



# INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue  
Room N925 - CM  
Indianapolis, Indiana 46204


PHONE: (317) 232-5456  
FAX: (317) 232-5551

Eric Holcomb, Governor  
Joe McGuinness, Commissioner

November 28, 2017

## CONSTRUCTION MEMORANDUM 17-15

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: Revised Item Bid History Spreadsheet for Use with New Items of Extra Work

SUPERSEDES: Construction Memorandum 07-28

In accordance with Federal Code of Regulations 23 CFR 635.120(e), the Department has revised procedures for improved verification of Contractor's requested unit prices and lump sum prices when paying for new items of extra work. As part of these procedures, the Department has revised its Item Bid History spreadsheet. The following process is effective immediately for items that have bid history and is intended to supersede Construction Memorandum 07-28.

The Department's revised Item Bid History spreadsheet is accessed through the SiteManager Reports page and includes the following page tabs:

1. **Unit Tab** – The main work area of the spreadsheet. Within this page, item identification, item filtering, and statistical confidence range calculations are performed.
2. **Summary** – Contains a summary of the item filtering and statistical confidence range calculations that have automatically been calculated on the Unit Tab page. The page also contains the forecasting tool which evaluates unit cost ranges for specific quantity values. Additional filtering is still available from within this page. The Summary page is intended to be saved and attached to the change order as part of item verification documentation once the price comparison process has been completed.

3. **Tools** – Contains many unit conversion and day count calculation tools that can be helpful for quantity and date generation within a change order document.
4. **Instructions** – Provides basic instructions on the use of the spreadsheet. The page is for information only and acts as an aid to completing the spreadsheet.
5. **Hints** – Provides an explanation of the basic theory behind the statistical analysis operations performed within the spreadsheet. This page is for information only.

When developing payment documentation for **new items of extra work that have a bidding history**, the spreadsheet results should be used to compare to the Contractor's requested price submittal. The Unit Tab page of the spreadsheet should be used to analyze and obtain a meaningful and representative price for the item in question based on contract specifics. The page contains 4 basic steps to achieve results. The steps are identified in the top left of the spreadsheet and are highlighted in red throughout the spreadsheet to help identify step locations. The steps must be processed in order for the spreadsheet to function correctly and provide the appropriate results. The basic process includes:

1. Selecting the appropriate item
2. Filtering the item based on contract specifics
3. Examining the statistical results of the filtering process
4. Entering the Contractor's requested price

After filtering has taken place, the lines of data remaining within the sample set are defined as "N". The value is identified at the top of the Unit Tab page of the spreadsheet. If  $N < 30$ , the information returned is not considered to be statistically significant. If this is the case, the previous filters can be cleared and more contract specific filters created for another review, or another method of cost analysis could be used for verification of the requested price.

The Summary page contains the filtered item search and price forecasting information for better visual reference and change order documentation. The price forecasting portion of the Summary page is organized into 6 steps which must be followed in numerical order to provide reliable results.

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.

If the requested price is above the specified ranges, the Contractor should be directed to amend the price request to include additional information to clarify specific contract circumstances that justify the requested price. The specific circumstances of the work should be taken into account when analyzing the filtered price.

If the requested price is accepted, the item Summary page and the Contractor's price request, as amended, should be attached to the change order as item price verification documentation.

Questions concerning the use of the Department's Item Bid History spreadsheet should be directed to your District's Construction Management Field Engineer.