Introduction

A Project Manager (PM) must have a primary objective to clearly understand the history of a project and ensure a smooth transition among phases. A typical FDOT project can take many years to move through multiple phases, including Planning, Project Development and Environment (PD&E), Design, Right of Way (R/W), Construction and Maintenance. Throughout a project's life there will be various PMs (both FDOT and consultant) across each of the project phases. Many decisions will be reached, commitments made, and technical details added. Phase-to-phase coordination and hand-off of projects is very important. Valuable work performed in earlier phases must not be lost and commitments must be fulfilled. Each phase, PMs must understand the history of the project, including its conceptual objectives and commitments made in previous phases. Districts may have project continuity policies which must be followed. This chapter provides information for supporting these policies.

In general, a project file should be maintained, which will be handed off between phases. It should contain the original project scoping report, a summary of the key issues which each phase PM faced, references of key documents produced in the project, commitments made, and recommendations of each PM for the next phase.

Commitments (including those made to local governments, permitting agencies, business, property owners, utilities, homeowner associations, and any other individuals and groups) must be tracked through each project phase. If a District has not instituted formal commitment tracking systems for this purpose, each PM should provide a listing of the commitments, including a commitment summary, name of the individual, group or agency making the commitment, and its date and document file reference. The receiving PM must review and honor previously made commitments.

The receiving PM should be identified before the hand-off date. That PM should become an active participant in the project to become familiar with the project and to participate in decisions that will directly affect the next work phase. The receiving PM should consult frequently with the previous phase PM on sensitive and unclear issues to understand the project history, ensure continuity, and avoid duplicate, unnecessary, and inappropriate work.

Phase Hand-Offs

Most FDOT projects involve phases which follow the order: **Planning** – **PD&E** – **Design** – **Right of Way (R/W)** – **Construction** – **Maintenance**. Some exceptions to this are when Construction and Design are combined (Design-Build), when the PD&E phase is omitted (Planning to Design), or when PD&E and Design are combined. A transfer of information from one phase to the next is important for project continuity. On more complex projects, "Pass-the-Torch" (PTT) or "Hand-Off" meetings may be held to discuss the transfer of project information. Some of the key points and best practices for phase-to-phase transitions are addressed in the following sections.

Planning to PD&E. The Planning process discussed in ***PMG 110 – Transportation Planning Process***, identifies transportation needs which drive the Work Program discussed in ***PMG 210***. When a project enters the Work Program, a Project Scoping Report is prepared that includes project objectives, design concepts, schedule, and budget for each phase. This report is the basis of the work program data for the project.

Planning projects are programmed and funded before the identification of specific projects. It is not known at the initiation of a planning study if a project is needed and justified. Not all planning studies identify specific projects; however, many corridor, area, feasibility and conceptual studies result in the recommendation of projects. Commonly, corridor and area studies will identify large-scale

transportation needs, which will later be broken into smaller projects that can be more easily funded and managed. When projects are likely to be initiated as a result of a planning study, the planning report should define the project objectives, establish the need for the project, identify design concepts, identify project limits and provide initial project cost. Political, public and stakeholder issues as well as potential environmental issues should be identified.

When a Project Scoping Report is prepared, any corridor, area or feasibility reports available must be reviewed carefully to identify pertinent information. This information will help make the Project Scoping Report as complete and accurate as possible. Appropriate planning studies should be referenced in the Project Scoping Report.

At initiation of a PD&E project, the PD&E PM should carefully review the Project Scoping Report and referenced planning studies and use this information to plan the PD&E project.

Working in conjunction with the Federal Highway Administration (FHWA) and other federal, state, and local agencies, the FDOT developed its Efficient Transportation Decision Making (ETDM) process for streamlining transportation decisions. The process redefines how FDOT will accomplish transportation planning, project development, and permitting within its current statutes and regulations. The ETDM process creates linkages between land use, transportation, and environmental resource planning initiatives. ETDM results in more effective integration of the Planning and PD&E phases and facilitation of project hand-offs.

PD&E to Design. The Design PM (DPM) should be designated before the completion of the PD&E project. The DPM can take an active part in the PD&E project by making an effort to attend public meetings and hearings. These events provide an excellent overview of the project and associated key issues.

The PD&E report and/or environmental documentation will contain the improvement alternatives considered, the selected alternative, anticipated socio-economic and environmental impacts, permitting issues, and projected R/W and construction costs. This information is valuable for planning and scoping a design project. The PD&E PM should consider preparing a design hand-off report that summarizes the key information from the PD&E report and clearly lists all commitments made to local government and permitting agencies, business and property owners, and any other groups. The PD&E PM should remember that PD&E projects are frequently subdivided into more than one design project. Also, gaps of several months or years often occur between the end of a PD&E project and the beginning of a design project. The PD&E PM should assemble a hand-off file containing the original Project Scoping Report, a hand-off report, and either a reference to the PD&E report or the report itself. The PD&E and DPM should meet to ensure hand-off of appropriate information.

Planning to Design. In some cases, the PD&E phase is omitted and a project goes directly from Planning to Design. The DPM should begin building a project history file with the Project Scoping Report, environmental reports and available project conceptual information.

