

FINDING OF NO SIGNIFICANT IMPACT

Construction of a Concrete Casing in the Hudson Yards, New York, New York

Federal Railroad Administration

Introduction:

The National Railroad Passenger Corporation (Amtrak) has proposed to construct an underground concrete casing through the Hudson Yards rail yard in New York, NY. The proposed underground concrete casing (the “proposed Project”) would preserve an underground right-of-way (ROW) for the possibility of future expansion of rail service between New Jersey and New York. The proposed Project would also support Amtrak’s effort to improve resiliency with respect to future disasters in Amtrak’s Northeast Corridor.

The proposed Project site—the Hudson Yards rail yard—is owned by the Metropolitan Transportation Authority (MTA) and used by the Long Island Rail Road (LIRR). Amtrak is the proposed Project sponsor and would design and construct the underground concrete casing. Amtrak anticipates constructing the proposed Project using Federal funding managed through the Federal Railroad Administration (FRA).

Purpose and Need:

The purpose of the proposed Project is to preserve an underground ROW in the Eastern Rail Yard of the Hudson Yards between 10th and 11th Avenues. Preserving the ROW would maintain opportunities to expand rail services in order to meet future demand and improve intercity and commuter rail system safety and reliability. In addition, the proposed Project supports Amtrak’s effort to improve resiliency in the passenger rail system with respect to disasters, particularly flooding. The proposed Project would be designed to withstand flood levels at new standards, using criteria that would have prevented the flooding caused by Superstorm Sandy.

There is an urgent need to preserve the ROW because, in December of 2012, Related Companies (the “Developer”) began construction of a large-scale development, referred to as the “Overbuild Project” in the area above the Hudson Yards. The Overbuild Project involves constructing a platform that will provide the footprint for a commercial and residential development. The placement of immense support structures throughout the Eastern Rail Yard for the Overbuild Project platform is projected to start in mid-2013. If the underground ROW is not preserved while the Overbuild Project foundations are constructed, the use of this location under Hudson Yards would be permanently lost, and along with it one possible alignment for future expansion of rail service between New York and New Jersey.

Description of Proposed Action:

The proposed action is to design and construct an underground concrete casing in the Eastern Rail Yard portion of the Hudson Yards rail yard in the borough of Manhattan, New York, NY. In a series of studies, Amtrak, in coordination with LIRR, MTA, and the Developer, has determined that there is one clear alignment on the west side of Manhattan–Hudson Yards—that would allow full connectivity of a future tunnel into Penn Station from the west. Specifically, these studies, *Penn Station New York Major Support Facilities and Potential Improvements between the Hudson River and 7th Avenue, Preliminary Track Alignment Design and Impacted Disciplines*,

Phase I – Section 1 (2011), *Penn Station New York Major Support Facilities and Potential Improvements Between the Hudson River and 7th Avenue, Preliminary Track Alignment Design and Impacted Disciplines, Phase 1 – Section 2A* (2012), and *Amtrak Gateway Project, High Speed Rail Penn Station, New York Feasibility Study, Phase 1 – Section 2B* (2012), determined that the Hudson Yards Eastern Rail Yard is the only location that could provide the appropriate space for the vertical and horizontal alignment of a new tunnel that would be fully and effectively integrated operationally with the existing Penn Station complex of tracks and platforms. One of these studies, an in-depth engineering analysis titled *Amtrak Gateway Project – Hudson Yards Study Final Report* (2012), demonstrated that, unless this ROW is preserved during the Overbuild Project's construction, unacceptable disruptions to LIRR facilities and impacts to the residential and commercial structures of the Overbuild Project from rock blasting and excavation would preclude future consideration of this alignment alternative.

Description of Alternatives:

The two alternatives considered for the proposed Project are the construction of the concrete casing (action) or not constructing the concrete casing (no action).

No Action:

For the no action alternative, Amtrak would not construct the concrete casing to preserve the ROW.

