

**U.S. Department of Transportation
Federal Railroad Administration**

**FINDING OF NO SIGNIFICANT IMPACT
and
SECTION 4(F) DETERMINATION**

**Amtrak Sawtooth Bridges Replacement Project
Kearny, New Jersey
August 2020**

1. Introduction

The National Railroad Passenger Corporation (Amtrak) is proposing to undertake the Sawtooth Bridges Replacement Project (Project) to replace Amtrak Bridges No. 7.80 and No. 7.96, collectively referred to as the “Sawtooth Bridges.” The Project site is in the Town of Kearny, Hudson County, New Jersey (NJ) and includes an approximately 1.1-mile long segment of existing transportation right-of-way along Amtrak’s Northeast Corridor (NEC). The Sawtooth Bridges are located roughly between Mile Post (MP) 8.3 (“Hudson Interlocking”) on the west end and MP 7.2 (“Swift Interlocking”) on the east end.

The Sawtooth Bridges do not cross any bodies of water; rather, they span over other rail tracks. Amtrak Bridge No. 7.80 carries two NEC tracks over four New Jersey Transit Corporation (NJ TRANSIT) rail tracks that serve the NJ TRANSIT Morris & Essex Line. Amtrak Bridge No. 7.96 carries two NEC tracks over one Port Authority Trans-Hudson Corporation (PATH) Newark–World Trade Center (WTC) rail track and one Consolidated Rail Corporation (Conrail) freight rail track. The Project involves the construction of two new viaducts that would carry two tracks each for a total of four tracks along this segment of the NEC.

Since federal funds and federal permits are necessary for the Project, compliance with the National Environmental Policy Act of 1969 (42 USC § 4321 et seq.) (NEPA) is required. The Federal Railroad Administration (FRA) is the lead federal agency for the Environmental Assessment (EA), prepared for the Project in accordance with NEPA, the Council on Environmental Quality’s NEPA implementing regulations (40 CFR parts 1500–1508), and FRA’s Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999). Amtrak is the Project sponsor and NJ TRANSIT is a Participating Agency in the NEPA process. The EA analyzes and documents whether replacement of the existing Sawtooth Bridges would have significant adverse impacts on the natural and human environment.

The EA was distributed for a 30-day public and agency review and comment period between March 4, 2020 and April 4, 2020. It was also posted to FRA’s website¹ and advertised in the New Jersey Star Ledger and Jersey Journal publications. Comments received on the EA are included in Appendix B.

This Finding of No Significant Impact (FONSI) is made based on the information in the EA to comply with NEPA, FRA’s NEPA Procedures, and other applicable laws including, Section 106 of the National Historic

¹ <https://railroads.dot.gov/environment/environmental-reviews/amtrak-sawtooth-bridges-replacement-project>

Preservation Act (Section 106) and Section 4(f) of the Department of Transportation Act of 1966 (Section 4(f)).

2. Purpose and Need

The age of the Sawtooth Bridges, their poor structural condition, and their two tracks (which are restricted to 60 miles per hour [mph]) limit the efficiency and reliability of rail operations throughout this segment of the NEC. The purpose of the Project is to achieve a state of good repair and to improve the reliability and resiliency of rail service along this critical segment of the NEC, while preserving the current functionality of Amtrak's NEC service and NJ TRANSIT's commuter rail service.

Aging Infrastructure

The Sawtooth Bridges are critical links on Amtrak's NEC and currently present a bottleneck. The Sawtooth Bridges were constructed in 1907 and are nearing the end of their functional life. In the early 1980s, Amtrak rehabilitated the Sawtooth Bridges. Inspections of both bridges since that time indicate that the Sawtooth Bridges continue to deteriorate. Amtrak conducted a special inspection and condition survey in 2013 and concluded the Sawtooth Bridges are in poor to very poor condition. Thus, Amtrak must replace the existing Sawtooth Bridges to achieve a state of good repair.

Reliability and Resiliency Challenges

Under normal peak period conditions, the existing two-track Sawtooth Bridges operate at capacity. The Sawtooth Bridges do not provide redundancy for reliable train operations during maintenance work nor do they guarantee resiliency in the event of unexpected service disruptions. As a result, any service disruption results in major passenger delays and substantial reductions to overall system flexibility, reliability, and on-time performance. These delays affect both Amtrak and NJ TRANSIT passengers because any NEC maintenance causes service disruptions to both railroads. The Project would result in a total of four NEC tracks, which would provide the redundancy needed to divert trains to alternate tracks during scheduled maintenance and unexpected disruptions, thereby minimizing delays and resulting in more reliable and resilient rail service.

Project Goals

FRA and Amtrak considered the Sawtooth Bridges Replacement Project's Purpose and Need, the larger planning context, and the design constraints to identify the following goals:

Primary Goals

1. Achieve a state of good repair for the bridges and their approach structures;
2. Reduce service disruptions and delays to improve rail service reliability and resiliency by providing redundant capacity; and
3. Reduce service disruptions and delays to improve rail service reliability and resiliency by increasing design speeds.

Secondary Goals

1. Maintain service and connectivity along the NEC during construction;
2. Optimize the use of existing infrastructure;
3. Accommodate current and planned future rail operations;
4. Minimize permanent and temporary impacts to the surrounding environment; and

5. Benefit the environment by improving the rail system as an energy-efficient mode of travel.

These goals are consistent with FRA's overall goals to improve the NEC, as envisioned in FRA's NEC FUTURE initiative². Additionally, these goals support the Project's Purpose and Need, while not precluding the Gateway Program (i.e., the planned expansion and renovation of the NEC between Newark Penn Station, NJ and New York Penn Station) or other planned projects along this segment of the NEC in the long term.

3. Alternatives

As part of the conceptual design phase for the Project, FRA and Amtrak conducted a rigorous alternatives development process that considered the spatial and operational constraints within the Project site, as well as the need to maintain existing service along the NEC and adjacent rail lines. As a result, FRA identified the No Action Alternative, Rehabilitation Alternative, On-Line Replacement Alternative, and the New Alignment Alternative (including four alignment options).

No Action Alternative

Under the No Action Alternative, Amtrak would not replace the existing Sawtooth Bridges and they would remain in service in their poor structural condition. Amtrak would continue to make critical repairs on an as-needed basis and continue the current maintenance regime. Eventually, Amtrak would be forced to take the Sawtooth Bridges out of service to avoid catastrophic failure. Suspension of service along this segment of the NEC would have extensive adverse impacts on the region's mobility and economy.

Rehabilitation Alternative

The Rehabilitation Alternative would proactively replace identified deficiencies, one at a time. This could extend the service life of the Sawtooth Bridges by an additional 10 to 20 years and allow for a 90-mph design speed on the two existing NEC tracks. The Rehabilitation Alternative would not bring the Sawtooth Bridges to a state of good repair.

On-Line Replacement Alternative

The On-Line Replacement Alternative would replace the Sawtooth Bridges along their current alignment. With this alternative, Amtrak would need to completely shut down rail service along this segment of the NEC for an extended period of time (i.e., several years).

New Alignment Alternative

The New Alignment Alternative would include the construction of new Sawtooth Bridges that would carry a total of four NEC tracks. These new bridges would provide the redundant capacity needed for reliable and resilient service in the future. The New Alignment Alternative would replace the two existing bridges that carry two NEC tracks along a single alignment with two or three new parallel bridges that would carry four NEC tracks.

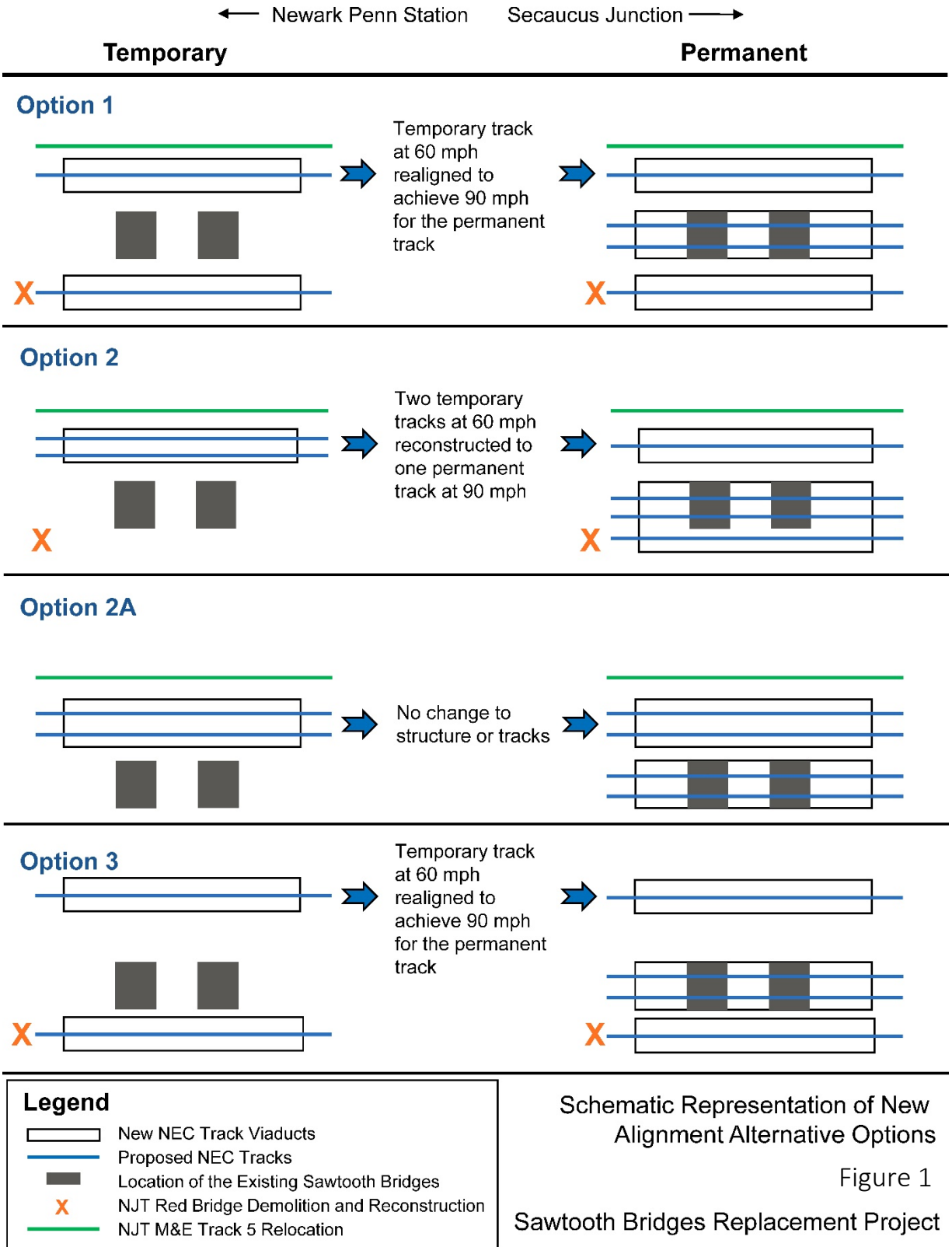
The New Alignment Alternative meets the Purpose and Need of the Project and the primary goals for the Project. Additionally, the New Alignment Alternative either meets or partially meets each of the secondary goals for the Project. Therefore, Amtrak further developed the New Alignment Alternative and considered four Alignment Options as part of the conceptual design phase.

All Alignment Options would result in four NEC tracks, maintain two NEC tracks in service during

² <https://www.fra.dot.gov/necfuture/>

construction, and be compatible with other planned rail projects. The Alignment Options are as follows:

- New Alignment Alternative – Option 1
 - 1 NEC track on a viaduct structure to the north of the existing alignment
 - 2 NEC tracks on a viaduct structure along the existing alignment
 - 1 NEC track on a viaduct structure to the south of the existing alignment
 - Morris & Essex Line Track 5 would be reconstructed on a new permanent viaduct structure north of the existing Morris & Essex Line Track 5 alignment
- New Alignment Alternative – Option 2
 - 1 NEC track on a viaduct structure to the north of the existing alignment
 - 3 NEC tracks on a viaduct structure: 2 tracks approximately in their existing location and 1 track immediately to the south
 - Morris & Essex Line Track 5 would be reconstructed on a new viaduct structure north of the existing Morris & Essex Line Track 5 alignment
- New Alignment Alternative – Option 2A
 - 2 NEC tracks to the north of the existing alignment, referred to as Sawtooth Bridge North
 - 2 NEC tracks along the existing alignment, referred to as Sawtooth Bridge South
 - Morris & Essex Line Track 5 would be reconstructed on a new viaduct structure north of the existing Morris & Essex Line Track 5 alignment
- New Alignment Alternative – Option 3
 - 1 NEC track on a viaduct structure to the north of the existing alignment
 - 2 NEC tracks on a viaduct structure along the existing alignment
 - 1 NEC track on a viaduct structure to the south of the existing alignment
 - Morris & Essex Line Track 5 would not need to be reconstructed and would only require minor realignment



As part of the conceptual engineering, a screening process was performed for each of the four Alignment options based on the extent to which they met the primary and secondary goals of the Proposed Project. Amtrak considered an array of factors, including the level of effort and service disruption associated with the modification of each rail infrastructure element and with the construction of each new element. Based on the screening process, FRA and Amtrak selected the New Alignment Alternative – Option 2A as the Preferred Alternative for the Sawtooth Bridges Project Replacement Project. New Alignment Alternative – Option 2A (Preferred Alternative) would entail the construction of two new tracks and associated viaduct structures to the north of the existing Sawtooth Bridges (referred to as Sawtooth Bridge North) while the existing bridges and tracks remain in service. Once construction of the new tracks is complete, Amtrak would move service from the existing bridges onto the new tracks and demolish the existing bridges. Amtrak would then construct a new bridge with two tracks along the existing alignment (referred to as Sawtooth Bridge South). Additionally, Morris & Essex Line Track 5 would be reconstructed on a new viaduct structure north of the existing Morris & Essex Line Track 5 alignment.

4. Affected Environment and Environmental Consequences

The EA analyzed the potential impacts that may occur during construction and operation of the No Action Alternative and the Preferred Alternative. Based on the EA, FRA has concluded that the Preferred Alternative is not likely to result in significant adverse environmental impacts. The following is a summary of the information presented in the EA.

