1.BDA-2024-05891

301 Cedar Avenue Allegheny Commons Park Historic District Central Northside Neighborhood Norfolk Southern Pittsburgh Vertical Clearance Projects—W. North Avenue Bridge and Allegheny Commons Pedestrian Bridge



Norfolk Southern Pittsburgh Vertical Clearance Projects

W. North Avenue Bridge

Allegheny Commons Pedestrian Bridge

Historic Review Commission Hearing November 6, 2024



Michael Baker

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Pittsburgh Vertical Clearance Projects Background

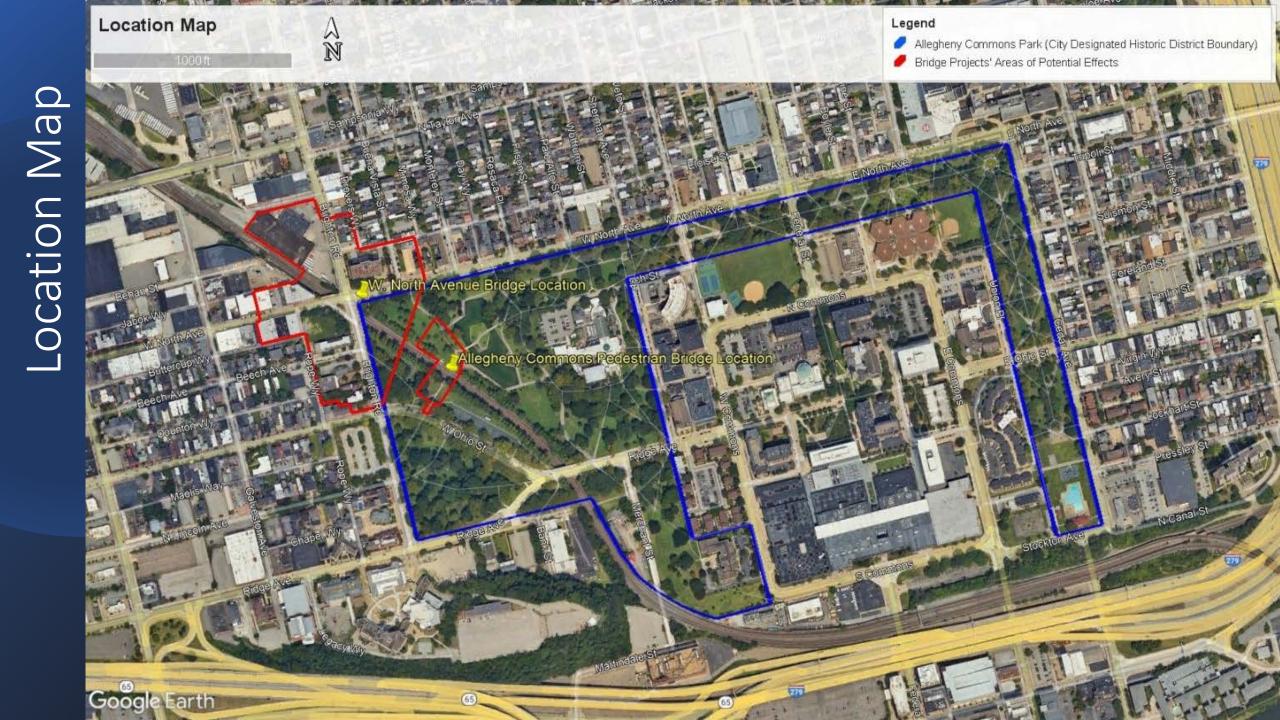
A Pennsylvania Public Utilities Commission (PUC) order requires that crossings over Norfolk Southern Railway Corporation's Ft. Wayne Line maintain a minimum of 22'-0" vertical clearance.

The ca. 1929 W. North Avenue Bridge does not meet minimum vertical clearance requirements, is structurally deficient, and is partially closed because of severe deterioration.

The Allegheny Commons Pedestrian Bridge was demolished in 2013 because of its poor condition.

Scope of Work Overview

Norfolk Southern's Pittsburgh Vertical Clearance (PVC) Projects will replace and raise the W. North Avenue Bridge and construct a new Allegheny Commons Pedestrian Bridge at the same location as the 1906 crossing, but with increased vertical clearance. The proposed W. North Avenue and Allegheny Commons Pedestrian Bridge designs are based on extensive coordination with Pennsylvania History Code consulting parties and a Design Advisory Team (DAT) consisting of community stakeholders and preservation advocates. The proposed designs have been refined with the goal of minimizing impacts to historic properties, parkland, and trees.



Previous Design Coordination

Pennsylvania History Code: Consultation regarding avoidance, minimization, and mitigation of effects on historic properties has been conducted in accordance with Commonwealth of Pennsylvania Act No. 1978-273 (as amended as Act No. 1988-72), as codified 37 Pa.C.S. § 101 et seq.

The Pennsylvania State Historic Preservation Officer concurred with a finding of no adverse effect for the Allegheny Commons Historic District and stated that there has been adequate consideration of alternatives to avoid and minimize effects to the railroad district through the Design Advisory Team (DAT) effort [SHPO letter October 2, 2024].

Consulting Parties

Historic Preservation Organizations

- Pittsburgh History & Landmarks Foundation, Frank Stroker
- Preservation Pittsburgh, Matthew Falcone
- Rivers of Steel Heritage Corporation, August Carlino

Neighborhood Organizations

- Allegheny Commons Initiative, John Augustine
- Allegheny Towne Corp. (Foster Square), George Kenderes
- Allegheny West Civic Council, Thomas Barbush
- North Side Leadership Conference, Dana Fruzynski
- Mexican War Streets Society, Margaret Connor
- Pittsburgh Parks Conservancy, Erin Tobin, Brandon Riley
- Pittsburghers for Public Transit, Alison Keating

Consulting Parties

Local Government

- City of Pittsburgh, Department of City Planning, Sarah Quinn, Sharon Spooner, Stephanie Joy Everette
- City of Pittsburgh, Department of Mobility and Infrastructure, Kimberly Lucas, Eric Setzler, Mike Panzitta
- Pittsburgh City Council, District 1, The Honorable Bobby Wilson

Property Owners

- Robert and Carole Malakoff
- Annette Trunzo
- Margaret McNamara
- Todd Palcic (West Park Renaissance, LP)
- Mitchell Schwartz/Elaine Stone (Gramax, LLC)
- Rick Belloli/Doug Duerr (Q Development)
- Andrew Reichert (Birgo Realty)
- Elise and Charles Yanders (Ellyn, Inc.)
- Martin Warhola (North Side Scrap Metals, Inc.)

Design Advisory Team (DAT) Process

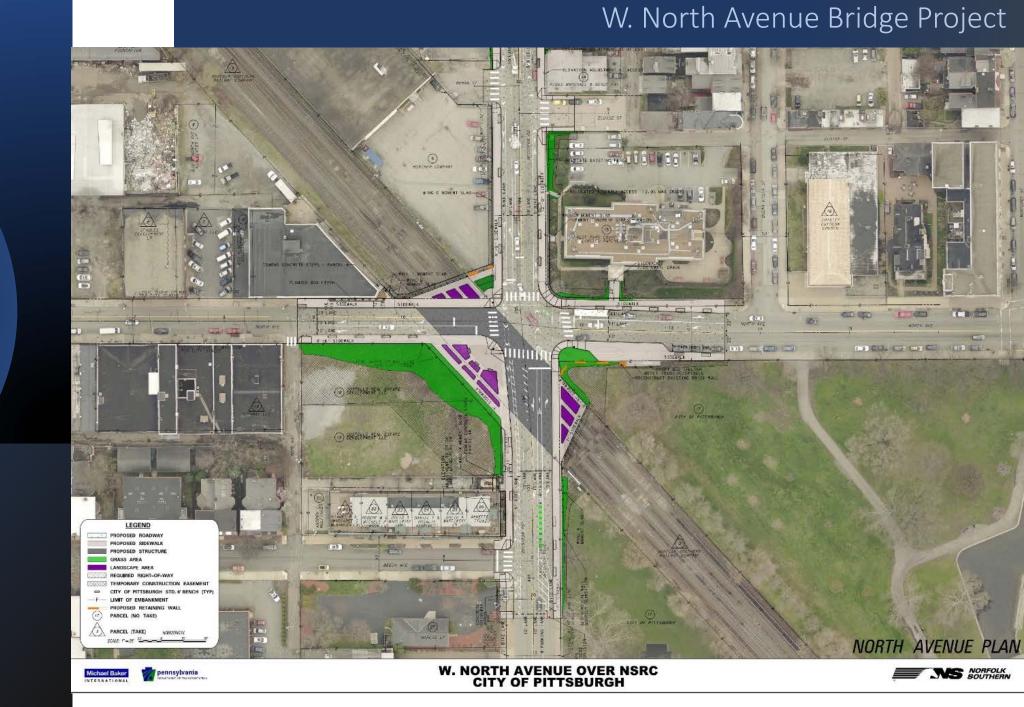
Formal DAT meetings were held:

- June 14, 2023
- August 29, 2023
- March 26, 2024

DAT Members

Allegheny City Society	Allegheny Commons Initiative	Allegheny West Civic Council	Birgo Realty
City of Pittsburgh – Department of City Planning	City of Pittsburgh – Department of Mobility and Infrastructure	City of Pittsburgh – Department of Public Works	Northside Leadership Conference
Pennsylvania Department of Transportation	Pennsylvania State Historic Preservation Office	Pittsburgh History & Landmarks Foundation	Pittsburgh Parks Conservancy
Pittsburghers for Public Transit	Preservation Pittsburgh	Q Development	Young Preservationists Association

Site Plan



Project Overview Replacement and raising of bridge superstructure with a singlespan, reinforced concrete spread box beam structure.

Raising of adjacent street and sidewalk grades [approach work to extend 145' to the west and 240' to the east on W. North Avenue and 210' to the south and 340' to the north on Brighton Road]. Maximum grade on W. North Avenue will be 8.0% on the west approach and 7.15% on the east approach; maximum grade on Brighton Road will be 6.8% on the south approach and 6.0% on the north approach.

Existing lane configurations (including bike lanes) will be maintained.

Project Overview Construction of triangular concrete plaza area over tracks within Allegheny Commons will extend ~35' east of the outside edge of the current bridge. Plaza will have natural-colored concrete with broom finish – similar to adjacent sidewalks.

Construction of wingwalls, retaining wall (replacing existing on east side of Brighton Road), fill slopes, safety barriers, and new fencing within Allegheny Commons; temporary construction easements within Allegheny Commons would be 0.114 acre.

Replacement and repair of historic fencing within Allegheny Commons. New and repaired railroad fence panels will be galvanized and painted black. Project Overview (continued)

Replacement and grade adjustment of bus shelter (maximum 4" on west side) on W. North Avenue.

Construction of planting area in Allegheny Commons at the corner of W. North Avenue and Brighton Road.

Reconstruction of missing portions of brick park wall along W. North Avenue.

Where tall (10') safety fencing is required over the bridge, its design will match that of the historic rail corridor fencing in the park (circle-and-picket design).

Bird's Eye rendering of proposed W. North Avenue Bridge, facing southeast toward Allegheny Commons.

Photo of existing W. North Avenue Bridge from track edge, facing northwest.



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Rendering of proposed W. North Avenue Bridge from track edge, facing northwest.

Photo of existing W. North Avenue Bridge from street level at the northeast corner of W. North Avenue and Brighton Road, facing southeast.



Rendering of proposed W. North Avenue Bridge from street level at the northeast corner of W. North Avenue and Brighton Road, facing southeast. Note addition of reconstructed brick wall.



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Comparison of existing and proposed elevation and section of Allegheny Commons brick wall to be reconstructed at the southeast quadrant of the Brighton Road/ W. North Avenue intersection



Photo of existing W. North Avenue Bridge from the southwest corner of Brighton Road and Beech Avenue, facing north.





Rendering of proposed W. North Avenue Bridge from the southwest corner of Brighton Road and Beech Avenue, facing north; safety barrier is 19.5' long.





Detail of concrete panel and steel girder colors used on the W. Ohio Street Bridge.



Overview of Context-Sensitive Design Measures/ Materials Specifications

- Design modification to replace bridge with 21'-4" vertical clearance (per Norfolk Southern waiver); this decreases construction limits by 25' on W. North Avenue and 15' on Brighton Road.
- Reconstruction of damaged/removed portion of brick park wall along W. North Avenue utilizing concrete core construction with brick veneer.
- Construction of planters within the triangular plaza area above the railroad; planter size has been maximized while allowing for required internal and external circulation path widths [note: plaza planter construction is dependent on the City obtaining a maintenance agreement from a third party].

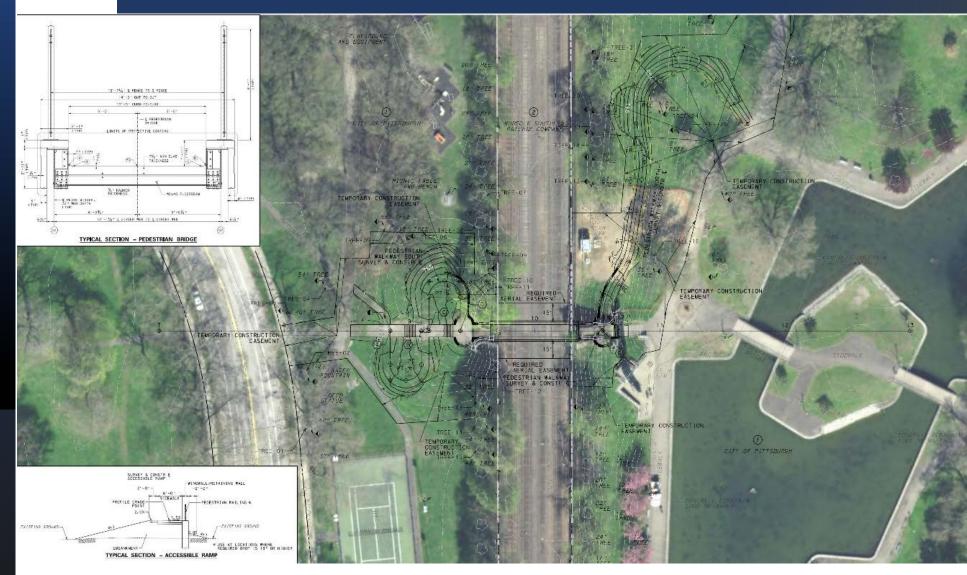
Overview of Context-Sensitive Design Measures/ Materials Specifications (continued)

- Bridge concrete elements (except box girders) and associated concrete retaining walls and barriers will be painted to match the color of the nearby W. Ohio
 Street Bridge (sandstone/beige). Exposed face of outer concrete box beam will be painted dark gray (to match outer girder color on the W. Ohio Street Bridge).
- Bridge faces, retaining walls, and parapets will include recessed architectural panels (similar to those used on the 1906 pedestrian bridge and the current W. Ohio Street Bridge). Panels will be 0.75" deep with a 0.75" chamfer on all sides.

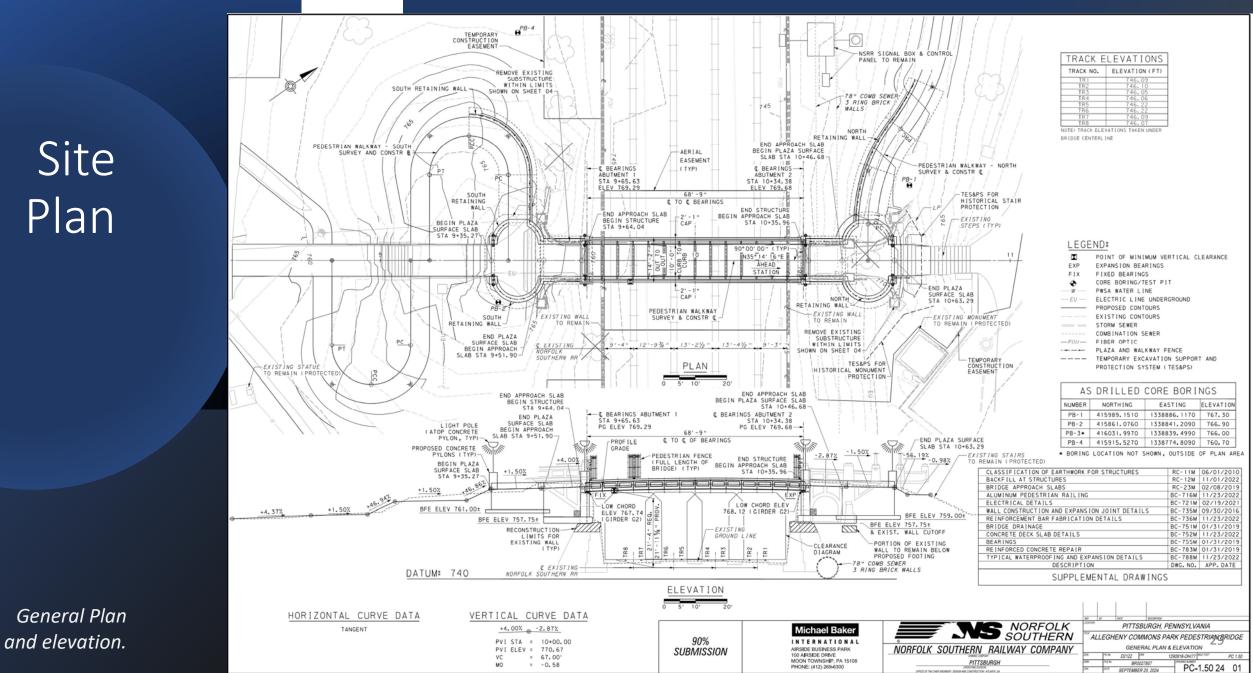
Overview of Context-Sensitive Design Measures/ Materials Specifications (continued)

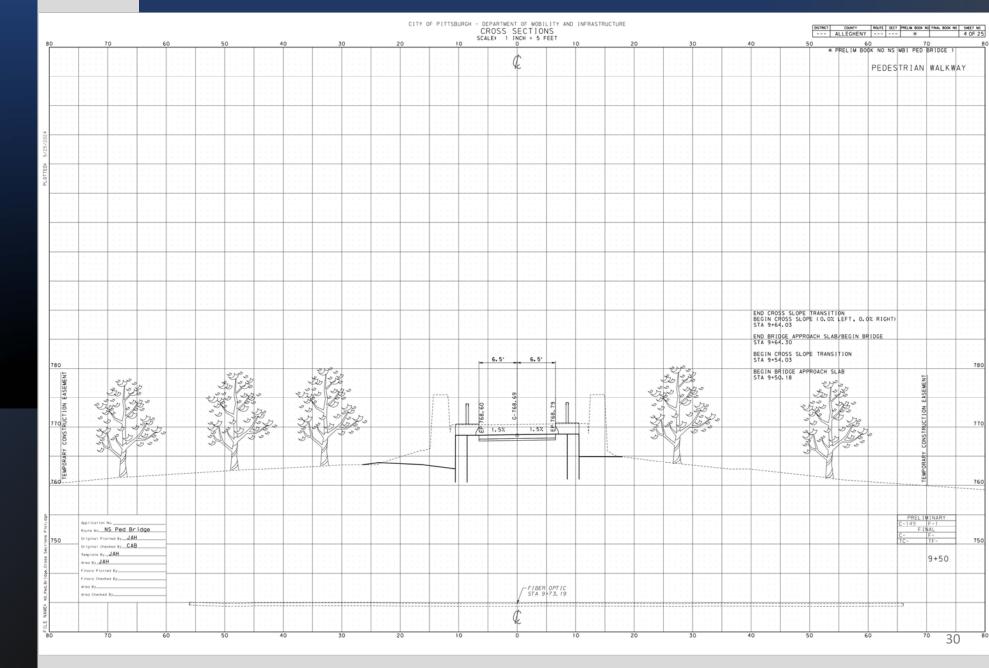
• *Mitigation Item:* Norfolk Southern will repair and paint the wrought-iron fencing along the south side of the rail corridor within Allegheny Commons Historic District from W. North Avenue to the Allegheny Commons Pedestrian Bridge.





PROPOSED WINGWALL/RETAINING WALL
PROPOSED PEDESTRIAN BAILING





Site Plan

Cross Section.

Project Overview Allegheny Commons Pedestrian Bridge Project

Construction of new steel, through-girder bridge superstructure with 21'-4" vertical clearance. The existing abutments will be demolished down to the level of the railroad retaining wall and replaced with new concrete cantilever abutments with spread footings. 1.093 acres of temporary construction easements are needed for construction staging and access.

Construction of new, ADA compliant, 6'-wide approach paths and new oval plaza areas at each end of the bridge. Existing path width will be matched. Concrete pavement will be used on the bridge and its plazas, and asphalt pavement will be used on approach paths (consistent with the current treatment of other park paths).

Project Overview Existing stairs on west side of bridge will be replaced at the same location with a slightly lower elevation at the top landing to minimize impacts to the park landscape by reducing retaining wall heights and moving grading further away from trees.

Installation of new lighting.

Screening of railroad signal cabinet located 60' northwest of the pedestrian bridge location on the east side of the tracks.

Photos and Renderings

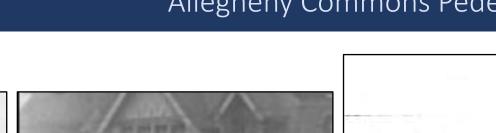
Historical photograph dated July 8, 1920, showing the former poured concrete Allegheny Commons Pedestrian Bridge designed by Price & McLanahan, facing northwest (University of Pittsburgh).



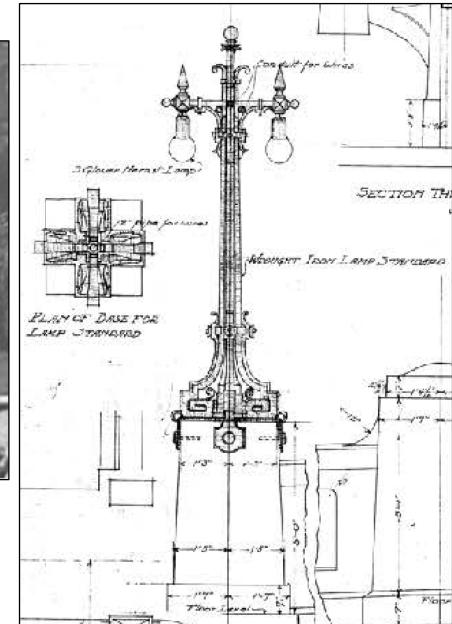


Photos and Renderings

Historical photographs and 1906 drawing detail of original ornamental bridge lighting.



