



# Design-Build Procurement Overview Manual

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Alternative Project Delivery

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# Chapter 1: Introduction to Design-Build Procurements

## 1.1 Introduction

This manual is intended to provide a broad high-level overview of the Texas Department of Transportation's (TxDOT) Design-Build (DB) procurement process for projects authorized by Chapter 223, Subchapter F, of the Texas Transportation Code. The process that governs any particular procurement will be contained in the Request for Qualifications (RFQ) and the Request for Proposals (RFP) issued for that procurement, and those documents will control the procurement for which they are issued. This manual also provides information intended to guide TxDOT personnel, proposers, consultants, and other involved parties through the alternative delivery procurement process.

DB is an alternative project delivery process to the traditional design-bid-build delivery method. DB contracts allow for the design, construction, property acquisition, utility relocation, and possibly maintenance to occur simultaneously rather than sequentially, as in design-bid-build. These agreements may offer the following benefits:

- A single point of responsibility for design and construction, allowing the DB contractor and designer to better collaborate toward a unified goal;
- Fixed-price contracting, allowing for cost certainty;
- Expedited project delivery by overlapping portions of design, construction, Right-of-Way (ROW) acquisition and utility relocations;
- Innovation through close coordination between the construction contractor and designer;
- Selection of a best value proposer, which considers price and other key factors; and
- Transference of responsibility of many of the inherent risks associated with design and construction to the private sector, such as cost overruns due to design errors, schedule delays, and inclement weather.

To ensure TxDOT uses the DB project delivery method for the appropriate projects, a thorough analysis of the project is performed using a tool developed by the University of Texas Center for Transportation Research (CTR). Once a DB project is selected, TxDOT then works to procure a DB contract that will allow for the accelerated delivery and implementation of the project.

A DB transportation project combines engineering, design, and construction into a single Design-Build Agreement (DBA) and may provide maintenance services through a Capital Maintenance Agreement (CMA). Under current legislation, TxDOT is permitted to award three DB contracts per fiscal year, with an estimated per project cost of at least \$150 million.

## 1.2 Scope

This manual applies to all TxDOT offices and divisions engaged in the procurement of DB projects.

### 1.3 Acronyms

This section identifies particular terms referenced throughout this manual.

ATC – Alternative Technical Concepts

BAFO – Best and Final Offer

CER – Cost Estimate Review

CFR – Code of Federal Regulations

CMA – Capital Maintenance Agreement

CTR – Center for Transportation Research

DB – Design-Build

DBA – Design-Build Agreement

DBE – Disadvantaged Business Enterprise

ECM – Electronic Content Management

ESRC – Evaluation Selection and Recommendation Committee

FHWA – Federal Highway Administration

HUB – Historically Underutilized Business

IFP – Initial Financial Plan

ITP – Instruction to Proposers

PFD – Project Finance, Debt and Strategic Contracts Division

PMP – Project Management Plan

Q&A – Question and Answer

QS – Qualification Statement

RID – Reference Information Document

RFQ – Request for Qualifications

RFP – Request for Proposals

ROW – Right of Way

SAS – Selection Advisory Subcommittee

SBE – Small Business Enterprise

SUE – Subsurface Utility Engineering

TAC – Texas Administrative Code

TTC – Texas Transportation Commission

TxDOT – Texas Department of Transportation

### *1.4 Authority*

DB projects are authorized by Chapter 223, Subchapter F, of the Texas Transportation Code. During the 82<sup>nd</sup> Texas Legislative Session in 2011, Subchapter F, which governs DB projects, was added to Section 223 of the Texas Transportation Code. Parts of this subchapter were further amended in the 84<sup>th</sup> Texas Legislative Session in 2015. The contents of Chapter 223, Subchapter F, of the Texas Transportation Code, are generally as follows:

