Lower Susquehanna
Heritage Greenway, Inc.
4948 Conowingo Road
Darlington, Maryland 21034
410-457-2482
lshginfo@comcast.net
www.hitourtrails.com

July 18, 2016

Mr. Michael M. Johnsen, Acting Division Chief
Environmental & Corridor Planning, Office of Railroad Policy and Development
Federal Rail Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: Consulting Party Comments: Susquehanna Rail Bridge
Effects Assessment for Historic Architectural Resources

Dear Mr. Johnsen:

We are grateful for the opportunity to review and provide comments for the Susquehanna Rail Bridge project. We believe this to be the most significant capital project to impact our community, heritage area and byway for the past 110 years. Further, it is our position that this project will significantly impact the communities of Havre de Grace, Perryville and surrounding areas for the next 100+ years or so; therefore, we all need to get it right.

The Lower Susquehanna Heritage Greenway Inc. (LSHG) is a non-profit organization who administers a state certified heritage area and state scenic byway. The above project is within the boundaries of both, therefore the following comments reflect our opinion as to consistency or not with both the heritage area and byway plans. The activities of the LSHG and all other state certified heritage areas is supervised by the Maryland Heritage Areas Authority (MHAA), an independent unit of state government that oversees the implementation of local management plans within a system of certified heritage areas. Heritage area certification requires the legislative adoption and maintenance of the area management plan and its incorporation into local master plans.

In accordance with the Maryland Heritage Areas' statute (Financial Institutions Article, Title 13, Subtitle 11, Annotated Code of Maryland), state government agencies are required to cooperate and coordinate within certified heritage areas to assure compatibility of their actions with the management plan for the

heritage area. I have enclosed the program guidance for state units (Attachment 1), and hereby request a compatibility review and consultation on the following topics:

1. Architectural design of the bridge; Over-pass rail bridges and retaining wall design;
2. Impact mitigation on the Havre de Grace historic district/ Perryville historic resources; specifically, the Abraham Jarrett Thomas House (HA-790) which was left out of the study;
3. The proposed road network and gateway into two national trail systems, a proposed national scenic byway through the historic towns of Havre de Grace and Perryville;
4. Elimination of the 1866 bridge piers; and
5. Reestablishment of a bicycle / pedestrian river crossing that existed from 1866-1943 between Perryville and Havre de Grace on the abandon piers.

General Comments:

We have reviewed and support the comments provided by the City of Havre de Grace and the Town of Perryville specifically with regard to their request for participation in the architectural design related to the materials used for the bridge piers, overpass and retaining walls. We join them in expressing our desire to collaborate and ultimately achieve compatibility with minimal negative community impact.

The loss of the stone undergrade bridges will have a major impact on the "character" that the railroad imparts to the community. Their unique character, which is an iconic American feature, is part of the "draw" for railroad enthusiasts. Additional renderings of what will replace these undergrade bridges should be provided. It is unclear if you propose to emulate the existing stone in pattern and color.

Based on the proposed bridge height, this report states that the Martha Lewis will no longer be able to travel north to Port Deposit and Susquehanna State Park. Is bridge clearance the only limitation now and in the future? How does this movement restriction impact the use and operation of our "floating museum". What comments have you received from the Martha Lewis? What mitigation efforts will you offer the vessel?

Additional renderings of proposed changes should be included in the report so there is some record of what is expected to occur. The consulting parties will likely offer additional comments once visual representations are provided.

Page by page comments:

Page/Section	Summary / Comment or Request
1-5; paragraph 3	**Information used to prepare this report will also be used in the development of an Environmental Assessment (EA).**

The LSHG wishes to review baseline information and have the opportunity to consult and comment on the EA.

1-6, paragraph 1	**Project team considered input provided through public outreach efforts, coordination with local officials, Section 106 consulting party meetings, interagency review meetings, and other stakeholder meetings.**

Outreach, information and input should also be sought from state and federal elected officials given the size, scope and financial support needed for this project.

Page 1-8, paragraph 4	**Approach Structures: This will require extending the culvert at Lilly/ Lewis Run crossing.**

Lilly run is the source of city-wide flooding problems during certain weather conditions. The City of Havre de Grace commissioned the Lilly Run Improvement Plan (May 9, 2007) and filed a Join Permit Application to MDE in March of 2010. It appears that the culvert referenced in the project may have an impact on the plan as it is near the Oak interlocking MP63.5. Additionally, The Harford County Board of Education has selected the adjacent parcel for the construction of a new Havre de Grace High School. Remediation efforts for Lilly Run are part of the over-all high school construction plans. Design is complete and construction is pending the availability local funding to match State of Maryland funds. See the diagram on the next page. Consultation with the City of Havre de Grace and Board of Education capital planning division is necessary. I'm happy to direct you to the appropriate personnel.

EXHIBIT 2: *Revised 2013 concept for Lilly Run Improvement Program Flood Control area*

Page 2-1, paragraph 3 **MHT approved the list of consulting parties**

After review of this document, we recommend that the following organizations be permitted to provide technical input: Havre de Grace Historic District Commission, Havre de Grace Main Street Inc., Harford and Cecil County Archeological Society, Captain John Smith National Historic Trail office, and the Chesapeake Conservancy.

Page 2-1, paragraph 6 **Project should have a strong historic transportation theme.**

We strongly agree and recommend interpretation of American Indian trails; the Kings highway; ferry boat routes, canal routes, rail and vehicle crossings that all occurred within the project area. The King's highway was a roughly 1,300-mile (2,100 km) road laid out from 1650 to 1735 in the American colonies. It was built on the order of Charles II of England who directed his colonial governors to link Charleston, South Carolina and Boston, Massachusetts. Today in this area, it follows portions of MD Rt. 7 (Old Post Road) and crosses the Susquehanna at Susquehanna Lower Ferry (modern day Havre de Grace at the American Legion and Perryville Rodgers Tavern).

Page 2-2, last paragraph **Phase IA Archeological Assessment has been completed.**

The LSHG requests the opportunity to review and provide comments on this document as it has not been made available to the consulting parties. Given the sensitivity of this information, we request the opportunity to consult with the Maryland Commission of Indian Affairs.

Page 3-1, paragraph 2 **Initial European Contact (1600-1650)**

It is well documented, and archeological evidence shows, that the project area had human presence during the Paleo-Indian periods (13,000-7,500 B.C.) with habitation during the late Archaic and Early Woodland Periods. Specifically, Garrett Island is a documented American Indian settlement. It is a serious over-site to begin a description of the area's history in European context, thus excluding thousands of years of human activity. The minor references that have been made are not area, but region specific. It is our recommendation that further investigation be conducted in this area and at such time we request the opportunity to consult with appropriate parties and review any additional information as it relates to this project.

Page 3-3, paragraph 2 **John Rogers Ferry**

The Harford County site of the ferry (opposite Rodgers Tavern in Perryville) is at the present day American Legion.

Page 3-3, paragraph 4 **Garrett Island trading post – additional important information**

Garrett Island is the only rock island in the tidal waters of the Chesapeake and in 1622 was awarded to Edward Palmer as part of a land grant by King James I of England. In 1637, it was established by William Claiborne as a trading post and the 1643 Proprietary Government of Maryland (now the Maryland General Assembly) ordered its fortification and on it built Fort Conquest. Garrett Island was the first settlement in Cecil County and once home to John C. Paca, grandson of William B. Paca signer of the Declaration of Independence and Governor of Maryland. We request this additional significant information be included in this report.

Page 3-4 paragraphs 1-2 **Agricultural – Industrial Transition Period (1815-1870)**

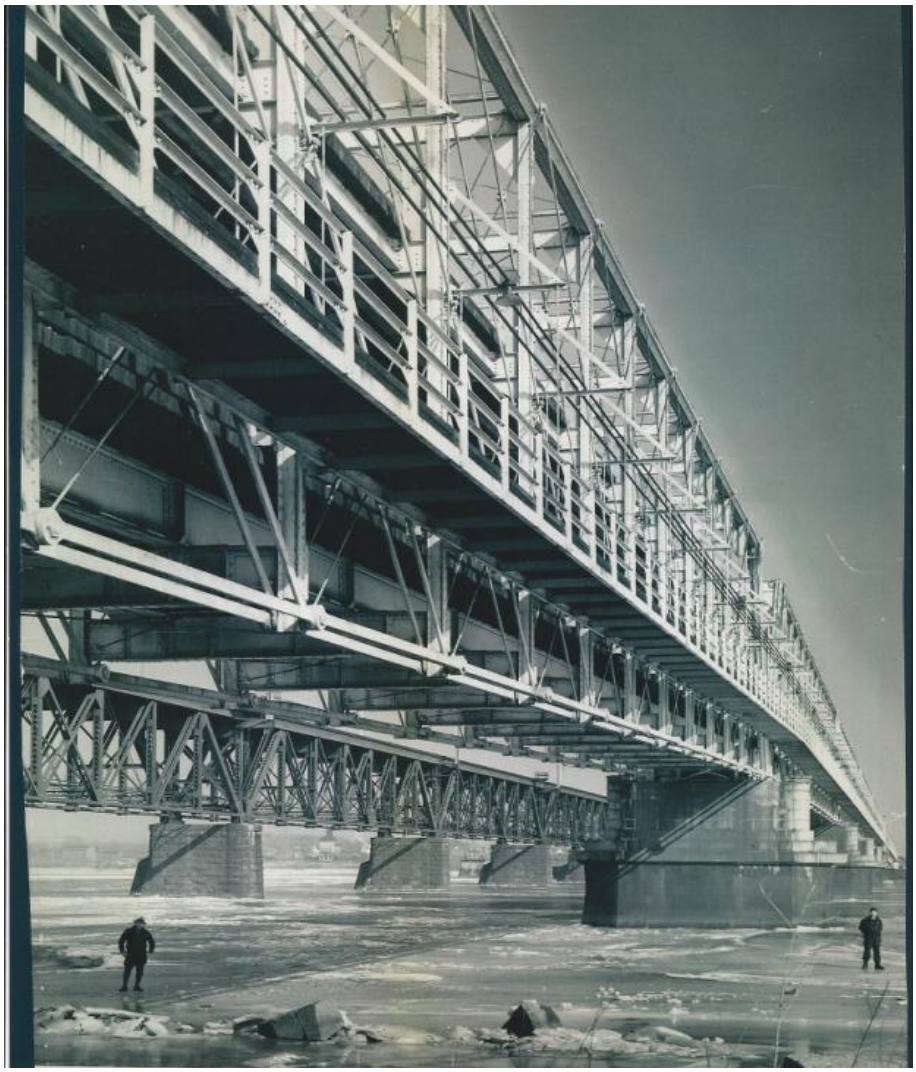
The National Underground Railroad Network to Freedom: The underground railroad played a role in our local history. The Perryville Railroad Ferry and Station Site has been evaluated by the National Park Service and has been deemed the site as making a significant contribution to the Underground Railroad. Details are discussed in the attached article (Attachment 2) on Amtrak's website, A History of America's Railroad, http://history.amtrak.com/blogs/blog/exploring-underground-railroad-heritage-sites

Page 3-4 paragraph 3 **Industrialization and Modern Period: Railroad**

Reference to the 1866 Susquehanna Bridge is given little significance; however, it was used for pedestrian and vehicular travel between Perryville and Havre de Grace linking the northeastern corridor of the United States from 1866 - 1943. This double-decker bridge pre-dates the US Route 40 Hatem and I-95 Tydings Bridges.

In 1943, as the United State entered into WWII, scrap medal was scarce, therefore the double-decker bridge was sacrificed for re-use to make 60 tanks for our national defense.

The stone piers ID # HA-836 (Maryland Historic Site Survey), designated in the Lower Susquehanna Heritage Greenway Management Plan as architectural resources, are an important reminder of the perils of war and community sacrifice. (Attachment 3)



The stone piers should be maintained and repurposed for a pedestrian crossing in accordance with the Lower Susquehanna Heritage Greenway Management Plan. This project is described in-depth throughout the LSHG plan, therefore we are requesting consultation on this issue in accordance with the guidance document provided.

Page 3-4 paragraph 4 **Industrialization and Modern Period: Railroad**

Reference to the Wiley Company should also include that 32 tunnel sections for the I-95 tunnel under Baltimore Harbor, each of which was 320 feet long by 82 feet wide by 40 feet deep was made on site in Port Deposit.

Page 4-3 and 4-4; **Properties considered not eligible for NR**

I have attached a list of historic properties in Perryville and Havre de Grace from the LSHG Management Plan. Each property listed meets the State of Maryland standards for historic property income tax credit. This list should be reviewed and compared with those identified in this assessment. (Attachment 4)

Please explain why the 43 structures in Perryville that were evaluated were deemed not eligible for designation. In subsequent appendices it is noted that the reason for not including part of Perryville in the National Register was that the structures lacked sufficient material integrity. It would be helpful if this was noted in the main text and an explanation of sufficient material integrity was provided.

Property item # 70 – Havre de Grace train station ruins. This site is specifically listed in the LSHG Management Plan master capital project list for re-development on or near the original platform. The goal is to compliment the Perryville station on the north side with a Havre de Grace station on the south side. Details can be provided upon request.

Page 4-5 **Identification of cultural resources eligible for NR**

It is notable that two architectural resources listed as significant for protection in the LSHG Management Plan are not listed in this assessment:

1. The Abraham Jarrett Thomas House (HA-790) at 501 St. John Street, Havre de Grace was not evaluated. A copy of the Maryland Historic trust site survey is attached (Attachment 5)
2. Old railroad bridge pilings (HA-836). A copy of the Maryland Historic trust site survey is attached (Attachment 3).

The LSHG requests consultation and further review of these sites for action and mitigation of adverse effects. A list of the National Register of Historic Places properties within the heritage area is attached for review. (Attachment 6)

Page 4-7 **Havre de Grace Architectural Resource Map (Figure 5)**

This map should be updated to reflect individual properties instead of lumped into a "district". It should be similar to the Perryville map (Figure 6).

Page 49, paragraph 4 **Havre de Grace Historic District**

It appears that the integrity of the district in totality is heavily weighted against the significance of individual sites, therefore different standards are applied to Havre de Grace and Perryville. The characterization of the district as having "suffered from a loss of architectural integrity, along with some modern intrusions" seems to influence the valuation of your assessment. The LSHG requests that more work be done on individual sites provided from our management plan.

Page 4-11 **Havre de Grace Historic District Photo Key (Figure 8)**

This map illustrates the varied styles of architecture found in the historic district; however, it is not representative of the properties listed in my Attachments 4 and 6. Updates should be made or a separate map included.

Page 4-12 **Photo 8**

This photo is labeled the American Legion and former Lafayette Hotel which is correct; however, it is also the Abraham Jarrett Thomas House (HA-790) at 501 St. John Street. This property is historically significant and has not been properly identified or reviewed. As noted earlier, a copy of the Maryland Historic trust site survey is attached (Attachment 5).

Page 4-13 **Photo 10**

It is unclear why this photo is listed to show a house that has been moved. It has been verified that the house is still there.

Page 4-15 **Photo 14**

This is the first permanent Roman Catholic Church in Havre de Grace. Previously a small framed mission church, it was built in what is now Mt. Erin Cemetery overlooking the City of Havre de Grace. The mission church operated from 1840-1847. The church pictured in photo 14 was erected of Port Deposit granite in 1847 and operated until 1908 when St. Patrick's moved to its current location on corner of Congress Avenue and Stokes Street. This property should be evaluated given the age, history, architectural design and proximity to the rail project although it is briefly referenced on pages 4-25 and 4-26 and in Figure 22.

The connecting parcel known as was the rectory for St. Patrick's Catholic Church. This property is located at 425N. Stokes Street (HA-1175) was built in 1862. A copy of the Maryland Historic trust site survey is attached. (Attachment 7). This property should be evaluated given the age, history, architectural design and proximity to the rail project.

Page 4-26 and 4-27, **references to Freedom and Centennial Lanes**

Havre de Grace was a primary destination on the eastern route of the Underground Railroad in Maryland. Slaves were able to ferry across the Susquehanna from Havre de Grace to Perryville in route to safe sites above the Mason Dixon line in the free states of Pennsylvania and New York. Freedom and Centennial Lanes and undergrade bridges (proposed to be replaced) honor the paths that slaves took to freedom and the people of Havre de Grace that offered aid and comfort. It is our recommendation that further investigation be conducted in this area to determine the relationship to the Underground Railroad. If additional information is uncovered, the LSHG requests the opportunity to review and consult with the appropriate parties on how this might impact the project.

In October of 2014, Amtrak announced the acceptance of the Perryville Railroad Ferry and Station Site into the National Underground Railroad Network to Freedom. See Attachment 2.

Page 4-31 **Principio Furnace**

Joseph Whitaker built a Mansion House on property in 1836. It is used as an interpretative site for the history and culture of the Iron Works. The Mansion should be evaluated for architectural significance to the area and additional information should be included in this assessment.

Page 4-33 **Existing Railroad bridge, adjacent granite pilings and 9 undergrade bridges**.

It is noted in this report that the railroad bridge, granite pilings and 9 undergrade bridges have been evaluated and determined not to be eligible for National Register. The bridge HA-1712 (Attachment 8) and pilings HA-836 (Attachment 3) are eligible for state designation. All are listed as important resources within the LSHG Management Plan therefore we are requesting consultation on this issue in accordance with the guidance document provided.

Furthermore, the dismissal of the idea to re-use the granite pilings for a pedestrian crossing or scenic overlook is in direct conflict with the LSHG Management Plan and various river-crossing initiatives. Additionally, it denies these communities the ability to regain the lost connection between Havre de Grace and Perryville that was used for 77 years.

In 2002, the Maryland Department of Transportation conducted the Susquehanna River Pedestrian Bridge Crossing Feasibility Study. A copy of the report is available upon request. Among the long-term recommendations was a pedestrian bridge between Havre de Grace and Perryville. Recently MDTA implemented one of the study's non-bridge alternatives by permitting bicyclists on the Rt 40 Hatem Bridge.

It is our belief that the existing abandoned piers could be re-purposed and / or segments salvaged and incorporated into a new pedestrian bridge. The pedestrian bridge could be constructed at the appropriate height to permit navigation or have a cantilever or drawbridge design. Alternatively, the second span of the "new railroad bridge" can be designed to accommodate a pedestrian path like on the Amtrak Bridge in Portland, Oregon, Harper's Ferry, Virginia and Cologne, Germany. See next page.

Photo credit: Amtrak passenger train shares bridge with trail over Willamette River, Portland, Oregon; photo by Stuart Macdonald, August, 2008

Harper's Ferry, Virginia

Cologne, Germany

We have determined that community mitigation is necessary, should all of these resources be demolished as planned. In addition to actions listed, we asking for a re-evaluation of the materials used for the bridge piers, overpass and retaining walls. Form line concrete may be inconsistent with the historic character of the community.

We would like to work with you to develop a sufficient interpretative, recreation and educational plan for the project area. We believe there are substantive themes such as transportation paths and trails that can address American Indian, ferry, canal, rail, vehicular and pedestrian movement.

Page 5-4 and Pages 5-11 – 17 **The Undergrade Bridges**

Existing and proposed renderings should be developed and shared with the consulting parties for input.

Page 5-6 and 5-7 **Photo 46 and 49**

We recommend the design style of arched piers with girder approach with main arch span to be architecturally consistent with the Rt 40 bridge and existing structures.

Page 5-19 **Lilly Run Undergrade Bridge**

See previous comments concerning Lilly Run Improvement Plan and construction of a new Havre de Grace High School.

Page 5-21 **Alternative 9A or 9B**

After review of the design plans provided with this report and the potential property impact graphic for both alternatives, it is critical that the consulting parties be provided with more details to properly evaluate the impact. The chart on page 5-21 illustrates the distance from each building to the track for both alternatives; however, I would like to see a chart that shows the distance from all eight properties /clusters to the tracks for both alternatives. There is discussion in this section of moving the tracks closer to historic structures, but there is no explanation of why this relocation was deemed to have no impact on the structures. Depictions or examples from other areas showing what is proposed would be helpful in understanding potential impact

The visual and noise effects of moving the tracks 44 feet closer to Rogers Tavern is a concern. The graphic depicting the retaining wall is helpful in understanding the visual impact. A stone facing wall would likely match the historic character of the area.

In contrast, we have utilized pictometry to determine that the abandoned pilings are between 172.7 fee and 205.6 feet from the closest new rail line. This is more than sufficient distance for a pedestrian crossing. It will be interesting to contrast the proximity to effected private properties.

Page 5-25

Additional information on how the use of stone does not meet current engineering design standards should be provided. Given that it is used internationally as a reliable building source, was the determination base upon cost, policy or agency preference?

Page 5-27

Additional study is needed on the potential loss of these sites. Are any of these properties listed on the Harford County or State of Maryland registry of historic

properties? The LSHG is requesting additional information and evaluation of each site so that a determination can be made. What community mitigation is proposed? Should these properties be removed from the Havre de Grace Historic District?

Page 5-30

The LSHG supports the Town of Perryville's request to participate in the architectural design and materials used in the retaining wall. The materials selected should be consistent with and compliment the architectural design of Rodger's Tavern. At this time, we have concerns over the use of concrete form liner that emulates stone. Natural stone may be a better alternative due to the scale and proximity to Rodgers Tavern.

Page 6-1 **Summary Recommendations**

Can you provide this chart electronically so that we can respond to each adverse effect with a summary of our above comments and recommendations? We will expedite the return to that completed document.

Page 6-3 **Mitigation measures**

We concur with the measures listed; however, the LSHG wishes to work with the consulting parties to develop a sufficient interpretative, recreation and educational plan for the project area. We propose that the plan will address input submitted from all consulting parties. We believe a community mitigation plan is necessary and should be developed by the community consulting parties priority to construction permit approval.

Finally, Underneath the existing rail bridge on the Havre de Grace side is a stone sign that reads "Havre de Grace". The stone used in this sign was re-purposed during the addition to Havre de Grace City Hall in 2002. Originally those stones were part of a set of exterior columns and were mined locally. It is my hope that when the sign is demolished the stone will be salvaged and re-used for a similar purpose.

Thank you for the opportunity to provide our comments. We look forward to working with you as a consulting party and as we fulfill out statutory heritage area obligation.

Please feel free to contact me at 410-808-6118 or at maryann@upperbaytrails.com if you would like more information or explanation of these comments.

Sincerely,

Mary Ann Lisanti

Mary Ann Lisanti
Executive Director

Attachment 1

Maryland Heritage Areas Authority Program Guidance

Coordination between State Units and Certified Heritage Area Management Entities

Introduction

The Maryland Heritage Areas Authority and the Maryland system of recognized and certified heritage areas were established in 1996 by Chapter 601 (House bill 1), 1996 Laws of Maryland (Financial Institutions Article, Title 13, Subtitle 11, Annotated Code of Maryland - the heritage areas statute). This legislation is designed to promote historic preservation and areas of natural beauty in order to stimulate economic development through tourism. Heritage areas are discrete geographic areas or regions with a distinctive sense of place embodied in their historic buildings, neighborhoods, traditions, and natural features. They may be rural or urban places, where private ownership is anticipated to predominate but where development can be creatively guided to attract tourism.

The Maryland Heritage Areas Authority (MHAA), an independent unit of State government created by the heritage areas statute, oversees implementation of this heritage preservation and tourism initiative. The Authority is housed in the Maryland Department of Housing and Community Development (DHCD) and is provided administrative staff by DHCD's Division of Historical and Cultural Programs.

The statute establishes a process for heritage areas to become recognized and certified by meeting certain criteria, including the development of a heritage area management plan. Heritage area management plans must set forth the strategies, projects, programs, actions, and partnerships that will be necessary for an area to achieve its goals. The purpose of the management plan is threefold:

- to provide a strategic action blueprint for coordinating the many collaborative efforts required to develop a successful heritage area;
- to enable the key stakeholders to reach consensus on the roles each will play in implementation of the management plan; and
- to determine the optimum investment of public resources necessary to trigger the significant private investment commitments of dollars, energy, and programmatic support that will make the heritage area sustainable over time.

If the Maryland Heritage Areas Authority approves the management plan, the heritage area is designated as a **Certified Heritage Area** (CHA) and becomes, in shorthand, a "heritage enterprise zone." Certified Heritage Area benefits include eligibility for grants and loan assistance for acquisition, development, public interpretation, and programming, as well as tax incentives for the rehabilitation of non-designated historic buildings and non-historic buildings in active tourism use. In addition, State government agencies are

required to cooperate and coordinate within CHAs to assure compatibility of their actions with the management plan for the heritage area.

This Program Guidance offers suggested strategies for CHA management entities and State Units to fulfill their respective responsibilities under the statute. The MHAA encourages CHA management entities and State Units to develop effective working relationships and partnerships that foster open communication, cooperation, and coordination. Through coordinated planning efforts, State Units and CHA management entities can help ensure that the actions of State Units are developed and implemented in an appropriate manner that not only meets the needs and goals of specific State Unit activities, but also are consistent with the strategies and interests of the relevant CHA.

Background

The heritage areas statute establishes specific responsibilities for State Units and defined roles for the CHA management entities and MHAA when State Units conduct or support activities affecting a CHA. Specifically, Financial Institution Article § 13-1112 (b) states that:

> (b) Units of State Government that conduct or support activities affecting a CHA shall:
>
> 1) Consult, cooperate, and, to the maximum extent feasible, coordinate their activities with the unit or entity responsible for the management of each certified heritage area;
>
> 2) To the maximum extent practicable, carry out the activities of the unit in a manner that is consistent with the approved management plan for the certified heritage area; and
>
> 3) When conducting a review of State funded, licensed, or permitted activities under Article 83B, §§ 5-617 and 5-618 of the Code, assure that the activities will not have an adverse effect on the historic and cultural resources of the certified heritage area, unless there is no prudent and feasible alternative.

In this way, the statute gives CHA management entities formal opportunities to consult, cooperate, and coordinate with State Units to facilitate and ensure the consistency of state sponsored or supported activities with the approved management plan for a given CHA. In addition, the statute provides additional opportunities for CHA management entities to participate as consulting parties in the state historic preservation review process established under the Maryland Historical Trust Act of 1985, Article 83B, §§ 5-617 through 5-618, Annotated Code of Maryland (Article 83B), when State Units are conducting or sponsoring activities within CHAs.

The processes outlined in the heritage areas statute encourage, but do not mandate, preservation of a heritage area's historical, cultural, and natural resources and consistency with approved heritage area management plans. Sometimes there is no way for a needed project to proceed without some effect on a heritage area management plan or heritage area resources. Such effects may be either beneficial or adversarial. The review does, however, ensure that a heritage area's goals and strategies are factored into State Unit's planning and decision making processes.

This Program Guidance recommends mechanisms for CHA management entities and State Units to fulfill their respective responsibilities under the three items specified in the heritage areas statute, and to coordinate those responsibilities with the Article 83B consultation process, when applicable. This document is intended to serve as general guidance. The Authority encourages CHA management entities and State Units to develop more detailed procedures for cooperation, coordination, and consultation relevant to their particular areas of interest and program goals and objectives. State Units may choose to include such procedures as part of the State agency program statements required by the heritage areas statute (Financial Institution Article § 13-1112 (a)). State Units required to prepare program statements detailing actions in the areas of planning, development, use, assistance, and regulation that support and assist the establishment and management of certified heritage areas include the Departments of Housing and Community Development, Business and Economic Development, Natural Resources, Transportation, and General Services and the Commission on Higher Education.

Roles and Responsibilities

The heritage areas statute identifies responsibilities for State Units and roles for the CHA management entities for consultation, coordination, and cooperation. Consultation does not mandate a specific outcome. Rather, it is the process of seeking consensus about coordinating activities, ensuring consistency of State Unit activities with the approved management plan, and minimizing project effects on historic properties within CHAs. The consultation process is a negotiation conducted between the State Units and CHA management entities, and other appropriate parties.

State Units: State Units are responsible for initiating the consultation process with Maryland heritage area management entities. The extent of consultation for a specific program or project will vary depending upon the State Unit's planning process, the nature of the action, and its potential to impact heritage resources of the CHA. In developing procedures for consultation, State Units should take advantage of existing mechanisms for sharing information, such as the Maryland Department of Planning's State Clearinghouse. Through the consultation process, State Units will acknowledge responsibility for effects resulting from their activities within heritage areas and accountability for their decisions.

Certified Heritage Areas: The CHA management entity must determine how actively it wishes to participate in consultation with State Units for given programs and projects.

As a consulting party in this process, CHA management entities are entitled to share their views, receive and review pertinent information, offer ideas, and consider possible solutions together with the State Unit and other consulting parties. The heritage areas statute confers consulting party status on the CHA management entity only. Heritage area stakeholders and partners may participate in the consultation process if invited jointly by the CHA management entity and the State Unit.

As a consulting party, the CHA management entity has a role to share information, comments, and recommendations with the State Unit regarding the effects of a proposed activity on heritage resources of the CHA and the consistency of the proposed action with the approved CHA management plan. The State Unit should take into account the comments and recommendations of the CHA management entity in its decision making process. Based on the comments provided by the CHA management entity, the State Unit is expected to carry out its activities to the maximum extent practicable in a manner that is consistent with the heritage area management plan.

Please note that the CHA management entity is not required to participate in the consultation process. However, failure by the CHA management entity to consult with the State Unit once the State Unit has attempted to initiate consultation in good faith may limit future opportunities for the CHA management entity to influence project outcomes.

Applicability - Determining State Unit and Certified Heritage Area Involvement

To determine whether a given State Unit must consult with the CHA management entity, the State Unit and CHA management entity must first determine:

1) Whether the activity constitutes an action or program conducted or supported by a State Unit; and
2) Whether the State Unit activity (action or program) is located within a CHA or may affect a CHA.

State Unit Action: If CHAs are concerned about a proposed State activity and whether the MHAA may be asked to resolve any specific dispute, the CHA management entity must first determine whether a State Unit is involved. Will a State agency fund or carry out the project? Is a State permit or license needed? The Authority is authorized to resolve disputes regarding activities within heritage areas if a State Unit action is involved, so confirming State involvement is a necessary first step.

If it is unclear whether the State is involved in a project, the CHA management entity should contact the project sponsor to obtain additional information and to inquire about State involvement. The CHA management entity then may write to the agency to request a project description, ask about the status of project planning, ask how the agency plans to comply with the consultation, cooperation, coordination, and other requirements under the heritage areas statute, and voice concerns. CHA management entities should keep the

Maryland Heritage Areas Authority advised of their interest and contacts with the State Unit.

Certified Heritage Area: In order for State Units to meet their consultation requirements under the statute, they must determine the CHA's boundaries within Maryland and review the approved management plan for the areas. The Maryland Historical Trust's website www.marylandhistoricaltrust.net lists under its Heritage Tourism section the current CHAs, contact information, and links to CHA websites. State Units should contact those CHAs to obtain copies of the approved management plans and establish contacts with the CHA management entity. Heritage area boundary GIS layers are available from the Maryland Historical Trust upon request; contact Jennifer Cosham at 410-514-7649.

Specific Coordination Requirements

Cooperation and Coordination: Two requirements of the heritage areas statute require that:

> (b) Units of State Government that conduct or support activities affecting a certified heritage area shall:
>
> (1) Consult, cooperate, and, to the maximum extent feasible, coordinate their activities with the unit or entity responsible for the management of each certified heritage area;
>
> (2) To the maximum extent practicable, carry out the activities of the unit in a manner that is consistent with the approved management plan for the certified heritage area.

Financial Institutions Article, § 13-1112(b) (1) and (2)

When a proposed activity entails any State Unit involvement (including financial assistance, permits, licenses, or other activities that may affect a certified heritage area), the heritage areas statute requires consultation between the agency (or its designee) and the heritage area management entity to evaluate whether the activity is consistent with the approved management plan for the CHA and to develop measures to avoid, reduce, or mitigate any adverse effects the activity is expected to have on the goals and strategies outlined in the management plan.

The State Unit conducting the activities must assure that those activities are consistent with the heritage area goals or strategies provided that it is practicable to do so. In this case, "practicable" is defined as capable of being done with currently available or reasonably obtainable means, resources, methods, technologies, and practices. Given a range of options, a State Unit must select an alternative that is consistent with a CHA's management plan unless no alternative is practicable.

When the State Unit concludes that an action may affect a CHA management plan, the State Unit should contact the CHA management entity and provide written notification and description of the proposed action. The State Unit should also offer its assessment of how the action may affect the CHA's goals and strategies and the extent to which the action is consistent with the CHA's approved management plan, and request input from the CHA management entity. The CHA management entity should provide the State Unit with its comments regarding the effect State Unit action may have on heritage area goals and strategies.

When the State Unit and the heritage area management entity determine that an action may be inconsistent with the heritage area management plan, both parties will consult to develop measures to resolve the inconsistency. Consultation may include other invited parties (such as local governments, owners of affected properties, or affected groups) who have a legitimate interest in the implementation of the heritage area management plan. Through the consultation process, the parties should seek to resolve issues of concern and ensure consistency of the action with the approved management plan.

The resolution of inconsistencies of the proposed action with the approved management plan may result in the negotiation and execution of a Memorandum of Agreement (MOA) that specifies the measures the State Unit will ensure are carried out in order to resolve issues of concern and ensure consistency of the action with the approved management plan. Each MOA is developed on a project specific basis.

Project Review Under Article 83B: A third requirement of the heritage areas statute requires that:

> (b) Units of State Government that conduct or support activities affecting a certified heritage area shall:
>
> 3) When conducting a review of activities under Article 83B, §§ 5-617 and 5-618 of the Code, assure that the activities will not have an adverse effect on the historic and cultural resources of the certified heritage area, unless there is no prudent and feasible alternative.

Financial Institutions Article, § 13-1112(b)(3)

When a proposed project entails any State Unit involvement (including financial assistance, permits, or licenses), it is subject to review under Article 83B, §§ 5-617 through 5-619. This historic preservation law requires the involved State Unit to consider the effects of the proposed project on significant historic properties, including architectural and archeological resources. Part of the review process involves consultation between the agency (or its designee) and the Maryland Historical Trust (Trust) to identify and evaluate historic properties that may be affected by the project and to develop measures to avoid, reduce, or mitigate any adverse effects on significant historic properties. When the project may affect historic properties located within a

CHA, the review process should also involve the relevant CHA management entity as an invited party in the consultation efforts.

The Trust annually reviews approximately 1500 actions of State Units for their effects on historic properties. These projects comprise a wide range of activities including actions undertaken by State Units (such as transportation and park improvements or other state facilities) and actions that are funded, permitted, or licensed by State Units (such as housing rehabilitation, community development activities, sewer and water improvements, school facilities, and more). While the Trust typically finds that the vast majority of projects have no effect or at least no adverse effect on historic properties, adverse effects are sometimes unavoidable given project needs, priorities, and constraints. Through the State project review process, the Trust works with State Units and other involved parties to seek solutions that balance project needs and historic preservation objectives in the best interests of the State and affected historical and cultural resources.

The State Unit conducting the activities must assure that those activities will not adversely affect resources located within a CHA that are eligible for listing in the Maryland Register of Historic Properties[1] unless there is no prudent and feasible alternative to carrying out the activity as proposed. In this case, "feasible" refers to the constructability of a project – whether or not it can be built using currently known construction methods, technologies, and practices. The term "prudent" refers to how reasonable the alternative is – in essence, whether or not it makes sense in terms of cost, public safety, community disruption, and other factors. Given a range of options, a State Unit must select an alternative that avoids impacts on a CHA's historical and cultural resources unless there is no alternative that is prudent and feasible. This review only applies to historic and cultural resources in the CHA but does not apply to natural resources and other resources within the CHA.

When the State Unit and the Trust determine that an action may adversely affect Maryland Register-eligible resources, both parties will consult to develop measures that will avoid, reduce, or mitigate the adverse effect. Consultation may include other invited parties (such as local governments, owners of affected properties, or affected groups) who have a legitimate interest in the project or affected resources. The State Unit should invite the heritage area management entity to be a consulting party in the resolution process. However, it is up to the CHA management entity to decide whether it chooses to participate.

Typically, the resolution of adverse effects results in the negotiation and execution of a Memorandum of Agreement (MOA) that specifies the measures the State Unit will ensure are carried out in order to avoid, reduce, or mitigate the project's adverse effects on Maryland Register-eligible resources. Mitigation measures may include actions such

[1] Properties are eligible for listing in the Maryland Register of Historic Properties if they are listed in or eligible for listing in the National Register of Historic Properties.

as recordation and documentation of important resources, rehabilitation and preservation of resources in accordance with professional standards, public education and interpretation, recovery of data from archeological sites, or other steps. Each MOA is developed on a project specific basis. The State Unit should invite the CHA management entity to participate in the consultation process when the project may adversely affect historic properties in the CHA, and may invite the entity to be a signatory party to the MOA if the entity has defined roles and responsibilities under the agreement.

When the State Unit concludes that an action may adversely affect Maryland Register-eligible resources within a CHA, the State Unit should contact the CHA management entity and provide written notification and description of the proposed action. The State Unit should also offer its assessment of how the action may affect the CHA's Maryland Register-eligible resources. The CHA management entity should provide the State Unit with its comments regarding Maryland Register-eligible resources that may be relevant to the project. Through the consultation process, the parties should seek to resolve issues of concern. The CHA management entity may be invited to be a signatory or concurring party to any Memorandum of Agreement developed to resolve the adverse effects of an action on Maryland Register-eligible resources in the CHA.

Resolving Disputes and Appeal Mechanism

The Maryland Heritage Areas Authority is required to resolve any disputes that are submitted to the Authority by the affected CHA management entity in connection with the consultation process under the heritage areas statute. Disputes arising as a result of the Trust's review of State activities should be resolved through the consultation and resolution process specified in Article 83B. The management entity of the CHA may not request Authority involvement in such disputes until either consultation under Article 83B is satisfactorily resolved and a Memorandum of Agreement is executed, or consultation is terminated.

Examples of disputes that may arise and be brought by the CHA management entity to the Authority for resolution include:

- failure of a State Unit to comply with the procedures required under Article 83B, including failure of a State Unit to consult with a CHA management entity, and failure of a State Unit to consult, cooperate, and coordinate their activities with a CHA management entity;
- lack of agreement between a State Unit and a CHA management entity that the proposed State Unit activity will have adverse effects on a heritage area management plan;
- lack of agreement between a State Unit and a CHA management entity that there are practicable means to carry out a State Unit activity in a manner consistent with a heritage area management plan;

- lack of agreement between a State Unit and a CHA management entity that there are prudent and feasible alternatives to the proposed State Unit activity.

The heritage areas statute empowers the Authority to review and resolve such disputes and outlines in the broadest terms how the Authority shall exercise this power. The Authority by regulation has adopted procedures to manage the dispute resolution process (COMAR Title 14, Subtitle 29, Chapter 5). These procedures permit, but do not require, the Authority to delegate conduct of the initial hearing to an Administrative Law Judge (ALJ) at the Office of Administrative Hearings (OAH), who then submits to the Authority proposed findings of fact, proposed conclusions of law, and a proposed decision. Based on these submittals, the Authority then decides whether to accept, reject, or accept with modification those findings, conclusions, and decision.

The heritage areas statute also identifies a limited appeals process through the Office of Administrative Hearings should the CHA management entity or the State Unit involved in the dispute be dissatisfied with the Authority's resolution. Third parties have no formal standing in either the initial hearing or appeals process. The Authority's dispute resolution procedures authorize OAH to decide appeals of the Authority's decision.

Alternatively, in specific cases and at the Authority's discretion, the Authority may consult directly with State Units involved in a dispute with a heritage area management entity to clarify the responsibilities of State Units under the heritage areas statute. The Authority may also consult directly with a State Unit when the Authority has questions or concerns about a State Unit action that appears to be inconsistent with heritage area management plans. This consultation may include a meeting with the Authority to allow the Authority to hear from interested local parties as well as State Unit representatives.

Conclusion

This Program Guidance recommends a framework for cooperation, coordination, and consultation between State Units and CHA management entities to meet their respective roles and responsibilities under the heritage areas statute. The consultation process should be based on flexibility, good faith effort, and the open exchange of information and ideas. For project-specific coordination, State Units should incorporate relevant heritage area responsibilities into the historic preservation review process under Article 83B. State Units and CHA management entities should work to develop more specific procedures for consultation that meet their respective program needs and interests. Through coordinated planning efforts, State Units and CHA management entities can help ensure that actions and programs are developed and implemented in an appropriate manner that not only meets the needs and goals of the State Unit activity but also are consistent with the strategies and interests of the affected CHA.

 Attachment 2

Exploring Underground Railroad Heritage Sites — Amtrak: History of America's Railroad

February 2, 2015

Black History Month provides additional opportunities to highlight contributions by African-Americans to our national history and culture. Throughout the month, Amtrak is celebrating with various events and exhibitions at locations across the country.

Amtrak is proud that in October 2014 a site on railroad property near Perryville, Md., was accepted into the **National Underground Railroad Network to Freedom**, a program of the National Park Service (NPS). Perryville is located on the busy Northeast Corridor (NEC) between the stops at Aberdeen, Md., and Newark, Del.

CERTIFICATE OF ACCEPTANCE

Presented to

Perryville Railroad Ferry and Station Site

The National Park Service has evaluated this SITE as making a significant contribution to the understanding of the Underground Railroad in American history and it meets the requirements for inclusion in the National Underground Railroad Network to Freedom

NATIONAL PARK SERVICE

Diane Miller

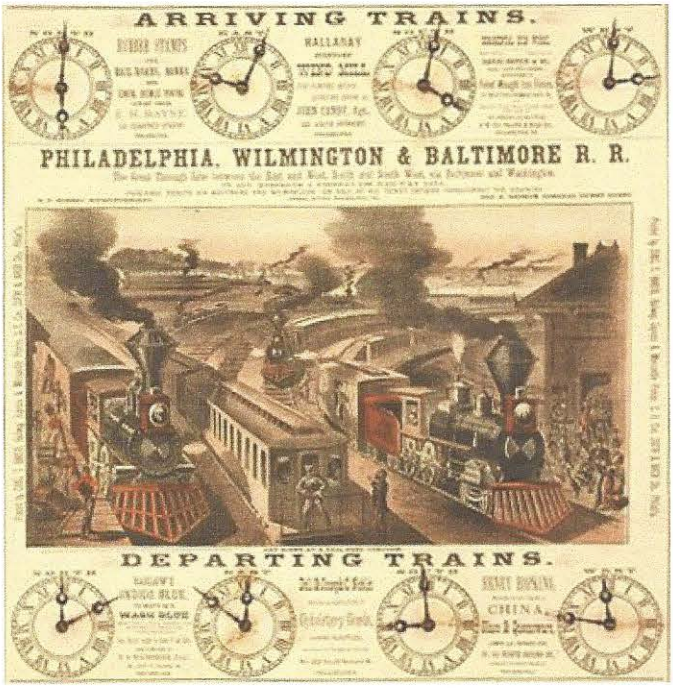
Diane Miller, National Program Manager
Network to Freedom, National Park Service

October 14, 2014

NATIONAL UNDERGROUND RAILROAD NETWORK TO FREEDOM

The Underground Railroad was a network for those with or without assistance who used resources at hand to escape slavery and find a means to head north to the free states or Canada during the antebellum years. The NPS established the Network to Freedom to **connect more than 500 local historic sites, museums, archives and interpretive programs related to the Underground Railroad**.

The Perryville Railroad Ferry and Station site is located close to where the eastern end of the Susquehanna River Rail Bridge joins the embankment carrying the tracks. Since colonial times, Perryville and Havre de Grace, its sister town located on the opposite bank, have constituted an important crossing point at the **meeting of the Susquehanna River and Chesapeake Bay**. In the late 17th century, what is now Perryville was known as Lower Ferry in recognition of its important role in the local transportation network.

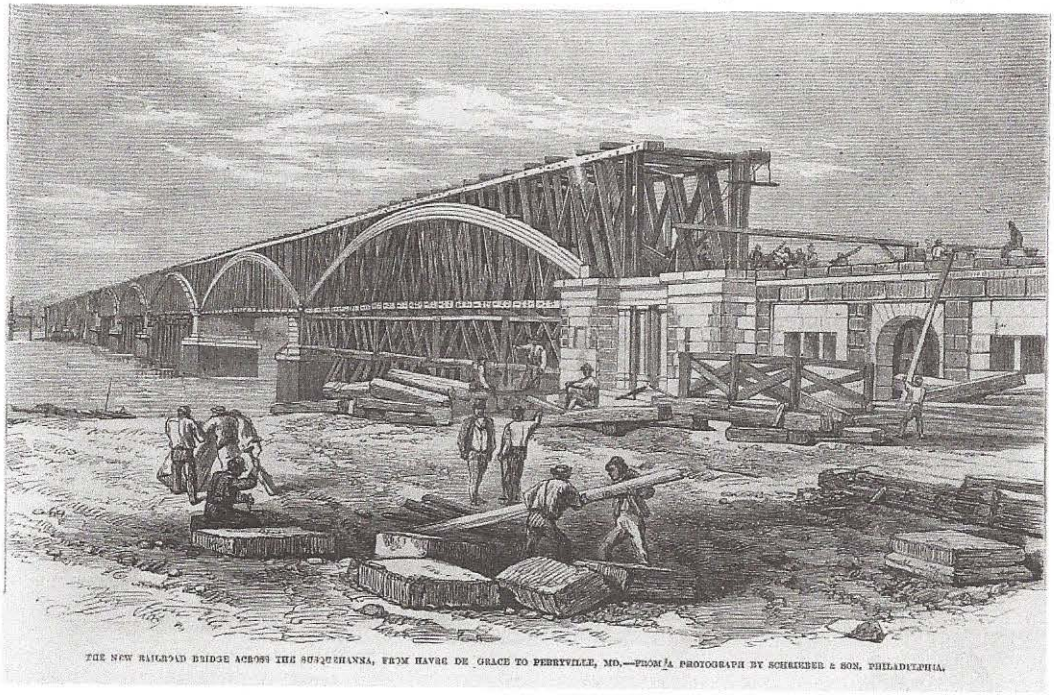


PW&B Railroad advertisement, 1879. Illustration by Charles T. Baker, courtesy of the Library of Congress.

By 1838, the **Philadelphia, Wilmington & Baltimore Railroad Company** (PW&B) had constructed a rail line connecting its namesake cities. The one gap was at Perryville, where steam-powered ferries were used to move rail cars across the wide river. The wooden pier on the Perryville side was located just south of the current rail bridge. Increased traffic towards the end of the Civil War mandated the construction of a bridge to link the two sections of the railroad, and the new structure opened in 1866. The PW&B Perryville depot, a small wood structure, was located close to the eastern end of the bridge. In 1880, the railroad replaced the bridge's wooden trusses with stronger iron spans.[1]

Following a tussle with the rival Baltimore and Ohio Railroad, the **Pennsylvania Railroad (PRR) gained control of the PW&B in 1881**; with the purchase, the PRR boasted complete control of a route between Jersey City (opposite Manhattan) and the nation's capital. At the dawn of the 20th century, the PRR constructed a **new Susquehanna River Rail Bridge**. Completed in 1906, the multi-span, moveable rail bridge measures approximately 4,200 feet long. The stone piers of the first bridge are still visible in the water and on land.

The bridge is now owned by Amtrak and is used by intercity, commuter and freight trains. The Federal Railroad Administration, Maryland Department of Transportation and Amtrak are **currently undertaking a study** to examine future refurbishment or replacement of the span to improve capacity, trip time and safety for all rail operators.



Building the first rail bridge over the Susquehanna River. Image from Frank Leslie's Illustrated Newspaper *(Dec. 22, 1866), courtesy of the Library of Congress.*

The Perryville site has been added to the Network to Freedom because numerous enslaved persons have been documented as using the railroad and ferry to journey northward to free states and Canada. One of those freedom seekers was famed abolitionist, thinker and writer **Frederick Douglass**, who later in life recounted the details of his 1838 escape from slavery in Maryland via the newly built railroad and ferry.

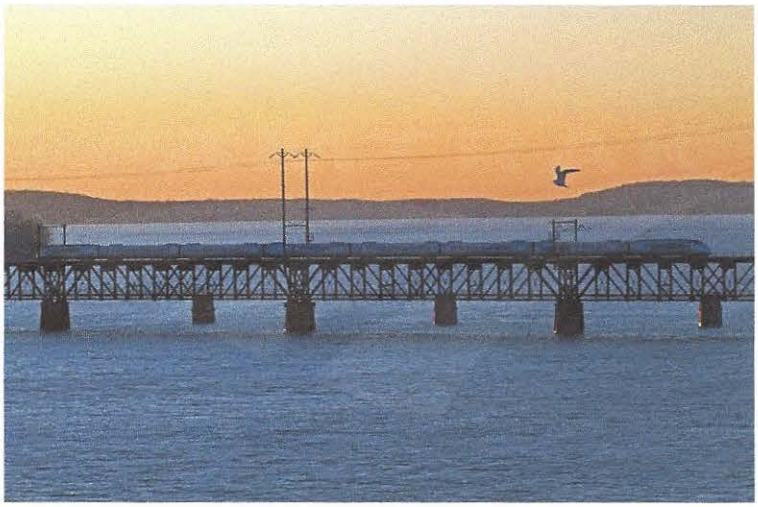
Borrowing identification papers from a free African-American friend who was also a sailor, Douglass dressed the part and boarded a train in Baltimore just as it was leaving. He recalled: "It was…an act of supreme trust on the part of a freeman of color thus to put in jeopardy his own liberty [by lending his papers] that another might be free…Had I gone into the station and offered to purchase a ticket, I should have been instantly and carefully examined, and undoubtedly arrested."[2]

Frederick Douglass, c. 1850-1860. Image courtesy of the Library of Congress.

As the train neared Havre de Grace, the conductor came through to check tickets and the papers of free African-Americans. Douglass described it as "one of the most anxious [moments] I ever experienced."[3] After he had crossed the river and boarded the train for Philadelphia, he recognized a ship captain for whom he had recently worked in Baltimore sitting on the southbound train. Luckily, in the bustle of the moment, Douglass was not discovered.

In addition to the Perryville site, a 70 mile segment of the Keystone Corridor between Philadelphia and Lancaster, Pa., is also included in the Network to Freedom. Much of this historic rail corridor was originally owned by the Philadelphia and Columbia Railroad, which began operations in 1834 and connected Columbia, Pa., located on the Susquehanna River, with Philadelphia. The railroad was the easternmost segment of the state-owned Main Line of Public Works, a series of rail lines and canals that offered a transportation route across the commonwealth's southern tier.

Beginning around 1835, African-American lumber merchants used boxcars fitted with secret false-end compartments to hide escaping slaves, many of whom arrived in Columbia on their way to Philadelphia, where they were cared for by the city's pro-abolitionist Vigilant Committee and assisted in their journeys northward. By hiding on the journey to Philadelphia, fugitive slaves avoided slave catchers who searched for runaways in the hopes of claiming financial rewards from owners.



Across its national network, Amtrak serves dozens of communities with strong ties to Underground Railroad heritage, including homes that served as places of protection for those seeking freedom and archival repositories whose documents tell their stories. Below we explore a handful of communities with sites and landscapes related to the Underground Railroad. Please keep in mind that many of these are on private property and may only be viewed from a distance or with permission of the owner.

Rouses Point depot

Located on the shore of Lake Champlain, Rouses Point is the last stop in the United States before the *Adirondack* crosses the border into Canada; therefore, the town serves as a U.S. Customs and Border Protection inspection checkpoint. Amtrak passengers use a platform next to the 1889 Delaware and Hudson Company depot, which now serves as a history and welcome center. Rotating exhibits, lectures and performances trace the history and culture of the state's Northern Tier region.

Due to its border location, Rouses Point was a vital stop on the Underground Railroad for formerly enslaved persons **seeking freedom in Canada**. It specifically served the **"Champlain Line," an escape corridor between Albany, Troy, N.Y. and Quebec Province**. Rouses Point included busy rail and dock facilities serving trains and steamboats from across New England and the upper Mid-Atlantic. According to the Network to Freedom, "Maryland runaway Charlotte Gilchrist entered Canada [via Rouses Point] on a train from the Champlain Valley in 1854…In the winter of 1861, Mrs. Lavinia Bell escaped from Texas to Rouses Point where a Canadian Underground Railroad agent paid her fare to Montreal."

Portland depot

Maine's largest city gained Amtrak service in December 2001, connecting it with Boston and intermediate communities in southeast Maine, New Hampshire and Massachusetts. The start of service followed on more than a decade of advocacy by grassroots transportation groups.

Approximately three miles east of the station, the **1828 Abyssinian Meeting House** stands near Eastern Cemetery and offers views out to Portland Harbor. The Network to Freedom states that the meeting house was the "historical, religious, educational and cultural center of Portland's 19th century African American population." Members of the congregation were involved with the Underground Railroad and the abolitionist movement. Like

Rouses Point, Portland was a hub for fugitive slaves heading to Canada. Congregation members actively hid and transported runaways. The building no longer serves a religious purpose.

Northampton, Massachusetts (Served by the *Vermonter*)

Northampton Union Station

As 2014 came to a close, Amtrak began stopping at Northampton and Greenfield, Mass., towns located along the Connecticut River in western Massachusetts. Service was made possible by the rehabilitation of a rail line along the waterway, which allowed the *Vermonter* (Washington-St. Albans, Vt.) to be rerouted westward. At a future date, the train will also stop at Holyoke.

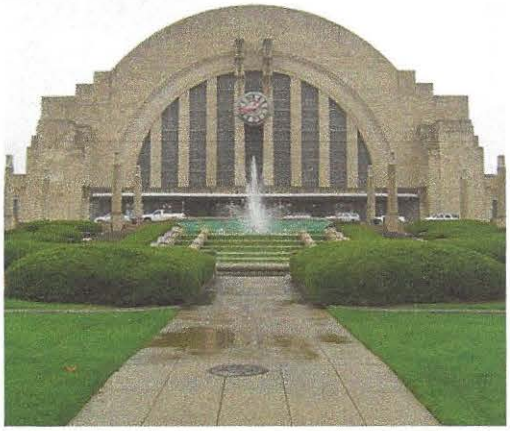
Prior to the Civil War, Northampton became a center for the abolitionist movement, with some homes serving as stops on the Underground Railroad. Following the Mill River northwest of the city center and the campus of Smith College, one encounters the village of Florence. In 1841, a utopian community called the **Northampton Association of Education and Industry (NAEI)** was established in Florence with the purpose of promoting self-improvement, racial equality, freedom of worship and other societal ideals.

Members included **Sojourner Truth**, who was born into slavery in New York but escaped to freedom. Truth, along with African-American abolitionist David Ruggles, is estimated to have helped more than 600 enslaved persons reach freedom. William Lloyd Garrison and Frederick Douglass were among the cooperative's frequent visitors. To support itself, the association owned and operated a silk mill. After five years together, the community dissolved itself in 1846, but its members remained active promoters of their various causes.

One part of the NAEI property was the **Ross Homestead,** home to member Austin Ross after 1845. The Network to Freedom notes that Austin Ross and NAEI member Samuel L. Hill have been identified as local agents of the Underground Railroad, and the Ross Homestead operated as a safe house for escaping slaves.

Northampton is also home to the David Ruggles Center for Early Florence History and Underground Railroad Studies. Researchers can take advantage of reproductions of 19th century newspaper articles, booklets, narratives and maps relating to the regional abolitionist movement. The Ruggles Center has developed a **walking tour of important Underground Railroad sites in Florence**.

Cincinnati, Ohio (Served by the *Cardinal*)



Cincinnati Union Terminal

Much like Rouses Point and Portland were important international border crossings, Cincinnati played a significant role in the Underground Railroad due to its location on the Ohio River, whose waters separated Kentucky and Ohio—slave state and free state, respectively.

Approximately four miles northeast of magnificent Cincinnati Union Terminal is the near East side neighborhood of Walnut Hills. **Harriet Beecher Stowe**, author of *Uncle Tom's Cabin*, spent part of her young adulthood in the area, which from its high vantage point offered sweeping views of the Ohio River Valley. The Beecher family occupied the Italianate style house from the 1830s to the 1850s while Harriet's minister father, Lyman Beecher, served as president of Lane Theological Seminary. The school was the scene of various debates over slavery in the years leading up to the Civil War.

According to the Network to Freedom, "In Cincinnati, Harriet Beecher…was influenced by activist students at Lane Seminary and local abolitionist leaders William Lloyd Garrison and Salmon P. Chase who litigated many fugitive slave cases. At one point, she helped her husband transport a fugitive slave along the [Underground Railroad] north out of town."

In 1850, Harriet moved with her husband, Calvin Ellis Stowe, to Brunswick, Maine, where he had gained a teaching position at Bowdoin College. While living there, she wrote most of ***Uncle Tom's Cabin***, an anti-slavery tome that made her simultaneously one of the most praised and reviled women in an increasingly divided nation.

Today, the Cincinnati home serves as an historical and cultural site focused on the life of Harriet Beecher Stowe. Exhibits explore the Beecher and Stowe families and the abolitionist movement in which they played important roles.

Topeka depot

Kansas found itself at the center of the slavery debate in the mid-1850s when fighting broke out between pro- and anti-slavery groups who hoped to determine whether the territory would **enter the Union as a slave or**

free state. At a constitutional convention held at Wyandotte, Kan., in July 1859, the representatives finally adopted a constitution banning slavery. Two years later, following the start of the Civil War, the constitution was approved and Kansas became a state.

The **John and Mary Ritchie House** and the site of the **John Armstrong House** are located in downtown Topeka; the Armstrong house stood just a few blocks west of the 1950 Atchison, Topeka & Santa Fe Railway depot now used by Amtrak. The Ritchies and John Armstrong sheltered escaping slaves, protecting them from slave catchers and their owners. According to the Network to Freedom, John Ritchie also served as an abolitionist delegate to the Wyandotte Constitutional Convention.

Check out the National Underground Railroad Network to Freedom website for additional information about other Underground Railroad heritage sites in towns and cities across the country.

[1] Alan Fox, *Images of America: Perryville*, (Charleston, S.C.: Arcadia Publishing, 2011). Historical information about the first rail bridge over the Susquehanna was primarily drawn from this volume.

[2] Frederick Douglass, "My Escape from Slavery," *The Century Illustrated Magazine* (Nov. 1881), 125-131.

