



Oversight Procedure 20 - Project Management Plan Review

1.0 PURPOSE

The purpose of this Oversight Procedure is to describe the review, analysis, and recommended procedures and reporting requirements that the Federal Transit Administration (FTA) expects from the Project Management Oversight Contractor (PMOC) as regards the Project Sponsor's (Sponsor's) Project Management Plan (PMP) submission at milestones noted below.

The PMP is the overarching project implementation plan that spans the entire project period. It should be a guide for action. It should describe approved policies, practices, and procedures related to the management, design, and construction of the major capital transit project. The PMP elements should be tailored to set forth the specific action plan for implementing the project, and managing the cost, schedule, quality, and associated risks.

FTA expects that that Sponsor's PMP is based on a thorough understanding of risk-informed and sound project management strategies and plans. The PMOC's review of the PMP enables the FTA to determine the adequacy of the legal and administrative capabilities as well as its management capacity and capability to effectively and efficiently execute the project in all of its aspects, including planning, design, construction, testing, and revenue operations.

2.0 BACKGROUND

Because projects were frequently experiencing cost and schedule increases, and actual ridership was often less than forecasted, Congress called for the establishment of a Project Management Oversight program for FTA through the Surface Transportation and Uniform Relocation Assistance Act of 1987. This Act and subsequent amendments set forth the requirement for FTA Sponsors to produce a PMP.

In 1989, FTA finalized a regulation responding to this legislation. This regulation is called the PMO Rule and is found in 49 CFR 633. The regulation lists the contents of a PMP at 49 CFR 633.25:

“At a minimum, a recipient's project management plan shall include—

- (a) A description of adequate recipient staff organization completes with well-defined reporting relationships, statements of functional responsibilities, job descriptions, and job qualifications;
- (b) A budget covering the project management organization, appropriate consultants, property acquisition, utility relocation, systems demonstration staff, audits, and such miscellaneous costs as the recipient may be prepared to justify;
- (c) A construction schedule;
- (d) A document control procedure and recordkeeping system;

- (e) A change order procedure, which includes a documented, systematic approach to the handling of construction change orders;
- (f) A description of organizational structures, management skills, and staffing levels required throughout the construction phase;
- (g) Quality control and quality assurance programs, which define functions, procedures, and responsibilities for construction and for system installation and integration of system components;
- (h) Material testing policies and procedures;
- (i) Plan for internal reporting requirements including cost and schedule control procedures; and
- (j) Criteria and procedures to be used for testing the operational system or its major components;”

Title 49 U.S. Code Section 5327 Project Management Oversight reiterated these PMP components and added the following requirements:

- “(11) Periodic updates of the plan, especially related to project budget and project schedule, financing, ridership estimates, and the status of local efforts to enhance ridership where ridership estimates partly depend on the success of those efforts;
- (12) The recipient's commitment to submit a project budget and project schedule to the Secretary each month; and

On August 10, 2005, Section 3026 of SAFETEA-LU¹ amended 49 U.S. Code Section 5327 as follows: “Project Management Plan Requirements – Section 5327(a) is amended. . .” to include

- “(13) safety and security management.”

MAP-21² was enacted in part to improve the development and delivery of capital projects. To that end, it redefined the initial phases for new fixed guideway capital projects or core capacity improvement projects to be “Project Development” and “Engineering.”

1. Project Development Phase

- (a) A project enters into the Project Development Phase when—
 - the Sponsor
 - submits a letter to the FTA describing the project and requests entry into the project development phase; and

¹ Public Law 109-59: Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A legacy for Users (SAFETEA-LU).

² The Moving Ahead for Progress in the 21st Century Act (MAP-21), which is a funding and authorization bill that governs U.S. federal surface transportation spending, became law on July 6, 2012. (Ref: Public Law 112-141, July 6, 2012)

- initiates activities required to be carried out under the National Environmental Policy Act of 1969 (42 U.S.C. et seq.) with respect to the project; and
 - the FTA
 - responds in writing to the Sponsor within 45 days whether the information provided is sufficient to enter into the Project Development Phase, including, when necessary, a detailed description of any information deemed insufficient; and
 - provides concurrent notice to Congress that the project is entering the project development phase.
- (b) During the Project Development Phase, Sponsors shall develop sufficient information for the FTA to make findings of project justification, policies and land use patterns that promote public transportation, and local financial commitment.
- (c) Not later than 2 years after the date on which a project enters into the Project Development Phase, the Sponsor shall complete the activities required to obtain a project rating and submit completed documentation to the FTA.

