

Consulting Parties Meeting # 1

PA SHPO Comments and Responses

Pittsburgh Vertical Clearance Projects

Prepared for:

Norfolk Southern Railway Company



Date: March 2020

Norfolk Southern Railway Company
Pittsburgh Vertical Clearance Projects/W. North Avenue HBRA
CP Meeting 1
Responses to Comments

Comment #	Page #/Section/Paragraph*	Commenter	Comments	Responses
1	General	Nagle PA SHPO	The consulting parties will be given 30 days to review submissions.	A 30-day review period is provided for in the project schedule for all official submissions in the historic review process under the Pennsylvania History Code (Identification of Historic Properties Report, Historic Bridge Rehabilitation Analysis Reports, Determination of Effects Reports, Memoranda of Agreement).
2	General	Nagle PA SHPO	Please do not submit multiple types of reports (eligibility, rehabilitation analysis, effects, etc.) as one submission for review. Please take into consideration the time and effort needed to review and comment on the various types of reports.	So noted.
3	General	Nagle SHPO	The consulting parties were asked to review and comment on the Draft HBRA reports. The comments provided below are not to be construed as the PA SHPO's official comments on any finding, rather they are items that should be addressed in the revised report that the consulting parties will then have 30 days to review and comment on.	So noted.
4	General	Nagle PA SHPO	All consulting party comments on the draft HBRA need to be provided with the revised report.	So noted.
5	General	Nagle PA SHPO	Since the PA SHPO provided comments on the Determination of Eligibility (DOE) after the draft HBRA report was completed, has there been any additional historic resources that should now be included in the HBRA (see Figure 3 – Constraints; and E. Other Historic Properties in the Area of Potential Effects).	There are no additional historic properties in the APE that were not included in the DOE report.
6	General	Nagle PA SHPO	Please include the comments from the other consulting parties regarding the DOEs.	No comments have been received from consulting parties on the DOEs for this project.
7	HBRA Report/Page 4/I. Introduction—D. Character-Defining Features of the Bridge and Pages 11-12/V. Rehabilitation Evaluation	Nagle PA SHPO	Both Options A and B state that the loss of 85% of the historic material does not comply with the SOI Standards. However, the SOI Standards are very specific regarding replacement in-kind. In addition, the draft HBRA states that as a contributing bridge to a larger historic resource, while “retention of the overall appearance of the bridge, including material and physical features, contributes to the character of the district and should be considered...those portions of the bridge not visible from the street or public access are generally not called out as character-defining features in a historic district.”	There is a limit to how much historic material can be replaced and still have a property be able to convey its historic significance or contribute to a larger historic district. In a general sense, rehabilitation would maintain the structure's overall appearance, but it should be acknowledged that rehabilitation would also diminish the integrity of the structure's character-defining features. Also, given the fact that the historic property is a railroad corridor historic district, the view from the railroad corridor (i.e., underside of the bridge) is relevant when considering the effects of a rehabilitation on the district. It is not expected that a rehabilitated bridge would have sufficient integrity to contribute to the railroad corridor historic district.
8	HBRA Report/Pages 9 and 12/V. Rehabilitation Evaluation/ Paragraph 4 and Summary of Rehabilitation Options/Paragraph 1	Nagle PA SHPO	If the two concrete-encased through girders are the most visible character defining features, and they are repaired and rehabilitated (including reapplying concrete gunite finish in the same design/pattern), why would the rehabilitation not meet the Standards?	Page 9 at Section V, paragraph 4 and Page 12 at paragraph 1 both state that the repair of the girders and the replacement of the gunite encasement complies with the spirit of the SOI standards for rehabilitation. However, with over 85% of the bridge being replaced with new members, overall, rehabilitation Option A failed to meet the SOI Standards because of the loss of integrity, especially to historic materials, workmanship, and design. As such, a rehabilitated bridge would not have sufficient integrity to contribute to the railroad corridor historic district. In a rehabilitated bridge, none of the remaining 15% of historic materials would actually be visible. The only historic materials remaining would

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				<p>be the cores of the through girders, which would be hidden by the modern gunite finish. It is important to acknowledge that the labor-intensive finishing techniques employed a century ago are not practiced today, so the modern gunite finish would not be identical to the historic finish in smoothness and profile definition. This results in a loss of integrity of workmanship of the bridge's most visible members.</p>
9	<p>HBRA Report/Page 11/V. Rehabilitation Evaluation/Paragraph 1</p>	<p>Nagle PA SHPO</p>	<p>If the floorbeams are to be considered secondary character-defining members, and the SOI allows for replacement in-kind, then why would the replacement of the floorbeams not meet the SOI Standards?</p>	<p>With over 85% of the bridge being replaced with new members, overall, rehabilitation Option A failed to meet the SOI Standards because of the loss of integrity, especially to historic materials, workmanship, and design. The beams referred to as floorbeams were classified as secondary character-defining members because they are not highly visible to the public; however, from a structural perspective these beams are primary load-bearing members. The proposed floorbeam replacements, while generally similar in profile, are not true in-kind replacements because they are rolled steel members rather than riveted built-up members with gunite encasement. Also, given the fact that the historic property is a railroad corridor historic district, the view from the railroad corridor (i.e., underside of the bridge) is relevant when considering the effects of a rehabilitation on the district.</p>
10	<p>HBRA Report/Page 6/III Bridge Condition/Paragraph 1</p>	<p>Nagle PA SHPO</p>	<p>A). The draft HBRA states that the bridge is currently posted for a 10-ton single vehicle and 19-ton combination vehicle weight restriction. The report only discusses the forecasted issues for the railroad (traffic demands, vertical clearance, etc.), what is the forecasted need for the vehicular traffic that crosses this bridge? B). Does the current and forecasted needs conclude that the current posting is adequate?</p>	<p>A). Vehicular traffic needs are discussed in the HBRA as follows: On page 8 of the report, Section IV Facility Deficiencies states "Facility deficiencies must be addressed....in order to....address existing structural deficiencies and traffic demands (e.g. rail, vehicular, pedestrian, bicycle)." On page 9 of the report, Section V Rehabilitation Evaluation states "For the bridge to carry all legal loads, the superstructure requires strengthening/repairs and/or full member replacements." B). See response to previous question—legal loads need to be carried by the bridge.</p>
11	<p>HBRA Report/Page 9/V. Rehabilitation Evaluation/Paragraph 3</p>	<p>Nagle PA SHPO</p>	<p>The draft HBRA states that to rehabilitate the structure in Option A, the superstructure would require significant jacking and falsework to support the superstructure and floorbeam rehabilitation was examined but ultimately dismissed. Why would the floorbeam modification only be 25 years compared with 40-50 years? What else could be done to extend the bridge's service life?</p>	<p>The deterioration to the existing floorbeams is advanced and active. The existing interface surface locations where one member is in contact with another member (connection areas, cover plate areas, etc.) cannot be cleaned and painted unless the entire structure is disassembled, which is not practical. We try to protect these crevice areas (caulking), but the protection doesn't last very long. These interface surfaces will continue to deteriorate at an accelerated rate since the corrosion is active. As for the main through girders, the full extent of deterioration is somewhat unknown since they are encased in concrete. There is a high risk that the amount of deterioration on the main through girders will be more extensive because the concrete encasement may be obscuring additional deterioration.</p>