

Susquehanna River Rail Bridge Project

Appendix C

Visual and Aesthetic Conditions



March 2017



A. INTRODUCTION AND METHODOLOGY

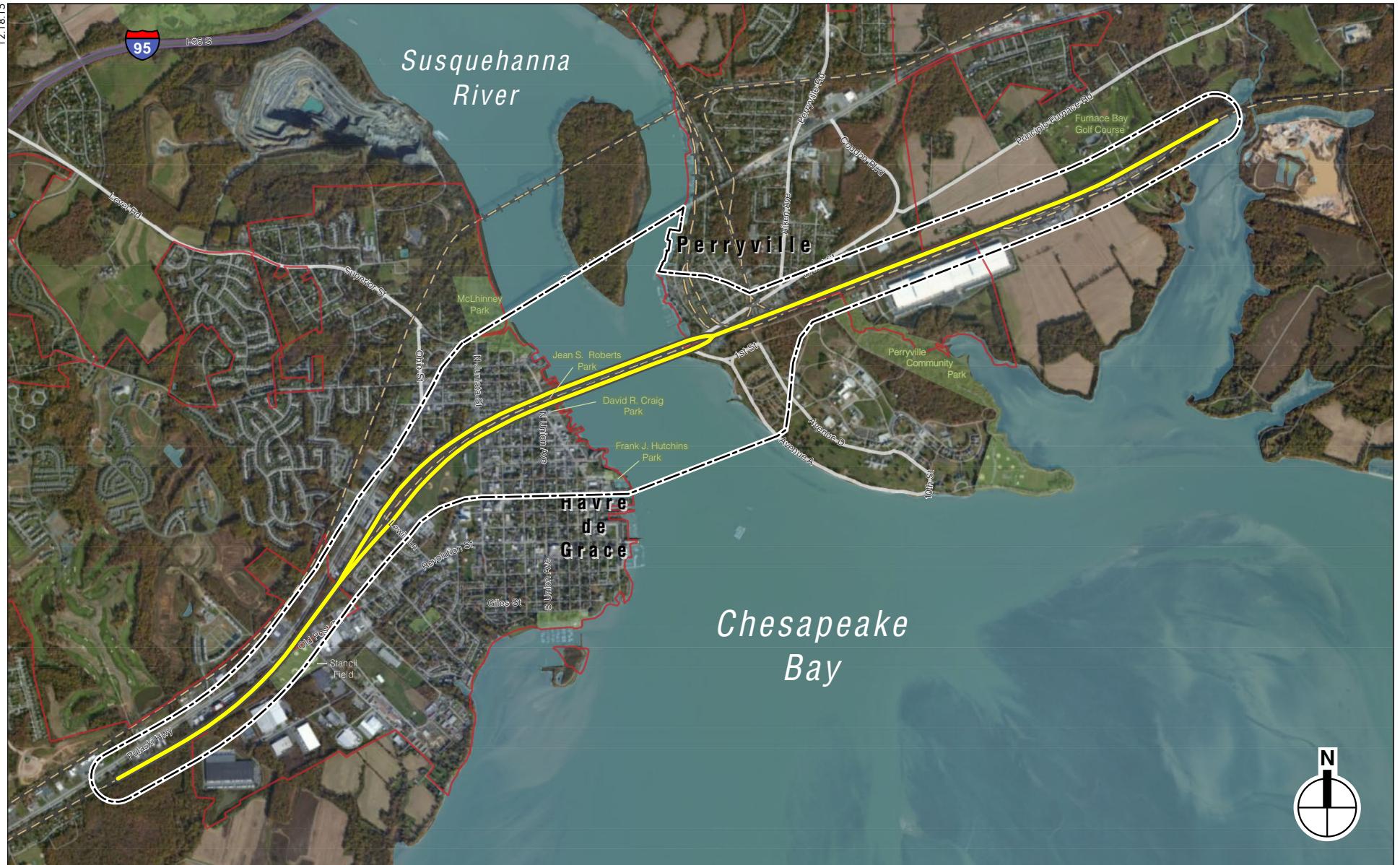
The Maryland Department of Transportation (MDOT), Project Sponsor, prepared this document in order to consider the effects of the Susquehanna River Rail Bridge Project (Proposed Project) on the visual character and aesthetic conditions of the surrounding area. This assessment, which has been prepared in accordance with Federal Highway Administration (FHWA) guidelines for visual analyses, including *Guidelines for the Visual Impact Assessment of Highway Projects Documents* (2013), *Environmental Impact Statement Visual Impact Discussion* (undated), and *Guidance Material on the Preparation of Visual Impact Assessments* (1986), considers the effects of the Proposed Project on locations from which it will be most prominently visible, considering both views to/from visually sensitive resources. Therefore, the study area for visual resources extends approximately 600 feet north and south of the Project site along an approximately six-mile length of the Northeast Corridor (NEC) (see **Figure 1**). In addition, to account for more distant views of the Project site along the Harford and Cecil County waterfronts, the study area extends approximately one-half of a mile north and south near the waterfront, utilizing the Thomas J. Hatem Memorial Bridge carrying the Pulaski Highway (Route 40) over the Susquehanna River as the northern boundary of the study area (see **Figure 2**, Photo Key and **Figure 3**, Photo 1).

The Proposed Project involves the replacement of the existing Susquehanna River Rail Bridge (see **Figure 3**, Photo 2) with two new bridges, one on the existing alignment and one to the west of that alignment. The new bridges will be higher in elevation than the existing bridge, with a maximum increase of 14 feet at the river's navigational channel. Other changes that will result in a visual effect include bringing the NEC in closer proximity to historic structures, construction of retaining walls, and alterations to the nine undergrade bridges historically associated with the existing Susquehanna River Rail Bridge (see **Figure 4**, Photo 3).

To prepare this analysis and determine potential effects, the Project Team of Federal Railroad Administration (FRA), MDOT, Amtrak, and engineering and NEPA consultants, collected information through field visits and identified visually sensitive locations, viewer groups, and duration of views. In addition, FRA/MDOT requested input through public outreach information sessions held on April 28, 2014, August 13, 2014, December 10, 2014, November 10, 2015, and April 14, 2016, and dedicated meetings of Section 106 consulting parties on March 9, 2015 and August 18, 2015. The information received at those meetings as well as any written comments received have been taken into consideration in this aesthetics analysis as well as in the Proposed Project's design process. Comments were received from the two affected municipalities, Perryville and Havre de Grace, the Susquehanna River Rail Bridge Project Advisory Board ("Advisory Board") of the Mayor and City Council of Havre de Grace, and members of the public.

This analysis serves as an appendix to the Proposed Project's *Environmental Assessment* (EA); therefore, all chapter references in this analysis refer to chapters within the EA.

