Federal Railroad Administration

Howard Street Tunnel Project

FINDING OF NO SIGNIFICANT IMPACT

June 2021

Prepared Pursuant to 42 U.S.C. 4332 (2)(c)
By the
U.S. Department of Transportation
Federal Railroad Administration
and
Maryland Department of Transportation
Maryland Port Administration

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND PORT ADMINISTRATION

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1. Introduction

The United States Department of Transportation's (USDOT) Federal Railroad Administration (FRA), in cooperation with the Maryland Department of Transportation (MDOT) Maryland Port Administration (MPA), prepared an Environmental Assessment[1] (EA) for the Howard Street Tunnel (HST) Project (Project) to evaluate potential impacts to the human and natural environment from construction and operation of the Project. The EA was developed in accordance with the National Environmental Policy Act (NEPA), FHWA/FTA/FRA joint regulations implementing NEPA, and related laws and requirements. The Project proposes to improve clearance at the HST in Baltimore City and 22 other obstruction locations in three states along the existing CSX Transportation (CSX) Interstate 95 (I-95) Rail Corridor between Baltimore, Maryland and Philadelphia, Pennsylvania. The proposed improvements will remove all obstructions that restrict passage of modern double-stack intermodal trains along the corridor and will add resiliency to CSX's rail network.

> The proposed action is a double-stack rail clearance and resiliency project along the existing CSX Transportation (CSX) I-95 Rail Corridor between Baltimore and Philadelphia.

Funding for the Project is being provided by USDOT through its Infrastructure for Rebuilding American (INFRA) grant program, MDOT, the Pennsylvania Department of Transportation, and CSX. FRA is the lead federal agency under NEPA for the EA. MDOT MPA is the recipient of the INFRA grant funding; CSX is the rail owner and operator and is responsible for managing and designing the HST Project, including carrying out the preliminary engineering, final design and construction, and coordinating with MDOT MPA and FRA for the Project.

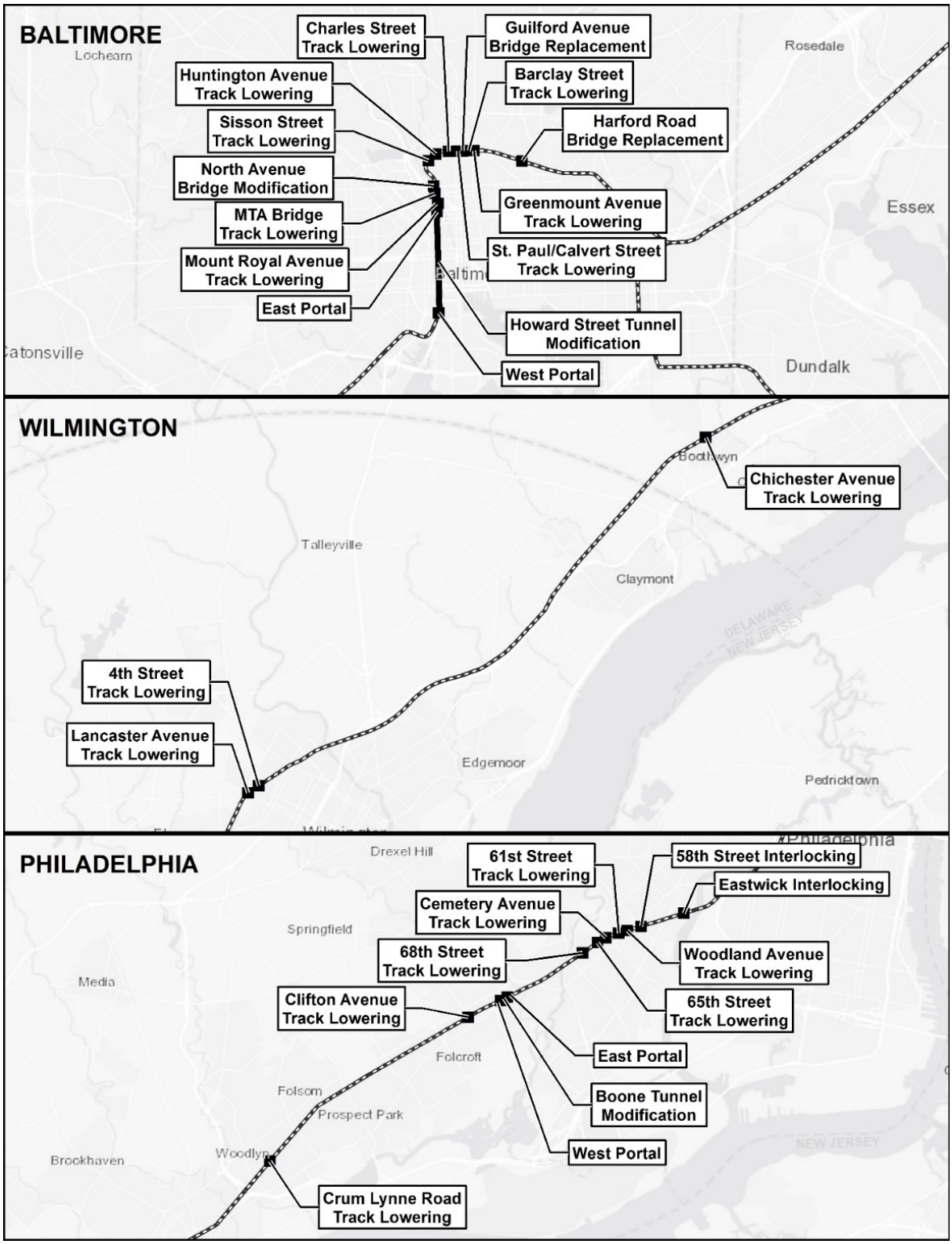
This Finding of No Significant Impact (FONSI) has been prepared to comply with NEPA, as amended, 42 United States Code (U.S.C.) §§ 4321 et seq. and its implementing regulations, 40 Code of Federal Regulations (CFR) Parts 1500-1508; FHWA/FTA/FRA joint regulations implementing NEPA's (23 CFR Part 771); Section 4(f) of the United States Department of Transportation Act (49 USC §303) and FHWA/FTA/FRA joint implementing regulations (23 CFR Part 774); and related laws. FRA has made this FONSI based on information included in the EA. This FONSI incorporates the EA by reference. The EA was made available to the public for review and comment from March 1 through April 13, 2021.

[1] FRA and MPA. 2021. Environmental Assessment for the Howard Street Tunnel Project. Signed February 26, 2021.

2. Study Area

The Project, which consists of tunnel modifications, bridge replacement/modification, and track lowering, will be constructed primarily within existing rail corridor rights-of-way. The Study Area includes the HST, 11 bridge locations in Baltimore City, Maryland; 2 bridge locations in Wilmington, Delaware; and 1 tunnel and 8 bridge locations in Pennsylvania (Figure 1). Additional Project location mapping is included in Appendix A of the EA.

Figure 1: CSX HST Project Overview



Work site access locations and other additional staging areas are to be determined, with the goal of prioritizing the use of CSX owned land for staging areas and accessing work areas via existing roads and access points along existing CSX right of way. Determination of any additional staging areas and/or access points will be made once final engineering is complete. . The locations and proposed actions (Project Sites) that comprise the HST Project are listed below:

2.1. Maryland

- HST – Tunnel Modification – Baltimore City, MD
- Mount Royal Avenue – Track Lowering – Baltimore City, MD
- MTA Bridge – Track Lowering – Baltimore City, MD
- North Avenue Bridge – Bridge Modification – Baltimore City, MD
- Sisson Street – Track Lowering – Baltimore City, MD
- Huntington Avenue – Track Lowering – Baltimore City, MD
- Charles Street – Track Lowering – Baltimore City, MD
- St. Paul/Calvert Street – Track Lowering – Baltimore City, MD
- Guilford Avenue – Bridge Replacement – Baltimore City, MD
- Barclay Street – Track Lowering – Baltimore City, MD
- Greenmount Avenue – Track Lowering – Baltimore City, MD
- Harford Road – Bridge Replacement – Baltimore City, MD

2.2. Delaware

- Lancaster Avenue – Track Lowering – Wilmington, New Castle County, DE
- 4th Street – Track Lowering – Wilmington, New Castle County, DE

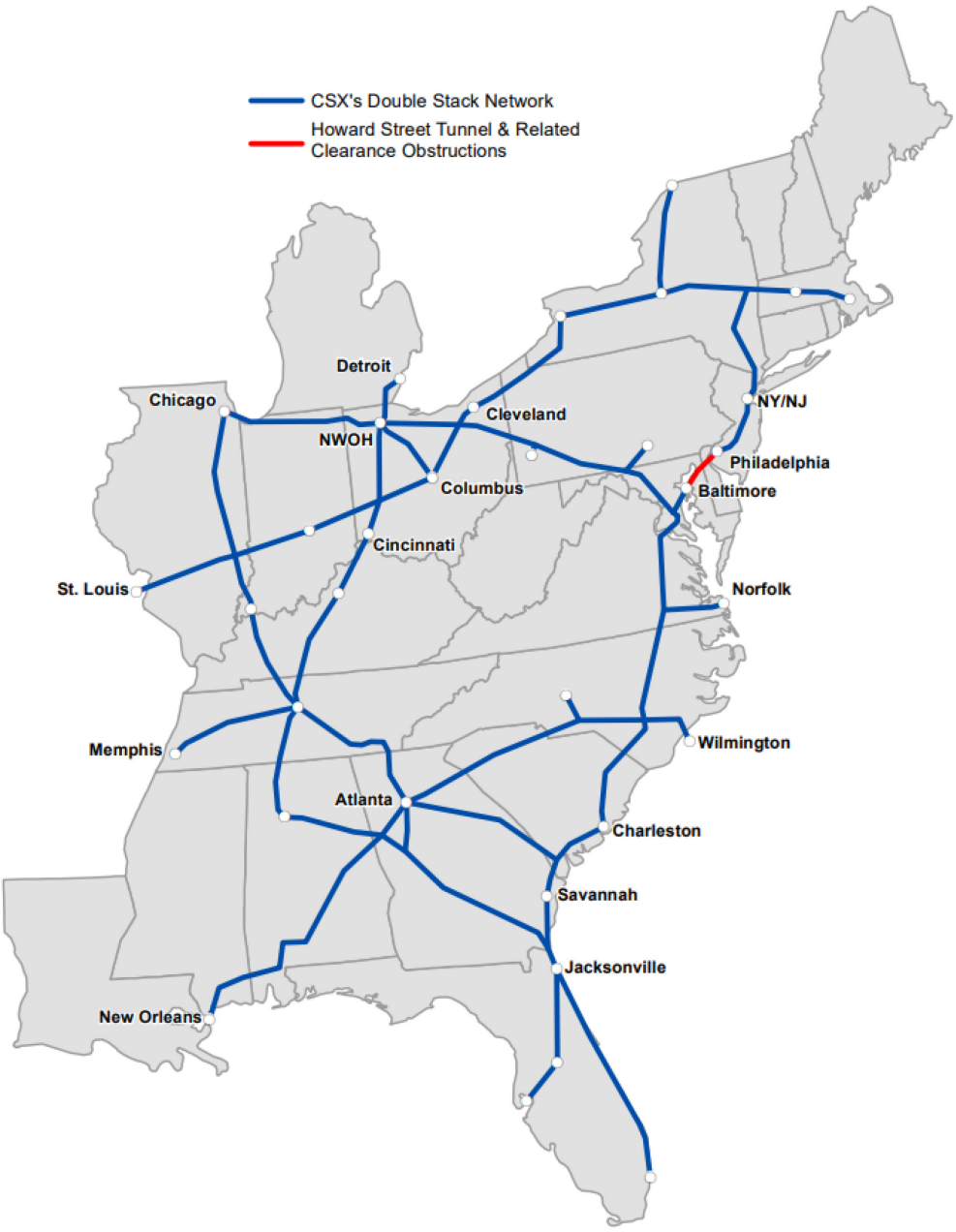
2.3. Pennsylvania

- Chichester Avenue – Track Lowering – Boothwyn, Delaware County, PA
- Crum Lynne Road – Track Lowering – Ridley Park, Delaware County, PA
- Clifton Avenue – Track Lowering – Sharon Hill, Delaware County, PA
- Boone Tunnel – Tunnel Modification – Sharon Hill, Delaware County, PA
- 68th Street – Track Lowering – Philadelphia, PA
- 65th Street – Track Lowering – Philadelphia, PA
- Cemetery Avenue – Track Lowering – Philadelphia, PA
- 61st Street – Track Lowering – Philadelphia, PA
- Woodland Avenue – Track Lowering – Philadelphia, PA

3. Purpose and Need Statement

The purpose of the HST Project is to complete clearance improvements to allow for double-stack train (DST) service on CSX's I-95 Rail Corridor between Baltimore and Philadelphia (Figure 2). The primary needs of the HST Project are double-stack connectivity, freight operation efficiency, and rail system resiliency.

Figure 2: CSX Key Intermodal Network



3.1. Purpose of the Project

The purpose of the HST Project is to remove the numerous clearance obstructions along CSX's I-95 Rail Corridor between Baltimore, Maryland, and Philadelphia, Pennsylvania, thereby providing double-stack connectivity, ensuring this portion of CSX's I-95 Rail Corridor continues to serve as a critical link connecting CSX's local, regional, and national rail transportation network. Additionally, the Project purpose is to add efficiency and resiliency to this important corridor in CSX's intermodal rail network.

3.2. Need for the Project

The CSX I-95 Rail Corridor serves a critical role in moving freight in the Mid-Atlantic region and the United States. The CSX I-95 Rail Corridor currently contains insufficient clearance to accommodate double-stack freight in multiple locations including the HST. CSX offers single-stack intermodal service on the I-95 Rail Corridor and runs DSTs on other routes within the CSX network. Because of the clearance constraints at the HST and to the north in Philadelphia, CSX cannot supply the most competitive, direct double-stack service to connect the markets on the Eastern Seaboard to the Midwest United States.

The HST Project will also provide needed operational efficiency and rail system resiliency. Efficiency and resiliency of a rail network are the ability to provide operational flexibility and reliability for train services during normal operations, as well as during periods of higher demand and/or unexpected operating conditions at a competitive cost. The lack of clearance to accommodate double-stack freight along this portion of the CSX I-95 Rail Corridor reduces the overall resiliency of the regional and national freight network, leaving more circuitous routes for transporting double-stack freight. The double-stack clearance constraints also reduce network redundancy and provide fewer opportunities for alternate routes to maintain operations in the case of high demand or unexpected conditions. The proposed improvements will improve the long-term reliability and efficiency of CSX's national multimodal freight network and the national rail network as well.

4. Alternatives

As described in Section 2.1 of the EA, several options for improving freight handling along the CSX I-95 Rail Corridor were previously considered in a number of studies conducted over the past two decades. These options include a full reconstruction of the HST, rerouting freight to use the Amtrak's Northeast Corridor passenger tunnel, and constructing new alignments, which would reroute rail freight through or around Baltimore. However, certain alignment options were not advanced due to complications associated with the need to acquire new property for railroad right-of-way and easements along proposed new alignment, extensive disruption to communities and the environment, and other variables that could increase challenges, costs, and impacts both during construction and subsequent rail operations.

Advancements in tunnel construction methodologies in recent years have made it possible to achieve double-stack clearance heights through the existing HST at a significantly reduced cost and with fewer impacts to the surrounding community and environment. Modifications to and continued use of the existing HST would provide a comprehensive, cost-effective solution, creating double-stack connectivity while improving freight operation efficiency, network reliability and resiliency with far fewer environmental impacts and community disruptions. This new less impactful approach is discussed below as the Build Alternative, which was evaluated in the EA.

4.1. No-Build Alternative

The No-Build Alternative assumes continuation of current operations on existing rail infrastructure; therefore, no action would occur to create a double-stack rail network to and from the Port of Baltimore and north along CSX's I-95 Rail Corridor. The existing single-stack capable railway section would remain operational without improving the double-stack connectivity constraint in the national freight rail network.

The No-Build Alternative was considered in the EA and analyzes what would happen if there are no further improvements on the corridor in comparison to the Build Alternative. The No-Build Alternative is evaluated as part of the NEPA process to provide a baseline comparison to Build Alternatives. The No-Build Alternative was not selected because it would not meet the HST Project's Purpose and Need for double-stack intermodal service along CSX's I-95 Rail Corridor. The No-Build Alternative prevents CSX from running double-stack intermodal traffic through Baltimore on the current rail network and from offering competitive double-stack service to current rail customers along this route.

4.2. Build Alternative

The Build Alternative was studied and presented in the EA, and consists of tunnel modification, bridge replacement/modification, and track lowering at HST and 22 other obstructions that currently restrict passage of modern double-stack intermodal trains along the current CSX right-of-way. Removal of the obstructions will allow for a 21-foot clearance along the noted stretch of the rail corridor between Baltimore and Philadelphia (refer to Figure 2). The necessary clearance at each location will be achieved in one of four ways – track lowering, bridge modification, bridge replacement and track lowering, and tunnel arch and/or invert modification. The justification for the selected approach at each location is described more fully in Section 2.3 of the EA and Section 5 below.

Section 2.3.4 of the EA evaluated two construction methodologies for the HST: the conventional method and the non-conventional method. The conventional method includes a combination of track lowering and modification to the tunnel arch and/or invert. The non-conventional method involves the use of a tunnel enlargement system (TES) to gain clearance along 75 percent of the tunnel's approximate 8,700-foot length. The advantage of the TES over the conventional option is that it would enable train traffic to flow through the work zone during active construction while resulting in a new tunnel structure along its length upon completion. However, this approach would require removing the top of approximately 1,140 feet of the tunnel and reconstructing it. The use of the TES would also result in significantly greater disruption to vehicular traffic and commercial and community activity along the Howard Street Corridor. An organization representing businesses along Howard Street provided comments on the EA that strongly oppose using the TES, due to anticipated community and commercial disruptions.

CSX completed a feasibility study in parallel with the EA evaluating the use of the TES at the HST. Based on the feasibility study, comments received from several parties during the EA public comment period and the greater impacts caused by the TES, CSX recommended and FRA agreed to CSX's use of the conventional construction approach at the HST, which will result in less impacts to the surrounding environment and community.

5. Selected Alternative

The Selected Alternative for the HST Project is the Build Alternative, as described above, and in further detail in Section 2.3 of the EA. The Selected Alternative consists of modifications to and continued use of the existing HST using the conventional construction method, a combination of track lowering, and tunnel arch and/or invert modification. The Build Alternative additionally includes two bridge replacements (Guilford Avenue and Harford Road) without track lowering, one bridge modification without track lowering (North Avenue), and one other tunnel modification involving track lowering and arch modification (Boone Tunnel).

The methods for removing obstructions along the railroad corridor depend on location-specific conditions at each Project Site, and consist of:

1. **Track Lowering** – Where no utilities or other obstacles are present for both tunnel and bridge locations.
2. **Bridge Modification** – Bridge (arch/invert) modification where an obstacle is present and track lowering is not feasible. Bridge modification will not require removal of the existing bridge structure.
3. **Bridge Replacement** – Removal and replacement of bridge structure where obstacle or utilities are present, and track lowering or bridge modification is not feasible.
4. **Track Lowering and Tunnel Arch and/or Invert Modification** – For tunnel locations where utilities or other obstacles are present.

As shown on Figure 1, the Selected Alternative consists of:

- 18 track lowering locations,
- 1 bridge modification without track lowering**,**
- 2 bridge replacements without track lowering,
- 2 tunnel locations with track lowering and arch and/or invert modification, and
- 1 relocation of an existing interlocking to facilitate the track lowering proposed at the Woodland Avenue site in Philadelphia.

In addition, staging and storage activities are proposed at CSX's Bayview Rail Yard in Baltimore to support the HST Project. Work site access locations and other additional staging areas are to be determined, with the goal of prioritizing the use of CSX owned land for staging areas and accessing work areas via existing roads and access points along existing CSX right of way. Determination of any additional staging areas and/or access points will be made once final engineering is complete.

The Selected Alternative will provide a comprehensive, cost-effective solution, creating double-stack connectivity while improving freight operation efficiency, network reliability, and resiliency. The Selected Alternative also will be constructed primarily within existing rail corridor rights-of-way, creating a double-stack rail network to and from the Port of Baltimore through the HST and north along CSX's I-95 Rail Corridor while having no significant impacts to the environment and surrounding community.

6. Affected Environment and Environmental Consequences

Based upon the EA, FRA has concluded the Selected Alternative will have no foreseeable significant impact on the quality of the natural and human environment. FRA finds the Selected Alternative is best able to achieve the HST Project Purpose and Need without significant environmental impacts.

This FONSI focuses only on those resources that have a reasonable likelihood to be adversely impacted by the HST Project.

Impacts to the following are not anticipated within the Project sites or will otherwise not be significantly adversely impacted by the HST Project, and are therefore, not addressed in this FONSI: solid waste disposal, ecological systems, coastal zone management, use of other natural resources, public health, and recreational opportunities.

FRA's environmental review for the HST Project included an analysis of potential impacts to resources protected under Section 4(f) of the USDOT Act of 1966. The only Section 4(f) resources in the HST Project Area are historic properties; no parks, recreation areas, or wildlife/waterfowl refuges are present. See Section 9.2 of this FONSI for more information.

The following resources were analyzed in the EA:

- Air Quality,
- Water Quality,
- Noise and Vibration,
- Wetland Areas,
- Floodplains,
- Endangered Species or Wildlife,
- Use of Energy Resources,
- Aesthetic and Design Quality,
- Land Use and Community Facilities,
- Socioeconomic Environment,
- Environmental Justice,
- Hazardous Materials, and
- Cultural Resources.

The potential of the HST Project to result in an environmental impact is provided in Section 4.0 of the EA. Table 1 summarizes potential impacts to physical, biological, and human resources that have a possibility to be affected by the Project, as evaluated in the EA.

Table 1. The HST Project Summary of Environmental Resources Evaluated by the EA

Environmental Resource	Potential Impact of Selected Alternative	Mitigation Measures
Air Quality	Minor and temporary impacts due to construction activities. Long-term net benefit due to decrease of vehicle emissions from freight volume transferring from highways to rail system.	Implement appropriate construction Best Management Practices (BMPs) to control dust during construction
Water Quality	Minor and temporary impacts due to construction activities may occur.	Implement appropriate construction BMPs to control runoff during construction.
Noise and Vibration	Minor and temporary impacts due to construction activities may occur. Impacts will be determined once means and methods of construction are final.	Prepare and implement a Noise and Vibration Control Strategy as needed.
Wetland Areas	Potential temporary and minor impacts to waterways during construction.	Comply with all requirements and regulations related to construction best management practices (BMPs) determined by applicable permitting agencies if required.
Floodplains	None	None
Endangered Species or Wildlife	None	None
Use of Energy Resources	Minor impacts due to construction activities.	None
Aesthetic and Design Quality	Minor impacts due to modifications and replacements of railroad infrastructure.	None
Land Use and Community Facilities	None.As a result of feedback received from the public during public outreach efforts and on the EA, the Project is no longer considering the potential minor and temporary use of the planned 26th Street Park at the Guilford Avenue Project Area for a laydown area. Therefore, the planned 26th Street Park will not be adversely impacted.	None

Environmental Resource	Potential Impact of Selected Alternative	Mitigation Measures
Socioeconomic Environment	Minor and temporary impacts due to vehicular traffic disruption associated with bridge replacement activities. Short-term positive impacts to employment and income from construction activity. Fuel and cost savings related to freight shipping. Reduced truck vehicle miles traveled and reduced vehicle fatalities.	Roadway detour plans to be developed for Guilford Avenue. Phased vehicular traffic maintenance is proposed at Harford Road and North Avenue.
Environmental Justice	Temporary and minor impacts associated with vehicular traffic disruptions during construction. Short-term positive impacts to employment and income from construction activity.	Roadway detour plans to be developed for Guilford Avenue. Phased vehicular traffic maintenance is proposed at Harford Road and North Avenue.
Hazardous Materials	None anticipated.	None anticipated. CSX will have an environmental screening process in place during construction for the management of any impacted materials that are unexpectedly encountered. CSX will follow established protocols to comply with applicable state, local, and federal laws and regulations for management of excess materials generated during construction (e.g., soils, construction demolition debris).
Cultural Resources	No impacts are anticipated to archaeological resources. The Build Alternative would adversely impact seven architectural historic properties (south to north): HST and Power House), Baltimore and Ohio (B&O) Railroad Baltimore Belt Line, Cannon Shoe Company, North Avenue Bridge, Guilford Avenue Bridge, Harford Road Bridge , and Boone Tunnel.	Commitments are included in the Section 106 Memorandum of Agreement (MOA), executed on May 25, 2021, among FRA, MPA, CSX, Maryland SHPO, and Pennsylvania SHPO (see Appendix C).

7. Commitments and Mitigation Measures

CSX is required to comply with all applicable federal, state, and local permitting requirements during the implementation of the Selected Alternative, which will include:

- Clean Water Act of 1977, 33 U.S.C. § 1251-1376;
- Section 404/401 of the Clean Water Act, 33 U.S.C. § 1344;
- Section 106 of the National Historic Preservation Act of 1966, as amended, 54 U.S.C. § 306108;
- Executive Order 11990, Protection of Wetlands, 42 FR 26961, 3 CFR, 1977; and
- Americans with Disabilities Act of 1990, 42 U.S.C § 12101.

FRA, in coordination with MDOT MPA and CSX, identified the following commitments and mitigation measures to address and further reduce the potential impacts of the HST Project. The environmental commitments are arranged by resource area. CSX including its construction contractors will implement the following commitments and mitigation measures:

- **Environmental Permitting** – Comply with federal, state, and local permit conditions and local ordinances.
- **Traffic Control** – Provide notice of and implement traffic control measures and roadway detours where required during construction activities. A detour will be implemented at the Guilford Avenue Bridge, and phased maintenance of traffic will be implemented at Harford Road Bridge and North Avenue Bridge during construction.
- **Hazardous Materials** – Comply with federal, state, and local laws and regulations regarding the handling, transportation, and disposal of hazardous materials used or encountered during construction.
- **Noise/Vibration Control** – Prepare and implement a Noise and Vibration Control Strategy as needed.
- **Air Quality** –Water Quality, Wetlands - Implement BMPs to manage dust, runoff, and other impacts generated during construction.
- **Cultural Resources** – Comply with commitments included in the Section 106 MOA, Appendix C.

8. Coordination and Consultation

MDOT MPA and CSX conducted meetings and outreach efforts to potentially affected communities and interested parties starting in September 2019. These efforts took place with local committees, community groups, elected officials, and local government entities to provide details on the Project and to discuss impacts to and concerns of the community. Section 5.0 of the EA summarizes public and agency coordination efforts conducted for the Project.

8.1. Stakeholder Involvement

Community stakeholders were identified by determining where potential impacts would occur as a result of the HST Project, with particular consideration given to construction-period impacts. Community stakeholders involved with the Project include the Charles Village Civic Association, the Dredged Material Management Plan Citizens Advisory Committee and Harbor Team, the Charles Village Community Benefits District, the Greater Baltimore Committee, the Baltimore Port Alliance, the Friends of 26th Street Green, Midtown Benefits District, and Residents of the 300 block of E. 26th Street. Meetings were held with each of these stakeholders, where a Project overview was presented.

The EA was made available for public and agency review and comment between March 1, 2021 and April 13, 2021, and was posted both the FRA and MDOT MPA websites.

8.2. Public Involvement and Participation

As described above, public outreach efforts for the Project led by MDOT MPA included meetings with and presentations to local committees, community groups, elected officials, and local government entities. Appendix B provides a summary of all stakeholder meetings that took place in addition to those provided in Section 5.1 of the EA.

MDOT MPA also developed a HST Project page within its existing website (www.marylandports.com) that contains general project background, a project description, and project mapping along with the EA for public review.

In lieu of an in-person public meeting, a YouTube video presentation was provided on the MDOT MPA Project webpage. The presentation summarized the Project Purpose and Need, Project overview, the NEPA process, and the EA findings; outlined the Project schedule; and provided contact information for questions and comments on the project or the EA. During the comment period (March 1 - April 13, 2021), the public outreach video was viewed 696 times.

As part of the public outreach effort, MDOT MPA released a press release on March 1, 2021, which announced the availability of the EA, provided the link to the MDOT MPA webpage, and encouraged the public to review and comment on the EA. The press release was sent directly to contacts including local news media, elected officials and community groups in Maryland, Delaware and Pennsylvania. In addition to the press release on March 1, 2021, MDOT MPA announced the availability of the EA on its social media channels. Additionally, the HST Project was featured on local news outlets, through both television, newspaper and online.

During the EA public comment period, 19 comments were received with 1 comment accepted after the comment period closed for a total of 20 comments received. These comments are included in Appendix

A of this FONSI. No revisions to the EA document were made as a result of comments submitted during the public comment period; however, additional information requested and responses to comments are provided in Appendix A of this FONSI.

8.3. Agency Coordination

Coordination for the HST Project has occurred and is ongoing with several federal, state, and local agencies. Section 106 consultation regarding potential impacts to historic properties as described in Section 3.2.13 of the EA occurred with the Maryland, Delaware, and Pennsylvania State Historic Preservation Officers (SHPO). As summarized in Section 3.2.6 of the EA, consultation regarding potential impacts to endangered species and wildlife and habitat occurred with the United States Fish and Wildlife Service, the Maryland Department of Natural Resources, the Delaware Natural Resources and Environmental Control, the Pennsylvania Department of Conservation and Natural Resources, the Pennsylvania Fish and Boat Commission, and the Pennsylvania Game Commission.

The EA was made available to the public on March 1, 2021. EPA provided comments and recommendations on the EA on April 3, 2021. MDP also submitted a comment on April 20, 2021 shortly after the comment period closed. Comments provided on the EA during the public review period and responses to comments received are included in Appendix A of this FONSI.

9. Determinations and Findings Regarding Other Laws

9.1. Section 106 of the National Historic Preservation Act of 1966

FRA completed consultation in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations (36 CFR Part 800), which requires federal agencies to consider the impacts of their undertakings on historic properties. Section 106 regulations require that FRA identify historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) within the Project's Area of Potential Effects (APE); assess effects to historic properties; avoid, minimize, or mitigate any adverse effects; and consult with the State Historic Preservation Officers (SHPO) and other consulting parties throughout the Section 106 process.

FRA determined, in consultation with MD SHPO, DE SHPO, PA SHPO, and the other Consulting Parties, that the Project will have an adverse effect on the following seven architectural historic properties: Howard Street Tunnel & Power House (B-79) (Power House element is no longer extant) in Maryland, due to physical destruction and alteration of character-defining features of the tunnel; Baltimore and Ohio (B&O) Railroad Baltimore Belt Line (B-5287) in Maryland, due to extensive alterations or complete replacement of multiple contributing elements; Cannon Shoe Company (B-5332) in Maryland, due to construction vibration; North Avenue Bridge (BC1208) (B-4521) in Maryland, due to physical destruction to a character-defining portion of the resource; Guilford Avenue Bridge (BC8029) (B-4526) in Maryland, due to complete physical destruction of the resource; Harford Road Bridge (BC8026) (B-4523) in Maryland, due to complete physical destruction of the resource; and Boone Tunnel (1997RE00650 [previously 106212]) in Pennsylvania, due to physical destruction and alteration of character-defining features of the tunnel. FRA, MD SHPO, PA SHPO, CSX, MDOT MPA, and other Concurring Parties entered into a Section 106 MOA (Appendix C) to resolve the adverse effects of the HST Project to these historic properties.

9.2. Section 4(f) of the U.S. Department of Transportation Act of 1966

Section 4(f) of the United States Department of Transportation Act (USDOT Act) of 1966 protects publicly owned parks, recreation areas, wildlife and/or waterfowl refuges, and significant historic sites, whether publicly or privately owned. FRA recently joined the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) regulations implementing Section 4(f) at 23 CFR Part 774, and follows associated guidance. Section 4(f) requirements apply to all transportation projects funded or approved by USDOT. As a USDOT agency, FRA must comply with Section 4(f). FRA cannot approve a Project that would use a Section 4(f) resource unless it determines there is no other feasible and prudent alternative and the project incorporates all possible planning to minimize harm, or FRA determines the impact to the resource is *de minimis*. Use of a Section 4(f) property occurs: (1) when land is permanently incorporated into a transportation project; (2) when there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose; or (3) when there is a constructive use (a project's proximity impacts are so severe that the protected activities, features, or attributes of a property are substantially impaired). Appendix B of the EA contains information about Section 4(f) resources in the HST Project area. All impacts of the HST Project to Section 4(f) resources qualify as exceptions to Section 4(f) use under the Section 4(f) regulations at 23 CFR 774.13 (a)(2), except for one at the NRHP-eligible Clifton Park Junior High School, because the affected resources are historic transportation facilities. FRA has determined that the Selected Alternative would result in a *de minimis* impact to the Clifton Park Junior High School property due to temporary roadwork activities associated with the Harford Road bridge replacement.