[3] Ibid.

Attachment 3

HA-836 c. 1866
OLD RAILROAD BRIDGE PILINGS
Havre de Grace, Md.

These granite pilings are all that remain today of the first bridge across the Susquehanna at Havre de Grace; first a Railroad bridge it later became an automobile bridge.

HA-836

MARYLAND HISTORICAL TRUST

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY

1 NAME

HISTORIC: Pilings of the First Railroad Bridge across the Susquehanna River

AND/OR COMMON:

2 LOCATION

STREET & NUMBER: Otsego St. at the Susquehanna River

CITY, TOWN: Havre de Grace ___ VICINITY OF

CONGRESSIONAL DISTRICT: 6

STATE: Md.

COUNTY: Harford

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
___DISTRICT	X PUBLIC	___OCCUPIED	___AGRICULTURE	___MUSEUM
___BUILDING(S)	___PRIVATE	___UNOCCUPIED	X COMMERCIAL	___PARK
X STRUCTURE	___BOTH	___WORK IN PROGRESS	___EDUCATIONAL	___PRIVATE RESIDENCE
___SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	___ENTERTAINMENT	___RELIGIOUS
___OBJECT	___IN PROCESS	X YES: RESTRICTED	___GOVERNMENT	___SCIENTIFIC
	___BEING CONSIDERED	___YES: UNRESTRICTED	___INDUSTRIAL	X TRANSPORTATION
		___NO	___MILITARY	___OTHER

4 OWNER OF PROPERTY

NAME: Maryland State Highway Dept. Telephone #:

STREET & NUMBER: State Office Building

CITY, TOWN: Annapolis ___ VICINITY OF

STATE, zip code

5 LOCATION OF LEGAL DESCRIPTION

Liber #:

Folio #:

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Harford County

STREET & NUMBER: Main St.

CITY, TOWN: Bel Air

STATE: Md.

6 REPRESENTATION IN EXISTING SURVEYS

TITLE:

DATE:

___FEDERAL ___STATE ___COUNTY ___LOCAL

DEPOSITORY FOR SURVEY RECORDS:

CITY, TOWN:

STATE:

HA-236

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	_DETERIORATED	✓UNALTERED	✓ORIGINAL SITE
✓GOOD	_RUINS	_ALTERED	_MOVED DATE_____
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

All that remains of the first bridge across the Susquehanna River at Havre de Grace are the granite pilings (1866) The pilings, perhaps of Port Deposit granite, are about 20' above water level and about six feet wide. The wide sided are on the east and west with the narrow sides to the current. The pilings are constructed in two sections; a lighter colored more decorative clustered block surmounts a massive darker base. The piers extend all the way across the river.

CONTINUE ON SEPARATE SHEET IF NECESSARY

NA-336

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
_PREHISTORIC	_ARCHEOLOGY-PREHISTORIC	_COMMUNITY PLANNING	_LANDSCAPE ARCHITECTURE	_RELIGION	
_1400-1499	_ARCHEOLOGY-HISTORIC	_CONSERVATION	_LAW	_SCIENCE	
_1500-1599	_AGRICULTURE	_ECONOMICS	_LITERATURE	_SCULPTURE	
_1600-1699	_ARCHITECTURE	_EDUCATION	_MILITARY	_SOCIAL/HUMANITARIAN	
_1700-1799	_ART	X ENGINEERING	_MUSIC	_THEATER	
✓1800-1899	_COMMERCE	_EXPLORATION/SETTLEMENT	_PHILOSOPHY	X TRANSPORTATION	
_1900-	_COMMUNICATIONS	_INDUSTRY	_POLITICS/GOVERNMENT	X OTHER (SPECIFY) local history	
		_INVENTION			

SPECIFIC DATES 1866 BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

These granite pilings are all that remain of the first bridge across the Susquehanna River at Havre de Grace. The evolution of the bridge over the years is interesting. In 1852 the Philadelphia, Willmington and Baltimore Railroad began to investigate the possibility of bridging the river, since the crossing aided by a hand operated ferry or a steamboat was quite lenghty. In the winter of 1859 railroad tracks had been laid across the frozen Susquehanna. By 1866, a bridge with wooden spans was opened; the piers having been found able to withstand the pressure of water and ice. In 1873-75, the wooden spans were replaced with iron and a pedestrian walkway was added underneath the bridge. In 1909 the new bridge built by the Pennsylvania R.R.(who had absorbed the Philadelphia, Willmington and Baltimore R.R.) was opened just north of the old bridge. When the new bridge was completed, the state required that the old bridge be reduced to the level of the riverbed for safe navigation. Since this was a costly project, the R.R. instead sold the bridge to some (less than 10) Harford County businessmen for $100.00 a peice. The automobile toll bridge which resulted charged $1.00 per vehicle,;wagons still used the ferry. Passage on the brigde, regulated by a relay stick, was one way. After a slow start the bridge became, as the atomobile caught on, a huge financial sucess. In 1926, the State Highway Commision bought the bridge and converted it into a double decker vehicular bridge, thougt to be one of the first in the country. In 1939 the Rt. 40 was built upstream to accomadate the increasing N.Y. to Washington traffic and the double decker bridge was closed; in 1943 it was dismantled and sold as scrap iron.

CONTINUE ON SEPARATE SHEET IF NECESSARY

AA-336

9 MAJOR BIBLIOGRAPHICAL REFERENCES

M.H.T. inventory notes of interview conducted by Jean Ewing with Mr. and Mrs. G. Taylor Lyon at their house May 14, 71

The Harford Directory 1953 p. 150-151

CONTINUE ON SEPARATE SHEET IF NECESSARY

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE COUNTY

STATE COUNTY

11 FORM PREPARED BY

NAME / TITLE Marion Morton-Historic Sites Surveyor

ORGANIZATION Maryland Historical Trust DATE May, 77

STREET & NUMBER 21 State Circle TELEPHONE

CITY OR TOWN Annapolis STATE Md.

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust
The Shaw House, 21 State Circle
Annapolis, Maryland 21401
(301) 267-1438

PS-1108

Chapter 11

Railroads

WHEN PETER COOPER, the former carriage builder and New York merchant, made the first trial run of an American railway train from Baltimore to Ellicott's Mills (Ellicott City) on August 28, 1830, inhabitants of Harford cheered the great event. This accomplishment demonstrated the superiority of steam over motive power of the horse-drawn vehicle.

Little did they know that the slow, two-hour journey of the Tom Thumb would be the beginning of a new era in transportation and that Harford County would be one of the first to profit by that bold and daring venture. In less than twenty years after the invention of the steam locomotive by George Stephenson, of England, in 1815, a railroad was on its way across the southern part of the county.

Pennsylvania Railroad

Plans were begun for the new railroad to extend from Baltimore to Philadelphia, but the first step was a line from Baltimore to the Susquehanna River. The road known as the Baltimore and Port Deposit Railroad was started from Baltimore in 1834 and by 1836 it was completed as far as Havre de Grace. By 1838 a line called the Philadelphia, Wilmington, and Baltimore Railroad had been completed to the north and the Baltimore and Port Deposit Railroad was taken into the corporation.

Many small streams along the route caused construction engineers little trouble, as by that date they could build short wooden bridges to carry the light trains. The Susquehanna, however, presented not only an engineering problem, but a financial one. Trains were therefore ferried across the river from 1838 to 1866. This proved to be difficult and slow, as the crossing sometimes required one-to-two hours.

By 1852 the freight and passenger traffic had increased to such an extent that engineers began plans for a bridge. It was not until 1866 that it was completed and ready for use. The first bridge was erected of wood but was gradually replaced with steel during the period from 1873 to 1878. This bridge stood the test of time from 1866 to 1939. Its unique history has been related in Chapter 9.

Many interesting stories are told of the difficulties encountered during the time the railroad had to use a ferry. Often in winter the ferry boats were frozen in at the dock and trains were delayed for hours, and sometimes for days. In 1852 the long, cold winter froze the Susquehanna River

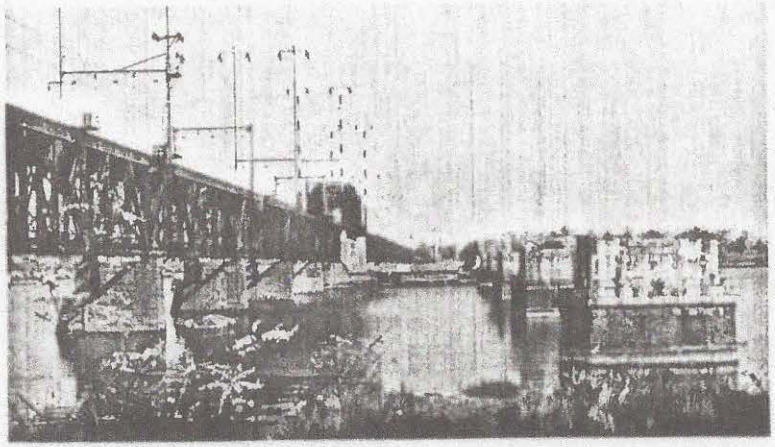


Photo by Dr. David C. Hodge

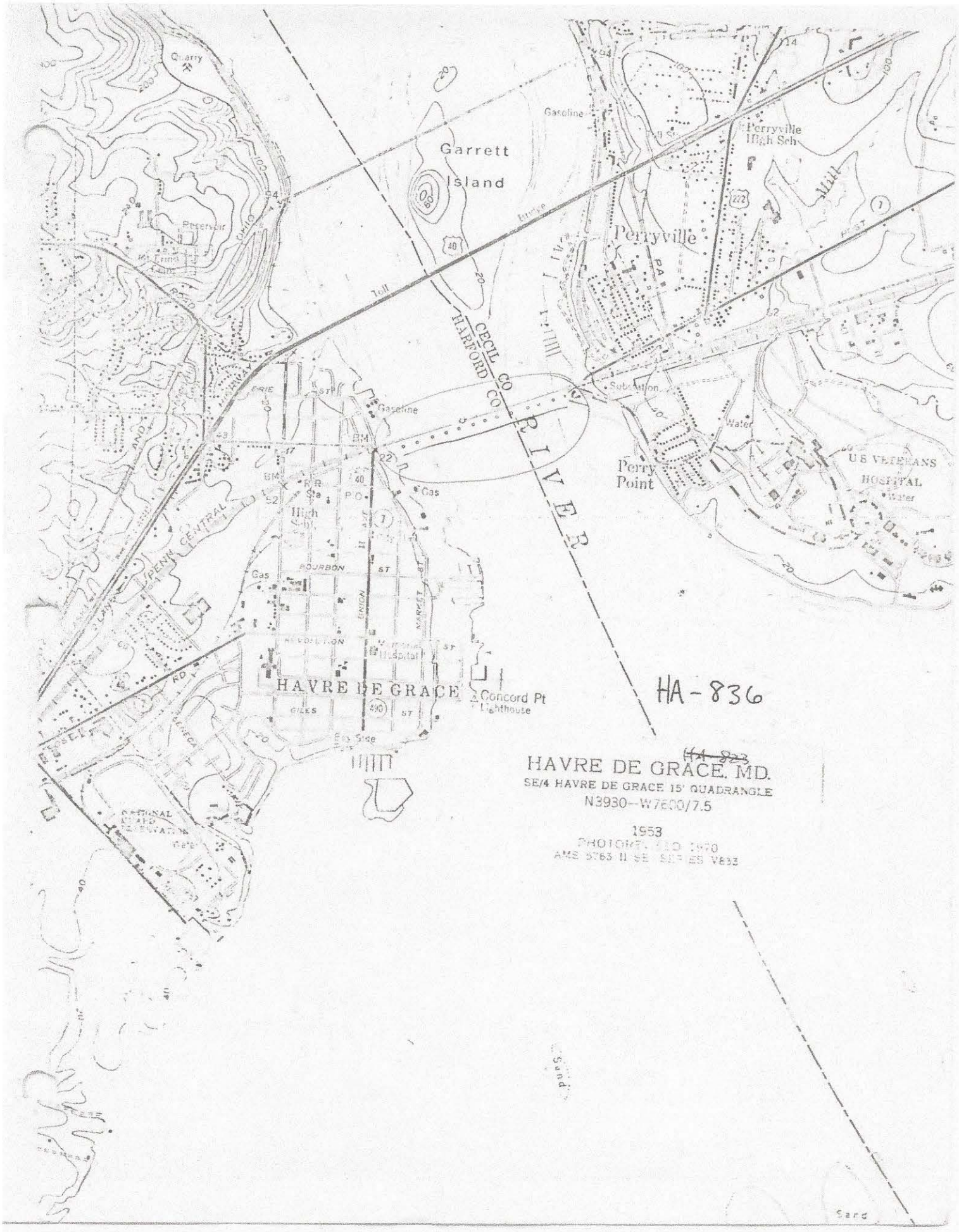
PIERS OF FIRST RAILROAD BRIDGE AT HAVRE DE GRACE
Built 1866. Used as road bridge 1908-1939.

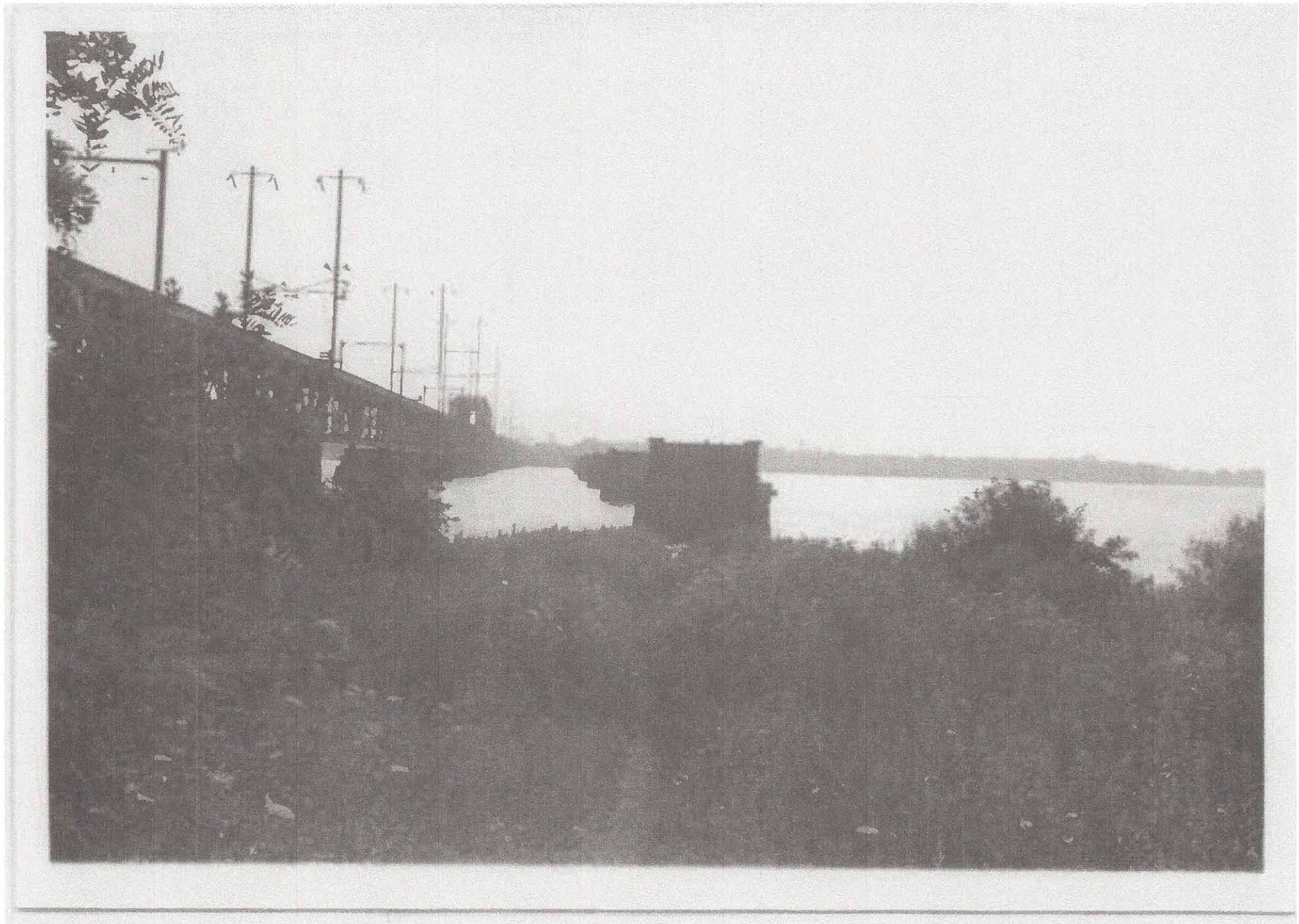
to a depth of 2 to 3 feet, preventing all ferry service and leaving trains halted at the river's edge. Railroad officials overcame this perplexing situation by laying tracks across the ice, with trestles for inclines at either bank. Freight cars glided down the inclined rails to the ice and were pulled by teams of horses to the opposite shore. The horses pulled cars across the river by means of ropes in much the same way as a canal boat was pulled along the tow path. The cars were pulled up again by the train engines waiting on the opposite shore. During the several weeks from January 15 to February 29, approximately 1,300 cars with a total weight of 10,000 tons were hauled across the river. It is significant that none of the eight-wheeled cars that crossed this ice bridge was lost and there was no injury to person or property.

The P. W. & B. was absorbed into the Pennsylvania system in 1902. In 1908 the present bridge was completed and the original structure was converted to a highway bridge and remained in use until 1939. The Pennsylvania line from Philadelphia to Baltimore was electrified about 1930, receiving most of its power from the Philadelphia Electric Company, some of which came from Conowingo. It was one of the first railroads to convert entirely to electric power.

Baltimore and Ohio Railroad

While the Baltimore and Ohio Railroad was the pioneer in Maryland with its first railroad from Baltimore to Ellicott City, it did not extend its


Garrett
Island
Perryville
Perryville
High Sch
Perry
Point
U.S. VETERANS
HOSPITAL
CECIL CO
HARFORD CO
RIVER
HAVRE DE GRACE
Concord Pt
Lighthouse
PENN CENTRAL
Toll
Bridge
Gasoline
Water
Sand
HA-836
HAVRE DE GRACE, MD.
SE/4 HAVRE DE GRACE 15' QUADRANGLE
N3930—W7800/7.5
1953
PHOTOREVISED 1970
AMS 5763 II SE—SERIES V833



BRIDGE PILINGS HA-836
Otsego St.
Havre de Grace

MARION MORTON
6/77

A3 · HA790

HA-790 Abraham Jarrett Thomas House
501 St. John Street
Havre de Grace, MD

Well and (background) old RR crossing over Susquehanna.
c. 1894-5 or early 1900's

Gift from: Mrs. Elise B. Deller
1708 Chatham Road
Camp Hill, PA 17011

October 27, 1984

Attachment 4

Candidate Historic Properties that may be certified as eligible for the Maryland State Income Tax Credit - Havre de Grace TIZ

Havre de Grace - Candidate Historic Properties						
MIHP_	MIHP_ID	MIHP_NO	CLASS	NAME	ADDRESS	TOWN
		HA-836				
		HA-836				
		HA-836				
		HA-836				
		HA-836				
		HA-836				
		HA-836				
		HA-836				
		HA-836				
		HA-836				
		HA-836				
		HA-836				
		HA-798				
		HA-815				
		HA-832				
		HA-536				
		HA-1712	HA-1712	AMTRAK RR Bridge over Susquehanna River	Union Ave.(MD7)&OtsegoSt.	Havre de Grace
		HA-1631	HA-1631	Booth Log House (John Handy House)	Churchville Road (MD 22)	Churchville
		HA-1631	HA-1631	Booth Log House (John Handy House)	Churchville Road (MD 22)	Churchville
		HA-113				
		HA-112				
		HA-544				
		HA-251				
		HA-826				
		HA-1108	HA-1108	Cianelli House	Erie Street	Havre de Grace
		HA-1185	HA-1185	Hawkins House	Ontario Street	Havre de Grace
		HA-1184	HA-1184	Gibson Double House	Ontario Street	Havre de Grace
		HA-832				
		HA-1099	HA-1099	James Hopper House	Ontario Street	Havre de Grace
		HA-1182	HA-1182	Abbott's Ice House (Upper Chesapeake Bay Yacht Club)	Water Street	Havre de Grace
		HA-1185	HA-1185	Hawkins House	Ontario Street	Havre de Grace
		HA-1096	HA-1096	Kitzmiller Apartments	Otsego Street	Havre de Grace
		HA-835				
		HA-1175	HA-1175	Old St. Patrick's Rectory	North Stokes Street	Havre de Grace
		HA-790				
		HA-1104	HA-1104	Cameron-Currier Livery Stables	N.Stokes&Franklin Streets	Havre de Grace
		HA-1109	HA-1109	Presbyterian Church of Havre de Grace	Franklin Street	Havre de Grace

Havre de Grace - Candidate Historic Properties

MIHP_	MIHP_ID	MIHP_NO	CLASS	NAME	ADDRESS	TOWN
		HA-1166	HA-1166	Ruttledge House	North Union Avenue	Havre de Grace
		HA-1158	HA-1158	Mentzer Apartments	Franklin Street	Havre de Grace
		HA-797				
		HA-791				
		HA-1174	HA-1174	Joseph T. Hatem House & Store	North Stokes Street	Havre de Grace
		HA-1173	HA-1173	Jones House	North Stokes Street	Havre de Grace
		HA-1156	HA-1156	St. James A.M.E. Church	Green Street	Havre de Grace
		HA-1157	HA-1157	Hecht Hotel	Green Street	Havre de Grace
		HA-1154	HA-1154	Charshee House	Green Street	Havre de Grace
		HA-1097	HA-1097	Emory Chapel (Havre de Grace Methodist Church)	Stokes Street	Havre de Grace
		HA-789				
		HA-788				
		HA-792				
		HA-1181	HA-1181	Havre de Grace Banking and Trust Co.	St. John Street	Havre de Grace
		HA-1113	HA-1113	Old First National Bank Building	St. John Street	Havre de Grace
		HA-794				
		HA-795				
		HA-1123	HA-1123	Newmeyer Building	North Washington Street	Havre de Grace
		HA-547				
		HA-1128	HA-1128	H. Harrison Hopkins House	North Union Avenue	Havre de Grace
		HA-1167	HA-1167	James Fahey House	North Union Avenue	Havre de Grace
		HA-1180	HA-1180	Masonic Temple Building	North Washington Street	Havre de Grace
		HA-814				
		HA-820				
		HA-1102	HA-1102	Thompson House	North Stokes Street	Havre de Grace
		HA-1094	HA-1094	Pennington House	Pennington Avenue	Havre de Grace
		HA-1168	HA-1168	Weber House	North Union Avenue	Havre de Grace
		HA-816				
		HA-801				
		HA-1121	HA-1121	Aledas Dress Shop & The Seville Shop	North Washington Street	Havre de Grace
		HA-1179	HA-1179	Ada Asher Building	North Washington Street	Havre de Grace
		HA-1114	HA-1114	Bata Shoe Building	North Washington Street	Havre de Grace
		HA-796				
		HA-1164	HA-1164	Quirk House	Congress Avenue	Havre de Grace
		HA-1169	HA-1169	Correri House	South Union Avenue	Havre de Grace
		HA-1170	HA-1170	Sutor Apartments	South Union Avenue	Havre de Grace
		HA-1171	HA-1171	McCombs House	South Union Avenue	Havre de Grace
		HA-553				
		HA-1112	HA-1112	Vosbury House	South Union Avenue	Havre de Grace
		HA-1111	HA-1111	Carver House	South Union Avenue	Havre de Grace

Havre de Grace - Candidate Historic Properties

MIHP_	MIHP_ID	MIHP_NO	CLASS	NAME	ADDRESS	TOWN
		HA-1125	HA-1125	Havre de Grace United Methodist Church	S.Union & Congress Avenue	Havre de Grace
		HA-1095	HA-1095	Lawder-Willis House	Congress Avenue	Havre de Grace
		HA-542				
		HA-1129	HA-1129	Carver-Maslin House	South Washington Street	Havre de Grace
		HA-541				
		HA-540				
		HA-539				
		HA-807				
		HA-808				
		HA-818				
		HA-1130	HA-1130	Asher House	South Washington Street	Havre de Grace
		HA-1150	HA-1150	Williams House	Bourbon Street	Havre de Grace
		HA-817				
		HA-1131	HA-1131	Foard Double House	South Washington Street	Havre de Grace
		HA-1132	HA-1132	Robert Pennington House	South Washington Street	Havre de Grace
		HA-1144	HA-1144	Hewitt House	Fountain Street	Havre de Grace
		HA-1133	HA-1133	H. Smith House	South Washington Street	Havre de Grace
		HA-1134	HA-1134	Neville House	South Washington Street	Havre de Grace
		HA-810				
		HA-1172	HA-1172	Fuller-Mezei Apartments	South Union Avenue	Havre de Grace
		HA-1107	HA-1107	Vandiver Mansion	South Union Avenue	Havre de Grace
		HA-552				
		HA-1146	HA-1146	Whyte House	Fountain Street	Havre de Grace
		HA-1143	HA-1143	Burns Apartments	Fountain Street	Havre de Grace
		HA-1147	HA-1147	Malin House	South Stokes Street	Havre de Grace
		HA-1145	HA-1145	Wardell House	Bourbon Street	Havre de Grace
		HA-549				
		HA-440				
		HA-1135	HA-1135	Fadely House	South Washington Street	Havre de Grace
		HA-811				
		HA-545				
		HA-1136	HA-1136	S. Miller House	South Washington Street	Havre de Grace
		HA-812				
		HA-1137	HA-1137	Jones Double House	South Washington Street	Havre de Grace
		HA-1138	HA-1138	Tarbert Double House	South Washington Street	Havre de Grace
		HA-1139	HA-1139	White House Farm (Wheeler Range)	White House Road	Forest Hill
		HA-1116	HA-1116	Putland House	South Washington Street	Havre de Grace
		HA-1224	HA-1224	Barnes House	South Washington Street	Havre de Grace
		HA-1223	HA-1223	Manucy House	South Washington Street	Havre de Grace
		HA-1177	HA-1177	Jacksteit House	Market Street	Havre de Grace
		HA-1187	HA-1187	DeGroat House	Market Street	Havre de Grace
		HA-1127	HA-1127	Bayou Hotel	Commerce & Market Streets	Havre de Grace
		HA-837				

Havre de Grace - Candidate Historic Properties						
MIHP_	MIHP_ID	MIHP_NO	CLASS	NAME	ADDRESS	TOWN
		HA-111				
		HA-831				
		HA-830				
		HA-1167	HA-1167	James Fahey House	North Union Avenue	Havre de Grace
		HA-1163	HA-1163	Beachley House	Warren Street	Havre de Grace
		HA-1162	HA-1162	Sheaffer House	Franklin Street	Havre de Grace
		HA-1161	HA-1161	Klair House	Franklin Street	Havre de Grace
		HA-813				
		HA-1105	HA-1105	Parker Mitchell House	Franklin Street	Havre de Grace
		HA-1159	HA-1159	Tin Front Building	Franklin Street	Havre de Grace
		HA-1160	HA-1160	Joseph Good House and Store	Franklin Street	Havre de Grace
		HA-1566	HA-1566	Post Office Headquarters (U.S. Post Office)	North Union Avenue	Havre de Grace
		HA-1153	HA-1153	Cook House	Green Street	Havre de Grace
		HA-1155	HA-1155	McComas House	Green Street	Havre de Grace
		HA-793				
		HA-798				
		HA-1115	HA-1115	McLhinney Building	North Washington Street	Havre de Grace
		HA-1750	HA-1750	Maryland House Apartments	Washington Street	Havre de Grace
		HA-802				
		HA-537				
		HA-1120	HA-1120	A & J Travel Agency	North Washington Street	Havre de Grace
		HA-805				
		HA-1178	HA-1178	Asher Building	North Washington Street	Havre de Grace
		HA-543				
		HA-1110	HA-1110	Borneman Apartments (Havre de Grace Methodist Church)	North Union Avenue	Havre de Grace
		HA-544				
		HA-1165	HA-1165	Lawder Apartments	Congress Avenue	Havre de Grace
		HA-806				
		HA-1151	HA-1151	Keene House	Bourbon Street	Havre de Grace
		HA-1152	HA-1152	Van Meter House	Bourbon Street	Havre de Grace
		HA-809				
		HA-548				
		HA-1122	HA-1122	Hoke House	South Union Avenue	Havre de Grace
		HA-546				
		HA-1132	HA-1132	Robert Pennington House	South Washington Street	Havre de Grace
		HA-822				

Candidate Historic Properties that may be certified as eligible for the Maryland State Income Tax Credit - Greenway Corridor TIZ (Cecil County):

Greenway Corridor TIZ (Cecil County) - Candidate Historic Properties						
MIHP	MIHP_ID	CLASS	MIHP_NO	NAME	ADDRESS	TOWN
474	454	CE-879	CE-0879	Stone Barn Ruin	Conowingo Road (U.S. Rt1)	Kilby Corner
508	440	CE-887	CE-0887	Rowland Plank House	Rowlandsville Road(MD338)	Rowlandsville
512	439	CE-885	CE-0885	Rowland House (Dempsey House)	Rowlandsville Road(MD338)	Rowlandsville
513	441	CE-788	CE-0788	Hostetter House	Rowlandsville Road	Rowlandsville
518	438	CE-42	CE-0042	Mill at Rowlandsville on Octorara Creek, site	Rowlandsville Rd. (MD338)	Rowlandsville
521	437	CE-882	CE-0882	Rowlandsville Hill House	Ramsey Lane	Rowlandsville
528	436	CE-789	CE-0789	Rowlandsville Mill (Davis-Christie Mill,Rowland Mill)	McCauley Road	Rowlandsville
532	1031	CE-1459	CE-1459	Bridge, McCauley Road over Basin Run (SHA# 091)	McCauley Road	Conowingo
534	435	CE-884	CE-0884	Rowlandsville Iron Bridge over the Octoraro	Rowlandsville Road(MD338)	Rowlandsville
537	434	CE-781	CE-0781	Christy House	Mayse Lane	Rowlandsville
542	433	CE-1006	CE-1006	Old Harmony Methodist Church (Harmony Chapel)	Dr. Jack Road	Rowlandsville
547	431	CE-883	CE-0883	Concrete Train Bridge over Octoraro Creek	McCauley Road	Rowlandsville
548	430	CE-881	CE-0881	Rowlandsville Iron Train Bridge	Moore Road	Rowlandsville
555	432	CE-1204	CE-1204	Basin Run Iron Train Bridge	Basin Run Road (MD 338)	Rowlandsville
576	541	CE-46	CE-0046	Hall's Choice	Dr. Jack Road	Rowlandsville
644	423	CE-1217	CE-1217	Dooling Log House (Union Hotel)	SusquehannaRiverRd(US222)	Rock
694	544	CE-767	CE-0767	Thomas-Holiday House	SusquehannaRiverRd(US222)	Rock
746	34	CE-1229	CE-1229	Stump-Smithson House	Frenchtown Road	Bainbridge
763	38	CE-142	CE-0142	Mt. Ararat Manor House (Physicks-Water's House)	Mt. Ararat Farm Road	Bainbridge
776	26	CE-525	CE-0525	Cokesbury Road Spring House	Cokesbury Road	Frenchtown
811	7	CE-997	CE-0997	Susquehanna River Bridge Administration Building	Pulaski Highway (U.S.40)	Perryville
824	5	CE-129	CE-0129	Rodgers Tavern (Stevenson's Tavern)	Broad Street & River Road	Perryville
828	4	CE-244	CE-0244	Perry Point Mill	Avenue A	Perry Point
830	3	CE-146	CE-0146	Perry Point Mansion House (U.S. Veterans Hospital)	Sixth Street	Perry Point

Candidate Historic Properties that may be certified as eligible for the Maryland State Income Tax Credit - Greenway Corridor TIZ (Harford County):

Greenway Corridor TIZ (Harford County) - Candidate Historic Properties						
MIHP	MIHP_ID	MIHP_NO	CLASS	NAME	ADDRESS	TOWN
		HA-824				
		HA-825				
		HA-1782	HA-1782	Baltimore & Ohio Railroad Bridge over MD 155 (CSX)	Superior Street (MD 155)	Havre de Grace
		HA-198				
		HA-574				
		HA-573				
		HA-379				
		HA-378				
		HA-580				
		HA-579				
		HA-581				
		HA-582				
		HA-578				
		HA-380				
		HA-381				
		HA-373				
		HA-575				
		HA-576				
		HA-577				
		HA-377				
		HA-374				
		HA-375				
		HA-1037	HA-1037	Peddler's Run Site, upper mill	Glen Cove Road	Darlington
		HA-1036	HA-1036	Peddler's Run Site, lower mill	Glen Cove Road	Darlington
		HA-180				
		HA-183				
		HA-376				
		HA-382				
		HA-191				
		HA-193				
		HA-194				
		HA-195				
		HA-195				
		HA-195				
		HA-195				
		HA-195				
		HA-195				
		HA-195				
		HA-192				
		HA-196				
		HA-197				

Greenway Corridor TIZ (Harford County) - Candidate Historic Properties						
MIHP	MIHP_ID	MIHP_NO	CLASS	NAME	ADDRESS	TOWN
		HA-1034	HA-1034	Old road south from Glen Cove	Glen Cove Road	Darlington
		HA-1034	HA-1034	Old road south from Glen Cove	Glen Cove Road	Darlington
		HA-1034	HA-1034	Old road south from Glen Cove	Glen Cove Road	Darlington
		HA-1035	HA-1035	Glen Cove Road	Glen Cove Road	Darlington
		HA-1035	HA-1035	Glen Cove Road	Glen Cove Road	Darlington
		HA-1035	HA-1035	Glen Cove Road	Glen Cove Road	Darlington
		HA-1035	HA-1035	Glen Cove Road	Glen Cove Road	Darlington
		HA-823				
		HA-312				
		HA-4				

The following properties located in the TIZ which are on the National Register of Historic Places are eligible for the Maryland Income Tax Credit:

TIZ - Candidate Historic Properties		
SWNRHP_	SWNRHP_ID	CLASS
91	127	NR-188
100	128	NR-1015
109	131	NR-953
111	1062	NR-1113
118	129	NR-196
122	132	NR-998
124	130	NR-621
160	64	NR-164
161	1059	NR-472
163	1049	NR-306
170	45	NR-822
176	188	NR-448
180	1094	NR-795
182	1095	NR-791
185	63	NR-1044
195	65	NR-454
218	183	NR-568
223	273	NR-1100
238	1098	NR-381
243	186	NR-88
245	185	NR-672
249	184	NR-314
261	187	NR-363

Attachment 5

HA-790 c. 1835
ABRAHAM JARRETT THOMAS HOUSE
Havre de Grace, Md.

Along with the Susquehanna and Tidewater Canal Lockhouse and the Concord Point Lighthouse, the Abraham Jarrett Thomas House, known as the Lafayette Hotel is the town's most prominent landmark. It is a large two and a half story five bay brick building built ona Georgian plan which has been covered with stucco. Situated on the west bank of the Susquehanna River, the building is on the site and perhaps the foundations of the old Ferry House, an inn run in conjunction with the old hand operated ferry boats.

MARYLAND HISTORICAL TRUST 1307904410 HA-790

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY

1 NAME

HISTORIC: Abraham Jarrett Thomas House

AND/OR COMMON: (Lafayette Hotel)

2 LOCATION

STREET & NUMBER: 501 St. John Street

CITY, TOWN: Havre de Grace — VICINITY OF

CONGRESSIONAL DISTRICT: 6

STATE: Maryland

COUNTY: Harford

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	__PUBLIC	XOCCUPIED	__AGRICULTURE	__MUSEUM
X BUILDING(S)	XPRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	PUBLIC ACQUISITION	ACCESSIBLE	XENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	XYES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		__NO	✓MILITARY	__OTHER

4 OWNER OF PROPERTY

NAME: Joseph L. Davis, Post 49 The American Legion, Inc Telephone #: 939-0234

STREET & NUMBER: 501 St. John Street

CITY, TOWN: Havre de Grace — VICINITY OF

STATE, zip code: Maryland 21078

5 LOCATION OF LEGAL DESCRIPTION

Liber #: 311

Folio #: 58

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Harford County

STREET & NUMBER: Main Street

CITY, TOWN: Bel Air

STATE: Maryland

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

DATE

__FEDERAL __STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS

CITY, TOWN

STATE

7 DESCRIPTION

HA-790

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	_DETERIORATED	X UNALTERED	X ORIGINAL SITE
X GOOD	_RUINS	_ALTERED	_MOVED DATE_____
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Built in a Hangover Georgian style, 501 St. John Street is a large rectangular, detached two and a half story, five bay by one bay brick dwellingwith a gable roof, possibly dating from the early 19th century. The building, now the Joseph L. Davis Post of the American Legion, is covered with textured stucco and has a one story cinder block addition on the rear. Located between the Susquehanna River and St. John Street, the building faces west toward Legion Square where there is a statue of Lafayette, commissioned for the town's Bicentennial celebration. Old photographs c. 1920 and 1930 show that the facade is flemish bond while the flanks and rear are common bond. The foundations are random rubble covered with stucco.

A one story, three bay porch with pillars resting on a cement floor extends across the entire facade supporting a hipped roof.

Windows are arranged uniformly on the facade; on all elevations they have 9/1 light, double hung sash within recessed jambs. A c. 1930 photograph shows that the windows on the facade and south elevation have flat arches above them and stone sills and lintels. While there are three windows on the first floor, south elevation today, the 1930 photograph shows only one window slightly off center with the window sash within a deeply recessed opening. Third floor gable end windows contain 6/1 light sash as do the three front and two rear dormers.

The main entrance is in the center bay of the facade; it is framed by pilasters supporting an entabliture with a plain frieze. The door contains fifteen raised panels. Other entrances are in the cinder block addition.

The building has a gable flank roof, covered with asphalt shingles, a narrow box cornice and a wide molded fascia board on the facade and rear. All of the dormers have recessed triangular pediments. Pairs of connected end chimneys rise from the north and south walls; like the rest of the building, they are covered with stucco.

Interior: The first floor has one room on either side of a center hall. The stairs rising to the third floor are on the south wall of the hall. The windows framed by architrave molding are deeply recessed with wide inner sills. The band of molding under the window sills a rectangular panel is in the center. Six panel doors are found through out the house. The American Legion has a Rathskeller in the basement, a large cooking fireplace with an arched opening is on the north wall of the rear room. There was another large fireplace in the adjoining room but it has been bricked up.

CONTINUE ON SEPARATE SHEET IF NECESSARY

HA-790

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
_PREHISTORIC	_ARCHEOLOGY-PREHISTORIC	✓COMMUNITY PLANNING	_LANDSCAPE ARCHITECTURE	_RELIGION
_1400-1499	_ARCHEOLOGY-HISTORIC	_CONSERVATION	_LAW	_SCIENCE
_1500-1599	_AGRICULTURE	_ECONOMICS	_LITERATURE	_SCULPTURE
_1600-1699	✓ARCHITECTURE	_EDUCATION	_MILITARY	_SOCIAL/HUMANITARIAN
_1700-1799	_ART	_ENGINEERING	_MUSIC	_THEATER
X 1800-1899	✓COMMERCE	_EXPLORATION/SETTLEMENT	_PHILOSOPHY	_TRANSPORTATION
_1900-	_COMMUNICATIONS	_INDUSTRY	_POLITICS/GOVERNMENT	_OTHER (SPECIFY)
		_INVENTION		

SPECIFIC DATES c. 1834 BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

The Abraham Jarrett Thomas House is a two and a half story, five bay brick dwelling with a Flemish bond facade-now covered with stucco. The building and the river front lot on which it is located figure prominently in the Town's history. The early growth of the settlement known as Harmerstown, Stocketts town, Susquehanna Lower Ferry and finally Havre de Grace was determined by its location on the Susquehanna River and the upper Chesapeake Bay. Here, travelers following the Old Post Road-the major Colonial route between the south and Philadelphia crossed the Susquehanna River by ferry. Among the early ferry operators was John Rodgers, who secured a license in 1776 to operate an "ordinary" at Havre de Grace. Rodgers who bought a lot on S. Washington Street (HA-798) in 1788 on which a dwelling-beleived to have been built before 1800 stands today, is better known as the (c.1780) PROPRIETOR of Rodger's Tavern across the river where George Washington was a frequent vistore and as the father of Commodore John Rodgers, the founder of the American Navy. Although the exact location of the tavern run by John Rodgers in Havre de Grace is not known, it is logical to assume that it may have stood on this site, particularly since we know from the land records that this land was deeded to the Havre de Grace Ferry Co. in 1818 by William B. Stokes. In 1834 the land, comprising 11 lots, was sold to Abraham Jarrett Thomas, for whom the present structure was probably erected, although the basement may be earlier. A.J. Thomas was a banker and an early member of St. John's Church (HA-544). Stevenson Archer Williams in his "Recollections of Boyhood At Medical Hall etc.." mentions that the Lafayette Hotel was the Abraham Jarrett Thomas house when he was a boy. The Philadelphia, Wilmington and Baltimore Railway later known as the Baltimore and Washington Railway purchased the propery in 1856 and the building was run as the Lafayette Hotel until shortly before it became the Post 49, American Legion headquarters in 1947.

Those who pass thrcugh Havre de Grace on the train often remark on the sight of the old building with the large chimneys on the river front. The mass of the building is similar to the Wollon Doublehouse (HA-835) a smaller dwelling built in an Overhang Georgian style with large double interior end chimneys. Only four buildings in Havre de Grace have Flemish bond brickwork, The A.J. Thomas House being one of them although covered with stucco. The size of the house (aprox. 40' x 30') makes it unusual as does the presence of a large cooking fireplace in thebasement. The building deserves further structural investigation.

CONTINUE ON SEPARATE SHEET IF NECESSARY

NA-790

9 MAJOR BIBLIOGRAPHICAL REFERENCES

1798 Tax Assesment-Harford County
1814 Tax Assesment-Harford County
Kidwiler, Elias W. History or Havre de Grace "The Town We Live In"
Shriver, J. Alexis, Talk Given At the Unveiling of the Historical Marker at Rodgers Tavern, Perryville, Oct. 15,1932
Williams, Stevenson Archer "Recollections of Boyhood at Medical Hall etc,.." 1923 copy at Susquehanna Museum Havre de Grace.

CONTINUE ON SEPARATE SHEET IF NECESSARY

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE | COUNTY

STATE | COUNTY

11 FORM PREPARED BY

NAME / TITLE

Marion Morton-Historic Sites Surveyor

ORGANIZATION: Maryland Historical Trust | DATE: April 18, 1977

STREET & NUMBER: 21 State Circle | TELEPHONE

CITY OR TOWN: Annapolis, Maryland | STATE

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust
The Shaw House, 21 State Circle
Annapolis, Maryland 21401
(301) 267-1438

PS-1108

Abraham Jarrett Thomas House
LAND RECORDS (LAFAYETTE HOTEL)

HA-790

311 58 December 1, 1947

Grantor: Havre de Grace Print and Publishing C., Inc.
Grantee: Joseph L. Davis Post #49, The American Legion, Inc.

GCB300 149 September 20, 1946

Grantors: Michael Fahey and Margaret, his wife
Grantee: Susquehanna Trading Co.

DWG 178 59 April 12, 1922

Grantor: Baltimore and Washington Railroad
Grantee: James Robinson
$6,000.00

ALG 8 214 October 7, 1856

Grantor: Joseph Coudon, executor for Abraham Jarrett Thomas
Grantee: Philadelphia, Wilmington and Baltimore Railroad
Being designated on the old plat of said town as square no. 245 and comprising lots 4,8,13,18,23 and 28.
$6,200.00

HD 18 10 December 5, 1834

Grantor: Albert Constable, trustee
Grantee: Abraham Jarrett Thomas
Equity Case: Dec. 1833 William Williams-complainant; Havre de Grace Ferry Co., defendant
$2,700.00 Lots-4,8,13,18,23,28,33,38,44,50,56

With all and singular the Buildings, improvements, advantages, privilidges, rightsways, waters, and appurtenances.

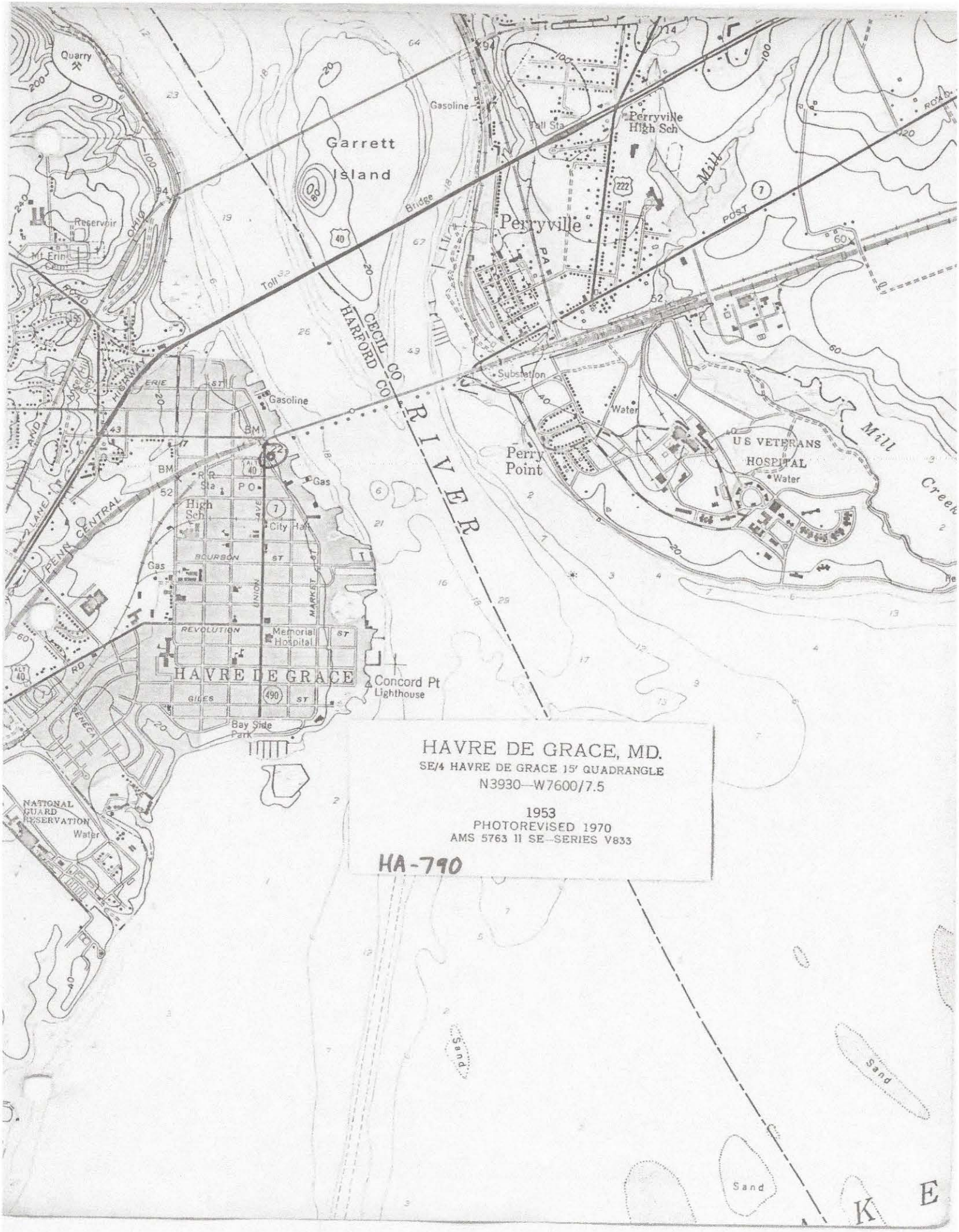
HD 1 478 September 25, 1818

Grantor: William B. Stokes
Grantee: Havre de Grace Ferry Co.
$10,000 lots 4,8,13,18,23,28,33,38,44,50,56

Havre de Grace Miscellaneous 1793-1855

Pringle, Sappington , R.Y. Stokes, et al- purchased from William B. Stokes Esq. ten water lots on which stood the brick tavern laterly burnt down with the stables now remain- thereon and the walls and materials together with the wharf and all the said William B. Stokes right of feriage across the river Susquehanna. March 17, 1817

This entry is copied from papers belonging to the Harford County Historical Society filed under H de G miscellaneous.



HAVRE DE GRACE, MD.

SE/4 HAVRE DE GRACE 15' QUADRANGLE

N3930—W7600/7.5

1953

PHOTOREVISED 1970

AMS 5763 II SE—SERIES V833

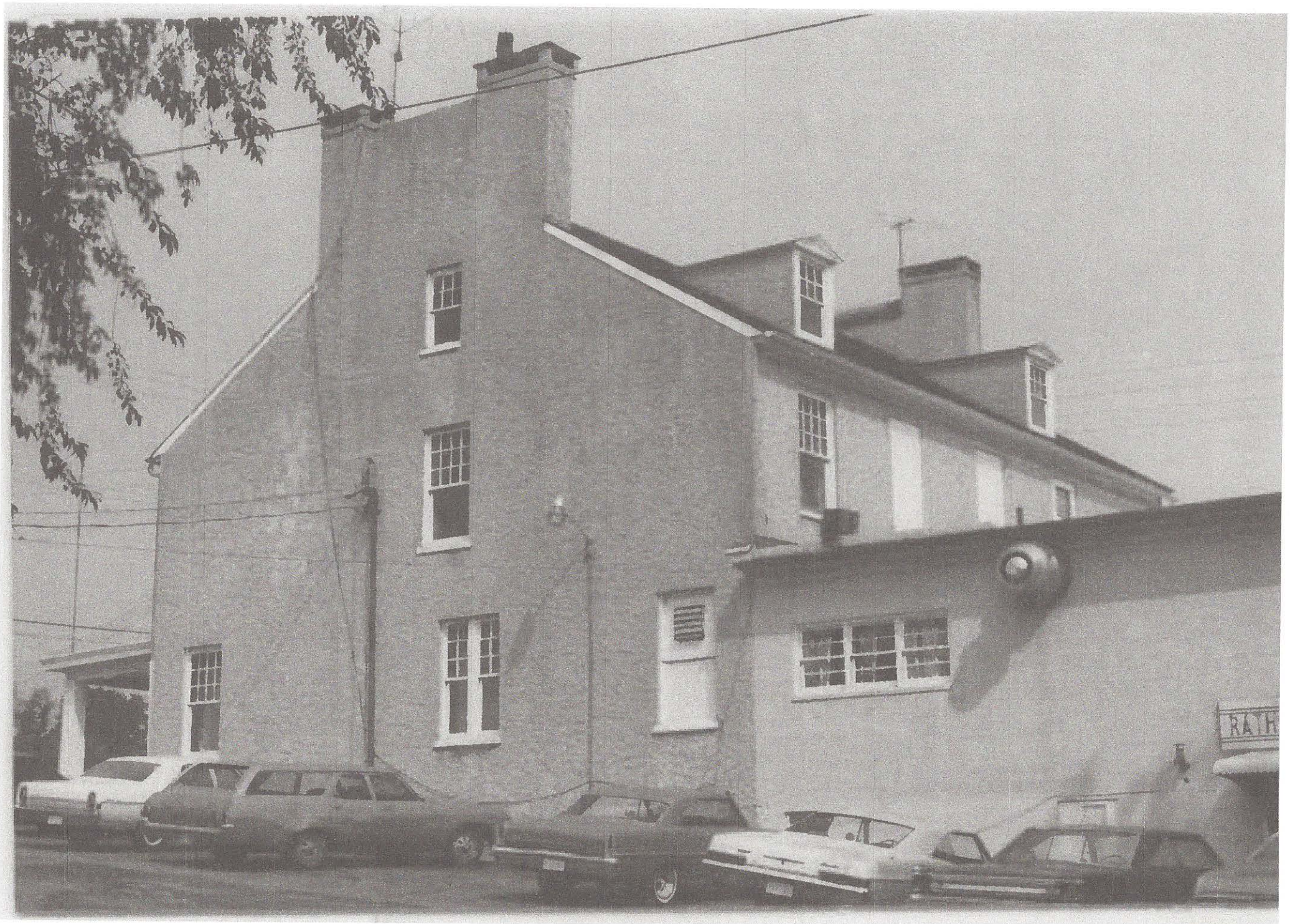
HA-790


LEGION

HA-790

Abraham Jarrett Thomas House
(Lafayette Hotel)
501 St. John St.
Haore de Grace, Md.
Southwest Elevation

April 13, 1977 Marion Morton



Abraham J Arrett Thomas House HA-790
(Lafayette Hotel)
501 St. John St.
Havre de Grace, Md.
Southeast Elevation

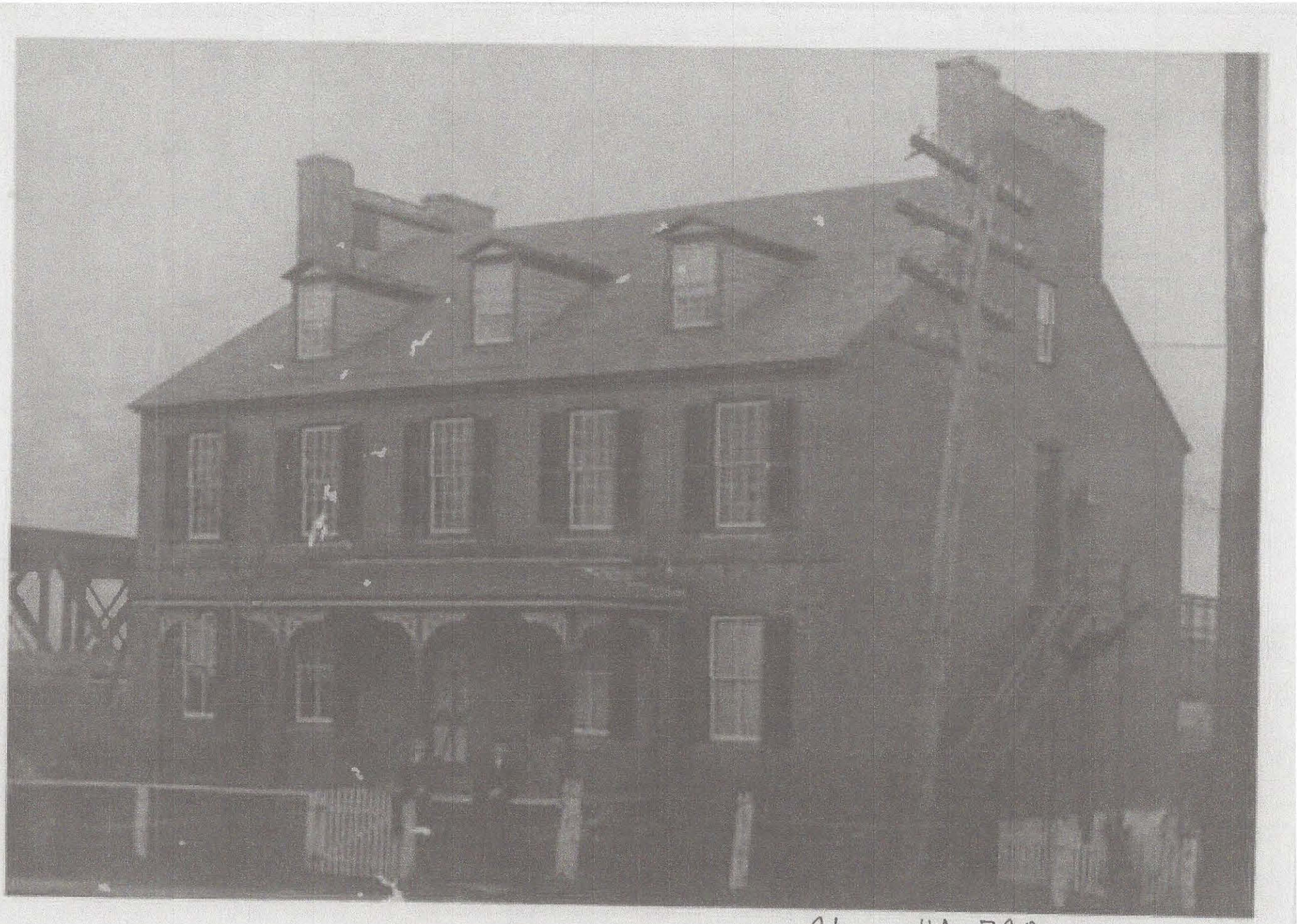
April 18, 1977

Marion Morton


LAFAYETTE

Abrahnm Jarrett Thomas House HA-790
(Lafayette Hotel)
501 St. John St.
H. de. G. Maryland
Southwest Elevation
Old photo. in collection of Susquehanna
Museum, Haore de Grace, Md.

