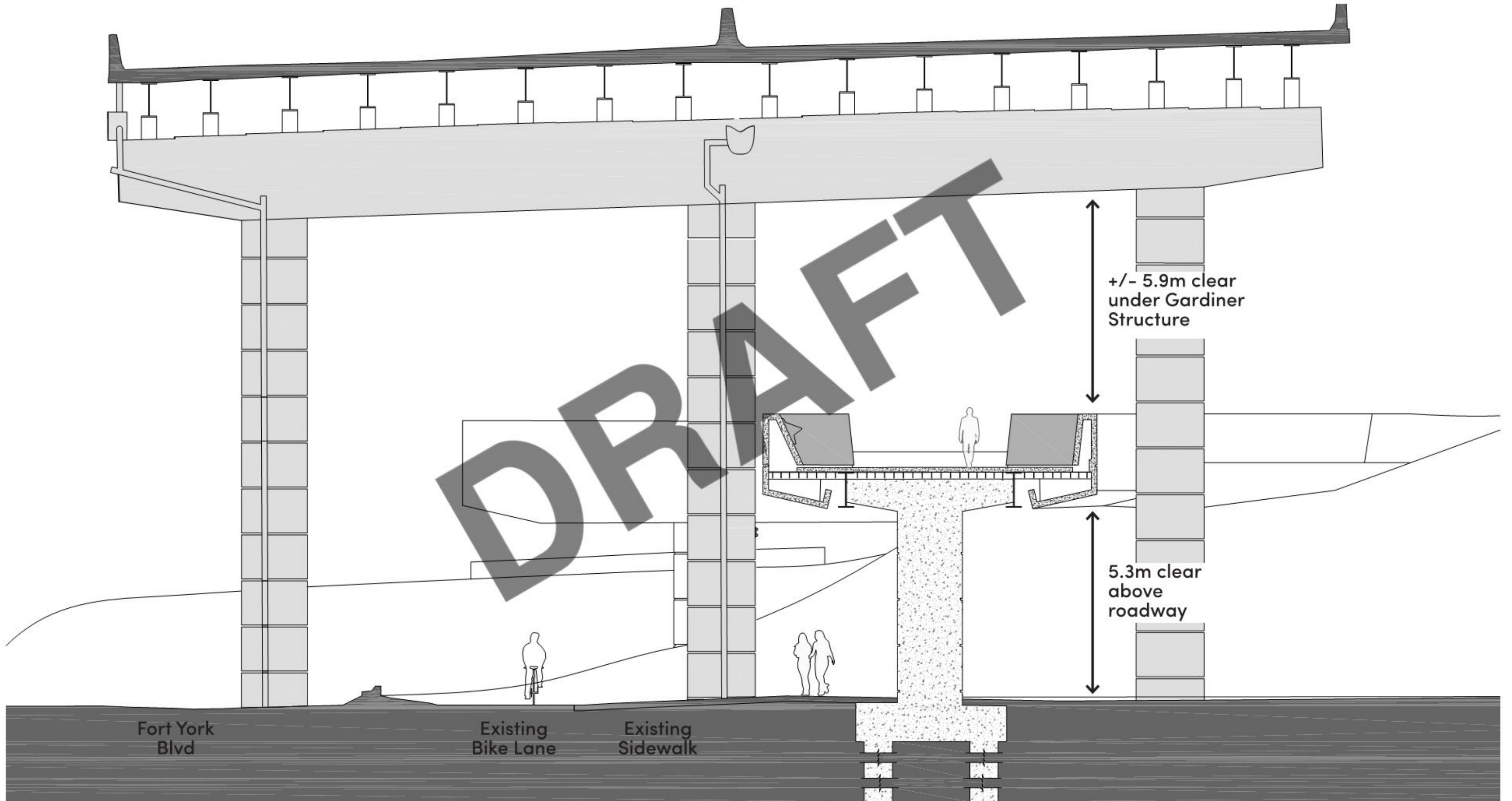
3 Typical Deck and Guardrail Details - South Side
1:20