12.18.15



Susquehanna River Rail Bridge Project

Visual and Aesthetic Resources Study Area
Figure 1

12.18.15



Project Site

Municipal Boundary

Visual and Aesthetic Resources Study Area Boundary

Rail Lines

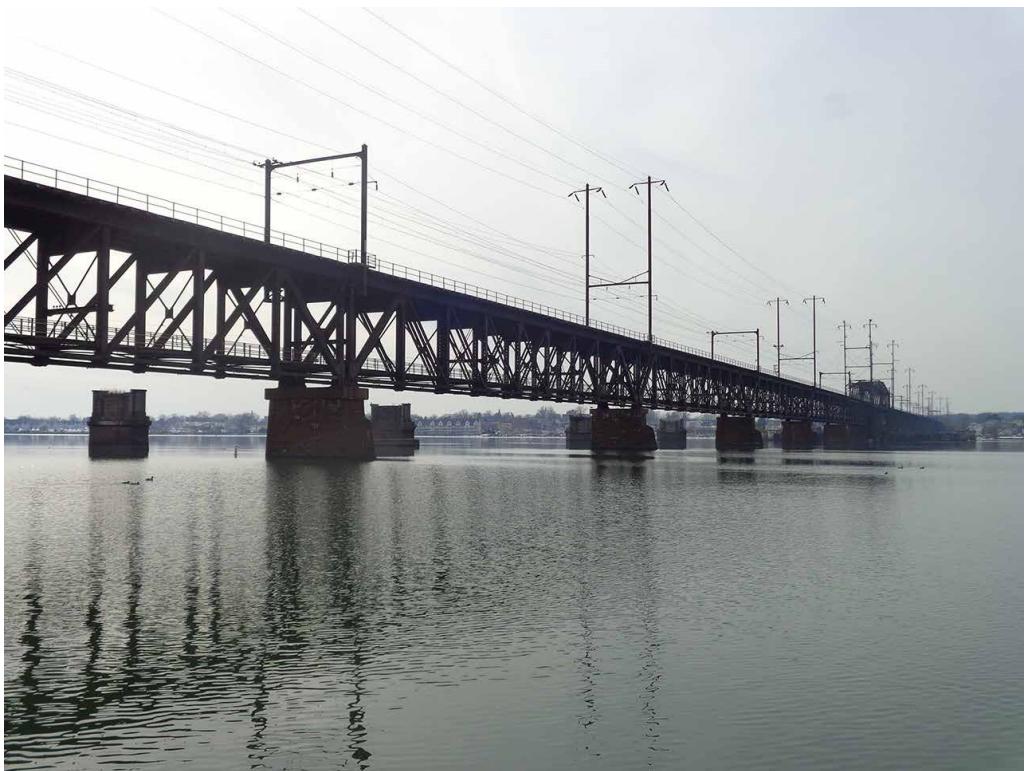
Susquehanna River Rail Bridge Project

①⇒ Photograph View Direction and Reference Number

Visual and Aesthetic Resources Photo Key and Location Map
Figure 2



View looking south from the Millard E. Tydings Memorial Bridge (I-95), north of the study area, towards the Lower 1
Susquehanna Heritage Greenway, including the Susquehanna River, Garrett Island, and (listed in order north-south) the
CSX Susquehanna River Bridge, the Thomas J. Hatem Memorial Bridge, and the Susquehanna River Rail Bridge.



View looking west at the Susquehanna River Rail Bridge from the Perryville waterfront. 2

Visual and Aesthetic Resources
Photographs
Figure 3



View looking north at the Centennial Lane Undergrade Bridge (MP 60.61), one of nine undergrade bridges considered historically significant in relation to the Susquehanna River Rail Bridge. 3



View looking northeast from Warren Street and North Union Avenue within the Havre de Grace Historic District towards the Susquehanna River Rail Bridge. 4

Visual and Aesthetic Resources
Photographs
Figure 4

B. AFFECTED ENVIRONMENT

EXISTING VISUAL CHARACTER

The Project site consists of a portion of Amtrak's NEC, a two-track rail line oriented roughly northeast-southwest¹ across the Susquehanna River. The tracks run at grade and on an embankment in Havre de Grace and Perryville and cross the Susquehanna River on the Susquehanna River Rail Bridge. Prominent visual features in the study area include the Susquehanna River, the Susquehanna River Rail Bridge, the Thomas J. Hatem Memorial Bridge, the mouth of the Chesapeake Bay, and the southern tip of Garrett Island, which is part of the Blackwater National Wildlife Refuge, as well as historic resources within Cecil and Harford Counties.

The study area is characterized by a mix of relatively rural agricultural areas; low-rise, medium-density waterfront areas; some suburban development; and light industrial, hotel, and commercial uses along major transportation corridors. The northern portion of the study area in Cecil County is characterized by large tracts of agricultural land and the Furnace Bay Golf Course, as well as small-to-medium sized industrial operations associated with the railroad. The portion of the study area northwest of the NEC in Perryville is characterized by low-rise, urban development consisting of residential, commercial, institutional, and park uses. Development located directly on the waterfront in this area consists mainly of low-rise condominiums with private marinas on the river. An approximately 40-acre IKEA distribution facility is located in Perryville roughly one mile east of the waterfront and south of the NEC. The Perry Point Veterans Administration (VA) Medical Center, evaluated as eligible for listing on the National Register of Historic Places (NR), is located south of the NEC along the waterfront in Cecil County. The portions of this institutional facility located in the study area consist of large open spaces and primarily two- to two-and-a-half-story residences built around open green spaces and surrounded by medium-sized yards. At the southern end of the complex is the NR-listed Perry Point Mansion House and Mill.

The portion of the study area in Havre de Grace consists mainly of low-rise, medium-density urban development including residential, commercial, institutional, and park uses. Development located directly on the waterfront consists primarily of commercial and light industrial uses, marinas, undeveloped lots, and parks. Portions of Havre de Grace further west include athletic fields, such as Stancil Field Park located at the southwest corner of Old Post Road and Old Bay Lane, and some suburban development. In addition, the portion of the study area adjacent to Pulaski Highway is characterized by a mix of undeveloped wooded lots, and light industrial, hotel, and commercial uses contained in low-rise buildings surrounded by parking lots and agricultural land.

The entire visual resources study area is within the Lower Susquehanna Heritage Greenway (LSHG), which was designated by the Maryland Heritage Areas Authority as a Certified Heritage Area in 1997 through their *Maryland Heritage Preservation and Tourism Areas Development Program*. The LSHG consists of over 45,000 acres in Harford and Cecil Counties, including natural and historic resources that immediately surround the Susquehanna River and

¹ Unlike Chapter 2, which refers to locations in the study area according to "railroad north" and "railroad south," this analysis uses compass north and compass south when referring to direction.

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reach west into Harford County north of Havre de Grace and south to the mouth of the Chesapeake Bay. As identified in the *Lower Susquehanna Heritage Greenway Management Plan* (May 2000), the visual character of the LSHG includes natural resources such as parks and waterfront areas; the Susquehanna River, Chesapeake Bay, and Garrett Island; rail infrastructure and multiple bridges crossing the Susquehanna River; open space; numerous pedestrian, bicycle, and historic trails; and man-made or cultural resources, including historic structures, districts, and archaeological sites.

VISUALLY SENSITIVE RESOURCES WITHIN THE LOWER SUSQUEHANNA HERITAGE GREENWAY (LSHG)

FHWA's *Guidance Material on the Preparation of Visual Impact Assessments* defines visual resources as those physical features that make up the visible landscape, including land, water, vegetation, and man-made elements to which viewers attach visual value. Visually sensitive resources may include historic buildings, open spaces such as parks and landscaped plazas, and views to natural resources such as water features and natural vegetation. As described above, the LSHG includes natural resources and open space, trails, and man-made resources, each of which will be discussed below.

NATURAL RESOURCES / OPEN SPACE

The most important natural resource features in the study area are the water-related resources, including the Susquehanna River, the mouth of the Chesapeake Bay, and the southern tip of Garrett Island, which is part of the Blackwater National Wildlife Refuge. These features are of extremely high value in terms of the area's visual and aesthetic qualities.

In addition, there are several public parks and areas of open space located along the waterfront in the visual study area (see Chapter 6, "Parks, Trails, and Recreational Resources" for a detailed description of parks in the study area). These areas are very important for facilitating views to the river and its natural features. Prominent waterfront parks include: Jean S. Roberts Memorial Park; David R. Craig Park; McLhinney Park; and Frank J. Hutchins Memorial Park. The Jean S. Roberts Memorial Park is an approximately one-acre waterfront park located immediately north of the Susquehanna River Rail Bridge in Havre de Grace. The park supports passive recreational activities, including picnicking and fishing, and has a public boat launch and dock. The David R. Craig Park is a one-acre park located immediately south of the Susquehanna River Rail Bridge on the waterfront in Havre de Grace. The park also supports passive recreation activities including a picnic area and viewing platform. McLhinney Park, located in the northern part of Havre de Grace, is a 48-acre waterfront park that is bisected by the Thomas J. Hatem Memorial Bridge ramps. The park is mostly wooded, but also contains the Susquehanna Museum at the Lock House and supports predominantly passive uses, including picnicking and fishing. The Frank J. Hutchins Memorial Park is located on the Havre de Grace waterfront at the end of Congress Street, which is south of the Susquehanna River Rail Bridge. The two-acre park supports passive uses, including fishing and walking, and contains a boat launch and dock. In addition, on the Perryville side of the river, there is open space that affords views of the river in Lower Ferry Park and Pier at the rear (north) of Rodgers Tavern and along the Perry Point VA Medical Center Historic District to the south of the Susquehanna River Rail Bridge.

