



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

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Eric Holcomb, Governor
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CONSTRUCTION MEMORANDUM 17-16

TO: District Deputy Commissioners
District Construction Directors
District Technical Services Directors
District Area Engineers
District Project Management Director
Project Management Director
District Traffic Engineers
District Testing Engineers
District LPA Coordinators
Project Engineers/Supervisors
Field Engineers
Office of Material Management

FROM: John Leckie, Director 
Division of Construction Management and District Support

SUBJECT: Change Order Extra Work Cost Verification Procedure

SUPERSEDES: Construction Memorandum 07-28

In accordance with Federal Code of Regulations 23 CFR 635.120(e), the Department has revised procedures for improving verification of Contractor's requested unit prices and lump sum prices when paying for new items of extra work. The procedures continue to utilize the Department's current policy for payment of extra work by either Agreed Price or Force Account, but revise the process for better documented verification of Contractors' requested prices for new items. This process supersedes Construction Memo 07-28.

Change Order Request Form

For all Department approved extra work, the Contractor shall submit a Change Order Request form prior to the PE/S drafting a new change order. The form should include a summary explanation of the work, potential options for resolution of the issue, and include unit or lump sum prices based on standard Department pay items. The PE/S may require amendments to the form based on the Department's analysis of costs. The form is available on the Department's website.

Item Bid History

Department cost analysis should begin using the Department's Item Bid History spreadsheet, accessed through the SiteManager Reports page. The PE/S can use the spreadsheet's process and filters to obtain a meaningful and representative prices based on particular contract situations. The filtered results should be

compared to the Contractor's requested price. The process begins by checking the spreadsheet to determine if:

1. There is bidding history for the item of work. If no bidding history exists, use one of the Cost Analysis methods described below.
2. If there is bidding history, filter the data for contract conditions.
3. The filtered information may not be statistically significant if $N < 30$ (N is the number of data lines returned after a filtered search). In this situation, the data should be used as informational. It may be better to use another Cost Analysis method as described below.
4. If $N \geq 30$, (after filtering) the Item Bid History has returned enough data information to be statistically significant and can be utilized for cost verification.

An item would compare favorably if the Contractor's requested unit price indicated on the Change Order Request form is less than or equal to the highest indicated unit price of either the 95% confidence interval, or the forecasted cost. Both values are obtained from the Department's Item Bid History spreadsheet. Requested unit prices meeting this criteria require no further price justification. Filtered item summary information can be saved for reference and documentation for the proposed change order. The PE/S must attach a copy of the Department's Item's Bid History summary page to the change order as price verification documentation.

Cost Analysis

If the Department's Item Bid History shows limited ($N < 30$ after filtering) or no bidding history, one of the following cost analysis methods should be used for cost verification.

1. Estimated Item Cost is Less Than or Equal to \$20,000

When developing payment documentation for new items of approved extra work with an estimated cost of less than \$20,000 and insufficient bid history, the Contractor's submitted Change Order Request form should be reviewed by the PE/S and, when necessary, the AE. The explanation of the situation, unique circumstances, possible solutions for the issue, and cost calculations should be reviewed for correctness and accuracy.

2. Estimated Item Cost is Greater Than \$20,000 but Less Than or Equal to \$50,000

When developing payment documentation for new items of approved extra work with an estimated cost greater than \$20,000 but less than \$50,000 and insufficient bid history, a cost analysis of the work will be performed by the PE/S and, as needed, the AE. The cost analysis will be documented on the Department's Change Order Cost Analysis worksheet and compared with the Contractor's requested price. The worksheet is interactive and available on the Department's website. The comparison should involve a review of the unique circumstances, possible solutions, and costs associated with the work.

3. Estimated Item Cost is Greater Than \$50,000

When developing payment documentation for new items of approved extra work with an estimated cost greater than \$50,000 and insufficient bid history, the PE/S, AE, Field Engineer, and the Engineer of Record will work together to provide relevant information of value in the development of the Department's cost analysis. All cost analysis input will be documented on the Department's Change Order Cost Analysis worksheet. The combined cost analysis information will be used to compare with the Contractor's submitted price.

Force Account

The use of the force account option for payment of approved extra work should only be used when an agreement on item price or lump sum price cannot be reached. Estimate the monetary adjustment in accordance with force account procedures outlined within the Specifications. The use of force account must include a discussion with the Contractor, prior to the start of the proposed work, to identify the intended specifics of labor, material, and equipment. These discussions should establish the specifics on issues such as, but not limited to:

1. Specific individuals that will perform the extra work
2. Hourly rates of pay, including fringes and benefits
3. Estimated time to complete the extra work including hourly work week and crew size
4. Specific bond and insurance premium costs for the extra work
5. Estimated quantity and cost of materials to be utilized, including transportation costs
6. Individual pieces of equipment to be used for the extra work
7. Agreement on the specific equipment rates to be paid
8. Appropriate sub-contracting administrative costs as per the Specifications
9. Appropriate mark-ups as per Specifications.

If the actual force account costs exceed the initial estimate, a subsequent Change Order can be processed to cover the excess costs.

For any of the cost analysis methods described above, if the comparison is not acceptable, the PE/S should direct the Contractor to amend the Change Order Request form to include additional details to clarify the work involved and a further justification of costs.

If the comparison is accepted, the Change Order Request form, as amended, along with the Department's cost analysis information should be attached to the change order as price verification documentation.

Please contact your District's Field Engineer for any questions concerning this revised process for verification and documentation of extra work.

GGP/kap