

Construction Engineering & Inspection

Construction Engineering and Inspection (CEI) is the administration of the construction phase of the project (engineering and inspection). It ensures quality work by the contractor by:

- Making Timely inspections
- Issuing clear instructions
- Ensuring early sampling and testing of materials
- Promptly furnishing data needed by the Contractor
- Promptly resolving conflicts and being decisive
- Timely preparing payment estimates/change orders

Agency Inspection Expectations

FHWA Construction Inspection Expectations from DOTD

The purpose of an on-site inspection is to evaluate the project activities, determine the quality and progress of the work and follow-up on any findings from previous inspections. The inspection will combine a field review of the physical work and actual conditions with an office review of administrative actions and documents supporting the field work such as field books and diaries, material certifications, and invoices and payrolls.

The data gathered from the inspections is useful for many things. Information is acquired on problems and construction changes. It provides an opportunity for timely remedial action where applicable. It documents the solutions to problems or commitments. It encourages the DOTD units' involvement and awareness of problems to avoid future reoccurrence. It evaluates the State's abilities and effectiveness in managing Federal-aid construction projects with respect to items such as: qualifications-training, certification, written guidance, staffing, equipment, facilities, performance, project documentation, including inspection diaries, test reports, etc.

Inspections are also used to offer technical and procedural advice. It allows for the transfer of knowledge on special or innovative construction materials, methods, procedures, new equipment, and other technological innovations

Local Public Agency Manual
Construction Engineering & Inspection

All inspections must be documented by an inspection report, photos, project documents and project staff interviews (DOTD and contractors) in accordance with the ***Construction Contract Administration Manual***

Typical Types of FHWA Inspection

Initial Inspections – This is the first inspection of an active construction project. Actual construction work may be limited due to the early stage. This first inspection establishes the scope, communications and commitments

Intermediate Inspections – These are recurring project construction inspections. The frequency is established by the Stewardship Agreement. In Louisiana, a minimum of once every 3 months was established for interstate, NHS projects and other full federal oversight projects. The inspections encompass all aspects of the project.

In-Depth Inspections – These are detailed inspections. It involves the review of the specifications, procedural manuals, and the specific contract requirements. Some of the subjects for these inspections may include: bridge decks, structural concrete, hot mix and Portland cement concrete pavement, aggregate bases, earthwork, erosion and sediment control. These may be made on an individual projects basis or may be part of a statewide federal process review effort.

Final Inspections – A final inspection is used to determine the extent and obtains assurance that the project has been completed in reasonably close conformance with the plans, specifications and authorized changes and extra work. A final inspection may be accomplished by an on-site review conducted at or near the completion of work and a review of project records that are provided by the State at the completion of work. This inspection provides a basis for the acceptance of the project and reimbursement of the project costs with Federal-aid funds.

Specialty Inspections – An inspection may be performed on any experimental or innovative construction feature or procedure.

Items FHWA Considers During Inspection

- Progress and quality of work
- Workmanship
- Changes and extra work including time extensions
- Claims and potential claims
- Project Records and Documentation
 - Quantity and quality of materials delivered, used and rejected

Local Public Agency Manual
Construction Engineering & Inspection

- Construction work performed
- Methods and frequencies of checks on scales and other measuring devices
- Adequacy of field notes, diaries, and records supporting pay quantities
- Subcontracting
- Labor compliance, equal employment opportunity, and on-the-job-training
- Compliance with Americans with Disabilities Act (ADA) commitments and permit stipulations (erosion/pollution control, 106 Cultural – SHPO, 404 permits – COE, Section 7 –FWS, etc.)
- Compliance with contract requirements (number of lanes, width of roadway/shoulders, clearance on structures, etc.)
- Staffing, and inspection qualifications
- Review of Work Items
- Right-of-way clearance, demolition
- Utility relocations
- Clearing and grubbing
- Earthwork and grading
- Environmental
 - Erosion and sediment control
 - Dust abatement
 - Construction noise
 - Other environmental commitments
- Drainage and minor structures
- Major structures
- Sub-base and base
- Paving
 - Flexible
 - Rigid
- Work Zones
 - Traffic management and traffic control planning
 - Installation and maintenance of traffic control devices
 - Worker and traveling public safety
- Appurtenances
 - Signs and Signals
 - Lighting
 - Fencing and Guardrail
 - Intelligent transportation system (ITS) features
- Disadvantaged Business Enterprise Performance
 - Verify that DBE on the job matches DBE as proposed in bid
 - Performing a commercially useful function

*Local Public Agency Manual
Construction Engineering & Inspection*

- Performing work in accordance with contract commitments
- Directing its own activities

DOTD Construction Inspection Expectations from the LPA

The DOTD will assume the role of the FHWA for LPA projects. (Please see FHWA actions listed above). If the project is on a state route or programmatically the standard procedure and DOTD has the resources, DOTD may choose to perform the inspection for the LPA.

If the LPA or his consultant performs the inspection, the DOTD may review all of the items to be considered and documentation listed above to ensure that the federal funds are prudently spent and the project is built with reasonably close conformance with the plans, specifications and authorized changes, and extra work.

The Responsible Charge and the LPA Project Engineer consultant are responsible for coordinating with the DOTD District Coordinator to submit the required project documentation and payment requests through Site Manager that is listed in the proposal.

CEI Personnel Options

- Project on a non-state route
 - Entity inspects using in-house personnel
 - Entity hires a consultant with Entity funds
 - Consultant obtained through DOTD's consultant selection process (Entity pays match)
- Project on a state route
 - DOTD inspects using in-house personnel
 - DOTD hires a consultant

Project Set-Up Meeting

The purpose of the project set-up meeting is to help the Local Public Agency Project Engineer (LPA P.E.) and the Responsible Charge understand the required inspection tasks prior to holding the Pre-Construction Conference, i.e., it clarifies the project set-up tasks and who will fulfill them. **See Appendix F- Suggested Agenda for Set-up Meeting.**

The attendees should include the Entity Responsible Charge, the LPA P.E., the DOTD District Project Coordinator, and the DOTD District Lab Engineer.

It should be held after the Notice of Contract Execution and prior to the Preconstruction Conference which is a maximum of 30-days after the Entity Notice of Contract Execution.

Roles & Responsibilities

The **LPA Project Engineer (LPA PE)** is a licensed engineer in the State of Louisiana assigned by the Entity to provide contract administration for construction engineering and inspection. The LPA PE is responsible for the administration of the contract in accordance with DOTD's policies and the DOTD Contract Administration Manual. This person may be an LPA (engineer) employee or a hired consultant by the LPA. (See *DOTD Project Coordinator Duties*)

The **Responsible Charge** is a full time local government employee that is responsible for administering and accountable for the project. (See *DOTD Project Coordinator Duties*)

The **DOTD Project Coordinator** is an engineer from the DOTD district office that provides oversight for the construction project and is a resource to the LPA Responsible Charge and their Project Engineer. (See *EDSM No. III.1.1.21A, Duties and Responsibilities of DOTD Project Coordinator on Local Public Agency (LPA) Construction Projects -*

http://www.sp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/EDSM/EDSM/EDSM_II/1_1_1_21A.pdf)

Legal Documents that Apply to Construction

- Entity/State Agreement
 - *It is the written/signed agreement between the State and the sponsoring LPA which identifies the responsibilities of each party and the funding provisions for the project. It must be executed before any reimbursable work can begin.*
- Construction Contract
 - *It is the legally binding written agreement between the public entity identified in the Entity/State Agreement (**LPA or DOTD**) and the **Contractor** setting forth obligations for the performance of work for a specific project. Specifies: What is required. How to pay for work*