4 Typical Deck and Guardrail Details - North Side
1:20



ROOM ONE: CONCRETE



ROOM TWO: WEATHERING STEEL



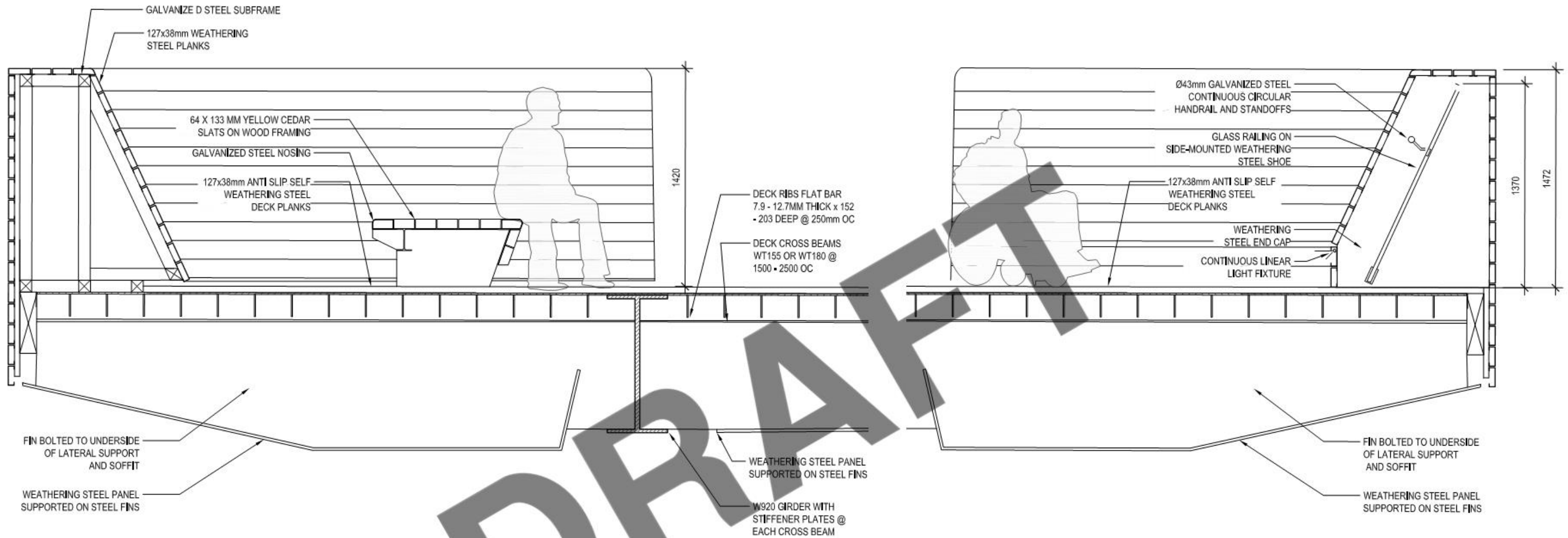
**PUBLIC
WORK**

ROOM TWO: WEATHERING STEEL



