Maritime Funding Program Guide

Port Development Team

Published February 2025

Texas Department of Transportation

Contents

1. General Guidance

The Maritime Funded Project Guide (Guide) provides information, guidance, and references for local governments developing and constructing transportation projects under the oversight of the Texas Department of Transportation (TxDOT) Maritime Division (MRD). The term "local government" (LG) includes port authorities, municipalities, counties, county and regional toll authorities, regional mobility authorities (RMAs), metropolitan planning organizations (MPOs), and private entities in certain situations. These procedures address specific requirements associated with state Maritime-funding.

1.1. Purpose of Manual

This manual and its definitions describe the general project development process and associated activities, milestones, and key tasks for developing transportation construction projects with MRD. Not all activities will be applicable to all project types. The level of project development will depend on a project's rigor, specific needs and requirements.

It is essential for the project teams to understand the full project lifecycle and processes, including which activities can be performed under the specific project authorization levels (i.e., PLAN, Develop, Construct). This guidance presents tools, references, training, and the needed level of coordination for the respective project activities.

This guidance is not intended as a financial or forecasting tool for programming, planning, financing, and portfolio management. Business, finance, and planning processes are distinct with unique terminology and definitions.

1.2. MRD Port Development Team

For the purposes of this guide, a local government project is a transportation project in which at least one phase of the project is managed by an LG for which it is being reimbursed with state Maritime funding. MRD Port Development (PD) team serves as Port Project Managers (PPM), providing guidance and oversight for LG transportation projects utilizing state maritime funding. PD develops policies and procedures, provides guidance to TxDOT districts, and maintains documents and resources for LGs, consultants, and TxDOT staff. PPMs will follow the guidelines outlined in the FA.

PD is part of the larger TxDOT organization with the following components.

- District offices oversee the construction and maintenance of state highways. They serve as the primary points of contact and provide oversight for other LG-funded programs not funded by the Maritime Division. Area offices (under the district office) support the district office during different stages of the project.
- TxDOT divisions support and provide subject-matter expertise throughout the project lifecycle. MRD uniquely provides direct project oversight on Maritime funded LG projects not located on the state highway system.
- Administration, including the executive director and other executive offices, provides direction and oversight to all districts, divisions, and offices.

1.3. Project File of Record

For all TxDOT projects, MRD and LG should maintain a complete and orderly project File of Record. An audit trail must be maintained in the event of a legal challenge or state auditor review. Documents must support decision-making regarding the plans, methods, and procedures used to meet the project's mission, goals, and objectives.

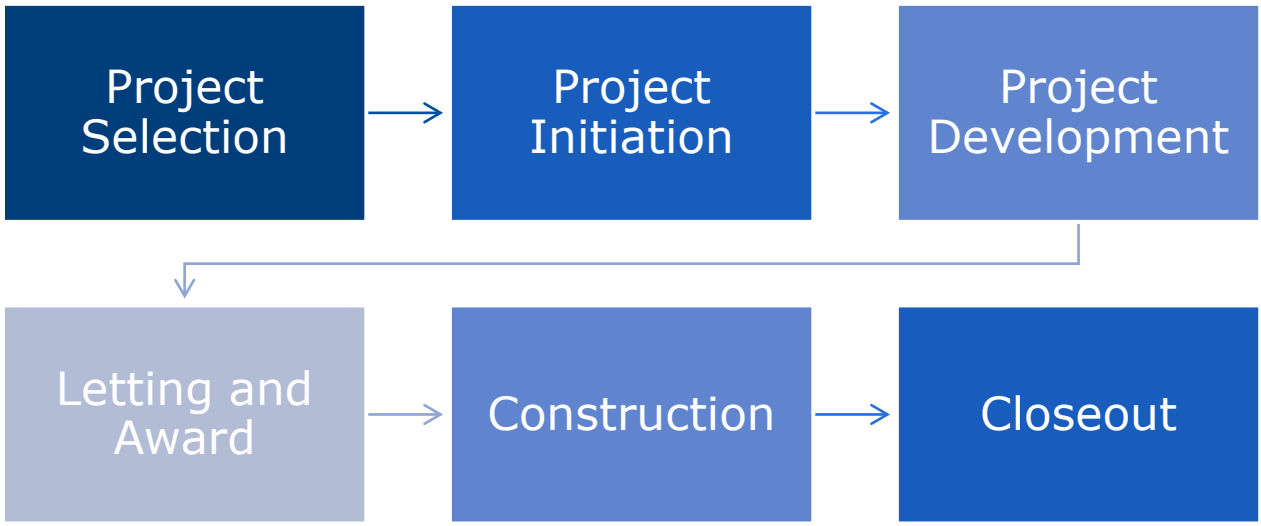
Refer to TxDOT's Records Management Manual for more information. The file must provide guidance to identify where electronic files are maintained. According to TxDOT policy, project emails, voicemails, and desktop or portable device files must be retained. Files must be complete, accurate, consistent, and held for the life of the project, then archived for a retention period according to TxDOT's Records Retention Schedule.

1.4. Guide Organization

The Guide is organized by chapters reflecting the steps occurring during the project lifecycle. Each chapter contains a brief introduction and includes links to many different manuals and other information supporting that chapter. Each chapter is intended to be independent and has a format that reflects the materials covered.

The Guide is organized according to the sequential steps for project implementation, as shown in the flowchart diagram below.

1.4.1.1. Maritime Funded Project Implementation Flowchart



2. Maritime Funding Background

MRD administers state-funded programs to LGs, including the Maritime Infrastructure Program (MIP), which applies to port infrastructure projects, and the Seaport Connectivity Program (SCP), which supports publicly accessible roadways providing connections to ports. These two funding sources support specific aspects of the Texas maritime system and have separate eligibility and funding requirements.

The Port Development (PD) team within MRD developed this guide for MIP and SCP funding recipients. It identifies the requirements that govern the funds individually and the crosscutting requirements that apply to all MRD-funded projects.

This guide applies to all MRD-funded projects, including SCP projects under the former Port Access Improvement (Rider) Program.

2.1. Maritime Infrastructure Program (MIP)

The 88th Legislature, Regular Session, reestablished the Port Access Account Fund (Fund), created during the 77th Legislative Session, for maritime port security, transportation, or facility projects and transferred general revenue funds to the Fund, which can be found in Transportation Code §55.002.

2.1.1. Eligibility

- Eligible projects for funding include:
- Port infrastructure, security, transportation, or facility projects
  - Construction or improvement of transportation facilities within the jurisdiction of a maritime port
  - Dredging or deepening of channels, turning basins, or harbors
  - Construction or improvement of wharves, docks, structures, jetties, piers, storage facilities, cruise terminals, or any facilities necessary or proper in connection with maritime port transportation or economic development
  - Construction or improvement of facilities necessary or helpful in providing maritime port security
  - Acquisition of container cranes or other mechanized equipment used in the movement of cargo or passengers in international commerce
  - Acquisition of land to be used for maritime port purposes
  - Acquisition, improvement, enlargement, or extension of existing maritime port facilities; and
  - Environmental protection projects that:
    - Are required as a condition of a state, federal, or local environmental permit or other form of approval
    - Are necessary for the acquisition of dredge disposal sites and improvements to existing and future dredge sites; or

        - Result from the undertaking of eligible projects.
    - Maritime port studies.
- An entity eligible for funding may not receive more than 20 percent of the total funding available in a fiscal biennium

2.2. Seaport Connectivity Program (SCP)

The General Appropriations Act (the State Budget for the biennium) contains a budget rider not to exceed a specified amount for the biennium from any available funds and/or the Texas Mobility Fund (TMF) to fund public roadway projects that will improve connectivity to Texas ports.

2.2.1. Eligibility

- Eligible projects:
    - Must be for construction and construction-related activities
        - Including construction engineering and material testing
    - Must be located on a roadway with public access
    - Must be directly related to a Texas port
    - Must have the support of the Texas port to which the project relates.
- Ineligible projects include:
    - Roadways restricted from public access
    - Routine maintenance, operations, and administrative expenses
    - Planning studies
    - Channel improvements, security projects, equipment purchases, and terminal improvements
    - Rail projects
    - Right of Way acquisition
    - Major utility relocation
- An entity eligible for funding may not receive more than 20 percent of the total funding available in the biennium.

3. Project Selection

LGs work with MRD to identify critical projects that enhance and expand the Texas port system. The Texas Port Mission Plan (PMP), a legislatively required biennial report, compiles the critical priority projects, profiles their strategic importance, and estimates their cost to construct.

MRD assembles a committee of industry subject matter experts to evaluate each project based on the program-specific scoring criteria developed by MRD in collaboration with the Port Authority Advisory Committee (PAAC). Once the evaluations are completed, scores are presented to the PAAC. In consultation with MRD, the PAAC reviews the scores and other pertinent information and develops a list of projects recommended for funding. MRD submits the recommended project list to the Texas Transportation Commission (Commission) for consideration. Based on its review, the Commission makes a funding determination via Minute Order (MO).

4. Project Initiation

Project initiation is the first step in starting a new project and involves activities that lay the foundation for successful planning and execution. This phase begins with the Port Development (PD) team sending out award notifications and includes other activities such as the kick-off meeting, identifying the level of oversight, project setup, and agreement development and execution.

4.1. Award Notification

The PD team will send award notification emails to all LGs and TxDOT district representatives, providing an overview of the project selected and the award amount. The notification will also designate a PD team member to serve as the Port Project Manager (PPM) and identify critical path items with corresponding due dates as listed below.