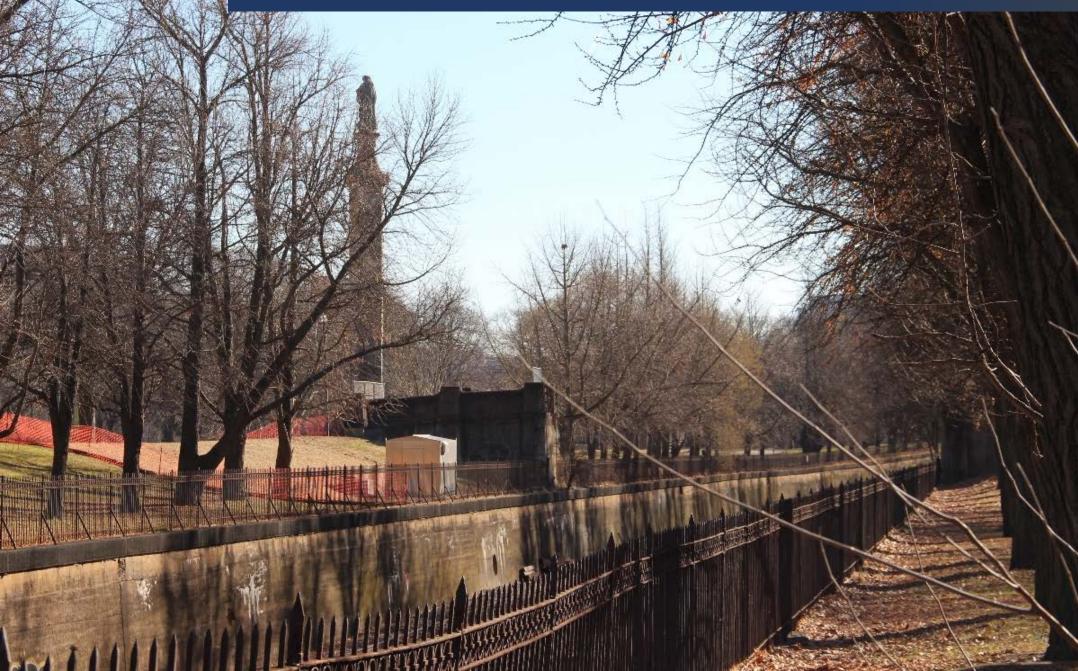
Allegheny Commons Pedestrian Bridge Project



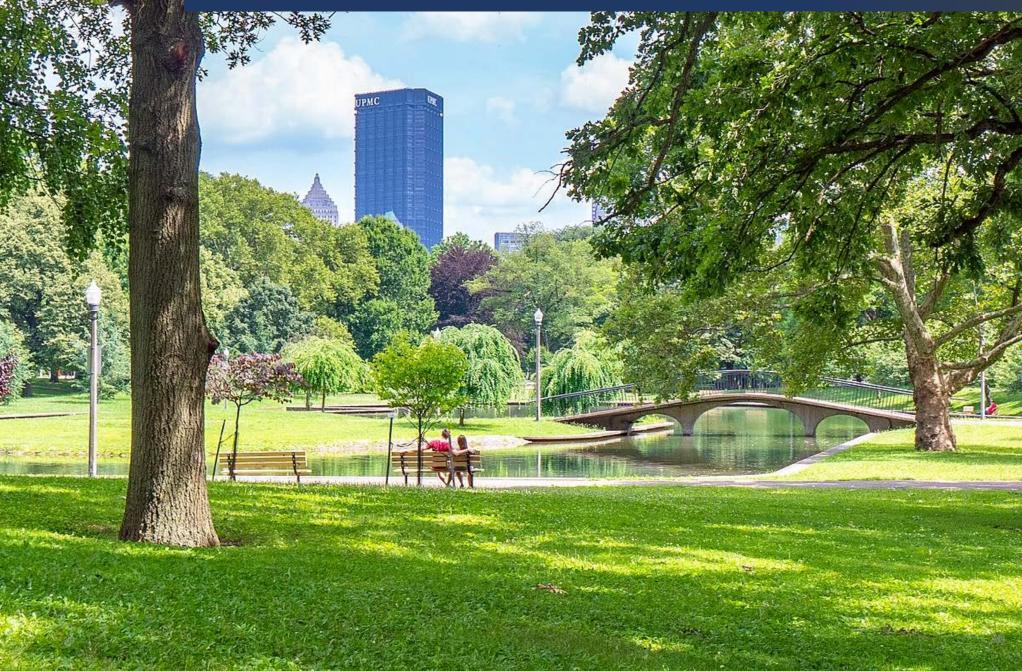
Photos and Renderings

Allegheny Commons Pedestrian Bridge Project location, showing the depressed railroad corridor with concrete retaining walls with stone coping and decorative wrought iron fencing, facing southeast.

Allegheny Commons Pedestrian Bridge Project



Allegheny Commons, view on east side of tracks showing Lake Elizabeth, facing southeast.



Detail of concrete panels on existing pedestrian bridge abutments.



Detail of wroughtiron fencing atop retaining wall, facing southwest.

Detail of concrete panel and steel girder colors used on the W. Ohio Street Bridge.



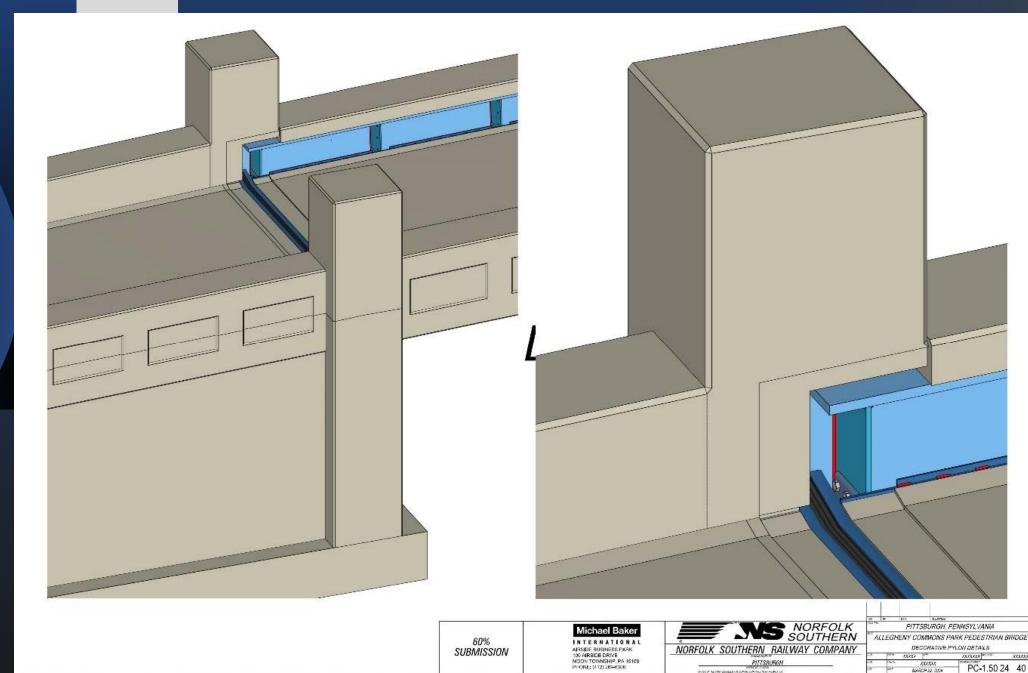
Rendering of view of the of the Allegheny Commons Pedestrian Bridge and signal box visual screening, facing northeast.



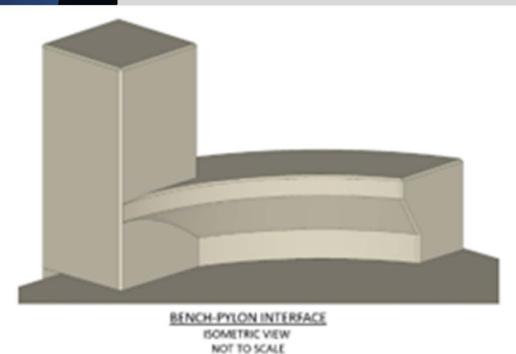
Rendering showing bridge and plaza configurations (note: railings in plazas and walkways are not shown).



Allegheny Commons Pedestrian Bridge Project

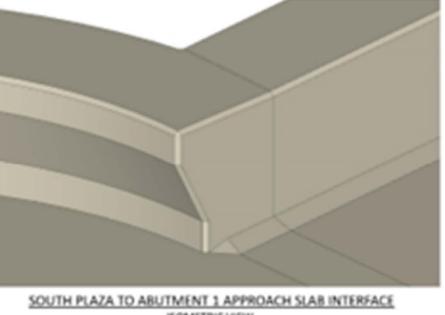


Detail of ornamental bridge pylons.



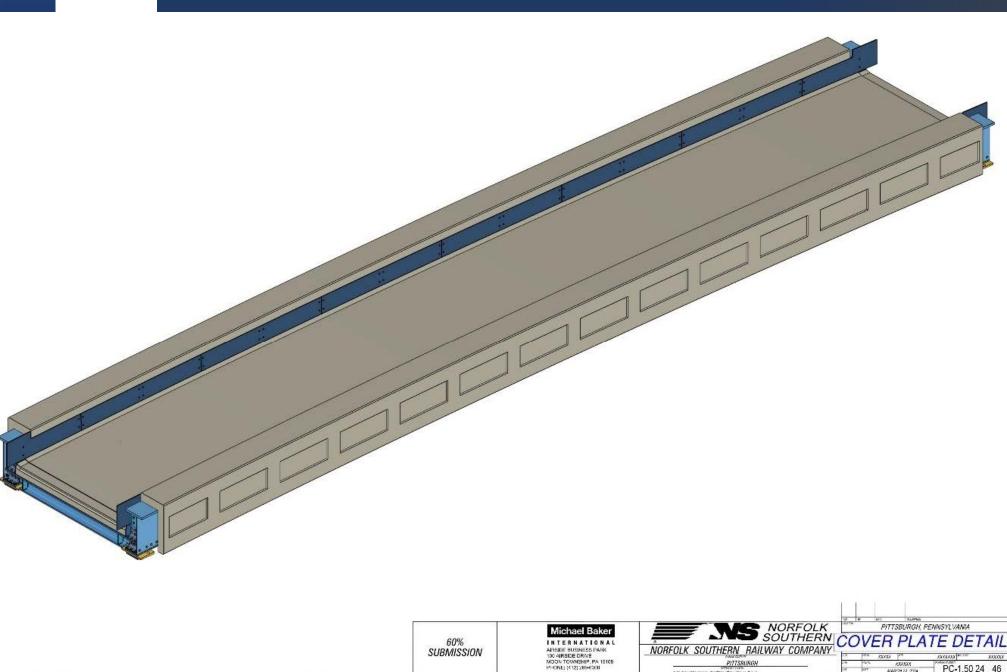
Plaza bench details.

Allegheny Commons Pedestrian Bridge Project

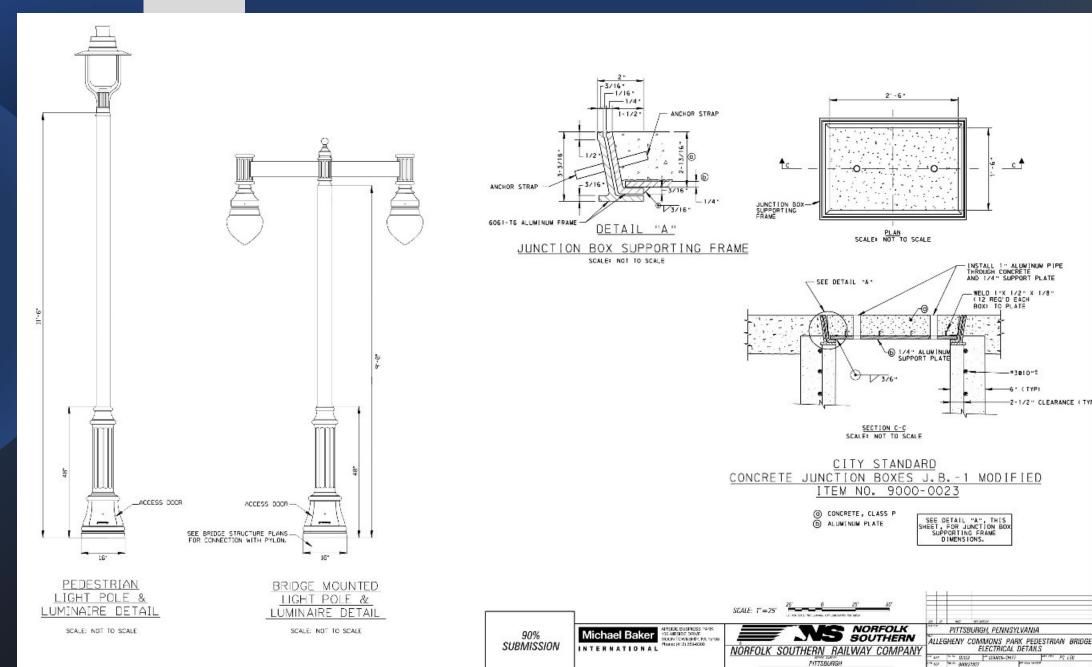


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Detail of girder cover plates on deck (shown in blue for clarity; actual color to be black).



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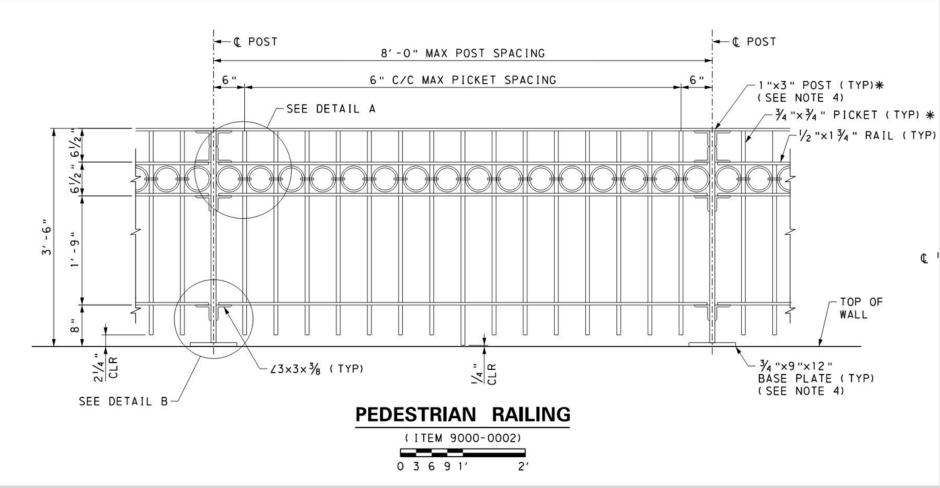
Lighting details.

Allegheny Commons Pedestrian Bridge Project

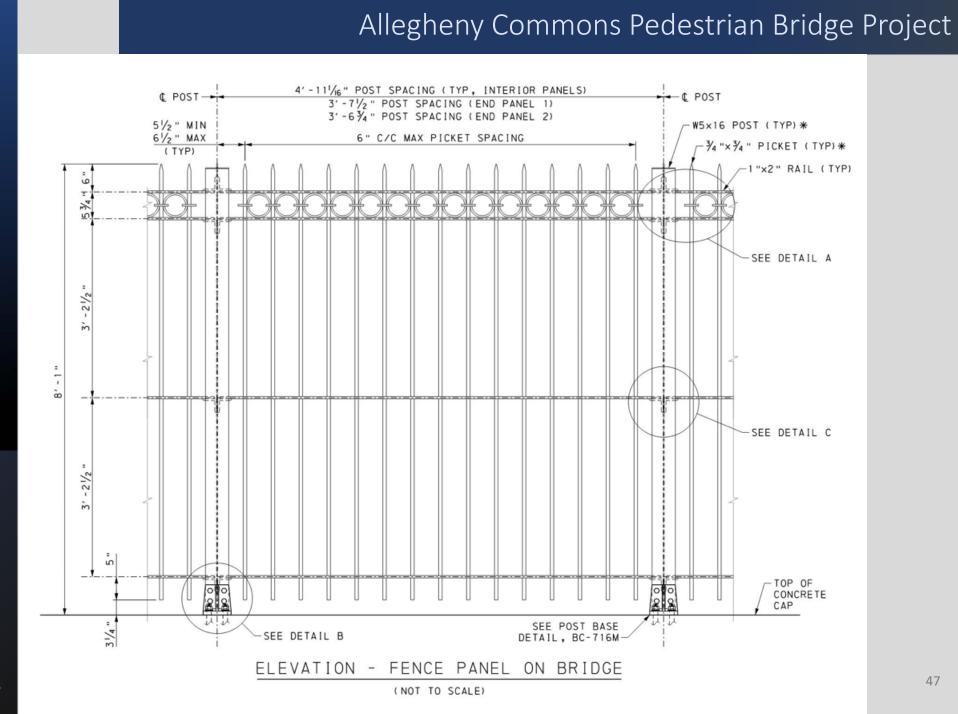
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Allegheny Commons Pedestrian Bridge Project



Pedestrian railing detail.



Bridge fence details.

Detail of proposed green vinyl wrap and screening of the signal box with American Holly (an Allegheny Commons Master Plan-approved species).

Overview of Context-Sensitive Design Measures/ Materials Specifications

- Bridge vertical clearance and approach path width was reduced to minimize impacts to the park, including the need for retaining walls, fill slopes, and potential tree removal. The reduction in vertical clearance also minimized the length of the ADA-accessible approach paths.
- The bridge through girders will be slightly curved to minimize the grade increase required for approach paths.
- The inner "pockets" of the through girder will be covered with a steel plate (painted black) to prevent debris accumulation on the bridge deck.

Overview of Context-Sensitive Design Measures/ Materials Specifications (continued)

- The outside of the through girders will be covered by concrete façade panels similar to the concrete panel design used for the adjacent W. Ohio Street Bridge.
- Bridge façade panels and upper portions of the plaza walls will include recessed architectural panels (similar to those used on the 1906 pedestrian bridge and the current W. Ohio Street Bridge). Panels will be 0.75" deep with a 0.75" chamfer on all sides.
- Bridge concrete elements and associated concrete retaining walls will be painted to match the color of the nearby W. Ohio Street Bridge (sandstone/beige).

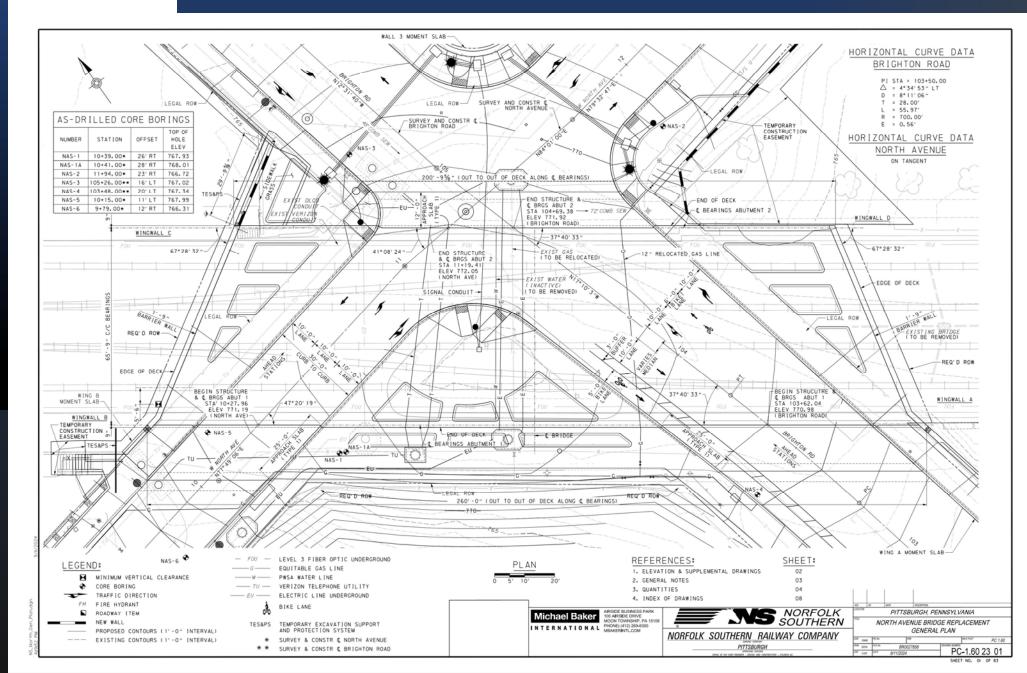
Overview of Context-Sensitive Design Measures/ Materials Specifications (continued)

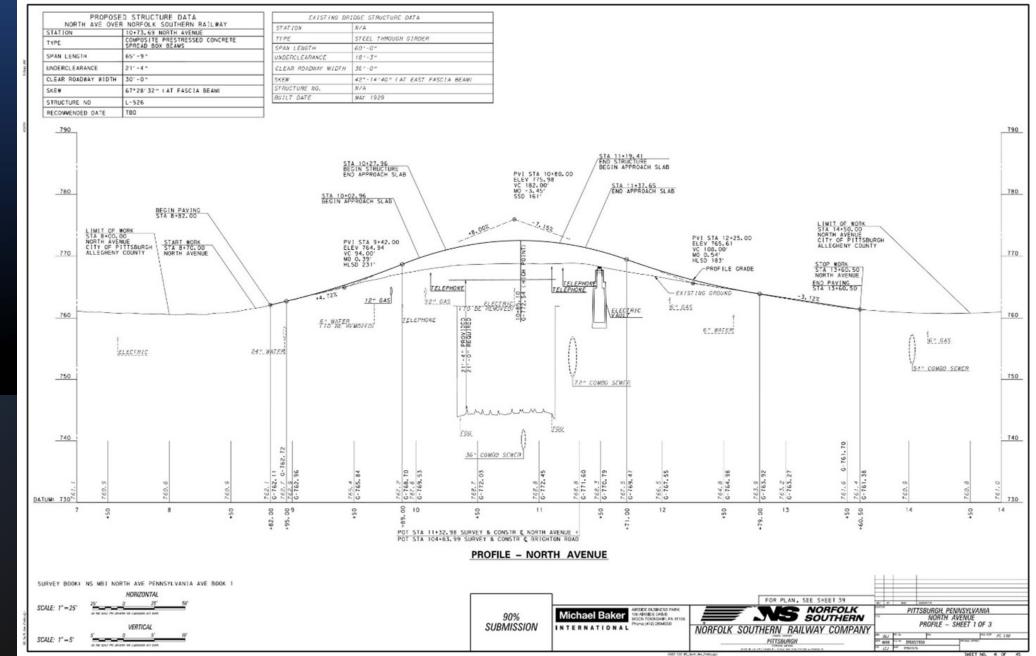
- The concrete panels and girders will be tied together by a concrete cap that would also support a decorative safety fence.
- Bridge plazas will have benches integral to the curved sections of concrete parapet walls.
- Required fences and railings will be galvanized steel painted black with a circle-and-picket design similar to the historic railroad corridor fencing in the park.