Projects that have not gone through the PD&E phase are relatively small and limited in scope, including safety, minor capacity improvements and Resurfacing, Restoration and Rehabilitation (RRR) projects. The justification for safety projects normally includes a benefit/cost analysis. Adding project features, which result in additional cost, can change the original justification. The budget should be a major consideration in the scoping process. Districts are allocated RRR funds based on a fixed amount per lane mile for resurfacing plus a limited amount for other improvements and upgrades. When these projects are scoped, clearly understanding project objectives and available funds is critical.

Design to R/W. The R/W PM should be involved with a project beginning with the PD&E phase. The R/W PM must be consulted during design and PD&E to ensure that appropriate and realistic R/W impacts and costs are considered.

The R/W phase officially begins during the design phase. Commitments that have been made from the beginning of a project must be made available to the R/WPM.

R/W to Design and Construction. During the R/W process, there must be frequent communications and careful coordination between R/W and Design. Small changes in the design can have a major R/W impact, and R/W commitments must be accounted for in the design. When appropriate, R/W commitments should be shown on the construction plans. A final meeting near the end of the R/W phase should be held to ensure that all issues have been coordinated. Construction should be part of this meeting so that all important R/W issues and commitments impacting the construction project are understood.

Design to Construction. The Construction PM (CPM) should be involved in the design of a project from the outset, and the DPM should continue to be involved through construction completion. The CPM should review the plans at each phase submittal to ensure that the project is constructible. The familiarity gained through these reviews will greatly aid in planning the inspection and engineering efforts required for the construction project.

There should be a formal hand-off or PTT meeting, between the DPM and the CPM. This meeting should include the R/W PM and representatives of all appropriate support offices. Among the key issues to be coordinated are:

- R/W
- Traffic control plans
- Environmental concerns, including permit conditions and requirements
- Utilities
- Public and political sensitivities
- Local agency coordination issues
- All PD&E, R/W, and Design commitments
- Designer's intent for complex issues, pay items, specifications, plan notes, project phasing and restricted activities
- Post-design services on the part of the Engineer of Record, including communication procedures, attendance at construction meetings and contractual issues

Construction to Maintenance. The responsible maintenance professional should be involved in a project from the design phase through the construction phase. The maintainability of a project is an important consideration for both the DPM and the CPM. From a life-cycle perspective, maintenance costs can be a major portion of the total project cost. Expenditures during design and construction that improve maintainability reduce cost in the long run. The responsible maintenance professional and the CPM should perform an inspection of the construction project in the final stages to identify maintenance concerns that can be addressed prior to completion of the project. This inspection is commonly done at 90% complete or sooner. Maintenance should always be invited to participate in the final walk-through inspection before a project is accepted from the contractor. All districts have a formalized turnover process that should be followed at the completion of a project.

Combined Phases. The FDOT frequently contracts for combined phases, such as PD&E and design or design-build. The hand-off between phases that have been combined may not be as well defined as a hand-off of more traditional projects, but the concepts discussed above still apply. When hand-off procedures are not well defined, both the transferring and receiving PMs must ensure that all

necessary coordination has occurred and that the hand-off is well documented. Previous phase PMs must be readily available to respond on a timely basis to questions from subsequent phase PMs.

Project Feedback

Throughout the process, the current phase PM should keep the preceding phase PMs informed of problems that have occurred, with the objective of improving future projects. Many districts have formal procedures to identify lessons learned. An effective technique is to conduct an on-site review after the project has been completed. The PD&E, design, construction, and maintenance PMs should participate. If the review is conducted after the project has been open to traffic from two to five years, the project should still be fresh in the minds of those involved in its development. Maintenance and enforcement personnel will have gained some experience with the project during that time. This review team should evaluate project development, design, and construction and recommend procedures to enhance performance on future projects. Regardless of the technique used, a lesson is not learned until procedural changes take place.

PM Changes

FDOT PM - FDOT projects last for several months or even years. Individuals get promoted, transferred, or they retire and leave the organization. Project continuity is a serious concern when there is a PM change during an active project phase. PMs should keep in mind that they may not finish a project. Therefore, project documentation should be maintained in a manner that will make it easy for a successor to take over. Least project interruption occurs when the PM has been diligent about developing a solid ***Project Management Plan (PMG 110)*** and keeping it current documenting all important activities and decisions, and ensuring that the project files are current, complete and accurate. It is good business to manage a project as if someone else will take it over next week.

As soon as a PM knows that they will be leaving a project, the supervisor should be notified and the project records updated. The new PM should be designated as quickly as possible to maximize overlap time of the two PMs. The Project Work Plan is a good checklist for briefing the new PM on key project issues. Every PM develops a list of personal contacts necessary to conduct project business. This list should be shared with the new PM and personal introductions made. The consultant PM should be notified promptly of the pending change, and the new PM should establish a positive working relationship with the consultant as quickly as possible.

Consultant PM - Consultant PM changes should be handled very carefully since it is likely that the consultant firm was selected in large part on the qualifications of the PM. Therefore, a change in PM has contractual implications. The consultant firm should make every practical attempt to avoid such a change. When it cannot be avoided, the FDOT PM should be notified of the situation immediately. This notification should include a proposed replacement with qualifications equal to or exceeding those of the original PM for approval by the FDOT. In addition, the firm should propose a transition plan, developed with the objective of minimizing negative impact to the project. The notification, name of nominated replacement, and transition plan should be from the firm's principal in charge of the project.