



Franconia-Springfield Bypass Construction Industry RFI

January 2023

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Introduction

The Virginia Passenger Rail Authority (VPRA) invites interested parties (Respondents) to respond to this Request for Information (RFI) concerning potential future solicitation(s) for the Franconia-Springfield Bypass Project (the Project). VPRA is delivering the Project in coordination with CSX Transportation (CSXT), the National Passenger Railroad Corporation (Amtrak), Virginia Railway Express (VRE), the Northern Virginia Transportation Authority (NVTA), and the Washington Metropolitan Area Transit Authority (WMATA). The Federal Transit Administration (FTA) and/or Federal Railroad Administration (FRA) may provide funding and/or have oversight authority.

The purpose of this RFI is to seek the construction industry's feedback on the questions presented. VPRA encourages interested construction firms to submit responses with detailed comments, as the information provided in response to this RFI may be used to assist VPRA in the planning and development efforts for the Project. In particular, VPRA is interested in gaining the construction industry's perspective on delivery methods for the construction work. In addition to Design-Bid-Build (DBB), VPRA is considering delivery of the Project using the Construction Manager/General Contractor (CM/GC) method and seeks industry feedback on this potential approach.

1 Project Information and Description

The Project is one of the infrastructure improvements included in VPRAs Transforming Rail in Virginia program (<https://vapassengerrailauthority.org/transforming-rail-in-virginia/>). The overall program includes Virginia's acquisition of approximately half of CSXT's railroad right-of-way on the Richmond, Fredericksburg, and Potomac Railroad (RF&P) corridor between Petersburg, VA and Washington, D.C., providing a pathway to the separation of passenger and freight operations along the corridor. In addition, phased infrastructure improvements will deliver substantial increases in Amtrak state-supported service and VRE service, while supporting the growth and reliability of freight rail services. The Franconia-Springfield Bypass is one of the Phase I improvements planned for completion.

The Project will provide a new 0.6-mile-long flyover rail bridge south of the Franconia-Springfield VRE station in Franconia, Virginia. The Project will facilitate the movement of passenger trains to cross over the two existing CSXT mainline freight tracks between the west side of the corridor north of the new flyover bridge and the east side of the corridor south of the new bridge without delay to trains on any of the tracks at this location. The overall Project length is approximately 1.4 miles, and the overall structure length, including the bridge and retained fill approaches, is approximately 1.0 mile. A map of the Project area and the flyover bridge is shown below:



The primary elements of the Project scope include the following:

- Construction of a flyover rail bridge with a width to accommodate two tracks, only one of which will be constructed as part of the Project. The proposed flyover bridge is approximately 0.6 mile long.
- Construction of a third track, which will connect to an existing third track to the north and to the proposed third track being constructed as part of the Franconia to Lorton Third Track project to the south, plus provision for a fourth track to be constructed in the future.
- Construction of grading and drainage improvements to accommodate the third track as well as allow for construction of a future fourth track.
- Construction of approach embankments and retaining walls as required to minimize impacts to adjacent property owners and environmental impacts.
- Coordination with CSXT on identifying and relocating utilities within the corridor to include fiber optics and petroleum fuel line(s).

Final design will be subject to review and approval by VPRA, CSXT, Amtrak, and VRE, and these entities will also oversee construction and acceptance.

In the course of preliminary engineering efforts, VPRA has evaluated various methods of constructing the flyover bridge in a manner that minimizes impacts to CSXT traffic. During construction, it is anticipated that the contractor will have to work within defined parameters to construct the flyover; however, the timing of outages and other arrangements to maintain CSXT traffic will be further considered and discussed as design progresses. Constructability will therefore be a key challenge and the potential focus of innovation from the contracting industry. Agreed-upon limitations on the timing and means and methods of construction will have to be considered by the contractor and incorporated into the project schedule and price.

The current preliminary design incorporates concrete column piers lining each side of the CSXT tracks that will support single-span transverse steel floorbeams over the tracks. This structure type was recommended over other alternatives, including a conventional longitudinal girder bridge on straddle bents, due to concerns regarding structure depth, cost, and constructability. There may be an opportunity to construct a different structure type as long as it stays within the project schedule and budget.

VPRA is in the process of acquiring right of way to accommodate the Project; however, additional right of way may be needed as design and construction progress. Access to the Project area may be constrained by the right of way that will be available, as well as geographic features. A significant slope exists in the northwest area of the Project that may present access and staging limitations and require a detailed constructability assessment. Residential areas adjacent to the Project may also limit site access and result in restrictions on sequencing of the work.

