Welcome!

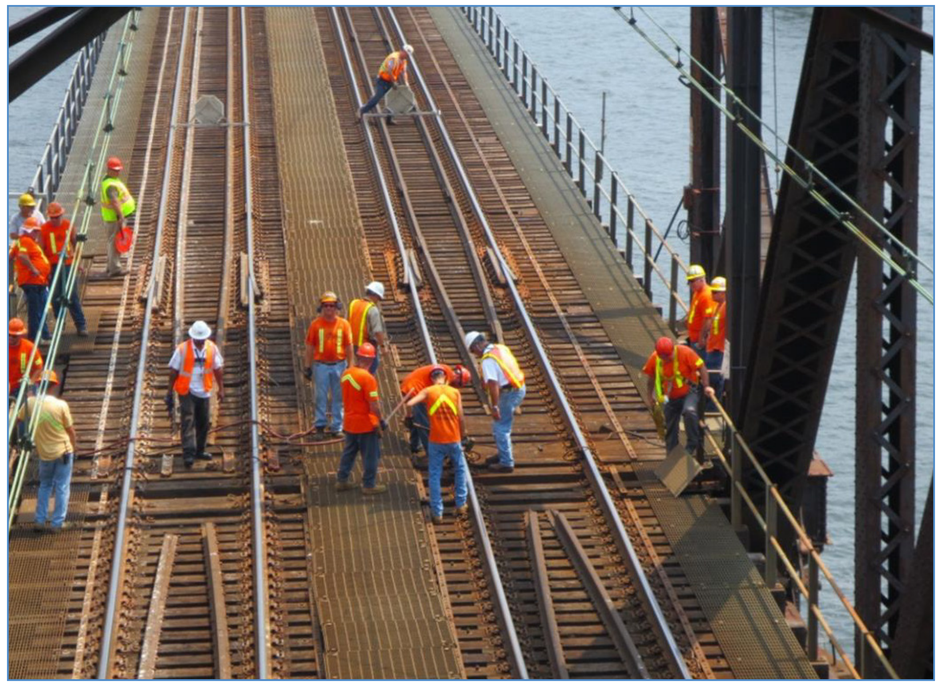
Susquehanna River Rail Bridge Project

Public Outreach Information Session

Project Purpose and Need

The problems posed by the existing Susquehanna River Rail Bridge include:

- Functionally obsolete and aging infrastructure
- Speed and capacity constraints
- Operational inflexibility
- Maintenance difficulties
- Conflicts with maritime uses



Amtrak crew manually opening the movable bridge span to accommodate marine traffic.

Project Purpose and Need

The primary purpose of the Susquehanna River Rail Bridge Project is to provide continued rail connectivity along the Northeast Corridor (NEC).

The project goals include:

- Improve rail service reliability and safety
- Improve operational flexibility and accommodate reduced trip times
- Optimize existing and planned infrastructure and accommodate future freight, commuter, intercity, and high-speed rail operations
- Maintain adequate navigation and improve safety along the Susquehanna River

The Northeast Corridor merges from four tracks to two tracks (heading south from Perryville to Havre de Grace).

Environmental Considerations
National Environmental Policy Act (NEPA)

Requires that we do everything possible to protect and enhance the natural, cultural and human environment. A complete study of all reasonable alternatives (including measures to avoid and minimize impacts) must be prepared, and the results must be made available to public officials and citizens before decisions are made.

Natural Environment

- Geology / Groundwater Resources
- Soils
- Surface Water
- Floodplains
- Wetlands
- Aquatic Life
- Wildlife







Socio-Economic Environment

- Demographics
- Community Facilities
- Economic Setting and Land Use
- Noise
- Air

Section 404 of the Clean Water Act, Nontidal Wetlands Protection Act

Regulates dredge and fill of Waters of the United States. Guidelines published by the Environmental Protection Agency for evaluating alternatives require that the Corps of Engineers evaluate the proposed project for environmental impacts (including historic and rare/threatened/endangered species impacts) and select the least environmentally damaging, practicable alternative.