Parts of the Contract

Specification Book – the latest edition of the LOUISIANA STANDARD SPECIFICATIONS for ROADS and BRIDGES which is the compilation of provisions and requirements for the performance of prescribed work and the basis of payment for the work approved for general application and repetitive use

Supplemental Specifications: Approved additions and revisions to the *Standard Specifications* made between publications

Special Provisions - Approved additions and revisions to the *Standard Specifications* and supplemental specifications that initially apply only to an individual project or a small group of projects (special provisions that are found to have statewide application to other projects may be incorporated into the supplemental specifications and standard specifications)

Sampling Manual - Establishes and standardizes material testing and acceptance requirements for DOTD

Parts of the Contract (Order of Precedence) – Found in Specification Book

- Special Provisions
- Plans
- Supplemental Specifications
- Standard Specifications
- Standard Plans

DOTD Compliance Programs

DOTD Disadvantaged Business Enterprise (DBE) Small Business Element (SBE) Programs

The purpose of this section is to help the Local Public Agency Project Engineer (LPA P.E.) and the Responsible Charge understand the tasks required to report DBE/SBE information, sub-contracting requirements and payroll requirements necessary to allow the LPA to receive timely payment for their invoices. The requirements for this program can be found in the Code of Federal Regulation **49CFR26**.

The **Disadvantaged Business Enterprise (DBE) Program** ensures equal opportunity in transportation contracting markets, addresses the effects of discrimination in transportation contracting, and promotes increased participation in Federally Funded contracts by small, socially and economically disadvantaged businesses, including minority and women owned enterprises

The **Small Business Element (SBE) Program** was created to remedy past and current discrimination against SBE firms. The intention is to level the playing field for economically disadvantaged individuals wanting to do business with the DOTD on U.S. Department of Transportation federally assisted projects. This program is race neutral

DBE/SBE Project Goals

A DBE/SBE project goal is a percent of the total contract amount that must be subcontracted by a prime contractor to certified DBE/SBE's.

Goals are set on DBE projects that are estimated to be \$500,000 and over. Goals are set on SBE projects that are estimated to be between \$250,000 and \$500,000. These goals are set by a DOTD Goal Committee.

A project goal is set prior to advertisement of the project by a DBE/SBE Goal Committee. The project is examined to determine the location and scope of services. The DBE/SBE certified directories are examined to determine the number of DBE/SBE's certified in the specific items listed in the scope of work and the number of DBE/SBE's located in the surrounding area of the project. A goal percentage is determined based on these findings.

Local Public Agency Manual
Construction Engineering & Inspection

If a project has a goal, it is identified with the percentage in the caption under the State Project Number on the “Notice to Contractors” page of the project letting information that is advertised on the DOTD website prior to a bid letting. It will also be written in the caption of the project in the construction proposal where it will identify if it’s a DBE/SBE goal project and it will show the percentage of the goal under “DBE/SBE Participation in Federal Aid Construction Projects”.

The process

1. The bid letting is typically the 2nd Wednesday of every month
2. The lowest bidder is selected
3. When a low bidder is selected on a DBE/SBE Goal Project then they have 10 workdays to complete and return a signed CS-6AAA to the Compliance Office through their fully automated process. The CS-6AAA is the commitment documentation to the DBE/SBEs that will be used on the project in order to meet the project goal.
 - a. The chosen DBE/SBE must be certified in the particular item in order for it to count towards goal credit.
 - b. Suppliers count for 60% of the goal credit and as long as the word “supply” is in the description the automated system will automatically calculate the total.
 - c. Truckers that are hauling count for 100% of the goal credit.
4. BEFORE work begins:
 - a. DBE/SBE Suppliers require a suppliers agreement
 - b. DBE/SBE Truckers require a truckers agreement
 - c. All other subcontractors require the OMF-1A and 2A Forms
 - d. All electrical/mechanical/plumbing work over \$10k and all other construction work over \$50k requires a LA Contractor’s license

NOTE: ALL subcontractors must be approved by the Compliance Office BEFORE they begin working on the job. This includes all DBE/SBE on the CS-6AAA and all other DBE/SBE’s and regular subcontractors doing work on the project. DBE/SBE Suppliers require a suppliers agreement. DBE/SBE Truckers require a truckers agreement. Both forms can be found on the Compliance Programs website. The OMF-1A and 2A will only be accepted through our online process. OMF-1A is a sublet request form to be used for any subcontractor on a project and the OMF-2A is an EEO Certification that is required if the subcontractor is performing over \$10,000 worth of work on any federally funded job.

NOTE: A Prime contractor must perform 50% of the contract amount work. Suppliers and truckers do not count towards the 50% limit. Also, in accordance with **The DOTD**

Local Public Agency Manual
Construction Engineering & Inspection

Standard Specification Book, Section 108.01

http://www.sp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Standard_Specifications/Pages/Standard%20Specifications.aspx), the specialty items are subtracted from the total contract amount and then the sublet amount is calculated. Therefore, the specialty items performed by subcontractors do not count towards the 50% limit. Specialty items vary and are determined on a project by project basis. They can be found in the construction proposals under “Subletting of Contract”.

5. It is the responsibility of the LPA P.E. to monitor all subcontractors and to make sure that the DBE's are performing the work committed to them on the CS-6AAA without any assistance from the prime contractor or leasing any equipment from the prime without approval from the DOTD Compliance Section. If there is any question, contact the DOTD Compliance Section. They will investigate any potential issues.
6. If at any point during the job problems occur with a DBE/SBE subcontractor, the DOTD Compliance Section should be immediately contacted.
 - a. The only way that a DBE/SBE can be replaced on a job is if they are “unwilling” or “unable” to complete their portion of work that was committed in order to meet the goal. The DBE/SBE must write a letter/email to the prime requesting to be removed and then the Prime must send that letter to the DOTD Compliance Section along with a letter requesting approval to replace them and provide a plan of action to meet the DBE/SBE goal on the project. A contractor must make a Good Faith Efforts to meet the goal.
7. DBE/SBE payments are tracked
 - a. The CP-1A forms show monthly payments beginning with estimate number 2.
8. CP-1A forms are completed by the prime contractor for all DBE/SBE subcontractors and are sent to the LPA P.E. by the prime contractor for review and approval.
9. The LPA P.E. will review and approve the forms and send them to the DOTD Compliance Section for entry into the system. CP-1A's are required for every estimate even if DBE/SBE work was not performed. It is the responsibility of the LPA P.E. to make sure that the CP-1A's are turned in before they approve the monthly estimates.
 - a. State law requires prime contractors to pay their subcontractor no later than 14 days after they receive payment from DOTD for satisfactory performance.

Commercially Useful Function (CUF)

Every Federal Job with a DBE performing work is required to have a CUF review (goal and non-goal). Commercially Useful Functions are performed to ensure that the DBE is being held responsible for the work involved in their contract by performing, managing, and supervising. The DBE must use its own workforce, equipment, and material.

The LPA P.E. should perform CUF's on every DBE at least once during the life of a project. According to Federal Regulations (Effective February 28, 2011), this must be done on every Federal job where a DBE is performing work whether the project has a DBE Goal or not.

The DOTD Compliance Section has a contract employee on staff that helps with the CUFs, as well as investigates any problems/issues/complaints that they may receive.

10. After the DBE/SBE portion of the job is complete or the job is accepted by DOTD and finalized, an original, notarized CP-2A which shows the final payment should be mailed directly to the DOTD Compliance Section.
 - a. If the DBE/SBE goal was not met, then correspondence as to why this was not done should be attached
 - i. Acceptable reasons for not meeting the goal would be:
 1. Underruns on items committed to DBE/SBE
 2. Unable to find another DBE/SBE after one was unwilling or unable to complete the job (Good faith effort documentation must be provided)
 - ii. These are reviewed on a case by case basis and must have supporting documentation.
 - b. If the goal is not met and the reasons are unacceptable, then monies could be held from this project, future projects, or any other remedy deemed appropriate by DOTD.
 - c. The DOTD may, at any time, request cancelled checks and/or other proof of payment to DBE/SBEs.