10. Conclusion

FRA has carefully considered the Project record, including the EA and associated technical reports and analysis; the Section 4(f) evaluation; the mitigation measures required including commitments made in the Section 106 MOA; and the written and oral comments offered by agencies, stakeholders, and the public on this record. Based on this consideration, FRA has determined the HST Project as presented and assessed in the attached EA satisfies the requirements of NEPA (42 U.S.C. §§ 4321 *et seq.*), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and FHWA/FTA/FRA joint regulations implementing NEPA (23 CFR Part 771), and the Selected Alternative would have no foreseeable significant impact on the quality of the human or natural environment provided it is implemented in accordance with the commitments identified in this FONSI. FRA has also satisfied requirements under Section 4(f) of the USDOT Act. The EAprovides sufficient evidence and analysis for FRA to determine that an environmental impact statement is not required for the HST Project as presented.

JAMIE P. RENNERT Digitally signed by JAMIE P. RENNERT
Date: 2021.06.17 10:49:31 -04'00'

Jamie Rennert
Director, Office of Infrastructure Investment
Office of Railroad Policy and Development **Date**

Federal Railroad Administration

FRA's Office of Railroad Policy and Development, with assistance from FRA's Office of Chief Counsel, prepared this document in June 2021 in accordance with USDOT's NEPA regulations. For further information regarding this FONSI contact:

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The following organization(s) assisted FRA's Office of Railroad Policy and Development in the preparation of the associated EA:

Maryland Department of Transportation - Maryland Port Administration

CSX Transportation

Appendix A: Comment Letters and Responses to Comments Received on the EA

Commenter	No.	Comment	Response
Lee Connor, John S. Connor, Inc., 3/1/2021	1a	I enjoyed watching the video on this project which covered the basic details of the project and focused on the various environmental impacts. I thought it was very interesting and very well done. One comment I have is that the film makes a point of the project goal to clear obstructions on CSX tracks between Baltimore and Philadelphia and how important it is to have double stack rail service to/from the port of Baltimore. I don't believe I heard any comments about the project allowing double stack service to occur to many major markets west of Baltimore and Philadelphia including Midwest markets. I know this will be the major benefit for the Port but wonder if the uneducated viewer will be left with the question, "Why do we need double stack rail service to Wilmington and Philadelphia?" Just an observation I wanted to share as constructive feedback and maybe I missed something.	Thank you; comment acknowledged. The scope of the HST Project is to complete clearance improvements to allow for double-stack train service on CSX's I-95 Rail Corridor between Baltimore, MD and Philadelphia, PA to address the need of double-stack connectivity, freight operation efficiency and system resiliency. The remaining portions of the CSX network are already double-stack capable.

Commenter	No.	Comment	Response
Rick Steininger, Construction Polymer Technologies, 3/4/2021	2a	Could you tell me if there is any consideration being given to noise and vibration mitigation relative to the Howard Street Tunnel rehabilitation project. It appears as though CSX did not address noise and vibration mitigation when designing and building the Virginia Ave Tunnel Project in D.C., which has proved to be unwise. https://ddot.dc.gov/sites/default/files/dc/sites/ddot/publication/attachments/2018-01-23_VAT_VibrationReport_FINAL.pdf This following in blue is from the report in the above link: There are no statutory or regulatory limits established for vibration impacts due to freight train operations. Therefore, the EIS used guidelines developed by the Federal Transit Administration (FTA) for transit projects to assess potential vibration impacts of this freight rail project. The EIS concluded that vibration from train operations would increase with trains operating in the new tunnel, but would not exceed the human annoyance criteria established by CSX in the EIS. While “There are no statutory or regulatory limits established for vibration impacts due to freight train operations”, it seems prudent to ;look into mitigation methods before the track is rebuilt. Our firm specializes in track structures designed to significantly reduce noise and vibration, particularly in tunnel applications.	A noise and vibration assessment was conducted as part of the HST Project Environmental Assessment ("EA"), the full report of which can be found at Appendix E of the EA. The report concluded that there are no noise or vibration impact concerns as a result of future train operations. The assessment further concluded that only potential limited impacts could occur at certain locations during construction. For these identified areas, a Noise and Vibration Control Strategy (NVCS) will be implemented by CSX during the completion of the design process and the confirmation of final construction methodology details. If potential impacts are identified in this phase, CSX will work with the engineering team to avoid or minimize the potential impacts. The Project will comply with all federal, State and local noise requirements. CSX did address noise and vibration concerns in the Virginia Avenue Tunnel Project, which was a significantly more impactful construction project than the work planned for the HST Project.
Spike Y Jones, (organization unknown), 3/5/2021	3a	I applaud the innovative thinking behind the Howard Street Tunnel project, and I support this project.	Thank you; comment acknowledged.

Commenter	No.	Comment	Response
George W Banville, (organization unknown), 3/6/2021	4a	I support the reconstruction of the Howard Street Tunnel in Baltimore and all associated work as proposed. I hope work starts real soon.	Thank you; comment acknowledged.
Kathryn A. Hendley, WSP USA, 3/9/2021	5a	As a resident of the Reservoir Hill community in Baltimore, I am writing to voice my support for the Howard Street Tunnel project. This project will provide much-needed efficiency improvements to shipping from the Port of Baltimore and will contribute to significant economic development improvements in the Baltimore region. With today's tunneling technology, I am confident that the project will result in a safe, efficient and structurally-sound tunneling process and I look forward to following its progress!	Thank you; comment acknowledged.
Solomon Essumang, Patriot Shotcrete LLC, 3/11/2021	6a	How are you doing ? We would like to follow up on the project above. Have you made any decisions on our proposal ? If so, let me know if we are in consideration or not.	Thank you; comment acknowledged. A response to this inquiry is beyond the scope of the Project EA.

Commenter	No.	Comment	Response
Tyler Lane, CHMM, (organization unknown), 3/12/2021	7a	The EA report has no discussion of the tripropylene and hydrochloric acid release associated with the Howard Street Tunnel accident and resultant fire and flooding in 2001. While the follow-up NTSB report did not find evidence of remaining chemicals in the vicinity of the immediate Howard Street Tunnel, subsurface investigations downgradient of the release area identified free product tripropylene in monitoring wells associated with the Red Line as recently as 2017. The origin of this tripropylene was believed to be the Howard Street release that was washed into the filter pack surrounding sewer piping and moved toward outfalls located on the Inner Harbor. These tripropylene pockets were likely mobilized due to subsurface construction work near the monitoring well on Light Street. Major construction work in and around the tunnel will need to monitor for potential mobilization of tripropylene downgradient from the construction site.	Subsequent to the 2001 derailment, CSX Transportation worked closely with US Coast Guard, USEPA and other regulatory entities to complete the required remedial actions and post response monitoring. Based on current CSX records for this rail corridor, no known active hazardous waste sites or hazardous materials are present at any of the Project Areas. During the modification work at the Howard Street Tunnel, CSX Transportation and contractors involved in the work will monitor site conditions and any spoils generated from the work.

Commenter	No.	Comment	Response
Carly J. Bales, Le Mondo, 3/18/2021	8a	I urge you to employ the conventional method of tunnel construction during this renovation period of the Howard Street Tunnel. The proposed "Option Two" would be incredibly detrimental to LeMondo, our small business and arts space on the 400 block of Howard Street, especially coming out of year-long shutdowns due to the pandemic. As a small business and arts venue that opened only months before the shut-downs of 2020, we have a significant enough challenge this next year in rebuilding and increasing patronage to the Howard Street area. Street shutdowns of any significance would add undue burden to our operations and deter patrons from our business. I speak not only for myself but all the artists who work in our space, as well as all the neighboring small businesses that are poised to open on our block in the coming months. With all the efforts to revitalize the Howard Street corridor with new activity and investment, it would be a huge misstep to compromise that work by shutting down portions of the corridor. It would also create unjust conditions for the small businesses that have invested themselves within the area.	CSX conducted an engineering feasibility study evaluating both the conventional and Tunnel Enlargement System (TES) construction methods for the Howard Street Tunnel portion of the Project. Based on the results of the feasibility study, public comments indicating a preference for the conventional approach and the EA conclusion that the use of the TES would be more disruptive to the Howard Street corridor and community coherence, CSX recommended and FRA agreed to CSX's use of the conventional construction method at the HST

Commenter	No.	Comment	Response
Jackson Gilman-Forlini, Resident, 3/30/2021	9a	I am a resident and property owner within close proximity to the Howard Street Tunnel Project. By way of this email, I am transmitting my formal public comment on the proposed project. Specifically, I am concerned with the adverse effects on historic properties in my neighborhood that would be caused as a result of this undertaking. Based on my review of the project documents, I find that insufficient planning has been done to avoid, minimize, or mitigate adverse effects to architecturally significant historic properties within the project area. Specifically, I am concerned about a loss of historic integrity to the North Avenue Bridge and the Guilford Avenue Bridge, both of which are located within a mile of my residence. The loss of historic integrity to these properties will result in a loss of the historic character of the neighborhood, and therefore will result in a decline in property value and quality of life for me and my neighbors.	The FRA is in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR Part 800 ("Section 106"). The FRA consulted with the Maryland State Historic Preservation Officer ("SHPO") and additional consulting parties regarding the Project's effects to historic properties in Maryland. The FRA identified the North Avenue Bridge and the Guilford Avenue Bridge as eligible for listing in the National Register of Historic Places and found that the Project would have an adverse effect to both historic properties. The Maryland SHPO concurred with this finding. Consistent with Section 106 regulations, the FRA continued consultation with the Maryland SHPO, as well as the Pennsylvania and Delaware SHPOs, and additional consulting parties to resolve the Project's adverse effects to these two bridges, and to other historic properties. Mitigation measures are outlined in the MOA that was available for public comment with the EA. Mitigation measures to address the adverse effects include updated documentation of the historic bridges prior to project construction, which will be publicly available through Maryland Inventory of Historic Properties and Historic American Engineering Record documentation, and on the Maryland Port Administration project website through project completion.

Commenter	No.	Comment	Response
Ibid.	9b	Replacement of a load bearing masonry historic bridge with a shallow steel girder bridge is inadequate to mitigate adverse effects and is not in keeping with the Secretary of the Interior's Standards for the Treatment of Historic Property. I request that the undertaking agency study the option of replacement in-kind with another masonry arched bridge with a higher clearance than the existing in order to preserve the historic integrity of the bridges' character while also meeting the functional needs of the double-stacked cars. Please advise as to how the undertaking agency will address my concerns. I look forward to your timely response.	The FRA is in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR Part 800 ("Section 106"). FRA consulted with the Maryland State Historic Preservation Officer ("SHPO") and additional consulting parties regarding the Project's effects to historic properties in Maryland. The Project includes complete replacement of the Guilford Avenue Bridge and partial replacement of the North Avenue Bridge, which are both currently load bearing masonry bridges identified as historic properties during the Section 106 review process. Engineering feasibility studies found that in-kind replacement of these structures is not feasible, as such construction would require a higher roadway elevation leading to a raised bridge, and a larger area of impact along the roadways to gain the necessary clearance. Due to the higher elevation and expanded footprint, an in-kind replacement of the bridges would also be more impactful to a greater area surrounding the project site, including area utilities and additional residential parcels, such as those adjacent to the Guilford Avenue Bridge that are contributing elements to the Charles Village/Abell Historic District (B-3736).

Commenter	No.	Comment	Response
Carrie Traver, U.S. Environmental Protection Agency, Region 3, 4/2/2021	10a	Alternatives for Construction in the HST Clearance through Howard Street Tunnel will be achieved using either a conventional or a non-conventional approach. As detailed in the EA, the non-conventional alternative would use a tunnel enlargement system (TES) to gain clearance along 75 percent of the tunnel's approximate 8,700-foot length. The advantage of the TES is that it would enable train traffic through the work zone during construction. However, construction with the non-conventional alternative would likely cause additional impacts that are not expected with the conventional approach, including noise, traffic and transportation impacts, and vibration impacts to buildings, including a building eligible for listing in the National Register of Historic Places. If the TES is used, a section of Howard Street would likely experience temporary closures, rerouting of traffic, and potential disruptions to MDOT light rail service. These disruptions would impact public transportation options that may be relied on by residents in Environmental Justice areas. The EA indicates that a feasibility study evaluating the use of the TES is currently in progress by CSX. We recommend that the decision on the construction approach for the HST carefully weigh the impacts to the community and historic resources. If the nonconventional option is pursued, EPA recommends and supports developing plans that minimize these impacts.	CSX conducted an engineering feasibility study evaluating both the conventional and Tunnel Enlargement System (TES) construction methods for the Howard Street Tunnel portion of the project. Based on the results of the feasibility study, public comments indicating a preference for the conventional approach and the EA conclusion that the use of the TES would be more disruptive to the Howard Street corridor and community coherence, CSX recommended and FRA agreed to CSX's use of the conventional construction method at the HST

Commenter	No.	Comment	Response
Ibid.	10b	Environmental Justice (EJ) The EA identified minority and low-income populations that may be EJ communities by census tract at a number of study areas, including the Baltimore Project site Study Areas; at Clifton Avenue, Boone Tunnel, 68th Street, 65th Street, Cemetery Street, 61st Street, Woodland Avenue, 58th Street, and Eastwick Interlocking in Pennsylvania; and Lancaster Avenue and 4th Street Study Areas in Delaware. EPA recommends using the census block group for the assessment of potential EJ communities as it is the most refined geographical unit for which the Census Bureau publishes data.	The US Census Bureau block group data from the American Community Survey (ACS) was reviewed as requested. The results of the analysis of the ACS data is provided in Appendix D of the FONSI. The use of tract-level data provides the most conservative approach to identifying the proximity of EJ communities to the Project when compared to the block group data
Ibid.	10c	Section 4.11.2 states that the residents in the EJ areas would benefit from the job opportunities and income generated by the Project's construction and operation. To support this, we suggest that the EA indicate specific initiatives or programs that would bring opportunities to these areas, including those that may recruit or train local workers, local businesses that would benefit from contracts, or other efforts.	As noted in Section 4.10 and Appendix G of the EA, the economic benefits of the Project will be significant with over 6,800 jobs generated from direct and indirect construction related activity. There are currently no specific job initiatives or programs contemplated.

Commenter	No.	Comment	Response
Ibid.	10d	We recommend that the final EA specifically address construction noise and vibration impacts to EJ communities and identify the likely duration of traffic, noise, and other disruptions.	As described in Appendix F and Appendix G of the EA, it is anticipated that limited disruption to traffic and vehicle access in the areas surrounding North Avenue, Guilford Avenue, and Harford Road in Baltimore, Maryland will occur during construction of the Project. Traffic disruption is not expected to occur at the remaining sites in Baltimore or at the sites in Delaware and Pennsylvania. Construction for the HST Project is estimated to last from early 2022 through late 2025. See also answer 2(a) regarding the noise and vibration assessment conducted as part of the EA, Appendix E. As discussed in Section 4.3.3 of the EA, potential risks and the development of mitigation strategies will be evaluated and developed as necessary to maintain compliance with local ordinances and guidance established in the FTA manual, ensuring no disproportionate effect of noise and vibration on EJ communities. It is not expected that the Project will result in either operational or construction noise and vibration concerns.
Ibid.	10e	We also recommend tailoring outreach to potentially impacted communities to receive feedback and minimize the impacts during construction. While there are excellent outreach materials and a number of meetings have been held, it is not clear that these have been effective at reaching the EJ communities for meaningful engagement. Please consider referring to "Promising Practices for EJ Methodologies in NEPA Reviews": https://www.epa.gov/environmentaljustic/ej-iwg-promising-practices-ej-methodologies-nepa-reviews.	MPA and CSX have provided early outreach and will continue to provide outreach to those communities identified as being potentially impacted as a result of construction activities, which includes areas identified as EJ communities. Presentations in person as well as remote meetings as noted in Section 5.0 of the EA and additional meetings summarized in the Errata sheet of the FONSI encouraged involvement and input from these communities. CSX and MPA will continue coordination with the public as construction timeframes are finalized, and notifications will be provided, including by outreach to community leaders, organizations and by mail.

Commenter	No.	Comment	Response
Ibid.	10f	Construction Noise and Vibration A general assessment of construction noise was conducted. The assessment identified several sites (MTA Bridge, Guilford Avenue, Harford Road, and HST with the non-conventional alternative) that have potential noise and vibration impacts. Potential construction vibration impacts were also identified at the Lancaster Avenue, Boone Tunnel, and Cemetery Avenue sites. As more detail on means and methods for the Project become available, the EA indicates that a more accurate evaluation of potential risk will be performed and a Noise and Vibration Control Strategy (NVCS) will be implemented. The NVCS is an important component of the Project, and we suggest including as much detail as possible regarding mitigation strategies in the final EA.	Section 6.5 of Appendix E of the EA, "Howard Street Tunnel Project Noise and Vibration Impact Assessment" describes the approach to developing a "Noise and Vibration Control Strategy" (NVCS) for the Project if potential noise and vibration risks are confirmed. Specific mitigation efforts to address confirmed risks will be detailed in the NVCS and could include strategies such as monitoring, scheduling specific construction activity during less impactful times, compliance verification and other measures to offset the potential impacts.
Ibid.	10g	Stream Impacts We recommend that an estimate of potential watercourse impacts be included in the final EA.	Potential impacts to wetlands and waterways as a result of the Project were identified in the EA, Section 3.1.4 and Section 4.4. An estimate of impacts will be determined once final design and engineering for the Project is completed. Any impacts to wetlands or waterways as a result of the Project will be coordinated and permitted with the appropriate federal, state and/or local regulatory agencies.

Commenter	No.	Comment	Response
Ibid.	10h	Section 3.3 PROVISIONAL AGENCY DETERMINATION of the Wetland Delineation Report states that Streams S1 and S2, located at the Huntington Avenue and Sisson Street Project areas, were provisionally determined as jurisdictional resources. A site visit with the US Army Corps of Engineers (USACE) and Maryland Department of the Environment (MDE) confirmed streams S1 and S2 as jurisdictional resources as presented in the 2017 delineation. The report then states that previously delineated streams from the 2017 assessments do not appear to be naturally occurring streams or relocated waterways, but rather man-made stormwater conveyances which would not be considered jurisdictional per the Navigable Waters Protection Rule (effective June 22, 2020.) As stated in the Summary section, potential jurisdictional boundaries and determinations are considered preliminary and are subject to USACE review, verification, and approval. As stated in the EA, additional coordination with USACE is necessary to determine the federal jurisdictional status of the intermittent watercourses.	See response to Comment 10g related to wetlands and waterways. Potential impacts to wetlands and waterways as a result of the Project were identified in the EA, Section 3.1.4 and Section 4.4. An estimate of impacts will be determined once final design and engineering for the Project is completed. Any impacts to wetlands or waterways as a result of the Project will be coordinated and permitted with the appropriate federal, state and/or local regulatory agencies.
Ibid.	10i	Discharges during construction to conveyances that are determined to not be jurisdictional under Section 404 of the Clean Water Act by the USACE may still be regulated under other sections of the Clean Water Act and may be regulated by the MDE, Pennsylvania Department of Environmental Protection, or Delaware Department of Natural Resources and Environmental Control. Care should be taken to minimize disturbances and discharges to the maximum extent practicable as ephemeral stormwater conveyances can still contribute pollutants to jurisdictional waters if not managed appropriately.	Potential impacts to wetlands and waterways as a result of the Project were identified in the EA, Section 3.1.4 and Section 4.4. An estimate of impacts will be determined once final design and engineering for the Project is completed. Any impacts to wetlands or waterways as a result of the Project will be coordinated and permitted with the appropriate federal, state and/or local regulatory agencies.

Commenter	No.	Comment	Response
Ibid.	10k	We recommend that the EA address activities that may impact or enhance water quality including stormwater management or drainage improvements. We also suggest upgrading stormwater management facilities where feasible.	The EA considers this issue (See Sections 3.1.2 and 4.2.2 of the EA), and the Project does include stormwater management improvements. During construction, the Project will comply with all state and local sediment and erosion control and stormwater management requirements.
Ibid.	10l	General Conformity Please see the following comments regarding General Conformity from EPA's Air and Radiation Division: Section 3.1 - Affected Environment - Air Quality (starts on Page 3-2, Page 29 of the EA PDF) EPA recommends that "Table 3-1. National Ambient Air Quality Standards (NAAQS)" include the years for each individual standard; some of these are referenced in the footnotes, but not all. Including the NAAQS year is important to distinguish the stringency of the standard.	Please see the updated Table 3-1 of the EA in the Errata Sheet of this FONSI, Appendix B.
Ibid.	10m	We recommend putting the bulleted list of attainment classifications on Page 3-4 (Page 31 of the EA PDF) into a table and referencing the attainment status of these areas relative to different years attainment/maintenance status of these different rules could have implications for the 20-year maintenance timelines and resulting General Conformity and Transportation Conformity requirements. Having this information in table format would also make it easier to read.	Please see the updated list of attainment classifications in table format in the Errata Sheet of this FONSI, Appendix B.

Commenter	No.	Comment	Response
Ibid.	10n	For "Table 3-2. Regional Background Air Quality Concentrations, 2017-2019", we recommend moving the columns so that the NAAQS value and measured ambient air quality value are adjacent to one another for easier comparison.	Please see the updated Table 3-2 of the Environmental Assessment in the Errata Sheet of this FONSI, Appendix B.
Ibid.	10o	Section 4.1 - Environmental Consequences - Air Quality (starts on Page 4-2, Page 51 of EA PDF),Section 4.1.2 Build Alternative We recommend providing citations to support the statement that "transporting freight by railroad, especially in a double-stacked intermodal container configuration, produces significantly fewer emissions than if the same quantity of freight were moved by truck" on Page 4-3 (Page 52 of the EA PDF). While moving long-haul freight by rail is generally acknowledged to be more efficient than moving it by truck, it would be helpful to have documentation cited in this section.	Based on the March 2021 report*, "Freight Railroads and Climate Change"* prepared by the Association of American Railroads, railroads are significantly more efficient and generate substantially less greenhouse gas emissions than trucks. CSX trains can move 1 ton of freight 492 miles on a single gallon of fuel. This is at least 3-4 times more efficient than transportation by truck. Railroads also produce 75% less greenhouse gas emissions in moving freight vs trucks. While railroads account for approximately 40% of long-haul US freight transportation, they only account for 2.1% of transportation related greenhouse gas emissions. The March 2021 AAR "*Freight Railroads and Climate Change*" study may be found at the following link: *https://www.aar.org/wp-content/uploads/2021/02/AAR-Climate-Change-Report.pdf* The AAR Freight Railroads and Climate Change Fact sheet may be found at the following link: https://www.aar.org/wp-content/uploads/2021/02/AAR-Freight-Rail-Climate-Change-Fact-Sheet.pdf

Commenter	No.	Comment	Response
Ibid.	10p	This section asserts that "the Build Alternative would not cause or contribute to any new violation of any NAAQS or increase the frequency or severity of any existing violation of any NAAQS in the region and does not require a General Conformity determination" on Page 4-3 (Page 52 of the EA PDF). We recommend providing supporting evidence, analysis, or documentation that satisfies general conformity requirements; the qualitative analysis referenced in this section and described in Appendix C does not sufficiently address this requirement.	A quantitative analysis to address this comment and the general conformity requirements was conducted and is provided as Appendix E of the FONSI. The calculated estimated Project anticipated construction emissions in federally designated nonattainment or maintenance areas are well below the corresponding general conformity applicability thresholds. Therefore, pursuant to 40 CFR Part 93.153(c)(1), General Conformity requirements do not apply to the Project and a General Conformity Determination is not required.

Commenter	No.	Comment	Response
Ibid.	10q	Appendix C - Air Quality Report Section 2.2.3 - Regional Assessment of the Build Alternative (Page 11 of the Appendix C PDF) This section states that double-stacking container cars will increase shipping capacity without the need to run additional trains or locomotives, and thus operational emissions of the Build Alternative will be unchanged (Table 5, Page 11). We recommend a comparison of projected emissions between double-stacked and single-stacked trains. While it is logical that double-stacked cars would not require additional trains or locomotives, it would be helpful to address fuel use in trains running double-stacked cars as compared to trains running single-stacked cars. Would fuel use increase as trains with double-stacked cars are moving more mass?	Double-stacking containers will result in increased fuel efficiency over current train operations. The fuel savings results from the fact that the same number of containers can be transported on substantially fewer rail cars. This results in less rolling resistance due to the overall lower tare weight of the train. CSX estimates that due to the fewer number of rail cars needed to carry the double-stacked containers, fuel consumption will be reduced by approximately 7.5%. The fuel efficiency improves with increases in freight tonnage as there is less rolling resistance per ton of freight for double-stack compared to single-stack container trains. An exhibit has been provided in Appendix B of the FONSI (Errata Sheet), for further clarification. Table 5 in Appendix C to the EA represents the average of all trains (Bulk materials / merchandise and Intermodal) moving along the corridor. The intent of the project is not to change the current mix nor volume of freight being transported along the corridor. Instead, it will enable the same amount of freight currently being carried on intermodal trains to be moved in a more efficient manner using fewer cars, which allows for more efficient freight movement. Clarification of Table 5 has been provided in Appendix B of the FONSI (Errata Sheet), Appendix B.

Commenter	No.	Comment	Response
Ibid.	10r	Section 2.2.4 - Localized Impacts from the Build Alternative (Page 12 of the Appendix C PDF) This section states that "the Project and the operational condition of the Build Alternative will not cause any additional increase in local concentrations of air pollutants over the No-Build Alternative given that the volume of locomotives will remain unchanged on the Corridor (see Table 5). The distance between emissions sources and receptors will remain unchanged since it is primarily only the vertical alignment of the railway that is shifting. Based on the volumes provided in Table 5, the amount of locomotive air pollutant emissions that would be dispersed to a local receptor along the railroad on an hourly, daily, or annual basis is anticipated to be negligible and the condition of air quality will remain unchanged between the Build and No-Build Alternative [sic]."As indicated above, an analysis or data sources should be provided to support the assertion that emissions will be unchanged. At a minimum, we recommend citing documentation that demonstrates that fuel use or emissions will not increase for trains running double-stacked cars.	Double-stacking containers will result in increased fuel efficiency over current train operations. The fuel savings results from the fact that the same number of containers can be transported on substantially fewer rail cars. This results in less rolling resistance due to the overall lower tare weight of the train. CSX estimates that due to the fewer number of rail cars needed to carry the double-stacked containers, fuel consumption will be reduced by approximately 7.5%. The fuel efficiency improves with increases in freight tonnage as there is less rolling resistance per ton of freight for double-stack compared to single stack container trains. An exhibit has been provided in Appendix B of the FONSI (Errata Sheet), for further clarification.

Commenter	No.	Comment	Response
Ibid.	10s	Section 2.3.1 - Construction Phase Impacts from the Build Alternative (Page 13 of the Appendix C PDF) This section states that "the proposed construction of the HST Project compared to the quantitative analysis of construction emissions for the Virginia Avenue Tunnel Reconstruction Project shows that the extent and duration of construction of the HST project would be exceedingly less to the extent that quantitative analysis is not required." This comparison is not sufficient to demonstrate that the proposed action is under de minimis thresholds. If using a larger and more impactful project to demonstrate that the latter is exempt from conformity requirements, the EA should include the relevant information from both projects that supports this conclusion to allow for a true side-by-side comparison.	See response to Comment 10p related to NAAQS General Conformity. A quantitative analysis to address this comment and the general conformity requirements was conducted and is provided in Appendix E of the FONSI. The calculated-estimated Project anticipated construction emissions in federally designated nonattainment or maintenance areas are well below the corresponding general conformity applicability thresholds. Therefore, pursuant to 40 CFR Part 93.153(c)(1), General Conformity requirements do not apply to the Project and a General Conformity Determination is not required.
Ibid.	10t	Cultural Resources Potential impacts to the Rombro Building, the Cannon Shoe Company Building, and six other historic resources were identified. We support continued consultation with Maryland Historical Trust, Pennsylvania Historical and Museum Commission and other consulting parties to resolve and/or mitigate the potential adverse effects on historic properties. Thank you for providing us with notice to provide comments for your consideration in the development of the Study. Please let me know if you would like to discuss any of these comments. I would like to request a copy of the final EA by email when it is available.	In compliance with Section 106, the FRA continued to consult with the Maryland, Delaware and Pennsylvania SHPOs, and other consulting parties to resolve adverse effects to historic properties within the Area of Potential Effects. The resulting minimization efforts and the mitigation measures have been documented in an executed Section 106 MOA, which is attached as Appendix C to the FONSI. The final NEPA document is the FONSI which incorporates all changes to the EA.

Commenter	No.	Comment	Response
Kristen Mitchell, Market Center Merchants Association, 04/08/2021	11a	Thank you for the opportunity to review the CSX Howard Street Tunnel (HST) Project Environmental Assessment (EA). The Market Center Merchants Association (MCMA) represents 280+ ground floor business establishments in 27 blocks on the west side of downtown Baltimore, and the Howard Street Tunnel runs directly through Market Center. MCMA would like to be included on all community outreach related to the project. We are particularly interested in participating in discussions regarding the two options (conventional and non-conventional) identified for the HST segment between Camden Yards and Mount Royal Stations, as articulated in Section 2.3.4 of the EA.	Thank you; comment acknowledged. CSX will proceed with the conventional approach for improvements to the Howard Street Tunnel.
Ibid.	11b	In addition, we have the following comments and concerns related to the project and EA: 1. Section 3.6.4, Land Use and Community Facilities – The report states that there are four master plans applicable to the Maryland Project Areas. They neglected to mention the Market Center Urban Renewal Plan, which the Baltimore City Council adopted in 1977 and amended as recently as 2018. This plan remains in effect, and we ask that it be acknowledged in the EA.	The Market Center Urban Renewal Plan has been acknowledged and has been added to the EA Errata sheet in Appendix B of the FONSI.

Commenter	No.	Comment	Response
Ibid.	11c	2. Section 4.10.2.3, Socioeconomic Environment, Traffic and MTA Light Rail Impacts and Mitigation – We have significant concerns about the impacts to public transit and vehicular, bicycle, and pedestrian traffic that will occur if the non-conventional construction method is used. As noted in this section, the non-conventional method would require temporary closures of Howard Street and disruption of light rail service. The people who live, work, and own businesses and property in this area experienced similar disruptions in the summer of 2019, when a water main break and sinkhole on Howard Street between Baltimore and Pratt Streets massively disrupted light rail, buses, and vehicular traffic and created extra headaches for bicyclists and pedestrians. People had trouble getting to and from work and going about their daily business; others who could avoid the area altogether did so, causing additional economic pain to the businesses.	CSX will use the conventional construction method for the HST improvements. Therefore, no closures of Howard Street or light rail disruption will be required.
Ibid.	11d	3. Section 4.11.2, Environmental Justice, Build Alternative – If the non-conventional construction method is used, there will be disruptions to light rail service and rerouting of bus lines. As many Baltimoreans rely on public transit, these disruptions, while temporary, will hurt the people who can least afford it. It will also dampen business activity.	CSX will use the conventional construction method for the HST improvements. Therefore, no disruption to light rail disruption will occur.