Endangered Species Act

Ensures that actions are not taken to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of such species.

Cultural Environment

- Historic Structures
- Archaeological Sites

Section 106 of the National Historic Preservation Act

Requires that agencies take into account the effects of a project on properties that are included in or eligible for the National Register of Historic Places.

Section 4(f) of the US Department of Transportation Act

Requires that special effort be made to preserve publicly owned public parks and recreation areas, wildlife / waterfowl refuges and historic sites. No project which requires land from these resources may be approved unless 1) there is no feasible and prudent alternative to the use of the land and 2) the action includes all possible planning to minimize harm to the property resulting from such use.

Clean Air Act and Clean Air Act Amendments

An air quality analysis must be performed to determine if there are violations of the State or National Ambient Air Quality Standards.

Farmland Protection Policy Act

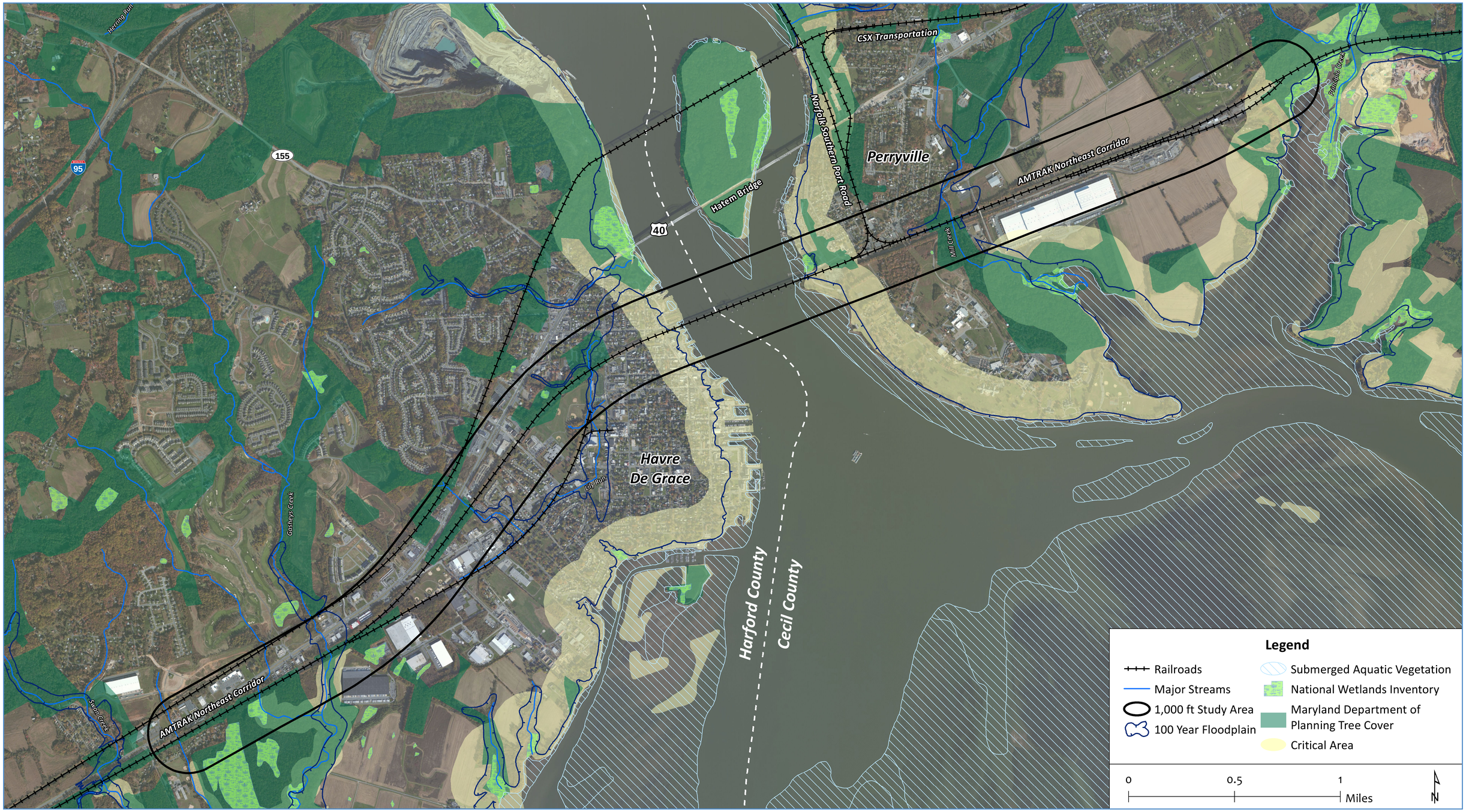
Requires that federal programs minimize conversion of farmland to non-agricultural uses (does not apply to farmland that is zoned or committed (planned) for urban development).

