

XI. Construction and Construction Engineering

A. Overview. “Construction” is the building of a project. “Construction Engineering” is the managing and monitoring of the project’s construction as it proceeds, including construction inspection.

1. Construction. Tribes have the following options for the construction of a project:

a. Force Account construction. The Tribe builds the construction project using employees of the Tribe (see 25 CFR Appendix A to Subpart B, (b)(24)). This is also known as “in-house” construction. When building a project with this method, the Tribe should complete an independent in-house cost analysis and compare it to the engineers estimate that accompanies the PS&E. This will ensure the fair and reasonableness of the anticipated cost and the accuracy of the engineers estimate.

Part of the purpose of the Tribal Transportation Program (TTP) is to contribute to “...employment of Indians and Alaska Natives.” FHWA encourages Indian and Alaska Native employment in any and all aspects of project construction. The management and monitoring (construction engineering) of the construction work may also be done by qualified employees of the Tribe.

b. Contracted construction. The Tribe contracts out the construction of the project (see [Chapter X - Procurement, Construction Bid Advertisement and Award](#)).

2. Construction Engineering. The Tribe is responsible for ensuring that the construction project is built in substantial conformance with the approved plans, specifications, and engineer’s estimate (PS&E), whether the project is being built by a contractor or force account crew.

The Tribe can accomplish the construction engineering, including construction inspection and project management, by using qualified in-house employees, or by contracting the service out to an engineering consultant, or by using the services of a Federal, State or local agency or governments through a Project Agreement (see [Chapter V – Request for Services and Project Agreements](#)).

B. Statutory/Regulatory Requirements.

- All TTP project construction and construction engineering is regulated under 25 CFR §§ 170.470 - 170.474.
- Tribes must meet applicable labor standards in accordance with Mine Safety and Health Administration (MSHA) regulations found in 30 CFR §§ 1 - 199, Mineral Resources, developed pursuant to the Federal Mine Safety and Health Act of 1977 (PL 91-173) as amended, and in accordance with the Occupational Safety and Health Administration (OSHA) regulations found in 29 CFR § 1900, Labor - Construction Standards, developed pursuant to the Occupational Safety and Health Act of 1970 (PL 91-596) as amended.
- Indian Employment Preference/Tribal Preference/TERO, see 25 CFR §§ 170.910 - 170.917 for further information.

C. Construction Equipment for Force Account Projects.

1. Purchasing equipment. With prior written approval from FHWA, Tribes may purchase construction equipment with TTP funds, to be used for constructing the Tribe’s TTP funded projects (see 25 CFR Part 170 Appendix A to Subpart B (b)(49)).

To purchase the equipment with TTP funds, a Tribe must first provide the TC with a written notice showing a lease/purchase cost analysis, which is a comparison of the cost of leasing versus the cost of purchasing the equipment (see 25 CFR Part 170 Appendix A to Subpart B (b)(49)(i), and 2 CFR § 200.318(d)). The costs shown on the lease/purchase cost analysis must include the cost of shipping the equipment from the vendor's location to the equipment work location.

For Tribes who have a Tribal Transportation Program Agreement with FHWA, the written notice shall include the completed form shown in [Exhibit 11.7 – Construction Equipment Purchase Request Form](#) and also vendors' quotes that show the same costs used in the lease/purchase cost analysis. Vendors' quotes may be on copies of emails from vendors and/or letters on vendors' letterhead.

After written approval is given to the Tribe by the authorized official at FHWA, the Tribe can then purchase the construction equipment listed in the written notice using TTP funds.

2. **Vehicle purchases** DO NOT need a "Cost Analysis" or purchase request. A "vehicle" is defined as a mode of transportation for the Tribal Government and/or public to fulfill the purposes of the Tribe's Transportation Department as described in the Long Range Transportation Plan (LRTP). A vehicle can be associated with transit, administration, carpooling, ferries, and other modes of transportation.
3. **Program Income** (25 CFR §§ 125.111-112, 23 U.S.C. 202(a)(1), and 49 CFR Subtitle A § 18.25). Tribes may also use the construction equipment (purchased with TTP funds) for non-TTP related activities as long as appropriate rates are charged to the user for the purpose of recovering costs to maintain, replace and operate the construction equipment. Payments or reimbursements collected for the use of this construction equipment are considered restricted program income, and must be used only to maintain, replace and operate the construction equipment.

