

West End Bridge Access Structures

Concept Report

February 21, 2024

Riverlife +

BURO HAPPOLD

Christine Davis
Consulting, inc.

DEREK PORTER STUDIO

ELDORADO

LANGAN

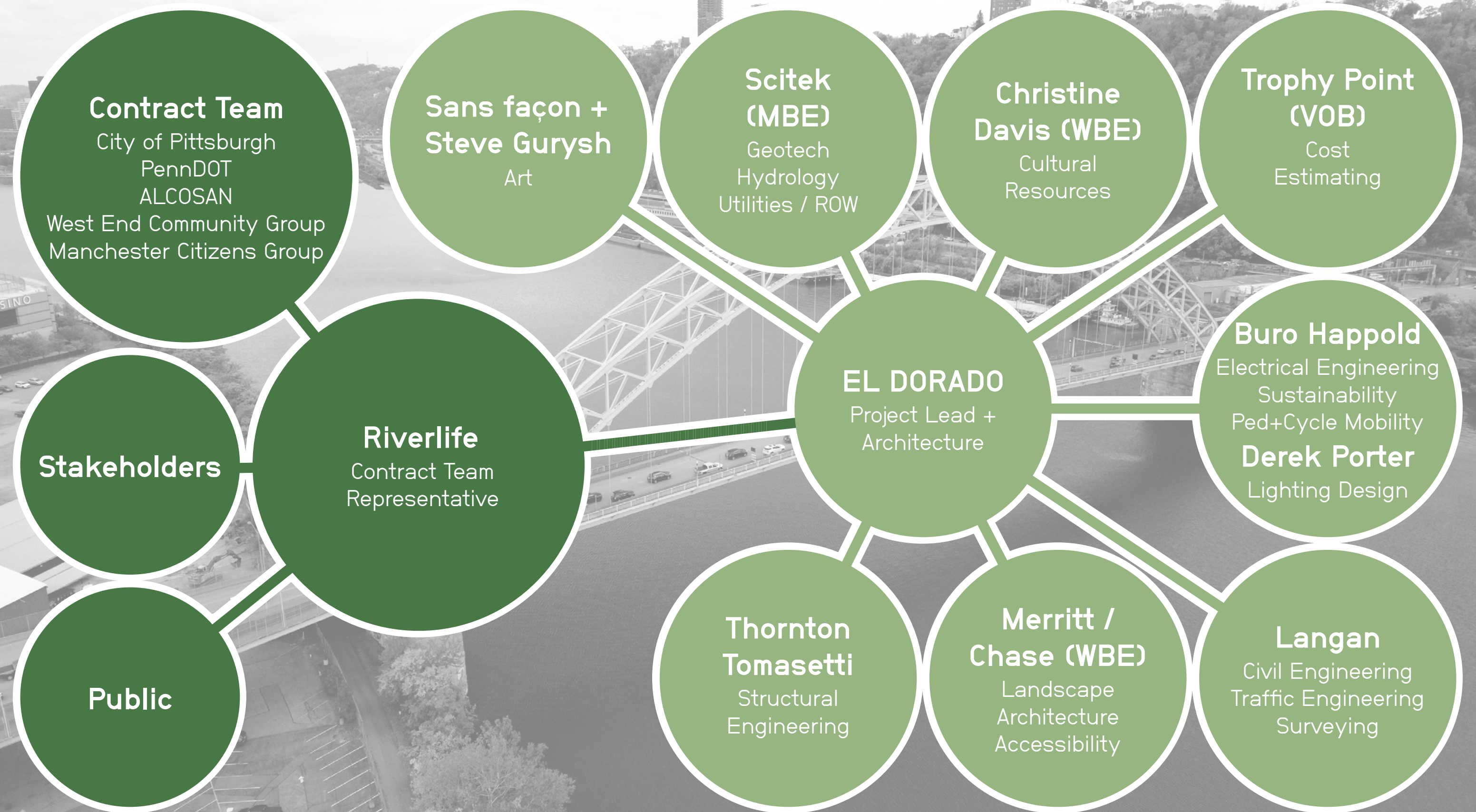
MERRITT
CHASE

Sans façon

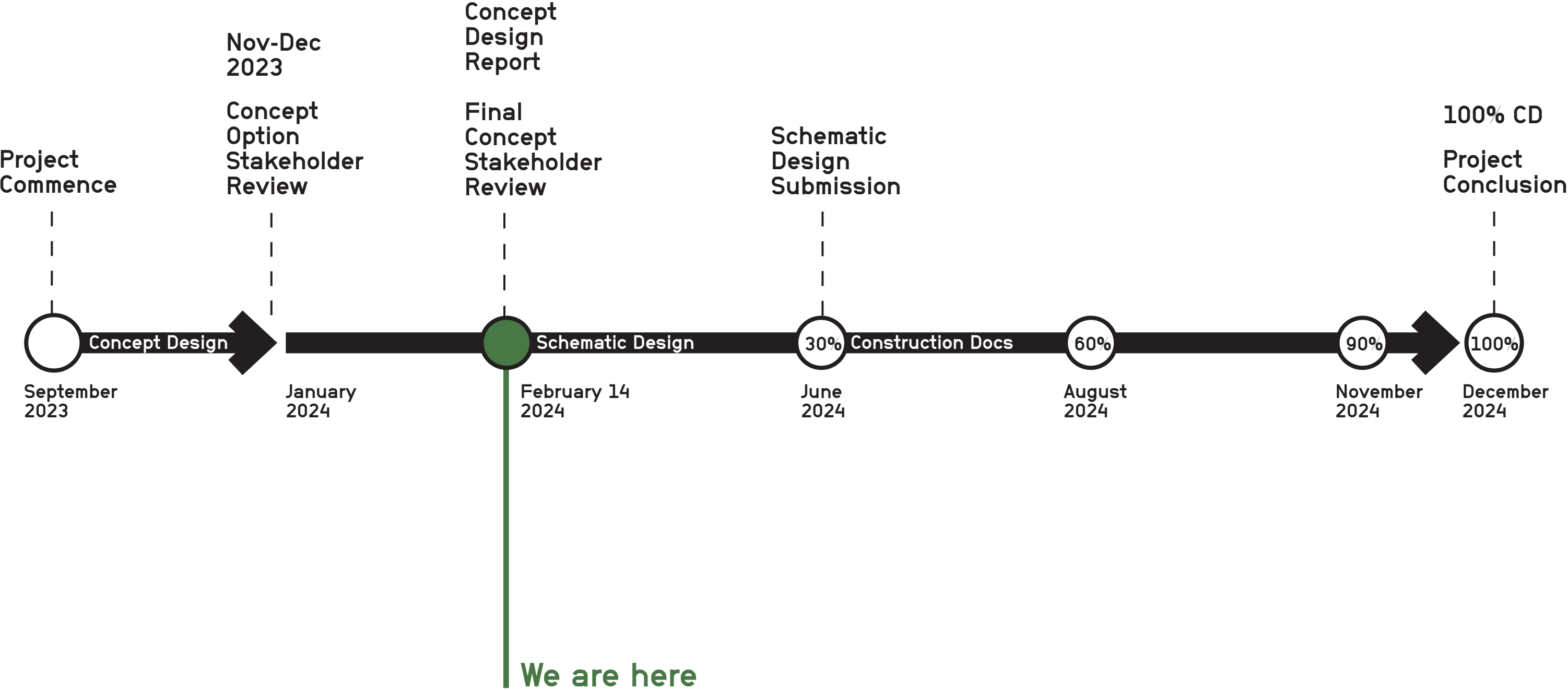
SciTek
CONSULTANTS, INC.

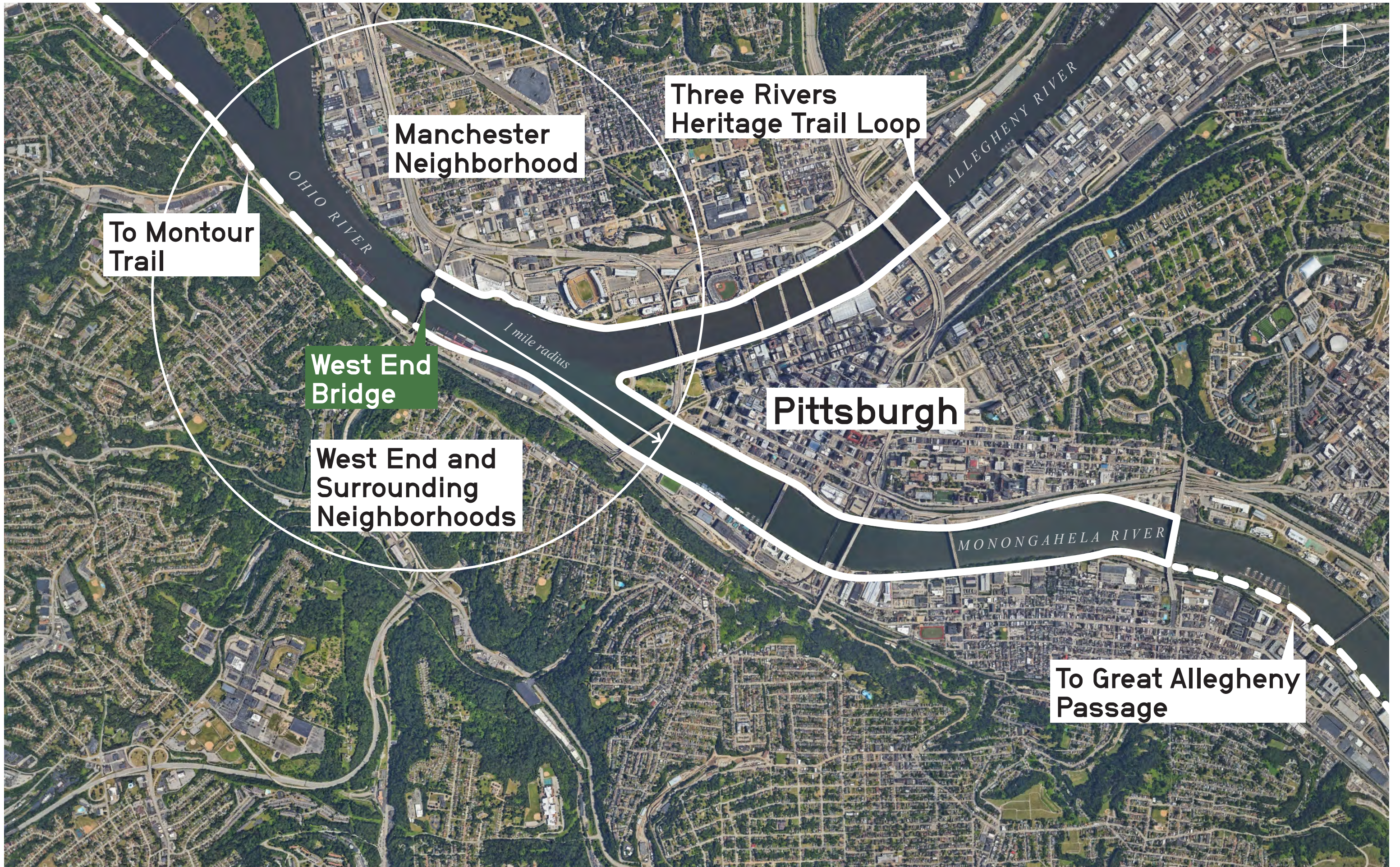
Thornton Tomasetti

Team



Simplified Project Schedule

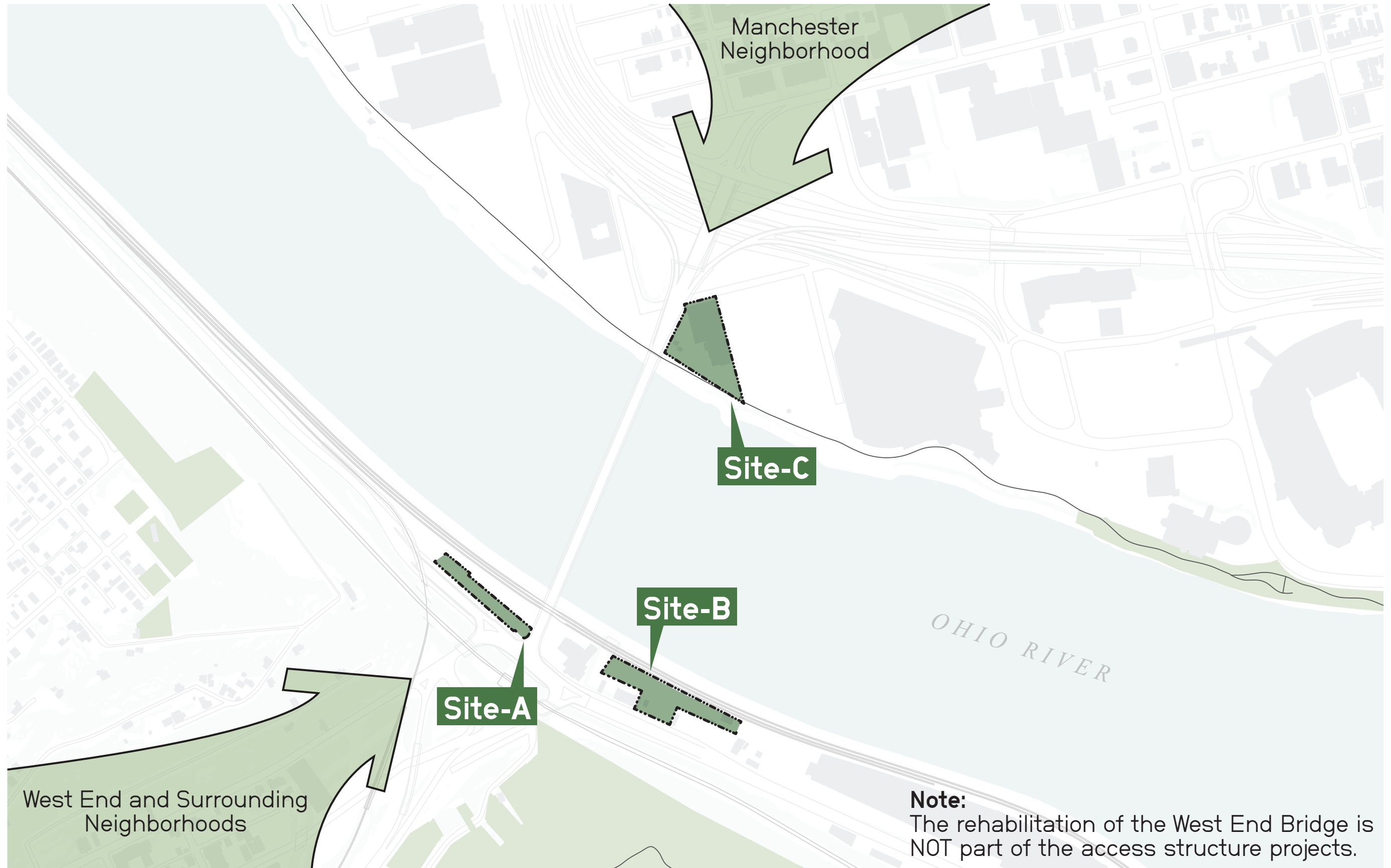




Project Site



Alcosan/
PennDOT
sites



The West End Bridge



Note:
The rehabilitation of the West End Bridge is NOT part of the access structure projects.

