

CONSTRUCTION MANAGEMENT

CHAPTER 8

Introduction

If the Local Agency is identified for construction management responsibilities in the CDOT/Local Agency IGA, then the Local Agency may fulfill this responsibility with qualified staff or may contract with a consultant for these services. Construction management consists of inspection and testing services, including Quality Assurance inspections during the fabrication process. The Local Agency Project Manager should refer to the latest version of the *CDOT Construction Manual*, the *CDOT Bridge Fabrication Inspection Manual*, and *CDOT Field Materials Manual* for more detailed information on construction management, fabrication inspection, and materials testing. Section 122 of the *CDOT Construction Manual* contains information specific to the administration of Local Agency projects.

Upon CDOT authorization to proceed, the Local Agency is able to charge eligible costs to the project.

8.1 Issue Notice to Proceed to the Contractor

The Local Agency shall issue a Notice to Proceed to the Contractor. The Contractor may not commence work prior to receiving the Notice to Proceed. Follow the *Project Special Provisions* and the *CDOT Standard Specifications*, subsection 108.02, to ensure this notice contains the correct information. The Resident Engineer shall be copied on the Notice to Proceed. (NTP) A sample Notice to Proceed is in Appendix B of this *Manual*.

8.2 Project Safety

Before construction commences on the project, the Contractor must submit a Project Safety Management Plan compliant with Section 107.06 of the *CDOT Construction Manual*. The Contractor is expected to comply with the Plan at all times. Safety is of the highest priority on CDOT projects, which includes Local Agency projects.

8.3 Conduct Conferences

Preconstruction Conference

The Local Agency shall conduct the Preconstruction Conference and shall invite CDOT, usually the Project Manager or Resident Engineer. The FHWA should also be invited to the conference if the project is under its oversight. See the *CDOT Construction Manual* and the Preconstruction Conference Agenda Form (Appendix A and https://www.codot.gov/business/designsupport/bulletins_manuals/cdot-construction-manual/agenda-forms) for information on conducting the conference and for the required Contractor Submittals. Following the conference, a completed copy of the agenda and minutes should be sent to each attendee. One copy should also be sent to the FHWA for all federal oversight projects.

Posters for the Contractor's bulletin board can be accessed on CDOT's web site at <https://www.codot.gov/business/bidding/bulletin-board-postings>.

It is recommended the Local Agency require submittals be turned in at least three working days prior to the Preconstruction Conference. Submittals can then be reviewed and any deficiencies discussed at the conference. The following submittals are required from the Contractor (see Appendix A of this *Manual* for copies of the forms):

1. List of Contractor's representatives identified in the Preconstruction Conference agenda (see Appendix B of this *Manual*).
2. CDOT Form 205 – Sublet Permit Application. If the Contractor is subcontracting any work, this form must be submitted and approved before the subcontractor can begin work. The Contractor needs to complete a separate Form 205 for each subcontractor. This includes professional services and trucking companies.

The Local Agency shall check each form and submit the original signed forms to the CDOT Project Manager who will forward them to the Region Civil Rights Manager. The subcontractor cannot begin work until the Form 205 has been reviewed by the CDOT Region Civil Rights Manager, approved by the Project Manager or Project Engineer, and the subcontract has been fully executed

- between the Contractor and the subcontractor. Physical subcontracts may be requested by CDOT or the Local Agency.
3. CDOT Form 1425 - Suppliers List. The list must include all material sources and suppliers. Include the item to be supplied, company name, address, telephone number, contact person, and minority/non-minority status. See the "Special Notice to Contractors" in the *CDOT Field Materials Manual*, and subsection 106.01 of the *CDOT Standard Specifications*. The Local Agency shall check the form and submit the original signed form to the CDOT Project Manager who will forward it to the Region Civil Rights Manager.
 4. Letter to the Project Manager or Local Agency stating names, trades, and approved programs to be used for required trainees on this project. This is needed if trainees are required on the project.
 5. Procedure for handling EEO complaints. The procedure needs to detail who, what, when, where, and how an employee can file a complaint within the Contractor's organization and also a means for filing a complaint outside of the company.
 6. Method of monitoring subcontractor EEO compliance. The Contractor needs to outline its process to monitor subcontractor compliance with all the regulations.
 7. CDOT Form 465 – Non-discrimination in Employment Notice (Labor Unions or other Worker's Organizations). If the Form 465 is being used for recruitment, it should be addressed to the recruitment source. If the form is not being used to recruit applicants, it should be addressed to Employees/Applicants.
 8. Contractor Supervisory EEO Meeting minutes and attendance roster. The Local Agency is responsible for ensuring that a meeting was conducted in the past year, all EEO issues were addressed, and the supervisor/superintendent for the project is on the list of attendees. According to the 23 CFR Appendix A to Subpart A of Part 230 – Periodic meetings of supervisory and personnel office employees will be conducted before start of work and then not less often than once every 6 months.