Other Important Issues

- Retainage cannot be held on any DBE/SBE Federal Aid Project.
- The prime contractor cannot lease equipment to the DBE/SBE subcontractor on their project without prior approval by the DOTD Compliance Section.
- The LPA P.E. is responsible for making sure that all prior approvals have been received from the Compliance office on leased equipment.
- Issuing Joint checks for material supplying is common but **MUST** have prior approval from the DOTD Compliance Section.

Payroll

- Payrolls are required on Federal Aid projects, unless otherwise noted on the “D” pages in the contract under “Payrolls”.
- Certified payrolls and a Statement of Compliance are required on Federal Aid projects that have a Wage Determination. The “Statement of Compliance” is required by the Copeland Act and 29 CFR. A signed "Statement of Compliance" indicates that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed.
- The Department’s P.E., the LPA P.E., and the DOTD Compliance Section will perform a review of the certified payrolls for accuracy, completeness and true representation of the facts. Review of the payrolls ensures that the payrolls contain such information as names, addresses, job classification, hourly wages and hours worked during the payroll period, etc. Additionally the wage rates should be compared against those listed on the wage determination. Should payrolls have discrepancies or should payrolls not be submitted; the partial estimate will be held until discrepancies are resolved and/or until payrolls are submitted.
- Prime Contractors are required to submit payrolls even if they did not work. They would indicate “no work performed” on the payrolls. The prime contractor’s payrolls must be up to date within two weeks of the subcontractor’s payrolls in order to process the payrolls. The subcontractors only need payrolls for their weeks worked.
- Failure to submit payrolls to the Department’s P.E. to be uploaded into Content Manager will result in the partial estimates being held.

The “1391 Process”

Every Federal-Aid Highway Construction Project where the prime and/or the subcontractor perform work during the last two weeks in July must complete the Contractor’s Annual EEO Report or 1391 Form which must be submitted to the Compliance Programs Office. This report shows the prime or sub-contractors work force that actually performed work on a specific highway construction project during the last two weeks of July. This report shows a breakdown of the workforce by job classification; race and gender. Additionally, if the prime have any Trainees and/or Apprentices those are also reflected in this report. Failure to electronically submit the required 1391 Form will result in payment being withheld from the Prime until the required forms are submitted.

Local Public Agency Manual
Construction Engineering & Inspection

In May the annual “Notice to Contractors” Form and instructions for on-line submittal of the Contractor’s Annual EEO Report or 1391 Form is sent to the LPA P.E. to disseminate to all Contractors. A copy of the completed “Notice to Contractors” Form must be emailed to Tanya.StAngelo@la.gov.

The instructions for on-line submittal of the 1391 Form is to be disseminated to all contractors and required that they provide it to their sub-contractors.

Every Contractor (prime or sub) that works on a project during in the last two weeks of July must submit a 1391 form on-line. Instructions for submitting a 1391 form on-line is available at:

<http://www.dotd.la.gov/administration/compliance/ContractComplianceUnit.aspx>

The 1391 form is only required for Federal Aid highway construction projects from contractors (prime and subs) who worked during the last two weeks in July (even if only for one day).

On-the-Job Training (OJT) Program

Determining On-The-Job (OJT) Training Hours

Each project is reviewed to determine if the project contains certain thresholds of quantities of work in different areas (e.g., Clearing & Grubbing; Portland Cement; Reinforcing Steel; etc.). This is used to determine if the amount of work to be performed by the project will support either a trainee or trainee hours. If it can, the contract will include the Supplemental Specifications for OJT training in the contract.

Labor Compliance Reviews (EDSM No. 111.1.1.9)

The EDSM directive defines the purpose and the procedure for performing the labor compliance reviews. This will help the LPA P.E. determine the classification and wages in the contract for the employee.

The LPA P.E. will perform two reviews per month after prime and/or sub-contractor have been on the job for one week.

Construction Contract Administration Manual

This is the “How To” for inspection located under the Construction tab on the LA DOTD Web Page (www.dotd.la.gov) contains detailed instruction on contract administration, diaries, contractor payments, change orders, final estimates, etc.

SiteManager

SiteManager is DOTD’s electronic system that is required to manage contract information for a construction project through the entire construction cycle. It covers the complement construction and materials management process after the award through contract finalization. This includes: Daily Work Reports (DWRs), Daily Diaries, Monthly Progress Payments, and Change Orders.

Project Engineer (LPA and/or Consultant) and inspectors must get set up in this system at the beginning of a construction project. To gain access to SiteManager an I.D. request must be made. It may be submitted on the Contractor/Consultant designated contract form and sent by email, on-line registration, or FAX/mail.

The Citrix program allows access to DOTD portals. It is an easy software to download.. The password for Citrix expires every 30 days.

The password to log in SiteManager never expires.

SiteManager Personnel Roles

- LPA/CEI Inspector – The inspector can creates daily work reports (DWRs)
- LPA/CEI Office Manager – The office manager can create DWRs, generate the estimate, approve the estimate, and approve the diaries
- LPA/CEI Project Engineer – The project engineer can create DWRs, create change orders, approve diaries, approve estimates, approve change orders
- LPA Government Entity – The entity can approve change orders and approve estimates (as the contractor)

Local Public Agency Manual
Construction Engineering & Inspection

- DOTD Project Coordinator – The project coordinator can approve change orders, verify funds, and coordinate with the DOTD Compliance Programs Section and DOTD Construction Audit Section

Standard Operating Procedures for Processing Partial Estimates*

- a. LPA PE's Office Manager creates/approves partial estimate
 - i. Draft hard copy sent to contractor
- b. LPA PE approves partial estimate
- c. LPA Responsible Charge (RC) approves partial estimate
- d. DOTD Compliance Programs approves partial estimate
- e. DOTD Construction Audit Section approves partial estimate

*LPA PE has approval authority for first 2 levels. LPA RC (different login identification) has approval authority for level 3

Partial Estimate Approval Chain

<u>Log into SM as</u>	<u>Entered by</u>
Office Manager	LPA PE
Project Engineer	LPA PE
Contractor	LPA RC
DOTD Compliance Programs	
DOTD Construction Audit	

**Standard Operating Procedures for
Processing Change Orders**

- Approval of change orders is set by the generator in Site Manager, typically by the LPA PE.
- The LPA PE prints draft copy, sends to contractor, contractor signs and scans it into Site Manager as an attachment
- LPA RC is to get documented approval for additional funds from the Program Manager and attach it to the change order
 - f. Category 3 (Lowest level – normal quantity adjustments <50,000)
 - i. LPA PE creates/approves/prints draft to send to contractor
 - ii. LPA RC approves
 - iii. District Area Engineer (project coordinator's boss) or designee (usually project coordinator) approves
 - g. Category 2
 - i. LPA PE creates/approves/prints draft to send to contractor
 - ii. LPA RC approves
 - iii. Project coordinator approves
 - iv. District Area Engineer approves
 - v. FHWA (if required)
 - h. Category 1 (Major changes)
 - i. LPA PE creates/approves/prints draft to send to contractor
 - ii. LPA RC approves
 - iii. Project coordinator approves
 - iv. District Area Engineer approves
 - v. DOTD HQ Construction Level Manager approves
 - vi. Chief Construction Engineer approves
 - vii. Chief Engineer approves
 - viii. FHWA (if required)

*Local Public Agency Manual
Construction Engineering & Inspection*

Category	<u>Site Manager Entry</u>	<u>Actual Title</u>	
1	Project Engineer	LPA PE	
	2	Contractor	LPA RC
		Project Engineer	DOTD Project Coordinator
	3	Area Engineer	District Area Engineer
		HQ Construction Level Manager	H.Q. Area Engineer
		Chief Construction Engineer	Mike Vosburg
		Chief Engineer	Richard Savoie
		FHWA (if required)*	Scott Nelson

*FHWA approval required on Category 1 & 2 if Federal oversight is required on a project.

