



Baltimore and Potomac (B&P) Tunnel Project
National Environmental Policy Act (NEPA) Reevaluation #2
September 2023



TABLE OF CONTENTS

TABLE OF CONTENTS	1
I. INTRODUCTION	2
II. PROJECT BACKGROUND	3
III. RELEVANT CHANGES SINCE PUBLICATION OF THE FEIS and ROD.....	5
A. Project Changes	5
B. Changes in the Affected Environment	9
IV. ENVIRONMENTAL IMPACTS	11
A. Socioeconomics	18
B. Cultural Resources	19
C. Section 4(f).....	21
1. Midtown Edmondson Historic District	21
2. Madison Park Medical Center	22
D. Natural Resources.....	23
1. Geology, Topography, and Soils	24
2. Wetlands and Waterways.....	24
3. 100-Year Floodplain.....	24
4. Terrestrial Habitat.....	24
E. Hazardous Materials	24
F. Solid Waste	25
G. Air Quality	25
H. Noise	25
I. Vibration	26
J. Construction Impacts.....	26
K. Indirect and Cumulative Effects.....	26
V. MITIGATION	27
VI. Community and Stakeholder Outreach	32
VII. CONCLUSION	33

Attachment 1: Addendum to the Final Section 4(f) Evaluation

Attachment 2: Section 106 Correspondence

I. INTRODUCTION

Amtrak's Baltimore and Potomac (B&P) Tunnel Replacement Program (Program) includes the proposed replacement of the 1.4-mile-long B&P Tunnel located along the Northeast Corridor (NEC) in Baltimore, Maryland. The B&P Tunnel is owned by Amtrak and used for Regional and Acela intercity passenger trains, Maryland Area Rail Commuter (MARC) passenger trains, and Norfolk Southern Railway (NS) freight trains.

The Project was originally evaluated in the following documents (collectively referenced as the B&P Tunnel EIS):

- December 2015 *Draft Environment Impact Statement & Section 4(f) Evaluation Baltimore & Potomac Tunnel Project Baltimore, Maryland* (B&P Tunnel DEIS)
- November 2016 *Final Environment Impact Statement & Section 4(f) Evaluation Baltimore & Potomac Tunnel Project Baltimore, Maryland* (B&P Tunnel FEIS)

On March 24, 2017, FRA issued the *B&P Tunnel Project Record of Decision* (B&P Tunnel ROD) approving the Selected Alternative for the Project.

On June 18, 2021, Amtrak announced that the new B&P tunnel will be named the Frederick Douglass Tunnel. Thus, for the remainder of this document, the existing B&P tunnel will be referred to as the B&P Tunnel, the new tunnel will be referred to as the Frederick Douglass Tunnel, and the project evaluated in the EIS will be referred to as the B&P Tunnel Project (Project).

FRA conducted a NEPA Reevaluation of the B&P Tunnel ROD on May 2, 2022, which addressed phasing of Project construction, changes to the construction duration, and changes to the tunnel bore and plenum sizes. The May 2022 Reevaluation is hereafter referred to as "Reevaluation No. 1".

This reevaluation (herein referred to as "Reevaluation No. 2" or "this Reevaluation") addresses advances in Project design and changes in the affected environment. Amtrak, the owner of the rail infrastructure, has continued to advance the Project design since the issuance of the ROD. Advances in the Project design and construction planning have resulted in Amtrak identifying additional construction staging requirements and space needed for construction of utility relocations and retaining walls in the vicinity of the proposed south portal along N. Brice and W. Lanvale Streets. The proposed construction activities would require demolition of residential rowhomes located outside of the Limits of Disturbance (LOD) documented in the FEIS and ROD.

Additionally, Amtrak identified changes to the affected environment. Since the FEIS, the National Register Historic Places (NRHP) eligibility of two properties (920 W. North Ave and 2000 W. Lafayette Avenue) changed. The two properties are now deemed historic resources for the purposes of Section 106 of the National Historic Preservation Act and Section 4(f) of the U.S. Department of Transportation Act of 1966. Both of these properties were assessed and documented as impacted by the Selected Alternative in the FEIS but they were not considered historic resources at that time.

This Reevaluation of the adequacy, accuracy, and validity of the FEIS was prepared to inform FRA's determination whether the FEIS remains valid or if a new or supplemental NEPA evaluation is required due to the proposed LOD changes and resulting environmental impacts. This Reevaluation was prepared to address the regulations implementing NEPA (40 CFR 1502.9) which require agencies to prepare a supplement to a FEIS if:

- The agency makes substantial changes to the proposed action that are relevant to environmental concerns; or

- There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.

Section II of this Reevaluation provides Project background including a summary of the purpose and need for the Project and information about the Selected Alternative, which are unchanged from the ROD. **Section III** details the design and affected environment changes that prompted this Reevaluation. **Section IV** presents a summary of the environmental impacts reported in the FEIS, and a discussion of changes to those impacts resulting from the level of design of the Project as of July 2022 and changes in the affected environment since the FEIS. **Section V** lists the required mitigation, and finally, **Section VI** presents FRA's conclusion of the Reevaluation.

II. PROJECT BACKGROUND

The **purpose** of the Project is to address the structural and operational deficiencies of the existing B&P Tunnel and to accommodate future high-performance intercity passenger rail service goals for the NEC, including:

- To reduce travel time through the B&P Tunnel and along the NEC,
- To accommodate existing and projected travel demand for intercity and commuter passenger services,
- To eliminate impediments to existing and projected operations along the NEC, and
- To provide operational reliability, while accounting for the value of the existing tunnel as an important element of Baltimore's rail infrastructure.

The **need** for the Project has been defined as follows:

- The existing B&P Tunnel is more than 140 years old and is approaching the end of its useful life with regard to its physical condition. While the tunnel currently remains safe for rail transportation, it requires substantial maintenance and repairs, and it does not meet current design standards. The tunnel is considered to be structurally deficient due to its age, the original design, and wear and tear. The tunnel is also functionally obsolete and unable to meet current and future rail demands due to the combination of its vertical and horizontal track alignment, i.e., its grades and curves. The low-speed tunnel creates a bottleneck at a critical point in the NEC.
- The existing B&P Tunnel does not provide enough capacity to support existing and projected demands for regional and commuter passenger service along the NEC.
- The existing B&P Tunnel is not suited for modern high-speed usage due to the current horizontal and vertical track alignment, which limits passenger train speeds through the tunnel to 30 miles per hour (mph).
- The existing B&P Tunnel is a valuable resource and the disposition of the existing tunnel needs to be considered in the Project.

FRA selected **Alternative 3B** for the Project, as documented in the 2017 ROD (**Figure 1**).

Figure 1: Selected Alternative



III. RELEVANT CHANGES SINCE PUBLICATION OF THE FEIS AND ROD

This section presents certain Project changes and changes in the affected environment since publication of the FEIS and ROD that are the subject of this Reevaluation. Other Project changes and changes in the affected environment since publication of the FEIS and ROD were the subject of Reevaluation No. 1 (May 2022) and are not included in this Reevaluation; however, FRA considered the changes evaluated in Reevaluation No. 1 along with the changes in this Reevaluation when assessing whether the FEIS remains adequate, accurate and valid. Additionally, any future Project changes would be evaluated in reevaluations, as appropriate. The Project changes described in **Section III.A** are the result of Amtrak's continued advancement of the Project design since the ROD, which has resulted in the identification of additional LOD area required for construction of the Selected Alternative. The additional area, referred to herein as the "proposed LOD expansion area," is located outside of the LOD assessed in the FEIS.

Changes in the affected environment since the publication of the ROD that alter the potential environmental impacts of the Selected Alternative are described in **Section III.B** below.

A. Project Changes

Since the publication of the FEIS and ROD, Amtrak has advanced the engineering for the Project, including identification of construction staging areas, more detailed understanding of necessary utility relocations, and identification of space needed for construction of retaining walls at the proposed south tunnel portal. As a result, construction activities in an area outside of the Selected Alternative LOD evaluated in the FEIS would be necessary. This Reevaluation considers environmental impacts within Amtrak's proposed LOD expansion area located adjacent to the proposed south portal approach (see **Figure 2**). Amtrak would need to acquire and demolish all properties in the proposed LOD expansion area. This area would be used for construction activities while Project construction is underway. Subsurface easements at several of the properties would be necessary for tiebacks associated with the retaining walls for the proposed trackway. The following paragraphs provide additional detail on the construction activities for which the proposed LOD expansion area is needed.

The existing utilities located within the Selected Alternative LOD are in direct conflict with the proposed tunnel approach, and would need to be relocated to make space for the construction of the tunnel and approach structure. A 27" Baltimore City sanitary sewer is in direct conflict north of Lafayette Avenue and Pulaski Street, which would be re-routed to N. Brice Street. The relocation of the 27" sanitary sewer would involve excavating and deep shoring trenches to allow for the construction of the relocated utilities. The work would be constrained by the presence of a 10'-6" diameter storm drain (constructed c. 1895), carrying the former open channel Peck's Branch and running in Brice and Lanvale Streets. The Peck's Branch drain alone occupies a substantial portion of the subsurface of the public right-of-way; accommodating the drain and other existing utilities and relocated utilities with required offsets between utilities would require construction in close proximity to the properties along Brice and Lanvale Streets. The existing 30" water main under the W. Lafayette Avenue bridge would also require a new alignment further to the south under the proposed tracks using trenchless construction methods by a micro-tunneling boring machine. Due to site constraints, temporary power feeds for this equipment would need to run through the parcels along the north side of N. Lanvale Street and west of N. Brice Street.

Completing the utility work without acquiring the proposed LOD expansion area would mean the work would have to occur in a very constrained area and would disrupt pedestrian movements and property access. The proposed LOD expansion is shown in **Figure 2**, however, would facilitate construction of the relocated utilities by providing more space for the work to occur, and space for staging of equipment and materials. While other

areas could be considered for staging of equipment and materials, the use of the area shown in **Figure 2** would help to keep the utility construction work confined to space immediately adjacent to other Project construction activities. Furthermore, the densely developed urban land uses surrounding the proposed south portal area restrict the potential options for additional construction staging areas adjacent to the construction activities without causing further impacts.

