Categorical Exclusion
I-695 (Baltimore Beltway) over Patapsco River
Francis Scott Key Bridge Rebuild Project
Baltimore City, Anne Arundel County, and Baltimore County, Maryland

This request by the Maryland Transportation Authority (MDTA) and Maryland State Highway Administration (SHA) for Categorical Exclusion (CE) classification and National Environmental Policy Act (NEPA) approval pertains to the Francis Scott Key Bridge Rebuild Project (Project) along I-695 (Baltimore Beltway) over the Patapsco River in Baltimore City, Anne Arundel County, and Baltimore County, Maryland. This CE/NEPA approval request details the Project, existing conditions in the project area, anticipated impacts to key resources, and proposed mitigation. The Project will replace a pre-existing critical tolled bridge and related infrastructure which collapsed following a catastrophic collision. The Project will be constructed completely within the collapsed bridge's right-of-way (ROW) and will not increase the capacity of the former bridge. Upon review of the existing environmental conditions, including conditions following the bridge collapse, and considering the potential effects of the Project, the Project is not anticipated to have significant impacts to community, natural, or cultural resources. The rebuilding of the bridge will have substantial positive transportation and socioeconomic impacts by restoring a critical interstate system link. The MDTA and SHA have determined that the Project will not induce significant impacts to planned growth or land use for the area; will not cause any relocations of people or businesses; will have no effect on travel patterns from pre-collapse conditions; will have no use of Section 4(f) properties; and there are no unusual circumstances preventing classification as a CE pursuant to Federal Highway Administration (FHWA) regulations.

Background on the Francis Scott Key Bridge Collapse

On March 26, 2024, the 1.7-mile Francis Scott Key Bridge (Key Bridge) (Maryland Bridge Number 300000BCZ472010), which served as a link for the I-695 crossing of the Patapsco River, was struck by a cargo ship leaving the Port of Baltimore resulting in the collapse of the bridge. The collapse prompted the immediate closure of I-695 from MD 173 (exit 1) to MD 157/ North Point Boulevard (exit 42) and halted vehicular traffic across the Patapsco River. This collapse also resulted in halting marine shipping to and from the Port of Baltimore. Immediately following the incident, the State of Maryland issued Executive Order 01.01.2024.09 under Section 14-101 (c) of the Public Safety Article of the Maryland Code, declaring a State of Emergency. Due to the emergency conditions caused by the collapse, FHWA Emergency Relief Program funds were triggered for necessary debris removal actions, restoration of essential transportation and design, and reconstruction of the bridge and its approaches on I-695. The approval of recovery and debris removal actions was documented in a Programmatic CE dated April 5, 2024.

I-695 remains closed to vehicular traffic between MD 173 (exit 1) and MD 157/North Point Boulevard (exit 42). Ship traffic resumed as of June 10, 2024, for access to the Port of Baltimore. Debris removal efforts are ongoing to clear the remaining collapsed structure and other associated remnants of the vessel collision and the ensuing bridge collapse. Currently,

sections of the bridge as well as portions of piers and entire piers where the bridge deck and trusses have collapsed remain standing. Of the 33 piers that supported the Key Bridge and approach roadway, 30 piers remain standing (22 on land and eight, including two only partially standing, in the Patapsco River); the remaining three piers were pushed or pulled over into the water by the falling superstructure and broke off at or near the water line.

MDTA and SHA propose to replace the Key Bridge in the same location as the original structure. The project area (**Attachment 1, Figure 1**) extends along I-695 from Quarantine Road in Curtis Bay, Baltimore City; through a small portion of Anne Arundel County; to Broening Highway in Dundalk, Baltimore County. The Project is entirely within MDTA's existing ROW and will be constructed to meet current roadway, bridge design and safety standards, and navigational clearance requirements.

Purpose and Need

The Project's purpose is to replace the Key Bridge over the Patapsco River that was in operation prior to the March 26, 2024, collapse. The new replacement bridge will meet current roadway and bridge design and safety standards, and navigational clearance requirements.

The needs for the Project are to:

- Expedite restoring local connectivity between Curtis Bay and Dundalk.
- Expedite restoring regional mobility and the interstate transportation network.

The Key Bridge was a critical link in the regional and interstate transportation network and was the primary interstate route for hazardous material loads traveling through Baltimore. The collapse has negatively impacted community mobility and connectivity by creating a major gap in the Baltimore transportation network for both local and regional traffic.

In 2022, the Key Bridge had an average annual daily traffic (AADT) volume of approximately 33,200 vehicles per day (vpd).[1] Following the bridge collapse, this daily traffic volume has needed to find and use alternate routes, increasing vehicle miles traveled (VMT) and contributing to higher levels of congestion on the available interstate transportation network including on I-95 through Baltimore (the Fort McHenry Tunnel), I-895 (the Baltimore Harbor Tunnel), and I-695. Arterial routes such as MD 2, MD 710, MD 173, MD 150, MD 151, and other local roadways have also experienced increased detour traffic, including an increase in truck traffic. I-95 and I-895 were already operating over capacity during the peak hours prior to the collapse of the Key Bridge. The diverted traffic from the Key Bridge collapse has exacerbated congestion and delay issues along these parallel routes as well the remainder of the I-695 around Baltimore.

A comparison of weekday speed and travel time data[2] from April 2024 (post-collapse) versus April 2023 (pre-collapse) shows that motorists on I-95 experience more than 30 minutes of

[1] https://maps.roads.maryland.gov/itms_public/AADT_AAWDT_Detail.aspx?station_id=T0006

[2] INRIX data from the RITIS platform (www.ritis.org) Tuesday through Thursday April 18-20, 2023, and Tuesday through Thursday April 9-11, 2024. Data from I-895 for the entire length of the facility. Data from I-95 from the I-95/I-895 interchange south of Baltimore to the I-95/I-695 interchange north of Baltimore.

additional delay during the morning peak period (7:00a.m.-8:00a.m.) and more than 20 minutes of additional delay in the afternoon peak period (4:00p.m.-6:00p.m.). This equates to more than 14,000 collective vehicle-hours of additional delay each weekday for traffic on I-95. Similarly, motorists on I-895 experience approximately 20 minutes of additional delay during the morning peak period and approximately 15 minutes of additional delay in the afternoon peak period. This equates to approximately 7,000 collective vehicle-hours of additional delay to each weekday for traffic on I-895. Combining the impacts to both of these major freeways, the traffic diversions to I-95 and I-895 resulting from the collapse of the Key Bridge have resulted in approximately 21,000 collective hours of additional delay each day of the work week.

In addition, the Key Bridge was the only route for over-height and hazardous material loads traveling through the port area, southern Baltimore metro region, and the I-95 corridor as these vehicles and loads are prohibited from using the I-95 and I-895 tunnels.[3] Over-height vehicles and vehicles transporting hazardous loads previously relied on the Key Bridge but are now required to use less efficient alternate surface routes, such as the western section of I-695 around Baltimore, which adds approximately 25 miles of additional VMT.

The Key Bridge also provided a critical alternative route for traffic across the Patapsco River and Baltimore Harbor, serving as a detour for traffic incidents on I-95 and I-895 through Baltimore, especially during nighttime closures of the I-95 and I-895 tunnels for maintenance and repair. As these tunnels are 39 and 57 years old, respectively, nighttime closures of the tunnels for maintenance are a regular occurrence.

Regionally, the Key Bridge played a critical role in the transportation network, including the transport of goods to and from the Port of Baltimore and nearby distribution centers such as Tradepoint Atlantic at Sparrows Point. A recent study indicated that the economic cost of the bridge collapse to the Port of Baltimore is estimated at $15 million per day.[4] The same study determined that the Key Bridge collapse has impacted jobs, income, and industries locally and throughout the state. The impacts caused by the loss of this key infrastructure element present significant challenges to residents, businesses, and industries with long-term implications. Therefore, rebuilding the bridge is an urgent and essential project to restore and maintain the local, regional, and national economy.

The Key Bridge was opened in 1977 and consisted of two 12-foot-wide travel lanes in each direction and two-foot-wide outside shoulders. According to the Maryland Department of Transportation (MDOT) *Policy for Bridge Width* and the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* (7th Edition published in 2018), travel lanes should be a minimum of 12 feet wide, and lane and shoulder widths on bridges should match the approach roadway. For bridges longer than 200 feet, shoulder widths can be narrowed but a minimum width of four feet is still required. Thus, the Key Bridge did not meet today's design standards for lane and shoulder

[3] https://roads.maryland.gov/OOTS/FORBIDDEN_HAZARDOUS_MATERIALS.pdf
[4] https://www.mdchamber.org/2024/03/28/understanding-key-bridge-collapse-impact/

width. The replacement bridge will meet today's design standards while remaining within the current MDTA ROW.

The height of the Key Bridge had the potential to limit larger ships traveling into the Port of Baltimore. The collapsed Key Bridge had a vertical clearance of 185 feet.[5] This clearance restricted certain current classifications of cargo vessels, as did other crossings, such as the Bay Bridge, along the marine route into the Port of Baltimore. Currently the largest class of cargo vessel able to call at the Port of Baltimore is the Post Panamax (PPX) Generation III Max. There is a trend toward even larger vessels, and cargo ships are expected to increase in size due to the cost savings of utilizing larger ships to transport larger quantities of goods. Accommodating future ship navigation and traffic on the Patapsco River is important to maintaining the vitality of the Port of Baltimore and commerce in Maryland and the Mid-Atlantic region.

Proposed Action

The Project is a replacement of the collapsed Key Bridge. The project location will be the same as the original bridge, following the existing centerline across the Patapsco River and the approaches along I-695. The new bridge will remain within MDTA's existing ROW. The Key Bridge was a tolled bridge, and the replacement bridge will also be a tolled bridge.

The Project will account for the vertical clearance required by current and future vessels and will comply with anticipated bridge permits from the U.S. Coast Guard (USCG) under the General Bridge Act of 1946 and Section 9 of the Rivers and Harbors Act of 1899. These permits are required to preserve the public right of navigation and to prevent interference with interstate and foreign commerce along navigable waters. The USCG issued a preliminary navigation clearance determination (PNCD) for the new bridge on June 6, 2024, setting the minimum vertical clearance at 230 feet above mean high water and the minimum horizontal clearance at 1,100 feet through the main navigation span of the bridge (**Attachment 2**). Anticipated permits will also identify required protective systems, clearance gauges, navigational lighting, and temporary construction measures that will be incorporated into the Project.

The Project includes several changes to engineering parameters from the original Key Bridge to meet current roadway standards. The replacement bridge will have a minimum vertical clearance of 230 feet over the 800-foot-wide authorized Fort McHenry Navigation Channel, per coordination with the USCG and as documented in the PNCD.[6] The vertical clearance will be a minimum of 45 feet higher than the original Key Bridge to provide clearance for large vessels traveling underneath. The Fort McHenry Navigation Channel is Congressionally Authorized to be 800-foot-wide.

Similar to the original Key Bridge, the replacement bridge will have a 4 percent grade on both sides of the navigation channel. Due to the increased vertical clearance over the navigation

[5] Navigational Vertical Clearance according to the National Bridge Inventory (https://infobridge.fhwa.dot.gov/Data/BridgeDetail/24651806)

[6] The USCG issued a PNCD on June 6, 2024, stating that the replacement bridge is required to have a minimum vertical clearance of 230 feet above mean high water and a minimum horizontal clearance of 1,100 feet through the main navigation span. The PNCD is included as Attachment 2.

channel, the limits of the bridge and the elevation change will extend beyond the limits of the original bridge but still within the existing MDTA ROW. The total length of the bridge will be approximately 2.4 miles, which is approximately 0.7 miles longer than the original Key Bridge. A portion of this 2.4-mile length will include retaining walls and grading where the bridge profile approaches the existing ground; the limits of bridge structure versus retaining walls and grading will be determined in final design.

The main bridge span over the navigation channel is anticipated to be approximately 1,400 feet long between the main bridge piers, which will accommodate the placement of the new piers outside the existing piers. In compliance with the USCG PNCD, the horizontal clearance between the pier protection islands that will surround the new piers will be no less than 1,100 feet.[4] The remaining bridge spans will include piers both in the Patapsco River and on both the approaches over land. In addition to the main piers, there will be, at a minimum, pier protections around all piers as required by current design standards. Refer to **Attachment 3** for a map of the possible locations of the piers and pier protection and the horizontal clearance over the navigation channel.

The new typical section for the bridge and approaches will meet the design guidelines outlined in the AASHTO *A Policy on Geometric Design of Highways and Streets* (7th Edition published in 2018) for lane and shoulder widths and will include two 12-foot-wide lanes in each direction with 10-foot-wide outside shoulders and 4-foot-wide inside shoulders.

The Project will consider a different bridge type than the original Key Bridge to support the increased main span length. A bridge that accommodates the increased vertical clearance and main span length could be approximately 500 to 550 feet tall at the main towers. A cable-stayed bridge type was assumed for the purposes of this CE to determine possible dimensions and identify planning-level environmental impacts. The final structure type will be determined by the design-builder in coordination with MDTA and FHWA during final design. Refer to **Table 1** below for a comparison between the Key Bridge and the replacement bridge engineering assumptions.

In order to construct the replacement bridge, the Project will require removal of the existing piers and remaining stable structure. The removal of the existing piers will involve four distinct demolition activities that include: (1) removal of parapet, median, and deck over land and water; (2) removal of existing girders on the six remaining water spans; (3) removal of existing land spans and land piers using explosives; and (4) removal of water piers and dolphins using explosives. The Project may also involve temporary impacts associated with the removal of piers below the mud line.

Table 1: Structural Comparison between the Key Bridge and Replacement Bridge

	Approx. Structure Height (feet)	Vertical Clearance (feet)	Main Span Length (feet)	Total Bridge Length (miles)	Number of Travel Lanes	Lane Width (feet)	Outside Shoulder Width (feet)	Inside Shoulder Width (feet)	Profile/ Grade on Both Sides of the Main Channel
Key Bridge	358	185	1,200	1.7	4	12	2	0	4%
Replacement Bridge* (Approximate)	500-550	230	1,400	2.4**	4	12	10	4	4%
Total Change	142-192	45	200	0.7	0	0	8	4	0

**For the purposes of this CE, engineering assumptions for the replacement bridge were based on a cable-stayed bridge type. The bridge type and dimensions will be determined during final design.*
***The total bridge length will be determined during final design. For the purposes of this CE, the length includes the full limits where the profile elevation will change.*

Existing Environment and Environmental Evaluation

The following section discusses the existing environmental conditions as well as environmental consequences of the Project. The existing environmental conditions were assessed within the project area established for the Project, which extended along I-695 from Quarantine Road to the Broening Highway interchange. Environmental consequences were assessed for the Project limits of disturbance (LOD), which is fully within the existing MDTA ROW and extends from approximately 1,800 feet west of Dock Road to approximately 800 feet east of the MDTA Key Bridge Campus (**Attachment 3**).

The LOD was developed by MDTA and is based on planning-level conceptual engineering, which accounts for potential permanent and temporary impacts associated with removal of the existing standing structures (piers, remaining bridge superstructure, and elevated approach road decking), and construction of the new bridge, piers, pier protection, roadway, grading, retaining walls, relocation of impacted drainage features, and stormwater management. The LOD includes areas for equipment staging, storage, and construction work areas. The LOD also includes areas to maintain access from the MDTA Key Bridge Campus and points north to eastbound I-695. The LOD minimizes impacts to tidal wetlands and within the mean high-water line of the Patapsco River, where feasible.

The LOD is based on general engineering parameters for the purpose of understanding the nature and level of potential impacts from the Project. The LOD may be refined during detailed design following the FHWA NEPA decision.

The Project will be implemented through the Progressive-Design Build (PDB) procurement process. The MDTA will enter into a contractual agreement with a Design Build Team (DBT) consisting of a General Contractor (Builder) and an Engineer-of-Record (Designer) who will prepare design plans and ultimately construct the Project. The PDB process will advance in two

phases: Phase 1 – Project Development (Design) services and Phase 2 – Project Delivery (Construction) services. Phase 1 will conclude with the negotiation of a Guaranteed Maximum Price (GMP) and will include all permitting, final design, construction, labor, equipment and materials and all incidentals necessary to complete the Phase 2 package for the Project. There may be multiple Phase 2 packages that are developed during the Phase 1 services to be implemented with separate GMPs during Phase 2.

Under the PDB process certain details related to the project design and their corresponding impacts are not known at this time but will become known as the project design progresses toward construction. Therefore, the potential impacts to environmental resources that are estimated in this document are based on planning-level conceptual engineering and the preliminary LOD developed for the purposes of this CE. The final plans developed by the DBT will determine the final impacts. Should the DBT propose a design that alters the intensity of effects of the Project, MDTA, SHA, and FHWA will reevaluate the findings of this CE as appropriate in coordination with the DBT.

A summary table at the end of this section (**Table 9**) provides an overview of the environmental consequences for all resources discussed below.

Community and Socioeconomic Conditions

Land Use

Existing and future land use patterns and development goals were identified from long-term comprehensive and master plans implemented by local governments, including the *City of Baltimore Comprehensive Master Plan 2007-2012*, *Baltimore County Master Plan 2030*, and *Anne Arundel Comprehensive Plan 2040*.

Currently, the nearby existing land use consists of primarily industrial and transportation lands with forest, barren, and other developed lands throughout (**Attachment 1, Figure 2)**. Other land uses surrounding the project area include industrial, medium and high-density residential land uses, and wetlands. According to the Maryland Department of Planning (MDP), the project area is in a Maryland Smart Growth Priority Funding Area (PFA). Portions of the Project within Baltimore City are within a municipal PFA.

As the Project will remain within the existing MDTA ROW, which is currently in transportation use, the Project will not result in any change of land use. The Project will restore connectivity over the Patapsco River and preserve the overall existing land use patterns.

Demographics and Employment

Data regarding population, race, and employment were assessed through the U.S. Census Bureau's American Community Survey (ACS) 2022 5-Year Estimates, as well as state, regional, and local sources. Data was collected at the block group level and county level for comparison. The socioeconomic study area (**Attachment 1, Figure 3**) includes Census Tract 4927, block groups 2, 3, and 4; Census Tract 4212, block group 2; and Census Tract 2505, block group 1. All census tracts are located in Baltimore County, Maryland, except for Census Tract 2505, block group 1. This census tract is located in Baltimore City, Maryland, but contains no residential areas or residents. As a result, Census Tract 2505 was not analyzed.

Table 2 shows the population statistics for Baltimore County and the socioeconomic study area. According to the U.S. Census, the predominant race in Baltimore County is White (54 percent), and the largest minority group is African American (30 percent). This differs from the socioeconomic study area where the predominant race is a minority race, African American, which makes up 49 percent of the population. The Hispanic population within the socioeconomic study area is 11 percent, which is higher than that of Baltimore County. Residents in Baltimore County who are 65 or older make up 18 percent of the population and 15 percent in the socioeconomic study area.

Table 2: Population Statistics for Baltimore County and the Socioeconomic Study Area

	Baltimore County, Maryland		**Socioeconomic Study Area**	
Total Population	850,737		3,774	
Population over the age of 65	156,152		567	
Racial Distribution	**Total**	**Percent**	**Total**	**Percent**
White	459,907	54%	1,262	33%
African American	252,089	30%	1,861	49%
American Indian/Alaskan Native	1,212	<1%	2	<1%
Asian	51,521	6%	14	<1%
Native Hawaiian & Pacific Islander	352	<1%	0	0%
Other	3,520	<1%	0	0%
Two or More Races	30,439	4%	218	6%
Total Minorities	339,133	40%	2,095	55%
Population of Hispanic Origin*	51,697	6%	417	11%

Source: U.S. Census Bureau, American Community Survey 2018-2022, Table B03002, B01001
**Population of Hispanic origin can be of any race.*

Table 3 shows the labor status for the socioeconomic study area. The table compares the employment status of the working age population to the actual work force. The category of "Not in the labor force" includes those who are neither working nor looking for work. Census Tract 4927 block group 2 and block group 4 have the highest civilian labor force employment percentages at 98.8 percent and 97.4 percent, respectively. These block groups also contain the highest and lowest total populations in the socioeconomic study area. Census Tract 4927 block group 2 has a total population of 952 and Census Tract 4927 block group 4 has a total population of 671. Census Tract 4212 block group 2 has a total population of 675 and a civilian labor force employment percentage of 87.8 percent. Census Tract 4927 block group 3 also has a civilian labor employment percentage of 87 percent and a total population of 851.

Table 3: Employment in the Project Area

Geographic area	Total population 16 years of age and older*			Civilian labor force**		
	Total population	In the labor force (%)	Not in the labor force (%)	Total civilian labor force	Employed (%)	Unemployed (%)
4212 | BG 2	675	58.5%	41.5%	395	87.8%	12.2%
4927 | BG 2	952	45.2%	54.7%	431	98.8%	1.2%
4927 | BG 3	851	66.5%	33.5%	566	87%	13.1%
4927 | BG 4	671	73.2%	26.9%	491	97.4%	2.6%

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, B23025
**The prison population is not included in the labor force.*
***Employment in the armed forces is not included in the civilian labor force.*

The Project is not anticipated to have any negative impacts on demographics or employment. Design and construction of the Project is anticipated to present local and Disadvantaged Business Enterprises (DBE) employment opportunities.

Environmental Justice

U.S. Census data at the block group level was compared to county and State geographic regions to identify environmental justice (EJ) populations. Using the meaningfully greater and fifty percent analyses methodologies outlined in the Federal Interagency Working Group on Environmental Justice & NEPA Committee's *Promising Practices for EJ Methodologies in NEPA Reviews,*[7] Census block groups were defined as an EJ population if the minority and/or low-income population exceeded the county percentage by 10 percent or more; and/or if the minority and/or low-income population was 50 percent or more of the overall block group population. Within the socioeconomic study area, Census Tract 4927, block groups 2, 3, and 4 are minority populations. Census Tract 4927, block group 4 is also a low-income population along with Census Tract 4212, block group 2 (**Attachment 1, Figure 4**). African American is

[7] https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf

the predominate minority group within the study area (49 percent) and the predominate minority group in three of the four block groups. Turner Station, a historically African American neighborhood, is located within Census Tract 4927, block groups 3 and 4. The African American population of Turner Station within these block groups is 81 percent and 60 percent, respectively. The American Indian, Asian, and Native Hawaiian and Other Pacific Islander populations are the least represented minority groups making up less than 1 percent of the population in all block groups. The Hispanic population totals 11 percent of the socioeconomic study area, and the majority of the population is located in Census Tract 4927, block group 2 (25 percent). In summary, all block groups in the socioeconomic study area have been identified as EJ populations.

Table 4 details minority and low-income percentages by block group. This data is supported by the U.S. Environmental Protection Agency's (EPA's) EJ Screening and Mapping Tool (EJScreen), where the demographic index is in the 88th percentile.

The Project will not have disproportionate or adverse effects on EJ populations. Construction of the bridge will take place within the existing MDTA ROW of the collapsed Key Bridge and would not require any land use changes. The Project will not require ROW acquisition or result in residential and/or business displacements. The Project will benefit residents and businesses, including EJ communities by replacing a critical piece of infrastructure, restoring community connectivity to the rest of Maryland, and restoring a direct route to neighborhood amenities, goods, and services.

Table 4: Minority and Low-Income Percentages by Block Group

Geographic Area/Block Group	Total Population	American Indian and Alaska Native Alone		Asian Alone		Black or African American Alone		Native Hawaiian and Other Pacific Islander Alone		Some Other Race Alone and Two or More Races		Hispanic or Latino		Total Minority Population		Percentage of Low-Income Population
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Percent
Baltimore County	850,737	1,212	<1%	51,521	6%	252,089	30%	352	<1%	33,959	4%	51,697	6%	390,830	46%	11.4%
State of Maryland	6,161,707	8,480	<1%	396,983	6%	1,815,877	29%	2,105	<1%	276,352	4%	672,905	11%	3,172,702	51%	9.6%
4212| Block Group 2*	772	2	<1%	5	<1%	61	8%	0	<1%	11	1%	65	8%	144	19%	24.9%*
4927| Block Group 2 *	1,094	0	<1%	9	<1%	453	41%	0	<1%	28	3%	273	25%	763	70% *	11.5%
4927| Block Group 3 *	996	0	<1%	0	<1%	804	81%	0	<1%	36	4%	79	8%	919	92% *	20.1%
4927| Block Group 4 *	912	0	<1%	0	<1%	543	60%	0	<1%	143	16%	0	<1%	686	75% *	51% *
Project Area Totals	3,774	2	<1%	14	<1%	1861	49%	0	<1%	218	6%	417	11%	2,512	67%	26.9%

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, B03002, C17002

[*] *Block Group considered an EJ population*

Neighborhoods, Communities, and Community Facilities

The socioeconomic study area contains the communities of Turner Station and Watersedge, which are part of the greater Dundalk area in Dundalk, Maryland. Turner Station, a historically African American neighborhood, was established in the late 1800s and is bounded by Dundalk Avenue to the north and I-695 to the south.[8] The west to east borders extends from Broening Highway to Bear Creek, respectively. Housing in Turner Station is a mix of single-family detached and semi-detached homes along with rowhomes and multifamily apartments. Turner Station is within Census Tract 4927, block groups 3 and 4, and has been identified as an EJ population. There are no neighborhoods within the Project's LOD.

Community facilities and services include organizations, both public and private, that fulfill a social function or provide services to the community. The socioeconomic study area includes the facilities and services listed below (**Attachment 1, Figure 5**). No community facilities or services are located within the Project's LOD.

Places of Worship:

- Friendship Baptist Church in Turner Station
- Greater St. John Baptist Church
- St. Matthews United Methodist Church
- New Shiloh Baptist Church
- First Apostolic Faith Gospel Tabernacle
- Union Baptist Church
- Mt. Olive Baptist Church

Recreation Facilities:

- Fleming Community/Senior Center and Park
- Fort Armistead Park*
- Turner Station Park
- Peach Orchard Park
- Watersedge Park
- Juniper Lane Playground
- Captain John Smith Chesapeake National Historic Trail **
- Star-Spangled Banner National Historic Trail **

Public Library:

- Sollers Point Branch of Baltimore County Public Library

Medical Facility:

- Freedom Way Home Care

[8] https://www.baltimorecountymd.gov/files/Documents/Planning/communityplans/turner_station.pdf

* Fort Armistead Park is located adjacent to the Project's LOD. The Project is limited to within the existing ROW and no impacts to this facility are expected. See Cultural Resource section for more detail.

** The Capitan John Smith Chesapeake and Star-Spangled Banner National Historic Trails are water trails in the Patapsco River. The Project LOD intersects these trails. See the Section 4(f) discussion below for more detail.

Port Facilities:

- Dundalk Marine Terminal Berth NOS 13, 12 and 11
- Millenium Inorganic Chemicals Hawkins Point Plant Piers
- Eastalco Hawkins Point Pier
- Baltimore Marine Industries, Piers No 1-4
- BG&E Company Riverside Power Plant
- Tradepoint Atlantic
- U.S. Gypsum Co Baltimore Plant
- Premier Warehousing Ventures

Waste Facility:

- Curtis Bay Medical Waste Services

Residential areas such as Turner Station on the north side of the Patapsco River in Dundalk have been experiencing less traffic since the Key Bridge collapse and closure of I-695 but could experience temporary impacts during construction of the Project. Construction activities could bring truck traffic on the road network to and from the project site, increased ship and barge traffic on the Patapsco River around the bridge piers and structure, and the use and transport of large construction equipment and materials such as cranes and land clearing equipment. Any temporary interruptions to vehicular or pedestrian traffic patterns as a result of construction will not be greater than disruptions caused by the collapse of the Key Bridge. Construction truck routes have not yet been established but will be primarily along existing highways and interstates, such as I-695 and Broening Highway. Compared to current conditions post-collapse, increased traffic, noise, and vehicular emissions along the truck routes are possible during construction of the Project.

Currently there is no regular traffic on I-695 since this portion of the I-695 is closed due to the bridge collapse and will remain closed during construction. Thus, truck traffic during construction will have direct access onto I-695 and will cause minimal disruption to local streets. However, to further minimize transportation impacts during construction, a Maintenance of Traffic Plan (MTP) will be developed and implemented to provide protection for safe vehicular movement during construction and to maintain connectivity and access to residents, businesses, and community facilities where possible. The MTP will account for truck routes and will restrict construction traffic from using neighborhood streets to ensure access to residences and businesses are maintained to the maximum extent possible.

In addition, construction staging areas may be needed to support the Project and could include materials storage and lay down areas, parking, power generation, offices, and construction trestles/causeways for access to the river. Construction staging areas have not been finalized at this time but will be placed in areas away from sensitive resources and will remain within the existing MDTA ROW to the maximum extent possible. As I-695 will remain closed during construction, the existing roadway footprint is available for construction storage areas. The potential impacts from any temporary construction staging areas or easements outside the existing MDTA ROW would be evaluated at that time. Coordination with residential and business communities will continue during final design and construction.

The few residential areas, businesses, and community facilities in the project area, such as Dundalk, Turner Station, and Watersedge, are surrounded by commercial and industrial land use. During construction of the Project, these communities may be impacted by construction noise and air quality issues. These impacts will be temporary, and efforts will be taken to minimize and mitigate impacts to the extent practicable. Minimization and mitigation efforts could include limiting construction activities to certain times of days and days of the week, compliance with local and State ordinances and regulations, development and implementation of a dust control plan, and continued coordination with the residential and business communities. Refer to the Construction Impacts section below for additional commitments.

In addition, there are no children's services, such as schools, playgrounds, or child medical facilities within 500 feet of the Project's LOD, therefore, the Project is not expected to impact children's health.

Visual impacts will also occur from the Project during construction and when complete. As outlined in **Table 1** above, the replacement bridge will be taller and larger than the former Key Bridge. However, the former Key Bridge was also a large structure and the second longest bridge in the Baltimore metropolitan area. Therefore, the visual character will be consistent with the visual landscape prior to the Key Bridge collapse and the visual impacts are not expected to be significant. Public and agency coordination regarding the visual characteristics, such as lighting, of the replacement bridge will continue through final design.

In summary, the Project will be limited to within the existing ROW and no residential or business displacements will occur. Temporary impacts from construction will be minor and not significant given the location of the Project along I-695 and existing conditions following the Key Bridge collapse. The Project would benefit residents and businesses in the project area by replacing a critical piece of infrastructure, restoring community connectivity to the rest of Maryland, and restoring a direct route to neighborhood amenities, goods, and services.

