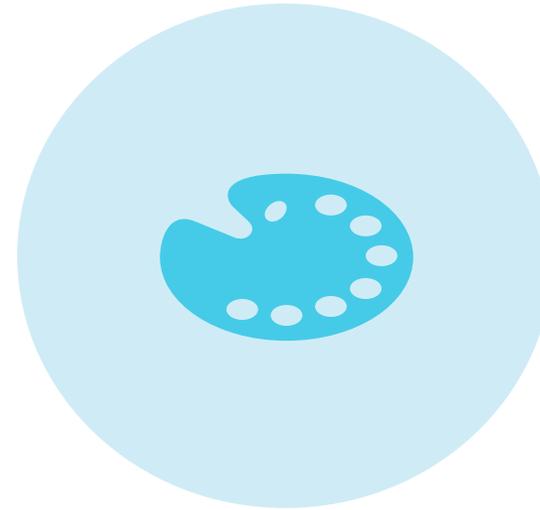


# ACEC PRESENTATION FEBRUARY 2026 – DISTRICT 11-0 ENVIRONMENTAL UNIT UPDATES



Stormwater  
Management  
Procedures



Aesthetics and  
Artistic Elements in  
D-11 transportation  
projects



# ENVIRONMENTAL UNIT STAFF UPDATES

## Environmental Unit Reorganization

Mark Young – Environmental Planning Manager

### NEPA

- Todd Crouch – Supervisor
- Nick Krobot, P.E.
- Bob Billick

### Permitting, Stormwater, and SEMP

- Tyler Mercer, P.E. – Supervisor
- Caitlin Hulle – Permits and PCSM's
- Frances Marlin-Tackie – SEMP and Permits

### Cultural Resource Professionals

- David Anthony – Historic Structures
- Arron Kotlensky - Archaeologist



# STORMWATER MANAGEMENT COMMITTEE (SMC)

 <b>pennsylvania</b> DEPARTMENT OF TRANSPORTATION	<b>Engineering District 11-0</b> <b>District Executive Memorandum</b> <b>2023 – DEM001D</b>
<b>TITLE: Stormwater Management Committee Procedures and Guidance</b>	
PROCEDURE #: 2023 – DEM001D	
PREPARED BY: Mark J. Young	APPROVED BY: Douglas M. Seeley, P.E., Acting District Executive  <small>Digitally signed by Douglas M. Seeley Date: 2023.04.01 09:31:31-04'00'</small>

- District Executive Memorandum (2023 – DEM001D)

**Purpose:**

The purpose of this DEM is to establish procedures and oversight by the District Stormwater Management Committee (SWMC) to properly design, construct and maintain Post Construction Stormwater Management (PCSM) facilities for all National Pollution Discharge Elimination System (NPDES) permitted projects.

**Scope:**

This DEM applies to all NPDES permitted projects in District 11.

**Reference Documents:**

Publication 783 – Environmental Permitting Handbook  
Publication 888 - Stormwater Control Measure Maintenance Manual  
District Special Provision  
Department of Environmental Protection's (DEP) Erosion and Sediment Pollution Control Program Manual (363-2134-008)

**Procedure:**

- All NPDES permitted projects that include PCSM facilities will be reviewed and concurred upon by the District Stormwater Management Committee (SWMC).
- The SWMC members will vary from project to project, but in general will include the following individuals: District Environmental Planning Manager (Chairperson), District Environmental Supervisor – Permits, Assistant Environmental Permit Manager, Environmental Unit Team Member, Project Manager, Assistant Construction Engineer (or representative), and County Maintenance Manager (or representative). Depending on the complexity and status of the project, consideration will be given to inviting the County Conservation District (CCD) and/or the Department of Environmental Protection (DEP).
- Reviews by the SWMC will occur 3-4 times during the design phase of the

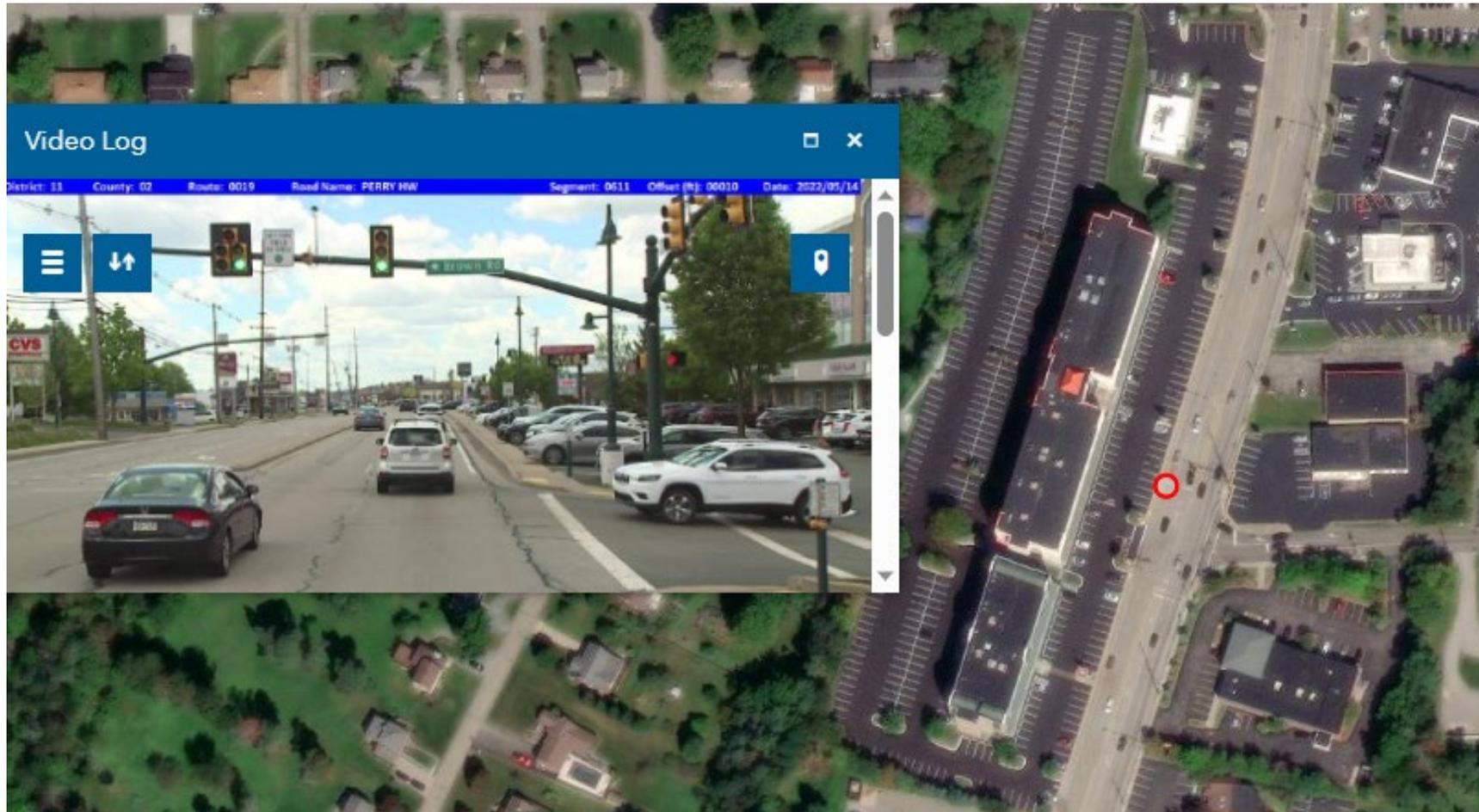


# STORMWATER MANAGEMENT COMMITTEE (SMC)

- Purpose: Multidisciplinary oversight committee to properly design, construct and maintain PCSM facilities for all NPDES permitted projects
- Preliminary Engineering Review- 60%
- Final Design Review – 90%
- Attend pre-construction meeting with permitting agencies
- Regularly attend meetings throughout construction of PCSM facilities