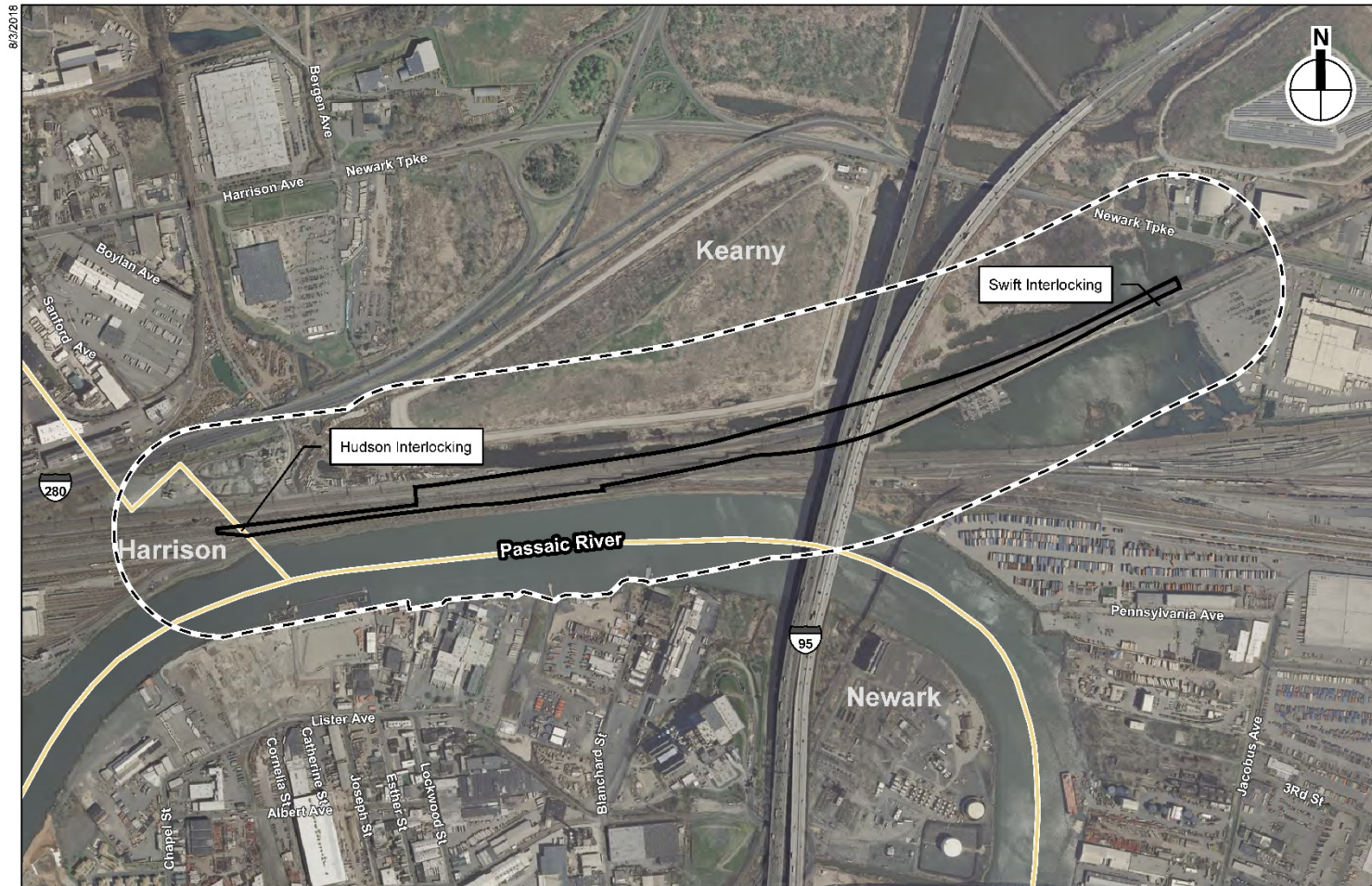
Transportation

Construction of the Preferred Alternative would not result in significant adverse impacts to rail operations (both Amtrak and other rail operators or vehicular traffic. To support construction of the new Sawtooth Bridges and their associated structures, temporary track outages on the Morris & Essex Line and PATH Newark-WTC line would be necessary. These construction-period impacts would be temporary and not significant.

In the long term, the Preferred Alternative would benefit railroad operations by providing a structurally superior four-track crossing with increased design speeds. The Preferred Alternative would also provide redundancy along the Sawtooth Bridges and enable more reliable and resilient rail service in this segment of the NEC.

Land Use

There are no residences, schools, places of worship, or parks at the within the Project study area, as shown in Figure 2. Therefore, there would be no adverse impacts to local and/or sensitive land uses from construction of the Preferred Alternative. During construction, Amtrak would need to obtain a variety of easements from NJ TRANSIT, PATH, Conrail, New Jersey Turnpike Authority, and the Town of Kearny to facilitate various construction activities.



Proposed Project Site
 Municipal Boundary

 Study Area

SAWTOOTH BRIDGES REPLACEMENT PROJECT

Project Site
Figure 2

The track alignments for the Preferred Alternative would remain largely within the existing railroad right-of-way. To implement the Preferred Alternative, Amtrak would acquire approximately 5.25 acres of property currently owned by Conrail. The property would change ownership but there would not be a change in land use, as it is currently railroad right-of-way. The Preferred Alternative would not require acquisition of commercial or residential property.

Land use within the study area would remain the same with the Preferred Alternative, with the exception of the location of the new Morris & Essex Line Track 5 viaduct. While the new Sawtooth Bridges North and South would be entirely within the existing transportation right-of-way, the new Morris & Essex Line Track 5 viaduct would cross a wetland area (described below). With these measures in place, the Preferred Alternative would not adversely affect land use.

Zoning and Public Policy

The Preferred Alternative would continue to be consistent with surrounding zoning classifications and public policies aimed at maintaining and promoting regional mobility and economic vitality during construction and operation.

Socioeconomic Conditions and Environmental Justice

The construction and operation of the Preferred Alternative would not change the demographic profile of the Project study area and would not affect socioeconomic conditions, nor would the Preferred Alternative disproportionately affect minority or low-income populations. The Preferred Alternative, in conjunction with other planned improvements along the NEC, would potentially lead to induced growth and improved socioeconomic outcomes in communities served by stations along the NEC due to the enhanced service and corresponding increases in ridership.

Visual and Aesthetic Resources

There are no sensitive visual resources or publicly accessible spaces within the Project study area. Construction of the Preferred Alternative would introduce large pieces of typical construction equipment, which would be visible from much of the study area. During construction, equipment and staging areas would be visible to Passaic River boaters, New Jersey Turnpike drivers, and railroad passengers. Consistent with existing conditions, Passaic River boaters would continue to have obstructed views of the Sawtooth Bridges due to other rail infrastructure in the study area. New Jersey Turnpike motorists and railroad passengers have low viewer sensitivities, and the temporary nature of construction activities would not have adverse impacts on visual resources or views.

The new viaducts would not differ substantially from the existing Sawtooth Bridges in terms of height, materials, or alignment. The elevation of the proposed structures would change from the existing elevation by a maximum of five feet. While the new Sawtooth Bridges would represent a visual change, Preferred Alternative elements would remain consistent with the context of the Project study area, the existing railroad use, and the industrial surroundings. While the design of the new Sawtooth Bridges remains at the conceptual level as of the date of this FONSI, FRA and Amtrak will coordinate with the New Jersey State Historic Preservation Office (NJHPO) to ensure that the preliminary and final plans and specifications for the new structures are compatible with the character of the Pennsylvania Railroad New York to Philadelphia Historic District (Historic District) as set forth in the *Secretary of the Interior's Standards and Treatments for Historic Properties*, as required by the Section 106 Programmatic Agreement (PA) among FRA, Amtrak and NJHPO. Further, as described above, viewer group sensitivity in the Preferred Alternative study area

is low. As such, the Preferred Alternative would not result in an adverse impact on visual and aesthetic conditions.

Cultural Resources & Historic Properties

The Preferred Alternative would demolish the Sawtooth Bridges, which are contributing resources to the Historic District; therefore, the Preferred Alternative would result in an adverse effect to historic properties. The Phase 1A Archaeological Documentary Study (Phase 1A) conducted by Amtrak's cultural resources consultant for the Project determined that the Project's Area of Potential Effects (APE) has low sensitivity for prehistoric resources at depths between 10 to 30 feet, and no sensitivity for historic period resources. Due to the level of subsurface disturbance that has occurred to date from the construction and rehabilitation of the existing Sawtooth Bridges and the various other transportation infrastructure present within the APE, there is little chance that intact archaeological resources are present.

Pursuant to Section 106 NHPA, FRA and Amtrak consulted with NJHPO, interested tribes, and other Section 106 consulting parties.

To resolve the adverse effect of the Project on the Historic District, a PA was developed and executed on May 21, 2020, among FRA, Amtrak, and NJHPO (see Appendix D). The PA sets forth the mitigation measures and further consultation that FRA and Amtrak will undertake to avoid, minimize, and mitigate adverse effects on historic properties as design of the Project advances. Consulting parties will continue to participate throughout the preliminary engineering, final engineering, and construction phases of the Preferred Alternative in accordance with the PA stipulations.

Floodplains and Riparian Zones

The Preferred Alternative would not adversely impact natural and beneficial floodplain values. Construction of the Preferred Alternative would not displace water and would therefore not increase flooding. Amtrak designed the new Sawtooth Bridges within the floodplain (one percent annual chance) on elevated structure, rather than fill or retained embankment, to minimize placement of infrastructure within the floodplain. All new rail tracks would be on viaduct structures, well above the flood hazard area and would therefore be compliant with New Jersey Department of Environmental Protection (NJDEP) requirements to construct the travel surface of the railroad at least one foot above the flood hazard area design elevation. The support structures for the new Sawtooth Bridge North and Sawtooth Bridge South would be within the area currently developed with rail infrastructure and would not have the potential to affect water flow. While any support structures within the wetland area would displace some water, they would not have a substantial effect on flooding.

Coastal Zones

The Preferred Alternative would not result in adverse impacts to the coastal zone. All construction work and the operation of the Preferred Alternative would occur landward of the mean high water (MHW) line; therefore, the Preferred Alternative is outside the Coastal Zone Management Act (CZMA) and New Jersey's regulated coastal zone. Since the Project site is within the Hackensack Meadowlands District, Amtrak will coordinate with NJDEP during the permitting phase of the Project to ensure compliance with applicable New Jersey Administrative Code (NJAC) regulations.

Wetlands, Open Water, and Water Quality

Wetlands

Construction of the Preferred Alternative would result in temporary disturbance of up to one acre of

wetlands and open waters. Amtrak would restore temporarily impacted wetlands and open waters to their natural condition upon construction completion, and thus construction of the Preferred Alternative would not have significant adverse impacts on wetlands and open water.

Based on the conceptual design, the new Morris & Essex Line Track 5 viaduct would extend north of the existing NEC into the western portion of Cedar Creek Marsh, continue under the New Jersey Turnpike, traverse the open water/wetland area at the toe of the 1-D Landfill, and reconnect with the existing Morris & Essex Line Track 5. Based on the preliminary wetland delineation conducted in the study area and the available conceptual designs, Amtrak anticipates that the new Morris & Essex Line Track 5 viaduct may affect approximately 1.04 acres of regulated wetlands. Complete avoidance of wetlands and open water is not feasible or practical due to the location of the Project site adjacent to wetlands and open water areas, coupled with the need to maintain service during construction. However, Amtrak has minimized wetland and open water impacts by optimizing use of the existing right-of-way and by placing new tracks on elevated structures rather than fill or retained embankment. Amtrak would continue to seek ways to further avoid and minimize impacts to natural resources as the Preferred Alternative proceeds into advanced design.

To construct the Preferred Alternative, Amtrak would need to obtain several permits and approvals from resource and regulatory agencies having jurisdiction over the impacted resources. Wetland mitigation would include compensation for the loss of ecological value caused by the wetland impact from the Preferred Alternative. Amtrak and FRA will identify the approach to implementing such mitigation, as well as the wetland compensation ratios in collaboration with the regulatory agencies (including NJDEP, US Army Corps of Engineers [USACE], and New Jersey Sports and Exposition Authority [NJSEA]) during the subsequent preliminary design and permitting phase.

Open Water and Water Quality

The Preferred Alternative would not cross, and therefore not affect, a navigable waterway. Furthermore, the Preferred Alternative would not adversely affect water quality because there would be no work within the nearby Passaic River and Amtrak would employ best management practices to protect the Cedar Creek Marsh and Landfill 1-D lagoon. Thus, with the incorporation of appropriate best practices measures, the Preferred Alternative would not result in significant adverse impacts to water quality.

Threatened and Endangered Species

There are no endangered species or critical habitats protected under the Endangered Species Act within the Preferred Alternative study area. NJDEP lists wetlands and adjacent areas in the Preferred Alternative study area as foraging and/or non-breeding/sighting habitat for several bird species identified as being of “special concern”, including the little blue heron, glossy ibis, snowy egret, and northern harrier. NJDEP also lists a portion of the Preferred Alternative study area as suitable foraging habitat for the state-threatened cattle egret, state-threatened osprey, and state-endangered bald eagle.

Construction activities at the Project site would likely result in minimal effect on open water and wetland habitats considered suitable foraging and nesting habitat for the glossy ibis, little blue heron, northern harrier and snowy egret. Construction-related noise could result in displacement of foraging activity within and near the Project site. However, the existing habitats within the Preferred Alternative’s study area are highly disturbed, and the presence of several active rail lines and highways significantly detract from the quality of available foraging habitat. Since the species listed above are adapted to the rail activity and vehicular traffic that currently exists, operation of the Preferred Alternative would not have an adverse

effect on threatened species or critical habitats.

Air Quality

Construction and operation of the Preferred Alternative would not adversely affect local or regional air quality. FRA and Amtrak prepared a General Conformity Applicability Analysis to demonstrate whether emissions would exceed the *de minimis* thresholds (see Appendix C, “General Conformity Applicability Analysis”). The quantitative evaluation conducted in the Applicability Analysis showed that emissions during construction would be below the *de minimis* levels defined in the general conformity regulations. Construction of the Preferred Alternative would not interfere with the State Implementation Plan (SIP) for region-wide attainment of the ozone National Ambient Air Quality Standards (NAAQS) or maintenance of the carbon monoxide and fine particulate matter (PM_{2.5}) NAAQS. Therefore, a conformity determination is not required.

Noise and Vibration

There are no noise-sensitive receptors or land uses, such as hospitals, schools, daycare facilities, elderly housing, etc., within the 750-foot screening distances for the Preferred Alternative. Therefore, there would be no adverse impacts from noise from the operation or construction of the Preferred Alternative. As required by the Section 106 PA, Amtrak will develop and implement a Construction Protection Plan (CPP) to avoid construction-related damage to historic properties within approximately 100 feet of the locations of construction activities, including the National Register of Historic Places (NRHP)-eligible Hudson Tower and Substation 4. By following the CPP, construction activities, including vibration, under the Preferred Alternative would not inadvertently damage these historic properties.

Contaminated and Hazardous Materials

The operation of the Preferred Alternative would not affect contaminated and hazardous materials. Construction activities associated with Preferred Alternative could disturb potentially contaminated soil and groundwater within the Project footprint but would not disturb soils beyond the Project site. Furthermore, soil borings from the Project site show that historic fill would be encountered near the surface; however, other obvious indications of more significant contamination are not present. Amtrak’s schedule for implementing the Preferred Alternative would include sufficient time to incorporate the comprehensive and multi-step NJDEP and Licensed Site Remediation Professional (LSRP) oversight process. Amtrak will carry out the measures described in Section 7 of this FONSI and the Preferred Alternative would not result in significant adverse impacts to contaminated and hazardous materials.

