U.S. DOT Federal Transit Administration
TPM-20 Office of Capital Project Management
Project Management Oversight

Oversight Procedure 32D - Project Delivery Method Review

1.0 PURPOSE

The purpose of this Oversight Procedure is to describe the review, analysis, recommended procedures and reporting requirements that the Federal Transit Administration (FTA) expects from the Project Management Oversight Contractor (PMOC) with regard to the Project Sponsor's (Sponsor) plan for project delivery and the selection of the project delivery method(s).

2.0 BACKGROUND

For these purposes, Project Delivery Method is defined as the overall approach selected by the Sponsor to contract for those services necessary to place the project in revenue service. Major capital transit projects include fixed infrastructure, real estate, vehicles, work by third-parties and utilities, materials and equipment and the professional services required to manage and design the project and see it through construction and into revenue operations. Normally, the largest proportion of the project's budget is associated with the construction of fixed infrastructure. The focus of this review is on the Sponsor's plan for the selection of the delivery method (or methods) for construction, and as a subset of this, the Sponsor's strategy for segmenting the project into contract packages.

A variety of project delivery methods and/or contracting techniques are available. However, individual state laws control which methods may be used by public entities for various types of construction within the state. The most common method involves the use of a design consultant to prepare drawings and specifications which are attached to contract documents and then used to solicit competitive bids for construction. This is often referred to as design-bid-build (D-B-B). Other alternative contracting methods include design-build (D-B), design-build-operate and maintain (DBOM), Public-Private Partnerships (P3) 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. For example, a parking garage might be a good candidate for design-build because the garage designs can be formulaic. A linear transportation project in an urban area might be a good candidate for design-bid-build or construction manager/general contractor because of the importance of a unique design with specific attention to sequencing construction to avoid unnecessary traffic impacts.

The project delivery method should be selected on the basis of how well it satisfies the Sponsor's goals. Goals could include rapid construction, lowest constructed cost, or a unique innovative design among other things. The Sponsor's goals should be clearly understood and articulated before the process of developing a project delivery plan is initiated. The Sponsor must also understand the limitations imposed by state law and the attributes and inherent strengths and weaknesses of each project delivery method before an appropriate selection can be made. The Sponsor should document its choice of and rationale for a project delivery method or methods and contracting strategy in its Project Management Plan (PMP) or in a specific sub-plan such as a Project Implementation Plan or Project Delivery Plan.

In the PMP or a specific sub-plan, the Sponsor should demonstrate knowledge and consideration of:

- The overall scope of the project;
- Its goals and objectives for the project or discrete project elements;
- Limitations imposed by state law;
- Its current and anticipated design approach to the project;
- Its own project management capacity and capability to manage the project using the selected delivery method(s). 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, however, requires the Sponsor 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.
- Its preferred allocation of risk between itself, the construction contractors, and third parties. Note that the allocation of risk between the parties may vary on different contracts on the same project. FTA's Project and Construction Management Guidelines note that risk should be considered in selection of project delivery method so that the likelihood of success is optimized.
- Its selection of project delivery method(s) with a narrative explaining the factors taken into consideration.
    - The overall strategy for delivering the project should be developed prior to the Engineering phase. These decisions should start with the identification of key objectives of the Sponsor. There may be multiple objectives that apply to the overall project or selected elements. The comparison of objectives and project delivery methods should take into account the physical characteristics of the project and the degree of difficulty inherent in constructing the project. Factors may include the amount of real estate and right-of-way to be acquired and the number of individual parcels affected; whether development involves negotiation of rights with a freight railroad; the number of political jurisdictions involved; the need for a tunnel or significant aerial structure, etc. Once the selection of delivery method(s) has been made, the Sponsor must tailor the contract documents and procurement process and schedule to match the selected delivery method(s).
    - The development of the project delivery strategy early in the project is important because design of the project is directly linked to the strategy. Prior to embarking on the design of the project, the design consultant should know whether the design will be used for competitive bidding; whether collaboration with a contractor will be necessary in a construction manager/general contractor arrangement; or if less detailed design documents along with a performance specification are needed for a design-build approach.

FTA's initial review of the Sponsor's project delivery plan for a New Starts project should occur no

later than the readiness reviews prior to entry into the Engineering Phase. The review should be refreshed prior to execution of a Full Funding Grant agreement. For Small Start projects, the initial review should be conducted after the Sponsor has developed its project delivery plan and before the Small Start Grant Agreement (SSGA) award. Timing of this review is especially important if the Sponsor proposes use of an alternative project delivery method. The review should be refreshed prior to execution of a Full Funding Grant Agreement. For all projects, additional reviews may be required if the Sponsor proposes a change to its project delivery plan.