West End Project Sites

● Alcosan/PennDOT sites

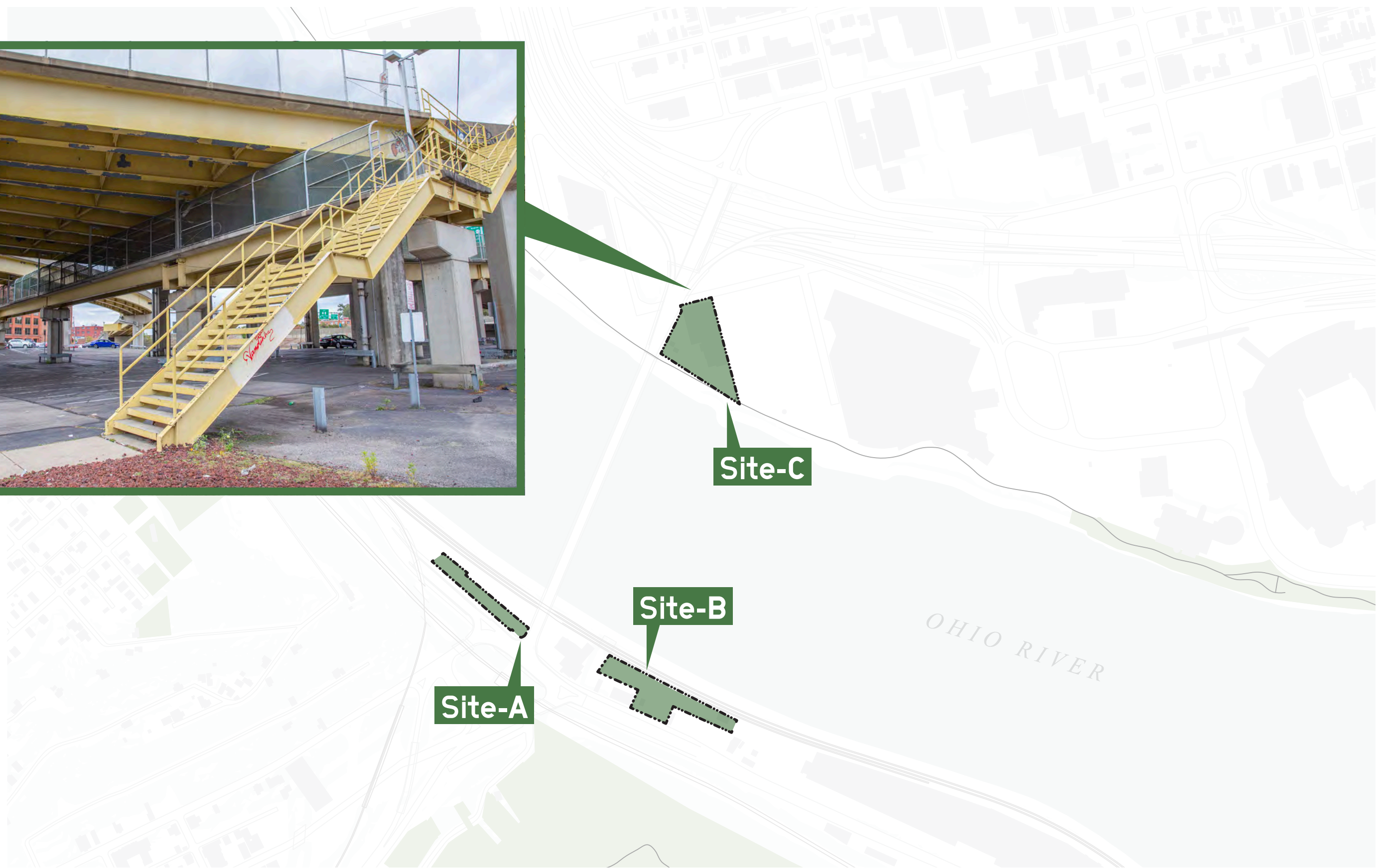
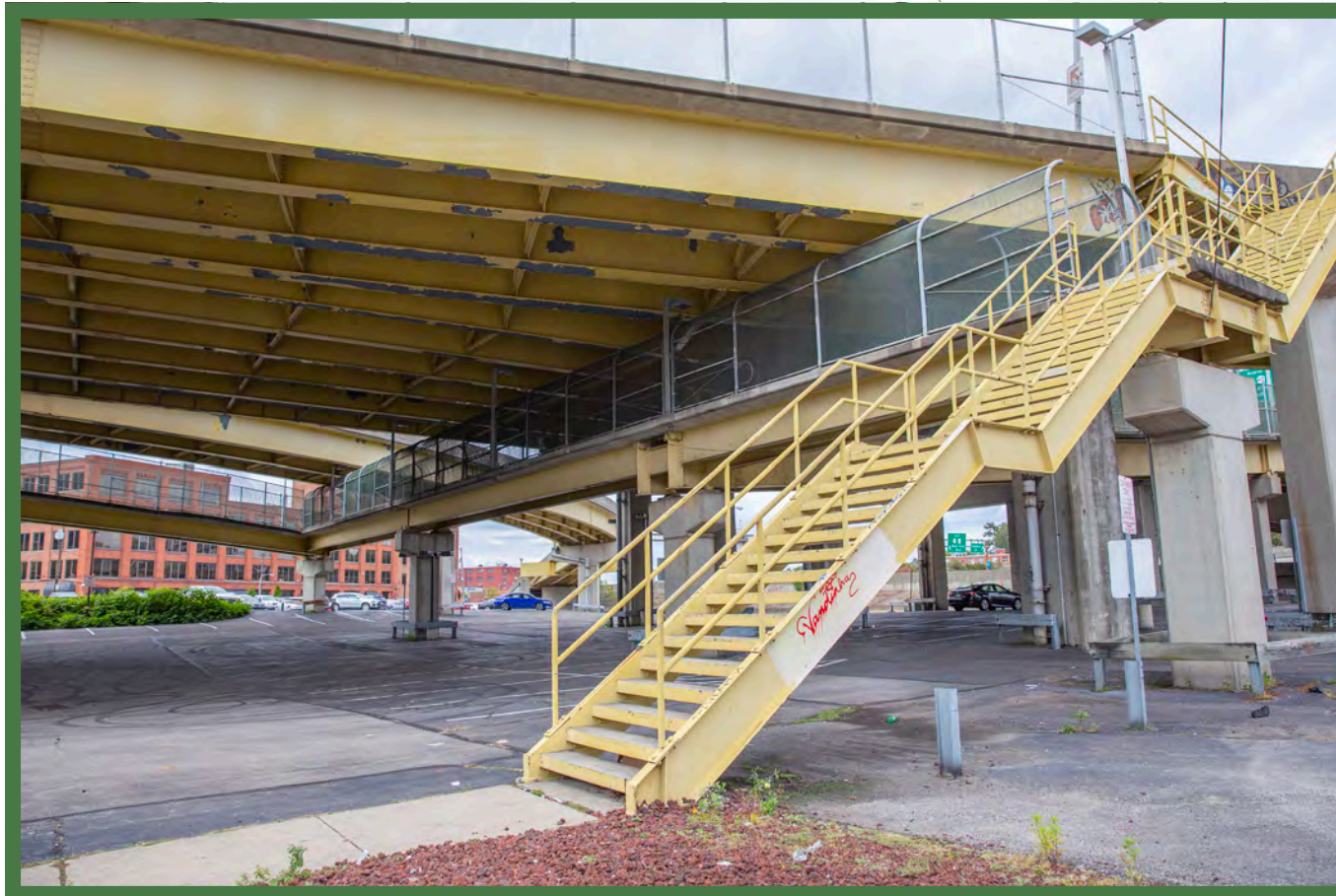


