

# Susquehanna River Rail Bridge

## Public Outreach Information Session



March 23, 2017

# Goals for Today



- **Environmental Assessment**
- **Purpose and Need**
- **Preferred Alternative**
- **Mitigation**
- **Outreach**
- **Next steps**



# Project Purpose and Need

## Provide Rail Connectivity Along the NEC



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

### Goals:

- ✓ Improve Rail Reliability, Safety
- ✓ Improve Operational Flexibility
- ✓ Optimize Existing/Planned Infrastructure
- ✓ Accommodate Future High-Speed, Inter-City, Commuter, Freight Rail
- ✓ Maintain Susquehanna Navigation

# Study Area







# Engineering & Operational Considerations

Criterion	Alternative 9A (Preferred)	Alternative 9B
Minimizes Operational Disruptions/Delays	Yes	Yes
Connects to NS Wye and Provides Grades Acceptable for Freight Operations	Yes	Yes
Eliminates Two-Track Section in this Portion of NEC	4 Tracks	4 Tracks
Meets Future Planned 160 mph Corridor Wide Improvement Without Future Speed Restrictions For Intercity Trains	Yes - 160 mph	No - 150 mph
Number of Bridge Structures	2	2
Provides Flexibility for Operational and Maintenance Work Windows	Very Good	Very Good
Ability to Provide for NS/MARC Operations During Construction	Excellent	Excellent
Impacts to Perry Electrical Substation	Minor	Minor
Allows Shared Corridor with Bike/Ped Path	Does Not Preclude	Does Not Preclude
Provides Suitable Vertical Clearance	Yes – 60 feet	Yes – 60 feet
Cost Estimate (2015 dollars)	\$930 million	\$890 million

# Preferred Alternative 9A

## ■ Two Bridges

- 4 tracks
- Max speed: 160 mph
- Benefits broad NEC goals



## ■ Environmental Impacts

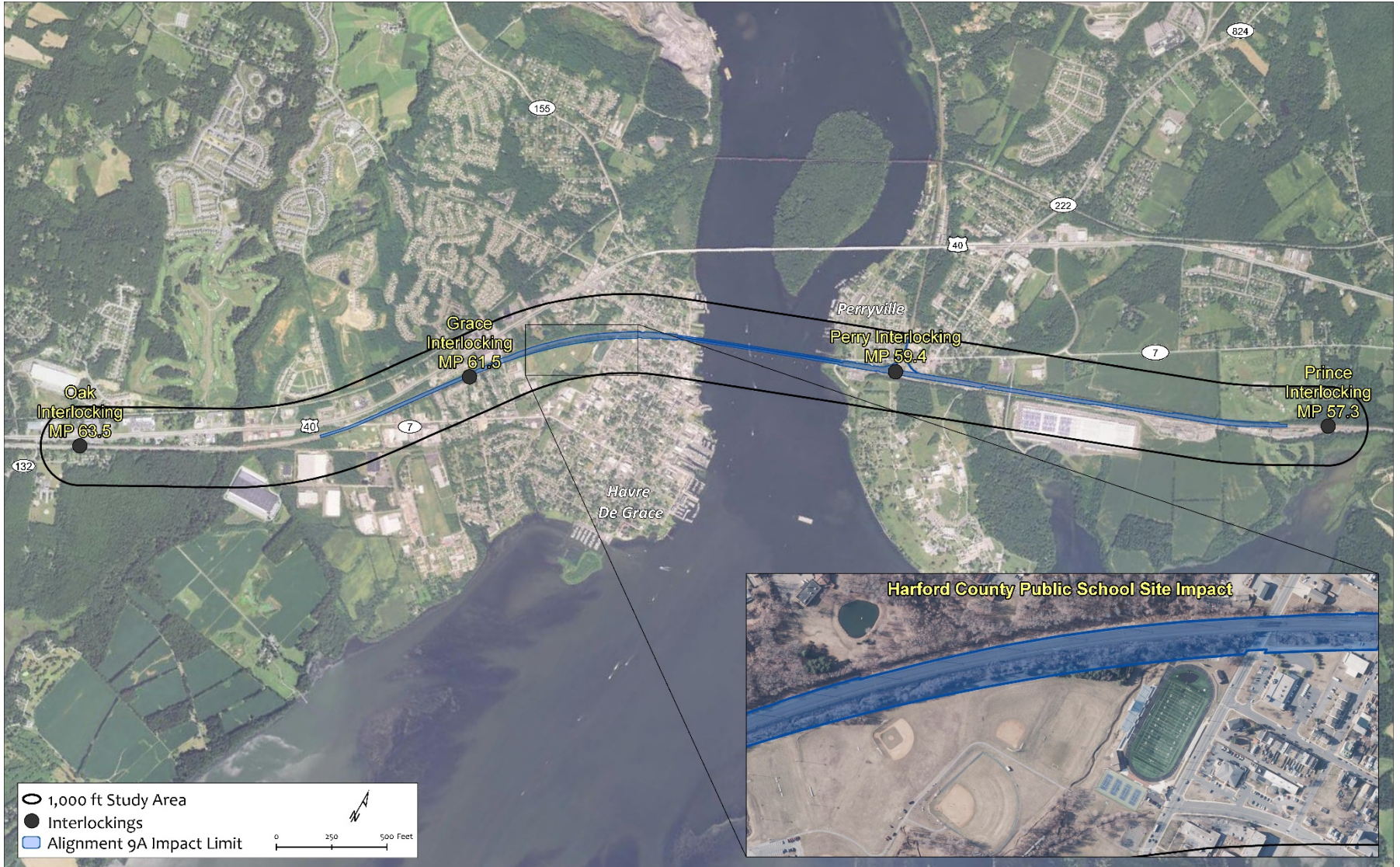
- Similar to other alternatives
- Very similar alignments

