

 <p style="text-align: center;">CONSTRUCTION MEMO</p>	Date Issued: September 02, 2015
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	Related Specifications: 104.02
Subject: Change Orders	

To: Distribution

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Construction Engineer

This memo rescinds and replaces the Construction Memo issued on December 29, 2009.

Introduction

A construction contract is a formal agreement between the Contractor and MDT. It is recognized that no set of plans will be perfect. Change orders are written throughout the life of the project to amend the contract documents to better fit field conditions. This may entail changes to the contract requirements (e.g. plans, specifications, etc.), significant quantity changes, time adjustments or other. Change orders are a Code of Federal Regulations (CFR) requirement and are needed to protect MDT by having a written agreement to change the contract and to protect and preserve federal-aid funds.

Change Order Approval Types

Formal approval is to be completed before the change order work is allowed to proceed. However, when emergency or unusual conditions justify, advanced approval may be given to begin the work with formal approval obtained as soon as practicable.

Standard Approval: The vast majority of change orders are this type. This is when a necessary change to the contract is identified, typically prior to the contractor performing the work. The change must be discussed with proper personnel. A critical component of this change order type is that cost (+/-) and time (+/-) are negotiated and agreed to before any work begins.

Emergency Approval: Emergency Approval will be reserved for conditions when a delay in the work could pose immediate danger to traffic or the general public, or if not performing the work would cause a delay that would result in damage to the project or adjacent property. Unless either of these conditions is present, Emergency Approval will not be granted. The Chief Engineer, Construction Engineer or Construction Administration Services Engineer (CASE) may grant emergency approval. In this instance, work may be performed before formal approval of a change order. Time and

materials must be monitored closely in the event that Force Account is used to arrive at a cost.

Verbal Authorization: This is a unique change order type. At times, situations exist where a quick decision must be made through a work directive to the contractor. A quick decision is necessary to avoid delays that would result in significant impacts to the progression of the project. Verbal authorization may be granted by the District Construction Engineer or District Construction Operations Engineer. Time and materials must be monitored closely in the event that Force Account is used to arrive at a cost.

For both Emergency Approval and Verbal Authorization changes, the EPM must keep the District Construction Engineer and the CES Reviewer apprised of the status and save all correspondence and the approval or authorization to the SiteManager share drive. The EPM must check the "Emergency Approval/Verbal Authorization" indicator on the change order. Because new items will not be available to record against until the change order is approved, document the work in a DWR or Diary remark.

Administrative Approval: This is solely an administrative change order that can be processed without formal approval. This change order type may be used when making category or project item adjustments that have a net dollar amount of \$0 and no adjustment to contract time. Refer below to Override Approval Rules.

Change Order Checklists

The change order checklist is a document that Project Managers must complete for each change order. The checklist will document personnel that were contacted to discuss the change order and when they were contacted. It is also a checklist for the Project Manager to ensure that all impacts are evaluated, such as the environmental and programming documents. The cost and time justification sections of the checklist are critical and must be completed. In summary, the checklist must contain the who, what, why, where, when and how of the change order.

Save the checklist, along with all justifications and supporting documentation, to the "Change Order" directory on the SiteManager share drive, with a separate subfolder for each change order. To avoid duplicating large files, it's also acceptable to place hyperlinks in the change order directory that will link to the file's original location in the project share drive (e.g. a copy of the schedule).

Override Approval Rules

SiteManager has a feature to override the approval rules. There are two scenarios where this feature may be used:

- The contractor refuses to sign the change order, but the Department needs to pay the contractor for work that has been performed. This is known as a "Unilateral Change Order."

- Existing contract items must be moved from one category or project to another to accurately reflect where the costs are being expended, but are not affecting the contract total. This is when Administrative Change Orders are used.

The only people that can override the approval rules are the Construction Administration Services Engineer (CASE) and the Construction Engineer.

Significant Change

Significant Changes are a trigger to produce a change order. According to Subsection 104.02.3, a significant change is defined as ANY of the following:

- The character of the change differs materially from that involved or included in the contract.
- Major items change more than 25% in quantity.
- Non-major items change more than 50% in quantity.

If any of these occur, the Project Manager must evaluate the situation to determine if a price and/or time adjustment is warranted, positive or negative. Factors to consider in this evaluation include the bid history of the item for the as-constructed quantities, the complexity of the work (e.g. handwork), and how many fixed costs are included in the item, such as mobilization and overhead costs.

Estimate Discrepancy

Item overruns create “discrepancies” in SiteManager when the quantity placed exceeds the allowed percentage. This has been set in SiteManager to 25% for major items and 999% for all other items. When a discrepancy exists on the estimate, the Project Manager needs to either resolve the discrepancy (typically with a change order), or override the discrepancy, adding a comment of when/how the discrepancy will be resolved.

If a non-major item overruns more than 50% but less than 999%, the EPM must evaluate it to determine whether or not a price adjustment is appropriate. If it is, a change order is required.

Estimate discrepancies are generated in SiteManager based on the Line Item Number. MDT’s policy is based on the percentage that the Proposal Line Number overruns. If an item discrepancy exists in SiteManager, but the contract quantity has not reached the listed percentage, a change order is not required. Contact the CASE with the contract and item information. With agreement by the CASE, the EPM will override the discrepancy and the CASE will turn off the discrepancy during the finalization process.

Change Order Phases

Change Order Discussion

Change order discussions are verbal and written discussions with other construction personnel and subject matter experts. They are required on all change orders (excluding

Administrative Approval) to determine the need for a change, a preliminary scope and cost of the change, discuss federal eligibility, and to ensure consistency of changes statewide.