April 18, 1977 Marion Morton



A1 - HA-790

HA-790 Abraham Jarrett Thomas House
501 St. John Street
Havre de Grace, MD

picture taken from a post card

Gift from: Mrs. Elise B. Deller
1708 Chatham Road
Camp Hill, PA 17011

October 27, 1984

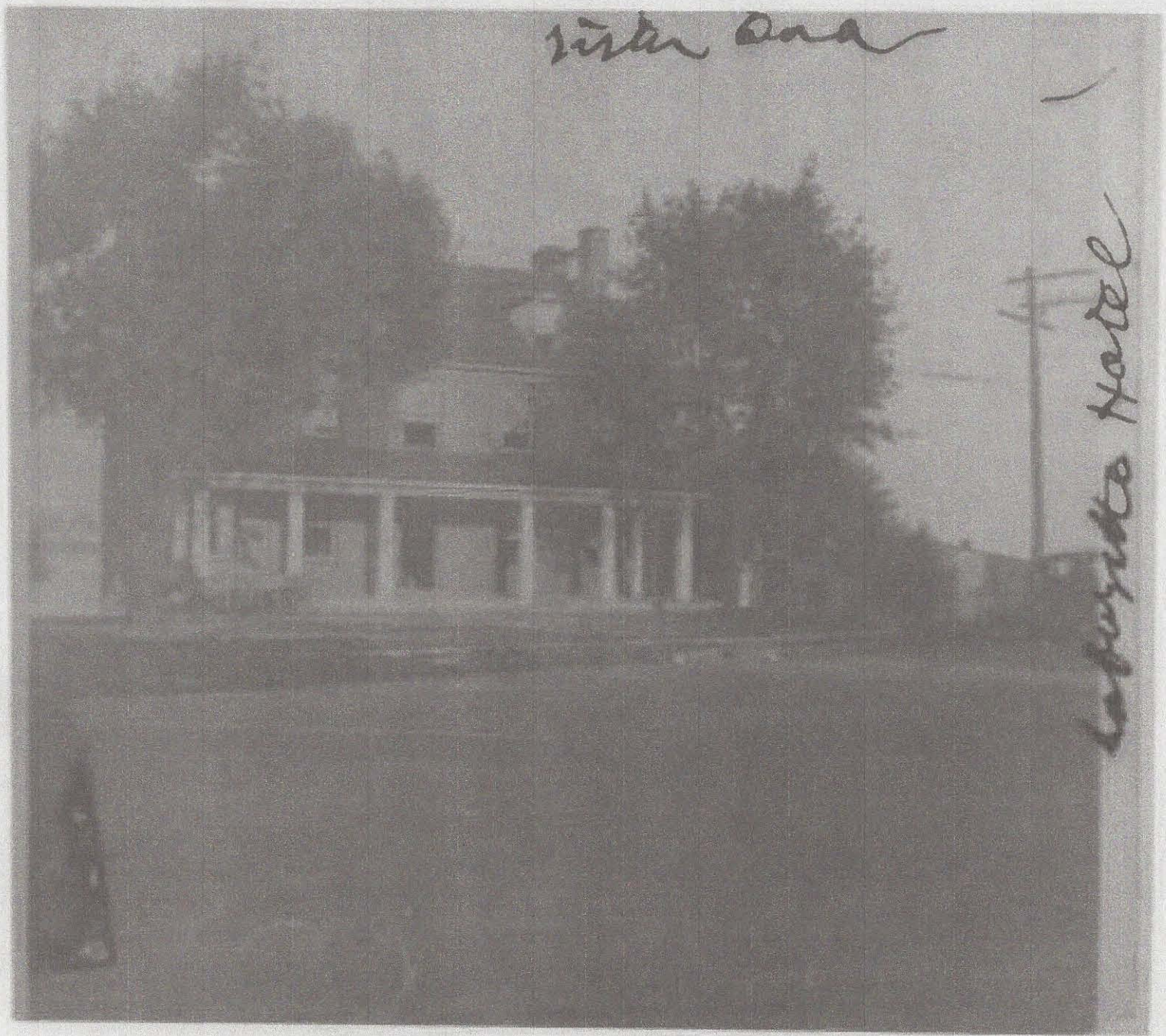
A5 - HA790

HA-790 Abraham Jarrett Thomas House
501 St. John Street
Havre de Grace, MD

view of back of house taken in 1922.

Gift from: Mrs. Elise B. Deller
1708 Chatham Road
Camp Hill, PA 17011

October 27, 1984



A4-HA790

HA-790 Abraham Jarrett Thomas House
501 St. John Street
Havre de Grace, MD

view of front of house taken
in 1922.

Gift from: Mrs. Elise B. Deller
1708 Chatham Road
Camp Hill, PA 17011

October 27, 1984

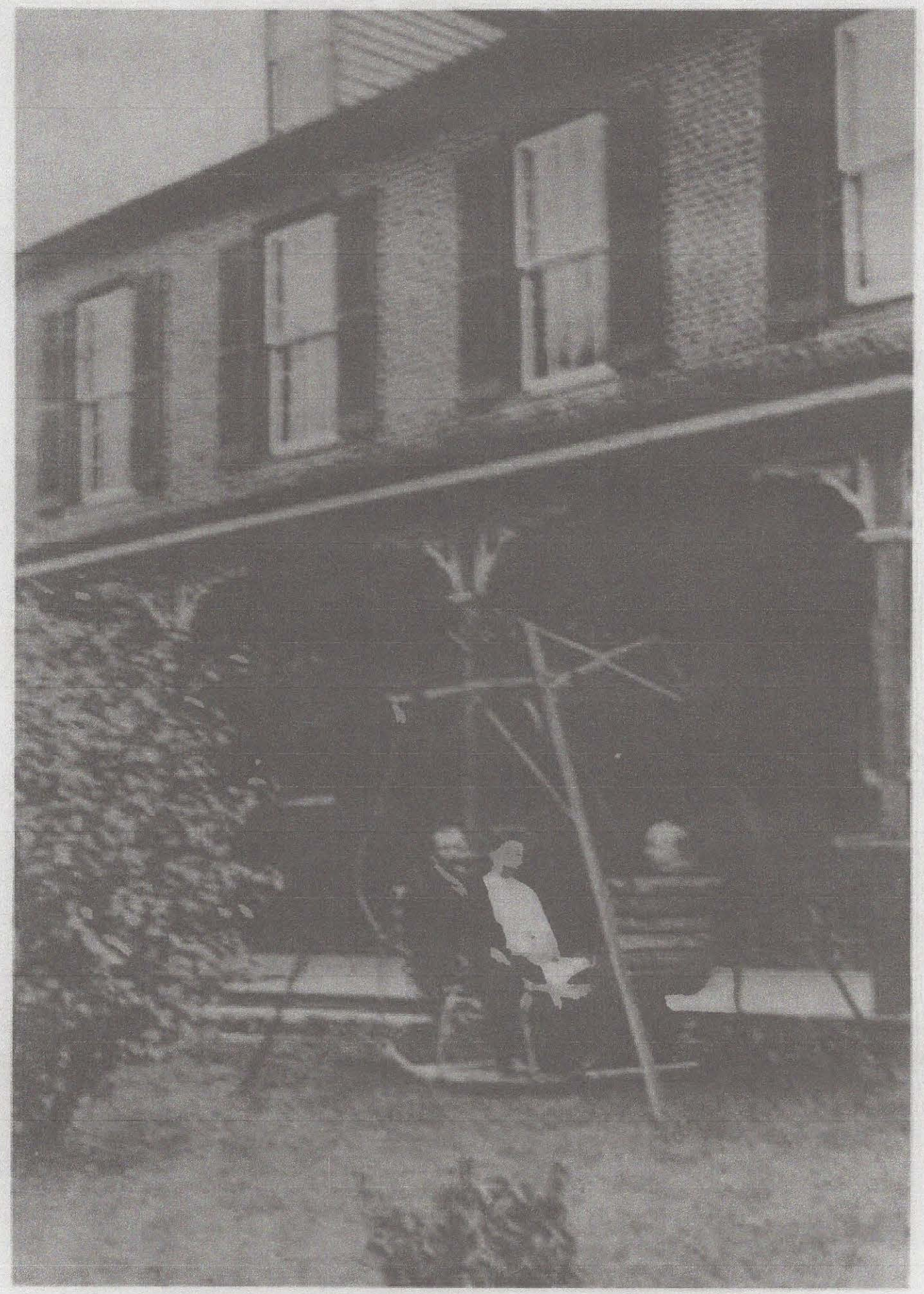
1984

HA-790 Abraham Jarrett Thomas House 790
501 St. John Street
Havre de Grace, MD

picture taken by Mrs. Elise
B. Deller, June 23, 1984

Gift from: Mrs. Elise B. Deller
1708 Chatham Road
Camp Hill, PA 17011

October 27, 1984



AZ-HA790

HA-790 Abraham Jarrett Thomas House
501 St. John Street
Havre de Grace, MD

probable dates, 1894-95
or early 1900

Gift from: Mrs. Elise B. Deller
1708 Chatham Road
Camp Hill, PA 17011

October 27, 1984

Attachment 6

Greenway Corridor TIZ (Harford County) - Candidate Historic Properties						
MIHP	MIHP_ID	MIHP_NO	CLASS	NAME	ADDRESS	TOWN
		HA-1034	HA-1034	Old road south from Glen Cove	Glen Cove Road	Darlington
		HA-1034	HA-1034	Old road south from Glen Cove	Glen Cove Road	Darlington
		HA-1034	HA-1034	Old road south from Glen Cove	Glen Cove Road	Darlington
		HA-1035	HA-1035	Glen Cove Road	Glen Cove Road	Darlington
		HA-1035	HA-1035	Glen Cove Road	Glen Cove Road	Darlington
		HA-1035	HA-1035	Glen Cove Road	Glen Cove Road	Darlington
		HA-1035	HA-1035	Glen Cove Road	Glen Cove Road	Darlington
		HA-823				
		HA-312				
		HA-4				

The following properties located in the TIZ which are on the National Register of Historic Places are eligible for the Maryland Income Tax Credit:

TIZ - Candidate Historic Properties		
SWNRHP_	SWNRHP_ID	CLASS
91	127	NR-188
100	128	NR-1015
109	131	NR-953
111	1062	NR-1113
118	129	NR-196
122	132	NR-998
124	130	NR-621
160	64	NR-164
161	1059	NR-472
163	1049	NR-306
170	45	NR-822
176	188	NR-448
180	1094	NR-795
182	1095	NR-791
185	63	NR-1044
195	65	NR-454
218	183	NR-568
223	273	NR-1100
238	1098	NR-381
243	186	NR-88
245	185	NR-672
249	184	NR-314
261	187	NR-363

13117555508

Attachment 7

HA-1175 c. 1862
OLD ST. PATRICK'S RECTORY
Havre de Grace, Md.

This two and a half story three bay by two bay frame building with a low hipped roof combines vernacular Greek Revival and Italianate features and is nearly square. Now a residence, it was built in 1862 as a rectory for St. Patrick's Roman Catholic. A low granite wall encloses the rectory and the granite foundations of the church next to it. HA-1109, a dwelling similar to the rectory is a few blocks to the north.

MARYLAND HISTORICAL TRUST HA-1175

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY

1 NAME

HISTORIC: Old St. Patrick's Rectory

AND/OR COMMON:

2 LOCATION

STREET & NUMBER: 425 N. Stokes St.

CITY, TOWN: Havre de Grace — VICINITY OF

CONGRESSIONAL DISTRICT: 6

STATE: Maryland

COUNTY: Harford

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	__PUBLIC	✓OCCUPIED	__AGRICULTURE	__MUSEUM
✓BUILDING(S)	✓PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	✓PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		✓NO	__MILITARY	__OTHER

4 OWNER OF PROPERTY

NAME: Mrs John R. Parker Telephone #:

STREET & NUMBER: 425 N. Stokes St. Md.

CITY, TOWN: Havre de Grace — VICINITY OF STATE, zip code 21078

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Harford County Liber #: Folio #:

STREET & NUMBER: Main St.

CITY, TOWN: Bel Air, Md. STATE

6 REPRESENTATION IN EXISTING SURVEYS

TITLE:

DATE:

__FEDERAL __STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS:

CITY, TOWN: STATE

HA-1175

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
__EXCELLENT	__DETERIORATED	X UNALTERED	X ORIGINAL SITE
X GOOD	__RUINS	__ALTERED	__MOVED DATE_____
__FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

425 N. Stokes St., is a two and a half story, three bay wide Italianate frame dwelling on a low stone foundation. Located on N. Stokes St. facing west, it was built as a rectory for St. Patrick's Roman Catholic Church in 1862. The house and the former church building next to it on the north are both separated from the street by a low ashlar granite wall, the coping blocks of which are five inches in lenght and fastened with two kinds of iron pins. The house, used as a private residence, is covered with asbestos shingles and painted white with black trim.

An above grade seven bay veranda extends across the front and around the entire south elevation. The veranda has a flat roof with a molded cornice supported by turned and chamfered posts and a fence post balustrade.

Windows are arranged evenly on the front elevation. On the first floor they contain 1/1 light double hung while the second story has 6/6 light sash and the small row of attic windows have two light sash. This arrangement is consistent throughout the house.

The main entrance is in the north bay, front elevation. A paneled door with beveled glass in the upper half is framed by narrow three light sidelights containing stained glass and a large three light transom from which the stained glass has probably been removed.

A rectangular addition extends from the second story, south elevation above the porch; it is either an altered oriel or a bathroom addition.

The house has a low hipped roof with a molded box cornice supported by paired brackets. The roof, which appears to be shingled with asphalt, has two brick chimneys at the north end.

The house has an above grade front and side yards. In the backyard are connected frame outbuildings, stables and a garage.

CONTINUE ON SEPARATE SHEET IF NECESSARY

HA-1175

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
_PREHISTORIC	_ARCHEOLOGY-PREHISTORIC	_COMMUNITY PLANNING	_LANDSCAPE ARCHITECTURE	✓RELIGION	
_1400-1499	_ARCHEOLOGY-HISTORIC	_CONSERVATION	_LAW	_SCIENCE	
_1500-1599	_AGRICULTURE	_ECONOMICS	_LITERATURE	_SCULPTURE	
_1600-1699	✓ARCHITECTURE	_EDUCATION	_MILITARY	_SOCIAL/HUMANITARIAN	
_1700-1799	_ART	_ENGINEERING	_MUSIC	_THEATER	
✓1800-1899	_COMMERCE	_EXPLORATION/SETTLEMENT	_PHILOSOPHY	_TRANSPORTATION	
_1900-	_COMMUNICATIONS	_INDUSTRY	_POLITICS/GOVERNMENT	_OTHER (SPECIFY)	
		_INVENTION			

SPECIFIC DATES 1862 BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

425 N. Stokes St. was built in 1862 as the rectory for St. Patrick's Roman Catholic Church. Services were held in a granite building next door until 1907 when the new St Patrick's Church was built on Congree Ave. Remaining in their original location are the granite foundations of the old church, now surmounted by a new structure, and the low granite wall enclosing the church foundations and the rectory. The former rectory is a two and a half story three bay by two bay building with a row of small windows in the attic story and a bracketed cornice. Located two block north of it is a house combining Italianate and Greek Revival features which closely resembles it. See HA-1109

CONTINUE ON SEPARATE SHEET IF NECESSARY

HA-1175

9 MAJOR BIBLIOGRAPHICAL REFERENCES

CONTINUE ON SEPARATE SHEET IF NECESSARY

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____

Joerndt, Clarence V. St. Ignatius, Hickory and Its Mission
1972 Publication Press, Inc. Baltimore, Md.

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE _____ COUNTY _____

STATE _____ COUNTY _____

11 FORM PREPARED BY

NAME / TITLE
Marion Morton-Historic Sites Surveyor

DATE
July 7, 1977

ORGANIZATION
Maryland Historical Trust

STREET & NUMBER
21 State Circle

TELEPHONE

CITY OR TOWN
Annapolis, Md.

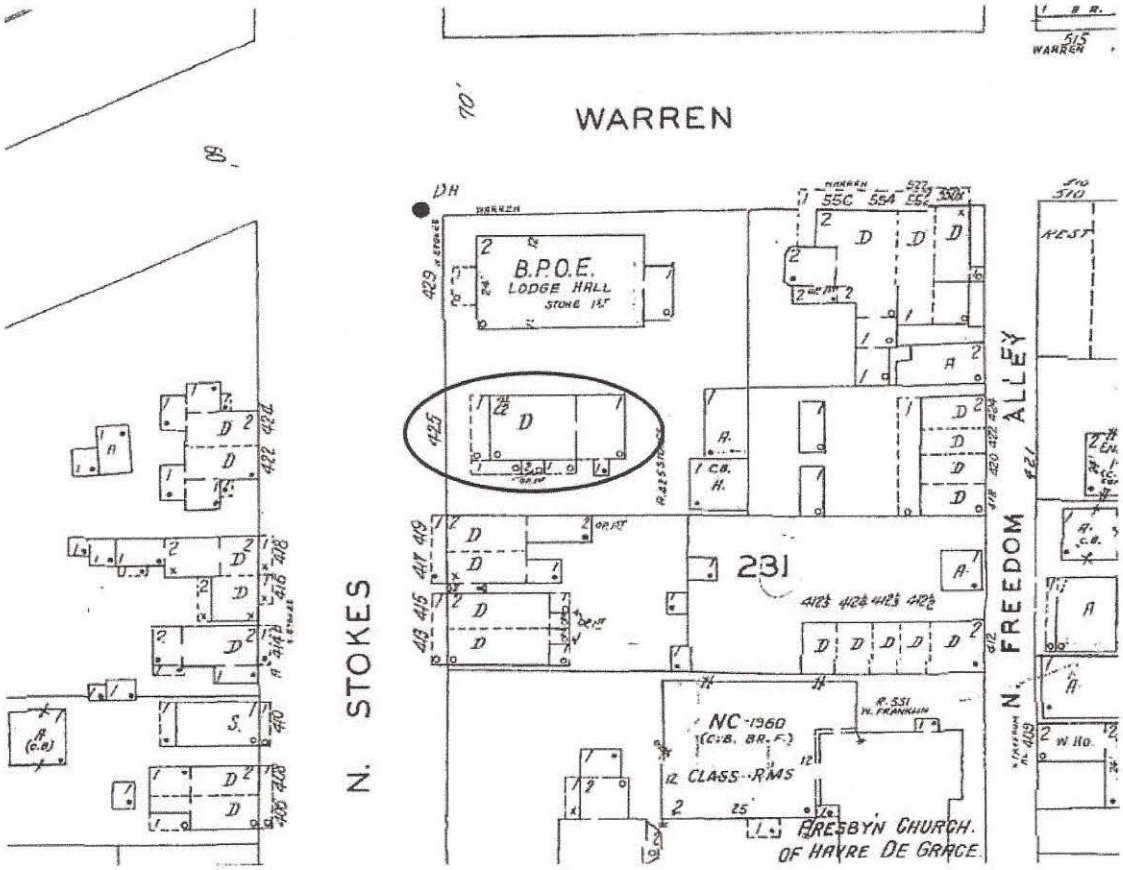
STATE

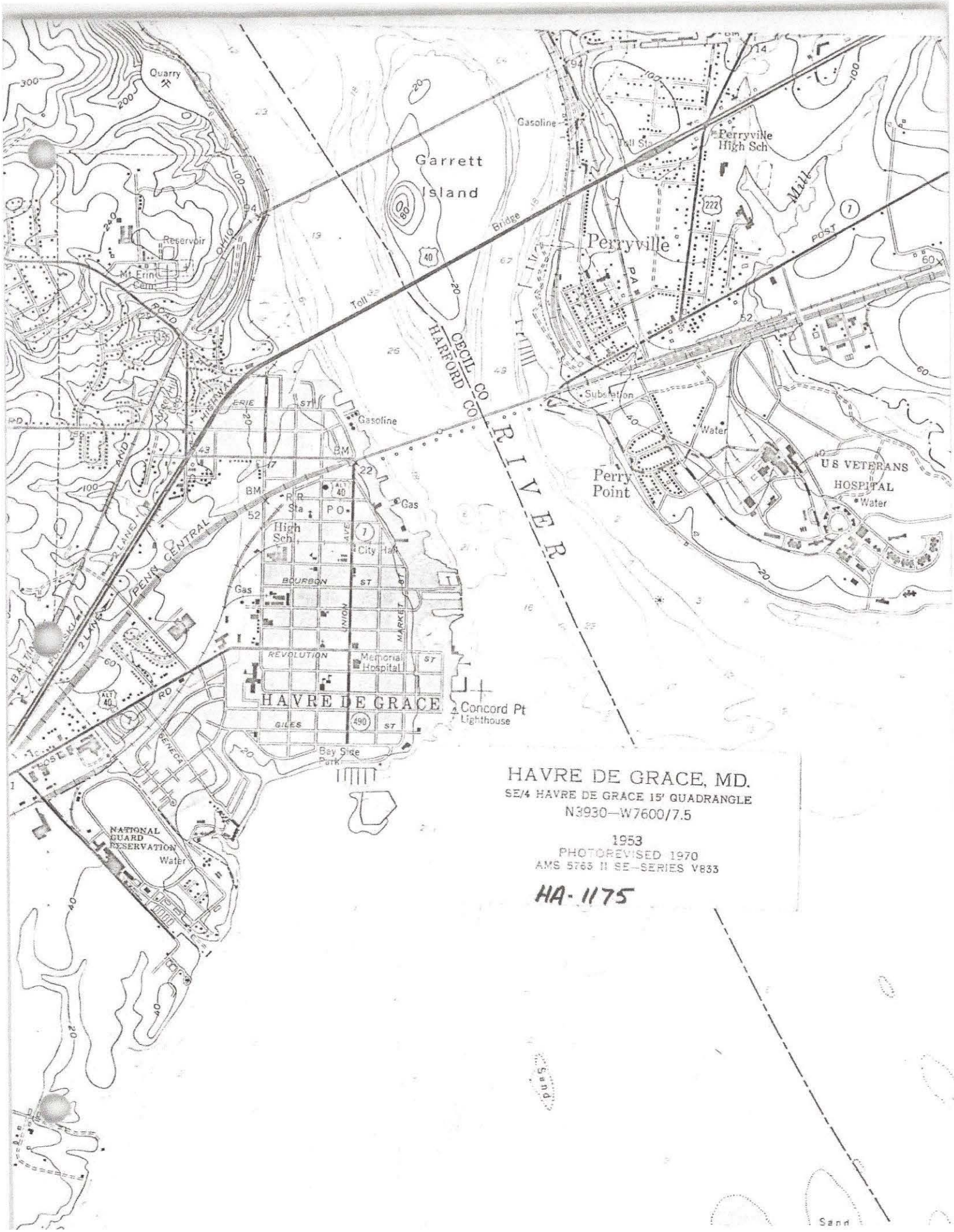
The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust
The Shaw House, 21 State Circle
Annapolis, Maryland 21401
(301) 267-1438

HA-1175
Old St. Patrick's Rectory
425 N. Stokes St.
Havre de Grace
Sanborn Havre De Grace Sept. 1930-Apr. 1962
Harford County





HAVRE DE GRACE, MD.

SE/4 HAVRE DE GRACE 15' QUADRANGLE
N3930—W7600/7.5

1953
PHOTOREVISED 1970
AMS 5765 II SE—SERIES V833

HA-1175

Old St. Patricks Rectory HA - 1175
425 N. Stokes St,

Havre de Grace

N.W. Elev,

Marion Morton
5/1977

Havre De Grace
Harford County, Maryland
Marion Morton, 1976
negative on file-Maryland Historical Trust
Annapolis, Maryland HA 1175
Old St. Patrick's Rectory

1308234432

HA-823 c. 1844
MT. ERIN CEMETERY
Havre de Grace, Md.

A granite monument (c. 1896) marks the location of the first Roman Catholic Church in Havre de Grace. Called St. James the Less, the church, believed to have been a frame structure, was ready for services in 1844. This church was a predecessor of St. Patrick's, Havre de Grace.

MARYLAND HISTORICAL TRUST Ha-823

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY

1 NAME

HISTORIC Mt. Erin Cemetery (Site of first Roman Catholic Church in Havre de Grace)

AND/OR COMMON

2 LOCATION

STREET & NUMBER Grace View Drive, south side, about 0.3 miles east of rt. 155

CITY, TOWN Havre de Grace ___ VICINITY OF CONGRESSIONAL DISTRICT 6

STATE Md. COUNTY Harford

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
___DISTRICT	___PUBLIC	___OCCUPIED	___AGRICULTURE	___MUSEUM
___BUILDING(S)	X PRIVATE	___UNOCCUPIED	___COMMERCIAL	___PARK
___STRUCTURE	___BOTH	___WORK IN PROGRESS	___EDUCATIONAL	___PRIVATE RESIDENCE
X SITE	PUBLIC ACQUISITION	ACCESSIBLE	___ENTERTAINMENT	X RELIGIOUS
___OBJECT	___IN PROCESS	___YES: RESTRICTED	___GOVERNMENT	___SCIENTIFIC
	___BEING CONSIDERED	X YES: UNRESTRICTED	___INDUSTRIAL	___TRANSPORTATION
		___NO	___MILITARY	___OTHER

4 OWNER OF PROPERTY

NAME Mt Erin Cemetery c/o St Patrick's Catholic Church Telephone #:

STREET & NUMBER 615 Congress Ave

CITY, TOWN Havre de Grace ___ VICINITY OF STATE, zip code Md. 21078

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC. Harford County Liber #: Folio #:

STREET & NUMBER Main St.

CITY, TOWN Bel Air STATE Md.

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

DATE

___FEDERAL ___STATE ___COUNTY ___LOCAL

DEPOSITORY FOR SURVEY RECORDS

CITY, TOWN STATE

HA-333

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	_DETERIORATED	XUNALTERED	XORIGINAL SITE
XGOOD	_RUINS	_ALTERED	_MOVED DATE_____
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

At Mt. Erin Cemetery is the site of the first Roman Catholic Church in Havre de Grace. The cemetery is located on hill in the north of Havre de Grace which looks south ,southeast to the Chesapeake Bay. It is on the south side of Grace View Drive, less than 1/2 a mile E. of Rt. 155. A granite monument with a Latin cross on top off it was erected in 1896 to mark the location of the first church. The monument has inscriptions on the eastern and western sides. The eastern face reads " Here stood the First Catholic Church at Havre de Grace, Md., built Anno Domini '43-1845- 43' by Rev. Jas. Reid. This stone erected Nov. 10, 1896, James P. Fitzgerald, Pastor."

A cast iron entrance stands at the west end of the cemetery an d a frame gazebo , painted green,with a hipped wood shingle roof is in the center of the grave yard. The cemetery is divided into two sections; the westerly section, in which the monument marking the site of the first church is located,is the Roman Catholic Burial ground, belonging to St Patrick's Church, whereas the eastern section, marked St James, belongs to St James A.M.E. Church (HA-1156).

CONTINUE ON SEPARATE SHEET IF NECESSARY

HA-823

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	X RELIGION	
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE	
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE	
__1600-1699	__ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN	
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER	
X 1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION	
__1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)	
		__INVENTION			

SPECIFIC DATES

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

A granite marker in Mt, Erin Cemetery erected in 1896 marks the location of the first Roman Catholic Church in Havre de Grace. Early parish records indicate that the church was named St James the Less. On March 17, 1842, Father James Reid purchased fourteen lots (lots 15-28, square 4 of Reed's addition) from Ezra Reed and Eliza, his wife, of Havre de Grace. The land records reads " for $150.00 and the further consideration that a church be dedicated for the service of God." The church isbelieved to have been a small frame structure for which the cornerstone was laid in 1843, and services were conducted in by 1844. A small rectangular stone marker with a Latin inscription (possibly a cornerstone) is in the ground a few feet east of the granite memorial. Perhaps because the Mt. Erin location was so far from town, a stone church called St Patricks was erected in 1847-1850. Today the foundations of the chuch, surmounted by a later structure,and the rectory (HA-1175) can be seen on the corner of N. Stokes and Warren Sts. The present St. Patrick's was built in 1907.

CONTINUE ON SEPARATE SHEET IF NECESSARY

HA-323

MAJOR BIBLIOGRAPHICAL REFERENCES

Joerndt, Clarence V. St. Ignatius, Hickory and Its Missions
1972 Publication Press, Inc. Baltimore, Md.

CONTINUE ON SEPARATE SHEET IF NECESSARY

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE COUNTY

STATE COUNTY

11 FORM PREPARED BY

NAME / TITLE Marion Morton - Historic Sites Surveyor

ORGANIZATION Maryland Historical Trust DATE May 1977

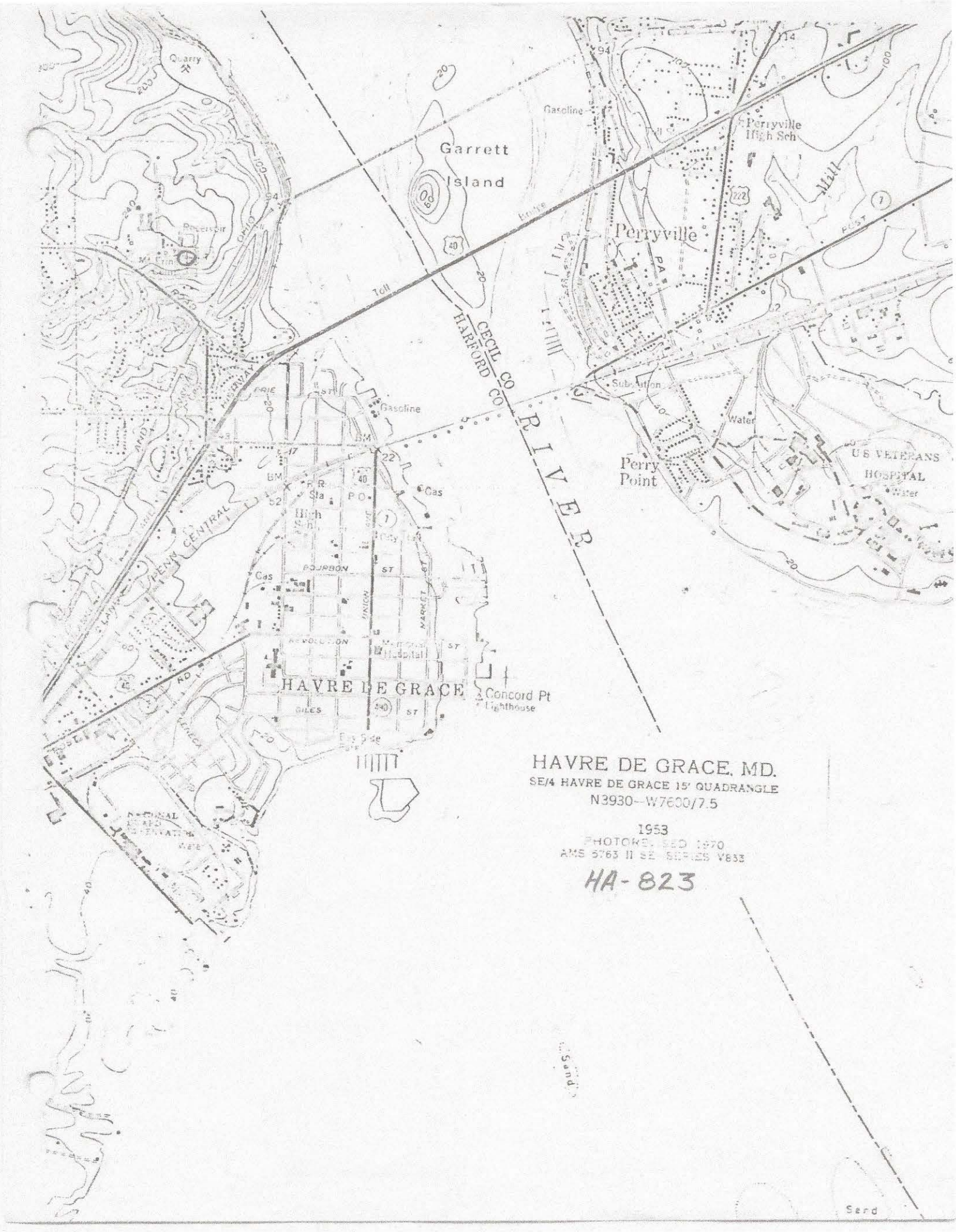
STREET & NUMBER 21 State Circle TELEPHONE

CITY OR TOWN Annapolis STATE MD.

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust
The Shaw House, 21 State Circle
Annapolis, Maryland 21401
(301) 267-1438



HAVRE DE GRACE, MD.

SE/4 HAVRE DE GRACE 15' QUADRANGLE

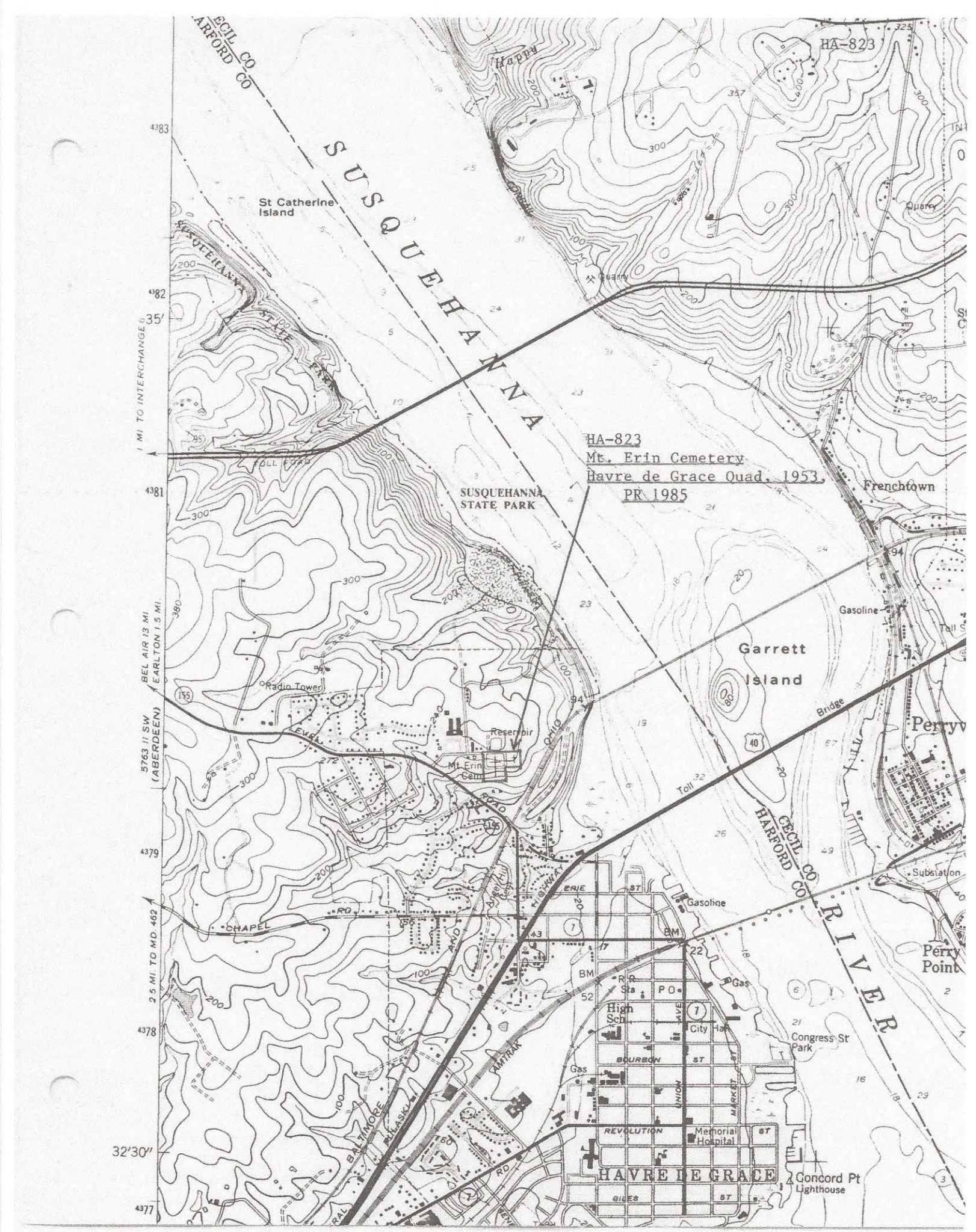
N3930—W7600/7.5

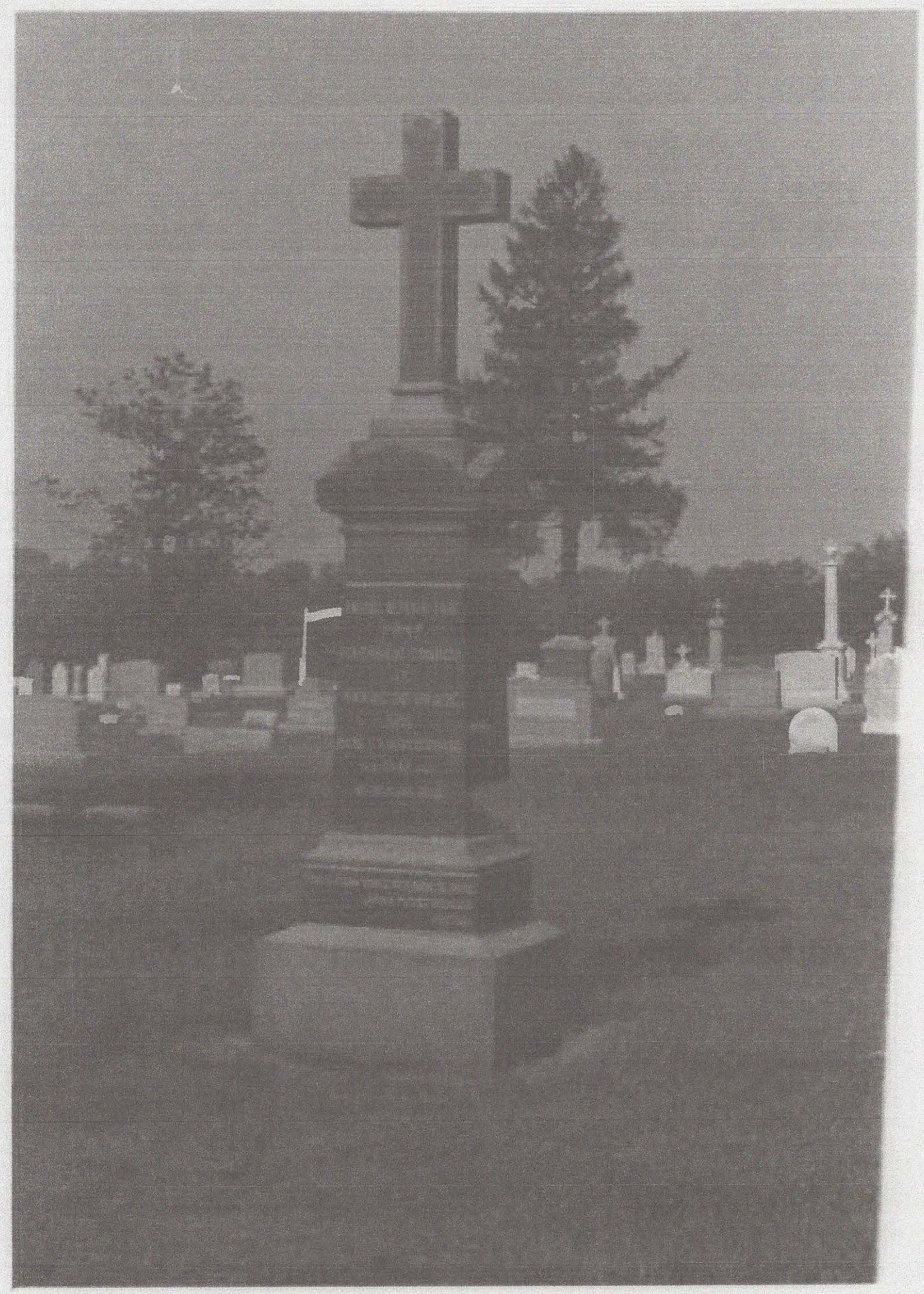
1953

PHOTOREVISED 1970

AMS 5763 II SE—SERIES V833

HA-823


HA-823
SUSQUEHANNA
St Catherine Island
SUSQUEHANNA STATE PARK
HA-823
Mt. Erin Cemetery
Havre de Grace Quad. 1953.
PR 1985
Frenchtown
Garrett Island
Radio Tower
Reservoir
Mt Erin Cem
Gasoline
Bridge
CECIL CO
HARFORD CO
RIVER
Perry Point
Substation
Gas
High Sch
City Hall
Congress St Park
Memorial Hospital
HAVRE DE GRACE
Concord Pt Lighthouse
1 MI. TO INTERCHANGE 6
2.5 MI. TO MD. 462
BEL AIR 13 MI.
EARLTON 1.5 MI.
5763 II SW (ABERDEEN)
4383
4382
4381
4379
4378
4377
35'
32'30"



MT. ERIN CEMETERY HA-823
MONUMENT
off Graceview Drive
Haure de Grace

MARION MORTON
6/77

Attachment 8

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Amtrak Railroad or Perryville Road Bridge over the Susquehanna River Survey Number: HA-1712

Project: ACE/MDE Application #199861938 T61955 Agency: COE/MDE

Site visit by MHT Staff: X no ___ yes Name _____ Date _____

Eligibility recommended X Eligibility **not** recommended _____

Criteria: X A ___B X C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Justification for decision: (Use continuation sheet if necessary and attach map)

The Amtrak Railroad or Perryville Road Bridge (MHT #HA-1712) is a 1906 Deck-and-Through Truss Bridge, made of open hearth steel with stone piers. The north and south spans are not of equal length, and the southern span is the shorter of the two. While most of the spans are deck trusses, the 277' center span is constructed of two Pratt through trusses. This span rotates on a center pivot, a feature which popularized swing spans among engineers in the early twentieth century. The bridge was constructed by the Pennsylvania Railroad and replaced an 1866 wood and steel bridge. There do not appear to be any identifying plaques attached to the bridge. Finally, the bridge retains excellent integrity of materials and setting. Therefore, based on the information provided, the bridge is eligible for the National Register of Historic Places under Criterion A, as an example of an early twentieth century railroad bridge built by an important American railroad company (transportation) and under Criterion C, as an example of engineering which acknowledges two different modes of transportation and allows each to function with little interference from the other.

Documentation on the property/district is presented in: Project Review and Compliance Files

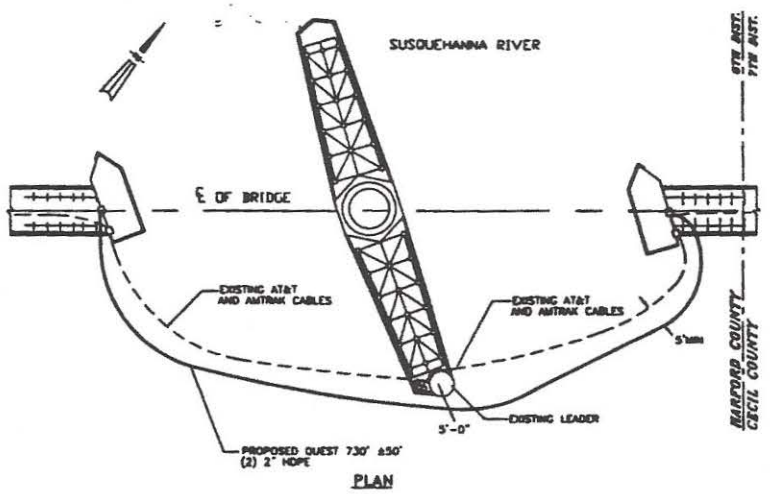
Prepared by: Harry E. Bailey, Qwest Network Construction Services

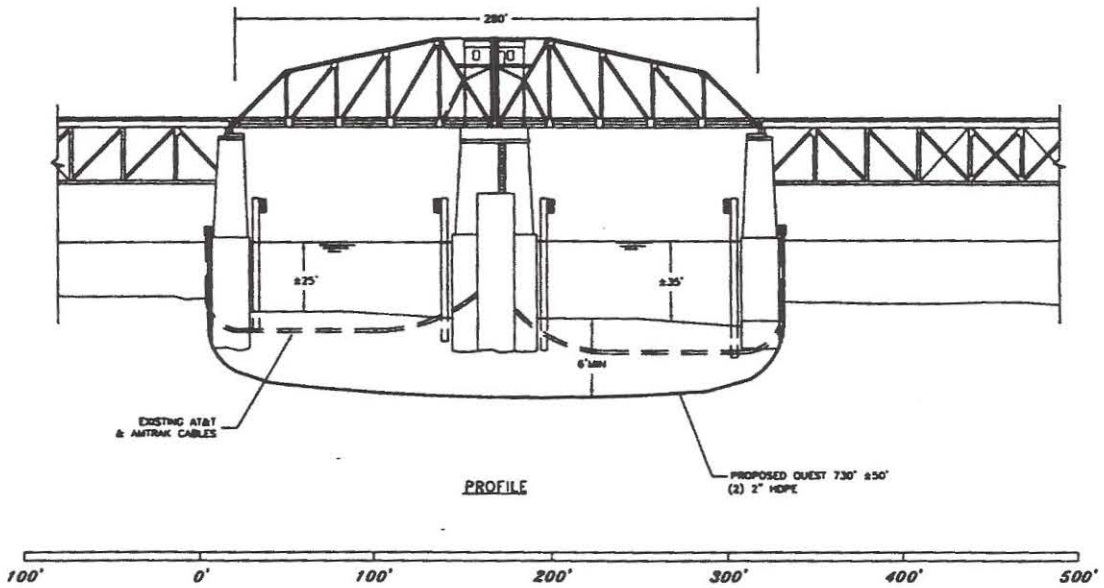
Anne E. Bruder — 2/25/98
Reviewer, Office of Preservation Services — Date

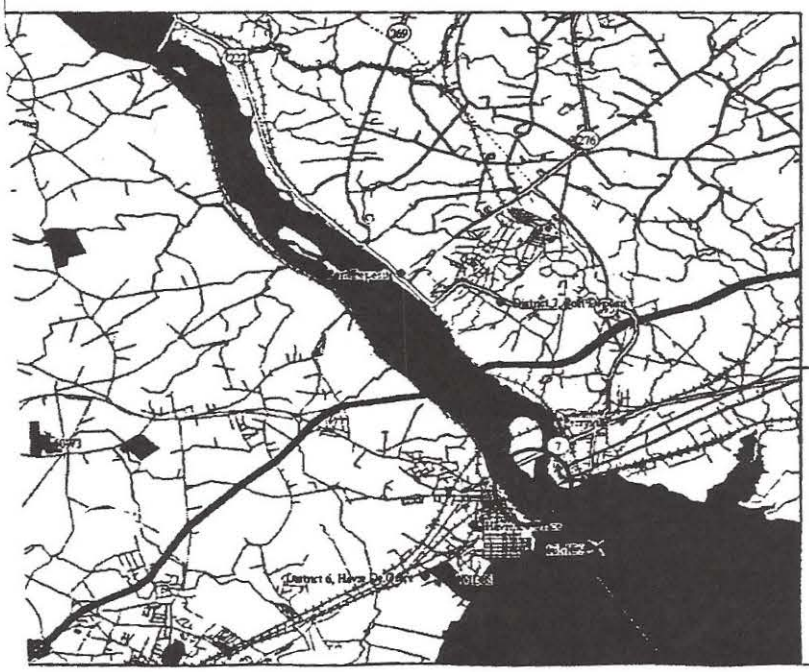
NR program concurrence: ✓ yes ___ no ___ not applicable

Reviewer, NR program — 2/25/98 Date

HA-1712







SUSQUEHANNA RIVER
LAT: 39°33'
LONG: 76°05'

Qwest Communications		
STANDARD		
SUSQUEHANNA RIVER AMTRAK BRIDGE #60.07 HARFORD COUNTY, MARYLAND		
		1"=100'
		1 OF 1
FOR REVIEW		

SUSPEND HANGER
4" CONDUIT ACROSS
UNTIL AERIAL
HA-1712

JUN/97 ID367-481 (10) CTK

Form No. 10-300 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED HA-1712
DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC

AND/OR COMMON
Susquehanna River Bridge

2 LOCATION

STREET & NUMBER

CITY, TOWN
Havre de Grace — VICINITY OF — NOT FOR PUBLICATION

CONGRESSIONAL DISTRICT
1

STATE
Maryland — CODE 24

COUNTY
Cecil — CODE 015

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	__PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	X PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
X STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	PUBLIC ACQUISITION	ACCESSIBLE	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	X TRANSPORTATION
		__NO	__MILITARY	__OTHER

4 OWNER OF PROPERTY

NAME
AMTRAK

STREET & NUMBER
955 L'Enfant Plaza, SW

CITY, TOWN
Washington, D.C. — VICINITY OF — STATE

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.
Real Estate Department-AMTRAK

STREET & NUMBER
955 L'Enfant Plaza, SW

CITY, TOWN
Washington, D.C. — STATE

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
Northeast Corridor Aerial Reconnaissance of Historic Structures

DATE
13-15 April, 1977 — X FEDERAL __STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS
Federal Railway Administration
2100 2nd Street, S.W., RM. 4613

CITY, TOWN
Washington, D. C. 20590 — STATE

27 DESCRIPTION

NA-1712

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	_DETERIORATED	_UNALTERED	_ORIGINAL SITE
_GOOD	_RUINS	_ALTERED	_MOVED DATE_____
X FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Perryville Bridge over the Susquehanna River is a center bearing swing bridge. The superstructure of the bridge is of open hearth steel and the piers are stone masonry. The substructure's height above mean high water is 52 inches. From north to south the bridge consists of one deck truss 192 feet long; eight deck trusses each 255 feet long; a swing span 277 feet long; seven deck truss spans each 195 feet long; and a deck truss span 192 feet long. The total length is 4,155 feet.

The swing span consists of two pratt through-trusses carrying two tracks on stringers and floorbeams that frame into the lower chord of the trusses. The dead loads from the through trusses are carried by a cross girder. The drum rolls on steel rollers that ride in a track secured to the masonry. When the bridge is opened, the dead load of the bridge is carried by the center bearing, and the rollers balance the bridge. In the closed position, wedges are driven under the cross girder at the connection to the trusses. The line load is thus carried by the wedges and not the center bearing or rollers.

The drive machinery is located in the operator's house at the center of the span above track level. It is a 150-horsepower diesel engine connected to a hydraulic torque converter.

The structural steel of Perryville bridge is in good condition but the ties and guard timber are deteriorated. The operating machinery works satisfactorily.

8 SIGNIFICANCE

NA-1712

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
__PREHISTORIC	_ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION	
1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE	
__1500-1599	_AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE	
__1600-1699	__ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN	
__1700-1799	__ART	X_ENGINEERING	__MUSIC	__THEATER	
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	XTRANSPORTATION	
X1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)	
		__INVENTION			

SPECIFIC DATES

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

The Perryville Bridge over the Susquehanna River is one of three center bearing swing bridge constructed in 1906 for the Pennsylvania Railroad.

The movable bridge is an ancient type that can be changed in position so as to open a clear passage, or to afford an increased headway for ships and boats in navigable channels. Engineers choose this type of bridge when no other way of giving vertical clearance for the passage of vessels on a waterway exists. The introduction of railroads to the U.S. in the early 1800's greatly spurred the development and construction of this type of bridge. Along the eastern seaboard the large number of navigable rivers and inlets to be crossed resulted in the construction of fifteen movable bridges on what is today the Northeast Corridor rail line. There are three basic types of movable bridges--the bascule, the swing, nd the vertical lift. On the Northeast Corridor there are nine bascule bridges, rive swing bridges, and one vertical lift bridge. These bridges were prefabricated at the construction company's plant and then built by unskilled labor at the site. The machinery to operate the bridges was not standardized and each one has unique mechanical components.

Swing bridges were generally used in place of bascule or vertical lift bridges when the waterway was wide enough to allow for side clearance in the channel. At the turn of the century swing bridges also allowed for economy in building and maintenance.

The two types of swing bridges are rim bearing and center bearing. In the U.S. the earliest records of iron bridges shows them to be the rim bearing type. Later the use of the center bearing type increased until it became more popular than the rim bearing bridge. The design of center bearing bridges was much improved by C.C. Schneider, Engineer of the Pencoyd Iron Works, in the period from 1887 to 1900. Later, while he was Consulting Engineer of the American Bridge Company his strong advocacy of this type of swing bridge influenced the opinions of many engineers and firmly established the center bearing design in American practice.

In the center bearing swing bridge, of which Perryville is an example, the weight is supported by a center pivot. When this type of bridge is in an open position, rollers around the circular girder keep the bridge balanced while the dead load of the structure is transmitted from the main through trusses by ross girders to the center pivot. When the bridge is closed, wedges at the center ier are inserted under the trusses so that the load is transferred directly to the pier.

HA-1712

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Condit, Carl. American Building. Chicago: University of Chicago Press, 1968.

Hool, George, ed. Movable and Long-Span Bridges. New York: McGraw-Hill Book Co., Inc., 1923.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 1

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	18	406666	4378630
B			
C			
D			

VERBAL BOUNDARY DESCRIPTION

This bridge is on the Northeast Corridor railroad line across the Susquehanna River at Perryville, Maryland.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
Maryland	24	Harford	025
Maryland	24	Cecil	015

11 FORM PREPARED BY

NAME / TITLE

Anne Baggerman, Cultural Resources Planner — August 10, 1977

ORGANIZATION — DATE

DeLeuw, Cather, Parsons & Associates, Northeast Corridor Project

STREET & NUMBER — TELEPHONE

1201 Connecticut Avenue — (202) 452-5242

CITY OR TOWN — STATE

Washington, D. C. 20036

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE ___ LOCAL ___

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE — DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST: DATE

KEEPER OF THE NATIONAL REGISTER

GPO 892-453

HA-1712

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

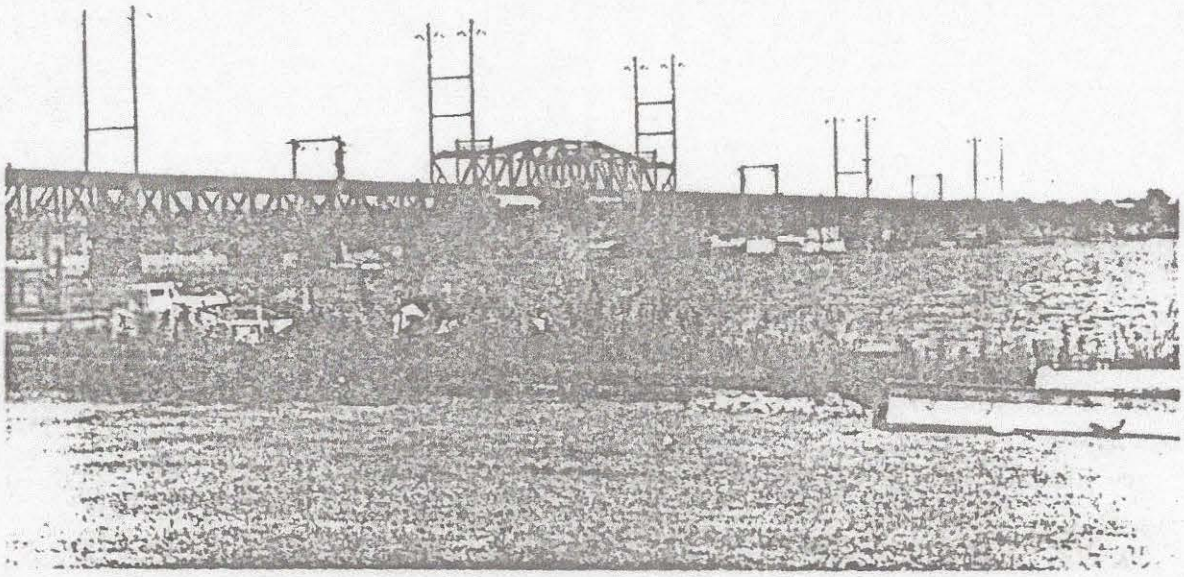
FOR NPS USE ONLY
RECEIVED
DATE ENTERED

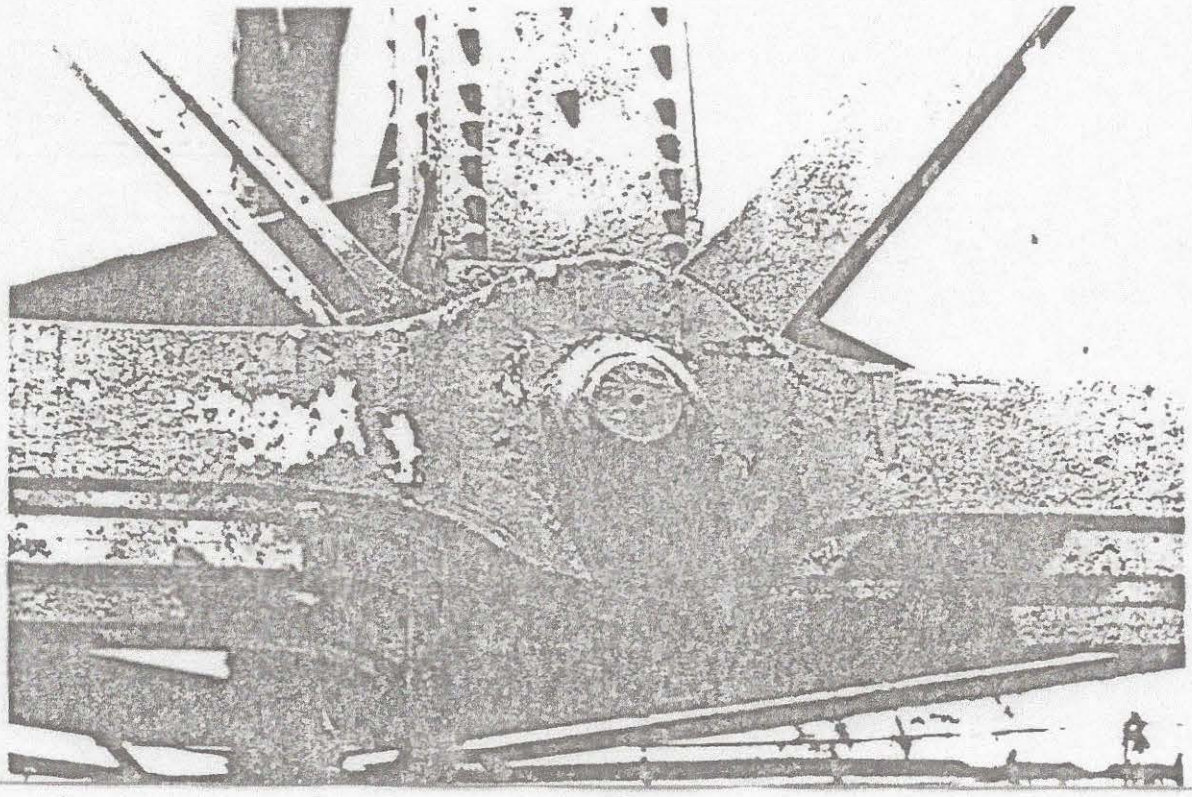
Major Biographical References:

Hovey, Otis Ellis. Movable Bridges, Vol. I and II. New York: John Wiley and Sons, Inc., 1926.

