

P-08 | Development of the Updated Version of the TxDOT Construction Production Rate Table



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A major work item is defined as a single line item with a bid price exceeding either 5 percent of the total project cost or \$100,000, whichever is smaller. The TxDOT construction production rate table provides production rate ranges for major work items, which are essential for TxDOT design engineers when determining contract time. This spreadsheet format-based information is updated biennially, based on expert opinions, to ensure the accuracy and reliability of production rate estimates.

However, despite these continuous updates, the current list of major work items in the TxDOT construction production rate table remains insufficient for determining contract time in many cases. The absence of several major work items in the TxDOT table makes it challenging for design engineers to estimate reasonable contract time.

This study identified major work items that are essential for determining contract time but are missing from the current TxDOT table.

The research followed a two-step approach to identify and validate missing major work items. First, data analysis was conducted using bidding information from TxDOT highway projects over the past 10 years to determine how frequently each work item met the criteria for major work items as defined by the TxDOT specification book. This analysis identified the top 10% of work items most commonly classified as major work items, revealing those not currently listed in the TxDOT table.

Next, in-person interviews were conducted with TxDOT engineers to validate the usefulness of these identified items in determining contract time. Input was gathered from a diverse range of engineers across different TxDOT districts, ensuring comprehensive and reliable validation of the findings.

The study identified 16 missing major work items.

The updated version of the TxDOT construction production rate table, which includes the missing major work items, can provide sufficient production rate ranges for major work items, thereby assisting design engineers in determining contract time.