Public Health and Safety

No significant adverse impacts related to air quality, noise or vibration would result from the operation of the Preferred Alternative. The replacement of the aging Sawtooth Bridges would ensure more reliable infrastructure for continued safe passenger rail service. Amtrak would adhere to its existing public health and safety plans along with Project- and site-specific plans to address potential contamination during construction. Therefore, the Preferred Alternative would not result in adverse impacts to public health and safety.

Irreversible and Irretrievable Commitment of Resources

Construction of the Preferred Alternative would require the irreversible and irretrievable commitment of building materials and would also consume energy in the form of fossil fuels and electricity during the construction and operation of the bridges. These materials are available and their use for the Preferred

Alternative would not have adverse impacts on their continued availability for other purposes.

5. Indirect and Cumulative Effects

Indirect Effects

The Preferred Alternative would have no indirect adverse effects to land use; zoning and public policy; visual and aesthetic resources; cultural or natural resources; air quality; noise and vibration; contaminated and hazardous materials; or public health, safety, and security. The Preferred Alternative would improve the reliability, resiliency, and redundancy of the NEC, which would avoid indirect adverse social, economic, and environmental effects associated with further deterioration and the need for additional maintenance on the existing Sawtooth Bridges. Construction of the Preferred Alternative would result in beneficial indirect effects to the economy during the construction period due to construction labor, the production of necessary services and materials, and expenditures by construction workers.

Cumulative Effects

The Preferred Alternative, in conjunction with other improvements envisioned as part of the NEC FUTURE and Gateway Programs, would result in a cumulative transportation benefit. Key components of the Gateway Program, which are in various stages of planning and design and are not all fully committed, would occur independently of the Preferred Alternative. The Preferred Alternative is listed as part of the Gateway Program; however, the other key components of the Gateway Program would occur independently and regardless of the Preferred Alternative.

The Preferred Alternative would improve the resiliency of railroad infrastructure along the NEC. Although the Preferred Alternative alone would not result in increased service, when all Gateway Program components are realized, it would contribute to the cumulative benefit of increasing ridership and improving connectivity and travel times along the NEC. A reduction in vehicle miles traveled on highways as rail ridership increases due to improved service and reliability is another potential cumulative benefit. The improved movement of people could result in a cumulative benefit to air quality and energy efficiency of the overall system.

No significant adverse cumulative effects to environmental resources would result from the Preferred Alternative. While the Preferred Alternative includes the demolition of the Sawtooth Bridges, which are contributing resources to the Historic District (NRHP-eligible), other planned rail infrastructure projects in the region would remove or alter features that also contribute to the historic character of the Historic District. The PA for the Preferred Alternative describes the measures Amtrak would implement to avoid, minimize, or mitigate adverse effects of the Preferred Alternative on historic resources. With the implementation of such measures, the Preferred Alternative would not result in significant adverse cumulative effects to historic resources.

6. Section 4(f) Determination

Pursuant to the requirements of Section 4(f), the EA included a Draft Section 4(f) Evaluation. There are no publicly owned parklands, recreational areas, or wildlife/waterfowl refuges in the Preferred Alternative study area.

However, the Preferred Alternative would demolish the existing Sawtooth Bridges, which are contributing resources to the Pennsylvania Railroad New York to Philadelphia Historic District. Demolition of the Sawtooth Bridges would constitute a Section 4(f) use of this historic property. Based on the Draft Section

4(f) Evaluation, FRA determined that there are no feasible or prudent alternatives that would avoid use of the Historic District.

FRA made the Draft Section 4(f) Evaluation available for public and agency review and comment on March 4, 2020, concurrent with the EA. FRA received no public comments regarding the draft Section 4(f) Evaluation. On May 6, 2020, the U.S. Department of the Interior (USDO I) concurred with FRA that there is no prudent and feasible avoidance alternative to the Section 4(f) use and that the PA executed in accordance with Section 106 includes appropriate measures to minimize harm to the Section 4(f)-protected historic property.

7. Environmental Commitments

As described in the sections above, Amtrak has identified several measures required to avoid, minimize, and mitigate environmental impacts. Table 1 below summarizes the specific commitments and mitigation measures that Amtrak is required to implement as part of the Preferred Alternative.

**Table 1
Environmental Commitments**

Resource	Commitments
Cultural Resources	<ul style="list-style-type: none"> • Amtrak will produce documentation of the Sawtooth Bridges that meets the standards of the National Park Service (NPS) Level II Historic American Engineering Record (HAER) documentation. • As Preferred Alternative planning progresses and construction limits are finalized, Amtrak will prepare and implement a Construction Protection Plan (CPP) to avoid construction-related damage to historic properties within close proximity (approximately 100 feet) of construction activities. • Amtrak will ensure that the preliminary and final plans and specifications for the proposed new bridges adhere to the <i>Secretary of the Interior’s Standards and Treatments for Historic Properties</i> and are compatible with the historical character of the Historic District. • Amtrak will consult with FRA and NJHPO in the development of bridge plans at the preliminary (30 percent), pre-final (approximately 75 percent), and final (100 percent) design stages. • If Amtrak’s archaeologist, in consultation with FRA and NJHPO, determines that archaeological monitoring is warranted, Amtrak will develop an archaeological monitoring plan in consultation with FRA and NJHPO. Any monitoring plan developed in consultation with FRA and NJHPO will include provisions for consulting with Indian Tribes, as appropriate, in the event of a discovery. • If potentially significant archaeological resources are encountered during monitoring, Amtrak and FRA will consult with NJHPO and any other consulting parties that wish to participate pursuant to 36 CFR 800.4(b) to complete identification efforts and develop ways to avoid, minimize, and/or mitigate any project effects pursuant to 36 CFR 800.6.
Wetlands, Open Water, and Water Quality	<ul style="list-style-type: none"> • Amtrak anticipates that the Preferred alternative may permanently affect approximately 1.04 acres of regulated wetlands. At this time, Amtrak anticipates that mitigation requirements will be satisfied through a combination of restoration-in-place and through purchasing mitigation credits from an available wetland mitigation bank. During the subsequent preliminary design and permitting phase, Amtrak and FRA will identify the approach to implementing such mitigation, as well as the wetland compensation ratios in collaboration with the regulatory agencies (including NJDEP, USACE, NJSEA). • Amtrak will avoid adverse impacts to water quality through best management practices,

Resource	Commitments
	<p>including the use of silt fences, straw bales, and ditch checks to minimize soil erosion, sedimentation, runoff, and surface instability during construction. Amtrak will place and maintain erosion control in accordance with governance regulations and permits and thus minimize the discharge of sedimentation into waterways during construction.</p> <ul style="list-style-type: none"> • Amtrak will obtain a Soil Erosion and Sediment Control Plan Certification from the Hudson-Essex-Passaic Soil Conservation District prior to construction. This plan will include appropriate soil erosion and sediment control measures (e.g. silt fences, hay bales) to ensure no adverse impacts to nearby waters.
Noise & Vibration	<ul style="list-style-type: none"> • Per the Section 106 PA, Amtrak will prepare a CPP to avoid construction-related damage to historic properties within proximity (approximately 100 feet), likely including the Hudson Tower and/or Substation 4 (both NR-eligible). The CPP will include measures to avoid inadvertent construction impacts to historic properties.
Threatened & Endangered Species	<ul style="list-style-type: none"> • Amtrak will continue to coordinate with the appropriate agencies during the permitting phase.
Contaminated & Hazardous Materials	<ul style="list-style-type: none"> • Amtrak will prepare site-specific work plans to ensure safety of workers and the surrounding community, protect sensitive environmental conservation land areas, and adhere to all applicable regulatory requirements. • Amtrak’s contractors will adhere to best management practices and appropriate worker health and safety protocols, including procedures to identify and properly manage any unexpectedly encountered subsurface contamination. • Amtrak’s contractors will conduct waste classification soil testing for off-site disposal of any surplus soil generated during construction. • Amtrak will report any evidence of a petroleum spill to NJDEP and address such spills in accordance with applicable requirements. • Amtrak will ensure that contractors properly maintain their equipment to avoid spills. • If Amtrak’s contractors discover previously unknown or unexpected subsurface contamination during construction, a New Jersey Licensed State Remediation Professional (LSRP) will investigate and remediate the contamination, as required under Site Remediation Reform Act (SRRA) (NJSA 58:10C-1 et seq.), the Technical Requirements for Site Remediation (Technical Rules) (NJSA 7:26E), and ARRCs (NJAC 7:26C). • Amtrak will incorporate site-specific work plans into all contract documents. The site-specific plans will ensure the safety of workers and the surrounding community, protect sensitive environmental conservation land areas, and adhere to all applicable regulatory requirements. These plans will include documentation of all known aboveground and underground utilities and storm water/tidal control conduits and final construction drawings will be overlaid with proposed areas of disturbance. • Amtrak will carry out all construction activities and site-specific plans in collaboration with nearby responsible parties (or their authorized representatives) for known contaminated properties to confirm the latest available data is referenced to maintain safety for workers, the surrounding community, and nearby sensitive environmental receptors. • Although not anticipated, if Amtrak encounters petroleum tanks during excavation completed for construction, Amtrak will remove them, along with contaminated soil, in accordance with applicable requirements. Amtrak would report and address any evidence of a petroleum spill to NJDEP in accordance with applicable requirements. If Amtrak discovers tanks, Amtrak will properly register them, if required, with the NJDEP and/or the Kearny/Harrison Fire Department.

Sawtooth Bridges Replacement Project

Resource	Commitments
Contaminated & Hazardous Materials (cont.)	<ul style="list-style-type: none"> • If dewatering is necessary during construction, Amtrak will manage and discharge water in accordance with applicable local and state regulatory permitting requirements. Amtrak will perform preliminary testing as required to support any necessary permitting. • Surfaces coated with LBP may require abatement prior to disturbance (e.g., cutting) that could generate lead-containing dust or vapors. Prior to construction or demolition, if lead-coated surfaces would potentially be disturbed, Amtrak will perform an assessment to determine whether lead exposure would occur. Amtrak will perform any activities with the potential to disturb LBP in accordance with the applicable Occupational Safety and Health Administration regulation (OSHA 29 CFR 1926.62—Lead Exposure in Construction). • Prior to any renovation or demolition activities with the potential to disturb suspect asbestos-containing material, Amtrak will conduct an asbestos survey including the review of all known utilities, and if materials tested prove to contain asbestos, Amtrak will properly remove and dispose of those materials in accordance with all applicable local, state and federal regulations. • Amtrak will dispose of fluorescent lights and other electrical equipment that contain or potentially contain mercury and/or PCBs in accordance with applicable federal, state and local regulations and guidelines during any decommissioning or demolition work for the Preferred Alternative • Amtrak will adhere to NJDEP’s Linear Construction Technical Guidance document (January 2012 or most current version). • Amtrak will incorporate the above measures as requirements of contract documents.
Utilities	<ul style="list-style-type: none"> • Amtrak will coordinate utility relocations with the appropriate utility companies.
Public Health & Safety	<p>Public health and safety measures currently in place on the Project site are as follows:</p> <ul style="list-style-type: none"> • Positive Train Control (PTC) to prevent or avoid train collisions and derailments. The purpose of PTC is to slow or stop a train that is operating at an excessive speed or operating in a manner inconsistent with the section of track that it is traversing; • Adequate signaling and communications to prevent any trains from entering the bridges when personnel are on-site for repairs; • Inspection of all bridge structural components regularly and repair them as needed; • A System Safety Program Plan that provides guidance on hazard management, incident reporting, inspection, maintenance and repair of current facilities and stock, training and certification, emergency response, environmental management, drug and alcohol programs, and a number of security policies. One section of the System Safety Program Plan is devoted to employee safety, with a particular focus on field safety; • Initiate a Safety Management System, a company-wide program designed to improve employee safety and security; • Ensure personnel undergo Amtrak Safety Training before they are permitted on site; • Maintain and update the Passenger Train Emergency Response Plan that must be approved by FRA. The plan includes train operations on the NEC and covers the Project area. Amtrak also conducts Passenger Train Emergency Response Training. In 2014, training was conducted for more than 3,000 first responders along Amtrak routes across the U.S. A passenger safety specialist position was created in 2014 within Amtrak’s System Safety department to address passenger injuries on trains, platforms, and in stations; and • Amtrak would incorporate site-specific work plans into all contract documents to ensure worker safety and the surrounding community.

8. Public and Agency Coordination

Throughout the NEPA process, FRA solicited input on the Preferred Alternative from several government and transportation agencies including but not limited to: USACE, NJ TRANSIT, PATH, NJHPO, and other involved federal, state, and local government entities. Extensive coordination was conducted among FRA, Amtrak, NJ TRANSIT, and PATH prior to the publication of the EA.

The EA was distributed for a 30-day public and agency review and comment period between March 4, 2020 and April 4, 2020. It was also posted to FRA's website at <https://railroads.dot.gov/environment/environmental-reviews/amtrak-sawtooth-bridges-replacement-project> and advertised in the *New Jersey Star Ledger* and *Jersey Journal* publications.

9. Public and Agency Comments

Public and agency comments received on the EA are included in Appendix B, "Comments Received" and Appendix A, "Response to Comments".

10. Conclusion

FRA finds that the Preferred Alternative, as presented and assessed in the attached EA, satisfies the requirements of FRA's Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999) and NEPA (42 USC § 4321), and the Preferred Alternative would have no foreseeable significant impact on the quality of the human or natural environment. As the Preferred Alternative sponsor, Amtrak is responsible for ensuring all environmental commitments identified in this FONSI are fully implemented. The EA provides sufficient evidence and analysis for FRA to determine that an environmental impact statement is not required for the Preferred Alternative as presented. Furthermore, as stated above, FRA has determined that there is no prudent and feasible alternative to the proposed use of Section 4(f) properties and that the Project includes all measures to minimize harm.

**JAMIE P.
RENNERT**

Digitally signed by JAMIE
P. RENNERT
Date: 2020.08.27 10:22:26
-04'00'

Jamie P. Rennert
Director, Office of Infrastructure Investment

Date

This document has been prepared in accordance with FRA's Procedures for Considering Environmental Impacts by the Office of Railroad Policy and Development (64 FR 28545, May 26, 1999) and NEPA (42 USC § 4321), with assistance from the Office of Chief Counsel. This document was prepared in 2020. For further information regarding this document, please contact:

Brandon Bratcher

Environmental Protection Specialist
Environment and Project Engineering Division
Office of Railroad Policy and Development
USDOT Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Appendices:

Appendix A: Response to Comments
Appendix B: Comments Received
Appendix C: General Conformity Applicability Analysis
Appendix D: Section 106 Programmatic Agreement
Appendix E: Final Section 4(f) Evaluation

Sawtooth Bridges Replacement Project

Appendix A

Response to Comments



August 2020



1.1 Introduction

This appendix contains a summary of the comments received during the public and agency review period for the Sawtooth Bridges Replacement Project Environmental Assessment (EA) and Draft Section 4(f) Evaluation. The EA public review and comment period spanned from March 4, 2020 to April 4, 2020. Comments received are included in Appendix B, “Comments Received.” These comments were provided via email.

