

**Response to Questions/Requests for Clarification**

**RFP No. 01-005-24-0001**

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	<b>RFP Section No., RFP Form, RFP Exhibit</b>	<b>Question/Request for Clarification</b>	<b>VPRA Response</b>
1.	RFP 1-005-24-0001	I would like to request a copy of the non-disclosure agreement (NDA)	Offeror's may request a copy of the NDA by contacting Slade Greenway at <a href="mailto:procurement@vpra.virginia.gov">procurement@vpra.virginia.gov</a> .
2.	Exhibit 1 (Scope of Work), Section 2.2.2, page 15	Statement made "The tunnel ventilation system shall be designed in accordance with the design calculations performed during the 30% Preliminary Engineering design development. Additional performance design calculations are not necessary except for structural support calculations." Please clarify if the Preliminary Design Team takes the ownership and full responsibility for accuracy of tunnel ventilation design. Quantity specified for Slate Hill Tunnel Modifications is: Four (4) jet fans + one (1) spare jet fan. For Merrimac Tunnel Modifications: Quantity: Six (6) jet fans + one (1) spare jet fan.	The required railroad clearance envelope was updated by NS after posting of the RFP, changing from "AAR Plate F Car" to "Conventional Multi-level Car." Reevaluation of the tunnel ventilation system will be required by the successful Offeror.
3.	Exhibit 1 (Scope of Work), Section 2.2.2, page 15	It is stated that motors shall have a 25-year life span. Jet Fans shall be painted carbon steel with aluminum hubs and rotors. It is understood that tunnel will be used for both passenger and freight operation using diesel locomotives. Please clarify if the life span requirement for carbon steel fans with aluminum hubs and rotors took into consideration tunnel environment with	Design and selection of tunnel fans shall meet the required life span requirements in the given environment. The successful Offeror will need to take into account the tunnel environment, including freight and passenger rail operations.

		freight operation under which the fans will be performing?	
4.	Scope of Work	Will the selected design team have the opportunity to value engineer the concepts in the 30% design and provide alternate technical approaches?	Yes. However, any value engineering needs to take into account project constraints and any overarching negative impacts it may have on the overall project.
5.	Scope of Work	Were any inspections of the existing tunnels performed during the 30% design phase? If yes, is there any documentation of the inspections that can be provided at this time? Was any deterioration or distress observed in the tunnel liners?	No, the 30% consultant was not tasked with tunnel inspections. However, NS routinely inspects the tunnels, and these maintenance reports have been uploaded to VPRA's Sharepoint site.
6.	Scope of Work	Are there any maintenance and/or inspection records available for the tunnels?	See response to Question No. 5.
7.	Scope of Work	Are there any original design and/or construction drawings available for the tunnels?	VPRA does not possess any original design and/or construction documents. All available drawings have been posted to VPRA's Sharepoint site.
8.	Slate Hill Tunnel 30% Plans, Drawing S-107	A callout refers to timber supports behind the existing concrete liner. Is the reference to timber supports based on any source material about the original construction that can be made available at this time?	VPRA does not have any additional information regarding timber supports beyond what is reflected in the existing drawings.
9.	2024_01_19_Recommendations_for_Supplemental_Work_for_Final_Design_V0	This document recommends geophysics and concrete coring in the tunnels. If so, what is the duration of the expected work windows assumed in the tunnels now? Work window duration will have a significant impact on the approach to completion of work in the tunnels.	Work windows are as stated in Appendix K, construction schedule. This should be assumed as a similar approach for coring of the tunnel. The construction schedule will be updated by the successful Offeror during 60% design.
10.	Scope of Work	How many freight trains currently operate per day on the rail line and how many days a week do these occur?	Freight train volumes change daily. It is estimated to be 6-10 trains per day.