## ■ Avoid/Minimize/Mitigate

- Perry Interlocking Tower
- Havre de Grace MS/HS
- Natural resources

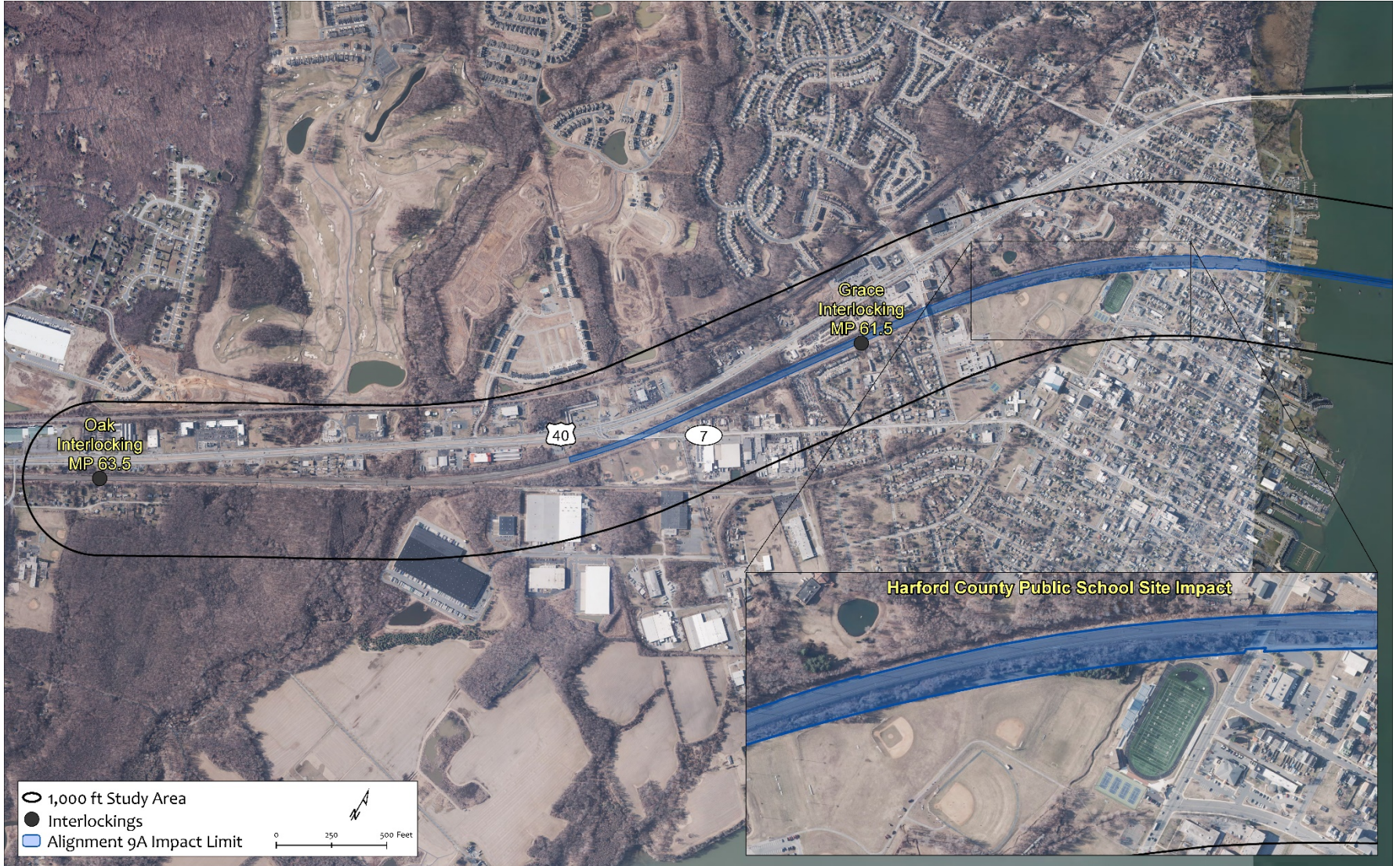


# Preferred Alternative 9A





# Preferred Alternative 9A – (Havre de Grace)





# Preferred Alternative 9A – (Perryville)





# Selected Bridge Type Design

## Girder Approach/ Arch Main Span

**Preliminary Pier Design  
Viewed from Havre de Grace**



**Preliminary Pier Design  
Viewed from Perryville**





# Environmental Assessment

- Published on March 6, 2017
- 30-Day Public Review Closing on **April 6, 2017**
- Available for Download: **susrailbridge.com**
- Available at Repositories  
(Libraries, Havre de Grace, Perryville, Cecil County and Harford County)
- Analyzes Impacts/Benefits to Environment
- Identifies Measures to Avoid, Minimize, Mitigate

# Transportation

## ■ Benefits of the Preferred Alternative

- Enhanced reliability of Susquehanna River Rail Bridge
- Benefits to commuters using Amtrak and MARC service, freight operations, and marine traffic

## ■ Mitigation Measures

- Construction access plan developed in coordination with community





# Natural Environmental Resources

- **Potential Impacts of the Preferred Alternative**
  - **Minimal impacts to geology and soils**
  - **Waterfowl may be temporarily displaced from the active construction area**
  - **Impacts to other natural resources categories are summarized in the following table**



# Natural Environmental Impacts

Resource Type	Resource Category	Alternative 9A (Preferred)	Alternative 9B
Effective 100-Year Floodplain Encroachment (acres)	100-Year	2.72	2.15
	500-Year	4.83	4.24
Wetlands (acres)	Tidal	0.06	0.06
	Nontidal	0.83	0.71
Streams (linear feet)	Relatively Permanent Waterways	3,190	2,943
	Ephemeral	19	19
Forest Resources (acres)	-----	2.92	2.08
Chesapeake Bay Critical Area (acres)	-----	6.4	6.1
Submerged Aquatic Vegetation (SAV) – (acres)	Permanent Impacts	0.61	0.61