# DESIGN CHALLENGES



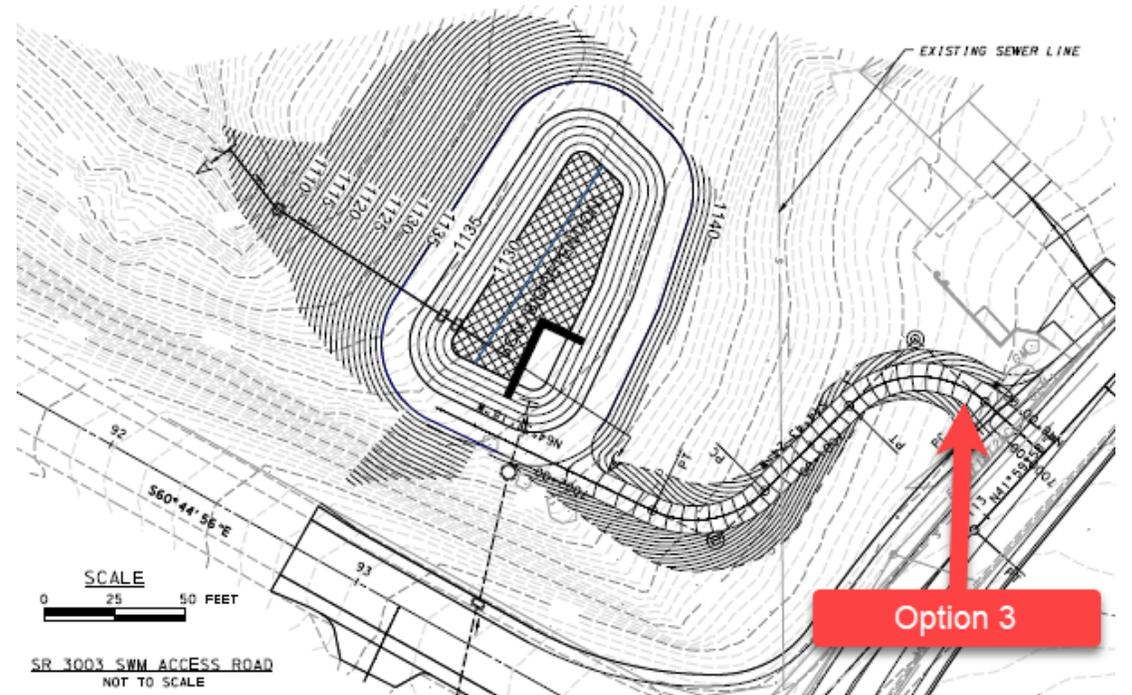
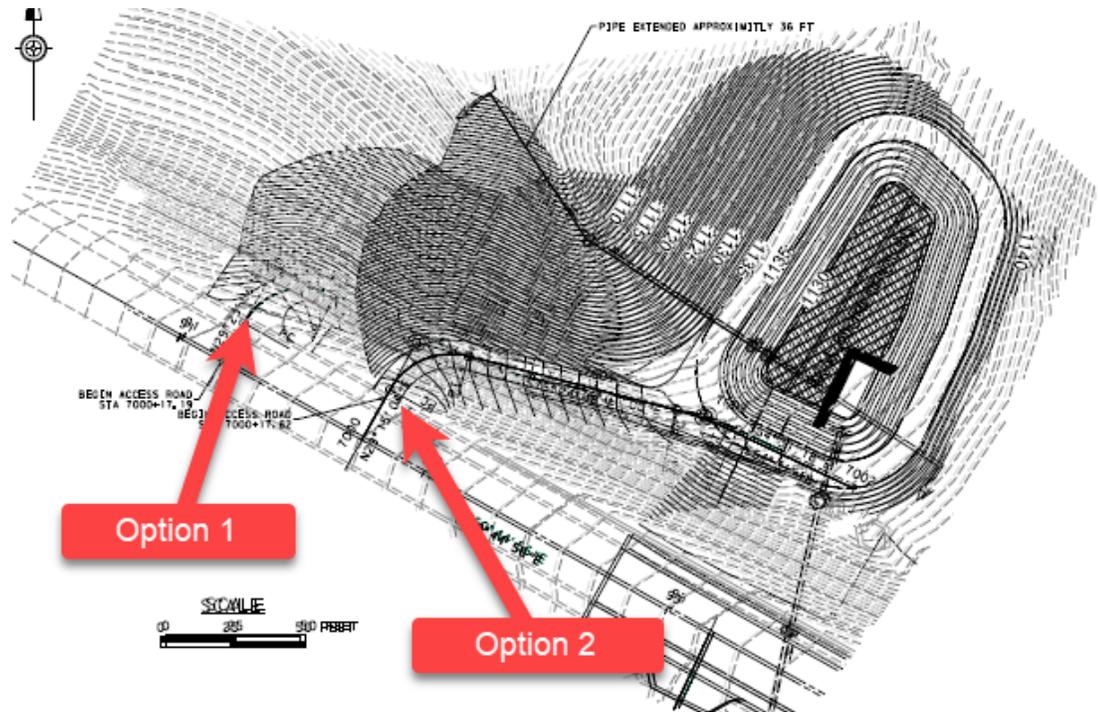
Challenges of fitting PCSM facilities within tight urban corridors – ROW and topography constraints

Constructing facilities with maintenance in mind that are easily maintained and accessible