Construction of Concrete Casing:

The action alternative includes the construction of a concrete casing structure that would be approximately 800 feet long, 50 feet wide, and 35 feet tall and would extend underground from 10th Avenue to 11th Avenue between 31st and 33rd Streets. Construction of the concrete casing would require:

- Demolition of the northern part of the LIRR Maintenance of Equipment (MOE) Building and reconstruction to its original condition following completion of the concrete casing.
- Temporary relocation of all MOE Building functions to other LIRR maintenance and shop facilities until the portion of the MOE Building being demolished is reconstructed.
- Demolition of a concrete ramp that originates at 10th Avenue and provides vehicular access to the Eastern Rail Yard. The ramp would not be rebuilt because construction of the Overbuild Project platform will preclude use of that space for a ramp.
- Temporary removal of shop tracks to the MOE Building and yard tracks, Track 0 and part of Track 1, and their reconstruction after completion of the concrete casing construction.
- Temporary removal from service certain yard tracks and their immediate return to service.
- Temporary relocation and replacement of utilities and signals/communications within the Eastern Rail Yard.
- Excavation of approximately 83,000 cubic yards of soil and bedrock.

No operational components, such as tracks, lighting, ventilation, or electrical systems, would be constructed as part of the proposed Project.

Evaluation of Alternatives:

No Action:

Under this alternative, construction of the Overbuild Project would still occur, preventing Amtrak, New Jersey Transit (NJT), or any other rail service from utilizing a ROW underneath the Overbuild Project that would support expanded intercity and NJT commuter rail services and improve intercity and commuter rail system safety and reliability in the Hudson Yards. Therefore, if the underground concrete casing is not constructed at the same time as the Overbuild Project foundations, the ROW beneath the Overbuild Project would be permanently lost as a potential alignment for the future expansion of rail service between New York and New Jersey.

Construction of Concrete Casing:

Construction of the Concrete Casing would preserve an important location underground for an expanding intercity and NJT commuter rail services. There are no underground areas remaining as feasible options for a new tunnel from the west that could provide a direct connection with the existing infrastructure in Penn Station because of physical and design restrictions other than the alignment specified as the proposed Project.

While the proposed Project would preserve the only clear alignment allowing a new tunnel from the west that fully integrates with the existing Penn Station complex, it does not preclude future studies or the design and construction of alternative future alignments for tunnels entering Manhattan from New Jersey. The proposed Project would not change or add to existing rail operations and would not become operational unless this ROW is selected in a future study for the construction of a rail tunnel.

Environmental Consequences and Mitigation Measures:

FRA has analyzed the current environmental conditions and the consequences of the proposed Project's environmental impacts in the Environmental Assessment (EA). Based upon the analysis in the EA, summarized below, FRA concludes that the construction of the concrete casing, including proposed mitigation measures for unavoidable impacts, would have no foreseeable significant environmental impacts.

This Finding of No Significant Impact (FONSI) does not discuss resources that are not located within the proposed Project area or would otherwise not be affected by the proposed Project. These resources include: surface water and wetlands, vegetation and habitat, wildlife, threatened and endangered species, and coastal zone resources.

Geology: There would be no substantial adverse environmental impacts from the removal of 35,700 cubic yards of bedrock from the proposed Project site. Amtrak's construction contractor would handle, stage, transport, and dispose of all removed rock in accordance with applicable Federal, State, and local regulations. Amtrak's construction contractor would obtain rock blasting permits as needed from New York City's Fire Department and the City's Department of Buildings. The removal of bedrock would not affect the future LIRR operations because the surface of the Eastern Rail Yard would be restored following construction of the casing and would be adequate to support the presence of LIRR trains.

Soils: No adverse impacts from the excavation or handling of the estimated 47,300 cubic yards of urban fill and native soils that would be removed from the proposed Project site are

anticipated. Trucks would haul all soil and fill material that is excavated from the proposed Project site to licensed disposal facilities. Although the *Phase II Environmental Site Investigation Report: LIRR West Side Storage Yards, East Rail Yard*, prepared by Langan Engineering and Environmental Services for Related Companies in 2009, determined that soils and fill material in the proposed Project site are not expected to be classified as hazardous waste under the Resource Conservation and Recovery Act (RCRA), Amtrak's construction contractor would complete verification testing in accordance with RCRA regulations and disposal facility acceptance requirements when soils are excavated. Amtrak's construction contractor would develop a Soil Management Plan to ensure that contaminated materials are handled, staged, transported, and disposed of in accordance with Federal, State, and local regulations.

Groundwater: Impacts to groundwater are anticipated to be temporary and minor and no adverse impacts from the handling of groundwater are expected. Amtrak's construction contractor would prepare a Groundwater Management/Dewatering Plan that would address procedures for handling groundwater encountered during construction. Amtrak's construction contract would require testing of the groundwater, and the Dewatering Plan would describe procedures to ensure that Amtrak's construction contractor would treat or dispose of any contaminated groundwater released during dewatering operations in accordance with Federal, State, and local regulations. Groundwater removed from the construction area would be either hauled off-site to a disposal facility or discharged into a New York City Department of Environmental Protection (DEP) sewer under a temporary New York State of Environmental Conservation construction dewatering permit. If discharges into New York City sewers would exceed 10,000 gallons a day, Amtrak's construction contractor would obtain New York City DEP approval.