Executive Order 12898 (Environmental Justice)

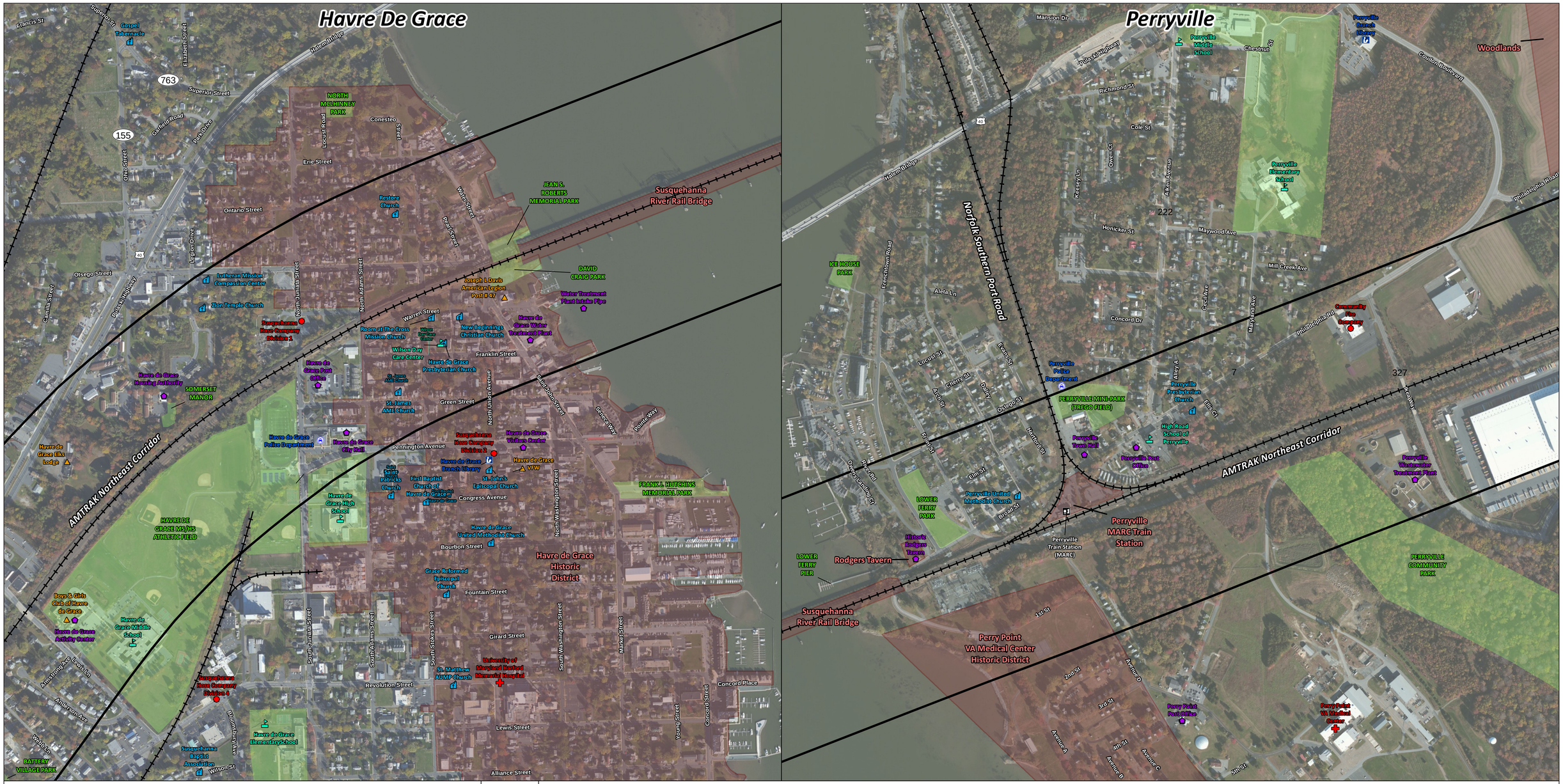
Requires that agencies identify and address disproportionately high and adverse human health or environmental effects on minority or low-income populations.