Additional parks and areas of open space are located within the study area, but are far enough removed from the river that they do not contain important views to the river and its natural features. These resources include (in Havre de Grace) the Roye-Williams Elementary School,

Susquehanna River Rail Bridge Project

the Havre de Grace Middle/High School Athletic Fields, Battery Village Park, Swan Harbor Farm, and Somerset Manor, and (in Perryville) Trego Field/Perryville Mini-Park and Perryville Community Park.

TRAILS

The LSHG contains some or all of the following trails, which serve to thematically link historic sites and/or open space areas, or provide recreational paths:

- East Coast Greenway, which extends from Calais, ME to Key West, FL, and passes through both Havre de Grace and Perryville.
- Mason Dixon Trail, includes segments through Havre de Grace and Perryville.
- Maryland Civil War Western Shore Baltimore Trail, including Rodgers Tavern.
- Captain John Smith Chesapeake National Historic Trail, consisting of over 3,000 miles along the Chesapeake Bay that were traveled and charted by Captain John Smith in the early seventeenth century.
- Washington-Rochambeau Revolutionary Route, consisting of a 680-mile long series of trails and roads traveled by George Washington and Lieutenant General Rochambeau's Continental Army to battle the British army in Yorktown in 1781.
- Star-Spangled Banner National Historic Trail, consisting of 2,990 miles of land and water routes tracing the British campaign in the Chesapeake Bay region during the War of 1812.
- Old Town Loop, an on-road bike route in downtown Havre de Grace.
- Old Town/New Town Trail, an on-road route in downtown Havre de Grace.
- Havre de Grace Waterfront Walkway, consisting of a blend of trails within parks and sidewalks along Havre de Grace's waterfront.

MAN-MADE ELEMENTS

The LSHG *Management Plan* identifies a few historic resources within the LSHG and also indicates that historic structures inventoried by the Maryland Historic Trust (MHT) contribute to the evolution of the Lower Susquehanna Region. The historic resources in the study area, which are further described in Chapter 8, "Cultural Resources," are the existing Susquehanna River Rail Bridge and nine related undergrade bridges; the Havre de Grace Historic District; the Southern Terminus, Susquehanna and Tidewater Canal – South Lock #1 and Toll House; Rodgers Tavern; the Perry Point Mansion House and Mill; the Perryville Railroad Station complex; the Perry Point Veterans Administration Medical Center Historic District; the Perryville United Methodist Church; and the Perryville Presbyterian Church. In addition to these formally identified historic resources, there is one other man-made feature of visual prominence: the Thomas J. Hatem Memorial Bridge.

Susquehanna River Rail Bridge

As stated in Chapter 1, "Purpose and Need," the existing Susquehanna River Rail Bridge (NR-eligible) is a two-track swing bridge with a movable span that rotates horizontally to open to allow boats to pass. The bridge itself is approximately 4,154 feet long from abutment to abutment and is the longest bridge with a movable span on the NEC. The bridge comprises 18 spans, and the 277-foot-long movable swing span is composed of a riveted-steel through truss. The existing bridge has a top-of-rail elevation of 58 feet above mean high water (MHW), and the

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movable swing span provides a 52-foot vertical clearance above MHW. The top of the swing-span truss is 96 feet above MHW and is the highest point on the bridge structure. The top of the existing transmission lines, which are supported by high steel support towers mounted on the bridge structure, is 179 feet above MHW. The bridge is a major visual feature in the study area, due to its long linear design, as well as to its heavy stone piers and abutments, constructed of locally quarried Port Norris granite. Contributing to the significance of the bridge are nine undergrade bridges, which were built by the Pennsylvania Railroad at the same time as the Susquehanna River Rail Bridge and relate to it in terms of construction materials, engineering, and design.

Havre de Grace Historic District

The Havre de Grace Historic District (NR-listed), through which the NEC extends, contains a cohesive collection of primarily low-rise, masonry and wood-frame residential, commercial, and religious historic buildings dating to the nineteenth and early twentieth centuries, as well as publicly-accessible parks along the waterfront. The NR nomination for the historic district describes two features relevant to the town's aesthetics: the importance of views to/from the water, and the town's layout with alternating streets and alleys.

The historic district includes four of the undergrade bridges described above (the North Freedom Lane Undergrade Bridge at Milepost (MP) 60.51; the North Stokes Street Undergrade Bridge at MP 60.56; the Centennial Lane Undergrade Bridge at MP 60.61; and the North Adams Street Undergrade Bridge at MP 60.69). FRA/MDOT assessed as part of the current study that these four bridges contribute to the Havre de Grace Historic District's transportation history. In addition, the undergrade bridges are important visual features due to their use of locally quarried granite. Two of these bridges, at Freedom Lane and Centennial Lane, are aesthetically important for their arch construction and the small alleys that pass beneath them.

While the district is a visually sensitive resource, views of the Susquehanna River Rail Bridge from the district are limited to areas in close proximity to the waterfront between approximately Green Street to the south and North Park Drive to the north (see **Figures 4-5**, Photos 4-5). The bridge abutments and approach spans are visible from several locations on north-south-oriented streets in the historic district (see **Figures 5-6**, Photos 6-7) and the NEC embankment leading to the bridge is visible from various locations along Warren Street on the south side of the tracks (see **Figure 6-7**, Photos 8-9) and along or near Warren, Otsego, and Water Streets on the north side of the tracks (see **Figure 7-8**, Photos 10-11).

Southern Terminus, Susquehanna and Tidewater Canal – South Lock #1 and Toll House

The Southern Terminus, Susquehanna and Tidewater Canal - South Lock #1 and Toll House (NR-listed) is located approximately one-quarter mile north of the Project site at Erie Street. This site, with a historic structure and canal in a park setting, is an aesthetic resource. In addition, it provides important views of the Susquehanna River, although the Susquehanna River Rail Bridge is only distantly visible from this property (see **Figure 8**, Photo 12).

Rodgers Tavern

Rodgers Tavern (NR-listed) is a historic coursed-stone house with gable-end chimneys located in a waterfront setting in Perryville immediately north of the Project site. This eighteenth century stone building is an aesthetic resource.



View looking southeast from Ontario and North Stokes Streets within the Havre de Grace
Historic District towards the Susquehanna River Rail Bridge.

5



View looking north from Green and North Stokes Streets towards the Susquehanna
River Rail Bridge embankment.

6



View looking north from North Union Avenue and Green Street towards the
Susquehanna River Rail Bridge approach span.

7



View looking east from Warren and North Adams Streets towards the NEC.

8

Visual and Aesthetic Resources
Photographs
Figure 6



View looking north from North Freedom Lane and Warren Street towards the NEC embankment.

9



View looking east from Otsego and North Stokes Streets towards the Susquehanna River Rail Bridge approach span.

10



View looking southwest from North Stokes Street towards the NEC embankment. 11



View looking south from the Southern Terminus, Susquehanna and Tidewater Canal - South Lock #1 and Toll House towards the Susquehanna River Rail Bridge in the distance. 12

Visual and Aesthetic Resources

Photographs

Figure 8

Susquehanna River Rail Bridge Project

The view with the greatest impact on Rodgers Tavern is the view from the front of Rodgers Tavern looking directly south at the NEC's vegetated embankment, catenary wires and supports, and a transmission tower and lines. From the same vantage point, looking southwest towards the bridge, there is a limited view of the bridge abutment; however, the bridge itself is blocked by landscaping. From the rear (north) of Rodgers Tavern, there are two views to the Project site: directly south to the embankment and abutment consisting of an approximately 30-foot-deep deck truss (see **Figure 9**, Photo 13), and a view west towards the bridge and the river.

Perry Point VA Medical Center Historic District

The Perry Point VA Medical Center at Perry Point (NR-eligible) was developed primarily in the 1920s through the 1940s as a neuro-psychiatric treatment facility for military veterans. It is located approximately 400 feet south of the Project site. Although the structures within the historic district are not visually significant, the overall site is important for the open space along the river that provides important views to the river, the Susquehanna River Rail Bridge, and the 1866 bridge abutments (see **Figure 9**, Photo 14). However, further northeast in locations where the tracks pass the Perry Point VA Medical Center Historic District, views between the historic buildings and the NEC are minimized by distance and intervening vegetation.