This principle would also apply to construction equipment purchased with TTP funds that the Tribe later sells. The income from such sales is considered restricted program income. This does not apply to government equipment donated to the Tribe outside of the TTP Program.

4. **Equipment inventory.** Tribes should keep an up-to-date and complete inventory of all their construction equipment and maintenance equipment, and provide a courtesy copy to the TC upon request.
5. **Excess or surplus Government equipment.** FHWA can assist Tribes to transfer surplus and excess Federal Government equipment to the Tribe, for use on Tribal Transportation Program (TTP) projects and activities. For Tribes who have a TTP Program Agreement with FHWA, information on this service is at <https://flh.fhwa.dot.gov/programs/ttp/property/>.

D. Construction Meetings and Reviews.

1. **Pre-Construction Conference (also known as a "Construction Kickoff Meeting").** Prior to beginning a construction project, the Tribe should hold a pre-construction conference with the contractor (if project constructed by a contractor), Tribe's project construction manager (if project constructed by force account crew), and the TOSR. The Tribe should invite the TC and other key stakeholders, as appropriate. If available, TC participates to provide technical assistance as requested by Tribe, and ensures sufficient understanding of the project for future construction reviews.

The purpose of the pre-construction conference is to discuss and review, as applicable, the following:

- PS&Es
- Unusual site conditions

- Contractor's plan and schedule of operation
- Types and adequacy of equipment
- Labor requirements
- Equal employment opportunity requirements
- TERO
- Maintenance of traffic and requirements for traffic control
- Contractor's responsibilities for accident prevention
- Material sources and testing requirements
- Subcontracting requirements
- Required contractor submittals
- Other pertinent items that would result in a better understanding of the job

The Tribe should document the meeting, keep minutes, and provide a copy to all key stakeholders whether or not they attended the conference.

2. **Construction Project Review.** These are formal reviews, usually held at the project construction site, with a supplemental meeting as needed at the Tribal and/or construction contractor's field office for review of project construction documents. The on-site part of the review is needed to evaluate project activities and the quality and progress of the project's construction work.

The TC should attend an on-site visit of a Tribal construction project at least once during its construction, or more often as appropriate, such as at critical project milestones. The TC will participate in a final inspection for every TTP project completed by a Tribe, and will strive to attend the final inspection as scheduled by the Tribe. If the TC cannot attend that scheduled event, the TC will schedule a separate inspection to occur shortly thereafter..

The TC will give the Tribe reasonable advance notice of planned attendance at construction project reviews. For projects involving BIA owned facilities, the Tribe will invite a representative of the BIA to attend. Other parties that should attend project construction reviews are the construction contractor, the Tribal On-site Representative (TOSR), the Tribal employee or consultant or government agency personnel serving as construction manager, and other key stakeholders.

The TC will not provide direction or instruction to the Tribe's construction contractor or any subcontractor, or Tribal force account crews, at any time during project construction or during the life of the construction contract. If a problem is discovered during an on-site review, The TC will promptly notify the Tribal On-site Representative's (TOSR) and, if asked, provide technical assistance.

If a design exception is discovered during a construction review, and the design exception was not already approved by FHWA, then the Tribe must submit a design exception request for the design exception. The design exception process is described in [Chapter VIII - Preliminary Engineering – Project Package](#).

The TC will complete a Construction **Project Monitoring Checklist** (see [Appendix C - Exhibit 11.1](#)) during the project site visit and discuss and review it with the TOSR. The TC shall also complete a trip report, using the format specified by FHWA.