**PUBLIC
WORK**

ROOM TWO: WEATHERING STEEL



ROOM THREE: TIMBER



**PUBLIC
WORK**

ROOM THREE: TIMBER



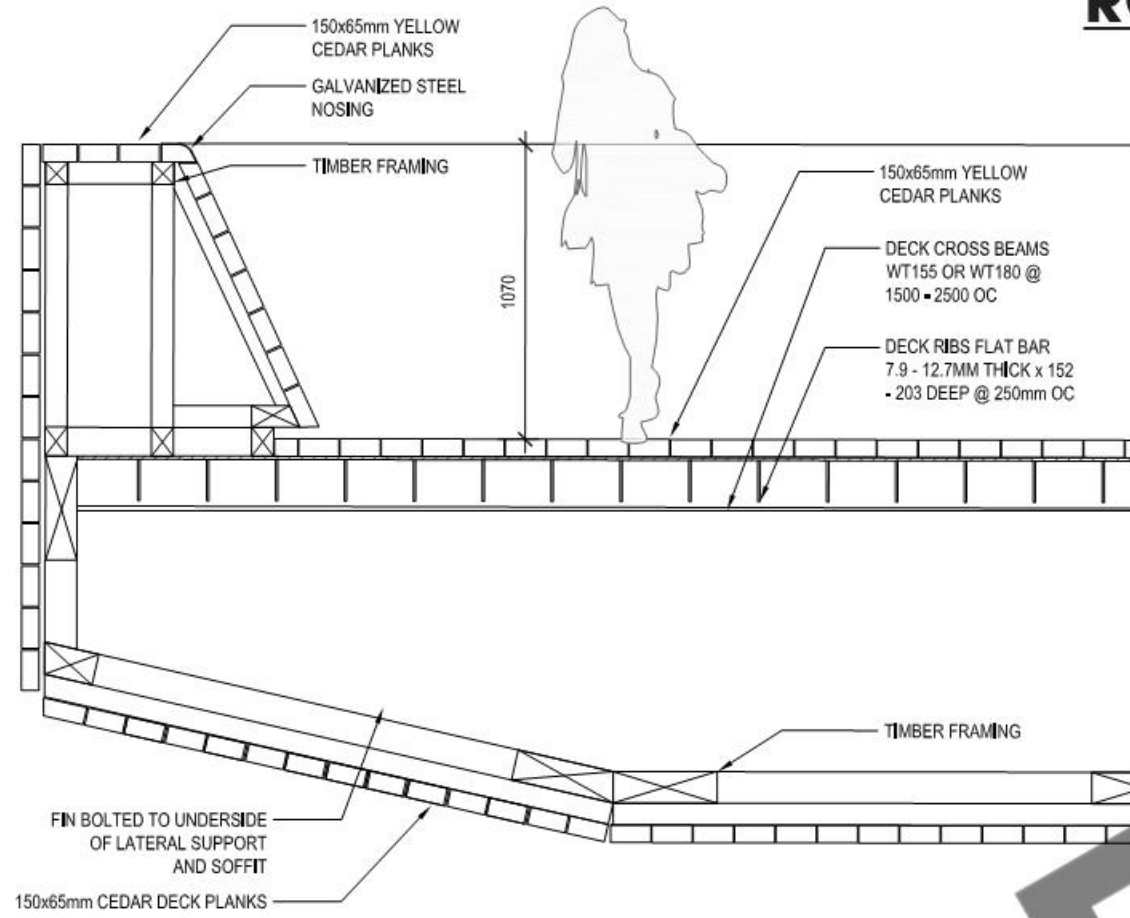
**PUBLIC
WORK**