Natural Resources

Coordinating with resource agencies to identify species or habitats of concern.



Parks, Historic Places, and Community Facilities



0 0.25 0.5 Miles

N

Legend

- Railroads
- 1,000 ft Study Area
- Parks/Recreation
- Historic Places*
- Community Recreation
- Fire Station
- Government Facility
- Library
- Medical
- Police
- Religious
- School
- Transit

* Historic Places listed or eligible for listing on the State/National Register of Historic Places

Two-Step Alternatives Screening Process

Step 1: Fatal Flaw Screening—criteria developed from Purpose & Need

➤ ***Pass/fail test—alternative must satisfy all criteria to advance***

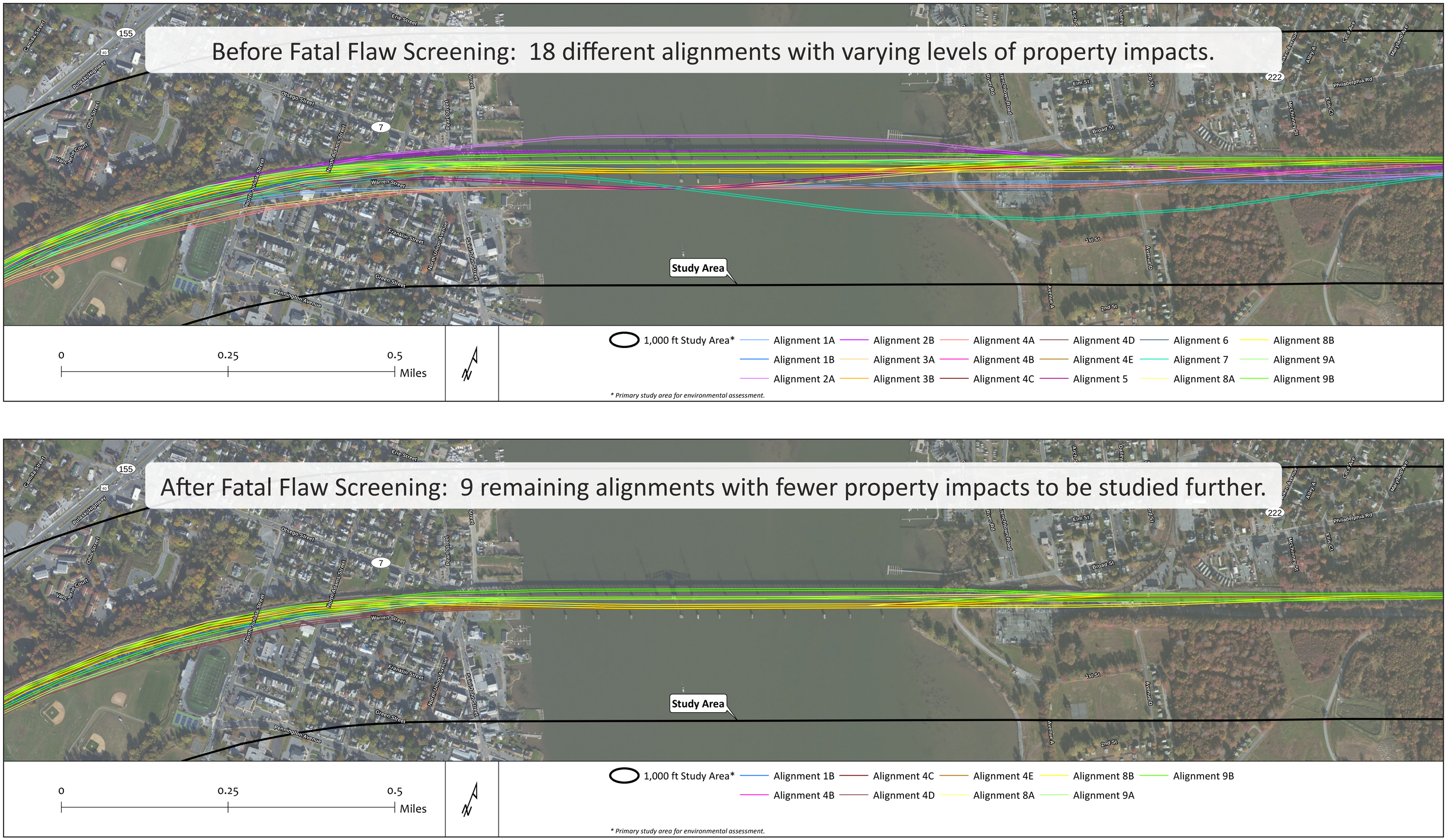
- Provides rail connectivity
- Meets navigation requirements
- Has logical termini
- Is feasible & constructible
- Avoids critical property impacts (developed from community input)