The following comment summaries have been edited for clarity and brevity and may not necessarily quote the comments verbatim. Federal Railroad Administration (FRA) noted and carefully evaluated all comments received on the EA, including the Draft Section 4(f) Evaluation and Programmatic Agreement (PA), before issuing a Finding of No Significant Impact (FONSI). None of the comments received raised concerns that warranted changing the conclusions reached in the EA regarding potential impacts or the Preferred Alternative selection. The project team appreciates the public and agency comments received on the EA and will continue to encourage public and agency involvement as the project design progresses. This will ensure specific concerns are clearly understood and carefully evaluated as the project advances.

1.2 Participating Agency Comments

New Jersey Transit Corporation (NJ TRANSIT)

Jeremy Colangelo-Bryan, Chief Planner, letter dated March 31, 2020

Comment 1: NJ TRANSIT reiterates their strong support for the Project and looks forward to working with Amtrak as the project advances. Additionally, NJ TRANSIT anticipates a full analysis of phasing and design options, funding implications, and benefits to services providers. Other planned infrastructure projects in the region including the full complement of Hackensack River rail crossings, as well as new and improved connections between the Northeast Corridor and NJ TRANSIT’s Morris & Essex Line, should also be included in these analyses.

Response 1: FRA and Amtrak appreciate NJ TRANSIT’s support and continued assistance as a Participating Agency. During the next phase of the project, design and construction plans will be advanced and the project team will continue close coordination with NJ TRANSIT.

1.3 Resource Agency Comments

U.S. Department of the Interior (USDO I)

Andrew Raddant, Regional Environmental Officer, letter dated May 6, 2020

Comment 2: The Department concurs that there is no prudent and feasible alternative for the demolition of the Sawtooth Bridges, which would constitute a Section 4(f) use of the Pennsylvania Railroad New York to Philadelphia Historic District.

Response 2: FRA notes and appreciates USDO I’s concurrence.

U.S. Environmental Protection Agency (EPA)

Mark Austin, Environmental Review Team – Team Leader, letter dated April 1, 2020

Comment 3: EPA has reviewed the project in accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act, and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508). EPA generally concurs with the finding of no significant impact.

Response 3: FRA and Amtrak appreciate EPA's comments on the EA and looks forward to future project coordination.

Comment 4: The 1.04 acres of permanent wetlands impacts requires adequate mitigation considering the project's location and existing resources in the area. Any restoration in-place associated with the project should be done in accordance with a restoration plan consistent with the 2008 Federal Mitigation Rule. Any mitigation credits purchased should be in-kind with aquatic resources impacted.

Response 4: Comment noted. As mentioned in the EA, FRA and Amtrak will identify exact mitigation measures and compensation ratios in collaboration with regulatory agencies (including NJ Department of Environmental Protection, US Army Corps of Engineers, and NJ Sports and Exposition Authority) during the subsequent preliminary design and permitting phase.

Comment 5: Cumulative impacts should include the 1.7 acres of open water/wetlands impacts associated with the proposed New Kearny substation construction as described in the NJ TRANSITGRID TRACTION POWER SYSTEM Draft Environmental Impact Statement (DEIS) dated May 2019.

Response 5: As discussed in EA Chapter 3, "Affected Environment and Environmental Consequences," in accordance with Executive Order 11990 and other applicable laws and regulations, Amtrak has minimized impacts to wetlands and open water to the extent practical at this stage of design. FRA and Amtrak will identify exact mitigation measures and wetland compensation ratios in collaboration with regulatory agencies (NJ Department of Environmental Protection, US Army Corps of Engineers, and NJ Sports and Exposition Authority [NJSEA]) during the subsequent preliminary design and permitting phase. Amtrak will continue to seek ways to further avoid and minimize impacts to natural resources as the Preferred Alternative proceeds into advanced design. Similarly, the NJ TRANSITGRID TRACTION POWER SYSTEM project will require wetland permits and mitigation plans. Part of NJSEA's mission is to prevent adverse cumulative effects and have established mechanisms to control and coordinate ecological resource impacts and mitigation. Compensation is required for each project in the Meadowlands District that negatively affects wetlands.

Comment 6: Please note that the New York-Northern New Jersey-Long Island nonattainment area is in serious nonattainment for ozone and the applicable *de minimis* threshold for nitrogen oxides (NO_x), an ozone precursor, is 50 tons per year. Page 3-26 of the EA should be corrected.

Response 6: Please see Appendix C, "General Conformity Applicability Analysis," which addresses this correction.

Comment 7: The EA concludes that the general conformity *de minimis* thresholds are not exceeded during construction but does not provide a quantitative analysis. Please provide an analysis of direct and indirect construction emissions in the final EA.

Response 7 Please see Appendix C, "General Conformity Applicability Analysis." In response to this comment, FRA and Amtrak quantitatively analyzed the direct and indirect construction emissions and

documented the results. The analysis shows that emissions associated with the project's construction would be below *de minimis* levels specified in 40 CFR §93.153(b). Therefore, a conformity determination is not warranted.

US Fish and Wildlife Service (USFWS)

Steve Mars, Senior Biologist, email dated April 23, 2020

Comment 8: Temporary impacts to wetlands should be restored to pre-construction grade and mitigation is necessary for permanent wetland impacts.

Response 8: Commented noted. As discussed in Chapter 3 “Affected Environment and Environmental Consequences,” Amtrak will restore temporarily impacted wetlands and open waters to their natural condition. Additionally, as mentioned in Responses 3 and 4 above, FRA and Amtrak will identify exact mitigation measures and compensation ratios in collaboration with regulatory agencies (including NJ Department of Environmental Protection, US Army Corps of Engineers, and NJ Sports and Exposition Authority) during the subsequent preliminary design and permitting phase.

New Jersey Historic Preservation Office (NJHPO)

Katherine Marcopul, Administrator and Deputy State Historic Preservation Officer, email dated March 31, 2020

Comment 9: NJHPO reviewed the draft PA on May 21, 2019 and finds that nearly all changes that were suggested have been reflected in the Draft PA included in the EA. Additionally, NJHPO finds that the EA/Draft Section 4(f) commitments regarding architectural and archaeological historic properties are reflective of the spirit and content of the mitigation measures included in the Draft PA.

Response 9: FRA and Amtrak appreciate the valuable input from NJHPO on the project to date and looks forward to future coordination as part of the Section 106 process.

1.4 Comments from the Public

Rail Passengers Association

Steve Strauss, At-Large Council Representative, letter dated March 12, 2020

Comment 10: Mr. Strauss urges the acceptance and approval of the Sawtooth Bridges Replacement Project EA and recognizes that replacement of the Sawtooth Bridges is needed to achieve a state of good repair along this critical segment of the Northeast Corridor. Mr. Strauss notes that the EA should more fully analyze the significant positive environmental benefits of improving commuter and intercity passenger rail service in the United States.

Response 10: FRA and Amtrak appreciate your comments. The long-term transportation benefits of the project are highlighted in the EA Chapter 3, Sections 3.1.4.2 and 3.11.5.2. Additionally, please refer to Chapter 4, Section 4.3, “Cumulative Effects,” for a detailed analysis of the cumulative transportation benefits derived from the Sawtooth Bridges Replacement Project in conjunction with elements of the Gateway Program and FRA’s NEC FUTURE initiative.

Sawtooth Bridges Replacement Project

Appendix B

Comments Received



August 2020



Philip D. Murphy, Governor
Sheila Y. Oliver, Lieutenant Governor
Diane Gutierrez-Scaccetti, Commissioner
Kevin S. Corbett, President & CEO

NJ TRANSIT
One Penn Plaza East
Newark, NJ 07105-2246
973-491-7000

March 31, 2020

Brandon Bratcher
Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: NJ TRANSIT comments on the Federal Railroad Administration-led Sawtooth Bridges Replacement Project Administrative Draft EA

Dear Mr. Bratcher:

Thank you again for your response to NJ TRANSIT's December 21, 2018 comments on the administrative draft distribution of the above.

We would like to take this opportunity, in response to this broader distribution for comment, to restate NJ TRANSIT's strong support for the much-needed replacement of the Sawtooth Bridges. We look forward to working with Amtrak to design and assess options as the project advances. As referenced in our initial comments, key considerations for NJT will include maintenance of operations during construction, with the understanding that M&E service profiles are likely to be different than those identified during the 2013 discussions that resulted in the *Conceptual Design Alternatives Analysis Report*.

We are also looking forward to a full analysis of phasing and design options associated with reaching the ultimate goal of a 4-track configuration, and the cost and funding implications of those options, as well as the benefits accrued to service providers. An important component of this discussion includes consideration of other rail infrastructure projects, such as the full complement of Hackensack River rail crossings and new and improved connections between the NEC and M&E, planned in the area.

Again, thank you for the opportunity to participate in the development of this EA. NJ TRANSIT considers the replacement of the Sawtooth Bridges to be a critically important state of good repair project. We look forward to working with Amtrak and the FRA at every step through to the completion of construction.

Sincerely,



Jeremy Colangelo-Bryan

c. Jeannie Kwon Justin Davis Paul Wyckoff Eric Daleo



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

April 1, 2020

Brandon Bratcher
Federal Railroad Administration
RPD-13: Environment and Corridor Planning Division
1200 New Jersey Avenue, SE
West Building, Mail Stop 20
Washington, DC 20590

RE: Amtrak Sawtooth Bridges Replacement Project Environmental Assessment

Dear Mr. Bratcher:

The U.S. Environmental Protection Agency (EPA) has reviewed the Federal Railroad Administration's February 2020 Environmental Assessment for the Amtrak Sawtooth Bridges Replacement Project located in the Town of Kearny, Hudson County, New Jersey. This review is prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act, and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508).

The proposed project will replace Amtrak Bridges No. 7.80 and No. 7.96, collectively referred to as the "Sawtooth Bridges" and includes an approximately 1.1-mile long segment of existing transportation right-of-way along Amtrak's Northeast Corridor (NEC). The existing bridges are in a poor structural condition, and the two tracks limit efficiency and reliability of rail operations throughout this segment of the NEC. The preferred alternative would replace the two existing bridges that currently carry the two NEC tracks along a single alignment with two new parallel bridges that would carry four NEC tracks. The Sawtooth Bridges Replacement project is one of several included in the Gateway Program to expand and renovate the portion of the NEC between Newark Penn Station, NJ and New York Penn Station, NY, but has independent utility.

EPA generally concurs with a finding of no significant impact but has the following comments.

Wetlands:

- The permanent wetland impacts to 1.04 acres requires adequate mitigation, based on the project location and existing resources in the area. Any restoration in-place associated with this project, as described on page 3-22, should be done in accordance with a restoration plan consistent with the 2008 Federal Mitigation Rule. Any mitigation credits purchased should be in-kind with aquatic resources impacted.
- Cumulative impacts should include the 1.7 acres of open water/wetlands impacts associated with the proposed New Kearny substation construction as described in the Transitgrid Environmental Impact Statement dated May 2019.

Air Quality/General Conformity

- Please note that the New York-Northern New Jersey-Long Island, NY-NJ-CT non-attainment area is in serious non-attainment for ozone and the applicable *de minimus* threshold for nitrogen oxides (NOx), an ozone precursor, is 50 tons per year. Page 3-26 should be corrected.
- The EA concludes that the general conformity *de minimis* thresholds are not exceeded during construction but does not provide a quantitative analysis. Please provide an analysis of direct and indirect construction emissions in the final EA.

Thank you for the opportunity to comment. If you have any questions, please contact Lingard Knutson at (212) 637-3747 or knutson.lingard@epa.gov.

Sincerely,

Mark Austin, Team Leader
Environmental Review Team



Hannah Spierer <hannah@calladiumgroup.com>

Fwd: EA/4f: Amtrak Sawtooth Bridges Replacement Project

Leslie Mesnick <leslie@calladiumgroup.com>
To: Hannah Spierer <hannah@calladiumgroup.com>

Mon, Apr 27, 2020 at 8:53 AM

----- Forwarded message -----

From: Bratcher, Brandon (FRA) <brandon.bratcher@dot.gov>**Date:** Mon, Apr 27, 2020 at 8:20 AM**Subject:** FW: EA/4f: Amtrak Sawtooth Bridges Replacement Project**To:** Mielke, Matthew S [USA] <Mielke_Matthew@bah.com>, Leslie Mesnick <leslie@calladiumgroup.com>, Caldwell, Craig <CaldweC@amtrak.com>, Davies, Johnette <Johnette.Davies@amtrak.com>

FYI.

Brandon L. Bratcher

Environmental Protection Specialist

(202) 493-0844

(202) 868-2626

From: Popowski, Ron [mailto:ron_popowski@fws.gov]
Sent: Monday, April 27, 2020 8:09 AM
To: Bratcher, Brandon (FRA) <brandon.bratcher@dot.gov>
Subject: Fw: EA/4f: Amtrak Sawtooth Bridges Replacement Project

Good Morning, Brandon

See comments below from U.S. Fish and Wildlife Service's New Jersey Field Office.

Thanks,

Ron Popowski, Supervisor

Endangered Species Program/Conservation Planning Assistance

U.S. Fish and Wildlife Service

Department of the Interior - Region 1

North Atlantic - Appalachian

New Jersey Field Office - Ecological Services

4 E. Jimmie Leeds Road, Suite 4

Galloway, New Jersey 08205

609.385.4515

<https://www.fws.gov/northeast/njfieldoffice/>

From: Mars, Steve <steve_mars@fws.gov>

Sent: Thursday, April 23, 2020 1:29 PM

To: Popowski, Ron <ron_popowski@fws.gov>

Subject: Re: EA/4f: Amtrak Sawtooth Bridges Replacement Project

The applicant has committed to avoid and minimize impacts to Waters of the US. There is proposed temporary impacts of wetlands and waters and the filling of up to 1.04 acres of wetlands. Temporary impacts should be restored to pre-construction grade and mitigation would be necessary for permanent impacts to Wetlands and wetlands. Those are the only two comments I have.

Steve Mars

Senior Biologist

USFWS/NJFO

609-382-5267

"Mountains are not stadiums where I satisfy my ambition to achieve, they are the cathedrals where I practice my religion." -Anatoli Boukreev

From: Popowski, Ron <ron_popowski@fws.gov>

Sent: Thursday, April 23, 2020 9:40 AM

To: Mars, Steve <steve_mars@fws.gov>

Cc: Schradling, Eric <eric_schradling@fws.gov>

Subject: Fw: EA/4f: Amtrak Sawtooth Bridges Replacement Project

Steve,

Don't believe we have any concerns. Let me know if you think otherwise.

