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Guide to Contract Change Orders
(Referenced to the 2004 Standard Specifications)

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A change order is defined in the 2004 Standard Specification Book as a "written order to the Contractor detailing changes to the specified work, item quantities or any other modification to the Contract."

This document is intended to provide guidance to the districts in developing and negotiating change orders.

Reasons for Change Orders

Changes and additions to the work specified in the contract may be necessary. If changes significantly alter the character of the work or add items, a change order should be executed. Article 4.2, "Changes in the Work" states that a significant change has occurred when:

- *"the character of the work for any Item as altered differs materially in kind or nature from that in the Contract or*
- *a major item of work varies by more than 25% from the original Contract quantity. (The 25% variance is not applicable to non-site specific Contracts.)"*

Common reasons for initiating change orders include, but are not limited to:

- addition of requirements for and compensation to a contractor for additional work (outside the variances allowed by the specifications)
- compensation to the contractor for costs associated with differing site conditions, resolving disputes, etc.
- changes in the character of the work and
- changes in design.

A list is also available through the Change Order Reasons Code Chart of the Construction Change Order Form (Form 2146).

Developing and Processing Change Orders

Change Order Agreement Clause

A change order documents the agreement between the department and the contractor to alter the scope of work. Do not allow strikeouts on the change order document or on any related correspondence that indicates a disagreement regarding the language contained on the change order. Instead, include these statements in the description area (see box under item #5) of Form 2146, Construction Change Order Form, to identify what is not agreed. (E.g., This change order does not address contractor claimed inefficiencies. Adjustments will be considered for a later change order.)

Timeliness

Change orders must be processed in a timely manner. Make every attempt to involve appropriate individuals as early as possible in the change order review and approval process. To facilitate timely review of change orders, involve the Construction Division (CST) Field Engineering Branch early in the change order negotiations.

In most instances, the work involved in the change order is a matter of urgency for the contractor and the department. To establish the price of additional work associated with a change order, coordinate with the contractor in a timely fashion to ensure all information needed is provided as soon as possible. This time frame can vary from a day to a few months.

Change Order Pricing

Change order prices should be reasonable and justified. Supporting documentation of the negotiated prices should be developed and retained with the change order records. Unit prices that are comparable to recent bid prices for the same character of work are acceptable without additional justification.

Quantity Over- and Under-Runs - Article 4.2 states, "If the changes in quantities or the alterations do not significantly change the character of the work under the Contract, the altered work should be paid for at the Contract unit price." Payment for the quantities will simply overrun the amounts established in the contract. However, a change order should be executed to document the reason for the alterations if there are significant over-runs to the project.

When a major work item varies by more than 25% of the original quantity, price adjustments may be made in the unit costs according to Article 4.2. A change order should be executed to document the adjustment. For 25% major item over-runs, price adjustments are applicable only to those quantities that exceed the 25% threshold. The 25% variance for non-major items is not addressed by the specifications and, therefore, adjustments are left to the engineer's discretion (addressed further below).

The department is not obligated to adjust prices when a contractor's bids are very low (unbalanced negatively). Do not execute change orders to adjust unit prices for over-runs when the contractor unbalanced their bid with an unusually low unit price. Adjustments should not be made to negatively unbalanced bids (e.g., penny bids), based solely on the fact that the price is negatively unbalanced. For the same reason, the engineer should not take advantage of a non-major item with a negatively unbalanced price by adding scope. The engineer should use the quantities necessary to complete the original scope of the contract. If a negatively unbalanced item is a major item, the 25% variance applies and appropriate price adjustments may be made in accordance with the specifications.

The department is not obligated to use excessively high (unbalanced positively) bid prices when an over-run occurs due to plan errors, additional work, or other similar reasons. Prices may be adjusted for significant changes in the character of the work when the quantities for major items exceed the 25% threshold as specified in Standard Specification Article 4.2.

For non-major items, the price should be adjusted when the engineer determines the cost to the state far exceeds the cost of the work, materials, and overhead plus a reasonable profit. Use good judgment and consider fairness to the contractor and the public. For instance, when excessive contractor's unit prices exist or when plan errors create an overpayment for the item, prices may be adjusted down. Adjustments to existing unit prices must be accompanied by an appropriate justification and meet the conditions provided in the Standard Specifications.