Business, Economy, and Employment

There are major areas of business and employment in the project area such as the Port of Baltimore, Dundalk Marine Terminal, Hawkins Point Plant, BG&E Company Riverside Power Plant, U.S. Gypsum Co Baltimore Plant, Premier Warehousing Ventures, and Tradepoint Atlantic. The Tradepoint Atlantic redevelopment project at Sparrows Point is occurring with or without the Project and the site has been transformed into the largest privately owned industrial site and terminal on the east coast.[9] The 3,300-acre multi-modal industrial site houses distribution centers for Amazon, Under Armour, Home Depot, and FedEx Ground. It is estimated that upon its completion the Tradepoint Atlantic redevelopment project would bring more than 17,000 new jobs and have an annual economic impact of $3 billion by 2025.[10] The Tradepoint redevelopment project also presents environmental remediation opportunities of the former steel mill site.

[9] https://www.tradepointatlantic.com/wp-content/uploads/2020/09/FINAL-TPA-Coffee-Table-Book-2020-FINALv2082020.pdf
[10] https://www.gdcoc.org/redevelopment-of-sparrows-point/

The Port of Baltimore, located northwest of the project area, is one of the most diverse ports in terms of types of cargo imported and exported in the U.S. The diversity of the Port makes it one of the nation's top producers in total cargo tonnage and overall dollar value of cargo. These terminals handle general cargo materials such as containerized cargo, automobiles, forest products, iron, steel, roll-on/roll-off cargo, and bulk materials. The Port also serves as an arrival and departure location for Carnival, Royal Caribbean, and Norwegian Cruise Lines, which are three of the world's top cruise lines.

The Port plays a significant role in the local and national economy and employment sectors. In 2023, Baltimore's Port District handled 55.5 million tons of cargo for exporters and importers located in the U.S.[11] This contributed to 51,365 jobs as a result of direct activity at the Port. The Port provides an additional 346,137 jobs in the State of Maryland from related activities needed to support operations. **Table 5** provides an economic summary of the Port of Baltimore.

Table 5: Port of Baltimore Economic Impact

	Maryland Port Administration Terminals	Private Terminals	Total Cargo	Cruise	Total with Cruise
No. of Jobs	30,513	20,410	50,923	442	51,365
Personal Income (Millions $)	$3,154.8	$2,151.5	$5,306.3	$24.9	$5,331.2
Business Revenue (Millions $)	$2,066	$1,743.2	$3,809.2	$70.8	$3,879.9

Source: The Economic Impacts of The Port of Baltimore, 2023 (maryland.gov)

The Key Bridge is part of the National Highway Freight Network which links Broening Highway, a critical urban freight corridor, and I-695, a primary highway freight system route.[12] Without this major truck route, travel time across the Patapsco River has increased, delaying delivery time, and increasing transportation costs. Longer routes require more fuel and this increase in cost is likely to be passed on to consumers. In addition to these two major employment hubs, the Project will restore the connection between local businesses in southeast Baltimore County to the rest of the region.

Local and regional business activity will benefit by reducing travel delays experienced since the Key Bridge collapse and restoring mobility in the project area. The Project will restore a direct route for accessing Dundalk Marine Terminal, Seagirt Marine Terminal, and Sparrows Point. Seagirt Marine Terminal handles 97 percent of container volume at the Port and Dundalk Marine Terminal is the largest and most versatile general cargo facility at the Port.

[11] https://mpa.maryland.gov/Documents/MarylandEconomicimpactofPOB2023.pdf
[12] https://usdot.maps.arcgis.com/apps/webappviewer/index.html?id=c4c0fdef029a4093b169e493e1883988

Cultural Resources

SHA and MDTA initiated Section 106 of the National Historic Preservation Act (NHPA) consultation with the Maryland Historical Trust (MHT) and invited potential consulting parties on May 16, 2024. MHT responded via letter on May 16, 2024, concurring with the Project's Area of Potential Effects (APE), proposed list of consulting parties, and proposed historic property investigation methodology for unrecorded architectural resources. MHT also concurred with SHA and MDTA's recommendation for no further archaeological work at this stage of the project planning. **Table 6** includes the nine historic properties that have been identified within the historic APE to date (**Attachment 1, Figure 6**).

Table 6: NRHP-Listed and Eligible Historic Resources within the APE

Resource Name	MIHP No.	NRHP Status, Determination Year
Fort Smallwood Park	AA0898	Eligible, 2013
Fort McHenry National Monument & Historic Shrine	B-8	Listed, 1966
Canton Grain Elevator	B-985	Eligible, 2019
Baltimore Municipal Airport/ Harbor Field	B-3603/ B-2904	Eligible, 1992/1994
Baltimore Harbor Tunnel	B-5333	Eligible, 2021
Fort Carroll	BA-0451	Listed, 2015
Turner's Station African American Survey District	BA-3056	Eligible, 2019
Sparrow's Point Shipyard District	BA-3208	Eligible, 2006
Day Village Historic District	BA-3340	Listed, 2020

To accommodate for the Project's expedited schedule, SHA and MDTA executed a Programmatic Agreement (PA) (**Attachment 4, Section 106 Consultation and Programmatic Agreement)** for the undertaking on July 1, 2024, that memorializes SHA and MDTA's commitments to 1) complete the identification of historic properties, 2) make an effects determination following the evaluation of historic properties within the APE, 3) create a process for ongoing consultation and managing changes under this PDB Project, 4) that the project level PA has an inadvertent discovery plan should archaeological remains be found, and 5) to avoid, minimize, or mitigate any adverse effects to historic properties.

Natural Resources

Wetlands, Waterways, Critical Areas, and Floodplains

Wetlands and waterways are protected by several Federal and State regulations. Waters of the U.S. (WOTUS), including wetlands, are jointly defined by the EPA and the U.S. Army Corps of Engineers (USACE) in 40 CFR 120.2 and 33 CFR 328.3. Impacts caused by the discharge of dredged or fill material in WOTUS are subject to regulatory jurisdiction under Section 404 of the Clean Water Act (CWA) (33 U.S.C. § 1344) and Section 10 of the Rivers and Harbors Act (33 U.S.C. § 403). Waterways and wetland buffers are also regulated by the State of Maryland under

the Maryland Nontidal Wetlands Protection Act (COMAR 26.23.01) and the Tidal Wetlands Act (COMAR 26.24.01). Further, the Project will require Section 408 review from USACE to evaluate any potential impacts to the Corps Baltimore Harbor & Channels civil works project. Impacts from the Project to WOTUS will require an authorization(s) from the USACE and a CWA Section 401 Water Quality Certification from Maryland Department of the Environment (MDE), which is anticipated October 18, 2024. Impacts to nontidal wetlands and adjacent buffers and tidal wetlands and waterways will require a Maryland Nontidal Wetlands and Waterways Permit and a Tidal Wetlands License.

Under the Maryland Coastal Zone Management Program, coastal consistency review will be completed and submitted with the MDE permit applications.

The project area is located within portions of the Curtis Creek-Curtis Bay (hydrologic unit code (HUC)12 020600031202), Northwest Harbor-Patapsco River (HUC12 020600031203), and Stoney Creek-Patapsco River-Chesapeake Bay (HUC12 020600031204) Watersheds. The project area is also within the Baltimore Harbor watershed (HUC8 02130903). Prominent surface waters in the project area include the Patapsco River, Bear Creek, and Curtis Bay.

A desktop review of mapped waterways and wetlands within the project area was conducted using the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) and Maryland Department of Natural Resources (MDNR) geographic information system (GIS) data (**Attachment 1, Figure 7**). The Project traverses the Patapsco River, which is classified as an estuarine and marine deepwater habitat. Wetlands are mapped along both shores of the Project, classified as freshwater emergent, freshwater forested/shrub, estuarine and marine, and freshwater pond wetlands.

A wetland delineation was conducted in May 2024 within the project area, in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual[13], Y-87-I and the USACE 2012 Regional Supplement to the USACE Wetland Delineation Manual: Coastal Plain Region Version 2.0. The wetland delineation within the project area identified ten non-tidal wetlands classified as palustrine emergent wetlands (PEM), two tidal wetlands classified as estuarine intertidal emergent wetlands (E2EM); two tidal wetlands classified as estuarine intertidal scrub-shrub wetlands (E2SS); one perennial waterway; and two intermittent waterways. There is approximately 0.25 acre of nontidal emergent wetlands within the LOD, that are primarily located near Dock Road, in the southwest portion of the LOD; no tidal wetlands were observed within the LOD. The relatively permanent (perennial and intermittent) waterways within the LOD include approximately 84.0 linear feet (<0.1 acre) and 186.6 linear feet (<0.1 acre), respectively, which are also located near Dock Road. Approximately 12.7 acres of tidal waters (the Patapsco River) are within the LOD.

Water and wetland resources within the Patapsco River have been previously disturbed due to the construction and maintenance of I-695 and the Key Bridge; boat, barge, and ship traffic to and from the Port of Baltimore; and other development within the project area. These resources

[13] https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/4530

were also disturbed by the collapse of the Key Bridge. The Project will include temporary impacts to tidal waters, nontidal waters, nontidal wetlands, and wetland buffers during construction. Temporary impacts to tidal waters will occur from the explosive demolition of the piers in water and subsequent removal of debris. Permanent impacts to tidal waters, nontidal waters, nontidal wetlands, and wetland buffers could occur during construction activities to rebuild the bridge over water and land and to adjust the approach roadways.

Debris from the collapse has disturbed discrete portions of the Patapsco River bottom near the Federal navigation channel. Temporary impacts to tidal waters of the Patapsco River will occur from the demolition and removal of existing stable standing structure. Mechanical demolition methods will be used to cut the parapet, median, and deck, into manageable pieces which will be loaded onto trucks and hauled down the remaining bridge for disposal. The girders supporting the deck will be cut, picked off the bridge with barge mounted cranes and loaded onto a barge to be transported for disposal. Mechanical demolition is not expected to impact tidal waters. Piers and pier protection (dolphins) located both above and below water may be demolished with explosives and the debris will be allowed to fall into the river. The use of explosives will allow for significantly quicker demolition compared to strictly mechanical means. This will allow the Project to be implemented as soon as possible, which is required to resolve the ongoing transportation emergency.

Following the explosive demolition, debris, including all structural debris and associated materials, will be removed from the river bottom with excavators and clamshell dredge, which will temporarily disturb the river bottom. The explosive demolition and subsequent excavation of in-water piers and their debris will result in approximately 8.3 acres of temporary impacts to the Patapsco River. Temporary impacts will likely occur from the temporary piles and anchorages needed to secure and stabilize barges during demolition and construction of the Project. The location of these temporary piles/anchorages will not be known until they are needed to facilitate construction. Temporary impacts will be minimized at this stage and as the Project progresses, the river bottom will be returned to its original contour following all demolition activities. The anticipated location of the demolition activities is shown in **Attachment 3**. No permanent impacts to the Patapsco River will result from the demolition activities.

The construction of new bridge piers and pier protection will result in permanent impacts to the Patapsco River. Approximately 12.7 acres of permanent impacts to tidal waters of the Patapsco River are anticipated from the Project. However, 12.7 acres of bottom disturbance to tidal waters is not considered significant given that there is abundant river bottom present, and that the value and function of tidal waters will not be completely lost. Mud bottom habitat will be lost, but it will be replaced with hard structure habitat, which will provide marine and fisheries habitat. The potential locations of piers and pier protection developed for this CE are shown in **Attachment 3**. As previously noted, the location of the piers and pier protection will be determined during final design following FHWA NEPA approval. The construction of the land portions of the bridge, adjustments to the approach roadways and stormwater management will cause permanent impacts to nontidal waters, nontidal wetlands and wetland buffers. Approximately 260 linear

feet of nontidal waterways, 0.25 acres of nontidal wetlands, and 1.3 acres of wetland buffer will be impacted.

Impacts to water resources described above are not anticipated to be significant; however, project activities will require various permits from the applicable regulatory agencies. As part of the permitting process, avoidance, minimization, and mitigation measures will be implemented to further reduce and off-set the temporary and permanent impacts to nontidal and tidal resources. Best management practices (BMPs) will also be implemented to minimize impacts to nontidal and tidal resources.

The Chesapeake and Atlantic Coastal Bays Critical Area Commission regulates development, manages land use, and conserves natural resources on land within 1,000 feet of Maryland's tidal waters and tidal wetlands. The Critical Area Buffer is the land area immediately adjacent to the tidal waters, tidal wetlands, and tributary streams and includes a minimum buffer width of 100 feet; however, the buffer can be expanded if the property has steep slopes, wetlands, hydric soils or highly erodible soils. Lands within the Critical Area are designated as Intensely Developed Areas (IDA), Resource Conservation Areas (RCA), and Limited Development Areas (LDA), which are subject to different development criteria and performance standards. All Critical Area lands within the LOD are limited to IDA, indicating the area has previously been heavily disturbed. Portions of the LOD are also within the Expanded Critical Area Buffer. For land areas classified as IDA, the focus of the Critical Area regulations is on improving water quality through stormwater management, the use of permeable surfaces, and the preservation of existing natural forest vegetation.

Field assessments of the project area within the Critical Area were conducted in May 2024 to inventory forests, hedgerows, individual trees, shrubs, and other woody vegetation. The field assessments identified 13 forest stands, 15 hedgerows, and 24 woody vegetation clusters within the project area. In addition, 120 trees were identified, including 112 stand-alone trees, eight specimen trees, and 16 trees and shrubs with a diameter at breast height (DBH) of less than 1.5 inches. Approximately 2.6 acres of forest, 3.4 acres of hedgerows, 0.4 acre of woody vegetation, and 61 individual trees are located in the Critical Area and the Expanded Critical Area Buffer within the LOD. **Table 7** shows the total forest and tree resources within the LOD that will be impacted by the Project, separated based on the area within and outside of the Critical Area and Expanded Critical Area Buffer. MDTA and Critical Area staff are currently developing a Memorandum of Understanding (MOU) for this Project in accordance with COMAR 27.02.03, to facilitate expedited review and compliance with the Critical Area Law. The MOU will detail the review process, responsibilities of both parties, thresholds for disturbance/impacts for projects, and the necessary mitigation.

Table 7: Resources In and Outside the Critical Area and Expanded Buffer in the LOD

	Forest (acres)	Hedgerow (acres)	Woody Vegetation (acres)	Individual Tree (No.)
Critical Area	1.6	1.1	< 0.1	30
Expanded Buffer	1.0	2.3	0.4	31
Outside the Critical Area and Expanded Buffer	1.1	0.4	0	3
Total	3.7	3.8	0.4	64

Impacts to Critical Areas will be entirely within previously developed areas of the IDA and thus will not be significant. However, all impacts to Critical Area and Expanded Critical Area Buffer impacts will be mitigated through vegetation planting and stormwater management in accordance with Critical Area requirements.

Floodplain impacts from the Project are expected to be minimal and the highway encroachment is not considered significant. Hydrologic and hydraulic analysis will be completed for the replacement bridge to confirm that the Project results in minimal floodplain impacts.

Portions of the project area intersect with the FEMA mapped 100-year floodplain associated with the Patapsco River (**Attachment 1, Figure 7**). The project area is within the National Flood Insurance Program (NFIP) developed Flood Insurance Rate Map (FIRM) panels 2400100535G, effective May 5, 2014, and 2400870036G, effective June 16, 2021. Approximately 16.5 acres of tidal 100-year floodplain is within the LOD.

The National Oceanic and Atmospheric Administration (NOAA) Sea Level Rise Viewer[14] categorizes the vulnerability to sea level rise within the project area as high. It is anticipated that the replacement bridge will be built to MDTA and SHA standards accounting for these stressors and forces regarding anticipated sea level rise. The Project will not have a direct effect on rainfall intensity nor discharge, resilience, rising sea levels, coastal storms nor their wave action.

Impacts to climate change are not anticipated because the Project will not be increasing capacity or changing the type of roadway users traveling though the Project area, and in turn will only result in relatively minor, short-term greenhouse gas (GHG) emissions during construction. The Project proposes a bridge structure elevation that is higher than the projected coastal flood elevation and a structure itself that will be designed to withstand future storms. In addition, the Project will not cause any changes to existing shorelines. MDTA will be analyzing the impacts of the Project on climate and coastal resiliency to determine the appropriate measures to further protect coastal resources in the Project area.

[14] https://coast.noaa.gov/slr/#/layer/slr/0/-8518893.91536595/4752692.718577409/15/satellite/none/0.8/2050/interHigh/midAccretion

Water Quality

Section 401 and Section 402 of the CWA (33 U.S.C. 1341 ad 1342) regulate water quality and the introduction of contaminants into waterbodies. In compliance with CWA Sections 303(d), 305(b), and 314, and the Safe Drinking Water Act (SDWA), states are required to designate use classifications for surface waters, develop water quality standards for each use class, and report waterbodies that do not meet water quality standards. The 303(d) prioritized list includes those waterbodies and watersheds that exhibit levels of impairment requiring further investigation or restoration. Consistent with the CWA, total maximum daily loads (TMDLs) are established for waters on the 303(d) list as a corrective measure to bring the impaired water into compliance with the water quality standard.

Surface waters in Maryland are assigned a Use Class (COMAR 26.08.02), a set of designated uses that define an intended human and aquatic life objective, use, or goal for a water body. A waterbody's designated use is determined through consideration of its existing conditions, including what the waterbody is currently used for, and potential uses for which the waterbody could be compatible with through anticipated improvements in water quality.

The Patapsco River, Bear Creek, and Curtis Bay are Use Class II tidal waters designated for aquatic life, which includes a timing restriction or stream closure period identifying when instream activities are not permitted to protect the growth and propagation of aquatic species. The Baltimore Harbor tributaries are Use Class I streams designated for aquatic life.

The Patapsco River, Baltimore Harbor tributaries, Bear Creek, and Curtis Bay are 303(d)-listed impaired waters based on the EPA ATTAINS data. The Patapsco River is impaired for total suspended solids (TSS) and has a TMDL in place that allows the Patapsco River to meet the water quality standards. The Baltimore Harbor tributaries are impaired for bacteria (enterococcus), toxics (chloride), metals (chromium, zinc, and lead), suspended sediments, impacts to biological communities, floatables and trash, lack of riparian buffer, sulfate, and TSS and has TMDLs in place for nitrogen, phosphorous, and TSS. Bear Creek and Curtis Bay are impaired for polychlorinated biphenyls (PCBs), and zinc in sediment and have a TMDL in place for PCBs.

Temporary impacts to surface water quality during demolition of the existing stable structure and construction of the Project will include increased underwater noise, dust, and debris from demolition activities; and flow and sediment disturbance from barges and other in-water equipment. Other potential impacts to surface water quality related to bridge demolition and construction projects are accidental spills and sediment releases, which can cause direct mortality to aquatic life or impact biota through the potential to contaminate waterways in the vicinity of the project area. Potential release of contaminants is related to the possibility of fuel leaks from demolition equipment and dust and debris caused by blasting and demolition. Potential sources of metals contamination include mobilization by excavation, vehicle wear, combustion of petroleum products, and catalytic-converter emissions. Demolition and construction of the Project will also disturb the river bottom and temporarily increase the amount of TSS.

Surface water impacts will be minimized through avoidance and minimization measures. Water quality impacts will be largely minimized using MDE-approved Erosion and Sediment (E&S) Controls, such as installation of super silt fence and stabilized construction entrances to ensure sediment is not introduced into the Patapsco River from the bridge demolition activities. Discharges of sediment during construction will be avoided or minimized using MDE's *2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control*[15], which were developed to protect water quality during construction. All construction activities will comply with the stormwater and sediment control laws of Maryland.

Daily water quality readings to measure turbidity will be taken both upstream and downstream of demolition activities that disturb the river bottom and during any concrete saw cutting operations. A turbidity curtain will be used for all work in water 10 feet mean low water or less, as they are more effective and less likely to get damaged than in deeper waters. Turbidity monitoring will also occur outside of the construction area, both upstream and downstream. These daily water quality readings will be used to monitor any changes in turbidity and determine if elevated turbidity readings are the result of construction activities or poor overall water quality. A crane with grapple attachment and a backhoe will be used to remove the majority of debris on the river bottom to minimize the amount of sediment being pulled up during retrieval. The bridge deck will be saw-cut into sections and transported by truck along the remaining road surface for offsite disposal to minimize debris falling into the waterway. Additional BMPs that may be implemented during saw cutting to minimize discharge of concrete slurry into the waterway include blocking downstream scuppers while saw cutting the bridge deck, vacuuming concrete slurry from the bridge deck during cutting, and having a containment barge underneath the saw cutting operation (if feasible) to capture concrete slurry during cutting operations.

The Project has the potential to increase contamination during construction and operation through roadway runoff into surface water or groundwater, including substances such as gasoline, oil, and road salts as a result of additional impervious surfaces. It is anticipated that the majority of the water quality requirements for this Project will be met through a debit to the MDTA water quality bank in the Patapsco River Watershed, which currently has a balance of over 49 acres. It is anticipated that several small Environmental Site Design Volume (ESDv) facilities will also be implemented in order to address Point-of-Interest (POI) specific water quality needs at the western end of the Project.

According to the EPA's National GIS database there are no sole source aquifers in the project area. In addition, according to MDNR's Maryland Geological Survey, there are no drinking water supply reservoirs in the project area. As waters in the project area are not considered sources of public drinking water, the potential for drinking water impacts is minimal.

As the Project progresses through final design, minimization and mitigation measures will be further evaluated. BMPs will also be implemented during construction to minimize disturbance

[15] https://mde.maryland.gov/programs/water/StormwaterManagementProgram/Documents/2011%20MD%20Standard%20and%20Specifications%20for%20Soil%20Erosion%20and%20Sediment%20Control.pdf

and reduce the runoff of potentially pollution-laden sediment and oils from discharging into the Patapsco River and surrounding waters. Additionally, the Project will require and comply with state water quality certification permits.

Wildlife and Habitat

Terrestrial wildlife is protected under several State and Federal provisions. The protection of all migratory birds is governed by the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712); the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d); and conservation of wildlife is managed in Maryland through the implementation of state wildlife action plans, as initiated by the USFWS. Section 7 of the Endangered Species Act (ESA) of 1973 (16 U.S.C. Sections 1532-1544) requires Federal agencies to use their authorities to conserve endangered and threatened species in consultation with the USFWS and/or NOAA. The Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act (FWCA) protect some of the fish and shellfish species that are likely to occur in the Patapsco River. Under the MSA, adverse effects to Essential Fish Habitat (EFH) should be avoided, minimized, mitigated, or otherwise offset to the maximum extent possible. The Marine Mammal Protection Act (MMPA) (16 U.S.C. 1361-1423) prevents the decline of marine mammal populations. Transient marine mammals are present in the Patapsco River.

Data on wildlife habitat and documented wildlife species within the project area were collected through analysis of aerial imagery of vegetative cover and data provided by the State and Federal resource agencies. The area within the LOD consists primarily of water and industrial land, with limited areas of forest, barren, and other developed lands. While 7.9 acres of forested habitat occur within the LOD, including forest, hedgerow, and woody vegetation, there are no Forest Interior Dwelling Species (FIDS) areas or Green Infrastructure Hubs or Corridors, indicating a lack of contiguous forest blocks and wetlands, further emphasizing the developed nature and low habitat quality of the area. The lack of high-quality habitat and connectivity are evidence for the limited potential for the Project to impact terrestrial wildlife. However, any tree removal or disturbance to woody vegetation within Critical Areas will require approval from MDNR Critical Area Commission. As previously described, approximately 2.6 acres of forest, 3.4 acres of hedgerows, 0.4 acre of woody vegetation, and 61 individual trees are within the Critical Area and Expanded Critical Area buffer within the LOD. Approximately 1.1 acres of forest, 0.4 acre of hedgerow, and three individual trees are outside of Critical Areas within the LOD (**Table 7**), and removal will require MDNR Reforestation Law approval.

The Information for Planning and Consultation (IPaC) tool was used on May 9, 2024, to assess the presence of Federally listed species under USFWS jurisdiction. The IPaC official species list determined that the northern long-eared bat (*Myotis septentrionalis*), tricolored bat (*Perimyotis subflavus*), and monarch butterfly (*Danaus plexippus*) may be present within the project area. The monarch butterfly is a candidate species proposed for listing and the tricolored bat is proposed for listing as endangered; therefore, no further coordination is required for these species at this time, and conservation measures are not required until the species are listed under

ESA. If the status of the monarch butterfly or tricolored bat changes to require consultation under the ESA, such consultation will be initiated and completed.

Coordination is required for the northern long-eared bat (endangered). The USFWS IPaC determination key results for the northern long-eared bat indicated that the Project "may affect, but not likely to adversely affect" the northern long-eared bat (**Attachment 5, Natural Resource Agency Coordination**), which concludes consultation requirements for the northern long-eared bat. The USFWS IPaC identified no Birds of Conservation Concern within the Project area.

The Maryland Bird Conservation Partnership Bald Eagle Nest Monitoring database[16] indicates the presence of a bald eagle nest within 660 feet of the LOD. The nest is in a location with high ambient noise and human activity. The activity in the eagle nest will be monitored through construction, and potential disturbance within the eagle buffer zone may require an Eagle Disturbance Take (Specific Permit) under 50 CFR Part 22.280. For activities that have temporary impacts (i.e., loud construction equipment), the USFWS may request time of year restrictions during the nesting season (1 October – 15 May), and biological monitoring may be required to minimize disturbance leading to nest abandonment and/or death of eggs or eaglets. Coordination with USFWS is on-going and will continue through final design and construction to discuss the potential impacts of the Project to protected species, including potential impacts within the eagle buffer zone.

NOAA Fisheries Section 7 mapping tools were used to assess potential impacts to protected marine species. The data indicated the presence of the Federally endangered Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) and shortnose sturgeon (*Acipenser brevirostrum*) habitat in the Patapsco River (**Attachment 1, Figure 8)**. Emergency consultation procedures have been initiated with NOAA to ensure compliance with Section 7 of the ESA through avoidance and minimization of potential impacts to listed aquatic species. NOAA Fisheries mapping was also reviewed to determine if EFH exists in the project area. EFH was identified within the Patapsco River for the following six species and associated life stages:

- Windowpane flounder (*Scophthalmus aquosus*) - juveniles, adults
- Summer flounder (*Paralichthys dentatus)* - larvae, juveniles, adults
- Bluefish (*Pomatomus saltatrix*) - juveniles, adults
- Atlantic butterfish (*Peprilus triacanthus*) - eggs, larvae, juveniles, adults
- Black sea bass (*Centropristis striata*) - juveniles, adults
- Clearnose skate (*Raja eglanteria*)- juveniles, adults

In addition, the definition of EFH requires that action agencies consider impacts to prey species. In the project area, those include but are not limited to white perch (*Morone americana*), menhaden (*Brevoortia tyrannus*), bay anchovy (*Anchoa mitchilli*), blue crab (*Callinectes sapidus*), and benthic organisms such as polychaete worms. For other species that are not harvested under a Federally managed fisheries management plan, NOAA Fisheries works to avoid impacts under the authority of the FWCA. In the project area, these species include striped

[16] https://marylandbirds.org/bald-eagle-nest-monitoring

bass (*Morone saxatilis*), American shad (*Alosa sapidissima*), alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), and other migratory, estuary-transient, and estuarine-resident species. Coordination with NOAA Fisheries for Atlantic sturgeon and shortnose sturgeon, as well as EFH, is on-going via regularly scheduled meetings to ensure Atlantic and shortnose sturgeon and EFH impacts are avoided, minimized, and mitigated to the maximum extent practicable.

MDTA and FHWA are continuing to coordinate with NOAA to determine BMPs to ensure species and EFH protection are being applied to the project activities as appropriate. Categories of marine BMPs that will be implemented include Underwater Noise/Hydroacoustic Energy, Impingement/ Entrainment and Entanglement, Turbidity and Sedimentation, Reduced Water Quality, Habitat Alteration, and Vessel Interaction. The BMPs employed during construction will minimize adverse effects to both EFH and ESA Section 7 NOAA-Fisheries species. The consultation procedures for EFH are being completed alongside and with the Section 7 Emergency Consultation process.

In addition, under the MMPA, current mapping indicates the presence of transient marine mammals only in the vicinity of the Project. Underwater noise from activities such as blasting, or pile driving may be stressors to these species; however, prior to any blasting, monitoring boats will scan the affected area for the presence of marine mammals. Blasting will not occur until these species move outside of the area, and coordination with NOAA Fisheries will continue through the construction of the Project.

MDNR Environmental Resource and Land Information Network revealed two Sensitive Species Project Review Areas (SSPRAs) within and near the project area (**Attachment 1, Figure 8)**. One SSPRA within the project area indicates the presence of State-listed species, and the other, outside the project area, indicates a species or natural community of concern. According to MDNR, the sensitive species within the project area included the peregrine falcon (*Falco peregrinus*) that was nesting on the Key Bridge and its piers, and a nesting colony of black crowned night herons (*Nycticorax nycticorax*) on Fort Carroll, which is outside the project area. Considering the collapse of the Key Bridge, the status of peregrine falcon habitat in the project area is unknown. In a letter dated June 3, 2024, MDNR recommended protecting any active nest sites for the American peregrine falcon by limiting work within a 0.25-mile buffer around the nest site during the breeding season (March 1 through June 30) (**Attachment 5, Natural Resource Agency Coordination**).

Migratory birds are also found in the study area and may use the existing piers and surrounding areas for nesting. Cormorant and gull species have been previously identified on the piers and surrounding areas of the Key Bridge. Considering the collapse of the Key Bridge, previously identified habitats may no longer be present; however, nests still may remain on the existing piers. Demolition of the existing piers will occur during the non-nesting season and will not impact migratory birds. Although outside of the project area, MDNR indicated that Fort Carroll is known to support a colony of waterbirds of mixed species. Conservation of waterbird colonies that are located in the Chesapeake Bay Critical Area is required by state law and the Migratory Bird Treaty Act. In a letter dated June 3, 2024, MDNR provided guidance to establish 300-foot

and 0.25-mile protection boundaries from the colony. Fort Carroll is greater than 0.25 mile from the Project LOD, and no construction within these protection areas is expected. Additionally, the replacement bridge design, once known, will be shared with the USFWS to discuss any potential lighting measures related to migratory birds.

Historic waterfowl concentration areas, which are protected under Critical Area Law, also exist within the waters of the Patapsco River. Coordination with MDNR will determine appropriate techniques to limit impacts to waterfowl in proximity to the work zone.