Manchester Project Site

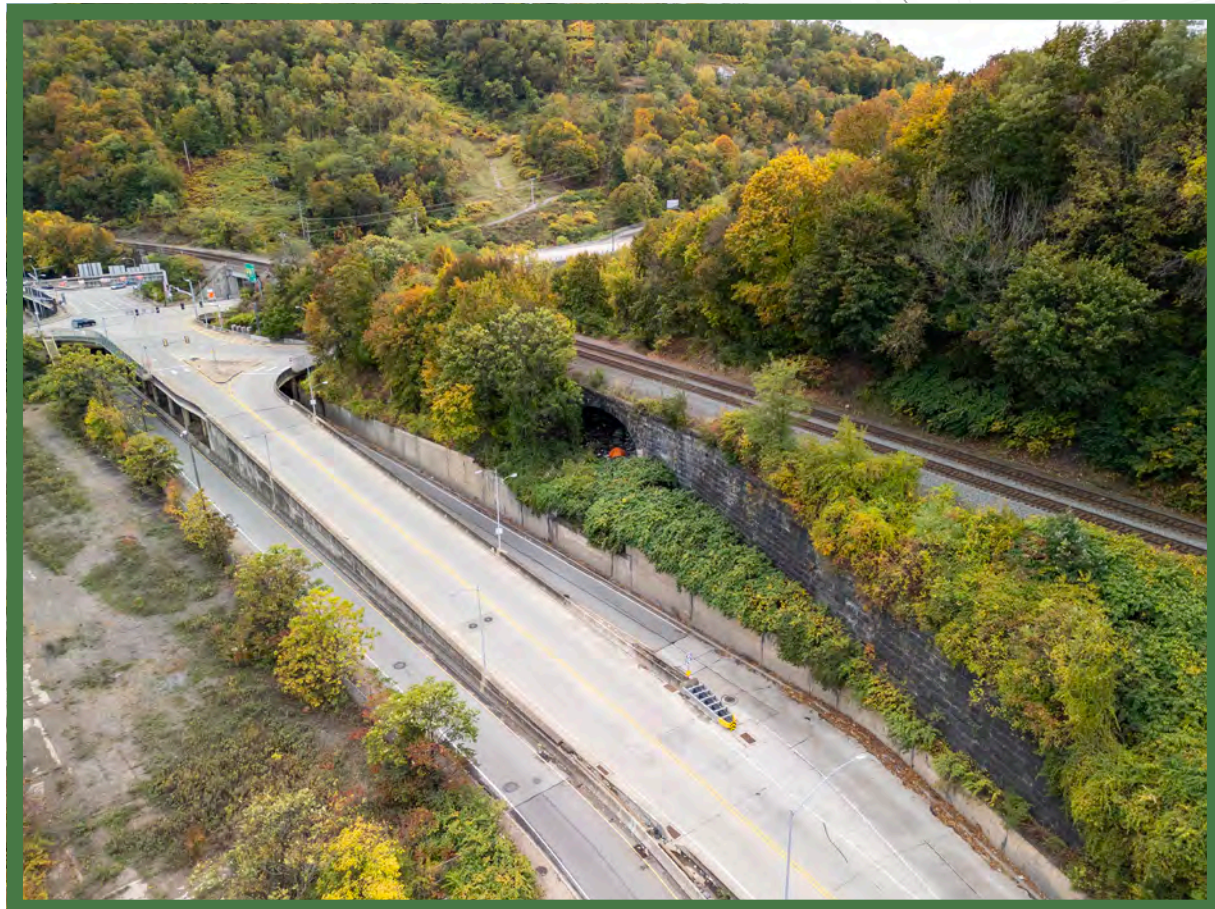
● Alcosan/PennDOT sites



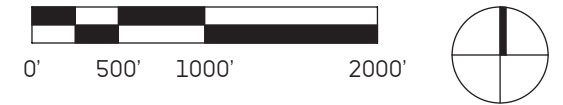
Existing Conditions



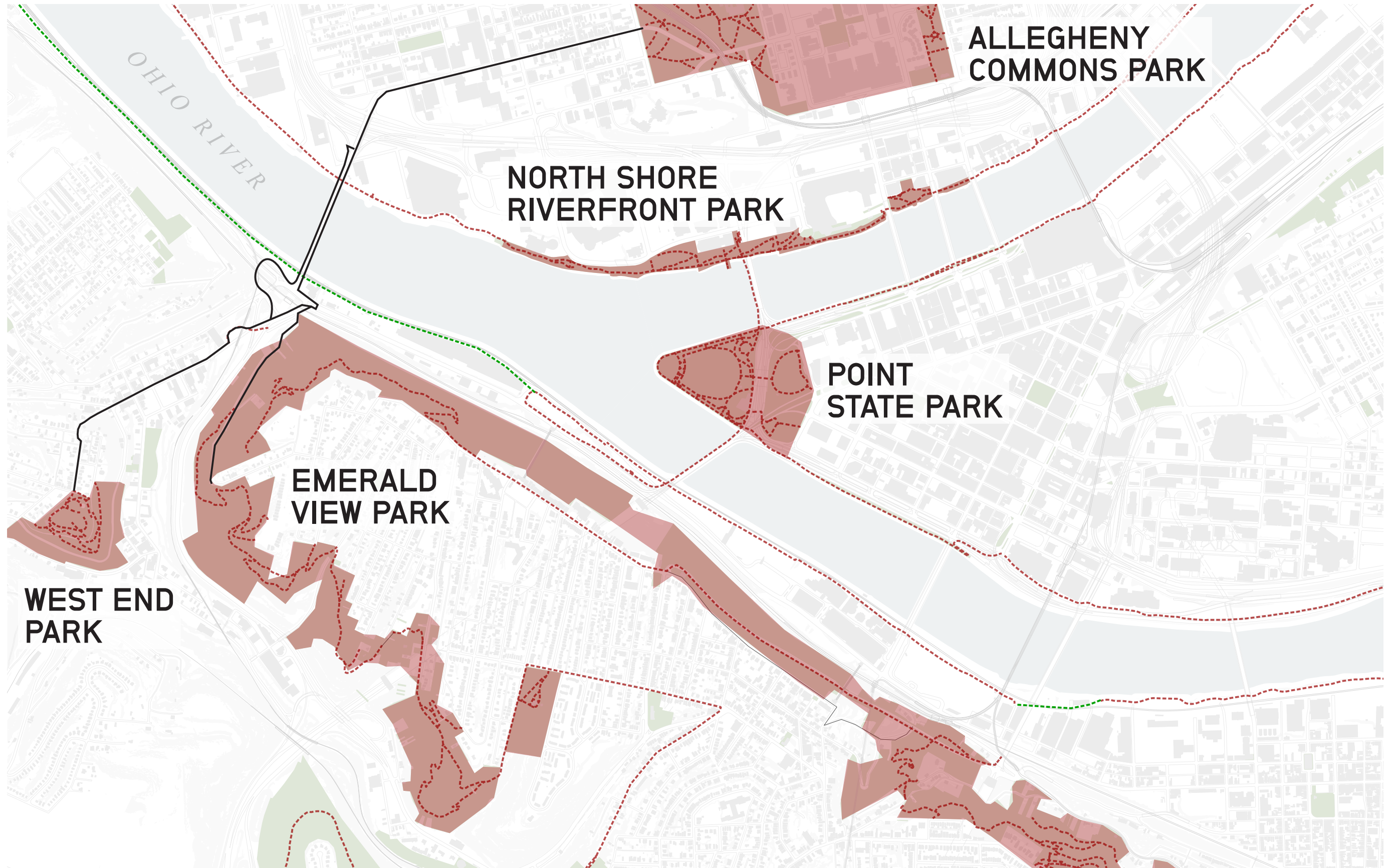
Existing Conditions



Parks



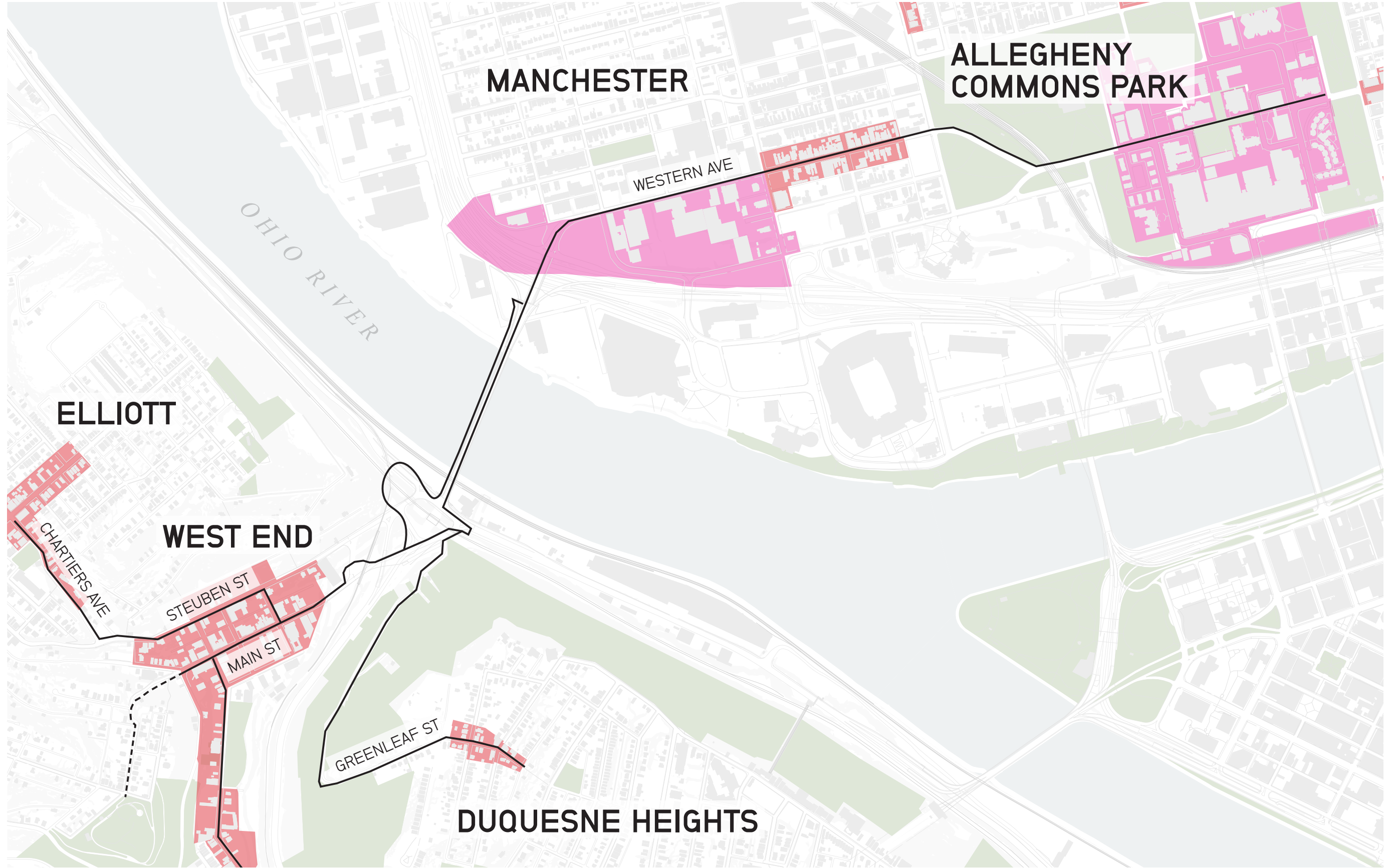
- Parks
- - Existing Trails
- - Trail Gaps
- West End Bridge Connector Routes



Commercial Areas



- Local Neighborhood Commercial
- Urban Neighborhood Commercial
- West End Bridge Connector Routes



Community Engagement by Design Team

1

Municipal Agency Stakeholders

Format: Document and Review

2

Virtual Meeting - Open to both neighborhoods

Format: Virtual meeting via Zoom

Dec. 4, 2023: 6:00 - 8:00 pm

3

In Person - Open to both neighborhoods

Format: In-Person Event at Pittsburgh Musical Theater

Dec. 5, 2023: 6:00 - 8:00 pm

4

General Public

Format: Website

Project Values - WHY

- **Connected** – Design routes to connect to the neighboring communities, to the city riverfront trail, and to the regional trail systems.
- **Safe** – Provide safe, efficient access under, around, across, and through existing infrastructure
- **Celebratory** – Celebrate the unique features of the adjacent neighborhoods, Pittsburgh, the three rivers, and the West End Bridge.
- **Pittsburgh-specific** – Highlight Pittsburgh-specific infrastructural, historical, cultural, and ecological features to create a better sense of place
- **Inclusive** – Design a welcoming public infrastructure, accessible to all
- **Well-maintained** – Ensure long-term maintenance of structures and sites

Concept Description

Overall Site Narrative

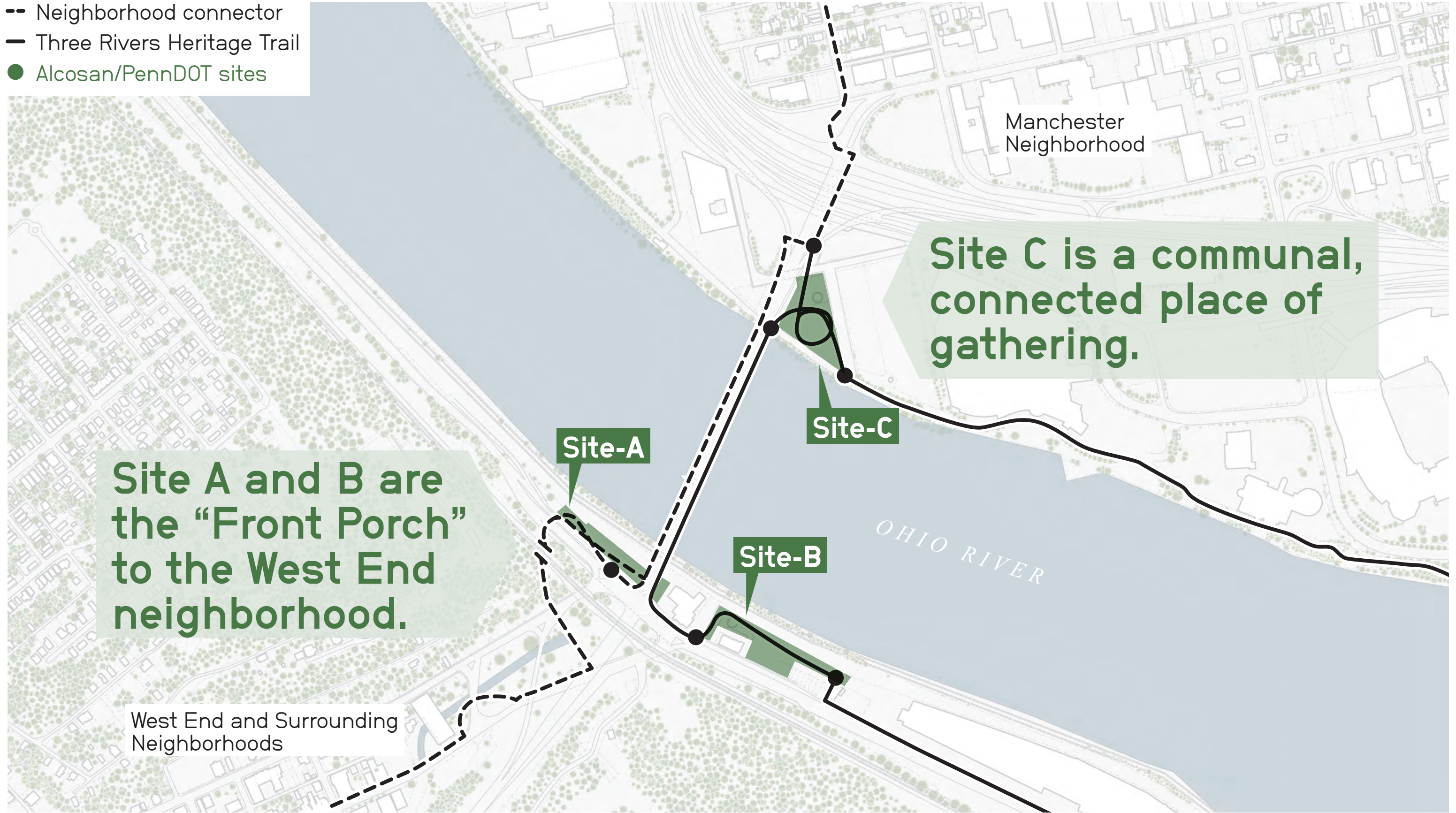


- 1. Efficient and safe biking and pedestrian experience.**
- 2. Passive programming with scattered intimate gathering spaces.**
- 3. Meandering, gentle structures framing and emphasizing the natural landscape and ecosystems.**

Overall Site Narrative



- Neighborhood connector
- Three Rivers Heritage Trail
- Alcosan/PennDOT sites



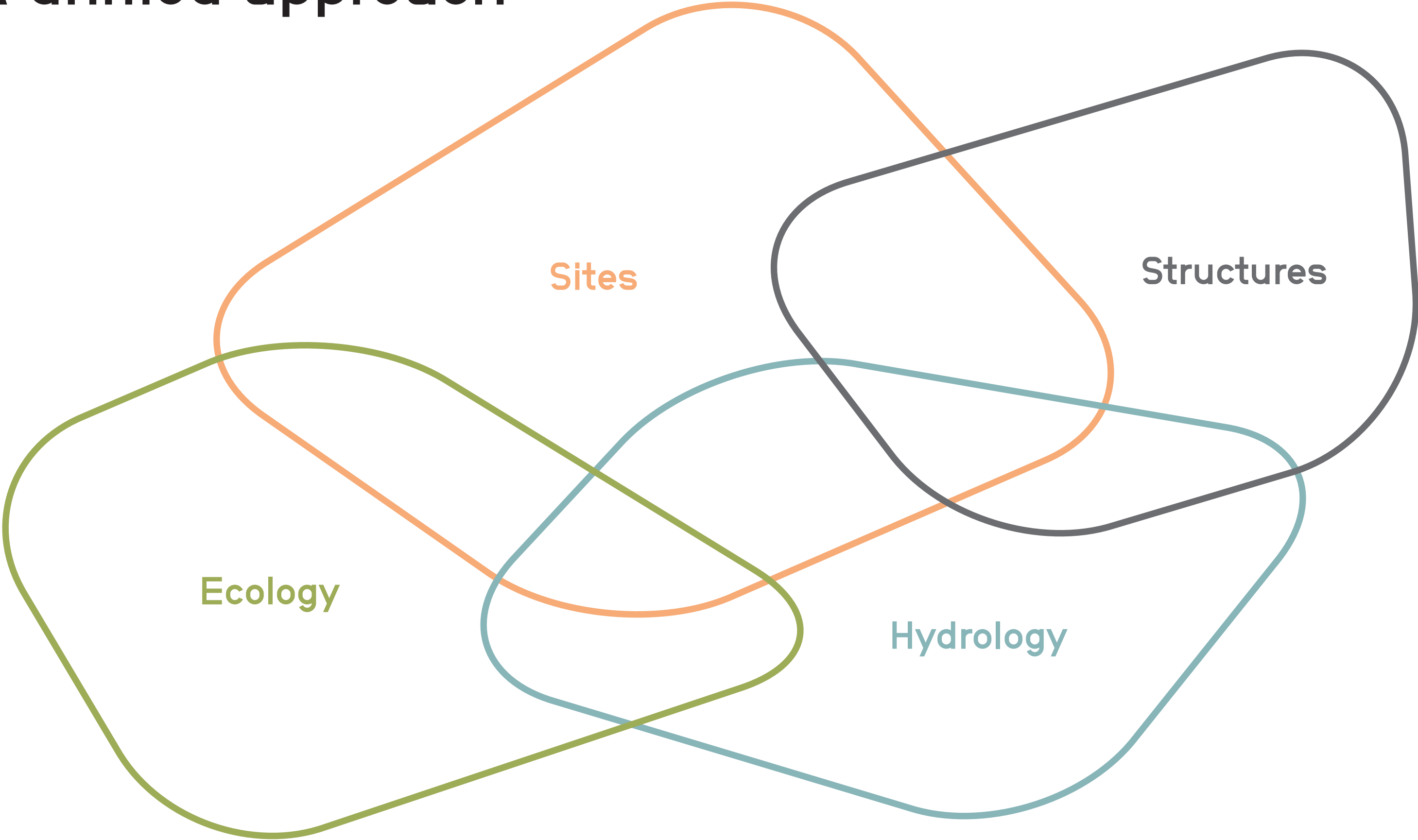
A unified approach

Landscape, architecture, structure, lighting, accessibility, art, connectivity, history...