- 223.241 Definitions
- 223.242 Scope of and Limitations on Contracts
- 223.243 Use of Engineer or Engineering Firm
- 223.244 Other Professional Services
- 223.245 Request for Qualifications
- 223.246 Request for Proposals
- 223.247 Negotiation
- 223.248 Assumption of Risks and Costs
- 223.249 Stipend Amount for Unsuccessful Proposers
- 223.250 Performance or Payment Bond

In addition, the Code of Federal Regulations (CFR) Title 23, Chapter I, Subchapter G, Part 636 details the Federal Highway Administration's (FHWA) regulatory requirements for federally-funded DB projects. The contents of 23 CFR Part 636 are generally as follows:

- Subpart A General
- Subpart B Selection Procedures, Award Criteria
- Subpart C Proposal Evaluation Factors
- Subpart D Exchanges
- Subpart E Discussions, Proposal Revisions, and Source Selection

### *1.5 Confidentiality and Conflict of Interest*

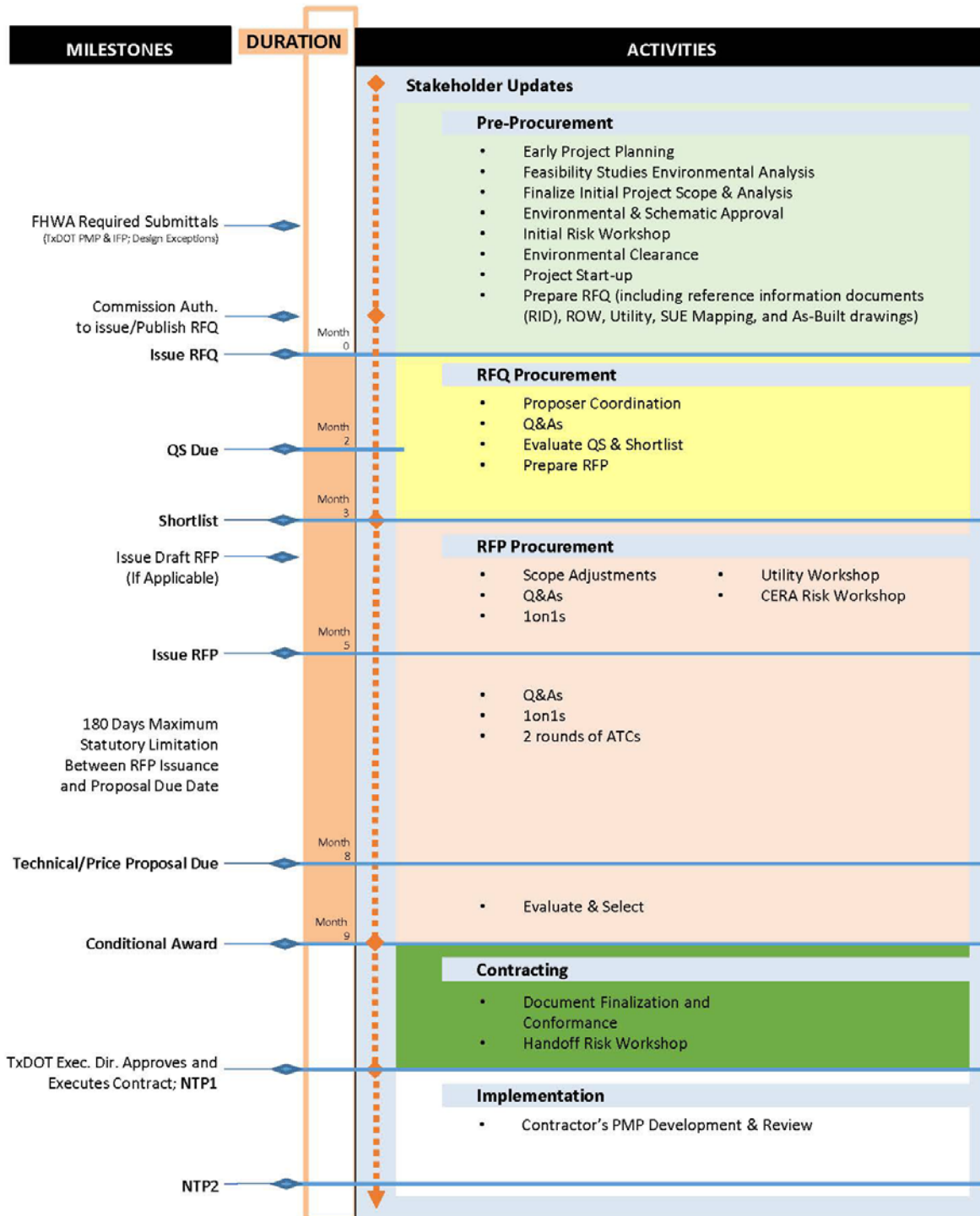
It is of the utmost importance that confidentiality be maintained throughout the course of a procurement. Any individual involved in a procurement will be required to sign a confidentiality agreement. In addition, any individual involved in the procurement process including but not limited to Qualification Statement (QS) or Proposal evaluations or Alternative Technical Concept (ATC) reviews will be required to sign a project-specific conflict disclosure statement and will be precluded from participation in design of the project. To further maintain security and confidentiality, all documents will be securely maintained electronically and/or in secure evaluation and document control facilities.