According to MDNR in a letter dated June 3, 2024, anadromous fish species, including yellow perch, herring species, and white perch have been documented near the Project (**Attachment 5, Natural Resource Agency Coordination**). Important fisheries resources in the vicinity of the Project include American eel (*Anguilla rostrata*) presence. Special attention has been given to American eel management in recent years, due to their ecological and economic importance, and their declining numbers. The Project will be designed to maintain or enhance fish passage through the project area, particularly during low flow periods.

The aquatic habitat within the LOD was previously disturbed due to the previous construction and existence of the Key Bridge, as well as the increase in boat traffic due to the industrialization of the project area over time. Due to the structure height, shading of aquatic habitat from the bridge is not expected to be significant. According to Virginia Institute of Marine Science (VIMS) GIS data, no submerged aquatic vegetation (SAV) exists within the Project area. While outside of the project area, designated oyster sanctuaries and historic oyster plantings have been identified surrounding Fort Carroll and is unlikely to be impacted by the Project.

MDNR also anticipates potential impacts to recreational and commercial fisheries and boating. The Patapsco River in recent years has harbored schools of striped bass. Lack of access to the Patapsco River near the project site for recreational fishing of striped bass and other recreationally important fish species could potentially impact the recreational sector. Construction safety requirements will require the area to be closed to recreation boat and fishing activity; however, safe boating access through the work zone will be maintained during construction, with the exception of short duration closures to limit the impacts to the recreational fishery.

Hazardous Materials

A desktop database search of publicly available EPA and MDE regulatory files identified seven sites within the project area that have documented underground storage tanks (USTs), on-site use, generation, storage, and/or releases of hazardous materials or regulated wastes. **Table 8** identifies these sites, their locations, and a brief summary of their regulatory history.

There are five MDTA Bridge sites along the Project ROW that are documented Resource Conservation and Recovery Act (RCRA) Large Quantity Generators (LQG) of hazardous waste. These sites are associated with regulation and administration of transportation programs; highway, street, and bridge construction; and other support activities for road transportation. None of these sites have violations associated with regulatory compliance and are therefore

considered to be low environmental hazards. The Francis Scott Key Bridge MDTA Maintenance Facility, located within the existing ROW, on the northern corner of the project area, has a regulatory history associated with petroleum storage tanks (PSTs). The facility currently has two active tanks, 12 closed tanks, and three reported releases. Due to the current operations and previous releases, this site is considered to be a moderate environmental hazard. Furthermore, the MDTA Police Headquarters facility located within the existing ROW, along the eastern edge of the project area, has one closed UST that was removed from the ground. The facility also currently operates as a documented LQG for motor vehicle towing. However, towing operations are conducted at a separate location outside of the project area and therefore this site is considered to be a low environmental hazard.

A brief evaluation of sites with potential environmental concern that are adjacent to the project area was also conducted. Of importance to note are two Superfund National Priorities List properties (Curtis Bay Coast Guard Yard and Bear Creek Sediments), the Baltimore City Quarantine Road Solid Waste Landfill, and the Hawkins Point Hazardous Waste Landfill. As these facilities are outside of the LOD (**Attachment 1, Figure 9**), no areas of concern were identified. However, should the LOD change, sites in the project area and surrounding area will be re-evaluated for hazardous materials impacts.

While six low risk sites and one moderate risk site were identified within the project area, no impacts to hazardous materials are anticipated from the Project. As a contingency plan, if ground disturbing activities become expected within the vicinity of the Francis Scott Key Bridge MDTA Maintenance Facility, a Preliminary Site Assessment will be conducted prior to construction to determine the extent of hazardous materials concern. If any hazardous material is encountered during project construction, coordination with MDE regarding the appropriate treatment and disposal options will be made. Additionally, proper precautions will be taken during construction to ensure that construction workers are not exposed to hazardous materials.

Table 8: Hazardous Material Sites within the Project area

Property Name	Address	Database(s)	Review Summary
MDTA Bridge BC-Z00105	I-695 Inner Loop Drawbridge over Curtis Creek	ECHO[17], RCRA[18]	LQG, No violations
MDTA Bridge B-Z439051	I-695 Inner Loop Over P-B Rail	ECHO, RCRA	LQG, No violations
MDTA Bridge BC-Z49605	I-695 Inner Loop Over CSX Rail	ECHO, RCRA	LQG, No violations
MDTA Bridge B-Z439061	I-695 Outer Loop Over P-B Rail	ECHO, RCRA	LQG, No violations
MDTA Bridge B-Z462206	I-695 Outer Loop Over Bear Creek	ECHO, RCRA	LQG, No violations
Francis Scott Key Bridge / MDTA Maintenance Key Bridge	303/304 Authority Drive	Petroleum Registered Tank[19]	2 active USTs; 12 closed USTs, 11 removed from ground, 1 closed in place Releases reported 2/2000, 7/2008, 12/2016; all closed with NFA
MDTA Police Headquarters	4330 Broening Hwy	Petroleum Registered Tank ECHO, RCRA	1 closed UST; removed from ground LQG operating at another location; No violations

Additionally, there is an acknowledged long history of industrial uses proximal to the existing bridge and landings that suggests there is the potential for Patapsco River sediments within the Project limits to contain various heavy metals, PCBs, and, in some locations, polycyclic aromatic hydrocarbons (PAHs) at concentrations that mandate special handling. Among the known

[17] https://echo.epa.gov/
[18] https://rcrapublic.epa.gov/rcrainfoweb/action/modules/hd/handlerindex
[19] https://www.epa.gov/ust/ust-finder

source areas, and as listed above, is the Bear Creek Sediments Site that is adjacent to the Sparrows Point Peninsula immediately east of the northern bridge landing. Bear Creek Sediments was added to the Superfund National Priorities List in 2022, based on sediment sampling within the confluence of Bear Creek and the Patapsco River. As dredging within the river channel for the replacement bridge's foundation is expected to occur, there is the potential to disturb sediment that is not commonly dredged throughout the active channel and harbor area. Materials will be disposed of following proper hazardous materials handling procedures. If dredging and excavation becomes required outside of the maintained routine shipping channel, further assessment will be conducted to understand and plan for the appropriate contaminant characterization, management, and disposal of the materials, with a plan to follow proper hazardous materials handling procedures. Among the criteria used to assess the management requirements, the EPA BTAG standard and the NOAA SQuiRTs table (ERM values) will be referenced.

Noise, Air Quality, Greenhouse Gas

The Project qualifies as a Type III project under 23 CFR Part 772 – Procedures for Abatement of Highway Traffic Noise and Construction Noise and does not require a noise analysis. This Project does not increase through capacity, nor does it result in a shift in horizontal alignment. The replacement bridge structure will be higher than the Key Bridge, however there are no noise sensitive land uses in the immediate vicinity that will be impacted by this vertical alteration. In addition, the Project does not involve the removal of shielding or significant additional line-of-sight exposure to any noise sensitive receptors.

This project is exempt from transportation conformity requirements, according to 40 CFR 93.126 Table 2, which lists types of exempt projects. This Project is an example of Safety – reconstructing bridges (no added travel lanes).

The Project will replace the Key Bridge on the existing alignment with no added capacity. The Project will incorporate design changes necessary to comply with current standards, such as lane and shoulder widths and additional navigational clearance but will not provide additional capacity. There will be no meaningful changes in traffic volumes, vehicular mix, location of the existing facility, or any other factor that could cause an increase in emissions impacts relative to existing conditions. The project is located within the Baltimore area that is in attainment for carbon monoxide and particulate matter (both PM10 and PM2.5) National Ambient Air Quality Standards (NAAQS) and nonattainment for the 2008 and 2015 ozone NAAQS. In accordance with 40 CFR 93.126, the project is exempt from the requirement to determine conformity.

Ultimately, as an exempt project, the Project meets all applicable Clean Air Act requirements and is not predicted to cause or contribute to a new violation, increase the frequency or severity of any violation, or delay timely attainment of the NAAQS established by the EPA.

Additionally, a Mobile Source Air Toxics (MSAT) analysis is not required for the Project. Consistent with FHWA guidance outlined in *Updated Interim Guidance of Mobile Source Air Toxic Analysis in NEPA Documents,* issued January 18, 2023, a MSAT analysis is not required

for exempt projects under 40 CFR 93.126 or those categorically excluded under 23 CFR 771.117.

CEQ's *Interim Guidance on Consideration of Greenhouse Gas Emissions and Climate Change* indicates that agencies should consider the effects of a proposed action on climate change by assessing both GHG emissions and reductions from the proposed action. The Project is not anticipated to cause meaningful differences in roadway user GHG emissions relative to pre-existing conditions by restoring the original capacity of the bridge. The Project will result in relatively minor and short-term GHG emissions from the construction of the replacement bridge. A quantitative analysis was not conducted for this project since CEQ's guidance provides agencies the ability to use the "rule of reason" to determine when such an analysis is needed.[20]

Section 4(f)

There are four Section 4(f) properties in the Project area (**Attachment 1, Figure 5**): Fort Armistead Park, Fleming Community Center and Park, Captain John Smith Chesapeake National Historic Trail and the Star-Spangled Banner National Historic Trail. Fort Armistead Park and Fleming Community Center and Park are located adjacent to MDTA's ROW within the Project limits. There will be no permanent or temporary ROW impacts or Section 4(f) use of these properties since construction will occur entirely within the existing ROW.

The Captain John Smith Chesapeake National Historic Trail and the Star-Spangled Banner National Historic Trails are water trails in the Patapsco River and are intersected by the Project. These trails are used for various recreational activities within the Patapsco River and Chesapeake Bay, and connect users to historic sites. Pursuant to 23 CFR 774.13(f), certain trails, paths, and bikeways, including National Historic Trails established under the National Trails System Act, are excepted from Section 4(f) requirements unless the affected trail section(s) are defined as historic sites. Since the trail segments near the Project are not considered historic sites, potential impacts to the Captain John Smith Chesapeake Trail and Star-Spangled Banner Trail do not require Section 4(f) approval. Therefore, these water trails are not discussed further in this evaluation. Regardless of this exception, the Project will bridge over these trails and therefore will not impact their continuity. Coordination with the National Park Service (NPS) will continue through final design and construction on appropriate signage to alert trail users of potential temporary trail closures or alternative routes. In accordance with the SHA and MDTA executed Programmatic Agreement for Section 106 (**Attachment 4**), the identification of properties and assessment of effects of the Project on historic properties have not yet been determined. Therefore, historic properties subject to Section 4(f) are not determined at this time. Should the use of any historic property be required, a separate Section 4(f) evaluation will be conducted at a later date. No additional ROW will be required for the Project; thus, no direct Section 4(f) use will occur. Given the nature and location of the Project, relative to the Key Bridge and to nearby historic sites, no constructive use is anticipated.

[20] "Agencies should generally quantify projected GHG emission reductions but may apply the rule of reason when determining the appropriate depth of analysis such that precision regarding emission reduction benefits does not come at the expense of efficient and accessible analysis." January 2023 Council on Environmental Quality National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change (https://www.federalregister.gov/d/2023-00158/p-115)

Construction Impacts

This section consolidates and reiterates the construction impacts that were described previously under each environmental resource section of the document. MDTA and FHWA have identified impacts to five environmental resources:

- Temporary impacts to residents, businesses, and communities due to construction traffic.
- Temporary economic and employment benefits.
- Temporary air quality impacts.
- Temporary noise increases due to construction activities.
- Temporary natural resources impacts.

Temporary impacts to residents, businesses, and communities due to construction traffic

Construction activities will bring truck traffic on the road network to and from the project site, increased ship and barge traffic on the Patapsco River around the bridge piers and structure, and the use and transport of large construction equipment and materials such as cranes and land clearing equipment. Currently there is no regular traffic on I-695 since this portion of the I-695 is closed due to the bridge collapse and will remain closed during construction. Thus, truck traffic during construction will have direct access onto I-695 and will cause minimal disruption to local streets. Construction truck routes have not yet been established but will be primarily along existing highways and interstates, such as I-695 and Broening Highway. To further minimize transportation impacts during construction, a Maintenance of Traffic Plan (MTP) will be developed and implemented to provide protection for safe vehicular movement during construction and to maintain connectivity and access to residents, businesses, and community facilities where possible. The plan will account for truck routes and construction traffic concerns to ensure access to residences and businesses are maintained to the maximum extent possible.

Construction staging areas may be needed to support the Project and could include materials storage and lay down areas, parking, power generation, offices, and construction trestles/causeways for access to the river. Construction staging areas have not been finalized at this time but will be placed in areas away from sensitive resources and will remain within the existing ROW and within the Project's LOD. As I-695 will remain closed during construction, the existing roadway footprint is available for construction storage areas. Additional construction storage space outside the ROW may be determined as the Project progresses to construction. Coordination with residential and business communities will be continued during final design and construction.

Temporary economic and employment benefits

Construction of the Project is expected to result in temporary increases in employment due to construction job creation. Temporary economic benefits are also anticipated due to increased sale of construction supplies, materials, equipment, and fuel from local and regional sources and increased revenue for businesses providing services to construction crews.

Temporary air quality impacts

Temporary construction-related air quality impacts related to dust and mobile source emissions are expected, including direct and indirect emissions, from activities such as vehicular operation

and fugitive dust. Fugitive dust is airborne particulate matter, generally of a relatively large particulate size. Construction-related fugitive dust would be generated by haul trucks, concrete trucks, delivery trucks, and earth-moving vehicles operating around the construction sites. This fugitive dust would be caused by particulate matter that is re-suspended ("kicked up") by vehicle movement over paved and unpaved roads, dirt tracked onto paved surfaces from unpaved areas at access points, and material blown from uncovered haul trucks. Generally, the distance that particles drift from their source depends on their size, the emission height, and the wind speed. Small particles (30 to 100 micron range) can travel several hundred feet before settling to the ground. Most fugitive dust, however, is comprised of relatively large particles (that is, particles greater than 100 microns in diameter). These particles are responsible for the reduced visibility often associated with this type of construction. Given their relatively large size, these particles tend to settle within 20 to 30 feet of their source.

Temporary air quality effects will be minimized by following federal, state, and local regulations regarding dust and emission controls and implementing controls in accordance with MDOT SHA's Standard Specifications for Construction and Materials. MDTA and SHA will develop and implement a dust control plan which could include the following prevention and mitigation measures to minimize discharge of dust in the atmosphere:

- Minimize land disturbance;
- Use watering trucks to minimize dust;
- Cover trucks when hauling dirt;
- Stabilize the surface of dirt piles if they are not removed immediately - Use windbreaks to prevent accidental dust pollution;
- Limit vehicular paths and stabilize temporary roads;
- Cover trucks when transferring materials;
- Use dust suppressants on unpaved traveled paths;
- Minimize unnecessary vehicular and machinery activities, and;
- Minimize dirt track-out by washing or cleaning trucks before leaving the construction site. An alternative to this strategy is to pave a few hundred feet of the exit road just before entering the public road.

As I-695 in the project area will remain closed during construction, there will be no increased traffic congestion during construction, thus no increase in mobile-source emissions from regular vehicular traffic. To reduce emissions generated by construction, the contactor should consider the following BMPs for reducing construction emissions and improving energy efficiency during construction, as outlined by EPA's Diesel Emissions Reduction Act program, and employ the operational and equipment strategies detailed in the EPA publication, "Cleaner Diesels: Low Cost Ways to Reduce Emissions from Construction Equipment." These strategies include use of the following BMPs associated with on-site construction:

- Utilize appropriate dust suppression methods during on-site construction activities. Available methods include application of water, soil stabilizers, or vegetation; use of

enclosures, covers, silt fences, or wheel washers; and suspension of earth-movement activities during high wind conditions;
- Maintain a speed of less than 15 mph with construction equipment on unpaved surfaces as well as utilize fuel with lower sulfur content;
- Employ a construction management plan in order to minimize interference with regular motor vehicle traffic;
- Use electricity from power poles instead of generators whenever possible;
- Repair and service construction equipment according to the regular maintenance schedule recommended for each individual equipment type;
- Use low-VOC architectural materials and supplies equipment; and
- Incorporate energy-efficient supplies whenever feasible.

Temporary noise increases due to construction activities
Construction noise may generate temporary noise impacts on adjacent and nearby properties. Construction noise will be emitted intermittently by a range of construction equipment at varying levels of intensity based on the types of operations being performed and the number of pieces of equipment in operation at any given time. The perception of audible noise levels is associated with the sound generated by the equipment activity and the distance from the activity to the location receiving the sound. During daytime hours, typical effects of construction noise impacts could be temporary speech interference for locations immediately adjacent to the construction activity. For locations further removed from the construction activity, noise associated with construction will likely be audible. During evening and nighttime hours, steady-state construction noise emissions such as from paving operations may be audible and may disturb nighttime activities, such as sleep. Sporadic evening and nighttime construction equipment noise emissions such as from backup alarms, lift gate closures ("slamming" of dump truck gates), etc., could be perceived as distinctly louder than the steady-state acoustic environment.

The final design plans will contain requirements to ensure compliance with all applicable State noise standards and local noise ordinances. The Contractor, working through the MDTA project managers, will be required to communicate and coordinate with the residents and business communities, including Dundalk, Turner Station, and Watersedge. The contractor may employ measures to reduce noise disturbance including limiting construction noise causing activities during specific times of day, days of the week, number of consecutive hours or days, and special events and limiting activities that create high levels of construction noise, such as pile driving and blasting, to certain times of day to the extent practicable. Additional measures may also include equipment exhaust muffler requirements, haul-road locations, elimination of "tail gate banging," ambient-sensitive backup alarms, construction noise complaint mechanisms, consistent and transparent community communication/rapport, the use of temporary shields to block the sound propagation path and/or other equipment quieting devices.

Temporary natural resources impacts:
Temporary impacts to nontidal water, nontidal wetlands, and wetland buffers may occur from activities such as removing vegetation and soil, as it may increase erosion and sedimentation. Erosion and sediment control will be managed according to the requirements of MDE's *2011*

Standards and Specifications for Soil Erosion and Sediment Control. Additionally, construction staging areas will be placed in areas away from these resources and will remain within the existing ROW.

Temporary impacts to tidal waters will occur from the explosive demolition of the piers within the water and the subsequent removal of structural debris. Structural debris will be removed from the river bottom using clamshell dredging with excavators and clamshell buckets. The explosive demolition and subsequent excavation of in-water piers and associated debris will result in approximately 8.3 acres of temporary impacts to the Patapsco River. Temporary impacts will likely occur from the temporary piles and anchorages needed to secure and stabilize barges during demolition and construction of the Project. The location of these temporary piles/anchorages will not be known until the barges are mobilized for demolition and construction of the Project. Temporary impacts will be minimized at this stage and as the Project progresses, the river bottom will be returned to its original contour following all demolition activities. As part of the permitting process, avoidance, minimization, and mitigation measures will be implemented to further reduce and off-set the temporary and permanent impacts to nontidal and tidal resources.

Temporary impacts to surface water quality will occur during demolition due to an increase of turbidity/TSS from barges and other in-water equipment. A turbidity curtain will be used for all work in water 10 feet mean low water or less, as they are more effective and less likely to get damaged than in deeper waters. Turbidity monitoring will also occur outside of the construction area, both upstream and downstream.

Temporary impacts to wildlife and fish species may also occur as a result of disturbance from activities that require loud construction equipment, sediment disturbance, and impacts to forested areas. The lack of high-quality habitat and connectivity are evidence for the limited potential for the Project to impact terrestrial wildlife. However, any tree removal or disturbance to woody vegetation within Critical Areas will require approval from MDNR Critical Area Commission, and removal of forests outside the Critical Area will require MDNR Reforestation Law approval. Loud construction equipment may cause temporary disturbance to the bald eagle nest located within the LOD. The activity in the eagle nest will be monitored through construction. Any potential active peregrine falcon nests remaining on the existing structure may be impacted during construction. Work will be limited within a 0.25-mile buffer around the nest site during the breeding season (March 1 through June 30). Additional migratory birds are also found in the study area and may use the existing piers and surrounding areas for nesting. Demolition of the existing piers will occur during the non-nesting season and will not impact migratory birds.

In coordination with NOAA Fisheries, the BMPs employed during construction will minimize adverse effects to both EFH and ESA Section 7 NOAA-Fisheries species. Marine BMPs that will be implemented include Underwater Noise/Hydroacoustic Energy, Impingement/ Entrainment and Entanglement, Turbidity and Sedimentation, Reduced Water Quality, Habitat Alteration, and Vessel Interaction. Underwater noise from activities such as blasting, or pile driving may be stressors to marine mammals; however, prior to any blasting, monitoring boats

will scan the affected area for the presence of marine mammals. Blasting will not occur until these species move outside of the area.

As construction activities have the potential to impact anadromous and other fish species within the LOD, the Project will be designed to maintain or enhance fish passage through the project area, particularly during low flow periods.

Indirect and Cumulative Effects

The Project will have primarily beneficial indirect impacts on socioeconomic resources. The Project will restore benefits to the community by restoring the connection to neighbors, community facilities, and access to goods and services across the Patapsco River. The Project will not result in increased capacity or provide new access points to I-695 or other transportation facilities. Therefore, the Project will not increase demand for land development, or induce growth. The Project will, however, support and allow the existing and planned growth and redevelopment in the area to occur.

The Project will increase the height of the bridge, consistent with the USCG PNCD, from that of the original Key Bridge. However, the height of other downstream restrictions, such as the Bay Bridge (186 feet)[21], will continue to limit the size of ships able to call at the Port of Baltimore. Although MDTA is currently conducting the Chesapeake Bay Crossing Study which could ultimately identify future changes to the vertical clearance at the Bay Bridge, improvements to the navigational clearance at the Bay Bridge is not currently programmed in Maryland's Long Range Transportation Plan. Thus, because the Bay Bridge clearance restriction will remain in place, there will be no indirect impact from the Project on socioeconomic resources caused by construction of a higher reconstructed Key Bridge. That said, the Project will not preclude larger vessels from accessing the Port if other bridges or restrictions are raised. The Project's indirect impacts on natural resources will be minimal. The Project will be limited to within existing ROW, will not provide additional access points, and will replace the Key Bridge in a highly urbanized and industrial area and will not cause any major habitat fragmentation. Indirect impacts to wetlands, streams, and floodplains could include alteration of the hydraulic flow and wetland function. Indirect impacts to tidal waters of the Patapsco River could include altered tidal exchange. While the Project will not increase capacity, there will be an increase in impervious surface from the increased shoulder widths compared to the Key Bridge. This increase in impervious surface could indirectly increase the amount and velocity of pollutant-laden runoff deposited into streams. For the majority of the Project, it is anticipated that any increases in flow quantity will be waivered due to the bulk of the Project discharging directly/upstream with stable conveyance into a tidal water body (section 3.3.b.1.(a and b) of *Maryland Stormwater Management Guidelines for State and Federal Projects, April 15, 2010*). Areas that do not meet the qualifications for this waiver will provide stormwater management to the maximum extent practicable to ensure that non-erosive conditions are provided at all POIs.

There are ongoing or reasonably foreseeable future development projects within the geographic area, such as the Tradepoint Atlantic and Sparrows Point Container Terminal projects, that are

[21] Vertical clearance according to the National Bridge Inventory (https://infobridge.fhwa.dot.gov/Data/BridgeDetail/24651830)

occurring independently from the Project. Together these other projects could cumulatively contribute to impacts to the surrounding community and other environmental resources.

Tradepoint Atlantic on Sparrows Point, as previously described, is a major redevelopment project in the vicinity of the Project that was initiated in 2014 and has transformed a former steel mill into a large multi-modal logistics hub. Tradepoint Atlantic houses distribution centers for over 20 commercial companies and the redevelopment project is expected to bring more than 17,000 new jobs and have an annual economic impact of $3 billion by 2025.[22] For the portions of the site that have been redeveloped, environmental remediation was required and oversaw by the EPA and MDE to address on-site pollution issues from the area's long history of steel and iron production, which dates back to the 1800s.[23] Once complete, the Tradepoint Atlantic redevelopment project will also include retail space and proposes a 20-acre greenspace for parks and recreation, currently being coordinated with Baltimore County.

The Sparrows Point Container Terminal is also proposed on the Tradepoint Atlantic redevelopment site, near the Project location. Announced in 2022, this would be a new approximately 330-acre container terminal, split between the terminal itself and adjacent supporting facilities that include on-dock warehousing, loading space, and direct rail access. The Sparrows Point Container Terminal is expected to create 1,100 direct jobs and up to 20,000 indirect jobs and contribute to the local and state-wide employment and economy.[24] The proposed container terminal is expected to increase the Port of Baltimore's handling capacity by 70 percent.[25] The Sparrows Point Container Terminal project has begun the NEPA process which is being led by the USACE and environmental review and permitting is expected to be complete by December 2025.[26]

The Key Bridge Rebuild Project will impact and support the same socioeconomic resources as the Tradepoint Atlantic and Sparrows Point Container Terminal projects and will contribute to the overall positive cumulative impact on the economy and communities. Restoring the transportation network across the Patapsco River will restore access to jobs and amenities offered by the Tradepoint Atlantic and Sparrows Point Container Terminal projects. The communities in the vicinity of these projects, such as Dundalk and Edgemere may experience growth, economic investment, and employment opportunities. Also, these construction projects will temporarily increase the number of trucks and other construction related equipment and activity in the area which may last several years. I-695 is currently closed in the project area and truck traffic volume has temporarily decreased. The number of trucks and construction related equipment as a result of these projects will be consistent with the pre-collapse truck traffic volume. Also, truck traffic will comply with the MTP which will restrict truck traffic to the existing highways and interstates and will have minimal impact on local roadways.

[22] https://www.gdcoc.org/redevelopment-of-sparrows-point/
[23] https://www.epa.gov/hwcorrectiveactioncleanups/hazardous-waste-cleanup-sparrows-point-terminal-llc-tradepoint-atlantic
[24] https://www.pobdirectory.com/article/a-decade-of-transformation.html
[25] https://www.spctmd.com/
[26] https://www.permits.performance.gov/permitting-project/fast-41-covered-projects/sparrows-point-container-terminal

The area has already been largely developed and no land use changes are expected to occur. However, due to the expected and planned economic activity in the Project area, intensification of planned development and redevelopment of existing properties could occur that may alter the community character.

The cumulative impact of the Project to natural resources will be minimal. The Project and the Tradepoint Atlantic and Sparrows Point Container Terminal redevelopment are occurring, or are planned to occur, on land historically and currently used by industry. Natural resources on and near land have been impacted by past industrial use, current industrial use, and the collapse of the original Key Bridge. As previously discussed, the Tradepoint Atlantic and Sparrows Point Container Terminal projects have and would involve environmental remediation. The redevelopment occurring on Sparrows Point would benefit water resources in the area by removing and remediating polluted soils, reducing the potential for pollutant-laden runoff to enter adjacent waterways. These improvements would reduce the cumulative effects of the increased runoff from the Project. Further, the Project will be designed and constructed in compliance with the necessary stormwater permits, such as General Permit for Discharges of Stormwater Associated with Construction Activity (Maryland General Permit No. 20-CP) and MDE Stormwater Management/Erosion and Sediment Control Approval for State/Federal Projects, which will also minimize the indirect and cumulative impacts to natural resources and water quality.

Table 9: Summary of Environmental Consequences

Environmental Resource	Potential Environmental Consequences of the Project
Land Use	The Project will be entirely within existing MDTA ROW and is consistent with the current and future land use and zoning in the area. The Project is located within Maryland Smart Growth Priority Funding Areas and is not anticipated to result in any impacts to current land use.
Demographics and Employment	The Project will be entirely within existing MDTA ROW and no displacements will occur from the Project.
Environmental Justice	EJ populations are present within the project area, but outside the LOD. The Project will restore community mobility and connectivity to the area benefiting all users, including EJ populations. No disproportionate and adverse effects are anticipated to minority and low-income populations.
Neighborhoods, Communities, and Community Facilities	The Project will restore community mobility and connectivity to the project area which will benefit the residents in the area by increasing the ease with which residents access neighbors and community facilities. No direct impacts to neighborhoods, community facilities, or children's resources within the LOD are anticipated from the Project.

Environmental Resource	Potential Environmental Consequences of the Project
Business and Economy	The Project will restore transportation connectivity in the region and will restore economic benefits, such as improved accessibility and travel times for employees, residents, customers, and transport of goods and services.
Cultural Resources (Historic Architecture and Archaeology)	Nine previously identified historic properties are within the APE for the Project. This includes six standing structures and three historic districts. No archaeological historic properties have been identified within the APE. The Project's effect on historic properties has not yet been determined per Section 106 of the National Historic Preservation Act. A Programmatic Agreement (**Attachment 4**) outlines future Section 106 consultation commitments, including further historic properties identification efforts and an assessment of effects of the Project on historic properties.
Section 4(f)	There will be no permanent or temporary use of Section 4(f) properties. There will be no permanent or temporary ROW required from Section 4(f) properties. Section 4(f) properties that are crossed by the Project, including the Star-Spangled Banner and Captain John Smith National Historic Trails are exempted from Section 4(f) review per 23 CFR 774.13(f).
Visual Resources	The Project will result in a visual impact to the project area by increasing the height of the replacement bridge structure compared to the former Key Bridge. The Project is contextually compatible with its surroundings and visual impacts will not be significant.
Wetlands	Approximately **0.25 acre of nontidal emergent wetlands** will be impacted by the Project. No tidal wetlands will be impacted by the Project.
Waterways	Approximately **8.3 acres of temporary impacts to tidal waters**, **12.7 acres of permanent impacts to tidal waters (Patapsco River)** and **270.7 linear feet of nontidal waterways**.
Maryland Critical Areas and Expanded Buffer	Approximately **2.6 acres of forests** within the Critical Area and Expanded Critical Area Buffer will be impacted by the Project. Approximately **3.4 acres of hedgerows** within the Critical Area and Expanded Critical Area Buffer will be impacted by the Project. Approximately **0.4 acre of woody vegetation** within the Critical Area and Expanded Critical Area Buffer will be impacted by the Project. Approximately **61 individual trees** within the Critical Area and Expanded Critical Area Buffer will be impacted by the Project.