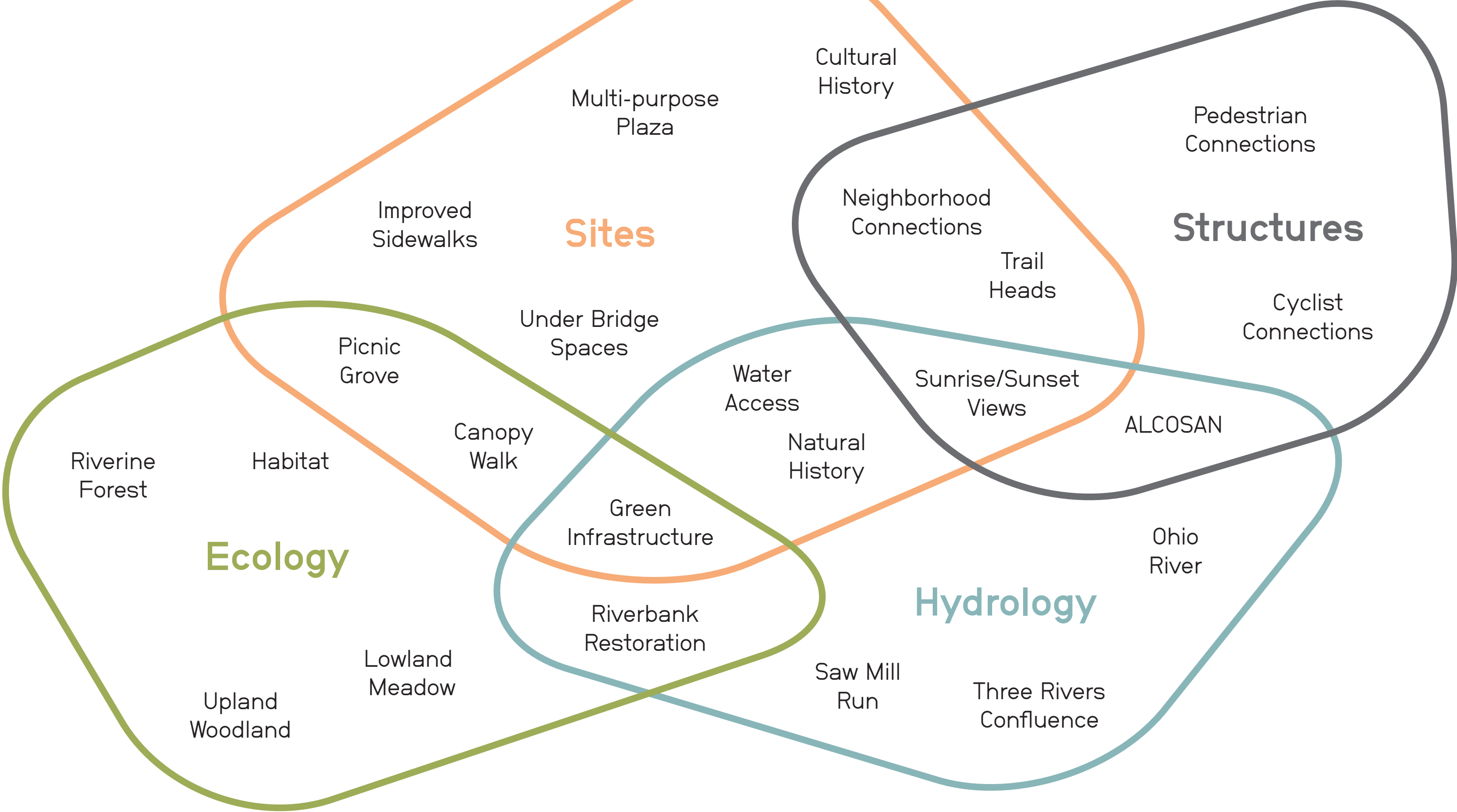
...The project brings together each of these elements into a singular approach that tells a story of Pittsburgh, it's people, it's history, and it's ecologies.



A unified approach



A unified approach



Project Approach



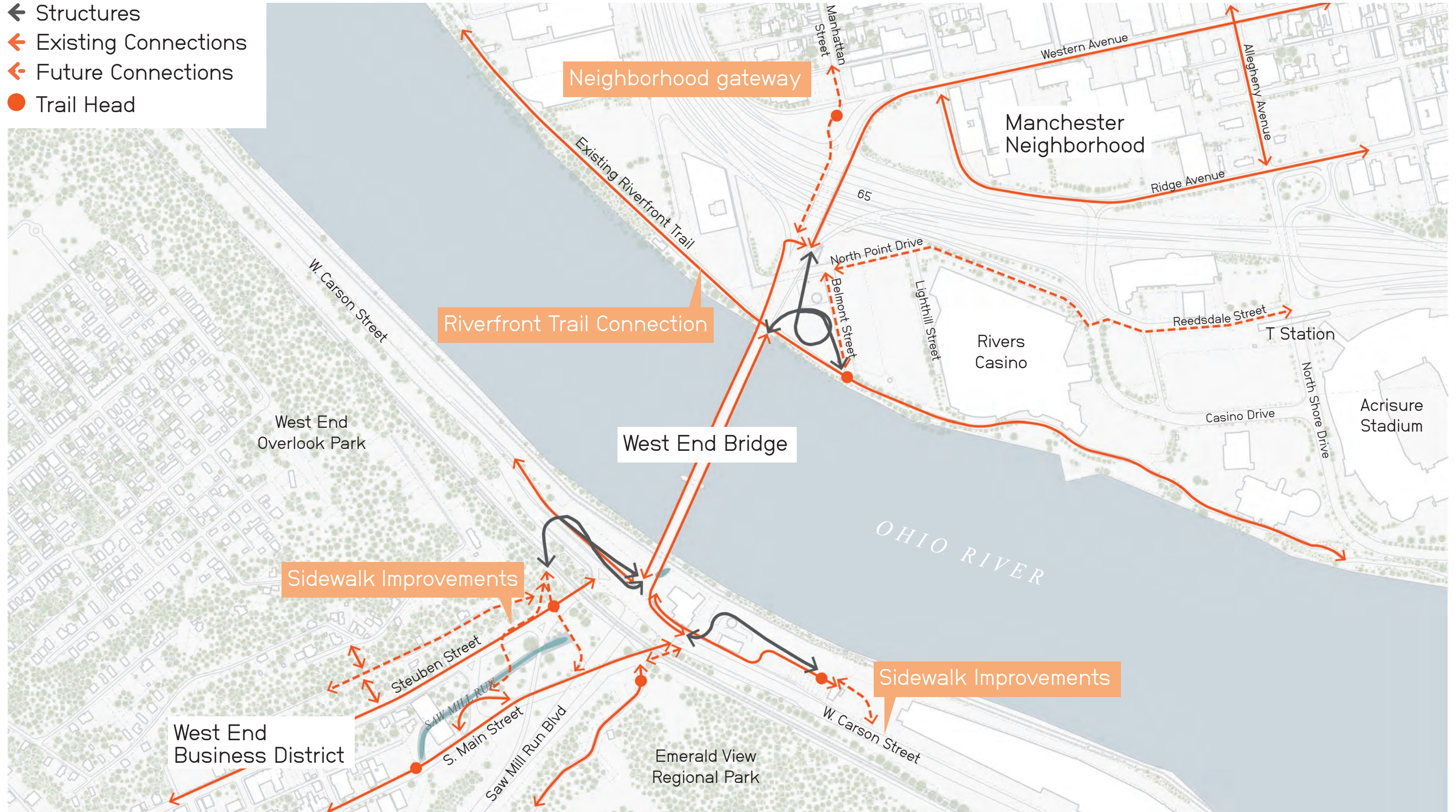
- ← Structures
- ↔ Existing Connections
- ↔ Future Connections
- Trail Head



Project Approach - Sites & Connectivity



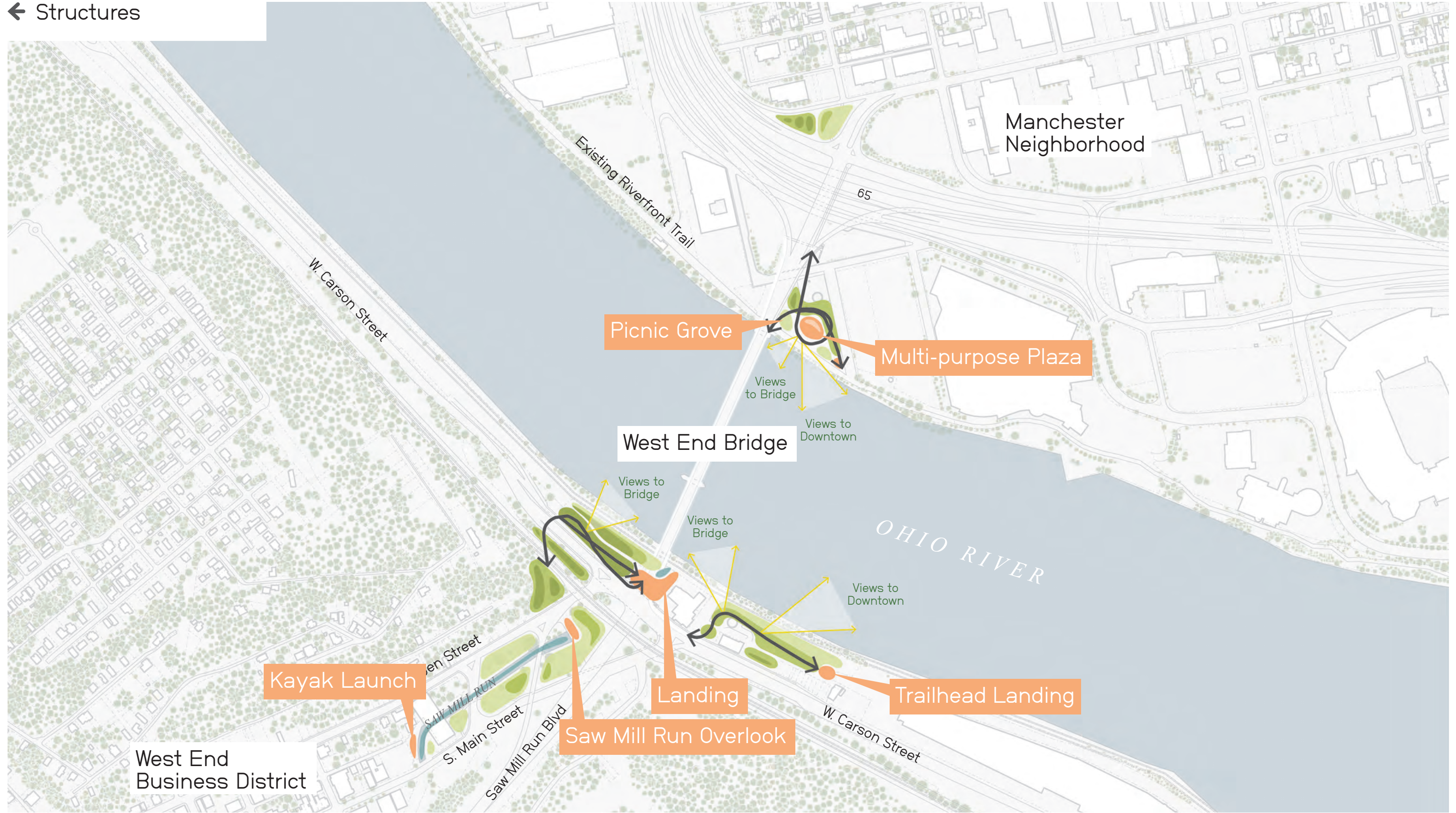
- ← Structures
- ↔ Existing Connections
- ↔ Future Connections
- Trail Head