4.1.1. Critical Path Items

The items below have been identified as critical paths, meaning the sequence of tasks directly impacts the project's finish date. Any delay in these tasks will directly result in a delay in the overall project completion.

- **Project Kick-Off Meeting** - Initiation meeting that sets the project in motion and aligns stakeholders
  - Occurs within 30 days of the award
- **Oversight Level Special Approval (SPA)** - A TxDOT form used to document LG agency's intent and evaluate its qualifications
  - **Part A** is completed by LG requesting approval to perform or manage one or more elements of a project
    - Due within 90 days of the award
  - Part B is completed by MRD.
- **Design Schedule** - A formal design schedule to determine when the project can go to letting and construction
  - Due within 60 days of the award
- **LGP 101 "Qualified"** - TxDOT 12-hour course to train and qualify individuals working on state projects and will be designated as LG's "Qualified" person. The training must be completed every three years. There is usually a waitlist for the course
  - Certification or proof of enrollment within 90 days of the award
- **Funding Agreement (FA)** - An agreement under which TxDOT and LG allocate participation in a transportation improvement project that defines the scope of work, labor and material resources, and funding responsibilities
  - **Project Information Form (PIF)—**This MRD form is used to collect data for developing the FA and programming the project in the TxDOT system

        - Due within 60 days of the award
    - **Project Map** for inclusion in the FA
        - Due within 90 days of the award
    - **LG Resolution** for inclusion in the FA
        - Draft due within 90 days of the award
    - Fully executed FA within 275 days (9 months) of the award

4.2. Kick-Off Meeting

The PPM will coordinate the project kick-off meeting with LG, LG's consultant, TxDOT District representatives (as needed), and other stakeholders to ensure all parties are aligned on priorities and understand the key details before work begins. Below are a sample of items that will be discussed during the meeting.

- Project Oversight
- Project Reporting
- Funding Agreement
- Procurement/Letting Policies
- Project Level Signature Authority
- Project Accounting
- Project Documentation & Data Submittals
- Phases of Project Implementation

4.3. Project Oversight

TxDOT is responsible for determining that each LG is qualified and has adequate resources and controls to perform the project work before authorizing it to perform any element of the project development process.

- MRD completes an LG Agency Risk Assessment for all MIP and SCP projects. It uses multiple evaluation criteria to evaluate the overall risk to TxDOT if LG is allowed to manage one or more elements of the project development process. This form assigns an Overall Risk Score, which determines the frequency of subsequent evaluations for LG.
- Oversight Level Special Approval (SPA) documents LG agency's intent and evaluates its qualifications. Consultants or partnering agency qualifications may not be considered in lieu of LG executing the agreement with TxDOT.
    - LG must complete "Part A—LG Qualifications Statement" of the SPA form to request approval to perform or manage one or more elements of the project.
    - MRD will review the information furnished by LG and complete its evaluation using "Part B - TxDOT Evaluation and Special Approval of LG Qualifications" of the SPA form.

The Overall Risk Score (A, B, C, or D) from LG Agency Risk Assessment form is entered as one of the factors to be considered.

- Not required for MIP projects

The Local Government Risk Assessments and Oversight Level Special Approval Process Guidance provides further guidance on this topic.

4.4. Design Schedule

It is crucial to develop a realistic design schedule early in the design phase. It sets clear expectations and provides a roadmap for the project. Sticking to this schedule ensures that all team members are aligned and the project progresses smoothly, minimizing delays and unexpected issues. This disciplined approach helps meet deadlines and achieve project goals. Maintaining and updating the schedule details throughout the development can help avoid unnecessary rework.

When developing a successful schedule, plan for the known scope and adjust as things become more apparent. The schedule is a living document and should be updated and collaborated on. Items that should be considered include:

- Project milestones
- Deliverables
- Tasks required to complete the deliverables
- Critical dependencies between tasks and milestones
- Resource requirements and allocation
- Deadlines, time frames, and task durations

The preferred format is a Gaant chart or something similar.

4.5. Project Reporting

To comply with program requirements, LGs must provide MRD with a Monthly Status Report by the 15th of every month. This process will begin once the project has been programmed into the TxDOT system and a CSJ, a nine-digit number used to identify the project, or a project number has been assigned. Reporting must continue throughout the project's life until MRD has formally closed it out.

Link to the form will be provided by MRD.

4.6. Funding Agreement

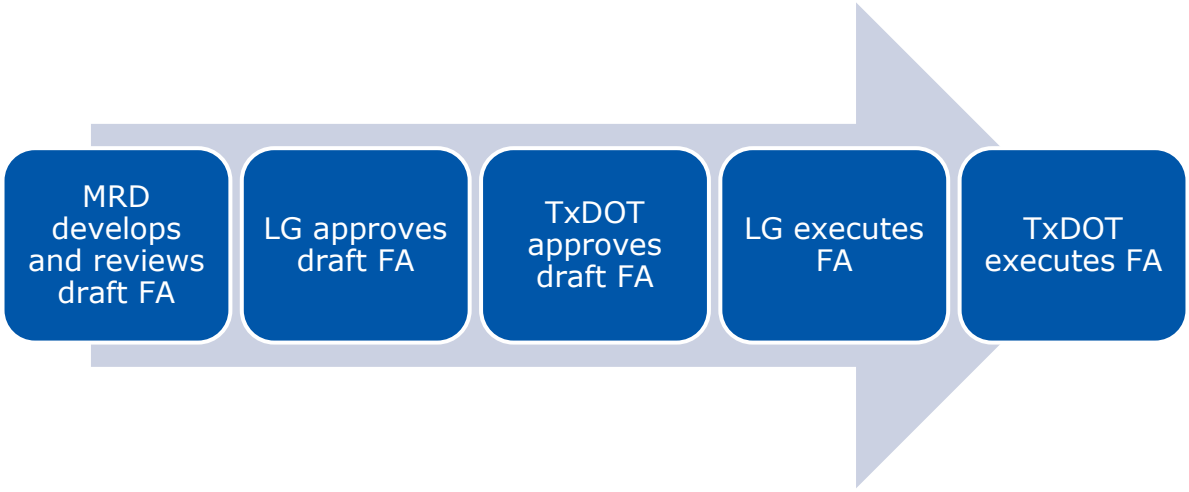
TxDOT must execute a funding agreement (FA) with an LG before utilizing funds or other resources on a transportation project. MRD utilizes program-specific agreements that identify and establish contractual commitments for both TxDOT and LG, defining the project's resources and responsibilities.

4.6.1. FA Development

During the development, LG must complete the following tasks to develop the project-specific details for the FA.

- The Project Information Form (PIF) provides essential information for MRD to set up the project in the system and develop the appropriate funding agreement.
- Project map
  - Includes appropriate title, header, and footer information
  - Map depictions and fonts are clearly legible
  - Identifies project intersection(s) and limits that are consistent with Commission approval
  - Relevant roadways and boundaries labeled
  - CSJ is located on the map
  - If needed, legend clearly conveys map information
  - ADA compliant
- Resolution/Ordinance
  - Identify the specific project
  - Identify the funding source (MIP or SCP)
  - Identify that LG is responsible for cost overruns
  - Explicitly authorize LG to enter into the agreement
  - Explicitly identifies the authorized signatory (could identify the title or position rather than the name of the person)

4.6.1.1. Maritime Funding Agreement Flowchart



4.6.2. FA Terminations

Termination is an action taken by the contracting agency to cancel a contract. There may be a number of grounds to warrant termination, including termination for cause, termination for convenience, and termination for default. Procedures for termination are outlined in the FA, and MRD staff will coordinate the action with TxDOT's General Council Division and Contract Services Division.

4.7. Procurement/Letting Policies

For any projects managed by LGs receiving state funds, LG must obtain approval from MRD for its proposed procurement or letting procedures for selecting a professional services provider, a construction contractor, or a materials provider.

- Professional Service Provider
  - LG may use a professional services provider for program management, construction management, feasibility studies, preliminary engineering, design, engineering, surveying, mapping, or architectural services related to a construction project. Professional services providers are defined, in part, as professional engineers, registered architects, or registered professional land surveyors in the Texas Government Code § 2254, often referred to as the Professional Services Procurement Act. This law requires a two-step, qualifications-based process in selecting and negotiating contract costs with professional providers.
- Construction Contractor
- MRD must approve LG procurement process for advertising, letting, and awarding the construction contract. Prequalification and post-qualification requirements should be considered early in the design process so the proposed procurement process can be submitted to MRD for review and approval. MRD must approve any prequalification or qualification criteria in addition to MRD's before becoming part of the bid documents.

4.8. Project Level Signature Authority

MRD requires every project to submit a project-level signature authority (PLSA). A PLSA refers to the designated power granted to specific individuals within a project to sign documents on behalf of LG. Internal control is crucial for legal compliance, risk management, and operational efficiency as it mitigates unauthorized commitments, minimizes risks of fraud, and streamlines decision-making processes. LG is responsible for periodically reviewing their PLSA to ensure the continued relevance and appropriateness of the individuals identified.

4.9. Project Accounting

Although accounting tasks are performed throughout the project, specific financial elements must be considered early in the Project Initiation phase to be adequately addressed during the project and avoid accounting problems when the project is completed. This section addresses several of these elements.