2. **Engineering Phase**

- (a) A project may advance into the Engineering Phase upon completion of activities required under NEPA³ as demonstrated by a record of decision with respect to the project, a finding that the project has no significant impact, or a determination that the project is categorically excluded; and only if FTA determines that the project is selected as the locally preferred alternative, is adopted into metropolitan transportation plan, is justified, and is supported by an acceptable degree of local financial commitment.
- (b) For consideration for an **FFGA** and readiness to proceed into the **Construction Phase**, the Sponsor must have fully developed its PMP and have demonstrated full compliance or revisions to the PMP that reflect current, appropriate, and effective management practices.

FTA Circular 5200.1 “Full-Funding Grant Agreements Guidance” provides Sponsors with guidance and direction on the development of Full Funding Grant Agreements (FFGAs). This circular defines the PMP as a written plan developed and implemented to cover the “Sponsor's detailed project management strategy to control the project budget, schedule, and quality.” It states the following: “By the time of submittal of the application for an FFGA, the Project Management Plan must explicitly address, at a minimum, each of the following: the applicant’s staffing and organization, budget, schedule, document control, change orders, construction staffing, quality control and quality assurance, materials testing, internal reporting, property acquisition, operational systems testing, and safety and security. Also, the Project Management Plan must require that the plan itself will be updated periodically.

The requirements for the PMP are also defined in FTA’s *Project and Construction Management Guidelines, 2011 Update*, (PCMG). The PCMG provides guidance to Project Sponsors on project management principles and practices, and summarizes FTA requirements, best practices, and research results in the management of transit capital project development. The PCMG recommends a phased

³ National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.)

project management approach that starts with inputs, establishes a baseline, refines project definition, and generates outputs that become the inputs and baseline for the subsequent phase. The PCMG suggests that Sponsors should define project requirements, allocate resources, perform project activities, monitor progress, and make adjustments, to ensure timely gathering of information and decision making. The PCMG calls for Sponsors to apply the management principles and guidance embodied in the PCMG to their unique project environment. PCMG Section 2.2.3 lists the 13 required PMP elements, mirroring the language in the law.

3.0 OBJECTIVES

It is essential that the PMOC understand that the preparation of a project management plan is the responsibility of the Sponsor, as is the resultant execution of the total project. FTA and its PMOC are responsible for overseeing the work, providing suggestions for improvement, and confirming compliance with federal laws, regulations, and policies.

The PMOC's review of the PMP provides a major input to FTA to facilitate determination of the adequacy of the Sponsor's legal and administrative capabilities as well as the management capacity and capability to effectively and efficiently execute the planning, design, and implementation of the project. The objectives of this procedure are to guide the PMOC to (1) validate the usefulness of the PMP as an overarching project implementation plan, (2) assess the adequacy and soundness of the elements and sub plans contained within the PMP at required points during the Project, and to ensure such elements are complete to the level necessary for effective and efficient execution of the Project given the project phase, and (3) document its findings, professional opinions, and recommendations in reports to the FTA.

4.0 REFERENCES

The following are the principal, but by no means the only, references to Federal legislation, regulation, and guidance, which the PMOC should review and understand to evaluate project work being reviewed under this OP:

4.1 Legislative

- The Moving Ahead for Progress in the 21st Century Act, or MAP-21, Public Law 112-141, July 6, 2012.

4.2 United States Code

- FTA statutes, 49 U.S.C. Chapter 53

4.3 Regulations (www.ecfr.gov)

- Project Management Oversight, 49 CFR Part 633
- Major Capital Investment Projects; Final Rule, 49 CFR Part 611, April 9, 2013
- Joint FTA/FHWA regulations, Metropolitan Transportation Planning and Programming, 23 CFR Part 450, Subpart C
- Joint FTA/FHWA regulations, Environmental Impact and Related Procedures, 23 CFR Part 771
- U.S. DOT regulation, Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs, 49 CFR Part 24

4.4 FTA Circulars

- C4220.1F, Third Party Contracting Guidance
- C5010.1D, Grant Management Requirements
- C5200.1A, Full Funding Grant Agreements Guidance
- C5800.1, Safety and Security Management Guidance for Major Capital Projects
- FTA Master Agreement (updated and published October 1 of each calendar year)