Perry Point Mansion House and Mill

The Perry Point Mansion House and Mill (NR-listed) is located south of the Perry Point VA Medical Center on the Susquehanna River at the mouth of the Chesapeake Bay, approximately one-half mile south of the Project site. Due to the distance from the Project site and the fact that the two historic structures are situated somewhat inland from the river, there are limited significant views to/from these properties. Although the Susquehanna River Rail Bridge can be seen from the walkway in front of the structure, it is only distantly visible from this property (see **Figure 10**, Photo 15).

Perryville Railroad Station Complex

The two-story, Colonial Revival-style historic Perryville Railroad Station (NR-eligible) has glazed headers, a hipped roof, and a modillioned cornice. In addition, there are two associated resources that together with the station comprise the station complex: the Perry Interlocking Tower (see **Figure 10**, Photo 16) and the Perryville Railroad Station Undergrade Bridge (MP 59.39) (one of the nine undergrade bridges previously described). The station, with its classical architecture, is visually significant; however, the station complex's two ancillary components are secondary to the visual character. They have a more utilitarian design and less dominant aesthetic presence than the station building itself. The stone tunnel is not visible from the station. The interlocking tower is visible from the station and is located approximately 200 feet southwest across the railroad tracks. There is an overall lack of visual connection between the Perryville Railroad Station and the two ancillary structures.

Perryville United Methodist Church

As part of the current Project, MDOT in coordination with the MHT identified the Perryville United Methodist Church, constructed in 1896, as eligible for inclusion on the NR (see Chapter 8). The property is located across Broad Street from the NEC in Perryville. The church is a visually significant feature; however, the rail line can only be partially seen from the church due to the amount of intervening vegetation, and the existing Susquehanna River Rail Bridge cannot be seen at all due to distance (see **Figure 11**, Photo 17).



View looking southwest of the north façade of Rodgers Tavern and the Susquehanna River 13
Rail Bridge abutment and embankment to the north.



View looking northwest towards the Susquehanna River Rail Bridge and Susquehanna River from a walking 14
path that follows the shoreline of the Perry Point VA Medical Center property.

Visual and Aesthetic Resources
Photographs
Figure 9



View looking northwest towards the Susquehanna River Rail Bridge from a waterfront walking path near the Perry Point Mansion House and Mill. **15**



View looking southwest along the NEC at the Perryville Railroad Station (right) and the Perry Interlocking Tower (left). **16**

Visual and Aesthetic Resources
Photographs
Figure 10



View looking southeast towards the NEC from the Perryville United Methodist Church. 17



View looking southeast towards the NEC from the Perryville Presbyterian Church. 18

Visual and Aesthetic Resources
Photographs
Figure 11

Appendix C: Visual and Aesthetic Conditions

Perryville Presbyterian Church

As part of the current Project, MDOT, in coordination with MHT, identified the Perryville Presbyterian Church, constructed in 1892, as eligible for inclusion on the NR (see Chapter 8). The church is a visually significant feature; however, the rail line cannot be seen from the church due to the amount of intervening vegetation, and the existing Susquehanna River Rail Bridge cannot be seen at all due to distance (see **Figure 11**, Photo 18).

Thomas J. Hatem Memorial Bridge

The Thomas J. Hatem Memorial Bridge, the most downstream vehicular bridge that crosses the Susquehanna River, is a four-lane, steel truss bridge that was completed in 1940 and is 7,749 feet long with a vertical clearance of 87 feet. This bridge, one of several crossings over the Susquehanna River, is not a designated historic resource, but is an important visual feature in the study area.

C. VIEWER GROUPS AND VIEW DURATIONS

Viewer groups are groups of people who are visually affected by a project in a similar way. Viewer groups in the area consist of pedestrians/bicyclists, motorists, rail passengers, and boaters. These viewer groups may be divided into two categories: those that have views of visually sensitive resources and those that have views from visually sensitive resources.

PEDESTRIANS AND BICYCLISTS

The majority of the pedestrian and bicyclist traffic in the study area occurs in the streets and waterfront parks in the Havre de Grace Historic District, as well as the waterfront areas near Rodgers Tavern in Perryville, and the Perry Point VA Medical Center and Perry Point Mansion and Mill in Cecil County. Pedestrians and bicyclists generally have longer view durations than motorists and rail passengers as they are not traveling at high speeds.

The four waterfront parks in the Havre de Grace Historic District provide pedestrians and bicyclists with long, clear views of visually contributing elements of the LSHG, including waterfront areas in Perryville and Cecil County, the Susquehanna River and Chesapeake Bay, Garrett Island, the Susquehanna River Rail Bridge, and the Thomas J. Hatem Memorial Bridge.

McLhinney Park

Although McLhinney Park, located in the northern portion of the study area on the Havre de Grace waterfront, is mostly wooded, pedestrians have access to the waterfront area located in the southern portion of the park around the Susquehanna Museum at the Lock House, located approximately one-quarter mile north of the Project site. Looking upstream, pedestrians and bicyclists have expansive views of the Thomas J. Hatem Memorial Bridge, Garrett Island, the Susquehanna River, and the Perryville waterfront. Looking downstream, pedestrians and bicyclists have expansive views of the Susquehanna River and Chesapeake Bay, the Cecil County waterfront, and the Susquehanna River Rail Bridge (see **Figure 8**, Photo 12).

Jean S. Roberts Memorial Park

Jean S. Roberts Memorial Park, located on the waterfront adjacent to the Project site to the north, provides pedestrians and bicyclists with expansive and uninterrupted views of visually contributing elements of the LSHG, including the Susquehanna River, the Susquehanna River Rail Bridge, and the Perryville waterfront (see **Figure 12**, Photo 19). Views upstream from the



View looking east towards the Susquehanna River Rail Bridge from the Jean S. Roberts Memorial Park. 19



View looking northeast towards the Susquehanna River Rail Bridge from the David R. Craig Park. 20

Visual and Aesthetic Resources
Photographs
Figure 12

Susquehanna River Rail Bridge Project

park also include the Thomas J. Hatem Memorial Bridge and Garrett Island. Views downstream from the park towards the Chesapeake Bay and Cecil County waterfront are interrupted by the Susquehanna River Rail Bridge abutment and piers.

David R. Craig Park

David R. Craig Park, located on the waterfront adjacent to the Project site to the south, provides pedestrians and bicyclists with expansive views of elements that contribute to the visual character of the LSHG, including the Susquehanna River, the Susquehanna River Rail Bridge, and the Cecil County waterfront (see **Figure 12**, Photo 20). Views downstream from the park also include uninterrupted views of the Chesapeake Bay and buildings along the waterfront of the Havre de Grace Historic District. Views upstream from the park towards the Thomas J. Hatem Memorial Bridge and Garrett Island are interrupted by the Susquehanna River Rail Bridge abutment and piers.

Frank J. Hutchins Memorial Park

Frank J. Hutchins Memorial Park, located on the waterfront approximately one-quarter mile south of the Project site, affords pedestrians and bicyclists with expansive and uninterrupted views of elements that contribute to the visual character of the LSHG, such as the Susquehanna River and Cecil County waterfront. Views upstream from the park also provide pedestrians with distant views of the Susquehanna River Rail Bridge and the arched trusses of the Thomas J. Hatem Memorial Bridge. Views downstream from the park afford views of the Chesapeake Bay (see **Figure 13**, Photo 21).

Havre de Grace Historic District

Pedestrians and bicyclists traveling the streets of the Havre de Grace Historic District have unobstructed views of the structures within the Historic District and—depending on their location within the Historic District—views of the LSHG river-related resources, the Susquehanna River Rail Bridge, and the NEC embankment.