Additionally, Amtrak’s acquisition of the properties would facilitate the construction of the adjacent retaining walls, which are part of the south approach to the tunnel. The proposed LOD expansion area would provide space for the adjacent construction work to occur, and space for staging of equipment and materials. Subsurface easements at several of these properties would be necessary for tiebacks associated with the retaining walls for the proposed trackway.

After construction is complete, the land could be used to mitigate Project impacts, used for stormwater management, and/or returned to non-transportation uses.

The proposed LOD expansion area includes approximately 0.7 acres in the Midtown Edmondson neighborhood including properties west of N. Brice Street and north of W. Lanvale Street (see **Figure 3**). The proposed LOD expansion area also includes portions of undeveloped parcels located along W. Lafayette Avenue, and the alleyways passing through the block west of N. Brice Street.

The proposed LOD expansion area includes a total of 23 parcels on a primarily residential block, all of which would be fully acquired by Amtrak. At the time of this Reevaluation, 12 of the properties contain residential rowhome buildings of which four are occupied, and 11 of the parcels have no buildings present. Nine of the parcels in the proposed LOD expansion area were identified in the ROD as partial property acquisitions. The properties needed for construction of the Selected Alternative are located close to the proposed south portal construction area. The full list of properties included in the proposed LOD expansion area is provided below.

- 818 N. Brice Street
- 816 N. Brice Street
- 814 N. Brice Street
- 812 N. Brice Street
- 810 N. Brice Street
- 808 N. Brice Street
- 806 N. Brice Street
- 804 N. Brice Street
- 802 N. Brice Street
- 800 N. Brice Street
- 2022 W. Lanvale Street
- 2024 W. Lanvale Street
- 2026 W. Lanvale Street
- 2028 W. Lanvale Street
- 2030 W. Lanvale Street
- 2032 W. Lanvale Street
- 2034 W. Lanvale Street
- 2036 W. Lanvale Street
- 2038 W. Lanvale Street
- 2040 W. Lanvale Street
- 2023 W. Lafayette Avenue
- 2025 W. Lafayette Avenue
- 2027 W. Lafayette Avenue

Additionally, one rowhouse property previously identified as an impact in the FEIS at 2037 W. Lanvale Street would be avoided based on more accurate property mapping. The rowhouse at 2037 W. Lanvale Street is a contributing element to the Midtown Edmondson Historic District.

There are no proposed changes in this Reevaluation No. 2 to the LOD at the Intermediate Ventilation Facility (IVF) site. Discussion of the IVF site in this Reevaluation No. 2 is to account for changes to the affected environment as described in **Section III.B** below – specifically the change in historic status at the Madison Park Medical Center. There are no changes to other environmental impacts associated with the IVF site.

Figure 2: Proposed LOD Expansion

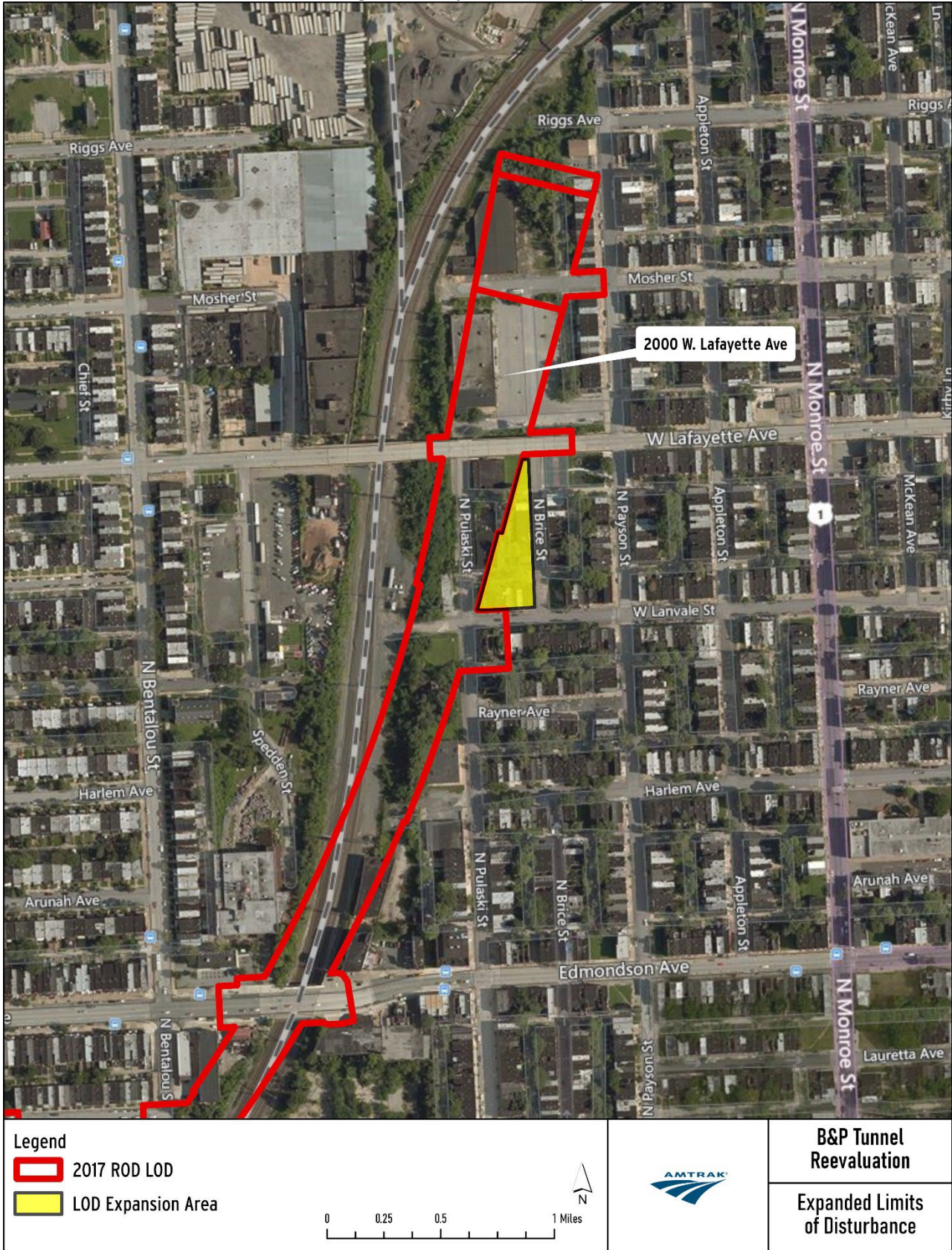
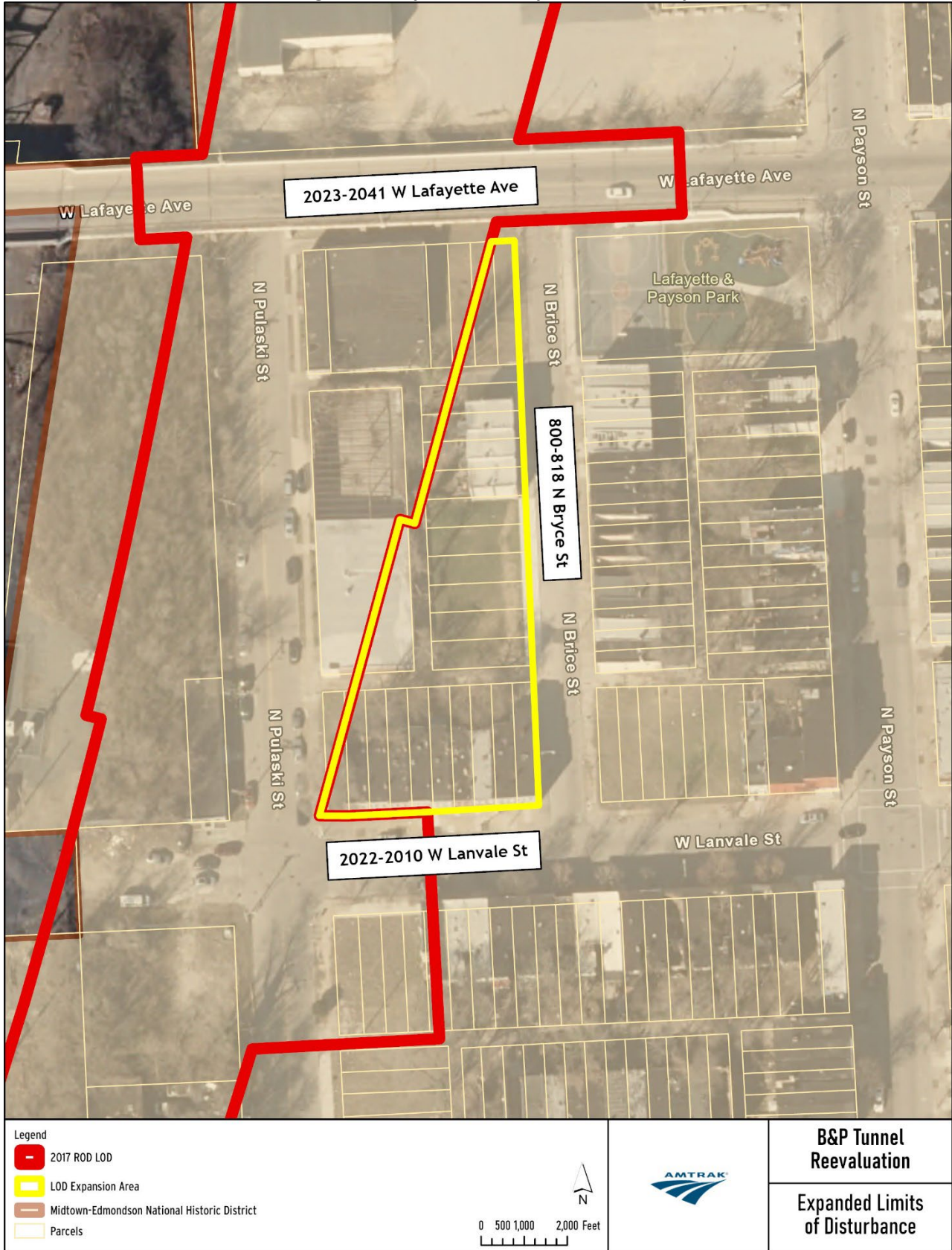