Environmental Resource	Potential Environmental Consequences of the Project
Floodplains	Approximately **16.5 acres of tidal 100-year floodplain** will be impacted by the Project.
Water Quality	Impacts to surface waters from the Project are expected to be minimal through avoidance, minimization, and mitigation measures. The Project will not impact public drinking water.
Wildlife and Habitat	A total of approximately **3.7 acres of forests**, **3.8 acres of hedgerow**, and **64 individual trees** will be impacted by the Project. These totals include the area in and out of the Critical Area and Expanded Critical Area Buffer. Threatened and endangered species are likely to occur within the project area. The Project may affect but is not likely to adversely affect the northern long-eared bat. Coordination with NOAA National Marine Fisheries Service (NMFS) for Atlantic sturgeon and shortnose sturgeon, as well as EFH, is on-going to ensure Atlantic and shortnose sturgeon and EFH impacts are avoided, minimized, and mitigated to the maximum extent practicable.
Hazardous Materials	Six low risk sites and one moderate risk site were identified within the project area. No impacts to hazardous materials are anticipated from the Project.
Noise, Air Quality, and Greenhouse Gas	No impacts to noise, air quality, or greenhouse gases are anticipated from the Project.
Indirect and Cumulative Effects	Indirect and cumulative impacts from the Project will be largely beneficial for the Port of Baltimore and for communities and residents by restoring interstate system connectivity, connection to communities and community facilities, and access to goods and services.

Environmental Commitments and Mitigation

The environmental commitments outlined in this CE (including mitigation and enhancements) are summarized in **Table 10**.

Table 10: Summary of Environmental Commitments and Mitigation

Resource or Topic Area	Commitment	Responsible Agency	Timing
Future Design Refinements	MDTA and SHA will conduct the following coordination as more detailed information becomes available through the PDB contract: • MDTA and SHA will share design details with key stakeholders and regulatory agencies and will gather feedback as part of their review and comment process. • If a design element requires additional coordination or reevaluation to meet NEPA requirements, MDTA, SHA, and FHWA will conduct those activities in accordance with all federal requirements.	MDTA, FHWA	Design
Demographics and Employment; Environmental Justice; Business, Economy, and Employment	MDTA, SHA, and FHWA will coordinate and establish goals for Disadvantaged Business Enterprises participation in the design and construction of the Project.	MDTA, SHA, FHWA	Design, Const.
Neighborhoods, Communities, and Community Facilities	A Maintenance of Traffic Plan (MTP) will be developed and implemented for the Project. The plan will: • Establish truck routes for construction equipment. • Restrict construction traffic from using neighborhood streets. • Direct the Contractor to maintain access to residences and businesses to the maximum extent possible. Construction staging areas will be placed in areas away from sensitive resources and will remain within the existing MDTA ROW. Coordination with residential and business communities will be continued during final design and construction. MDTA will coordinate with the NPS and Baltimore City to consider recreational enhancements at Fort	MDTA, FHWA	Design, Const.

Resource or Topic Area	Commitment	Responsible Agency	Timing
	Armistead Park to improve access to the Patapsco River and the Captain John Smith Chesapeake and the Star-Spangled Banner National Historic Trails during final design.		
Visual Impacts	Agency and stakeholder coordination regarding the visual design will continue through final design.	MDTA, FHWA	Design
Cultural Resources	MDTA and SHA will comply with the conditions of the signed Section 106 Programmatic Agreement established for the Project (**Attachment 4**).	MDTA, SHA, FHWA	Design, Const.
Wetlands, Waterways, and Floodplains	Impacts to wetlands and waterways will be addressed by obtaining the following: • IUSACE Authorization(s) • Maryland Nontidal Wetlands and Waterways Permit • Tidal Wetlands License • Clean Water Act Section 401 Water Quality Certification from MDE Coastal consistency review under the Maryland Coastal Zone Management Program, will be completed and submitted with the MDE permit applications.	MDTA, FHWA	Design
Maryland Critical Areas and Expanded Buffer	MDTA and Critical Area staff are currently developing a Memorandum of Understanding (MOU) for this Project in accordance with COMAR 27.02.03, to facilitate expedited review and compliance with the Critical Area Law. The MOU would detail the review process, responsibilities of both parties, thresholds for disturbance/impacts for projects, and the necessary mitigation. MDTA will comply with the conditions set forth in the MOU.	MDTA, FHWA	Design, Const.
Water Quality	Ongoing coordination with MDE and NOAA Fisheries will determine appropriate avoidance and minimization measures to limit impacts to water quality such as: • Installation of super silt fence and stabilized construction entrances. • Minimization of discharges of sediment during construction using MDE's 2011 Standards and Specifications for Soil Erosion and Sediment Control.	MDTA, FHWA	Design, Const.

Resource or Topic Area	Commitment	Responsible Agency	Timing
	• Compliance with the stormwater and sediment control laws of Maryland for all construction activities. • Conducting daily water readings both upstream and downstream of demolition activities that disturb the river bottom. • Use of a turbidity curtain for all work in water 10 feet mean low water or less. • Conducting daily water readings both upstream and downstream of the construction zone to monitor any changes in turbidity. • Use of a crane with grapple attachment and a backhoe to remove the majority of debris on the river bottom, to minimize the amount of sediment being pulled up during retrieval. • Sawing the bridge deck into sections and transporting by truck along the remaining road surface for offsite disposal to minimize debris falling into the waterway. Additional BMPs that may be implemented during saw cutting to minimize discharge of concrete slurry into the waterway include: • Blocking downstream scuppers while saw cutting the bridge deck. • Vacuuming concrete slurry from the bridge deck during cutting. • Using a containment barge underneath the saw cutting operation (if feasible) to capture concrete slurry during cutting operations. Water quality requirements for this project may be met through a debit to the MDTA water quality bank in the Patapsco River Watershed. Environmental Site Design Volume (ESDv) facilities will be implemented to address Point-of-Interest (POI)-specific water quality needs at the western end of the Project.		
Wildlife and Habitat	Coordination with the USFWS, NOAA Fisheries and MDNR will continue throughout Project design and construction, and involve the following: **USFWS**	MDTA, FHWA	Design, Const.

Resource or Topic Area	Commitment	Responsible Agency	Timing
	• Maintain IPaC determinations, implement appropriate timing restrictions, and recommend additional avoidance measures to limit impacts to species. • Monitor disturbance within the bald eagle buffer zone and status of the eagle nest, implement appropriate timing restrictions, and regulate the issuance of an Eagle Disturbance Take Specific Permit, if needed. • Demolition of the remaining piers will occur during the non-nesting season of Migratory Birds. **NOAA** • Regularly scheduled meeting with NOAA Fisheries to implement BMPs and mitigate impacts to EFH and Atlantic and shortnose sturgeon to the maximum extent practicable. • Ensure monitoring boats scan the affected area for any marine mammals before blasting. Blasting cannot occur if marine mammals are present. • Prior to construction activities that may affect marine mammals, coordination will occur with NOAA Fisheries. MDTA is continuing to coordinate with NOAA Fisheries to determine BMPs to ensure species and EFH protection are being applied to the project activities as appropriate. Marine BMPs include: Minimize and Monitor Underwater Noise/Hydroacoustic Energy • This may include the use of mechanical demolition methods, instead of blasting, when possible; the development of a detailed blast plan with minimization measures; the development of an underwater noise monitoring plan; and the maintenance of a safe fish passage zone. Minimize Impingement/ Entrainment and Entanglement		

Resource or Topic Area	Commitment	Responsible Agency	Timing
	• This may include ensuring any in-water lines, ropes, or chains are made of materials and installed in a manner to minimize the risk of entanglement; allowing all fish to exit an enclosed area prior to any dewatering; monitoring turbidity control measures; and monitoring any water intakes drawing from surface tidal waters. Minimize Turbidity and Sedimentation • This may include the use of appropriate sedimentation and turbidity controls; the minimization of the suspension of sediments and disturbance of the substrate when removing piles; the use of operational modifications to minimize turbidity and sedimentation during dredging; and the avoidance of sensitive habitat during dredging. Minimize Water Quality Impacts • This may include the use of clean fill; the minimization of new impervious surface; the incorporation of stormwater controls per an MDE approved stormwater management plan; the avoidance of the use of creosote or pressure treated piles; the removal of cofferdams or diversion structures only after water quality is consistent with ambient levels; the removal of contaminants and sediments from the water prior to entering aquatic habitats; and ensuring raw concrete or grout does not contact the water. Minimize Habitat Alteration • This may include ensuring that planting media is free of all non-native or invasive species; removing all obsolete and temporary structures and fills; returning aquatic habitats to pre-construction or better condition; placing a geotextile barrier under any temporary platforms and/or access fills to ensure that any fill will be removed completely at the end of construction; orienting artificial lighting on crossings to avoid illumination of the		

Resource or Topic Area	Commitment	Responsible Agency	Timing
	surrounding waters at night; designing bridge piers and abutments to minimize disturbances to tidal waters; developing a comprehensive mitigation plan to offset project impacts; and ensuring a large zone of passage for ESA-listed and managed species to safely navigate. Avoid Vessel Interaction • This may include ensuring that vessels are operated in adequate water depths; using shallow draft vessels to maximize navigational clearance in shallow areas; and prohibiting mooring vessels in SAV or in a way that could shade SAV. **MDNR** • Regulate impacts to SSPRAs, waterfowl areas, anadromous fish, important fisheries resources, SAV, oyster sanctuaries, and recreational and commercial fisheries.		
Hazardous Materials	If any hazardous material is encountered during project construction, coordination with MDE regarding the appropriate treatment and disposal options would be made. Additionally, proper precautions would be taken during construction to ensure that construction workers are not exposed to hazardous materials. If dredging and excavation becomes required outside of the maintained shipping channel, further assessment would be conducted to understand and plan for the appropriate contaminant characterization, management, and disposal of the materials. Among the criteria used to assess the management requirements, the EPA BTAG standard and the NOAA SQuiRTs table (ERM values) will be referenced.	MDTA, FHWA	Design, Const.
Noise	The final design plans will contain requirements to ensure compliance with all applicable State noise standards and local noise ordinances. The Contractor, working through the MDTA project managers, will be required to communicate and coordinate with the residents and business communities, including Dundalk, Turner Station, and Watersedge.	MDTA, FHWA	Design, Const.

Resource or Topic Area	Commitment	Responsible Agency	Timing
	The contractor may employ measures to reduce noise disturbance including limiting construction noise causing activities during specific times of day, days of the week, number of consecutive hours or days, and special events and limiting activities that create high levels of construction noise, such as pile driving and blasting, to certain times of day to the extent practicable. Additional measures may also include: • Equipment exhaust muffler requirements. • Location of haul-roads and truck routes. • Elimination of "tail gate banging", and ambient-sensitive backup alarms. • Develop and implement construction noise complaint mechanisms. • Establish consistent and transparent community communication/rapport. • Use of temporary shields to block the sound propagation path and/or other equipment quieting devices.		
Air Quality	Temporary air quality effects will be minimized by following federal, state, and local regulations regarding dust and emission controls and implementing controls in accordance with MDOT SHA's Standard Specifications for Construction and Materials. MDTA and SHA will develop and implement a dust control plan which could include the following prevention and mitigation measures to minimize discharge of dust in the atmosphere: • Minimize land disturbance. • Use watering trucks to minimize dust. • Cover trucks when hauling dirt. • Stabilize the surface of dirt piles if they are not removed immediately - Use windbreaks to prevent accidental dust pollution. • Limit vehicular paths and stabilize temporary roads. • Cover trucks when transferring materials. • Use dust suppressants on unpaved traveled paths.	MDTA, FHWA	Design, Const.

Resource or Topic Area	Commitment	Responsible Agency	Timing
	• Minimize unnecessary vehicular and machinery activities. • Minimize dirt track-out by washing or cleaning trucks before leaving the construction site. An alternative to this strategy is to pave a few hundred feet of the exit road just before entering the public road. The Contactor should consider the following BMPs for reducing construction emissions and improving energy efficiency during construction, as outlined by EPA's Diesel Emissions Reduction Act program, and employ the operational and equipment strategies detailed in the EPA publication, "Cleaner Diesels: Low Cost Ways to Reduce Emissions from Construction Equipment." These strategies include use of the following BMPs associated with on-site construction: • Utilize appropriate dust suppression methods during on-site construction activities. Available methods include application of water, soil stabilizers, or vegetation; use of enclosures, covers, silt fences, or wheel washers; and suspension of earth-movement activities during high wind conditions. • Maintain a speed of less than 15 mph with construction equipment on unpaved surfaces as well as utilize fuel with lower sulfur content. • Employ a construction management plan in order to minimize interference with regular motor vehicle traffic. • Use electricity from power poles instead of generators whenever possible. • Repair and service construction equipment according to the regular maintenance schedule recommended for each individual equipment type. • Use low-VOC architectural materials and supplies equipment. • Incorporate energy-efficient supplies whenever feasible.		

Resource or Topic Area	Commitment	Responsible Agency	Timing
Section 4(f)	Coordination with the NPS will continue through final design and construction on appropriate signage to alert users of the Captain John Smith Chesapeake and the Star-Spangled Banner National Historic Trails to potential temporary trail closures or alternative routes. In accordance with the SHA and MDTA executed Programmatic Agreement for Section 106 (**Attachment 4**), the identification of properties and assessment of effects of the Project on historic properties have not yet been determined. Therefore, historic properties subject to Section 4(f) are not determined at this time. Should the use of any historic property be required, a separate Section 4(f) evaluation will be conducted at a later date.	MDTA, SHA, FHWA	Design, Const.
Public Involvement	MDTA will continue to provide project status updates to the public through the project website and attendance at community events. Public involvement materials will continue to be provided in both English and Spanish.	MDTA, FHWA	Design, Const.

Agency Coordination

The MDTA, SHA, and FHWA are actively coordinating with all local, state, and Federal agencies with interest in or have regulatory responsibility associated with the rebuild of the Key Bridge to facilitate a streamlined NEPA and permitting process.

An Initial Agency Coordination Kick-off meeting was held on April 16, 2024, with all identified local, state, and Federal agencies to provide an update of the initial debris removal activities and to solicit agency input on permitting needs and resources within the project area for the rebuild effort. This large agency coordination group has met a total of three times.

In addition, Permitting Agency Coordination meetings are being held with the NOAA Fisheries, USACE, USCG, EPA, MDE, and the MDNR, including the Critical Area Commission, to discuss permitting needs and schedule. The Permitting Agency Coordination meetings are occurring weekly, as needed, with the first meeting held April 22, 2024.

On an as-needed basis, topic-focused meetings are being held to discuss agency specific concerns and to facilitate rapid resolution of issues associated with permitting and approval. To date, meetings have been held with USCG, MDE, MDNR (forestry discussion), NOAA Fisheries, Maryland Historical Trust (MHT), NPS, and the Critical Area Commission. It is anticipated that future topic-focused meetings will also be needed with the USFWS, NOAA Fisheries, and MDNR Wildlife and Heritage Service (rare, threatened, and endangered species

discussion). As the design process, if approvals from FEMA are determined to be required, coordination will be initiated, and authorizations will be obtained prior to construction.

An Agency Coordination Plan has been developed to outline the continued coordination efforts that will be needed and a schedule for the outreach. Additionally, a Leadership Ladder has been populated to identify the appropriate levels of agency personnel that should be engaged during this process. Thirty-seven agency coordination meetings have been held to date. A list of all meetings and agencies represented is provided in **Attachment 6**.

Public Involvement

The Rebuilding the Key Bridge website (keybridgerebuild.com) was launched in April 2024 to share information on the Project and promote engagement opportunities. A Virtual Community Update was hosted on Tuesday, June 11, 2024, from 6:00p.m. to 7:00p.m. with 540 attendees. The update meeting provided information about the progress and future plans for the Key Bridge Rebuild Project. It included a presentation covering current accomplishments, an overview of future efforts, and the expected timeline for the completion of the new Key Bridge. It also addressed the efforts being made to mitigate the impact on communities and commuters while the Project is advancing to and through construction. The public was encouraged to submit questions in advance of the meeting, as well as to ask questions during the Virtual Community Update. Members of the MDTA team provided answers to the questions following the presentation. All meeting materials, including the presentation and Questions & Answers, were posted to the website following the event.

MDTA will continue to communicate project status with the public through the project website and attendance at community events. Public involvement materials continue to be provided in both English and Spanish. A series of engagement events for the Project will be held through an Engagement Tour. To date, public involvement opportunities were implemented during Dundalk Heritage Fest (June 28-30, 2024) and the North Point-Edgemere Volunteer Fire Department Food Truck Event (July 2, 2024). Further outreach is scheduled through July and August and will likely extend into Fall 2024.

Planning Requirements

The Project was added as an amendment to the FY 2024-2027 Transportation Improvement Plan (TIP) on May 28, 2024, TIP ID 20-2401-44. Additional funding for the Project would be added during the FY 2025 TIP approval process. A draft is currently under review with final approval by the Baltimore Regional Transportation Planning Board planned for July 23, 2024. Federal approval is expected in August 2024.

Statute of Limitations

Pursuant to 23 USC Section 139(l), FHWA will publish a statute of limitations (SOL) notice in the Federal Register upon issuance of this Categorical Exclusion determination. A claim arising under federal law seeking judicial review of the Federal agency actions on the determination that the I-695 (Baltimore Beltway) over Patapsco River Francis Scott Key Bridge Rebuild Project meets the criteria for a Categorical Exclusion will be barred unless the claim is filed within 150 days of publication of the SOL notice in the Federal Register.

Conclusion

In summary, this Project, which proposes rebuilding the Key Bridge connection along I-695 over the Patapsco River, will not result in any significant impacts to community, natural, or cultural resources. The Project will benefit socioeconomic resources by restoring community connectivity and commerce across the Patapsco River. The expected impacts to natural resources are minimal and will comply with the required permits and stormwater management approval to further minimize impacts. Impacts to cultural resources have not yet been determined and will be addressed per the Programmatic Agreement. The Project will not provide additional capacity nor provide new access points. As a result, the Project will not induce significant foreseeable alterations in land use or affect development and growth beyond what is already expected to occur. As such, the above referenced Project is appropriately classified as a Categorical Exclusion in accordance with CEQ Regulations and 23 CFR 771.117(c)(9) and 23 CFR 771.117(d)(13).

FHWA Concurrence

We concur with your determination that the Project meets the criteria for a Categorical Exclusion determination and hereby grant NEPA Approval.

VALERIYA REMEZOVA Digitally signed by VALERIYA REMEZOVA Date: 2024.07.23 09:12:48 -04'00'	Valeriya Remezova	7/23/2024
Federal Highway Administration Division Administrator	Printed Name	Date

List of Attachments

Attachment 1 – Figures

Attachment 2 – USCG Coordination

Attachment 3 – Detailed Project Map

Attachment 4 – Section 106 Consultation and Programmatic Agreement

Attachment 5 – Natural Resource Agency Coordination

Attachment 6 – Agency Coordination Meetings

Attachment 1 – Figures

Figure 1 – Project Location Map

Figure 2 – Land Use Map

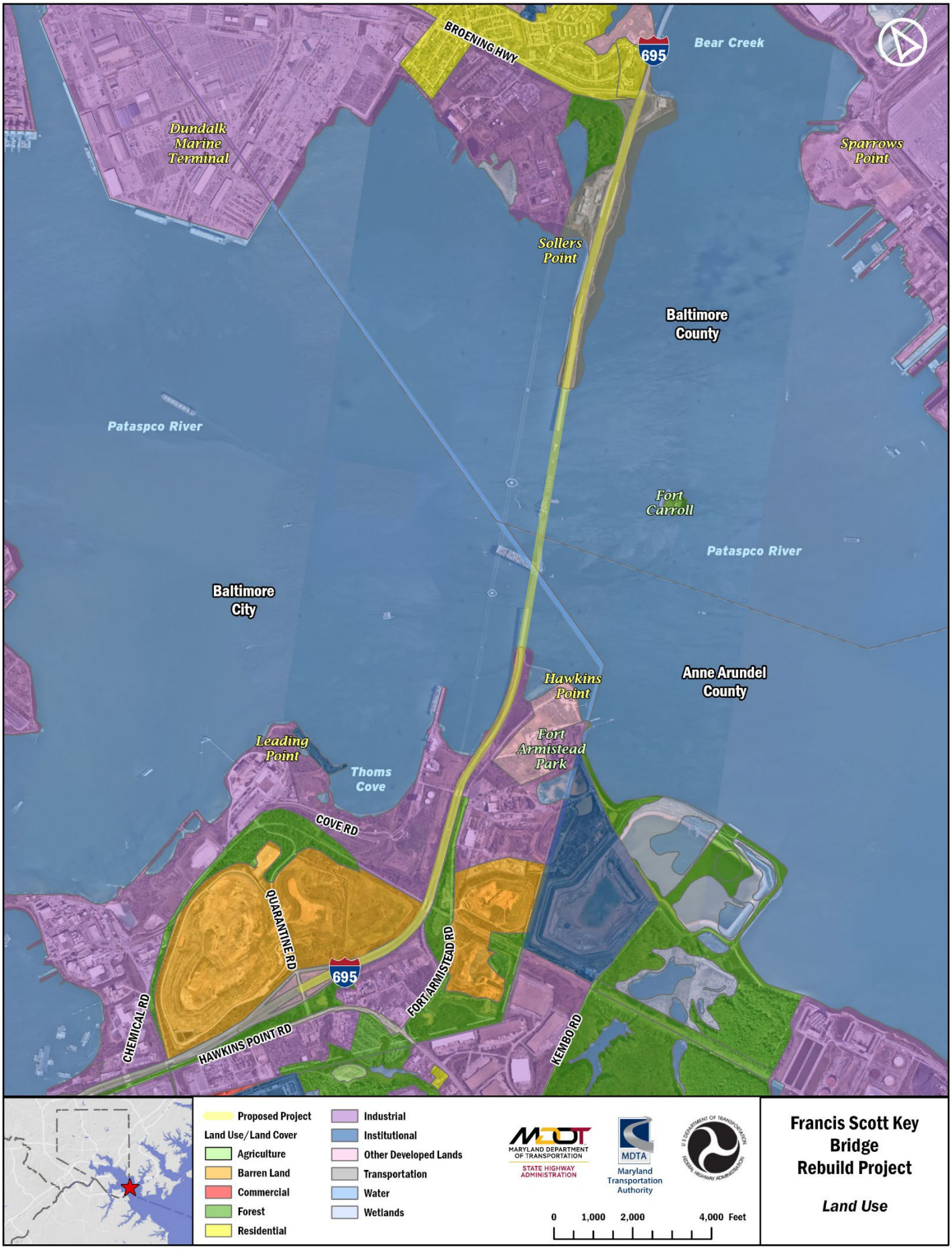

Figure 3 – Socioeconomic Study Area Map

Figure 4 – Environmental Justice Map

Figure 5 – Community Facilities Map

Figure 6 – Cultural Resources Map

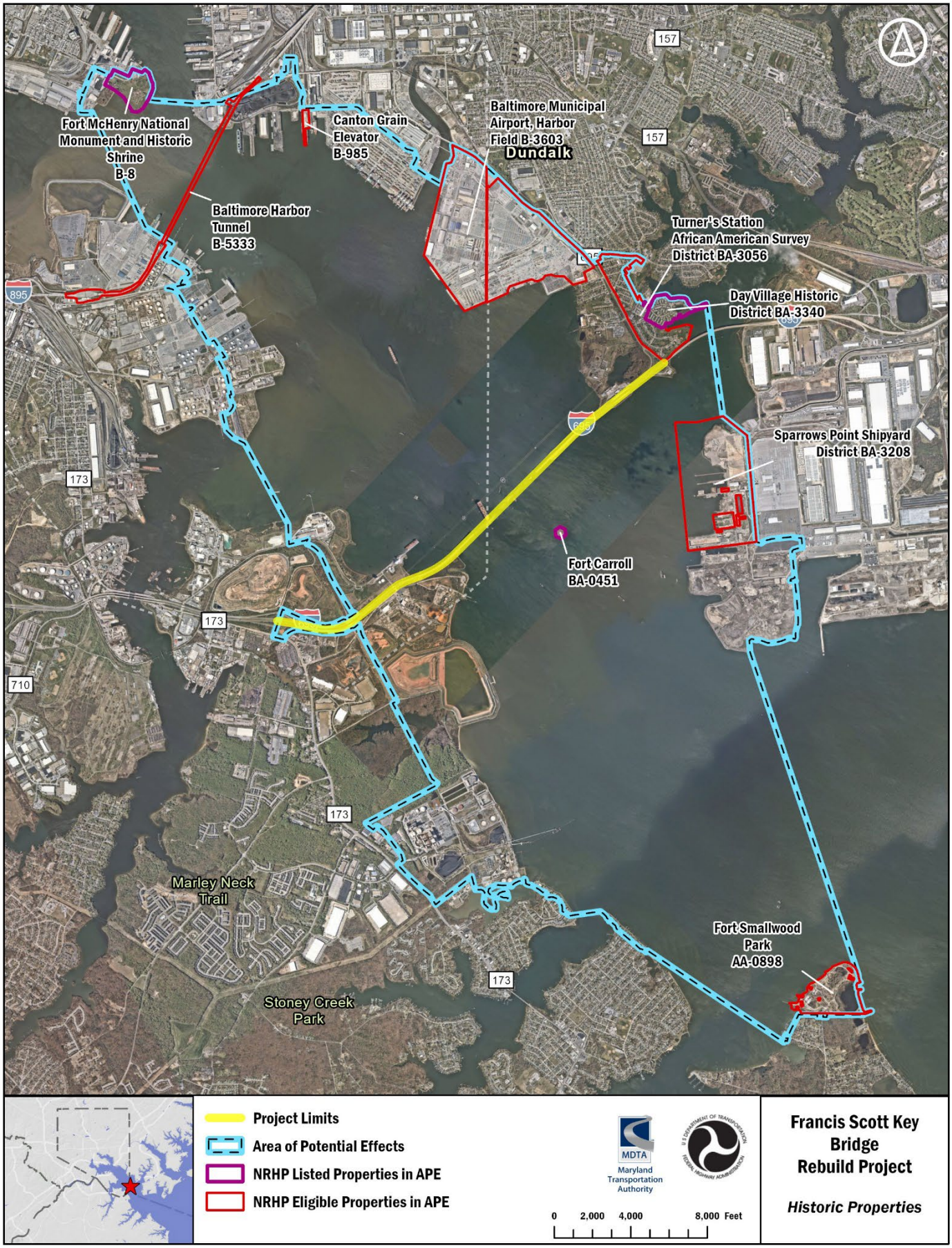

Figure 7 – Floodplains & Wetlands Map

Figure 8 – Wildlife & Habitat Map

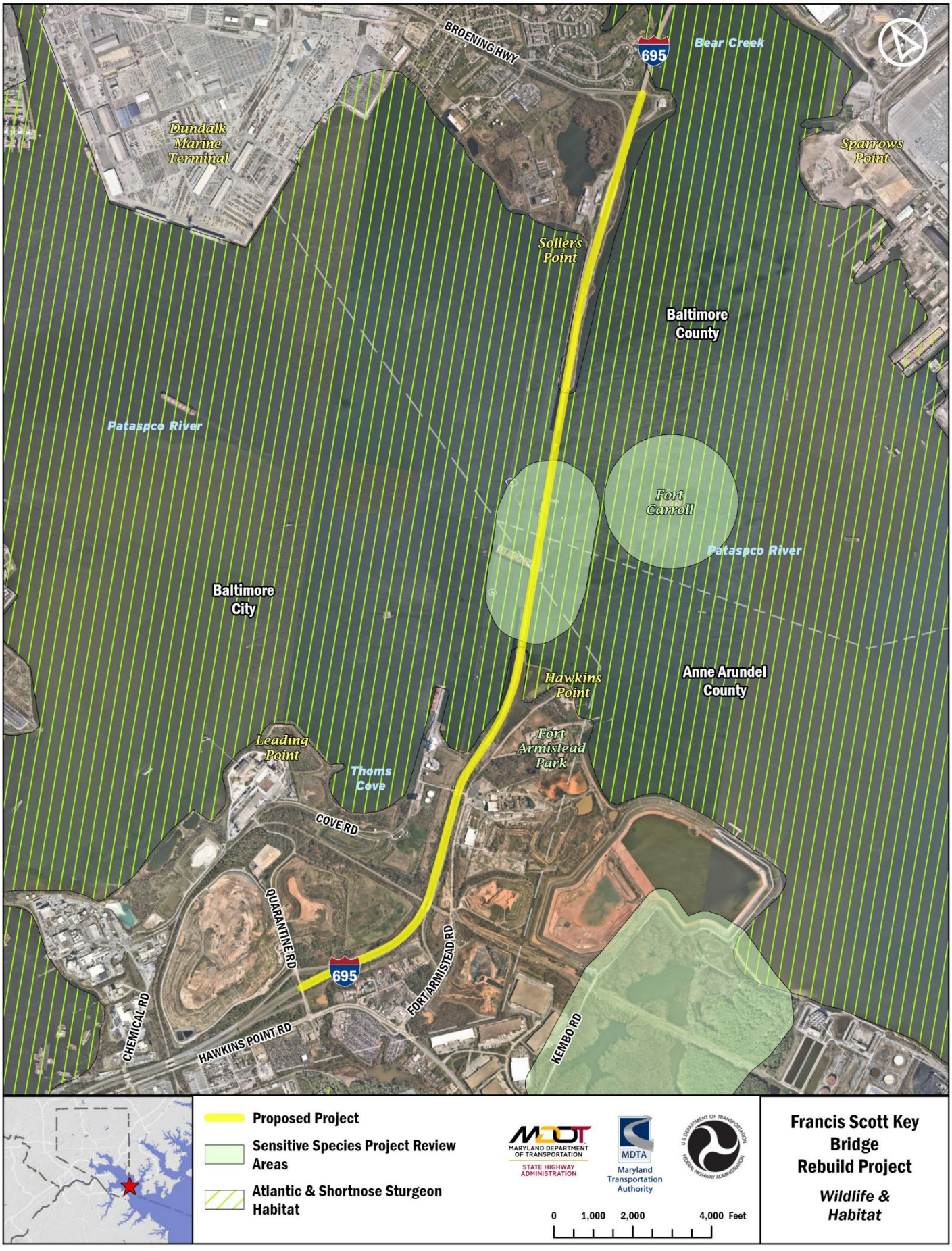

Figure 9 – Hazardous Materials Map

Attachment 2 –
US Coast Guard Coordination

U.S. Department of Homeland Security

United States Coast Guard

Commander
United States Coast Guard
Fifth Coast Guard District

431 Crawford Street
Portsmouth, VA 23704-5004
Staff Symbol: dpb
Phone: (757) 398-6222
Fax: (757) 398-6334
Email: Hal.R.Pitts@uscg.mil
CGDFiveBridges@uscg.mil

16591
06 JUN 2024

Ms. Melissa Williams
Maryland Transportation Authority
23 Broening Highway
Baltimore, MD 21224

Dear Ms. Williams:

The Coast Guard has reviewed the Navigation Impact Report dated May 17, 2024, and supplemental information via email dated May 24, 2024, and May 31, 2024, for the Patapsco River in Baltimore, MD. Based on a preliminary review of this study and the information available as of the date of this letter, the Coast Guard does not foresee anything that would prevent a bridge permit from being issued. The Preliminary Navigation Clearance Determination (PNCD) and information below are provided to assist the Maryland Transportation Authority in preparing and submitting a bridge permit application.