4.5 Guidance

- Guidance for Transit Financial Plans, June 2000
- Reporting Instructions for the Section 5309 New Starts Criteria, July 2009
- Interim Guidance on Design-Build Project Delivery and the FFGA Process
- Quality Management System Guidelines, December 2012
- Project and Construction Management Guidelines, 2011 Update
- Construction Project Management Handbook, September 2009
- TCRP G-08 - A Guidebook for the Evaluation of Project Delivery Methods, 2009

5.0 SPONSOR SUBMITTALS

The Sponsor is required to formally submit its PMP to FTA at the following milestones during the project life:

- For the Readiness Review to enter the Engineering Phase
- For the Readiness Review for Full Funding Grant Agreement (FFGA)
- When 40% of construction value has been bid and contracted
- At revenue operations [as a retrospective or as-built]

Depending on the duration between milestones, the Sponsor may elect to make interim submittals or FTA may require interim submittals when any major section of the PMP has been significantly affected (i.e. major policies or procedures have changed based on changes to the procurement methods, manner in which cost or schedule are tracked, major organizational or responsibility changes, program changes, logistics changes, scope changes, and other similar changes).

Appendix B below provides a typical Table of Contents for a PMP. The PMP elements and sub plans are explained in greater detail in Section 6.0 below. The Sponsor should appropriately scale the PMP to the size of the project. The treatment of elements and sub plans may vary with the size and complexity of the project, however, a Safety and Security Management Plan is always required.

6.0 SCOPE OF WORK

6.1 PMP Element and Subplan Requirements by Phase

Based on the Table of Contents in Appendix B, the following sections provide supplemental information regarding the PMOC's review of the PMP at each of the three review milestones and at interim points as directed by FTA. At these milestones, the Sponsor is expected to provide FTA with a PMP developed to the level of completeness indicated. If the PMOC determines an element of the PMP is not complete to a satisfactory level, the PMOC should recommend to FTA that the element be returned for revision and resubmittal. The PMOC will be required to re-review such elements. Also, if an unanticipated project event, for example a change in organizational structure warrants the revision of an element or elements of a PMP, another review by the PMOC will be required.

The PMOC shall become familiar with FTA's guidance on PMP development, which can be found in the *Project & Construction - Management Guidelines* and *Circular 5010.1 Grant Management Requirements*. The PMOC should understand that the Sponsor is required to develop and implement a PMP that demonstrates its management capacity and capability to:

- Effectively and efficiently manage the implementation of the proposed project;
- Provide, directly or by contract, adequate professional, managerial, and technical expertise for the project's design, construction, and start-up, as well as qualified services for inspection and supervision of construction, testing, and start up work;
- Assure conformance with grant agreements, applicable statutes, regulations, codes, ordinances, and safety standards;
- Recognize FTA's role and the PMOC's role in performing oversight of the project;
- Establish and maintain adequate internal controls regarding system operations, service schedules, and financial reporting for capital assets and operations.

Cursory Review

Upon receipt of the PMP, the PMOC shall quickly scrutinize it for its adequacy and completeness. If the PMP outline appears unsatisfactory, the PMOC shall recommend to FTA that it be returned to the Sponsor for revision and resubmittal.

Full Review

In its full review, the PMOC shall assess, evaluate, and characterize the PMP; shall consider the extent, nature, level of detail, and quality of the Sponsor's approach as portrayed by the entire PMP and in each PMP element. The PMOC's review report should provide FTA with findings, analyses, professional opinions, and recommendations in a clear and understandable format. Each element of the PMP appropriate and required for this phase in the project's development shall be addressed. If an element is recommended for acceptance, revision, or rejection, this recommendation shall be clearly noted in the PMP report.

6.2 Technical Assistance/Oversight Reviews During Project Development

During Project Development, FTA may perform technical assistance workshops and reviews and assign FTA staff or a PMOC. The reviews provide the Grantee guidance to meet the requirements to enter Engineering, and provide FTA with information about the project's strengths and weaknesses to timely complete the Readiness Review for entry into the Engineering Phase of the project.

FTA may recommend that the PMOC hold a workshop to help establish roles and responsibilities and define baseline standards of performance related to the management of the project. Few, if any, Grantees have all the capabilities or authorities to plan, design, and implement a major capital project by themselves. Bringing the Grantee's staff, consultants, the PMOC team (including appropriate sub-contractors), and relevant third parties together in a workshop early in Project Development can help to shape the project management approach. Through workshop discussions, all parties can gain a better understanding of each other's requirements, responsibilities, and authorities as related to the project.