Rodgers Tavern

On the Perryville side of the river, pedestrians and bicyclists utilize the area near Rodgers Tavern, where accessible walking and seating areas are available. Pedestrians also have access to a pier that extends into the Susquehanna River from the rear of the Rodgers Tavern property. Views from the seating areas and the pier afford expansive views of elements that contribute to the visual character of the LSHG, such as the Susquehanna River, the Susquehanna River Rail Bridge, and the Havre de Grace waterfront and the Havre de Grace Historic District (see **Figure 13**, Photo 22). Looking upstream from the pier, there are views of the Thomas J. Hatem Memorial Bridge, Garrett Island, and the Perryville waterfront.

Perry Point VA Medical Center / Perry Point Mansion and Mill

Pedestrians and bicyclists also utilize the walking path that follows the shoreline of the Perry Point VA Medical Center. Looking west from the walkway, there are expansive views of elements that contribute to the visual character of the LSHG, including the Susquehanna River, the Susquehanna River Rail Bridge, and the Havre de Grace waterfront and Historic District (see **Figure 9**, Photo 14). Views north from the walking path are interrupted by the Susquehanna River Rail Bridge abutment and piers. Similar walking paths along the waterfront near the Perry Point Mansion and Mill also are open to the public. Looking northwest from the property, there are expansive and uninterrupted views of elements that contribute to the visual character of the



View looking northeast towards the Susquehanna River, Susquehanna River Rail Bridge, and Cecil County waterfront from the Frank J. Hutchins Memorial Park.

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View looking west from the rear of the Rodgers Tavern property towards the pier and the Susquehanna River Rail Bridge.

22

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Photographs
Figure 13

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LSHG, such as the Susquehanna River, the Susquehanna River Rail Bridge, the Havre de Grace waterfront, and distant views of the westernmost arched truss of the Thomas J. Hatem Memorial Bridge (see **Figure 10**, Photo 15).

Perryville Railroad Station Complex

Pedestrians and bicyclists on Broad Street have a limited view of the Perryville Railroad Station complex. The station, the primary structure in the complex, is located on a higher elevation, but is almost 300 feet southwest of the Broad Street entrance and is therefore not visible from the street. The Perry Interlocking Tower, located along the rail line southwest of the station, cannot be seen at all from the street. The only portion of the complex that can be seen from the street is the undergrade bridge associated with the station. However, pedestrians and bicyclists on Broad Street have only a brief and distant view of the bridge.

Perryville United Methodist Church, Perryville Presbyterian Church, and Undergrade Bridges

As many of the historic resources within the study area are located directly on local streets, pedestrians and bicyclists traveling in close proximity have views to/from the Perryville United Methodist Church, the Perryville Presbyterian Church, and five of the nine undergrade bridges. Both undergrade bridges near the Perryville Railroad Station (at MP 59.39 and MP 59.52) are somewhat removed from Broad Street and pedestrians and bicyclists have only a limited view of them. Two other undergrade bridges, the Mill Creek Undergrade Bridge (MP 59.00) and Lily Run Undergrade Bridge (MP 60.85), are in remote locations, away from bicyclists and pedestrians traveling along bike paths, sidewalks, and public roads.

MOTORISTS

Motorists travel on multiple roadways that pass through the study area. Major roads in the study area include the Pulaski Highway (Route 40) and Route 7. A dense network of secondary and tertiary roads is located in the Havre de Grace portion of the study area. The network of roads in Perryville is less dense, and roads in the Cecil County portion of the study area south of the Project site are primarily tertiary roads serving the Perry Point VA Medical Center.

Motorists traveling along the Thomas J. Hatem Memorial Bridge have clear views downstream towards elements of the LSHG, including the Perryville and Havre de Grace waterfronts and the Susquehanna River, as well as the Susquehanna River Rail Bridge (see **Figure 14**, Photo 23). However, due to the high speeds at which motorists travel over this bridge, these views are of relatively short duration.

Motorists traveling more slowly along tertiary roads serving the Perry Point VA Medical Center in Cecil County enjoy longer views of the river-related features of the LSHG, including the Susquehanna River, the Susquehanna River Rail Bridge, and the Havre de Grace waterfront and Havre de Grace Historic District (see **Figure 9**, Photo 14). Motorists in the study area north of the Project site in Perryville have views of these river-related features; however, these views are somewhat obstructed by waterfront development, topography, and vegetation, and are only possible from Broad Street west of Front Street (see **Figure 14**, Photo 24) and portions of River Road and Roundhouse Drive south of Smith Lane. For motorists traveling along Broad Street, clear views of the bridge and bridge abutment become available as the motorists travel past Rodgers Tavern, under the abutment, and south towards the Perry Point VA Medical Center in Cecil County (see **Figure 15**, Photo 25). In addition to seeing views of the river-related visual resources, motorists traveling along Broad Street on the north side of the NEC have clear views of several historic sites, including Rodgers Tavern, the Perryville United Methodist Church, and



View looking south towards the Susquehanna River Rail Bridge from the Thomas J. Hatem Memorial Bridge. 23



View looking west from Broad and Front Streets in Perryville towards the Susquehanna River and the Susquehanna River Rail Bridge embankment. 24

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Photographs
Figure 14



View looking southwest along Board Street towards the Susquehanna River 25
Rail Bridge, abutment, and underpass in front of Rodgers Tavern.



View looking southeast towards the Susquehanna River Rail Bridge from Water 26
and Erie Streets in the Havre de Grace Historic District.

Visual and Aesthetic Resources
Photographs
Figure 15

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the Perryville Presbyterian Church, as well as brief and distant views of two of the undergrade bridges (at MP 59.39 and MP 59.52).

Due to intervening topography and waterfront development, motorists in the Havre de Grace Historic District have limited views of river-related visually contributing elements of the LSHG, such as the Susquehanna River and Susquehanna River Rail Bridge. Views of these elements are possible primarily from Water Street north of the Project site and North Union Avenue south of the Project site (see **Figure 15**, Photo 26 and **Figure 4**, Photo 4). Motorists looking east from North Adams and Otsego Streets in the study area north of the Project site have distant, limited views of the Susquehanna River Rail Bridge approach span (see **Figure 16**, Photo 27). Motorists from locations further north and east have longer views of the Susquehanna River Rail Bridge approach span (see **Figure 16**, Photo 28). Similarly, motorists looking north from North Union Avenue north of Green Street in the southern portion of in the study area have longer views of the bridge approach span (see **Figure 6**, Photo 7). In addition, the bridge abutment and four of the undergrade bridges are visible to motorists driving along the tertiary streets in close proximity to the bridge. Motorists driving along the streets within the historic district have clear views of the structures within the historic district; however, the Southern Terminus, Susquehanna and Tidewater Canal – South Lock #1 and Toll House is set back from the street and is not easily seen by motorists.

RAIL PASSENGERS

Amtrak and MARC rail passengers traveling on the NEC through the study area are afforded brief but clear views of some of the elements that contribute to the visual character of the LSHG, including buildings within the Havre de Grace Historic District. As passengers travel on the Susquehanna River Rail Bridge, they have expansive views south towards the Susquehanna River, Chesapeake Bay, and the Havre de Grace and Cecil County waterfronts. To the north, rail passengers have clear views of the Susquehanna River, Garrett Island, the Thomas J. Hatem Memorial Bridge, and waterfront areas in Havre de Grace and Perryville. Rail passengers are afforded a brief view of Rodgers Tavern, but do not have views of the Perry Point VA Medical Center, Perry Point Mansion and Mill, Perryville United Methodist Church, Perryville Presbyterian Church or the Southern Terminus, Susquehanna and Tidewater Canal – South Lock #1 and Toll House.

Because the Perryville Railroad Station is a commuter station, MARC rail passengers have longer views of the station when the train stops to drop off and pick up passengers, as well as a limited side view of the Perry Interlocking Tower. Similarly, MARC rail passengers using the station to board or exit a train are afforded views of all sides of the station, including the south (rear) elevation upon exiting a train and the north (front) elevation when arriving at the station from Broad Street.

