
Construction

Local Public Agency
(LPA) Appendix

2011

Construction Engineering & Inspection

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Construction Inspection Program

United States Code 23USC114 state “the construction of any highways or portion of highways located on the Federal-aid system shall be undertaken by the respective State transportation departments or under their direct supervision... such construction shall be subject to the inspection and approval of the Secretary.”

Stewardship Agreement

Each FHWA Division Office has a unique Stewardship Agreement with its State DOTD. The Louisiana Stewardship Agreement was signed in 2007. Based on a core set of rules and regulations that apply to all states, it focuses mainly on Interstate and National Highway System (NHS) projects, but established an oversight and delegation table under Title 23 Section 106.

TYPE OF PROJECT	OVERSIGHT RESPONSIBILITY
Interstate projects with an estimated construction cost >\$1 million.	FHWA
Interstate projects with an estimated construction cost <\$1 million.	DOTD
NHS (non-Interstate) projects with an estimated construction cost >\$10 million.	FHWA
NHS (non-interstate) projects with an estimated construction cost < \$10 million.	DOTD
Non-NHS and locally administered projects.	DOTD
Major Projects (>\$500 million). All routes.	FHWA
Bridge Projects on any route with an estimated construction cost >\$50 million.	FHWA
All ITS projects (see note 2 below)	FHWA

Note 1: NHS-projects are defined by system, irrespective of Federal funding source.

Note 2: As defined by [23 CFR 940](#) an ITS project is any project that in whole or in part funds the acquisition of technologies or systems of technologies that provide or significantly contribute to the provision of one or more ITS User Services as defined in the National ITS Architecture.

Exceptions:

1. State Administered projects (delegated) may be selected for full oversight by mutual agreement between FHWA & LADOTD. The selection will be agreed upon by the FHWA Assistant Division Administrator and the LADOTD Chief Engineer. Examples of projects which may be selected: Complex emergency relief projects, Major or complex bridge

structure projects, or projects which involve a high degree of public controversy or environmental impacts.

2. A full oversight project may be delegated by mutual agreement between FHWA & LADOTD. The selection will be agreed upon by the FHWA Assistant Division Administrator and the LADOTD Chief Engineer. Examples of projects likely to be selected: NHS projects which do not affect traffic such as landscaping, rest area construction, fencing, signing and enhancement projects.

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

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*** (located on the DOTD internet site: Construction/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. Establishes the scope, communications and commitments

Intermediate Inspections – These are recurring project construction inspections. The frequency established by Stewardship Agreement. In Louisiana, a minimum of once

every 3 months was established for interstate, NHS projects and other full federal oversight projects. The inspection includes all aspects of the project

In-Depth Inspections – This is a detailed inspection. 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
 - 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
 - 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 chose to perform the inspection instead of 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 LPA or his consultant is 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.

It is the responsibility of the LPA to ensure **all** of the required documentation and procedures are provided to DOTD in accordance with the ***Construction Contract Administration Manual*** (located on the DOTD internet site: Construction/Construction Contract Administration Manual) during construction and for project closeout.

Project Closeout Procedures

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The Entity is in charge of scheduling and holding the final inspection. The DOTD coordinator should be invited and should attend the final inspection.

The DOTD Coordinator is responsible for entering the final inspection information into the DOTD system which is necessary for the closeout process to begin. The DOTD coordinator enters when the meeting was held and lists the attendees.

In addition to this action by the DOTD Coordinator a letter from the Entity is required to begin the final estimate audit process. The Entity letter must be on entity letterhead stating that a final inspection has been held and they have accepted the project for maintenance. It must be signed by an Entity representative in authority.

