

# Environmental Assessment

## Proposed Scranton Beltway Project Clarks Summit and Wyoming Valley Interchanges

*Lackawanna and Luzerne Counties, Pennsylvania*

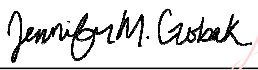
September 2024



ENVIRONMENTAL ASSESSMENT  
for the  
PROPOSED SCRANTON BELTWAY PROJECT  
CLARKS SUMMIT AND WYOMING VALLEY INTERCHANGES  
MPMS #106682

Prepared by:  
US Department of Transportation  
Federal Highway Administration  
And  
Pennsylvania Turnpike Commission  
And  
Pennsylvania Department of Transportation  
Engineering District 4-0

Pursuant to 42 U.S.C. 4332(2)(c) and, as applicable:  
Executive Order 11990, Protection of Wetlands; Executive Order 11988, Floodplain Management;  
Executive Order 12898, Environmental Justice; and 49 U.S.C. Section 303(c), Section 4(f)

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<https://www.paturndpike.com/traveling/construction/site/scranton-beltway>



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## ACRONYMS AND ABBREVIATIONS

AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ACS	American Community Survey
ACM	Agency Coordination Meeting
ADT	Average Daily Traffic
ALPP	Agricultural Lands Preservation Policy
APE	Area of Potential Effect
ASA	Agricultural Security Areas
BMPs	Best Management Practices
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CRP	Cultural Resource Professionals
CS	Clarks Summit Interchange
CWF	Cold Water Fishes
DBH	Diameter at Breast Height
EA	Environmental Assessment
E&S Control	Erosion and Sediment Control
ECMTS	Environmental Commitments and Mitigation Tracking System
EDD	Environmental Due Diligence
EJ	Environmental Justice
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
ESA	Phase I Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FPPA	Farmland Protection Policy Act
ft	feet/foot
GF	Gannett Fleming, Inc.
GHG	Greenhouse Gas
GIS	Geographic Information Systems
HCM	Highway Capacity Manual
HUC	hydrologic unit code
H&H	Hydrologic and Hydraulic

H:V	horizontal/vertical
I-476	Interstate 476 (Northeast Extension of the Pennsylvania Turnpike)
I-81	Interstate 81
IPaC	Information for Planning and Consultation
ISATe	Enhanced Interchange Safety Analysis Tool
Leq	Equivalent Continuous Sound Pressure Level
LF	linear feet
LLTS	Lackawanna-Luzerne Transportation Study
LOD	Limits of Disturbance
LOS	Level of Service
LWCF	Land Water Conservation Fund
MF	Migratory Fisheries
MIT	Massachusetts Institute of Technology
MP	milepost
Mph	Miles per Hour
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxics
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NB	Northbound
NEPA	National Environmental Policy Act
Nox	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPS	US National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSA	Noise Study Area
NWI	National Wetland Inventory
PADCNR	Pennsylvania Department of Conservation and Natural Resources
PADEP	Pennsylvania Department of Environmental Protection
PA SHARE	Pennsylvania State Historic and Archaeological Resource Exchange
PA SHPO	Pennsylvania State Historic Preservation Office
PAGWIS	Pennsylvania Groundwater Information System
PAWC	Pennsylvania American Water Company
Pb	Lead
PCSM	Post Construction Stormwater Management

PEM	Palustrine Emergent
PennDOT	Pennsylvania Department of Transportation
PFBC	Pennsylvania Fish and Boat Commission
PFO	palustrine Forested
PGC	Pennsylvania Game Commission
PHMC	Pennsylvania Historical and Museum Commission
PM2.5 and PM10	Particulate Matter
PNDI	Pennsylvania Natural Diversity Inventory
POA	Point of Access
PSS	Palustrine Scrub-Shrub
PTC	Pennsylvania Turnpike Commission
PUB	Palustrine Unconsolidated Bottom (Pond)
ROW	Right-of-Way
RPCO	Regional Permit Coordination Office
RSA	Resource Study Area
SB	Southbound
SFHA	Special Flood Hazard Area
SO2	Sulfur Dioxide
sq ft	square feet
SR	State Route
SSA	Sole Source Aquifers
STA	Station
TCE	Temporary Construction Easement
TIP	Transportation Improvement Plan
TMDL	Total Maximum Daily Load
TNM	Traffic Noise Model
UNTs	Unnamed Tributaries
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	Vehicle Miles Traveled
WV	Wyoming Valley Interchange

## 1.0 INTRODUCTION

### 1.1 Overview

The PTC, PennDOT, and FHWA have prepared the Scranton Beltway Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969 to identify and evaluate the environmental effects of the proposed project. NEPA is a federal law that requires federal agencies to evaluate the environmental effects of their proposed actions before signing off on construction decisions.

The Pennsylvania Turnpike Northeast Extension is an approximately 110 mile north south section of toll road, extending from the Turnpike mainline in Plymouth Meeting, PA to Clarks Summit, PA where it connects with US 6 and I-81. Known as I-476, the Northeast Extension passes through the Allentown and Scranton metropolitan areas, and traverses under the Appalachian Mountains via the Lehigh tunnel.

The Scranton Beltway project consists of the proposed construction of highway speed connections between I-476 and I-81 at two separate locations in Luzerne and Lackawanna Counties in Northeastern Pennsylvania. The completion of highway speed connections at these interchanges would provide a limited access “beltway” around the Scranton metropolitan area and provide a congestion relief alternative to I-81. The existing indirect connections between I-81 and I-476 would remain.

The Wyoming Valley interchange is located in Pittston Township, Luzerne County, near exit 115 and milepost 115 on I-476 and Exit 175 on I-81. The Wyoming Valley project area extends into Dupont Borough, Luzerne County. The Clarks Summit interchange is located in South Abington Township, Lackawanna County, near exit 131 at milepost 131 on I-476 and exit 194 on I-81. Within both Wyoming Valley and Clarks Summit, I-81 is owned and operated by the Pennsylvania Department of Transportation (PennDOT).

The Scranton Beltway project is funded through design by PTC funds. Based on the FY 2024 capital plan, approximately \$163,800,000 are programmed through FY 2032. The Federal Highway Administration (FHWA)/PennDOT would provide \$40,000,000 for construction through 2028 as per the 2021-2024 Transportation Improvement Program (TIP) for the Lackawanna-Luzerne Metropolitan Planning Organization (MPO). While PTC is the main agency responsible for the delivery of this project, PennDOT and FHWA have partnered with PTC to develop a project which meets the needs of all the agencies involved.

## 1.2 Project Background

The concept to improve connections between I-476 and I-81 in the Scranton area was initially investigated as part of the Scranton Beltway Feasibility Study (April 2014). The original study explored the feasibility of optimizing the use of both the Northeast Extension and I-81. Dating as far back as 2014 and 2015, I-81 in the Scranton area has operated at or near capacity, while I-476 was underutilized. The original concepts introduced during the Feasibility Study consisted of north-to-north and south-to-south movements at both interchanges and consisted of two lanes per FHWA input. While existing ramp connections between I-81 and I-476 are present at the Wyoming Valley interchange and the Clarks Summit interchange, motorists must exit off of the highways and complete complex movements to access the adjoining highways. In the Scranton Beltway Feasibility Study Phase 2 (December 2015) one lane connector ramps at Wyoming Valley in both the north-to-north and south-to-south directions were proposed. Both a left merge and a right merge alignment option were proposed at Wyoming Valley. At Clarks Summit, the south-to-south connection would be one lane, while the north-to-north connection would be two lanes as it is a terminus of the I-476 interstate. The Phase 2 study also assumed that cashless tolling would be implemented.

Traffic analyses produced as part of the Phase 2 Feasibility Study forecast the presence of the direct connections between I-81 and I-476 would reduce use of I-81 by approximately 4,800 vehicles per day while increasing the use of I-476 by 6,400 vehicles per day in the 2045 traffic model year. The traffic analysis noted that while most of the changes in traffic volumes are due to the diversion of traffic from I-81 to I-476, shifts in traffic volumes from other roads due to latent demand are also present. Therefore, while the proposed ramps would offer some congestion relief on I-81, there would also be a decrease in volumes on other roads within the project area.

The Phase 2 Feasibility Study determined the preliminary costs associated with the Scranton Beltway project to be approximately \$160 million (2015 dollars). Key benefits identified in the Phase 2 Feasibility Study consist of congestion relief on I-81 (especially during peak periods) and increased utilization of existing highway assets. The direct connections to I-476 would attract motorists to divert from I-81 to I-476, therefore improving the existing congestion along I-81 by reducing the volume of vehicles. Improved utilization would disperse truck traffic, which is anticipated to increase 72% by 2040. The Phase 2 Feasibility Study concluded that the proposed Scranton Beltway project was feasible and PTC and PennDOT should proceed with the project.

In early 2018, preliminary design activities commenced to advance the recommendations and further investigate the preliminary alignments identified in the Phase 2 Feasibility Study. As part of the preliminary design activities, a Conceptual Point of Access (POA) Study (March 2022) was performed for both of the project areas. The POA Study provides the justification for the



modifications of the points of access to I-476 and I-81 at the Wyoming Valley and Clarks Summit interchanges. This study evaluated existing levels of service along the limited access highways and adjacent facilities and the influence of a new or revised ramp or interchange (also known as a point of access). As such, the POA Study builds on and refines the alignment concepts initially documented in the Phase 2 Feasibility Study and further studied the traffic effects of the proposed new ramps at both the Wyoming Valley and Clarks Summit interchanges. The POA also evaluated several alternative ramp alignments at each interchange, which are described in greater detail as part of the Alternatives Analysis in Chapter 3.0. Overall, the POA Study found that the proposed new ramps would improve roadway utilization. The POA Study was approved by FHWA in February 2023.

**Supporting documentation for Chapter 1 includes:**

- *Conceptual Point of Access Study, Scranton Beltway, Direct Connections between I-476 (Pennsylvania Turnpike Northeast Extension) and I-81 At Wyoming Valley (Exit 115) and Clarks Summit (Exit 131) Interchanges (March 2022), FHWA (Federal Highway Administration) approved February 2023*
- *Pennsylvania Turnpike Commission. Annual Comprehensive Financial Report, Fiscal Years Ended May 31, 2021 and 2020. (October 2021)*
- *Pennsylvania Turnpike Commission. 2022. FY 2023 Ten Year Capital Plan*
- *Lackawanna Luzerne Metropolitan Planning Organization. 2021-2024 Transportation Improvement Program (May 2020)*
- *Scranton Beltway Feasibility Study, Phase 2 (December 2015)*
- *Scranton Beltway Feasibility Study-Summary Memo (April 2014)*

## 2.0 PROPOSED SCRANTON BELTWAY PROJECT OVERVIEW

### 2.1 Project Description

The Pennsylvania Turnpike Commission (PTC) and the Pennsylvania Department of Transportation (PennDOT) seek to provide direct connections between the Northeast Extension (I-476), a toll road and Interstate 81 (I-81) in the Scranton, PA area (Luzerne and Lackawanna Counties). I-81 is currently overutilized and frequently congested during morning and afternoon peak hours. The Northeast Extension provides an alternative route to I-81 from Wyoming Valley (Interchange 115) to Clarks Summit (Interchange 131) but is underutilized compared to I-81. As a result, the PTC performed preliminary engineering tasks for a potential Scranton Beltway Project which would include direct connections between I-476 and I-81. It is projected that the proposed improvements would benefit both the PTC and the PennDOT as diverted traffic would improve operations and congestion on I-81 and increase utilization on I-476. The proposed improvements consist of new, direct connections at the Wyoming Valley interchange (milepost A-115 to A-116.2) and Clarks Summit interchange (milepost A-129.8 to A-130.4).

The Wyoming Valley project corridor is located in Pittston Township and the Borough of Dupont, Luzerne County. It is approximately 125 acres and extends north along the proposed Scranton Beltway from approximately 250 feet (ft) east of SR 315 to approximately 400 ft northeast along I-476 from Navy Way Road. Please see **Figure 1**.

At Wyoming Valley, the proposed improvements consist of the following which are shown on the preliminary design plan sheets included in **Appendix A**:

- I-476 SB Connector: One, 14 ft wide lane with a 10 ft outside shoulder and a 10 ft inside shoulder. This ramp connects I- 476 southbound (SB) directly to I-81 southbound.
- I-476 NB Connector: One 14 ft wide lane with a 10 ft outside shoulder and an 8 ft inside shoulder. This ramp connects I-81 northbound (NB) directly to I-476 NB.
- Associated tie-ins along I-81:
  - I-81 SB auxiliary lane: One 12 ft lane with 10 ft shoulder, 700 ft in length
  - I-81 NB auxiliary lane: One 12 ft lane with 10 ft shoulder, 4,000 ft long weave movement with preceding on-ramp.
- Associated tie-ins along I-476
  - I-476 SB auxiliary lane: One 12 ft lane with 10 ft shoulder, 1,445 ft in length
  - I-476 NB auxiliary lane: One 12 ft lane with 10 ft shoulder, 500 ft in length

- Ancillary Improvements
  - Stormwater basins, one culvert extension at Collins Creek and one culvert extension at Mill Creek.
  - Noise walls where they are warranted, reasonable and feasible in accordance with PennDOT Publication *Project Level Highway Traffic Noise Handbook Publication No. 24*, dated May 2019.

The Clarks Summit project corridor is located along I-476 in South Abington Township, Lackawanna County. It is approximately 191 acres and extends north along the Pennsylvania Turnpike I-476 from the toll plaza and from S. Abington Road to approximately 1,600 ft north of Simerell Road. Please see **Figure 2**.

At Clarks Summit, the proposed improvements consist of the following and shown on the preliminary design plan sheets included in **Appendix A**:

- I-476 SB Connector: One, 14 ft wide lane with a 10 ft outside shoulder and an 8 ft inside shoulder. This ramp connects I-81 SB directly to I-476 southbound.
- I-476 NB Connector: Two, 12 ft wide lanes with a 10 ft outside shoulder and an 8-12 ft inside shoulder. This ramp connects I-476 NB directly to I-81 NB.
- Ramp D NB realignment: One, 15 ft wide lane with a 10 ft outside shoulder and 8 ft inside shoulder. This existing ramp connects I-476 North to the toll plaza area, providing local access to US 6.
- Ramp D SB realignment: One, 15 ft wide lane with a 10 ft outside shoulder and 8 ft inside shoulder. This existing ramp connects the toll plaza area and US 6 to I-476 south.
- Associated tie-ins along I-81:
  - I-81 SB auxiliary lane: One 12 ft lane with 10 ft shoulder, 1,445ft in length
  - I-81 NB auxiliary lane: One 12-24 ft lane, with 10 ft shoulder, 2,500 ft in length
- Ancillary Improvements
  - Stormwater basins, one culvert extension at Collins Creek and one culvert extension at Mill Creek.
  - Noise walls where they are warranted, reasonable and feasible in accordance with PennDOT Publication *Project Level Highway Traffic Noise Handbook Publication No. 24*, dated May 2019.

## 2.2 Project Setting and Distinct Project Features

The project is located in a populated area of Luzerne and Lackawanna Counties. The proposed Wyoming Valley interchange starts at milepost (MP) A-115 to MP A-116.2 and the proposed Clarks Summit interchange starts at MP A-129.8 to MP A-130.4. The terrain is generally rolling. The

project areas include a variety of land uses including industrial, commercial, and residential uses. No sidewalks or bicycle routes exist within the project areas.

### **Involvement with Utilities**

Utility towers associated with high tension (69 kV) wires owned by PP&L are present at the Wyoming Valley interchange. The utility towers conflict with the proposed I-476 NB connector and will be relocated as part of a separate project performed by PP&L. PP&L 12kV distribution aerial lines over I-476 will also be impacted. Additional utility involvement at the Wyoming Valley interchange consists of relocation of a Lower Lackawanna Sewer Authority sewer pipe through the existing Mill Creek Culvert and an unknown size sewer pipe under I-476. PA American Water Company has 14-inch water lines under I-81 and I-476. Verizon has aerial lines over I-476 and I-81 and CenturyLink has fiber optic on PP&L poles. Finally, UGI has an unknown size gas main under I-476.

Utility involvement at the Clarks Summit interchange consists of an 8-inch clay sewer pipe owned by South Abington Township Sewer Authority that runs through the project area, along with an 18-inch sewer main under I-81. PA American Water Company has an 8-inch water main that runs through the project area, along with a 12-inch water main that runs under I-81. PP&L has an aerial power line over I-81. UGI has a gas main under I-81.

Utility coordination was initiated during preliminary design, particularly with PP&L. Additional coordination with all of the impacted utilities will take place during final design.

### **Involvement with Railroads (active or inactive)**

There would be no involvement with active or inactive railroads.

### **Changes to Access Control.**

No changes in the limited access nature of both I-476 and I-81 are proposed. The proposed project would result in new direct connections between these two limited access highways.

## **2.3 Project Purpose and Need**

**Purpose:** The purpose of the Scranton Beltway Project is to relieve congestion on the PennDOT's I-81, particularly during the peak traffic periods and traffic incidents by utilizing the Pennsylvania Turnpike's Northeast Extension, I-476, which has excess capacity.

**Needs:** Two needs were identified for the Scranton Beltway Project.

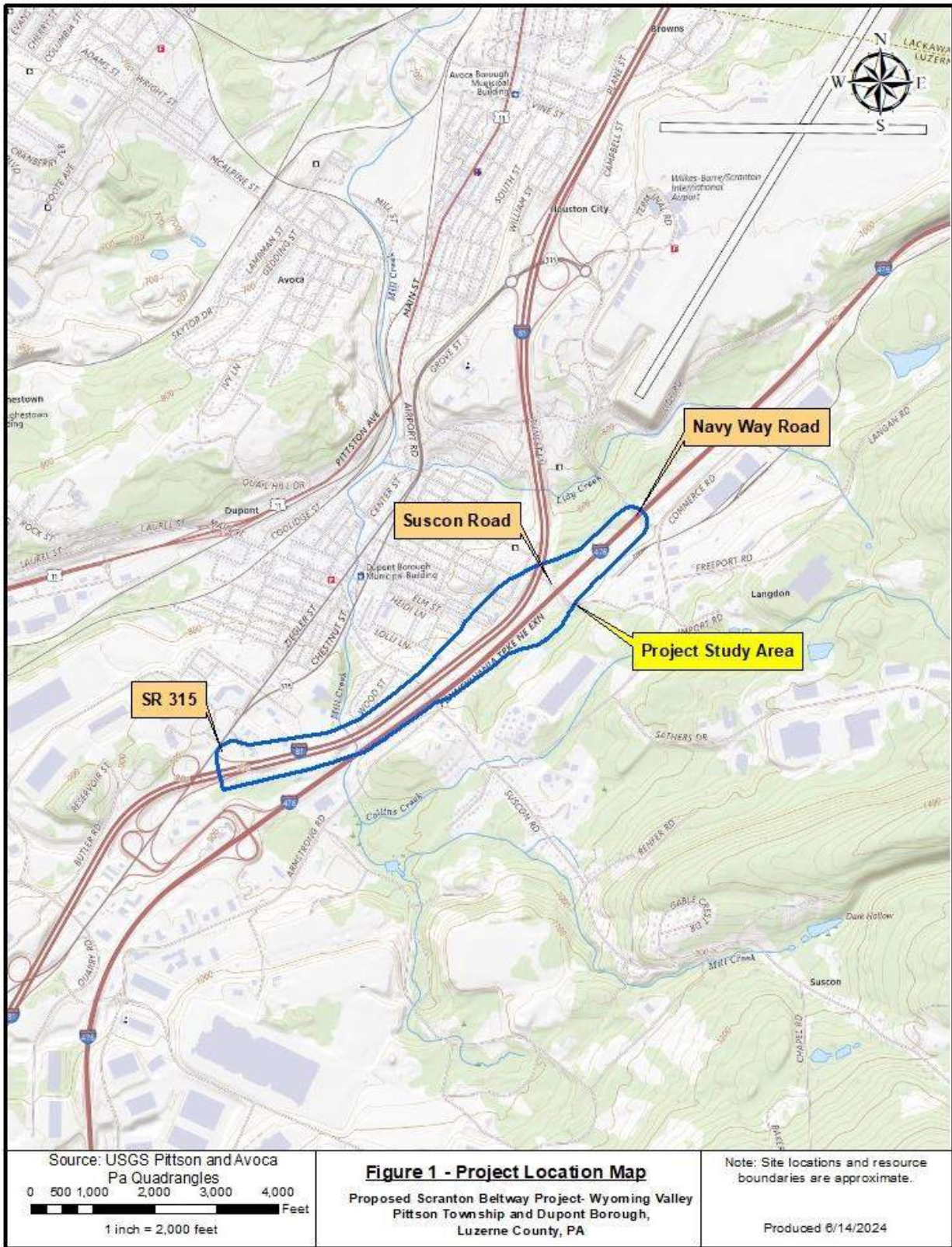
### **Need 1: Congestion**

- Multiple segments along the I-81 corridor between Exit 175 and Exit 194 operate at or near capacity during regular commuting conditions in the existing morning and afternoon peak hours. The congestion is characterized by some segments operating near capacity with level of service (LOS) E and a few at capacity with LOS F for the peak periods at different times of the year.
- Due to future industrial and commercial development, future growth in regional and interstate truck traffic on the I-81 corridor would result in additional degradation of the LOS for all I-81 roadway users within the project area. These existing and future congested conditions worsen with the occurrence of traffic incidents and normal roadway construction and maintenance activities along the 20 miles of I-81 Urban Interstate between Exit 175 and Exit 194. During the future no-build opening year (2025) and design year (2045) PM peak period, the LOS would degrade to LOS E at five segments along I-81 in the NB direction and to LOS E and LOS F at four segments along I-81 in the SB direction. Furthermore, the City of Scranton hosts many events and venues that generate additional traffic volume; when events overlap, congestion increases around Exit 182 on I-81 that creates substantial delays.

### **Need 2: Local/Regional Mobility**

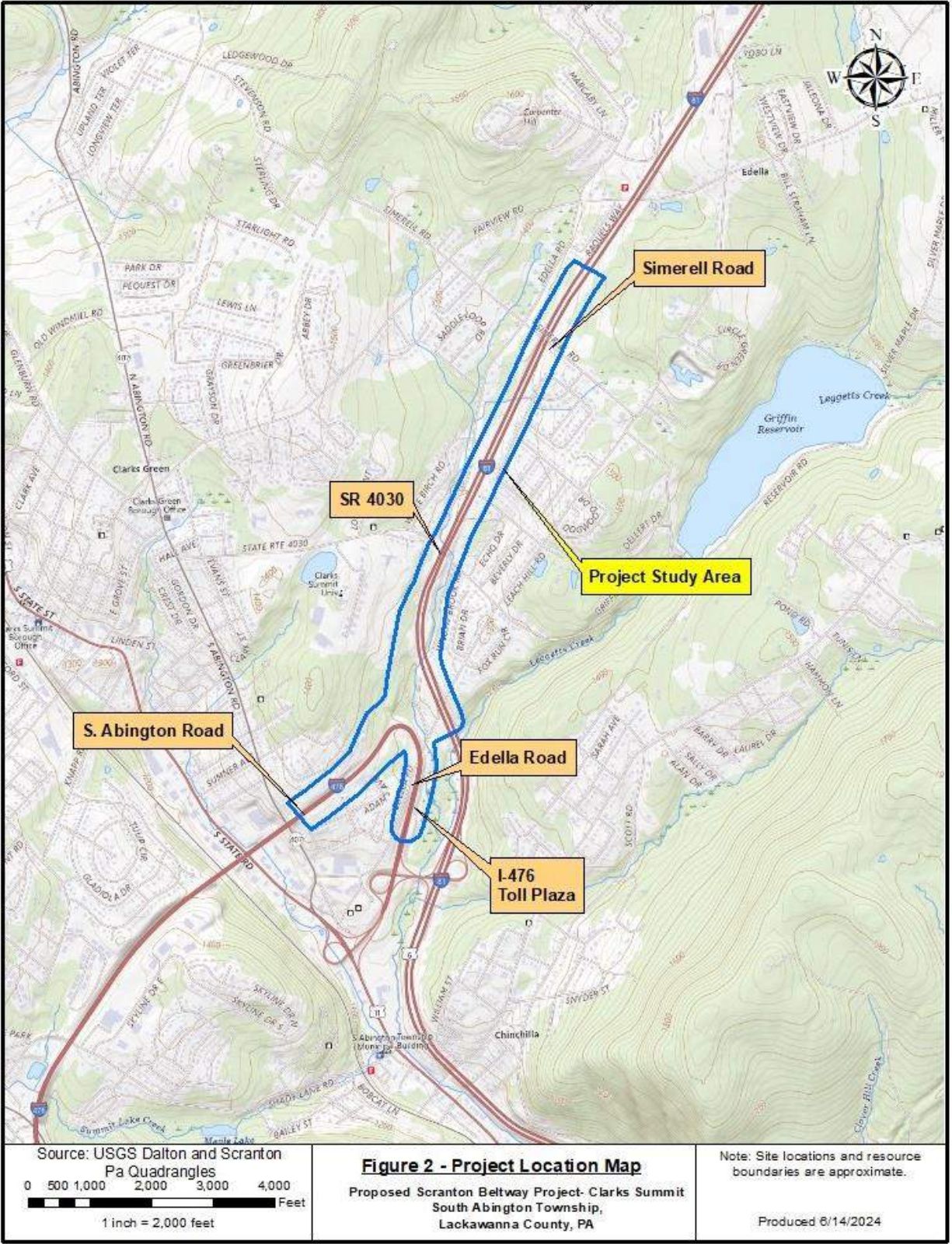
- Currently, full access interchanges exist between I-476 and I-81 at Wyoming Valley and Clarks Summit. However, they are not direct connections.
- At the Wyoming Valley Interchange, motorists must merge/diverge on/off SR 0315 and travel through signalized and unsignalized intersections in a congested area to make the connection between interstates. At the Clarks Summit Interchange, motorists must merge and weave in a short distance to make the connection between interstates.
- The existing non-direct connections between interstates creates a high number of conflict points which contributes to the high number of crashes that occur between the connections at both interchanges, particularly for the I-81 NB to I-476 NB and I-476 SB to I-81 SB movements at the Wyoming Valley Interchange and the I-81 SB to I-476 SB and I-476 NB to I-81 NB movements at the Clarks Summit Interchange.
- Additionally, between September 2, 2012, and September 2, 2015, 23 incidents resulted in closures on I-81 for an average of 3.3 hours per incident. Between January 1, 2013, and January 1, 2017, 310 crashes, which accounts for 22% of all the crashes in the study area, occurred at the Wyoming Valley interchange. Similarly, 74 crashes, which account for 5% of all the crashes in the study area, occurred at the Clarks Summit interchange. The study area for the traffic studies extends for 16 miles on I-476, from Exit 115 to the northern terminus at exit 131. On I-81, the study area extends for 23 miles from Exit 175 to three miles north of exit 194.





**Figure 1 - Project Location Map (Wyoming Valley)**





**Figure 2 - Project Location Map (Clarks Summit)**

## **2.4 Transportation and Travel Patterns**

### **2.4.1 Capacity Analysis**

A highway capacity analysis and crash analysis were conducted as part of the Conceptual POA Study for the recommended alternatives at the Wyoming Valley and Clarks Summit Interchanges. This analysis was performed for the opening year (2025) and design year (2045). The proposed roadway and bridge improvements are shown in **Appendix A: Preliminary Design Plans**.

The capacity analysis evaluates the No-Build and Build conditions for the AM and PM peak hour traffic volumes within the area of influence and were completed in accordance with the Highway Capacity Manual (HCM) 6<sup>th</sup> Edition. HCS, Synchro software, and VISSIM software were utilized to analyze the facilities, ramp junctions, and intersections similar to the existing conditions analysis. The analysis considers regular commuting conditions without the presence of an incident or special event.

#### **I-81 Freeway Facilities for opening year (2025)**

The analysis indicates that volumes would decrease, and the overall density would be reduced between the Wyoming Valley and Clarks Summit Interchanges during the 2025 Build conditions when compared to the 2025 No-Build conditions during the AM and PM peak hours in both the NB and SB directions. It is anticipated that the direct connections to I-476 would attract motorists to divert from I-81 to I-476 and volumes on I-81 would be reduced. Additionally, the proposed connectors are projected to operate at acceptable Level of Service (LOS) D or better for the AM and PM opening year (2025) peak periods.

#### **I-476 Freeway Facilities for opening year (2025)**

All segments along I-476 are expected to operate at LOS B or better in the 2025 Build conditions during the AM and PM peak periods in the NB and SB directions. It is anticipated that volumes would increase along I-476 between the Wyoming Valley and Clarks Summit Interchanges during the Build conditions and would continue to operate at acceptable levels of service. No LOS reductions are projected at any segment between the 2025 No-Build and 2025 Build conditions during the AM and PM peak periods in the NB and SB directions.

#### **I-81 Freeway Facilities for design year (2045)**

The proposed connectors are projected to operate at acceptable LOS D or better for the AM and PM design year (2045) peak periods. The analysis indicates that volumes would decrease, and density would be reduced between the Wyoming Valley and Clarks Summit Interchanges during the 2045 Build conditions when compared to the 2045 No-Build conditions during the AM and PM peak hours in both the NB and SB directions.

The direct connections to I-476 would attract motorists to divert from I-81 to I-476, therefore improving the existing congestion along I-81 by reducing the volume of vehicles. All mainline segments and ramps along I-81 are projected to operate sufficiently (at or above LOS D or maintain existing no-build service levels) for the AM and PM design year (2045) peak periods.

### **I-476 Freeway Facilities for design year (2045)**

I-476 is expected to operate at LOS B or better in the 2045 Build conditions during both the AM and PM peak periods in the NB and SB directions. It is anticipated that volumes would increase along I-476 between the Wyoming Valley and Clarks Summit Interchanges during the Build conditions and would continue to operate at acceptable levels of service. The operational analysis indicates that there are no LOS reductions.

### **2.4.2 Safety Analysis**

A review of existing and proposed safety conditions was completed as part of the Conceptual POA Study. Traditional crash analysis was completed for the existing conditions. Existing and future predictive safety analyses were also completed.

For the traditional crash analysis of the existing conditions, available PennDOT and PTC crash data for I-81 and I-476 from 2013 to 2017 were analyzed. The analysis shows that in the Wyoming Valley interchange area, a high percentage of the crashes that occurred were rear-end crashes caused by motorists traveling too fast for the conditions and other improper driver actions. At this interchange, motorists must merge/diverge to/from SR 0315 and travel through signalized and unsignalized intersections to make the connection between interstates. Similarly, most of the crashes in the Clarks Summit interchange area were rear-end crashes caused by motorists driving too fast for conditions and improper driver actions. At this interchange, motorists must merge and weave in a short distance to make the connection between interstates.

The existing non-direct connections between interstates create a high number of conflict points which contributes to the high number of crashes that occur between the connections at both the Wyoming Valley Interchange and the Clarks Summit Interchange. At the Wyoming Valley Interchange, a total of 6 conflict points occur in each direction within the non-direct connections between interstates. At the Clarks Summit Interchange, a total of 4 conflict points occur in each direction within the non-direct connections between interstates.

The project would result in regional traffic being shifted away from the existing interchanges at Wyoming Valley and Clarks Summit to the direct interstate-to-interstate connectors between I-476 and I-81. The additional traffic on the new direct interstate-to-interstate connectors between

I-476 and I-81 would travel through four less conflict points in each direction compared with the existing indirect connections at the Wyoming Valley Interchange and two less conflict points in each direction compared with the existing Clarks Summit Interchange. The existing indirect connection travel paths and conflict points are highlighted in **Figure 3: Conflict Points at Wyoming Valley Interchange** and **Figure 4: Conflict Points at Clarks Summit Interchange**.

**Supporting documentation for Chapter 2 includes:**

- *Conceptual Point of Access Study, Scranton Beltway, Direct Connections between I-476 (Pennsylvania Turnpike Northeast Extension) and I-81 At Wyoming Valley (Exit 115) and Clarks Summit (Exit 131) Interchanges (March 2022), FHWA (Federal Highway Administration) approved February 2023*



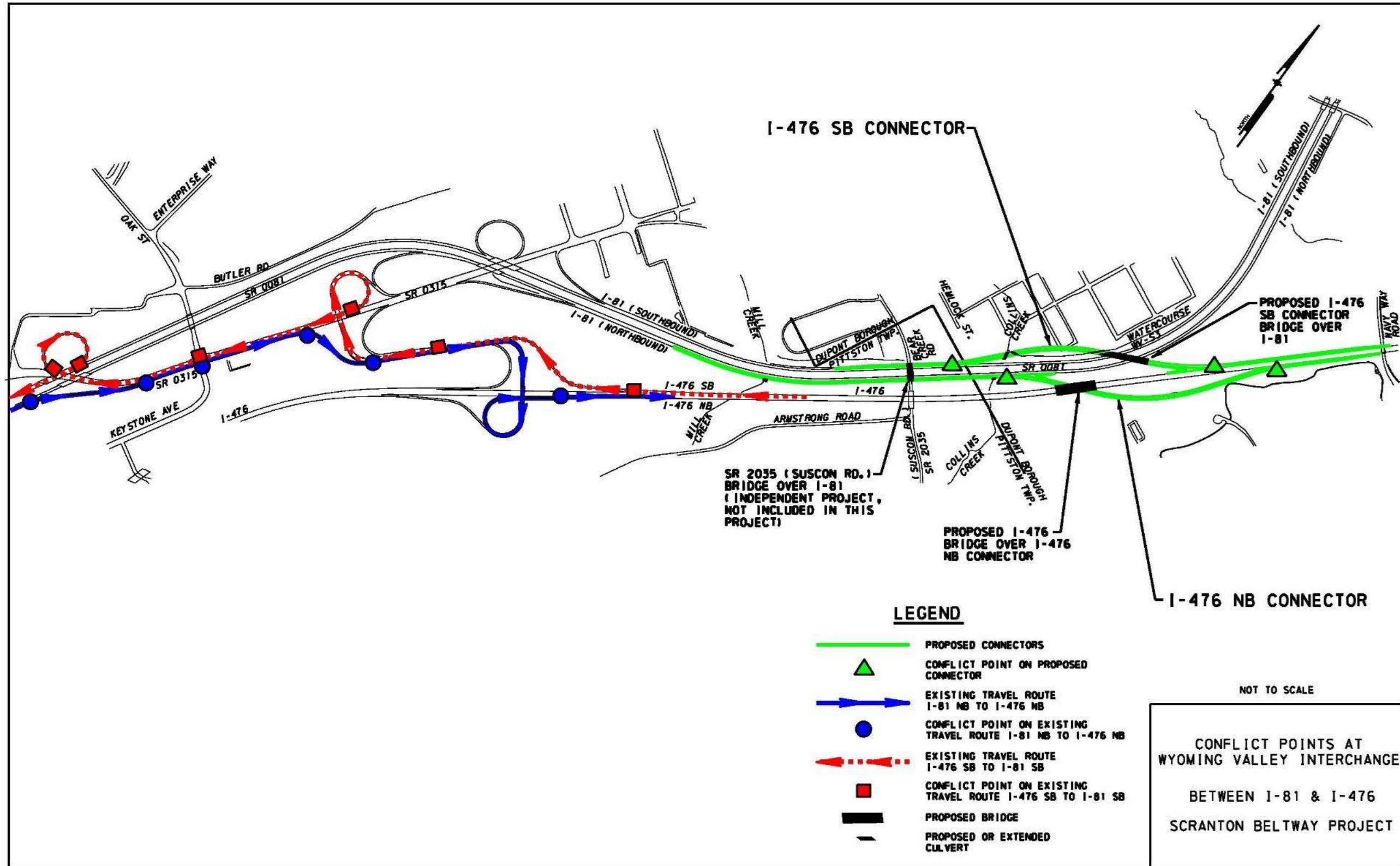


Figure 3 - Conflict Points at Wyoming Valley Interchange

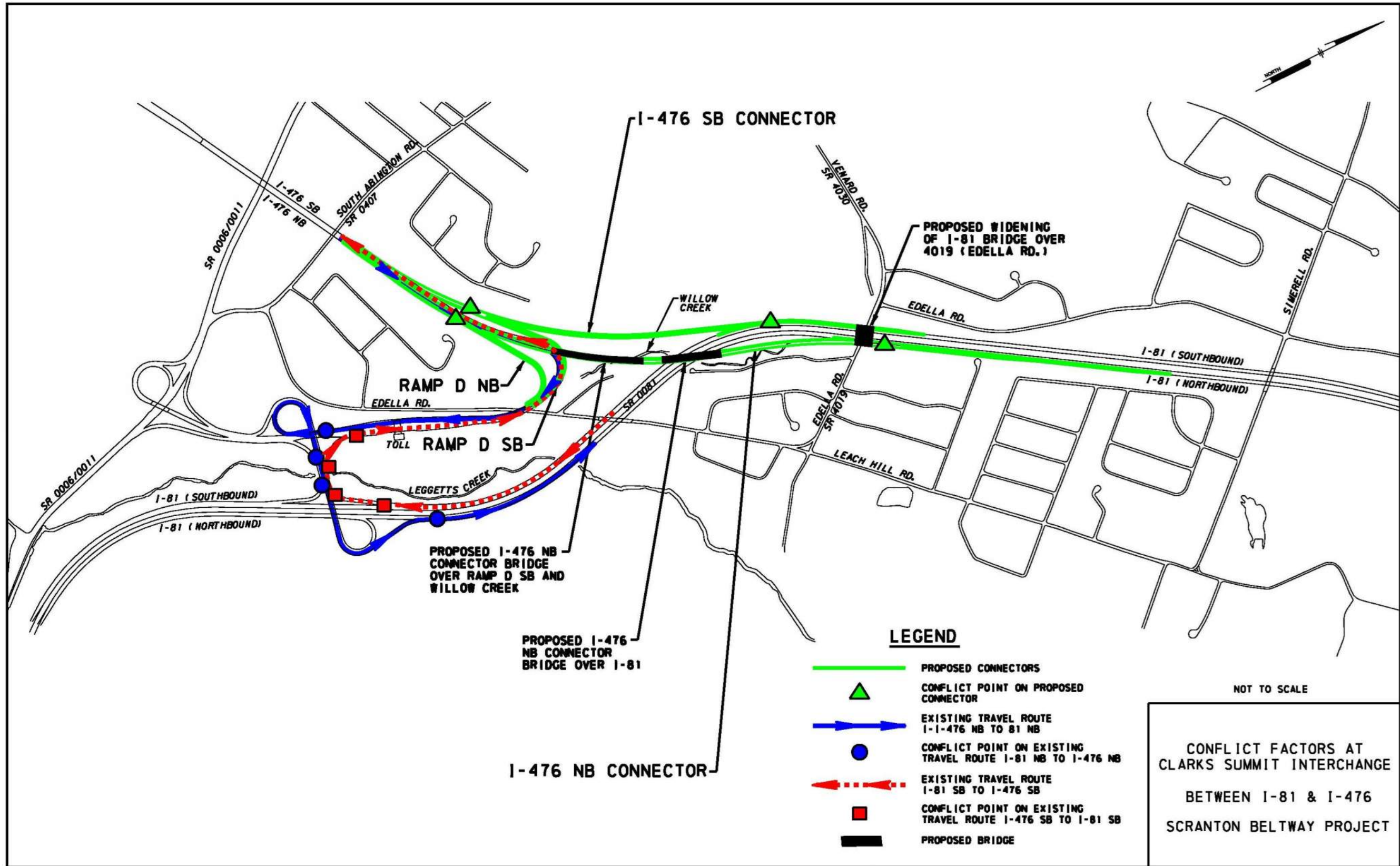


Figure 4 - Conflict Points at Clarks Summit Interchange

### **3.0 ALTERNATIVES**

As a result of the findings documented within the feasibility studies, two alternatives were identified for consideration. These alternatives consisted of the No-Build Alternative and the Preferred Alternative. The Preferred Alternative considered multiple alignment alternatives for the project interchanges. The following sections present the alternatives evaluated for the project.

#### **3.1 No-Build Alternative**

The No-Build Alternative would consist of only routine maintenance associated with the existing roadway and structures along I-476 and I-81. The existing transportation network would continue to function with the current condition affecting efficiency of traffic movements. Continued maintenance activities would not appreciably change the existing congested conditions experienced along I-81, and increased levels of congestion are anticipated in the future. Eventually, the congestion on I-81 would force additional roadway users to local roads as an alternative route, increasing congestion on these roads. Having to utilize these longer alternative routes would result in:

- a) negative quality of life and economic effects on the area communities.
- b) increases in air and noise pollution, and in greenhouse gas emissions as a result of less effective travel conditions.
- c) decreases in future regional growth due to increased travel times.
- d) increases of travel times including school buses and emergency services.
- e) increased pedestrian safety concerns along community side streets as travelers would move to them to avoid the increased congestion on the main thoroughfares.
- f) increased maintenance costs of the alternate travel route roadways due to increased usage.

Additionally, the No-Build Alternative does not address the existing weaving movements at each interchange nor address the high level of crashes and conflict points due to the non-direct interchanges at both Wyoming Valley and Clarks Summit.

The No-Build Alternative does not address the project needs of Congestion or Local/Regional Mobility. The No-Build Alternative was advanced for comparison purposes related to environmental, socioeconomic, and cultural impacts.



### 3.2 Wyoming Valley Interchange Design

At the Wyoming Valley interchange direct north-to-north and south-to-south connections are proposed. Within the project area, and traveling in a NB direction, I-81 enters at a northeasterly direction, curving to parallel I-476, and exits the project area on a northerly curve. Within the project area, and traveling in a NB direction, I-476 within the project area is generally straight, in a northeasterly direction. In order to make the north-to-north and south-to-south connections in an efficient manner and meet 70 mph design speeds as required by FHWA and the American Association of State Highway and Transportation Officials (AASHTO), slight curves were required for all of the proposed alignments. A total of six alignment alternatives, consisting of two NB connections and four SB connections were evaluated. Please see **Figures 5-9** for the conceptual alignments. There is no figure for Alignment ID A (I-81 NB Over Connection to I-476 NB) due to it being geometrically infeasible to design and construct. Therefore, this alternative was dismissed early in preliminary design.

FIGURE 5  
 SCRANTON BELTWAY - WYOMING VALLEY INTERCHANGE  
 ALIGNMENT ID B I-476 NB CONNECTOR (RECOMMENDED)

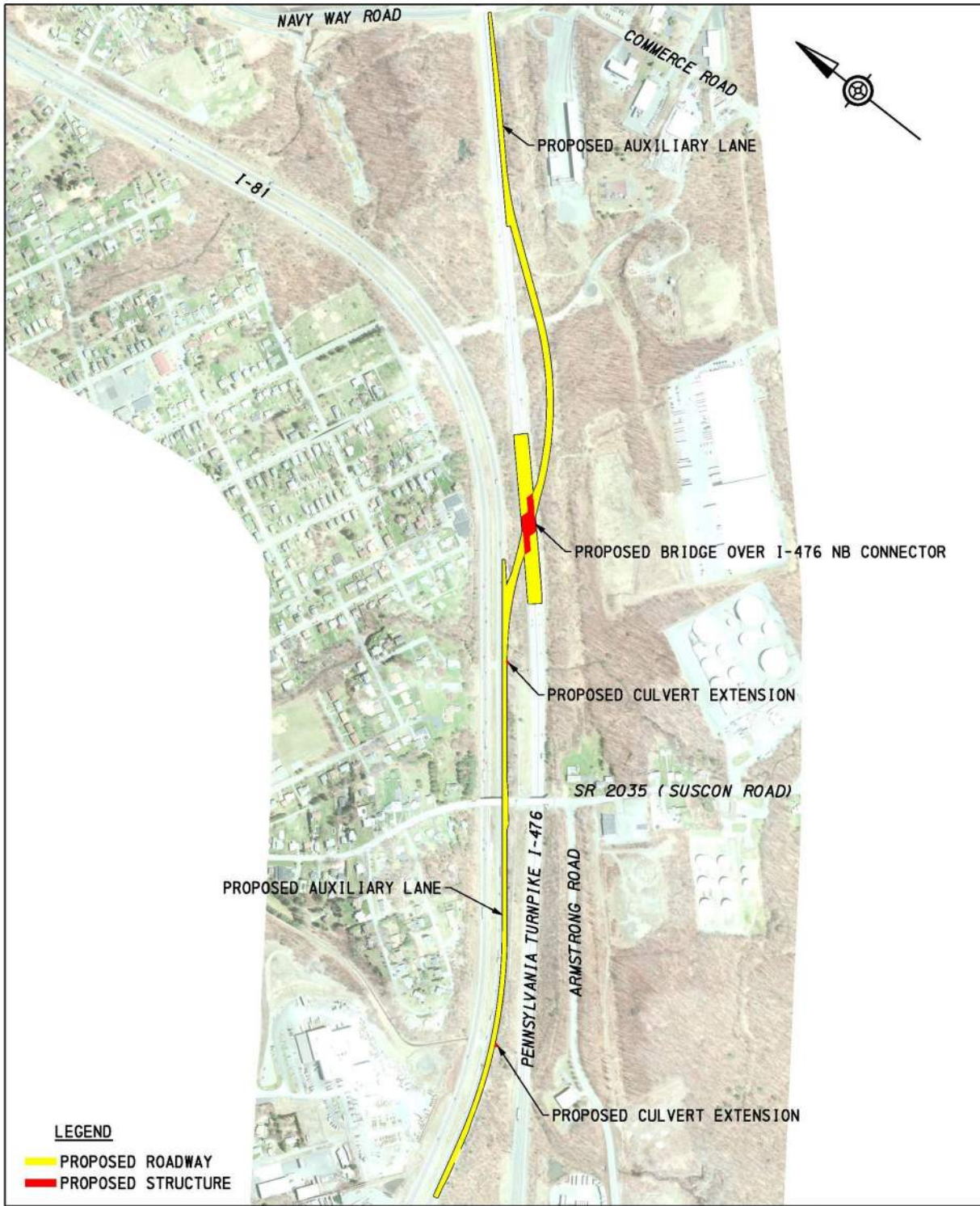


Figure 5 - Wyoming Valley Interchange Alignment ID B (Recommended)

FIGURE 6  
 SCRANTON BELTWAY - WYOMING VALLEY INTERCHANGE  
 ALIGNMENT ID C I-476 SB CONNECTION TO I-81 SB  
 RIGHT MERGE - SHORT DECELERATION LANE

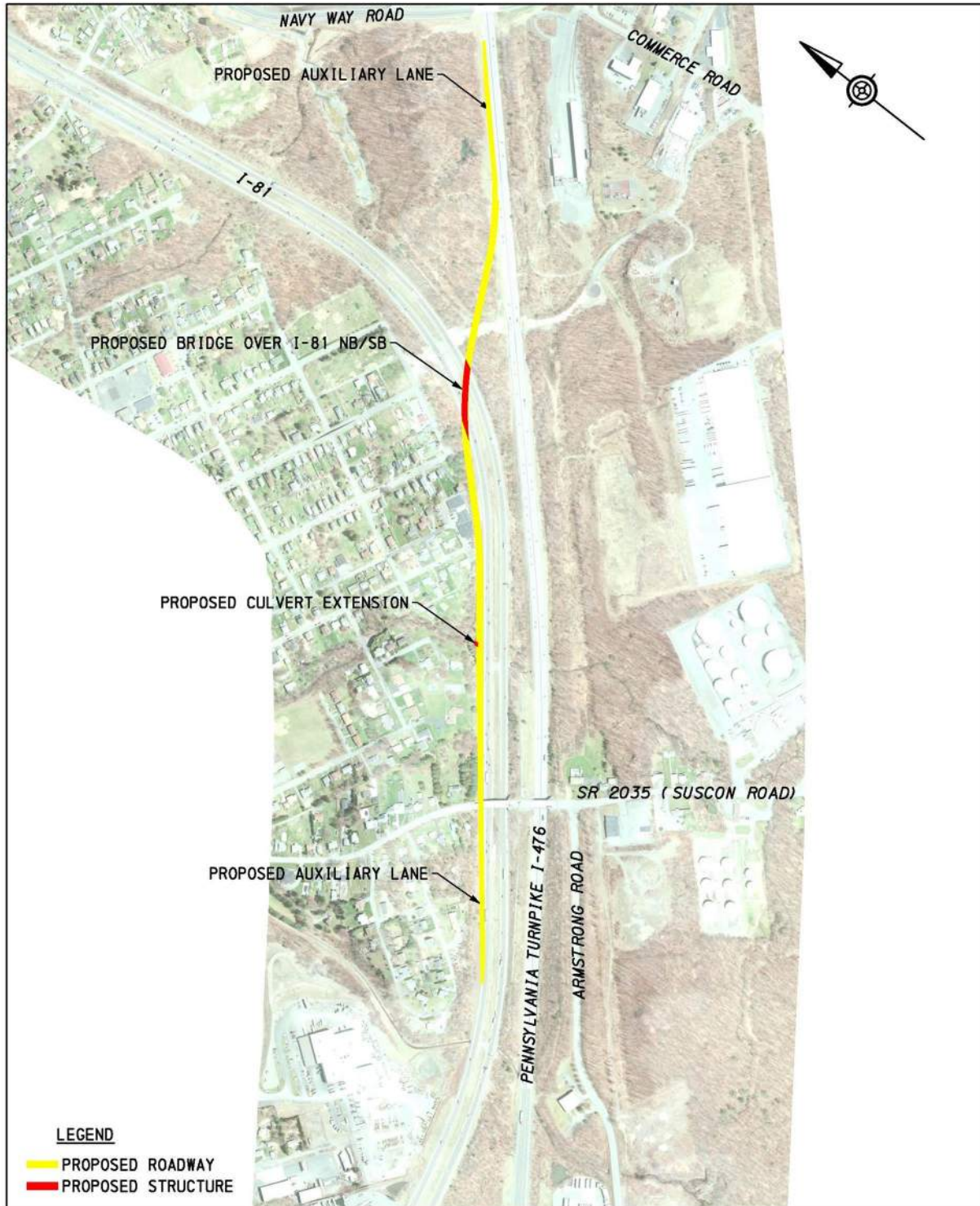
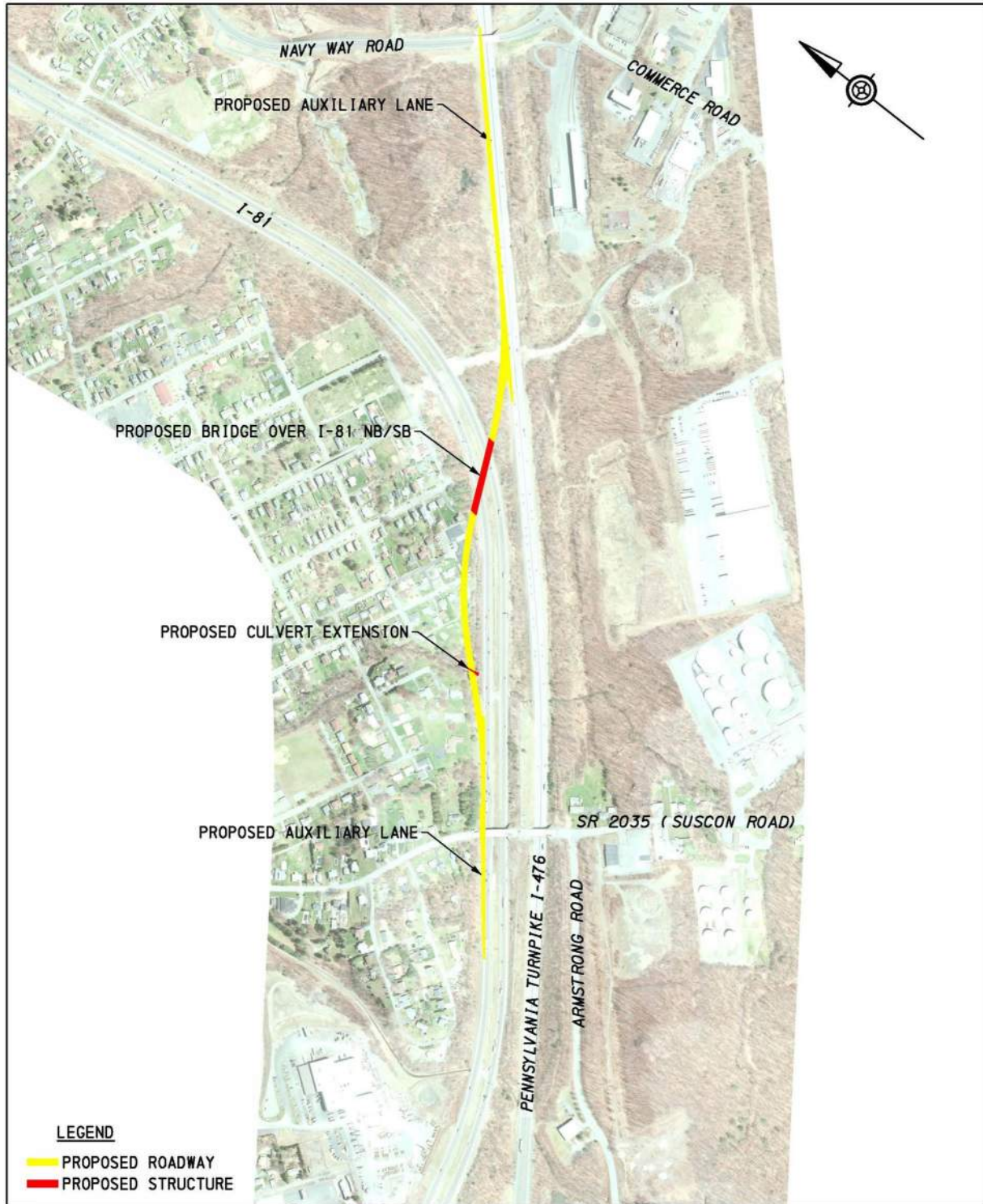


Figure 6 - Wyoming Valley Interchange Alignment ID C



FIGURE 7  
 SCRANTON BELTWAY - WYOMING VALLEY INTERCHANGE  
 ALIGNMENT ID D I-476 SB CONNECTOR (RECOMMENDED)



*Figure 7 - Wyoming Valley Interchange Alignment ID D (Recommended)*

FIGURE 8  
 SCRANTON BELTWAY - WYOMING VALLEY INTERCHANGE  
 ALIGNMENT ID E I-476 SB CONNECTION TO I-81 SB, LEFT MERGE

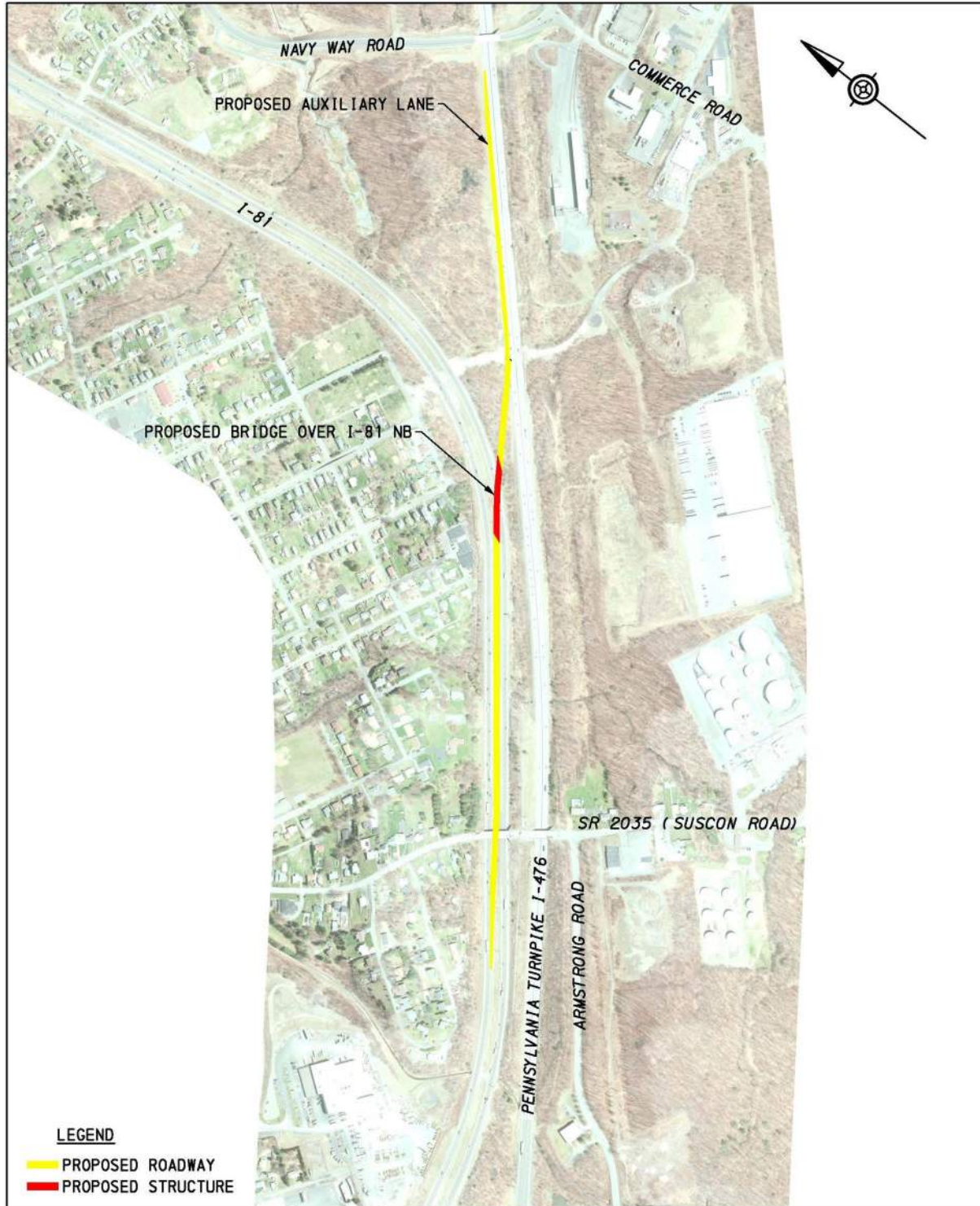


Figure 8 - Wyoming Valley Interchange Alignment ID E



FIGURE 9  
 SCRANTON BELTWAY - WYOMING VALLEY INTERCHANGE  
 ALIGNMENT ID F I-476 SB CONNECTION TO I-81 SB, LEFT LANE ADDITION

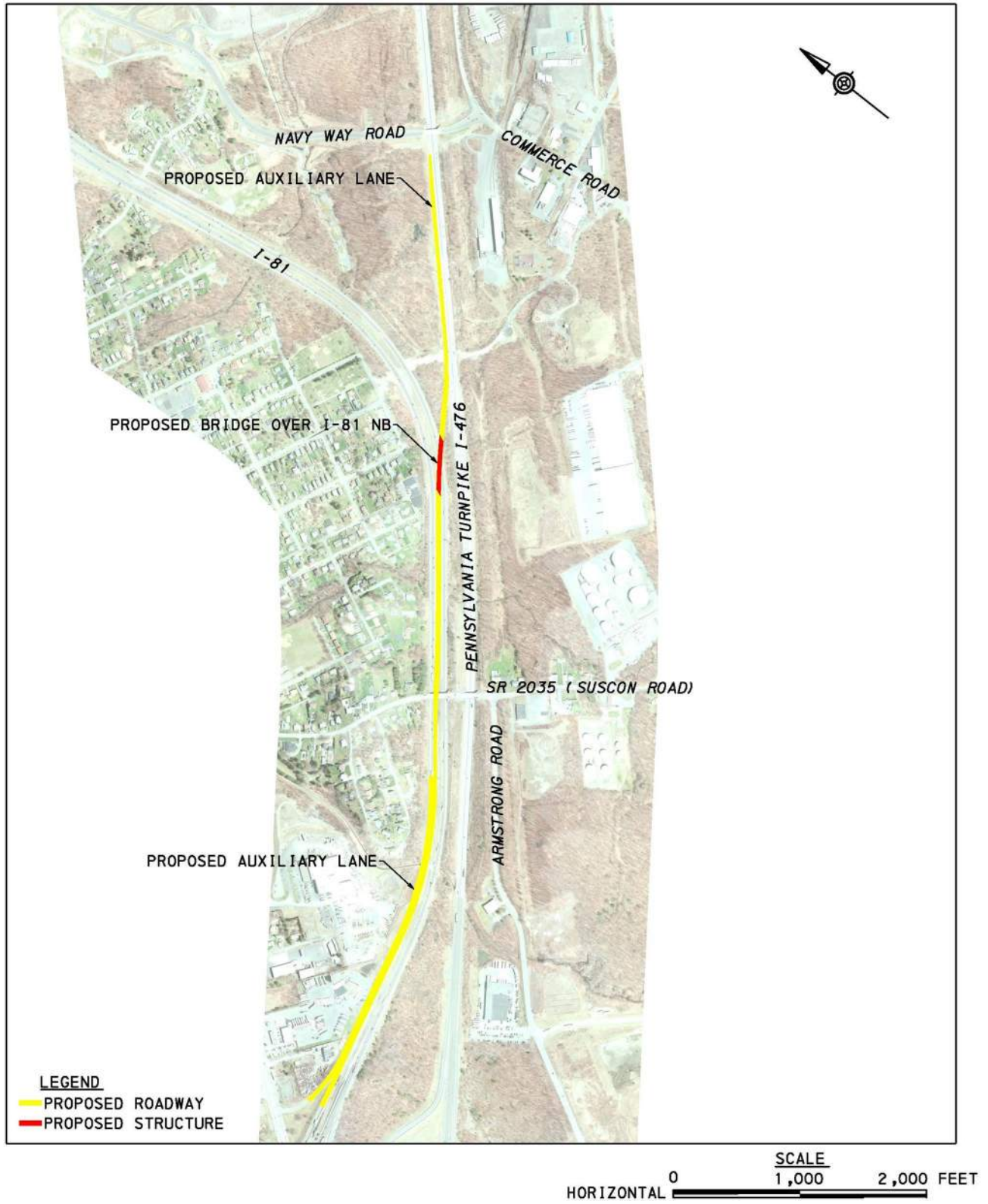


Figure 9 - Wyoming Valley Interchange Alignment ID F

**Table 1 - Wyoming Valley Interchange Evaluation Matrix**

FEATURES	Alternative Alignment					
	I-81 NB Over Connection to I-476 NB	I-476 NB Connector <i>(Recommended)</i>	I-476 SB Connection to I-81 SB, Right Merge – Short Deceleration Lane	I-476 SB Connector <i>(Recommended)</i>	I-476 SB Connection to I-81 SB, Left Merge	I-476 SB Connection to I-81 SB, Left Lane Addition
	Alignment ID A	Alignment ID B	Alignment ID C	Alignment ID D	Alignment ID E	Alignment ID F
<b>Geometric Design Features</b>						
<i>Number of Travel Lanes</i>	1	1	1	1	1	1
<i>Design Speed</i>	70	70	70	70	70	70
<i>Merge Direction</i>	Right	Right	Right	Right	Left	No merge
<i>Auxiliary Lane Length for I-476 (LF)</i>	--	500	1,500	1,445	1,445	1,445
<i>Auxiliary Lane Length for I-81(LF)</i>	1,445	1,445	440	700	550	N/A
<b>Natural Resources</b>						
<i>Number of Wetlands Impacted (Permanent)</i>	*	3	0	0	2	2
<i>Area of Impacted Wetlands (SF)</i>	*	12,015	0	0	7,465	7,465
<i>Number of Watercourses Impacted (Permanent)</i>	*	13	6	6	2	2
<i>Length of Impacted Watercourses (LF)</i>	*	1,577	665	645	150	150
<b>Potential Structures</b>						
<i>Bridges</i>	*	1	1	1	1	1
<i>Culverts</i>	*	0	0	0	0	0
<i>Culvert Extensions</i>	*	2	1	1	0	0
<i>Retaining Wall Length (LF)</i>	*	455	1,300	1,770	3,445	1,920
<i>Retaining Wall Area (SF)</i>	*	8,480	32,500	55,950	86,125	48,000
<i>Sound Barrier Wall Length (LF)</i>	*	0	1,745	1,745	1,745	1,745
<b>Potential Property (ROW) Impacts</b>						
<i>Total Acquisitions</i>	*	0	8	7	7	7
<i>Partial Acquisitions</i>	*	5	2	2	2	2
<i>Temporary Construction Easement (TCE)</i>	*	0	0	0	0	0
<i>Permanent Easement</i>	*	0	0	0	0	0

*\*Alternative was dropped prior to evaluating impacts due to impracticality of geometry*

### **Alignment ID A: I-81 NB Over Connection to I-476 NB (\* No figure)**

The I-81 NB Over Connection to I-476 NB is designed as a single-lane direct connection from I-81 NB to I-476 NB that passes over I-476 NB and SB. A 1,445 ft auxiliary lane on I-81 NB is located prior to the single-lane connection. The design speed for this connector is 70 mph.

The alignment was removed from the study prior to the evaluation of impacts as geometric constraints rendered it unfeasible to provide the required vertical clearance for the I-476 NB Connector to cross over I-476. The existing elevation of I-81 varies from 20 ft to 30 ft below the existing elevation of I-476, with a variable width of roughly 100-150 ft between the two roadways in the Wyoming Valley Interchange Area. Given this significant difference in vertical elevation and the limited horizontal distance between them, there was not enough room to design a connector ramp to depart from I-81 NB and cross over I-476.

This alternative was found to not be reasonable or feasible due to the significant elevation differences between I-476 and I-81. Therefore, this alternative was dismissed from further consideration.

\* This alignment alternative was dismissed early in preliminary design and therefore no figure was generated.

### **Alignment ID B: I-476 NB Connector (Figure 5)**

The I-476 NB Connector from I-81 NB to I-476 NB is a single-lane NB connector roadway designed with a 1,445 ft auxiliary lane adjacent to the I-81 NB travel lanes passing under I-476 NB and SB. Beyond the underpass, the NB connector merges onto I-476 NB via a right merge and a 500 ft auxiliary lane. The design speed for this connection is 70 mph.

A single span, four-lane Turnpike mainline bridge is proposed over the I-476 NB Connector. Culvert extensions are proposed for the existing Collins Creek and Mill Creek box culverts. Embankment slopes and cut slopes at 2H:1V (horizontal/vertical) were used, where feasible.

Independent of the Scranton Beltway project, the SR 2035 (Suscon Road) bridge over I-81 is being replaced by PennDOT. The proposed SR 2035 (Suscon Road) bridge was designed with abutment locations that are compatible with the I-476 NB Connector alignment. The geometric design features of this alignment were optimized to comply with the AASHTO Green Book design criteria for a 70 mph design speed roadway.

Approximately 12,015 square feet (sq ft) (0.28 acres) of wetland impacts, and 1,577 linear ft (LF) of watercourse impacts are proposed. Two culvert extensions along Collins Creek and Mill Creek,

along with approximately 455 ft of retaining walls are proposed. A total of five partial property acquisitions are proposed with this alignment.

This alternative was found to meet the project's purpose and need. It was therefore advanced in preliminary design and its environmental, socioeconomic, and cultural impacts are described in detail in Chapter 4 of this EA (Environmental Assessment).

**Alignment ID C: I-476 SB Connection to I-81 SB, Right Merge – Short Deceleration Lane (Figure 6)**

The I-476 SB Connection to I-81 SB, Right Merge – Short Deceleration Lane is designed as a single-lane direct connection from I-476 SB to I-81 SB that passes over I-81 NB and SB, Watercourse WV-S3 (twice), Collins Creek, and then merges on the right side of I-81 SB. The horizontal alignment closely follows I-81 SB and provides a 440 ft auxiliary lane on I-476 SB. The design speed for this connector is 70 mph.

This alignment was not chosen due to the length of the 440 ft auxiliary lane prior to the off-ramp from I-476 SB. For the design of an exit at an interchange, AASHTO recommends utilizing Decision Sight Distance criteria to determine the length of the auxiliary lane approaching the exit. These lengths provide drivers with the time needed to make a maneuver such as deciding to take an upcoming exit and change lanes from the mainline to the exit lane. This auxiliary lane length of 440 ft is not recommended for a 70 mph design speed roadway and not preferable as compared to the 1,445 ft auxiliary lane provided in the recommended alternative. Additionally, this geometry would have resulted in a curved girder bridge over I-81 NB and SB, which would have added cost and complexity to the design and construction of the bridge as compared to the structure layout that is included in the preferred alternative.

For this alternative, wetland impacts were completely avoided. Approximately 665 LF of watercourse impacts are proposed. Approximately 1,300 ft of retaining walls are proposed in order to construct the portion of the proposed connector that is adjacent to I-81 and minimize property impacts. A total of eight total property acquisitions along with two partial property acquisitions are proposed with this alignment.

This alternative was found to not be practical due to the shorter auxiliary lane and the construction of a curved girder bridge over I-81. Therefore, this alternative was dismissed from further consideration.

### **Alignment ID D: I-476 SB Connector (Figure 7)**

The I-476 SB Connector from I-476 SB to I-81 SB is a single-lane SB connector roadway passing over I-81 NB and SB, Watercourse WV-S3 (twice), and Collins Creek and is designed with a 1,445 ft auxiliary lane adjacent to the I-476 SB travel lanes. The SB connector merges onto I-81 SB via a right merge and a 700 ft auxiliary lane. The design speed for this connection is 70 mph.

A two-span, one lane bridge is proposed over I-81 NB and SB. New cross-pipes are proposed for the two crossings of Watercourse WV-S3. A culvert extension is proposed for the existing Collins Creek box culvert. Two retaining walls, right and left, are proposed between the bridge over I-81 NB and SB and the Collins Creek culvert extension. The purpose of the retaining walls is to be able to construct the portion of the proposed connector that is adjacent to I-81 and to minimize property impacts. Embankment slopes and cut slopes at 2H:1V (horizontal/vertical) were used, where feasible.

As is the case with the I-476 NB Connector, the SR 2035 (Suscon Road) bridge replacement was designed to be compatible with the I-476 SB Connector alignment. The geometric design features of this alignment were optimized to comply with the AASHTO Green Book design criteria for a 70 mph design speed roadway.

For this alternative, wetland impacts were completely avoided. Approximately 645 LF of watercourse impacts are proposed. Two new culverts and one culvert extension, along with approximately 1,770 ft of retaining walls are proposed in order to construct the portion of the proposed connector that is adjacent to I-81 and minimize property impacts. A total of seven total property acquisitions, along with two partial property acquisitions are proposed with this alignment.

This alternative was found to meet the project's purpose and need. It was therefore advanced in preliminary design and its environmental, socioeconomic, and cultural impacts are described in detail in Chapter 4 of this EA.

### **Alignment ID E: I-476 SB Connection to I-81 SB, Left Merge (Figure 8)**

The I-476 SB Connection to I-81 SB, Left Merge is designed as a single-lane direct connection from I-476 SB to I-81 SB that crosses over I-81 NB and then merges on the left side of I-81 SB using the existing I-81 median. A 1,445 ft auxiliary lane on I-476 SB is located prior to the single-lane connection. The design speed for this connector is 70 mph.

According to AASHTO, "left-side ramp terminals break up the uniformity of interchange patterns and generally, create uncertain operations on through roadways." Additionally, they are "contrary to driver expectancy when intermixed with right-side entrances and exits and should be avoided, where practical." AASHTO recommends against using left-side entrances and exits on high-speed, free-flow ramp terminals. Due to these safety and operational concerns, left lane merge movements are not recommended by PennDOT and FHWA. This was the main reason this alignment was not the recommended alternative. There were also additional geometric constraints which made this alternative less desirable. Due to the skew of the proposed crossing over I-81 NB, this alignment would have required a single span, curved girder bridge with a span length of over 350 feet. A single span curved girder bridge creates constructability issues. Depending on the curve radius, the out of vertical plane unbalanced loads have the potential to create an unstable structure that would require counterweighting the bridge for compensation. This issue only progresses to a greater magnitude with longer spans. This alignment also included a taper type on-ramp movement for the on-ramp to I-81 SB, which is not preferable as compared to the parallel type on-ramp that is included in the recommended alternative. Parallel type on-ramp entrances provide drivers with a merge operation similar to a lane change to the left. Additionally, parallel type on-ramp entrances provide more time for merging vehicles to find an opening in the through traffic stream as compared to taper type on-ramp entrances. This alternative would also preclude PennDOT from being able to widen I-81 to the median in the future.

Approximately 7,465 sq ft (0.17 ac) of wetland impacts and approximately 150 LF of watercourse impacts are proposed. No retaining walls are proposed. A total of seven total property acquisitions, along with two partial property acquisitions are proposed as part of this alignment.

This alternative was found to not be reasonable or practical due to left merge movements and construction of a curved girder bridge over I-81. Therefore, this alternative was dismissed from further consideration.

#### **Alignment ID F: I-476 SB Connection to I-81 SB, Left Lane Addition (Figure 9)**

The I-476 SB Connection to I-81 SB, Left Lane Addition is designed as a single-lane direct connection from I-476 SB to I-81 SB that crosses over I-81 NB and then merges on the left side of I-81 SB using the existing I-81 median. This alternative attempted to alleviate the issue of the taper type on-ramp movement in Alignment ID E above by creating an auxiliary left lane that would ultimately become the left lane of I-81 SB. In order to achieve this, the existing I-81 SB right through travel lane would become an 'exit only' lane for the SR 315 exit just south of Suscon Road.

While this alignment did alleviate the on-ramp merge issue present in Alignment ID E, ultimately the main consideration in not choosing this alignment as the recommended alternative was the same as alignment ID E above. Left lane merge movements are not recommended by both PennDOT and FHWA due to safety and operational concerns. This alignment would have also required a single span, curved girder bridge with a span length of over 400 feet. This alternative would also preclude PennDOT from being able to widen I-81 to the median in the future.

Approximately 7,465 sq ft (0.17 ac) of wetland impacts and approximately 150 LF of watercourse impacts are proposed. No retaining walls are proposed. A total of seven total property acquisitions, along with two partial property acquisitions are proposed as part of this alignment.

This alternative was found to not be reasonable or practical due to left merge movements and construction of a curved girder bridge over I-81. Therefore, this alternative was dismissed from further consideration.

### **3.3 Clarks Summit Interchange Design**

At the Clarks Summit interchange direct, north-to-north and south-to-south connections are proposed. Within the project area, and traveling in a NB direction, I-81 enters at a northerly direction, with a slight s-curve to cross Edella Road, and exits the project area in a northerly direction. I-476 enters the project area in a northeasterly direction and turns to the southeast to tie into the existing toll plaza. In order to make the I-476 NB to I-81 NB and I-81 SB to I-476 SB connections in an efficient manner and meet 70 mph design speeds as required by FHWA, slight curves were required for all of the proposed alignments. Unlike the Wyoming Valley Interchange, which included several alternatives, for the Clarks Summit Interchange the locations of the existing I-476 and I-81 limited the number of potential alternatives. As shown in **Table 2**, the only alignment with multiple alternatives was the NB to NB connection of I-476 NB to I-81 NB. The two alternatives that were analyzed were a right merge alternative (Alignment ID B) and a left merge alternative (Alignment ID C). Please see **Figures 10 and 11**.



FIGURE 10  
 SCRANTON BELTWAY - CLARKS SUMMIT INTERCHANGE  
 I-476 SB CONNECTOR, I-476 NB CONNECTOR, RAMP D NB, RAMP D SB  
 RECOMMENDED ALTERNATIVES

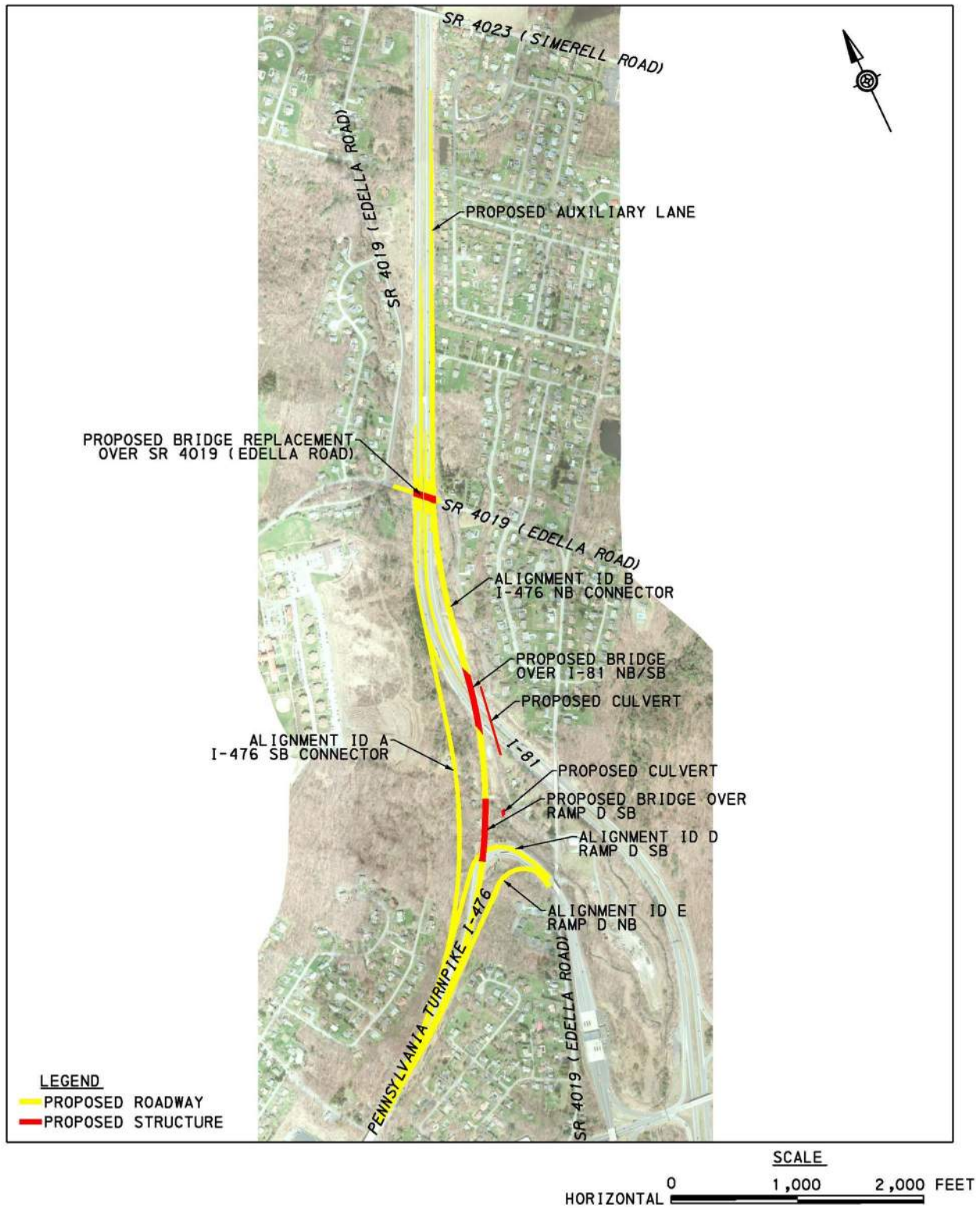


Figure 10 - Clarks Summit Interchange Recommended Alternatives



FIGURE 11  
 SCRANTON BELTWAY - CLARKS SUMMIT INTERCHANGE ALIGNMENT  
 ID C I-476 NB CONNECTION TO I-81 NB, LEFT MERGE

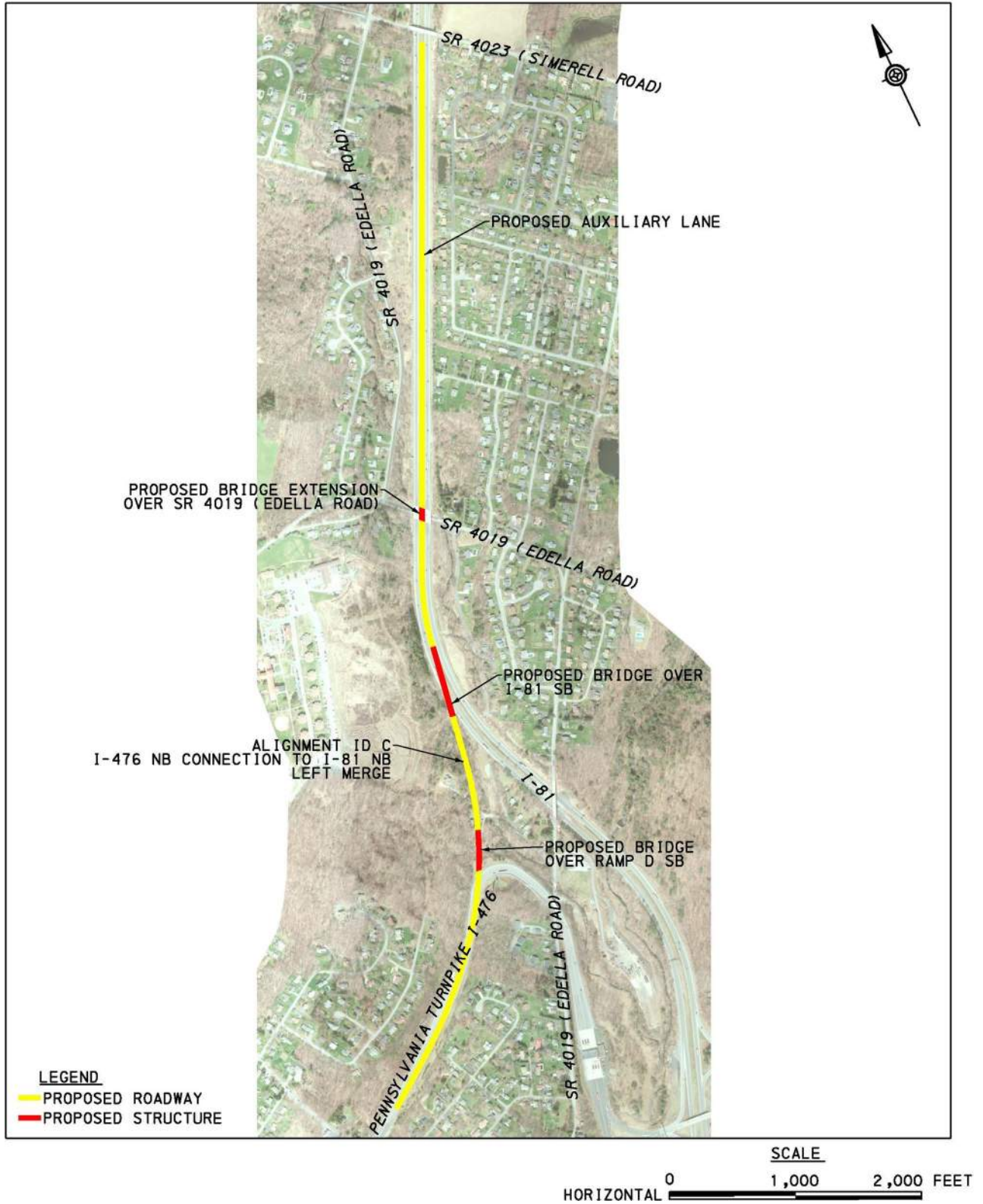


Figure 11 - Clarks Summit Interchange Alignment ID C

**Table 2 - Clarks Summit Interchange Evaluation Matrix**

FEATURES	Alternative Alignment				
	I-476 SB Connector <i>(Recommended)</i>	I-476 NB Connector <i>(Recommended)</i>	I-476 NB Connection to I-81 NB, Left Merge	Ramp D SB <i>(Recommended)</i>	Ramp D NB <i>(Recommended)</i>
	Alignment ID A	Alignment ID B	Alignment ID C	Alignment ID D	Alignment ID E
<b>Geometric Design Features</b>					
<i>Number of Travel Lanes</i>	1	2	2	1	1
<i>Design Speed</i>	70	70	70	30	30
<i>Merge Direction</i>	No Merge	Right	Left	No Merge	No Merge
<i>Auxiliary Lane Length for I-476 (LF)</i>	N/A	N/A	N/A	N/A	1,445
<i>Auxiliary Lane Length for I-81 (LF)</i>	1,445	2,500	2,500	N/A	N/A
<b>Natural Resources</b>					
<i>Number of Wetlands Impacted (Permanent)</i>	1	2	2	0	1
<i>Area of Impacted Wetlands (SF)</i>	270	1,070	1,730	0	815
<i>Number of Watercourses Impacted (Permanent)</i>	0	11	5	0	1
<i>Length of Impacted Watercourses (LF)</i>	0	2,825	1,390	0	45
<b>Potential Structures</b>					
<i>Bridges</i>	1	3	3	0	0
<i>Culvert Replacements</i>	0	0	0	0	0
<i>Culvert Extensions</i>	0	0	0	0	0
<i>Retaining Wall Length (LF)</i>	215	3,550	3,625	0	0
<i>Retaining Wall Area (SF)</i>	860	73,350	148,625	0	0
<i>Sound Barrier Wall Length (LF)</i>	2,300	3,720	0	0	0
<b>Potential Property (ROW) Impacts</b>					
<i>Total Acquisitions</i>	2	9	2	0	0
<i>Partial Acquisitions</i>	5	3	0	0	2
<i>Temporary Construction Easement (TCE)</i>	0	12	0	0	0
<i>Permanent Easement</i>	7	6	1	0	3

### **Alignment ID A: I-476 SB Connector (Figure 10)**

The I-476 SB Connector from I-81 SB to I-476 SB is a single-lane SB connector roadway passing over SR 4019 (Edella Road) and is designed with a 1,445 ft auxiliary lane adjacent to the I-81 SB travel lanes. The direct connection becomes the right lane of existing I-476 SB mainline. The design speed for this connection is 70 mph.

One (1) retaining wall is proposed west of the I-476 SB Connector and north of SR 4019 (Edella Road) in order to avoid impacting Willow Creek. Embankment slopes and cut slopes at 2H:1V were used where feasible.

The existing I-81 three-span bridge over SR 4019 (Edella Road) would require widening and replacement. The existing vertical clearance is 14 ft-3 in (west side, westbound direction), which is a substandard condition as the required vertical clearance is 14 ft-6 in. As part of this project, the profile of SR 4019 (Edella Road) would be lowered in order to meet the required 14 ft-6 in vertical clearance under the I-81 bridge. The geometric design features of this alignment were optimized to comply with the AASHTO Green Book design criteria for a 70 mph design speed roadway.

Approximately 270 sq ft (0.006 ac) of wetland impacts are proposed. Watercourse impacts were avoided. Approximately 215 ft of retaining walls are proposed in order to avoid waterway impacts and avoid an existing culvert. A total of two total property acquisitions, along with five partial property acquisitions, and seven permanent easements are proposed with this alignment.

This alternative was found to meet the project purpose and need. It was therefore advanced in preliminary design and its environmental, socioeconomic, and cultural impacts are described in detail in Chapter 4 of this EA.

### **Alignment ID B: I-476 NB Connector (Figure 10)**

The I-476 NB Connector from I-476 NB to I-81 NB is designed as a two-lane NB connector roadway passing over proposed Ramp D SB, Willow Creek, I-81 NB and SB, and SR 4019 (Edella Road). The two lanes from I-476 NB mainline become the proposed connection to I-81 NB via a right merge and a 2,500 ft auxiliary lane. The design speed for this connection is 70 mph.

A three-span, two lane bridge is proposed over the proposed Ramp D SB. The proposed bridge over I-81 NB and SB is a two-span, two-lane structure. The existing culvert under I-81 would be replaced with a new culvert on a new alignment and a portion of Willow Creek would be re-aligned as part of this alternative. Embankment slopes and cut slopes at 2H:1V were used, where feasible.

The existing I-81 three-span bridge over SR 4019 (Edella Road) would require widening and replacement. The existing vertical clearance is 14 ft-3 in (west side, westbound direction), which is a substandard condition as the required vertical clearance is 14 ft-6 in. As part of this project, the profile of SR 4019 (Edella Road) would be lowered in order to meet the required 14 ft-6 in vertical clearance under the I-81 bridge. The geometric design features of this alignment were optimized to comply with the AASHTO Green Book design criteria for a 70 mph design speed roadway.

Approximately 1,070 sq ft (0.02 ac) of wetland impacts and approximately 2,825 LF of watercourse impacts are proposed. Approximately 3,550 ft of retaining walls are proposed. A total of nine total property acquisitions, along with three partial property acquisitions, 12 temporary construction easements, and six permanent easements are required as part of this alignment.

This alternative was found to meet the project purpose and need. It was therefore advanced in preliminary design and its environmental, socioeconomic, and cultural impacts are described in detail in Chapter 4 of this EA.

#### **Alignment ID C: I-476 NB Connection to I-81 NB, Left Merge (Figure 11)**

The I-476 NB Connection to I-81 NB, Left Merge is designed as a two-lane direct connection from I-476 NB to I-81 NB that crosses over proposed Ramp D SB, I-81 SB, and SR 4019 (Edella Road). The two lanes from I-476 NB mainline become the connection to I-81 NB via a left merge (using the existing I-81 median) onto I-81 NB. The design speed for this connection is 70mph.

According to AASHTO, left-side ramp terminals break up the uniformity of interchange patterns and generally create uncertain operations on through roadways. Additionally, they are contrary to driver expectancy when intermixed with right-side entrances and exits and should be avoided, where practical. AASHTO recommends against using left-side entrances and exits on high-speed, free-flow ramp terminals. PennDOT and FHWA do not recommend left lane merge movements due to safety and operational concerns. Therefore, this alignment was not chosen as the recommended alternative. Additionally, the existing 60 ft wide I-81 median was insufficient to accommodate the typical section of the proposed connector and meet the lateral clearance required by PennDOT between I-81 and the proposed retaining walls along the connector. This lateral clearance is required to provide additional buffer between vehicles and structures adjacent to the roadway. This alternative would also preclude PennDOT from being able to widen I-81 to the median in the future.

Approximately 1,730 sq ft (0.04 ac) of wetland impacts and approximately 1,390 LF of watercourse impacts are proposed. Approximately 3,625 LF of retaining walls are proposed. A total of two total property acquisitions, along with one permanent easement are required as part of this alignment.

This alternative was found to not be reasonable or practical due to left merge movements and the lack of sufficient width to accommodate the typical section of the proposed connector while meeting lateral clearance requirements of I-81 adjacent to the connector retaining walls. Therefore, this alternative was dismissed from further consideration.

**Alignment ID D: Ramp D SB (Figure 10)**

Ramp D SB is designed as a single lane on-ramp from the existing Clarks Summit toll plaza to I-476 SB which becomes the left lane of I-476 SB mainline. This ramp replaces the existing I-476 SB ramp. The design speed for this ramp is 30 mph.

There are no proposed bridges or retaining walls associated with this ramp. Embankment slopes and cut slopes at 2H:1V were used, where feasible. The geometric design features of this alignment were optimized to comply with the AASHTO Green Book design criteria for a 30 mph design speed ramp.

For this alternative, wetland and watercourse impacts were completely avoided. No retaining walls, total property acquisitions or partial property acquisitions are proposed with this alignment, as it is located within existing Turnpike ROW.

This alternative was found to meet the project purpose and need. It was therefore advanced in preliminary design.

**Alignment ID E: Ramp D NB (Figure 10)**

Ramp D NB is designed as a single lane off-ramp from I-476 NB to the existing Clarks Summit toll plaza. This ramp replaces the existing I-476 NB ramp. A 1445 ft deceleration lane is proposed adjacent to the I-476 NB travel lanes. The design speed for this ramp is 30mph.

There are no proposed bridges or retaining walls associated with this ramp. Embankment slopes and cut slopes at 2H:1V were used, where feasible. The geometric design features of this alignment were optimized to comply with the AASHTO Green Book design criteria for a 30 mph design speed ramp.

Approximately 815 sq ft (0.019 ac) of wetland impacts and approximately 45 LF of watercourse impacts are proposed. No retaining walls are proposed. No total property acquisitions are proposed as part of this alignment, although two partial property acquisitions and three permanent easements are proposed.

This alternative was found to meet the project's purpose and need. It was therefore advanced in preliminary design.

### 3.4 Preferred Alternative

This project proposes to modify the points of access on I-476 and I-81 at the existing Wyoming Valley Interchanges (Exit 115 on I-476 and Exit 175 on I-81) in Dupont Borough and Pittston Township, Luzerne County, and at the Clarks Summit Interchanges (Exit 131 on I-476 and Exit 194 on I-81) in South Abington Township, Lackawanna County. New direct cashless tolling connections between I-81 and I-476 are proposed, in the northbound-to-northbound and southbound-to-southbound directions, to supplement and provide alternatives to the existing full access interchanges with indirect connections between I-81 and I-476. In general, the Preferred Alternative of providing highway speed direct connections was found to be feasible as documented in the 2014 Scranton Beltway Feasibility Study Memo and the 2015 Scranton Beltway Feasibility Study Phase 2.

Multiple alignment alternatives were analyzed during the Preliminary Engineering phase of the project to optimize the potential alignments while meeting engineering constraints and reducing environmental and socioeconomic impacts. The previous sections provided an overview of the recommended design alternatives investigated during preliminary design, as well as documentation of alternatives that were not chosen with justifications for why they were not the recommended alternative. The Preferred Alternative for the Wyoming Valley Interchange is ID B (**Figure 5**) and ID D (**Figure 7**). The Preferred Alternative for the Clarks Summit Interchange is ID A, ID B, ID D, and ID E (**Figure 10**).

### 3.5 Impact Summary Table

Environmental constraints within the Wyoming Valley and Clarks Summit project areas are shown on Environmental Constraints maps, included in **Appendix B. Table 3** below contains a summary of the environmental resource, impacts, and mitigation for the Preferred Alternative. A detailed discussion of impacts is provided in Chapter 4.

The following resources were evaluated for and are not present within the project areas and therefore not included within **Table 3**: wild and scenic rivers and streams; navigable waterways; parks and recreational facilities; forests and gamelands; wilderness, natural and wild areas; national natural landmarks; wildlife refuges and critical habitat; and Section 4(f) Resources.

**Table 3 - Impact Summary Table**

<b>Environmental Resource Category</b>	<b>No-Build Alternative<sup>1</sup></b>	<b>Preferred Alternative</b>	<b>Mitigation for Preferred Alternative</b>
<b>Aquatic Resources</b>			
<b>Streams, Rivers, &amp; Watercourses</b>	No Impact	Streams: CWF-MF, naturally reproducing trout 5,647 LF permanent impact 621 LF temporary impact	In-stream construction restrictions for naturally reproducing trout would be observed (in-stream construction restriction from October 1 through December 31) Compensatory mitigation would consist of two stream relocations consisting of 1,398 ft within the Clarks Summit area. Additional mitigation, as required, is anticipated to be compensated via credit purchase from an approved mitigation bank.
<b>Other Surface Waters</b>	No Impact	No Impact	None
<b>Groundwater</b>	No Impact	PAWC has concern with Well #8 having a potential impact in Clarks Summit	Geotechnical boring contractor to coordinate sampling and workplan with PAWC to minimize the risk that Well #8 will be compromised or contaminated. As design progresses, measures to protect the private wells will be developed.
<b>Wetlands</b>	No Impact	Wetlands:  Permanent: total 0.33 ac (PEM: 0.214 ac, PFO: 0.023 ac, PEM/PSS: 0.07 ac, PEM/PFO: 0.02 ac)  Temporary: total 0.11 ac (PEM: 0.0114 ac, PFO: 0.081 ac, PEM/PSS: 0.006 ac, PEM/PFO: 0.016 ac)	Wetland Mitigation is anticipated to consist of credit purchase from an approved mitigation bank.

<sup>1</sup> While the No-Build Alternative would not directly affect resources, the No-Build Alternative would consist of only routine maintenance associated with the existing roadway and structures along I-476 and I-81. The existing transportation network would continue to function with the current condition affecting efficient traffic movements. Continued maintenance activities would not appreciably change the existing congested conditions experienced within the corridors, and increased levels of congestion are anticipated in the future. Eventually, the congestion on I-81 in particular would force roadway users to local roads as an alternative route, increasing congestion on these roads.

Environmental Resource Category	No-Build Alternative <sup>1</sup>	Preferred Alternative	Mitigation for Preferred Alternative
<b>Floodplains</b>	No Impact	No significant floodplain encroachment would occur. The project would not result in a significant increase to the 100-year flood elevations of the impacted watercourses.	None
<b>Soil Erosion and Sedimentation</b>	No Impact	Erosion and Sediment (E&S) Control Plan will be reviewed and approved by the Luzerne and Lackawanna County Conservation Districts. The approved E&S Control Plan will be implemented during construction.	Best Management Practices (BMPs) and E&S Control Plan will be defined and implemented. All areas of earth disturbance will be stabilized immediately following completion of earthwork. Post Construction Stormwater Management (PCSM) controls will be evaluated in final design and included in the NPDES (National Pollutant Discharge Elimination System) permit application.
<b>Land Use</b>			
<b>Agricultural Resources</b>	No Impact	Impacts to Soil Capability Classes I-IV, Prime or Unique Soils, soils of Statewide Importance are present due to earth disturbance.	None
<b>Vegetation</b>	No Impact	Wooded, scrub-shrub, landscaped, and roadside vegetation impacted	All temporarily disturbed areas would be restored and revegetated. Native plants will be used where feasible. Care will be taken not to transplant the roots or seeds of invasive plants during construction. A special provision will be added to the project contract documents.



<b>Environmental Resource Category</b>	<b>No-Build Alternative<sup>1</sup></b>	<b>Preferred Alternative</b>	<b>Mitigation for Preferred Alternative</b>
<b>Geologic Resources</b>	No Impact	Wyoming Valley: Coal has been both strip mined and underground mined in the project area. Clarks Summit: There are no discrete layers of coal within the proposed limits of excavation; however, shale interbedded with coal would be excavated in the vicinity of STA 116+00 of the NB connector baseline.	The Pennsylvania Department of Environmental Protection (PADEP) has special provisions for incidental coal extractions. Coordination with PADEP and the County Conservation Districts would be undertaken to address possible concerns regarding any potential for acid mine drainage.
<b>Hazardous or Residual Waste Sites</b>	No Impact	A Phase 1 Environmental Site Assessment (ESA) was performed and identified one environmental concern within the Wyoming Valley project area.	For work in the vicinity of the Scranton Terminal property, a special provision would be included in the contract to remove benzene using activated carbon filters if the project impacts contaminated groundwater south of I-81.
<b>Wildlife</b>			
<b>Threatened &amp; Endangered Species</b>	Not Present	At the Wyoming Valley and the Clarks Summit project areas, the federally listed Northern Long-eared Bat habitat was determined to be present in the project vicinity.	Conservation measures are required to protect bats. Tree cutting activities on trees larger than 5 in DBH must be carried out between November 16 to March 31.
<b>Cultural Resources</b>			
<b>Archaeological Resources</b>	No Archaeological Sites identified	No Archaeological Sites identified. Clarks Summit: Archaeological testing will be completed during final design for one parcel due to issues accessing the property.	None known
<b>Historic Resources</b>	No Historic Properties Affected	No Historic Properties Affected	None

Environmental Resource Category	No-Build Alternative <sup>1</sup>	Preferred Alternative	Mitigation for Preferred Alternative
<b>Air Quality and Noise</b>			
<p><b>Air Quality and Climate</b></p>	<p>Increased air pollution and increased GHG emissions as a result of less effective travel conditions.</p>	<p>MSAT: The project is an activity that would not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative over existing conditions. Additionally, these developments would improve travel times as a result of increased utilization of I-476.</p> <p>GHGs: Balanced use of available capacity and reduced congestion and maintenance burdens would reduce GHG emissions.</p> <p>The project would have no significant adverse impact on air quality as a result of CO emissions.</p> <p>PM2.5: The proposed project is located in an attainment area for the PM2.5 and PM10 standards. The project does not require a project-level conformity determination. According to the PM2.5 and PM10 hot-spot analysis requirements established in the March 10, 2006, final transportation conformity rule (71 FR 12468), no further project-level air quality analysis for this/these pollutant(s) is required.</p>	<p>None (no change)</p>

Environmental Resource Category	No-Build Alternative <sup>1</sup>	Preferred Alternative	Mitigation for Preferred Alternative
<b>Noise</b>	Increased noise pollution as a result of less effective travel conditions	Type I Project; predicted noise levels approach or exceed Noise Abatement Criteria (NAC) at Noise Sensitive Areas (NSA) 5, 7, 8, 9, and 10 for Clarks Summit and at NSAs 2 and 3 for Wyoming Valley.	Three noise barrier locations are warranted, feasible, and reasonable at Clarks Summit (NSAs 5, 8, and 10). No noise barriers were warranted, feasible, and reasonable at Wyoming Valley. Additional coordination and evaluation for the proposed sound barrier walls will continue in final design. Final design noise walls determined to be warranted, feasible, and reasonable will be installed if supported by the benefited receptors (those experiencing 5 decibel or more reduction in sound level from the installation of the wall).
<b>Socioeconomic Areas</b>			
<b>Regional &amp; Community Growth</b>	Decreased regional growth due to increased travel times	The project would relieve congestion on I-81 by improving utilization of I-476 by the construction of highway speed connections.	None
<b>Public Facilities &amp; Services</b>	Increased travel times for school buses and emergency services as result of congestion.	Access for public facilities and services would be improved due to reduced congestion resulting from the highway speed connections between I-81 and I-476.	None
<b>Community Cohesion proposed</b>	No Impact	No impact	None

<b>Environmental Resource Category</b>	<b>No-Build Alternative<sup>1</sup></b>	<b>Preferred Alternative</b>	<b>Mitigation for Preferred Alternative</b>
<b>Local Tax Base or Property Values</b>	No impact	A total of five residential displacements and one commercial displacement would take place within the Wyoming Valley project area. A total of six residential displacements would take place within the Clarks Summit project area.	None: The displacements are a small percentage of the overall percentage of the number of residential and commercial properties within each municipality. No adverse effect to local tax bases are anticipated.
<b>Right-of-Way Acquisitions</b>	No Impact	A total of 13 parcels within the Wyoming Valley project area are required for partial or total acquisition. A total of 36 parcels within the Clarks Summit project area are required for partial or total acquisition.	Property acquisitions will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended; Title VI of the Civil Rights Act of 1964; and the Pennsylvania Eminent Domain Code of 1964.
<b>Displacements</b>	No Impact	A total of five residential displacements and one commercial displacement would take place within the Wyoming Valley project area. A total of six residential displacements would take place within the Clarks Summit project area.	Property acquisitions will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended; Title VI of the Civil Rights Act of 1964; and the Pennsylvania Eminent Domain Code of 1964. A conceptual stage survey documenting the availability of replacement properties within the project vicinity was prepared.
<b>Aesthetics</b>	No Impact	No impact	None
<b>Energy</b>	Higher energy usage	Reduced energy usage	None
<b>Cumulative Impacts</b>	No Impact	No adverse cumulative effects	None
<b>Environmental Justice</b>	No Impact	No disproportionately high and adverse effects on low-income or minority populations have been identified.	None

**Supporting documentation for Chapter 3 includes:**

- *Conceptual Point of Access Study, Scranton Beltway, Direct Connections between I-476 (Pennsylvania Turnpike Northeast Extension) and I-81 At Wyoming Valley (Exit 115) and Clarks Summit (Exit 131) Interchanges (March 2022), FHWA approved February 2023*
- *American Association of State Highway and Transportation Officials (AASHTO). A Policy on Geometric Design of Highways and Streets – The Green Book. (2018 edition).*
- *Scranton Beltway Feasibility Study, Phase 2 (December 2015)*
- *Scranton Beltway Feasibility Study-Summary Memo (April 2014)*

## 4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Based on scoping, federal and state wild and scenic rivers and streams, navigable waterways, and coastal zones were not located within the project areas. For this reason, no further assessment of these resources is provided.

### 4.1 Aquatic Resources

#### **Identify all streams and their classifications per Chapter 93 of 25 PA Code (e.g. CWF, WWF, HQ, EV)**

##### Wyoming Valley project area

- Mill Creek – CWF, MF
- UNT to Mill Creek – CWF, MF
- UNT to Lidy Creek – CWF, MF

The Wyoming Valley project area lies within the Upper Susquehanna – Lackawanna River watershed. Twenty-two watercourses (5 ephemeral, 8 intermittent, and 9 perennial) were delineated during the field investigations conducted between July and October 2018 for the Wyoming Valley project area. Within the Wyoming Valley project area, the watercourses drain to Mill Creek in the southwestern portion of the project area and Lidy Creek in the northeastern portion of the project area.