VPRA anticipates ongoing work adjacent to the Project in connection with VRE's improvements to the Franconia-Springfield station to the north. Other ongoing projects include additional VRE-delivered improvements and VPRA's Franconia to Lorton Third Track project.

The Project was environmentally cleared as part of the larger Franconia Third Track Project, which is covered under a National Environmental Policy Act of 1969 (NEPA) Categorical Exclusion (CE). The CE was approved by the Federal Highway Administration (FHWA) on April 13, 2021, and was subsequently adopted by FRA on April 19, 2021. The Preliminary Engineering phase for the Project began on May 6, 2022, and is scheduled for completion in approximately April 2023.

2 Project Goals

The Project's primary goals are as follows:

- Substantial Completion in 2026 to accommodate additional improvements along the corridor
- Minimizing impacts to rail services during construction
- Working collaboratively with CSXT and other stakeholders to determine the best method to construct the Project
- Minimizing the environmental impact of the Project in accordance with the Project's environmental clearance

3 Delivery Method Considerations

In addition to traditional DBB, VPRA is considering the CM/GC method to deliver the Project.

CM/GC delivery involves two phases: a Preconstruction Services Phase (Phase 1) and a Construction Phase (Phase 2). Under a CM/GC model, VPRA would engage a designer to prepare the final design for the Project. While design is underway, VPRA would procure a CM/GC Contractor to perform the Preconstruction Services Phase (Phase 1) work, which would involve collaborating with VPRA and its designer to help progress the in-process design to completion. The Phase 1 work would consist of the CM/GC Contractor providing input on such issues as constructability, value engineering, permit acquisition, quantity take-offs, long-lead procurement, construction sequencing, scheduling, risk management, third-party approvals, permitting, and other related items. A significant focus of the Phase 1 work would involve coordinating with CSXT to obtain approval of the method to construct the Project and incorporating CSXT's requirements into the construction schedule and pricing. The Phase 1 work would not include design services by the CM/GC Contractor other than incidental services necessary to perform the Phase 1 tasks.

As VPRA's design nears completion with the CM/GC Contractor's input, the CM/GC Contractor would be requested to submit a price and schedule to construct the project as designed. VPRA would compare the price submitted by the CM/GC Contractor to an independent cost estimate (ICE) obtained by VPRA. VPRA and the CM/GC Contractor would negotiate the construction price on an open-book basis, which would entail the CM/GC Contractor sharing pricing assumptions such as quantities of labor and material, production rates, crews, escalation, indirect costs, risks, and other pricing components. The goal of these negotiations would be to reach agreement on a price and schedule to construct the project during the Construction Phase.

During Phase 1, the CM/GC Contractor would have the opportunity to identify early work packages consisting of discrete construction work that can be performed separately from the main scope of work. Performance of early work is contingent on VPRA and the CM/GC Contractor's agreement to a price and schedule for the early work package(s).

There is no guarantee that the CM/GC Contractor selected to perform the Phase 1 work would be awarded a contract for the Phase 2 construction work. The execution of a Phase 2 construction contract is contingent on VPRA and the CM/GC Contractor agreeing on a price and schedule for Phase 2. Agreement on a Phase 2 price also includes agreement on the scope of work that the CM/GC Contractor will negotiate to self-perform and the scope of work that will be performed through a competitive bidding process. If VPRA and the CM/GC Contractor cannot agree to a construction price, construction schedule, or the scope of negotiated self-performed work, VPRA reserves the right to terminate the CM/GC Contractor, obtain all work product prepared by the CM/GC Contractor for the Phase 1 services, and solicit bids from other contractors to construct the Project. If VPRA terminates the CM/GC Contractor due to the inability to negotiate a Phase 2 contract, it is expected that the CM/GC Contractor would cease all work on the Project. This means that the terminated CM/GC Contractor would not be eligible to re-bid for the construction work, manage the work of another contractor performing the construction, or participate as a subcontractor performing any aspect of the construction work.

4 Questions to Industry

VPRA requests feedback from Respondents on the following questions:

General Questions:

1. Describe any technical or design issues/risks based on the description of the scope of work provided.

Technical Construction Questions:

2. Do you have any concerns with labor or materials availability for the Project, particularly in light of other ongoing projects in the region? Are there any ways to mitigate these risks?
3. Please identify any major concerns with maintaining CSXT rail traffic while construction is underway, including how work may be performed over active CSXT tracks.
4. Please identify any concerns regarding staging and constructability in light of the potential access limitations and how these concerns might be mitigated.
5. Please describe any other interface risk between this Project and other rail operations and construction along the RF&P corridor and how such risks might be mitigated.
6. What do you expect to be the most significant challenges in completing construction of the Project by the end of 2026?