Commenter	No.	Comment	Response
Ibid.	11e	4. Table 4-2, Cultural Resources – The report concludes that the project will not have an adverse impact on the Market Center Retail Historic District. We certainly hope this will be true, but the reality is that the project involves subterranean work on old infrastructure, awfully close to older buildings (as close at 10' at grade level, and possibly closer below ground). It is possible that there will be unforeseen impacts on the adjacent buildings and their inhabitants. We want to register our concern and ask that CSX provide adjacent property owners and tenants with the name and contact information of the project manager, who can be reached in case of emergencies. We also recommend that CSX set aside funds for things like emergency stabilization and maintenance of operations in buildings that might experience unforeseen adverse impacts.	CSX will develop a plan to inform interested property owners when construction on the HST Project begins, and will provide a contact for questions, concerns or emergencies.
Ibid.	11f	5. Finally, we note that there is a fiber optic cable network underground along Howard Street. Whatever construction method is selected, the contractor must not dislodge, tamper with or damage any of the fiber optics cables in, around or above the tunnel.	As noted in Section 2.3 of the EA, CSX conducted an evaluation of each of the locations where double-stack clearance was not adequate to determine the appropriate means of achieving the requisite clearance. The evaluation included the identification of utility locations, including fiber optic cables, using non-invasive means. The results of this evaluation informed the decision regarding the appropriate clearance method to be used at each site. Utility mark outs and location will be further evaluated during the design and construction processes in order to avoid or minimize any impact to known utility locations.
Fritz Meyer, EA Engineering, Science and Technology, 4/12/2021	12a	1. Please consider mitigation of impacts to trees along the alignment. Dewatering and root disturbance due to construction activities could damage these established trees.	CSX will comply with applicable state and local tree removal, conservation and preservation ordinances and requirements.

Commenter	No.	Comment	Response
Ibid.	12b	2. Please consider mitigation of impacts to the Firebird sculpture across from the Meyerhoff/Baltimore Symphony Orchestra building. The alignment appears to be close enough that settlement of soil due to construction activities could occur and affect this large sculpture.	It is not anticipated construction activities associated with the HST will result in settlement of soil adjacent to the tunnel. The construction methodology for gaining clearance in the section of the tunnel in this area consists of track lowering only, which will not cause soil disturbance outside of the existing tunnel structure. Therefore, it is not anticipated that construction activities associated with the HST obstruction will result in impacts to the statue.
Miller Roberts III and Sandy Sparks, Charles Village Community Association, 4/10/2021 and 4/12/2021	13a	With community input, the Charles Village Community Association (CVCA) offers this response to the Howard Street Tunnel Project Environmental Impact Study, posted on the Maryland Port Administration website. The quality of life in Charles Village, a densely-populated section of the original 1895 railway corridor along East 26th Street (see attached map) will be severely impacted by years of construction and future CSX 24/7 operations. We request extensive consideration of these environmental and construction issues between Howard Street and Greenmount Avenue in the final assessment of the Howard Street Tunnel Project Environmental Impact Study: • Reduce undue burden during the projected 5 years of construction on surrounding residential and commercial blocks throughout the corridor as parking and traffic patterns.	Environmental and cultural issues have been considered as part of the EA completed for the HST Project. Section 4.0 of the EA discusses potential direct, indirect, and cumulative impacts and identifies proposed mitigation for the Project's environmental effects, where required. FRA has determined that an Environmental Impact Statement (EIS) level of study is not necessary by FRA for the Project based on the level of anticipated impact. FRA is preparing a Finding of No Significant Impact (FONSI) based on the analysis in the EA. CSX will continue to make efforts to coordinate with the public as construction timeframes are finalized, and notifications will be provided, including outreach to community leaders, organizations and by mail.
Ibid.	13b	• Do not use the designated 26th Street Green community space between Guilford Avenue and Hunter Street being build-out by Baltimore City DOT, as a staging area during Guilford Avenue Bridge construction.	The planned 26th Street Park will not be used for Project staging or laydown areas.
Ibid.	13c	• Plan to landscape the railway corridor slopes throughout the corridor to soften the 24/7 train noise that reverberates blocks away.	Landscaping and grading is part of the Project to maintain corridor stability for the purpose of rail traffic.

Commenter	No.	Comment	Response
Ibid.	13d	• Plan to reduce chronic and unhealthy storm water issues along the railway tracks.	As discussed in Section 4.2.2 of the EA, as part of the Build Alternative, the completion of this Project will result in drainage improvements at all of the Project areas.
Ibid.	13e	• Consider the use of UHCP concrete to flatten the profile of the reconstructed Guilford Avenue bridge for parking. Thank you for taking all of these community concerns into full consideration as the CSX corridor is reconstructed. CVCA looks forward to working in cooperation with the individual project sites in the corridor.	Thank you for your comment. In consultation with Baltimore City DOT, CSX will endeavor to minimize impacts to parking during final design and construction. As a result of the Project, there will be a minor change in Guilford Avenue bridge profile; however, no changes to the amount of parking is currently proposed. All existing parking areas will be replaced similar to existing conditions.

Laura Amlie, Residents Against The Tunnel (RATT), 4/12/2021	14a	This comment is submitted by Residents Against the Tunnels (RATT).1 RATT is a registered 501(c)(3) non-profit organization in Baltimore, Maryland, comprised of residents from the six Baltimore neighborhoods that the Baltimore and Potomac Tunnel Project will most adversely affect: Bridgeview/Greenlawn, Midtown-Edmonson, Penn North, Penrose/Fayette, Reservoir Hill, and Sandtown-Winchester. These six neighborhoods, out of the 30 communities affected, have areas among them where Baltimore's poorest and most afflicted live, raising Environmental Justice concerns along with concerns for the decimation of architectural and social structures, adverse financial impacts, health hazards, and dangers to human life. RATT's concerns go beyond these neighborhoods to include the safety and livability of all of Baltimore City. These are real citizen lives, real concerns, and our real homes that are threatened. RATT would like to take the opportunity to commend the U.S. Department of Transportation's (DOT) recent efforts to address Environmental Justice concerns, as demonstrated by the Federal Highway Administration's (FHWA) intervention in the Texas I-45 highway project.2 After Texas community organizations and Representative Sheila Jackson Lee sent letters regarding the environmental justice concerns and disparate impacts to communities of color projected by the proposed construction of Texas I-45, the FHWA boldly stepped in and put a halt to the project, until environmental justice concerns can be more thoroughly analyzed.3 Additionally, Secretary of Transportation Pete Buttigieg has gone on the record as saying "There is racism physically built into some of our highways…" While RATT appreciates the recent efforts made by the U.S. DOT concerning environmental justice in regards to highway projects, environmental justice concerns in railroad projects have not been given enough attention. Reports of studies on a host of cities in the U.S., have discovered that railroads play a major role in racially segregating communities.4 RATT strongly urges the Federal Railroad Administration (FRA) to get onboard with the DOT's	Thank you; comment acknowledged. As noted in Section 4.10 and Appendix G of the EA, the economic benefits of the Project will be significant with over 6,800 jobs generated as a result of direct and indirect construction related activity. As described in Appendix F and Appendix G of the EA, it is anticipated that limited disruption to traffic and vehicle access in the areas surrounding North Avenue, Guilford Avenue, and Harford Road in Baltimore, Maryland will occur during construction of the Project. Traffic disruption is not expected to occur at the remaining sites in Baltimore or at the sites in Delaware and Pennsylvania. As discussed in Section 4.3.3 of the EA, potential risks and the development of mitigation strategies will be evaluated and developed as necessary to maintain compliance with local ordinances and guidance established in the FTA manual, ensuring no disproportionate effect of noise and vibration on EJ communities. CSX has provided early outreach and will continue to provide outreach to those communities identified as being potentially impacted as a result of construction activities, which includes areas identified as EJ communities. Presentations in person as well as remote meetings as noted in Section 5.0 of the EA and additional meetings summarized in the Errata sheet of the FONSI encouraged involvement and input from these communities. CSX will continue coordination with the public as construction timeframes are finalized, and notifications will be provided, including by outreach to community leaders, organizations and by mail.

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		revived environmental justice mission, by promulgating an Environmental Impact Statement for the Howard Street Tunnel Project, with a lens specifically geared towards environmental justice concerns.	

Ibid.	14b	RATT takes issue with the FRA's decision to merely prepare and Environmental Assessment (EA) for the Howard Street Tunnel Project (HST Project). Specifically, RATT believes the EA for the HST Project: (1) fails to adequately assess the impacts of a reasonably foreseeable increase in freight traffic along the I-95 corridor; and (2) lacks an analysis of the full scope and degree of the risks associated with hazardous materials transportation or train derailments. The FRA's inadequate impact analysis in the HST Project EA will have disproportionate impacts on environmental justice communities in Baltimore MD, Wilmington DE and Philadelphia PA. The risks of freight rail transportation were thrust into the minds of Baltimore residents, including RATT members, on July 18, 2001, when a CSX freight train derailed in the Howard Street Tunnel and closed Downtown Baltimore for days.5 Congress responded to the incident by mandating the Federal Railroad Administration (FRA) conduct two comprehensive studies of the Baltimore region's rail system.6 The analyses contained in those FRA studies form the foundation of the proposed CSX Howard Street Tunnel Project (HST Project). Despite acknowledging the high risks and significant impacts of freight rail transportation in the 2001 CSX derailment, the FRA has now, in 2021, decided to simply prepare an environmental assessment (EA) for the HST Project rather than an environmental impact statement (EIS). The proposed HST Project includes 23 sites in Maryland, Delaware, and Pennsylvania currently preventing double stack freight transportation along the I-95 Corridor. The only other obstruction to double stack freight along the I-95 Corridor—the Virginia Avenue Tunnel—was rebuilt in 2018. Indeed, even in the Virginia Avenue Tunnel project, the FRA completed an EIS, rather than merely an EA.7 For a project as expansive and critical as the HST Project, FRA is obligated to inform itself and the public of the HST Project's risks and impacts. RATT has not forgotten the significant effects that freight transportation	As the lead federal agency for the Project, the FRA is responsible for complying with the requirements of NEPA, including determining the appropriate type of action to meet this obligation. After considering the scope and activity planned for the Project as well as similar undertakings, the FRA determined that an EA was the appropriate scale of review. Preparation of an EA is consistent with the NEPA review conducted for Phase I of the National Gateway Project, an undertaking similar in scope and scale to the Howard Street Tunnel Project. Both Phase I of the National Gateway Initiative and the Howard Street Tunnel involved a variety of measures, including modifications to existing tunnels, to achieve the requisite clearance for double-stack trains along CSX's freight line. Phase I of the National Gateway Initiative involved the removal of clearance restrictions at 40 locations. The clearance required for both the National Gateway and HST Project was and will be achieved by primarily staying within the existing rail right-of-way. The Virginia Avenue Tunnel, by contrast, was a significantly more complex and impactful construction project and involved the replacement of an existing single-track structure with two new double-stack tunnels. The EA prepared for the HST Project evaluated potential impacts to the human and natural environment. Each resource with a potential to be affected, either temporarily during construction or permanently as a result. Construction and operation of the completed Project was evaluated, including air quality, water quality, noise and vibration, wetland areas, floodplains, endangered species and wildlife, use of energy resources, aesthetic and design quality, land use and community facilities, socioeconomic environment, environmental justice, hazardous materials and cultural resources. As a result of this evaluation, no unmitigated potential significant direct or indirect impacts were identified.

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		can have on a metropolitan area and urges FRA to prepare an EIS fully analyzing the HST Project.	The scope of much of the proposed work for the HST Project would normally fall under categorical exclusions, but the FRA determined an EA was appropriate to evaluate certain impacts, and specifically to provide a means of seeking public/community input. FRA has determined this Project has no significant environmental impact, and is therefore, preparing a FONSI to document that decision.

Commenter	No.	Comment	Response
	14c	I. Legal Standards The National Environmental Policy Act (NEPA) requires agencies undertaking any major federal action to take a "hard look" at its environmental impacts. When planning a major federal action, the sponsoring agency must determine the appropriate level of NEPA review. Sponsoring agencies may prepare an EA when a proposed project is unlikely to result in significant environmental impacts or when the significance of a project's environmental impacts is unknown.8 If, either at the project's outset, or after preparing an EA, the sponsoring agency determines that a project will have reasonably foreseeable significant environmental impacts, the sponsoring agency must prepare an EIS.9 In determining whether a project's impacts are significant, agencies must consider the affected area in conjunction with the degree of the impacts, including "[b]oth short- and long-term effects," "beneficial and adverse effects," and "[e]effects on public health and safety."10 An impact is reasonably foreseeable if it is "sufficiently likely to occur such that a person of ordinary prudence would take it into account in reaching a decision."11	See response to Comment 14b related to NEPA review.

Commenter	No.	Comment	Response
Ibid.	14d	II. **FRA Should Prepare an EIS for the Howard Street Tunnel Project Because the Project Will Have Significant Environmental Impacts In the HST Project,** the FRA should have foreseen that a major freight rail infrastructure project spanning three states and involving at least two major metropolitan areas "[i]s likely to have significant effects, and is therefore appropriate for an environmental impact statement."12 The FRA recognizes that the HST Project will resolve the last major impediment to a double stack freight network along the I-95 Corridor which stretches from Florida to Boston. EA at 1-1. However, the HST Project is not merely about updating just the Howard Street Tunnel in Baltimore; rather, the project includes 23 clearance adjustments between Baltimore and Philadelphia, w**hich will permit the I-95 corridor to vastly expand double stack freight rail operations throughout the region.** A project with such a broad scope, risking such significant impacts, demands preparation of an EIS. In Western North Carolina Alliance v. North Carolina Department of Transportation, the court held that the North Carolina Department of Transportation (NCDOT) acted arbitrarily and capriciously by issuing an EA for a highway project, when it was clear that an EIS was warranted. The court held that an EIS was required because NCDOT failed to assess the full scope and degree of the entire highway corridor by preparing an EA for a major segment of the highway. The court found that NCDOT's failure to prepare an EIS that assessed or even acknowledged the potential for adverse impacts from the additional projects along the same highway corridor was arbitrary and capricious and a violation of NEPA. Similar to the Western North Carolina Alliance case, here the FRA inadequately assessed the full degree and scope of the entire HST project by improperly assuming freight traffic will not increase, and failing to address the risks associated with hazardous materials transportation.	Please see response to Comment 14b related to the NEPA review. Based on its current volumes and anticipated growth, Freight volumes along this corridor are projected to grow at 3% per year through 2053. This projected increase in freight volume is anticipated regardless of whether the HST Project is completed or not. As such, the HST Project is not intended to change either the amount or type of freight that is currently being shipped through this corridor. By completing the HST Project and clearing the double-stack obstructions, CSX will be able to accommodate its share of the projected growth in a more efficient manner (i.e., with fewer intermodal trains). The scope of the HST Project is to complete clearance improvements to allow for double-stack train service on CSX's I-95 Rail Corridor between Baltimore, MD and Philadelphia, PA to address the need of double-stack connectivity, freight operation efficiency and system resiliency. Studies relating to the transportation of hazardous materials generally are outside the scope of this analysis.

Ibid.	14e	A. T**he HST Project EA Improperly Assumes Freight Traffic Will Not Increase upon Completing the HST Project** The HST Project EA is fundamentally flawed because the EA assumes that, upon the HST Project's completion, freight traffic through the affected area will not increase. In particular, the FRA states, "The existing rail operational condition will remain unchanged between the Build and No Build Alternatives and the proposed HST Project would not cause an increase in locomotive traffic."13 This assumption has caused the FRA to overlook reasonably foreseeable significant impacts that must be fully analyzed in an EIS. However, in other sections of the same EA, the FRA makes statements that would lead a person of ordinary prudence to conclude that an increase in freight traffic through the Howard Street Tunnel is reasonably foreseeable and must be taken into account for purposes of decision making. On the very first page of the EA, the FRA justifies the HST Project's Purpose and Need by stating, "Recent State Freight Plans in Maryland, Delaware, and Pennsylvania all point to increased freight tonnage of at least 58 percent between 2012 and 2040."14 Without projects like the HST Project, FRA continues, "the national transportation network is at risk of delays and inefficiencies that will impact mobility of both passengers and cargo. The HST Project is specifically designed to address these concerns."15 The Delmarva Freight Plan, cited by FRA in the HST Project EA, states that in response to economic and population growth in the coming years, "freight and passenger transportation demands are projected to increase by two and a half times by 2050."16 The plan further states that because of the forecasted growth of international trade, "ports in Wilmington, Baltimore, Philadelphia, and Hampton Roads will be even more critical" to meeting the region's demands and potential.17 The state freight plans cited in the HST Project EA forecast a significant increase in freight rail transportation demand in the coming years. However, these forecasted increases in demand do not contemplate how the HST Project's double stack freight rail	Please see response to Comment 14d related to freight traffic. The scope of the HST Project is to complete clearance improvements to allow for double-stack train service on CSX's I-95 Rail Corridor between Baltimore, MD and Philadelphia, PA to address the need of double-stack connectivity, freight operation efficiency and system resiliency. Studies relating to general trends of freight increases are not related to the Project and are outside the scope of this analysis.

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		corridor will trigger industry growth at an even higher rate than already anticipated.18 The notion that the HST Project will trigger increased freight rail transportation demand is not novel to FRA. In justifying the HST Project Purpose and Need, FRA notes that due to current height restrictions between Baltimore and Philadelphia, "CSX cannot supply the most competitive, direct double-stack service to connect the markets of the North, South, and Midwest United States."19 Not only will the HST Project remove the final impediment to CSX's double stack rail network and connect massive regional markets,20 the FRA also hopes the HST Project will breathe new life into the Port of Baltimore: "The lack of double-stack connectivity through the HST and CSX I-95 Corridor prevents the Port of Baltimore from capitalizing on its strategic geographic location as the furthest inland location of all the Mid-Atlantic ports."21 The HST Project will allow the Port of Baltimore to compete with other Mid-Atlantic ports with double stack rail capabilities. This increased competitiveness will have the added benefit of providing "permanent economic impacts" for the Baltimore region, including "an estimated 7,872 net new jobs in the transportation sector, which are linked to over 60,000 jobs that are supported among port users in the Baltimore Region."22	

Ibid.		Despite the many economic benefits proffered by the FRA in the HST Project EA, the FRA **assumes that the HST Project will not increase freight traffic or cause any significant environmental impacts.** When analyzing the HST Project's construction impacts, the "EA considers environmental impacts conservatively by assuming that the construction method with the most impacts is selected[.]"23 When analyzing operational impacts, however, FRA takes the least conservative approach by assuming that freight traffic through the completed HST Project will remain unchanged. FRA supports the HST Project Purpose and Need by touting remarkable economic growth benefits and possibilities, but forecloses those same benefits and possibilities when analyzing environmental impacts just a few pages later. **The FRA is obligated under NEPA to analyze the reasonably foreseeable increase in freight rail transportation demand caused by the HST Project and to incorporate the conclusions of that analysis into every environmental impact analysis**. The assumption that freight traffic will not increase through the completed HST Project is unsubstantiated by sufficient evidence.24 When justifying the HST Project's Purpose and Need, FRA cites to reliable data forecasting a significant increase of freight transportation demand in coming decades. When asserting in the Environmental Consequences section of the EA that freight traffic will not increase, the FRA cites to no data justifying its assumption. **The flawed freight traffic assumption has seeped into each and every environmental impact discussion contained in the HST Project EA**. The HST Air Quality Report concludes that the HST Project will not result in any significant air quality impacts because freight traffic through the completed Tunnel will not increase.25 Similarly, the FRA concludes that the HST Project will not result in any significant operational noise or vibration impacts, without considering an increase in noise and vibration events caused by the reasonably foreseeable increase in freight traffic.26 All of the adverse impacts caused by the faulty assumption that freight traffic will not increase, fall hardest on environmental justice	

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		communities. Adverse impacts from increased freight traffic, including air pollution, and increased noise and vibration are primarily felt by the low income and minority communities that surround the Howard Street Tunnel and I-95 corridor in general. The environmental justice report found in Appendix G of the HST EA, reveals that a majority of census tracts in Baltimore and Philadelphia are environmental justice communities.27 Despite this reality, the environmental justice report states "The impact of the actions in the Build Alternative would be neither adverse nor disproportionate in relation to the overall social, economic, health, and environmental characteristics of minority and low income populations in the Study Area."28 RATT strongly urges the FRA to undergo a more accurate analysis in the form of an EIS for the HST Project, specifically assessing the impacts of a reasonably foreseeable increase in freight traffic on environmental justice communities. The FRA's reliance on the assumption that freight traffic will not increase upon completion of the HST Project violates the fundamental purpose of an EA. Without assessing environmental impacts caused by the reasonably foreseeable increase in freight traffic, FRA cannot justify with sufficient evidence and analysis a decision to issue a FONSI. Even more importantly, the faulty freight traffic assumption robs citizens, like those comprising RATT, of the opportunity to be informed of how exactly the HST Project will affect them. FRA cannot highlight the HST Project's benefits while hiding its risks. To do so is to violate the very essence of NEPA. The only justifiable decision following the HST Project EA is for FRA to prepare an EIS.	

Ibid.	14f	B. The HST Project EA **Fails to Identify and Analyze the Full Scope and Degree of Train Derailments or Hazardous Materials Rail Transportation Risks** The HST Project EA insufficiently analyzes the full scope and degree of the risks associated with train derailments or hazardous materials transportation by rail.29 In the HST Project EA, the FRA failed to acknowledge any risk at all pertaining to train derailments or hazardous material spills, despite CSX having a checkered history of both derailments and hazmat spills in Baltimore and throughout the I-95 corridor.30 Notably, in other CSX/ FRA environmental documents for previous projects along the I-95 corridor, like the Virginia Avenue Tunnel,31 the FRA discusses train derailments and hazardous material spills. However, in the HST EA, the FRA fails to acknowledge the risks associated with train derailments and hazardous material spills. The FRA's analysis of hazardous materials does not properly assess the scope of the potentially affected environment and degree of the effects as required under CEQ regulations. In the HST Project EA, the FRA's analysis of hazardous materials merely discusses what will occur if hazardous materials are discovered during the construction process. There is no discussion of hazardous materials transportation along the I-95 corridor, nor is there mention of the proper response protocol to derailments and hazardous material spills. The FRA's absence of any mention of hazardous materials transportation in the HST EA is unjustified, especially when compared to the FRA's treatment of similar projects along the I-95 freight corridor. In the Virginia Avenue Tunnel Project, FRA released an EIS because the agency properly reasoned the project would cause significant impacts. The FRA's Virginia Avenue Tunnel EIS included a discussion on the proper protocol to follow if a train derailment and hazardous material spill occurred.32 The HST EA does not even acknowledge that train derailments can occur, despite the fact that CSX owns the track rights for the I-95 corridor which runs through both the Howard Street Tunnel and the Virginia Avenue Tunnel. There is no other explanation for FRA's	The CSX rail network will continue to transport materials in accordance with safety and security laws and regulations as per the U.S. Department of Homeland Security ("DHS"), The Federal Railroad Administration ("FRA"), the Pipeline and Hazardous Materials Safety Administration ("PHMSA"), and the U.S. Department of Transportation ("USDOT"). As a result of the Project, no increase or change in type or volume of hazardous materials through this corridor are planned or expected. The objective of the HST Project is to provide double-stack clearance along the CSX I-95 Corridor. CSX has protocols in place regarding hazardous materials transport and will continue to move those materials in a safe and compliant manner as required by applicable laws and regulations. Certain aspects of the Project will further enhance safe operations (e.g. drainage improvements, replacement of track structure and profiles, retaining walls, etc.). Safety remains a top priority at CSX, and the Company is committed to the overall safety of its employees, customers, and communities in which the Company operates. CSX is an industry leader in safety, with both personal injury and train accident rates decreasing to a record low in 2020. As previously indicated, the scope of the HST Project is to complete clearance improvements to allow for double-stack train service on CSX's I-95 Rail Corridor between Baltimore, MD and Philadelphia, PA to address the need of double-stack connectivity, freight operation efficiency and system resiliency. Studies relating generally to the transportation of hazardous materials are outside the scope of this analysis.

Commenter	No.	Comment	Response
		failure to discuss train derailments and hazardous material spills, aside from FRA's desire to minimize the scope of potential impacts. By failing to address the scope and degree of the effects of train derailments or hazardous material spills, FRA did not fulfill their NEPA obligations with the HST Project EA, and therefore an EIS must be prepared. The FRA and CSX should know that train derailments and hazardous material spills are not uncommon and can have devastating impacts. In 2001, a CSX freight train derailed in the Howard Street Tunnel, causing hazardous material spills and a massive fire.33 The 2001 Howard Street Tunnel derailment still lingers in the minds of Baltimore residents, including those comprising RATT. In between major train derailments like the 2001 incident, smaller, more frequent hazardous materials spills occur, but often go unnoticed by the general public. As recently as April 21, 2019, for example, CSX reported a hazardous materials spill in Baltimore, of relatively smaller, yet still worrisome proportions. A CSX train traveling between Baltimore and Cumberland, Maryland spilled 100 gallons of combustible fuel oil while in transit through Baltimore's Mt. Winans Yard.34 The April 2019 spill demonstrates the need for an adequate hazardous materials analysis. Events like this will only become more frequent as CSX is able to send more freight through the Howard Street Tunnel. The HST Project's double stack capabilities will allow CSX to at least double the freight tonnage passing through the Howard Street Tunnel. Affected citizens, such as the members of RATT, should be assured that, at the very least, FRA and CSX understand the hazardous materials risks associated with the HST Project and have a plan to address hazardous materials incidents. The HST Project EA contains no such risk analysis or plan. FRA must prepare an EIS for the HST Project to analyze these impacts in accordance with the letter and spirit of NEPA.	

Commenter	No.	Comment	Response
Ibid.	14g	III. Conclusion RATT does understand the need for freight movement to the Port of Baltimore. However, we see the lack of adequate study – and the flaws within the EA on the HST project - show a blatant disregard for the true impact on the safety and future of Baltimore citizens. We can see how the EA serves the Freight Companies, what we do not see is how it reflects true concern about the people who live here. We strongly believe that Citizen safety should be prioritized. We believe there is a need for a thorough and honest Environmental Impact Study, and urge the U.S. DOT to complete such a study and make the results public.	Comment acknowledged. Please see response to Comment 14b related to FRA's decision as to why an EA was completed.
Arthur Cohen, b'more mobile, 4/13/2021	15a	I. INTRODUCTION: This comment on the Howard Street Tunnel Environmental Assessment is being submitted Art Cohen, Convenor - b'more mobile. A preliminary note on abbreviations used below: EA refers to Environmental Assessment; HST refers to the Howard Street Tunnel. As stated at the beginning of the EA, it is being prepared in order "...to evaluate and assess the potential environmental impacts of the [Howard Street Tunnel] Project...." [EA - page 1-1]	Thank you; comment acknowledged.

Commenter	No.	Comment	Response
Ibid.	15b	The very second paragraph on this first page of the EA states the following: “Recent State Freight Plans in Maryland1, Delaware2, and Pennsylvania3 all point to increased freight tonnage of at least 58 percent between 2012 and 2040. Without comprehensive, cost-effective solutions across freight modes, the national transportation network is at risk of delays and inefficiencies that will impact mobility for both passengers and cargo. The HST Project is specifically designed to address these concerns.“ It is difficult to argue with the logic of this opening paragraph – about the “risk of delays and inefficiencies.” What is conspicuously absent from this statement, however, is any mention of **THE POTENTIAL RISKS TO PUBLIC SAFETY AND SECURITY with such a forecasted increase in freight tonnage. And, in particular, there is also absent is any reference to the special further type of safety and security risk represented by the rail freight transportation of HAZARDOUS MATERIALS.**	The CSX rail network will continue to transport materials in accordance with safety and security laws and regulations as per the U.S. Department of Homeland Security ("DHS"), The Federal Railroad Administration ("FRA"), the Pipeline and Hazardous Materials Safety Administration ("PHMSA"), and the U.S. Department of Transportation ("USDOT"). As a result of the Project, no increase or change in type or volume of hazardous materials through this corridor are planned or expected. The objective of the HST Project is to provide double-stack clearance along the CSX I-95 Corridor. CSX has protocols in place regarding hazardous materials transport and will continue to move those materials in a safe and compliant manner as required by applicable laws and regulations. Certain aspects of the Project will further enhance safe operations (e.g. drainage improvements, replacement of track structure and profiles, retaining walls, etc.). Safety remains a top priority at CSX, and the Company is committed to the overall safety of its employees, customers, and communities in which the Company operates. CSX is an industry leader in safety, with both personal injury and train accident rates decreasing to a record low in 2020. As previously indicated, the scope of the HST Project is to complete clearance improvements to allow for double-stack train service on CSX’s I-95 Rail Corridor between Baltimore, MD and Philadelphia, PA to address the need of double-stack connectivity, freight operation efficiency and system resiliency. Studies relating generally to the transportation of hazardous materials are outside the scope of this analysis.

Commenter	No.	Comment	Response
Ibid.	15c	In the seventy pages of the EA, and the almost 1,200 pages of the eleven appendices to the EA, the only references to "hazardous" have to do merely with the risk of hazards encountered in the construction of the "build" alternative for the HST. **Not a thing is said about the rail freight transportation of hazardous materials**. Before we proceed with the discussion of hazardous rail freight, let's dispose of the EA's few references to the term "hazardous." The word "hazardous" appears in the EA's text at eight locations, but it is only used in the context of environmental hazards caused by or resulting from the construction of the proposed tunnel improvements. [See pages v, vi-vii, 3-1, 3-18, 4-2, 4-14, 4-15, and 4-19.] There is no reference to risks either to public safety or security in Baltimore resulting from the rail transportation of hazardous materials (HAZMAT) through the Howard Street Tunnel. Furthermore, in the 1,178 pages of the eleven appendices to the EA, the word "hazardous" appears exactly two times: once in Appendix I (Section 106 Architectural Report), and once in Appendix J (Draft Memorandum of Agreement). Like the text of the EA described in the paragraph directly above, both references are to "hazardous" only in the context of "...[a]lteration of a property, including...hazardous material remediation" (Appendix I – page 82) and "[s]hould an emergency situation occur during construction that … creates a hazardous condition...." (Appendix J – page 15). Baltimore City and its immediate populated environs represent a highly-urban place which is equally highly vulnerable to dangerous accidents involving rail freight, especially with cargo of hazardous materials.	Please see response to Comment 15b related to hazardous materials and safety.

Ibid.	15d	II. THE HIGHLY-URBAN NATURE OF BALTIMORE CITY: The issue of hazardous rail freight is especially germane and threatening to the public health and environment of human populations concentrated in urban areas. Baltimore City certainly qualifies as such an urban area. The various locations of the CSX Rail Lines through the HST are most surely urban in nature. This was well-stated at pages 3 and 5 of the 2002 USDOT post-accident report which is discussed below: Howard Street, and the Howard Street Tunnel, are located in the heart of Baltimore City's business and cultural districts, and are adjacent to the core of the City's tourist and sports attractions and the Inner Harbor. The south end of Howard Street is near Oriole Park at Camden Yards and the Baltimore Ravens' football stadium. The south end is also close to the Inner Harbor and the National Aquarium, the heart of Baltimore's tourist area. The north end of Howard Street, near the Mount Royal light rail station, is located close to the Maryland State Government office complex and the City's art district (Meyerhoff Symphony Hall and the Lyric Opera House). The street runs through the downtown business and entertainment districts and passes directly by or near some of the City's major museums, concert halls, and cultural attractions. Figure 3 shows the locations of both Howard Street and the Howard Street Tunnel within the City of Baltimore. Please note that as well as on many of the major streets that intersect Howard Street and cross over the tunnel. The MTA's subway system, the Metro, passes below Howard Street and the Howard Street tunnel. The MARC rail system's Camden Line uses the CSX track between Baltimore and Washington, and the MARC track within the City is adjacent to the Howard Street Tunnel. And this description does not even include the residential areas located nearby or in connected parts of the City also served by the CSX freight rails. The top map on page 2-5 in the main text of the EA, and most of the maps included in several of the eleven Appendices (totaling 1,178 pages) show HST's location to be	Thank you; comment acknowledged. Please see response to Comment 15b related to hazardous materials and safety.

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		central to downtown commercial and central city residential Baltimore City (see, for example, the many maps in seven of the eleven Appendices). [1] (see the End Notes below) In fact, Baltimore is also one of the 46 metropolitan areas listed as a "high-threat urban area" in 49 CFR Part 1580 - "FREIGHT RAIL TRANSPORTATION SECURITY". See especially Appendix A to Part 1580 which lists Baltimore as follows: "MD - Baltimore Area - Baltimore and a 10-mile buffer extending from the city border – Baltimore, MD".	