The Project Manager must contact the DCE, CES Reviewer, and other subject matter experts to finalize the scope of the change. FHWA must be contacted on Projects of Division Interest (PoDI) contracts, formerly known as Full Oversight contracts. If the size or scope of the change is significant, the Construction Engineer and the CASE should also be contacted.

If the project is designed by a consultant, Consultant Design must be contacted so they can determine if the change falls under “Errors & Omissions.” Environmental Services should be contacted if there are changes that affect permits or the environmental document. Some environmental features can affect permits and result in noncompliance (with possible violations) when not addressed.

Change Order Review

When a change is identified, the Project Manager will create a change order in SiteManager. As the scope is identified, and bid items, cost, and time are negotiated with the contractor, this information is added to the change order.

When the change order information is complete, the Project Manager uses the “Forward To” function in SiteManager to send it out for review. The draft change order is sent as an email attachment to the reviewers and Preconstruction personnel. All personnel are encouraged to call and discuss the change with the Project Manager or others if they have questions.

Change Order Approval

Once the required approvers have approved the draft change order in SiteManager, the Project Manager can change the status of the change order to ‘pending’. This begins the Formal Approval Process. At a minimum, the DCE, CES Reviewer, and COS (Change Order Specialist) must have reviewed and approved the draft change order. On large change orders or PoDI contracts, it is preferable, but not required, that the DA and FHWA have reviewed and approved the draft change order.

The Project Manager then prints the pending change order report and gives it to the contractor to sign. When it is returned to the Project Manager, the Project Manager enters the contractor approval in SiteManager and changes the date to match the hard copy signature. The Project Manager scans the ink signature and stores it to the “change order” directory on the SiteManager share drive. The Project Manager approves the change order, and then the remaining levels approve the change order. When all required electronic signatures are recorded in SiteManager, the change order status is automatically changed to ‘Approved’. New work items can be recorded and paid for at that time.

Change Order Authority

The approval of the change order is dependent on the dollar value and/or amount of time adjustment. The Project Manager and CES Reviewer approve all change orders. The DCE has authority to approve change orders with a value up to \$50,000 or that add up to 5 days of contract time. If either of those numbers is exceeded, the change order must also be approved by the DA and the CASE. FHWA must approve all change orders on PoDI contracts.

In SiteManager, these are known as the approval rules. As mentioned above, the only people that can override these rules are the CASE and the Construction Engineer. If this is required, the Project Manager contacts one of these individuals. They change the status of the change order to 'pending' and select the appropriate approval names.

Change Order Content

Header

This contains summary information of the change order, including the reason code of the change order, the change order function(s) (e.g. overrun), and the change order amount.

The change order status is also changed in this window.

Items

All changes to work items are included here, whether existing quantities are increased or decreased, or new contract items are added. The Project Manager must include all items associated with the change (e.g. traffic control, erosion control, etc.). This is to present an accurate total impact of the change.

If an item is new to the contract, the Project Manager must evaluate the contractor's price to ensure it is fair, reasonable and equitable. The Project Manager can request additional information from the contractor (such as an itemized price breakdown), but should evaluate it independently. One of the most useful tools is the Bid History tool in Oracle. It allows the Project Manager to view historical data on projects in the same district or statewide, and allows them to evaluate the price based on similar quantities. Recognize that, because the item is added by change order, it will usually cost a little more than if the item were included in the original contract. Thoroughly document in the checklist how the unit prices were arrived at. If an existing contract unit price was used, state this. Documentation must be stored in the change order folder.

Following is a link to the Bid History tool help guide:

http://mdtinfo.mdt.mt.gov/other/const/internal/bidhist_oracle_instructions.doc

Contract Change/Explanation

This is a description of the contract change. In most situations it should be thought of as a Work Directive and should be written similar to a Special Provision. The Project

Manager can use a standard explanation, if applicable. Multiple explanations can be entered in SiteManager, and all are displayed on the change order. The explanation can consist of a standard explanation and a short custom explanation to describe additional information if needed.

Time Adjustments

Contract time is adjusted here, whether the contract time is in days or is a specified completion date. Time can be increased or decreased. If time is adjusted, the Time Adjustment function must be checked on the header window. This window is used to adjust time on the contract or on a milestone.

Time is a negotiated item, similar to a new contract item. Usually, the approval of additional contract time will be based on an updated schedule from the contractor and how it affected the critical path. Other tools may be used to justify additional time, such as Diaries, production rates, etc. Thoroughly document how the time adjustment was determined in the time justification section of the checklist.

Change Order Reasons

Change orders must be completed for, but not limited to, the following reasons:

- A new item of work is added to the contract.
- The requirements of the contract change (e.g. a special provision is updated, a specification is deleted, the typical depth is changed, etc.)
- A price adjustment is applied to an item.
- Contract time is added or deleted.
- A major item overruns more than 25%.
- A non-major item overruns more than 999%. *
- An item overruns more than \$75,000.
- The value of miscellaneous work used on an item of work exceeds \$20,000.
- The project limits are changed.
- A change in the controlled access.
- The Notice to Proceed is changed. This does not apply to flex time contracts.

* If a non-major item overruns more than 50% but less than 999%, the EPM must evaluate it to determine whether or not a price adjustment is appropriate. If it is, a change order is required.

Change orders are not required for incentives and disincentives, including those associated with contract time, and fuel adjustments. These are accomplished with a line item adjustment, not a reduction in quantity.

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