Project Approach - Site Offerings



← Structures



Project Approach - Ecology



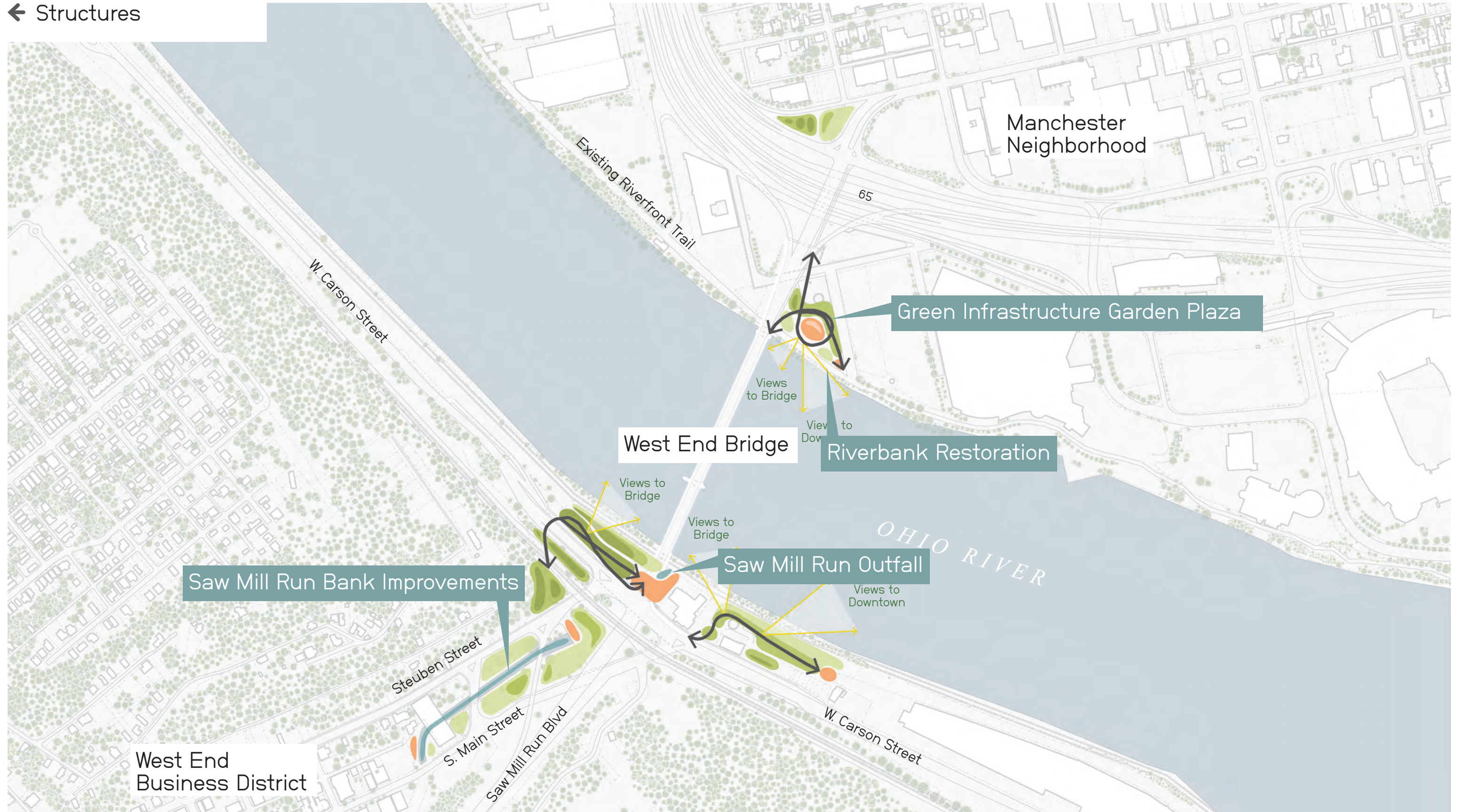
← Structures



Project Approach - Hydrology



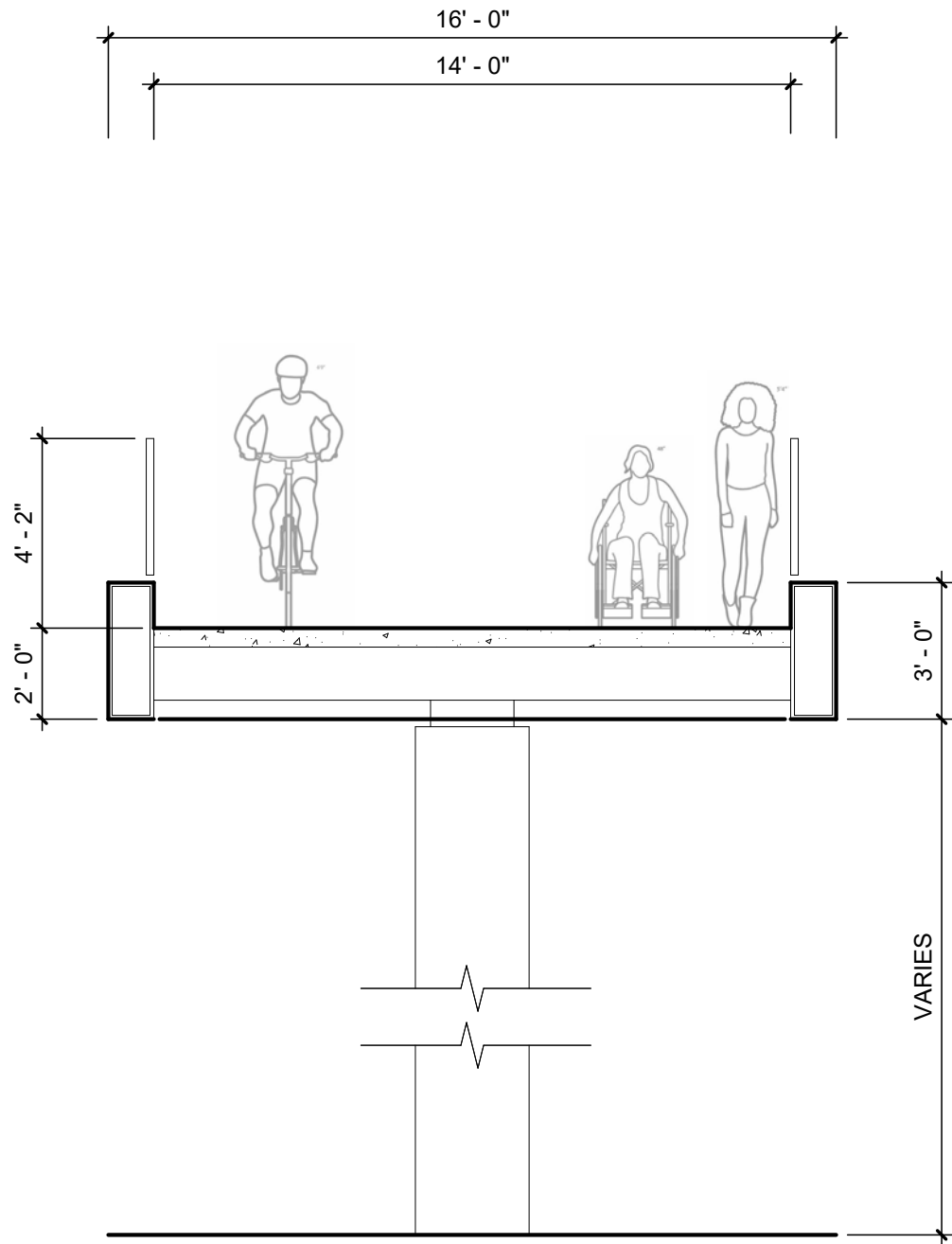
← Structures



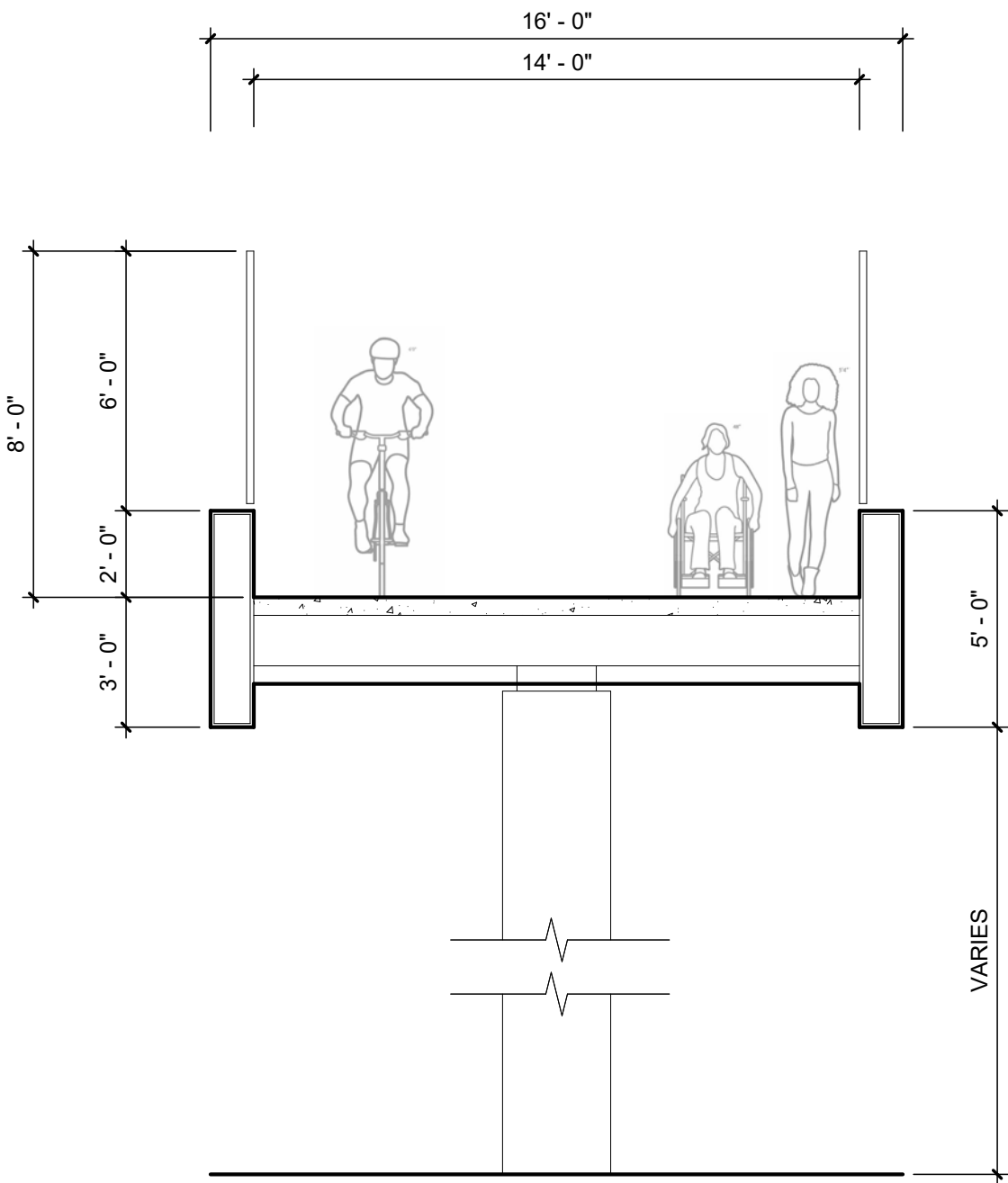
Overall Site Plan



A Shared Use Path



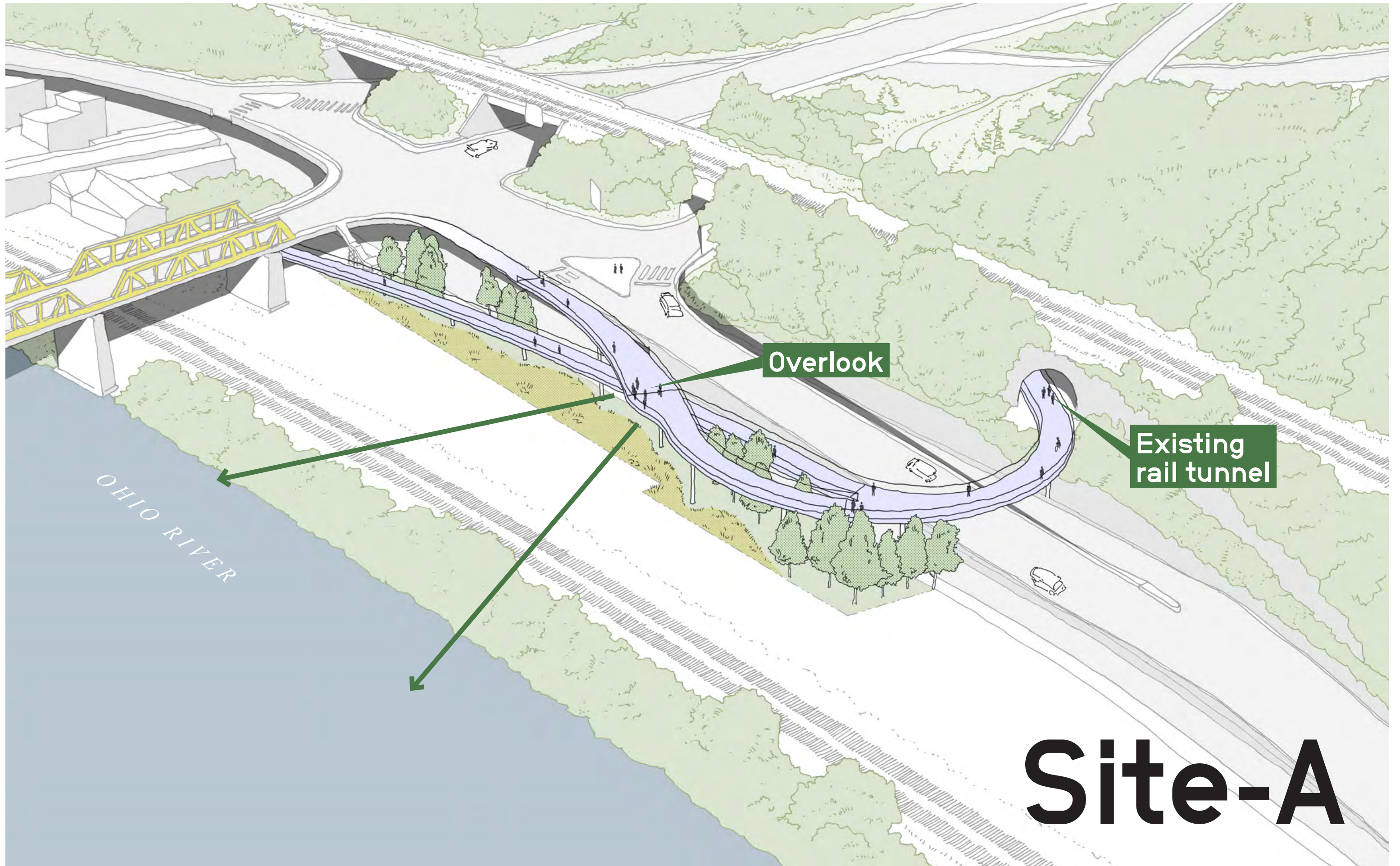
Typical structure section



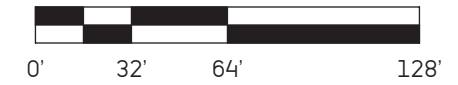
Long-span structure section

West End Site Plan

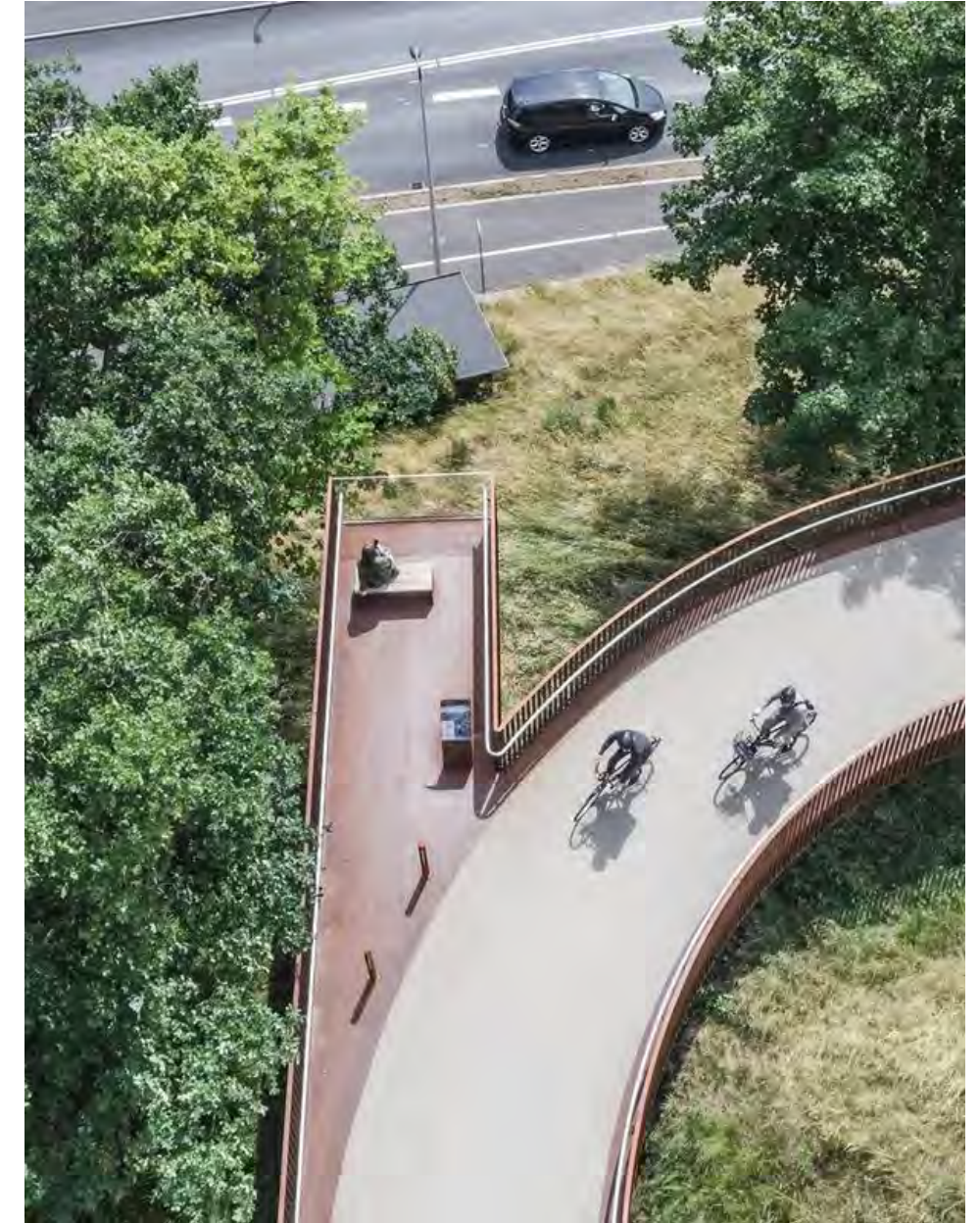




Site-A Plan

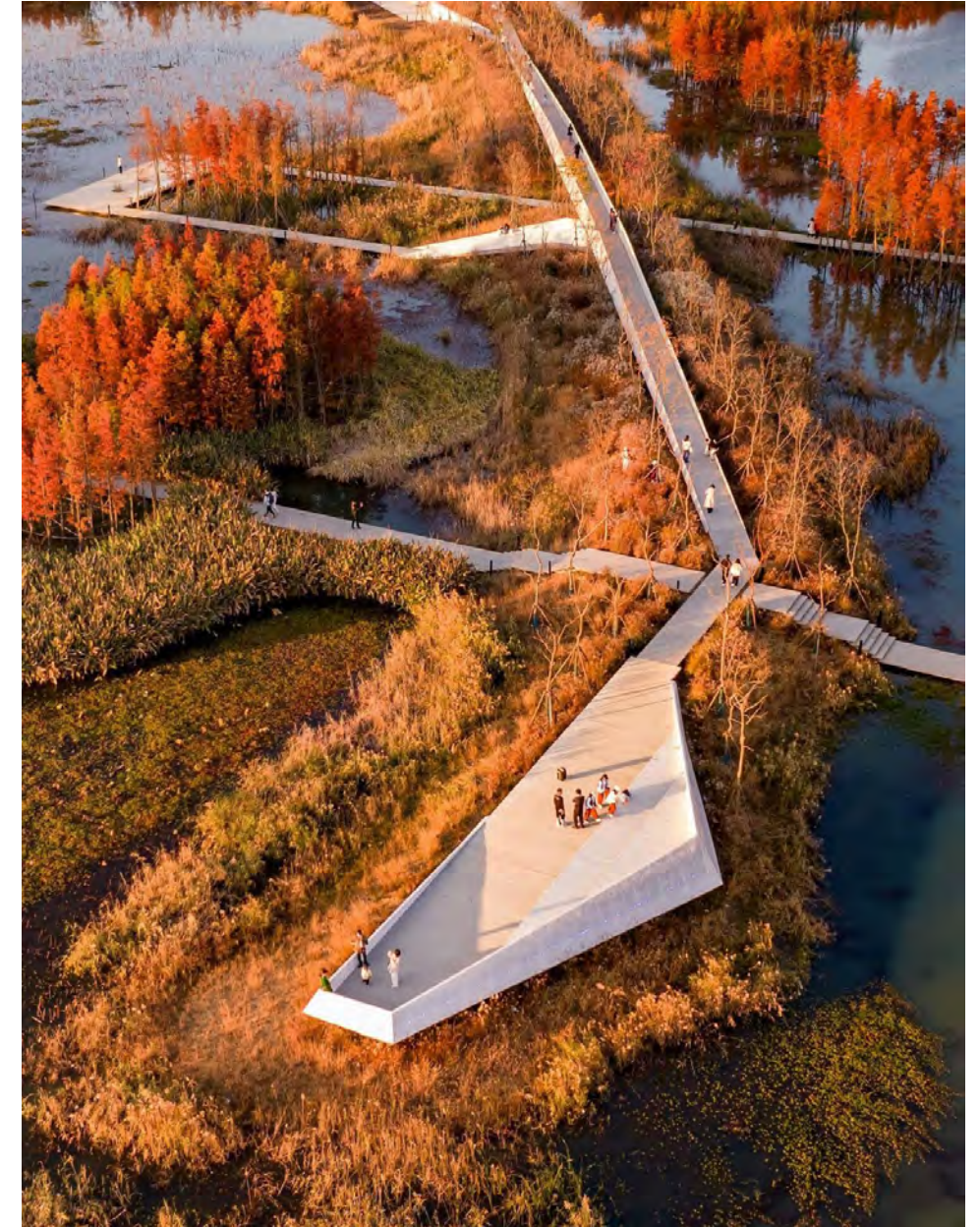


References - Woodland Canopy



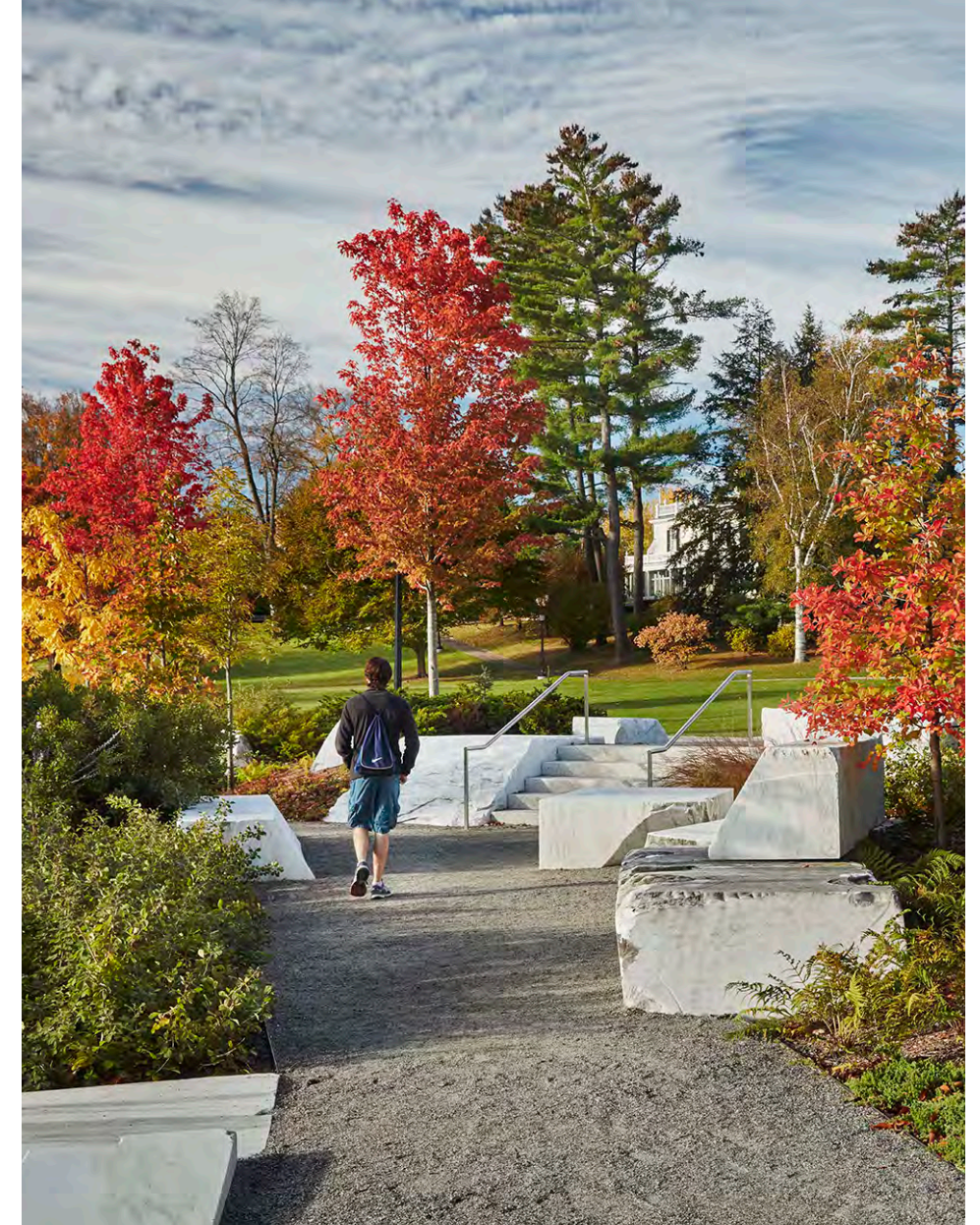
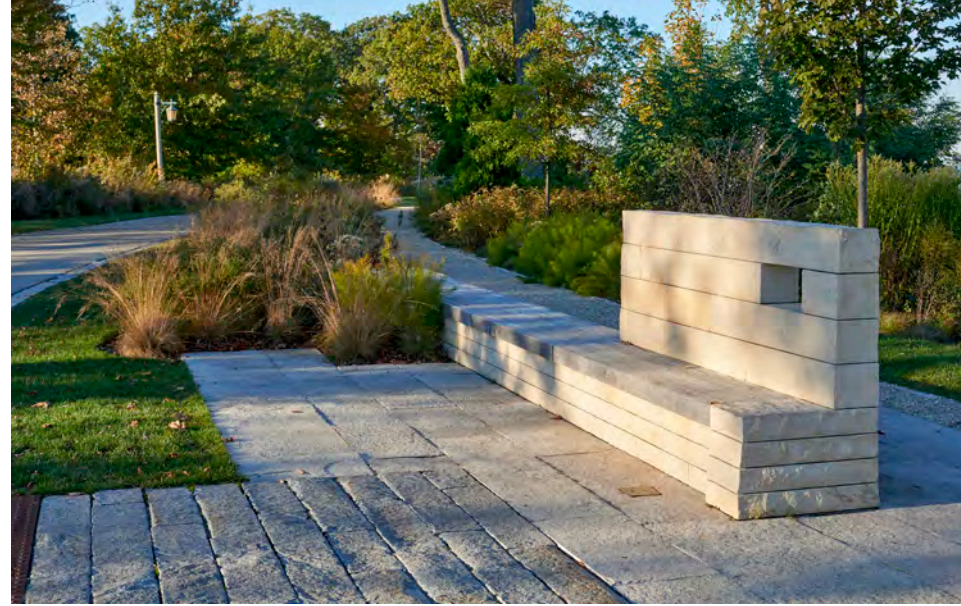
The path weaves through a canopy of woodland trees. Dense groves of trees are planted near the top of the structure to create the sense of moving through the canopy. Fewer trees along the riverfront edge allow for open views to the West End Bridge and the Point.

References - Lowland Meadow



Lowland meadow planting is established on the riverfront side of the structures. The path slices through the meadow. Low planting height keeps views open toward the West End Bridge and the City.

References - Trailhead Landings