Commenter	No.	Comment	Response
Ibid.	15e	III. THE OFFICIAL HST REPORTS ON 2001: Rail freight accidents have been frequent in the US & Canada in recent years. [2] (see the End Notes below) The HST itself was host to such an accident on July 18, 2001. Two official reports were issued about it (the U.S. Fire Administration in FEMA/DHS also issued a report which will not be discussed here): 1) Effects of Catastrophic Events on Transportation System Management and Operations: Baltimore, Maryland – Howard Street Tunnel Fire – July 18, 2001 (July 2002, U.S. Department of Transportation, ITS Office) – 50 pages. This is downloadable from: https://rosap.ntl.bts.gov/view/dot/4096 2) Railroad Accident Brief – National Transportation Safety Board – Accident Number DCA-01-MR-004, Baltimore, Maryland, July 18, 2001, Derailment & Fire, CSX Transportation (Adopted December 16, 2004) - 28 pages. [NTSB/RAB-04/08] This is downloadable from: http://www.ntsb.gov/investigations/AccidentReports/Reports/RAB0408.pdf. However, this 2001 accident was mentioned only one single time in the entire text of the EA (70 pages of test and 1,178 pages of Appendices), and then only in passing with no comment (see page 2-1 of the EA), and without any reference to either of the two above official reports.	Thank you; comment acknowledged.

Commenter	No.	Comment	Response
Ibid.	15f	IV. THE THRESHOLD QUESTIONS The presence of these two reports on the 2001 derailment and fire raises a threshold question: Does the recommended "build alternative" for the HST specifically and adequately address the safety and security risks of rail freight transportation along CSX-owned tracks, especially the transportation of HAZMATs? Both the 2002 and the 2004 reports about the 2001 HST derailment and fire make frequent reference to the issue of risks surrounding rail transportation of hazardous materials. Are these risks increased or decreased by the proposed new construction of the HST, and if so how? Furthermore, how can these risks be prevented in the future for rail freight proceeding through the new HST? Any thorough and legally sufficient environmental review under NEPA should certainly include a consideration of and answers for these questions.	Please see response to Comment 15b related to hazardous materials and safety. The Project will achieve numerous improvements to the existing CSX I-95 Rail Corridor, including improved rail profiles, rail bed geometry, drainage and slope stability. All of these features enhance the overall function and safety of the network.
Ibid.	15g	V. DISCUSSION For Baltimore City with the Howard Street Tunnel, whether we go forward in time from 2021 on with a tunnel that is double-stacked or single-stacked, there remains a serious problem of fragmented, limited or absent accountability for safety – both for the prevention and for the remediation of death, injury, property destruction, and disruption of orderly urban life which can result from a rail freight accident in the Howard Street Tunnel.	The CSX network will continue to transport materials in accordance with safety and security laws and regulations as per the U.S. Department of Homeland Security ("DHS"), The Federal Railroad Administration ("FRA"), the Pipeline and Hazardous Materials Safety Administration ("PHMSA"), and the U.S. Department of Transportation ("USDOT"). As a result of the Project, no increase or change in type or volume of hazardous materials through this corridor are planned or expected. Also, certain aspects of the Project will further enhance safe operations (e.g. drainage improvements, replacement of track structure and profiles, retaining walls, etc.). Safety remains a top priority at CSX, and the Company is committed to the overall safety of its employees, customers, and communities in which the Company operates. CSX is an industry leader in safety, with both personal injury and train accident rates decreasing to a record low in 2020.

Commenter	No.	Comment	Response
Ibid.	15h	A) Fragmented Accountability: 1) In the United States, most rail freight tunnels are privately owned and operated (see Attachment to Concurring Opinion of [NTSB] Member [Deborah A.P.] Hersman – page 26). [PLEASE NOTE: For purposes of clarity, all direct quotations below will be placed in italics.] However, as Member Hersman cogently points out in her comment: "In many cases, what occurs on a private right-of-way may have significant consequences to the general public." The Howard Street Tunnel is privately owned and operated by CSX Transportation.	Thank you; comment acknowledged.
Ibid.	15i	2) The federal public agency charged with regulating the safety of rail freight in the U.S. Department of Transportation (USDOT), generally. However, within USDOT, freight SAFETY regulation is split between the Federal Railroad Administration (FRA), and the Pipeline and Materials Hazardous Materials Safety Administration (PHMSA). Primary responsibility appears to rest with the "Safety Management Teams (SMT)" at FRA. The transporting of hazardous materials by rail is regulated by the provisions of 49 Code of Federal Regulations (CFR) Parts 100-110, 130, 171-172, 174, and 179. To the FRA, Member Hersman urges the following (at page 24): "Work with tunnel owners to assess the safety of major railroad tunnels and provide guidance to tunnel owners and users regarding inspections, maintenance intervals and documentation."	Thank you; comment acknowledged. The scope of the HST Project is to complete clearance improvements to allow for double-stack train service on CSX's I-95 Rail Corridor between Baltimore and Philadelphia to address the need of double-stack connectivity and freight operation efficiency and system resiliency. Studies relating generally to safety regulations and publications are outside the scope of this analysis. Please see response to Comment 15b related to hazardous materials and safety

Commenter	No.	Comment	Response
Ibid.	15j	3) On the other hand, freight SECURITY regulation is handled by the U.S. Department of Homeland Security (DHS). Federal regulations can be found at 49 CFR Part 1580 – Freight Rail Transportation Security. To both USDOT and DHS, Member Hersman urges the following (at page 26): "Complete ongoing studies and rulemaking efforts to address the transportation of hazardous materials and coordinate future activities. Highlighting the risks associated with the transport of hazardous materials through tunnels, the Howard Street Tunnel accident raises several important safety issues. First, is the need to develop a more comprehensive risk analysis system to assess the dangers associated with the transport of specific materials. Second, is the implementation of detailed emergency preparedness plans and appropriate training for rail employees and emergency responders. Third, is the implementation of standardized regulations for governing the transport of dangerous goods." In fact, Member Hersman concludes her comments with the following suggestion (NTSB Report - page 28): "I would urge the DOT and DHS to conclude their ongoing efforts as soon as possible and coordinate their future activities to address safety AND security."	Thank you; comment acknowledged. The scope of the HST Project is to complete clearance improvements to allow for double-stack train service on CSX's I-95 Rail Corridor between Baltimore, MD and Philadelphia, PA to address the need of double-stack connectivity, freight operation efficiency and system resiliency. Studies relating generally to regulations and prior reports are outside the scope of this analysis.

Commenter	No.	Comment	Response
Ibid.	15k	So the question remains today – in 2021 – **just how concerned and equipped are USDOT and DHS to cope with the growing problem of rail freight transportation of hazardous materials? To meed its requirements, this Environmental Assessment must address and answer this question! In its present form, it has failed to do so.** This problem of fragmentation was also addressed in the 2002 USDOT Report by four "Conclusions" found on pages 27-29: 1) Transportation of Hazardous Materials – Determining the balance between the public's "need to know" and the potential for compromising security. 2) The need for redundant systems. 3) The need for improved planning and communications. 4) The Need to Identify All Available Resources – Public and Private.	The scope of the HST Project is to complete clearance improvements to allow for double-stack train service on CSX's I-95 Rail Corridor between Baltimore, MD and Philadelphia, PA to address the need of double-stack connectivity, freight operation efficiency and system resiliency. Studies relating generally to the transportation of hazardous materials are outside the scope of this analysis. Please see response to Comment 15b related to hazardous materials and safety.

Ibid.	15l	B) Limited or Absent Accountability: Safety Management Team No. 9 is the team for CSX Transportation. [accessible online at: https://railroads.dot.gov/divisions/regional-offices/safety-managementteams. It would serve the tracks and tunnels in Baltimore City, along with the other 20,000 miles of CSX track, quite a tall order indeed! There are only a total of nearly 400 federal safety inspectors at USDOT to cover all nine national railroads (freight and passenger). Furthermore, as added by Member Hersman at page 23 of the 2004 NTSB Report, "...there are general concerns, as there are in any accident investigation, about the resources available to [our own NTSB] staff. We have only 13 rail investigators at the Safety Board, working freight rail, passenger rail, and transit accidents." The official "Hazardous Materials Compliance Manual" issued by the FRA's Office of Railroad Safety appears not to have been updated since February 2017. It is 113 pages long, with seven appendices totaling another 48 pages. It is not clear how thoroughgoing and adequate this manual is when it comes to HAZMAT. For instance, its Appedix E "Glossary and Acronyms" lists "HTUA" at page 3 and describes it as referring to a "high-threat urban area". However, this appears to be an "orphan" or sham reference, because it is not used anywhere else in the Compliance Manual. In fact, the Manual does not include a single reference to the word "urban" - which raises serious questions about its usefulness as policy in dealing with hazardous materials being shipped by rail into, out of, and through urban areas – a highly common occurrence. Further research reveals that the term "high-threat urban area" is used primarily by the DHS in its policy contained in 49 CFR section 1580. This curious situation points toward a lack of coordination between USDOT/FRA's "safety mission" and DHR's "security mission." Such a lack of coordination does not bode well for the regulation of rail freight transportation of HAZMATs.	Thank you; comment acknowledged. The scope of the HST Project is to complete clearance improvements to allow for double-stack train service on CSX's I-95 Rail Corridor between Baltimore and Philadelphia to address the need of double-stack connectivity and freight operation efficiency and system resiliency. Studies relating generally to safety regulations and publications are outside the scope of this analysis. Please see response to Comment 15b related to hazardous materials and safety.

Commenter	No.	Comment	Response
Ibid.	15m	C) The General Lack of Rail Freight Tunnel Standards in the U.S.: According to NTSB Member Hersman at page 24 in the 2004 HST Railroad Accident Brief , "After conducting preliminary searches, including requests to the FRA and AAR [Association of American Railroads] ,for the date on the number, age, condition, maintenance, and inspection of rail tunnels, it appears that this information is not easily accessible or even available." Note that she is referring here to freight tunnels. By contrast, according to Hersman, USDOT has developed such information for rail transit and road tunnels (see the NTSB Report, page 25). The FRA published its last study on tunnel safety "Tunnel Safety Analysis" in 1990 [USDOT-FRA-Office of Safety – 340 pages]. Now it may well be that such standards have indeed been developed since the 2004 date seventeen years ago when the last of two NTSB Reports was issued about the Howard Street Tunnel. But if that is the case, then this EA should make some reference to it. It does not. There was explicit concern in the country at large about the rail transportation of hazardous materials. This was the subject of an official statement made by the then-head FRA Administrator, Joseph H. Boardman in June of 2006 to the Subcommittee on Railroads of the House Committee on Transportation and Infrastructure [USDOT – 13 pages]. This was soon followed in August of 2007 by an extensive report by the Government Accounting Office (GAO) at the request of Congress on "RAILROAD BRIDGES AND TUNNELS – Federal Role in Providing Safety Oversight and Freight Infrastructure Investment Could Be Better Targeted." However, this report focused on the safety of tunnels and especially bridges, and was not at all concerned about hazardous materials in rail freight. In 2008, USDOT issued a Final Interim Rule for 49 CFR Parts 172 and 174: Hazardous Materials: Enhancing Rail Transportation Safety and Security for Hazardous Materials Shipments.	Thank you; comment acknowledged. The scope of the HST Project is to complete clearance improvements to allow for double-stack train service on CSX's I-95 Rail Corridor between Baltimore and Philadelphia to address the need of double-stack connectivity and freight operation efficiency and system resiliency. Studies relating generally to safety regulations and publications are outside the scope of this analysis. Please see response to Comment 15b related to hazardous materials and safety.

Commenter	No.	Comment	Response
	15n	D) The CSX Railroad Safety Record Since CSX presently owns and operates the HST, and presumably plans to continue doing so in the future, **it would have been helpful for this EA to look at CSX's safety record over recent years.** This information is readily and publicly available on the FRA website. Any plans to build a double-stack-capable HST would do well to **speak to the implications of this safety record for any such future expansion.** A Look at CSX's Safety Record in Maryland reveals the following information about the past twenty-one years (Source: Summary - by Year in Maryland - of Train Accidents with Reportable Damage, Casualties, and Major Causes: Federal Railroad Administration – Office of Safety Analysis): [CSX RAILROAD ACCIDENTS IN MARYLAND table] It is clear from the above record of CSX Railroad in Maryland during the first years of the 21st Century that substantial risk exists on an ongoing basis that there will continue to be rail freight accidents involving CSX. In a very real sense, such accidents "go with the territory" of operating a major freight railroad. In that context, then, it is necessary for **CSX to have in place here in Maryland a plan and a process for preventing and coping with rail freight accidents, especially in tunnels, and especially involving the transportation of hazardous materials. Any environmental assessment worthy of the name must address this necessity.**	The CSX has and will continue to transport materials along its rail network in accordance with safety and security laws and regulations as per the U.S. Department of Homeland Security ("DHS"), The Federal Railroad Administration ("FRA"), the Pipeline and Hazardous Materials Safety Administration ("PHMSA"), and the U.S. Department of Transportation ("USDOT"). As required under these regulations, CSX has plans and resources in place to respond to an incident at any location along its network. As previously mentioned, certain aspects of the Project (e.g. drainage improvements, replacement of track structure and profiles, retaining walls, etc.). will also further enhance the safe operation of trains throughout its' network, including this corridor. Safety remains a top priority at CSX, and the Company is committed to the overall safety of its employees, customers, and communities in which the Company operates. CSX is an industry leader in safety, with both personal injury and train accident rates decreasing to a record low in 2020. The objective of the HST Project is to provide double-stack clearance along the CSX I-95 Corridor between Baltimore, MD and Philadelphia, PA to address the need of double-stack connectivity, freight operation efficiency and system resiliency. Studies generally relating to the transportation of hazardous materials are outside the scope of the analysis.

Commenter	No.	Comment	Response
Ibid.	15o	VI. REQUESTED ACTION: It is requested that this Environment Assessment on the HST not be officially accepted or approved in its current form. In light of the failure of this HST EA to address the issues raised and discussed above about insufficient federal regulatory accountability - for either safety or security going forward now in the proposed expansion of the HST for the rail transportation of freight, especially hazardous materials - it is requested that the FRA issue either a revised EA or a full EIS to cover these issues.	The CSX has and will continue to transport materials along its rail network in accordance with safety and security laws and regulations as per the U.S. Department of Homeland Security ("DHS"), The Federal Railroad Administration ("FRA"), the Pipeline and Hazardous Materials Safety Administration ("PHMSA"), and the U.S. Department of Transportation ("USDOT"). As required under these regulations, CSX has plans and resources in place to respond to an incident at any location along its network. As previously mentioned, certain aspects of the Project (e.g. drainage improvements, replacement of track structure and profiles, retaining walls, etc.). will also further enhance the safe operation of trains throughout its' network, including this corridor. Safety remains a top priority at CSX, and the Company is committed to the overall safety of its employees, customers, and communities in which the Company operates. CSX is an industry leader in safety, with both personal injury and train accident rates decreasing to a record low in 2020. Please see response to Comment 15n for more information on the transportation of hazardous materials.

Commenter	No.	Comment	Response
Meghan Ames, Friends of 26th Street Corridor and Bikemore, 4/13/2021	16a	We represent residents along Baltimore's 26th St. corridor and members of groups representing the community who will be directly affected by the Howard Street Tunnel Project. We do not dispute the merits of the Howard Street Tunnel Project nor the replacement of the Guilford Avenue bridge. Rather, we call to attention the ongoing negative impacts of CSX railway activity along the 26th Street Charles Village rail corridor (Barclay, Guilford, Charles, Huntington, and Sisson Streets). We ask that CSX remedy this undue burden by taking the following actions. 1. Provide a multi-modal (wheelchair, pedestrian, and bike) path along the Guilford Avenue Bridge for resident use during construction: • Wheelchair. Federal ADA regulations indicate the need for wheelchair access. • Pedestrian and bike. The Baltimore City Complete Streets manual Page 183 indicates that during construction, DOT is required to "apply modal hierarchy to maintenance of traffic plan" during the construction phase of "bridge construction/reconstruction" projects. This bridge is part of a designated Bike Boulevard and is a low-stress pedestrian and wheelchair path leading to Margaret Brent Elementary/Middle School.	The Guilford Avenue Bridge will be closed to pedestrian traffic during construction. CSX will work with the Baltimore City DOT to obtain an approved detour plan, which will include ADA accessible pedestrian and bike access.

Commenter	No.	Comment	Response
Ibid.	16b	2. Remove the 26th Street Park as a possible staging area for construction equipment (as proposed in Section 4.9.2 of the CSX Environmental Assessment): • Undue burden. Residents have already sustained months of displacement and construction following the 2014 and 2018 wall collapses. Community leaders organized around the second street collapse to advocate for the creation of a park in alignment with a community vision for the 26th Street Corridor. • Park as public good. Residents have diligently worked with Baltimore City DOT and others to secure funding and support for the space and request that the project not be delayed or otherwise impacted by the Guilford Bridge replacement project. • Misrepresented intentions. At a Charles Village Civic Association on May 27, 2020, CSX representative Brian Hammock explicitly stated that the 26th Street Park would not be used as a staging area for this project.	Comment acknowledged. The future planned 26th Street Park will not be used for Project staging or laydown areas.

Commenter	No.	Comment	Response
Ibid.	16c	3. Reduce undue burden on residents by ensuring environmental and space impacts be minimized along the 26th Street Charles Village rail corridor (Barclay, Guilford, Charles, Huntington, and Sisson Streets): • Minimize air pollutants. As outlined in Section 4.1.2 of the Environmental Assessment, we insist that all CSX workers and contractors remain in "compliance with all applicable laws and regulations would reduce the minor impacts of the pollutant emissions resulting from construction activity. To mitigate these emissions, construction activities will be performed in accordance with construction-level best management practices." • Restrict evening noise. As during the emergency re-construction of the 200 E 26th Street retaining wall, we request that construction activities be limited to 8am-5pm. Furthermore, we request that train horns do not sound in the evening. • Consolidate staging. We request that any public space that is used for staging or use of construction equipment be restricted to 50 feet within either end of the Guilford Street Bridge to preserve neighborhood parking and reduce impact of other environmental consequences. Additionally, we request that staging and road closure duration be limited to the time absolutely necessary and the space only be used for construction happening in the immediate surrounding area.	CSX will attempt to minimize impacts during construction to areas owned and/or controlled by the Company. CSX will also work to limit community disruption and coordinate with the neighboring communities both before and during construction as needed. Construction work associated with the HST Project will be performed in accordance with applicable air quality laws and regulations. With respect to night-time work, CSX will make diligent efforts to avoid nighttime work, but may need to conduct work during nighttime hours. CSX will follow applicable local noise ordinances.

Commenter	No.	Comment	Response
Ibid.	16d	4. Improve space that is disturbed during construction to a state that is better serves the community: • Southeast corner of 26th St. and Guilford. Community members have leveraged local funding and volunteer efforts to green and beautify the space in the southeast corner and request that any damage to grass or trees be repaired when construction is completed. • Standing water. Standing water in and around the railroad tracks at Guilford Avenue continues to be a source of problematic mosquito breeding. We request the source of this standing water be eliminated following the completion of construction. • Fencing and landscaping. Following completion of the new bridge, we request that existing fencing be replaced and landscaping be improved.	As discussed in Section 4.2.2 of the EA, as part of the Build Alternative, the completion of this construction project will result in drainage improvements at all of the Project Areas. Portions of the existing fencing will be replaced at the Guilford Avenue Bridge location. CSX provided the Charles Village Community Benefits District, by way of the Central Baltimore Partnership, a grant to fund the rehabilitation and re-installation of the original 1880s B&O railway fence in the community to create an attractive public green space. This project will include installation of a park bench, landscaping and paving to create a restful shaded community greenspace.
Ibid.	16e	5. Engage in regular communication with the Friends of 26th Street Corridor about the status of the project and any community concerns: • Monthly updates: We request a monthly written update sent via email to Meghan Ames, President Friends of 26th Street Corridor at Friendsof26thSt@gmail.com • Available liaison: We request a point-person be identified to respond to any time-sensitive community concerns within 72 hours. We thank you for the opportunity to provide comment and look forward to your response on the matter.	CSX will continue to work with Baltimore City representatives, the Baltimore City DOT, and community leaders to identify representatives to disseminate information regarding the Project both before and during construction. Additionally, information regarding construction start dates and timeframes will be provided via mailings to adjacent landowners, and signage posted at the Project area sites. CSX will provide contact information on informational project materials for the public to utilize if there are questions or concerns that arise during construction of the Project.

Commenter	No.	Comment	Response
Kevin King, Resident, 4/13/2021	17a	Thank you for having the call today; I'm glad you all are thinking about this project conscientiously and being so patient in collecting feedback. I live on the 300 block of 26th and I share the concerns of most of the letter I signed. Especially the note about standing water. The mosquitos make being outside intolerable during the summer. I can't get to my car at the curb without getting bitten; I can't spend any time outdoors on my own block. It's really very bad and I hope you take a look at better drainage around the track bed during this process. The largest way I differ from the request letter is that I don't support the "Friends of the 26th St Corridor" project as zealously as some and would rather that area be used for staging than my parking. That project is run by a lot of Guilford residents and their goals don't always align with the interests of 26th St residents. So I wanted to make sure the voices I heard during the call about "don't take any parking but also don't use our mini-park" aren't the only feedback you get. I use that space sometimes for skating and such, but if it's that or parking, I choose to have parking. To summarize my feedback, I live on 26th and would rather you use the "26th St Green" for staging than make my parking miserable like it was during the wall repair. Also please do something about the mosquitos.	Comment acknowledged. The planned 26th Street Park will not be used for Project staging or laydown areas. As discussed in Section 4.2.2 of the EA, as part of the Build Alternative, the completion of this construction project will result in drainage improvements at all of the Project Areas.

Commenter	No.	Comment	Response
Catie Kennedy, Resident, 4/13/2021	18a	I am a resident of the 300 block of East 26th Street. I just attended the online meeting with representatives from the Friends of 26th Street group, Councilman Robert Stokes, and representatives from the DOT and CSX. While communication between CSX/DOT and residents was touched upon in the meeting, I want to emphasize the importance of communication by way of physical signage and/or leaflets , in clear, understandable language. Many residents on our block are not well connected online, and are unlikely to see information distributed by the Friends of the 26th Street group on their email list serve or on their website. However, all residents need this information, regardless of whether or not they are online, or whether or not they participate in community groups. Postcards/leaflets, as well as printed signs posted around the work sites, will be critical in ensuring that all residents are kept updated on changes in the neighborhood.	Thank you for your comment. CSX will continue to work with Baltimore City representatives, the Baltimore City DOT, and community leaders to identify representatives to disseminate information regarding the Project both before and during construction. Additionally, information regarding construction start dates and timeframes will be provided via mailings to adjacent landowners or signage posted at the Project Area sites. CSX will provide contact information on informational project materials for the public to utilize if there are questions or concerns that arise during construction of the Project.
Meredith McHugh, Resident, 4/13/2021	19a	We represent residents along the 300 block of E 26th Street, Baltimore, MD, 21218, who will be directly affected by the Howard Street Tunnel Project. We call to attention the ongoing and prospective negative impacts of CSX railway activity along the 26th Street Charles Village rail corridor (Barclay, Guilford, Charles, Huntington, and Sisson Streets). We ask that CSX remedy this undue burden by taking the following actions.	Thank you for your comment.

Ibid.	19b	1. Reduce undue burden on residents by ensuring environmental and space impacts be minimized along the 26th Street Charles Village rail corridor (Barclay, Guilford, Charles, Huntington, and Sisson Streets): • Minimize air pollutants: As outlined in Section 4.1.2 of the Environmental Assessment, we insist that all CSX workers and contractors remain in "compliance with all applicable laws and regulations would reduce the minor impacts of the pollutant emissions resulting from construction activity. To mitigate these emissions, construction activities will be performed in accordance with construction-level best management practices." • Restrict evening noise: As during the emergency re-construction of the 200 E 26th Street retaining wall, we request that construction activities be limited to 8am-5pm. Furthermore, we request that train horns do not sound in the evening. • Consolidate staging: We request that no equipment be staged on the 300 block of E 26th St. We further request that any public space that is used for staging or use of construction equipment be restricted to 50 feet within either end of the Guilford Street Bridge, to preserve neighborhood parking and reduce impact of other environmental consequences. Additionally, we request that staging and road closure duration be limited to the time absolutely necessary and the space only be used for construction happening in the immediate surrounding area. • Ensure access to the 300 block of E 26th St from Guilford Ave. We request that any equipment staging or other construction related activities do not result in blocking access to the 300 block of E 26th St from Guilford Ave. • Alternative parking for CSX workers. We request that CSX work with the City and Department of Transport to provide parking for	Comment acknowledged. The future planned 26th Street Park will not be used for Project staging or laydown areas. Please see responses to comments 16c and 16e related to minimization of impacts to surrounding communities during construction of the HST Project, and ongoing public outreach efforts.

Commenter	No.	Comment	Response
		CSX project workers so that they are not competing with residents for parking spaces on Guilford Ave and E 26th St.	
Ibid.	19c	2. Provide a multi-modal (wheelchair, pedestrian, and bike) path along the Guilford Avenue Bridge for resident use during construction: • Wheelchair: Federal ADA regulations indicate the need for wheelchair access. • Pedestrian and bike: The Baltimore City Complete Streets manual Page 183 indicates that during construction, DOT is required to "apply modal hierarchy to maintenance of traffic plan" during the construction phase of "bridge construction/reconstruction" projects. This bridge is part of a designated Bike Boulevard and is a low-stress pedestrian and wheelchair path leading to Margaret Brent Elementary/Middle School.	The Guilford Avenue Bridge will be closed to pedestrian traffic during construction. CSX will work with Baltimore City DOT to obtain an approved detour plan, which will include ADA accessible pedestrian and bike access.

Commenter	No.	Comment	Response
Ibid.	19d	3. Remove the 26th Street Park as a possible staging area for construction equipment (as proposed in Section 4.9.2 of the CSX Environmental Assessment). • Undue burden: Residents have already sustained months of displacement and construction following the 2014 and 2018 wall collapses. Community leaders organized around the second street collapse to advocate for the creation of a park in alignment with a community vision for the 26th Street Corridor. • Park as public good: Residents have diligently worked with Baltimore City DOT and others to secure funding and support for the space and request that the project not be delayed or otherwise impacted by the Guilford Bridge replacement project. • Misrepresented intentions: At a Charles Village Civic Association on May 27, 2020, CSX representative Brian Hammock explicitly stated that the 26th Street Park would not be used as a staging area for this project.	Comment acknowledged. The planned 26th Street Park will not be used for Project staging or laydown areas. CSX will attempt to minimize impacts during construction to areas owned and/or controlled by the Company. CSX will also work to limit community disruption and coordinate with the neighboring communities both before and during construction as needed. Construction work associated with the HST Project will be performed in accordance with applicable air quality laws and regulations. With respect to night-time work, CSX will make diligent efforts to avoid nighttime work, but may need to conduct work during nighttime hours. CSX will follow applicable local noise ordinances.

Commenter	No.	Comment	Response
Ibid.	19e	4. Improve space that is disturbed during construction to a state that is better serves the community: • Southeast corner of 26th St. and Guilford. Community members have leveraged local funding and volunteer efforts to green and beautify the space in the southeast corner and request that any damage to grass or trees be repaired when construction is completed. • Standing water. Standing water in and around the railroad tracks at Guilford Avenue continues to be a source of problematic mosquito breeding. We request the source of this standing water be eliminated following the completion of construction. • Fencing and landscaping. Following completion of the new bridge, we request that existing fencing be replaced and landscaping be improved.	If the project disturbs the vegetated area at the southeast corner of 26th St. and Guilford, the project will revegetate the area to a like condition prior to the disturbance as possible based on the final project design and consistent with City DOT requirements. The EA did consider the issue of storm water management and drainage (See Sections 3.1.2 and 4.2.2 of the EA) and drainage improvements are planned in this area as part of the project.

Commenter	No.	Comment	Response
Ibid.	19f	5. Engage in regular communication with the 300 of E 26th residents about the status of the project and any community concerns. • Monthly updates: We request a monthly written update sent via email to Meredith McHugh: meredeth.mchugh@gmail.com who will further update all other 300 block residents. • Available Liason: We request a point-person be identified to respond to any time-sensitive community concerns within 72 hours.	CSX intends to provide relevant updates to the communities within the Project Area. CSX will continue to work with City representatives, the City DOT, and community leaders to identify representatives to disseminate information regarding the Project both before and during construction. Additionally, information regarding construction start dates and timeframes will be provided via mailings to adjacent landowners, and signage posted at the Project Area sites. CSX will provide contact information on informational project materials for the public to utilize if there are questions or concerns that arise during construction of the HST Project.

Maryland Department of Planning, 4/20/2021	20a	In accordance with Presidential Executive Order 12372 and Code of Maryland Regulation 34.02.01.04-.06, the State Clearinghouse has coordinated the intergovernmental review of the referenced project. This letter constitutes the State process review and recommendation. This recommendation is valid for a period of three years from the date of this letter. Review comments were requested from the Maryland Department(s) of Natural Resources, the Environment; Baltimore City; and the Maryland Department of Planning, including the Maryland Historical Trust. The Maryland Department of Natural Resources did not have comments. Baltimore City and the Maryland Department of Planning found this project to be consistent with their plans, programs, and objectives. The Maryland Department of Planning stated that the Howard Street Tunnel Project (the Project) is a major capital project as defined in §2-103.1(a)(4) and will be funded partially by the State of Maryland; therefore, the Project is subject to the compliance review under with the Priority Funding Areas (PFA) Law, codified in §5– 7B of the State Finance and Procurement Article of the Annotated Code of Maryland. Since the Maryland portion of the Project is located inside PFAs, the Project complies with the PFA Law. The Howard Street Tunnel Project is also subject to the consistency review under the State Economic Growth, Resource Protection, and Planning Policy (the State Planning Policy), also known as Maryland's Twelve Planning Visions, codified in §5–7A of the State Finance and Procurement Article. The Maryland Department of Planning views this Project consistent with the State Planning Policy since the project will result in transportation, economic, and environmental benefits to the Baltimore region and the State. [additional project summary not included]	Thank you for your response. Comment acknowledged.

Commenter	No.	Comment	Response
Ibid.	20b	The Local Assistance and Training Division of the Maryland Department of Planning (Planning) supports the review and findings of the Infrastructure and Development Division of Planning. The Maryland Department of Environment (MDE) found this project to be generally consistent with their plans, programs, and objectives, but included certain qualifying comments summarized below: 1. If the applicant suspects that asbestos is present in any portion of the structure that will be renovated/demolished, then the applicant should contact the Community Environmental Services Program at (410) 537-3215 to learn about the State's requirements.	Comment acknowledged. All work will be conducted in accordance with applicable federal, state and local laws and regulations.
Ibid.	20c	2. Construction, renovation and/or demolition of buildings and roadways must be performed in conformance with State regulations pertaining to "Particulate Matter from Materials Handling and Construction" requiring that during any construction and/or demolition work, reasonable precaution must be taken to prevent particulate matter, such as fugitive dust, from becoming airborne.	Comment acknowledged. All work will be conducted in accordance with applicable federal, state and local laws and regulations.

Commenter	No.	Comment	Response
Ibid.	20d	3. If a project receives federal funding, approvals and/or permits, and will be located in a nonattainment area or maintenance area for ozone or carbon monoxide, the applicant needs to determine whether emissions from the project will exceed the thresholds identified in the federal rule on general conformity. If the project emissions will be greater than 25 tons per year, contact Brian Hug at (410) 537-4125 for further information regarding threshold limits. During the duration of the project, soil excavation/grading/site work will be performed; there is a potential for encountering soil contamination. If soil contamination is present, a permit for soil remediation is required from MDE. Please contact the New Source Permits Division at (410) 537-3230 to learn about the State's requirements.	Comment acknowledged. A quantitative analysis to satisfy the general conformity requirements was conducted and is provided in Appendix E to the FONSI. The calculated-estimated Project construction emissions in federally designated nonattainment or maintenance areas are well below the corresponding general conformity applicability thresholds. Therefore, pursuant to 40 CFR Part 93.153(c)(1), General Conformity requirements do not apply to the Project and a General Conformity Determination is not required. All work will be conducted in accordance with applicable federal, state and local laws and regulations.
Ibid.	20e	4. Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3315 for additional information regarding solid waste activities and contact the Waste Diversion and Utilization Program at (410) 537-3314 for additional information regarding recycling activities.	Comment acknowledged. All work will be conducted in accordance with applicable federal, state and local laws and regulations.
Ibid.	20f	5. The Waste Diversion and Utilization Program should be contacted directly at (410) 537-3314 by those facilities which generate or propose to generate or handle hazardous wastes to ensure these activities are being conducted in compliance with applicable State and federal laws and regulations. The Program should also be contacted prior to construction activities to ensure that the treatment, storage or disposal of hazardous wastes and low-level radioactive wastes at the facility will be conducted in compliance with applicable State and federal laws and regulations.	Comment acknowledged. All work will be conducted in accordance with applicable federal, state and local laws and regulations.