Delivery Method Questions:

7. What benefits could CM/GC bring to the Project? Without limiting the response, please discuss potential benefits from collaboration with VPRA, coordination with VPRA's delivery partners, scheduling, construction staging concepts, or innovation from CM/GC.
8. Describe how the CM/GC method could be used to coordinate with CSXT, including how the CM/GC Contractor could address constructability issues and work with CSXT to agree on means and methods, work restrictions, and other parameters for the work.
9. Describe how the CM/GC method could be used to coordinate with other agencies that will review and approve the final design and construction plans, including Amtrak, VRE, and CSXT.
10. Are there any attributes to the Project that would create significant risks if CM/GC is used?
11. Is there any reason why CM/GC is not suitable for the Project? If so, explain why.
12. If CM/GC were used to deliver the Project, do you believe that any work could be constructed as an early work package by the CM/GC Contractor during the Preconstruction Services Phase?
13. Do you believe that DBB is the best method to use for any of the Work?
14. Do you believe that DBB would present any particular risks, including the goal of completing the Project by 2026?
15. Are there any other delivery methods or approaches that you believe are better for the Project than DBB or CM/GC? Describe the reasons why.
16. Describe anything else about the Project that VPRA should consider.

5 Additional Information

a. Submission Requirements

Respondents shall provide their responses using the form included as “Appendix A: Response Format.” Responses shall be limited to eight (8) pages in total. Responses may not include any additional material, such as marketing material, brochures, or otherwise.

All responses must be in portable document format (.PDF) (not scanned into .PDF). The PDF must not have any file protection or password protection applied.

Responses must be sent to VPRA on or before 05:00 p.m. EST on **February 24, 2023**.

Responses shall be sent via e-mail to proposals@vpra.virginia.gov

Responses from a variety of firms and organizations are encouraged, including construction contractors with a record of accomplishment in the construction of projects of similar scope and size. A Respondent may be a single firm or organization or may be a multi-firm organization submitting a collective response. VPRA is interested in the maximum number of constructive responses.

b. Questions or Clarifications

If you have any questions or would like any clarification about this RFI, please send an e-mail to proposals@vpra.virginia.gov by **February 10, 2023**. VPRA may elect not to respond to all inquiries received but will attempt to respond to as many as possible by **February 17, 2023**. VPRA may amend this RFI as necessary.

c. Effect of this RFI

This RFI is an inquiry only, intended solely to assist VPRA on an administrative level, and is not a formal solicitation or initiation of a procurement process. The information contained in this RFI is provided based on the information gathered and/or known at this time. There are no guarantees as to the accuracy of this information. Submissions will not be evaluated. No contract or agreement will be entered into as a result of this RFI. If VPRA enters into a contract for the prospective solicitation discussed in this RFI, it will follow a full procurement process subsequent to this RFI.

This RFI does not represent a commitment to issue any Request for Qualifications or Request for Proposals or a commitment that a subsequent procurement, if any, will follow any of the delivery approaches described herein, nor is this RFI a commitment that the Project will follow the delivery methods in the same manner as they are discussed herein.

Submission of responses is not a prerequisite for participating in a future procurement. Such participation would be subject to demonstrating satisfaction of the criteria set forth in potential subsequent solicitation documents. Participation in this RFI or an election not to participate will not confer on any party any preference, special designation, advantage or disadvantage whatsoever in any subsequent procurement process related to the Project.

Nothing contained in this RFI is intended to modify, limit, or otherwise constrain the environmental process or commit VPRA or any other entity to undertake any action with

respect to the Project, including any action to procure, design or construct a potential project.

Submission of a response constitutes an acknowledgement that the Respondent has read and agrees to be bound by the terms and conditions of this RFI.

d. Costs of Preparation

VPRA is not responsible for any costs incurred by any Respondent in the preparation, submission, presentation, or revision of its information and response, or in any other aspect of the Respondent's activities related to its involvement in this RFI process.

e. Disclosure of Contents

VPRA is subject to the Virginia Freedom of Information Act (VFOIA) and federal regulatory oversight. Should Respondents' submissions contain material they deem to be proprietary or confidential, they should mark relevant sections appropriately in accordance with VFOIA. All responses become the property of VPRA upon submission.

