

# West End Bridge Access Structures

Virtual Presentation - design updates  
March 13, 2024

**Riverlife** +

**BURO HAPPOLD**

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**LANGAN**

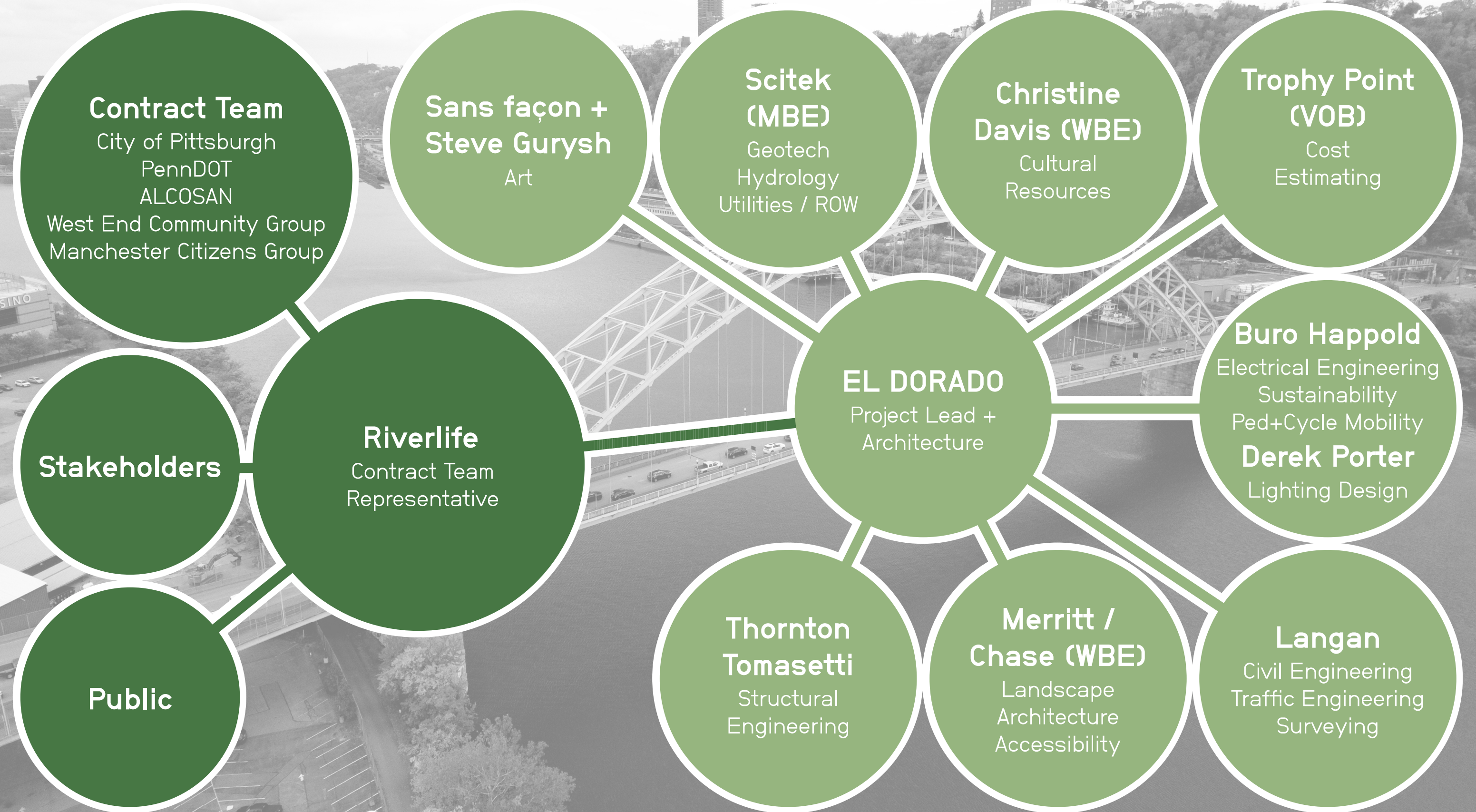
MERRITT  
CHASE

Sans façon

**Schtek**  
CONSULTANTS, INC.

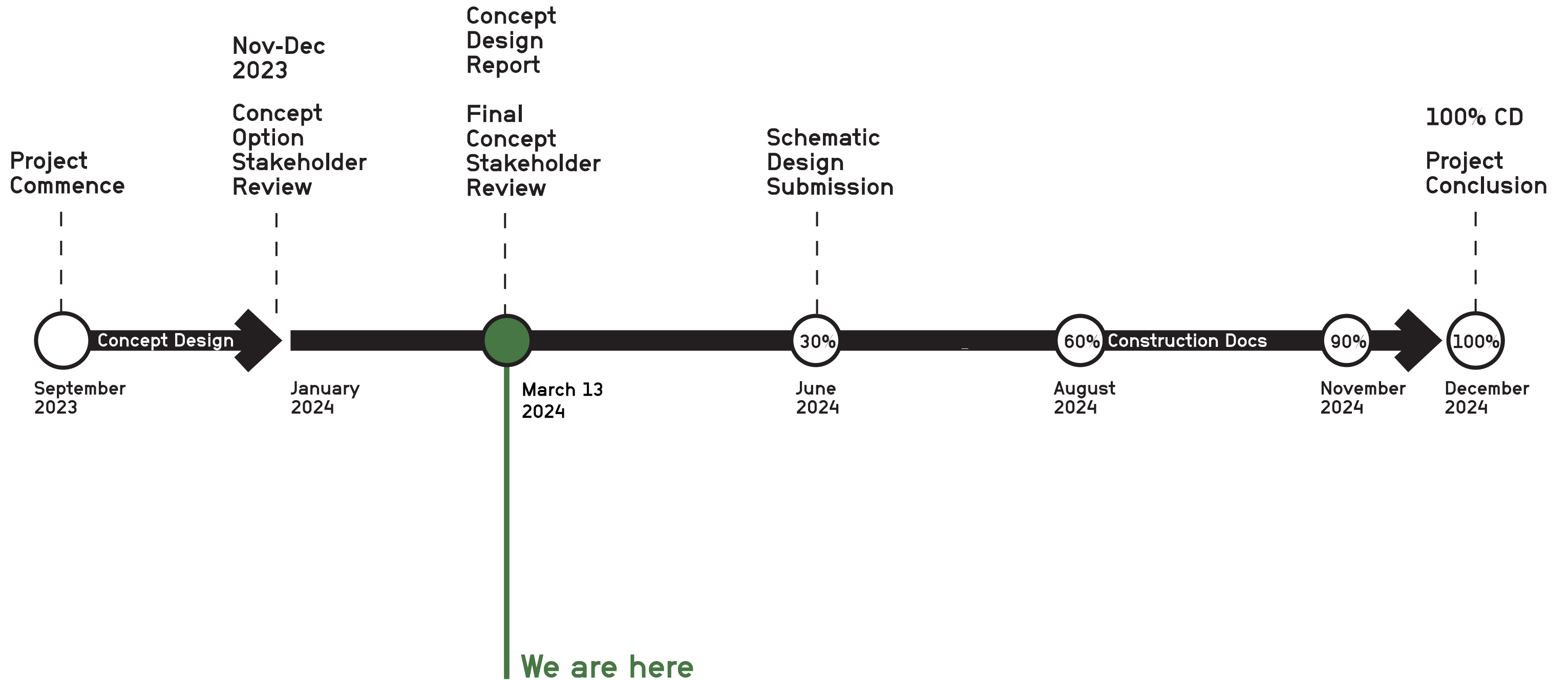
**Thornton Tomasetti**

# Team



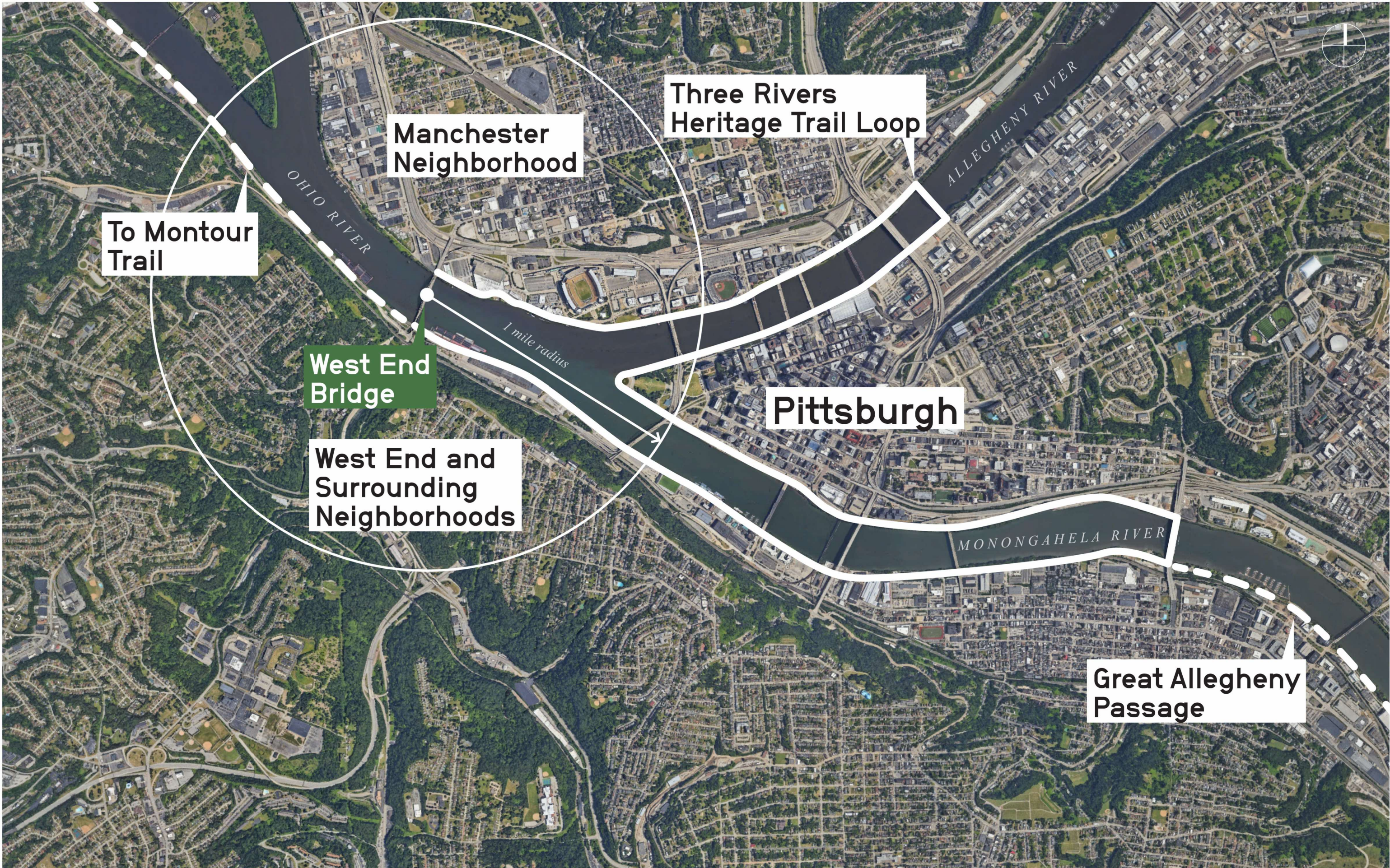


# Simplified Project Schedule



# Site Overview





To Montour Trail

Manchester Neighborhood

Three Rivers Heritage Trail Loop

West End Bridge

West End and Surrounding Neighborhoods

Pittsburgh

Great Allegheny Passage

OHIO RIVER

ALLEGHENY RIVER

MONONGAHELA RIVER

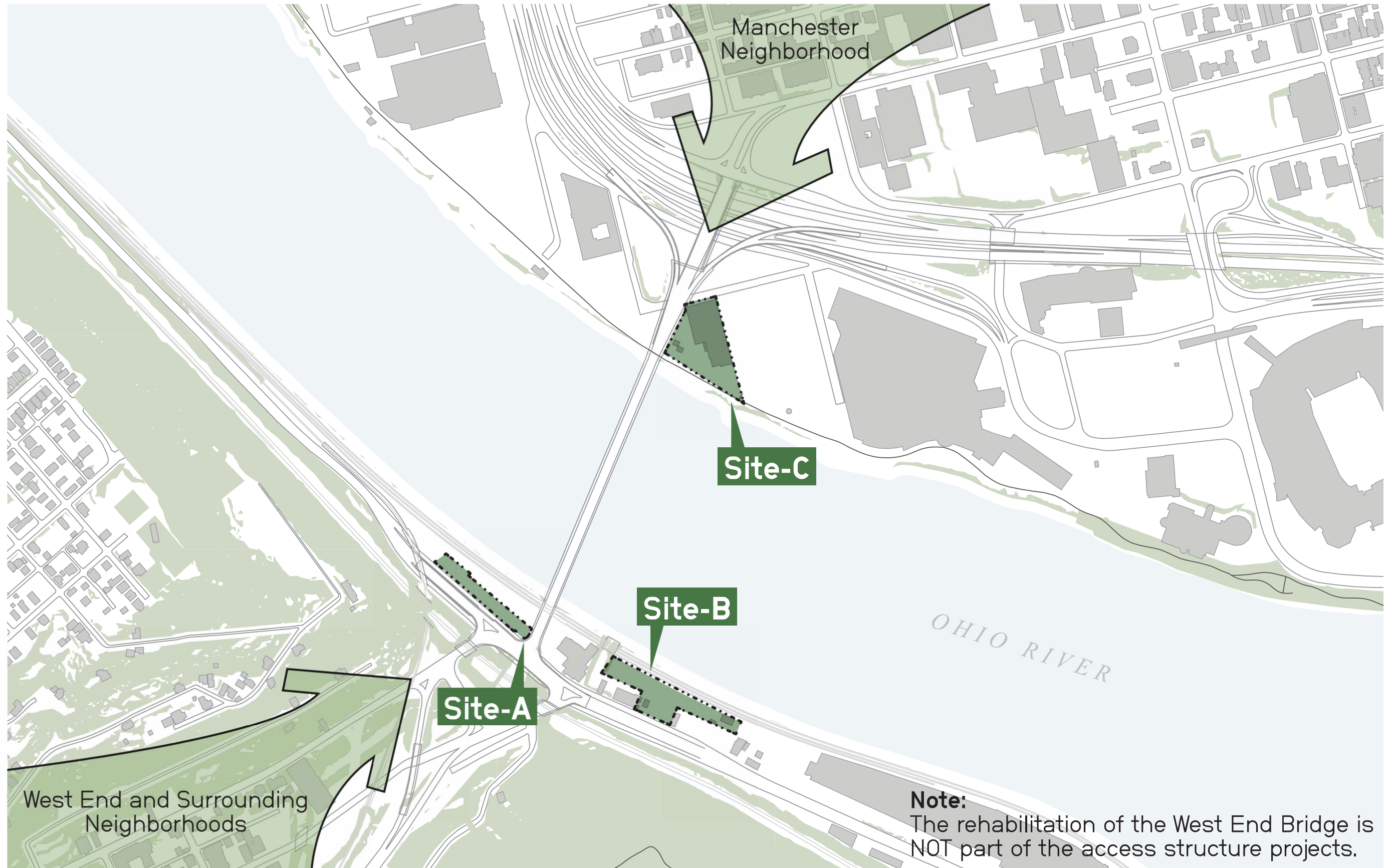
1 mile radius



# Project Site



Alcosan/  
PennDOT  
sites



West End and Surrounding  
Neighborhoods

Manchester  
Neighborhood

Site-A

Site-B

Site-C

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



# 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 site



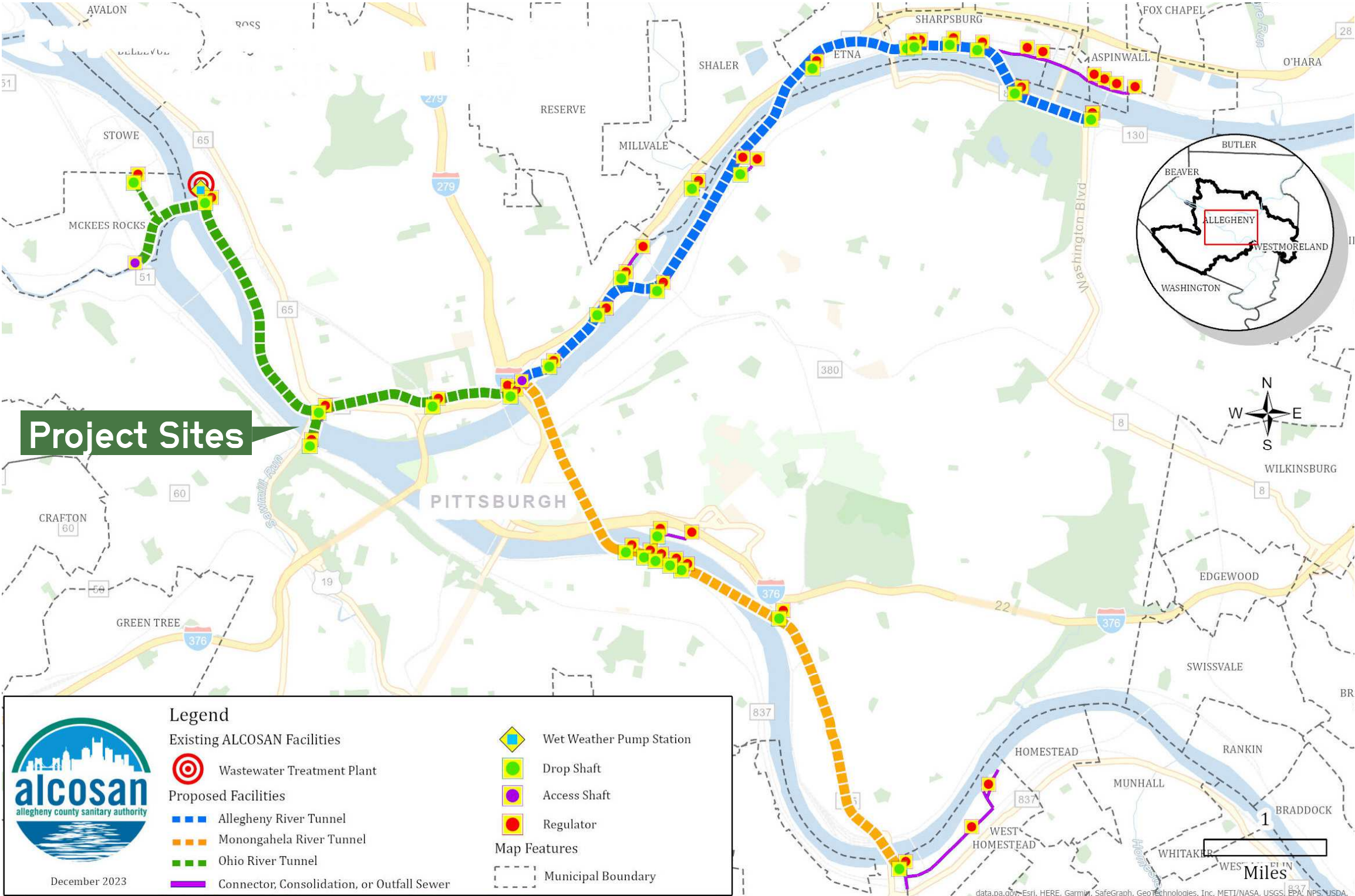



# Site Analysis



# ALCOSAN Regional Tunnel System

The project sites are being made available in part by the development of the ALCOSAN Regional Tunnel System, which will capture wet weather combined sewer overflows and move them to the plant for treatment.