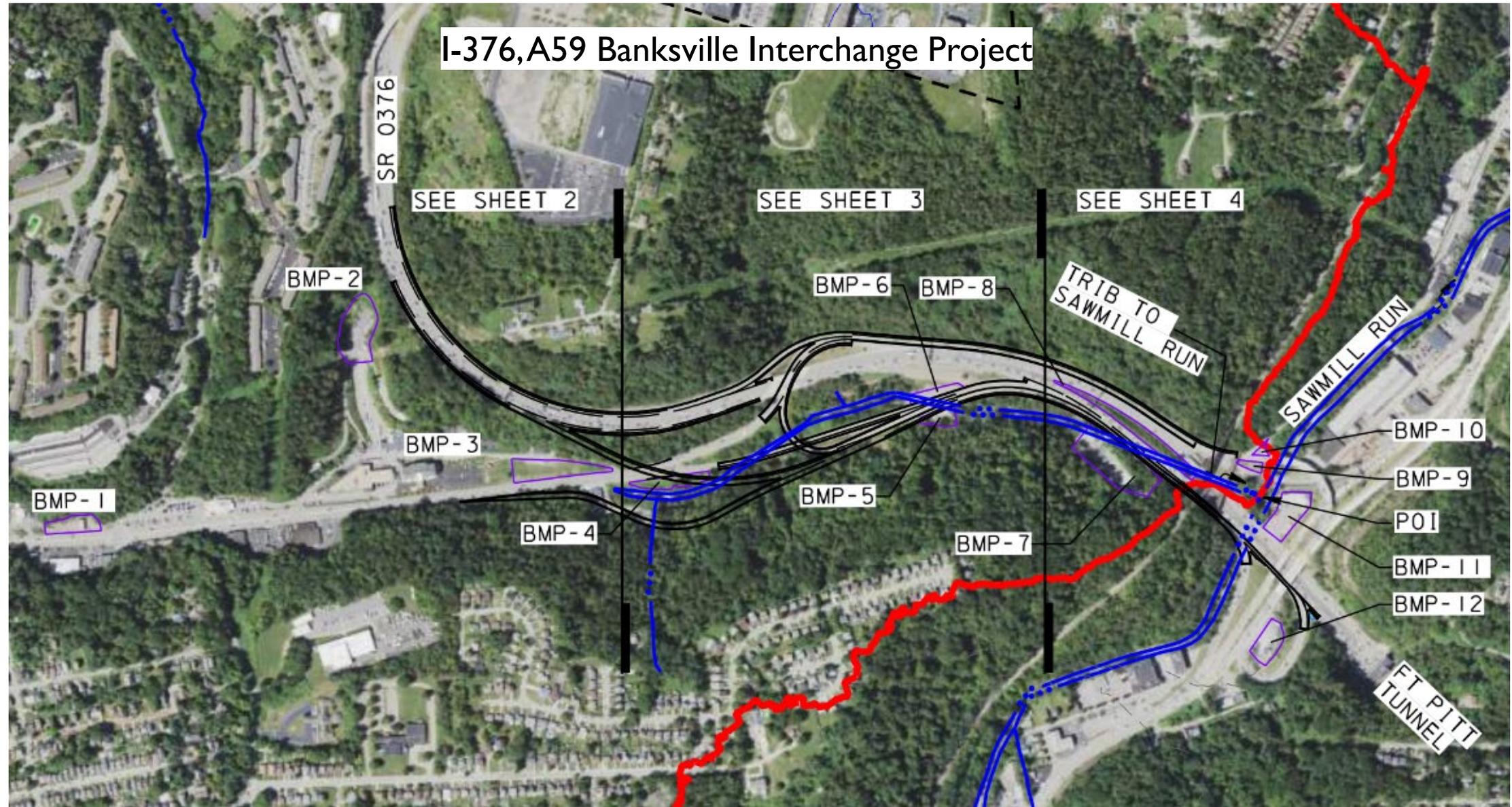


# DESIGN CHALLENGES

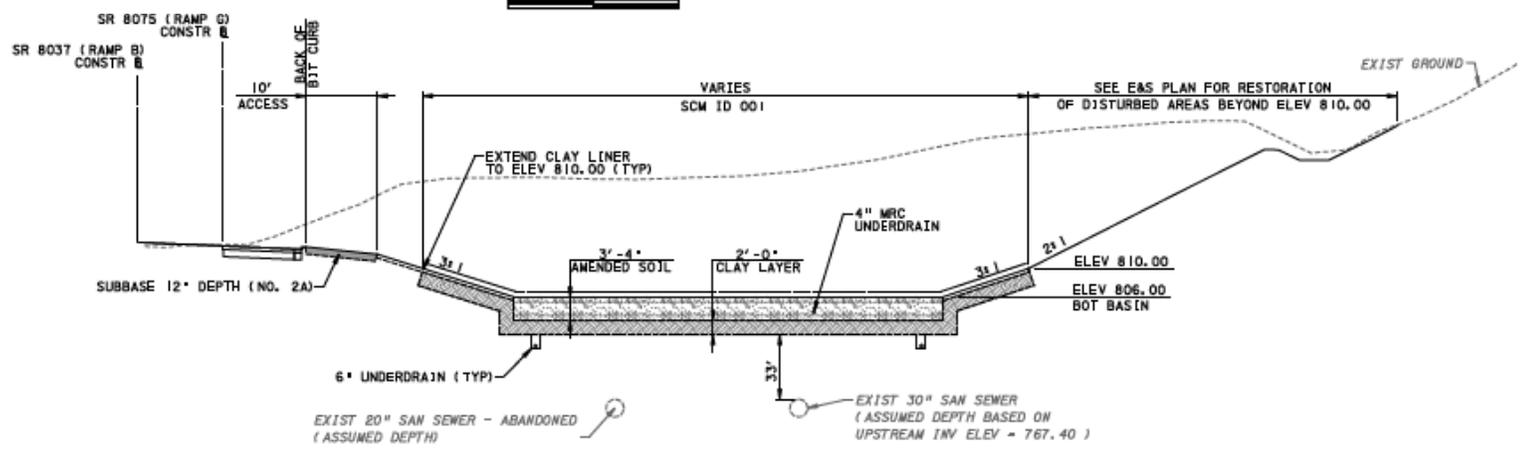
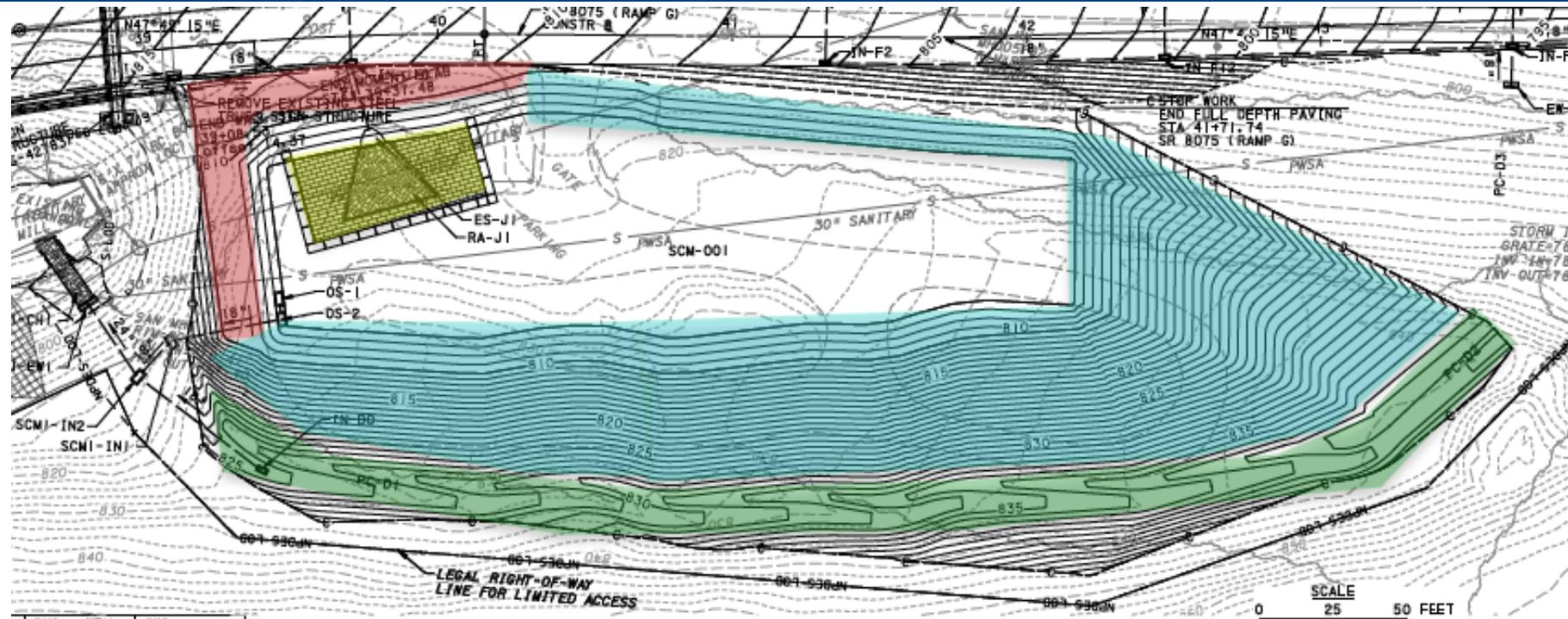
## SR 3003 – A/I Washington Pike Widening