Trailhead landings are the gateways to the structures. These areas provide typical trail amenities including seating, signage, litter receptacles, and bike racks.

Pedestrian Amenities



Areas of Rest

Areas for rest, featuring comfortable seating and ample shade to provide a tranquil space for relaxation and conversation, can enhance the pedestrian experience and encourage social interaction along the bridge.



Pedestrian-only paths

Pedestrian-only paths in crease safety for walkers and joggers by eliminating conflicts with cyclists or motor vehicles. They provide a tranquil environment conducive to relaxation and recreation, promoting healthier lifestyles.



Shared Paths

Shared bike and pedestrian paths into the bridge ramp structure project promotes multimodal transportation, fostering interaction, connectivity and accessibility for both cyclists and pedestrians.

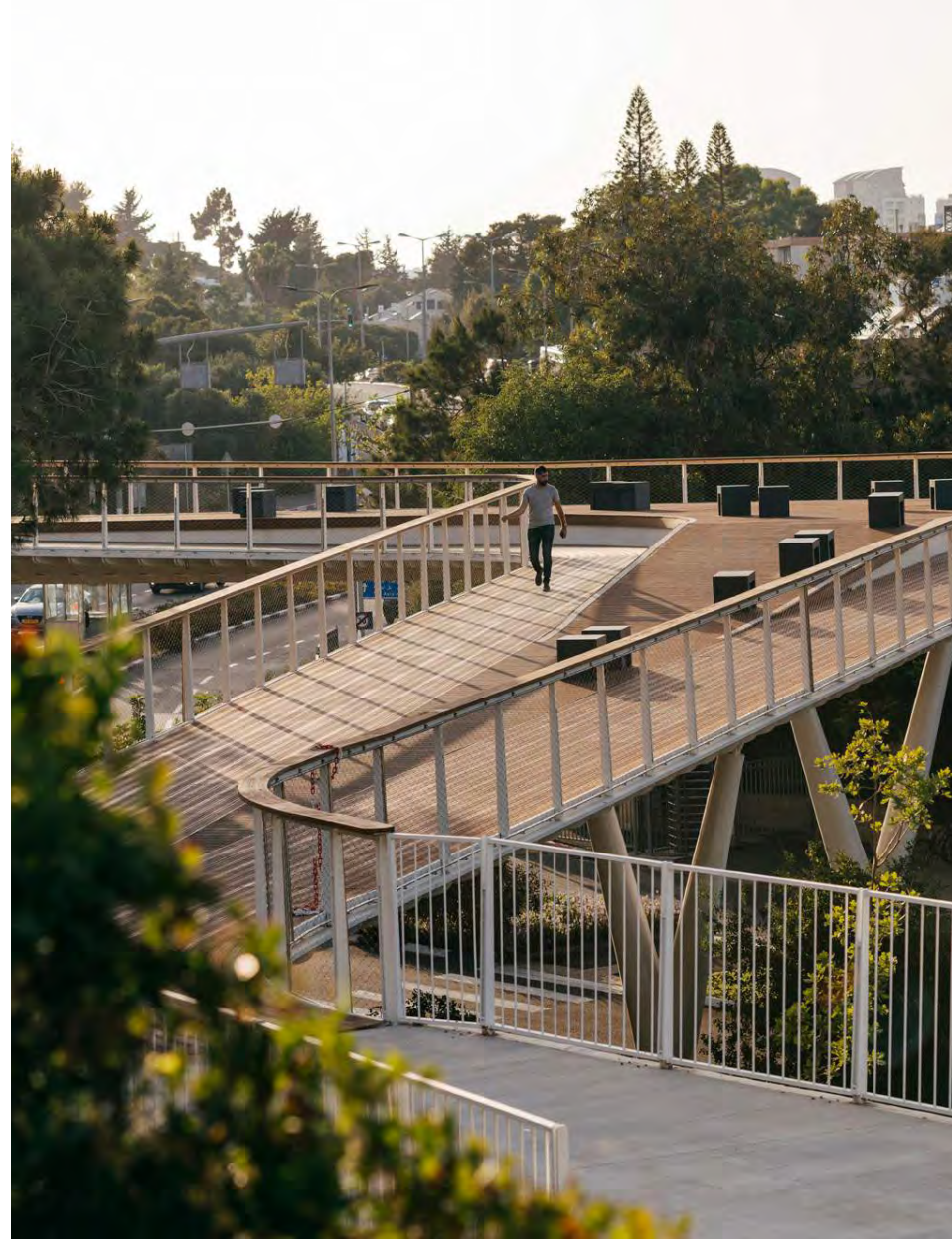
Pedestrian Amenities



Spiral Ramps

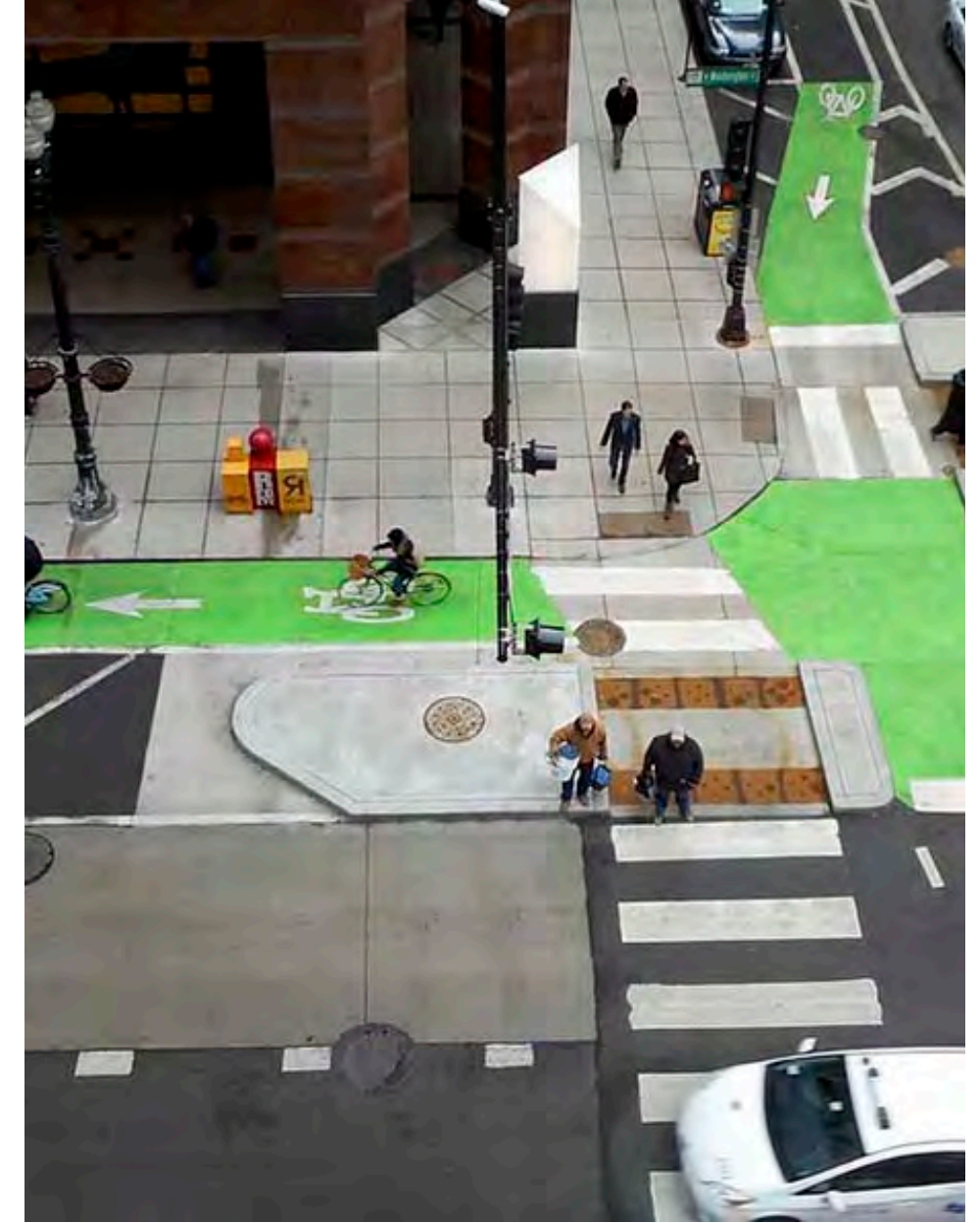
Spiral ramp structures provide a gradual incline, making them more accessible for users with mobility challenges. Their aesthetic appeal and unique design also creates a visually striking element in the urban landscape.