3.0 OBJECTIVES

The objectives of this review are to verify that the Sponsor has a rational plan for project delivery; that the selected delivery method(s) are permissible under the public contracting laws governing the Sponsor's actions; that the plan is based on satisfying the Sponsor's objectives for the project or its individual parts; that the plan is based on the unique characteristics of the project; that the plan was developed with consideration of the current and expected conditions of the local and national construction market place; that the project delivery method(s) chosen are appropriate for the associated project element; that the implications of the plan are reflected in the project's schedule and capital cost estimate; and that the plan takes into account the Sponsor's project management capacity and capability.

4.0 REFERENCES

The following are the principal, but by no means the only, references to Federal legislation, regulation and guidance with which the PMOC should have a good understanding as related to the Sponsor's project work being reviewed under this OP:

4.1 United States Code

- 49 U.S.C. Section 5327

4.2 Regulations

- Project Management Oversight, 49 C.F.R. Part 633

4.3 FTA Circulars

- C4220.1 Third Party Contracting Guidance

4.4 Guidance

- Project and Construction Management Guidelines, 2011 Update
  - 3.6 Procurement, Contracts, and Related Topics
  - 4.3 Construction Procurement Considerations
  - 4.3.1 Construction Contract Bid Documents and Requirements

5.0 PROJECT SPONSOR SUBMITTALS

- Written Project Description
- Design Documents (Plans, Specifications)
- Project Management Plan
- PMP sub-plans such as Project Implementation Plan, and the Risk/Contingency Assessment and Management Plan
- Project Schedule
- Cost Estimate in original and SCC format
- Decision documents related to selection of contracting methods and packages
- Documentation of statutory basis and Agency or Board Actions required prior to use of the selected contracting method(s).

6.0 SCOPE OF WORK

6.1 PMOC Qualifications

The individual or team of individuals selected to perform this evaluation should have extensive experience in the planning and delivery of large complex capital projects. The experience should include the use of a variety of delivery methods. The individual(s) should be familiar with the advantages and disadvantages inherent in the various techniques, and the factors that would influence the choice of a particular delivery method. Ideally, the individual(s) should have managed the actual construction of multiple projects using a variety of contracting methods.

6.2 Preliminary Document Review

Upon receipt of the assignment, the PMOC should obtain the specified project documents and other materials from the Grantee. The PMOC may already be generally familiar with the project as a result of on-going monitoring activities. If the assigned personnel are not familiar with the project, they should review the materials in preparation for their on-site visit.

6.3 On-Site Review Meeting

The PMOC should arrange for an on-site briefing by the Sponsor's project management team. The briefing should include a point-by-point discussion of the project delivery strategy. The presentation should include:

- discussion of the project objectives
- the delivery and packaging methods considered
- any state law constraints on contracting methods
- the process that was used to develop the strategy
- opportunity for the Sponsor to demonstrate its understanding of the selected delivery method(s)
- the selected strategy and packaging plan, including individual procurement packages for long lead time or specialty items or services and materials to be furnished to contractors by the owner

- the implementation schedule showing each major element or package and associated preparatory and subsequent events
- significant risks affecting the selection
- the proposed procurement process for each type of delivery method and the steps being taken to develop appropriate contract documents, including the use of specialized legal counsel
- the Sponsor's approach and proposed staffing to manage implementation of the strategy

6.4 Review and Assessment

The PMOC should review the Sponsor's plan to identify the process used to select the strategies for delivering the project. The PMOC should review for adequacy and timing the checks planned and/or implemented by the Sponsor as part of its plan. Checks may be in the form of peer reviews and/or independent or internal process reviews that ensure the strategies employed and processes used to select and ultimately deliver the project are both sound and comprehensive.

The PMOC shall fully identify, describe, and analyze the Sponsor's individual contract packages and anticipated or actual pricing/compensation components inclusive of overheads, stipends, incentives, contingency and "contingency like" components, and any negotiated profit/fee values. The PMOC shall also identify and assess the impact of project elements which are likely to contribute to increased contractual risk and specific contractual risk transfer provisions. The PMOC shall assess and evaluate the degree to which such contractual provisions including pricing/compensation components are aligned with the Project Sponsor's project strategy/risk management plan and their effectiveness in terms of minimizing costs (and cost overruns) and schedule (and schedule slippages).

