

State Construction Division – Estimating Section

State Construction Division Summary

This classification is within the Tennessee Department of Transportation (TDOT) Bureau of Engineering. The Sections within the State Construction Division include Contract Letting and Administrative Support, Construction Resources, Contract Services, and Estimating. The Division collaborates and supports the strategic direction and goals of the Asset Management Division to establish targeted investment levels and performance goals that meet or exceed the expected life cycle targets set for the TDOT infrastructure assets.

Construction of transportation projects is dynamic and ensuring relevant, up-to-date resources are available for all stakeholders is paramount to the success of TDOT's State Construction Division. The State Construction Division is responsible for the processes, specifications, standards, oversight, training, and accountability in the delivery of TDOT's construction program. The State Construction Division is committed to providing safe and efficient transportation facilities for the traveling public using innovation and sustainable practices for the construction of transportation projects.

State Estimating Section

Estimates are key to establishing the basis for critical project decisions and for establishing the metrics against which project success can be measured. Maintaining public confidence throughout the life of a project is directly related to reasonable cost estimates.

The Estimating Section provides estimates that encompass the scope of work for a project and incorporate the cost of impacts that may occur due to changes in available resources and national market conditions. This Section serves as the liaison for coordination with contractors during the bidding process through project award. The Estimating Section reviews the bids to ensure compliance and consistency with state and federal requirements. The Estimating Section supports the 5-Year Work Program in delivering transportation projects in accordance with the project scope, schedule, and budget.

EPIC Modifications

The State Construction Division has been reshaped to better adapt to the goals and vision of the State Construction Division. The Estimating Section will remain relatively unchanged.

For the State Construction Division, in general, the following modifications have occurred:

- *The State Construction Division will consist of the following Sections: Estimating, Contract Services, Construction Resources, and Contract Letting and Administrative Support.*
- *Innovative Delivery responsibilities have been shifted to the Project Management Division*
- *Performance measures designed to assess the overall delivery of TDOT's construction program, including the cost and impacts of change orders, value engineering process compliance, DBE utilization during construction, estimating accuracy, and contract time, have been incorporated into TDOT's accountability*
- *The State Construction Division will develop, manage, and administer a certified construction inspector program*
- *Responsibilities associated with the development and submission of the annual Maintenance Contracts Budget, preparation and distribution of City and County Maintenance agreements, and review and payment of invoices for the Cumberland Gap Tunnel and Market Street Bridge maintenance will be shifted to the State Maintenance Division*
- *The State Construction Division will provide contract award information and costs for use in estimating annual budgets*
- *District Resident Engineers will serve as the preconstruction representative for all district construction projects with responsibilities that include project constructability reviews, support of district project contract administration related to the processing of contractor claims, and support of final estimates and project close-out for district projects*
- *Construction packages will be assigned to the appropriate Quality Teams in the Region's Preconstruction Section*

Benefits

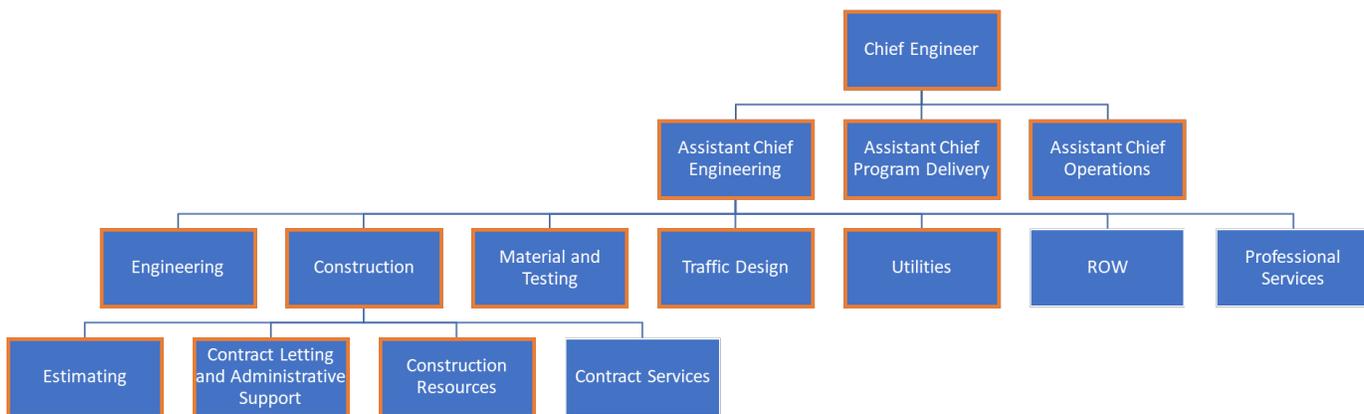
- *Integrating contract services responsibilities into one section will drive efficiency, uniformity, and standardization.*
- *The State Construction Division is better suited to provide and be evaluated on program-level oversight, guidance, and delivery performance*
- *Innovative project delivery processes will be executed by dedicated teams that will take projects from initial concept through contract award*
- *Project-level preconstruction responsibilities are shifted to those individuals within the Region who are directly responsible for delivering those projects*
- *Project-level administration responsibilities are shifted to those individuals within the Region who are directly responsible for delivering those projects*