4.9.1. Invoicing and Monitoring Project Financial Records

LG is allowed to submit reimbursement requests, with attached status reports and schedules, no more frequently than once per month, but must submit within 90 days of incurring eligible expenses. LG is strongly encouraged to submit invoices and backup materials on a monthly basis when work is performed. For months where no reimbursement is required, LG should submit a status update stating the reason. This will facilitate efficient MRD review of requests and verification of work performed. LG project personnel are responsible for keeping accurate financial records and project documentation. MRD PPMs are accountable for working with their LG counterparts to ensure the adequacy and accuracy of the project financial records in compliance with all applicable state requirements plus any additional requirements stated in the project's FA.

4.10. Project Documentation & Data Submittal

LG must maintain project records, including legal documents, meeting minutes, reports from material testing, etc., during the project. Specific regulatory requirements for records retention are included in the contract administration tasks. to ensure proper documentation of progress payments, quality assurance programs, specification compliance, and other contract elements.

This section provides guidance for LG for two types of records generated during a transportation project: records retention and legacy system data submittal. Records retention relates to the legal and other documents used to administer the project. Data submittal relates to the data collected during the project that is used to populate the TxDOT legacy systems. Requirements for both of these records are specified in the FA.

4.10.1. Records Retention

As soon as the contract between LG and the contractor is executed, LG should establish a system to maintain and organize the project records. Early organization of the project documents and files by LG will ensure an audit by MRD during or at the close of the project will proceed smoothly. Proper recordkeeping also aids in the administration of the project by documenting compliance with local, state, and federal procedures and policies.

LG must retain records as specified in the FA and in accordance with applicable state records retention schedules. MRD must also maintain records as defined in the FA and in accordance with TxDOT's Records Retention Schedule. MRD must also ensure that LG maintains the appropriate records to aid project audits.

After the contract is executed between LG and the approved contractor (following the letting process described later in the document), project records provide documentation and support for the payments for contract work. For construction projects, records also include documentation of pay quantities, test reports supporting that the materials used meet specification requirements, and various contract administration documentation.

5. Project Development

The beginning stages of project development involve setting a feasible baseline and monitoring performance, trends, and risks to develop corrective actions to stay aligned with the project scope, schedule, and budget. Project development encompasses preliminary engineering, right of way (ROW), railroad, utility, environmental permitting compliance, architectural barriers, and the development of engineering specifications, plans, and bid documentation preparation.

5.1. Status Meetings

TxDOT PPM will coordinate status meetings, which will occur monthly at a minimum but could occur more frequently based on the project's complexity and level of risk to ensure the project stays on schedule through the development phase and targets milestones as applicable.

- Attendees should include:
  - LG representative overseeing the current phase of the project;
  - LG Design/consultant team;
  - TxDOT District or Division representatives as needed;
  - Other parties able to provide status updates and answer questions.

5.2. Preliminary Engineering & Design

The Preliminary Engineering and Design phase defines the overall project configuration and includes developing design guidelines and design schematics depicting the geometrics proposed for the project.

- Procure consultant services
- Develop design criteria
- Develop standard specifications
- Begin working on the Right-of-Way, Railroad, Utilities, and Environmental Permitting (RRUE) Certification
  - Begin coordination with the Federal Aviation Administration (FAA)
- 30% plans
  - Initial cost estimate
  - Title sheet with Index of Sheets
  - Project layout sheet
  - Traffic signal layouts and phasing forms (if preemption is involved)
  - Plan view of conduits, pipes, and culverts under track forms
  - Planking layout (if installing or modifying)
  - Bridge or roadway plan and profile
  - Rail survey (bridge projects; out to 1000 feet on both sides of bridge on overpass projects and out to 1500 feet on both sides of bridge on underpass projects

- Roadway typical sections (planking and construction projects)
- Rail typical sections (planking and underpass projects)
- Ditch cross sections on 100-foot centers (joint drainage projects)
- Railroad requirements sheets (construction projects)

5.2.1. Engineering Design Criteria

Engineering designs on Maritime funded projects must, at a minimum, conform to applicable American Association of State Highway and Transportation Officials (AASHTO) design standards. Frequently used resources include, but are not limited to:

- AASHTO A Policy on Design Standards - Interstate System
- AASHTO A Policy on Geometric Design of Highways and Streets
- AASHTO Guide for High Occupancy Vehicles
- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities
- AASHTO Highway Safety Manual
- AASHTO's LRFD Guide Specifications for the Design of Pedestrian Bridges
- AASHTO Roadside Design Guide
- AASHTO Roadway Lighting Design Guide

5.2.2. Traffic Design

LG transportation projects may include traffic engineering, traffic safety, railroad crossings and signals, and traffic management. The TxDOT district's traffic operations staff are the primary contact points for LG on traffic operations. LG is required to follow the Procedures for Establishing Speed Zones Manual when altering speed limits.

The Local Government Projects Policy (LGPP) Manual lists the state regulations governing Traffic Design.

5.2.3. Traffic Control Planning

Construction often requires lane closures, detours, or road closures. For all projects on the state highway system or impacting the state highway system, detours and closures must be coordinated with the entities responsible for both the road being detoured and closed. Traffic control plans are expected to comply with the Texas Manual on Uniform Traffic Control Devices (TMUTCD) and Manual on Uniform Traffic Control Devices (MUTCD).

5.2.4. Accessibility Guidelines & Compliance

State and federal statutes protect the rights of individuals with disabilities, and LG must consider the requirements of these statutes during the project development and design. For transportation

purposes, the ADA Accessibility Guidelines (ADAAG) and the Texas Accessibility Standards (TAS) provide the majority of criteria on which compliance is based. The U.S. Departments of Justice and Transportation are responsible for enforcement of the ADA. The Texas Department of Licensing and Regulation (TDLR) is the regulatory agency that monitors compliance with the TAS.

All projects, regardless of cost, must comply with the provisions of ADAAG and TAS. Public meetings, hearings, and project websites must be accessible and must ensure effective communication with members of the public with disabilities. LG is responsible for submitting plans and specifications for review and approval to TDLR or a registered accessibility specialist for public right-of-way projects with pedestrian elements estimated to cost at least $50,000. More information on the application of accessibility requirements during the design and construction phases are provided in the Bid Specification Preparation below.

5.2.5. Other Design Considerations

- **Level of service (LOS)** measures traffic flow and congestion and should be used by LG to design a project to reasonably accommodate traffic.
- **Hydraulic Structures** must be designed to provide proper drainage for highways and roads. Guidelines for the design of hydraulic structures are contained in TxDOT's Hydraulic Design Manual. The hydraulic design process includes two key elements:
    - Selection of the design frequency for the drainage design for the roadway, which is dependent on the functional classification of the road and the type of drainage structure required; and
    - Coordination with the local floodplain administrator and with the Federal Emergency Management Agency (FEMA) for floodplain management issues.
- **Longitudinal Barriers, Including Bridge Rail,** medians, or areas along the roadside used to shield vehicles from potential hazards or work areas, require the use of the national standard to ensure only those barriers meeting certain crash test criteria are installed.
- **Pavement Designs** based on traffic volumes and geotechnical reports reduce pavement costs and future maintenance costs. Lower maintenance requirements also reduce road user costs by minimizing future lane closures for maintenance. TxDOT's Pavement Manual provides pavement design methods and other standards.
- **Access Management** is a control mechanism for transportation access through "access connections," such as a driveway or connecting roadway, and "access control," which limits users' permitted access. Both mechanisms could require additional coordination with municipal governments or TxDOT district offices.

5.2.6. Design Exceptions, Waivers, Variances, or Deviations

During the preliminary engineering phase, the need for design exceptions, waivers, variances, or deviations should be identified.

- Design exception: required when existing or proposed design elements do not meet the minimum values of controlling criteria identified by AASHTO. It is not required when values exceed the minimum guidelines.
- Design waiver: required when minimum values of AASHTO non-controlling criteria are not met.
- Design variance: required to be sent to the TDLR whenever the design guidelines specified in the Texas Accessibility Standards (TAS) Public Rights-of-Way Accessibility Guidelines (PROWAG) are not met.
- Design deviation - required for projects that do not meet specified bridge vertical clearance requirements for highways on the Texas Highway Freight Network (THFN).

The engineer of record must send a formal letter explaining why design exceptions/waivers/variances/deviations are needed. The letter must be sent to the PPM for approval. The design Exception/Waiver/Variance/Deviation Record of Decision must be documented in LG files and highlighted in the Ready to Let (RTL) plans submission.

Tasks to be performed in determining the need for design exceptions, waivers, variances, and/or deviations include:

- Identify design exceptions/waivers/variances/deviations;
- Thoroughly document why design exceptions/waivers/variance/deviations are needed;
- Evaluate the safety, operational, and other impacts of the proposed and alternative designs;
- Submit design variance requests to TDLR for review and approval;
- Document approved design exceptions/waivers/variances/deviations in engineer letter;
- Obtain MRD approval of design exception/waivers/variances/deviations requests or revise schematic or plans; and
- Identify and submit additional design exceptions/waivers/deviations as the project progresses.

5.2.6.1. Design Criteria and Exceptions Process

5.3. Federal Aviation Administration Coordination

The Federal Aviation Administration (FAA) is responsible for assuring the safety of air traffic. One major concern is interference with navigational airspace, such as possible encroachments in take-off and landing patterns. LG is responsible for identifying potential conflicts with navigational airspace early in the project using the FAA form 7460-1 Notice of Proposed Construction

Documentation of satisfactory coordination with the FAA must be provided to MRD before a project may be authorized for construction.