Figure 3: Proposed LOD Expansion Close-Up



B. Changes in the Affected Environment

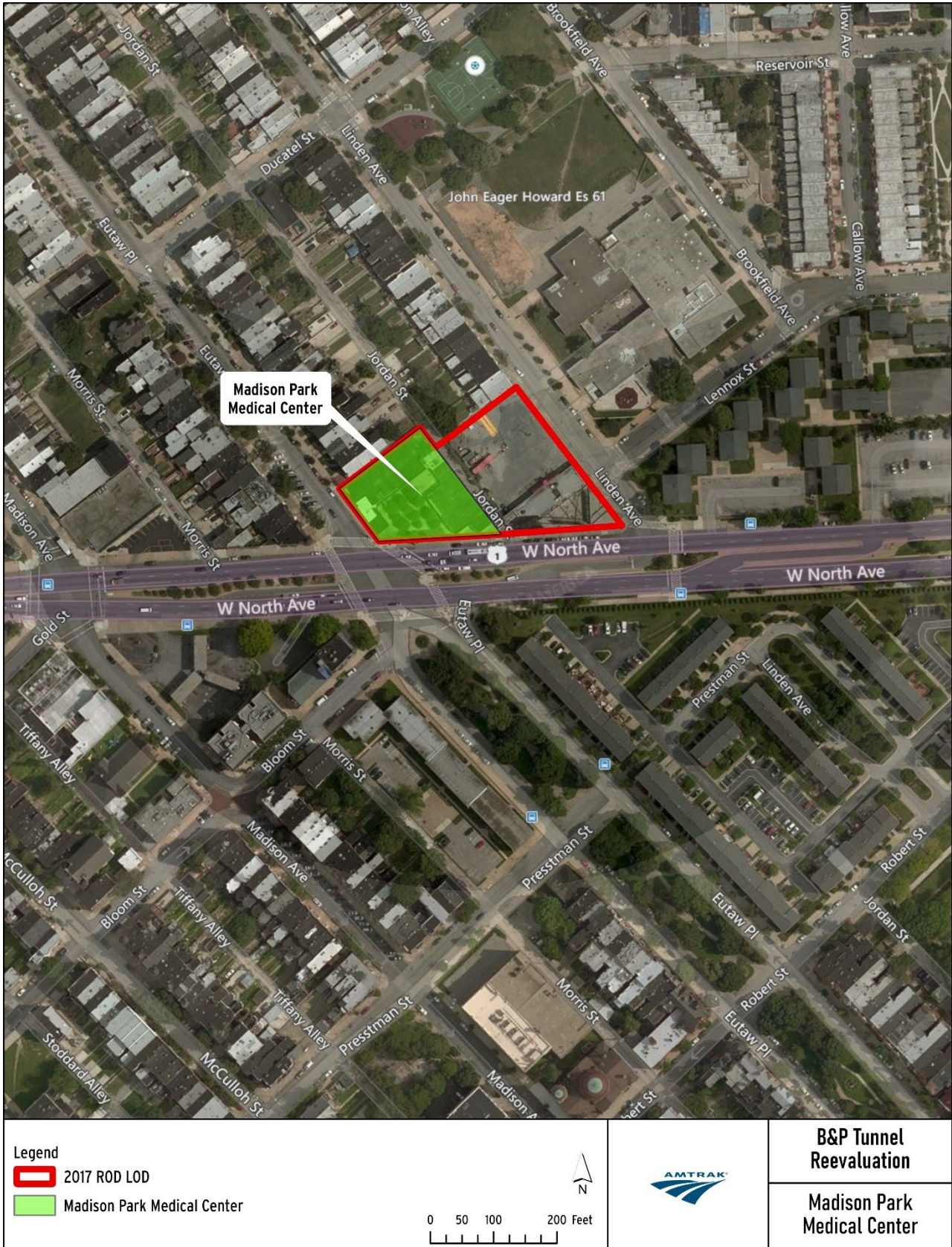
Since FRA's issuance of the ROD in 2017, an additional property, known as the Madison Park Medical Center, is now over 50 years of age, and has been determined eligible for listing on the NRHP by FRA with concurrence from the Maryland State Historic Preservation Officer (MD SHPO) (the Maryland Historical Trust [(MHT]) received on April 25, 2022. This property is located at 920 W. North Avenue, between Eutaw Place and Jordan Street, in Baltimore, as shown in **Figure 4**. The property, formerly occupied by several individual medical practices and related offices, is 0.57 acres in size and currently contains a one-story, vacant building built in 1970 with a landscaped concrete courtyard. The Madison Park Medical Center was identified in the FEIS as needing to be demolished as part of the Project; the need to demolish the property in order to construct the Project has not changed. However, since the date of the FEIS/ROD, this property has been determined to be a historic property eligible for listing on the NRHP. Consequently, it is also a historic site protected under Section 4(f) of the U.S. Department of Transportation Act of 1966 (Section 4(f)).R

Additionally, one building that would be impacted by the Selected Alternative, a former grocery store constructed in 1965 and located at 2000 W. Lafayette Avenue (see **Figure 2**), is now considered a contributing element to the NRHP-eligible Midtown Edmondson Historic District and is protected under Section 4(f). This change is based on an updated 2022 NRHP nomination for the historic district provided by the MD SHPO.

Another change in the affected environment related to residential and business displacements identified for this Reevaluation is that three rowhouses identified in the FEIS as residential displacements have since been demolished by others, i.e., independent of the B&P Tunnel Project.

The above Project changes and changes in the affected environment have been considered in the discussion of environmental impacts under **Section IV**.

Figure 4: Madison Park Medical Center



IV. ENVIRONMENTAL IMPACTS

This section provides a brief summary of the environmental impacts reported in the FEIS, and a discussion of any difference in the impacts resulting from the proposed LOD expansion and changes in the affected environment. Refer to Chapter 6 of the FEIS for more detailed discussion of environmental impacts. Except where noted in this Reevaluation, all impacts are anticipated to remain unchanged from those described in the FEIS and Reevaluation No. 1.

Table 1 provides a summary of the impacts described in the FEIS and Reevaluation No. 1 and any changes to those impacts.



Table 1: Summary of Changes to Environmental Impacts

Resource Type	Impacts – FEIS	Impacts – Reevaluation No. 1	Impacts – Reevaluation No. 2
Socioeconomics	Displacement of 22 residential buildings, 13 businesses, four places of worship. Community and visual impacts from portals, ventilation facilities and trackway.	Of the 13 businesses identified as displacements in the FEIS, six are no longer in operation, resulting in a revised estimated total of seven business displacements.	Displacement of 12 additional residential buildings in the proposed LOD expansion area at N. Bryce and W. Lanvale, all located within environmental justice population areas. Three of the buildings identified in the FEIS as displacements have since been demolished, and one would be avoided resulting in a net total of 30 residential building displacements. Four of the 12 residential buildings in the proposed LOD expansion area are currently occupied.
Cultural Resources	Adverse effect to nine historic properties.	Potential reduced visual effect of shorter IVF in Reservoir Hill Historic District.	<p>Demolition of 12 additional buildings, all contributing elements, in the Midtown Edmondson Historic District within the proposed LOD expansion area on N. Brice and W. Lanvale Streets. One property (2000 W. Lafayette Avenue), identified for demolition in the FEIS, has been newly identified as a contributing element to the Midtown Edmondson Historic District. Three contributing rowhouses, identified for demolition in the FEIS, have since been demolished, and one would be avoided, resulting in a net increase of nine buildings to be demolished that contribute to the Midtown Edmondson Historic District.</p> <p>One additional historic property adverse effect at the Madison Park Medical Center. The property was identified for demolition in the FEIS but has since been identified as NRHP-eligible.</p> <p>No archaeological resources have been previously identified within the proposed LOD expansion area. In accordance with Stipulation VI of the Section 106 PA, appropriate treatment measures associated with</p>



Resource Type	Impacts – FEIS	Impacts – Reevaluation No. 1	Impacts – Reevaluation No. 2
Section 4(f)	Section 4(f) Use of nine historic properties. <i>De minimis</i> impact to three historic properties.	No change	<p>archaeological resources will be completed within the APE, including the proposed LOD expansion area, prior to ground disturbing activities.</p> <p>One additional Section 4(f) use at the Madison Park Medical Center, for a total of 10 Section 4(f) properties requiring use.</p> <p>At the proposed LOD expansion area, there would be an increased impact associated with the previously identified Section 4(f) use of the Midtown Edmondson Historic District. There would be 12 additional contributing buildings demolished in the Midtown Edmondson Historic District within the proposed LOD expansion area on N. Brice and W. Lanvale Streets. One property (2000 W. Lafayette Avenue), which continues to be identified for demolition, has been newly identified as a contributing element to the Midtown Edmondson Historic District. Three contributing rowhouses, identified as impacts in the FEIS, have since been demolished separately from the Project, and one would be avoided. As a result, there would be a net increase of nine buildings demolished that contribute to the Midtown Edmondson Historic District.</p>
Natural Resources	Impacts to soils, 3.4 acres of floodplain, 109,750 square feet of forest stands, 40,200 square feet of hedge rows, 101 street trees and landscaped trees.	No change	Potential increase of hedge row impacts within the proposed LOD expansion area by 3,400 square feet for a total of 43,600. A field survey will be required to identify roadside tree resources and specimen trees within the proposed LOD expansion area that may be impacted by proposed construction. No changes to other natural resources impacts would occur.