Inspection Requirements

Will be on the job site during construction activities

Areas requiring certifications:

- Embankment and Base Course
- Asphaltic Concrete Paving
- Asphaltic Concrete Plant
- Structural Concrete
- Portland Cement Concrete Paving

Other qualifications include :

- sampling/testing
- Traffic Control (TCS & TCT)

A registered engineer is not the same as a certified inspector

Certification training is available through LTRC

Work Zone Requirements

A **Traffic Control Supervisor (TCS)** shall be provided by the contractor to patrol the project to assure that the traffic control devices are properly placed in accordance with the traffic control plans and standards. Record daily documentation in Site Manager regarding traffic control

Highway Work Zone Safety is important to ensure a safe environment for workers AND motorists who drive through the work zone on a project, so they can navigate through easily and to prevent crashes from beginning to end of the highway project under construction

Traffic Control Plan - Every project must have a Work Zone Traffic Control Plan that details how the project will be made safe for workers and motorists. It will include traffic control devices (signs, barrels, barricades, etc), and specifically how, when and where they will be installed. No on-site work can start on the project without first having the appropriate traffic control devices in place

Responsibilities to make the Work Zone Safe

- **First:** It is the responsibility of the *contractor's* Traffic Control Supervisor to ensure that the Traffic Control Plan is implemented
- **Second:** LPA Project Engineer ensures this is being done
- **Third:** LPA Responsible Charge should check to see this is being done
- **Fourth:** LDOTD Project Coordinator also checks to see this is being done

Definitions

A Traffic Control Supervisor (TCS) has successfully completed the work zone traffic control supervisor course (approved by DOTD), passed a written exam on the course, and has a minimum of 1 year full-time field experience in work zone traffic control

A Traffic Control Technician (TCT) has successfully completed the work zone traffic control technician course (approved by DOTD) and passed a written exam on the course.

TCS Authorization

Local Public Agency Manual
Construction Engineering & Inspection

- With proof of meeting the requirements, a Traffic Control Supervisor (TCS) or Traffic Control Technician (TCT) can get their Authorization from DOTD
- Prior to the start of construction work the contractor shall submit to the LPA PE a copy of the TCS's and TCT's current authorization

Location of Contract Requirements for Work Zones

- DOTD Standard Specification (Blue Book) - Section 713, Temporary Traffic Control
- DOTD Supplemental Specifications - Section 713.08, Traffic Control Management

Required Documents

Traffic Control Supervisor (TCS) shall have:

1. A set of all current contract documents relating to work zone traffic control and/or traffic staging
2. A current copy of the MUTCD (Manual on Uniform Traffic Control Devices):
<http://mutcd.fhwa.dot.gov/>
3. A current copy of Louisiana Work Zone Traffic Control Details:

Traffic Control Supervisor (TCS) Duties

- The TCS shall personally provide traffic control management and supervision services at the project site
- The TCS may have other assigned duties, but must be readily available at all times to perform TCS duties as required in the contract
- A minimum of one TCS or Traffic Control Technician (TCT) shall be required on site during working hours. Someone must be in charge of work zone traffic control *at all times*
- The TCS is responsible for the training of flagging personnel
- The TCS ensures that all flagging done on the project is in compliance with the MUTCD and the Louisiana Work Zone Traffic Control Details. Police can be as flaggers, as long as they meet the flagger requirements and are being used **ONLY** as flaggers (not police).
- The TCS coordinates all traffic control operations for the duration of the contract. This includes *subcontractors, utility companies, and suppliers*.
- They are responsible for notifying the LPA PE immediately of vehicular crashes and documenting in the traffic control diary
- They are responsible for maintenance, cleanliness, replacement, and removal of traffic control devices during working AND non-working hours.
- The TCS ensures that workers are wearing proper, reflective safety garments

Inspection of Traffic Control

- The TCS is responsible for the inspection of all traffic control devices **every calendar day** The inspection may be delegated to the TCT.
- The “*Quality Guidelines for Work Zone Traffic Control Devices*” standards by ATSSA is the tool used to evaluate the condition of the traffic control devices to determine if they are acceptable for use.
- Traffic Control should be inspected by the TCS on weekends, holidays, or other non-work days at least once per day
- Traffic Control should be inspected by the TCS at least once a week during nighttime periods and the same night after any modifications or changes have been made in the traffic control devices

Traffic Control Diary

- The TCS maintains a project traffic control diary in *DOTD’s Site Manager Program* (this is like their daily work report). The TCS keeps the traffic control diary current on a **daily** basis, and signs each daily entry. It should be available at all times for inspection by the LPA PE. The diary shall be reviewed with the LPA PE on a weekly basis.
- Site Manager user ID and password assistance can be obtained by contacting Mr. Alan Rusch from DOTD at 225-379-1592
- **Any and all deficiencies noted in the traffic control diary shall also be noted in the contractor’s diaries**
- The diary is subject to LA R.S. “Filing or Maintaining False Public Records
- A penalty of \$150/calendar day stipulated damages will be assessed if there is a failure to complete daily diary and/or there is no contemporaneous record keeping. (It should not be written “after the fact”.)
- The Traffic Control Diary should summarize all the duties of the TCS, including the following items:
 - Type of work being performed that day
 - Traffic control plan used (beginning & ending stations for each)
 - Traffic Control Devices (the number of each, if they in the correct location, if there are any missing/damaged, condition of the devices)
 - Permanent or temporary striping removed or placed (from beginning to ending station)
 - Crashes, memos or change orders
- The LPA PE is responsible to enforce the specification and should review the TCS diaries weekly.
- All Traffic Control Diaries must be accounted for at the end of the project.

Failure to Comply with Work Zone Safety requirement

Local Public Agency Manual
Construction Engineering & Inspection

- The LPA PE, DOTD Work Zone Engineer, or DOTD Traffic Control Specialist may suspend all or part of the contractor's operation(s) for failure to comply with the approved "Traffic Control Plan" or failure to correct unsafe traffic conditions within a reasonable period of time
- Notification is given to the contractor either verbally or written and is followed up in writing
- Serious deficiencies shall constitute the contractor's operations being shut down until such time as he can demonstrate that he can meet the specification in its entirety
- **DOTD may revoke or de-certify the TCS for gross neglect of his/her duties.** If that happens they must take TCS course again, they will have a 90 day probationary period at DOTD's discretion. If revocation happens during a project, they contractor will not be allowed to work without a TCS but time still keeps being charged.