December 2023

**Legend**

Existing ALCOSAN Facilities

-  Wastewater Treatment Plant
-  Wet Weather Pump Station
-  Drop Shaft

Proposed Facilities

-  Allegheny River Tunnel
-  Monongahela River Tunnel
-  Ohio River Tunnel
-  Connector, Consolidation, or Outfall Sewer
-  Access Shaft
-  Regulator

Map Features

-  Municipal Boundary

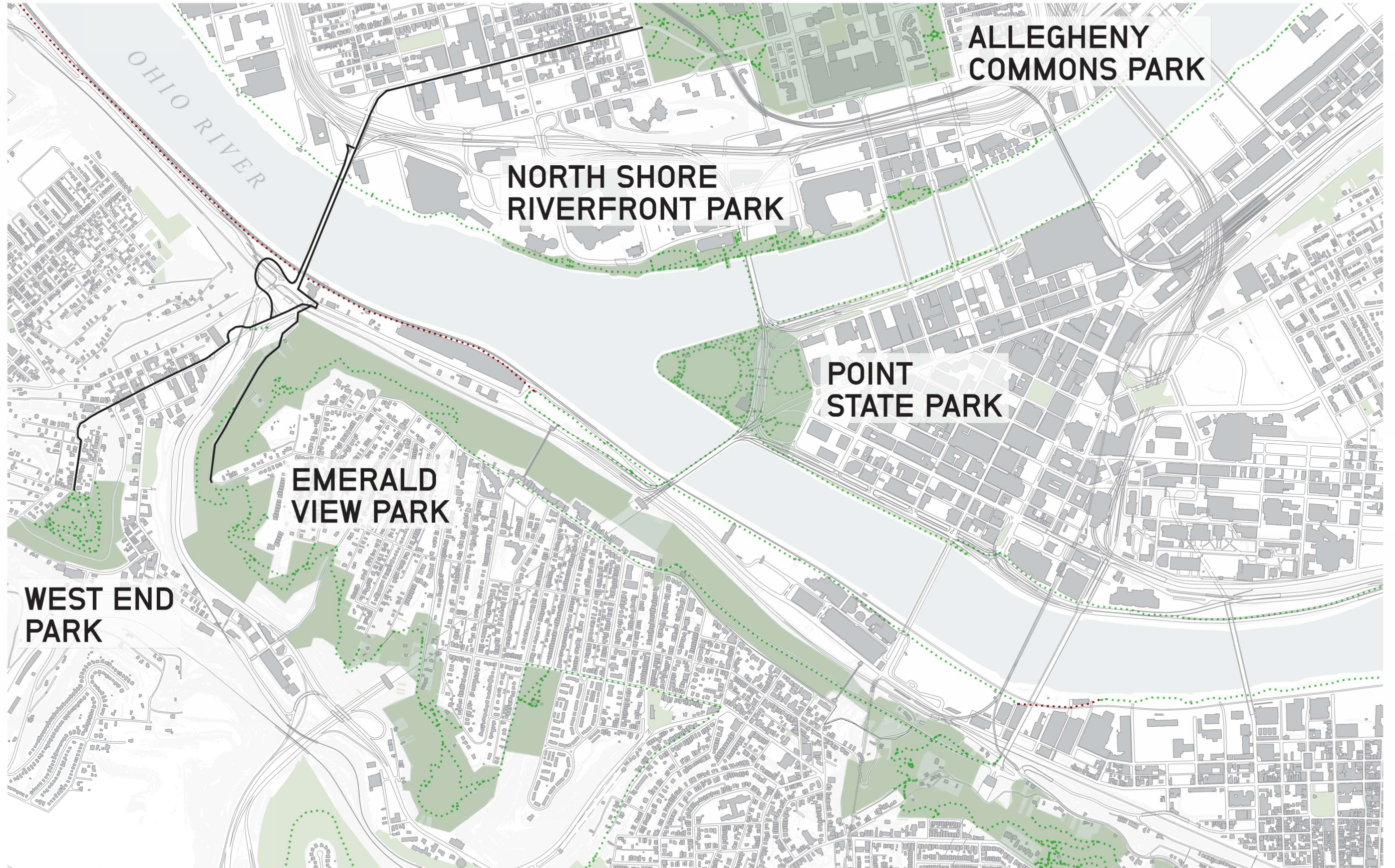
data.ba.gov Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc. METI/NASA, USGS, EPA, NPS, USDA



# Parks



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

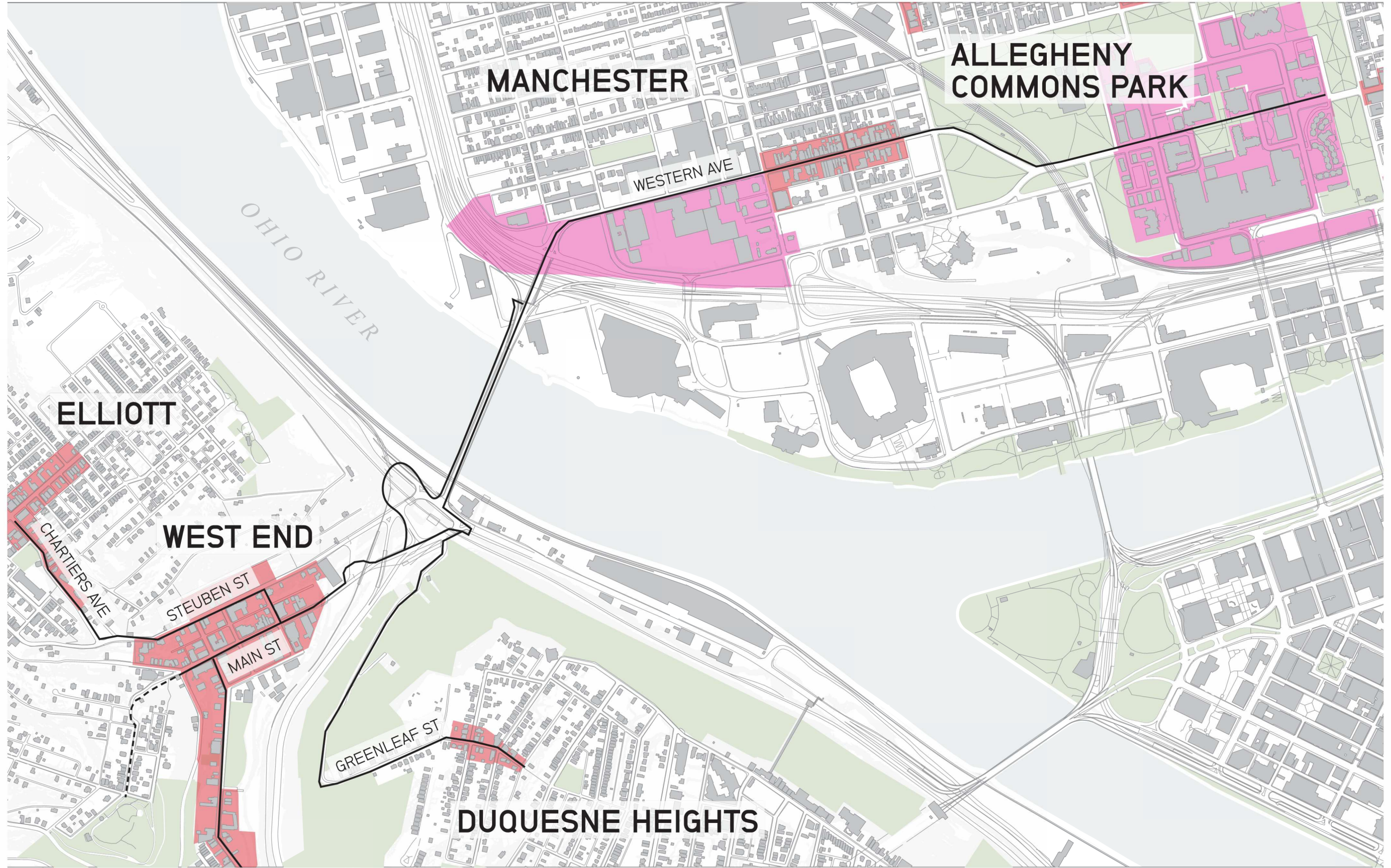




# Commercial Areas



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

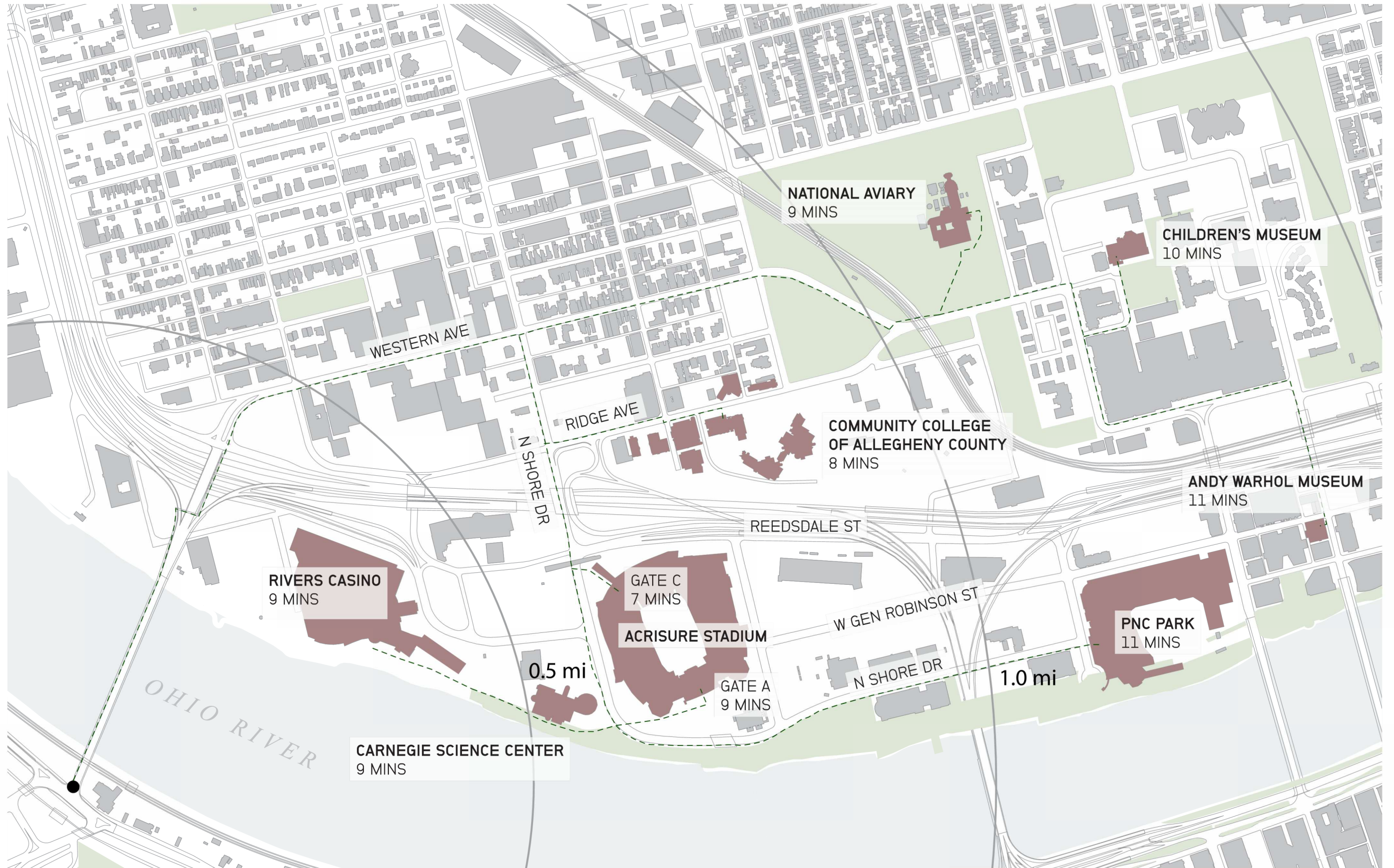




# Northside by Bike



- Biking Route
- Amenity
- Starting Point

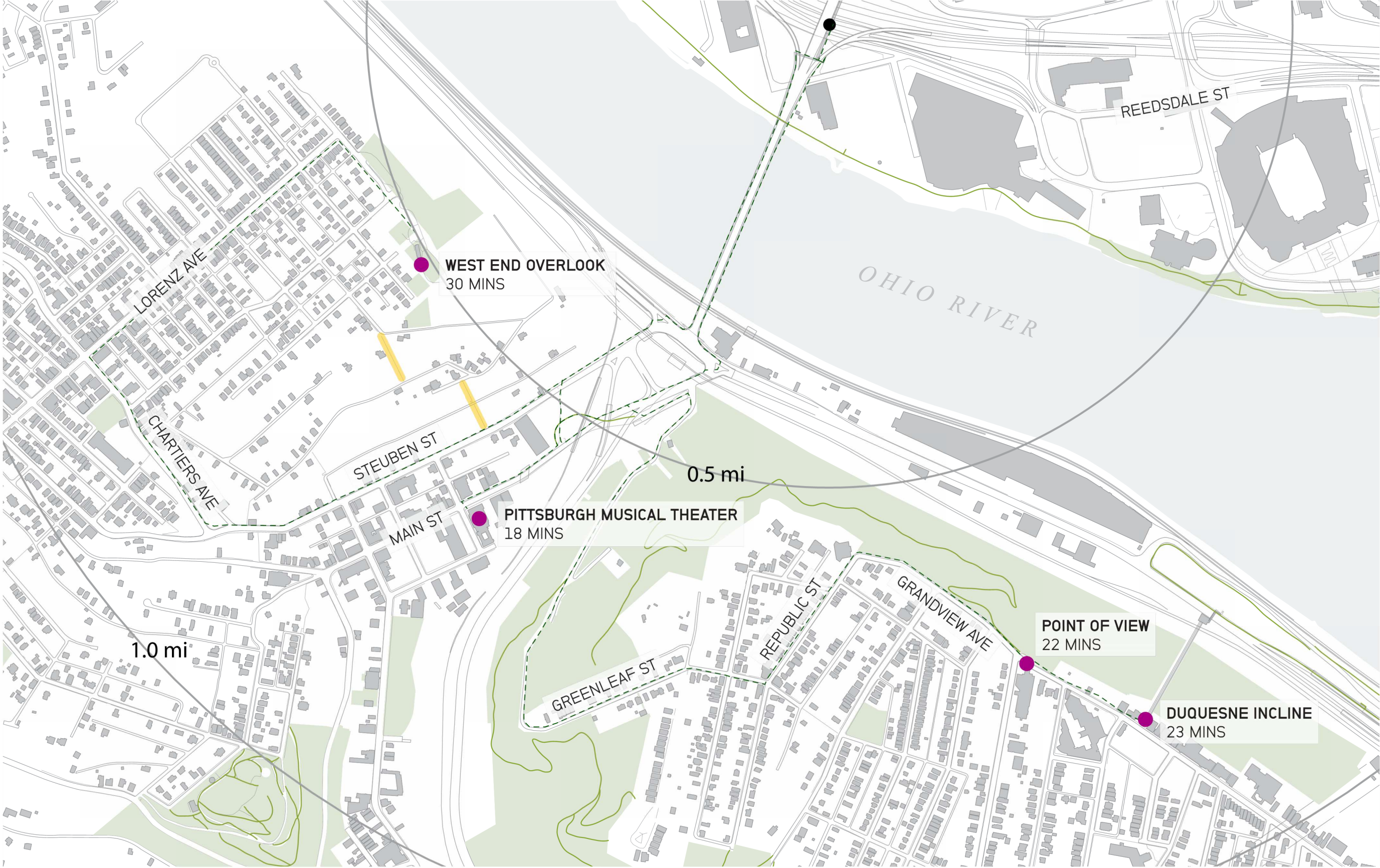




# West End by Bike



- Biking Route
- Destination
- Starting Point
- Stairs

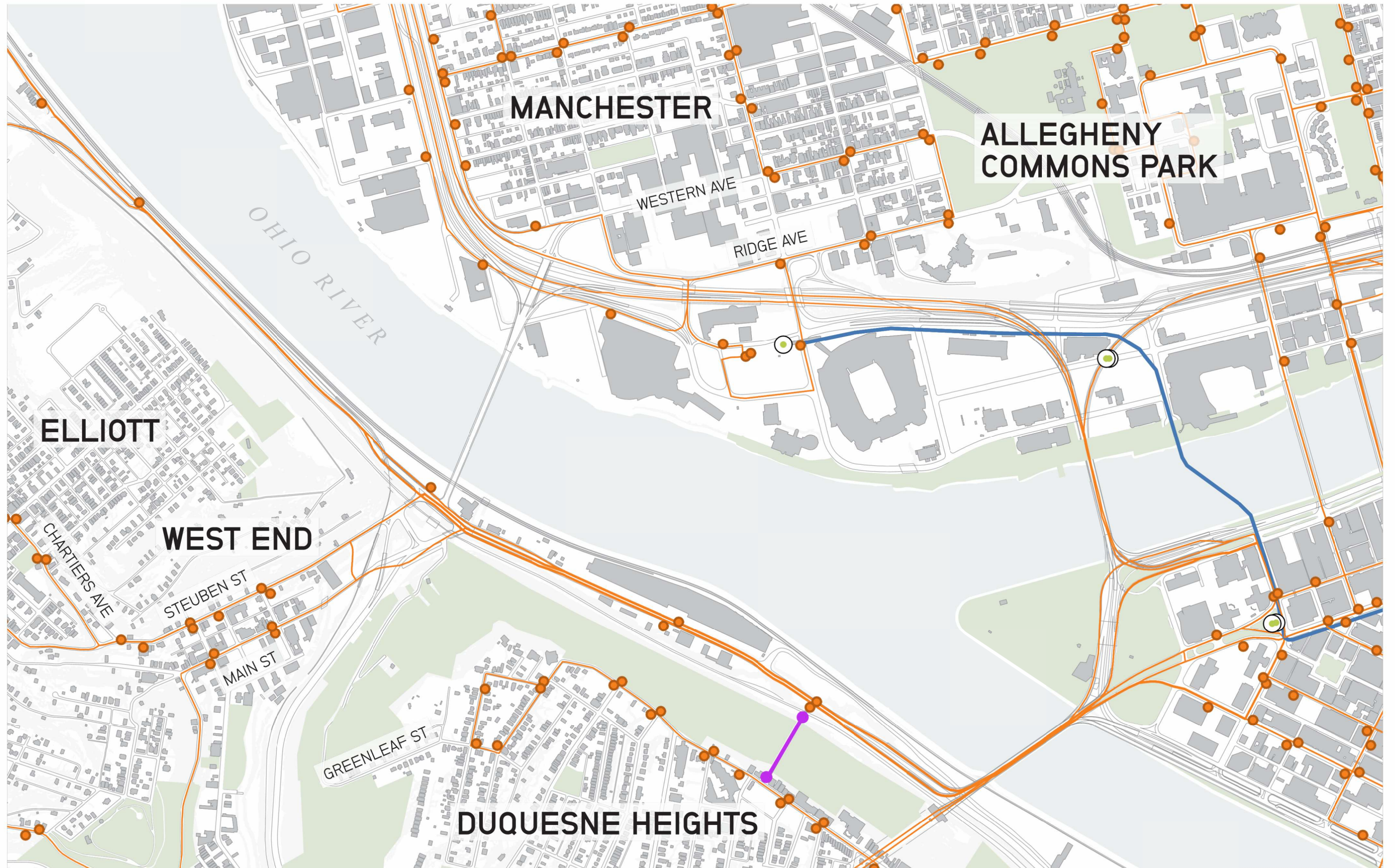




# Transit









- Bus Route
- Light Rail Route
- Incline Route
- Bus Stop
- Light Rail Stop
- Incline Stop

