Public Advisory Group Meeting 3

October 21, 2020

NEW JERSEY DEPARTMENT OF TRANSPORTATION
I-80 ROCKFALL MITIGATION

Welcome to the PAG!

Meeting Guidelines

- The meeting will be recorded and shared on the PAG SharePoint Site.
- Please remain muted unless called upon to speak.
- Please “raise your hand” if you wish to speak. Our moderator will call on participants to speak in the order in which hands were raised.
- You may also ask questions or submit comments using the chat feature.

Goals for Today's Meeting

- Role Call
- Respond to Questions and Comments:
  - Design and Access
  - Other Construction Projects Near the Project Area
  - Project Maintenance Cost
  - Traffic
- Next steps

Project Team Leadership

- Scott Deeck – NJDOT Project Manager
- Ali Vaezi – Consultant Team Project Manager, Dewberry
- David Hill – Consultant Team Deputy Project Manager, Dewberry
- Ileana Ivanciu – Technical Advisor, Environmental Analysis, Dewberry
- Andrea Burk – Environmental Analysis Task Leader, Dewberry
- Sara Margolis – Public Involvement Task Leader, Dewberry
- Ray Dominguez – Traffic Lead, Dewberry

PAG Members

- Maryann Carroll – Delaware River Greenway Partnership, Executive Director
- Lauren Chamberlain – Borough of Delaware Water Gap – Resident
- John Corlett – AAA Northeast, Director of Public/Government Affairs and Traffic Safety
- John Donahue – Knowlton Township, Hardwick Township, Upper Mt. Bethel Township, Lower Mt. Bethel Township, Smithfield Township
- Crista Schaedel – Borough of Delaware Water Gap – Resident
- Rich Scott – Portland Borough – Resident

PAG Members, continued

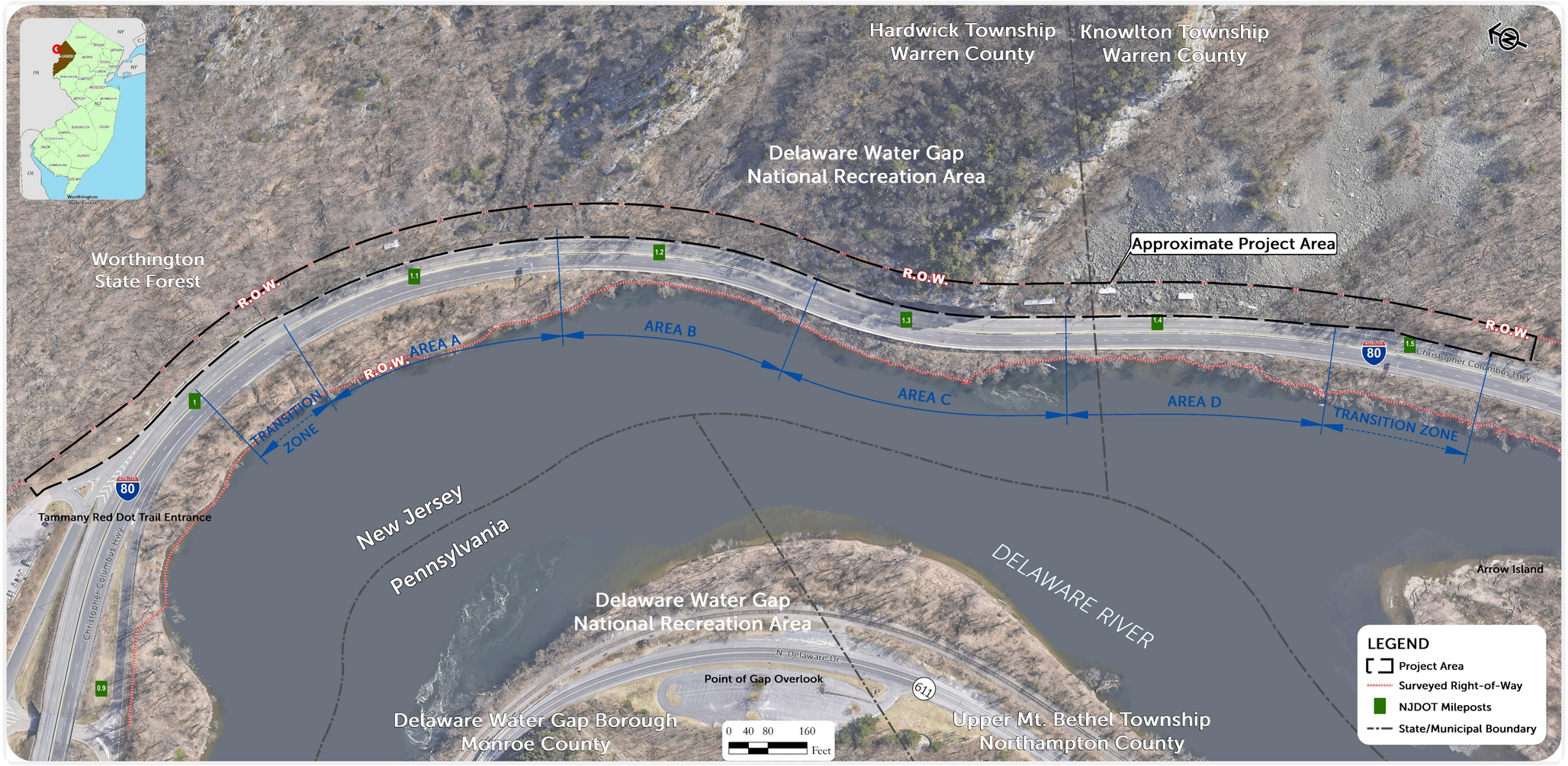
- Lt. Jeffrey Shotwell – New Jersey State Police, Station Commander of the NJSP Hope Barracks
- James Steele –Portland Borough – Resident
- Gail Toth – New Jersey Motor Truck Association, Executive Director
- Trooper Brian Weis – New Jersey State Police, Assistant Station Commander of the NJSP Hope Barracks
- Mark Zakutansky – Appalachian Mountain Club, Director of Conservation Policy Engagement

Responses to Questions

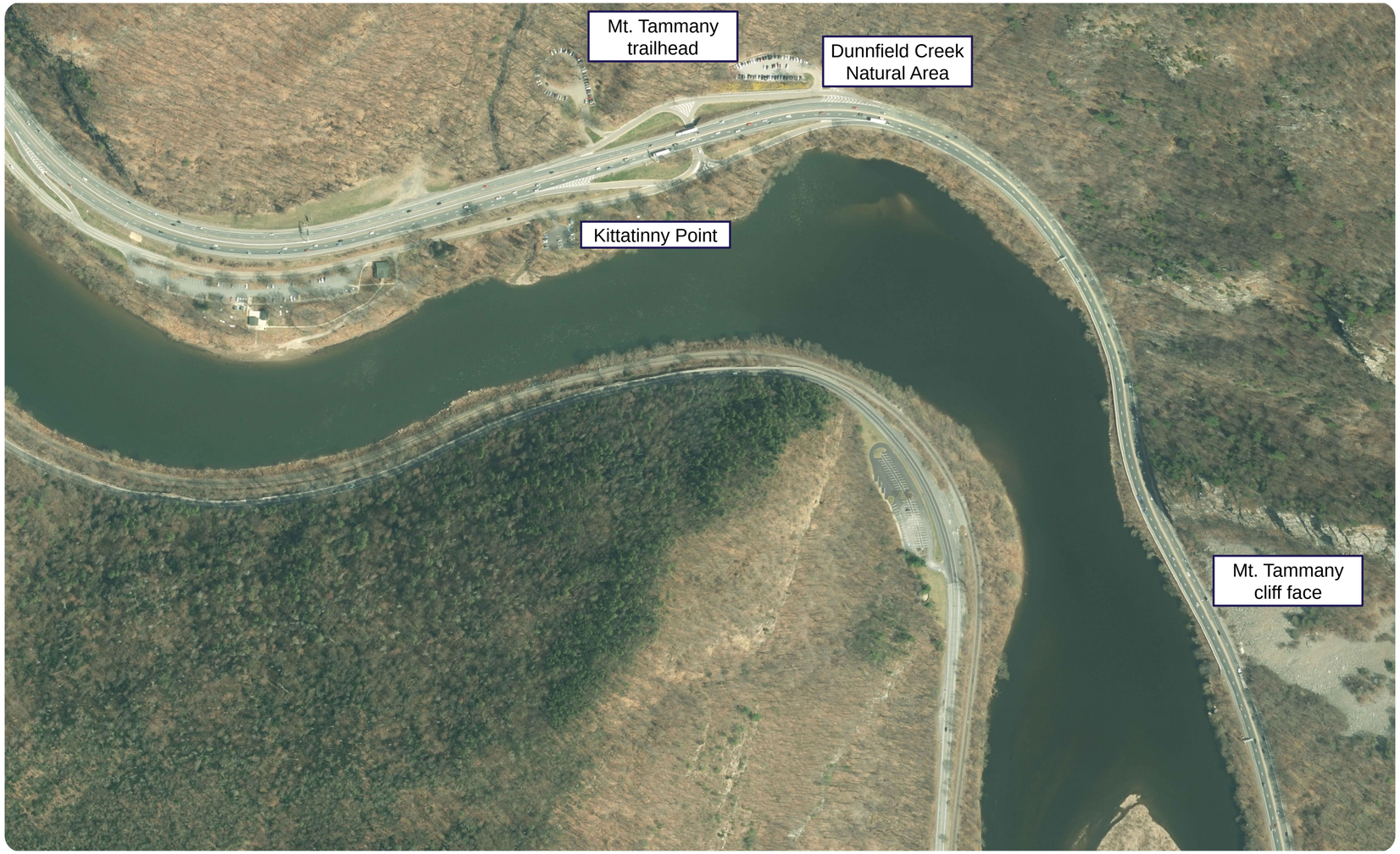
Design and Access Questions

- What temporary construction impacts are expected to recreational users at Kittatinny Point, Dunnfield Creek Natural Area, the Mt. Tammany trailhead, and/or to the cliff face on Mt. Tammany, a popular rock climbing area? (Mark Z.)
- At Area C, a fence is proposed on the ridgeline of Mt. Tammany. Please describe how public access to the vertical rockface for recreational users, including rock climbers will or will not be impacted by this design alternative? (Mark Z.)
- I would also like to discuss very specific design elements from the rock catch basin wall to the proposed fence on the ridge of Mt. Tammany for the study team to hear from stakeholders on the preference of some elements over others. (Mark Z.)