Overview of Context-Sensitive Design Measures/ Materials Specifications (continued)

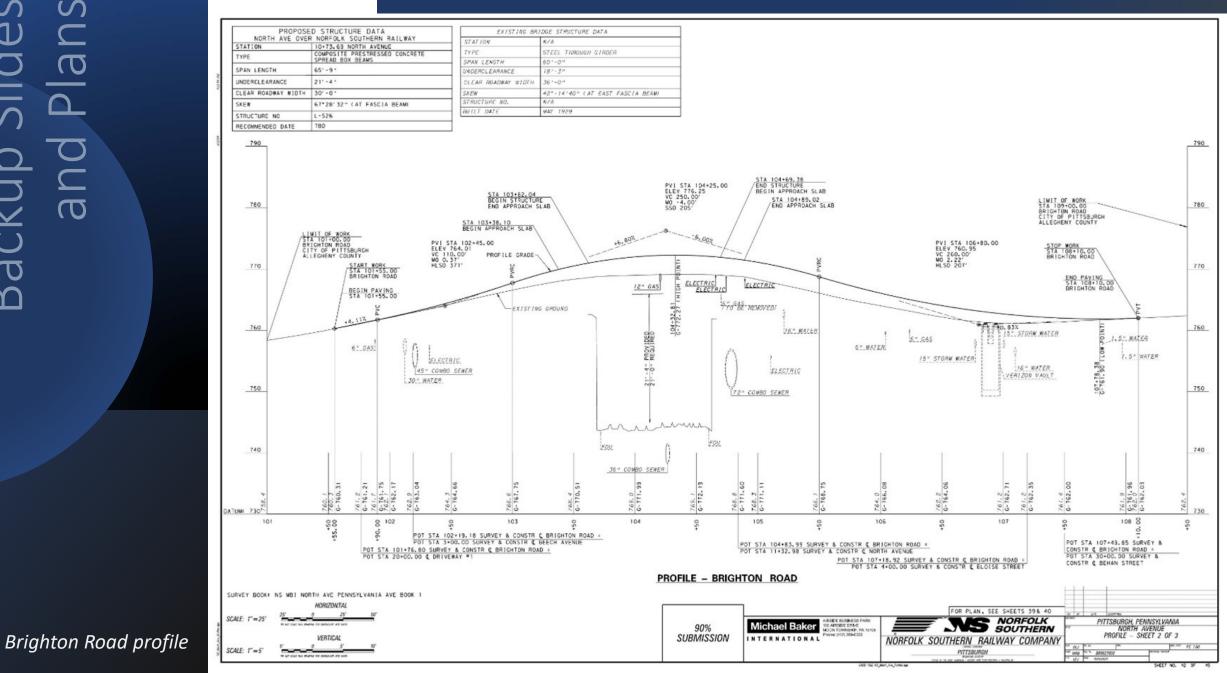
- Approach paths will feature Allegheny Commons standard light fixtures. Eight, double-arm pendant fixtures will be an ornamental feature at each end of the bridge (four fixtures on each side, with two at the plaza entrance and two and the bridge entrance). Ornamental lighting to be Sternberg Model 1910LED Double-Arm pendant fixture on 7700 Birmingham pole.
- The nearby railroad signal box will be screened with a green vinyl wrap and American Holly bushes.

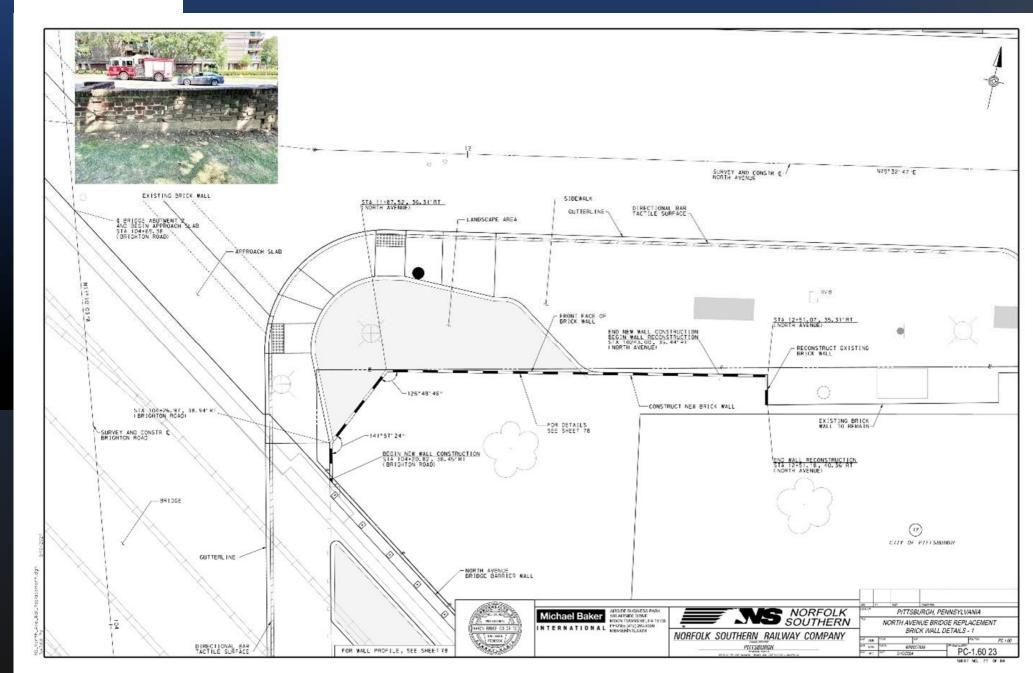
Reference slides with project plans – W. North Avenue Bridge



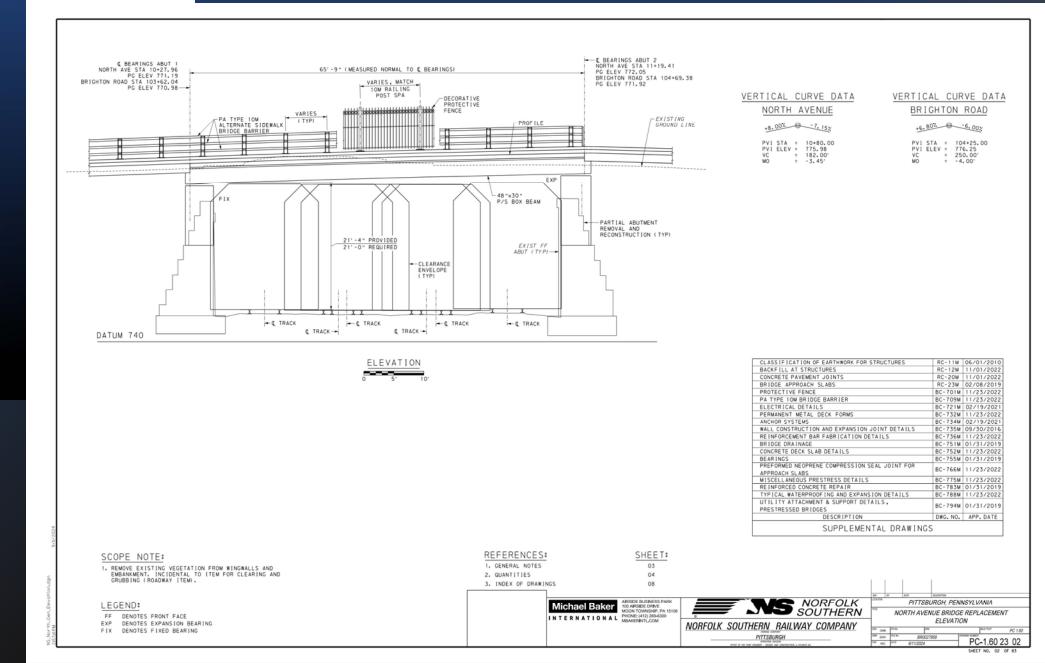


W. North Avenue profile

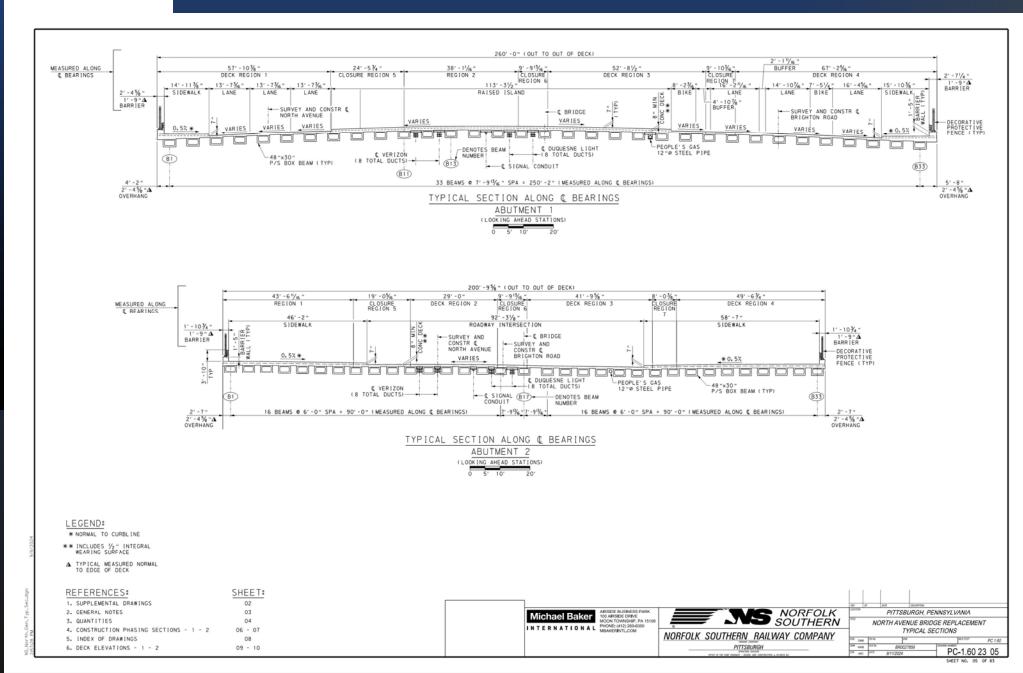


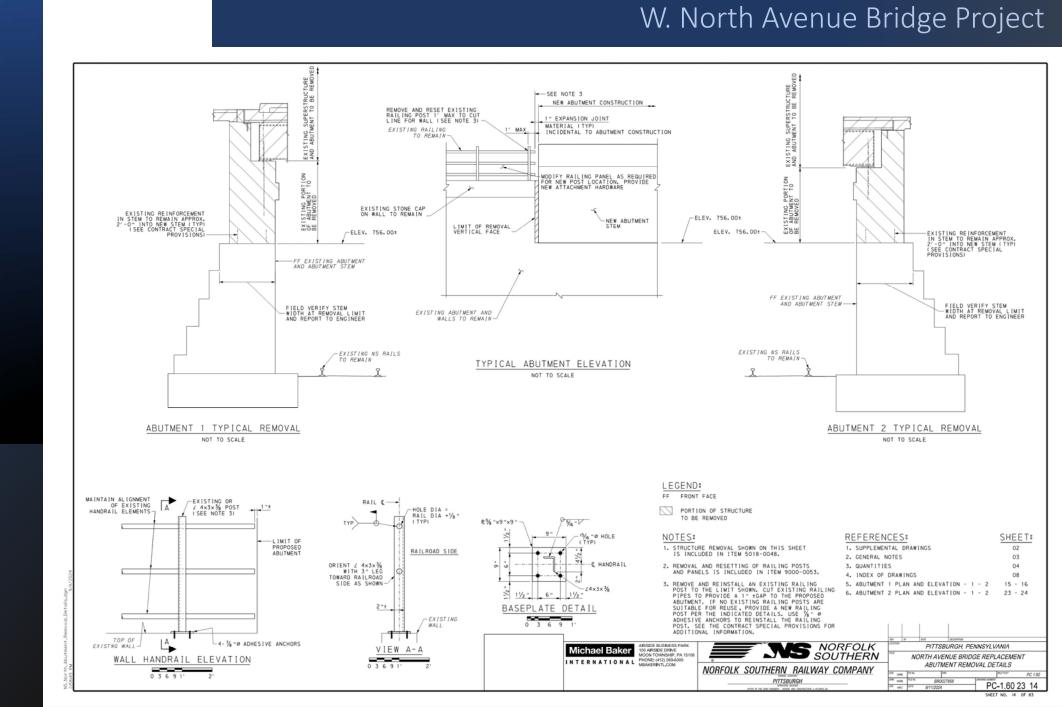


Backup Slides and Plans

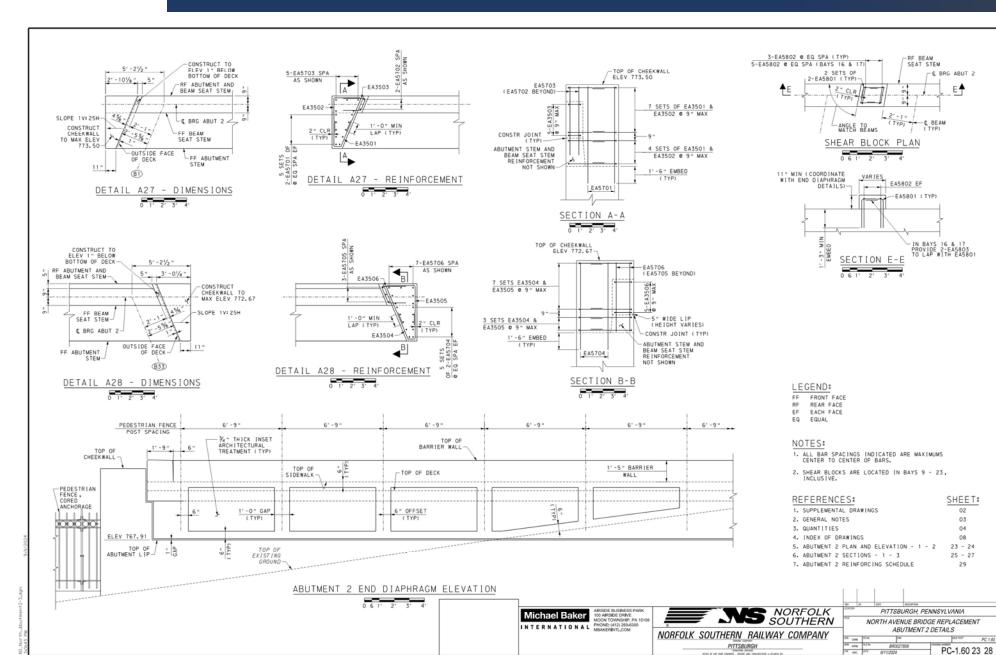


W. North Avenue Bridge Project



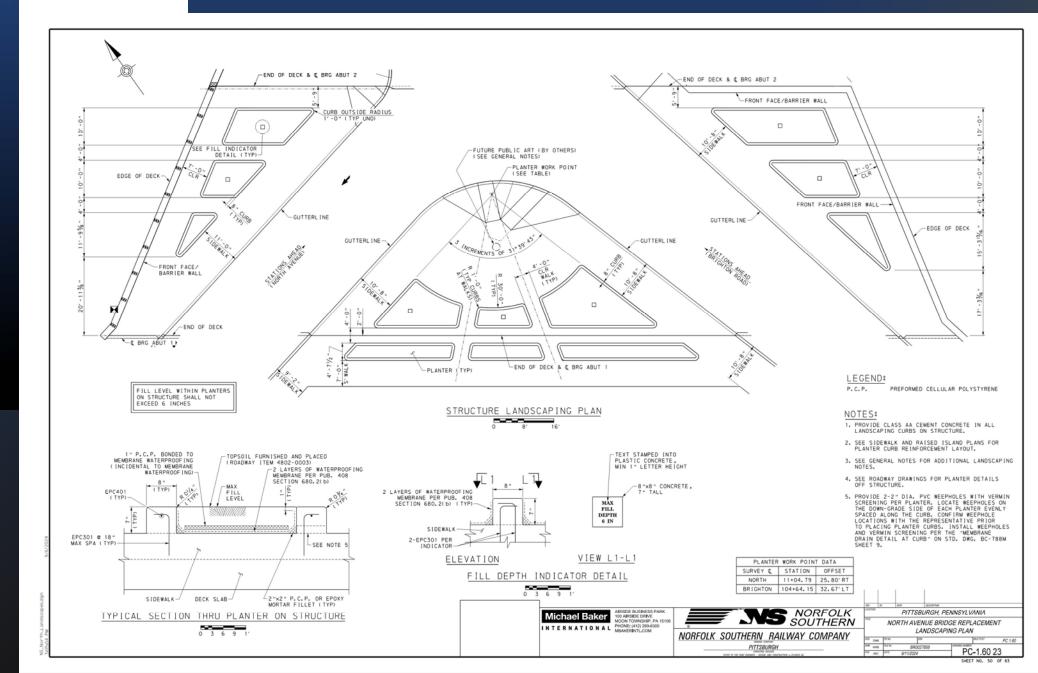


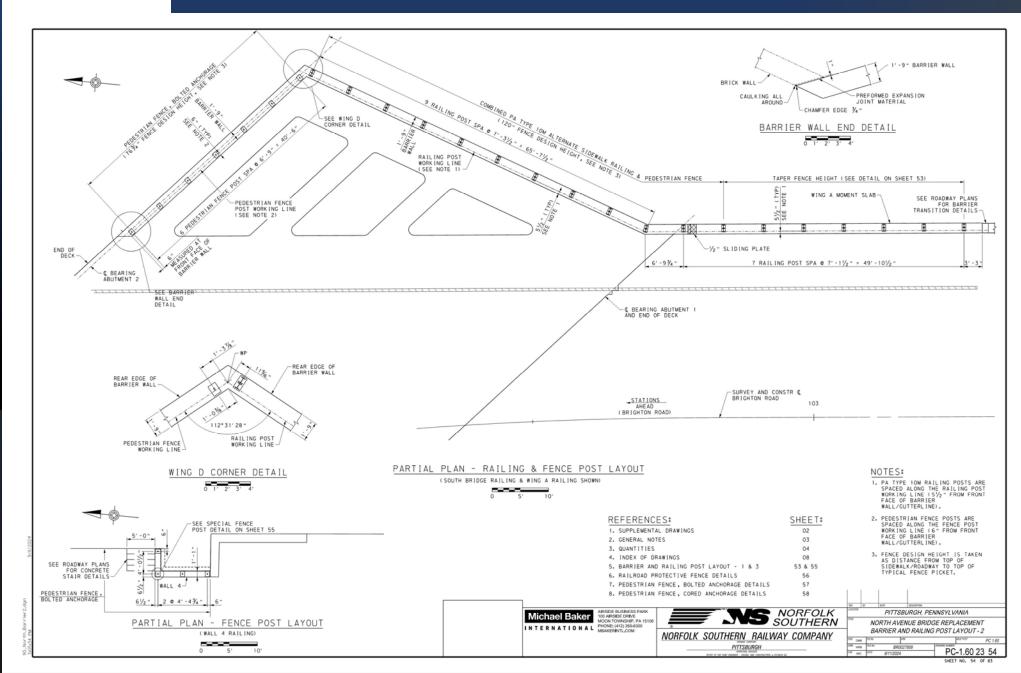
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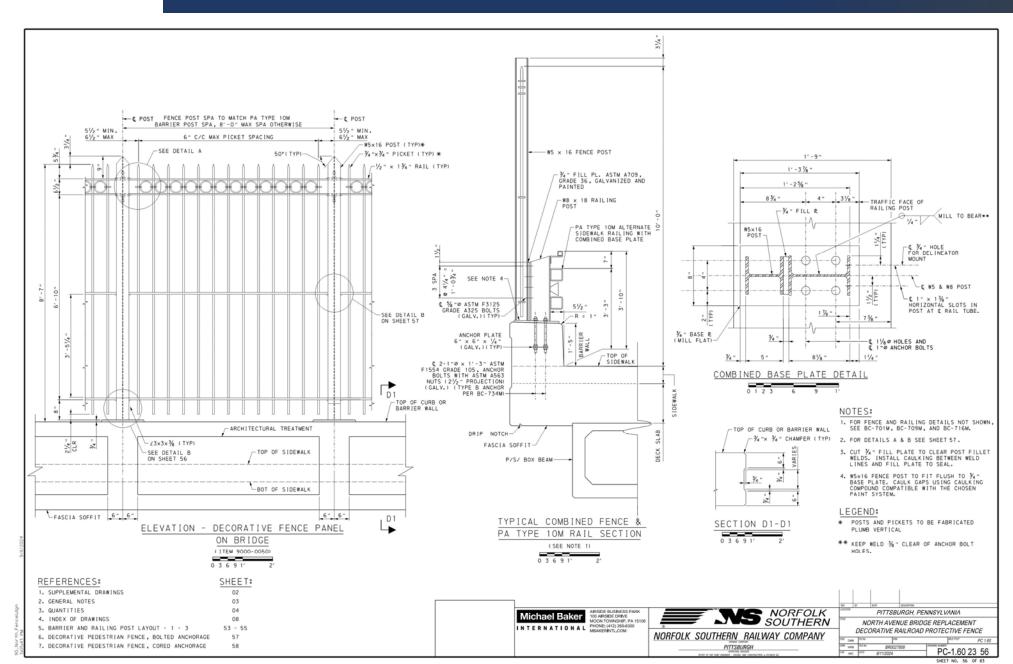
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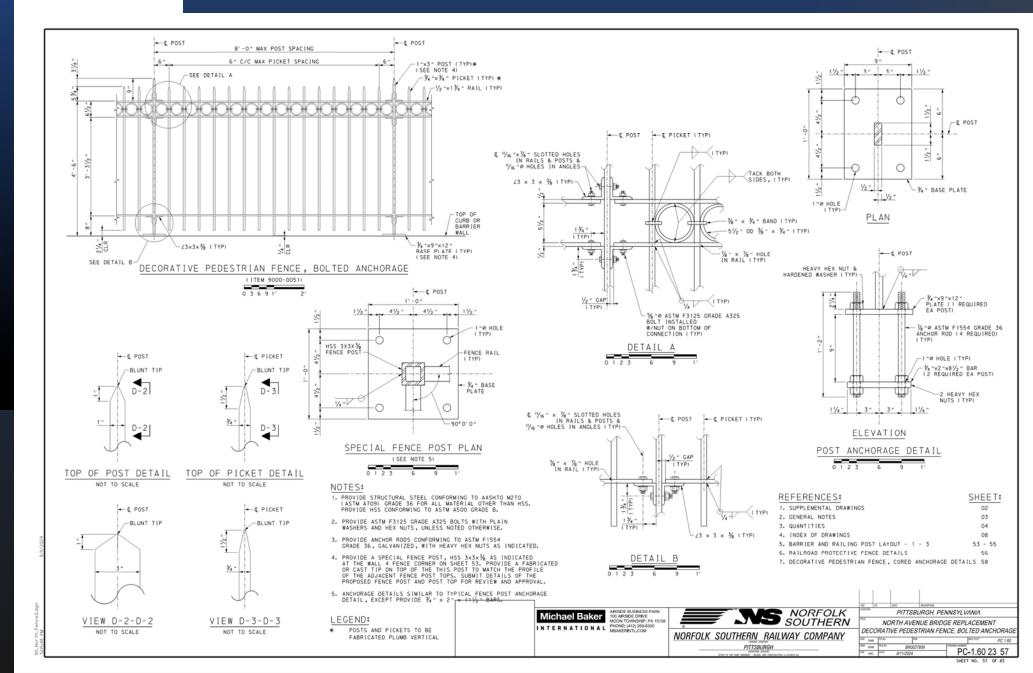