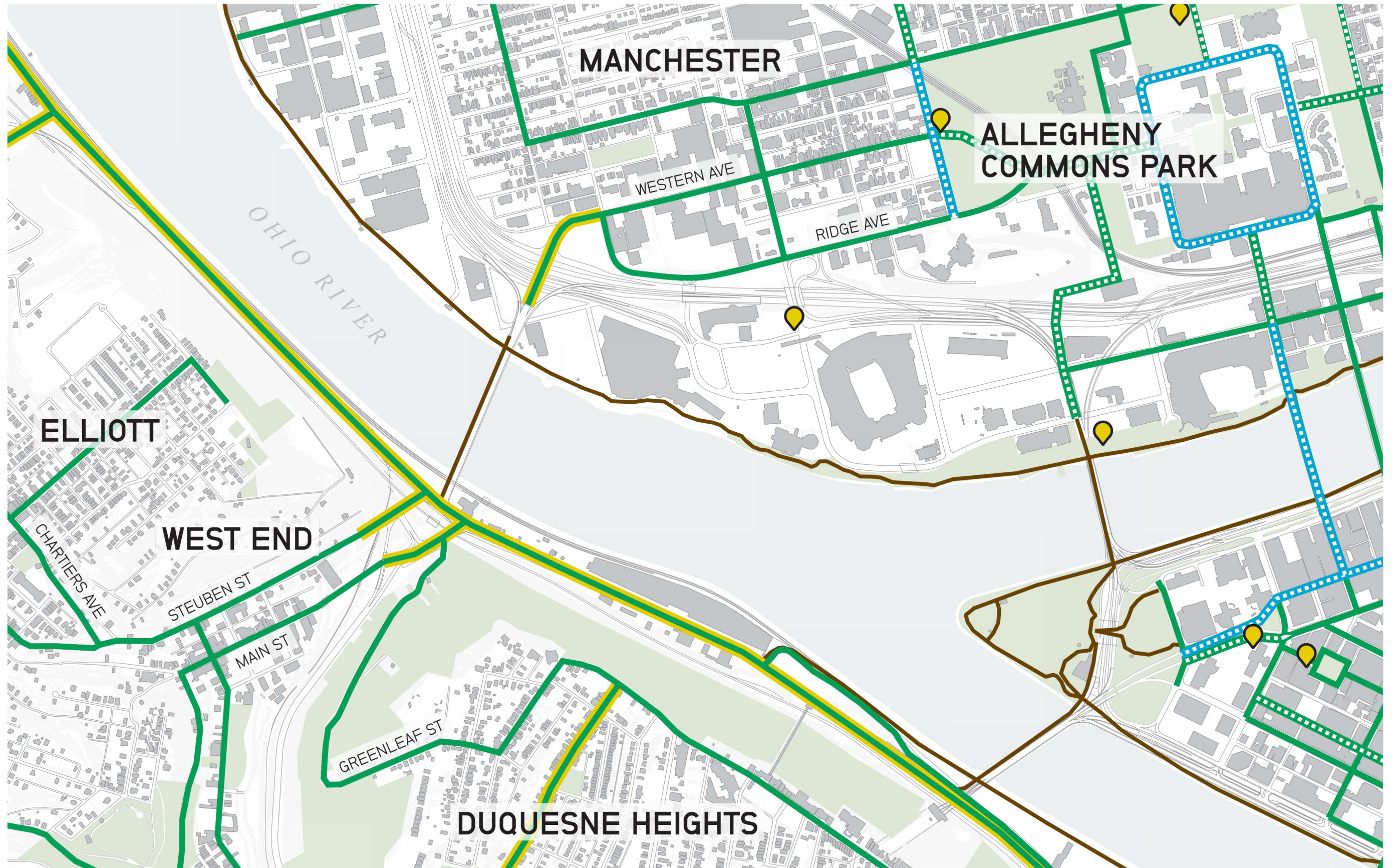




# Bike



-  Protected Bike Lane
-  Marked On-Street Bike Lane
-  On-Street Bike Route
-  Cautionary Bike Lane
-  Trail
-  POGO Station





# Previous Engagement + Project Values



# Community Engagement by Riverlife

**1**

**West End Boat Tour**

September 25, 2022

Attendees : 40

**2**

**Manchester by the River**

October 8, 2022

Attendees: 50

**3**

**Manchester Community Presentation**

April 6, 2023

Attendees : 15

**4**

**West End Public Meeting**

May 25, 2023

Attendees : 35



# 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

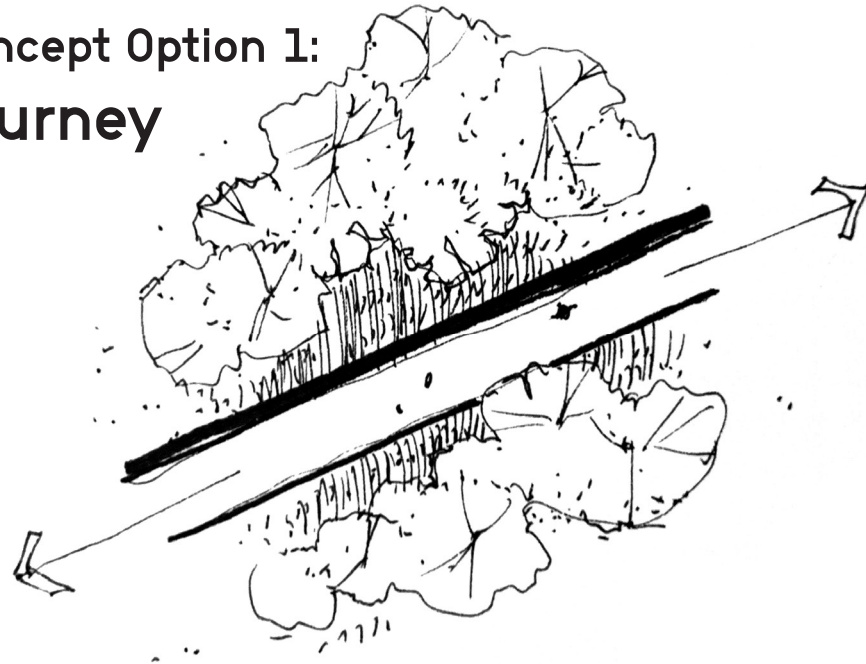
**General Public**

Format: Website



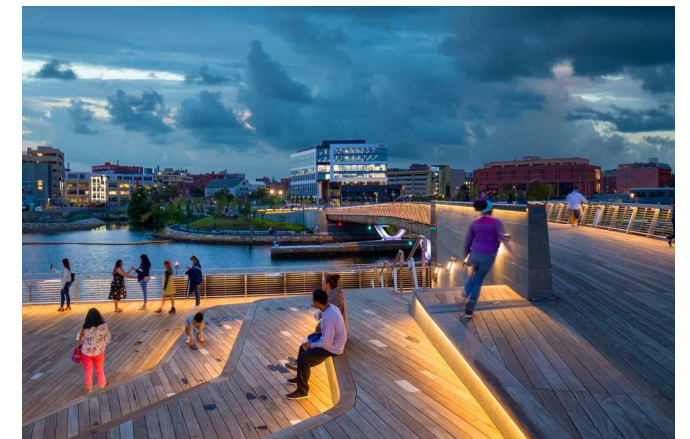
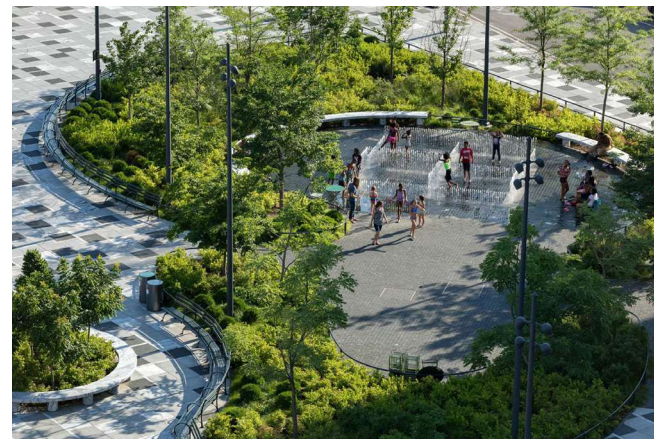
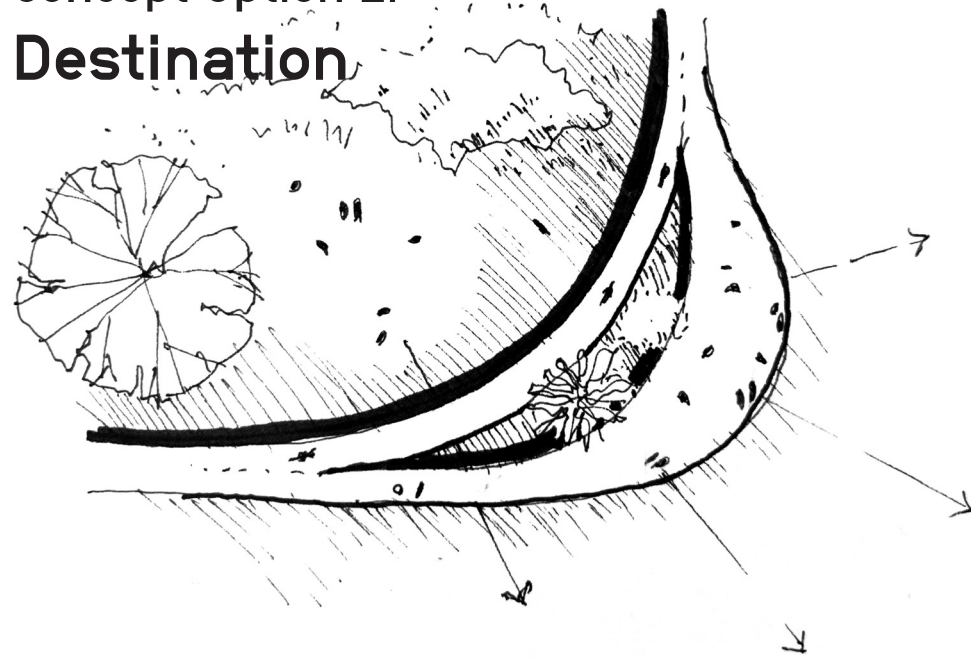
# Concept Options Reviewed by Stakeholders

Concept Option 1:  
Journey



Passive programming with intimate gathering spaces. Optimal biking experience. Strong, sculptural forms with a poetic presence emphasizing natural landscape and ecosystems.

Concept Option 2:  
Destination

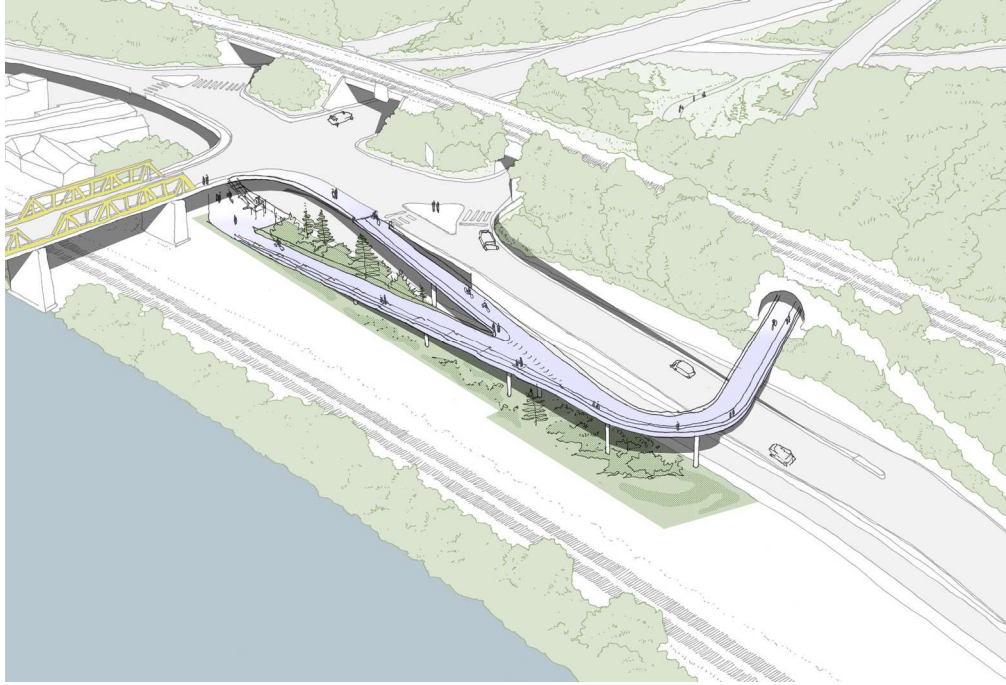


Active programming with communal gathering spaces. A graceful procession of experiences with focus on social and communal nodes. A destination for the city.

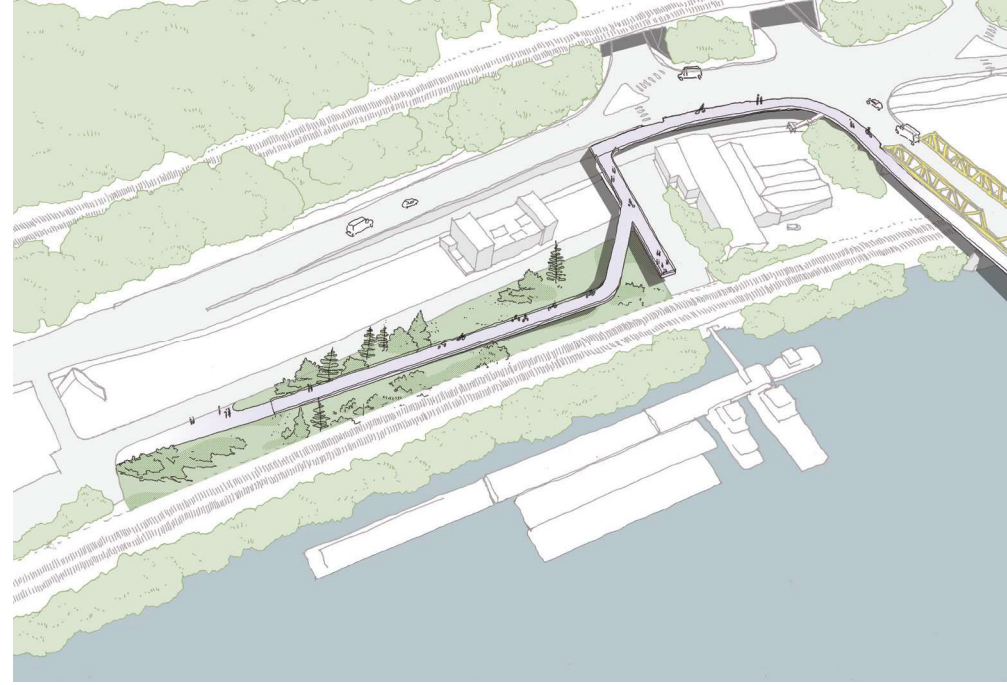


# Concept Option 1: Journey

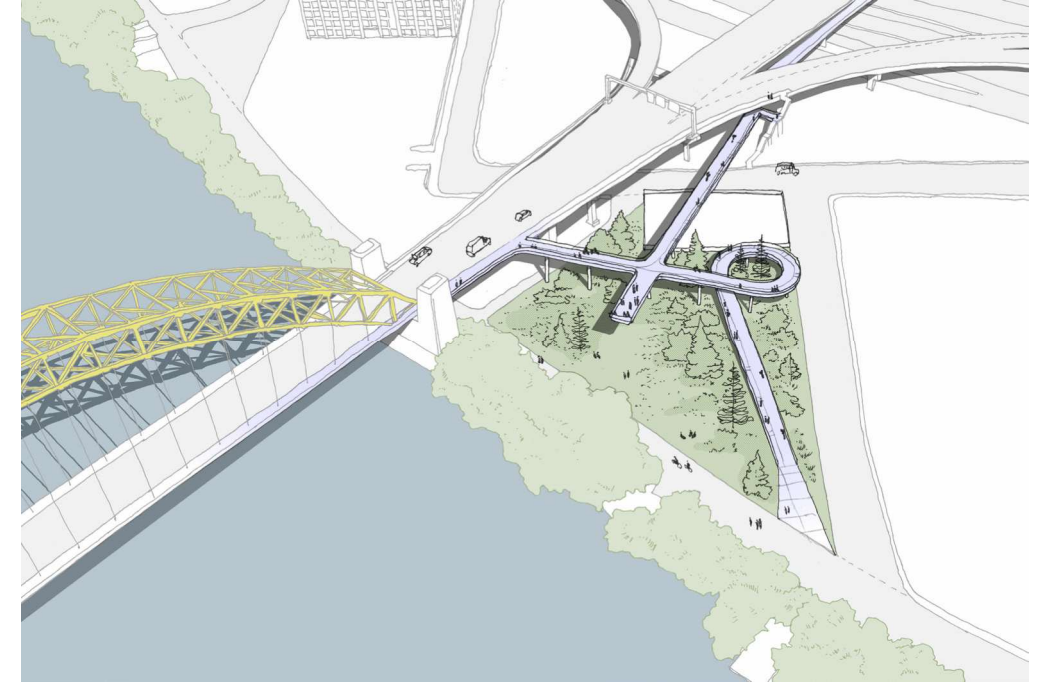
Site A



Site B



Site C



## Positives Noted by Stakeholders:

- Simple, straightforward path.
- Likely more affordable, easier to implement.
- Clear wayfinding strategy.
- Light touch structures offer abundant opportunity for riparian restoration.

## Drawbacks Noted by Stakeholders:

- Long, straight paths can feel monotonous.
- Overlooks only provide a singular experience.
- Site A lacks potentially iconic overlook moment toward the bridge with the downtown skyline in the background.
- Feeling of disconnectedness from the site and river beyond.



# Concept Option 2: Destination

Site A



Site B



Site C



## Positives Noted by Stakeholders:

- Iconic potential.
- Overlooks provide multiple vantage points, creating a variety of experiences.
- Areas to pull off the path and rest where the structure balloons out would be appreciated.
- Activates and creates multiple nodes within otherwise constrained sites.
- Gentle curving paths feel more inviting.

## Drawbacks Noted by Stakeholders:

- Creating a destination on sites A and B don't invite cyclists and pedestrians into the West End proper.
- No community currently exists that would take ownership over sites A and B, making large gathering areas difficult.
- Potentially confusing to navigate for novices.
- Large maintenance burden.



# What we heard

**“Just want a safe and efficient route”**

**“The faster you build this the better”**

**“The destination should be the West End neighborhood”**

**“Destinations are great but not the most important thing”**

**“Universal accessibility is key”**

**“The West End is one of the most cut off**

**“riverfront” neighborhoods in the city”**

**“It’s only worth it if there’s a plan to maintain it”**

**“We would love to walk or bike to a  
Steelers or Pirates game”**

- No clear winner between the two concepts.**
- Clear interest in gathering spaces and overlooks.**
- Concerns about parking availability.**
- Important to create community “ownership”.**



# 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



**Updated Concept**



# Overall Site Narrative



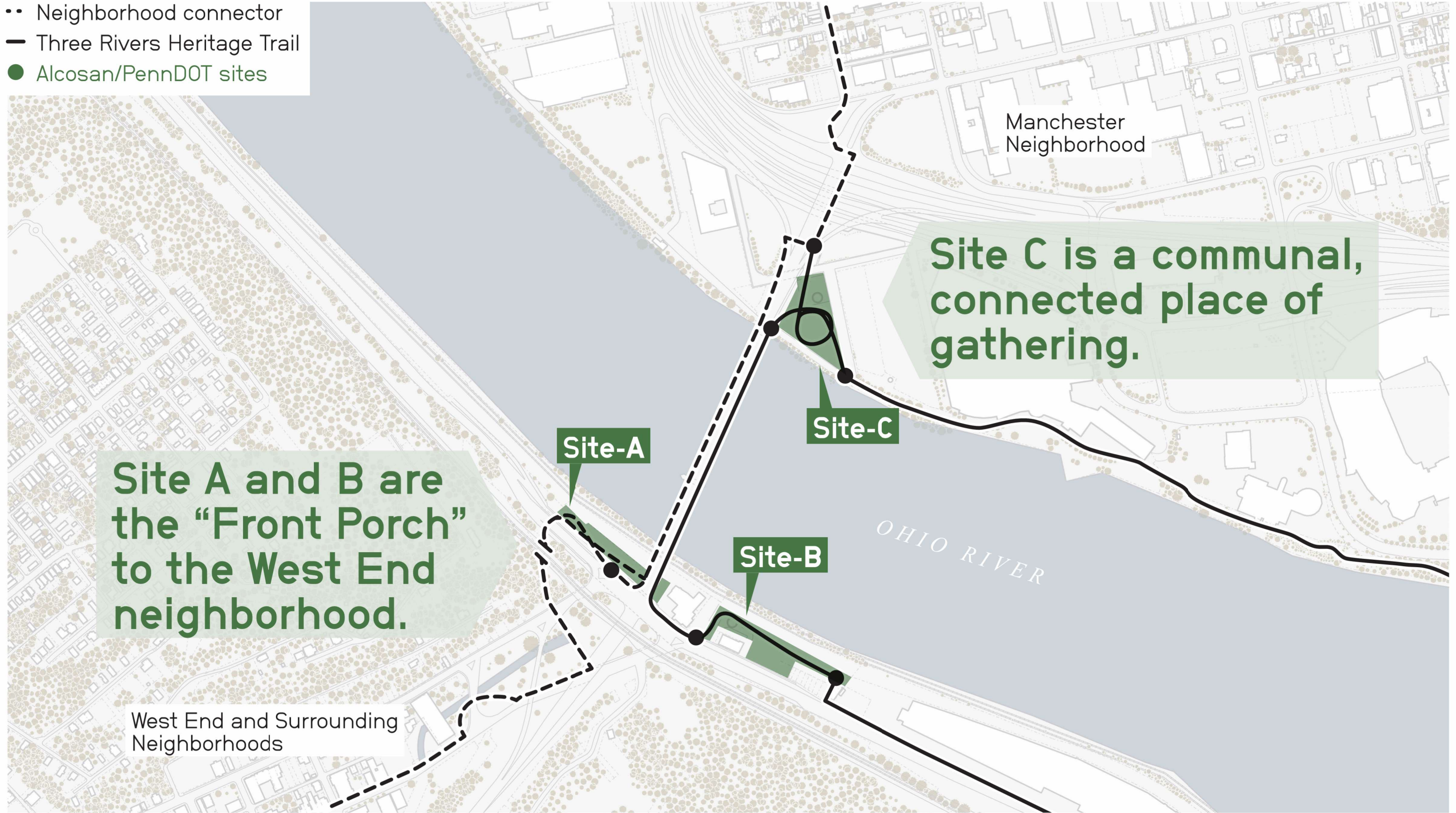
- 1.** Efficient and safe biking and pedestrian experience.
- 2.** Passive programming with scattered intimate gathering spaces.
- 3.** Meandering, gentle structures framing and emphasizing the natural landscape and ecosystems.



