



## **Oversight Procedure 32D - Project Delivery Method Review**

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### **1.0 PURPOSE**

The purpose of this Oversight Procedure (OP) 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). Specifically, this OP deals with the project sponsor's decisions regarding project delivery and project delivery method(s).

While this OP focuses on Capital Investment Grant (CIG) projects, which have specific requirements by law, it also applies to all capital projects. FTA will issue Implementation Plans (IPs) to clarify the specific reviews and expected deliverables based on the project types.

### **2.0 BACKGROUND**

For these purposes, the project delivery method is defined as the overall approach that the project sponsor selects 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 a project, create a design, and provide support through construction and into revenue operations.

Normally, the largest proportion of the project's budget is associated with the construction of fixed infrastructure. This review focuses on the project sponsor's plan for selecting the delivery method (or methods) for construction, and as a subset of this, the project sponsor's strategy for segmenting the project into contract packages.

A variety of project delivery methods and contracting techniques are available. However, individual state laws control which methods public entities may use for various types of construction within the state. The most common method is often referred to as Design-Bid-Build (DBB), where a design consultant prepares drawings and specifications that are attached to contract documents and then used to solicit competitive bids for construction. Other alternative contracting methods include Design-Build (DB), Design-Build-Operate and Maintain (DBOM), Public-Private Partnerships (P3), and the construction manager at-risk (CMAR) or construction manager/general contractor (CM/GC) approach. Each of these delivery methods is viable with a history of success, but some methods work better than others in particular situations. For example, a parking garage might be a good candidate for DB because the garage designs can be formulaic. A linear transportation project in an urban area might be a good candidate for DBB or CM/GC. These methods might be preferable in this instance because a unique design with specific attention to sequencing construction might help avoid unnecessary traffic impacts.

The project sponsor should select a project delivery method that best satisfies their goals. Goals could include rapid construction, lowest constructed cost, or a unique innovative design, for example.. The project sponsor's goals should be clearly understood and articulated before the process of developing a project delivery plan is initiated. The project sponsor must also understand state law limitations as well as each method's attributes and inherent strengths and weaknesses before making a final decision. The project sponsor should document their rationale for choosing a project delivery method or methods and contracting strategy in the Project Management Plan (PMP) or in a specific subplan, such as a Project Implementation Plan or Project Delivery Plan.

In the PMP or a specific subplan, the project sponsor should demonstrate knowledge and consideration of:

- Overall scope of the project;
- Goals and objectives for the project or discrete project elements;
- Limitations imposed by state law;
- Current and anticipated design approach to the project;
- Current 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 DBB approach versus a DB approach. An agency embarking on its first rail project will face many decisions that will require careful consideration. A traditional DBB approach can provide more opportunities and time to consider those decisions without necessarily impacting the project schedule. Using a DB approach, however, requires the project sponsor to make decisions at the outset to prepare the performance specifications. Delaying those decisions may negate the perceived schedule advantage that the DB approach offers.
- Preferred allocation of risk between the project sponsor, 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.
- 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 project 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 project 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 or general contractor arrangement; or
- If a DB approach requires less detailed design documents along with a performance specification.

FTA's initial review of the project sponsor's project delivery plan for a New Starts project should occur no later than the readiness reviews. The initial review should also take place before beginning the engineering phase. FTA should refresh the review before executing a Full Funding Grant Agreement (FFGA). For Small Starts projects, the initial review should be conducted after the project sponsor has developed the project delivery plan and before the Small Starts Grant Agreement (SSGA) award. Timing of this review is especially important if the project sponsor proposes to use an alternative project delivery method. For all projects, additional reviews may be required if the project sponsor proposes a change to the project delivery plan.