Resource Type	Impacts – FEIS	Impacts – Reevaluation No. 1	Impacts – Reevaluation No. 2
Hazardous Materials	112 sites of concern within one mile of the alignment, including 67 low-priority sites, 38 moderate priority locations and 7 high-priority sites.	No change	No additional sites of concern would be impacted. Additional building demolition materials could contain lead-based paint or asbestos, which would be identified and properly disposed of during construction.
Solid Waste	47 million cubic feet of soil and rock excavated and disposed for boring and excavation.	Per the phased implementation, excavation would be divided between Phase 1 and Phase 2.	No change to solid waste from excavation. Additional construction debris would be negligible.
Air Quality	Increased diesel emissions from diesel MARC trains. The modeled net increase in emissions did not exceed the applicable de minimis thresholds.	Reduced diesel emissions relative to the Final EIS due to MDOT MTA implementation of electrified MARC operations through the Frederic Douglass Tunnel (separate from the B&P Tunnel Project).	No change
Noise	Residential and institutional land uses would be affected. For residential land uses, 437 persons were predicted to be impacted near the south portal, of which 141 were predicted to be severely impacted. One school (Mary Ann Winterling Elementary) would be moderately impacted.	Operational noise impacts would be unchanged. Freight trains would continue to use the existing B&P Tunnel until Phase 2 is completed.	Severe noise impacts reduced by 17 and moderate noise impacts reduced by 2 due to buildings having been demolished by others separately from the Project during the time between the ROD and this Reevaluation, or proposed to be demolished under this Reevaluation No. 2.
Vibration	No ground-borne vibration impacts from operation exceeding Federal Transit Administration frequent impact criteria or high enough to damage buildings. Ground-borne noise impacts to 444 residences.	Operational vibration and ground-borne noise impacts would be unchanged. Freight trains would continue to use the existing B&P Tunnel until Phase 2 is completed.	Ground-borne vibration impacts reduced by 19 due to buildings already demolished by others separate from the Project, or proposed to be demolished under this Reevaluation No. 2.

Resource Type	Impacts – FEIS	Impacts – Reevaluation No. 1	Impacts – Reevaluation No. 2
Construction Impacts	Localized impacts at the mucking shaft and portal cut-and-cover locations, emissions and dust from construction vehicles, blasting noise and vibration near tunnel portal and ventilation shaft locations, temporary interruptions to vehicular and pedestrian traffic, temporary loss of on-street parking, major utility relocations, urban rodent activity, and bat impacts.	Construction impacts would occur in two phases separated by a period of no construction activity. The reduced diameter Phase 1 tunnels would result in less material to excavate and haul, resulting in reduced impacts from operation of vehicles and equipment during Phase 1. The overall construction time frame would be increased as described in Reevaluation No. 1. Tunnel boring, excavation and construction of the IVF would still occur over an approximate 5-7 year time frame. The overall amount of construction work completed would not increase; however, the local community may experience some effects from construction, such as noise and traffic interruptions, for a longer period of time than anticipated in the ROD.	Construction activity would be located within the proposed LOD expansion area, with potential impacts such as noise, dust, vibration, and visual impact from equipment. No other notable changes in construction impacts would occur.

Resource Type	Impacts – FEIS	Impacts – Reevaluation No. 1	Impacts – Reevaluation No. 2
Indirect and Cumulative Effects	<p>Minor indirect effects to land use, population density, or growth rate in Baltimore City. Potential indirect effects to community growth and cohesion from the IVF. Substantial indirect benefits to transportation. Potential cumulative effects to areas impacted by Project CORE demolitions and US 40 highway operation.</p> <p>As discussed in Reevaluation No. 1, there would be potential reduced indirect effects from a shorter IVF (from reduced visual impact to community cohesion).</p>	Potential reduced indirect effects (visual, community cohesion) from a shorter IVF.	Indirect and cumulative effects would be substantially similar to those described in the FEIS.
Public Health and Safety	No impacts to public health. New tunnels would conform to the comprehensive life safety approach included in the NFPA Standard for Fixed Guideway Transit and Passenger Rail Systems-NFPA 130, resulting in improved safety compared to existing conditions.	No change	No change
Energy	Energy consumption would increase; however, the forecasted increase in daily passenger trips includes passengers diverted from less energy efficient modes of travel, such as single-occupant automobiles.	No change	No change

Resource Type	Impacts – FEIS	Impacts – Reevaluation No. 1	Impacts – Reevaluation No. 2
Visual / Aesthetic Quality	The Project would result in visual and aesthetic quality changes to the surrounding environment from the tunnel portals, ventilation facilities, and the new tracks and railroad bed at each end of the portals (trackway).	Potential reduced visual effect of shorter IVF.	No Change

The following sections (IV.A through IV.J) provide a brief summary of the impacts reported in the FEIS, and a discussion of any relevant changes from the proposed LOD expansion and changes in the affected environment.

A. Socioeconomics

The Selected Alternative would be bored to an average depth of 115 feet below the existing surface. As a result, surface land use impacts would be restricted to portal and ventilation facility locations, as well as areas required for construction purposes. The Selected Alternative would impact approximately 1.1 acres of residential land use, 2.6 acres of industrial land use, 3.4 acres of commercial land use, and 6.7 acres of other land uses. Due to the proposed LOD expansion area, the total for residential land use includes a 0.6-acre increase from the previous 0.5-acre estimation in the ROD.

Since the publication of the ROD, three residential buildings, located at the southeast corner of W. Lanvale Street and N. Pulaski Street in the LOD from the ROD have been demolished by others independent of the B&P Tunnel project. One building identified in the ROD as requiring demolition would now be avoided, based on more accurate mapping. Visual survey of the study area conducted in August 2021 concluded that no other buildings have been constructed or demolished in the LOD from the ROD, including residences, businesses, and community facilities. It has not yet been determined what the permanent use of the proposed LOD expansion area would be after construction; the land may be used for environmental mitigation purposes (such as new parkland or stormwater management) or returned to other non-transportation use.

The proposed LOD expansion area at W. Lanvale Street and N. Brice Street encompasses 12 residential buildings that would be demolished. The previous total of residential demolitions from the FEIS was 22 buildings. Factoring in the 3 buildings that have been demolished since and one avoided, and the 12 residential buildings within the proposed LOD expansion area, the new estimated total for residential buildings requiring demolition is 30. All residential buildings identified for demolition are rowhouses. Four of the newly impacted buildings are occupied and would require relocation of the current residents. Amtrak will perform all property acquisition activities, including relocations, in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) and all applicable state laws. Individuals relocated pursuant to the Uniform Act would experience temporary adverse effects from relocation.

No changes to businesses or community facility impacts would occur due to the proposed LOD expansion. The FEIS reported a total of 13 business displacements, including six at the south portal and seven at the IVF. Six businesses are no longer in operation, resulting in a reduced total of 7 business displacements. These displacements would occur in the Bridgeview/Greenlawn, Midtown Edmondson, and Reservoir Hill neighborhoods. Four places of worship, all located in the Midtown Edmondson neighborhood, would be displaced as a result of south portal construction. The Project would result in visual and aesthetic quality changes to the surrounding environment from the tunnel portals, ventilation facilities, and the new tracks and railroad bed at each end of the portals (trackway). Visual and aesthetic impacts would be unchanged from those reported in the FEIS.

Demographically, the existing conditions of the areas impacted by the Project have remained consistent in their socioeconomic characteristics since the FEIS and ROD based on a review of US Census data. The Selected Alternative would still have disproportionately high and adverse effects to Environmental Justice (EJ) populations as a result of the property acquisitions and displacements described in the FEIS due to impacts to housing, land use/zoning, community facilities, visual quality, and noise. Impacts to EJ populations would be greater due to the increase in residential displacements and residential building demolitions described in this

Reevaluation. Amtrak will implement the commitments in the ROD to address the Project's socioeconomic impacts (see **Mitigation Section V**). Amtrak will continue to conduct outreach efforts as described in **Section VI**.

B. Cultural Resources

A Section 106 Programmatic Agreement (PA) for the Project was executed among FRA, Amtrak, MD SHPO, and Preservation Maryland on March 2, 2017. The PA summarizes the results of the Section 106 review and consultation process that occurred concurrently with preparation of the EIS, stipulates measures to resolve adverse Project effects to architectural and archaeological resources, and establishes a process for identifying and evaluating additional historic properties as Project design advances. At the time the ROD was issued and the PA executed, FRA had determined and the MD SHPO had concurred that the Selected Alternative would have an adverse effect on nine historic properties: the Baltimore and Ohio Belt Line Railroad, the Baltimore and Ohio Belt Line Bridge over Jones Falls Valley, the Baltimore and Potomac Railroad, the Reservoir Hill Historic District, the Midtown Edmondson Historic District, Bridge BC 2410 Lafayette Avenue over Amtrak, the Atlas Safe Deposit and Storage Company Warehouse Complex, the Greater Rosemont Historic District, and the Edmondson Avenue Historic District. In addition, FRA determined and the MD SHPO concurred that the Selected Alternative is located in an area with potential for both pre- and post-contact archaeological resources. The PA establishes procedures for the identification, evaluation, and assessment of effects for archaeological historic properties throughout the APE once the designs were sufficiently advanced for the Program.

Since issuance of the ROD, two additional architectural resources, the Madison Park Medical Center property at 920 W. North Avenue and a commercial building at 2000 W. Lafayette Avenue, were identified as needing further consideration pursuant to Section 106 due to the passage of time. The Madison Park Medical Center, formerly occupied by several individual medical practices and related offices, was constructed in 1970 and recently became 50 years old. The property, containing a building and a landscaped concrete courtyard, was surveyed, documented on a MD SHPO Determination of Eligibility (DOE) Form, and determined eligible by FRA for listing in the NRHP in consultation sent to consulting parties, including federally recognized Indian tribes, on March 4, 2022. The MD SHPO concurred on April 25, 2022 with FRA's NRHP eligibility determination and that the proposed demolition of the Madison Park Medical Center as noted in the FEIS would be an adverse effect to the newly identified historic property (see **Attachment 2**). The building at 2000 W. Lafayette Avenue, a former grocery store constructed in 1965, was confirmed to be a contributing element to the NRHP-eligible Midtown Edmondson Historic District using an updated 2022 NRHP nomination for the historic district provided by the MD SHPO. Resolution of the Project's adverse effects to these properties have been appropriately considered in accordance with Stipulation VII (Project Changes) of the PA and are included in the Section V: Mitigation. Further, in accordance with Stipulation VI (Treatment Measures for Archaeological Resources) of the PA, the supplemental Phase IA archaeological survey is currently underway to further define areas of archaeological sensitivity within the APE, including the proposed LOD expansion area, and provide recommendations for further archaeological survey to identify and evaluate archaeological resources in areas of moderate to high archaeological sensitivity.