11.	Scope of Work	<p>In both Merrimac and Slate Hill Tunnels: What is the estimated thickness of the concrete walls in the Narrow Tunnel Section? What is the purpose of the temporary shield and working platform? Is this a Norfolk Southern requirement? Are the temporary steel ribs intended to be a closed loop (i.e. extend across the existing invert as well as up the walls and across the arch)?</p>	<p>The estimated thickness of the concrete walls in the narrow section is a minimum of 22" as specified in the most recent historical drawing. The wall will need to be tested or cored to determine the actual thickness. The temporary shield/working platform is required to prevent material from falling on the track section. Spoils will need to be removed daily or at the end of the workday which is an NS requirement. Temporary ribs are not required to be a closed loop.</p>
12.	Preliminary Engineering Geotechnical Reports	<p>The GER's discuss rock classifications by RMR and the Q system, but do not show what RMR and Q values were calculated. Given these systems require significant judgement and can incorporate various levels of conservatism directly impacting the rock support design, it would be helpful to understand how the rock classifications were developed for evaluating ground support requirements. Not providing information for how the RMR and Q values were developed and assigned to classes would seem to provide a significant competitive advantage to the designers of the 30% documents. Is it possible that the calculation sheets or the values and assumptions used for the parameters in the RMR and Q classifications can be provided at this time? Similarly, can the calculations for the physical properties of the rock mass be provided?</p>	<p>Preliminary design was based upon the information provided by VPRA and assumptions were developed by the 30% designer. These assumptions and findings are provided in the geotechnical reports.</p>

13.	Preliminary Engineering Geotechnical Reports	The description of the exploration and testing procedures in the GER's discuss drilling in the soil, but not in the rock. Since drilling techniques can have a significant effect on the condition of the recovered rock core, can a description of the NQ2 rock coring and sonic drilling techniques assumed be provided at this time such that we can fully understand the approach? Could VPRA also explain the decision process for using sonic drilling on some holes?	At some locations the samples could not be obtained by standard coring due to ground/rock conditions, and thus, the alternative collection method of sonic drilling was conducted.
14.	Scope of Work	Has any additional existing environmental conditions information been developed as part of the NEPA currently underway, or is all of this information publicly available as part of the New River Valley Passenger Rail Station Feasibility Study?	VPRA is currently undertaking an Alternatives Analysis for the siting of a station in the New River Valley. This effort should be completed by late summer 2024 at which time the NEPA process will begin. At this time, please utilize the information developed through the Feasibility Study. VPRA will make all information available to the successful Offeror.
15.	Scope of Work	Does VPRA anticipate any public engagement beyond the single public meeting, such as pop-ups, online engagement, or community group briefings?	VPRA is currently undertaking an Alternatives Analysis and will also undertake a NEPA process for the proposed station. Public outreach will occur through those separate efforts. It is anticipated that the successful Offeror will only have a supporting role rather than a lead role in future public outreach.
16.	General Terms and Conditions, 6. Insurance, Page 115	We request clarification for the applicable insurance requirements in the General Terms and Conditions. Attachment 1 (Amtrak Insurance Requirements) provides liability insurance requirements of \$10M/\$20M for construction and maintenance along rail lines. The next page includes insurance requirements for the Consultant. Can VPRA confirm that the	The insurance requirements applicable to this procurement are as stated in Section 6 of the General Terms and Conditions (Exhibit 2) and the Insurance Requirements (Exhibit 4). VPRA will be publishing an addendum which includes the exhibit references.

		insurance requirements for the construction and maintenance do not apply to the consulting engineering firms for 60% design site inspections, survey, utility locating, and geotechnical exploration?	
17	RFP Scope of Work Appendix E – NRV Station 30% PE Design Plans, Drawing RP-06 and Cross Sections sheets	Track Plan and Profile sheet details a 340 ft. long rail bridge on a 12-degree curve, but there doesn't seem to be any other details shown in the drawings and the Cross Section sheets have not indicating "BRIDGE TO BE ADVANCED IN FINAL DESIGN STAGE OF DESIGN." Was there any 30% design or subsurface borings completed for this structure or a bridge type assumed even at conceptual levels, and if so, would it be possible to share that information at this time? Are there any other proposed rail structures that are anticipated, but are not shown or have not been designed or detailed as part of the 30%?	New bridge structure design was limited to conceptual plan layout and was not based upon any obtained geotechnical information. Geotechnical work for bridges will be a part of the 60% design work. All anticipated rail structures are shown on the 30% plans.
18.	RFP Scope of Work Appendix E – NRV Station 30% PE Design Plans, Drawing C-107 and C-120	These sheets identify a new 90 ft. long roadway bridge on Connector Road North. Was there any 30% design completed for this structure or a structure type assumed can be shared? Are there any other proposed roadway structures that are anticipated, but that have not been designed or detailed as part of the 30% phase?	No, the new bridge structure design was limited to conceptual plan layout for 30% design. All anticipated roadway structures are shown on the 30% plans.
19.	RFP Scope of Work Appendix E – NRV Station 30% PE Design Plans, Drawing C-202 & 203 and RP-01 & RP-02	Sheets C-202 & 203 have a callout for a Retaining Wall along the east side of Huckleberry Trail that appears to be approximately 900 ft in length based on the double line type, but that could also	All retaining walls shown on the plans are of the conceptual design level only. 60% design will determine the wall type, final height, etc.