There is one named perennial watercourse (Mill Creek) that crosses I-81 and I-476 in the Wyoming Valley project corridor. Project area watercourses in the central and western limits are UNTs to Mill Creek and project area watercourses located in the eastern limits are UNTs to Lidy Creek.

According to Chapter 93, Water Quality Standards (Chapter 93 of 25 PA Code), Mill Creek, UNTs to Mill Creek, and UNTs to Lidy Creek have Designated Uses classified as cold water fishes and migratory fisheries (CWF, MF) watercourses. No Existing Use classifications are present for any of the watercourses within the project corridor. Three UNT's to Lidy Creek are present within the Wyoming Valley project corridor and are regulated by the Pennsylvania Fish and Boat Commission (PFBC) as Naturally Reproducing Trout Waters due to Lidy Creek being a Naturally Reproducing Trout Water. Therefore, instream construction restrictions would occur for the UNTs to Lidy Creek from October 1 through December 31 to protect the naturally reproducing trout.

Based on the PADEP Macroinvertebrate Taxa GIS dataset (<https://www.depgis.state.pa.us/macroviewer/index.html#>) none of the watercourses within the study area were sampled. The PADEP 2016 Integrated Water Quality Report GIS dataset (<http://www.depgis.state.pa.us/int>



[egratedReport/index.html](#)) was also consulted. This dataset indicated that Mill Creek is listed as Impaired for Aquatic Life and the impairment source listed as road runoff.

The PFBC's Area Fishery Manager was contacted to determine fishery species composition of watercourses within the Mill Creek basin. The only sampling location for Mill Creek was approximately one mile southeast (upstream) of the project area. In 1997, species at this location consisted of blacknose dace, bluegill, eastern mudminnow and largemouth bass.

#### Clarks Summit project area

- Unnamed tributaries (UNT) to Leggetts Creek – CWF, MF

The Clarks Summit project area lies within the Upper Susquehanna - Lackawanna River watershed. Twenty-five watercourses (6 ephemeral, 14 intermittent, and 5 perennial) were delineated within the Clarks Summit project area during the field investigations conducted between July and October 2018. All watercourses drain to Leggetts Creek.

According to Chapter 93, Water Quality Standards (Chapter 93 of 25 PA Code), the UNTs to Leggetts Creek have Designated Uses classified as cold water fishes and migratory fisheries (CWF, MF) watercourses. No Existing Use classifications are present for any of the watercourses within the project corridor. The project area is located upstream of the portion of Leggetts Creek that is listed as supporting the natural reproduction of trout. Based on conversations with the PFBC's Area Fishery Manager, all upstream tributaries within the basin would also be regulated as streams that support the natural reproduction of trout. No PFBC-approved trout stocked streams are located within the project corridor. Instream construction restrictions for all of the watercourses within the Clarks Summit project corridor would occur from October 1 through December 31 to protect the naturally reproducing trout.

Based on the PADEP Macroinvertebrate Taxa GIS dataset (<https://www.depgis.state.pa.us/macroviever/index.html#>) none of the watercourses within the study area were sampled. The PADEP 2016 Integrated Water Quality Report GIS dataset (<http://www.depgis.state.pa.us/integratedReport/index.html>) was also consulted. This dataset indicated the second order unnamed tributaries to Leggetts Creek are classified as Supporting for aquatic life, although the first order unnamed tributary to Leggetts Creek is classified as Impaired for aquatic life. The impairment source is listed as urban runoff/storm sewers.

The PFBC's Area Fishery Manager was contacted to determine fishery species composition of watercourses within the Leggetts Creek basin. The only sampling location for Leggetts Creek was approximately two miles south (downstream) of the southern terminus of the project. In 1997,

species at this location consisted of blacknose dace, bluegill, wild brown trout, hatchery brown trout, creek chub, longnose dace, pumpkinseed, white sucker and yellow bullhead.

**No-Build Alternative Impacts**

The No-Build Alternative would have no impact on watercourses.

**Preferred Alternative Impacts**

**Describe Any Permanent Impacts**

A total of 5,647 LF of permanent impacts to watercourses are anticipated to occur as a result of both project corridors and include:

**Table 4 - Wyoming Valley Permanent Impacts to Streams**

<b>Stream ID</b>	<b>Type *</b>	<b>Reason for Impact</b>	<b>Impact (LF)</b>	<b>Total Impacts Per Type (LF)</b>
WV-S2	P	Culvert extension	25	Perennial = 732
WV-S7	P	Culvert extension	20	
WV-S11	P	Fill	70	
WV-S9	P	Fill	7	
WV-S10	P	Fill	12	
WV-S23	P	Fill and stream realignment	93	
WV-S23	P	Realignment	130	
WV-S4	P	Culvert extension	65	
WV-S3	P	Fill/culvert pipe	80	
WV-S3	P	Fill/stream realignment	230	
WV-S27	I	Fill	170	Intermittent = 740
WV-S24	I	Cut	300	
WV-S5	I	Fill	120	
WV-S15	I	Fill	140	
WV-S14	I	Fill	10	
WV-S8	E	Fill	195	Ephemeral = 750
WV-S16	E	Cut	170	
WV-S17	E	Cut	50	
WV-S18	E	Cut	335	
<b>Wyoming Valley project area total</b>				<b>2,222 LF</b>

\* P = Perennial, I = Intermittent, E = Ephemeral

**Table 5 - Clarks Summit Permanent Impacts to Streams**

<b>Stream ID</b>	<b>Type *</b>	<b>Reason for Impact</b>	<b>Impact (LF)</b>	<b>Total Impacts Per Type (LF)</b>
CS-S7	P	I-476 Connector Ramp	30	Perennial = 2,110
CS-S6	P	I-476 Connector Ramp and stream relocation	815	
CS-S6	P	New culvert under I-81	555	
CS-S10	P	I-476 Connector Ramp and stream relocation	690	
CS-25	P	Fill	20	
CS-S1	I	Fill for Ramp D	475	Intermittent = 675
CS-S9	I	I-476 Connector Ramp	160	
CS-S12	I	Stream relocation	40	
CS-S8	E	I-476 Connector Ramp and stream relocation	95	Ephemeral = 640
CS-S31	E	Fill	125	
CS S22	E	Fill	40	
CS-S30	E	Fill	380	
<b>Clarks Summit project area total</b>				<b>3,425 LF</b>

\* P = Perennial, I = Intermittent, E = Ephemeral

**Describe Any Temporary Impacts**

A total of 621 LF of temporary impacts to watercourses are anticipated to occur as a result of both project corridors and include:

**Table 6 - Wyoming Valley Temporary Impacts to Streams**

Stream ID	Type *	Impact (LF)	Total Impacts Per Type (LF)
WV-S2	P	57	Perennial = 293
WV-S4	P	95	
WV-S3	P	120	
WV-S22	P	21	
WV-S27	I	125	Intermittent = 209
WV-S24	I	56	
WV-S14	I	28	
<b>Wyoming Valley project area total</b>			<b>502</b>

\* P = Perennial, I = Intermittent, E = Ephemeral

**Table 7 - Clarks Summit Temporary Impacts to Streams**

Stream ID	Type *	Impact (LF)	Total Impacts Per Type (LF)
CS-S7	P	54	Perennial = 119
CS-S10	P	57	
CS-S25	P	8	
<b>Clarks Summit project area total</b>			<b>119 LF</b>

\* P = Perennial, I = Intermittent, E = Ephemeral

**Proposed Project Specific Restoration/Enhancement:** 1398 LF to be relocated.

**Mitigation Remarks**

Wyoming Valley project area

- Instream construction restrictions would occur from October 1 through December 31 to protect the naturally reproducing trout waters for the three UNTs to Lidy Creek

Compensatory mitigation for this project is to comply with applicable State and Federal Laws including Section 404 of the U.S. Clean Water Act and the PA Dam Safety and Encroachment Act. Onsite watercourse mitigation for the Clarks Summit project area is proposed to consist of the relocation of two segments of Willow Creek. These relocations are anticipated to provide a portion of the required mitigation for Clarks Summit. The remainder of the required stream mitigation for the impacts within the Clarks Summit project area, and the entirety of the required stream

mitigation within the Wyoming Valley project area is anticipated to be compensated via credit purchase from an approved mitigation bank.

The project team looked into potential mitigation bank sites to compensate for impacts to waterways (temporary impacts = 621 LF and permanent impacts = 5,647 LF). Two banks are available with 3,825.82 LF of stream mitigation credits. Through consultation with permitting agencies, mitigation details will be determined in final design and incorporated into the waterway permit application. If there are additional stream impacts that cannot be mitigated through available credits, the project will include additional stream mitigation.

Clarks Summit project area

- Approximately 815 LF of Willow Creek would be relocated for the NB Connector, including the construction of a replacement culvert.
- Approximately 583 LF of Willow Creek would be relocated east of the I-476 NB connector ramp.
- Instream construction restrictions would occur from October 1 through December 31 to protect the naturally reproducing trout waters for all watercourses within project corridor (i.e., UNTs to Leggetts Creek)

<b>OTHER SURFACEWATERS</b>	<b>PRESENT</b>	<b>IMPACTS</b>
Reservoirs	Not Present	No
Lakes	Not Present	No
Farm ponds	Not Present	No
Detention basins	Not Present	No
Stormwater Management Facilities	Present	No
Others (describe in remarks)	Present	No

**No-Build Alternative Impacts**

The No-Build Alternative would have no impact on other surface waters.

**Preferred Alternative Impacts**

**Describe Any Permanent and Temporary Impacts**

No temporary or permanent impacts to ponds or vegetated stormwater management basins would take place at either the Wyoming Valley or Clarks Summit project areas.

## Remarks

### Wyoming Valley project area

Based on the wetland delineation, one pond, identified by the Cowardin classification of palustrine unconsolidated bottom (PUB), was identified adjacent to SB I-476 near Navy Way.

### Clarks Summit project area

Based on the wetland delineation, one vegetated stormwater management basin was identified adjacent to existing residential development near Willow Lan (east of I-81).

<b>GROUNDWATER RESOURCES</b>	<b>PRESENT</b>	<b>IMPACTS</b>
State, County, Municipal or Local Public Supply Wells	Present	No
Residential Well	Present	No
Well Head Protection Area	Not Present	No
Springs, Seeps	Not Present	No
Potable Water Source	Not Present	No
Sole Source and/or Exceptional Value Aquifers	Not Present	No

## **No-Build Alternative Impacts**

The No-Build Alternative would have no impact on groundwater resources.

## **Preferred Alternative Impacts**

### **Describe Any Permanent and Temporary Impacts**

No temporary or permanent impacts will occur to groundwater resources.

### **Describe Mitigation**

#### Clarks Summit project area

- Pennsylvania American Water Company (PAWC) requested that the geotechnical boring contractor coordinate their sampling and work plan with PAWC to minimize the risk that Well #8 would be compromised or contaminated.

## Remarks

### Wyoming Valley project area

USEPA Region III has not designated any SSA's within or adjacent to the Wyoming Valley project area. According to the Pennsylvania Groundwater Information System (PAGWIS) website there are public and private wells within 0.5 miles of the project area that are used for public water consumption and for observation and/or monitoring. There are no public or private wells located within 100 ft of the study area.

### Clarks Summit project area

USEPA Region III has not designated any sole source aquifers (SSA) within or adjacent to the project area. According to the PAGWIS website there are public and private wells within 0.5 miles of the project area that are used for public water consumption and for observation and/or monitoring. Four private wells for domestic use are located within, or within 100 ft of, the study area. One additional well was identified within the study area but is not currently in use. The unused well was not identified as public or private. PAWC maintains a well, Well #8, within approximately 1,000 ft of the project area. PAWC requested that the geotechnical boring contractor coordinate their sampling and work plan with PAWC to minimize the risk that Well #8 would be compromised or contaminated. As design progresses, measures to protect the private wells would be developed.

<b>WETLANDS</b>	<b>PRESENT</b>	<b>IMPACTS</b>
Open Water	Present	No
Vegetated		
Emergent	Present	Yes
Scrub Shrub	Present	Yes
Forested	Present	Yes
Exceptional Value	Present	Yes

## Documentation

- Data Forms
- Wetland Identification and Delineation
- Report Conceptual Mitigation Plan
- 404 (b)(1) Alternative Analysis
- Jurisdictional Determination
- Functional Assessment Analysis



## Methodology

The study areas were investigated for palustrine wetland indicators of vegetative composition, soil development, and hydrology. The investigations were conducted in accordance with the Northcentral and Northeast Region Supplement to the Corps of Engineers Wetlands Delineation Manual, Version 2.0 (January 2012). If present, wetlands within and directly adjacent to the study area were delineated so that their presence could be shown on project mapping to aid in impact avoidance and/or minimization during engineering design. The wetlands and watercourses within the project corridors were also evaluated using the PADEP Wetland Condition Level 2 and Riverine Condition Level 2 Rapid Assessments.

## No-Build Alternative Impacts

The No-Build Alternative would have no impact on wetlands.

## Preferred Alternative Impacts

**Number of Wetlands permanently impacted: 7**

**Acreage of Wetlands permanently impacted: 0.33 ac**

## Describe Any Permanent Impacts

**Table 8 - Wyoming Valley Permanent Wetland Impacts**

<b>Watercourse ID</b>	<b>Class *</b>	<b>Exceptional Value (Y/N)</b>	<b>Size within Study Area in acres (sq ft)</b>	<b>Reason for Impact</b>	<b>Impact in acres (sq ft)</b>
WV-W12	PEM	N	0.06 ac (2,635 sq ft)	Fill	0.06 ac (2,635 sq ft)
WV-W9	PEM/PSS	N	0.19 ac (8,400 sq ft)	Cut	0.19 ac (8,400 sq ft)
WV-W7	PFO	N	0.10 ac (4,356 sq ft)	Cut	0.02 ac (980 sq ft)
<b>Wyoming Valley project area total</b>					<b>0.28 ac (12,015 sq ft)</b>

\* Cowardin et al (1979) wetland classifications as delineated in the field

**Table 9 - Clarks Summit Permanent Wetland Impacts**

Watercourse ID	Class *	Exceptional Value (Y/N)	Size within Study Area in acres (sq ft)	Reason for Impact	Impact in acres (sq ft)
CS-W5	PEM/PSS	Y	0.04 ac (1,742 sq ft)	I-476 Connector	0.01 ac (440 sq ft)
CS-W6	PEM	Y	0.01 ac (630 sq ft)	I-476 Connector	0.01 ac (630 sq ft)
CS-W3	PEM/PFO	Y	0.14 ac (6,098 sq ft)	Fill for Ramp D Northbound	0.02 ac (815 sq ft)
CS-W10	PEM	N	0.03 ac (1,307 sq ft)	Fill	0.01 ac (270 sq ft)
<b>Clarks Summit project area total</b>					<b>0.05 acres (2,155 sq ft)</b>

\* Cowardin et al (1979) wetland classifications as delineated in the field

**Describe Any Temporary Impacts**

**Table 10 - Wyoming Valley Temporary Wetland Impacts**

Watercourse ID	Class *	Exceptional Value (Y/N)	Size within Study Area in acres (sq ft)	Impact in acres (sq ft)
WV-W7	PFO	N	0.10 (4,356)	0.08 (3,545)
<b>Wyoming Valley project area total</b>				<b>0.08 ac (3,545 sq ft)</b>

\* Cowardin et al (1979) wetland classifications as delineated in the field

**Table 11 - Clarks Summit Temporary Wetland Impacts**

Watercourse ID	Class *	Exceptional Value (Y/N)	Size within Study Area in acres (sq ft)	Impact in acres (sq ft)
CS-W5	PEM/PSS	Y	0.04 ac (1,742 sq ft)	0.01 ac (252 sq ft)
CS-W3	PEM/PFO	Y	0.14 ac (6,098 sq ft)	0.02 ac (697 sq ft)
CS-W10	PEM	N	0.03 ac (1,307 sq ft)	0.01 ac (498 sq ft)
<b>Clarks Summit project area total</b>				<b>0.03 ac (1,447 sq ft)</b>

\* Cowardin et al (1979) wetland classifications as delineated in the field

### **Mitigation Remarks**

Wetland mitigation is anticipated to consist of credit purchase from an approved mitigation bank. Specific banking requirements will be evaluated during final design as part of the waterway permit application process. The project team looked into potential mitigation bank sites to compensate for impacts to wetlands (temporary impacts = 4,992 sq ft / 0.11 acres and permanent impacts = 14,170 sq ft / 0.33 acres). Two banks are available, 0.66 acres of PFO wetland credits for one bank and 10.91 acres of PFO credits available for the other bank.

Temporary construction fencing would be placed around wetland boundaries not to be disturbed by the project. Graded areas would be returned to the original contour and the area seeded, mulched, and stabilized once construction in these areas is complete.

### **Executive Order 11990 Compliance**

Compliance requires the determination that there is no practicable alternative to the proposed construction in wetlands and the preferred alternative includes all practicable measures to minimize harm to wetlands which may result from such use.

### **Options/design modifications were investigated to avoid impacts to wetlands:**

Yes

### **There are no practicable alternatives to construction within the wetlands:**

Yes

**Alternative chosen (proposed project) includes all practicable measures to minimize harm to wetlands:** Yes

### **Remarks**

#### Wyoming Valley project area

A wetland delineation was conducted between July and October 2018 for the project area. Fifteen wetlands (9 PEM, 1 PSS, 2 PFO, 2 PEM/PSS, and 1 PUB) were delineated within the project area. None of the wetlands are considered to be exceptional value. The USACE and the PADEP will review and verify wetland information.

A Preliminary Jurisdictional Determination request was submitted but has not been completed to date. The number, size and type of wetlands present will be verified with both the PADEP and USACE during a Preliminary Jurisdictional Determination Field View or at the time of permitting.

#### Clarks Summit project area

A wetland delineation was conducted between July and October 2018 for the project area. Fifteen wetlands (11 PEM, 1 PEM/PFO, 2 PEM/PSS, and 1 PUB) were delineated within the project area. Eight wetlands are considered to be exceptional value (CS-W2, CS-W3, CS-W4, CS-W5, CS-W6,

CS-W9, CS-W11, and CS-POW1). Exceptional value wetlands are present due to being located within the assumed 50-foot floodplain of an UNT to Leggetts Creek. Leggetts Creek is a Natural Reproduction Trout Water [PA Code 105.17(1)(iii)]. The USACE and the PADEP will review and verify wetland information.

A Preliminary Jurisdictional Determination request was submitted but has not been completed to date. The number, size and type of wetlands present will be verified with both the PADEP and USACE during a Preliminary Jurisdictional Determination Field View or at the time of permitting.

<b>FLOODPLAINS</b>	<b>PRESENCE</b>	<b>IMPACTS</b>
	Present	Yes

### **No-Build Alternative Impacts**

The No-Build Alternative would have no impact on floodplains.

### **Preferred Alternative Impacts**

No significant floodplain encroachment would occur.

### **Describe Any Permanent and Temporary Impacts**

#### Clarks Summit project area

The results of the Hydrologic and Hydraulic (H&H) analysis indicate the replacement structures and stream realignment would not increase the water surface elevations of Willow Creek by more than 0.2 ft for the 100-year storm event, which is not considered a significant impact.

### **Remarks**

#### Wyoming Valley project area

Copies of the FEMA FIRM were obtained for the area along I-476 and I-81 for the project area. The proposed Wyoming Valley direct connection is within the southernmost study area of the Scranton Beltway Project and is located in the Borough of Dupont and Pittston Township (42079C0253E and 42079C0234E). The study area begins just southwest of the I-476 and I-81 crossing of Mill Creek. Proposed construction of the direct connections is located within the detailed study area of Collins Creek (Zone AE, elev 852, 828 and 799), and portions of the detailed study area of Mill Creek (Zone A and AE, elev 868). Zone AE is the Special Flood Hazard Area (SFHA), which is defined as the area that would be inundated by the flood event having a 1% chance of being equaled or exceeded in any given year, also known as the base flood. Mapped floodways are also present for both Collins Creek and Mill Creek within the project area. The proposed Wyoming Valley direct connections and proposed culvert extensions would result in impacts to the floodplain and floodway of both Collins Creek and Mill Creek. An H&H report analysis for the

project found there would be no increases in the 100-year floodplain elevation caused by the project.

Clarks Summit project area

Copies of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) were obtained for the area along I-476 and I-81 for the project area. The proposed Clarks Summit direct connections are the northernmost improvements planned as part of the Scranton Beltway Project and are located in South Abington Township (Panels 42069C0206D and 42069C0120D). The Clarks Summit project area is located partially within the 100-year floodplain, Zone A of Willow Creek. According to FEMA, a Zone A floodplain is an area with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. No depths or base flood elevations are shown within these zones as detailed analysis have not been performed. The proposed Clarks Summit direct connections and proposed stream relocations would result in impacts to the floodplain and floodway of Willow Creek. A detailed hydrologic and hydraulic analysis of the Willow Creek Stream realignment was performed. Hydraulic modeling indicates the water surface elevations would not increase more than 0.2 ft during the 100-year storm event due to the replacement of the two culverts and realignment of the stream when compared to the existing conditions. The increase in water surface elevation would not affect any structures along the length of the studied reach and is not considered a significant impact.

Through risk assessment, it was determined that one property would see additional risk during 100-year events of no more than 0.2 feet. As the channel realignment is finalized, these increased risks would be ameliorated through a combination of techniques such as altering channel cross-sections, channel slope, and channel alignment. With the exception of this one location, the structures and stream realignment have been designed to provide a stream crossing that safely conveys flood flows without increasing the risk of flooding and meets Pennsylvania Department of Transportation's safety standards.

**SOIL EROSION & SEDIMENTATION**

**Are there activities that could cause erosion or sedimentation and would require E&S Controls?** Yes

**Documentation**

- Coordination w/County Conservation
- District E&S Control Plan
- NPDES Stormwater Construction Permit

### **No-Build Alternative Impacts**

The No-Build Alternative would have no impact on soil erosion and sedimentation.

### **Preferred Alternative Impacts**

#### **Mitigation Remarks**

- Best Management Practices (BMPs) will be defined and implemented as a component of the erosion and sedimentation plan and waterway encroachment permit.
- The Erosion and Sediment (E&S) Control Plan will be reviewed by Luzerne and Lackawanna County Conservation Districts and coordination will be conducted to ensure the selected BMPs are adequate for the project.
- The approved E&S Control Plan will be implemented prior to any earth disturbance during construction.
- The E&S Control Plan will be included in the contract documents and the contractor is obliged to follow.
- Installed BMPs will be inspected and maintained throughout the duration of construction.
- All areas of earth disturbance will be stabilized immediately following completion of earthwork.
- Post Construction Stormwater Management (PCSM) will be evaluated in final design and included in the National Pollution Discharge Elimination System (NPDES) permit application.

#### **Remarks**

Construction sequencing and erosion and sedimentation control measures would be implemented to prevent and minimize erosion and sedimentation impacts during construction. An E&S Control Plan would be prepared in accordance with 25 PA Code Chapter 102 and would be reviewed and approved by the Luzerne County Conservation District for the Wyoming Valley project corridor and Lackawanna County Conservation District for the Clarks Summit project corridor. The E&S Control Plan would be implemented to minimize temporary impacts resulting from increased sediment runoff from disturbed areas during construction. Conservation districts would review and approve the E&S Control Plan. The Individual NPDES Permit and PCSM Plan would be reviewed and issued by the PADEP Regional Permit Coordination Office (RPCO).

#### **Supporting documentation for Section 4.1 includes:**

- *Scranton Beltway Wetland Identification and Delineation Report (April 2020)*
- *Preliminary Hydrologic and Hydraulic Report for Clarks Summit Interchange Willow Creek Stream Realignment (July 2022)*
- *PA Department of Environmental Protection (PADEP). Integrated Water Quality Report website. Available at <https://gis.dep.pa.gov/integratedReport/index.html>.*
- *PADEP. Macroinvertebrate Taxa Data website. Available at <http://www.depgis.state.pa.us/integratedReport/index.html>*

## 4.2 Land

Based on scoping, parks and recreation; forest and gamelands; wilderness, natural and wild areas; and national natural landmarks were not located within the project areas. For this reason, no further assessment of these resources is provided.

<b>AGRICULTURAL RESOURCES</b>	<b>PRESENCE</b>	<b>IMPACTS</b>
Productive Agricultural Land	Present	No
Agricultural Security Areas	Not Present	No
Prime Agricultural Land	Present	No
Agricultural Conservation Easements	Not Present	No
Farmland Enrolled in Preferential Tax Assessments	Not Present	No
Agricultural Zoning	Not Present	No
Soil Capability Classes I, II, III, IV	Present	Yes
Prime or Unique Soil	Present	Yes
Statewide or Locally Important Soils	Present	Yes

### **No-Build Alternative Impacts**

The No-Build Alternative would have no impact on agricultural resources.

### **Preferred Alternative Impacts**

#### **Describe Any Permanent and Temporary Impacts**

There would be both permanent and temporary impacts to Prime Farmland Soils and Soils of Statewide Importance within the Wyoming Valley and Clarks Summit project areas. However, the project is exempt from the Farmland Protection Policy Act (FPPA). The agricultural land in the Clarks Summit project area is classified as Prime Agricultural Land and is subject to Agricultural Lands Preservation Policy (ALPP) requirements. However, no impacts to agricultural fields are anticipated. Therefore, since the project avoids this property, the project is in compliance with ALPP requirements.

### **Remarks**

#### Wyoming Valley project area

According to available aerial mapping and field reconnaissance, there is no productive agricultural land within the project area. Additionally, no preserved farmland, ASAs, or farmland enrolled in preferential tax assessments (Act 319 or Act 515) properties are present within the project corridor



as per coordination with the Luzerne County Conservation District, Luzerne County Tax Assessor's Office, and Pittston Township and Luzerne County Planning and Zoning. The Dupont Borough portion of the project corridor is zoned as "Two Family Residence District", "Highway Business District" and "Light Industrial District" according to coordination with Luzerne County Zoning Officer and according to the Pittston Township Zoning map, the Pittston Township portion of the project corridor is zoned as "Single Family Residential", "Highway Business", and "Industrial".

Prime agricultural land as defined by the ALPP is not present, as there are no productive agricultural lands within the project area. Supporting documentation will be maintained in the project technical files. The entire project area is located within a US Census defined Urban Area and therefore not subject to the FPPA.

Clarks Summit project area

According to available aerial mapping and field reconnaissance, productive agricultural land is located northeast of the Simerell Road bridge over I-81 and located within the project area. No other productive agricultural land was identified within the Clarks Summit project area. This parcel would not be impacted by the project. No preserved farmland, agricultural security areas (ASAs), or farmland enrolled in preferential tax assessments (Act 319 or Act 515) properties are present within the project corridor as per coordination with the Lackawanna County Conservation District, Lackawanna County Tax Assessor's Office, and South Abington township. The project corridor is zoned as "Conservation and Forest" as well as "Low Density Residential" based on coordination with the South Abington Zoning Officer.

Prime Agricultural Land as defined by the ALPP is present due to the presence of productive agricultural lands that are located on Farmland Soils of Statewide Importance. Supporting documentation will be maintained in the project technical files. The entire project area is located within a US Census defined Urban Area and therefore not subject to the FPPA.

<b>VEGETATION</b>	<b>PRESENCE</b>	<b>IMPACTS</b>
Landscaped	Present	Yes
Agricultural	Present	No
Forest Land	Present	Yes
Rangeland	Not Present	No
Other (describe in remarks)	Present	No

### **No-Build Alternative Impacts**

The No-Build Alternative would have no impact on vegetation.

### **Preferred Alternative Impacts**

#### **Describe Any Permanent and Temporary Impacts**

Vegetated areas would be disturbed within both the Wyoming Valley and Clarks Summit project areas. Clearing and removal of vegetation would take place to allow for fill slopes, connector travel lanes, shoulders, auxiliary lanes, stormwater basins and other project components. Impacts would take place within existing legal ROW, required ROW and easements within each of the project areas.

Invasive Non-Native Plants are present.

#### **Mitigation:**

**Are measures being taken to minimize movement of invasive plant parts (roots, tubers, seeds)?** Yes

**Will native plants be used in project landscaping or mitigation?** Yes

#### **Remarks**

Care will be taken not to transplant the roots or seeds of invasive plants during construction. A special provision would be added to the project contract documents.

#### Wyoming Valley project area

Based on available aerial mapping, the project area consists mostly of roadside vegetation associated with maintained ROW, maintained lawns, and forested lands. Temporarily disturbed areas would be returned to their preconstruction condition at the completion of work per the approved E&S control plan.

#### Clarks Summit project area

Based on available aerial mapping, the project area consists mostly of roadside vegetation associated with maintained ROW, maintained lawns, scrub shrub areas and forested lands. Temporarily disturbed areas would be returned to their preconstruction condition at the completion of work per the approved E&S control plan.

## GEOLOGIC RESOURCES

### No-Build Alternative Impacts

The No-Build Alternative would have no impact on geological resources.

### Preferred Alternative Impacts

#### Remarks

##### Wyoming Valley project area

According to the Outstanding Scenic Geological Features of Pennsylvania (PADCNR online mapping tool), no outstanding geologic features are located within or adjacent to the project area.

Both the surficial and bedrock geology of the site are presented on the DCNR online interactive map PAGEODE (<http://www.gis.dcnr.state.pa.us/geology/>). The surficial geology within the project area is identified as Urban Land, Till, Coal Surface Mine, and Bedrock/Bedrock and Sediments. The bedrock geology within the project area to the southwest is the Llewellyn Formation. This formation contains most of the minable coal beds in Pennsylvania's anthracite fields. The bedrock geology within the project area to the northeast is the Pottsville Formation.

A review of the Karst Features layer on the DCNR online interactive map (<http://www.gis.dcnr.state.pa.us/geology/index.html>), indicates that no sinkhole or karst-related surface depressions are shown near the project area.

The project lies in the Northern Anthracite Field of Pennsylvania. According to the Bureau of Mines' Buried Valley of the Susquehanna River, the Northern Anthracite Field is approximately 62 miles long and 5 miles wide extending northeasterly from Shickshinny to Forest City, PA. The coal measures in the region have been both strip mined and underground mined. Based on historical mining reports and maps downloaded from the Pennsylvania Mine Map Atlas website (<http://www.minemaps.psu.edu/>), several underground mines or collieries, including Butler, Florence, and Hillside were in operation in the vicinity of the project area between the early 1800s and mid-1900s. The mine maps indicate that both room and pillar and pillar robbing mining methods were dominant in this region. In addition, undocumented "bootleg" mine activities are known to have taken place throughout this region and have been encountered during previous projects along the I-81 and Turnpike corridors. The Stark Coal Bed and the Bottom Red Ash Coal Bed are located adjacent to and in the Wyoming Valley project area. See **Figure 12** and **Figure 13** for the locations of the Stark Coal Bed and Bottom Red Ash Coal Bed with relation to the project area.

According to the Preliminary Design Geotechnical Engineering Report (2022), the proposed excavations for the project are not expected to intersect mineable coal seams. There are no discrete layers of coal within the proposed limits of excavation; however, shale interbedded with coal would be excavated in the vicinity of STA 116+00 of the NB connector baseline. Special provisions will be prepared in final design, in accordance with PADEP's Incidental Coal Extraction permitting guidelines and PennDOT Pub. 293 Geotechnical Engineering Manual, Chapter 10 Acid Producing Rock guidelines.

#### Clarks Summit project area

According to the Outstanding Scenic Geological Features of Pennsylvania (PADCNR online mapping tool), no outstanding geologic features are located within or adjacent to the project area.

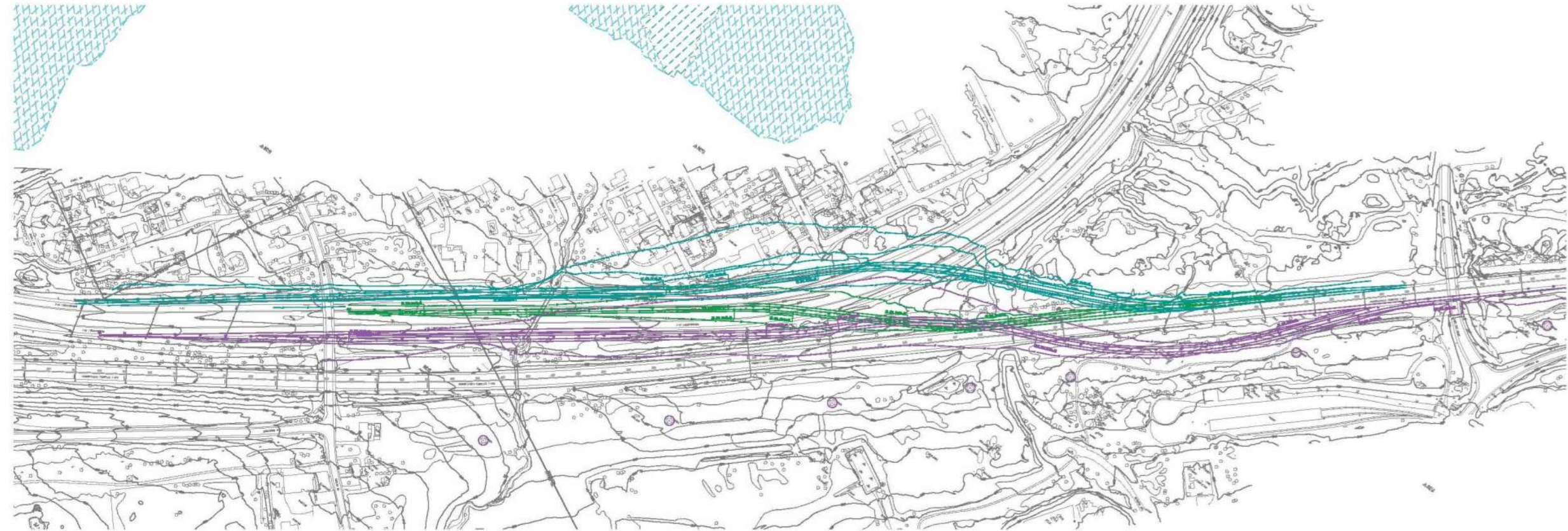
Both the surficial and bedrock geology of the site are presented on the DCNR online interactive map PAGEODE (<http://www.gis.dcnr.state.pa.us/geology/>). The surficial geology within the project area is identified as Urban Land, Alluvium, Bedrock/Bedrock and Sediments, and Till. The bedrock geology within the project area is the Catskill Formation.

A review of the Karst Features layer on the DCNR online interactive map (<http://www.gis.dcnr.state.pa.us/geology/index.html>), indicates that no sinkhole or karst-related surface depressions are shown near the project area.



Pyrite was observed in bedrock encountered along the I-476 SB Connector between Stas. 205+50 and 211+00. Pyritic bedrock is not considered unsuitable for placement in embankments. The primary concern with pyritic bedrock placed as fill is water running through the rock fill resulting in acidic drainage.

Coal is not anticipated to be excavated within the limits of the project as per the Preliminary Design Geotechnical Engineering Report (Preliminary Geotechnical Engineering Report, 2021).

PLOTTED: DATE: TIME:



**LEGEND**

	AREA MINED AND ROBBED
	AREA MINED (NOT ROBBED)

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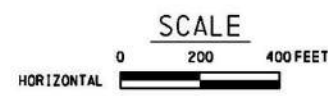
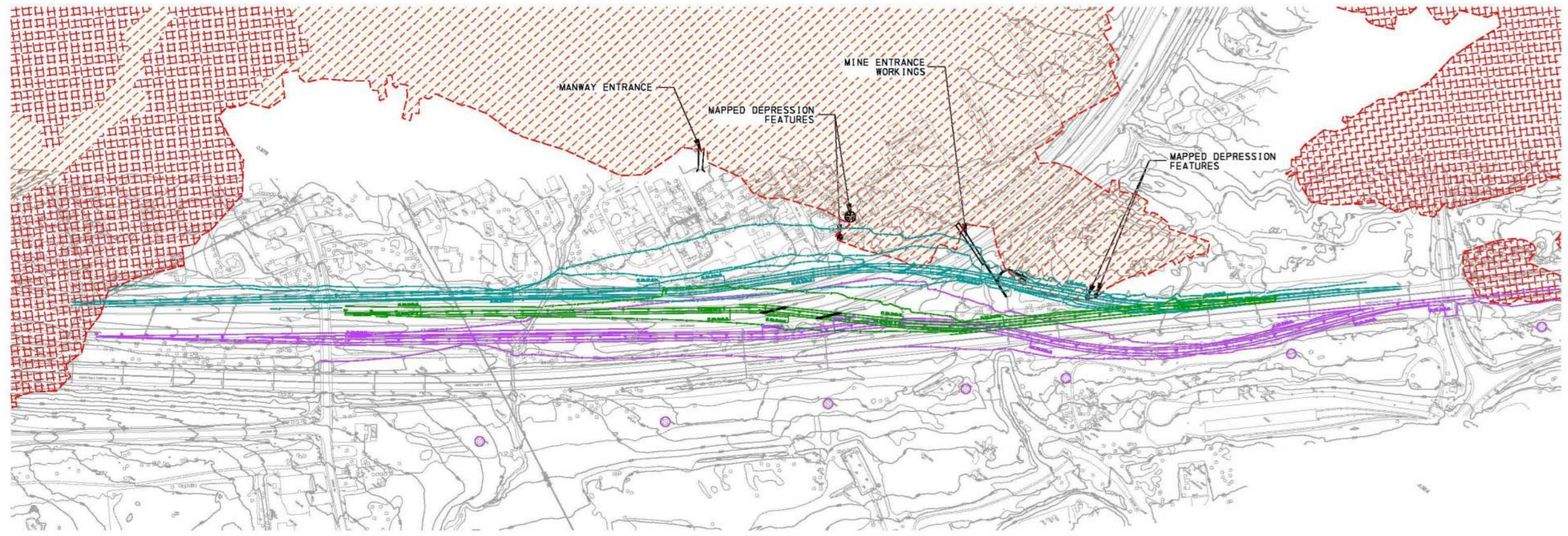
PREPARED BY: GANNETT FLEMING, INC. 1010 ADAMS AVENUE AUDUBON, PA 19403  PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO.	<b>ROADWAY AND BRIDGE CONSTRUCTION          SCRANTON BELTWAY          WYOMING VALLEY</b>	Figure 12: MINE MAP SUMMARY PLAN STARK COAL VEIN
		NETWORK NUMBER:		
		DISTRICT: 5	COUNTY: LUZERNE	SHEET:
		TOWNSHIP / BOROUGH: DUPONT BOROUGH & PITSTON TOWNSHIP		SHEET NO.: OF





Figure 12 - Mine Map Stark Coal Vein (Wyoming Valley)




PLOTTED: \*DATE\* \*TIME\*



**LEGEND**

	AREA MINED AND ROBBED		MAPPED MINE ENTRY WORKINGS
	AREA MINED (NOT ROBBED)		DEPRESSION FEATURE DEPICTED ON MINE MAP

\*FILE\*

	PREPARED BY: GANNETT FLEMING, INC. 1010 ADAMS AVENUE AUDUBON, PA 19403				WBS NO. NETWORK NUMBER:	<b>ROADWAY AND BRIDGE CONSTRUCTION          SCRANTON BELTWAY          WYOMING VALLEY</b>	Figure 13: MINE MAP SUMMARY PLAN BOTTOM RED ASH COAL VEIN
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION					DISTRICT: 5    COUNTY: LUZERNE TOWNSHIP / BOROUGH: DUPONT BOROUGH & PITSTON TOWNSHIP	SHEET: SHEET NO.:    OF

**Figure 13 - Mine Map Bottom Red Ash Coal Vein (Wyoming Valley)**

HAZARDOUS OR RESIDUAL WASTE SITES	PRESENCE	IMPACTS
	Present	Yes

**No-Build Alternative Impacts**

The No-Build Alternative would have no impact on hazardous or residual waste sites.

**Preferred Alternative Impacts**

**Describe Any Permanent and Temporary Impacts**

See below for impacts and mitigation.

**Describe Remediation/Mitigation**

Wyoming Valley project area

- Scranton Terminal property – Special provision would be included in the contract to remove benzene using activated carbon filters if the project impacts groundwater south of I-81.

The Scranton terminal property is located outside of the project area. However shallow groundwater flows through the project corridor with potential for project construction to impact contaminated groundwater.

**Remarks**

A Phase I Environmental Site Assessment (ESA) and Underground Storage Tank (UST) Assessment was conducted in March 2019 and in accordance with PennDOT Publication 281 to determine if hazardous, residual, or municipal waste sites exist within the Clarks Summit and Wyoming Valley project areas. The Phase I ESA and UST Assessment will be updated during final design. Results may change during the update.

Wyoming Valley project area

The following environmental conditions and concerns were identified within the Wyoming Valley project area.

1. Hi-Way Auto and Truck
  - The soil at this facility is likely contaminated with petroleum hydrocarbons based on the storage of damaged vehicles, trucks and other rigs stored on soil for extended periods of time.
  - It is recommended that all soil at this facility be reused in accordance with waste management regulations and remain on the site.
  - The parcel is located within a known Superfund Site from mining and dumping activities. Contaminated groundwater is an issue in this area. However, project activities in this area are



not proposed to reach the depth of groundwater.

- Based on 30% drawings, no impacts to this property are proposed as part of the project.
2. Lite Ning Inc. / Litening / Lite-ning Inc.
    - The soil at this facility is likely contaminated with petroleum hydrocarbons based on the storage of damaged vehicles, trucks and other rigs stored on soil for extended periods of time.
    - It is recommended that if soil will be excavated and taken offsite, that the soil be tested to ensure the soil meets clean fill guidelines. It is also recommended that a stormwater basin not be located at this site without first testing the soil as part of a Phase III action.
    - Based on the 30% drawings, no impacts to this property are proposed as part of the project.
  3. Stormwater basin adjacent to All Star Tire and Pilot Travel Center
    - The water observed in the stormwater basin appeared grayish and dark colored. The banks of the basin appeared stained and dark colored. Petroleum hydrocarbons in the form of motor oils, greases, gasoline, and diesel fuel may be entering the stormwater basin as components of runoff and are accumulating in the basin and concentrated during precipitation events.
    - Water and soil in the stormwater basin is a concern for the project. It is recommended that project construction avoid this area.
    - Based on the 30% drawings, no impacts to this property are proposed as part of the project.
  4. Scranton Terminal
    - No impacts to soil are anticipated to this facility as a result of the proposed project as the facility is outside of the project area. However, shallow groundwater flows toward the project corridor with potential for project construction to impact contaminated groundwater. It is known that benzene is above the site-specific standard in three monitoring wells and a recovery well. Therefore, it is recommended benzene be removed from encountered groundwater during construction activities using activated carbon filters if the project impacts groundwater south of I-81.

#### Clarks Summit project area

Results of the investigation concluded that no environmental concerns were noted within the Clarks Summit project area.

#### **Supporting documentation for Section 4.2 includes:**

- PennDOT. 2019. *Publication 281: Waste Site Evaluation Procedures Handbook: The Transportation Project Development Process.* Available at <http://www.dot.state.pa.us/public/PubsForms/Publications/PUB%20281.pdf>

- *Scranton Beltway Construction Wyoming Valley Area Subsurface Exploration Planning Submission (November 2018)*
- *Draft Scranton Beltway Phase I Environmental Site Assessment (January 2020)*
- *Preliminary Geotechnical Engineering Report Scranton Beltway – Clarks Summit Interchange (December 2021)*
- *Scranton Beltway Construction Wyoming Valley Area Preliminary Design Geotechnical Engineering Report (March 2022, revised July 2022, and August 2022)*
- *Problem Statement and Draft Exploration Plan – Final Design Scranton Beltway – Clarks Summit Interchange (June 2022)*

### 4.3 Wildlife

Based on scoping, wildlife sanctuaries and critical habitat were not located within the project areas. For this reason, no further assessment of these resources is provided. The project team would however look for opportunities to incorporate wildlife crossings into the project during final design in accordance with PennDOT Publication 13, Contextual Roadway Design.

## THREATENED & ENDANGERED PLANTS & ANIMALS

### No-Build Alternative Impacts

The No-Build Alternative would have no impact on threatened or endangered species, migratory birds, or invasive species.

### Preferred Alternative Impacts

#### Describe Avoidance Measures to be Implemented

##### Wyoming Valley and Clarks Summit project area

Carry out tree cutting activities from November 16 to March 31, during which time bats are hibernating or concentrated near their hibernacula. This seasonal restriction on tree cutting applies to trees that are greater than or equal to 5 inches in diameter at breast height (DBH).

#### Remarks

##### Wyoming Valley project area

A PNDI online environmental review was completed for the Wyoming Valley project area in July 2018, and updated in May 2021, March 2023, and June 2024. According to the March 2023 PNDI, the results indicate that no threatened or endangered plants, animals or other resources under the jurisdiction of the Pennsylvania Department of Conservation and Natural Resources (PADCNR) or the PFBC are known to exist within the Wyoming Valley project area. The results indicated that

the federally endangered Indiana Bat and the Northern Long-eared Bat are present within the project vicinity. A Conservation Measure was issued under the Pennsylvania Game Commissions (PGC) jurisdiction. No further coordination is required with the PGC as the potential impact to state and federally listed species are also under the jurisdiction of the United States Fish and Wildlife Service (USFWS). The PGC defers comments regarding the federally listed species to the USFWS. An avoidance measure was issued under the jurisdiction of the USFWS to conduct any tree cutting, disturbance, inundation (flooding) and prescribed burning from October 1 to March 31 to avoid impacts to the Indiana Bat and the Northern Long-eared Bat.

Follow-up correspondence with USFWS took place in September 2019 to determine what measures would be necessary should project activities take place within the tree clearing restriction. See **Appendix C** for the USFWS response letter dated September 5, 2019. The USFWS stated that if tree cutting is conducted from April 1 through September 30, death or injury may result to roosting Indiana Bat and the Northern Long-eared Bat. The USFWS stated to avoid killing or injuring bats, conduct tree-cutting activities from October 1 to March 31, during which time bats are hibernating or concentrated near their hibernacula. This seasonal recommendation on tree cutting applied to trees that are greater than or equal to 5 inches in diameter at breast height (DBH). If seasonal restrictions are not feasible, a bat survey of the project area between May 15 and August 15 should be conducted by a USFWS-qualified biologist.

An additional letter was submitted to the USFWS in July 2021 after updating the PNDI for updated project guidance for the remainder of the project. The project team would implement a time of year restriction to remove trees between October 1 to March 31 to avoid killing or injuring bats that may be present. The USFWS stated in their July 2021 letter that since any tree clearing that needs to be completed would take place between October 1 to March 31, no adverse effects would occur to the federally endangered Indiana Bat and the Northern Long-eared Bat. See **Appendix C** for the USFWS letter dated July 6, 2021.

Since the reclassification of the Northern Long-eared Bat as endangered under the Endangered Species Act (ESA) in March 2023, the project team submitted an additional letter to the USFWS in May 2023 to get updated guidance. The USFWS responded in their May 16, 2023 letter that since there had been no changes to the project or biological information within the project area, their comments remain unchanged since their July 6, 2021 letter.

Under the direction of the USFWS, the PNDI was updated in June 2024. The update resulted in the USFWS responding that the project is located in the vicinity of Northern Long-eared Bat spring staging/fall swarming habitat. The USFWS stated to use their Information for Planning and Consultation tool (IPaC) and follow the Northern Long eared Bat range wide determination key to

review the projects' potential effect on the Northern Long-eared Bats. Coordination with the USFWS's IPaC tool occurred and the result of the IPaC tool showed a "May Affect" determination. However, coordination that was completed in 2023 is still valid which resulted in a "Not Likely to Adversely Affect" the species. Coordination with the USFWS will continue to occur during final design.

According to the USFWS May 22, 2024 email, the USFWS updated the time of year tree clearing restrictions. They now advise conducting tree clearing during November 16 to March 31, which is a different timeframe than what they had advised in previous clearance letters (October 1 to March 31).

The agency's determinations and responses are valid for two years (from the date of the review) and will be updated as the project progresses.

The June 2024 Wyoming Valley PNDI receipt (PNDI-650858) and agency coordination responses are included in **Appendix C**.

#### Clarks Summit project area

A Pennsylvania Natural Diversity Inventory (PNDI) online environmental review was completed for the Clarks Summit project area in July 2018, and updated in July 2021 and April 2023. The result indicates that no threatened or endangered plants, animals or other resources under the jurisdiction of the USFWS, PADCNR, PGC, or the PFBC are known to exist within the Clarks Summit study area.

Under the direction of the USFWS, the PNDI was updated in May 2024 due to updated information in their system. According to the USFWS, the Clarks Summit project area is within the buffers of multiple bat caves/mine openings. See the USFWS email dated May 22, 2024 (**Appendix C**). The updated PNDI resulted in a conservation measure issued under the jurisdiction of the PGC. No further coordination is required with the PGC as the potential impact to state and federally listed species are also under the jurisdiction of the USFWS. The PGC defers comments regarding the federally listed species to the USFWS. The USFWS stated that the project is located in the vicinity of the Northern Long-eared Bat spring staging/fall swarming habitat. The USFWS stated to use their IPaC tool and follow the Northern Long-eared Bat range wide determination key to review the projects' potential effect on the Northern Long-eared Bats. Coordination with the USFWS's IPaC tool has occurred as well as further coordination with the USFWS. The resulting coordination with the USFWS states that the project will "Not Likely to Adversely Affect" the Northern Long-eared Bat. Coordination with the USFWS will continue to occur during final design.

The May 2024 Clarks Summit PNDI receipt (PNDI-650871), USFWS email, and USFWS letter are included in **Appendix C**.

**Supporting documentation for Section 4.3 includes:**

- *Pennsylvania Natural Heritage Program. Pennsylvania Conservation Explorer. Conservation Planning and PNDI Environmental Review website. Available at <https://conservationexplorer.dcnr.pa.gov/>.*
- *EA (Environmental Assessment) Appendix C: Threatened and Endangered Species*

**4.4 Cultural Resources**

**Were Cultural Resource Professionals (CRPs) needed for project scoping?** Yes

**CRP Scoping Field View Date:** 05/27/16

**CRP Architectural Historian in Attendance:** Kris Thompson, PennDOT District 5-0

**CRP Archaeologist in Attendance:** Kevin Mock, PennDOT District 4-0

**Above-Ground Historic Properties**

- Above-Ground Historic Properties Field Assessment and Finding Above-Ground
- Historic Properties Finding Letter
- Section 106 (Above-Ground Historic Properties) Effect Concurrence Letter TE Project
- Field Assessment and Finding Checklist

**Archaeology**

- Archaeology Field Assessment and Finding
- Archaeology Finding Letter
- Section 106 (Archaeology) Effect Concurrence Letter
- TE Project Field Assessment and Finding Checklist
- Deferred Archaeological Testing Form
- Project Specific Programmatic Agreement

**Supplemental documentation should be completed as warranted:**

- Historic Structures Survey / Determination of Eligibility
- Report Phase Ia Archaeological Sensitivity Report
- Geomorphological Survey Report
- Archaeological Disturbance Report
- Archaeology Identification (Phase I) Report
- Archaeology Negative Survey Form

- Archaeology Evaluation (Phase II) Report
- Combined Archaeology Identification/Evaluation Report
- Determination of Effects Report
- (Bridge) Feasibility Report
- Other

### **No-Build Alternative Impacts**

The No-Build Alternative would have no impact on archaeological or above-ground historic resources.

### **Preferred Alternative Impacts**

#### **Remarks**

##### Wyoming Valley project area

A review of the PHMC's PA Share website indicates that there are no NRHP listed or eligible resources in the immediate vicinity of the Wyoming Valley study area. The Pennsylvania Turnpike Northeast Extension (Resource# 2005RE00168) was previously determined not eligible for the NRHP. The project team conducted a field view in 2019 of the Clarks Summit project area to document the presence of potential historic resources within the APE. The early-to-mid twentieth century residential neighborhood located along the west side of I-81 between Mill Creek and Lidy Creek was investigated in August 2019 via the preparation of a Historic Resource Survey Form (HRSF). The HRSF documented approximately 292 acres of mixed-use neighborhood in this area which was identified as the Dupont District. The neighborhood contains buildings dating between 1870 and 1970, although many of the buildings have undergone renovations or alterations. The HRSF stated that the District was recommended not eligible for the National Register of Historic Places (NRHP) under criteria A, B, or C due to lack of significance and lack of integrity. PHMC concurred that the Dupont District is not eligible on January 21, 2019. The PHMC concurrence letter is included in **Appendix D**. In its January 2019 letter, PA SHPO also concurred that further survey of the Clarks Summit project area is not required for above ground resources.

In July 2022, a Phase IA/B Archaeological Survey Report was completed for the project. The Phase IA assessment of archaeological potential within the Wyoming Valley Interchange project area determined that the majority of the project area has been disturbed by strip mining and residential, industrial, and transportation-related development. However, two areas of historical archaeological potential were identified and subjected to Phase IB archaeological investigations consisting of a visual surface examination of existing conditions and subsurface excavation. No archaeological sites were identified within the Wyoming Valley Interchange project area. The District's Archaeological Finding memo, dated August 10, 2022 is included in **Appendix D**.

### Clarks Summit project area

A review of the Pennsylvania Historical and Museum Commission's (PHMC) State Historic and Archaeological Resource Exchange (PA SHARE) website indicates that there are no National Register of Historic Places (NRHP) listed or eligible resources located in the Clarks Summit study area. Three (3) NRHP ineligible resources are in the immediate vicinity of the project location: L.R. 35020 Bridge (Resource# 1983RE02899), Chinchilla Historic District (Resource# 2011RE00440), and Pennsylvania Turnpike Northeast Extension (Resource# 2005RE00168).

In August 2019, a field view was conducted to document the presence of historic resources within the Area of Potential Effect (APE) for the project. A total of 28 properties fifty years or older were documented within or adjacent to the APE. Based on the field view, all of the properties are residential, and many of the dwellings have been altered with features that compromise their historic appearance. The field view concluded that the buildings within the APE are not significant or eligible for the National Register of Historic Places (NRHP) as a group nor meet the criteria to be individually eligible. PHMC concurred with this finding on January 21, 2019. The PHMC concurrence letter is included in **Appendix D**.

In July 2022, a Phase IA/B Archaeological Survey Report was completed for the project. The Phase IA assessment of archaeological potential within the Clarks Summit Interchange project area determined that the majority of the project area has been disturbed by residential, industrial, and transportation-related development. Much of the remainder of the project area is characterized by geomorphological characteristics which typically preclude Native American usage of the landscape or are otherwise unsuitable for archaeological investigation, such as excessive slope or poor drainage. Seven areas of pre-contact archaeological potential were identified and subjected to Phase IB archaeological investigations. No archaeological sites were identified. The District's Archaeological Finding memo, dated August 10, 2022 is included in **Appendix D**. One additional area of pre-contact and historical archaeological potential was inaccessible at the time of survey. The Deferral of Archaeological Testing form, dated July, 20, 2022 is included in **Appendix D**. The archaeological testing of one parcel will be completed during final design due to issues with access to the property.

#### **Supporting documentation for Section 4.4 includes:**

- *EA Appendix D: Section 106 Coordination*

#### **4.5 Section 4(f) Resources**

##### **No-Build Alternative Impacts**

The No-Build Alternative would have no impact on Section 4(f) resources.

## Preferred Alternative Impacts

### Remarks

#### Wyoming Valley project area

No historic resources, publicly owned parks, recreation areas, or refuges were observed during field reconnaissance or secondary source reviews within the project area.

During secondary source review of the Wyoming Valley project area and communication with Dupont Borough, it was noted that the Borough owns 33-acres of land between Commerce Road and I-476, herein called the Dupont Borough Compost facility property. The property is currently not developed or designated for recreational use.

A Technical Memorandum was prepared to document the Section 4(f) applicability of the Dupont Borough property. PennDOT concurred on May 5, 2022 via email that the is property is not a Section 4(f) resource.

#### Clarks Summit project area

No historic resources, publicly-owned parks, recreation areas, or refuges were observed during field reconnaissance or secondary source reviews within the project area.

### Supporting documentation for Section 4.5 includes:

- *Section 4(f) Applicability Memo (September 2021)*
- *PennDOT confirmation email regarding No Section 4(f) (May 2022)*

## 4.6 Air Quality, Greenhouse Gases, and Noise

### 4.6.1 Air Quality

**Is the project exempt from regional ozone conformity analysis and a CO, PM10 & PM2.5 Hot-Spot analysis?** No

**Is the project in an air quality nonattainment or maintenance area?** Yes  
**If Yes, for what pollutant?** Ozone

**Is the project exempt from a regional conformity air quality analysis?** No  
**If No, was it included in the most recent regional conformity air quality analysis?** Yes



**Project Level Impacts for Carbon Monoxide (CO)**

**Are there any sensitive receptors located within the project area?** Yes

**Based on similar projects in similar settings, will there be any negative air quality impacts?** No

**Mobile Source Air Toxics (MSATs)**

**Is the project exempt from an analysis for MSATs based on Pub #321?** No

**Check all applicable statements:**

- The project is an activity that would not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative over existing conditions.
  
- Because of the uncertainties due to unavailable or incomplete information, a quantitative assessment of the effects of air toxic emissions impacts on human health cannot be made at the project level.

**Air Quality Remarks**

**No-Build Alternative Impacts**

While a detailed analysis has not been completed, the increased design year traffic volumes and increased congestion/decreased traffic speed, the No-Build Alternative would be expected to negatively impact air quality.

**Preferred Alternative Impacts**

EPA established National Ambient Air Quality Standards (NAAQS) for commonly found air pollutants including carbon monoxide (CO), ozone, particulate matter (PM2.5 and PM10) nitrogen oxides (NOx), sulfur dioxide (SO2) and lead (Pb). The project is located within Luzerne County, which is in attainment with the NAAQS on a regional level, with the exception of 8-hour ozone (1997). Luzerne County is designated as maintenance areas for 8-hour ozone, which may require the project to be considered being included in a regional conformity analysis.

The project team conducted a project level air quality analysis in December 2019 for CO, fine particulates (PM 2.5) and Mobile Source Air Toxics (MSAT) consistent with the *PennDOT Project Level Air Quality Handbook - Pub. 321* (10-17). Based on the analysis:

- **CO** – The proposed project was eligible for screening under the annual average daily traffic (AADT) requirements in Publication 321. Per Pub 321, a qualitative analysis is

sufficient and therefore, the following statement applies to the project. "The subject project does not include or directly affect any roadways for which the 20-year forecasted daily volume would exceed the established threshold level of 125,000 vehicles per day. It can therefore be concluded that the project would have no significant adverse impact on air quality as a result of CO emissions."

- **PM 2.5** - The proposed project is located in an attainment area for the PM2.5 and PM10 standards. Therefore, the following statement applies to the project. "The proposed project is located in an attainment area for the PM2.5 and PM10 standards. The project does not require a project-level conformity determination. According to the PM2.5 and PM10 hot-spot analysis requirements established in the March 10, 2006, final transportation conformity rule (71 FR 12468), no further project-level air quality analysis for this/these pollutant(s) is required."
- **MSAT** - Based on the qualitative analysis completed, the preferred alternative in the design year is expecting there would be slightly higher MSAT emissions in the project area relative to the No-Build Alternative. This would be a result of increased traffic volumes on I-476 due to increased utilization and latent demand from adjacent roadways. In considering the project area, EPA's vehicle and fuel regulations, coupled with fleet turnover, would over time cause substantial reductions that, in almost all cases, would cause areawide MSAT levels to be significantly lower than today.

#### **4.6.2 Greenhouse Gases**

Greenhouse gases (GHGs) are a group of gases that trap heat in the atmosphere, keeping the Earth's surface warmer than it would be if they were not present. Climate change refers to any substantial change in measure of climate (e.g., temperature or precipitation) lasting for an extended period (decades or longer). According to the US EPA, human activities are responsible for almost all of the increase in GHGs in the atmosphere over the last 150 years. GHG emissions from the transportation sector account for approximately 28 percent of total U.S. GHG emissions, making it the largest direct contributor (USEPA 2024). GHG emissions from transportation primarily come from burning fossil fuel, primarily gasoline and diesel. PennDOT's GHG/climate change assessment process considers either quantitative or qualitative analysis of projects that are anticipated to have significant transportation and/or construction impacts. To assess project-level GHG emissions, PennDOT considers the project's impact on vehicle miles traveled (VMT) and traffic operations (i.e., travel speeds) over the project lifespan, evaluated against potential levels of construction activity. PennDOT also assesses the effects climate change may have on the proposed project and the affected environment.

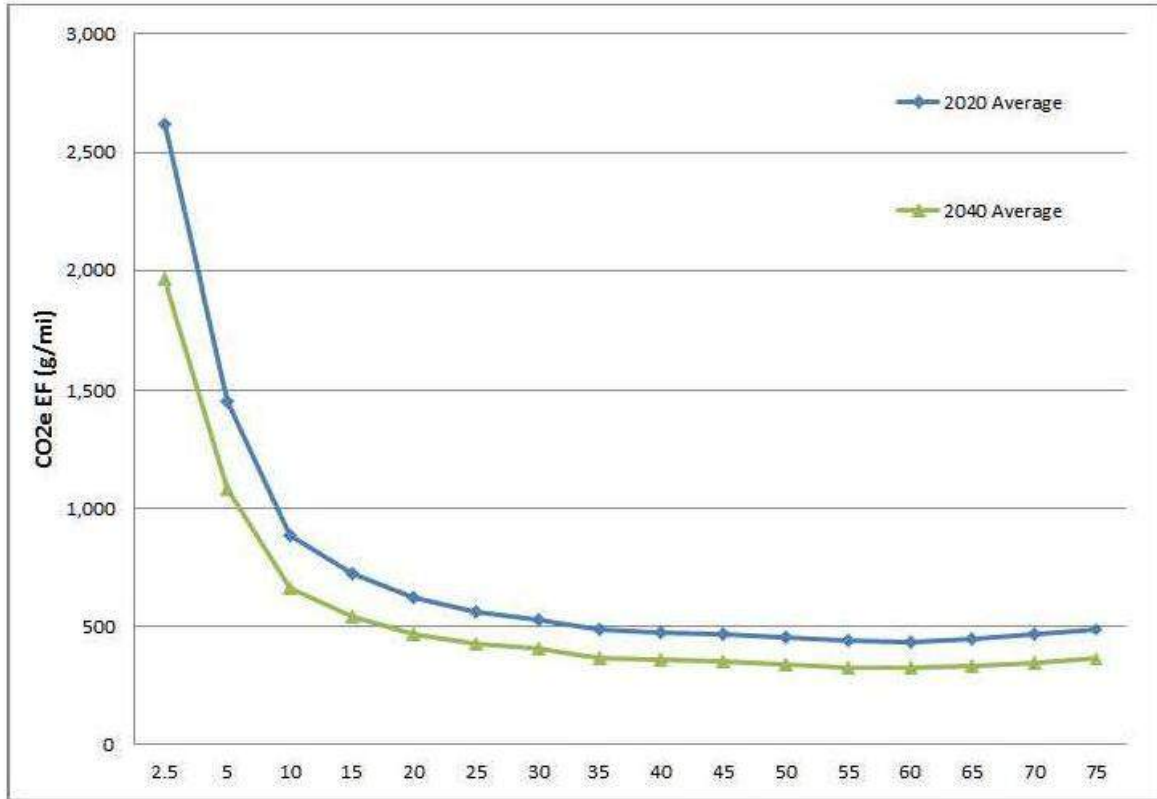
#### *4.6.2.1 Project GHG Emissions No-Build Alternative*

Under the No-Build Alternative, existing congested conditions on I-81 would continue, with increased levels of congestion anticipated in the future. As congestion on I-81 continues to worsen, it is expected to lead to roadway users choosing local roads as an alternative route, resulting in congestion of local roads as well. Traffic incidents as well as normal roadway construction and maintenance activities along I-81 would also continue to cause substantial, unpredictable impacts to traffic movement.

It is anticipated that the increasing congestion on I-81 and usage of local roads as alternate travel routes would result in the need for more frequent maintenance work on both I-81 and local roads. These conditions would further contribute to congestion on I-81 and to VMT as traffic diverts to less direct alternate routes. Increased congestion (see **Figure 14**) and increased VMT are both factors that contribute substantially to GHG emissions. As a result of anticipated design-year traffic, increased congestion, decreased traffic speed, and increased VMT, the No-Build Alternative would be expected to result in higher GHG emissions over time than the Build Alternative.

**Figure 14: CO<sub>2</sub>e Emission Rates by Speed**

**2020 and 2040 CO<sub>2</sub>e Composite Running Emission Rates by Speed (mph)  
Based on MOVES2014a MOVESDB20151201 – for sample Pennsylvania County**



Source: PennDOT Publication 321, Project-Level Air Quality Handbook

**Figure 14 - CO<sub>2</sub>-Equivalent Emission Rates by Speed**

#### 4.6.2.2 Project GHG Emissions Build Alternative

The POA Study for the project (approved in February 2023) indicates that the operational energy requirements of the Build Alternative would be less than the No Build Alternative. Under the Build Alternative, it is anticipated that the increased use of available unused capacity on I-476, along with reduced congestion on I-81 and surrounding local roads, would result in more efficient travel conditions. The Build Alternative would also reduce overall VMT, provide high-speed direct connections, improve safety on I-81, and add cashless tolling. The need for construction and maintenance activities under the Build Alternative would be lower than if no improvements were made to the existing condition, and the availability of an alternative route would lessen the traffic congestion impacts during construction and maintenance activities. Because GHGs including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) are

produced by combustion of fossil fuels (EPA, 2024), these improvements to the efficiency of travel conditions would result in a corresponding reduction of GHG emissions. Refer to Section 4.8 for more discussion of how the project is anticipated to reduce vehicle energy use.

The project is consistent with planned development and is not expected to induce development in the region. The Build Alternative would more efficiently accommodate the projected increase in traffic than the No-Build Alternative.

#### *4.6.2.3 Climate Change Impact*

Climate Change Impacts – Pennsylvania DEP’s Climate Impacts Assessment 2021 reports that Pennsylvania is currently experiencing trends of warming temperatures and overall wetter weather, which are predicted to continue at an accelerated rate (DEP, 2021). By the middle of the twenty-first century, the average statewide temperature is projected to be 5.9°F higher than at the end of the twentieth century. Over the same timeframe, annual precipitation is expected to increase by 8 percent, mainly in winter and spring, and occurring in less frequent but heavier rain events (based on RCP 8.5, which represents a global “baseline” scenario without additional efforts to reduce emissions). According to the Impact Assessment, flooding is currently the highest risk hazard facing Pennsylvania; severe tropical storms, flooding, and landslides could become more likely or severe in the future.

PennDOT’s Extreme Weather Vulnerability Study (2017) reports that climate change-related impacts such as extreme precipitation and rising temperatures, which are projected to intensify in the future, have potential to disrupt traffic, damage infrastructure, and degrade materials. The study evaluates historic flooding, describes a methodology for forecasting future vulnerability, and presents strategies for assessing risks and improving resiliency. The project study area does not have identified historic flooding vulnerability. However, there are several watercourses with FEMA-mapped 100-year floodplains in the project study area and the surrounding area. As storm frequency and intensity increases, more frequent flood events may occur, with potential to impact the roadway system.

#### **No-Build Alternative Impacts**

The No-Build Alternative would not improve the changing climate as the congestion would continue to worsen over time adding to increased air pollution. Additionally, stormwater management features would not be constructed to assist with the increasing flooding.

### **Preferred Alternative Impacts**

The proposed project, constructed to current design standards, would be more resilient to increased flood risks from a changing climate than the existing, aging roadways. The project would also add stormwater management features to detain stormwater and provide water quality and runoff control, which would reduce the risk of damaging or disruptive flooding. In addition, the addition of an easily accessible alternate route enhances the redundancy of the local and regional transportation systems, which adds resiliency in the event of future flooding events and roadway maintenance activities. These elements are expected to improve resiliency of the roadway infrastructure to storm events and high temperatures. Additional improvements to ensure resiliency may also be considered in final design activities.

### **4.6.3 Noise**

In accordance with PennDOT's Project Level Highway Traffic Noise Handbook, Publication 24 (May 2019), the Scranton Beltway project areas, at both Wyoming Valley and Clarks Summit, is considered a Type I project. The project would result in the addition of new traffic lanes and would cause a substantial horizontal alteration. The project would halve the distance between the traffic noise source and the closest receptor between the existing condition to the future build conditions. As a Type I project, an assessment of highway traffic noise impacts due to the transportation improvement project and consideration of the incorporation of avoidance and/or mitigation measures into the design and construction is required.

The analysis was conducted in accordance with PennDOT/FHWA procedures. The FHWA -approved model used for the analysis is Version 2.5 of the Traffic Noise Model (TNM). The TNM incorporates engineering design information and project mapping elements to evaluate traffic-induced noise levels. The information applied to the modeling effort includes existing and proposed roadway and grading geometry, traffic volumes, travel speeds, vehicle types, building rows and tree zones, and existing local roadways with measurable noise influences. Modeling occurred in 2019 and the noise models were validated.

Noise abatement has been evaluated for the noise study areas which meet PennDOT and FHWA criteria for a Type I project. These studies focus on the noise analysis and mitigation related to the 2045 design year Build Alternative. Future No-Build Alternative noise levels related to the existing highway configuration were also studied for comparison purposes.

### **Methodology**

PennDOT Noise Abatement Criteria (NAC), described in **Table 12**, for specific land use activities were used in the evaluation of traffic noise impacts. These criteria are based on criteria established in Title 23 Code of Federal Regulations, Part 772, U.S. Department of Transportation, Federal

Highway Administration (FHWA), *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, and guidelines for "increase over existing" noise levels as set forth in PennDOT Publication *Project Level Highway Traffic Noise Handbook Publication No. 24*, dated May 2019.

The FHWA and PennDOT define noise impact based upon seven activity categories, as identified in **Table 12**. Individual sites located within a given activity category are designated as noise sensitive receptors. Noise sensitive receptors are grouped into Noise Study Areas (NSA) by geography. Noise impacts were also evaluated by comparing the predicted noise levels with existing noise levels. A noise impact was identified if the future (year 2045) noise level was predicted to approach or exceed 67 dB(A), or if future noise levels within the project area were predicted to cause a substantial noise increase (greater than or equal to 10 dB(A)) as compared to existing noise levels (year 2018).

Sound pressure is measured in terms of decibels (dB). A-weighted decibels (dBA) are an expression of the relative loudness of sounds in air, with an emphasis on frequencies that can be perceived by the human ear. Noise is measured on a logarithmic scale, which means that the doubling of sound energy increases the level by 3 decibels. On this scale, 0 dBA cannot be heard, and 120 dBA is uncomfortably loud and painful to human hearing. An increase in sound levels of 1 to 2 dBA is generally not perceptible by the human ear. For most people to begin to perceive a change in sound level, a 3 dBA increase would be necessary. An increase of 10-dBA is perceived as a doubling of sound levels. Relative to traffic noise, doubling the traffic volume yields an approximate 3 dBA increase.

**Table 12 - PennDOT and FHWA Hourly Weighted Sound Levels (dBA) for Various Land Use Activity Categories (\*)**

Land Use Activity Category	NAC	Land Use Activity Category
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B <sup>a</sup>	67 (exterior)	Residential
C <sup>a</sup>	67 (exterior)	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings

Land Use Activity Category	NAC	Land Use Activity Category
D	52 (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios
E	72 (exterior)	Hotels; motels; offices; restaurants/bars; and other developed lands, properties, or activities not included in A, B or C
F	--	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing
G	--	Undeveloped lands that are not permitted

<sup>a</sup> Includes undeveloped lands permitted for this activity category

\* This table was included in the FHWA-approved noise reports for Clarks Summit and Wyoming Valley, but was removed from **Appendix E** as to not duplicate tables.

Consideration of noise abatement is required in Pennsylvania if noise levels approach the NAC (approach is defined as 1 dB(A) below the noise abatement criteria) or create a substantial noise "increase over existing" (IOE) (10 dB(A)). The future year noise levels were compared to the NAC approach levels (66 dB(A)) for land use Categories B and C and to the increases over existing year noise levels using PennDOT's NAC to determine if there would be any noise impacts. These comparisons are contained in the noise summary tables for each Noise Study Area (NSA), with the noise measurement sites and analysis sites (receivers) indicated within each NSA. Noise impacts were identified in each NSA based on predicted exterior noise levels exceeding the 66 dB(A) approach criteria level for Activity Category land uses B and C. "Increase over existing" (IOE) noise levels are primarily the result of the proposed project.

In addition to their use in evaluating noise impacts, noise analysis sites were used in the consideration of noise abatement for noise sensitive receptors within each NSA. Abatement measures such as traffic management devices and roadway realignment were determined not to be feasible. In addition, the topography and development in the area does not lend itself to the use of noise berms as an effective noise abatement technique. Therefore, noise abatement evaluations focused on the design of noise barrier walls.

Under PennDOT noise criteria, feasible noise barriers are those that provide at least 5 dB(A) of noise reduction for at least 50% of impacted receptors, while posing no safety, engineering,



maintenance, constructability, drainage, or utility impacts, or access restrictions. If determined to be feasible, a barrier was then evaluated for reasonableness. For a barrier to be reasonable based on PennDOT noise criteria, it must be cost-effective (square footage per benefited residential receptor (SF/BR) must be less than or equal to 2,000), and the desires of the affected property owners and residents must be considered. Receptors are considered to be benefited if they receive 5 dB(A) or more noise reduction (insertion loss) from a barrier. To meet PennDOT's reasonableness criteria, a barrier must also achieve at least a 7 dB(A) noise reduction at one receptor.

### **Noise Measurements and Model Validation**

Ambient noise measurements were conducted throughout the Wyoming Valley and Clarks Summit project areas. Within each of the above NSAs, short-term (20-minute duration) noise measurements were taken along with concurrent traffic counts at 19 locations (Wyoming Valley) and 42 locations (Clarks Summit) using American National Standards Institute (ANSI) Type I noise meters. Short-term measurements were taken at various times of the day between two days in June of 2019 for Wyoming Valley and July for Clarks Summit. These measurements do not necessarily represent the noisiest condition at any measurement site. Long-term noise measurements were taken at specific locations to observe typical loudest-hour conditions. Measurements were used primarily for purposes of noise model validation, with year 2018 peak hour traffic volumes assumed in the prediction of worst-case existing noise levels. Measured existing Equivalent Continuous Sound Pressure Level (Leq) noise levels at short-term measurement sites (receptors) ranged from 54 to 70 dB(A) at Wyoming Valley and 49 to 72 dB(A) at Clarks Summit.

Using the traffic data obtained concurrently with the short-term noise measurements, noise levels were modeled and compared to measured noise levels. Existing short-term measured noise levels and hourly traffic data based on concurrent traffic counts are summarized in Table 2 (**Appendix E**). Validation results are shown in Table 3 (**Appendix E**). The results of the validation process were used to "build" the FHWA TNM used for purposes of modeling existing and future year noise levels, determining future year impacts, and evaluating potential noise abatement options.

### **Wyoming Valley Noise Study Areas**

NSA 1: Activity Category B land uses are located north of Suscon Rd, adjacent to I-476 NB and consists of three residential properties. See **Figures 15 and 16**.

NSA 2: Activity Category B and C land uses are located adjacent to I-81 SB and north of Suscon Rd. This NSA consists of sixty-four single-family residences and a cemetery. See **Figures 15, 16, and 17**.

NSA 3: Activity Category B land uses are located adjacent to I-81 SB and south of Suscon Rd. This NSA consists of twenty-one single-family residences. See **Figures 15 and 16**.

## **Wyoming Valley Evaluation of Noise Impacts**

### **No-Build Alternative Impacts**

According to the Preliminary Engineering Noise Analysis Report for the Wyoming Valley Interchange, the noise level increase is on average from 1 to 7 dB (varies from unnoticeable to noticeable to the average human being) under the future no-build.

### **Preferred Alternative Impacts**

Consideration of noise abatement was required in NSAs 2 and 3 due to noise levels approaching or exceeding the NAC.

**NSA 1 (Appendix E, Wyoming Valley, Table 4)**: Zero of the three receptors evaluated within this NSA were predicted to have levels at or above 66 dB(A) with the Build Alternative. As such, consideration of noise abatement within this NSA was not warranted.

**NSA 2 (Appendix E, Wyoming Valley, Table 5)**: Two of the sixty-two receptors evaluated within this NSA were predicted to have levels at or above 66 dB(A) with the Build Alternative. As such, consideration of noise abatement within this NSA was warranted. A direct benefit could not be provided to the impacted receptor R2-57 using a feasible and reasonable noise barrier. This is due to the proposed SB flyover ramp, which provides line of sight shielding between many receptors in NSA 2 and a significant portion of the existing I-81 mainline. Consequently, the Build Alternative noise levels at certain receptors are lower than No-Build Alternative noise levels. Noise abatement was evaluated for the impacted receptor R2-01. Three noise abatement options were considered for NSA 2. All three options consisted of noise walls and were determined to be feasible, but not reasonable. NSA 2 was not reasonable/cost effective as the square footage per benefited receptor SF/BR 4,912 > 2000, which exceeds PennDOT requirements.

**NSA 3 (Appendix E, Wyoming Valley, Table 6)**: Two of the twenty-one receptors evaluated within this NSA were predicted to have noise levels at or above 66 dB(A) with the Build Alternative. As such, consideration of noise abatement within this NSA was warranted. It should be noted that barrier placement along NSA 3 was limited due to topography near R3-21, the proximity of the roadway, and an impacted receptor. However, the barrier analysis demonstrated that benefit for R3-21 was not feasible.

### **Wyoming Valley Noise Summary**

Based on the analysis of noise reported herein, noise impacts exist within NSAs 2 and 3. Based on the evaluation of the noise levels associated with the engineering plans developed to date, noise barriers were determined to be feasible from an acoustic and engineering analysis but not reasonable for NSA 2. NSA 3 was determined not feasibly constructable.

The ownership and maintenance for the I-476 SB Connector and I-476 NB Connector is split between PennDOT and the Commission according to the following delineation. For the I-476 SB Connector, the Commission would own and maintain this connector from I-476 SB up to the connector gore (i.e., area of space between the through travel lanes and ramps) at approximate STA 222+00. PennDOT would own and maintain the I-476 SB Connector from the connector gore to I-81 southbound. For the I-476 NB Connector, PennDOT would own and maintain this connector from I-81 NB up to the connector gore (approximate STA 105+00). The Commission would own and maintain the I-476 NB Connector from the connector gore to I-476 northbound.



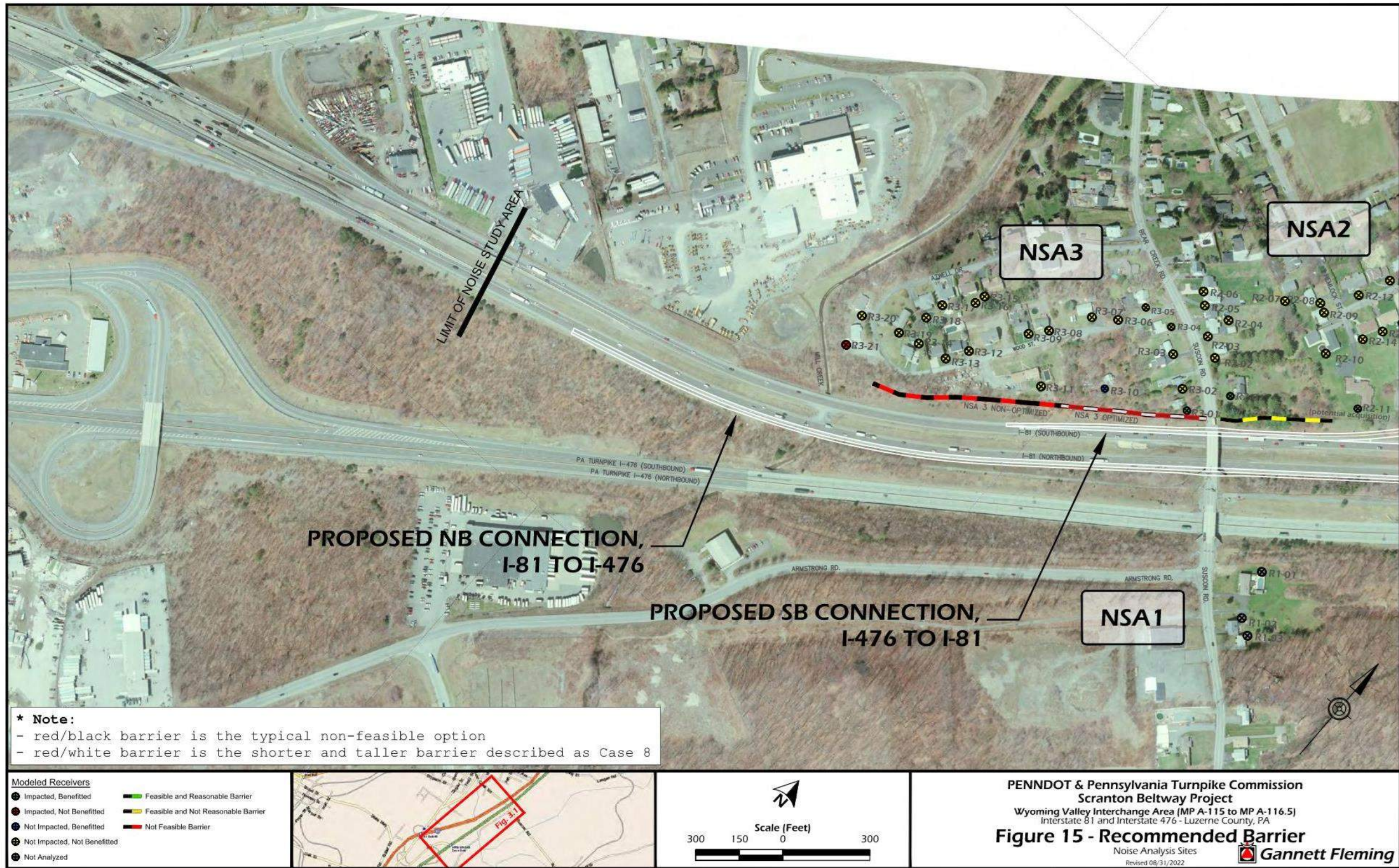
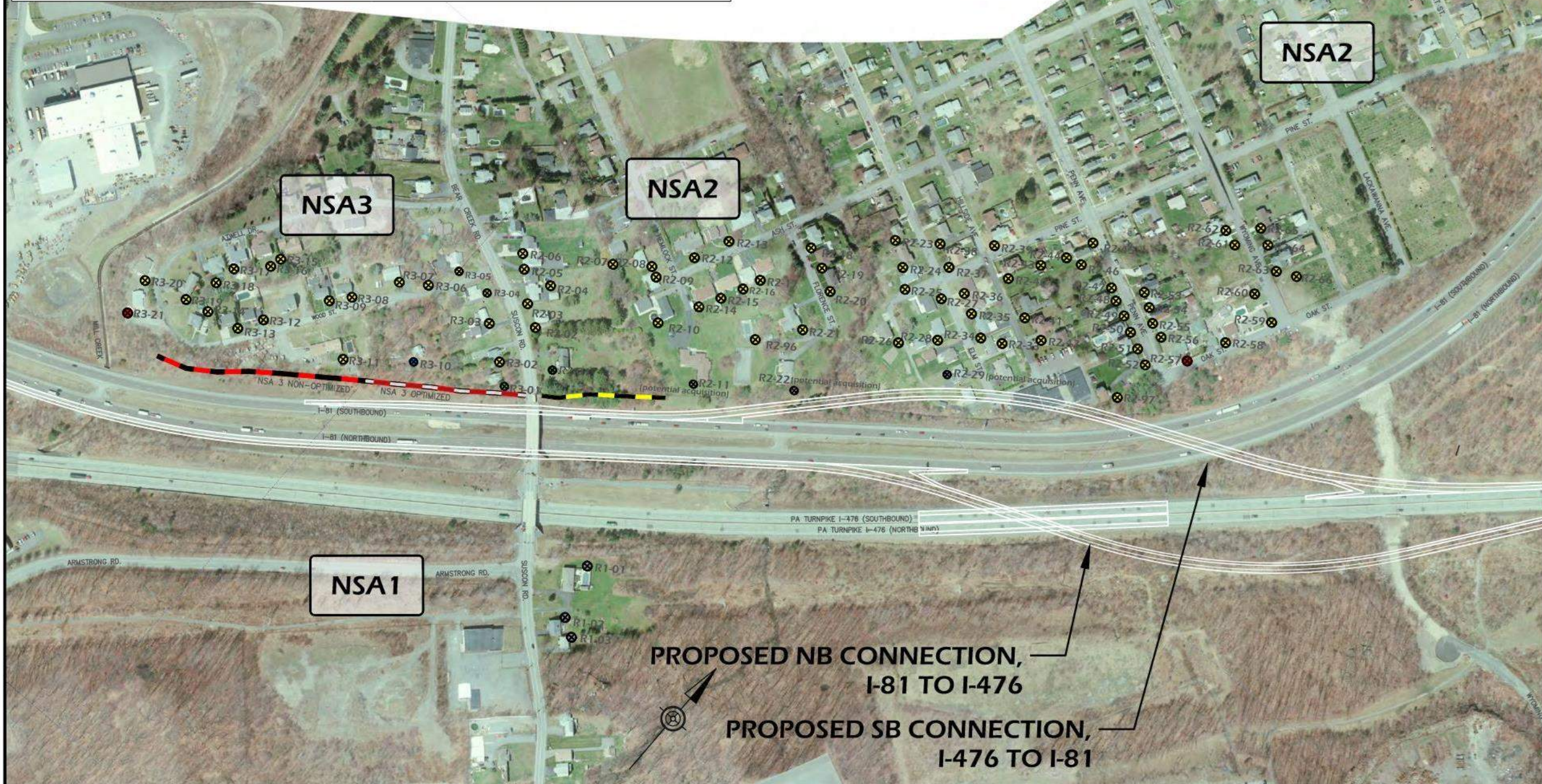


Figure 15 - Wyoming Valley Interchange Recommended Barrier Sites

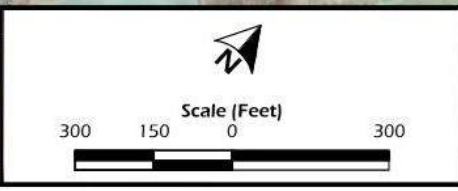


**\* Note:**  
 - red/black barrier is the typical non-feasible option  
 - red/white barrier is the shorter and taller barrier described as Case 8



**Modeled Receivers**

● Impacted, Benefitted	— Feasible and Reasonable Barrier
● Impacted, Not Benefitted	— Feasible and Not Reasonable Barrier
● Not Impacted, Benefitted	— Not Feasible Barrier
● Not Impacted, Not Benefitted	
● Not Analyzed	



**PENNDOT & Pennsylvania Turnpike Commission**  
**Scranton Beltway Project**  
 Wyoming Valley Interchange Area (MP A-115 to MP A-116.5)  
 Interstate 81 and Interstate 476 - Luzerne County, PA

**Figure 16 - Recommended Barrier**  
 Noise Analysis Sites  
 Revised 08/31/2022

**Gannett Fleming**

Figure 16 - Wyoming Valley Interchange Recommended Barrier Sites



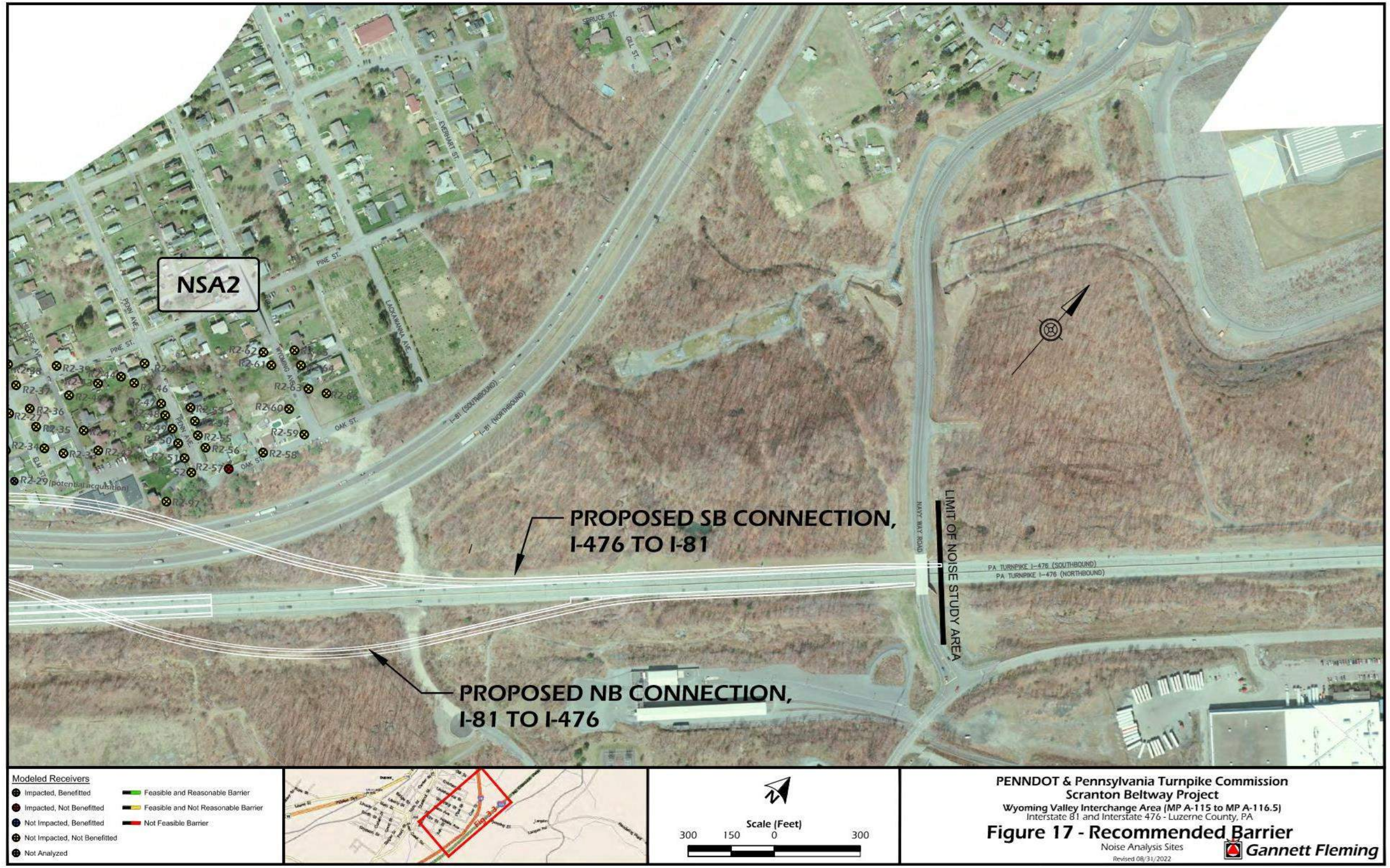


Figure 17 - Wyoming Valley Interchange Recommended Barrier Sites



### **Clarks Summit Noise Study Areas**

The Clarks Summit project area extends from South Abington Road to Simerell Road. The project area was divided into the following noise study areas (NSAs) as shown in **Figures 18-20**.

NSA 4: Activity Category B land uses are located east of Abington Rd (SR-407) and north of Sunnyside Ave, adjacent to I-476 NB and consists of forty single-family residences and four multi-family properties. See **Figure 18**.

NSA 5: Activity Category B land uses are located on Old Colony Rd and Briar Hill Circle, north of and adjacent to I-476 southbound. This NSA consists of twenty-one single-family residences. See **Figure 18**.

NSA 6: Activity Category B land uses are located on Willowbrook Rd, between the existing I-476 and I-81 mainlines. Four single-family residences are potential property acquisitions; therefore, this NSA would consist of six remaining single-family residences. See **Figure 18**.

NSA 7: Activity Category B land uses are located east of I-81 NB and west of Edella Rd. This NSA consists of thirty-five single-family residences. See **Figures 18 and 19**.

NSA 8: Activity Category B land uses are located adjacent to I-81 northbound, north of Edella Rd and south of Simerell Rd. This NSA consists of ninety-three single-family residences. See **Figures 19 and 20**.

NSA 9: Activity Category B land uses are eight single-family homes located adjacent to I-81 SB on Pauline Dr, and one single-family residence within Clarks Summit University. Activity Categories B and C land uses are located within Clarks Summit University and consists of 12 student dorm units and one classroom unit. See **Figure 19**.

NSA 10: Activity Category B land uses are located adjacent to I-81 SB along White Birch Rd and Edella Dr. This NSA consists of thirty-five single-family residences and one multi-family residence. See **Figures 19 and 20**.

### **Clarks Summit Evaluation of Noise Impacts**

#### **No-Build Alternative Impacts**

According to the Preliminary Engineering Noise Analysis Report for the Clarks Summit Interchange, the noise level increase is on average from 1 to 3 dB (varies from unnoticeable to barely perceptible to the average human being) under the future no-build.



### **Preferred Alternative**

Consideration of noise abatement was required in NSAs 5, 7, 8, 9, and 10 due to future noise levels approaching or exceeding the NAC.

NSA 4 (Appendix E, Clarks Summit, Table 4): Zero of the forty-four receptors evaluated within this NSA were predicted to have levels at or above 67 dB(A) or increase over existing noise levels that are at or above 10 dB(A) with the Build Alternative. As such, consideration of noise abatement within this NSA was not warranted.

NSA 5 (Appendix E, Clarks Summit, Table 5): Five of the twenty-one receptors evaluated within this NSA were predicted to have levels at or above 67 dB(A) or increase over existing noise levels that are at or above 10 dB(A) with the Build Alternative. As such, consideration of noise abatement within this NSA was warranted. A total of five noise abatement options were considered for this NSA. All five of the options consisted of noise walls. Four of the five met the criteria to be feasible. One option was determined to be feasible and reasonable.

NSA 6 (Appendix E, Clarks Summit, Table 6): Zero of the five receptors evaluated within this NSA were predicted to have noise levels at or above 67 dB(A), or increase over existing noise levels that are at or above 10 dB(A) with the Build Alternative. As such, consideration of noise abatement within this NSA was not warranted.

NSA 7 (Appendix E, Clarks Summit, Table 7): Three of the thirty-five receptors evaluated within this NSA were predicted to have levels at or above 67 dB(A) or increase over existing noise levels that are at or above 10 dB(A) with the Build Alternative. As such, consideration of noise abatement within this NSA was warranted. A total of six noise abatement options were considered for this NSA. All six of the options were determined to be not feasible.

NSA 8 (Appendix E, Clarks Summit, Table 8): Twenty-four of the ninety-two receptors evaluated within this NSA were predicted to have levels at or above 67 dB(A) with the Build Alternative. As such, consideration of noise abatement within this NSA was warranted. A total of seven noise abatement options were considered for this NSA. All seven of the options consisted of noise walls and the walls met the criteria to be feasible and criteria to be reasonable.

NSA 9 (Appendix E, Clarks Summit, Table 9): One receptor (R9-01) of the twenty-one receptors evaluated within this NSA was predicted to approach or exceed 67 dB(A) noise levels while no other receptors were predicted to approach or exceed 67 dB(A) noise levels or increase over existing noise levels that are at or above 10 dB(A) with the Build Alternative. As such, consideration

of noise abatement within this NSA was not warranted. The abatement for receptor R9-01 is discussed within NSA 10.

NSA 10 (Appendix E, Clarks Summit, Table 10): Twelve of the forty receptors evaluated within this NSA were predicted to have levels at or above 67 dB(A) with the Build Alternative. As such, consideration of noise abatement within this NSA was warranted. It was observed that the NSA 10 barrier had a potential to benefit the singular impacted receptor in NSA 9 (R9-01) while simultaneously providing coverage from flanking noise in NSA 10; therefore R9-01 was added to the NSA 10 Barrier Analysis for consideration. A total of seven noise abatement options were considered for this NSA. All seven of the options consisted of noise walls and were determined to be feasible. Six of the options met the criteria to be feasible and reasonable.

### **Clarks Summit Noise Summary**

Based on the evaluation of the noise levels associated with the engineering plans developed to date, noise barriers were determined to be feasible and reasonable for NSA 5, NSA 8 and NSA 10. Additionally, results from the parallel barrier analysis (**Appendix E**, Clarks Summit, Table 11) combined with the distance to height ratio of 9.375:1 to 10:1, suggest that the use of absorptive barrier treatments is warranted and recommended where NSA 8 and NSA 10 barriers are parallel to one another. Recommended noise barrier development for NSA 5 consists of a noise barrier 10-13 ft in height with a length of 787 ft running parallel to Briar Hill Circle and adjacent to I-476 southbound. Recommended noise barrier development for NSA 8 consists of a noise barrier 14-16 ft in height with a length of 3,009 ft running parallel to I-81 northbound, starting approximately 380 ft west of Hilltop Lane and ending at Simerell Road. Recommended noise barrier development for NSA 10 consists of a noise barrier 10-16 ft in height with a length of 2,305 ft running parallel to I-81 southbound, starting approximately 162 ft west of Edella Road and ending approximately 2,143 ft east of Edella Road.

During the final design phase, a detailed optimization of barrier length, height, cost, and location will be coordinated with the final design engineering process to ensure compatibility and the most cost-effective and efficient barrier design. This process may result in barrier height, length, and location changing from those discussed in this document. Further community meetings for areas where noise walls are warranted, reasonable and feasible will take place during final design.

The ownership and maintenance for the I-476 SB Connector and I-476 NB Connector is split between PennDOT and the Commission according to the following delineation. For the I-476 SB Connector, PennDOT would own and maintain this connector from I-81 SB up to the connector gore (i.e., area of space between the through travel lanes and ramps) at approximate STA 233+00. The Commission would own and maintain the I-476 SB Connector from the connector gore

through the southern work limits of the project where this connector becomes the right lane on I-476 Mainline southbound. For the I-476 NB Connector, the Commission would own and maintain this connector from the southern work limits of the project up to the bridge over I-81 SB/NB (approximate STA 125+50). PennDOT would own and maintain the I-476 NB Connector from this point to I-81 NB.