# Overall Site Narrative



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



Site A and B are the “Front Porch” to the West End neighborhood.

Site C is a communal, connected place of gathering.

West End and Surrounding Neighborhoods

Manchester Neighborhood

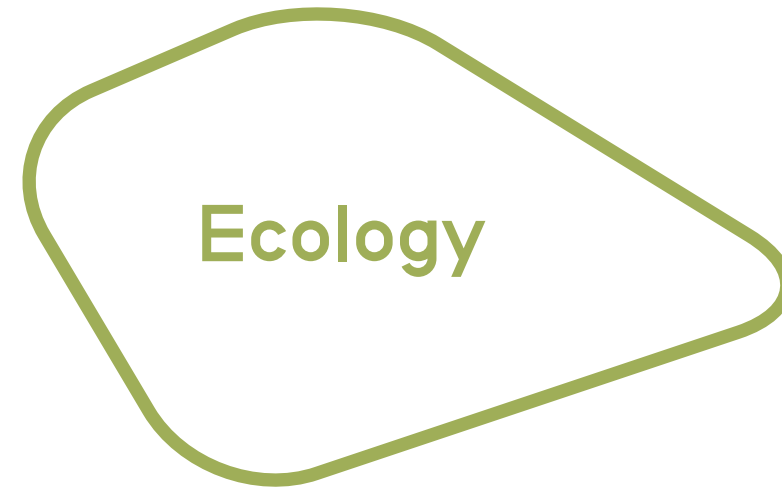
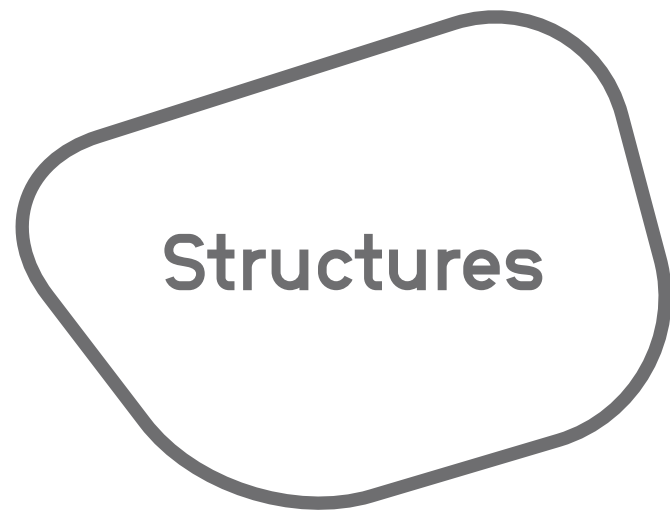
OHIO RIVER



# A unified approach

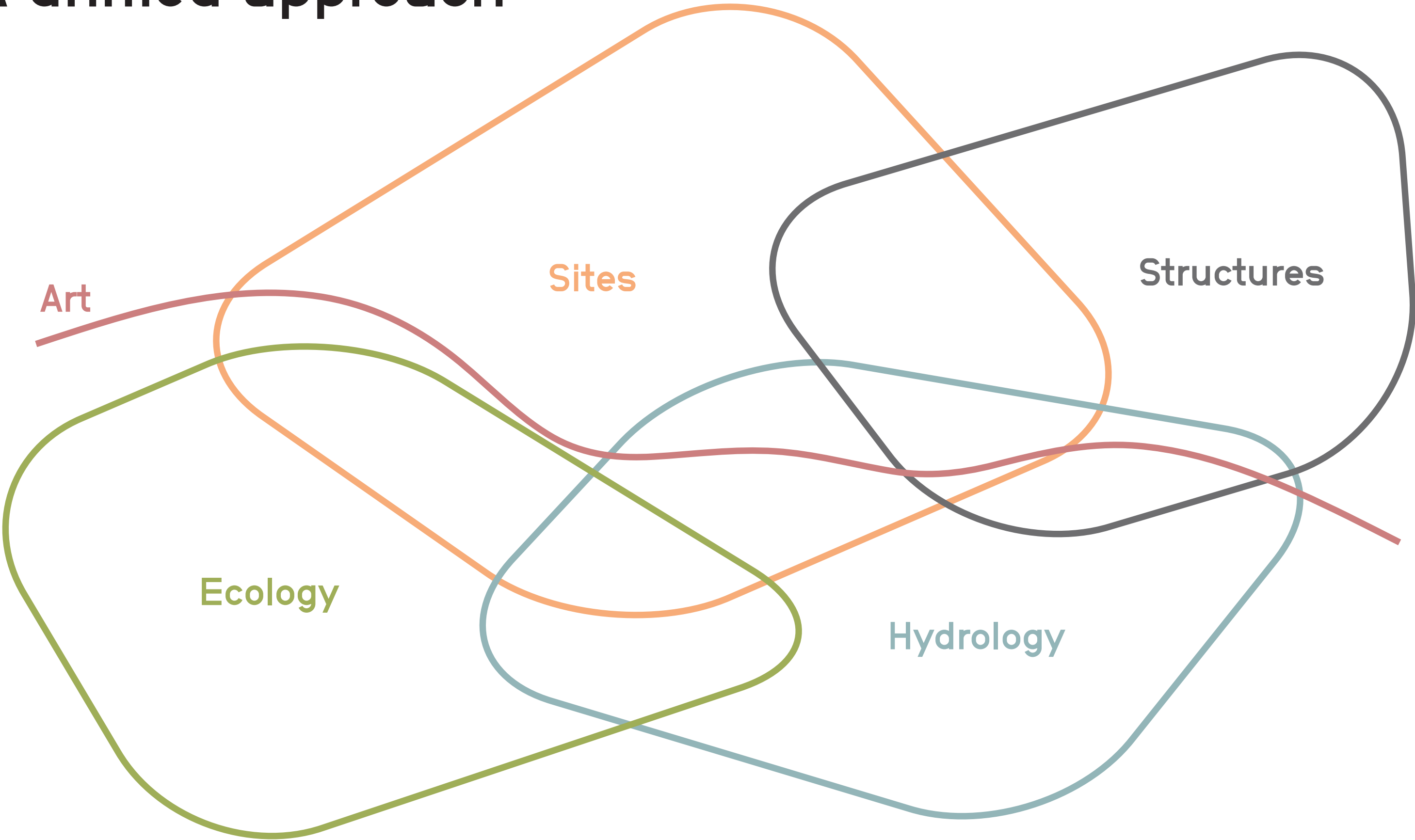
Landscape, architecture, structure, lighting, accessibility, art, connectivity, history...

...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.