The goal of the Project Monitoring Checklist is to monitor the key risk areas of a Tribe. The Project Monitoring Checklist identifies the items and activities that will be reviewed and documented during each Tribal site visit. The completion of the Project Monitoring Checklist accomplishes the following objectives:

- Develops consistency in our project monitoring reviews, including the areas of project status, workmanship, as well as documentation and record keeping including change orders and continuation of Health and Safety Certifications;

- Helps ensure the Tribe is preparing to generate and submit a project closeout report in accordance with 25 CFR §§ 170.473 and 170.474; and
- Documents a “mini program review” to assess the general health of the Tribe’s administration of the program and inform the annual risk assessment process.

The TC shall also complete a trip report, using the format specified by FHWA, and provide a courtesy copy to the Tribe.

The TC files the Project Monitoring Report and Trip Report in the respective Tribe’s folder on their agency’s TTP server, in the respective tribal folder server.

- 3. Final Inspection.** A Final Inspection shall always be conducted for a construction project, and conducted according to 25 CFR 170.473. The purpose of the final inspection is to determine if a project has been completed in reasonable conformity with the PS&E. The final inspection should be an on-site visit to the construction project. The BIA TC or FHWA TC is responsible for participating in the final inspection.

To ensure issues are addressed appropriately by the responsible party, the final inspection should occur before the construction contractor is released from project responsibility (or before force account crews are no longer available).

The Tribe’s project manager should schedule the final inspection, and coordinate with the attendees on the date. Attendees should include appropriate Tribal officials, public authorities who are owners or maintainers of project facilities, project construction contractors and maintenance personnel. For projects under a FHWA TTPA, the appropriate representative from the BIA should always attend the final inspection if there is a BIA owned facility in the project.

The TC will complete a **Final Inspection Checklist** (see [Appendix C - Exhibit 11.2](#)) jointly with the TOSR and the owner of the facility, and also completes a trip report..

The TC will promptly notify the Tribe of any issues identified during the final inspection, and provide technical assistance to address the issues, as requested by the TOSR.

- E. Construction Management.** Construction Management (also called Construction Engineering) is the ongoing managing/monitoring of a project’s construction work. The Tribe is responsible for ensuring that proper construction management of the project takes place throughout the life of the construction project (25 CFR § 170.471), except when a Tribe/Consortium has transferred this responsibility to the BIA through a Direct Services MOU, to the BIA through an RSA, or to an agency through a Project Agreement.

The following are recommended Construction Management procedures, regardless of whether the construction project is being built by a construction contractor or by the Tribe’s own force account crews. These Construction management procedures should also be used by Tribal employees, consultants or Federal agencies if they are managing or monitoring the construction. The Tribe should establish the Tribal On-site Representative (TOSR) position for each construction project, whether the project is being constructed by Tribal force account crews or by a contractor. The duties of the TOSR are described throughout this chapter.

- 1. Construction Project Files.** The TOSR needs to establish and maintain an organized filing system for the construction project files. The construction project files must include the collection of information from the pre-construction stage through the final inspection and project closeout. The construction project files are intended to be used as a record for looking up facts, definitions or other information relating to activities or work performed in a construction project. Information must be collected and stored to serve as a reference or evidential material.

Well organized and complete construction project files are necessary to effectively record construction activities and results, to provide evidence of compliance with laws, regulations, codes, and PS&E requirements, and to evidence that Government funding is being used properly in the project.

Good construction project files will help resolve Contractor disputes and contractual claims. This calls for a detailed and accurate collection and recording of construction information. The documents contained in a file will almost certainly affect the outcome of a dispute. When the construction documents are complete, they are subject to code and legal reviews.

2. **Construction Project Filing System.** The Tribal On-site Representative (TOSR) should establish and maintain a uniform filing system for use in the project's construction field office. The filing setup may be different depending on the option the Tribe chooses in implementing and overseeing the construction project. For example, if the Tribe chooses to have a consultant or a Federal agency perform Construction Management of a project, these entities may have their own tested documentation processes already in place. If the Tribe chooses to perform Construction Management in-house (with the Tribe's own employees), then the Tribe may need technical assistance from the TC on how to document the work taking place on a construction project. Tribes can obtain construction management forms used by FHWA at <https://flh.fhwa.dot.gov/resources/construction/forms/>.