No adverse impacts to potable water supplies are expected. Groundwater underneath New York City is never used as a potable water supply; residents instead receive their water from reservoirs in upstate New York. The closest potable supply of groundwater to the proposed Project site is the aquifer systems of Long Island; however, these systems are geographically isolated from the groundwater of Manhattan by a saltwater-freshwater interface.

Air Quality: Air pollutant emissions associated with the proposed Project would be temporary and minor, and would not adversely impact air quality. Annual emissions generated as a result of the proposed Project are not expected to exceed threshold levels established in the Clean Air Act's general conformity regulations. Fugitive dust as a result of site clearing and earthmoving activities would temporarily increase during construction of the proposed Project. Amtrak's construction contractor would minimize fugitive dust as needed through measures such as the application of water to disturbed areas and haul roads, and speed controls on earthmoving equipment and haul trucks. Carbon dioxide (CO₂) is the only greenhouse gas (GHG) considered in the EA because emissions from other GHGs would be negligible. As shown in the EA, annual CO₂ emissions from the proposed Project are expected to be 2,998 metric tons, or 0.00608 percent of the total annual CO₂ emissions generated in New York City. Therefore, the relative contribution of GHGs from the proposed Project compared to those generated in New York City would be negligible.

Cultural Resources: The EA assessed the effects of the proposed Project on cultural resources in accordance with Section 106 of the National Historic Preservation Act. None of the properties in the proposed Project area are considered historic because they either date to the 1980s rail yard redevelopment or were substantially altered as part of the 1980s rail yard development project. However, there are two above-ground historic properties in the Hudson Yards area outside of the

proposed Project site: the High Line Freight Railroad viaduct and the New York Improvement and Tunnel Extension of the Pennsylvania Railroad (Hudson River Tunnels). Temporary visual obstructions created by construction equipment associated with the proposed Project could result in temporary loss of context for the architectural resources nearby. However, based on available documentation located in the files of the New York State Historic Preservation Office (SHPO) (*Final Generic Environmental Impact State for the proposed No. 7 Subway Extension and Hudson Yards Rezoning and Development Program* (2004) and *Final Environmental Impact Statement for the Western Rail Yard* (2009)) and data gathered during a field investigation of the Hudson Yards, the proposed Project would have no adverse effect on the two historic properties identified. Based on previous work done at the Hudson Yards and from New York State Office of Park, Recreation and Historic Preservation research, there is low potential for archaeological resources to be present in the archaeological area of potential effect.

In a letter dated April 1, 2013, the New York SHPO concurred with FRA's determination that the Proposed project would have no adverse effects on historic properties with the condition that a Construction Protection Plan (CPP) is put in place for all properties within 90 feet of the proposed work that are either listed or eligible for listing on the National Register of Historic Places, and that the CPP shall meet the requirements of the New York City Building Code, Department of Building Technical Policy and Procedure Notice (TPPN) #10/88.

Visual Resources: No long-term direct or indirect visual impacts are anticipated from the proposed Project. Because the Eastern Rail Yard contains other ongoing construction projects (other than the Overbuild Project), construction activities associated with the proposed Project would be difficult to distinguish from other activities. Construction activities associated with the proposed Project would result in negligible short-term impacts on views of the Hudson Yards, but the concrete casing would be buried below ground and existing buildings and tracks would be restored to their current configuration after the completion of the proposed Project.

Hazardous Materials Health and Safety: Hazardous materials could be encountered during excavation activities through exposure to soils and fill, exposure to groundwater, or during demolition of the MOE Building. However, with implementation of the hazardous materials and hazardous waste best management practices and adhering to Federal, State, and local requirements for handling of hazardous materials and wastes, no direct or indirect adverse impacts are anticipated as a result of the proposed Project.

The *Phase II Environmental Site Investigation Report: LIRR West Side Storage Yards, East Rail Yard* (2009), determined that excess soils, fill material, and construction waste that would be excavated from the Eastern Rail Yard during construction are not expected to require management as RCRA hazardous wastes. Amtrak's construction contractor would complete verification testing in accordance with RCRA regulations and disposal facility acceptance requirements when soils are excavated. Amtrak's construction contractor would develop a Soil Management Plan, a Groundwater Management Plan, and a Dewatering Plan to ensure that contaminated materials are handled, staged, transported, treated, and disposed of in accordance with Federal, State, and local regulations.