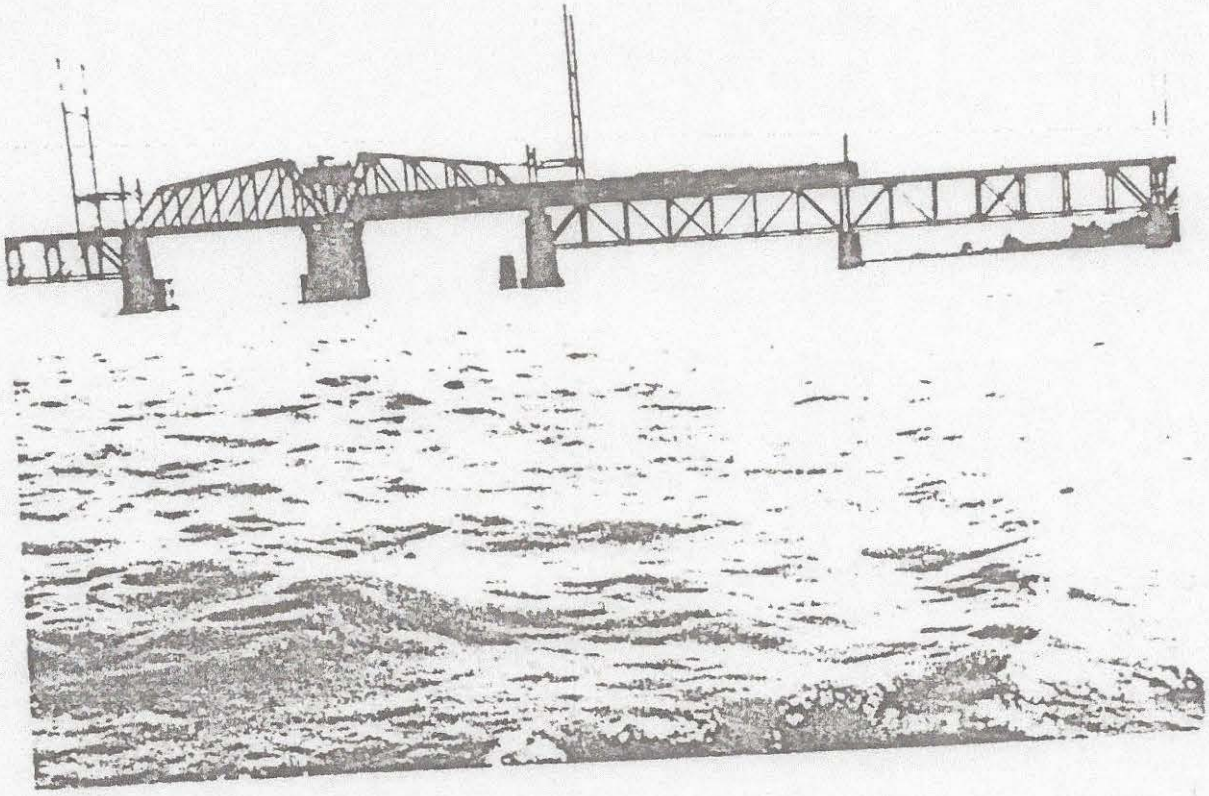
U.S. DOT, Northeast Corridor High Speed Rail Passenger Service Improvement Project, Tasks 15.1 and 15.2, Vol. VI, Jan. 1977.

HA-1712





NA-1712



United States Department of the Interior

NATIONAL PARK SERVICE

FORT McHENRY NATIONAL MONUMENT AND HISTORIC SHRINE
HAMPTON NATIONAL HISTORIC SITE
STAR-SPANGLED BANNER NATIONAL HISTORIC TRAIL
2400 EAST FORT AVENUE
BALTIMORE, MARYLAND 21230-5393

TAKE PRIDE® IN AMERICA

H30

August 5, 2016

Laura Shick
Federal Preservation Officer
Environmental and Corridor Planning Division
Office of Railroad Policy and Development
Federal Railroad Administration
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington D.C. 20590

Dear Ms. Shick:

We received your correspondence dated July 15, 2016. Thank you for the opportunity to comment on the proposed Susquehanna River Rail Bridge Project area of potential effect.

Established by Congress in 2008, the Star-Spangled Banner National Historic Trail (NHT) is a 560-mile land and water route that tells the story of the War of 1812 in the Chesapeake Bay region. It connects historic sites in Maryland, Virginia, and the District of Columbia and commemorates the events leading up to the Battle for Baltimore, the defense of Fort McHenry, and the writing of the Star-Spangled Banner, our National Anthem. The trail traces American and British troop movements, introduces visitors to communities affected by the war, and highlights the Chesapeake region's distinctive landscapes and waterways.

There are several resources present in the Upper Bay associated with the Star-Spangled Banner NHT. Attached to this letter is the complete list as found in the *Comprehensive Management Plan and Corridor Management Plan and Environmental Assessment, Star-Spangled Banner National Historic Trail and Scenic Byway, Appendix S Focus Area Studies. 2012. Volume 3 of 3.*

In addition to the resources in that list, the Water Trail portion of the Star-Spangled NHT goes on a roughly north-south line through the Upper Bay and into the Susquehanna River as far north as Port Deposit.

We would like to underscore the significance of the landscapes and waterways of the Chesapeake region. Facilitating visitor enjoyment of those landscapes and waterways is a major reason for the existence of the Trail. We would like to protect them as well as the historic resources as much as possible. We hope that you will account for those values as the design process moves forward on the bridge and look forward to future consultation.

The Compliance Officer for the Star-Spangled Banner NHT is William Curtis. He can be reached at this mailing address, or by email at william_curtis@nps.gov. His office phone number is 410.823.1309 x 405.

Sincerely,

Tina Cappetta

Tina Cappetta
Superintendent

Attachment
cc: Bill Curtis

Attachment

"Five categories of War of 1812 resources are present along the trail in the Upper Bay (table 2) (NPS 2011c):
• battlefields
• cultural landscapes
• historic structures
• archeological sites
• commemorative sites

"Historic resources – with the exception of interpretive locations and some cultural landscapes – are considered to have historic integrity and significance to the War of 1812 in the Chesapeake region.

"Table 2 War of 1812 Historic and Archeological Resources (according to primary resource type) Upper Bay

Battlefields
- ✓ Fort Pearce Site
- ✓ Caulk's Field

Cultural Landscapes
- ✓ Elk Landing
- ✓ Susquehanna NWR
- ✓ Susquehanna State Park
- ✓ Swan Harbor Farm
- ✓ Bell's Ferry
- ✓ Fort Hollingsworth
- ✓ White Hall Point
- ✓ Mount Harmon Plantation
- ✓ Concord Park

Historic Structures

The Anchorage
- ✓ Holly Hall
- ✓ Jon Hans Stellman House
- ✓ Mount Pleasant
- ✓ St. John's Episcopal Church
- ✓ AveiheGoldsborough House
- ✓ Elizabeth Rodgers House
- ✓ Kitty Knight House
- ✓ Perry Point Mansion and Mill
- ✓ Sion Hill
- ✓ Rose Hill

- ✓ John O'Neil House
- ✓ Archibald Wright House

Archeological Sites

Fort Defiance/Fort Frederick Sites

- ✓ Garrett Island
- ✓ Spesutie Island
- ✓ Principio Furnace and Iron Works

Commemorative Sites

- ✓ Brantwood Farm Cannon
- ✓ O'Neil Monument

"Table 2 lists historic and archeological resources in the Upper Bay from the trail's cultural resources inventory; sites are listed only once for brevity, but may in fact fall under multiple resource categories.

"Many other locations along the trail offer additional opportunities to tell stories about the causes, events, and outcomes of the war. In particular, the region's many natural settings provide opportunities to reflect on the lives of people and the lay of the land during the early 19th century. While sites that lack integrity due to destruction, replacement, modern (post 1815) development, or intrusion are not the focus of preservation efforts, these sites all have interpretive value. Such sites include:

- ✓ Cedar Point
- ✓ Concord Point Gun Battery
- ✓ Concord Point Lightkeeper's House
- ✓ Decoy Museum
- ✓ Fort Duffy Site
- ✓ Frenchtown
- ✓ Havre de Grace Historic District
- ✓ Havre de Grace Maritime Museum
- ✓ Mount Pleasant Landing Site
- ✓ Parker Point
- ✓ Potato Battery Site
- ✓ Richard Frisby Farm Site
- ✓ Sear's Tavern Site
- ✓ Skidmore
- ✓ Steppingstone Museum
- ✓ Waller Farm Site"

Comprehensive Management Plan and Corridor Management Plan and Environmental Assessment, Star Spangled Banner National Historic Trail and Scenic Byway, Appendix S Focus Area Studies. 2012. Volume 3 of 3.

FILE COPY

MARYLAND DEPARTMENT OF
PLANNING
MARYLAND HISTORICAL TRUST

Larry Hogan, Governor
Boyd Rutherford, Lt. Governor

Wendi W. Peters, Secretary
Ewing McDowell, Deputy Secretary

August 24, 2016

Michael M. Johnsen
Office of Railroad Policy and Development
U.S. Department of Transportation
Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: Susquehanna River Rail Bridge Project
Determination of Effects to Historic Properties
Harford and Cecil Counties, Maryland

Dear Mr. Johnsen:

Thank you for providing the Maryland Historical Trust (Trust) with the Federal Railroad Administration's (FRA) assessment of effects on historic properties for the above-referenced undertaking. FRA's submittal represents ongoing consultation to assess the project's effects on historic properties, pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and the Maryland Historical Trust Act of 1985, as amended, State Finance and Procurement Article §§ 5A-325 and 5A-326 of the Annotated Code of Maryland. We have conducted a thorough review of the materials and we are writing to provide our comments and concurrence.

Assessment of Effects: The FRA's efforts to identify and evaluate historic properties within the Area of Potential Effects (APE) resulted in the evaluation of numerous properties for listing in the National Register of Historic Places (National Register). Current and previous studies identified thirteen historic properties within the APE, including three historic districts containing numerous contributing resources.

Trust staff reviewed the *Effects Assessment for Historic Architectural Resources* (Arch^2, Inc. 2016) and took into consideration the views of the public and the Section 106 Consulting Parties provided at the various project meetings. Based upon the results of the Section 106 consultation, the Trust agrees with the FRA that the undertaking will have an **adverse effect** on the following historic properties:

- Susquehanna River Rail Bridge & Bridge Overpasses (MIHP No. HA-1712);
- Havre de Grace Historic District (MIHP No. HA-1617);
- Rodgers Tavern (MIHP No. CE-129); and
- Perryville Railroad Station (MIHP No. CE-1442).

The Trust has no objection to the FRA's effect determinations for the remaining historic architectural resources within the undertaking's APE. We understand that archeological investigations are ongoing and that the project's agreement document will include provisions for the identification, evaluation and treatment of archeological resources.

Continuing Section 106 Consultation: The Trust received copies of comment letters from the Lower Susquehanna Heritage Greenway, Inc., Town of Havre de Grace and the Town of Perryville. We encourage FRA and the Maryland Department of Transportation to continue to closely coordinate with these entities, and all other consulting parties, to address their concerns and seek their views on effective ways to mitigate the undertaking's adverse effects.

We look forward to further coordination with FRA and other involved parties to successfully complete the Section 106 review and execute an effective agreement document for this undertaking. The agreement document should include measures to reduce and resolve the undertaking's adverse effect on historic properties, monitor the effects of the undertaking on historic and archeological properties as the design develops and during construction, establish procedures for ongoing coordination among the various signatory and consulting parties, and provide for appropriate public interpretation as an integral part of project design.

If you have questions or need further assistance, please contact Beth Cole at 410-514-7631 / beth.cole@maryland.gov.us or Tim Tamburrino at 410-514-7637 / tim.tamburrino@maryland.gov. Thank you for providing us this opportunity to comment.

Sincerely,

Elizabeth Hughes
Director/State Historic Preservation Officer

EHEJC//TJT 201602616

cc: Michelle Fishburne (FRA)
Laura Shick (FRA)
Jacqueline Thorne (MDOT)
Dan Reagle (MTA)
Craig Rolwood (Amtrak)
Mary Ann Lisanti (Lower Susquehanna Heritage Greenway)
Matt Jagunic (National Park Service, Chesapeake Bay Office)
Bradley F. Killian (Harford County)
Ivy Freitag (Harford County)
Anthony DiGiacomo (Cecil County)
Eric Sennstrom (Cecil County)
Dianne Klair (Havre de Grace)
Denise Breder (Perryville)
Bethany Baker (Concord Point Lighthouse)
Kerri S. Kneisley (Havre de Grace Decoy Museum)
John H. McClune, Sr. (National Railway Historical Society, Perryville Chapter)
Norris C. Howard Sr. (Pocomoke Indian Nation)
Leslie Mesnick (AKRF)

City of Havre de Grace
711 Pennington Avenue, Havre de Grace, Maryland 21078
410-939-1800
www.havredegracemd.com

Alterations to Undergrade Bridges
Along the Amtrak Right-of-way in Havre de Grace

Concerns, Recommendations, and Alternative Proposals

by
Volney H. Ford, Chair
SRRBP Advisory Board
October 6, 2016

There are three undergrade steel bridges (two within the Historic District) and two tunnel-like undergrade stone bridges between the proposed river spans and natural railway grade at mid-town. All five of these historic structures must be significantly altered and somehow made to blend architecturally with the proposed trackbed widening, consequential abutment widening, significant elevation of the railheads, and installation of high concrete retaining walls along both sides of the right-of-way.

The Advisory Board has spent many hours considering how to minimize negative impact on these historic architectural resources, and in some cases how to mitigate the loss of these resources if it should become impractical to retain some of them. The Board has gone so far as to propose the elimination of two undergrade bridges, at Freedom Lane and Adams Street, to reduce overall project cost and provide original materials for a historically accurate widening and restoration of the three remaining undergrade bridges.

The Advisory Board believes that, from a historic preservation and architectural blending perspective, it is better to sacrifice two assets to permanently restore the other three to their originally accurate appearance and function than to let them be hopelessly defaced, cobbled with concrete extensions upward and outward, and left to deteriorate over the next century or more. At the core of this issue is how to preserve the appearance and function of the stone abutments, wing walls, and barrel arches as they are being swallowed up by a wider and higher railroad bed and altered by the spreading of track alignments and bridge beams.

Physical preservation of the historic stone assemblies is as important as appearance and architectural connectivity. Many of the attached photographs show the degree of surface deterioration, discoloration, alterations of convenience, and outright disintegration that these assets have suffered over the many decades. One must wonder in what condition the stone will be a century or more from now, unless serious action is taken at this major opportunity.

The root cause of degradation appears to be the leaching and leaking of groundwater and its attendant chemical attack from the earthen side of the abutments, wing walls and barrel arches, along with freeze/thaw cycles and acid rains of a bygone era. Long-term stone preservation can only be achieved by unearthing the back sides of these assets and installing a permanent water-tight barrier, one half at a time, as track alignments are taken temporarily out of service.

Many of the stone blocks have begun to disintegrate (some almost entirely) and others have been cut away, capped with concrete, or removed altogether to modify or replace steel spans or to shift track alignments. Stone grout is calcifying and leaching out of the joints. Not one of the three bridge abutment sets remains in its original appearance. In fact, not one of the three street spans are in their original configuration:

a. Of the four plate girder bridge spans over Juniata Street that carried one track each, the outer two were lowered to accommodate a closed concrete deck, and the inner two were abandoned in place with open cross-ties.
b. The original four plate girder spans over Adams Street have been replaced entirely with two I-beam spans bearing on concrete cap pads, carrying closed prefabricated concrete decking.
c. The original four plate girder spans over Stokes Street were modified to three and a half spans by cutting down and shifting the fourth span inward, lowering those spans to receive a single broad concrete closed deck.

All of the abutments have been chopped down, chopped into, or recapped with ordinary concrete to accommodate these modifications without regard to historic preservation or appearance.

Restoration of any two of the street overpass abutment sets, along with historically accurate lateral extensions to relocate wing walls in correct positions, or to extend wing walls vertically to meet retaining walls, will require salvaged stone from the third overpass. One can think of no better way to mitigate the loss of two than to preserve the other three as beautifully as possible. All stone that has been damaged should be replaced, and original stone should be reinstalled in the original shelf fashion to support newly aligned bridge beams.

Blending historic wing walls at the streets with continuous right-of-way retaining walls presents quite an architectural challenge, especially as the stepped wings offer ready access to the tracks by tresspassers, and would be visibly degraded by security fencing. The barrel arch overpasses at Freedom and Centennial lanes, both within the Historic District, provide even greater challenges. Both remain intact and historically unaltered. There is no practical way to preserve either stone overpass in its present configuration under conditions of a greatly widened railroad surface above, a significantly elevated railhead, and interfacing with right-of-way retaining walls located further outward.

The Advisory Board again sees the only practical solution to preservation of this underpass example is to take out the Freedom Lane bridge and salvage its stone to extend both ends of the Centennial Lane bridge, faithfully lengthening the barrel and relocating the entry facings, and raising the wing walls to meet the new retaining walls. If left in their current positions, new structure required to support the outer tracks would necessarily cross overhead beyond the barrel arch openings and require abutments that would awkwardly affect the historic wings and overshadow the openings, likely blocking view of the historic archwork.

As with the street overpasses, whether one or both barrel arch bridges are preserved, it/they should be heartned and carefully sealed along the earthen side to prevent further seepage, discoloration and deterioration. The Advisory Board identified the Centennial overpass for preservation because of its ideal location to become a street grade commuter station with a mostly climate-controlled interior environment. The Freedom Lane overpass would be so close to the new river bridge abutment as to be unnecessary for vehicular and pedestrian traffic. Its greatly recessed openings would not be historically inspiring, and could result in a rather pathetically overshadowed appearance.

In order for the historic stonework at all overpasses to blend attractively with adjacent stone-embossed and stone-colored concrete, all of it will require steam cleaning at the outset, followed by periodic cleanings. As shown in the attached photographs, many different colors have resulted from years of leaching, rusting, and chemical attack, and the original stonework is of different quality and natural coloration depending on its design function and anticipated exposure to the elements.

In summary, the Advisory Board urges all parties to the NHPA Section 106 process to embrace a selective preservation approach to these issues through sacrificial mitigation and faithfully reconstructed extensions of the three remaining undergrade bridges in Havre de Grace. It also urges the parties to include the Juniata Street bridge abutments for proper restoration and preservation, even though they lie just beyond the Historic District.

Sacrificed Historic Resources

Existing rail bridge across the river, including piers and abutments
Original rail bridge piers across the river
Freedom Lane barrel arch undergrade bridge and abutments
Adams Street undergrade bridge and abutments

Historic Resource Mitigation

Extended river bridge initial spans at Havre de Grace and Perryville
Historically accurate widening of the Adams and Juniata Street abutments
Historically accurate lengthening of the Centennial Lane barrel archway and relocation of abutments
Restoration of all damaged or altered stonework to original architecture, condition, and function
Creation of a permanent bridge history and artifact display at David Craig Park
Preservation of restored stonework with waterproof backwall linings
Safe lighting within the Centennial Lane passageway

Physical historic resources associated with railroad rights-of-way are much more noted for function rather than form, and that function seems to be ever changing and evolving with the operational needs of active railroad operations, often at the expense of historic preservation. The assets discussed here are certainly no exception. In such an environment of adaptive change within a narrowly constrained right-of-way, it would seem far more preferable to faithfully save and restore good examples of certain historic assets as entirely as possible for all to study and enjoy, rather than saving portions of all similar assets in a patchwork fashion that begs the observer to imagine what they once may have looked like. Areas of original stone awkwardly nestled and surrounded by modern embossed concrete would be uninspiring and pointless to all but the most dedicated purists.

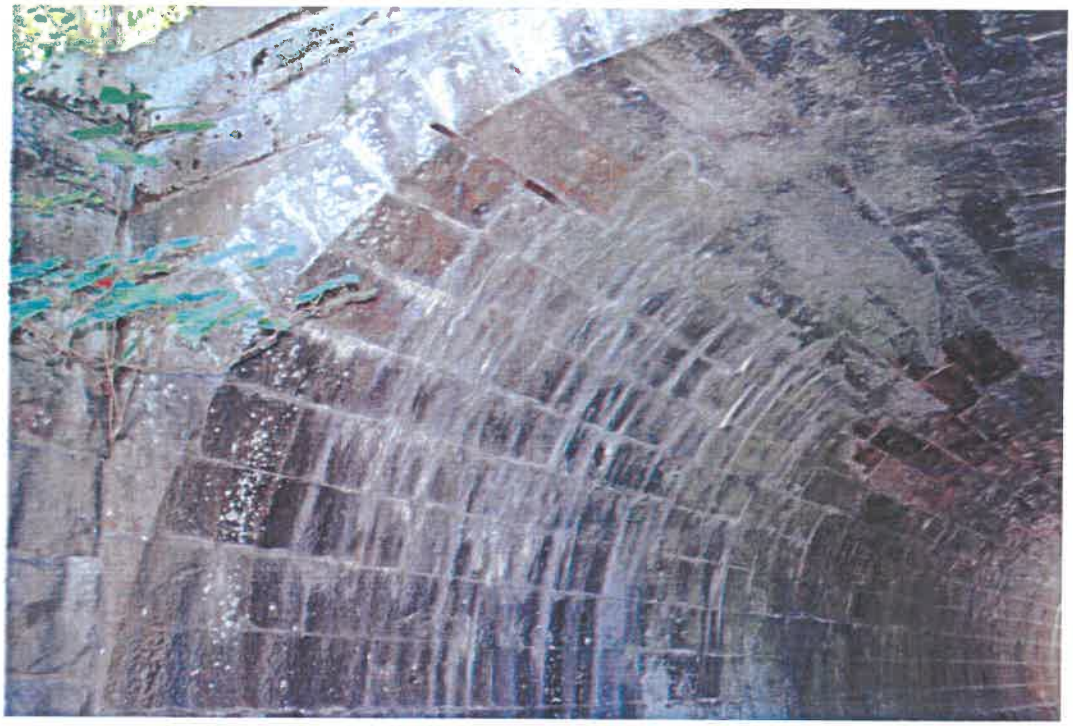
Attachment A: 30 photographs with captions

Freedom Lane overpass, south end

Leaching & leaking within Freedom overpass

Leaching, deterioration & discoloration along ceiling of Freedom overpass

Leaching & discoloration within Freedom overpass



Leaching & discoloration within Freedom overpass, at north end

North entrance to Freedom overpass

Chop-down & capping at Stokes Street abutment

Leaching & leaking at Stokes Street abutment

Leaching, concrete cap, & modified plate girder at Stokes.

Chop-down, chop-out, concrete caps, plate girder modification, leaching & discoloration at Stokes abutment

Leaching & deterioration at Stokes abutment

Leaching & deterioration at Stokes abutment

South entrance to Centennial Lane overpass

Leaching, discoloration & deterioration within Centennial overpass

Leaking & leaching within Centennial overpass

Leaching & discoloration within Centennial overpass

Chop-down modifications, leaching & deterioration at Adams Street

Severe abutment stone deterioration & leaching, with major modifications at Adams Street

Severe abutment stone deterioration at Adams Street

Patching & leaching at Adams Street

Concrete capping & chop-out at Adams Street

Deteriorated patching of chop-outs at Adams Street

Unsightly modification patching & severe leaching at Adams Street

Extensive leakage & leaching at Adams Street

Unsightly, modifications & deterioration at Adams Street

Abutment leakage, deterioration & discoloration at Juniata Street

Abutment chop-down, capping & leakage at Juniata Street

Abutment chop-down, capping & leakage at Juniata Street

Abutment chop-down, chop-out, capping & leakage at Juniata Street

Abutment chop-out & capping at Juniata Street

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

The Case for a Longer Span

The Susquehanna River Rail Bridge
at the
Historic Union Avenue Gateway

by
Volney H. Ford, Chair
SRRBP Advisory Board
October 6, 2016

The Susquehanna River Rail Bridge Advisory Board, the Havre de Grace City Council and Administration, and many citizens at large have been deeply concerned about the profound impact of the proposed twin span railroad bridge passing over the intersection of Union Avenue, Otsego Street and Water Street. This intersection is at the heart of the Historic District and is the principal gateway to Union Avenue, the downtown district and the waterfront, all of which were the scene of travel and events dating back to our nation's founding.

An easterly approach to this intersection unfolds suddenly into a panoramic view at the mouth of our largest eastern river, historic buildings to be seen in every direction, and a sense of arrival at the quaint downtown. The existing railroad bridge passing over this intersection takes one back to early 1900s rail transportation and is a fascinating example of steel truss engineering of the day. Its long spans and openness do not detract from the scene, inviting one to explore further the buildings and streetscapes preserved from the same era.

This old bridge, this imposing example of steel and stone and function from a bygone era, this very significant historic architectural asset, must be torn down and forever lost to make way for new spans in a new era of bridge engineering and rail travel. This sad loss can only be assuaged by preserving parts of the bridge for display, softening the impact of new bridges on the immediate historic district, and most importantly, enhancing the gateway experience at Union Avenue and Otsego Street.

Opening up the area under the new twin bridges at their first span is the only meaningful way to properly address the requirements of all three. The current design proposal is to reduce the first two bridge spans of 200 feet each over land to three spans of 160 feet each by retracting the new abutment almost to Freedom Lane. The new piers would be much taller, doubled for two bridges, more closely spaced, and increased to a third set. The current two low piers would be replaced by six tall keyhole piers having a total of twelve legs, creating a visual clutter that would smother the viewscape and seriously degrade the historic gateway experience.

The Advisory Board has repeatedly urged the project design team to extend the first span out to 240 feet, by whatever means is necessary and regardless of additional cost, to address historic mitigation in the most effective way possible beyond the recovery and display of bridge artifacts. The City of Havre de Grace and its citizens simply cannot accept and live with a pier-crowded gateway to its historic district for the next 150 years. Increased bridge cost should not be a factor in historic mitigation at a scale such as this.

There are basically two ways to increase the first span without compromising bridge security. One is to design an open-spandrel concrete arch bridge section from the abutment out to an enlarged first pier, followed by conventional steel beam deck spans and piers as currently proposed. The second is to retain the conventional steel beam design but increase the number, depth, and sectional thicknesses of beams under each track pair. A concrete arch span would require 240-250 feet to allow ample room for the curving street and a more open viewscape, allowing for view obstruction by the arches themselves. A simple beam span on vertical supports provides more clearance and openness, and therefore could be reduced to 200-220 feet with no less visual effect.

A concrete arch span should be designed with open spandrels above the arches to lighten the architecture and admit more daylight under the bridge. The arches should include keyholes from the ground up to a height matching those of the other piers, creating a barrel arch effect through the first pier. Although a long and low arch would be necessary to achieve such a span in proportion to bridge height, its landing curvature would tend to obstruct road clearances and sight lines. An elliptical arch would result in a more vertical landing curvature with better clearances and sight lines.

The Advisory Board has recommended an identical span using identical architecture at the Perryville end to mitigate the impact of new bridges and retaining walls so close to Rodgers Tavern. A greatly enhanced viewscape toward the river and well downriver as the best way to directly achieve minimization for that historic site. A much longer span would also provide a grander entrance to the prime real estate now occupied by the Perry Point facility and its historic resources, especially if it is redeveloped in the future.

In summary, a longer first span is vitally necessary to mitigate the loss of our historic bridge and its piers, and to minimize the otherwise negative impact on historic properties and structures in the immediate vicinity. The gateway experience itself is a fundamental part of this mitigation, achieved only through openness, safer travel and enhanced views in all directions. We believe that a sound engineering solution to this objective, other than simply reducing one-time cost, can be found if diligently pursued.

Attachment A: Concept Road Alignment A
Attachment B: Concept Road Alignment B
Attachment C: Concept Road Alignment C
Attachment D: Suggested first span sketches

HAVRE DE GRACE

CONCEPT ROAD ALIGNMENT A (RR ALT 9B)

HAVRE DE GRACE-HARFORD COUNTY-MARYLAND

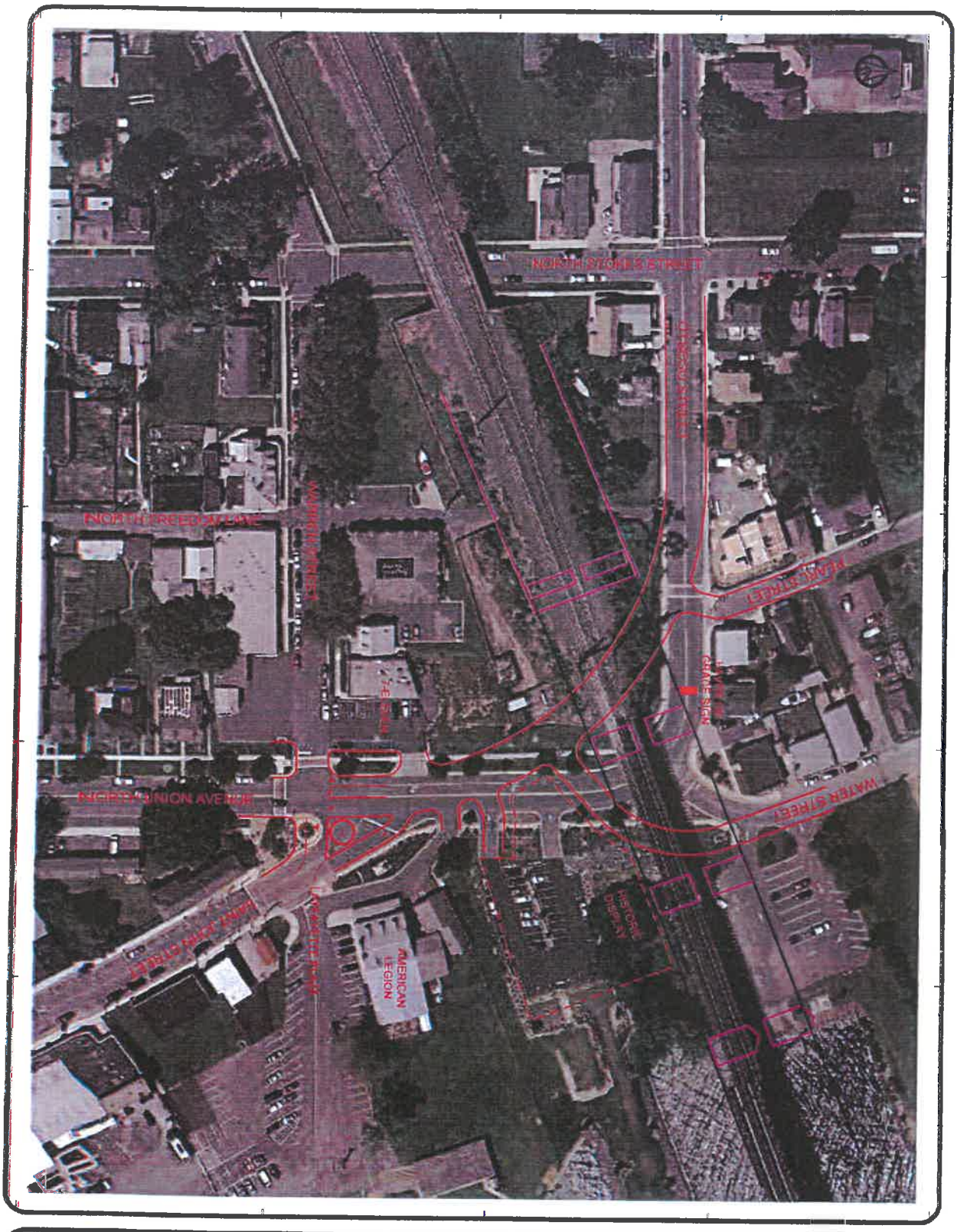
DUFFIELD ASSOCIATES

1648 CHURCHVILLE ROAD, SUITE 111
BEL AIR, MD 21015
TEL. 410.399.9777
FAX 410.399.9778

OFFICES IN DELAWARE, MARYLAND, PENNSYLVANIA AND NEW JERSEY

WEB: HTTP://DUFFIELD.COM
E-MAIL: DUFFIELD@DUFFIELD.COM

DATE: 15 NOVEMBER 2016
SCALE: 1" = 40'
PROJECT NO: 10294.CA
SHEET: 1 OF 1

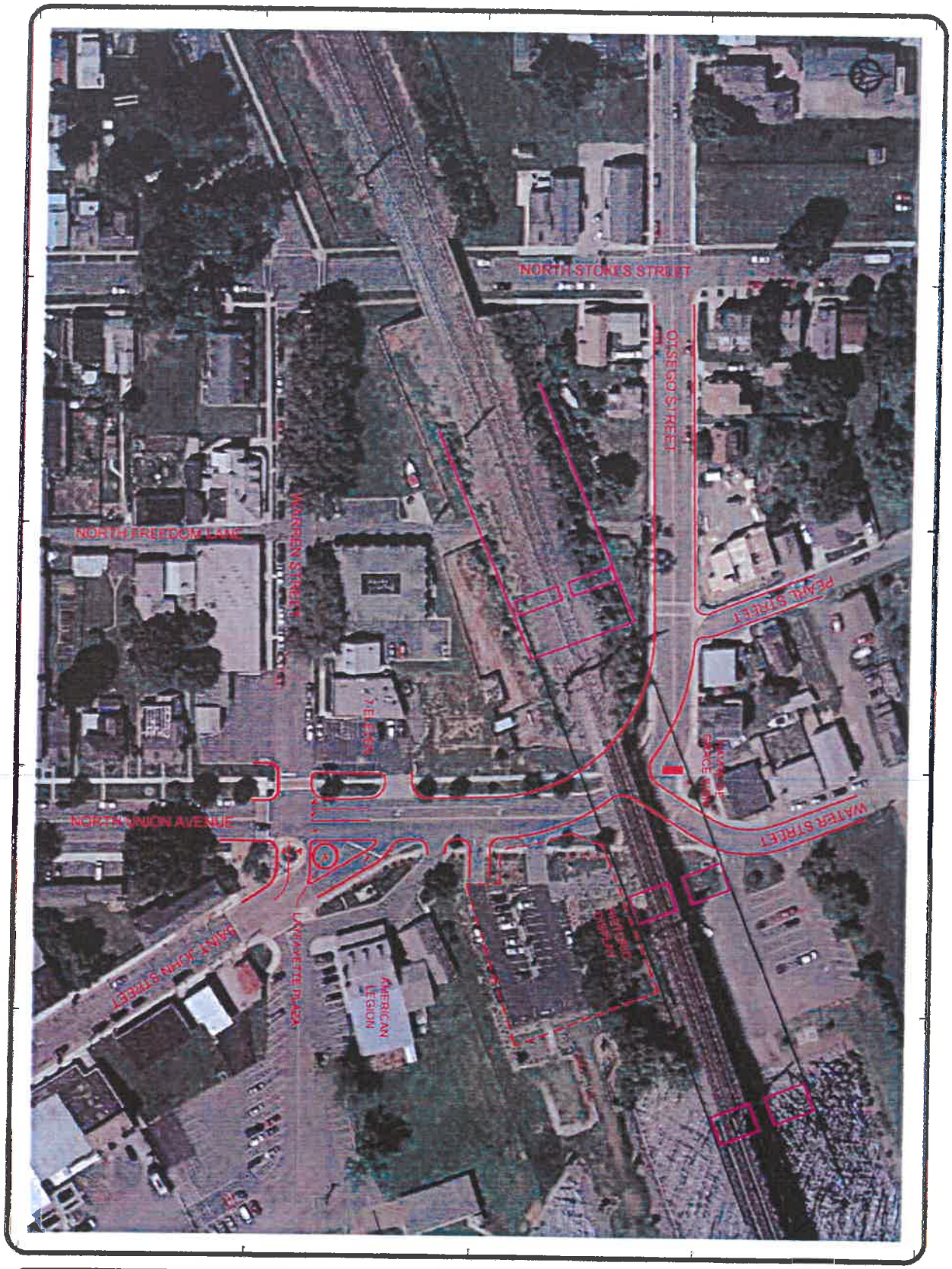


HAVRE DE GRACE

CONCEPT ROAD ALIGNMENT B
(RR ALT 9B)

HAVRE DE GRACE-HARFORD COUNTY-MARYLAND

DUFFIELD ASSOCIATES
Soil, Water & the Environment

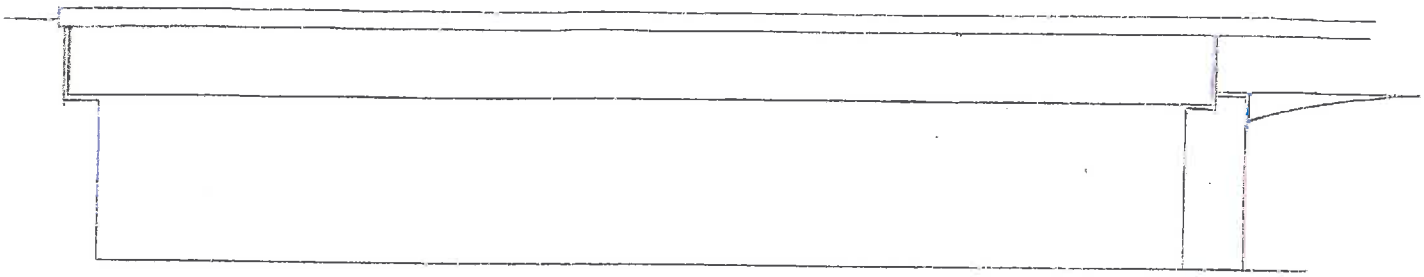


HAVRE DE GRACE

CONCEPT ROAD ALIGNMENT C
(RR ALT 9B)

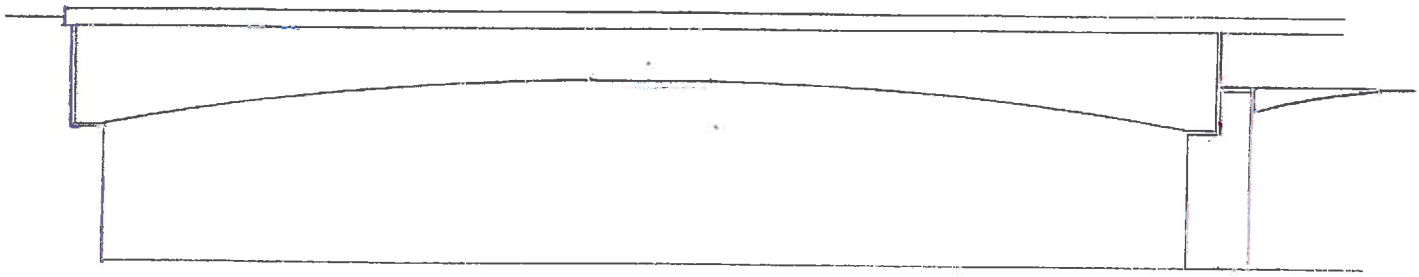
HAVRE DE GRACE–HARFORD COUNTY–MARYLAND

DUFFIELD ASSOCIATES



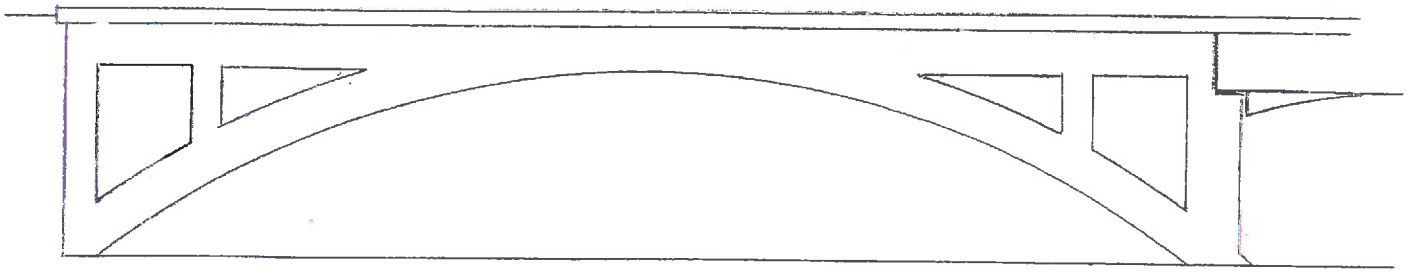
Enlarged Standard Steel Beam Design

Increasing beam set from 5 to 7



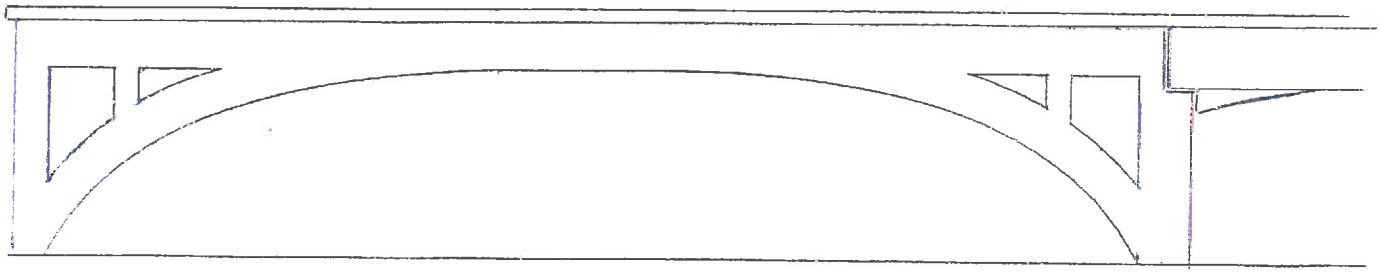
Haunched Steel Beam Arch Design

Increasing beam set from 5 to 6



Open-spandrel Concrete Radius Arch Design

With paired arches



Open-spandrel Concrete Elliptical Arch Design

With paired arches

November 1, 2016

Mary Ann Lisanti
Executive Director
Lower Susquehanna Heritage Greenway, Inc.
4948 Conowingo Road
Darlington, MD 21034

Re: **Susquehanna River Rail Bridge Project**
Harford and Cecil Counties, MD

Dear Ms. Lisanti,

Thank you for your comments on the *Effects Assessment for Historic Architectural Resources* ("*Effects Assessment*") for the Susquehanna River Rail Bridge Project, both in writing and at the recent consulting parties meeting. The following comments follow the order of your letter, with each topic starting off with your subject heading and summarized comment shown in bold.

I would like to first provide some general background information that is relevant to some of your concerns and questions. As explained at the recent meeting, Section 106 of the National Historic Preservation Act (NHPA) of 1966 ("Section 106") includes both the identification of historic resources—historic architectural and archaeological—and the evaluation of a proposed project's effects on the resources identified as significant. The *Effects Assessment* only includes one component of that assessment, i.e., the evaluation of effects on historic architectural resources. The identification of historic architectural resources was previously handled in consultation with the Maryland Historical Trust (MHT), who concurred with the Federal Railroad Administration (FRA)'s and Maryland Department of Transportation (MDOT)'s findings. Because the identification phase for historic architecture had been covered in a previous report, the *Effects Assessment* includes only a summary of the identification level effort. The identification of archaeological resources was begun with the preparation of the project's Phase IA report, and will continue when Phase IB archaeological testing is conducted.

In addition, most of the project's study area or "Area of Potential Effects (APE)" in Havre de Grace is within the National Register-listed Havre de Grace Historic District, a resource treated within the cultural resources discipline as an entire entity. What this means is that it is appropriate under the Section 106 process to assess the historic district's significance, setting, and potential impacts on the district as a whole, rather than looking at individual components within the historic district. This assessment does, of course, include consideration of the effects on contributing resources within the context of the historic district, but the main emphasis is on the historic district as a whole.

The requested compatibility review and consultation on the five items enumerated on page 2 of your letter is already being carried out as part of the Section 106 process.

General Comments

The loss of the stone undergrade bridges will have a major impact on the "character" that the railroad imparts to the community.
In reference to the alterations to the stone undergrade bridges, as we discussed at the recent meeting, we will continue to coordinate with the consulting parties on the selection of the stone form liner to be used for the bridge extensions and the retaining walls. The consulting parties requested that we take into consideration the form liners' color, pattern, and texture; Amtrak commits to do so.

In terms of the Skipjack *Martha Lewis*, is bridge clearance the only limitation now and in the future? How does this movement restriction impact the use and operation of our "floating museum?" What comments have you received from the *Martha Lewis*? What mitigation efforts will you offer the vessel?
The *Effects Assessment* reviewed the potential effects on the resource's historic characteristics, including the ability to continue its historic use, i.e, dredge for oysters, and interpret that use in a historically appropriate setting. The Skipjack's docking site and the oyster beds are both located south of the project site; therefore, it was determined that the proposed fixed bridges restricting the Skipjack's ability to go under the bridges and further north would not be an adverse effect on this historic resource. The new bridges' height is the only known limitation at this point. In terms of comments received from the *Martha Lewis,* to date we have not received any response from them. Finally, in terms of mitigation, as FRA and the MHT are in agreement that there is no adverse effect under Section 106, no mitigation is required.

Additional renderings of proposed changes should be included in the report so there is some record of what is expected to occur.
An additional rendering of the retaining wall with the typical formliner appearance is being prepared from the viewpoint of the tavern and will be included in the Environmental Assessment (EA).

Page by Page Comments

Page 1-5, paragraph 3. Information used to prepare the *Effects Assessment* will also be used in the development of an EA. The LSHG wishes to review baseline information and have the opportunity to consult and comment on the EA.
The EA will be available for public review and comment.

Page 1-6, paragraph 1. The LSHG requests that information and input should be sought from state and federal elected officials given the size, scope and financial support needed for this project.
Throughout the scoping process for this environmental assessment, the project team has developed project alternatives and appurtenances with the help of officials with the Town of

Perryville and the City of Havre de Grace, as well as federal and state agencies, input received during public outreach information sessions, and from stakeholders. The environmental assessment, set to be published in the next few months, will be circulated to elected officials. Comments on the EA will be addressed in the agency's decision document.

Page 1-8, paragraph 4. Approach Structures: This will require extending the culvert at the Lilly/Lewis Run crossing. Lilly Run is the source of city-wide flooding problems.
Your comments pertaining to the flooding problems with Lilly Run do not directly pertain to cultural resources; therefore, these issues will be addressed as part of the EA.

Page 2-1, paragraph 3. The LSHG recommends that the following organizations be added to the consulting parties list so that they are permitted to provide technical input: Havre de Grace Historic District Commission, Havre de Grace Main Street, Inc., Harford and Cecil County Archaeological Society, Captain John Smith National Historic Trail office, and the Chesapeake Conservancy.
Three of the organizations you suggested are already represented on the MHT-approved consulting parties list: the Captain John Smith National Historic Trail office, the Havre de Grace Historic District Commission (represented by Havre de Grace Planner Dianne Klair), and the Chesapeake Heritage Conservancy. At your request, FRA and MDOT will add Havre de Grace Main Street, Inc. and the Harford and Cecil County Archaeological Society for future mailings.

Page 2-1, paragraph 6. The LSHG recommends that the project should have a strong historic transportation theme.
There appears to be a misunderstanding of the purpose of the research design in the *Effects Assessment*. The point of a research design—a tool developed prior to conducting a cultural resources—is to help the professional historian evaluate what types of resources within the project area might have historic significance. Therefore, the purpose of the statement in the *Effects Assessment* was to indicate that transportation history is so important to the history of the project area that any resources associated with the area's transportation history would have a high likelihood of meeting the criteria for inclusion in the National Register of Historic Places. This statement was not to describe the intentions for the project; however, we do agree that the area's transportation history is important and should be a major component of any historic interpretive material developed as mitigation.

Page 2-2, last paragraph. The LSHG requests the opportunity to review and provide comments on the Phase IA Archaeological Assessment.
The Phase IA report is available on the project website, under "Environmental Studies," and "Section 106." We would welcome your review and comment.

Page 3-1, paragraph 2. Initial European Contact (1600-1650). LSHG stated that it is a serious oversight to begin a description of the area's history in European context, thus excluding thousands of years of human activity.

The fact that the background history in the *Effects Assessment* begins with European settlement is not an oversight. As explained above, this report is limited to historic architectural resources. The pre-contact period that you describe is fully covered in the Phase IA Archaeological Assessment and will be covered in any further archaeological evaluation.

Page 3-3, paragraph 2. John Rogers Ferry. The Harford County site of the ferry (opposite Rodgers Tavern in Perryville) is at the present day American Legion.
The location of the historic ferry crossing in Harford County is included in the background history as well as being a component of the archaeological assessment. Because there are no extant structures associated with this important transportation history, the *Effects Assessment* does not discuss potential effects.

Page 3-3, paragraph 4. The LSHG has provided supplemental historical information about the Garrett Island trading post.
Thank you for the supplemental historical information about Garrett Island, the southern portion of which is within the APE for visual effects on historic architectural resources. Although the island is outside of the archaeological APE, it is within the area being evaluated for potential indigenous cultural landscapes.

Page 3-4, paragraphs 1-2. Agricultural – Industrial Transition Period (1815 – 1870). The National Underground Railroad Network to Freedom: The underground railroad played a role in our local history.
The underground railroad is included in the study as part of the background history. As highlighted by the fact that the National Park Service has added the river crossing between Perryville and Havre de Grace into the National Underground Railroad Network to Freedom, the underground railroad is one more example of how important transportation is to this area's history. We agree that this history should be reflected in the educational material developed as project mitigation.

Page 3-4, paragraph 3. Industrialization and Modern Period: Railroad:

Reference to the 1866 Susquehanna Bridge is given little significance; however, the bridge was used for pedestrian and vehicular travel between Perryville and Havre de Grace linking the northeastern corridor of the United States from 1866 – 1943.
The 1866 Susquehanna Bridge is not discussed extensively as this bridge is not extant.

The stone piers (ID #HA-836) are architectural resources and should be maintained and repurposed for a pedestrian crossing in accordance with the Lower Susquehanna Heritage Greenway Management Plan.
MHT has evaluated the piers as not eligible for inclusion in the National Register of Historic Places. As discussed at the recent meeting, the piers need to be removed to avoid them being a navigational hazard.

Page 3-4, paragraph 4. Industrialization and Modern Period: Railroad. The LSHG has requested that the information on the Wiley Company include the fact that 32 tunnel sections for the I-95 tunnel under Baltimore Harbor were made in Port Deposit.
Thank you for the additional information about the Wiley Company. Because this resource is not within the project's APE, only limited historic information about this company was included in the *Effects Assessment.* However, your additional information will now become part of the project's administrative record.

Pages 4-3 and 4-4. Properties considered not eligible for the National Register:

The LSHG requested that the project team review Attachment 4, the list of "Candidate Historic Properties" in the LSHG Management Plan, to ensure that all historic resources have been identified.
FRA and MDOT developed the historic architectural sites survey in close consultation with the MHT, and the MHT has concurred with both the process and the end results. To ensure thoroughness, we have reviewed your Attachment 4. This list of properties that "may be certified as eligible" includes many properties that are outside of the project's APE. In Cecil County, the properties are all either outside of the APE (e.g., the Route 40 bridge), or within the APE and included in the study (e.g., Rodgers Tavern, Perry Point Mill, and Perry Point Mansion House). In Havre de Grace, the properties all appear to be either outside of the APE or within the APE and included in the study as part of the Havre de Grace Historic District.

Please explain why the 43 structures in Perryville that were evaluated were deemed not eligible for designation.
As evidenced in the enclosed correspondence, MHT found that these structures are not eligible before the *Effects Assessment* was prepared. MHT reviewed the Determination of Eligibility (DOE) Forms that were prepared as part of the project. Upon request, the forms will be shared on a CD. As a result of numerous high quality images of the structures that were considered in the DOE Forms, these materials are too large to post on the project website.

The Havre de Grace train station ruins site is specifically listed in the LSHG Management Plan master capital project list for re-development.
Thank you for this comment. In terms of cultural resources, this site will be more fully evaluated as part of the Phase IB archaeological investigation.

Page 4-5. Identification of Cultural Resources Eligible for National Register:
Two architectural resources listed as significant for protection in the LSHG Management Plan are not listed in the *Effects Assessment:* the Abraham Jarrett Thomas House (HA-790) and the old railroad bridge pilings (HA-836).
Both of these resources are included within the *Effects Assessment.* The Abraham Jarrett Thomas House is a contributing feature of the Havre de Grace Historic District (HA-1125) and is identified as such on Figure 22, page 4-25. The old railroad bridge pilings are not included in the

list of significant historic resources because the MHT has evaluated them as not eligible for inclusion in the National Register.

Page 4-7. Havre de Grace Architectural Resource Map (Figure 5). The LSHG requests that the map be revised to reflect individual properties within the historic district.
As part of the Section 106 review process, historic districts are considered as a whole rather than as a collection of individual parts, so it is appropriate for the map to show the boundary of the historic district. Individual resources within a historic district are then evaluated as either contributing or non-contributing to the overall significance of the historic district. As part of the *Effects Assessment,* FRA and MDOT individually assessed the structures immediately adjacent to the project corridor to determine if they contribute to the significance of the historic district.

Page 4-9, paragraph 4. Havre de Grace Historic District. It appears that the integrity of the district in totality is heavily weighted against the significance of the individual sites, therefore different standards are applied to Havre de Grace and Perryville.
As explained above, under Section 106, historic districts are reviewed in a holistic manner, ensuring that the overall resource, its setting, and its components are considered.

Page 4-11. Havre de Grace Historic District Photo Key (Figure 8). The map should be more representative of the varied styles of architecture.
The purpose of this photo key is to show representative views in close proximity to the project site, not to show the range of architecture throughout the historic district.

Page 4-12, Photo 8. The American Legion structure, formerly the Lafayette Hotel and the Abraham Jarrett Thomas House (HA-790), has not been properly identified or reviewed.
The structure at 501 St. John Street has been evaluated as contributing to the significance of the historic district. Information about the structure's history, including a copy of the MHT site survey form, was included in the historic sites survey for the historic district.

Page 4-13, Photo 10. It is unclear why this photo is listed to show a house that has been moved. It has been verified that the house is still there.
At one of the meetings of the consulting parties, a local representative stated that it was her understanding that the structure at 511 Warren Street had been moved to its current location. The photo caption was merely documenting the possibility that the house may have been moved to its current location, not moved away from it.

Page 4-13, Photo 14. The LSHG requests that the report evaluate the former Catholic Church at 429 N. Stokes Street and associated rectory at 425 N. Stokes Street.
As previously explained, only the structures immediately adjacent to the project site were evaluated individually to determine if they contribute to the significance of the historic district. Therefore, the former church, located immediately adjacent to the project site, was evaluated as contributing to the significance of the historic district. The former rectory was not individually

evaluated; however, it was considered as part of the overall assessment of the project's effects on the historic district.

Pages 4-26 & 4-27, references to Freedom and Centennial Lanes. The LSHG recommended that further investigation be conducted into the role of Freedom and Centennial Lanes in commemorating the Underground Railroad.
The National Register nomination for the Havre de Grace Historic District does not address these lanes' commemorative history; however, as indicated in the *Effects Assessment,* the nomination does address the importance of alleys such as Freedom and Centennial Lanes in terms of community planning. This historic characteristic was addressed in the *Effects Assessment.*

Page 4-31, Principio Furnace. The LSHG requests that the Mansion House be evaluated.
This structure was evaluated as part of the historic sites survey and found to be significant; however, as part of the *Effects Assessment* it was determined that there would be no effect on the Mansion House.

Page 4-33, Existing railroad bridge, adjacent granite pilings, and 9 undergrade bridges:

LSHG requests to consult on the significance of these resources as well as the possibility to re-use the granite pilings.
FRA and MDOT have evaluated all of these resources and the MHT has concurred with our evaluation that the Susquehanna River Rail Bridge and the 9 undergrade bridges are eligible for inclusion in the National Register of Historic Places, and the bridge piers from the former bridge are not eligible for inclusion in the National Register. As indicated above, the piers need to be removed to avoid them being a navigational hazard.

LSHG requests a re-evaluation of the materials used for the bridge piers, undergrade bridges, and retaining walls.
FRA and MDOT have determined that a form liner is an appropriate treatment, and, as shown at the recent meeting, can be handled in such a way as to be compatible with the existing material. As requested, we commit to work with the consulting parties on the form liners' color, pattern, and texture.

LSHG wants to work with the project team to develop a sufficient interpretative, recreation and educational plan for the project area.
FRA and MDOT welcome your input in the form of proposed stipulations to be included in the project's Programmatic Agreement (PA).

Pages 5-4 and 5-11 – 5-17. The LSHG has requested that existing and proposed renderings of the undergrade bridges should be developed and shared with the consulting parties for input.
FRA and MDOT will develop and share a rendering of the proposed treatment, which can be evaluated in conjunction with photographs of the existing bridges.

An additional rendering of the retaining wall with the typical formliner appearance is being prepared from the viewpoint of the tavern.

Pages 5-6 and 5-7, Photos 46 and 49. The LSHG recommends that the design style of the arched piers with girder approach with main arch span be architecturally consistent with the Route 40 bridge and existing structures.
The design is progressing with an open, modern pier design that has been shown at public meetings. The updated pier design will be shown at the next public meeting.

Page 5-21, Alternative 9A or 9B. The LSHG requests more details to evaluate the impact of the two alternatives. How close will each alternative bring the tracks to nearby structures? Why was the widening deemed to have no impact on the structures? Can you provide depictions or examples from other areas showing what is proposed? We are concerned about the visual and noise effects on Rodgers Tavern.
Visual and noise effects as well as the distances are discussed in the EA.

Page 5-25. The LSHG requests additional information on how the use of stone for the extended undergrade bridges does not meet current engineering design standards.
Stone masonry abutments are typically not built for present construction due to seismic response capacity. They require higher maintenance and are not typically cost effective. The formliner for the extended undergrade bridges will be constructed in accordance with industry practice, and will be uniform in appearance throughout the project including on the adjacent retaining walls for a consistent look.

Page 5-27. Additional study is needed on the potential loss of the two areas where takings are required. Are any of these properties deemed historic? What community mitigation is proposed? Should these properties be removed from the Havre de Grace Historic District?
The extent of the takings is so small that it was assessed as not constituting an adverse effect.

Page 5-30. The LSHG requests to participate in the discussion about the treatment of the retaining wall opposite Rodgers Tavern.
FRA and MDOT will continue to coordinate with the consulting parties on the façade treatment for this retaining wall. A rendering of this wall is in development.

Page 6-1, Summary Recommendations. The LSHG requests an electronic copy of the summary chart listing the adverse effects and the proposed measures to avoid, minimize, or mitigate the adverse effects.
On August 4, the Project Team forwarded this chart to LSHG.