Backup Slides and Plans



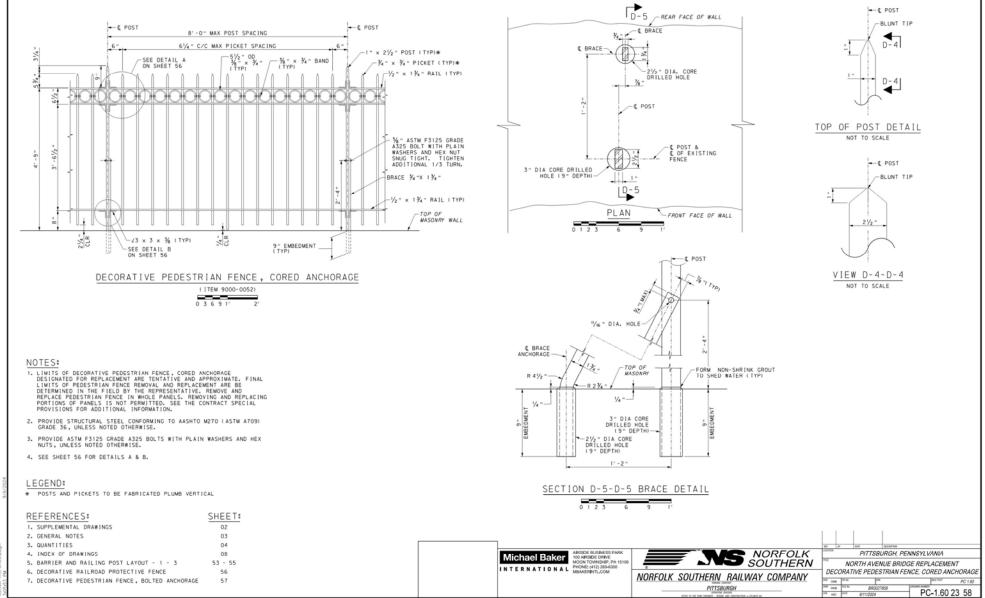
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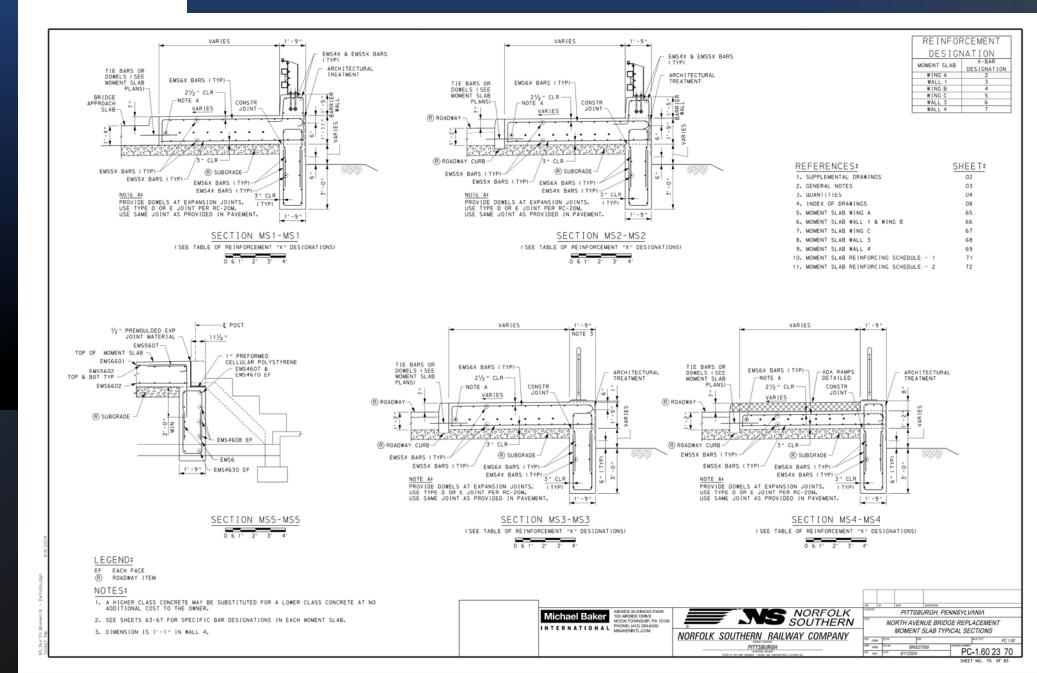


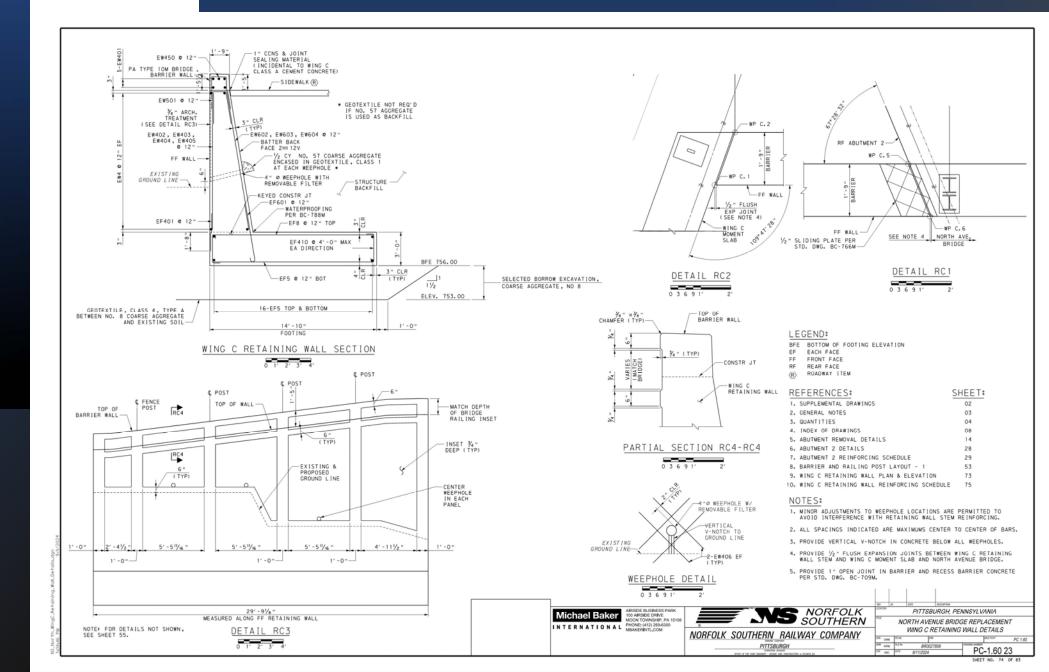
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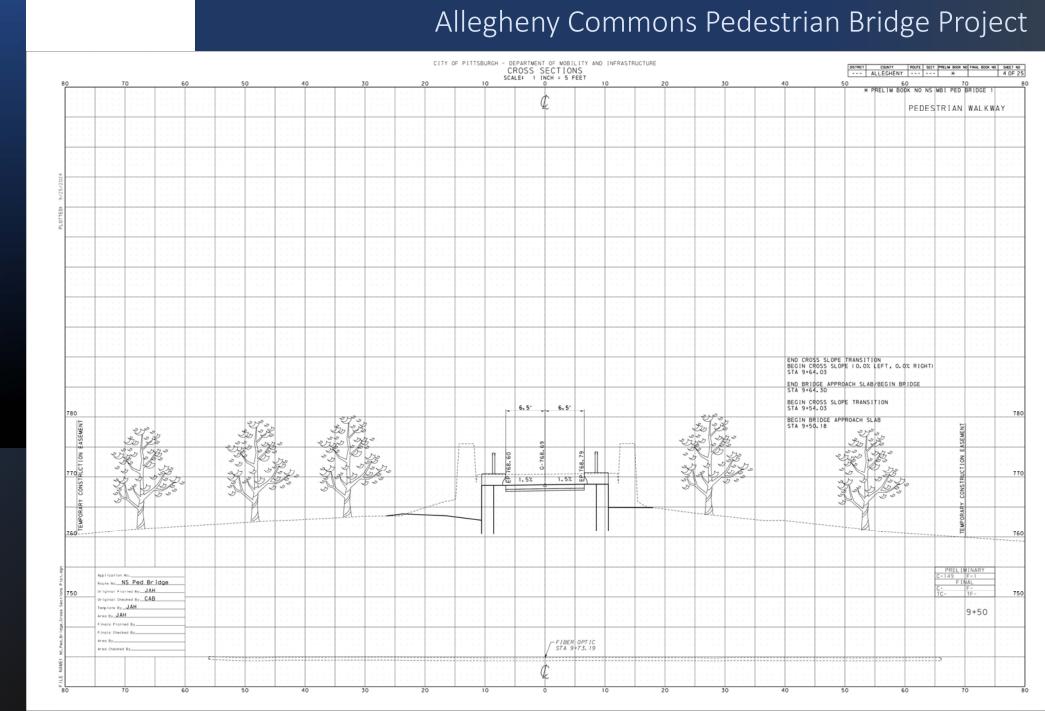
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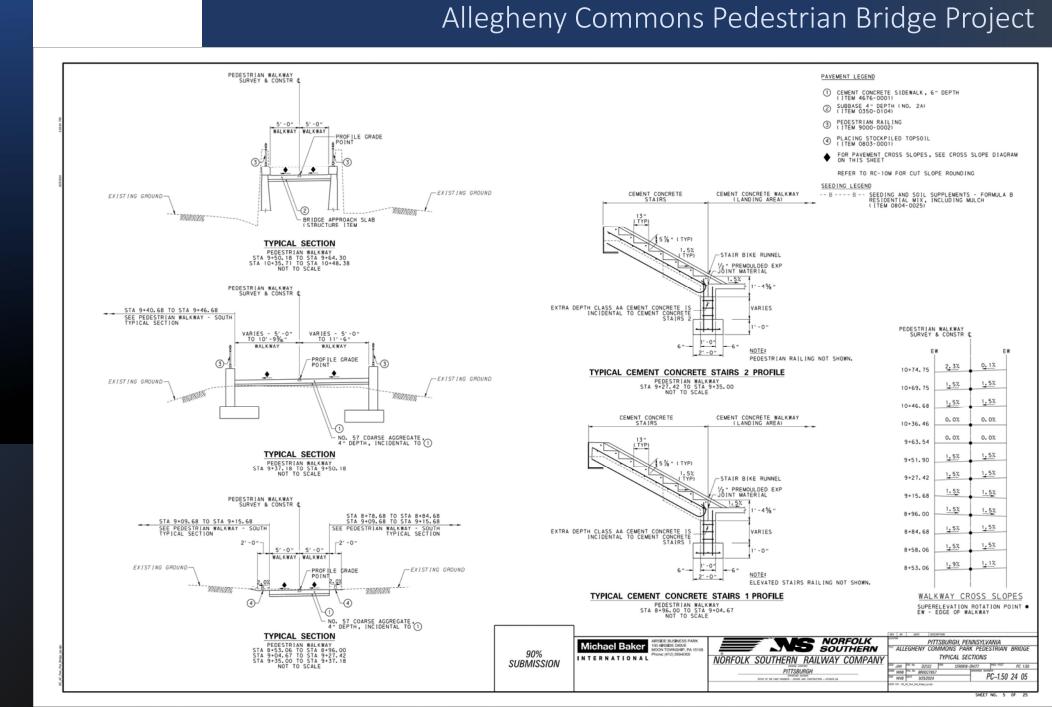


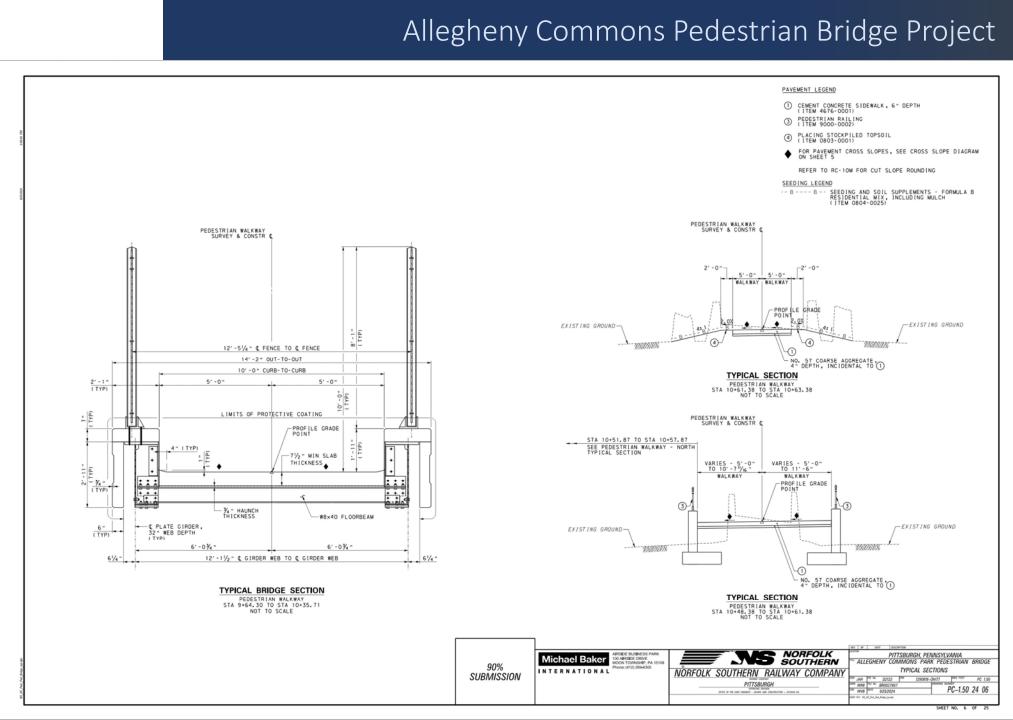




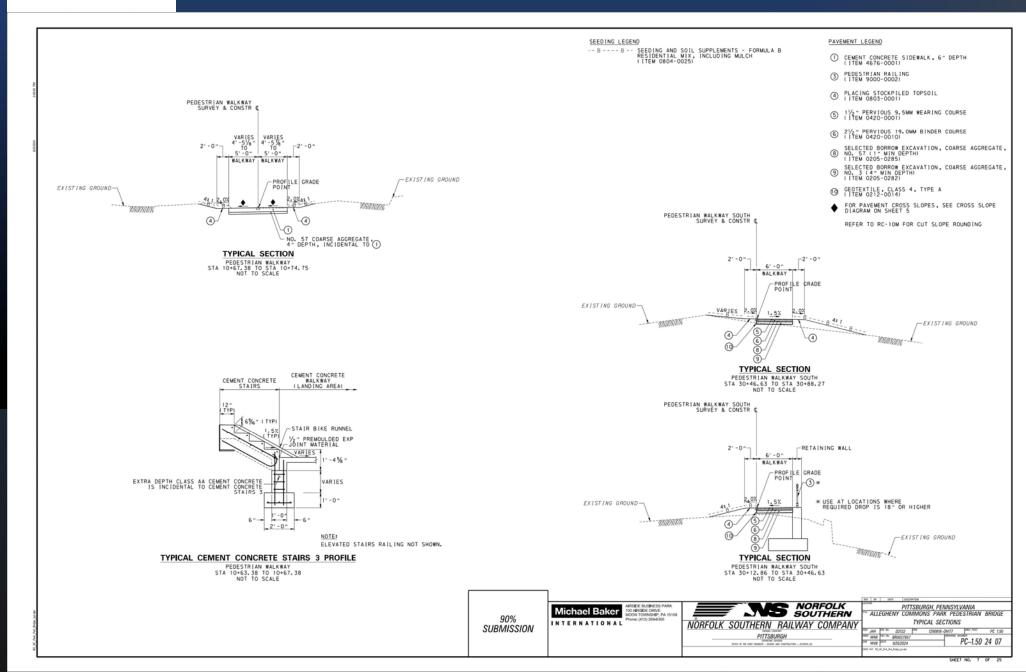
Reference slides with project plans – Allegheny Commons Pedestrian Bridge Project