Establishing and maintaining this filing system will ensure compliance with 25 CFR § 472, which states that project records have to be maintained properly and be readily available when needed.

- a. **Tribal On-site Representative (TOSR) project file responsibilities.** It is recommended that the TOSR organize and maintain the following project files throughout the life of the project construction activity:
 - i. **Tribal On-site Representative's (TOSR) Daily Diaries.** The TOSR should maintain project diaries documenting construction operations, progress, meetings, telephone conversations, and problems encountered. Daily entries, with signature should be made. If the TOSR is absent from the project, the daily entries should be made and signed by the person left in charge during their absence.
 - ii. **Inspector's Daily Reports.** The project inspector(s) should prepare a daily report that fully documents the construction contractor's (or force account crew's) construction operations and pay quantities. The TOSR should review and sign the daily report. The TOSR should establish a process for reviewing, endorsing, and providing feedback as necessary, on construction contractor produced records.
 - iii. **Construction Daily Reports.** It is recommended that the TOSR require the construction contractor (or force account crews, if being used) to maintain daily records of equipment, personnel, and construction operations. If required by the contract, the construction contractor's daily reports should be contractually required to be furnished to the TOSR within 24 hours following the reporting period.
 - iv. **Records of payrolls, material certifications, test reports, and other routine items.** Prior to beginning work on a construction project, the construction contractor (or the project manager of force account construction) should begin submitting documentation to the TOSR for materials that are intended for use on the project.

Records of all construction contractor's submittals, or force account work records, should be maintained by the TOSR through the duration of the project.

b. Basic guidelines of construction project documentation. Below are some suggested basic guidelines for good documentation.

i. Guidelines for Data Entry

- **Signature and Initials logs.** These list the printed name, title, and the written signature and initials used by each person who is authorized to make or authenticate entries, and is prepared and maintained in the construction field book, when used, or in the file cabinet for that construction activity. Copies of this log, along with original signatures and initials added, are acceptable.
- Entries must be legible, clear, and reproducible.
- Errors will be corrected by lining through the incorrect entry with a single line, making the correction, and initialing and dating the correction. Erroneous information must not be obliterated or erased.
- When entries for a given subject are made on two or more pages or separate records that are not consecutive, each page or record must be cross-referenced to the previous and the following entries.
- When a page has entries from more than one day, each entry shall be signed or initialed and dated.
- The balance of that section of the document shall be crossed out immediately below the last entry.
- Pages to documents shall not be left completely blank. If a page must be left blank, it must be ruled across, signed, and dated.

ii. Completeness and Correction of Incorrect Information

- The person who monitored or recorded the activity must identify the construction site, provide the date the activity was monitored or observed, and sign (or initial if the initials are identified on a signature/initials log) each page of the document recording a construction activity.
- Record accurately and concisely all data as required by procedures for the activity being performed.
- Record all significant and relevant field activity on the construction field inspection log; account for each work day, noting any work suspension and restarts.
- Describe the activity with enough detail to enable someone of equivalent skill and experience to understand and be informed as to what occurred or was recorded.
- All documentation shall be kept intact; no page is to be partially removed.
- Documents requiring replacement because of illegible handwriting, incompleteness, or inaccuracies will be voided and a replacement prepared. A notation will be made on the voided document indicating that a replacement document was completed along with the initials and date of the person making the void notation. The voided document will be filed immediately following the replacement document.
- When a document contains information on more than one activity or project, reproducible copies may be designated and controlled as records for the other activities.