The Coast Guard has made a PNCD that a fixed bridge that carries Interstate 695 from Hawkins Point to Sollers Point across the Patapsco River, mile 6.0, at Baltimore, MD will provide for the current and prospective reasonable needs of navigation. The proposed fixed bridge would replace the existing (collapsed) fixed bridge at the same location. The existing (collapsed) fixed bridge had a vertical clearance of 185 feet above mean high water and 1,100 feet of horizontal clearance through the main navigation span of the bridge. The proposed fixed bridge should provide at least 230 feet of vertical clearance above mean high water and at least 1,100 feet of horizontal clearance through the main navigation span of the bridge.

The PNCD above is conditioned on modification of the existing powerline crossing adjacent to the location of the proposed bridge. A feasibility study or analysis and coordination with the United States Army Corps of Engineers, Baltimore District, and owner of the powerline (BG&E) should be conducted to determine whether the powerline may be raised to a clearance above mean high water sufficient enough to allow vessels able to safely transit through the proposed bridge to safely transit beneath the powerline.

Please note that this PNCD is not binding, does not constitute an approval or final agency action, and **expires three (3) years from the date of this correspondence**. A final determination can only be made in accordance with regulation and after Maryland Transportation Authority submits a complete bridge permit application to the Coast Guard. If a complete bridge permit application is not submitted within three (3) years from the date of this correspondence, an updated Navigation Impact Report as described in appendix A of the Coast Guard's Bridge Permit Application Guide, COMDTPUB P16591.3D, should be prepared and submitted in order to obtain a new PNCD.

16591
06 JUN 2024

Mr. Hal R. Pitts, at the above listed address or telephone number, has been assigned as the Coast Guard's Bridge Permit project officer. Please maintain frequent and regular contact with the project officer to ensure efficient and effective project administration.

Sincerely,

Shannon N. Gilreath
Rear Admiral
U. S. Coast Guard

Encl: Bridge Permit Application Guide, COMDTPUB P16195.3D and BPAG Applicant Template located at (https://go.usa.gov/xRFk2)

Copy: Coast Guard Sector Maryland-National Capital Region, Waterways Management
Federal Highways Administration, Baltimore Division Office
U. S. Army Corps of Engineers, Baltimore District Office

Attachment 3 –
Detailed Project Map

Francis Scott Key Bridge Rebuild Project

Detailed Project Map

June 2024

- Potential Limits of Disturbance
- Potential Construction Activity Area
- Potential Pier Demo Area
- Former Key Bridge Piers
- I-695 Right of Way
- Property Parcels
- MHW Line
- Streams
- Wetlands
- 25ft Wetland Buffer
- Critical Area Boundary
- Critical Area Expanded 100ft Buffer
- Forest
- Hedgerow
- Woody Vegetation (Critical Area Only)
- Individual Tree
- Individual Shrub
- County Boundaries
- Navigation Channel Boundaries

MDTA Maryland Transportation Authority

U.S. Department of Transportation Federal Highway Administration

MDOT Maryland Department of Transportation State Highway Administration

Francis Scott Key Bridge Rebuild Project

Detailed Project Map

June 2024

- Potential Limits of Disturbance
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MDTA Maryland Transportation Authority

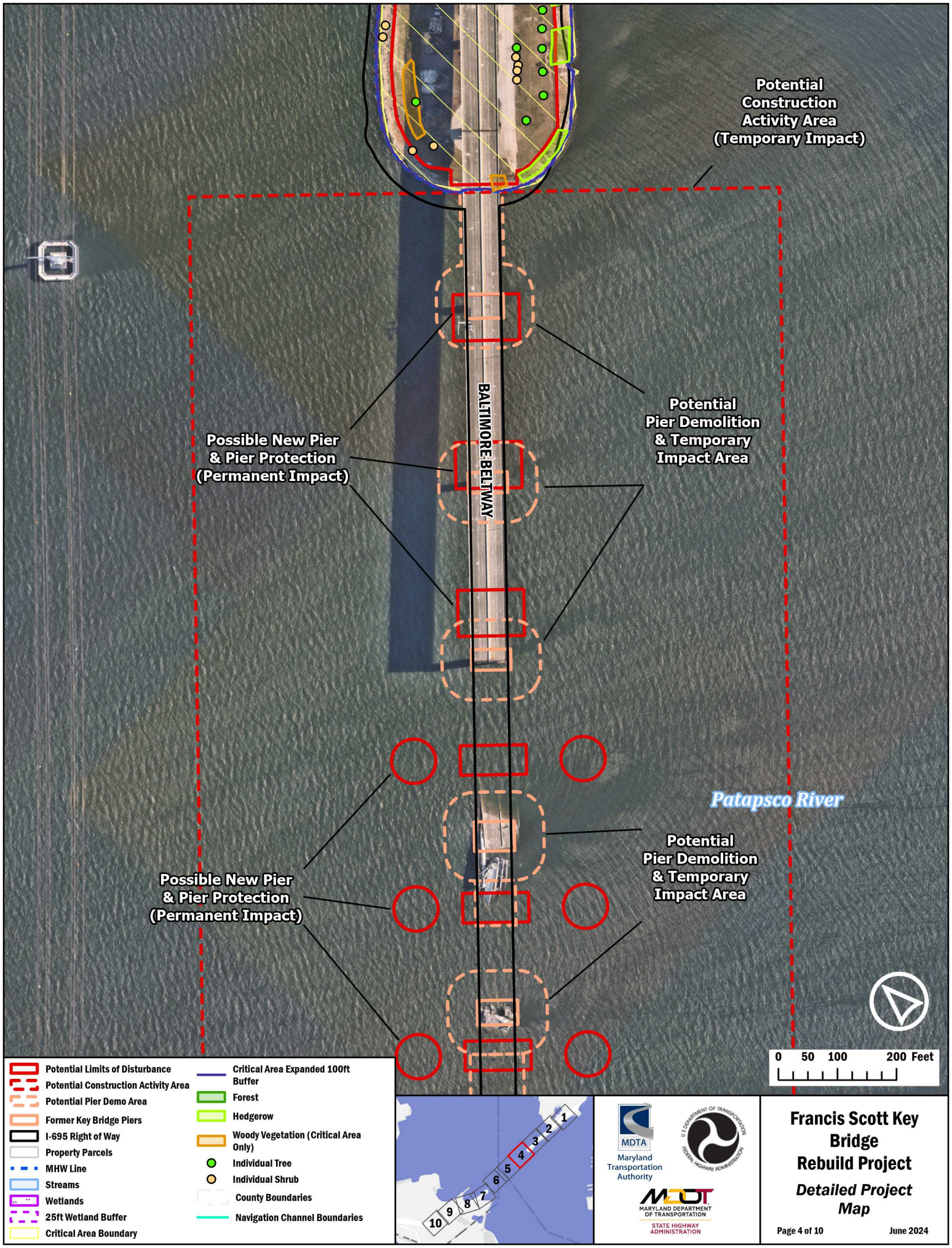
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

Francis Scott Key Bridge Rebuild Project

Detailed Project Map

June 2024


Potential Construction Activity Area (Temporary Impact)
BALTIMORE BELTWAY
Possible New Pier & Pier Protection (Permanent Impact)
Potential Pier Demolition & Temporary Impact Area
Patapsco River
Possible New Pier & Pier Protection (Permanent Impact)
Potential Pier Demolition & Temporary Impact Area
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Potential Limits of Disturbance
Potential Construction Activity Area
Potential Pier Demo Area
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Critical Area Boundary
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Woody Vegetation (Critical Area Only)
Individual Tree
Individual Shrub
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Navigation Channel Boundaries
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MDTA
Maryland Transportation Authority
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
MDOT
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
Francis Scott Key Bridge Rebuild Project
Detailed Project Map
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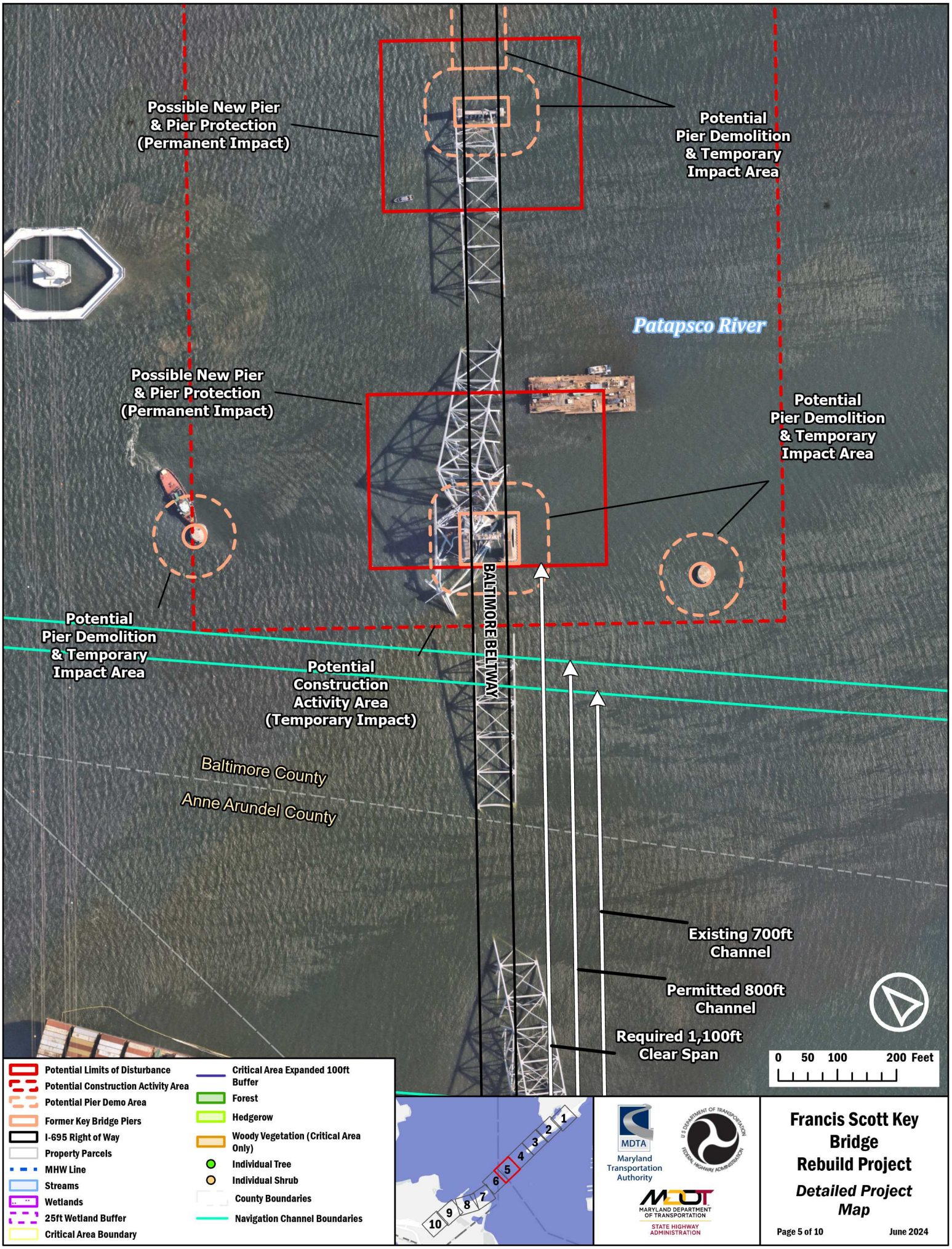
June 2024


Possible New Pier & Pier Protection (Permanent Impact)
Potential Pier Demolition & Temporary Impact Area
Patapsco River
Possible New Pier & Pier Protection (Permanent Impact)
Potential Pier Demolition & Temporary Impact Area
BALTIMORE BELTWAY
Potential Pier Demolition & Temporary Impact Area
Potential Construction Activity Area (Temporary Impact)
Baltimore County
Anne Arundel County
Existing 700ft Channel
Permitted 800ft Channel
Required 1,100ft Clear Span
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Potential Limits of Disturbance
Potential Construction Activity Area
Potential Pier Demo Area
Former Key Bridge Piers
I-695 Right of Way
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Navigation Channel Boundaries
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MDTA
Maryland Transportation Authority
U.S. Department of Transportation Federal Highway Administration
MDOT
Maryland Department of Transportation
State Highway Administration
Francis Scott Key Bridge Rebuild Project
Detailed Project Map
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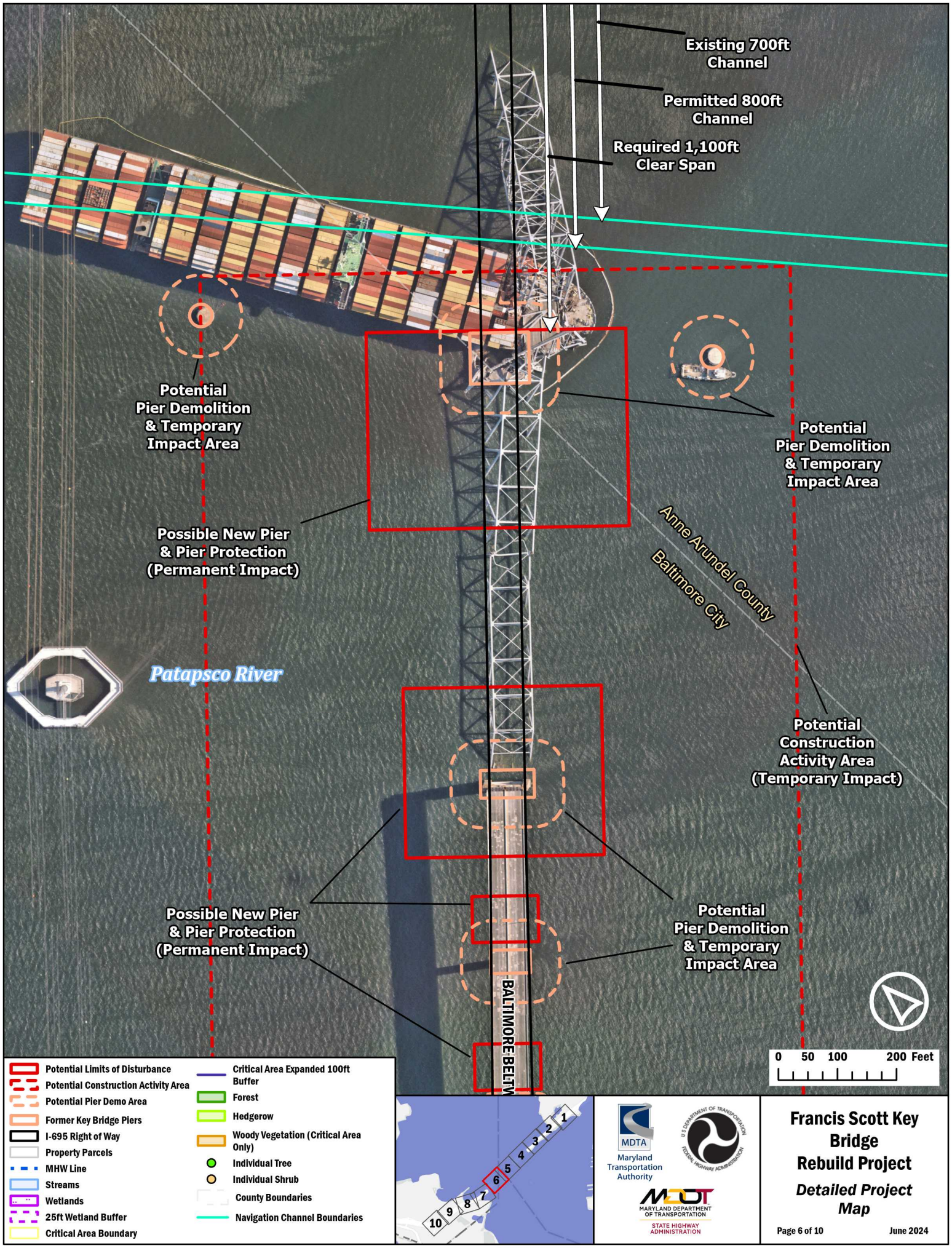
June 2024


Existing 700ft Channel
Permitted 800ft Channel
Required 1,100ft Clear Span
Potential Pier Demolition & Temporary Impact Area
Potential Pier Demolition & Temporary Impact Area
Possible New Pier & Pier Protection (Permanent Impact)
Anne Arundel County
Baltimore City
Patapsco River
Potential Construction Activity Area (Temporary Impact)
Possible New Pier & Pier Protection (Permanent Impact)
Potential Pier Demolition & Temporary Impact Area
BALTIMORE BELTW
0 50 100 200 Feet
Potential Limits of Disturbance
Potential Construction Activity Area
Potential Pier Demo Area
Former Key Bridge Piers
I-695 Right of Way
Property Parcels
MHW Line
Streams
Wetlands
25ft Wetland Buffer
Critical Area Boundary
Critical Area Expanded 100ft Buffer
Forest
Hedgerow
Woody Vegetation (Critical Area Only)
Individual Tree
Individual Shrub
County Boundaries
Navigation Channel Boundaries
1
2
3
4
5
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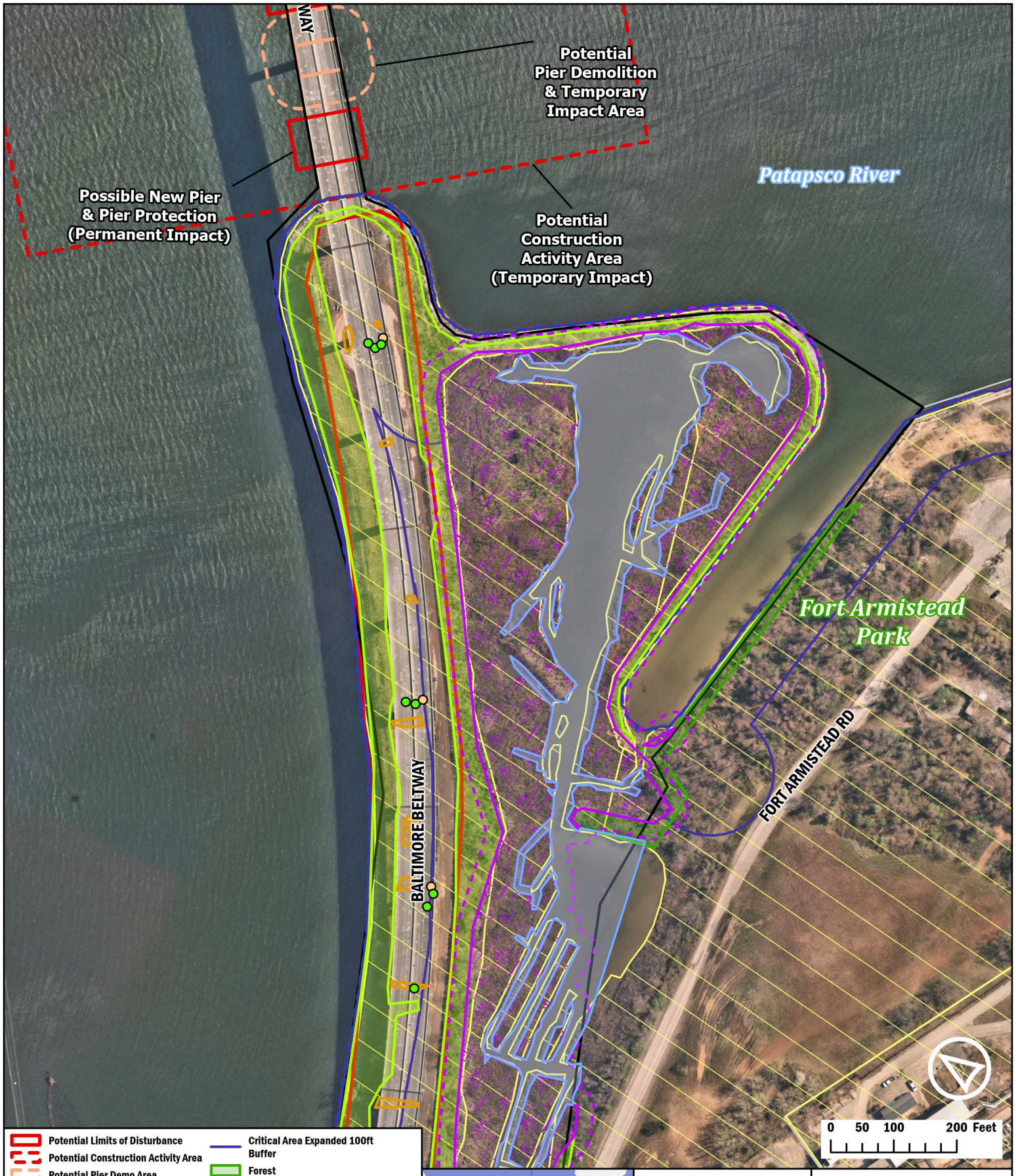
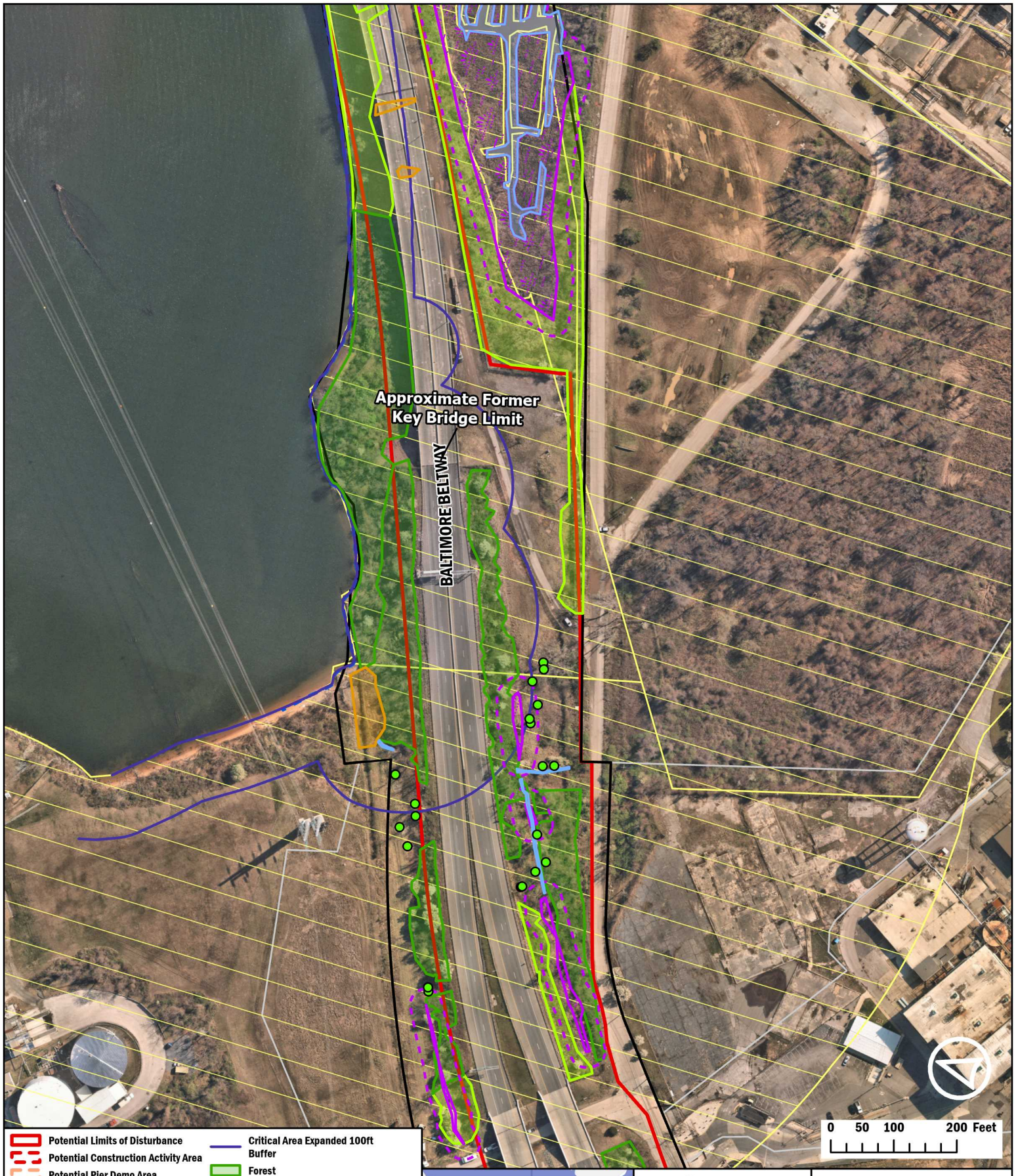
8
9
10
MDTA
Maryland Transportation Authority
U.S. Department of Transportation
Federal Highway Administration
MDOT
Maryland Department of Transportation
State Highway Administration
Francis Scott Key Bridge Rebuild Project
Detailed Project Map
Page 6 of 10
June 2024



Francis Scott Key Bridge Rebuild Project

Detailed Project Map

June 2024



MDTA Maryland Transportation Authority

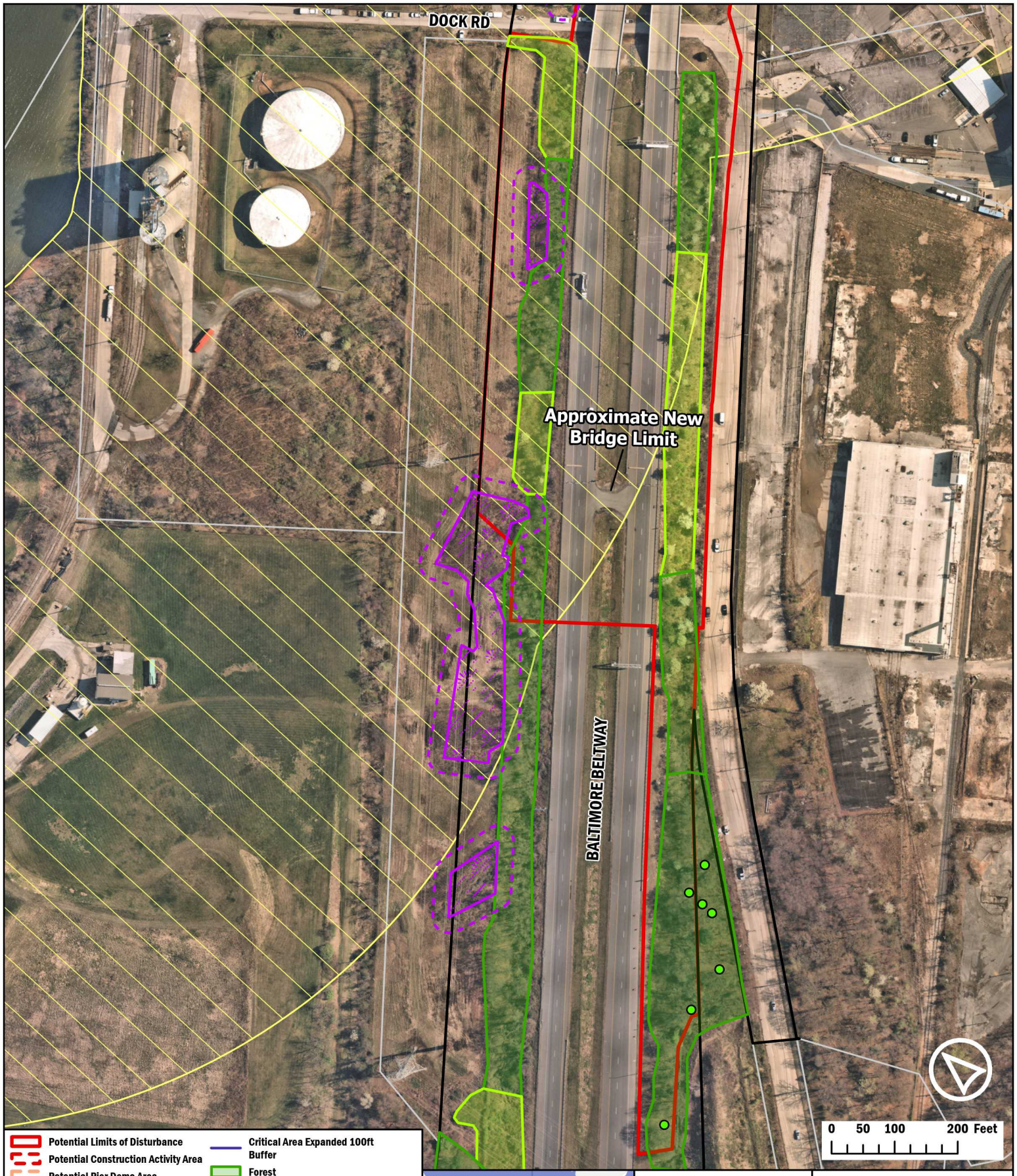
U.S. Department of Transportation Federal Highway Administration

MDOT Maryland Department of Transportation State Highway Administration

Francis Scott Key Bridge Rebuild Project

Detailed Project Map

June 2024



MDTA Maryland Transportation Authority

U.S. Department of Transportation Federal Highway Administration

MDOT Maryland Department of Transportation State Highway Administration

Francis Scott Key Bridge Rebuild Project

Detailed Project Map

June 2024

MDTA Maryland Transportation Authority

U.S. Department of Transportation Federal Highway Administration

MDOT Maryland Department of Transportation State Highway Administration

Francis Scott Key Bridge Rebuild Project

Detailed Project Map

June 2024

Attachment 4 – Section 106 Consultation and Programmatic Agreement

PROGRAMMATIC AGREEMENT
Among the
FEDERAL HIGHWAY ADMINISTRATION,
MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION,
MARYLAND TRANSPORTATION AUTHORITY,
AND
MARYLAND STATE HISTORIC PRESERVATION OFFICER

Implementing Section 106 of the National Historic Preservation Act for the I-695 Over the Patapsco River Francis Scott Key Bridge Replacement Project Anne Arundel and Baltimore Counties, and Baltimore City, Maryland

WHEREAS, the U.S. Department of Transportation, Federal Highway Administration (FHWA) plans to approve the I-695 Over the Patapsco River Francis Scott Key Bridge Replacement (The Project), administered by the Maryland Department of Transportation State Highway Administration (SHA) and the Maryland Transportation Authority (MDTA); and

WHEREAS, on March 26, 2024 the MDTA Francis Scott Key Bridge, which carries I-695 over the Patapsco River, was struck by a cargo ship leaving the Port of Baltimore, resulting in the collapse of the bridge, impairing essential traffic. Following the incident, Executive Order 01.01.2024.09 was released by the State of Maryland, declaring a State of Emergency as a result of the Key Bridge collapse.