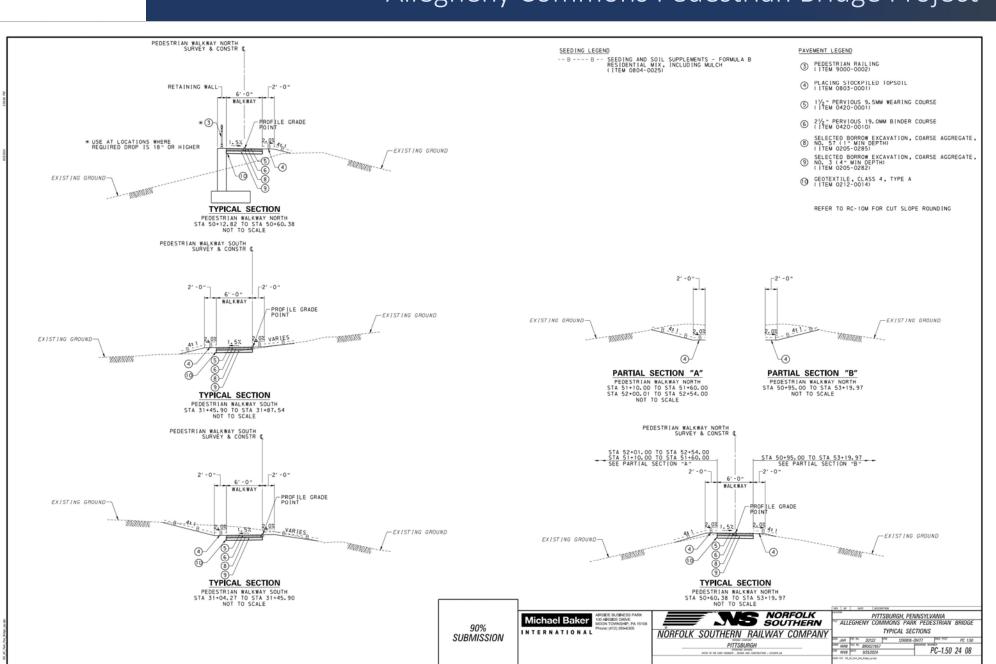






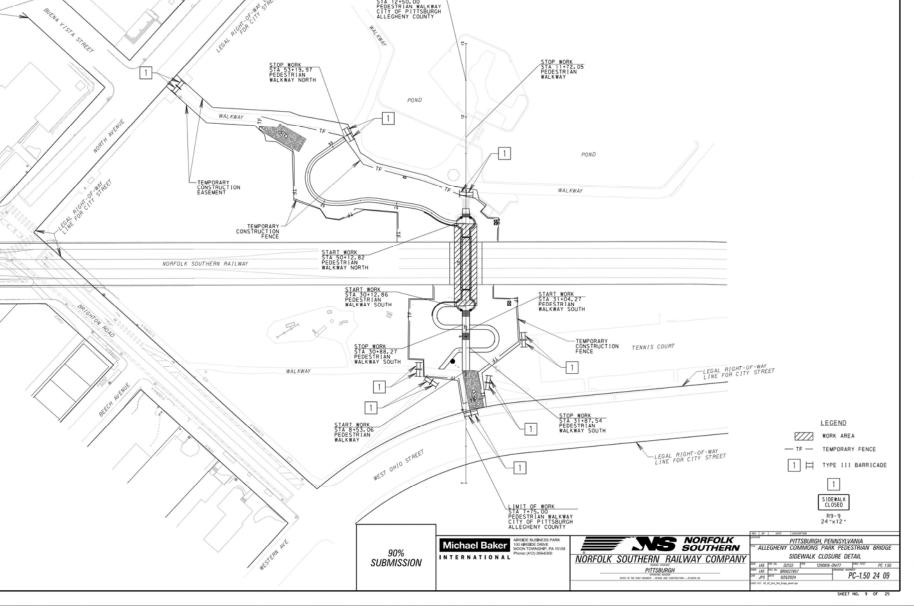




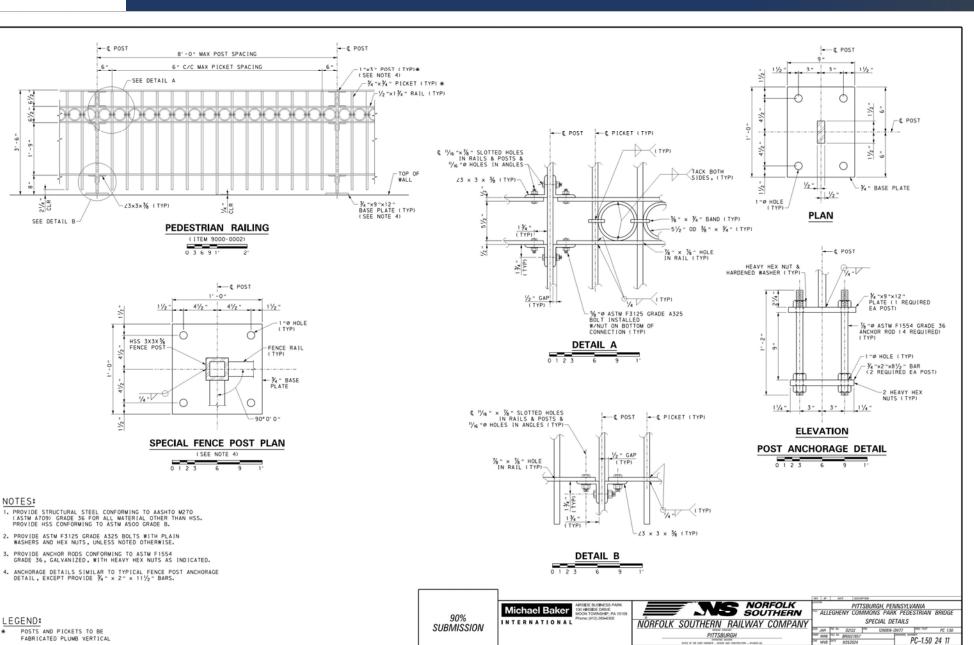


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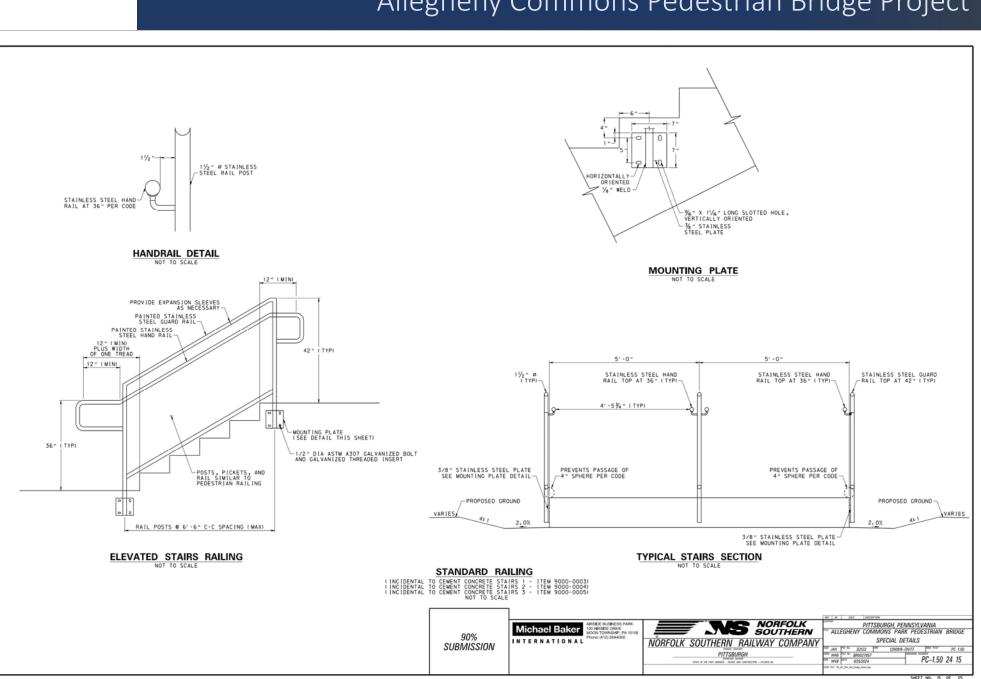
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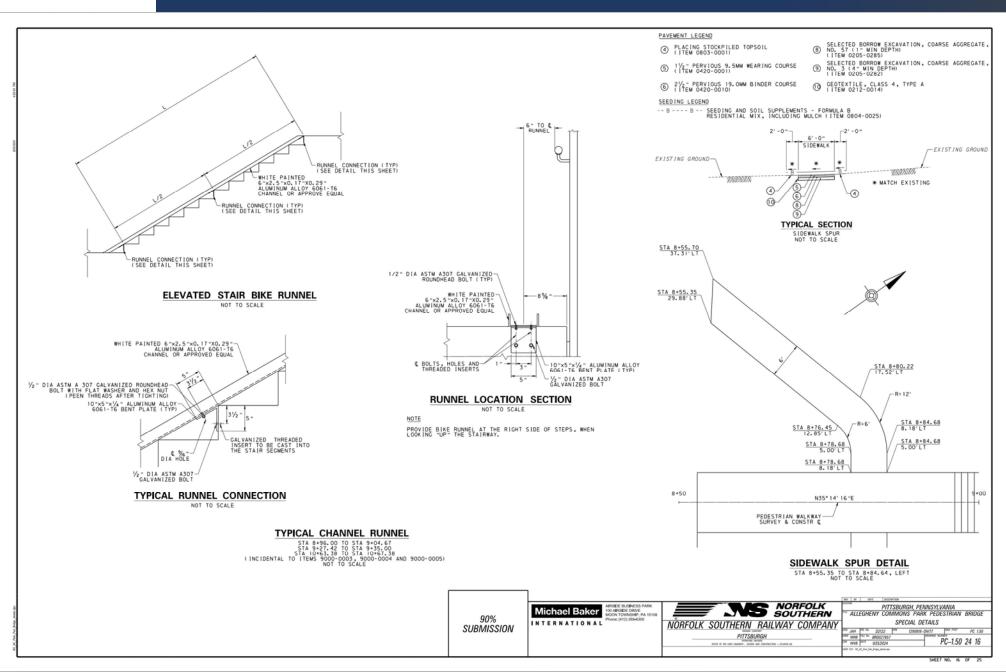
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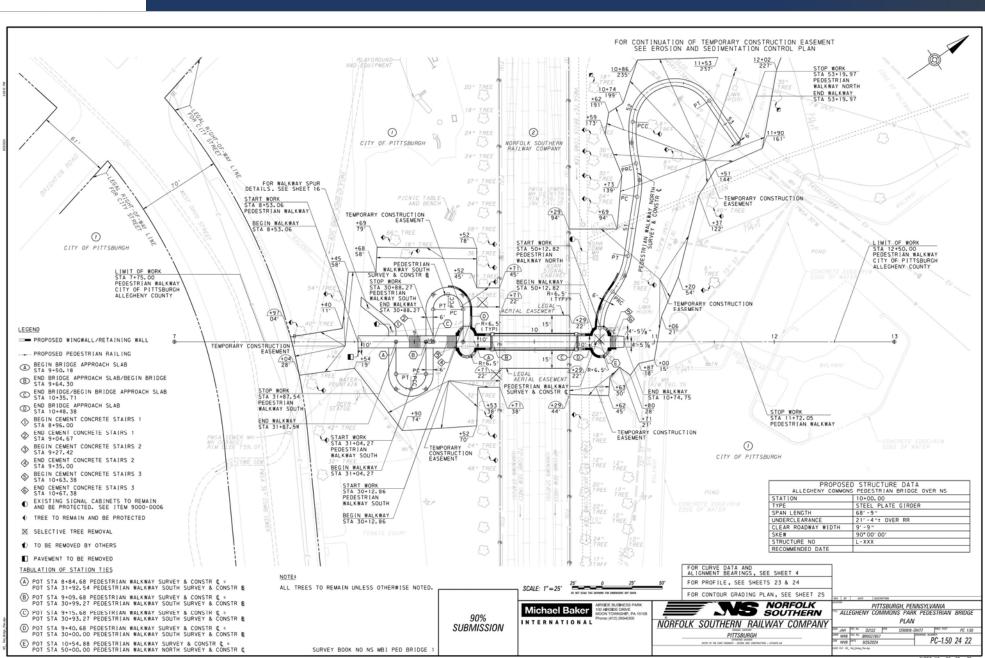
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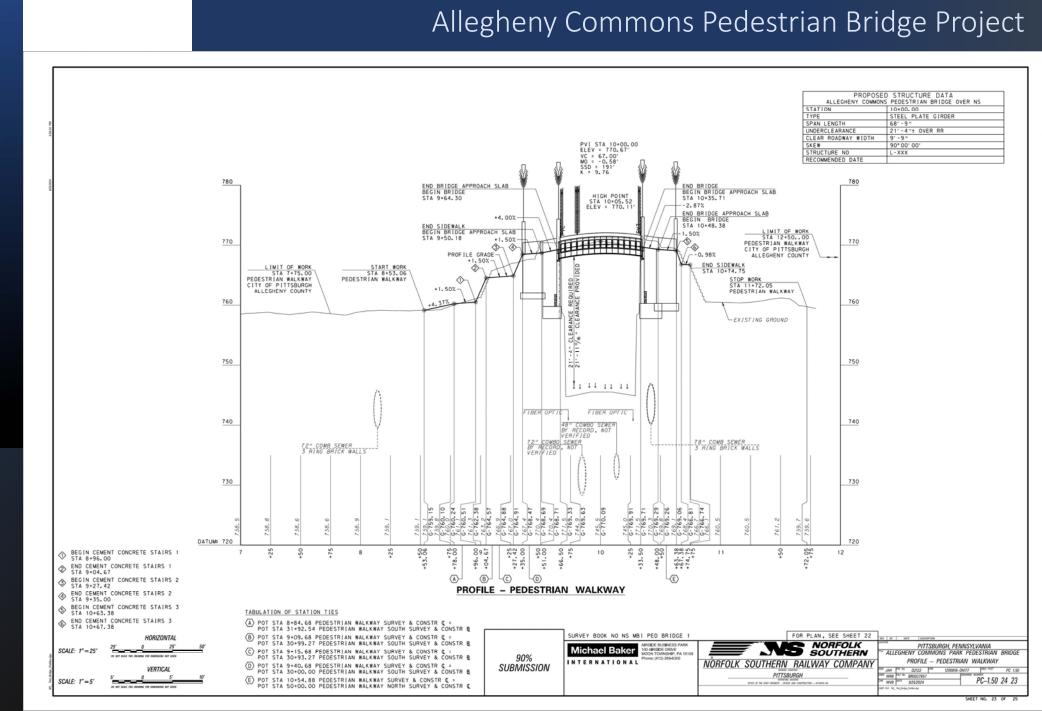
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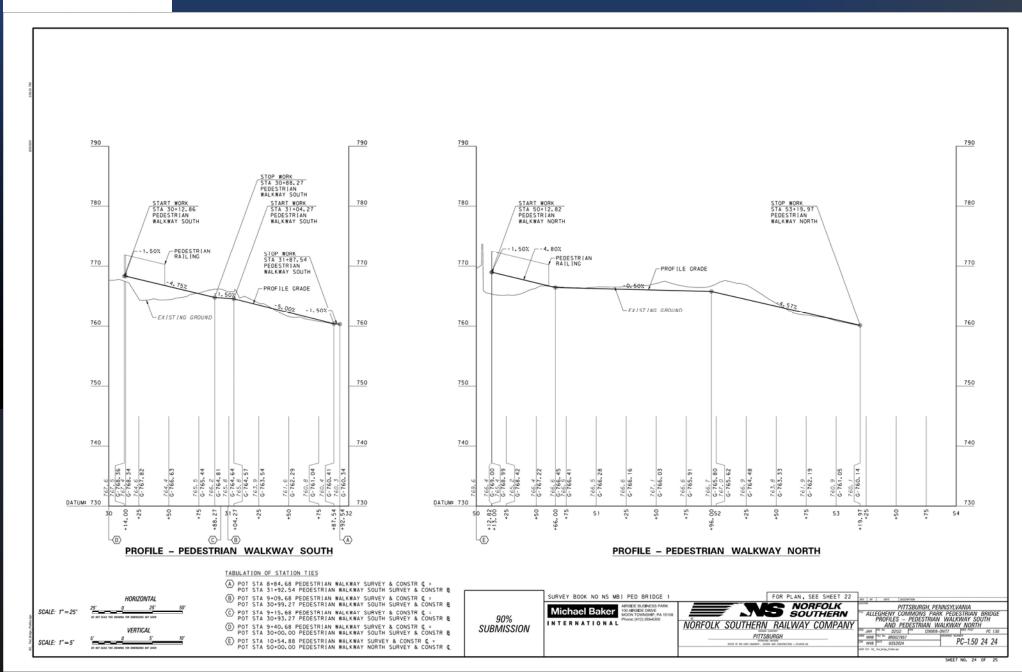


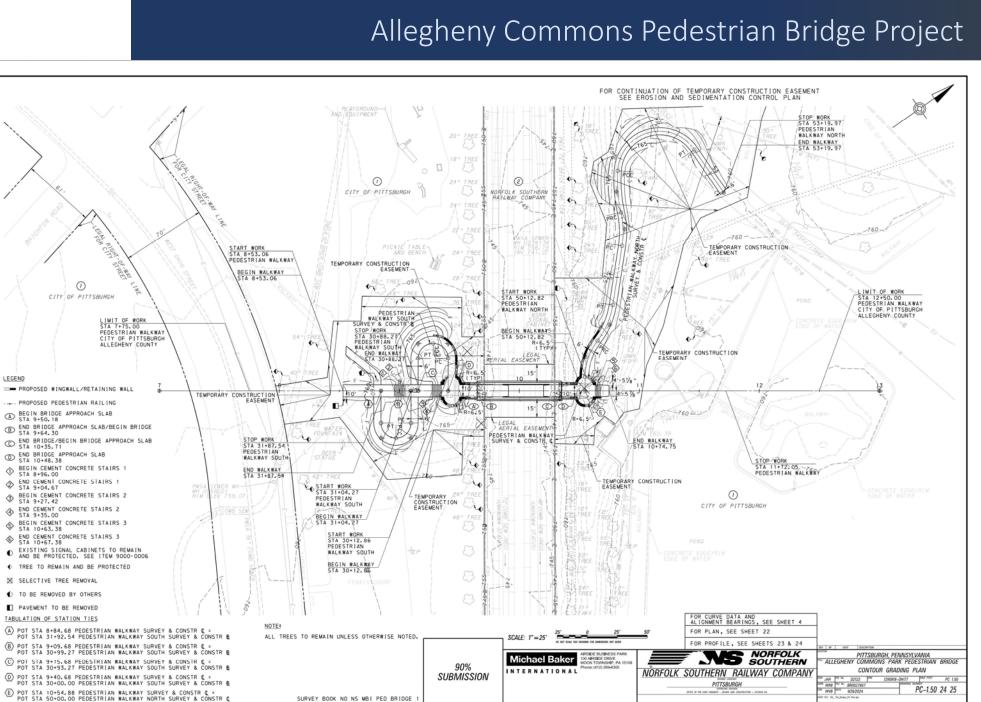


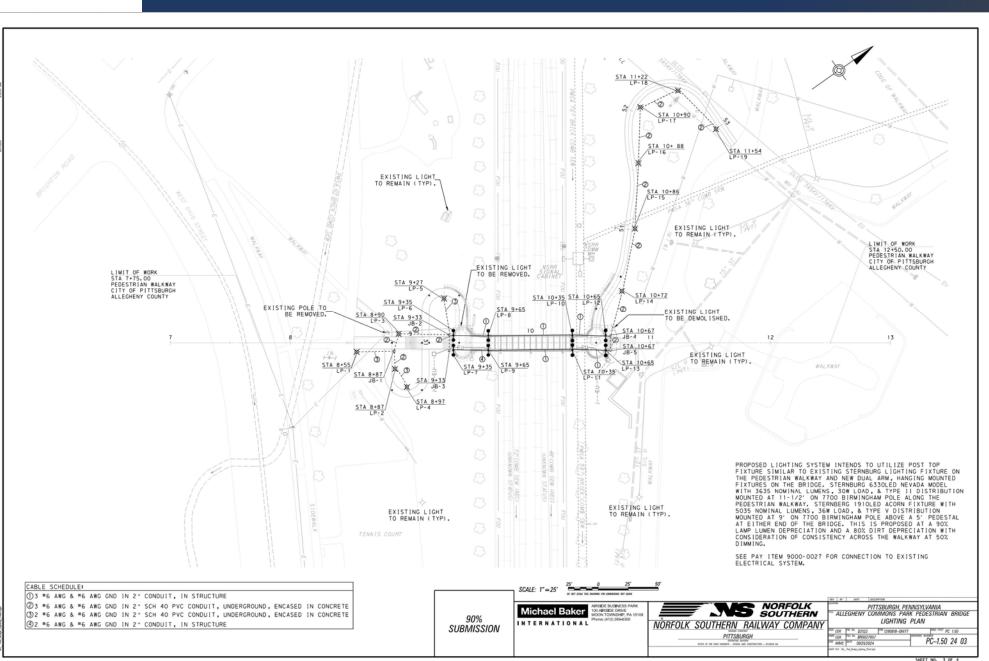
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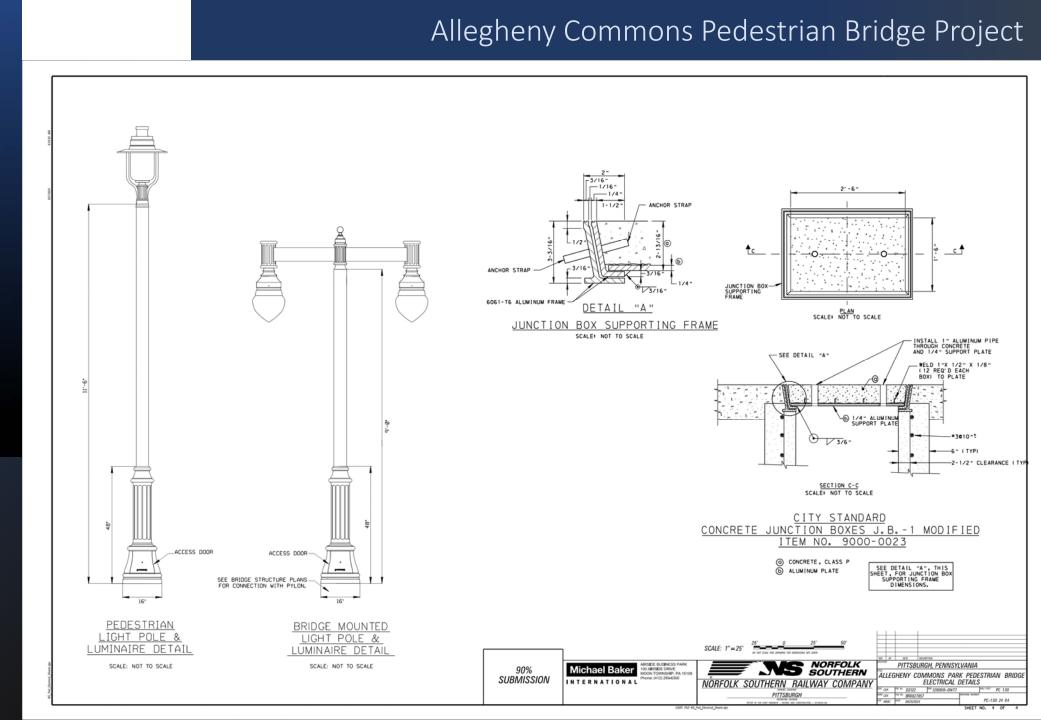