## 1.6 Overview of the DB Procurement Process

The procurement process for DB projects may include the following steps:

- **RFQ**
  - Develop RFQ
  - Issue RFQ
  - Issue RFQ Addenda, if applicable
  - Conduct Question and Answer (Q&A)
  - Receive and Evaluate QSs
  - Short-List Proposers
- **RFP**
  - Develop Draft RFP
  - Finalize RFP
  - Issue RFP to Proposers
  - Conduct Q&A
  - Conduct One-on-One Meetings
  - Receive and Review ATCs and Pre-Proposal Submittals
  - Issue RFP Addenda, if applicable
  - Issue Request for Proposal Revision, if applicable
  - Issue Request for Best and Final Offer (BAFO), if applicable
- **Evaluation, Award, and Execution**
  - Receive and Evaluate Proposals
  - Select Best Value Proposal and Conditionally Award Contract
  - Finalize and Execute Conformed Contract

# TYPICAL DESIGN-BUILD PROCUREMENT TIMELINE





## **Chapter 2: Pre-Procurement Activities**

### *2.1 The Alternative Delivery Support Tool and Potential DB Projects*

After DB projects were authorized by the 82<sup>nd</sup> Texas Legislature, an Alternative Delivery Support Tool was developed by the University of Texas CTR to determine the suitability of a proposed project for the DB delivery method. This tool is Microsoft Excel-based and incorporates project information, objectives, risks, and other characteristics to provide TxDOT with a structured decision-support process and documentation of the rationale for the selected delivery method.

The Project Finance Division (PFD) facilitates the use of the Alternative Delivery Support Tool to assist the Districts in determining a project's suitability for alternative delivery.

### *2.2 Project Approval for DB Procurement*

The Texas Transportation Commission (TTC) will approve the use of a DB delivery method based on District recommendation.

### *2.3 Project Goals*

Project goals will be set forth in the Instructions to Proposers (ITP). The goals for each project may change but may include:

- Enhanced facility safety
- Safe construction environment
- Meet project business diversity goals
- Efficient operations of constructed facility
- Expedited project delivery
- Quality design
- Quality construction
- Reduction of congestion
- Accommodation for future transportation needs
- Improved air quality
- Maintenance of corridor mobility during construction
- Be responsive to the public
- Minimize disruption to local businesses
- Promote corridor economic development
- Increase value of the transportation assets
- Travel time savings
- Receive best value on the project

In addition, TxDOT develops business diversity goals for each project, which are determined by Disadvantaged Business Enterprise (DBE), Small Business Enterprise (SBE), and Historically Underutilized Business (HUB) requirements. The appropriate diversity goal and program will be reviewed and selected on a per project basis.