The PMOC shall review Sponsor's Project Delivery and Procurement section of the PMP or comparable sub-plan and supporting documents to characterize and provide a report regarding the sufficiency of Sponsor's design and construction procurement and contract packaging strategies. An example of the content of this section of the PMP is provided in Appendix B for the PMOC's reference. The PMOC's should consider the following questions in conducting its review:

- Does the Sponsor have a comprehensive project delivery strategy?
- Was a sound process used to develop the strategy?
- Is the Sponsor's strategy likely to satisfy the overall project objectives as well as the unique objectives of individual elements?
- Did the selected delivery method(s) consider relevant risks associated with the project element(s)?
- Is the selected delivery method or methods appropriate for use with the particular project element?
- Has the Sponsor considered local (and national/international where appropriate) market conditions for construction services and materials, including specialty contractors, e.g., tunneling, in the development of its strategy?
- Is the strategy, including the contract packaging plan, appropriately documented in the PMP or sub-plan?

- Does the project schedule reflect the project delivery strategy, including sufficient preparation time and negotiation periods (if appropriate)?
- Does the project's capital cost estimate reflect the contract packaging assumptions, including related overhead charges, incentives, or other contract related costs?
- Does the project's capital cost estimate reflect the cost of staff and other outside services necessary to implement the project delivery strategy?
- Does the Sponsor possess the requisite experience, organizational sophistication and technical competence to successfully implement the proposed strategy?
- Does the Sponsor currently possess, or have a plan to acquire, the staff resources to successfully execute the project delivery strategy?

7.0 REPORT, PRESENTATION, RECONCILIATION

The PMOC should provide its review with due consideration of the laws, including state public contracting laws, regulations, policies, circulars, guidance documents, and industry practices that apply to the Sponsor's work. Review and analyze the pertinent information available for completeness, adequacy, consistency, and the appropriate level of detail given the phase of the work. Identify any and all discrepancies, shortcomings or fatal flaws. State findings in descending order of importance and make recommendations for modifications or additional work by the Sponsor, including a time frame for the performance of the work.

The PMOC shall provide FTA with a written report of its findings, analysis, recommendations, professional opinions, and a description of the review activities undertaken. After FTA approval, the PMOC should share the report with the Sponsor. In the event that differences of opinion exist between the PMOC and the Sponsor regarding the PMOC's findings, the FTA may direct the PMOC to reconcile with the Sponsor and provide FTA with a report addendum covering the agreed modifications by the Sponsor and PMOC.

The report formatting requirements of OP 01 apply. When necessary, PMOC shall perform data analysis and develop data models that meet FTA requirements using Microsoft Office products such as Excel and Word and use FTA-templates when provided. The PMOC may use or add other software as required but documentation and report data shall be made available to FTA.

Include in the Body of the Report:

- Review procedures and PMOC personnel (including capsule of reviewer qualifications attached as an appendix)
- Summary of the Sponsor's Project Delivery Plan
- Findings with regard to the consistency of Sponsor's Project Deliver Plan with:
  - Project Management Plan and sub-plans
  - Drawings and specifications
  - Contracting Plan
  - Master Schedule
  - Capital Cost Estimate

- Findings with respect to the Sponsor's project management capacity and capability to successfully implement the project delivery plan including staffing, and procurement policies and processes;
- Recommended changes, alterations or amendments to the Sponsor's project delivery strategy and packaging plans
- Any other suggestions related to the Sponsor's project delivery strategy and packaging plans