		<p>be depicting a shoulder width. Sheets RP-01 &amp; RP-02 seem to show a wall outlined in orange linework on the west side of the trail only within these same limits. Is a wall required on both sides of the trail or just the west, and are there any additional information available on the assumed height, wall type, hand railings, etc. to help better understand the intended improvements?</p>	
20.	<p>RFP Scope of Work Appendix A – Slate Hill Tunnel 30% PE Design Plans, Drawing RP-01 AND RFP Scope of Work Appendix B – Merrimac Tunnel 30% PE Design Plans, Drawing RP-01 through RP-04</p>	<p>Sheet RP-01 calls for concrete ties to replace existing timber ties. Concrete tie dimensions are generally larger than standard timber ties. As this is a tunnel that has tight clearances, the use of concrete ties could pose maintenance replacement issues due to the larger size. Additionally, the taller ties will require more track structure depth. If the existing top or rail is maintained this could require additional cut for the overall track structure depth. Has the use of reduced ballast depths been considered to offset additional cut requirements for the thicker ties or would the use steel ties be acceptable (i.e. is the 30% design set, or are there alternative concepts that can be proposed during 60%?)?</p>	<p>The required railroad clearance envelope was modified after posting of the RFP, changing from “AAR Plate F Car” to “Conventional Multi-level Car.” A reevaluation of the track structure is required. Steel ties may be a possible solution.</p>
21.	<p>RFP Scope of Work Appendix A – Slate Hill Tunnel 30% PE Design Plans, Drawing RP-01 AND Appendix B – Merrimac Tunnel 30% PE Design Plans, Drawing RP-01 through RP-04</p>	<p>Sheet RP-01 does not include information on track drainage. Sheets in the structural section depict drainage ditches up against the edge of tie. Ballast flow alone may not be sufficient to convey flow from deluge events, drainage from weepholes, wet trains, etc. Is the intent to utilize ballast ditches through the tunnel limits or have underdrains been considered?</p>	<p>Both tunnel structures are on a positive drainage grade, historical drawings show concrete struts under the ballast section with openings to promote drainage. The intent is to use ballast ditches.</p>

22.	RFP Scope of Work Appendix D – Cinnabar Rd Site with Platform 30% PE Design Plans, Drawing RC-01 thru RC-08	Plans call for significant amount of retaining walls and slope stabilization. Is there any design information available for these from the 30% phase, and if so, can details for wall types and information be shared to help better understand the work required?	No, all details shown for retaining walls and extensive grading were done on a conceptual level. Design to be progressed as a part of 60% design.
23.	RFP Scope of Work Appendix D – Cinnabar Road Station and Station Infrastructure Plans, Drawing RC-06 through RC-08 AND Appendix E – NRV Station 30% Plans, Drawing RC-03	Sheets RC-03 and RC-06 through RC-08 calls for a 1.5:1 side slope for the proposed ditch. Is it assumed that this grade would be riprapped or have some form of stabilization?	Yes, it will be riprapped or have some form of stabilization.
24.	RFP Scope of Work Appendix D – Cinnabar Road Station and Station Infrastructure 30% PE Design Plans, Drawing RP-01	Sheet RP-01 shows a future lead track and turnout crossing the proposed station track. Is the intent that the LHTO at STA 41+64.57 become a slip switch in the future? Or will a crossing diamond be needed here. It also appears that there will be the need for a vertical curve that would abut up to the proposed turnout in this area.	Both leads are shown together for the current alternatives, but only one or the other will be constructed. It is not the intent for the LHTO at STA 41+64.57 to become a slip switch in the future.
25.	RFP Scope of Work Appendix E – New River Valley Station 30% PE Design Plans, Drawing RP-04 through RP-06	Sheets RP-04 through RP-06 show horizontal geometry of 12° as well as grades of 2%. Both are on the extreme end of a generally acceptable design as the profile could prove unusable for normal freight operations. In order to better understand the project and work anticipated, could VPRA let us know if Norfolk Southern has fully reviewed and approved these details for advancement to 60% design, or is that coordination still required?	NS and VPRA will continue to consider interoperability. Amtrak standards were used. However, additional NS coordination will be required for advancement to 60% design. NS is currently reviewing the 30% PE design documents.
26.	General	Could VPRA provide electronic CADD and survey files for all plan sets to level the playing field with current 30% designer and assist our team in fully understanding project scope, 60% design efforts, and specific details in	Yes, these files were uploaded on March 1, 2024.