Step 2: Detailed Screening—based on specific project goals

➤ ***Relative test—compare/contrast each alternative's ability to meet goals & objectives***

- Optimizes existing and planned infrastructure
- Considers operational, design, construction requirements
- Minimizes environmental/cultural/socioeconomic/property impacts

Conceptual Alignments Considered



Two-Step Alternatives Screening Results

- ***Fatal Flaw Screening—18 conceptual alignments were evaluated and 9 were eliminated***
  - Rehabilitation of existing bridge was eliminated; not feasible from construction and engineering perspective; will fail to provide continued rail connectivity and meet navigational requirements
- ***Detailed Screening—9 remaining alignments and 1 value engineering alignment were evaluated; all but 3 alignments were eliminated***
  - Alignments eliminated based on maximum achievable speed, number of tracks, and property impacts
- ***Alternatives Retained for Detailed Study—Alignments 1B, 9A, and 9B***

Potential Property Impacts from Eliminated Alternatives

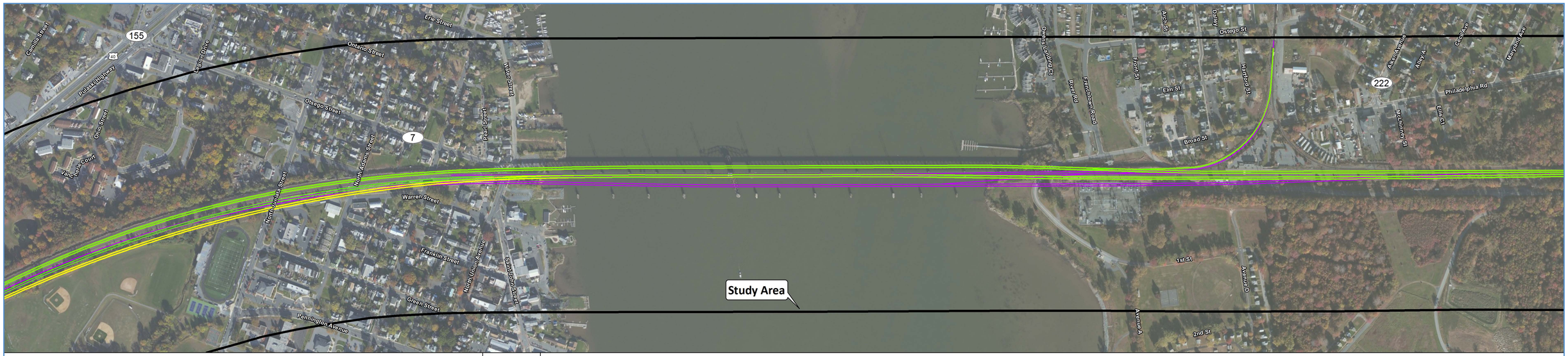
Alternatives Comparison Matrix

Screening Criteria	Alt 1B	Alt 4B	Alt 4C	Alt 4D	Alt 4E	Alt 8A	Alt 8B	Alt 9A	Alt 9B	VE
IMPROVE RAIL SERVICE RELIABILITY AND SAFETY										
Eliminates operational disruptions/ delays	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Connects to NS wye and provides grades acceptable for freight operations	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of bridge structures	2	2	2	1	1	2	1	2	2	2
IMPROVE OPERATIONAL FLEXIBILITY AND ACCOMMODATE REDUCED TRIP TIMES										
Reduces operational conflicts	Excellent	Excellent	Excellent	Fair	Fair	Excellent	Fair	Excellent	Excellent	Excellent
Eliminates or reduces speed restrictions for intercity trains	Eliminates	Eliminates	Eliminates	Eliminates	Eliminates	Reduces	Reduces	Eliminates	Eliminates	Eliminates
Provides flexibility for operational and maintenance work windows	Very Good	Very Good	Very Good	Good	Good	Very Good	Good	Good	Good	Good
OPTIMIZE EXISTING AND PLANNED INFRASTRUCTURE										