ROOM THREE: TIMBER

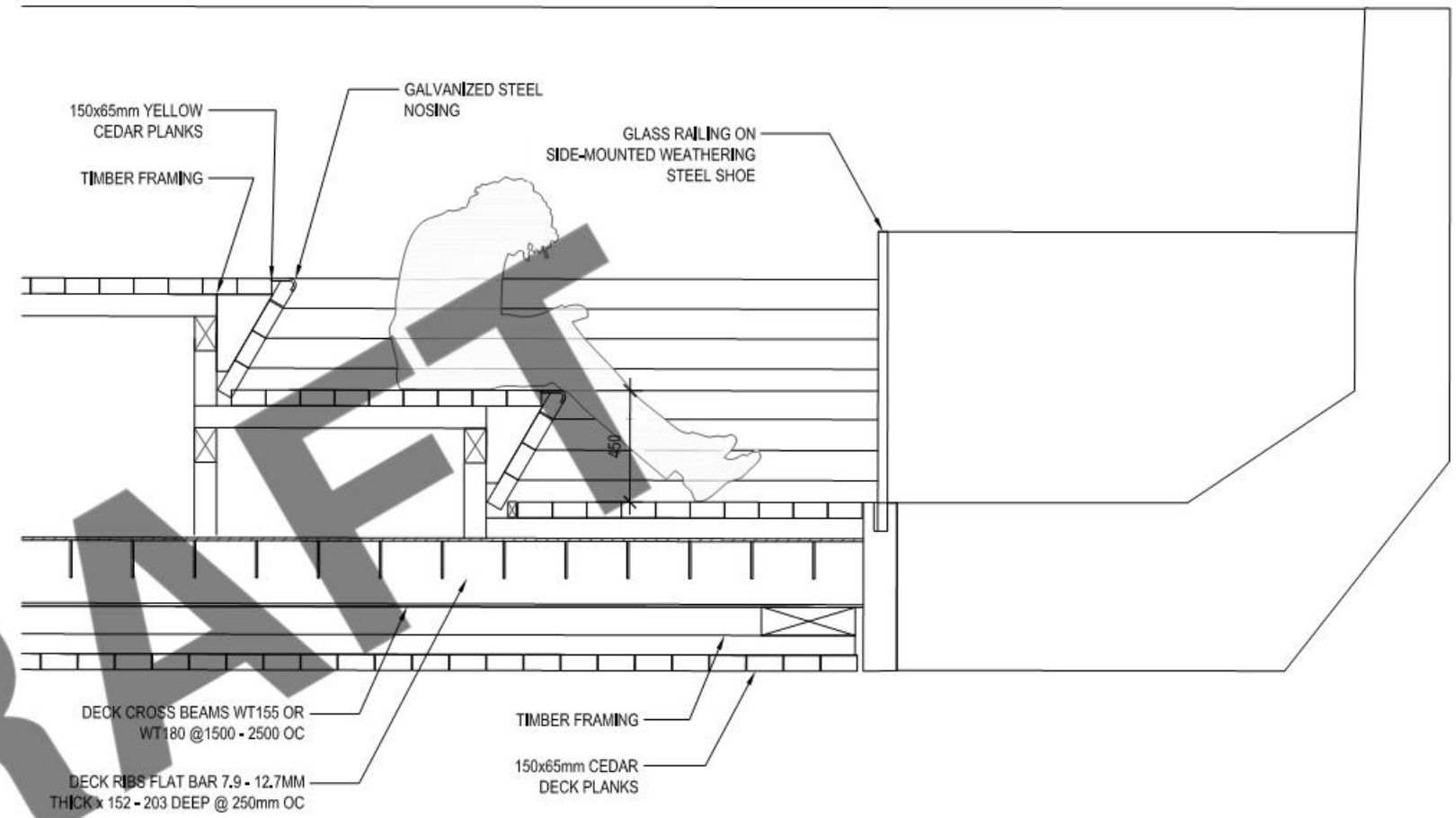


**PUBLIC
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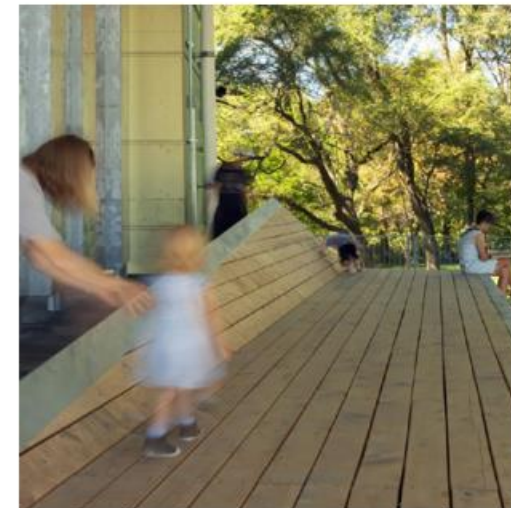
ROOM THREE: TIMBER