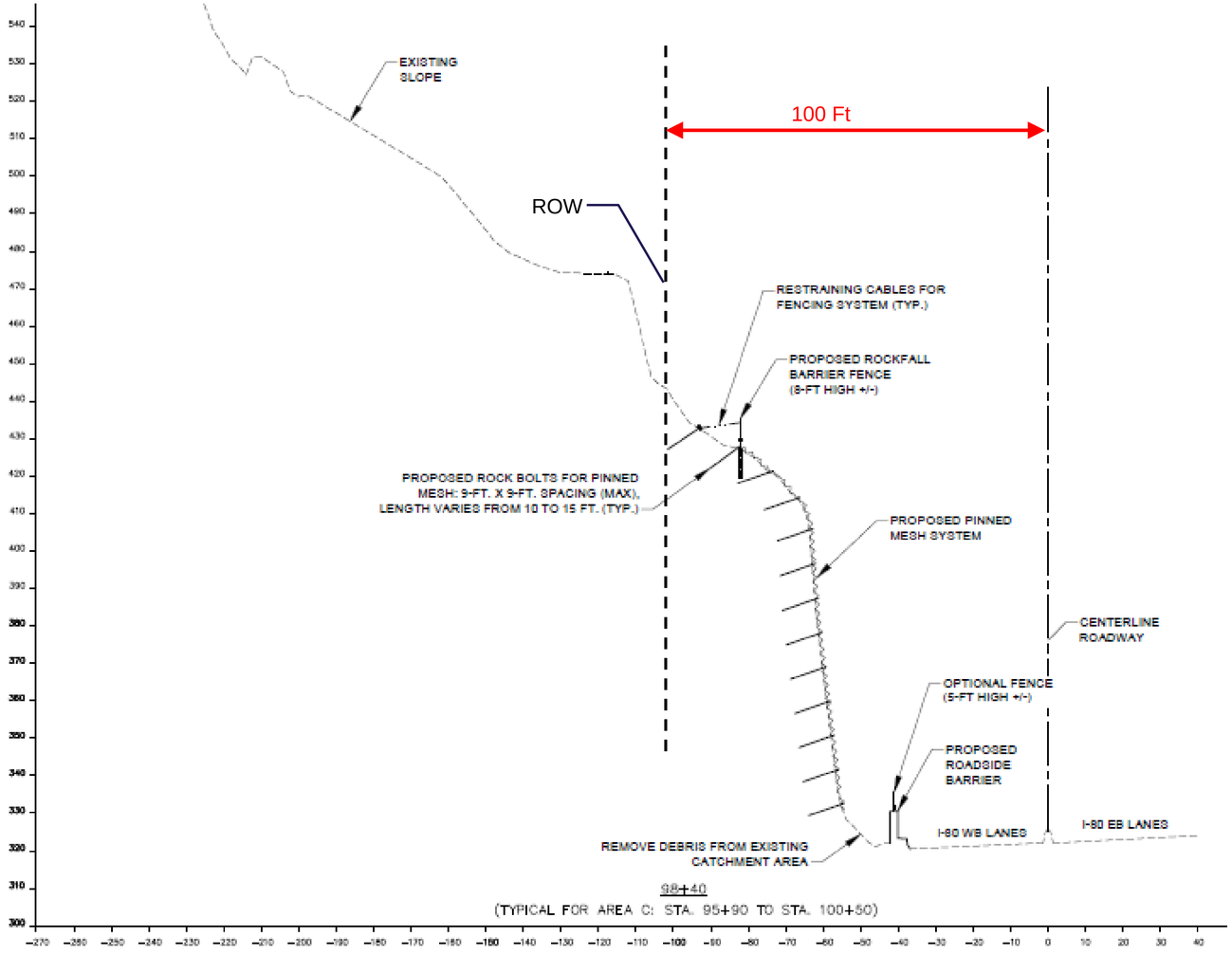
Design and Access Responses



Design and Access Responses



ROW Responses



ROW Responses

Preliminary Preferred Alternative AREA C - Proposed Improvements

Visual Treatment Options

- Recommended Color Selection
- Dark Grey: Federal Color 36081 and RAL color 7010
- Mesh/Net Sample Mockups in Area C

Tecco Mesh

Ring Net

Other Construction Projects Near the Project Area Questions

- Are there any other highway projects proposed, planned on the TIP or other near the project site that we are discussing today? I ask the question to ensure that if nearby projects are being considered to ensure that the NEPA process has the appropriate scope of geographic review and avoids segmentation. (Mark Z.)
- Thank you, the question was to clarify if there are any other adjacent or nearby projects that would qualify for a NEPA assessment to ensure that the work undertaken by this group regarding the Rockfall Project in this section of Route 80 is covering the correct geographic scope to avoid the segmentation that is not permitted under NEPA. So, if there was an adjacent project that's in the pipeline to come up within the next five years or project within the vicinity, we would recommend a comprehensive NEPA analysis looking at all of those projects as a whole. So, I'm wondering if the project team can speak to the TIP or any other planning documents that may or may not identify projects that may be needed in the future in a reasonable geographic boundary? (Mark Z.)
- Are there other improvement projects in planning or design or simply for fund requests that might be viewed as cumulative impacts? (John D.)
- As you review projects for next meeting, can you include PennDOT and Bridge Commission Projects in the same general area? (John D.)

List of Projects in Region

NJDOT Projects in STIP:

- Route 31, Bridge over Furnace Brook
- Route 31, Franklin Road (CR 634) to Route 46
- Route 46, Route 80 to Walnut Road
- Route 57, Bridge over Branch Lopatcong Creek
- Route 57, CR 519 Intersection Improvement
- Route 94, Bridge over Jacksonburg Creek

NJ Transit Project in STIP:

- Lackawanna Cutoff MOS Project

DRJTBC Projects in STIP:

- I-80 DWG Westbound Toll Plaza Approach and Roadway Rehabilitation
- Cleaning & Painting of the I-78 Main River Bridges
- I-78 New Jersey Roadway Milling & Paving
- Northampton Toll-Supported Bridge Floor System Replacement & Rehabilitation
- Portland - Columbia Pedestrian Toll Supported Bridge Improvements
- Riverton - Belvidere Toll-Supported Bridge Rehabilitation

List of Projects in Region

PA Project in STIP:

- I-80 Reconstruction Project

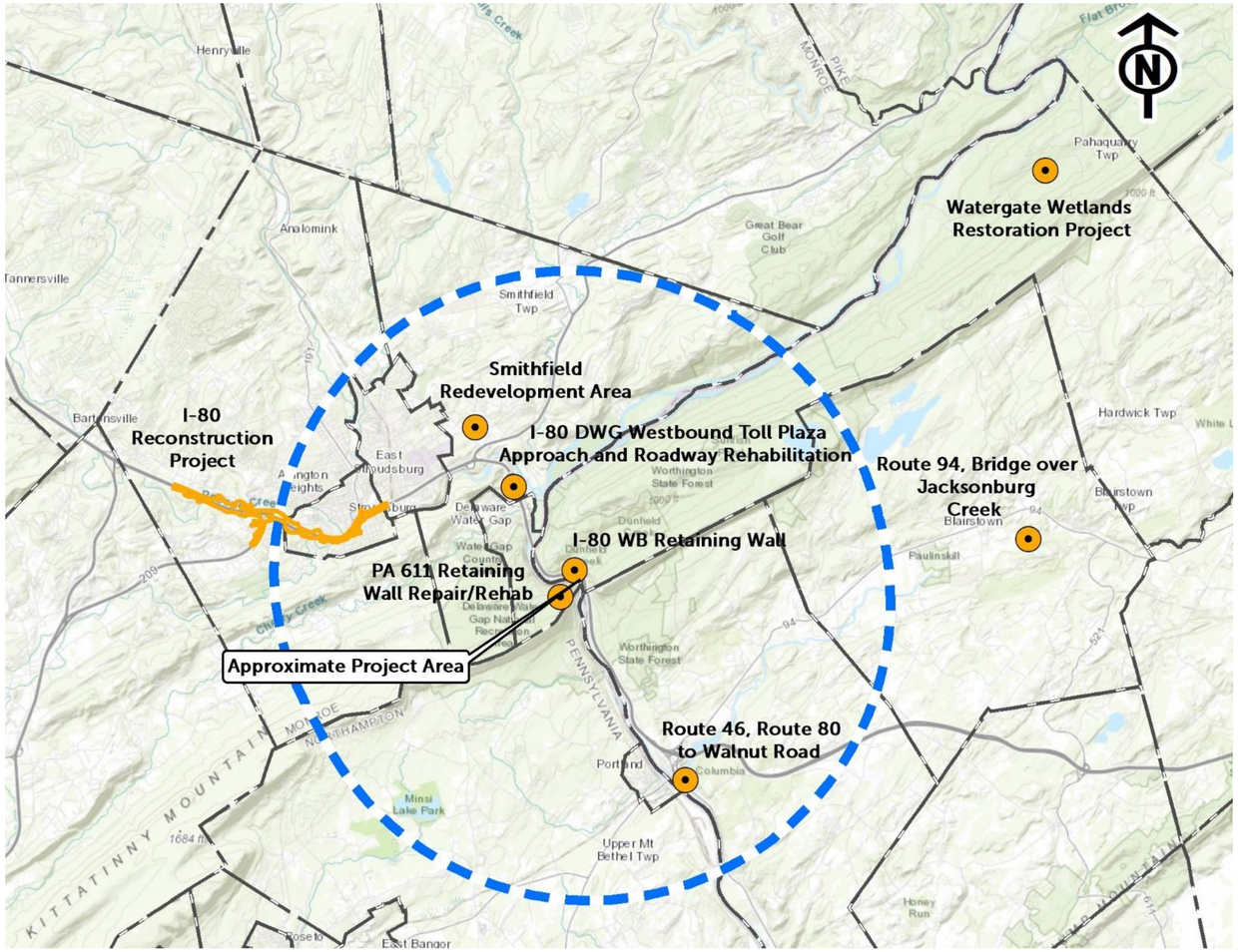
Lehigh Valley TIP :