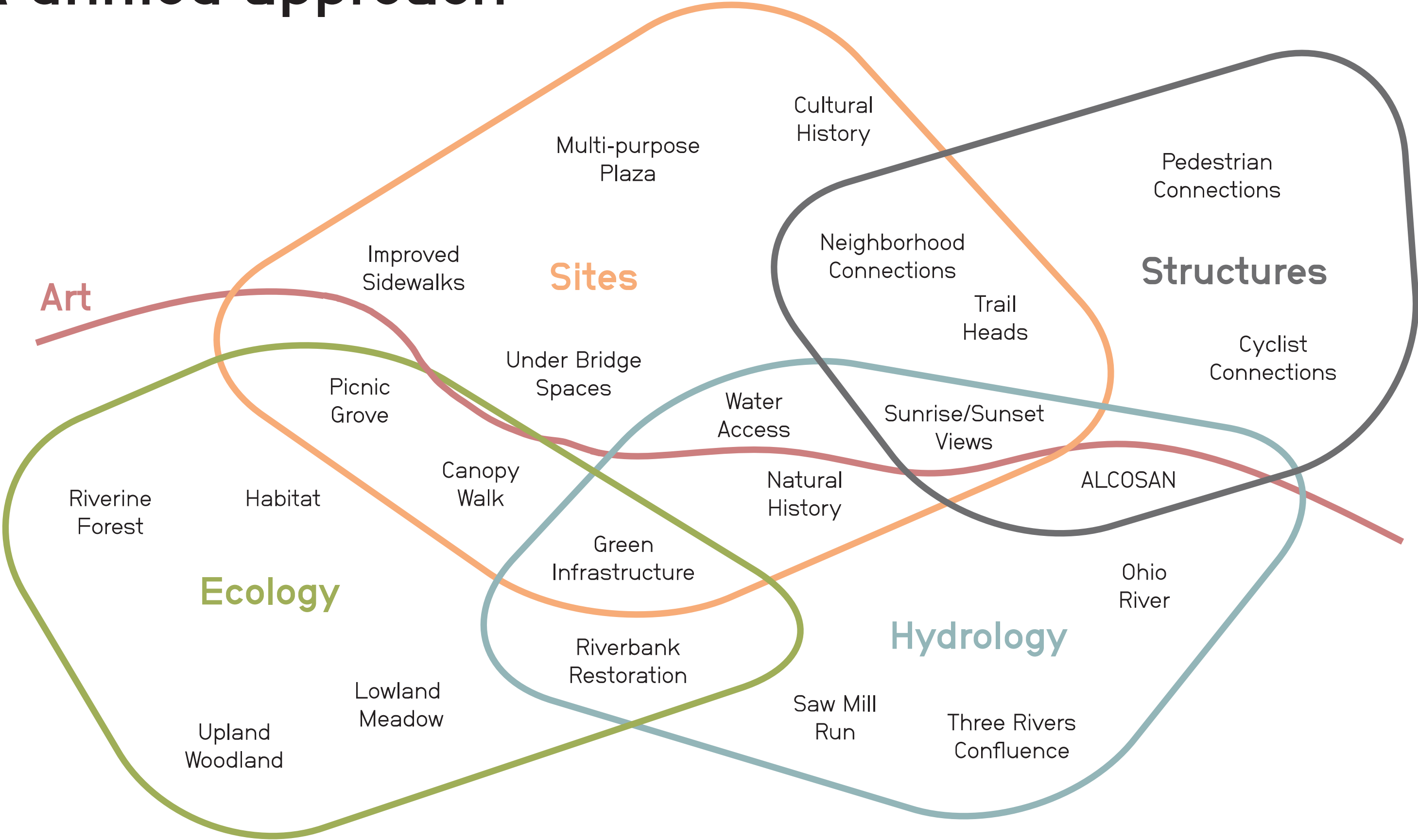


# A unified approach





# A unified approach

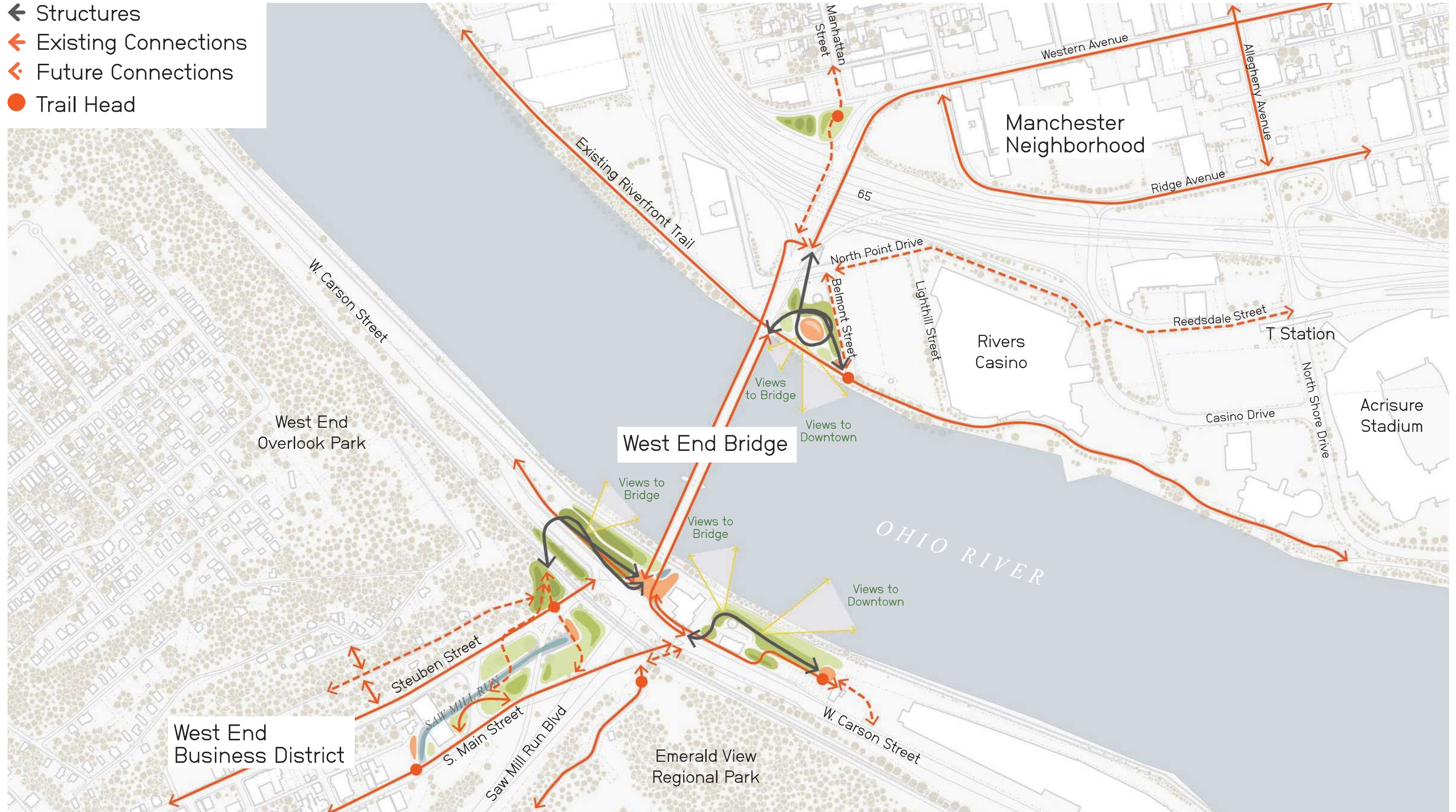




# Project Approach



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

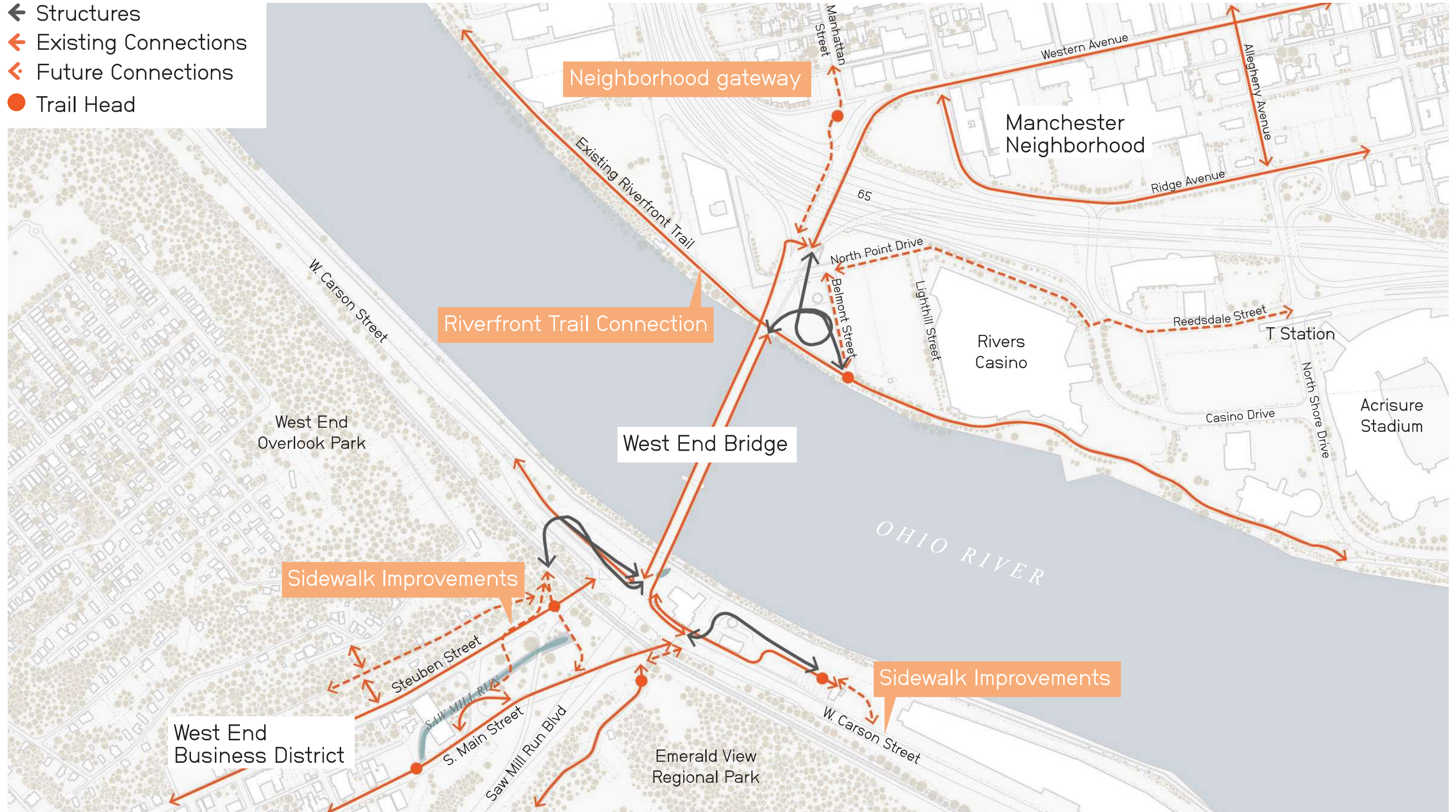




# Project Approach - Sites



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

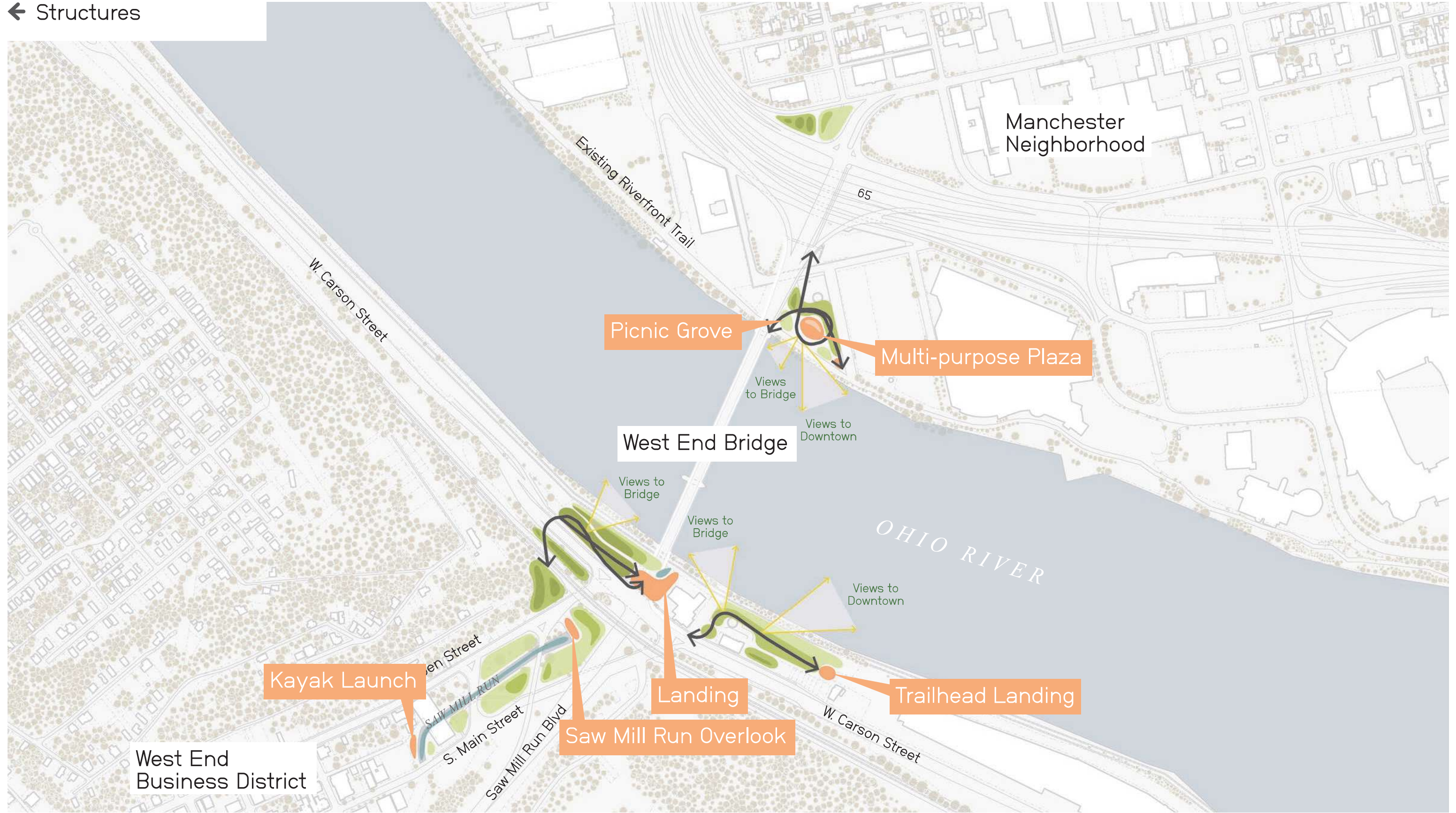




# Project Approach - Sites



← Structures





# Project Approach - Ecology



← Structures





# Project Approach - Hydrology



← Structures

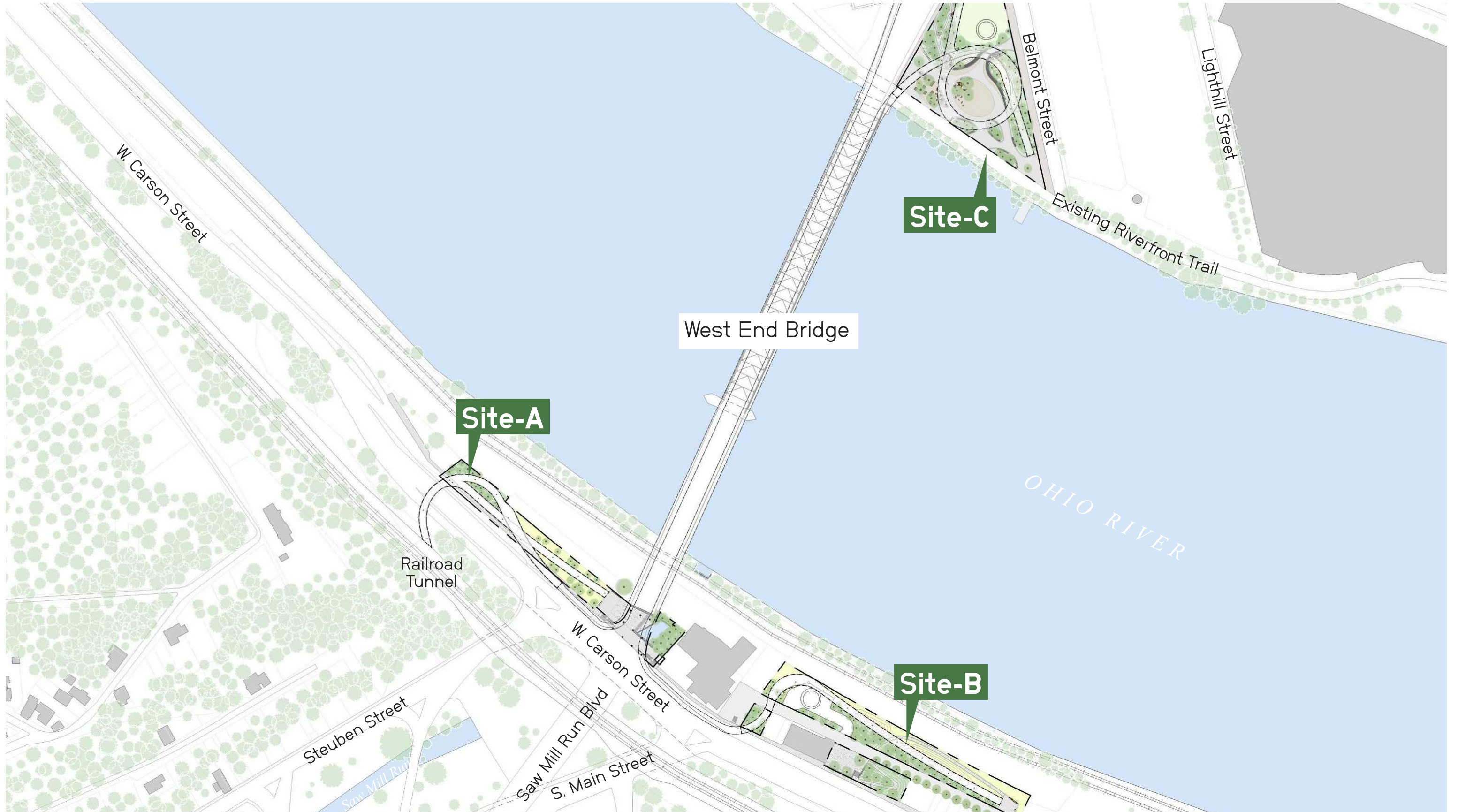




**Concept Detail**

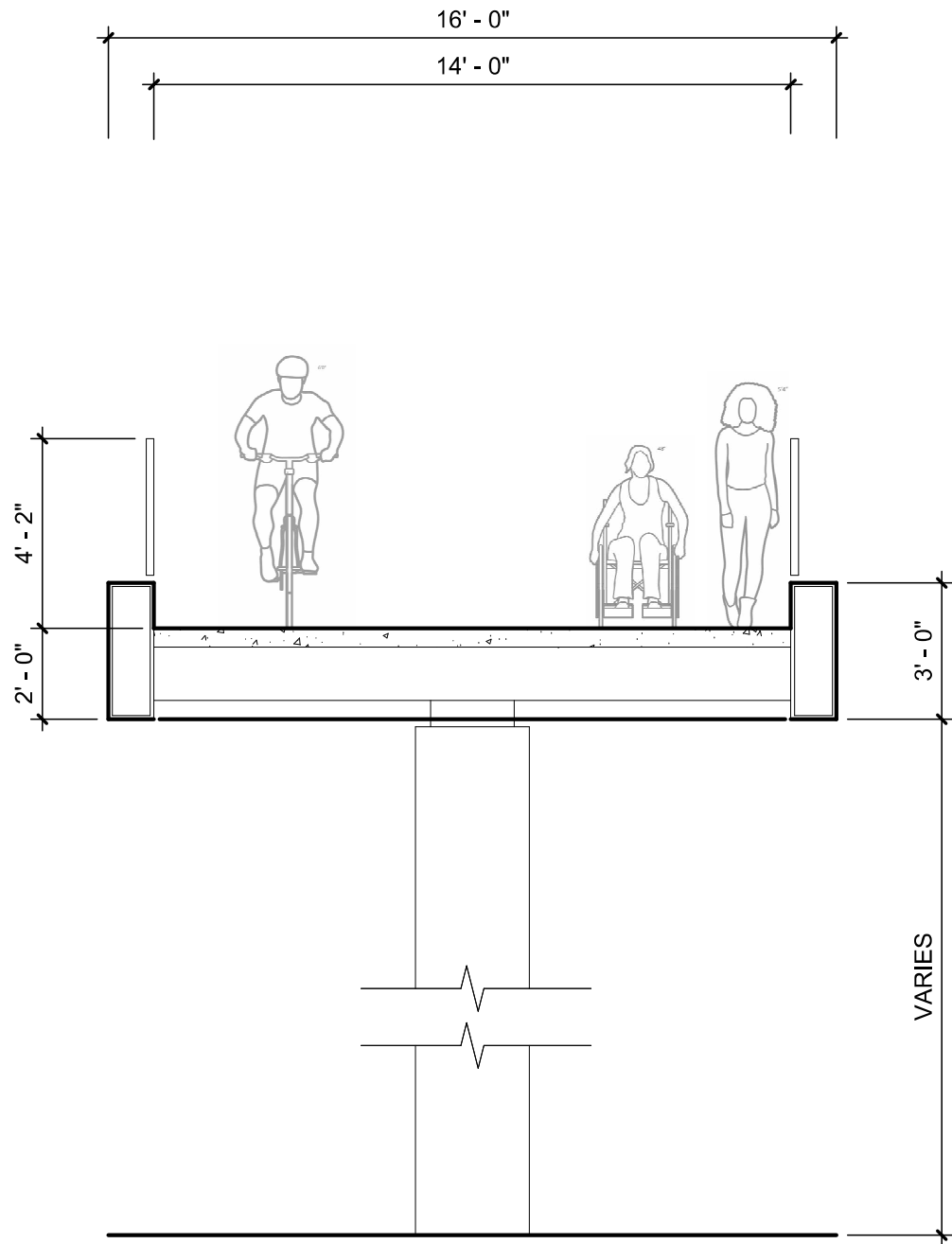


# Overall Site Plan

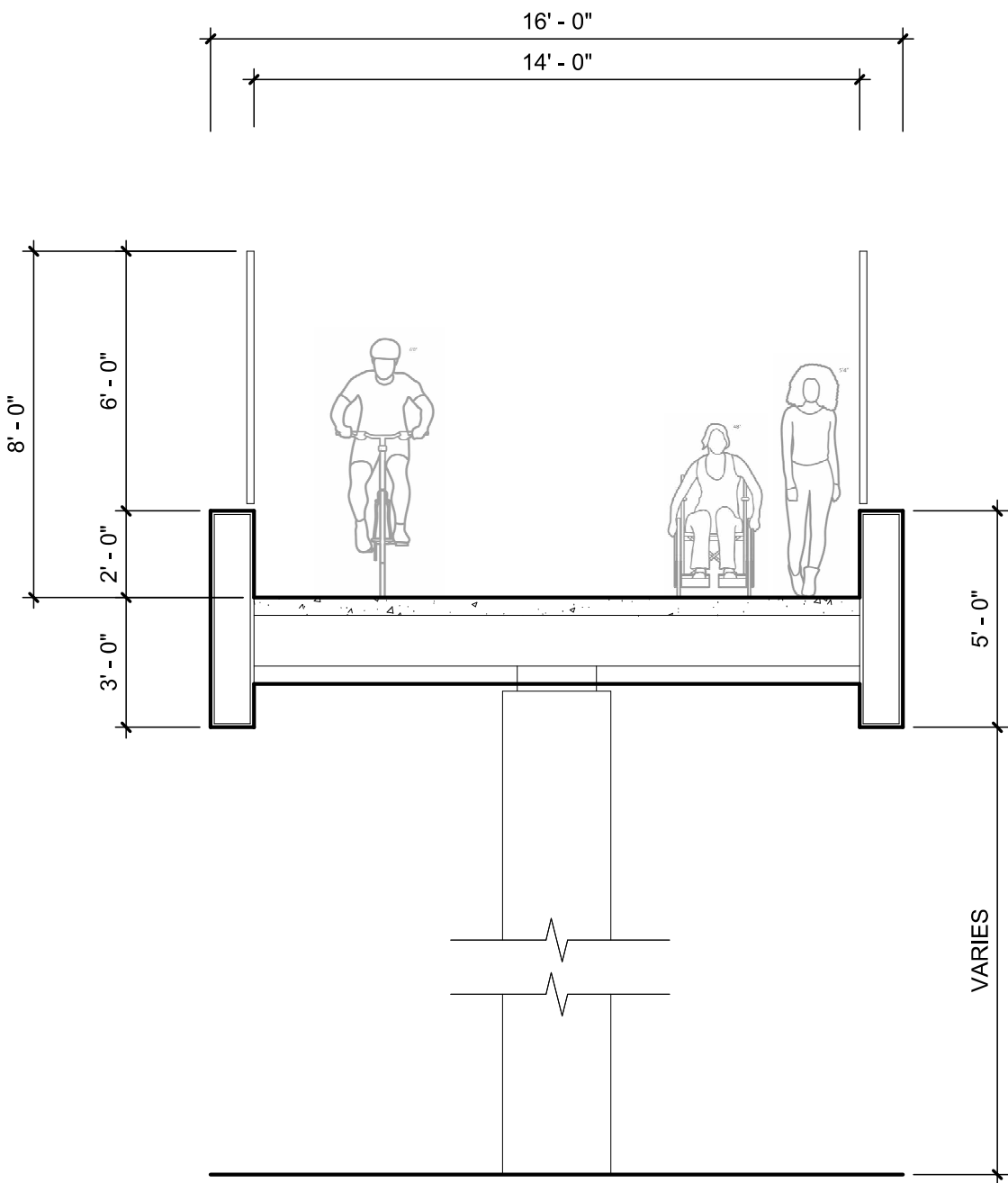