Eligibility Letters for Temporary Traffic Control Devices – Work Zone letters

- Standard Specifications (Blue Book) Section 713.07 requires certification
- Temporary traffic control devices (i.e. barricades) must be crash tested to ensure crashworthiness
- If device passes the crash test (NCHRP 350 & MASH), FHWA will issue an eligibility letter for use of federal-aid projects
- Contractor needs to provide these letters for each device to the LPA PE prior tost 1 estimate & before installation of the traffic control devices on the project
- Crash Testing
 - NCHRP 350 – National Cooperative Highway Research Program Report 350:
http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/nchrp_350/
 - MASH – Manual for Assessing Safety Hardware – Jan 1, 2011:
http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/nchrp_350/

Public Convenience & Safety Special Provision

If **Law Enforcement Officers** are to be hired is discussed and agreed upon at the pre-construction conference. To hire law enforcement officers, there are specific requirements listed below:

- Officers must be certified by DOTD. They must take the training course.
- They will be needed to have a presence if **all** 3 of the following exist
 - Multi-lane highway/interstates with posted 50 mph and greater
 - Lane closure
 - PE anticipates a queue (a line of traffic)

Local Public Agency Manual
Construction Engineering & Inspection

- They are hired for enforcement. To ensure safe operation they may be required to write tickets.
- They will be involved in traffic control; detours or diversion.
- Their compensation is \$40/hr. + \$25/vehicle (max or agency policy)

QA/QC

The District Lab Engineer/District Project Coordinator will assist the LPA P.E. in developing a sampling plan (a list of all materials that have to be sampled and all tests that have to be taken on the job)

QUALITY ASSURANCE

Quality Assurance – It is a system for ensuring a desired level of **quality**. 23 CFR 637 states “All those planned and systematic actions necessary to provide confidence that a product or service will satisfy given requirements for quality. “

It is need to ensure we get what we pay for and it is required by the Code of Federal Regulations. 23 CFR 637 states that quality assurance is “ all those planned and systematic actions necessary to provide confidence that a product or service will satisfy given requirements for quality.”

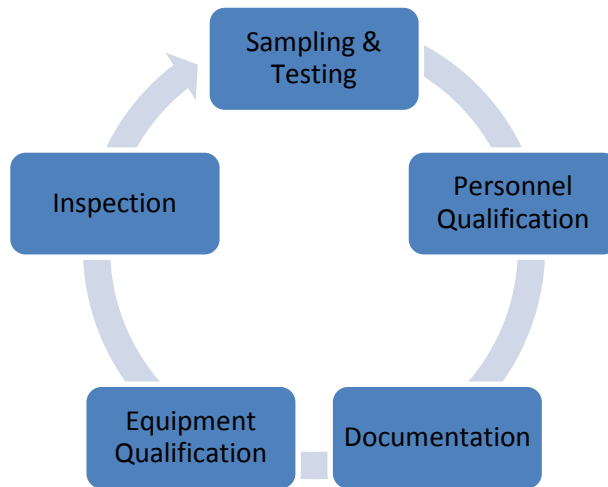
Quality Assurance includes sampling and testing, inspection, personnel qualification, equipment qualification and documentation.

QUALITY ASSURANCE SAMPLING & TESTING

- Acceptance Testing – It is by the owner (DOTD or LPA) to determine the degree of compliance with the specifications for acceptance of materials and/or the contractor’s work. It can be a pass/fail or pay adjustment
- Quality Control Testing - It is by the contractor to monitor, assess, and adjust material selection and production to control the level of quality so that the product continuously conforms to specifications
- Verification Testing – It is for verifying procedures and equipment and for verifying material quality. Non-verifying results may warrant investigation and additional testing

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Construction Engineering & Inspection

- Independent Assurance Testing It is required by FHWA. It checks the equipment and the procedure. It is for making an independent random check on the *reliability of results*. It is only on the National Hwy Systems (NHS)



Quality Assurance - REFERENCE MANUALS

- LA Standard Specs – Section 106
- Materials Sampling Manual
- Test Procedures Manual
- Qualified Products List
- Engineering Directives & Standards Manual, EDSM III.5.1.2

MATERIALS SAMPLING MANUAL

This manual is used to sample and test materials, when completing a sample ID (Identification Form) or completing a 2059 report (project sample summary). The materials sampling manual is arranged by

- Contract item number.
 - Example 502-01-00100 is used for Asphalt Concrete.
- The purpose
 - Example -- acceptance, information, design, quality control, etc...
- Method of sampling
- Minimum frequency of sampling
 - Example -- 1/1000 Cubic Yards
- Sample quantity (size)
 - Example – 1 quart plastic bottle or 1 sack

Local Public Agency Manual
Construction Engineering & Inspection

- Certificate requirements
 - CA, CC, or CD
- Distribution of documents
 - CERTIFICATES
 - CA – Certificate of Analysis
 - Manufacturer test results
 - CC – Certificate of Compliance
 - “We promise that we comply with specs.”
 - CD – Certificate of Delivery
 - DOTD tested it, and it includes DOTD Lab Number (Not a bill of lading.)
- Distribution of paperwork
 - Code
 - 1 Project Engineer receives one legible copy, reviews, approves and files for documentation.

QUALIFIED PRODUCTS LIST (QPL)

It is a listing of material **companies** which have been prequalified by DOTD. Inclusion on this list does not necessarily eliminate the requirement for testing. It means that the company is **capable** of producing good material.

Sampling Plan

The Materials Sampling Manual is used to create a **project-specific** Sampling Plan based on the contract based on. It identifies the materials allowed and selected and the contract item quantity. Using the quantity it determines the minimum sampling frequency.

Sampling Plan

The 2059 Report (Project Sample Summary)

2059 Report Cover Sheet

It states, “All material used was in conformity with the contract, except...”

It identifies if the report include the Disposition of Failing Reports (Disposition Attached N/A)

It identifies if the report includes Errors and Omissions (E & O Attached N/A)

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Construction Engineering & Inspection

2059 Report

The Sampling Plan established at the beginning of the project is provided.

It includes the Matt Printout Summary of Test Results which is a list of test results by type of material and is *printout from the DOTD Matt system*. It includes the

- Date Sampled
- Contract Item #
- Quantity Represented
- Test Results
- Pass/Fail or % Pay

If a private lab performs the tests, a summary of test results taken from the private lab is included on the 2059. This is similar to the Matt system printout.

Disposition of Failing Results

- Any failing test result has to be explained. It needs to identify how it was resolved. Examples:
 - “Material not used on project.”
 - “The stockpile was reworked. Subsequent samples passed. See lab #'s...”
 - “Material was accepted at 90% pay.”
 - “PE determined it was acceptable for the intended use.”
 - Do not say, “PE waived the sample.”

Errors & Omissions

- Errors and omissions explain why some materials were not sampled and/or why certificates were not obtained. Examples:
 - “Due to miscommunication no one was at the asphalt plant on May 9, 2012. Tests for lot 980 were not obtained.”
 - “Inspector failed to get base density tests before the contractor poured the roadway. After a year, and varied and extreme weather conditions, the road is still performing very well. There are no signs of subsidence.”
 - “Although 20 concrete cylinders were required, only 15 were taken. Error was not realized until the end of the project. All acceptance samples and all of the contractor’s quality control samples met the compressive strength required.”

2059 Report Process

1. Signed by LPA PE
2. DOTD Lab Engineer
3. DOTD Area Engineer
4. LPA PE to be added to final close-out package

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Random Sampling

Sample cannot be taken continuously. A few samples and assumptions are made. For these assumptions to be reasonably valid, the samples must be random.. Each choice must have an equal chance of being picked. With random samples, we can make reasonable assumptions about the quality.

“Buy America” Provisions

Some contracts say...all **steel and iron** materials, including **coating**, shall be manufactured in the United States.

There are some waivers – read the contract!

Concrete & Asphalt

The DOTD District Lab certifies plants every 2 years. The DOTD District Lab or LPA PE approves asphalt job mix formulas and approves concrete mix designs

In addition to Sampling and Testing and Documentation

- Inspection – a passing sample does not override a failing inspection!
- Personnel Qualification – Must be qualified to sample and to test
- Equipment Qualification –haul trucks, concrete trucks, profilers, paving equipment, lab equipment, etc...must be certified.

Pre-Construction Conference

Purpose of this section: To help the Local Public Agency Project Engineer (LPA P.E.) and the Responsible Charge understand the purpose of the pre-construction conference

Pre-Construction Conference

A pre-construction conference establishes contract obligations and requirements of the contractor and identifies key personnel contact information.