WEB Access Structures: Concept Report



Linear Paths/Stairs

Linear paths/stairs offer straightforward navigation and efficient use of space, providing clear directional guidance for pedestrians and cyclists, enhancing safety and accessibility.



Pedestrian Crossings

Pedestrian crossings provide direct and safe routes across busy roadways or intersections. Their designated pathways enhance pedestrian safety and accessibility, reducing the risk of accidents and improving traffic flow.

February 14, 2024 Pg. 81

Cycling Amenities



Shared Bike/Ped Paths

Shared paths can improve safety by increasing awareness and visibility among different users. They also promote social interaction and can foster a sense of community.



Dedicated bikeways

Dedicated bikeways offer enhanced safety and efficiency for cyclists, reducing conflicts with pedestrians and accommodating higher speeds. They encourage more people to choose cycling as a mode of transportation.



Bike Ramp

Spiral bike ramps provide smoother transitions and easier navigation for cyclists compared to linear ramps with harsh angles. They enhance accessibility, and contribute to a safer and more enjoyable biking experience overall.

Cycling Amenities



Bike Parking

Bike parking facilities are a critical element to support cycling. Parking facilities encourage increased use of bike usage and supporting healthier and more active lifestyles.



Bike Share Station

Bike sharing stations offer easy access to bikes for short-term use, providing an affordable and flexible transportation option for local residents and visitors. When part of a larger network of bike sharing, these stations connect disconnected areas of the city.



Bike & Ped Crossings

Bike and pedestrian-only intersections prioritize the safety and convenience of cyclists and pedestrians by providing designated crossing points, designating who has the right in a bike and pedestrian network.