# A Shared Use Path



Typical structure section



Long-span structure section



# West End Existing Conditions



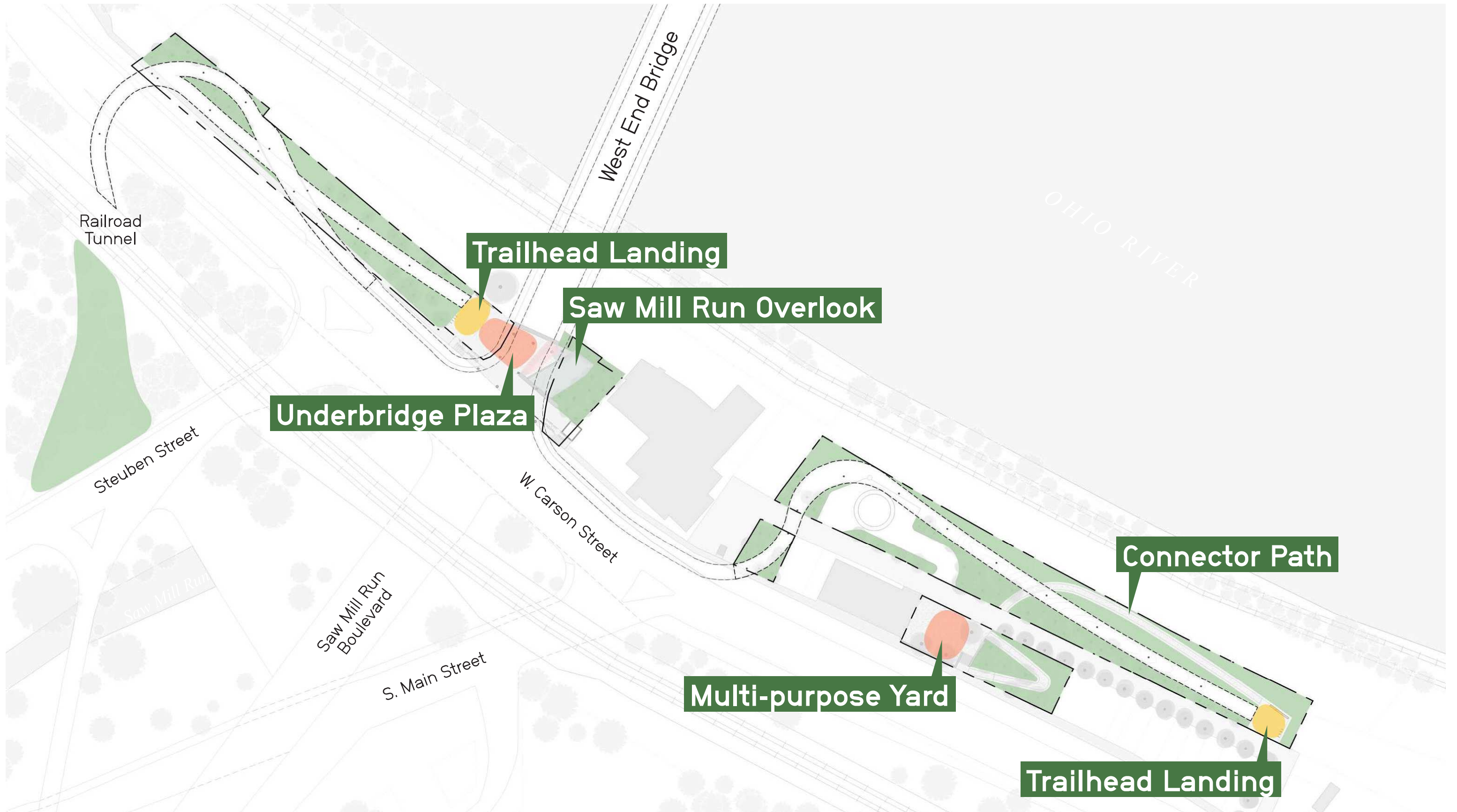


# Site-A + Site-B Site Plan



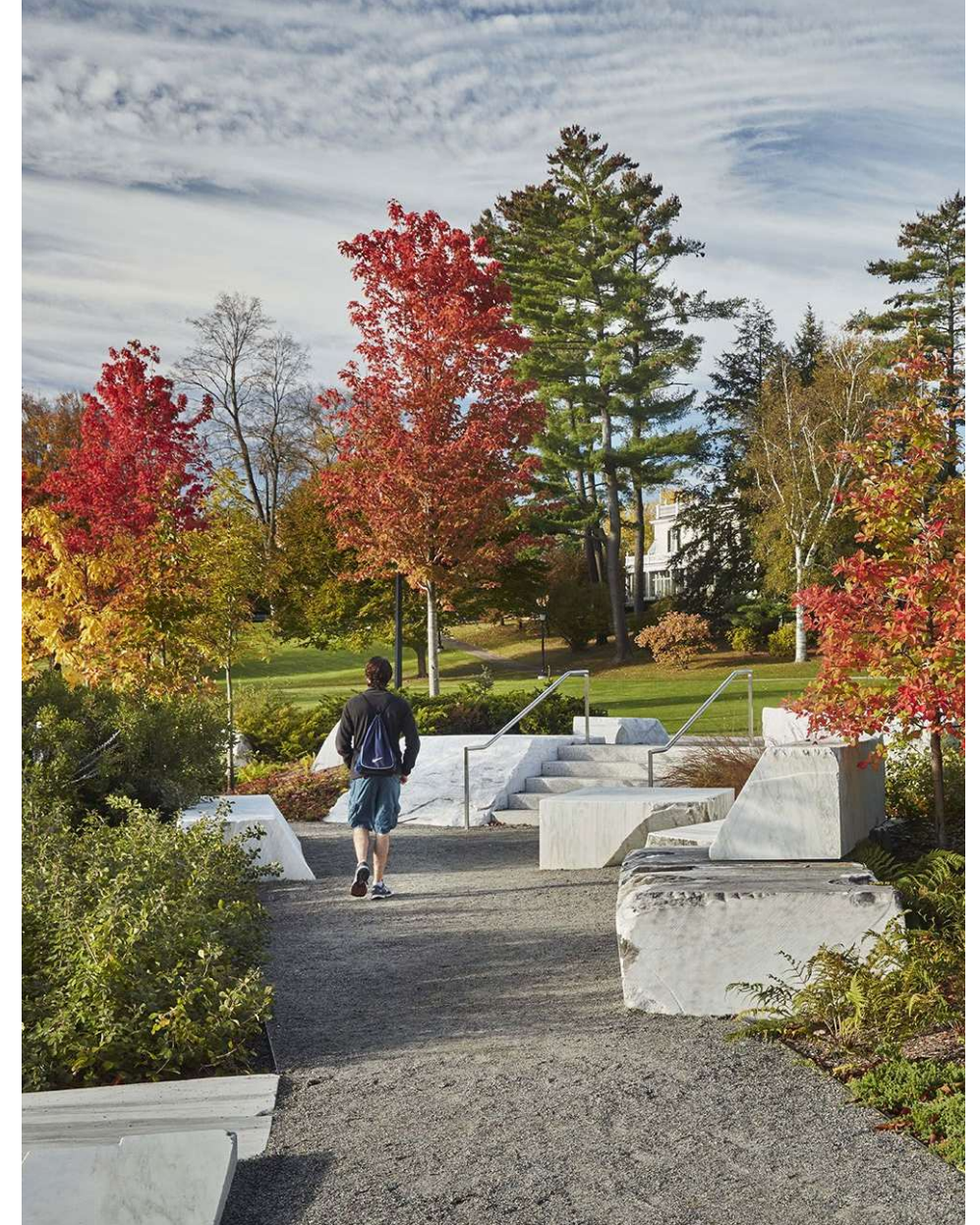


# Site-A + Site-B Program





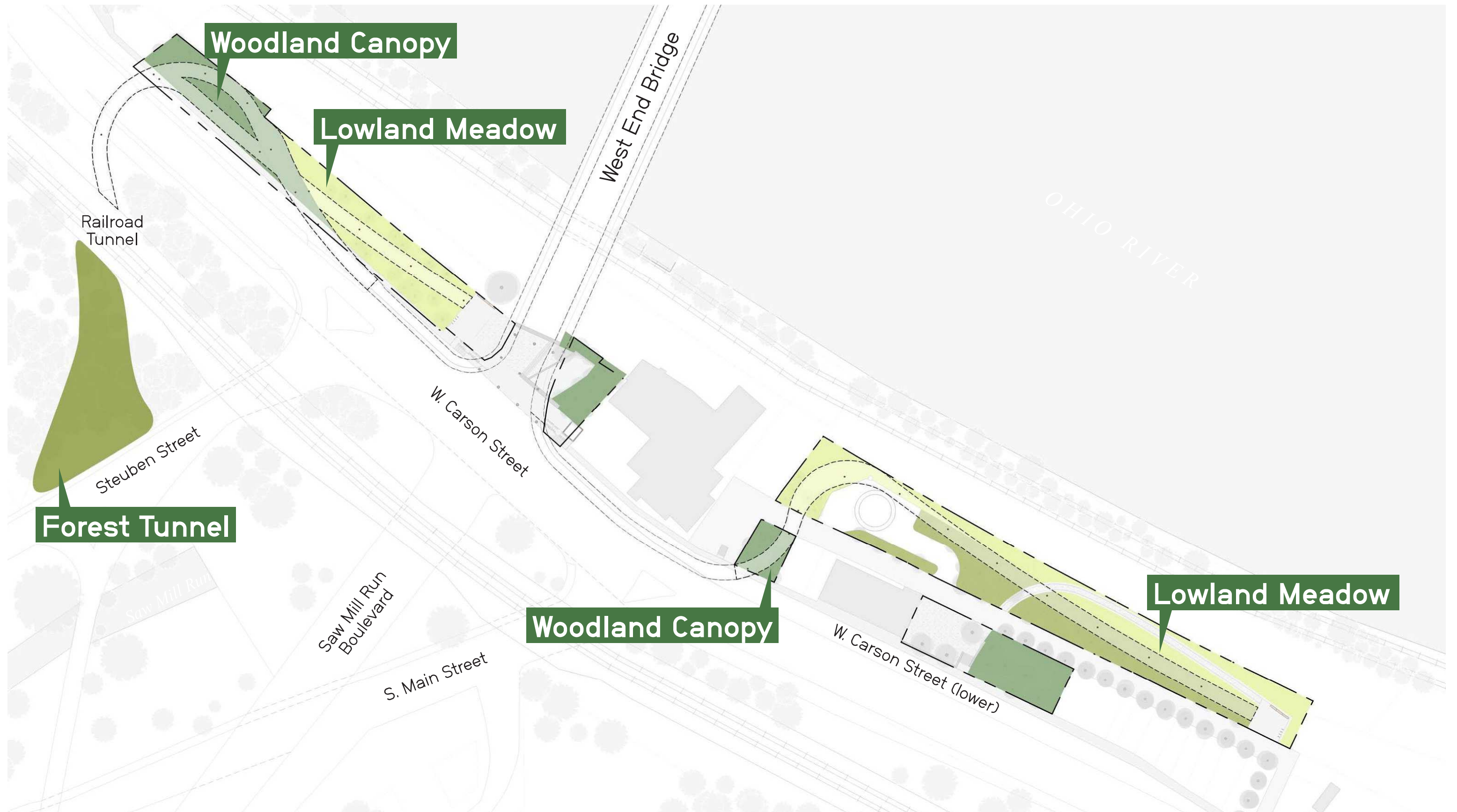
# Trailhead Landings



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

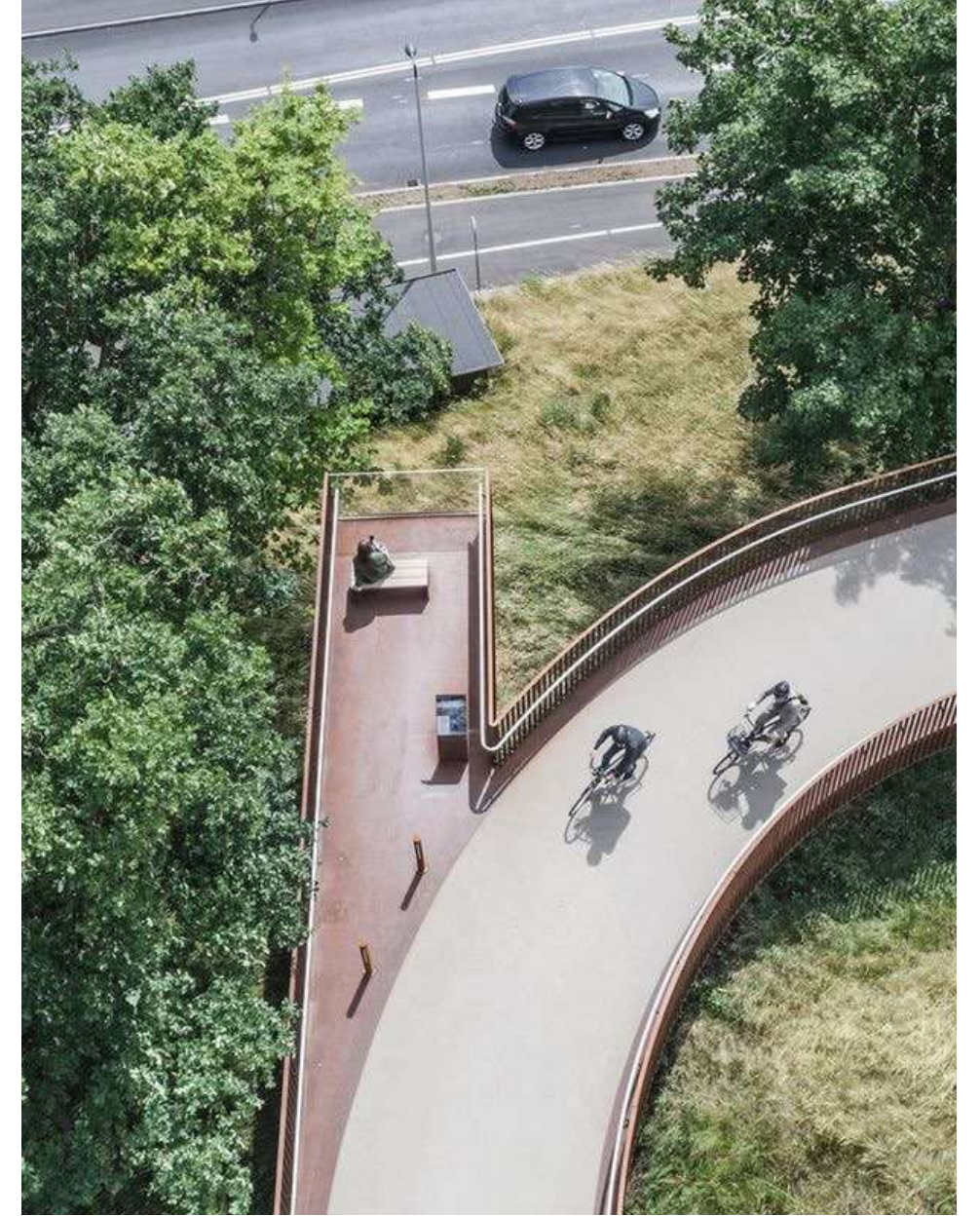
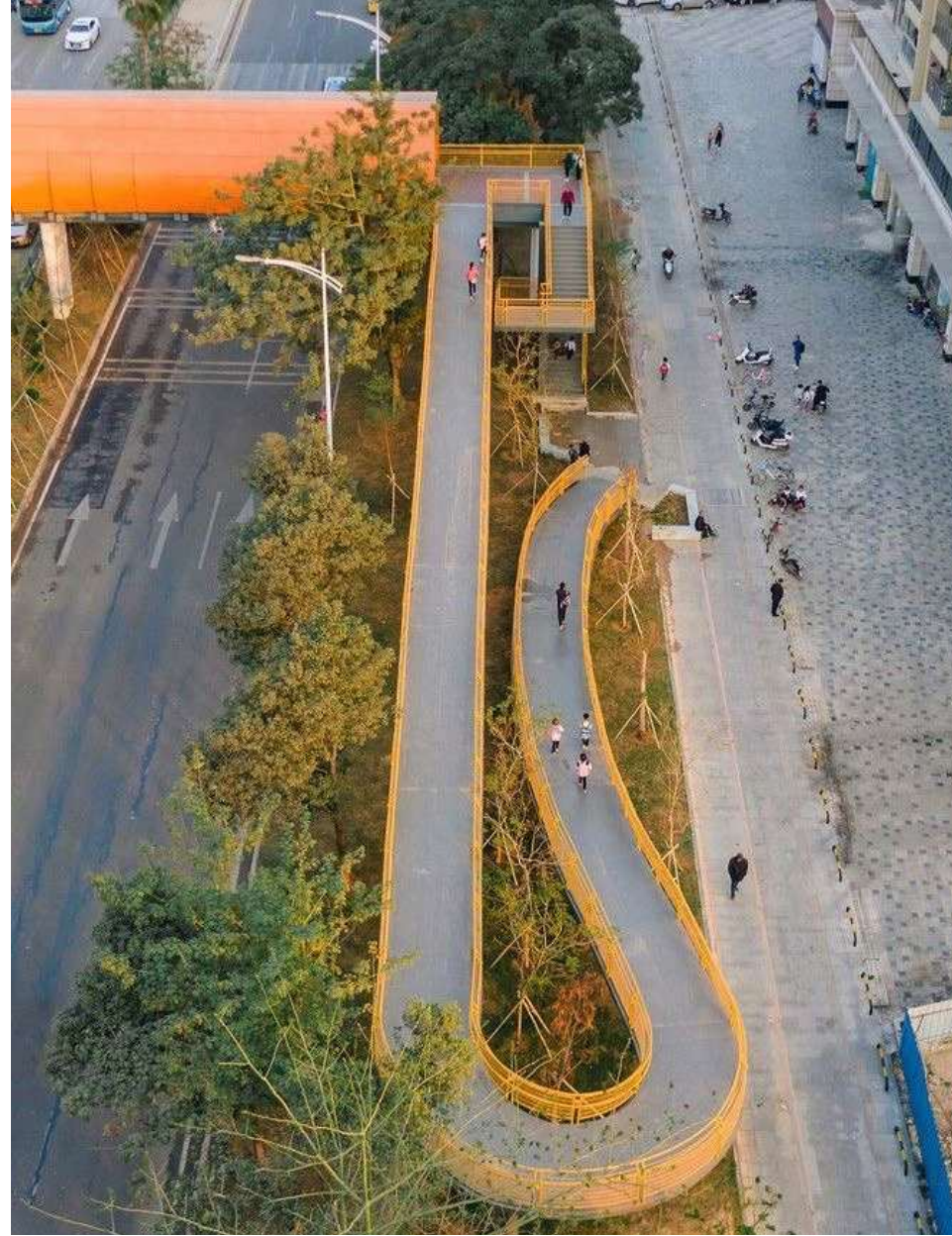


# Site-A + Site-B Planting





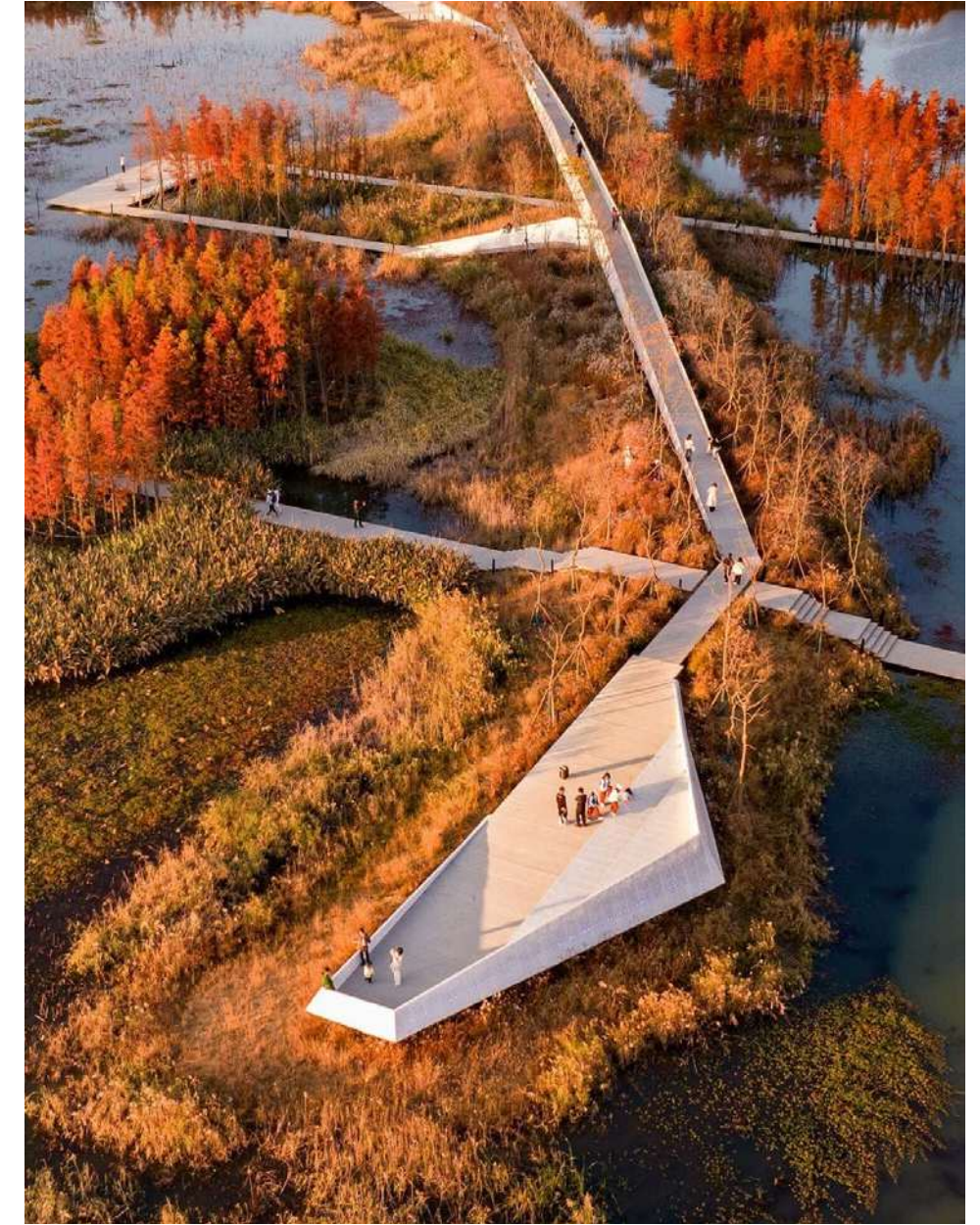
# Woodland Canopy



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.

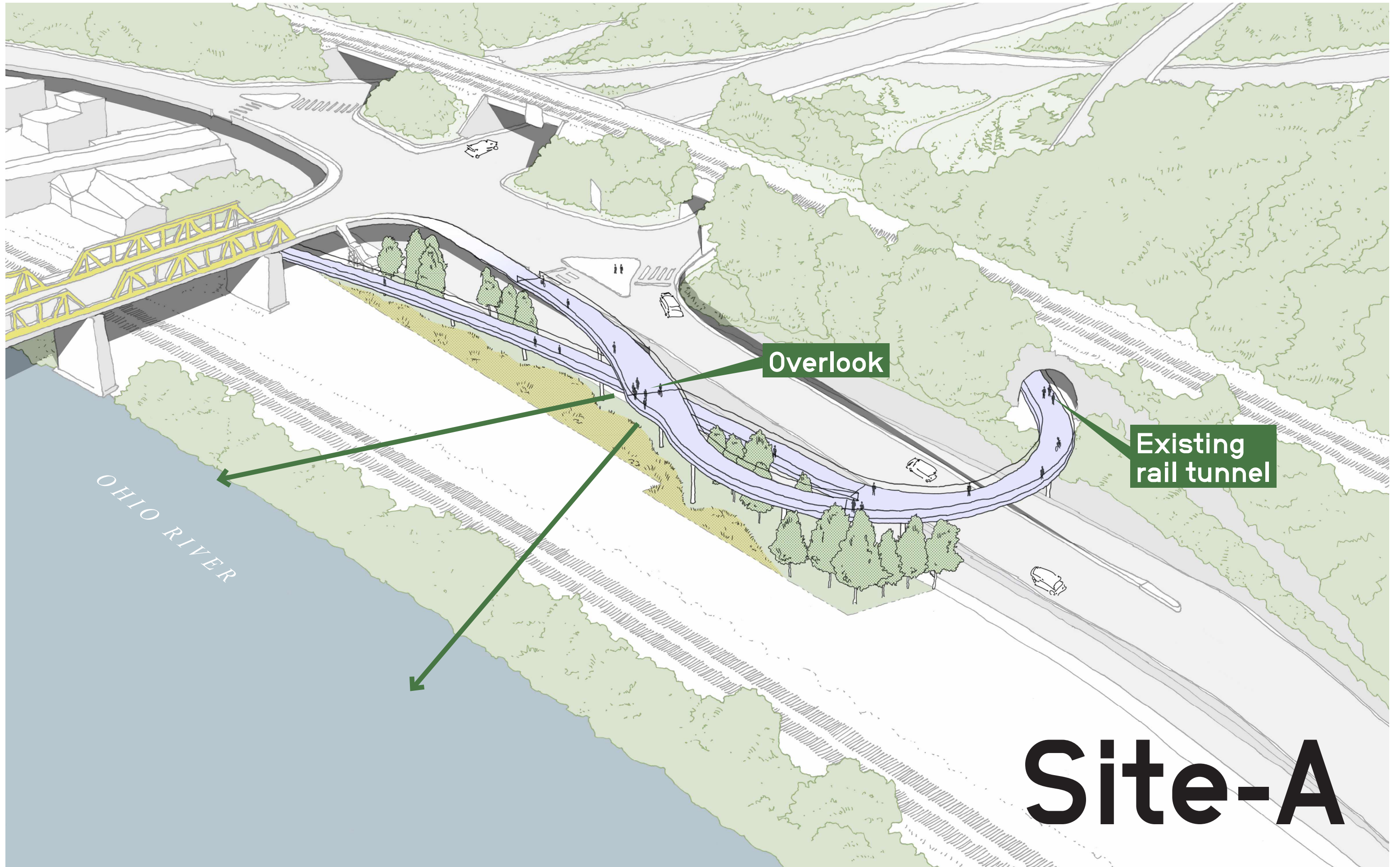


# Lowland Meadow



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.