**Supporting documentation for Section 4.6 includes:**

- *PennDOT Publication 321, Project Level Air Quality Handbook (October 2017)*
- *Project Level Air Quality Analysis, Scranton Beltway Project (December 2019)*
- *Mobile Source Air Toxics Air Quality Analysis, Scranton Beltway Project, (December 2019)*
- *Preliminary Engineering Noise Analysis Report, Scranton Beltway Project, Wyoming Valley Interchange (December 2022), FHWA approved February 2023*
- *Preliminary Engineering Noise Analysis Report, Scranton Beltway Project, Clarks Summit Interchange (January 2023), FHWA approved February 2023*
- *FHWA approval letter (February 2023)*



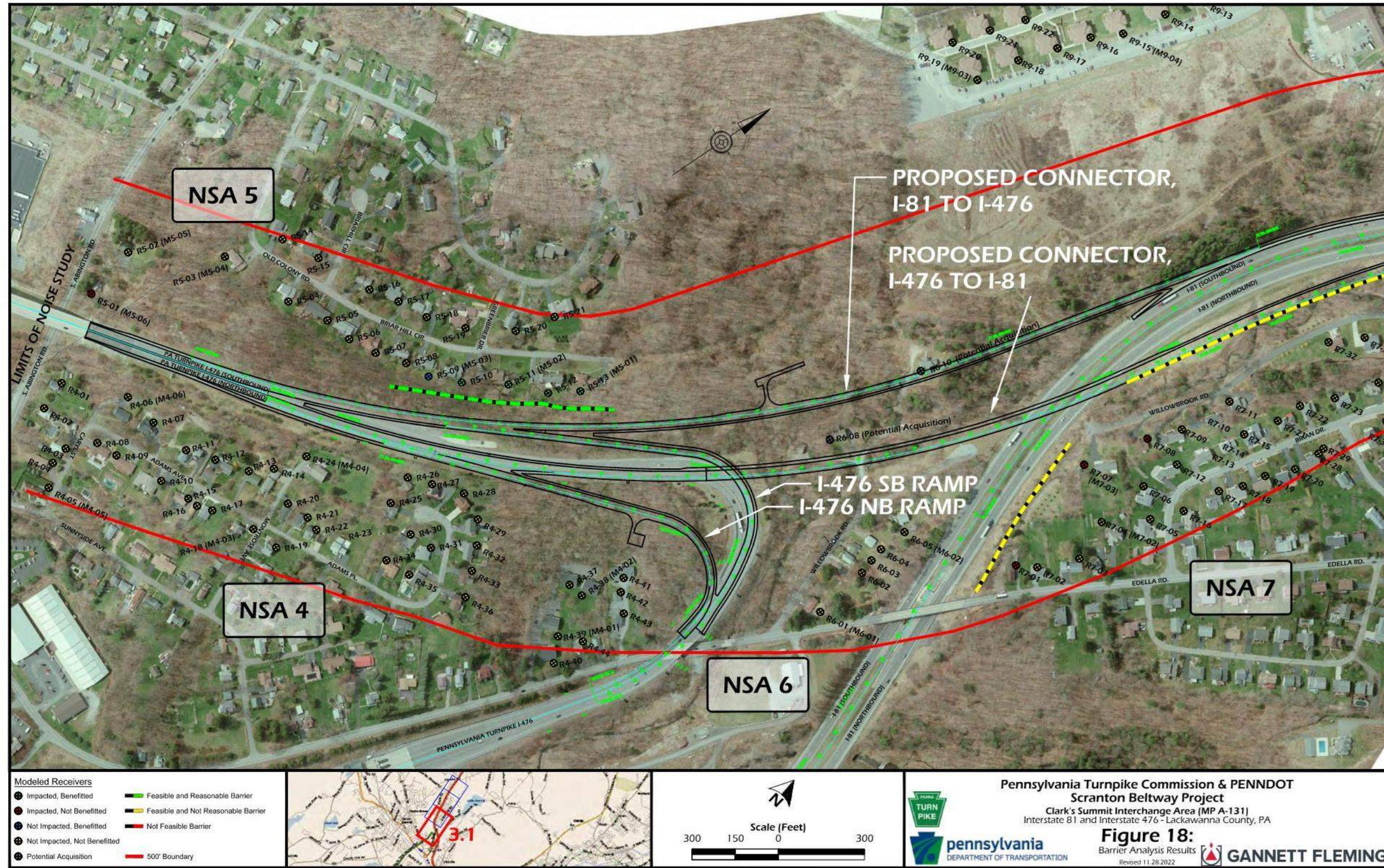


Figure 18 - Clarks Summit Interchange Barrier Analysis Results



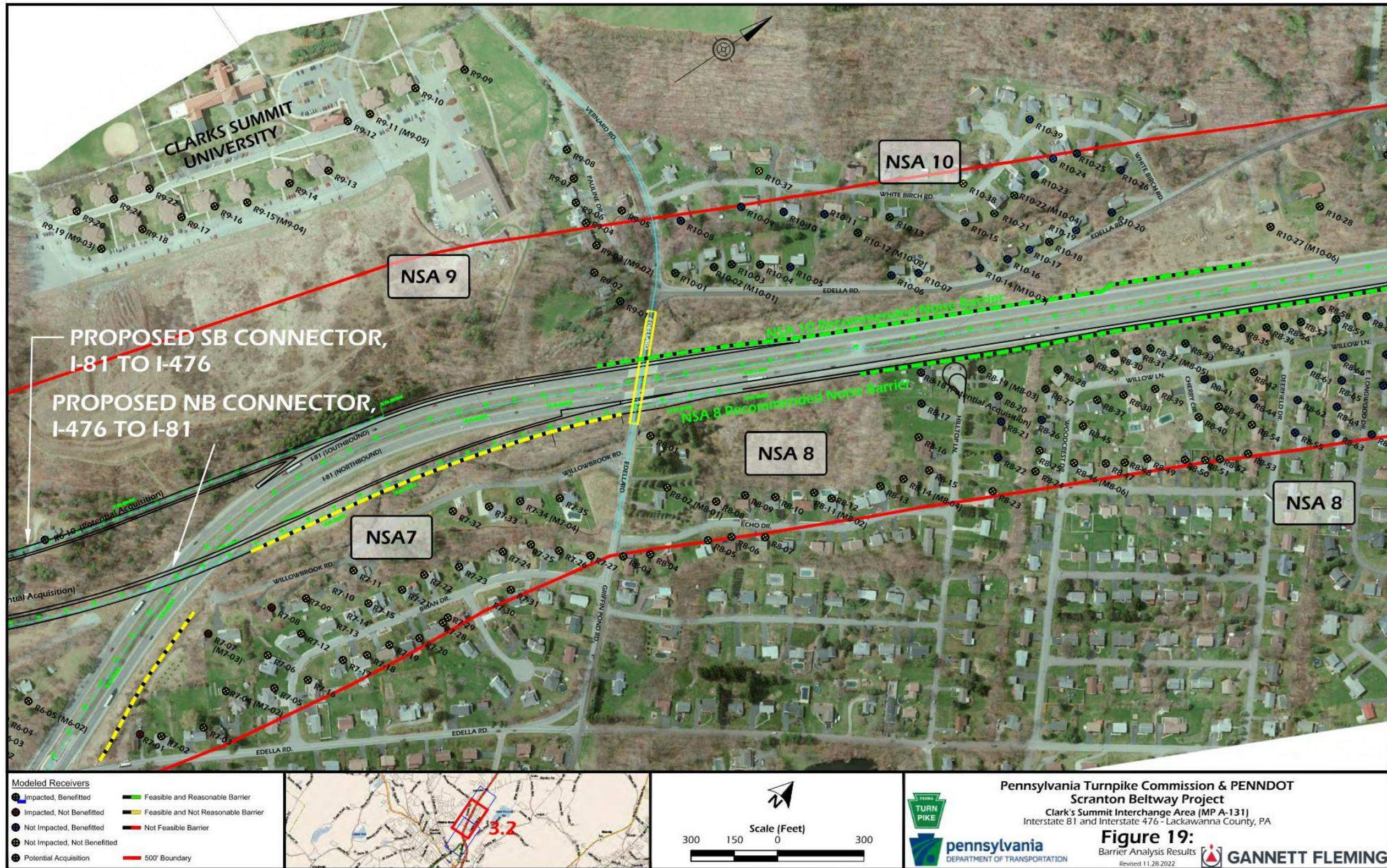


Figure 19 - Clarks Summit Interchange Barrier Analysis Results



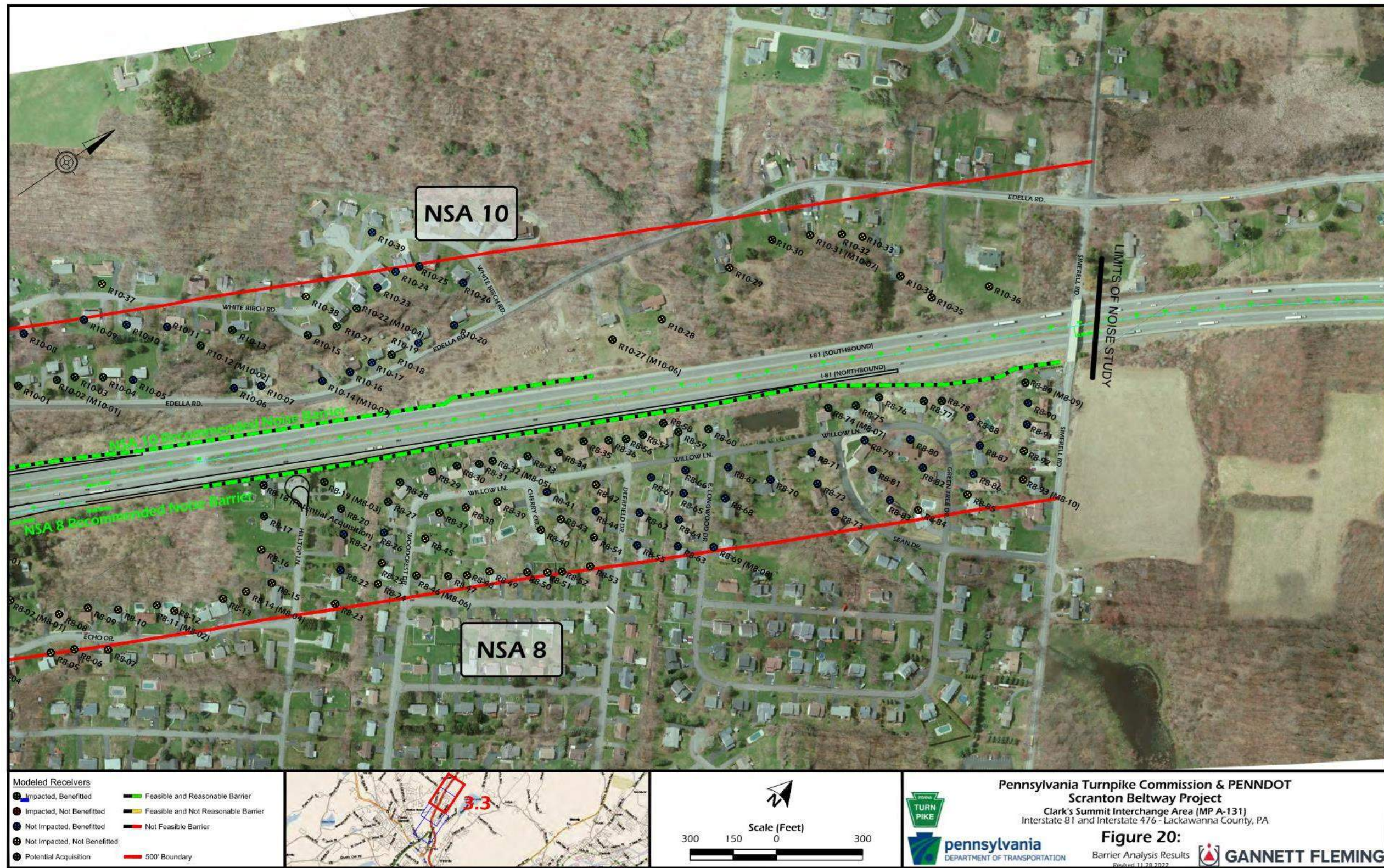


Figure 20 - Clarks Summit Interchange Barrier Analysis Results



## 4.7 Socioeconomic Areas

### REGIONAL & COMMUNITY GROWTH

#### No-Build Alternative Impacts

The No-Build Alternative would impede regional growth due to undesirable travel conditions.

#### Preferred Alternative Impacts

**Will the project induce impacts (positive and negative) on planned growth, land use, or development patterns for the area?** Yes

The Scranton Beltway project would relieve congestion on I-81 by improving utilization of I-476 with the construction of high-speed direct connections. These improvements are anticipated to facilitate planned growth within the Scranton metropolitan area due to improved traffic conditions and additional utilization of I-476 as an alternative to I-81.

Numerous large warehouse and e-commerce facilities have been constructed along major transportation corridors in both counties, which has contributed to a substantial increase in truck traffic. This growth is especially acute in the Wyoming Valley Project Area. Continued growth in this industry, including the construction of additional large warehouses and distribution centers close to highway systems, is expected to continue.

**Is the project consistent with planned growth?** Yes

#### Basis of this determination:

The purpose of this project is to address current and future congestion on I-81 by increasing the utilization of I-476. According to the draft Lackawanna-Luzerne Joint Comprehensive Plan (January 2021), it was noted that I-81 is the central spine for most existing and future development. Also, according to the Community Priorities Survey conducted in order to engage residents and gather their input for the Comprehensive Plan, respondents expressed a common desire to alleviate traffic and daily incidents on I-81. Two goals identified in the Comprehensive Plan that are associated with I-81 are (1) enhance multi-modal transportation options and connections within the region by planning for an alternate corridor to relieve stress from I-81 and (2) reduce congestion and improve traffic flow by improving traffic incident management and response times on Interstates, particularly the I-81 corridor.

**Will the project induce secondary growth?** No. See Section 4.9.1 Indirect Effects.



## **PUBLIC FACILITIES & SERVICES**

### **No-Build Alternative Impacts**

The No-Build Alternative would hinder emergency response times due to increasing traffic and congestion.

### **Preferred Alternative Impacts**

**Will the project induce negative impacts on health and educational facilities; public utilities; fire, police and emergency services; civil defense; religious institutions; or public transportation?** No

**Does the project incorporate bicycle or pedestrian facilities into the overall design or operations (including construction)?** No

No pedestrian or bicycle facilities are located within the Wyoming Valley or Clarks Summit project areas. Pedestrian and bicycle facilities are not permitted on interstate highways.

**Will the project have a positive impact to the public facilities and services listed above?** Yes

Implementing this project would maintain the roadway systems for future use, reduce the volume of traffic on I-81, therefore creating a safer route for travel. The proposed project would improve the congestion on I-81, resulting in reduced response times for emergency service providers throughout the area.

## **COMMUNITY COHESION**

### **No-Build Alternative Impacts**

The No-Build Alternative would have no impact on community cohesion.

### **Preferred Alternative Impacts**

**Will the project induce impacts to community cohesion?** No

Community cohesion can be defined as the degree to which people have a sense of belonging to their community, the level of commitment people feel for the community, or a strong attachment for neighbors, groups and institutions, usually as a result of continued association over time. Determining impacts, both positive and negative, to community cohesion can be considered by exploring the following questions:

- Would the project result in barriers dividing an established neighborhood or community, or isolate a portion of an established neighborhood or community?
- Would the project increase or decrease community interaction?
- Would the project result in changes to social relationships or patterns within the community?
- Would the project result in changes to traffic patterns in established neighborhoods?

The proposed new ramps and connectors would not bifurcate any community. Although eleven residential displacements and one commercial displacement would take place as part of the overall project, the displacements represent a small percentage of the overall communities and would not isolate or divide neighborhoods. The proposed project would not affect access to or result in the removal of, neighborhood facilities or services that are needed and valued by residents. Noise walls are proposed, where warranted, reasonable and feasible, and therefore would not reduce social interactions within the community due to increased noise levels. The completion of high-speed connections at the Wyoming Valley and Clarks Summit interchanges would provide a limited access "beltway" around the Scranton metropolitan area and provide a congestion relief alternative to I-81. The surrounding local roadways would not experience increased traffic due to the project.

**Will the project induce impacts to the local tax base or property values? Yes**

Eleven residential displacements and one commercial displacement would take place as part of the overall project.

At Wyoming Valley, five residential displacements and one commercial displacement are proposed. Based on the available assessed values from the county tax assessor's office, these displacements would not adversely affect the tax base of Dupont Borough. The five residential displacements do not adversely affect the municipality's overall tax base, as they are only a small percentage (0.4%) of the overall number of residential dwellings in the Borough. Therefore, no adverse effects to the overall tax base of Dupont Borough are anticipated.

At Clarks Summit, six residential displacements are proposed. The six residential displacements do not adversely affect the municipality's overall tax base, as they are only a small percentage (0.2%) of the overall number of residential dwellings within the South Abington Township. Therefore, no adverse effects to the overall tax base of South Abington Township are anticipated.

**ENVIRONMENTAL JUSTICE**

See Chapter 7 of this EA for information on the Environmental Justice Analysis.

## **RIGHT-OF-WAY ACQUISITIONS OR DISPLACEMENTS OF PEOPLE, BUSINESSES OR FARMS**

Under the No-Build Alternative there would be no displacements of people or businesses.

### **How many parcels require right-of-way acquisition, either partial or total?**

Wyoming Valley project area = 13 parcels (5 residential and 1 commercial displacements)

- Full Residential\*: 6
- Partial Residential: 0
- Full Commercial: 1
- Partial commercial/corporate: 4
- Partial local/county government: 2

*\* Note that not all these parcels contain residential houses and therefore they are not all considered residential displacements.*

Clarks Summit project area = 36 parcels (6 residential displacements)

- Full Residential\*: 11
- Partial Residential: 22
- Partial commercial/corporate/institutional: 3
- Full Commercial: 0

### **Describe the extent and locations of acquisitions. Indicate for each acquisition whether it is temporary or permanent.**

Based on preliminary design, property acquisitions are anticipated to include permanent and temporary ROW acquisitions. The property acquisitions required for the project would be further refined in final design and a right of way plan would be developed.

#### Wyoming Valley project area

Partial or total acquisitions are anticipated from 13 parcels with 7 total acquisitions (5 residential and 1 commercial displacements) for limited access ROW. No temporary construction easements are required.

#### Clarks Summit project area

Partial or total acquisitions are anticipated from 36 parcels with 11 total acquisitions (6 residential displacements) for limited access ROW. Thirteen parcels are anticipated for temporary construction easements.

Five residential and one commercial displacements are required within the Wyoming Valley

project area and six residential displacements are required within the Clarks Summit project area. Property acquisitions will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended; Title VI of the Civil Rights Act of 1964; and the Pennsylvania Eminent Domain Code of 1964. Any individual or family displaced by the project would be offered the full extent of benefits and payments. Provisions would be made to ensure that any person with a disability who is displaced is offered replacement housing that meets any special needs.

**Will the project require the relocation of people, businesses or farms?** Yes

*Wyoming Valley project area*

**If Yes, indicate number:** 5 Residential      1 Commercial      0 Farms

*Clarks Summit project area*

**If Yes, indicate number:** 6 Residential      0 Commercial      0 Farms

**If there are displacements, a conceptual stage survey report is required that analyzes the availability of replacement facilities.**

Conceptual Stage Survey Report. See **Appendix G**.

**Will the project induce impacts to economic activity, including employment gains and losses?**

Minimal short term economic losses due to the relocation of one commercial property can be reasonably anticipated during the period of time while the business is moving from one location to another, and revenue operating activities are temporarily suspended.

#### **MAINTENANCE AND OPERATING COSTS OF THE PROJECT AND RELATED FACILITIES**

Under the No-Build Alternative, continued maintenance of I-476 and I-81 would occur, though the project would not meet its purpose and need.

**Will the project induce increases of operating or maintenance costs?** Yes

**If Yes, is the cost justified? Please explain:**

The project would result in the construction of high-speed direct connection ramps between I-476 and I-81. Additionally, stormwater management facilities are proposed to meet NPDES

requirements. These facilities would increase operation and maintenance costs. Per the Point of Access Study, toll revenues would finance operations and maintenance of the connectors owned by the PTC. Facilities owned by PennDOT are anticipated to be funded through their operation and maintenance budget. The purpose of the project is to address existing and future congestion on I-81 by increasing the utilization of I-476. Therefore, the increased cost is justified by the resulting benefits to the traveling public and regional economy of the Scranton Beltway area.

## **PUBLIC CONTROVERSY ON ENVIRONMENTAL GROUNDS**

There is no controversy on environmental grounds. Public involvement has been conducted for the project area. Both positive and negative comments have been received to date regarding the project. Negative comments have generally been related to the possibility of potential property acquisitions, as based on very preliminary information. Potential property acquisitions have been minimized as the design has progressed, and it is anticipated that further public involvement would resolve a portion of these negative comments.

## **AESTHETIC AND OTHER VALUES**

**Will the project be visually intrusive to the surrounding environment?** No

The project does not add visual elements or change the overall land use of the project corridor. Existing limited access highways are currently present.

**Will the project include "multiple use" opportunities?** No

**Will the project involve "joint development" activities?** No

### **Supporting documentation for Section 4.7 includes:**

- *PennDOT Publication 217, Community Impact Assessment Handbook (October 2005)*
- *EA Appendix A: Wyoming Valley Roadway and Bridge Construction 30% Plans*
- *EA Appendix A: Clarks Summit Roadway and Bridge Construction 30% Plans*
- *EA Appendix G: Conceptual Stage Survey Report*

## **4.8 Energy**

The energy consumption rate of a vehicle along a roadway is influenced by multiple factors including its instantaneous velocity and acceleration. This means that vehicles use greater amounts of energy in congested, stop and go, and idling conditions. Energy usage is also a function of vehicle miles traveled (VMT) (volume x distance traveled) and speed. Related studies

show that:

- Traffic congestion typically led to an increase of fuel consumption on the order of over 80 percent (*Transportation Research Board/TRB*).
- For congested conditions, fuel consumption is up to 3.5 times higher than in free-flowing traffic Massachusetts Institute of Technology (*MIT*).
- In 2016, congestion was estimated to have increased the trucking industry's fuel consumption by 6.87 billion gallons and represented approximately 13% of the industry's fuel consumption which resulted in 67.3 million metric tons of excess carbon dioxide (CO<sub>2</sub>) emissions. (*American Transportation Research Institute/ATRI*).
- Transportation-related fuel consumption is closely related to GHG emissions, accounting for 28% of total US GHG emissions in 2022. (EPA GHG Overview <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>)

Within the study limits of the Scranton Beltway POA Study, I-81 has a posted speed limit of 55 mph with twelve points of access while I-476 has a posted speed limit of 70 mph with three points of access and provides an alternative route to I-81 between the Wyoming Valley and Clarks Summit interchanges. However, current, historical, and projected traffic data indicates that I-476 is under-utilized, resulting in lower levels of congestion, while I-81 often experiences congestion and unreliable travel times.

### **No-Build Alternative Impacts**

The No-Build Alternative would not improve energy consumption. Energy consumption continues to increase as congestion increases.

### **Preferred Alternative Impacts**

The Build alternative proposes direct and cashless tolled connections between I-81 and I-476 at both the Wyoming Valley and Clarks Summit interchanges. The interstate-to-interstate connections have been proposed to supplement and provide direct alternatives to the existing full access interchanges with indirect connections between I-81 and I-476.

The POA Study (approved in February 2023) indicates that the operational energy requirements of the Build alternative would be less than the No-Build Alternative through:

- **Reduced congestion along I-81:** Along both directions of I-81, the AADT is projected to reduce by an average of 14% (3,850 vehicles) from 2025 No-Build conditions to 2,025 Build conditions, and by an average of 4% (1,150 vehicles) from 2045 No-Build conditions to 2,045 Build conditions. In addition to the reduced volumes directly correlating to reduced

congestion, the Overall Density (passenger cars/mile/lane) along I-81 in both directions during both the AM and PM peak hours is projected to be less (or improved) in the 2025 and 2045 Build conditions as compared to the No-Build conditions.

- **Use of available capacity along I-476:** Along both directions of I-476, the AADT is projected to increase by an average of 123% (4,005 vehicles) from 2025 No-Build conditions to 2,025 Build conditions, and by an average of 18% (1,325 vehicles) from 2045 No-Build conditions to 2,045 Build conditions. The available capacity is evident from the similarity of Travel Times and Density along I-476 in both directions during both the AM and PM peak hours between the 2025 and 2045 No-Build and Build alternatives.
- **Reduced vehicle-miles-traveled (VMT):** For both AM and PM peak periods in the opening (2025) and design (2045) years, the traffic microsimulation shows a projected reduction in VMT with the proposed Build alternative. At the Wyoming Valley interchange, the projected VMT in the 2045 Build conditions shows a reduction of 1% in the AM peak and 11% in the PM peak. Similarly, the VMT by 2045 at the Clarks Summit interchange has a projected reduction of 6% for the AM peak and 21% for the PM peak Build conditions.
- **High-Speed direct connections:** The average travel times when comparing the direct connections to the indirect connections from I-81 to I-476 and from I-476 to I-81 in both directions are expected to decrease in the 2025 and 2045 Build conditions as compared to the No-Build conditions. The analysis indicated that a motorist completing a through trip along I-476, from and back to I-81 using the indirect connections to I-476, is expected to lose approximately 4.5 minutes in the NB direction and 4.0 minutes in the SB direction as compared to using the direct connections in opening year (2025) conditions. Additionally, a motorist completing a through trip along I-476, from and back to I-81 using the existing indirect connections to I-476, is expected to lose approximately 5 minutes in the NB direction and 4.5 minutes in the SB direction as compared to using the direct connections in design year (2045) conditions.
- **Improved safety along I-81:** There is an overall reduction in expected crash frequency at the Wyoming Valley and Clarks Summit Interchanges under the Build conditions. The combined overall reduction in expected crash frequency is 2.91 crashes/year between the 2025 No-Build and the 2025 Build conditions, and 3.88 crashes/year between the 2045 No-Build and the 2045 Build conditions. A reduction in crashes correlates to a reduction in lane closures, traffic slowdowns and overall congestion.
- **Cashless tolling:** With the cashless tolling collection system, vehicles would be recorded as they pass under the gantry sensor and would not require drivers to stop or slow to pay a toll allowing them to enjoy the benefits of reduced congestion, improved safety, and reduced air



pollution.

The Build alternative would require expenditures of energy for the construction of the project but would result in reduced energy with the realized overall reduction of congestion along I-81. The proposed direct connections between I-81 and I-476 are projected to fulfil the project purpose and need by increasing the use of available capacity on I-476 while relieving congestion on the I-81 corridor, particularly during peak traffic periods, traffic incidents, events, and construction thereby resulting in better overall energy usage within the project extents.

**Supporting documentation for Section 4.8 includes:**

- *TRB Study: How Much Does Traffic Congestion Increase Fuel Consumption and Emissions? Applying Fuel Consumption Model to NGSIM Trajectory Data.*
- *MIT Study: Traffic Jams Magnify How Roads Affect Fuel Consumption.*
- *ATRI Study: Fixing the 12% case study: Atlanta, Georgia Fuel Consumption and Emissions Impacts.*
- *Conceptual Point of Access Study, Scranton Beltway, Direct Connections between I-476 (Pennsylvania Turnpike Northeast Extension) an I-81 At Wyoming Valley (Exit 115) and Clarks Summit (Exit 131) Interchanges (March 2022), FHWA approved February 2023*
- *Conceptual Point of Access Study, Scranton Beltway, Direct Connections between I-476 (Pennsylvania Turnpike Northeast Extension) an I-81 At Wyoming Valley (Exit 115) and Clarks Summit (Exit 131) Interchanges (March 2022), FHWA approved February 2023*

## **4.9 Indirect and Cumulative Effects**

### **4.9.1 Indirect Effects**

Indirect effects are defined as those that are caused by a project and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems (89 FR 35442).

The proposed project would involve modifying existing infrastructure to improve the connection between two disjunct sections of I-476 and I-81 in Luzerne and Lackawanna Counties in northeastern Pennsylvania. The project would provide a limited access beltway around the Scranton Metropolitan area and would relieve congestion by optimizing the use of both I-476 and I-81. The project is specifically designed to reduce congestion on I-81, which has seen an increase in the volume of vehicular traffic, most notably in truck volumes over the past few decades, by

better distributing traffic between the two highways.

The proposed project would involve constructing direct connection ramps between I-81 and I-476 in the vicinity of the Wyoming Valley and Clarks Summit interchanges. To assess indirect impacts at these sites, Resource Study Areas (RSA) were created for each project area by creating a half-mile buffer around the core project areas. The Wyoming Valley Direct Connect Interchange project is in Pittston Township and Dupont Borough in Luzerne County. The Clarks Summit Direct Connect Interchange is in South Abington Township, Lackawanna County. The Clarks Summit RSA also includes sections of Scott Township and Clarks Summit and Clarks Green Boroughs. The area surrounding both projects is significantly developed with limited vacant developable open space.

The discussion on indirect effects below is divided into two sections: the *No Build Scenario* and the *Building Alternatives Scenario*. The *No Build Scenario* section will discuss the past, present, and future levels of expected growth that are anticipated to occur within the RSA's regardless of the project. This section will establish and document historic patterns of growth, population changes over time, and general changes in land use, and existing land use and zoning within the RSA. The *Build Alternatives Scenario* will assess the potential of the project to impact the growth and land use trends within the RSA.

*No-build Scenario*

Over the past half century, both Luzerne and Lackawanna County have experienced moderate population declines (see **Table 13**). Populations have stabilized and increased slightly across both counties over the past decade. Population growth is expected to continue over the next 20 years according to the *Joint Comprehensive Plan and long-Range Transportation Plan for Lackawanna and Luzerne Counties* (Joint County Plan). Population growth will create additional demands on the transportation system and will require additional transportation capacity and services, especially in the Scranton Metropolitan Area. The population of municipalities in the RSA have declined or remained stable over the past forty years, except for South Abington Township, which has seen a steady population increase.

**Table 13 - Project Area Population Trends, 1980-2020**

Municipality	Census Year Population				
	1980	1990	2000	2010	2020
Luzerne County	343,079	328,149	319,255	320,918	325,594
Lackawanna County	227,908	219,039	213,295	214,437	215,896
South Abington Township	N/A*	6,603	8,651	9,078	9,526
Clarks Summit Borough	5,272	5,433	5,126	5,116	5,108

Municipality	Census Year Population				
	1980	1990	2000	2010	2020
Clarks Green Borough	1,862	1,603	1,630	1,476	1,529
Pittstown Township	2,835	2,835	3,434	3,365	3,179
Dupont Borough	3,460	2,984	2,719	2,711	2,536

*\*No information available*

Most of the parcels within the Wyoming Valley RSA in Pittston Township are zoned Industrial District or Industrial Flexible. These parcels are used for manufacturing and distribution centers, including Lowe’s, FedEx, Amazon, UPS, and US Hydrations. Several large warehouses have been constructed within this area in the past two years. Additional vacant lots within these districts may be developed for distribution or e-commerce fulfillment facilities in the coming years. Dupont Borough does not have an adopted zoning map. The primary land uses within the Wyoming Valley RSA are residential and industrial.

The majority of the parcels within the Clarks Summit RSA are zoned Suburban Single Family Residential or Conservation. A small area zoned for commercial uses exists at the southern end of the RSA; however, this area is largely developed. Most of the vacant land located within the residentially zoned areas are owned by various institutions, including Clarks Summit University and the Scranton School for the Deaf.

The *Joint County Plan* noted that freight trucking’s share of the overall traffic volume has been increasing on I-81 over the past 20 to 25 years. This trend has been partially exacerbated by the rapid expansion of e-commerce across the nation and locally. The area’s proximity to both north-south interstates (I-81, I-476) and east-west interstates (I-84, I-380, and I-80 further south) has fueled a significant increase in the Transportation and Warehouse industry over the past several years in both Luzerne and Lackawanna Counties. Numerous large warehouse and e-commerce facilities have been constructed along major transportation corridors in both counties, which has contributed to a substantial increase in truck traffic. This growth is especially acute in the Wyoming Valley project area. Continued growth in this industry, including the construction of additional large warehouses and distribution centers close to highway systems, is expected to continue with the no-build alternative. The No-Build Alternative would have no indirect effects on the pattern of growth within the RSAs.

*Build Alternatives Scenario*

An initial assessment of the potential for project related growth effects (indirect effects) was completed using PennDOT Publication 640’s Chart 1, *Potential for Project Related Growth*. The proposed project is a capacity-increasing/expanded access improvement on an existing facility,

which could contribute to moderate project-related growth. However, the project area is located within a highly built-out, urbanized and suburbanized area with few vacant parcels available for additional growth within the immediate vicinity of the proposed project improvements.

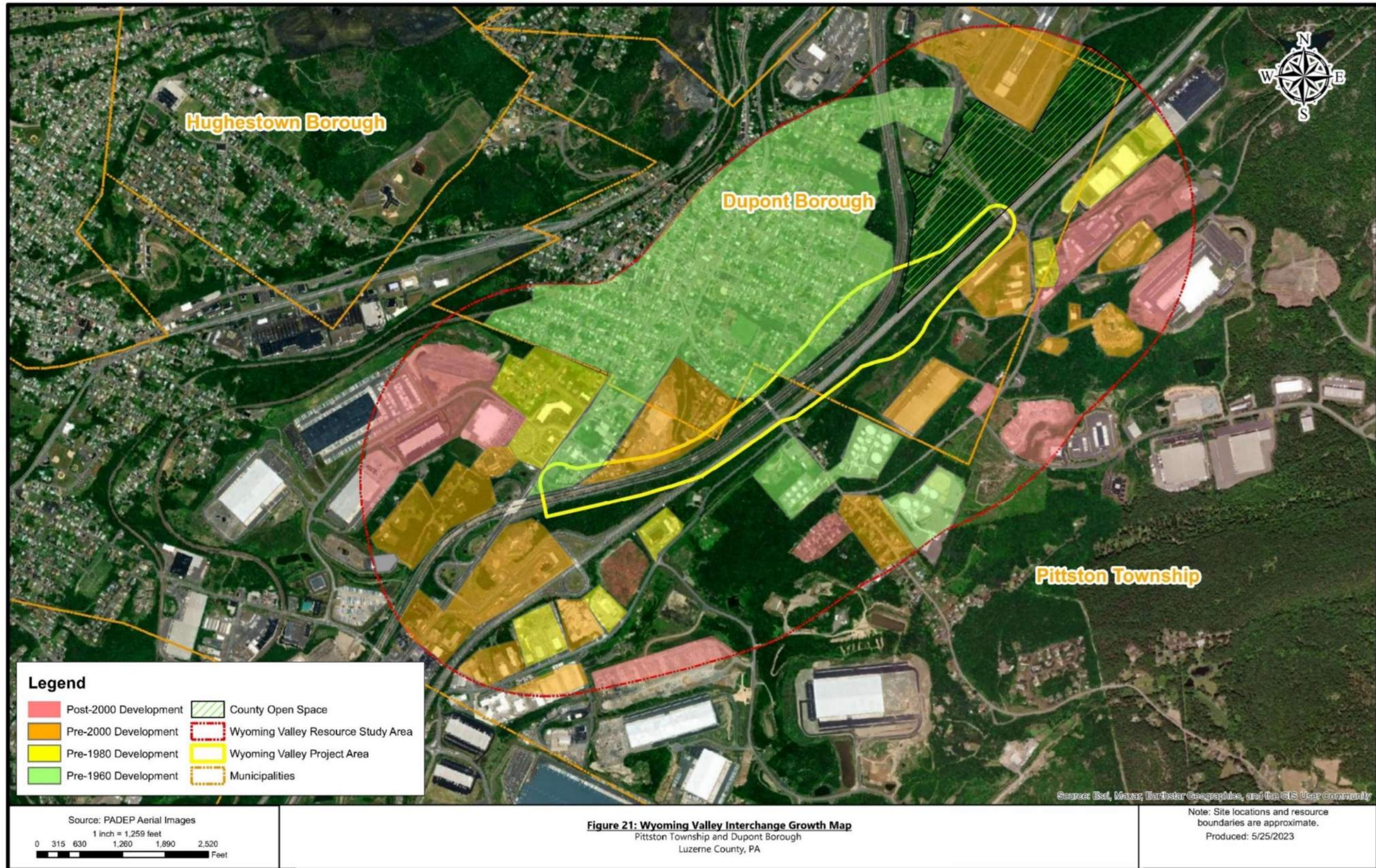
The Wyoming Valley RSA is primarily developed urban land use that is largely used for industrial purposes. **Figure 21** shows the pattern of growth and development within the RSA over the past 60 years. The growth pressure in this area is low overall due to the significant existing development and limited suitable vacant parcels. However, vacant parcels within the industrially zoned areas would likely continue to be developed given the increasing demand for e-commerce distribution and fulfillment centers. These parcels' development would continue regardless of the proposed improvement project's completion. Thus, this project would not likely have an indirect effect on growth and development patterns within the Wyoming Valley RSA.

The Clarks Summit RSA is primarily urban and suburban land uses that are primarily developed. The majority of the development within the RSA occurred prior to 1980; however, several areas in the northern part of the RSA have been developed within the past 20 years. **Figure 22** shows the pattern of growth and development within the RSA over the past 60 years. Undeveloped land is largely owned by institutions such as Clarks Summit University and the Scranton School for the Deaf. Other large undeveloped lots are zoned as conservation areas and are owned by South Abington Township and Pennsylvania American Water. Many of the remaining undeveloped areas are not suitable for development either due to access issues or natural features that limit or preclude development. Given past growth patterns and the limited vacant land suitable for future development, the proposed project is not likely to indirectly affect the growth and patterns of development within this area.

The proposed project would not create new transportation corridors but would relieve congestion on I-81 by facilitating better use of I-476. This project would better balance traffic between the two existing highways. It would not add new local access to/from the highways, rather it would provide opportunity for quicker movement through the area for vehicles traveling beyond the project area. As such, the proposed project is not expected to open new areas to potential growth or development.

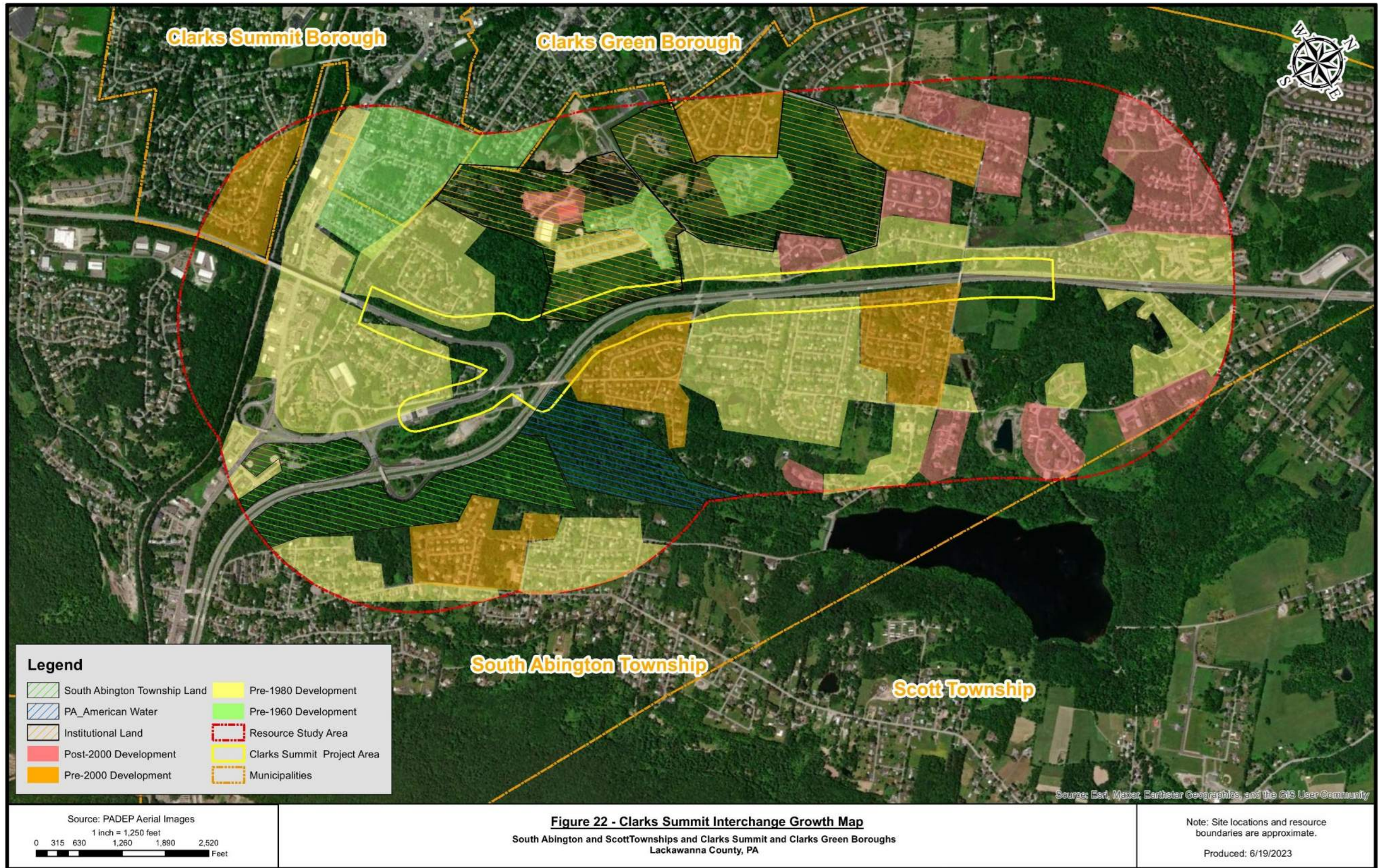
The proposed project would not result in substantial new growth or modified development patterns within the RSAs due to existing development levels and existing land use regulations. Thus, no substantial indirect effects are anticipated. Because the project is not expected to affect growth and development patterns, no further assessment of indirect effects is required.





*Figure 21 - Wyoming Valley RSA Growth and Development Patterns*





**Figure 22 - Clarks Summit RSA Growth and Development Pattern**



## 4.9.2 Cumulative Effects

### 4.9.2.1 Introduction and Methodology

Cumulative effects include “the proposed project’s direct and indirect effects in combination with the effects due to past, present, and reasonably foreseeable future activities or actions of Federal, non-federal, public, and private entities” (PennDOT Pub. 640). No significant cumulative effects resulting from this project together with past, present, and reasonably foreseeable future actions were identified.

The first step in performing the cumulative effects analysis is to identify which resources to consider in the analysis. The No-Build Alternative would not contribute to cumulative effects and is therefore not discussed. Cumulative effects are considered only for resources with a direct or indirect effect from the Scranton Beltway Project. Resources not evaluated within the Scranton Beltway EA are not included in this cumulative effects analysis because they are not present. Similarly, resources that are present, but not affected either directly or indirectly by the proposed project, are also not included in the cumulative effects analysis. Because of the potential for direct or indirect effects that could contribute to cumulative impacts, the following resources are evaluated: streams, wetlands, threatened and endangered species, ROW acquisitions, and public facilities and services.

### 4.9.2.2 Boundaries

Each resource impacted by the proposed project needs to be evaluated for its cumulative impacts within an established RSA. The RSA is a geographic boundary used to view the resource in an appropriate context for the cumulative effects analysis and to provide context to understand the health of the resource. **Table 14** shows the following RSA boundaries that were used:

**Table 14 - Project Area RSA Boundaries**

<b>Resource</b>	<b>RSA Boundary</b>
Aquatic Resources (streams and wetlands)	Hydrologic Unit Code (HUC) 12 Watersheds (Lackawanna – Susquehanna, Scranton – Lackawanna, Leggetts Ck – Lackawanna)
Threatened and Endangered Species (i.e., bats)	4.5 miles from the Wyoming Valley project area (Luzerne County) and Clarks Summit project area (Lackawanna County)
Residential Displacements	South Abington Township, Pittston Township, and Borough of Dupont
Commercial Displacements	South Abington Township, Pittston Township, and Borough of Dupont
Public Facilities and Services	South Abington Township, Pittston Township, and Borough of Dupont



4.9.2.3 Time Frame

The time frame for analysis goes back to 1958/1959, prior to the opening of the PTC Northeast Extension and I-81. The planning horizon is 2045 (design year) for the cumulative effects assessment. **Table 15** lists future planned development projects to assess the potential for future cumulative effects. It should be noted that no new private development was identified through public resources and communication with local municipalities. Therefore, the potential for future cumulative effects was evaluated based on future transportation projects.

**Table 15 - Reasonably Foreseeable Future Development Planned Projects (Future)**

	<b>Owner / Project</b>	<b>MPMS / Contract No.</b>	<b>Location</b>
<b>PennDOT</b>	Bridge preservation on State Route 2019 (Oak Street) over I-81	69001 (future development)	Pittston Township, Luzerne County
	Resurfacing on various routes	117103 (future development)	Lackawanna County
	Bridge preservation on SR 8041 (Ramp F) over SR 11	69172 (in development)	South Abington Township, Lackawanna County
	Bridge replacements on SR 6 (State Street) and on SR 11 (Northern Boulevard)	114268 (in development)	Clarks Summit Borough and South Abington Township, Lackawanna County
<b>PTC</b>	Signing and Sign Structure Replacement Between MP A-56.00 and MP A-131.00	EN-00258-03-02 (awarded)	Lehigh, Carbon, Luzerne, and Lackawanna Counties
	Roadway and Miscellaneous Repairs Between MP A-31.34 and MP A-130.64	EN-00286-03-07 (executed)	Montgomery, Bucks, Lehigh, Carbon, Luzerne and Lackawanna Counties
	Installation of Intelligent Transportation Systems Between MP 306.40 and MP 349.00 and MP A-27.10 and MP A-107.40	EN-00268-03-02 (executed)	Chester, Montgomery, Bucks, Lehigh, Carbon, and Luzerne Counties
	Bridge Repairs between MP A-020.00 and MP A-130.64	EN-00284-03-05 (executed)	Montgomery, Bucks, Lehigh, Carbon, Luzerne, and Lackawanna Counties
	Construction of Open Road Tolling (ORT) facilities Between MP A-87.10 and MP A-123.51	EN-00115-03-20 (executed)	Carbon and Lackawanna Counties

	<b>Owner / Project</b>	<b>MPMS / Contract No.</b>	<b>Location</b>
<b>PTC</b>	Construction of ORT facilities/demolition of existing toll facilities Between MP A-99.01 and MP A-121.75	EN-00115-03-09 (executed)	Lackawanna and Luzerne Counties
	Durable Pavement Markings between MP A-31.34 and MP A-130.64	EN-00151-03-08 (executed)	Montgomery, Bucks, Lehigh, Carbon, Luzerne and Lackawanna Counties
	Roadway and Miscellaneous Repairs Between MP A-31.34 and MP A-130.64	EN-00282-03-07 (executed)	Montgomery, Bucks, Lehigh, Carbon, Luzerne and Lackawanna Counties
	Asphalt Resurfacing Between MP A-107.11 and MP A- 115.02	A-104 00R001-3-02 (executed)	Luzerne County
	Bridge Repairs Between MP A-020.00 and MP A-130.64	EN-00279-03-05 (executed)	Montgomery, Bucks, Lehigh, Carbon, Luzerne, and Lackawanna Counties
	Erection of Signs, Between MP 245.75 and MP 356.42, Between MP H-40.83 and MP H-43.44, and Between MP A-20.00 and MP A-131.00	EN-00165-03-05 (executed)	Dauphin, Lebanon, Lancaster, Berks, Chester, Montgomery, Bucks, Lehigh, Carbon, Luzerne and Lackawanna Counties
	Bridge Repairs Between MP A-020.00 and MP A-130.64	EN-00272-03-05 (executed)	Montgomery, Bucks, Lehigh, Carbon, Luzerne, and Lackawanna Counties
	Design/Build Project for Fiber Optic Network Installation Between MP 333.30 and MP A-130.60	EN-00232-03-03 (executed)	Montgomery, Bucks, Lehigh, Carbon, Luzerne, and Lackawanna Counties
Bridge Repairs Between MP A-020.00 and MP A-130.64	EN-00231-03-05 (executed)	Montgomery, Bucks, Lehigh, Carbon, Luzerne, and Lackawanna Counties	

Source: PennDOT's One Map Website (<https://gis.penndot.gov/onemap/>), PTC's Electronic Bidding System website ([https://ebs.paturnpike.com/generalinformation/bids/bid\\_schedule.aspx](https://ebs.paturnpike.com/generalinformation/bids/bid_schedule.aspx)),

The following sections provides information on the past, present, and reasonably foreseeable future conditions and provides context for understanding the potential cumulative effects.

#### 4.9.2.4 Identification of Potential Impact Areas

##### 4.9.2.4.1 Streams (past, present, future)

HUC 12 watershed boundaries were used to delineate the RSA for aquatic resources (streams, wetlands, and floodplains) for both the Wyoming Valley and Clarks Summit project areas. HUC 12 watersheds that include and are downstream of the project area prior to entering the Susquehanna River were included in this analysis. The Wyoming Valley project area lies in the furthest downstream HUC 12 watershed of Lackawanna – Susquehanna River (020501070110). The Clarks Summit project area lies within the Leggetts Creek HUC 12 (020501070105). Immediately downstream is the Scranton – Lackawanna River HUC 12 (020501070109).

##### Wyoming Valley project area

There is one named perennial watercourse (Mill Creek) that flows through the Wyoming Valley project corridor. Project area watercourses in the central and western limits are unnamed tributaries to Mill Creek while project area watercourses located in the eastern limits are unnamed tributaries to Lidy Creek. Mill Creek and Lidy Creek are in the Lackawanna – Susquehanna River HUC 12 (020501070110). Therefore, the Lackawanna – Susquehanna HUC 12 was used as the RSA for the Wyoming Valley project (**Figure 23**).

Historic aerial imagery indicates that Mill Creek has been impacted from past development projects. The area experienced the same development activities as the two upstream watersheds previously discussed. As part of past development activities, nearly three miles of Mill Creek extending downstream from the I-81/I-476 corridor has been channelized within a concrete-lined channel. Much of this channel was constructed prior to 1959. Sections of Mill Creek in Dupont Borough have also been routed into subsurface concrete channels. Historic and current aerial imagery was used to estimate the permanent LF of impacts from past construction projects. The construction of I-81 and I-476 resulted in approximately 640 LF of permanent impacts to the main stem of Mill Creek and approximately 400 LF to its unnamed tributaries. The construction of the Wilkes-Barre-Scranton International Airport resulted in approximately 1,830 LF of permanent impacts to Lidy Run. An additional 170 LF were permanently impacted from the construction of Navy Way Road and 400 LF of permanent impacts resulted from the construction of I-81 (**Table 16**).

In addition to surface development, historic mining activities have been occurring in the region for a few hundred years. As a result of these historic mining activities, the region's

waterways have experienced negative impacts from acid mine drainage. Many of the region's mines have been abandoned. Water that flows through abandoned coal mines, interacts with the rock inside of the mines and flows from abandoned features into local waterways. Within the Wyoming Valley project area, the Red Ash coal vein has been in operation, and abandoned coal mine reclamation work has been completed in several areas. The mine reclamation and current mining regulations have alleviated much of the acid mine drainage affecting the local waterways.

Mill Creek is listed as impaired for urban runoff/storm sewer systems, flow regime modification, highway/road/bridge runoff. Runoff from areas developed prior to stormwater management regulations continues to contribute to elevated peak flows during and immediately after storm events. Lidy Creek and its tributaries are not listed as impaired. Both streams are located within the Lackawanna River TMDL.

Pittston Township and Dupont Borough are both MS4 municipalities and are required to reduce nutrients and sediment loads entering streams from their storm sewer systems. The impacts of stormwater runoff from future construction would be mitigated by existing stormwater regulations in Pittston Township that require the treatment and management of stormwater runoff from new construction. Dupont Borough must develop a stormwater management ordinance under its MS4 permit, which would reduce the impact of stormwater runoff from future construction projects. Additionally, the implementation of stormwater management BMPs as required by these municipalities' MS4 permits would further reduce stormwater volume and sediment and nutrient loads.

The Wyoming Valley project would result in approximately 2,222 LF of permanent stream impacts. The majority of the impacts would be associated with constructing culvert extensions and new culverts to carry the new roadway over the already degraded watercourses. The new culverts would be designed with baffles and natural channel bed material to minimize habitat loss and potential streambed scour downstream of the culverts. Rock lined inlets and outlets would also be constructed at the extensions and new culverts to reduce the potential for scour. There would be some aquatic habitat loss, but with the watercourse already in a degraded state the loss would be marginal.

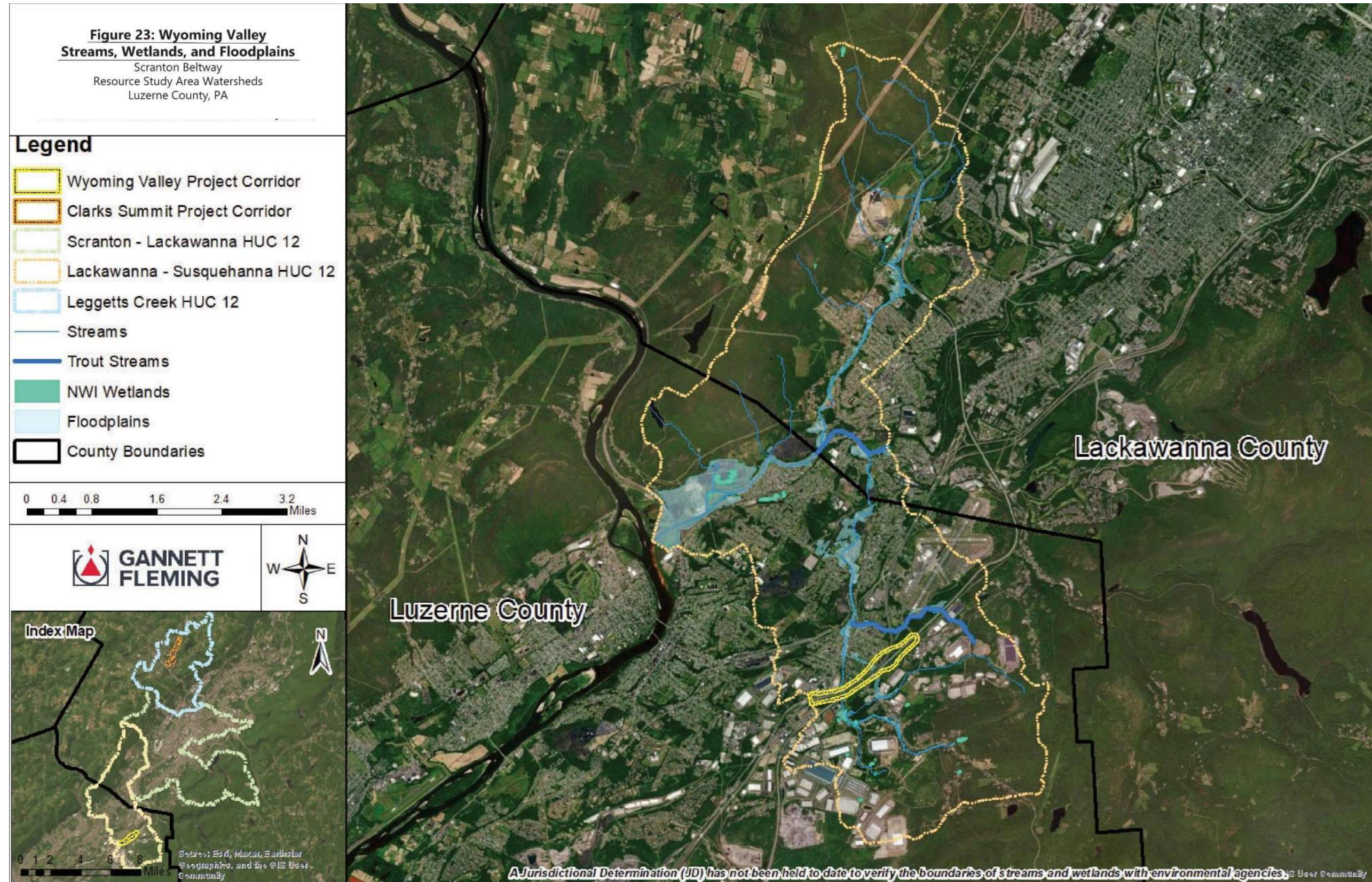
As was the case for the other two watersheds, the project would also add stormwater management features which detain stormwater and provide water quality and runoff control essentially negating impacts associated with these concerns, not actually providing an improvement to these concerns. The project does not anticipate increasing or stimulating development pressure in the area. Therefore, there are no anticipated



significant cumulative effects from this project and other past, present or reasonably foreseeable future actions on the area streams associated with development expected to occur in the future.

Watercourse impacts not directly addressed in the immediate project area would be mitigated through the purchase of credits at a mitigation bank. The Pine Creek Mitigation Bank is intended to be an approved mitigation bank in 2024, ideally to begin building in 2025. While the bank is located beyond the RSA watersheds of the highway project, it is within the PADEP and USACE approved primary service area for impacts to watercourses in the Upper Susquehanna – Lackawanna River basin. Thus, there would be minor localized aquatic habitat loss associated with the project, but it would be offset by the mitigation bank for the larger service area watershed. The bank is expected to be able to supply all stream mitigation credits needed for this project. See Section 4.1, Aquatic Resources and Section 8.3 Wetlands.





**Figure 23 - Lackawanna - Susquehanna River HUC Streams, Wetlands, and Floodplains**



### Clarks Summit project area

Leggetts Creek and 25 tributaries flow through the Clarks Summit project area. Leggetts Creek flows into the Lackawanna River and the Scranton – Lackawanna HUC approximately four miles downstream of the project area. Together the two HUC's comprise the RSA for the Clarks Summit project area (**Figure 24** and **Figure 25**).

Historic impacts to the two watersheds include significant land use alteration that began after European settlement within this area in the late 1700's. Aerial imagery from the 1959 - 1960 indicates that a significant portion of the Leggetts Creek HUC 12 watershed was cleared for agricultural purposes. Development was growing along the primary roadways (present day US 11 and others) in the vicinity of Clarks Summit. The Pennsylvania Turnpike was newly constructed, and commercial development was under construction at the turnpike terminus. I-81 was under construction. The Leggetts Creek stream corridor north of Clarks Summit was comprised primarily by farms and wooded hills. From Clarks Summit and downstream development, US 11 and the construction of I-81 had all occurred within the creek's riparian zone down to the Scranton City limits. At this point urban build out and mining activities dominate the watershed to its confluence with the Lackawanna River. Urban development and mining activities essentially comprise the land use along the Lackawanna River and most of the Scranton – Lackawanna HUC. The river itself has no riparian zone and exhibits scars and manipulation from human activity.

Residential and commercial development continued to occur within the Leggett's Creek watershed throughout the 70's and 80's and by 1985 comprised the vast majority of the watershed. The exception to this was the steep hill between Clarks Summit and Scranton which remained wooded. Urban build out also continued within the Scranton – Lackawanna River watershed, although some narrow riparian buffer areas were becoming reestablished in locations where mining activities had ceased.

As of today, the area of development has not expanded significantly from the 1980's. The mines and coal stockpiles are gone, replaced with new residential and commercial development. The roads and railways from that period remain. There does not appear to have been much effort to improve the riparian zones within the Leggetts Creek watershed, but the riparian zone along the Lackawanna River has been laterally expanded quite a bit, although it still remains narrow.

Historic and current aerial imagery was used to estimate the permanent LF of impacts from past construction projects. Leggetts Creek and many of its tributaries were impacted during the original construction of the Turnpike, I-81 and development (both related and

unrelated to the roadways). Based on historic and current aerial images, approximately 6,300 LF of Leggetts Creek and its riparian zone were permanently impacted by the construction of I-81 alone through channel relocation, channelization, bridges, culvert and riparian vegetation removal impacts. There were approximately 1,200 additional LF of permanent impacts on tributaries resulting from highway construction projects and significantly more by development. Estimated historic impacts are summarized in **Table 16**. The high-density development within Clarks Summit and Clarks Green Borough also impacted local hydrology and stream channel dynamic over much of the past century. Current stream conditions continue to reflect this history of landscape and channel alteration.

**Table 16 - Roadway Related Historic Stream Impacts**

<b>Stream Name</b>	<b>Estimated Historic Impacts (1959-Present, LF)</b>
Leggetts Run	6,300
UNT Leggetts Run	1,200
Lidy Creek	2,000
UNT Mill Creek	400
Mill Creek	15,200

Leggetts Creek and the Lackawanna River are within the Lackawanna River Watershed Total Maximum Daily Load (TMDL), which addresses impairment for low pH, metals, siltation, and flow alterations. These impairments are largely due to acid mine drainage within the Lackawanna River watershed.

Much of the Leggetts Creek and Scranton-Lackawanna River watersheds are listed as impaired by Urban Runoff and Storm Sewers. This indicates that these streams have historically been impacted by excess stormwater flow from developed areas. Excess stormwater runoff from existing development continues to impact this system. However, the majority of the municipalities in the two watersheds including, Clarks Summit, Clarks Green, South Abington Township and the City of Scranton are all MS4 municipalities and are required to reduce nutrient and sediment loads to their local streams through the implementation of stormwater BMPs. These municipalities have enacted stormwater management ordinances designed to mitigate stormwater impacts from future



development. The implementation of stormwater BMPs as required by municipal MS4 permits would help to address legacy stormwater impacts and reduce future sediment and nutrient loads. Leggetts Creek and the Lackawanna River are also included within the Lackawanna River Act 167 Stormwater Management Plan.

Based on preliminary designs, this project may result in approximately 3,425 LF of permanent impacts to streams and waterways. Over 1,000 LF of the impacts would be offset by relocating the main watercourse impacted, Willow Creek. The relocated channel would be designed to upgrade channel conditions making the channel reach more stable and improve instream habitat conditions over existing conditions. The more stable channel would also reduce siltation occurring in the stream by reducing the potential of bank erosion that elevates siltation events. The project would also add stormwater management features which detain stormwater and provide water quality and runoff control essentially negating impacts associated with these concerns. With the project not anticipated to increase or stimulate development pressure in the area, there are no anticipated significant cumulative effects from this project and other past, present, or reasonably foreseeable future actions on the area streams associated with development expected to occur in the future as a result of this project.

Additionally, watercourse impacts not directly addressed in the immediate project area would be mitigated through the purchase of credits at the Pine Creek Mitigation Bank as discussed under the Wyoming Valley project area and offer the same impact offsets.



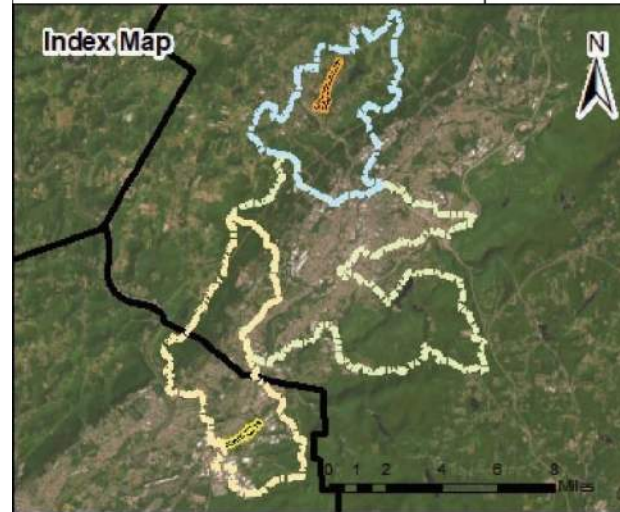
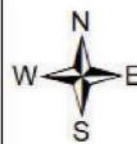
**Figure 24: Clarks Summit  
Streams, Wetlands, and Floodplains**

Scranton Beltway  
Resource Study Area Watersheds  
Lackawanna County, PA

**Legend**

-  Clarks Summit Project Corridor
-  Wyoming Valley Project Corridor
-  Lackawanna - Susquehanna HUC 12
-  Leggetts Creek HUC 12
-  Scranton - Lackawanna HUC 12
-  Streams
-  Trout Streams
-  NWI Wetlands

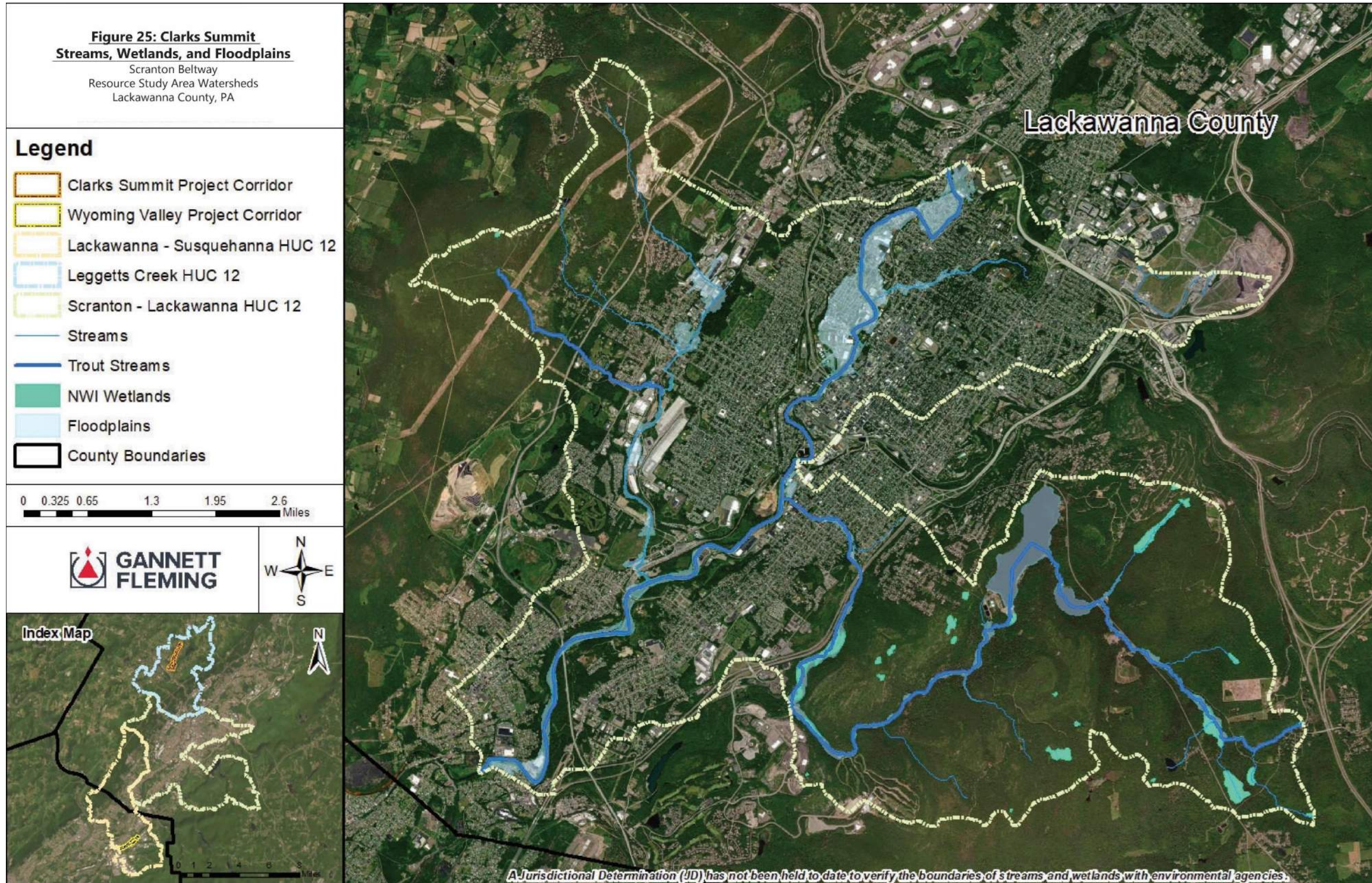
0 0.275 0.55 1.1 1.65 2.2 Miles



*A Jurisdictional Determination (JD) has not been held to date to verify the boundaries of streams and wetlands with environmental agencies.*

**Figure 24 - Leggett Creek HUC Streams, Wetlands, and Floodplains**





**Figure 25 - Scranton – Lackawanna River HUC Streams, Wetlands, and Floodplains**



4.9.2.4.2 *Wetlands (past, present, future)*

According to estimates from the U.S. Fish and Wildlife Service, Pennsylvania has lost between 50% to 60% of its original wetland acreage since European settlement. While historic data on wetland loss is limited, wetlands across northeastern Pennsylvania have been significantly affected by rapid development, especially in the latter half of the 20th century. Development and land modification activities, such as agricultural clearing, residential expansion, infrastructure construction, and industrialization, have led to the direct loss of wetland areas. The majority of these losses occurred prior to federal and state regulations that have limited wetland disturbance.

Historically, wetlands were often drained through swales and subsurface tile systems to facilitate agricultural land use and development. The loss of wetland area reduced the level of ecosystem functions and services provided by these features. Wetlands can store and filter water, regulate flooding, and support diverse ecosystems and wildlife populations. Additionally, fragmentation caused by infrastructure development and urban expansion resulted in more isolation of remaining patches. This fragmentation limited the movement of species and disrupted their natural habitats, leading to biodiversity loss.

Current and historic wetlands for both the Wyoming Valley (**Figure 23**) and Clarks Summit (**Figure 24** and **Figure 25**) project areas were evaluated using both National Wetland Inventory (NWI) data and data collected in the field. Field data is limited to the immediate project area while NWI data was collected for each HUC 12 RSA. NWI data indicates that the Leggetts Creek HUC 12 watershed contains approximately 135 acres of wetlands. Scranton – Lackawanna River HUC 12 contains approximately 220 acres of mapped wetlands, and Lackawanna – Susquehanna River contains approximately 10 acres of mapped wetlands. A summary of wetland types can be found in **Table 17**.

**Table 17 - National Wetland Inventory Wetland Acreage Per HUC 12**

HUC 12			
Wetland Classification	Leggetts Creek	Scranton - Lackawanna	Lackawanna - Susquehanna
PEM	40	83	5
PFO	52	97	5
PSS	43	40	0
<b>Total (ac)</b>	<b>135</b>	<b>220</b>	<b>10</b>



Historical aerial imagery and NWI data were reviewed to qualitatively assess historic wetland impacts within both the Wyoming Valley and Clarks Summit project areas.

No NWI wetlands were mapped within or immediately adjacent to the Wyoming Valley project area. Several areas mapped as wetlands using NWI data in the broader RSA were either developed or cleared due to past development and land modification. Given the urbanized nature of the Lackawanna – Susquehanna River HUC 12 watershed, it is likely that historic wetland areas have been significantly reduced by development practices in this area.

For Clarks Summit, the NWI data includes a 0.43-acre palustrine scrub shrub (PSS) wetland located at the southern end of the project area. The wetland lies within the floodplain of Leggetts Run and an unnamed tributary to Leggetts Run between I-81 and I-476. Two additional palustrine forest (PFO) wetland areas (0.47 and 0.33 acres, respectively) are mapped within this same area. A third palustrine emergent (PEM) wetland (0.07 acres) was located in the central part of the project area. Field investigations determined that the majority of these mapped wetlands did not meet the hydrology, wetland vegetation, or soils requirements to be classified as wetlands. It is likely that grading during the construction of I-81 and I-476 and residential development altered local hydrology and reduced the size of these wetlands from what would have been present historically.

Development activities in close proximity to many of the NWI mapped wetland areas have likely contributed not only to reduced wetland area but also reduced ecological functions. Development has increased the susceptibility to invasive species encroachment, restricts or modifies local hydrology, and alters species composition and diversity.

Field investigations within the Clarks Summit project area located 15 wetlands totaling 2.47 acres. Field investigations within the Wyoming Valley project area determined that there were 15 wetlands totaling 1.62 acres. Most of these wetlands were small and isolated from stream corridors or other wetland complexes.

Project plans will be reviewed to limit impacts to wetlands to the greatest extent practical. Preliminary designs indicate that about 0.28 acres of wetlands are expected to be permanently impacted in the Wyoming Valley project area and 0.05 acres of wetlands are expected to be permanently impacted in the Clarks Summit project area. This represents an insignificant amount of wetlands compared to the amount of wetlands found within the three 12 HUC watersheds. While any loss of wetland area and associated functions

reduces the overall water quality and habitat benefits they provide, the affected wetlands are providing low habitat and functional values. The water quality value loss would be offset with the implementation of stormwater management facilities the project would construct. Therefore, the project is not anticipated to reduce water quality with the loss of the wetlands.

While there would be a minimal amount of wetland habitat loss associated with the project, the loss would be to low value habitat and is not anticipated to have a localized negative impact. The habitat loss would be mitigated through the purchase of credits at a mitigation bank. As with the off-site watercourse mitigation, there is at least one mitigation bank under development within the PADEP and USACE approved service area for impacts in the Upper Susquehanna - Lackawanna River basin. This bank or other available banks in the service area would be utilized for offsetting project impacts. With the bank used unlikely to be within the local watershed, there would be minor localized wetland habitat loss associated with the project, but it would be offset within by the mitigation bank for the larger service area watershed. The bank is expected to be able to supply all wetland mitigation credits needed for this project.

With the project not anticipated to increase or stimulate development pressure in the area, there are no anticipated significant cumulative effects from this project and other past, present or reasonably foreseeable future actions on the area wetlands associated with development expected to occur in the future. Most of the existing wetlands within the RSAs are located away from areas of intense development, within areas that are difficult to access, or within preserved areas, making it even less likely they would be in jeopardy of being affected by future development. Additionally, current federal, state, and local regulations significantly restrict the impact of development on wetland systems. As such, no cumulative effect from the project on the remaining wetlands with the three assessed watersheds are anticipated.

#### 4.9.2.4.3 *Threatened and Endangered Species (vegetation/habitat) (past, present, future)*

##### Threatened and Endangered Species Resource Study Area

An RSA for threatened and endangered species was developed based on the known behaviors and presence of species. The Federally endangered Northern Long-eared Bat is present in the vicinity of the Wyoming Valley and Clarks Summit project areas. Further analysis is required for both project areas.

Coordination with USFWS indicated that the closest set of known hibernacula from the Wyoming Valley project area is approximately one mile, with another approximately four miles, and several approximately seven miles. The USFWS noted that the closest set of known hibernacula from the Clarks Summit project area is approximately three miles to the east of the project area, with another 4.5 miles to the southwest. Many more hibernacula are present on the northwest side of the Moosic Mountains from Dunmore to Carbondale, but these are all over five miles from the Clarks Summit project area.

According to the Standing Analysis for Interim Consultation Framework for the Northern Long-eared Bat (<https://www.fws.gov/media/appendix-standing-analysis-interim-consultation-framework-northern-long-eared-bat>) the Northern Long-Eared Bat can roost within 1.2 miles of hibernacula during the spring, and within 4.5 miles of hibernacula during the fall season. Therefore, the RSA for threatened and endangered species consists of all areas within a 4.5-mile buffer surrounding the Wyoming Valley and Clarks Summit project areas to account for any bats that may potentially use the project areas.

#### *Identification of Potential Impact Areas*

The Northern Long-eared Bat was listed as threatened under the ESA in 2015, and as endangered in 2023. The predominant threat to the Northern Long-eared Bat is white-nose syndrome; however, the species is also affected by wind-energy related mortality, summer habitat loss, and winter habitat loss and disturbance (<https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>).

The Northern Long-eared Bats spend the winter hibernating in caves and mines, and migrate to wooded areas, where they forage and roost in trees, for the spring and summer (source: <https://fws.gov/species/indiana-bat-myotis-sodalis> and <https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>).

Coordination with USFWS resulted in a seasonal restriction. Any tree cutting, disturbance, inundation (flooding) and prescribed burning would be conducted between November 16 to March 31 to avoid the season when Northern Long-eared Bats may be roosting in trees. By limiting tree clearing to the hibernation season, the project would avoid direct impacts to Northern Long-eared Bats. Because the closest known set of hibernacula is approximately one mile from the Wyoming Valley project area and approximately three miles from the Clarks Summit project area, the project would have no direct impacts to winter habitat. This cumulative effects analysis evaluates trends affecting summer habitat within the RSAs and considers the project's potential to contribute to habitat loss and

fragmentation.

*Past, Present, Future*

Wyoming Valley project area

The majority of land within the project area and surrounding areas appeared to be forested and residential in the late 1950s. Review of historic aerial imagery from 1959, prior to the construction of I-81 and I-476, indicates that development was already present in the project area and its vicinity. The project area contains vegetated areas fragmented by roads and a residential neighborhood. The area northwest of the project area contained residential development, and larger areas of contiguous vegetation to the southeast, with some road crossings and areas of industrial development. Development has occurred within and around the project area since the 1950s, including the construction of I-81 and I-476.

GIS datasets showing land cover are available for the RSA beginning with data compiled in the 1970's and 1980's, with the most recent dataset compiled in 2019. Land cover data from the 1970's and 1980's, provided by the USGS (<https://water.usgs.gov/GIS/dsdl/ds240/index.html>) was compared with 2019 data provided by the National Land Cover Database (NLCD) (<https://www.mrlc.gov/data?f%5B0%5D=category%3ALand%20Cover>) to identify recent trends in the amount of wooded area available for bat habitat within the RSA. The data compiled in the 1970's and 1980's showed approximately 27,784 acres of wooded areas within the RSA (55% of the total area of the RSA) including deciduous, evergreen, and mixed forest land cover types. The 2019 data indicates approximately 27,433 acres of wooded areas within the RSA (55% of the total) including deciduous, evergreen, mixed forests, and woody wetlands land cover types. Although the area has experienced development in recent years, the net loss of 350 acres of forest land cover represents 0.1% of the total forested land cover in the RSA, a minimal amount (see **Table 18**). Historic and current forested land cover within the RSA are shown in **Figures 26** and **27**.

**Table 18 - Wyoming Valley Forest Acreage within the RSA**

	<b>Total Wooded Acres</b>	<b>Percent of RSA</b>
<b>Historic Wooded Areas</b>	27,784	55%
<b>2019 Wooded areas</b>	27,433	55%
<b>Change</b>	-350	-0.1%



The Wyoming Valley project area is located within an already developed area where habitat is limited and fragmented due to the presence of residential, commercial, and industrial development, as well as highways and local roads. Based on approximate calculations of wooded areas within the project area, the project would affect roughly 37 acres of forests, woodlots, and trees, representing an insignificant portion of the habitat available to bats within the RSA, and would be limited to the season when bats are not present.



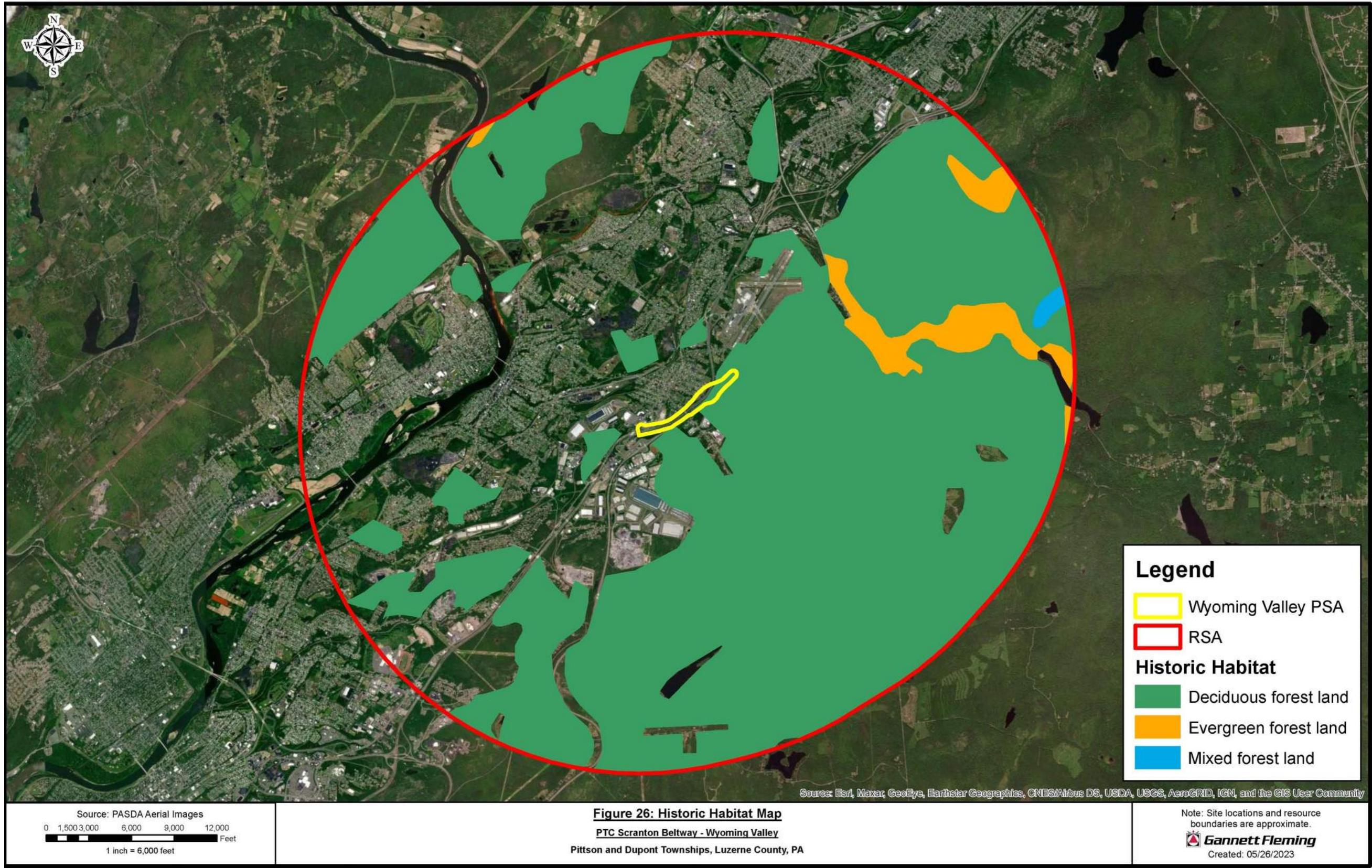


Figure 26 - Wyoming Valley Historic Habitat Map



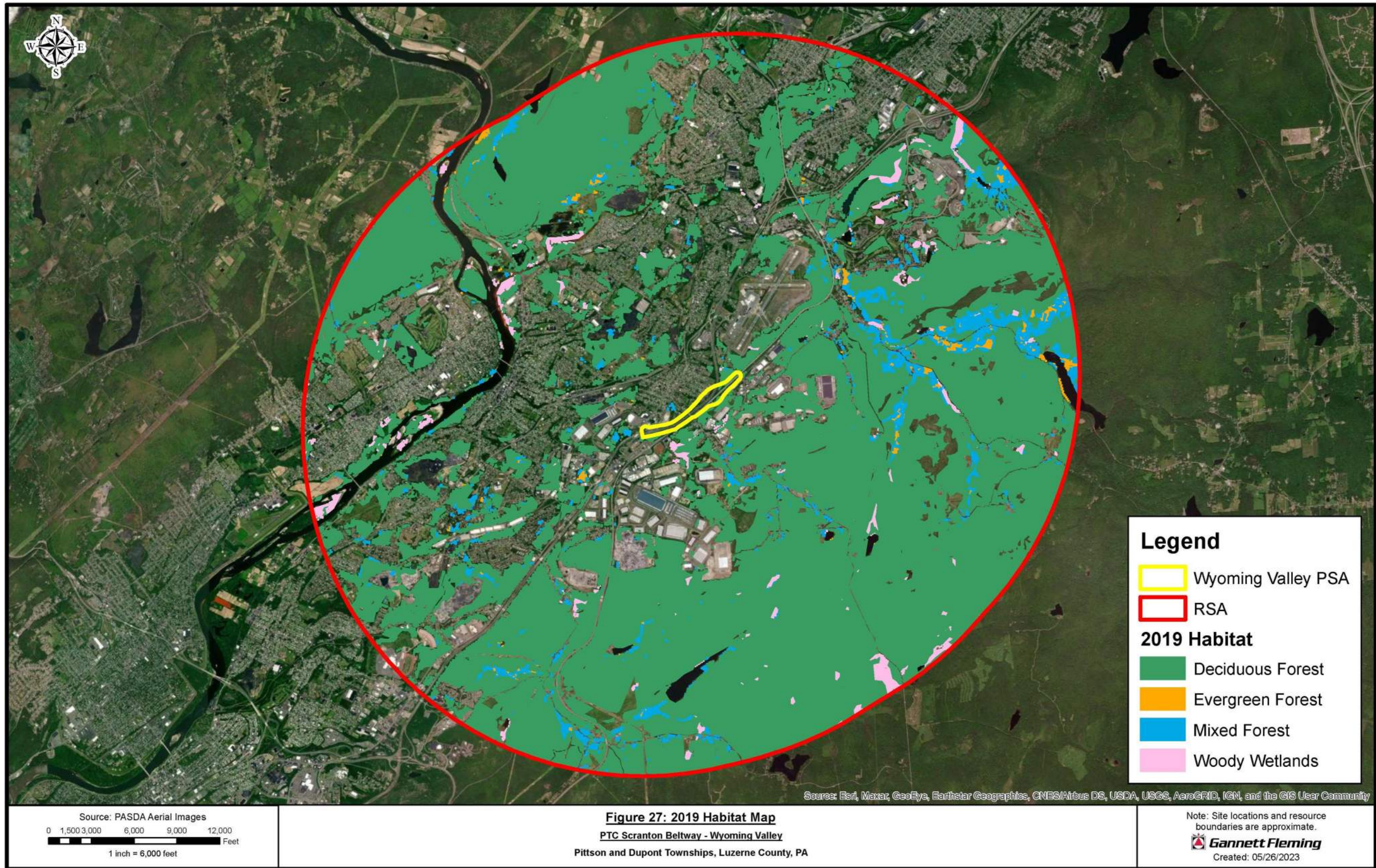


Figure 27 - Wyoming Valley Historic Habitat Map



### Clarks Summit project area

Review of historic aerial imagery from 1939, prior to the construction of I-81 and I-476, shows the project area and its vicinity to be predominantly agricultural lands. By the early 1960's, I-476 has been constructed in the project area and I-81 is being constructed but has not been completed to I-476. At this time, the project area and the surrounding vicinity appear to be agricultural, residential and institutional, and forested lands.

GIS datasets showing land cover are available for the RSA beginning with data compiled in the 1970's and 1980's, with the most recent dataset compiled in 2019. Land cover data from the 1970's and 1980's, provided by the USGS (<https://water.usgs.gov/GIS/dsdl/ds240/index.html>) was compared with 2019 data provided by the National Land Cover Database (NLCD) (<https://www.mrlc.gov/data?f%5B0%5D=category%3ALand%20Cover>) to identify recent trends in the amount of wooded area available for bat habitat within the RSA. The data compiled in the 1970's and 1980's showed approximately 19,271 acres of wooded areas within the RSA (36% of the total area of the RSA) including deciduous, evergreen, and mixed forest land cover types. The 2019 data indicates approximately 27,114 acres of wooded areas within the RSA (51% of the total) including deciduous, evergreen, mixed forests, and woody wetlands land cover types. Although the area has experienced development in recent years, the RSA has experienced a net increase of 7,843 acres of forest land cover, which represents a positive 15% of the total land cover in the RSA (see **Table 19**). Historic and current forested land cover within the RSA are shown in **Figures 28** and **29**.

**Table 19 - Clarks Summit Forest Acreage within the RSA**

	<b>Total Wooded Acres</b>	<b>Percent of RSA</b>
<b>Historic Wooded Areas</b>	19,271	36%
<b>2019 Wooded areas</b>	27,114	51%
<b>Change</b>	+7,843	+15%

The Clarks Summit project area is located within an already developed area where habitat is limited and fragmented due to the presence of residential, commercial, and institutional development, as well as highways and local roads. Based on approximate calculations of wooded areas within the project area, the project would affect roughly 32 acres of forests, woodlots, and trees, representing an insignificant portion of the habitat available to bats within the RSA, and would be limited to the season when bats are not present.



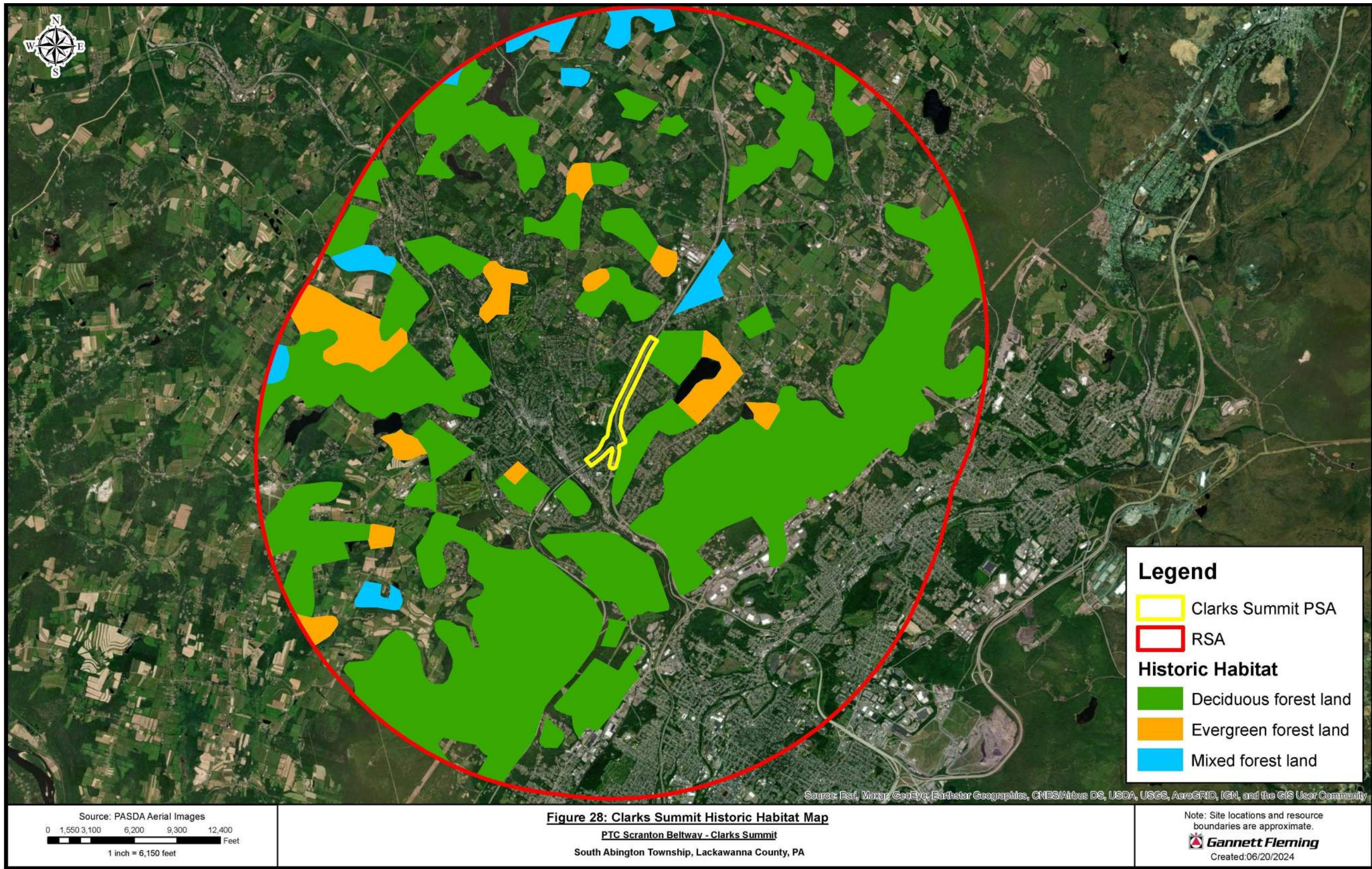


Figure 28 - Clarks Summit Historic Habitat Map



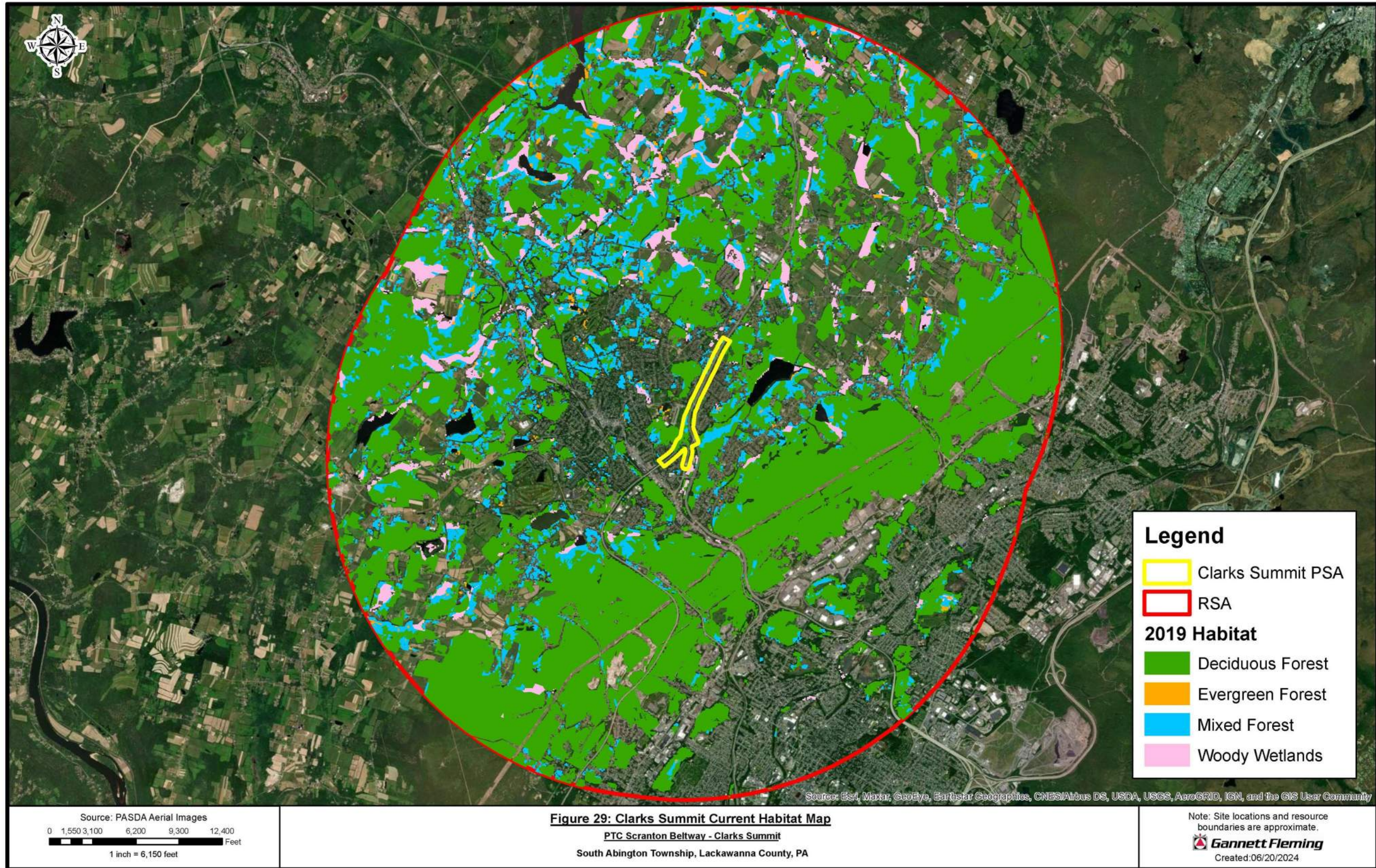


Figure 29 - Clarks Summit Current Habitat Map



Summary

Future impact to bat habitat as a result of the Scranton Beltway project, and future transportation projects, are expected to be negligible. The purpose of the direct connection projects is to relieve congestion on I-81 by utilizing I-476. It is not anticipated that the project would contribute to substantial future growth or modified development patterns within the RSA. In summary, there are no anticipated significant cumulative effects resulting from this project and other past, present, or reasonably foreseeable future actions on threatened and endangered species associated with development expected to occur in the future.

4.9.2.4.4 *Public Facilities and Services (past, present, future)*

PennDOT's One Map online mapping database and the PTC's Electronic Bidding System online tool were utilized to review past, present, and future transportation projects within the Scranton Beltway project areas for Wyoming Valley and Clarks Summit (i.e., the Borough of Dupont, and South Abington and Pittston Townships). The municipalities were used as the RSA. These projects were reviewed for potential contribution to cumulative impacts. **Table 20** depicts projects that have been completed in the past 9 years for the PTC and the last 14 years for PennDOT; **Table 21** depicts projects currently under construction; and previously listed **Table 15** depicts future development planned projects.

**Table 20 - Completed Transportation Projects' (Past)**

	<b>Owner / Project</b>	<b>MPMS / Contract No.</b>	<b>Location</b>
<b>PennDOT</b>	Bridge Rehabilitation on SR 11 (Main Street) over Railroad and Mill Creek	67434	Dupont Borough, Luzerne County
	Bridge Preservation on SR 4023 (Scott Road) over Spillway at Griffin Reservoir	97932	South Abington Township, Lackawanna County
	Ground Mounted Delineator project on I-81 (American Legion Memorial Highway), I-80 and I-380	116593	Various Municipalities in Lackawanna and Luzerne Counties

	<b>Owner / Project</b>	<b>MPMS / Contract No.</b>	<b>Location</b>
<b>PTC</b>	Roadway and Miscellaneous Repairs between MP A-31.34 and MP A-130.64	EN-00277-03-07	Montgomery, Bucks, Lehigh, Carbon, Lackawanna, and Luzerne Counties
	Installation of Pre-Entry Intelligent Transportation Systems between MP A-30.13 and MP A-130.64	A-020.00M001-3-02	Montgomery, Bucks, Lackawanna, and Luzerne Counties
	Rehabilitation of Eight Structures between MP A-105.00 and MP A-119.53	A-099.00S001-3-02	Luzerne and Lackawanna Counties
	Replacement of Bridge No. NB- 751 at MP A-130.23	A-130.23S001-3-02	Lackawanna County
	Erection of Signs between MP 245.75 and MP 359 and MP A-20.00 and MP A-131.00	EN-00164-03-03	Dauphin, Lebanon, Lancaster, Berks, Chester, Montgomery, Bucks, Lehigh, Carbon, Luzerne, and Lackawanna Counties
	Bridge Repairs between MP A-020.00 and MP A-130.64	EN-00200-03-05	Montgomery, Bucks, Lehigh, Carbon, Luzerne, and Lackawanna Counties
	Roadway and Miscellaneous Repairs between MP A-57.22 and MP A-130.64	EN-00233-03-07	Lehigh, Carbon, Luzerne, and Lackawanna Counties
	Bridge Repairs between MP A-020.00 and MP A-130.64	EN-00245-03-05	Montgomery, Bucks, Lehigh, Carbon, Luzerne, and Lackawanna Counties
	Roadway and Miscellaneous Repairs between MP A-31.34 and MP A-130.64	EN-00250-03-07	Montgomery, Bucks, Lehigh, Carbon, Luzerne, and Lackawanna Counties

Sources: PennDOT's One Map Website (<https://gis.penndot.gov/onemap/>) and PTC's Electronic Bidding System website ([https://ebs.paturnpike.com/generalinformation/bids/bid\\_schedule.aspx](https://ebs.paturnpike.com/generalinformation/bids/bid_schedule.aspx))



**Table 21 - Projects Under Construction (Present)**

	Owner / Project	MPMS	Location
<b>PennDOT</b>	US 6, US 11, I-81, I-84, I-380, US 29, I-80, US 309, and US 380 Interstate Line Painting – District 4	119306	Lackawanna, Luzerne, Pike, Susquehanna, and Wayne Counties
	SR’s 1008, 1013, 1015, 1029, 2005, 2007, 2008, 2020, 2035, and 3030 Federal Aid Paving	102563	Luzerne, Pringle, Laurel Run, Plains, and Swoyersville Boroughs; Wilkes Barre, Pittston, Hazle, and Hanover Townships; Wilkes Barre and Hazleton Cities, Luzerne County
	I-81 Ramps High Friction Surface	118201	City of Scranton, Benton, Greenfield, South Abington, and Scott in Lackawanna County and Lenox Twp Susquehanna
	Resurfacing on SR 307 (Morgan Highway) between Morgan Manor Drive and Washington Road to SR 4024 (Winola Road)	114879	South Abington Township, Clarks Summit Borough, Lackawanna County
<b>PTC</b>	There are no PTC projects currently under construction within the Borough of Dupont and Pittston Township, Luzerne County and South Abington Township, Lackawanna County		

Source: PennDOT’s One Map Website (<https://gis.penndot.gov/onemap/>) and PTC website (<https://www.paturnpike.com/traveling/design-construction>)

Based on an evaluation of the known past and present, and reasonably foreseeable future transportation projects, the majority of the projects are maintenance-type projects. Bridge repairs and preservations, roadway resurfacing and line painting, and roadway repairs typically occur within existing transportation ROW. Maintenance (repairs, resurfacing, line painting) and preservation projects would have no anticipated impacts. General improvement projects, such as ITS and sign installations, sign structure replacements, and ground mounted delineators, would likely have no impacts. Bridge replacement projects and construction of tolling facilities would result in negligible impacts to each project area resources.

The traffic modeling completed for the project includes future growth assumptions; therefore, anticipated traffic generated by land use developments within the general vicinity of the project area should be accounted for in the traffic forecast for the project area. Therefore, the noise, air quality, and other traffic-related cumulative impacts are incorporated into the traffic model and are described in their respective sections of this EA if applicable.

Historic USGS topographic mapping and historic aerials were reviewed between the 1950's through the present-day. A number of residential, commercial, and industrial developments occurred in the Wyoming Valley and Clarks Summit project areas. Interstate 476 was constructed in the 1950's and I-81 was constructed in the late 1950's and early 1960's. The general areas surrounding the Wyoming Valley and Clarks Summit project areas were reviewed for the purpose of assessing development projects in the area.

The project team coordinated with the municipalities within the Wyoming Valley and Clarks Summit project areas to identify approved future land development that could contribute to the cumulative impacts for the Scranton Beltway project. None were identified as of the submittal of this EA.

The majority of the land within the general area of the Wyoming Valley project area appeared to be forested and residential in the late 1950's. Large above-ground tanks were noted on the 1959 aerial south of I-476. The construction of I-81 had demolished some of the existing buildings west of the existing project area. Commercial development occurred by the early 1980's just northwest of the project area. By the early 1990's, industrial development occurred southeast and southwest of the project corridor and has expanded through the present-day.

The majority of the land within the general area of the Clarks Summit project area appeared to be agricultural or forested land in the 1950's. Venard College, now named Clarks Summit University, has expanded from the 1950's through 1995. Scranton School for the Deaf, north of Venard Road on the western side of I-81, was established in 1880. Residential development began to occur by 1969, mostly southeast of I-81. More homes were constructed surrounding I-81 until 2004.

According to public records, the Shoppes at South Abington is a 37,399 sq ft retail project that is currently under construction. The facility is located in South Abington Township and is situated along Route 11, just north of I-476. According to the property lease website,

Route 11 sees over 28,000 vehicles per day. Wendy's Starbucks, Jersey Mike's, and Sheetz are proposed within the commercial property.

In February 2020, Phase III of the land development plan for South Abington Woods, the townhouses at Sterling Way was approved according to The Abington Journal (February 17, 2020) news article. Construction of the few remaining available units is anticipated to begin after January 2024. This current land development is located in South Abington Township, approximately one mile northwest of the Clarks Summit project area.

In summary, there are no anticipated significant cumulative effects resulting from this project and other past, present, or reasonably foreseeable future actions on public services and facilities associated with development expected to occur in the future. In addition, as mentioned in Section 3.3, the project is anticipated to have positive effects to public facilities and services. Access to public facilities and services would be improved due to reduced congestion resulting from the high-speed connections between I-81 and I-476.

#### *4.9.2.4.5 Residential/Commercial (Growth/Development) (Past, Present, and Future)*

The Wyoming Valley RSA, Pittston Township and the Borough of Dupont, contains primarily developed industrial and residential lands. Growth is low due to developed lands. However, industrial zoned vacant areas have potential to develop with the increasing demand for warehousing and distribution center space. An increase in truck traffic is anticipated due to the increased demand for warehouses and distribution centers.

According to historic aerial imagery, several residential displacements seemed to have occurred within the Wyoming Valley project area between 1959 and 1969 during the construction of I-81, near Suscon Road. No residential or commercial displacements were identified during the construction of I-476.

The Clarks Summit RSA, South Abington Township, contains primarily developed residential lands. The majority of the development within the RSA occurred prior to 1980. Other areas in the northern part of the RSA have been developed within the past 20 years. Undeveloped land is largely owned by educational institutions or are zoned as conservation areas.

Review of PennDOT's CE Expert System provided past projects' (**Table 20**) environmental impacts. The three completed PennDOT projects identified on One Map did not require the acquisition of residential or commercial properties. The PTC's NB-751 bridge replacement project required no residential or commercial displacements as per review of



aerial imagery. The remaining identified PTC's projects consist of maintenance work, not requiring displacements.

**Table 21** identified projects currently under construction. No residential or commercial displacements are anticipated due to the nature of the identified projects.

The Scranton Beltway project would cause 5 residential and 1 commercial displacements in the Wyoming Valley project area and 6 residential displacements in the Clarks Summit project area. Based on the analysis in Section 4.7 Socioeconomic Areas and Section 7.0 Environmental Justice, although the Scranton Beltway project would result in displacements, the project does not have potential for significant socioeconomic impacts, including to EJ and Title VI communities. The project is consistent with local planning and zoning ordinances.

Future transportation projects were documented based on review of PennDOT's One Map and PTC's Electronic Bidding System websites. Based on the reasonably foreseeable future transportation projects (**Table 15**), no impacts are anticipated to residential or commercial properties due to the nature of the proposed projects.

Though coordination with the municipalities for approved future land use developments did not reveal pertinent data, the municipalities have well documented and enforced planning and zoning regulations. Public records revealed a commercial development and a residential development project within South Abington Township (Clarks Summit project area). Through historic aerial imagery, the commercial property appeared to contain buildings since the 1950's but have been demolished to redevelop after 2019. The residential development converted vacant land to townhomes. Clearing of the land began somewhere between 2017 and 2019.

The Scranton Beltway project would not create new transportation corridors but would relieve congestion on I-81 by facilitating better use of I-476. The proposed project is not expected to open new areas to potential growth or development but would better balance traffic between existing highways.

The Conceptual Stage Survey Report (**Appendix G**) documents that sufficient safe, sanitary and decent housing and commercial properties are available in and near the project areas to relocate displaced persons and businesses resulting from both this project and other reasonably foreseeable projects that may require displacements.

Availability of real-estate for rent or purchase is adequate for the business and residential properties.

4.9.2.5 *Potential Cumulative Effects*

Cumulative Effects are the summation of the direct impacts associated with the past, present, and reasonably foreseeable actions by others, in addition to the proposed project impacts.

**Table 22** illustrates the anticipated cumulative impacts associated with the proposed projects in the RSAs.

**Table 22 - Potential Cumulative Impacts**

Topic	Project Area Location	Past Actions / Impacts	Present Conditions	RFFA Impacts	Summary
Streams	Wyoming Valley	A significant portion of the RSAs watersheds were cleared for agricultural purposes. Urban development and mining activities compromised the land and cleared riparian zones.	Mill Creek is listed as impaired for urban runoff/storm sewer systems, flow regime modification, highway/road/bridge runoff.	Identified RFFAs are not anticipated to affect watersheds. Identified RFFAs are not anticipated to affect the watersheds after construction.	Instream construction restrictions would occur from October 1 through December 31 to protect the naturally reproducing trout waters for the following watercourses: three UNTs to Lidy Creek within Wyoming Valley and UNTs to Leggetts Creek within Clarks Summit. Stream impacts not directly addressed in the immediate project area would be mitigated through the purchase of credits at a mitigation bank. Minor localized aquatic habitat loss would be offset by the mitigation bank for the larger service area watershed.
	Clarks Summit		Leggetts Creek and the Lackawanna River are within the Lackawanna River Watershed TMDL, which addresses impairment for low pH, metals, siltation, and flow alterations. Much of the Leggetts Creek and Scranton-Lackawanna River watersheds are listed as impaired by Urban Runoff and Storm Sewers.		

<b>Topic</b>	<b>Project Area Location</b>	<b>Past Actions / Impacts</b>	<b>Present Conditions</b>	<b>RFFA Impacts</b>	<b>Summary</b>
<b>Wetlands</b>	Wyoming Valley	Past wetland impacts occurred during the construction of I-81 and I- 476 as well as from residential development.	Field investigations determined that there were 15 wetlands totaling 1.62 acres.	RFFAs are not anticipated to contribute to cumulative wetland impacts in the RSAs.	Water quality value loss would be offset with the implementation of stormwater management facilities. Habitat loss would be mitigated through the purchase of credits at a mitigation bank. RFFAs are not expected to contribute to cumulative impacts.
	Clarks Summit		Field investigations located 15 wetlands totaling 2.47 acres.		
<b>Threatened and Endangered Species</b>	Wyoming Valley	The majority of land was forested and residential in the late 1950's. A significant portion of the RSAs watersheds were cleared for agricultural purposes. Urban development and mining activities comprised the land and cleared riparian zones.	A loss of 350 acres of forest land cover occurred from the 1970's to 2019.	RFFAs are not anticipated to contribute to cumulative impacts to threatened and endangered species in the RSAs.	With avoidance mitigation, the proposed project is not anticipated to contribute to cumulative impacts to threatened and endangered species. RFFAs are not expected to contribute to cumulative impacts.
	Clarks Summit	The majority of land in the late 1930's was agricultural. By the 1970's, forested land was the predominant landcover, followed by cropland. The majority of the land use in 2019 was forested followed by developed lands.	A net gain of 7,843 acres of forest land cover occurred from the 1970's to 2019.		