PROJECT CLOSEOUT CHECKLIST

Consultants Must Hand Carry

FORMS TO ACCOMPANY FINAL ESTIMATE

1. **SIGNED ORIGINAL** SCHEDULE OF WORK ITEMS (Generated from Site Manager)
2. **SIGNED ORIGINAL** RECAPITULATION OF WEATHER & WORKING DAYS (Generated from Site Manager)
NOTE: Signed by the Project Engineer of record (registered professional engineer in the State of Louisiana).
(The PE of record can sign for DOTD District Area Engineer if no Stipulated Damages are assessed)
3. ALL FIELD BOOKS – Ensure First Two Title Pages are Filled Out
*Spreadsheets are also acceptable
4. **SIGNED AND CORRECTED** AS-BUILT PLANS OR “PLANS IN CONTRACT”
NOTE: Blue line or Stamped Signature is not Acceptable
 - a) Each Sheet **MUST** be Signed in INK.
 - b) SUMMARIES – FINAL QUANTITY, DRAINAGE & BRIDGE ARE CORRECT.
 - c) PROJECT LENGTH FORM FOR “PLANS IN CONTRACT”.
 - d) COVER SHEET
 - e) 730 ITEMS Require Electrical As-Builts
 - f) Every Page Must be in Correct Numbered Order (1, 2, 3 not 1a, 1b, 2a, 2b etc.) Index Sheet Must Also Match Numbered Pages. (The sheets are re-numbered sequentially removing the “a, b, c...”)
5. PROJECT DIARY – It can be kept electronically. Do not send hard copies with Site Manager Projects.
6. CORRESPONDENCE – In & Out
7. CONSTRUCTION LAYOUT – Obtain and complete the information in the “Numbered Notebooks (Fieldbooks)” from DOTD for the construction layout. If the layout is computer generated, the PE **SIGNS** Computer Printout
NOTE: If Records are Non-Existent at the Time of the Final Audit, Follow Procedure as Stated in Memorandum Signed May 5, 2009.

8. CERTIFICATES OF RELEASE, LETTERS OF RECEIPT & WARRANTIES, REQUIRED BY SPECIFICATIONS (Forms can be found on the DOTD website: Publications and Manuals/Construction/).
 - a) If Material was Salvaged, We Will Need a Receipt From Whomever Received Material
 - b) RAILROAD RELEASE OR CONTRACTORS AFFIDAVIT – Unless Subsection P is Waived See Railway/Highway Provision Clause in Contract
 - c) RIGHT-OF-WAY MONUMENTS – Receipt Verifying Filed at Courthouse
 - d) COLD PLANING RECLAIMED ASPHALT – See Construction Notes (Need to have a certificate of release identifying where the material was placed)
 - e) For bid items used that must be returned, a document certifying their return is required. (Example materials: Message Signs, Glare Paddles, Impact Attenuators, Concrete Barriers, Etc.)
 - f) CONTAMINATED MATERIAL – Chain of custody required
9. EARTHWORK: Plan Quantity is used unless the quantities are contested by the contractor. If it is contested the following is required:
 - a) Computations
 - b) **SIGNED** Benchmark List
 - c) **SIGNED** Cross-Section Sheets, including “Profile Differential”
10. ASPHALTIC CONCRETE PLANT REPORTS
11. Approved 2059 must be submitted – PE, District Lab Engineer, District Area Engineer signed original
12. REINFORCING STEEL BAR LIST (Cut Sheets)
13. MASTER STRUCTURES FILE – A Bridge Maintenance bridge replacement form that includes the structure number of the replaced structure
14. CHANGE ORDER/PLAN CHANGE IMPLEMENTED - **SIGNED ORIGINALS** must be submitted
15. FINAL ACCEPTANCE LETTER
16. POLICE INVOICES
17. TRAFFIC CONTROL LOG – SP # must be written on every sheet
18. TRANSMITTAL SHEET – List everything that is submitted with project

NOTE: See CONSTRUCTION CONTRACT ADMINISTRATION p. 38-42 to see if any other requirements apply to your project.

Any items that are lacking will result in the project NOT being accepted for audit and may jeopardize reimbursement