		CADD that are not necessarily apparent with PDF plans?	
27.	General Plans, Open Cut Areas	The proposed ditch sections at the bottom of large cuts adjacent to the tracks look rather small to convey the new tributary areas. Is it correct to assume these will need to be resized for 60% design and have potential for significant increases?	Yes, this is a correct assumption.
28.	Preliminary Engineering Basis of Design Section 3.3.1 Roadway Standards	The referenced section indicates "Maintenance Road shall be designed to Norfolk Southern standards." Please clarify what roads, if any, in the 30% PE Design Plans are considered "Maintenance Roads" so we can fully understand 60% design requirements.	In the NRV plan set, all roads with the exception of Celtics Way NW, are NS maintenance roads. There are no maintenance roads in the Cinnabar Plan set. There are two dirt roads that run through the Cinnabar plan set. The first one is for AEP to access their electrical equipment and lines, future considerations for this access will need to be addressed. The second road to the east of the project is where the layover facility road ties into the NS roadbed. The tunnel plans include designed access roads.
29.	RFP Scope of Work Appendix E – NRV Station 30% PE Design Plans, Drawing C-114 and Basis of Design	The plans currently show the proposed Connector Track bridge having a vertical clearance of approximately 13'-1" over Celtics Way NW. Has this clearance been generally approved by stakeholders? Can a required vertical clearance for rail overhead structures be defined in the Basis of Design? Additionally, can any details on the assumed structure depth be provided to verify how this vertical clearance was established or will need to be accommodated?	No clearance approvals have been furnished by the stakeholders at this point. The plans are being reviewed concurrently with design progress by the stakeholders, and as such, no required vertical clearance has been determined. New bridge structure design was limited to conceptual plan layout for 30% design.
30.	RFP Scope of Work Appendix E – NRV Station 30% PE Design Plans	Several new at-grade crossings appear proposed as part of the scope of work. Do these still require approval by Norfolk Southern and other	Several new at-grade crossings are proposed as part of the 30% design. Further approvals will be required.



		stakeholders, or has the 30% design been approved already?	
31.	RFP Scope of Work Appendix E – NRV Station 30% PE Design Plans, Drawing RP-07	It appears the project will maintain rail traffic on the existing single-track bridge over Slate Branch near track station 61+50. Is any rehabilitation, repair, or improvements to this structure anticipated as part of the 60% scope of work?	No, bridge and culvert structure repair will be under a future, separate procurement.
32.	RFP Scope of Work Appendix I – Basis of Design	The BOD does not currently address bridge design criteria for structures carrying railroad or highway. Will those criteria be updated by the PE team in the BOD or will the 60% design team be responsible for defining these parameters in the BOD? Will ownership of these structures also be defined in the BOD?	Yes, the BOD will be updated. However, the BOD for the preliminary design is complete and the BOD moving forward will be updated by the successful Offeror.
33.	RFP Scope of Work Appendix F – Recommendations for Supplemental Work for Final Design	This document references numerous supplemental survey and SUE locations and geotechnical investigations necessary to progress to final design. The scope of work doesn't clearly outline the services as being required. Are these surveys and borings underway, or will it be the responsibility of the final design team to define the scope of work with VPRA and initiate all those investigations?	Items found in Appendix F are items recommended by the 30% designer; these items have not been started and will be the responsibility of the successful Offeror.
34.	RFP Scope of Work, Plans, BOD	The rail design tasks state that the design should include general layout of signals and consider the access for maintenance of signal and positive train control facilities to ensure accommodation and consideration of the required signal system that has been integrated into the design. The 30% plans and the BOD do not include information on the signal system that has been integrated into the design, or	No signal infrastructure locations have been determined. NS will be responsible for the signal design and construction. Further coordination with NS will be required.