Examples of workshop participants are other federal transportation representatives (FRA, FAA), other passenger transport agencies (transit, intercity rail and bus, airport authorities), state DOTs, city departments of streets, utilities, zoning/permitting, emergency responders, and other stakeholders. Workshop discussions can lay the foundation for the project management approach that is documented in the PMP. FTA can participate as well to set forth the federal requirements for a major capital transit investment and explain FTA's oversight process.

In a workshop setting, vital project implementation topics can be put on the table and fully explored. Examples of topics include real estate requirements, policies, and procedures (i.e., appraisal requirements; eminent domain authority and protocols); alternative delivery contracting authorities and protocols; negotiated contract sum vs. low bid; permitting submittal requirements and protocols; community concerns and outreach plans; and other appropriate implementation topics. In the workshop, a partnering-type process can be established that can help to weather future political shifts and agency leadership changes.

6.3 Review for Entry into Engineering

It is important to recognize the expected status of the project when preparing for the Readiness Review for Entry into Engineering:

- NEPA process is complete
- The project has an acceptable rating (reference 49 CFR 611.207)
- The elements listed in Appendix B of OP 51 "Readiness to Enter Engineering" are complete

Within the PMP, the Sponsor should delineate specifics for administrative and technical activities, environmental assessment work, property acquisition and relocation, and community relations, and delineate the process and activities it will employ to ensure completeness and accuracy of the Project Development phase work so as to meet FTA requirements for technical and financial readiness for Engineering and future project development phases.

PMP review at this milestone shall assess the capability of the Sponsor and its project management approach to take the project successfully from Project Development through Engineering and through award of the FFGA. In addition, the PMP at this phase should demonstrate a well-conceived plan for project bidding and construction.

The PMOC shall assess and evaluate the degree to which the PMP elements 1) mirror and complement the Sponsor's overall management strategy and 2) are effective in minimizing scope changes, cost increases, and schedule extensions. The PMP covers all material project activities over the entire project life and the PMP constitutes evidence of the Sponsor's capacity and capability to manage the project. Given these, the PMOC's review of the PMP is a critical input to FTA's finding of whether the Sponsor is eligible for an engineering grant in accordance with 49 CFR 611.201, New Starts Eligibility.

The PMOC shall review and summarize its findings and opinions and present recommendations with respect to the adequacy and soundness of the plans and procedures for:

- NEPA Coordination. As the NEPA determination will have been made, the PMOC should verify that the Sponsor's plan for managing and implementing mitigation actions is in place. A component of this review is to ensure that the environmental mitigation work is incorporated into the design documents, cost estimates, and schedules. This should include the identification of the environmental site assessments that will need to be completed before the real estate process is started. If the project documents are not advanced enough to incorporate the environmental mitigation work, the PMOC shall ensure this is checked at the next milestone review.
- Design Control. The review should confirm the Sponsor's establishment and implementation of appropriate plans and procedures for design control including reviews for design, value engineering, life-cycle cost considerations, constructability, and safety. The review should confirm the ridership forecast is supported by the project operations plan and transit capacity. Procedures for the resolution of drawing and specification review comments should be in place; these procedures should be in use by all design team members. The PMOC should check that Change Control procedures are established to ensure that changes are adequately carried through all drawings.
- Property Acquisitions and Relocation. The PMOC should review and assess the Sponsor's property acquisition and relocations policies and procedures including but not limited to the Real Estate Acquisition Management Plan.
- Project Controls. The PMOC should review the Sponsor's document control, cost, schedule and control procedures with the project team and third parties, and assess whether these procedures are in place and well followed. The PMOC should review the baselines for capital cost estimate and schedule, and assess the approach and plans for risk identification, assessment and mitigation, and the development of adequate contingencies. The risk management plan shall incorporate mitigation measures including maintenance of contingency amounts for cost and schedule at project hold points. It is important to note that this PMP review is not a risk review. Procedures for performing risk and contingency reviews are contained in the Risk Management Review, OP40. In addition, the PMOC should review procedures for cost sharing agreements with outside funding partners, and check that the schedule for receipt of funds is consistent with the requirements of the project schedule.
- Project Delivery and Procurement. The PMOC shall review the Sponsor's plan for project delivery and procurement. The PMOC shall evaluate the soundness and adequacy of the Grantee's approach to bidding and awarding of contracts, procurement of materials, equipment and vehicles and the construction administration and construction management of

the Project. The PMOC should verify that the selected project delivery methods and contract packaging strategies are reflected in project schedules and cost estimates.