## 2.4 *Potential Prerequisites*

In order to begin a DB procurement, there are some steps that may be needed in advance of initiating the procurement. While every project is different and all of the following activities may not be accomplished or may be only partly achieved, completing or making the best effort to complete these items will serve as steps to expedite the procurement process. Potential prerequisites include:

- Establish primacy, if applicable
- Develop initial project schematic
- Determine project scope
- Determine preliminary cost to design, construct, and maintain the project
- Establish clear project goals
- Complete the environmental approval process and receive the necessary environmental approvals
- Build Project Corridor Knowledge Base [Start of Reference Information Documents (RID)]
  - Utility surveys
  - Hazardous materials surveys
  - Existing corridor plans
  - Local design and construction standards
  - Environmental documentation, including commitments and mitigation requirements
- Determine required ROW
  - Prepare parcel descriptions
  - Prepare strip-maps
  - Prepare an analysis to determine appropriate ROW acquisition
  - Begin ROW acquisition process, if applicable and environmentally cleared
  - Acquire ROW
- Involve community and stakeholders:
  - Conduct any community and stakeholder meetings and hearings
  - Collect and address comments
  - Respond to community and stakeholder needs
  - If required, modify scope to align with stakeholder and public needs
- Educate public, local leaders, and business community about project
- Prepare risk register
- Establish draft tolling plan, if applicable
- Toll & Revenue studies/feasibility, if applicable

Planning projects and completing prerequisite activities prior to an alternative delivery procurement results in advancement of the project, condensation of the procurement schedule, and elimination of unfeasible projects from further consideration.

## 2.5 *Risk Management and Allocation*

A “risk” is an uncertain future event or condition that may or may not occur and may have either a positive or negative effect on the outcome of a project. The severity of a risk event

is characterized in terms of its probability of occurrence and the consequences, in terms of time and money, should it occur.

Managing risk is an integral part of a project's planning, organization, and decision-making process. Risk management should be understood as a project planning and control function and is a proactive approach to managing uncertainty. Risk response planning is part of the overall project planning and a risk-based contingency should be a part of a project's overall budget contingency. Several risk workshops and meetings may be held during the course of a project beginning during the procurement phase and carrying through the construction. A risk register is maintained throughout the duration.

Upon contract execution, the major project costs (contract price) and risks (allocation within the executed contract) have been established and the risk management effort primarily shifts to minimizing any additional cost and time impacts during project delivery. Risk management during post-procurement then focuses on responding to those risks that are retained or shared, and ensuring risks allocated to the DB Contractor through the contract are addressed as specified and not transferred back to TxDOT and other parties during performance of the work.

## *2.6 Cost Estimating*

Cost estimating is an important element in the DB planning process for several reasons. First, the cost of a project plays a role in determining whether or not DB is the acceptable method of procurement for a particular project. Second, the cost estimate will be used to validate proposer Price Proposals evaluated in response to the RFP. Finally, FHWA considers a project of \$500 million or more to be a "Major Project" and requires a Cost Estimate Review (CER) for such projects. For Major Projects, the CER, an Initial Financial Plan (IFP), and a Project Management Plan (PMP) will require FHWA approval prior to award of the contract. In addition, FHWA must approve all consultant service agreements on Major Projects.

