Introduction

The term Project Manager (PM) is a general term used throughout this chapter for the Florida Department of Transportation (FDOT) employee responsible for managing a project. Unless specifically indicated otherwise, PM refers to the FDOT Design-Build (D-B) PM.

There are many unique features of D-B projects that affect the roles of the PM, the consultant designer, and the contractor. Primary references for D-B projects are ***Procedure No. 625-020-010***, ***Design-Build Procurement and Administration***. The role of the PM in D-B projects is discussed in Section 3.1 of the procedure.

Unique Features of Design-Build Projects

D-B combines into a single contract the design, construction and acceptance requirements of a project, all in accordance with the appropriate FDOT contractual documents. Right of Way services may also be included in D-B projects. These projects allow the contractor to participate in the design in an effort to reduce costs and expedite construction. It is important for the PM to understand the benefits the FDOT can expect by using the D-B delivery method:

- Completing projects faster as a result of concurrent design and construction activities.
- Reducing the number of supplemental agreements and change orders during construction.
- Eliminating supplemental agreements in consultant design contracts.
- Shifting some liability from FDOT to the contractor.
- Minimizing claims.
- Reducing the costs of consultant design fees and consultant inspection fees.
- Reducing FDOT administration costs.
- Encouraging the use of innovative design and construction techniques.

The design consultant is placed in a totally different role as part of a D-B team. The contractor is ordinarily the lead partner in the team. The designer assumes the role of partner and must coordinate the design with the contractor who ultimately builds the project. The designer is required to consider the contractor's recommendations for possible inclusion in the design and must closely coordinate design with construction activities. Because construction generally starts in advance of the completion of design, close coordination between the contractor and designer is required. Simultaneous work on design and construction is what shortens the project time.

The PM should be aware of types of projects usually selected for D-B consideration include those that:

- Demand an expedited schedule and can be completed earlier than by normal procurement.
- Require minimum right of way acquisition and utility involvement.
- Do not require complex environmental permitting.
- Have a well-defined scope for all parties (design and construction).
- Have room for innovation in the design and/or construction effort.
- Are low in risk of unforeseen conditions.
- Have a low possibility for significant change during all phases of work.

Scheduling

Scheduling projects for D-B procurement is unique in that the design and construction will overlap substantially. Once concepts and preliminary plans are completed and reviewed, the designer then starts on the final design plans. Construction can usually begin when the final plans are about 60% complete. However, each project is unique and the design-construction overlap will vary.

Under conventional procedures, a consultant under direct contract with the FDOT completes the design. Then the project is advertised for bids from contractors. This end-to-end process is time consuming, but it provides excellent review and modification time. The D-B process provides an overlap of the design-construction effort by establishing the contract document criteria for both at the same time.

The PM should establish clear benchmarks and other criteria to measure progress (and payment) in the project schedule. Tracking these projects is of utmost importance since product delivery time is one of the major advantages of the D-B process.

Coordination Issues

On a D-B project, the PM will be responsible for coordinating the procurement of D-B services as well as overseeing the engineering, inspection and construction of the project. These responsibilities are clearly outlined in Section 3 of ***Procedure No. 625-020-010***. A team approach, with a PM from production and a PM from operations/construction, is a viable way to fulfill the responsibilities of this role. Some of the responsibilities are:

- Developing the Design Criteria package and RFP.
- Working with contracting unit and other appropriate offices in establishing the pre-qualification categories and advertisement.
- Coordinating with the FHWA representative on oversight projects.
- Coordinating with or participating on the TRC in evaluating the Phase I LOI's and Phase II Technical Proposals of D-B firms.
- Working with contracting unit in responding to inquiries from D-B firms.
- Participating in procurement meetings.
- Coordinating submittal of technical evaluations to selection committee.
- Acting as the FDOT liaison with D-B firm during construction of project.
- Coordinating FDOT review of D-B firm submittals during design and construction.
- Making periodic site reviews.
- Reviewing and approving progress payments.
- Monitoring Disadvantaged Business Enterprise (DBE) and Minority Business Enterprise (MBE) participation and compliance.
- Ensuring FDOT receives all final documents.
- Ensuring proper CEI during construction.
- Working with others to develop supplemental agreements, if required.
- Ensuring the D-B firm's Quality Control (QC) Plan is followed.
- Ensuring environmental commitments are followed through.
- Ensuring each step in the process is properly documented.
- Furnishing D-B firm with all FDOT standard forms and documents.
- Conducting performance evaluations.

Design Issues

The contractor is the lead organization in the procurement process for a D-B project. The design consultant's client is the contractor rather than the FDOT. The designer must complete the design under different schedule pressures. There will be constant pressure to deliver a design that will result in the lowest possible construction cost while meeting the project scope. At the same time, the designer has a professional responsibility to design the project in accordance with FDOT standards and procedures. The roles and responsibilities of the designer and the contractor must be clear from the beginning. Consultants who have been most successful in the D-B arena are very careful about teaming arrangements and have solid agreements about performance and delivery expectations. The process demands good communication between the FDOT, designer and the contractor throughout the project. The contractor and CEI staff must know the schedule for completion of elements of the design so that they can plan appropriately. The designer must be very careful about design changes during the project that may affect permits that have been obtained from and agreements that have been made with local agencies, utilities and others.

Right of Way Issues

If right of way is required for the D-B project, coordination and schedule control become essential to the success of the project. The D-B contract must allow sufficient time for right of way acquisition. The District Right of Way Office must be informed regarding contractual obligations, the impact of delays, and the potential for contractor claims if right of way is not available when needed for construction to proceed.

Prior to advertisement, all projects must have one of two types of right of way certification pursuant to ***Section 7.16*** of the ***Right of Way Procedures Manual***:

- The certification for construction states that all right of way needed for the project is available for construction.
- The initial D-B certification states that additional right of way is required for the project and will be acquired in compliance with applicable state and federal law.

If an initial D-B certification has been issued, a certification for construction must be executed when all right of way activities have been completed. Construction may commence on buildable segments of the D-B project prior to certification for construction provided the FDOT's district right of way manager states in writing that all right of way activities have been completed for the buildable segment and right of way is clear for construction.

Construction Engineering and Inspection (CEI) Issues

FDOT sometimes performs CEI services on D-B projects. However, when FDOT elects to use Consultant CEI services it hires a separate CEI firm to provide oversight services directly for FDOT. Refer to ***PMG 335, Construction***, for more information.