Escalation - Adjustments to prices for escalation are allowed when:

- a delay occurs (due to an issue the department is responsible for)
- there are over-runs or
- scope is added.

For delay escalations, the contractor must establish they were unable, or it was impractical, to order materials or add work prior to the impact of the delay. For example, when contractor purchase agreements are voided due to a delay or when the purchasing agreements include escalation factors and delay occurs, the department can participate in escalation. In all cases, the delay must be due to an issue the department is responsible for (e.g., utilities, ROW).

For over-runs and added scope, contractor justification is needed to show actual increases in order to adjust prices for the over-runs in accordance with the specification (as discussed in *Quantity Over- and Under-Runs* above). Over-runs and added scope escalations can also apply to such things as subcontractor work, labor, equipment, and fuel.

Remobilization - There could be additional costs, such as contractor re-mobilization, to accomplish the change order work. If mobilization is requested, the amount must be justified; it should not be a set percent of either the change order or the original mobilization costs. The request should identify what must be mobilized with specific associated costs.

Modification of Existing Items - If the proposed change affects only a component of the overall cost of an existing item, then revise the cost only for the affected component. For example, when work involves a change in the type of asphalt, establish a new item and revised price based on the change in the material cost only.

New Items - When new items of work are added, prices for the new items must be established. Obtain unit prices with justification for the new items from the contractor. When new items are comparable to bid prices for existing items of the same character of work, no additional justification is needed. Compare the contractor unit prices to the current district-wide, regional or statewide bid prices in order to determine if the proposed prices are reasonable. In making this comparison, consider specific situations, such as remote work locations, difficult site access, small quantities, etc.

Added Scope Considerations - Be sensitive to adding scope to projects that include material price increases during the term of a contract. Suppliers may only allow a contractor to use a quoted price to the plan quantity amount or the material purchase agreement may include escalation factors the contract specified to determine a price for the original quantity. While a simple over-run does not justify this consideration, our reputation of fairness and corresponding low bid prices suffer when we take advantage of escalating prices by adding scope.

Force Account - The force account agreement specifies the labor rates, material costs, and equipment rates to be used.

Force account work is not a preferred option due to the increased level of monitoring required. It is suitable in cases when an agreement cannot be reached regarding the scope of work and the amount of payment. In these situations, the contractor must submit specific price information for the materials, labor, and equipment required to perform the work.

Use the following in conjunction with provisions in Article 9.5 to determine the cost of force account work:

- Carefully track and review Contractor's documented quantities of work, actual labor, materials, and equipment used to complete the task.
- Use the documented information to determine the costs associated with the work.
- Add mark-ups to the labor, material, and equipment costs.
- Verify equipment rental rates by referring to the Rental Rate Blue Book link at http://crossroads/org/cst/.
- Verify labor rates in payrolls and interviews.

Force account markups provide compensation as shown below:

Force Account Markup Item	Provides compensation for:
Labor - 25%	Overhead (unspecified – combination of project and home office overhead), superintendence, profit, and small tools.
Additional Insurance and Tax - 55%	Labor (without the 25% markup) for cost of premiums on public liability and workers' compensation insurance, Social Security, and unemployment insurance taxes.
Materials - 25%	Overhead (unspecified) and profit.
Equipment - 15%	Overhead (unspecified) and profit not included in the equipment rates.
Subcontracted Work - One 5%	Administration and profit on exclusive subcontracted work. Markup applies only to the prime contractor and addresses all subcontracted work, regardless of the number of tiers of subcontractors performing the work. No other administrative markups are allowed. Department staff should consider whether the total unit cost proposed by the second tier subcontract is reasonable.
Law Enforcement - 5%	Administration and profit administrative costs, superintendence, and profit.
Costs of Bonds - 1%	For the cost of contractor bonds computed on the total of all items.

When force account markups are used to develop unit prices, compare the resulting unit prices to prices found through other means, such as recent bid prices for like work or department derived cost-based estimates (opposed to the department's usual historical based estimates). Force account markups can create payments that are beyond the cost of the work plus a reasonable profit. This is due to the overestimation of time required for labor and equipment compounded by the standard add-ons that do not reflect contractor pricing methods.