WHEREAS, The Project consists of construction of a replacement bridge in the same location, following the existing centerline, and within existing right-of-way, while incorporating design upgrades that meet current standards and conditions, as described in detail in Attachment 4; and.

WHEREAS, FHWA has determined that the Project is an undertaking, as defined in 36 C.F.R. §800.16(y), and thus is subject to review under Section 106 of the National Historic Preservation Act (NHPA), 54 U.S.C. § 306108, and its implementing regulations, 36 C.F.R. Part 800 as amended; and

WHEREAS, SHA and MDTA intend to deliver the Project using a progressive design-build delivery method; and

WHEREAS, the Project may be implemented in construction phases, yet to be fully defined, and although this Programmatic Agreement (PA) reflects evaluation of the entire defined Project, certain commitments may require phased implementation; and

WHEREAS, pursuant to Section 9 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401 and 403) and the General Bridge Act of 1946, a Coast Guard Bridge Permit will likely be required from the United States Coast Guard (USCG) for this Project, and pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401 and 403) and Section 404 of the Clean Water Act of 1973 (33 U.S.C. 1344), a Department of the Army permit will likely be required from the United States Army Corps of Engineers (USACE) for this Project; and

WHEREAS, the USACE and USCG have agreed FHWA is the lead federal agency for purposes of ensuring that the Project complies with Section 106 of the NHPA, as amended, and codified in its implementing regulations, 36 C.F.R. Part 800, as amended (August 5, 2004) and have agreed to participate in this PA as consulting parties; and

WHEREAS, federal agencies which, at FHWA's invitation, designate FHWA as the lead federal agency for the Project may use this PA to fulfill their obligations under Section 106 of the NHPA according to 36 C.F.R. 800.2(a)(2), without the need for amendment of this PA, provided that FHWA follows the requirements of this PA; and

WHEREAS, SHA, on behalf of FHWA, has established the Area of Potential Effects (APE) for the project in consultation with the Maryland State Historic Preservation Office (MD SHPO), encompassing the corridor project limits as described above, including areas of direct limits of disturbance, inclusive of all project elements with the potential to affect historic properties, and a sufficient buffer for visual effects where they may be likely to occur; the detailed map of the APE is provided in Attachment 4; and

WHEREAS, FHWA, in consultation with MD SHPO, identified ten (10) historic properties that are listed in, or eligible for inclusion in the National Register of Historic Places (NRHP): Fort McHenry National Monument & Historic Shrine (Maryland Inventory of Historic Places [MIHP] B-8); Baltimore Harbor Tunnel (MIHP B-5333); Canton Grain Elevator (MIHP B-985); Baltimore Municipal Airport, Harbor Field (MIHP B-3603); Baltimore Municipal Airport Air Station (MIHP B-2094); Turner's Station African American Survey District (MIHP BA-3056); Sparrow's Point Shipyard District (MIHP BA-3208); Day Village Historic District (MIHP No. BA-3340); Fort Carroll (MIHP BA-451); and Fort Smallwood Park (MIHP AA-898);
and

WHEREAS, FHWA has identified six (6) architectural resources requiring NRHP evaluation, as shown in Attachment 4: 6001 Dock Road; 3901 Fort Armistead Road; 3925 Fort Armistead Road; Fort Armistead Park; BG&E Parcels (Tax Map 110, Parcels 3, 26, 27, and 58); and MDTA's Francis Scott Key Bridge Administration Building; and

WHEREAS, FHWA has elected to phase the identification, evaluation, and effects assessment of certain portions of the APE and historic properties where timing, unavailability of access or design information precluded such identification, evaluation and assessment, as provided in 36 C.F.R. 800.4(b)(2), and 36 C.F.R. 800.5(a)(3); and

WHEREAS, FHWA will ensure additional identification, evaluation, and assessment is completed in a timely manner prior to final design and construction, to allow for meaningful consultation and practical opportunities to avoid, minimize, or mitigate for any potential adverse effects to historic properties; and

WHEREAS, FHWA has initiated consultation pursuant to 36 C.F.R. 800.3(c) with the MD SHPO by letter on May 16, 2024; SHA on behalf of FHWA will continue to consult with MD SHPO and consulting parties under the terms of this PA in order to identify historic properties, assess the

effects of the Project on historic properties, and, if necessary, resolve adverse effects to historic properties; and

WHEREAS, FHWA, pursuant to 36 C.F.R. 800.6(a)(1)(i)(C), on May 16, 2024, initiated Section 106 consultation with the Advisory Council on Historic Preservation (ACHP), and the ACHP has chosen not to participate in the consultation pursuant to 36 C.F.R. 800.6(a)(1)(iii); and

WHEREAS, FHWA, ACHP, SHA, MDTA and the MD SHPO, under the *Amended Programmatic Agreement Among the Federal Highway Administration, the Maryland Department of Transportation State Highway Administration, the Advisory Council on Historic Preservation, the Maryland State Historic Preservation Officer, Implementing Section 106 of the National Historic Preservation Act for the Federal-aid Highway Program in Maryland* ("Statewide PA"), linked in Attachment 2, have agreed to delegate certain authorities relating to Section 106 of the NHPA to SHA and MDTA for Federal-aid Highway Projects in Maryland; and

WHEREAS, SHA, pursuant to the Statewide PA, employs professionals meeting the Secretary of the Interior's Professional Qualifications Standards (48 Fed. Reg. 44738-39, September 29, 1983) with experience and background in the fields of archaeology, architectural history and/or history who will oversee implementation of stipulations in this PA; and

WHEREAS, SHA and MDTA, on behalf of FHWA, pursuant to 36 C.F.R. 800.4(a)(1), has established the APE for the Project in consultation with the MD SHPO, and, per 36 C.F.R 800.4(b) in consultation with MD SHPO proposed a scope of effort to identify historic properties within the APE, and offered Federally-recognized Native American Tribal Nations (Tribes) an opportunity to provide input on this scope of effort; and

WHEREAS, SHA, MDTA and FHWA, pursuant to 36 C.F.R 800.2(d) have sought and considered the views of the public regarding the Project's effects on historic properties by providing notice to the public via the project website, and in stakeholder public meetings on June 11, 2024; and

WHEREAS, SHA and MDTA, during the course of consultation, have invited the parties listed in Attachment 4 to participate in consultation on the Project; and

WHEREAS, SHA, MDTA and FHWA, have initiated consultation with Tribes listed in Attachment 4 and provided the Tribes with information about the Project. SHA, on behalf of FHWA, has invited the same Tribes to be consulting parties, as shown in Attachment 4; and

WHEREAS, FHWA, SHA and MDTA have determined archaeological properties are unlikely to be affected by the Project based on information available at the time of execution of the PA; and

WHEREAS, no historic properties exist within the expected limits of disturbance of the project, and no physical effects to historic properties are likely to occur based on information available at the time of execution of this PA; and

WHEREAS, FHWA has invited SHA and MDTA to be invited Signatories to this PA, based on their responsibilities for implementation of its terms, and all Signatories, required and invited, are

referred to as "Signatories" to this document; and.

WHEREAS, FHWA intends to use this PA to comply with 36 C.F.R. Part 800, 54 U.S.C. § 100902, 36 C.F.R. Part 14 and to govern the implementation of the Project and the identification and resolution of any adverse effects.

NOW, THEREFORE, FHWA, SHA, MDTA and MD SHPO, (hereinafter "Signatories") agree that the Project will be implemented in accordance with the following Stipulations in order to take into account the effect of the Project on historic properties and that these Stipulations will govern compliance of the Project with Section 106 of the NHPA until this PA expires or is terminated.

Stipulations

I. Roles and Responsibilities

A. FHWA is the lead federal agency and is responsible for ensuring the terms of this PA are carried out.

B. SHA and MDTA are delegated authority by FHWA under this PA and the Statewide PA to continue defined aspects of consultation, project compliance review, and implementation of this PA's terms. SHA and MDTA will jointly be responsible for implementation of this PA excepting where otherwise specified. Additionally:

1. MDTA and/or SHA, using FHWA funding in whole or in part, will enter into an agreement or agreements with a design-build contractor to design and build the Project, using a progressive design-build model. MDTA, in its administrative role with the contractor, will coordinate with and provide SHA all information necessary, and exercise oversight of the contractor to ensure compliance with this PA and its implementation. MDTA and SHA will work informally to resolve any disagreement, but will follow Stipulation X of the PA if resolution is not reached informally. SHA and MDTA may not delegate consultation obligations or other responsibilities related to Section 106 consultation specified in this PA to the design-builder.
2. SHA, on behalf of MDTA and FHWA, will consult with MD SHPO for actions under this PA and 36 C.F.R. 800.

C. SHPO: The MD SHPO has jurisdiction as established in the NHPA for historic properties in Maryland. MD SHPO will:

1. Respond to requests from SHA for concurrence on eligibility determinations, effect determinations, and technical documents within a 30-day review period unless otherwise specified in this PA, or SHA specifically provides for an extended review period at the time of submittal. SHA and FHWA may assume concurrence or no objection to determinations and submittals if no response is received within 30 days, if no extended timeline is specifically

established in the review request or if no timeline is specified in 36 C.F.R. 800. All durations referenced in this PA refer to calendar days.

2. Provide written comments, share general technical assistance/guidance, and make available survey records or other documents necessary to fulfill the requirements of this PA to SHA or its designates.

D. Consulting Parties/Public

1. SHA has consulted with or provided the opportunity to consult to the parties listed in Attachment 4 prior to finalizing this PA.

2. SHA will provide consulting parties who have elected to participate in consultation, regardless of concurring status, with opportunities to consult on Project changes or new elements with the potential to affect historic properties. Consulting parties may sign this PA as concurring parties at any time after execution of the PA with the invitation of SHA or FHWA. Additional consulting parties may be identified at a later time without the need to amend this PA.

3. Concurrence with the PA by a party does not necessarily indicate that the party supports the Project or endorses all stipulations of this PA, but rather indicates the desire of such parties to acknowledge consultation and/or remain involved in implementation of specific terms of this PA.

4. SHA and MDTA will provide for notification of the public for substantial changes to the Project that would result in an expanded APE or new effects to historic properties consistent with 36 CFR 800.8(c)(1)(iv) and procedures under NEPA to ensure ongoing opportunities for public input. As appropriate, this process may identify new consulting parties who may wish to consult at a later time in response to Project refinement.

II. Professional Standards

A. Guidelines, standards and regulations relevant to this PA and its purposes are listed below, and links to these documents are found in Attachment 2. Additionally, it is the intention of the Signatories to interpret this PA to incorporate any subsequent standards, revisions of standards, or applicable guidance issued by the Secretary of the Interior, ACHP, or MD SHPO as then in force during this PA.

1. 36 C.F.R. Part 800: Protection of Historic Properties, as amended (2004);

2. *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (1983);

3. Secretary of the Interior's Professional Qualifications Standards (48 Fed. Reg. 44738-39, September 29, 1983)

4. *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994), including *Technical Update No. 1 of the Standards and*

Guidelines for Archaeological Investigations in Maryland: Collections and Conservation Standards (2018);

5. *Standards and Guidelines for Architectural and Historical Investigations in Maryland* (Maryland Historical Trust, 2023);

6. Program Comment for Actions Affecting Post-1945 Concrete Steel Bridges (77 FR 68790);

7. *Exemption Regarding Historic Preservation Review Process for Effects to the Interstate Highway System* (ACHP Program Comment, 2005)

8. *Section 106 Archaeology Guidance* (ACHP, 2009)

9. National Register of Historic Places Bulletin 15, *How to Apply the National Register Criteria for Evaluation* (National Park Service revised 1997), National Register of Historic Places Bulletin 16A, *How to Complete the National Register Registration Form* (National Park Service revised 1997), and other National Register Bulletins as applicable

10. Secretary of the Interior's Standards for the Treatment of Historic Properties (1995, Revised 2017); and accompanying guidelines for Treatment of Historic Properties (1995, Revised 2017) and Cultural Landscapes (1996)

III. Historic Properties Identification and Effects Assessment

A. *Historic Properties Identification*. SHA and MDTA commit to evaluating the following properties within the APE for eligibility for the NRHP, in accordance with 36 C.F.R. 800.4(c), including providing eligibility determinations to consulting parties and seeking concurrence from MD SHPO:

- 6001 Dock Road
- 3901 Fort Armistead Road
- 3925 Fort Armistead Road
- Fort Armistead Park
- BG&E parcels (Tax Map 110, Parcels 3, 26, 27, and 58)
- Francis Scott Key Bridge Administrative Building

B. *Effect Determination*. Following the evaluation of the properties specified in Stipulation III.A., and at such time as the following information is available: the limits of approach work, bridge type, bridge height, anchorage locations, and locations of any proposed ancillary staging areas, SHA, on behalf of FHWA, will make a finding of effect in accordance with 36 C.F.R. 800.4(d), and 36 C.F.R. 800.5.

1. Finding of No Properties Affected or No Adverse Effect to Historic Properties. Should SHA, on behalf of FHWA, find that no historic properties are affected by the Project or No Adverse Effect to historic properties will result from the Project, and MD SHPO concurs with the finding, in consideration of the views of any consulting parties, SHA and FHWA will proceed with the project, and follow Stipulations IV-XI.

2. Finding of Adverse Effect. If potential adverse effects to historic properties are identified, SHA, MDTA and FHWA will seek to avoid or minimize adverse effects. If adverse effects cannot be completely avoided, and SHA determines there is an adverse effect to historic properties, SHA, MDTA, and FHWA will develop a mitigation plan in consultation with MD SHPO and appropriate consulting parties, identifying mitigation that is reasonable, feasible, and commensurate with the effects to historic properties. SHA will seek concurrence from MD SHPO on the mitigation plan, and, upon MD SHPO concurrence, will implement the provisions of the plan. FHWA, SHA, and MDTA will amend this PA to incorporate its provisions.

3. If SHPO does not concur with the mitigation plan, FHWA, SHA, and MDTA will consult with MD SHPO and appropriate consulting parties to revise the mitigation plan. If the Signatories cannot reach concurrence on the plan, the parties will follow Stipulation X regarding dispute resolution.

IV. Consultation Regarding Project Development

A. As project design advances or ancillary activities not currently known are identified, SHA will initiate consultation with MD SHPO and other consulting parties, and the public per Stipulation I.E. using the following process:

1. On an ongoing basis, SHA cultural resources staff will review proposed changes that affect project location, design, or limits of disturbance, for potential new effects to historic properties.

2. If SHA determines there is potential for new or changed effects, SHA will notify FHWA and consult as described in Stipulation IV.B below.

B. SHA, on behalf of FHWA, consistent with the principles described in 36 C.F.R. §§ 800.3 – 6, will consult with MD SHPO and other Signatories to this PA, and consulting parties identified for this undertaking as appropriate on:

1. Amendments to the APE, consistent with 36 C.F.R. § 800.16(d), including identification and documentation of any new historic properties within the amended APE consistent with 36 C.F.R § 800.4(a) and (b).

2. Changes to the LOD within the existing APE where any additional archaeological investigation would be recommended, including newly identified staging or stockpile areas outside MDTA right-of-way within the APE.

3. New or revised determinations of eligibility for historic properties within the APE as described above, consistent with 36 C.F.R § 800.4(c).

4. New or revised assessment of effects to historic properties within the APE as described above, consistent with 36 C.F.R § 800.5.

C. SHA will provide consultation materials in written or electronic form, and follow timelines for comment opportunity as specified in Stipulation I.C.1.

V. Monitoring of Performance

A. Specific points for continued consultation are defined in Stipulations III and IV.

B. Should Adverse Effects be identified, and a mitigation plan be developed in accordance with Stipulation III.B.2, the mitigation plan will include a schedule for periodic regular reporting and/or meetings until the commitments of any mitigation plan are completed, or another point in time identified in the plan.

C. SHA and MDTA will convene consulting party meetings as necessitated by project advancement described in Stipulation IV or when requested by any Signatory.

VI. Post-Review Discovery of Human Remains

SHA will follow the attached Inadvertent Discovery Plan (Attachment 1) should human remains be identified in any areas of the project**.**

VII. Other Post-Review Discoveries

SHA will follow the procedures in Attachment 1 of this PA for any inadvertent archaeological discoveries or inadvertent effects to historic properties during construction.

VIII. Confidentiality

The Signatories agree to provide by the provisions of Section 304 of the NHPA, and other applicable requirements, to withhold information concerning the location, character, or ownership of resources where release of such information may endanger the integrity of the resource.

IX. Amendment

Any Signatory to this PA may request that it be amended, whereupon the Signatories will consult in accordance with 36 C.F.R. § 800.14 to consider such an amendment. Amendments will be effective upon the date of the last signature from the Signatories.

X. Dispute Resolution

A. Should any Signatory or consulting party object at any time to the manner in which the terms of this PA are implemented, within 30 days of information being provided relating to the issue forming the basis of the objection, or within 30 days where the objector can otherwise be reasonably assumed to be aware of the issue forming the basis of objection, FHWA shall consult with such party to resolve the objection. If FHWA determines that such objection cannot be resolved, FHWA will take the following steps:

1. Forward all documentation relevant to the dispute, including FHWA's proposed resolution, to ACHP. FHWA will request ACHP provide comment on the resolution of the objection within 30 days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FHWA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from ACHP, Signatories and consulting parties and provide them with a copy of this written response. FHWA will then proceed according to its final decision.
2. If ACHP does not provide its advice regarding the dispute within the 30-day period, FHWA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FHWA shall prepare a written response that takes into account any timely comments regarding the dispute from the Signatories and consulting parties to the PA and provide them with a copy of such written response.
3. In the case of objections related to NRHP eligibility, any Signatory may object in writing within 30 days to an SHA or FHWA determination of eligibility. If SHA and FHWA are unwilling to revise the determination in response to the objection or other relevant information, FHWA (or SHA on its behalf) will submit the determination to the Keeper of the National Register of Historic Places for a determination pursuant to 36 C.F.R. Part 63.

B. Objections from the Public: Should a member of the public object to an action taken under this PA, or compliance with the PA, within 30 days of information being provided relating to the issue forming the basis of the objection, or within 30 days where the objector can otherwise be reasonably assumed to be aware of the issue forming the basis of objection, FHWA will ensure that SHA consults with the objecting party to respond to the objection in coordination with FHWA where relevant, provided the

objection is made in writing to FHWA or SHA contacts identified in Attachment 3 or any subsequent updates to Attachment 3. SHA and FHWA will inform other Signatories of the objection and proposed resolution. Should a Signatory disagree with the proposed resolution, the Signatories will follow Stipulation X.

C. FHWA's responsibility to carry out all other actions subject to the terms of this PA that are not the subject of the dispute remain unchanged.

XI. Termination

A. Any Signatory to this PA may terminate it by providing 30 days' notice in writing to the other Signatories, provided that the Signatories will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination.

B. If any Signatory to this PA determines that a term will not or cannot be carried out, that party shall immediately consult with the other Signatories to attempt to develop an amendment per Stipulation IX, above. If within 30 days (or another time period agreed to by all Signatories) an amendment cannot be reached, any signatory may terminate the PA upon written notification to the other Signatories.

C. In the event of termination, FHWA will comply with 36 C.F.R. § 800 for all remaining actions, or until a new agreement is reached fulfilling such requirements.

This PA will continue in full force and effect until 10 years from the date of execution of the PA, or such time of final acceptance of the Project and when all terms of this PA have been met, should the terms be met prior to the 10-year expiration. The PA will be invalid if the Project is terminated or authorization for the Project is rescinded. At any time in the six-month period prior to its expiration, the Signatories will consult to consider an extension or amendment of the PA. At such time, the Signatories may consider an amendment to extend the PA unmodified for an additional specified duration or consult to amend the PA in accordance with Stipulation IX. No extension or amendment will be effective until all Signatories have signed the amendment or amendment to extend.

SIGNATORY PAGE

PROGRAMMATIC AGREEMENT
Among the
FEDERAL HIGHWAY ADMINISTRATION,
MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION,
MARYLAND TRANSPORTATION AUTHORITY,
AND
MARYLAND STATE HISTORIC PRESERVATION OFFICER

Implementing Section 106 of the National Historic Preservation Act for the I-695 Over the Patapsco River Francis Scott Key Bridge Replacement Project Anne Arundel and Baltimore Counties, and Baltimore City, Maryland

FEDERAL HIGHWAY ADMINISTRATION

By: VALERIYA REMEZOVA Digitally signed by VALERIYA REMEZOVA Date: 2024.07.01 13:37:33 -04'00' **Date: 7/1/2024**

Valeriya Remezova, Division Administrator

SIGNATORY PAGE

PROGRAMMATIC AGREEMENT
Among the
FEDERAL HIGHWAY ADMINISTRATION,
MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION,
MARYLAND TRANSPORTATION AUTHORITY,
AND
MARYLAND STATE HISTORIC PRESERVATION OFFICER

Implementing Section 106 of the National Historic Preservation Act for the I-695 Over the Patapsco River Francis Scott Key Bridge Replacement Project Anne Arundel and Baltimore Counties, and Baltimore City, Maryland

MARYLAND STATE PRESERVATION OFFICER

By: _____ **Date:** 6-13-2024

Elizabeth Hughes, State Historic Preservation Officer

SIGNATORY PAGE

PROGRAMMATIC AGREEMENT
Among the
FEDERAL HIGHWAY ADMINISTRATION,
MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION,
MARYLAND TRANSPORTATION AUTHORITY,
AND
MARYLAND STATE HISTORIC PRESERVATION OFFICER

Implementing Section 106 of the National Historic Preservation Act for the I-695 Over the Patapsco River Francis Scott Key Bridge Replacement Project Anne Arundel and Baltimore Counties, and Baltimore City, Maryland

MARYLAND TRANSPORTATION AUTHORITY

By: _____ **Date:** 6/26/2024
Bruce Gartner, Executive Director

SIGNATORY PAGE

PROGRAMMATIC AGREEMENT
Among the
FEDERAL HIGHWAY ADMINISTRATION,
MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION,
MARYLAND TRANSPORTATION AUTHORITY,
AND
MARYLAND STATE HISTORIC PRESERVATION OFFICER

Implementing Section 106 of the National Historic Preservation Act for the I-695 Over the Patapsco River Francis Scott Key Bridge Replacement Project Anne Arundel and Baltimore Counties, and Baltimore City, Maryland

MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

By: _____ **Date:** 6/18/2024

William Pines, P.E., Administrator

Attachments

1. Inadvertent Discovery Plan
2. Links to Documentation Referenced
3. Contact Information for FHWA, MDTA and SHA staff (to be updated as necessary)
4. Section 106 Initiation Letter

Attachment 1
Inadvertent Discovery Plan

A. Unanticipated Impacts to Architectural Historic Properties: if the Project causes unanticipated impacts to any National Register of Historic Places (NRHP) eligible, listed, or contributing buildings, sites, structures, or objects of the built environment, the contractor must notify the engineer and immediately cease any activity causing ongoing damage until consultation occurs. SHA shall, in consultation MD SHPO, determine if adverse effects have occurred to the property/properties and develop a plan for the protection of the historic property, and minimization or mitigation of impacts. If mitigation is identified, FHWA, SHA, MD SHPO, and other Signatories as necessary will execute a Memorandum of Agreement or amend this PA to record the identified mitigation. SHA or MDTA may hold the contractor(s) liable for any or all costs resulting from this process following appropriate processes identified in its contract instruments.

B. Unanticipated Damage to Known Archaeological Resources: if unauthorized excavation occurs outside the approved limits of disturbance (LOD) or other approved boundaries designed to protect archaeological resources or cemeteries and thereby causes impacts to known, NRHP-eligible properties, SHA and/or MDTA will ensure any activity causing ongoing damage is stopped until consultation occurs. SHA will conduct a damage assessment consistent with the model used for such assessments under the Archaeological Resources Protection Act (https://www.nps.gov/archeology/pubs/techbr/tchBrf20.pdf). SHA will use the results of the assessment in consultation with the MD SHPO to determine if the resource has been adversely affected and determine appropriate mitigation. If the resource is of known or suspected Native American affiliation, FHWA, with assistance from SHA shall consult with federally recognized Indian Tribes as appropriate. If the resource is affiliated with other known descendant groups or consulting parties, SHA will consult with such parties as well. If mitigation is identified, FHWA, SHA, MD SHPO, and other Signatories as necessary will execute a Memorandum of Agreement or amend this PA to record the identified mitigation. SHA or MDTA may hold the contractor(s) liable for any or all costs resulting from this process following appropriate processes identified in its contract instruments.

C. Unanticipated Discovery of Human Remains: Should any burials, interments, or human remains (hereafter, "remains") be encountered during construction, SHA and/or MDTA will ensure all applicable construction work in the vicinity of the remains is immediately stopped to prevent damage to the remains, or to any additional remains that might be present in the vicinity. A minimum 100-foot buffer around identified remains will be established by SHA and/or MDTA free of disturbance, to be adjusted as appropriate for the site conditions. Construction may occur outside the buffer unless evidence of additional remains is found. If remains are suspected to be human but not confirmed, SHA will ensure that such confirmation is made by a qualified professional. Human remains will at all times be treated respectfully and access and visibility limited to the site of discovery to authorized personnel only. Within Maryland, pursuant to State of Maryland Criminal Code § 10-402, the State's Attorney must authorize movement or removal of any remains until determined to be archaeological. If the remains are determined to be archaeological, SHA and the MD SHPO will consult to determine treatment of the remains and any other necessary treatment such as work needed to define extent of remains in the most expeditious manner feasible.

If the remains are determined archaeological and suspected to be of Native American origin, SHA, in coordination with FHWA, shall provide notification to tribal governments in accordance with any expressed tribal consultation preferences within 24 hours or as soon as practicable. SHA and/or FHWA will consult with affected federally recognized Indian Tribes, the Maryland Commission on Indian Affairs and appropriate Maryland Indian groups as appropriate regarding treatment of the remains. SHA and/or MDTA will accommodate tribal cultural preferences to the extent practicable during such an event. If remains can be associated with other known descendant communities or organizations, such parties shall also be consulted.

In consultation with the MD SHPO, Federally Recognized Indian Tribes, and FHWA as appropriate, and other identified descendant/affiliated consulting parties, the SHA shall develop a plan for the treatment or disposition of the remains or follow provisions of an existing Treatment Plan developed per this PA. SHA and/or MDTA shall implement the provisions of the agreed Treatment Plan.

Should the remains be associated with, or constitute an intact archaeological resource, provision **D** below is also applicable.

D. Unanticipated Discovery of Archaeological Resources: If previously unidentified archaeological features, artifacts, or other materials (hereafter, "resource") are discovered during construction, all ground-disturbing work in the vicinity of the resource shall be temporarily suspended or modified to prevent further damage to the resource, and SHA will provide a reasonable buffer where ground disturbance is prohibited to cover the extent of the resource that may not be exposed.

The SHA archaeologist shall perform a preliminary inspection to identify the resource and evaluate its likelihood of NRHP eligibility. Following this inspection, construction may resume in the vicinity of but outside the boundary of the archaeological resource as defined by the SHA archaeologist. If the resource is potentially eligible for the NRHP, SHA will consult with the MD SHPO on an eligibility determination and, if determined eligible for the NRHP, every effort shall be made to minimize impacts through redesign or modification of construction methods. If the resource is of known or suspected Native American affiliation, FHWA, with assistance from SHA shall consult

with federally recognized Indian Tribes as appropriate. If the resource can be reasonably identified with other descendant or affiliated communities, SHA shall also attempt to consult with such parties.

In consultation with the MD SHPO, SHA shall develop a plan for the treatment of any resource determined eligible. SHA shall describe actions proposed to avoid, minimize, or mitigate adverse effects, and request MD SHPO, tribal, and any other consulting party comments within 5 working days, unless there is a life or safety hazard requiring immediate interim action. SHA will disclose any interim action affecting the eligible resource taken in the event of a life or safety hazard. SHA, at its discretion, may establish a longer comment period if practicable in consideration of potential safety, cost, public travel disruption, and other factors.

SHA shall then implement the provisions of the agreed-upon plan and/or amend this PA to document the resolution, should the resource be determined eligible and should the Project adversely affect the resource.