5.4. Right of Way, Railroad, Utilities, and Environmental Permitting (RRUE) Certification

Issues involving the need for right-of-way (ROW), railroad coordination, utility relocations, and environmental permitting are identified during the Preliminary Design phase and are usually part of the critical path in construction projects. Ideally (though not required), all right of way is acquired, utilities adjusted and all necessary coordination with affected railroads is completed before construction begins. This gives the contractor unrestricted access to the project and minimizes the potential for delays during construction. Environmental permitting must be completed prior to requesting approval to let the project.

MRD requires a **RRUE Certification** form from LG confirming that the appropriate ROW, railroad, utilities, and environmental permitting coordination has occurred.

5.4.1. Right of Way

The Right of Way certification requires confirmation of two areas:

- Acquisition
  - If LG is purchasing land for its road system or other purposes, it will follow its own survey and title requirements. However, if state funds are used to purchase the property, LG will use state processes, policies, procedures, and forms. Guidance may be found in the TxDOT ROW Manuals collection.
  - If any building or other structure is located completely or partially on the right of way acquired for the project, LG will be responsible for its removal or demolition. The demolition must include testing and abatement of any hazardous materials as required by the Texas Health and Safety Code.
- Right of Entry (ROE)
  - ROE must be obtained in writing on a legally binding form before entering private property. ROE is permission granted by a landowner for others to enter the landowner's property for a specific purpose. Activities such as surveying and geotechnical and environmental studies should be coordinated and covered under one ROE if possible (landowners can be confused by multiple requests). Include all

property in the ROE where work activities will be performed as well as property that will be traveled on to reach work sites.

- It is a best practice to contact the landowner a few days prior to crews being on the property as a courtesy and show of good faith.

5.4.2. Railroad

When projects cross the railroad right of way or otherwise affect railroad facilities, pre-design and pre-construction coordination with the railroad and TxDOT Rail Division is necessary to protect the interests of the railroad and the entity administering the project. Coordination also involves obtaining railroad approval of the project PS&E by executing an agreement with the railroad and providing mandatory insurance for the railroad.

MRD requires a copy of all agreements and supporting documents when the RRUE is submitted.

5.4.3. Utilities

According to the TxDOT ROW Utilities Manual, certain utilities have a statutory right to occupy highway and road rights of way (subject to availability of space); however, the utilities' rights are subordinate to the needs of the transportation facility. If utilities are located on a road or highway right of way, they will frequently need to be relocated to allow for the construction of a transportation project. LG will be the party responsible for utility relocation.

In the event LG would like the utility relocation activities to be included in the construction contract, LG must include a statement concerning the scope and current status of the required services.

If LG plans to seek reimbursement for utility-related activities using SCP funding, LG must furnish the state with copies of proposed utility adjustment and installation plans and estimated costs of the proposed adjustments to determine the state's upper limit of participation, which cannot exceed 30% of the project's reimbursable costs.

5.4.4. Environmental Permitting

The environmental compliance phase of any transportation project occurs throughout the planning, development, and execution, running concurrently with other associated phases of a given project. Environmental compliance issues should be identified early in the project by LG since requirements may impact project initiation tasks.

MRD funding is not federal aid and **does not** require National Environmental Policy Act (NEPA) clearance. However, if the project utilizes other funding sources with federal aid, it could be subject to NEPA.

Environmental compliance responsibilities vary depending on the scope of the project and the potential social, economic, and environmental impacts. LG is responsible for complying with all applicable local, state, and federal permitting requirements, including but not limited to:

- Air quality
- Archeological sites and cemeteries
- Biological resources
- Hazardous materials management and pollution prevention and abatement
- Historic resources
- Natural resources

Environmental permits, issues, and commitments (EPICs) are any permits, issues, coordination commitments, or mitigation obligations necessary to address, offset, or compensate for a project's social, economic, or environmental impacts. EPICs must be specified in the construction documents (EPIC form) and will be monitored for compliance during the project and a defined period after construction completion. A digital version of the standard EPIC form is available on TxDOT's publication web page. EPICs are any permits, issues, coordination commitments or mitigation obligations necessary to address, offset or compensate for social, economic or environmental impacts of a project. These may include sole source aquifer coordination, wetland permits, stormwater permits, traffic noise abatement, threatened or endangered species coordination, archeological permits, or any mitigation or other environmental commitments associated with the project. EPICs must be specified in the construction documents and will be monitored for compliance during the project and for a defined period of time after construction completion.

MRD does not have an environmental coordinator to assist LGs with permitting. However, technical guidance to help LG determine the required permits may be found on TxDOT's Environmental Compliance Toolkits web page.

5.4.4.1. Storm Water Pollution Prevention Plan (SWPPP)

Erosion control devices and practices minimize the potential for erosion by protecting exposed soil from rain, wind, and other natural and construction-related processes. All state-funded projects must develop SWPPP plans, even if the project disturbs less than 1 acre and is not part of a larger common plan of development or sale that would disturb 1 or more acres. The plans must follow TxDOT best management practice guidelines.

5.5. Plans, Specifications & Estimates (PS&E)

The PS&E phase of an LG construction project generally occurs after the execution of the FA, after the completion of other project initiation tasks, and after the 30% percent complete design is reviewed. Environmental permits, issues, and commitments (EPICs) are any permits, issues, coordination

commitments, or mitigation obligations necessary to address, offset, or compensate for social, economic, or environmental impacts of a project. EPICs must be identified early in the Preliminary Design phase and carried through PS&E. The following tasks are typically part of the PS&E phase.

- 60% Plans
  - Prepare detailed design;
  - Refine cost estimate;
  - Complete RRUE;
    - Follow through with necessary railroad agreements
    - Develop EPICs
  - Prepare procurement documents
  - Identify the use of sole source/proprietary material/equipment, if any
  - Prepare proposal (bid documents) with all necessary forms included
  - Complete environmental clearance and update EPICs
  - Prepare FAA coordination
  - Verify registration of the project with the TDLR
  - Follow through with necessary railroad agreement requirements (if applicable)
  - Reevaluate and finalize the letting date
- 90% Plans
  - Finalize detailed design (specific design elements unique to construction projects)
  - Finalize cost estimate
  - Finalize procurement documents
  - Finalize necessary railroad agreements (if applicable)
  - Finalize FAA approval
  - Finalize proposal (bid documents) with all necessary forms included
  - Finalize EPICs as necessary
  - Receive TDLR approval of plans
  - Update right of way map
  - Traffic control plans
  - Stormwater
  - Detailed letting schedule
- Final Design Documents required
  - Detailed letting schedule form
  - RRUE Certification
  - Final plans
  - Engineers estimate
  - Bid specifications

5.6. Bid Document Preparation

Bid documents include the plans, specifications, and estimates (PS&E) developed to describe all of the elements of a construction project and become the contract between LG and the selected contractor.

As previously described, Maritime funded projects must conform to the latest AASHTO design standards at minimum or request written approval from the PPM of alternate, equivalent specifications. In the event LG would like to adopt the latest TxDOT Standard Specifications, TxDOT has developed templated versions of certain contract documents (Items 1L-9L) to assist LG in properly addressing the requirements listed below.

5.6.1. PS&E Document Submittals

LG prepares the PS&E and submits it to MRD PPM for review, with a coordinated meeting to discuss. On most projects, it is recommended that the PS&E be submitted at several stages, reflecting the 30%, 60%, and 90% completion phases. For less complex projects, MRD PPM may allow for fewer submittals. Upon final submittal, the PS&E and bid documents are reviewed and approved by MRD, and a Ready to Let (RTL) approval is issued, which allows advertising of the construction phase of the project.

Final PS&E and bid documents are due to MRD PPM at least 45 days before the letting date unless the PPM has approved a shorter timeframe.

5.6.2. Bonding

LG may include provisions for bid guaranties or bonds, or warranty bonds, in invitations for receipt of bids. Bonding is grouped into six basic classifications:

- A bid bond, or proposal guaranty, is a bond, certified check, cashier's check or other negotiable instrument submitted with the bid as assurance the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.
- A performance bond is a bond executed in connection with a contract to assure fulfillment of all the contractor's obligations under the contract.
- A payment bond is a bond executed in connection with a contract to assure payment, as required by law, to all persons supplying labor and material in the execution of the work provided for in the contract.
- A retainage bond is a bond executed in connection with a contract to assure any monies owed to the owner by the contractor are recoverable (a retainage bond is used instead of actually withholding a percent of the contractor's payments).
- A warranty bond is a bond executed in connection with a contract to assure a warranted item survives the warranty period in the prescribed condition.
- A maintenance bond is a bond that a surety company issues guaranteeing repayment to the project owner in case a project or a portion of a project fails to work properly after a certain specified period of time.

All Texas governmental entities have applicable state statutes requiring contractors to execute bonds. The type of the bond may vary, but all provide that the bond be issued by a surety company authorized to do business in Texas. TxDOT wants assurance that state funds are protected, requiring LG to adopt TxDOT's bonding process, as described in Item 2L of TxDOT's LG Standard Specifications, or include the process in the procurement/letting policies for TxDOT approval.

5.6.3. Buy America

Federal Buy America requirements do not apply to Maritime funded projects utilizing state funds.

5.6.4. Changes in Work

The construction industry recognizes it is unrealistic to expect a construction project to be built without deviating from the project plans. Project designers should be diligent and exercise due care when developing plans. However, there are many peculiarities (e.g., unforeseen site conditions, utility conflicts, changes in the geology, etc.) that can arise during construction, and every project should anticipate the potential need for changes. Only the construction engineer is in a position to judge the adequacy of project designs and respond to needed changes.