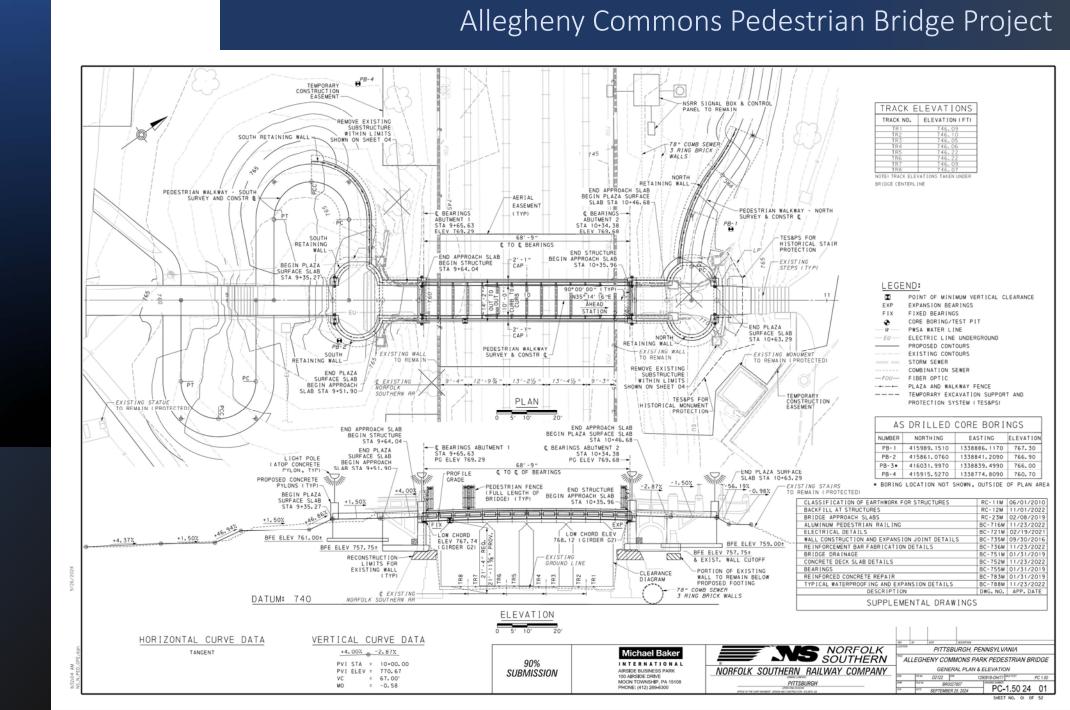


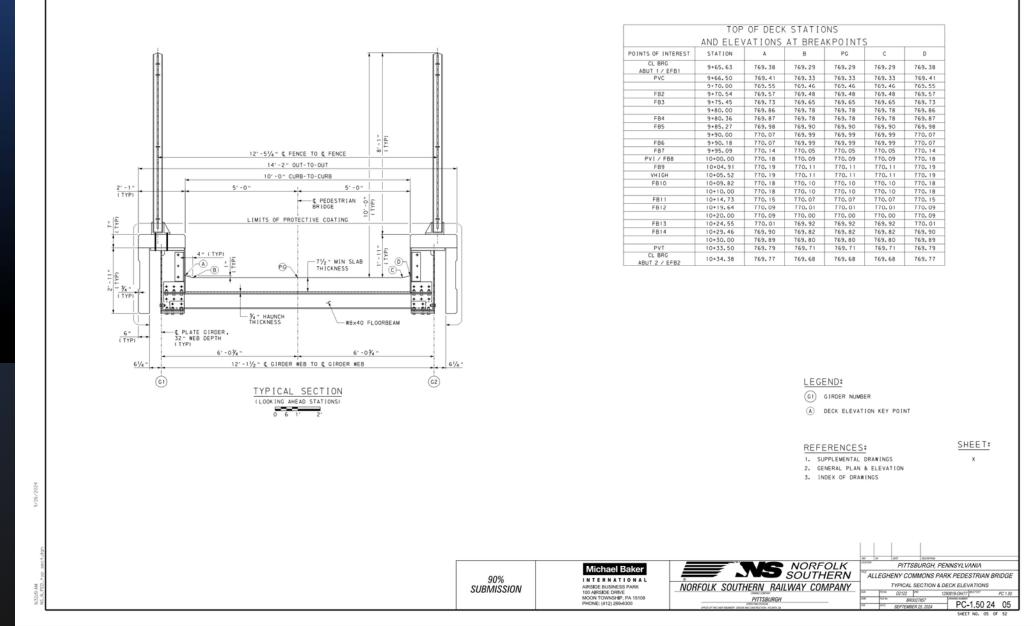


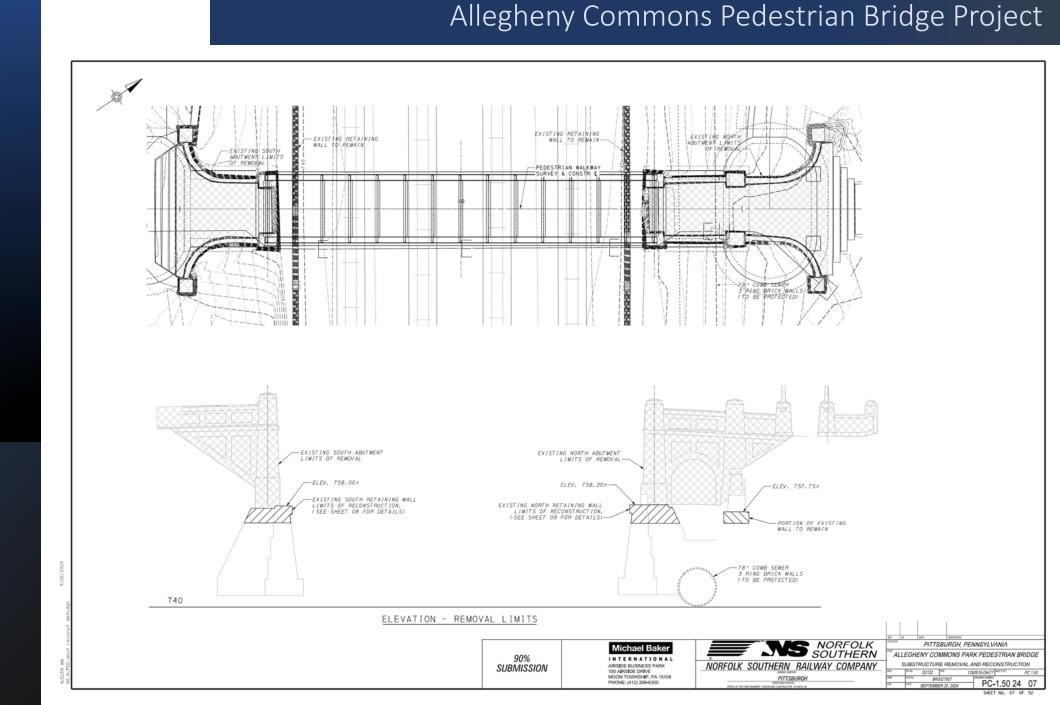


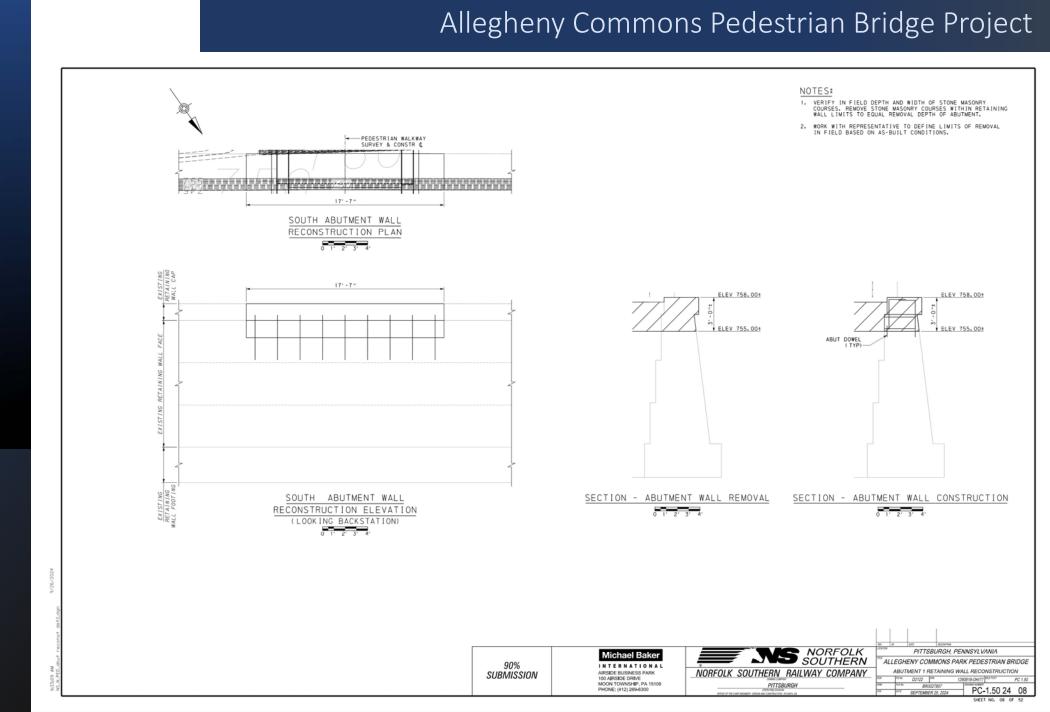


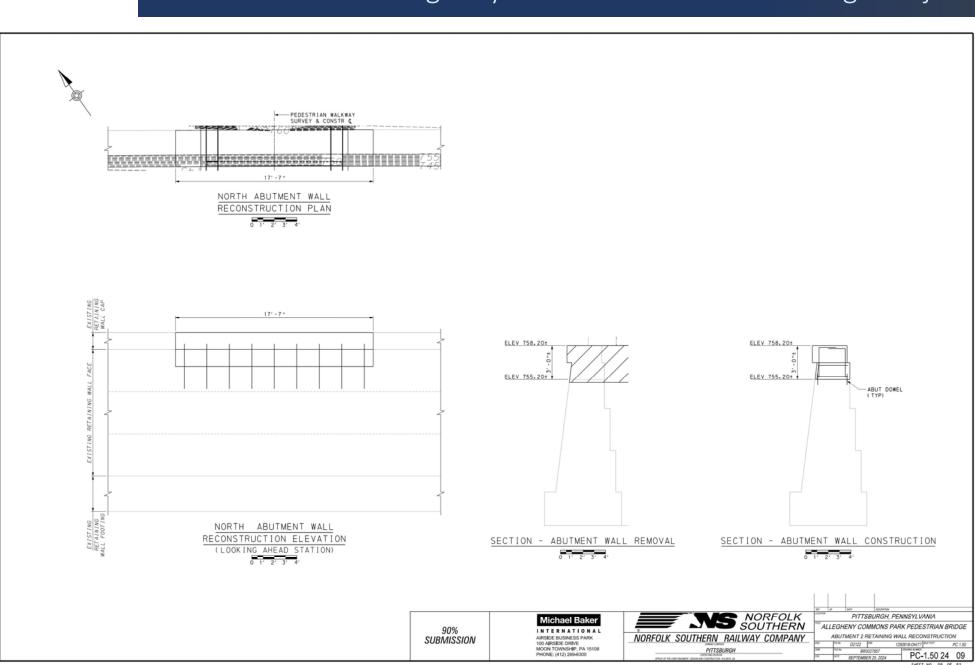


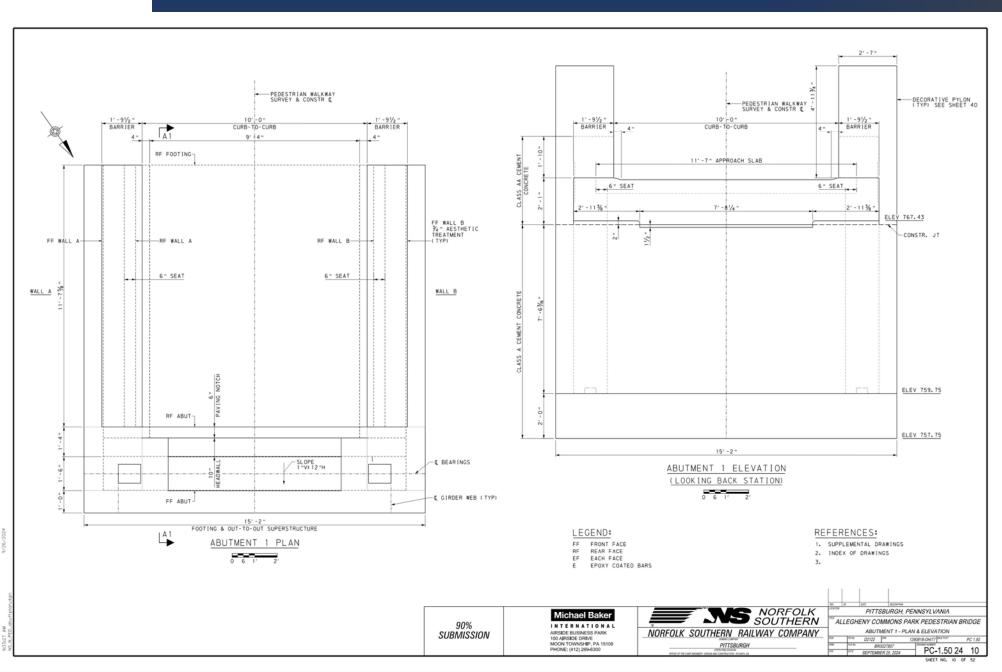


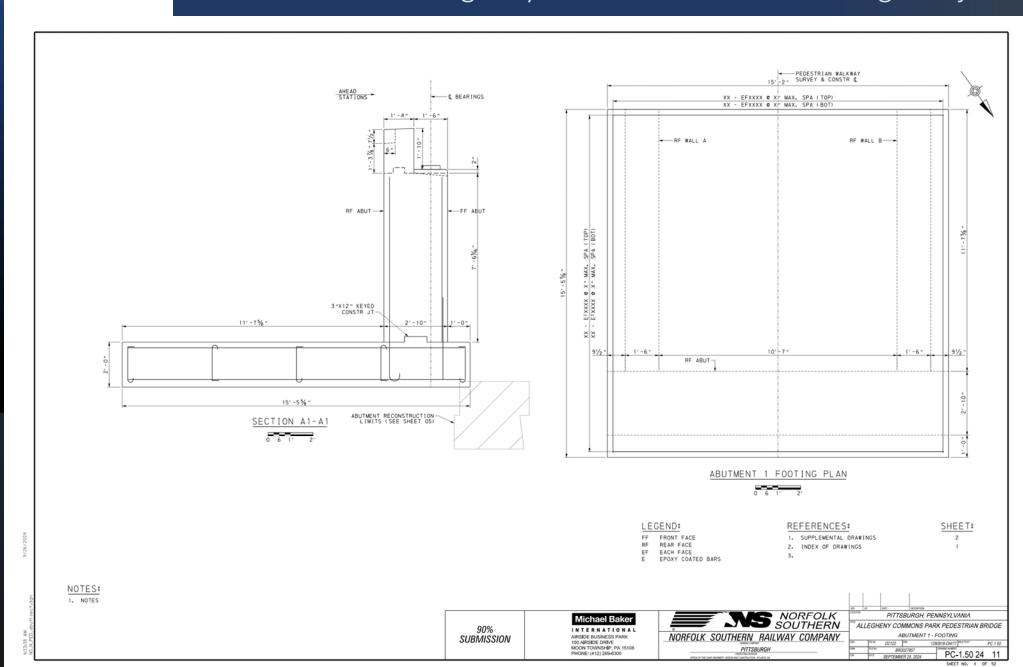


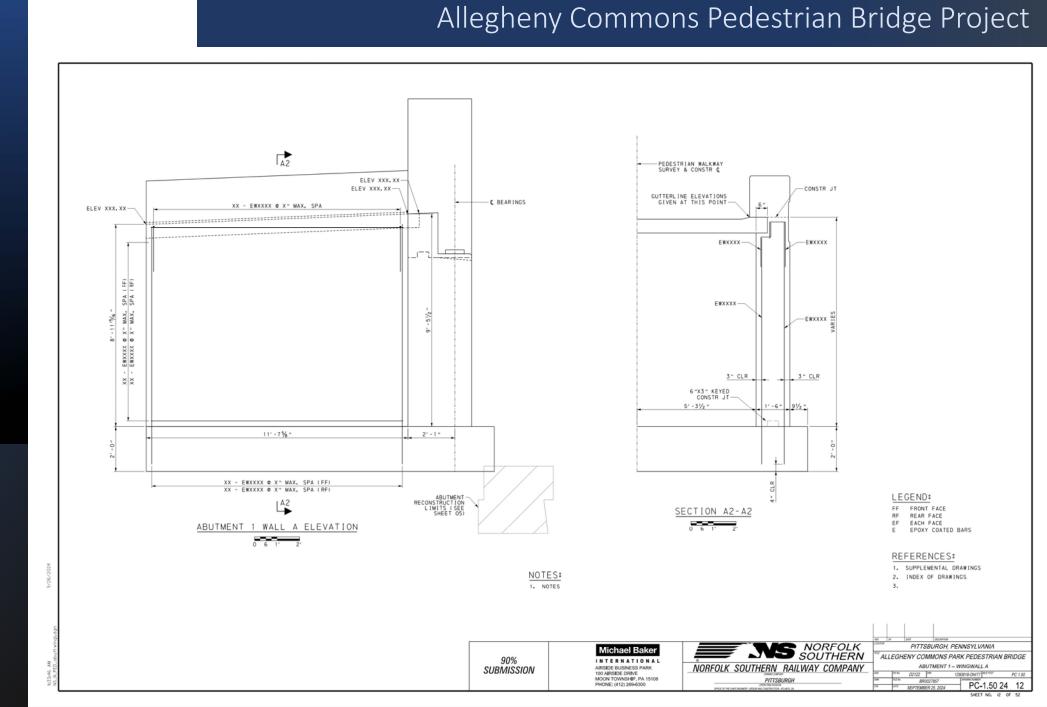


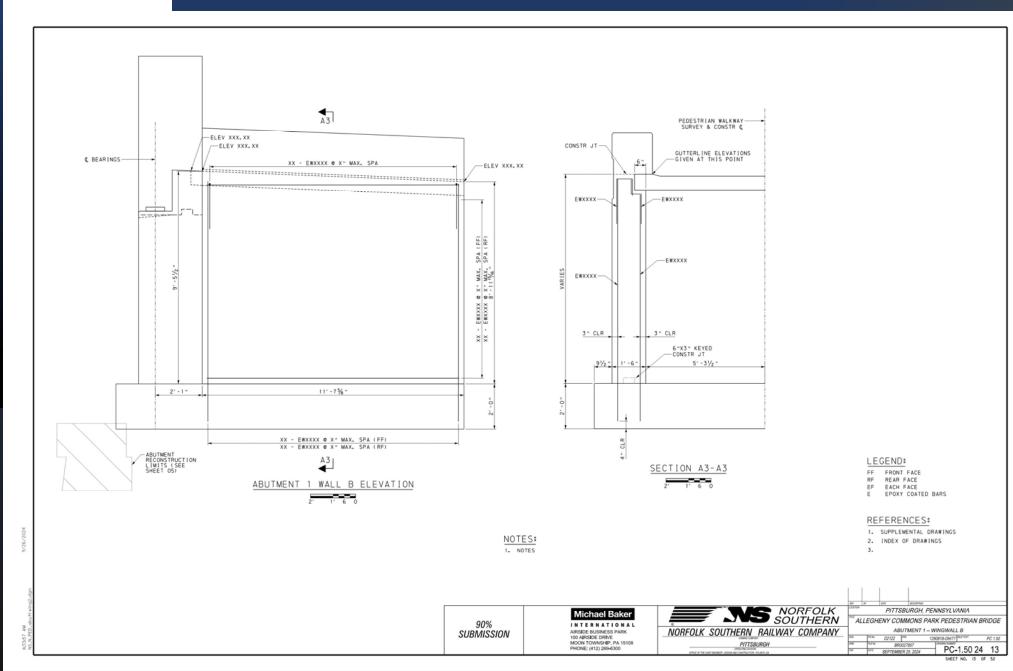


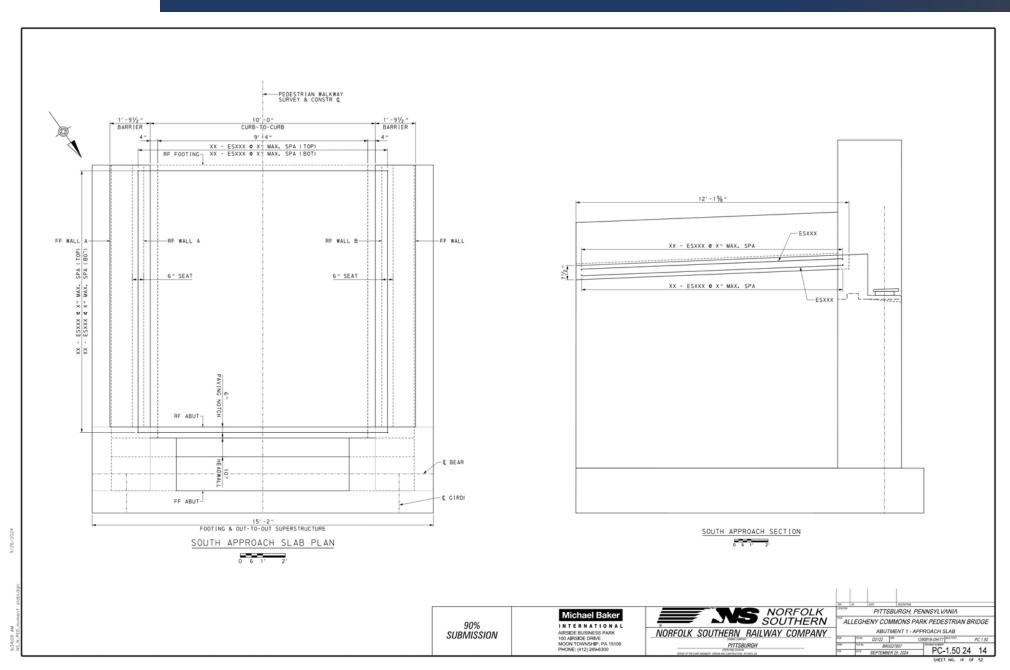




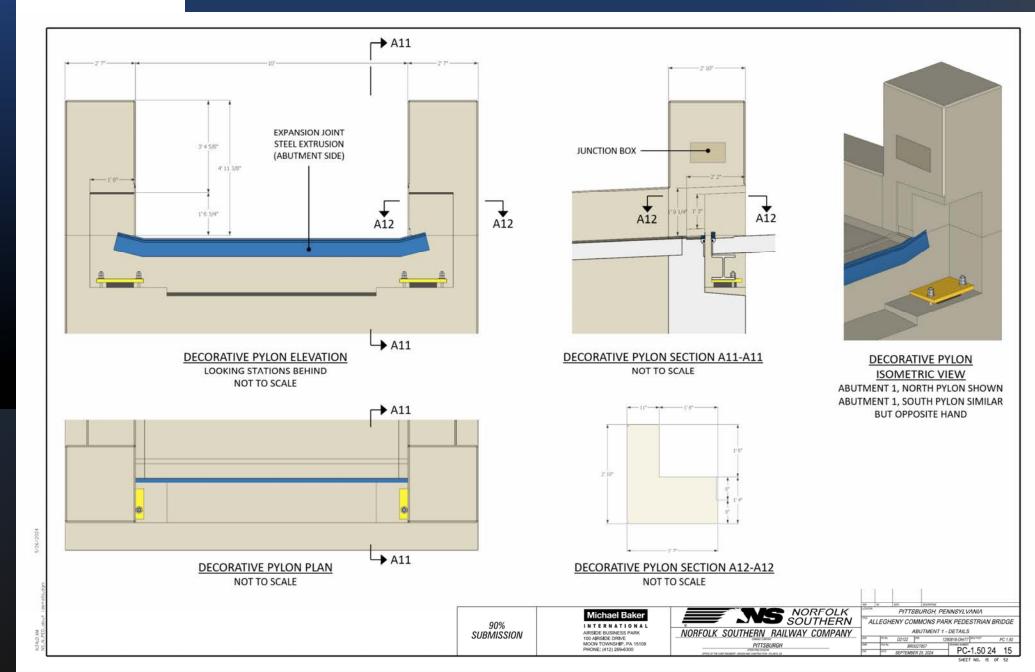


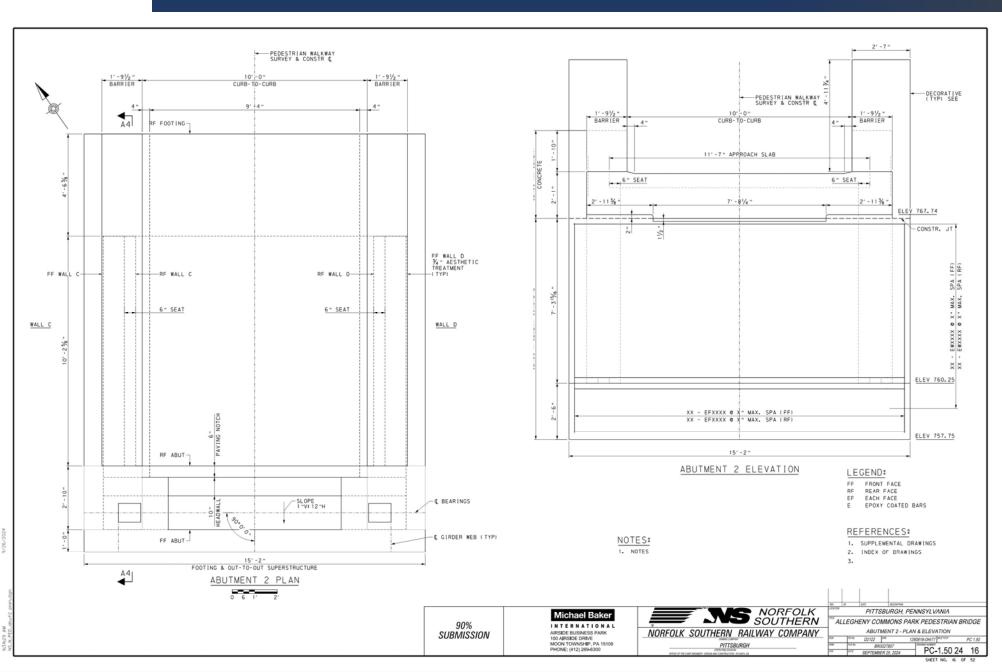


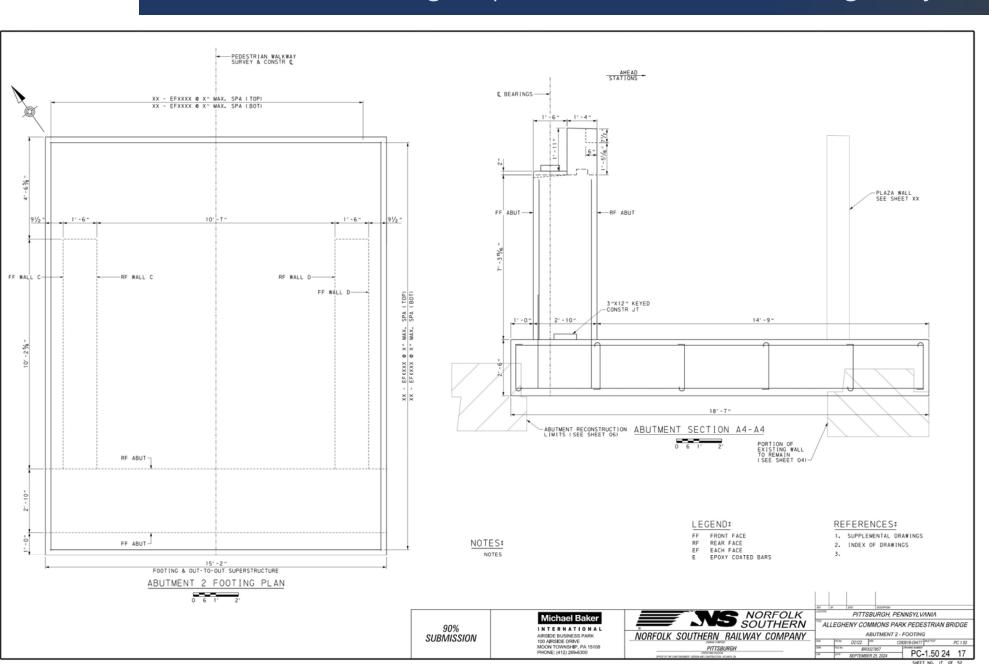




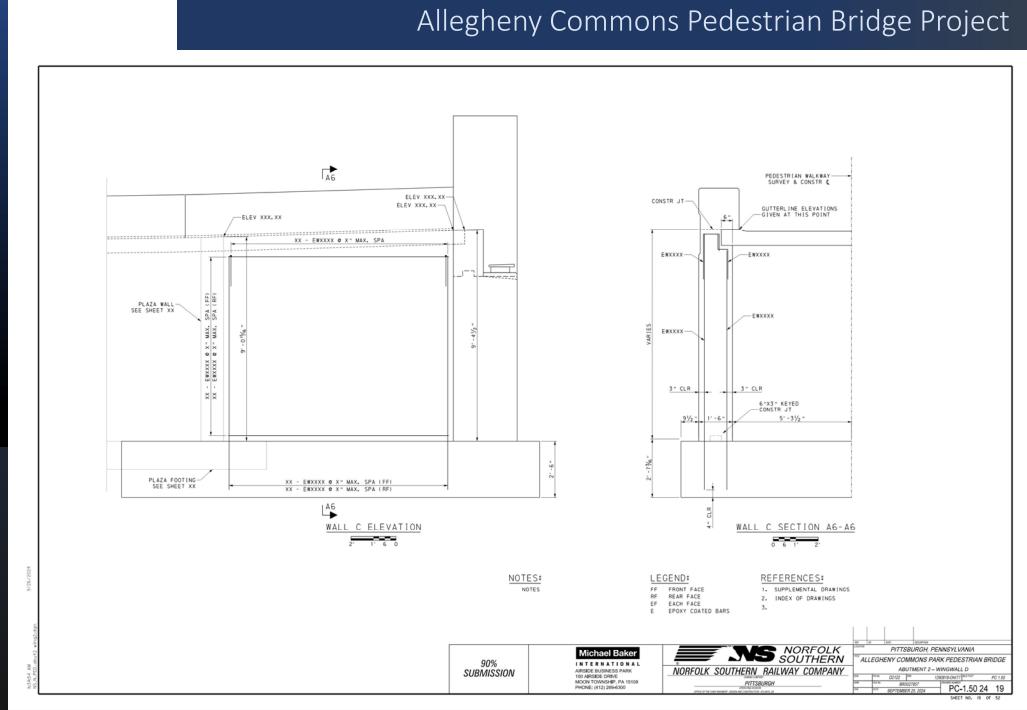
Allegheny Commons Pedestrian Bridge Project