7 Typical Deck and Guardrail Details - South Side



Q Typical Deck Details - West Side



RELEASE INTO THE BENTWAY'S PROGRAMMATIC HEART



**PUBLIC
WORK**

LANDFORM MEANDER SHAPES THE PLAZA SPACE



**PUBLIC
WORK**

LANDFORM MEANDER SHAPES THE PLAZA SPACE



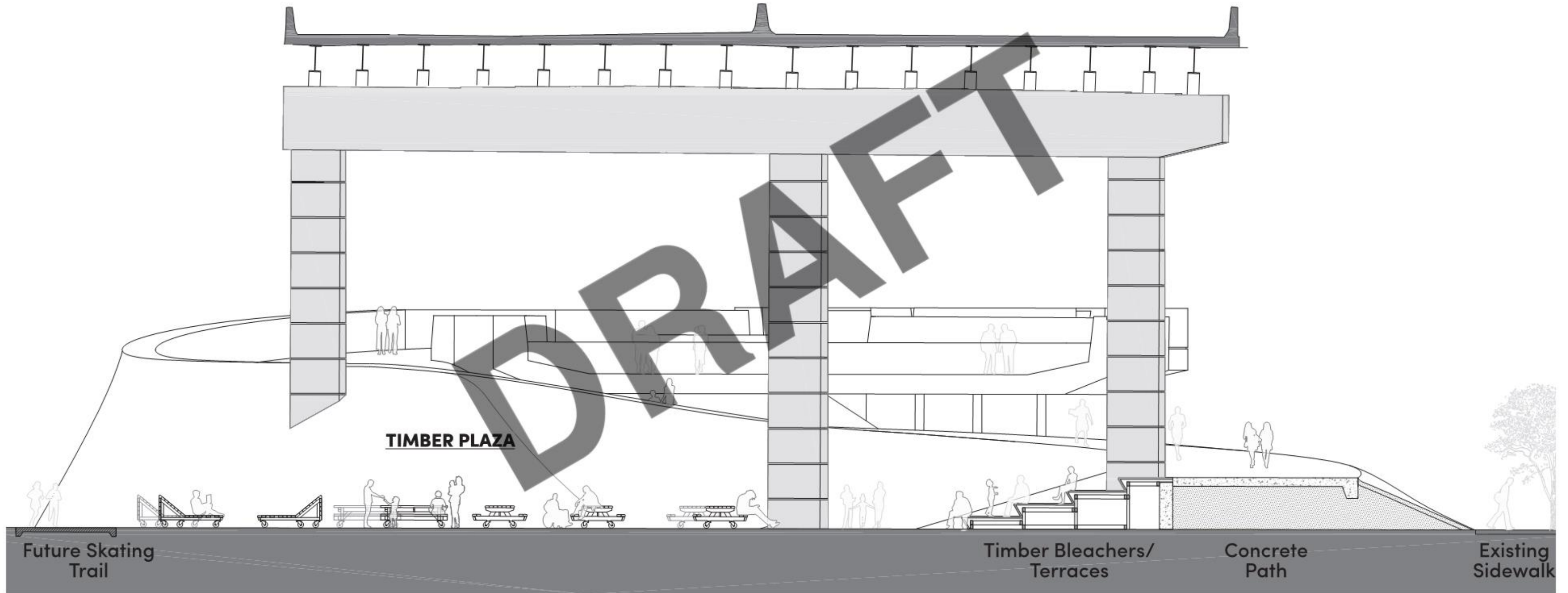
**PUBLIC
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LANDFORM MEANDER SHAPES THE PLAZA SPACE