Page 6-3, Mitigation Measures. The LSHG wishes to work with the consulting parties to develop a sufficient interpretative, recreation and educational plan for the project parties.
FRA and MDOT will continue to work with the consulting parties to implement the project's PA.

The LSHG hopes that when the stone sign underneath the bridge is demolished, the stone will be salvaged and re-used for a similar purpose.
This suggestion can certainly be incorporated into the list of mitigation measures included in the PA.

Thank you again for your comments, which will become part of the public record for this project. FRA and MDOT look forward to continuing to work with you and the other consulting parties as this project progresses.

If you have any questions, please feel free to contact me, FRA Environmental Protection Specialist, at (202) 493-0844 or by email at Brandon.Bratcher@dot.gov.

Sincerely,

Brandon L. Bratcher
Environmental Protection Specialist
Federal Railroad Administration
U.S. Department of Transportation
1200 New Jersey Avenue, SE
West Building, Mail Stop 20
Washington, DC 20590
(202) 493-0844

cc:

Beth Cole, Maryland Historical Trust
Paul DelSignore, Amtrak
Amrita Hill, Amtrak
Dan Reagle, Maryland Transit Administration
Laura Shick, Federal Railroad Administration
Jacqueline Thorne, Maryland Department of Transportation

Larry Hogan, Governor
Boyd Rutherford Lt. Governor

David R. Craig, Secretary
Wendi W. Peters, Deputy Secretary

Maryland Department of Planning
Maryland Historical Trust

April 22, 2015

Angela Willis
Maryland Transit Administration
6 Saint Paul Street
Baltimore, MD 21202-6806

Re: Susquehanna River Rail Bridge Project
Historic Structures Investigations – Determination of Eligibility Forms
Harford and Cecil Counties, Maryland

Dear Ms. Willis:

Thank you for providing the Maryland Historical Trust (Trust) with Determination of Eligibility (DOE) Forms produced for the above-referenced undertaking. The Trust has reviewed the materials as part of our ongoing consultation for this undertaking, pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended. We offer the following comments and recommendations regarding the historic structures investigations.

Trust staff reviewed the Determination of Eligibility (DOE) Forms prepared by AKRF, Inc. on behalf of the Maryland Transit Administration (MTA). MTA's submittal comprised 76 DOE forms; including 71 resources documented using the 'DOE Short Form for Ineligible Resources'. Our comments regarding the eligibility of historic properties for listing in the National Register of Historic Places (National Register) are provided below.

The following properties are **eligible** for listing in the National Register:
- Susquehanna River Rail Bridge & Bridge Overpasses (MIHP No. HA-1712)
- Perryville United Methodist Church (MIHP No. CE-1573)
- Perryville Presbyterian Church (MIHP No. CE-1574)

The following properties are **not eligible** for listing in the National Register:
- Perryville Historic District (MIHP No. CE-1572)
- 400-413 Webb Lane, Havre de Grace (MIHP No. HA-2250)
- We concur that all 71 resources documented with the 'Short Form for Ineligible Properties' are not eligible for listing in the National Register.

We look forward to continuing consultation with MTA, the Federal Railroad Administration and the other involved parties to successfully complete the Section106 review of the Susquehanna River Rail Bridge project as planning progresses. If you have questions or require additional information, please contact Beth Cole (for archeology) at beth.cole@maryland.gov / 410-514-7631 or Tim Tamburrino (for historic built environment) at tim.tamburrino@maryland.gov / 410-514-7637.

Sincerely,

Elizabeth Hughes
Acting Director/State Historic Preservation Officer

EH/TJT 201500546

cc: Michelle Fishburne (FRA)
Jacqueline Thorne (MDOT)
Craig Rolwood (Amtrak)
Bradley F. Killian (Harford County)
Anthony DiGiacomo (Cecil County)
Dianne Klair (Havre de Grace)
Bethany Baker (Concord Point Lighthouse)
Norris C. Howard Sr. (Pocomoke Indian Nation)
Leslie Mesnick (AKRF)

February 12, 2015

Ms. Beth Cole
Administrator, Review and Compliance
Maryland Historical Trust
100 Community Place, 3rd Floor
Crownsville, MD 21032

Re: Susquehanna River Rail Bridge Project
Harford and Cecil Counties, Maryland
Draft DOE Report

Dear Ms. Cole:

Please find enclosed the DOE Report for the Susquehanna River Rail Bridge Project. The DOE Report contains the following:

- A hard copy containing a cover letter, the full DOEs printed on archival paper with archival photographs (with all of the various components outlined in the *Standards and Guidelines* and May 2009 Guidelines for Compliance-Generated DOEs), and the short DOE Forms with accompanying USGS maps and photographs.
- A CD containing the DOE Form database provided by MHT with the full and short DOE forms, pdfs of all of the DOE forms, and the photo log and digital photographs for the full DOE forms labeled according to the *Standards and Guidelines* and May 2009 Guidelines for Compliance-Generated DOEs.

We would be pleased to have our cultural resources team set up a conference call or meeting to facilitate the review of the DOE Report. If you have any questions, please contact me at 410-767-4080. Thank you for your input on the Susquehanna River Rail Bridge Project.

Sincerely,

Angela Willis
Environmental Planner
Maryland Transit Administration

enclosure

Cc: Tim Tamburrino, MHT (without enclosure)
Adam Denton, FRA (without enclosure)
Michelle Fishburne, FRA (without enclosure)
Amrita Hill, Amtrak (without enclosure)
Craig Rolwood, Amtrak (without enclosure)
Jacqueline Thorne, MDOT (without enclosure)

AKRF

Jelena Matic <jmatic@akrf.com>

Susquehanna River Rail Bridge Project & Captain John Smith NHT

1 message

Shick, Laura (FRA) <Laura.Shick@dot.gov> Wed, Jan 18, 2017 at 10:16 AM
To: "Jagunic, Matthew" <matt_jagunic@nps.gov>
Cc: "Bratcher, Brandon (FRA)" <brandon.bratcher@dot.gov>, Jelena Matic <jmatic@akrf.com>, Dan Reagle <DReagle1@mta.maryland.gov>, "Hill, Amrita" <HillA@amtrak.com>, "DelSignore, Paul" <DelsigP@amtrak.com>, "Johnsen, Michael (FRA)" <michael.johnsen@dot.gov>, Jacqueline Thorne <jthorne@mdot.state.md.us>, "Mielke_Matthew@bah.com" <Mielke_Matthew@bah.com>, "SWilliams18@mta.maryland.gov" <SWilliams18@mta.maryland.gov>

Good morning Matt,

I'm following up to your request that FRA consider whether the portion of the Captain John Smith National Historic Trail (CAJO NHT) in the Area of Potential Effects (APE) for the Susquehanna River Rail Bridge Project may be eligible for the National Register of Historic Places (NRHP). The attached document presents the project team's analysis of this matter to-date.

FRA is providing grant funding for preliminary engineering and environmental analysis for the proposed bridge replacement project; currently, there is no funding identified to advance the project through final design and construction. The project team is currently developing a Section 106 Programmatic Agreement (PA) to guide future historic preservation work that would be necessary for the project, if it were to advance. NPS is a Section 106 consulting party, so you'll have the opportunity to review and comment on the draft PA before it is executed. The draft PA will include a stipulation requiring additional analysis of the NHTs in the APE, particularly if NPS makes more information available in the future that would assist with determining the NRHP eligibility of any of the NHTs.

If you have any questions about the Section 106 process or how the project team has evaluated CAJO NHT to date, please let me or Brandon know (I'm leaving the country on vacation later this week and won't be back until early February). Again, as a consulting party, you'll have the opportunity to review/comment on the draft PA when it's ready for circulation.

Regards,

Laura A. Shick

Environmental Protection Specialist &

Federal Preservation Officer

U.S. Department of Transportation

Federal Railroad Administration

Office of Railroad Policy and Development

1200 New Jersey Avenue, SE

Washington, DC 20590

(202) 366-0340

C.A. DUTCH RUPPERSBERGER
2ND DISTRICT, MARYLAND

REPLY TO:

☐ 2416 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3061
FAX: (202) 225-3094

☐ 375 WEST PADONIA ROAD, SUITE 200
TIMONIUM, MD 21093
(410) 628-2701
FAX: (410) 628-2708

www.dutch.house.gov

COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEES:
DEFENSE
STATE, FOREIGN OPERATIONS, AND RELATED PROGRAMS

Congress of the United States
House of Representatives
Washington, DC 20515–2002

January 24, 2017

Mr. Brandon Bratcher
Environmental Protection Specialist
Federal Railroad Administration
1200 New Jersey Avenue SE
Washington, DC 20590

Dear Mr. Bratcher:

As the Federal Railroad Administration (FRA) moves forward on the design and placement of the Susquehanna River Rail Bridge, I request that the selection complement the façade of Havre de Grace's Historic District. This is a desire shared by many of my constituents and local elected officials.

The residents of Havre de Grace take great pride in their city's history, which nearly missed being named our Nation's capital in 1789. Its buildings date primarily from the 19th and early 20th century. The scenery is reminiscent of an earlier time and a modern bridge design would detract from the area's atmosphere. The City has a perennial tourism industry, which would be harmed if this concern is not taken into account.

The expansion of the Susquehanna River Rail Bridge is an essential project. The current structure supports only two tracks, creating speed and capacity constrictions. I hope renovations will effectively remedy the bottle neck on the span used by Amtrak, MARC, and Norfolk Southern. With that being said, I urge FRA to proceed with caution, and select a design which is both practical and aesthetically compatible with Havre de Grace's historic roots.

Sincerely,

C.A. Dutch Ruppersberger

C.A. Dutch Ruppersberger
Member of Congress

cc: The Honorable Mary Ann Lisanti
Ben Martorana, City of Havre de Grace
Michael Johnsen, Federal Railroad Administration
Deborah Haynie, Maryland Department of Transportation
Patrick Edmond, National Railroad Passenger Corporation

Susquehanna River Rail Bridge Project

Advisory Board

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
of the Mayor and City Council

Advisory Bulletin #1

Introduction of the Advisory Board to SRRBP Agencies
Request for a Special Briefing

October 21, 2014

Background

The Advisory Board held its first meeting on October 6, 2014. It recognized that the most pressing task was to become fully on-board and aware of all developments to date with regard to the SRRBP preliminary engineering and environmental studies that are underway at this time. Board members have studied many of the correspondences between the SRRBP project team and our local jurisdictions, and the Board chairman attended both public presentations recently held in Havre de Grace and Perryville.

Recommended Action

The Advisory Board requests that the Mayor send a formal communication to all parties involved with the SRRBP project team, announcing the appointment of this board and including the following information:

1. The purpose, authorization, and specific limitations of this board.
2. The membership and qualifications of this board.
3. A request for the Advisory Board to henceforth be included in all general correspondences, given "Consulting Party" status with the participating agencies, and specially invited to all briefings delivered to local and county jurisdictions.

The Advisory Board further requests that the City arrange, as quickly as possible, a special briefing to members of the Advisory Board, to be delivered by representatives of the SRRBP project team at City Hall, preferably at the Board's scheduled meeting on Thursday, November

6, 2014, at 5 PM, or at a date and time to be coordinated soon thereafter. This briefing should be confined to discussions of preliminary engineering progress to date, and more specifically concerning right-of way and track alignments, bridge engineering and architecture, a commuter rail station, street underpasses, and bridge abutment location.

This briefing should only require the presence of 2-3 engineering representatives of the SRRBP Project Team, and will be followed by an exchange of ideas between the Team and the Advisory Board. Advisories addressing each of these specific issues will be issued to the Mayor of Havre de Grace prior to this briefing and exchange if ideas.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
of the Mayor and City Council

Advisory Bulletin #2
Bridge Architecture
October 21, 2014

Background

The Advisory Board, during its first meeting on October 6, 2014, determined that the overall appearance of the proposed Susquehanna River Rail Bridge is of the highest priority of importance to the City of Havre de Grace, surrounding communities, and the State of Maryland. This discussion was preceded by the strong opinion of many citizens and elected officials that bridge architecture is their most pressing concern.

The new bridge complex will dominate the downtown and waterfront vista for the next century or more, and will become iconic of Havre de Grace as a tourist and entertainment center. It will also become the gateway to the Lower Susquehanna Heritage Greenway, being positioned at the mouth of the greatest eastern river in our nation as it flows into the world's largest estuarial bay. This new bridge should also symbolize the future of Amtrak and of rail transportation as a national asset and environmental ally, given its unique location, intense rail activity, and imposing dominance.

Architectural Recommendations

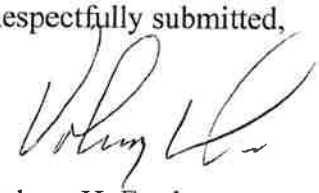
1. In the likely event that new twin bridges of two tracks each are constructed, both bridges should be of identical height and architecture, and should be aligned as closely to each other as possible, to give the appearance of one bridge.
2. The bridges should be entirely open-decked, with each span having graceful shallow-arched symmetry using massive closed-webbed steel beams that present an overall solid appearance. Emphasis should be placed on pleasing lines of curvature, with properly balanced span and arch dimensions.

3. Bridge support piers should be taller, more slender, and spaced farther apart than the existing piers to improve navigation and open up the viewscape.
4. Both bridges should be carried on the same elongated pier structures to emphasize the appearance of "one bridge" and to better resist river-borne collisions.
5. The catenary system should be suspended from a series of single, architecturally graceful solid-form towers, mounted directly on the piers between the bridges, with high-line arms at the very top and wide catenary arms extending in cantilever over the double-track bridge decks along both sides. This will do much to reduce the visual effect of catenary "clutter" while emphasizing the towers as central architectural features of the bridge complex.
6. The bridges and towers should be painted in a light metallic color, such as a golden platinum, to produce a distinctive daytime natural glow from great distances.
7. The entire bridge span, as viewed from upriver and downriver, should be provided with night-time accent lighting to create a warm glow along the outer face of each of its arches, in such a way that subtle arches of light are always visible at night.
8. All existing piers and abutments, whether supporting the current bridge or the previously removed rail/automobile bridge, should be removed down to the river bed, to eliminate clutter, enhance the viewscape, and greatly improve barge and boat navigation.

Recommended Action

The Advisory Board requests that the Mayor send a formal communication to the SRRBP project team, offering these recommendations as a typical example of the style of architecture the City and surrounding communities would expect and want to embrace.

Respectfully submitted,



Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078
www.havredegracemd.com
410-939-1800

Susquehanna River Rail Bridge Project
Advisory Board
of the Mayor and City Council

Advisory Bulletin #3
Bridge Abutment Area
October 24, 2014

Background

The Advisory Board met on October 21, 2014, to examine the immediate area around the westerly landing of the proposed rail bridge complex in order to determine the most favorable placement of the new bridge abutment. Factors taken into consideration were a greater height and width of the proposed bridge complex, longer spans between piers, a probable shifting of track alignment southward, the need for a more impressive gateway entrance to the downtown area, safer traffic flow and intersection alignments under the bridge, and sufficient space to install a permanent outdoor historical display dedicated to the history and architecture of previous bridges located at this site.

Site Recommendations

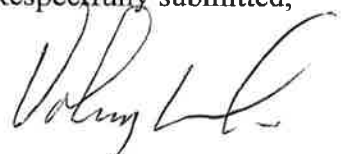
1. The new bridge abutment should be retracted westward, almost to the Freedom Lane tunnel underpass (eliminating that underpass) to allow for each of the following recommendations and to prevent further abutment crowding of the current street intersection area that would be caused by much wider bridge and trackage requirements.
2. The sharply curving, semi-blind intersection of Otsego Street and Union Avenue should be improved to a much wider radius of turn that would align directly with Saint John Street. This would allow longer and more generous turn lanes and greatly improved sight lines.
3. The Water Street intersection should be relocated farther west along Otsego Street, in conjunction with that of Pearl Street.
4. Both David Craig Park and Jean Roberts Park should be enlarged westward to the proposed Otsego/Union street curvature.

5. Railroad property under the bridge complex and situated between the two city parks should, by special agreement, be made available for public use and maintained by the City of Havre de Grace to appear as part of the park complex. This area should contain landscaping and walkways, but should have no structures, to allow full access for bridge maintenance.
6. Railroad property under the bridge complex, and situated between the proposed Otsego/Union street curvature and the relocated bridge abutment, should likewise be made available for public use and maintained by the City of Havre de Grace as open space with landscaping and walkways, but no structures.
7. The monumental gateway signage that exists under the current bridge should be relocated northwestward toward the proposed intersection of Water and Otsego Streets, and should include a beautiful and enlarged landscaping feature.
8. The much higher new bridge understructure would result a brighter and more open streetscape, which should be enhanced with ornamental tree plantings wherever possible without blocking sight lines or interfering with bridge maintenance operations.
9. A significant portion of an enlarged David Craig Park should be reserved for a strategically placed permanent outdoor historical display dedicated to the history and architecture of the previous bridges at this site.

Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these or similar recommendations into a formal communication to the SRRBP project team as soon as possible. The abutment location is an engineering and track alignment issue that must be resolved by the SRRBP project team very soon.

Respectfully submitted,



Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078
www.havredegracemd.com
410-939-1800

Susquehanna River Rail Bridge Project
Advisory Board
of the Mayor and City Council

Advisory Bulletin #4
Westerly Right-of-Way and Alignments
October 31, 2014

Background

The Advisory Board met on October 28, 2014, to examine the current and proposed railroad right-of-way corridor, extending from the bridge abutment area in downtown Havre de Grace to the Lewis Lane overpass. The recommendations provided below are based on several current assumptions that would appear to be likely outcomes as the SRRBP Project Team moves forward with its preliminary design analysis. These are also based on other closely-related recommendations of the Advisory Board that have been issued or are soon to be issued.

More specifically, it is assumed that a new river bridge abutment would be located westward to the Freedom Lane tunnel-style underpass (Advisory #3), an additional pair of high-speed rail lines would need to be located significantly southeastward of the existing rail lines to achieve a more favorable curve radius, and all four new rail lines would shift accordingly to align with both new bridges (assuming the two-bridge concept). Expansion and repositioning of the new rail corridor would therefore require repositioning and reconstruction of up to three sets of street underpass bridges and two sets of lane underpass bridges or tunnel-like passages.

Right-of-Way Recommendations

1. In situations where the outermost high-speed rail line will be required to pass very close to City streets, private property structures, public facilities, and high/middle school facilities, especially in the case of the new James Harris Stadium, a vertical or nearly vertical retaining wall system should be installed to reduce the broad footprint required of earthen embankments.
2. All new street underpass construction should provide enough open span to ensure room for a public sidewalk along both sides of each street passage and one side of each lane passage, with each walkway a minimum of six feet in width and elevated to curb height.

3. As rail alignments are relocated southeastward, the existing northwestward embankments should be retracted southeastward and reduced to natural grade where no future need for trackage or trackside facilities are envisioned. The purpose of this is to increase open space at natural grade and to reduce the overall visual impact of a wider and higher earthwork.

Architectural Recommendations

1. All railroad overpass abutments should be of a consistent architectural design and appearance, using the same materials.
2. All railroad overpass spans should be of a consistent architectural design and appearance, allowing for depth variations that may be required for differing span lengths.
3. Retaining walls and abutments should incorporate a natural texture and color that suggests stone, and should be designed to emphasize horizontal lines while de-emphasizing height.
4. Retaining wall and abutment architecture and materials should discourage noxious weed growth as much as possible.
5. Earthen embankments should be densely planted with a variety of landscaping species that resist erosion and noxious weed growth wherever they are exposed to developed property or unforested areas.
6. Security fencing should be minimized as much as possible in appearance, placed far enough from the toe of embankments to allow weed control, and coated black to blend with the landscape.
7. Underpass abutments should be designed with wing walls that provide a natural and architecturally pleasing connection with security fencing by terminating them at fence height.
8. Guard railings that may be required along the tops of retaining walls and railroad overpass bridges should be painted black and be designed for minimal appearance.

Noise Reduction

1. Retaining walls, track beds, and embankment landscaping should be designed to mitigate noise reflection as much as possible, whether generated by railroad operations or deflected from other sources within the community.
2. Sounding of locomotive horns at the northbound approach to the Susquehanna River Bridge, which always occurs at about the James Harris Stadium, is highly disruptive to activities in all the nearby public facilities, and is detrimental to sleeping residents. It is understood that this grade-crossing warning is not a normal requirement when approaching bridges, and was once implemented by special request of the City of Havre de Grace in response to a bridge fatality. The subsequent installations of bridge safety catwalks, guard railings, and approach security fencing should reasonably justify elimination of the horn warning.

General Comments

The current right-of-way passes through the heart of what is known as the historic "old town" Havre de Grace, dividing neighborhoods, impacting traffic flow, detracting from normal residential viewscapes, and producing a very significant amount of noise. In the years since its creation, the elevated earthen right-of-way has produced unsightly weed and tree growth, unattractive security fencing, heavily stained stonework, overpass bridges that are functional but lack form, and tunnel-like passages that appear dirty and unsafe.

The recommendations provided herein would appear to significantly exceed the traditional appearance standards and practices of railroad rights-of-way in towns and cities throughout our nation. This corridor is a notable exception. It will pass in closer proximity to, and in full view of, almost all modern and about-to-be-built public institutions in this city: City Hall, Police Station, Post Office, James Harris Stadium, High School, Middle School, and Senior Activities Center. It will also pass immediately adjacent to residences, offices, retail business establishments and tourism attractions. We should ensure that the increased impact of this massive railroad realignment and enlargement project is mitigated by quieter operation, more impressive architecture and more attractive landscaping.

Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these or similar recommendations into a formal communication to the SRRBP Project Team as soon as possible. The extensive use of retaining walls, along with underpass requirements, are engineering issues that affect overall track alignment, and must be resolved by the SRRBP project team very soon. The Board also recommends that the Mayor submit a formal inquiry to Amtrak officials regarding the bridge warning horn issue.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #5
Street and Lane Underpasses
November 3, 2014

Background

The Advisory Board met on October 28, 2014 to study all street and lane underpasses along the Amtrak rail corridor from Freedom Lane to Juniata Street, and to determine whether it would be in the best interests of the City to abandon any one of these to facilitate proposed changes in the elevated right-of-way alignment. The three rail bridge overpasses in question are located at Stokes, Adams, and Juniata Streets. The two narrow and tunnel-like rail overpasses in question are located at Freedom and Centennial Lanes.

The Board has carefully considered a range of concerns with regard to abandonment of any street or lane underpass. These include traffic impact, access to private property, neighborhood vehicular and pedestrian inconveniences, dead-end turnaround conditions, emergency response routes, and large truck maneuvering. The Board also recognizes the enormous cost savings to the rail project of eliminating one or more of the existing rail overpass structures. Such savings could make feasible a number of design and facility concessions that the City may wish to seek in connection with the overall SRRBP.

This advisory is put forth under the assumption that the river bridge abutment would be retracted westward almost to Freedom Lane, as detailed in Advisory Bulletin #3. It also refers to elements of the forthcoming Advisory Bulletin #6 - Rail Commuter Station, which would be dependent upon certain underpass eliminations and street alterations.

Freedom Lane Underpass

The tunnel-like street underpass at Freedom Lane is a very short and seldom-used vehicular passage from Otsego to Warren Streets. It does not provide a notably shorter driving route from any point to any other point in the City, and does not appear to be a clean and safe pedestrian route for most citizens and visitors. If the recommendations of Advisory Bulletin #3 are incorporated, the repositioned rail bridge abutment would lie so close to this underpass that it would no longer have purpose. If a new Otsego/Union intersection radius is relocated westward accordingly, its accompanying pedestrian sidewalk would become a more convenient shortcut from the Otsego Street neighborhoods to the downtown area than the "tunnel". The Advisory Board recommends permanent closure and elimination of this lane underpass.

Stokes Street Underpass

Stokes Street is an important cross-town secondary route that extends the entire north/south length of the Historic District, without interruption or right-of-way reduction. It is regularly used as a means of reaching the residential areas between Union Avenue and Adams Street, and is designated one-way from Otsego Street, with very few stop signs, to facilitate travel time.

Closure of this street at the rail overpass would defeat its purpose as a convenient cross-town route and cause residential traffic to thread its way in from boundary arterials, putting more pressure on the two-way crossing streets. In addition, the very short dead-end section of Stokes Street that would be created between Otsego Street and the railroad embankment would leave no room for a proper cul-de-sac or turnaround area for the few residences that utilize this street section. The Advisory Board strongly recommends that this street underpass be retained and provided with improved lighting. A concession could be made to shorten the rail overpass span here, provided that current street width is maintained and that public sidewalks of at least six feet in width are installed along both sides of the street (see Advisory Bulletin #4).

Centennial Lane Underpass

The tunnel-like underpass at Centennial Lane is also a seldom-used vehicular passage from Otsego to Warren Streets. It likewise does not provide a notably shorter driving route from any point to any other point in the City, and does not appear to be a clean and safe pedestrian route for most citizens and visitors. Centennial Lane does appear to provide sole access to at least one property and several buildings south of Otsego Street, however, which would require adequate means of U-turning or otherwise discharging vehicles if this street underpass were closed.

The Advisory Board recommends permanent closure and elimination of this lane underpass, and extension of Centennial Lane west-southwestward to Adams Street. This extension should become a new segment of Morrison Lane, and should be located on current railroad property along its northwestern boundary. The installation of a rail commuter station (see Advisory Bulletin #6) would require the elimination of this lane underpass. In that circumstance, the stub end of Centennial Lane should discharge through the station's northwest main parking area to Stokes or Adams Street without the need for a dedicated Morrison Lane extension.

Adams Street Underpass

Adams Street is also an important cross-town secondary route; however, it becomes more narrow at City Hall and is interrupted between Pennington and Congress Avenues. In comparison to Stokes Street, fewer vehicular movements occur along Adams Street, as it is close to the Juniata Street arterial and has only ten dwelling units between the railroad and Pennington Avenue. There are more than thirty dwelling units along the same stretch of Stokes Street. Although closure of this underpass would isolate one full block of Adams Street between Otsego Street and the railroad, its intersection with the currently isolated northwestern segment of Warren Street would provide easy flow-through ingress and egress connecting with Juniata Street.

There are two good reasons to consider closure of the Adams Street underpass. First, elimination of this complete set of four or five new rail bridges and both new abutment structures would represent an enormous cost savings to the rail project. This could easily be the single largest concession that Havre de Grace has to offer in negotiating for other special requests, especially when combined with lane underpass eliminations. Second, the street-level space gained in the process would be very advantageous to rail commuter station parking areas, station traffic patterns, emergency access to a trackside station platform, and pedestrian safety.

The Advisory Board recommends permanent closure and elimination of this street underpass provided that a rail commuter station is installed and put into service as part of the overall rail bridge project. The Advisory Board recommends that this street underpass be retained, under the same conditions recommended for the Stokes Street underpass, if a rail commuter station is not put into service at this location.

Juniata Street Underpass

Juniata Street is perhaps the most heavily traveled north/south arterial east of Route 40 in Havre de Grace, and serves as a "second gateway" into the city proper. It is the primary gateway to City Hall, the post office, police station, stadium, public library and several churches. It is also

the most convenient route to the hospital, J M Huber industrial area, and Revolution Street. The current rail overpass span accommodates the width of Juniata Street with enough room for sidewalks but has the appearance of a constricted opening that seems to crowd the right-of-way, blocking view until the last moment of modern public facilities that lay just beyond.

The Advisory Board recommends that this underpass be retained under all circumstances, and that its abutments be spread at least twenty feet farther apart to compensate for the visual effects of a broader 4-5 track rail bridge complex. This underpass should also be well-lighted for safety and security.

Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these or similar recommendations into a formal communication to the SRRBP Project Team as soon as possible. The Board wishes to stress the importance of recommended underpass closings in connection with the desired outcomes of several other advisories, and rapid resolution of related engineering issues.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #6
Rail Commuter Station
November 5, 2014

Background

The Advisory Board met on October 28, 2014, to examine the feasibility and best location of a new rail commuter station to serve Havre de Grace. In order for this commuter station to be most successful in ridership and most beneficial to local commerce, it should be located within easy walking distance to the downtown, waterfront, retail offerings, restaurants, bed-and-breakfast establishments, and other tourism destinations. It would also require ease of access and plenty of parking for commuters.

In visiting this important issue, the Board has considered a wide range of concerns with regard to available parking areas, station security, neighborhood safety, traffic impact, traffic routing, rail alignments and possible turnouts, distance from the river bridge, station layout, and boarding platform access. This advisory assumes that current alignment of the elevated railway is likely to be repositioned southeastward to align with the replaced bridges.

Station Location

In keeping with the objectives of positioning the station as close to the central business district as possible, while allowing enough distance from the proposed river bridges to ensure passenger safety and to install a possible fifth track turnout, The Board recommends centering the station between Stokes Street and Centennial Lane, with a shift more toward Centennial Lane if absolutely necessary. This position would also be at the epicenter of available parking opportunities and would offer the most ideal ingress and egress of vehicular traffic from Stokes, Adams, and Warren Streets.

Station Configuration

The height and relative narrowness of the elevated railway earthwork, even when repositioned and enlarged to align with the proposed bridges, is not favorable to the layout of a traditional rail commuter station at track level. The Board recommends a rather novel approach to this situation, which can offer many other benefits. The station proper, containing the ticket kiosk, restrooms, access to rail platforms above, information displays, and local tourism kiosks, should be located within a reinforced underground shell at street level, extending across the entire elevated portion of the right-of-way, with a main entrance at both ends.

The south entrance on Warren Street would provide access to parking areas on that side of the elevated railway with pedestrian access directly into downtown, only one block away. The north entrance would provide direct access the largest commuter parking lot and a potential parking area just beyond it. Both entrances should be attractively designed as retaining wall facades with wing walls and sheltered entryways. Small plazas at both entries should be well-lit, well-landscaped, and secure in appearance.

Boarding Platform Access and Layout

Public access to the boarding platforms should be restricted to interior stairways and elevators that would rise from the station interior and terminate within the shelter of boarding platform roof systems and weather screens. The advantage of such an access is that when the station is closed and locked during non-commuting hours, the boarding platform area will be completely inaccessible. Under this arrangement commuters will have less exposure to inclement weather, from station entry to rail car boarding.

The Board proposes a covered boarding platform length of 250 feet, with platforms and platform accesses along the northbound and southbound commuter/freight tracks, each having a widened shelter at the center for elevator and stairway shafts, and commuter congregation areas. Platform shelters should be carefully designed to resist exceptional wind and blowing rain conditions created by the river gorge and elevated embankment effects. The stairway shafts should be cross-connected at the highest practical level under the tracks to permit rapid commuter movement from one platform to the other and to discourage track-crossing.

Track Alignment

The northwesterly pair of tracks normally designated for freight and commuter trains, and expected to extend across the north bridge span to align with the Perryville freight wye and commuter station, should remain on tangent from the bridge as far as possible toward the

station. This is intended to provide significant separation from the high-speed pair of tracks that are expected to utilize the south bridge span, and which will likely begin a path of radius at the immediate end of the bridge.

Emergency and Maintenance Access

The boarding platform area will require vehicular access for emergency response, periodic maintenance, and routine custodial service. The Board recommends a securely gated vehicular ramp beginning at Adams Street and rising along the northwesterly side of the embankment to boarding platform level. The access ramp can rise from Stokes Street as an alternative plan, if the station is positioned farther southwestward.

Station and Restroom Maintenance

The Board recommends that the City of Havre de Grace enter into an agreement with MARC to provide daily custodial maintenance and service within the station and restrooms, but not including the boarding platform area, as part of its city-wide public restroom and public facility custodial program. The station restrooms and tourism kiosks would provide a convenient location at the north end of town for non-rail visitor access, and could be kept open beyond commuting hours and on weekends by City personnel if boarding platform access is otherwise locked within the station. The station and its entrances should be video-monitored at the City Police Department to ensure public security and rapid response to incidences.

Commuter Parking

The railroad owns a significant amount of vacant land along its current right-of-way that lies beyond the toe line of the elevated embankments, forming triangles of flat ground between the embankments and public streets or private property. Some of this street-level vacant land will likely be absorbed along the southeast side of the right-of-way by realignment of the trackage in that direction, but land at ground level along the northwest side may be expanded if the embankment toe-line along that side is retracted accordingly. It appears to the Advisory Board, when taking into account the likely repositioning of elevated portions of the railroad right-of-way, and assuming that appropriate railroad property and City property will be made available for commuter parking, the following opportunities exist:

1. The large open area of railroad property between Stokes and Adams Street, which lies behind dwellings fronting on Otsego Street, should become the principal station-entry parking area, with access from both Stokes and Adams Street. The Adams Street point of

entry and exit should occur at its intersection with Warren Street, assuming elimination of the Adams Street underpass, and would thus be accessed straight in from Juniata Street. This parking lot can be made significantly larger by the installation of a vertical retaining wall extending from the station entrance to both street entrances, thus eliminating the space required for a sloped embankment.

2. The Susquehanna Hose Company owns a sizable triangle of vacant and unused land behind its fire station on Juniata Street. This land fronts Warren Street along the northwest side of the railway embankment, and offers a direct and safe pedestrian connection to the proposed main station parking lot without a street crossing, provided that the Adams Street underpass is eliminated. It is also directly accessed from Juniata Street.
3. The railroad owns a large square-shaped area of vacant land fronting Warren Street between Freedom Lane and Stokes Street. The apartment building at the east side of Freedom Lane leases from the railroad a small strip of parking spaces just across the lane. These spaces, necessary to the apartment off-street parking requirement, can be relocated into the Freedom Lane right-of-way proposed for closure to the public, and then leased from the City. This vacant land is positioned very close to the proposed south station entrance, and would be accessed easily from Union Avenue or Stokes Street.
4. Warren Street is not fronted by any dwellings or businesses between Stokes and Adams Streets. There may be enough available space between its northwest edge and the toe line of a relocated railway embankment to allow diagonal on-street parking or a narrow on-site parking lot. A parking lot at this location can be enlarged significantly by the installation of a vertical retaining wall instead of a sloped embankment, which can also be designed as an extension of the station entrance.
5. A large area of vacant private property exists directly across from the proposed station entrance, bordered by Warren and Stokes Streets and Centennial Lane, which could become available in the future.
6. The large apartment building at the corner of Warren Street and Freedom Lane lies very close to the railroad right-of-way and could be in conflict with alignment of the south river bridge and the path of high-speed rail radius. If this property must be taken, additional parking area would thus become available.

Street Modifications

1. Under the assumption that the Adams Street underpass would be eliminated, Warren Street should be reduced to a single lane of travel in both directions and realigned closer to the southeast edge of its right-of-way between Adams and Stokes Streets, to allow more room for a narrow parking lot or for head-in parking along its northwest side, while retaining good flow of truck traffic serving commercial enterprises along Adams Street. There are no dwellings or businesses along this block of Warren Street that would require on-street parking.

2. Stokes Street should be reverted to two-way traffic operation between Otsego and Warren Streets, to facilitate traffic flow to and from the south parking areas of the proposed station.
3. Stokes Street should be widened along this same block, with larger corner radiuses at Otsego Street, to allow ample two-way traffic flow and to retain on-street parking for the few dwellings that face it.
4. Centennial Lane should extend into the proposed north parking lot of the station to eliminate the need for a dead-end turnaround; however, it should be made one-way only, in the southward direction.

Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these or similar recommendations into a formal communication to the SRRBP Project Team as soon as possible. The need of a rail commuter station has been an important component in the Havre de Grace Comprehensive Plan for at least two decades, and should be vigorously pursued.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078
www.havredegracemd.com
410-939-1800

Susquehanna River Rail Bridge Project
Advisory Board
of the
Mayor and City Council of Havre de Grace
for the
Mayor and Town Commission of Perryville

Advisory Bulletin #7

Bridge Architecture

November 18, 2014

Background

The Advisory Board, during its first meeting on October 6, 2014, determined that the overall appearance of the proposed Susquehanna River Rail Bridge is of the highest priority of importance to the Town of Perryville, City of Havre de Grace, surrounding communities, both counties, and the State of Maryland. This discussion was preceded by the strong opinion of many citizens and elected officials that bridge architecture is their most pressing concern. Advisory Bulletin #2, containing the same recommendations provided in this bulletin, was issued to the Mayor and City Council of Havre de Grace on October 21, 2014, and endorsed by formal Council resolution on November 17, 2014

The new bridge complex will be a major feature of the downtown and waterfront areas of Perryville for the next century or more. It will also become the gateway to the Lower Susquehanna Heritage Greenway, being positioned at the mouth of the greatest eastern river in our nation as it flows into the world's largest estuarial bay. This new bridge should also symbolize the future of Amtrak and of rail transportation as a national asset and environmental ally, given its unique location, intense rail activity, and imposing dominance.

Architectural Recommendations

1. In the likely event that new twin bridges with two tracks each are constructed, both bridges should be identical in height and architecture, and should be aligned as closely to each other as possible to give the appearance of one bridge.

2. The bridges should be entirely open-decked, with each span having graceful shallow-arched symmetry using massive closed-webbed steel beams that present an overall solid appearance. Emphasis should be placed on pleasing lines of curvature, with properly balanced span and arch dimensions.
3. Bridge support piers should be taller, more slender, and spaced farther apart than the existing piers to improve navigation and open up the viewscape.
4. Both bridges should be carried on the same elongated pier structures to emphasize the appearance of "one bridge" and to better resist river-borne collisions.
5. The catenary system should be suspended from a series of single, architecturally graceful solid-form towers mounted directly on the piers between the bridges, with high-line arms at the very top and wide catenary arms extending in cantilever over the double-track bridge decks along both sides. This will do much to reduce the visual effect of catenary "clutter" while emphasizing the towers as central architectural features of the bridge complex.
6. The bridges and towers should be painted in a light metallic color, such as a golden platinum, to produce a distinctive daytime natural glow from great distances.
7. The entire bridge span, as viewed from upriver and downriver, should be provided with night-time accent lighting to create a warm glow along the outer face of each of its arches, in such a way that subtle arches of light are always visible at night.
8. All existing piers and abutments, whether supporting the current bridge or the previously removed rail/automobile bridge, should be removed down to the river bed to eliminate clutter, enhance the viewscape, and greatly improve barge and boat navigation.

Recommended Action

The Advisory Board proposes that the Mayor and Town Commission of Perryville consider these recommendations under a formal resolution, communicating the same to the SRRBP project team, as typical of the style of architecture the Town of Perryville and surrounding communities would expect and want to embrace. The recommendations of this advisory, having been submitted previously as Advisory Bulletin #2 and tailored to the perspective of Havre de Grace, should require no additional action on its part at this time.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #8
River Navigation
December 4, 2014

Background

The Advisory Board met on November 25, 2014 to develop recommendations for the accommodation of large vessel navigation and safe passage under the proposed new rail bridge system, at the main channel location. The principal concerns were vertical clearance, horizontal clearance, and a protective fender system. This advisory assumes removal of all existing piers that support the current Amtrak bridge and the adjacent abandoned piers from the long-ago demolished rail/highway bridge, as recommended in Advisory Bulletin #2.

The Board relied heavily on advice and recommendations from representatives of Vulcan Materials Corporation, which operates a large stone quarry just upstream of the bridge site, from which stone is barged out on a near daily schedule. These concerns and recommendations were expressed by Vulcan's Marine Operations Manager and its local tugboat captain at the recent joint meeting between the Advisory Board and the SRRBP Project Team on November 6, 2014.

Design Recommendations

Vertical clearance at the main channel under-passage should reach sixty-five (65) feet if at all possible, to be consistent with inland waterway standards and sailing vessels that are now designed to those standards and berth at upstream marinas. The absolute minimum clearance should be no less than sixty (60) feet.

Horizontal clearance at the main channel under-passage should be no less than two hundred (200) feet net width between fenders, which may require a pier spacing of up to 240 feet center-to-center. Such a clearance will safely accommodate a single barge with opposing traffic and can safely accommodate a double-wide barge movement without opposing traffic.

Three types of fender systems were considered for protecting piers and large vessels at the main channel under-passage: Concrete, wood and composite plastic. Concrete fenders are the least resilient and can cause considerable damage to barges and other vessels. Wood pile and wale fenders are more resilient and less damaging to vessels, but are themselves easily damaged, more costly to maintain, and can become ragged eyesores long before replacement becomes necessary. The Board strongly recommends a composite plastic pile and wale fender installation as the most resilient, least damaging, longest lasting, easiest to maintain, and most attractive system for this unique and important gateway location.

Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these or similar recommendations into a formal communication to the SRRBP Project Team as soon as possible.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
of the
Mayor and City Council of Havre de Grace
for the
Mayor and Town Commission of Perryville

Advisory Bulletin #9
River Navigation
December 9, 2014

Background

The Advisory Board met on November 25, 2014 to develop recommendations for the accommodation of large vessel navigation and safe passage under the proposed new rail bridge system, at the main channel location. The principal concerns were vertical clearance, horizontal clearance, and a protective fender system. This advisory assumes removal of all existing piers that support the current Amtrak bridge and the adjacent abandoned piers from the long-ago demolished rail/highway bridge, as recommended in Advisory Bulletins #2 for the City of Havre de Grace and #7 for the Town of Perryville.

The Board relied heavily on advice and recommendations from representatives of Vulcan Materials Corporation, which operates a large stone quarry just upstream of the bridge site, from which stone is barged out on a near daily schedule. These concerns and recommendations were expressed by Vulcan's Marine Operations Manager and its local tugboat captain at the recent joint meeting between the Advisory Board and the SRRBP Project Team held on November 6, 2014. Advisory Bulletin #8, containing the same recommendations provided in this bulletin, was issued to the Mayor and City Council of Havre de Grace on December 4, 2014.

Design Recommendations

Vertical clearance at the main channel under-passage should reach sixty-five (65) feet if at all possible, to be consistent with inland waterway standards and sailing vessels that are now designed to those standards and berth at upstream marinas. The absolute minimum clearance should be no less than sixty (60) feet.

Horizontal clearance at the main channel under-passage should be no less than two hundred (200) feet net width between fenders, which may require a pier spacing of up to 240 feet center-to-center. Such a clearance will safely accommodate a single barge with opposing traffic and can safely accommodate a double-wide barge movement without opposing traffic.

Three types of fender systems were considered for protecting piers and large vessels at the main channel under-passage: Concrete, wood and composite plastic. Concrete fenders are the least resilient and can cause considerable damage to barges and other vessels. Wood pile and wale fenders are more resilient and less damaging to vessels, but are themselves easily damaged, more costly to maintain, and can become ragged eyesores long before replacement becomes necessary. The Board strongly recommends a composite plastic pile and wale fender installation as the most resilient, least damaging, longest lasting, easiest to maintain, and most attractive system for this unique and important gateway location.

Recommended Action

The Advisory Board proposes that the Mayor and Town Commission of Perryville, and surrounding communities, take necessary steps to consolidate these or similar recommendations into a formal communication to the SRRBP Project Team as soon as possible. The recommendations of this advisory, having been submitted previously as Advisory Bulletin #8 to the City of Havre de Grace, should require no additional action on its part at this time.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #10

Safe Harbor Jetty Proposal

January 23, 2015

Background

The Advisory Board met on December 4, 2014 to develop recommendations for the construction of a long jetty system extending more or less parallel to the Havre de Grace waterfront, from the Susquehanna Lockhouse Museum to the Concord Point Lighthouse. Known for more than fifteen years as the Jetty Project, a waterfront task force was formed in 2000 by the Downtown Focus Group, and an official Jetty Committee was appointed soon thereafter to study the proposal, identify consultants, and provide recommendations to the Mayor and City Council for implementation.

As jetty consultants were identified and invited to submit detailed proposals for a feasibility study, it became clear that such a project would not only provide much-needed property protection from periodic storm-raged waters and water-borne debris, but would also create a safe and calm destination harbor at the top of the bay for Chesapeake Bay boaters. Other benefits would include the creation of a sheltered area for wildlife, resurgence of sub-aquatic vegetation, significant reduction of harbor siltation, elimination of shoreline debris, and protection against upriver barge or rail accidents.

The Jetty Project initiative came to a halt sometime during or shortly after 2002, for reasons that were never made clear to most of those who were involved. It did not reach the stage of initial funding, and as a result no feasibility studies were ever contracted. There is little doubt that project construction cost was a major source of concern at the time, even if the feasibility study would have been jointly funded by the City, County and State governments.

The Advisory Board considers the original riverfront jetty concept to be much more valid today than in the past, as a result of major hurricane and floodgate release damage, and a runaway barge event, all having occurred since the 2002 initiative. Crude oil unit trains, in more recent daily operation along the river edge are also a source of potential danger from oil pollution, fire, and floating rail cars in the event of a major derailment.

Very great concern has developed in recent years regarding the rapid and continuous buildup of sediment along the shoreline and in the marinas of Havre de Grace, requiring frequent and very expensive dredging operations. This problem and its underlying causes have been well-documented by the Lower Susquehanna River Watershed Assessment partnership in its executive summary of a report issued in October, 2014. The Advisory Board has carefully studied other material contained in the original consultant proposals and recommendations of the Jetty Committee, and is in general support of this project as proposed at that time.

Association with the Rail Bridge Replacement Project

The proposed Susquehanna River Rail Bridge replacement project offers an opportunity for very significant cost savings in both old bridge demolition and new jetty construction. The Board has recommended in its earlier advisories that all existing bridge piers and abutments, including the line of abandoned piers beyond Craig Park, be removed down to the river bed and below grade on dry land. Some street crossing abutments within the City may also require total replacement due to significant realignment of track curvature.

At least 50,000 cubic yards of massive granite blocks will need to be removed and disposed of in the demolition process, requiring the expense of loading, transporting and unloading elsewhere, by rail or barge. This material would be ideal for armoring the jetty along the sides facing strong current, saving the purchase, loading and transport of very large quarry stones. When all available granite blocks are put in place, the remainder of the jetty would be armored with more conventional sizes of quarry stone, dependent on exposure to natural forces. Under this proposal, the bridge contractor would simply hoist the cut stone blocks onto the jetty contractor's barges for direct placement back in the water.

An even more significant cost saving opportunity for jetty construction has developed since the previous jetty proposal. Vulcan Materials, owner of the nearby granite quarry, has informed the Board that it has approximately 778,000 cubic yards of overburden stored on site that it must somehow remove in order to gain access to future beds of granite within its property. This material is ideal for the jetty core structure, there is more than enough available to build the entire jetty, and the cost of acquiring and moving it would be a fraction of that for typical jetty core construction.

The key to this proposal is the timing of its feasibility study, design phase, funding, and letting of contracts to coincide with that of the rail bridge project, to realize maximum cost savings and construction efficiency, and to allow the rail bridge project to also realize costs savings and efficiency in the granite removal and disposal process. The Board believes that this would be a unique opportunity to benefit both projects.

Design Recommendations

Several concepts were put forth in the 2000-2002 feasibility study proposals, which included a full-length jetty, a partial waterfront jetty, and a floating breakwater system. The Advisory Board has concluded that a full-length river jetty system, constructed as a linear series of armored berms, will offer the strongest, most permanent, and lowest maintenance solution to protecting the entire City waterfront against the greatest variety of mechanical hazards and weather events, and against rapid siltation of its harbor facilities.

The proposed jetty should begin upriver at the south corner of the mouth of Lilly Run, tapering gradually outward in the downstream direction to a maximum distance of 500 feet offshore of the most protruding points of land along the waterfront, beginning at the south property line of the Havre de Grace Marina and terminating below Concord Point, in line with the City Yacht Basin entrance.

At least three navigable entrances, and preferably four, should be provided as gaps in the jetty line, with their throats oriented downriver to divert the river current outward and keep the harbor area calm. A special groin should be designed at the upriver end of the jetty to keep strong current and debris out, but allow some fresh water in, to prevent stagnation. The downriver end of the jetty system should terminate well away from shore and designed to prevent eddy currents from affecting the City Yacht Basin and its back channel.

By carefully designing the jetty system from a hydrologic perspective, an important objective should be the creation of a much healthier ecosystem for wildlife and subaquatic vegetation to thrive in shallow areas along the waterfront, including a very large natural area within the upriver end of the jetty. A very important objective should be major reduction or near-elimination of rapid sediment build-up that seriously affects all the marinas, the back channel and the preserved lock at the Lockhouse Museum. This serious sedimentation problem also has a detrimental impact on the subaquatic ecosystem along the shoreline. Another important objective should be the reduction or near elimination of water-borne debris and trash accumulation along the entire waterfront, particularly in cove areas and boat slip passageways.

Although all segments of jetty system should be boat-accessible and walkable as an outlying public facility, only the northernmost segment would be suitable for direct pedestrian access from land, via the Lockhouse Museum grounds. A footbridge for this purpose should be installed over its non-navigable groin opening. With greatly expanded opportunities for boat slips and safe off-shore anchorages, shallow inshore areas should be preserved and expanded wherever possible to encourage a greater number and variety of breeding wildlife common to this area a century ago, and to create a more natural riverscape setting for the enjoyment of all.

Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these recommendations into a formal communication to the SRRBP Project Team as soon as possible, and to begin the formal process of funding a comprehensive feasibility study for jetty design, funding and construction. The Board concludes that there is sufficient time to accomplish all the necessary study, funding, design and construction phases of this project if initiated very soon and in concert with the bridge replacement project.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #11
Bridge Abutment Area – First Update
January 26, 2015

Background

The Advisory Board met on October 21, 2014, to examine the immediate area around the westerly landing of the proposed rail bridge complex in order to determine the most favorable placement of the new bridge abutment. Advisory Bulletin #3 was issued by the Board on October 24, 2014, based on the assumption that the new high-speed bridge of the proposed twin bridges would be installed on the downriver (south) side of the existing bridge, with the lower-speed bridge taking the place of the existing bridge. It was also assumed that the new bridges would be elevated significantly at the landing abutment.

As feasibility studies and preliminary design with regard to track elevation and alignment have been developed further by the SRRBP study team since October, it appears that the most favorable track alignments would now place the lower-speed bridge of the proposed twin bridges along the upriver (north) side of the existing bridge, with the other bridge taking its place. It also appears now that little or no raising of the track elevation will be necessary at the landing abutment. This information was obtained at the special meeting between the Board and the Project Team in November, and at the public outreach session in December.

Revised Site Recommendations

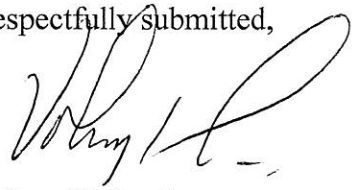
1. The new bridge abutment should be retracted westward toward the Freedom Lane tunnel underpass, to prevent further crowding of the immediate street intersection area, and more particularly the direct conflict with Otsego Street that would be caused by a new bridge landing at the north edge of the existing one.

2. Under the current assumption that new bridge spans will increase from the current 200 feet to about 240 feet, center to center, retracting the new landing abutment too far westward would cause the first pier to conflict with the new intersection alignment. Therefore, the new abutment should be retracted only far enough to avoid conflict with Otsego Street and to allow for the following street intersection improvements.
3. The sharply curving, semi-blind intersection of Otsego Street and Union Avenue should be improved to a much wider radius of turn that would align directly with Saint John Street. This would allow longer and more generous turn lanes and greatly improved sight lines.
4. The Water Street intersection should be sufficiently relocated to meet the new Union/Otsego street alignment and to avoid the first new bridge pier.
5. Railroad property under the bridge complex and situated between the two city parks should, by special agreement, be made available for public use and maintained by the City of Havre de Grace to appear as part of the park complex. This area should contain landscaping and walkways, but should have no structures, to allow full access for bridge maintenance.
6. Railroad property under the bridge complex, situated between the proposed Otsego/Union street curvature and the relocated bridge abutment, should likewise be made available for public use and maintained by the City of Havre de Grace as open space with landscaping and walkways, but should include no permanent structures that would interfere with bridge maintenance.
7. The monumental gateway signage that exists under the current bridge should be relocated to a more favorable gateway vantage point, and should include a beautiful and enlarged landscaping feature.
8. The much higher new bridge understructure would result a brighter and more open streetscape, which should be enhanced with ornamental tree plantings wherever possible without blocking sight lines or interfering with bridge maintenance operations.

Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these recommendations into a formal communication to the SRRBP project team as soon as possible. The abutment location is an engineering and track alignment issue that must be resolved by the SRRBP team very soon.

Respectfully submitted,



Volney H. Ford

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #12
Rail Commuter Station – First Update
January 26, 2015

Background

The Advisory Board met on October 28, 2014, to examine the feasibility and best location of a new rail commuter station to serve Havre de Grace, and issued Advisory Bulletin #6 on November 6, 2014, based on all the information it had at that time. This advisory was based on an assumption that the southeasterly pair of new high-speed tracks would be aligned more in that direction, leaving enough space between that track pair and a northwesterly pair of lower-speed commuter/freight tracks to make room for a northbound station platform.

As feasibility studies and preliminary design with regard to track alignment have been developed further by the SRRBP study team since last October, it appears that the most favorable high-speed track curvature and alignment with the new bridges will not leave sufficient room for a northbound station platform unless the lower-speed pair of freight/commuter tracks are aligned significantly northwestward.

The most recent track alignment information was obtained by the Board at its special meeting with the Project Team in November, and at the public outreach session in December. The recommendations provided herein pertain only to the latest development of track and bridge alignments by the Project Team. The Advisory Board continues to vigorously support all other rail commuter station recommendations provided in Advisory Bulletin #3.

Track Alignment

The most current plan resulting from the Project Team feasibility study favors positioning the new two-track north bridge for freight and commuter operations along the north side of the existing bridge, and the new two-track south bridge for high-speed operations in about the same location as the existing bridge. This alignment will require a northwesterly shift of the present elevated embankment to align with the new north bridge, and will likewise shift the proposed commuter platforms and their emergency/maintenance access ramp more northwesterly.

In order to gain enough separation from the southeasterly pair of high-speed tracks to install a safe northbound boarding platform, the freight/commuter track pair should remain on tangent (straight ahead) from the bridge track alignment for some distance before curving gradually. The high-speed track pair would begin curving southwesterly immediately after landing at the new south bridge. This alignment would require a significant widening of the existing embankment toward the northwest until track curvature can return to the existing roadbed some distance southwest of the station.

Number of Boarding Platforms

The Advisory Board has considered the idea of providing only a single boarding platform at the most northwesterly track, normally used by a southbound commuter train, to eliminate the problem of separating a northbound boarding platform from adjacent high-speed traffic. It would appear feasible to have northbound commuter trains cross over onto the southbound track just before the Havre de Grace station, and remain on that track until entering the Perryville station siding. Northbound commuter trains currently execute a crossing of the same southbound track before they enter the Perryville station siding.

The disadvantage of this scheme is that other southbound traffic would be delayed for a much longer period of time waiting for the northbound commuter train to cross over, enter the Havre de Grace station, board riders, clear the station, and cross the river at a lower speed. It could also prevent freight traffic departing the Susquehanna River line from heading southbound until the commuter train arrives in the Perryville station, assuming additional crossovers are installed in Perryville to facilitate such movements.

The Board has also considered the idea of installing only one southbound boarding platform, bypassing Havre de Grace altogether northbound, and boarding/deboarding riders on the return run from the Perryville terminus of the MARC line. This would be very inconvenient to northbound Havre de Grace riders, and would become unworkable if MARC moves its overnight train parking to a new Perryville facility, or extends commuter service to Elkton and beyond.

The Board has concluded that the installation of standard northbound and southbound boarding platforms in Havre de Grace offers the greatest advantages in rider convenience, destination ridership numbers, movement of other trains, and avoidance of crossover delays.

Safe Separation

Safe separation distance between the high-speed track pair and the proposed northbound commuter boarding platform could be reduced by installation of a very strong concrete barrier, similar to a highway Jersey barrier in the platform area. This would also eliminate the effects of high-speed wind blast. Such a barrier could also be incorporated into the design of the northbound boarding platform shelter and means of access from the station below.

Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these recommendations into a formal communication to the SRRBP Project Team as soon as possible, and to emphasize the need to adequately align the lower-speed tracks for a commuter station sometime in the future, if not in conjunction with bridge replacement. Failure to do so can permanently put a future station out of consideration, due to the added cost of elevated roadbed and rail realignment beyond that incurred during the bridge construction and its rail realignment process.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #13

Safe Pedestrian and Bicycle River Crossing

January 28, 2015

Background

The Advisory Board met on December 4, 2014 and again on January 15 and 27, 2015 to engage in a comprehensive study of the various ways to effect a safe pedestrian and bicycle crossing of the Susquehanna River. This study was undertaken at the request of the Mayor and City Council of Havre de Grace as a result of recent proposals and other efforts to incorporate such a crossing into the design of the proposed Amtrak rail bridge replacement.

The Board expanded this study to include eleven potential ways of conducting pedestrians and bicyclists across the river in a timely, dependable and reliable manner, with special emphasis on closing the Susquehanna River "gap" in existing regional and East Coast Greenway trail systems, as well as connecting components of the Lower Susquehanna Heritage Greenway trail system. The eleven crossing options that were studied all include bicyclists and are captioned:

1. Convert the Existing Amtrak Rail Bridge to Pedestrian Use
2. Incorporate a Pedestrian Walkway into the Proposed Amtrak Rail Bridge
3. Install an Independent Pedestrian Bridge alongside the Proposed Amtrak Rail Bridge
4. Install an Independent Pedestrian Bridge on the Line of Abandoned Piers beyond Craig Park
5. Attach a Pedestrian Bridge to the Route 40 Hatem Bridge
6. Install an Independent Pedestrian Bridge across Garrett Island
7. Attach a Pedestrian Bridge to the CSX Rail Bridge
8. Attach a Pedestrian Bridge to the I-95 Tydings Bridge
9. Install an Independent Bridge at Susquehanna State Park
10. Establish a Regularly Scheduled Water Taxi System
11. Establish a Land-Based Shuttle System

The Board identified a wide range of issues and concerns that would likely be associated with this collective list of crossing options, and examined each issue in great detail. These issues were then applied to each crossing option to determine advantages, disadvantages, fatal flaws and other practical effects that should reasonably be expected. Each of these issues and concerns are explained in detail in Attachment A. The Board did not attempt to estimate project costs or to give weight to its recommendations based on actual cost comparisons.