# Natural Environmental Resources

## ■ Mitigation Measures

- **Wetlands:** optimize use of existing ROW, bank credits, in-lieu fees, or creation/enhancement/preservation
- **Minimum 2:1 slopes** for berms, retaining walls
- **Plant trees**
- **SAV:** timing restrictions, planting areas or determine out-of-kind compensation
- **Bottomless culverts**
- **Reduced # of in-water piers, best practices, and timing restrictions**



# Human Environmental Impacts

RESOURCE TYPES	Alternative 9A (Preferred)	Alternative 9B
<b>Land Use and Community Facilities</b> (Where structure demolition is required, a full parcel acquisition is assumed)	6 Parcels	4 Parcels
	2.84 Acres	0.35 Acres
	1 Commercial Relocation	No Residential or Commercial Relocations
<b>Parks and Recreational Resources</b> (Parks avoided include Lower Ferry Park & Pier, Trego Field/Mini-Park, Perryville Community Park, and existing bike/ped trails)	2 Parks Affected	1 Park Affected
	1.77 Acres	0.27 Acre
<b>Cultural Resources</b>	4 Impacted Historic Resources	4 Impacted Historic Resources
	Potentially Sensitive Archaeological Areas	Potentially Sensitive Archaeological Areas
<b>Section 4(f) Resources</b>	3 Resources + 2 <i>De Minimis</i>	3 Resources + 1 <i>De Minimis</i>



# Land Use, Socioeconomics & Environmental Justice

- **Potential Impacts of the Preferred Alternative**
  - No significant impacts to land use
  - 2.84 acres of property acquisition
  - No disproportionately high or adverse impacts to environmental justice populations
- **Mitigation Measures**
  - Property owners would be fully compensated for the land acquired
  - Project will comply with requirements of Uniform Act

# Parks, Trails & Recreational Resources

## ■ Potential Impacts of the Preferred Alternative

- Small areas of park / recreation to be acquired:
  - 0.27-acre of Jean S. Roberts Park (including city-owned .01 acre)
  - 1.5 acres of Havre de Grace Middle/High School property



## ■ Mitigation Measures

- Ongoing consultation
- Replacement boat ramp in suitable location
- Coordination regarding National Historic Trails



# Affected Cultural Resources

- Susquehanna River Rail Bridge (NR-Eligible)
- 8 out of 9 Historic Undergrade Bridges (NR-Eligible)
- Havre de Grace Historic District (NR-Listed)
- Rodgers Tavern (NR-Listed)
- Perryville Railroad Station Complex (NR-Eligible)



# Cultural Resources

## Susquehanna River Rail Bridge

- Adverse Effect due to Demolition
- Mitigation Measures
  - Draft Programmatic Agreement included in EA
  - Ongoing coordination (MHT, Consulting Parties)
  - Educational
    - Document bridge
    - Develop historic interpretive material
    - Salvage key parts





# Cultural Resources Undergrade Bridges

- Adverse Effect  
(8 of 9 Historic Bridges)
- Mitigation Measures
  - Use a form liner that emulates stone
  - Prepare HAER documentation
  - Design of new walls in accordance with *Secretary of the Interior's Standards*



# Cultural Resources

## Havre de Grace Historic District

- Visual Adverse Effect Due to Widening
- Mitigation Measures
  - Locate bridge abutment further south
  - Construct retaining walls, in accordance with *Secretary of the Interior's Standards*
- Possible Adverse Effect from Construction
- Avoidance Measure
  - Construction Protection Plan





# Cultural Resources Rodgers Tavern



- Visual Effect from Widening and New Retaining Wall
- Mitigation Measures
  - Aesthetic treatment for wall
  - Landscaping, if possible
- Possible Adverse Effect from Construction
- Avoidance Measure
  - Construction Protection Plan

# Cultural Resources

## Perryville Railroad Station Complex

- Possible Adverse Effect from Demolition of Interlocking Tower
- Mitigation Measures
  - Avoid impact by shifting the Interlocking Tower within ROW
  - HAER recordation
  - Interpretive signage and/or museum improvements