For all Maritime funded projects, TxDOT must formally concur with proposed extra work or changes in the contract plans and provisions before work begins. However, when emergency or unusual conditions are justified, TxDOT may give advance verbal concurrence and formally confirm as soon as practical. Minor changes also require formal concurrence. However, such concurrence may be given retroactively at TxDOT's discretion. Minor changes include small quantity adjustments to existing line items totaling 10% or less of the contract amount or agreed-upon weather days with proper documentation. All items must be communicated to the PPM and outlined in the engineer's letter of recommendation for payment.

LG, with MRD concurrence, should establish and document specific parameters for non-major change and non-major extra work. The definition of a major change is a change that:

- Reduces the geometric design or structural capacity below project design criteria (any reduction in geometric design that would normally have required a design exception)
- Increases the contract by 25% of the original contract or by $300,000, whichever is less
- Changes project limits
- Involves any change in the TCP reducing the capacity as shown on the plans for the through traffic or the traffic on major cross streets
- Involves the settlement of a dispute
- Changes the access on a controlled access highway.

LG must adopt TxDOT's LG Standard Specification Item 4L or a preapproved alternative that discusses the process for managing changes in the work in the bid documents.

5.6.5. Contract Time

The term of the contract is an important part of every construction project. Too little contract time may result in higher construction costs, while too much contract time may encourage inefficiencies, increased user costs, and potential delays and inconvenience to the public.

LG must have an acceptable procedure for determining contract time. This procedure should include a comparison of the actual construction time against the estimated completion time for several projects to ascertain whether the procedures result in appropriate contract times. The goal should be to strive for the least practical number and duration of traffic interruptions during highway construction.

The appropriate method of charging contract time is also an important component. LG may adopt a contract time charge method using TxDOT's LG Standard Specification Item 8L, or submit an alternative for TxDOT approval. This language should provide a clear understanding to the bidders of how time charges will be assessed during construction.

5.6.6. Debarment Certification

Contractors are not allowed to participate in Maritime funded projects if they are suspended or debarred by the U.S. General Services Administration (GSA), or a state agency. The contractor is required to certify as to its current eligibility status. Certification is also required of all prospective participants in lower-tier transactions. This includes subcontractors, material suppliers, vendors, etc. Each participant must certify:

> "... that it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency … and that they have not been convicted or had civil judgment rendered within the past three years for certain types of offenses."

For all projects, LG must check the current list of debarred contractors and suppliers on the federal excluded parties list (maintained by GSA) and the Texas Comptroller's Vendor Performance Tracking System before awarding any contracts or approving any subcontracts. LG should maintain documentation in the project files.

5.6.7. Differing Site Conditions

Due to the nature of construction projects and the conditions under which work is performed, designers cannot always accurately determine and describe the conditions existing at project sites. Consequently, actual conditions encountered during construction may differ from those indicated in the contract documents, resulting in a change in construction costs. Situations may also develop during construction, requiring LG to order the contractor to slow down or stop construction without faulting the contractor. These slowdowns or stoppages in the work may cause a change in construction costs.

Situations during construction may also require LG to alter the design. In addition to changing the amount of contract work, such alterations could significantly affect the contractor's production costs. In accordance with federal regulations, the contract must include differing site or changed condition clauses verbatim.

The following standardized changed condition clauses must be included verbatim in all contracts.

- ***Differing Site Conditions Clause*.** This clause provides for the adjustment of the contract terms if the contractor encounters:
  - Subsurface or latent physical conditions that differ materially from those indicated in the contract; or
  - Unknown physical conditions of an unusual nature that differ materially from those ordinarily encountered and generally recognized as inherent to the work.
- ***Suspensions of Work Ordered by the Engineer [LG]***. This clause provides for the adjustment of the contract terms if the performance of all or a portion of the work is suspended or delayed by the engineer (LG), in writing, for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry). The contractor is required to submit a request for adjustment, in writing, to the engineer (LG) within seven calendar days of receipt of the notice to resume work. Recovery of profit on costs resulting from suspensions of work is not allowed.
  - To qualify for an adjustment, suspensions must be for unreasonable periods and do not include brief, customary suspensions for reasons inherent to highway construction (i.e., material sampling and testing; approval of shop drawings, material sources, etc.; and other reasonable and customary suspensions necessary for the supervision of construction by the contracting agency).
  - In addition, an adjustment under this clause is not allowed if the work is suspended for other reasons or if an adjustment is provided for or excluded under other terms or conditions of the contract.
- ***Material Changes in the Scope of the Work*.** This clause provides for the adjustment of the contract terms if the engineer (LG) orders, in writing, an alteration in the work or in the quantities that significantly change the character of the work. The term "significant change" shall be construed to apply only to the following circumstances:
  - The altered character of the work differs materially from that of the original contract; or
  - A major item of work, as defined in the contract, is increased or decreased by more than 25% of the original contract quantity (adjustments shall apply only to that portion in excess of 125% of the original contract quantity or, in case of a decrease, to the actual quantity performed)

This clause provides for adjustments resulting from formal change orders by the engineer (LG), in writing, to the extent that the impacted work is part of the contract. Both parties may initiate an

adjustment and both must be in agreement before the work is performed. As with the suspension of work provision, this clause does not preclude the recognition of constructive suspensions or delays.

5.6.8. Historically Underutilized Business (HUB) & Small Business Enterprise (SBE)

The state programs HUB and SBE have been developed to encourage participation by a wide variety of contractors in the construction industry.

LG will be required to follow the provisions of Texas Transportation Code §201.702 and 43 TAC §§9.354-9.355 (HUB) and §§9.314-9.315 (SBE) and incorporate project goals approved by TxDOT into project documents before advertising for receipt of bids.

5.6.9. Disadvantaged Business Enterprise (DBE)

Maritime funded programs do not utilize DBE.

5.6.10. Liquidated Damages

Liquidated damages are required as a means of recovering, at a minimum, construction engineering costs from a contractor. Contract time is an essential element of the contract, and it is important that the work be monitored closely to ensure completion within the time limits specified in the contract. The cost to LG for the contract administration, including engineering, inspection, and supervision, increases as the contract time increases. Likewise, road user costs increase as the completion date of the contemplated facility is extended. The liquidated damages contract provision provides a mechanism for LG to recover these costs associated with the contract time overrun.

5.6.11. Local Hiring Preference & Non-resident Bidder/Texas Preference

Some states and local public agencies have implemented policies encouraging or mandating the use of local employment, local contracting, and non-resident bidder clauses. Maritime funded projects must gain MRD approval before using contract or agreement language mandating any hiring preference.

5.6.12. Materials

The PS&E must clearly define the materials used in an LG construction project. Plans and specifications need to describe the types, locations, and construction requirements for materials in detail to facilitate construction, contract control, and estimation of construction costs. The estimate must reflect the anticipated cost of the project in sufficient detail to provide an initial prediction of the financial obligations to be incurred by LG or TxDOT and to permit an effective review and comparison of the bids received.

5.6.13. Method of Construction (or Method of Bidding)

LG must obtain TxDOT approval for any procurement method, including competitive bidding. If competitive bidding procedures are not utilized, LG must provide written justification for the use of any alternative bidding procedures in accordance with applicable state laws, and TxDOT must approve the utilization of such alternative bidding procedures.

Construction contracts are to be awarded by competitive bid unless LG seeks approval from MRD to use a non-competitive method of contracting.

5.6.14. Nondiscrimination Against Persons with Disabilities

Discrimination on the basis of disability by public entities is prohibited. The prohibition extends to all activities of state and LGs participating in federally assisted programs. LG must ensure accessibility for individuals with disabilities is provided in the construction of all new transportation facilities. When altering existing transportation facilities, LG must also ensure the alterations are made in such a way as to provide access and utilization by individuals with disabilities. Additional information related to accessibility requirements and the related responsibilities of LG and TxDOT during construction are included in Chapter 9 - Construction of the LGPP Manual.

LG must follow the following required practices:

- All projects must comply with the provisions of the applicable statutes.
- LG is responsible for coordination with TDLR or a registered accessibility specialist for plan review and approval, and for paying all applicable fees.
- For all projects, LG must ensure all transportation facilities are in compliance with ADAAG, TAS, and 55
- LG must submit plans to TDLR or a registered accessibility specialist for public right of way projects with pedestrian elements estimated to cost at least $50,000, building or facilities projects, and hike/bike trail projects.
- LG must implement an ADA program that includes the following:
  - Notice of Nondiscrimination Requirements. LG will inform the public that it does not discriminate on the basis of disability in its programs, services and activities.
  - Methods of Notification of Nondiscrimination Requirements. LG will post its notice in local papers, magazines, bulletins, announcements, handbooks, pamphlets, brochures, recruitment materials, application forms and any other publication it distributes.
  - Self-evaluation. LG will conduct a self-evaluation to ensure its policies and practices comply with ADA.
  - Transition Plan. If LG employs 50 or more persons, LG will develop a transition plan for making structural changes to existing facilities so they are accessible to individuals with disabilities. The transition plan must meet the requirements of 28 CFR 35.150(d).
  - Designation of an ADA/504 Coordinator. LG will designate at least one employee to coordinate ADA/504 programs. Contact information will be made available to the general public.