The proposed LOD expansion area is comprised of approximately 0.7 acres in the NRHP-eligible Midtown Edmondson Historic District. This area is entirely within the Project's Section 106 Area of Potential Effects (APE), which did not need to be revised to account for additional effects, and the identified historic district. The proposed LOD expansion area includes nine properties on the west side of N. Brice Street and nine properties on the north side of W. Lanvale Street. Of the nine properties on N. Brice Street, between W. Lanvale Street and W. Lafayette Avenue, six were demolished by others separately from the B&P Tunnel Project since the FEIS. Three properties on N. Brice Street and the nine properties on W. Lanvale Street,

between N. Pulaski Street and N. Brice Street, remain extant and are contributing elements to the historic district. The proposed demolition of the 12 additional historic rowhouses would be part of the adverse effect to the Midtown Edmondson Historic District. This additional adverse effect finding does not alter the overall finding of the Project, which has already been determined to constitute an adverse effect to the Midtown Edmondson Historic District.

As part of the process to resolve adverse effects, FRA determined the mitigation will be consistent with the measures identified in the PA for the adverse effects to historic properties (see **Section V** and **Attachment 2**). On November 1, 2022, the MD SHPO agreed with the proposed recordation and interpretation mitigation treatment measures. Section 106 consultation, including an assessment of effects to the NRHP-eligible Midtown Edmondson Historic District and mitigation recommendations, has been completed for architectural history in accordance with Stipulation VII of the executed Section 106 PA.

Section 106 consultation is ongoing regarding the identification and assessment of effects for archaeological historic properties within the APE, including the proposed LOD expansion area. As per Stipulation VI of the PA, the supplemental Phase IA archaeological survey is currently being finalized and will be distributed to the MD SHPO and the other consulting parties for review and comment in accordance with Stipulation XI of the PA. Following completion of the supplemental Phase IA survey, qualified archaeologists will perform further archaeological surveys in portions of the APE determined to have a moderate to high archaeological sensitivity, in order to identify, evaluate, and assess the effects to archaeological historic properties that may be present. No ground disturbing activities would occur within the proposed LOD expansion area until after all appropriate treatment measures for archaeological resources has been completed in accordance with Stipulation VI of the PA.

Protection measures for archaeological resources specifically related to demolition activities are documented in the “Historic Properties Construction Protection Plan: Demolition Activities” (CPP-Demolition) dated October 24, 2022, and its Addendum #1 dated July 3, 2023. The signatories and other concurring parties received these documents in accordance with the Section 106 PA and had no objections to the treatment measures described. In accordance with the CPP-Demolition, as amended, archaeological treatment measures – in this case protection – would be adhered to during all Program demolitions, including for the 12 residential buildings within the proposed LOD expansion area and the Madison Park Medical Center. The protection measures would protect unpaved ground surfaces in order to protect archaeological resources that may be present and facilitate any additional archaeological investigations that may be required prior to future ground disturbing activities. The ground protection measures include:

- The contractor will conduct all activities pertaining to demolition of residential buildings from the front/street side of the building to be demolished, pulling the back and side walls of the building toward the front/street side or onto existing paved areas, to the greatest extent possible, to prevent damage to surface and subsurface archaeological features and artifacts in the back and side yards. In the event that unpaved areas cannot be avoided during demolition activities, the contractor will cover the unpaved areas to be affected with pressure distributing mats. These measures are necessary to prevent soil compaction and protect archaeological features and artifacts.
- The following treatment pertains to all areas of exposed ground surfaces (unpaved) that could be affected on the demolition site and adjacent properties to prevent damage to surface and subsurface archaeological features and artifacts in the back and side yards.
 - Use of heavy equipment, either wheeled or tracked vehicles, should be avoided. If the use of such equipment cannot be avoided, the contractor will cover the exposed ground surfaces that could be affected with pressure distributing mats prior to commencing demolition-related activities.

- The stockpiling of architectural debris associated with the demolition should be avoided. If stockpiling of debris cannot be avoided, the contractor will cover the exposed ground surfaces that could be affected with pressure distributing mats prior to commencing demolition-related activities.
- The staging of construction equipment (such as dumpsters) or supplies is prohibited.
- Discarding of debris from lunch breaks, smoke breaks, or other associated personal activities is prohibited.
- Parking of privately owned vehicles or demolition company vehicles is prohibited

In addition to the properties within the proposed LOD expansion area that have been demolished since issuance of the ROD, three contributing properties to the Midtown Edmondson Historic District located within the Project APE, which were proposed for acquisition and demolition as part of the Project, are no longer extant. These properties are 2039, 2041, and 2043 W. Lanvale Street. Additionally, one rowhouse located at 2037 W. Lanvale Street would no longer be physically affected by the Project. While these project changes lessen the adverse effect to the Midtown Edmondson Historic District, it does not change the adverse effect determination.

C. Section 4(f)

The FEIS included a Final Section 4(f) Evaluation (Evaluation) that assessed the use of properties protected under Section 4(f) of the U.S. Department of Transportation Act of 1966 by the B&P Tunnel Project alternatives. Based on the Evaluation, FRA determined there are no feasible and prudent alternatives that would avoid use of all Section 4(f) properties. FRA concluded the Selected Alternative would result in the least overall harm in light of the Section 4(f) statute’s preservation purpose, and identified appropriate measures to minimize harm. The Selected Alternative incorporates all possible planning to minimize harm to Section 4(f) properties, as documented in the Evaluation and FEIS.

The FEIS reported that the Selected Alternative would result in the use of nine Section 4(f) properties: the Baltimore and Ohio Belt Line Railroad, Baltimore and Ohio Belt Line Bridge over Jones Falls Valley, Baltimore and Potomac Railroad, Midtown Edmondson Historic District, Bridge 2410/Lafayette Avenue over Amtrak, Greater Rosemont Historic District, Atlas Safe Deposit and Storage Company Warehouse, the Edmondson Avenue Historic District, and the Reservoir Hill Historic District. The Selected Alternative would have *de minimis* impacts on three Section 4(f) properties: Fire Department Engine Company No. 36, the Ward Baking Company, and the Union Railroad.

Due to the proposed LOD expansion area, impacts to twelve additional resources contributing to the Midtown Edmondson Historic District have been identified since the ROD was issued. The property at 2000 W. Lafayette Avenue was also identified in the FEIS as being impacted by the Selected Alternative, but was identified as a contributing element to the Midtown Edmondson Historic District after the ROD, based on a 2022 update to the draft NRHP nomination for the historic district. One additional Section 4(f) use would be required at the Madison Park Medical Center property at 920 W. North Avenue, which was identified in the FEIS as being impacted by the Selected Alternative through demolition, but was not identified as a historic site until the MD SHPO concurred with FRA’s NRHP eligibility determination on April 25, 2022 (see **Attachment 2**). Both properties are subject to the stipulations included in the Section 106 PA, as described in **Section IV.B**.

1. Midtown Edmondson Historic District

Twelve resources contributing to the Midtown Edmondson Historic District are within the proposed LOD expansion area described in this Reevaluation. These are all rowhouses located on N. Brice and W. Lanvale Streets:

- 816 N. Brice Street
- 814 N. Brice Street
- 812 N. Brice Street
- 2022 W. Lanvale Street
- 2024 W. Lanvale Street
- 2026 W. Lanvale Street
- 2028 W. Lanvale Street
- 2030 W. Lanvale Street
- 2032 W. Lanvale Street
- 2034 W. Lanvale Street
- 2036 W. Lanvale Street
- 2038 W. Lanvale Street

The impact to these properties would constitute new Section 4(f) uses to contributing elements to the Midtown Edmondson Historic District.

Since the publication of the ROD, three rowhouses along W. Lanvale Street that are contributing elements to the Midtown Edmondson Historic District have been demolished by others separately from the Project, and thus would no longer be impacted by the Project. These properties are:

- 2043 W. Lanvale Street
- 2041 W. Lanvale Street
- 2039 W. Lanvale Street

Additionally, one rowhouse located at 2037 W. Lanvale Street would no longer be impacted by the Project based on more accurate property mapping.

In summary, the total of contributing elements demolished in the Midtown Edmondson Historic District (including 2000 W. Lafayette Avenue) as part of the Project would be 36, an increase of 9 compared to the total of 27 reported in the FEIS.

The additional impacts to this Section 4(f) resource would not result in substantial changes to the analysis included in the Final Section 4(f) Analysis and subsequent 2022 Addendum (**Attachment 1**). There are no feasible and prudent alternatives that completely avoid the use of Section 4(f) property. The Selected Alternative would still be the alternative with least overall harm, and the incremental increase of impacts to the Midtown Edmondson Historic District would not substantially alter the findings of the least overall harm analysis. A more detailed discussion is included in the attached Section 4(f) Addendum (**Attachment 1**).

2. Madison Park Medical Center

The Madison Park Medical Center at 920 W. North Avenue is located at the site of the proposed IVF for the Selected Alternative as presented in the FEIS and ROD. Demolition of all properties from 900 to 940 W. North Avenue, including the medical center, would be necessary to construct the IVF. The demolition and permanent incorporation of the Madison Park Medical Center into a transportation facility would constitute a Section 4(f) use. FRA determined that demolition of the building would result in a Section 106 adverse effect per 36 CFR § 800.5.