Eliminates two-track section in this portion of NEC*	Excellent 4 Tracks	Excellent 4 Tracks	Excellent 4 Tracks	Good 3 Tracks	Good 3 Tracks	Excellent 4 Tracks	Good 3 Tracks	Excellent 4 Tracks	Excellent 4 Tracks	Excellent 4 Tracks
Does not preclude future high-speed rail (NEC Future)*	140 mph Good	160 mph Excellent	135 mph Good	160 mph Excellent	135mph Good	120 mph Fair	120 mph Fair	160 mph Excellent	150 mph Very Good	140 mph Good
Impacts to Perry Substation	Major	Major	Major	Major	Major	Major	Major	Moderate	Moderate	Major
Allows shared corridor with bike/ped path**	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude
MAINTAIN ADEQUATE NAVIGATION AND IMPROVE SAFETY ALONG THE SUSQUEHANNA RIVER										
Provides suitable vertical clearance	Yes – 60’	Yes – 60’	Yes – 60’	Yes – 60’	Yes – 60’	Yes – 60’	Yes – 60’	Yes – 60’	Yes – 60’	Yes – 60’
Maintains or widens horizontal clearance	Yes- 200’+	Yes- 200’+	Yes- 200’+	Yes- 200’+	Yes-200’+	Yes- 200’+	Yes- 200’+	Yes- 200’+	Yes- 200’+	Yes- 200’+
Requires temporary winter closure of movable span?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PROPERTY IMPACTS										
Potential property impacts*	1 Commercial (Indirect) 1 Undeveloped (Partial)	1 Residential (Full) 1 Commercial (Full) 1 Commercial (Indirect) 1 Institutional (Partial) 2 Undeveloped (Full) 1 Undeveloped (Partial) 2 Park (Partial)	1 Residential (Full) 1 Commercial (Partial) 2 Undeveloped (Full) 1 Park (Partial)	1 Residential (Full) 1 Commercial (Full) 1 Commercial (Indirect) 1 Institutional (Partial) 2 Undeveloped (Full) 1 Undeveloped (Partial) 2 Park (Partial)	1 Residential (Full) 1 Commercial (Partial) 2 Undeveloped (Full) 1 Park (Partial)	1 Commercial (Partial)	1 Commercial (Partial)	1 Residential (Partial) 1 Commercial (Full) 1 Undeveloped (Partial) 2 Park (Partial)	1 Residential (Partial) 1 Commercial (Partial) 1 Park (Partial)	1 Residential (Partial) 1 Commercial (Partial) 1 Park (Partial) 1 Undeveloped (Partial)
Retained for Further Evaluation?	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**	**YES**	**NO**
Elimination Rationale	N/A	High property impacts	Better option available	High property impacts	Better option available	Undesirable Speed	Undesirable Speed	N/A	N/A	Better option available