Toolkit

Visual Calming

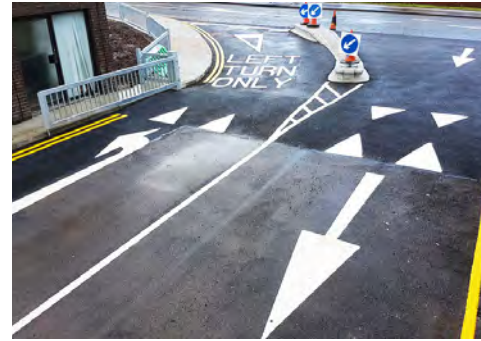
Ped Symbols



Bike Symbol



Yield Markings



Zebra Crossing



Visual Narrowing



Diamond Markings



Speed Calming

Bollards



Flexible Delinator



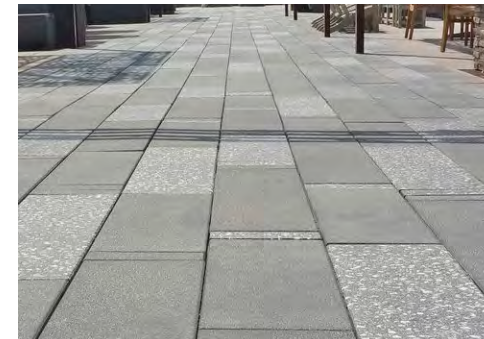
Tactile Pavers



Cobbled Pavers



Textured Pavers



Textured green paint



Management

Plant Trimming



Trail User Count

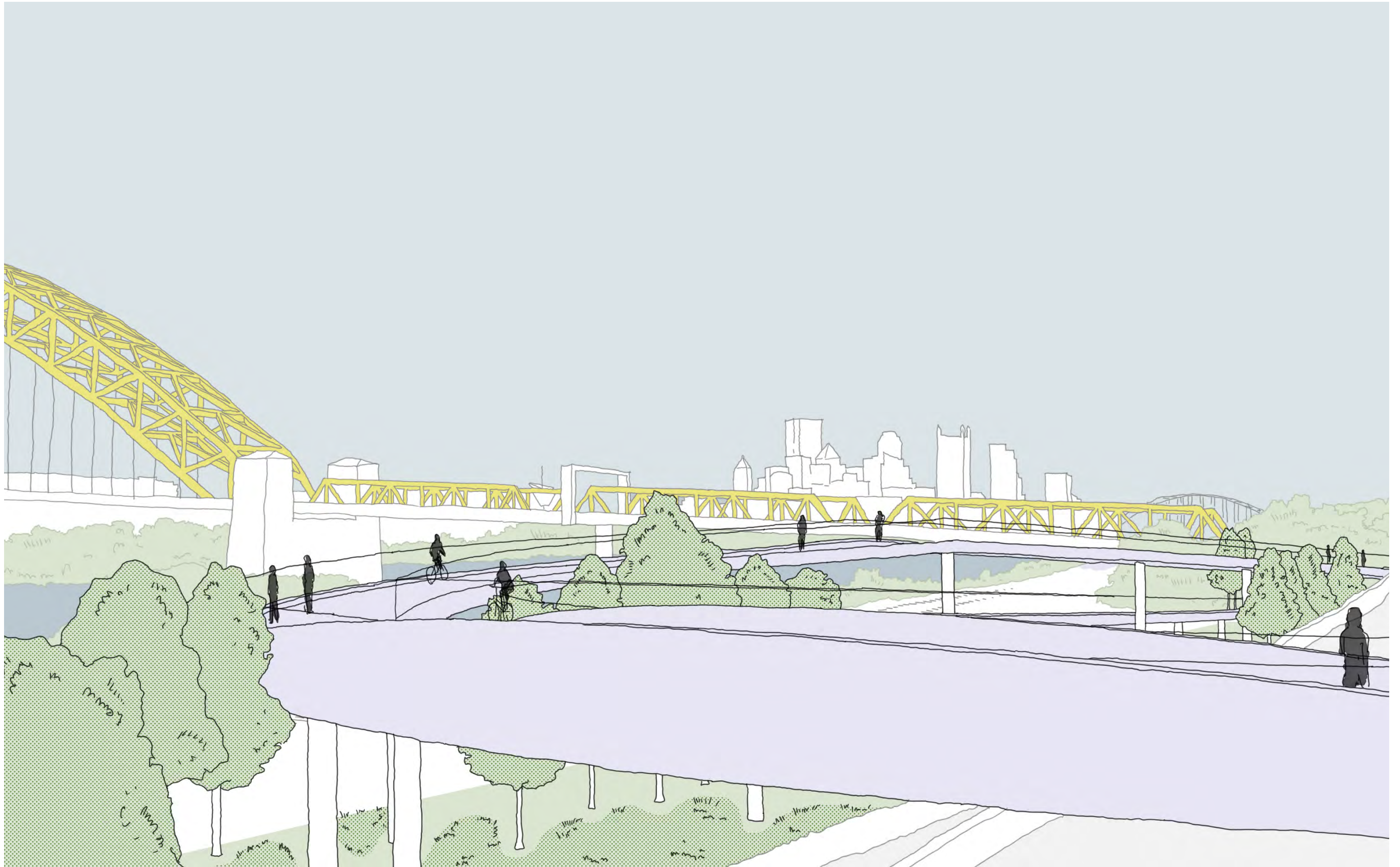


Bike Signals

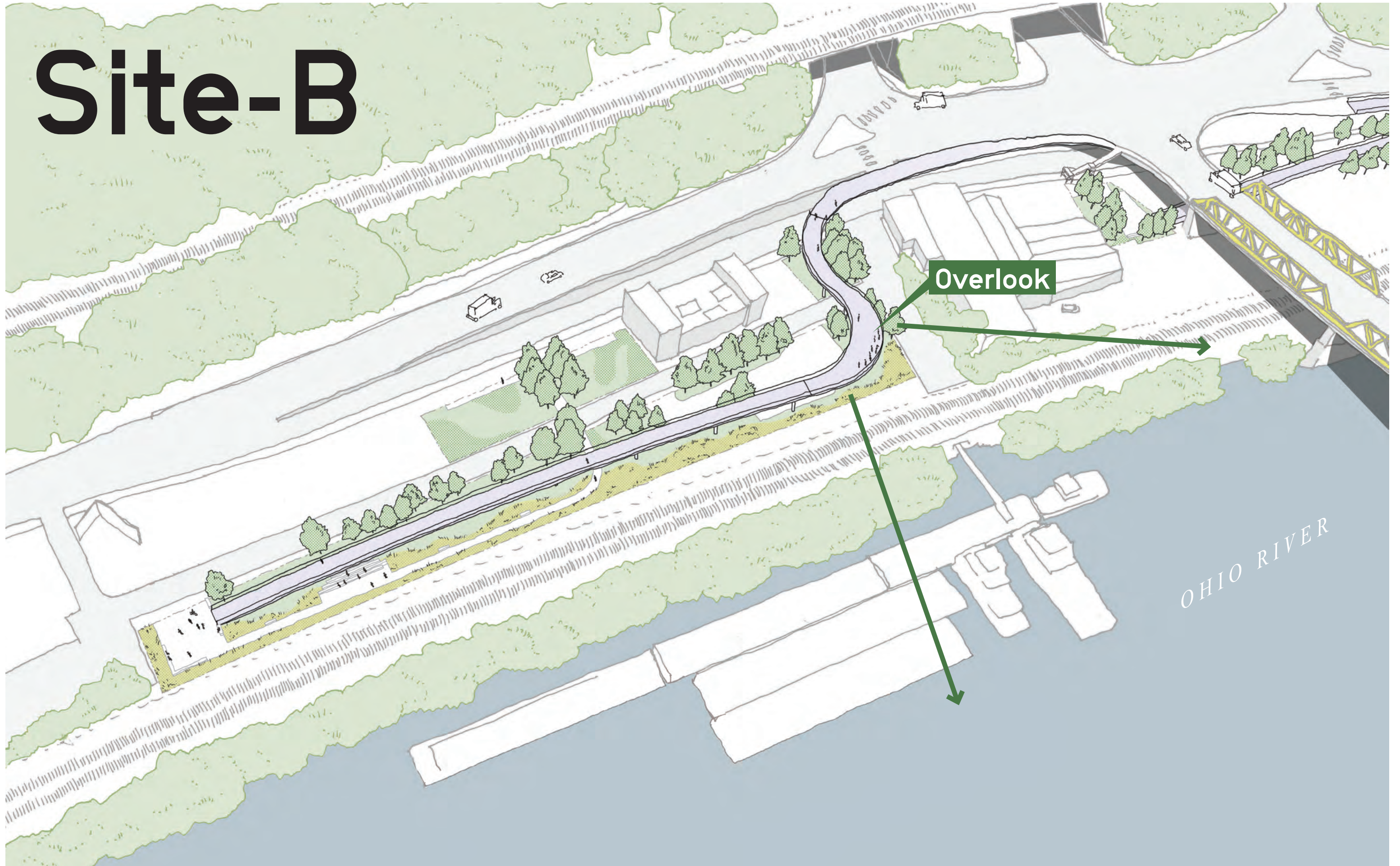


Consolidated Crossings

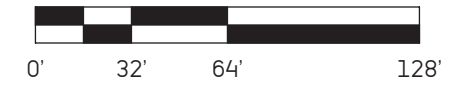


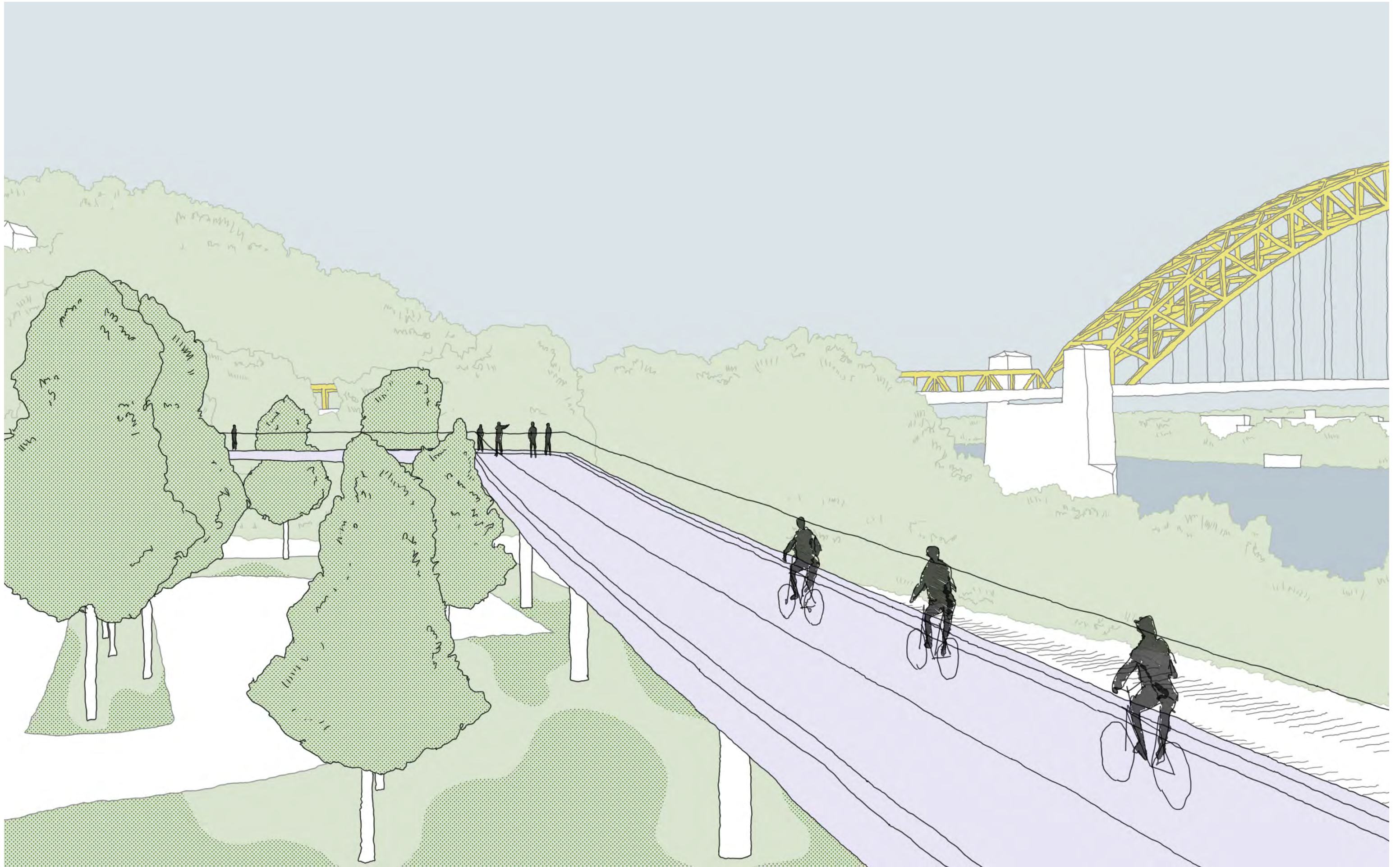


Site-B



Site-B Plan

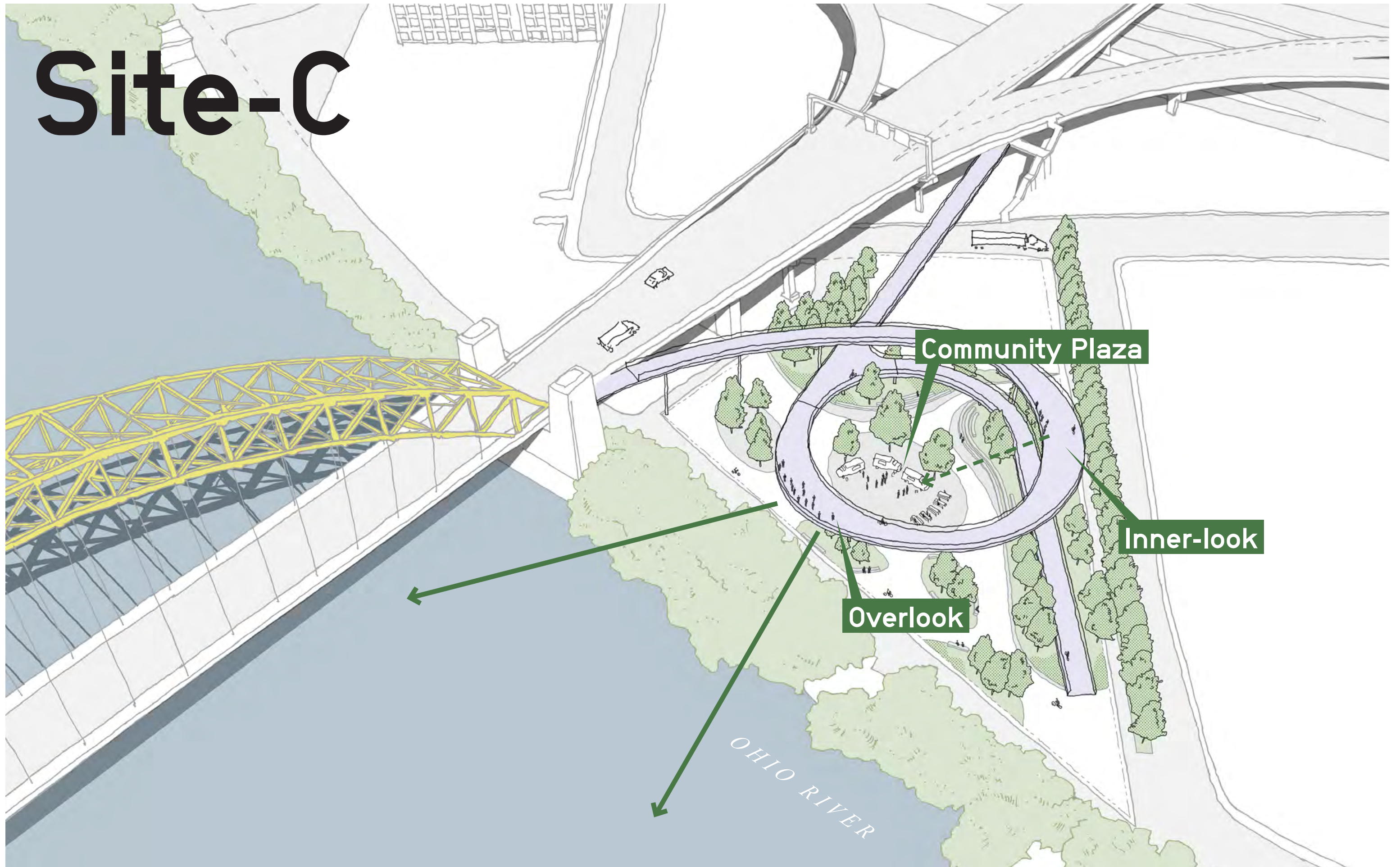




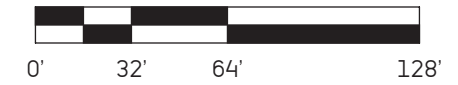
Manchester Site Plan



Site-C



Site-C Plan



Multi-purpose Plaza



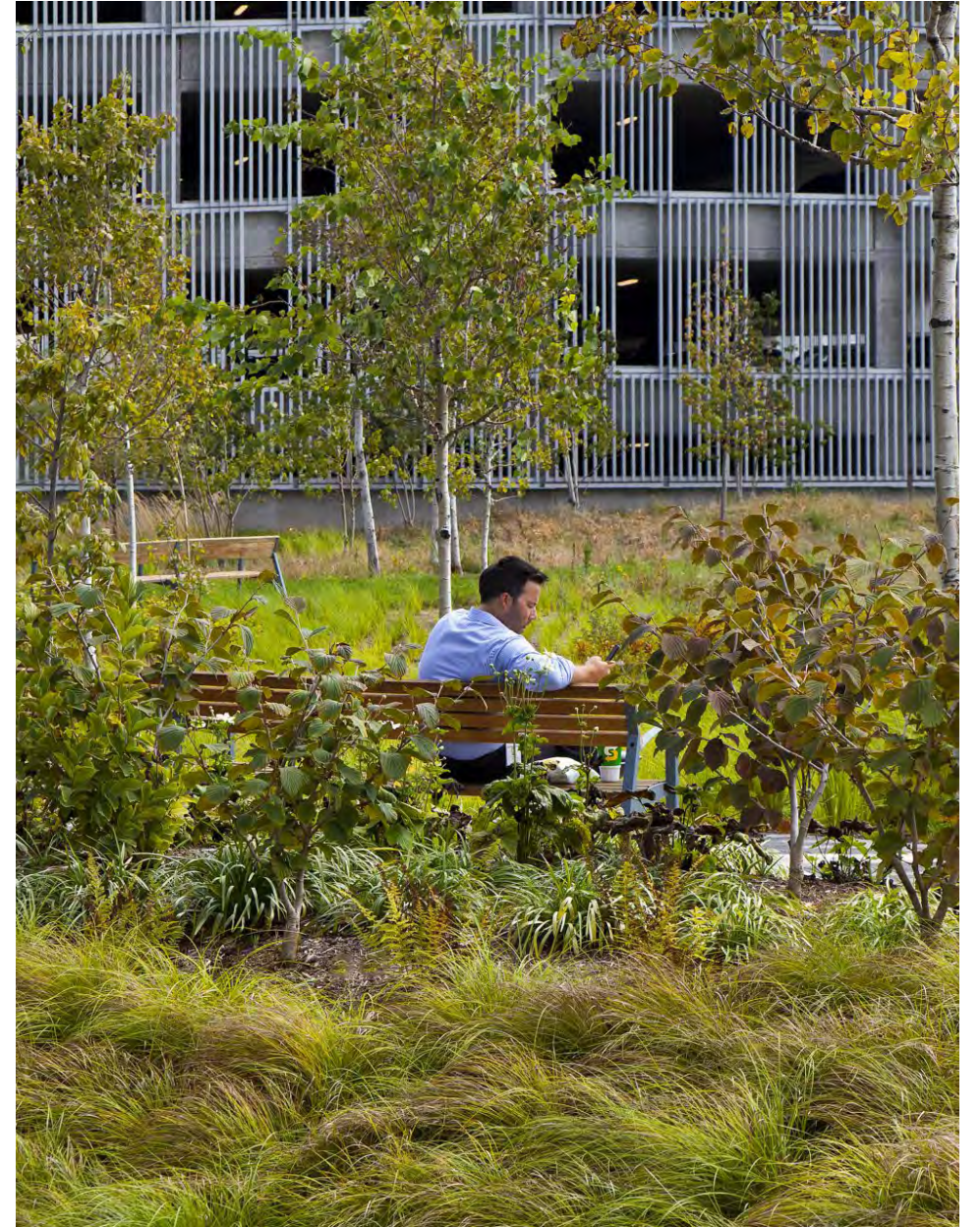
A multi-purpose plaza is designed as the communal gathering space along the riverfront. Open, flexible space allows for a diversity of community-based activities. Stepped seating integrated into the topography creates elevated views of the riverfront, the structures, and the plaza.

Picnic Grove



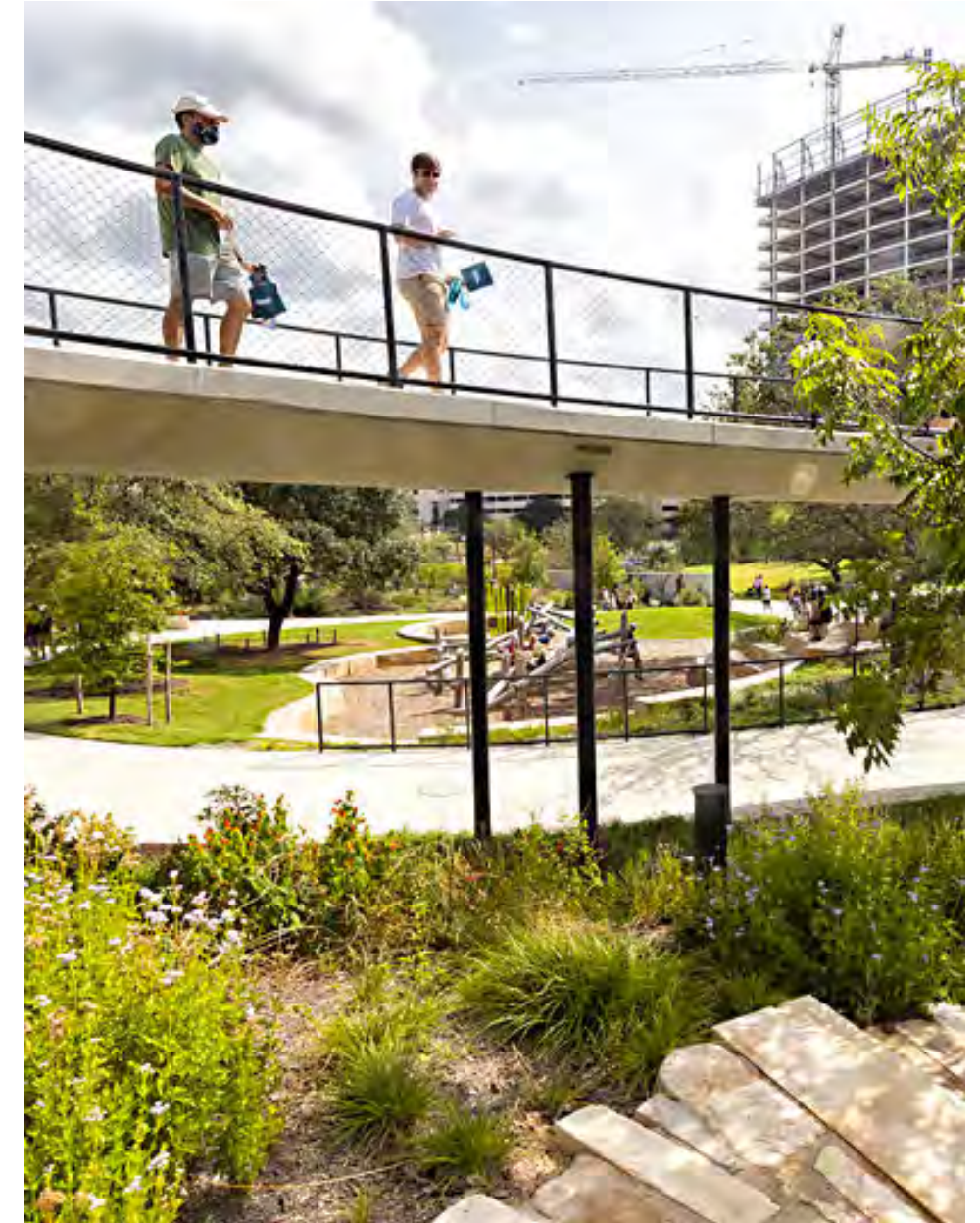
An smaller-scaled gathering grove is designed as an alternative space to the larger multi-purpose plaza. The grove includes group seating under the shade of native vegetation. The space is located near parking under the West End Bridge for easy access and potential for food truck hook ups.

Woodland Buffer



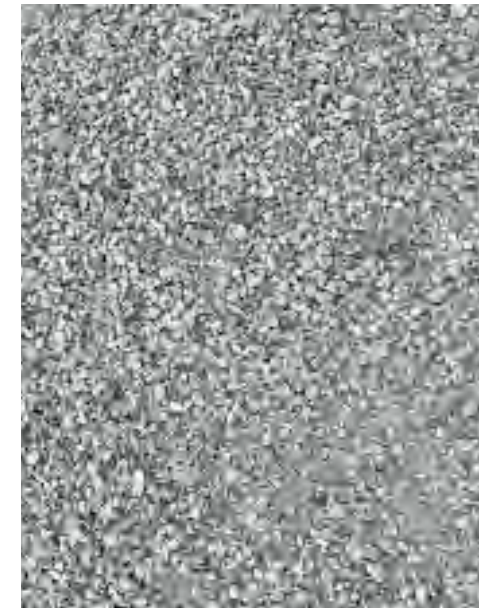
The woodland buffer provides a backdrop to the multi-purpose plaza with slightly elevated topography, native plantings, and stepped seating.

Green Infrastructure Garden



The green infrastructure garden creates space for visible stormwater management. Smaller-scaled paths, educational signage, and native planting are designed to tell the story of stormwater management and riverine flows on site.

Materials



Inspired by Pittsburgh's riverbanks, water flow, sediment deposits, and local stone, the material palette incorporates large stone blocks, boulders, exposed aggregate paving, stone dust, and logs.

Site-C Plan, Mobility Overlay