- PMP Subplans. The PMOC shall review for adequacy and soundness the Sponsor's PMP subplans, including:
 - Management Capacity and Capability documents (OP21);
 - Safety and Security Management Plan (OP22);
 - Real Estate Acquisition Management Plan (OP23);
 - Quality Assurance/Quality Control Plan (OP24);
 - Bus and Rail Fleet Management Plans (OP37)
 - Risk and Contingency Management Plan (OP40)

The PMOC shall analyze these subplans and make suggestions for improvement to the Sponsor along with recommendations for resolving issues surrounding the development and implementation of these plans.

6.4 Review During Engineering

This PMP review should assess the Sponsor's basis for the project, how well the Sponsor has addressed the environmental review requirement, and how robust the Sponsor's management plan is to take the project successfully from Project Development through Engineering. Further, it is critical that the PMP at this phase demonstrate the Sponsor's consideration and careful planning of risk and contingency management plans and controls.

The PMOC's review should fully assess the degree to which the PMP describes the processes and methods needed to implement the project and the interfaces that will be created between various participants. The PMOC shall review and summarize its findings and opinions and provide recommendations with respect to the adequacy and soundness of the Sponsor's plans and procedures for:

- Environmental assessment, including environmental site assessments
- Design control
- Project controls
- Project delivery and procurement
- PMP sub plans including: (refer to other OPs on each of these sub plans)
 - Sponsor's Management Capacity and Capability Plan: The adequacy and soundness of the Sponsor's approach to managing and staffing the project with agency staff and outside consultants are critical to project success.
 - Quality Assurance / Quality Control (QA/QC) Plan: This plan establishes management responsibility and a QA/QC framework for the project, with emphasis at this milestone on the plan for design review during Project Development.
 - Safety and Security Management Plan
 - Real Estate Acquisition Management Plan
 - Bus and Rail Fleet Management Plans
 - Risk and Contingency Management Plan

6.5 Readiness Review for FFGA

The requirements for an FFGA are:

- Updated PMP and subplans, which includes a risk and contingency management plan;
- Processes and procedures in place to manage the project during FFGA/Construction;
- Staffing Plan that includes real estate acquisition and management, schedule and cost controls, risk management, construction management, quality assurance and quality control, safety and security management, and start-up and testing;
- Refined and updated level of project definition to support FFGA costs and schedule;
- All critical third-party agreements and permits are in place; and,
- Resolution of all remaining issues from the Engineering Review,

As a part of the FFGA Readiness Review, which should take no more than two months, the PMOC shall review the PMP to reassess the management capability of the Sponsor to successfully take the project upon award of an FFGA through bid, award, and construction, and into revenue operations.

The PMOC shall review and summarize its findings and opinions and present recommendations with respect to the adequacy and soundness of the Sponsor's PMP and subplans and procedures, and the successful implementation of such plans and procedures for:

- NEPA Coordination. The PMOC should confirm that the Sponsor's plan for managing and implementing mitigation actions is in place, and confirm that the environmental mitigation (including environmental site assessments) work is incorporated into the design documents, cost estimates, and schedules.
- Design Control. The review should confirm implementation of appropriate plans and procedures for design control in all aspects. Areas of focus include level of:
 - consistency with design criteria;
 - coordination and change control among design disciplines for drawings and specifications;
 - completeness of soils testing and site surveys;
 - coordination with third parties;
 - completeness of project documents for bidding.
- Project Controls. The review at this stage should confirm implementation of project controls in all aspects including procedures for cost and schedule control, risk management, and dispute or conflict resolution during construction. The PMOC should again check for procedures on cost sharing (see entry to Engineering). Risk and contingency management policies and procedures should be in place and routinely used.
- Property Acquisitions. The review should assess whether the land acquisitions and relocation activities have been implemented in compliance with established policies and procedures and are in compliance with applicable laws and regulations. In addition, a review of the Sponsor's procedures for tracking and monitoring the status of real estate activities should be done to confirm the Grantee's ability to meet project schedule.