Commenter	No.	Comment	Response
Ibid.	20g	6. The proposed project may involve rehabilitation, redevelopment, revitalization, or property acquisition of commercial, industrial property. For specific information about these programs and eligibility, please contact the Land Restoration Program at (410) 537-3437.	Comment acknowledged. All work will be conducted in accordance with applicable federal, state and local laws and regulations.
Ibid.	20h	7. Borrow areas used to provide clean earth back fill material may require a surface mine permit. Disposal of excess cut material at a surface mine may requires site approval. Contact the Mining Program at (410) 537-3557 for further details.	Comment acknowledged. All work will be conducted in accordance with applicable federal, state and local laws and regulations.

Appendix B: Errata to the EA

Appendix B- Errata to the EA

This Errata contains additions or changes to the Draft EA to revise, clarify, or make corrections to the text based on updated Project information. These changes are a result of public comments or changes to the Project design, and are provided below with reference to the page numbers of the original text in the Draft EA. Deleted text is identified with strikethrough (~~strikethrough~~) and new or revised text appears in red italics (*italics*). Where applicable, the entire paragraph from the Draft EA has been included to provide context for the changes.

1. General Comment: applies to entirety of the EA: CSX has determined the conventional construction method will be used for the HST improvements. The non-conventional method (option two) is no longer being considered.

2. 3.1.9 – Land Use and Community Facilities, EA Page 3-14.

There are ~~four~~ *five* master plans applicable to the Project Areas in Maryland.[2] These plans are *Live, Earn, Play, Learn* (adopted 2006, revised 2009),[3] *South Baltimore Gateway Master Plan* (2015),[4] ~~and~~ *Urban Renewal Plan: Charles/25th* (2002), *[5]and the Market Center Urban Renewal Plan.*[6]

[2] Includes plans developed since 2000.
[3] Baltimore City Planning Department. 2009. *Live, Earn, Play, Learn: City of Baltimore Comprehensive Master Plan 2007-2012.* https://planning.baltimorecity.gov/planning-master-plan. Accessed July 3, 2020.
[4] Baltimore City Department of Planning Department. October 29, 2015. *South Baltimore Gateway Master Plan*. https://planning.baltimorecity.gov/planning-plans/neighborhood. Accessed July 3, 2020.
[5] Baltimore City Department of Planning Department. 2002. *Urban Renewal Plan: Charles/25th*. https://planning.baltimorecity.gov/planning-plans/neighborhood. Accessed July 3, 2020.
[6] Baltimore City Department of Planning Department. November 16, 1977. *Market Center*. https://planning.baltimorecity.gov/sites/default/files/Market%20Center%20URP.pdf. Accessed May 1, 2021.

3. 4.0 Environmental Consequences, EA Page 4-1. The proposed 26th Street Park in Baltimore will not be used for staging, stockpiling or laydown of construction equipment during the construction of the Project Table 4-1. Anticipated Direct Impacts to Affected Environment Resources for the Build Alternative

Affected Environment Resources*	**Anticipated Direct Impacts – Build Alternative**
Air Quality	Minor and temporary impacts due to construction activities. Long-term net benefit due to decrease of vehicle emissions from freight volume transferring from highways to rail system.
Water Quality	None; minor and temporary impacts due to construction activities may occur.
Noise and Vibration	Operational: None Construction: Minor and temporary impacts due to construction activities may occur. Impacts are to be determined once means and methods of construction are final.
Wetland Areas	Potential temporary and minor impact to waterway during construction.
Floodplains	None
Endangered Species or Wildlife	None / "No Effect"
Use of Energy Resources	Minor impacts due to construction activities.
Aesthetic and Design Quality Impacts	Minor impacts due to structure modifications and replacements.
Land Use and Community Facilities	~~Potential temporary and minor impact to the proposed/future 26th Street Park at the Guilford Avenue Project Area.~~ *None*
Socioeconomic Environment	Short-term positive impacts to employment and income from construction activity. Fuel and cost savings related to freight shipping. Reduced truck vehicle miles traveled and reduced vehicle fatalities. Minor and temporary impacts due to traffic disruption associated with bridge replacement activities and potential HST non-conventional construction method.

4. Section 4.9.2 – Build Alternative, EA Page 4-10. The proposed 26th Street Park in Baltimore will not be used for staging, stockpiling or laydown of construction equipment during the construction of the Project:

Minor changes to land use within the CSX ROW will occur at ~~three~~ *two* Project Areas as summarized below.

- The Bayview Rail Yard in Baltimore is proposed for the staging and storage of Project materials; however, no improvements to the rail yard are proposed for the Project.
- The 58th Street interlocking site in Pennsylvania will be relocated to an area between Lindbergh Boulevard and the Schuylkill River within the existing rail corridor. No change to land use will occur.
- ~~The property that the community supports for use as 26th Street Park in Baltimore will be required for the staging, stockpiling, and laydown of construction equipment during the replacement of the Guilford Avenue Bridge. MDOT MPA and CSX have coordinated with the Baltimore City Department of Transportation (BCDOT) regarding the timing for park development and temporary construction-period impacts to the property. No permanent impacts would occur at the site, and the temporary construction activities would not interfere with any potential future park improvements.~~

5. Additional stakeholder outreach meetings held since the EA was made available for public review. Section 5.1 - Public and Agency Coordination, EA Page 5-2.

- *March 12, 2021*
  - ***Stakeholder:*** *Baltimore City Council President Nick Mosby*
  - ***Topics Covered:*** *Project overview, EA findings, public comment period, next steps*
- *March 24, 2021*
  - ***Stakeholder:*** *Dredged Material Management Plan Management Committee*
  - ***Topics Covered:*** *Project overview, EA findings, public comment period, next steps*
- *March 26, 2021*
  - ***Stakeholder:*** *Maryland Transit Administration*
  - ***Topics Covered:*** *EA public comment period, HST construction options, future coordination*
- *April 7, 2021*
  - ***Stakeholder:*** *Maryland District 40 Elected Officials*
  - ***Topics Covered:*** *Project overview, EA findings, public comment period, next steps*
- *April 12, 2021*

- ***Stakeholder:*** *Midtown Community Benefits District, Baltimore City Councilman Robert Stokes, Sr.*
- ***Topics Covered:*** *Project overview, EA findings, public comment period, next steps*

- *April 13, 2021*
  - ***Stakeholder:*** *Charles Village Civic Association, Friends of 26th Street Corridor, Baltimore City Department of Transportation, Baltimore City Councilman Robert Stokes, Sr.*
  - ***Topics Covered:*** *EA public comment period, future 26th Street Park, potential construction impacts, future coordination, next steps*

6. Updated text in response to comment made by the Environmental Protection Agency on 4/2/2021: Section 3.1 - Affected Environment - Air Quality (starts on Page 3-2, Page 29 of the EA PDF) EPA recommends that "Table 3-1. National Ambient Air Quality Standards (NAAQS)" include the years for each individual standard; some of these are referenced in the footnotes, but not all. Including the NAAQS year is important to distinguish the stringency of the standard.

Table 3-1. National Ambient Air Quality Standards (NAAQS)

Pollutant	Primary/Secondary	Averaging Time	Level
Carbon Monoxide (CO)[a]	Primary *(1971)*	8-hour	9 ppm
[76 FR 54294 Aug 31, 2011]	Primary *(1971)*	1-hour	35 ppm
Lead (Pb)[b] ***[81 FR 71906 Oct 18, 2016]***	Primary and Secondary *(2008)*	Rolling 3-month average	0.15 µg/m^3
Nitrogen Dioxide (NO_2)[c]	Primary *(2010)*	1-hour	100 ppb
[83 FR 17226 April 18, 2018]	Primary and Secondary *(1971)*	Annual	53 ppb[d]
Ozone (O_3)[e] ***[80 FR 65292 Oct 26, 2015]***	Primary and Secondary *(2015)*	8-hour	0.070 ppm[f]
$PM_{2.5}$[g] ***[78 FR 3085 Jan 15, 2013]***	Primary *(2012)*	Annual	12 µg/m^3
	Secondary *(2012)*	Annual	15 µg/m^3
	Primary and Secondary *(2006)*	24-hour	35 µg/m^3
PM_{10}[h] ***[78 FR 3085 Jan 15, 2013]***	Primary and Secondary *(1987)*	24-hour	150 µg/m^3
Sulfur Dioxide (SO_2)[i] ***[84 FR 9866 March 18, 2019]***	Primary *(2010)*	1-hour	75 ppb[j]
	Secondary *(1971)*	3-hour	0.5 ppm

Source: EPA, National Ambient Air Quality Standards (NAAQS), 2020, http://www.epa.gov/air/criteria.html.
Notes: ppb = parts per billion, ppm = parts per million, and µg/m^3 = micrograms per cubic meter of air.
[a] CO 1-hour and 8-hour standard not to be exceeded more than once per year.
[b] Lead rolling 3-month average standard not to be exceeded. Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
[c] NO_2 1-hour standard represents the 98th percentile of 1-hour daily maximum concentrations, averaged over three years.
[d] The official level of the annual NO_2 standard is 0.053 ppm, equal to 53 ppb, which is presented for the purpose of clearer comparison to the 1-hour standard.
[e] Ozone 8-hour standard represents the annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years.

[f] Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O_3 standards additionally remain in effect in some areas. Revocation of the previous (2008) O_3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.
[g] $PM_{2.5}$ annual standards represent annual mean, averaged over three years. $PM_{2.5}$ 24-hour standard represents 98th percentile, averaged over three years.
[h] PM_{10} 24-hour standard not to be exceeded more than once per year on average over three years.
[i] SO_2 1-hour standard represents 99th percentile of 1-hour daily maximum concentrations, averaged over three years. SO_2 3-hour standard not to be exceeded more than once per year.
[j] The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2)any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO_2 standards or is not meeting the requirements of a SIP call under the previous SO_2 standards (40 CFR 50.4(3)).

7. Updated text in response to comment made by the Environmental Protection Agency on 4/2/2021: We recommend putting the bulleted list of attainment classifications on Page 3-4 (Page 31 of the EA PDF) into a table and referencing the attainment status of these areas relative to different years attainment/maintenance status of these different rules could have implications for the 20-yearmaintenance timelines and resulting General Conformity and Transportation Conformity requirements. Having this information in table format would also make it easier to read.

The CAA requires states to develop a general plan to attain and/or maintain the primary and secondary NAAQS in all areas of the country and to develop a specific plan to attain the standards for each area designated nonattainment for a NAAQS. The attainment classifications for each of the EPA-designated areas[7] in the Study Area[8] are *provided in Table 3-1a:*

[7] EPA, Green Book, https://www.epa.gov/green-book.
[8] The state of dispersion science and health effects of GHG emissions have not sufficiently advanced to accurately consider the microscale level of mobile sources. For this reason, this analysis does not determine a Local Study Area for GHG emissions for mobile sources and only considered them on a regional scale. GHG emissions from the Project would be due to fossil fuel combustion of vehicles, diesel trains, potential change in GHG emissions from implementation of the project is calculated for the same sources and categories as identified for the analysis of local operational emissions.

Table 3-1a. Attainment Classifications

Air Quality Region	County	Nonattainment Pollutant	Maintenance Pollutant
Baltimore, MD	Baltimore City, MD	2015 Ozone – Marginal Nonattainment	1971 CO – Partial Maintenance 1997 PM-2.5 – Maintenance[a]
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE	New Castle, MD	2015 Ozone – Marginal Nonattainment	2006 PM-2.5 - Maintenance
	Delaware, PA		2006 and 2012 PM-2.5 – Maintenance
	Philadelphia, PA		2006 PM-2.5 - Maintenance

Notes:
[a] 1997 PM-2.5 standard was revoked, and transportation conformity requirements no longer apply. (https://19january2017snapshot.epa.gov/sites/production/files/2016-10/documents/420b16072.pdf)

8. Updated text in response to comment made by the Environmental Protection Agency on 4/2/2021: For "Table 3-2. Regional Background Air Quality Concentrations, 2017-2019", we recommend moving the columns so that the NAAQS value and measured ambient air quality value are adjacent to one another for easier comparison.

9. Updated text in response to comment made by the Environmental Protection Agency on 4/2/2021: *Section 2.2.3 - Regional Assessment of the Build Alternative (Page 11 of the Appendix C PDF) This section states that double-stacking container cars will increase shipping capacity without the need to run additional trains or locomotives, and thus operational emissions of the Build Alternative will be unchanged (Table 5, Page 11). We recommend a comparison of projected emissions between double-stacked and single-stacked trains. While it is logical that double-stacked cars would not require additional trains or locomotives, it would be helpful to address fuel use in trains running double-stacked cars as compared to trains running single-stacked cars. Would fuel use increase as trains with double-stacked cars are moving more mass?*

Table 3-2. Regional Background Air Quality Concentrations, 2017-2019

Pollutant	Units	Averaging Period	*NAAQS*	*Background Concentration*	Monitoring Location
CO	ppm	8-hour	9	2	Essex, MD
CO	ppm	1-hour	35	2.7	Essex, MD
Pb	μ/m^3	3-month	0.15	0.025	Wilmington, DE
NO_2	ppb	1-hour	100	47.8	Old Town, MD
NO_2	ppb	Annual	53	15.65	Old Town, MD
O_3	ppm	8-hour	0.070	**0.076 (exceeds NAAQS)**	Farley, MD
$PM_{2.5}$	μ/m^3	Annual	12	8.76	Old Town, MD
$PM_{2.5}$	μ/m^3	24-hour	35	19.66	Old Town, MD
PM_{10}	μ/m^3	24-hour	150	53	Old Town, MD
SO_2	ppb	1-hour	75	12.01	Essex, MD

Source: US Environmental Protection Agency. Air Quality System Data Mart [internet database] available via https://www.epa.gov/airdata. Accessed June 23, 2020.
Note: (ppm) – parts per million; (ppb) parts per billion; (μ/m^3) micrograms per meter cubed

The intent of the Project is not to change the current mix nor volume of freight being transported along the corridor. Instead, it will enable the same amount of freight currently being carried on intermodal trains to be moved in a more efficient manner using fewer cars, which allows for more efficient freight movement.

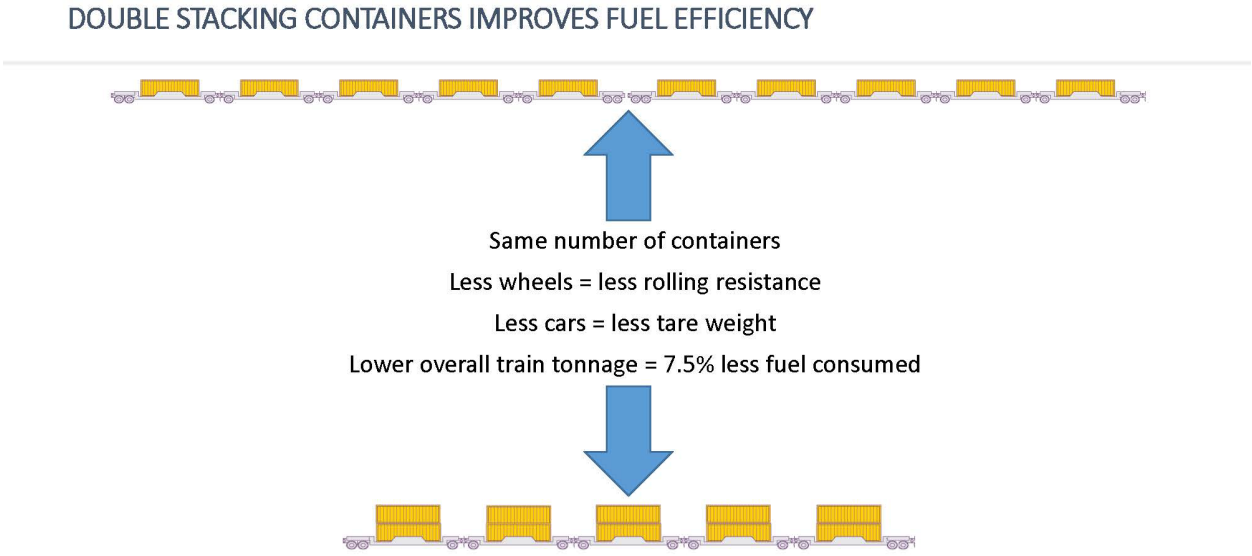
Table 5: Existing and Future Predicted Train Volumes

Direction	Existing			Future Predicted		
	Total Traffic Per Day	Typical Train Make Up		Total Traffic Per Day	Typical Train Make Up	
		Locomotives	Cars		Locomotives	Cars
Northbound	9.2	3	65.5	9.2	3	65.5
Southbound	9.5	3	65.5	9.5	3	65.5

Notes:
[a] This table represents average of all trains (Bulk materials/merchandise and Intermodal) moving along the corridor.
[b] It is not the intent of the Project to accommodate additional freight, but the same amount of freight in a more efficient manner by transporting the freight on fewer cars which allows for more efficient train movement.
Source: CSX, Dir Performance Measurements

Double-stacking containers will result in increased fuel efficiency over current train operations. The fuel savings results from the fact that the same number of containers can be transported on substantially

fewer rail cars. This results in less rolling resistance due to the overall lower tare weight of the train. CSX estimates that due to the fewer number of rail cars needed to carry the double-stacked containers, fuel consumption will be reduced by approximately 7.5% (see figure below). The fuel efficiency improves with increases in freight tonnage as there is less rolling resistance per ton of freight for double-stack compared to single stack container trains.



10. Supplemental Environmental Justice Analysis has been provided (See Appendix D) in response to comment made by the Environmental Protection Agency on 4/2/2021: *Environmental Justice (EJ) - The EA identified minority and low-income populations that may be EJ communities by census tract at a number of study areas, including the Baltimore Project site Study Areas; at Clifton Avenue, Boone Tunnel, 68th Street, 65th Street, Cemetery Street, 61st Street, Woodland Avenue, 58th Street, and Eastwick Interlocking in Pennsylvania; and Lancaster Avenue and 4th Street Study Areas in Delaware. EPA recommends using the census block group for the assessment of potential EJ communities as it is the most refined geographical unit for which the Census Bureau publishes data.*

11. Supplemental General Conformity Applicability Analysis has been provided (See Appendix E) in response to comment made by the Environmental Protection Agency on 4/2/2021: *This section asserts that "the Build Alternative would not cause or contribute to any new violation of any NAAQS or increase the frequency or severity of any existing violation of any NAAQS in the region and does not require a General Conformity determination" on Page 4-3 (Page 52 of the EA PDF). We recommend providing supporting evidence, analysis, or documentation that satisfies general conformity requirements; the qualitative analysis referenced in this section and described in Appendix C does not sufficiently address this requirement.*

Appendix C: Section 106 Memorandum of Agreement

MEMORANDUM OF AGREEMENT

Among the
FEDERAL RAILROAD ADMINISTRATION,
MARYLAND STATE HISTORIC PRESERVATION OFFICER,
PENNSYLVANIA STATE HISTORIC PRESERVATION OFFICER,
MARYLAND DEPARTMENT OF TRANSPORTATION PORT ADMINISTRATION,
and
CSX TRANSPORTATION

Regarding the
HOWARD STREET TUNNEL PROJECT
BALTIMORE CITY, MARYLAND
and
DELAWARE COUNTY, PENNSYLVANIA

WHEREAS, the Howard Street Tunnel Project (HST Project) consists of the rehabilitation or replacement of six existing railroad tunnels and bridges along the CSX Transportation (CSX) I-95 Rail Corridor between Baltimore City, Maryland, and Philadelphia, Pennsylvania, which is the last major intermodal rail-freight corridor on the CSX network that does not provide modern double-stack service due to various height-clearance obstructions located in Maryland, Delaware, and Pennsylvania (Exhibit 1: HST Project Location Map and Area of Potential Effects Maps); and

WHEREAS, the U.S. Department of Transportation (USDOT) selected the Maryland Department of Transportation Maryland Port Administration (MDOT MPA) to receive a grant under its Fiscal Year 2019 Infrastructure for Rebuilding America (INFRA) program for final design and construction of the HST Project, for which additional funding sources will also be used; and

WHEREAS, CSX is the Project Sponsor and is carrying out the HST Project, and the USDOT's Federal Railroad Administration (FRA) is administering the INFRA grant; and

WHEREAS CSX owns and operates the I-95 Rail Corridor, including its tunnels, bridges, culverts, other infrastructure, and the right-of-way associated with the rail corridor, and is responsible for managing and designing the HST Project, including carrying out the preliminary engineering, final design, and construction; and

WHEREAS, the HST Project is an "Undertaking" pursuant to Section 106 of the National Historic Preservation Act of 1966 (54 USC Part 306108) (NHPA), as amended, and its implementing regulations at 36 CFR Part 800 (hereinafter collectively referred to as Section 106); and

WHEREAS, FRA is the federal agency responsible for compliance with Section 106 for the Undertaking; and

WHEREAS, FRA is the lead federal agency for the HST Project under the National Environmental Policy Act (NEPA) (42 USC § 4321 et seq.) and is preparing an Environmental Assessment (EA) to satisfy its NEPA obligations. Pursuant to 36 CFR § 800.8, FRA has coordinated Section 106 compliance with the NEPA process; and

WHEREAS, based on the level of HST Project design provided by CSX as of the date of execution of this MOA, FRA determined a number of project activities are exempt from Section 106 review under the *Program Comment to Exempt Consideration of Effects to Rail Properties Within Rail Rights-of-Way* issued by the Advisory Council on Historic Preservation (the ACHP) on August 17, 2018 (83 FR 42920, August 24, 2018, and amended 84 FR 31075, June 28, 2019); and

WHEREAS, in letters dated April 24, 2020, FRA initiated consultation with the Maryland Historical Trust (MHT), the Delaware Division of Historical and Cultural Affairs (DHCA), and the Pennsylvania Historical and Museum Commission (PHMC), which respectively serve as the State Historic Preservation Officers (SHPOs) for their respective states (MD SHPO, DE SHPO, and PA SHPO), pursuant to 36 CFR § 800.3(c) and established the preliminary discontiguous Area of Potential Effects (APE) for historic architecture and archaeology (36 CFR § 800.4(a)(1)), which was expanded in November 2020 to include additional locations (Exhibit 1: HST Project Location Map and Area of Potential Effects Maps); and

WHEREAS, proposed construction activities at the Howard Street Tunnel location involve a combination of track lowering and modification to the tunnel arch and/or invert; and

WHEREAS, proposed construction activities at the Boone Tunnel location involve a combination of track lowering and arch modification; and

WHEREAS, pursuant to 36 CFR § 800.3(f)(2), in a letter dated June 4, 2020, FRA invited the following federally recognized Indian tribes (herein collectively referred to as "Tribes") to participate in the Section 106 process as Consulting Parties: 1) the Catawba Indian Nation, 2) the Delaware Nation, 3) the Delaware Tribe of Indians, 4) the Eastern Shawnee Tribe of Oklahoma, and 5) the Seneca-Cayuga Nation; and

WHEREAS, three Tribes responded with the following: 1) on July 7, 2020, the Catawba Indian Nation indicated they have no immediate concerns with regard to traditional cultural properties, sacred sites, or Native American archaeological sites within the boundaries of the proposed project areas, however, they requested to be notified if Native American artifacts and/or human remains are discovered during the HST Project's ground disturbing activities; 2) on June 23, 2020, the Delaware Nation accepted the invitation to participate in consultation; and 3) on June 8, 2020, the Delaware Tribe of Indians accepted the invitation to participate in consultation with a request for locational information about exempted activities where ground disturbing activities are expected; and

WHEREAS, pursuant to 36 CFR § 800.3(f)(1), in a letter dated June 4, 2020, FRA invited 1) the B&O Railroad Museum; 2) the Baltimore & Ohio Railroad Historical Society; 3) the Baltimore City, Maryland, Commission for Historical and Architectural Preservation; 4) Baltimore Heritage; 5) the Baltimore Heritage Area Association; 6) the City of Wilmington, Delaware

Department of Planning and Development; 7) the Delaware County, Pennsylvania, Historical Society; 8) the Delaware County, Pennsylvania, Planning Department, Heritage Commission; 9) the Delaware Department of Transportation (DelDOT); 10) the Maryland Institute College of Art; 11) the New Castle County, Delaware, Department of Land Use, Development and Planning; 12) the New Castle, Delaware, Historical Society; 13) the Preservation Alliance for Greater Philadelphia; 14) Preservation Delaware; 15) Preservation Maryland; 16) Preservation Pennsylvania; 17) the Railroad Museum of Pennsylvania; and 18) the U.S. Department of the Interior, National Park Service (NPS), Northeast Region to consult in the Section 106 process regarding the effects of the HST Project on historic properties, and has afforded the public-at-large an opportunity to comment through the concurrent NEPA public involvement process; and

WHEREAS, per comments received from DE SHPO, FRA invited, in a letter dated January 14, 2021, two state-recognized Indian tribes as Consulting Parties, the Lenape Indian Tribe of Delaware and the Nanticoke Indian Tribe; and re-invited DelDOT and the City of Wilmington, Delaware Department of Planning and Development, who had not responded to FRA's initial invitation; and

WHEREAS, the following parties accepted the invitation to be a Consulting Party: 1) Preservation Maryland accepted on June 5, 2020; 2) Baltimore Heritage accepted on June 8, 2020; 3) the Delaware County, Pennsylvania, Planning Department accepted on June 8, 2020; 4) the City of Wilmington, Delaware Department of Planning and Development accepted on January 14, 2021; and 5) DelDOT accepted on February 9, 2021; and

WHEREAS, pursuant to 36 CFR § 800.4 and 800.5, CSX consultants, who meet the relevant standards outlined in the Secretary of the Interior's (SOI's) *Professional Qualifications Standards for Archeology and Historic Preservation* (36 CFR Part 61), conducted identification and effects assessment technical studies for both historic architecture and archaeology within the HST Project area, which included a revised APE to reflect design changes, and are documented in *Howard Street Tunnel Project: Architectural Historic Properties Identification and Effects Assessment Technical Report* (January 2021) and *Howard Street Tunnel Project: Phase IA Archaeological Assessment Technical Report* (January 2021); and

WHEREAS, based on the information in the reports, FRA identified a total of twenty-two architectural historic properties in the APE that are listed in or eligible for listing in the National Register of Historic Places (NRHP), and all located in Maryland and Pennsylvania; and

WHEREAS, FRA determined, in consultation with MD SHPO, DE SHPO, PA SHPO and the other Consulting Parties, that the HST Project will have an adverse effect on the following seven architectural historic properties, listed in order from south to north:

- Howard Street Tunnel & Power House (B-79) (Power House element is no longer extant) in Maryland, due to physical destruction and alteration of character-defining features of the tunnel
- Baltimore and Ohio (B&O) Railroad Baltimore Belt Line (B-5287) in Maryland, due to extensive alterations or complete replacement of multiple contributing elements
- Cannon Shoe Company (B-5332) in Maryland, due to construction vibration

- North Avenue Bridge (BC1208) (B-4521) in Maryland, due to physical destruction to a character-defining portion of the resource
- Guilford Avenue Bridge (BC8029) (B-4526) in Maryland, due to complete physical destruction of the resource
- Harford Road Bridge (BC8026) (B-4523) in Maryland, due to complete physical destruction of the resource
- Boone Tunnel (1997RE00650 [previously 106212]) in Pennsylvania, due to physical destruction and alteration of character-defining features of the tunnel; and

WHEREAS, the Howard Street Tunnel Project: Architectural Historic Properties Identification and Effects Assessment Technical Report (January 2021) used the Draft Howard Street Tunnel Noise and Vibration Assessment Technical Report (Yuan 2020), which was based on worst-case scenarios, and determined that the Build Alternative may have an adverse effect on one historic property, the Cannon Shoe Company (B-5332), due to construction vibration; and

WHEREAS, based on investigations of the archaeological APE conducted by CSX's SOI-qualified cultural resources consultants, and documented in the *Howard Street Tunnel Project, Phase IA Archaeological Assessment Technical Report, City of Baltimore, Maryland; Wilmington, Delaware; and Philadelphia County, Pennsylvania* (January 2021), FRA has concluded that the HST Project has limited potential to affect significant pre-contact or historic archaeological properties, therefore no additional archaeological investigations are recommended; and

WHEREAS, MD SHPO and PA SHPO concurred with FRA's identification of historic properties and effects findings in letters dated December 2, 2020 and February 18, 2021; and December 7, 2020, February 9, 2021, and February 12, 2021, respectively; and

WHEREAS, DE SHPO stated no objection to FRA's finding that the one architectural resource evaluated in Delaware within the APE is not eligible for NRHP listing, and concurred that there is little potential for intact archaeological resources and no further archaeological work is needed in Delaware if construction, staging, stockpiling, and access to the project locations in the state will be confined to the existing railroad right-of-way, in a letter dated January 6, 2021; and

WHEREAS, in accordance with 36 CFR § 800.10(c), FRA notified NPS that the Project would have no adverse effect on the one National Historic Landmark identified within the APE, namely the Mount Royal Station, by letter dated March 31, 2021, and NPS, by email dated April 21, 2021, concurred with FRA's finding and did not indicate an intent to participate in consultation; and

WHEREAS, FRA determined that a Memorandum of Agreement (MOA), prepared in accordance with the Section 106 regulations (36 CFR § 800.6(c)), is appropriate to resolve the potential adverse effects on historic properties that may occur from the implementation of the HST Project because the nature and extent of effects to historic properties are known at this stage of HST Project design, except for certain potential construction noise and vibration effects. CSX has minimized adverse effects to the Howard Street Tunnel in Maryland and the Boone Tunnel in Pennsylvania by selecting less impactful construction methods at those locations; and

WHEREAS, MD SHPO and PA SHPO are Signatories to this MOA because the HST Project will have adverse effects in Maryland and Pennsylvania; and

WHEREAS, DE SHPO is not a Signatory to this MOA because the HST Project will not affect historic properties in the Delaware portion of the APE; and

WHEREAS, FRA has invited CSX, as the HST Project Sponsor, designer, owner, and operator of the I-95 Rail Corridor, to participate in this MOA as an Invited Signatory with responsibilities under this MOA, and CSX has accepted; and

WHEREAS, FRA has invited MDOT MPA, as the grantee, to participate in this MOA as an Invited Signatory with responsibilities under this MOA, and MDOT MPA has accepted; and

WHEREAS, FRA has invited all other Consulting Parties, including DE SHPO, to be Concurring Parties under this MOA, and these Consulting Parties may accept the invitation to become a Concurring Party by signing this MOA; and

WHEREAS, fulfillment of this MOA satisfies the responsibilities of any Maryland state agency under the requirements of the Maryland Historical Trust Act of 1985, as amended, State Finance and Procurement Article §§ 5A-325 and 5A-326 of the Annotated Code of Maryland, for any components of the Project that require licensing, permitting, and/or funding actions from Maryland state agencies; and

WHEREAS, fulfillment of this MOA satisfies the responsibilities of any Pennsylvania state agency under the requirements of the Pennsylvania History Code, as amended, for any components of the HST Project within the APE that require licensing, permitting, and/or funding actions from Pennsylvania state agencies; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), FRA has notified the ACHP of its adverse effect finding and intention to enter into an MOA with specified documentation by letter dated April 2, 2021, and the ACHP, by letter dated April 9, 2021, declined to participate in consultation, pursuant to 36 CFR § 800.6(a)(1)(iii); and

NOW, THEREFORE, FRA, MD SHPO and PA SHPO as Signatories, and CSX and MDOT MPA as Invited Signatories (together the Signatories) agree the HST Project will be implemented in accordance with the following stipulations in order to take into account the effects of this undertaking on historic properties.

STIPULATIONS

I. ROLES AND RESPONSIBILITIES

A. FRA

1. FRA, as a Signatory and the lead federal agency for the HST Project, has authority to execute, amend, and/or terminate this MOA.