## Chapter 3: Request for Qualification Statements

### 3.1 Develop RFQ

The first step of a DB procurement is to develop the RFQ. Every DB RFQ must include those items listed in 43 Texas Administrative Code (TAC) 9.153(b) and Transportation Code Section 223.245(a). The RFQ may include:

- Status of project design and construction
- Improvements to be completed by the DB Contractor
- Maintenance regime
- Environmental clearance status and commitments
- Discussion of project viability
  - Funding available for development
  - Toll & Revenue projections, if applicable
  - Toll collection system, if applicable
- Status of ROW acquisition
- Available technical reports and investigations:
  - Geotechnical
  - Utilities
  - Hazardous materials
  - Detention plan
  - Water Pollution and Abatement Plan
- Corridor aesthetic theme
- Third party agreements
  - Railroad
  - ROW
  - Utilities
  - Local Agencies
  - Local governments
  - Other
- Project coordination requirements
- Evaluation criteria
  - Technical approach
  - Design and construction experience
  - Safety
- Other due diligence activities and Proposer financial requirements

The RFQ may include or exclude some of the above items depending on the details of the procurement or the level of completion of preliminary work.

The RFQ should also specify the authority and requirements under which the project will operate. This will include:

- Legal authority under which TxDOT is issuing the RFQ

- Texas Transportation Code
- Texas Administrative Code
- Federal requirements
  - Use of federal-aid funds
  - Conformance with all applicable federal laws, regulations and any related policies
  - Quality control and quality assurance requirements
- Language regarding TxDOT indemnification against third-party lawsuits, and tort liability limitations
- Business diversity requirements

The RFQ will also discuss the DBA framework in the form of a term sheet highlighting the proposed DBA terms.

For any projects subject to federal requirements, TxDOT will submit a courtesy copy of the RFQ to FHWA.

### 3.2 *Solicit Qs*

The formal initiation of a DB procurement is done by publishing notice of the RFQ in the Texas Register and on TxDOT's website. After the RFQ is issued and prior to the QS due date, proposers may submit questions to TxDOT; questions will be submitted and responded to in accordance with the RFQ. Based on these questions and answers, changes to the RFQ may be made. At its discretion, TxDOT may hold an industry workshop.

### 3.3 *Addenda*

An addendum to the RFQ may be issued to incorporate changes to the project or procurement. A courtesy copy will be submitted to FHWA. Issued addenda will be posted to the TxDOT website, and industry will be notified.

### 3.4 *Pre-Evaluation Activities*

Prior to receipt of Qs, the following will occur:

- Identify individuals participating on the QS evaluation team
- Ensure all signed confidentiality agreements are obtained and conflict of interest disclosures
- Conduct evaluator training
- Prepare secure rooms to receive evaluation materials and proposer submittals

### 3.5 *Receipt of Qualification Statement Submittals*

Qs will be received at the time, date, and location stated in the RFQ. Document Control personnel will log and process the incoming submittals.

### 3.6 *Evaluation of Qualification Statements*

Evaluations will be conducted in secure evaluation facilities. The RFQ specifies the evaluation process that may state that:

- each QS will be reviewed by the Pass/Fail and Responsiveness Subcommittee for satisfaction of the pass/fail criteria identified in the RFQ and responsiveness to the RFQ,
- any QS that does not pass and/or is not responsive will not be qualitatively evaluated,
- qualitative evaluations of the QSs will be conducted by the Qualifications and Experience and Statement of Technical Approach Subcommittees, with guidance provided by the Selection Advisory Subcommittee (SAS), as needed,
- each qualitative Subcommittee Chair will provide the Subcommittee's recommendation to the Evaluation Selection and Recommendation Committee (ESRC), and,
- the ESRC will review the Subcommittees' recommendations and determine its recommended short-listing of proposers.

### *3.7 Short-listing of Proposers*

The ESRC will present the scores and rankings of the QSs to the Project Steering Committee. The Project Steering Committee will select the desired number of top-ranking proposers to compose the proposed short list and will notify the TxDOT Executive Director of the Project Steering Committee's recommendation regarding the proposed short list. The TxDOT Executive Director may either accept or reject the proposed short list.

Each proposer will be notified in writing by mail and email regarding selection or non-selection.