iii. Recording Construction Activities

- Use still or digital photographic images and narrated video camera recording to enhance all written documentation from preexisting site conditions to final inspections.
- The Construction Field Inspection Log or other line management approved form should provide a documented factual record of the work performed each day, as well as:
 - All changes that might affect cost and schedule.
 - Major project status changes.
 - All directions or clarifications.
 - Personnel accidents or injuries, safety infractions, and corrections.
 - Safety meetings held on site.
 - Names of visitors to the site.
 - Conditions and actions in response to Subcontractor violations.
 - Significant events, such as unexpected power outages, severe weather occurrences, or spills of hazardous materials (residual radioactive material, hazardous waste, hazardous substance).
 - Construction inspections and quality control tests performed. Include time of tests and inspections and results.
 - Implementation of the applicable emergency plan.
 - Security incidents.
 - Applicable equipment parameters, including out-of-tolerance readings.
 - Nonconformance reports.
 - Signatures that acknowledge notifications or changes in construction activities.
 - Positive actions that resulted in significant savings, quality improvements, lessons learned, etc.
 - Hours worked.
 - Equipment on-site and used.
 - Weather.
 - Other pertinent information as determined by the project manager.
- The Site Supervisor should:
 - Document events as completely as possible and communicate information as clearly as possible to maximize understanding by individuals reading the Construction Field Inspection Log.
 - Record information promptly to avoid inaccuracy or incompleteness that often results from delayed entries.
 - Enter unusual, abnormal, or unexpected conditions in the appropriate record, and resolve these conditions in accordance with project management's guidance.

- 3. Construction Inspection.** An important part of Construction Engineering is performing on-site construction inspection throughout the life of the construction project. Construction inspection is necessary for the on-going evaluation of project activities and the quality and progress of the construction work.

The Tribe is responsible for ensuring that adequate construction inspection occurs throughout the life of the construction project, except when a Tribe/Consortium has transferred this responsibility to the BIA through a Direct Services MOU, to the BIA through an RSA, or to an agency through a Project Agreement (25 CFR § 170.471). Construction inspection should be performed by competent, technically qualified, and experienced inspectors.

Tribes can obtain construction inspection forms used by FHWA at <https://flh.fhwa.dot.gov/resources/construction/forms/>

Construction inspection includes the following activities.

- a. Quality Assurance/Quality Control (QA/QC)** must be performed on all TTP funded projects (25 CFR § 170.471). The TOSR should oversee the activities of the construction contractor and monitor their work to ensure compliance with the project PS&E.
- b. Materials.** The TOSR should ensure that all materials being incorporated into the project conform to contract requirements. At a minimum, this work should include:
 - Confirming that construction contractor sampling/testing is performed in accordance with the sampling/testing frequencies stipulated in the contract and project specifications.
 - Ensuring that the construction contractor's testing company maintains properly calibrated equipment and qualified personnel to perform the required work.
 - Maintaining all materials test results and documents for project records. It is recommended that records of all failing test results be supplemented with a follow-up passing test result. Any reporting discrepancies; i.e., errors, omissions, or conflicts, should be corrected and documented properly.
 - Receiving and maintaining materials certifications for all manufactured/non-tested materials incorporated into the project.
 - Sampling and Testing – Ensuring that all test samples are taken in accordance with the approved project standards and contract requirements, and that they are sent to the testing company for verification testing and analysis. The Tribe should have independent testing done in addition to what the contractor is performing to verify the construction contractor's results. The construction contractor's testing is for quality control and should be reviewed and overseen by the Tribe or their agent.
- c. Quantity Measurements.** Before any measurements are taken on a project, the TOSR should study the plans, specifications, and special contract requirements to determine what is to be measured and how the measurement will be completed.
- d. Sediment and Erosion Control Inspections.** The TOSR should ensure that the construction contractor provides permanent and temporary erosion control measures in accordance with the approved erosion control plan, to minimize erosion and sedimentation during and after construction. It is recommended that inspections be carried out at least weekly and/or after significant rain events. Some permits required for construction may specify certain inspection, monitoring, and reporting requirements. It is the Tribe's responsibility to ensure that these permit requirements are met.

- e. **Work Site Safety, Worker Safety, and Work Zone Traffic Control.** The TOSR is responsible for ensuring that day-to-day project inspections are carried out during construction. Construction inspections should include a review of project safety.