### **3.0 OBJECTIVES**

The objectives of this review are to verify the following:

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

## **4.0 REFERENCES**

The PMOC shall become familiar with the following references to Federal legislation, regulation, and guidance before reviewing the project sponsor's work. These are the principal references, but this list is not exhaustive:

### **4.1. Legislative**

- [49 U.S.C. Section 5327](#), Project Management Oversight

### **4.2. Regulations**

- [49 CFR Part 633](#), Project Management Oversight

### **4.3. FTA Circulars**

- FTA [Circular 4220.1F](#), Third Party Contracting Guidance

### **4.4. Guidance**

- [FTA Project and Construction Management Guidelines](#) (2016)
  - 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)
- PMP
- PMP subplans 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 selected to perform this evaluation should have extensive experience planning and delivery of large complex capital projects. 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 project sponsor. 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 project 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 project objectives;
- Delivery and packaging methods considered;
- Any state law constraints on contracting methods;
- Process that was used to develop the strategy
- Opportunity for the project sponsor to demonstrate understanding of the selected delivery method(s);
- 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;
- Implementation schedule that shows each major element or package and associated preparatory and subsequent events;
- Significant risks affecting the selection;
- 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;
- Project sponsor's approach and proposed staffing to manage implementation of the strategy.

## **6.4. Review and Assessment**

The PMOC should review the project 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 project 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 project 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 that 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. The PMOC should also evaluate their effectiveness in terms of minimizing costs (and cost overruns) and schedule (and schedule slippages).

The PMOC shall review the project sponsor's project delivery and procurement section of the PMP or comparable subplan and supporting documents to characterize and provide a report regarding the sufficiency of project 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 should consider the following questions in conducting its review:

- Does the project sponsor have a comprehensive project delivery strategy?
- Was a sound process used to develop the strategy?
- Is the project 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)?
- Are the selected delivery method(s) appropriate for use with the particular project element?
- Has the project 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 subplan?
- 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 project sponsor possess the requisite experience, organizational sophistication, and technical competence to successfully implement the proposed strategy?
- Does the project sponsor currently possess, or have a plan to acquire, the staff resources to successfully execute the project delivery strategy?

## **7.0 REPORTS, PAPERS, PRESENTATIONS**

The PMOC shall provide the COR/ACOR with a written report, formatted in compliance with OP 01, of their findings, analyses, recommendations, professional opinions, and description of the review activities undertaken, as well as other supporting information.

After the COR/ACOR has transmitted formal acceptance of the report, the PMOC should share the report with the project sponsor. If there are differences of opinion between the PMOC and the project sponsor regarding the PMOC's findings, the COR/ACOR may direct the PMOC to

reconcile their findings with the project sponsor and provide the COR/ACOR with a report addendum covering the modifications agreed upon by the project sponsor and PMOC.

When directed by the COR/ACOR, the 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.

Upon approval by the COR/ACOR, the PMOC may add other software as required, but they should provide the COR/ACOR with documentation and report data when complete.

The PMOC should:

- Provide the review with due consideration of the laws, including state public contracting laws, regulations, policies, circulars, guidance documents, and industry practices that apply to the project 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 all discrepancies, shortcomings, or fatal flaws;
- State findings in descending order of importance; and
- Make recommendations for modifications or additional work by the project sponsor, including a time frame for the work.

Include in the body of the report:

- Review procedures and PMOC personnel (including capsule of reviewer qualifications attached as an appendix)
- Summary of the project sponsor's Project Delivery Plan
- Findings regarding the consistency of the project sponsor's Project Delivery Plan.

Findings should consist of:

- PMP and subplans;
- Drawings and specifications;
- The Contracting Plan;
- The Master Schedule; and
- A Capital Cost Estimate;
- Findings regarding the project 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 project sponsor's project delivery strategy and packaging plans;
- Any other suggestions related to the project sponsor's project delivery strategy and packaging plans.