Amtrak has incorporated all possible planning to minimize harm to the Section 4(f) resource. 23 CFR § 774.17 requires that, "In evaluating the reasonableness of measures to minimize harm under § 774.3(a)(2), the Administration will consider the preservation purpose of the statute and:

- (i) The views of the official(s) with jurisdiction over the Section 4(f) property;
- (ii) Whether the cost of the measures is a reasonable public expenditure in light of the adverse impacts of the project on the Section 4(f) property and the benefits of the measure to the property, in accordance with § 771.105(d) of this chapter; and

(iii) Any impacts or benefits of the measures to communities or environmental resources outside of the Section 4(f) property.”

Demolition of all buildings at the 900-940 W. North Avenue site would be required for the construction of the IVF at that location; therefore, avoidance of the Madison Park Medical Center historic site would not be possible unless an alternate location for the IVF is selected. However, as described in the FEIS (and summarized in the attached Section 4(f) Addendum), relocation of the IVF would not be a reasonable measure to minimize harm per the definition in 23 CFR § 774.17 because no reasonable alternate sites exist. The Section 4(f) Addendum provides additional details on the identification of the IVF site and alternate sites considered. Because it is not possible to avoid demolition of the Madison Park Medical Center property as part of the Project, FRA consulted with the MD SHPO and the other consulting parties in accordance with Stipulation VII.B.2-4 of the Section 106 PA to identify appropriate treatment measures that Amtrak must implement to resolve the Project’s adverse effect on this historic property. Because the Section 4(f) property is a historic property subject to the requirements of Section 106 and the executed PA for the Project, the Section 4(f) requirement to incorporate all possible planning to minimize harm is still fulfilled in consideration of the additional Section 4(f) property impact.

The Section 4(f) regulations at 23 CFR § 774.5(a) stipulate that, “Prior to making Section 4(f) approvals under § 774.3(a), the Section 4(f) evaluation shall be provided for coordination and comment to the official(s) with jurisdiction over the Section 4(f) resource and to the Department of the Interior [DOI], and as appropriate to the Department of Agriculture and the Department of Housing and Urban Development. The Administration shall provide a minimum of 45 days for receipt of comments. If comments are not received within 15 days after the comment deadline, the Administration may assume a lack of objection and proceed with the action.” FRA provided the Section 4(f) Addendum, which updates the Final Section 4(f) Evaluation, to the MD SHPO, as the official with jurisdiction, and the US DOI for review on June 27, 2023. The US DOI responded on August 10, 2023, and concurred that the Final Section 4(f) Evaluation and Addendum has demonstrated there are no feasible and prudent alternatives that would avoid the use of the Section 4(f) properties. US DOI had no additional comments. The MD SHPO responded via email on August 14, 2023, and concurred with the Final Section 4(f) Evaluation and Addendum that FRA has demonstrated there are no feasible and prudent alternatives to avoid the use of the Section 4(f) properties.

D. Natural Resources

Potential natural resource impacts from the Selected Alternative include impacts to soils, water resources, and wildlife habitat. The Selected Alternative would remove large quantities of soil through either tunnel boring or cut-and-cover construction. Construction areas would also expose the soil surface in portal and vent shaft locations, requiring stabilization to limit surface runoff and sediment pollution to surface waters. Minor impacts to water quality are possible from sediment and other construction-related runoff but would be limited by required erosion and sediment control measures. The Selected Alternative includes measures to ensure compliance with all applicable stormwater management regulations. The Selected Alternative would impact approximately 3.4 acres of the Jones Falls’ 100-year and 500-year floodplains, including a permanent impact from new track construction and a temporary impact from construction staging areas.

For this Reevaluation, natural resources within the proposed LOD expansion area were preliminarily identified based on review of existing scientific literature, watershed reports, geographic information system (GIS) databases, and mapping. A desktop investigation of the available mapped information identified site topography; hydric and highly erodible soils; non-tidal waters and wetlands and their associated buffers; and 100-year floodplain from the following agency resources:

- Baltimore City Topographic GIS data (2-foot contours)

- The U.S. Department of Agriculture, Natural Resource Conservation Service (USDA-NRCS) Web Soil Survey (WSS) for Baltimore City, Maryland
- Maryland Department of Natural Resources (MDNR) Wetlands, Waters, and Forest Interior Dwelling Species (FIDS) habitat GIS data
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) GIS data
- Federal Emergency Management Agency (FEMA) 100-year floodplain GIS data

1. Geology, Topography, and Soils

The Project is located within the Piedmont Plateau Physiographic Province of Maryland, Perry Hall Upland District. The elevation within the proposed LOD expansion area ranges from approximately 152 to 154 feet above sea level. The USDA-NRCS Web Soil Survey for Baltimore City identified one mapped soil unit, Urban Land, 0-15% slopes (44UC), within the proposed LOD expansion area. The mapped soil unit is not classified as a hydric soil, highly erodible, or classified as prime farmland.

2. Wetlands and Waterways

The Project is located within the Gunpowder-Patapsco Federal 8-digit Watershed (02060003) and the Gwynns Falls MD 8-digit Watershed (02130905). No wetlands or waterways are within the proposed LOD expansion area, according to MDNR and USFWS NWI GIS data.

3. 100-Year Floodplain

The proposed LOD expansion area is not located within a FEMA mapped 100-year floodplain.

4. Terrestrial Habitat

The Selected Alternative would have minor impacts on wildlife and habitat because most of the Project would take place underground. Above-ground trackwork, portals, and ventilation facilities would primarily impact urban areas with little habitat value. As reported in the FEIS, the Selected Alternative would impact four forest stands totaling approximately 109,750 square feet (SF). An estimated 101 street trees and landscaped trees would be removed due to construction impacts near the tunnel portals and ventilation facilities. As noted in the FEIS, the existing tunnel would be closed and reserved for potential future rail transportation use during Phase 2, which could impact any bat populations present.

The FEIS noted that “no Maryland or federally-listed threatened or endangered species are known to exist within the Study Area” (FEIS Section VI.E.6.b). Amtrak will conduct an updated USFWS IPaC online database query and complete any necessary coordination regarding threatened or endangered species prior to construction.

A desktop assessment was conducted within the proposed LOD expansion area through aerial photography in GIS. The proposed LOD expansion area does not contain any forests; however, the area includes individual trees and a hedgerow. The proposed LOD expansion would result in an increase of hedgerow impacts by 3,400 square feet for a total of 43,600. A field survey will be required to identify roadside tree resources and specimen trees within the proposed LOD expansion area that may be impacted by construction. Affected street trees, forest stands, and hedgerows would be replaced in accordance with a Project Street Tree Protection Plan and Forest Conservation Plan, which were included as mitigation commitments in the ROD.

E. Hazardous Materials

Construction of the Selected Alternative near contaminated sites is expected to involve encounters with contaminated soil and groundwater. Refer to the Final EIS for a list and description of the hazardous materials sites of concern.

The proposed LOD expansion area is within the study area of the Hazardous Materials Assessment conducted in 2015. The hazardous materials assessment was subsequently updated in 2016 for Alternative 3A, Alternative 3B, and Alternative 3C as presented in the FEIS. The assessments did not identify any sites of concern within the entire block bounded by W. Lafayette Avenue, N. Brice Street, W. Lanvale Street, and N. Pulaski Street, which includes the proposed LOD expansion area. Therefore, no additional assessments are needed, and the findings and conclusions of the Hazardous Materials Assessment presented in the ROD remain valid. Refer to Appendix 3 of the 2015 Hazardous Materials Assessment for maps of potential hazardous materials sites identified in this vicinity.

As stated in Section VI.F.2.b of the FEIS, building demolition materials can contain asbestos or lead-based paint. All environmentally hazardous materials and contaminants encountered or mobilized during construction of the Project, including the demolition of buildings within the proposed LOD expansion area, would be investigated, handled, and mitigated in accordance with applicable Federal, state and local laws and regulations.

Mitigation measures would be needed where construction encounters contaminated soil and/or groundwater. As stated in Section VI.F.2 of the FEIS, "Targeted investigations within the Preferred Alternative alignment and construction LOD will identify existing contaminant conditions that could be mobilized during construction. Hazardous materials or contaminated sites in the vicinity of the Preferred Alternative will be identified, and, if they are encountered during the subsurface investigation, mitigation and remediation actions will occur in the design and construction phases of the project to minimize or eliminate potential impacts to the surrounding community or local environment."

F. Solid Waste

As reported in the FEIS, the Project would require excavation and disposal of roughly 47 million cubic feet of soil and rock. Excavation would be divided between Phase 1 and Phase 2. The proposed new building demolitions described in this Reevaluation would result in additional solid waste, however, this change would be negligible relative to the overall volume of solid waste anticipated for the Project. Furthermore, the Project would include salvage of historic building materials for reuse per the Section 106 PA, reducing the volume of waste generated from building demolition.

G. Air Quality

The Project is located in Baltimore City, Maryland, which is designated by the U.S. Environmental Protection Agency as a moderate nonattainment area for the eight-hour ozone, and a maintenance area for Particulate Matter 2.5. Although a portion of Baltimore City is designated as a maintenance area for Carbon Monoxide, the Project is located outside of the maintenance area.

No changes to the results of the air quality analysis included in the FEIS would occur as a result of the proposed LOD expansion, or the changes in the affected environment described in this Reevaluation.

H. Noise

The FEIS reported that residential land uses with a total of 437 persons were predicted to be impacted near the south portal, of which 141 were predicted to be severely impacted.¹ Severe noise impacts would be reduced by 17 and moderate noise impacts would be reduced by 2 due to buildings (i.e., noise receptors) already being demolished by others separately from the Project, or proposed to be demolished as part of the Project as described in this Reevaluation. Other noise impacts would be the same as reported in the FEIS.

I. Vibration

Impacts from the Selected Alternative due to ground-borne vibration from train passbys were not predicted to exceed the FTA frequent impact criteria at FTA Category 1, 2, or 3 land uses. No vibration levels high enough to damage buildings (including fragile historic buildings) were estimated from train operations through the tunnel.