* Primary differentiator in selecting alternatives retained for detailed study | ** Feasibility evaluation in progress

most desirable more desirable least desirable

Alternatives Retained for Detailed Study



0 0.25 0.5 Miles

1,000 ft Study Area* Alignment 1B Alignment 9A Alignment 9B

** Primary study area for environmental assessment.*

Retained for detailed study: Alignments 1B, 9A, and 9B

- Allows for 4 track capacity with up to 160 mph max speed
- Lesser property impacts than other alternatives
- Compatible with several bridge types
- Maximum achievable speed, number of tracks, and property impacts were primary differentiators in selecting alignments

Potential Property Impacts from Retained Alternatives

HAVRE DE GRACE PROPERTY IMPACTS FOR OPTION 1B: TWO DOUBLE-TRACK BRIDGES AT 140 MPH

← RAILROAD SOUTH TO BALTIMORE

RAILROAD NORTH TO WILMINGTON →

EXISTING RIGHT-OF-WAY
EXISTING RAILROAD LIMITS
IMPACTS OUTSIDE AMTRAK RIGHT-OF-WAY
NEW RIVER BRIDGE LIMITS

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PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO

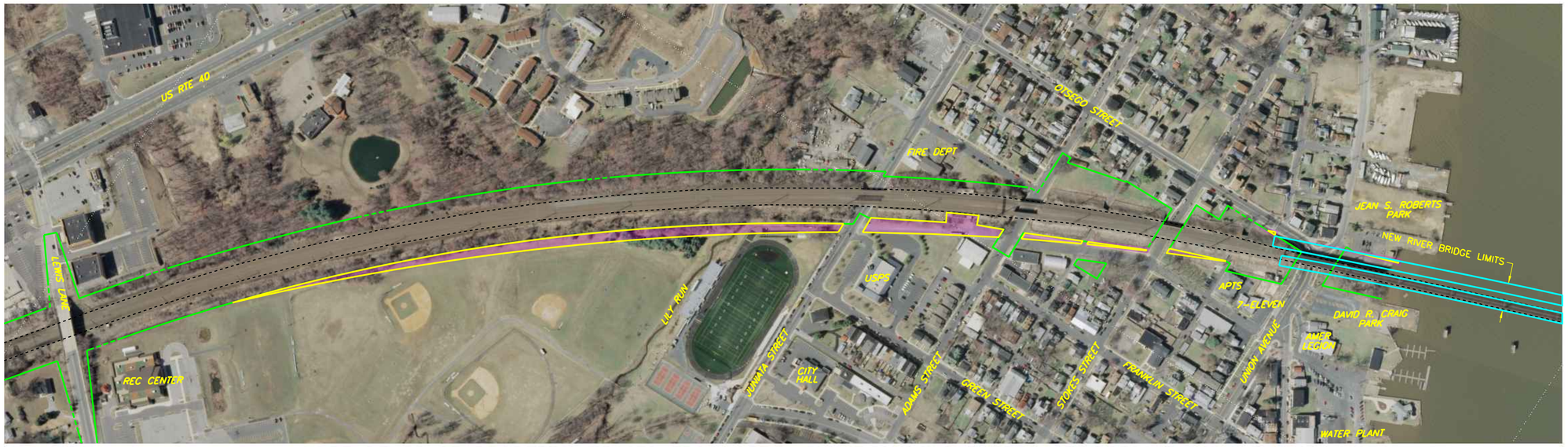
AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER
RAIL BRIDGE PROJECT