- SR 1032 Bridge: Replacement of SR 1032 (State Street) Bridge over Jacoby Creek and Mill Race
- SR 1039 Bridge - 1: Replacement/Rehabilitation of the SR 1039 (River Road) Bridge over a tributary of the Delaware River
- SR 1039 Bridge - 2: Replacement/Rehabilitation of the SR 1039 (River Road) Bridge over a tributary of the Delaware River
- Richmond Bridge: Replacement/Rehabilitation of SR 611 (South Delaware Drive) Bridge over Oughoughton Creek
- SR 512 Bridge: Rehabilitation of the State Route 512 Bridge over Brushy Meadow Creek.
- SR 1015 Bridge: Replacement/Rehabilitation of State Route 1015 (Lower South Main Street) Bridge over Martins Creek
- Market Street Resurfacing: Resurface State Route 512 (Market Street) from Main Street to State Route 611

Northeastern Pennsylvania Alliance TIP (Monroe County):

- PA 611 Retaining Wall Rehab - This project involves the rehabilitation of the retaining wall on PA 611 from segments 10 to 60 along the Delaware River in Delaware Water Gap, Monroe County
- PA 611 Retaining Wall Repairs - Complete various repairs to deteriorating retaining wall along SR 611 Northbound in Delaware Water Gap, Monroe County

Other Construction Projects Near the Project Area



LEGEND

- Project Area
- 5 Mile Buffer
- State/Municipal Boundary
- Other Project Locations

Segmentation Avoidance

In order to avoid impermissible segmentation a project must:

- have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made;
- connect logical termini and be of sufficient length to address environmental matters on a broad scope; and
- not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Project Maintenance Cost Questions

- What are the projected costs for maintenance of the proposed rockfall barriers over the next 20 years? (John D.)
- I would just suggest that, in many organizations that deal with infrastructure, the projected cost of maintenance over the next few decades is an integral part of the decision-making process. I know in the National Parks Service, for example, they won't let you build anything because capital improvements — it's sometimes easier to get funding for that than it is for the actually staffing and operation and maintenance of buildings or roads. So, I'm just asking shouldn't that be considered as part of the determination for which alternative is selected and whether or not it's actually economically feasible? And that can be answered later when the cost figures for maintenance are determined as well. (John D.)

Alternatives Comparison Matrix

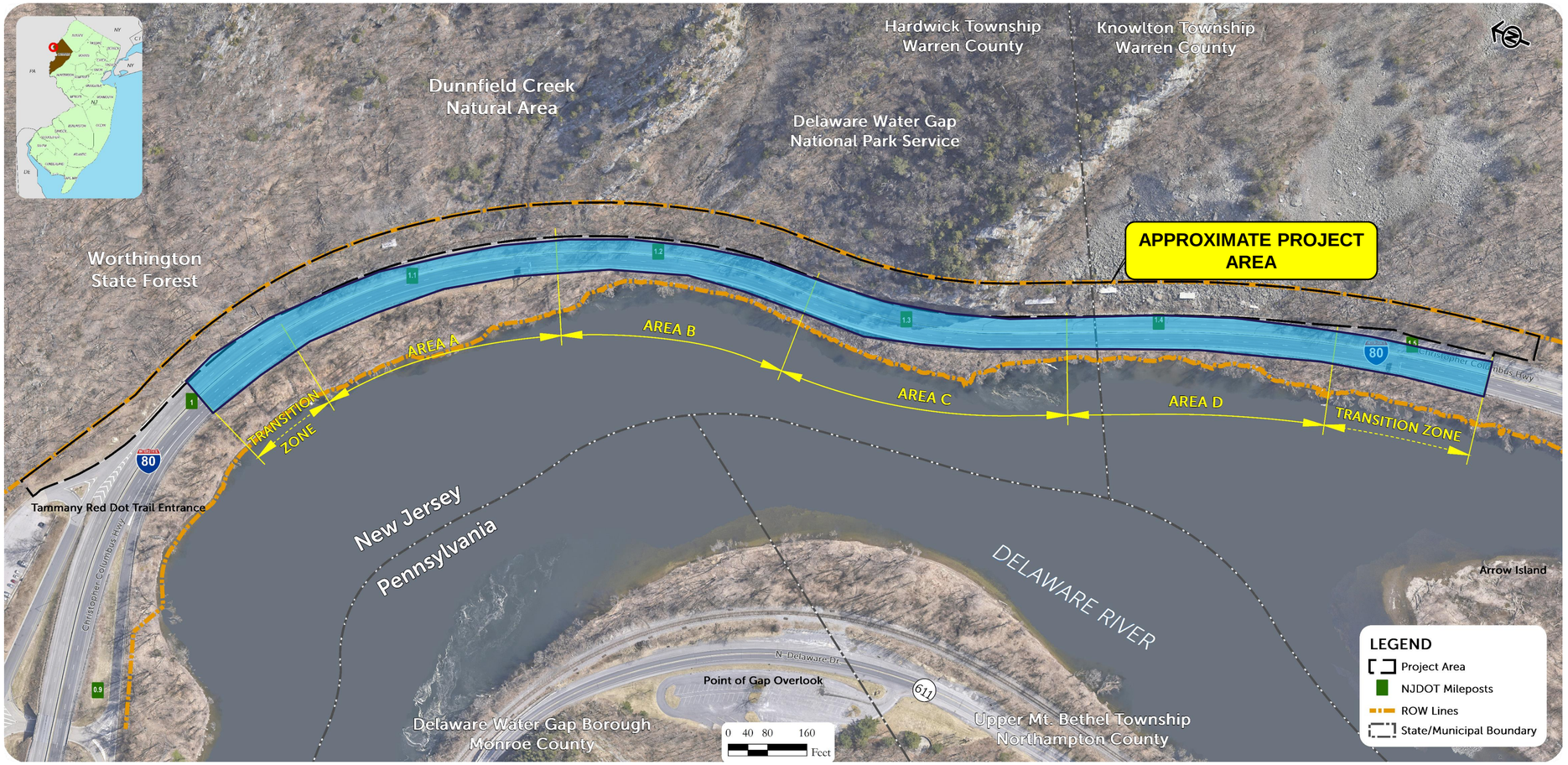
ALT.#	Alternative Name	Description	Anticipated Construction Cost	Meets Purpose and Need and/or Scope of Project	Work within NJDOT Right of Way	Required Ongoing Maintenance	Construction Impact	Construction Duration (Years)	Requires Lane Closures	Visual Impact	Ecological Impact	Open Space/ Recreation Impact	Status
1	Mass Excavation	Loose rocks, cobbles and debris collected, boulders broken up and scaled	$150 Million	Yes	No	Moderate	High	5-10	Permanent	High	High	High	Not Recommended
2	Temporary Right-of-Way Impacts	Rockfall source areas are temporarily mitigated on National Park Service lands without using permanent rock stabilization techniques	$38 Million	Yes	No	Low	Moderate	4	Temporary	High	Moderate	Moderate	Not Recommended
3	Permanent Right-of-Way Impacts	Rockfall source areas are permanently mitigated and safely secured on National Park Service lands	$60 Million	Yes	No	Moderate	High	4	Temporary	High	Moderate	High	Not Recommended
4	Double Fence	Construct double fence along portion of highway	$37 Million	Yes	Yes	High	High	4-5	Temporary	High	High	Low	Not Preferred
5	Rockfall Berm	Construct large rockfall barrier along portion of highway	$47 Million	Yes	Yes	Low	Low	4	Temporary	Low	Low	Low	**Preferred**
6	Retaining Wall	Construct large wall along portion of highway	$39 Million	Yes	Yes	Moderate	High	4	Temporary	High	High	Low	Not Preferred
7	Rockfall Shed over Highway	Construct structural shed over all 4 lanes of Route 80	$200 Million	Yes	No	Low	High	5-10	Permanent	High	Moderate	High	Not Recommended

Significant Impact Question

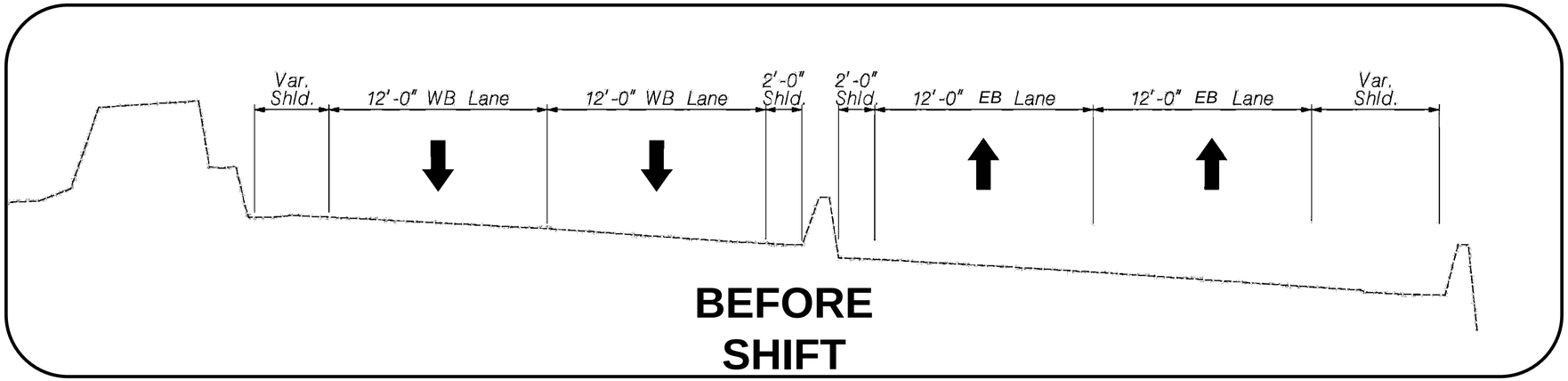
- Do you recognize that significant impacts included positive as well as negative impacts and don't you believe the project will have long-term positive significant impacts that justify the huge expenditure of fiscal resources? (John D.)
- Okay, thank you. And then the other thing—I think I had written this in my question for the agenda. Significant impacts—normally it makes people think of adverse impacts, but as I understand the case law, significant impacts can be positive as well as negative so even—I assume that everyone at New Jersey DOT believes that this would have significant long-term impacts for safety, but that raises the question of how can you have a Finding of No Significant Impacts when in fact, you're spending—there is a huge expenditure of fiscal resources in order to accomplish the project, I would imagine because you believe it's going to have significant long-term positive impacts. (John D.)