- Provision of Reasonable Accommodations for Employment. LG will comply with the provisions of Title I and II of ADA.
- Adopting Grievance/Complaint Procedures for Disability Discrimination Complaints. LG will adopt a grievance procedure to address all complaints dealing with ADA/504 provisions.
- Provision of Accessible Programs, Services and Activities. LG will ensure no individual with a disability is excluded from any service, program or activity.
- Provision of Accessible Communications. LG will provide auxiliary aids and services to ensure all communications with individuals with disabilities are effective.
- Monitoring/Enforcement. LG will maintain all program records and make them available for federal officials to review.
- Maintenance of Accessible Features. LG will ensure facilities are properly maintained and readily accessible to individuals with disabilities.
- Other Program Requirements. LG will comply with the "Uniform System for Parking for Persons with Disabilities" regulations.

5.6.15. Non-responsive Bid

A non-responsive bid is deemed not to meet all of the written requirements of the advertisement and proposal. The bid document must include a list of reasons why a bid is considered non-responsive, with the reasons clearly defined. Reasons why a bid "may" be declared non-responsive must not be included in the bid document, as the language is subjective. The bid is either responsive or non-responsive.

The reasons a bid is nonresponsive listed in the proposal ***cannot*** be "waived." Therefore, common provisions allowing an LG to waive technicalities determined to be in its best interest cannot be invoked regarding a nonresponsive bid.

5.6.16. Railroad Insurance Provision

Contractors must purchase railroad protective liability insurance when work under the contract is located in whole or in part within railroad right of way. The insurance is for the benefit of the railroad.

5.6.17. Retainage

Retainage is a portion of the construction contract fee that is withheld until LG is satisfied the work is substantially complete. State law allows up to 5% of the contract price to be retained for contracts valued at $5 million or more and up to 10% for contracts valued between $400,000 and less than $5 million until the entire improvement has been completed and accepted. LG is required by Texas Government Code §2252.032 to include in all contracts a provision defining when the project (or portion thereof) is substantially complete. Projects with a contract value of $400,000 or greater must comply with the requirements of Texas Government Code §§2252.031 and .032.

5.6.18. Safety

LG must include provisions in the contract to implement federal and state safety requirements.

5.6.19. Termination of Contract

Termination is an action taken by the contracting agency to cancel a contract. Maritime funded contracts must contain suitable provisions for termination by the LG. The provisions must identify the manner by which the termination will be affected and the basis for settlement. There may be a number of grounds to warrant termination, including termination for cause, termination for convenience, and termination for default.

5.6.20. Trench Safety

Provisions of the Occupational Safety and Health Administration (OSHA) apply to all federal, state, and LG projects. According to OSHA, dozens of people are killed each year and hundreds are injured in trenches on construction sites. OSHA has established several trench safety requirements, such as:

- Trenches 5-feet deep or more require a trench protection system
- Trenches 20-feet deep or more require the trench protection system to be designed by a registered professional engineer
- Allowable trench protection systems include:
- Sloping -- protects workers by cutting back the trench wall at an angle inclined away from the excavation
    - Shoring -- protects workers by installing aluminum hydraulic or other types of supports to prevent soil movement
- Shielding -- protects workers by using trench boxes or other types of supports to prevent soil cave-ins
- Trenches are required to be inspected daily and as conditions change by a competent person prior to worker entry to ensure the elimination of excavation hazards

To ensure trench safety receives the attention it deserves, the Texas Health and Safety Code, Chapter 756 Subchapter C outlines several construction project requirements.

5.6.21. Workers' Compensation Insurance

The state of Texas requires contractors and subcontractors performing on a building or construction contract with a governmental entity to provide workers' compensation insurance coverage for each individual employed on the public project.

LG must require the contractor to provide written certification of the workers' compensation insurance coverage.

6. Letting & Award

Before a transportation project can be placed under contract, the contracting agency must "let" it or make it available for bidding. Although MRD maintains oversight for Maritime funded projects, LG is responsible for the letting process. A well-planned and executed bidding process allows LG and TxDOT to get the most competitive price and allows businesses to compete fairly for business.

The following are typical tasks associated with the letting phase of the project:

- Advertise for bids
- Issue addenda (if any)
- Open bids publicly
- Evaluate bids
- Make recommendations to award, reject all bids, or cancel the project
- Receive concurrence with award or rejection.

6.1. Procurement/Letting Policies

LG must receive TxDOT pre-approval of its procurement or letting procedures during the project initiation phase to ensure reimbursement of the costs of goods and services. TxDOT's review and approval are to ensure compliance with program requirements.

Contractors and suppliers suspended or debarred are not allowed to participate in state-funded projects. LG must verify that its prime contractors/suppliers and lower-tier providers are not debarred by the federal or state government prior to contract award. Additional information on debarment is provided in the Debarment Certification section of Chapter 7 of the Local Government Projects Policy Manual.

6.2. Ready to Let (RTL) Approval

When LG has completed the requirements for the Project Development phase, LG must seek approval from MRD to advertise the project. TxDOT requires the following documents at least 30 days prior to letting:

- 100% construction plans
- Letting/Procurement policies
  - Must be submitted to TxDOT for review and approval
- Detailed letting schedule
- TxDOT RTL Form
- Bid Specifications
- Engineer's Estimate

- RRUE certification

Once MRD approves the final documents, RTL approval will be issued.

6.3. Letting

Letting involves the request for a submission of bids through a public advertisement, the receipt of bids, and the selection of the most responsive bid using a competitive selection process based on qualifications, best value, experience, or any other factors included by LG or required by TxDOT. Off-system projects utilize the LG's approved procurement policy; however, this policy requires review by TxDOT prior to its usage.

6.3.1. Advertising

In Texas, the advertisement of a contract proposal legally takes the form of a classified advertisement published in a newspaper. Additional methods to announce upcoming projects, which are allowed but not considered the "official notice," include advertisements in trade journals, bulletins, and mailed notices to potential bidders (i.e., from a mailing list), posting notices on LG's website, etc.

LGs may only advertise a project after receiving MRD approval of the PS&E package and the execution of the RTL approval.

LG may follow its own advertising policy and practices but must ensure free and open competition. The requirements are described in the LGPP Manual. For large or complex projects, LG should consider an advertisement period longer than 3 weeks to permit prospective bidders adequate time to prepare a responsive bid proposal. Scheduling a pre-bid meeting to address prospective contractors' concerns and questions may be appropriate but is not required. Any proposal solicitation package or notice for advertising needs to include all information necessary to allow a responsible contractor to make a responsive bid, proposal, or other applicable expression of interest for the procurement contract, including at a minimum the following information:

- The scope of work
- The location where the bidding documents, plans, specifications, or other data may be examined or purchased by all bidders
- If a pre-bid meeting will be held, identify the time, place, and whether attendance is mandatory or non-mandatory
- The time and place for submitting bids and the time and place where bids will be opened.

6.3.2. Addenda

All prospective bidders must be made aware of each addendum as expeditiously as possible, with each case evaluated based on its complexity. The most important consideration in an addendum process is

to give all potential bidders enough time to fully evaluate the effect of the changes and adjust their bids accordingly. LG should develop policy guidance, identifying an adequate time frame.

Since an addendum constitutes a deviation from MRD-approved PS&E, MRD must approve an addendum prior to release to the prospective bidders. Any approval or concurrence will be based on LG's assurance that all potential bidders will receive the approved addendum.

6.3.3. Bid Opening & Tabulations

The bid opening is a public forum for the announcement of all bids and is the point in time where the bids are opened and read aloud. Bid tabulations provide a means of evaluating bids and a mechanism for tracking construction costs.

LG bidding documents must clearly identify requirements that the bidder must comply with to have a responsive bid, which may include (but are not limited to):

- Failure to submit bids by the deadline stated in the advertisement or addenda
- Failure to sign the bid
- Failure to furnish the required bid bond
- Failure to include a unit bid price for each item
- Failure to acknowledge all addenda
- Failure to include a total amount for the bid
- Inclusion of conditions or qualifications not provided for in the specifications.

6.3.4. Bid Analysis

The engineer's estimate is part of the PS&E. One of the purposes of the estimate is to serve as a guide to analyze bids. The estimate should be accurate, credible, and based on realistic data. TxDOT maintains written procedures for justifying the award of a contract or for rejection of the bids when the low bid appears excessive or rejection is being considered for other reasons.

The bid analysis process is an examination of the unit bid prices for reasonable conformance with the engineer's estimated prices. Beyond the comparison of prices, other factors that a bid analysis may consider include:

- Number of bids
- Distribution or range of the bids
- Identity and geographic location of the bidders
- Urgency of the project
- Unbalancing of bids
- Current market conditions and workloads
- Comparison of bid prices with similar projects in the letting
- Justification for significant bid price differences

- Potential for savings if the project is re-advertised
- Other factors as warranted

6.3.5. Unbalanced Bids

LG should perform an analysis of the tabulations and the project estimate to determine the presence of unbalanced bids. The two types of unbalanced bids are:

- Mathematically unbalanced bid -- a bid containing lump sum or unit bid items that do not reasonably reflect the actual costs (plus reasonable profit, overhead costs, and other indirect costs) to construct the item; and
- Materially unbalanced bid -- a bid generating reasonable doubt that an award to a bidder would result in the lowest ultimate cost to the government (a materially unbalanced bid should not be awarded).

LG must obtain MRD concurrence on the determination of whether or not a bid is unbalanced.

To detect mathematical unbalancing, the unit bid items will be evaluated for reasonable conformance with the engineer's estimate and compared with the other bids received. There are no definitive parameters (e.g., an amount or percent of variance from the engineer's estimate) constituting an unbalanced bid. The degree of unbalancing of a bid may depend on the reason for the unbalancing.