## Chapter 4: Request for Proposals

### 4.1 Develop RFP

The development of the RFP is a significant undertaking and should be planned for accordingly. The RFP will be submitted to all short-listed proposers to request their Technical Proposals and Price Proposals and, therefore must contain the evaluation criteria that will be used for each component. Every DB RFP must comply with the requirements set forth in 43 TAC 9.153(d)-(f) and Transportation Code Section 223.246. A combination of the Technical and Price scores will be the basis for determination of the “Apparent Best Value Proposer.” Section 223.246(b) of the Transportation Code states that a minimum of 70% of the total score must be based on the Price Proposal. Additional items that may be provided with the RFP include:

- Status of any project design and construction
- Improvements to be completed by the DB Contractor
- Maintenance regime
- Environmental clearance status and commitments
- RIDs
- ITP
- Project schedule requirements
- Pay schedule
- Business diversity requirements
- Insurance, liability, and bonding requirements

TxDOT may issue a draft RFP to be used for industry review. Any comments received from industry during this phase should enable TxDOT to refine the RFP, improve risk allocation, increase cost savings, and facilitate a smooth proposal process. Typically, industry review will be conducted through the submission of written questions and comments and one-on-one meetings with each proposer, during which proposers are encouraged to provide feedback on the draft RFP contents.

If applicable, TxDOT will submit the RFP to FHWA for review and approval prior to issuance of the RFP to proposers. After issuance of the RFP, changes may only be made through the issuance of addenda.

### 4.2 Q&A

During the course of RFP development and proposal preparation, proposers may submit questions to TxDOT; questions will be submitted in accordance with the RFP. Based on either these questions and answers or other factors, changes to the RFP may be required. A matrix containing non-confidential Q&A from all proposers regarding the issued RFP will be made available to all short-listed proposers.

### 4.3 *One-on-One Meetings*

One-on-one meetings are important to the proposal process, as they allow the proposer to discuss elements of the proposal directly with TxDOT and encourage innovation and cooperation between the two entities. The number and frequency of one-on-one meetings will vary based on each project and may include:

- One meeting after draft RFP is issued
- One meeting for each round of ATCs
- One meeting after final RFP is issued
- Meetings for each addenda, only as needed and based on content and procurement schedule

To ensure a fair process, each Proposer will be allotted an equal amount of time and the agenda for each meeting must be established in advance.

### 4.4 *Addenda*

Once the need to change published documents is identified, an addendum will be prepared and issued. For projects subject to federal requirements, any material addenda must be submitted for FHWA review and approval prior to issuance to proposers. Issued addenda will be posted to the TxDOT website and each proposer's SharePoint Electronic Content Management (ECM) site, and all proposers will be notified.

### 4.5 *ATCs*

ATCs are concepts that are inconsistent with the requirements for design, construction, or capital maintenance for the Project or otherwise require a modification of the Technical Provisions but that may nevertheless be proposed. The development and proposal of ATCs is encouraged as a means of innovation leading to better value and time savings. Except as permitted by the agreement of the proposer, information included in ATCs will be kept confidential and disclosed only to persons who have executed confidentiality agreements and conflict of interest disclosures. ATCs submitted to TxDOT become the property of TxDOT and may be used at TxDOT's discretion.

An ATC review team will be organized prior to the receipt of ATCs, and each member will complete a confidentiality agreement and conflict of interest disclosure prior to reviewing ATCs. An executive committee comprised of senior managers and technical experts will review and make recommendations for the acceptance or rejection of ATCs submitted.

While every project may vary, TxDOT intends to provide two ATC review rounds and a one-on-one meeting with feedback to allow the DB Contractor an opportunity to submit ATCs with all information needed for acceptance. TxDOT will strive to issue the determinations on the second round of ATCs a minimum of six (6) weeks prior to the proposal due date.

The ITP will clarify any non-negotiable elements of a project and limitations on ATCs.



For projects subject to federal requirements, FHWA concurrence of ATCs is required for an ATC to be incorporated into an agreement.