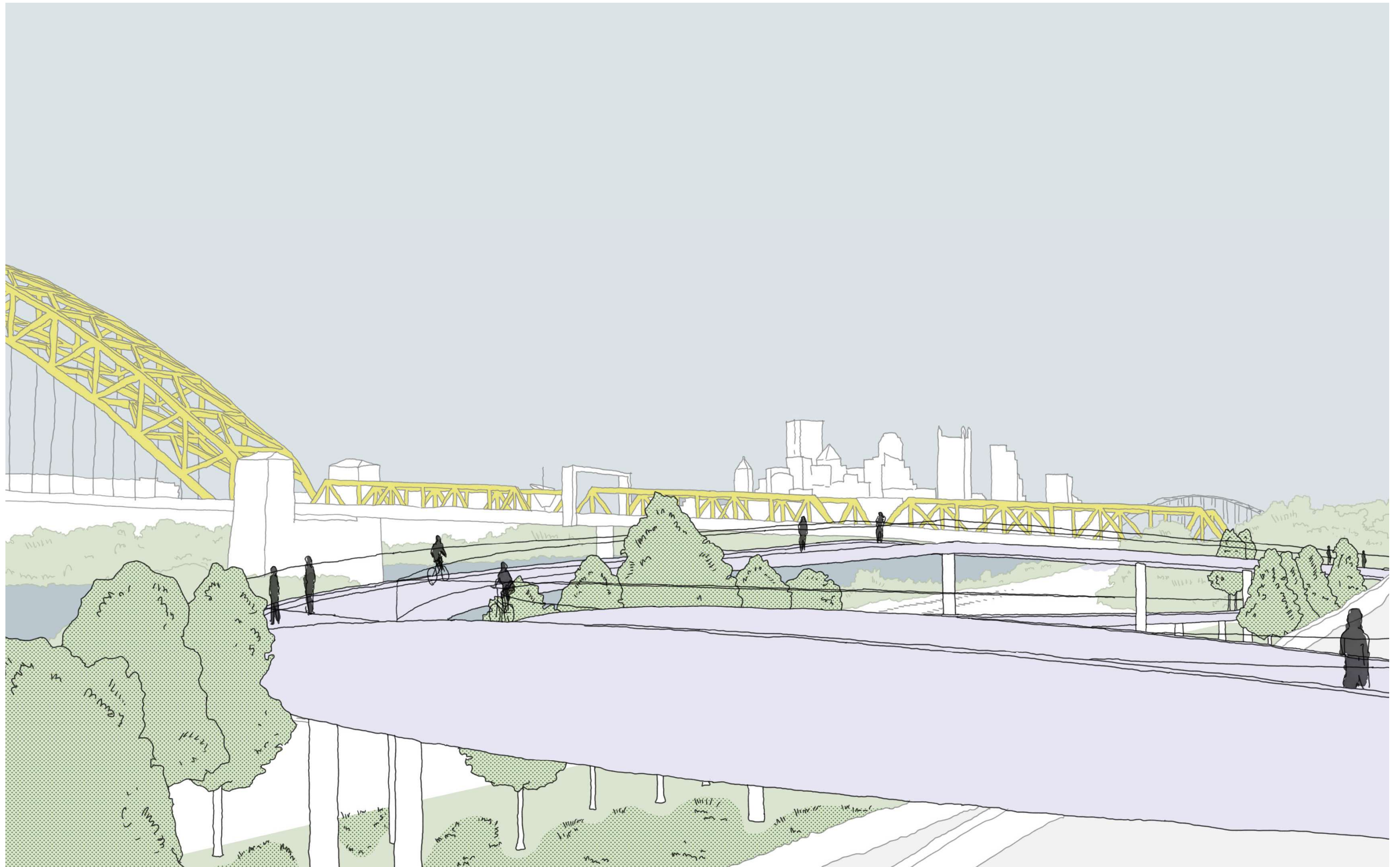


Overlook

Existing rail tunnel

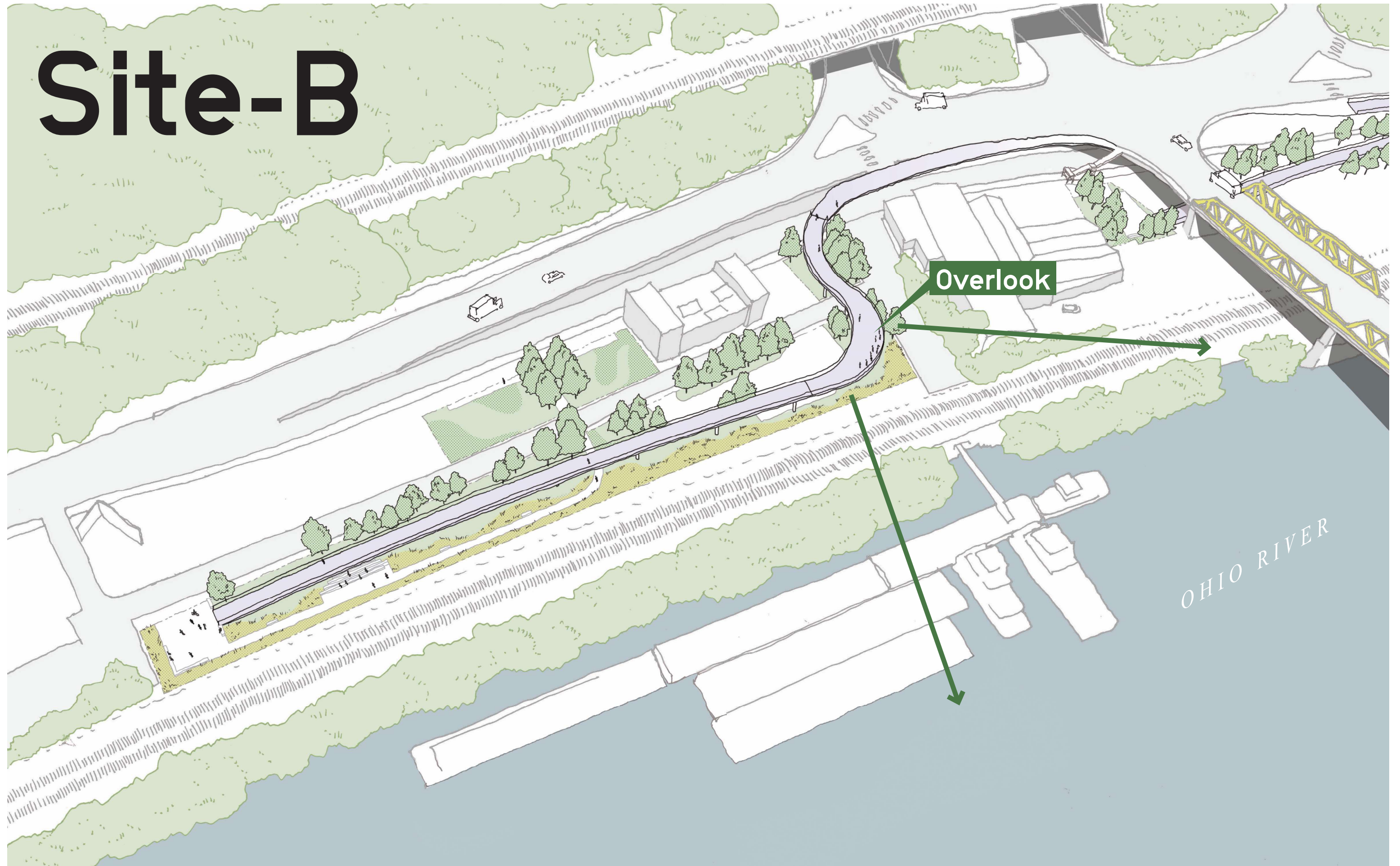
Site-A



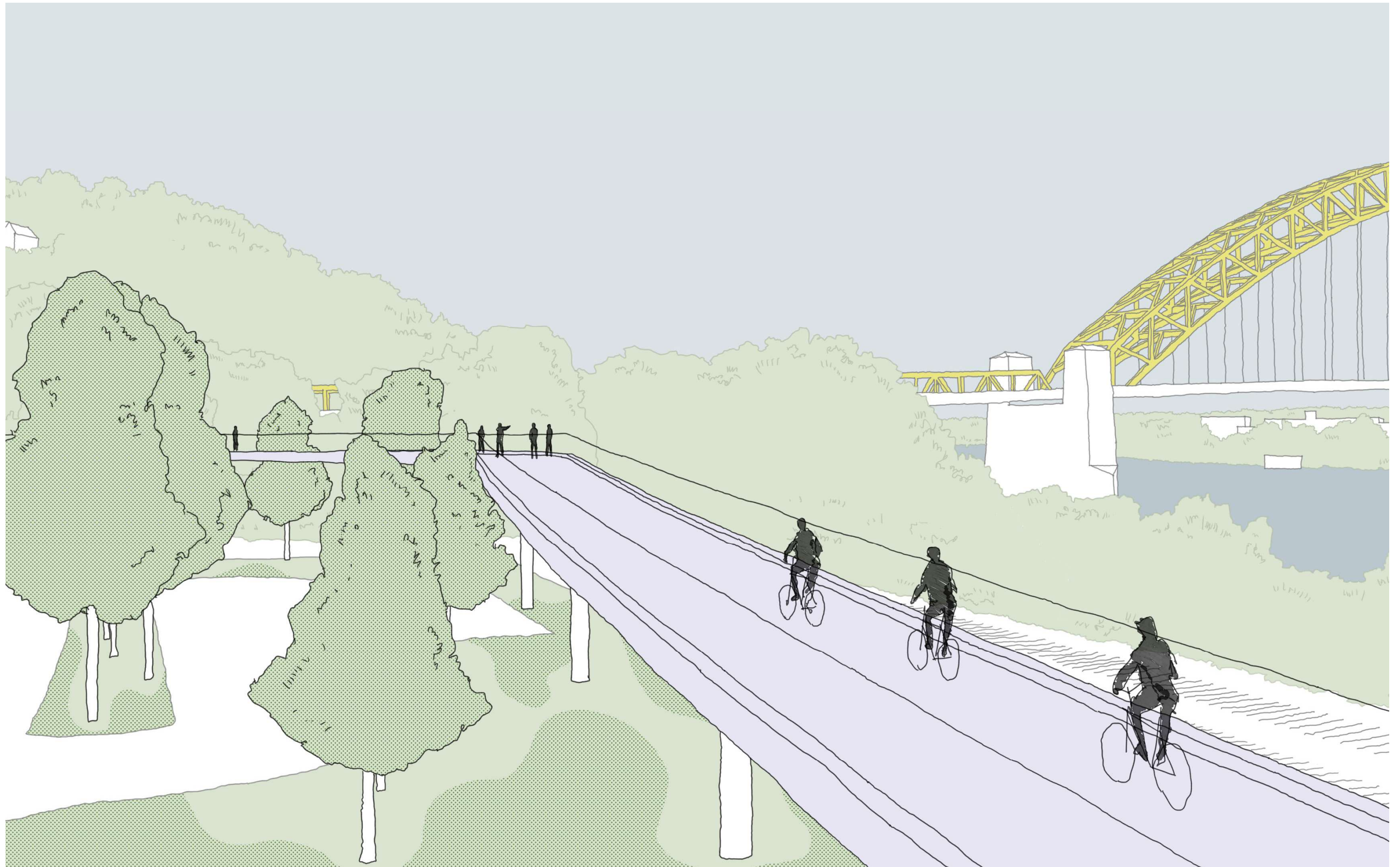




# Site-B









# Site-B





# Toolkit

## Visual Calming

Ped Symbols



Bike Symbol



Yield Markings



Zebra Crossing



Visual Narrowing



Diamond Markings



## Speed Calming

Bollards



Flexible Delinator



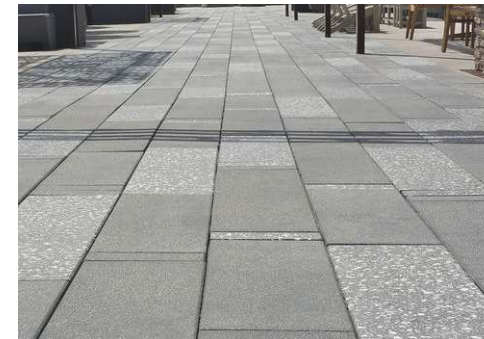
Tactile Pavers



Cobbled Pavers



Textured Pavers



Textured green paint



## Management

Plant Trimming



Trail User Count



Bike Signals



Consolidated Crossings





# Manchester Existing Conditions



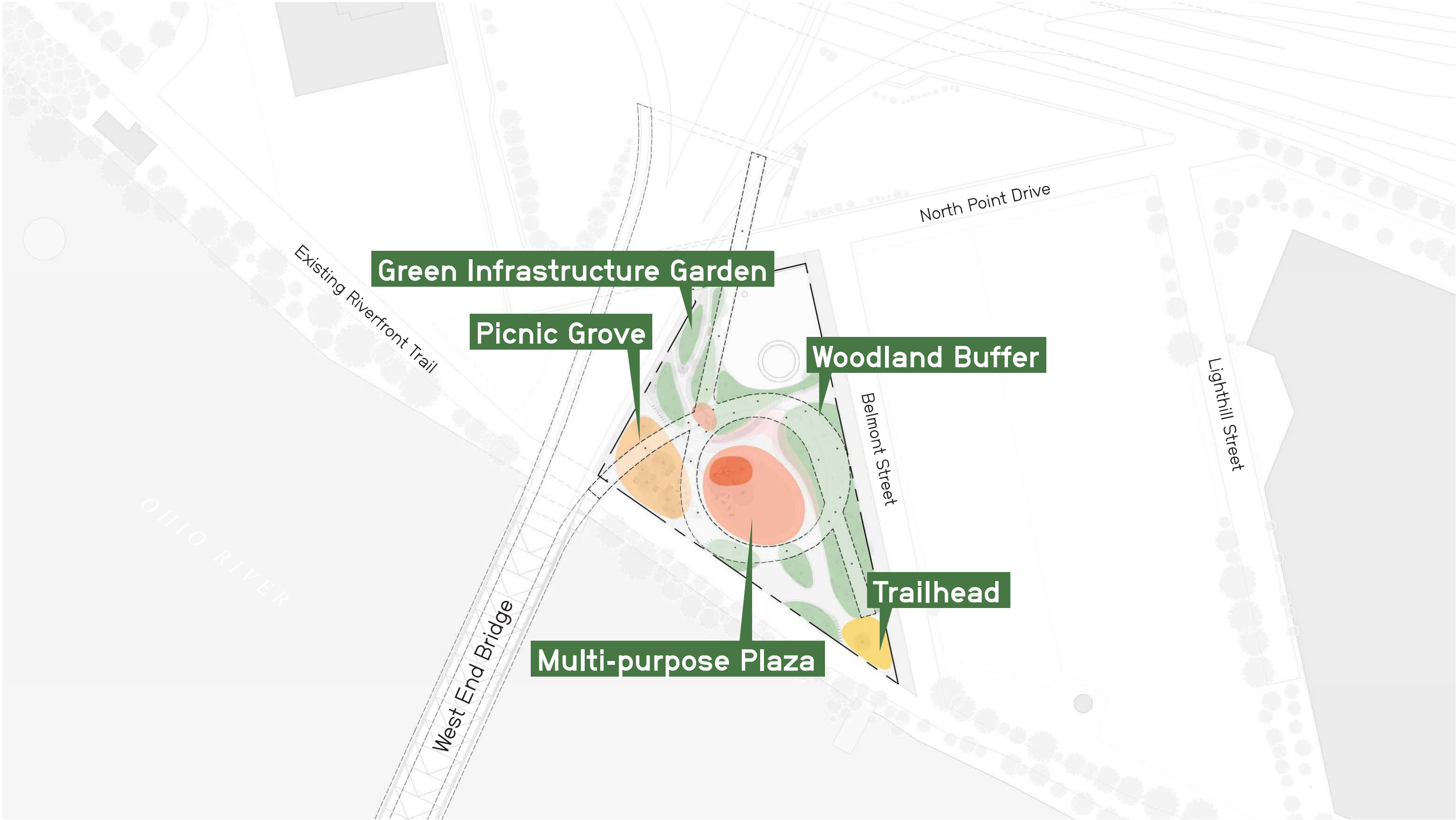


# Site-C Site Plan





# Site-C Landscape Character





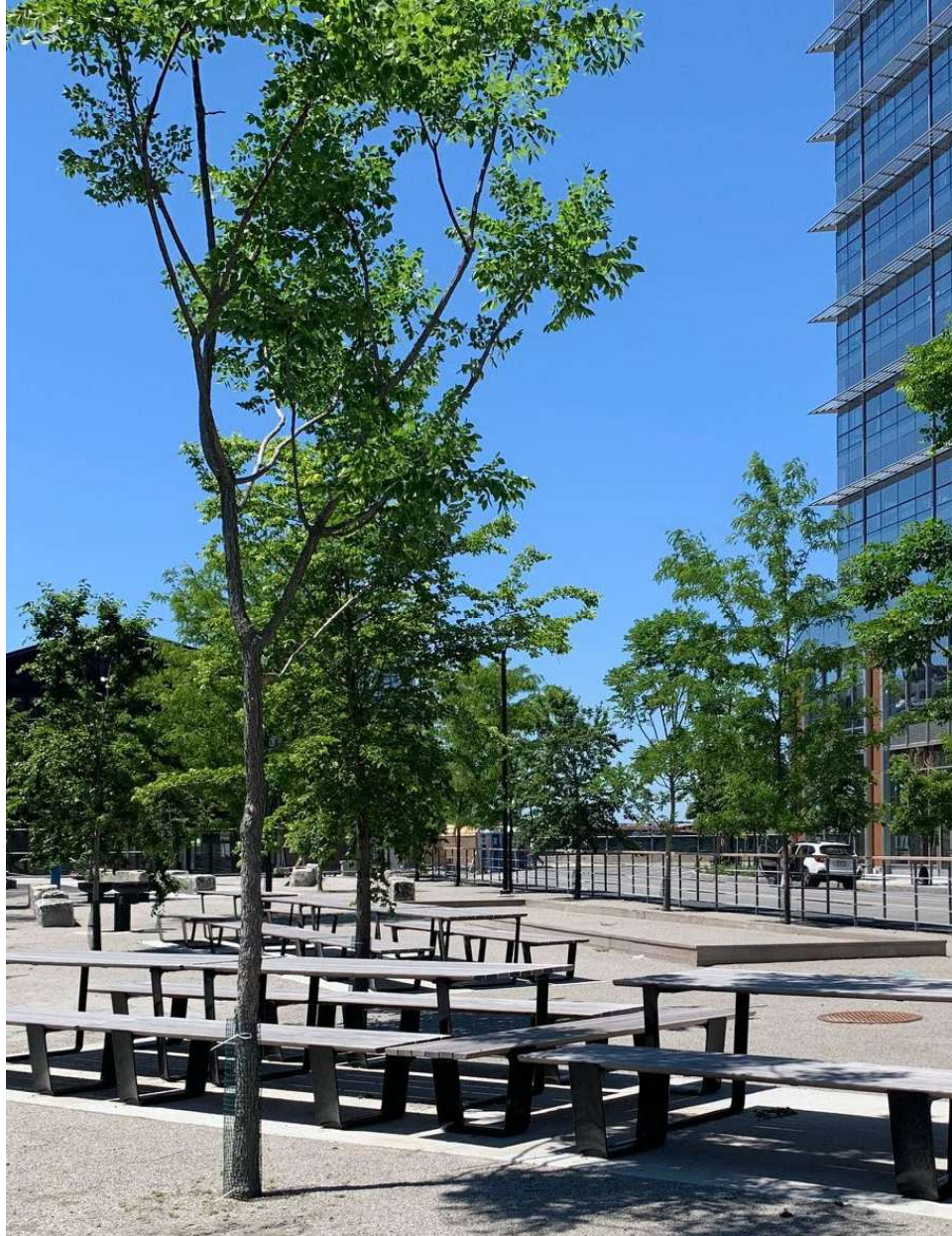
# Multi-purpose Plaza



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.