Thanks

From: Raddant, Andrew <Andrew_Raddant@ios.doi.gov>
Sent: Wednesday, April 22, 2020 3:54 PM
To: Eberle, Mark D <mark_eberle@nps.gov>; Kelly, Cheryl L <cheryl_kelly@ios.doi.gov>; Popowski, Ron <ron_popowski@fws.gov>
Cc: Lazinsky, Diane <Diane_Lazinsky@ios.doi.gov>
Subject: Re: EA/4f: Amtrak Sawtooth Bridges Replacement Project

(Ignore previous)

From: Raddant, Andrew <Andrew_Raddant@ios.doi.gov>
Sent: Wednesday, April 22, 2020 3:25 PM
To: Eberle, Mark D <mark_eberle@nps.gov>; Kelly, Cheryl L <cheryl_kelly@ios.doi.gov>; Popowski, Ron <ron_popowski@fws.gov>
Cc: Lazinsky, Diane <Diane_Lazinsky@ios.doi.gov>
Subject: Fw: EA/4f: Amtrak Sawtooth Bridges Replacement Project

Hi Mark, Ron --

Please see the email below. My bad it seems. I had knee surgery on March 2, and it appears that I missed this March 4 email from the Federal Railroad Administration (FRA), which had sent the draft EA (link to) directly to me rather than our DC office. I apparently did not catch this once I started booting back up, and thus did not send it to DC to get the ER process started.

I learned this by way of a call FRA called this morning just to check in given the 45 days had passed, and they are on their way to a FONSI.

I explained to FRA what happened, and asked FRA's Brandon Bratcher for an extension. He asked if 2 weeks was enough. Please take a look and let me know if that time frame works, and if not what might be needed.

In addition to the link below, I have attached EA Chapter 3, Affected Environment and Environmental Consequences.

As this is an EA, our HQ typically assigns these as direct replies from the Bureaus to the project proponent. (Cheryl, please advise if otherwise.)

Apologies, and please let me know about the time frame.

Best,

Andrew

Andrew L. Raddant, Regional Environmental Officer

Office of Environmental Policy and Compliance

U.S. Department of the Interior, Region 1 North Atlantic - Appalachian

[5 Post Office Square, Suite 18011](#)

[Boston, MA 02109](#)

Main office: 617-223-8565; Desk: -8567; Cell: 617-592-5444

andrew_raddant@ios.doi.gov

[Quoted text hidden]



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
5 Post Office Square, Suite 18011
Boston, Massachusetts 02109

May 6, 2020

9043.1
ER 20/0169

Brandon Bratcher
Federal Railroad Administration
RPD-13: Environment and Corridor Planning Division
1200 New Jersey Avenue, SE
West Building, Mail Stop 20
Washington, DC 20590

Subject: Comments
Draft Section 4(f) Evaluation
Amtrak Sawtooth Bridges Replacement Project

Dear Mr. Bratcher:

The U.S. Department of the Interior (Department) has reviewed the draft Section 4(f) Evaluation for the Amtrak Sawtooth Bridges Replacement Project in Hudson County, New Jersey. Amtrak is proposing to replace Amtrak Bridges No. 7.80 and No. 7.96, collectively referred to as the “Sawtooth Bridges.” The proposed project site is in the Town of Kearny, Hudson County. The following comments on this project are offered for your consideration.

Section 4(f) Evaluation Comments

The Department concurs that there is no prudent and feasible alternative for the demolition of the Sawtooth Bridges, which would constitute a Section 4(f) use of the Pennsylvania Railroad New York to Philadelphia Historic District. In a letter dated April 3, 2017, the New Jersey State Historic Preservation Office (NJ SHPO) concurred with the Federal Railroad Administration’s (FRA) determination that the project would have an adverse effect on the Pennsylvania Railroad New York to Philadelphia Historic District. In addition, the Department acknowledges that through consultation with NJ SHPO and consulting parties, Amtrak and the FRA have developed measures to minimize or mitigate the adverse effect on the contributing resources of the Pennsylvania Railroad New York to Philadelphia Historic District. These mitigation measures are set forth in a draft Programmatic Agreement with the NJ SHPO from April 2019.

Thank you for the opportunity to review and comment on this project. If you have questions regarding these comments, please contact Mark Eberle, NPS at Mark_Eberle@nps.gov or (215) 597-1258. Please contact me at (617) 223-8565 if I can be of further assistance.

Sincerely,

A rectangular box containing a handwritten signature in blue ink. The signature appears to read "Andrew L. Raddant".

Andrew L. Raddant
Regional Environmental Officer

CC: SHPO-NJ (kate.marcopul@dep.nj.gov)



Hannah Spierer <hannah@calladiumgroup.com>

Fwd: Environmental Assessment (EA) and Draft Section 4(f) Evaluation for the Sawtooth Bridges Replacement Project in the Town of Kearny, Hudson County

1 message

Leslie Mesnick <leslie@calladiumgroup.com>
To: Hannah Spierer <hannah@calladiumgroup.com>

Tue, Mar 31, 2020 at 9:30 PM

----- Forwarded message -----

From: **Marcopul, Kate** <Kate.Marcopul@dep.nj.gov>

Date: Tue, Mar 31, 2020 at 3:46 PM

Subject: Environmental Assessment (EA) and Draft Section 4(f) Evaluation for the Sawtooth Bridges Replacement Project in the Town of Kearny, Hudson County

To: brandon.bratcher@dot.gov <brandon.bratcher@dot.gov>, Mielke_Matthew@bah.com <Mielke_Matthew@bah.com>, Petra.Messick@amtrak.com <Petra.Messick@amtrak.com>, leslie@calladiumgroup.com <leslie@calladiumgroup.com>, CaldweC@amtrak.com <CaldweC@amtrak.com>, Johnette.Davies@amtrak.com <Johnette.Davies@amtrak.com>

Cc: Romanoski, Christopher <Christopher.Romanoski@dep.nj.gov>, Alvarez, Jennifer <Jennifer.Alvarez@dep.nj.gov>, Maresca, Vincent <Vincent.Maresca@dep.nj.gov>, Baratta, Meghan <Meghan.Baratta@dep.nj.gov>

****This e-mail serves as the official correspondence of the New Jersey Historic Preservation Office as we switch to a temporary remote work environment in response to the ongoing novel coronavirus (COVID-19) outbreak****

HPO Project #16-0476-8

HPO-C2020-193

Brandon Bratcher
Federal Railroad Administration
RPD-13: Environment and Corridor Planning Division
1200 New Jersey Avenue, SE
West Building, Mail Stop 20
Washington, DC 20590

Dear Mr. Bratcher,

Thank you for providing the New Jersey State Historic Preservation Office (NJHPO) with the publication of the Environmental Assessment (EA) and Draft Section 4(f) Evaluation for the Sawtooth Bridges Replacement Project in the Town of Kearny, Hudson County, New Jersey dated March 4, 2020. Below please find the NJHPO consultation comments.

The Draft Programmatic Agreement (PA) was reviewed by the NJHPO on May 21, 2019, and nearly all changes that were suggested at that time have been reflected in the draft PA included here as Appendix 1-B. Additionally, the NJHPO finds that the EA/4(f) environmental commitments with regard to architectural and archaeological historic properties are reflective of the spirit and content of the mitigation measures included in the Draft PA.

The NJHPO looks forward to continued consultation under Section 106 of the National Historic Preservation Act. If you have any questions please reach out to Jennifer Balson Alvarez at jennifer.alvarez@dep.nj.gov regarding architectural resources or Vincent Maresca at vincent.maresca@dep.nj.gov regarding archaeological resources.

Sincerely,

Katherine J. Marcopul, Ph.D., CPM
Administrator and
Deputy State Historic Preservation Officer
Historic Preservation Office
NJ Department of Environmental Protection
[501 East State Street, Trenton, NJ 08625](https://www.state.nj.gov/501EastStateStreet)
kate.marcopul@dep.nj.gov
T (609) 984-0176 | F (609) 984-0578



Connect with us:



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Steve Strauss
10 Holder Place, apt. 3D
Forest Hills, NY 11375

March 12, 2020

Brandon Bratcher
Environmental Protection Specialist
Federal Railroad Administration, RPD-13
1200 New Jersey Avenue SE
West Building – Mail Stop 20
Washington, DC 20590

Re: **Sawtooth Bridge Environmental Assessment**

Dear Mr. Bratcher:

I write to urge acceptance/approval of the Environmental Assessment for the replacement of the Sawtooth Bridge on Amtrak's Northeast Corridor (NEC) and the swift issuance of a FRA Record of Decision.

Replacement of the overaged and speed restricted Sawtooth Bridge is an important element in Amtrak's efforts to bring the NEC to a state of good repair and add capacity and redundancy on a segment of the busiest rail line in North America. Constructing two new two-track bridges is of the highest priority for the Northeast Corridor Commission, Amtrak, NJ Transit and the rail advocacy community.

Given the location of the project it is hard to imagine any negative environmental impact from the construction of the new bridges other than the temporary impacts found at any construction project.

One of the shortcomings of EAs such as this one is the failure to more fully analyze and provide credit for the significant positive environmental impact of improving commuter and intercity passenger rail service in the United States. Moving people by rail has a much lower impact on the environment than moving people in automobiles or airplanes and projects such as Sawtooth accompanied by other NEC investments will move the needle on modal choice in the Northeast.

While the EA makes references to the positive environmental benefits of improving rail service and the highly negative effect of the No Action alternative, these benefits receive too little attention compared with the highly detailed analysis of minor or no impacts at the project site. This process weakness is a general shortcoming of the FRA NEPA process.

Sincerely,

Steve Strauss
At-Large Council Representative
Rail Passengers Association

Sawtooth Bridges Replacement Project

Appendix C

General Conformity Applicability Analysis



August 2020



1.1 Introduction

The National Railroad Passenger Corporation (Amtrak) is proposing to replace Amtrak Bridges No. 7.80 and No. 7.96, collectively referred to as the “Sawtooth Bridges,” which are critical links and existing bottlenecks on Amtrak’s Northeast Corridor (NEC). The Sawtooth Bridges are in the Town of Kearny, Hudson County, New Jersey between Newark Penn Station and Secaucus Junction. The age of the Sawtooth Bridges, their poor structural condition, and their two tracks (which are restricted to 60 miles per hour [mph]) limit the efficiency and reliability of rail operations throughout this segment of the NEC. The purpose of the Sawtooth Bridges Replacement Project is to achieve a state of good repair and to improve the reliability and resiliency of rail service along this critical segment of the NEC, while preserving the current functionality of Amtrak’s NEC service and NJ TRANSIT’s commuter rail service.

Pursuant to the National Environmental Policy Act of 1969 (NEPA), the Federal Railroad Administration (FRA) and Amtrak prepared an Environmental Assessment (EA) and Draft Section 4(f) in March 2020 to analyze the potential environmental impacts of the proposed project. On April 1, 2020, the U.S. Environmental Protection Agency (EPA) submitted comments to FRA on the EA, requesting “an analysis of direct and indirect construction emissions.” In response to EPA’s comment, FRA and Amtrak prepared this General Conformity Applicability Analysis as an appendix to the Finding of No Significant Impact (FONSI). The analysis shows that emissions associated with the construction of the project would be below *de minimis* levels specified in 40 CFR §93.153(b). Therefore, a general conformity determination is not required.

1.2 Regulatory Background

1.2.1 Air Quality Standards and General Conformity

Pursuant to the Clean Air Act (CAA), as amended in 1990, the U.S. Environmental Protection Agency (USEPA) established National Ambient Air Quality Standards (NAAQS) for six major air pollutants, referred to as “criteria pollutants:” carbon monoxide (CO), nitrogen dioxide (NO₂), ozone, respirable Particulate Matter (PM) (both PM_{2.5} and PM₁₀), sulfur dioxide (SO₂), and lead.

The CAA defines nonattainment areas (NAA) as geographic regions that the EPA designated as not meeting one or more of NAAQS. When the EPA designates an area as nonattainment, the CAA requires the state to develop and implement a State Implementation Plan (SIP). The SIP outlines how the state will achieve air quality that meets the NAAQS under the deadlines established by the CAA, followed by a plan for maintaining attainment status once the area has achieved attainment (and classified as a maintenance area).

General Conformity regulations prohibit federal entities from taking actions that do not conform to the SIPs for attainment and maintenance of the NAAQS. Federal actions with FRA as the lead agency are subject to the General Conformity Rule, pursuant to 40 CFR 51.850-51.860. A conformity evaluation is needed for each pollutant of concern in the nonattainment or maintenance area affected by a federal action. It is assumed that actions resulting in emissions of pollutants of concern less than established (*de minimis*) screening criteria emissions rates would conform to SIPs. Conforming actions would not:

- Cause or contribute to any new violation of any standard in any area;
- Interfere with provisions in the applicable SIP for maintenance of any standard;

- Increase the frequency or severity of any existing violation of any standard in any area; or
- Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

Pursuant to General Conformity Regulations, “a conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a nonattainment or maintenance area caused by a Federal action would equal or exceed” the established *de minimis* criteria.

The project is in Hudson County, New Jersey. Hudson County has been designated by the EPA as being in a serious nonattainment area for the 2008 8-hour ozone standard (part of the New York–Northern New Jersey–Long Island, NY–NJ–CT non-attainment area). Hudson County is also within a maintenance area for CO and PM_{2.5}.

1.2.2 *De Minimis* Thresholds

As an FRA action, the project must conform to the SIPs to meet and maintain the NAAQS in New Jersey and the multi-state (New York–Northern New Jersey–Long Island) Air Quality Control Region (AQCR) that includes Hudson County. The applicable *de minimis* threshold is 100 tons per year for CO, and PM_{2.5}, and 50 tons per year for nitrogen oxides (NO_x) and volatile organic compounds (VOC) which are ozone precursors.

Amtrak has provided FRA with an assessment of its construction activities and the emissions that may result. The assessment shows that the total annual direct and indirect emissions are predicted to be below the prescribed *de minimis* thresholds; accordingly, a conformity determination is not required.

1.3 Methodology

Air pollutant emissions from construction of the Proposed Project would include emissions from diesel and gasoline-powered construction equipment, diesel-powered generators, diesel trucks and locomotives transporting excavated material and delivering construction materials, and worker vehicles.

The project equipment usage factors, sizes, types, and number of construction equipment were estimated based on construction activity plans Amtrak has developed for the Project. Emission factors for NO_x, VOCs, CO, and PM_{2.5} from on-site construction engines were developed using EPA’s NONROAD Emission Model. With respect to truck engines, emissions rates for NO_x, VOCs, CO, and PM_{2.5} were developed using EPA’s Motor Vehicle Emission Simulator model.

Total emissions within the nonattainment area were calculated based on the methodology described above for on-site and on-road emissions.