9. An agenda and tentative date for the Contractor's First Project EEO Meeting. This meeting must be conducted as soon as a representative workforce is on the project. After the meeting is held, the Contractor must submit the minutes and the attendance roster to the Local Agency showing that a majority of the workforce attended the meeting. Subcontractors who are not present for the initial meeting must conduct their own EEO meeting and documentation of the meetings must be provided to the Local Agency.
10. Contractor's Method of Handling Traffic. A different Method of Handling Traffic (MHT) must be submitted for each traffic situation as detailed by the traffic control plan in the Contract. The Local Agency must review the MHT and either approve or return it for revisions. Once the Method of Handling Traffic is approved, the Contractor, traffic control supervisor, and the Local Agency Professional Engineer must sign it.
11. Work schedule bar chart or Critical Path Method schedule, and a methods statement. The statements are required at least ten working days prior to the start of work. Schedules and methods statements are described in subsection 108.03 of the *CDOT Standard Specifications*.
12. Certificate of Insurance (subsection 107.15 of the *CDOT Standard Specifications*). The Local Agency shall obtain the Certificate of Insurance from the Contractor prior to the Notice to Proceed or commencement of work. The Local Agency must check the expiration date on this document to make sure that insurance coverage does not expire prior to project completion. The policy shall name the Local Agency as primary insured and CDOT as an additional insured. Should coverage expire, the Local Agency must receive from the Contractor a renewal certificate.
13. Concrete and asphalt mix designs.

Other Conferences

One or more of the following conferences may be required depending upon the nature of the project: Presurvey, Construction Staking, Monumentation, Partnering, Structural Concrete Pre-Pour, Concrete Pavement Pre-Paving, and Hot Mix Asphalt Pre-Paving. See the *CDOT Construction Manual* for further information and sample agendas.

8.4 Develop and Distribute Public Notice of Planned Construction to the Media and Local Residents

The Local Agency should distribute a public notice announcing the project to affected parties such as adjacent property owners or businesses. This can be accomplished with a newspaper item, fliers distributed by hand, email, city or county website, and/or other means of mass communication.

8.5 Supervise Construction

The Local Agency shall notify the Resident Engineer prior to commencement of work, and shall update the Resident Engineer when issues arise on the project. The Local Agency shall notify the Resident Engineer, CDOT Local Agency Coordinator, and CDOT Bridge Inspection Unit prior to fabrication of structural items and identify the inspectors responsible for Quality Assurance during fabrication.

A Professional Engineer registered in Colorado shall be “in responsible charge of construction supervision.” See the Local Agency Contract Administration Checklist.

The Local Agency shall provide competent, experienced staff that will ensure the contract work is constructed in accordance with the plans and specifications.

CDOT’s Construction Inspector Qualification Program and training requirements are described in the *CDOT Construction Manual*, Section 101.103.7. Certain Local Agency projects require inspectors to have successfully completed training and certification. For projects that are constructed partially or entirely within CDOT right of way, within any roadway template, that add lanes, or have other work activities as determined by the CDOT Resident Engineer, this certification is required. See the *CDOT Construction Manual* for additional details.

Construction Inspection and Documentation Responsibilities

The Local Agency shall be responsible for inspecting and documenting the Contractor's work. The *CDOT Construction Manual* gives guidelines on how each item should be inspected and documented.