The force account method of making project changes requires inspectors to verify the number of workers, the exact type of equipment, and hours of equipment usage on a daily basis. A cursory review should be made to ensure the pay rates being claimed match the actual workers.

The use of force account for added work should not be used as a matter of convenience when other means for establishing unit prices exist. A past FHWA memo following an audit of construction contract change orders stated:

> *"The office of Inspector General has recently completed a Department wide review of construction contract change orders. In the draft report of this review, one of the findings and recommendations directly addresses the FHWA force account procedures were apparently being used as a matter of convenience [sic]. This impression was derived from the available change order documentation.*
>
> *This is a reminder and a follow-up to the Inspector General's review, that contract changes should be settled primarily through negotiations. Force account type procedures should be used only when necessary and then be appropriately documented."*

Some districts have used the force account method to develop a unit price for work as the contractor performs the work prior to executing a unit price based change order. Such practice is recognized as being fair to all parties. Guidance regarding labor burden and project overhead markups applicable in these instances is presently under development and will soon be issued.

Use of Force Account Add-ons for Delays and Inefficiencies (Damages) - In some situations when compensation for delays or inefficiencies is sought by contractors, it is common for the contractor to request compensation using the mark-ups under the force account procedures in the specifications. When compensation for a delay or inefficiency is justified, do not apply force account mark-ups. Districts should use only the contractor's actual labor burden rate. Other mark-ups do not apply to payment for damages. For delay damages, the department is obligated to pay actual costs, including only the actual payroll burden, without profit.

Unilateral Change Orders (Interim Adjustments) - By using a unilateral change order, the district engineer establishes the unit price(s). (This authority cannot be delegated.) The difficulties of monitoring the force account method for complicated work or work that involves other items with established prices justify the use of a unilateral change order. After the work is complete, the amount in the change order may be adjusted, if appropriate.

Do not use a unilateral change order for work that is outside the scope of the project or for dispute resolution. Work outside the limits, excluding end of project transition areas or added work outside the original intent of the project, should not be forced on a contractor through the use of a unilateral change order.

Special Items to Consider when Developing Change Orders

- Compensation in the change order for interest (borrowing) or anticipated profit on reduced or eliminated work is not allowed.
- Overtime pay is generally allowed, however, overcharges can occur when added change order work carries the full burden of the overtime. For example, when establishing labor payments, a calculation factor for regularly scheduled overtime work may be used rather than the standard calculation for hours worked in excess of a 40-hour workweek to address overtime. Question the appropriateness of the overtime billings. Contact the CST Field Engineering Branch for additional guidance.
- Compensation for anticipated risk should be strictly limited. While there are cases when change orders cover long periods of time, most change orders have small risk. These risks include, but are not limited to, items such as:
  - encountering unknown obstacles
  - utility issues or
  - labor, material, and fuel escalation.

- Project overhead costs incurred onsite in support of the work may be compensated when the project duration is extended. These costs may include items such as:
  - jobsite facilities (including, but not limited to office trailers, storage facilities, property leases, or testing facilities)
  - superintendence
  - office equipment and supplies
  - utilities or
  - employee per diem (applies only in those instances where the project location is remote enough to warrant payment of per diem).

Sales Tax - Generally, materials incorporated into a project, such as concrete, rebar, asphalt, etc., are tax exempt. Other items not incorporated into the project may be subject to sales tax. Sales tax expenses for items that are not incorporated into the project, such as barricades and equipment rental, are considered a reimbursable expense. Contractors should include these sales tax expenses in the total cost of the item rather than listing these costs separately.

Advise contractors to contact their tax consultant or the Texas Office of the Comptroller with any questions related to the payment of sales tax. There may be cases when contractors pay sales tax outside of the invoice; the sales tax is paid by a supplier directly to the Comptroller's office. In such cases, they may wish to include an add-on for reimbursement for the sales tax separately. Contact the CST Field Engineering Branch for assistance with questions about sales tax.

