

**U.S. DOT Federal Railroad Administration
Office of Passenger and Freight Programs**

Monitoring Procedure 32D - Project Delivery Method Review

1.0 PURPOSE

This Monitoring Procedure describes the Monitoring and Technical Assistance Contractor's (MTAC) review and analysis of the Grantee's consideration, selection, and implementation of a project delivery method for its project.

2.0 KEY PRINCIPLES

A variety of project delivery methods are available to the Grantee. The most common method is Design-Bid-Build, in which the Grantee's design consultant prepares 100% complete contract documents for bidding by construction contractors. Alternative contracting methods include design-build, design-build-operate and maintain, and the construction manager at-risk or construction manager/general contractor (CM/GC) approach. All of these delivery methods are viable and have been used successfully; however, some work better than others in particular situations.

The Grantee should thoughtfully consider the trade-offs associated with various project delivery methods and develop a sound rationale for selecting a particular method because it has some or all of the following attributes:

1. Complements the strengths or compensates for the weaknesses in the Grantee's own project team and its management and technical capacity and capability
2. Satisfies an important objective of the Grantee Agency's leadership team
3. Complies with State law
4. Accommodates the project's funding or cash flow position
5. Helps the schedule; gets into construction earlier
6. Fits a unique/overarching characteristic of the project
7. Takes advantage of current and expected conditions in the local, national, and international construction marketplace

3.0 REQUIRED DOCUMENTS

The MTAC will obtain current versions of the following:

1. A copy of grantee's grant agreement(s) with FRA
8. Written project description
9. Design documents (Plans, Specifications)
10. Project Management Plan (MP 20) and Sub-plans
 - a. Grantee Management and Technical Capacity and Capability (refer to MP 21)
 - b. Risk/Contingency Management Plan (refer to MP 40)
 - c. Grantee's Project Delivery and Procurement section of the PMP (Appendix A below)**
11. Project schedule
12. Cost estimate

4.0 SCOPE OF WORK

The MTAC will review the documents listed above, discuss with the Grantee and evaluate the Grantee's approach and documents related to the Grantee's design and construction procurement and contract packaging strategies.

4.1 MTAC Qualifications

The individual or team performing this evaluation should have extensive experience in planning and delivering large complex capital projects using a variety of delivery methods. The individual(s) should be familiar with the advantages and disadvantages in using the various techniques, and the factors that could influence the choice of a particular delivery method. Ideally, the individual(s) should have managed multiple construction projects using a variety of contracting methods.

4.2 Review of Selection and Implementation of Project Delivery Method

The MTAC review will:

1. Review and analyze the project information to understand the size and complexity of the project, including:
 - a. The laws, regulations, policies, guidance documents, and practices that apply
 - b. The ability to divide the project into contract packages attractive to medium-size and smaller contractors
 - c. The project's potential effect on construction labor in the region given other projects in or near construction
 - d. Its level of design customization and the related capacity and capability of domestic labor to provide custom materials, fabrications, and manufactured items
 - e. The strengths and weaknesses of the design itself and the design documents in terms of completeness and coordination
 - f. The magnitude of remaining uncertainties or unresolved issues
 - g. The implementation schedule showing each major element or package and associated preparatory and subsequent events
 - h. Potential alignments between various delivery methods and the Grantee's Project Schedule and funding / cash flow
 - i. The opportunities and constraints the Grantee perceives for this project for bidding and construction

13. Discuss with the Grantee its management and technical capacity and capability
 - a. its leaders' priorities
 - b. its team's strengths (e.g. long history of building rail projects) and weaknesses (all new team)
 - c. the opportunities and constraints the Grantee perceives for bidding and construction due to its management and technical capacity and capability