For the FEIS, ground-borne noise levels under the Selected Alternative from train passbys were predicted to exceed the FTA frequent impact criteria at 444 residences and other FTA Category 2 land uses. Ground-borne noise impacts would be reduced by 19 due to buildings (i.e., vibration receptors) already being demolished separately by others or proposed to be demolished as part of the Project as described in this Reevaluation. Other vibration impacts would be the same as reported in the FEIS.

J. Construction Impacts

Construction impacts from Project activities in the proposed LOD expansion area would be largely unchanged relative to those reported in the FEIS and Reevaluation No. 1. Some construction impacts such as noise, vibration, dust and visual impacts from construction equipment would occur within the proposed LOD expansion area during construction.

K. Indirect and Cumulative Effects

The Selected Alternative could indirectly result in changes in land use, population density, and/or growth rate in Baltimore City, but any effects would be relatively minor. Any growth-inducing effects of the improved passenger rail service would be beneficial towards Baltimore City's goals of fostering transit-oriented development and regaining population lost in previous decades. The Selected Alternative would result in a substantial and beneficial indirect effect to transportation. The alternative would result in downstream improvements to the efficiency of passenger rail service along sections of the NEC north and south of Baltimore as a result of the removed travel bottleneck currently created by the aging B&P Tunnel.

The Selected Alternative would require demolition of 30 residential structures (a net increase of 8 relative to the FEIS due to the proposed LOD expansion) resulting in a cumulative impact when added to the demolitions occurring under Project CORE. Direct community impacts such as displacements, noise, and visual impacts resulting from the Selected Alternative would be similar in nature to those resulting from construction and operation of the U.S. 40 highway, a past transportation project that impacted neighborhoods in close proximity to the Project(see FEIS Section VI.M.10). Overall, the indirect and cumulative effects from the Project are not expected to substantially change due to the addition of the proposed LOD expansion area and increase in residential displacements.

¹ A severe impact would occur at 66 dBA or higher for a residential context.
SEPTEMBER 2023

V. MITIGATION

The Final EIS and ROD included commitments to mitigate environmental impacts resulting from the B&P Tunnel Project. As described in Reevaluation No. 1, all mitigation commitments would be completed by Amtrak as part of Phase 1, except measures associated with the disposition of the existing B&P Tunnel, which would be implemented by Amtrak in Phase 2. The comprehensive mitigation commitments included in the ROD and shown in **Table 2** would be applied to any additional impacts in the proposed LOD expansion area and no additional mitigation is necessary.

Table 2: Mitigation Measures from the ROD

No.	Mitigation Measure/Project Commitment	Relevant Impacts Mitigated
Outcome Monitoring		
1	FRA, or another lead agency as determined by future project responsibility, will monitor the outcomes and effectiveness of mitigation efforts by implementing detailed tracking procedures and public reporting.	All
Community		
2	The Selected Alternative will include establishment of a fund to support community development within affected communities. Examples of community development activities include economic development projects, installation of public facilities, community centers, public services, small business assistance, homeowner assistance, community broadband Wi-Fi internet access, and others. The fund will provide funding to not-for-profit community development organizations that serve communities within the corridor for operating expenses and capital projects. Funds will be awarded, based on published criteria, to organizations that are active within 1/4 mile of the Project alignment. Projects that are explicitly included under other mitigation measures, such as park improvements, will not be eligible for mitigation under this measure.	Community facilities, community cohesion, neighborhoods, environmental justice, land use, residential, business, cultural/historic
3	The Selected Alternative will include the provision of relocation benefits to property owners and tenants pursuant to the Uniform Relocation Act.	Residential, business, environmental justice
4	The Selected Alternative will include establishment of a fund for maintenance of, and improvement to, publicly-owned parks and recreation facilities within affected communities. Parks and recreation facilities receiving funding should be located within 1/4 mile of the Project alignment.	Community facilities, environmental justice, community cohesion, neighborhoods
5	The Selected Alternative will include visual screening of ventilation facilities adjacent to schools and other community facilities.	Community facilities

No.	Mitigation Measure/Project Commitment	Relevant Impacts Mitigated
6	The Selected Alternative will include funding to support the improvement or establishment of community gardens, vacant lot greening, and/or the establishment or improvement of public open space within 1/4 mile of the Project alignment.	Community facilities, street trees, stormwater, visual, community cohesion, neighborhoods, land use
7	The Selected Alternative will include a mechanism for public comment in the design and landscaping of Project facilities such as portals, ventilation facilities, and other visible Project structures.	Visual, cultural/historic
Economy		
8	The Selected Alternative will provide coordination with local job training organizations to 1) facilitate targeted job training by providing estimates of the type, number, and timing of jobs expected to be created by project contractors, 2) include goals for nationally-targeted workers of social and economic disadvantage in construction contracts, and 3) require project contractors to report their progress in meeting contract goals on a regular basis. The Project will provide public reporting on job creation.	Environmental justice, business
Transportation		
9	The Selected Alternative will include funding for streetscape infrastructure, pedestrian, and bicycle access improvements within 1/2 mile of the Project alignment with emphasis on access to the West Baltimore MARC Station. Examples include landscaping and street trees, bus stop facilities, benches, trash receptacles, lighting, sidewalk repairs, bike lanes, cycle tracks, crosswalk striping and signaling, traffic calming measures, ADA accessibility, and/or public art.	Street trees, stormwater, visual, transportation, community cohesion, neighborhoods
10	The Selected Alternative will include development of a Traffic Plan that provides protection for safe pedestrian, bicycle, and vehicular movement around work sites during construction and maintains connectivity, where possible. The plan will account for truck haul routes, construction traffic concerns, and municipal solid waste pick-up, and should help minimize transportation impacts during construction. The plan should account for community resources such as schools and parks.	Transportation, community cohesion, neighborhoods, construction, traffic, community facilities, noise
11	The Selected Alternative will include stabilization and securement of the existing B&P Tunnel for potential future rail transportation use. ²	Transportation
12	The Selected Alternative will include the replacement of all impacted station facilities at the West Baltimore MARC Station, and reconstruction of the facility in compliance with the ADA.	Transportation, visual, community facilities, cultural/historic

² Additionally, given the proposed phasing of the project, Amtrak will continue to maintain the existing B&P Tunnel for safe operation of freight traffic until Phase 2 is completed.

No.	Mitigation Measure/Project Commitment	Relevant Impacts Mitigated
13	The Selected Alternative will include additional reasonable amenities at the West Baltimore MARC Station beyond those that currently exist, and beyond those that would need to be replaced in-kind as a result of direct impacts to the Station from the Project. Amenities such as security lighting, technological updates, full platform canopies, or public art may be considered in coordination with MARC and MTA.	Transportation, visual, community facilities
Natural Resources		
14	The Selected Alternative will include the development and implementation of a Stormwater Management Plan in accordance with Maryland Department of the Environment (MDE) guidelines. The plan will focus on stormwater runoff associated with construction activities and surface impacts, both temporary and permanent, throughout the study area.	Stormwater, construction
15	The Selected Alternative will include development and implementation of an Erosion and Sediment Control Plan for construction activities.	Stormwater, construction
16	The Selected Alternative will include implementation of vegetative buffers to screen right-of-way along the NEC in the study area, and develop a mechanism for maintenance of vegetative buffers.	Visual, stormwater
17	The Selected Alternative will include implementation of a Rodent Abatement Plan.	Construction
18	The Selected Alternative will include the development and implementation of a Street Tree Protection Plan and a Forest Conservation Plan.	Street trees
19	The Selected Alternative will include a plan for floodplain mitigation.	Floodplain
20	The Selected Alternative will include a Tunnel Sump Water Treatment and Disposal Plan.	Water resources
21	The Selected Alternative will include assessment of bat populations in the existing B&P Tunnel, and consideration of bat populations in the disposition of the tunnel as appropriate.	Habitat
Hazardous Materials/Emergency Management		
22	The Selected Alternative will include development and implementation of a Hazardous Spill Prevention Plan.	Hazmat
23	The Selected Alternative will include development of an Emergency Management Plan to be implemented in the event of a tunnel emergency.	Safety/hazmat, transportation
24	The Selected Alternative will include development of a Hazardous Materials Remediation Plan to remediate Hazardous Material sites impacted by the Project.	Hazmat
25	The Selected Alternative will include development and implementation of a Screening and Materials Handling Plan for the pumping, segregation, transportation, and disposal of groundwater. Evaluation of any screening and sampling results by an environmental professional will determine health and safety, handling, and off-site disposal requirements.	Hazmat
26	The Selected Alternative will include implementation of a program for the identification and segregation of impacted soils for additional testing and off-site disposal. Evaluation of any screening and sampling results by an environmental professional will determine health and safety, handling, and off-site disposal requirements.	Hazmat

No.	Mitigation Measure/Project Commitment	Relevant Impacts Mitigated
Construction		
27	The Selected Alternative will include development and implementation of a Construction Noise Mitigation Plan. The plan will include to the extent practicable: <ul style="list-style-type: none"> • Location of construction equipment and material staging areas away from sensitive receptors where possible; • Temporary noise barriers and advanced construction of permanent barriers to serve during construction where possible; and • Routing of construction traffic and haul routes along streets in non-noise sensitive areas where possible. 	Noise, construction
28	The Selected Alternative will include development of a Construction Vibration Mitigation Plan to include the following measures: <ul style="list-style-type: none"> • Use of controlled blasting construction for vibration mitigation during drill and blast, and utilize blast covers when applicable. • Implementation of contractor control measures to ensure vibration from the TBM is kept low enough to avoid damaging buildings, including historic buildings, and remains below applicable FTA impact criteria. • Implementation of a vibration monitoring program and pre-survey of buildings in tunneling and blasting areas. 	Vibration, construction, cultural/historic
29	The Selected Alternative will include development and implementation of a Construction Emissions Reduction Plan to include measures such as reducing equipment idling times, utilizing on-site storage to reduce truck haul trips, using low-emissions equipment, dust suppression measures, ensuring the contractor has knowledge of appropriate fugitive dust and equipment exhaust controls, and other measures.	Air quality
30	Construction activities undertaken as part of the Selected Alternative will be performed in accordance with Maryland’s <i>Standard Specifications for Construction and Materials</i> , and Code of Maryland Regulations (COMAR) 26.11.06.03D – <i>Fugitive Particulate Matter from Materials Handling and Construction</i> . The Selected Alternative will include utilization of public information and feedback methods such as construction-alert publications and complaint hotlines to address issues and keep the public informed. Notifications will include information about construction schedules, road closures, transit service impacts, blasting, and contact information.	All construction related
Operational Air Quality		
31	The Selected Alternative will include vertically-oriented fans at ventilation facilities to facilitate dispersion of emissions from locomotives and avoid violation of air quality regulations. ³	Air quality
Operational Noise		