2. FRA has the primary responsibility to ensure the provisions of this MOA are carried out.

3. FRA is responsible for all government-to-government consultation with Tribes.

B. MD SHPO and PA SHPO

1. MD SHPO and PA SHPO, as Signatories with responsibility for regulatory review and compliance under Section 106, have authority to execute, amend, and/or terminate this MOA.

2. MD SHPO and PA SHPO will review, provide comment, and approve submittals, as specified in this MOA.

C. CSX

1. CSX, as an Invited Signatory, has the same rights with regard to seeking amendment and/or termination of this MOA as other Signatories and will ensure that specified stipulations and procedures, for which it has assumed responsibility, are carried out in accordance with the terms stipulated in this MOA.

2. CSX, as the Project Sponsor, is responsible for implementation and funding of the stipulations of this MOA, consistent with paragraph D.2 below.

3. As authorized by FRA, CSX will continue to coordinate and prepare any necessary analyses, documentation, and recommendations on its behalf, but FRA remains legally responsible for all findings and determinations, including determinations of eligibility and effects of the HST Project, as well as resolution of objections or dispute resolution.

D. MDOT MPA

1. MDOT MPA, as an Invited Signatory, has the same rights with regard to seeking amendment and/or termination of this MOA as other Signatories and will ensure that specified stipulations and procedures, for which it has assumed responsibility, are carried out in accordance with the terms stipulated in this MOA.

2. MDOT MPA will carry out certain responsibilities as indicated in Stipulation IV.D. of this MOA.

E. Consulting Parties

1. Consulting Parties include Tribes, local governments and/or organizations with a demonstrated interest in the HST Project who have participated in the development of this MOA, or who may later join in as Consulting Parties in the Section 106 process due to the nature of their legal or economic relationship to the HST Project or affected properties, or their interest in the HST Project's effects on historic properties.

2. Consulting Parties may participate in ongoing consultation, as stipulated by this MOA.

F. Concurring Parties

Concurring Parties may participate in ongoing consultation, as stipulated by this MOA, and in review of the mitigation products specified in Section IV of this MOA.

II. PROFESSIONAL QUALIFICATIONS AND DOCUMENTATION STANDARDS

A. CSX will ensure that all work carried out pursuant to this MOA will be done by or under the direct supervision of qualified professionals in the disciplines of Archaeology, Architectural History, and/or History who meet the relevant standards outlined in the SOI's Professional Qualifications Standards for Archeology and Historic Preservation (36 CFR Part 61) (http://www.nps.gov/history/local-law/arch_stnds_9.htm).

B. All documentation prepared or performed pursuant to this MOA will be consistent with all pertinent federal and state standards and guidelines, including, but not limited to, those developed by NPS, the ACHP, MD SHPO, and PA SHPO (Exhibit 2: List of Relevant Standards and Guidelines).

III. TIMEFRAMES, COMMUNICATION AND DOCUMENT REVIEW

A. CSX will provide all documentation prepared pursuant to this MOA to FRA for review and approval before CSX submits to the other Signatories, Concurring Parties, and Consulting Parties. Concurrent review between parties and FRA is acceptable for subsequent drafts, at FRA's discretion, and FRA approval is required prior to finalization.

B. All time designations are in calendar days. If a review period ends on a Saturday, Sunday or federal holiday, the review period will be extended until the next business day.

C. All review periods start on the day the documents are provided to the relevant parties, which constitutes notification, unless otherwise stipulated in this MOA.

D. CSX, in coordination with FRA, will send all notifications required by this MOA by email and/or other electronic means, unless a mailed notification is requested by a recipient.

E. For purposes of communication pursuant to this MOA, contact information for each of the Signatories, and the Consulting and Concurring Parties, including the Tribes, is provided in Exhibit 3: List of Contacts. Names and contact information therein may be updated, as needed, without an amendment to this MOA. It is the responsibility of each Signatory, and Consulting and Concurring Party to inform FRA and CSX of any change in contact information in a timely manner.

F. Unless otherwise stated elsewhere in this MOA, MD SHPO, PA SHPO, MDOT MPA, and the Consulting or Concurring Parties, as appropriate, will provide comments on documents prepared pursuant to this MOA to CSX with a copy to FRA.

G. Except as provided in Stipulation III.H. below, MD SHPO, PA SHPO, MDOT MPA, and the Consulting or Concurring Parties will have up to thirty (30) days from the date of delivery of any documents prepared pursuant to this MOA to review and provide written comments to CSX and FRA.

H. At FRA's discretion, FRA may grant written requests from the Signatories or Consulting or Concurring Parties to extend the review period in Stipulation III.G. or may determine that an additional round of review of draft documents is necessary. All such written requests must be received by FRA in a timely manner and provide adequate justification to extend a review period. FRA will notify MD SHPO, PA SHPO, MDOT MPA, and the Consulting or Concurring Parties of its decision in writing, including specifying review timeframes.

I. If a Consulting or Concurring Party does not provide written comments within the timeframes specified in this MOA, CSX will proceed to the next step in the review process, following approval by FRA, and MD SHPO and PA SHPO.

J. If the Signatories and/or Consulting or Concurring Parties object to or recommend extensive revisions to submissions stipulated in this MOA, CSX, in coordination with FRA, will work to respond to the recommendations and resolve disputes in a timely manner and at the lowest appropriate staff level.

K. If FRA, in coordination with CSX, cannot resolve a dispute within thirty (30) days, FRA may elect to follow the dispute resolution process identified in Stipulation XI to resolve any such dispute.

L. In exigent circumstances (e.g., concerns over construction suspensions or delays), all parties will expedite their respective document review and/or dispute resolution obligations within seven (7) days.

IV. TREATMENT MEASURES FOR ARCHITECTURAL HISTORIC PROPERTIES

A. CSX, in consultation with the Signatories and Concurring Parties, as directed by and under the authority of FRA, will mitigate the adverse effects of the HST Project on the seven architectural historic properties described in the Recitals above, according to the stipulations and procedures outlined herein. CSX will fulfill the stipulations herein in accordance with the HST Project schedule and the deadlines described below.

B. Information used to develop content pursuant to this MOA will be utilized and shared amongst all documentation efforts stipulated so as to avoid duplication of research and writing efforts. As appropriate, the written documentation will draw upon original building, tunnel, and bridge construction documents; historic photographs; and interviews with local residents or individuals possessing special knowledge. Potential repositories to consult for information on individual buildings, structures, and railroad resources include, but are not limited to, the CSX archive, National Archives, Maryland State Archives, Maryland Historical Society, Pennsylvania State Archives, Baltimore City Archives, and Enoch Pratt Free Library.

C. Update Historic Property Survey Files

1. CSX will investigate the history, development, use, and evolution of the architectural historic properties listed below for the purposes of updating older historic property survey files of NRHP-listed and eligible historic properties, and for the purposes of establishing historic contexts:

    a. Howard Street Tunnel & Power House (B-79) – updated MIHP Form

    b. North Avenue Bridge (BC1208) (B-4521) – updated MIHP Form

    c. Guilford Avenue Bridge (BC8029) (B-4526) – updated MIHP Form

    d. Harford Road Bridge (BC8026) (B-4523) – updated MIHP Form

    e. Boone Tunnel (1997RE00650) – updated evaluation-level documentation into PA-SHARE

2. In Maryland, updates will be made to each property's Maryland Inventory of Historic Properties (MIHP) Form, which documents the property's physical integrity and place in Maryland history. Updates will not be made to the properties' Determination of Eligibility Forms. In Pennsylvania, updates will be made to the existing Historic Resource Survey Form (HRSF) in the form of evaluation-level documentation entered into PA-SHARE. Updated photographs, taken prior to the start of construction of the HST Project, will be included in the documentation. CSX's investigations will focus specific attention on the railroads that historically utilized these properties.

3. CSX will submit drafts of the survey files to the Signatories and Concurring Parties for review and comment, following the steps described in Stipulation III. The final documents will be filed with MD SHPO and/or PA SHPO, as appropriate.

D. Electronic Informational Platforms

1. CSX will develop content to be posted on MDOT MPA's website that provides a platform for the electronic storage and public dissemination of information and documents resulting from implementation of the stipulations in this MOA for each of the seven architectural historic properties adversely affected by the HST Project. Content may include: Historic American Engineering Record (HAER) documentation (as outlined in Stipulation IV.E), photographs, the *Howard Street Tunnel Project: Architectural Historic Properties Identification and Effects Assessment Technical Report* (January 2021), and related material and other data, as appropriate.

2. CSX will coordinate with the Signatories and Concurring Parties on the final scope and format of the website content, including opportunities to partner with, and hyperlink to, other relevant preservation/history-based organizations or to utilize other forms of electronic communication.

3. CSX will implement this stipulation prior to initiation of construction of the HST Project and work with MDOT MPA to maintain and update the website content, as needed, for a period of one year after completion of the HST Project construction. After the conclusion of one year, neither CSX nor MDOT MPA shall have further obligation under this MOA to maintain or update the website content, and will use reasonable efforts to offer the website content to the Consulting Parties and other repositories.

E. Historic American Engineering Record Documentation

1. CSX will prepare a HAER written and photographic documentation for the Baltimore and Ohio (B&O) Railroad Baltimore Belt Line (B-5287) segment within the APE, to include the four individual contributing elements that will be adversely affected by the HST Project: Howard Street Tunnel & Power House (B-79), the North Avenue Bridge (BC1208) (B-4521), the Guilford Avenue Bridge (BC8029) (B-4526), and the Harford Road Bridge (BC8026) (B-4523) contributing elements of. Written documentation will include the history of the B&O Railroad's Baltimore Belt Line, including the tunnel and bridges, and the story behind the final location, design, engineering, and method of construction used for building the railroad alignment, including the tunnel and bridges. Photographic documentation for the tunnel will record significant elements of the tunnel structure, including the portals and representative views of the interior. The documentation will be deposited with the Library of Congress (LOC) (via NPS), and the MD SHPO library.

2. CSX will contact staff at the NPS Northeast Regional Office for HABS/HAER guidance on the final scope, content, format, and disposition of each recordation effort. The photographic documentation will be prepared using digital images consistent with Level II HABS/HAER photography guidelines.

3. Unless otherwise agreed to by FRA, NPS, and MD SHPO, CSX will ensure that all HAER recordation is completed and accepted prior to the commencement of construction or demolition that will affect historic properties, in order to advance the HST Project toward and/or through construction CSX will leave each of the identified historic properties' structure and its associated parcel of land in an unaltered appearance until the photographic documentation phase is completed.

4. Unless otherwise agreed to by FRA, NPS, and MD SHPO, CSX will provide final copies of each recordation document to the NPS (to be housed at the LOC) and MD SHPO, and offer electronic copies to other Consulting Parties and repositories, as appropriate.

F. Interpretive Display

1. CSX will endeavor to develop, fabricate, and install an interpretive sign and/or display and place it at an appropriate mutually agreeable location for the Boone Tunnel (1997RE00650).

2. Possible interpretive themes for the displays include, but are not limited to, the history and construction of the Boone Tunnel and the B&O Railroad's Philadelphia Branch.

3. CSX, in coordination with FRA, will endeavor to identify a historic preservation group, community organization, or county facility willing and capable of assuming ownership and ongoing maintenance of the interpretive sign and/or display.

4. Should CSX not identify an interested and willing party within six (6) months of the last signature on this MOA, CSX will coordinate with and receive FRA approval prior to changing the type of treatment measure and notifying the Signatories and Concurring Parties. Instead of following the steps outlined in Stipulation IV.F. 5 and 6 below, CSX will complete HAER recordation following the steps outlined in Stipulation IV.E. of this MOA, as mitigation for the adverse effect to Boone Tunnel.

5. Should CSX develop an interpretive sign and/or display, CSX will submit draft and final outlines, text copy, exhibition scripts, and/or design documents to the Signatories and Concurring Parties for review and comment following the steps described in Stipulation III. The final form, location, content, and design-life of the interpretive displays will be decided in consultation among the Signatories.

6. Should CSX develop an interpretive sign and/or display, CSX will develop, fabricate, and install the interpretive display within one (1) year of HST Project construction completion. Immediately following installation, CSX will transfer permanent ownership of the display to the identified party, who will maintain the display for at least three (3) years following completion of the HST project construction. CSX may document an ownership and maintenance agreement with the identified party, as appropriate.

V. CONSTRUCTION-RELATED NOISE AND VIBRATION CONSIDERATIONS

A. In addition to the previously identified Cannon Shoe Company (B-5332) in Baltimore, Maryland, CSX will identify any additional historic properties that could also potentially be affected by construction-related noise or vibration, following the development and FRA review of the final engineering design and construction methodology(ies) for the HST Project.

B. FRA, in coordination with CSX, will determine whether the Cannon Shoe Company (B-5332) and any additional historic properties will be adversely affected by construction-related noise or vibration. Steps to make this determination will be to revise the APE, identify historic properties, assess the effects to historic properties, and develop treatment measures to resolve any adverse effects.

C. FRA and CSX, in consultation with the appropriate SHPO and the Consulting Parties, will attempt to identify measures or otherwise modify engineering design and construction methods to avoid or minimize any adverse effect to additional historic properties.

D. Should FRA determine, in consultation with DE SHPO, MD SHPO, PA SHPO, and Consulting Parties, as applicable, that the HST Project will have an adverse effect on historic properties, CSX will prepare and implement a Historic Properties Construction Protection Plan (Protection Plan) to avoid, minimize, and/or mitigate for any construction-related noise or vibration effects for those properties identified during the steps outlined in Stipulation V.B. Measures outlined in the Protection Plan will be consistent with the SOI's *Standards for the Treatment of Historic Properties,* and will be overseen by a qualified professional as contained in Stipulation II.A *s*.

E. CSX will develop and distribute the draft Protection Plan prior to construction to the Signatories and Consulting Parties for review and comment following the steps described in Stipulation III. CSX will implement the approved Protection Plan, in accordance with the schedule included in the Protection Plan.

F. The Protection Plan will address measures to achieve compliance with local construction-related noise ordinances during HST Project construction and to avoid and/or mitigate the construction-related vibration effects to a potentially affected historic property, including identifying baseline conditions of the historic

property prior to the commencement of construction activities; the type of monitoring equipment that will be used; the frequency with which such equipment will be used; and a description of how CSX will evaluate and repair any vibration damage that may result from the construction of the HST Project to historic properties. Should unavoidable construction-related vibration effects to historic properties be identified during advanced design or construction, the Protection Plan will include a commitment to proceed with Section 106 consultation for the affected historic properties pursuant to the processes outlined in Stipulations VII and VIII.

VI. PROJECT CHANGES

CSX will notify FRA within 15 days of any proposed modifications to the HST Project that may result in additional or new effects on historic properties. Before CSX takes any action that may result in additional or new effects on historic properties, FRA, CSX, the SHPO, and Consulting Parties as appropriate, will consult to determine the appropriate course of action. This may include revision to the APE, identification of historic properties, assessment of effects to historic properties, and development of treatment measures to resolve adverse effects. If FRA determines that an amendment to the MOA is required, it will proceed in accordance with Stipulation XII.

VII. UNANTICIPATED DISCOVERIES

A. Pursuant to 36 CFR § 800.13, CSX will develop an Unanticipated Discoveries Plan (UDP) to be included in construction and bidding documents for contractor/team use if a previously undiscovered archaeological or historic architectural resource that is or could reasonably be a historic property is encountered during construction, or a previously known historic property will be affected in an unanticipated manner.

B. The UDP will include a procedure for interacting with Consulting Parties and the public, as appropriate, the media, a chain of contact, and notification requirements, stop-work requirements, and other appropriate provisions, as needed. CSX will submit the draft UDP to FRA, who will then distribute to MD SHPO and PA SHPO for concurrent review and comment, in accordance with Stipulation III.

C. If it is necessary to develop treatment measures, CSX will carry out the approach and treatment measures after approval by FRA.

VIII. TREATMENT OF HUMAN REMAINS

A. If human remains are encountered during construction of the HST Project, CSX will immediately halt disturbance within a 25-foot radius of the discovery and immediately secure and protect the human remains and any associated funerary

objects in place in such a way that minimizes further exposure or damage to the remains from the elements, looting, and/or vandalism.

B. CSX will immediately notify the appropriate law enforcement agency and/or reviewing agency with jurisdiction to determine if the discovery is subject to a criminal investigation by law enforcement and notify the Signatories within twenty-four (24) hours of the initial discovery. Appropriate authorities, per SHPO guidance included in Exhibit 2, are as follows:

1. In Delaware, the Director of the Delaware Division of Historical and Cultural Affairs and the Chief Medical Examiner, Department of Health and Social Services must be notified.

2. In Maryland, the Maryland State Police, the State's Attorney of the county, and MD SHPO must be notified.

3. In Pennsylvania, PA SHPO and the coroner should be notified.

C. If a criminal investigation is not appropriate, CSX will apply and implement all relevant laws, procedures, policies, and guidelines contained in Stipulation II.B. concerning the treatment and repatriation of burial sites, human remains, and funerary objects.

D. In the event the human remains encountered could be of Native American origin, whether prehistoric or historic, FRA will immediately notify the appropriate Tribe(s) and consult with them, MD SHPO, and/or PA SHPO, as appropriate, to determine the treatment plan for the Native American human remains and any associated funerary objects. Once the treatment plan has been agreed upon by FRA and the relevant SHPO(s), CSX will implement the plan.

E. If the remains are not of Native American origin, CSX will, as appropriate, develop a research design/treatment plan for the appropriate treatment of the remains and any associated artifacts, consistent with procedures and guidelines contained in Stipulation II.B. and submit the plan for review and comment by the Signatories and other Consulting Parties following the steps described in Stipulation III. Once the research design/treatment plan has been agreed upon by FRA and the relevant SHPO(s), CSX will implement the plan.

F. CSX will ensure its contractor does not proceed with work in the affected area until FRA, in consultation with MD SHPO, PA SHPO, Tribe(s), and other Consulting Parties, as appropriate, determines the development and implementation of an appropriate research design/treatment plan or other recommended mitigation measures are completed. However, work outside the area of discovery may continue.

IX. EMERGENCY SITUATIONS

A. Should an emergency situation occur during construction of the HST Project that represents an imminent threat to public health or safety or creates a hazardous condition and in either case has the potential to affect historic properties, CSX will contact the appropriate emergency response agency with jurisdiction as soon as possible. CSX will notify the Signatories and other Consulting Parties within twenty-four (24) hours of the condition which created the emergency, the immediate action taken in response to the emergency, the effects of the response to historic properties, and, where appropriate, further plans to address the emergency. This will include any further proposals to avoid, minimize, or mitigate potential adverse effects to historic properties.

B. The Signatories and other Consulting Parties will have seven (7) days to review and comment on the plan(s) for further action. If FRA, MD SHPO, PA SHPO, and other Consulting Parties, as appropriate, do not object to the plan within the review period, then CSX will implement the proposed plan(s).

C. Where possible, CSX will ensure that emergency responses allow for future preservation or restoration of historic properties, take into account the SOI's *Standards for the Treatment of Historic Properties*, and include on-site monitoring by the appropriate qualified professional as contained in Stipulation II.A.

D. Immediate rescue and salvage operations conducted to preserve life, property, and/or public health are exempt from these and all other provisions of this MOA.

X. ANTI-DEFICIENCY ACT

FRA's obligations under this MOA are subject to the availability of appropriated funds, and the stipulations of this MOA are subject to the provisions of the Anti-Deficiency Act (31 USC Part 1341). FRA will make reasonable and good faith efforts to secure the necessary funds to implement this MOA in its entirety. If compliance with the Anti-Deficiency Act alters or impairs FRA's ability to implement the stipulations of this agreement, or if another federal agency does not assume responsibility as lead federal agency, Signatories will consult in accordance with the amendment or termination procedures found in Stipulations XII and XIII, respectively.

XI. DISPUTE RESOLUTION

A. In the event any Signatory and/or Consulting Party to this MOA objects in writing to any actions proposed or the manner in which the terms of this MOA are implemented, FRA will first consult with the objecting party and other Signatories and Consulting Parties, as appropriate, within fifteen (15) days in an attempt to resolve the objection. If FRA determines that such objection cannot be resolved, FRA will proceed as set forth herein.

B. FRA will forward all documentation relevant to the dispute, including FRA's proposed resolution, to the ACHP within fifteen (15) days of the determination that an unresolved dispute exists and request that the ACHP provide FRA with its advice on the resolution of the objection within thirty (30) days of receiving the documentation. Concurrently, FRA will also provide the Signatories and Consulting Parties with the same documentation for review and comment following the steps described in Stipulation III. FRA will prepare a written response to the objection, which will constitute FRA's decision regarding the objection, that takes into account any timely advice or comments regarding the dispute from the ACHP, Signatories and other Consulting Parties, and provide them with a copy of the written response. FRA will then proceed according to its decision.

C. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, FRA may make a decision on the dispute and proceed accordingly. FRA will document this decision in a written response to the objection that takes into account any timely comments regarding the dispute from the Signatories and other Consulting Parties and provide the ACHP, Signatories and other Consulting Parties with a copy of such written response.

D. Should disputes arise under exigent circumstances (e.g., concerns over construction suspensions or delays), all parties agree to expedite their respective document review and dispute resolution obligations.

E. The Signatories remain responsible for carrying out all other actions subject to the terms of this MOA that are not the subject of the dispute.

XII. AMENDMENTS

Any Signatory to this MOA may request that it be amended, whereupon that party will immediately consult with the other Signatories within thirty (30) days (or another time period agreed to by all Signatories) to consider such an amendment. FRA will be responsible for developing and distributing the resulting amendment among the Signatories in the same manner as the original MOA. The amendment will be effective on the date of the final amendment signature. FRA will file a copy signed by all Signatories with the ACHP.

XIII. TERMINATION AND WITHDRAWAL

A. If any Signatory to this MOA determines its terms will not or cannot be carried out, that party will immediately notify the other Signatories in writing and consult with them to seek resolution, or amendment per Stipulation XII. If, within sixty (60) days (or another time period agreed to by all Signatories), a resolution or an amendment cannot be reached, any Signatory may terminate the MOA upon written notification to the other Signatories. A Consulting Party does not have the ability to terminate the MOA.

B. If the MOA is terminated, then, prior to work continuing the HST Project, FRA must either, 1) execute a new MOA or Programmatic Agreement (36 CFR § 800.6(c) or 800.14(b)) or 2) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. FRA will notify the Signatories and other Consulting Parties as to the course of action it will pursue.

XIV. MONITORING AND REPORTING

A. Each year, following the effective date of this MOA until it expires or is terminated, CSX will provide the Signatories and other Consulting Parties a written report summarizing work undertaken and any tasks completed related to adversely affected historic properties, pursuant to the terms of this MOA. Such a report will include any scheduling changes proposed, problems encountered, and disputes and their resolution in the Signatories' efforts to carry out the terms of this MOA.

B. CSX will submit the summary report to the other Signatories, Consulting Parties, and Tribes annually commencing one (1) year from the date of the last signature on this MOA.

XV. DURATION, EFFECTIVE DATE, AND EFFECT OF EXECUTION

A. Duration

This MOA will expire when all its stipulations have been completed or in five (5) years from the effective date, whichever comes first, unless the Signatories agree in writing to an extension through an amendment pursuant to Stipulation XII.

B. Effective Date

This MOA will go into effect on the date FRA signs the MOA, which will be the final signature among all the Signatories.

C. Effect of Execution

Execution of this MOA by the Signatories, its subsequent filing with the ACHP, and implementation of its terms demonstrate FRA has taken into account the effect of the HST Project on historic properties and afforded the ACHP an opportunity to comment, and satisfied its responsibilities under Section 106 of the NHPA and its implementing regulations.

XVI. LIMITATION ON LIABILITY

This Agreement is between FRA, MD SHPO, PA SHPO, MDOT MPA, and CSX and does not confer or create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity, by any third person or party (public or

private) against FRA, MD SHPO, PA SHPO, CSX, or against their officers or employees or any other person. All parties are responsible for the acts and/or omissions of their own employees and/or agents.

SIGNATORIES
Federal Railroad Administration
Maryland State Historic Preservation Officer
Pennsylvania State Historic Preservation Officer

INVITED SIGNATORIES
CSX Transportation
Maryland Department of Transportation, Port Administration

OTHER CONSULTING PARTIES (INVITED TO BE CONCURRING PARTIES)
Delaware Nation (federally recognized Indian tribe)
Delaware Tribe of Indians (federally recognized Indian tribe)
Baltimore Heritage
City of Wilmington, Delaware Department of Planning and Development
Delaware County, Pennsylvania, Planning Department, Heritage Commission
Delaware Department of Transportation
Delaware State Historic Preservation Officer
Preservation Maryland

SIGNATORY

FEDERAL RAILROAD ADMINISTRATION

By:  Date: May 25, 2021

Laura Shick
Supervisory EPS, Environment and Project Engineering Division

SIGNATORY

MARYLAND STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: 5-19-2021

Elizabeth Hughes
Maryland State Historic Preservation Officer

SIGNATORY

PENNSYLVANIA STATE HISTORIC PRESERVATION OFFICER

By:  Date: 5/25/2021

Andrea MacDonald
Deputy Pennsylvania State Historic Preservation Officer

INVITED SIGNATORY

CSX TRANSPORTATION

By: William Parry Digitally signed by William Parry Date: 2021.05.20 12:13:02 -04'00' Date: _____

William Parry, PG, CGWP
Senior Manager Environmental Remediation

INVITED SIGNATORY

MARYLAND DEPARTMENT OF TRANSPORTATION, PORT ADMINISTRATION

By: _____ Date: 18 May 2021

William P. Doyle
Executive Director

CONCURRING PARTY

DELAWARE NATION (FEDERALLY RECOGNIZED INDIAN TRIBE)

By: _____ Date: _____

Deborah Dotson
President

CONCURRING PARTY

DELAWARE TRIBE OF INDIANS (FEDERALLY RECOGNIZED INDIAN TRIBE)

By: _____ Date: _____
Dr. Brice Obermeyer
Tribal Historic Preservation Officer

CONCURRING PARTY

BALTIMORE HERITAGE

By: _____ Date: _____
Johns Hopkins
Executive Director

CONCURRING PARTY

CITY OF WILMINGTON, DELAWARE DEPARTMENT OF PLANNING AND DEVELOPMENT

By: _____ Date: _____

Debra Martin
Historic Preservation Planner

CONCURRING PARTY

DELAWARE COUNTY, PENNSYLVANIA PLANNING DEPARTMENT, HERITAGE COMMISSION

By: Beverlee Barnes Date: 5/19/21

Beverlee Barnes
Historic Preservation Planning Manager

CONCURRING PARTY

DELAWARE DEPARTMENT OF TRANSPORTATION

By: _____ Date: _____
Alexandra Tarantino
Architectural Historian

CONCURRING PARTY

DELAWARE STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____
Gwenyth A. Davis
Deputy State Historic Preservation Officer

CONCURRING PARTY

PRESERVATION MARYLAND

By: _____ Date: _____
Nicholas Redding
Executive Director

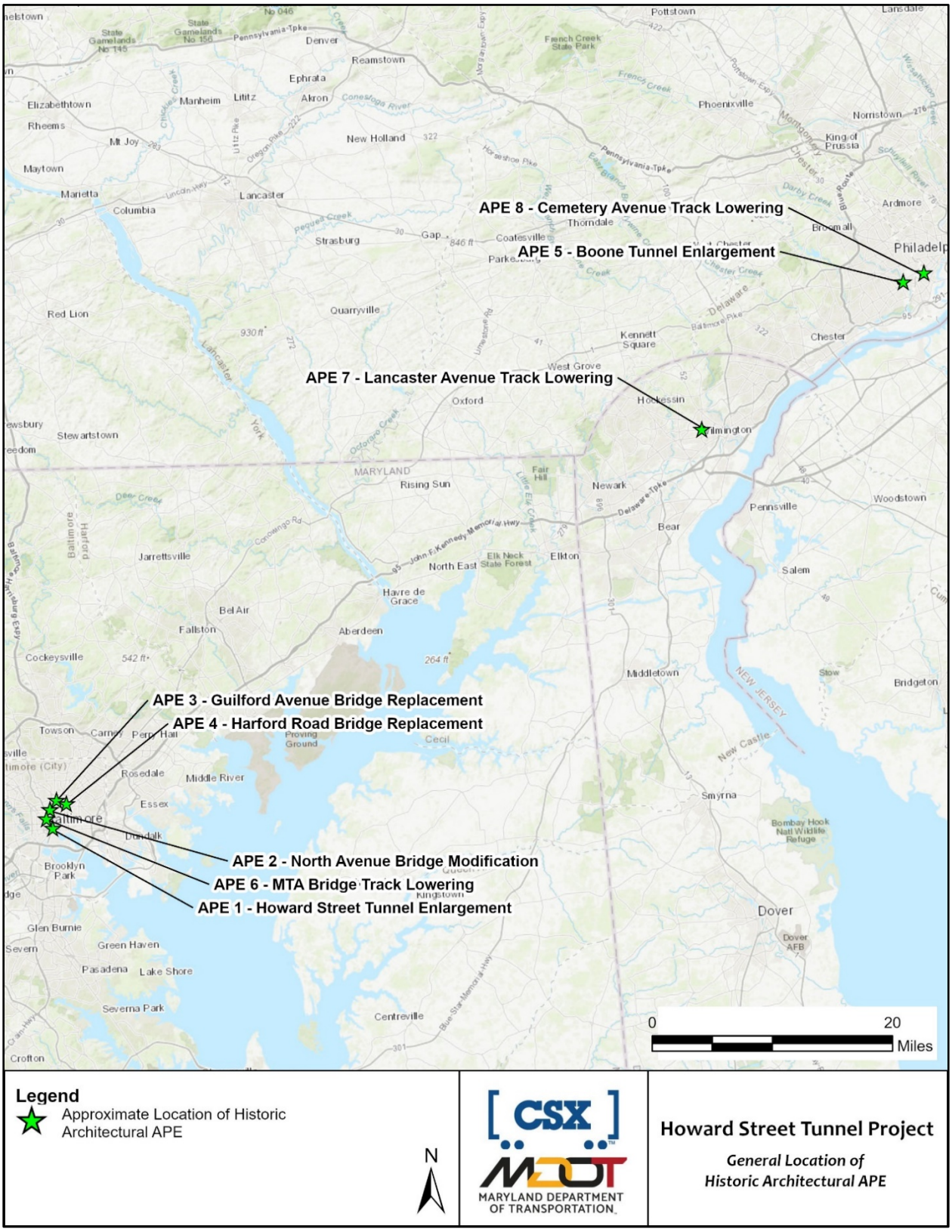
EXHIBITS

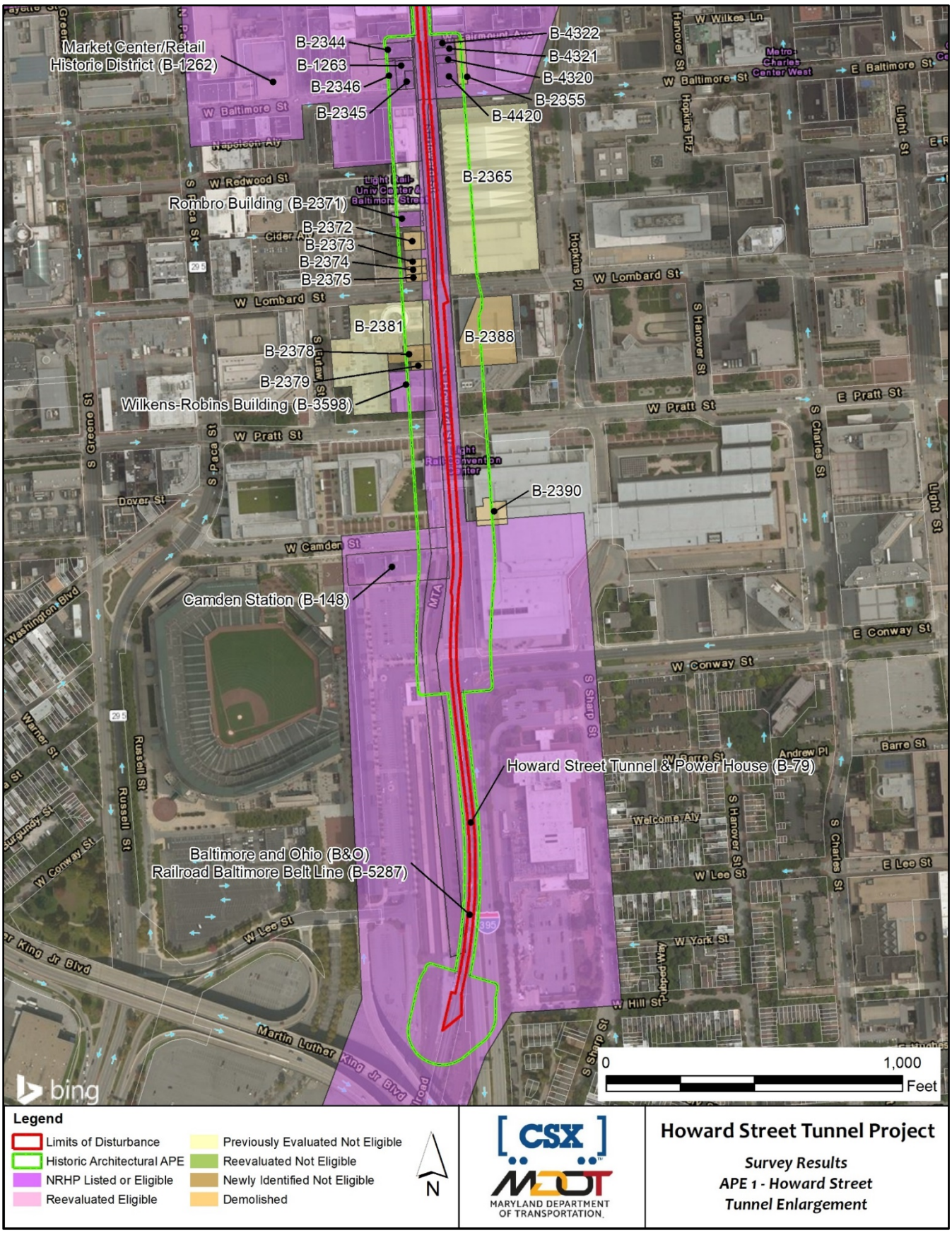
Exhibit 1: HST Project Location Map and Area of Potential Effects Maps