Although several pedestrian crossing studies have been produced within the past decade or two by several interests, the Board found them to be lacking in detail as to why a particular option was not feasible or not possible, other than to mention existing statutes and public policy statements or to declare overall structure to be unsuitable for the purpose. These may be valid conclusions in the broad sense, but the Board sensed that the general public, special interest groups, and local officials would need to know in much greater detail why one option is truly feasible and the other is not. A detailed analysis of every crossing option under consideration in this advisory bulletin is provided in Attachment B.

Past crossing studies did not include as many crossing options as provided here, and were not timed to foresee the impact and potential opportunities associated with the Amtrak rail bridge replacement project. It is hoped that this study and analysis will be of great value in reducing future discussions and initiatives to practical and feasible river crossings.

River Crossing Recommendations

The Advisory Board has determined that "Option #9 – Install an Independent Bridge at Susquehanna State Park" best meets the primary purpose of a pedestrian and bicycle crossing, while preserving public safety and security, providing an excellent crossing experience, and efficiently connecting with the existing lower Susquehanna River trail systems. There appear to be no significant physical barriers or other difficult circumstances to overcome with regard to this option.

The Board prefers "Option #3 – Install an Independent Pedestrian Bridge alongside the Proposed Amtrak Rail Bridge" as its second choice, provided that the enormous cost issue can be overcome. This option may be more convenient to current routing of the East Coast Greenway, could offer greater use and enjoyment opportunities by the general public, is safer than all remaining bridge options, and would be an economic and tourism driver for Havre de Grace and Perryville.

The Board sees "Option #10 – Establish a Regularly Scheduled Water Taxi System" as the third best option. Even though it provides a very different crossing experience and would involve delays for hikers and bicyclists, this very safe option would offer tourism opportunities and local cruise services not available under any other option. Capital and operational costs are the main drawback, and would require a large public subsidy to remain viable.

The fourth best option would be "Option #6 – Install an Independent Pedestrian Bridge across Garrett Island". As with the other two independent bridge options, this provides a good crossing experience without exposure to transportation dangers or homeland security issues. The location would be nearly as favorable as Option #2, and the bridge would have a significant impact on tourism in Havre de Grace and Perryville. Its very long bridge and approach length, along with personal security concerns, make this somewhat less feasible than the first three options listed above.

The fifth choice of the Board, "Option #7 – Attach a Pedestrian Bridge to the CSX Rail Bridge", is much less feasible and practical than the first four choices, due to the significant public safety, homeland security, and liability issues associated with it. If these issues could be mitigated to every possible extent this would be a very efficient crossing in terms of capital cost, overall accessibility and long-term maintenance. It would also offer a fairly impressive and occasionally very exciting crossing experience.

Five of the remaining six options were found to be entirely impractical or unfeasible, with several having fatal flaws that render them nearly impossible. Those are not recommended for further consideration. The last option, "Option #11 – Establish a Land-Based Shuttle System", is entirely feasible and much less expensive than a water taxi operation, but would be little more than an inter-community public bus service. This option could serve as an interim solution to the need for a crossing.

Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these or similar recommendations into a formal communication to the SRRBP Project Team and to all parties, agencies, and stakeholders associated with a pedestrian/bicycle trail crossing as soon as possible.

Respectfully submitted,

Volney H. Ford
Chairman

Attachment A In-depth Presentation of Safe Crossing Issues
Attachment B In-depth Analysis of Safe Crossing Options

Susquehanna River Rail Bridge Crossing Advisory Board
Advisory Bulletin #13
Safe Pedestrian and Bicycle River Crossing

Attachment A
In-depth Presentation of Safe Crossing Issues

Overview

An in-depth study and analysis of a safe, practical, and feasible means of conducting pedestrians and bicyclists across the lower Susquehanna River requires an examination of all contributing factors from two parallel points of view. First, one must consider the public safety, public accessibility, and general maintenance issues associated with any particular crossing option. Second, each crossing option must be considered as having unique physical characteristics and constraints that may be significantly or profoundly affected by these same safety, accessibility and maintenance issues.

The following specific issues and concerns were found to impact most of the crossing options, and have formed the basis of opinions and conclusions developed by the Advisory Board with regard to each crossing option discussed in Attachment B. It is hoped that the foregoing discussion of issues will further educate and enlighten the public, elected officials, and the trail-using communities with regard to all issues relating to a safe and practical pedestrian crossing of the Susquehanna River.

Crossing Design

The design of a fixed pedestrian bridge, whether attached to an existing or proposed rail/highway bridge or constructed independently, should be at least twelve feet wide and ideally up to twenty feet in width, to safely accommodate pedestrians, bicyclists, three-wheeled bicycles, kayaks in tow, and lightweight service and emergency vehicles. There should also be enough room for a lightweight service or emergency vehicle to safely pass pedestrians and bicyclists on the bridge.

The design live-load rating of the bridge should be sufficient to support a dense congregation of users, such as a walk-a-thon event, a large standing assembly of people observing an event beyond the bridge, a close pack of marathon runners, or even a large crowd of people fleeing in panic. The minimum height of any type of overhead enclosure system that may be required for safety should be at least ten feet, and preferably twelve feet or more in proportion to walkway width.

ADA Accessibility Requirements

A fixed pedestrian bridge across the Susquehanna River will surely be classified as a public facility and as a pedestrian way, under the Americans with Disabilities Act, with no allowance for special waivers. The current law provides that the entire pedestrian bridge, along with its access points and approaches, must comply with maximum allowable grade requirements and barrier-free conditions, all the way to

ground-level handicap parking spaces at each end. No slope along the entire path of travel can exceed twelve inches of rise in twelve feet of run, and no slope can run more than twenty-five feet in length without a five-foot insertion of level walkway. Putting this into perspective, an ADA-compliant path of travel rising ten feet would require a combination of ramp and level sections extending one-hundred forty feet in length.

Each end of the pedestrian bridge and its ADA-compliant approach walkways would require a public parking lot having paved handicap parking spaces that are located closer to the walkway entry points than other parking spaces serving the bridge. This requirement could become problematic where persons without disability would be able to exit an elevated bridge landing by going immediately down a stairway to a non-ADA-accessible parking area at the base of the abutment, while the handicapped would be obliged to travel a far greater distance to a different accessible parking area.

While ADA accessibility would not be an issue along a nearly level bridge deck and landing area, it would become a significant to severe design challenge at many existing bridge landings, and along potential walkway routes within existing bridge structure that encounter sudden vertical misalignments. Specific accessibility issues will be discussed under crossing options provided in Attachment B.

Bridge Landing Access

The pedestrian bridge, whether attached to another bridge or constructed independently, will require a public parking lot at each end, located as close as practical to the bridge entry point for public safety, emergency response, handicap accessibility, and custodial service. The required number of parking spaces will be determined by the code enforcement authorities having jurisdiction, based on their interpretation of bridge use and occupancy. Parking lots and access lanes or roads will be subject to the usual regulations on paving, landscaping, stormwater management, critical area, and other site requirements.

Each parking lot will require access by a two-way paved road or driveway leading to existing public roads or streets. Some existing bridge landing locations are convenient to nearby public streets and some have no access at all within hundreds of yards or much farther. Many landing locations are severely encumbered with private property, steep slopes and cliffs, railroad/highway operations, and elevated abutments. These conditions will be specifically examined under crossing options provided in Attachment B.

Bridge Carriage

A new pedestrian/bicycle bridge must either be carried independently, or in conjunction with an existing or proposed rail/highway bridge. As recommended above, such a bridge or incorporated walkway should be twelve to twenty feet in width, and would require a very significant live load rating. With the potential of large numbers of people and light emergency vehicles on the bridge, its loading could easily approach that of a two-lane vehicular bridge serving all but heavy trucks.

If incorporated with an existing or proposed rail/highway bridge, there are essentially three ways the pedestrian bridge can be carried: a) extended in cantilever alongside the host bridge, b) on the deck of the host bridge, or c) within or below the understructure of the host bridge. In rare cases it could be carried as an elevated bridge over the existing road/railway, which is not considered feasible with regard to the bridges of this study.

A cantilevered pedestrian bridge causes the host bridge to be eccentrically loaded (much more weight on one side) and greatly leverages that load by virtue of its being extended so far outward from the central structure. Conversely, structural flexure and vibration of the host bridge caused by passage of heavy traffic is greatly magnified at the outer edges of the cantilever. Such conditions could only be mitigated by strengthening the entire cross-structure and counterweighting the opposite side of the host bridge, which in turn would require major upgrading of the entire bridge span structure. In addition, a cantilevered pedestrian deck with its safety enclosure would greatly impede routine bridge inspection and repair, as truck-mounted inspection booms would need to reach over, around, and under the walkway enclosure to get at the host bridge understructure.

A pedestrian bridge located on the existing deck or bearing structure of a host bridge is ideal from a structural perspective, and would unquestionably be the least expensive to construct and maintain, provided such a deckway were available and currently not in use. The primary concerns would be proximity to existing rail/vehicular traffic and the elimination or preemption of an active vehicular lane or railroad track.

Carriage of a pedestrian bridge through or within the existing structure of a host bridge immediately raises concerns about river navigation clearance, structural capacity, conflict with existing structural members, and interference with host bridge maintenance. Even though a central axis of loading could be more or less maintained, individual components of the host bridge structure, including cross-structure and bracing, would require major strengthening and redesign to accept a radically different directional loading imposed by the pedestrian bridge.

A cursory examination of all four existing rail/highway bridges reveals that the primary structure, cross-structure, bracing, and pier configurations have such exceptional variation or are so congested with cross-structure and bracing from one end to the other that it is very difficult, if not impossible, to pass a pedestrian bridge deck cleanly through without abrupt changes in elevation or sudden offsets in the path of travel. Arched-truss spans in particular result in cross-structures that climb and descend at rates that well-exceed ADA ramp limitations.

A pedestrian bridge can be carried under a host bridge by means of suspension cables from the primary structure, provided that sufficient river navigation clearance is maintained, the host bridge structure is upgraded and modified to carry the load, and the pedestrian bridge is strengthened or braced to resist sway. Host bridge modifications to accept this configuration would be extensive and very costly, if at all practical or even possible.

A pedestrian bridge can be carried directly on the host bridge piers without imposing any loads on the host bridge structure, provided that sufficient river navigation clearance can be maintained. The

overriding difficulties with this option are available pier-top bearing area, conflict with host bridge cross-structure at the piers, and uneven pier elevations. Pier-to-pier spans of the pedestrian bridge would in most cases be very long, requiring huge span beams and robust sway-bracing that would be greatly out of proportion to the pedestrian bridge architecture.

Navigational Clearances

The SRRBP Project Team, with U. S. Coast Guard concurrence, is recommending a sixty-foot minimum bridge clearance above mean high tide for the proposed Susquehanna River Rail (Amtrak) Bridge. The Board prefers a sixty-five-foot clearance here, and recommends a minimum twenty-foot clearance above normal river level beyond navigable waters, in the vicinity of Rock Run Mill. This upriver clearance would allow for a maximum flood-stage river level with large debris floating on the surface.

When considering any pier-to-pier, cable-suspended, or host-structure-attached pedestrian bridge option, or an independent pedestrian bridge, the underside must maintain sufficient clearance above water, whether over the main channel of navigation or elsewhere. All bridges upriver of the existing Amtrak bridge currently have higher clearances over the main channels that it does, either due to very high natural landings or by use of through-truss spans. Although some of these span clearances would be reduced by installing a pedestrian bridge directly underneath, in no case should they be lower than the USCG inland waterway standard of sixty-five feet, even though the proposed new Amtrak bridge may be approved for a sixty-foot clearance.

Safety Enclosures

If a new pedestrian/bicycle bridge is constructed as part of a host bridge, or as an independent bridge above navigable waters, public policy and regulations will surely require that the entire elevated walkway be provided with a continuous guard system sufficient to prevent rail/highway objects from striking pedestrians, prevent cyclists from pitching over the side, prevent bridge users from dropping or throwing objects off the bridge, and deter suicide attempts. If the pedestrian pathway is aligned under an existing bridge deck, protection from falling objects and hazardous liquids must also be ensured.

Safety enclosures will vary in design depending on the nature of danger threats and height above ground or water. Any high-elevation walkway can be expected to require guards at least eight feet in height if not enclosed completely over the top. Enclosures may also require very small diameter openings in the guard matrix or fabric to prevent dropping of stones on boaters or extending objects toward adjacent vehicles or trains. It should be noted that the more effective a safety enclosure design is, the more unsightly and tunnel-like it will appear, and the more disappointing the crossing experience will become, especially with regard to panoramic view and photography.

Bridge Movement

Steel bridge structures tend to be very flexible in conditions of high wind and under rapid movement of heavy trucks and trains. With freight traffic, a railroad bridge span is subjected to individual carloads and locomotives of less than one-hundred feet each, passing at speeds of up to sixty miles-per-hour, and weighing between 80,000 and 450,000 pounds each. A typical six-lane highway bridge can routinely experience as many as twelve tractor-trailers and dump trucks at once per span, weighing 50,000 to 80,000 pounds each and moving seventy miles-per-hour.

Depending on where and how a pedestrian bridge is carried by a host bridge, sudden and intense movements of the steel structure can be quite disconcerting and often terrifying to the user. A side-cantilever pedestrian bridge would significantly magnify this problem, being similar to a person sitting at the end of a diving board as another person jumps on it farther back. Steel bridge structure is said to be a "very living thing", with intentionally designed flexibility and movement that can be quite shocking to the lay person.

Normal expansion and contraction of bridge components, especially at isolation joints between spans, can be a serious danger to unaware bridge users, especially children and bicyclists. We think of such movement as gradual with temperature change, and therefore non-threatening. In reality, some joints and connections can remain "stuck" in one position until tension and compression forces build enough to overcome static friction, then release suddenly and unexpectedly. Movement issues will be further discussed under crossing options provided in Attachment B.

Vehicular Traffic Dangers

Locating a pedestrian and bicycle pathway directly alongside a lane of highway traffic traveling at speeds of 65 to 80 miles-per-hour, even with a concrete Jersey wall barrier in between, offers little protection from road spray, high-speed accidents, break-away loads from truck crashes, and truck flip-overs from high wind. There is also danger to a bridge user who would cross the barrier into a lane of traffic for any reason, even if responding to a vehicular accident. High-speed snow plowing operations can create pathway blockages and can seriously injure a pedestrian on the bridge, even with a strong chain link barrier in place.

Placing a pedestrian bridge in cantilever offers a bit more protection if the walkway elevation is lower than the main bridge deck and if it is heavily protected with an enclosed guard system. There remains little protection from road spray and plow-thrown snow, however. Snow plowing accumulation can overload the cantilevered walkway, block its use for weeks, and damage its guard enclosure system.

Rail Traffic Dangers

A pedestrian walkway system that is located on a railway deck, cantilevered alongside it, or even cantilevered several feet below it is subject to a wide assortment of dangers, particularly at higher speed freight operations and very high speed passenger operations. Train operators seldom have the ability to

react to fast-developing equipment or load failures as they occur, and often do not know they are happening until much damage is done or the train has ground to an emergency stop.

A pedestrian or bicyclist on a host railroad bridge is essentially a person who is much too close to a moving train under any circumstances, whether on land or bridge. Aside from derailment, the greatest dangers to a person standing close to a moving train at significant speed are dragging equipment or shifted carload. A good example of dragging equipment is a broken load chain or load strap, which can whip by unseen, many feet beyond the train car, with fatal results. Chains and shifted loads have been known to tear out several hundred feet of barrier fencing without the train operator being aware of it while happening.

Other proximity dangers include pressure-thrown ballast stones, leaking hazardous materials, thrown snow and ice (most locomotives have plows at the front), car-top breakaways of sheet ice, unsecured or falling train car equipment, and so forth. Most of these dangers cannot be resisted with any certainty by the most robust chain link enclosures, due to the overwhelming dynamic forces of a train in motion. The pedestrian would not be in a reasonably safe environment unless train speeds were drastically limited and sophisticated dragging equipment detectors were installed at both bridge approaches.

Although derailments are significantly controlled (kept within rail alignment) on bridges by a pair of guard rails within the track rails, cars can separate and tip over at speed, sometimes causing open loads to break loose, tank cars to be punctured, and open hopper cars to spill hundreds of tons. Such accidents occur quickly and dramatically, with so much noise and confusion, and with so many transferred impacts that a bridge pedestrian often cannot decide which way to flee until it is too late. Hazardous cargo poses a special danger in these situations, as wind direction, deadly chemicals, and intense fire or explosions become factors, and the pedestrian is left with only two long and narrow directions in which to flee the scene.

Very high speed trains and electrified railways present an additional set of dangers. Trains passing close by at speeds of 120-150 miles-per-hour create a "bow wave" and a terminal suction that can throw a pedestrian or bicyclist to the ground. Airborne objects, such as ballast stones and simple debris can produce serious injuries unless a nearly solid barrier fence is installed. Overhead electrification, which includes catenary and high transmission lines, carry very high voltages that can "leap" a significant distance to a grounding source without direct contact. Live catenary has been known to break and dangle without shutting down the system. A full metal grounded enclosure, extending well above the head of a bicyclist, would be necessary to protect bridge users from potential electrocution.

Personal Security

In addition to the many traffic dangers described above, the bridge user is exposed to personal dangers associated with two features of a pedestrian crossing of the Susquehanna River. First and foremost is the sheer length of the crossing which, taking into account landing distance to a parking area at each

end, would be about a mile. Second, a high or fully-enclosed safety guard system, even if made with open-weave chain link fabric, is nearly impossible to see through at a shallow angle, such as from the shoreline.

In the event a user is accosted or attacked by another person some distance out on the span, the victim simply cannot be seen or heard from shore, especially when vehicular or rail traffic is nearby. The adage "safety in numbers" would certainly apply during periods of significant bridge use; however, there would be many times when only one or two users are present, and the bridge will often be vacant. When accosted, the unfortunate user can only flee to the closest landing, and the perpetrator can safely exit the other end, particularly on a bicycle, before the situation is known to others and/or authorities can respond.

Proximity of a pedestrian/bicycle bridge to urban areas offers convenience of access and increases the number of potential users, but it also tends to increase temptation, convenience and opportunity for unlawful persons, especially when a troubled neighborhood area is within easy walking distance. Personal security and fear of attack have become major issues in urban settings where much shorter pedestrian overpasses and tunnels exist. Well-placed and concealed security cameras with full-time monitoring should be installed and will help in many ways, but time and distance remains a critical disadvantage.

Personal Emergencies

Emergencies resulting from foul play, accidents or illness present the same problems of plea for aid and awareness by others, again due to bridge length and sight restriction. A person in real distress is usually incapable of moving off the bridge, and often incapable of shouting for help, having no other option but to hope for another person to appear on the scene. Factors that help mitigate such situations on a mile-long bridge are frequency and numbers of users, openness of the guard system, cell phones, security cameras, and perhaps a system of emergency telephones.

Emergency response measures would need to be specially tailored and well-practiced for the unusual characteristics of a mile-long pedestrian bridge, especially if it is not readily accessible from an adjacent vehicular lane of travel. Emergency response teams serving both ends of the bridge would require the ability to quickly bring in a narrow and lightweight treatment/transport vehicle, as well as other service vehicles to handle multiple emergencies. Protocols would need to be established as to first responder procedures in advance of special vehicle arrivals, when time and distance factors are taken into account. It should be noted that bridge superstructures, overhead electrification, pedestrian guard enclosures and tricky wind conditions will normally rule out helicopter rescue directly from a bridge.

Emergency and Panic Egress

All modern structures subject to human use and occupancy are designed to provide for emergency and panic egress (escape) as safely as possible. The goal is to move persons to an area of refuge, usually the unrestricted outdoors, in an orderly manner with as little panic as possible. A mile-long pedestrian

bridge, mostly or fully enclosed with an unbreakable guard system, and with only two narrow paths of travel as much as a half-mile each in length, can be a disaster in the making and grossly exceeds current life safety standards for safe and efficient egress.

Although highly mobile persons can usually escape a dangerous scene created at any one point along the bridge such as a stationary rail car on fire, serious problems can suddenly develop with an increase of occupancy or a more imminent danger. Typical worst-case scenarios may begin with a throng of runners in a marathon event, or a large and long crowd of people watching a fireworks display. In the face of an actual or perceived calamity, such as a cargo fire, a sudden train derailment, a terrorist bomb, or even a loaded barge striking a pier, the crowd may panic and trample many to death or individually fail to escape quickly enough, resulting in a much greater disaster than from the underlying cause.

It is the very length, narrowness, strong enclosure system, and proximity of transportation dangers inherent with most Susquehanna River crossing options that exponentially increases the chances of a panic egress. Conversely, by lowering and widening a pedestrian bridge, moving it well away from transportation bridges, decreasing bridge length or dividing it into two or more bridges, avoiding full enclosure systems, and locating it beyond sight of spectator events, the chances of a panic egress are virtually eliminated.

Vandalism and Graffiti

Anyone who has had the opportunity to walk across a short pedestrian bridge or through a pedestrian tunnel that is not closely supervised by remote cameras or facility staff will see plenty of graffiti, vandalism and general abuse, especially in urban areas. Such disfigurement seems to be much more pronounced where the perpetrator can work largely unseen, where locations tend to be more dramatic, and where surfaces are more suitable for spray art. Decking and solid guard panels would be most prone to such disfigurement. Widespread graffiti and vandalism increases concern for public safety and can have a significant negative impact on bridge use.

Vista Quality

The greatest benefit of a pedestrian/bicycle bridge across the lower Susquehanna River, besides being a way to cross the river, is the beautiful vista and dramatic viewing platform that it would provide. Unfortunately, the vista quality and viewing or photographic opportunities would be compromised to a disappointing degree by higher safety guards and barriers usually required along any bridge that is at a high elevation. Where pedestrian bridge is attached to a host bridge, the view would be further blocked by the host bridge itself, or its understructure. In many cases there would be no point in using the bridge except to get across. Vista quality should therefore be a major factor in selecting an appropriate crossing and in designing a guard system.

Homeland Security

Since the tragic events of September 11, 2001, both rail bridges and both highway bridges below the Conowingo Dam have been identified as strategic assets by the Department of Homeland Security and have been placed under continuous observation due to their vulnerability to potential sabotage. The partial or total loss of any one of these bridges would have a profound impact on regional transportation, as well as our local economy.

All four existing bridges, as well as the proposed new Amtrak bridge, are steel structures having critical structural members and structural connections that become the "Achilles heel" of the entire structure. This is the nature of all trussed steel bridges and most steel beam spans, which are the types represented by our local bridges. Bridge and demolition experts have long known that placement of a very small amount of powerful explosive in the right place, with the right shaping of the charge, can result in immediate and catastrophic structural failure, especially if the bridge is heavily loaded.

The best measures to prevent such a disastrous occurrence are good surveillance and the prevention of persons from getting anywhere near bridge structure at any time, except when within a fast-moving vehicle. Both of these measures become seriously degraded when a pedestrian bridge is positioned next to, or within critical structure of a host bridge. Not only is the critical structure of the host bridge made much more accessible, but the mere presence of people next to or within the structure renders surveillance identification and reaction time nearly useless.

For instance, the understructure of an open-deck bridge such as the Tydings Bridge is inaccessible from its deck, even to persons on foot outside of their automobiles. The understructure can only be reached by scaling the high piers from the river. Such activity would immediately be deemed suspicious through surveillance, and enough reaction time would be available to initiate a direct response and to stop traffic. Unauthorized persons seen on rail bridges can also trigger an alert long before they reach superstructure or are able to rappel into the substructure.

A bridge trespasser is one who is not supposed to be on or within the bridge under any circumstances and can usually be seen in plenty of time for authorities to take appropriate action. A bridge walkway user is not a trespasser, and would not be assumed to be a threat to the host bridge until he or she were to take some suspicious action at the very last moment, when it would be too late to respond in any meaningful way. Enough high explosive to destroy most or part of a steel bridge can be easily carried in a hiker's backpack. Tool-like objects attached to a hiker could often appear as trail gear. The difference between a typical trail hiker and a similarly equipped saboteur or terrorist is very difficult to determine from any distance, even with the best of surveillance cameras.

Screening guards and panels along the walkway would further disrupt surveillance and conceal sudden sabotage activity, which could include quickly cutting through a chain link guard for direct access to the host bridge structure. The entire pedestrian bridge profile could, in many cases, block the view of a significant portion of host bridge structure from distant camera positions. In summary, good bridge security is all about non-accessibility, surveillance, and sufficient reaction time.

Ownership and Liability Issues

All pedestrian options must operate under some form of ownership, whether exclusively or in association with a host bridge entity. Likewise, general liability must be assumed exclusively, or in association with a host bridge entity and its users. These issues are less complex when the pedestrian bridge itself is owned and maintained by a government agency, even though there will always be some exposure to claims of liability for harm. Liability exposure increases somewhat under ownership by a public corporation, and somewhat further under the ownership of a quasi-public not-for-profit corporation.

Ownership, liability and maintenance issues become more complex under joint use agreements. In such arrangements, liability and maintenance issues are less problematic where the host and parasitic bridges are both owned by agencies at the same level of government. They become more complex when the parasitic bridge is owned by a quasi-governmental entity or by a lower level government agency.

Liability and maintenance issues incur further complexities when the host rail bridge owner/operator is a public corporation with transportation "tenants" that include a private for-profit corporation and a public agency, all having very different modes of operation. The most difficult relationship, with the most amount of potential liability, could occur between a private for-profit host bridge owner/operator and a public or quasi-public owner of the parasitic pedestrian structure.

These various relationships have an impact on determination of liability, quality of maintenance, limitations of maintenance, provisions for public safety, and operational priorities in many different ways, and can be a significant determining factor in the final choice of the most favorable means of crossing the Susquehanna River on foot or bicycle.

Risk of Closure

As demonstrated above, public safety and security can be compromised by any number of adverse circumstances or events, regardless of the most prudent designs and measures put into place. A combination of serious accidents and/or felonious assaults, a terrorist attack, or a single disaster can force public officials to temporarily or permanently close the pedestrian bridge to public use, resulting in a great waste of public funds and loss of the crossing. Choice of the most favorable crossing location should therefore be influenced by its having the lowest risk of long-term closure.

(end)

Susquehanna River Rail Bridge Crossing Advisory Board
Advisory Bulletin #13
Safe Pedestrian and Bicycle River Crossing

Attachment B
In-depth Analysis of Safe Crossing Options

Overview

This analysis was performed by members of the Advisory Board without reliance upon professional engineering or comparative cost studies, and was not particularly influenced by earlier conclusions and recommendations of railroad operators or Maryland Department of Transportation agencies. Each crossing option was considered as having unique physical characteristics and constraints that could be significantly or profoundly affected by safety, ADA accessibility, homeland security, and maintenance issues, as presented and explained in Attachment A.

The Board readily concedes that all crossing options discussed herein are theoretically possible, given enough funding, waiver of statutory requirements, re-engineering of existing structures, and compromise of public safety. The purpose of this analysis is to show which options are grossly impractical (not possible in any reasonable sense), which are possible with significant compromise if issues, and which can be considered more or less practical.

Two crossing options were ruled out of this analysis due to their fundamental impracticality in serving the needs of hikers and bicyclists on a reliable basis. These were commuter train service between the Perryville and (proposed) Havre de Grace stations, and an elevated cable car system stretching across the river.

Option #1 – Convert the Existing Amtrak Rail Bridge to Pedestrian Use

The existing two-track deck truss steel bridge with a through-truss swing section, completed in 1905, is planned for replacement in the near future due to its limited traffic capacity, speed restrictions, high cost of maintenance, and impediment to river navigation, among other reasons. With the replacement study phase nearing completion, it has become clear that this bridge must be removed entirely to allow room for new twin bridges having four-tracks and high-speed rail capacity. The proposed new bridges will be raised about thirteen feet at railhead above the main channel to provide for unobstructed river navigation without the need for a movable bridge section.

Although the very strong and nearly level deck surface of the existing bridge, with landings in downtown Perryville and Havre de Grace, would seem ideal for a generous pedestrian crossing with a high load rating, other conditions and constraints render this structure entirely unsuitable, even if it were not directly in the path of the new bridges. Its closer pier spacing and very narrow swing span opening at the main channel would not only remain in place, but would cause greater navigational conflicts with the adjacent new bridge piers having a longer spacing.

The swing span, if left in place for pedestrians, would require operation by the owning authority (not necessarily the railroad) every time a tall boat needs to pass through, which is a difficult and expensive process, and which would defeat the purpose of elevating the new bridges. In addition, the swing span could not swing open unless the new rail bridges were located far enough away from it to allow horizontal clearance. If the swing span was replaced with an elevated fixed-span connection to accommodate the main channel clearance requirement, such an elevation would require a very long and unattractive ADA-compliant approach ramp from each direction.

In addition, this bridge would continue to be extraordinarily expensive to own and maintain with its advanced age and labor-intensive structural system. Its architecture and dense structural assembly would detract from the architectural grace of the new bridges and seriously clutter the riverscape. Lastly, there is simply not enough space to accommodate three double-track bridge landings in Perryville or Havre de Grace without massive property takings and street disruptions. The Advisory Board believes this option is wholly impractical, if not impossible, under all circumstances surrounding the rail bridge replacement project, and should not be pursued further.

Option #2 – Incorporate a Pedestrian Walkway into the Proposed Amtrak Rail Bridge

Incorporating a pedestrian/bicycle walkway with the necessary twelve to twenty foot width under, between, or alongside the proposed new rail bridges presents numerous design, safety and clearance challenges. The new bridges are severely constrained in height by the need to maintain at least a sixty-foot river clearance and descend to original track grade to align with the Perryville station and the Harrisburg freight line intersection. With every inch of elevation being critical to this calculation, there is certainly no room to attach a pedestrian crossing underneath either bridge.

Installing a pedestrian bridge between the two new rail bridges, especially if its deck is lowered as much as possible below track level to offer some safety protection and to conceal, or eliminate the need for, an unsightly guard system visible from shore, would seem to offer an excellent and relatively inexpensive structural solution. The two bridges could carry the platform nestled between them, with their side beams acting as solid guards, and a heavy-duty cage "roof" offering some protection from falling objects as well as preventing pedestrians from climbing onto the tracks.

The disadvantages of the center-nestled scheme are the inability to see anything beyond the interior of the walkway and to seek help from or to be seen by people not on the bridge in situations of distress. It would amount to little more than a mile-long tunnel with daylight at the top, and would invite the greatest opportunities for felonious attack, vandalism and graffiti, and would create the least feeling of personal security of any other crossing option. A further concern is the need for the railroad to provide a safe, open catwalk for its workers on the bridge while traffic is running which would ordinarily occupy the center space and allow the bridges to be much closer together.

The fatal flaw in a center-nestled scheme is that it would require spreading the two rail bridges farther apart, which would create an unworkable bridge alignment with regard to the protection of Otsego

Street in Havre de Grace and Rogers Tavern in Perryville, while maintaining proper high-speed rail arc in Havre de Grace and track alignment in Perryville.

Installing a pedestrian bridge along outside edge of either new rail bridge creates a full cantilever situation with all of its attendant motion and vibration problems discussed in Attachment A, and would require some type of an unsightly full-guard system that would destroy the architectural appeal of the new bridge, along with any opportunity for accent lighting along the one side. The user would only be able to see out from, and be seen, along one side of the host bridge.

All three host bridge attachment methods discussed here would require some means of ADA compliant discharge at both ends, which is complicated by the high abutments and close street underpasses. Ramping these discharges to street grade would require an enormous amount of space and distance, and would be a major eyesore at the gateway to downtown Havre de Grace.

Homeland security would not be as much of a concern along this bridge in comparison to the other bridges, due to its proposed solid-beam design (no vulnerable truss connections). All of the other safety concerns and exposures to danger from being very close to freight and high-speed rail operations, discussed in much detail in Appendix A, would apply to each of these bridge attachment methods, leaving the pedestrian at considerable risk of physical harm, no matter how many protective measures are taken.

This crossing option would be the most complex in terms of liability, maintenance issues, and number of parties involved (Amtrak, Norfolk Southern and MARC, as well as the walkway owner). The Advisory Board concludes that this crossing option is untenable for all the reasons provided above and discussed in Appendix A, and therefore should not be pursued further.

Option #3 – Install an Independent Pedestrian Bridge alongside the Proposed Amtrak Rail Bridge

This option, while similar in some respects to Option #2, offers a number of advantages and eliminates a number of safety issues attendant with actual attachment to the new Amtrak bridges. Under this scheme, a third and independent bridge would be constructed alongside the new rail bridges, preferably at the downriver side, incorporating architecture and spans that exactly match the rail bridges to preserve bridge appearance, accent lighting and river clearance.

By isolating this bridge from the other two, homeland security concerns would become significantly reduced issue. There would be no effect on rail and bridge alignments, and all the dangers of proximity to rail operations would also be significantly reduced. There would be fewer joint liability and maintenance issues, as this bridge could be wholly owned and maintained by an entity other than the railroad, even though encroaching on railroad right-of-way and landing on its property. This bridge could also be fitted with side guards as low as four feet to greatly enhance the crossing experience and to allow for spectator events, even though its deck would be some seventy feet above the river. Lowering the side guards would, however, require a compromise of public policy due to bridge height.

Having spans and beam profiles with both rail bridges (although with fewer and thinner beams and a narrower deck), this would be the strongest independent pedestrian bridge among all the options, capable of supporting normal emergency vehicles and light maintenance trucks, and perhaps even heavy firefighting equipment. The feeling of openness and low guards would help to discourage felonious activity and vandalism. There is no question that this option would provide the most spectacular crossing experience with its unobstructed view of the Chesapeake Bay, and would directly connect the Perryville and Havre de Grace downtown areas in the interest of tourism.

To prevent conflict with Rogers tavern in Perryville and Otsego Street in Havre de Grace on the upriver side, the downriver side location is also deemed best for bridge landing opportunities. By being a separate bridge, it can discharge directly at the top of both railroad abutments and gradually slope downward to street level parking areas alongside the railroad embankments. The Havre de Grace landing should only require public property already available and railroad property used by agreement; however, the Perryville landing would require significant use of the Perry Point VA Hospital property as well as railroad property for its slope and parking area.

The overwhelming issue associated with this bridge option is its enormous cost. Although lighter and somewhat narrower than either rail bridge, the long spans and architecturally matching beams would make it at least two-thirds as costly as one of the rail bridges. The Advisory Board concludes that this option provides the greatest overall number of river crossing advantages and a low number of public safety disadvantages, but concedes that cost alone could be its fatal flaw.

Option #4 – Install an Independent Pedestrian Bridge on the Line of Abandoned Piers beyond Craig Park

This option has been in the realm of public discussion for several decades, and on the whole would seem to be a reasonable proposal. All but one or two piers from the bridge that was once there remain in place, and appear to be large enough and spaced closely enough together to carry a pedestrian/ bicycle bridge with structural span efficiency. Unfortunately, those piers are no longer in any condition to support new structure, and would require such a degree of repair and rebuilding as to be economically unfeasible and historically unrecognizable.

The original bridge was carried as a compression load directly on those piers, which were low enough that a movable (swing) span had to be installed at the main channel. A modern fixed-span bridge on the same piers would require vertical columns or pier extensions, reacting in cantilever to resist wind forces, to clear both the main channel and off-channel water, for which the old piers were never designed. Leaving the old piers in place would seriously impede river navigation through the new rail bridge piers located close by. In addition, this bridge would block the view of the imposing new rail bridges and their proposed accent lighting from the most dramatic downriver vantage point.

The Advisory Board considers that this option is entirely unfeasible and should not be pursued further, based on unsuitable piers, river navigation issues, cluttering of the riverscape and cost of pier modification.

Option #5 – Attach a Pedestrian Bridge to the Route 40 Hatem Bridge

The Advisory Board has photographed and studied the existing structure of this bridge from end to end, in the attempt to find some practical way to insert or attach a pedestrian/bicycle bridge of sufficient width to it. There are major physical obstacles to either carriage method, which become the fatal flaws in this scheme, all other concerns of safety, homeland security and maintenance of the host bridge notwithstanding. The one favorable condition is ease of discharge to parking areas at both landings.

It would seem that the most advantageous method would be to pass a pedestrian bridge through the central understructure, keeping it high enough to maintain river clearance (both channels of this bridge now have an eighty-seven foot clearance). Unfortunately, this is nearly impossible because the cross-structure of this bridge and most of its piers change elevation rapidly and block the path of travel due to its inconsistent support and bracing configurations. The abrupt vertical changes in the pathway would prevent bicycle use and ADA accessibility, even requiring stairways in some places.

A side cantilever arrangement would result in eccentric (unbalanced) structural loading of the host bridge, shaking from traffic, and overloading beyond its current structural capacity, all of which are explained in detail in Attachment A. Since its original construction in 1939, the bridge has been upgraded many times to its practical loading limits, including the addition of concrete Jersey walls which are themselves extended in cantilever beyond the main structure. The side cantilever walkway would also meet a major barrier at each main "camelback truss" support pier of the superstructure, which extends out about eight feet beyond the bridge deck.

Both methods of attachment would result in additional loading of the entire bridge system that would require extensive reinforcement of most very complex structure above and below the roadway, at an expense that would easily exceed the cost of an independent pedestrian bridge. Every one of the safety, homeland security, and bridge maintenance issues related to a vehicular bridge attachment, as described in Attachment A, would apply in this case. The Advisory Board concludes that this crossing option is not practical or feasible in any configuration, and should not be pursued further.

Option #6 – Install an Independent Pedestrian Bridge across Garrett Island

Garrett Island is an interesting location for a pedestrian/bicycle bridge due to its proximity to both municipalities and its changing scenery from river to dense woodland and back to river. A fairly high ancient volcanic mount exists near the west side of the island, about halfway between the Hatem and CSX bridges, which would provide a very convenient and handicap-accessible way to descend from bridge height to nature trails on the island if the bridge touched upon peak.

An independent bridge at this location, with an approach ramp climbing the hillside to the west of the North Park lagoon to a river clearance height of sixty-five feet, crossing to the Garrett Island mount, then running northeast to a landing in Perryville, would become the longest pedestrian crossing among all the options. A different route, crossing Garrett Island near its downriver tip just south of the Hatem

Bridge would offer a significantly shorter crossing and an open viewscape downriver, but would leave the island inaccessible and would require very large and unsightly ramp structures at both landings.

As with the option of an independent pedestrian bridge next to the new Amtrak bridge, the deck could be left open and unobstructed by high guards or caging even though it is also a high bridge and would require a compromise of public policy with regard to safety. Both landings of a bridge at this location would be very close to the trail system and relatively convenient to visitors of both municipalities. Most of the public safety and personal security concerns provided in Attachment A would apply at this location, however, since it is close to urban areas and since much of its crossing would be concealed by woodlands.

It must also be noted that Garrett Island is now part of a National Wildlife Refuge, and public access and use are currently prohibited without special permit. The Advisory Board considers this crossing option to be feasible, but relatively costly due to its length. The most significant concern would be personal safety and security along its overland hidden section, which would be longer than either of its river crossings, particularly if it is connected to an unsupervised and well-concealed natural area on the island.

Option #7 – Attach a Pedestrian Bridge to the CSX Rail Bridge

The CSX rail bridge, more than one hundred years old, has such a crowded and ever-changing understructure that carriage of a pedestrian bridge through the structure is not physically possible. On the other hand, bridge deck conditions are structurally ideal for a narrower (twelve foot width) pedestrian/bicycle pathway, because the railroad has long used only the upriver side of the original two-track bridge for single-train operation. The downriver side has no tracks or decking crossbeams, but the necessary longitudinal structure remains in place.

Both ends of this bridge land within the municipalities and are fairly close to streets and to the trail system, with opportunity for public parking. Its Garrett Island crossing offers potential long-ramp access to the island, via the volcanic mount, for hikers. A shared use arrangement similar to this exists in downtown Harpers Ferry, West Virginia, where a pedestrian/bicycle path utilizes one side of a much shorter and lower CSX bridge with single-track railroad operation, with trains passing through under a speed restriction.

Although this crossing option is quite feasible and would by far be the least expensive to implement and maintain, many of the safety, homeland security, and personal security issues discussed in Attachment A would definitely apply here. The user would be very closely exposed to freight trains operating more frequently and at much higher speeds than those on the Amtrak bridge. This bridge is also very old (1907) and may require replacement in the not-too-distant future.

The east channel section of this bridge, having a through-truss superstructure, would be much more accessible and vulnerable to sabotage. The entire bridge would be subjected to heavy vibration and shaking as trains rumble past, giving much pause to potential users. And finally, ownership,

maintenance and liability issues could be quite difficult to resolve. The Advisory Board concludes that this crossing option is technically viable with much compromise of public safety and homeland security concerns, and a successful negotiation with the CSX Corporation.

Option #8 – Attach a Pedestrian Bridge to the I-95 Tydings Bridge

The structure of this bridge has also been photographed and studied from end to end by the Advisory Board, and found to be more consistent and efficient in its use of steel structure and bracing techniques than that of the Hatem Bridge, built 24 years earlier. In other words, the understructure of the Tydings Bridge maintains the same design configuration across the entire river gorge, which would allow a pedestrian bridge to more easily follow a straight and uniform path through it, if other constraints and impediments did not exist.

The design efficiency of the understructure of this bridge is the primary reason it could never support the additional load of a pedestrian bridge within its structural members. Every main chord, web, brace and cross-beam of the truss system is designed only for a particular directional load. The top chords alone, acting in intricate concert with all other members of the truss system, are the only members designed for the direct or indirect loading of a bridge deck.

The concrete piers of this bridge are very tall and perfectly aligned to carry a pedestrian bridge independent of the main bridge structure, leaving plenty of river navigation clearance. Unfortunately, the bottom cross-brace of the host bridge blocks the way at each pier. More significantly, a pedestrian bridge located at the pier cross-head would offer the perfect opportunity for unobservable access and sabotage at a most critical point in the host bridge structure. In addition, the very long spans between piers would require an enormous amount of new structure just to carry the pedestrian bridge over such a distance.

As with the Hatem Bridge, cantilevering the road deck presents a number of structural, maintenance and safety issues discussed in detail in Attachment A. The difference with this bridge is that both of its outer lanes of travel are already cantilevered entirely, with the additional load of tall concrete Jersey walls along the outer edges. The addition of a pedestrian bridge beyond the existing deck on one side would require longer crossbeams and counterbalancing on the opposite side, adding excessive weight to the overall structure for which it was never designed.

The Advisory Board concludes that structural issues alone are the fatal flaw of this crossing option, followed by most of the homeland security, safety and maintenance issues associated with a vehicular host bridge, and therefore recommends that it not be pursued further. This crossing option is also by far the most difficult to access at its landings, with sheer bluffs and no secondary roads in the vicinity of either landing. The trail system along both sides of the river would also be inaccessible without detouring far inland.

Option #9 – Install an Independent Bridge at Susquehanna State Park

The Susquehanna State Park area differs from that of all other bridge location options in a fundamental way. A pedestrian/bicycle bridge in this area can be lowered much closer to the water surface, being far enough upriver to avoid navigable waters. The Advisory Board recommends a minimum clearance of only twenty feet at this location, which it believes is sufficient to clear the river at maximum flood stage carrying large surface debris.

A much lower bridge has the obvious advantage of being easier and less costly to access at its landings, which would connect with the existing trail system in the State Park at its Harford County landing and beyond the north end of Port Deposit at its Cecil County landing. It would be adjacent to public roads at both landings and costly ramp systems would not be necessary. A gradual increase in grade approaching the bridge, oriented parallel to the river, should be sufficient to gain the necessary elevation to cross.

Other significant advantages include side guards that can be safely lowered to four feet, a pier system that would not be subjected to as much wind force, piers that can be spaced more closely together reducing span structural cost and span beam depth, and the opportunity to access Robert Island. This bridge should be expanded to the maximum recommended width of twenty feet, and should be designed for fishing opportunities and for crossing with dismounted horses.

Robert Island, which belongs to the utility company that owns the Conowingo Dam complex, could be an important component of this crossing option. If a pedestrian bridge crossed to the southeastern end of the island from Rock Run Mill, it could not continue directly across to Port Deposit due to the closeness of Route 222 to the river edge, leaving no available landing or parking area. The only sufficient landing area on the Cecil County side is farther up Route 222, near the Canal Road intersection and opposite the northwestern (upstream) tip of Robert Island. If two separate bridges were built to accommodate these offset crossing locations, an ADA compliant walkway would be required along most of the length of Robert Island to connect the two bridges. The terrain on this island is quite difficult and uneven, with a solid exposed granite spine and several lateral crevasses that would require bridging.

A more viable option would be to locate the Harford County bridge landing just above the mouth of Deer Creek, where the crossing to Robert Island is shortest in length, and where it would directly align with the other bridge over to Cecil County, in the location proposed above. This bridge would be accessed by first crossing the former Deer Creek railroad bridge, then advancing several hundred feet up the existing trail to the new bridgehead. A Robert Island landing, crossing only its northwestern tip, would extend only short distance, and could be eliminated by installing a continuous bridge across the island. Access from this bridge to the island could be restricted to primitive trail hiking to avoid ADA accessibility issues.

The physical disadvantages of a Deer Creek area crossing are mostly related to maintenance and ADA access. The existing trail that follows the old railroad bed is not readily accessible from the nearby road, and is in no condition to accommodate persons with mobility issues. The existing trail, from a parking lot to new bridgehead, would need to be widened and paved, with a short bridge installed to span the

old canal bed between it and the road. A sizable paved parking lot would be required close the Deer Creek trail bridge, and the bridge deck would need to be widened and reinforced to matching specifications of the river crossing bridge(s). These improvements, however, would be less costly than a connecting pathway and crevasse bridging of the same specifications up the length of Robert Island.

The upriver location of either Susquehanna State Park crossing option, being well away from walking distance of urban neighborhoods, would incur far less exposure to vandalism, graffiti, assaults and other undesirable activity. The Susquehanna State Park is host to a large number of hikers, bicyclists, fishermen, picnickers, nature lovers and wildlife observers from dawn to dusk on any given day, which would enhance the feeling of personal safety and security. Almost all categories of Park visitors would be likely to make full use of the pedestrian bridge, providing safety in numbers and immediate assistance to those in need.

A direct crossing from the Deer Creek area in Harford County to the Canal Road area in Cecil County, passing over the upriver tip of Robert Island, would be significantly shorter than any other pedestrian bridge crossing option considered by the Advisory Board. It would also be the least expensive bridge option, when taking into account such associated costs as access ramps and host bridge reinforcement, with the exception of the CSX rail bridge option. Ownership and maintenance of this bridge could logically be incorporated into the Susquehanna State Park system, including its landing area in Cecil County.

General disadvantages of this crossing option are that its remoteness from Perryville and Havre de Grace would have little positive effect there on local tourism. The bridge would not be available as an event observation platform and it would be less likely to host marathons and walk-a-thons. In addition, it would require a much longer time for emergency responders to reach the Harford County landing area.

The Advisory Board recommends this crossing option, more specifically at the Deer Creek landing, as the most practical and feasible of any that it has studied, when all factors outlined in Attachment A are taken into full consideration. The Board is convinced that this option best meets the primary purpose of a pedestrian and bicycle river crossing, whether by bridge, water taxi or land shuttle, by being available and accessible at all times for trail hikers and bicyclists. It also offers the highest degree of personal safety and security, coupled with a beautiful vista and enjoyable crossing experience.

Option #10 – Establish a Regularly Scheduled Water Taxi System

A regularly scheduled water taxi system, operating in a circuit between Havre de Grace, Port Deposit and Perryville, has been a vision within these communities for a number of years, but has never been formally planned or implemented. The Advisory Board believes that such a system could serve hikers and bicyclists on a dependable basis if operated from dawn to dusk, seven days a week, on an arrival/departure schedule that is posted at each landing and on a dedicated internet website.

A system such as this would require at least two dedicated vessels large enough to carry at least thirty passengers, twenty bicycles, and several kayaks. It would also require direct roll-on/roll-off capability, full handicap accessibility, restrooms, an enclosed weather cabin, and seating for all passengers. On weekends and holidays, both vessels could be put into operation to meet increased demand and shorten wait times at the landings.

River crossing ridership should be free of charge; however, these vessels could be put into revenue service for summer night cruises, special events and, special destinations. One of the vessels should always be available for revenue services except when both would be required during the day on peak demand dates. The water taxi system would require a large public subsidy to be viable, whether owned and operated by a public agency or through commercial contract.

The advantages of such a system in comparison to bridge options are lower capital cost, public supervision at all times by the boat crew, alternative uses and revenue opportunities, very enjoyable boating experience, and a safe environment. Many local riders and destination tourists would use the system just to be on the water and to visit the other towns for dining and shopping. This is the only crossing option that could truly appeal to people of all ages and levels of mobility.

The disadvantages of this system are its high operating cost, wait times at the landings, inconvenience to hikers and bicyclists, and difficulty in accommodating large groups. This system would also be subject to cessation in winter and unpredictable closures due to bad weather or unsafe river conditions. This option would obviously not accommodate marathons or walk-a-thons, and would offer limited capacity for observing events from offshore.

The Advisory Board concludes that this is a safe and feasible crossing option, but is not as practical or convenient for pedestrians, hikers and bicyclists who wish to cross the river at any time of day, any day of the year, with no wait involved. The Board is also very concerned about the level of subsidy that would be required to operate and maintain the vessels, and compensate the crews, often at times or route segments with no riders aboard.

Option #11 – Establish a Land-Based Shuttle System

This option is somewhat similar to the concept of a water taxi system, the difference being that special buses would run a regularly scheduled route between the same three communities, with only one or two stops in each. These buses would be configured to quickly load bicycles and kayaks, perhaps as a combination bus/truck vehicle, or an airport-type shuttle pulling a low trailer, and would be ADA accessible.

Transit time between communities would be about the same for both options. The Board estimates that it would take about one hour for a shuttle or water taxi to complete the three-town triangular route. Twenty minutes or so would be required to complete a round trip just between Perryville and Havre de Grace, which could be offered on busier days when a second shuttle or water taxi is put into service.

The advantages of a shuttle system in comparison to a water taxi are its far lower capital and operating costs, year-round operational capability and not being affected by river conditions. In comparison to all crossing options, it offers very little exposure to the elements (if bus stop shelters are provided), the best emergency response conditions, and a high level of personal safety and security. Issues that would need further study are whether to charge a fare and how to prevent locals who have no recreational or tourism purpose from overwhelming the system.

The disadvantages of this option are wait times at the stops, inconvenience to hikers and bicyclists, limitation to small groups, and inability to accommodate marathons and walk-a-thons. Shuttle vehicles would have few alternative uses that could generate revenue and would offer no particular river crossing experience. This is the only option that would not become an attraction in its own right, beyond the primary purpose of proving a way across the river.

The Advisory Board believes that this option would incur the lowest combined capital and operating cost of all options, and would require a much lower public subsidy than the water taxi system. On the other hand, the crossing experience would not exist, and public would have no interest in using this system unless they needed to get across the river with no other means of available transportation. This system would not be particularly attractive to destination tourists who wish to shop and dine in the other two communities. For these reasons the Board concludes that this option is feasible and practical as a simple means of transportation, and could be used for interim service until one of the other crossing options becomes a reality.

(end)

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #14

Union Avenue and Otsego Street Intersection

March 16, 2015

Background

The Advisory Board met on February 12 and March 12, 2015 to study the intersection of Union Avenue and Otsego Street, and the closely impacted intersections of Warren, Water, and Saint John Streets. This study was conducted as a logical extension of Advisory Bulletins #3 and #11, Bridge Abutment Area; Advisory Bulletins #6 and #12, Rail Commuter Station; and the following Advisory Bulletin #15, Bridge Historical Preservation and Display. All are directly related to the redesign these street intersections.

Objectives

Intersection redesign and improvement is entirely predicated upon retraction of the proposed new rail bridge abutment, as far westward from the existing intersection curve as the first bridge span will allow, without constraining Water Street with its first pier location. The purposes of bridge abutment retraction are twofold: It will be necessary to allow a wider abutment for the new northerly low-speed bridge span which would otherwise land in Otsego Street. It will also permit a much safer and more gracefully curving street entrance into the historic downtown area of the City. In consideration of this, the Advisory Board has assumed a new bridge span of 240 feet, from pier to pier, which is somewhat longer than the existing 200-foot spans.

Primary objectives are to provide better and safer intersection control at the Union Avenue/ Warren Street crossing, safer traffic flow in and out of Saint John Street (principal gateway to downtown), an enlarged David Craig Park with safer vehicular access, and easier access to Water Street. Improved access to and from the southerly parking areas of the proposed rail commuter station, and significantly greater opportunities for gateway beautification are also important. This advisory puts forth a concept plan that is intended to meet each of these objectives.

Specific Recommendations

The Advisory Board has developed the following specific recommendations to give substance to this plan for purposes of public thought and discussion. This concept plan will be subjected to

far more detailed study and public input, and many other viable options will surely be considered, as the bridge project enters the design and construction phases.

1. Intersection street curvature should begin about fifty feet west of Pearl Street and extend to the existing intersection of Saint John Street.
2. A primary intersection with a traffic signal should be created at the intersection of Union Avenue and Warren Street, which would be used to control all traffic entering and exiting Saint John Street and waterfront parking areas, except via a northbound yield lane.
3. Northbound traffic exiting Saint John Street and waterfront parking areas should proceed through a yield lane at the current location in front of the American Legion building.
4. Lafayette Plaza statuary and flagpoles should be relocated to a large triangular traffic island created at the northeast corner of the new Union/Warren intersection.
5. David Craig Park should be enlarged toward the southwest, and a single entry/exit point should be installed farther northwestward from the Saint John Street yield lane.
6. Water Street should intersect the Otsego/Union curve with much improved sight lines, a wider throat for trailer towing, and ample room for a left-turn lane toward Union Avenue.
7. The Havre de Grace welcome sign should be dismantled, cleaned, and relocated to a small landscaped plaza between the proposed Pearl and Water Street corners, positioned to face directly west up the center of Otsego Street. This location would be well out from under the new bridge structure, and will receive direct sunlight toward afternoon and evening.
8. A continuous left-turn lane should be incorporated throughout the Union/Otsego curve to facilitate safe turns into Water Street, David Craig Park, and the American Legion; and at the Union/Warren intersection.
9. The entire intersection area should be extensively landscaped and maintained as the principle gateway to the historic downtown and waterfront areas.

Recommended Action

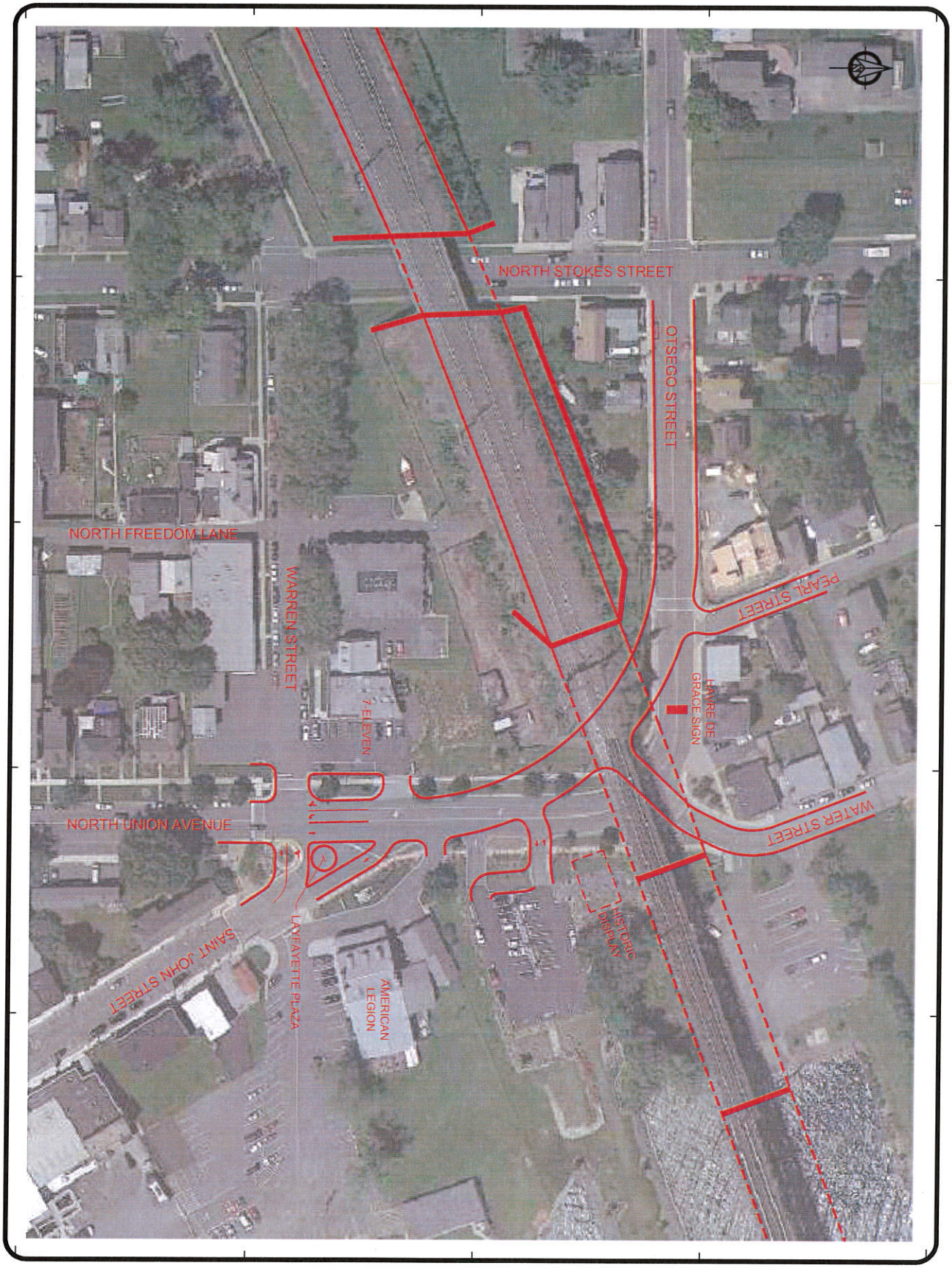
The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate this concept plan, along with its recommendations, into a formal communication to the SRRBP Project Team as soon as possible. This is necessary to reinforce our efforts toward relocating the bridge abutment westward and gaining a downtown rail commuter station.