14. Evaluate the Grantee's selection of a delivery method.

- a. Is it a comprehensive project delivery strategy?
 - b. Is it likely to satisfy the overall project objectives?
 - c. Is it authorized by State law?
 - d. Does it consider relevant risks associated with the project element(s)?
 - e. Is the strategy, including the contract packaging plan, documented in the PMP?
 - f. Does the project schedule reflect the project delivery method, including sufficient preparation time?
 - g. Does the Grantee have staff resources to execute the project delivery strategy?
 - h. Identify discrepancies, shortcomings, fatal flaws in the Grantee's decision-making.
 - i. Suggest peer exchanges for the Grantee to learn from the delivery method experiences of others.
15. Evaluate the Grantee's implementation of the delivery method.
- a. Identify, describe, and analyze the Grantee's individual contract packages and anticipated or actual bids, pricing, and compensation components.
 - b. Consider overheads, contingency and "contingency-like" components, and any negotiated profit or fee values.
 - c. The MTAC will evaluate the degree to which such pricing or compensation components are aligned with the Grantee's project strategy and risk management plan and their effectiveness in minimizing cost (and cost overruns) and schedule slippage.
16. Provide a report to FRA on the evaluation, and include:
- a. Description of reviewer qualifications
 - b. Description of Grantee personnel with whom discussions were held
 - c. Evaluation of the Grantee's Project Delivery Plan
 - d. Evaluation of Grantee's technical capacity and capability to implement the selected Project Delivery Method including staffing and procurement policies and processes

5.0 REFERENCES – SEE MP 01

APPENDIX A

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Procurement Plan and Schedule for the following services

(indicate project phase, durations for RFP, screening, interviews, selection, board approvals, etc.)

- Community Outreach Services
- Information Systems Services
- Real Estate Services
- Project Management Services
- Design Services
- Legal Services and other services

Procurement Plan and Schedule for the following services

(indicate project phase, durations for RFP, screening, interviews, selection, board approvals, etc.)

- Construction Management Services
- Construction Testing and Inspection Services

Construction

- Preliminary Selection of Project Delivery Method (DBB, DB, CMGC) (include rationale for and identification of risks inherent in selected method)
- Final Selection of Project Delivery Method
- Major Construction Packages – Description of Packages and Construction Sequencing
- Procurement of Long Lead Items
- Procurement of Materials, Equipment, Vehicles including procurement in advance of construction contract.
- Work by Grantee's own Forces (Force Account Work)
- Work by Third Parties such as Utilities, Railroads, Private Sector, etc.

The project delivery method for construction should be selected on the basis of how well it satisfies the Grantee's goals and objectives, for example, rapid construction, lowest constructed cost, or innovative design. There may be multiple objectives that apply to the overall project or selected elements.

Compare objectives and project delivery methods. Take into account:

- physical characteristics of the project
 - degree of difficulty of construction
 - amount of real estate and right-of-way to be acquired
 - negotiations with railroads
 - number of political jurisdictions involved
 - inclusion of structures such as tunnels and elevated guideways

APPENDIX A

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| <ul style="list-style-type: none">• The design approach to the project• The preferred allocation of risk between itself, construction contractors, third parties • The Grantee' technical capacity and ability to produce the project:<ul style="list-style-type: none">○ Different staffing levels and skill sets are required to successfully manage a design-bid-build approach versus a design-build approach.○ An agency embarking on its first rail project will face many decisions that will require careful consideration. A traditional design-bid-build approach can provide more opportunities and time to consider those decisions without necessarily impacting the project schedule.○ Using a design-build approach requires the Grantee to make decisions at the outset as part of the preparation of the performance specifications. A delay in making those decisions may negate the perceived schedule advantage offered by the design-build approach. Also the design consultant should know as early as possible whether the PE documents with a performance specification will be used for competitive bidding to design-build contractors. • Document choice of and rationale for a project delivery method and contracting strategy.• Cite the provision in State law that authorizes the selected delivery method. |
| Procurement Procedures (advertising, bidding, awarding of contracts for consultants and construction contractors, procurement for equipment, etc.) |
| Disadvantaged Business Enterprises (DBE), Federal DBE, State/Local WBE & MBE <ul style="list-style-type: none">• Identification of opportunities• Plans and Goals |