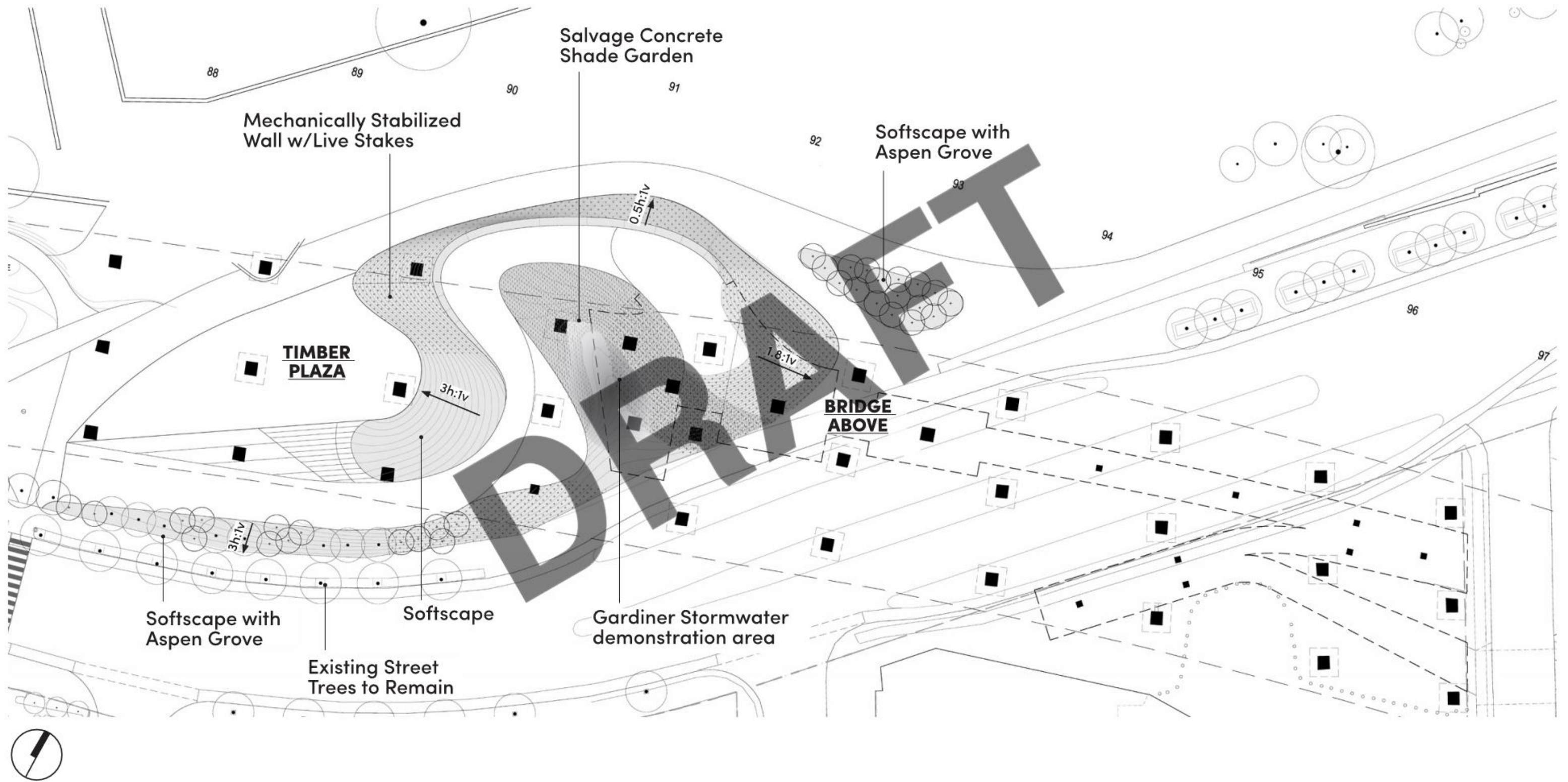
**PUBLIC
WORK**

LANDFORM MEANDER SHAPES THE PLAZA SPACE



**PUBLIC
WORK**

THE BENTWAY BRIDGE



GATHERING SPACE + EDGE ANIMATION

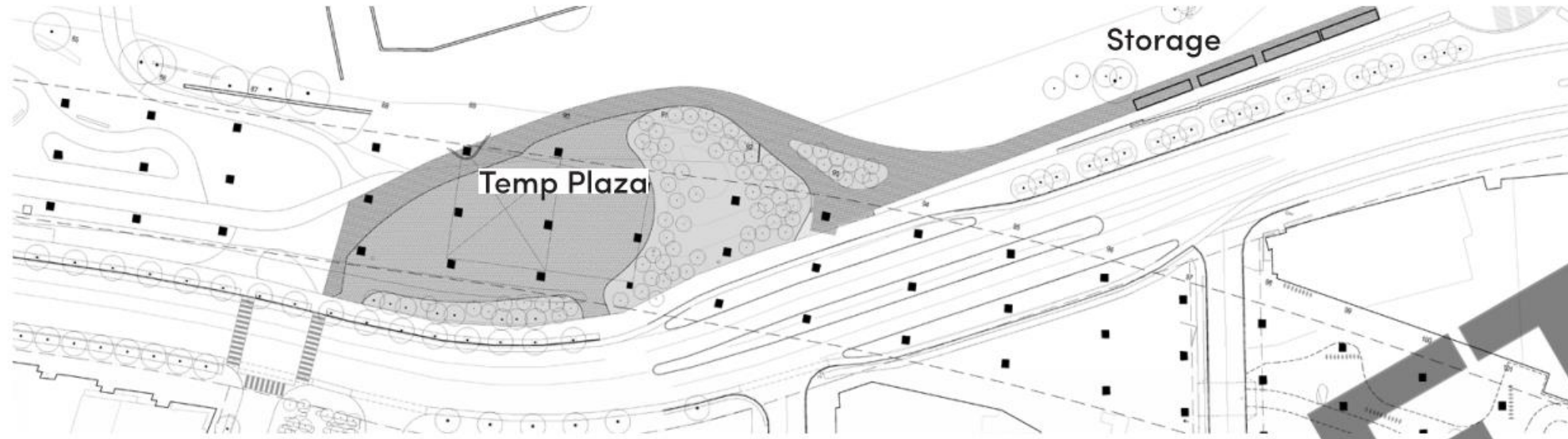


GATHERING SPACE + EDGE ANIMATION