# DESIGN CHALLENGES



# DESIGN CHALLENGES



NOTE: THE FOREBAY IS NOT SHOWN FOR CLARITY.  
SECTION A-A

# DM-2, CH. 10 CHANGE NO. 8

- Memo detailing process issued on October 14, 2025
- Not applicable
  - Projects with a let date prior to January 1, 2027
  - Projects in PE or FD with permits submitted prior to 12/31/2025
- Resilient Design Assessment (RDA)
  - Separate deliverable and is not to be included in H&H report or Waterway permit (internal use only)
  - During development of TS&L and determine if increase hydraulic opening is feasible and necessary
  - Talking point during the Pro-team meeting



# AESTHETICS AND ARTISTIC ELEMENTS IN DISTRICT 11 TRANSPORTATION PROJECTS

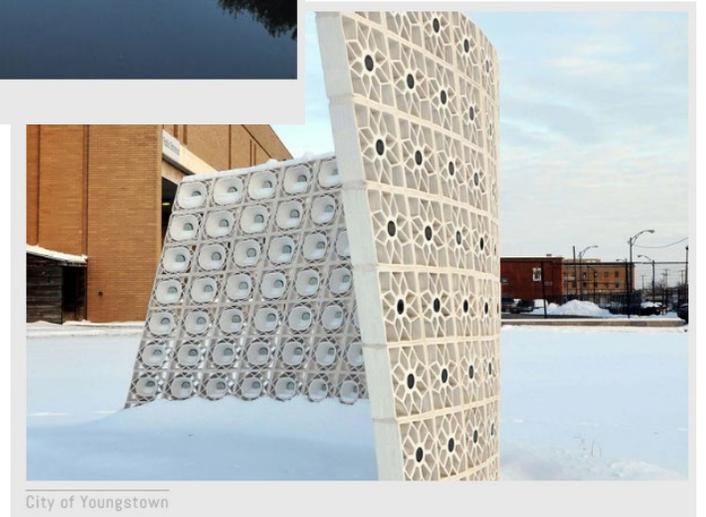


# PROCESS TO BRING AN ARTIST ONTO A PROJECT

- It has been an evolving process
- District Aesthetics and Artwork Committee (DAAC)
  - Meets 2-3 times per year to identify projects that will incorporate aesthetic elements
  - Refine the process for integrating an artist into D11 projects
  - Determines the preferred aesthetic approach using the alternatives prepared by the artist
- Prime consultant adds art management group to their team
- Work with the local art management team to advertise for local artists and bring an artist on board
- Artist is part of the art management group along with technical advisors / architects, etc. to assist in artist design and getting the design into a biddable construction document



Olbrich Botanical Gardens



City of Youngstown

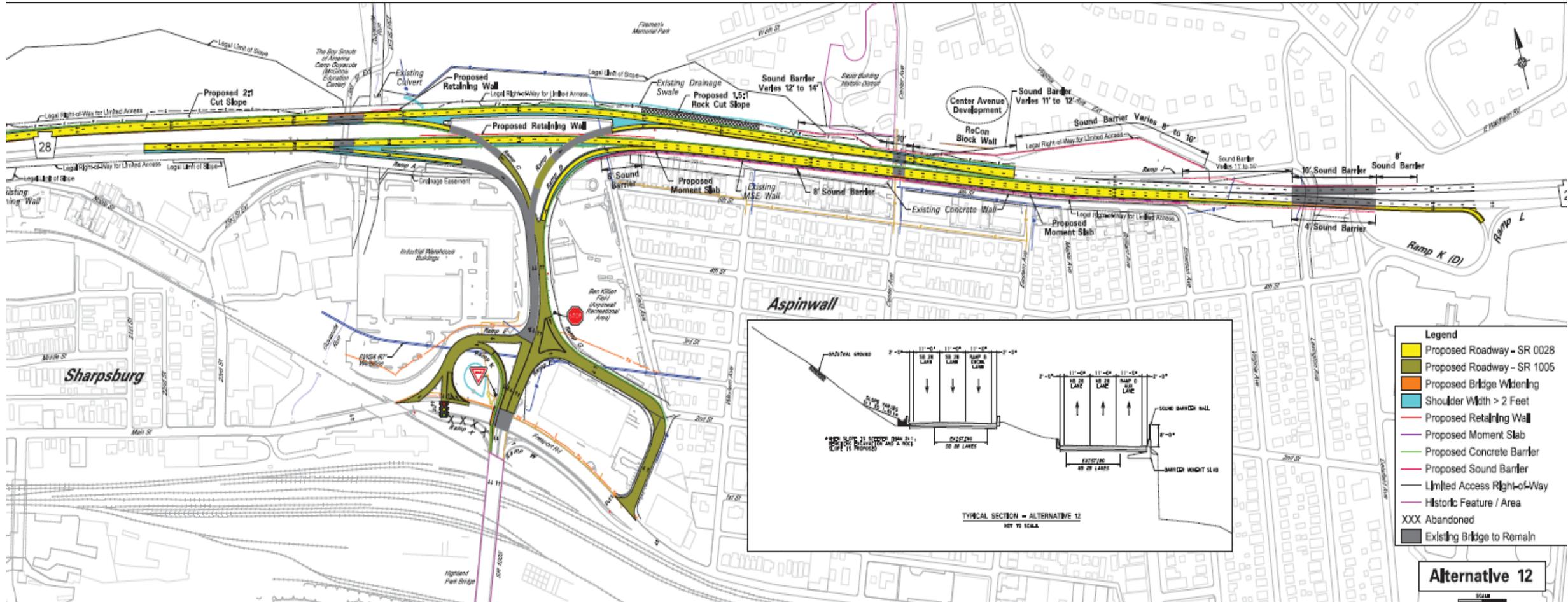


# HIGHLAND PARK INTERCHANGE (SR 28, A56) SOUND BARRIERS

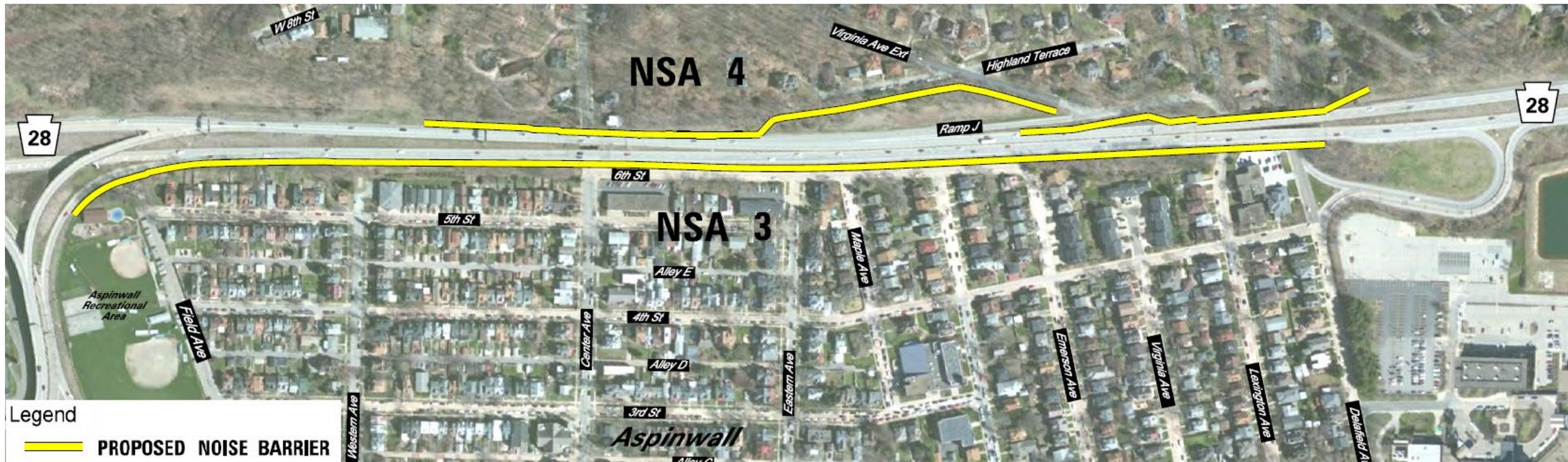
- Michael Baker was prime and added Office for Public Art (now Shiftworks) as art management team member
- Through advertising and interview process Brian Peters was selected local artist
- Project was in FD and went into construction during part of the artwork design process
- Worked with Golden Triangle and their subs on details for the concrete form liner design