# Visual and Aesthetic Conditions

## ■ Altered Views

- Havre de Grace Historic District, including “Gateway” entrance
- Rodgers Tavern
- Perryville Railroad Station Complex
- Waterfront along Perry Point VA Medical Center Historic District



## ■ Mitigation Measures

- Follow measures for cultural resources

# Noise & Vibration

## ■ Potential Impacts of the Proposed Project

- Moderate noise impact at six receptors ( $\leq 70$  dBA)
- 70 dBA comparable to highway traffic at 25-50 feet

## ■ Mitigation Measures

- Low-noise equipment and procedures to limit equipment noise levels
- Construction Protection Plan to protect historic resources





# Coordination to Date

- Public Outreach Information Sessions (6)
- Section 106 Consultation Meetings (3)
- Local Officials (Perryville, Havre de Grace, Cecil County) Meetings (6)
- SRRBP Advisory Board Meetings (3)
- Bicycle/Pedestrian Stakeholder Meetings (2)
- Railroad Coordination (NS, CSX, MTA) Meeting (1)
- Interagency Review Meetings (10)
- Maritime Community
- Congressional Offices

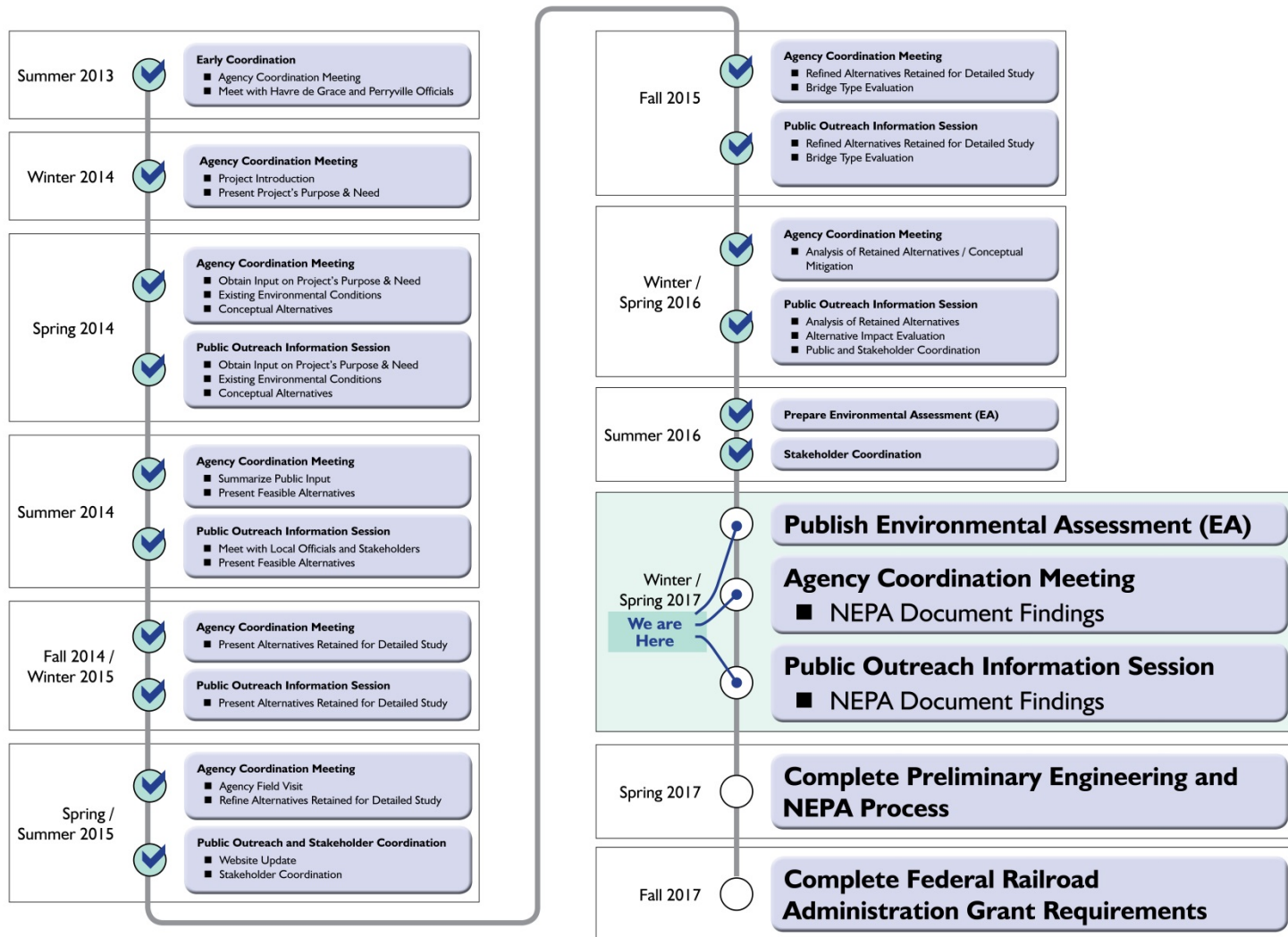


# Revisions Based on Your Input

- **Reduced Number of Bridge Piers, Increased Spans Pier with Open Modern Look (Advisory Board Suggestions)**
- **Improved Horizontal Clearance**
- **Bottomless Culverts / Bridges, Where Possible**
- **Adjusted Perryville Abutment to Improve Rodgers Tavern View**
- **Form Liner with Stone for Perryville Retaining Wall**
- **Adjusted Havre de Grace Abutment for “Gateway”**
- **Relocating / Preserving Perryville Tower**
- **Harford County Public Schools Compensation**
- **Aesthetic Fencing**



# Schedule



# What's Next?

- **Funding Sources Need to be Identified to Complete the Final Design and Construction.**
- **At the Conclusion of NEPA/Preliminary Engineering, Amtrak Has Limited Funding for Engineering Beyond Fall 2017.**





# Contact Information

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# Thank You!

# Questions?



# SUSQUEHANNA RIVER RAIL BRIDGE PROJECT



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# EA Technical Analyses