Requesting Administration (ADM) Concurrence to Proceed with the Development of a Change Order

Districts may wish to add significant scope or add limits to a contract. The work to develop the change order is extensive. Before a great deal of time and effort are invested in the development of this type of change order, it is recommended that districts consult with ADM, through the appropriate division, to determine if the "concept" would be considered for approval. In addition, the district should also secure concurrence from FHWA for the "concept" on non-exempt projects. If ADM and FHWA approve the "concept," then a change order can be developed and submitted for review with all the required information prior to beginning any work.

ADM concurrence of the change order "concept" does not constitute change order or change order price approval.

Transition Work and Short Extensions of Work - Tie-in or transition work and short extensions of work (generally less than 1,000 ft.) outside the original project limits does not require a "change in limits" change order approved by Amadeo Saenz, unless the size of the project increases significantly.

For change orders that add work outside the project limits, several steps must be completed:

Step	Responsible Office	Action Required
1	District	Notifies (email is acceptable) CST, Transportation Planning and Programming Division (TPP), Design Division (DES) and Finance Division (FIN) of the need to add a new construction section job (CSJ) to a project.
2	TPP	Assigns a CSJ number and updates the "Remarks" field on the P1 screen in DCIS.
3	CST	a. Obtains ADM approval. b. Notifies the district, TPP and DES of ADM approval. c. Updates SiteManager/CIS.
4	DES	a. Obligates funds with FHWA. b. Updates "Contract CSJ" field in DCIS.
5	FIN	Adds the CSJ to FIMS upon receipt of the change order.

Mandatory Information for Change Orders that Require Administration (ADM) Approval

Early coordination should be made with CST on change orders that require ADM approval. This will aid in timely processing. For change orders that require ADM approval, provide the following information in the transmittal memorandum:

- identify who prepared the plans, TxDOT or consultant
- status of the change order work
- explanation of the necessity for the work or change order
- cost breakdown and price justification for newly added items
- a work program identifying a funding category
- third party funding and agreement with the change order
- a statement on the status of the work area's environmental approvals, including air quality conformance clearance for added capacity change orders in non-attainment areas and
- attach the change order form that clearly describes the scope of work.

Change Order Approval

Communication of the Change Order Approval Process - To improve the contractors' understanding of the change order approval process, the process should be explained in detail. In these communications, highlight information for change orders equal to or greater than $300,000 or information that add or extend limits. Contractors should be advised these change orders are approved by TxDOT Administration (ADM) and not by the district's agreement or signature.

Requesting Administration (ADM) Verbal Approval to Begin Work Prior to the Finalization of a Change Order - In some instances, districts may request that work proceed prior to the actual final development of a change order. In these situations, submit information on the scope of work and estimated costs. With this information, contact the ADM to request approval to proceed with the work. This applies to work and change orders needed immediately.

If approved, the work can proceed while finalizing the costs and processing of the change order. While ADM may give verbal approval to begin work on a change order, pricing will be subject to further scrutiny. Districts may wish to institute this process to change orders approved internally by a district.

Resolution of Disputes through Change Orders

As noted in the February 23, 2006 memorandum from Amadeo Saenz, CST Field Engineering should be involved in the early stages of dispute negotiations resolved through change orders that require Administration's (ADM) approval authority. CST Field Engineering staff will provide assistance by identifying the documentation needed to properly evaluate the dispute and provide guidance to determine the amount due. Unilateral change orders cannot be used to resolve disputes.

Contract Terminations

Do not use a change order to terminate a contract. Only the individuals delegated the authority to sign the contract have the authority to terminate the contract. While a change order is used to adjust contract quantities and cost subsequent to a contract termination, all contract terminations must be coordinated and executed by the delegated personnel in the CST Construction Section for contracts executed at the division level or Maintenance Division for statewide let projects.

Conclusion

In administering change orders, the department strives to be fair to contractors while protecting public interest.

For additional guidance, refer to Chapter 7 of the *Construction Contract Administration Manual* and Article 4.2 of the Standard Specifications. Contact the CST Field Engineering Branch for additional assistance.

Refer to the *Maintenance Contract Administration Manual* for questions on routine maintenance contracts. Contact the Maintenance Division for additional assistance.