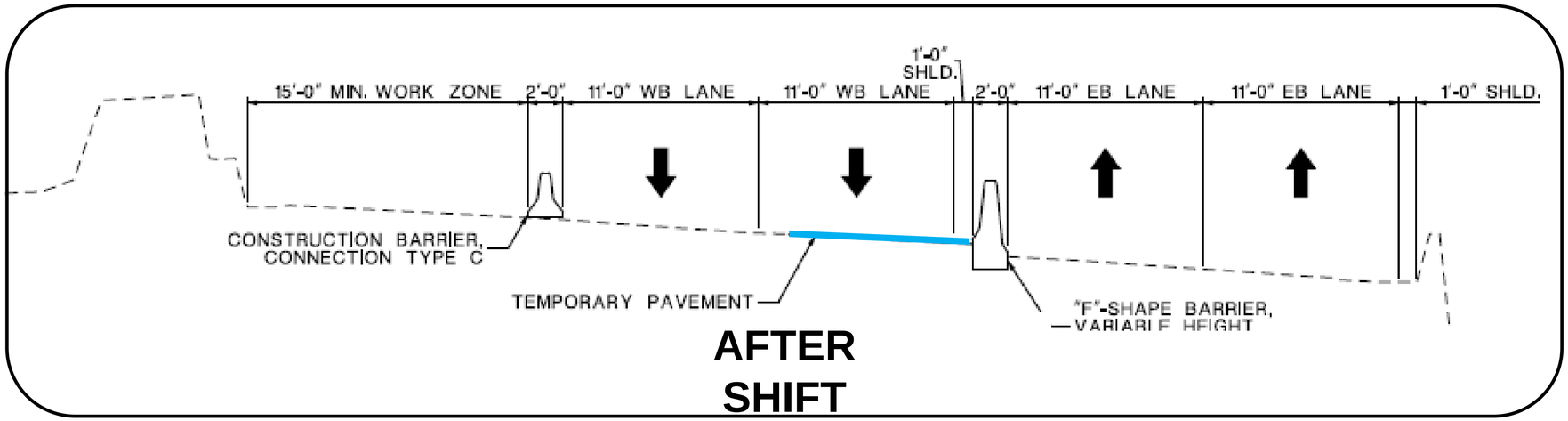
Traffic Overview

Construction Sequencing YEAR 1 ROADWAY SHIFT

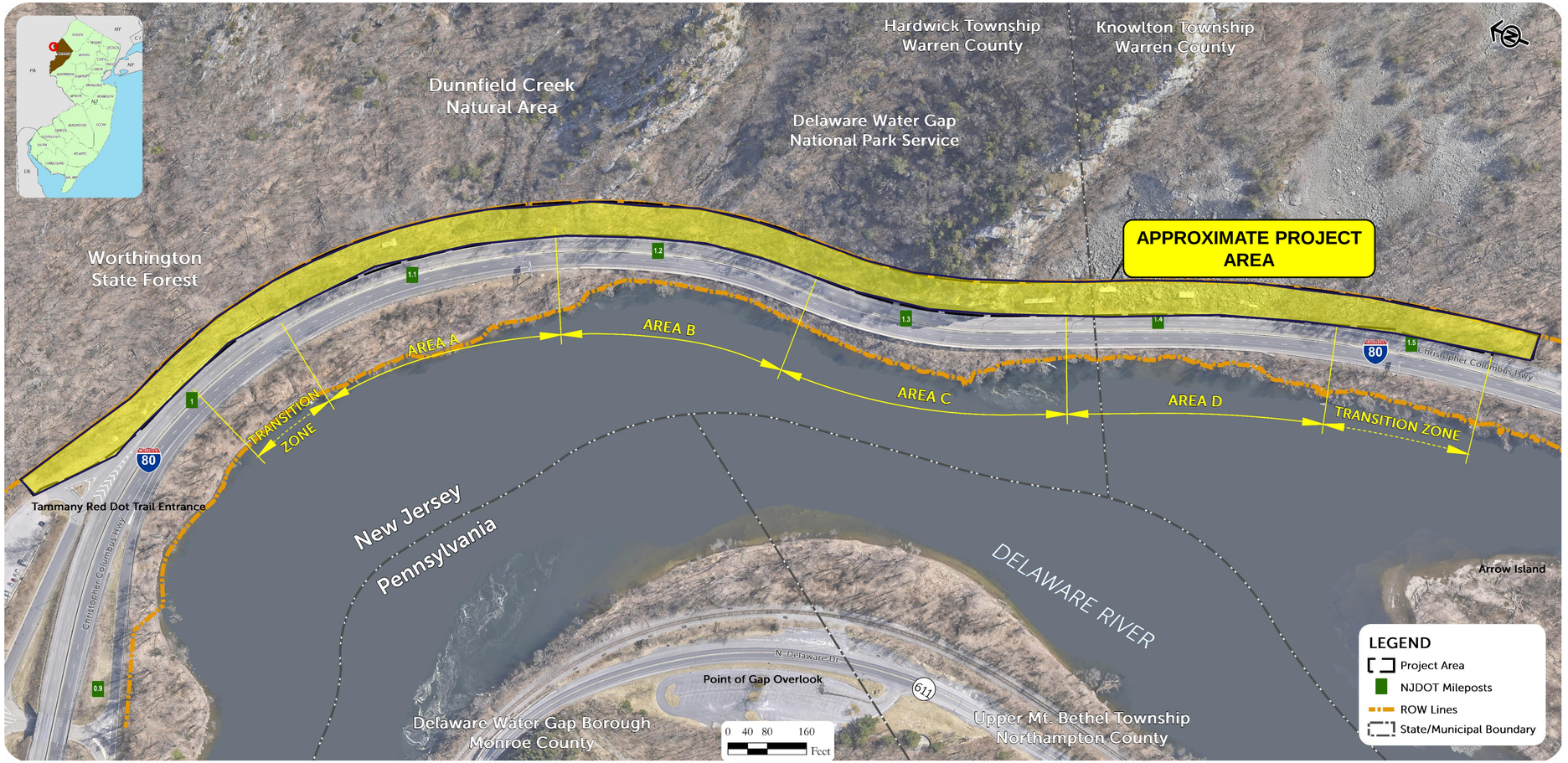


Construction Sequencing YEAR 1 ROADWAY SHIFT

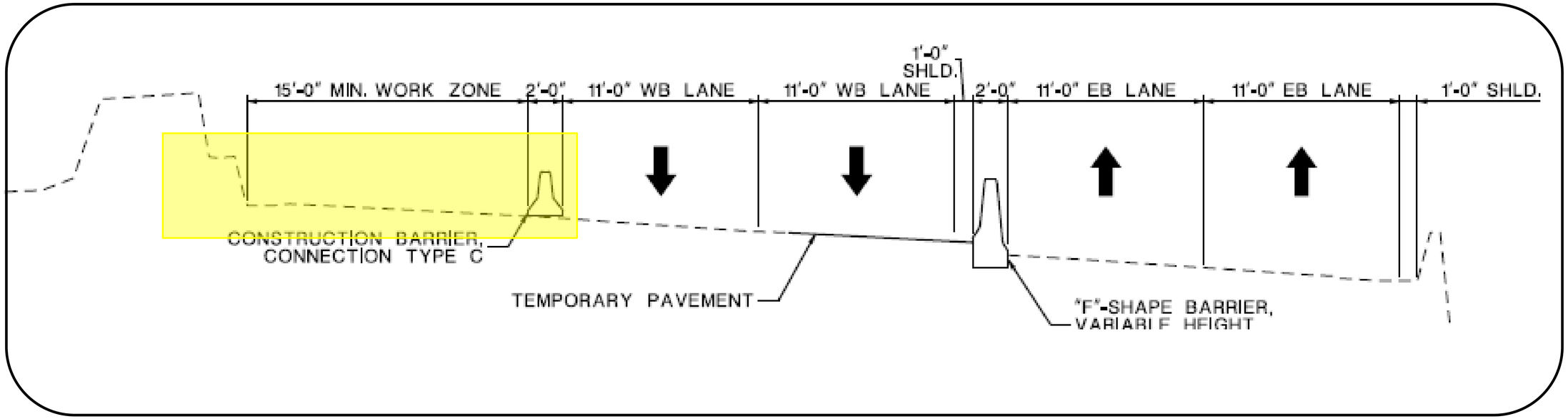




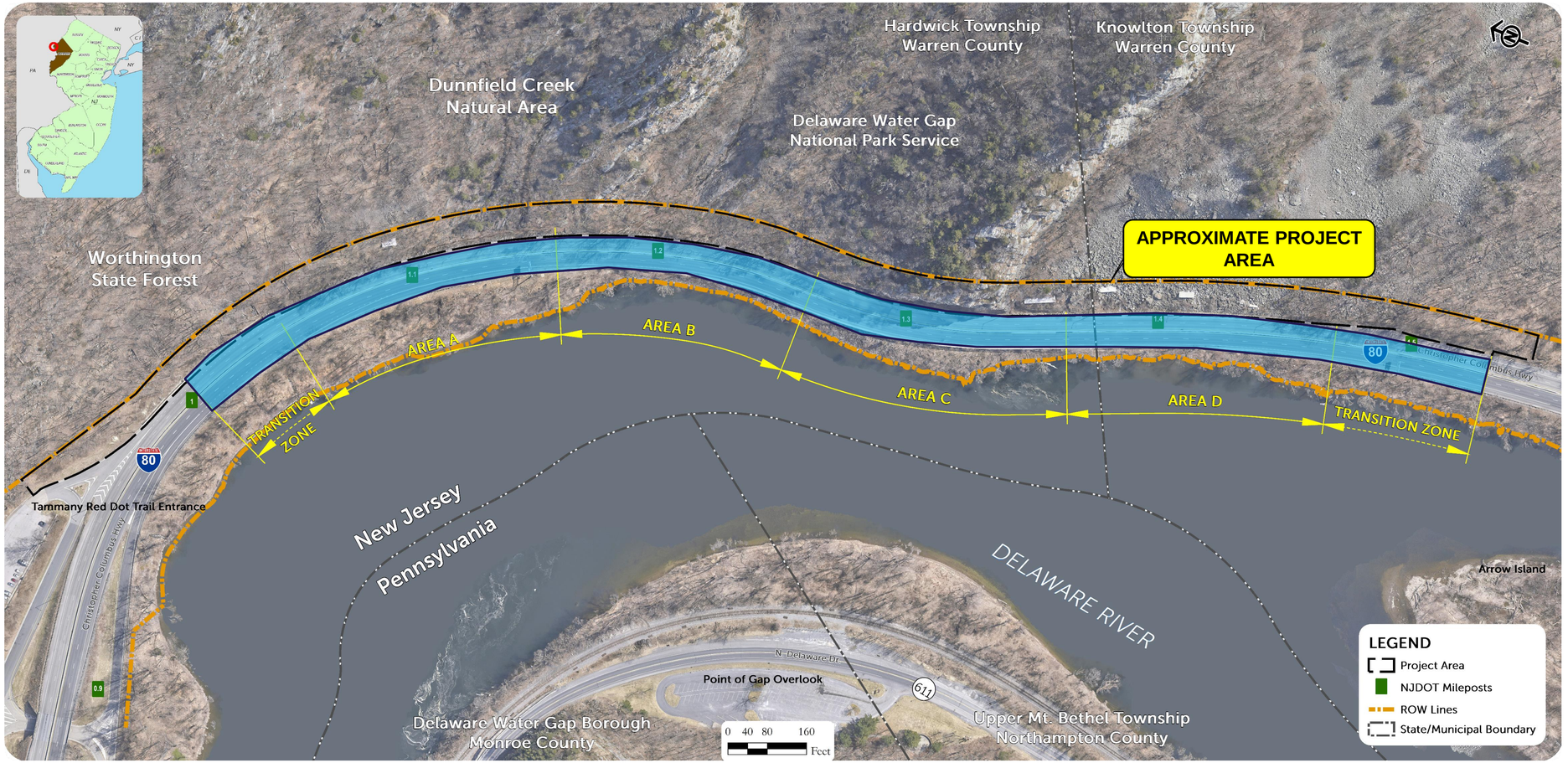
Construction Sequencing YEARS 2-3 ROCKFALL WORK



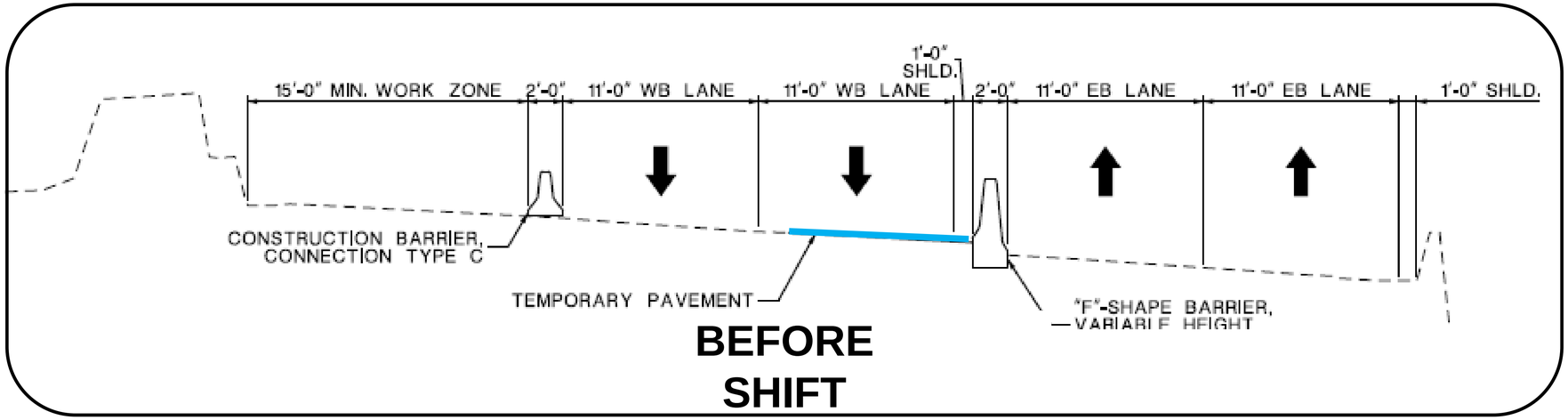
Construction Sequencing YEARS 2-3 ROCKFALL WORK

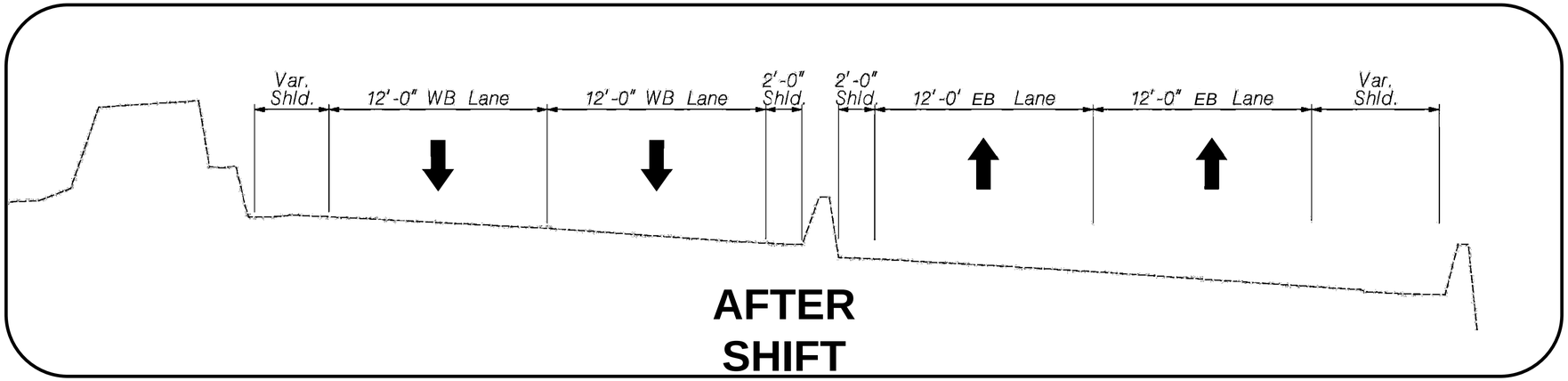


Construction Sequencing YEAR 4 ROADWAY SHIFT



Construction Sequencing YEAR 4 ROADWAY SHIFT





Traffic Impact Study During Construction

- **Continuation of CD traffic study during construction**
- **Determine potential impacts to traffic**
- **Identify strategies to maintaining traffic flow**
- **Minimize disruptions to local community & traveling public**
- **Recommend safety measures through construction zone**
- **Prepare for emergency situations**

Traffic Impact Study During Construction

- **Two analysis scenarios:**
  - **Temporary Single Lane Closure (westbound only)**
  - **Temporary Roadway Stoppage (eastbound & westbound)**
- **Key considerations:**
  - **Peak commuter periods**
  - **Peak tourist periods**