The Local Agency shall have written documentation to support all Contractor payments. Section 100 of the *CDOT Construction Manual* contains guidelines on how to document pay quantities. Item documentation shall include project number, item number, work description, date, specific location on the project, method of measurement, quantity paid, and signature of inspector.

Force Account Work

For force account work by the Contractor, Federal funds cannot be used for equipment rental rates that exceed those in The Rental Rate Blue Book for Construction Equipment. Rates for owned or long-term leased equipment that exceed the Blue Book rates are not eligible for Federal participation. Actual rental rates may be reimbursed at rental rate invoice cost for that specific task. CDOT can assist with providing rental rate information. Work that will be paid by Force Account must be carefully tracked using CDOT Form 10 – Inspector's Report for Force Account Work. Certified payrolls must be submitted for force account work performed by the Contractor.

Maintain Diaries

The Local Agency should keep daily diaries of all activities on the project. Refer to Section 100 of the *CDOT Construction Manual*. Diaries assist Local Agencies in cases of disputes, claims and lawsuits.

Time Counts

Refer to the Contract documents for time count requirements. Most contracts require the Local Agency to furnish a weekly statement to the Contractor showing the days charged. A weekly statement may not be required on a completion date project. The CDOT Form 262 – Weekly Time Count Report – Work Days and CDOT Form 263 – Weekly Time Count Report – Calendar Days are presented in Appendix A of this

Manual. Refer to subsection 108.08 of the *CDOT Standard Specifications*, and Section 100 and Appendix B of the *CDOT Construction Manual* for a more thorough explanation of time counts.

Submit Project Schedule and Conduct Progress Meetings

The Contractor must submit a project schedule to the Local Agency before the project begins, and monthly schedule updates before payments are made. It is recommended that weekly progress meetings be conducted to monitor progress and plan effectively. Refer to the Contract and also Section 100 of the *CDOT Construction Manual* for more information. Accurate, realistic schedules and updates are critical to evaluating disputes and claims.

Utility/Railroad Coordination

Contact involved utility and railroad representatives to schedule the performance of the work as set forth in the project plans and specifications. Coordinate the work with the construction activities.

Monitor Construction/Civil Rights Compliance

See Chapter 10 of this *Manual* for monitoring requirements.

8.6 Approve Shop Drawings

“Shop drawing” is a general term that includes drawings, diagrams, illustrations, samples, schedules, calculations and other data that provide details of the construction of the work and details to be used for inspection. Shop drawings are submitted by the Contractor for formal review and returned for action. Subsection 105.02 of the *CDOT Standard Specifications* defines which items require shop drawings. The Local Agency will review and mark the shop drawings, and return them to the Contractor in accordance with the CDOT Standard Specifications. The drawings shall be marked with one of the following:

MARK	MEANING
Reviewed, no exception taken	Shop drawings have been reviewed and do not require resubmittal
Reviewed, revise as noted	Shop drawings have been reviewed and the Contractor shall incorporate the comments noted in the shop drawings into the work. The shop drawings do not require resubmittal.
Resubmit, revise as noted	Shop drawings require correction or redrawing and shall be resubmitted for review. If shop drawings are returned for correction or redrawing, corrections shall be made and the shop drawings shall be resubmitted by the Contractor in the same manner as the first submittal. Specific notation shall be made on the shop drawing to indicate the revisions

8.7 Perform Traffic Control Inspections

All Methods of Handling Traffic shall be reviewed and approved by the Local Agency Project Engineer prior to use. The Local Agency shall verify that all traffic control is in accordance with the *Manual on Uniform Traffic Control Devices (MUTCD)* and Contract requirements. If a Method of Handling Traffic shows that a vertical or horizontal clearance will be restricted by construction activities (see subsection 630.10, items (8) and (9) of the CDOT Standard Specifications for Road and Bridge Construction), the Local Agency Project Engineer must use the notification procedures described in the *CDOT Construction Manual*, subsection 630.2.4, Review of Method of Handling Traffic.

If a speed limit reduction is specified in an MHT, a Form 568, *Authorization and Declaration of Temporary Speed Limits*, must be executed.