Topic	Project Area Location	Past Actions / Impacts	Present Conditions	RFFA Impacts	Summary
<b>Public Facilities and Services</b>	Wyoming Valley	I-476 and I-81 were constructed in the 1950's – 1960's. Industrial development has occurred within the area from the early 1990's through to present-day.	Residential properties are located generally north of the RSA. Industrial development is generally south of the RSA.	RFFAs are not anticipated to contribute to cumulative impacts to public facilities and services in the RSAs.	The project is anticipated to have positive effects to public facilities and services. Access to public facilities and services would be improved due to reduced congestion resulting from the high-speed connections between I-81 and I-476. RFFAs contribute to cumulative impacts.
	Clarks Summit	I-476 and I-81 were constructed in the 1950's – 1960's. Vernard College (Clarks Summit University) and Scranton School for the Deaf were developed by the 1960's. Residential development began to occur by 1969, mostly southeast of I-81.	Commercial development (Shoppes at South Abington) as well as residential development (South Abington Woods) is occurring within the RSA.		
<b>Residential and Commercial Development</b>	Wyoming Valley	The current interstate ROW was established during the original highway construction.	ROW is anticipated from residential properties. Potential residential and commercial displacements are anticipated.	RFFAs are not anticipated to have substantial ROW needs.	Property owners would be compensated for properties at fair market value.
	Clarks Summit		ROW is anticipated from residential properties. Potential residential displacements are anticipated.		

In summary, no significant cumulative effects resulting from this project together with past, present, and reasonably foreseeable future actions were identified.

**Supporting documentation for Section 4.9 includes:**

- *Multi-Resolution Land Characteristics Consortium (MRLC). National Land Cover Database.*
- *United States Geological Survey. USGS DS 240: Enhanced Historical Land-Use and Land-Cover Data Sets of the US Geological Survey*



- *USFWS. Indiana Bat and Northern Long-eared Bat*
- *A Natural Areas Inventory of Lackawanna County (1997)*
- *EDAW, Lackawanna and Luzerne Counties, Open Space, Greenways & Outdoor Recreation Master Plan (April 2004)*
- *A Natural Areas Inventory of Luzerne County (2006)*
- *PennDOT Publication 640, Indirect and Cumulative Effects (March 2008)*
- *Luzerne County Hazard Mitigation Plan Update (2020)*
- *Lackawanna and Luzerne MPO 2045 Long-Range Transportation Plan (February 2021)*
- *Lackawanna-Luzerne Counties Joint Comprehensive Plan & Long Range Plan (June 2021)*
- *Gannett Fleming, Inc. "Scranton Beltway Project - Approved Land Development within Municipality." Received by South Abington Township, Pittston Township, Borough of Dupont, and Luzerne County, 2023 May 19 and 2023 May 23.*
- *Bennett Williams Commercial website for Shoppes at South Abington website (<https://bennettwilliams.com/properties/shoppes-at-south-abington/>), accessed May 26, 2023.*
- *The Abington Journal. "Supervisors grant approval of Phase 3 of land development in South Abington Woods." February 17, 2020. ([https://www.theabingtonjournal.com/sports/local-sports/44224/supervisors-grant-approval-of-phase-3-of-land-development-in-south-abington- woods](https://www.theabingtonjournal.com/sports/local-sports/44224/supervisors-grant-approval-of-phase-3-of-land-development-in-south-abington-woods)) Accessed May 26, 2023.*

## **5.0 PERMITS CHECKLIST**

### **United States Army Corps of Engineers Section 404 and/or Section 10 Permit**

A USACE Individual Permit is anticipated for the Wyoming Valley project area due to permanent watercourse impacts exceeding the 1,000 LF of stream channel permanent loss criteria.

A USACE Individual Permit is anticipated for the Clarks Summit project area due to the presence of two stream relocations and permanent watercourse impacts exceeding the 1,000 LF of stream channel permanent loss criteria.

### **DEP Waterway Encroachment (105) Permit**

A PADEP Standard permit is anticipated for the Wyoming Valley project area due to the extent of water resource impacts and type of construction activities.

A PADEP Standard permit is anticipated for the Clarks Summit project area due to the extent of water resource impacts and type of construction activities.

**DEP 401 Water Quality Certification** – yes

**NPDES Permit** – Individual

## 6.0 PUBLIC INVOLVEMENT

### Plans Display

An online plans display is anticipated to be available prior to and subsequent to the public hearings.

### Agency Coordination

The agency coordination that has occurred to date resulted from the online PNDI search. (See Section **4.3 Wildlife** for further information.) The Scranton Beltway Draft EA will be circulated to the following agencies for their review and comment:

- Advisory Council on Historic Preservation
- Federal Emergency Management Agency
- U.S Army Corps of Engineers
- U.S. Fish and Wildlife Service
- U.S. Department of Health & Human Services
- U.S. Department of Housing & Urban Development
- U.S. Department of Interior
- U.S. Department of Transportation
- U.S. Environmental Protection Agency
- U.S. Department of Agriculture
- U.S. Environmental Protection Agency

A preliminary Pre-Application Meeting was held on June 29, 2022 with PADEP-Regional Permit Coordination Office, and Luzerne and Lackawanna County Conservation Districts. The PTC attended a virtual Agency Coordination Meeting (ACM) on May 22, 2024 where the Scranton Beltway project was presented.

### Public Officials Meetings

1. April 24, 2018 – A public officials meeting was held at the Dupont Borough Municipal Building to give updates to Dupont Borough officials and Pittston Township officials for the Wyoming Valley project area.
2. June 21, 2018 – A public officials briefing/meeting was held at the South Abington Township Building to give updates to the South Abington Township officials for the Clarks Summit project area. A public advisory group was included in this meeting.
3. June 10, 2021 – A public officials meeting was held at the Dupont Borough Municipal Building to give project updates to the members representing Dupont Borough for the Wyoming Valley project area.

One additional public officials meeting will be held in advance of the public hearing.

### Public Meetings

Two public meeting plan displays were held for the Wyoming Valley and Clarks Summit project areas on November 13 and November 14, 2023, respectively.

### Public Comments

Numerous comments regarding the project have been received to date from the general public. Comments from the public could be summarized into five categories: property impacts (42%), project schedule/status (27%), project information (20%), field acidity (potential for acid mine drainage) (7%), and design (4%). The project team has responded to the questions and comments of the individuals interested in the project. The project team directed individuals with questions regarding project schedule and project information to the project website, which contains project background and an overall project schedule. For questions regarding property impacts, the project team responded by explaining that following the culmination of preliminary engineering and receiving the necessary approvals from outside agencies, the PTC will hold a public hearing at which time information regarding potential property impacts will be shared with the public. Comments as well as their responses have been documented in the project technical files.

Questionnaires were distributed during the public meeting plan displays in November 2023. The questionnaires were provided to receive feedback from the general public for the two interchanges. Ten questionnaires were returned to the project team for the Wyoming Valley project area and sixteen questionnaires were returned to the project team for the Clarks Summit project area. Various comments relating to the project areas were summarized into 11 categories: traffic (including tractor trailer traffic), tolls, project schedule and communication, property acquisitions and compensation, property values, noise barriers, air quality, public meeting format, drainage, retention pond/stormwater basins, and tree removal.

Public comments were emailed to the project team from nine members of the community. The emailed comments can be categorized into seven categories: tolls, stormwater and flooding, displacements, added traffic and pollution, cost of project, positive impacts, noise, and property values. Comments have been documented in the project technical files. Responses to comments, if requested, would be completed before or during the circulation of this EA.

### Public Hearings

Two public hearings, one near the vicinity of each of the project areas, will be held for the project near the conclusion of preliminary engineering.

Public involvement will continue to take place during final design. Additional community noise



wall meetings will occur during final design. The publicly accessible project website will be periodically updated.

Future public involvement activities are anticipated to include:

- Two Public Hearings during the circulation of this EA.
- Project website will be maintained and updated with new information, as needed.
- Noise meetings during final design for noise mitigation.

See **Table 23** below with the summary of additional public involvement activities.

**Table 23 - Public Outreach Activities**

<b>Outreach Type</b>	<b># of Recipients</b>	<b>Type of Recipients</b>	<b>Date Sent</b>
Project Specific Website	N/A	<a href="https://www.paturnpike.com/traceling/construction/site/scranton-beltway">https://www.paturnpike.com/traceling/construction/site/scranton-beltway</a>	N/A
Status Update Letters	126	Residents within the project area for Clarks Summit	12/31/2018
Status Update Letters	74	Residents within the project area for Wyoming Valley	12/31/2018
Public Officials Status Update Letters	17	Public Officials within Wyoming Valley and Clarks Summit	12/19/2018
Status Update Letters	81	Residents within the project area for Wyoming Valley	8/16/2021
Status Update Letters	146	Residents within the project area for Clarks Summit	8/16/2021
Public Officials Status Update Letters	17	Public Officials within Wyoming Valley and Clarks Summit	8/16/2021
Senator Casey Coordination	1	US. Senator Robert Casey coordination	9/14/2021
Public Officials Letter Change in NEPA Classification	13	Public Officials within Wyoming Valley and Clarks Summit, as well as state and federal elected officials	5/6/2022
Email Blasts	Approximately 80	Any interested parties who signed up on the project website to be on the mailing list. Provided periodic updates on the project status	Summer 2018; fall 2018; spring 2019; summer 2019; fall 2019; winter 2020; winter 2021
Press Release	N/A	Announcing restart of project post COVID	12/10/2021
Public Officials Status Update Letters	13	Public Officials within Wyoming Valley and Clarks Summit, as well as state and federal elected officials	10/19/2022

Outreach Type	# of Recipients	Type of Recipients	Date Sent
Public Meeting Plan Displays	2	Public meeting for the Wyoming Valley project area <sup>1</sup> Public meeting for the Clarks Summit project area <sup>2</sup>	11/13/2023 <sup>1</sup> 11/14/2023 <sup>2</sup>

*Public involvement documentation is located in the Project Technical Files.*

**Supporting documentation for Chapter 6.0 includes:**

- *Dupont Borough Public Officials meeting (June 2021)*
- *November 2023 Meeting Comment Sheets*

## 7.0 ENVIRONMENTAL JUSTICE

### 7.1 Introduction

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (February 11, 1994), directs federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority and low-income populations. For transportation projects that use federal funds, the FHWA must identify disproportionately high and adverse health or environmental effects on minority and low-income populations. Additionally, EO 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All* was enacted on April 21, 2023. The new EO does not rescind EO 12898. It enhances the scope of efforts under EO 12898 by directing federal agencies to identify, analyze and address disproportionate human health and environmental impacts of federal agencies. The FHWA Order on *"Actions to Address Environmental Justice in Minority Populations and Low-Income Populations"* (June 14, 2012), clarifies the definition of adverse effects and states that the "denial of, reduction in, or significant delay in the receipt of, benefits of FHWA programs, policies or activities" also constitutes an adverse effect. Pursuant to the FHWA's Title VI of the Civil Rights Act and Additional Nondiscrimination Requirements and Title VI of the Civil Rights Act of 1964, no person shall be excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance. In addition to the groups protected under the original Title VI Statute, the FHWA Title VI program specifically protects race, color, national origin, sex, age, disability, low-income, and limited English proficiency. Cumulatively, EO 12898 and EO 14096 on Environmental Justice, the Title VI Statute of 1964, the FHWA Title VI program, seek to develop greater equity in the transportation system.

For the Scranton Beltway project, Environmental Justice (EJ) and Title VI Evaluations were undertaken to determine if such communities are present, and if they would be adversely affected by the project, pursuant to EO 12898, Title VI of the Civil Rights Act, and the FHWA's Title VI Program.

The Scranton Beltway EJ and Title VI Evaluation (June 2022) is included in **Appendix F**.

### 7.2 Methodology

Based on Lackawanna-Luzerne Transportation Study (LLTS) Metropolitan Planning Organizations (MPO) methodology, eight demographic groups are included in an EJ and Title VI Evaluation. These groups consist of Non-Hispanic Minority, Hispanic, Households in Poverty, Limited English

Proficiency, Persons with a Physical Disability, Elderly over 65 Years in Age, Carless Households, and Female Head of Household with Children. These groups are defined as:

<b>Group</b>		<b>Definition</b>
EJ groups	Racial Minority	All persons in the region identified as one or more of the following races or African American, American Indian, Alaskan Native, Asian Indian, Japanese, Native Hawaiian, Chinese, Korean, Guamanian or Chamorro, Filipino, Vietnamese, Samoan, Other Asian, and/or Other Pacific Islander.
	Ethnic Minority	All persons who identified themselves as being of Hispanic, Latino, Spanish, Mexican, Chicano, Cuban, Puerto Rican, or Other Hispanic origin.
	Low-Income	All persons in the region who have a household income below 200% of the national poverty level.
Title VI groups	Youth	All persons under age 18
	Older Adults	All persons age 65 and older
	Females	All persons identifying as female when given the choice of male or female on the survey form
	Foreign-Born	All persons in the region who indicated they were born outside of the United States in their Census form.
	Limited English Proficiency	All persons in the region who indicated they speak English less than "very well."
	Disabled	All persons in the region who indicated they experience one or more physical and/or mental disabilities

Specifically, EJ groups consist of minority and low-income populations. Based on the LLTS demographic categories, Non-Hispanic Minority, Hispanic, and Households in Poverty are considered EJ groups. The remaining five groups, Limited English Proficiency, Persons with a Physical Disability, Elderly over 65 Years in Age, Carless Households, and Female Head of Household with Children are included within the Title VI Evaluation.

Due to the distance (16 miles) between the Clarks Summit project area and the Wyoming Valley project area for the Scranton Beltway project, both project areas were evaluated separately, and the EJ groups and Title VI groups were also analyzed separately.

LLTS compiled American Community Survey (ACS) Data for 2015-2019 and the demographic groups were located at the census tract level. Based on the ACS form, an individual may be



counted in multiple groups which are reflected in the EJ and Title VI Evaluations. See **Figure 30 and Figure 31**.

The known EJ and Title VI groups within the Wyoming Valley and Clarks Summit project areas were evaluated based on types of resources and impacts present within this EA prepared as part of the NEPA process. Subjects evaluated for EJ and Title VI impacts include air quality, noise levels, aesthetic impacts, vibration levels, loss of employment, economic vitality, pedestrian accessibility/impacts, transit availability, safety, temporary construction impacts, hazardous/residual waste, property acquisitions, and community cohesion.

### 7.3 Results

The No-Build Alternative would have no impact on EJ or Title VI communities.

#### Wyoming Valley project area

Based on the ACS 2015-2019 Census data, the Title VI groups with percentages above Luzerne County average within the project area consisted of percent Elderly over Age 65 and percent Persons with a Physical Disability. No EJ groups contained percentages above the Luzerne County average. See **Table 24** below. See **Figure 30**.

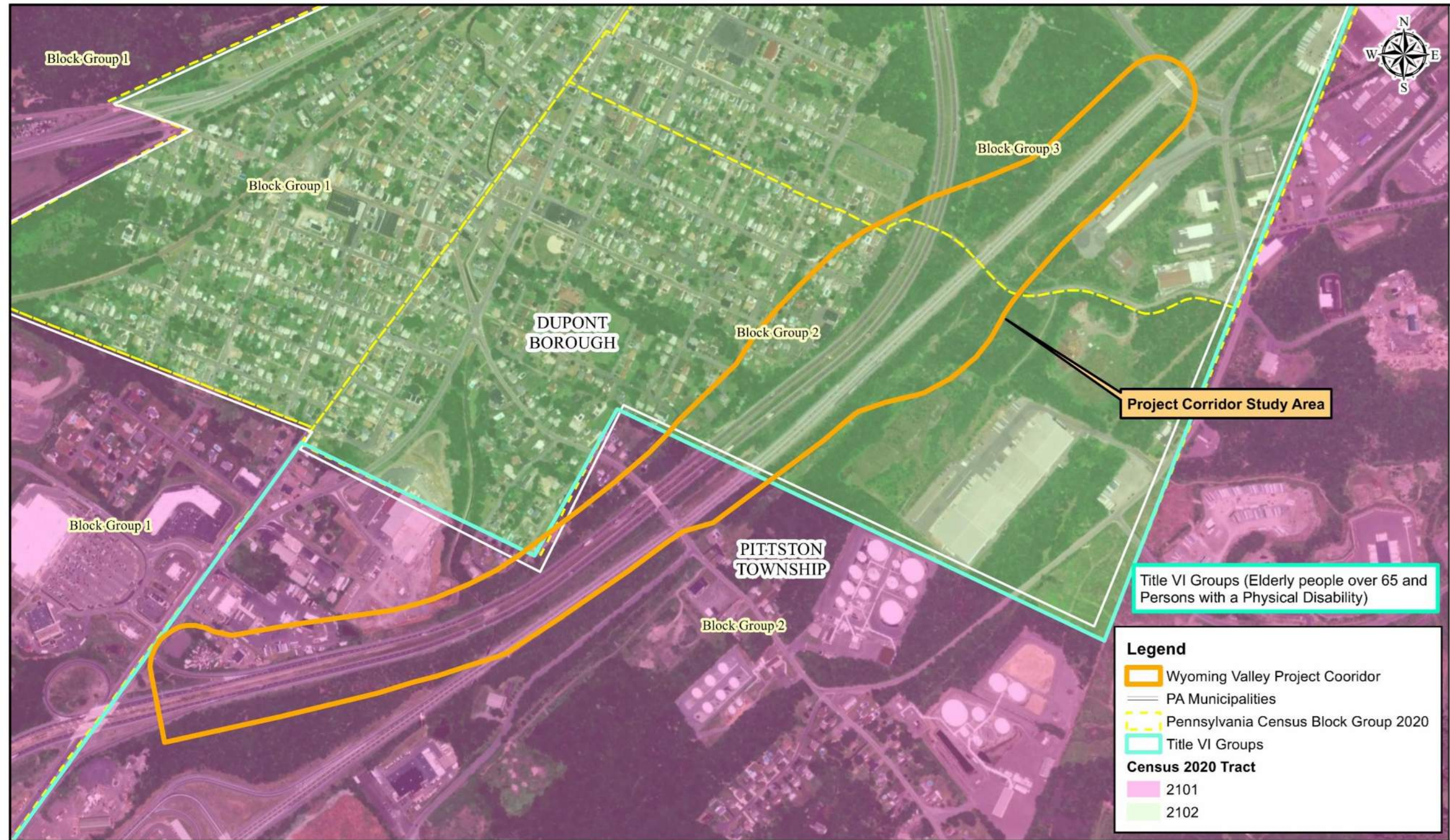
**Table 24 - Wyoming Valley Project Area Title VI and EJ Group Results**

<b>ACS 2019 Data</b>	<b>Title VI Groups</b>	
<b>2020 Census Tract</b>	<b>% Elderly over Age 65</b>	<b>% Persons with a Physical Disability</b>
2101	18.19	14.70
2102	21.81	16.60
Luzerne County Threshold	19.61	15.80

*\* Shaded cells show categories above County Threshold*

As a result of the presence of two Title VI groups, a Title VI Evaluation was performed for the Wyoming Valley project area. The Title VI Evaluation was performed to determine if the Title VI groups were excluded from participation in, denied the benefits of the project, or subjected to discrimination as a result of the project. No EJ groups were identified and therefore an EJ Evaluation was not performed for the Wyoming Valley project area.





Source: PASDA GIS layers and US Census ACS 2020 data

0 150 300 600 900 1,200 Feet

1 inch = 600 feet

**Figure 30 - Wyoming Valley Project Corridor Location and Census Tract Map**  
 Scranton Beltway Project - Wyoming Valley Corridor  
 Pittston Township and Borough of Dupont, Luzerne County, PA

Note: Site locations and resource boundaries are approximate.

Prepared: 6/13/2024

*Figure 30 - Wyoming Valley Project Corridor Location and Census Tract Map*







The Title VI evaluation for percent Elderly over Age 65 and percent Persons with a Physical Disability indicated that the groups, located within the Wyoming Valley project area, were not excluded from participation in, denied the benefits of the project or subjected to discrimination as a result of the project. These effects were determined not to be present based on the nature of the project, its impacts, the presence of an existing transportation corridor, and mitigation measures implemented. Potential mitigation measures could include landscaping, noise reduction and relocation opportunities within the community; however, no Title VI residences would be displaced by the project.

Clarks Summit project area

Based on the ACS 2015-2019 Census data, the Title VI groups with percentages above Lackawanna County average within the project area consisted of percent Elderly over Age 65 and percent Carless Households. One EJ group, Non-Hispanic Minority, had percentages above the Lackawanna County average. See **Table 25** below.

**Table 25 - Clarks Summit Project Area Title VI and EJ Group Results**

<b>ACS 2019 Data</b>	<b>Title VI Groups</b>		<b>EJ Group</b>
<b>2020 Census Tract</b>	<b>% Elderly over Age 65</b>	<b>% Carless Households</b>	<b>% Non-Hispanic Minority</b>
1104.01	20.35	3.57	9.77
1104.03	22.63	13.64	9.27
Lackawanna County Threshold	19.62	9.88	8.91

\* *Shaded cells show categories above County Threshold*

As a result of the presence of two Title VI groups and one EJ group, Title VI and EJ Evaluations were performed for the Clarks Summit project area. The Title VI Evaluation was performed to determine if Title VI groups were excluded from participation in, denied the benefits of the project, or subjected to discrimination as a result of the project. The EJ Evaluation was performed to determine if the EJ group had disproportionately high and adverse human health or environmental effects present as a result of the project.

The evaluation for percent Elderly over Age 65 and percent Carless Households indicated that these groups, located within the Clarks Summit project area, were not excluded from participation in, denied the benefits of the project or subjected to discrimination as a result of the project. These effects were determined not to be present based on the nature of the project, its impacts, the presence of an existing transportation corridor, and mitigation measures implemented. Potential mitigation measures could include landscaping, noise reduction and relocation opportunities within the community.



A Non-Hispanic Minority EJ group is present within the project corridor and specifically within Census Tract 1104.01 and Census Tract 1104.03. Additional analysis was warranted to further evaluate the potential presence of EJ groups within the project vicinity and as a result, ACS 2015 to 2019 block group data was utilized. Based on block group data for Census Tract 1104.01, Block Group 1 does not contain an EJ group while Block Groups 2 and 3 contain EJ groups. Further analysis of Non-Hispanic Minority population in Census Tract 1104.01 showed that of the 9.77% Non-Hispanic Minority population for this census tract, 6.6% are Asian, 2.1% fall under the Two or more races category and 1% are black. Most of the Asian and black minority population is located in Block Groups 2 and 3 of this census tract. To understand the cumulative nature of environmental burden faced by these minority groups, the set of environmental burden and socioeconomic indicators provided by EJSCREEN for these two block groups were taken into consideration. Two of the environmental burden indicators, (Toxic Release to Air and Risk Management Plan Facility Proximity), and one of the socioeconomic indicators, (Under the Age of 5), for Block Group 2 in this census tract are higher than the 80th percentile, a threshold level suggested by the EPA for initial screening of environmental justice considerations. The Clarks Summit project area located within Block Group 2 is limited to the northern-most portion of the block group, immediately surrounding the existing I-476 mainline and ramps. The proposed project would not affect, or impact residents located in this block group. None of the environmental burden and socioeconomic indicators for Block Group 3 are higher than the 80th percentile level. The portion of the Clarks Summit project area within Block Group 2 is located at the very northern portion of the project study area along existing I-81. The portion of the Clarks Summit project area within Block Group 3 is along the eastern side of I-81.

Based on block group data for Census Tract 1104.03, Block Group 1 does not contain an EJ group while Block Group 2 contains an EJ group. One of the environmental burden indicators, (Underground Storage Tanks [UST's]), and one of the socioeconomic indicators, (Under the Age of 5), for Block Group 1 in this census tract are higher than the 80th percentile, a threshold level suggested by the EPA for initial screening of environmental justice considerations. While UST's are present in the Block Group, there are no known UST's in the project study area. In addition, there are no known concentrations of daycare/preschool facilities in the project study area where the project could potentially impact children under the age of 5. None of the environmental burden and socioeconomic indicators but one socioeconomic indicator for Block Group 2 (Over the Age 64) are higher than the 80th percentile level in the state. There are no known concentrations of a population over the age of 64 in the project study area.

The Clarks Summit project area located within Block Group 2 is limited to the northernmost portion of the block group, immediately surrounding the existing I-476 mainline and ramps. Overall, therefore, based on the block group data, EJ populations are located within Census Tract

1104.01, Block Groups 2 and 3 and within Census Tract 1104.03, Block Group 2. See **Table 26** below for the block group analysis results. See **Figure 31**.

**Table 26 - Clarks Summit Project Area Block Group Analysis Results**

Census 2019 ACS Data		EJ Group
2020 Census Tract	Block Groups	% Non- Hispanic Minority
1104.01	1	4.34
	2	11.70
	3	20.28
1104.03	1	5.55
	2	11.69
Lackawanna County Threshold		8.91

\* *Shaded cells denotes that an EJ Group is present.*

The EJ evaluation for percent Non-Hispanic Minority indicated that the group, located within the Clarks Summit project area indicated that there was no disproportionately high and adverse human health or environmental effects present within the project corridor. Disproportionate impacts and adverse effects were determined not to be present based on the nature of the project, its impacts, the presence of an existing transportation corridor, and mitigation measure implemented. Potential mitigation measures could include landscaping, noise reduction, and relocation opportunities within the community. There are 3 displacements in census tract 1104.01 Block Group 3, which contains an EJ group. The three residential displacements located within the EJ community represent 0.55% of households within the community. The project would not have a significant number of displaced residents, the project does not bisect or disconnect the community, nor would it affect/disrupt community services, community amenities or aesthetics.

PADEP’s Climate Impacts Assessment (2021) notes that climate change would not affect all Pennsylvanians equally but would have greater risks for more vulnerable populations. The Build Alternative for the proposed project is anticipated to result in lower GHG emissions and greater resiliency of the regional transportation system as compared to the No-Build Alternative; therefore, it is not anticipated the project would contribute to increased climate change risk for these populations.

#### **7.4 Conclusions**

EJ communities account for approximately 25% of both project areas combined; Title VI communities account for 50% of the project areas combined; the remaining 25% of the project

areas are not located within EJ or Title VI communities.

The project would have five residential and one commercial displacements in areas not located within EJ or Title VI communities within the Wyoming Valley project area, and three residential EJ acquisitions and three residential Title VI acquisitions within the Clarks Summit project area. The three residential displacements located within the EJ community (Clarks Summit project area) represent 0.55% of households within the community (Census Tract 1104.01 Block Group 3). The three residential displacements located within the Title VI community (Clarks Summit project area) represent 1.04% of households within the community (Census Tract 1104.03 Block Group 1). See **Table 27**. The project would not have a significant number of displaced residents, the project does not bisect or disconnect the community, nor would it affect/disrupt community services, community amenities or aesthetics. The six residential displacements account for 0.72% of the EJ and Title VI communities. Therefore, the six residential displacements within the Clarks Summit project area that has a majority of EJ and Title VI communities would not be considered significant. As such, impacts to EJ and Title VI communities are considered not disproportionately high.

**Table 27 - Estimated Households (2021) within the Block Groups in the Project Areas**

<b>County (Project Area)</b>	<b>Census Tracts</b>	<b>Block Groups within Project Areas</b>	<b>Estimated Households (2021) <sup>1</sup></b>	<b>Total # of Displacements for Project</b>	<b>EJ / Title VI Community <sup>2</sup></b>
Luzerne County (Wyoming Valley)	Census Tract 2101	Block Group 2	492	None	Title VI (ELD & PD)
	Census Tract 2102	Block Group 2	354	None	N/A
		Block Group 3	312	5 Residential, 1 Commercial	N/A
Lackawanna County (Clarks Summit)	Census Tract 1104.01	Block Group 1	808	None	N/A
		Block Group 3	544	3 Residential (0.55%)	EJ (NHM)
	Census Tract 1104.03	Block Group 1	287	3 Residential (1.04%)	Title VI (ELD & CH)
		Block Group 2	701	None	N/A

<sup>1</sup> Household Type – Table B11001 (2021 data)

website: <https://data.census.gov/table?q=B11001&g=010XX00US>

<sup>2</sup> NHM = Non-Hispanic Minority, ELD = Elderly over 65, CH = Carless Households, and PD = Physical Disability

Clarks Summit acquisitions are unavoidable as no avoidance alternative was deemed practical. Clarks Summit Alternative ID C (Section 3.2.2) was the only alternative that would not impact the EJ community. However, this alternative was found to not be practical due to the lack of sufficient

width to accommodate the typical section of the proposed connector while meeting lateral clearance requirements of I-81 adjacent to the connector retaining walls. Additionally, AASHTO recommends against left side entrances stating they should be avoided, where practical. The Wyoming Valley Title VI properties have been avoided.

Communication with the property owners within EJ and Title VI communities has been documented. Outreach to those specifically affected by the full acquisitions and located within EJ or Title VI communities will occur during final design.

Based on the Title VI evaluations for Clarks Summit and Wyoming Valley project areas, Title VI groups were not excluded from participation in, denied the benefits of the project or subjected to discrimination as a result of the Scranton Beltway project. Based on the EJ evaluation for the project, no disproportionately high and adverse human health or environmental effects were present as a result of the Scranton Beltway project. Therefore, there are no EJ or Title VI concerns associated with the project. No additional analysis is required.

**Supporting documentation for Chapter 7.0 includes:**

- *Scranton Beltway Environmental Justice Evaluation (September 2022, Updated August 2024)*
- *US Census Bureau, American Community Survey Website*  
(<https://data.census.gov/table?q=B11001&g=010XX00US>)



## 8.0 ENVIRONMENTAL COMMITMENTS AND MITIGATION

The mitigation measures summarized in this section shall be incorporated into the project's design documents. In order to track and transfer mitigation commitments through the project development process, documentation shall be prepared and submitted through the appropriate channels, as the project moves through final design and construction.

Impacts and mitigation commitments are based on preliminary design and may change as the project moves through final design and construction. Final design information and final mitigation commitments will be included in the appropriate documentation.

### 8.1 Streams

**Permanent Stream Impacts:** 5,647 LF

**Proposed Project Specific Restoration/Enhancement:** 1,398 LF to be relocated

#### **Mitigation Remarks:**

Wyoming Valley project area (2,222 LF of permanent impacts)

- Instream construction restrictions would occur from October 1 through December 31 to protect the naturally reproducing trout waters for the three UNTs to Lidy Creek.

Clarks Summit project area (3,425 LF of permanent impacts)

- Approximately 815 LF of Willow Creek would be relocated for the NB.Connector, including the construction of a replacement culvert.
- Approximately 583 LF of Willow Creek would be relocated east of the I-476 NB connector ramp.
- Instream construction restrictions would occur from October 1 through December 31 to protect the naturally reproducing trout waters for all watercourses within project corridor (i.e. UNTs to Leggetts Creek).

Compensatory mitigation for this project is to comply with the applicable State and Federal Laws including Section 404 of the U.S. Clean Water Act and the PA Dam Safety and Encroachment Act. Onsite watercourse mitigation for the Clarks Summit project area is proposed to consist of the relocation of two segments of Willow Creek. These relocations are anticipated to provide a portion of the required mitigation for Clarks Summit. The remainder of the required stream mitigation for the impacts within the Clarks Summit project area, and the entirety of the required stream mitigation within the Wyoming Valley project area is anticipated to be compensated via credit purchase from an approved mitigation bank.

The project design team looked into potential mitigation bank sites to compensate for impacts to waterways. Two banks are available with 3,825.82 LF of stream mitigation credits. Through consultation with permitting agencies, mitigation details will be determined in final design and incorporated into the wetland and waterway permit application.

## 8.2 Groundwater Resources

### **Mitigation Remarks:**

Clarks Summit project area – PAWC requested that the geotechnical boring contractor coordinate their sampling and work plan with PAWC to minimize the risk that Well #8 would be compromised or contaminated. As design progresses, measures to protect the private wells would be developed.

## 8.3 Wetlands

### **Permanent Wetland Impacts:** 0.33

Wyoming Valley project area = 12,015 square ft / 0.28 acres of permanent impacts

Clarks Summit project area = 2,155 square ft / 0.05 acres of permanent impacts

### **Mitigation Remarks:**

Wetland mitigation is anticipated to consist of credit purchase from an approved mitigation bank. Specific banking requirements will be evaluated during final design as part of the wetland and waterway permit application process. The project design team looked into potential mitigation bank sites to compensate for impacts to wetlands. Two banks are available with 0.66 acres of PFO wetland credits available for one bank and 10.91 PFO credits available for the other bank.

- Temporary construction fencing will be placed around wetland boundaries not to be disturbed by the project.
- Graded areas will be returned to the original contour and the area seeded, mulched, and stabilized once construction in these areas is complete.

## 8.4 Soil Erosion & Sedimentation

- BMPs will be defined and implemented as a component of the erosion and sedimentation plan and waterway encroachment permit.
- The E&S Control Plan will be reviewed by Luzerne and Lackawanna County Conservation

Districts and coordination will be conducted to ensure the selected BMPs are adequate for the project.

- The approved E&S Control Plan will be implemented prior to any earth disturbance during construction.
- The E&S Control Plan will be included in the contract documents and the contractor is obligated to follow.
- Installed BMPs will be inspected and maintained throughout the duration of construction.
- All areas of earth disturbance will be stabilized immediately following completion of earthwork.
- Post Construction Stormwater Management (PCSM) will be evaluated in final design and included in the National Pollution Discharge Elimination System (NPDES) permit application.

## **8.5 Vegetation**

Re-vegetation of impacted areas would be implemented through the approved E&S plan. Prior to completion of construction, all remaining areas of earth disturbance would be restored by re-seeding with standard PTC seed formulas. These seed formulas may contain native plant species. Additionally, as part of the stream relocation plan, native plants would be used. Care will be taken not to transport the roots or seeds of invasive plants during construction. A special provision to control/limit the spread of invasive species would be added to the project contract documents. In addition, the PTC would have inspectors involved with the planting to ensure that native species are planted.

## **8.6 Hazardous or Residual Waste Sites**

### Wyoming Valley project area

- Scranton Terminal property – A special provision would be included in the contract to remove benzene using activated carbon filters if the project impacts contaminated groundwater within 250 ft of the Scranton Terminal tanks south of I-81.

No impacts to soil are anticipated to this facility as a result of the proposed project as the facility is outside of the project area. However, shallow groundwater flows toward the project corridor with potential for project construction to encounter contaminated groundwater. It is known that benzene is above the site-specific standard in three monitoring wells and a recovery well. Therefore, it is recommended benzene be removed from encountered groundwater during construction activities using activated carbon filters if the project impacts groundwater within 250 ft of the Scranton Terminal tanks south of I-81.

## 8.7 Threatened & Endangered Species

### Wyoming Valley project area

Coordination with the USFWS revealed that tree clearing should be completed from November 16 to March 31 to avoid impacts to the Northern Long-eared Bat. If seasonal restrictions are not feasible, a bat survey would be conducted of the project area between May 15 and August 15 by a USFWS-qualified biologist. Coordination with the USFWS's IPaC tool occurred and the result of the IPaC tool showed a "May Affect" determination. However, coordination that was completed in 2023 is still valid which resulted in a "Not Likely to Adversely Affect" the species. Coordination with the USFWS will continue to occur during final design.

### Clarks Summit project area

Coordination with the USFWS revealed that tree clearing should be completed from November 16 to March 31 to avoid impacts to the Northern Long-eared Bat. If seasonal restrictions are not feasible, a bat survey would be conducted of the project area between May 15 and August 15 by a USFWS-qualified biologist. Coordination with the USFWS's IPaC tool has occurred as well as further coordination with the USFWS. The resulting coordination with the USFWS states that the project will "Not Likely to Adversely Affect" the Northern Long-eared Bat. Coordination with the USFWS will continue to occur during final design.

## 8.8 Cultural Resources

### Clarks Summit project area

Archaeological testing would be completed during final design for one parcel due to issues accessing the property. The Deferral of Archaeological Testing form, dated July, 20, 2022 is included in **Appendix D**.

## 8.9 Noise

### Clarks Summit project area

Based on current project design plans and the evaluation of noise levels, noise barriers were determined to be feasible and reasonable for NSA 5, NSA 8, and NSA 10. Additionally, results from the parallel barrier analysis and distance to height ratio of 9.375:1 to 10:1, suggest that the use of absorptive barrier treatments is warranted and recommended where NSA 8 and NSA 10 barriers are parallel to one another. Recommended noise barrier development for NSA 5 consists of a noise barrier 10-13 ft in height with a length of 787 ft running parallel to Briar Hill Circle and adjacent to I-476 southbound. Recommended noise barrier development for NSA 8 consists of a noise barrier 14-16 ft in height with a length of 3,009 ft running parallel to I-81 northbound,



starting approximately 380 ft west of Hilltop Lane and ending at Simerell Road. Recommended noise barrier development for NSA 10 consists of a noise barrier 10-16 ft in height with a length of 2,305 ft running parallel to I-81 southbound, starting approximately 162 ft west of Edella Road and ends approximately 2,143 ft east of Edella Road.

### **8.10 Right-Of-Way Acquisition**

Property acquisitions would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended; Title VI of the Civil Rights Act of 1964; and the Pennsylvania Eminent Domain Code of 1964. Any individual or family displaced by the project would be offered the full extent of benefits and payments. Provisions would be made to ensure that any person with a disability who is displaced is offered replacement housing that meets any special needs.

### **8.11 Commitments for Further Public Involvement**

A public meeting will be held prior to the circulation of this EA and two public hearings will be held during its circulation. Public Involvement will continue throughout final design. Additional community noise wall meetings will occur during final design. The publicly accessible project website will be periodically maintained and updated with new information, as needed.

# APPENDICES

**Appendix A:**  
**Preliminary Design Plans**

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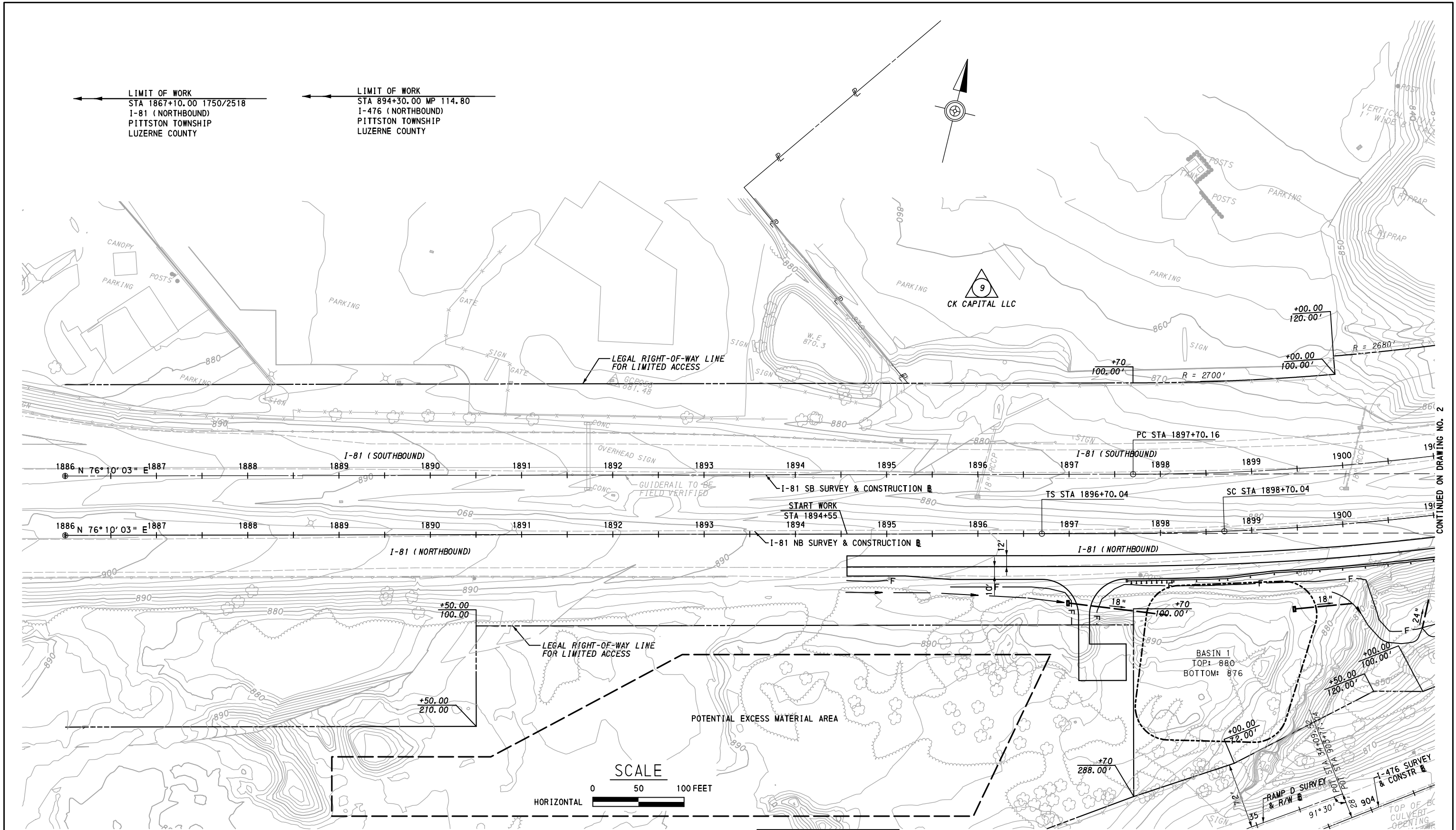
## WYOMING VALLEY

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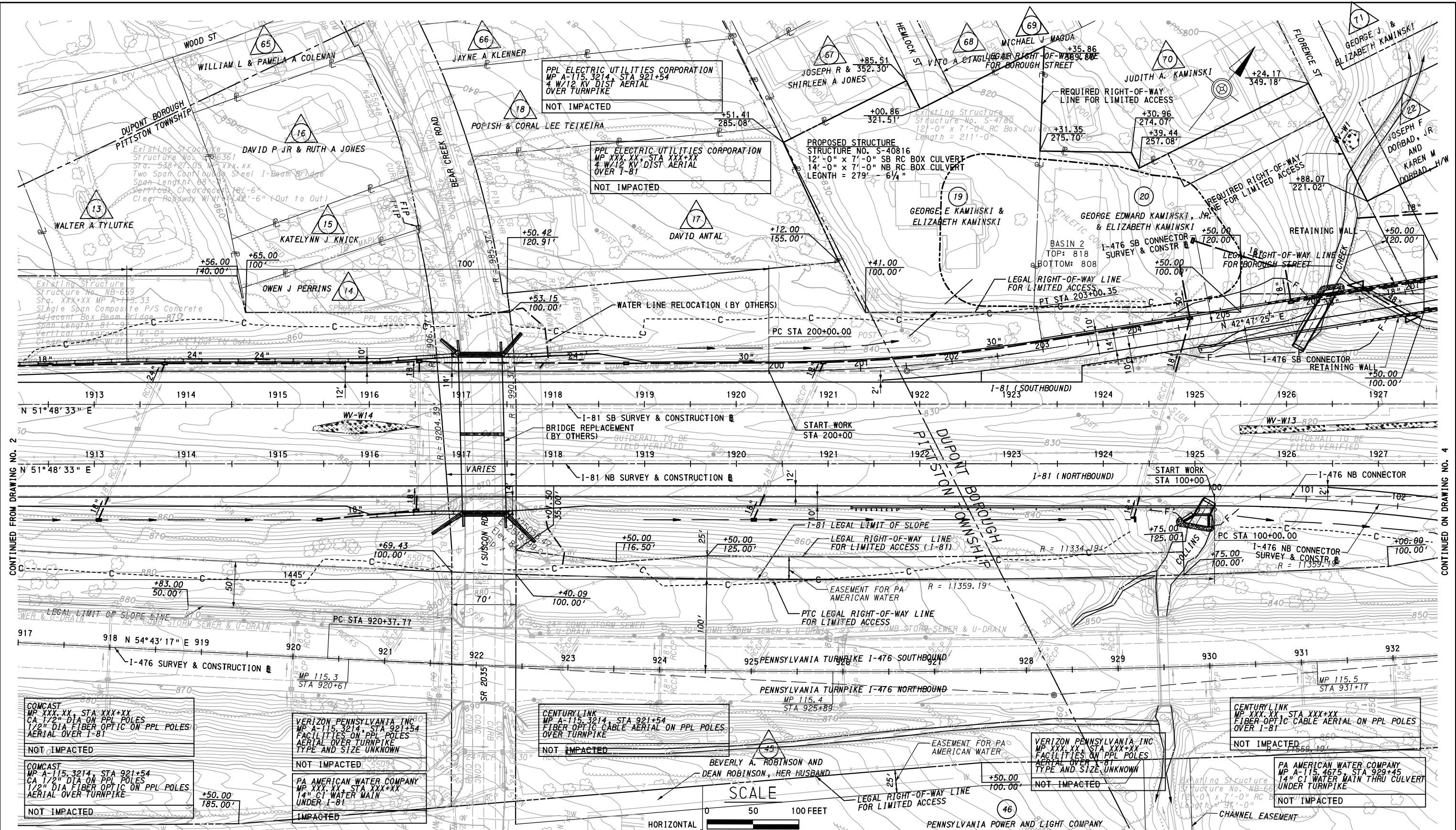
CONTINUED ON DRAWING NO. 2

FOR GEOMETRY, SEE SHEET 8

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PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.	SCALE: AS INDICATED		







CONTINUED FROM DRAWING NO. 2

CONTINUED ON DRAWING NO. 4

COMCAST  
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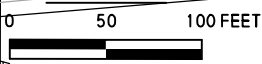
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CENTURYLINK  
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FIBER OPTIC CABLE AERIAL ON PPL POLES  
OVER TURNPIKE  
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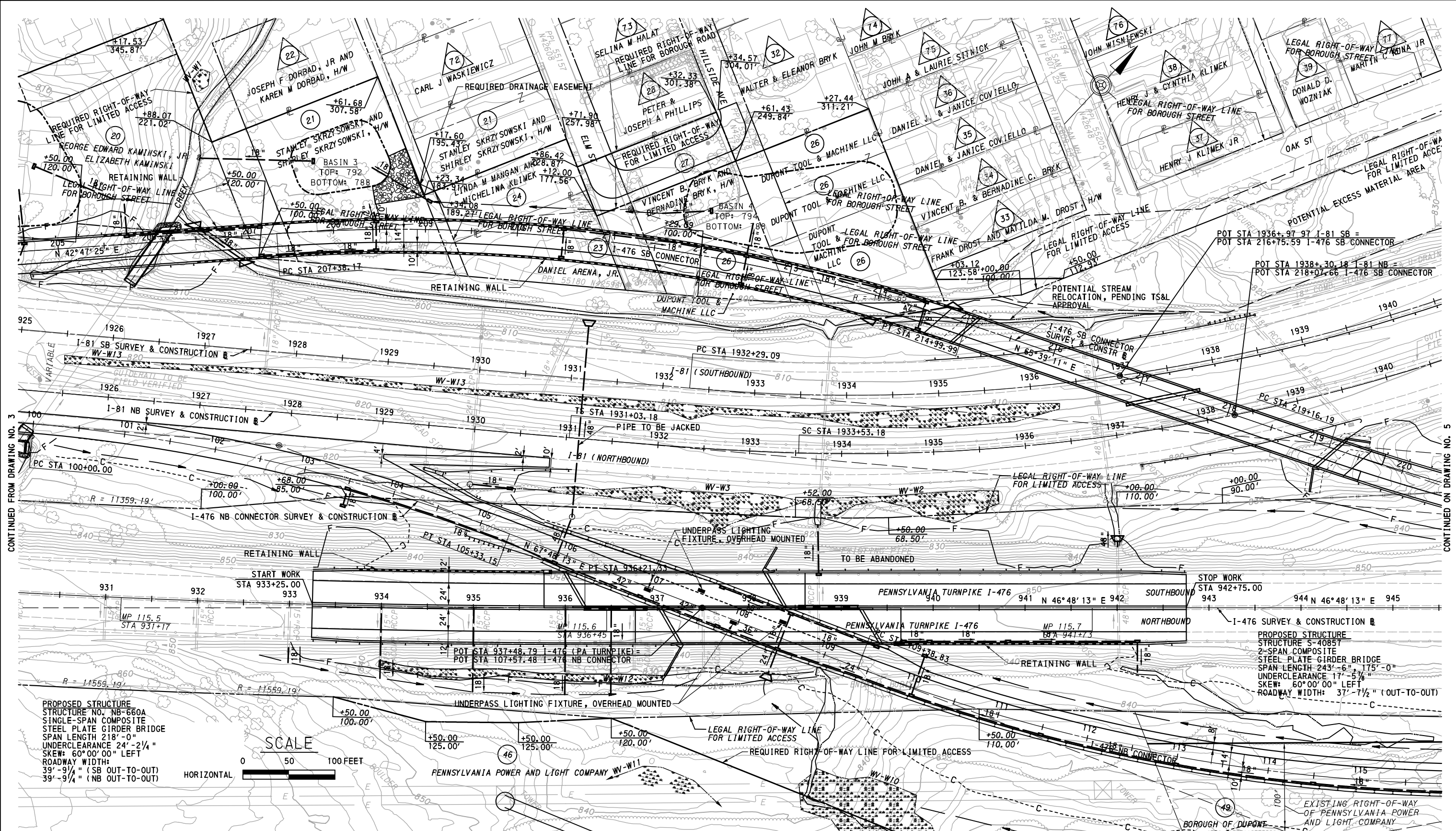
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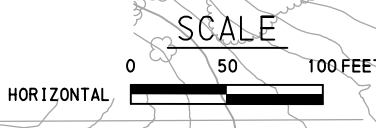


FOR PROFILES, SEE SHEETS 25 & 27 FOR GEOMETRY, SEE SHEET 8

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106  PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. <b>A-115.70P001-3-02</b>	ROADWAY AND BRIDGE CONSTRUCTION SCRANTON BELTWAY WYOMING VALLEY	PLAN STA 1912+50 TO STA 1927+50 I-81 STA 917+00 TO STA 932+00 I-476 STA 200+00 TO STA 207+00 I-476 SB CONNECTOR STA 100+00 TO STA 102+00 I-476 NB CONNECTOR
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NO. REVISIONS DATE APPR.		SCALE: AS INDICATED	DRAWING: 3 OF 7 SHEET: 20 OF 29	



PROPOSED STRUCTURE  
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 SINGLE-SPAN COMPOSITE  
 STEEL PLATE GIRDER BRIDGE  
 SPAN LENGTH 218'-0"  
 UNDERCLEARANCE 24'-2 1/4"  
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 39'-9 1/4" (SB OUT-TO-OUT)  
 39'-9 1/4" (NB OUT-TO-OUT)

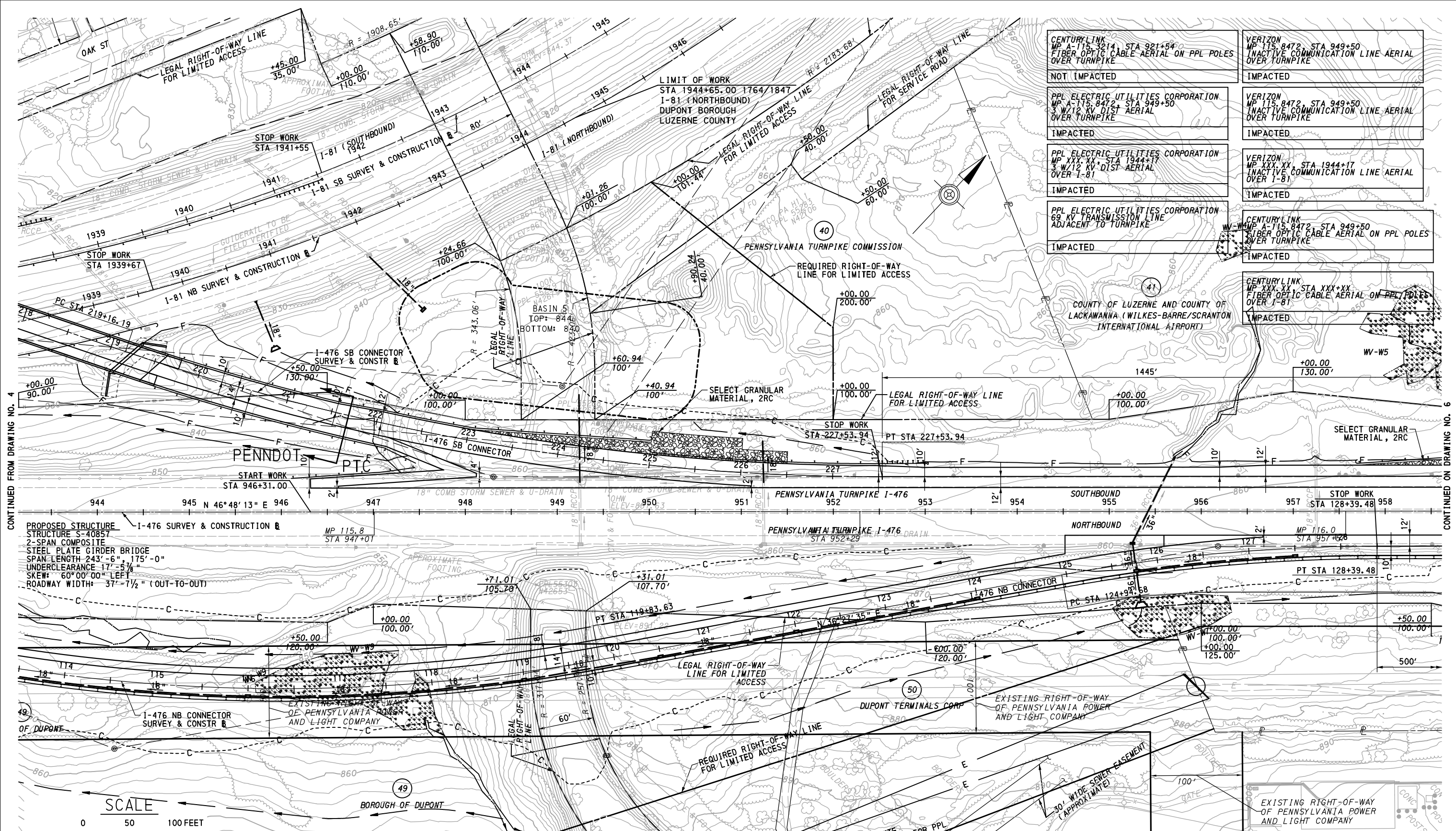


PROPOSED STRUCTURE  
 STRUCTURE S-40857  
 2-SPAN COMPOSITE  
 STEEL PLATE GIRDER BRIDGE  
 SPAN LENGTH 243'-6", 175'-0"  
 UNDERCLEARANCE 17'-5 1/2"  
 SKEW: 60°00'00" LEFT  
 ROADWAY WIDTH: 37'-7 1/2" (OUT-TO-OUT)

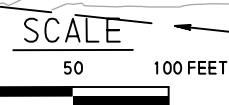
FOR PROFILES, SEE SHEETS 25 TO 29 FOR GEOMETRY, SEE SHEET 8 CONTINUED ON DRAWING NO. 7

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106  PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. <b>A-115.70P001-3-02</b>	ROADWAY AND BRIDGE CONSTRUCTION SCRANTON BELTWAY WYOMING VALLEY	PLAN STA 1925+00 TO STA 1940+50 I-81 STA 930+50 TO STA 945+50 I-476 STA 205+00 TO STA 220+00 I-476 SB CONNECTOR STA 100+00 TO STA 115+50 I-476 NB CONNECTOR	
		NETWORK NUMBER: TBD FILE NAME: CP-04 DRAWING TYPE: 1A STRUCTURE NUMBER:		DISTRICT: 5 COUNTY: LUZERNE TOWNSHIP / BOROUGH: DUPONT BOROUGH	DRAWING: 4 OF 7 SHEET: 21 OF 29
NO. REVISIONS DATE APPR.		SCALE: AS INDICATED			




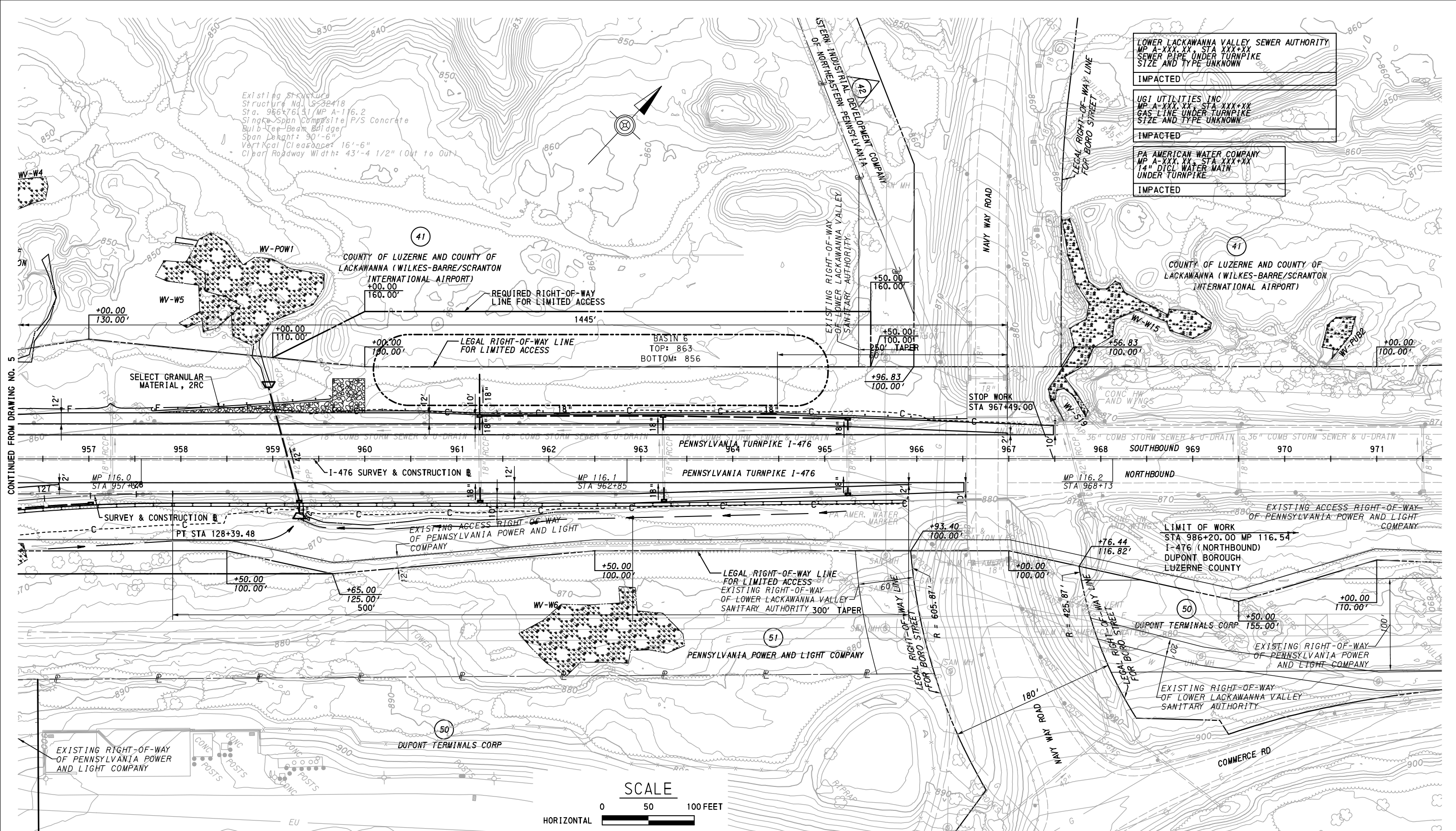


PROPOSED STRUCTURE  
 STRUCTURE S-40857  
 2-SPAN COMPOSITE  
 STEEL PLATE GIRDER BRIDGE  
 SPAN LENGTH 243'-6" 175'-0"  
 UNDERCLEARANCE 17'-5 1/4"  
 SKEW: 60°00'00" LEFT  
 ROADWAY WIDTH: 37'-7 1/2" (OUT-TO-OUT)




FOR PROFILES, SEE SHEETS 26 TO 28 FOR GEOMETRY, SEE SHEET 8 CONTINUED ON DRAWING NO. 7

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		WBS NO. <b>A-115.70P001-3-02</b>	<b>ROADWAY AND BRIDGE CONSTRUCTION</b> <b>SCRANTON BELTWAY</b> <b>WYOMING VALLEY</b>	<b>PLAN</b> STA 1938+50 TO STA 1945+00 I-81 STA 943+50 TO STA 958+50 I-476 STA 218+00 TO STA 227+53.94 I-476 SB CONNECTOR STA 113+50 TO STA 128+39.48 I-476 NB CONNECTOR	
		NETWORK NUMBER: TBD FILE NAME: CP-05 DRAWING TYPE: 1A STRUCTURE NUMBER:		DISTRICT: 5 COUNTY: LUZERNE TOWNSHIP / BOROUGH: DUPONT BOROUGH	DRAWING: 5 OF 7 SHEET: 22 OF 29
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		SCALE: AS INDICATED			
NO.	REVISIONS	DATE	APPR.		



CONTINUED FROM DRAWING NO. 5

FOR PROFILE, SEE SHEET 28		FOR GEOMETRY, SEE SHEET 8		WBS NO. <b>A-115.70P001-3-02</b>		<b>ROADWAY AND BRIDGE CONSTRUCTION SCRANTON BELTWAY WYOMING VALLEY</b>		<b>PLAN STA 956+50 TO STA 971+50 I-476</b>	
				NETWORK NUMBER: TBD					
PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106				FILE NAME: CP-06		DISTRICT: 5		COUNTY: LUZERNE	
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION				DRAWING TYPE: 1A					
		NO.		REVISIONS		DATE		APPR.	
				SCALE: AS INDICATED				DRAWING: 6 OF 7	
								SHEET: 23 OF 29	



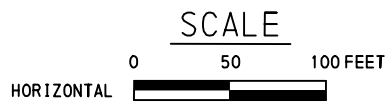
CONTINUED ON DRAWING NO. 4




PPL ELECTRIC UTILITIES CORPORATION  
69 KV TRANSMISSION LINE  
ADJACENT TO TURNPIKE

IMPACTED

NOTE: PROPOSED TOWER LOCATIONS ARE CONCEPTUAL



PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	<table border="1"> <tr> <th>NO.</th> <th>REVISIONS</th> <th>DATE</th> <th>APPR.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	REVISIONS	DATE	APPR.					WBS NO. <b>A-115.70P001-3-02</b>	<b>ROADWAY AND BRIDGE CONSTRUCTION          SCRANTON BELTWAY          WYOMING VALLEY</b>	<b>PLAN</b>
				NO.	REVISIONS	DATE	APPR.							
NETWORK NUMBER: TBD FILE NAME: CP-11 DRAWING TYPE: 1A STRUCTURE NUMBER:	DISTRICT: 5    COUNTY: LUZERNE TOWNSHIP / BOROUGH: DUPONT BOROUGH	DRAWING: 7 OF 7 SHEET: 24 OF 29												

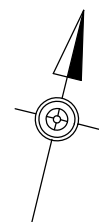
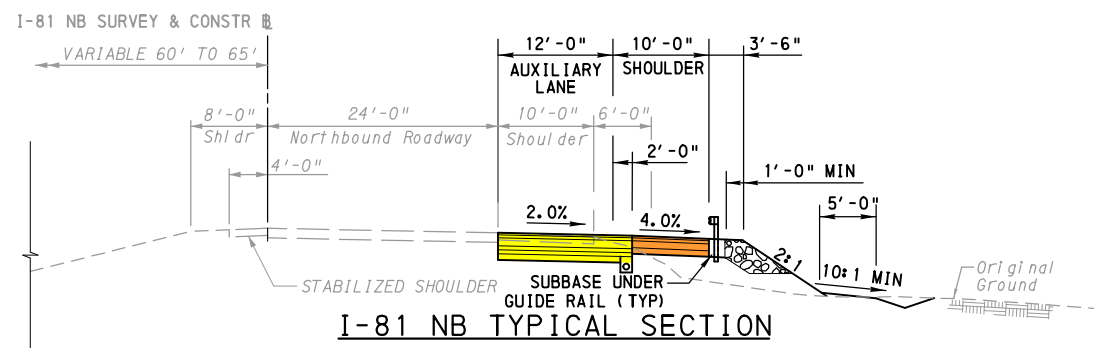






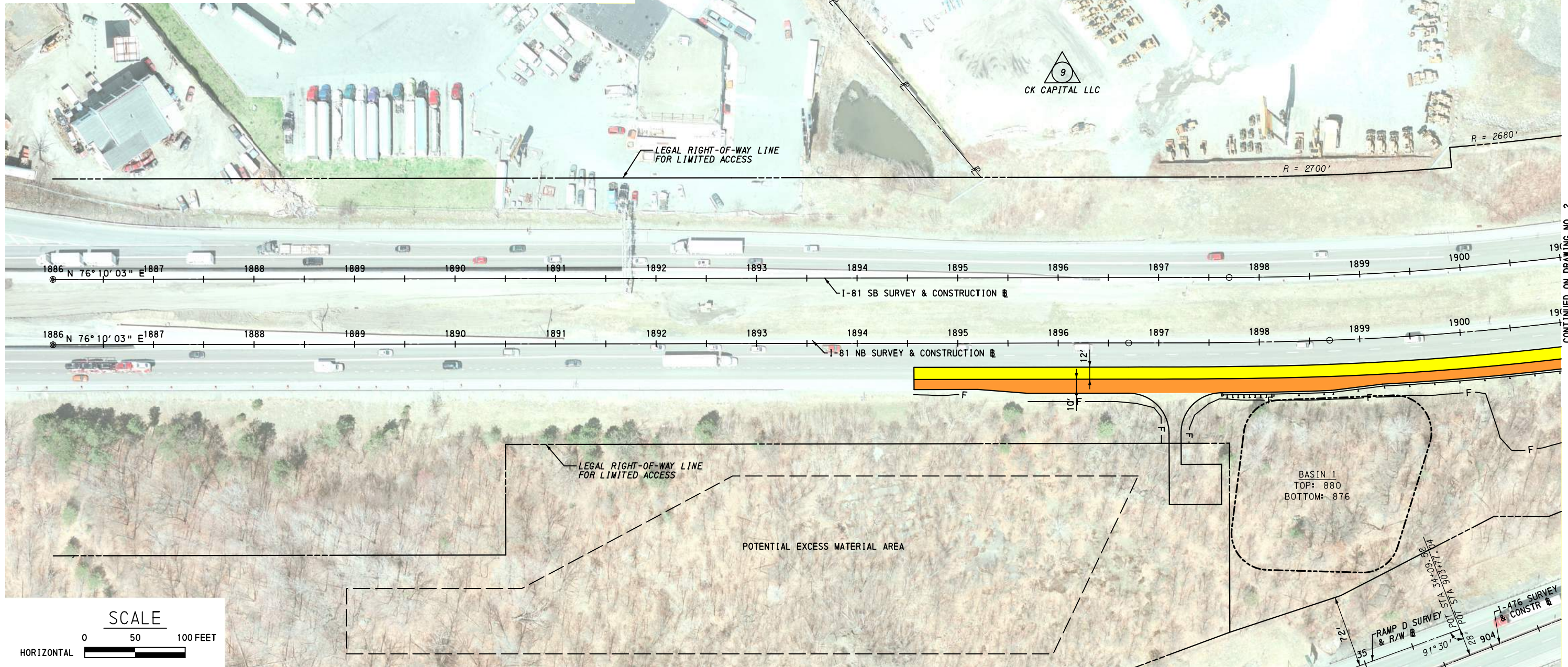


PLOTTED: \$\$\$DATE\$\$\$ \$TIME\$



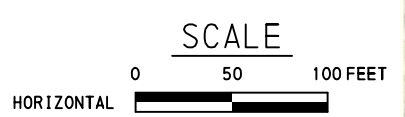
**LEGEND**

- PROPOSED LANE
- PROPOSED SHOULDER
- PROPOSED STRUCTURE



CONTINUED ON DRAWING NO. 2

FILE NAME: \$FILES\$

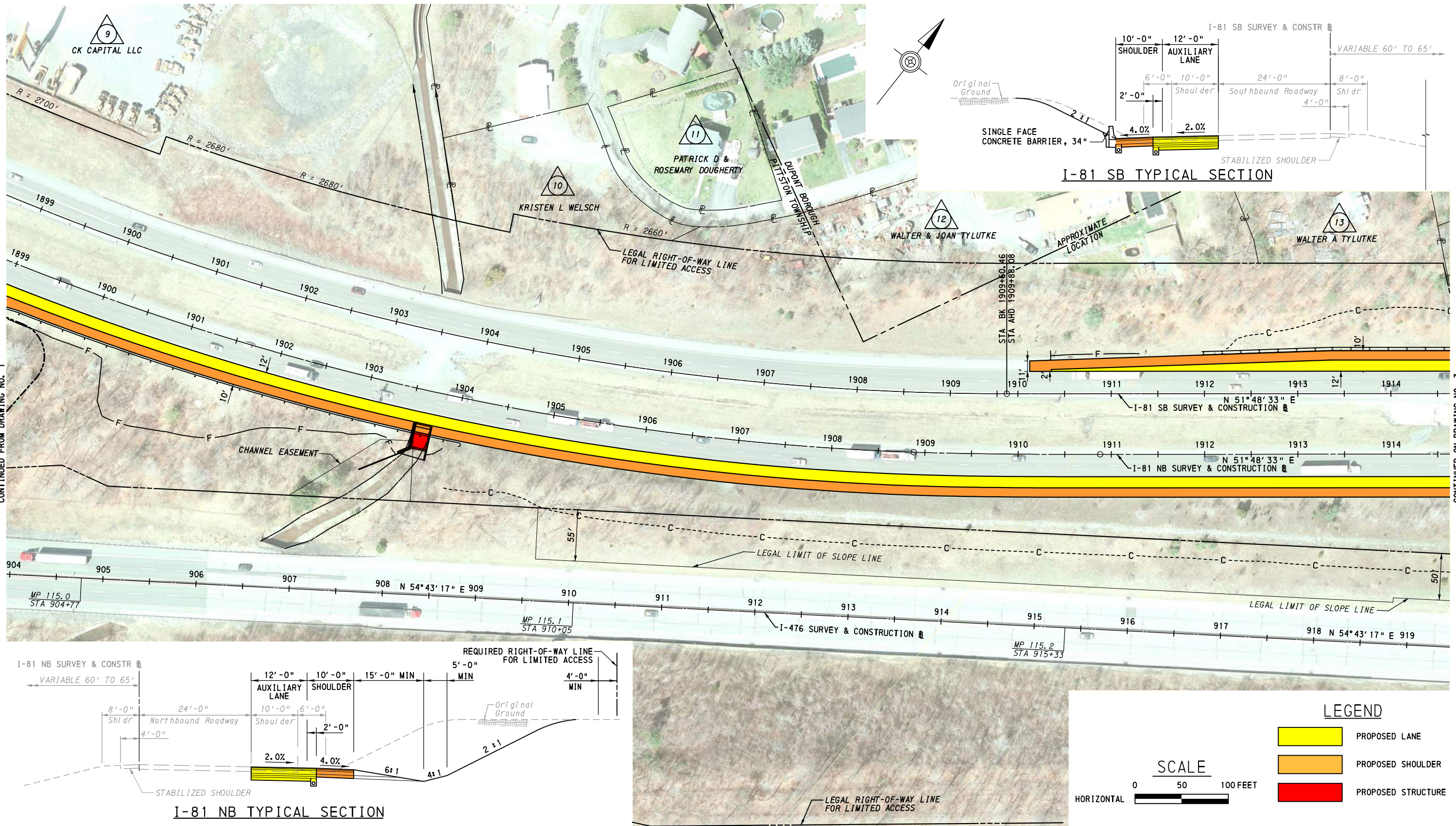


	PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106					WBS NO. <b>A-115.70P001-3-02</b>	<b>PRELIMINARY PLANS FOR          ENVIRONMENTAL ASSESSMENT          SCRANTON BELTWAY          WYOMING VALLEY</b>	<b>PLAN          STA 1886+00 TO STA 1900+50 I-81</b>	
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION							NETWORK NUMBER: TBD FILE NAME: CP-01 DRAWING TYPE: 1A STRUCTURE NUMBER:	DISTRICT: 5    COUNTY: LUZERNE TOWNSHIP / BOROUGH: PITTSBURGH TOWNSHIP
			NO.	REVISIONS	DATE	APPR.	SCALE: AS INDICATED		



PLOTTED: \$\$\$DATE\$\$\$ \$TIME\$

FILE NAME: \$FILES



CONTINUED FROM DRAWING NO. 1

CONTINUED ON DRAWING NO. 3

**LEGEND**

- PROPOSED LANE
- PROPOSED SHOULDER
- PROPOSED STRUCTURE

**SCALE**

HORIZONTAL 0 50 100 FEET

PREPARED BY:  
URBAN ENGINEERS, INC.  
530 WALNUT STREET  
PHILADELPHIA, PA 19106

PREPARED FOR:  
THE PENNSYLVANIA  
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.  
**A-115.70P001-3-02**

NETWORK NUMBER: TBD

FILE NAME: CP-02

DRAWING TYPE: 1A

STRUCTURE NUMBER:

SCALE: AS INDICATED

**PRELIMINARY PLANS FOR ENVIRONMENTAL ASSESSMENT SCRANTON BELTWAY WYOMING VALLEY**

DISTRICT: 5 COUNTY: LUZERNE

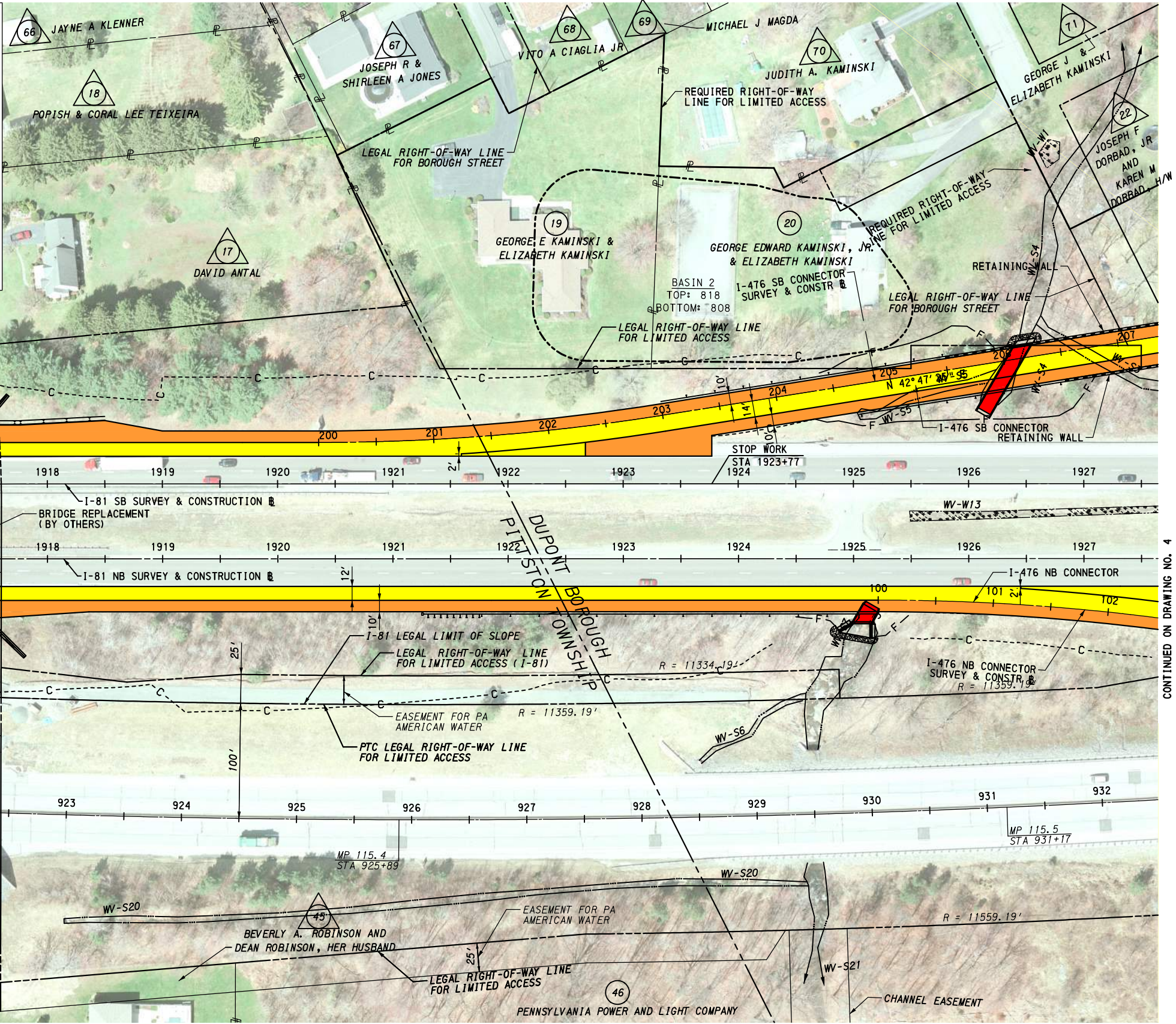
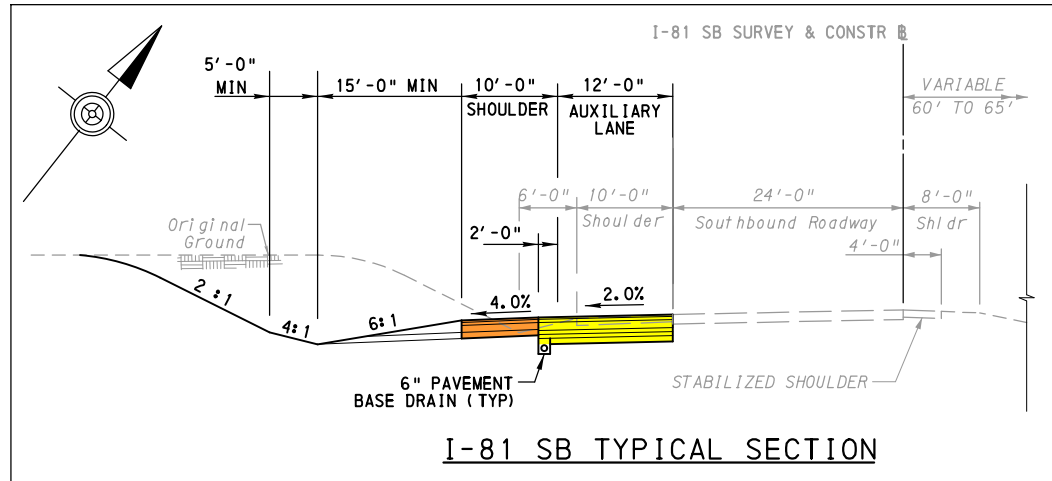
TOWNSHIP / BOROUGH: DUPONT BOROUGH & PITTSSTON TOWNSHIP

**PLAN**  
STA 1899+00 TO STA 1914+50 I-81  
STA 904+00 TO STA 919+00 I-476

DRAWING: 2 OF 6  
SHEET: 4 OF 8



PLOTTED: \$\$\$DATE\$\$\$ \$TIME\$



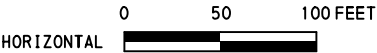
CONTINUED FROM DRAWING NO. 2

CONTINUED ON DRAWING NO. 4

**LEGEND**

- PROPOSED LANE
- PROPOSED SHOULDER
- PROPOSED STRUCTURE

**SCALE**



FILE NAME: \$FILES

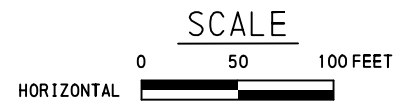
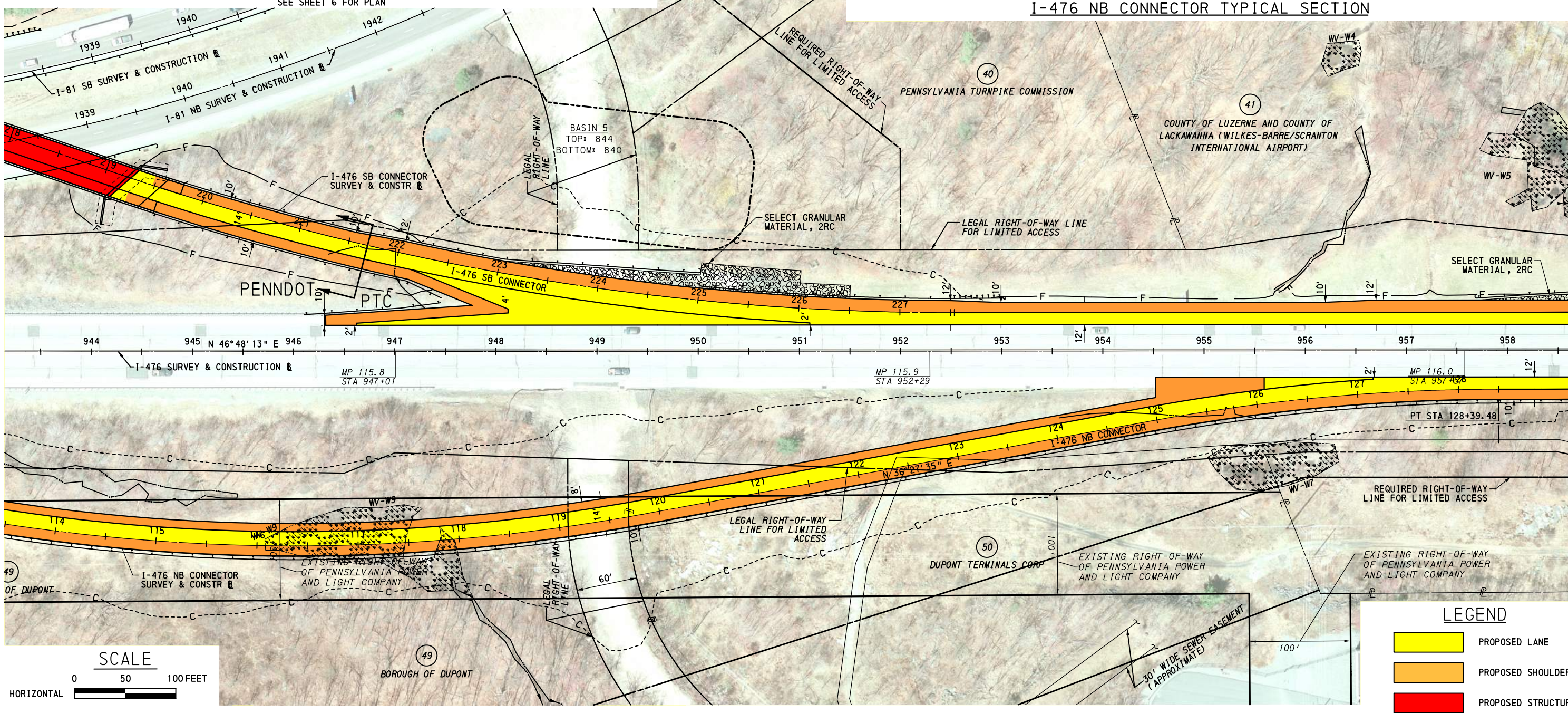
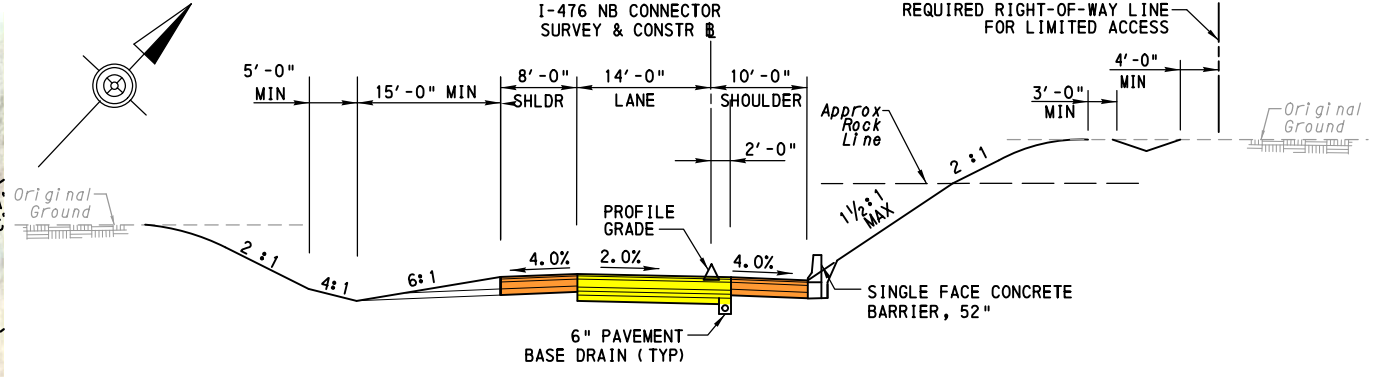
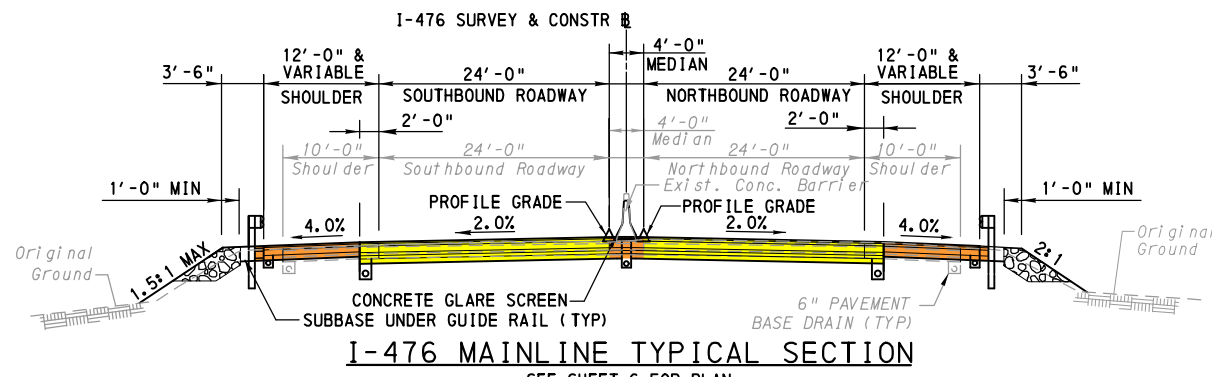
	PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106				WBS NO. <b>A-115.70P001-3-02</b>	<b>PRELIMINARY PLANS FOR ENVIRONMENTAL ASSESSMENT SCRANTON BELTWAY WYOMING VALLEY</b>	<b>PLAN</b> STA 1912+50 TO STA 1927+50 I-81 STA 917+00 TO STA 932+00 I-476 STA 200+00 TO STA 207+00 I-476 SB CONNECTOR STA 100+00 TO STA 102+00 I-476 NB CONNECTOR
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NETWORK NUMBER: TBD FILE NAME: CP-03 DRAWING TYPE: 1A STRUCTURE NUMBER:	DISTRICT: 5    COUNTY: LUZERNE	DRAWING: 3 OF 6			
		NO.    REVISIONS    DATE    APPR.	SCALE: AS INDICATED	TOWNSHIP / BOROUGH: DUPONT BOROUGH & PITTSBURGH TOWNSHIP	SHEET: 5 OF 8		







PLOTTED: \$\$\$DATE\$\$\$ \$TIME\$



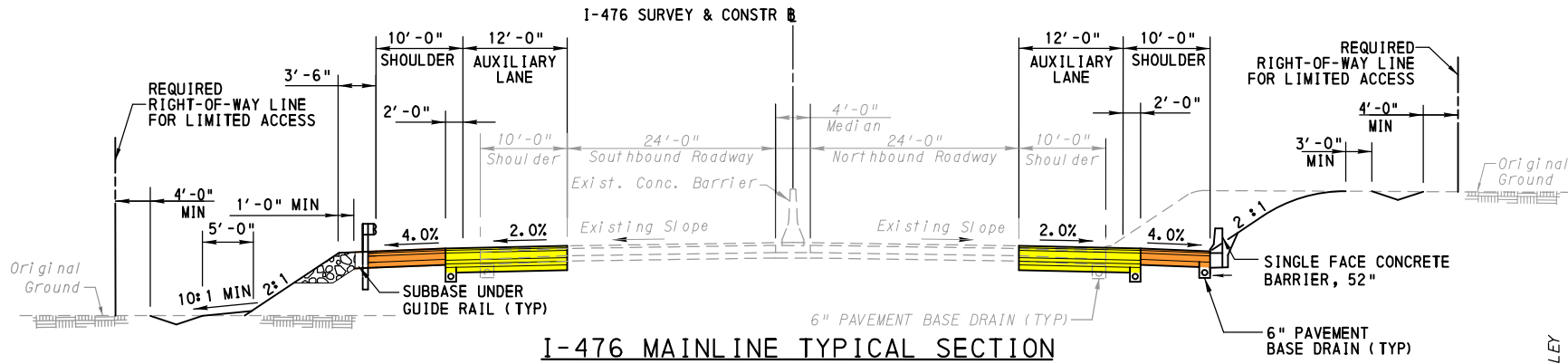
**LEGEND**

- PROPOSED LANE
- PROPOSED SHOULDER
- PROPOSED STRUCTURE

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		WBS NO. <b>A-115.70P001-3-02</b>	<b>PRELIMINARY PLANS FOR ENVIRONMENTAL ASSESSMENT SCRANTON BELTWAY WYOMING VALLEY</b>		<b>PLAN</b> STA 1938+50 TO STA 1945+00 I-81 STA 943+50 TO STA 958+50 I-476 STA 218+00 TO STA 227+53.94 I-476 SB CONNECTOR STA 113+50 TO STA 128+39.48 I-476 NB CONNECTOR	
			NETWORK NUMBER: TBD FILE NAME: CP-05 DRAWING TYPE: 1A STRUCTURE NUMBER:	DISTRICT: 5 COUNTY: LUZERNE TOWNSHIP / BOROUGH: DUPONT BOROUGH	DRAWING: 5 OF 6 SHEET: 7 OF 8	
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		SCALE: AS INDICATED				
NO.	REVISIONS	DATE	APPR.			