# 28-A56 PROJECT OVERVIEW – ADDITIONAL THROUGH LANES IN EACH DIRECTION – NOISE STUDY / SOUND BARRIERS



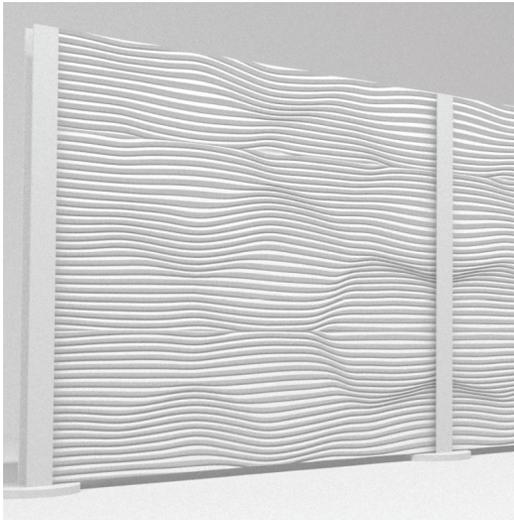
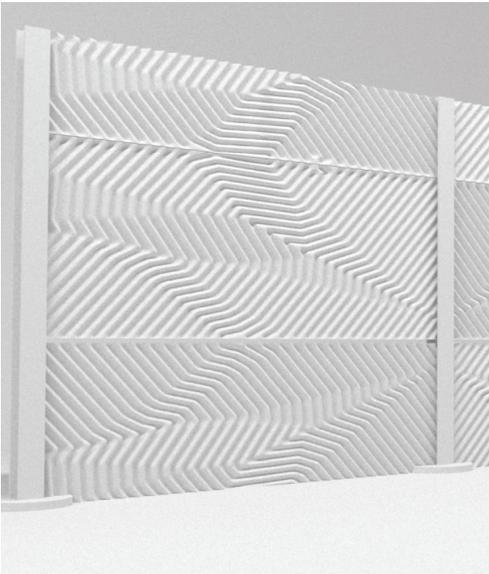
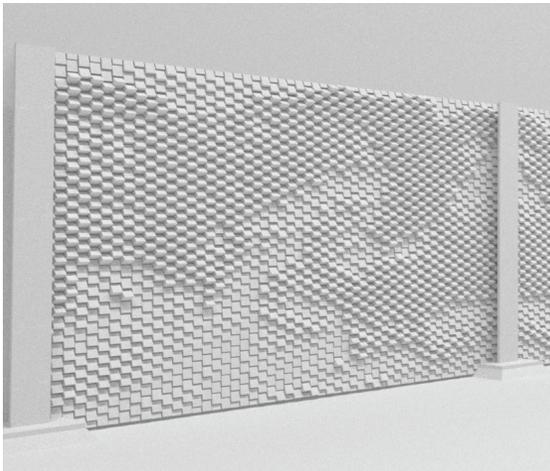
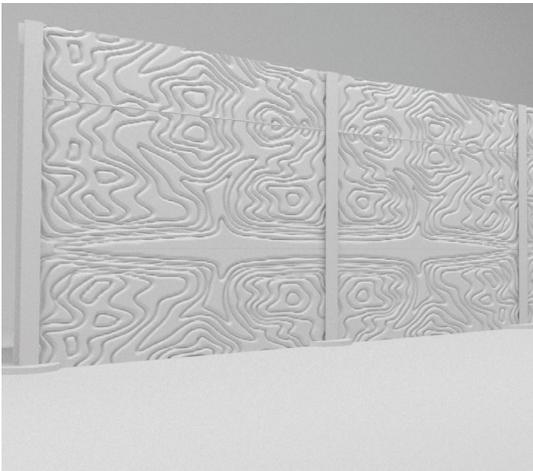
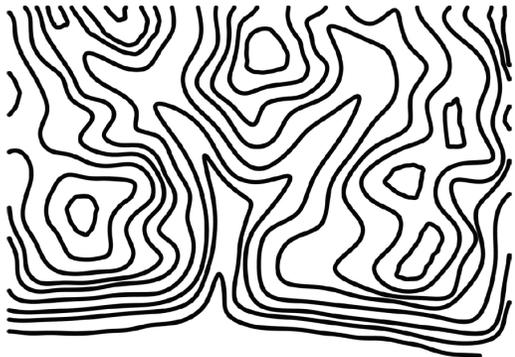
# SOUND BARRIER OVERVIEW



- Noise study resulted in the need for sound barriers
- 7 Sound barriers constructed in NB and SB directions
- Noise Sensitive Areas (NSA 3) – 94 benefitted receptors – Aspinwall
- NSA 4 – 64 benefitted receptors – O’Hara