- Project Delivery and Procurement. The review should confirm implementation of plans and procedures for project delivery and procurement. Specifically, the review should focus on the Sponsor's schedule for bidding construction packages and procuring equipment and vehicles.
- Labor Relations and Policies. The review should assess the establishment of these policies.
- Construction of Fixed Infrastructure. The review should assess the establishment of plans and procedures regarding construction administration, construction management, construction inspection, coordinating construction work by third parties, site logistics, and construction change order and shop drawing document flow and authorities.
- Start-up and Revenue Operations. The review should assess the establishment of plans and procedures regarding testing/commissioning, closeout of construction contracts, and training of staff.
- PMP Subplans. The PMOC shall review for adequacy and soundness the Sponsor's PMP subplans including the Sponsor's Management Capacity and Capability Documents, QA/QC Plan, Safety and Security Management Plan, Risk and Contingency Management Plan, Real Estate Acquisition Management Plan, and Bus and Rail Fleet Management Plans. The PMOC shall analyze these subplans and provide technical assistance to the Sponsor along with recommendations for resolving issues surrounding the development and implementation of these plans.

6.6 Reviews During Construction

PMP reviews should take place when approximately 40 percent of the construction has been bid awarded, and again at revenue operations to serve as an as-built document. The PMOC should update its previous assessment of the capability of the Sponsor and the Sponsor's management approach to successfully take the project through completion of bidding, award, construction, and revenue operations. The PMOC should update its evaluation of the soundness and adequacy of the Sponsor's approach to:

- Performance of environmental mitigation measures during construction;
- Design control. The review should check for maintenance of the Sponsor's schedule for completion of contract documents relative to the schedule for bidding and awarding of contract; and implementation of procedures established for configuration and change control of documents.
- All of the following: Project Controls, Project Delivery and Procurement, Labor Relations and Policies, and Construction procedures. In addition, the PMOC should give particular focus to the Sponsor's implementation of plans and procedures for document control, cost, schedule and risk control, and dispute resolution. Also, the PMOC shall focus on an update to its assessment of the adequacy and soundness of the Sponsor's plan for startup and testing operations including coordination, collection of materials, and staffing and training staff for operations.
- PMP Sub plans. The PMOC should assess the implementation of established plans and procedures for the Sponsor's PMP sub plans including the Sponsor Management Capacity and Capability, QA/QC, Safety and Security Management Plan, Real Estate Acquisition Management Plan, and Bus and Rail Fleet Management Plans.

7.0 REPORT, PRESENTATION, RECONCILIATION

Bearing in mind the requirements of the Project Management Oversight Rule, FTA Circular 5200.1 and other relevant guidance, the PMOC should provide a comprehensive report on the Sponsor's PMP. The report should identify insufficiencies and areas of non-conformance, document other findings and conclusions, support findings with evidence, support conclusions with sound analysis, and include suggestions for improving the Sponsor's Plan.

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. Further, in the event that the PMOC determines that any element of the Sponsor's PMP is inadequate or weak, the PMOC shall make recommendations for corrective action along with a time frame for these actions, and reconcile such findings with the Sponsor.

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 add other software as required, but documentation and report data shall be made available to FTA.

APPENDIX A

Acceptable Quality Level

	DESIRED OUTCOME	PERFORMANCE REQUIREMENT	CHECK LIST	ACCEPTABLE QUALITY LEVEL	PERFORMANCE MEASURE	MONITORING METHOD
1	The PMOC shall validate the thoroughness of Sponsor's PMP as an overarching project management tool.	R1a. The PMOC shall develop and document a process for review and analysis of a Sponsor's PMP.		Q1a. PMOC provides documentation of the process	M1a. Review of the process documentation.	MM1a. Periodic review by FTA or its agent.
		R1b. The PMOC shall use its process and project management judgment at specific Project phases to validate the thoroughness of the PMP and its ability to carry the Project to successful conclusion.		Q1b. Assessment must be made and the PMOC provides internal verification that the process has been followed.	M1b. Documented assessment of the PMP as an overarching project management tool.	MM1b. Periodic review by FTA or its agent.
2	The PMOC shall assess, evaluate and characterize the Sponsor's PMP, including required sub plans, for various phases of the Project from Project Development to closeout such that FTA is assured that Sponsor will implement the Project on schedule and within budget.	R2b. In Project Development or Requesting Entry into Engineering: The PMOC shall provide FTA with its opinion and recommendations as to Sponsor's PMP at this phase of the Project and the ability of the Sponsor and its PMP to carry the project from Engineering through award of FFGA.		Q2b. Professional opinion of Sponsor's PMP for the Project phase and necessary recommendations.	M2b. Documented evidence of a thorough review of Sponsor's PMP at this phase of the Project, supported by professional opinion.	MM2b. Periodic review by FTA or its agent.
		R2c. In Engineering and/or Requesting FFGA: The PMOC shall provide FTA with its opinion and recommendations as to Sponsor's PMP at this phase of the Project and the ability of the Sponsor and its PMP to carry the Project from award of FFGA through bid, award, and construction and into revenue operations.		Q2c. Professional opinion of Sponsor's PMP for the Project phase and necessary recommendations.	M2c. Documented evidence of a thorough review of Sponsor's PMP at this phase of the Project, supported by professional opinion.	MM2c. Periodic review by FTA or its agent.
		R2d. Bid/Award/Construction: The PMOC shall provide FTA with its opinion and recommendations at a) when 40 percent of construction is awarded and b) at revenue operations (to serve as an as-built document) as to Sponsor's PMP at this phase of the Project and the ability of the PMP to carry the Project through completion of construction and into revenue operations.		Q2d. Professional opinion of Sponsor's PMP for the Project phase and necessary recommendations.	M2d. Documented evidence of a thorough review of Sponsor's PMP at these milestones and this phase of the Project, supported by professional opinion.	MM2d. Periodic review by FTA or its agent.
		R3. The PMOC shall present its findings, conclusions, and recommendations to FTA and the Sponsor and reconcile other reports and those recommendations with the Sponsor to the extent possible.		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, conclusions, recommendations, and presentation.	MM3. Periodic review by FTA or its agent.
3	The PMOC shall document its findings, professional opinions, and recommendations in a report to the FTA and Sponsor.					