Attachment 2
Links to Documentation Referenced In the I-695 Over the Patapsco River PA

Federal Codes and Regulations

36 C.F.R. Part 14 and 54 U.S.C. § 100902
Rights-of-Way
https://www.ecfr.gov/current/title-36/chapter-I/part-14
https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title54-section100902&num=0&edition=prelim

36 C.F.R. Part 63
Dispute Resolution of Determinations of Eligibility for Inclusion in the NRHP
https://www.ecfr.gov/current/title-36/chapter-I/part-63

36 C.F.R. Part 79
Curation of Federally Owned and Administered Archaeological Collections
https://www.ecfr.gov/current/title-36/chapter-I/part-79

36 C.F.R. Part 800
Implementing Regulations of Section 106 of the National Historic Preservation Act
https://www.ecfr.gov/current/title-36/chapter-VIII/part-800?toc=1

40 C.F.R. 1506.6(a)
Public involvement – National Environmental Policy Act
https://www.ecfr.gov/current/title-40/chapter-V/subchapter-A/part-1506#1506.6

54 U.S.C.

- National Historic Preservation Act
  - § 306108 Effect of Undertaking on Historic Property
    - https://uscode.house.gov/view.xhtml?req=(title:54%20section:306108%20edition:prelim)
  - § 307103 Access to Information (Section 304)
    - https://www.achp.gov/digital-library-section-106-landing/frequently-asked-questions-protecting-sensitive-information

State Codes and Regulations

Maryland Criminal Code § 0-402
Courts and Judicial Proceedings
https://law.justia.com/codes/maryland/2013/article-gcr/section-10-402

Guidelines and Standards

Advisory Council on Historic Preservation

- *Exemption Regarding Historic Preservation Review Process for Effects to the Interstate Highway System* (ACHP Program Comment, 2005)
  https://www.achp.gov/sites/default/files/exemptions/2017-01/final_interstate_exemption_notice.pdf

- *Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects* (ACHP March 2023)
  https://www.achp.gov/sites/default/files/policies/2023-07/PolicyStatementonBurialSitesHumanRemainsandFuneraryObjects30June2023.pdf

- *Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges* (77 FR 68790)
  https://www.federalregister.gov/documents/2012/11/16/2012-27866/program-comment-issued-for-streamlining-section-106-review-for-actions-affecting-post-1945-concrete

- *Section 106 Archaeology Guidance* (ACHP, 2009)
  https://www.achp.gov/sites/default/files/guidance/2017-02/ACHP%20ARCHAEOLOGY%20GUIDANCE.pdf

The Maryland Historical Trust

- Standards and Guidelines for Archaeological Investigations in Maryland (Shaffer and Cole 1994)
  https://mht.maryland.gov/documents/PDF/archeology/Archeology_standards_investigations.pdf

- *Technical Update No. 1 of the Standards and Guidelines for Archaeological Investigations in Maryland: Collections and Conservation Standards* (2018)
  https://mht.maryland.gov/documents/PDF/archeology/Archeology_standards_curation.pdf

- Standards and Guidelines for Architectural and Historical Investigations in Maryland (Maryland Historical Trust, Revised 2019)
  https://mht.maryland.gov/documents/PDF/research/Survey_standards_architecture_web.pdf

- NRHP Bulletin 15 – How to Apply the National Register Criteria for Evaluation (National Park Service revised 1997)
  https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf

- Other NRHP Bulletins

https://www.nps.gov/subjects/nationalregister/publications.htm#:~:text=national%20register%20of%20historic%20places%20bulletins

- The Secretary of the Interior's Guidelines for the Treatment of Cultural Landscapes (1996) https://www.nps.gov/tps/standards/four-treatments/landscape-guidelines/index.htm

- The Secretary of the Interior's Guidelines for the Treatment of Historic Properties (1995, Revised 2017) https://www.nps.gov/tps/standards/treatment-guidelines-2017.pdf

- The Secretary of the Interior's Professional Qualifications Standards https://www.nps.gov/articles/sec-standards-prof-quals.htm **OR** see 48 FR 44738 https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology-historic-preservation.pdf

- The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (1983) https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology-historic-preservation.pdf

- The Secretary of the Interior's Standards for the Treatment of Historic Properties (1995, Revised 2017) https://www.nps.gov/tps/standards/four-treatments.htm OR https://www.ecfr.gov/current/title-36/chapter-I/part-68

Other Referenced Information

- SHA and MDTA Statewide PA: https://www.roads.maryland.gov/OPPEN/2021_PA_Amendment.pdf

Attachment 3
FHWA, SHA and MDTA Staff Contact Information:

For FHWA:

Mr. Alexander Bienko
Environmental Specialist
FHWA - Maryland Division
George H. Fallon Federal Building
31 Hopkins Plaza, Suite 1520
Baltimore, MD 21201
phone (410) 779-7148

For SHA:

Mr. Steve Archer
Assistant Division Chief
Maryland Department of Transportation State Highway Administration
707 N. Calvert Street
Baltimore, MD 21202
phone (410) 545-8508

For MDTA:

Ms. Melissa Williams
Director
Maryland Transportation Authority
Planning & Program Development
2310 Broening Highway
Baltimore, MD 21224
phone (410) 802-9684 (direct)

Attachment 4
Section 106 Consultation Initiation Letter

May 16, 2024

Ms. Elizabeth Hughes
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Ms. Hughes:

Introduction and Project Description

On behalf of the Federal Highway Administration (FHWA) and in accordance with the Programmatic Agreement (PA) Implementing Section 106 of the National Historic Preservation Act for FHWA Undertakings in Maryland (Section 106 PA), this letter serves to inform the Maryland Historical Trust (MHT) of the Maryland Department of Transportation State Highway Administration's (SHA) proposed Project to rebuild the Maryland Transportation Authority's Francis Scott Key Bridge carrying I-695 over the Patapsco River. SHA seeks to establish the Area of Potential Effects (APE) and to provide information about historic properties identification within the APE.

On March 26, 2024, the MDTA Francis Scott Key Bridge (Key Bridge), which carries I-695 over the Patapsco River, was struck by a cargo ship leaving the Port of Baltimore, resulting in the collapse of the bridge. The collapse prompted the immediate closure of I-695 between MD 173 (exit 1) and MD 157/Peninsula Expressway (exit 43) and halted vehicle traffic across the Patapsco River as well as marine shipping to and from the Port of Baltimore. Following the incident, Executive Order 01.01.2024.09 was released by the State of Maryland, declaring a State of Emergency as a result of the Key Bridge collapse. Immediate recovery and debris removal actions were conducted.

MDTA and SHA are now proposing to replace the collapsed Francis Scott Key Bridge in the same location as the original structure. The Project is in portions of Baltimore City, Baltimore County, and Anne Arundel County, Maryland. The project limits extend along I-695 from Quarantine Road in Curtis Bay to Broening Highway in Dundalk and is entirely within MDTA's existing right-of-way (ROW). The remaining portions of the old structure will be removed to clear the on-alignment location of the new structure. This would likely involve fully removing the on-land piers and removing the remaining in-water piers to near or below the river bottom (mud line).

The Project includes construction of a replacement bridge that would restore transportation connectivity; incorporate design upgrades that meet current standards and conditions that have changed since construction of the original bridge in 1977; and accommodate existing and future ship navigation on the Patapsco River and into the Port of Baltimore. As the proposed Project is a replacement of the collapsed bridge, the location of the Project would be the same as the old structure and remain within the existing ROW, following the existing centerline across the Patapsco River and the approaches along I-695. The new bridge would have four travel lanes, maintaining the capacity of the former bridge.

The Project proposes several design changes to be incorporated into the replacement bridge to account for advancements in design standards and changes in existing conditions since the original bridge was constructed. A bridge type will be developed that could support a longer main span and higher air draft clearance; and this will likely involve support towers which could be taller than the old bridge to as much as 500-550 feet above the water. The replacement bridge would have a 230-foot minimum air draft and a clear span of 1,200 feet at full air draft along the main span to provide additional overhead clearance for large vessels traveling under the bridge. Considering a change in air draft and clear span, the Project also proposes an increased length to 1,400 feet along the main span with additional piers, increasing the bridge to 2.4 miles in total length with a 4% profile to match the existing alignment and approaches. The new typical section for the Project would meet the design specifications for lanes and shoulders outlined in the American Association of Highway and Transportation Officials (AASHTO) *A Policy on Design Standards – Interstate System* (May 2016) and would include two 12-foot-wide lanes and 10-foot/4-foot-wide shoulders.

The project includes obtaining federal permits from United States Coast Guard (USCG) US Army Corps of Engineers (USACE). On May 2, 2024, FHWA sent an email to the USCG and the USACE, proposing to assume the role of Lead Federal Agency, in accordance with 36 CFR 800.2(a)(2), to fulfill collective federal agency responsibilities under Section 106. USCG and USACE responded on May 13 and 14, 2024, respectively, concurring with FHWA taking this role.

A location map is included as Attachment 1.

Funding

Federal funds are anticipated for this project.

Area of Potential Effects

In determining the Area of Potential Effects (APE) for this project, SHA considered possible visual, audible, atmospheric and/or physical impacts to historic properties, both archaeological sites and architectural resources, which would diminish the integrity of any characteristics that would qualify a property for the National Register of Historic Places (NRHP). The area along the Patapsco River is characterized as an industrial shipping port. The previous steel arch continuous through truss bridge was visually prominent along the Patapsco River to the north and south of the bridge. While the bridge was also visible farther inland, it was less prominent amidst other dominant commercial and industrial buildings and structures comprising the Baltimore skyline. The proposed new bridge will be taller and likely a different bridge type, but will not substantially alter the viewshed along the Patapsco River and does not have the potential to affect historic properties beyond the Patapsco River shoreline. The APE, therefore, is confined to parcels along the Patapsco River shoreline, west to Fort McHenry and east to Fort Smallwood Park, as well parcels directly adjacent to MDTA ROW along I-695 (Attachment 2a-d). The archaeological survey area is defined as the limits of construction disturbance within MDTA ROW from its intersection with Broening Highway to the north and the Quarantine Road intersection to the south.

Proposed Identification Methods and Results

Architecture: There are eight architectural historic properties in the APE.

Resource Name	MIHP No.	NRHP Status
Fort McHenry National Monument & Historic Shrine	B-8	Listed, October 15, 1966
Baltimore Harbor Tunnel	B-5333	Eligible, 2021
Canton Grain Elevator	B-985	Eligible, 2019
Baltimore Municipal Airport, Harbor Field	B-3603	Eligible, 1992
Baltimore Municipal Airport Air Station	B-2094	Eligible, 1994
Turner's Station African American Survey District	BA-3056	Eligible, 2019
Sparrow's Point Shipyard District	BA-3208	Eligible, 2006
Fort Carroll	BA-451	Eligible, 2006
Fort Smallwood Park	AA-898	Eligible, 2013

Additional MIHP resources are associated with these historic properties as contributing/non-contributing resources. A-897 and A-897A, as well as A-898A through A-898I, are associated with Fort Smallwood Park. Likewise, BA-3208-1 through BA-328-5 are associated with Sparrow's Point Shipyard District.

Center Street, 114 (DOE-BA-0042); Avondale Road, 202 (DOE-BA-0015); Carver Road, 105 (DOE-BA-0040); and Fleming Community Center (DOE-BA-0083) were individually evaluated and determined not eligible for the NRHP in the 1990s, before Turner's Station African American Historic District was determined NRHP eligible. All resources except 114 Center Street are contributing resources in the district.

As outlined above, notable effects would be confined to those properties immediately adjacent to the work and/or within limits of disturbance for construction of the new bridge. SHA has determined there is limited potential for other types of effects, in consideration of the prior modern bridge structure. The new structure will be on the same alignment as the prior bridge, but is anticipated to be of increased height, and will likely be a different bridge type than the prior bridge. The prior bridge was visible in whole or in part from a great number of locations in dense, urban Baltimore City and surrounding areas. The replacement bridge will have slightly increased visibility. However, historic properties effects resulting from these changes would be limited to those properties where the differences between the prior bridge and the replacement bridge would be integral to the character, experience or integrity of the historic property.

Given this narrow potential for effects, SHA proposes architectural inventory and evaluation efforts under 36 CFR 800.4(a) consisting of NHRP evaluation of: 1) parcels immediately adjacent to MDTA ROW and project limits and 2) MIHP resources within the APE. Since all MIHP resources within the APE have an NRHP evaluation, resources requiring evaluation include the following:

Unrecorded Architectural Resources
6001 Dock Road
3901 Fort Armistead Road
3925 Fort Armistead Road
Fort Armistead Park
BG&E parcels (Tax Map 110, Parcels 3, 26, 27, and 58)
Francis Scott Key Bridge Administrative Building

The APE also includes four metal girder bridges along I-695: BCZ496061 (1975); BCZ496051 (1975); BCZ492061 (1972); and BCZ492051 (1979). Metal girder bridges are not eligible for the NRHP under the Advisory Council on Historic Preservation Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges (Federal Register Vol. 77, No. 222) and do not require NRHP evaluation.

Archaeology: There are no recorded archaeological historic properties within the archaeology survey area.

There is minimal potential for terrestrial archaeological historic properties within the archaeological survey area. The terrestrial portion of the archaeological survey area has not been subjected to Phase I archaeological survey. A review of soil data, historic topographic maps, and twentieth-century aerial photographs demonstrates that the entirety of the terrestrial archaeological survey area is located on made land and fill with minimal potential to contain archaeological historic properties (USDA-NRCS 2024; USGS 1894, 1946, 1975; HistoricAerials.com 2024). No further terrestrial archaeological work is recommended.

There is also minimal potential for underwater archaeological historic properties. Several prior underwater archaeological surveys have occurred in the archaeological survey area (Koski-Karell, 1979; U.S. Army Corps of Engineers 1992; Pelletier, Williams, and Randolph 2005). There is one archaeological quad file within the archaeology survey area, CURTIS-QF10, the approximate location of a pier at the mouth of Bear Creek, that was recorded based on historical mapping as part of a Phase IA underwater archaeological project ca. 1990. Subsequent underwater archaeological survey in the vicinity of CURTIS-QF10 by Pelletier, William, and Randolph (2005) did not identify evidence of the pier. Additionally, the presence of a dredged channel under the collapsed truss span of the Francis Scott Key Bridge, where recovery efforts are currently focused, suggests no intact, unrecorded resources are likely to be present or affected by the undertaking. No further underwater archaeological work is recommended.

Review Request

FHWA has requested a PA for this project, the scope of which would be commitments to this identification effort, an effects determination following completion of historic properties identification and evaluation, and a process for managing change under the progressive design build project. We request any comments you may have by May 27, 2024 on the APE, that no further archaeological work is necessary, and the scope of identification efforts. Based on the project schedule, SHA will need to execute the PA by July 8, 2024; pending any comments you may have to provide on the content of this letter, we will work with FHWA to provide a draft PA.

We invite, by copy of this letter, the organizations listed in Attachment 3 to provide comments and participate in the Section 106 process. Pursuant to the requirements of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR §800.2(c)(3) and (5), and §800.3(f) for information regarding the identification and participation of consulting parties, and §800.4, and §800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website,

www.achp.gov, or contact SHA or MHT. If no response is received by May 27, 2024, we will assume that these offices decline to participate. Please call Sarah Groesbeck at 410-545-0038 (or email sgroesbeck@mdot.maryland.gov) or myself with questions regarding this project.

Sincerely,

Digitally signed by Steve Archer
Adobe Acrobat version: 2024.002.20687

Steve Archer
Assistant Division Chief
Environmental Planning Division

Attachments

cc: Mr. Alex Bienko, Environmental Specialist, MD Division, FHWA
Mr. David Clarke, Federal Preservation Officer, FHWA
Ms. Donna Buscemi, Deputy Director, OPPE, SHA
Ms. Sarah Groesbeck, Architectural Historian, OPPE-EPLD, SHA
Ms. Heather Lowe, Planning and Community Relations Manager, MDTA
Mr. Ray Moravec, Director, OPPE, SHA
Ms. Sushmita Sarkar, Environmental Manager, OPPE-EPLD, SHA
Ms. Melissa Williams, Director, Planning & Program Development, MDTA

Project Limits

MDTA Maryland Transportation Authority

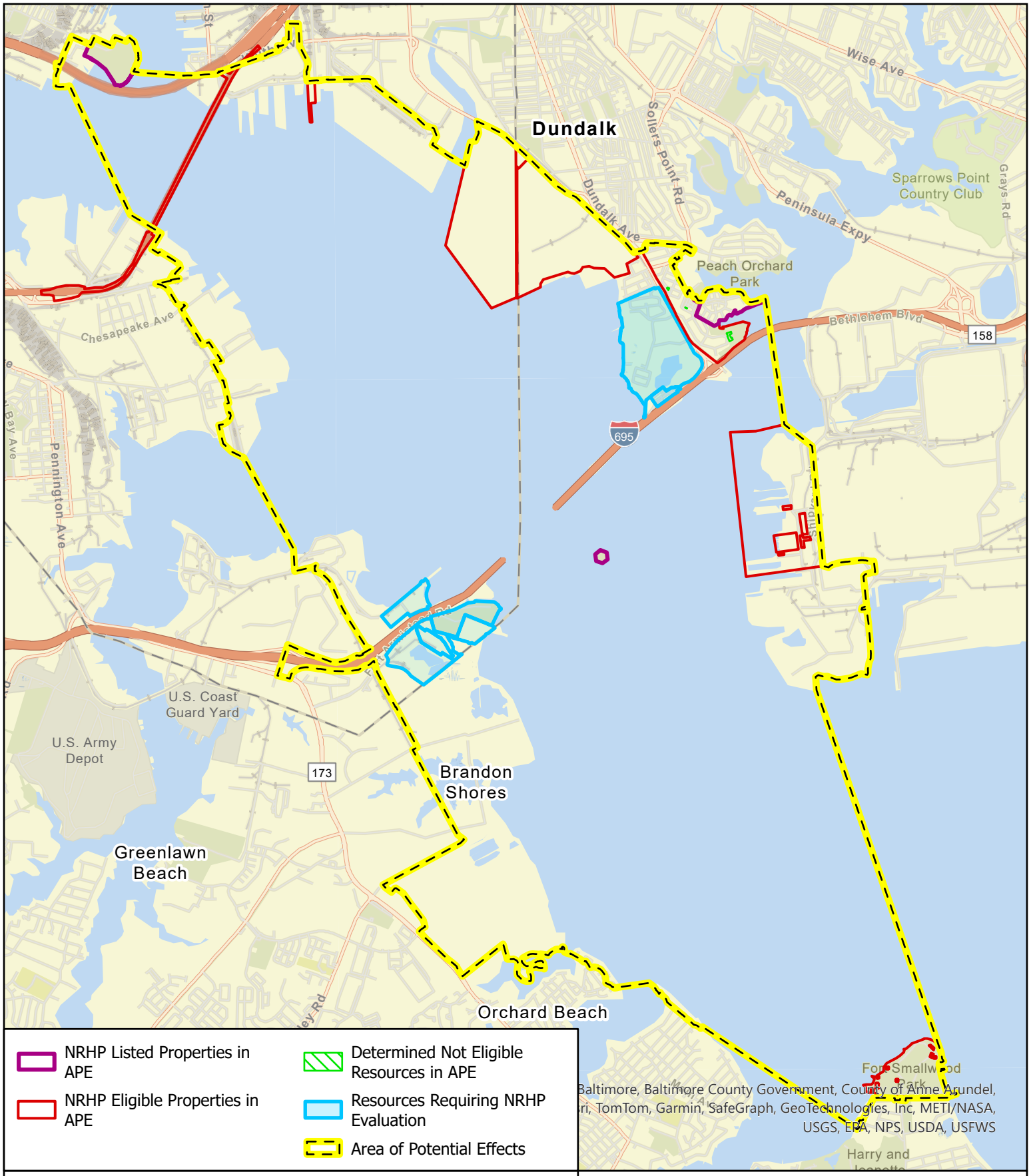
U.S. Department of Transportation Federal Highway Administration

0 1,000 2,000 4,000 Feet

Francis Scott Key Bridge Rebuild Project

Project Location

Attachment 2a: Area of Potential Effects Map



I-695 over Patapsco River
Rebuilding the Francis Scott Key Bridge

Baltimore City, Baltimore County, Anne Arundel County

0 0.5 1 2 Miles

Scale: 1:55,000 May 15, 2024

N

Attachment 2b: Area of Potential Effects Map

I-695 over Patapsco River
Rebuilding the Francis Scott Key Bridge

Baltimore City, Baltimore County, Anne Arundel County

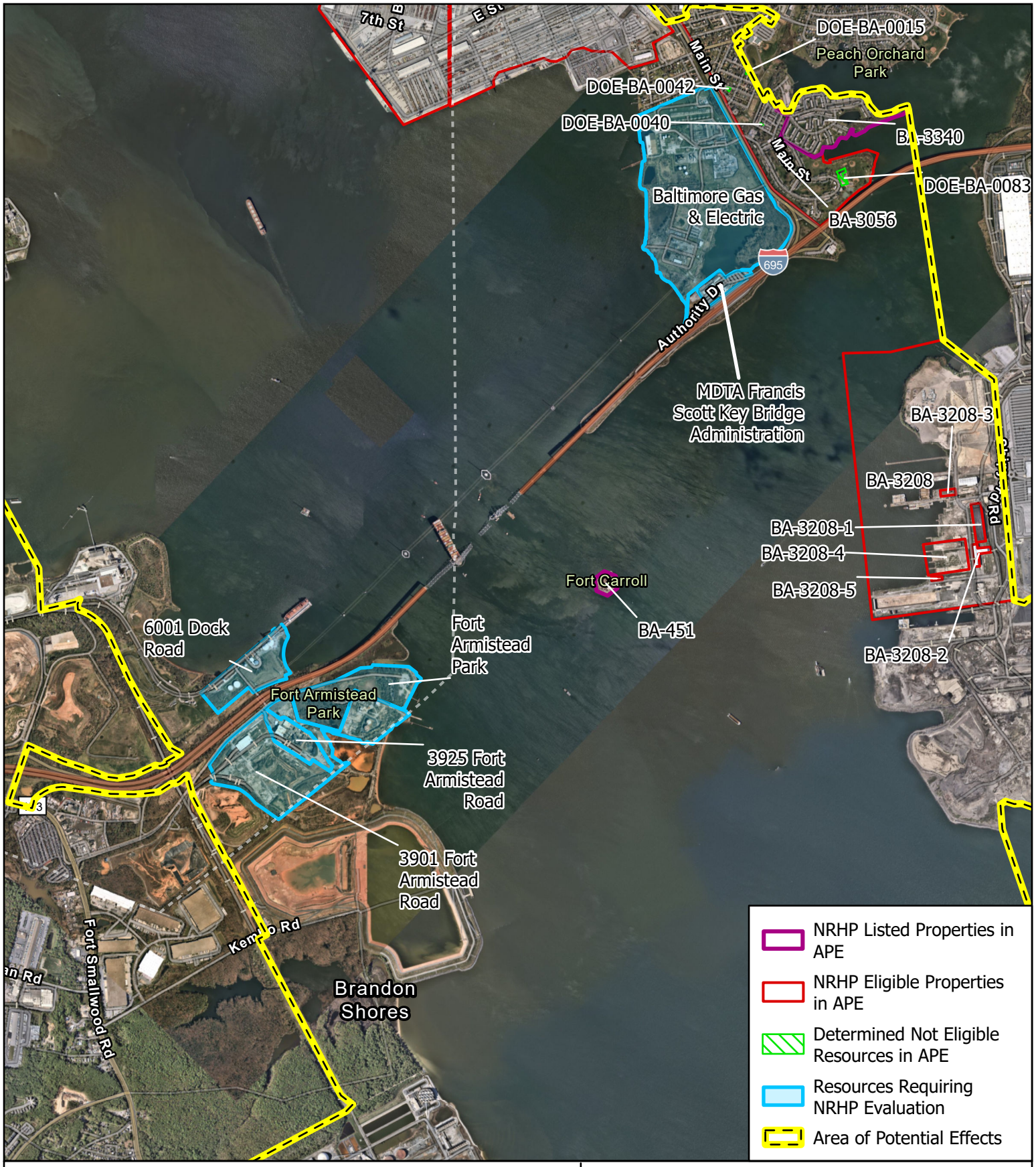
0 0.25 0.5 1 Miles

Scale: 1:30,000 May 15, 2024

N

Imagery Credits: City of Baltimore, Baltimore County Government, County of Anne Arundel, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Attachment 2c: Area of Potential Effects Map



I-695 over Patapsco River
Rebuilding the Francis Scott Key Bridge

Baltimore City, Baltimore County, Anne Arundel County

0 0.25 0.5 1 Miles

Scale: 1:30,000 May 15, 2024

N

Imagery Credits: Baltimore County Government, County of Anne Arundel, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Attachment 2d: Area of Potential Effects Map

I-695 over Patapsco River
Rebuilding the Francis Scott Key Bridge

Baltimore City, Baltimore County, Anne Arundel County

0 0.25 0.5 1 Miles

Scale: 1:30,000 May 15, 2024

N

Imagery Credits: County of Anne Arundel, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Attachment 3

Francis Scott Key Bridge Rebuild

Consulting Parties

Organization	Contact Person	Email
Advisory Council on Historic Preservation	Mandy Ranslow	mranslow@achp.gov
Anne Arundel County Department of Recreation and Parks	Erica Matthews	rpjack50@aacounty.org
Anne Arundel Co. Office of Environmental & Cultural Resources	Darian Beverungen	PZBeve19@aacounty.org
Anne Arundel County Office of Transportation	Samuel Snead	trsnea19@aacounty.org
Anne Arundel County Trust for Preservation	Patricia Melville	actforpreservation@gmail.com
Baltimore City Commission for Historical and Architectural Preservation	Eric Holcomb	eric.holcomb@baltimorecity.gov
Baltimore City Department of Planning	Chris Ryer	Chris.Ryer@baltimorecity.gov
Baltimore City Department of Transportation	Corren Johnson	Corren.Johnson@baltimorecity.gov;
Baltimore Heritage	Johns Hopkins	hopkins@baltimoreheritage.org
Baltimore National Heritage Area	Shauntee Daniels	sdaniels@baltimoreheritagearea.org
Baltimore County Landmarks Preservation Commission	Caitlin Merritt	cmerritt@baltimorecountymd.gov
Baltimore County Traffic Engineering and Transportation Planning	Angelica Daniel	adaniel@baltimorecountymd.gov
Fort McHenry National Monument and Historic Shrine	Robert Stewart	robert_stewart@nps.gov
Friends of Fort McHenry	Melanie Santiago-Mosier	info@friendsoffortmchenry.org
Maryland Commission on Indian Affairs	Keith Colston	keith.colston@maryland.gov
Maryland Port Authority	Amanda Pañafiel	apenafiel@marylandports.com
National Park Service Northeast Region	Mark Eberle	mark_eberle@nps.gov
Preservation Alliance of Baltimore County, Inc.	Anne Gryczon	Director@PreservationABC.org
Preservation Maryland	Nicholas Redding	nredding@presmd.org
Turner Station Conservation Team	Gloria Nelson	glorianelson8@verizon.net
United States Army Corps of Engineers	Joseph DaVia	joseph.davia@usace.army.mil
United States Coast Guard	Hal R. Pitts	hal.r.pitts@uscg.mil

Attachment 3

MD State Recognized Tribes

Cedarville Band of Piscataway	Natalie Standing-on-the-Rock Proctor	piscatawayindians@gmail.com

Federally Recognized Tribes

Absentee-Shawnee Tribe of Oklahoma	Devon Frazier	dfrazier@astribe.com
Delaware Nation	Katelyn Lucas	klucas@delawarenation-nsn.gov
Delaware Tribe of Indians	Susan Bachor	sbachor@delawaretribe.org
Eastern Shawnee	Lora Nuckolls	thpo@estoo.net
Oneida Indian Nation	Jesse Bergevin	jbergevin@oneida-nation.org
Onondaga Nation	Anthony Gonyea	ononcomm@gmail.com
Pamunkey Indian Tribe	Shaleigh Howells	Shaleigh.howells@pamunkey.org
St. Regis Mohawk	Darren Bonaparte	darren.bonaparte@srmt-nsn.gov
Seneca-Cayuga	William Tarrant	wtarrant@sctribe.com
Shawnee Tribe	Tonya Tipton	tonya@shawnee-tribe.com
Tuscarora Nation	Bryan Printup	bprintup@hetf.org

May 16, 2024

Steve Archer
Assistant Division Chief, Environmental Planning Division
Maryland Department of Transportation State Highway Administration
707 N. Calvert Street
Baltimore, MD 21202

Re: MDTA Francis Scott Key Bridge
I-695 over the Patapsco River
Initiation of Section 106 Review
Baltimore City, Anne Arundel County and Baltimore County, Maryland

Dear Mr. Archer,

Thank you contacting the Maryland Historical Trust (MHT), a division of the Maryland Department of Planning, on behalf of the Federal Highway Administration (FHWA) to initiate the Section 106 review process for the above-referenced project. We look forward to working with your agency and other involved parties to successfully complete the preservation requirements for the proposed undertaking.

Based on our review of your letter and the information presented at recent Interagency Review Meetings, we understand that Maryland Department of Transportation State Highway Administration (SHA) proposes to replace the Maryland Transportation Authority's (MDTA) Francis Scott Key Bridge in the same location as the original structure. The project limits extend along I-695 from Quarantine Road in Curtis Bay to Broening Highway in Dundalk and is entirely within MDTA's existing right-of-way (ROW). The remaining portions of the collapsed structure will be removed to clear the on-alignment location of the new structure.

Your letter seeks to initiate the Section 106 process for this undertaking, establish an Area of Potential Effects (APE) for the project, and determine the scope of cultural resources identification efforts. MHT concurs with MDTA/SHA's defined APE for cultural resources, as illustrated in Attachment 2 of your submittal. We recognize that MDTA/SHA may make further refinements to its APE as planning proceeds - based on the addition of ancillary actions or other design modifications.

As you are aware, considerable information already exists regarding identified historic and archaeological resources within this large study area. The table provided with your letter includes most of the known historic properties within the APE, however, we request that you add the National Register-listed Day Village Historic District (MIHP No. BA-3340) to your inventory of existing cultural resources. MHT agrees with MDTA/SHA's historic property investigation methodology for unrecorded architectural resources that consists of the National Register evaluation of parcels immediately adjacent to MDTA ROW and project limits. These resources include: 6001 Dock Road, 3901 Fort Armistead Road, 3925 Fort Armistead Road, Fort Armistead Park, BG&E property (Tax Map 110, Parcels 3, 26, 27, and 58), and the Francis Scott Key Bridge Administrative Building.

Previous studies and current recovery efforts suggest that there is minimal potential for terrestrial and underwater archaeological historic properties within the archaeological study area. Therefore, MHT agrees with MDTA/SHA's recommendation for no further archaeological work at this stage in project planning. Once MDTA/SHA has developed more detailed design and construction plans, it will need to reassess whether further cultural resources investigations are warranted, in consultation with MHT, particularly for any staging areas, anchorages, and other related ancillary actions.

We agree with the list of potential consulting parties for this undertaking, presented in Attachment 3 of your letter. As the Section 106 coordination and public outreach efforts progress, additional relevant parties may be identified and invited to participate in the consultation.

Finally, MHT acknowledges the need to execute a Programmatic Agreement (PA) for this undertaking that will memorialize MDTA/SHA's commitments to 1) complete the identification of historic properties, 2) make an effects determination following the evaluation of historic properties within the APE, and 3) create a process for ongoing consultation and managing changes under this progressive design build project. MHT is committed to working with MDTA/SHA, FHWA, and other involved parties to successfully execute and implement the PA to meet the project's schedule deadlines.

Thank you for initiating consultation with MHT early in project planning for this undertaking. If you have questions or require any assistance, please contact Beth Cole (for archaeology) at beth.cole@maryland.gov or Tim Tamburrino (for the historic built environment) at tim.tamburrino@maryland.gov.

Sincerely,

Elizabeth Hughes
Director/State Historic Preservation Officer

EH/BC/TJT/202402473

From:	Schiszik, Lauren (DOP)
To:	Sarah Groesbeck (Consultant)
Cc:	Ryer, Chris (DOP); Holcomb, Eric (DOP)
Subject:	RE: Section 106 Consultation: Francis Scott Key Bridge Rebuild in Baltimore City, Baltimore County, and Anne Arundel County Maryland
Date:	Thursday, May 16, 2024 10:12:23 AM

Good morning Sarah,

Thank you for inviting CHAP to serve as a consulting party for this Section 106 process. I am accepting this invitation on Eric's behalf while he is out of the office.