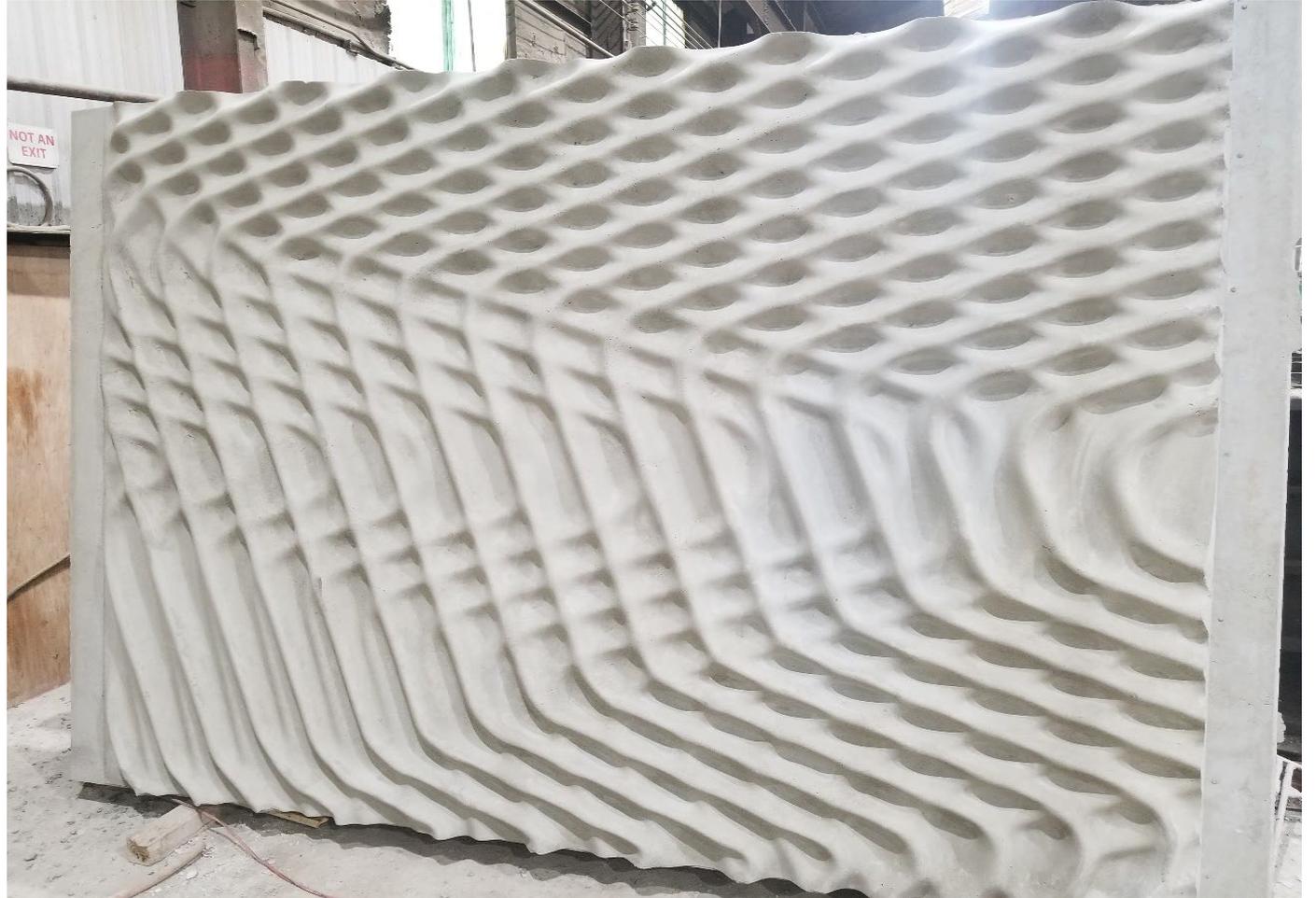
# EARLY ITERATIONS OF THE DESIGN – 3D PRINTER APPLICATION



# SELECTED DESIGN

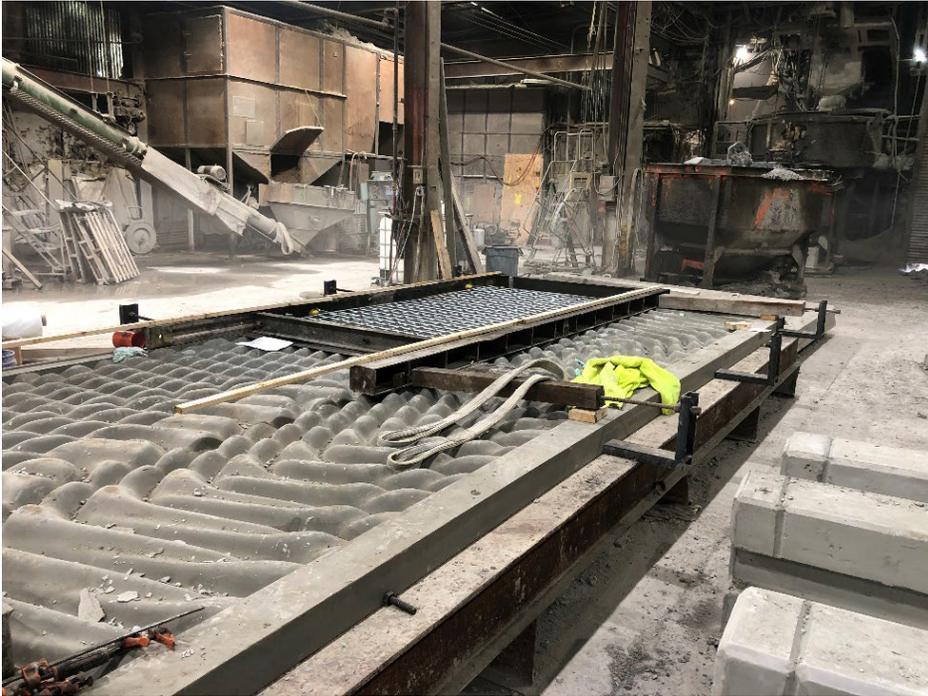
## “Riffles”

- Water based theme – Allegheny River
- Riffles from two different directions colliding
- Four different style panels





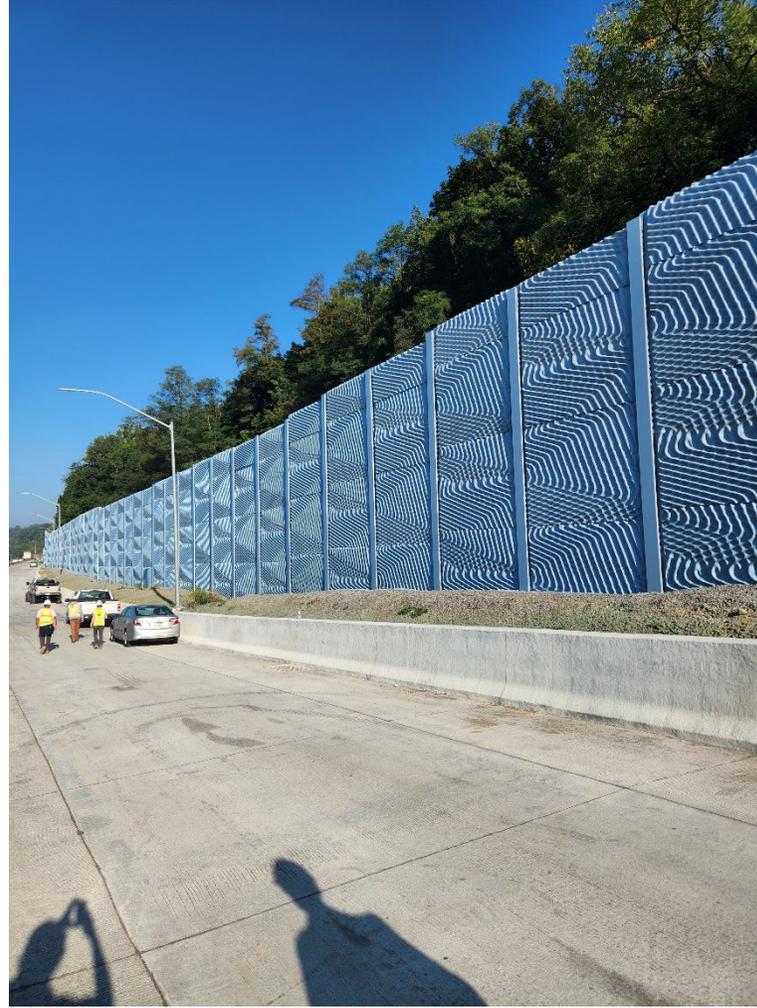
# FABRICATION



- Spring 2022 - Faddis Concrete completes a mockup of the panel
- Summer 2022 – Noise wall panel installation starts