Before Amtrak's construction contractor would demolish the MOE Building, Amtrak's construction contractor would complete a lead based paint survey of the building and a survey to determine whether there are asbestos-containing materials. Hazardous materials that are currently stored in the part of the MOE Building to be demolished or found in the building

materials would be placed in appropriate containers for transport and shipped off-site according to Federal, State and local regulations, or to other MOE maintenance facilities for their continued use. Construction activities would include the use of hazardous materials and hazardous waste generation from construction equipment, but no impacts on worker and public safety are expected. Amtrak's construction contractor would implement appropriate safety measures, such as preparing a Health and Safety Plan, along with procedures for the handling, storage, and disposal of hazardous materials and wastes during construction activities to limit worker, public, and environmental exposure.

Noise and Vibration: With implementation of noise and vibration control measures and compliance with city, State and Federal noise and blasting regulations, the proposed Project would not result in adverse impacts on buildings, facilities or operations from noise and vibration associated with demolition and construction activities.

Construction activities associated with the proposed Project would cause temporary increases in noise levels, although these increases would be indistinguishable from existing construction noises already occurring at the proposed Project site. Amtrak's construction contractor would comply with the New York City Noise Control Code to minimize impacts from noise, along with implementing good engineering practices such as proper maintenance and operation by muffling devices and shutting off idling machinery when not in use.

Vibrations from rock blasting would travel into the soil and rock and potentially into the foundations and walls of nearby buildings and facilities. Special rock-blasting techniques would be used to reduce vibration impacts so that no adverse impacts on nearby facilities, buildings, tracks, and railroad systems would occur. LIRR would notify Amtrak if vibration was occurring beyond LIRR-approved levels, and Amtrak's construction contractor would mitigate the vibrations to acceptable levels to prevent any substantial impacts on LIRR facilities and operations.

Access and Traffic: The proposed Project would have direct impacts on access and traffic, but these would be temporary and minor. Traffic impacts may occur from construction workers traveling to the Hudson Yards, haul trucks transporting excavated materials from the proposed Project site, and from delivery of construction-related equipment to the proposed Project site. These impacts would be most noticeable where traffic is already congested, but would otherwise be minimal when compared to the existing traffic conditions. Project-related trucks would adhere to designated local truck routes to minimize impacts. The proposed Project would not need lane closures or traffic re-routing since all Project-related work would occur within the Hudson Yards. All worker and construction vehicles would park along the access road in the Western Rail Yard of the Hudson Yards; construction vehicles and equipment would be stored or parked in staging areas. Therefore, the proposed Project would not affect parking in the Hudson Yards area.

The proposed Project is not expected to affect pedestrian routes since the majority of the sidewalk along the west side of 10th Avenue, which would be closed entirely for part of the construction period, is already closed, and a pedestrian walkway has been provided. Construction fencing and other barriers would be maintained around the work zone to prevent public access. The existing vehicular ramp from 10th Avenue that provides private access to the Hudson Yards would be permanently removed for construction of the proposed Project. An existing paved access road from 12th Avenue would provide access to the Hudson Yards.

Utilities, Infrastructure, and LIRR Operations: Temporary moderate direct and indirect adverse impacts to LIRR and MTA operations would occur as a result of the proposed Project. Amtrak would work closely with the LIRR to minimize the duration of disruption to facilities. Any facilities or utilities removed or out of service during the construction of the proposed Project would be accessible in a temporary capacity during construction, if they are necessary. All facilities and utilities removed before or during construction would be replaced to their full pre-construction capacity and function in accordance with Federal, State and local regulations after construction is complete, except for the 10th Avenue ramp. Amtrak would coordinate a detailed Site Logistics Plan with LIRR during the design phase of this proposed Project. With implementation of the mitigation measures, impacts on LIRR and MTA operations would not be adverse. Listed below are the utilities and infrastructure that the proposed Project would affect:

- Eastern Rail Yard storm sewers and sanitary sewers,
- Electrical systems that service the MOE Building and yard tracks,
- The signals and communications systems for the portion of the LIRR yard serving the MOE Building,
- Potable water lines and fire protection within the proposed Project alignment,
- Gas line that lies within the proposed Project alignment,
- MOE Building and 10th Avenue ramp, and
- Yard and shop tracks.