APPENDIX A

Acceptable Quality Level

	DESIRED OUTCOME	PERFORMANCE REQUIREMENT	CHECK LIST	ACCEPTABLE QUALITY LEVEL	PERFORMANCE MEASURE	MONITORING METHOD
1	PMOC shall review, analyze and present findings to FTA regarding Sponsor's plan for project delivery.	**R1a.** The PMOC shall develop and document a process for review and analysis of Sponsor's project delivery plan.		**Q1a.** Process exists and has been followed.	**M1a.** Evidence of a documented process.	**MM1a.** Periodic review by FTA or its agent.
		R1b. The PMOC shall use its process to analyze the completeness, consistency and appropriateness of Sponsor's project delivery plan.		**Q1b.** Assessment must be made and the PMOC provides internal verification that the process as documented has been followed.	**M1b.** Documented assessment of the overall project delivery plan and supporting documents for completeness, consistency and appropriateness.	**MM1b.** Periodic review by FTA or its agent.
2	The PMOC shall review Sponsor's plans for project delivery to determine whether appropriate delivery methods have been selected and whether the Sponsor has the project management capacity and capability to successfully implement the selected methods.	**R2a.** The PMOC shall review and assess the necessary Project documents in preparation for an on-site review meeting with Sponsor.		**Q2a.** Professional opinion of project delivery plan and other supporting documentation.	**M2a.** Documented evidence of a thorough review by PMOC of Sponsor's project delivery plan technical components, and other related documentation, supported by professional opinion.	**MM2a.** Periodic review by FTA or its agent.
		R2b. The PMOC shall arrange an on-site briefing by Sponsor's project management team to include a complete and comprehensive discussion of all phases of Sponsor's project delivery strategy. PMOC shall require sufficient information and discussion from Sponsor's staff to be able to form a well-reasoned professional opinion of Sponsor's project delivery plan, the likelihood of success of Sponsor's plan and the risks attendant thereto.		**Q2b.** Professional opinion and review of Project delivery strategy via an on-site briefing from Sponsor.	**M2b.** Documented evidence of on-site briefing of PMOC by Sponsor's project management team with full discussion of all aspects of Sponsor's project delivery strategy, supported by professional opinion.	**MM2b.** Periodic review by FTA or its agent.
		R2c. The PMOC shall review and provide an opinion on the adequacy of Sponsor's plan and process for checking and review of selected strategies for delivering the Project.		**Q2c.** Professional opinion and evaluation of review process instituted by Sponsor for its Project delivery strategies.	**M2c.** Documented evidence of review and analysis of adequacy of review process for Sponsor's selected Project delivery strategies, supported by a professional opinion.	**MM2c.** Periodic review by FTA or its agent.
		R2d. The PMOC shall review the Project Delivery and Procurement sections of the PMP with supporting documentation and provide in its report an opinion characterizing the sufficiency of Sponsor's design and construction procurement and contract packaging strategies.		**Q2d.** Professional opinion and evaluation of Grantee's contract packaging selections.	**M2d.** Documented evidence of review of Project Delivery and Procurement sections of the PMP and analysis of sufficiency of Sponsor's contract packaging, supported by a professional opinion.	**MM2c.** Periodic review by FTA or its agent.
	DESIRED OUTCOME	PERFORMANCE REQUIREMENT	CHECK LIST	ACCEPTABLE QUALITY LEVEL	PERFORMANCE MEASURE	MONITORING METHOD

APPENDIX A

Acceptable Quality Level

2	The PMOC shall review Sponsor's plans for project delivery to determine whether appropriate delivery methods have been selected and whether the Sponsor has the project management capacity and capability to successfully implement the selected methods.	**R2e.** The PMOC shall address in its report, the completeness, adequacy, consistency and any discrepancies of Sponsor's project delivery plan, stating its findings in descending order of importance, with recommendations for modifications or additional work by Sponsor and a time table for completion of such.		**Q2e.** Professional opinion and evaluation of Sponsor's project delivery plan and analysis of discrepancies.	**M2e.** Documented evidence of findings, analysis of discrepancies, evaluation of adequacy and consistency and recommendations supported by a professional opinion.	**MM2e.** Periodic review by FTA or its agent.
		R2f. The PMOC shall make an overall assessment of the comprehensiveness of Sponsor's project delivery method, including all documentation, the presence or absence of necessary personnel and shall identify any risks associated with Sponsor's plan.		**Q2f.** Professional opinion and review of delivery methods and associated risks.	**M2f.** Documented evidence, review and evaluation of project delivery method, all documentation and associated risks, supported by a professional opinion**.**	**MM2f.** Periodic review by FTA or its agent.
3	The PMOC shall document its findings, professional opinions, and recommendations in a report to the FTA.	**R3.** The PMOC shall present its findings, conclusions, analysis and recommendations to FTA and, upon FTA approval, reconcile those recommendations with the Sponsor to the extent possible when so directed by FTA.		**Q3.** Reports and presentations are professional, clear, concise, and well written. The findings and conclusions have been reconciled with other PMOC reports and have been reconciled with Sponsor to the extent possible.	**M3.** PMOC's findings in descending order of importance, conclusions, recommendations, and presentation.	**MM3.** Periodic review by FTA or its agent.

APPENDIX B

Project Delivery and Procurement Table of Contents from Project Management Plan

Project Delivery and Procurement Table of Contents
Procedures for Procurement (Advertising, bidding, and awarding of contracts for consultants and construction contractors, and procurement of equipment, etc.)
Procurement Plan and Schedule (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
Construction Management Services
Construction Testing and Inspection Services
Construction
Preliminary Selection of Project Delivery Method (DBB, DB, CMGC, DBOM, PPP) (include rationale for selecting the method and identification of risks inherent in the selected method)
Final Selection of Project Delivery Method
Major Construction Packages – Description of Packages, Package Interfaces and Construction Sequencing
Procurement of Long Lead Items and Pre-FFGA/SSGA items or work
Procurement of Materials, Equipment, Vehicles including procurement in advance of construction contracts.
Work by Project Sponsor's own Forces (Force Account Work)
Work by Third Parties such as Utilities, Railroads, Private Sector, etc.
Contracting Strategy for Transit-oriented and Joint Development
Identification of Small/Disadvantaged Business Enterprises (S/DBE) Opportunities and Federal Small/DBE/Veterans, State/Local WBE & MBE, Plans and Goals