# CONSTRUCTION PHOTOS

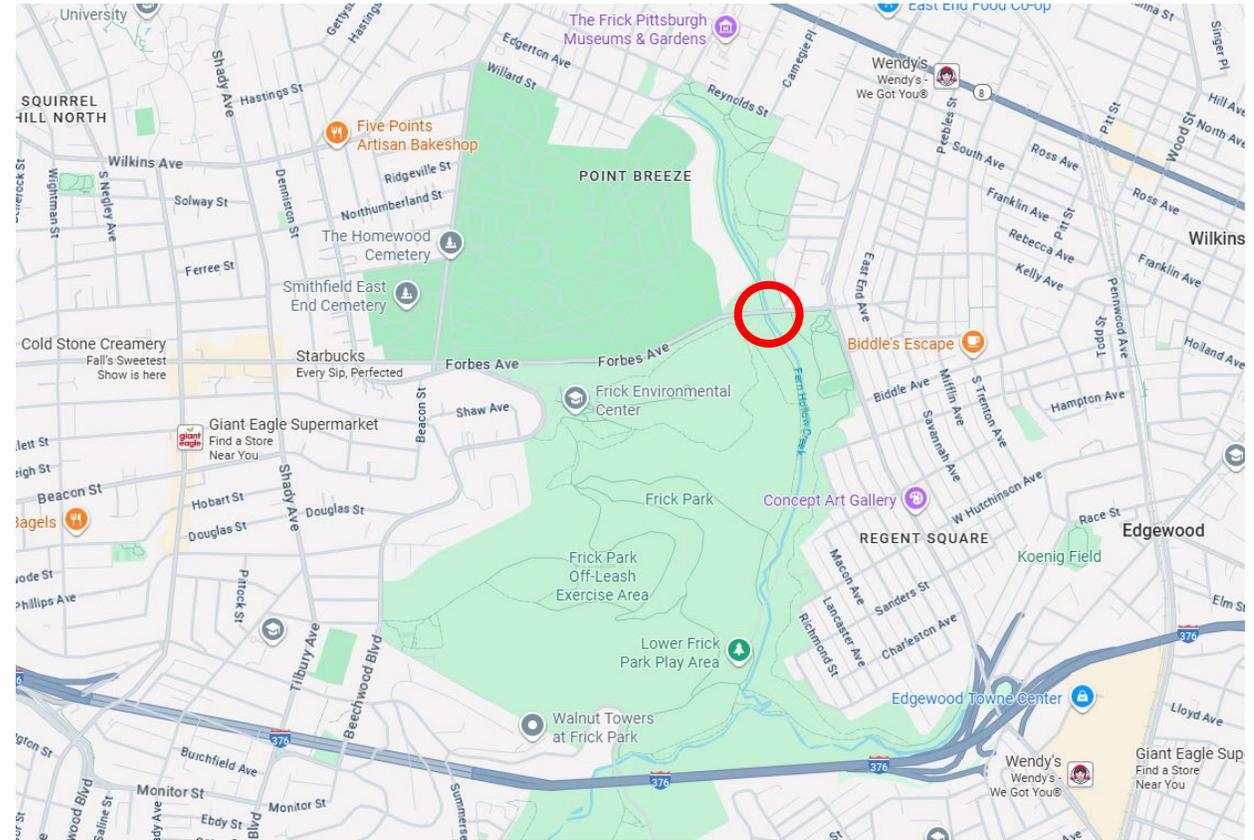


# FERN HOLLOW BRIDGE COLLAPSE



# FERN HOLLOW BRIDGE LOCATION-OVER FRICK PARK

- Bridge located in a sensitive area – urban park with trails and a stream – heavily used
- Based on neighborhood feedback, there was a desire to incorporate unique aesthetic elements into an otherwise common bridge structure
- Emergency project restricted the structure type which needed to be built as quickly as possible.



# FERN HOLLOW PROCESS – ADDING AN ARTIST(S)

- Bridge collapsed on 1/28/22
  - Emergency declaration issued
- PennDOT took ownership from City of Pittsburgh for construction
- Sole source D/B (Swank and HDR) contract for construction
  - Art management team (Shiftworks) was added to the D/B team
- Two artistic opportunities were identified – top of the bridge and under the bridge
  - Local artists Carin Mincemoyer and John Pena are selected



# UNDER THE BRIDGE - TRAIL MEANDER

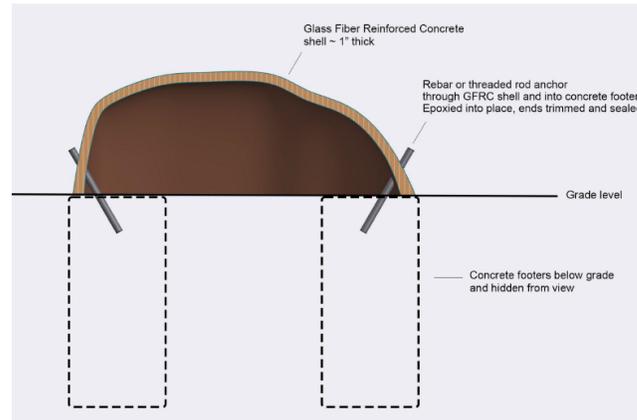
- Trail Meander
  - Large sculptured “river rocks” and “driftwood” logs offer seating and reference the ravine’s formation by the movement of water over eons of time.



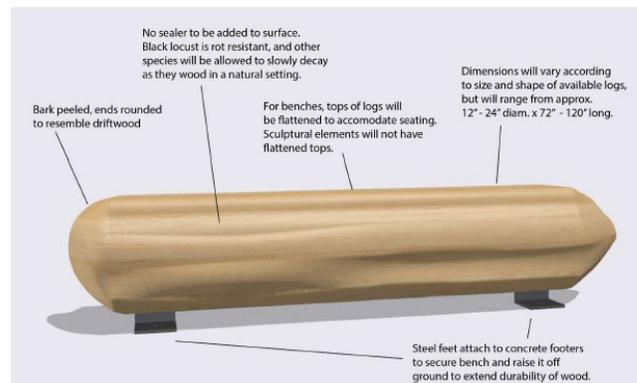
# UNDER THE BRIDGE – TRAIL MEANDER



## River Rock Bench

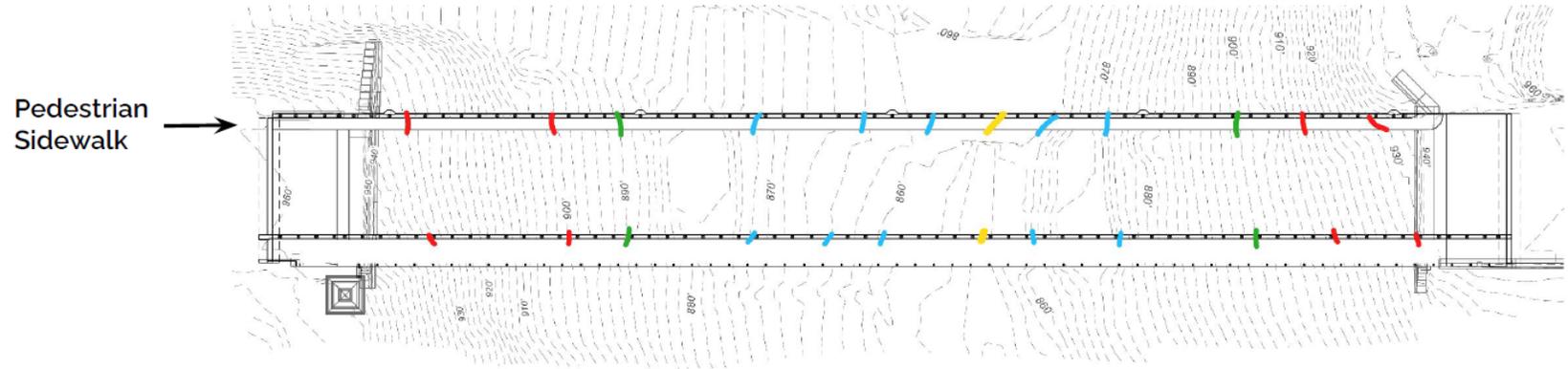


## Driftwood Bench



# TOP OF THE BRIDGE – 400 MILLION YEARS OF WATER

- A history of water in Fern Hollow represented by four water patterns evoking a different time period – etched into the concrete.
- The four patterns (Ocean, Lake, River, Creek) were sandblasted, stained, and sealed onto the concrete surface of the pedestrian sidewalk and vertical barrier wall at 12 separate locations.



## Topo View of Bridge Deck:

Lake Pattern (4) in **RED**  
River Pattern (2) in **GREEN**  
Ocean Pattern (5) in **BLUE**  
Creek Pattern (1) in **YELLOW**

**12 Total Pattern Locations:** Patterns are placed with deep-time events on outer edges of the bridge moving towards present day closer to the middle.