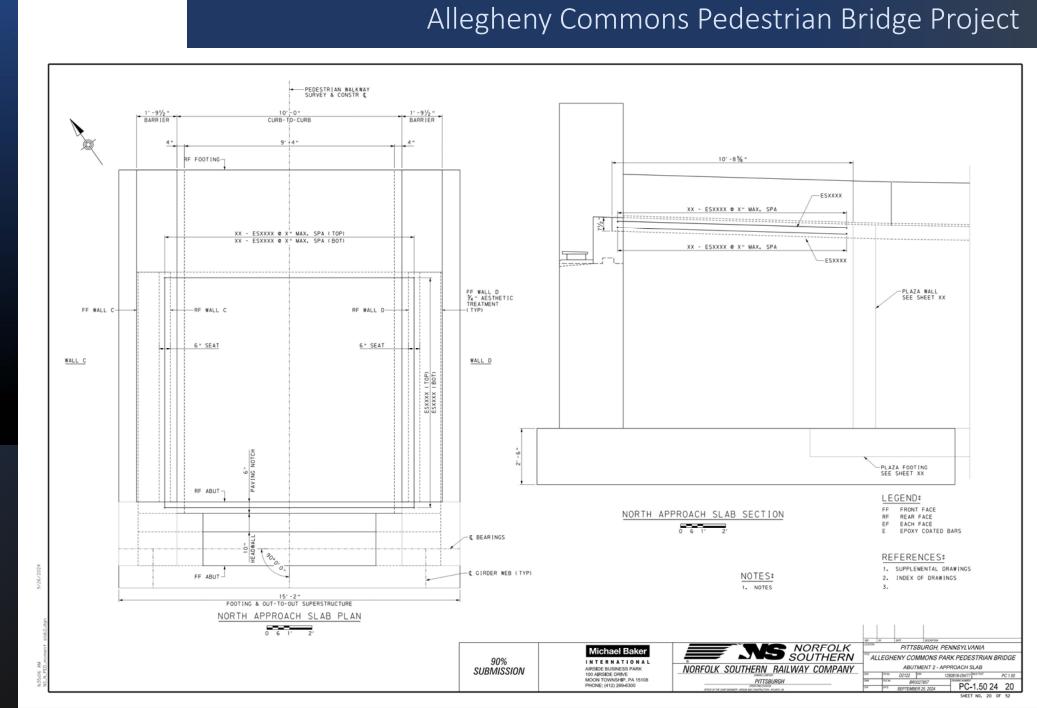


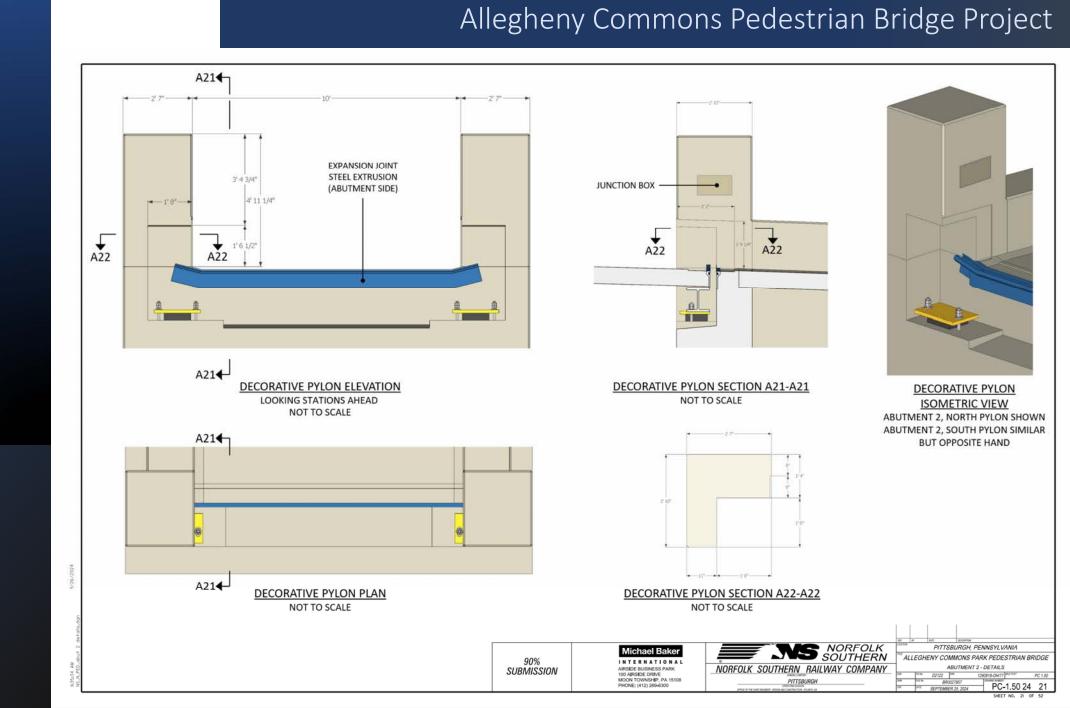


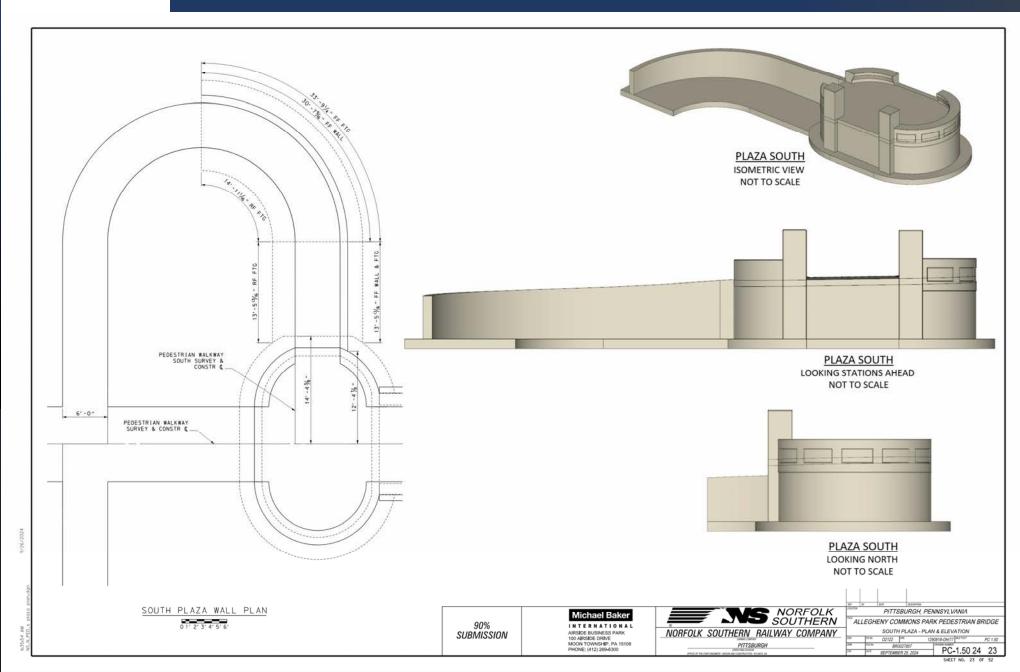


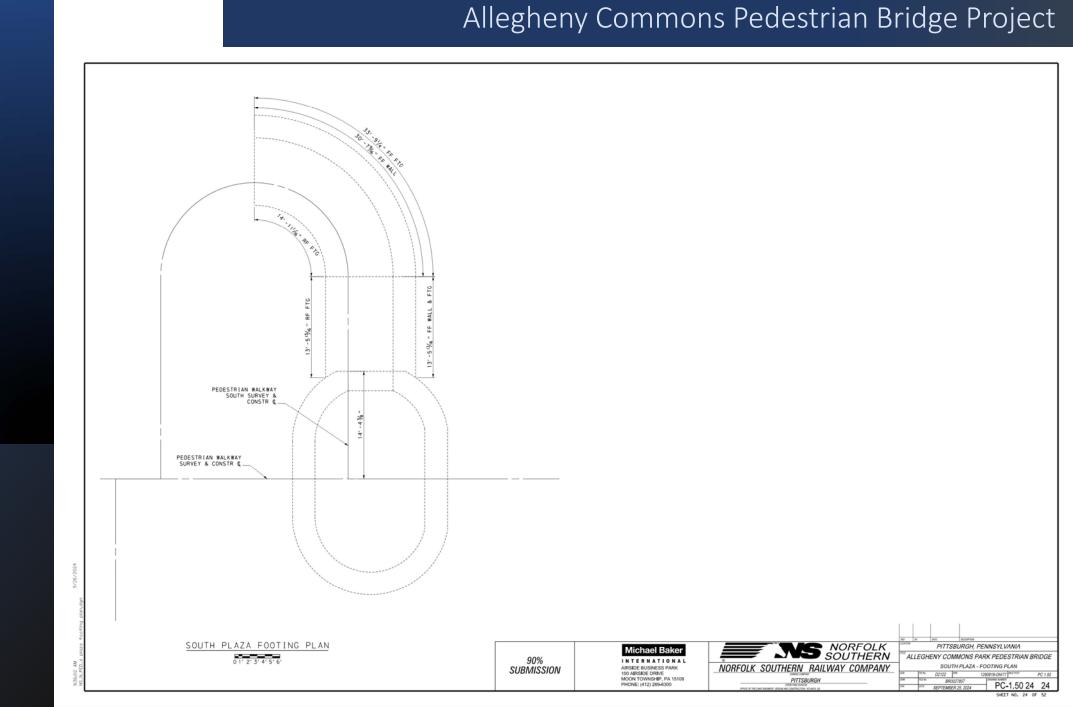
▲5 -PEDESTRIAN WALKWAY SURVEY & CONSTR & ELEV XXX.XX -CONSTR JT -ELEV XXX.XX GUTTERLINE ELEVATIONS GIVEN AT THIS POINT-ELEV XXX.XX-6" XX - EWXXXX @ X" MAX. SPA EWXXXX--EWXXXX (RF) PLAZA WALL SEE SHEET XX SPA EWXXXX ----41/2 XX - EWXXXX © X- MAX. XX - EWXXXX © X- MAX. EWXXXX H 3 " CLR 3" CLR 6"X3" KEYED CONSTR JT · -6" 91/2" 5'-31/2= -9. ,2 PLAZA FOOTING XX - EWXXXX @ X= MAX. SPA (FF) XX - EWXXXX @ X" MAX. SPA (RF) A5 -5 WALL D SECTION A5-A5 WALL D ELEVATION 0 6 1' ____ NOTES: LEGEND: REFERENCES: NOTES FF FRONT FACE 1. SUPPLEMENTAL DRAWINGS RF REAR FACE 2. INDEX OF DRAWINGS EF EACH FACE 3. E EPOXY COATED BARS S NORFOLK PITTSBURGH, PENNSYLVANIA Michael Baker ALLEGHENY COMMONS PARK PEDESTRIAN BRIDGE 90% INTERNATIONAL ABUTMENT 2 - WINGWALL C AIRSIDE BUSINESS PARK 100 AIRSIDE DRIVE MOON TOWNSHIP, PA 15108 PHONE: (412) 269-6300 NORFOLK SOUTHERN RAILWAY COMPANY SUBMISSION D2122 141 1290818-OH/7 PC 1.50 PITTSBURGH PC-1.50 24 18