Data & Observations

Model Calibration/Validation

Historical traffic volumes

- **Delaware River Joint Toll Bridge Commission**

Vehicle speed & travel time data

- **i.e. GPS & cell phone data**

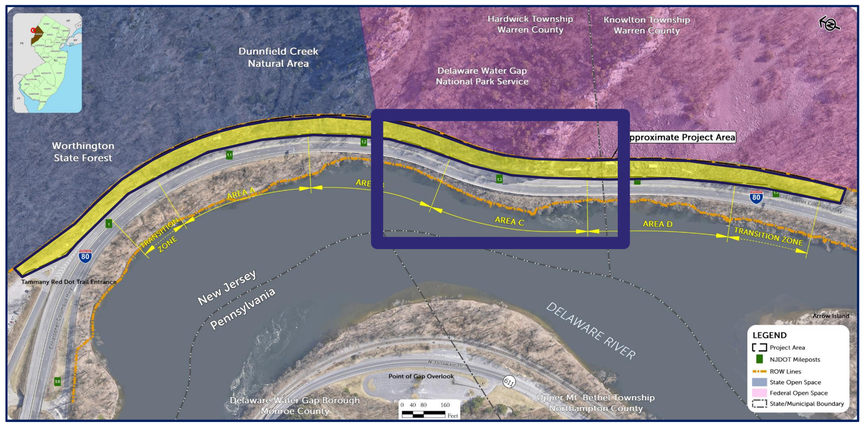
Field Observations & ground truthing

- **During planned single lane westbound closure at project site**

Traffic Engineering per Industry, state, and federal standards

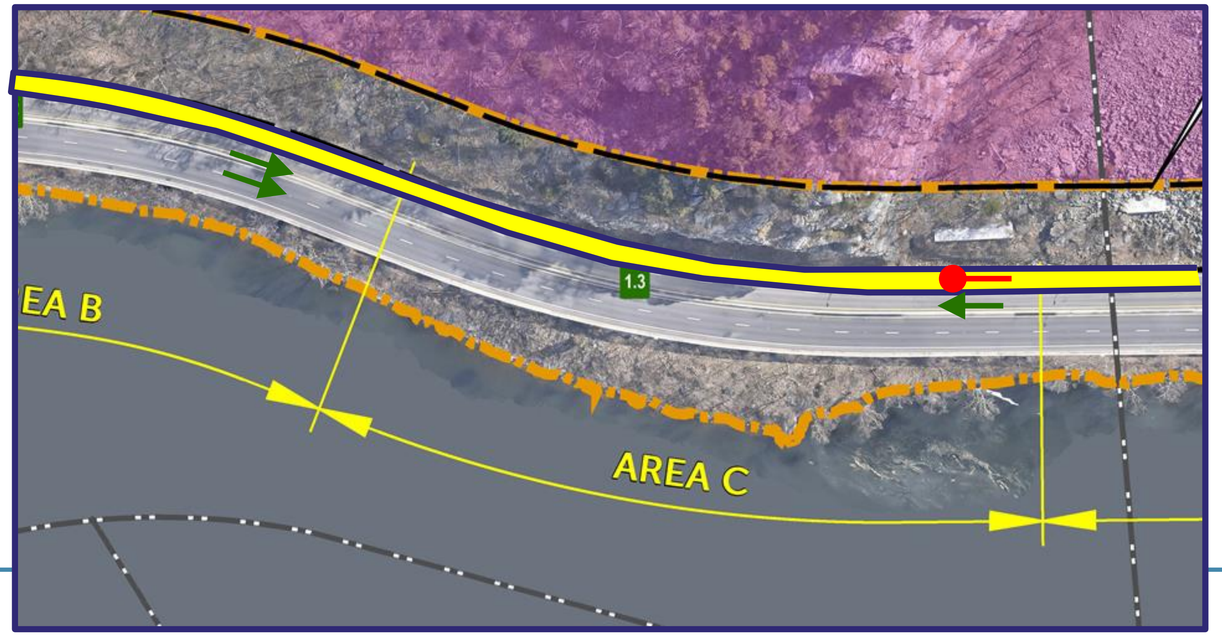
- **Highway Capacity Manual**

Scenario 1: Temporary Single Lane Closure



Construction Staging Requirements

- Facilitate construction activities along the westbound side of I-80
- Sequencing will occur over 4 years
- Limited to designated lane closure hours



Scenario 1: Temporary Single Lane Closure

Temporary Single Lane Closure

- Westbound direction only

Closure Periods

- Weekdays- Overnight & Morning
- Weekends- Overnight only

Additional Restrictions

- Fridays not permitted in summer

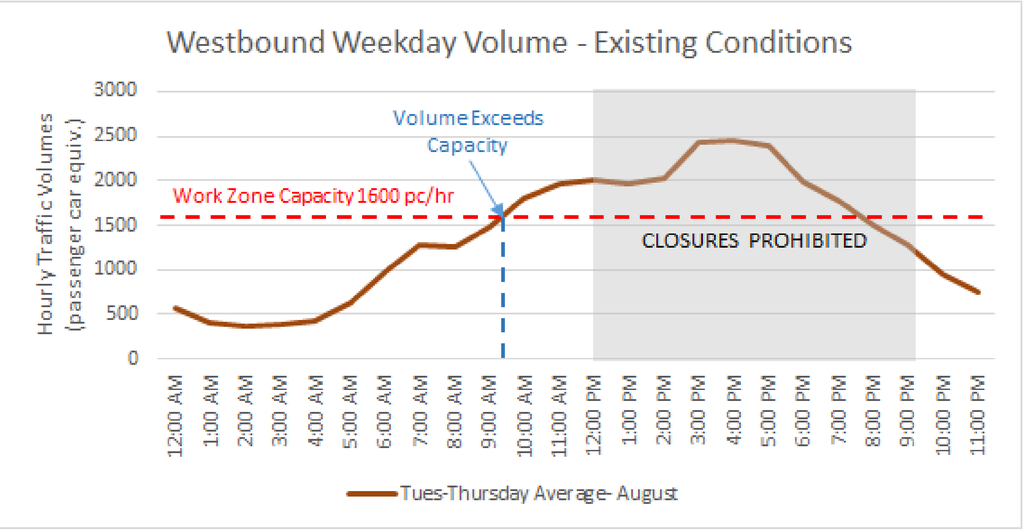
What to expect

- Weekdays
  - No delays before 9:30 AM
  - Between 9:30 & Noon
    Delays less than 10 minutes
- Weekends – Minimal delays expected

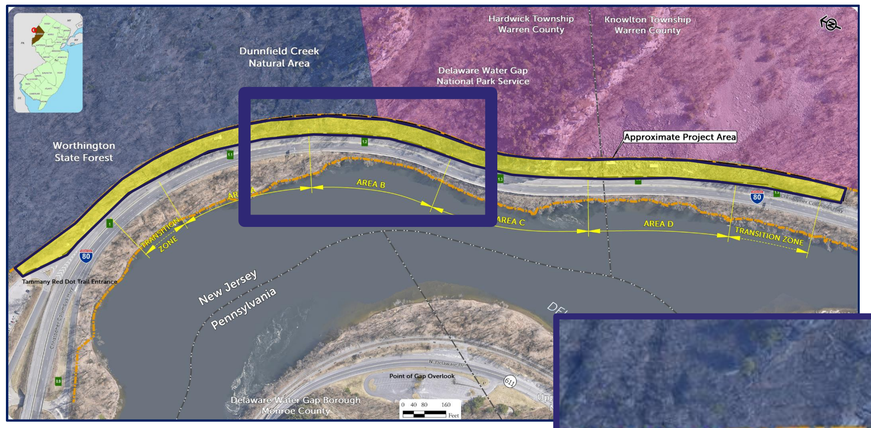
Table 1: Temporary Single Lane Closure Hours

All Lanes Maintained		
	From	To
Monday to Friday*	12:00 PM	9:00 PM
Saturday	7:00 AM	8:00 PM
Sunday	8:00 AM	8:00 PM
One Lane Closed - One Lane Maintained		
Monday to Thursday*	9:00 PM	12:00 PM (Next Day)
Friday	9:00 PM	7:00 AM (Saturday)
Saturday	8:00 PM	8:00 AM (Sunday)
Sunday	8:00 PM	12:00 PM (Monday)

*No Temporary Closures Friday Mid-May to Early September

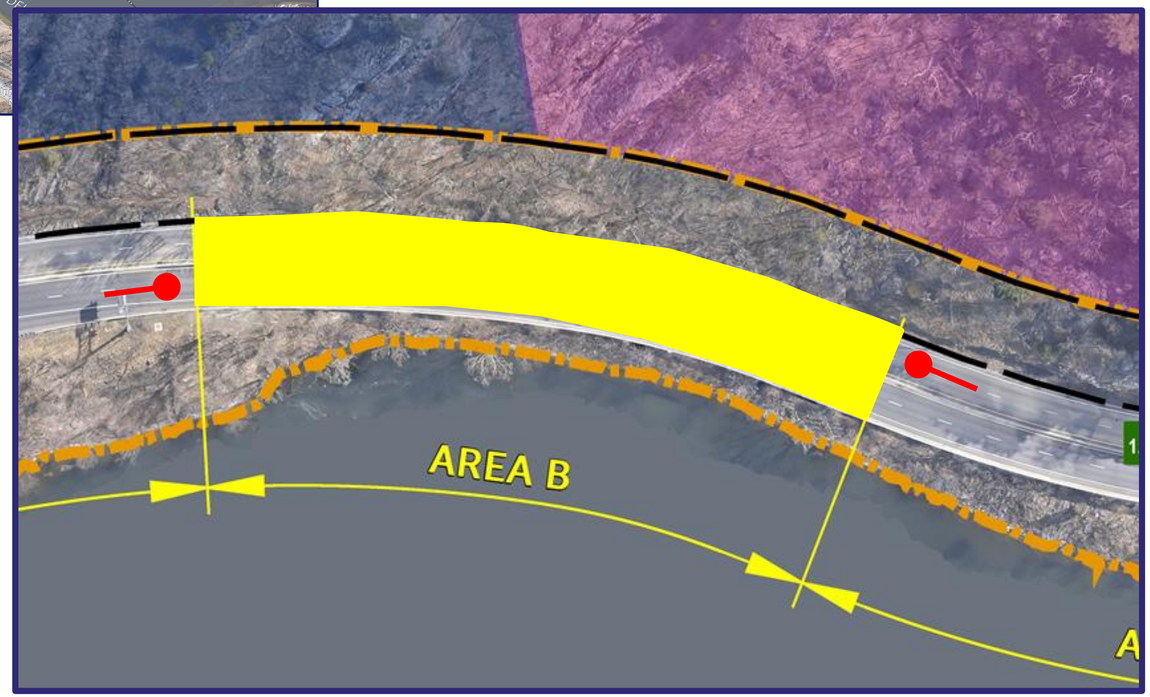


Scenario 2: 15-min Road Stoppage



Construction Staging Requirements

- Facilitate rock blasting activities
- Limited to one season (3-5 months)
- Closure hours are further restricted



Scenario 2: 15-min Road Stoppage

Full road stoppage

- Eastbound & Westbound Directions
- Up to 15-minute stoppage
- Maximum one full closure event per week to support blasting activities
- Estimated 3 - 5 month duration