Challenges

- *Creating a culture of accomplishment in which expectations are communicated, measurable goals are established, feedback and training are provided, the necessary tools required for an employee to achieve their goals are available, and the achievement of goals is celebrated*

- *Building a culture of continuous learning that establishes a succession planning process for recruiting staff, developing leaders both functionally and culturally, and ensuring continuity of critical roles and employee retention*
- *Ensuring continuous and effective coordination is occurring between HQ and the Regions*
- *Ensuring the State Construction Division has active participation and integration within TDOT's matrix organization for delivering successful projects that meet schedule, budget, and scope requirements*
- *Attracting and hiring a staffing mix that complements the corresponding needs of the department*

Functional Organizational Chart



Section Responsibilities

- *Support and implement innovation for the Estimating Section that improves the efficiency, effectiveness, reliability, and safety of TDOT's transportation network*
- *Develop, implement, and monitor key performance indicators for offices, sections, and individuals within the State and Region Construction Division to ensure the health of the statewide construction program and coordinate with the FHWA to assure the program's overall effectiveness*
- *Foster relationships with industry partners to provide a platform for improving policy and procedures related to construction estimates*
- *Integrate Quality Management into all deliverables with the purpose of reducing errors, construction delays, and contractor claims*
- *Provide technical assistance and guidance to the Regions, Local Programs Development Office, Freight and Logistics Division, and Aeronautics Office for estimate-related matters*
- *Assist local governments with state and federal aid projects by determining project costs*

- *In coordination with the State Construction Engineer, develop, implement, and maintain policies, tools, guidance, and training to assist in the development of project cost estimates that are developed consistently statewide*
- *Provide policy, training, equipment, demonstrations, and techniques for use in innovation associated with estimating*
- *Maintain the all-price index data sheets*
- *Participate in the review of bids to award or reject bid proposals for all TDOT construction and maintenance projects*
- *Conduct independent reviews of the engineer's cost estimate at project milestones during pre-construction activities and provide the final cost estimate that encompasses relevant factors related to the scope of a project, the cost of resources, and national and global market trends*
- *Participate in the analysis of bids for unbalanced materials and/or costs.*
- *Assist with providing award concurrence on all TDOT construction and maintenance lettings*
- *Retain records of estimates and bids per the TDOT records retention policy*
- *Populate the Bid Express system*
- *Assist in assessing costs for Risk Register items*
- *Participate in peer exchange, fostering collaboration both internally and with relevant partners to share lessons learned, ideas, skills, and insights*
- *Collect, consolidate, analyze, and report on cost trends annually and maintain accurate and current average unit price data on TDOT project estimates*
- *Assist with the creation and implementation of a Consultant Acquisition Plan for Construction*
- *Manage the Notice to Contractors system*
- *Assist in calculating Life Cycle Cost Analyses*
- *Serve on Specification committees*
- *Facilitate recruitment of future staff and provide incentives to learn and grow in the area of Estimating by developing and implementing a Work Force Development plan, including training, to assist with retaining new hires*

Division Metrics and Performance Goals

- *Deliver construction projects within X% of the contract completion date*
- *Do not exceed 8% of construction overruns resulting from Supplemental Agreements.*
- *Coordinate with statewide groups quarterly to assess those items within the specifications and/or design standards that warrant modification.*

Section Deliverables

- *Cost Estimates*
- *Standards, policies, and procedures for estimates*

Internal Partners

- *TDOT Executive Team*
- *TDOT Regions*
- *TDOT Asset Management*
- *Project Teams as part of a matrix organization*
- *TDOT Disciplines*

External Partners

- *General public and property owners*
- *Local municipalities, including MPOs and RPOs, local elected officials, and other state agencies*
- *Contractors*
- *Consultants*
- *Materials Suppliers*
- *Utilities and Railroads*
- *Federal Agencies*
- *Universities and Research Facilities*

Data Systems

- *AUP*
- *AASHTOWARE (BID EXPRESS, ESTIMATING, and PROJECT)*
- *PRIMAVERA*