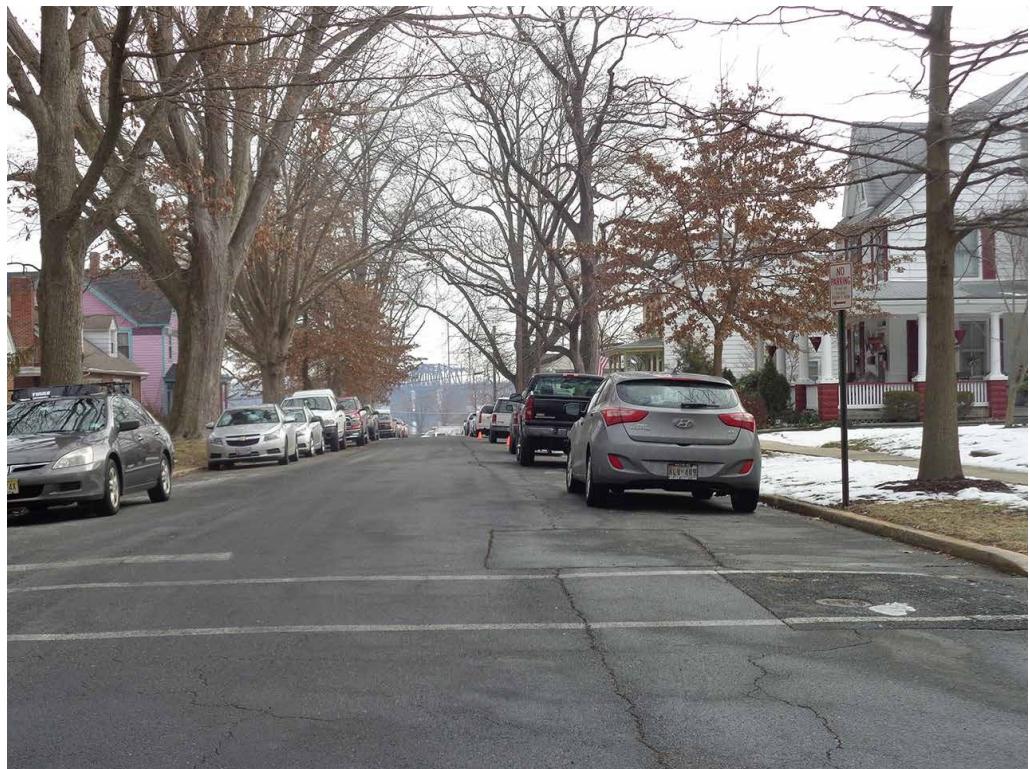
BOATERS

The Susquehanna River is used by commercial boats (see Chapter 3, “Transportation Effects”), as well as by recreational vessels. As described above, there also are several marinas and boat launches in and around the study area. All of these marinas and boat launches are located in waterfront locations and provide long, clear views of the river-related features of the LSHG, including waterfront areas in Perryville and Cecil County, the Susquehanna River and Chesapeake Bay, Southern Terminus, Susquehanna and Tidewater Canal – South Lock #1 and



View looking east from Otsego and North Adams Streets towards the Susquehanna River Rail Bridge approach span.

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View looking east towards the Susquehanna River Rail Bridge approach span from Linden Lane and North Adams Street in the Havre de Grace Historic District.

28

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Photographs
Figure 16

Appendix C: Visual and Aesthetic Conditions

Toll House, Garrett Island, the Susquehanna River Rail Bridge, and the Thomas J. Hatem Memorial Bridge.

Boaters traveling on the Susquehanna River in the study area have long, expansive views of the LSHG, including the river itself, buildings on the waterfront in the Havre de Grace Historic District, and waterfront areas in Perryville and Cecil County. Looking north from the study area, boaters also have views of the Thomas J. Hatem Memorial Bridge and Garrett Island looking north, and of the Chesapeake Bay looking south.

Boaters can see Rodgers Tavern, although views are somewhat obscured by intervening vegetation. Other historic structures located further inland are not available to boaters traveling on the Susquehanna River in the study area.

D. REVIEW OF ALTERNATIVES

NO ACTION ALTERNATIVE

As described in Chapter 2, “Project Alternatives,” under the No Action Alternative, the existing Susquehanna River Rail Bridge will remain in service, with continued maintenance and minimal repairs. The planned development projects discussed in the Chapter 4, “Land Use and Community Facilities,” consist primarily of residential and mixed-use infill projects in Havre de Grace and Perryville. Other projects include a proposed Waterfront Heritage Park in Havre de Grace along Water Street and the Lower Ferry Park in Perryville at Broad Street and Roundhouse Drive. The MARC Northeast Maintenance Facility¹, which is currently in public review, is another project proposed in the study area. The project would entail construction of a new maintenance and storage facility located on a 115-acre site in Perryville adjacent to the NEC.

The residential infill projects in the Havre de Grace Historic District require review and approval from the Havre de Grace Historic Preservation Commission; therefore, it is anticipated that these projects would be in keeping with the overall visual and aesthetic character of the district. It is also anticipated that the creation of the Waterfront Heritage Park in Havre de Grace and the Lower Ferry Park in Perryville would create publicly accessible open spaces from which views of the study area would be afforded. The projects in the No Action Alternative are not anticipated to result in substantial changes to visually sensitive resources.

BUILD ALTERNATIVES

This visual analysis includes the evaluation of two alignment alternatives for the Project: Alternative 9A and Alternative 9B. These two alternatives, which vary only slightly by location and maximum achievable train speed, involve the removal of the Susquehanna River Rail Bridge and the remnant piers from the 1866 bridge, which are located south (downstream) of the existing bridge. In addition, both alternatives entail the construction of two new bridges: a new two-track 90 mph bridge to the north of the existing bridge, and a new high-speed passenger bridge in the center of the right-of-way of the existing bridge alignment. The two alternatives vary along the curve in Havre de Grace where Alternative 9A will require additional property acquisition south of the existing Amtrak-owned right-of-way as compared to Alternative 9B.

¹ <http://mta.maryland.gov/marc-maintenance-facility>, accessed December 31, 2015.

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The Project will have an elevated profile between Perryville Station and Adams Street in Havre de Grace, with the following approximate raises in elevation of the tracks: 1 foot at MP 59.52 in Perryville, 2.5 feet at the north bridge abutment in Perryville, 14 feet at the navigation channel, 6 feet at the south abutment in Havre de Grace, 3 feet at Stokes Street in Havre de Grace, and 2 feet at Adams Street in Havre de Grace.

Four bridge design alternatives were studied in detail (see **Figures 17-18**, Photos 29-32) for the bridge superstructure (the girder approach/arch main span bridge design; delta frame approach/arch main span bridge design; truss approach/truss main span bridge design; and girder approach/truss main span bridge design) and four pier design alternatives (wall; delta frame; arched “keyhole;” and fluted) (see **Figures 18-20**, Photos 32-35).

E. EFFECTS ON VISUALLY SENSITIVE RESOURCES WITHIN THE LSHG

OVERALL VISUAL CHARACTER

The Project’s visual effects on the LSHG were evaluated from two perspectives, the overall “big picture” effects looking at the area as a whole, both in close proximity to the bridge and further removed; and the more site-specific effects relating to a view to/from a visually sensitive resource. As described above, the “overall visual character of the LSHG within the study area is multifaceted and includes rail infrastructure, multiple bridges crossing the Susquehanna River, and open natural areas studded with cultural resources.” Looking along the Susquehanna River from many vantage points in the Project area, one currently sees undisturbed natural features such as Garrett Island, a multitude of long linear bridges crossing the river, and a mix of open space and low-rise construction lining the river edge. As this overall visual character contributes to the historic and natural trails in the area, this assessment of effects on the overall visual character also pertains to how these trails will be affected.

The three main factors considered in assessing the Project’s visual effects on the overall visual character were proximity of the viewer to the bridge, the proposed change from one bridge to two bridges, and the proposed new bridge design, including style, pier design, and height. From locations in close proximity to the bridge, defined as either beneath the bridge or within 600 feet of the bridge, there will be an adverse visual effect on the overall viewshed, especially due to the change from one bridge to two bridges. From locations further north and south of the bridge, the visual effect will be minimized by the fact that the two bridges will be adjacent to each other in an area that visually consists of numerous bridge crossings. Looking from many locations within the LSHG, the two adjacent bridges will be consistent with the area’s current overall visual character.