Closure Periods

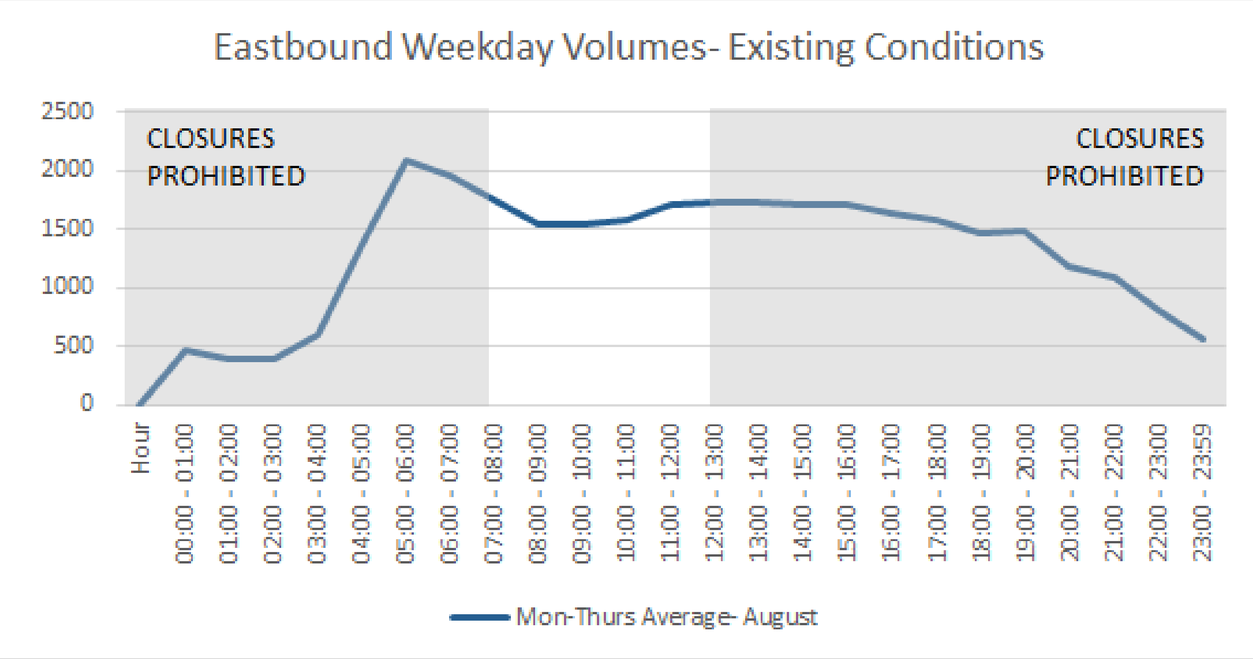
- Weekdays- Mornings (8AM-12PM)
  - Fridays - not permitted
- Weekends - not permitted

What to expect

- Up to 25-minute delay (inclusive of stoppage time)

Table 2: Allowable 15-Minute Full Roadway Stoppage Hours

15 Minute Blasting Permitted		
	From	To
Monday to Thursday	8:00 AM	12:00 PM



Analysis Findings Delays and Queue Lengths

Scenario	Delay	Queue Length
Single-Lane Westbound Mid-Day	6 minutes	1.1 miles
11:00 AM Blasting (Westbound Peak)	25 minutes	1.75 miles
8:00 AM Blasting (Eastbound Peak)	25 minutes	1.2 miles

- Conservative unmitigated projections
- Does not account for diversion to alternative routes, peak spreading, other changes to travel habits
- Maximum one full closure event per week, 1 construction season

Local Alternative Route – Route 611 via Portland-Columbia Bridge Crossing

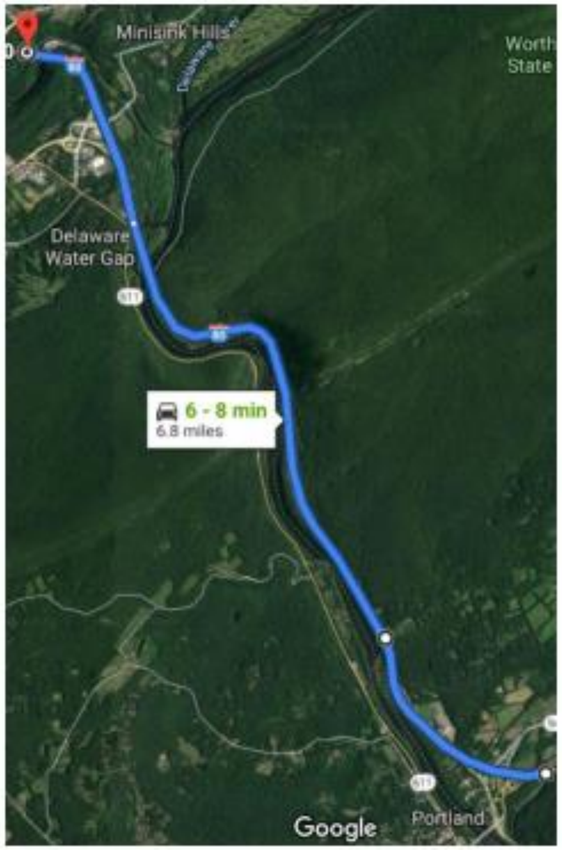
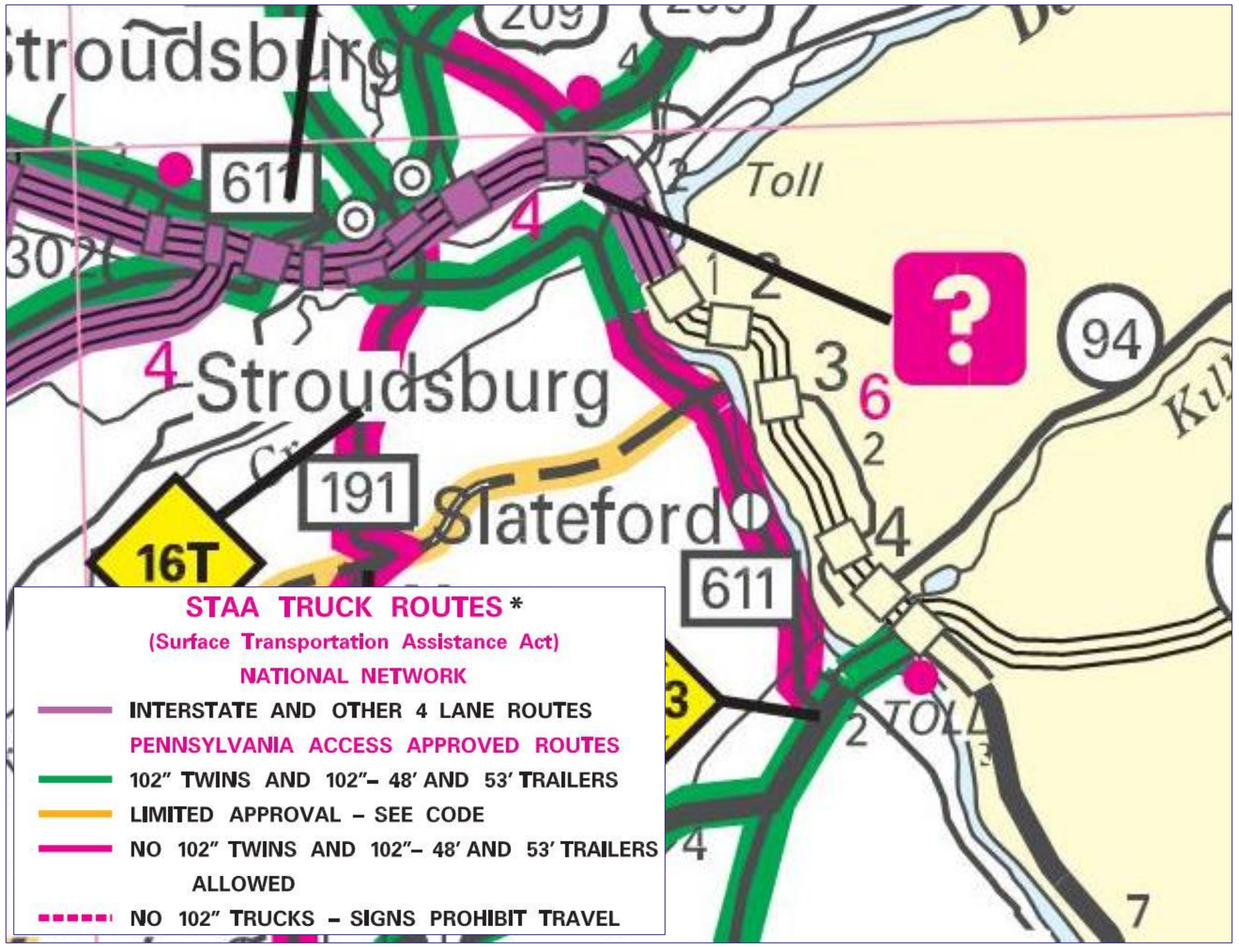