The Local Agency Project Engineer and the CDOT Project Manager/Resident Engineer shall make joint Traffic Control Reviews once each calendar year for each active construction project, including Local Agency projects. See Section 630 of the *CDOT Construction Manual* for more information. A copy of the Traffic Control Review Form is included in Appendix B. The Local Agency may use this form as a reference when checking traffic control.

8.8 Perform Construction Surveying

Construction survey work consists of performing surveying, related computations, and staking necessary for the construction of all elements of the project.

8.9 Monument Right-of-Way

Final monumentation shall be done after the right-of-way is purchased. Right-of-way monuments shall be set at each point designated on the right-of-way plans and in accordance with the Colorado Revised Statutes. This work shall be performed under the direct supervision of a Professional Land Surveyor, registered in the State of Colorado.

8.10 Prepare and Approve Interim and Final Contractor Pay Estimates

The Local Agency Project Engineer shall certify, on each Contractor estimate or billing, that the work has been completed in reasonably close conformity with the plans and specifications.

The Local Agency is responsible for all estimate payments to the Contractor. The Local Agency shall review quantities with the Contractor, and the billing shall address required retainage or securities. Retainage or securities amount will not be less than those required by CDOT contracts. Before payment is made, the Contractor shall submit suitable schedule updates and materials certifications in accordance with the *CDOT Standard Specifications*.

Contractors are required to pay subcontractors for the items included in the estimate within 7 days of receipt of the payment according to the prompt payment law, CRS 24-91-103(2). The local agency shall ensure prompt payment to subcontractors by collecting and reviewing on a monthly basis CDOT Form 1418 - Monthly Payment Summary or by using a similar method of oversight.

8.11 Prepare and Approve Interim and Final Utility and Railroad Billings

Verify that the work was performed as stated in the Contract and that the billing is for actual work performed. Refer to the project agreement for billing and payment arrangements.

8.12 Prepare and Authorize Change Orders

Change orders, also called Minor Contract Revisions (MCRs) and Contract Modification Orders (CMOs), are needed for changes to: specifications, design, contract time, scope of work, project limits, and typical section, as detailed in Section 120.7 of the *CDOT Construction Manual*. See Appendix C of the *CDOT Construction Manual* for example change orders.

The Local Agency shall discuss all change orders with the CDOT Project Manager/Resident Engineer (and with FHWA on full oversight projects), and receive written approval prior to commencing any work, as there are certain Federal Aid requirements that apply to the entire contract (such as Buy America), regardless of the funding source. On full oversight projects where FHWA determines that the FHWA Operations Engineer needs to sign the Form 90, this signature must be obtained before the work starts. See Section 120.7.5 of the *CDOT Construction Manual* for the procedure. Use of the contingency money (MCR dollars) typically budgeted into the project also requires CDOT Project Manager/Resident Engineer approval. Change orders where work is incorporated into the project prior to CDOT or FHWA approval are subject to a non-reimbursement determination.

The Local Agency may use its own form or CDOT's Form 90 for a change order. The change order must provide enough information for the contractor to build the work directed in the change order and establish how the work will be measured and paid.

The following statement, included in the body of the Form 90 (or equivalent), must be signed by a qualified representative of the Local Agency for all change orders that involve the expenditure of Federal or state funds before the work covered by the change order commences:

Should Federal funds not be available to cover these additional costs, or the FHWA decides not to participate in these costs, the Local Agency agrees to provide the required funds.

The _____
(Name of Local Agency)

approves this Change Order No. _____ by signing below.

Authorized Signature

Title

Date

8.13 Submit Change Order Package to CDOT

The Local Agency will submit the complete and final change order package, consisting of the Form 90 (or equivalent), along with the letter of explanation detailing background, the reason for the change order, price and time justifications, any budgetary implications, and any attachments, for review and signature by CDOT. This final change order package must be in compliance with Section 120.7 of the *CDOT Construction Manual*. (See the Form 90 and Explanation Letter Checklists in Appendix A.) Review time by CDOT will vary depending upon the complexity of the change order.