Best,
Lauren

Lauren Schiszik (she, her)
Historic Preservation Planner Supervisor and Acting Executive Director, CHAP
City of Baltimore | Department of Planning
417 E. Fayette St., 8th Floor ¦Baltimore, MD 21202
410-396-5796
http://chap.baltimorecity.gov

OUR MISSION: To build Baltimore as a diverse, sustainable and thriving city of neighborhoods and as the economic and cultural driver for the region.
OUR EQUITY STATEMENT: An equitable Baltimore addresses the needs and aspirations of its diverse population and meaningfully engages residents through inclusive and collaborative processes to expand access to power and resources.

From: Sarah Groesbeck (Consultant) <SGroesbeck.consultant@mdot.maryland.gov>
Sent: Thursday, May 16, 2024 9:57 AM
To: Schiszik, Lauren (DOP) <Lauren.Schiszik@baltimorecity.gov>
Subject: FW: Section 106 Consultation: Francis Scott Key Bridge Rebuild in Baltimore City, Baltimore County, and Anne Arundel County Maryland

Hi Lauren,

This originally went to Eric Holcomb but I got his out of office message. I'm forwarding this to you because of the abbreviated comment period.

Thanks,
Sarah

From: Sarah Groesbeck (Consultant)
Sent: Thursday, May 16, 2024 9:44 AM
To: Sarah Groesbeck (Consultant) <SGroesbeck.consultant@mdot.maryland.gov>
Cc: Steve Archer <SArcher@mdot.maryland.gov>
Subject: Section 106 Consultation: Francis Scott Key Bridge Rebuild in Baltimore City, Baltimore County, and Anne Arundel County Maryland

Environmental Planning Division

Good Afternoon,

On behalf of the Federal Highway Administration, the Maryland Department of Transportation State Highway Administration (SHA) is transmitting the attached Section 106 consultation initiation letter for Project No. AB490M83, Francis Scott Key Bridge Rebuild in Baltimore City, Baltimore County, and Anne Arundel County. We request any comments to SHA Cultural Resources by May 27, 2024. No hard copies will follow.

If you have questions or comments, please contact me or Steve Archer.

Thank you,
Sarah

Sarah Groesbeck
Consultant Architectural Historian
Cultural Resources Section
Environmental Planning Division (EPLD)

410.545.0038 **office**
sgroesbeck@mdot.maryland.gov
Maryland State Highway Administration
707 North Calvert Street, Baltimore, MD 21202-3601

ANNE ARUNDEL COUNTY
MARYLAND
Office of Planning and Zoning

2664 Riva Road, P.O. Box 6675
Annapolis, MD 21401
410-222-7450

Jenny B. Dempsey
Planning and Zoning Officer

May 17, 2024

Sarah Groesbeck
Environmental Planning Division
Maryland State Highway Administration
707 N. Calvert Street
Baltimore, MD 21202

Re: **Section 106 Consultation: Francis Scott Key Bridge Rebuild – Project No. AB490M83**

Dear Ms. Groesbeck,

Thank you for providing Anne Arundel County's Cultural Resources Section in the Office of Planning & Zoning the opportunity to comment on the above referenced project as part of the Section 106 consultation process. Based on the information provided, it is our understanding that the Francis Scott Key Bridge is to be replaced by a new bridge in the same original location as the Key Bridge. The only historic resource within the APE that is located in Anne Arundel County is Ft. Smallwood Park (AA-898) and associated contributing and non-contributing buildings within the park. As noted in the information your office provided, Ft. Smallwood Park is eligible for listing in the National Register of Historic Places; and therefore, would need an evaluation of effects.

In addition, our office concurs on the Maryland Historical Trust's recommendation of no adverse effect for archaeological resources at this stage, but that further archaeological review may be warranted as the planning continues.

Our office looks forward to continuing to participate in the consultation process as this project moves forward.

Sincerely,

Darian Beverungen

Ms. Darian Beverungen
Senior Planner, Cultural Resources Section
Office of Planning & Zoning

Attachment 5 –
Natural Resource Agency Coordination

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To: 05/01/2024 16:21:08 UTC
Project Code: 2024-0079302
Project Name: Francis Scott Key Bridge Rebuild

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

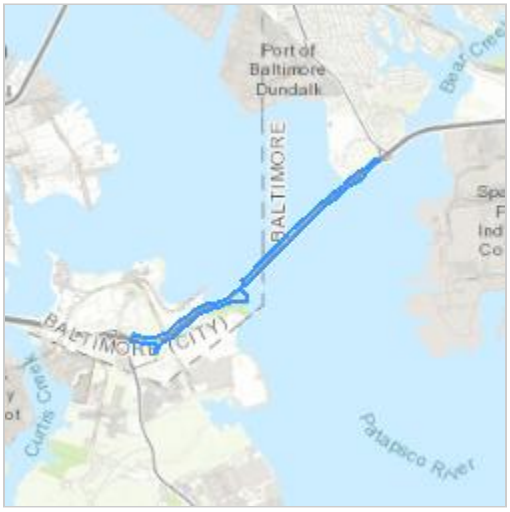
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
(410) 573-4599

PROJECT SUMMARY

Project Code: 2024-0079302
Project Name: Francis Scott Key Bridge Rebuild
Project Type: Bridge - Replacement
Project Description: Reconstruction of the Francis Scott Key Bridge following the collapse. The bridge will be reconstructed on alignment and the approach roadways adjusted as needed to accommodate the new bridge structure.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.2174299,-76.5278891271044,14z



Counties: Anne Arundel , Baltimore , and Baltimore counties, Maryland

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER POND

- PUBHx

FRESHWATER EMERGENT WETLAND

- PEM1Cd
- PEM1C

ESTUARINE AND MARINE DEEPWATER

- E1UBL

ESTUARINE AND MARINE WETLAND

- E2USP

IPAC USER CONTACT INFORMATION

Agency: Maryland State Highway Administration
Name: Justin Reel
Address: 700 East Pratt Street, Suite 500
City: Baltimore
State: MD
Zip: 21202
Email jreel@rkk.com
Phone: 7033384139

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To: 05/09/2024 14:28:59 UTC
Project code: 2024-0079302
Project Name: Francis Scott Key Bridge Rebuild

Federal Nexus: yes
Federal Action Agency (if applicable): Federal Highway Administration

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for 'Francis Scott Key Bridge Rebuild'

Dear Sushmita Sarkar:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on May 09, 2024, for 'Francis Scott Key Bridge Rebuild' (here forward, Project). This project has been assigned Project Code 2024-0079302 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements may not be complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (DKey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis completed by the Service, your project has reached the determination of "May Affect, Not Likely to Adversely Affect" the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your

IPaC-assisted determination was incorrect, this letter verifies that consultation on the Action is complete and no further action is necessary unless either of the following occurs:

- new information reveals effects of the action that may affect the northern long-eared bat in a manner or to an extent not previously considered; or,
- the identified action is subsequently modified in a manner that causes an effect to the northern long-eared bat that was not considered when completing the determination key.

15-Day Review Period

As indicated above, the Service will notify you within 15 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for the northern long-eared bat. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the identified Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that we did not anticipate when developing the key. In such cases, the identified Ecological Services Field Office may request additional information to verify the effects determination reached through the Northern Long-eared Bat DKey.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the species and/or critical habitat listed above. Note that reinitiation of consultation would be necessary if a new species is listed or critical habitat designated that may be affected by the identified action before it is complete.

If you have any questions regarding this letter or need further assistance, please contact the Chesapeake Bay Ecological Services Field Office and reference Project Code 2024-0079302 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

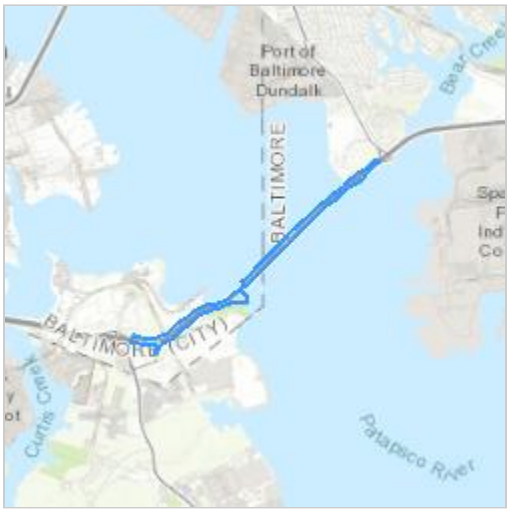
Francis Scott Key Bridge Rebuild

2. Description

The following description was provided for the project 'Francis Scott Key Bridge Rebuild':

> Reconstruction of the Francis Scott Key Bridge following the collapse. The bridge will be reconstructed on alignment and the approach roadways adjusted as needed to accommodate the new bridge structure.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.2174299,-76.5278891271044,14z



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

   Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

   No

3. Does any component of the action involve construction or operation of wind turbines?

   Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   Yes

6. FHWA, FRA, and FTA have completed a range-wide programmatic consultation for transportation- related actions within the range of the Indiana bat and northern long-eared bat.

   Does your proposed action fall within the scope of this programmatic consultation?

   Note:If you have **previously consulted** on your proposed action with the Service under the NLEB 4dRule, answer 'no' to this question and proceed with using this key. If you have **not yet consulted** with the Service on your proposed action and are unsure whether your proposed action falls within the scope of the FHWA, FRA, FTA range-wide programmatic consultation, please select "Yes" and use the FHWA, FRA, FTA Assisted Determination Key in IPaC to determine if the programmatic consultation is applicable to your action. Return to this key and answer ‘no’ to this question if it is not.

   No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

   No

10. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the effects of any activities that would not occur but for the proposed action.

    If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

    Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of Effects of the Action can be found here: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    No

11. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

12. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

    No

13. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?
    (If unsure, answer "Yes.")

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥3 inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    Yes

14. Will the action cause effects to a bridge?

    Yes

15. Has a site-specific bridge assessment following USFWS guidelines been completed?

    Note: For information on conducting a bridge/structure assessment, see Appendix D of the User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat and the associated Bridge/Structure Bat Assessment Form. Additional resources can be found at: https://www.fws.gov/media/bats-and-transportation-structures-references-and-additional-resources and a training video is located at: https://www.youtube.com/watch?v=iuFwkT7q8Ws.

    No

16. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

    Note: Suitable northern long-eared bat roost trees are live trees and/or snags ≥3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

    Yes

PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

19.8

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas

0

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas

19.8

Will all potential northern long-eared bat (NLEB) roost trees (trees ≥3 inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

19.8

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0

Will any snags (standing dead trees) ≥3 inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

Will all project activities by completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Maryland Department of Transportation
Name: Sushmita Sarkar
Address: 707 North Calvert Street
City: Baltimore
State: MD
Zip: 21202
Email ssarkar@mdot.maryland.gov
Phone: 4105450392

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

MARYLAND DEPARTMENT OF NATURAL RESOURCES

Wes Moore, Governor
Aruna Miller, Lt. Governor
Josh Kurtz, Secretary
David Goshorn, Deputy Secretary

Coordination Sheet for MD DNR Environmental Review Related to Project Locations

June 3, 2024

Jeff Gring
Team Manager/Senior Environmental Scientist
Coastal Resources, Inc.
25 Old Solomons Island Road,
Annapolis, MD 21401

Re: Environmental Review Request: Rare, Threatened, and/or Endangered Species - Key Bridge Rebuild Project, Baltimore City, Baltimore County, and Anne Arundel County, Maryland

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The Maryland Department of Natural Resources (MDNR) completed the environmental review request from Coastal Resources, Inc on behalf of the Maryland Transportation Authority (MDTA) for the Francis Scott Key Bridge Rebuild Project in Baltimore City, Baltimore County, and Anne Arundel County Maryland.

To ensure that impacts to natural and living resources on the project site and vicinity are first avoided and then if unavoidable, minimized to the maximum extent possible, the Department requests that the following concerns and recommendations be fully incorporated into the review of the proposed activities:

Waterways
The prominent waterway in the project area is the tidal portion of the Patapsco River (Use Class II) which flows directly into the Chesapeake Bay. Adjacent to the project site, the Patapsco River forms confluences with Bear Creek (Use II) and Curtis Creek (Use II) and tributaries.

Avifauna
Historic Waterfowl Concentration Areas protected under Critical Area Law are present along the shorelines and in the open water of the Patapsco River around the Francis Scott Key Bridge. Generally, to minimize disturbance to wintering and staging waterfowl, no water dependent work should be conducted from November 15 through March 1 of any year. However, this time of year restriction may be waived when time of year restrictions related to other resource concerns are present and if threats to human health and safety exist.

There is potential presence of a multitude of migratory birds in the project area. The Patapsco River harbors various colonial nesting waterbirds including herons, cormorants, and gulls. These species can be seen nesting on the piers and other structures of the bridge.

Submerged Aquatic Vegetation (SAV)

In 2022, 176.8 acres of SAV were mapped in the Patapsco River (VIMS annual aerial SAV survey). This represents 45% of the 389-acre SAV restoration target for the Patapsco River. SAV in the Patapsco has been trending upward in acreage in the past decade, as seen in Fig. 1 below. SAV is located primarily in Old Road Bay and Bear, Swan, Cox, Stony, Nabbs, Rock, Back, Main, Bodkin, and Wharf Creeks and Boyd Pond (Fig. 2). SAV species composition is composed of several freshwater to mesohaline species, including *Zannichellia palustris* (Horned pondweed), *Elodea canadensis* (Common waterweed), *Ceratophylum demersum* (Coontail), *Vallisneria americana* (Wild celery), *Potamogeton perfoliatus* (Redhead grass), *Ruppia maritima* (Widgeongrass), *Potamogeton crispus* (Curly pondweed), *Myriophyllum spicatum* (Eurasian watermilfoil), *and Hydrilla verticillata* (Hydrilla) (https://www.vims.edu/research/units/programs/sav/access/maps/).

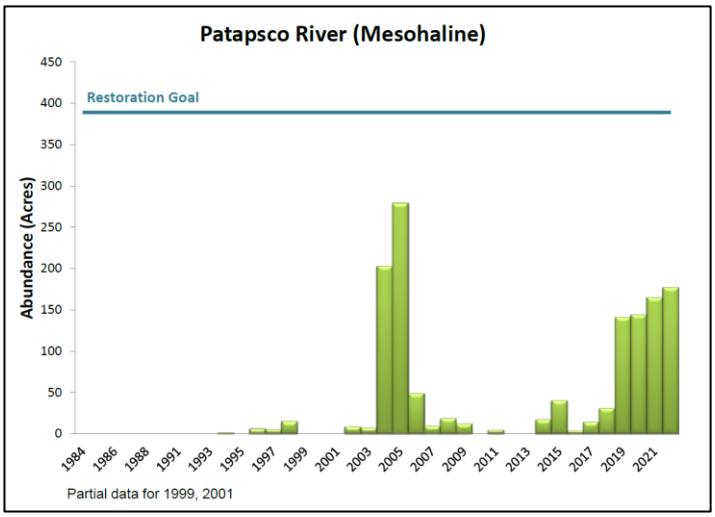

Figure 1. SAV Acres over

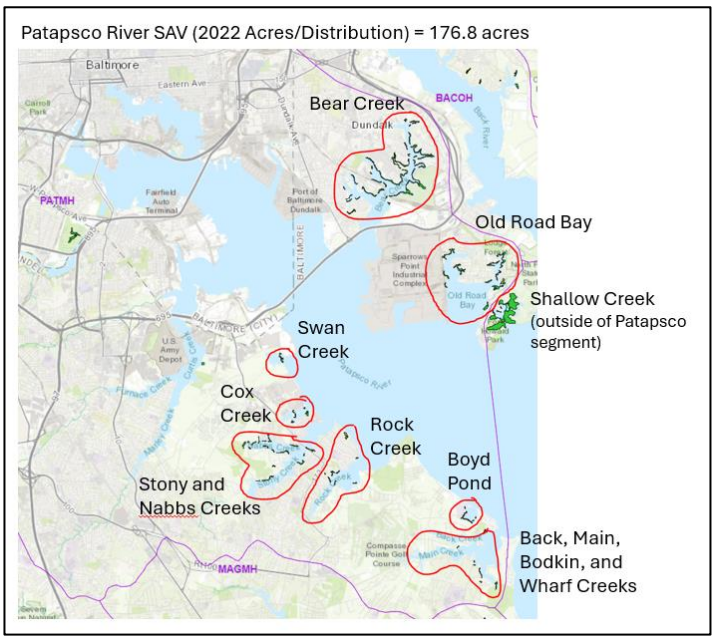

Figure 2. SAV Distribution

Key Bridge demolition, removal, and reconstruction has the potential to resuspend the thick layer of sediment on the bottom of the Patapsco River. This resuspension of sediments will create turbidity that reduces the light and conditions necessary for SAV survival, recruitment, and expansion and will limit our ability to progress toward the segment SAV restoration target of 389 acres.

To avoid impacts to SAV, all reasonable efforts should be made to reduce the resuspension of sediments during reconstruction and block the inevitable turbidity plumes from entering the creeks and bays where SAV is abundant. Time of year restrictions to ensure the majority of construction occurs outside of the SAV growing period from April 15 through October 15 will reduce impacts. Recognizing that this is an emergency situation where impacts to SAV will be inevitable, we recommend pro-actively planning to directly restore SAV (at a 3:1 ratio for acreage) when bridge reconstruction is complete in areas where distribution, density, or diversity is lost. The recommended species for restoration at this location would be *Vallisneria americana* (Wild celery).

Rare, Threated, and Endangered Species
Two Sensitive Species Project Review Areas (SSPRAs) have been documented in the project vicinity. At Fort Carroll there's a nesting colony of the State Rare (S3B) Black-crowned Night Herons (*Nycticorax nycticorax*). Additionally, there are nest records of the American Peregrine Falcon (*Falco peregrinus anatum*), a species with In Need of Conservation status in Maryland, documented on this site. The DNR Wildlife and Heritage Service will provide additional information on these RT&E species under separate cover.

Diadromous Fish
Anadromous fish species, including yellow perch, herring species, and white perch have been documented near this project site. The Patapsco River supports various resident warmwater species typical of the region as well. Where presence of yellow perch has been documented in the vicinity of an instream project area, generally no instream work is permitted in Use I and certain Use II waters during the period of February 15 through June 15, inclusive, during any year.

Important fisheries resources in this area include American Eel presence. American Eels migrate upstream through this region to smaller streams where they grow to adult stages. Some eels may reside within the project study area long term. Their spawning runs then take them back through this area as they migrate downstream as adults to a specific region of the Atlantic Ocean to spawn. Special attention has been given to American Eel management in recent years, due to their ecological and economic importance, and their declining numbers.

The project should be designed to maintain or enhance fish passage through the project area, particularly during low flow periods. Agencies will likely request a zone of safe passage for anadromous fish species be maintained for the project duration to ensure fish may travel to their preferred spawning areas further upstream in the Patapsco River and adjacent tributaries.

Recreational and Commercial Fisheries
DNR anticipates potential impacts to recreational and commercial fisheries and boating. Please coordinate with DNR Recreational and Commercial Fisheries to minimize any potential impacts from the removal and reconstruction of the Francis Scott Key Bridge.

The Patapsco River in recent years has harbored large schools of striped bass. It may be assumed most fishing activity is going to avoid the work area and will by default establish enough of a buffer for the bridge work. Lack of access to the Patapsco River near the project site for recreational fishing of striped bass and other recreationally important fish species could potentially impact the recreational sector**.**

DNR anticipates there could be impacts to the various organizations based on the Patapsco River that either fish from their property or take individuals out fishing. There are reef balls placed around Fort Carroll and it is common for companies to take trips out to fish in these areas. There are three designated license free fishing areas in Baltimore City located at Canton Recreation Pier, Broening Park, and Canton Waterfront Park. Retailers (i.e. Tochterman's) and fishing clubs are also present in this area. It is possible these groups could be impacted by this project.

Recreational crabbers use trotlines and traps around the Francis Scott Key Bridge, particularly on the north side near Sollers Point where there is an oyster bar. There are also concerns regarding the timing of boat passage for crabbers transiting in and out of the harbor.
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Oysters
A designated oyster sanctuary surrounds Fort Carroll. This oyster bar was utilized to provide stability for Fort Carroll when it was first built and is the most upstream bar in the Patapsco River. The viable bottom in this oyster sanctuary is focused on the northwestern side of Fort Carroll facing the bridge. This area contains shell habitat and a minimal amount of natural oyster from spatset that only occurs during extreme droughts when salinity offers the possibility of reproduction. This bar has been planted with hatchery spat for many years by local participants in the Marylanders Grow Oysters Program and others. Additionally, the oysters are sampled by environmental education groups during their field trips.

Additional Comments on BMPs:
The project area may be within or adjacent to mapped wetland areas, impacts from the use of heavy equipment, disposal of excavated material, or other construction activities should be avoided to the extent possible. When there is no reasonable alternative to the adverse effects on wetlands or other aquatic or terrestrial habitat, the applicant shall be required to provide measures to mitigate, replace, or minimize the loss of habitat.

This project is located in the Chesapeake Bay Critical Area and will need to conform to Critical Area laws and policies.

Best Management Practices should be stringently managed and maintained during bridge construction and demolition to prevent runoff and debris from entering surface waters and protect stream resources, given the presence of numerous sensitive species in the watershed.

The fisheries resources in the above area should be adequately protected by the instream work restrictions referenced above, stringent sediment and erosion control methods, and other Best Management Practices typically used for protection of stream resources.

Thank you for the opportunity to review and comment on this project. Please continue to coordinate with MDNR as this project progresses. If you have any questions concerning these comments, please feel free to contact Ms. Gwen Gibson of my staff at gwendolyn.gibson@maryland.gov.

Sincerely,

Tony Redman, Director
Environmental Review Program
Department of Natural Resources
Tawes State Office Building, B-3
Annapolis, MD 21401

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Wes Moore, Governor
Aruna Miller, Lt. Governor
Josh Kurtz, Secretary
David Goshorn, Deputy Secretary

June 3, 2024

Mr. Jeff Gring
Coastal Resources, Inc.
25 Old Solomons Island Road
Annapolis, MD 21401

RE: Environmental Review for Key Bridge Rebuild Project, Maryland Transportation Authority, I-695 over Patapsco River, Baltimore County, Anne Arundel County and Baltimore City, Maryland.

Dear Mr. Gring:

The Wildlife and Heritage Service has the following areas of potential concern for impacts to rare, threatened or endangered species and protected habitats in regard to this project:

The former Key Bridge supported a nesting structure used by a pair of American Peregrine Falcons (*Falco peregrinus anatum*), a species with In Need of Conservation status in Maryland. It is possible that individuals of this species could return to nest on structures here in the future. We generally recommend protecting any active nest sites for the American Peregrine Falcon by limiting work with a ¼-mile buffer around the nest site during the breeding season which is generally considered to be March 1 through June 30 of any given year.

The open waters of the Patapsco River shoreline that are adjacent to or part of the site are known historic waterfowl concentration and staging areas. Waterfowl concentration and staging areas are recognized areas of open water and wetlands adjacent to land that are utilized by significant numbers of ducks, geese, and swans for feeding and resting during the winter months. These areas in close proximity to the shore are vital, as they provide submerged aquatic vegetation (SAV), clams and other invertebrates that serve as primary food sources for many of these birds. A variety of waterfowl species can be found in such areas, building energy reserves for their upcoming migrations. If there is to be any construction of water-dependent facilities please contact Josh Homyack of the Wildlife and Heritage Service at (410) 827-8612 x100 or josh.homyack@maryland.gov for further technical assistance regarding waterfowl.

While it does not appear to fall within the study area as shown on your map, Fort Carroll Island is in close proximity to the proposed site and is known to support a colony of waterbirds of mixed species. Waterbird colonies are a rare resource that should be protected. Conservation of waterbird colonies that are located in the Chesapeake Bay Critical Area is required by state law. Significant mortality of chicks or eggs resulting from disturbance of the colony during the breeding season is a violation of the U.S. Migratory Bird Treaty Act. Disturbance includes actions such as cutting nest trees, cutting nearby trees or nearby construction that causes abandonment of chicks by the adults. Whenever possible, waterbird colony sites should be conserved as part of responsible land stewardship.

To protect waterbird colonies we use the following guidelines:

1. Establish a protection area of ¼ mile radius from the colony's outer boundary, and within that establish a 300’ foot boundary (Zone 1).
2. During the breeding season, all human entry into the colony and Zone 1 should be restricted to only that essential for protection of the colony. Human disturbance of colony sites that results in significant mortality of eggs and/or chicks is considered a prohibited taking under various state and federal regulations.
3. No land use changes, including development or tree removal, should occur in Zone 1.
4. Construction activities, including clearing, grading, building, etc., should not occur within Zone 1.
5. No construction or similar disturbance should occur within the ¼ mile protection area during the breeding season. The breeding season varies for each different waterbird species, but for the species known to nest at Fort Carroll Island, it is cumulatively from February 15 through 15 August of any given year.

The Wildlife and Heritage Service provides assistance to those interested in protecting these resources. The above guidelines are usually suitable for protection in most cases. Specific protection measures depend upon many factors. We look forward to continued coordination with you as this project moves forward.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at lori.byrne@maryland.gov or at (410) 260-8573.

Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2024.0810.ba/aa/bc
Cc: D. Brinker, DNR
J. Homyack, DNR
K. Harvey, DNR
G. Gibson, MES/SHA
L. Sestak, DNR
C. Jones, CAC

Attachment 6 – Agency Coordination Meetings

DATE	PURPOSE	AGENCIES AND/OR STAKEHOLDERS REPRESENTED
April 16, 2024	Agency Coordination Meeting No. 1	FHWA, NOAA Fisheries, NPS, USACE, USCG, USEPA, USFWS, MDE, MDNR, MDP, MDTA, SHA, BMC, Anne Arundel County, City of Baltimore, Baltimore County
April 22, 2024	Agency Permitting Meeting No. 1	FHWA, USACE, USCG, MDTA, SHA
April 29, 2024	Agency Permitting Meeting No. 2	FHWA, USACE, USCG, MDE, MDNR, MDTA, SHA
April 30, 2024	USCG Coordination Meeting	FHWA, USCG, MDTA
May 2, 2024	MDNR Forest Coordination Meeting	MDNR, MDTA
May 6, 2024	Agency Permitting Meeting No. 3	FWHA, USACE, USCG, MDE, MDNR, Critical Area Commission, MDTA, SHA
May 6, 2024	MDE Coordination Meeting No. 1	FHWA, MDE, MDTA
May 8, 2024	Agency Coordination Meeting No. 2	USEPA, FHWA, NOAA Fisheries, NPS, USACE, USCG, USFWS, Critical Area Commission, MDE, MDNR, MDP, MDTA, MHT, MPA, SHA, Anne Arundel County
May 9, 2024	Cultural Resources Coordination Meeting	FWHA, MDTA, SHA
May 9, 2024	NOAA Fisheries Coordination Meeting	FHWA, NOAA Fisheries, MDTA, SHA
May 10, 2024	Critical Area Commission Coordination Meeting	Critical Area Commission, MDTA
May 13, 2024	MDE Coordination Meeting No. 2	FHWA, MDE, MDTA,
May 13, 2024	Agency Permitting Meeting No. 4	FHWA, USACE, USCG, USEPA, MDE, Critical Area Commission, MDTA, SHA
May 14, 2024	MDE SWW/ESC Plan Review Division Meeting	MDE, MDTA
May 20, 2024	MDE Coordination Meeting No. 3	FHWA, MDE, MDTA
May 20, 2024	Agency Permitting Meeting No. 5	FHWA, USACE, USEPA, Critical Area Commission, MDE, MDTA, SHA
May 23, 2024	Critical Area Commission Coordination Meeting	Critical Area Commission, MDE, MDTA
May 28, 2024	MDE Coordination Meeting No. 4	FHWA, MDE, MDTA
May 28, 2024	Agency Permitting Meeting No. 6	FHWA, USACE, USCG, USEPA, Critical Area Commission, MDE, MDTA, SHA
May 30, 2024	NOAA Fisheries Coordination Meeting	FHWA, NOAA Fisheries, MDTA, SHA
June 3, 2024	MDE Coordination Meeting No. 5	FHWA, MDE, MDTA
June 3, 2024	Agency Permitting Meeting No. 7	FHWA, NOAA Fisheries, USACE, USCG, USEPA, MDE, Critical Area Commission, MDTA, SHA
June 4, 2024	Demolition Discussion	FHWA, USACE, MDTA
June 5, 2024	Agency Coordination Meeting No. 3	FHWA, NOAA Fisheries, NPS, USACE, USCG, USEPA, USFWS, Critical Area Commission, MDE, MDNR, MDP, MDTA, MHT, MPA, SHA, Anne Arundel County, Baltimore County, Baltimore Metropolitan Council
June 6, 2024	NOAA Fisheries Coordination Meeting	FHWA, NOAA Fisheries, MDTA, SHA
June 10, 2024	MDE Coordination Meeting No 6	FHWA, MDE, MDTA
June 10, 2024	Agency Permitting Meeting No. 8	FHWA, NOAA Fisheries, USACE, USCG, USEPA, MDE, Critical Area Commission, MDTA, SHA
June 12, 2024	Critical Area Commission Briefing (Full Commission)	Critical Area Commission, MDTA
June 13, 2024	Cultural Resources Coordination Meeting	FWHA, MDTA, SHA
June 18, 2024	USFWS Coordination Meeting	FHWA, USFWS, MDTA
June 20, 2024	MDNR Coordination Meeting	FHWA, MDNR, MDTA
June 20, 2024	NOAA Fisheries Coordination Meeting	FHWA, NOAA Fisheries, MDNR, MDTA, SHA

June 24, 2024	MDE Coordination Meeting No 7	FHWA, MDE, MDTA
June 24, 2024	Agency Permitting Meeting No. 9	FHWA, NOAA Fisheries, USACE, USCG, USEPA, MDE, Critical Area Commission, MDTA, SHA
June 27, 2024	NOAA Fisheries Coordination Meeting	FHWA, NOAA Fisheries, MDNR, MDTA, SHA
July 1, 2024	Agency Permitting Meeting No. 10	FHWA, NOAA Fisheries, NPS, USACE, USCG, USEPA, Critical Area Commission, MDE, MDTA, SHA
July 3, 2024	Agency Coordination Meeting No. 4	FHWA, NOAA Fisheries, NPS, USACE, USCG, USEPA, USFWS, Critical Area Commission, MDE, MDNR, MDP, MDTA, MHT, MPA, SHA, Anne Arundel County, Baltimore Metropolitan Council