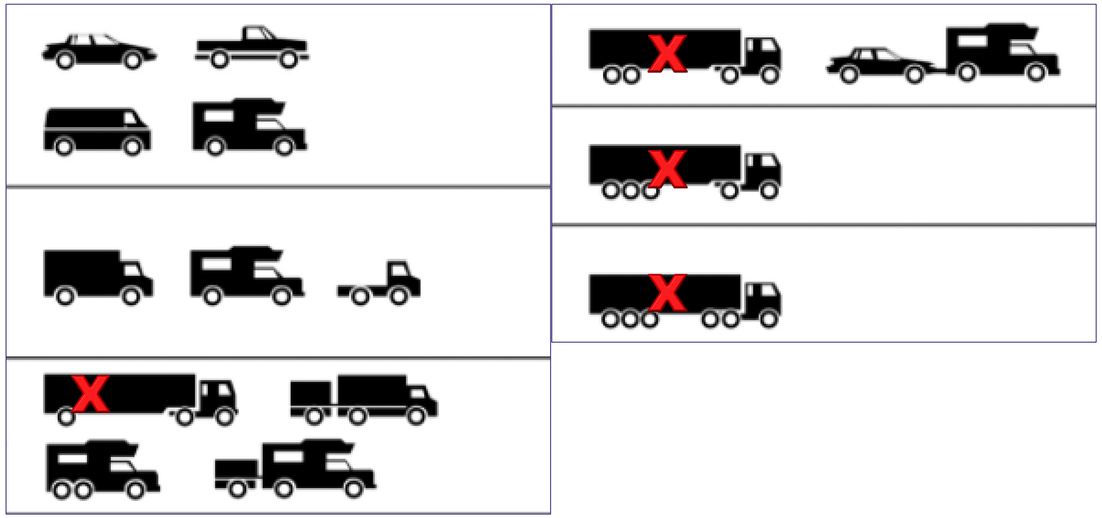
Figure 12: Route 80 Travel Time

Figure 13: Route 611 Travel Time

Route 611 Truck Restriction

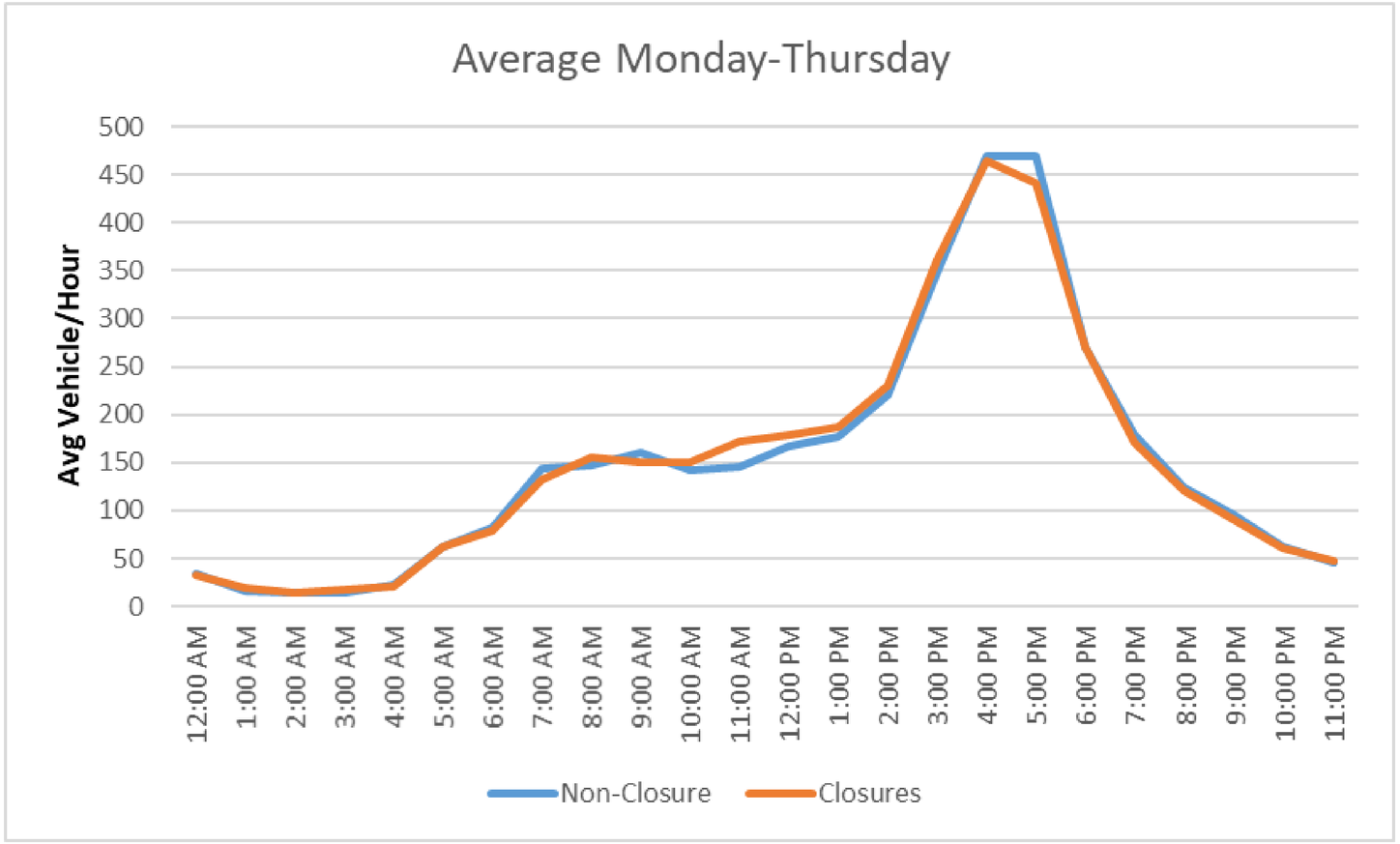


- Trucks greater than 48’ and/or wider than 102” prohibited

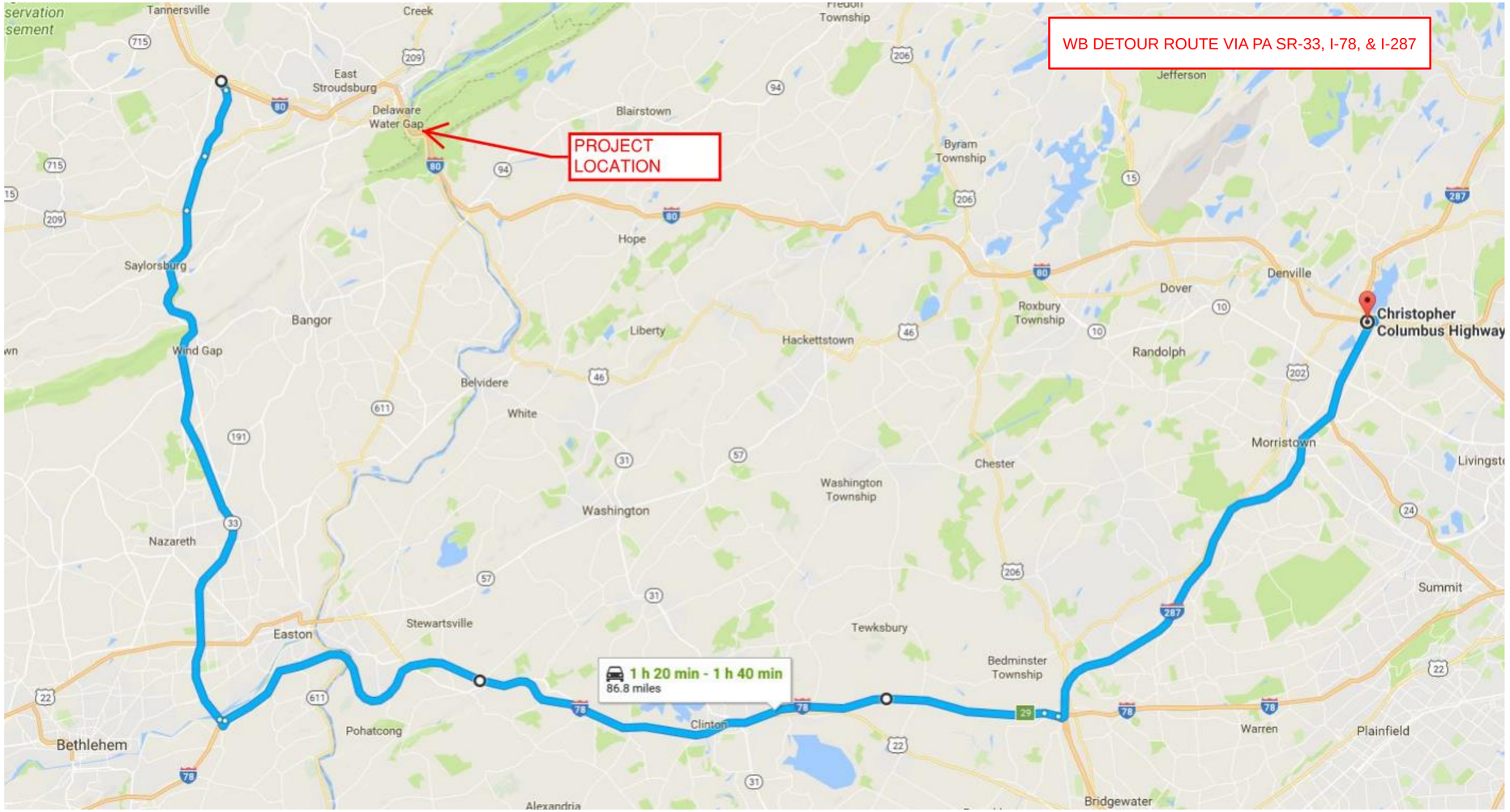


Diversion Route – Portland Columbia Bridge Traffic

Portland Columbia Bridge Traffic Volumes: I-80 Single Lane Operations vs Normal Conditions



Regional Diversion Routes



Ongoing Activities and Next Steps

- Public/Agency/Stakeholder Outreach
  - Emergency Services Task Force

- Emergency Management Plan to facilitate access for emergency vehicles

- Coordination with other projects and construction activities that may conflict with the project schedule (PennDOT I-80 reconstruction)

- Continued monitoring of traffic volumes/traffic conditions (Traffic Study is an on-going process)

Ongoing Activities and Next Steps

- Traffic Mitigation Considerations:
  - Smart Work Zone Technology (real-time messaging)
  - Encouraging use of alternative regional routes
  - Investigate truck lane restrictions
  - Text alerts

Questions and Answers

Questions?

Wrap Up


NEW JERSEY DEPARTMENT OF TRANSPORTATION
I-80 ROCKFALL MITIGATION

Next Steps – PAG Meeting 4

- Discussion topics:
  - Aesthetics

Is everyone available for the 4th PAG meeting November 12th, 17th, 18th?

2-4PM?

6-8PM?

Next Steps

Prior to the next meeting:

- Address PAG questions
- Post information to SharePoint site

Thank You!

Questions or comments may be emailed to:

I80Rockfall@dewberry.com

View this meeting recording and other project materials at:
https://dewberryportal.sharepoint.com/sites/njdoti-80rockfallpag

We will be reaching out to you for your availability for the next PAG meeting.