		identification of any existing or the proposed type of signal system or PTC system to be installed. Has the type of signal and PTC system to be installed been identified or considered as part of the 30% design, including identification of signal and train control infrastructure locations? If so, could any information on those be shared, even if only conceptual at this time?	
35.	RFP Scope of Work – Appendix O ROW Matrix	Do the identified ROW acquisitions include consideration of required ROW acquisitions for signal infrastructure and maintenance access based on the 30% design or are those additional property impacts that will be developed during 60% design?	No, ROW acquisitions for signal infrastructure and any additional maintenance access have not been fully considered. Comprehensive property impacts and ROW acquisitions will be further developed during 60% design.
36.	RFP Scope of Work – Appendix O ROW Matrix	Do the identified ROW acquisitions include consideration of required ROW acquisitions for tunnel OCC infrastructure? The BOD states that it is assumed the location of an OCC will be selected during Final Design, should this be an additional consideration as part of the 60% design?	The OCC location has not been identified. It should be an additional consideration as part of the 60% design.
37.	RFP Scope of Work – Appendix O ROW Matrix	In addition to an updated ROW Acquisition Matrix and ROW Acquisition plans, will it be the responsibility of the 60% design team to develop ROW acquisition documentation (i.e., plats, legal descriptions, sketches, and exhibits)?	Typically to this point in VPRAs projects, the 60% design team develops the preliminary ROW acquisition plans. Once they are refined a bit based on our feedback, then they are given to a survey team to create ROW acquisition plats. These are based on field surveys and are used for the actual ROW acquisition process (appraisal, negotiations, settlement).
38.	RFP Scope of Work	As part of the 30% design, was an operations analysis conducted to validate proposed infrastructure and verify the proposed design supports the proposed operations in coordination	No, that work was already performed by NS.

		with NS and Amtrak? Amtrak typically requires RTC software simulation operational analyses in support of design projects to verify required infrastructure and operational impacts. Will it be the responsibility of the 60% design team to conduct these analyses in coordination with Amtrak and NS?	
39.	RFP 1-005-24-0001, Exhibit 1, Section 2.	What is the expected timeframe for this project to finish design and then begin construction?	See Appendix K, construction schedule, for best estimation of dates.
40.	RFP 1-005-24-0001, Exhibit 1, Section 2.	Are there any scopes of work that will not be available for construction once design is finalized?	The purpose of this RFP is for the continued development of the design items listed in the Scope of Work.
41.	RFP 1-005-24-0001, Exhibit 1, Section 2.	Will all scopes be available for bidding once design is completed?	See response to Question No. 40.
42.	RFP Section 3.1 and Preliminary Geotechnical Engineering Report Section 2.3.3	The RFP states in Section 3.1 that "Geotechnical information is adequate to provide soil/rock properties to accurately advance the design.", yet the PRELIMINARY GEOTECHNICAL ENGINEERING REPORT in Section 2.3.3 RECOMMENDATIONS FOR ADDITIONAL EXPLORATION states in part "...this resulting PE Geotechnical Engineering Report was intended to provide preliminary information and recommendations and should not be solely relied on for final design or construction. Based on the results of the preliminary subsurface exploration, and in order to further advanced the design of this project, STV recommends the following additional exploration, testing, and evaluations: ...." For our proposal should we assume the RFP conditions or the conditions stated in the GER?	VPRA will address this question in an addendum. The scope of work for sections 2.1 and 3.1 will be updated to remove the bulleted statement found in Assumptions and Exclusions "Geotechnical information is adequate to provide soil/rock properties to accurately advance the design." The proposal should take in consideration the findings from the geotechnical report and the recommendations for additional exploration found in Appendix F.
43.	Drawing S-304 of the Merrimac Tunnel Set	Merrimac Tunnel plans show removal of part of the narrow section. Has the	No, the reason for the narrow section of the tunnel has not been identified or

		reason for the narrow section been identified or investigated? We postulate that it may have been a repair or a construction modification for a stability issue with the original lining. The structural plans show no boring data or rock bolting in this area. Should further investigations as recommended in the GER be assumed to be required for our proposal to investigate this condition?	investigated. Further investigations of the narrow section should be assumed.
44.	Risk Register item VD4A-2.05	Risk Register item VD4A-2.05 is active and identifies a 620,000 CY excavation in the ledge as Very High Risk. We could not locate any borings in the Station and Connector site plans. Have any borings been performed in that area?	No borings have been performed in that location. Additional exploration may be needed as described in the preliminary geotechnical report.
45.	N/A	Was there a structure condition assessment completed during the 30% design that validates the proposed modification to the tunnel crown only? Or is there still a possibility that a condition assessment is needed and modifications to other sections of the tunnel cross section are still in play and need to be studied further and defined during the 60% design?	Structure condition assessments were not performed during the 30% PE design. Modifications to the tunnel regarding the proposed emergency egress walkway for the full length of the tunnel will need to be verified. Review of the tunnel liner outside of the scope of work is not required. Maintenance and general repairs are not included in the SOW of this RFP.