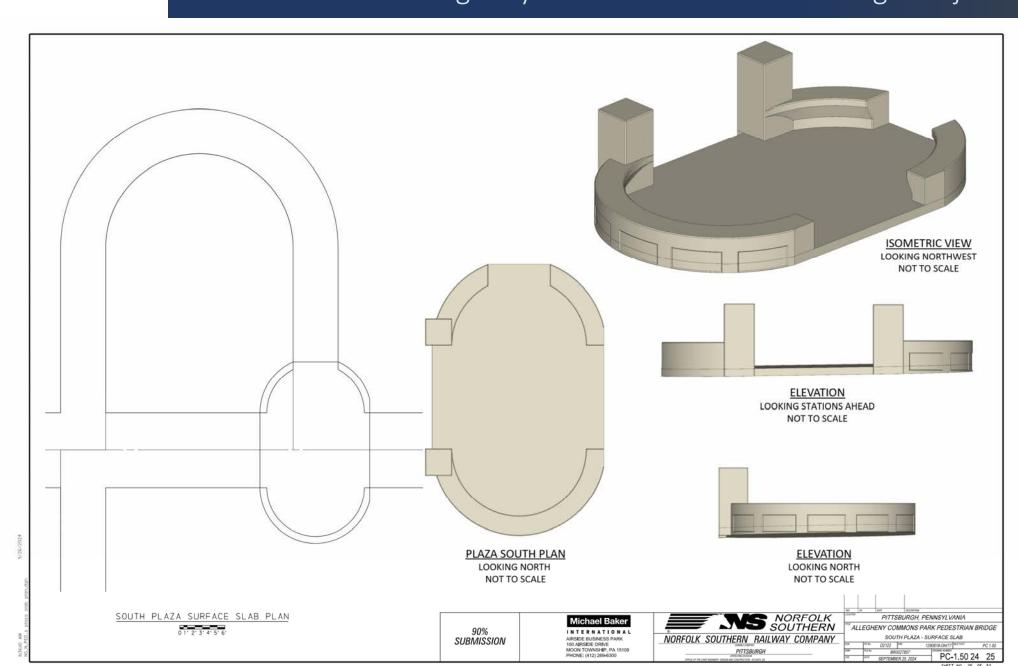


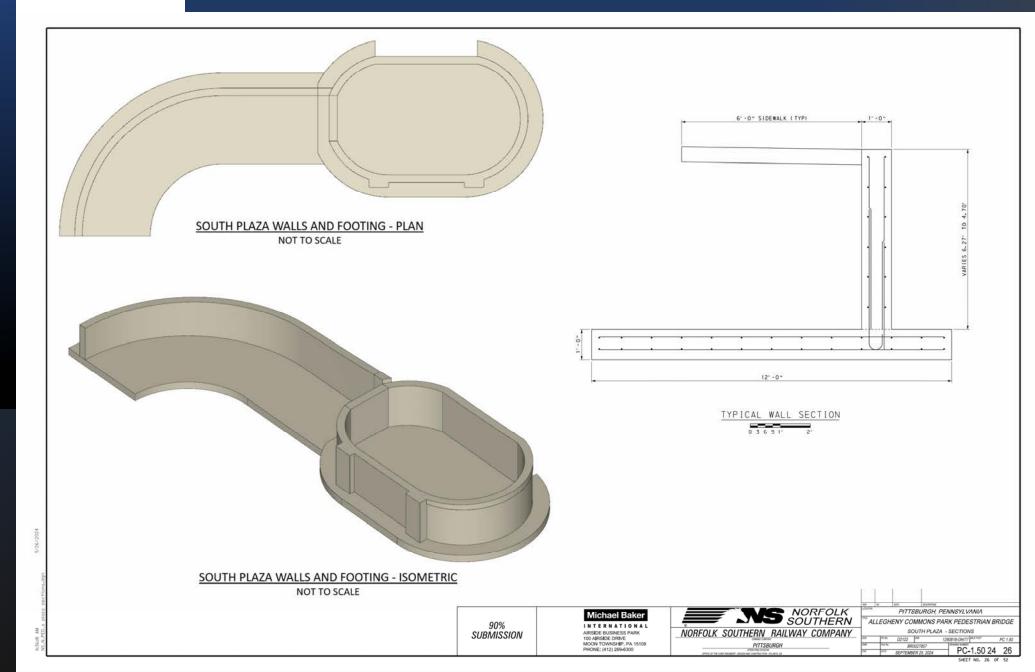


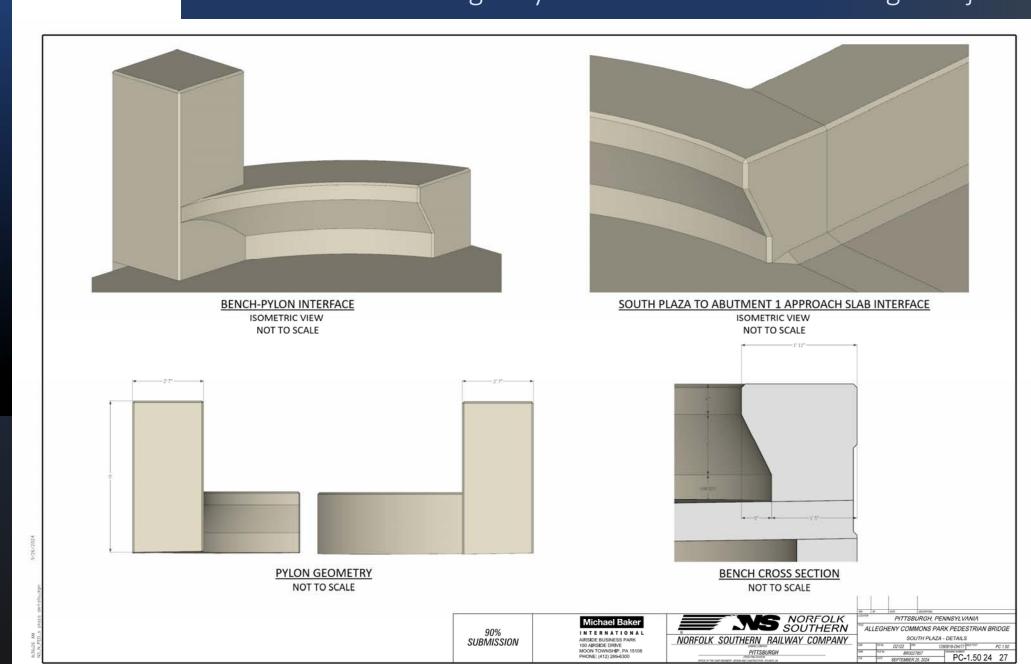


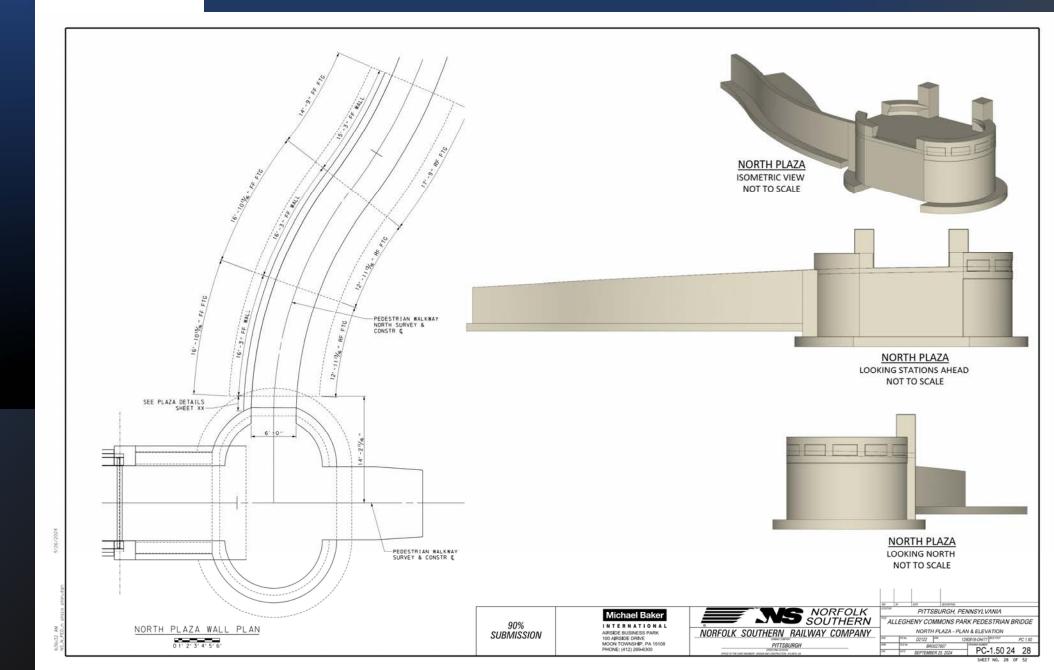


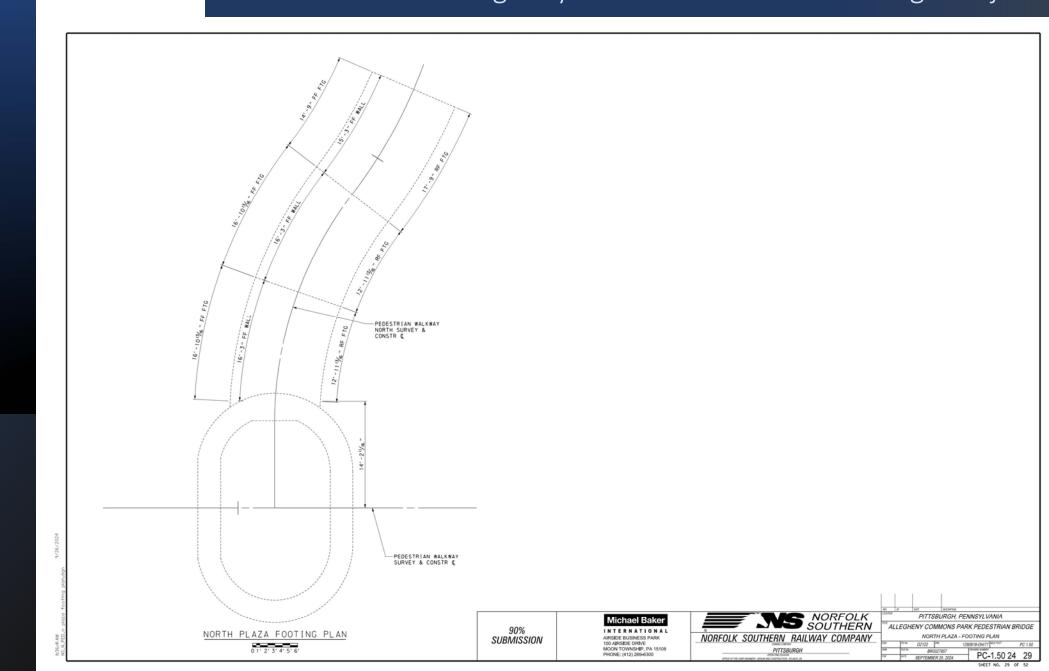


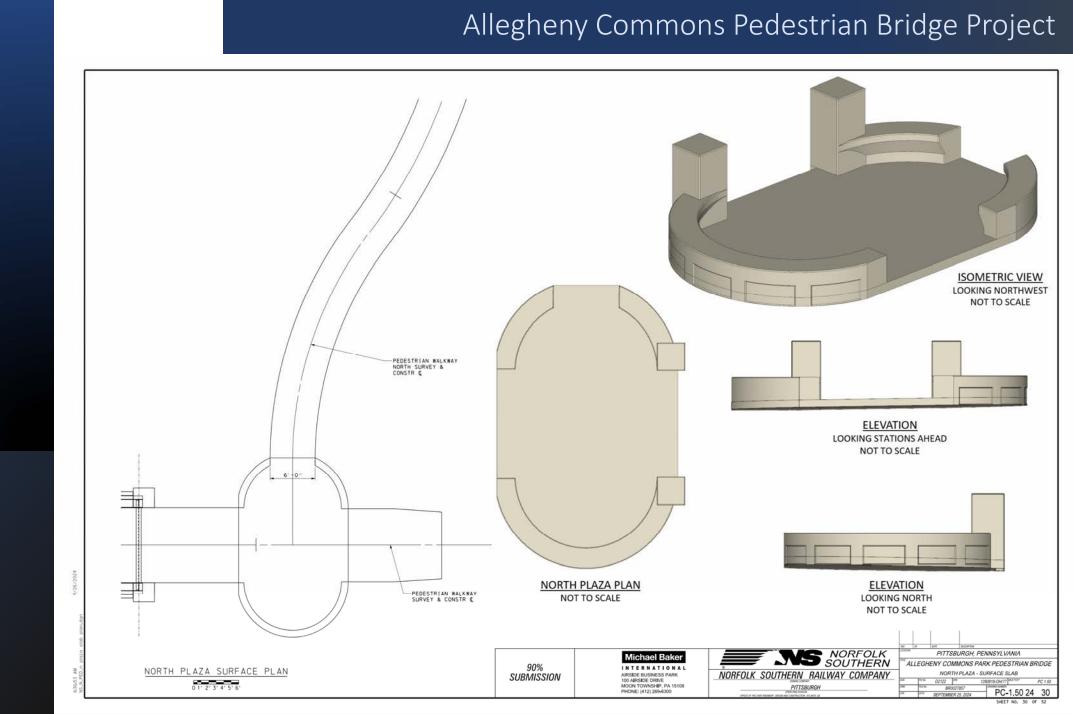




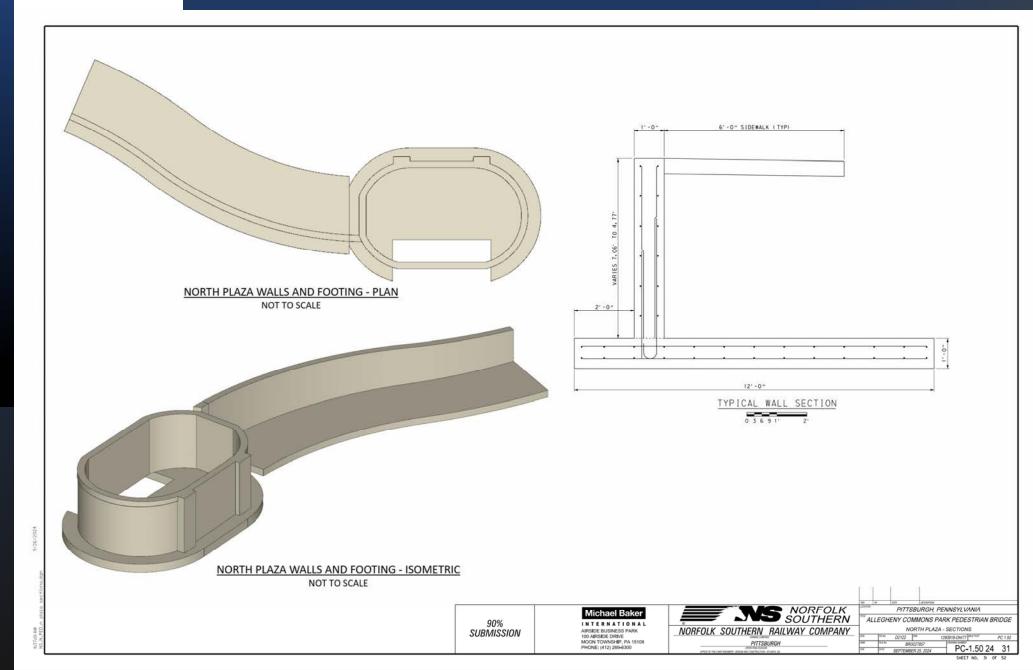


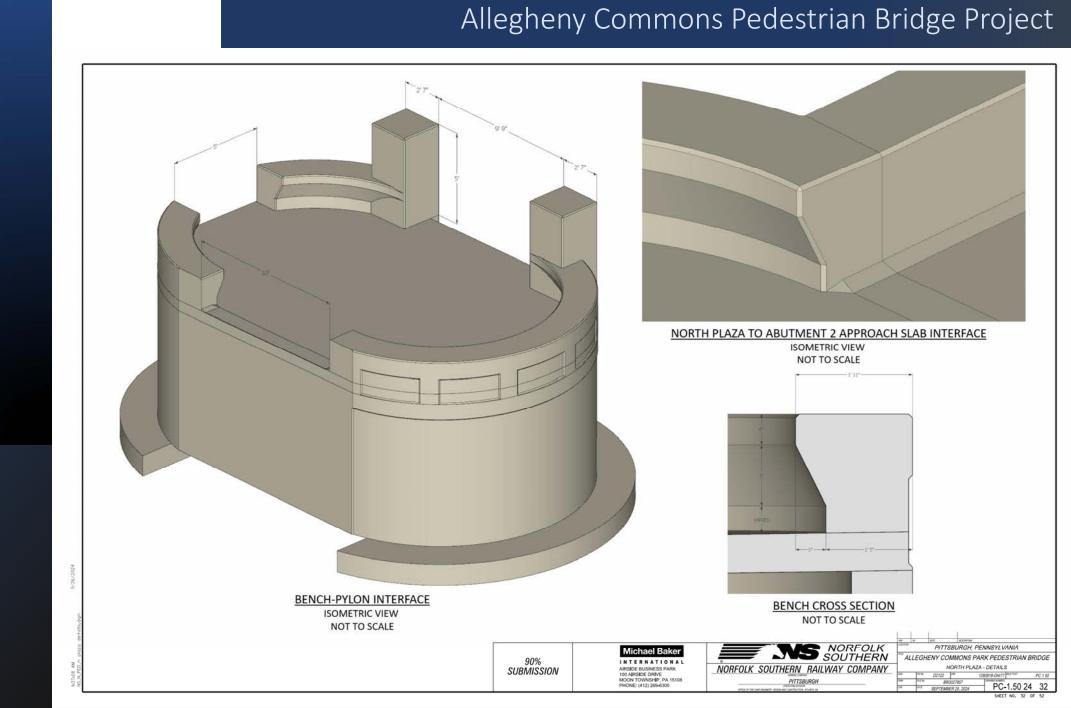


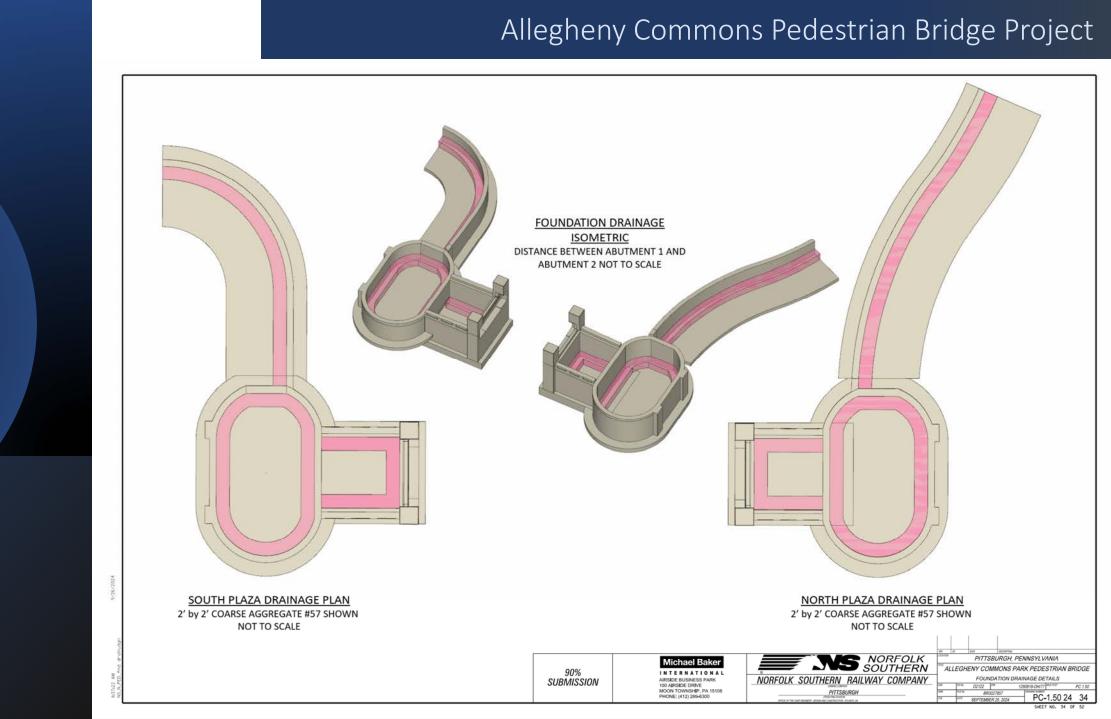


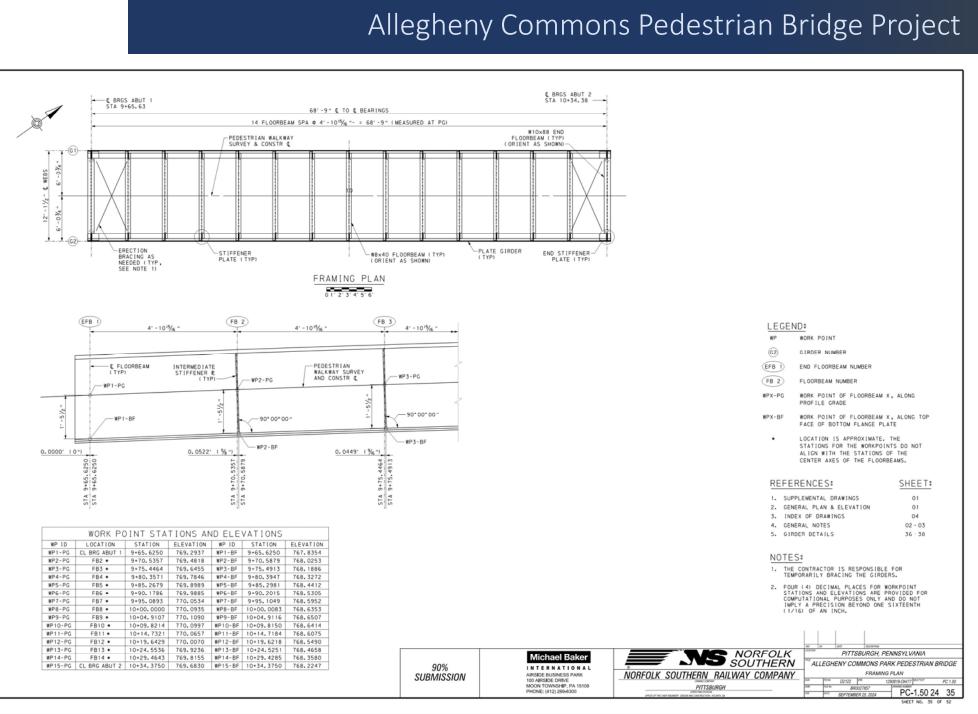




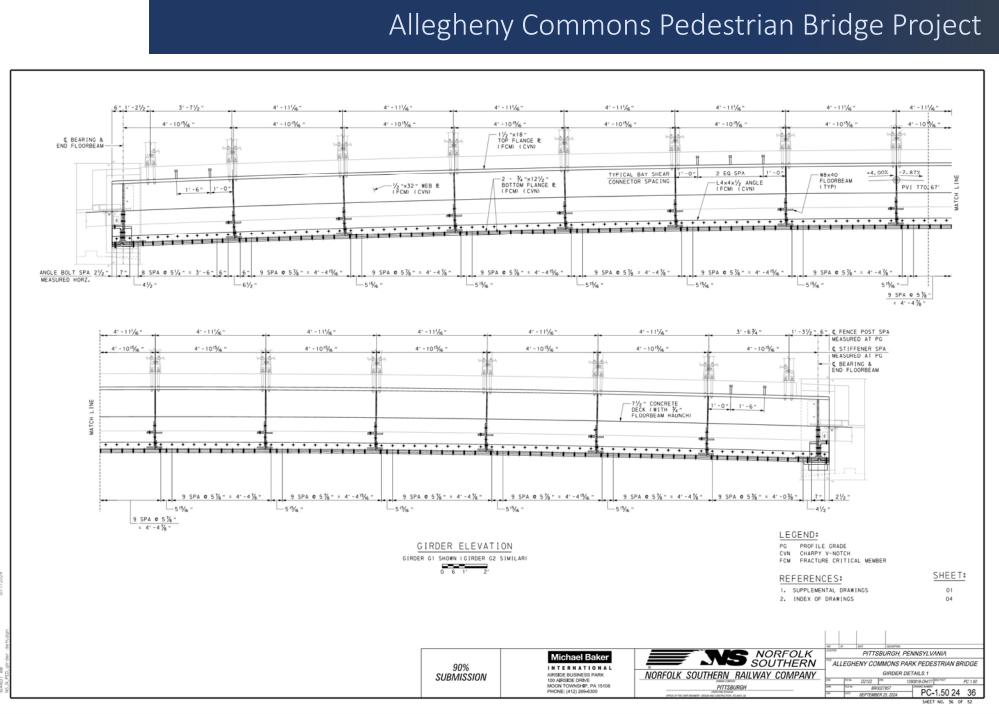


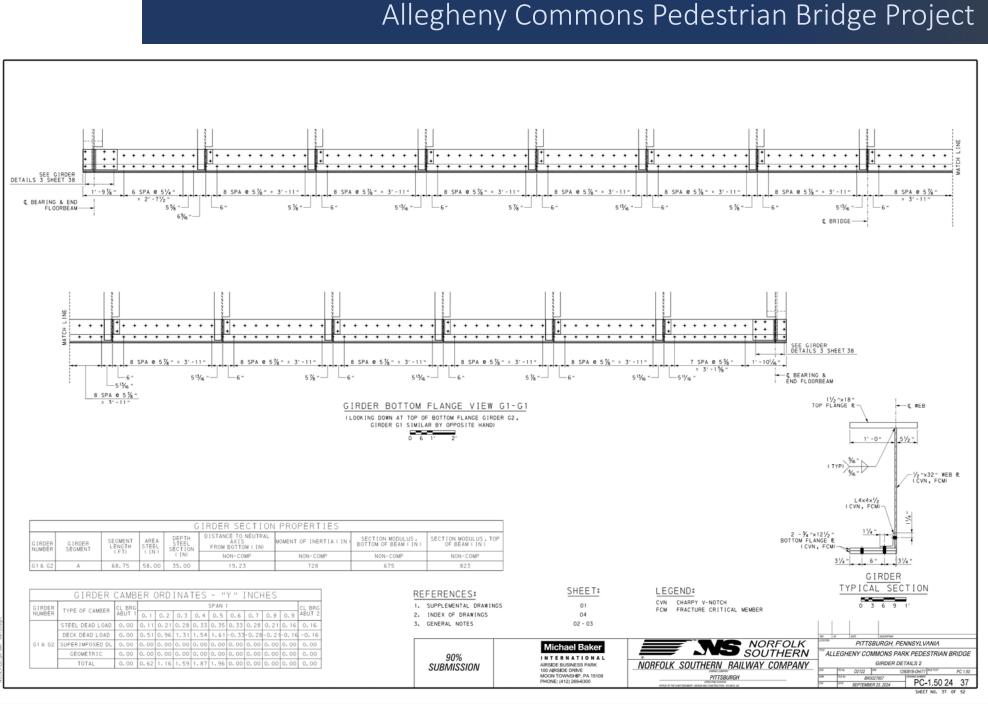




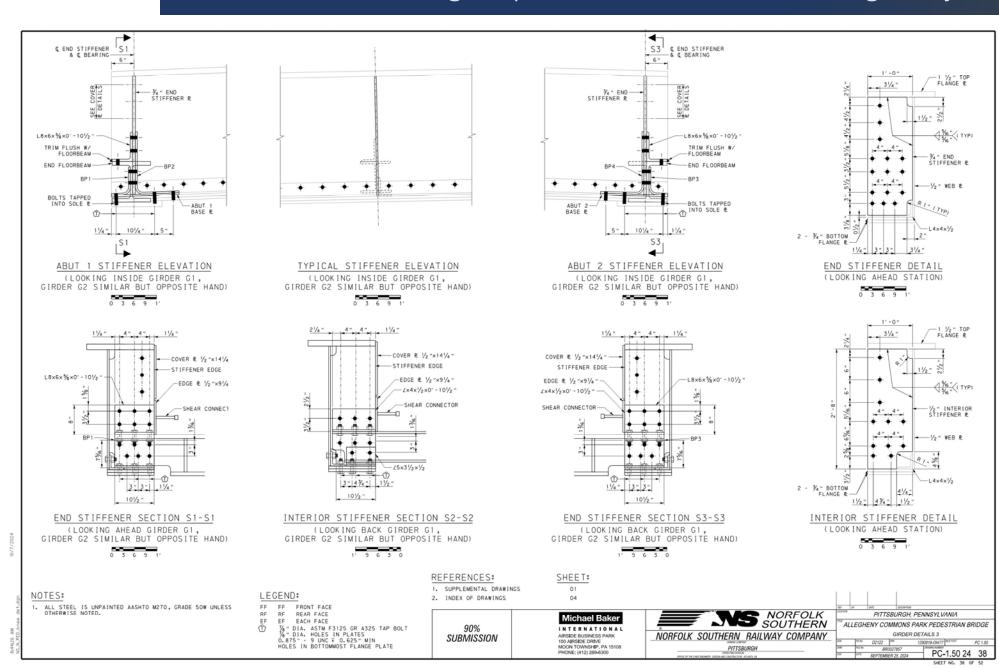


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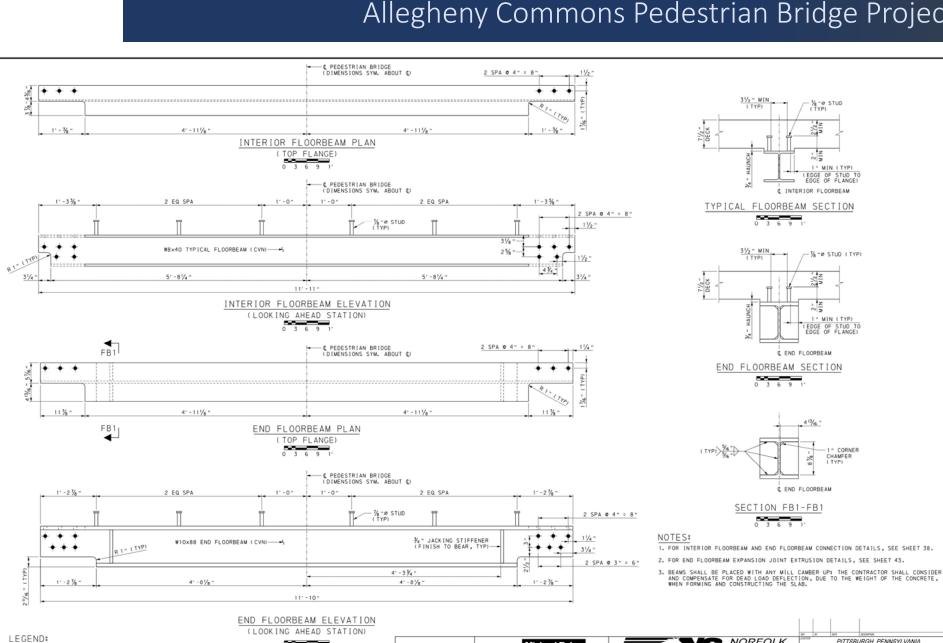




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SUBMISSION

Michael Baker

INTERNATIONAL

AIRSIDE BUSINESS PARK 100 AIRSIDE DRIVE MOON TOWNSHIP, PA 15108 PHONE: (412) 269-6300

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PITTSBURGH, PENNSYLVANIA ALLEGHENY COMMONS PARK PEDESTRIAN BRIDGE FLOORBEAM DETAILS PC 1.50 PC-1.50 24 39 SHEET NO.

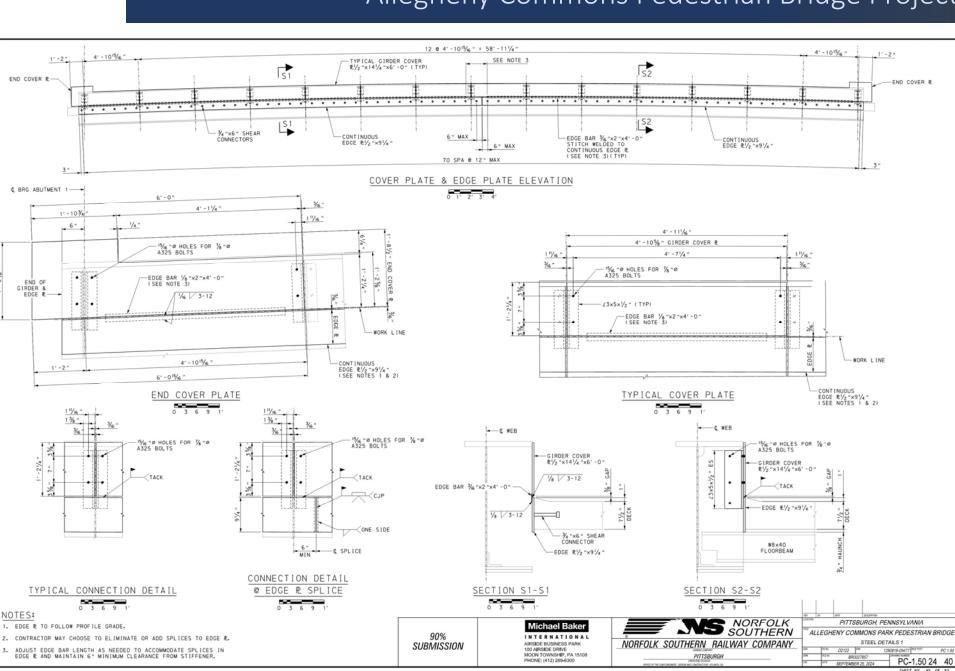
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Allegheny Commons Pedestrian Bridge Project

PC 1.50