#### *4.6 Pre-Proposal Submittals*

The ITP will require that proposers submit a pre-proposal submittal for any changes to a short-listed proposer's organization or Key Personnel as submitted in the QS and approved in the RFQ phase of procurement. The ITP will describe the requirements for the submission of pre-proposal submittals.

#### *4.7 Solicit Proposals*

The RFP will state a submittal due date, place, and time. Proposals must be received no later than 180 days after the issuance of the RFP or Request for Proposal Revisions, if applicable. Any addenda required as a result of the proposers' questions or one-on-one meetings should be issued during this time.

#### *4.8 Pre-Evaluation Activities*

Prior to receipt of proposals, the following will occur:

- Identify individuals participating on evaluation team
- Ensure all signed Confidentiality Agreements and conflict of interest disclosures are obtained
- Conduct training
- Prepare secure rooms to receive evaluation materials and proposer submittals

#### *4.9 Receipt of Proposal Submittals*

Proposals will be received at the time, date, and location stated in the RFP. Document Control personnel will log and process the incoming technical, financial, and price proposals. The Price Proposals will be redacted and separated from the Technical Proposals and Financial Proposals, if applicable, so all information that could potentially identify the submitting proposer is removed from the Price Proposal.

#### *4.10 Evaluation of Proposals*

Evaluations are conducted in secure evaluation facilities. The ITP specifies the evaluation process that may state that:

- Each proposal will be reviewed by the Pass/Fail and Responsiveness Subcommittee for satisfaction of the pass/fail criteria identified in the RFP and responsiveness to the RFP,
- Any proposal that does not pass and/or is not responsive may be disqualified from further consideration,
- Qualitative evaluations of the proposals will be conducted independently by the Development Plan Evaluation Subcommittee, which evaluates the Technical Proposals and the Price Proposal Evaluation Subcommittee, which evaluates the blinded Price Proposals, with guidance provided by the SAS, as needed,
- Each Subcommittee Chair will provide the subcommittee's recommendation to the ESRC, and,

- The ESRC will review the subcommittees' scoring recommendations, evaluate the proposals, and calculate the technical, price and total score of each proposal based on the subcommittee recommendations and its own evaluation. The determination of the price score will occur only after determination of the technical score and the total score will be determined thereafter.

#### *4.11 Recommendation and Award to Best Value Proposer*

The ESRC will present the proposer recommendations to the Project Steering Committee, which may accept or reject the recommendation. If accepted, the Project Steering Committee will deliver the recommendation to the TxDOT Executive Director or his designee for review and approval. If rejected, the procurement will be cancelled.

The TxDOT Executive Director may accept or reject the Project Steering Committee's recommendation. If accepted, the Apparent Best Value Proposer will be selected by formal action of the Texas Transportation Commission.

After the selection of the Apparent Best Value Proposer, each proposer will be notified of the decision.

## **Chapter 5: Post-Procurement Activities**

### *5.1 Stipends*

After execution of the contract, each short-listed proposer that submitted a responsive proposal, other than the successful proposer, is entitled to receive a payment from TxDOT for its submitted work product on the terms and conditions specified in the ITP and in the respective Minute Order issued by the Commission authorizing such a payment for work product. If the terms and conditions are not met, no payment for work product will be processed.

### *5.2 Escrowed Proposal Documents*

The ITP will specify particular information and documents that will be required to be submitted by the Best Value Proposer. The documents typically include information supporting the proposer's development price and will be reviewed by TxDOT.

### *5.3 Execution of Contract*

Once the contract is awarded, several steps are taken before the contract is executed. These steps may include:

- Document finalization and conformance to clarify any remaining issues regarding scope, schedule, financing, or other information
- Incorporate ATCs into the contract, including those from unsuccessful proposers
- FHWA approval, if applicable
- Other regulatory entity reviews, if applicable

Once all comments have been incorporated to the satisfaction of TxDOT, the DB Contractor, FHWA, and other regulatory entities, the contract will be assembled and distributed for signature.

After execution of the contract, the project will transition to the implementation phase.