In terms of bridge design, all of the proposed designs will maintain the existing bridge’s long linear nature with a traditional central feature, either a truss or an arch. This design is consistent with the area’s current overall visual character. In addition, three of the four possible designs (truss approach with truss main span as shown in Photo 32 in **Figure 8-21**; girder approach with truss main span as shown in Photo 33 in **Figure 8-21**; and girder approach with arch main span as shown in Photo 34 in **Figure 8-22**), and three of the four possible piers (arched “keyhole” as shown in Photo 37 in **Figure 8-23**; fluted as shown in Photo 38 in **Figure 8-24**; and wall as shown in Photos 32-33 in **Figure 8-21**) will maintain a traditional design and be visually compatible with the area’s overall visual character. The delta frame approach and piers, however, utilize a modern pier design that is inconsistent with the traditional nature of the



Rendering of a proposed replacement bridge with a Girder Approach and Arch Main Span. 29



Rendering of a proposed replacement bridge with a Delta Frame Approach and Arch Main Span. 30

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Photographs
Figure 17



Rendering of a proposed replacement bridge with a Truss Approach and a Truss Main Span.

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Rendering of a proposed replacement bridge with a Girder Approach and a Truss Main Span and a wall pier design.

32

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Photographs

Figure 18



Rendering of the piers for the Delta Frame approach. 33



Rendering of possible Arched Piers to be used with the Girder Approach. 34

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Photographs

Figure 19



Rendering of possible Flued Piers to be used with the Girder Approach.

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Visual and Aesthetic Resources
Photographs
Figure 20

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existing bridges and will therefore adversely affect the visual character of the area (see Photos 35-36 in **Figures 8-22** and **8-23**). The four bridge designs were shown to consulting parties and the general public at the December 10, 2014 November 10, 2015, and April 14, 2016 public outreach information sessions. The design alternative that received the strongest support was the one with a deck girder and central arch (shown in **Figure 31**, Photo 46), primarily due to the more open look of this design.

An important factor in assessing the “big picture” effects is that both the approach spans, which are the portions of the bridge on either side of the bridge’s central feature, and the bridge piers are more streamlined and attenuated than the existing bridge deck and stone piers; therefore, it is anticipated that views through and under the proposed bridge would be more readily available. In addition, the proposed height of the new bridges, which will be a maximum increase of 14 feet at the river’s navigational channel, will not have an adverse effect on the area’s visual character when looking at the overall area, which contains several other bridges that are higher in elevation.

Comments received from the public, the two municipalities, and the Advisory Board have emphasized the overall importance of aesthetics, including concern for the design of the two new bridges and the ability to open up the vistas beneath the new bridges.

Pedestrians/bicyclists have the longest duration of views and there would be an adverse visual effect on their views from either underneath the bridge or in close proximity to the bridge. From points further removed from the Project, the overall character of the LSHG would not be adversely affected as long as the two new bridges use a design for the bridges and piers that is traditional and allows greater views under the bridges.

The views to visual resources that motorists experience are generally of short duration, due to the relatively high speeds at which they tend to travel through the study area. There would be an adverse visual effect on motorists’ views from either underneath the bridge or in close proximity to the bridge. However, motorists traveling on Route 40 across the Thomas J. Hatem Memorial Bridge currently experience brief but expansive views of the LSHG. When looking south from the bridge, the existing Susquehanna River Rail Bridge is a visible but relatively distant element of the LSHG view corridor. Because the alignment, height, and dimensions of the bridges proposed in either alignment alternative would not differ substantially from the existing Susquehanna River Rail Bridge, views to the LSHG would not substantially change, and the change in design of the new bridge would be minimally perceptible.

Rail passengers traveling on the NEC would not be able to see both of the proposed bridges at the same time; however, views of the LSHG would be altered by the introduction of the additional bridge (when looking north from the proposed southern bridge, or looking south from the proposed northern bridge). This change, of seeing an adjacent bridge in close proximity to the bridge that the rail passenger is passing over, will be a significant change. However, the change would not be adverse because the view would be compatible with the area’s multiple bridges crossing the Susquehanna River. This assessment is conditioned on the two new bridges using a traditional design for the bridges and piers.

Commercial and recreational boaters on the Susquehanna River have long, expansive views of the LSHG. The replacement of the existing Susquehanna River Rail Bridge with the two bridges proposed with Alternative 9A and Alternative 9B would somewhat alter views from the boaters’ perspective. However, because the alignment, height, and dimensions of the bridges proposed in either alternative would not differ substantially from the existing bridge, the Project would not

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block views of the LSHG; expansive views north and south of the Susquehanna River, Chesapeake Bay, and the Havre de Grace and Cecil County waterfronts would still be afforded from the boaters' perspective.

Thus, for all user groups, the effects on the overall visual and aesthetic qualities of the study area depend greatly on the viewer's location, with a visual adverse effect from underneath the bridge or in close proximity to it. The fact that the proposed design for the two new bridges will be traditional in character and will allow greater views under the bridge will serve to minimize the adverse visual effect on resources within close proximity to the bridges and avoid an adverse effect from resources further removed.

SITE-SPECIFIC EFFECTS

The analysis of site-specific effects within the LSHG addresses whether or not the Project would negatively affect specific views to/from visually sensitive resources, evaluated individually below, with the exception of those resources for which there will be only a very minor visual effect—or none at all.

Havre de Grace Historic District

Because the current and two proposed new bridges enter Havre de Grace in the center of the Historic District, there will be adverse visual and aesthetic effects for pedestrians/bicyclists and motorists within the Historic District, especially in close proximity to the bridges including from the Jean S. Roberts Memorial Park and David R. Craig Park, which are immediately adjacent to the Project. As further explained in Chapter 8, there will be an adverse visual effect from the proposed widening that will result in the NEC and the requisite retaining walls being closer to structures within the Historic District. The greatest change would be to the north of the NEC where both Alternative 9A and Alternative 9B will necessitate widening the alignment. To the south of the NEC, Alternative 9A will bring the tracks 30 feet closer to Historic District structures; Alternative 9B will bring them 13 feet closer.

Other visual changes to the Historic District will occur due to the alterations to the Historic District's four undergrade bridges. North Freedom Lane undergrade bridge at MP 60.51 will be expanded on both the east and west sides of the tracks with a precast concrete culvert extension. North Stokes Street undergrade bridge at MP 60.56 will be altered via removal of a portion of the existing stone masonry abutment on the west side of the tracks, and construction of new concrete abutments on both sides of the tracks. Centennial Lane undergrade bridge at MP 60.61 will be altered via construction of a through plate girder bridge on a concrete abutment on the east side of the tracks for Alternative 9A and a precast concrete culvert extension on both sides of the tracks for Alternative 9B. The North Adams Street undergrade bridge at MP 60.69 will be altered via construction of a new concrete abutment on the east side of the tracks and a concrete abutment extension on the west side of the tracks. These actions will adversely affect the aesthetics of the undergrade bridges.

To minimize the visual adverse effects to the Historic District, FRA/MDOT will ensure that any new structures such as the retaining walls are designed in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, and that the two new bridges over the river use a traditional design for the bridges and piers and allow greater views under the bridges. Members of the public and the Advisory Board have expressed concern about the visual effects from changes within the historic district; the Advisory Board has recommended that the bridge abutments, underpasses, and retaining walls have a consistent architectural design and

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appearance. To minimize the adverse effect of the alterations to the four historic undergrade bridges in the Historic District, FRA/MDOT will use in the bridge extensions a form liner that emulates stone and is stained to be compatible with the color of the existing stone.

Rodgers Tavern

The most important visual change affecting Rodgers Tavern would be the views for pedestrians/bicyclists looking from the Tavern towards the Project. As further described in Chapter 8, the views from the front of the tavern would be adversely affected by the widening of the bridge approach and the need to construct a retaining wall to run along the embankment. The Town of Perryville has emphasized the importance of the view from Rodgers Tavern and has recommended that the wall should “be built out of architecturally pleasing materials and be painted with a mural.” To minimize the visual adverse effect of the new retaining wall, FRA/MDOT will provide the retaining wall with an appropriate treatment.