**APPENDIX A: ACCEPTABLE QUALITY LEVEL**

	<b>Desired Outcome</b>	<b>Performance Requirement</b>	<b>Checklist</b>	<b>Acceptable Quality Level</b>	<b>Performance Measure</b>	<b>Monitoring Method</b>
1	The Project Management Oversight Contractor (PMOC) shall review, analyze, and present findings to FTA regarding the project sponsor's plan for project delivery.	R1a. The PMOC shall develop and document a process to review and analyze the project sponsor's project delivery plan.	<input type="checkbox"/>	Q1a. Process exists and has been followed.	M1a. There is evidence of a documented process.	MM1a. Periodic review by FTA or its agent
		R1b. The PMOC shall use their process to analyze the completeness, consistency, and appropriateness of the project sponsor's project delivery plan.	<input type="checkbox"/>	Q1b. Assessment must be made and the PMOC provides internal verification that the process as documented has been followed.	M1b. There is a documented assessment of the overall project delivery plan and supporting documents that checks for completeness, consistency, and appropriateness.	MM1b. Periodic review by FTA or its agent
2	The PMOC shall review the project sponsor's plans for project delivery to determine whether appropriate delivery methods have been selected and whether the project sponsor has the project management capacity	R2a. The PMOC shall review and assess the necessary project documents in preparation for an on-site review meeting with the project sponsor.	<input type="checkbox"/>	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	<input type="checkbox"/>	Q2b. Professional opinion and review	M2b. Documented evidence of on-site	MM2b. Periodic



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Desired Outcome	Performance Requirement	Checklist	Acceptable Quality Level	Performance Measure	Monitoring Method
and capability to successfully implement the selected methods.	by the project sponsor’s project management team to include a complete and comprehensive discussion of all phases of the project sponsor’s project delivery strategy. The PMOC shall require sufficient information and discussion from the project sponsor’s staff to form a well-reasoned professional opinion of the project sponsor’s project delivery plan, the likelihood of success of project sponsor's plan and the risks attendant thereto.		of Project delivery strategy via an on-site briefing from project sponsor.	briefing of PMOC by project sponsor's project management team with full discussion of all aspects of Sponsor's project delivery strategy, supported by professional opinion.	review by FTA or its agent
	R2c. The PMOC shall review and provide an opinion on the adequacy of project sponsor's plan and process for checking and review of selected strategies for delivering the project.	<input type="checkbox"/>	Q2c. Professional opinion and evaluation of review process instituted by project sponsor for its project delivery strategies.	M2c. Documented evidence of review and analysis of adequacy of review process for project sponsor's selected project delivery strategies, supported by a professional opinion.	MM2c. Periodic review by FTA or its agent



**APPENDIX B: PROJECT DELIVERY AND PROCUREMENT TABLE OF CONTENTS FROM PROJECT MANAGEMENT PLAN**

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<b>Project Delivery and Procurement Table of Contents</b>
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 Request for Proposal (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 (Design-Bid-Build (DBB), Design-Build (DB), Construction Manager/General Contractor (CM/GC), Design-Build-Operate and Maintain (DBOM), Public-Private Partnership (P3)) Include rationale for selecting the method and identification of inherent risks.
Final Selection of Project Delivery Method
Major Construction Packages–Description of Packages, Package Interfaces and Construction Sequencing
Procurement of Long Lead Items and Pre-Full Funding Grant Agreement (FFGA)/Small Starts Grant Agreement (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 S/DBE/Veterans, State/Local Women Business Enterprises (WBE) and Minority Business Enterprises (MBE), Plans and Goals



**APPENDIX C: ACRONYMS**

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<b>Acronym</b>	<b>Term</b>
ACOR	Alternate Contracting Officer's Representative
ADA	The Americans with Disabilities Act
AGC	Associated General Contractors of America
ATC	Alternative Technical Concepts
AVS	Associate Value Specialist
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor and Statistics
BRF	Beta Range Factor
BY	Base Year
CATEX or CE or CX or Exclusion	Categorical Exclusion
CCIP	Contractor Controlled Insurance Program
CE	Categorical Exclusion
CER	Cost Estimating Relationship
CFR	Code of Federal Regulations
CIG	Capital Investment Grant
CLIN	Contract Line Item Number
CM	Construction Manager