Appendix B

PMP Table of Contents

PMP Table of Contents	In PD, and/or Req. Entry to Eng.	In Eng. and/or Req. FFGA	In Bid / Award and / or Constr.
1. Basis for the Project			
Objectives of the Project	•		
Project Description	•		
Name of project sponsor and all partners involved in project development work	•		
Description of project organization with key personnel and support contractors including safety and security, for Project Development	•		
An anticipated timeline for completing the project development work within the two-year timeframe specified in MAP-21	•		
Delete this row			
Evidence of LPA adoption into MPO Long Range Plan	•		
Evidence of project in TIP, STIP	•		
Legal Authority to Implement the Project and other Legal Approvals	•	○	
PMP Workshop Documentation (if applicable)	•		
2. Environmental Assessment / Mitigation Plan			
Delineation of NEPA analysis requirements / Project Impact Analysis	•		
Description of Mitigation Principles	•		
Plan for Management and Implementation of Mitigation Actions	•	○	○
3. Design Control Plan			
Description of relationship between forecasted ridership, operating plan and proposed project transit capacity in guideways, stations, support facilities	•		
Design Criteria for Each Discipline	•		
Schedule for the development of contract documents (level of development expected at each milestone for design/construction drawings, specifications, general and supplementary conditions of contracts for construction, and the Division 1)	•	○	
Design Reviews for Drawings and Specifications			
Value Engineering Review / Life Cycle Review	•	○	
Coordination Review – Internal to agency and design team; External to third parties, intergovernmental, etc.; Transit-oriented and Joint Dev.	•	○	
Constructability Review	•	○	
Operability and Maintainability Review	•	○	
Other peer or industry reviews	•	○	
Design Change and Configuration Control of documents during Design and Construction			
Change Identification	•	○	
Documentation Procedures	•	○	
Review and approval	•	○	
Plan (List and schedule) for third party agreements permits including utilities, real estate, railroads, transit-oriented development/joint development, etc.	•	○	
Investigation and Testing Plan			
Plan/schedule for site surveys, geotechnical and materials investigation before/during design	•		
Plan/schedule for geotechnical and materials testing during construction	•	○	
4. Project Controls			
Document and Records Controls			
Description of document organization approach including review, distribution, storage	•	○	○
Identification of physical document location	•	○	○
Identification of electronic document control system; description of interoperability among management systems	•	○	○
Evidence of Document Control Procedures being implemented	•	○	○
Cost Control Procedures			
Description of Estimating Methods/Assumptions	•		