- Transportation
- Land Use & Community Facilities
- Socioeconomics & Environmental Justice
- Parks, Trails, & Recreational Resources
- Visual & Aesthetic Resources
- Cultural Resources
- Draft Section 4(f) Evaluation
- Section 6(f) Evaluation
- Natural Resources
- Air Quality
- Greenhouse Gas Emissions & Climate Change
- Noise and Vibration
- Contaminated & Hazardous Materials
- Public Health, Safety, & Security
- Construction
- Indirect & Cumulative Effects



# Cultural Resources

- **Areas to be Tested for Archaeological Resources (Phase 1B)**
  - **Havre de Grace train station**
  - **Havre de Grace – Susquehanna riverfront**
  - **Susquehanna River (underwater survey)**
  - **Perry Point & Rodgers Tavern site**
  - **Wye track realignment area**

# Air Quality, Greenhouse Gases & Climate Change

- **Potential Impacts of the Preferred Alternatives**
  - **Minor increase of 1-hour NO<sub>2</sub> standard exceedance (less than 9%)**
  - **Efficient travel consistent with HSIPR goals, long-term GHG reductions**
  
- **Mitigation Measures**
  - **Best practices to reduce construction emissions**
  - **Cement replacements (e.g. slag, fly-ash)**
  - **Recycled steel**
  - **Design for reasonably foreseeable future conditions**

# Section 6(f) Resources

- **Potential Impacts of the Preferred Alternative**
  - **Havre de Grace MS/HS athletic fields**
  
- **Mitigation, Commitments and Minimization**
  - **Identify potential replacement sites**
  - **Further evaluation**
  - **Ongoing consultation and coordination**



# Contaminated & Hazardous Materials

- **Potential Impacts of the Preferred Project**
  - **With mitigation, no adverse impacts expected**
- **Mitigation Measures**
  - **Adopt health and safety and investigative/remedial measures**
  - **Follow regulatory requirements for pre-construction removal of asbestos and management of lead-based paint and PCB-containing equipment**
  - **Implement an environmental Construction Health and Safety Plan (CHASP)**