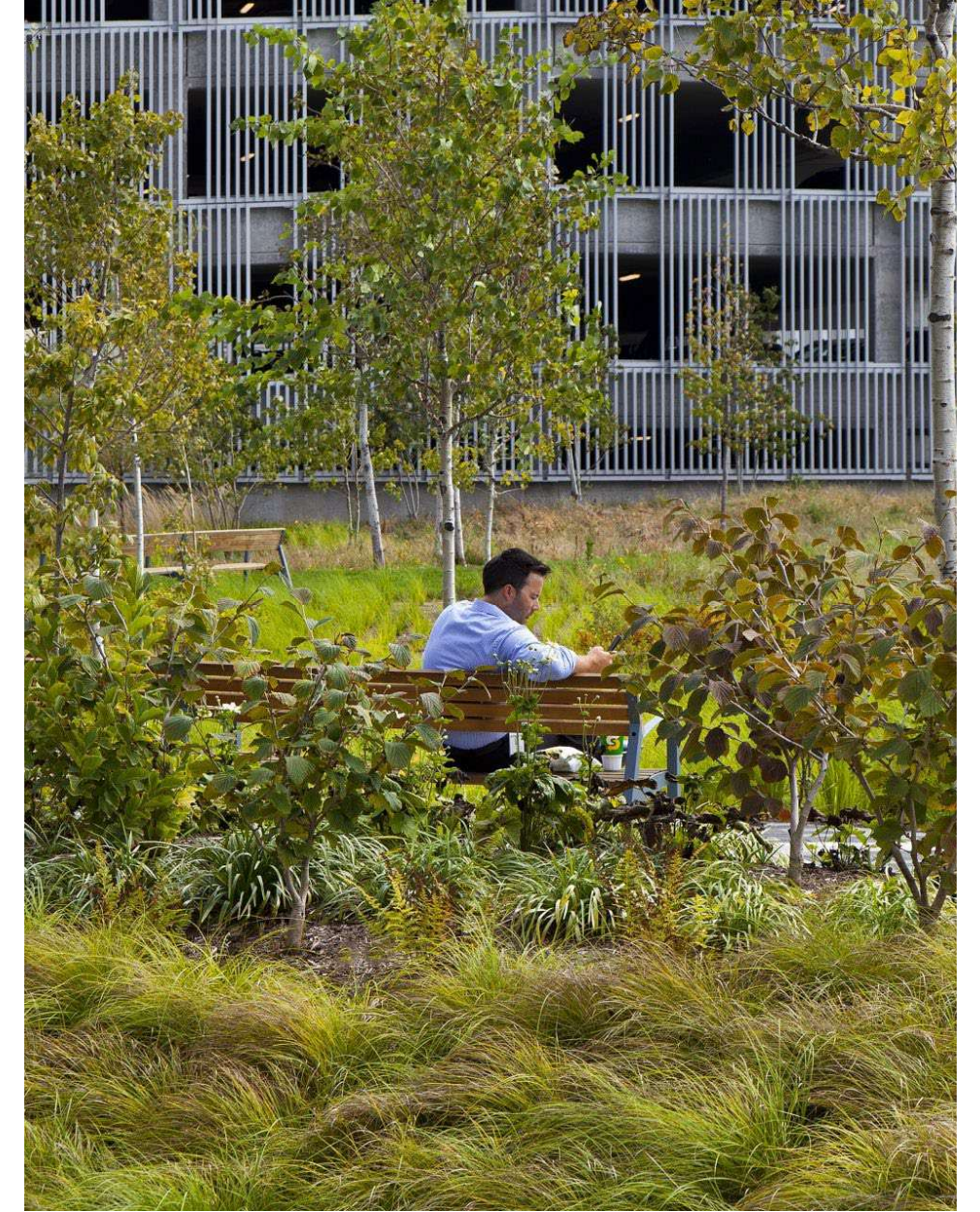
# Picnic Grove



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.



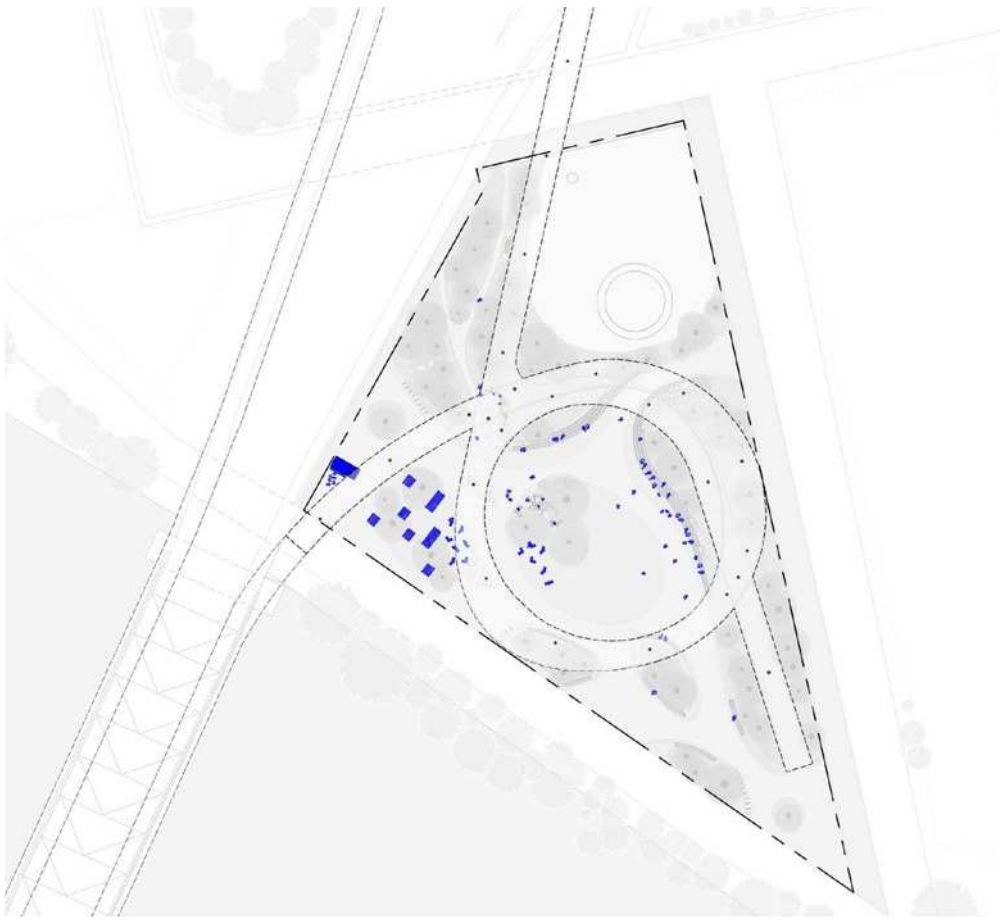
# Green Infrastructure Garden



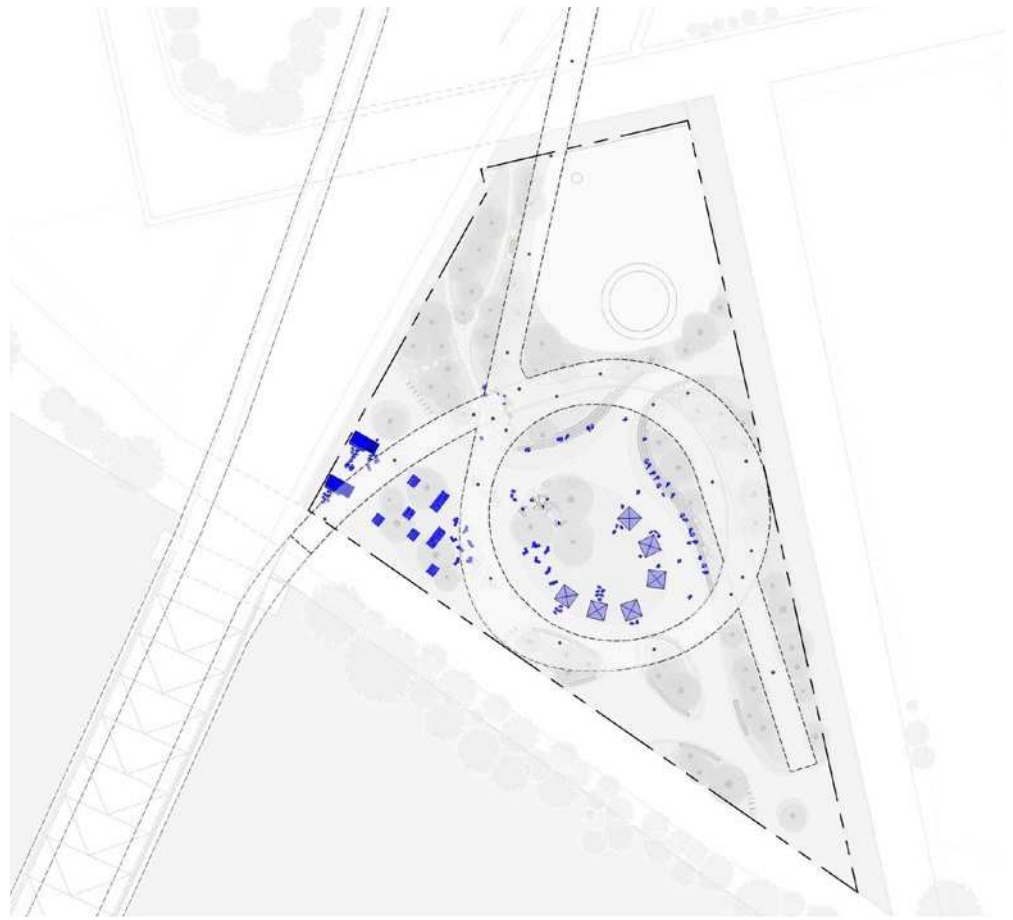
**The green infrastructure garden creates space for visible stormwater management. Smaller-scaled paths, educational signage, and native planting are designed to tell the story of stormwater management and riverine flows on site.**



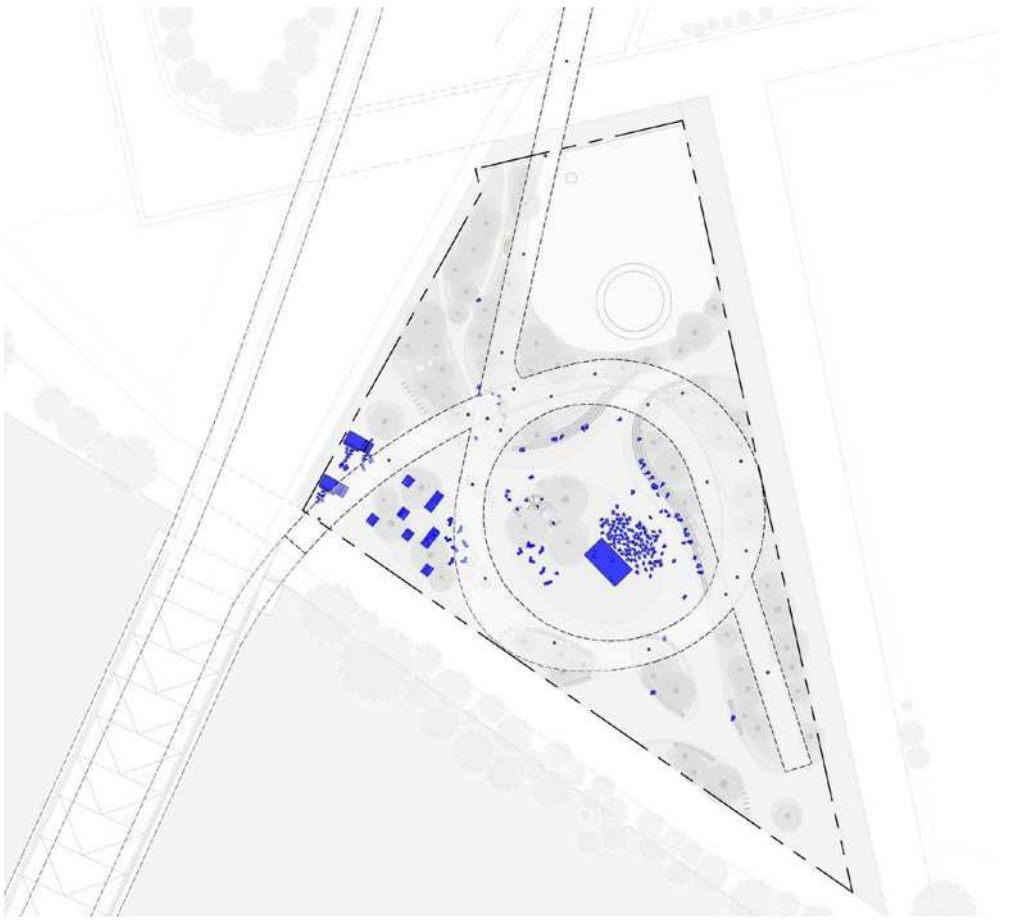
# Site-C Program Flexibility



Daily



Market



Event



# Site-C Planting





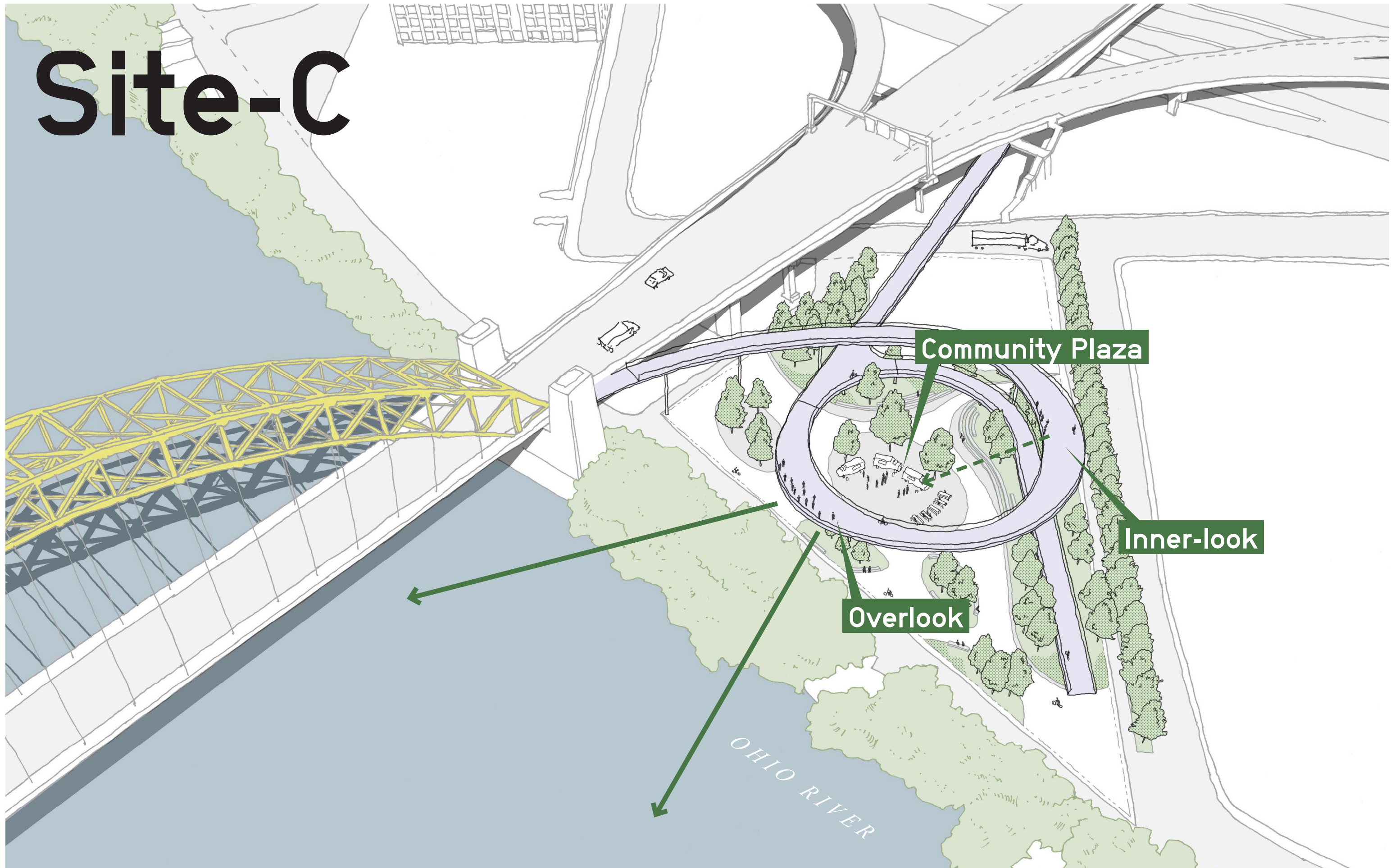
# Materials



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



Community Plaza

Inner-look

Overlook

OHIO RIVER







# Site-C





# Site-C





# Site-C





# Site-C





# Site-C



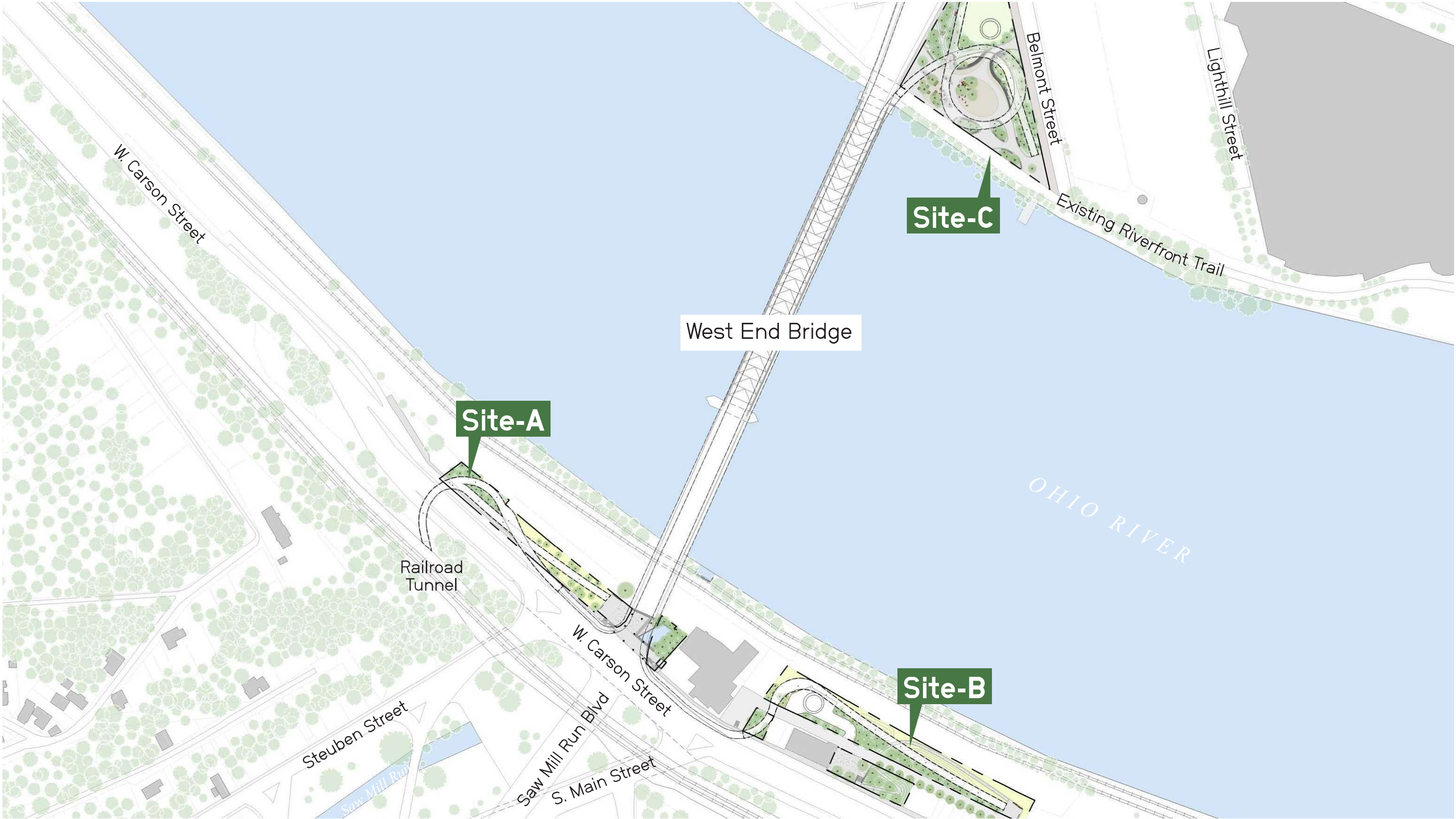


# Site-C





# General questions or comments?





Question 1:

**Do you see any problems  
with the current designs?**



Question 2:

**Is there anything that is missing  
from the current designs?**



Question 3:

The designs contain flexible gathering spaces,  
are there more specific uses that you feel are  
missing?



Question 4:

**Do you feel that the design properly addresses the river and the neighborhoods?**