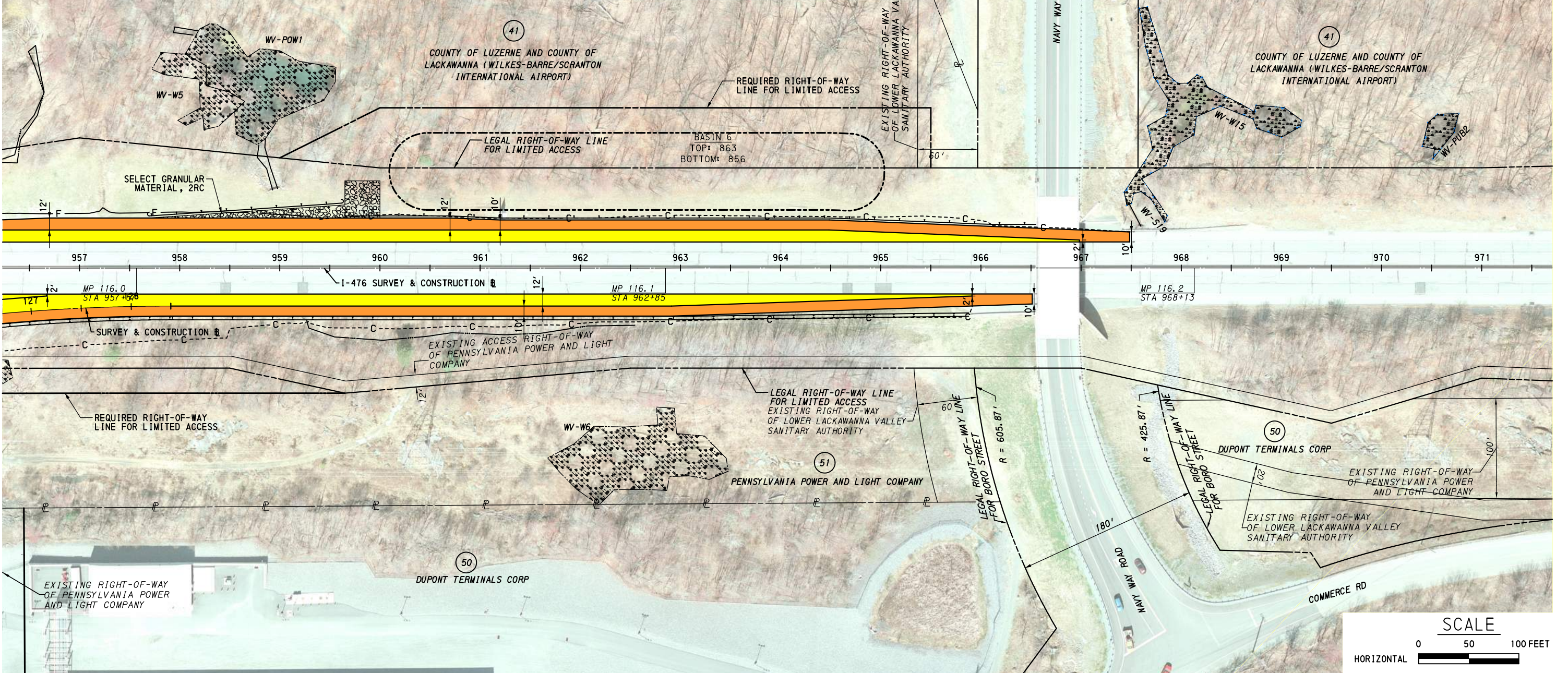


PLOTTED: \$\$\$DATE\$\$\$ \$TIME\$



**LEGEND**

- PROPOSED LANE
- PROPOSED SHOULDER
- PROPOSED STRUCTURE



CONTINUED FROM DRAWING NO. 5

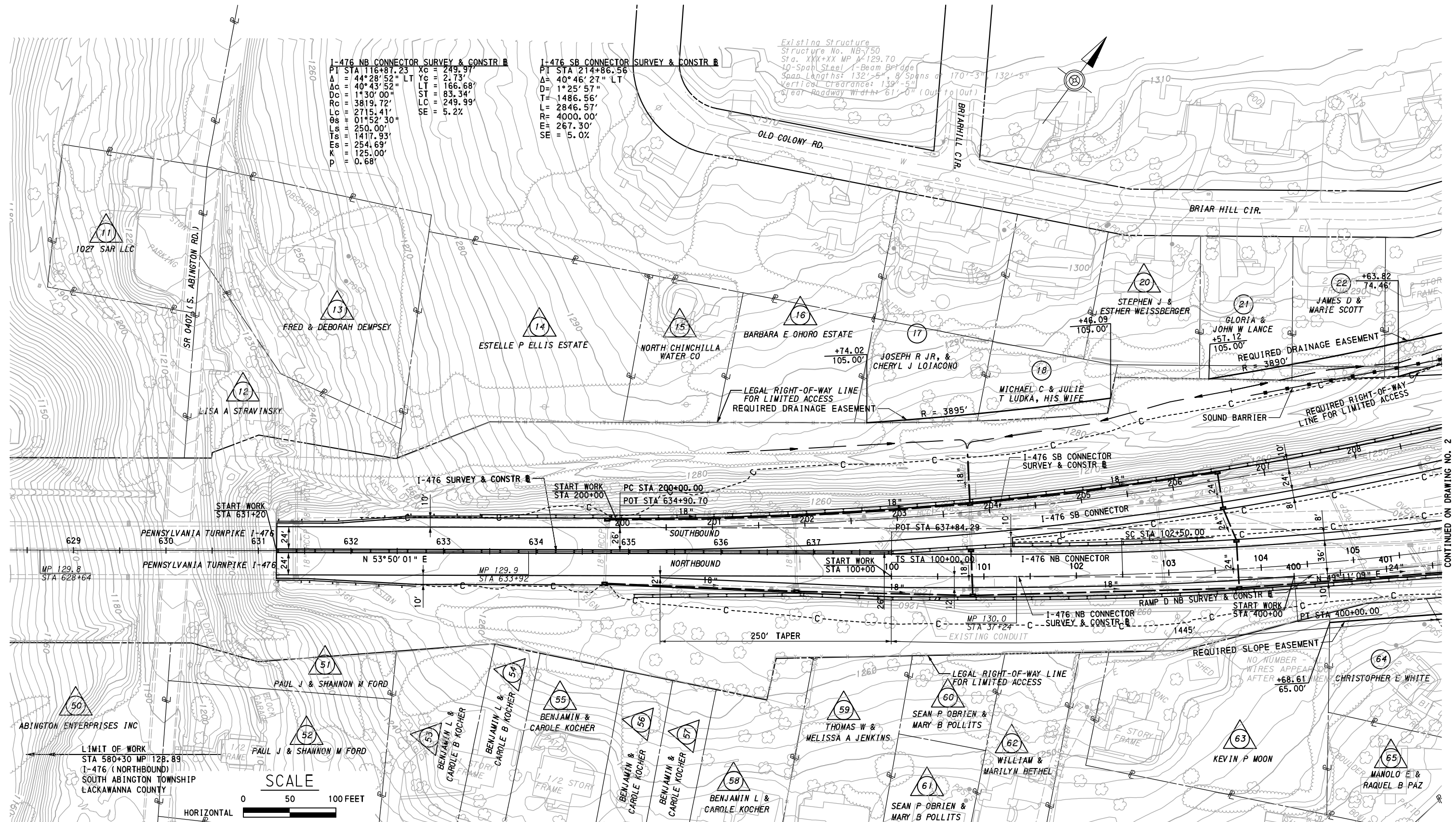
FILE NAME: \$FILES

	PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106					WBS NO. <b>A-115.70P001-3-02</b>	<b>PRELIMINARY PLANS FOR          ENVIRONMENTAL ASSESSMENT          SCRANTON BELTWAY          WYOMING VALLEY</b>	<b>PLAN          STA 956+50 TO STA 971+50 I-476</b>
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION				NETWORK NUMBER: TBD FILE NAME: CP-06 DRAWING TYPE: 1A STRUCTURE NUMBER:			
					SCALE: AS INDICATED	DISTRICT: 5    COUNTY: LUZERNE TOWNSHIP / BOROUGH: DUPONT BOROUGH		



# CLARKS SUMMIT

---



**I-476 NB CONNECTOR SURVEY & CONSTR. #**  
 PI STA 116+87.23 Xc = 249.97'  
 Δ = 44°28'52" LT Yc = 2.73'  
 Δc = 40°43'52" LT ST = 166.68'  
 Δg = 1°30'00" ST = 83.34'  
 Rg = 3819.72' LC = 249.99'  
 Lc = 2715.41' SE = 5.2%  
 Δs = 01°52'30"  
 Ls = 250.00'  
 Ts = 1417.93'  
 Es = 254.69'  
 K = 125.00'  
 P = 0.68'

**I-476 SB CONNECTOR SURVEY & CONSTR. #**  
 PI STA 214+86.56  
 Δ = 40°46'27" LT  
 D = 1°25'57"  
 T = 1486.56'  
 L = 2846.57'  
 R = 4000.00'  
 E = 267.30'  
 SE = 5.0%


**Existing Structure**  
 Structure No. NB-750  
 Sta. XXX+XX MP A-129.70  
 10-Span Steel 1-Beam Bridge  
 Span Lengths: 132'-5", 8' Spans of 170'-3" 132'-5"  
 Vertical Clearance: 139'-5"  
 Clear Roadway Width: 61'-0" (Out to Out)

**LIMIT OF WORK**  
 STA 580+30 MP 128.89  
 I-476 (NORTHBOUND)  
 SOUTH ABINGTON TOWNSHIP  
 LACKAWANNA COUNTY

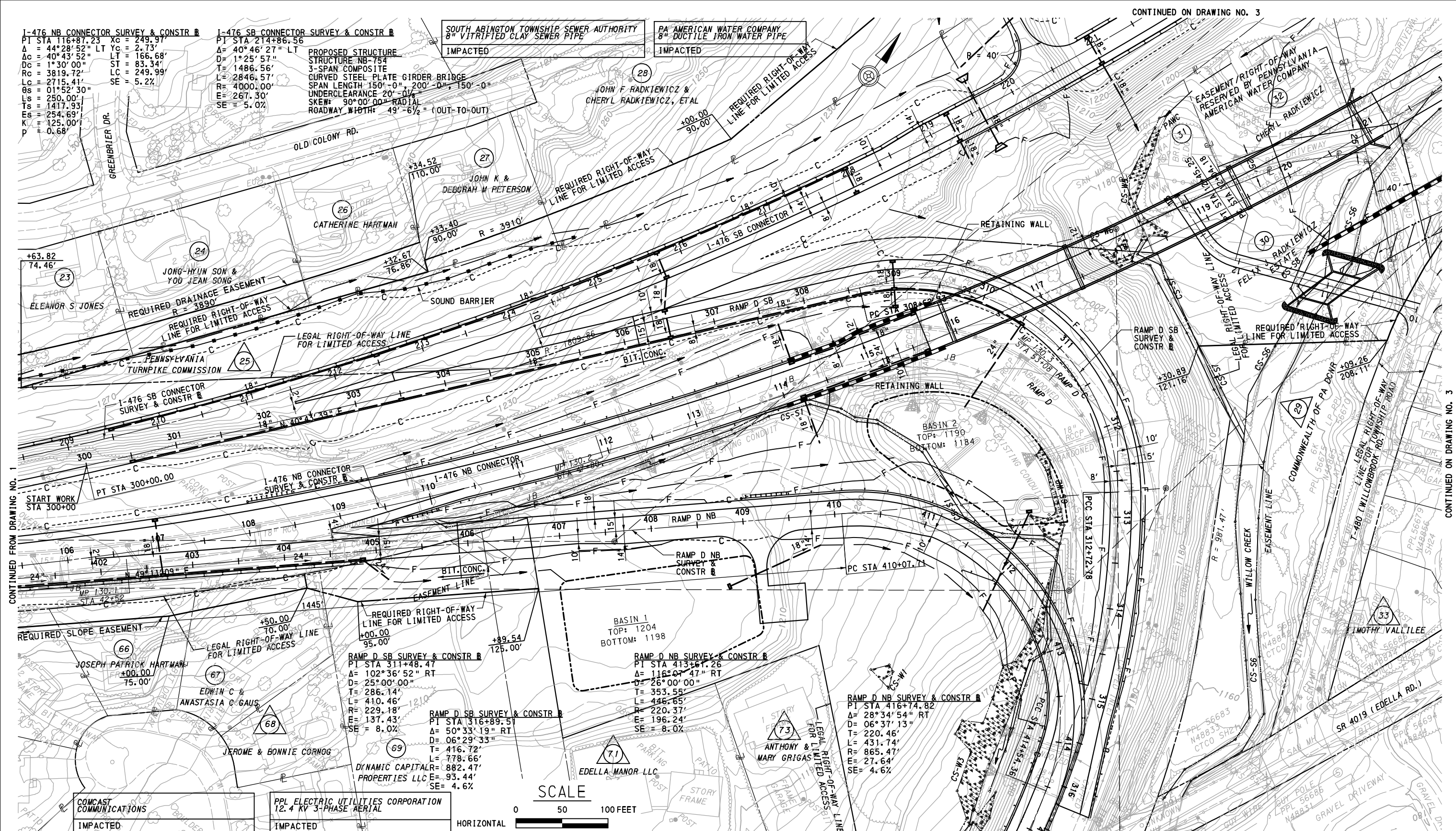
**SCALE**  
 0 50 100 FEET  
 HORIZONTAL

FOR PROFILE, SEE SHEET NOS. 27, 28, 31, AND 35

CONTINUED ON DRAWING NO. 2

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		WBS NO. <b>A-115.70P001-3-03</b>			<b>ROADWAY AND BRIDGE CONSTRUCTION</b> <b>SCRANTON BELTWAY</b> <b>CLARKS SUMMIT</b>	<b>PLAN</b> STA 200+00 TO STA 208+50 I-476 SB CONNECTOR STA 628+50 TO STA 637+84.29 I-476 STA 100+00 TO STA 105+50 I-476 NB CONNECTOR STA 400+00 TO STA 401+50 RAMP D NB
		NETWORK NUMBER: TBD FILE NAME: CP-01 DRAWING TYPE: 1A STRUCTURE NUMBER:				
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NO.    REVISIONS    DATE    APPR.			SCALE: AS INDICATED	TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP	DRAWING: 1 OF 8 SHEET: 19 OF 39

EXISTING RIGHT-OF-WAY CALLOUTS NOT SHOWN FOR CLARITY



CONTINUED ON DRAWING NO. 3

CONTINUED ON DRAWING NO. 8

EXISTING RIGHT-OF-WAY CALLOUTS NOT SHOWN FOR CLARITY

**I-476 NB CONNECTOR SURVEY & CONSTR B**  
 PI STA 116+87.23 Xc = 249.97'  
 Δ = 44°28'52" LT Yc = 2.73'  
 Δc = 40°43'52" LT = 166.68'  
 Δc = 1°30'00" ST = 83.34'  
 Rc = 3819.72' LC = 249.99'  
 Lc = 2715.41'  
 Os = 01°52'30"  
 Ls = 250.00'  
 Ts = 1417.93'  
 Es = 254.69'  
 K = 125.00'  
 P = 0.68'

**I-476 SB CONNECTOR SURVEY & CONSTR B**  
 PI STA 214+86.56  
 Δ = 40°46'27" LT  
 D = 1°25'57"  
 T = 1486.56'  
 L = 2846.57'  
 R = 4000.00'  
 E = 267.30'  
 SE = 5.0%

**SOUTH ABINGTON TOWNSHIP SEWER AUTHORITY**  
 8" VITRIFIED CLAY SEWER PIPE  
 IMPACTED

**PA AMERICAN WATER COMPANY**  
 8" DUCTILE IRON WATER PIPE  
 IMPACTED

**PROPOSED STRUCTURE**  
 STRUCTURE NB-754  
 3-SPAN COMPOSITE  
 CURVED STEEL PLATE GIRDER BRIDGE  
 SPAN LENGTH 150'-0", 200'-0", 150'-0"  
 UNDERCLEARANCE 20'-0"  
 SKEW: 90°00'00" RADIAL  
 ROADWAY WIDTH: 49'-6 1/2" (OUT-TO-OUT)

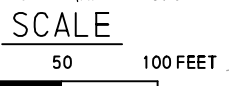
JOHN F. RADKIEWICZ &  
 CHERYL RADKIEWICZ, ETAL

EASEMENT / RIGHT-OF-WAY  
 RESERVED BY PENNSYLVANIA  
 AMERICAN WATER COMPANY

**RAMP D SB SURVEY & CONSTR B**  
 PI STA 311+48.47  
 Δ = 102°36'52" RT  
 D = 25°00'00"  
 T = 286.14'  
 L = 410.46'  
 R = 229.18'  
 E = 137.43'  
 SE = 8.0%

**RAMP D NB SURVEY & CONSTR B**  
 PI STA 413+67.26  
 Δ = 118°04'47" RT  
 D = 26°00'00"  
 T = 353.55'  
 L = 446.65'  
 R = 220.37'  
 E = 196.24'  
 SE = 8.0%

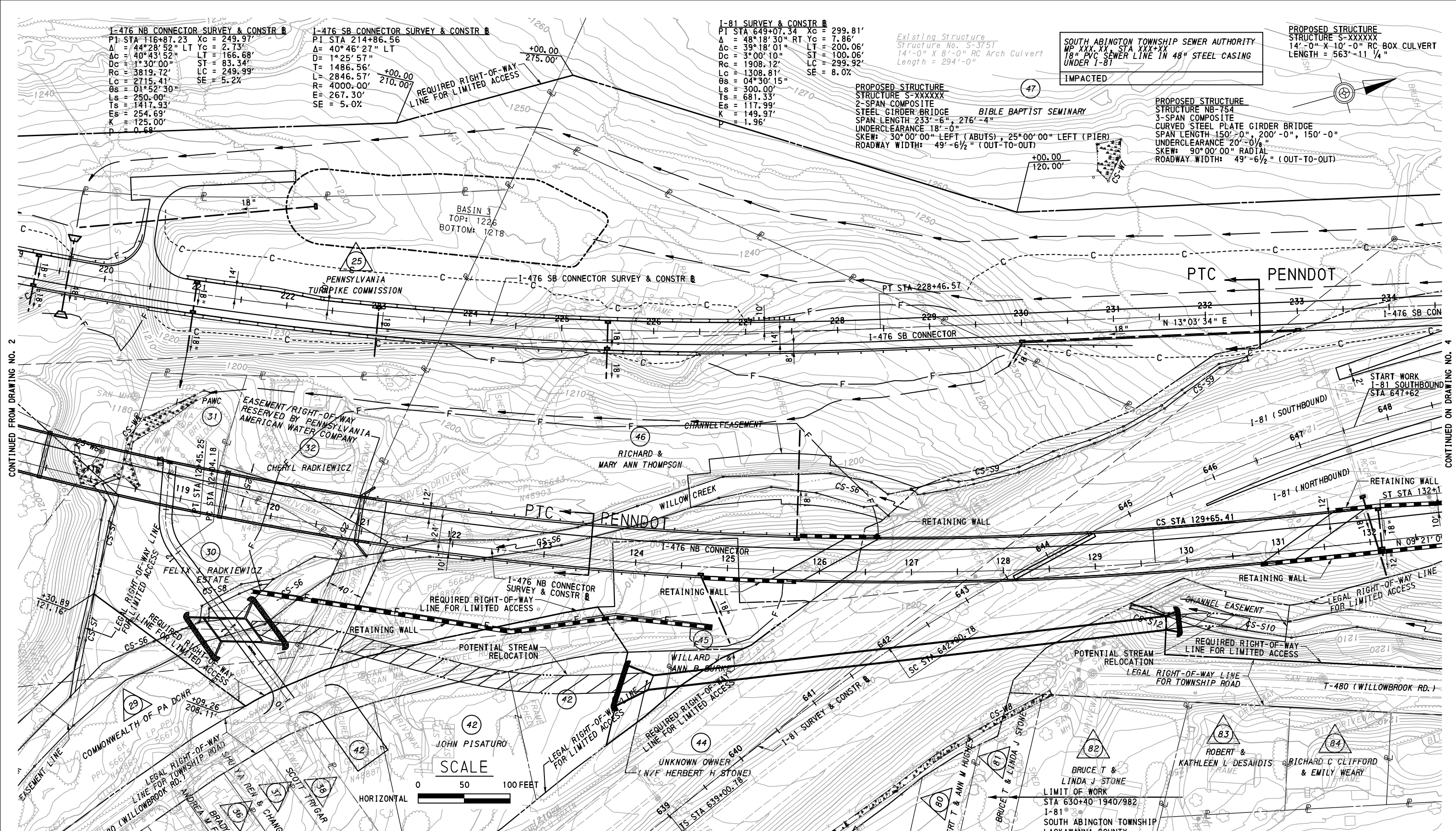
**RAMP D NB SURVEY & CONSTR B**  
 PI STA 416+74.82  
 Δ = 28°34'54" RT  
 D = 06°37'13"  
 T = 220.46'  
 L = 431.74'  
 R = 865.47'  
 E = 27.64'  
 SE = 4.6%



FOR PROFILE, SEE SHEET NOS. 28, 29, 31, 32, 35, 36, 37, AND 38

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106  PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. <b>A-115.70P001-3-03</b>	<b>ROADWAY AND BRIDGE CONSTRUCTION</b> <b>SCRANTON BELTWAY</b> <b>CLARKS SUMMIT</b>	<b>PLAN</b> STA 208+50 TO STA 221+50 I-476 SB CONNECTOR STA 105+50 TO STA 121+50 I-476 NB CONNECTOR STA 300+00 TO STA 316+50 RAMP D SB STA 401+50 TO STA 415+00 RAMP D NB
		NETWORK NUMBER: TBD FILE NAME: CP-02 DRAWING TYPE: 1A STRUCTURE NUMBER:		
NO. REVISIONS DATE APPR.		SCALE: AS INDICATED	DRAWING: 2 OF 8 SHEET: 20 OF 39	





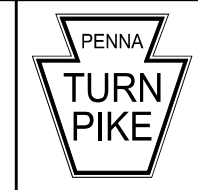
CONTINUED FROM DRAWING NO. 2

CONTINUED ON DRAWING NO. 4

FOR PROFILE, SEE SHEET NOS. 29, 30, 32, AND 33

PREPARED BY:  
URBAN ENGINEERS, INC.  
530 WALNUT STREET  
PHILADELPHIA, PA 19106

PREPARED FOR:  
THE PENNSYLVANIA  
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.  
**A-115.70P001-3-03**

NETWORK NUMBER: TBD  
FILE NAME: CP-03  
DRAWING TYPE: 1A  
STRUCTURE NUMBER:

SCALE: AS INDICATED

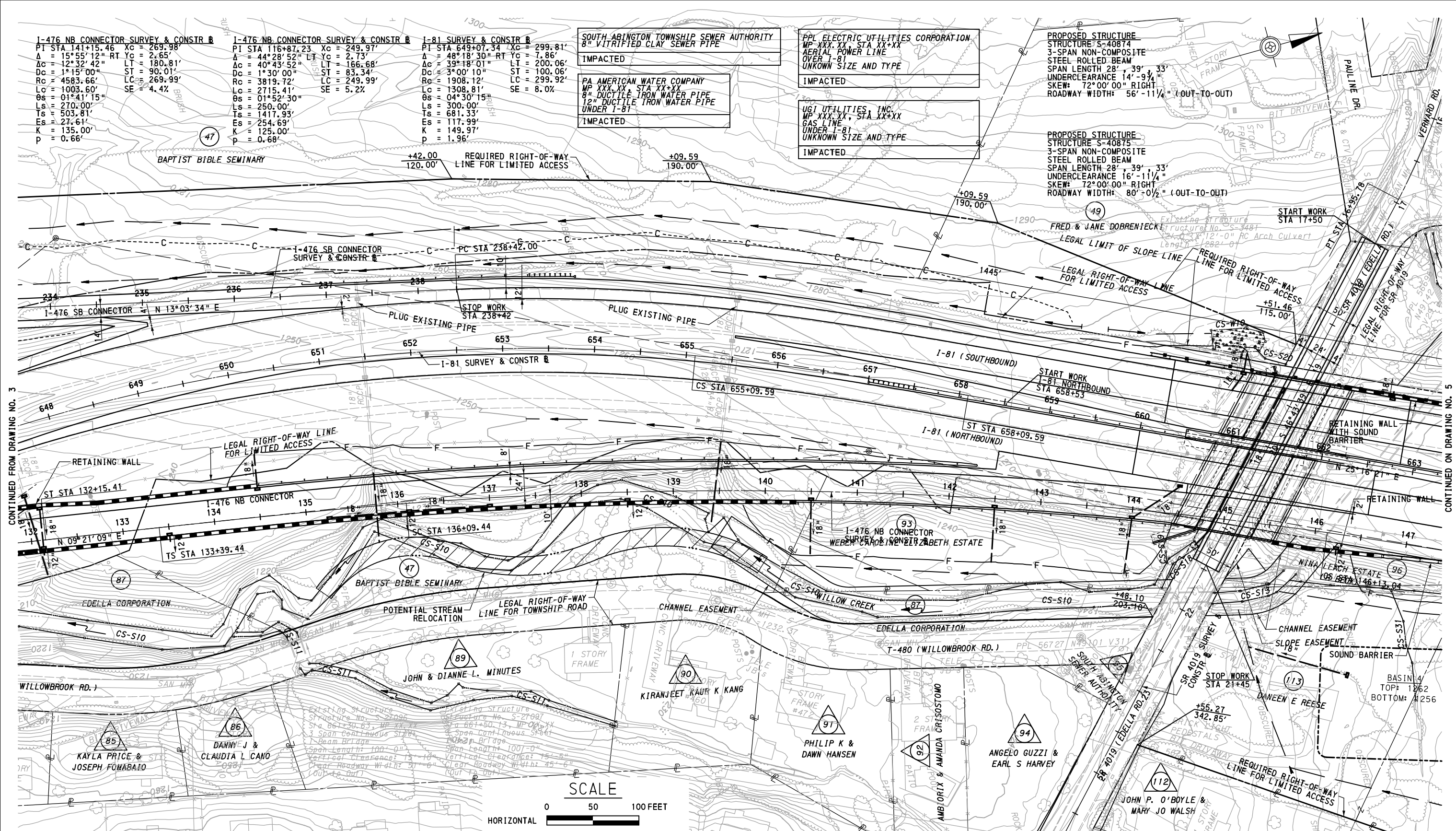
**ROADWAY AND BRIDGE CONSTRUCTION**  
**SCRANTON BELTWAY**  
**CLARKS SUMMIT**

DISTRICT: 5 COUNTY: LACKAWANNA  
TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP

**PLAN**  
**STA 219+50 TO STA 234+50 I-476 SB CONNECTOR**  
**STA 117+50 TO STA 132+50 I-476 NB CONNECTOR**  
**STA 639+00 TO STA 648+50 I-81**

DRAWING: 3 OF 8  
SHEET: 21 OF 39

EXISTING RIGHT-OF-WAY CALLOUTS NOT SHOWN FOR CLARITY




CONTINUED FROM DRAWING NO. 3

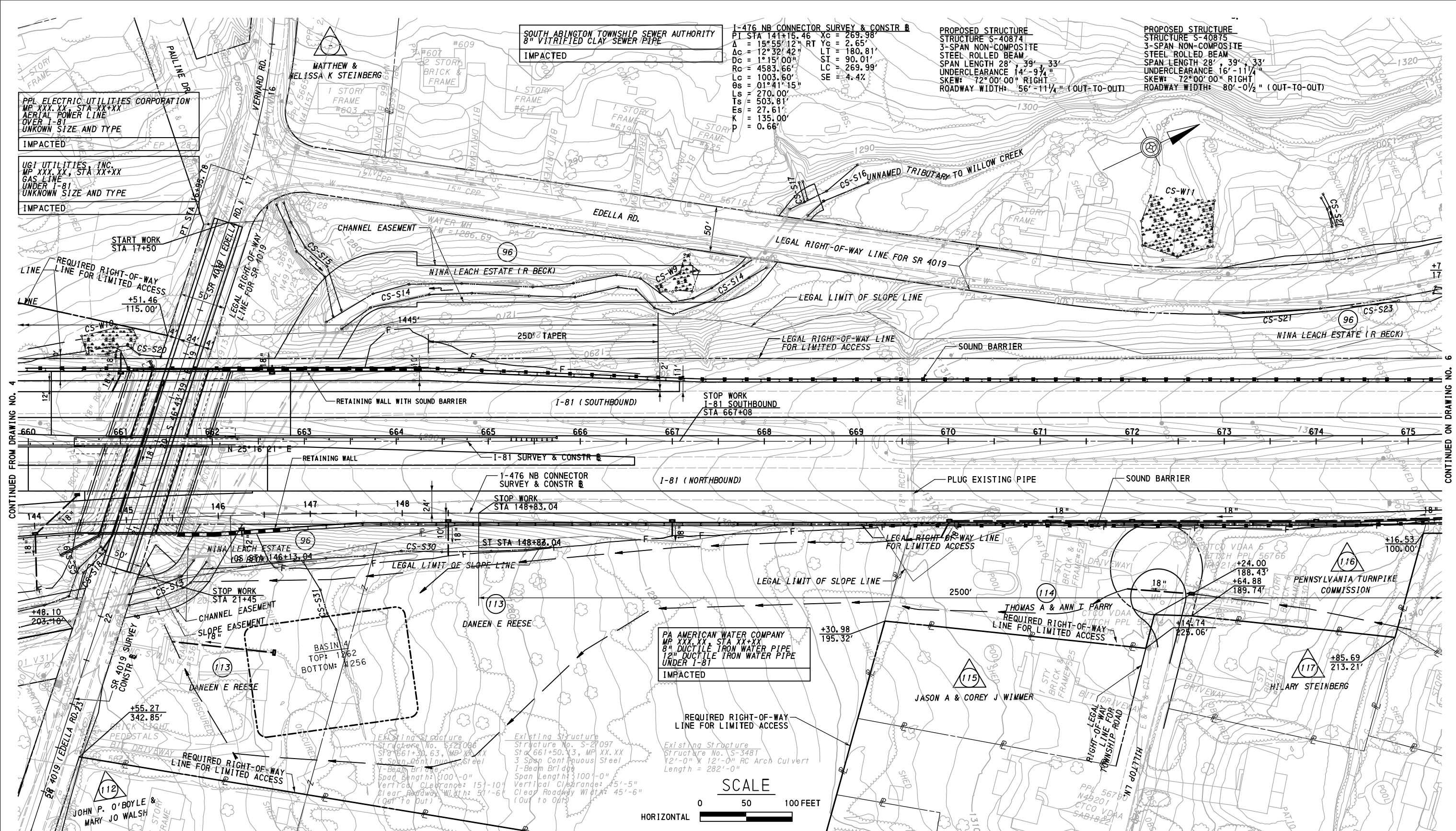
CONTINUED ON DRAWING NO. 5

FOR PROFILE, SEE SHEET NOS. 30, 31, 34, AND 39

EXISTING RIGHT-OF-WAY CALLOUTS NOT SHOWN FOR CLARITY

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106  PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. <b>A-115.70P001-3-03</b>				<b>ROADWAY AND BRIDGE CONSTRUCTION</b> <b>SCRANTON BELTWAY</b> <b>CLARKS SUMMIT</b>	<b>PLAN</b> <b>STA 234+00 TO STA 238+42 I-476 SB CONNECTOR</b> <b>STA 132+00 TO STA 147+00 I-476 NB CONNECTOR</b> <b>STA 648+00 TO STA 663+00 I-81</b>	
		NETWORK NUMBER: TBD FILE NAME: CP-04 DRAWING TYPE: 1A STRUCTURE NUMBER:	DISTRICT: 5 COUNTY: LACKAWANNA TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP	DRAWING: 4 OF 8 SHEET: 22 OF 39				
NO. REVISIONS DATE APPR.		SCALE: AS INDICATED		DISTRICT: 5 COUNTY: LACKAWANNA TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP		DRAWING: 4 OF 8 SHEET: 22 OF 39		





CONTINUED FROM DRAWING NO. 4

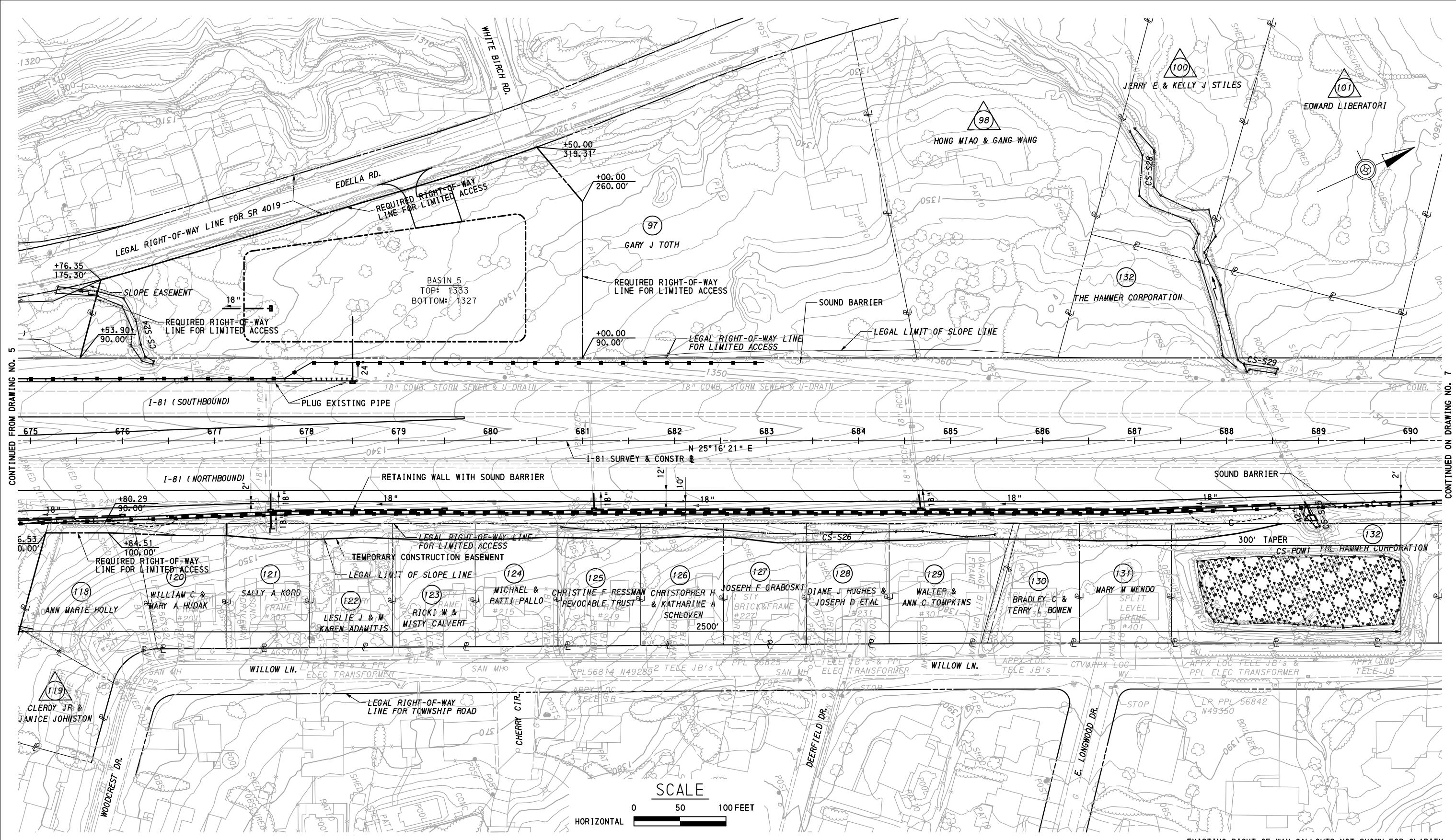
CONTINUED ON DRAWING NO. 6

FOR PROFILE, SEE SHEET NOS. 34 AND 39

EXISTING RIGHT-OF-WAY CALLOUTS NOT SHOWN FOR CLARITY

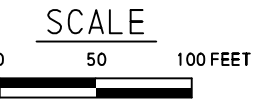
PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106  PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. <b>A-115.70P001-3-03</b>	<b>ROADWAY AND BRIDGE CONSTRUCTION</b> <b>SCRANTON BELTWAY</b> <b>CLARKS SUMMIT</b>	<b>PLAN</b> <b>STA 144 +00 TO STA 148+83 I-476 NB CONNECTOR</b> <b>STA 660+00 TO STA 675+00 I-81</b>
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NO.	REVISIONS	DATE	APPR.	SCALE: AS INDICATED
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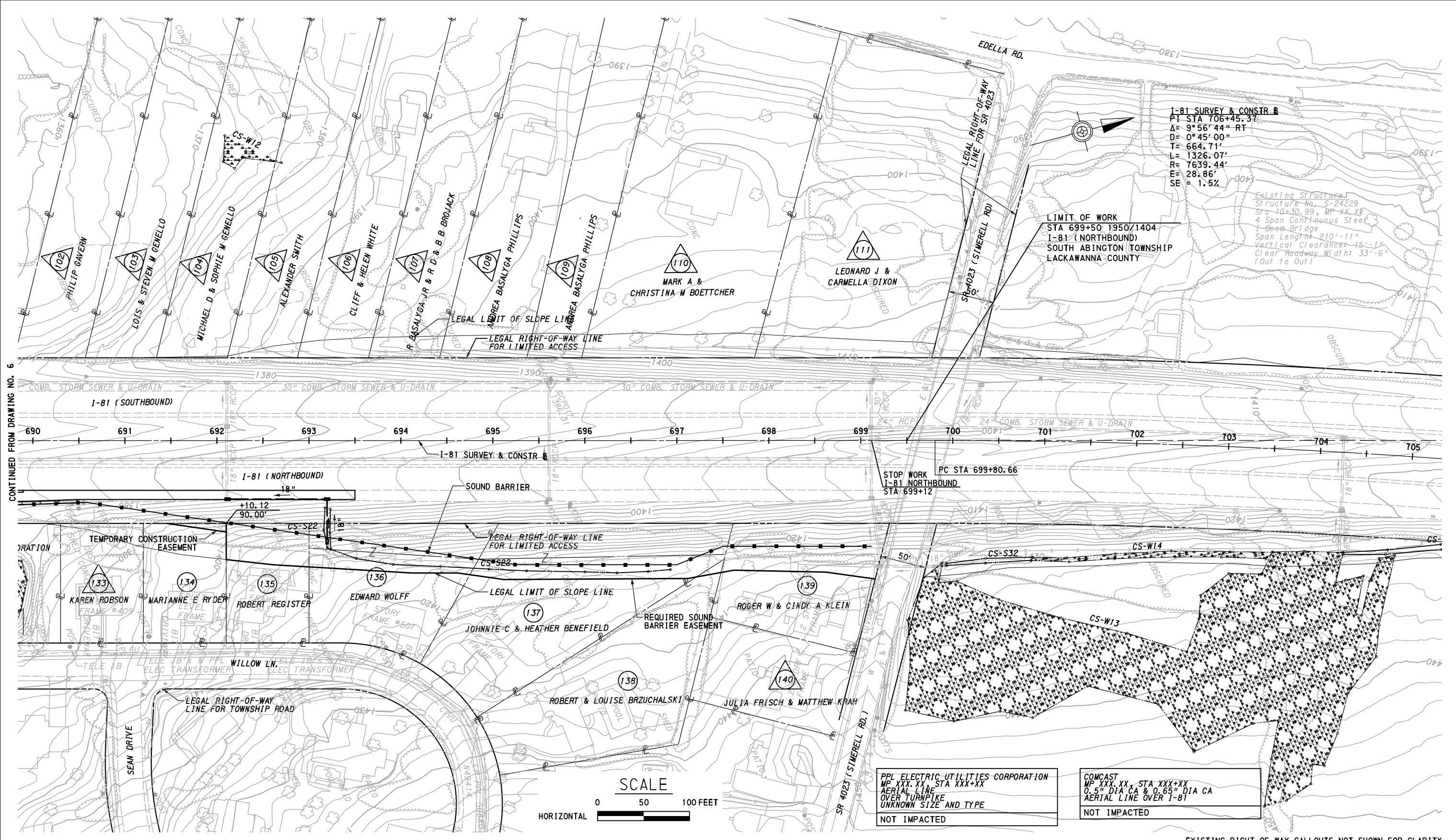
CONTINUED FROM DRAWING NO. 5

CONTINUED ON DRAWING NO. 7



EXISTING RIGHT-OF-WAY CALLOUTS NOT SHOWN FOR CLARITY

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106  PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		<table border="1"> <tr> <td>NO.</td> <td>REVISIONS</td> <td>DATE</td> <td>APPR.</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	REVISIONS	DATE	APPR.					WBS NO. <b>A-115.70P001-3-03</b>	<b>ROADWAY AND BRIDGE CONSTRUCTION</b> <b>SCRANTON BELTWAY</b> <b>CLARKS SUMMIT</b>	<b>PLAN</b> <b>STA 675+00 TO STA 690+00 I-81</b>
			NO.	REVISIONS	DATE	APPR.							
NETWORK NUMBER: TBD FILE NAME: CP-06 DRAWING TYPE: 1A STRUCTURE NUMBER:	DISTRICT: 5    COUNTY: LACKAWANNA TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP	DRAWING: 6 OF 8 SHEET: 24 OF 39											



**I-81 SURVEY & CONSTR B**  
 PI STA 706+45.37  
 Δ = 9°56'44" RT  
 D = 0°45'00"  
 T = 664.71'  
 L = 1326.07'  
 R = 7639.44'  
 E = 28.86'  
 SE = 1.5%

**LIMIT OF WORK**  
 STA 699+50 1950/1404  
 I-81 (NORTHBOUND)  
 SOUTH ABINGTON TOWNSHIP  
 LACKAWANNA COUNTY

**Existing Structure**  
 Structure No. S-24229  
 Sta 10+30.99, MP XX XX  
 4 Span Continuous Steel  
 I-Beam Bridge  
 Span Length 210'-11"  
 Vertical Clearance 15'-11"  
 Clear Roadway Width: 33'-6"  
 (Out to Out)

**STOP WORK**  
 I-81 NORTHBOUND  
 STA 699+12

PC STA 699+80.66

PPL ELECTRIC UTILITIES CORPORATION  
 MP XXX.XX STA XXX+XX  
 AERIAL LINE  
 OVER TURNPIKE  
 UNKNOWN SIZE AND TYPE  
 NOT IMPACTED

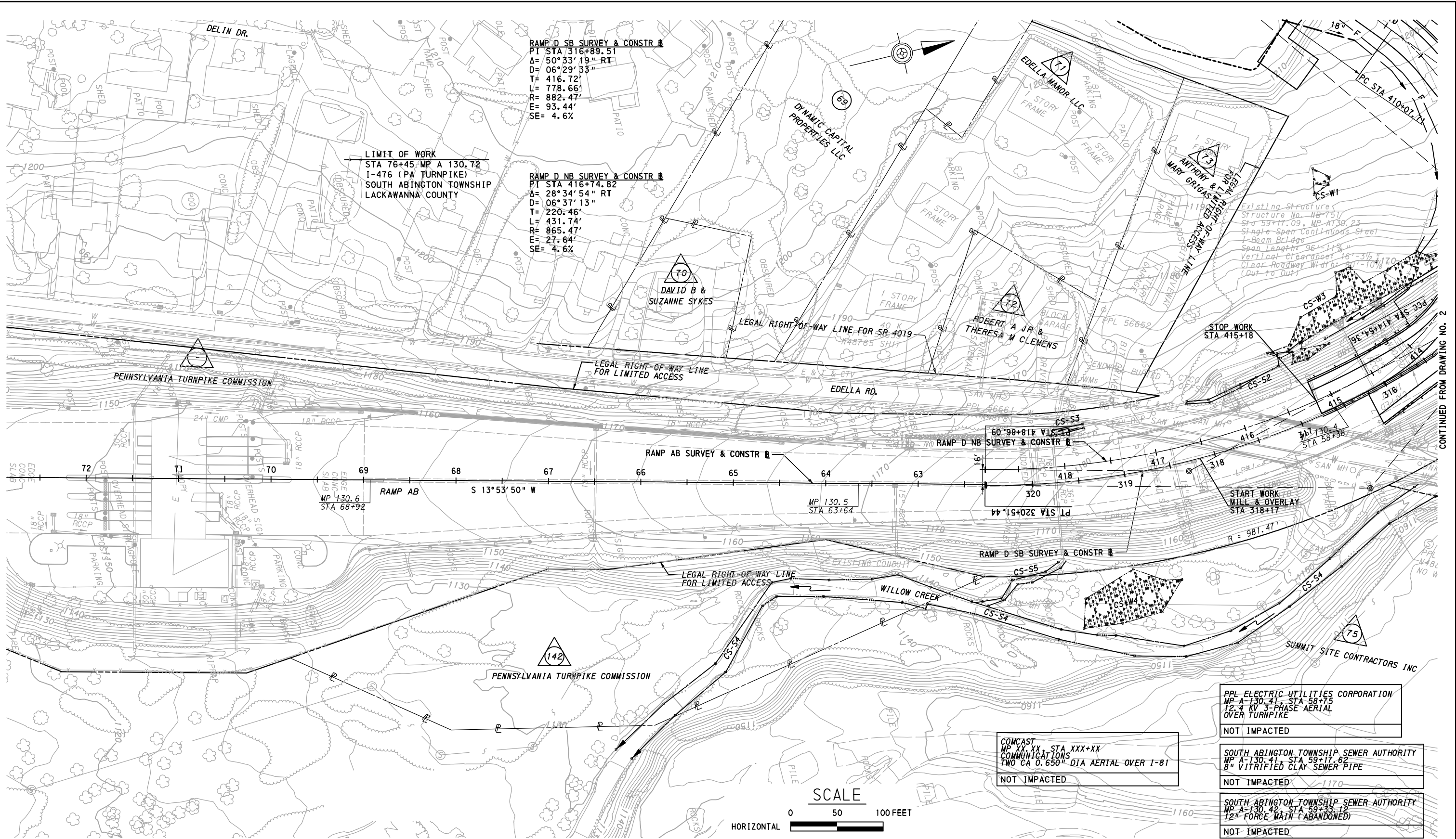
COMCAST  
 MP XXX.XX STA XXX+XX  
 0.5" DIA CA & 0.65" DIA CA  
 AERIAL LINE OVER I-81  
 NOT IMPACTED



EXISTING RIGHT-OF-WAY CALLOUTS NOT SHOWN FOR CLARITY


PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		WBS NO. <b>A-115.70P001-3-03</b>	ROADWAY AND BRIDGE CONSTRUCTION SCRANTON BELTWAY CLARKS SUMMIT		PLAN STA 690+00 TO STA 705+00 I-81	
			NETWORK NUMBER: TBD FILE NAME: CP-07 DRAWING TYPE: 1A STRUCTURE NUMBER:		DISTRICT: 5    COUNTY: LACKAWANNA TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP	
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		SCALE: AS INDICATED			DRAWING: 7 OF 8 SHEET: 25 OF 39	
NO.	REVISIONS	DATE	APPR.			





FOR PROFILE, SEE SHEET NOS. 36 AND 38

EXISTING RIGHT-OF-WAY CALLOUTS NOT SHOWN FOR CLARITY

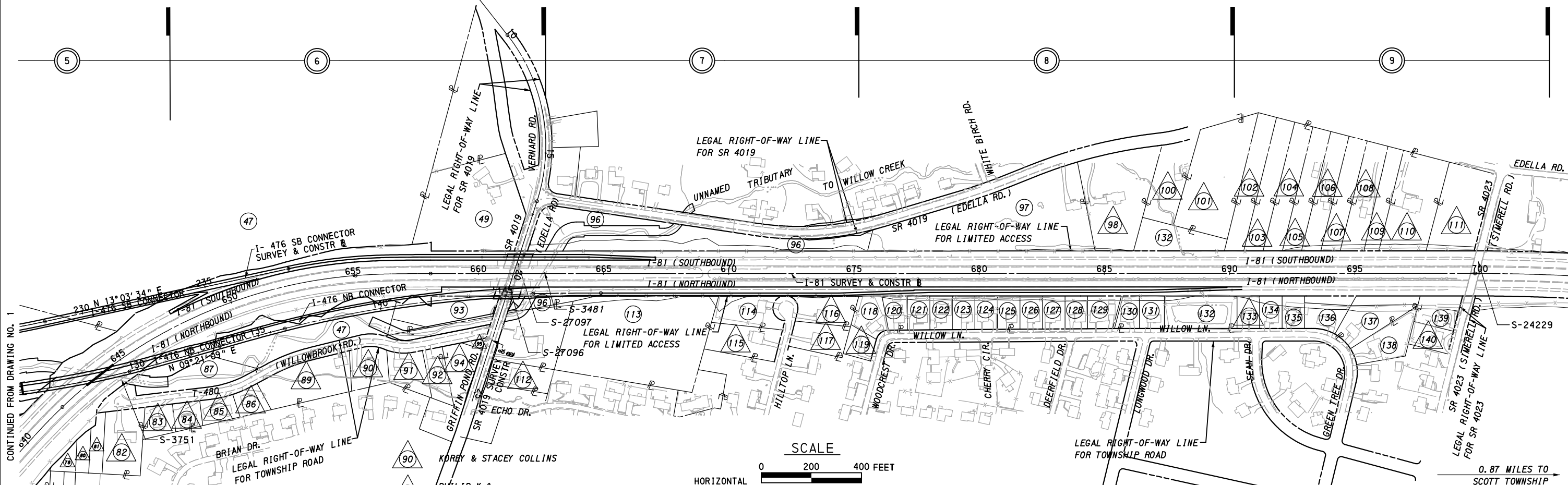
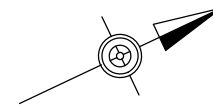
PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		WBS NO. <b>A-115.70P001-3-03</b>				ROADWAY AND BRIDGE CONSTRUCTION SCRANTON BELTWAY CLARKS SUMMIT	PLAN STA 414+00 TO STA 415+18 RAMP D NB STA 315+50 TO STA 316+21 RAMP D SB STA 62+28 TO STA 72+50 RAMP AB	
		NETWORK NUMBER: TBD FILE NAME: CP-08 DRAWING TYPE: 1A STRUCTURE NUMBER:					DISTRICT: 5    COUNTY: LACKAWANNA TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP	
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.	SCALE: AS INDICATED		





**LEGEND**

- 33 PLAN SHEET
- 1 PARCEL IDENTIFICATION NO. (TAKE)
- 1 PARCEL IDENTIFICATION NO. (NO TAKE)



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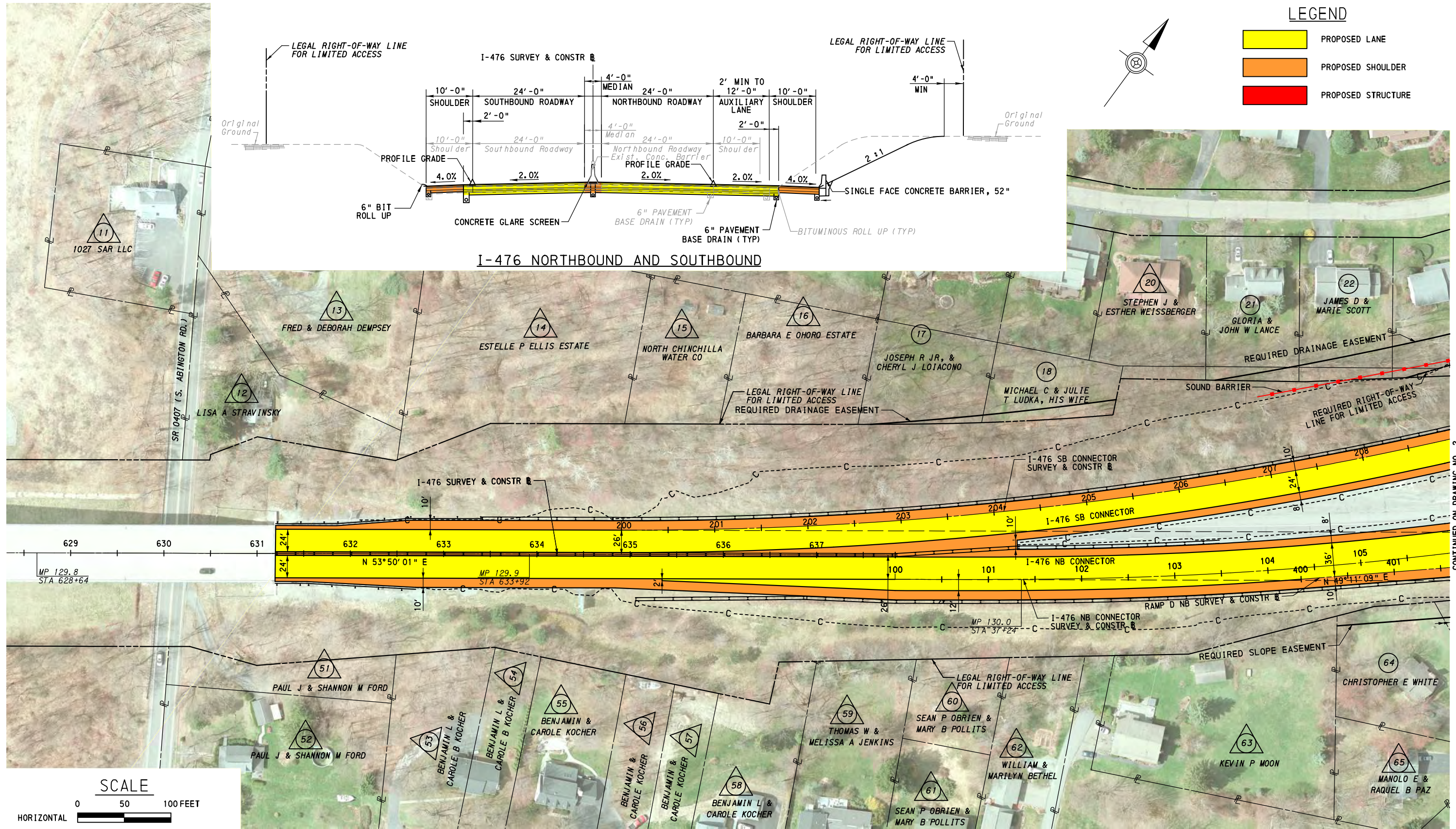
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<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">49</span> FRED & JANE DOBRENIECKI	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">82</span> BRUCE T & LINDA J STONE	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">91</span> PHILIP K & DAWN HANSEN	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">102</span> PHILIP GAVERN	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">110</span> MARK A & CHRISTINA M BOETTCHER	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">118</span> ANN MARIE HOLLY	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">126</span> CHRISTOPHER H & KATHARINE A SCHLOVEN	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">134</span> MARIANNE E RYDER
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<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">79</span> ROBERT T & ANN M HUGHES	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">85</span> MELVIN D WALKER	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">94</span> ANGELO GUZZI & EARL S HARVEY	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">105</span> ALEXANDER SMITH	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">113</span> DANEEN E REESE	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">121</span> SALLY A KORB	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">129</span> WALTER & ANN C TOMPKINS	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">137</span> JOHNNIE C & HEATHER BENEFIELD
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	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">89</span> JOHN & DIANNE L. MINUTES	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">97</span> GARY J TOTH	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">108</span> ANDREA BASALYGA PHILLIPS	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">116</span> PENNSYLVANIA TURNPIKE COMMISSION	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">124</span> MICHAEL & PATTI PALLO	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">132</span> THE HAMMER CORPORATION	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">140</span> JULIA FRISCH & MATTHEW KRAH

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION				WBS NO. <b>A-115.70P001-3-03</b>	<b>PRELIMINARY PLANS FOR ENVIRONMENTAL ASSESSMENT SCRANTON BELTWAY CLARKS SUMMIT</b>	<b>INDEX MAP</b>
						NETWORK NUMBER: XXXXXXXX FILE NAME: PSI-02 DRAWING TYPE: STRUCTURE NUMBER:	DISTRICT: 5    COUNTY: LACKAWANNA TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP	DRAWING: 2 OF 2 SHEET: 2 OF 10
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						NO.    REVISIONS    DATE    APPR.		



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FILE NAME: \$FILES\$



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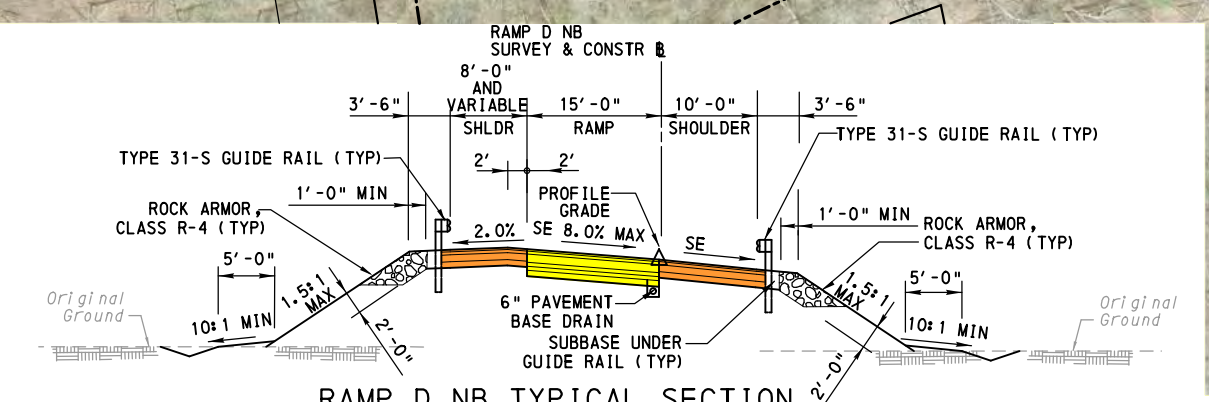
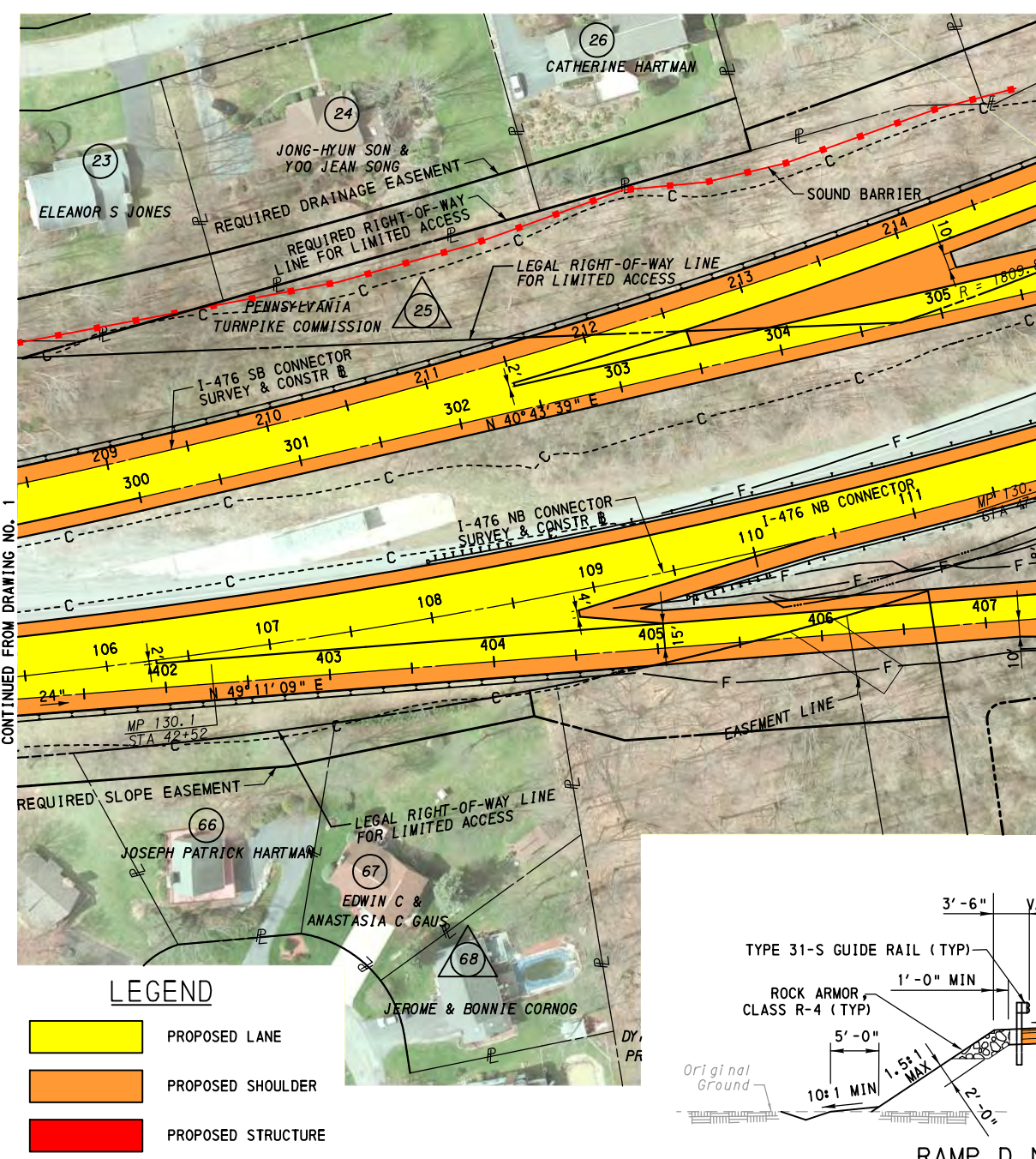
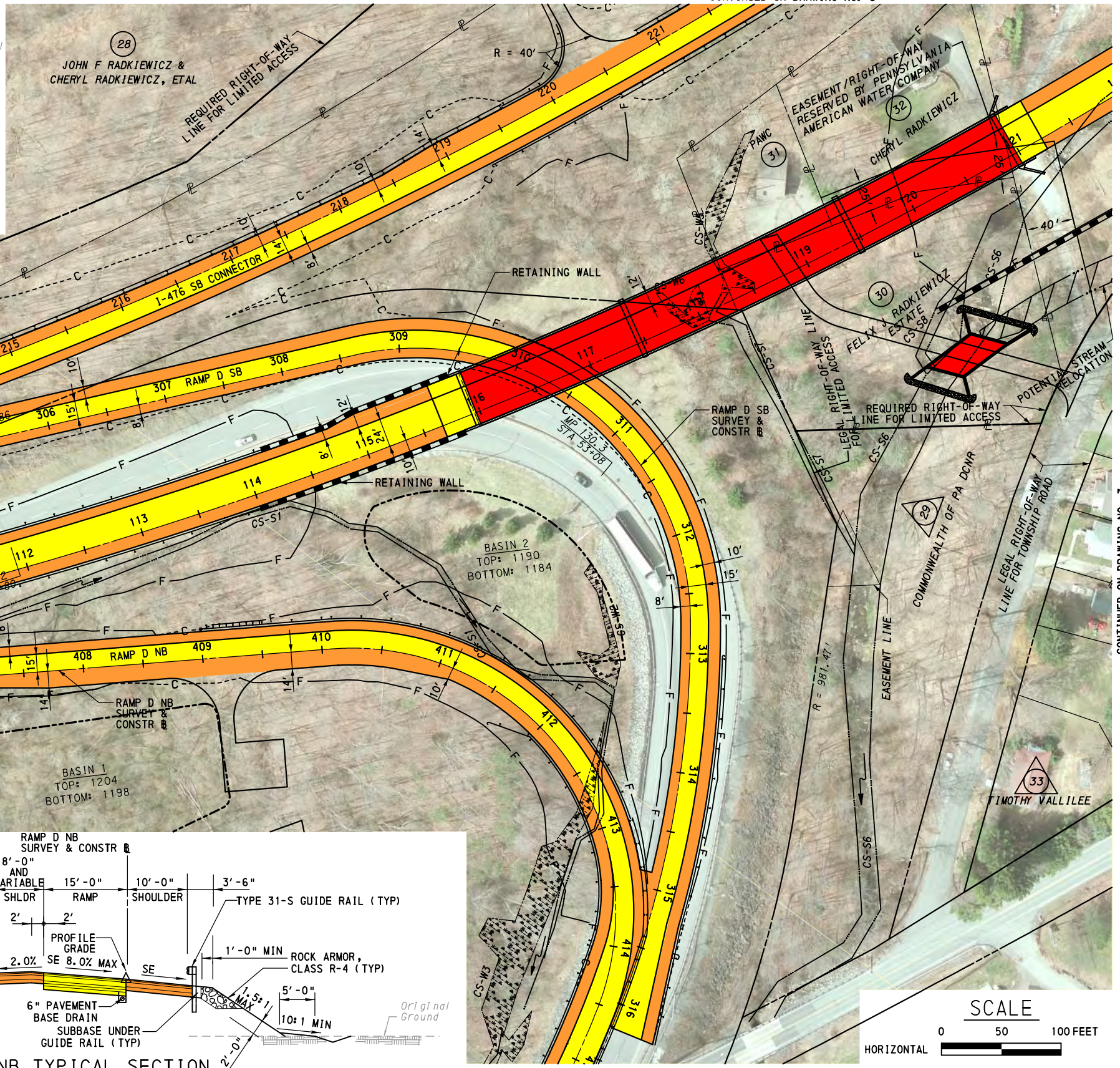
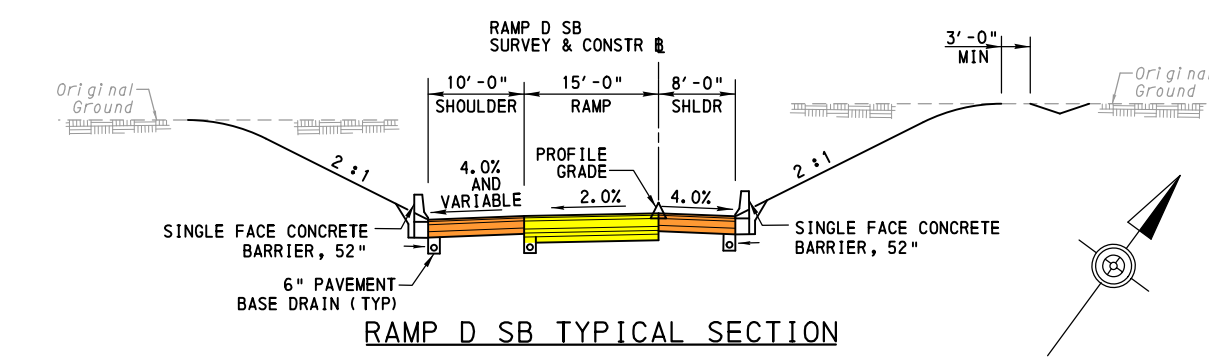
PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		WBS NO. <b>A-115.70P001-3-03</b>	<b>PRELIMINARY PLANS FOR ENVIRONMENTAL ASSESSMENT SCRANTON BELTWAY CLARKS SUMMIT</b>		<b>PLAN</b> STA 200+00 TO STA 208+50 I-476 SB CONNECTOR STA 628+50 TO STA 637+84.29 I-476 STA 100+00 TO STA 105+50 I-476 NB CONNECTOR STA 400+00 TO STA 401+50 RAMP D NB	
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PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.	



PLOTTED: \$\$\$DATE\$\$\$ \$TIME\$

FILE NAME: \$FILES

CONTINUED ON DRAWING NO. 3



CONTINUED ON DRAWING NO. 8

**LEGEND**

- PROPOSED LANE
- PROPOSED SHOULDER
- PROPOSED STRUCTURE



PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		WBS NO. <b>A-115.70P001-3-03</b>	<b>PRELIMINARY PLANS FOR ENVIRONMENTAL ASSESSMENT SCRANTON BELTWAY CLARKS SUMMIT</b>		<b>PLAN</b> STA 208+50 TO STA 221+50 I-476 SB CONNECTOR STA 105+50 TO STA 121+50 I-476 NB CONNECTOR STA 300+00 TO STA 316+50 RAMP D SB STA 401+50 TO STA 415+00 RAMP D NB	
		NETWORK NUMBER: TBD FILE NAME: CP-02 DRAWING TYPE: 1A STRUCTURE NUMBER:	DISTRICT: 5 COUNTY: LACKAWANNA TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP	DRAWING: 2 OF 8 SHEET: 4 OF 10		
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		SCALE: AS INDICATED				
NO.	REVISIONS	DATE	APPR.			



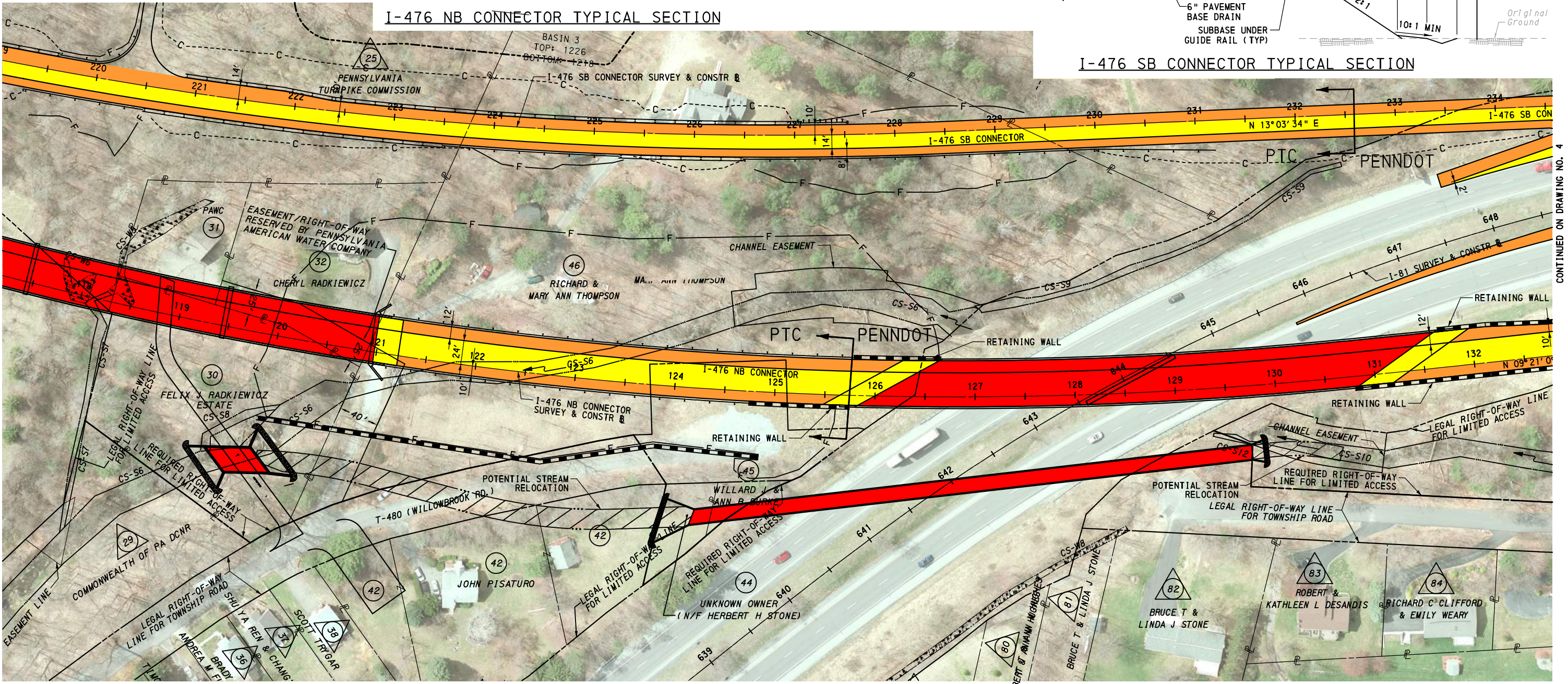
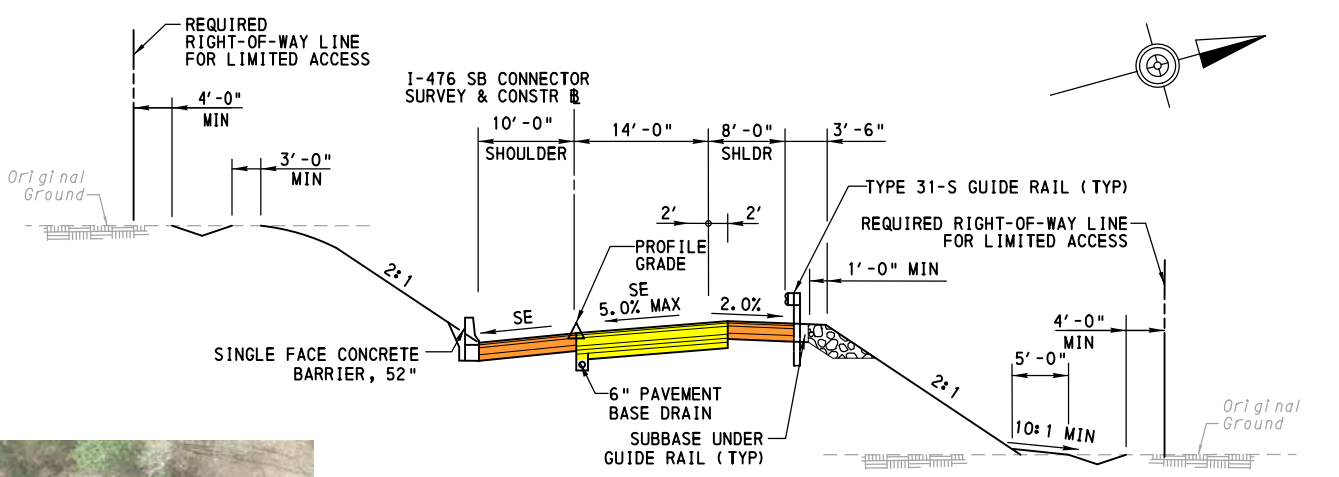
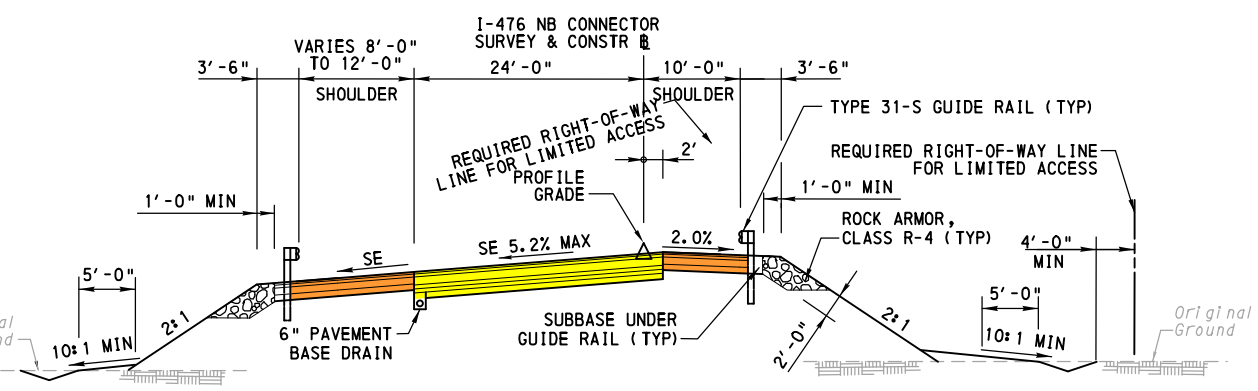
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**LEGEND**

- PROPOSED LANE
- PROPOSED SHOULDER
- PROPOSED STRUCTURE

**SCALE**

HORIZONTAL 0 50 100 FEET



CONTINUED FROM DRAWING NO. 2

CONTINUED ON DRAWING NO. 4

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		WBS NO. <b>A-115.70P001-3-03</b>	<b>PRELIMINARY PLANS FOR ENVIRONMENTAL ASSESSMENT SCRANTON BELTWAY CLARKS SUMMIT</b>	<b>PLAN</b> <b>STA 219+50 TO STA 234+50 I-476 SB CONNECTOR</b> <b>STA 217+50 TO STA 132+50 I-476 NB CONNECTOR</b> <b>STA 639+00 TO STA 648+50 I-81</b>
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PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NO. REVISIONS DATE APPR.	SCALE: AS INDICATED	DRAWING: 3 OF 8 SHEET: 5 OF 10	







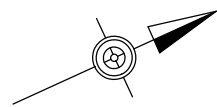
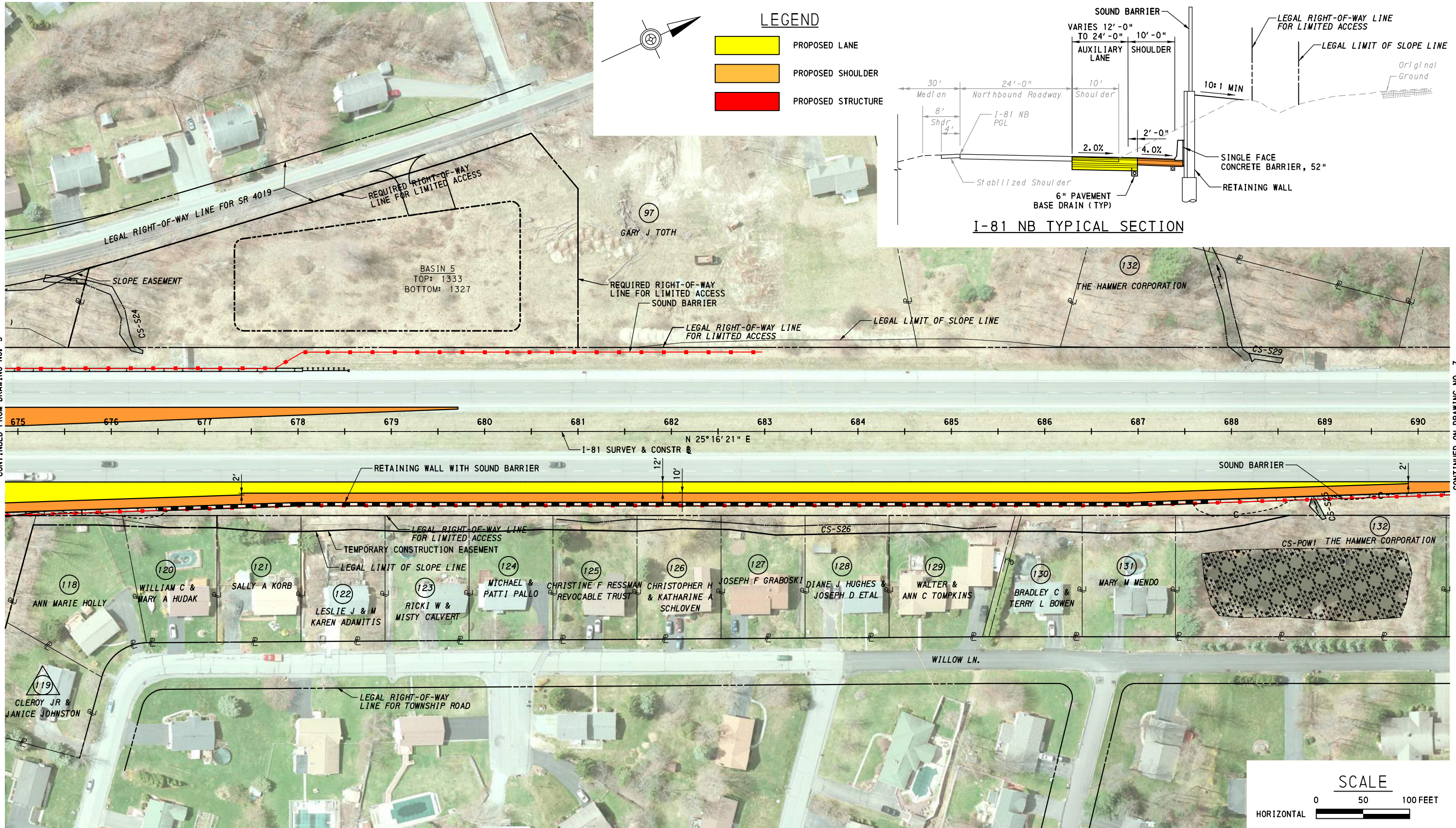




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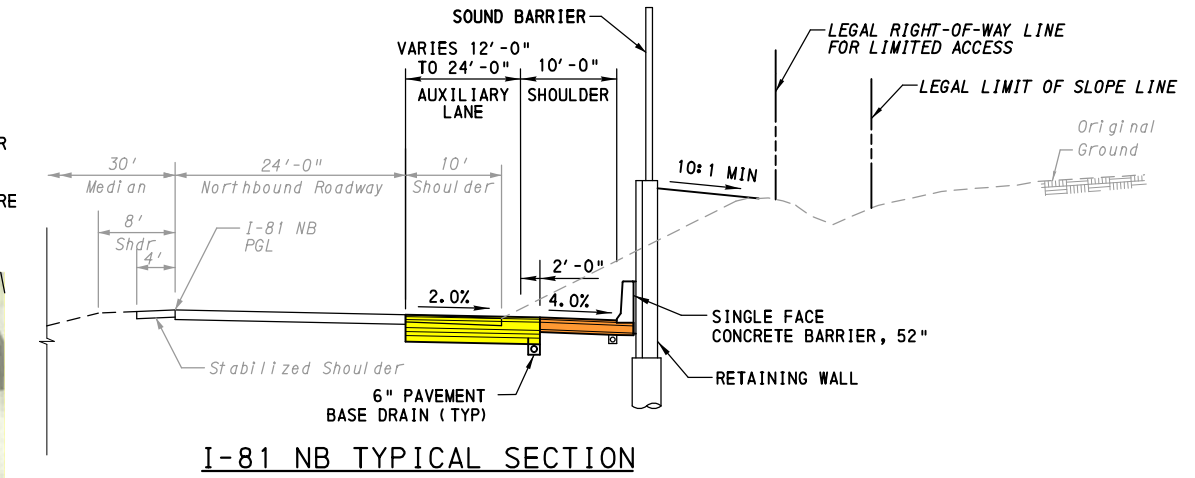
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CONTINUED ON DRAWING NO. 7



**LEGEND**

- PROPOSED LANE
- PROPOSED SHOULDER
- PROPOSED STRUCTURE



FILE NAME: \$FILES



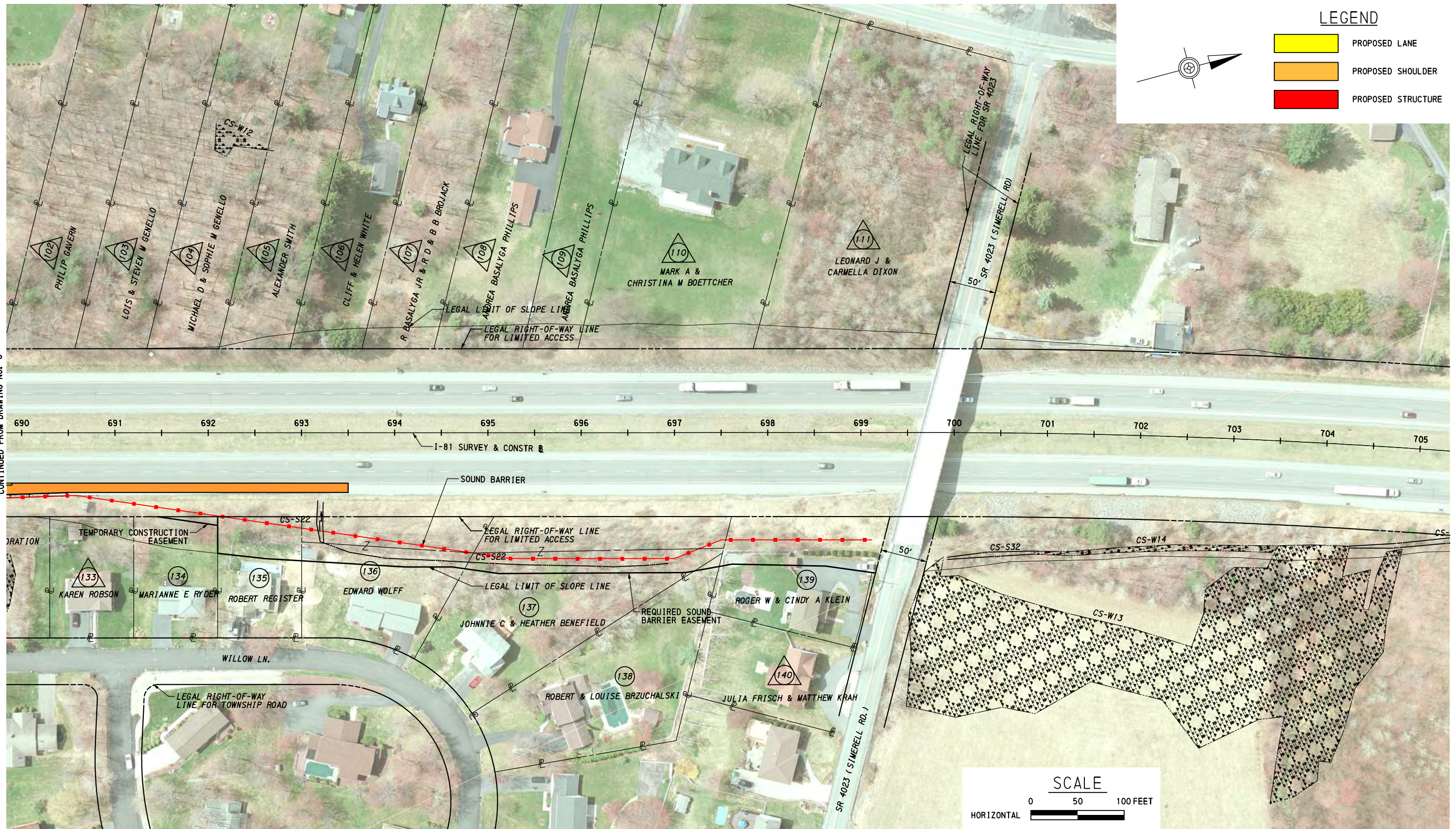
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	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION				NETWORK NUMBER: TBD FILE NAME: CP-06 DRAWING TYPE: 1A STRUCTURE NUMBER:	DISTRICT: 5    COUNTY: LACKAWANNA TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP			DRAWING: 6 OF 8 SHEET: 8 OF 10
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			NO.	REVISIONS	DATE	APPR.			



PLOTTED: \$\$\$DATE\$\$\$ \$TIMES

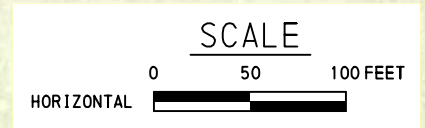
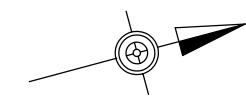
CONTINUED FROM DRAWING NO. 6

FILE NAME: \$FILES



LEGEND

- PROPOSED LANE
- PROPOSED SHOULDER
- PROPOSED STRUCTURE



PREPARED BY:  
 URBAN ENGINEERS, INC.  
 530 WALNUT STREET  
 PHILADELPHIA, PA 19106

PREPARED FOR:  
 THE PENNSYLVANIA  
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.  
**A-115.70P001-3-03**

NETWORK NUMBER: TBD

FILE NAME: CP-07

DRAWING TYPE: 1A

STRUCTURE NUMBER:

SCALE: AS INDICATED

**PRELIMINARY PLANS FOR  
 ENVIRONMENTAL ASSESSMENT  
 SCRANTON BELTWAY  
 CLARKS SUMMIT**

DISTRICT: 5      COUNTY: LACKAWANNA

TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP

**PLAN**  
**STA 690+00 TO STA 705+00 I-81**


DRAWING: 7 OF 8  
 SHEET: 9 OF 10



FILE NAME: T:\2017010237 - Scranton Beltway\Environmental\Assessment Docs and Figures\Clarks Summit\Plans\CP-08\_EA\_report.dgn PLOTTED: 2/11/2023 11:46:51 PM



CONTINUED FROM DRAWING NO. 2

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		WBS NO. <b>A-115.70P001-3-03</b>	<b>PRELIMINARY PLANS FOR ENVIRONMENTAL ASSESSMENT SCRANTON BELTWAY CLARKS SUMMIT</b>		<b>PLAN</b> STA 414+00 TO STA 415+18 RAMP D NB STA 315+50 TO STA 316+21 RAMP D SB STA 62+28 TO STA 72+50 RAMP AB	
			NETWORK NUMBER: TBD FILE NAME: CP-08 DRAWING TYPE: 1A STRUCTURE NUMBER:	DISTRICT: 5    COUNTY: LACKAWANNA TOWNSHIP / BOROUGH: SOUTH ABINGTON TOWNSHIP	SCALE: AS INDICATED	DRAWING: 8 OF 8 SHEET: 10 OF 10
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.    REVISIONS    DATE    APPR.				



**Appendix B:**  
**Environmental Features Mapping**

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## WYOMING VALLEY

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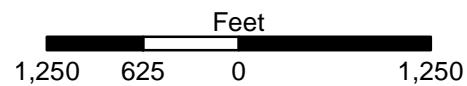
# Environmental Constraints Overview Map

## Scranton Beltway Wyoming Valley Project Corridor

Pittston Township and Borough of Dupont  
Luzerne County, Pennsylvania

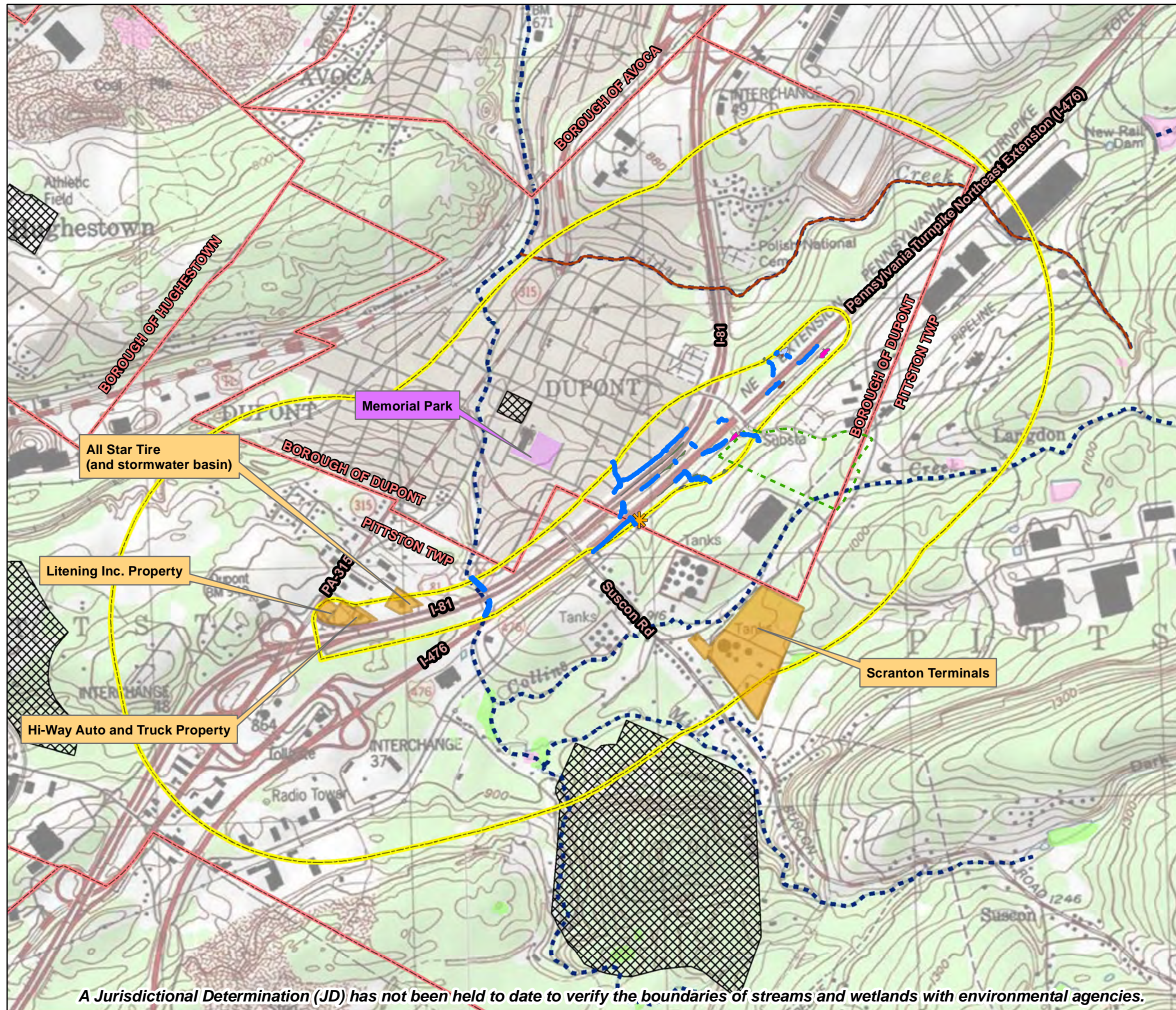
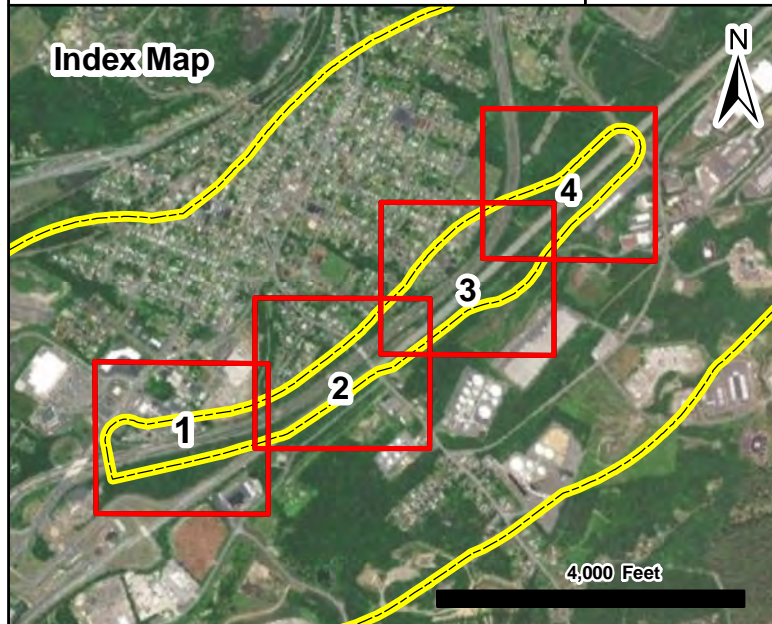
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- |  |                                       |                            |
|--|---------------------------------------|----------------------------|
| Wyoming Valley Project Corridor with a 1/2 mile buffer | Municipal Boundaries                  | FEMA 100-Year Floodplain A |
| Productive Ag Land                                     | Delineated Wetlands Cowardin Class AE | PEM                        |
| Local Parks  | PFO                                   | Freshwater Pond            |
| Local Parks (DCNR)                                     | PSS                                   | Riverine                   |
| Groundwater Wells                                      | PUB                                   | PEM                        |
| Unused Groundwater Wells                               | PFO/PSS                               | Riverine                   |
| Dupont Borough Compost Site                            | Freshwater Pond                       |                            |
| Hazardous Waste Sites (approx parcel boundaries)       | Riverine                              |                            |
| Watercourses (PADEP)                                   |                                       |                            |
| Delineated Watercourses                                |                                       |                            |
| Naturally Reproducing Trout Stream                     |                                       |                            |



GANNETT FLEMING

### Index Map



A Jurisdictional Determination (JD) has not been held to date to verify the boundaries of streams and wetlands with environmental agencies.



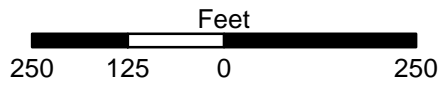
# Environmental Constraints Map 1

## Scranton Beltway Wyoming Valley Project Corridor

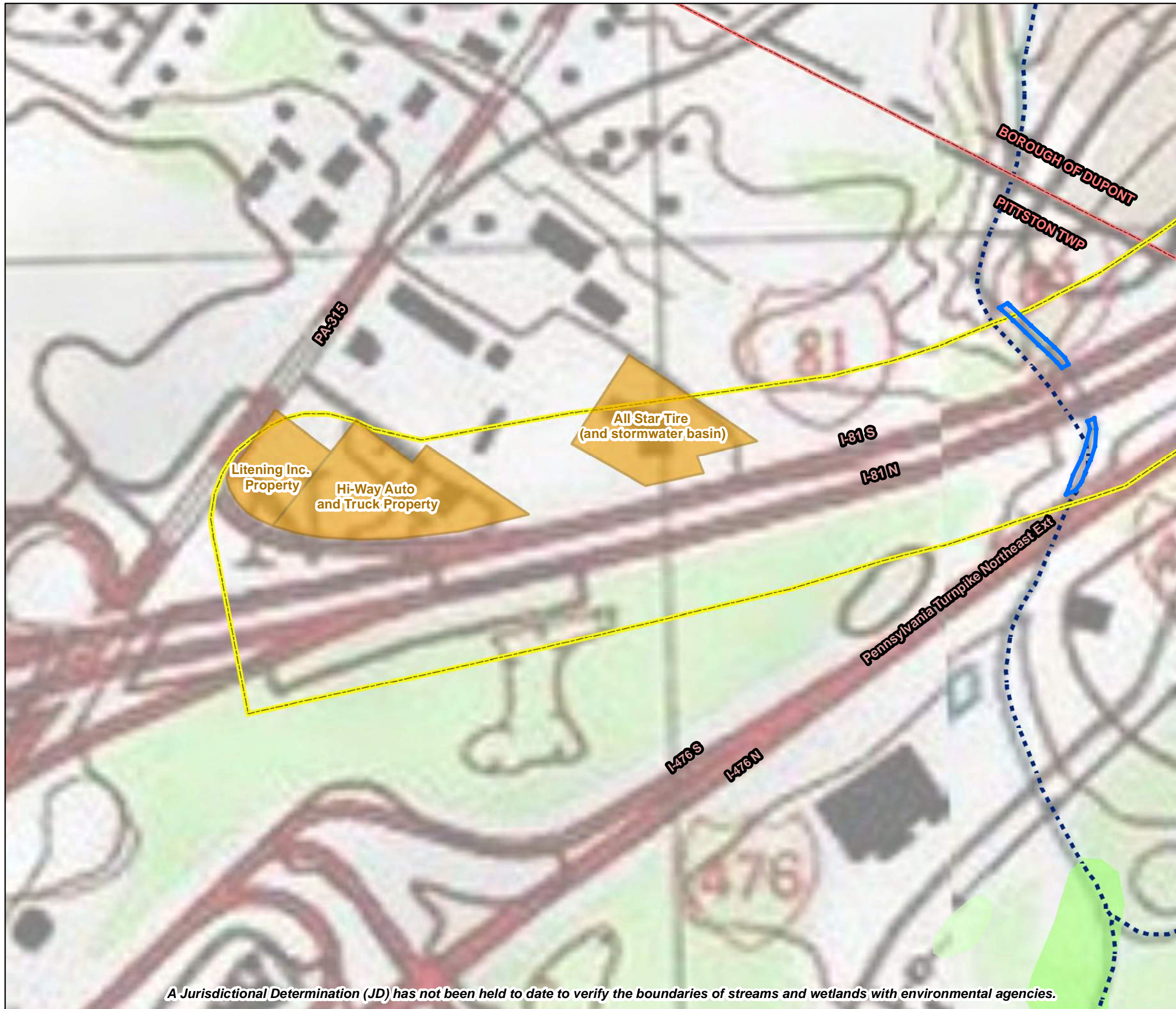
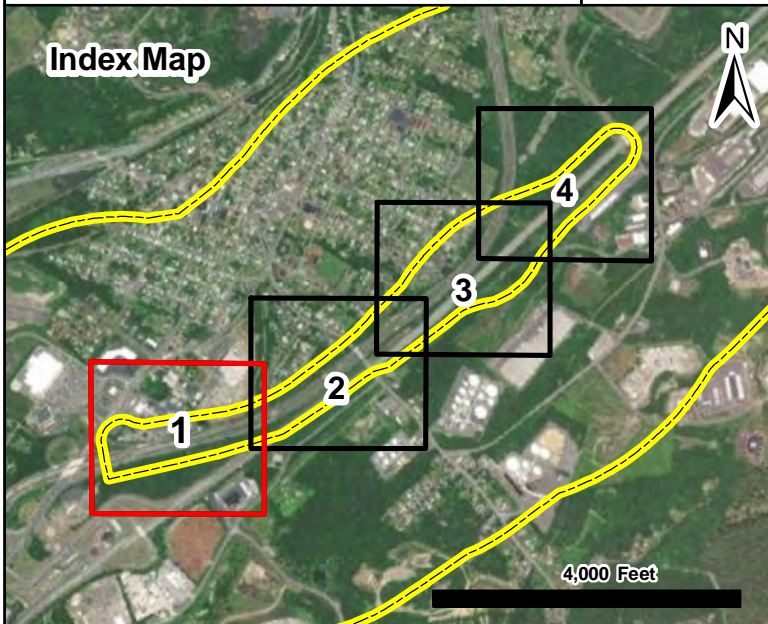
Pittston Township and Borough of Dupont  
Luzerne County, Pennsylvania

### Legend

- |  |  |
|--|--|
| Wyoming Valley Project Corridor                  | FEMA 100-Year Floodplain                   |
| Municipal Boundaries                             | A  |
| Productive Ag Land                               | AE   |
| Local Parks                                      | <b>Delineated Wetlands Cowardin Class</b>  |
| Local Parks (DCNR)                               | PEM  |
| Groundwater Wells                                | PEM/PSS                                    |
| Unused Groundwater Wells                         | PFO  |
| Dupont Borough Compost Site                      | PSS  |
| Hazardous Waste Sites (approx parcel boundaries) | PUB  |
| Watercourses (PADEP)                             | <b>National Wetlands Inventory (USFWS)</b> |
| Delineated Watercourses                          | PEM  |
| Naturally Reproducing Trout Stream               | PFO/PSS                                    |
|  | Freshwater Pond                            |
|  | Riverine                                   |



### Index Map



*A Jurisdictional Determination (JD) has not been held to date to verify the boundaries of streams and wetlands with environmental agencies.*



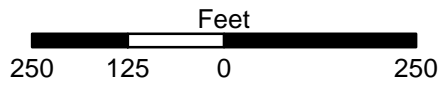
# Environmental Constraints Map 2

## Scranton Beltway Wyoming Valley Project Corridor

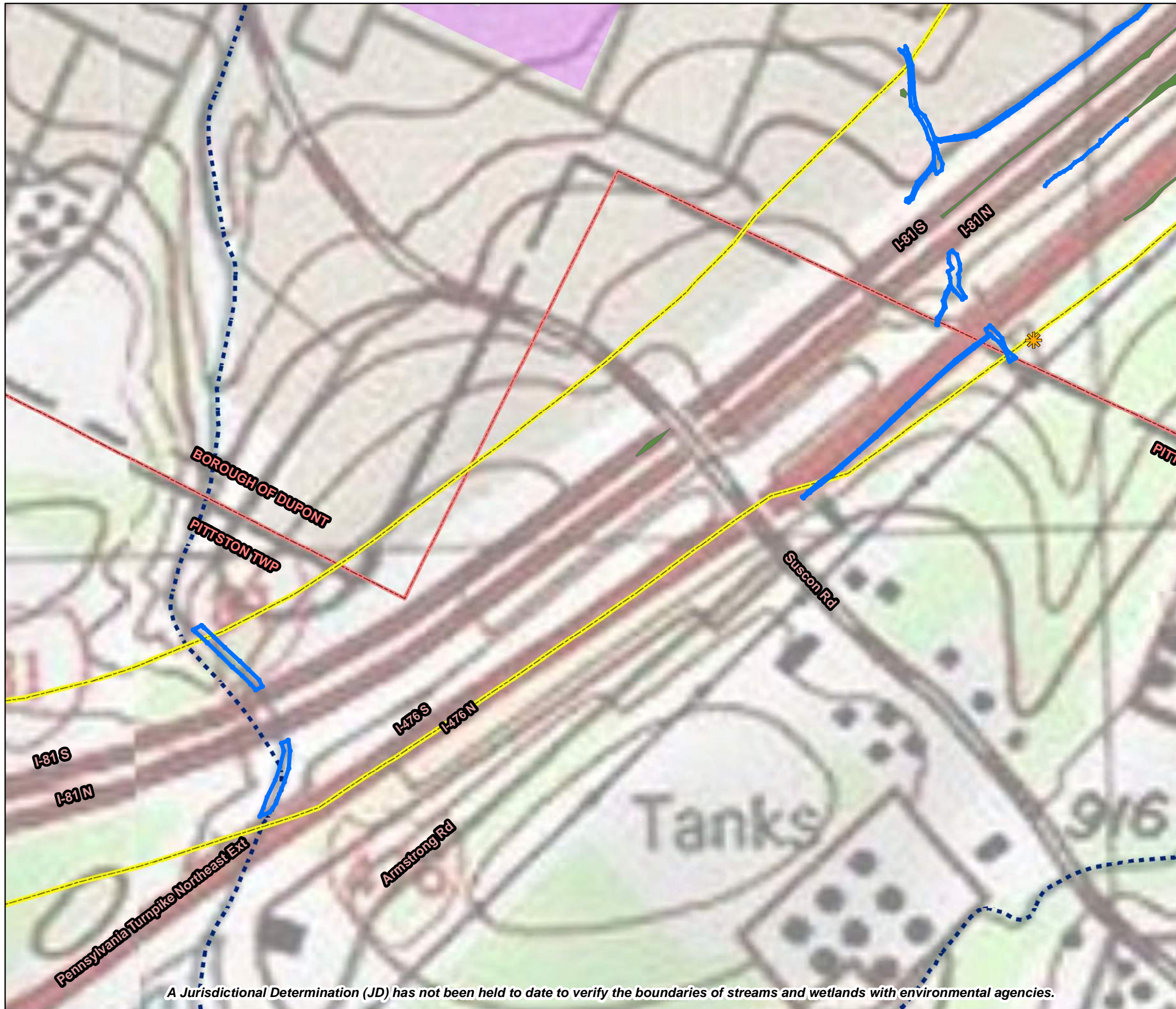
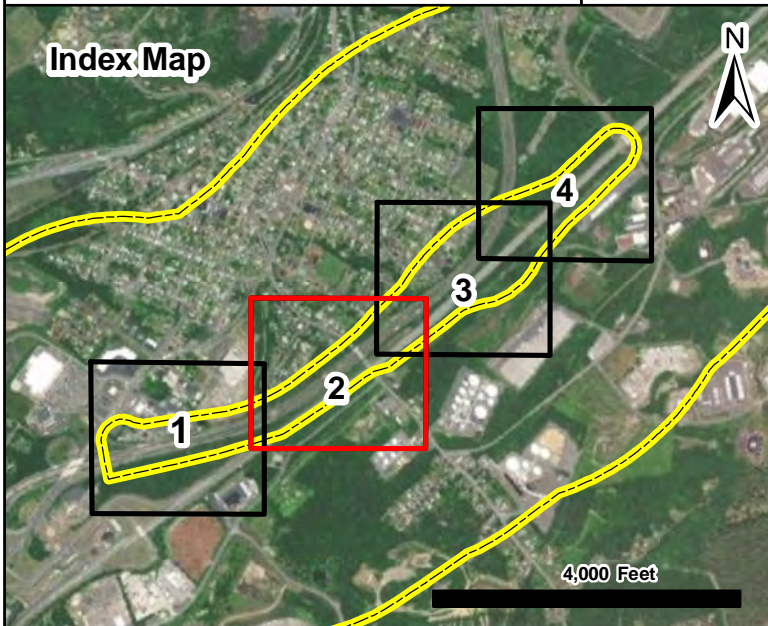
Pittston Township and Borough of Dupont  
Luzerne County, Pennsylvania

### Legend

- |  |  |
|--|--|
| Wyoming Valley Project Corridor                  | FEMA 100-Year Floodplain                   |
| Municipal Boundaries                             | A  |
| Productive Ag Land                               | AE   |
| Local Parks                                      | <b>Delineated Wetlands Cowardin Class</b>  |
| Local Parks (DCNR)                               | PEM  |
| Groundwater Wells                                | PEM/PSS                                    |
| Unused Groundwater Wells                         | PFO  |
| Dupont Borough Compost Site                      | PSS  |
| Hazardous Waste Sites (approx parcel boundaries) | PUB  |
| Watercourses (PADEP)                             | <b>National Wetlands Inventory (USFWS)</b> |
| Delineated Watercourses                          | PEM  |
| Naturally Reproducing Trout Stream               | PFO/PSS                                    |
|  | Freshwater Pond                            |
|  | Riverine                                   |



### Index Map





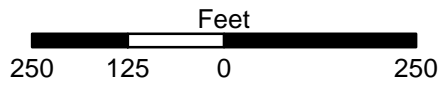
# Environmental Constraints Map 3

## Scranton Beltway Wyoming Valley Project Corridor

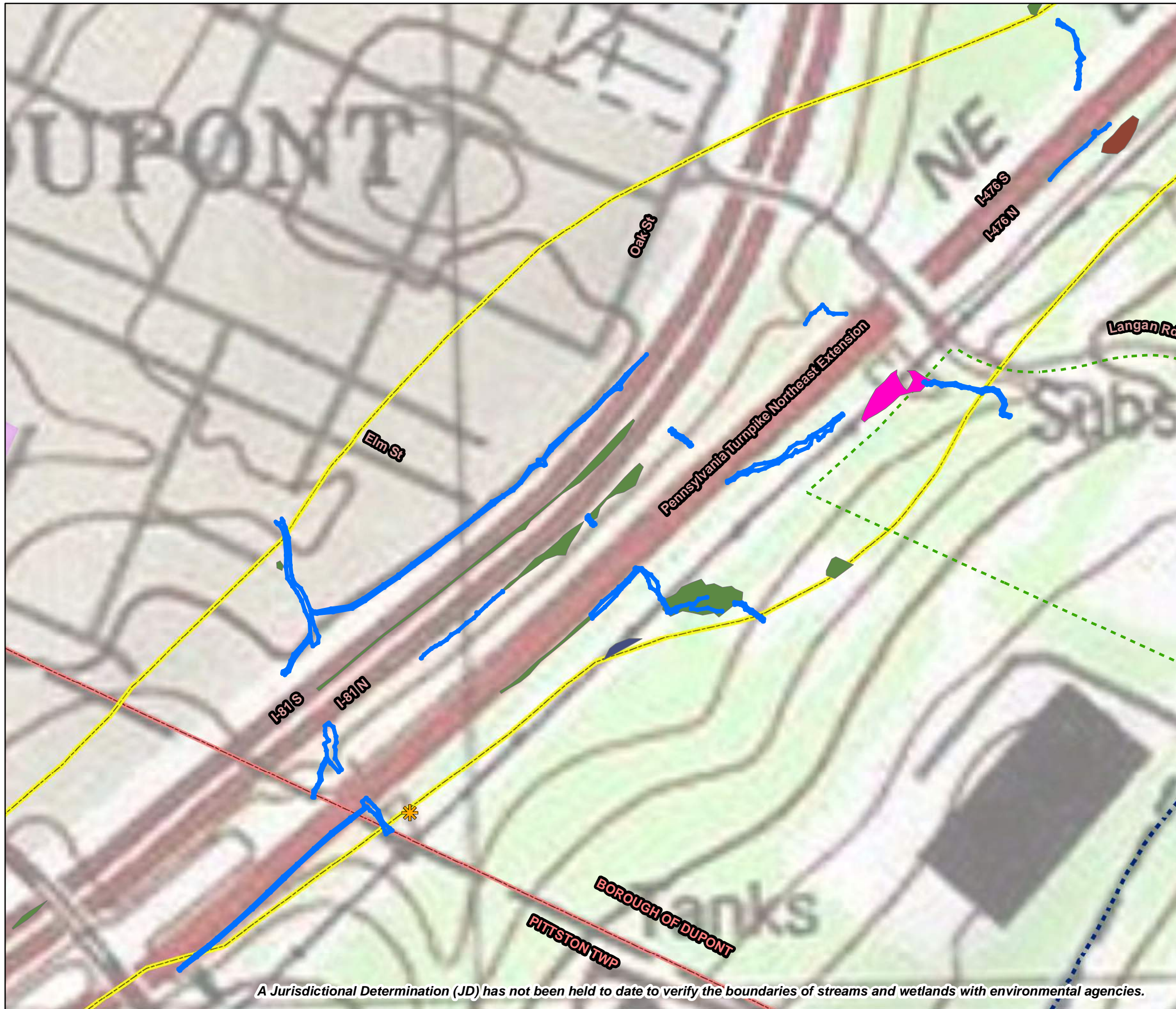
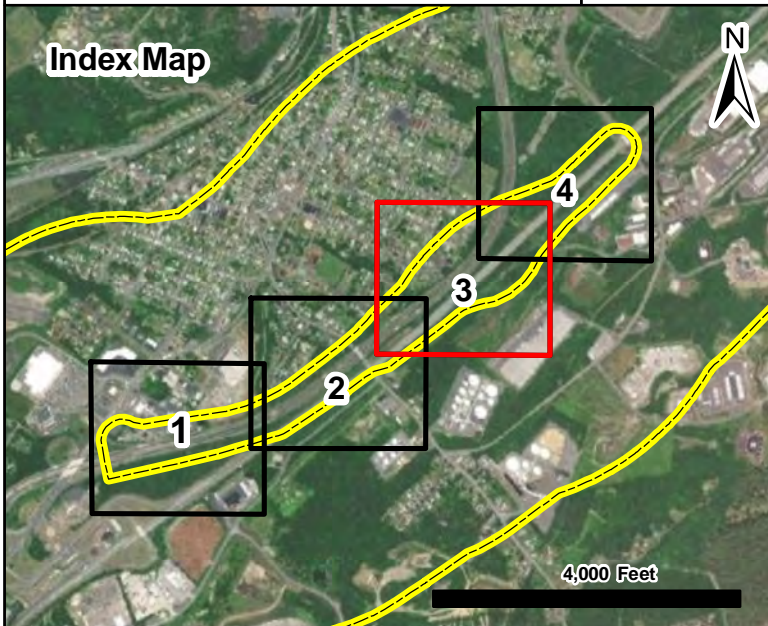
Pittston Township and Borough of Dupont  
Luzerne County, Pennsylvania

### Legend

- |  |  |
|--|--|
| Wyoming Valley Project Corridor                  | FEMA 100-Year Floodplain                   |
| Municipal Boundaries                             | A  |
| Productive Ag Land                               | AE   |
| Local Parks                                      | <b>Delineated Wetlands Cowardin Class</b>  |
| Local Parks (DCNR)                               | PEM  |
| Groundwater Wells                                | PEM/PSS                                    |
| Unused Groundwater Wells                         | PFO  |
| Dupont Borough Compost Site                      | PSS  |
| Hazardous Waste Sites (approx parcel boundaries) | PUB  |
| Watercourses (PADEP)                             | <b>National Wetlands Inventory (USFWS)</b> |
| Delineated Watercourses                          | PEM  |
| Naturally Reproducing Trout Stream               | PFO/PSS                                    |
|  | Freshwater Pond                            |
|  | Riverine                                   |



### Index Map



*A Jurisdictional Determination (JD) has not been held to date to verify the boundaries of streams and wetlands with environmental agencies.*



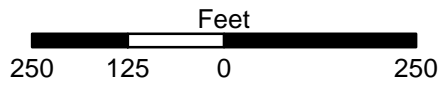
# Environmental Constraints Map 4

## Scranton Beltway Wyoming Valley Project Corridor

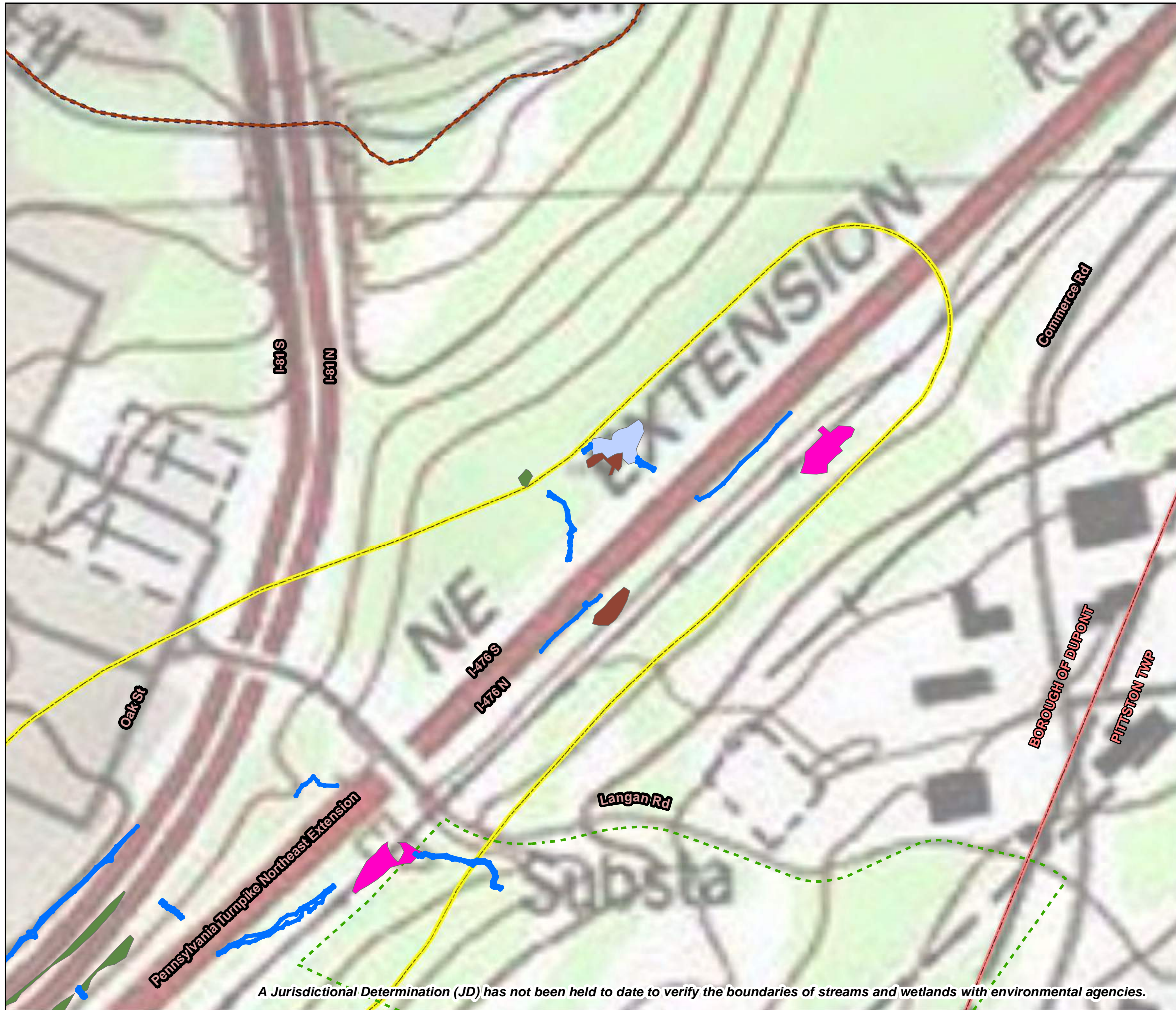
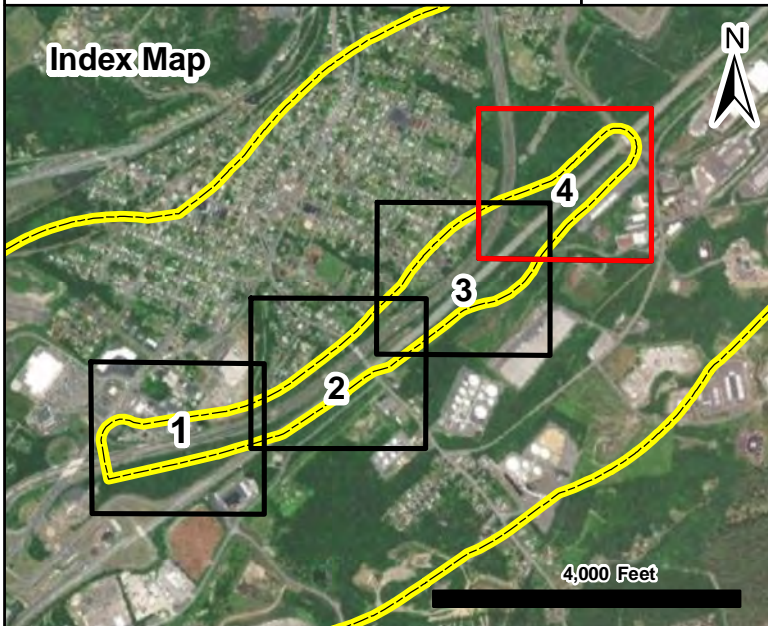
Pittston Township and Borough of Dupont  
Luzerne County, Pennsylvania

### Legend

- |  |  |
|--|--|
| Wyoming Valley Project Corridor                  | FEMA 100-Year Floodplain                   |
| Municipal Boundaries                             | A  |
| Productive Ag Land                               | AE   |
| Local Parks                                      | <b>Delineated Wetlands Cowardin Class</b>  |
| Local Parks (DCNR)                               | PEM  |
| Groundwater Wells                                | PEM/PSS                                    |
| Unused Groundwater Wells                         | PFO  |
| Dupont Borough Compost Site                      | PSS  |
| Hazardous Waste Sites (approx parcel boundaries) | PUB  |
| Watercourses (PADEP)                             | <b>National Wetlands Inventory (USFWS)</b> |
| Delineated Watercourses                          | PEM  |
| Naturally Reproducing Trout Stream               | PFO/PSS                                    |
|  | Freshwater Pond                            |
|  | Riverine                                   |



### Index Map



A Jurisdictional Determination (JD) has not been held to date to verify the boundaries of streams and wetlands with environmental agencies.