Cumulative Impacts: Because impacts from the proposed Project would be temporary, lasting part or all of the approximate 24 months of construction and the scale of the proposed Project is minor when compared to the scale and magnitude of the Overbuild Project, the contribution of the proposed Project to cumulative impacts, when combined with the Overbuild Project impacts, would be negligible. FRA has determined that construction of the concrete casing, including proposed mitigation measures for unavoidable impacts described above, would have no foreseeable significant cumulative environmental impacts.

Notice of Availability and Comments Received on the EA:

A Notice of Availability for the EA was published in the Federal Register on April 3, 2013 (78 FR 20169) announcing the start of the public comment period. The EA public comment period ended on April 29, 2013. During the comment period, the EA was available for review at the FRA Office of Railroad Policy and Development in Washington, DC, at the New York Public Library in New York, NY, and online at FRA's website. Three comments were received on the EA: one from the United States Department of the Interior (DOI) and two from the public. The two comments from individuals were in support of the project.

The DOI comment requested a technical evaluation of the dewatering of the shallow groundwater, the impacts on the areas groundwater levels, and that FRA provide data to support the concept that the groundwater beneath the Eastern Rail Yard is isolated from the deeper aquifer. FRA's response to the DOI comment is as follows:

The groundwater at the Hudson Yards site is geographically isolated from the closest potable water source, the Long Island aquifer system, by a freshwater-saltwater interface (EPA, 2010 and EPA, 2012). Furthermore, the groundwater at the project site flows to the south and west (Stumm and Chowdhury, 2003).

Project design features would be used to prevent the lowering of the surrounding groundwater levels. The design includes a Support of Excavation (SOE) system that would be used to excavate the concrete casing trench. The SOE incorporates secant pile walls drilled into the top of rock. This SOE system is designed to prevent dewatering and lowering of the groundwater levels in the soils adjacent to the excavation. Grouting would be used to seal significant seepages in the secant pile walls during excavation. Along the northeast wall of the excavation, the structural box of the existing Empire Line Tunnel would provide the necessary groundwater cut-off into the top of rock in lieu of the secant pile wall. Grouting would be used to control any significant groundwater seepages that may occur through the bedrock that is exposed in the excavation beneath the secant pile walls and Empire Line Tunnel.

References:

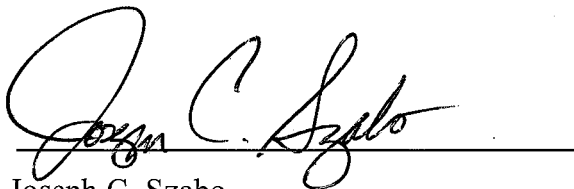
Environmental Protection Agency (EPA). 2010. *Nassau and Suffolk Counties, New York, Nassau-Suffolk Aquifer System*. May 1975. Available at <http://www.epa.gov/region2/water/aquifer/nasssuff/nassau.htm>. Last updated October, 2010. Accessed on April 25, 2013.

EPA. 2012. *Kings and Queens Counties, New York, Brooklyn-Queens Aquifer System*. December, 1983. Available at <http://www.epa.gov/region2/water/aquifer/brooklyn/brooklyn.htm>. Last updated September, 2012. Accessed on April 25, 2013.

Stumm, F. and S. Chowdhury. 2003. Delienation of ground water flow in fractured rock in the southwestern part of Manhattan, New York, through use of advanced borehole geophysical methods. *Ground Water Monitoring & Remediation*, Vol 23., No. 3; 42-49. Available at <http://ny.water.usgs.gov/pubs/jrn/ny3005/jrn03-ra3b00e.pdf>. Accessed May 3, 2013.

Conclusion and Finding of No Significant Impact:

FRA concludes that the March 2013 EA, prepared for the proposed Project, satisfies the requirements of FRA's Procedures for Considering Environmental Impacts and that it has afforded adequate opportunity for the review by parties with an interest in the project. FRA finds that the construction of a concrete casing in the Hudson Yards will have no foreseeable significant impacts on the quality of the environment. This FONSI is based on the EA, which FRA has determined to adequately and accurately discuss the purpose and need, environmental issues, impacts of the proposed Project, and appropriate mitigation measures. The EA and comments received on the EA provide sufficient evidence and analysis for determining that an Environmental Impact Statement is not required.



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Administrator

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5/16/13
Date