In addition, there would be a clear view of one of the bridge piers that will be placed in close proximity to the Broad Street underpass, and the views from the rear (north) of Rodgers Tavern would be altered by the change from one bridge to two bridges. To minimize the potential adverse effect, a FRA/MDOT will use a traditional design for the new bridges and the bridges’ piers and ensure that the design allows greater views under the bridges.

Perry Point Veterans Administration Medical Center Historic District and the Perry Point Mansion House and Mill

The replacement of the existing Susquehanna River Rail Bridge with two new bridges would somewhat alter the views of pedestrians/bicyclists and motorists from these resources’ waterfront areas. However, from the southernmost areas, especially near the Perry Point Mansion House and Mill, the effects will be minor. At the northern end of the Perry Point VA Medical Center Historic District, there would be a greater visual effect from having two bridges, but as described above for Rodgers Tavern, a visual adverse effect can be minimized by ensuring that the two new bridges over the river use a traditional design for the bridges and piers and allow greater views under the bridges.

Perryville Railroad Station Complex

There are three possible **adverse** visual effects to the Station complex: the proposed retaining walls near the Perryville Station, the alterations to the undergrade bridge that is part of the station complex, and the possible removal or relocation of the Perry Interlocking Tower. The proposed retaining walls and the removal or relocation of the Tower will primarily affect the views of rail passengers, although for those passengers not boarding or de-boarding at Perryville, the view will be short-term.

An adverse visual effect can be avoided for the proposed retaining walls, and the possible removal or relocation of the Perry Interlocking Tower by ensuring that the proposed construction near the Perryville Railroad Station is, to the extent possible, compatible with the historic materials, features, size, scale and proportion of the station complex in accordance with the *Secretary of the Interior’s Standards for the Treatment of Historic Properties*, and that the Perry Interlocking Tower is shifted and not demolished. The Town of Perryville has recommended that the Tower be retained rather than demolished. The alterations to the undergrade bridge will constitute a visual adverse effect, which will be minimized in accordance with the recommendations described below for all of the undergrade bridges.

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Undergrade Bridges

The Project would result in the following alterations to the nine undergrade bridges that carry the NEC over roads or streams (listed in order north to south): Mill Creek undergrade bridge at MP 59 (construction of a precast concrete culvert on the east side of tracks); Perryville Railroad Station undergrade bridge at MP 59.39 (construction of a precast concrete culvert on the east side of tracks); Access Road undergrade bridge at MP 59.52 (replacement with a precast concrete culvert and the existing abutments partially demolished and buried in fill. In addition, the new bridge will extend beyond the limits of the current structure to the east and the west); North Freedom Lane undergrade bridge at MP 60.56 (construction of a precast concrete extension on both the east and west sides of tracks); North Stokes Street undergrade bridge at MP 60.56 (removal of a portion of the existing stone masonry abutment on the west side of the tracks and construction of new concrete abutments on both sides of the tracks); Centennial Lane undergrade bridge at MP 60.61 (construction of a through plate girder bridge on a concrete abutment on the east side of the tracks for Alternative 9A and a precast concrete culvert extension on both sides of the tracks for Alternative 9B); North Adams Street undergrade bridge at MP 60.69 (construction of a new concrete abutment on the east side of the tracks and a concrete abutment extension on the west side); North Juniata Street undergrade bridge at MP 60.77 (construction of a new concrete abutment on the east side of the tracks); and Lily Run (or Lewis Run) undergrade bridge at MP 60.85 (construction of a multi-girder bridge that will span over the undergrade bridge).

The granite used in the construction of these bridges is an important aspect of their aesthetic value. In addition, four of these bridges are aesthetically important for their arch construction. Therefore, the alterations to eight of the nine bridges (all except Lily Run that will be spanned over) will have an adverse visual effect due to the change in the bridges' material and/or design (see Chapter 8).

To minimize the visual adverse effects to the eight undergrade bridges, FRA/MDOT will ensure that the bridge extensions use a form liner that emulates stone and is stained to be compatible with the color of the existing stone. In addition, any new physical structures such as the retaining walls will be designed in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* for compatibility with the existing stone bridges.

SUMMARY

The entire visual resources study area is within the Lower Susquehanna Heritage Greenway (LSHG), which includes natural resources such as parks and waterfront areas; the Susquehanna River, Chesapeake Bay, and Garrett Island; rail infrastructure and multiple bridges crossing the Susquehanna River; open space; numerous pedestrian, bicycle, and historic trails; and man-made or cultural resources, including historic structures, districts, and archaeological sites. The LSHG's water-related resources, associated with the Susquehanna River and the Chesapeake Bay, are of extremely high value in terms of the area's visual and aesthetic qualities.

For all user groups, the effects on the overall visual and aesthetic qualities of the study area depend greatly on the viewer's location, with a visual adverse effect from locations in close proximity to the bridge, defined as either beneath the bridge or within 600 feet of it. The fact that the proposed design for the two new bridges will be traditional in character and will allow greater views under the bridge will serve to minimize the adverse visual effect on resources within close proximity to the bridges and avoid an adverse effect from resources further removed.

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In terms of site-specific effects within the LSHG:

- The most significant views are those of the Susquehanna River for pedestrians, bicyclists, and motorists in waterfront open space areas (i.e., McLhinney Park and Frank J. Hutchins Memorial Park in the Havre de Grace Historic District, viewing areas behind Rodgers Tavern, and waterfront areas along the Perry Point VA Medical Center Historic District). These views will be altered by the change from one bridge to two bridges. Similar to the analysis on the visual effects on the overall character, the effects depend greatly on the viewer's location, with a visual adverse effect from locations in close proximity to the bridge, defined as either beneath the bridge or within 600 feet of it. The fact that the proposed design for the two new bridges will be traditional in character and will allow greater views under the bridge will serve to minimize the adverse visual effect on resources within close proximity to the bridges and avoid an adverse effect from resources further removed.
- Havre de Grace Historic District. There will be adverse visual effects from the proposed widening that will result in the NEC and the requisite retaining walls being closer to structures within the Historic District; the altered views of the Susquehanna River from resources in close proximity to the bridges, including Jean S. Roberts Memorial Park and David R. Craig Park; and alterations to the Historic District's four undergrade bridges. To minimize the visual adverse effects to the Historic District, any new physical structures such as the retaining walls will be designed in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, and the two new bridges over the river will use a traditional design for the bridges and piers and allow greater views under the bridges. In addition, to minimize the visual adverse effects due to the alterations to the four historic undergrade bridges in the Historic District, any bridge extensions will be designed using a form liner that emulates stone and is stained to be compatible with the color of the existing stone.
- Rodgers Tavern. The views from the front of the tavern will be adversely affected by the widening of the bridge approach and the need to construct a retaining wall to run along the embankment. In addition, there would be a clear view of one of the bridge piers that will be placed in close proximity to the Broad Street underpass. To minimize the visual adverse effect, the retaining wall will receive an appropriate treatment, as described above. In addition, there will be a clear view of one of the bridge piers that will be placed in close proximity to the Broad Street underpass, and the views from the rear (north) of Rodgers Tavern would be altered by the change from one bridge to two bridges. To minimize the potential adverse effect, a FRA/MDOT will use a traditional design for the new bridges and the bridges' piers and ensure that the design allows greater views under the bridges.
- Views of the Perryville Railroad Station Complex for rail passengers will be altered by the proposed retaining walls and the removal or relocation of the Perry Interlocking Tower. An adverse visual effect will be avoided by ensuring that the proposed construction near the Perryville Railroad Station is, to the extent possible, compatible with the historic materials, features, size, scale and proportion of the station complex in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, and the Tower is shifted rather than demolished. The alterations to the undergrade bridge will constitute a visual adverse effect, which will be minimized in accordance with the recommendations described below for all of the undergrade bridges.

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- Undergrade Bridges. The Project will result in visual adverse effects to eight of the nine undergraduate bridges (excluding the Lily Run undergraduate bridge at MP 60.85 that will not be altered). To minimize the visual adverse effect, any bridge extensions will be designed using a form liner that emulates stone and is stained to be compatible with the color of the existing stone. In addition, any new physical structures such as the retaining walls will be designed in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* for compatibility with the existing stone bridges.