**CLARKS SUMMIT**


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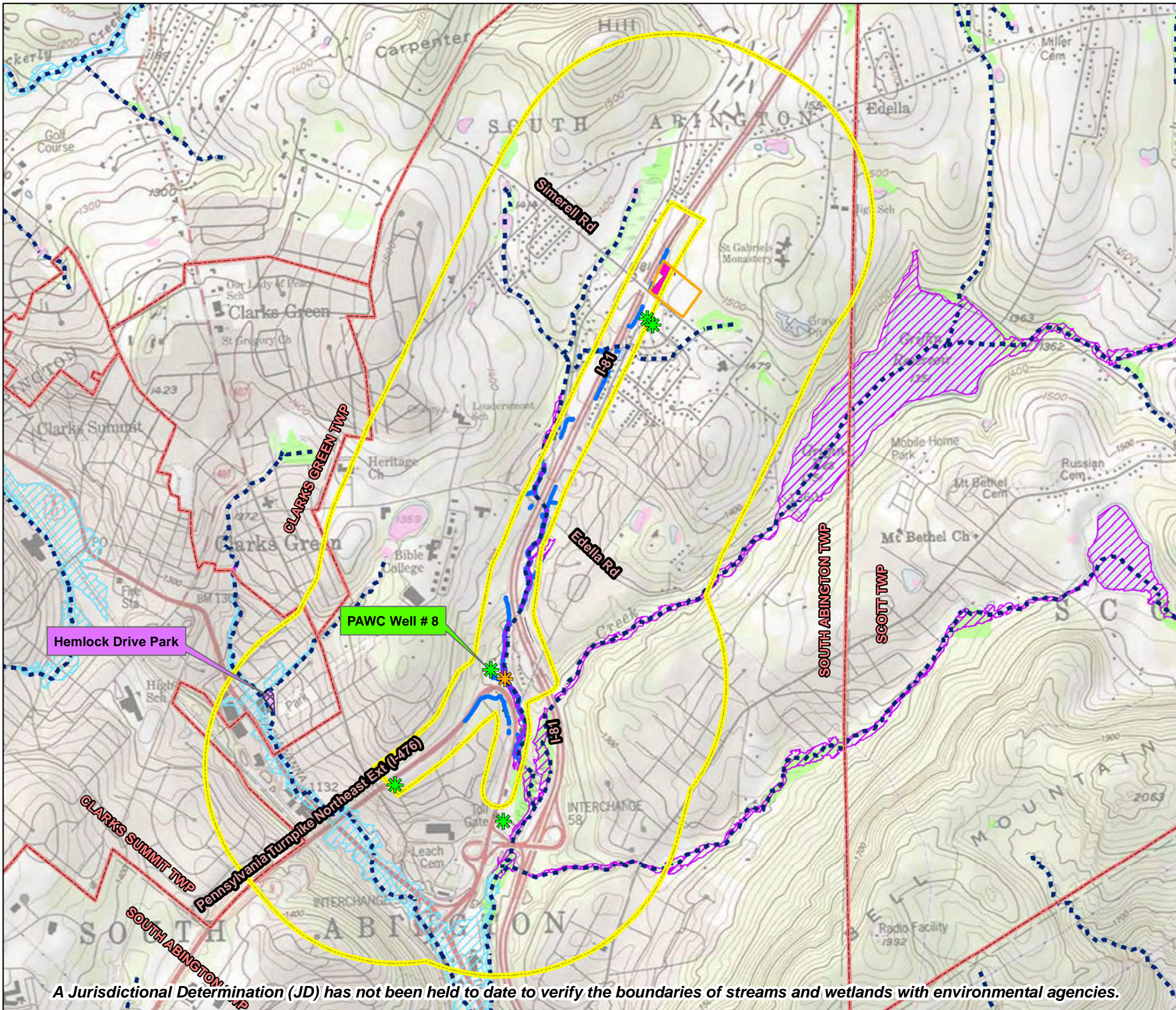
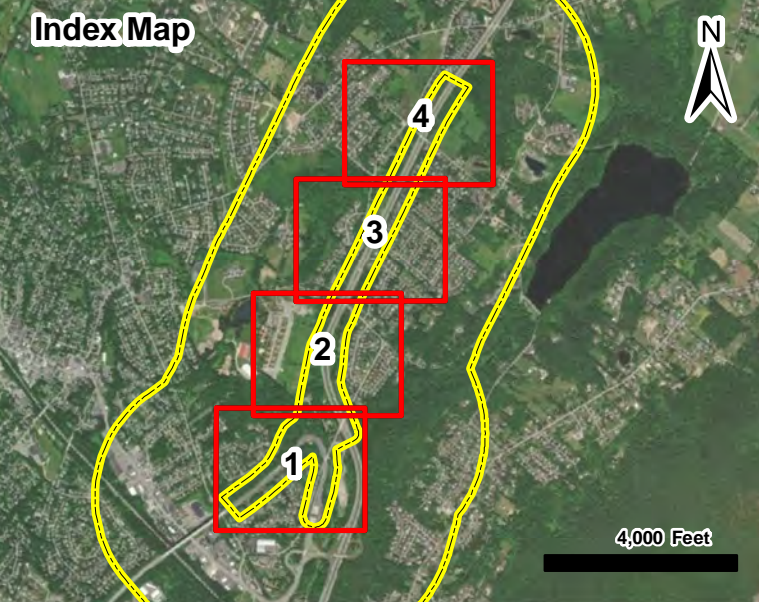
**Environmental Constraints Overview Map**  
**Scranton Beltway**  
**Clarks Summit Project Corridor**  
 South Abington Township  
 Lackawanna County, Pennsylvania

- Legend**
-  Clarks Summit Project Corridor with a 1/2 mile buffer
  -  Municipal Boundaries
  -  Local Parks
  -  Local Parks (DCNR)
  -  Groundwater Wells
  -  Unused Groundwater Wells
  -  Productive Ag Land
  -  Hazardous Waste Sites (approx parcel boundaries)
  -  Watercourses (PADEP)
  -  Delineated Watercourses
  -  Naturally Reproducing Trout Stream
  -  FEMA 100-Year Floodplain A
  -  FEMA 100-Year Floodplain AE
  - Delineated Wetlands Cowardin Class**
  -  PEM
  -  PEM/PSS
  -  PEM/PFO
  -  PUB
  - National Wetlands Inventory (USFWS)**
  -  PEM
  -  PFO/PSS
  -  Freshwater Pond
  -  Riverine

Scale: 1,500 750 0 1,500 Feet



**GANNETT FLEMING**



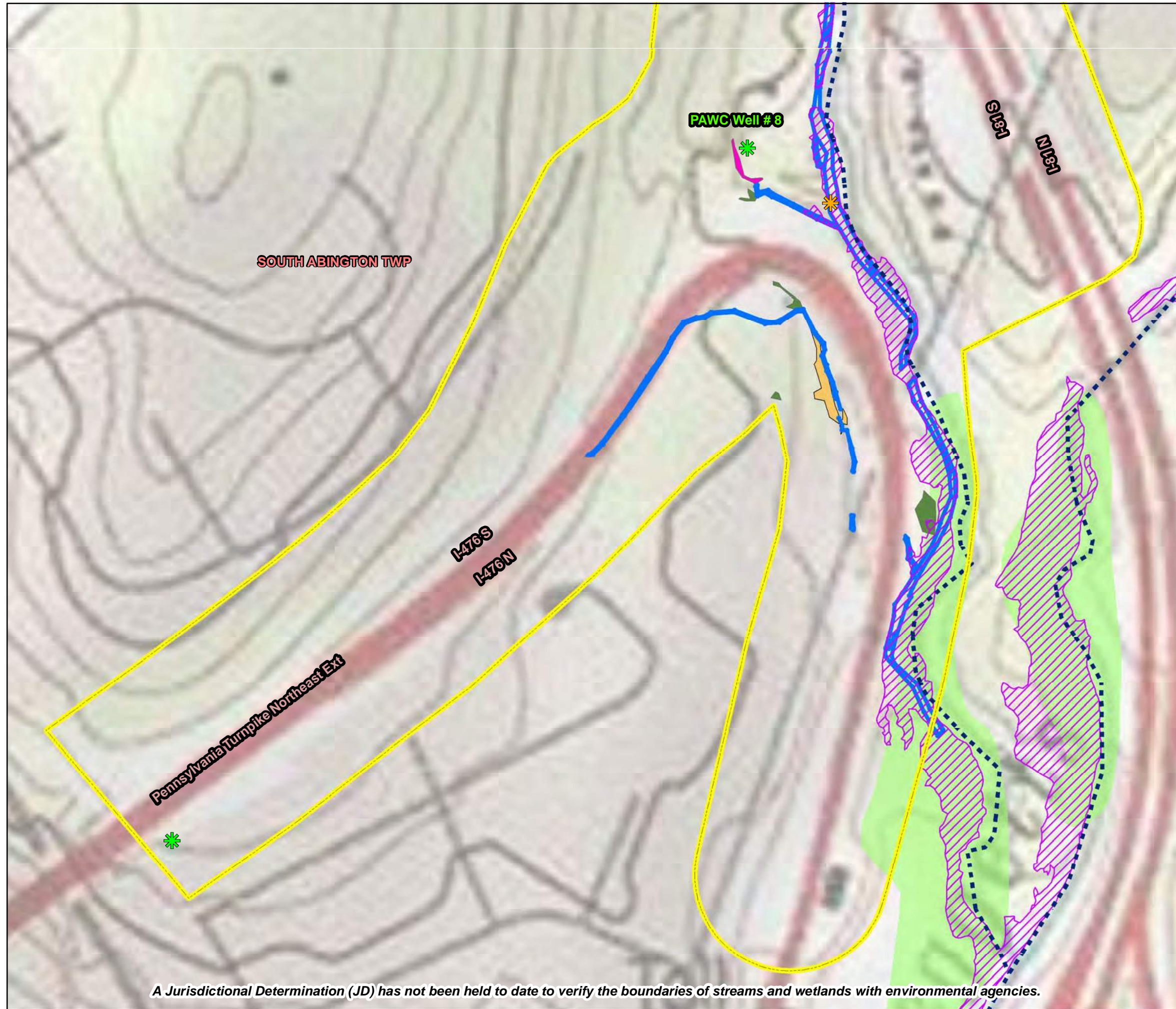
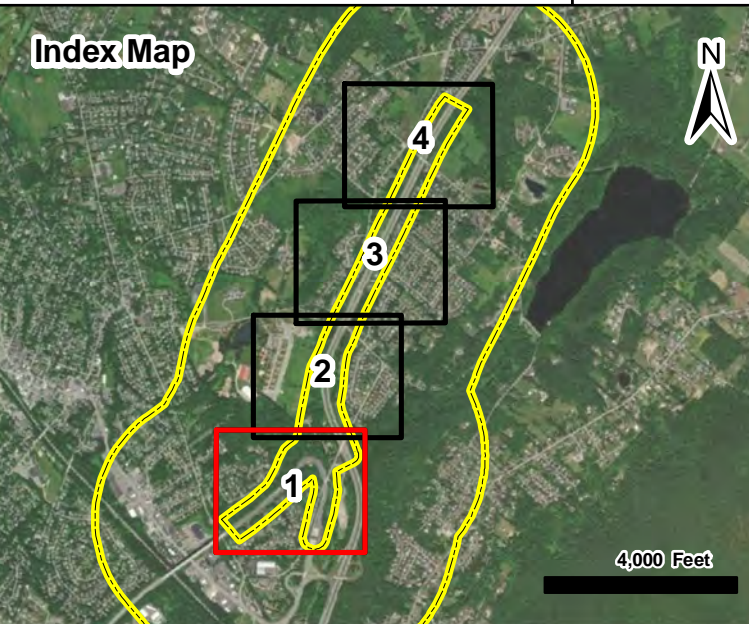
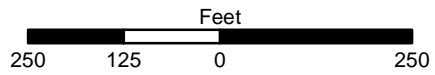


**Environmental Constraints Map 1**  
**Scranton Beltway**  
**Clarks Summit Project Corridor**

South Abington Township  
 Lackawanna County, Pennsylvania

**Legend**

- |  |  |
|--|--|
| Clarks Summit Project Corridor                   | FEMA 100-Year Floodplain                   |
| Municipal Boundaries                             | A  |
| Local Parks                                      | AE   |
| Local Parks (DCNR)                               | <b>Delineated Wetlands Cowardin Class</b>  |
| Groundwater Wells                                | PEM  |
| Unused Groundwater Wells                         | PEM/PSS                                    |
| Productive Ag Land                               | PEM/PFO                                    |
| Hazardous Waste Sites (approx parcel boundaries) | PUB  |
| Watercourses (PADEP)                             | <b>National Wetlands Inventory (USFWS)</b> |
| Delineated Watercourses                          | PEM  |
| Naturally Reproducing Trout Stream               | PFO/PSS                                    |
|  | Freshwater Pond                            |
|  | Riverine                                   |

























*A Jurisdictional Determination (JD) has not been held to date to verify the boundaries of streams and wetlands with environmental agencies.*

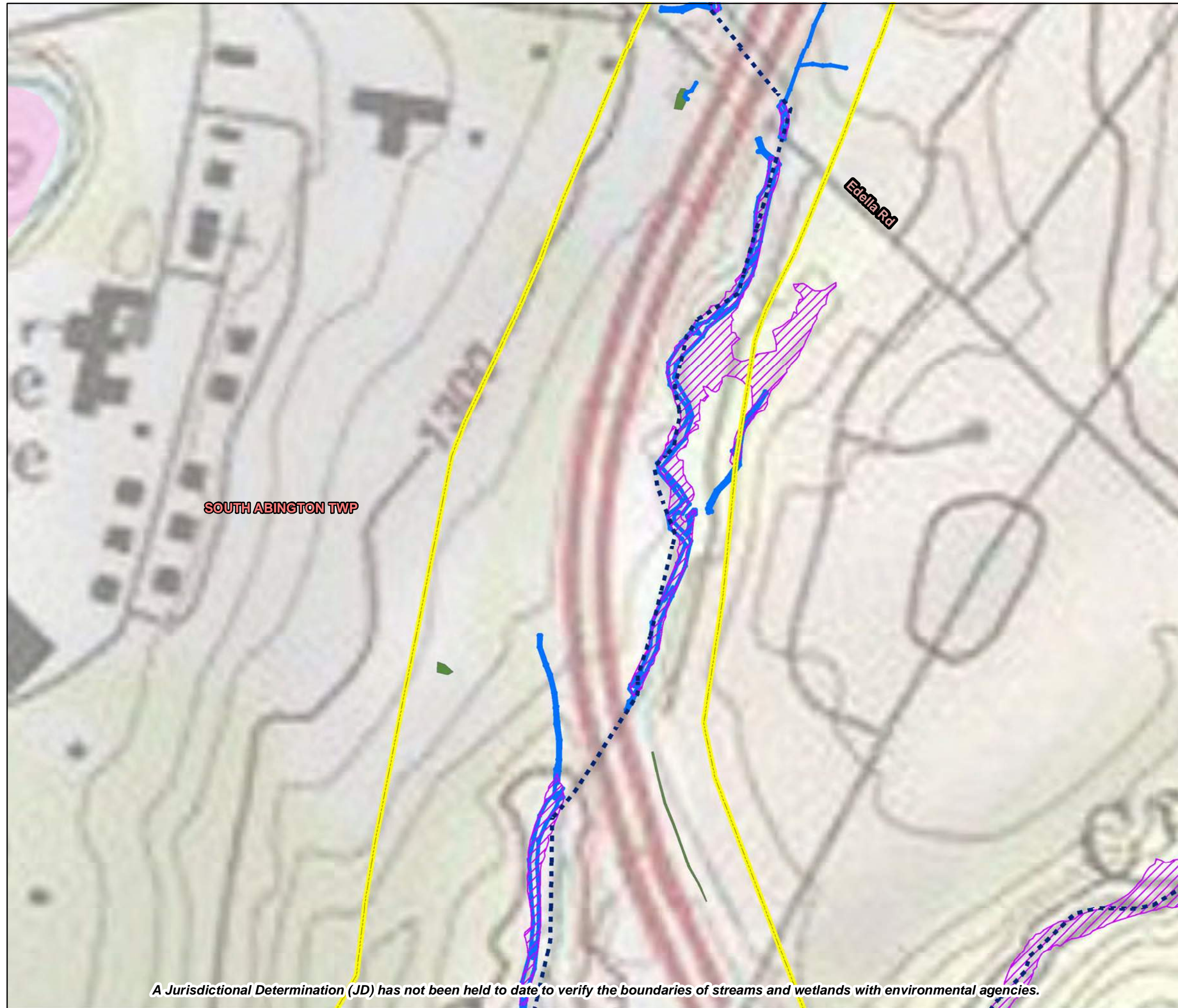
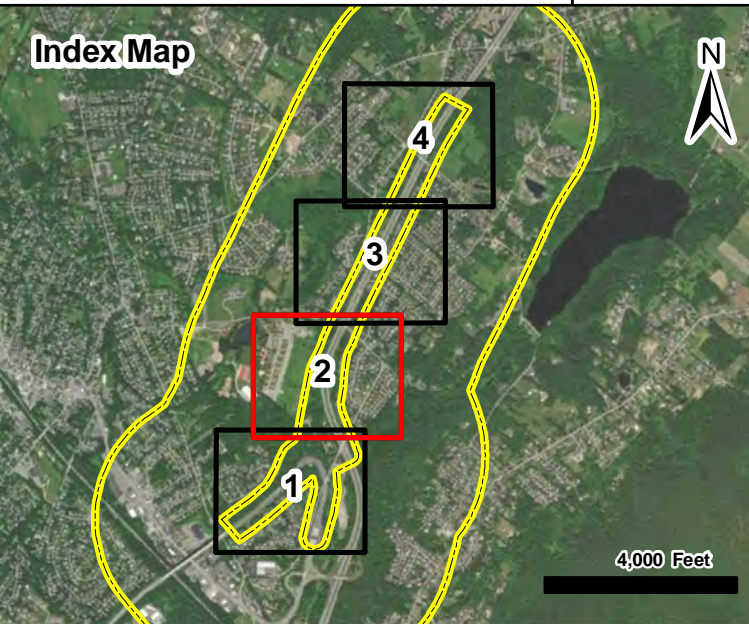
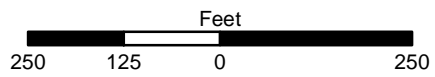


**Environmental Constraints Map 2**  
**Scranton Beltway**  
**Clarks Summit Project Corridor**

South Abington Township  
 Lackawanna County, Pennsylvania

**Legend**

- |  |  |
|--|--|
|  Clarks Summit Project Corridor                   |  FEMA 100-Year Floodplain |
|  Municipal Boundaries                             |  A                        |
|  Local Parks                                      |  AE                       |
|  Local Parks (DCNR)                               | <b>Delineated Wetlands Cowardin Class</b>  |
|  Groundwater Wells                                |  PEM                      |
|  Unused Groundwater Wells                         |  PEM/PSS                  |
|  Productive Ag Land                               |  PEM/PFO                  |
|  Hazardous Waste Sites (approx parcel boundaries) |  PUB                      |
|  Watercourses (PADEP)                             | <b>National Wetlands Inventory (USFWS)</b>   |
|  Delineated Watercourses                         |  PEM                      |
|  Naturally Reproducing Trout Stream             |  PFO/PSS                 |
|  |  Freshwater Pond        |
|  |  Riverine               |



*A Jurisdictional Determination (JD) has not been held to date to verify the boundaries of streams and wetlands with environmental agencies.*

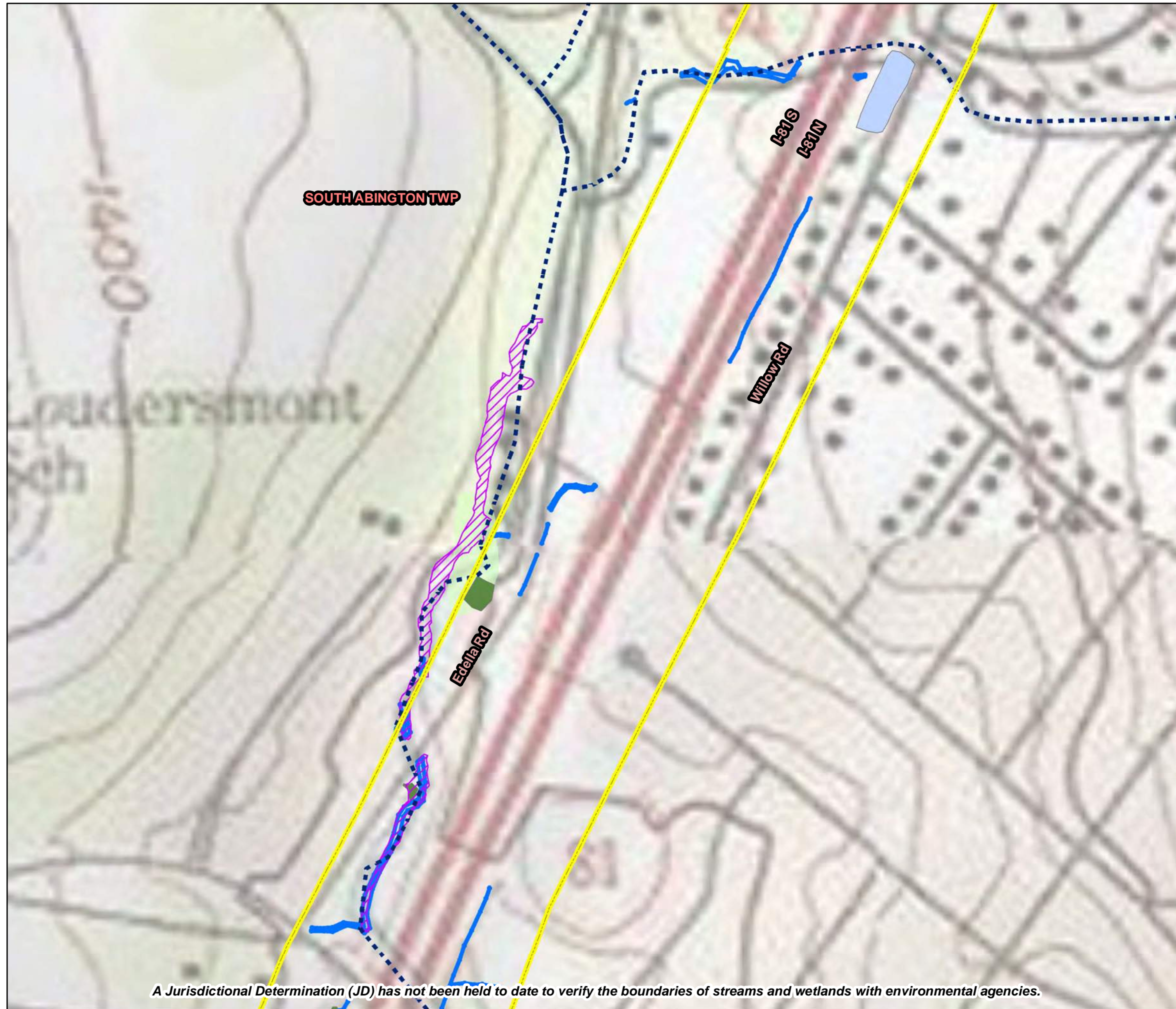
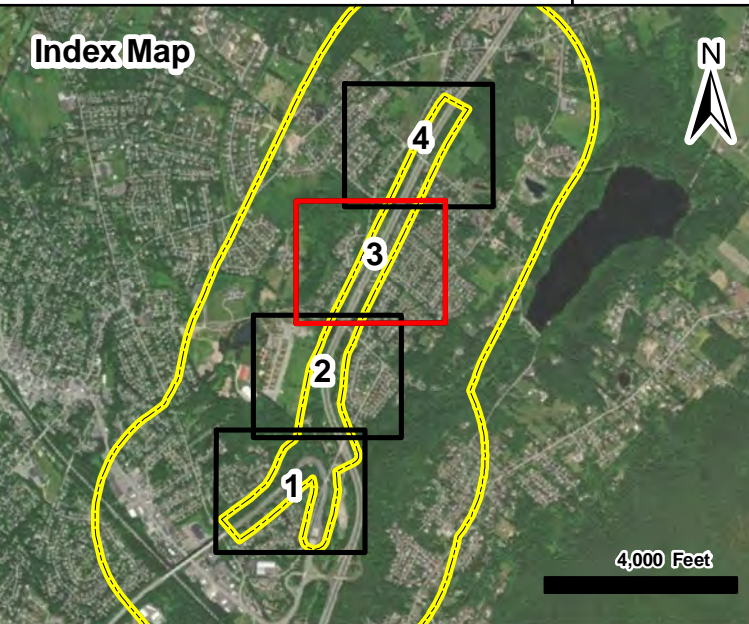
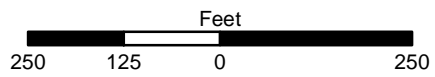


**Environmental Constraints Map 3**  
**Scranton Beltway**  
**Clarks Summit Project Corridor**

South Abington Township  
 Lackawanna County, Pennsylvania

**Legend**

- |  |   |
|--|---|
| Clarks Summit Project Corridor                   | FEMA 100-Year Floodplain A                          |
| Municipal Boundaries                             | FEMA 100-Year Floodplain AE                         |
| Local Parks                                      | Delineated Wetlands Cowardin Class PEM              |
| Local Parks (DCNR)                               | Delineated Wetlands Cowardin Class PEM/PSS          |
| Groundwater Wells                                | Delineated Wetlands Cowardin Class PEM/PFO          |
| Unused Groundwater Wells                         | Delineated Wetlands Cowardin Class PUB              |
| Productive Ag Land                               | National Wetlands Inventory (USFWS) PEM             |
| Hazardous Waste Sites (approx parcel boundaries) | National Wetlands Inventory (USFWS) PFO/PSS         |
| Watercourses (PADEP)                             | National Wetlands Inventory (USFWS) Freshwater Pond |
| Delineated Watercourses                          | National Wetlands Inventory (USFWS) Riverine        |
| Naturally Reproducing Trout Stream               |   |



*A Jurisdictional Determination (JD) has not been held to date to verify the boundaries of streams and wetlands with environmental agencies.*

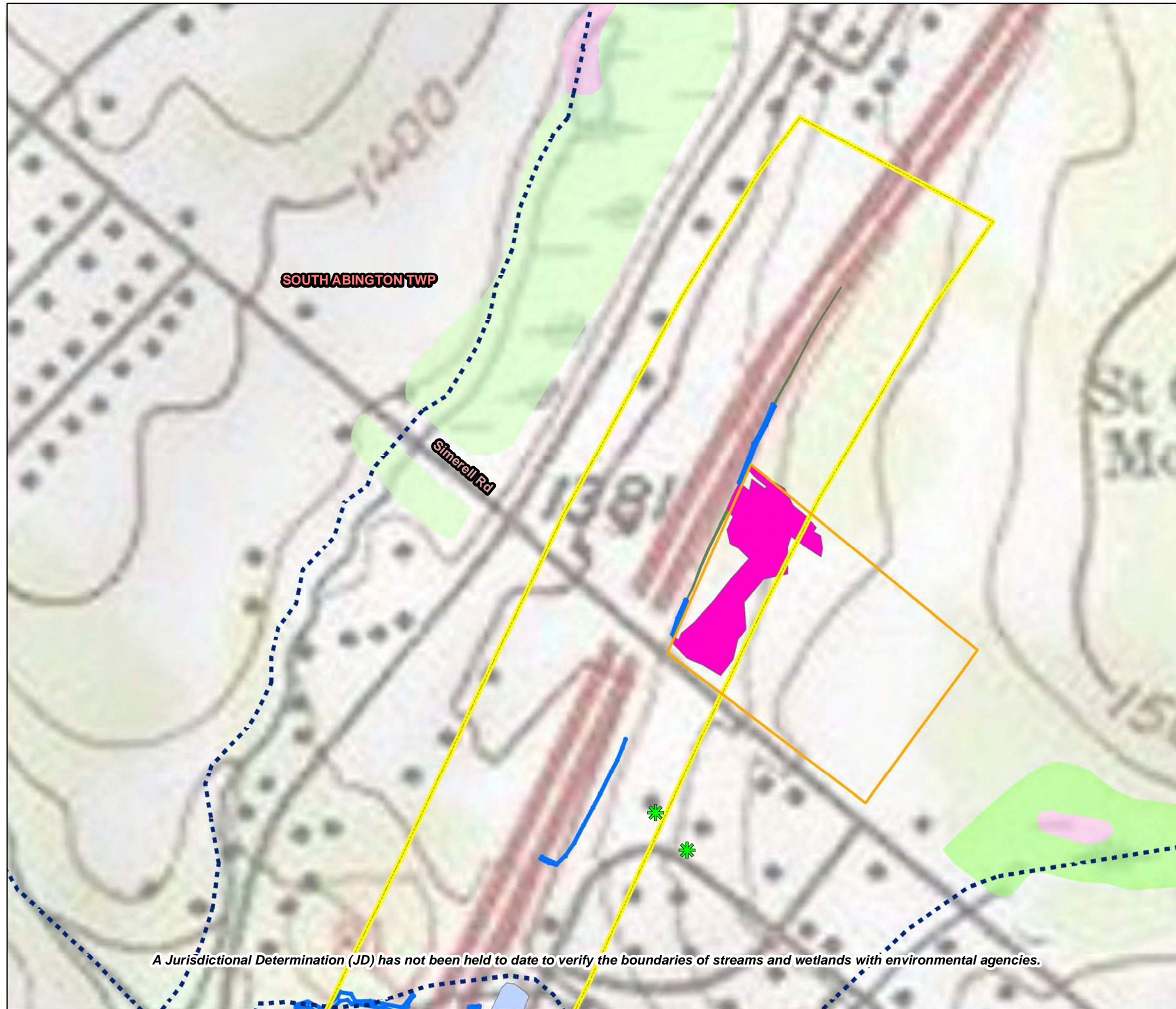
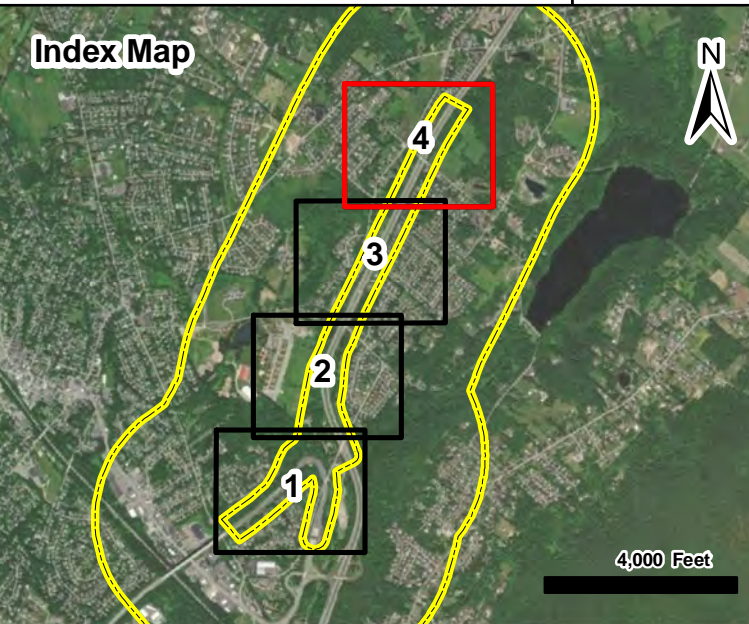
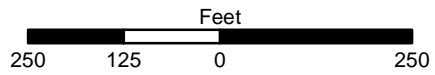


**Environmental Constraints Map 4**  
**Scranton Beltway**  
**Clarks Summit Project Corridor**

South Abington Township  
 Lackawanna County, Pennsylvania

**Legend**

- |  |  |
|--|--|
| Clarks Summit Project Corridor                   | FEMA 100-Year Floodplain                   |
| Municipal Boundaries                             | A  |
| Local Parks                                      | AE   |
| Local Parks (DCNR)                               | <b>Delineated Wetlands Cowardin Class</b>  |
| Groundwater Wells                                | PEM  |
| Unused Groundwater Wells                         | PEM/PSS                                    |
| Productive Ag Land                               | PEM/PFO                                    |
| Hazardous Waste Sites (approx parcel boundaries) | PUB  |
| Watercourses (PADEP)                             | <b>National Wetlands Inventory (USFWS)</b> |
| Delineated Watercourses                          | PEM  |
| Naturally Reproducing Trout Stream               | PFO/PSS                                    |
|  | Freshwater Pond                            |
|  | Riverine                                   |



**Appendix C:**

**Threatened and Endangered Species Coordination**

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## WYOMING VALLEY

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## 1. PROJECT INFORMATION

Project Name: **PTC Scranton Bypass (proposed Wyoming Valley interchange)**

Date of Review: **6/4/2024 08:22:53 AM**

Project Category: **Transportation, Roads, Widening, adding lanes with disturbance beyond existing shoulders  
WITH drainage pipe replacements**

Project Area: **125.09 acres**

County(s): **Luzerne**

Township/Municipality(s): **DUPONT; PITTSTON TOWNSHIP**

ZIP Code:

Quadrangle Name(s): **AVOCA; PITTSTON**

Watersheds HUC 8: **Upper Susquehanna-Lackawanna**

Watersheds HUC 12: **City of Wilkes-Barre-Susquehanna River; Lackawanna River-Susquehanna River**

Decimal Degrees: **41.317301, -75.742952**

Degrees Minutes Seconds: **41° 19' 2.2825" N, 75° 44' 34.6264" W**

## 2. SEARCH RESULTS



Agency	Results	Response
PA Game Commission	<b>Conservation Measure</b>	<b>No Further Review Required, See Agency Comments</b>
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	<b>Potential Impact</b>	<b>MORE INFORMATION REQUIRED, See Agency Response</b>

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.



### PTC Scranton Bypass (proposed Wyoming Valley interchange)



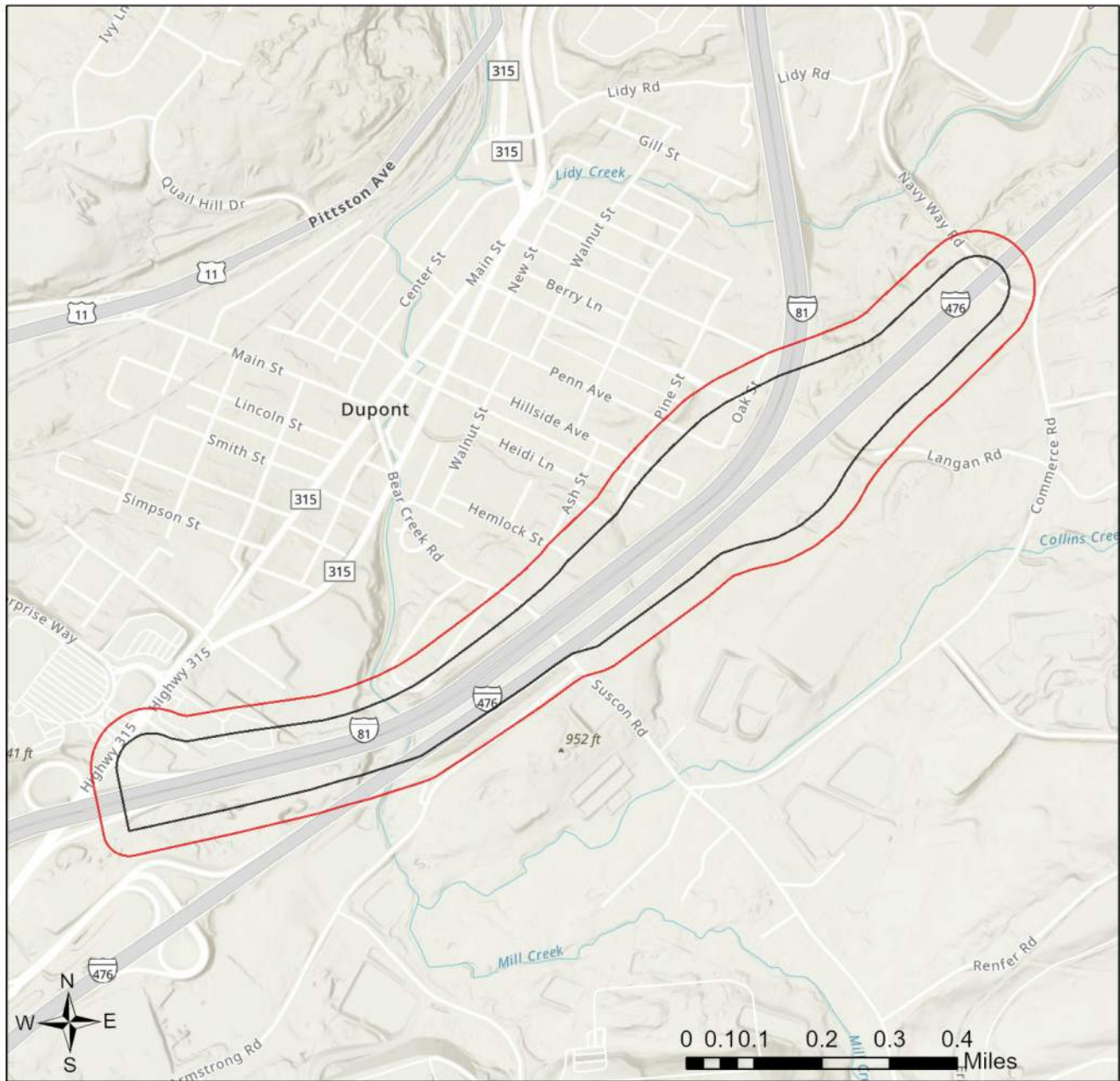
-  Buffered Project Boundary
-  Project Boundary



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community



### PTC Scranton Bypass (proposed Wyoming Valley interchange)



- Buffered Project Boundary
- Project Boundary



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community



## RESPONSE TO QUESTION(S) ASKED

**Q1:** The proposed project is in the range of the Indiana bat. Describe how the project will affect bat habitat (forests, woodlots and trees) and indicate what measures will be taken in consideration of this. Round acreages up to the nearest acre (e.g., 0.2 acres = 1 acre).

**Your answer is:** The project will affect 1 to 39 acres of forests, woodlots and trees.

**Q2:** Is tree removal, tree cutting or forest clearing necessary to implement all aspects of this project?

**Your answer is:** Yes

**Q3:** Is tree removal, tree cutting or forest clearing of 40 acres or more necessary to implement all aspects of this project?

**Your answer is:** No

**Q4:** How many acres of woodland, forest, forested fencerows and trees will be cut, cleared, removed, disturbed or flooded (inundated) as a result of carrying out all aspects or phases of this project? [Round acreages UP to the nearest acre (e.g., 0.2 acres = 1 acre).]

**Your answer is:** 26 to 50 acres

### 3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

#### PA Game Commission

##### RESPONSE:

Conservation Measure: Potential impacts to state and federally listed species which are under the jurisdiction of both the Pennsylvania Game Commission (PGC) and the U.S. Fish and Wildlife Service may occur as a result of this project. As a result, the PGC defers comments on potential impacts to federally listed species to the U.S. Fish and Wildlife Service. No further coordination with the Pennsylvania Game Commission is required at this time.

#### PA Department of Conservation and Natural Resources

##### RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

#### PA Fish and Boat Commission

##### RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

#### U.S. Fish and Wildlife Service

##### RESPONSE:

Information Request: The proposed project is located in the vicinity of northern long-eared bat spring staging/fall swarming habitat. Enter project information, including the Pennsylvania Natural Diversity Inventory receipt number, into the U.S. Fish and Wildlife Service's Information for Planning and Consultation tool (IPaC) (<https://ecos.fws.gov/ipac/>). Follow the Northern Long-eared Bat Rangewide Determination Key step-by-step process to review this projects's potential effect on northern long-eared bats.

## WHAT TO SEND TO JURISDICTIONAL AGENCIES

**If project information was requested by one or more of the agencies above**, upload\* or email the following information to the agency(s) (see AGENCY CONTACT INFORMATION). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies (but not USFWS).

\*If information was requested by USFWS, applicants must email, or mail, project information to [IR1\\_ESPenn@fws.gov](mailto:IR1_ESPenn@fws.gov) to initiate a review. USFWS will not accept uploaded project materials.

### Check-list of Minimum Materials to be submitted:

\_\_\_ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

\_\_\_ A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

**In addition to the materials listed above, USFWS REQUIRES the following**

\_\_\_ **SIGNED** copy of a Final Project Environmental Review Receipt

**The inclusion of the following information may expedite the review process.**

\_\_\_ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

\_\_\_ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

## 4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.



## 5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page ([www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us)). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

## 6. AGENCY CONTACT INFORMATION

### PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section  
400 Market Street, PO Box 8552  
Harrisburg, PA 17105-8552  
Email: [RA-HeritageReview@pa.gov](mailto:RA-HeritageReview@pa.gov)

### PA Fish and Boat Commission

Division of Environmental Services  
595 E. Rolling Ridge Dr., Bellefonte, PA 16823  
Email: [RA-FBPACENOTIFY@pa.gov](mailto:RA-FBPACENOTIFY@pa.gov)

### U.S. Fish and Wildlife Service

Pennsylvania Field Office  
Endangered Species Section  
110 Radnor Rd; Suite 101  
State College, PA 16801  
Email: [IR1\\_ESPenn@fws.gov](mailto:IR1_ESPenn@fws.gov)  
NO Faxes Please

### PA Game Commission

Bureau of Wildlife Management  
Division of Environmental Review  
2001 Elmerton Avenue, Harrisburg, PA 17110-9797  
Email: [RA-PGC\\_PNDI@pa.gov](mailto:RA-PGC_PNDI@pa.gov)  
NO Faxes Please

## 7. PROJECT CONTACT INFORMATION

Name: Deborah Fretz  
Company/Business Name: Gannett Fleming, Inc.  
Address: 1010 Adams Ave  
City, State, Zip: Audubon, PA 19403  
Phone: ( 610 ) 783-3762 Fax: ( )  
Email: dfretz@gfnet.com

## 8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

*Deborah Fretz*

applicant/project proponent signature

6/4/24

date



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Pennsylvania Field Office  
110 Radnor Road, Suite 101  
State College, Pennsylvania 16801-4850  
814-234-4090

September 5, 2019

Steve Wittig  
Gannett Fleming  
P.O. Box 80794  
Valley Forge, PA 19484-0794

RE: USFWS Project #2019-1337  
PNDI Review #650858

Dear Mr. Wittig:

Thank you for your letter of August 7, 2019, which provided the U.S. Fish and Wildlife Service (Service) with information regarding the proposed Scranton Beltway-Wyoming Valley Interchange project located in Dupont Borough and Pittston Township, Luzerne County, Pennsylvania. This project is in the range of the federally listed, endangered Indiana bat (*Myotis sodalis*), and the federally listed, threatened northern long-eared bat (*Myotis septentrionalis*). The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

The Pennsylvania Turnpike Commission (PTC) proposes to link Interstate 81 and PTC's Northeast Extension (Interstate 476) to form a beltway that will help alleviate congestion. The project includes two separate connections: Clarks Summit Interchange, and Wyoming Valley Interchange, and geotechnical borings using track mounted or truck mounted drill rigs. Based on the information provided in the PNDI receipt, implementation of the project will require 40 to 200 acres of tree removal to accommodate the new interchanges and links.

Land-clearing associated with the project may result in the death or injury of roosting Indiana bats if tree-cutting is conducted during the time of year when bats may be present (i.e., April 1 to September 30). Due to the potential for Indiana bats to occur within the project area, the Service recommend, by means of the PNDI project review receipt (PNDI #650858), that measures be implemented to avoid killing or injuring bats, including carrying out tree-cutting activities from October 1 to March 31, during which time bats are hibernating or concentrated near their hibernacula. This seasonal recommendation on tree cutting applied to trees that are greater than or equal to 5 inches in diameter at breast height (DBH).



Based on the information contained in your August 7 letter, the PTC is seeking relief from the recommended time-of-year tree cutting recommendation in order to advance the project. Accordingly, since PTC is unable to adopt the tree-cutting restrictions detailed above, we offer an alternative to the time-of-year tree cutting restriction: conducting a bat survey of the project area.

Bat surveys should be conducted between May 15 and August 15 by a qualified, Service-approved biologist (see enclosed list) using the 2019 INDIANA BAT SUMMER SURVEY GUIDELINES, which can be found at the following link: <https://www.fws.gov/midwest/Endangered/mammals/inba/inbasummersurveyguidance.html>. Survey results should be submitted to the Service for review and concurrence.

To determine whether this project will affect any potential Indiana bat or northern long-eared bat hibernacula, the project area should be surveyed for cave and mine openings. All openings should be accurately mapped using a GPS unit. If potentially unstable mines (*e.g.*, abandoned coal mines) occur in the project area, the openings of these mines should be evaluated using the *Protocol for Assessing Abandoned Mines/Caves for Bat Surveys* (see the following link: [https://www.fws.gov/northeast/pafo/pdf/20190826\\_PENNSYLVANIA%20PROTOCOL%20FOR%20ASSESSING%20POTENTIAL%20HIBERNACULA\\_Appendix%20A.pdf](https://www.fws.gov/northeast/pafo/pdf/20190826_PENNSYLVANIA%20PROTOCOL%20FOR%20ASSESSING%20POTENTIAL%20HIBERNACULA_Appendix%20A.pdf)). The Pennsylvania Game Commission (PGC) has developed this protocol to determine whether abandoned mines may serve as potentially suitable bat habitat. Following this initial mine opening assessment, a qualified bat surveyor should survey each potentially suitable opening, as well as the area in the immediate vicinity of these openings (see the following link for surveyors [https://www.fws.gov/northeast/pafo/pdf/Qualified\\_Bat\\_Surveyors\\_08-20-2018.pdf](https://www.fws.gov/northeast/pafo/pdf/Qualified_Bat_Surveyors_08-20-2018.pdf)). Surveys should be carried out in accordance with the survey protocol and a copy of the survey results should be submitted to the Service and the PGC for review and concurrence.

If any caves or stable hard rock mines (*e.g.*, limestone mines) occur in the project area, they should be surveyed for hibernating bats during the winter by a qualified bat surveyor. Interior winter hibernacula surveys should be coordinated with the PGC. Survey results should be submitted to the Service for review and concurrence. If caves or hard rock mines cannot be safely entered, their openings should be surveyed as described above.

Prior to conducting any survey, however, the PGC should be contacted to determine whether or not they have surveyed the cave/mine in the past. If adequate surveys have been conducted in the recent past, this may preclude the need to conduct additional surveys.

Should Indiana bats or northern long-eared bats be found during any survey, further consultation with the Service will be necessary, including the submission of detailed project plans, and an analysis of alternatives to avoid and minimize adverse effects.

If PTC is unable to conduct appropriate bat surveys in the project area, and direct or indirect adverse effects to forested habitat cannot be avoided, we recommend that they develop and implement a detailed Indiana Bat Conservation Plan (see guidance at the following link: [https://www.fws.gov/northeast/pafo/pdf/IBATconservationplanguidance\\_PAFO\\_040412.pdf](https://www.fws.gov/northeast/pafo/pdf/IBATconservationplanguidance_PAFO_040412.pdf)).

Please advise this office as to the course of action you intend to pursue regarding conducting Indiana bat surveys or developing an Indiana Bat Conservation Plan. This information and appropriate supporting information (*e.g.*, a bat survey or implementation of the conservation plan documenting no encroachment into/restoration of bat habitat) will be necessary before the Service can concur that no federally listed species will be adversely affected by the project.

The Service promulgated a Final 4(d) Rule in 2014 establishing measures that were determined to be necessary and advisable for the conservation of the northern long-eared bat. We reviewed your project and determined it is not located within 0.25 mile of a known northern long-eared bat hibernaculum or within 150 feet from a known, occupied maternity roost tree; therefore, any incidental take that may occur is in accordance with the Final 4(d) Rule and is not in violation of the Endangered Species Act. Because this project is authorized, funded, and/or permitted by a Federal agency or designated non-Federal representative, consultation under section 7 of the Endangered Species Act is required. The Service completed a nationwide biological opinion that fulfills this requirement, provided the conditions of the Final 4(d) Rule are implemented. The Service created a framework to streamline section 7 consultations when Federal or designated non-Federal representative actions may affect the northern long-eared bat, but do not cause prohibited take. The PTC should complete section 7 consultation under the streamlined consultation process by using the Determination Key that is available through our Information for Planning and Consultation (IPaC) website. More information about the framework and instructions for using the online Determination Key are available here: <http://www.fws.gov/midwest/endangered/mammals/nleb/s7.html>.

This response relates only to endangered and threatened species under our jurisdiction, based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing other Service concerns under the Fish and Wildlife Coordination Act or other authorities.

*To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.*

If you have any questions regarding this matter, please contact Jennifer Kagel of my staff at 814-206-7451.

Sincerely,



Sonja Jahrsdoerfer  
Project Leader

cc:  
PGC – Librandi-Mumma



swittig@GFNET.com

PNDI # 650858

USFWS Project # 2019-1337

**U.S. FISH AND WILDLIFE SERVICE**  
110 Radnor Road, Suite 101, State College, PA 16801

This responds to your inquiry about a PNDI Internet Database search that resulted in a potential conflict with a federally listed, proposed or candidate species.

**PROJECT LOCATION INFORMATION**

County: Luzerne  
Township: Dupont Borough and Pittston Township

**MISC INFORMATION**

Date received by FWS: July 6, 2021  
 ACTIVE       ARCHIVE

USFWS COMMENTS  EMAILED       MAILED

Email: dfretz@GFNET.com

To: Deborah Fretz

Affiliation: Gannett Fleming, Inc.

SPECIFIC PROJECT: PA Turnpike Scranton Beltway Wyoming Valley Interchange

**FISH AND WILDLIFE SERVICE COMMENT(S):**

X **NOT LIKELY TO ADVERSELY AFFECT**

The federally listed Indiana Bat, Northern long-eared bat occurs or may occur in or near the project area. However, based on our review of the information provided, including the project description and location (The Turnpike Commission proposes to implement a time of year restriction to remove trees between October 1 to March 31 to avoid killing /injuring bats that may be present.),

no adverse effects to this species are likely to occur. If there is any change in the location, scale, scope, layout or design of the project, further consultation or coordination with the Service will be necessary.

The above determination is valid for two years from the date of this letter. In addition, this response relates only to federally listed, proposed, and candidate species under our jurisdiction, based on an office review of the proposed project's location and anticipated impacts. No field inspection of the project area has been conducted by this office. *Please reference the above PNDI # and USFWS Project # in any future correspondence regarding this project.*

This review was conducted by the biologist listed below. He/she can be contacted at 814-206-(Extension).

Melinda Turner (x7449)  
 Richard Novak (x7477)

Nicole Ranalli (x7455)  
 Robert Anderson (x7447)

Jennifer Kagel (x7451)  
 Pamela Shellenberger (x7459)

**ROBERT ANDERSON** Digitally signed by ROBERT ANDERSON  
Date: 2021.09.17 14:40:22 -04'00'

SIGNATURE: \_\_\_\_\_

Supervisor, Pennsylvania Field Office



**U.S. FISH AND WILDLIFE SERVICE**  
**110 Radnor Road, Suite 101, State College, PA 16801**

This responds to your inquiry about a PNDI Internet Database search that resulted in a potential conflict with a federally listed, proposed or candidate species.

**PROJECT LOCATION INFORMATION**

County: Luzerne  
 Township: Dupont, Pittston

**MISC INFORMATION**

Date received by FWS: May 16, 2023  
 ACTIVE       ARCHIVE

**USFWS COMMENTS**  EMAILED       MAILED

To: Deborah Fretz

Email: dfretz@GFNET.com  
 Affiliation: Gannett Fleming, Inc.

**SPECIFIC PROJECT** PA Turnpike Scranton Beltway Wyoming Valley Interchange

- Other than occasional transient species, no federally listed species under our jurisdiction is known or likely to occur in the project area. This determination is valid for two years. Should project plans change, or if additional information on listed species become available, this determination may be reconsidered.
- It appears there have been no changes in the project or on-site biological information; therefore, the agency's comments, as detailed in our letter of 7/6/21 remain unchanged.
- We have already provided comments on this project (See PNDI Receipt); therefore, no further correspondence will be sent by this agency. If there is a change in the project, please re-screen the project on-line, and contact this office if the PNDI receipt directs you to do so.

The above determination is valid for two years from the date of this letter. In addition, this response relates only to federally listed, proposed, and candidate species under our jurisdiction, based on an office review of the proposed project's location and anticipated impacts. No field inspection of the project area has been conducted by this office. *Please reference the above PNDI # and USFWS Project # in any future correspondence regarding this project.*

This review was conducted by the biologist listed below. He/she can be contacted at 814-206-(Extension).

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Melinda Turner (x7449) | <input type="checkbox"/> Nicole Ranalli (x7455)         | <input type="checkbox"/> Jennifer Kagel (x7451)       |
| <input type="checkbox"/> Richard Novak (x7477)  | <input checked="" type="checkbox"/> Sze Wing Yu (x7461) | <input type="checkbox"/> Pamela Shellenberger (x7459) |

**ROBERT ANDERSON** Digitally signed by ROBERT ANDERSON  
 Date: 2023.06.06 13:30:07 -04'00'

SIGNATURE: \_\_\_\_\_

Supervisor, Pennsylvania Field Office



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Pennsylvania Ecological Services Field Office  
110 Radnor Road Suite 101  
State College, PA 16801-7987  
Phone: (814) 234-4090 Fax: (814) 234-0748

In Reply Refer To:

08/15/2024 14:43:47 UTC

Project code: 2024-0130554

Project Name: Scranton Beltway Project - Wyoming Valley Interchange

Federal Nexus: yes

Federal Action Agency (if applicable): Federal Highway Administration

**Subject:** Technical assistance for 'Scranton Beltway Project - Wyoming Valley Interchange'

Dear Deborah Fretz:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on August 15, 2024, for 'Scranton Beltway Project - Wyoming Valley Interchange' (here forward, Project). This project has been assigned Project Code 2024-0130554 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

## **Ensuring Accurate Determinations When Using IPaC**

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.**

## **Determination for the Northern Long-Eared Bat**

Based on your IPaC submission and the standing analysis for the Dkey, your project has reached the determination of "May Affect" the northern long-eared bat.

## **Next Steps**

Your action may qualify for the Interim Consultation Framework for the northern long-eared bat. To determine if it qualifies, review the Interim Consultation Framework posted here <https://www.fws.gov/library/collections/interim-consultation-framework-northern-long-eared-bat>. If you



determine it meets the requirements of the Interim Consultation Framework, follow the procedures outlined there to complete section 7 consultation.

If your project does **not** meet the requirements of the Interim Consultation Framework, please contact the Pennsylvania Ecological Services Field Office for further coordination on this project. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of “May Affect”.

### **Other Species and Critical Habitat that May be Present in the Action Area**

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Green Floater *Lasmigona subviridis* Proposed Threatened
- Indiana Bat *Myotis sodalis* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may cause prohibited take of the species listed above.

## Action Description

You provided to IPaC the following name and description for the subject Action.

### 1. Name

Scranton Beltway Project - Wyoming Valley Interchange

### 2. Description

The following description was provided for the project 'Scranton Beltway Project - Wyoming Valley Interchange':

The proposed project involves the construction of a highway speed connection between I-76 and I-81 in Luzerne County in Northeastern Pennsylvania.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.31774745,-75.74073240080881,14z>





## DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Does any component of the action involve construction or operation of wind turbines?

**Note:** For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

3. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

Yes

5. FHWA, FRA, and FTA have completed a range-wide programmatic consultation for transportation- related actions within the range of the Indiana bat and northern long-eared bat.

Does your proposed action fall within the scope of this programmatic consultation?

**Note:** If you have **previously consulted** on your proposed action with the Service under the NLEB 4dRule, answer ‘no’ to this question and proceed with using this key. If you have **not yet consulted** with the Service on your proposed action and are unsure whether your proposed action falls within the scope of the FHWA, FRA, FTA range-wide programmatic consultation, please select “Yes” and use the FHWA, FRA, FTA Assisted Determination Key in IPaC to determine if the programmatic consultation is applicable to your action. Return to this key and answer ‘no’ to this question if it is not.

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

*Yes*

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

*No*

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

*No*

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

*No*

10. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

*No*



11. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

*Yes*

12. Have you conducted, or will you conduct, a voluntary Phase 1 habitat assessment for potentially suitable hibernacula in accordance with the guidance in Appendix H of the USFWS' current Range-wide Indiana bat and Northern long-eared bat Survey Guidelines?

**Note:** The survey guidelines can be found at: <https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

*No*

13. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

**Note:** Suitable northern long-eared bat roost trees are live trees and/or snags  $\geq 3$  inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

*Yes*

## PROJECT QUESTIONNAIRE

Will all project activities be completed by November 30, 2024?

No

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

37

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

37

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

0

Will all potential northern long-eared bat (NLEB) roost trees (trees  $\geq 3$  inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, enter the total extent of those areas. Round up to the nearest tenth of an acre.

37

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0

Will any snags (standing dead trees)  $\geq 3$  inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No



## **IPAC USER CONTACT INFORMATION**

Agency: Federal Highway Administration

Name: Deborah Fretz

Address: 1010 Adams Ave

City: Audubon

State: PA

Zip: 19403

Email: dfretz@gfnet.com

Phone: 6107833762

## CLARKS SUMMIT

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## 1. PROJECT INFORMATION

Project Name: **PTC Scranton Bypass (proposed Clarks Summit interchange)**

Date of Review: **5/24/2024 10:55:56 AM**

Project Category: **Transportation, Roads, Widening, adding lanes with disturbance beyond existing shoulders  
WITH drainage pipe replacements**

Project Area: **190.90 acres**

County(s): **Lackawanna**

Township/Municipality(s): **SOUTH ABINGTON TOWNSHIP**

ZIP Code:

Quadrangle Name(s): **DALTON; SCRANTON**

Watersheds HUC 8: **Upper Susquehanna-Lackawanna**

Watersheds HUC 12: **Leggetts Creek**

Decimal Degrees: **41.494876, -75.679365**

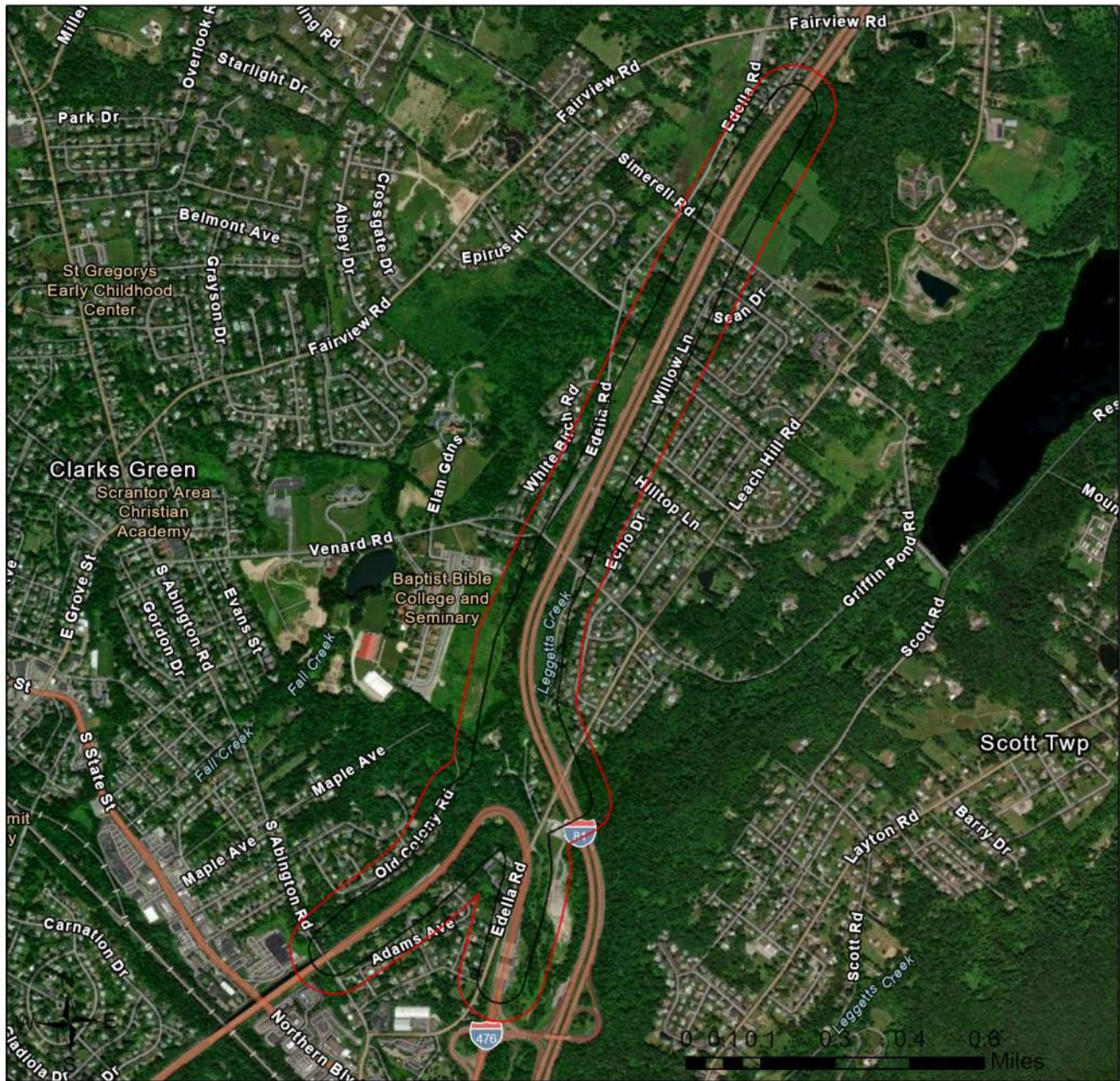
Degrees Minutes Seconds: **41° 29' 41.5544" N, 75° 40' 45.7156" W**



## 2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	<b>Conservation Measure</b>	<b>No Further Review Required, See Agency Comments</b>
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	<b>Potential Impact</b>	<b>MORE INFORMATION REQUIRED, See Agency Response</b>

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

### PTC Scranton Bypass (proposed Clarks Summit interchange)



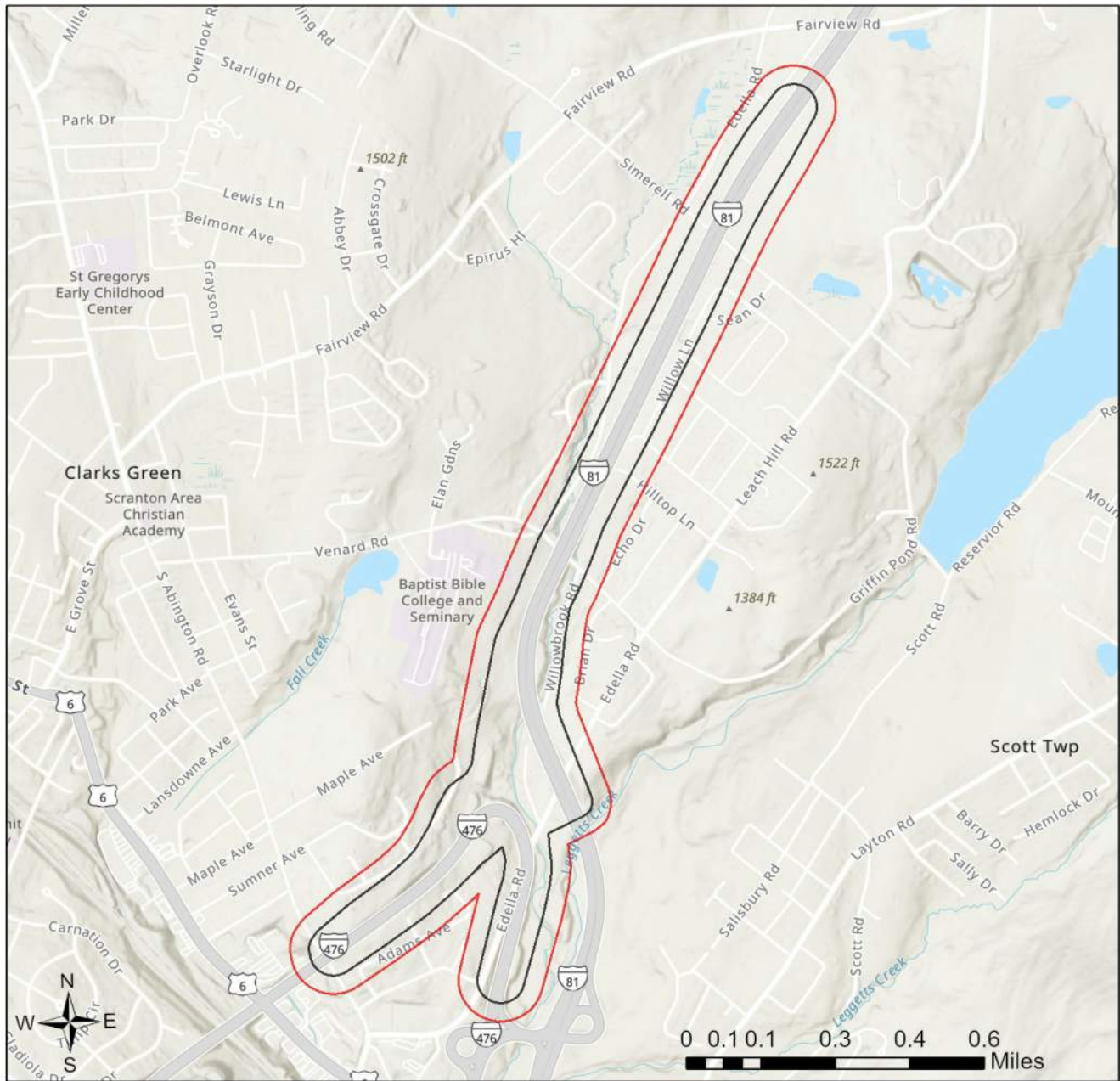
-  Buffered Project Boundary
-  Project Boundary





Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community



### PTC Scranton Bypass (proposed Clarks Summit interchange)



-  Buffered Project Boundary
-  Project Boundary



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

## RESPONSE TO QUESTION(S) ASKED

**Q1:** Is tree removal, tree cutting or forest clearing necessary to implement all aspects of this project?

**Your answer is:** Yes

**Q2:** How many acres of woodland, forest, forested fencerows and trees will be cut, cleared, removed, disturbed or flooded (inundated) as a result of carrying out all aspects or phases of this project? [Round acreages UP to the nearest acre (e.g., 0.2 acres = 1 acre).]

**Your answer is:** 26 to 50 acres

### 3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

#### PA Game Commission

##### RESPONSE:

Conservation Measure: Potential impacts to state and federally listed species which are under the jurisdiction of both the Pennsylvania Game Commission (PGC) and the U.S. Fish and Wildlife Service may occur as a result of this project. As a result, the PGC defers comments on potential impacts to federally listed species to the U.S. Fish and Wildlife Service. No further coordination with the Pennsylvania Game Commission is required at this time.

#### PA Department of Conservation and Natural Resources

##### RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

#### PA Fish and Boat Commission

##### RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

#### U.S. Fish and Wildlife Service

##### RESPONSE:

Information Request: The proposed project is located in the vicinity of northern long-eared bat spring staging/fall swarming habitat. Enter project information, including the Pennsylvania Natural Diversity Inventory receipt number, into the U.S. Fish and Wildlife Service's Information for Planning and Consultation tool (IPaC) (<https://ecos.fws.gov/ipac/>). Follow the Northern Long-eared Bat Rangewide Determination Key step-by-step process to review this projects's potential effect on northern long-eared bats.



## WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload\* or email the following information to the agency(s) (see AGENCY CONTACT INFORMATION). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies (but not USFWS).

\*If information was requested by USFWS, applicants must email, or mail, project information to [IR1\\_ESPenn@fws.gov](mailto:IR1_ESPenn@fws.gov) to initiate a review. USFWS will not accept uploaded project materials.

### Check-list of Minimum Materials to be submitted:

\_\_\_ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

\_\_\_ A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

**In addition to the materials listed above, USFWS REQUIRES the following**

\_\_\_ **SIGNED** copy of a Final Project Environmental Review Receipt

### The inclusion of the following information may expedite the review process.

\_\_\_ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

\_\_\_ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

## 4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

## 5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page ([www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us)). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

## 6. AGENCY CONTACT INFORMATION

### PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section  
400 Market Street, PO Box 8552  
Harrisburg, PA 17105-8552  
Email: [RA-HeritageReview@pa.gov](mailto:RA-HeritageReview@pa.gov)

### PA Fish and Boat Commission

Division of Environmental Services  
595 E. Rolling Ridge Dr., Bellefonte, PA 16823  
Email: [RA-FBPACENOTIFY@pa.gov](mailto:RA-FBPACENOTIFY@pa.gov)

### U.S. Fish and Wildlife Service

Pennsylvania Field Office  
Endangered Species Section  
110 Radnor Rd; Suite 101  
State College, PA 16801  
Email: [IR1\\_ESPenn@fws.gov](mailto:IR1_ESPenn@fws.gov)  
NO Faxes Please

### PA Game Commission

Bureau of Wildlife Management  
Division of Environmental Review  
2001 Elmerton Avenue, Harrisburg, PA 17110-9797  
Email: [RA-PGC\\_PNDI@pa.gov](mailto:RA-PGC_PNDI@pa.gov)  
NO Faxes Please

## 7. PROJECT CONTACT INFORMATION

Name: Deborah Fretz  
Company/Business Name: Gannett Fleming, Inc.  
Address: 1010 Adams Ave  
City, State, Zip: Audubon, PA 19403  
Phone: ( 610 ) 783-3762 Fax: ( )  
Email: dfretz@gfnet.com

## 8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

*Deborah Fretz*

applicant/project proponent signature

5/24/24

date



**Fretz, Deborah A.**

---

**From:** Fretz, Deborah A.  
**Sent:** Wednesday, June 12, 2024 10:03 AM  
**To:** Fretz, Deborah A.  
**Subject:** FW: Clarks Summit PNDI Rerun

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**From:** Yu, Sze Wing <[szewing\\_yu@fws.gov](mailto:szewing_yu@fws.gov)>  
**Sent:** Wednesday, May 22, 2024 12:55 PM  
**To:** Noss, Nicholas <[nross@paturnpike.com](mailto:nross@paturnpike.com)>; Lutz, Andrew <[alutz@paturnpike.com](mailto:alutz@paturnpike.com)>; Guers, Sue <[suguers@pa.gov](mailto:suguers@pa.gov)>  
**Cc:** Kagel, Jennifer <[jennifer\\_kagel@fws.gov](mailto:jennifer_kagel@fws.gov)>  
**Subject:** Clarks Summit PNDI Rerun

**ALERT - This email is from an External Source. Be careful opening attachments, clicking links or responding.**

Hi all,

I was curious about why the Clarks Summit PNDI gave clearances despite the project being near known bat occurrences. I checked with Nathan Dewar of the PA Natural Heritage Program (they maintain PNDI) and it just so happens that when you ran PNDI 650871 on April 14, 2023, the buffer sizes around known northern long-eared bat sites were wrong. These buffers were corrected on April 17, 2023. The Clarks Summit project is within the buffers of multiple bat caves/mine openings, and PNDI should have asked you questions about tree clearing before arriving at a clearance determination for USFWS. Please rerun the PNDI for this project and see if it still results in a clearance.

Some additional news:

- The FHWA is currently updating their bat programmatic. It covers the Indiana bat, northern long-eared bat, and tricolored bat. The final programmatic plus determination keys should be available this summer, along with some informational webinars. The two interchanges may be able to use this programmatic for ESA review, and of course I can assist in the process.
- The USFWS updated the time of year tree clearing restrictions in October 2023. This project is in bat hibernation, spring staging, and fall swarming habitat (in the 5 mile buffer around the caves/mines with known bat use). Therefore we would now advise conducting tree clearing during November 16 - March 31. This is a slightly different timeframe than what we had advised in our clearance letters, which was October 1 - March 31.

We look forward to continued coordination on this project. I found today's presentation to be clear and helpful.

**Sze Wing Yu** (she/her; pronounced "C-Wing")  
Transportation Liaison  
**U.S. Fish & Wildlife Service**  
**Pennsylvania Field Office**

p: 814-206-7461  
110 Radnor Rd; Suite 101  
State College, PA 16801  
[www.fws.gov/northeast/pafo/index.html](http://www.fws.gov/northeast/pafo/index.html)

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# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Pennsylvania Ecological Services Field Office  
110 Radnor Road Suite 101  
State College, PA 16801-7987  
Phone: (814) 234-4090 Fax: (814) 234-0748

In Reply Refer To:

08/14/2024 19:24:33 UTC

Project code: 2024-0130423

Project Name: Scranton Beltway Project - Clarks Summit Interchange

Federal Nexus: yes

Federal Action Agency (if applicable): Federal Highway Administration

**Subject:** Technical assistance for 'Scranton Beltway Project - Clarks Summit Interchange'

Dear Deborah Fretz:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on August 14, 2024, for 'Scranton Beltway Project - Clarks Summit Interchange' (here forward, Project). This project has been assigned Project Code 2024-0130423 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

## **Ensuring Accurate Determinations When Using IPaC**

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.**

## **Determination for the Northern Long-Eared Bat**

Based on your IPaC submission and the standing analysis for the Dkey, your project has reached the determination of "May Affect" the northern long-eared bat.

## **Next Steps**

Your action may qualify for the Interim Consultation Framework for the northern long-eared bat. To determine if it qualifies, review the Interim Consultation Framework posted here <https://www.fws.gov/library/collections/interim-consultation-framework-northern-long-eared-bat>. If you

determine it meets the requirements of the Interim Consultation Framework, follow the procedures outlined there to complete section 7 consultation.

If your project does **not** meet the requirements of the Interim Consultation Framework, please contact the Pennsylvania Ecological Services Field Office for further coordination on this project. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of “May Affect”.

### **Other Species and Critical Habitat that May be Present in the Action Area**

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northeastern Bulrush *Scirpus ancistrochaetus* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may cause prohibited take of the species listed above.



## Action Description

You provided to IPaC the following name and description for the subject Action.

### 1. Name

Scranton Beltway Project - Clarks Summit Interchange

### 2. Description

The following description was provided for the project 'Scranton Beltway Project - Clarks Summit Interchange':

The proposed project involves the construction of a highway speed connection between I-476 and I-81 in Lackawanna County in Northeastern Pennsylvania.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.496832,-75.67923975849874,14z>



## DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Does any component of the action involve construction or operation of wind turbines?

**Note:** For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

3. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

Yes

5. FHWA, FRA, and FTA have completed a range-wide programmatic consultation for transportation- related actions within the range of the Indiana bat and northern long-eared bat.

Does your proposed action fall within the scope of this programmatic consultation?

**Note:** If you have **previously consulted** on your proposed action with the Service under the NLEB 4dRule, answer ‘no’ to this question and proceed with using this key. If you have **not yet consulted** with the Service on your proposed action and are unsure whether your proposed action falls within the scope of the FHWA, FRA, FTA range-wide programmatic consultation, please select “Yes” and use the FHWA, FRA, FTA Assisted Determination Key in IPaC to determine if the programmatic consultation is applicable to your action. Return to this key and answer ‘no’ to this question if it is not.

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

*Yes*

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

*No*

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

*No*

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

*No*

10. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

*No*



11. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

No

12. Does the action area contain or occur within 0.5 miles of (1) talus or (2) anthropogenic or naturally formed rock crevices in rocky outcrops, rock faces or cliffs?

No

13. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?

(If unsure, answer "Yes.")

**Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags  $\geq 3$  inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

14. Will the action cause effects to a bridge?

Yes

15. Has a site-specific bridge assessment following [USFWS guidelines](#) been completed?

**Note:** For information on conducting a bridge/structure assessment, see Appendix D of the User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat and the associated Bridge/Structure Bat Assessment Form. Additional resources can be found at: <https://www.fws.gov/media/bats-and-transportation-structures-references-and-additional-resources> and a training video is located at: <https://www.youtube.com/watch?v=iuFwkT7q8Ws>.

No

16. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

**Note:** Suitable northern long-eared bat roost trees are live trees and/or snags  $\geq 3$  inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

Yes

## PROJECT QUESTIONNAIRE

Will all project activities be completed by November 30, 2024?

No

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

32

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

32

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

0

Will all potential northern long-eared bat (NLEB) roost trees (trees  $\geq 3$  inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, enter the total extent of those areas. Round up to the nearest tenth of an acre.

32

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0

Will any snags (standing dead trees)  $\geq 3$  inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

## **IPAC USER CONTACT INFORMATION**

Agency: Federal Highway Administration

Name: Deborah Fretz

Address: 1010 Adams Ave

City: Audubon

State: PA

Zip: 19403

Email: dfretz@gfnet.com

Phone: 6107833762



**U.S. FISH AND WILDLIFE SERVICE**  
110 Radnor Road, Suite 101, State College, PA 16801

This responds to your inquiry about a PNDI Internet Database search that resulted in a potential conflict with a federally listed, proposed or candidate species.

**PROJECT LOCATION INFORMATION**County: LackawannaTownship: South AbingtonUSFWS COMMENTS  EMAILED  MAILEDTo: Andrew Lutz, Kristin Civitella**MISC INFORMATION**Date received by FWS: August 26, 2024Email: alutz@paturndpike.com, kcivitella@gfnet.comAffiliation: PA Turnpike Commission; Gannett Fleming, Inc.**SPECIFIC PROJECT:** PTC Scranton Bypass (proposed Clarks Summit interchange)**FISH AND WILDLIFE SERVICE COMMENT(s):** **NO EFFECT**

Except for occasional transient species, no federally listed, proposed or candidate species under our jurisdiction are known or likely to exist in the project area. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

 **NOT LIKELY TO ADVERSELY AFFECT**

The federally listed northern long-eared bat, tricolored bat occurs or may occur in or near the project area. However, based on our review of the information provided, including the project description and location (The PA Turnpike proposes an interchange improvement project along existing highway in the densely developed greater Scranton area. 32 acres of tree cutting is anticipated. The Turnpike commits to cutting trees during the bat's hibernation season of November 16 to March 31 a period when bats are not likely to be roosting in trees.), no adverse effects to this species are likely to occur. If there is any change in the location, scale, scope, layout or design of the project, further consultation or coordination with the Service will be necessary.

The above determination is valid for two years from the date of this letter. In addition, this response relates only to federally listed, proposed, and candidate species under our jurisdiction, based on an office review of the proposed project's location and anticipated impacts. No field inspection of the project area has been conducted by this office. *Please reference the above PNDI # and USFWS Project # in any future correspondence regarding this project.*

This review was conducted by the biologist listed below. He/she can be contacted at 814-206-(Extension).

Pamela Shellenberger (x7459)  
 Monica Mestre (x7462)

Nicole Ranalli (x7455)  
 Jennifer Kagel (x7451)

Richard Novak (x7477)  
 Sze Wing Yu (x7461)

SIGNATURE: **ROBERT  
ANDERSON**

Digitally signed by ROBERT  
ANDERSON  
Date: 2024.09.18 14:54:43  
-04'00'

Supervisor, Pennsylvania Field Office

**Appendix D:**  
**Section 106 Coordination**

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**PennDOT**  
**Project Early Notification/  
Scoping Results Form**

<b>ER Number Requested:</b> Yes No
--

**MPMS:** \_\_\_\_\_ **Structure (Bridge) #<sup>1</sup>:** \_\_\_\_\_

**County:** \_\_\_\_\_ **SR:** \_\_\_\_\_ **Section:** \_\_\_\_\_

**Project Name:** \_\_\_\_\_

**Municipality:** \_\_\_\_\_ **Funding:** \_\_\_\_\_

**Lead Agency:** \_\_\_\_\_

**Project Description (from CE scoping form or MPMS):**

**Cultural Resource Scoping:** \_\_\_\_\_

**Cultural Resources Professionals in attendance:**

**Archaeologist:** \_\_\_\_\_

**Architectural Historian:** \_\_\_\_\_

**Project Scoping/  
Field View Date:** \_\_\_\_\_

**Anticipated NEPA Date:** \_\_\_\_\_

**Likely Section 106 Process:**

- Finding of No Effect or No Adverse Effect
- Finding of consulted No Adverse Effect or Adverse Effect

*Check if additional studies needed:* Archaeology: \_\_\_\_\_ Above Ground Historic Structures: \_\_\_\_\_

<b><i>Public Consultation Involvement:</i></b> Above Ground Historic Resources: Archaeology:
--

<sup>1</sup>Structure number is not the A01 number in BMS (14 digits coding county, SR, Segment, and Offset), but a unique identifier found in the BRKEY field in BMS.



**List known historic resources in Area of Potential Effects (*include SHPO Key#*):**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**List known archaeological resources in Area of Potential Effects (*include PASS number*):**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**Results and Recommendations from Scoping Field View (*attach additional pages as needed*):**

**Historic Structures:**

**Archaeology:**



Pennsylvania State Historic Preservation Office

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

January 21, 2019

Brian Thompson, Director  
Bureau of Project Delivery  
Attn: Monica Harrower, District 6-0  
PA Department of Transportation  
P.O. Box 2966  
Harrisburg, PA 17105

RE: ER 2020-8057-069-C; SR 81, Section 246 (MPMS 106682) Lackawanna County, Dupont Historic District and Clarks Summit Resource Memo

Dear Mr. Thompson,

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

**Above Ground Resources**

Based on the information received and available within our files, we concur with the finding of the federal agency that **Dupont Historic District (Key No. 211292)** is **not eligible** for listing in the National Register of Historic Places under Criteria A, B, or C due to a lack of integrity and significance. This resource has not been evaluated for archaeological potential.

We are in receipt of the memorandum for the Clarks Summit Interchange Project Area and concur that further survey is not required. For future reference, resources in physical proximity should not be categorized and documented as "neighborhood districts" unless they are historically related, such as the Dupont Historic District.

Our determination of eligibility is based upon the information provided and available in our files for review. If National Register listing for this property is sought in the future, additional documentation of the property's significance and integrity may be required to both verify this determination of eligibility and satisfy the requirements of the National Park Service (36 CFR Part 60). Thus, the outcome of the National Register listing process cannot be assured by this determination of eligibility.

If you have questions concerning this review, please contact Tyra Guyton at 717-346-0617 or [tyguyton@pa.gov](mailto:tyguyton@pa.gov).

Sincerely,

Douglas C. McLearn, Chief  
Division of Environmental Review



**PennDOT**  
**Deferral of Archaeological Testing**  
**For Identification/Evaluation\***  
 Per 36 CFR 800.4(b)(2) and Stipulation III.C.2.f.3

**County:** Lackawanna                      **SR/SEC:** 0081-246                      **MPMS:** 106682  
**Name of Project:** Scranton Beltway                      **ER#:** 2020PR00896  
**Municipality:** Moosic Boro                      **Lead Agency:** FHWA                      **Funding Source:** Federal Highway

**Brief Description of Project:**

New ramps to I-81 and Turnpike (I-476) North and South Bound, North and South of Scranton Dupont Borough and Pittston Township, Luzerne County (South) South Abington Township, Lackawanna County (North)

**Reason for Deferring Archaeological Testing**

*(Select all that apply)*

- Multiple Alternatives under consideration
- Access to property restricted
- APE is not known for the locations of items typically included as part of final design and permitting, including bridge piers, wetland mitigation sites, or storm water detention basins *(specify)*

**Proposed Plan for Archaeological Testing**

*(Describe the location(s) and method(s) for testing the APE, or reference a Predictive Model or Archaeological Sensitivity Study or Geomorphology Report, as appropriate)*

Based on the results of a Phase I archaeological investigation report, PennDOT and PTC's archaeological consultant is recommending additional archaeological investigations to be completed in final design for properties where access was restricted.

Digitally signed by Kevin Mock  
 Date: 2022.07.20 08:52:09 -04'00'

**District Archaeologist**

07/20/2022

**Date**

\* If eligible sites are identified in preliminary engineering and data recovery excavations cannot be completed before NEPA approval, an agreement document must be prepared.



**PennDOT  
Section 106  
Above Ground Effect  
Finding Form**

**SHPO concurrence required or requested:**

Above Ground:      Yes       No

**MPMS#:** 106682

**COUNTY:** Lackawanna

**MUNICIPALITY:** Moosic Borough

**STATE ROUTE:** 81

**SECTION:** 246

**NAME OF PROJECT:** Scranton Beltway/Turnpike

**USGS QUAD NAME:** Dalton & Scranton

**FIELD VIEW DATE:** 5/27/2016

**FUNDING SOURCE:** Federal Highway Funded

**LEAD AGENCY:** FHWA

**SHPO REVIEW NUMBER:** 2020PR00896

**Project Description (*describe project activities or note attachment*):**

The Pennsylvania Turnpike Commission (PTC) seeks to optimize the use of the Northeastern Extension (I-476), a toll road, and I-81 in the Scranton, PA area (Luzerne and Lackawanna Counties). The Northeastern Extension provides an alternative route to I-81 from Wyoming Valley (Interchange 115) to Clarks Summit (Interchange 131) but is underutilized compared to I-81 which frequently operates at or near capacity. As a result, the PTC performed feasibility studies, preliminary traffic analysis and conceptual design tasks for a potential Scranton Beltway Project which would include direct connections between I-476 and I-81. It is expected that the proposed improvements will benefit both the PTC and the Pennsylvania Department of Transportation (PennDOT) as diverted traffic will improve operations and congestion on I-81 and increase utilization and toll revenue on I-476. The proposed improvements consist of new, direct connections at the external locations of Wyoming Valley (Milepost A-115 to A-116.2) and Clarks Summit interchanges (Milepost A-129.8 to A-130.4).

The Clarks Summit project corridor is located along I-476 in South Abington Township, Lackawanna County. It is approximately 191 acres and extends north along the Pennsylvania Turnpike Northeast Extension (I-476) from the toll plaza and from S. Abington Road to approximately 1,600 feet north of Simerell Road.

The Wyoming Valley project corridor is located in Pittston Township and the Borough of Dupont, Luzerne County. It is approximately 125 acres and extends north along the Proposed Scranton Beltway from approximately 250 feet east of SR 315 to approximately 400 feet northeast along I-476 from Navy Way Road.

**Finding of Effects:**

<b>Above Ground Finding:</b>	<b>Project Effects Finding:</b>
No Above Ground Properties Affected	No Historic Properties Affected

*Heather N. Gerling*

Digitally signed by  
Heather N. Gerling  
Date: 2022.08.01  
07:30:33 -04'00'

District Architectural Historian: \_\_\_\_\_

Date: 8/1/2022

## Architectural History Attachment – B

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- This project does not have the potential to affect above-ground resources, and meets all the criteria from Appendix C-Exempted Projects, from the Section 106 Delegation PA:
- The undertaking is limited to the Section 2 List of Exempted Activities by either the District Designee or Cultural Resources Professional
  - The undertaking is classified as categorically excluded under NEPA
  - The undertaking is on an existing transportation facility.
  - The undertaking is not within or adjacent to a National Historic Landmark or National Park, or property under the jurisdiction of the National Park Service
  - The undertaking has no known public controversy based on historic preservation issues

**Comment:** Click or tap here to enter text.

**[Do not complete the remainder of Attachment B]**

**Area of Potential Effect:** *(describe dimensions of APE, land use, and type and % of disturbance, if present):*

The above ground APE consists of an approximately 221 acre linear polygon that accounts for both direct and indirect effects to cultural resources. The polygon begins approximately at the junction of Interstate 81 and Interstate 476 and continues in a northeasterly direction along Interstate 81 until it terminates approximately one mile south of the intersection of Fairview Rd. and Interstate 81.

### Background Research Sources Checked:

- CRGIS/PHRS/National Register Files
- Historic Maps *(list):*  
Click or tap here to enter text.
- Local Historic Society or Library *(name):*  
Click or tap here to enter text.
- State Archives
- Historic Bridge Inventory
- Other *(list):*  
Google Earth

**Previously Recorded and Evaluated Resources** *(Name and address [or location] of resource, PHMC Key No. and determination):*



## Architectural History Attachment – B

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Chinchilla Historic District, Resource# 2011RE00440, Not Eligible.  
Pennsylvania Turnpike:Northeast Extension, Resource# 2005RE00168, Not Eligible.  
Bridge, Resource# 1983RE02899, Not Eligible.  
Clark Summit Historic District/Edella Road Historic District, Resource#2020RE01724,  
Not Eligible.

### **National Register Eligibility Determination for Resources Identified in APE** (include resource name and key#, if possible):

- Not Eligible: Click or tap here to enter text.
- Eligible: Click or tap here to enter text.
- Undetermined: Click or tap here to enter text.

### **Above Ground Finding:**

- No Above Ground Properties Affected
  - No Above Ground Properties Affected
  - Above Ground Properties Present but Not Affected
- No Adverse Effect
- Adverse Effect

### **Effects Explanation:**

As part of the Scranton Beltway/Turnpike project, the Pennsylvania Department of Transportation (PennDOT) had studies completed on potential historic districts within the project APE. The Clark Summit and Dupont Historic Districts were both determined to be not eligible for the National Register of Historic Places (NRHP) due to lack of significance and integrity.

Other resources within the project APE were determined not eligible before the time of the project initiation. These resources are: The Chinchilla Historic District, The Pennsylvania Turnpike:Northeast Extension, and a modern bridge.

Due to the lack of eligible resources within the project APE, and the scope of work (SOW) for the project, on behalf of the FHWA, the PennDOT CRP has determined there will be no effect to above ground cultural resources.

### **Attachments:**

- Historic Resource Survey Form(s) (*full or short forms*)
- Identification and Evaluation Report

## Architectural History Attachment – B

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- Rehabilitation Analysis (*typically for bridges*)
- Determination of Effect Tables
- Determination of Effect Report
- Other (*list*)

Click or tap here to enter text.

**Additional Comments:**

Click or tap here to enter text.





## MEMO

**DATE:** August 10, 2022

**SUBJECT:** Section 106 Phase 1A/B Archaeology  
Pennsylvania Turnpike Commission - Scranton Beltway

**TO:** Mark Raup, P.E.  
Senior Engineer Project Manager  
Pennsylvania Turnpike Commission

**FROM:** Alison L Pevec, P.E. *Alison L Pevec*  
PennDOT Engineering District 4-0

PennDOT received the Section 106 Phase 1A/B Archaeology Survey Report on June 29, 2022 and agree with the report conclusion that no archaeology sites are present within the project Area of Potential Effects. The PA SHPO and the Tribes/Nations consulting on this project received the report on July 20, 2022. Because there are no sites present, PennDOT did not request concurrence from SHPO, which is in conformance with PennDOT's Section 106 Delegation Programmatic Agreement.

Parcel 113, currently owned by Daneen Reese, remains to be investigated due to property access limitations. These parcels will be investigated during final design through a "deferral of archaeology," again conforming to PennDOT's Delegation PA. Any sites identified during the final design phase of the project will require archaeological site eligibility and effects determination, as applicable.

The deferral of archaeology for the remaining parcel will require a re-evaluation of the Environmental Assessment (EA) by the design team. The EA re-evaluation is necessary to include the final Section 106 effects finding, which will include the archaeological effects, to update the cultural resource section at the time of EA approval.

**Appendix E:**  
**Noise Tables**

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## WYOMING VALLEY

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**Table 2: Sound Level Measurement Results  
 Pennsylvania Turnpike - Scranton Beltway Project  
 Wyoming Valley, PA**

Site ID Number	Address of Measurement Site	Date	Time Period	Hourly Traffic Based on Concurrent Traffic Counts						TNM Model Calibration Noise Levels in dBA
				Autos	Medium Trucks	Heavy Trucks	Buses	Motor-cycles	Total	Measured Leq
M1-01	593 Suscon Rd	6/3/2019	6:45 - 7:05 am	1053	27	204	24	3	1311	64.3
				1140	51	324	0	15	1530	
				129	0	39	0	0	168	
				93	3	39	0	0	135	
				147	3	3	3	3	159	
				108	9	24	0	0	141	
				45	3	21	0	0	69	
M1-02	611 Suscon Rd	6/3/2019	7:10 - 7:30 am	1149	18	225	0	0	1392	59.1
				1092	27	240	0	0	1359	
				126	0	30	0	0	156	
				96	3	51	0	0	150	
				144	0	0	0	0	144	
				120	6	15	0	0	141	
				1227	54	243	0	3	1527	
M2-03	530 Wyoming Ave, Dupont, PA	6/4/2019	10:14 - 10:34 am	1284	66	411	15	6	1782	58.2
				102	3	66	0	0	171	
				201	9	75	0	0	285	
				6	0	0	0	0	6	
									0	
M2-04	606 Penn Ave, Dupont, PA	6/4/2019	10:50 - 11:10 am	1161	81	264	0	15	1521	69.3
				1293	57	384	3	0	1737	
				123	3	66	0	0	192	
				153	3	72	0	0	228	
				30	0	0	0	0	30	
									0	
M2-05	513 Penn Ave, Dupont, PA	6/4/2019	4:13 - 4:33 pm	2244	87	276	0	15	2622	60.5
				1962	87	276	3	3	2331	
				426	3	69	0	3	501	
				198	0	78	0	0	276	
									0	
									0	
M2-06	310 Elm St, Dupont, PA	6/4/2019	3:43 - 4:03 pm	2175	84	288	15	6	2568	69.6
				1884	93	291	3	0	2271	
				300	6	54	3	3	366	
				225	12	30	0	0	267	
				393	27	18	3	3	444	
									0	
M2-07	300 Elm St, Dupont, PA	6/4/2019	2:40 - 3:00 pm	1950	96	327	9	3	2385	61.9
				1788	75	378	6	3	2250	
				231	15	75	0	0	321	
				192	6	27	0	0	225	
				135	0	9	3	0	147	
				189	18	15	3	0	225	



**Table 3: Validation Table**  
**Pennsylvania Turnpike - Scranton Beltway Project**  
**Wyoming Valley, PA**

Site ID Number	Address of Measurement Site	Date	Time Period	TNM Model Calibration Noise Levels in dBA		
				Modeled Leq(h)	Measured Leq	Difference
M1-01	593 Suscon Rd	6/3/2019	6:45 - 7:05 am	64.9	64.3	0.6
M1-02	611 Suscon Rd	6/3/2019	7:10 - 7:30 am	60.2	59.1	1.1
M2-03	530 Wyoming Ave, Dupont, PA	6/4/2019	10:14 - 10:34 am	60.3	58.2	2.1
M2-04	606 Penn Ave, Dupont, PA	6/4/2019	10:50 - 11:10 am	68.4	69.3	-0.9
M2-05	513 Penn Ave, Dupont, PA	6/4/2019	4:13 - 4:33 pm	60.1	60.5	-0.4
M2-06	310 Elm St, Dupont, PA	6/4/2019	3:43 - 4:03 pm	69.7	69.6	0.1
M2-07	300 Elm St, Dupont, PA	6/4/2019	2:40 - 3:00 pm	62.6	61.9	0.7



**Table 3: Validation Table**  
**Pennsylvania Turnpike - Scranton Beltway Project**  
**Wyoming Valley, PA**

Site ID Number	Address of Measurement Site	Date	Time Period	TNM Model Calibration Noise Levels in dBA		
				Modeled Leq(h)	Measured Leq	Difference
M2-08	101 Florence St, Dupont, PA	6/4/2019	3:12 - 3:32 pm	62.1	60.3	1.8
M2-09	20 Hemlock St, Dupont, PA	6/4/2019	11:34 - 11:54 pm	66.5	65.1	1.4
M2-10	1 Ash St, Pittston, PA	6/4/2019	12:04 - 12:24 pm	55.1	53.9	1.2
M2-11	585 Suscon Rd, Pittston, PA	6/3/2019	6:09 - 6:29 pm	65.3	63.8	1.5
M3-01	544 Suscon Rd, Pittston, PA	6/3/2019	5:36 - 5:56 pm	62.3	65.4	-3.1
M3-02	15 Wood St Dupont, PA	6/3/2019	4:18 - 4:38 pm	59.9	60.5	-0.6
M3-03	14 Wood St, Dupont, PA	6/3/2019	3:43 - 4:03 pm	57.9	57.3	0.6
M3-04	19 Atwell Dr, Dupont, PA	6/3/2019	4:53 - 5:13 pm	55.6	53.7	1.9
M3-05	31 Wood St, Dupont, PA	6/3/2019	3:11 - 3:31 pm	60.6	60.5	0.1
M3-06	32 Wood St, Dupont, PA	6/3/2019	2:39 - 2:59 pm	65.5	65.0	0.5

**Table 4. NSA 1  
Preferred Alternative  
Summary of Modeled Noise Levels**

Receiver ID	Land Use Activity Category	Existing Noise Level (2018)	Future No-Build (2045)		Future Build (2045)	
			Noise Levels	Increase Over Existing	Noise Levels	Increase Over Existing
R1-01	B	65	68	3	65	0
R1-02	B	59	62	3	59	0
R1-03	B	57	60	3	58	1





**Table 5. NSA 2  
Preferred Alternative**

NSA	Receiver ID	Land Use Activity Category	No. of Receptors	Existing Noise Level (2018)	Future Build (2045)								
					Future No-Build	Future Build No-Barrier		Case 1: 10' Barrier		Case 2: 12' Barrier		Case 3: Optimized Barrier	
					Noise Level dB(A)	Noise Level dB(A)	I.O.E dB	Noise Level dB(A)	Insertion Loss	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB
NSA 2	R2-33	B	1	60	62	58	-2	58	0	58	0	58	0
	R2-34	B	1	64	64	58	-5	58	0	58	0	58	0
	R2-35	B	1	62	63	57	-5	56	0	56	0	57	0
	R2-36	B	1	62	63	56	-5	56	1	56	1	56	0
	R2-37	B	1	61	63	58	-3	57	1	57	2	58	0
	R2-38	B	1	61	62	57	-3	56	1	56	2	57	0
	R2-39	B	1	61	62	58	-3	57	1	57	1	58	0
	R2-40	B	1	60	62	56	-5	55	0	55	0	56	0
	R2-41	B	1	62	63	57	-5	57	0	57	0	57	0
	R2-42	B	1	63	64	59	-4	59	0	59	0	59	0
	R2-43	B	1	60	62	57	-3	57	0	56	1	57	0
	R2-44	B	1	60	62	56	-4	56	0	56	0	56	0
	R2-45	B	1	56	58	56	0	56	0	56	1	56	0
	R2-46	B	1	60	61	56	-4	56	0	55	0	56	0
	R2-47 (M2-05)	B	1	55	57	55	1	55	0	55	1	55	0
	R2-48	B	1	57	58	55	-2	55	0	54	0	55	0
	R2-49	B	1	60	60	57	-2	57	0	57	0	57	0
	R2-50	B	1	61	62	59	-2	59	0	59	0	59	0
	R2-51	B	1	63	64	61	-2	61	0	61	0	61	0
	R2-52	B	1	67	68	65	-3	65	0	65	0	65	0
	R2-53	B	1	58	60	57	-1	56	0	56	0	57	0
R2-54	B	1	59	60	57	-2	57	0	57	0	57	0	
R2-55	B	1	61	62	59	-2	59	0	59	0	59	0	
R2-56	B	1	63	64	61	-2	61	0	61	0	61	0	
R2-57 (M2-04)	B	1	69	69	66	-3	66	0	66	0	66	0	
R2-58	B	1	65	66	64	-1	64	0	64	0	64	0	
R2-59	B	1	64	65	64	-1	64	0	64	0	64	0	
R2-60	B	1	61	61	59	-1	59	0	59	0	59	0	
R2-61	B	1	59	59	59	-1	58	0	58	0	59	0	

**Table 5. NSA 2  
Preferred Alternative**

NSA	Receiver ID	Land Use Activity Category	No. of Receptors	Existing Noise Level (2018)	Future Build (2045)									
					Future No-Build	Future Build No-Barrier		Case 1: 10' Barrier		Case 2: 12' Barrier		Case 3: Optimized Barrier		
					Noise Level dB(A)	Noise Level dB(A)	I.O.E dB	Noise Level dB(A)	Insertion Loss	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	
NSA 2	R2-62	B	1	56	57	56	0	55	1	55	1	56	0	
	R2-63 (M2-03)	B	1	61	61	60	-1	60	0	60	0	60	0	
	R2-64	B	1	58	60	58	-1	57	0	57	0	57	0	
	R2-65	B	1	57	59	56	-1	56	0	56	0	56	0	
	R2-66	C	1	61	63	61	0	61	0	61	0	61	0	
	R2-96	B	1	64	64	63	-1	59	4	58	4	63	0	
	R2-97	B	1	68	69	62	-6	62	0	62	0	62	0	
<b>FHWA TNM Results</b>														
Number of Impacted Receptors					2									
<b>Feasibility Evaluation</b>														
Impacted Receptors receiving $\geq 5$ dB Insertion Loss (I.L.)									1		1		1	
Percent of Impacted Receptors Receiving $\geq 5$ dB I.L.									50%		50%		50%	
Is this percentage $\geq 50\%$ ? If yes, barrier is feasible.									Yes		Yes		Yes	
<b>Reasonableness Evaluation</b>														
Number of Non-impacted receptors receiving $\geq 5$ dB I.L. (Benefited Receptors)									0		0		0	
Total Number of receptors receiving $\geq 5$ dB I.L. (Benefited Receptors)									1		1		1	
Number of receptors receiving $\geq 7$ dB I.L. (Meeting NRDG)									0		1		1	
Does at least one Benefited Receptor Receive $\geq 7$ dB I.L.?									No		Yes		Yes	
Barrier Height (feet)											12		12.8	
Barrier Length (feet)											986		384	
Barrier square footage (SQft)											11835		4912	
Barrier square footage per benefited receptor (SF/BR)											11835		4912	
Is SF/BR $\leq 2,000$ ? If yes, barrier is reasonable											No		No	
Average I.L. per Benefited Receptor (dB)											6		7	

- Impacted (66 dB(A) or 10 dB increase over existing)
- Impacted Receptors receiving  $\geq 5$  dB(A)
- Non-Impacted Receptors receiving  $\geq 5$  dB(A)

All noise levels are Leq(h) values and are A-weighted, expressed as dB(A)

With the exception of average insertion loss values, all noise levels were calculated to the tenth of a dB(A) and then rounded for presentation purposes.