Timing - After the contract has been awarded and the Entity Notice of Contract Execution (ENOCE) has been sent to the entity, the entity responsible charge and the LPA P.E. will schedule within 30 days. (The Notice to Proceed (NTP) must be set within 30-days of the ENOCE)

Agenda – Completion of the Pre-construction Checklist

Construction Engineering & Inspection

Successful Submittal of Partial Estimates and Change Orders

LPA P.E. Construction Tasks

All documentation must follow that as shown in the Construction Contract Administration Manual.

http://www.dotd.la.gov/construction/Contract_Administration_Manual_May_2011.pdf

All the items to be paid should be measured and documented in both field books/spreadsheets and Site Manager.

A detailed estimate in Site Manager must be prepared monthly whether work is performed or not (every 30 days).

LPA PE Construction Tasks

Responsible for obtaining all the necessary samples and performing tests in the field - must have a certified inspector to assist him

All sampling and testing must be performed in accordance with the DOTD Materials Sampling Manual and/or Sampling Plan of the project

http://www.dotd.la.gov/highways/construction/lab/msm/2006_Specs/tableofcontents.shtml

LPA PE Construction Tasks

The project will have to be built in accordance with the contract which includes the DOTD Louisiana Standard Specifications for Roads and Bridges, Special Provisions, Supplemental Specifications and Plans

All required DBE/SBE forms are completed in accordance with the DOTD Compliance Programs requirements as outlined in the DBE /SBE Contract Provisions (i.e. monthly DBE/ SBE participation/ CP-1A Form)

DOTD Project Coordinator Construction Tasks

Make periodic inspections of the work (varies based on project scope and complexity)

Document the inspection

Will not issue instructions to the contractor's superintendent, foreman or any of his personnel, nor direct work in any manner other than advising the Entity's project personnel that the contractor's work does not conform to plans and/or specs. DOTD provides oversight for FHWA

DOTD Project Coordinator Construction Tasks

Local Public Agency Manual
Construction Engineering & Inspection

Review the first partial estimate in Site Manager after notification it is complete
Advise the LPA Project Engineer or LPA inspector of any noted construction deficiencies & unacceptable methods of written records/field documentation
Provide technical assistance and answer questions

Construction Documentation

Project diaries/Daily Work Reports (DWRs) in Site Manager

The diary entries shall be written and kept by the P.E./inspectors on a daily basis through the duration of the project and record the work done each day with quantities, equipment, and personnel on the project as well as weather conditions and whether a contract day was charged. DWRs begin on the NTP date. Entries should be accurate and thorough. (Diaries are important, especially if a claim or lawsuit arises (may be many years later))

Construction Documentation

Failure to supply the required documentation as per DOTD policies will result in either a delay in reimbursement or possible withdrawal of federal funding should the matter not be resolved in a timely manner

This is a requirement, not an option

Measurement of the Work - The LPA P.E. and his inspectors are responsible for:

1. Measuring on a daily basis:
2. Work that has been completed
3. Documentation of the items and quantities in a field book and/or spreadsheet and then into Site Manager for pay purposes

Construction Payment

Partial Estimate – A Partial Estimate is an estimate of pay quantities for the contractor’s work for the pay period (1 month as per specification) based on quantities entered into Site Manager by the LPA P.E. or the LPA Inspector on the Daily Work Report (DWR) Screen. It is developed each month by the LPA P.E. in SiteManager regardless of work activity. Once the partial estimate has been approved by DOTD, the entity will be issued a check to reimburse them for the percentage specified in the Entity/State Agreement for the partial estimate amount

Steps to develop a Partial Estimate

Step 1 - Determine if Cost “Reimbursement” or Cost “Disbursement” Applies
(Read the Entity-State Agreement. It will state whether the method of payment is disbursement or reimbursement). Upon receipt of each disbursement requested, the Entity is required to tender payment for the invoiced cost to the vendor

Step 2 – Daily Work Report (DWR)
Quantities are entered into the Field Book or Spreadsheet daily. They are also entered into SiteManager by the LPA P.E. or the LPA Inspector on the Daily Work Report (DWR) Screen

Step 3 – LPA Creates Estimate

The SiteManager Office Manager generates the partial estimate every 30 days and approves it. The LPA Project Engineer approves it. Then the LPA Responsible Charge (designated as contractor in Site Manager) approves it.

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Construction Engineering & Inspection*

Partial Estimate Example Quantities and Payment

Line Number	Item Number	Unit	Contract Quantity	Estimate Quantity	Unit Price	\$ Pay
0901	701-15-00100 Concrete Collar – Concrete Pipe Collar	EACH (ENGLISH)	8.000	8.000	\$244.32000	\$1,954.56
901	727-01-00100 Mobilization – Re- Mobilization	LUMP SUM - QUANTITY MUST ALWAYS BE 1	1.000	1.000	\$500.00000	\$500.00

Federal Funds:	\$1,963.65
Local Funds:	\$490.91
Project Total:	\$2,454.56
Project Total to Date:	\$133,376.28
Grand Total This Estimate:	\$2,454.56
Grand Total To Date:	\$133,376.28

Partial Estimate Example Contract Time

Summary of Contract Time	
Contract Time Allowed:	75
Time Charged This Estimate:	15
Time Charged to Date:	30
Elapsed Calendar Days:	60
Percent Time Used:	60%
Percent Project Complete:	65%

Local Public Agency Manual
Construction Engineering & Inspection

Partial Estimate Example Approval

I hereby certify that the contract time as summarized herein and quantities herein shown are correct to the best of my knowledge and belief and that the work has been performed and the materials used in accordance with the plans and specifications for this project.

LPA Project Engineer

Partial Estimate Example Approval

I acknowledge that the pay quantities and Summary of Contract Time for this Estimate have been reviewed. If I disagree with pay quantities on this estimate I will immediately notify the Project Engineer in writing. If I disagree with time charges then I must notify the Project Engineer via mail/fax within 14 days and further follow the procedure as detailed in the 2008 Standard Specifications section 108.07(4); however, I am not rejecting this estimate, as that action may result in a delay of payment.

LPA Responsible Charge

Prepare Cost Reimbursement Documentation and attach the information for the cost reimbursement method which is specified in the Agreement.

- If the Entity is using disbursement, the Entity will complete and send a Cost Disbursement Form to DOTD every time they submit a partial estimate. The Cost Disbursement Form should be mailed, emailed or FAXed to DOTD Construction Estimates Section. A copy of the cancelled check to the contractor must be sent within 60 days of DOTD transferring money to LPA. This copy must show the front & back of the cancelled check. It cannot just show the front of the check.
- If the Entity is using cost "Reimbursement", the required documentation is a copy of the cancelled check showing the front & back instead of the Cost Disbursement Form. The cancelled check to contractor by LPA is to be mailed, emailed or FAXed to DOTD Construction Audit Section.

Step 4 - DOTD Partial Estimate Approval

- All projects with federal funds are required to submit certified payroll document on both prime and sub-contractors. The DOTD Compliance Section reviews the payroll documents. These documents must be submitted to the Compliance Programs Office two weeks prior to a partial estimate submittal. Failure to do so will result in the partial estimates being held.