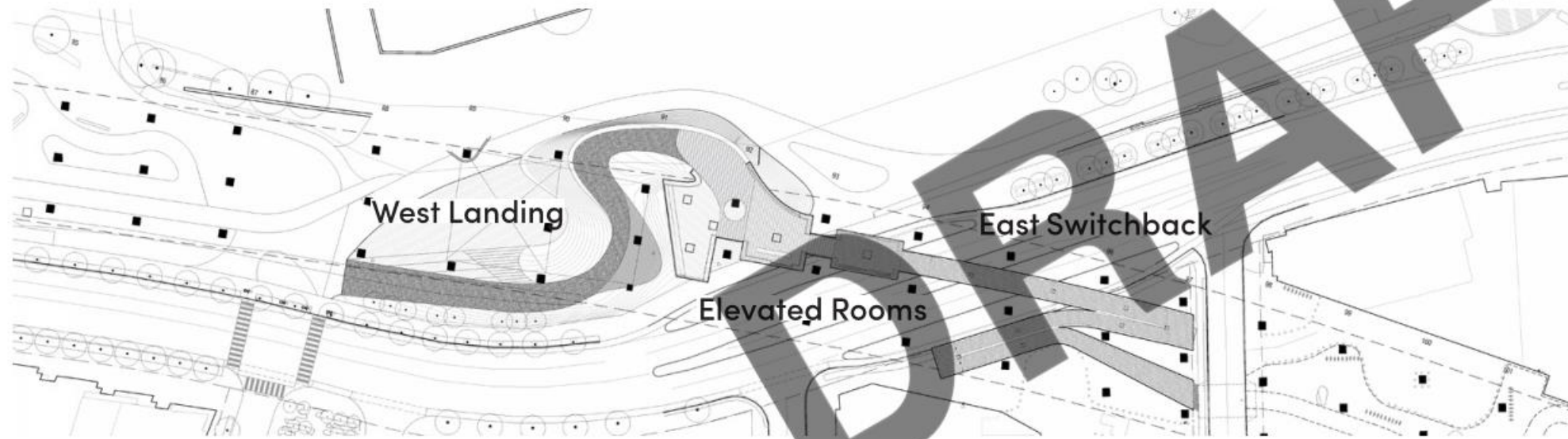


**PUBLIC
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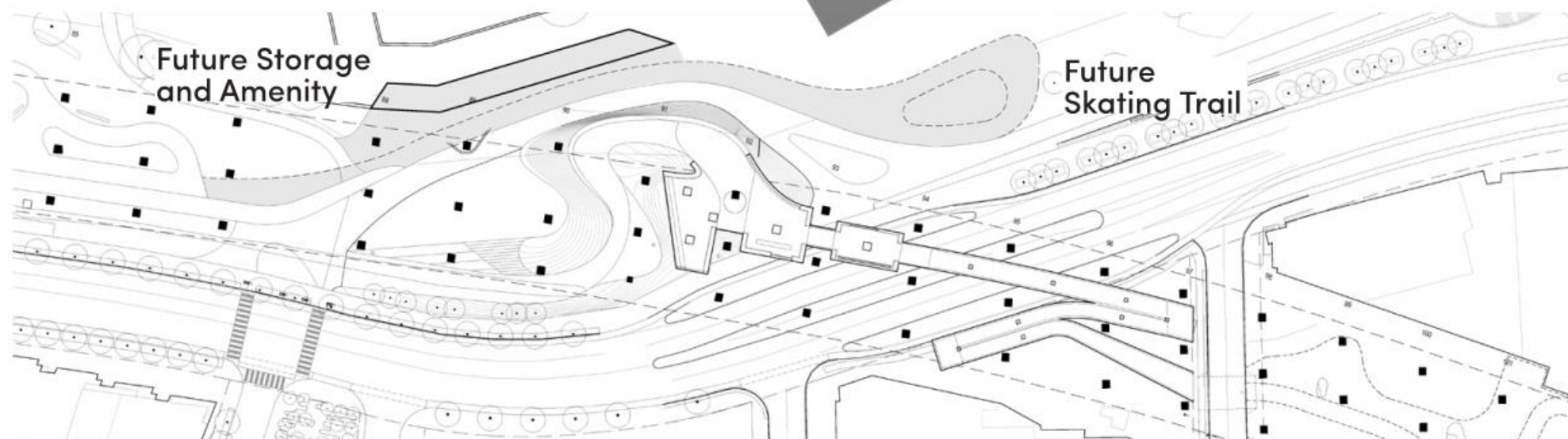
PHASING



PHASE 1 Temp Site Activation



PHASE 2 Bridge and Plaza



PHASE 3 Future Skating Trail Extension, Storage and Edge Animation