**Table 6. NSA 3  
Preferred Alternative  
Summary of Barrier Noise Analysis**

NSA	Receiver ID	Land Use Activity Category	No. of Receptors	Existing Noise Level (2018)	Future Build (2045)																		
					Future No-Build	Future Build No-Barrier		Case 1: 14' Barrier		Case 2: 16' Barrier		Case 3: 18' Barrier		Case 4: 20' Barrier		Case 5: 22' Barrier		Case 6: 24' Barrier		Case 7: 26' Barrier		Case 8: NSA3-Opt Barrier	
					Noise Level dB(A)	Noise Level dB(A)	I.O.E dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB
NSA 3	R3-01	B	1	71	71	74	2	63	10	63	11	63	11	62	11	62	11	62	12	62	12	62	12
	R3-02	B	1	62	63	62	1	60	2	60	2	60	2	60	2	60	2	60	3	60	3	60	3
	R3-03	B	1	57	59	57	0	57	1	57	1	57	1	57	1	56	1	56	1	56	1	56	1
	R3-04 (M3-01)	B	1	55	56	55	0	54	1	54	1	54	1	54	1	54	1	54	1	54	1	54	1
	R3-05	B	1	50	51	51	1	50	0	50	0	50	1	50	1	50	1	50	1	50	1	50	1
	R3-06	B	1	52	53	53	1	52	1	52	1	52	1	52	1	52	2	51	2	51	2	51	2
	R3-07	B	1	57	58	58	1	55	2	55	3	55	3	55	3	55	3	55	3	55	3	56	2
	R3-08	B	1	55	56	56	1	54	2	54	2	54	2	54	2	54	2	54	3	54	3	55	1
	R3-09 (M3-03)	B	1	56	56	56	1	54	2	54	2	54	2	54	2	54	3	54	3	54	3	56	1
	R3-10	B	1	63	64	64	1	59	5	59	6	58	6	58	7	58	7	57	7	57	7	57	7
	R3-11 (M3-02)	B	1	57	58	58	1	55	3	55	3	55	3	54	4	54	4	53	5	53	5	58	0
	R3-12	B	1	58	58	59	1	55	4	55	4	55	4	55	4	55	4	54	5	54	5	58	1
	R3-13	B	1	60	60	61	1	59	2	59	3	58	3	58	3	58	3	58	3	58	3	61	0
	R3-14 (M3-05)	B	1	57	57	58	1	57	1	57	1	57	1	57	1	56	2	56	2	56	2	58	0
	R3-15	B	1	53	54	54	1	54	1	54	1	54	1	54	1	54	1	53	1	53	1	54	0
	R3-16 (M3-04)	B	1	53	53	54	1	54	1	53	1	53	1	53	1	53	1	53	1	53	1	54	0
	R3-17	B	1	54	54	55	1	54	1	54	1	54	1	54	1	54	1	54	1	54	1	55	0
	R3-18	B	1	53	54	54	1	53	1	53	1	53	1	53	1	53	1	53	2	53	2	54	0
	R3-19	B	1	58	58	59	1	59	0	59	0	59	1	59	1	59	1	59	1	59	1	59	0
	R3-20	B	1	60	60	61	1	61	0	61	0	61	0	61	0	61	0	61	0	61	0	61	0
	R3-21 (M3-06)	B	1	65	65	66	1	66	0	66	0	66	0	66	0	66	0	66	0	66	0	66	0
<b>FHWA TNM Results</b>																							
<b>Number of Impacted Receptors</b>																							
2																							
<b>Feasibility Evaluation</b>																							
<b>Impacted Receptors receiving ≥ 5 dB Insertion Loss (I.L.)</b>																							
Percent of Impacted Receptors Receiving ≥ 5 dB I.L.																							
50%																							
Is this percentage ≥ 50%?: If yes, barrier is feasible.																							
Yes																							
<b>Reasonableness Evaluation</b>																							
<b>Number of Non-impacted receptors receiving ≥ 5 dB I.L. (Benefited)</b>																							
Total Number of receptors receiving ≥ 5 dB I.L. (Benefited)																							
2																							
Number of receptors receiving ≥ 7 dB I.L. (Meeting NRDG)																							
1																							
Does at least one Benefited Receptor Receive ≥ 7 dB I.L.?																							
Yes																							
Barrier Height (feet)																							
14																							
Barrier Length (feet)																							
1163																							
Barrier square footage (SQft)																							
16282																							
Barrier square footage per benefited receptor (SF/BR)																							
8141																							
Is SF/BR ≤ 2,000?: If yes, barrier is reasonable																							
No																							
Average I.L. per Benefited Receptor (dB)																							
8																							

    Impacted (66 dB(A) or 10 dB increase over existing)  
    Impacted Receptors receiving ≥ 5dB(A)  
    Non-Impacted Receptors receiving ≥ 5dB(A)

All noise levels are Leq(h) values and are A-weighted, expressed as dB(A)

With the exception of average insertion loss values, all noise levels were calculated to the tenth of a dB(A) and then rounded for presentation purposes.



## CLARKS SUMMIT

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**Table 2: Sound Level Measurement Results  
 Pennsylvania Turnpike - Scranton Beltway Project  
 Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	Hourly Traffic Based on Concurrent Traffic Counts						TNM Model Validation Noise Levels in dBA	
				Roadway	Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles	Total	Measured Leq
M4-01	339 Edella Rd, South Abington Township, PA (center unit)	7/8/2019	2:09 - 2:29 pm	I-476 EB	201	6	2	3	0	212	57.5
				I-476 WB	318	15	30	0	0	363	
				I-81 NB	993	21	201	6	12	1233	
				I-81 SB	1125	18	183	3	3	1332	
				Edella NB	105	0	0	0	0	105	
				Edella SB	81	0	0	0	0	81	
M4-02	339 Edella rd, South Abington Township, PA (rear unit)	7/8/2019	2:09 - 2:29 pm	I-476 EB	201	6	2	3	0	212	56.4
				I-476 WB	318	15	30	0	0	363	
				I-81 NB	993	21	201	6	12	1233	
				I-81 SB	1125	18	183	3	3	1332	
				Edella NB	105	0	0	0	0	105	
				Edella SB	81	0	0	0	0	81	
M4-03	311 Montrose Ave, South Abington Township, PA	7/8/2019	3:33 - 3:53 pm	I-476 EB	282	12	66	0	0	360	53.0
				I-476 WB	288	18	42	0	0	348	
				I-81 NB	1128	24	189	6	0	1347	
				I-81 SB	1386	39	213	12	0	1650	
				Edella NB	126	0	0	0	0	126	
				Edella SB	96	3	0	0	0	99	
M4-04	402 Motrose Ave, South Abington Township, PA	7/8/2019	3:33 - 3:53 pm	I-476 EB	282	12	66	0	0	360	54.8
				I-476 WB	288	18	42	0	0	348	
				I-81 NB	1128	24	189	6	0	1347	
				I-81 SB	1386	39	213	12	0	1650	
				Edella NB	126	0	0	0	0	126	
				Edella SB	96	3	0	0	0	99	
M4-05	101 Sunnyside Ave, South Abington Township, PA	7/8/2019	2:52 - 3:12 pm	I-476 EB	309	9	48	0	0	366	50.2
				I-476 WB	321	15	63	0	0	399	
				I-81 NB	1152	36	186	0	3	1377	
				I-81 SB	1338	33	282	6	3	1662	
				S. Abington NB	105	0	0	0	0	105	
				S. Abington SB	93	0	0	0	0	93	
M4-06	207 Adams Ave, South Abington Township, PA	7/8/2019	2:52 - 3:12 pm	I-476 EB	309	9	48	0	0	366	56.0
				I-476 WB	321	15	63	0	0	399	
				I-81 NB	1152	36	186	0	3	1377	
				I-81 SB	1338	33	282	6	3	1662	
				S. Abington NB	105	0	0	0	0	105	
				S. Abington SB	93	0	0	0	0	93	
M5-01	522 Briar Hill Cir, South Abington Township, PA	7/8/2019	5:43 - 6:03 pm	I-476 EB	435	3	63	0	0	501	57.1
				I-476 WB	195	3	30	0	0	228	
				I-81 NB	936	18	237	3	0	1194	
				I-81 SB	783	27	186	3	3	1002	
				Edella NB	81	0	0	0	0	81	
				Edella SB	87	0	0	0	0	87	
M5-02	518 Briar Hill Cir, South Abington Township, PA	7/8/2019	5:43 - 6:03 pm	I-476 EB	435	3	63	0	0	501	55.1
				I-476 WB	195	3	30	0	0	228	
				I-81 NB	936	18	237	3	0	1194	
				I-81 SB	783	27	186	3	3	1002	
				Edella NB	81	0	0	0	0	81	
				Edella SB	87	0	0	0	0	87	

**Table 2: Sound Level Measurement Results**  
**Pennsylvania Turnpike - Scranton Beltway Project**  
**Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	Hourly Traffic Based on Concurrent Traffic Counts						TNM Model Validation Noise Levels in dBA			
				Roadway	Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles	Total	Measured Leq		
M5-03	510 Briar Hill Cir, South Abington Township, PA	7/8/2019	5:08 - 5:28 pm	I-476 EB	585	15	90	3	0	693	57.9		
				I-476 WB	279	21	39	0	0	339			
				I-81 NB	1068	18	204	3	0	1293			
				I-81 SB	960	33	222	15	3	1233			
										0			
							0						
M5-04	500 Briar Hill Cir, South Abington Township, PA	7/8/2019		I-476 EB	585	15	90	3	0	693		54.7	
				I-476 WB	279	21	39	0	0	339			
				I-81 NB	1068	18	204	3	0	1293			
				I-81 SB	960	33	222	15	3	1233			
									0				
						0							
M5-05	1102 S Abington Rd, South Abington Township, PA	7/8/2019	4:23 - 4:43 pm	I-476 EB	420	9	39	0	0	468	58.5		
				I-476 WB	276	0	39	0	3	318			
				S. Abington NB	498	0	0	3	6	507			
				S. Abington SB	282	6	0	0	0	288			
										0			
							0						
M5-06	1106 S Abington Rd, South Abington Township, PA	7/8/2019		I-476 EB	420	9	39	0	0	468		64.3	
				I-476 WB	276	0	39	0	3	318			
				S. Abington NB	498	0	0	3	6	507			
				S. Abington SB	282	6	0	0	0	288			
									0				
						0							
M6-01	402 Willowbrook Rd, South Abington Township, PA	7/8/2019	6:25 - 6:45 pm	I-476 EB	261	12	36	0	0	309	62.6		
				I-476 WB	186	9	27	0	0	222			
				I-81 NB	708	36	192	3	0	939			
				I-81 SB	783	27	186	3	3	1002			
				Edella NB	81	0	0	0	0	81			
Edella SB	87	0		0	0	0	87						
M6-02	420 Willowbrook Rd, South Abington Township, PA	7/8/2019		7:03 - 7:23 pm	I-476 EB	162	3	39	0	0		204	61.9
					I-476 WB	102	6	30	0	0		138	
					I-81 NB	543	24	189	9	0		765	
					I-81 SB	654	24	201	12	0		891	
			Edella NB		105	0	0	0	3	108			
Edella SB	66	0	0		0	3	69						
M6-03	PA American Water, Willowbrook Rd, South Abington Township, PA (commercial)	7/8/2019	6:25 - 6:45 pm		I-476 EB	261	12	36	0	0	309	55.3	
					I-476 WB	186	9	27	0	0	222		
					I-81 NB	708	36	192	3	0	939		
					I-81 SB	783	27	186	3	3	1002		
				Edella NB	81	0	0	0	0	81			
Edella SB	87	0		0	0	0	87						
M7-01	435 Edella Rd, South Abington Township, PA	7/8/2019		7:03 - 7:23 pm	I-476 EB	162	3	39	0	0	204		64.9
					I-476 WB	102	6	30	0	0	138		
					I-81 NB	543	24	189	9	0	765		
					I-81 SB	654	24	201	12	0	891		
			Edella NB		105	0	0	0	3	108			
Edella SB	66	0	0		0	3	69						



**Table 2: Sound Level Measurement Results  
 Pennsylvania Turnpike - Scranton Beltway Project  
 Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	Hourly Traffic Based on Concurrent Traffic Counts						TNM Model Validation Noise Levels in dBA	
				Roadway	Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles	Total	Measured Leq
M7-02	449 Edella Rd, South Abington Township, PA	7/9/2019	9:35 - 9:55 am	I-81 NB	465	33	150	15	0	663	56.8
				I-81 SB	717	27	216	3	3	966	
				Edella NB	45	0	0	0	0	45	
				Edella SB	120	0	0	0	0	120	
										0	
										0	
M7-03	442 Willowbrook Rd, South Abington Township, PA	7/9/2019	9:35 - 9:55 am	I-81 NB	465	33	150	15	0	663	64.1
				I-81 SB	717	27	216	3	3	966	
				Edella NB	45	0	0	0	0	45	
				Edella SB	120	0	0	0	0	120	
										0	
										0	
M7-04	460 Willowbrook Rd, South Abington Township, PA	7/9/2019	10:07 - 10:27 am	I-81 NB	513	48	171	12	0	744	61.2
				I-81 SB	861	24	207	0	3	1095	
										0	
										0	
										0	
										0	
M7-05	501 Brian Dr, South Abington Township, PA	7/9/2019	10:07 - 10:27 am	I-81 NB	513	48	171	12	0	744	60.4
				I-81 SB	861	24	207	0	3	1095	
										0	
										0	
										0	
										0	
M8-01	530 Edella Rd, South Abington Township, PA	7/9/2019	10:58 - 11:18 am	I-81 NB	684	21	186	12	3	906	57.5
				I-81 SB	801	39	246	3	9	1098	
				Edella (underpass) WB	60	0	3	0	0	63	
				Edella (underpass) EB	54	3	0	0	0	57	
										0	
										0	
M8-02	111 / 113 Echo Dr, South Abington Township, PA	7/9/2019	10:58 - 11:18 am	I-81 NB	684	21	186	12	3	906	58.6
				I-81 SB	801	39	246	3	9	1098	
				Edella (underpass) WB	60	0	3	0	0	63	
				Edella (underpass) EB	54	3	0	0	0	57	
										0	
										0	
M8-03	530 Hilltop Ln, South Abington Township, PA	7/9/2019	11:33 - 11:53 am	I-81 NB	729	30	210	0	0	969	71.7
				I-81 SB	825	42	201	3	6	1077	
										0	
										0	
										0	
										0	
M8-04	121 Echo Dr, South Abington Township, PA	7/9/2019	11:33 - 11:53 am	I-81 NB	729	30	210	0	0	969	56.8
				I-81 SB	825	42	201	3	6	1077	
										0	
										0	
										0	
										0	

**Table 2: Sound Level Measurement Results  
 Pennsylvania Turnpike - Scranton Beltway Project  
 Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	Hourly Traffic Based on Concurrent Traffic Counts						TNM Model Validation Noise Levels in dBA			
				Roadway	Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles	Total	Measured Leq		
M8-05	207 Willow Ln, South Abington Township, PA	7/9/2019	12:06 - 12:26 pm	I-81 NB	672	30	234	6	0	942	64.8		
				I-81 SB	777	39	234	3	0	1053			
										0			
										0			
										0			
M8-06	201 Appletree, South Abington Township, PA	7/9/2019		12:06 - 12:26 pm	I-81 NB	672	30	234	6	0		942	54.2
					I-81 SB	777	39	234	3	0		1053	
												0	
												0	
												0	
M8-07	501 Willow Ln, South Abington Township, PA	7/9/2019	1:46 - 2:06 pm		I-81 NB	843	39	219	9	0	1110	63.7	
					I-81 SB	873	42	243	9	0	1167		
					Willow(tree) Ln	3	3	0	0	0	6		
					Longwood	9	6	0	0	0	15		
											0		
M8-08	1102 E Longwood Dr, South Abington Township, PA	7/9/2019		1:46 - 2:06 pm	I-81 NB	843	39	219	9	0	1110		52.9
					I-81 SB	873	42	243	9	0	1167		
					Willow(tree) Ln	3	3	0	0	0	6		
					Longwood	9	6	0	0	0	15		
											0		
M8-09	212 Simerell Rd, South Abington Township, PA	7/9/2019	12:48 - 1:08 pm		I-81 NB	837	21	231	0	3	1092	66.1	
					I-81 SB	918	42	228	9	9	1206		
					Simerell NB	18	0	0	0	0	18		
					Simerell SB	27	0	0	0	0	27		
											0		
M8-10	204 Simerell Rd, South Abington Township, PA	7/9/2019		12:48 - 1:08 pm	I-81 NB	837	21	231	0	3	1092		56.9
					I-81 SB	918	42	228	9	9	1206		
					Simerell NB	18	0	0	0	0	18		
					Simerell SB	27	0	0	0	0	27		
											0		
M9-01	640 Vernard Rd, South Abington Township, PA	7/9/2019	5:40 - 6:00 pm		I-81 NB	744	27	213	0	0	984	65.3	
					I-81 SB	807	33	258	3	0	1101		
					Edella (underpass) WB	126	0	0	0	0	126		
					Edella (underpass) EB	81	0	0	0	0	81		
					Vernard WB	75	0	0	0	0	75		
							66						

**Table 2: Sound Level Measurement Results  
 Pennsylvania Turnpike - Scranton Beltway Project  
 Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	Hourly Traffic Based on Concurrent Traffic Counts						TNM Model Validation Noise Levels in dBA	
				Roadway	Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles	Total	Measured Leq
M9-02	1 Pauline Dr, South Abington Township, PA	7/9/2019	4:05 - 4:25 pm	I-81 NB	984	36	234	9	0	1263	56.5
				I-81 SB	891	39	171	0	0	1101	
				Edella (underpass) WB	117	0	0	0	0	117	
				Edella (underpass) EB	120	0	0	0	3	123	
				Vernard WB	-	-	-	-	-	0	
				Vernard EB	-	-	-	-	-	0	
M9-03	Bardollar Hall - Clark's Summit University, 538 Vernard Rd, Clarks Summit, PA	7/9/2019	4:35 - 4:55 pm	I-81 NB	984	21	219	6	0	1230	49.3
				I-81 SB	1002	48	243	3	0	1296	
										0	
										0	
										0	
										0	
										0	
M9-04	Christen Hall - Clark's Summit University, 538 Vernard Rd, Clarks Summit, PA	7/9/2019	4:35 - 4:55 pm	I-81 NB	984	21	219	6	0	1230	50.0
				I-81 SB	1002	48	243	3	0	1296	
										0	
										0	
										0	
										0	
										0	
M9-05	Shaffer Hall - Clark's Summit University, 538 Vernard Rd, Clarks Summit, PA	7/9/2019	4:05 - 4:25 pm	I-81 NB	984	36	234	9	0	1263	49.1
				I-81 SB	891	39	171	0	0	1101	
				Edella (underpass) WB	117	0	0	0	0	117	
				Edella (underpass) EB	120	0	0	0	3	123	
				Vernard WB	-	-	-	-	-	0	
				Vernard EB	-	-	-	-	-	0	
M10-01	617 Edella Rd, South Abigton Township, PA	7/9/2019	5:40 - 6:00 pm	I-81 NB	744	27	213	0	0	984	65.6
				I-81 SB	807	33	258	6	0	1104	
				Edella (underpass) WB	126	0	0	0	0	126	
				Edella (underpass) EB	81	0	0	0	0	81	
				Vernard WB	75	0	0	0	0	75	
				Vernard EB	66	0	0	0	0	66	
M10-02	628 White Birch Rd, South Abington Township, PA	7/9/2019	6:15 - 6:35 pm	I-81 NB	714	39	180	3	0	936	62.5
				I-81 SB	693	30	219	0	0	942	
				Edella NB	78	0	0	0	0	78	
				Edella SB	75	0	0	0	0	75	
										0	
										0	
										0	
M10-03	641 Edella Rd, South Abigton Township, PA	7/9/2019	6:15 - 6:35 pm	I-81 NB	714	39	180	3	0	936	68.5
				I-81 SB	693	30	219	0	0	942	
				Edella NB	78	0	0	0	0	78	
				Edella SB	75	0	0	0	0	75	
										0	
										0	
										0	



**Table 2: Sound Level Measurement Results  
 Pennsylvania Turnpike - Scranton Beltway Project  
 Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	Hourly Traffic Based on Concurrent Traffic Counts						TNM Model Validation Noise Levels in dBA		
				Roadway	Autos	Medium Trucks	Heavy Trucks	Buses	Motor-cycles	Total	Measured Leq	
M10-04	638 Edella Rd, South Abigton Township, PA	7/9/02019	6:46 - 7:06 pm	I-81 NB	468	18	165	3	6	660	58.1	
				I-81 SB	630	27	213	3	0	873		
				Edella NB	66	3	0	0	0	69		
				Edella SB	45	0	0	0	0	45		
										0		
M10-05	653 Edella Rd, South Abington Township, PA	7/9/02019		6:46 - 7:06 pm	I-81 NB	468	18	165	3	6	660	64.5
					I-81 SB	630	27	213	3	0	873	
					Edella NB	66	3	0	0	0	69	
					Edella SB	45	0	0	0	0	45	
											0	
M10-06	653 Edella Rd, South Abigton Township, PA	7/9/02019	7:18 - 7:38 pm		I-81 NB	384	20	104	0	4	512	61.9
					I-81 SB	597	27	204	12	0	840	
					Edella NB + SB	66	0	0	0	0	66	
											0	
											0	
M10-07	812 Edella Rd, South Abigton Township, PA	7/9/02019		7:18 - 7:38 pm	I-81 NB	384	20	104	0	4	512	55.8
					I-81 SB	597	27	204	12	0	840	
					Edella NB	66	0	0	0	0	66	
					Edella SB						0	
											0	

**Table 3: Validation Results**  
**Pennsylvania Turnpike - Scranton Beltway Project**  
**Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	TNM Model Validation Noise Levels in dBA		
				Modeled Leq(h)	Measured Leq(h)	Difference Leq(h)
M4-01	339 Edella Rd, South Abington Township, PA (center unit)	7/8/2019	2:09 - 2:29 pm	58.9	57.5	1.4
M4-02	339 Edella rd, South Abington Township, PA (rear unit)	7/8/2019		57.9	56.4	1.5
M4-03	311 Montrose Ave, South Abington Township, PA	7/8/2019	3:33 - 3:53 pm	51.0	53.0	-2.0
M4-04	402 Motrose Ave, South Abington Township, PA	7/8/2019		55.4	54.8	0.6
M4-05	101 Sunnyside Ave, South Abington Township, PA	7/8/2019	2:52 - 3:12 pm	49.2	50.2	-1.0
M4-06	207 Adams Ave, South Abington Township, PA	7/8/2019		58.9	56.0	2.9
M5-01	522 Briar Hill Cir, South Abington Township, PA	7/8/2019	5:43 - 6:03 pm	58.8	57.1	1.7
M5-02	518 Briar Hill Cir, South Abington Township, PA	7/8/2019		57.6	55.1	2.5

**Table 3: Validation Results**  
**Pennsylvania Turnpike - Scranton Beltway Project**  
**Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	TNM Model Validation Noise Levels in dBA		
				Modeled Leq(h)	Measured Leq(h)	Measured Leq(h)
M5-03	510 Briar Hill Cir, South Abington Township, PA	7/8/2019	5:08 - 5:28 pm	58.9	57.9	1.0
M5-04	500 Briar Hill Cir, South Abington Township, PA	7/8/2019		56.5	54.7	1.8
M5-05	1102 S Abington Rd, South Abington Township, PA	7/8/2019	4:23 - 4:43 pm	59.2	58.5	0.7
M5-06	1106 S Abington Rd, South Abington Township, PA	7/8/2019		64.5	64.3	0.2
M6-01	402 Willowbrook Rd, South Abington Township, PA	7/8/2019	6:25 - 6:45 pm	63.1	62.6	0.5
M6-02	420 Willowbrook Rd, South Abington Township, PA	7/8/2019	7:03 - 7:23 pm	62.1	61.9	0.2
M6-03	PA American Water, Willowbrook Rd, South Abington Township, PA (commercial)	7/8/2019	6:25 - 6:45 pm	56.4	55.3	1.1
M7-01	435 Edella Rd, South Abington Township, PA	7/8/2019	7:03 - 7:23 pm	64.8	64.9	-0.1



**Table 3: Validation Results**  
**Pennsylvania Turnpike - Scranton Beltway Project**  
**Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	TNM Model Validation Noise Levels in dBA		
				Modeled Leq(h)	Measured Leq(h)	Measured Leq(h)
M7-02	449 Edella Rd, South Abington Township, PA	7/9/2019	9:35 - 9:55 am	58.9	56.8	2.1
M7-03	442 Willowbrook Rd, South Abington Township, PA	7/9/2019		66.0	64.1	1.9
M7-04	460 Willowbrook Rd, South Abington Township, PA	7/9/2019	10:07 - 10:27 am	62.5	61.2	1.3
M7-05	501 Brian Dr, South Abington Township, PA	7/9/2019		61.8	60.4	1.4
M8-01	530 Edella Rd, South Abington Township, PA	7/9/2019	10:58 - 11:18 am	59.4	57.5	1.9
M8-02	111 / 113 Echo Dr, South Abington Township, PA	7/9/2019		57.3	58.6	-1.3
M8-03	530 Hilltop Ln, South Abington Township, PA	7/9/2019	11:33 - 11:53 am	72.1	71.7	0.4
M8-04	121 Echo Dr, South Abington Township, PA	7/9/2019		58.1	56.8	1.3

**Table 3: Validation Results**  
**Pennsylvania Turnpike - Scranton Beltway Project**  
**Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	TNM Model Validation Noise Levels in dBA		
				Modeled Leq(h)	Measured Leq(h)	Measured Leq(h)
M8-05	207 Willow Ln, South Abington Township, PA	7/9/2019	12:06 - 12:26 pm	67.5	64.8	2.7
M8-06	201 Appletree, South Abington Township, PA	7/9/2019		54.7	54.2	0.5
M8-07	501 Willow Ln, South Abington Township, PA	7/9/2019	1:46 - 2:06 pm	68.1	63.7	4.4
M8-08	1102 E Longwood Dr, South Abington Township, PA	7/9/2019		54.8	52.9	1.9
M8-09	212 Simerell Rd, South Abington Township, PA	7/9/2019	12:48 - 1:08 pm	68.3	66.1	2.2
M8-10	204 Simerell Rd, South Abington Township, PA	7/9/2019		57.0	56.9	0.1
M9-01	640 Vernard Rd, South Abington Township, PA	7/9/2019	5:40 - 6:00 pm	65.4	65.3	0.1

**Table 3: Validation Results  
 Pennsylvania Turnpike - Scranton Beltway Project  
 Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	TNM Model Validation Noise Levels in dBA		
				Modeled Leq(h)	Measured Leq(h)	Measured Leq(h)
M9-02	1 Pauline Dr, South Abington Township, PA	7/9/2019	4:05 - 4:25 pm	58.0	56.5	1.5
M9-03	Barndollar Hall - Clark's Summit University, 538 Vernard Rd, Clarks Summit, PA	7/9/2019	4:35 - 4:55 pm	51.2	49.3	1.9
M9-04	Christen Hall - Clark's Summit University, 538 Vernard Rd, Clarks Summit, PA	7/9/2019		52.1	50.0	2.1
M9-05	Shaffer Hall - Clark's Summit University, 538 Vernard Rd, Clarks Summit, PA	7/9/2019	4:05 - 4:25 pm	50.1	49.1	1.0
M10-01	617 Edella Rd, South Abigton Township, PA	7/9/2019	5:40 - 6:00 pm	67.1	65.6	1.5
M10-02	628 White Birch Rd, South Abington Township, PA	7/9/2019	6:15 - 6:35 pm	62.9	62.5	0.4
M10-03	641 Edella Rd, South Abigton Township, PA	7/9/2019		68.0	68.5	-0.5



**Table 3: Validation Results**  
**Pennsylvania Turnpike - Scranton Beltway Project**  
**Clarks Summit Interchange**

Site ID Number	Address of Measurement Site	Date	Time Period	TNM Model Validation Noise Levels in dBA		
				Modeled Leq(h)	Measured Leq(h)	Measured Leq(h)
M10-04	638 Edella Rd, South Abington Township, PA	7/9/2019	6:46 - 7:06 pm	63.2	58.1	5.1
M10-05	653 Edella Rd, South Abington Township, PA	7/9/2019		62.1	64.5	-2.4
M10-06	653 Edella Rd, South Abington Township, PA	7/9/2019	7:18 - 7:38 pm	64.9	61.9	3.0
M10-07	812 Edella Rd, South Abington Township, PA	7/9/2019		55.5	55.8	-0.3

**Table 4 - NSA 4**  
**Scranton Beltway - Clarks Summit Interchange**  
**Summary of Barrier Noise Analysis**

NSA	Receiver ID	Land Use Category	No. of Receptors	Existing Noise Level (2018)	Future No-Build (2045)	Future Build (2045)	
						Noise Level dB(A)	I.O.E dB
NSA 4	R4-01	B	1	56	59	65	9
	R4-02	B	1	54	57	62	8
	R4-03	B	1	52	56	60	7
	R4-04	B	1	50	53	57	7
	R4-05 (M4-05)	B	1	47	50	53	7
	R4-06 (M4-06)	B	1	58	61	65	7
	R4-07	B	1	53	57	60	7
	R4-08	B	1	53	56	60	7
	R4-09	B	1	52	56	59	7
	R4-10	B	1	49	54	56	6
	R4-11	B	1	50	53	57	7
	R4-12	B	1	50	53	56	7
	R4-13	B	1	49	52	55	6
	R4-14	B	1	49	52	55	6
	R4-15	B	1	48	53	54	6
	R4-16	B	1	48	53	54	6
	R4-17	B	1	48	53	54	6
	R4-18 (M4-03)	B	1	48	53	54	6
	R4-19	B	1	46	53	52	6
	R4-20	B	1	49	53	54	5
	R4-21	B	1	48	52	52	4
	R4-22	B	1	47	52	52	5
	R4-23	B	1	47	50	51	4
	R4-24 (M4-04)	B	1	54	57	61	7
	R4-25	B	1	52	55	55	3
	R4-26	B	1	55	58	60	5
	R4-27	B	1	58	62	62	4
	R4-28	B	1	60	63	64	5
	R4-29	B	1	51	56	56	5
	R4-30	B	1	50	53	53	3
	R4-31	B	1	50	55	54	4
	R4-32	B	1	52	57	56	4
	R4-33	B	1	53	58	57	4
	R4-34	B	1	42	46	46	3
	R4-35	B	1	41	46	46	5
	R4-36	B	1	53	59	57	4
	R4-37	B	4	52	59	56	4
	R4-38 (M4-02)	B	4	55	60	58	3
	R4-39 (M4-01)	B	4	58	62	60	2
	R4-40	B	4	61	65	61	0
	R4-41	B	1	57	62	60	4
	R4-42	B	1	57	61	60	4
	R4-43	B	1	59	61	60	2
	R4-44	B	1	59	63	60	1

**Table 5 - NSA 5**  
**Scranton Beltway - Clarks Summit Interchange**  
**Summary of Barrier Noise Analysis**

NSA	Receiver ID	Land Use Category	No. of Receptors	Existing Noise Level (2018)	Future No-Build (2045)	Future Build (2045)											
						Future Build No-Barrier		Case 1: 10' Barrier		Case 2: 12' Barrier		Case 3: 14' Barrier		Case 4: 16' Barrier		Case 5: Optimized Barrier	
						Noise Level dB(A)	I.O.E dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB
NSA 5	R5-01 (M5-06)	B	1	57	60	66	10	66	0	66	0	66	0	66	0	66	0
	R5-02 (M5-05)	B	1	56	59	65	9	65	0	65	0	65	0	65	0	65	0
	R5-03 (M5-04)	B	1	53	56	60	7	60	0	60	0	60	0	60	0	60	0
	R5-04	B	1	51	54	57	6	57	0	57	0	57	0	57	0	57	0
	R5-05	B	1	52	55	58	6	58	0	58	0	58	0	58	0	58	0
	R5-06	B	1	51	54	56	6	56	0	56	0	56	0	56	0	56	0
	R5-07	B	1	51	54	57	6	57	0	57	0	57	0	57	0	57	0
	R5-08	B	1	52	55	58	7	56	2	56	2	56	2	56	2	56	2
	R5-09 (M5-03)	B	1	57	60	63	6	58	5	58	5	57	6	57	6	58	5
	R5-10	B	1	58	62	66	7	60	6	59	7	58	8	58	8	59	7
	R5-11 (M5-02)	B	1	58	62	66	7	62	4	60	5	59	6	59	7	61	5
	R5-12	B	1	59	62	67	8	63	4	62	5	61	6	60	7	62	5
	R5-13 (M5-01)	B	1	58	62	66	8	63	3	62	4	61	5	60	6	62	4
	R5-14	B	1	49	52	55	6	55	0	55	0	55	0	55	0	55	0
	R5-15	B	1	48	52	53	5	53	0	53	0	53	0	53	0	53	0
	R5-16	B	1	49	53	55	5	54	0	54	0	54	0	54	0	54	0
	R5-17	B	1	48	52	53	5	53	0	53	0	52	1	52	1	53	0
	R5-18	B	1	50	53	55	5	54	1	54	1	53	1	53	1	54	1
	R5-19	B	1	52	55	57	5	55	2	55	2	55	2	54	2	55	2
	R5-20	B	1	53	57	59	6	57	2	57	2	57	2	57	2	57	2
	R5-21	B	1	54	57	59	6	58	1	58	1	58	1	58	1	58	1
<b>Number of Impacted Receptors</b>						5	5		5	5	5	5					
<b>Feasibility Evaluation</b>								1	3	3	4	4					
Impacted Receptors receiving $\geq 5$ dB Insertion Loss (I.L.)								20%	60%	60%	80%	80%					
Percent of Impacted Receptors Receiving $\geq 5$ dB I.L.								No	Yes	Yes	Yes	Yes					
Is this percentage $\geq 50\%$ ? If yes, barrier is feasible.																	
<b>Reasonableness Evaluation</b>								1	0	0	1						
Number of Non-impacted receptors receiving $\geq 5$ dB I.L. (Benefited Receptors)								4	3	4	5						
Total Number of receptors receiving $\geq 5$ dB I.L. (Benefited Receptors)								1	1	2	1						
Number of receptors receiving $\geq 7$ dB I.L. (Meeting NRDG)								Yes	Yes	Yes	Yes						
Does at least one Benefited Receptor Receive $\geq 7$ dB I.L.?								12	14	16	10-13						
Barrier Height (feet)								787	787	787	787						
Barrier Length (feet)								9444	11018	12592	9150						
Barrier square footage (SQft)								2361	3673	3148	1830						
Barrier square footage per benefited receptor (SF/BR)								No	No	No	Yes						
Is SF/BR $\leq 2,000$ ? If yes, barrier is reasonable								6	6	7	5						
Average I.L. per Benefited Receptor (dB)																	

- Impacted (66 dB(A) or 10 dB increase over existing)
- Impacted Receptors receiving  $\geq 5$ dB(A)
- Non-Impacted Receptors receiving  $\geq 5$ dB(A)

All noise levels are Leq(h) values and are A-weighted, expressed as dB(A)

With the exception of average insertion loss values, all noise levels were calculated to the tenth of a dB(A) and then rounded for presentation purposes.



**Table 6 - NSA 6**  
**Scranton Beltway - Clarks Summit Interchange**  
**Summary of Noise Analysis**

NSA	Receiver ID	Land Use Category	No. of Receptors	Existing Noise Level (2018)	Future No-Build (2045)	Future Build (2045)	
						Noise Level dB(A)	I.O.E dB
<b>NSA 6</b>	<b>R6-01 (M6-01)</b>	B	1	60	63	62	2
	<b>R6-02</b>	B	1	59	62	62	3
	<b>R6-03</b>	B	1	58	61	62	3
	<b>R6-04</b>	B	1	58	61	62	4
	<b>R6-05 (M6-02)</b>	B	1	62	64	64	2

**Table 7 - NSA 7**  
**Scranton Beltway - Clarks Summit Interchange**  
**Summary of Barrier Noise Analysis**

NSA	Receiver ID	Land Use Category	No. of Receptors	Existing Noise Level (2018)	Future No-Build (2045)	Future Build (2045)													
						Future Build No-Barrier		Case 1: 10' Barrier		Case 2: 12' Barrier		Case 3: 14' Barrier		Case 4: 16' Barrier		Case 5: 18' Barrier		Case 6: 20' Barrier	
						Noise Level dB(A)	I.O.E dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB
NSA 7	R7-01	B	1	65	68	67	1	64	3.1	63	3.4	63	4	62	4	61	6	60	7
	R7-02	B	1	60	62	63	3	62	0.4	62	0.7	62	1	61	2	60	2	60	3
	R7-03	B	1	57	59	61	4	61	-0.4	61	-0.3	61	0	61	0	60	0	60	1
	R7-04 (M7-02)	B	1	58	60	62	3	62	-0.2	61	0.1	61	0	61	1	61	1	61	1
	R7-05	B	1	57	59	60	3	61	-0.7	61	-0.5	61	0	60	0	60	0	60	0
	R7-06	B	1	59	61	61	3	62	-0.4	62	-0.2	61	0	61	0	61	0	61	0
	R7-07 (M7-03)	B	1	66	68	67	1	66	0.9	66	1.1	66	1	65	2	65	2	65	2
	R7-08	B	1	65	67	66	1	65	0.4	65	0.7	65	1	65	1	65	1	65	1
	R7-09	B	1	65	67	65	0	64	0.5	64	1.2	63	2	63	2	63	2	63	2
	R7-10	B	1	64	66	64	-1	63	1.1	62	2.3	61	3	61	3	61	3	61	3
	R7-11	B	1	63	65	62	-1	60	2.3	59	3.2	59	4	59	4	59	4	58	4
	R7-12	B	1	61	63	63	2	63	0.2	62	0.5	62	1	62	1	62	1	61	1
	R7-13	B	1	62	64	63	1	62	0.9	62	1.1	61	2	60	2	60	3	60	3
	R7-14	B	1	62	64	63	1	62	1.1	62	1.4	61	2	61	3	60	3	60	3
	R7-15	B	1	63	65	64	1	63	1.3	62	1.6	61	3	61	3	61	3	60	4
	R7-16	B	1	55	57	59	4	59	-0.4	59	-0.2	59	0	59	0	59	0	58	0
	R7-17	B	1	57	59	60	3	60	0.2	60	0.4	59	1	59	1	59	1	59	2
	R7-18	B	1	58	60	61	3	61	0.4	61	0.6	60	1	60	2	59	2	59	2
	R7-19	B	1	59	61	61	3	61	0.7	61	0.9	60	2	59	2	59	2	59	3
	R7-20	B	1	59	61	61	2	60	0.9	60	1.2	59	2	59	3	58	3	58	3
	R7-21	B	1	63	65	64	1	63	1.6	62	2.1	61	3	60	4	60	4	59	5
	R7-22	B	1	64	66	64	1	62	2.0	61	3.2	60	4	60	5	59	5	59	6
	R7-23	B	1	63	65	64	1	62	2.2	61	3.3	60	4	59	5	59	5	59	6
	R7-24	B	1	62	64	63	0	61	1.8	59	3.3	59	4	58	5	58	5	58	5
	R7-25	B	1	62	64	63	0	61	1.6	59	3.2	59	4	58	4	58	4	58	5
	R7-26	B	1	61	63	62	1	60	1.6	58	3.2	58	4	58	4	57	4	57	4
	R7-27	B	1	61	62	61	1	60	1.3	59	2.6	58	3	58	3	58	4	58	4
	R7-28	B	1	59	61	62	2	61	1.0	60	1.3	59	2	59	3	58	3	58	4
	R7-29	B	1	59	61	62	2	61	1.1	60	1.4	59	3	59	3	58	4	58	4
	R7-30	B	1	60	62	62	2	60	1.6	60	2.1	58	4	58	4	58	4	57	5
	R7-31	B	1	60	62	62	2	60	1.8	58	3.1	58	4	57	4	57	5	57	5
	R7-32	B	1	62	64	62	0	58	4.4	57	5.1	56	6	56	6	56	6	55	7
	R7-33	B	1	61	63	62	0	58	3.9	57	4.7	56	5	56	6	56	6	56	6
	R7-34 (M7-04)	B	1	62	64	62	0	58	3.5	58	4.4	57	5	57	5	56	6	56	6
	R7-35	B	1	61	63	62	1	59	3.0	58	3.8	58	4	57	4	57	5	57	5
<b>Number of Impacted Receptors</b>						3		3		3		3		3		3		3	
<b>Feasibility Evaluation</b>																			
<b>Impacted Receptors receiving ≥ 5 dB Insertion Loss (I.L.)</b>																			
Percent of Impacted Receptors Receiving ≥ 5 dB I.L.								0		0		0		0		1		1	
Is this percentage ≥ 50%?: If yes, barrier is feasible.								No		No		No		No		No		No	
<b>Reasonableness Evaluation</b>																			
<b>Number of Non-impacted receptors receiving ≥ 5 dB I.L. (Benefited Receptors)</b>																			
Total Number of receptors receiving ≥ 5 dB I.L. (Benefited Receptors)																			
Number of receptors receiving ≥ 7 dB I.L. (Meeting NRDG)																			
Does at least one Benefited Receptor Receive ≥ 7 dB I.L.?																			
Barrier Height (feet)																			
Barrier Length (feet)																			
Barrier square footage (SQft)																			
Barrier square footage per benefited receptor (SF/BR)																			
Is SF/BR ≤ 2,000?: If yes, barrier is reasonable																			
Average I.L. per Benefited Receptor (dB)																			

Impacted (66 dB(A) or 10 dB increase over existing)  
 Impacted Receptors receiving ≥ 5dB(A)  
 Non-Impacted Receptors receiving ≥ 5dB(A)

All noise levels are Leq(h) values and are A-weighted, expressed as dB(A)

With the exception of average insertion loss values, all noise levels were calculated to the tenth of a dB(A) and then rounded for presentation purposes.

**Table 8 - NSA 8**  
**Scranton Beltway - Clarks Summit Interchange**  
**Summary of Barrier Noise Analysis**

NSA	Receiver ID	Land Use Category	No. of Receptors	Existing Noise Level (2018)	Future No-Build (2045)	Future Build (2045)															
						Future Build No-Barrier		Case 1: 10' Barrier		Case 2: 12' Barrier		Case 3: 14' Barrier		Case 4: 16' Barrier		Case 5: 18' Barrier		Case 6: 20' Barrier		Case 7: Optimized Barrier	
						Noise Level dB(A)	I.O.E dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB
NSA 8	R8-01	B	1	64	66	65	1	66	-1	66	-1	66	-1	66	-1	66	-1	66	-1	66	-1
	R8-02 (M8-01)	B	1	60	62	61	2	62	-1	62	-1	62	-1	62	-1	62	-1	62	-1	62	-1
	R8-03	B	1	59	60	60	2	61	-1	61	-1	61	-1	61	-1	61	-1	61	-1	61	-1
	R8-04	B	1	58	60	60	2	60	-1	60	-1	60	-1	60	-1	60	-1	60	-1	60	-1
	R8-05	B	1	58	60	60	2	61	-1	61	-1	61	-1	61	-1	61	0	61	0	61	-1
	R8-06	B	1	59	61	61	2	62	-1	61	-1	61	-1	61	-1	61	-1	61	-1	61	-1
	R8-07	B	1	59	61	61	2	62	0	62	0	62	0	62	0	62	0	62	0	62	0
	R8-08	B	1	59	61	61	2	62	0	62	0	62	0	62	0	62	0	62	0	62	0
	R8-09	B	1	60	62	62	2	62	-1	62	-1	62	-1	62	-1	62	-1	62	-1	62	-1
	R8-10	B	1	59	61	62	2	62	0	62	0	62	0	62	0	62	0	62	0	62	0
	R8-11 (M8-02)	B	1	59	61	61	2	61	0	61	0	61	0	61	0	61	0	61	0	61	0
	R8-12	B	1	58	60	61	2	61	0	60	0	60	0	60	0	60	0	60	0	60	0
	R8-13	B	1	58	60	60	2	60	1	59	1	59	1	59	1	59	1	59	1	59	1
	R8-14 (M8-04)	B	1	58	60	60	3	60	1	60	1	59	1	59	1	59	1	59	1	59	1
	R8-15	B	1	57	59	60	3	59	1	59	1	59	1	58	2	58	2	58	2	58	2
	R8-16	B	1	60	62	63	3	62	2	61	2	61	3	61	3	61	3	60	3	61	3
	R8-17	B	1	65	67	68	3	65	3	63	5	63	5	62	6	62	6	62	6	62	6
	R8-19 (M8-03)	B	1	70	72	73	3	65	8	62	11	61	12	60	13	59	14	59	14	60	13
	R8-20	B	1	63	65	66	3	62	4	60	6	58	8	57	9	56	10	56	10	57	9
	R8-21	B	1	60	62	63	3	60	3	60	3	57	6	56	7	55	8	55	8	56	7
	R8-22	B	1	56	58	59	3	57	2	57	2	54	5	54	5	53	5	53	6	54	5
	R8-23	B	1	56	58	59	3	58	1	58	1	56	2	56	3	56	3	56	3	56	3
	R8-24	B	1	57	59	59	3	58	1	58	1	57	3	56	3	56	4	55	4	56	3
	R8-25	B	1	58	60	61	3	60	2	59	2	58	3	57	4	56	5	56	5	57	4
	R8-26	B	1	61	63	64	3	62	2	62	2	60	4	59	5	58	6	58	7	59	5
	R8-27	B	1	65	67	68	3	65	3	64	4	63	5	61	7	59	9	59	9	61	7
	R8-28	B	1	69	71	71	2	68	3	67	4	66	6	63	8	62	9	60	11	63	8
	R8-29	B	1	70	72	71	2	66	5	65	6	63	8	62	10	60	11	59	12	62	10
	R8-30	B	1	70	72	71	1	64	7	63	8	62	9	60	10	59	12	59	12	60	10
	R8-31	B	1	69	71	70	1	63	7	62	8	61	9	60	10	59	11	58	12	60	10
	R8-32 (M8-05)	B	1	66	68	68	2	62	7	61	7	60	8	59	9	59	10	58	10	59	9
	R8-33	B	1	65	67	67	2	60	7	60	8	59	8	58	9	57	10	57	10	58	9
	R8-34	B	1	65	67	66	1	60	6	59	7	58	8	58	9	57	9	57	10	58	9
	R8-35	B	1	68	70	69	1	61	8	60	9	59	10	58	11	58	11	57	12	58	11
	R8-36	B	1	68	70	68	0	60	8	59	9	59	10	58	10	58	11	57	11	58	10
	R8-37	B	1	59	61	62	3	60	2	60	2	59	3	58	4	57	5	56	6	58	4
	R8-38	B	1	59	61	61	2	59	2	59	2	58	3	57	4	56	5	55	6	57	4
	R8-39	B	1	58	61	61	2	58	3	58	3	57	4	56	4	56	5	55	5	56	4
	R8-40	B	1	48	50	49	2	47	2	47	3	46	4	45	4	44	5	44	6	45	4
	R8-41	B	1	58	60	60	2	56	4	56	4	55	4	55	5	54	6	53	7	55	5
	R8-42	B	1	54	56	55	1	52	3	51	4	51	4	50	5	49	6	49	6	50	4
	R8-43	B	1	48	50	50	2	48	3	47	3	46	4	46	5	45	5	45	6	46	4
	R8-44	B	1	51	53	53	2	49	4	48	4	48	5	47	6	46	6	46	7	47	5
	R8-45	B	1	56	58	59	2	58	1	58	1	57	2	56	3	55	3	55	4	56	3
	R8-46 (M8-06)	B	1	54	56	56	3	56	1	55	1	55	2	54	2	53	3	53	3	54	2
	R8-47	B	1	55	57	57	3	57	1	57	1	56	1	56	2	55	2	55	2	56	2



**Table 8 - NSA 8**  
**Scranton Beltway - Clarks Summit Interchange**  
**Summary of Barrier Noise Analysis**

NSA	Receiver ID	Land Use Category	No. of Receptors	Existing Noise Level (2018)	Future No-Build (2045)	Future Build (2045)															
						Future Build No-Barrier		Case 1: 10' Barrier		Case 2: 12' Barrier		Case 3: 14' Barrier		Case 4: 16' Barrier		Case 5: 18' Barrier		Case 6: 20' Barrier		Case 7: Optimized Barrier	
						Noise Level dB(A)	I.O.E dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB
NSA 8	R8-48	B	1	55	57	57	3	56	1	56	1	56	1	56	2	55	2	55	2	56	1
	R8-49	B	1	46	48	48	2	46	2	45	2	45	3	45	3	44	4	44	4	45	3
	R8-50	B	1	46	48	48	2	46	2	46	3	45	3	45	3	44	4	44	4	45	3
	R8-51	B	1	46	48	48	2	46	2	46	3	45	3	45	4	45	4	44	4	45	3
	R8-52	B	1	46	49	49	2	46	3	46	3	45	3	45	4	44	4	44	5	45	4
	R8-53	B	1	47	50	50	3	47	3	47	3	46	4	46	4	45	5	45	5	46	4
	R8-54	B	1	48	50	50	2	47	3	47	4	46	4	46	5	45	5	45	6	46	4
	R8-55	B	1	50	53	53	3	49	4	49	4	48	5	47	6	47	6	46	7	47	6
	R8-56	B	1	68	70	67	0	60	8	59	8	59	9	58	9	57	10	57	10	58	9
	R8-57	B	1	68	70	67	0	60	7	60	8	59	8	58	9	58	10	57	10	59	9
	R8-58	B	1	71	73	69	-2	60	9	60	9	59	10	58	11	58	11	57	12	59	11
	R8-59	B	1	68	69	68	0	61	7	60	8	59	9	58	10	57	11	57	11	59	9
	R8-60	B	1	68	70	69	1	63	6	61	7	60	9	58	10	58	11	57	12	60	9
	R8-61	B	1	60	62	62	2	57	5	56	6	55	7	54	8	53	9	52	9	55	7
	R8-62	B	1	53	55	55	2	52	4	51	4	50	5	50	6	49	6	48	7	50	5
	R8-63	B	1	51	53	53	2	49	3	49	4	48	5	47	6	47	6	46	6	48	5
	R8-64	B	1	52	54	54	2	51	3	50	4	49	5	48	6	48	6	47	7	49	5
	R8-65	B	1	55	57	56	1	52	5	51	5	50	6	49	7	49	8	48	8	50	6
	R8-66	B	1	60	62	61	1	58	4	57	5	56	6	54	7	54	8	53	9	56	6
	R8-67	B	1	60	62	62	2	59	3	58	4	56	6	55	7	54	8	53	9	56	6
	R8-68	B	1	56	58	57	2	55	3	54	4	52	6	50	7	50	8	49	9	51	6
	R8-69 (M8-08)	B	1	52	55	54	2	51	3	51	3	50	4	48	6	48	6	47	7	50	5
	R8-70	B	1	58	60	59	2	57	2	57	3	54	6	52	7	51	8	50	9	53	6
	R8-71	B	1	61	63	62	2	59	3	59	4	56	6	55	8	54	8	53	9	56	7
	R8-72	B	1	58	60	59	2	56	3	56	3	54	5	52	8	51	8	50	9	54	5
	R8-73	B	1	56	58	58	2	55	3	54	3	53	4	51	7	50	8	49	9	53	5
	R8-74 (M8-07)	B	1	69	71	71	2	65	6	63	8	60	11	59	12	58	13	57	13	60	11
	R8-75	B	1	70	72	72	2	65	7	63	9	62	10	60	12	58	13	57	14	62	10
	R8-76	B	1	71	73	73	2	66	7	64	9	63	10	62	11	60	13	59	14	63	10
	R8-77	B	1	69	71	71	2	61	10	60	11	59	11	58	12	57	14	56	14	59	11
	R8-78	B	1	65	67	67	2	60	8	59	8	58	9	57	10	56	11	56	11	58	9
	R8-79	B	1	61	63	63	2	58	5	57	6	56	6	55	7	54	9	53	10	56	6
R8-80	B	1	62	64	63	2	57	7	56	8	55	8	55	9	54	9	54	10	55	8	
R8-81	B	1	59	61	61	2	57	3	57	4	55	5	54	7	53	7	52	9	55	6	
R8-82	B	1	58	60	59	2	55	4	55	4	54	5	54	6	53	6	52	7	54	5	
R8-83	B	1	56	58	58	2	55	3	54	4	53	5	52	6	51	7	50	8	53	5	
R8-84	B	1	55	57	57	2	54	3	53	3	53	4	52	5	51	6	50	7	52	4	
R8-85	B	1	55	57	56	2	53	3	53	3	53	4	52	4	52	5	51	5	53	4	
R8-86	B	1	56	58	58	2	54	4	54	4	53	5	53	5	53	5	52	6	53	5	
R8-87	B	1	58	60	59	2	55	5	54	5	54	5	54	6	53	6	53	6	54	5	
R8-88	B	1	59	61	61	2	57	4	56	5	56	6	55	6	55	7	54	7	56	6	

## Table 8 - NSA 8

### Scranton Beltway - Clarks Summit Interchange

### Summary of Barrier Noise Analysis

NSA	Receiver ID	Land Use Category	No. of Receptors	Existing Noise Level (2018)	Future No-Build (2045)	Future Build (2045)															
						Future Build No-Barrier		Case 1: 10' Barrier		Case 2: 12' Barrier		Case 3: 14' Barrier		Case 4: 16' Barrier		Case 5: 18' Barrier		Case 6: 20' Barrier		Case 7: Optimized Barrier	
						Noise Level dB(A)	I.O.E dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB
<b>NSA 8</b>	R8-89 (M8-09)	B	1	67	69	69	2	60	9	59	10	59	10	58	11	58	11	57	12	59	10
	R8-90	B	1	62	64	64	2	58	6	57	7	57	7	56	8	56	8	56	8	57	7
	R8-91	B	1	58	60	60	2	55	4	55	5	55	5	54	5	54	6	54	6	55	5
	R8-92	B	1	56	58	57	2	54	3	54	4	53	4	53	5	53	5	52	5	53	4
	R8-93 (M8-10)	B	1	54	56	56	2	53	3	53	3	52	4	52	4	52	4	52	4	52	4
<b>Number of Impacted Receptors</b>						24		24		24		24		24		24		24		24	
<b>Feasibility Evaluation</b>																					
<b>Impacted Receptors receiving ≥ 5 dB Insertion Loss (I.L.)</b>								20		22		24		24		24		24		24	
Percent of Impacted Receptors Receiving ≥ 5 dB I.L.								83%		92%		100%		100%		100%		100%		100%	
Is this percentage ≥ 50%?; If yes, barrier is feasible.								Yes		Yes		Yes		Yes		Yes		Yes		Yes	
<b>Reasonableness Evaluation</b>																					
<b>Number of Non-impacted receptors receiving ≥ 5 dB I.L. (Benefited Receptors)</b>								6		9		25		34		41		42		29	
Total Number of receptors receiving ≥ 5 dB I.L. (Benefited Receptors)								26		31		49		58		65		66		53	
Number of receptors receiving ≥ 7 dB I.L. (Meeting NRDG)								17		21		24		37		39		48		26	
Does at least one Benefited Receptor Receive ≥ 7 dB I.L.?								Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Barrier Height (feet)								10		12		14		16		18		20		14 - 16	
Barrier Length (feet)								3009		3009		3009		3009		3009		3009		3009	
Barrier square footage (SQft)								23343		36111		42131		48150		54169		60187		45731	
Barrier square footage per benefited receptor (SF/BR)								898		1165		860		830		833		912		863	
Is SF/BR ≤ 2,000?; If yes, barrier is reasonable								Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Average I.L. per Benefited Receptor (dB)								7		7		7		8		8		9		7	

- Impacted (66 dB(A) or 10 dB increase over existing)
- Impacted Receptors receiving ≥ 5dB(A)
- Non-Impacted Receptors receiving ≥ 5dB(A)

All noise levels are Leq(h) values and are A-weighted, expressed as dB(A)  
 With the exception of average insertion loss values, all noise levels were calculated to the tenth of a dB(A) and then rounded for presentation purposes.

**Table 9 - NSA 9**  
**Scranton Beltway - Clarks Summit Interchange**  
**Summary of Barrier Noise Analysis**

NSA	Receiver ID	Land Use Category	No. of Receptors	Existing Noise Level (2018)	Future No-Build (2045)	Future Build (2045)	
						Future Build No-Barrier	
						Noise Level dB(A)	I.O.E dB
NSA 9	R9-02	B	1	61	63	64	3
	R9-03 (M9-02)	B	1	59	61	62	3
	R9-04	B	1	58	60	60	3
	R9-05	B	1	59	61	61	2
	R9-06	B	1	57	59	60	3
	R9-07	B	1	56	58	59	3
	R9-08	B	1	55	57	58	3
	R9-09	B	1	53	55	56	3
	R9-10	B	1	52	55	55	3
	R9-11 (M9-05)	B	1	51	54	54	3
	R9-12	C	1	50	53	53	3
	R9-13	B	1	52	55	56	3
	R9-14	B	1	53	56	56	3
	R9-15 (M9-04)	B	1	53	56	56	3
	R9-16	B	1	54	56	57	3
	R9-17	B	1	53	56	56	4
	R9-18	B	1	53	55	56	4
	R9-19 (M9-03)	B	1	52	55	56	4
	R9-20	B	1	52	55	55	4
	R9-21	B	1	51	54	54	3
	R9-22	B	1	51	54	54	3
	<b>Number of Impacted Receptors</b>						0
<b>Feasibility Evaluation</b>							
Impacted Receptors receiving $\geq 5$ dB Insertion Loss (I.L.)							
Percent of Impacted Receptors Receiving $\geq 5$ dB I.L.							
Is this percentage $\geq 50\%$ ? If yes, barrier is feasible.							
<b>Reasonableness Evaluation</b>							
Number of Non-impacted receptors receiving $\geq 5$ dB I.L. (Benefited Receptors)							
Total Number of receptors receiving $\geq 5$ dB I.L. (Benefited Receptors)							
Number of receptors receiving $\geq 7$ dB I.L. (Meeting NRDG)							
Does at least one Benefited Receptor Receive $\geq 7$ dB I.L.?							
Barrier Height (feet)							
Barrier Length (feet)							
Barrier square footage (SQft)							
Barrier square footage per benefited receptor (SF/BR)							
Is SF/BR $\leq 2,000$ ? If yes, barrier is reasonable							
Average I.L. per Benefited Receptor (dB)							

Impacted (66 dB(A) or 10 dB increase over existing)

Impacted Receptors receiving  $\geq 5$ dB(A)

Non-Impacted Receptors receiving  $\geq 5$ dB(A)

All noise levels are Leq(h) values and are A-weighted, expressed as dB(A)



**Table 10 - NSA 10**  
**Scranton Beltway - Clarks Summit Interchange**  
**Summary of Barrier Noise Analysis**

NSA	Receiver ID	Land Use Category	No. of Receptors	Existing Noise Level (2018)	Future No-Build (2045)	Future Build (2045)																	
						Future Build No-Barrier		Case 1: 10' Barrier		Case 2: 12' Barrier		Case 3: 14' Barrier		Case 4: 16' Barrier		Case 5: 18' Barrier		Case 6: 20' Barrier		Case 7: Optimized Barrier			
						Noise Level dB(A)	I.O.E dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB	Noise Level dB(A)	Insertion Loss dB		
NSA 10	R9-01	B	1	65	67	67	2	64	3	64	4	61	5	62	5	62	6	62	6	62	6	63	5
	R10-01	B	1	64	66	67	2	63	4	61	5	60	7	59	8	58	9	58	9	57	9	59	8
	R10-02 (M10-01)	B	2	64	66	67	3	62	5	60	7	59	8	58	9	58	9	57	9	57	9	59	8
	R10-03	B	1	64	66	67	3	62	5	59	7	58	8	58	9	57	9	57	9	57	10	59	8
	R10-04	B	1	63	65	66	3	61	5	58	8	57	9	57	9	56	10	56	10	56	10	57	9
	R10-05	B	1	63	65	65	3	60	5	58	8	57	9	56	10	55	10	55	11	55	11	57	9
	R10-06	B	1	63	65	65	2	58	7	57	8	56	9	56	9	55	10	55	10	55	10	56	9
	R10-07	B	1	63	65	65	2	59	6	57	8	56	9	56	9	55	10	55	10	55	10	56	9
	R10-08	B	1	60	62	63	3	60	4	59	4	57	6	56	7	56	8	55	8	55	8	57	6
	R10-09	B	1	61	63	64	3	60	4	59	4	56	8	55	9	54	10	54	10	56	8	56	8
	R10-10	B	1	62	64	64	3	60	5	57	7	56	9	55	10	54	10	54	11	56	9	56	9
	R10-11	B	1	62	64	65	2	60	5	57	7	56	9	55	10	54	10	54	11	56	9	56	9
	R10-12 (M10-02)	B	1	63	65	66	3	61	5	58	8	56	10	56	10	55	11	54	12	56	10	56	10
	R10-13	B	1	63	65	66	2	61	5	58	8	56	9	55	10	55	11	54	12	56	9	56	9
	R10-14 (M10-03)	B	1	62	64	64	2	58	6	57	7	57	8	56	9	55	9	55	10	56	8	56	8
	R10-15	B	1	64	66	66	2	61	5	58	8	56	10	56	10	55	11	54	12	56	10	56	10
	R10-16	B	1	63	65	65	2	59	6	58	7	57	8	56	9	56	9	55	10	55	10	57	8
	R10-17	B	1	63	65	65	2	59	6	58	8	57	9	56	9	55	10	55	11	56	9	56	9
	R10-18	B	1	64	66	66	2	60	5	58	8	57	9	56	10	55	10	55	11	56	9	56	9
	R10-19	B	1	62	64	64	2	59	5	57	7	56	8	56	9	55	9	54	10	56	8	56	8
	R10-20	B	1	59	61	62	2	58	3	57	4	57	5	56	5	56	6	56	6	56	5	56	5
	R10-21	B	1	64	65	66	2	60	5	57	9	56	10	55	11	54	12	54	12	55	10	55	10
	R10-22 (M10-04)	B	1	64	65	66	2	60	5	58	8	56	9	55	10	55	11	54	12	56	10	56	10
	R10-23	B	1	62	64	64	2	60	5	58	7	56	9	55	9	55	10	54	10	55	9	55	9
	R10-24	B	1	62	63	64	2	59	4	58	6	56	7	55	8	55	9	55	9	56	8	56	8
	R10-25	B	1	61	63	63	2	59	4	58	6	56	7	55	8	55	8	55	9	56	8	56	8
	R10-26	B	1	58	60	61	2	57	4	56	5	55	6	55	6	54	7	54	7	55	6	55	6
	R10-27 (M10-06)	B	1	63	65	65	2	65	1	65	1	65	1	65	1	64	1	64	1	65	1	65	1
	R10-28	B	1	63	65	65	2	64	0	64	0	64	0	64	0	64	0	64	0	64	0	64	0
	R10-29	B	1	59	61	61	2	61	1	61	1	61	1	61	1	61	1	60	1	61	1	61	1
	R10-30	B	1	58	60	60	2	60	1	60	1	60	1	60	1	60	1	59	1	60	1	60	1
	R10-31 (M10-07)	B	1	58	60	60	2	60	1	60	1	60	1	59	1	59	1	59	1	59	1	59	1
	R10-32	B	1	58	60	60	2	59	1	59	1	59	1	59	1	59	1	59	1	59	1	59	1
	R10-33	B	1	58	60	60	2	59	1	59	1	59	1	59	1	59	1	59	1	59	1	59	1
	R10-34	B	1	61	63	63	2	61	1	61	1	61	1	61	1	61	1	61	1	61	1	61	1
	R10-35	B	1	63	65	65	2	65	0	65	0	65	0	65	0	65	0	65	0	65	0	65	0
	R10-36	B	1	62	64	64	2	64	0	64	0	64	0	64	0	64	0	64	0	64	0	64	0
	R10-37	B	1	60	62	63	2	59	0	59	0	57	0	55	0	55	0	54	0	57	0	57	0
	R10-38	B	1	62	64	64	2	60	0	58	0	56	0	55	0	54	0	54	0	56	0	56	0
R10-39	B	1	59	61	62	2	59	3	58	3	57	5	56	5	55	6	55	7	57	5	57	5	
<b>Number of Impacted Receptors</b>						12		12		12		12		12		12		12		12		12	
<b>Feasibility Evaluation</b>												10		11		12		12		12		12	
<b>Impacted Receptors receiving ≥ 5 dB Insertion Loss (I.L.)</b>												83%		92%		100%		100%		100%		100%	
<b>Percent of Impacted Receptors Receiving ≥ 5 dB I.L.</b>												Yes		Yes		Yes		Yes		Yes		Yes	
<b>Is this percentage ≥ 50%?; If yes, barrier is feasible.</b>												Yes		Yes		Yes		Yes		Yes		Yes	
<b>Reason</b>												10		14		17		17		17		17	
<b>Number of Non-impacted receptors receiving ≥ 5 dB I.L. (Benefited Receptors)</b>												20		25		29		29		29		29	
<b>Total Number of receptors receiving ≥ 5 dB I.L. (Benefited Receptors)</b>												0		19		22		24		25		26	
<b>Number of receptors receiving ≥ 7 dB I.L. (Meeting NRDG)</b>												0		19		22		24		25		26	
<b>Does at least one Benefited Receptor Receive ≥ 7 dB I.L.?</b>												No		Yes		Yes		Yes		Yes		Yes	
<b>Barrier Height (feet)</b>												10		12		14		16		18		20	
<b>Barrier Length (feet)</b>												2305		2305		2305		2305		2305		2305	
<b>Barrier square footage (SQft)</b>												23051		27661		32271		36880		41491		46011	
<b>Barrier square footage per benefited receptor (SF/BR)</b>												1106		1113		1272		1431		1587		1141	
<b>Is SF/BR ≤ 2,000?; If yes, barrier is reasonable</b>												Yes		Yes		Yes		Yes		Yes		Yes	
<b>Average I.L. per Benefited Receptor (dB)</b>												7		8		9		9		10		8	

  Impacted (66 dB(A) or 10 dB increase over existing)  
  Impacted Receptors receiving ≥ 5dB(A)  
  Non-Impacted Receptors receiving ≥ 5dB(A)

All noise levels are Leq(h) values and are A-weighted, expressed as dB(A)  
 With the exception of average insertion loss values, all noise levels were calculated to the tenth of a dB(A) and then rounded for presentation purposes.

**Table 11: Parallel Barrier Analysis Results**

Site ID:	Delta (dB)
R8-09	2.4
R8-17	3.4
R8-19	2.4
R8-28	3.7
R8-33	2.2
R8-35	2.0
R8-37	3.9
R8-42	3.9
R10-01	4.5
R10-05	2.9
R10-06	1.8
R10-10	3.4
R10-11	3.7
R10-14	1.8
R10-16	1.3

**Appendix F:**  
**Environmental Justice**

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# **ENVIRONMENTAL JUSTICE AND TITLE VI EVALUATIONS**

Proposed Scranton Beltway Project (MPMS# 106682)

Wyoming Valley and Clarks Summit Interchanges  
Luzerne and Lackawanna Counties, Pennsylvania

*September 2022*  
*(Revised August 2024)*

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### ATTACHMENTS

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- Attachment 2 – Scranton Beltway – Wyoming Valley, Title VI Evaluation
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## **ENVIRONMENTAL JUSTICE AND TITLE VI EVALUATIONS**

### **Scranton Beltway Project (MPMS# 106682) Wyoming Valley and Clarks Summit Interchanges Luzerne and Lackawanna Counties, Pennsylvania**

#### **1.0 INTRODUCTION**

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (February 11, 1994) directs federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority and low-income populations. For transportation projects that use federal funds, the Federal Highway Administration (FHWA) is responsible for complying with the EO. Additionally, EO 14096<sup>1</sup> "*Revitalizing Our Nation's Commitment to Environmental Justice for All*" was enacted on April 21, 2023. The new EO 14096 does not rescind EO 12898. It enhances the scope of efforts under EO 12898 by directing federal agencies to identify, analyze and address disproportionate human health and environmental impacts of federal activities. The FHWA Order on "*Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*" (June 14, 2012), clarifies the definition of adverse effects and states that the "denial of, reduction in, or significant delay in the receipt of, benefits of FHWA programs, policies or activities" also constitutes an adverse effect<sup>2</sup>. Pursuant to the FHWA's Title VI of the Civil Rights Act and Additional Nondiscrimination Requirements<sup>3</sup> and Title VI of the Civil Rights Act of 1964, no person shall be excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance. In addition to the groups protected under the original Title VI Statute, the FHWA Title VI program specifically protects race, color, national origin, sex, age, disability, low-income, and limited English proficiency<sup>4</sup>. Cumulatively, EO 12898 and EO 14096 on Environmental Justice, the Title VI Statute of 1964, and the FHWA Title VI program, seek to develop greater equity in the transportation system.

For the Scranton Beltway project (the project), Environmental Justice (EJ) and Title VI Evaluations were undertaken to determine if such communities are present, and if they will be adversely affected by the project, pursuant to EO 12898, Title VI of the Civil Rights Act, and the FHWA's Title VI Program.

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<sup>1</sup> Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All  
<https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/21/executive-order-on-revitalizing-our-nations-commitment-to-environmental-justice-for-all/>

<sup>2</sup> FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations  
<http://www.fhwa.dot.gov/legisregs/directives/orders/664023a.htm>

<sup>3</sup> FHWA Title VI of the Civil Rights Act of 1964 and Additional Nondiscrimination Requirements  
<http://www.fhwa.dot.gov/civilrights/programs/tvi.cfm>

<sup>4</sup> FHWA Environmental Justice, Title VI, Non-Discrimination and Equity  
[https://www.fhwa.dot.gov/environment/environmental\\_justice/equity/](https://www.fhwa.dot.gov/environment/environmental_justice/equity/)



The project contains two separate project area corridors. The Wyoming Valley Interchange is located in Pittston Township and the Borough of Dupont, Luzerne County and the Clarks Summit Interchange is located in South Abington Township, Lackawanna County. This evaluation focuses on both project area corridors.

## 2.0 METHODOLOGY

Based on Luzerne-Lackawanna Metropolitan Planning Organization’s (MPO) Lackawanna-Luzerne Transportation Study (LTTS), eight demographic groups are included in the EJ and Title VI Evaluation<sup>5</sup>. These groups consist of Non-Hispanic Minority, Hispanic, Households in Poverty, Limited English Proficiency, Persons with a Physical Disability, Elderly over 65 Years in Age, Carless Households, and Female Head of Household with Children. These groups can be defined as:

*Table 1: Environmental Justice and Title VI Group Definitions*

<b>Group</b>		<b>Definition</b>
EJ groups	Non-Hispanic Minority	All persons of Black or African American, American Indian and Alaska Native, Asian Native, Hawaiian and Other Pacific Islander, some other race, or two or more races.
	Hispanic	All persons who identified themselves as being of Hispanic or Latino origin.
	Households in Poverty	Households with income in the past 12 months below the poverty level.
Title VI groups	Limited English Proficiency	All persons age 5 or older that speak English less than 'Very Well'.
	Persons with a Physical Disability	Total civilian, non-institutionalized population ages 16 to 64 with any disability.
	Elderly over 65 Years in Age	All persons age 65 or older.
	Carless Households	Total housing units occupied with no vehicle available.
	Female Head of Household with Children	All persons identifying as female with no spouse present with children under the age of 17.

<sup>5</sup> Lackawanna-Luzerne Regional Plan Environmental Justice, May 2011  
<https://www.luzernecounty.org/DocumentCenter/View/357/Appendix-B.pdf>

Specifically, EJ groups consist of minority and low-income populations. Based on the LLTS MPO demographic categories, Non-Hispanic Minority, Hispanic, and Households in Poverty are considered EJ groups. The remaining five groups, Limited English Proficiency, Persons with a Physical Disability, Elderly over 65 Years in Age, Carless Households, and Female Head of Household with Children are included within the Title VI Evaluation.

Due to the distance (16 miles) between the Wyoming Valley and Clarks Summit project areas, both project areas were evaluated separately, and the EJ groups and Title VI groups were also analyzed separately.

The American Community Survey (ACS) Data for 2015-2019 and the demographic groups were located at the census tract level. Based on the ACS form, an individual may be counted in multiple groups which are reflected in the EJ and Title VI Evaluations<sup>6</sup>. Please see **Figure 1** (Wyoming Valley Project Corridor Location and Census Tract Map) and **Figure 2** (Clarks Summit Project Corridor Location and Census Tract Map) for the locations of the project corridors in relation to the 2020 census tracts.

The known EJ and Title VI groups within the Wyoming Valley and Clarks Summit project areas were evaluated based on types of resources and impacts present within the study area of the Scranton Beltway Project. Subjects evaluated for EJ and Title VI impacts included air quality, noise levels, aesthetic impacts, vibration levels, loss of employment, economic vitality, pedestrian accessibility/impacts, transit availability, safety, temporary construction impacts, hazardous/residual waste, property acquisitions, and community cohesion.

### 3.0 RESULTS

#### Wyoming Valley Project Corridor:

Based on the ACS 2015-2019 Census data, the Title VI groups with percentages above Luzerne County average within the project study area consisted of percent Elderly over Age 65 and percent Persons with a Physical Disability. No EJ groups contained percentages above the Luzerne County average. **Table 2** presents data on these three groups. **Attachment 1**, the Scranton Beltway Environmental Justice / Title VI Datasheet, covers all the demographic groups included in the EJ / Title VI Evaluation.

*Table 2: Wyoming Valley Project Area Title VI and EJ Group Results*

<b>ACS 2019 Data</b>	<b>Title VI Groups</b>	
<b>2020 Census Tract</b>	<b>% Elderly over Age 65</b>	<b>% Persons with a Physical Disability</b>
2101	18.19	14.70
2102	21.81	16.60
Luzerne County Threshold	19.61	15.80

*\* Shaded cells show categories above County Threshold*

<sup>6</sup> United States Census American Community Survey Questions:  
<https://www.census.gov/acs/www/about/why-we-ask-each-question/>

As a result of the presence of two Title VI groups, a Title VI Evaluation was performed for the Wyoming Valley project area corridor. The Title VI Evaluation was performed to determine if the Title VI groups were excluded from participation in, denied the benefits of the project, or subjected to discrimination as a result of the project. No EJ groups were identified and therefore an EJ Evaluation was not performed for the Wyoming Valley project area corridor.

The Title VI evaluation for percent Elderly over Age 65 and percent Persons with a Physical Disability indicated that the groups, located within the Wyoming Valley project area corridor, were not excluded from participation in, denied the benefits of the project or subjected to discrimination as a result of the project. These effects were determined not to be present based on the nature of the project, its impacts, the presence of an existing transportation corridor and mitigation measures implemented. Potential mitigation measures could include landscaping, noise reduction, and relocation opportunities within the community; however, no Title VI residences will be displaced by the project. Please see **Attachment 2: Scranton Beltway – Wyoming Valley, Title VI Evaluation**.

Clarks Summit Project Area Corridor:

Based on the ACS 2015-2019 Census data, the Title VI groups with percentages above Lackawanna County average within the project study area consisted of percent Elderly over Age 65 and percent Carless Households. One EJ group, Non-Hispanic Minority, had percentages above the Lackawanna County average. See **Table 3** below.

*Table 3: Clarks Summit Project Area Title VI and EJ Group Results*

<b>ACS 2019 Data</b>	<b>Title VI Groups</b>		<b>EJ Group</b>
<b>2020 Census Tract</b>	<b>% Elderly over Age 65</b>	<b>% Carless Households</b>	<b>% Non-Hispanic Minority</b>
1104.01	20.35	3.57	9.77
1104.03	22.63	13.64	9.27
Lackawanna County Threshold	19.62	9.88	8.91

*\* Shaded cells show categories above County Threshold*

Please see **Attachment 1: Scranton Beltway Environmental Justice / Title VI Datasheet** for the full spreadsheet of all the demographic groups included in the EJ / Title VI Evaluation. As a result of the presence of two Title VI groups and one EJ group, Title VI and EJ Evaluations were performed for the Clarks Summit project area corridor. The Title VI Evaluation was performed to determine if Title VI groups were excluded from participation in, denied the benefits of the project, or subjected to discrimination as a result of the project. The EJ Evaluation was performed to determine if the EJ group had disproportionately high and adverse human health or environmental effects present as a result of the project.

The evaluation for percent Elderly over Age 65 and percent Carless Households indicated that these groups, located within the Clarks Summit project area corridor, were not excluded from participation in, denied the benefits of the project or subjected to discrimination as a result of the project. These effects were determined not to be present based on the nature of the project, its impacts, the presence of an existing transportation corridor, and



mitigation measures implemented. Potential mitigation measures could include landscaping, noise reduction and relocation opportunities within the community. Please see **Attachment 3: Scranton Beltway – Clarks Summit, Title VI Evaluation**.

A Non-Hispanic Minority EJ group is present within the project corridor and specifically within Census Tract 1104.01 and Census Tract 1104.03 (**Attachment 1**). Additional analysis was warranted to further evaluate the potential presence of EJ groups within the project vicinity and as a result, ACS 2015 to 2019 block group data was utilized. Based on block group data for Census Tract 1104.01, Block Group 1 does not contain an EJ group while Block Groups 2 and 3 contain EJ groups. Further analysis of Non-Hispanic Minority population in Census Tract 1104.01 showed that of the 9.77% Non-Hispanic Minority population for this census tract, 6.6% are Asian, 2.1% fall under the Two or more races category and 1% are black. Most of the Asian and black minority population is located in Block Groups 2 and 3 of this census tract. To understand the cumulative nature of environmental burden faced by these minority groups, the set of environmental burden and socioeconomic indicators provided by EJSCREEN for these two block groups were taken into consideration (copies of EJSCREEN reports for the same are attached in **Attachment 5**). Two of the environmental burden indicators, (Toxic Release to Air and Risk Management Plan Facility Proximity), and one of the socioeconomic indicators, (Under the Age of 5), for Block Group 2 in this census tract are higher than the 80<sup>th</sup> percentile, a threshold level suggested by the EPA for initial screening of environmental justice considerations<sup>7</sup>. The Clarks Summit project area located within Block Group 2 is limited to the northern-most portion of the block group, immediately surrounding the existing I-476 mainline and ramps. The proposed project will not affect, or impact residents located in this block group. None of the environmental burden and socioeconomic indicators for Block Group 3 are higher than the 80<sup>th</sup> percentile level. The portion of the Clarks Summit project area within Block Group 2 is located at the very northern portion of the project study area along existing I-81. The portion of the Clarks Summit project area within Block Group 3 is along the eastern side of I-81.

Based on block group data for Census Tract 1104.03, Block Group 1 does not contain an EJ group while Block Group 2 contains an EJ group. Further analysis of Non-Hispanic Minority population in Census Tract 1104.03 showed the following: Out of the 9.27% Non-Hispanic Minority population for this census tract, 4.8% are black, 1% fall under Two or more races category and 3% are Asian. A higher proportion of minority population is located in Block Group 2 as compared to Block Group 1 of this census tract. To understand the cumulative nature of environmental burden faced by these minority groups, the set of environmental burden and socioeconomic indicators provided by EJSCREEN for these two block groups were taken into consideration (copies of EJSCREEN reports for the same are attached). One of the environmental burden indicators, (Underground Storage Tanks [UST's]), and one of the socioeconomic indicators, (Under the Age of 5), for Block Group 1 in this census tract are higher than the 80<sup>th</sup> percentile, a threshold level suggested by the EPA for initial screening of environmental justice considerations<sup>8</sup>. While UST's are present in the Block Group, there are no known UST's in the project study area. In addition, there are no known concentrations of daycare/preschool facilities in the project study area where the p

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<sup>7</sup> Environmental Justice Mapping and Screening Tool EJSCREEN Technical Documentation  
[https://www.epa.gov/sites/default/files/2021-04/documents/ejscreen\\_technical\\_document.pdf](https://www.epa.gov/sites/default/files/2021-04/documents/ejscreen_technical_document.pdf)

<sup>8</sup> Environmental Justice Mapping and Screening Tool EJSCREEN Technical Documentation  
[https://www.epa.gov/sites/default/files/2021-04/documents/ejscreen\\_technical\\_document.pdf](https://www.epa.gov/sites/default/files/2021-04/documents/ejscreen_technical_document.pdf)

project could potentially impact children under the age of 5. None of the environmental burden and socioeconomic indicators but one socioeconomic indicator for Block Group 2 (Over the Age 64) are higher than the 80<sup>th</sup> percentile level in the state. There are no known concentrations of a population over the age of 64 in the project study area.

The Clarks Summit project area located within Block Group 2 is limited to the northern-most portion of the block group, immediately surrounding the existing I-476 mainline and ramps. See **Table 4** below for the block group analysis results. Overall, based on the block group data, EJ populations are located within Census Tract 1104.01, Block Groups 2 and 3 and within Census Tract 1104.03, Block Group 2.

*Table 4: Clarks Summit Project Area Block Group Analysis Results*

Census 2019 ACS Data		EJ Group
2020 Census Tract	Block Groups	% Non-Hispanic Minority
1104.01	1	4.34
	2	11.70
	3	20.28
1104.03	1	5.55
	2	11.69
Lackawanna County Threshold		8.91

\* *Shaded cells denotes that an EJ Group is present.*

The EJ evaluation for percent Non-Hispanic Minority, located within the Clarks Summit project area corridor, indicated that there was no disproportionately high and adverse human health or environmental effects present within the project corridor. Disproportionate impacts and adverse effects were determined not to be present based on the nature of the project, its impacts, the presence of an existing transportation corridor, and mitigation measure implemented. Potential mitigation measures could include landscaping, noise reduction, and relocation opportunities within the community. As discussed in **Attachment 4: Scranton Beltway – Clarks Summit, EJ Evaluation**, based on the mobile source air toxics air quality analysis carried out, future emissions are expected to be lower in future with the project, thus improving the future air quality in the region. Noise walls will be constructed as part of the project and are expected to create a net benefit to the entire community. Improved traffic flow and operations along I-476 and I-81 will improve economic conditions both locally and regionally through decreased travel times and improved access to local and regional businesses and industry. The project will not have a significant number of displaced residents, the project does not bisect or disconnect the community, nor will it affect/disrupt community services, community amenities or aesthetics. Therefore, the project will not negatively affect the community.

The three residential displacements located within the EJ community (Clarks Summit project area) represent 0.55% of households within the community (Census Tract 1104.01 Block Group 3). The three residential displacements located within the Title VI community (Clarks Summit project area) represent 1.04% of households within the community (Census Tract 1104.03 Block Group 1). Acquisitions within Census Tract 1104.03 Block Group 2 are avoided because this Census Tract Block Group is south of potential ramp connection locations.

#### 4.0 PUBLIC INVOLVEMENT

Public involvement has been conducted throughout preliminary design and will continue to be conducted during final design. Public outreach has included everyone within the project area which includes physical letters, e-mail blasts, website updates, and public meetings. The general public has continued to be kept informed of the project status and progress through the use of the Scranton Beltway website<sup>9</sup>. Two public hearings are anticipated for this project to include a plans display and/or open house format with a brief presentation. Additionally, three public official’s meetings and two public plans displays were held for the project. Also, there was press coverage of the public meeting plans display to provide information through local papers. To date, informal coordination with local municipalities, and the public officials and public plans display meetings have not indicated any EJ or Title VI concerns. Furthermore, no responses to the periodic email newsletters pertaining to EJ and Title VI have been received.

#### 5.0 CONCLUSIONS

EJ communities account for approximately 25% of both project areas combined; Title VI communities account for 50% of the project areas combined; the remaining 25% of the project areas are not located within EJ or Title VI communities. See **Table 5**.

*Table 5: Estimated Households (2021) within the Block Groups and within the Project Areas*

<b>County (Project Area)</b>	<b>Census Tracts</b>	<b>Block Groups within Project Areas</b>	<b>Estimated Households (2021) <sup>1</sup></b>	<b>Total # of Displacements for Project</b>	<b>EJ / Title VI Community <sup>2</sup></b>
Luzerne County (Wyoming Valley)	Census Tract 2101	Block Group 2	492	None	Title VI (ELD & PD)
	Census Tract 2102	Block Group 2	354	None	N/A
		Block Group 3	312	5 Residential, 1 Commercial	N/A
Lackawanna County (Clarks Summit)	Census Tract 1104.01	Block Group 1	808	None	N/A
		Block Group 3	544	3 Residential (0.55%)	EJ (NHM)
	Census Tract 1104.03	Block Group 1	287	3 Residential (1.04%)	Title VI (ELD & CH)
		Block Group 2	701	None	N/A

<sup>1</sup> Household Type – Table B11001 (2021 data)

Website: <https://data.census.gov/table?q=B11001&g=010XX00US>

<sup>2</sup> NHM = Non-Hispanic Minority, ELD = Elderly over 65, CH = Carless Households, and PD = Physical Disability

Evaluations for environmental justice impacts associated with air quality, noise levels, aesthetic impacts, vibration levels, loss of employment, economic vitality, pedestrian accessibility impacts, transit availability and safety showed

<sup>9</sup> Scranton Beltway project website: <https://www.paturnpike.com/traveling/construction/site/scranton-beltway>



no disproportionately high adverse impact on EJ communities in the project area (See **Attachment 4: Scranton Beltway – Clarks Summit, EJ Evaluation** for more details).

The project will have five residential displacements and one commercial displacement in areas not located within EJ or Title VI communities within the Wyoming Valley project area, and three residential EJ displacements and three residential Title VI displacements within the Clarks Summit project area.

The project will not have a significant number of displaced residents, the project does not bisect or disconnect the community, nor will it affect/disrupt community services, community amenities or aesthetics. EJ and Title VI communities represent approximately 75% of the project areas. They represent the only communities lying within the area where the connection between I-81 and I-476 is feasible. Despite this, the project will only displace 0.55 % of households in the EJ community and 1.04% of households in the Title VI community in Clarks Summit project area. EJ and Title VI displacements in the Wyoming Valley area have been avoided. The six residential displacements in the Clarks Summit project area account for 0.72% of the EJ and Title VI communities. Therefore, the six displacements are not considered significant. As such, impacts to EJ and Title VI communities are considered not disproportionately high.

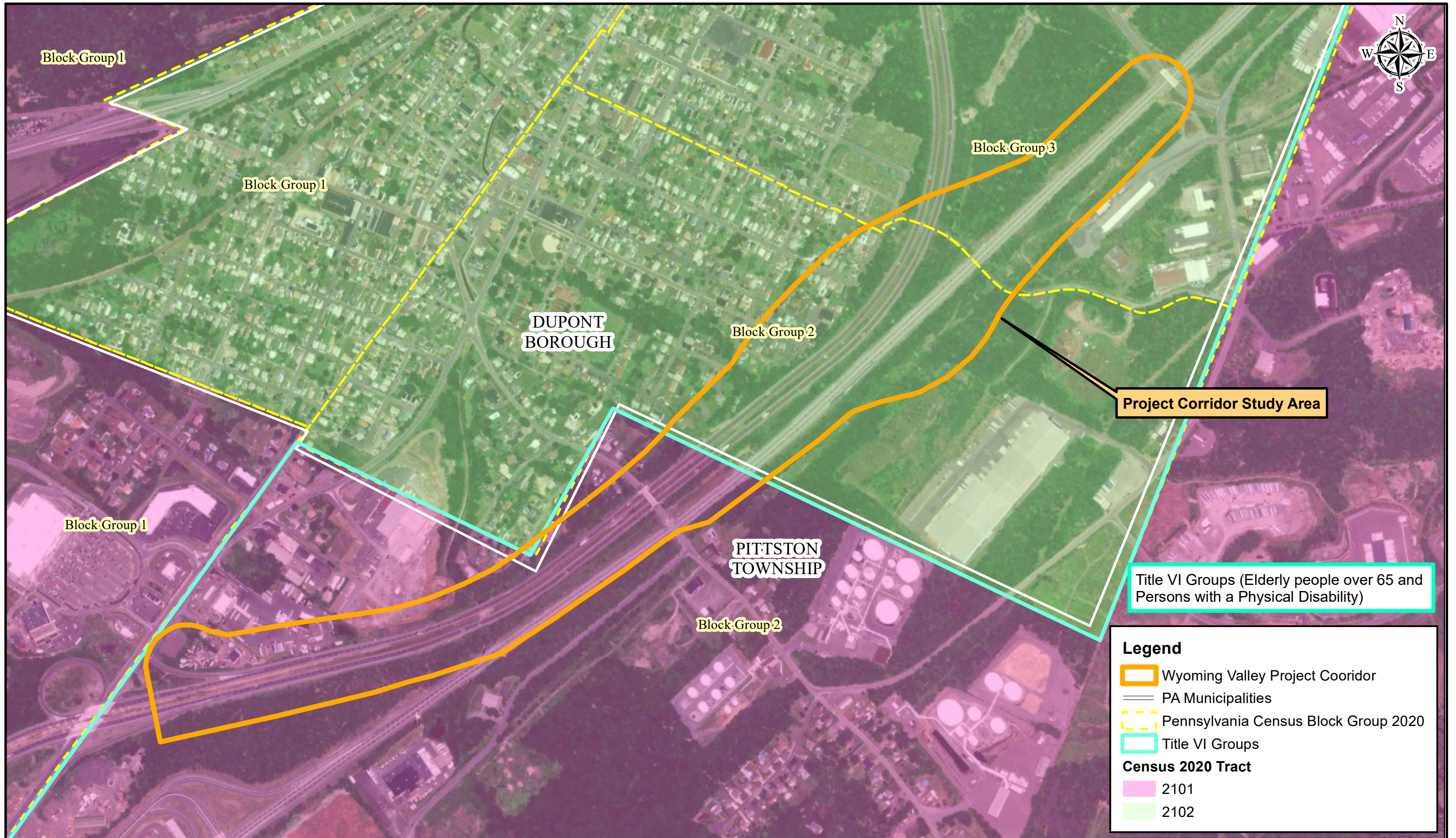
Clarks Summit displacements were determined unavoidable as no avoidance alternative was deemed practical. One alternative (Alignment ID C: I-476 NB Connection to I-81 NB, Left Merge) was identified that would not impact the EJ community. However, this alternative was found to not be practical due to the lack of sufficient width to accommodate the typical section of the proposed connector while meeting lateral clearance requirements of I-81 adjacent to the connector retaining walls. Additionally, American Association of State Highway and Transportation Officials (AASHTO) recommend against left side entrances stating they should be avoided, where practical.

Communication with the property owners within EJ and Title VI communities have been documented. Outreach to those specifically affected by the full acquisitions and located within EJ or Title VI communities will occur during final design.

Based on the EJ and Title VI evaluations prepared for the Scranton Beltway project, two Title VI groups and no EJ groups are present within the Wyoming Valley project study area and two Title VI groups and one EJ group are present within the Clarks Summit project study area. Based on the Title VI evaluations for Wyoming Valley and Clarks Summit project area corridors, Title VI groups were not excluded from participation in, denied the benefits of the project or subjected to discrimination as a result of the Scranton Beltway project. Based on the EJ evaluation for the Clarks Summit project area corridor, no disproportionately high and adverse human health or environmental effects were present as a result of the Scranton Beltway project. Therefore, there are no EJ or Title VI concerns associated with the project. No additional analysis is required.

# FIGURES





**Figure 1 - Wyoming Valley Project Corridor Location and Census Tract Map**

**Scranton Beltway Project - Wyoming Valley Corridor**  
**Pittston Township and Borough of Dupont, Luzerne County, PA**

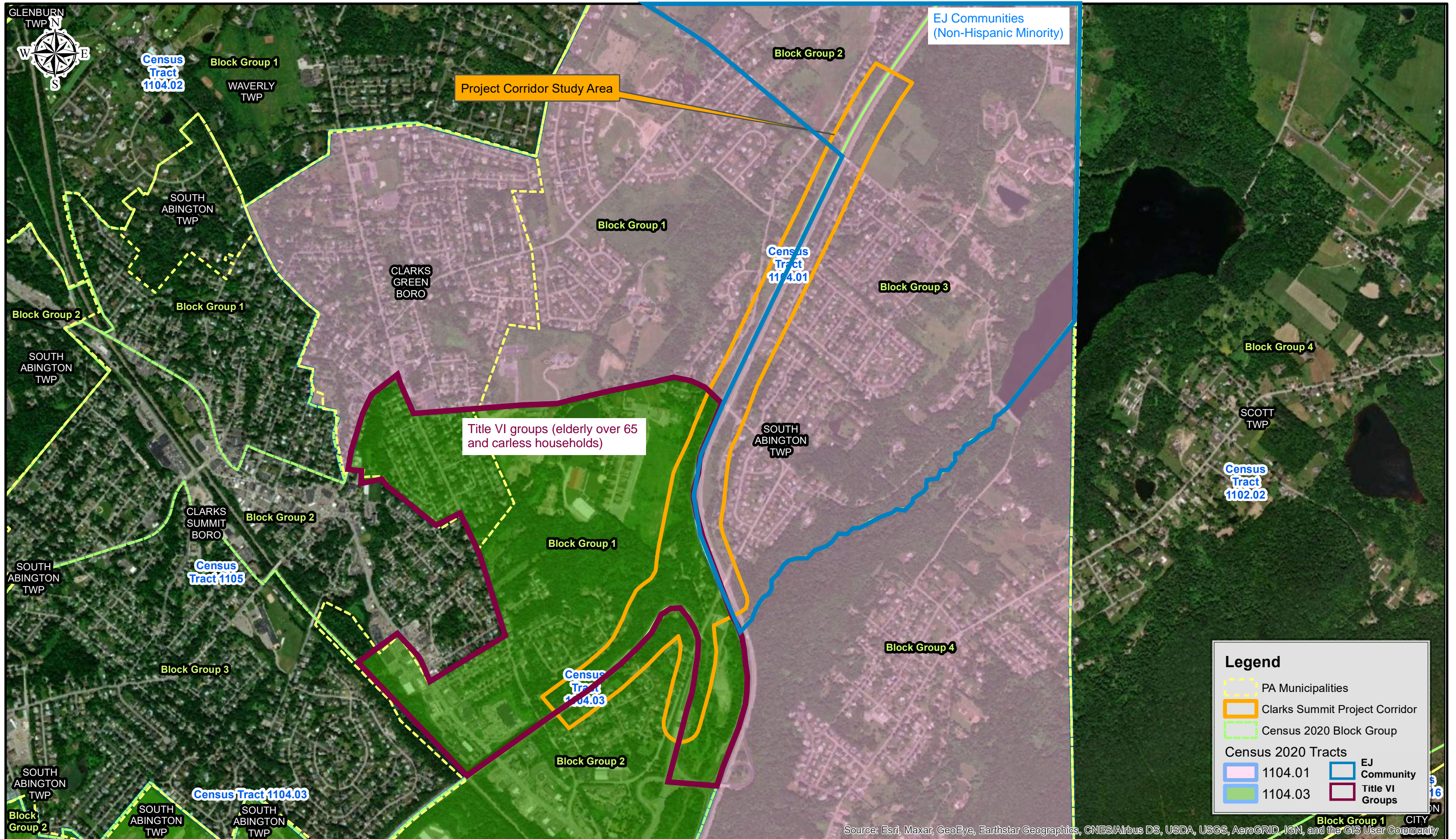
Note: Site locations and resource boundaries are approximate.

Prepared: 6/13/2024

Source: PASDA GIS layers and US Census ACS 2020 data

0 150 300 600 900 1,200 Feet  
 1 inch = 600 feet





**Figure 2: Clarks Summit Project Corridor Location and Census Tract Map**  
**Scranton Beltway Project - Clarks Summit Corridor**  
**South Abington Township, Lackawanna County, PA**

Source: PASDA GIS layers and US Census ACS 2019 data  
 0 315 630 1,260 1,890 2,520 Feet  
 1 inch = 1,250 feet

Note: Site locations and resource boundaries are approximate.  
 Prepared: 03/14/2022



# ATTACHMENTS

**Attachment 1: Scranton Beltway Project - Environmental Justice and Title VI Data Sheet**  
**March 2022**

**US Census Bureau, American Community Survey (ACS), 5 Year Estimates (2015-2019)**

<b>Lackawanna County - Clarks Summit Project Corridor</b>										
2020 Census Tract	2019 ACS Population	Households	Environmental Justice Groups			Title VI Groups				
			NHM% <sup>1</sup>	POV% <sup>2</sup>	HIS% <sup>3</sup>	FHHC% <sup>4</sup>	Eld65% <sup>5</sup>	CH% <sup>6</sup>	LEP% <sup>7</sup>	PDIS% <sup>8</sup>
1104.01	6468	2634	9.77%	3.72%	1.28%	10.60%	20.35%	3.57%	1.06%	11.10%
1104.03	3151	1085	9.27%	7.83%	2.95%	2.77%	22.63%	13.64%	0.00%	13.90%
<b>Lackawanna County Threshold</b>			8.91%	14.27%	7.52%	26.36%	19.62%	9.88%	2.49%	15.40%
<b>Notes:</b>										
<sup>1</sup> Non-Hispanic Minority Population - Table DP05, Calculated as sum of Black or African American, American Indian and Alaska Native, Asian Native Hawaiian and Other Pacific Islander, Some Other Race and Two or More races, / "Total population"										
<sup>2</sup> Households in Poverty - Table B17017, Calculated as "Income in the past 12 months below poverty level" / "Total households"										
<sup>3</sup> Hispanic or Latino Population - Table DP05, Calculated as "Hispanic or Latino Population" / "Total Population"										
<sup>4</sup> Female Head of Household with Children - Table B09002, Calculated as "Female householder, No husband present" / "Total"										
<sup>5</sup> Senior Population over 65 years old - Table DP05, Calculated as "Total Population over 65 years" / "Total Population"										
<sup>6</sup> Carless Households - Table B08201, Calculated as "Total No Vehicle Available" / "Total Vehicles"										
<sup>7</sup> Limited English Proficiency Population - Table S1602, Calculated as "Limited English-speaking households" / "All households"										
<sup>8</sup> Disabled Population - Table S1810, Value given as "Total civilian noninstitutionalized population with a disability"										

<b>Luzerne County - Wyoming Valley Project Corridor</b>										
2020 Census Tract	2019 ACS Population	Households	Environmental Justice Groups			Title VI Groups				
			NHM% <sup>1</sup>	POV% <sup>2</sup>	HIS% <sup>3</sup>	FHHC% <sup>4</sup>	Eld65% <sup>5</sup>	CH% <sup>6</sup>	LEP% <sup>7</sup>	PDIS% <sup>8</sup>
2101	3364	1431	2.59%	4.05%	0.27%	20.28%	18.19%	4.40%	0.50%	14.70%
2102	2692	1186	4.01%	3.88%	7.84%	19.41%	21.81%	6.83%	0.70%	16.60%
<b>Luzerne County Threshold</b>			12.39%	13.70%	11.90%	31.08%	19.61%	10.47%	2.80%	15.80%
<b>Notes:</b>										
<sup>1</sup> Non-Hispanic Minority Population - Table DP05, Calculated as sum of Black or African American, American Indian and Alaska Native, Asian Native Hawaiian and Other Pacific Islander, Some Other Race and Two or More races, / "Total population"										
<sup>2</sup> Households in Poverty - Table B17017, Calculated as "Income in the past 12 months below poverty level" / "Total households"										
<sup>3</sup> Hispanic or Latino Population - Table DP05, Calculated as "Hispanic or Latino Population" / "Total Population"										
<sup>4</sup> Female Head of Household with Children - Table B09002, Calculated as "Female householder, No husband present" / "Total"										
<sup>5</sup> Senior Population over 65 years old - Table DP05, Calculated as "Total Population over 65 years" / "Total Population"										
<sup>6</sup> Carless Households - Table B08201, Calculated as "Total No Vehicle Available" / "Total Vehicles"										
<sup>7</sup> Limited English Proficiency Population - Table S1602, Calculated as "Limited English-speaking households" / "All households"										
<sup>8</sup> Disabled Population - Table S1810, Value given as "Total civilian noninstitutionalized population with a disability"										

<b>Legend</b>	
NHM%	Percent Non-Hispanic Minority
POV%	Percent Households in Poverty
HIS%	Percent Hispanic
FHHC%	Percent Female Head of Household with child
Eld75%	Percent Elderly 65 years and older
CH%	Percent Carless Households
LEP%	Percent Limited English Proficiency
PDIS%	Percent Persons with Physical Disabilities
	Category above County Thresholds



**Attachment 2:**

**Wyoming Valley Corridor - Scranton Beltway Project**

**Title VI Evaluation**

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**ATTACHMENT 2: Wyoming Valley Corridor of the Scranton Beltway Project - Title VI Evaluation**

Identified Title VI groups present within the Wyoming Valley Corridor for the Scranton Beltway project were based on 2019 ACS Census data and LLTS methodology. The groups include Elderly over the age of 65 (E) and Persons with Physical Disability (D). Impacts were assessed based on the information present in the Environmental Assessment (EA) document prepared for the project. The Title VI groups were not excluded from the project's public involvement program or from participating in the project.

Title IV Issue	Title VI group	Excluded from Participation Y/N	Denial of Benefits Y/N	Subjected to Discrimination Y/N	Rationale
Air quality	E, D	N	N	N	A mobile source air toxics air quality analysis was completed for the project since new travel lanes and relocated lanes will be closer to homes, schools, businesses, or other populated areas (per PennDOT Publication 321, Project-Level Air Quality Handbook). As per the analysis, emissions will likely be lower in 2045 than present levels in the design year as a result of the Environmental Protection Agency's (EPA) national control programs that are projected to reduce annual MSAT emissions by over 90% from 2010 to 2050. The magnitude of the EPA-projected reductions is so great, even with accounting more traffic, that MSAT emissions in the project area are likely to be lower in the future. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Noise levels	E, D	N	N	N	Noise walls were evaluated and found to be not reasonable or feasible in the Title VI block groups and non-Title VI block groups. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination. Refer to Chapter 4.6.2 of the Environmental Assessment for Noise Analysis.
Aesthetic impacts	E, D	N	N	N	I-476 and I-81 are existing transportation facilities within the community. Visual resources will not be impacted as a result of the project. Short-term aesthetic impacts will result due to the construction of the project, but no long-term impacts are anticipated. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Vibration levels	E, D	N	N	N	I-476 and I-81 are existing transportation facilities within the community. The repaving and reconstruction and addition of new ramps within the Wyoming Valley project area will result in a new, smoother pavement surface with more efficient traffic flow and improved levels of service. Reconstruction of the roadway will create a net-benefit through improvement of the riding surface and the reduction of traffic induced vibration. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Loss of employment	E, D	N	N	N	One commercial/industrial property is proposed to be displaced as a result of the construction of the Wyoming Valley project corridor of the Scranton Beltway project. While one business will be displaced, it is assumed that the business will not shut down and no loss of employment will occur as a result of the project. Additionally, improved traffic flow and operations I-476 and I-81 will improve economic conditions both locally and regionally through decreased travel times and improved access to local and regional businesses and industry. The project will create a net-benefit for the community at large. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Economic Vitality	E, D	N	N	N	The purpose of the Scranton Beltway project is to increase the utilization of I-476 which has excess capacity while relieving congestion on I-81, particularly during the peak traffic periods and traffic incidents. Improved traffic flow and operations along these highways will improve economic conditions both locally and regionally through decreased travel times and improved access to local and regional businesses and industry. The project will create a net-benefit for the community at large. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or been subject to discrimination.