1.4 Results

Table C-1 presents annual construction activity and on-road emissions associated with all components of the Sawtooth Bridges Replacement Project construction phase from 2022 through 2029. The corresponding NAAQS *de minimis* thresholds are also listed for comparison.

Table C-1
Emissions from Construction Activities (tons/year)

Year	NO_x	VOC	CO	PM_{2.5}
2022	4.74	0.46	1.43	0.10
2023	5.18	0.45	1.57	0.11
2024	5.12	0.45	1.54	0.11
2025	6.21	0.56	1.69	0.12
2026	5.91	0.49	1.54	0.10
2027	4.69	0.43	1.38	0.10
2028	4.17	0.37	1.30	0.09
2029	3.09	0.26	1.18	0.08
<i>De Minimis</i> Threshold*	50	50	100	100

*Source: <https://www.epa.gov/general-conformity/de-minimis-tables>

1.5 Conclusion

Based on the calculations presented above, the annual emissions for each pollutant would be well below the respective *de minimis* threshold. Therefore, this General Conformity Applicability Analysis demonstrates that a conformity determination is not required. The Sawtooth Bridges Replacement Project would conform to the SIP and maintenance plans.

Sawtooth Bridges Replacement Project

Appendix D

Programmatic Agreement



August 2020



PROGRAMMATIC AGREEMENT
AMONG
THE FEDERAL RAILROAD ADMINISTRATION,
THE NATIONAL RAILROAD PASSENGER CORPORATION,
AND
THE NEW JERSEY HISTORIC PRESERVATION OFFICER
REGARDING THE
SAWTOOTH BRIDGES REPLACEMENT PROJECT
TOWN OF KEARNY, HUDSON COUNTY, NEW JERSEY

WHEREAS, the National Railroad Passenger Corporation (“Amtrak”) is proposing the replacement of Amtrak Bridge No. 7.80 and Amtrak Bridge No. 7.96 (collectively known as the "Sawtooth Bridges"), located in the Town of Kearny, Hudson County, New Jersey (the “Project”); and

WHEREAS, the Federal Railroad Administration (FRA) has provided financial assistance to Amtrak for design and environmental analyses for the Project in compliance with the National Environmental Policy Act (42 U.S.C. § 4321 *et seq.*) (NEPA), and may provide future financial assistance to Amtrak for implementation of the Project; and

WHEREAS, FRA has determined that, should FRA provide financial assistance for implementation of the Project, it would become an “Undertaking” pursuant to Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 306108) (NHPA), as amended, and its implementing regulations at 36 CFR § 800 (hereinafter collectively referred to as Section 106), and FRA would be responsible for compliance with Section 106; and

WHEREAS, should FRA provide financial assistance for implementation of the Project, FRA intends to use this Programmatic Agreement (PA) to satisfy its Section 106 responsibilities; and

WHEREAS, FRA is the lead Federal agency for the Project under NEPA and is preparing an Environmental Assessment pursuant to NEPA and FRA’s Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999) and has coordinated Section 106 compliance with the NEPA process; and

WHEREAS, Amtrak, owner and operator of the Northeast Corridor (NEC) and the existing Sawtooth Bridges, has acted as the Project designer responsible for carrying out the design in support of the NEPA process; and

WHEREAS, FRA, and Amtrak on behalf of FRA, have consulted with the New Jersey Historic Preservation Office (NJHPO) and defined the Project’s area of potential effects (“APEs”) (**Attachment 1**), and NJHPO concurred with the APEs in a letter dated April 11, 2016; and

WHEREAS, in a letter dated September 23, 2016, Amtrak, on behalf of FRA, invited potentially interested Federally-recognized Indian Tribes (Tribes) to participate in consultation for the purposes of Section 106, and FRA followed up with a letter dated March 1, 2017 to these same Tribes, attaching the APE, identification of historic properties in the APE – including the Phase 1A archaeology report, and the determination of adverse effect, to the following invited Federally-recognized Indian Tribes: the

Delaware Nation, the Shawnee Tribe of Oklahoma, the Absentee-Shawnee Tribe of Oklahoma, the Stockbridge-Munsee Community, the Oneida Indian Nation, and the Delaware Tribe; and the Delaware Tribe, the Delaware Nation, and the Shawnee Tribe of Oklahoma responded that no known cultural resources would be affected by the Project but asked to remain apprised of the Project as it moves forward; the Stockbridge-Munsee Community declined to participate; and the other Tribes did not respond; and

WHEREAS, in a letter dated September 23, 2016, Amtrak, on behalf of FRA, invited 26 organizations, institutions, governmental agencies, elected officials, other Indian Tribes, and individuals to participate as Consulting Parties for the purposes of Section 106 (see **Attachment 2**), and Amtrak followed up with a letter to the same parties dated March 1, 2017 attaching the APE, identification of historic properties in the APE, and the determination of adverse effect, and the Town of Kearny accepted the invitation; Thomas Flagg, a known industrial archaeologist, declined to participate; Conrail did not formally accept the invitation, but requested ongoing consultation with respect to engineering design; and the remaining entities did not respond; and

WHEREAS, FRA and Amtrak consulted with the parties that accepted the invitation to consult (the Consulting Parties); and

WHEREAS, the Sawtooth Bridges are contributing elements within the Pennsylvania Railroad New York to Philadelphia Historic District (Northeast Corridor), which was determined eligible for the National Register of Historic Places (NR) by the Federal Highway Administration in consultation with NJHPO on March 3, 2003; and

WHEREAS, FRA and Amtrak, in consultation with NJHPO, identified five (5) additional NR-listed or eligible historic properties in the Project's APE, and NJHPO concurred with this identification on April 3, 2017; and

WHEREAS, through consultation, FRA determined that the Project, if constructed, will have an adverse effect on one historic property, the Pennsylvania Railroad New York to Philadelphia Historic District and that no other historic properties would be adversely affected, and NJHPO concurred with this finding on April 3, 2017; and

WHEREAS, NJHPO requested that the reevaluation of the period of significance of the Pennsylvania Railroad New York to Philadelphia Historic District be included as a mitigation measure in this PA; however, the reevaluation of the period of significance of the Pennsylvania Railroad New York to Philadelphia Historic District was subsequently undertaken by NJ Transit and NJHPO concurred with the reevaluation on June 4, 2019; and

WHEREAS, a *Phase IA Documentary Study: Sawtooth Bridges Replacement Project* (AKRF: August 2016) prepared for the Project and submitted to NJHPO and Federally-recognized Indian Tribes on March 1, 2017, identified areas of potential archaeological sensitivity at depths between 10 and 30 feet below the ground surface in areas that have not previously been disturbed as a result of the installation of utilities, the construction of the existing bridges, or other development ("archaeologically sensitive area") and NJHPO concurred with this characterization in a letter dated April 3, 2017; and

WHEREAS, through the consultation referenced above, FRA has concluded that the Project is located in an area with low potential for pre-contact archeological resources from 0- to 10-feet below ground surface and no potential for post-contact archeological resources but that Project designs cannot be sufficiently advanced at this time, and the identification and effects on potential deeply buried pre-contact archeological resources cannot be fully determined at this very early stage of Project planning and design

and prior completion of FRA's NEPA process; and

WHEREAS, if the Project advances to final design and construction with financial assistance from FRA, FRA has elected to complete, in consultation with NJHPO, the final identification, evaluation, and effects assessment on archeological resources in phases, pursuant to 36 CFR § 800.4(b)(2) and 800.5(a)(3), and in accordance with the ongoing consultation process specified in this PA pursuant to 36 CFR § 800.14(b); and

WHEREAS, FRA has invited Amtrak, as the owner and operator of the NEC and the entity that would design and construct the Project, to participate in this PA as an invited Signatory with responsibilities under this PA, and Amtrak has accepted; and

WHEREAS, in accordance with 36 C.F.R. § 800.6(a)(1), on June 8, 2017 Amtrak on behalf of FRA, notified the Advisory Council on Historic Preservation (ACHP) of FRA's adverse effect determination with specified documentation via the ACHP's e106 system, and the ACHP responded to FRA in a letter dated June 21, 2017 that it has chosen not to participate in the consultation pursuant to 36 C.F.R. § 800.6(a)(1)(iii); and

NOW, THEREFORE, FRA, Amtrak, and NJHPO (each a Signatory and together the Signatories) agree that the Project, if it becomes an Undertaking, will be implemented in accordance with the following stipulations in order to avoid, minimize and mitigate adverse effects on historic properties, and that these stipulations will govern the Undertaking and all of its parts until this PA expires or is terminated.

STIPULATIONS

I. APPLICABILITY

This PA would apply to FRA's Undertaking and would only bind FRA and Amtrak if FRA provides financial assistance for the construction of the Project.

II. PROFESSIONAL QUALIFICATION STANDARDS

- A. Amtrak will ensure that all historic preservation and documentation work regarding architectural properties carried out pursuant to this PA will be done by, or under the direct supervision of, a qualified professional(s) in the disciplines of architectural history who meet[s] the relevant standards outlined in the *Secretary of the Interior's Professional Qualifications Standards for Architectural Historians* (48 FR 44738-9).
- B. Amtrak will ensure that all archaeological work carried out pursuant to this PA will be done by or under the direct supervision of a qualified professional(s) in the discipline of archaeology who meet[s] the relevant standards outlined in the *Secretary of the Interior's Professional Qualifications Standards for Archaeologists* (48 FR 44738-9).

III. TREATMENT MEASURES FOR ARCHITECTURAL HISTORIC PROPERTIES

- A. **National Park Service (NPS) Historic American Engineering Record (HAER) Level II Equivalent Documentation**
 - 1. Amtrak will produce documentation of the Sawtooth Bridges that meets the standards of the National Park Service (NPS) Level II Historic American Engineering Record (HAER) documentation. HAER documentation narratives will describe in detail the physical characteristics of the structures (including their engineering, design, and setting), and their history, focusing on their construction as part of the Pennsylvania Railroad in the early twentieth century. Specific attention will be afforded to

interpretation of how contemporary engineering and materials science constraints and cost considerations affected the final design and construction of the structures. Primary and secondary resources will be used in the research effort, including historic engineering literature, United States Army Corps of Engineers Reports, Amtrak's files, newspapers and periodicals, library collections, historical societies, and other repositories in New York and New Jersey. Narratives will be supported by historic plans, photographs, and other documents, where available.

2. The HAER recordation will also include photographic documentation of the Sawtooth Bridges. Close-up and contextual views will be provided in accordance with the standards of the National Park Service (NPS) HAER Level II documentation. The documentation will consist of photographs with large-format negatives, photo key map and photo list. Photographs will include images of the original engineering plans for the Sawtooth bridges.
3. Digital photography files will also be provided, formatted in accordance with the current NPS Heritage Documentation Programs (HDP) photography guidelines. Amtrak will consult with NJHPO and NPS Heritage Documentation Programs on the final scope, content, format, and disposition of the documentation.
4. Following completion of the HAER documentation, Amtrak will distribute one (1) PDF electronic copy of the documentation to FRA, (1) hard copy and one (1) PDF electronic copy of the documentation to NJHPO, and (1) hard copy and one (1) PDF electronic copy of the documentation to NPS and up to (10) hard copies will be offered to local and regional repositories such as libraries, historical societies, and other collections, to be determined in consultation with NJHPO, as well as to FRA and NJ HPO
5. Amtrak will explore whether additional entities such as railroad or industrial history organizations that would be willing to post the PDF recordation documents to their publicly accessible websites. Amtrak will consult with NJ HPO to identify up to five (5) of these potential organizations and associated websites. If an organization does not wish to accept or post the file, Amtrak is not required to identify a substitute organization.

B. Construction Protection Plan

1. As Project planning progresses and construction limits are finalized, Amtrak will prepare and implement a Construction Protection Plan (CPP) to avoid construction-related damage to historic properties within close proximity (approximately 100 feet) of Project construction activities, likely including the Hudson Tower and/or Substation 4 (both NR-eligible). The CPP will describe the Project construction procedures in the vicinity of historic properties and measures that Amtrak will take to avoid inadvertent construction impacts to historic properties.
2. Amtrak will submit the CPP to NJHPO for review and comment prior to implementation in accordance with Stipulation V.
3. Amtrak will provide FRA with copies of all correspondence related to the CPP and a copy of the final plan.

C. Design Review

1. Amtrak will ensure that the preliminary and final plans and specifications for the proposed new bridges adhere to the *Secretary of the Interior's Standards and Treatments for Historic Properties* and are compatible with the historical character of the Pennsylvania Railroad Historic District.
2. Amtrak will consult with FRA and NJHPO to identify engineering constraints and opportunities for incorporating historically compatible design into the preliminary and final plans. Amtrak will consult with FRA and NJHPO in the development of bridge plans at the preliminary (30 percent) and pre-final (approximately 75 percent), and final (100 percent) design stages.

IV. TREATMENT MEASURES FOR ARCHAEOLOGICAL RESOURCES

- A. If FRA determines that Tribal involvement is warranted, then FRA is responsible for all government-to-government consultation with Federally recognized Tribes.
- B. When Amtrak advances the Project design and additional information is known regarding the specific location of ground disturbing activities and potential sub-surface impacts of the Project, Amtrak will ensure those design plans are reviewed by a qualified archaeologist, selected by Amtrak. The archaeologist will determine if the Project could potentially impact archaeologically sensitive areas at depths where disturbance of archaeological materials may be feasible and determine locations, if any, where monitoring will be required. In the event that Amtrak's proposed construction methodology will not allow monitoring at depths greater than 10 feet (e.g., in those locations where piles will be driven), then no archaeological monitoring will be required.
- C. In the event that soil borings are advanced within the Project site for engineering purposes, such soil borings will be reviewed by a qualified archaeologist selected by Amtrak to determine if potentially sensitive alluvial deposits, such as those observed in adjacent areas, are present within the Project site. Amtrak will prepare a borings report and associated curation and recommendations for further work, if applicable, in accordance with New Jersey State Standards and submit the report to FRA. The report and recommendations will be reviewed by FRA and, upon FRA approval, submitted to NJHPO and Tribes, as appropriate, upon completion of boring activities.
- D. If Amtrak's archaeologist, in consultation with FRA and NJHPO, determines that archaeological monitoring is warranted based on the results of analyses conducted under Stipulations IV.A. or B. above, Amtrak will develop an archaeological monitoring plan in consultation with FRA and NJHPO. Any monitoring plan developed in consultation with FRA and NJHPO will include provisions for consulting with Indian Tribes, as appropriate, in the event of a discovery.
- E. If archaeological monitoring is completed, Amtrak will prepare a monitoring report and curation in accordance with New Jersey State Standards and submit the report to FRA. The monitoring report will be reviewed by FRA and, upon FRA approval, submitted to NJHPO and Tribes, as appropriate, at the completion of monitoring activities.
- F. If potentially significant archaeological resources are encountered during monitoring, Amtrak and FRA will consult with NJHPO and any other consulting parties that wish to participate pursuant to 36 CFR 800.4(b) to complete identification efforts and develop ways to avoid, minimize, and/or mitigate any project effects pursuant to 36 CFR 800.6 as defined in the archaeological monitoring work plan in IV.D.