GATHERING SPACE

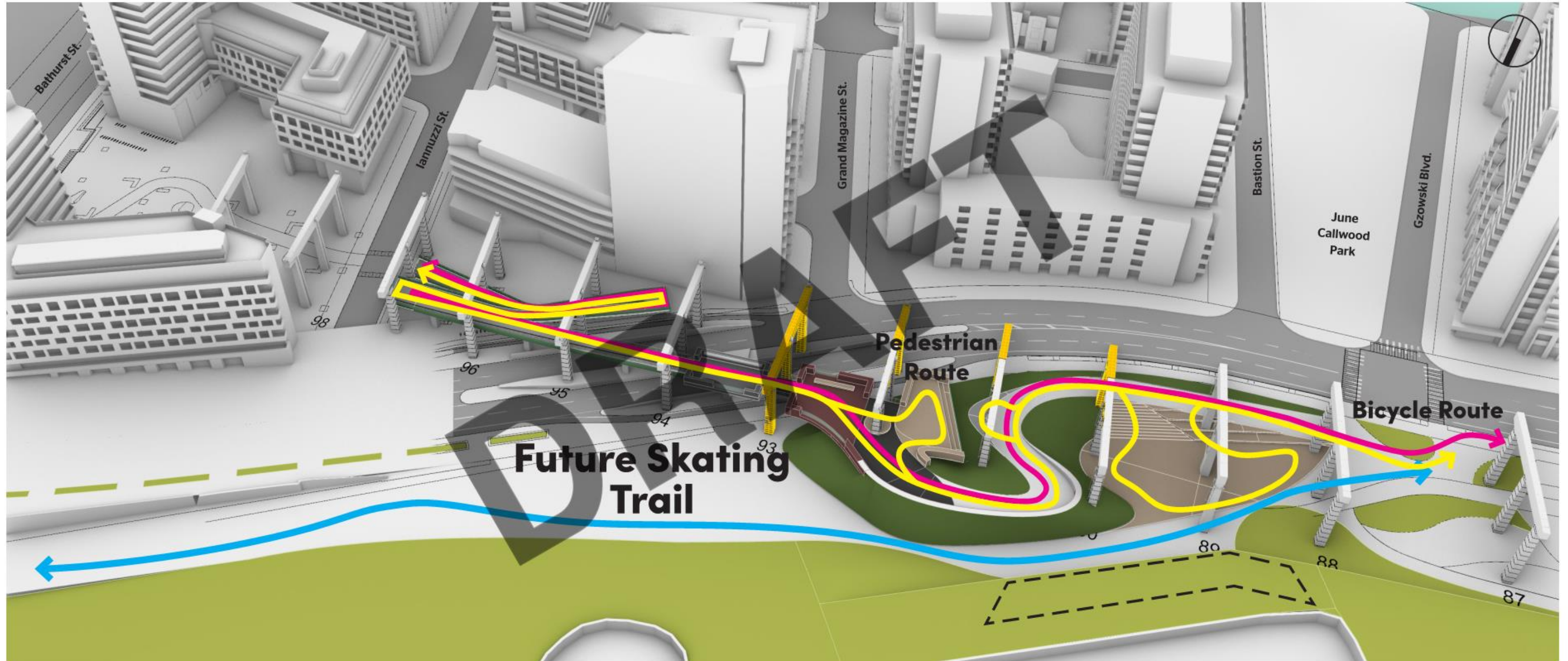


**PUBLIC
WORK**

GATHERING SPACE + EDGE ANIMATION



INTRODUCING THE BENTWAY SHARED SPACE ENVIRONMENT



-  Pedestrian Route
-  Bicycle Route
-  Future Skating Trail

**PUBLIC
WORK**