Exhibit 2: List of Relevant Standards and Guidelines

Exhibit 3: List of Contacts

Exhibit 1: HST Project Location Map and Area of Potential Effects Maps





Legend

- Limits of Disturbance
- Historic Architectural APE
- NRHP Listed or Eligible
- Reevaluated Eligible
- Previously Evaluated Not Eligible
- Reevaluated Not Eligible
- Newly Identified Not Eligible
- Demolished

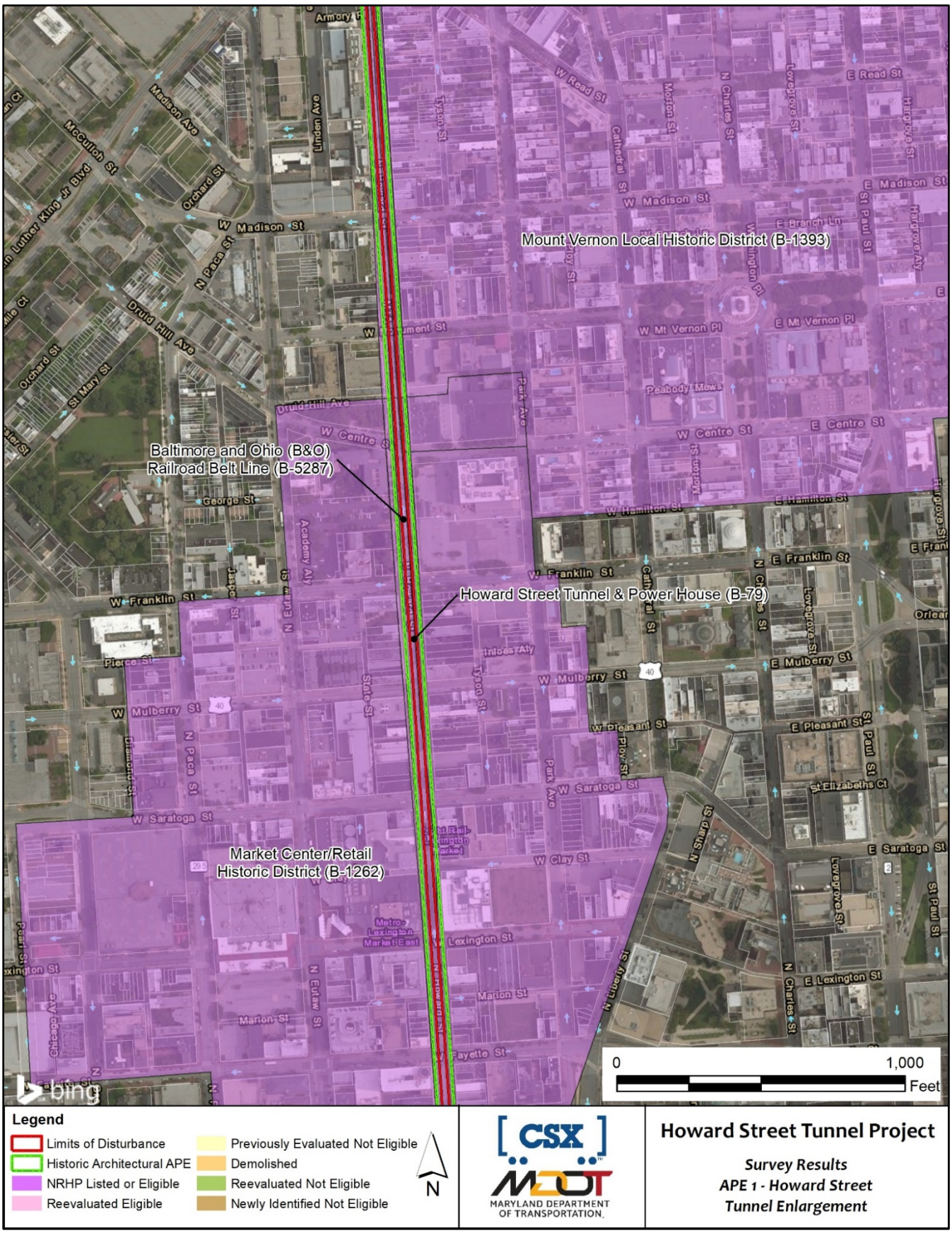
N

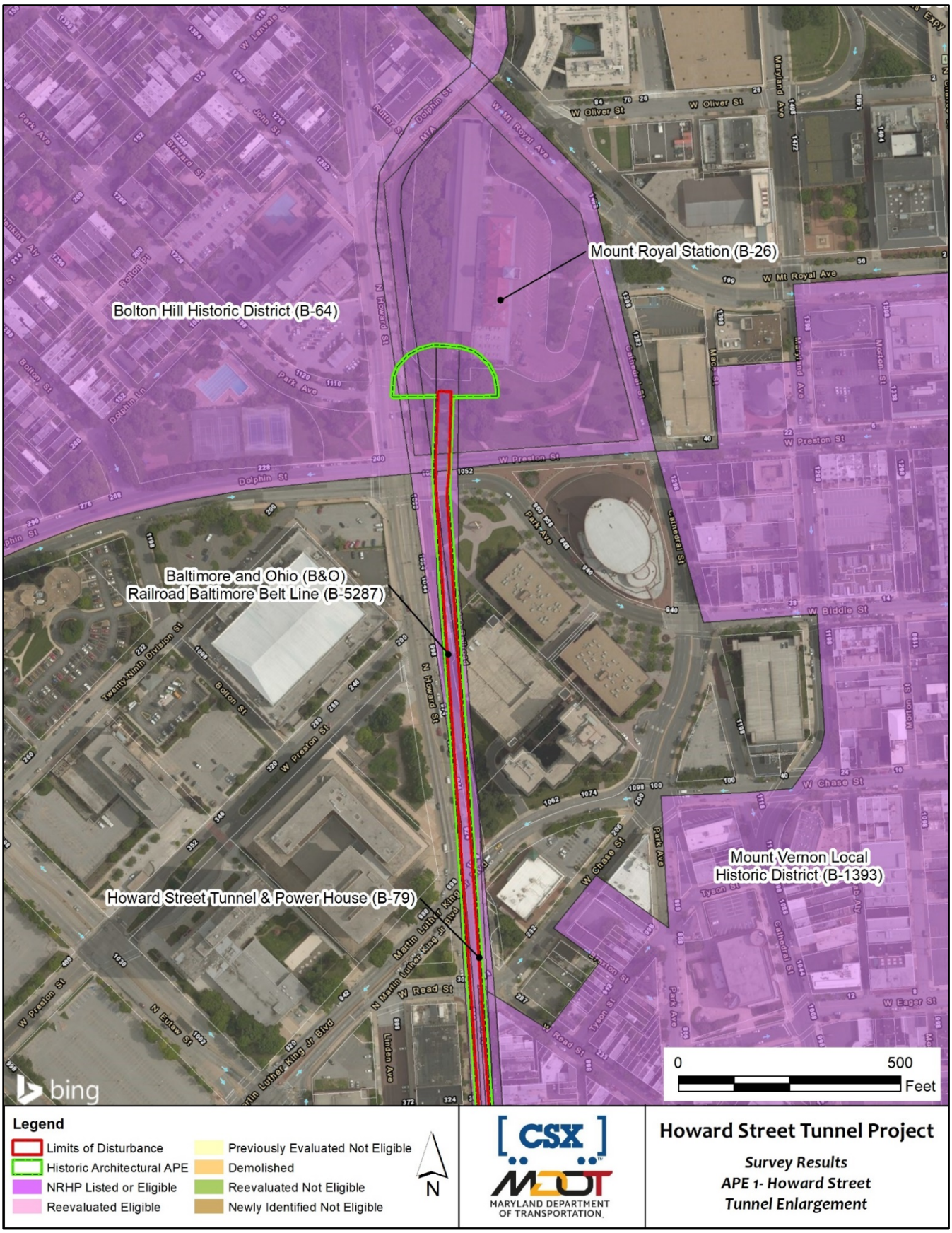
CSX

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION

Howard Street Tunnel Project

Survey Results
APE 1 - Howard Street Tunnel Enlargement


Mount Vernon Local Historic District (B-1393)
Baltimore and Ohio (B&O) Railroad Belt Line (B-5287)
Howard Street Tunnel & Power House (B-79)
Market Center/Retail Historic District (B-1262)
0
1,000
Feet
Legend
Limits of Disturbance
Historic Architectural APE
NRHP Listed or Eligible
Reevaluated Eligible
Previously Evaluated Not Eligible
Demolished
Reevaluated Not Eligible
Newly Identified Not Eligible
N
CSX
MDOT
MARYLAND DEPARTMENT OF TRANSPORTATION
Howard Street Tunnel Project
Survey Results
APE 1 - Howard Street Tunnel Enlargement


Mount Royal Station (B-26)
Bolton Hill Historic District (B-64)
Baltimore and Ohio (B&O) Railroad Baltimore Belt Line (B-5287)
Howard Street Tunnel & Power House (B-79)
Mount Vernon Local Historic District (B-1393)
W Mt Royal Ave
W Oliver St
W Preston St
W Biddle St
W Chase St
W Read St
W Eager St
N Howard St
Park Ave
Cathedral St
Dolphin St
Bolton St
Twenty-Ninth Division St
Martin Luther King Jr Blvd
Linden Ave
Maryland Ave
bing
0
500
Feet
Legend
Limits of Disturbance
Historic Architectural APE
NRHP Listed or Eligible
Reevaluated Eligible
Previously Evaluated Not Eligible
Demolished
Reevaluated Not Eligible
Newly Identified Not Eligible
N
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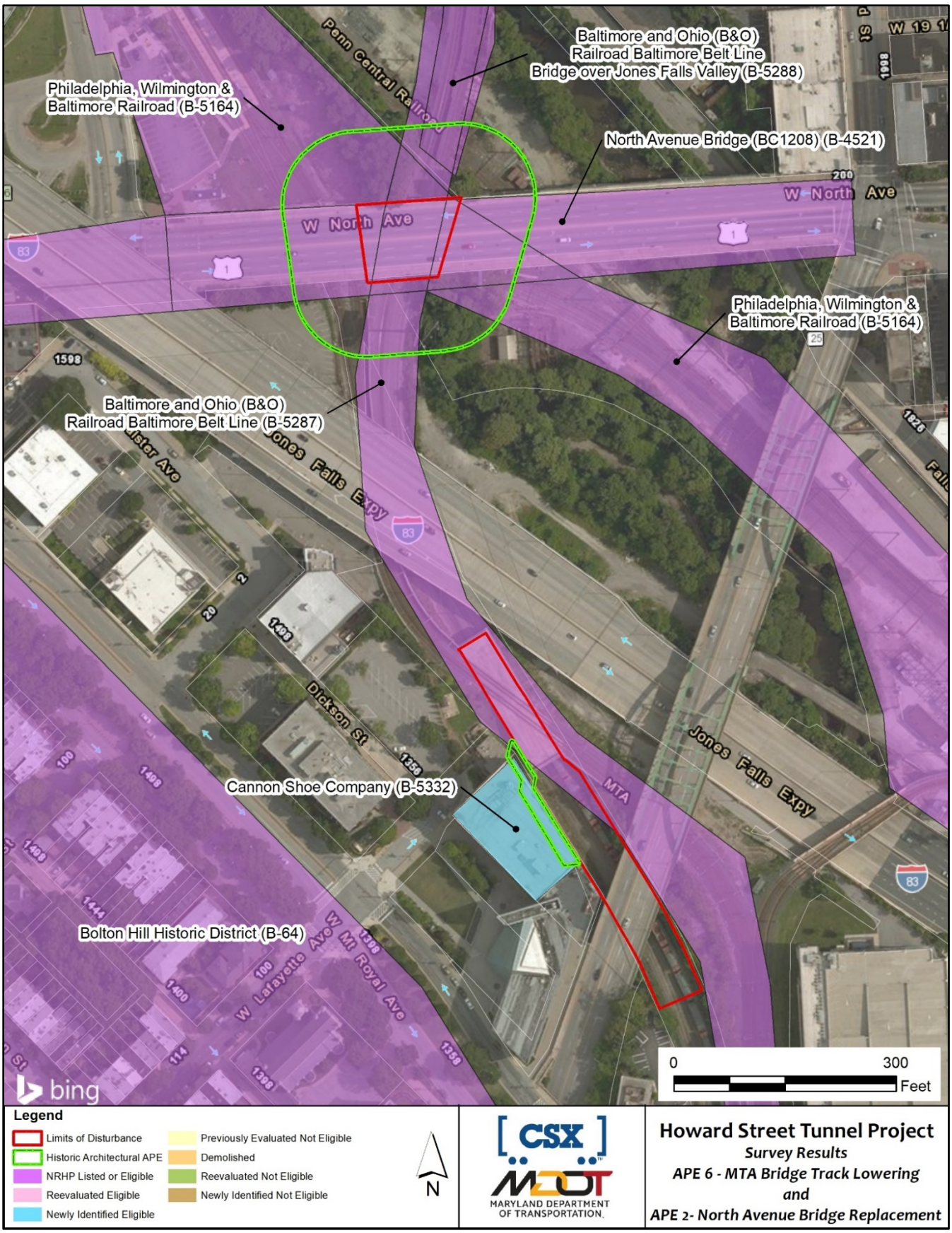
MDOT
MARYLAND DEPARTMENT OF TRANSPORTATION
Howard Street Tunnel Project
Survey Results
APE 1- Howard Street
Tunnel Enlargement


Penn Central Railroad
Baltimore and Ohio (B&O) Railroad Baltimore Belt Line Bridge over Jones Falls Valley (B-5288)
Philadelphia, Wilmington & Baltimore Railroad (B-5164)
North Avenue Bridge (BC1208) (B-4521)
W North Ave
Philadelphia, Wilmington & Baltimore Railroad (B-5164)
Baltimore and Ohio (B&O) Railroad Baltimore Belt Line (B-5287)
Jones Falls Expy
Dickson St
Cannon Shoe Company (B-5332)
MTA
Bolton Hill Historic District (B-64)
W Lafayette Ave
W Mt Royal Ave
bing
0
300
Feet
Legend
Limits of Disturbance
Historic Architectural APE
NRHP Listed or Eligible
Reevaluated Eligible
Newly Identified Eligible
Previously Evaluated Not Eligible
Demolished
Reevaluated Not Eligible
Newly Identified Not Eligible
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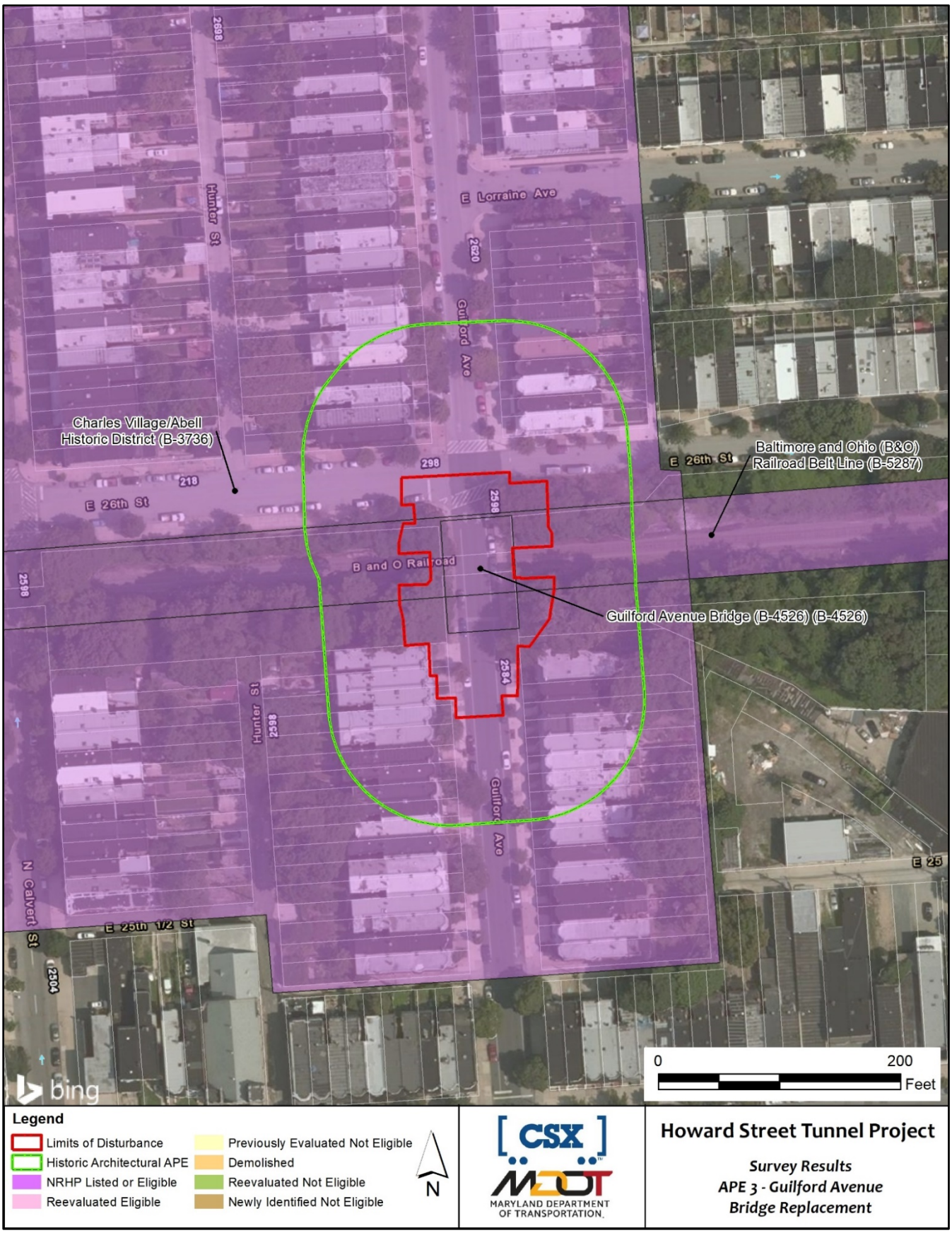
MDOT
MARYLAND DEPARTMENT OF TRANSPORTATION
Howard Street Tunnel Project
Survey Results
APE 6 - MTA Bridge Track Lowering
and
APE 2- North Avenue Bridge Replacement


Charles Village/Abell Historic District (B-3736)
Baltimore and Ohio (B&O) Railroad Belt Line (B-5287)
Guilford Avenue Bridge (B-4526) (B-4526)
B and O Railroad
E Lorraine Ave
E 26th St
E 25th 1/2 St
E 25
Hunter St
Guilford Ave
N Calvert St
2698
2620
298
218
2598
2584
2504
bing
0
200
Feet
Legend
Limits of Disturbance
Historic Architectural APE
NRHP Listed or Eligible
Reevaluated Eligible
Previously Evaluated Not Eligible
Demolished
Reevaluated Not Eligible
Newly Identified Not Eligible
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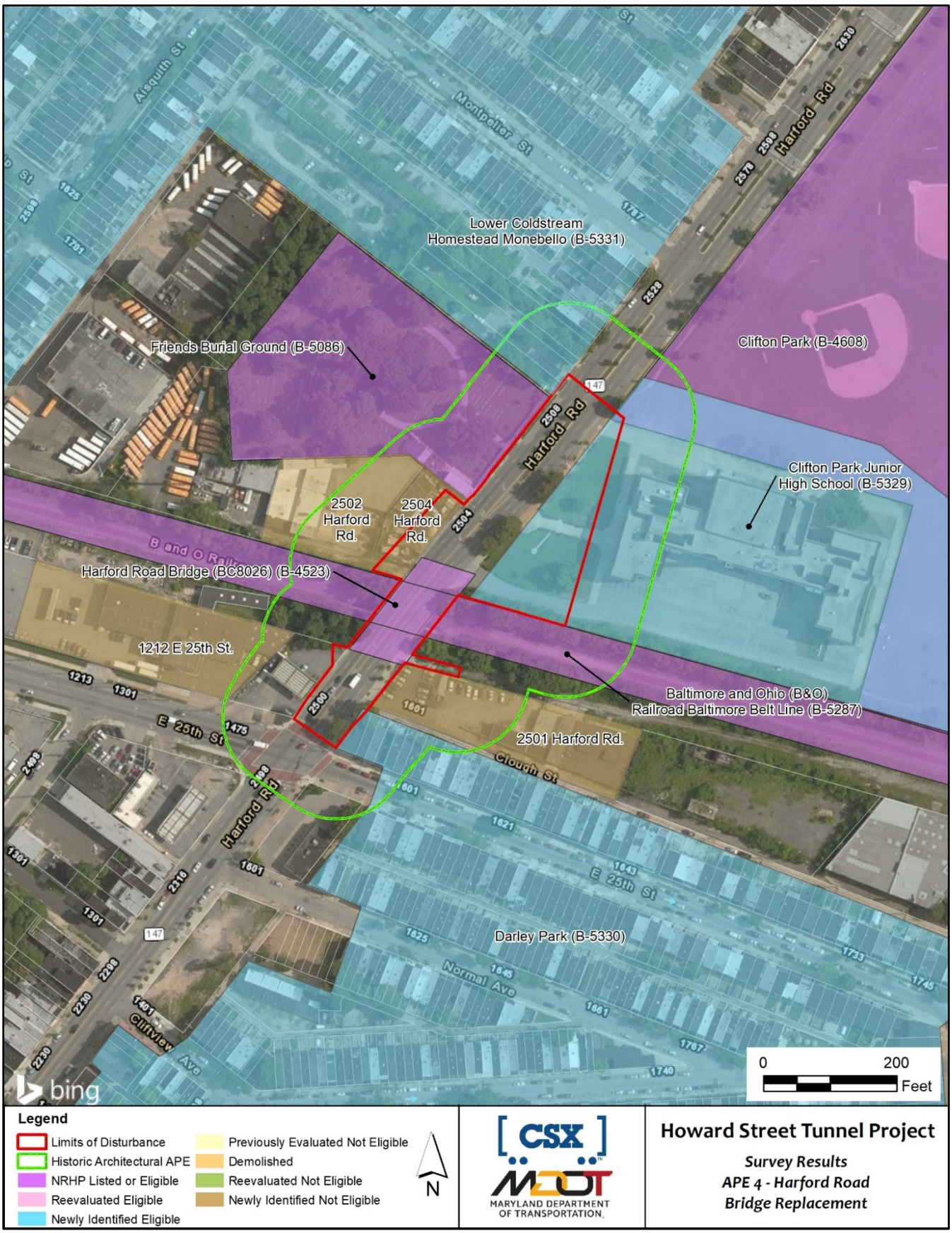
CSX
MDOT
MARYLAND DEPARTMENT OF TRANSPORTATION
Howard Street Tunnel Project
Survey Results
APE 3 - Guilford Avenue
Bridge Replacement


Lower Coldstream Homestead Monebello (B-5331)
Friends Burial Ground (B-5086)
Clifton Park (B-4608)
Clifton Park Junior High School (B-5329)
2502 Harford Rd.
2504 Harford Rd.
Harford Road Bridge (BC8026) (B-4523)
1212 E 25th St.
2501 Harford Rd.
Baltimore and Ohio (B&O) Railroad Baltimore Belt Line (B-5287)
Darley Park (B-5330)
Harford Rd
E 25th St
Clough St
Normal Ave
Cliftview Ave
Montpelier St
Aisquith St
B and O Rail
bing
0
200
Feet
Legend
Limits of Disturbance
Historic Architectural APE
NRHP Listed or Eligible
Reevaluated Eligible
Newly Identified Eligible
Previously Evaluated Not Eligible
Demolished
Reevaluated Not Eligible
Newly Identified Not Eligible
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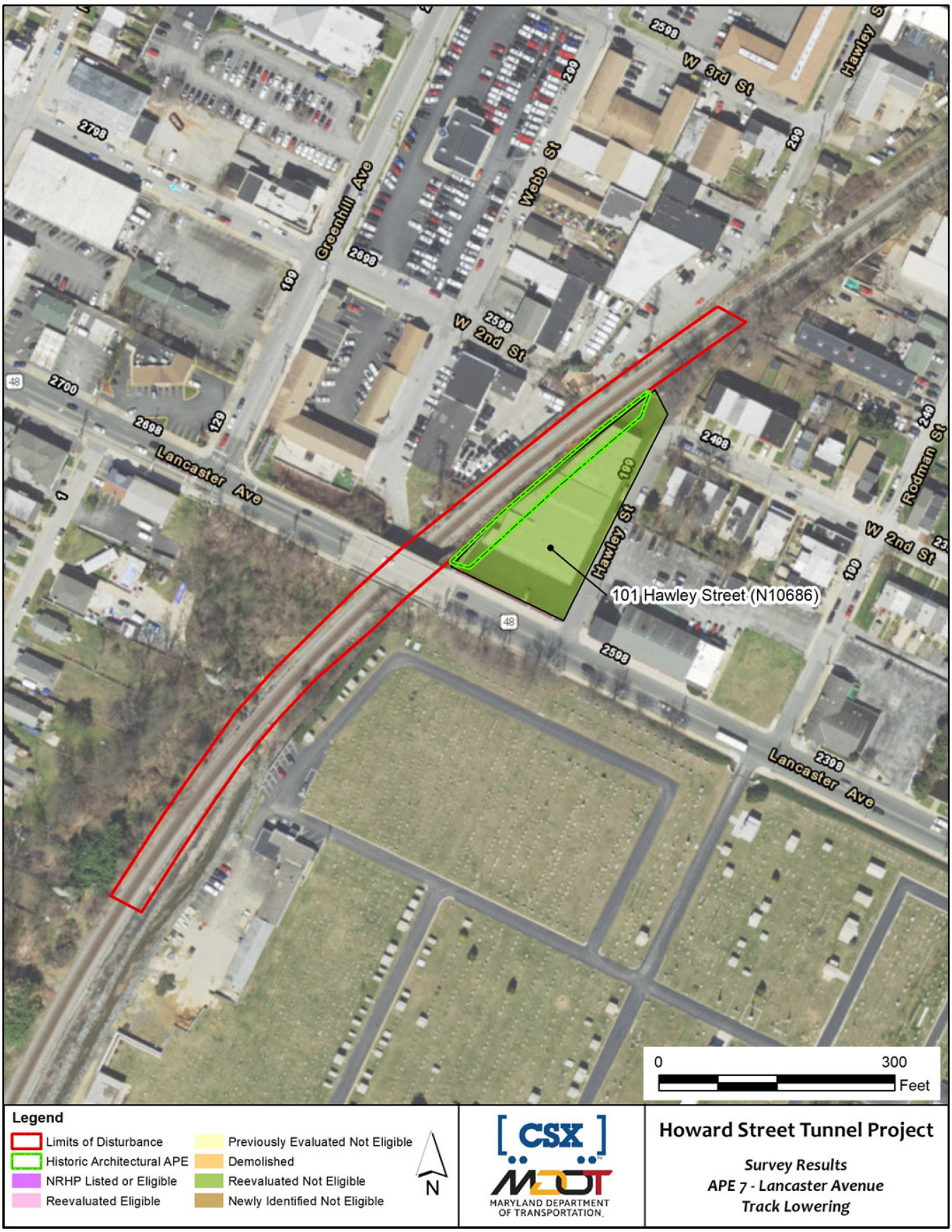
MDOT
MARYLAND DEPARTMENT OF TRANSPORTATION
Howard Street Tunnel Project
Survey Results
APE 4 - Harford Road
Bridge Replacement


2508
W 3rd St
Hawley St
2798
Webb St
Greenhill Ave
2698
199
W 2nd St
2700
48
2898
129
Lancaster Ave
2498
Rodman St
101 Hawley Street (N10686)
2598
2398
Lancaster Ave
0
300
Feet
Legend
Limits of Disturbance
Historic Architectural APE
NRHP Listed or Eligible
Reevaluated Eligible
Previously Evaluated Not Eligible
Demolished
Reevaluated Not Eligible
Newly Identified Not Eligible
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CSX
MDOT
MARYLAND DEPARTMENT OF TRANSPORTATION
Howard Street Tunnel Project
Survey Results
APE 7 - Lancaster Avenue
Track Lowering


1044/1046 Pine St.
1042 Pine St.
1040 Pine St.
1036/1038 Pine St.
1028-1034 Pine St.
403/405 Chester Pk.
407 Chester Pk.
409/411 Chester Pk.
413/415 Chester Pk.
421 Chester Pk.
450 Chester Pk.
Darby Heights
Boone Tunnel (106212)
Sharon Hill Borough (116397)
Baltimore & O
Baltimore and Ohio
Chester Pike
Greenwood Rd
Cherry St
Pusey Ave
Hillside Ave
Pine St
Lawrence Ave
Kern St
Laurel R
0
200
Feet
bing
Legend
Limits of Disturbance
Historic Architectural APE
NRHP Listed or Eligible
Reevaluated Eligible
Previously Evaluated Not Eligible
Demolished
Reevaluated Not Eligible
Newly Identified Not Eligible
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MDOT
MARYLAND DEPARTMENT OF TRANSPORTATION
Howard Street Tunnel Project
Survey Results
APE 5 - Boone Tunnel Enlargement


2012/2014 Cemetery Ave.
Kingsessing Ave
Cemetery Ave
Baltimore and Ohio
Greenway Ave
S 62nd St
Reinhard St
Upland St
S 63rd St
S 64th St
S Avondale St
S Simpson St
Farrell Ln
0
200
Feet
bing
Legend
Limits of Disturbance
Historic Architectural APE
NRHP Listed or Eligible
Reevaluated Eligible
Previously Evaluated Not Eligible
Demolished
Reevaluated Not Eligible
Newly Identified Not Eligible
N
CSX
MDOT
MARYLAND DEPARTMENT OF TRANSPORTATION
Howard Street Tunnel Project
Survey Results
APE 8 - Cemetery Avenue
Track Lowering

Exhibit 2: List of Relevant Standards and Guidelines

Per Stipulation II.B. of this MOA, all documentation prepared or performed pursuant to this MOA will be consistent with all pertinent federal and state standards and guidelines, including, but not limited to, the following list. Implementation of the stipulations pursuant to this MOA will utilize, as appropriate, the following regulations, policies, standards, and guidelines, or any subsequent replacements of or revisions to same:

- Section 106, NHPA, as amended, and its implementing regulations (36 CFR § 800)
- *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* (National Park Service, 1995)
- *Historic American Buildings Survey Guide to Field Documentation* (National Park Service, May 16, 2011)
- *Historic American Buildings Survey Guidelines for Historical Reports* (National Park Service, 2007)
- *Heritage Documentation Programs, HABS/HAER/HALS Photography Guidelines* (National Park Service, November 2011, updated June 2015)
- *Standards and Guidelines for Architectural and Historical Investigations in Maryland* (Maryland Historical Trust, 2019)
- *Guidelines for Compliance-Generated Determinations of Eligibility (DOEs)* (Maryland Historical Trust, 2002)
- *Guidelines for Architectural Investigations in Pennsylvania* (Pennsylvania Historical and Museum Commission, 2014)
- *The Pennsylvania State Historic Preservation Office's Researchers Guide for Documenting and Evaluating Railroads* (Pennsylvania Historical and Museum Commission, 2015)
- *Guidelines for Archaeological Investigations in Pennsylvania* (Pennsylvania State Historic Preservation Office, 2017)
- *Pennsylvania Archaeological Site Survey Files Site Identification Criteria* (Pennsylvania State Historic Preservation Office, 2017)
- *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44716)
- *Section 106 Archaeology Guidance* (ACHP, 2009)
- *Standards and Guidelines for Archeological Investigations in Maryland* (Maryland Historical Trust, 1994)

- *Collections and Conservation Standards, Technical Update No. 1 of the Standards and Guidelines for Archeological Investigations in Maryland* (Maryland Historical Trust, Revised 2005)

- Curation of Federally Owned and Administered Archeological Collections (36 CFR § 79)

- Native American Graves Protection and Repatriation Act of 1990 (43 CFR § 10, as amended)

- Maryland Burial Law (Title 10 Subtitle 4 §§ 10-401 through 10-404 of the Annotated Code of Maryland)

- *Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects* (ACHP, February 23, 2007)

Exhibit 3: List of Contacts

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Appendix D: Supplemental Environmental Justice Analysis

Supplemental Environmental Justice Analysis

US Census Bureau block group data from the American Community Survey (ACS) was reviewed to provide additional Environmental Justice data for smaller geography levels. The results of the analysis are presented in the tables that follow. These tables are intended to supplement the Environmental Justice discussion in the EA and Appendix G. Cells highlighted in grey indicate block groups that differ from the larger tract-level identification as a potential Environmental Justice area.