V. DOCUMENT REVIEW

Unless otherwise stated in the stipulations, the Signatories will provide comments on the documents they review as set forth below:

- A. The Signatories will have up to thirty (30) calendar days from the date of receipt to review and provide written comments to Amtrak on documents stipulated in this PA.
- B. Tribes, when appropriate, will have up to thirty (30) calendar days from the date of receipt to review and provide written comments to FRA on documents stipulated in this PA.
- C. Amtrak and FRA will ensure any written comments received within the timeframe are considered and addressed, as appropriate.
- D. If the Signatories or Tribes, do not submit written comments to Amtrak or FRA, as applicable, within thirty (30) calendar days of receipt of any document, it is understood the non-responding Signatories or Tribes have no comments on the submittal.
- E. If the Signatories object to or recommend extensive revisions to submissions stipulated in the PA, Amtrak will work with FRA expeditiously to respond to the recommendations and resolve disputes.
- F. If FRA and Amtrak cannot resolve the disputes, and if further consultation with the Signatories is deemed unproductive by any Signatory, the Signatories will adhere to the dispute resolution procedures described in Stipulation XI.
- G. The Signatories acknowledge that the timeframes set forth in this PA will be the maximum allowed under normal circumstances. In exigent circumstances (e.g., concerns over construction suspensions or delays), all Signatories agree to expedite their respective document review and dispute resolution obligations within seven (7) calendar days.

VI. PROJECT MODIFICATION AND CHANGES

In the event of any modifications or changes to the Project scope, the following measures will be implemented through consultation among the Signatories:

- A. Amtrak, in coordination with FRA, will assess and revise the Project APE as needed to incorporate any additional areas that have the potential to affect historic properties pursuant to 36 CFR § 800.4(a); upon FRA approval, Amtrak will provide a revised APE to NJHPO for review and comment.
- B. Amtrak, in coordination with FRA, will carry out additional investigations, as needed, to identify architectural and archaeological properties that may be affected pursuant to 36 CFR § 800.4(b).
- C. Amtrak, in coordination with FRA, will evaluate and assess the Project's effect on historic properties pursuant to 36 CFR § 800.4(c)-(d) and 800.5.
- D. If a change in Project scope results in additional adverse effects to historic properties, Amtrak will consult with the other Signatories to explore measures to avoid, minimize, or mitigate effects on these properties and amend the PA in accordance with Stipulation XII and consider whether the identification of and coordination with any additional consulting parties is appropriate.

VII. UNANTICIPATED DISCOVERIES

Amtrak, in coordination with FRA, will develop an Unanticipated Discoveries Plan (UDP) to be included in construction and bidding documents and used by the Project contractor in the event of unanticipated discoveries or if known historic properties are affected in an unanticipated manner.

The UDP will incorporate procedures for interacting with the media, a chain of contact, stop-work requirements, and other appropriate provisions. Amtrak, in coordination with FRA, will submit the draft UDP to the Signatories, participating Federally-recognized Indian Tribes and participating Consulting Parties for review and comment in accordance with Stipulation V. The UDP will include the following components:

- A. In the event any previously unidentified historic architectural or archeological resource is discovered, Amtrak will require the contractor to halt all work in and secure the area of the discovery. For any discovered archeological resources, Amtrak will also halt work in surrounding areas where additional subsurface remains can reasonably be expected to be present. This includes establishing a perimeter with a radius of at least 50 feet around a discovery where there will be no excavation, operation of heavy machinery, or stockpiling. Work in all other Project areas may continue.
- B. Amtrak, in coordination with FRA, will notify the Signatories within twenty-four (24) hours of the discovery. As appropriate, FRA will also identify and invite Federally-recognized Indian Tribes and Consulting Parties to consult regarding unanticipated discoveries.
- C. Amtrak, in consultation with FRA, NJHPO, and other Consulting Parties, if appropriate, will investigate the discovery site and evaluate the resource(s) according to the professional standards and guidelines contained in Stipulation II. Amtrak will prepare and submit to FRA for review and comment: a written document containing a proposed determination of NR eligibility of the resource, an assessment of Project effects on historic properties, if appropriate, and any recommended treatment measures. Upon FRA's approval, Amtrak will submit the determination of NR eligibility, effects assessment, and/or recommended treatment measures document, if appropriate, to NJHPO, Signatories, and Consulting Parties, as appropriate, for review and comment. If the potential resource is associated with Native American prehistory or history, FRA will provide the documentation to the Tribes within five (5) business days for their review with a request for comment. The Signatories and other Consulting Parties if applicable, will respond with any comments within five (5) business days of receipt.
- D. In the event there is an unanticipated effect to a known historic architectural resource or archaeologically sensitive area, Amtrak will notify FRA, Signatories, and participating Tribes and Consulting Parties, as appropriate, within forty-eight (48) hours of the event by providing written documentation describing the event and the potential effect to the historic property. Amtrak will propose treatment measures to FRA for review. Upon FRA's approval, and in coordination with FRA, the Amtrak will submit the recommended treatment measures document to NJHPO, Signatories, and participating Tribes and Consulting Parties as appropriate, for review and comment. The NJHPO, Signatories, and participating Tribes and Consulting Parties will respond with any comments within five (5) business days of receipt.
- E. If it is necessary to develop treatment measures in accordance with Stipulation VII.C. and VII.D., above, Amtrak, in coordination with FRA and NJHPO, implement the treatment measures approved by FRA.
- F. Amtrak will ensure ground disturbing activities within the affected area do not proceed until FRA, in consultation with the Signatories and participating Tribes and Consulting Parties, as appropriate, determines that either 1) the located resource is not NR-eligible or 2) the agreed upon treatment measures for historic properties have been implemented.

VIII. TREATMENT OF HUMAN REMAINS

- A. If human remains are encountered during archaeological investigations or construction, Amtrak will immediately halt subsurface disturbance in that portion of the Project area and immediately secure and protect the human remains and any associated funerary objects in place in such a way that minimizes further exposure or damage to the remains from the elements, looting, and/or vandalism. A perimeter with a radius of at least 50 feet around human remains will also be established where there will be no excavation, operation of heavy machinery, or stockpiling.
- B. Amtrak will immediately notify the local police department to determine if the discovery is subject to a criminal investigation by law enforcement and notify the Signatories within twenty-four (24) hours of the initial discovery.
- C. If a criminal investigation is not appropriate, the Amtrak will apply and implement all relevant laws, procedures, policies, and guidelines concerning the treatment and repatriation of burial sites, human remains, and funerary objects.
- D. In the event the human remains encountered could be of Native American origin, whether prehistoric or historic, FRA will immediately notify NJHPO, Federally-recognized Indian Tribes, and Consulting Parties to determine the treatment plan for the Native American human remains and any associated funerary objects.
- E. If the remains are not of Native American origin, Amtrak will, as appropriate, develop a research design/treatment plan for the appropriate treatment of the remains and any associated artifacts, consistent with procedures and guidelines contained in Stipulation IV and in accordance with Stipulation V.
- F. Amtrak will not proceed with work in the affected area until FRA, in consultation with NJHPO and Tribes, as appropriate, determines that the development and implementation of an appropriate research design/treatment plan or other recommended mitigation measures are completed. However, work in all other Project areas may continue.

IX. MONITORING AND REPORTING

Once yearly, beginning one (1) year from the date of execution of this PA until it expires or is terminated, Amtrak will provide all Signatories to this PA a summary report detailing work undertaken pursuant to its terms. Such report will include any scheduling changes proposed, any problems encountered, and any disputes and objections received in FRA and Amtrak's efforts to carry out the terms of this PA. Clear evidence of advancing the completion of PA stipulations, shared with Signatories, will be considered sufficient reporting in lieu of a summary report.

X. ADOPTABILITY

In the event that another Federal agency, not initially party to this PA receives an application for financial assistance, permits, licenses, or approvals for the Project, that agency may fulfill its Section 106 responsibilities and adopt this PA by (1) stating in writing it concurs with the terms of this PA, (2) providing the Signatories an electronic copy of its written concurrence, (3) executing a signature page to this PA, and filing the signature with the ACHP, and (4) implementing the terms of this PA, as applicable.

XI. DISPUTE RESOLUTION

Should any Signatory to this PA object at any time to any actions proposed or the manner in which the terms of this PA are implemented by providing written notice of such objection to FRA, FRA will consult with such Signatory to resolve the objection. If FRA determines that the objection cannot be resolved within thirty (30) calendar days FRA will:

- A. Forward all documentation relevant to the dispute, including FRA's proposed resolution, to the ACHP (with a copy to the Signatories) and request that the ACHP provide FRA with its advice on the resolution of the objection within forty-five (45) calendar days of receiving the documentation.
- B. If the ACHP does not provide its advice regarding the dispute within the forty-five (45) calendar day time period, FRA may make a decision on the dispute and proceed accordingly. FRA will document its decision in a written response to the objection that takes into account any timely comments regarding the dispute from the ACHP and the Signatories and provide the ACHP and Signatories with a copy of such written response.
- C. The Signatories remain responsible for carrying out all other actions subject to the terms of this PA that are not the subject of the dispute.

XII. AMENDMENTS

This PA may be amended when such an amendment is agreed to in writing by all Signatories. The amendment will be effective on the date that the amendment is signed by all Signatories. FRA will file the amendment with ACHP.

XIII. TERMINATION

If any Signatory to this PA determines that its terms will not or cannot be carried out, that Signatory will immediately consult with the other Signatories to attempt to develop an amendment per Stipulation XII. If within thirty (30) calendar days an amendment cannot be reached, any Signatory may terminate the PA upon written notification to the other Signatories.

Once the PA is terminated, and prior to work initiating or continuing on the Undertaking, FRA must either (a) execute a new PA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. FRA will notify the Signatories as to the course of action it will pursue.

XIV. DURATION

This PA will expire when all its stipulations have been completed or in fifteen (15) years from the effective date, whichever comes first, unless the Signatories agree in writing to an extension in accordance with Stipulation XII. Amendments.

XV. EXECUTION AND EFFECTIVE DATE

This PA will go into effect on the date that the final Signatory signs the document. Execution of this PA by the Signatories and its subsequent filing with the ACHP by FRA demonstrates that FRA has taken into account the effect of the Project on historic properties and afforded the ACHP an opportunity to comment.

**APPROVAL AND SIGNATURE PAGE FOR
PROGRAMMATIC AGREEMENT
AMONG
THE FEDERAL RAILROAD ADMINISTRATION,
THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK),
AND
THE NEW JERSEY HISTORIC PRESERVATION OFFICER
REGARDING THE
SAWTOOTH BRIDGES REPLACEMENT PROJECT
IN HUDSON COUNTY, NEW JERSEY**

FEDERAL RAILROAD ADMINISTRATION

By: 

Date: May 15, 2020

Katherine Zeringue
Federal Preservation Officer
Environmental and Project Engineering Division
Office of Railroad Policy and Development

**APPROVAL AND SIGNATURE PAGE FOR
PROGRAMMATIC AGREEMENT
AMONG
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THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK),
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REGARDING THE
SAWTOOTH BRIDGES REPLACEMENT PROJECT
IN HUDSON COUNTY, NEW JERSEY**

NEW JERSEY HISTORIC PRESERVATION OFFICER

By: Katherine J. Marcopul

Date: 5/21/2020

Katherine Marcopul
Deputy State Historic Preservation Officer

APPROVAL AND SIGNATURE PAGE FOR
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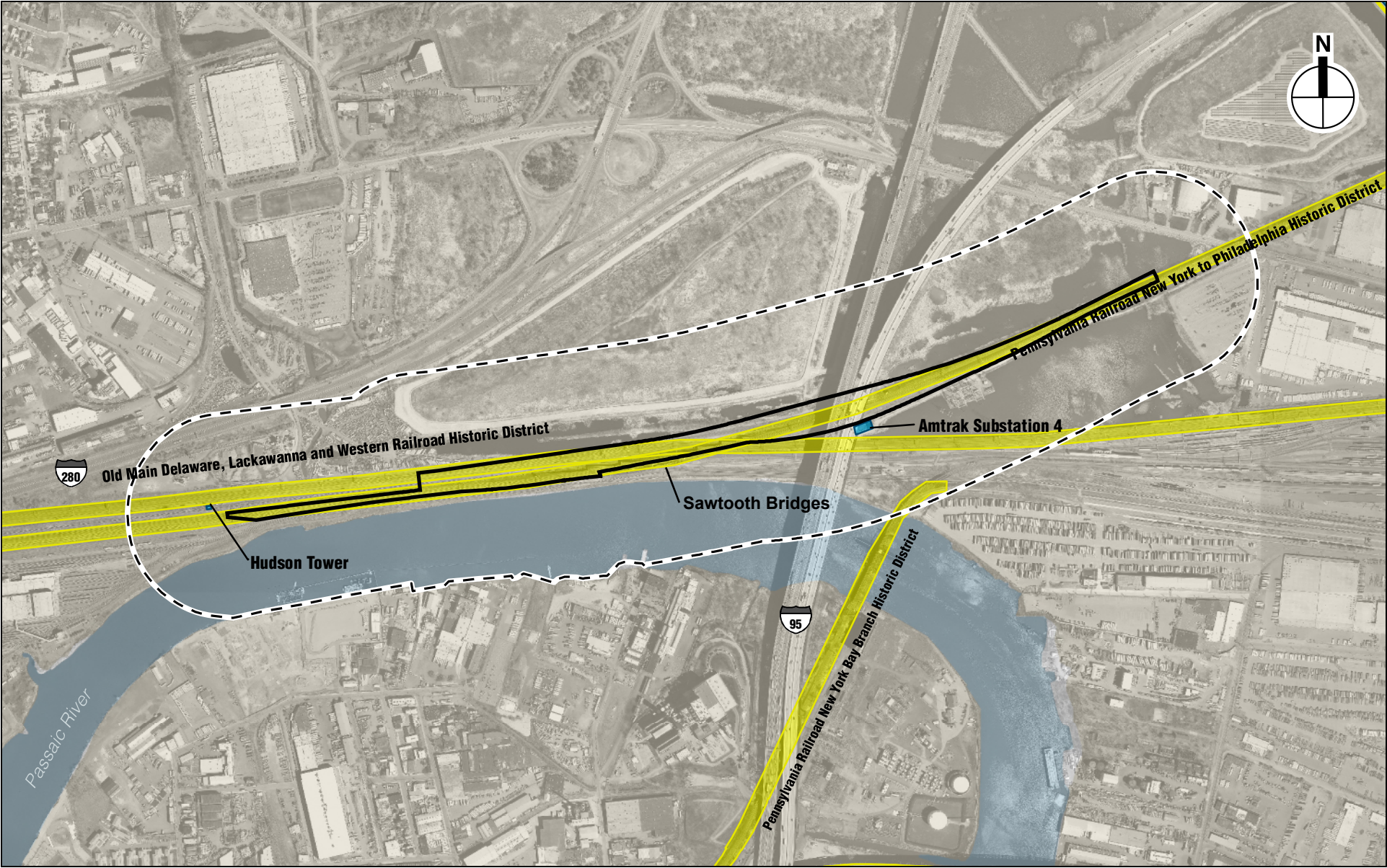
AMTRAK