Construction Engineering & Inspection

Local Public Agency Manual
Construction Engineering & Inspection

- Once the DOTD Compliance Section approves payroll documentation for the partial estimate in SiteManager, the DOTD Construction Audit Section is notified in SiteManager of pending partial estimates.
- The DOTD Construction Audit Section will begin their Section review.
 - The DOTD Construction Audit Section will confirm a disbursement form is submitted for the estimate and a receipt of the cancelled check in 60 days from previous partial estimate payments if the “disbursement” form of payment is used, or they will ensure a cancelled check is submitted if the “reimbursement” form of payment is used.
 - They will review if any item is over or under by 5%. If it is they will notify the LPA PE to submit a change order for next partial estimate.
 - They will ensure there is sufficient total project budget to cover the payment. If there is insufficient budget, the estimate is rejected.
 - If change orders are submitted, adequate funds must be available to allow the DOTD Construction Audit Section to process the partial estimate
 - To ensure there is adequate money, Site Manager has reports that can be used
 - Partial Estimate Verification Report - Ensure enough Change Orders are approved to cover the amount of partial estimate payment required (Sufficient funds must be available in the total project budget)
 - Site Manager Report - Partial Estimate Verification Report Example
 - Summary of Change Orders Report - *Purpose: To compare current approved amount (original contract + approved change orders) to the partial estimate total paid to date to determine if there are sufficient change orders to cover the increased cost*
 - They will ensure the advancement of stockpile has proper documentation:
 - Request for advance payment
 - Copies of invoices of material
 - Right-of-entry if stored off of jobsite
 - Certified inspection certification
 - Certified paid invoices signed by the supplier of the material
 - DOTD Partial Estimate Approval
 - They will determine if the partial estimate is either 5-days from completion or the allowed contract time
 - They will send notification to LPA that stipulated damages will be assessed if they run out of time which will place them in default of the contract

Local Public Agency Manual
Construction Engineering & Inspection

- DOTD Construction Audit Section processes payment once all required documents are approved

Step 5 – Payment of Contractor

The LPA is responsible by law for paying the contractor correctly and on time (within 30 days) for work performed on a monthly basis. It does not matter what type of cost reimbursement method is used, the Entity is responsible to pay the contractor within the timeframe specified in the contract

DOTD Project Coordinator Construction Tasks

Verify conformity with first estimate involving DBE work (reviewing the Form CP-1A if applicable) as outlined in the DBE /SBE Contract Provisions
Review payrolls with the LPA Project Engineer for conformity with the first estimate
Attend any meeting requested by the LPA Responsible Charge or LPA Project Engineer

Responsible Charge Construction Tasks

Know about the project scope, schedule/status and budget. Do not have to be in the field everyday if there is a CE&I consultant. Do need to be able to answer project status questions if called by DOTD

Construction Documentation

The LPA must maintain the project records for 5 years

Change Orders

Change Orders - Any changes to the plans or specifications will require a change order. The LPA P.E. is responsible for writing all change orders and submitting them for approval. There are 3 levels of change orders. These are discussed in DOTD's E.D.S.M. No. III.1.1.1, Procedures for Changing Contract Plans and Specifications for Construction Work Performed By Contract.

Every change order should have all headings in SiteManager addressed

- Project Description
- Justification
- Items
- Cost
- Specifications
- Attachments
- Funding

When processing a change order for a local public agency contract in SiteManager, the Entity is listed as the contractor, the DOTD is listed as the owner, and the contractor is not represented in SiteManager. The contractor's concurrence with the change order is denoted by the contractor's signature on a printed draft copy scanned as an attachment to the change order using DOTD's Content Manager electronic file storage. The authorization or approval is set up for each change order separately in SiteManager and will always include a DOTD representative. See SiteManager quick reference for Change Orders for additional information.

Form 2059 Report - Completed sampling plan showing all testing and sampling that has been taken and resolution for any failing tests. Form 2059 Report is submitted by the LPA P.E. to the DOTD District Lab Engineer for acceptance (approved by District Lab)

Claims

DOTD has an established claims procedure (EDSM III.1.1.28) that involves an independent evaluation of the claim at the DOTD HQ Construction Section level. If a contractor's Claim is not resolved at the LPA project engineer's level or the DOTD Project Coordinator's level, the unresolved claim can be forwarded to DOTD HQ Construction Section who will provide an **opinion of how DOTD would handle the claim** to the LPA for them to resolve.

DOTD's Engineering Directives and Standards (EDSM) III.1.1.28, Contract Disputes, and Requests for Additional Compensation establishes notification and documentation procedures that are to be followed in the event of a contract dispute, and/or Contractor's submission of a Request for Additional Compensation ("RAC") as provided for in Section 105.18 of the Standard Specifications.

DOTD Standard Specifications Section 105.18 Claims, references EDSM III.1.1.28

EDSM III.1.1.27, Equipment Rental Rates gives guidance to DOTD, LPAs, & owners on allowable equipment rental rates for changes to the contract.

As per the DOTD Standard Specification section 109.04(c), the dispute resolution procedure

- Change Order
- Dispute
- Claim

DOTD Policy allows additional compensation for work, material, delays, inefficiencies, disruptions, other additional costs or expenses, and extra work. The contractor must give notification before beginning the work and immediately upon encountering the conditions.

There are other circumstances, that are not usually governed by the general specifications, that have resulted in damages such as delays from action or inaction of DOTD, plan errors, disagreements with DOTD's interpretation of the plans and specifications, or other causes.

The contractor's notification of contract dispute is initially filed with the LPA's Project Engineer, DOTD Project Coordinator, & DOTD Claims Engineer. A detailed record of contract activities and costs can be established contemporaneously with the actions taken to resolve the issue.

Dispute Resolution Procedure

1. The claim is submitted to the LPA & DOTD HQ Construction
2. The DOTD Claims Engineer gets both sides of the dispute
3. The DOTD Claims Engineer gives his *recommendation* to LPA. The LPA determines how to handle the claim with the contractor (because LPA owns the contract, not DOTD)
4. DOTD will decide whether or not to participate financially in the change order
5. The contractor may appeal decision to LPA
6. If the decision is mutually agreeable a change order is written

A Request for Additional Compensation (RAC) should include the following:

- all work activities
- the impact on the project schedule
- all labor, equipment, material, subcontractor, and other direct or indirect cost elements
- the dollar amount and method of computation
- documentation supporting each fact, assertion, cost, or delay

Sworn Statement

The statement or schedule shall be certified and sworn under oath by the contractor to be true and correct as to all facts, records, representations and amounts claimed therein.

Minimum RAC Supporting Documentation

- Detail Tabulations
- Computational Methods
- Overhead
- Machinery or Equipment
- Bid Price Estimate Work Papers
- Books and Records
- Names and Addresses

If all a resolution cannot be reached, it must be taken to the judicial system

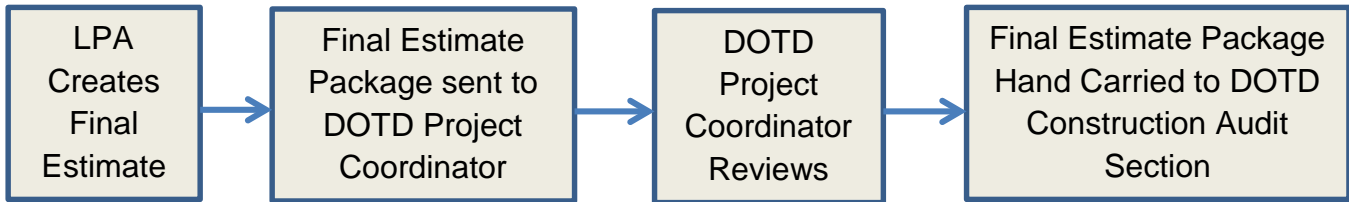
Project Closeout

Purpose of this section: To help the Local Public Agency Project Engineer (LPA P.E.) and the Responsible Charge understand the documentation requirements to successfully closeout a project