1.0 Project Sites in Maryland

Table 1-1a Low-Income and Minority Populations, Howard Street Tunnel, West Portal (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 2101	71.4%	17.1%	Yes
Block Group 1	60.7%	12.1%	Yes
Tract 2201	33.6%	10.4%	No
Block Group 1	42.0%	12.1%	No
Block Group 2	31.4%	11.7%	No
Block Group 4	26.1%	6.1%	No
Tract 2301	36.1%	15.9%	No
Block Group 2	60.4%	20.3%	Yes

Source: U.S. Census Bureau, 2014 - 2018 American Community Survey (ACS).

Table 1-1b Low-Income and Minority Populations, HST Mined Tunnel Segment (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 401	51.5%	19.8%	Yes
Block Group 1	35.3%	25.8%	Yes
Block Group 2	75.0%	14.0%	Yes
Tract 402	60.2%	21.2%	Yes
Block Group 1	60.2%	21.2%	Yes
Tract 1001	98.3%	49.1%	Yes
Block Group 2	98.5%	80.9%	Yes
Tract 1003[1]	85.2%	N/A	N/A
Block Group 1	85.2%	N/A	N/A
Tract 1101	45.8%	13.0%	No
Block Group 1	41.7%	12.8%	No
Block Group 2	50.8%	13.3%	Yes

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
Tract 1102	39.6%	19.5%	No
Block Group 1	44.8%	16.6%	No
Block Group 2	38.7%	18.5%	No
Block Group 3	34.0%	23.8%	No
Tract 1205	66.4%	21.6%	Yes
Block Group 1	70.8%	13.9%	Yes
Block Group 2	63.1%	27.1%	Yes
Tract 1401	51.1%	20.7%	Yes
Block Group 1	33.7%	17.0%	No
Block Group 2	51.6%	30.3%	Yes
Block Group 3	74.5%	40.9%	Yes
Block Group 4	47.6%	4.9%	No
Tract 1402	95.3%	43.8%	Yes
Block Group 1	92.6%	51.0%	Yes
Block Group 2	95.5%	37.5%	Yes
Tract 1702	93.6%	52.1%	Yes
Block Group 1	97.2%	50.5%	Yes
Block Group 2	92.8%	51.8%	Yes
Block Group 3	81.5%	58.3%	Yes
Tract 1703	98.4%	35.6%	Yes
Block Group 1	100.0%	40.3%	Yes
Block Group 2	96.7%	30.6%	Yes
Tract 2101	71.4%	17.1%	Yes
Block Group 1	60.7%	9.8%	No
Block Group 2	76.4%	20.6%	No
Tract 2201	33.6%	10.4%	No
Block Group 1	42.0%	12.1%	No
Block Group 2	31.4%	11.7%	No
Block Group 3	46.0%	8.0%	No
Tract 2805	95.1%	58.4%	Yes
Block Group 1	98.2%	61.3%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

[1]The population of Tract 1003 are inmates in the Baltimore Correctional Complex.

Table 1-1c Low-Income and Minority Populations, Howard Street Tunnel, East Portal (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1102	39.6%	19.5%	No
Block Group 1	44.8%	16.6%	No
Tract 1401	51.1%	20.7%	Yes
Block Group 1	33.7%	17.0%	No
Block Group 4	47.6%	4.9%	No
Tract 1702	93.6%	52.1%	Yes
Block Group 3	81.5%	58.3%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 1-2 Low-Income and Minority Populations, Mount Royal Avenue (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1102	39.6%	19.5%	No
Block Group 1	44.8%	16.6%	No
Tract 1401	51.1%	20.7%	Yes
Block Group 1	33.7%	17.0%	No
Block Group 4	47.6%	4.9%	No
Tract 1702	93.6%	52.1%	Yes
Block Group 3	81.5%	58.3%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 1-3 Low-Income and Minority Populations, MTA Bridge (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1102	39.6%	19.5%	No
Block Group 1	44.8%	16.6%	No
Tract 1205	66.4%	21.6%	Yes
Block Group 1	70.8%	13.9%	No
Tract 1206	64.0%	34.9%	Yes
Block Group 3	77.8%	50.5%	Yes
Tract 1207	32.6%	8.1%	No
Block Group 3	33.0%	3.6%	No
Tract 1401	51.1%	20.7%	Yes
Block Group 1	33.7%	17.0%	No
Block Group 2	51.6%	30.3%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 1-4 Low-Income and Minority Populations, North Avenue (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1102	39.6%	19.5%	No
Block Group 1	44.8%	12.8%	No
Tract 1204	77.1%	36.1%	Yes
Block Group 1	81.6%	36.0%	Yes
Block Group 2	72.9%	36.3%	Yes
Tract 1205	66.4%	21.6%	Yes
Block Group 1	70.8%	36.3%	Yes
Block Group 2	63.1%	13.9%	Yes
Tract 1206	64.0%	34.9%	Yes
Block Group 2	64.0%	33.3%	Yes
Block Group 3	77.8%	50.5%	Yes
Tract 1207	32.6%	8.1%	No
Block Group 3	33.0%	3.6%	No
Tract 1302	84.8%	17.9%	Yes
Block Group 1	64.2%	33.4%	Yes
Block Group 2	100.0%	18.4%	Yes
Tract 1401	51.1%	20.7%	Yes
Block Group 1	33.7%	17.0%	No
Block Group 2	51.6%	30.3%	Yes
Block Group 4	47.6%	4.9%	No
Tract 1702	93.6%	52.1%	Yes
Block Group 3	81.5%	58.3%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 1-5 Low-Income and Minority Populations, Sisson Street (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1206	64.0%	34.9%	Yes
Block Group 2	64.0%	33.3%	Yes
Tract 1207	32.6%	8.1%	No
Block Group 2	44.2%	11.0%	No
Block Group 3	33.0%	3.6%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 1-6 Low-Income and Minority Populations, Huntington Avenue (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1206	64.0%	34.9%	Yes
Block Group 1	77.8%	21.6%	Yes
Block Group 2	64.0%	33.3%	Yes
Tract 1207	32.6%	8.1%	No
Block Group 2	44.2%	11.0%	No
Block Group 3	33.0%	3.6%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 1-8 Low-Income and Minority Populations, St. Paul/Calvert Street (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1203	65.1%	26.1%	Yes
Block Group 2	63.6%	8.2%	Yes
Block Group 3	60.3%	17.6%	Yes
Block Group 4	77.5%	50.9%	Yes
Tract 1206	64.0%	34.9%	Yes
Block Group 1	77.8%	21.6%	Yes
Block Group 2	64.0%	33.3%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 1-9 Low-Income and Minority Populations, Guilford Avenue (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 904	80.8%	37.8%	Yes
Block Group 1	91.9%	25.5%	Yes
Block Group 2	98.5%	55.6%	Yes
Tract 905	94.6%	18.9%	Yes
Block Group 1	100.0%	19.6%	Yes
Block Group 2	73.1%	18.6%	Yes
Tract 908	98.2%	32.3%	Yes
Block Group 1	97.1%	44.2%	Yes
Block Group 3	95.4%	36.2%	Yes
Block Group 4	98.5%	26.2%	Yes
Tract 1202.01	30.9%	15.6%	Yes
Block Group 2	28.7%	12.1%	No
Tract 1202.02	49.7%	35.6%	Yes
Block Group 1	48.6%	N/A	N/A
Block Group 4	42.9%	35.5%	Yes
Block Group 5	61.0%	32.2%	Yes
Tract 1203	65.1%	26.1%	Yes
Block Group 1	55.6%	16.9%	Yes
Block Group 2	63.6%	8.2%	Yes
Block Group 3	60.3%	17.6%	Yes
Block Group 4	77.5%	50.9%	Yes
Tract 1204	77.1%	36.1%	Yes
Block Group 1	81.6%	36.0%	Yes
Block Group 2	72.9%	36.3%	Yes
Tract 1206	64.0%	34.9%	Yes
Block Group 1	77.8%	21.6%	Yes
Block Group 2	64.0%	33.3%	Yes
Block Group 3	77.8%	50.5%	Yes
Tract 1207	32.6%	8.1%	No
Block Group 1	18.4%	11.0%	No
Block Group 2	44.2%	11.0%	No
Block Group 3	33.0%	3.6%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 1-10 Low-Income and Minority Populations, Barclay Street (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 904	80.8%	37.8%	Yes
Block Group 1	91.9%	25.5%	Yes
Block Group 2	98.5%	55.6%	Yes
Tract 908	98.2%	32.3%	Yes
Block Group 1	97.1%	44.2%	Yes
Block Group 3	95.4%	36.2%	Yes
Tract 1203	65.1%	26.1%	Yes
Block Group 2	63.6%	8.2%	Yes
Block Group 3	60.3%	17.6%	Yes
Block Group 4	77.5%	50.9%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 1-11 Low-Income and Minority Populations, Greenmount Street (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 904	80.8%	37.8%	Yes
Block Group 2	98.5%	55.6%	Yes
Tract 908	98.2%	32.3%	Yes
Block Group 3	95.4%	36.2%	Yes
Tract 1203	65.1%	26.1%	Yes
Block Group 1	55.6%	16.9%	Yes
Block Group 2	63.6%	8.2%	Yes
Block Group 3	60.3%	17.6%	Yes
Block Group 4	77.5%	50.9%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 1-12 Low-Income and Minority Populations, Harford Road (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 801.01	68.5%	13.4%	Yes
Block Group 1	93.1%	1.9%	Yes
Tract 802	95.5%	26.0%	Yes
Block Group 3	90.4%	20.5%	Yes
Tract 805	99.0%	29.3%	Yes
Block Group 1	99.1%	32.3%	Yes
Block Group 2	100.0%	11.4%	Yes
Block Group 3	73.1%	34.8%	Yes
Tract 806	91.8%	33.9%	Yes
Block Group 1	88.4%	44.7%	Yes
Block Group 3	100.0%	14.7%	Yes
Block Group 4	88.6%	22.7%	Yes
Tract 905	94.6%	18.9%	Yes
Block Group 1	100.0%	19.6%	Yes
Tract 906	90.4%	25.7%	Yes
Block Group 2	93.5%	0.0%	Yes
Tract 907	99.6%	33.0%	Yes
Block Group 1	100.0%	34.2%	Yes
Block Group 2	100.0%	22.7%	Yes
Block Group 3	98.5%	34.9%	Yes
Block Group 4	100.0%	37.2%	Yes
Tract 908	98.2%	32.3%	Yes
Block Group 1	97.1%	44.2%	Yes
Block Group 2	100.0%	27.0%	Yes
Block Group 4	98.5%	26.2%	Yes
Tract 909	94.4%	18.6%	Yes
Block Group 1	92.3%	12.5%	Yes
Block Group 4	92.6%	27.3%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3.1-11 Low-Income and Minority Populations, Bayview Rail Yard (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 2604.01	51.8%	24.5%	Yes
Block Group 2	52.3%	22.0%	Yes
Block Group 3	53.1%	7.5%	Yes
Tract 2604.04	76.7%	25.9%	Yes
Block Group 1	N/A	N/A	N/A
Block Group 2	62.5%	13.2%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

2.0 Project Sites in Delaware

Table 2-1 Low-Income and Minority Populations, Lancaster Avenue (DE) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Delaware	37.3%	11.9%	N/A
New Castle County, DE	43.2%	11.4%	N/A
City of Wilmington, DE	70.8%	25.1%	N/A
Tract 24	57.8%	23.0%	Yes
Block Group 2	58.8%	34.8%	Yes
Block Group 3	75.5%	20.1%	Yes
Block Group 4	23.5%	20.5%	Yes
Tract 122	48.0%	17.0%	No
Block Group 1	25.6%	10.9%	No

Table 3.2-2 Low-Income and Minority Populations, 4th Street (DE) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Delaware	37.3%	11.9%	N/A
New Castle County, DE	43.2%	11.4%	N/A
City of Wilmington, DE	70.8%	25.1%	N/A
Tract 13	9.8%	2.7%	No
Block Group 3	4.5%	0.0%	No
Tract 24	57.8%	23.0%	Yes
Block Group 1	86.7%	12.3%	Yes
Block Group 2	58.8%	34.8%	Yes
Block Group 3	75.5%	20.1%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

3.0 Project Sites in Pennsylvania

Table 3-1 Low-Income and Minority Populations, Chichester Road (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Delaware County, PA	33.7%	8.8%	N/A
Boothwyn, PA	8.8%	3.2%	N/A
Tract 4068.01	16.1%	12.5%	No
Block Group 2	15.7%	9.3%	No
Tract 4068.02	13.8%	8.7%	No
Block Group 4	3.5%	4.5%	No
Tract 4068.03	14.5%	4.9%	No
Block Group 2	18.8%	4.4%	No
Block Group 3	6.3%	5.2%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3-2 Low-Income and Minority Populations, Crum Lynne Road (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Delaware County, PA	33.7%	8.8%	N/A
Ridley Park, PA	8.2%	5.4%	N/A
Tract 4039.02	5.2%	4.2%	No
Block Group 3	5.6%	1.4%	No
Tract 4041.02	26.8%	11.9%	No
Block Group 2	4.2%	2.0%	No
Block Group 4	63.9%	22.9%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3-3 Low-Income and Minority Populations, Clifton Avenue (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Delaware County, PA	33.7%	8.8%	N/A
Sharon Hill, PA	77.1%	11.1%	N/A
Tract 4028	77.1%	11.1%	Yes
Block Group 4	72.5%	3.4%	Yes
Block Group 5	71.7%	10.6%	Yes
Tract 4031.01	51.4%	15.2%	Yes
Block Group 1	61.1%	12.6%	Yes
Tract 4031.04	69.5%	30.2%	Yes
Block Group 2	66.0%	24.3%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3-4 Low-Income and Minority Populations, Boone Tunnel (PA) Project Sites

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Delaware County, PA	33.7%	8.8%	N/A
Sharon Hill, PA	77.1%	11.1%	N/A
Tract 4024	92.1%	40.0%	Yes
Block Group 2	95.1%	41.7%	Yes
Block Group 3	81.6%	42.2%	Yes
Tract 4025	95.3%	30.8%	Yes
Block Group 1	100.0%	35.4%	Yes
Tract 4026	74.2%	13.9%	Yes
Block Group 2	73.5%	5.2%	Yes
Tract 4027	85.1%	15.1%	Yes
Block Group 2	82.9%	8.7%	Yes
Tract 4028	77.1%	11.1%	Yes
Block Group 1	85.0%	8.2%	Yes
Block Group 2	85.7%	37.8%	Yes
Block Group 3	72.7%	8.6%	Yes
Block Group 4	72.5%	3.4%	Yes
Tract 4031.03	50.5%	19.0%	Yes
Block Group 1	47.7%	9.2%	Yes
Block Group 2	55.6%	15.0%	Yes
Tract 4031.04	69.5%	30.2%	Yes
Block Group 1	74.7%	38.9%	Yes
Block Group 2	66.0%	24.3%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3-5 Low-Income and Minority Populations, 68th Street (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 63	96.6%	42.1%	Yes
Block Group 2	100.0%	49.4%	Yes
Block Group 3	95.6%	50.1%	Yes
Block Group 4	95.3%	31.9%	Yes
Tract 64	92.8%	33.3%	Yes
Block Group 2	91.3%	40.2%	Yes
Block Group 3	91.3%	28.2%	Yes
Delaware County, PA	33.7%	8.8%	N/A
Tract 4023	98.1%	6.5%	Yes
Block Group 1	97.3%	1.8%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3-6 Low-Income and Minority Populations, 65th Street (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 63	96.6%	42.1%	Yes
Block Group 1	100.0%	50.4%	Yes
Block Group 2	100.0%	49.4%	Yes
Tract 64	92.8%	33.3%	Yes
Block Group 1	97.7%	34.0%	Yes
Block Group 2	91.3%	40.2%	Yes
Block Group 3	91.3%	28.2%	Yes
Tract 65	98.4%	32.0%	Yes
Block Group 2	96.4%	29.6%	Yes
Tract 66	97.3%	42.5%	Yes
Block Group 3	91.4%	29.2%	Yes
Block Group 4	100.0%	53.7%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3-7 Low-Income and Minority Populations, Cemetery Avenue (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 63	96.6%	42.1%	Yes
Block Group 1	100.0%	50.4%	Yes
Tract 64	92.8%	33.3%	Yes
Block Group 1	97.7%	34.0%	Yes
Tract 65	98.4%	32.0%	Yes
Block Group 2	96.4%	29.6%	Yes
Tract 66	97.3%	42.5%	Yes
Block Group 3	91.4%	29.2%	Yes
Block Group 4	100.0%	53.7%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3-8 Low-Income and Minority Populations, 61st Street (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 65	98.4%	32.0%	Yes
Block Group 1	100.0%	49.4%	Yes
Block Group 2	96.4%	29.6%	Yes
Tract 66	97.3%	42.5%	Yes
Block Group 1	98.8%	37.9%	Yes
Block Group 2	100.0%	29.2%	Yes
Block Group 3	91.4%	53.7%	Yes
Block Group 4	100.0%	42.6%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3-9 Low-Income and Minority Populations, Woodland Avenue (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 66	97.3%	42.5%	Yes
Block Group 1	98.8%	37.9%	Yes
Block Group 2	100.0%	29.2%	Yes
Block Group 3	91.4%	53.7%	Yes
Block Group 4	100.0%	42.6%	Yes
Tract 67	92.8%	33.4%	Yes
Block Group 7	82.4%	39.2%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3-10 Low-Income and Minority Populations, 58th Street (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 66	97.3%	42.5%	Yes
Block Group 1	98.8%	37.9%	Yes
Tract 67	92.8%	33.4%	Yes
Block Group 7	82.4%	39.2%	Yes
Tract 69	97.1%	52.5%	Yes
Block Group 2	100.0%	52.5%	Yes
Block Group 3	95.7%	27.3%	Yes
Tract 70	97.7%	17.6%	Yes
Block Group 3	94.6%	35.6%	Yes
Block Group 4	100.0%	6.9%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Table 3-11 Low-Income and Minority Populations, Eastwick Interlocking (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 69	97.1%	52.5%	Yes
Block Group 1	97.1%	67.1%	Yes
Tract 9809	N/A	N/A	N/A

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Appendix E: General Conformity Applicability Analysis

General Conformity Applicability Analysis

1.1 Regulatory Background

The Howard Street Tunnel Project (Project) proposes improvements to address clearance restrictions along CSX's Interstate 95 (I-95) Rail Corridor between Baltimore, Maryland and Philadelphia, Pennsylvania. This is the last major intermodal rail-freight corridor on the CSX network unable to provide modern double-stack service due to various height-clearance obstructions located in Maryland, Delaware, and Pennsylvania. The primary obstacle to double-stack service along this corridor has been the Howard Street Tunnel (HST), a 1.7-mile-long railroad passage under the heart of Baltimore that was originally constructed in 1895. With current vertical clearances less than the 21 feet necessary to achieve double-stack clearance, the HST and 22 other clearance locations currently restrict the ability to move railcars with double-stacked containers between Baltimore and Philadelphia, on the CSX I-95 Rail Corridor.

Recent State Freight Plans in Maryland[9], Delaware[10], and Pennsylvania[11] all point to increased freight tonnage of at least 58 percent between 2012 and 2040. Without comprehensive, cost-effective solutions across freight modes, the national transportation network is at risk of delays and inefficiencies that will impact mobility for both passengers and cargo. The HST Project is specifically designed to address these concerns.

The Project would remove the numerous clearance obstructions along CSX's I-95 Rail Corridor, thereby providing double-stack connectivity and adding efficiency and resiliency to an important corridor in CSX's intermodal rail network. The United States Department of Transportation (USDOT) Federal Railroad Administration (FRA), in cooperation with the Maryland Department of Transportation's (MDOT) Maryland Port Administration (MPA) is preparing an Environmental Assessment (EA) to evaluate and assess the potential environmental impacts of the Project in accordance with the requirements of the National Environmental Policy Act (NEPA).

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[9] Maryland Department of Transportation, *Maryland Strategic Goods Movement Plan*, 2017. https://www.mdot.maryland.gov/OPCP/Strategic_Goods_Movement_Plan_2017.pdf

[10] Whitman, Requardt & Associates, LLP, Delmarva Freight Plan Final Report, May 2015. https://deldot.gov/Publications/reports/freight_plan/pdfs/2015/Delmarva_Freight_Plan_Final_Report.pdf?cache=1588727368738

[11] Pennsylvania Department of Transportation, *Pennsylvania's Long Range Transportation & Comprehensive Freight Movement Plan*, 2016 https://www.penndot.gov/ProjectAndPrograms/Planning/Documents/PennDOT-CFMP%20-%20FINAL%20August%202016.pdf

Pursuant to NEPA, the Federal Railroad Administration (FRA) and CSX prepared an EA to analyze the potential environmental impacts of the proposed project. On DATE, the U.S. Environmental Protection Agency (EPA) submitted comments to FRA on the EA, requesting "supporting evidence, analysis, or documentation that satisfies general conformity requirements." In response to EPA's comment, CSX prepared this General Conformity Applicability Analysis. The analysis shows that emissions associated with the construction of the Project will be below de minimis levels specified in 40 CFR §93.153(b). Therefore, a General Conformity Determination is not required.

1.1.1 Air Quality Standards and General Conformity

Pursuant to the Clean Air Act (CAA), as amended in 1990, the U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for six major air pollutants, referred to as "criteria pollutants:" carbon monoxide (CO), nitrogen dioxide (NO_2), ozone, respirable Particulate Matter (PM) (both PM2.5 and PM10), sulfur dioxide (SO_2), and lead.

The CAA defines a nonattainment area (NAA) as a geographic region that the EPA designated as not meeting one or more of the NAAQS. When the EPA designates an NAA, states are required to develop and implement a State Implementation Plan (SIP). The SIP outlines how the state will achieve air quality that meets the NAAQS under the deadlines established by the CAA, followed by a plan for maintaining attainment status once the area has achieved attainment (and is then classified as a "maintenance area"). The SIP also compiles the state's air quality control plans and rules that are approved by EPA. Section 176(c) of the CAA provides that federal agencies cannot engage, support, or provide financial assistance for licensing, permitting, or approving any project unless the project conforms to the applicable SIP.

The CAA General Conformity regulations prohibit federal entities from taking actions that do not conform to the SIPs for attainment and maintenance of the NAAQS. The FRA is the lead agency for the Project, which is subject to the General Conformity requirements, pursuant to 40 CFR 51.850-51.860. A General Conformity Applicability Analysis is needed for each pollutant of concern in the nonattainment or maintenance area affected by a federal action to determine if a General Conformity Determination is required. Actions with emissions of pollutants of concern less than established (*de minimis*) screening criteria emissions rates are deemed in conformance with the SIPs. Conforming actions do not:

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

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

A General Conformity Analysis is only required for federal actions located in nonattainment or maintenance areas. A General Conformity Applicability Analysis determines whether emissions from a federal action will exceed certain thresholds and be subject to General Conformity requirements. If General Conformity applies, then a separate analysis, referred to as a Conformity Determination is required to document that the federal action conforms to the applicable SIP for the nonattainment or maintenance area.

As part of the General Conformity Applicability Analysis, the total of direct and indirect emissions of nonattainment pollutants or designated precursors from a proposed federal action is calculated and compared to annual general conformity applicability emissions thresholds in §93.153. The general conformity applicability thresholds are listed in 40 CFR §93.153(b)(1) for nonattainment areas and 40 CFR §93.153(b)(2) for maintenance areas. If emissions are below the applicability thresholds, then the emissions are considered de minimis, General Conformity requirements do not apply, and a General Conformity Determination is not required. The regulations provide that if emissions from a Federal action occur in more than one nonattainment or maintenance area, then each area is evaluated separately. Emissions from separate nonattainment or maintenance areas are treated as if they result from separate actions.

In summary, the General Conformity Rule of the federal CAA prohibits federal agencies (such as FRA) from permitting or funding projects that do not conform to an applicable SIP. The General Conformity Rule applies only to areas that are in nonattainment or within a maintenance status. Under the Rule, project-related emissions of the applicable nonattainment/maintenance pollutants are compared to de-minimis level thresholds. If the emissions exceed the thresholds, a formal Conformity Determination is required to demonstrate that the action conforms to the applicable SIP. Conversely, if project-related emissions are below the de-minimis levels the Project is assumed to conform to the SIP. The proposed Project is funded by, and would require approval by, the FRA and it is located in a nonattainment/maintenance area; therefore, the General Conformity requirements of the CAA are applicable.

1.1.2 Project Location and General Conformity Thresholds

The Project activities will occur throughout 4 counties located in Maryland, Delaware and Pennsylvania. All of the Project components are located in air quality regions that are designated as non-attainment for Ozone. Consequently, a general conformity applicability analysis is required to determine if a conformity determination is required.

The CAA requires states to develop SIPs to attain and/or maintain the NAAQS in their jurisdiction and develop a specific plan to attain the standards for each nonattainment or maintenance area. The attainment classifications for each of the EPA-designated areas[12] in the Project area are provided in Table 1.

Table 1. Attainment Classifications

Air Quality Region	County	Nonattainment Pollutant	Maintenance Pollutant
Baltimore, MD	Baltimore City, MD	2015 Ozone-Marginal Nonattainment	1971 CO – Partial Maintenance 1997 PM – 2.5 Maintenance [a]
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE	New Castle, MD	2015 Ozone-Marginal Nonattainment	2006 PM-2.5 - Maintenance
	Delaware, PA		2006 and 2012 PM-2.5 - Maintenance
	Philadelphia, PA		2006 PM-2.5 - Maintenance

[a] 1997 PM-2.5 standard was revoked, and general conformity requirements no longer apply per U.S. EPA, "Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements." 81 Fed. Reg. 58,010 (Aug. 24, 2016). Available at: https://www.govinfo.gov/content/pkg/FR-2016-08-24/pdf/2016-18768.pdf#page=1.

For the Project area, the applicable General Conformity de minimis emission thresholds are presented in Table 2.

[12] EPA, Green Book, https://www.epa.gov/green-book.

Table 2: General Conformity De-Minimis Thresholds

Pollutant	Primary/ Secondary (tons per year)
Ozone (NO_x)	100
Ozone (VOC)	50
$PM_{2.5}$ (Direct Emissions)	100
$PM_{2.5}$ (SO_2)	100
$PM_{2.5}$ (NO_x)	100
Carbon Monoxide (CO)	100

Note: Ozone thresholds are for locations inside an Ozone Transport Region (OTR).
Source: EPA, De-Minimis Levels, h*ttp://www.epa.gov/oar/genconform/deminimis.html*.

NOx and VOC are the designated precursor pollutants for ozone, and the general conformity applicability thresholds in nonattainment areas are 50 tons per year (TPY) for VOC and 100 TPY for NOx. Emissions from all Project sources must be considered when assessing the applicability of general conformity with respect to ozone.

Emissions of all Project sources within the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE air quality region must potentially be considered when assessing the applicability of general conformity with respect to PM2.5 because the area is considered a maintenance area for PM2.5. The threshold for direct PM2.5 emissions in these maintenance areas is 100 TPY. SO_2 is designated as a precursor for PM2.5 and has an applicability threshold of 100 TPY. In addition, NOx is also identified as a precursor for PM2.5. The applicability threshold for NOx is 100 TPY. For general conformity applicability purposes, Project emissions were separated by County and aggregated across air quality control regions for comparison to the general conformity applicability thresholds.

1.2 Emission Calculation Methodology

Air pollutant emissions from construction of the Project includes emissions from diesel and gasoline-powered construction equipment, diesel-powered generators, diesel trucks, and heavy duty trucks transporting excavated material and delivering construction materials. The Project equipment usage factors, sizes, types, and number of construction equipment were estimated based on preliminary construction activity plans developed by CSX. Emission factors for NOx, VOC, CO, SO_2, and PM2.5 from on-site construction engines were developed using EPA's NONROAD Emission Model. With respect to on-road heavy duty truck engines, emissions rates for NOx, VOC, CO, SO_2, and PM2.5 were developed using EPA's Motor Vehicle Emission Simulator (MOVES) model.

Total emissions within the nonattainment area and maintenance areas were calculated based on the methodology described above for on-site and on-road emissions. The calculated Project construction emissions are designed to be conservative estimates and likely overestimate the expected emissions for several reasons, including the following:

- Emission factors for nonroad engines made use of underlying default distributions in the NONROAD model and do not account for the greater availability of newer and lower emitting construction equipment in the Project area; and
- Assumptions that likely overestimate the area that is under active construction at any time based on the preliminary status of the construction activity plans. These assumptions included types and amount of construction equipment, average daily utilization dates, and construction activity durations.

1.3 Results and Conclusion

The resulting summary of Project construction emissions for each construction year is summarized in Table 3. The corresponding General Conformity de minimis thresholds are also listed for comparison.

The calculated Project construction emissions in federally designated nonattainment or maintenance areas are well below the corresponding general conformity applicability thresholds. Therefore, pursuant to 40 CFR §93.153(c)(1), General Conformity requirements do not apply to the Project and a General Conformity Determination is not required.

Table 3: General Conformity Applicability Analysis

Year	Baltimore, MD Air Quality Control Region Emissions (tons/year)					Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE Air Quality Control Region Emissions (tons/year)				
	CO	NOx	PM2.5	SO2	VOC	CO	NOx	PM2.5	SO2	VOC
2022	8.27	17.45	0.97	0.02	1.68	2.29	4.73	0.27	0.01	0.46
2023	6.99	15.15	0.84	0.02	1.44	3.17	6.81	0.38	0.01	0.64
2024	5.50	12.20	0.67	0.02	1.16	2.29	4.73	0.27	0.01	0.46
2025	3.36	6.82	0.37	0.01	0.62	0.48	0.47	0.04	0.0004	0.06
General Conformity *De Minimis* Thresholds (tons/year)	100	100	NA	NA	50	NA	100	100	100	50

References

Federal Railroad Administration (FRA). 2021. Environmental Assessment for the Howard Street Tunnel Project. May. https://mpa.maryland.gov/Pages/hst.aspx#:~:text=The%20Howard%20Street%20Tunnel%20(HST,%2C%20Maryland%20and%20Philadelphia%2C%20Pennsylvania.