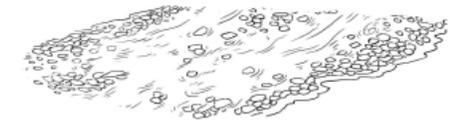
LAKE  
(20,000 - 270 mya)



OCEAN  
(290 - 500 mya)



RIVER  
(20 mya)



FERN HOLLOW  
CREEK  
(present day)



# OVER THE BRIDGE – 400 MILLION YEARS OF WATER RENDERINGS



## Pedestrian Sidewalk (North)

Etched pattern with name of Body of Water



## Shared Use Path (South)

Pattern continued on barrier walls.  
Metal Plate with descriptive text affixed to rub rail.

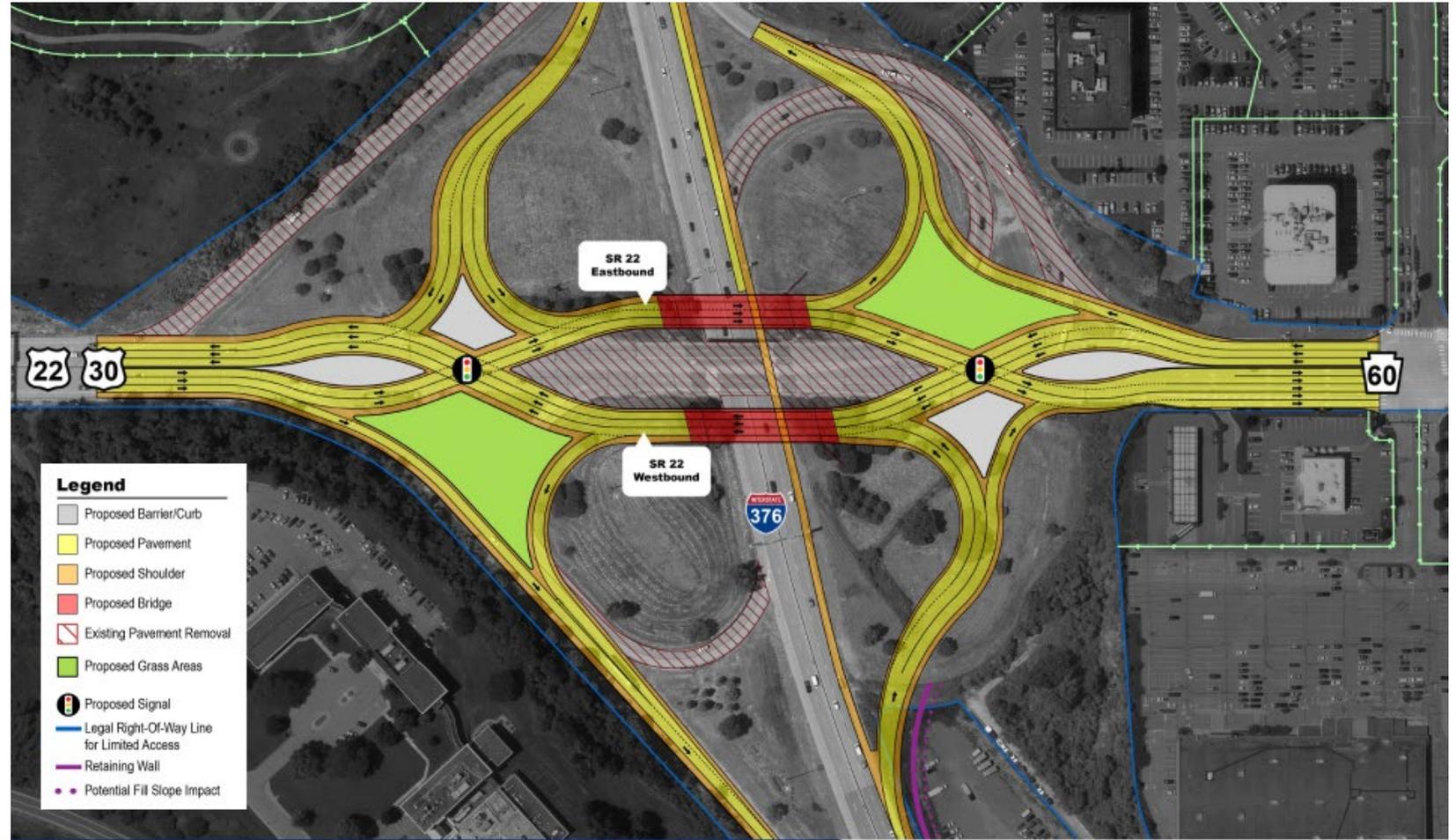


# OVER THE BRIDGE – 400 MILLION YEARS OF WATER



# UPCOMING AESTHETICS – SR 22-A37 LET IN MID-FEBRUARY - KCI

- Working with Shiftworks on SR 22-A37 Diverging Diamond
- Corridor theme was developed for the Parkway West by the selected artist – Kim Beck
  - Hidden Histories – often overlooked layers of the region’s unique appeal

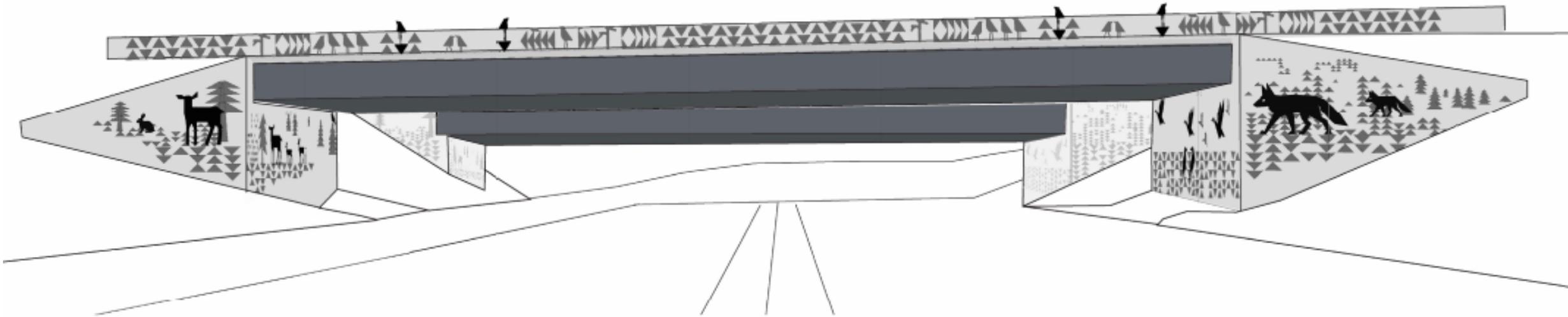


# SR 22-A37 ARTWORK / AESTHETIC ELEMENTS

- Local artist Kim Beck selected
  - Several alternatives developed
  - Concept - Appalachian Ecology: Nature's Quilt
  - The design incorporates simple shapes and silhouettes inspired by local Appalachian plants and animals, such as birds, deer, and native Pennsylvania trees
  - Combination of metal attachments and form liners



# SR 22-A37 ARTWORK / AESTHETIC ELEMENTS



\*CONCEPT RENDERING FOR VISUAL INTENT ONLY:  
NOT TO SCALE. NOT FOR CONSTRUCTION. REFER TO ARCHITECTURAL  
ELEVATIONS FOR ALL DIMENSIONS AND SPECIFICATIONS.



# ADDITIONAL PROJECTS ANTICIPATED/BEING CONSIDERED

- Banksville Interchange – Lori Hepner selected
- Highland Park Bridge
- Squirrel Hill Interchange
- Frazier Street Bridge
- Greentree Interchange
- Carnegie Interchange



# QUESTIONS