Appendix B

PMP Table of Contents

PMP Table of Contents		In PD, and/or Req. Entry to Eng.	In Eng. and/or Req. FFGA	In Bid / Award and / or Constr.
	Final Cost Estimating Methodology Report	●		
	Procedures for maintaining Baseline Project Cost through:			
	Minimizing schedule delays	▲	●	○
4. Project Controls (con't)				
	Contingency Management	▲	●	○
	Contracting techniques	▲	●	○
	Cost allocation	▲	●	○
	Procedures for working with construction contractors to maintain SCC Cost Breakdown of contract sum through construction, at contract closeout.	▲	●	○
Schedule Control Procedures				
	Description of Scheduling Methods and Assumptions	●		
	Procedures for updating Baseline Project Schedule	▲	●	○
	Procedures for keeping the project on schedule	▲	●	○
Risk Control Procedures				
	Description of risk identification procedures pertaining to project team organization, scope, cost, schedule, quality;	●	○	
	Risk identification in project team; drawings; General and Supplementary Conditions; Div. 1, Div. 2 – 48 Technical Specifications			
	Risk evaluation / assessment plan and procedures	●	○	
	Risk control and management plan and procedures	●	○	○
	Contingency control and management plan and procedures including establishment of minimum contingency levels at each milestone (contingency drawdown)	●	○	○
	Role of Insurance	●	○	
Dispute / Conflict Resolution Plan (claims avoidance and claims resolution)				
	Plan for Design Phases	●		
	Plan for Procurement	●	○	
	Plan for Construction Phase	▲	●	○
	Plan for Start Up and Revenue Operations		●	○
5. Project Delivery and Procurement Plan				
Procedures for Procurement (advertising, bidding, awarding of contracts for consultants and construction contractors, procurement for equipment, etc.)		▲	●	○
Procurement Plan and Schedule (indicate project phase, durations for RFP, screening, interviews, selection, board approvals, etc.)		▲	▲●	○
	Community Outreach Services	●		
	Information System Services	●	○	
	Real Estate Services	●		
	Project Management Services	●	○	
	Design Services	●	○	
	Legal Services and other services	●	○	
	Construction Management Services	●	○	
	Construction Testing and Inspection Services	●	○	
	Construction	●	○	
	Prelim. Selection of Project Delivery Method (DBB, DB, CMGC etc.) (include rationale for and identification of risks inherent in selected method)	●	○	
	Final Selection of Project Delivery Method	●	○	
	Major Contract Packages – Description of Packages and Construction Sequencing	●	○	
	Procurement of Long Lead Items and Pre-FFGA items or work	●	○	

Appendix B

PMP Table of Contents

PMP Table of Contents		In PD, and/or Req. Entry to Eng.	In Eng. and/or Req. FFGA	In Bid / Award and / or Constr.
	Procurement of Materials, Equipment, Vehicles including procurement in advance of construction contract	●	○	
	Work by Sponsor's Own Forces	●	○	
5. Project Delivery and Procurement Plan (con't)				
	Work by Third Parties such as Utilities, Railroads, Private Sector, etc.	●	○	
Contracting Strategy for Transit- Oriented Development and Joint Development		●	○	○
Identification of Disadvantaged Business Enterprises (DBE) Opportunities, Federal DBE, State/Local WBE & MBE, Plans and Goals		●	○	○
6. Labor Relations and Policies				
Wage Rates and Classifications			●	
Wage and Hour Requirements			●	
State and Local Regulations			●	
No-Strike Agreements			●	
7. Construction of Fixed Infrastructure – Procedures				
Construction Contract Administration			●	
Construction Management			●	
Construction Inspection			●	
Coordination with Third Parties			●	
Site Logistics Plan (materials transport and storage; temporary site facilities; maintenance of existing pedestrian ways, transit and traffic operations during construction; protection of existing utilities)		▲	●	
Processing Shop Drawing, Bulletin, RFIs			●	
Negotiating and Approving Change Orders and Claims			●	
Substantial Completion; Final Completion			●	
8. Start up and Revenue Operations				
Testing Plan			●	
	Systems		●	
	Equipment		●	
	Vehicles		●	
Closeout Materials (warranties, testing results, O&M manuals, spare parts, etc.)			●	
Plan for Training of Staff			●	
9. Sponsor Management Capacity and Capability Documents (MCC)				
Management Capacity and Capability		●	○	○
10. Quality Assurance / Quality Control Program Plan				
QA/QC Plan		●	○	○
11. Safety and Security Management Plan				
Safety and Security Management Plan		●	○	○
12. Real Estate Acquisition and Management Plan				
Real Estate Acquisition Management Plan		●	○	○
13. Fleet Management Plan				
Fleet Management Plan		●	○	

▲ Preliminary information required ● Element to be completed ○ Element to be modified or augmented with additional information as necessary