**ATTACHMENT 2: Wyoming Valley Corridor of the Scranton Beltway Project - Title VI Evaluation**

Pedestrian accessibility / impacts	E, D	N	N	N	There are no sidewalks leading to or on the existing bridges for pedestrians. No bicycle facilities exist within the Wyoming Valley project area. The project does not incorporate bicycle or pedestrian facilities. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Transit availability	E, D	N	N	N	No public transit facilities or routes are located within the Wyoming Valley project area of I-476 and I-81. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Safety	E, D	N	N	N	Overall safety conditions throughout the study area should improve due to improved traffic safety and operation on I-476 and I-81. Response times should improve for emergency response vehicles traveling along the highways. The purpose of the project is to provide a safe and efficient transportation system. The overall project will have a net benefit with respect to safety. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Temporary construction impacts	E, D	N	N	N	Temporary construction impacts will be minor and will be mitigated where possible by the presence of erosion and sedimentation control measures. Other temporary construction impacts are construction related noise and air pollution. These construction impacts will also be mitigated where possible. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Hazardous / residual waste	E, D	N	N	N	A Phase I Environmental Site Assessment (ESA) and Underground Storage Tank (UST) evaluation was completed for the Scranton Beltway project. Four sites were identified as being areas of concern for the project: Hi-Way Auto and Truck property, Lite Ning Inc. property, stormwater basin adjacent to All Star Tire and Pilot Travel Center properties, and Scranton Terminal property. No impacts to these facilities should occur as a result of avoiding known potentially contaminated sites and implementing handling/proper disposal Special Provisions within the contract. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
ROW acquisitions	E, D	N	N	N	Five residential displacements and one commercial displacement are anticipated for the Wyoming Valley project corridor. These displacements associated with the project are minimal on the scale of the overall project, as well as the overall community. Most work associated with the project is anticipated to be within existing ROW. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination. No Title VI residences will be displaced by the project.
Community cohesion	E, D	N	N	N	No impacts to community cohesion are anticipated as a result of the Scranton Beltway project (Wyoming Valley project area). No permanent impacts to connectivity within the community will result from project construction. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.



**Attachment 3:**  
**Clarks Summit Corridor - Scranton Beltway Project**  
**Title VI Evaluation**

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**ATTACHMENT 3: Clarks Summit Corridor of the Scranton Beltway Project - Title VI Evaluation**

Identified Title VI groups present within the Clarks Study Corridor for the Scranton Beltway project were based on 2019 ACS Census data and LLTS methodology. The groups include Elderly over the age of 65 (E) and Carless Households (C). Impacts were assessed based on the information present in the Environmental Assessment (EA) document prepared for the project. The Title VI groups were not excluded from the project's public involvement program or from participating in the project.

Title IV Issue	Title VI group	Excluded from Participation Y/N	Denial of Benefits Y/N	Subjected to Discrimination Y/N	Rationale
Air quality	E, C	N	N	N	A mobile source air toxics air quality analysis was completed for the project since new travel lanes and relocated lanes will be closer to homes, schools, businesses, or other populated areas (per PennDOT Publication 321, Project-Level Air Quality Handbook). As per the analysis, emissions will likely be lower in 2045 than present levels in the design year as a result of the Environmental Protection Agency's (EPA) national control programs that are projected to reduce annual MSAT emissions by over 90% from 2010 to 2050. The magnitude of the EPA-projected reductions is so great, even with accounting more traffic, that MSAT emissions in the project area are likely to be lower in the future. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Noise levels	E, C	N	N	N	It has been determined that noise walls are warranted, reasonable and feasible, and will be constructed as part of the Scranton Beltway project. The installation of noise walls will create a net-benefit to the community at large. The benefits of the noise walls will be experienced by the entire community once they are installed. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Aesthetic impacts	E, C	N	N	N	I-476 and I-81 are existing transportation facilities within the community. Visual resources will not be impacted as a result of the project. Short-term aesthetic impacts will result due to the construction of the project, but no long-term impacts are anticipated. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Vibration levels	E, C	N	N	N	I-476 and I-81 are existing transportation facilities within the community. The repaving and reconstruction and addition of new ramps within the Clarks Summit project area will result in a new, smoother pavement surface with more efficient traffic flow and improved levels of service. Reconstruction of the roadway will create a net-benefit through improvement of the riding surface and the reduction of traffic induced vibration. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Loss of employment	E, C	N	N	N	No commercial/industrial properties are proposed to be displaced as a result of the construction of the Clarks Summit project corridor of the Scranton Beltway project. Improved traffic flow and operations along I-476 and I-81 will improve economic conditions both locally and regionally through decreased travel times and improved access to local and regional businesses and industry. The project will create a net-benefit for the community at large. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Economic Vitality	E, C	N	N	N	The purpose of the Scranton Beltway project is to increase the utilization of I-476 which has excess capacity while relieving congestion on I-81, particularly during the peak traffic periods and traffic incidents. Improved traffic flow and operations along these highways will improve economic conditions both locally and regionally through decreased travel times and improved access to local and regional businesses and industry. The project will create a net-benefit for the community at large. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or been subject to discrimination.

**ATTACHMENT 3: Clarks Summit Corridor of the Scranton Beltway Project - Title VI Evaluation**

Title IV Issue	Title VI group	Excluded from Participation Y/N	Denial of Benefits Y/N	Subjected to Discrimination Y/N	Rationale
Pedestrian accessibility / impacts	E, C	N	N	N	There are no sidewalks leading to or on the existing bridges for pedestrians. No bicycle facilities exist within the Clarks Summit project area. The project does not incorporate bicycle or pedestrian facilities. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Transit availability	E, C	N	N	N	No public transit facilities or routes are located within the Clarks Summit project area of I-476 and I-81. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Safety	E, C	N	N	N	Overall safety conditions throughout the study area should improve due to improved traffic safety and operation on I-476 and I-81. Response times should improve for emergency response vehicles traveling along the highways. The purpose of the project is to provide a safe and efficient transportation system. The overall project will have a net benefit with respect to safety. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Temporary construction impacts	E, C	N	N	N	Temporary construction impacts will be minor and will be mitigated where possible by the presence of detours and erosion and sedimentation control measures. Other temporary construction impacts are construction related noise and air pollution. These construction impacts will also be mitigated where possible. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Hazardous / residual waste	E, C	N	N	N	A Phase I Environmental Site Assessment (ESA) and Underground Storage Tank (UST) evaluation was completed for the Scranton Beltway project. No environmental concerns were noted within the Clarks Summit project area. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
ROW acquisitions	E, C	N	N	N	Six residential displacements are anticipated for the Clarks Summit project corridor. Three of these residential displacements are located in the Title VI block (1.04% of Title VI community). These displacements associated with the project are minimal on the scale of the overall project, as well as the overall community. Most work associated with the project is anticipated to be within existing ROW and the only non EJ/Title VI block is located outside of the area with potential for ramp connections. The Title VI groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.
Community cohesion	E, C	N	N	N	No impacts to community cohesion are anticipated as a result of the Scranton Beltway project (Clarks Summit project area). No permanent impacts to connectivity within the community will result from project construction. These groups were not excluded from participation in, denial of benefits of the project, or subject to discrimination as a result of the project. Therefore, the Title VI groups have not been denied the benefits from the project or subjected to discrimination.



**Attachment 4:**

**Clarks Summit Corridor - Scranton Beltway Project**

**Environmental Justice Evaluation**

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**ATTACHMENT 4: Clarks Summit Corridor of the Scranton Beltway Project - Environmental Justice Evaluation**

Identified Environmental Justice groups present within the Clarks Summit Corridor for the Scranton Beltway project were based on 2019 ACS Census data and LLTS methodology. The Environmental Justice group included non-Hispanic Minority (NHM). Impacts were assessed based on the information present in the Environmental Assessment (EA) document prepared for the project. No disproportionate and adverse human health or environmental effects will result from the project.

<b>Environmental Justice Issue</b>	<b>Environmental Justice Group</b>	<b>Disproportionately High Impact Y/N</b>	<b>Adverse Effects Y/N</b>	<b>Rationale</b>
Air quality	NHM	N	N	A mobile source air toxics air quality analysis was completed for the project since new travel lanes and relocated lanes will be closer to homes, schools, businesses, or other populated areas (per PennDOT Publication 321, Project-Level Air Quality Handbook). As per the analysis, emissions will likely be lower in 2045 than present levels in the design year as a result of the Environmental Protection Agency's (EPA) national control programs that are projected to reduce annual MSAT emissions by over 90% from 2010 to 2050. The magnitude of the EPA-projected reductions is so great, even with accounting more traffic, that MSAT emissions in the project area are likely to be lower in the future. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.
Noise levels	NHM	N	N	It has been determined that noise walls are warranted, reasonable and feasible, and will be constructed as part of the Scranton Beltway project. The installation of noise walls will create a net-benefit to the community at large. The benefits of the noise walls will be experienced by the entire community once they are installed. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.
Aesthetic impacts	NHM	N	N	I-476 and I-81 are existing transportation facilities within the community. Visual resources will not be impacted as a result of the project. Short-term aesthetic impacts will result due to the construction of the project, but no long-term impacts are anticipated. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.
Vibration levels	NHM	N	N	I-476 and I-81 are existing transportation facilities within the community. The repaving and reconstruction and addition of new ramps within the Clarks Summit project area will result in a new, smoother pavement surface with more efficient traffic flow and improved levels of service. Reconstruction of the roadway will create a net-benefit through improvement of the riding surface and the reduction of traffic induced vibration. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.
Loss of employment	NHM	N	N	No commercial/industrial properties are proposed to be displaced as a result of the construction of the Clarks Summit project corridor. Improved traffic flow and operations along I-476 and I-81 will improve economic conditions both locally and regionally through decreased travel times and improved access to local and regional businesses and industry. The project will create a net-benefit for the community at large. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.
Economic Vitality	NHM	N	N	The purpose of the Scranton Beltway project is to increase the utilization of I-476 which has excess capacity while relieving congestion on I-81, particularly during the peak traffic periods and traffic incidents. Improved traffic flow and operations along these highways will improve economic conditions both locally and regionally through decreased travel times and improved access to local and regional businesses and industry. The project will create a net-benefit for the community at large. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.
Pedestrian accessibility / impacts	NHM	N	N	There are no sidewalks leading to or on the existing bridges for pedestrians. No bicycle facilities exist within the Clarks Summit project area. The project does not incorporate bicycle or pedestrian facilities. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.
Transit availability	NHM	N	N	No public transit facilities or routes are located within the Clarks Summit project area of I-476 and I-81. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.
Safety	NHM	N	N	Overall safety conditions throughout the study area should improve due to improved traffic safety and operation on I-476 and I-81. Response times should improve for emergency response vehicles traveling along the highways. The purpose of the project is to provide a safe and efficient transportation system. The overall project will have a net benefit with respect to safety. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.

**ATTACHMENT 4: Clarks Summit Corridor of the Scranton Beltway Project - Environmental Justice Evaluation**

Environmental Justice Issue	Environmental Justice Group	Disproportionately High Impact Y/N	Adverse Effects Y/N	Rationale
Temporary construction impacts	NHM	N	N	Temporary construction impacts will be minor and will be mitigated where possible by the presence of detours and erosion and sedimentation control measures. Other temporary construction impacts are construction related noise and air pollution. These construction impacts will also be mitigated where possible. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.
Hazardous / residual waste	NHM	N	N	A Phase I Environmental Site Assessment (ESA) and Underground Storage Tank (UST) evaluation was completed for the Scranton Beltway project. No environmental concerns were identified within the Clarks Summit project corridor. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.
ROW acquisitions	NHM	N	N	Six residential displacements are anticipated for the Clarks Summit project corridor. Three of the displacements are located within Census Tract 1104.01, Block Group 3, which contains an EJ group (0.55% of EJ community). These displacements associated with the project are minimal on the scale of the overall project, as well as the overall community. Most work associated with the project is anticipated to be within existing ROW. While three of the displacements are located within a block group that contains an EJ group, the remaining 3 displacements are not located in a block group that contains an EJ group. The only non EJ/Title VI block is located outside of the area with potential for ramp connections. Coordination conducted to date has not indicated that the displacements indeed impact an EJ group. However, even if the three displacements were to impact an EJ group, these displacements do not result in a disproportionately high and adverse human health or environmental effects due to the equal number of displacements that do not impact an EJ group.
Community cohesion	NHM	N	N	No impacts to community cohesion are anticipated as a result of the Scranton Beltway project (Clarks Summit project area). Public meetings will be held for the project to keep community informed. No permanent impacts to connectivity within the community will result from project construction. Therefore, no disproportionately high and adverse impacts to EJ groups will occur as a result of the project. No adverse human health or environmental effects will result from the project.



**Attachment 5:**

**Clarks Summit Corridor - Scranton Beltway Project**

**EJSCREEN**

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# EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

## Lackawanna County, PA

Blockgroup: 420691104012  
 Population: 1,925  
 Area in square miles: 1.60



July 25, 2024  
 Project 3  
 Project 2  
 Project 1  
 0 0.5 1 2 4 Miles  
 172,228  
 Esri, HERE, DeLorme, Swatch Topographic

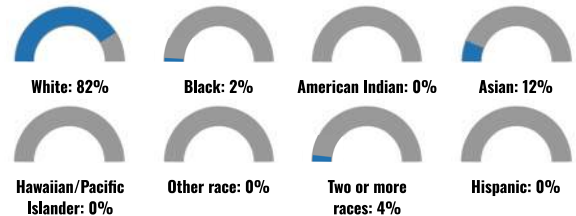
### COMMUNITY INFORMATION



### LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	84%
Spanish	3%
French, Haitian, or Cajun	1%
Russian, Polish, or Other Slavic	1%
Other Indo-European	5%
Korean	1%
Other Asian and Pacific Island	5%
Total Non-English	16%

### BREAKDOWN BY RACE



### BREAKDOWN BY AGE



### LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2018-2022. Life expectancy data comes from the Centers for Disease Control.

Report for Blockgroup: 420691104012

Report produced July 25, 2024 using EJScreen Version 2.3

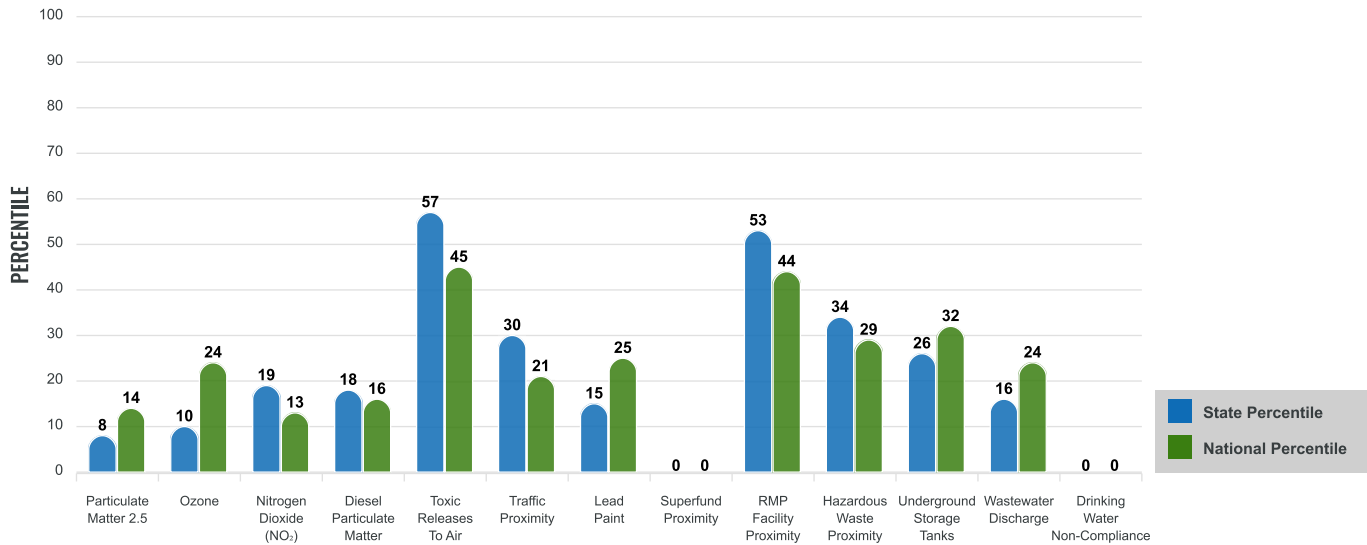
# Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

## EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

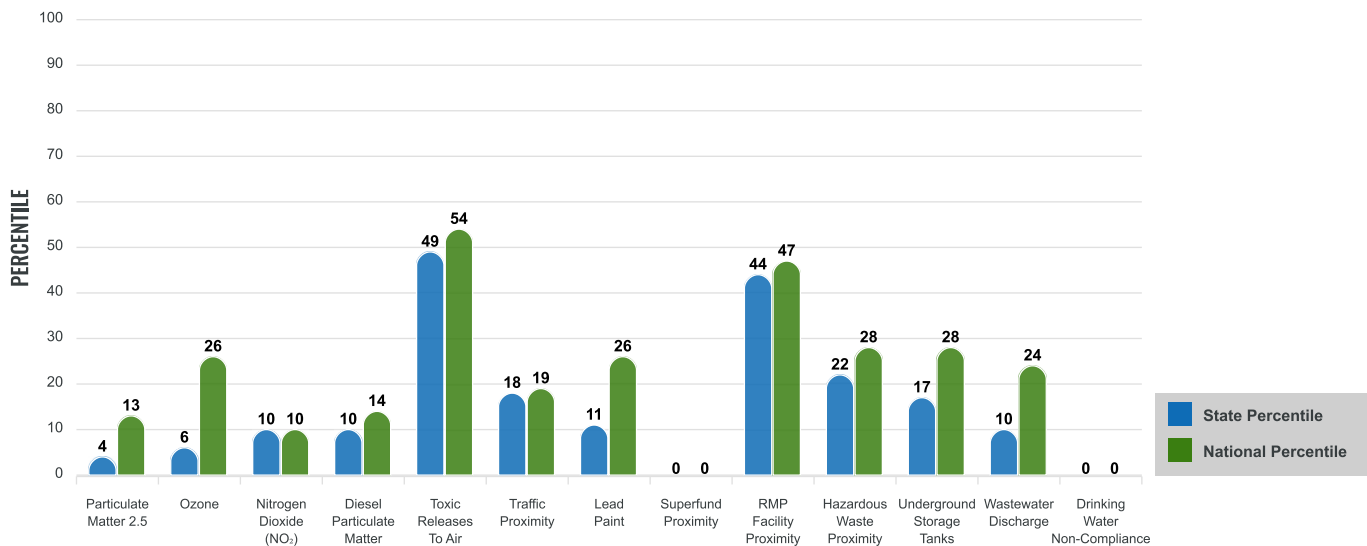
### EJ INDEXES FOR THE SELECTED LOCATION



## SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

### SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



Report for Blockgroup: 420691104012

Report produced July 25, 2024 using EJScreen Version 2.3



# EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
<b>ENVIRONMENTAL BURDEN INDICATORS</b>					
Particulate Matter 2.5 (µg/m <sup>3</sup> )	7.18	8.13	10	8.45	22
Ozone (ppb)	40.2	41.9	13	41	47
Nitrogen Dioxide (NO <sub>2</sub> ) (ppbv)	4.6	6.8	20	7.8	19
Diesel Particulate Matter (µg/m <sup>3</sup> )	0.0981	0.171	22	0.191	27
Toxic Releases to Air (toxicity-weighted concentration)	51,000	4,000	99	4,600	98
Traffic Proximity (daily traffic count/distance to road)	400,000	1,400,000	36	1,700,000	35
Lead Paint (% Pre-1960 Housing)	0.17	0.48	17	0.3	45
Superfund Proximity (site count/km distance)	0	0.35	0	0.39	0
RMP Facility Proximity (facility count/km distance)	1.1	0.55	86	0.57	83
Hazardous Waste Proximity (facility count/km distance)	1.2	2.5	43	3.5	49
Underground Storage Tanks (count/km <sup>2</sup> )	0.29	3.5	28	3.6	39
Wastewater Discharge (toxicity-weighted concentration/m distance)	25	6400	20	700000	44
Drinking Water Non-Compliance (points)	0	1	0	2.2	0
<b>SOCIOECONOMIC INDICATORS</b>					
Demographic Index USA	0.41	N/A	N/A	1.34	10
Supplemental Demographic Index USA	0.76	N/A	N/A	1.64	5
Demographic Index State	0.46	1.14	18	N/A	N/A
Supplemental Demographic Index State	0.61	1.52	4	N/A	N/A
People of Color	18%	25%	58	40%	34
Low Income	5%	28%	9	30%	8
Unemployment Rate	0%	6%	0	6%	0
Limited English Speaking Households	0%	2%	0	5%	0
Less Than High School Education	1%	9%	14	11%	13
Under Age 5	11%	5%	91	5%	89
Over Age 64	14%	19%	30	18%	39

\*Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

**Sites reporting to EPA within defined area:**

Superfund .....	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities .....	1
Water Dischargers .....	7
Air Pollution .....	4
Brownfields .....	0
Toxic Release Inventory .....	3

**Other community features within defined area:**

Schools .....	0
Hospitals .....	0
Places of Worship .....	0

**Other environmental data:**

Air Non-attainment .....	Yes
Impaired Waters .....	Yes

Selected location contains American Indian Reservation Lands* .....	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community .....	No
Selected location contains an EPA IRA disadvantaged community .....	No

Report for Blockgroup: 420691104012  
 Report produced July 25, 2024 using EJScreen Version 2.3

## EJScreen Environmental and Socioeconomic Indicators Data

### HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	15%	20%	7	20%	11
Heart Disease	5	6.3	17	5.8	36
Asthma	9.4	10.9	5	10.3	25
Cancer	7.9	7.2	67	6.4	81
Persons with Disabilities	8.9%	14.7%	15	13.7%	22

### CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	2%	11%	19	12%	20
Wildfire Risk	0%	0%	0	14%	0

### CRITICAL SERVICE GAPS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	5%	13%	25	13%	33
Lack of Health Insurance	2%	6%	20	9%	12
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access Burden	No	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for Blockgroup: 420691104012

Report produced July 25, 2024 using EJScreen Version 2.3



# EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

## Lackawanna County, PA

Blockgroup: 420691104013  
 Population: 1,323  
 Area in square miles: 1.05



July 25, 2024  
 Project 3  
 Project 2  
 Project 1  
 0 0.5 1 2 4 Miles  
 1.72,228  
 Data: HERE, DeLorme, Earthstar Geographics

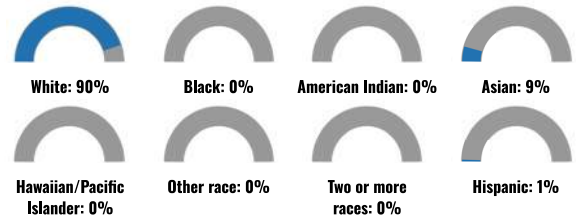
### COMMUNITY INFORMATION



### LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	84%
Spanish	3%
French, Haitian, or Cajun	1%
Russian, Polish, or Other Slavic	1%
Other Indo-European	5%
Korean	1%
Other Asian and Pacific Island	5%
Total Non-English	16%

### BREAKDOWN BY RACE



### BREAKDOWN BY AGE



### LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2018-2022. Life expectancy data comes from the Centers for Disease Control.

Report for Blockgroup: 420691104013

Report produced July 25, 2024 using EJScreen Version 2.3



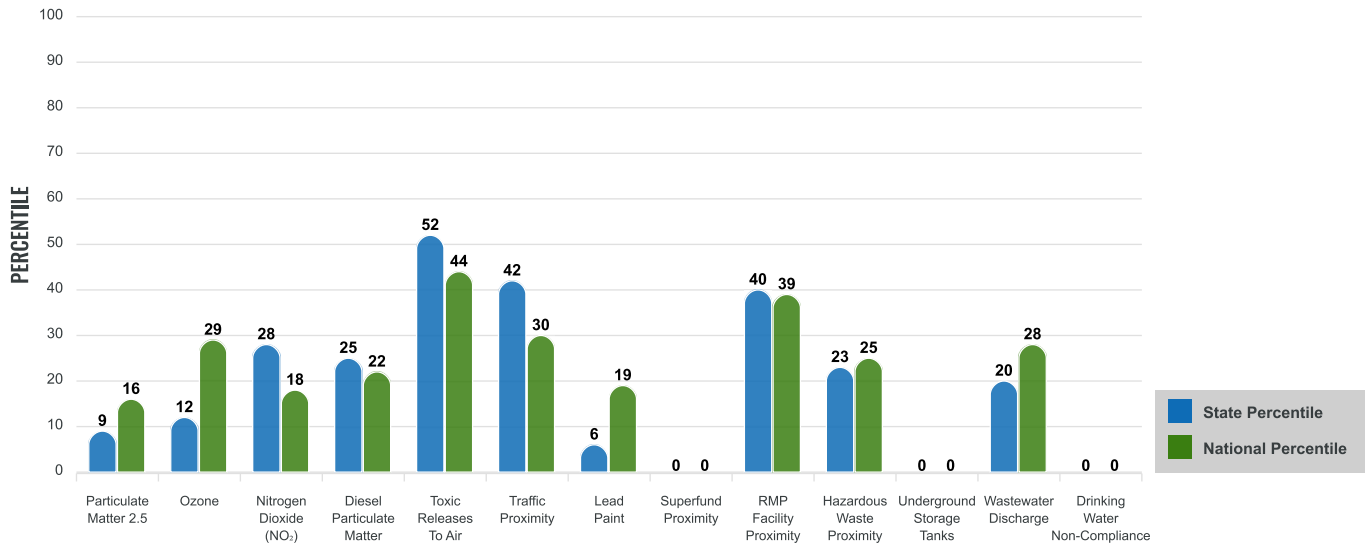
# Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

## EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

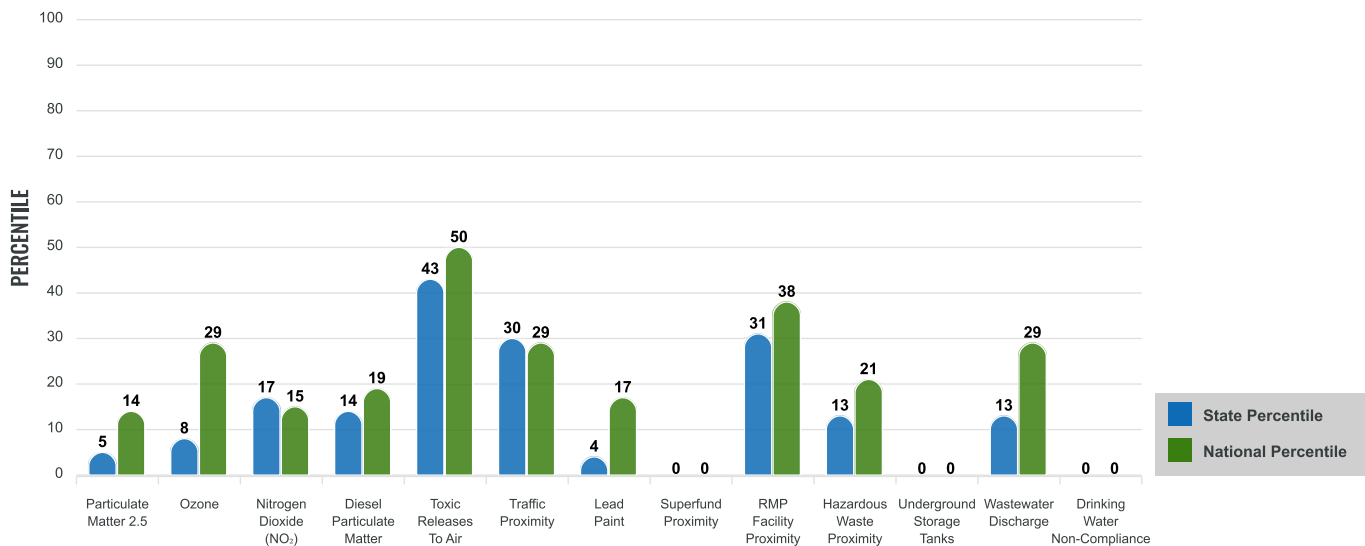
### EJ INDEXES FOR THE SELECTED LOCATION



## SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

### SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



Report for Blockgroup: 420691104013

Report produced July 25, 2024 using EJScreen Version 2.3

# EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
<b>ENVIRONMENTAL BURDEN INDICATORS</b>					
Particulate Matter 2.5 (µg/m <sup>3</sup> )	7.18	8.13	10	8.45	22
Ozone (ppb)	40.2	41.9	13	41	47
Nitrogen Dioxide (NO <sub>2</sub> ) (ppbv)	5.1	6.8	28	7.8	24
Diesel Particulate Matter (µg/m <sup>3</sup> )	0.108	0.171	26	0.191	31
Toxic Releases to Air (toxicity-weighted concentration)	3,100	4,000	74	4,600	80
Traffic Proximity (daily traffic count/distance to road)	670,000	1,400,000	48	1,700,000	45
Lead Paint (% Pre-1960 Housing)	0.027	0.48	4	0.3	21
Superfund Proximity (site count/km distance)	0	0.35	0	0.39	0
RMP Facility Proximity (facility count/km distance)	0.34	0.55	47	0.57	55
Hazardous Waste Proximity (facility count/km distance)	0.45	2.5	23	3.5	32
Underground Storage Tanks (count/km <sup>2</sup> )	0	3.5	0	3.6	0
Wastewater Discharge (toxicity-weighted concentration/m distance)	32	6400	22	700000	46
Drinking Water Non-Compliance (points)	0	1	0	2.2	0
<b>SOCIOECONOMIC INDICATORS</b>					
Demographic Index USA	0.49	N/A	N/A	1.34	14
Supplemental Demographic Index USA	0.85	N/A	N/A	1.64	9
Demographic Index State	0.53	1.14	24	N/A	N/A
Supplemental Demographic Index State	0.71	1.52	7	N/A	N/A
People of Color	10%	25%	42	40%	21
Low Income	14%	28%	28	30%	26
Unemployment Rate	5%	6%	58	6%	58
Limited English Speaking Households	0%	2%	0	5%	0
Less Than High School Education	2%	9%	17	11%	16
Under Age 5	8%	5%	78	5%	75
Over Age 64	20%	19%	58	18%	66

\*Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

**Sites reporting to EPA within defined area:**

Superfund .....	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities .....	0
Water Dischargers .....	2
Air Pollution .....	0
Brownfields .....	0
Toxic Release Inventory .....	0

**Other community features within defined area:**

Schools .....	0
Hospitals .....	0
Places of Worship .....	0

**Other environmental data:**

Air Non-attainment .....	Yes
Impaired Waters .....	Yes

Selected location contains American Indian Reservation Lands* .....	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community .....	No
Selected location contains an EPA IRA disadvantaged community .....	No

Report for Blockgroup: 420691104013  
 Report produced July 25, 2024 using EJScreen Version 2.3

## EJScreen Environmental and Socioeconomic Indicators Data

### HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	15%	20%	7	20%	11
Heart Disease	5	6.3	17	5.8	36
Asthma	9.4	10.9	5	10.3	25
Cancer	7.9	7.2	67	6.4	81
Persons with Disabilities	8.9%	14.7%	15	13.7%	22

### CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	1%	11%	19	12%	20
Wildfire Risk	0%	0%	0	14%	0

### CRITICAL SERVICE GAPS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	3%	13%	15	13%	21
Lack of Health Insurance	2%	6%	20	9%	12
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access Burden	No	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for Blockgroup: 420691104013

Report produced July 25, 2024 using EJScreen Version 2.3



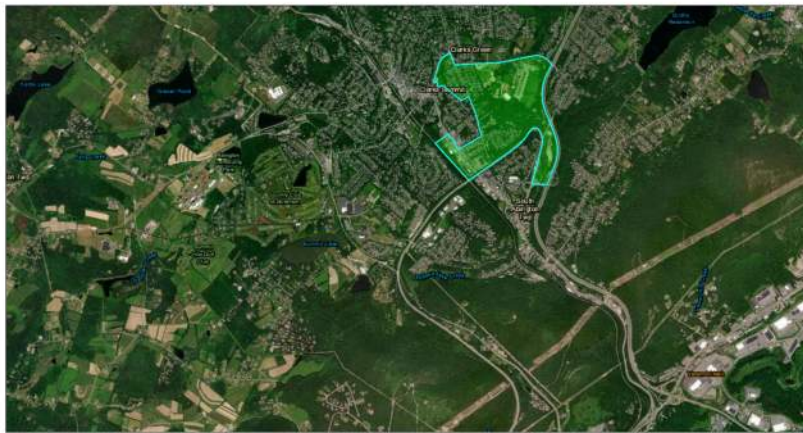


# EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

## Lackawanna County, PA

Blockgroup: 420691104031  
 Population: 1,144  
 Area in square miles: 0.65



July 25, 2024  
 Project 1  
 0 0.25 0.5 1 1.25 1.5  
 Miles  
 Data: HERE, DeLorme, Mapbox

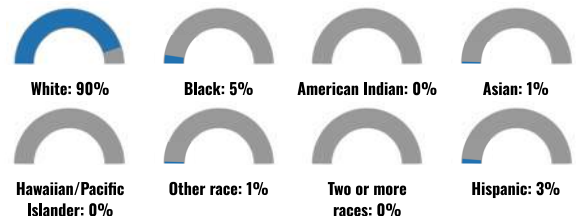
### COMMUNITY INFORMATION



### LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	92%
Spanish	1%
German or other West Germanic	1%
Other Indo-European	6%
Total Non-English	8%

### BREAKDOWN BY RACE



### BREAKDOWN BY AGE



### LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2018-2022. Life expectancy data comes from the Centers for Disease Control.

Report for Blockgroup: 420691104031

Report produced July 25, 2024 using EJScreen Version 2.3

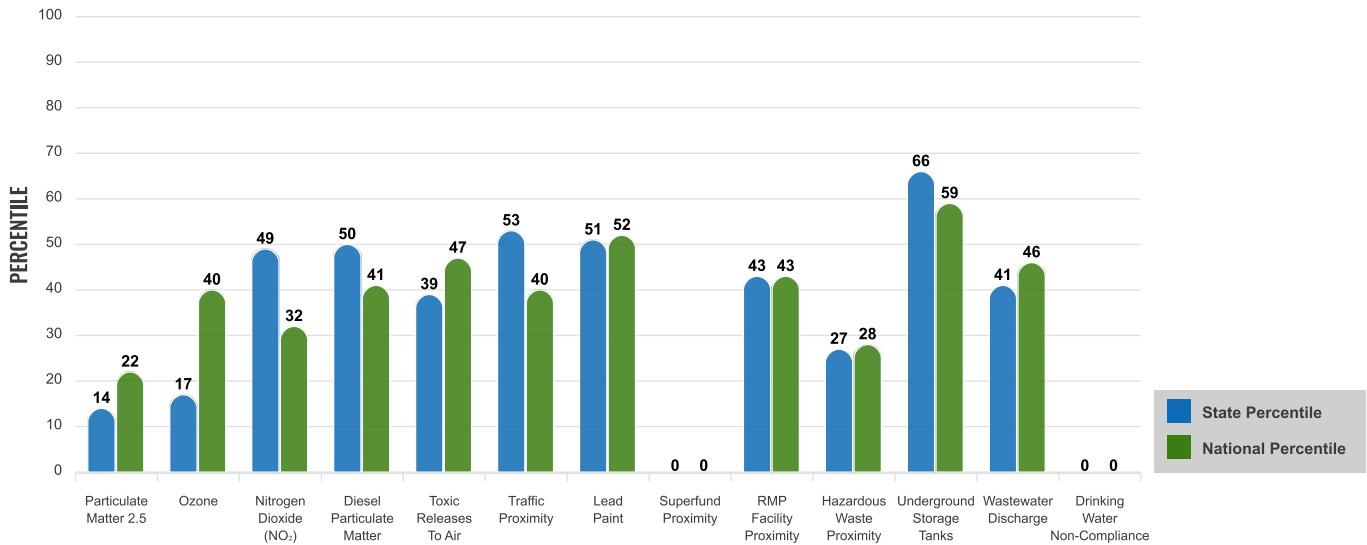
# Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

## EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

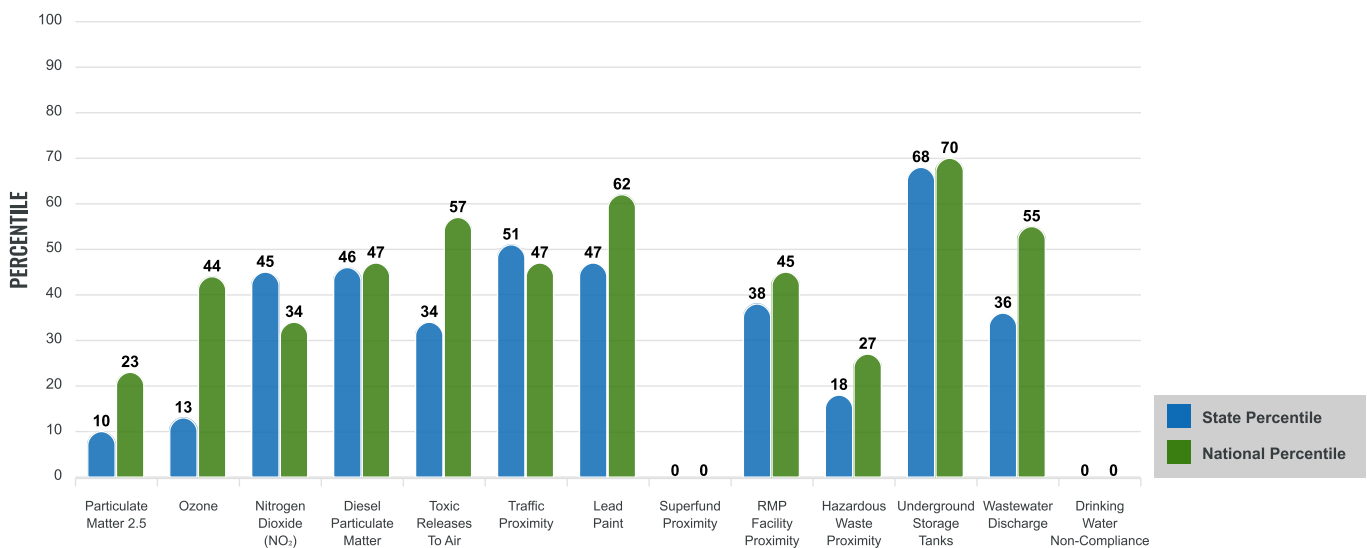
### EJ INDEXES FOR THE SELECTED LOCATION



## SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

### SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



Report for Blockgroup: 420691104031

Report produced July 25, 2024 using EJScreen Version 2.3

# EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
<b>ENVIRONMENTAL BURDEN INDICATORS</b>					
Particulate Matter 2.5 (µg/m <sup>3</sup> )	7.23	8.13	11	8.45	23
Ozone (ppb)	40.2	41.9	14	41	47
Nitrogen Dioxide (NO <sub>2</sub> ) (ppbv)	6.1	6.8	43	7.8	34
Diesel Particulate Matter (µg/m <sup>3</sup> )	0.151	0.171	44	0.191	48
Toxic Releases to Air (toxicity-weighted concentration)	1,200	4,000	35	4,600	62
Traffic Proximity (daily traffic count/distance to road)	750,000	1,400,000	50	1,700,000	48
Lead Paint (% Pre-1960 Housing)	0.49	0.48	52	0.3	73
Superfund Proximity (site count/km distance)	0	0.35	0	0.39	0
RMP Facility Proximity (facility count/km distance)	0.22	0.55	37	0.57	46
Hazardous Waste Proximity (facility count/km distance)	0.34	2.5	19	3.5	28
Underground Storage Tanks (count/km <sup>2</sup> )	7.3	3.5	84	3.6	85
Wastewater Discharge (toxicity-weighted concentration/m distance)	160	6400	37	700000	60
Drinking Water Non-Compliance (points)	0	1	0	2.2	0
<b>SOCIOECONOMIC INDICATORS</b>					
Demographic Index USA	0.7	N/A	N/A	1.34	26
Supplemental Demographic Index USA	1.28	N/A	N/A	1.64	34
Demographic Index State	0.75	1.14	42	N/A	N/A
Supplemental Demographic Index State	1.17	1.52	32	N/A	N/A
People of Color	10%	25%	42	40%	22
Low Income	23%	28%	47	30%	43
Unemployment Rate	2%	6%	32	6%	33
Limited English Speaking Households	0%	2%	0	5%	0
Less Than High School Education	3%	9%	27	11%	25
Under Age 5	10%	5%	87	5%	84
Over Age 64	13%	19%	27	18%	36

\*Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

**Sites reporting to EPA within defined area:**

Superfund .....	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities .....	0
Water Dischargers .....	2
Air Pollution .....	3
Brownfields .....	0
Toxic Release Inventory .....	0

**Other community features within defined area:**

Schools .....	0
Hospitals .....	0
Places of Worship .....	0

**Other environmental data:**

Air Non-attainment .....	Yes
Impaired Waters .....	Yes

Selected location contains American Indian Reservation Lands* .....	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community .....	No
Selected location contains an EPA IRA disadvantaged community .....	No

Report for Blockgroup: 420691104031  
 Report produced July 25, 2024 using EJScreen Version 2.3



## EJScreen Environmental and Socioeconomic Indicators Data

### HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	19%	20%	41	20%	42
Heart Disease	5.8	6.3	35	5.8	53
Asthma	10.3	10.9	35	10.3	53
Cancer	7.9	7.2	67	6.4	81
Persons with Disabilities	13.4%	14.7%	44	13.7%	54

### CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	3%	11%	28	12%	28
Wildfire Risk	0%	0%	0	14%	0

### CRITICAL SERVICE GAPS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	29%	13%	92	13%	90
Lack of Health Insurance	2%	6%	22	9%	14
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access Burden	No	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for Blockgroup: 420691104031

Report produced July 25, 2024 using EJScreen Version 2.3

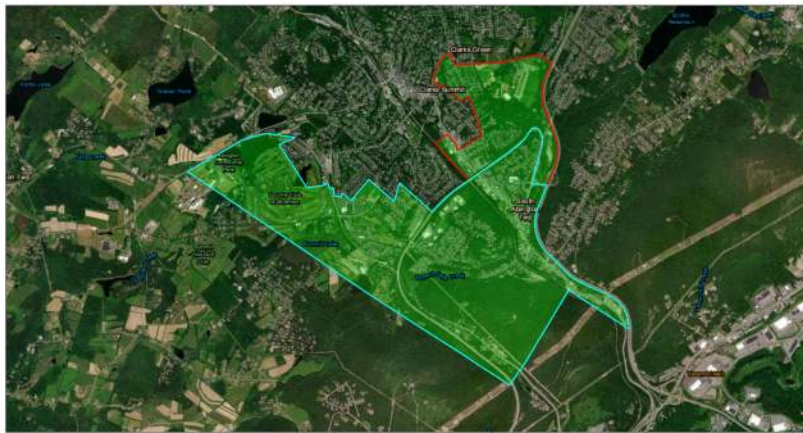


# EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

## Lackawanna County, PA

Blockgroup: 420691104032  
 Population: 1,781  
 Area in square miles: 3.01



July 25, 2024  
 Legend: Project 2 (Green), Project 1 (Red)  
 Scale: 0 to 1.3 miles  
 Source: HERE, DeLorme, Mapbox

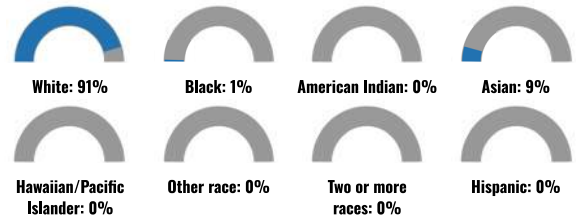
### COMMUNITY INFORMATION



### LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	92%
Spanish	1%
German or other West Germanic	1%
Other Indo-European	6%
Total Non-English	8%

### BREAKDOWN BY RACE



### BREAKDOWN BY AGE



### LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2018-2022. Life expectancy data comes from the Centers for Disease Control.

Report for Blockgroup: 420691104032

Report produced July 25, 2024 using EJScreen Version 2.3

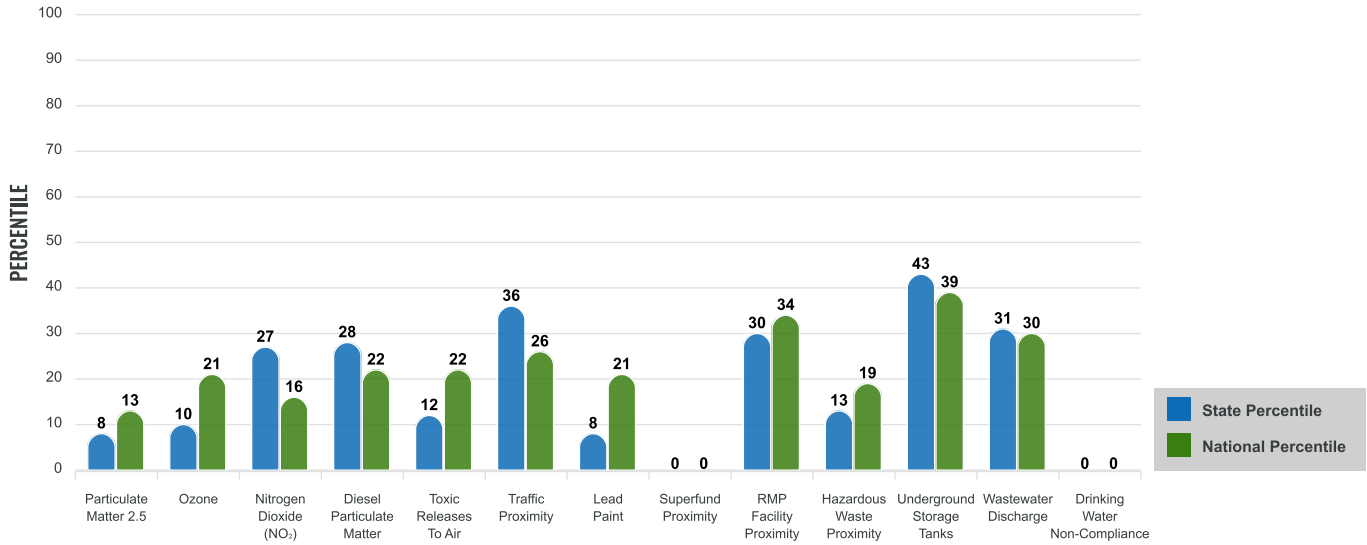
# Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

## EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

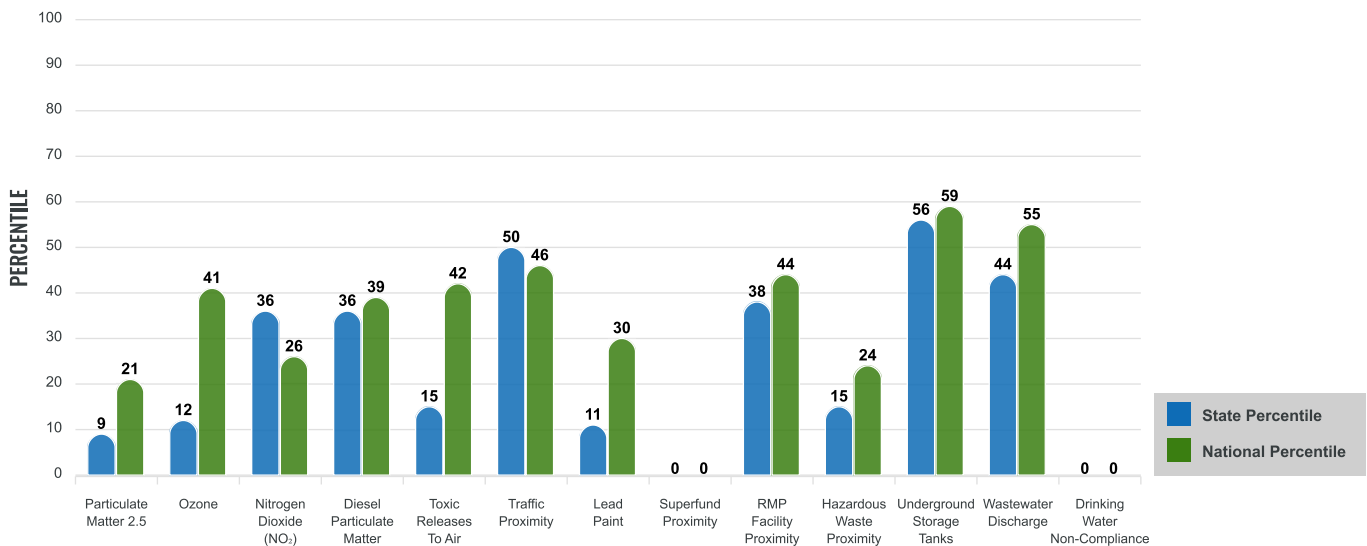
### EJ INDEXES FOR THE SELECTED LOCATION



## SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

### SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



Report for Blockgroup: 420691104032

Report produced July 25, 2024 using EJScreen Version 2.3



# EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
<b>ENVIRONMENTAL BURDEN INDICATORS</b>					
Particulate Matter 2.5 (µg/m <sup>3</sup> )	7.23	8.13	11	8.45	23
Ozone (ppb)	40.2	41.9	14	41	47
Nitrogen Dioxide (NO <sub>2</sub> ) (ppbv)	5.6	6.8	36	7.8	29
Diesel Particulate Matter (µg/m <sup>3</sup> )	0.14	0.171	39	0.191	43
Toxic Releases to Air (toxicity-weighted concentration)	570	4,000	19	4,600	49
Traffic Proximity (daily traffic count/distance to road)	870,000	1,400,000	53	1,700,000	51
Lead Paint (% Pre-1960 Housing)	0.1	0.48	10	0.3	35
Superfund Proximity (site count/km distance)	0	0.35	0	0.39	0
RMP Facility Proximity (facility count/km distance)	0.26	0.55	41	0.57	49
Hazardous Waste Proximity (facility count/km distance)	0.29	2.5	17	3.5	27
Underground Storage Tanks (count/km <sup>2</sup> )	3.3	3.5	67	3.6	71
Wastewater Discharge (toxicity-weighted concentration/m distance)	340	6400	50	700000	66
Drinking Water Non-Compliance (points)	0.024	1	0	2.2	0
<b>SOCIOECONOMIC INDICATORS</b>					
Demographic Index USA	0.36	N/A	N/A	1.34	8
Supplemental Demographic Index USA	1.18	N/A	N/A	1.64	27
Demographic Index State	0.39	1.14	14	N/A	N/A
Supplemental Demographic Index State	1.06	1.52	26	N/A	N/A
People of Color	9%	25%	40	40%	20
Low Income	9%	28%	16	30%	15
Unemployment Rate	0%	6%	0	6%	0
Limited English Speaking Households	0%	2%	0	5%	0
Less Than High School Education	4%	9%	38	11%	34
Under Age 5	5%	5%	60	5%	56
Over Age 64	37%	19%	94	18%	94

\*Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

**Sites reporting to EPA within defined area:**

Superfund .....	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities .....	0
Water Dischargers .....	21
Air Pollution .....	0
Brownfields .....	0
Toxic Release Inventory .....	0

**Other community features within defined area:**

Schools .....	1
Hospitals .....	0
Places of Worship .....	0

**Other environmental data:**

Air Non-attainment .....	Yes
Impaired Waters .....	Yes

Selected location contains American Indian Reservation Lands* .....	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community .....	No
Selected location contains an EPA IRA disadvantaged community .....	No

Report for Blockgroup: 420691104032

Report produced July 25, 2024 using EJScreen Version 2.3

## EJScreen Environmental and Socioeconomic Indicators Data

### HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	19%	20%	41	20%	42
Heart Disease	5.8	6.3	35	5.8	53
Asthma	10.3	10.9	35	10.3	53
Cancer	7.9	7.2	67	6.4	81
Persons with Disabilities	13.4%	14.7%	44	13.7%	54

### CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	13%	11%	73	12%	74
Wildfire Risk	0%	0%	0	14%	0

### CRITICAL SERVICE GAPS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	12%	13%	53	13%	58
Lack of Health Insurance	2%	6%	22	9%	14
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access Burden	Yes	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for Blockgroup: 420691104032

Report produced July 25, 2024 using EJScreen Version 2.3

**Appendix G:**  
**Conceptual Stage Survey Report**

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**DRAFT**

# **CONCEPTUAL STAGE SURVEY REPORT**

Proposed Scranton Beltway Project

Clarks Summit and Wyoming Valley Project Corridors

Lackawanna and Luzerne Counties, Pennsylvania

*June 2022*

## Conceptual Stage Survey Report – Scranton Beltway

The Pennsylvania Turnpike Commission (PTC) seeks to provide direct connections between the Northeast Extension (I-476), a toll road and Interstate 81 (I-81) in the Scranton, PA area (Luzerne and Lackawanna Counties). Interstate 81 is currently over utilized and frequently congested during morning and afternoon peak hours. The Northeast Extension provides an alternative route to I-81 from Wyoming Valley (Interchange 115) to Clarks Summit (Interchange 131) but is underutilized compared to I-81. As a result, the PTC performed preliminary engineering tasks for a potential Scranton Beltway Project which would include direct connections between I-476 and I-81. It is projected that the proposed improvements will benefit both the PTC and the Pennsylvania Department of Transportation (PennDOT) as diverted traffic will improve operations and congestion on I-81 and increase utilization on I-476. The proposed improvements consist of new, direct connections at the external locations of Wyoming Valley (Milepost A-115 to A-116.2) and Clarks Summit interchanges (Milepost A-129.8 to A-130.4).

The Clarks Summit project corridor is located along I-476 in South Abington Township, Lackawanna County. It is approximately 191 acres and extends north along the Pennsylvania Turnpike Northeast Extension (I-476) from the toll plaza along I-81 from S. Abington Road to approximately 1,600 feet north of Simerell Road. Overhead bridges consist of the replacement of Edella Road (SR 4019) over I-81.

The Wyoming Valley project corridor is located in Pittston Township and the Borough of Dupont, Luzerne County. It is approximately 125 acres and extends north from 250 ft east of SR 315 on I-81 to approximately 400 north of Navy Way Road along I-476.

As shown in the Tables below, the Scranton Beltway Project will require residential displacements for the Clarks Summit project corridor and both residential and commercial displacements for the Wyoming Valley project corridor. Based on limited preliminary research, it is not apparent if any of the subject dwellings are tenant occupied. Therefore, all units are assumed to be owner-occupied for the purpose of this report.

Table 1: Clarks Summit Project Corridor – Summary of Property Acquisitions (Parcels)

Price Range	Estimated Number of Residential Acquisitions	Estimated Number of Commercial Acquisitions
\$0 - \$50,000	0	0
\$50,001 - \$75,000	0	0
\$75,001 - \$100,000	0	0
<b>\$100,001 - \$250,000</b>	<b>2</b>	0
<b>\$250,001 - \$500,000</b>	<b>4</b>	0
>\$500,000	0	0
<b>TOTAL</b>	<b>6</b>	0

*Note: Price ranges determined are based on property values from May 2022.*

Table 2: Clarks Summit Project Corridor – Summary of Relocations/Displacements

Type of Relocations Displacements	Estimated Number of Residential Relocations Displacements	Estimated Number of Commercial Relocations Displacements
Owner	6	0
Tenant	0	0
<b>TOTAL</b>	<b>6</b>	<b>0</b>

Table 3: Wyoming Valley Project Corridor – Summary of Property Acquisitions (Parcels)

Price Range	Estimated Number of Residential Acquisitions	Estimated Number of Commercial Acquisitions
\$0 - \$50,000	0	0
\$50,001 - \$75,000	0	0
\$75,001 - \$100,000	0	0
<b>\$100,001 - \$250,000</b>	<b>4</b>	0
<b>\$250,001 - \$500,000</b>	<b>1</b>	0
>\$500,000	0	1
<b>TOTAL</b>	<b>5</b>	<b>1</b>

*Note: Price ranges determined are based on property values from May 2022.*

Table 4: Wyoming Valley Project Corridor – Summary of Relocations/Displacements

Type of Relocations Displacements	Estimated Number of Residential Relocations Displacements	Estimated Number of Commercial Relocations Displacements
Owner	5	1
Tenant	0	0
<b>TOTAL</b>	<b>5</b>	<b>1</b>

## Identification of Residential Displacements (4.02 C.2.a Pub 378)

### Clarks Summit Interchange

The proposed Clarks Summit project corridor will require the acquisition of an estimated 6 residential structures all of which are residentially owned. The structure information including number of bedrooms and bathrooms were not available via publicly available or local government resources for the majority of the properties anticipated for acquisition. Based on current aerial imagery, homes are relatively modest size, and likely contain 3 to 4 bedrooms. Therefore, 3 to 4 bedrooms were searched on available online real estate sales webpages such as Zillow.com to search for comparable listings. Online research of available single-family homes near the project area revealed four 3-bedroom and seven 4-bedroom residential properties for sale in the 18411 (Clarks Summit, PA) zip code. The market prices of the residential homes within the immediate project area range from \$179,000 to \$499,400 for a 3-bedroom single-family home and the market prices of the residential homes within the immediate project area range from \$299,000 to \$699,999 for a 4-bedroom single-family home, as of May 2022.



### Wyoming Valley Interchange

The proposed Wyoming Valley project corridor will require the acquisition of an estimated 5 residential structures all of which are residentially owned and one commercial property. The structure information including number of bedrooms and bathrooms were not available via publicly available realtor websites in May 2022. Much of the structure information was obtained through courthouseonline.com, a paid government site to view property assessment information (June 2022). The majority of the homes contains 2 to 4 bedrooms, and one home contains 5 bedrooms. Two to 4 bedrooms were searched on available online real estate sales webpages such as Zillow.com in May 2022 to search for comparable listings. Five-bedroom properties were searched on available online real estate sales webpages in June 2022 to search for comparable listings. Online research of available single-family homes near the project area revealed four 3-bedroom and one 4-bedroom residential properties for sale in the 18641 (Dupont, PA) zip code (May 2022). No 5-bedroom residential properties were listed for sale in the 18641 (Dupont, PA) zip code (June 2022). The market prices of the residential homes within the immediate project area range from \$130,000 (3-bedroom) to \$559,000 (3-bedroom) single-family home and the market prices of the residential homes within the immediate project area range from \$179,900 to \$624,900 for a 4-bedroom single-family home, as of May 2022. The market prices of the 5-bedroom residential homes within close proximity of the project area range from \$150,000 to \$399,900.

Finding replacement housing near the Wyoming Valley and Clarks Summit project corridors are not anticipated to be problematic due to a number of similar sized single-family homes available for sale anticipated to be within the financial means of the displacees within close proximity to the project corridors. See Addendum for Listings of Currently Available Residential Housing for Sale in the Clarks Summit and Wyoming Valley project corridors as of May 2022. The available properties identified are all fair housing listings open to all persons regardless of race, color, religion, sex or national origin, consistent with the requirement of Title VIII of the Civil Right Act of 1968 as amended.

"Estimates given for dwellings are for planning purposes only in order to secure funding and **DO NOT** constitute a valuation of real estate".

### **Replacement Housing of Last Resort (4.07 Pub 378)**

On a case-by-case basis and after appropriate consideration, the acquiring Authority may determine that implementing provisions established in 49 CFR 24.404 may become necessary to facilitate an orderly relocation program. It is anticipated that the use of "Housing of Last Resort" may be needed to complete the residential relocations due to the current housing market trends where houses are sold higher than asking prices due to high demand for housing. It is possible that this may include providing eligibility for replacement housing payments in excess of statutory limits identified in 49 CFR 24.401- 402 and Title 26 PA Statutes 903-904.

### **Identification of Commercial Displacements (4.02 C.2.a Pub 378)**

The proposed Wyoming Valley Interchange will require the acquisition of one commercial property.

[REDACTED]

## **Relocation Advisory Services (4.02 C.2.g. Pub 378)**

Advisory services must be administered on a basis commensurate with the needs of the respective relocatees in accord with 4.06 C. Pub 378. The extent of these services could vary from minimum assistance (when relocatees are involved who are well informed, mentally, physically and financially able to manage their displacement and who, as a consequence neither need or desire Department assistance), to almost unlimited advisory services and assistance for those who require additional support in finding suitable replacement housing with the goal of making their relocation as easy as possible.

Specifically, residential moving and relocation problems will be addressed during the pre-acquisition interview process. This early action will allow for advance identification of unusual or special housing needs. Housing plans and alternatives will be discussed as soon as any special need has been discovered.

Additionally, if any financial or physical handicapped difficulties are discovered, planning for possible remedies can begin.

Acquisition and relocation procedures will be conducted in accordance with the Title 49 CFR Part 24 - Uniform Relocation Assistance and Real Property Acquisition Policies of 1970, as amended, and relocation resources are available to all displaced persons without discrimination.

Based on an analysis of the project corridors, there is no indication this transportation improvement will have a divisive or disruptive effect on the community.

## **Sources**

LoopNet Real Estate Services, Realtor.com, Zillow.com, Redfin.com, Buzzfile.com, Courthouseonline.com, Luzerne County GIS mapping, and Lackawanna County GIS mapping

**Scranton Beltway Project  
Clarks Summit and Wyoming Valley Project Corridors  
Summary of Displacements**

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Conceptual Stage Survey Report - Scranton Beltway

Clarks Summit Project Corridor  
Summary of Displacements  
May 2022

Parcel Number	PIN	Estimated cost ( <sup>1</sup> : averaged from Redfin.com, Zillow.com, realtor.com)	Bedrooms <sup>(2)</sup>	Baths <sup>(2)</sup>	Sq footage <sup>(2)</sup>	acreage	Total Take	Displacement	Remarks
█	█	\$278,632	█	█	█	█	X	X	Required ROW for Limited Access
█	█	\$253,875	█	█	█	█	X	X	Required ROW for Limited Access
█	█	\$268,100	█	█	█	█	X	X	Required ROW for Limited Access
█	█	\$267,650	█	█	█	█	X	X	Required ROW for Limited Access
█	█	\$208,510	█	█	█	█	X	X	Required ROW for Limited Access
█	█	\$233,844	█	█	█	█	X	X	Required ROW for Limited Access
							6	6	

Notes:

1. Estimated costs are based on prices obtained from real estate websites on May 6, 2022.
2. Bedrooms, baths, and square footage were not available on publicly accessible or local government resources, such as real estate websites and courthouseonline.com, as of May 2022.

Conceptual Stage Survey Report - Scranton Beltway

Wyoming Valley Project Corridor  
Summary of Displacements  
May 2022

Parcel Number	PIN	Estimated cost <sup>(1)</sup> averaged from Zillow.com and realtor.com <sup>(2)</sup>	Bedrooms	Baths	Sq footage	acreage	Total Take	Displacement	Remarks
[REDACTED]	[REDACTED]	\$439,223 <sup>(3)</sup>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	X	X	Required ROW for Limited Access
[REDACTED]	[REDACTED]	\$229,100	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	X	X	Required ROW for Limited Access
[REDACTED]	[REDACTED]	\$123,200	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	X	X	Required ROW for Limited Access
[REDACTED]	[REDACTED]	\$115,400	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	X	X	Required ROW for Limited Access
[REDACTED]	[REDACTED]	\$634,233 <sup>(3)</sup>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	X	X	Required ROW for Limited Access
[REDACTED]	[REDACTED]								
[REDACTED]	[REDACTED]								
[REDACTED]	[REDACTED]								
[REDACTED]	[REDACTED]	\$215,600	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	X	X	Required ROW for Borough & Limited Access
							6	6	

Notes:

- Estimated costs are based on prices obtained from real estate websites on May 6, 2022.
- Redfin.com is not available in Dupont, PA. Therefore, estimated costs are based off Zillow.com and Realtor.com.
- The estimated cost for these parcels was obtained from total Field Assessed Value (obtained from Luzerne County GIS Mapping) multiplied by the estimated average multiplier. Costs were not available on publicly available realtor websites.  
(The estimated multiplier was calculated from dividing the estimated costs by the assessed value of the property. Then all of the individual multipliers for the parcels were averaged.)

**Clarks Summit Project Corridor  
Residential Properties for Sale**

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# Conceptual Stage Survey Report – Scranton Beltway Clarks Summit Project Corridor

Residential 3 and 4 bedrooms available for sale within close proximity to project corridor (May 2022)

**\$179,000**

3 beds, 2 bath, 1,700 sq ft, 0.24-acre lot  
414 Carnation Dr, Clarks Summit, PA 18411



**\$375,000**

3 beds, 3 bath, 3,818 sq ft, 0.44-acre lot  
600 Shady Lane Rd, Clarks Summit, PA 18411



**\$220,000**

3 beds, 2 bath, 1,940 sq ft, 0.26 acre lot  
223 Midway Ave, Clarks Summit, PA 18411



**\$269,000**

3 beds, 2 bath, 1,400 sq ft, 0.12-acre lot  
210 Vassar Ave, Clarks Green, PA 18411



**\$425,000**

4 beds, 3 bath, 3,047 sq ft, 0.46-acre lot  
406 Noble Rd, Clarks Summit, PA 18411



**\$249,000**

3 beds, 2 bath, 2,401 sq ft, 0.14-acre lot  
1032 Main St, Dickson City, PA 18519



**Conceptual Stage Survey Report – Scranton Beltway  
Clarks Summit Project Corridor**

**Residential 3 and 4 bedrooms available for sale within close proximity to project corridor (May 2022)**

**\$299,000**

4 beds, 2 bath, 2,024 sq ft, 0.34-acre lot  
508 Gladiola Dr, Clarks Summit, PA 18411



**\$479,000**

4 beds, 2 bath, 2,174 sq ft, 0.60-acre lot  
314 Highland Ave, Clarks Summit, PA 18411



**\$244,000**

3 beds, 2 bath, 1,682 sq ft, 2.41-acre lot  
224 Edwards Ave, Clarks Summit, PA 18411



**\$699,999**

4 beds, 3 bath, 3,887 sq ft, 0.79-acre lot  
112 Oakford Cir, Clarks Summit, PA 18411



**\$499,900**

3 beds, 3 bath, 2,607 sq ft, 1.19-acre lot  
1017 Woodwind Hills Dr, Dalton, PA 18414





**Conceptual Stage Survey Report – Scranton Beltway  
Clarks Summit Project Corridor**

**Residential 3 and 4 bedrooms available for sale within close proximity to project corridor (May 2022)**

**\$435K**

3 beds, 2 bath, 1,500 sq ft, 0.25-acre lot  
135 Burcher St, Clarks Summit, PA 18411



**\$359,000**

3 beds, 2 bath, 2,300 sq ft, 0.28-acre lot  
519 Highland Ave, Clarks Summit, PA 18411



**\$445,000**

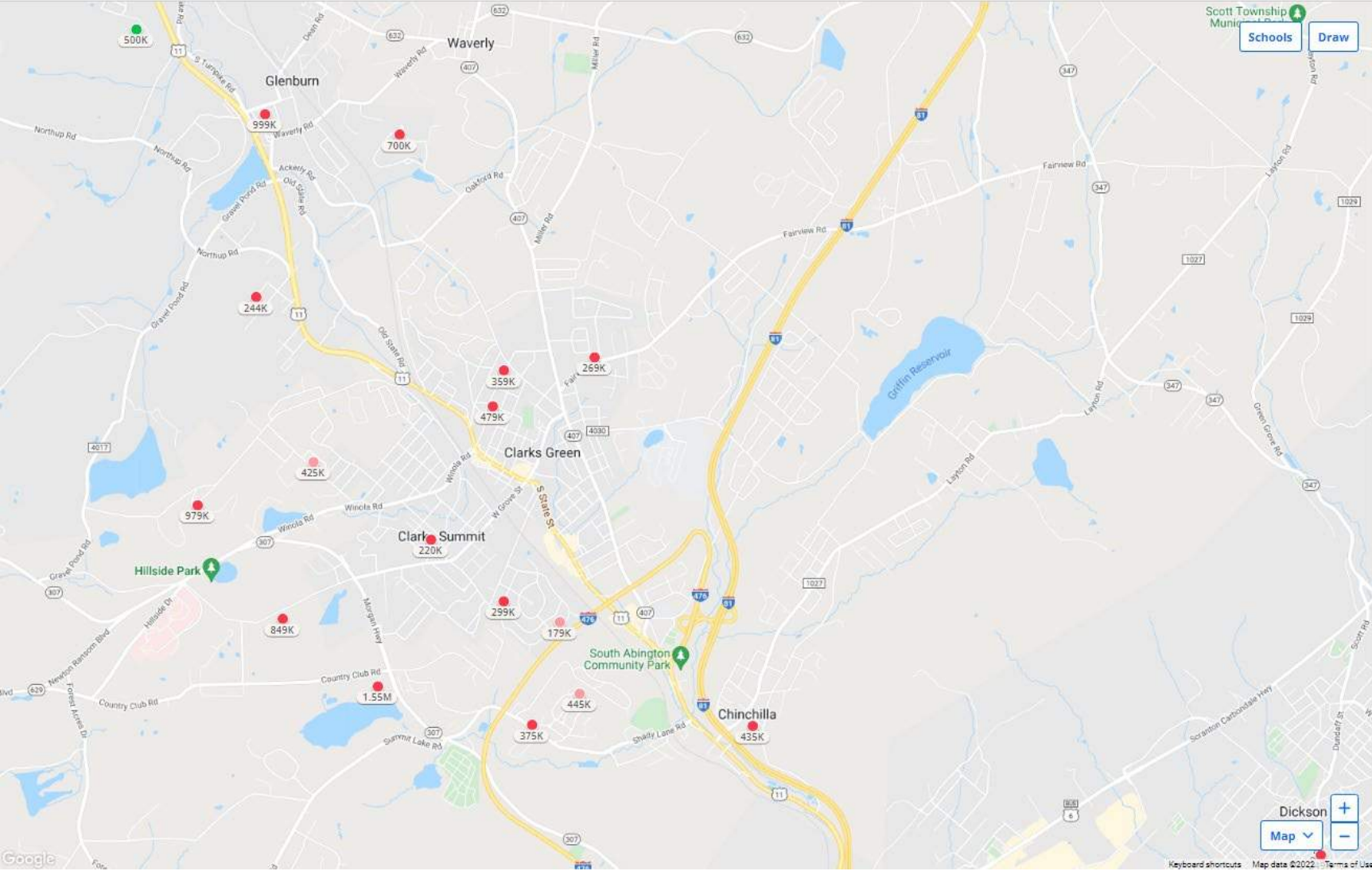
3 beds, 4 bath, 6,500 sq ft, 0.42-acre lot  
148 Edgewood Dr W, Clarks Summit, PA 18411





# Conceptual Stage Survey Report – Scranton Beltway Clarks Summit Project Corridor

Residential 3 and 4 bedrooms available for sale within close proximity to project corridor (May 2022)



Source: Zillow.com (May 2022)

**Wyoming Valley Project Corridor  
Residential Properties for Sale**

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**Conceptual Stage Survey Report – Scranton Beltway  
Wyoming Valley Project Corridor**

**Residential 2, 3, and 4 bedrooms available for sale within close proximity to project corridor (May 2022)**

**\$130,000**

3 beds, 2 bath, 1,248 sq ft, 0.07-acre (3000 sq ft) lot  
516 2nd St, West Pittston, PA 18643



**\$359,900**

4 beds, 3 bath, 1,879 sq ft, 0.26-acre lot  
129 Cremard Blvd, Duryea, PA 18642



**\$250,000**

4 beds, 2 bath, 2,500 sq ft, 0.76-acre lot  
117 Renfer Rd, Pittston, PA 18640



**\$131,000**

3 beds, 2 bath, 2,133 sq ft, 0.12-acre lot  
409 Packer St, Avoca, PA 18641



**\$169,500**

2 beds, 2 bath, 1,852 sq ft, 0.22-acre lot (*based on parcel mapping from Luzerne County website*)  
R 6 Webster St, Pittston, PA 18640



**\$290,000**

3 beds, 3 bath, 2,284 sq ft, 0.27-acre lot  
34 Laurelwood Dr, Wilkes Barre, PA 18702





## Conceptual Stage Survey Report – Scranton Beltway Wyoming Valley Project Corridor

Residential 2, 3, and 4 bedrooms available for sale within close proximity to project corridor (May 2022)

**\$214,900**

3 beds, 2 bath, 1,587 sq ft, 0.27-acre lot  
140 Ridgewood Rd, Plains Township, PA 18702



**\$624,900**

4 beds, 3 bath, 3,456 sq ft, 0.37-acre lot  
900 Susquehanna Ave, West Pittston, PA 18643



**\$179,900**

4 beds, 2 bath, 2,184 sq ft, 0.11-acre lot  
167 E 8th St, Wyoming, PA 18644



**\$339,900**

3 beds, 3 bath, 1,748 sq ft, 0.14-acre lot  
147 Cremard Blvd, Duryea, PA 18642



**\$419,900**

4 beds, 5 bath, 5,551 sq ft, 0.49-acre lot  
802 Susquehanna Ave, West Pittston, PA 18643



**\$559,000**

3 beds, 3 bath, 2,607 sq ft, 0.35-acre lot  
17 Veronica Dr, Pittston, PA 18640



**Conceptual Stage Survey Report – Scranton Beltway  
Wyoming Valley Project Corridor**

**Residential 2, 3, and 4 bedrooms available for sale within close proximity to project corridor (May 2022)**

**\$265,000**

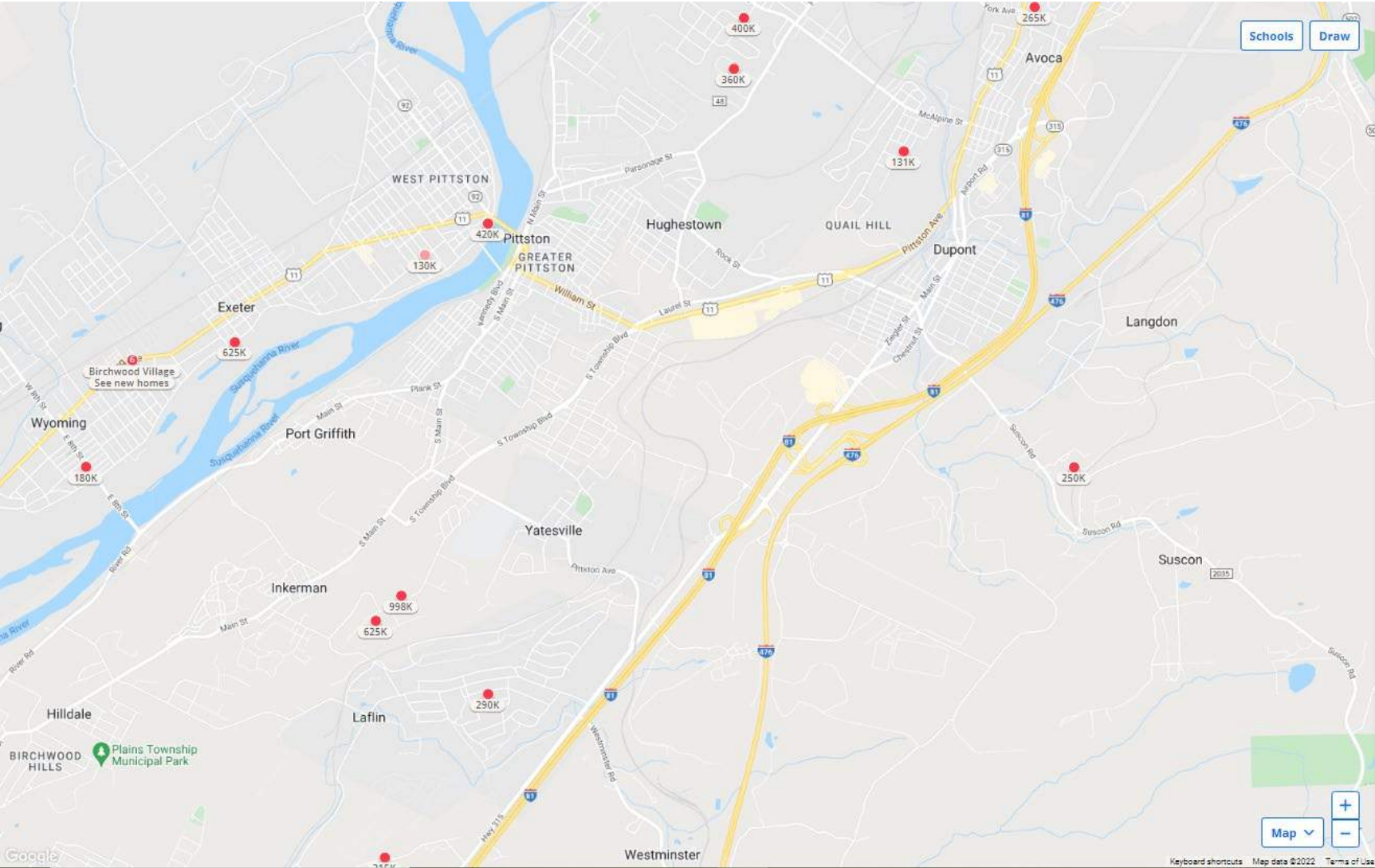
4 beds, 3 bath, 2,688 sq ft, 0.14-acre lot

1109 Grove St, Avoca, PA 18641



# Conceptual Stage Survey Report – Scranton Beltway Wyoming Valley Project Corridor

Residential 2, 3, and 4 bedrooms available for sale within close proximity to project corridor (May 2022)





**Conceptual Stage Survey Report – Scranton Beltway  
Wyoming Valley Project Corridor**

**Residential 5 bedrooms available for sale within close proximity to project corridor (June 2022)**

**\$399,900**

5 beds, 4 bath, 4,102 sq ft, 0.52-acre lot  
801 Blueberry Dr, Duryea, PA 18642



**\$219,900**

5 beds, 2 bath, 2,208 sq ft, 0.12-acre lot  
4679 Birney Ave, Scranton, PA 18507



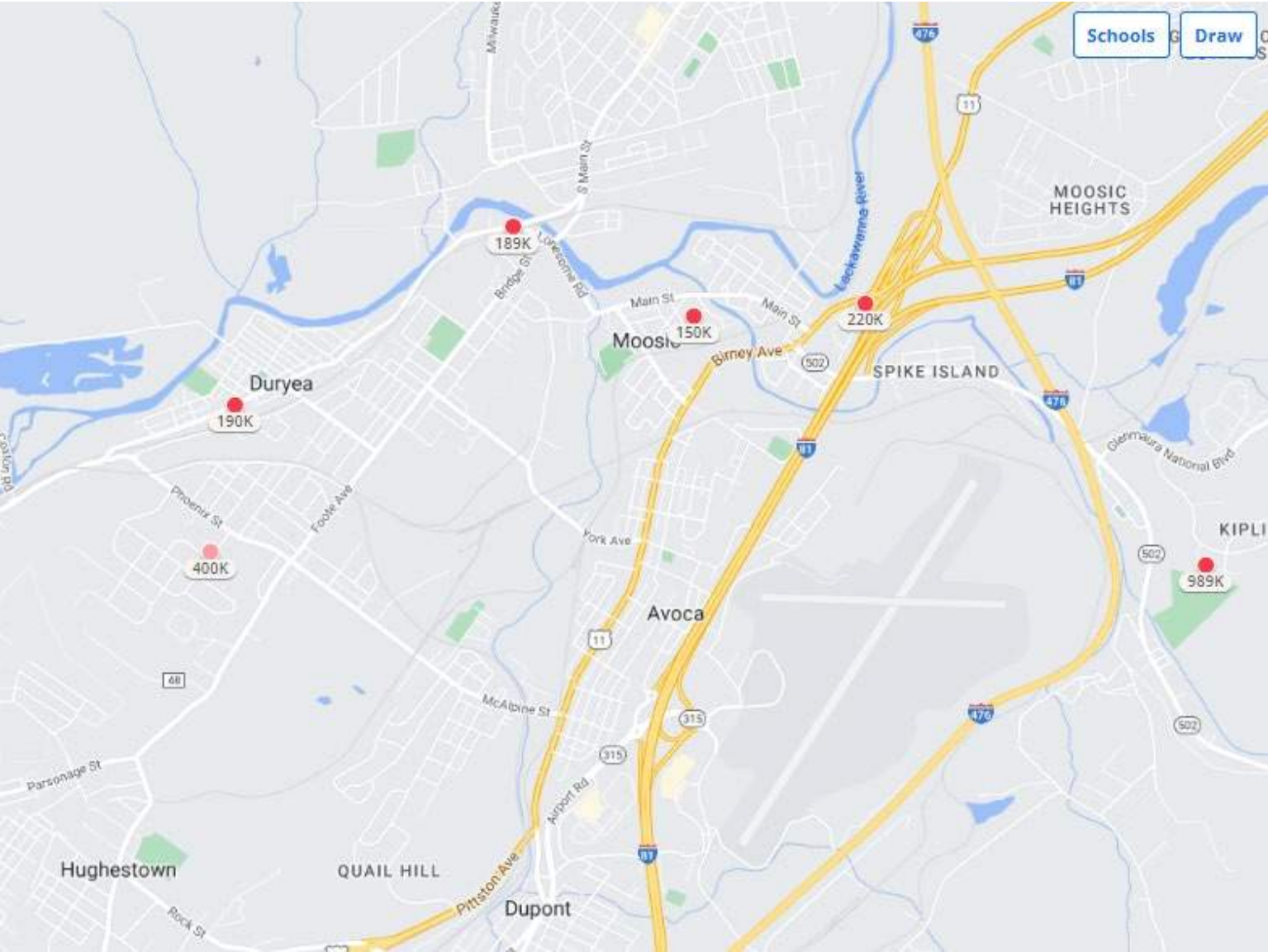
**\$150,000**

5 beds, 2 bath, 1,901 sq ft, 0.23-acre lot  
419 Brook St, Moosic, PA 18507



Conceptual Stage Survey Report – Scranton Beltway  
Wyoming Valley Project Corridor

Residential 5 bedrooms available for sale within close proximity to project corridor (June 2022)



Source: Zillow.com (June 2022)

**Wyoming Valley Project Corridor  
Commercial Properties for Sale**

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**Conceptual Stage Survey Report – Scranton Beltway  
Wyoming Valley Project Corridor**

**Commercial Industrial Properties for Sale within close proximity to project corridor (May 2022)**

**11-15 Tunnel St. Pittston**

21,790 SF Flex-Use Facility (39% Leased)  
Auction – Starting Bid \$125,000



**120 Hazle St Wilkes Barre**

49,962 sq ft Industrial Building  
\$1,950,000



**370 Maplewood Dr Hazle Township**

31,400 sq ft Office Building – Industrial zoning allows  
for Flex or Manufacturing Reuse  
\$2,250,000



**31 Ruddle St Wilkes Barre**

11,975 sq ft Industrial Building  
\$650,000



**13 Kennedy Downtown Pittston**

11,400 sq ft Industrial Building  
\$599,900



**1081 Main St Swayersville**

12,000 sq ft Flex Building  
\$ unknown



**Conceptual Stage Survey Report – Scranton Beltway  
Wyoming Valley Project Corridor**

**Commercial Industrial Properties for Sale within close proximity to project corridor (May 2022)**

**123-125 N Warren St Hazleton**

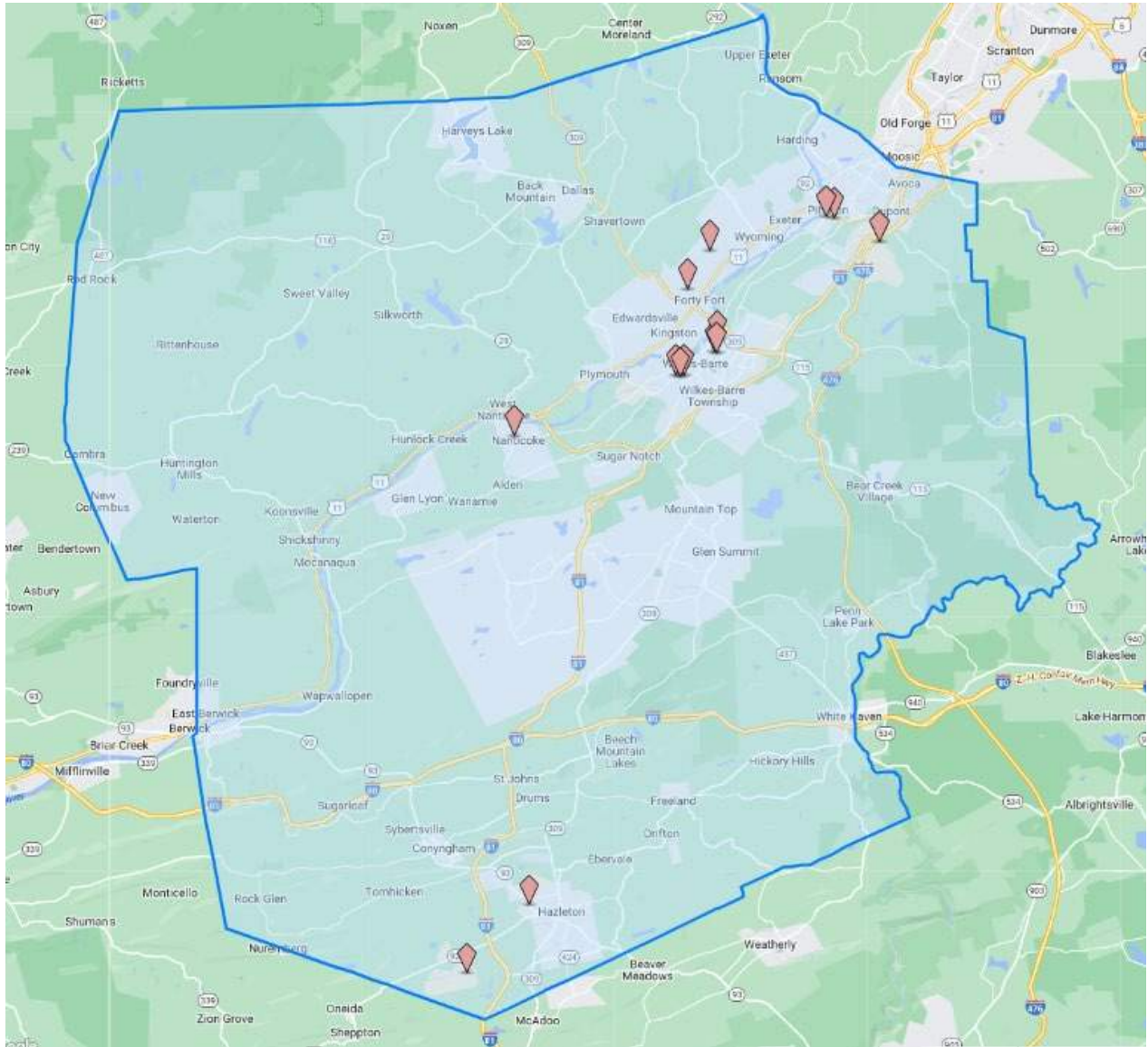
26,139 sq ft Flex Building

\$ unknown



# Conceptual Stage Survey Report – Scranton Beltway Wyoming Valley Project Corridor

## Commercial Industrial Properties for Sale within close proximity to project corridor (May 2022)





Conceptual Stage Survey Report – Scranton Beltway  
Wyoming Valley Project Corridor

Commercial Industrial Properties for Sale within close proximity to project corridor (May 2022)



**Other**

400 Route 315  
Pittston, PA 18640

Building: 22,500 sq. ft. | Land: 1.48 Acres



**Business Service, Medical, Professi...**

732 Pa-93  
Sugarloaf, PA 18249

Building: 28,000 sq. ft. | Land: 0.98 Acres



**Other**

253-259 S Main Street  
Wilkes-Barre, PA 18701

Building: 38,304 sq. ft. | Land: 0.61 Acres



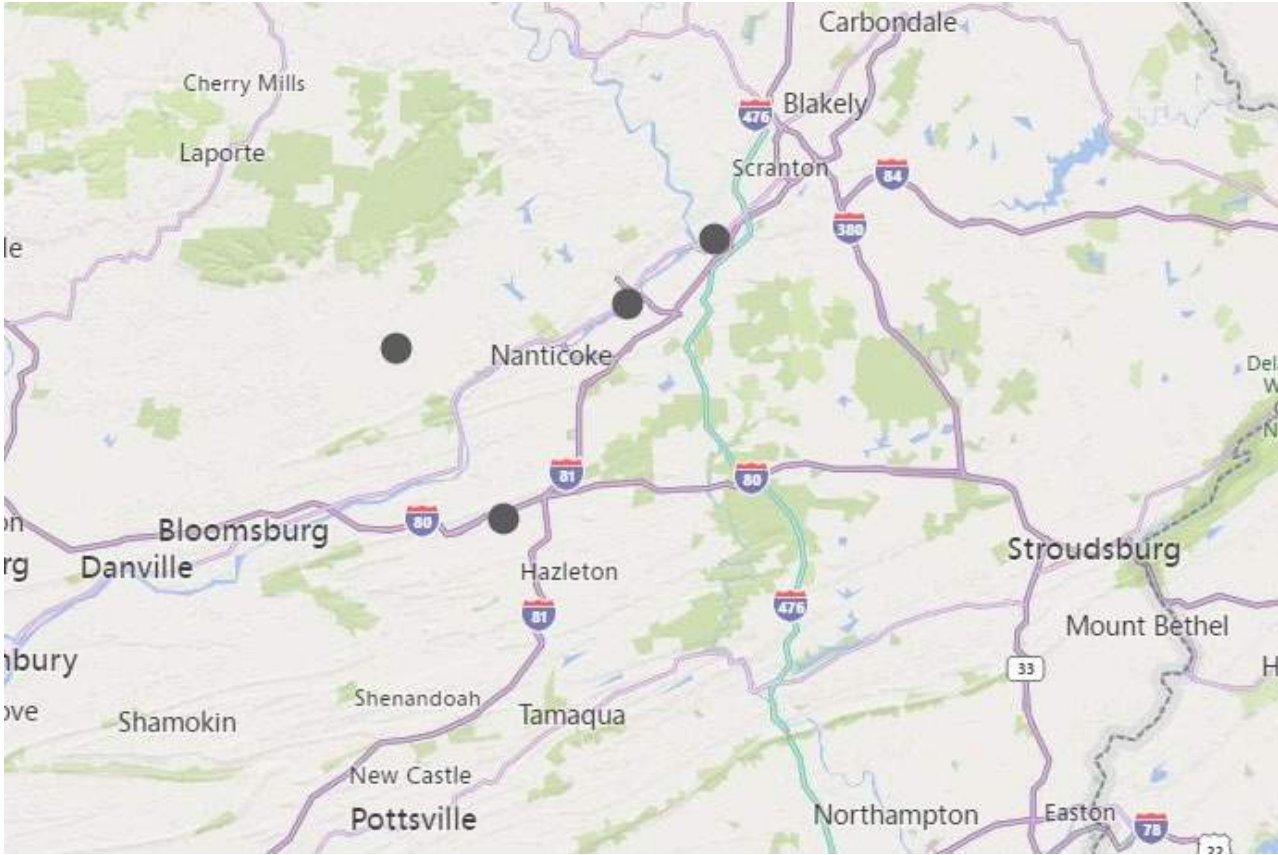
**Other**

420 Shickshinny Lake Road  
Shickshinny, PA 18655

Building: 35,000 sq. ft. | Land: 4.6 Acres

Conceptual Stage Survey Report – Scranton Beltway  
Wyoming Valley Project Corridor

Commercial Industrial Properties for Sale within close proximity to project corridor (May 2022)



**Appendix H:**  
**Distribution List**

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## DISTRIBUTION LIST

### Federal Agencies

**Advisory Council on Historic Preservation**

*Eastern Office of Review*

Attn: Preservation Specialist

**Federal Emergency Management Agency**

Attn: Mitigation Division

**U.S. Army Corps of Engineers**

*Baltimore District*

Attn: Chief, Natural & Cultural Resources  
Branch

**U.S. Fish and Wildlife Service**

*Pennsylvania Field Office*

**U.S. Department of Health & Human  
Services**

*Centers for Disease Control & Prevention*

Attn: Chief, Special Programs Group

**U.S. Department of Housing & Urban  
Development**

*Pennsylvania State Office*

Attn: Environmental Officer

**U.S. Department of Interior**

*Office of Environmental Policy and  
Compliance*

Attn: Director

**U.S. Department of Transportation**

*Federal Transit Administration*

*Office of Planning and Program  
Development*

Attn: Transportation Program Specialist

**U.S. Environmental Protection Agency**

*Region III (3ES43)*

Attn: Chief, Environmental Assessment and  
Protection Division

**U.S. Department of Agriculture**

*National Resources Conservation Service*

Attn: Water Resources Department

**U.S. Environmental Protection Agency**

*Office of Federal Activities*

## State Agencies

### **PA Department of Agriculture**

*Bureau of Farmland Preservation*

Attn: Director

### **PA Department of Community and Economic Development**

*Policy Office*

Attn: Director

### **PA Department of Conservation and Natural Resources**

*Office of Policy*

Attn: Director

### **PA Department of Environmental Protection**

*Office of Policy*

Attn: Director

### **PA Department of Environmental Protection**

*Northeast Regional Office*

### **PA Department of Environmental Protection**

*Regional Permit Coordination Office*

### **PA Department of Health**

*Office of Policy*

Attn: Executive Policy Assistant

### **PA Fish and Boat Commission**

*Environmental Services Division*

Attn: Chief, Environmental Services Division

### **PA Game Commission**

*Environmental Planning and Habitat Protection*

Attn: Chief, Environmental Planning and Habitat Protection Division

### **PA Game Commission**

*Northeast Region*

### **PA Historical and Museum Commission**

*Bureau for Historic Preservation Commonwealth*

Attn: Chief, Division of Archaeology and Protection

### **Public Utility Commission**

*Utility Office*

Attn: Administrator

### **Lackawanna County Regional Planning Commission**

Attn: Transportation Planner

### **Luzerne County Planning Commission**

Attn: Transportation Planner

### **South Abington Township**

Attn: Township Manager

### **Dupont Borough**

Attn: Township Manager

### **Pittston Township**

Attn: Township Manager

## **Native American Tribes**

**Absentee-Shawnee Tribe of Indians of Oklahoma**

**Delaware Nation, Oklahoma**

**Delaware Tribe of Indians**

**Eastern Shawnee Tribe of Oklahoma**

**Oneida Indian Nation**

**Onondaga Nation**

**Seneca Nation of Indians**

**Seneca-Cayuga Nation**

**Shawnee Tribe**

**Stockbridge-Munsee Community, Wisconsin**

**Tuscarora Nation**



**Appendix I:**  
**Technical Support Data Index**

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# Technical Support Data Index

Technical reports prepared for the Proposed Scranton Beltway project are included within the project files and are listed below. The references at the end of each chapter and/or section include the technical reports listed below as well as citations found under Appendix K (References).

## **Chapter 1**

- *Conceptual Point of Access Study, Scranton Beltway, Direct Connections between I-476 (Pennsylvania Turnpike Northeast Extension) an I-81 At Wyoming Valley (Exit 115) and Clarks Summit (Exit 131) Interchanges (March 2022), FHWA (Federal Highway Administration) approved February 2023*
- *Scranton Beltway Feasibility Study, Phase 2 (December 2015)*
- *Scranton Beltway Feasibility Study-Summary Memo (April 2014)*

## **Chapter 2**

- *Conceptual Point of Access Study, Scranton Beltway, Direct Connections between I-476 (Pennsylvania Turnpike Northeast Extension) an I-81 At Wyoming Valley (Exit 115) and Clarks Summit (Exit 131) Interchanges (March 2022), FHWA (Federal Highway Administration) approved February 2023*

## **Chapter 3:**

- *Conceptual Point of Access Study, Scranton Beltway, Direct Connections between I-476 (Pennsylvania Turnpike Northeast Extension) an I-81 At Wyoming Valley (Exit 115) and Clarks Summit (Exit 131) Interchanges (March 2022), FHWA approved February 2023*
- *Scranton Beltway Feasibility Study, Phase 2 (December 2015)*
- *Scranton Beltway Feasibility Study-Summary Memo (April 2014)*

## **Chapter 4:**

### **Section 4.1**

- *Scranton Beltway Wetland Identification and Delineation Report (April 2020)*
- *Preliminary Hydrologic and Hydraulic Report for Clarks Summit Interchange Willow Creek Stream Realignment (July 2022)*

### **Section 4.2**

- *Scranton Beltway Construction Wyoming Valley Area Subsurface Exploration Planning Submission (November 2018)*
- *Draft Scranton Beltway Phase I Environmental Site Assessment (January 2020)*

- *Preliminary Geotechnical Engineering Report Scranton Beltway – Clarks Summit Interchange (December 2021)*
- *Scranton Beltway Construction Wyoming Valley Area Preliminary Design Geotechnical Engineering Report (March 2022, revised July 2022, and August 2022)*
- *Problem Statement and Draft Exploration Plan – Final Design Scranton Beltway – Clarks Summit Interchange (June 2022)*

### **Section 4.3**

- *EA (Environmental Assessment) Appendix C: Threatened and Endangered Species*

### **Section 4.4**

- *EA Appendix D: Section 106 Coordination*

### **Section 4.5**

- *Section 4(f) Applicability Memo (September 2021)*
- *PennDOT confirmation email regarding No Section 4(f) (May 2022)*

### **Section 4.6**

- *Project Level Air Quality Analysis, Scranton Beltway Project (December 2019)*
- *Mobile Source Air Toxics Air Quality Analysis, Scranton Beltway Project, (December 2019)*
- *Preliminary Engineering Noise Analysis Report, Scranton Beltway Project, Wyoming Valley Interchange (December 2022), FHWA approved February 2023*
- *Preliminary Engineering Noise Analysis Report, Scranton Beltway Project, Clarks Summit Interchange (January 2023), FHWA approved February 2023*
- *FHWA approval letter (February 2023)*

### **Section 4.7**

- *EA Appendix A: Wyoming Valley Roadway and Bridge Construction 30% Plans*
- *EA Appendix A: Clarks Summit Roadway and Bridge Construction 30% Plans*
- *EA Appendix G: Conceptual Stage Survey Report*

### **Section 4.8**

- *Conceptual Point of Access Study, Scranton Beltway, Direct Connections between I-476 (Pennsylvania Turnpike Northeast Extension) and I-81 At Wyoming Valley (Exit 115) and Clarks Summit (Exit 131) Interchanges (March 2022, FHWA approved February 2023)*



**Section 4.9**

- *Gannett Fleming, Inc email. "Scranton Beltway Project - Approved Land Development within Municipality." Received by South Abington Township, Pittston Township, Borough of Dupont, and Luzerne County, 2023 May 19 and 2023 May 23.*

**Chapter 6:**

- *Dupont Borough Public Officials Meeting Minutes (June 2021)*

**Chapter 7:**

- *EA Appendix F: Environmental Justice*

**Appendix J:**  
**List of Preparers**

---

## List of Preparers

<b>Name</b>	<b>Organization</b>	<b>EA Role</b>	<b>Education</b>	<b>Years</b>
Jennifer Croak, Director of Planning, Environment, and Finance	FHWA PA Division	FHWA Approver	B.A. History, M.S. Community and Regional Planning	15
Benjamin A. Harvey, Planning and Environment	FHWA PA Division	FHWA Environmental Reviewer	B.A. History	15
Sarah A. Cordek, EIT Transportation Engineer	FHWA PA Division	FHWA Engineering Reviewer	B.S. Civil Engineering	11
Nicholas C. Noss, PE Senior Engineer Project Manager	Pennsylvania Turnpike Commission	Project Manger	B.S. Civil Engineering M.S. Civil Engineering	12
Andrew Lutz Assistant Environmental Manager	Pennsylvania Turnpike Commission	Environmental Reviewer	B.S. Environmental Resource Management	35
Julianne Lawson, PE District 4 Portfolio Manager	PennDOT District 4-0	Engineering Reviewer	B.S. Civil Engineering M.B.A Operations	19
Greg Augustine District Environmental Manager	PennDOT District 4-0	Environmental Reviewer	B.S. Environmental Engineering Technology	30
Drew Ames Chief, Environmental Policy and Development Division	PennDOT Central Office	Environmental Reviewer	B.H. Communications M.S. Community and Regional Planning	27
Ghiyath "Keith" Saloum, PE	PennDOT Central Office	Engineering Reviewer	B.S. Civil Engineering and Transportation Engineering	26
Kenda Jo M. Gardner, Deputy Chief Counsel	PennDOT Office of Chief Council	PennDOT Reviewer	B.A. Chemistry Juris Doctorate	30
Kristina Thompson Architectural Historian Supervisor and District 5-0 Architectural Historian	PennDOT Central Office	Above-Ground Cultural Resources	B.S. Historic Preservation, M.A. Anthropology	28
Kevin Mock Archaeology Supervisor and District 4-0 Archaeologist	PennDOT Central Office	Archaeology	B.A. Anthropology M.A. History	28



<b>Name</b>	<b>Organization</b>	<b>EA Role</b>	<b>Education</b>	<b>Years</b>
Laren Myers Principal Environmental Scientist	Gannett Fleming, Inc.	EA QA/QC reviewer	B.S. Environmental Resource management	36
Kristin Civitella Senior Environmental Scientist	Gannett Fleming, Inc.	EA QA/QC reviewer	B.S. Environmental Biology M.S. Environmental Pollution Control	28
Steven Wittig, CSE Senior Environmental Scientist	Gannett Fleming, Inc.	EA writer	B.S. Natural Resource Management	17
Deborah Fretz Project Environmental Scientist	Gannett Fleming, Inc.	EA writer, Environmental Justice, Conceptual Stage Survey, GIS Analysis	B.S Environmental Science	13
Elisabeth Sibley Project Environmental Scientist	Gannett Fleming, Inc.	EA writer, Cumulative Effects	B.A. Environmental Studies M.S. Environmental Science and Policy	7
Cory Trego Project Environmental Scientist	Gannett Fleming, Inc.	EA writer, Cumulative Effects	B.S. Biology M.S. Wildlife and Fisheries Resources	7
Ahmed El-Aassar, Ph.D., P.E., INCE, ASA, ENV SP Noise, Vibration, and Air Quality Manager	Gannett Fleming, Inc.	Noise – Group Lead	Ph.D. Environmental Engineering	22
Adam Alexander, INCE, ENV SP Senior Noise and Air Quality Analyst	Gannett Fleming, Inc.	Noise – Senior Noise Analyst	B.S. Landscape Architecture M.S. Administration	21
Sondra Peterson CADD Specialist/Noise Technician	Gannett Fleming, Inc.	Noise – Noise Analyst	A.S. CADD Specialized Technology	23
Kevin Brown Noise and Vibration Consultant	Gannett Fleming, Inc.	Noise – Noise Analyst	A.S. Structural Engineering Technology	5

<b>Name</b>	<b>Organization</b>	<b>EA Role</b>	<b>Education</b>	<b>Years</b>
Michael Leinheiser, PE Chief Highway Engineer	Urban Engineers	Engineering QA/QC	B.S. Civil Engineering	31
Larry Mitros, PE Highway Engineer	Urban Engineers	Engineering and Alternatives Analysis	B.S. Civil and Environmental Engineering MBA	15
Jaimie Younkins, PE Design Engineer	Urban Engineers	Engineering and Alternatives analysis graphics	B.S. Civil Engineering Masters Construction Management	17
Andrew T. Van Schooneveld Design Engineer	Urban Engineers	Hydrologic and Hydraulic Report	B.S. Civil and Environmental Engineering M.S. Civil and Environmental Engineering	20
Yolanda Oliver- Commey, PE, PTOE Senior/Supervising Traffic Engineer and Group Lead	Pennoni	Energy, Traffic forecasting	B.S. Civil Engineering M.S. Civil Engineering	20

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