³ Vertically-oriented fans will no longer be implemented at the IVF, because it will not be used for diesel emissions.
 SEPTEMBER 2023

No.	Mitigation Measure/Project Commitment	Relevant Impacts Mitigated
32	The Selected Alternative will include noise barriers to mitigate anticipated operational noise impacts. Ventilation facilities will be designed with noise attenuation measures.	Noise
Operational Vibration		
33	The Selected Alternative will include implementation of operational vibration control measures to mitigate modeled vibration or ground-borne noise impacts exceeding FTA Frequent Impact criteria. Potential mitigation measures to consider during design include: <ul style="list-style-type: none"> • Resilient fasteners • Ballast mats • Resiliently supported ties • Floating slab track • Rail vibration absorbers/dampers 	Vibration
Cultural Resources and Historic Properties		
34	The Selected Alternative will include the establishment of a preservation grant fund to address adverse effects to historic properties.	Cultural/historic
35	The Selected Alternative will include context-sensitive design treatments for new construction informed by the features of the affected historic properties.	Cultural/historic
36	The Selected Alternative will include sound barriers and/or vegetation to ensure that relevant historic properties are screened, including contributing elements of historic districts.	Cultural/historic
37	The Selected Alternative will include a Historic Properties Construction Protection Plan designed to protect above- and below-ground known historic properties from adverse effects during construction activities. Additional provisions of the PA will provide for identification, evaluation, and treatment of unknown cultural resources, unanticipated discoveries, and human remains. The Plan will also address vibration monitoring, stockpiling, and truck routes/hauling.	Cultural/historic
38	The Selected Alternative will include preparation of written and photographic documentation, consistent with Level II Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER) standards, for deposit with the MD SHPO for historic properties, including contributing elements of historic districts, directly and adversely affected.	Cultural/historic
39	The Selected Alternative will include preparation of interpretive material including signs and/or displays and brochures to be located in Baltimore’s Pennsylvania Station. Possible themes may include the history of the B&P Tunnel, history of the North Avenue corridor, history of the Pennsylvania Railroad and Pennsylvania Station, influence of railroads on Baltimore City, and/or archaeological findings in the Project area as relevant.	Cultural/historic
40	The Selected Alternative will include an investigation of the history, development, use, and evolution of the station facilities and yards comprising present-day Pennsylvania Station in Baltimore City for the purposes of clarifying and delineating the official boundaries of railroad-related NRHP listed and eligible historic properties.	Cultural/historic

No.	Mitigation Measure/Project Commitment	Relevant Impacts Mitigated
41	The Selected Alternative will include measures for securing, salvaging, stockpiling, and reusing of building materials from the demolition of historic properties and contributing elements to historic districts.	Cultural/historic
42	The Selected Alternative will include the addition to the existing Project website of a new section on cultural resources that will provide a platform for the electronic storage and public dissemination of information on Project activities and findings related to historic architecture and archaeology.	Cultural/historic
43	The Selected Alternative will include the completion of a Phase I Archaeological Survey sufficient to identify archaeological resources that may be affected by the Project. A Phase II archaeological survey will be conducted to evaluate the identified resources for NRHP eligibility. If an adverse effect cannot be alternatively mitigated, the Selected Alternative will include a Phase III Data Recovery for each adversely affected NRHP-listed or eligible archaeological historic property.	Cultural/historic

In compliance with Stipulation VII.B.2, VII.B.3, and VII.B.4 (Project Changes) of the PA, FRA, and Amtrak will mitigate the adverse effect of demolition of the Madison Park Medical Center through the following mitigation treatment measures which are already documented in the PA:

- In accordance with PA Stipulation V.E., Amtrak will prepare Historic American Buildings Survey (HABS) documentation prior to demolition, in coordination with the National Park Service.
- Amtrak will disseminate information about the Madison Park Medical Center’s role as an African American medical center and its significance in the context of the National Register Multiple Property Documentation Form *Civil Rights in Baltimore, Maryland: 1831-1976*. This mitigation measure will be implemented through the interpretive displays to be developed and installed at Baltimore Pennsylvania Station under PA Stipulation V.F., and through historic interpretive material added to Amtrak’s Electronic Informational Platform under PA Stipulation V.I. In developing the online platform, Amtrak will explore opportunities to partner with and hyperlink to other relevant preservation/history-based organizations.
- In accordance with PA Stipulation V.H., an Amtrak hired consultant who is an Architectural Historian that exceeds the Secretary of the Interior’s *Professional Qualification Standards for Archaeology and Historic Preservation* examined the building and did not identified any materials recommended for architectural salvage.
- In accordance with PA Stipulation VI.C., the Madison Park Medical Center property will be assessed for archaeological potential as part of the supplemental Phase IA Archaeological Survey, and, if warranted, it will be subjected to further archaeological investigation.

VI. COMMUNITY AND STAKEHOLDER OUTREACH

Amtrak is implementing a comprehensive public outreach program to inform communities and stakeholders of the continued progress, design updates and anticipated schedule for the overall Project, including the changes included in this Reevaluation. Amtrak has continually updated the project website to provide updated information to members of the public and other interested parties.

Amtrak has provided briefings or held meetings with the following community groups and stakeholders to coordinate and provide updates on the Project:

- Residents Against the Tunnels (RATT)
- Norfolk Southern
- MARC
- Baltimore City
- Elected Officials (City Council members, MD legislature members, MD Federal delegation).
- Local community group meetings in Reservoir Hill, Midtown Edmondson and Rosemont

Amtrak has held several recent public outreach events during final design, including:

- November 18 and 20, 2021: Virtual Public Meeting
- March 15, 2022: West Baltimore MARC Station Virtual Concept Design Meeting
- June 14, 2022: Public Open House at New Song Academy
- September 14, 2022: Public Meeting at Perkins Square Baptist Church

Amtrak will continue targeted outreach efforts as the Project advances. As the Project design continues, Amtrak will conduct additional community meetings related to several specific components of the Project. Amtrak will also provide updates and answer questions regarding the overall Project status, and other relevant information for community residents and stakeholders. Outreach activities will include:

- Public outreach in the vicinity of the IVF to discuss community mitigation investments and architectural treatments for the IVF.
- Public outreach in the vicinity of the West Baltimore MARC Station and proposed south tunnel portal, to identify community mitigation investments.
- Public outreach related to design of the West Baltimore MARC Station.
- Outreach to consulting parties as required under the Section 106 PA.

VII. CONCLUSION

This Reevaluation No. 2 was prepared to document changes to the B&P Tunnel Project and the environmental setting since the publication of the FEIS, ROD and Reevaluation No. 1. This Reevaluation No. 2 describes the change in environmental impacts that would result from the proposed LOD expansion consisting of approximately 0.7 acres along N. Brice and W. Lanvale Streets in Baltimore, near the proposed south portal of the Selected Alternative. Amtrak proposes to expand the LOD and acquire all properties in the proposed LOD expansion area to facilitate construction staging, utility relocations along Brice Street, and construction of adjacent retaining walls. The proposed LOD expansion area would require the demolition of 12 residential buildings located outside of the LOD presented in the ROD, four of which are occupied as of the date of this Reevaluation.

This Reevaluation also accounts for the change in historic status of two properties that were identified as being impacted by the Project, through demolition, in the FEIS and ROD, but were not identified as historic properties through the Section 106 process at that time. Namely, these are the Madison Park Medical Center which, since the date of the ROD, has been determined individually eligible for the NRHP, and 2000 W. Lafayette Avenue which, since the date of the ROD, has been determined to be a contributing element to the Midtown Edmondson Historic District.

As described in Section IV.B, FRA and Amtrak would follow the Section 106 PA to resolve the Project's adverse effect to the Midtown Edmondson Historic District due to the anticipated rowhouse demolitions within the proposed LOD expansion area and the 2000 W. Lafayette Avenue property. The existing mitigation measures in the PA are also sufficient to resolve the Project's adverse effect to the Madison Park Medical Center.

Amtrak will not proceed with any Project-related ground disturbing activities until the archaeological commitments in the PA are fulfilled.

The recent NRHP eligibility determinations for these additional properties does not alter the outcome of the Section 4(f) Evaluation; there are no feasible and prudent avoidance alternatives and the Project incorporates all reasonable measures to minimize harm. The Selected Alternative is still the alternative with least overall harm. More detail is included in the attached Section 4(f) Addendum (**Attachment 1**).

The comprehensive mitigation commitments included in the ROD remain sufficient to mitigate for the Project impacts, including the proposed LOD expansion area discussed in this Reevaluation.

Based on the information included in this Reevaluation, FRA concludes that the B&P Tunnel Project Final EIS and ROD remain valid, and a supplemental EIS is not required. This determination considered Project impacts associated with Reevaluation No. 1 (Table 1). The proposed Project changes described in this Reevaluation do not constitute substantial changes to the proposed action that are relevant to environmental concerns, and there are no significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.

Approved by:

Date: September 27, 2023

Laura A. Shick
Supervisory Environmental Protection Specialist
Environmental Review Division
Office of Environmental Program Management
Federal Railroad Administration