There may be situations where the quantity of an item could vary due to inaccuracies in the original quantity or cost estimating, errors in the plans, changes in site conditions or design, etc. In these situations, the bids will be further evaluated to determine if the low bidder would ultimately yield the lowest cost. If unbalancing creates a reasonable doubt that the award would result in the lowest ultimate cost, the bid is materially unbalanced, and TxDOT will recommend rejection or other steps to be taken to protect the government's interest.

6.4. Contract Award

The contract award process follows the bid analysis and includes the award of the contract to the selected bidder. Contract award is the commitment to go forward with the project. The letting phase of the project includes the selection of the bidder for the award of the contract by LG and the concurrence in the award by TxDOT. The actual execution of the contract is included at the beginning of the construction phase of the project.

6.4.1. Concurrence in Award

Concurrence in contract award is not just a formality -- it is the required authorization from TxDOT to LG to proceed with construction. LG must formally request concurrence from MRD through a Letter of Recommendation and the Program Certification and Commence Construction (CCC) form. The Letter of Recommendation includes items from the letting bid analysis to support the selection and requests

MRD approval to take action prior to making the award. MRD will formally document the approval by completing the Award Concurrence Recommendation form and fully executing the CCC.

6.4.2. Notice of Award (NOA)

Notice of Award (NOA) is an official document issued by LG to a contractor and shared with MRD indicating that the contractor's bid has been accepted. NOA typically includes key details such as the project name, the contractor's name, and the contract amount and outlines any conditions that must be met before the contract is signed, such as providing performance bonds or insurance certificates.

7. Construction

This chapter of the guide provides information related to the administration of the project during construction, including procedures for initiating the construction project and required practices that must be followed throughout the construction project. The following general tasks are typically completed during the construction phase:

- Execute contract;
- Pre-construction meeting (LG, TxDOT and contractor);
- Issue the notice to proceed;
- Review environmental compliance issues;
- Begin construction;
- Complete materials testing as required;
- Monitor compliance/reporting issues associated with contract administration/project management;
- Provide progress reports;
- Conduct regular site visits;
- Provide project documentation;
- Complete final inspection; and
- Accept project and record letter and as-builts.

7.1. Contract Administration

The goal of contract administration is to ensure the requirements as outlined in the contract documents are performed accurately and completely and that the responsibilities of all parties are properly satisfied. The primary objectives of contract administration are:

- To verify performance for the purpose of payment
- To identify any potential "material breach of contract" by assessing the difference between contract performance and material non-performance
- To determine if corrective action is necessary; and
- To take such action, if required.

The Construction phase of a project is initiated after TxDOT concurs with the award of the contract to the selected bidder. LG may then award and execute the contract. Although LG is responsible for the tasks that start the construction project, MRD actively participates in the initiation of the construction phase and maintains oversight responsibility during construction to ensure these projects are managed, developed, and constructed in accordance with approved policies, procedures, plans, and specifications. MRD PPM and LG responsible persons in charge (RPIC), project manager, and qualified person will be responsible for coordinating closely throughout the project.

7.1.1. Construction Contract Execution

Upon receipt of the TxDOT concurrence, LG may award the contract to the selected contractor. Upon receipt of all required submittals from the contractor, LG and the selected contractor will execute the contract, and LG will provide a copy to MRD.

7.1.2. Subcontracting

Subcontractors are not allowed to participate in projects if they are suspended or debarred. The contractor is required to certify as to its current eligibility status. Details regarding specific subcontracting and debarment certifications that must be followed and properly documented.

LG must approve subcontracts in writing, retain signed copies of the project files, and share them with MRD.

7.1.3. Pre-Construction Meeting

LG plans and conducts the pre-construction meeting, which should involve LG key personnel, the contractor (and subcontractors, as required), and MRD. The meeting must be held prior to the commencement of work.

MRD will provide a meeting template that may be used as the agenda or integrated into LG agenda. A copy of the meeting notes and sign-in sheet with contact information for all attendees should be created and retained in the project file and shared with all attendees.

LG must ensure all questions arising during the meeting are answered. If answered after the meeting, LG must send a copy of the answers to each participant and keep a copy in the project records.

7.1.4. Notice to Proceed (NTP)

The construction phase starts with issuing the NTP to the contractor and includes the start of the contract time and method of time charges (calendar or workday), which are shared with MRD.

7.1.5. Inspections

LG is responsible for day-to-day oversight and determining compliance with the approved plans, specifications, and contract administration, as well as developing and keeping adequate project documentation.

Compliance with the plans, specifications, and contract administration requirements includes:

- **Quality of the Construction**: Assure the contractor meets all material and construction requirements through an appropriate onsite inspection and project management level.
- **Contract Administration**: Assures full contract compliance and participation through day-to-day inspection.

MRD must conduct periodic inspections of the project in accordance with the oversight level established at the project's initiation to ensure LG complies with the terms of the FA.

Construction progress meetings with the contractor, LG, and MRD must be conducted monthly at a minimum.

7.1.6. Quality Assurance Program (QAP)

For all LG projects, independently of the contractor, LG shall provide inspection services and construction materials testing as part of LG's quality assurance program (QAP). LG construction materials testing shall be used for materials acceptance, or the verification of the contractor's test results shall be used for acceptance, if applicable, and shall be used to ensure the materials incorporated into the project substantially meet project plans and specifications. LG may develop its own QAP or adopt the appropriate TxDOT QAP pertinent to the type of project delivery method used.

7.1.7. Records

Project records provide documentation and support for the payments for contract work during construction. LG must retain records as specified in the FA, and MRD ensures LG is maintaining the appropriate records through periodic record reviews.

Project records unique to construction projects fall into many categories, such as documentation of pay quantities, test reports supporting that the materials used meet specification requirements, and various contract administration documentation.

TxDOT suggests that LG monitor the following elements and their recommended frequency:

- Daily
  - Daily Work Report (DWR)
  - Bid item pay records
- Weekly
  - SWPPP Inspections
- Monthly/Bi-Monthly
  - Project meetings
  - Contractor progress schedule updates
  - Progress payments
  - Barricade inspections
- As Applicable
  - Change Orders
  - Material testing reports
  - Subcontractor approvals

7.1.8. Progress Payments

Progress payments are compensation paid to the prime contractor and vendors for the value of work performed during a covered period. Payments should be based on the value of the work performed (supported by field measurements) and materials delivered or stockpiled in accordance with the contract. Payment for each bid item should be made in compliance with its approved specifications.

7.1.9. Reimbursement Requests

LG is responsible for making payments to the prime contractor prior to seeking reimbursement from MRD for the costs of completed work. LG is allowed to submit reimbursement requests no more frequently than once per month but must submit requests within 90 days of incurring eligible expenses in accordance with the FA.

- LG is to submit reimbursement requests each month work is performed. For months where no reimbursement is required, LG should submit a status update stating the reason.
- LG may not request reimbursement from TxDOT until payment has been transmitted to LG's contractor in accordance with Texas Government Code §2251.021.
- LG must follow Prompt Payment requirements found in the Texas Comptroller's Texas Grant Management Standards
- LG requests for reimbursement must be submitted to TxDOT within 90 days of when the project begins incurring costs.
- LG submits reimbursement requests to TexasSCP@txdot.gov or TexasMIP@txdot.gov, must include:
    - Reimbursement tracker and summary
    - Recommendation letter from the consultant/engineer
        - Include the following project details:
            - CSJ
            - Port name
            - Reimbursement request number
        - Include the following details on invoices seeking reimbursement:
            - Number of invoices
            - Name of vendors
            - Amount for each vendor
            - Dates work occurred
            - Short description of work
            - Identify item adjustments not requiring an immediate change order
                - Weather days and supporting tracking mechanism
                - Additional quantities exceeding the amount identified in the contract
                    - These allowances should not exceed 10% of the total contract amount and should be included in the next

change order or an equilibrium change order at the end of the project to zero out quantities.
    - Additional quantities totaling over 10% of the contract amount require a change order
  - Invoices from the contractor/vendor to the port with the following information included on the document with all personally identifiable information (PII) removed:
    - CSJ/Project name
    - Service period
    - Pay estimate number
    - Invoiced amount
    - An itemized account of the contract amount that reflects the work performed during the current service period
  - MRD Reporting and Reimbursement Requirements Form
  - Weekly site visit reports with pictures showing work completed during the reimbursement period.
  - Updated schedule noting days left on the contract.
- TxDOT has 30 days to issue reimbursement once MRD receives a complete and accurate reimbursement request package.

MRD PPM will schedule a meeting with LG and MRD Business Operations to review the first reimbursement request prior to submission.

7.1.10. Material on Hand (MOH)

LG may offer payment for MOH to help offset large capital outlays in assembling and stockpiling material for the contract.

Only nonperishable items are eligible for MOH payments. Nonperishable items are those that do not have a shelf life or whose characteristics do not materially change when exposed to the elements. The following are examples of nonperishable items eligible for MOH payment.

- Concrete Traffic Barrier (CTB)
- Precast Concrete Box Culverts (PCBC)
- Concrete piling
- Reinforced Concrete Pipe (RCP)
- Illumination poles
- Base materials or aggregates stockpiled onsite or produced and stockpiled specifically for the contract at a non-commercial source in the vicinity of the work locations (if more than one contract is being supplied, ensure that separate stockpiles are maintained for each contract). For the purpose of MOH payment for the base materials and stockpiled aggregates, a commercial source is defined as any source that supplies base, aggregates, hot-mix asphalt

(HMA), or concrete to the general public, while a non-commercial source is defined as a source that does not supply to the general public.)