# Railroad and Maritime Coordination

- **Rail**
  - CSX uses separate bridge
  - NS uses Susquehanna River Rail Bridge
  - MTA operates MARC Penn Line on Susquehanna River Rail Bridge
- **Navigation Survey Stakeholders**
  - Marina owners / operators
  - Shippers
  - Dock managers
  - U.S. Coast Guard
  - Recreational boaters
- **Result**
  - 60-ft minimum vertical clearance
  - Improved horizontal clearance

# Advisory Board Coordination

## ■ Advisory Board Bulletins (20)

- 2 cases for a longer span, 1 pier design recommendation

## ■ SRRBP Advisory Board Top Six Priorities (2014):

- Bridge architecture
- Rail commuter station
- Bridge abutment area and roadway realignment
- Request for a special briefing
- Westerly right-of-way and alignments
- Street and lane underpasses

*Project Team evaluated the feasibility of the suggestions, and has incorporated them into the design when practicable*



# Public Outreach Information Sessions (POIS)

Meeting Date	Meeting Topic
<b>April 28, 2014</b>	Purpose & Need/ Project Introduction
<b>August 13, 2014</b>	Feasible Alternatives
<b>December 10, 2014</b>	Alternatives Retained for Detailed Study
<b>November 10, 2015</b>	Alternatives Retained for Detailed Study and Bridge Types
<b>April 14, 2016</b>	Preliminary EA Results & Conceptual Mitigation
<b>March 23, 2017</b>	EA Results & Conceptual Mitigation

# Stakeholders Meetings

Meeting Date	Meeting Topic
<b>June 6, 2014</b>	Bicycle-Pedestrian stakeholders meeting
<b>June 17, 2014</b>	Presentation to the Town of Perryville
<b>July 1, 2014</b>	Presentation to Cecil County
<b>November 6, 2014</b>	Meeting with Susquehanna River Rail Bridge Project Advisory Board
<b>December 2, 2014</b>	Bicycle-Pedestrian Coordination Meeting
<b>March 9, 2015</b>	Section 106 Consulting Parties
<b>March 26, 2015</b>	Meeting with Susquehanna River Rail Bridge Project Advisory Board
<b>July 8, 2015</b>	Meeting with Harford County Public Schools
<b>July 28, 2015</b>	Baltimore Metropolitan Council (BMC) Meeting
<b>August 17, 2015</b>	Meeting with Harford County Public Schools
<b>August 18, 2015</b>	Section 106 Consulting Parties
<b>January 20, 2016</b>	Meeting with Harford County Public Schools
<b>March 17, 2016</b>	Meeting with Susquehanna River Rail Bridge Project Advisory Board
<b>October 11, 2016</b>	Section 106 Consulting Parties

# Agency Coordination Meetings

Meeting Date	Meeting Topic
<b>July 17, 2013</b>	IRM Project Introduction
<b>February 19, 2014</b>	IRM Purpose & Need Meeting
<b>March 19, 2014</b>	Project Coordination Meeting with NS/FRA/MDOT/Amtrak
<b>April 16, 2014</b>	IRM Purpose & Need/ Conceptual Alternative
<b>June 18, 2014</b>	IRM Feasible Alternatives
<b>February 18, 2015</b>	IRM Preliminary Alternatives Retained for Detailed Study
<b>March 12, 2015</b>	IRM Agency Field Visit
<b>April 15, 2015</b>	IRM ARDS Field Visit Recap
<b>June 17, 2015</b>	IRM Refined Alternatives Retained for Detailed Study
<b>September 16, 2015</b>	IRM Revised ARDS Report
<b>December 9, 2015</b>	IRM Bridge Types
<b>December 14, 2015</b>	WILMAPCO Presentation
<b>March 9, 2016</b>	Smart Growth Coordinating Committee Presentation
<b>March 17, 2016</b>	WILMAPCO Presentation
<b>April 20, 2016</b>	IRM Detailed Presentation of NETR