Project Closeout Tasks

- **Final Inspection** - The responsible charge/LPA P.E. shall set up a final inspection and acceptance meeting for the project when it is complete which includes the contractor, the Responsible Charge and DOTD
 - **Final Acceptance** - The Entity must pass a resolution accepting the project before the DOTD can accept the project
 - **LPA P.E. Closeout Tasks**
 - Notify DOTD of project completion
 - Schedule final inspection
 - Prepare the final estimate package and hand-deliver with all backup documentation to the DOTD Project Coordinator for review
 - **DOTD Project Coordinator Closeout Tasks**
 - Attend the final inspection
 - Provide guidance to the LPA Project Engineer to prepare the final estimate package
 - Review the final estimate package with backup documentation
 - **Final Estimate Package** – Submitted by the LPA P.E. within 30 days of the final acceptance and includes:
 - Form 2059 report
 - Completed final estimate
 - “As-built” drawings signed by LPA P.E.
 - Field books
-

Final Estimate Package Development / Project Closeout Procedures



NOTE: The Final Acceptance letter must be submitted prior to final estimate submittal

Generating the Final Estimate

A Final Estimate is the summation of all the estimates that have been paid to date. No items are paid on the final estimate. The final estimate must show the total earned to date. Any retainage held will be released after the records are submitted and the audit is complete

A Final Change Order must be generated and approved. This Change Order will adjust any quantities that overran the approved plan quantities by any amount and any quantities that underran more than 5%. A DWR must be completed where **each** item will be “Final Referenced”

The screenshot shows a software interface for 'Daily Work Reports'. It includes fields for Contract ID, Inspector, Date, Project Nbr, Line Item Nbr, Proposed Line Nbr, Item Code, and Category Nbr. The item description is 'Removal of Traffic Signal Equipment' with a unit price of \$11,500.00000. A table lists 'Loc Seq Nbr' and 'Location Installed', with 'FR 197-946 p7' highlighted. Below this, 'Placed Qty' and 'As Built Qty' are shown as 0.000. The 'Location' field is circled in red. At the bottom, there are sections for 'Material Inspection Detail' and 'Material Component'.

Local Public Agency Manual
Construction Engineering & Inspection

Each item is pulled up (for example: if adding a quantity for payment). No quantity is entered, but in the “location” field, the final reference location is entered. This is the location in the field book where the final item quantity total is documented. It is located at the end of the list of entries for each item. (The initials FR only is placed in front of entry)

The Final Estimate is generated similar to the Partial Estimate. The difference is the “Final Estimate” button is used prior to using the “generate estimate”. Everything else is the same

The Process

Two reports are printed by the DOTD Coordinator and provided to the LPA P.E.

- “Summary of Final Quantities”
- “Recapitulation of Weather and Workdays used to Complete Project”

If ***Stipulated Damages*** are being assessed the LPA PE, DOTD District Coordinator **and** the DOTD District Area Engineer must sign the “Recapitulation of Weather and Workdays used to Complete Project” form.

If there are no ***Stipulated Damages*** being assessed the LPA P.E. and DOTD District Coordinator will sign the “Recapitulation of Weather and Workdays used to Complete Project” form

Project Closeout

The Final Inspection starts the Final Acceptance process. The time period to submit final records is 30 days max. The penalty is the CEI consultant will not receive a good rating.

The required forms can be found in the *Construction Contract Administration Manual* on page 44, in Section 7.5.

The documents must be HAND CARRIED to Room 510-G where the submittal is given a cursory reviewed by DOTD while the signature authority is present. Missing signatures are addressed and missing documents are identified.

The Critical Documents

See checklist handout for required documents

Local Public Agency Manual
Construction Engineering & Inspection

- Signed Original Schedule of Work Items – Form 651
- Signed original recapitulation of weather and workdays
- Signed and corrected As-Built Plans - All sheets must be signed
- All correspondence in and out
- Construction Layout - If not included must follow Construction Memo dated May 5, 2009
- Certificates of Release
- Documents
- Asphalt plant reports
- Reinforcing steel bar list (mill test reports) - Example: catch basins, bridges, headwalls, etc These can be included on Form 2059
- Master structures file – All bridges - For the bridge maintenance inventory
- Form 2059
- Documents
- Right-of-way monuments – If r/w acquired it must have a receipt of recordation in courthouse
- All signed and original change orders
 - Category 1 is approved at DOTD HQ
 - Category 2 & 3 are approved in DOTD district
 - The tracking number created in SiteManager MUST be the same as the signed change order
- Field Records - Electronic spreadsheets and numbered field books
- Asphalt and fuel adjustment - The calculation formula is found in the special provision
- Police invoices
- Traffic control log
- Transmittal sheet - List of everything submitted

Rejection Reasons

- Traffic Control Diaries are omitted or not done consecutively as per spec book. There is a penalty assessed if they are not done properly
- Final References are not added correctly
- Every sheet of As-built plans is not signed (even standard plans)
- Missing category 2 & 3 Change Orders (Category 1 change orders must be submitted prior to the final submittal)
- Tracking numbers of the signed change orders are different from the Site Manager approved change orders
- Original documentation is not submitted (Copies are unacceptable)

Construction Engineering & Inspection

Website Links

Preconstruction Conference Checklist – provided by the DOTD Project Coordinator at the Project Set-up Meeting

Project Closeout Checklist (Forms to Accompany Final Estimate Package) -

Engineering Directives and Standards Manual

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/EDSM/Pages/default.aspx

EDSM I.1.1.28 Procedures for Final Plan Modifications Including Plan Revisions and Change Orders

EDSM III.1.1.9 Labor Compliance Reviews

EDSM III.1.1.33 Prompt Payment to Subcontractors

EDSM III.5.1.2 Material Quality Assurance Documentation, MATT System & Form 2059

EDSM III.5.1.4 Contract Compliance Submission of Electronic Form PR-1391

Compliance Programs

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Administration/Compliance/Pages/default.aspx

Compliance Forms and Manuals

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Administration/Compliance/Pages/downloads.aspx

LA DOTD Compliance Programs Supplier Agreement

LA DOTD Compliance Programs Trucker Agreement

Blank Notice to Contractor

Contract Compliance Program Manual

Contractor Compliance Checklist

Electronic 1391 Instructions

FHWA 1391 Form

Local Public Agency Manual
Construction Engineering & Inspection

Recruitment Sources
DBE Good Faith Effort Documentation Form
OJT Program Manual
Annual No Change Affidavit
Contract Compliance Program Manual
Contractor Compliance Checklist
Contractor Final Report (Form CP-2A)
Contractor Monthly DBE Participation (Form CP-1A)
Contractor OJT Change Form
Contractor OJT Weekly Reporting Form
Contractor Trainee Enrollment and Interview Form
Consultant Goal Setting and Good Faith Effort
Contractor Trainee Enrollment and Interview Form
SBE Annual Affidavit
SBE Application for DBE Certified Firms
SBE DOTD Certification Application
SBE Good Faith Effort Documentation Form

Construction Services

http://wwwsp.dotd.la.gov/Business/Pages/Construction_Services.aspx

DOTD Maps, Books & Manuals

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Pages/Forms_Publications.aspx

Construction Contract Administration Manual
Construction Plans Quality Control/Quality Assurance Manual (QC/QA)
Certificate of Release
Contractor's Affidavit
Request for Information (Active Construction Projects)
Right of Entry Form for Construction Project
Standard Specifications (2006 Blue Book)

Construction Engineering & Inspection

Materials Lab

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Materials_Lab/Pages/default.asp x

Forms & Worksheets
Materials Sampling Manual
MATT System Info / Codes
MS4 Storm Water Page
New Products Evaluation
Quality Assurance Manuals
Quality Matters Newsletter
Qualified Products List Manual
Testing Procedures Manual

SiteManager

LPA SiteManager Resource Page
http://www.ltrc.lsu.edu/lpa-ltap/SMLPA_Web.html

Citrix
Contractor/Consultant Designated Contract Form
SiteManager Field User Guide
Procedures, Preparation, Review and Approval of Form 2059
DOTD Materials Sampling Manual
SiteManager Introduction Presentation
Quick Reference Guides
Video Tutorials