It is the responsibility of the Local Agency to follow up with the CDOT Project Manager/Resident Engineer and FHWA, if applicable, to obtain the signatures on the original change order.

Once all signatures are completed, the CDOT Project Manager/Resident Engineer will distribute approved change orders as follows:

- Local Agency, original;
- Region Program Engineer/Region Finals Engineer, and
- Contracts and Market Analysis Area Engineer (review and forward to Record Center).

The Local Agency shall forward a copy to the Contractor.

8.14 Prepare Local Agency Reimbursement Requests

Billing charges are submitted once a month or less frequently to the CDOT Project Manager during project construction and at completion. Billing procedures and required documentation will be established during CDOT/Local Agency Agreement negotiations. It will take approximately 30 days for CDOT to review, approve and pay proper project billings submitted by the Local Agency.

The final bill shall be marked "**FINAL.**" The Local Agency shall bill for 100 percent of eligible costs noting the percentage of local funding share. CDOT's Resident Engineer will verify the reimbursement according to the established matching ratio specified in the Inter-Agency Government Agreement. If applicable, there shall be an itemized list of other miscellaneous project charges; i.e., utility relocation or construction engineering. These charges shall be substantiated by the supporting documentation.

See Appendix B of this *Manual* for a sample Local Agency billing package.

8.15 Monitor Project Financial Status

The Local Agency shall continually monitor the financial status of the project. If additional funds are needed, the Local Agency is responsible for assuring the funds are available in as timely a manner as possible. The Local Agency shall provide the additional funding unless Federal participation has been approved. See Chapter 3 for additional information on financial responsibility.

8.16 Prepare and Submit Monthly Progress Reports

By the first of every month, the Local Agency shall prepare and submit to the CDOT Project Manager/Resident Engineer an update for every active construction project. The update should include work progress over the past month, percent completed, time charged, outstanding issues, and projected completion date of the project.

8.17 Resolve Contractor Claims and Disputes

The Local Agency shall follow the claims procedure established and contained in the construction Contract. The Local Agency can use the CDOT Disputes and Claims

procedure. Resolution of claims that involve federal participation must be coordinated with CDOT.

All claim payments made shall be documented on a properly executed change order.

8.18 Conduct Routine and Random Project Reviews

CDOT will conduct routine and random project reviews to ensure the project is being administered in accordance with the terms of the Contract and the approved project specific agreement between CDOT and the Local Agency. FHWA may participate in these reviews, or conduct their own separate reviews.

8.19 Ongoing Oversight of DBE Participation

The Local Agency is responsible for monitoring the day to day DBE participation and notifying the CDOT Project Manager if it appears that a DBE is not performing in accordance with Form 1417 – Approved DBE Participation Plan. The Local Agency should understand the concepts of eligible participation and commercially useful function as they apply to DBE participation. If any fraud or misrepresentation of DBE participation is suspected, the Local Agency should contact the CDOT Project Manager and Region Civil Rights Manager.

Refer to the standard special provision, “Disadvantaged Business Enterprise (DBE) Requirements” dated December 26, 2013, or latest version thereof, for additional information.

Form 1419 - DBE Participation Report

The Local Agency shall forward the Contractor’s quarterly submittal of Form 1419-DBE Participation Report (January 15, April 15, July 15 and October 15) to the CDOT Project Manager and the Region Civil Rights Project Manager. The Local Agency shall also forward the final Form 1419 – DBE Participation Report, which summarizes all participation on the contract, to the CDOT Project Manager and the Region Civil Rights Manager.

Form 1420-DBE Participation Plan Modification Request

During the performance of the contract, the Contractor shall use Form 1420-DBE Participation Plan Modification Request to communicate to the Local Agency all requests for termination, reduction, substitution and waivers. The CDOT Region Civil Rights Manager, CDOT Project Manager and the Local Agency should work together to resolve any concerns regarding the Form 1420s. No commitment shall be terminated or reduced without the CDOT Region Civil Rights Manager approval. The Local Agency should forward a copy of the signed, approved Form 1420 to the CDOT Project Manager and the Region Civil Rights Manager.