Respectfully submitted,

Volney H. Ford
Chairman

Attachment: Concept Road Alignment Plan

N:\Projects\10000\10544\CA\CAD\10544 CA Concept Road Exhibit.dwg, 24x36, 2/13/2015 8:54:32 AM



HAVRE DE GRACE

CONCEPT ROAD ALIGNMENT

HAVRE DE GRACE~HARFORD COUNTY~MARYLAND

DATE: 30 JANUARY 2015
SCALE: 1" = 40'
PROJECT NO. 10544.CA
SHEET: 1 OF 1

OWNER:

No.	REVISION	DRAWN BY	CHECKED BY	DESIGNED BY	DATE

DESIGNED BY: SJG
CHECKED BY: SJG
DRAWN BY: CMC
FILE NAME: P:\CONSTR\CONST

STEPHEN J. GORSKI
STATE: MARYLAND P.E.

DUFFIELD ASSOCIATES
Soil, Water & the Environment
400 LEWIS STREET, UNIT 400
HAVRE DE GRACE, MD 21078
TEL. 410.287.0300
FAX 410.287.0053
OFFICES IN DELAWARE, MARYLAND, PENNSYLVANIA AND NEW JERSEY
WEB: HTTP://DUFFNET.COM
E-MAIL: DUFFIELD@DUFFNET.COM

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #15

Bridge Historical Preservation and Display

March 18, 2015

Background

The Advisory Board met on several occasions in November 2014, and in January, February and March of 2015, to discuss the need for historical preservation of specific components of the existing Amtrak rail bridge. It also recognized the need to consecrate the history of both rail bridges that occupied the broader site and were an integral part of the history of Havre de Grace and Perryville. The Board believes that this can best be accomplished by creating a permanent outdoor historical display on public property that is accessible at all times. The display should be presented in such a way that people of all ages can understand and appreciate the historical significance and engineering accomplishments associated with these two bridges.

Historical Artifacts

In previous advisories the Board recommended that the existing Amtrak rail bridge be removed entirely, and that all of its piers and abutments, as well as the piers of the original rail bridge, also be removed entirely. The purpose of that recommendation is to open up the river viewscape, make room for the new bridges, and provide for safer river navigation. The Board recommends that only the abutments of the earlier bridge continue to be preserved, perhaps restoring them more to their original appearance and function.

The Advisory Board believes there are several key features of the existing Amtrak rail bridge that are well worth preservation and permanent display. As a practical matter, each artifact should be kept to a size that would not overwhelm the display area or become too difficult or costly to maintain in the future. Each preserved artifact should be suitable for close public scrutiny, should have no unsafely exposed components, and should be dramatically imposing with a very special story to relate. The overall objective should be to convey the advancement of this type of bridge engineering by the beginning of the twentieth century, and to explain how certain rail bridge components functioned in that era.

A fascinating artifact with educational value would be one side of one lower connection of a deck truss, literally cut out of a span, with its moving parts secured by hidden welds. It would then be carefully cleaned and repainted, and displayed about two feet above a ground-level concrete slab using nearly-concealed support legs. The purpose of this display would be to show the bottom chord rods, tension and compression beams and connecting kingpin up close, with a description of how each part functioned and the critical importance of the entire connection. Attachment A is a photograph of the recommended artifact with cut points shown.

Another artifact that is of keen interest to the Advisory Board is the swing span pier top with its ring and pinion gear assembly, turning casters and adjacent structure. Although the entire swing span is far too massive to preserve and display, the Board thinks that its central mechanism between the rail deck and pier top would suffice to show how a rail swing span operates and how massive its working parts were required to be. If the entire core assembly should prove too large in scale for the display area, then perhaps a half or quarter segment of it could convey the same understanding and interpretation. The entire top layer of granite from the circular pier should be saved and installed at ground level, whether or not the entire circular mechanism could be fitted onto it. See the Attachment B photograph for the current location of this artifact.

A third major artifact of interest is the motor and drive assembly from the control house atop the swing span. The entire house and its contents could be relocated and preserved on land, provided with a means of visitor entry and viewing. Alternatively, the motor and drive mechanism could put on outdoor display within a clear weatherproof container. An interpretive display should describe the span swinging procedure. This artifact is shown in Attachment C.

The Board has also identified two historical plaques that should be saved and put on display. A large dedication plaque mounted into the face of the current westerly abutment should be relocated, along with a large panel of granite blocks to which it is attached, to a nearby ground-level display area. The second, a much older dedication plaque embedded in an original bridge pier near the Perryville shoreline, should likewise be removed along with its adjacent panel of granite blocks and put on ground-level display at a designated site in Perryville.

Display Area Location

The Advisory Board has concluded that David Craig Park, with its proposed expansion, be dedicated to the history of these two bridges and to the display of artifacts, historical photographs, and interpretive signage. The site should be augmented with as much railroad property as can be reserved for this purpose without interfering with future bridge access for maintenance. The beautiful park landscaping that was recently completed through efforts of City staff and workforces should be restored and expanded after completion of the new bridges. The very attractive current theme of this park should be integrated with its proposed use to every extent possible.

This location is most appropriate because it is on relatively high ground and safe from flooding. The expanded park, with some use of adjacent railroad property, should be sufficient to contain the overall display area and provide additional parking spaces. Displays would not be overshadowed by the new bridges at any time of day. This park is within close proximity to downtown pedestrian activity, and is not currently encumbered with other structures, themes or specific uses except fishing. Most importantly, this park is the perfect vantage point from which to visualize the two past bridges spanning the river as one stands at the interpretive displays and sees the historical photographs, many of which were taken from the very same spot.

Display Components

The artifacts recommended above should be placed and oriented on high ground within the park in such a way that they more directly relate to the historical bridge locations and to photographs on display taken from the same angles and perspectives. Display sites must be planned carefully and integrated with a series of current documentary photographs before the existing bridge is removed. The larger displays should also be positioned to draw attention from beyond the immediate park without cluttering the nearby streetscape or its view of the river.

The interpretive displays should be filled with written, photographic, diagrammatic, and artistic components that not only depict the historical bridges as accurately as possible, but tell their complete stories, teach their engineering fundamentals to adults and youngsters alike, and describe how they contributed to rail transportation along the entire east coast of America. This effort should be taken to such a level that the overall park display becomes a tourist destination in its own right, requiring at least two hours to fully explore.

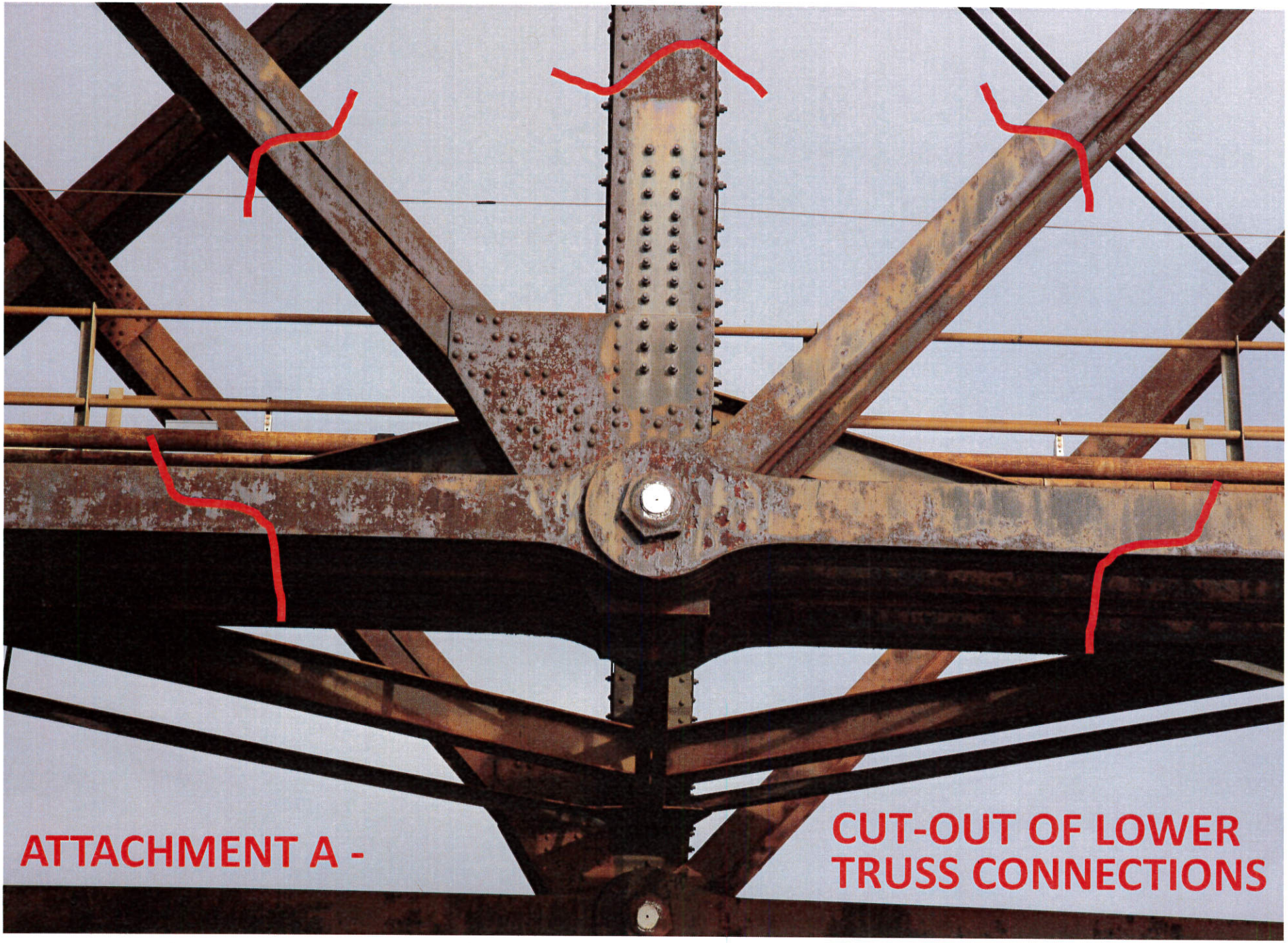
Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these recommendations into a formal communication to the SRRBP project team, and to all agencies and local organizations having interest in historical preservation related to these bridges, as soon as possible. The Board also recommends that the upper level of David Craig Park be held in reserve for this future purpose and use.

Respectfully submitted,

Volney H. Ford
Chairman

Attachments A, B, & C: Artifact location photographs


ATTACHMENT A -
CUT-OUT OF LOWER
TRUSS CONNECTIONS

ATTACHMENT B— SWING ASSEMBLY

ATTACHMENT C— CONTROL HOUSE

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #16
Westerly Right-of-Way and Alignments – First Update
March 18, 2015

Background

The Advisory Board met on October 28, 2014 to examine the current and proposed railway right-of-way corridor extending from the bridge abutment area in downtown Havre de Grace to the Lewis Lane overpass. Advisory Bulletin #4 was issued by the Board on October 31, 2014 based on an assumption that the new high-speed bridge of the proposed twin bridges would be installed on the downriver (south) side of the existing bridge, with the lower-speed bridge taking the place of the existing bridge. It was also assumed that the new bridges would be elevated to an extent that would require elevation of trackage along the right-of-way, well past the bridge landing.

As feasibility studies and preliminary design with regard to track elevation and alignment have been further developed by the SRRBP Project Team since last October, it appears that the most favorable track alignments would now place the lower-speed bridge along the upriver (north) side of the existing bridge, with the other new bridge taking its place. It also now appears that little or no raising of track elevation will become necessary west of the new bridge abutment.

It is the current understanding of the Advisory Board that the long high-speed curve of the southeasterly pair of rail lines extending from the bridge to Lewis Lane will require some realignment in that direction to achieve a 150 mph design speed. The Advisory Board recently issued Advisories #6 and #12 advocating the installation of a rail commuter station along Warren Street. If implemented, this would require a significant northwesterly alignment of the lower-speed pair of rail lines to accommodate a more northerly bridge alignment and to provide adequate separation from the high-speed lines at the station platform. Both alignment changes would significantly alter the elevated embankment passing through town and would require retaining walls at certain locations.

Revised Concerns and Recommendations

In accordance with the more current alignment needs that are described above, it will become necessary to widen the southeasterly side of the railway embankment to some degree and to widen the northwesterly side to a significant degree. Both enlargements could encroach slightly upon existing property lines and could significantly reduce available public parking areas for the proposed rail commuter station unless retaining walls are installed between Freedom Lane and Juniata Street. Retaining walls would provide the additional advantages of better security against trespassing, elimination of unsightly chain-link fencing at the embankment bases, and elimination of uncontrolled growth of weeds and trees along the embankments.

It appears that significant shifts in track alignments will almost certainly require modification of the street underpass bridges that remain in place, to the extent that existing abutments would require lateral extension or total replacement. The Advisory Board emphatically recommends that no existing granite abutment, if retained, be further modified from its historical appearance. The abutments are 110 years old and have already been modified several times for bridge deck repositioning, which in turn has resulted in unsightly concrete caps and modification or removal of some granite blocks. The stone abutment and wing wall facings are continuously leaking water and forming ice, black mold, and white salts, resulting in a most unattractive appearance and promoting continual weed growth from the block joints.

Lateral realignment of the outer bridge decks would likely require lateral extension of the abutments. The use of concrete or any material other than matching granite blocks for this purpose should be entirely unacceptable to the City and its residents. As recommended in Advisory Bulletin #4, each of the abutments at retained street underpasses should be entirely rebuilt with materials that will provide an attractive appearance for the next 120 years or more. All other recommendations provided in Advisory Bulletin #4 remain valid and should be incorporated into the overall project.

Recommended Action

The Advisory Board requests that the Mayor and City Council take necessary steps to consolidate these recommendations, along with those of Advisory Bulletin #4, into a formal communication to the SRRBP Project Team as soon as possible

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
of the
Mayor and City Council of Havre de Grace
for the
Mayor and Town Commission of Perryville

Advisory Bulletin #17

Easterly Right-of-Way and Alignments in Perryville

March 20, 2015

Background

The Advisory Board met on March 12, 2015 to examine the current and proposed rail right-of-way corridor, extending from the bridge abutment area below downtown Perryville to a point just east of the MARC Station, and including the track wye connecting to the Norfolk Southern line to Harrisburg, known locally as the Port Road.

As feasibility studies and preliminary design with regard to track elevation and alignment have been further developed by the SRRBP Project Team since last October, it appears that the most favorable track alignments would now place the lower-speed bridge along the upriver (north) side of the existing bridge, with the other new bridge taking its place. It also now appears that little or no raising of track elevation will become necessary east of the new bridge abutment.

The new bridge alignments, as much as can be understood at this stage of planning, will cause little change and have almost no impact along the south (Perry Point) side of existing trackage. Installation of a lower-speed new bridge along the upriver side of the existing bridge would shift the abutment in that direction accordingly, bringing it closer to the bottom end of Broad Street, directly across from the Rogers Tavern Historical Site.

Recommendations

1. The existing bridge abutment just east of Avenue A should be entirely rebuilt to ensure a consistent architectural appearance, using modern materials that can be expected to maintain a good appearance for the next 120 years or more.

2. The new abutment should be repositioned closer to the river, as may become necessary to ensure equal bridge spans to the relocated Havre de Grace abutment, and to provide more land-based track length for crossovers to the MARC Station and the Port Road wye entrance.
3. The north sidewall of new abutment should be extended eastward to Roundhouse Drive, to better facilitate an off-street parking area along its base for visitors to Rogers Tavern and the Town Dock.
4. The south sidewall of the new abutment should extend a short distance eastward toward the transformer station to facilitate an emergency response and maintenance access ramp leading up to trackside.
5. A fenced enclosure with gates should be installed along a new paved access road and ramp from Avenue A, locating it at least fifty feet eastward of the new abutment to conceal all such fencing from the Rogers Tavern vista.
6. All security fencing and guard railing systems visible from Broad Street should be upgraded as much as possible in appearance, placed far enough from the toe of embankments to allow weed control, and coated black to blend with the landscape. Where possible, the abutment and its side walls should provide security against trespassing in lieu of fencing, with only a low fence-style guard railing system along the top.
7. Retaining wall and abutment architecture and materials should be designed to discourage growth of noxious weeds and scrub trees as much as possible.
8. Earthen embankments visible to Broad Street should be densely planted with a variety of landscaping species that resist erosion and noxious weed growth.

Recommended Action

The Advisory Board recommends that the Mayor and Town Commission of Perryville take necessary steps to consolidate these or similar recommendations into a formal communication to the SRRBP Project Team as soon as possible.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
of the
Mayor and City Council of Havre de Grace
for the
Mayor and Town Commission of Perryville

Advisory Bulletin #18

Street Underpasses in Perryville

March 20, 2015

Background

The Advisory Board met on March 12, 2015 to discuss the two road underpasses along the Amtrak main line, located at Front Street and at the MARC Station. This discussion did not include the two Broad Street underpasses at the rail wye serving the Norfolk Southern line to Harrisburg, as it is not anticipated that these two bridge structures would be significantly altered in elevation or alignment.

Both roads passing under the main line are currently used by Amtrak personnel and other specially designated entities, but neither one is a public right-of-way. Both provide direct access to the same destinations, and are therefore redundant, except that the MARC Station underpass has a very low vertical clearance. The proposed high speed rail line is not likely to require local station platforms for its pair of tracks, except during emergency diversions of track usage, and therefore should not require the existing underpass for pedestrian crossover.

Recommendations

1. The existing divided-lane underpass opposite Front Street, which provides truck access to the Amtrak repair facility and portions of the Perry Point VA grounds, should be retained.
2. Whether modified to accommodate track realignment or not, the north face and wing walls of this underpass should be restored to its original architectural appearance.
3. The entire north entrance of this underpass should be thoroughly cleaned and well landscaped along the adjacent embankments and out to Broad Street.
4. The low, tunnel-like underpass that divides the two MARC Station parking lots should be abandoned by sealing it off from the north side. The south side may be left open for historical purposes, provided it is made secure from trespassers.

5. The underpass access road cut leading in from Broad Street should be filled level with both MARC Station parking lots to provide a common entrance/exit at Broad Street and many more parking spaces.

Recommended Action

The Advisory Board recommends that the Mayor and Town Commission of Perryville take necessary steps to consolidate these or similar recommendations into a formal communication to the SRRBP Project Team as soon as possible.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
of the
Mayor and City Council of Havre de Grace
for the
Mayor and Town Commission of Perryville

Advisory Bulletin #19

Rail Operation Noise Control in Perryville

March 23, 2015

Background

The Advisory Board met on March 12, 2015 to discuss noise issues in Perryville that are directly associated with freight train operations through the sharply-curved wye tracks at the MARC Station. Track alignment and curvature, particularly along the somewhat tighter northbound turn from the Norfolk Southern line onto the Amtrak main line, produces flange squeal of intense magnitude which can be heard from as far away as Havre de Grace.

The proposed rail bridge replacement project, which does not include the Perryville wye intersection with the Norfolk Southern line, may nevertheless require some modification of the wye tracks at the main line turnouts. This may be necessary to realign them with the new low-speed bridge location. The Board has identified two general measures to abate noise from flange squeal: a) adjust the curvatures more precisely with easing where possible, and b) install acoustical barriers along the curves.

Recommendations

1. Modify the wye curve entering northbound onto Amtrak so that its radius is eased as it merges with the nearest station boarding track. Flange squeal is most intense alongside the east parking lot of the station, suggesting very tight curvature at this point.
2. Modify the wye curve entering southbound onto Amtrak so that its radius is eased as it merges with the northernmost main line track aligning with the new north bridge.
3. A slight repositioning of the Broad Street rail overpass bridge decks within the existing abutment bearings may be necessary to ease curvatures without impacting the station parking lot layout.
4. Design a concrete acoustical barrier system that is just high enough to block, absorb and reflect intense flange noise emanating from rail height. The barriers should be parabolically curved inward to deflect noise downward toward track centers. It is hoped that such a barrier system would be no more than five feet in height.

5. Install the barrier system along both sides of each wye track, positioning it as close to the rails as normal operations and track maintenance will allow.
6. Install a modified version of the same system along both sides of the Broad Street rail bridges.
7. Extend the acoustical barrier system from the point of rail divergence leading from the Norfolk Southern line to the Amtrak main line turnouts.
8. Auch taller acoustical barrier may become necessary along the northeast right-of-way boundary, adjacent to the existing trailer park, if rail curvature easing cannot be achieved at this most intense noise location.
9. If flange squeal noise can be almost entirely abated by improvement of track alignment and curvature, some or all of the proposed acoustical barriers may prove to be unnecessary.

Recommended Action

The Advisory Board recommends that the Mayor and Town Commission of Perryville take necessary steps to consolidate these or similar recommendations into a formal communication to the SRRBP Project Team as soon as possible.

Respectfully submitted,

Volney H. Ford
Chairman

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

Susquehanna River Rail Bridge Project
Advisory Board
Of the Mayor and City Council

Advisory Bulletin #20

Bridge Architecture – First Update

July 21, 2015

Background

The Advisory Board met on March 12, 2015, and on a number of previous occasions to study the various options of bridge architecture, particularly as they relate to pier spans, type of structure, river viewscape, and impact on the intersection of Union Avenue and Otsego Street. References should be made to Advisory Bulletins #2, #3, #11, #14, and #15, which are directly related to this bulletin. The Board is deeply concerned that the SRRBP Project Team may now be focusing its work product on a simple vertical pier and deck beam type of structure with very short pier spacing (bridge spans), which the Board believes will negatively impact the intersection and overall bridge appearance.

Objectives

The Advisory Board, with much community input, has concluded that bridge architecture is the single most dominant concern of the citizens of Havre de Grace, Perryville, and both Counties, for all the reasons expressed in Advisory Bulletin #2. The same bulletin provided general design recommendations to achieve a desired effect. Primary objectives should be an increase of pier-to-pier spans as much as possible, with the use of graceful lines of arch-like curvature. To this end, the Board has embraced a "delta" type of structure, which permits much longer spans and a far more graceful appearance than a simple "deck" type structure put forth by the Project Team.

Further objectives relating directly to bridge span and pier placement include creation of an imposing gateway entrance into downtown Havre de Grace and enlargement of David Craig Park to accommodate a bridge history display area. The critical element in both objectives is location of the first pier beyond the bridge abutment in such a way to avoid blocking gateway viewscapes or dividing the avenue under the bridges. The Board is convinced that this can only be achieved by a much longer-span bridge design. More detailed discussions of this very sensitive area, with specific objectives and recommendations, have been stated in Advisories #3, #11, #14, and #15.

Bridge Configurations

The Advisory Board has taken measurements of the gateway entrance area and existing truss-deck bridge, and has extrapolated measurements of four suggested bridge configurations offered by the SRRBP Design Team at its public presentations. This information was then used to develop simplistic elevation views, in scale, of the existing bridge and both basic types of new bridge design known as "deck" type and "delta" type, so that the public can gain a greater understanding of bridge appearance and its impact on the avenue intersection area.

This depiction of elevations entitled Bridge Configurations is attached, along with a previously developed aerial (plan) view of a proposed intersection alignment entitled Concept Road Alignment. It should be noted that the aerial view is consistent with Configuration C in the depiction. It should also be noted that all configurations are shown from the south (downtown) side of the bridges, just as each street section emerges from under the bridge. The street sections all curve to the left before emerging out from under the north side of the bridges, as can be plainly seen in the aerial view.

The SRRBP Project Team faces design challenges of fitting a curving street under the span(s), dealing with road clearance under delta legs, and landing the bridges clear of Otsego Street. The Advisory Board has measured minimum road clearance under the existing bridge as 14.83 feet at the lowest eye-bar connection. It believes the new design objective should be a minimum vertical clearance of 16 feet from street elevation at the curb line to any part of an overhead delta leg. All new bridge configurations shown would otherwise create no clearance issues.

Configuration A

The Project Team appears to favor a simple deck beam design supported by tall piers as being much more cost-efficient, less expensive to maintain, and easier to repair/replace major components. Although it would require more piers in the river, pier structure would be less massive. Taller and more slender piers would open up the river viewscape in one sense, but adding more pier sets will tend to have the opposite effect. Vertical piers also eliminate clearance concerns for boaters passing under the bridge outside the main channel.

This configuration is limited to 170 feet of span between pier centers, which is 30 feet less than that of the existing bridge. Architecture notwithstanding, such pier spacings would grossly impact the Otsego/Union intersection area, cluttering the streetscape and ruining the opportunity for an imposing gateway entrance to the downtown. It would also require a divided main avenue at best or a standard street corner at worst, neither of which would align smoothly with the Union/St John intersection area or with Water Street.

This type of bridge architecture is very plain and ordinary, offering little opportunity for enhancement other than some flair at the pier tops (as depicted). It is comparable to common highway bridges of recent decades and cannot be dramatically enhanced by accent lighting. Such an unremarkable structure should be seen as an insult to the riverscapes of both communities, with its unique setting as the "gateway bridge" at the confluence of this great American river and the world's largest estuarial bay. This was also the immediate scene of colonial era crossings, more importantly traveled during the time of our nation's founding.

Configuration B

The Project Team has presented an optional delta design based on spans of 240 feet. The term "delta" refers to the diagonal legs that form a triangle with the bridge deck. This configuration permits the deck structure to be cantilevered some distance beyond the delta, where it would connect with a simple deck beam in mid-span. This type of structure allows a much longer span between piers, by an additional 70 feet or 41%, as presented. Since a delta leg is not required at the abutment, this particular configuration would reduce the first span from 240 feet to 180 feet. The net effect of this configuration would be to constrain the intersection even more than in Configuration A, due to street clearance under the first pier delta legs.

Configuration C

In order to achieve an acceptable gateway and intersection layout, the Advisory Board is convinced that a delta leg must be included at the abutment to extend the first span out to 240 feet. The Board concedes that such a configuration will still be tight and will need to be designed very carefully to avoid street clearance issues at the delta legs. In order to ease this situation, the Board recognizes that the Otsego Street curve may need to begin at a more eastward point, perhaps centering on Pearl Street, than shown in the attached aerial view.

Configuration D

A better solution for the downtown gateway area would be to extend the first span an additional forty feet by using a significantly deeper and stronger beam section than would be used for all other spans. This beam section could be extended through the half-delta at the abutment and entire delta at the first pier, as depicted, or limited to the span between delta legs. Either design would be architecturally pleasing to the eye.

Conclusions

The Advisory Board is convinced that Configurations A and B would be entirely unsatisfactory to the downtown gateway objectives of the City of Havre de Grace, and would present a more cramped and obstructed streetscape than exists today, especially when coupled with the effects of a double-wide bridge complex. The Board is also deeply opposed to a divided thoroughfare at the confluence of so many streets, which would become necessary with much closer pier spacing.

In macro perspective, the Board is uniformly opposed to any bridge architecture that suggests simple vertical piers supporting horizontal deck beams, especially when such a design requires much shorter spans and more structural clutter at river level. This particular bridge, being in a geographically and historically unique location, and dominating an incredible panorama for miles, demands an architectural style worthy of its place and symbolic of its diverse rail transportation function.

Recommended Action

The Advisory Board urges the City of Havre de Grace, the Town of Perryville, and both County governments to vigorously oppose a simple, short-span design for these bridges, and to push hard in favor of a more graceful and stylistic architecture, regardless of the direction the Project Team now seems to be taking. The City of Havre de Grace should also insist on a more open gateway area under the bridges which would not require a divided street passage or a sharply curving intersection.

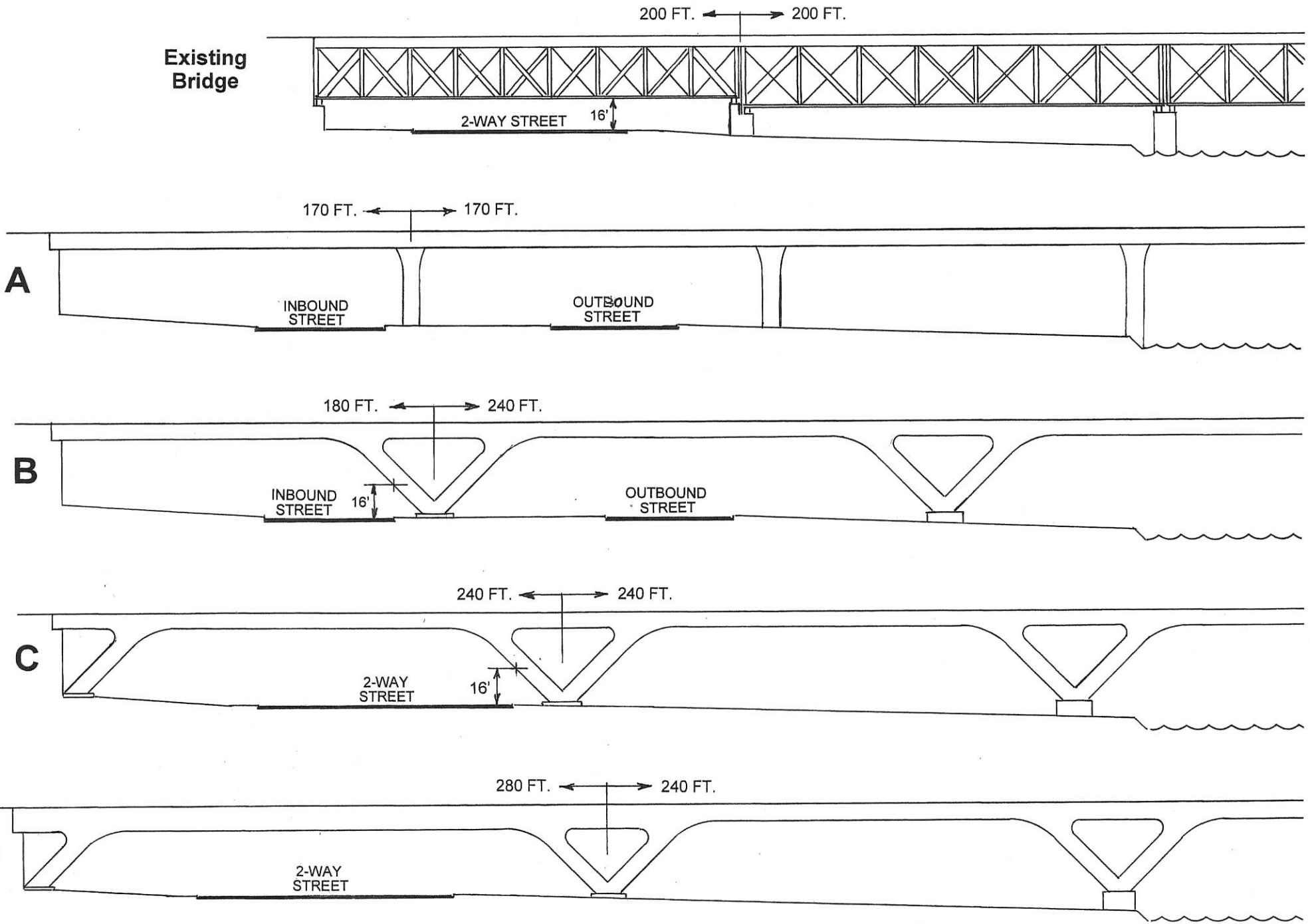
Respectfully submitted,

Volney H. Ford
Chairman

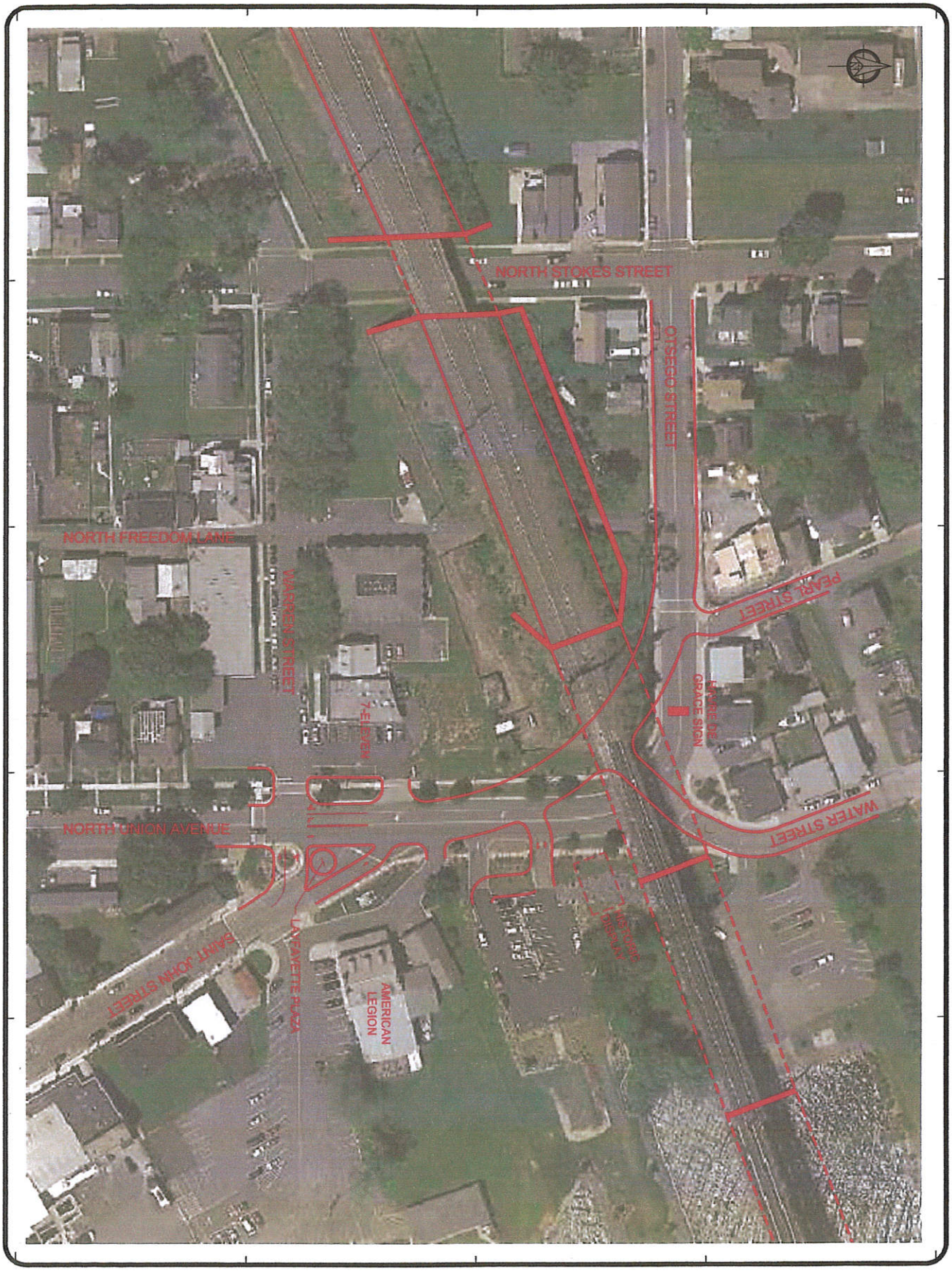
Attachments: Bridge Configurations
Concept Road Alignment

Advisory #20

Bridge Configurations



N:\Projects\10000\10544\CAD\CAD\10544 CA Concept Road Exhibit.dwg, 24x36, 2/13/2015 8:54:32 AM



HAVRE DE GRACE

CONCEPT ROAD ALIGNMENT

HAVRE DE GRACE~HARFORD COUNTY~MARYLAND

OWNER:

No.	REVISION	CHKD BY DATE
-		

DESIGNED BY: SJG | CHECKED BY: SJG
DRAWN BY: CMC | FILE NAME: 10544CNCPTRDEXH.DWG

STEPHEN J. GORSKI
STATE MARYLAND P.E.

DUFFIELD ASSOCIATES
Soil, Water & the Environment

400 LEWIS STREET, UNIT 400
HAVRE DE GRACE, MD 21078
TEL. 410.287.0300
FAX 410.287.0053

OFFICES IN DELAWARE, MARYLAND, PENNSYLVANIA AND NEW JERSEY

WEB: HTTP://DUFFNET.COM
E-MAIL: DUFFIELD@DUFFNET.COM

DATE: 30 JANUARY 2015
SCALE: 1" = 40'
PROJECT NO. 10544.CA
SHEET: 1 OF 1

C.A. DUTCH RUPPERSBERGER
2ND DISTRICT, MARYLAND

REPLY TO:

☐ 2416 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3061
FAX: (202) 225-3094

☐ 375 WEST PADONIA ROAD, SUITE 200
TIMONIUM, MD 21093
(410) 628-2701
FAX: (410) 628-2708

www.dutch.house.gov

COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEES:
DEFENSE
STATE, FOREIGN OPERATIONS, AND RELATED PROGRAMS

Congress of the United States
House of Representatives
Washington, DC 20515–2002

January 24, 2017

Mr. Brandon Bratcher
Environmental Protection Specialist
Federal Railroad Administration
1200 New Jersey Avenue SE
Washington, DC 20590

Dear Mr. Bratcher:

As the Federal Railroad Administration (FRA) moves forward on the design and placement of the Susquehanna River Rail Bridge, I request that the selection complement the façade of Havre de Grace's Historic District. This is a desire shared by many of my constituents and local elected officials.

The residents of Havre de Grace take great pride in their city's history, which nearly missed being named our Nation's capital in 1789. Its buildings date primarily from the 19th and early 20th century. The scenery is reminiscent of an earlier time and a modern bridge design would detract from the area's atmosphere. The City has a perennial tourism industry, which would be harmed if this concern is not taken into account.

The expansion of the Susquehanna River Rail Bridge is an essential project. The current structure supports only two tracks, creating speed and capacity constrictions. I hope renovations will effectively remedy the bottle neck on the span used by Amtrak, MARC, and Norfolk Southern. With that being said, I urge FRA to proceed with caution, and select a design which is both practical and aesthetically compatible with Havre de Grace's historic roots.

Sincerely,

C.A. Dutch Ruppersberger

C.A. Dutch Ruppersberger
Member of Congress

cc: The Honorable Mary Ann Lisanti
Ben Martorana, City of Havre de Grace
Michael Johnsen, Federal Railroad Administration
Deborah Haynie, Maryland Department of Transportation
Patrick Edmond, National Railroad Passenger Corporation

City of Havre de Grace

711 Pennington Avenue, Havre de Grace, Maryland 21078 410-939-1800
www.havredegracemd.com

February 14, 2017

Mayor William L. Martin
City of Havre de Grace
711 Pennington Avenue
Havre de Grace, Maryland 21078

RE: Rail Bridge Modification Study

Dear Mayor Martin:

The Susquehanna River Rail Bridge Project Advisory Board has received and studied the report entitled "Proposed Modifications to South Spans", prepared under contract with the City by David R. Schmidt Company, Inc., and dated February 1, 2017. The Schmidt analysis and report were originally requested by the Advisory Board to validate its contention that it is feasible to design a simple-girder span of at least 220 feet above the intersection area of Union Avenue and Otsego Street.

The Advisory Board, from its inception in the fall of 2014, has recognized the critical importance of increased spans from the new bridge abutment to at least the first and second piers, as were detailed in these Advisory Bulletins:

#3 Bridge Abutment Area, 10-24-14
#4 Bridge Abutment Area – First Update, 1-26-15
#14 Union Avenue and Otsego Street Intersection, 3-16-15
#20 Bridge Architecture – First Update, 7-21-15

During the course of several meetings and discussions with representatives of the project design team, we were told very firmly that the practical design limit of the simple-span girder system that they were proposing was 170 feet, and that this limitation could not be exceeded. In effect, the large intersection of Union Avenue/Otsego Street/Water Street, the main gateway to the downtown historic district, and itself part of that district, would have to be thus impacted. Under such constraints, the forest of new piers supporting two bridges instead of one, and positioned for much shorter bridge spans than the existing piers, will seriously impact the gateway view scape, the historic corner building at Water Street, the immediate downtown historic district area, and ease of travel through this intersection.

As the overall project design progressed and was refined, the impact to this intersection was further worsened. The first three spans at this location were reduced from the planned 170-foot river spans to 160 feet to better align with the remaining river pier locations and with the intersecting streets. The result of this most recent design provided to the City is utterly unacceptable with regard to all of the concerns stated above and with the Advisory Bulletins listed above.

The Advisory Board has long contended that "practical design limits" of girder spans selected for this intersection area were being self-limited by the number, dimensions and properties of the girders that were being selected for the overall river crossing. The Advisory Board believes that fabrication, shipping, and other construction costs are primary factors governing the project design team's refusal to consider a girder span of at least 220 feet. The Board is firmly convinced that a 220-foot simple-girder span can be effectively designed if the project design team is determined to do so.

The Schmidt report, although not specific as to all loading conditions and girder properties which must be taken into account in a final design, clearly shows that a 220-foot span is quite feasible, practical, and architecturally acceptable. It also proposes locations of the abutment and first pier which are as optimal to the intersection and view scape concerns as any we have seen, without altering river pier placements beyond the first pier. The Advisory Board therefore accepts and recommends this proposal, and does not object to a deeper girder profile passing above the intersection area.

The Advisory Board further recommends that this engineering study be disseminated immediately to the SRRBP design team and to all Section 106 Consulting Parties, particularly those who are concerned with direct impact on this National Register Historic District and to the intersection itself.

Sincerely,

Volney H. Ford, Chair
Susquehanna River Rail Bridge Project Advisory Board

Cc: Members of the City Council
Patrick Sypolt, Director of Administration
Ben Martorana, Director, Department of Planning
Tim Whittie, Director, Department of Public Works
Dianne Klair, Planner

SUSQUEHANNA RIVER RAIL BRIDGE

February 2017

PROPOSED MODIFICATIONS

AT HAVRE DE GRACE END OF BRIDGE

STUDY FOR THE MAYOR, CITY COUNCIL AND THE CITIZENS OF HAVRE DE GRACE, MARYLAND

SUBMITTED BY:

The David R. Schmidt Company, Inc.
Consulting Engineers

TABLE OF CONTENTS

The David R. Schmidt Company, Inc.
Consulting Engineers

P.O. Box 98
Forest Hill, Maryland 21050
410-638-5577
www.TheDRSCo.com

February 1, 2017

Mr. William T. Martin, Mayor
Mr. Stephen J. Gamatoria, City Council President
City of Havre de Grace
711 Pennington Avenue
Havre de Grace, Maryland 21078

Re: Amtrak Bridge over Susquehanna River

Proposed Modifications to South Spans

Gentlemen:

Per direction received from your office, we have looked at the feasibility of lengthening the last span over Ostego Street, and reconfiguring adjacent spans of the subject bridge accordingly. Our goal was to "open up" what is essentially the "Gateway to Havre de Grace". To this end, it is the City's desire to lengthen the end span to about 220'. The lengthening will allow for a flatter curve for Ostego Street where it passes beneath the bridge, and most importantly, it will greatly enhance the visual image of motorists as they enter the waterfront and historic district of Havre de Grace.

The 2016 track plans, copy attached, show a pier spacing of 160'-0" for the approach spans, including the spans in Havre de Grace. The 2015 bridge plans show five girders spaced at about 8'-0" c/c for the west bound bridge, and presumably for the eastbound bridge. The plans do not show girder properties, but by scaling we estimate that they are about 12' deep. The plans also don't make it clear as to the continuity of the spans, but it appears that they are simple spans. Please note, that these are the only plans that the City has, and it is assumed that when the pier spacing changed from 170'-0" in 2015 to 160'-0" in 2016, that the typical section of the approach spans remained essentially the same.

To satisfy the City's goal, we have come up with a scheme that we believe is very feasible and will not substantially increase the cost of the bridge, if at all. What we propose is to move the south abutment forward about 40 ft, and maintain the current position of the Pier at the edge of the river. But instead of three equal spans between the south abutment and said Pier, we propose two spans: the first being about 220' over Ostego St. and the second being about 190'. The current spacing/configuration of abutment and piers through this area calls for three spaces of

160' for a total of 480', while we propose two spaces (220' and 190'). Please see the sketch we have provided of these modifications, attached as Figure 1. We believe the increase in structural steel costs would be offset by the elimination of one set of piers and their foundations. And if not completely offset, the additional cost would be very minimal.

To do this, we considered various superstructure types and materials, but only briefly as these options would be more costly and/or would not maintain the current bridge aesthetics. We also considered adding girders, but just adding one to make each superstructure consist of six girders instead of five, would not accommodate the span length desired as this is essentially a linear increase in strength. Even two additional girders per bridge would not quite achieve the desired span length. So instead what we concluded, was to do one of two things:

1. ***Maintain the multi-steel girder construction, but increase the depth of the girders from the current 12' (estimated) to somewhere between 13'-6" and 14'-3" (See Figure 2).***

   This would provide a very approximate moment of inertia increase of about:

   I_{web} increase = $h_2^3/h_1^3 = 13.5^3/12^3 = 1.42$, or about 42%, to about $14.25^3/12^3 = 1.67$, or 67%

   I_{flange} increase = $d_2^2/d_1^2 = 6.75^2/6^2 = 1.27$, or about 27%, to about $7.125^2/6^2 = 1.41$, or 41%

   $\sum = 42 + 27 = 69\%$ to about $67 + 41 = 108\%$

   And (using the 170' spans of the 2015 bridge plans from which the 12 ft girder was scaled) this amount should be sufficient for the bending moment increase of about:

   M increase = $l_2^2/l_1^2 = 220^2/170^2 = 1.67$, or about 67 percent = say 90 percent to allow for an estimated 75 plf increase in dead load.

   Obviously, this is based solely on the proposed girder depth increase and only uniform live load. Actual composite section properties would influence this, along with actual flange plate width and thickness, and web thickness. And the need for shoring would have to be investigated, along with shear requirements, concentrated load effects, and so on. But we believe this depth increase would be in the ballpark and would suffice.

   Though it is a bit more difficult to fabricate and ship girders beyond the proposed 12'-0" depth, we believe that it would be possible at this location. High Steel Structures, Inc. is amongst the top steel bridge fabrication companies in the U.S., and they are located only

45 miles north of the bridge site. We proposed this concept to Mr. Steve Bussanmas, Sr. VP of Sales and Marketing at High Steel Structures, and he agreed that this was absolutely feasible. They have fabricated girders up to 18'-0" deep in the past, and they concur that 14'- 3" is achievable at this location.

We conducted a brief site visit to see if there were any obstacles to our proposed pier placement, and to determine if the vertical clearance reduction was acceptable. We found no physical barriers to our proposed scheme. And while the City will have to accept the slight vertical reduction in their "Gateway" view, the clearance is acceptable for the roadway beneath the bridge.

There is, however, one caveat. We do not know actual girder properties as this information is not in the preliminary plans. We also don't know what is controlling the design since we do not have the design computations. So it is possible that live load deflection could control. A simplified look at deflection, shown below, indicates that if it is controlling, this option might not be possible:

In the deflection equation for simple spans under uniform load, $\Delta = 5wl^4/384EI$, the one substantial variable that would be affected is l (the span length). The lengthening would increase the deflection by about $220^4/170^4 = 2.80$, or about 180 percent. And this increase would not be offset by the increase in moment of inertia of 108 percent (for 14.25' girders). It would take a girder depth in the 15.5'range, which might be pushing the envelope a bit too far

As a result, with very limited information, we cannot say for certain that this option will work since we don't know if live load deflection is controlling the current design. Therefore, we offer a second option.

2. ***Utilize steel box (or tub) girders in this same region (See Figure 3).***

By using box girders, we may even be able to maintain the current superstructure depth, if live load deflection is not an issue.

Just considering the bottom flange area, the overall moment of inertia would increase by the ratio of the flange width increase of 20.5'/12.5' (5 flanges @ 2.5') = 1.64, or about 64 percent (assuming 30" flanges are currently proposed).

And if this was not sufficient, the web depth could be increased from the current 12'. In addition, an interior web and top flange could be added (these are shown in Figure 3 as "potential" elements).

We believe that both options should be fully studied by the design consultant, as either would be a win-win-win alternative. The City would get the "Gateway" they desire, the bridge aesthetics would essentially remain intact, and there would be no or very little additional cost to the project.

We hope that the City finds these solutions satisfactory. Should you have any questions or need clarification on anything concerning this matter, please feel free to call me. We appreciate the opportunity to assist you on this monumental project, and we thank you very much.

Sincerely,

The David R. Schmidt Company, Inc.

David R. Schmidt, P.E.
President

DRS: slf
cc: MLZ, File

PRELIMINARY PLANS (2016)

PLAN

NOTE:

1. WORK SHOWN FOR ALTERNATIVE 9B. FOR 9A SEE L-106A TO L-112A.

LEGEND

- EXISTING TRACK
- PROPOSED TRACK
- LOD LOD — LIMIT OF DISTURBANCE
- W W W — PROPOSED RETAINING WALL

HORZ: 30 15 0 30 60
SCALE IN FEET

IN PROGRESS

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

PRELIMINARY ENGINEERING

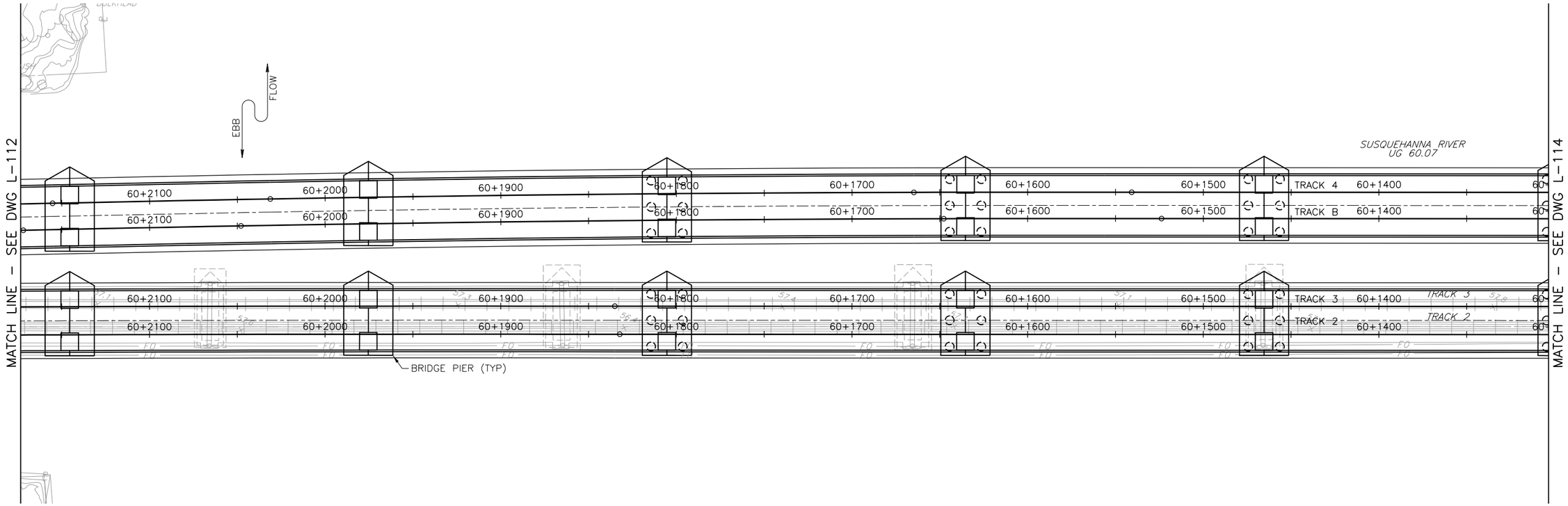
HNTB
HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215-568-6500

PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER RAIL BRIDGE PROJECT
LIMIT OF DISTURBANCE
PLAN (12 OF 31)

Designed	DJS	Drawn	KAM	Checked	BDH	Date	6/8/2016

Job No:	50625
File Name:	50625-s-rr-fra112
Sheet No.	13 OF 32
Dwg. No.	L-112

6/8/2016 4:07:25 PM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO



PLAN

NOTE:

1. WORK SHOWN ON SHEETS L-101 TO L-105 AND L-113 TO L-131 IS IDENTICAL FOR ALTERNATIVES 9A AND 9B.

LEGEND

- EXISTING TRACK
- PROPOSED TRACK
- LOD LOD — LIMIT OF DISTURBANCE
- W W W — PROPOSED RETAINING WALL

HORZ: 30 15 0 30 60
SCALE IN FEET

IN PROGRESS

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

PRELIMINARY ENGINEERING

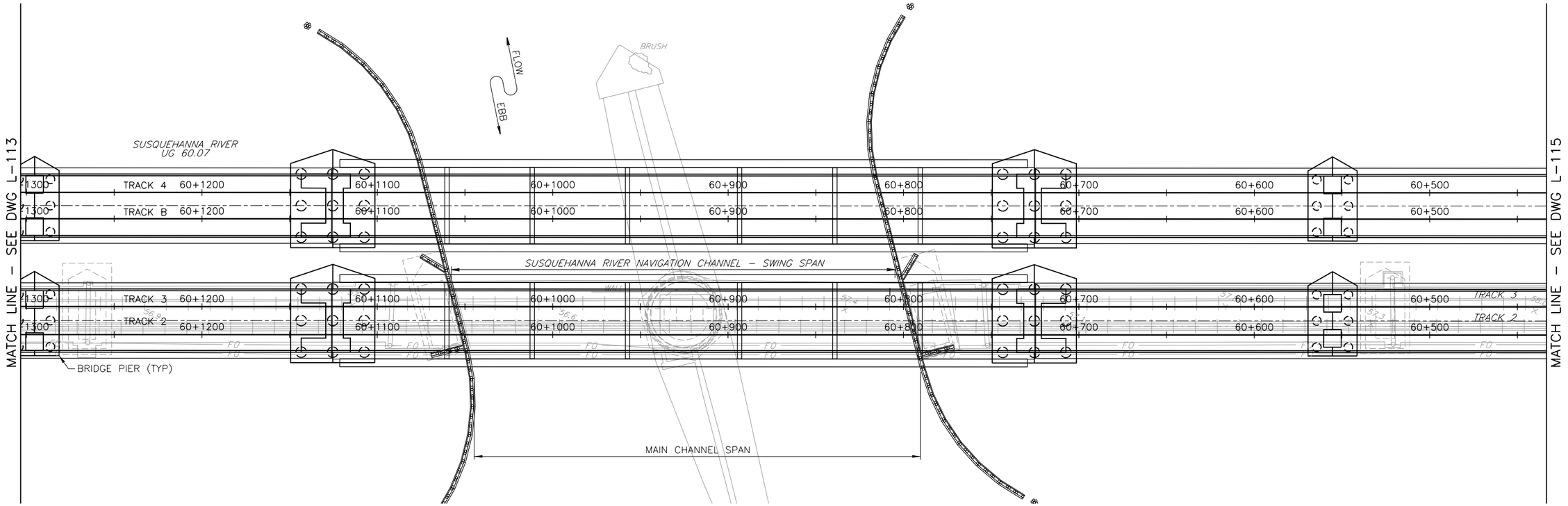
HNTB
HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215-568-6500

PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER RAIL BRIDGE PROJECT
LIMIT OF DISTURBANCE
PLAN (13 OF 31)

Designed	DJS	Drawn	KAM	Checked	BDH	Date	6/8/2016

Job No:	50625
File Name:	50625-s-rr-fra113
Sheet No.	14 OF 32
Dwg. No.	L-113

6/8/2016 4:07:30 PM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO



PLAN

NOTE:

1. WORK SHOWN ON SHEETS L-101 TO L-105 AND L-113 TO L-131 IS IDENTICAL FOR ALTERNATIVES 9A AND 9B.

LEGEND

- EXISTING TRACK
- PROPOSED TRACK
- LOD LOD — LIMIT OF DISTURBANCE
- W W W — PROPOSED RETAINING WALL

HORZ: 30 15 0 30 60
SCALE IN FEET

IN PROGRESS

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

PRELIMINARY ENGINEERING

HNTB

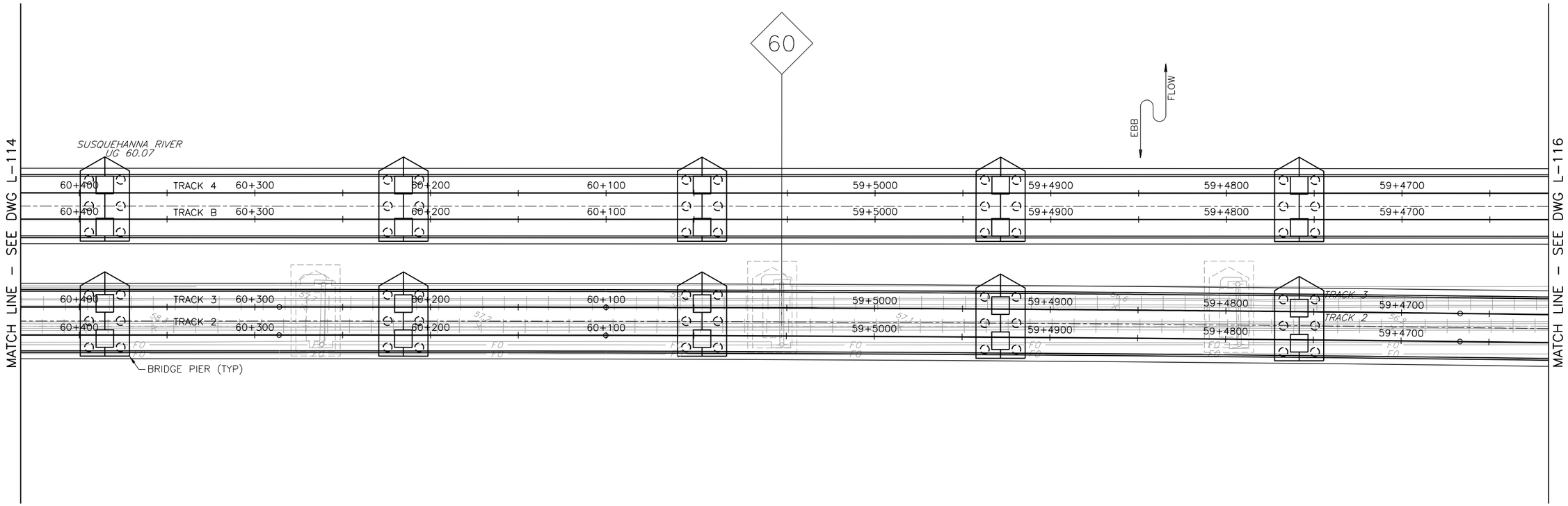
HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215-568-6500

PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER RAIL BRIDGE PROJECT
LIMIT OF DISTURBANCE
PLAN (14 OF 31)

Designed	DJS	Drawn	KAM	Checked	BDH	Date	6/8/2016

Job No:	50625
File Name:	50625-s-rr-fra114
Sheet No.	15 OF 32
Dwg. No.	L-114

6/8/2016 4:07:35 PM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO



PLAN

NOTE:

1. WORK SHOWN ON SHEETS L-101 TO L-105 AND L-113 TO L-131 IS IDENTICAL FOR ALTERNATIVES 9A AND 9B.

LEGEND

EXISTING TRACK

PROPOSED TRACK

LOD LOD — LIMIT OF DISTURBANCE

W W W — PROPOSED RETAINING WALL

HORZ: 30 15 0 30 60
SCALE IN FEET

IN PROGRESS

6/8/2016 4:07:40 PM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

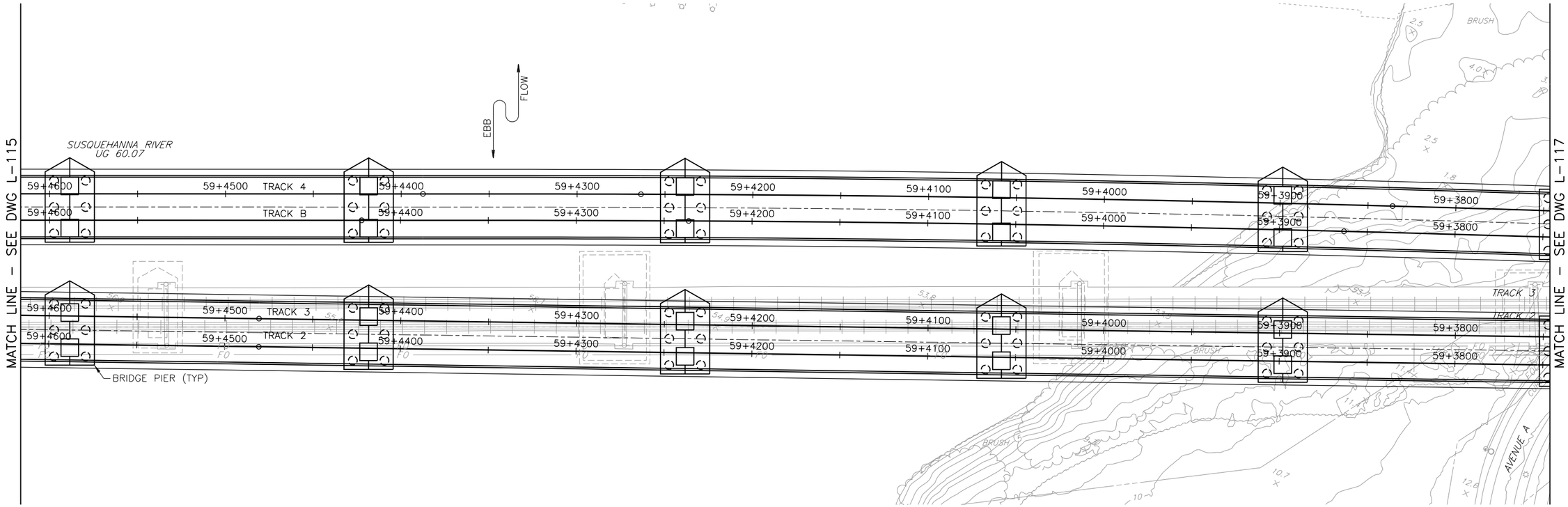
PRELIMINARY ENGINEERING

HNTB
HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215-568-6500

PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER RAIL BRIDGE PROJECT
LIMIT OF DISTURBANCE
PLAN (15 OF 31)

Designed DJS | Drawn KAM | Checked BDH | Date 6/8/2016

Job No:	50625
File Name:	50625-s-rr-fra115
Sheet No.	16 OF 32
Dwg. No.	L-115



PLAN

NOTE:

1. WORK SHOWN ON SHEETS L–101 TO L–105 AND L–113 TO L–131 IS IDENTICAL FOR ALTERNATIVES 9A AND 9B.

LEGEND

- EXISTING TRACK
- PROPOSED TRACK
- LOD —— LOD — LIMIT OF DISTURBANCE
- W —— W —— W — PROPOSED RETAINING WALL

HORZ: 30 15 0 30 60
SCALE IN FEET

IN PROGRESS

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

PRELIMINARY ENGINEERING

HNTB

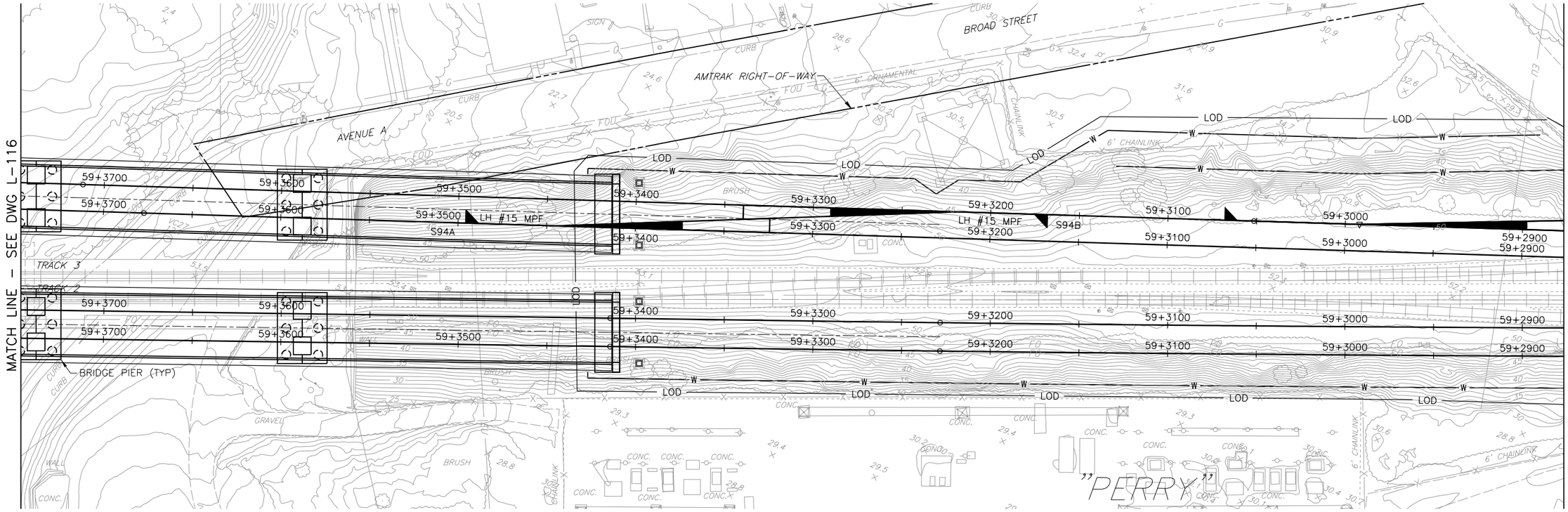
HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215–568–6500

PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER RAIL BRIDGE PROJECT
LIMIT OF DISTURBANCE
PLAN (16 OF 31)

Designed	DJS	Drawn	KAM	Checked	BDH	Date	6/8/2016

Job No:	50625
File Name:	50625-s-rr-fra116
Sheet No.	17 OF 32
Dwg. No.	L–116

6/8/2016 4:07:46 PM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO



PLAN

NOTE:

1. WORK SHOWN ON SHEETS L-101 TO L-105 AND L-113 TO L-131 IS IDENTICAL FOR ALTERNATIVES 9A AND 9B.

LEGEND

- EXISTING TRACK
- PROPOSED TRACK
- LOD LOD — LIMIT OF DISTURBANCE
- W W W — PROPOSED RETAINING WALL

HORZ: 30 15 0 30 60
SCALE IN FEET

IN PROGRESS

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

PRELIMINARY ENGINEERING

HNTB

HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215-568-6500

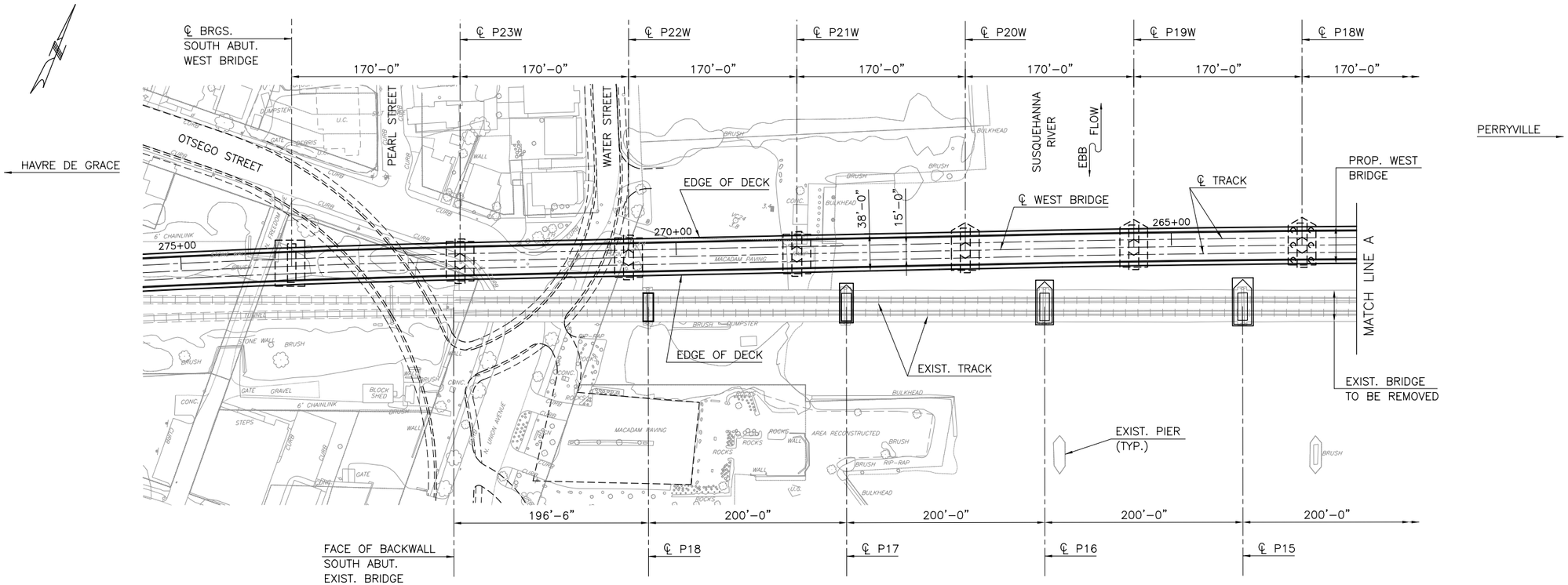
PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER RAIL BRIDGE PROJECT
LIMIT OF DISTURBANCE
PLAN (17 OF 31)

Designed	DJS	Drawn	KAM	Checked	BDH	Date	6/8/2016

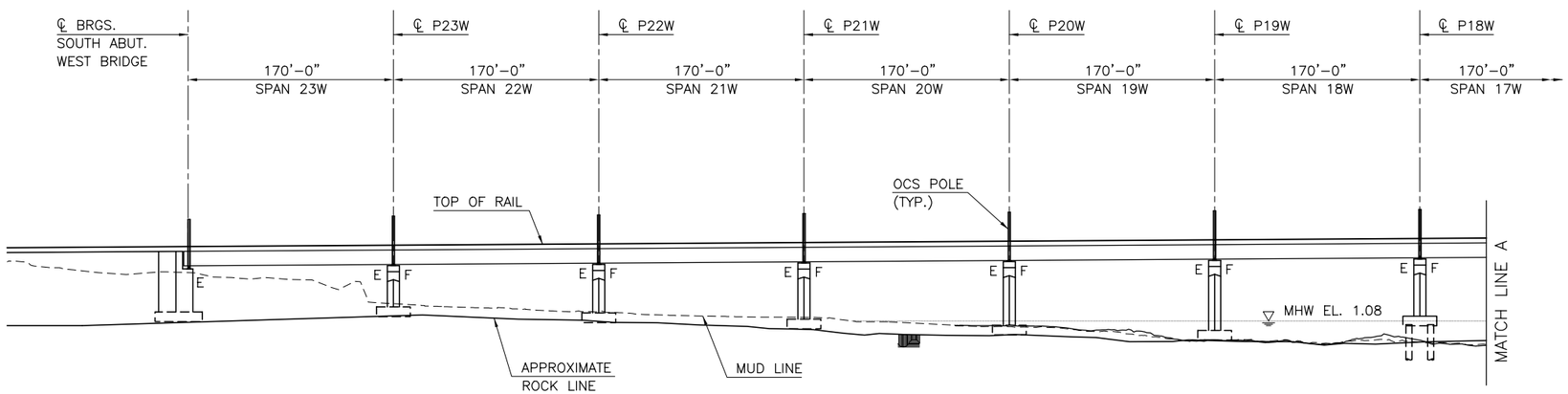
Job No:	50625
File Name:	50625-s-rr-fra117
Sheet No.	18 OF 32
Dwg. No.	L-117

6/8/2016 4:07:51 PM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO

PRELIMINARY PLANS (2015)



PLAN
1" = 60'–0"



ELEVATION – WEST BRIDGE
1" = 60'–0"

OPTION 9A/9B
TEMPORARY STAGE

PLATE GIRDERS AND NETWORK ARCH

0 60 120
SCALE IN FEET

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

FINAL FEASIBILITY REPORT

HNTB

HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215-568-6500

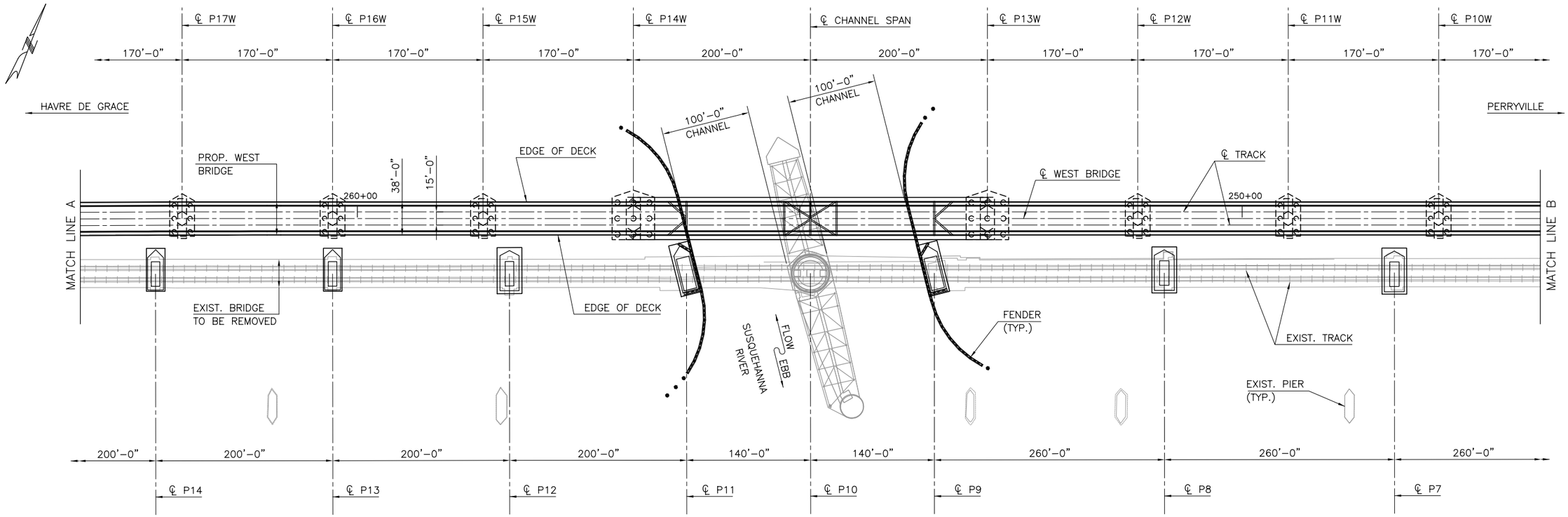
PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER
RAIL BRIDGE PROJECT

GENERAL PLAN AND ELEVATION – 1

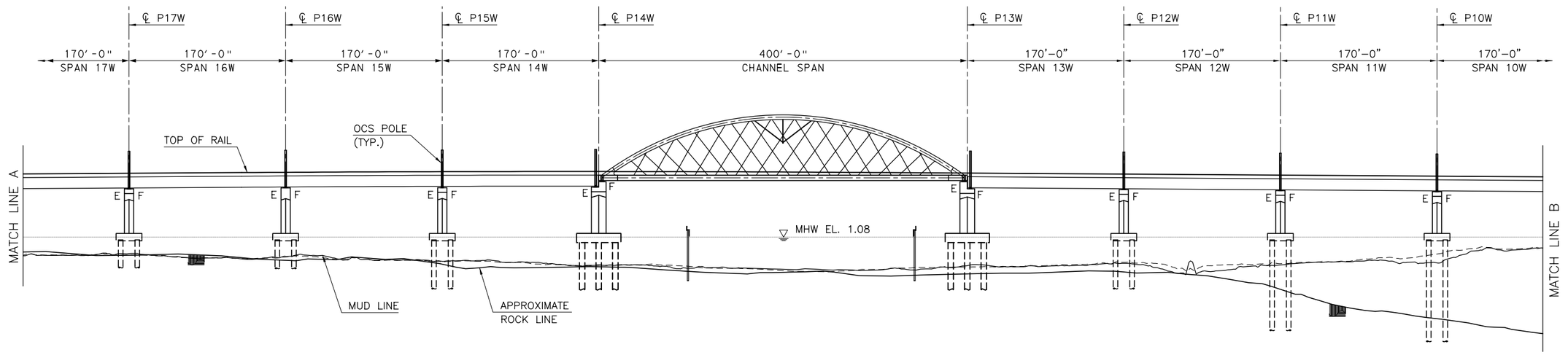
Designed	BX	Drawn	DS	Checked	GD	Date	1/30/2015

Job No:	50625
File Name:	XXX
Sheet No.	OF
Dwg. No.	S–1

5/13/2015 10:45:47 AM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO



PLAN
1" = 60'–0"



ELEVATION – WEST BRIDGE
1" = 60'–0"

OPTION 9A/9B
TEMPORARY STAGE

PLATE GIRDERS AND NETWORK ARCH

0 60 120
SCALE IN FEET

5/13/2015 10:45:55 AM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

FINAL FEASIBILITY REPORT

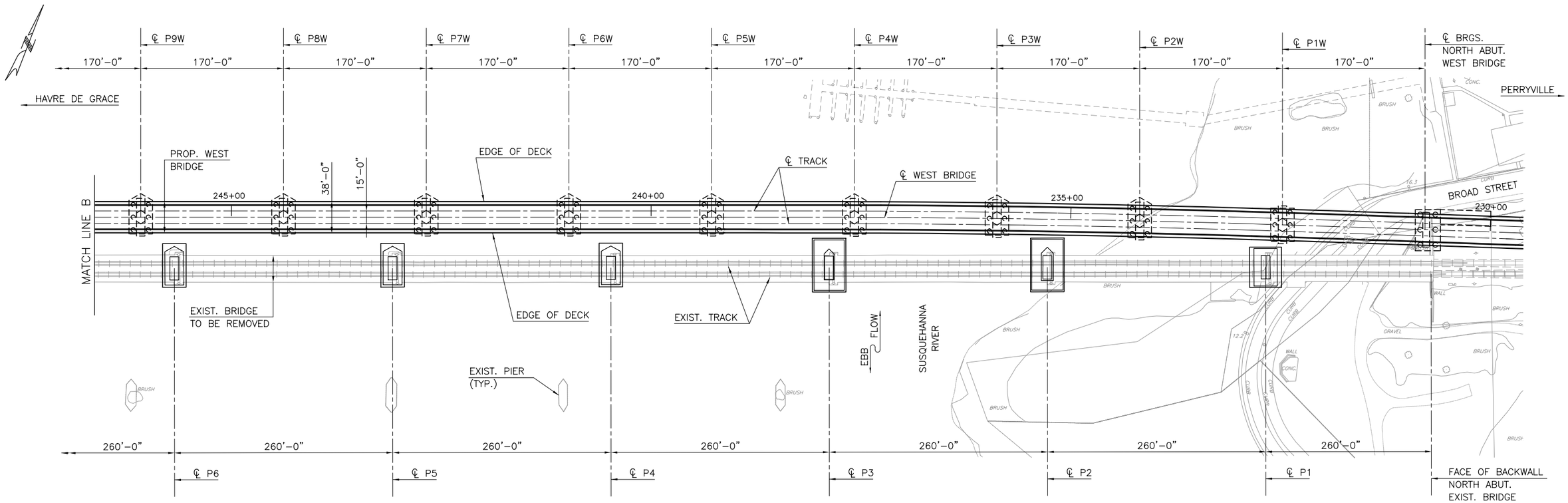
HNTB

HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215–568–6500

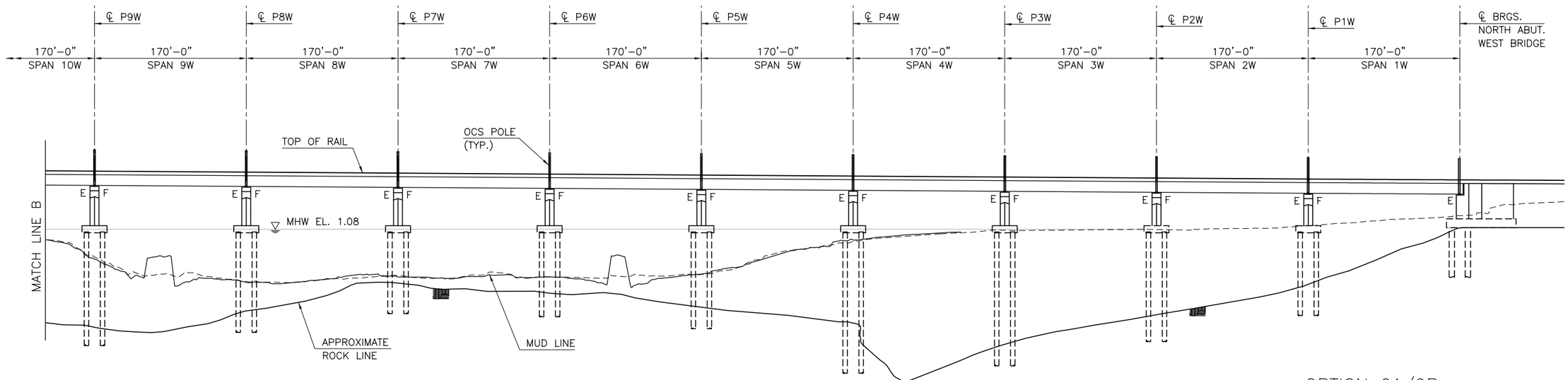
PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER
RAIL BRIDGE PROJECT
GENERAL PLAN AND ELEVATION – 2

Designed	BX	Drawn	DS	Checked	GD	Date	1/30/2015

Job No:	50625
File Name:	XXX
Sheet No.	OF
Dwg. No.	S–2



PLAN
1" = 60'–0"



ELEVATION – WEST BRIDGE
1" = 60'–0"

OPTION 9A/9B
TEMPORARY STAGE

PLATE GIRDERS AND NETWORK ARCH

0 60 120
SCALE IN FEET

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

FINAL FEASIBILITY REPORT

HNTB

HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215-568-6500

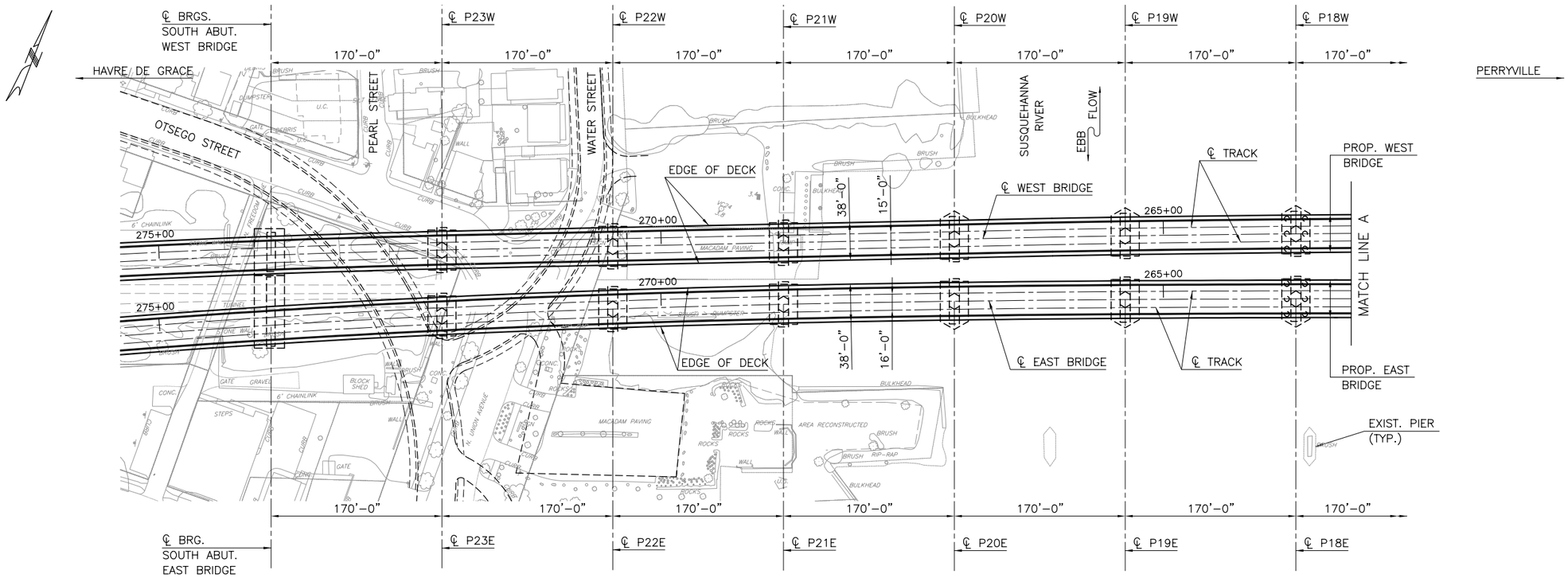
PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER
RAIL BRIDGE PROJECT

GENERAL PLAN AND ELEVATION – 3

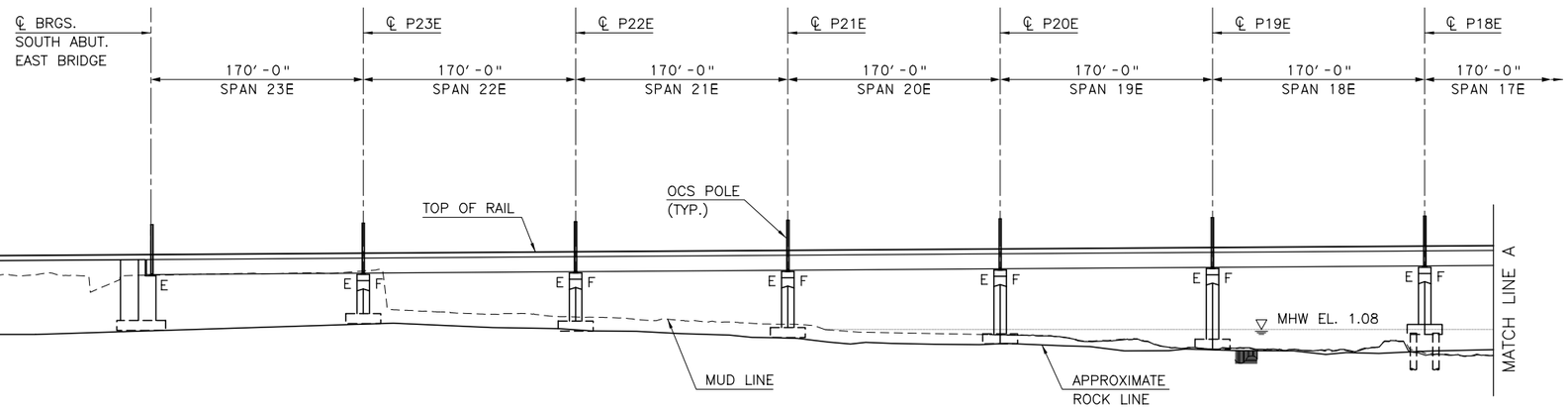
Designed	BX	Drawn	DS	Checked	GD	Date	1/30/2015

Job No:	50625
File Name:	XXX
Sheet No.	OF
Dwg. No.	S–3

5/13/2015 10:46:02 AM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO



PLAN
1" = 60'–0"



ELEVATION – EAST BRIDGE
1" = 60'–0"

OPTION 9A/9B
FINAL STAGE

PLATE GIRDERS AND NETWORK ARCH

0 60 120
SCALE IN FEET

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

FINAL FEASIBILITY REPORT

HNTB
HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215-568-6500

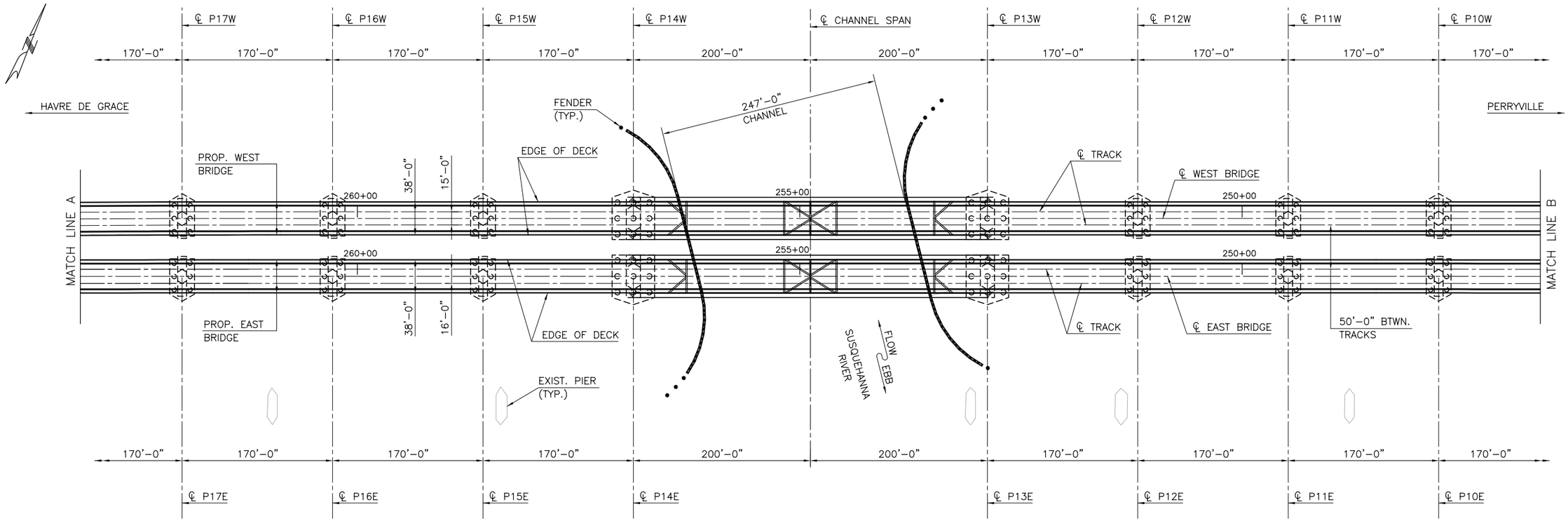
PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER
RAIL BRIDGE PROJECT

GENERAL PLAN AND ELEVATION – 4

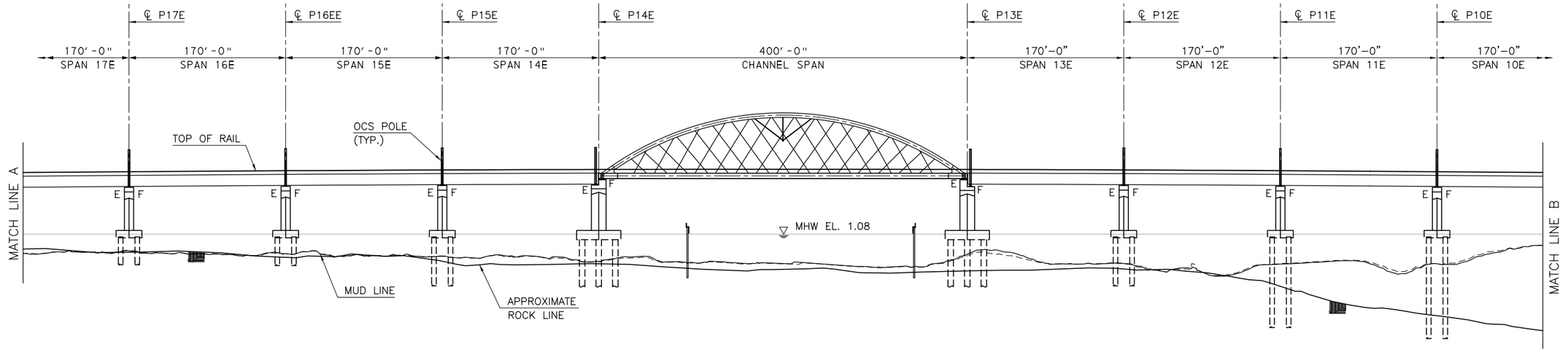
Designed BX | Drawn DS | Checked GD | Date 1/30/2015

Job No:	50625
File Name:	XXX
Sheet No.	OF
Dwg. No.	S–4

5/13/2015 10:46:10 AM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO



PLAN
1" = 60'–0"



ELEVATION – EAST BRIDGE
1" = 60'–0"

OPTION 9A/9B
FINAL STAGE

PLATE GIRDERS AND NETWORK ARCH

0 60 120
SCALE IN FEET

5/13/2015 10:46:19 AM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

FINAL FEASIBILITY REPORT

HNTB

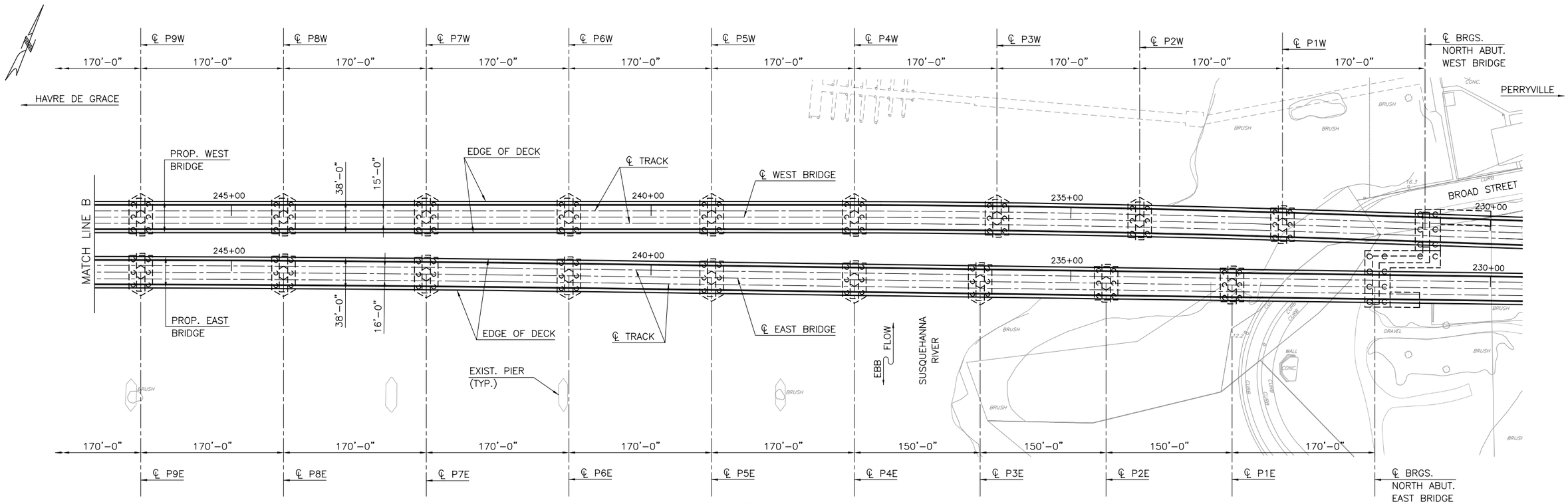
HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215–568–6500

PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER
RAIL BRIDGE PROJECT

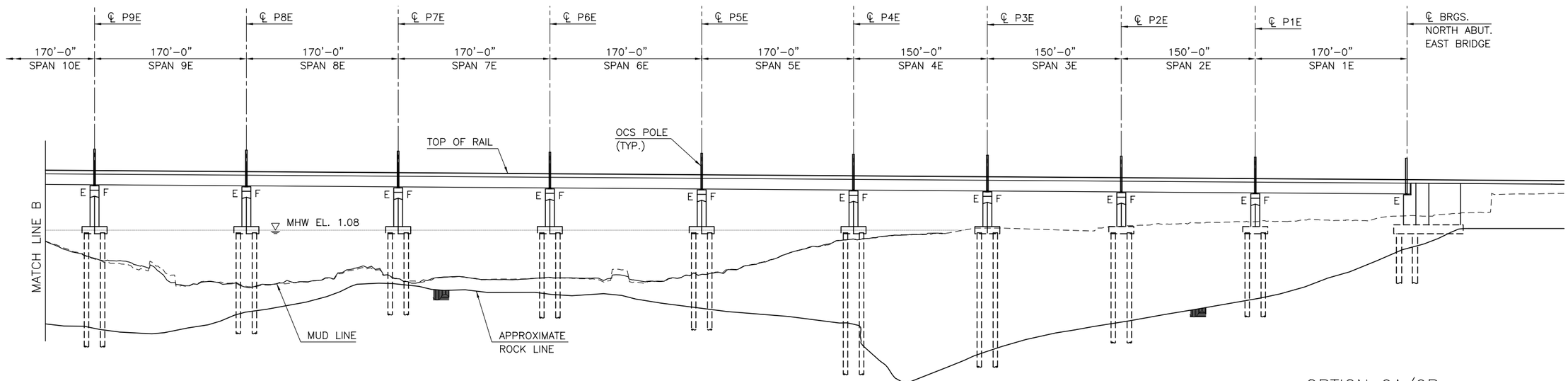
GENERAL PLAN AND ELEVATION – 5

Designed	BX	Drawn	DS	Checked	GD	Date	1/30/2015

Job No:	50625
File Name:	XXX
Sheet No.	OF
Dwg. No.	S–5



PLAN
1" = 60'–0"



ELEVATION – EAST BRIDGE
1" = 60'–0"

OPTION 9A/9B
FINAL STAGE

PLATE GIRDERS AND NETWORK ARCH

0 60 120
SCALE IN FEET

5/13/2015 10:46:27 AM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

FINAL FEASIBILITY REPORT

HNTB

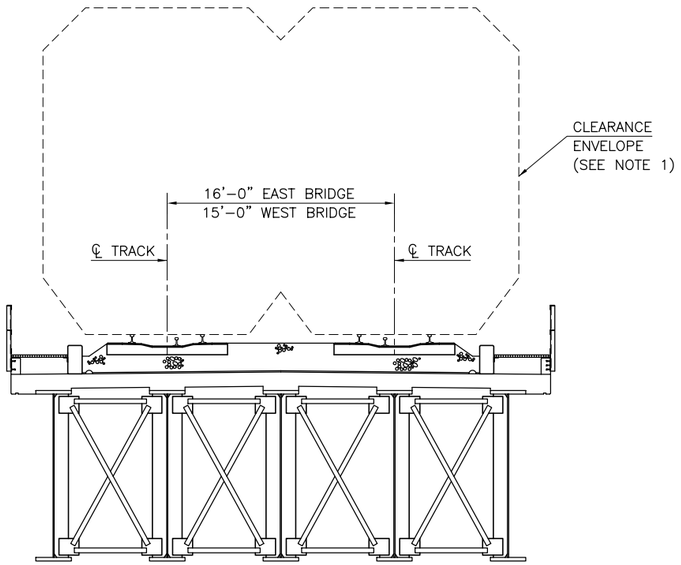
HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215-568-6500

PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER
RAIL BRIDGE PROJECT

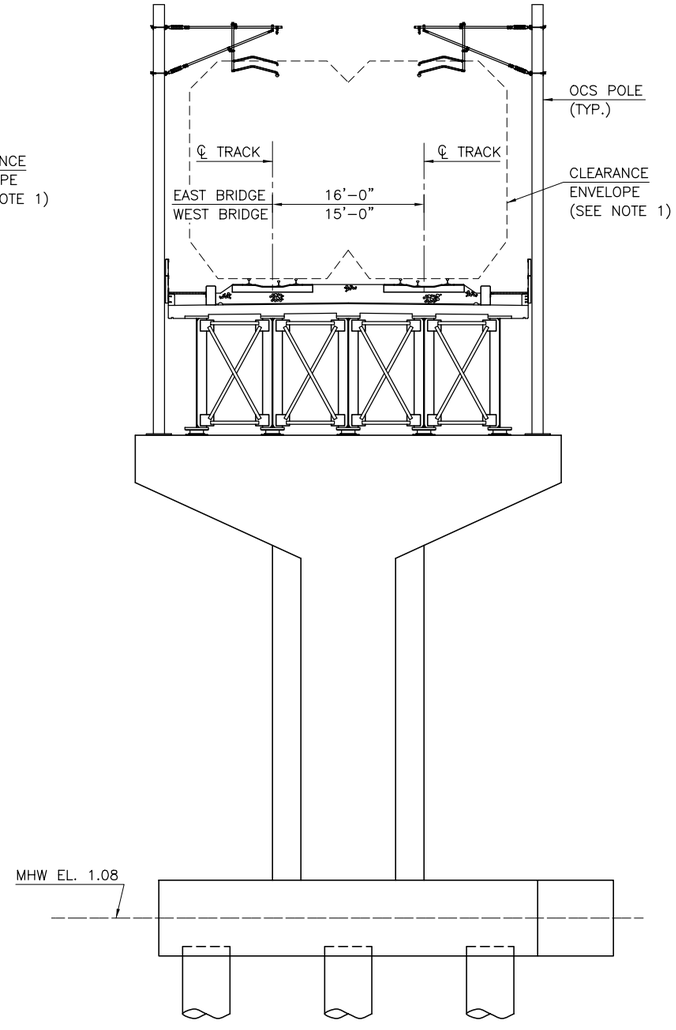
GENERAL PLAN AND ELEVATION – 6

Designed	BX	Drawn	DS	Checked	GD	Date	1/30/2015

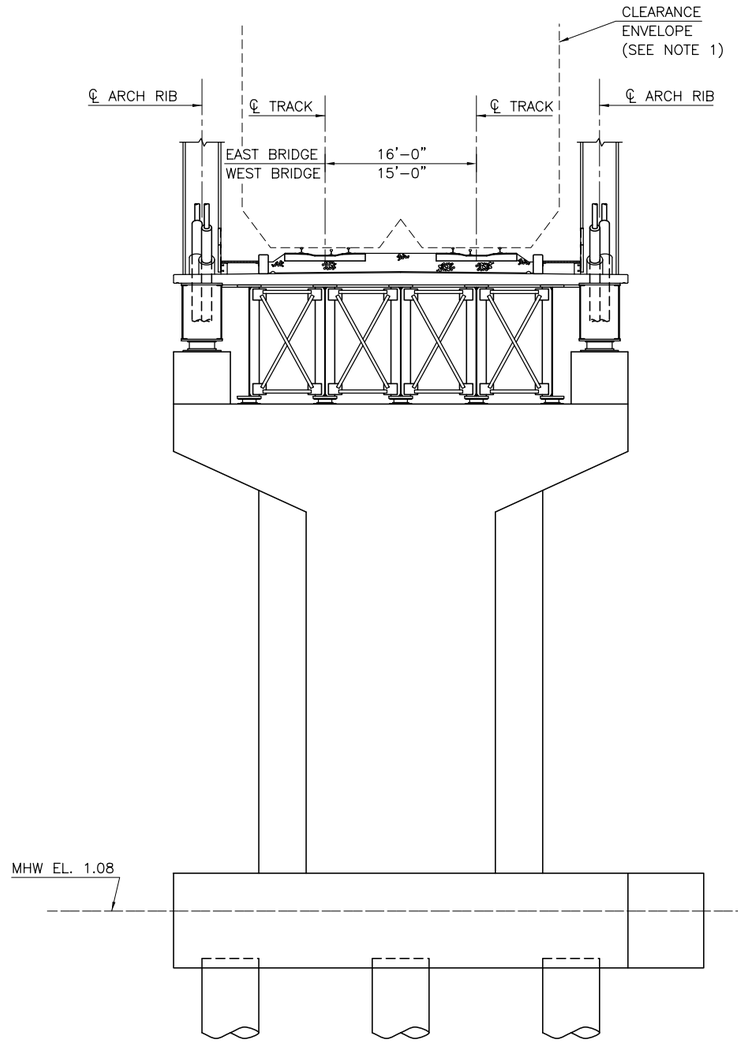
Job No:	50625
File Name:	XXX
Sheet No.	OF
Dwg. No.	S–6



TYPICAL DECK SECTION
3/16" = 1'–0"



WATER APPROACH SPANS – PIER ELEVATION
1/8" = 1'–0"



CHANNEL SPAN – PIER ELEVATION
1/8" = 1'–0"

NOTES:
1. MINIMUM RAILWAY BRIDGE CLEARANCES WITHOUT CURVE CORRECTIONS.

0 6 12
SCALE IN FEET

0 8 16
SCALE IN FEET

PLATE GIRDERS AND NETWORK ARCH

5/13/2015 11:11:24 AM
PLOT SCALE: AS SHOWN
STANDARD PEN TABLE: NO

No.	Revisions	Date	By

AMTRAK

Office of Engineering
Engineering Design
National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

FINAL FEASIBILITY REPORT

HNTB

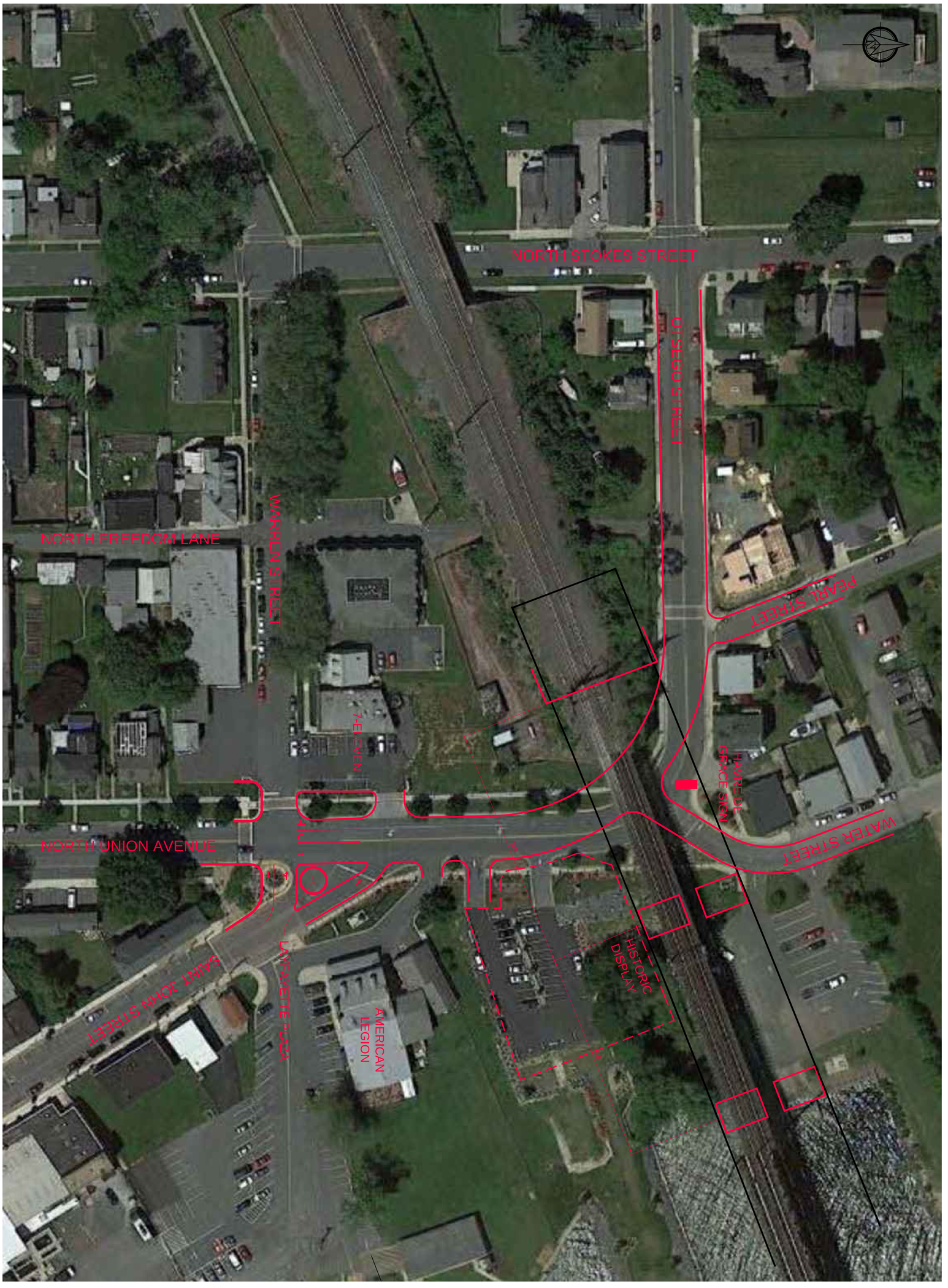
HNTB Corporation
1650 Arch Street, Suite 1700
Philadelphia, PA 19103
215–568–6500

PERRYVILLE/HAVRE DE GRACE, MARYLAND
SUSQUEHANNA RIVER
RAIL BRIDGE PROJECT
TYPICAL SECTIONS

Designed	BX	Drawn	DS	Checked	GD	Date	1/30/2015

Job No:	50625
File Name:	XXX
Sheet No.	OF
Dwg. No.	S–13

PROPOSED MODIFICATIONS (FIGURES 1 THROUGH 3)



DATE: 31 JANUARY 2017
SCALE: 1" = 40'
PROJECT NO. 10544.CA
SHEET: 1 OF 1

HAVRE DE GRACE

CONCEPT ROAD ALIGNMENT C
(RR ALT 9B)

HAVRE DE GRACE~HARFORD COUNTY~MARYLAND

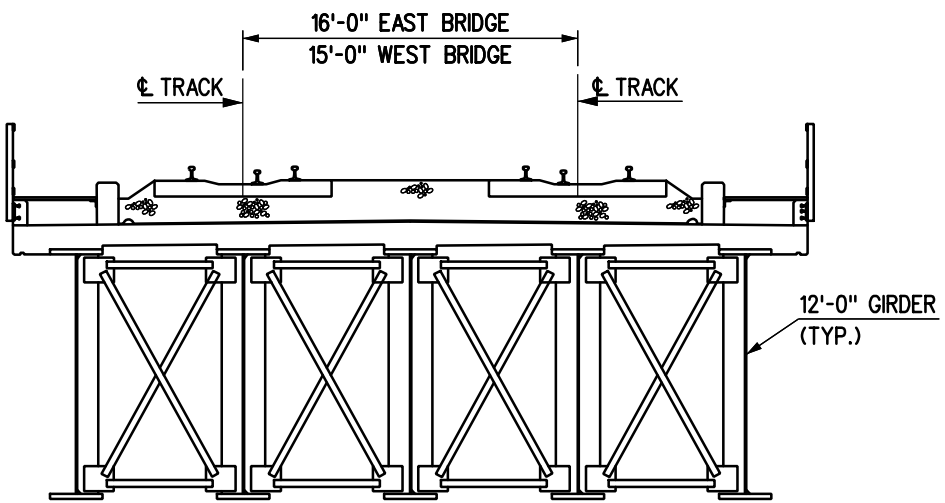
OWNER:

No.	REVISION	CHK'D BY DATE
-		
-		

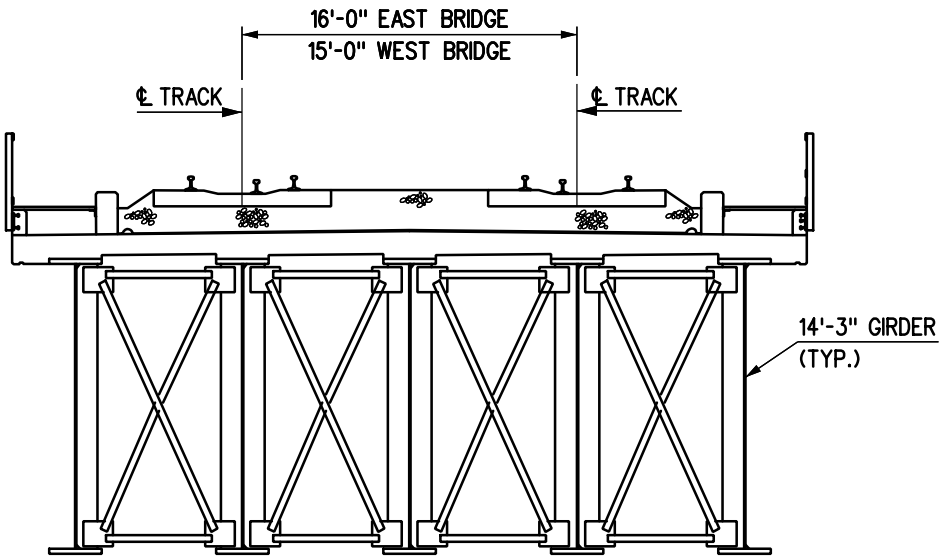
DESIGNED BY: SJG
CHECKED BY: SJG
DRAWN BY: JTO
FILE NAME: HSG\CA CONCEPT ROAD EXHIBIT

STEPHEN J. GORSKI
STATE: MARYLAND P.E.

DUFFIELD ASSOCIATES
Soil, Water & the Environment
1614 CHURCHVILLE ROAD, SUITE 3LL
BEL AIR, MD 21015
TEL. 410.399.9777
FAX 410.399.9770
OFFICES IN DELAWARE, MARYLAND, PENNSYLVANIA AND NEW JERSEY
WEB: HTTP://DUFFNET.COM
E-MAIL: DUFFIELD@DUFFNET.COM

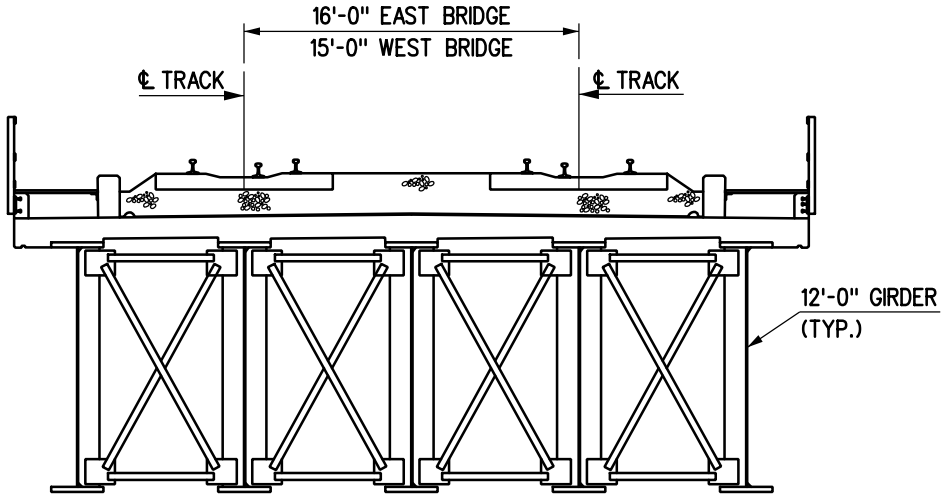


CURRENT TYPICAL SECTION
(170'-0" PIER SPACING)
N.T.S.

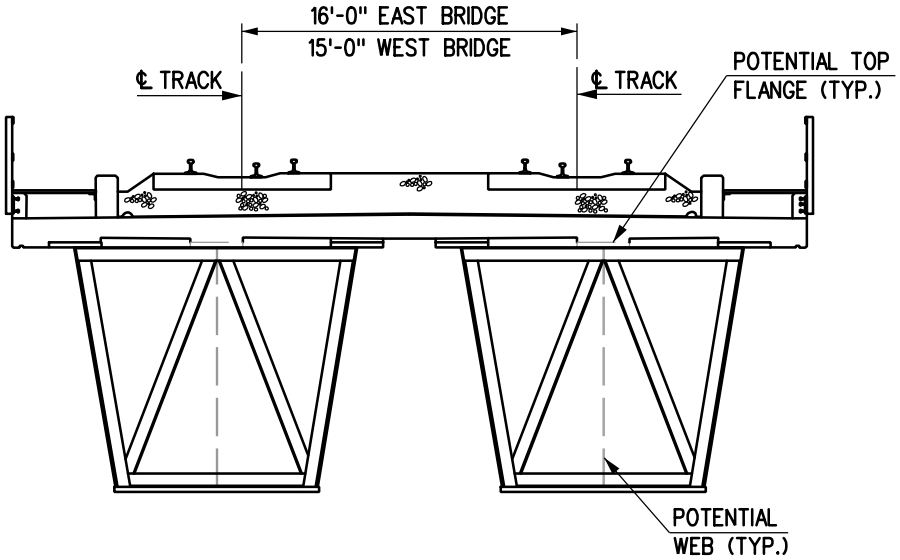


MODIFIED TYPICAL SECTION
(220'-0" PIER SPACING)
N.T.S.

FIGURE 2 (OPTION 1)



CURRENT TYPICAL SECTION
(170'-0" PIER SPACING)
N.T.S.



MODIFIED TYPICAL SECTION
(220'-0" PIER SPACING)
N.T.S.

FIGURE 3 (OPTION 2)