By: 

Date: 5/15/20

Gerhard Williams
VP Chief Engineer

ATTACHMENT 1 – AREA OF POTENTIAL EFFECTS



- Proposed Project Site/Archaeological APE
- Architectural APE
- Historic Properties
- Historic Districts

0 1,000 FEET

SAWTOOTH BRIDGES REPLACEMENT PROJECT

Cultural Resources
Figure 3-5

ATTACHMENT 2 – LIST OF INVITED SECTION 106 CONSULTING PARTIES*INVITED CONSULTING PARTIES**Federally-Recognized Indian Tribes*

- Absentee-Shawnee Tribe of Oklahoma
- The Delaware Nation
- Delaware Tribe of Indians
- The Oneida Indian Nation
- Eastern Shawnee Tribe of Oklahoma
- Stockbridge-Munsee Band of Mohican Indians

State-Recognized Indian Tribes

- Nanticoke Indian Association
- Powhatan Renape Nation
- Ramapough Lenape Indian Nation
- Nanticoke Lenne-Lenape Indians of New Jersey

Other Tribal Organizations

- Eastern Delaware Nation
- Eastern Lenape Nation of Pennsylvania Office and Cultural Center
- Cherokee Nation of New Jersey

Local Governments and Other Involved Agencies

- Hudson County Executive
- Hudson County Division of Cultural Affairs & Tourism
- Hudson County Division of Planning
- New Jersey Turnpike Authority
- New Jersey Dept. of Environmental Protection: Historic Preservation
- Town of Harrison Mayor's Office
- Town of Kearny Mayor's Office

Potential Interested Parties

- Anthracite Railroads Historical Society, Inc.
- Consolidated Rail Corporation
- Meadowlands Museum
- New Jersey Meadowlands Commission
- Railway and Locomotive Historical Society, New York Chapter
- National Railway Historical Society, Inc., North Jersey Chapter

- Passaic River Coalition
- Pennsylvania Railroad Technical and Historical Society
- Rail-Marine Information Group
- Society for Industrial Archaeology, Roebling Chapter
- Society of Industrial Archaeology, National Headquarters
- Thomas Flagg, Industrial Archaeologist
- National Railway Historical Society, New York Chapter
- National Railway Historical Society, Tri-State Chapter
- United Railroad Historical Society of New Jersey

Sawtooth Bridges Replacement Project

Appendix E

Final Section 4(f) Evaluation



August 2020



FRA and Amtrak prepared this Final Section 4(f) Evaluation pursuant to the U.S. Department of Transportation (USDOT) Act of 1966. This Final Section 4(f) Evaluation describes the applicability of Section 4(f) of the USDOT Act to the Proposed Project, the use of Section 4(f) properties, avoidance alternatives to the use of the Section 4(f) properties, and measures to minimize harm to the Section 4(f) properties.

5.1 Regulatory Context and Methodology

Section 4(f) of the USDOT Act of 1966 (49 USC § 303) prohibits the Secretary of Transportation from approving any program or project that requires the “use” of: (1) any publicly owned parkland, recreation area, or wildlife and waterfowl refuge of national, state, or local significance; or (2) any land from a historic site of national, state, or local significance (collectively, “Section 4(f) properties”), unless there is no feasible and prudent alternative to the use of such land and such program or project includes all possible planning to minimize harm to the Section 4(f) properties. A historic site is a property that is listed in, or eligible for listing in, the NRHP.

If FRA determines that there is no feasible and prudent avoidance alternative to the use of a Section 4(f) property, then FRA may approve, from among the alternatives that use Section 4(f) properties, only the alternative that causes the least overall harm in light of the statute’s preservation purpose. A feasible and prudent avoidance alternative would avoid using all Section 4(f) properties and would not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property.

To determine whether an alternative is feasible and prudent, FRA may collectively consider adverse factors such as environmental impacts, safety, engineering/operational deficiencies, poor transportation service, increased costs, and other factors. FRA considers an alternative to be infeasible if it cannot be built as a matter of sound engineering judgement and not prudent if it fails to meet the project’s stated purpose and need, results in safety or operational problems, results in significant adverse environmental impacts, or results in extraordinary costs, among other factors.

5.2 Section 4(f) Properties

Amtrak identified all properties within the Proposed Project study area eligible for protection pursuant to Section 4(f) (see EA Figure 3-5). There are no publicly owned parklands, recreation areas, or wildlife/waterfowl refuges in the Proposed Project study area.

5.2.1 Architectural Resources

Section 4(f) properties within the Proposed Project study area include the following five historic resources, as defined in consultation with NJHPO under Section 106 of the NHPA:

- Pennsylvania Railroad New York to Philadelphia Historic District;
- Old Main Delaware Lackawanna & Western Railroad Historic District;
- Substation 4;
- Hudson Tower; and
- Pennsylvania Railroad New York Bay Branch Historic District.

Chapter 3 of the EA, “Affected Environment and Environmental Consequences” provides a description of each of these historic resources, and Appendix 1 presents the Section 106 correspondence.

5.2.2 Archaeological Resources

Section 4(f) applies to archeological sites that are on or eligible for listing on the NRHP, including those discovered during construction. According to the exemptions provided under 23 CFR 774.13(b), Section 4(f) does not apply if the Federal agency determines, after consultation with SHPO, Federally-recognized Indian Tribes (as appropriate), and the ACHP (if participating) that the archaeological resource is important chiefly because of what can be learned by data recovery (even if it is agreed not to recover the resource) and has minimal value for preservation in place, and the official with jurisdiction concurs with this determination. SHPO, Tribal Nation(s) and ACHP (if participating) do not object to this determination.

The Phase 1A did not identify any known archaeological properties eligible for protection. The Phase 1A concluded that the archaeological APE has low potential to yield intact prehistoric archaeological deposits overall and has no sensitivity for archaeological resources dating to the historic period. Potential archaeological resources, if present, would most likely be important for the information they might yield and not for preservation in place. Therefore, FRA and Amtrak do not consider these potential archaeological resources as Section 4(f) properties. The Programmatic Agreement (PA), executed May 15, 2020, includes stipulations regarding further identification efforts for archaeology (see Appendix D).

5.3 Section 4(f) Use

As discussed in Chapter 3 of the EA, under Section 106 of the NHPA, the Proposed Project would have an adverse effect on the NRHP-eligible Pennsylvania Railroad New York to Philadelphia Historic District. Specifically, the Proposed Project would demolish the existing Sawtooth Bridges, which are contributing resources to the Historic District. Demolition of the Sawtooth Bridges would constitute a Section 4(f) use of the Pennsylvania Railroad New York to Philadelphia Historic District.

The Proposed Project would not have an adverse effect on the following four historic properties under Section 106 of NHPA: Old Main Delaware Lackawanna & Western Railroad Historic District; Substation 4; Hudson Tower; and Pennsylvania Railroad New York Bay Branch Historic District. The Proposed Project would not permanently incorporate any of these four Section 4(f) properties into a transportation facility or result in the temporary occupancy of Section 4(f) land that is adverse in terms of the statute’s preservation purpose. Furthermore, although the Proposed Project would somewhat alter the setting of these Section 4(f) properties, the Proposed Project would not substantially diminish the characteristics that qualify them for listing in the NRHP and the value of the resources would not be reduced or lost. The Proposed Project would replace existing railroad-related structures with new railroad-related structures; therefore, the use, atmosphere, and overall conditions of the context of the resources would remain largely the same. Therefore, the Proposed Project would not constitute a Section 4(f) use of these four properties and no further analyses of these properties are necessary.

5.4 Avoidance Alternatives

The purpose of Section 4(f) is to avoid, and when avoidance is not feasible or prudent, minimize the use of Section 4(f) properties. As articulated in Chapter 2 of the EA, “Alternatives,” Amtrak considered three alternatives, in addition to the Preferred Alternative: the No Action Alternative, the Rehabilitation Alternative, and the Online Replacement Alternative. Similar to the Preferred Alternative, the Online Replacement Alternative would demolish the Sawtooth Bridges. Therefore, the Online Replacement

Alternative is not an avoidance alternative, as it would not avoid the use of the Section 4(f)-protected Pennsylvania Railroad New York to Philadelphia Historic District. The No Action Alternative and the Rehabilitation Alternative would not demolish the Sawtooth Bridges and would avoid the use of all Section 4(f) properties. However, as discussed in Chapter 2 of the EA, the No Action Alternative and the Rehabilitation Alternative would not meet the Purpose and Need for the Proposed Project. Therefore, these two alternatives would not be prudent and consequently do not meet the criteria for “a feasible and prudent avoidance alternative”. As discussed in Chapter 2 of the EA, Amtrak considered four alignment options under the New Alignment Alternative. All four alignment options would demolish the existing Sawtooth Bridges and would, therefore, not avoid the use of all Section 4(f) properties. For the purposes of this Section 4(f) Evaluation, Amtrak developed an additional alternative—the Sawtooth Bridges Preservation Alternative, described below.

5.4.1 Sawtooth Bridges Preservation Alternative

Under the Sawtooth Bridges Preservation Alternative, Amtrak would build new bridges that would carry four NEC tracks on a separate alignment and leave the existing bridges in place for another use or as an unused historic resource. Constructing new bridges on a separate alignment would avoid the demolition of the existing Sawtooth Bridges in a manner that would preserve their contribution to the Pennsylvania Railroad New York to Philadelphia Historic District and would avoid the Section 4(f) use.

However, this alternative would require an extensive realignment of the NEC and other tracks, extensive modification of the existing infrastructure, and would dramatically increase the right-of-way requirements, as compared with the Preferred Alternative. In the Preferred Alternative, Amtrak would construct one new elevated structure parallel to the existing alignment to carry two additional NEC tracks. With the Sawtooth Bridges Preservation Alternative, Amtrak would construct two new structures off the existing alignment to carry all four NEC tracks. As discussed in Chapter 2 of the EA, one of the design constraints for the track alignment is the need for tracks to fit between the existing New Jersey Turnpike overpass piers. The Sawtooth Bridges Preservation Alternative would keep the existing Sawtooth Bridges in place, thereby occupying some of the space between the New Jersey Turnpike overpass piers. With the Sawtooth Bridges Preservation Alternative, multiple tracks would need to be aligned through a different slot between the overpass piers, pushing the alignment of those tracks into the wetland area and resulting in additional environmental impacts. To reduce the curvature of the alignment and allow for a 90-mph design speed, Amtrak would have to make substantial changes to the existing infrastructure.

Furthermore, due to the condition of the Sawtooth Bridges and their advanced age, this alternative would be problematic from a safety standpoint, as it would retain a structure that is more than a century old and is in deteriorated condition over tracks that are actively used by other railroads, including NJ TRANSIT, PATH, and Conrail. The long-term risk of falling rail and bridge components could compromise public safety and significantly and adversely impact rail operations below the Sawtooth Bridges.

Overall, the Sawtooth Bridges Preservation Alternative would not take advantage of the already established Amtrak right-of-way that serves this heavily-traveled passenger rail corridor. The alternative would result in extensive environmental impacts, including temporary and permanent impacts to wetlands, as well as substantial property acquisition and costs. Therefore, while this alternative would be feasible, and could meet the Proposed Project Purpose and Need, it would not be prudent based on the following Section 4(f) criteria:

- After reasonable mitigation, the Sawtooth Bridges Preservation Alternative would still cause severe impacts to environmental resources protected under other federal statutes by expanding the right-of-way, acquiring property, and affecting the wetland area and open water.
- It would result in additional construction costs of an extraordinary magnitude resulting from: additional viaduct structures, property acquisition, mitigation of wetland impacts, significant realignment of existing tracks, and significant modification of other existing rail infrastructure. Additional costs would stem from stabilizing the Sawtooth Bridges to preserve them as non-operational historic properties and to avoid safety hazards associated with the potential for the deteriorated structure to fall onto the tracks under the bridge.
- It would cause other unique problems or unusual factors by requiring significant realignment of existing tracks and other rail infrastructure, resulting in extended disruption of rail service.

5.5 Measures to Minimize Harm

For the reasons discussed above, FRA determined that there are no prudent and feasible avoidance alternatives to the Proposed Project. FRA did not perform a least overall harm analysis because only the Preferred Alternative is prudent and feasible. As required by Section 106 of NHPA, through consultation with NJHPO and consulting parties, Amtrak and FRA developed measures to minimize or mitigate the adverse effect on the contributing resources of the Pennsylvania Railroad New York to Philadelphia Historic District, and these mitigation measures are set forth in the PA (see EA Appendix 1). The alternatives analysis discussed above and the execution of the PA represent FRA and Amtrak's efforts to conduct all possible planning to minimize harm to Section 4(f) properties.

5.6 Coordination

FRA and Amtrak are coordinating with NJHPO and consulting parties through the Section 106 process (see EA Appendix 1). On behalf of FRA and Amtrak, Amtrak's consultant invited the following potentially interested Federally-recognized Indian Tribes to consult and provide comments: the Delaware Nation; the Shawnee Tribe of Oklahoma; the Absentee-Shawnee Tribe of Oklahoma; the Stockbridge-Munsee Community; the Oneida Indian Nation; and the Delaware Tribe. While none of these Tribes formally accepted the invitation, the Delaware Tribe, the Delaware Nation, and the Shawnee Tribe of Oklahoma asked to remain apprised of the Project as it moves forward. The Stockbridge-Munsee Community declined to participate, stating that the project location is outside of their cultural area of interest. Furthermore, on behalf of FRA and Amtrak, Amtrak's consultant invited 26 organizations, institutions, governmental agencies, elected officials, non-Federally-recognized Indian Tribes, and individuals to participate as Consulting Parties. The Town of Kearny accepted the invitation. Thomas Flagg, a known industrial archaeologist, declined to participate. While Conrail did not formally accept the invitation, the railroad requested ongoing consultation with respect to engineering design.

NJHPO concurred with the APEs for the Proposed Project (see EA Figure 3-5) in a letter (dated April 11, 2016) and with the identification of historic resources and the findings of the effects assessment (letter dated April 3, 2017).

FRA and Amtrak published the Draft Section 4(f) Evaluation for public review and comment as part of the EA. USDOJ reviewed concurrently with the public. In a letter dated May 6, 2020, USDOJ concurred that there is no prudent and feasible alternative for the demolition of the Sawtooth Bridges, which would constitute a Section 4(f) use of the Pennsylvania Railroad New York to Philadelphia Historic District.