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<b>Acronym</b>	<b>Term</b>
CM/GC	Construction Manager/General Contractor
CMAR	Construction Manager at Risk
COR	Contracting Officer's Representative
CPM	Critical Path Method
CPTED	Crime Prevention Through Environmental Design
CR	Constructability Review
CVS	Certified Value Specialists
DB	Design-Build
DBB	Design-Bid-Build
DBE	Disadvantaged Business Enterprise
DBF	Design-Build-Finance
DBFOM	Design-Build-Finance-Operate and Maintain
DBOM	Design-Build-Operate and Maintain
DEIS	Draft Environmental Impact Statement
DF	Designated Function
DHS	Department of Homeland Security
DTS	Department of Transportation Services
EA	Environmental Assessment
EIS	Environmental Impact Statement

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<b>Acronym</b>	<b>Term</b>
EMP	Emergency Management Plan
ENR	Engineering News-Record
EPCM	Engineering/Procurement/Construction Management
ESWA	Early Systems Work Agreement
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FLSSC	Fire/Life Safety and Security Committee
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GAO	Government Accountability Office
GC	General Contractor
GC/CM	General Contractor/Construction Manager
GMP	Guaranteed Maximum Price
HAZMAT	Hazardous Materials
IP	Implementation Plan
LONP	Letter of No Prejudice

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Acronym	Term
LPA	Locally Preferred Alternative
MBE	Minority Business Enterprise
MCC	Management Capacity and Capability
MDBF	Mean Distance Between Failures
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act
NTE	Not-to-Exceed
NTP	Notice to Proceed
O&M	Operation and Maintenance
OCIP	Owner Controlled Insurance Program
ODCs	Other Direct Costs
OHA	Operational Hazard Analysis
OIG	Office of Inspector General
OMP	Operations and Management Plan
OP	Oversight Procedure
P3	Public Private Partnership
PCMG	Project and Construction Management Guidelines
PD	Project Development
PDM	Project Delivery Method

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Acronym	Term
PHA	Preliminary Hazard Analysis
PMO	Project Management Oversight
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
POP	Project Oversight Plan
PTASP	Public Transportation Agency Safety Plan
QA/QC	Quality Assurance/Quality Control
R&D	Research and Development
RAMP	Real Estate Acquisition Management Plan
RAP	Rail Activation Plan
RCMP	Risk and Contingency Management Plan
RET	Risk Evaluation Tool
RFI	Request for Information
RFP	Request for Proposal
RFQ	Request for Qualifications
ROD	Record of Decision
ROW	Right-of-Way
RSD	Revenue Service Date
S/DBE	Small/Disadvantaged Business Enterprises



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Acronym	Term
SABCE	Stripped and Adjusted Base Cost Estimate
SABS	Stripped and Adjusted Base Schedule
SAVE	Society of American Value Engineers
SCC	Standard Cost Category
SCIL	Safety Certifiable Items List
SGR	State of Good Repair
SIT	System Integration Testing
SITP	Systems Integration Test Plan
SOP	Standard Operating Procedure
SOW	Scope of Work
SSCVR	Safety Certification Verification Report
SSGA	Small Starts Grant Agreement
SSI	Sensitive Security Information
SSMP	Safety and Security Management Plan
STIP	Statewide Transportation Improvement Program
SYGA	Single Year Grant Agreement
TAR	Travel Authorization Request
TBM	Tunnel Boring Machine
TCC	FTA Office of the Chief Counsel

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Acronym	Term
TCRP	Transit Cooperative Research Program
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investment Generating Economic Recovery
TIP	Transportation Improvement Program
TOD	Transit-Oriented Development
TPE	FTA Office of Planning and Environment
TPM	FTA Office of Program Management
TRB	Transportation Research Board
TSA	Transportation Security Administration
TVA	Threat and Vulnerability Assessment
URA	Uniform Relocation Assistance and Real Property Acquisition Act
U.S.C.	United States Code
VE	Value Engineering
VECP	Value Engineering Change Proposals
WBE	Women Business Enterprise
WBS	Work Breakdown Structure
YOE	Year of Expenditure