HAVRE DE GRACE – 1B
PROPERTY IMPACT AREA Date 12/05/2014

Potential Property Impacts from Retained Alternatives



HAVRE DE GRACE PROPERTY IMPACTS FROM OPTION 9A: TWO DOUBLE-TRACK BRIDGES AT 160 MPH

RAILROAD SOUTH TO BALTIMORE — RAILROAD NORTH TO WILMINGTON

HAVRE DE GRACE PROPERTY IMPACTS FROM OPTION 9B: TWO DOUBLE-TRACK BRIDGES AT 150 MPH

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PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO

EXISTING RIGHT-OF-WAY
EXISTING RAILROAD LIMITS
IMPACTS OUTSIDE AMTRAK RIGHT-OF-WAY
NEW RIVER BRIDGE LIMITS

AMTRAK

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National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER
RAIL BRIDGE PROJECT

HAVRE DE GRACE – 9A AND 9B
PROPERTY IMPACT AREA Date 12/05/2014

Potential Property Impacts from Retained Alternatives

PERRYVILLE PROPERTY IMPACTS FROM OPTION 1B: TWO DOUBLE-TRACK BRIDGES AT 140 MPH

RAILROAD SOUTH TO BALTIMORE — RAILROAD NORTH TO WILMINGTON

PERRYVILLE PROPERTY IMPACTS FROM OPTIONS 9A AND 9B: TWO DOUBLE-TRACK BRIDGES AT 150-160 MPH

EXISTING RIGHT-OF-WAY
EXISTING RAILROAD LIMITS
IMPACTS OUTSIDE AMTRAK RIGHT-OF-WAY
NEW RIVER BRIDGE LIMITS

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PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO

AMTRAK

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PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER
RAIL BRIDGE PROJECT

PERRYVILLE - 1B, 9A, AND 9B
PROPERTY IMPACT AREA Date 12/05/2014

Bridge Design Types - Example Renderings

Anticipated Project Schedule

Summer 2013

Early Coordination
- Agency Coordination Meeting
- Met with Havre de Grace and Perryville Officials

Winter 2014

Agency Coordination Meeting
- Project Introduction
- Present Project's Purpose & Need

Spring 2014

Agency Coordination Meeting
- Obtain Input on Project's Purpose & Need
- Existing Environmental Conditions
- Conceptual Alternatives

Public Outreach Information Session
- Obtain Input on Project's Purpose & Need
- Existing Environmental Conditions
- Conceptual Alternatives

Summer 2014

Agency Coordination Meeting
- Summarize Public Input
- Present Feasible Alternatives

Public Outreach Information Session
- Meet with Local Officials and Stakeholders
- Present Feasible Alternatives

Fall 2014

We are Here

Public Outreach Information Session
- Present Alternatives Retained for Detailed Study

Winter 2015

Agency Coordination Meeting
- Present Alternatives Retained for Detailed Study

Spring 2015

Agency Coordination Meeting
- Retained Alternatives Analysis

Public Outreach Information Session
- Retained Alternatives Analysis

Fall 2015

Publish Environmental Assessment (EA)

Agency Coordination Meeting
- NEPA Document Findings
- Preferred Alternative / Conceptual Mitigation

Public Outreach Information Session
- NEPA Document Findings
- Preferred Alternative / Conceptual Mitigation

Fall 2015 - Winter 2016

Complete Preliminary Engineering and NEPA Process

2017

Complete Federal Railroad Administration Grant Requirements

Stay Connected

- Visit the project website at **www.susrailbridge.com** to get project updates, learn more about the project, submit a comment, or join the project mailing list.
- Send a letter to:
  Susquehanna River Rail Bridge
  PO Box 68
  Elkton, MD 21922