If determined beneficial, separately identifiable stockpiles located at a commercial source may be eligible for MOH payment. In addition, any item considered unique in nature and fabricated specifically for a contract may be considered for MOH payment. Verify that all materials meet contract requirements.

To request payment for MOH, LG must submit Form 1914, "Request for Material on Hand Summary Sheet," and Form 1915, "Request for Payment of Material on Hand," with each reimbursement. Once LG and the contractor elect to request MOH payments, they must continue to submit Forms 1914 and 1915 every month until a zero balance is reached—even if there are no changes from the previous month's submitted forms.

7.2. Application of Contract Elements

The Construction phase of the project is guided by the elements included in the PS&E and the bid documents executed during letting. Chapter 5, Project Development, describes these elements in detail. This section highlights critical contract elements applicable to the construction process and refers LG to the appropriate sections in previous chapters for more information.

7.2.1. Change Orders (CO)

A construction project is implemented using the design and specifications provided in the bid documents or scope of work contained in a request for proposals. However, circumstances may arise during construction that require changes to the scope of work contained in these documents. Known as change orders (CO), these changes become legal documents and, therefore, must be proposed by the construction engineer and approved by the contracting agency.

MRD retains concurrence authority over all change orders and time extensions. Failure to coordinate with MRD before issuing a change order may jeopardize Maritime-funding participation.

7.2.2. Designated Material Sources/Disposal Sites

The contractor must furnish all materials to be incorporated into the work. However, LG can either furnish materials or require the contractor to use designated sources of materials under certain conditions. Exceptions to this requirement may be made when there is a definite finding by LG, with MRD concurrence, that it is in the public interest to require the contractor to use materials furnished by LG or from sources designated by LG. Similarly, the disposal site for surplus excavated materials is the contractor's choosing, although an optional site(s) may be shown in the contract provisions. A mandatory site shall be specified when there is a finding by LG, with the concurrence of MRD, that such placement is the most economical or the environment would be substantially enhanced without

excessive cost. Discussion of the mandatory use of a disposal site in the environmental document may serve as the basis for the public interest finding.

7.2.3. Substantial Completion

Substantial completion refers to the stage in a construction project when the work is sufficiently complete, allowing the owner to occupy or use the project for its intended purpose. MRD has the option of setting the time between substantial completion and project acceptance by general note or setting the total time for the project regardless of the time bid by the contractor.

Once the contractor meets LG contract provision outlining the requirements for substantial completion, LG will coordinate a site visit with LG, MRD, and contractor to review the project. In coordination with MRD, LG will develop a punch list, a list of items required for the project to be accepted as complete.

Once the contractor has completed the punch list items, LG will schedule a final walkthrough, which will include LG, MRD, and contractor for final review and acceptance.

8. Project Closeout

This chapter of the Maritime Funded Project Guide describes the procedures required to close out the project. The companion Local Government Projects Policy Manual provides related policies and regulations for this phase of the project. The general tasks listed below are usually typical of project close-out:

- Review the project for compliance with the FA and bid documents
- Ensure the right-of-way and utility relocation documentation are complete
- Complete project records
- Notification of Construction Completion form
- Records review
- Receive final payment/reimbursement

8.1. Project Close-out

The final phase of a project involving a partnership between LG and MRD is the project close-out. At the end of the project's work, LG and MRD will concur that the project scope has been completed according to FA and contract documents.

Close-out includes a project review by TxDOT to:

- Determine if all work was completed and acceptable to MRD
- Process the final payment to close the work on the project
- Complete the project audit

The close-out process requires LG to provide MRD electronic access to all necessary project documentation for review. Upon completion of the review, LG will retain the project files as defined in the FA.

8.1.1. Project Review

Within 90 days of project completion, LG should submit the final reimbursement request with backup documentation and provide access to the project records for final review. All requests for reimbursable costs must be submitted no later than 90 days after the project completion end date.

LG shall deliver the final billing statement, which may include the retained percentage of the final construction cost and the Notification of Construction Completion (NOC) form. The NOC outlines the basic items required for the project to be considered for closeout, which is a critical step in the project and necessary to complete the FA requirements.

Once the documents are received, MRD will:

- Review all required elements of the project using a record review guidance tool
- Perform a review of the project records and documentation
- Provide a final project report to LG along with returning the project records; this may include instructions to address comments, if any, from the records review
- After final payment to LG has been processed in the TxDOT financial management system, MRD must notify the Accounting Management Section of TxDOT's Financial Management (FIN) Division via e-mail that the project is complete so the project can be inactivated in the financial management system.

8.1.2. Final Closeout

MRD is responsible for maintaining cost data throughout the project and should determine the actual shared cost at the conclusion of the work. All financial records will be reconciled against the data in the TxDOT financial management system. If LG receives payments exceeding the award, LG will submit the additional funds in accordance with the requirements of the individual FA.

If payment is not received by the stated due date in the request letter, MRD shall follow 43 TAC §5.10, Collection of Debts, which entails mailing out demand letters and possibly having to contact the Payments Management Section of FIN to initiate a "warrant hold" on that entity. The "warrant hold" procedure, officially processed by the Texas Comptroller of Public Accounts, ensures no treasury warrants are issued to the LG until payment is received.

8.1.3. Audit

Provisions in the FA between MRD and LG dictate the project audit requirements. The FA will contain project-specific information on the audit requirements. LG and MRD retention of complete records will provide for a more efficient audit process. The LGPP Manual provides the regulations governing the audit.

8.1.4. Document Retention

The project records must be kept during the contract period and for the length of time after completion of the project activities as specified in the FA, until completion of all audits or until any pending litigation has been completely and fully resolved, whichever occurs last. However, the file must be retained indefinitely if the FA includes right-of-way or surviving (permanent) maintenance provisions.

9. Maritime Division Contacts

Title	Name	Phone	Email
Division Director	Geir-Eilif Kalhagen	(512) 701-7391	geireilif.kalhagen@txdot.gov
Plan & Dev Sect Director	Travis Milner	(713) 594-2489	travis.milner@txdot.gov
Ops & Admin Sect Director	Khristen Staas	(737) 230-9031	khristen.staas@txdot.gov
Port Dev Administrator	Kris Knoll	(737) 263-8980	kris.knoll@txdot.gov
Port Project Manager	Heather Scott	(737) 203-7165	heather.scott@txdot.gov
Port Project Manager	Lisette Mason	(512) 484-9563	lisette.mason@txdot.gov
Port Project Manager	Ahide Gutierrez	(512) 550-9109	ahide.gutierrez@txdot.gov
Port Project Manager	Jason Hightower	(512) 574-2164	jason.hightower@txdot.gov

10. Acronyms

- **AASHTO** - American Association of State Highway and Transportation Officials
- **ADA** - Americans with Disabilities Act
- **ADAAG** - Americans with Disabilities Act Accessibility Guidelines
- **CCC**- Certification and Commence Construction
- **CO-Change Order**
- **CSJ** - control-section-job number
- **CTB** - Concrete Traffic Barrier
- **DWR** - Daily Work Report
- **EPIC -** environmental permits, issues, and commitments
- **FA** - Funding Agreement
- **FAA** - Federal Aviation Administration
- **FEMA** - Federal Emergency Management Agency
- **FIN** - TxDOT Financial Management Division
- **GSA** - U.S. General Services Administration
- **HMA** - Hot-mix asphalt
- **HUB** - Historically Underutilized Business
- **LG** - Local Government
- **LGPP** - Local Government Projects Policy Manual
- **LOS** - Level of Service
- **MUTCD** - Manual on Uniform Traffic Control Devices
- **MO** - Minute Order
- **MOH** - Material on Hand
- **MIP** - Maritime Infrastructure Program
- **MPO** - Metropolitan Planning Organizations
- **MRD** - Maritime Division, TxDOT
- **MUTCD** - Manual on Uniform Traffic Control Devices for Streets and Highways
- **NEPA** - National Environment Policy Act
- **NOA** - Notice of Award
- **NOC** - Notification of Construction Completion
- **NTP** - Notice to Proceed
- **OSHA** - Occupational Safety and Health Administration
- **PAAC** - Port Authority Advisory Committee
- **PCBC** - Precast Concrete Box Culverts
- **PD** - Port Development Team
- **PIF** - Project Information Form
- **PII** - Personally identifiable information
- **PLSA** - Project- Level Signature Authority

- **PMP** - Port Mission Plan
- **PPM** - Port Project Manager
- **PROWAG** - Public Right of Way Accessibility Guidelines
- **PS&E** - Plans, Specifications, and Estimates
- **RCP** - Reinforced Concrete Pipe
- **RFP** - Request for Proposals
- **RMA** - Regional Mobility Authorities
- **ROE -** Right of Entry
- **ROW** - Right of Way
- **RPIC** - Responsible Party in Charge
- **RRUE** - Row Certification, Utility Certification, Railroad Certification, Environmental Clearance
- **RTL** - Ready to Let
- **SBE** - Small Business Enterprise
- **SCP** - Seaport Connectivity Program
- **SPA** - Oversight Level Special Approval
- **TAS** - Texas Accessibility Standards
- **TCP** - Traffic Control Plan
- **TDLR** - Texas Department of Licensing and Regulation
- **THFN** - Texas Highway Freight Network
- **TMUTCD** - Texas Manual on Uniform Traffic Control Devices
- **TMF** - Texas Mobility Fund
- **TxDOT** – Texas Department of Transportation
- **QAP** - Quality Assurance Program