As part of the daily inspections, the Tribe should complete a Work Zone Traffic Control inspection to assure compliance with the approved project standards. An example of a Traffic Control Report (see link below) for these inspections that may be modified to meet project requirements is located at

<https://flh.fhwa.dot.gov/resources/construction/forms/wfl/documents/wflhd-466TC-D.pdf>

A Safety Checklist (see [Exhibit 11.6 – Safety Checklist](#)) is also included for reference to assist the TOSR. This checklist identifies critical elements of work zone traffic safety and OSHA conditions that should be checked during an inspection. The checklist should be completed by the Tribe at least once during each construction season for that particular project. The checklist was developed to minimize subjective reporting and to help determine if the construction contractor's safety plan and policy, plus the approved traffic control plan are being followed throughout the duration of the project. Upon request of the Tribe, a FHWA representative may be available to take part in the safety review, as resources allow.

If the TOSR becomes aware of any unsafe condition resulting from the construction contractor's action or inaction or a possible violation of either OSHA standards or reasonable standards of construction safety practice, the construction contractor must be immediately notified verbally, and followed up with written notice documenting the deficiency. The Tribe should be involved in this process and should be copied on any correspondence regarding safety issues.

4. **The Construction Schedule.** If specified in the construction contract, a construction contractor must submit a construction schedule to the TOSR. This construction schedule represents the sequence in which the construction contractor plans to perform the contract work. The TOSR should review the schedule and work with the construction contractor to verify that the construction schedule generally represents the activities that logically occur during the completion of the construction project. Updates to the construction schedule should be submitted according to requirements set out in the Tribal policy. It is recommended that a construction schedule should also be prepared by the Tribe (or consultant/Federal agency used by the Tribe) for projects being constructed with Tribal force account crews.
5. **Progress Payments.** The payment and invoice process, as well as the construction contractor's obligations, should be emphasized at the preconstruction conference. The construction contractor should understand the negative impacts that could result from failure to provide required materials and documentation, test reports, and/or certifications. The requirements for the processing of progress payments that are included in the contract should be reviewed in detail as well.
6. **Contract Modifications (also called Change Orders).** The Tribe is responsible for ensuring that construction engineering on Tribally-approved change orders is performed according to applicable FHWA standards, or Tribal standards that meet or exceed federal standards.

Only the Professional Engineer of record may change a TTP project's PS&E during construction. This requirement applies regardless of whether the project is being built by a construction contractor or by Tribal force account crews. Substantial changes to a construction contract should only be completed in coordination with the Tribe and the facility owner. Records of the approved change orders, along with documentation of the work involved, such as photographs, diaries, daily reports, costs, and time must be maintained by the TOSR to assist in determining final costs and liability.

7. **Project Progress Meetings.** The TOSR should hold regularly scheduled meetings with the construction contractor's superintendent or representative to discuss the construction contractor's work progress, future plan, schedule of work, and any problems arising on the project. The frequency of the meetings should be determined by the complexity of the project.
8. **Weekly/Monthly Status Reports.** The TOSR should keep the Tribe and facility owner aware of the current state of the project by submitting a project status report to them on a regular basis.
9. **Final Acceptance of the Project, the Project Closeout Report, and Closeout of the Project.** After the final inspection has been completed, the following actions are needed before the project can be closed out (25 CFR §§ 125.473-474).

- a. **Final Acceptance of the project.** After the final inspection is documented and any issues completed, and documentation which supports all activities of the project is completed, the facility owner makes final acceptance of the project. The Tribe develops a Letter of Acceptance addressed to the construction contractor (see example template in Appendix C - [Exhibit 11.3– Final Letter of Acceptance](#)). In addition, for a BIA owned facility, the BIA will write a Letter of Acceptance to the Tribe, with a copy to FHWA (see example template in Appendix C - [Exhibit 11.4 – Final Letter of Acceptance for BIA Owned Facility](#)). For a facility owned by a city, county, borough or others, a similar Letter of Acceptance document from the facility owner needs to be obtained by the Tribe. The Letter of Acceptance is a formal acceptance document in which the Tribe, the BIA (if BIA owns the facility), or other owners of the facility accept and acknowledges that the project has been developed as requested or in accordance with the contract document. This releases the construction contractor of any further responsibilities of the project.

The Tribe provides the Letter of Acceptance to the construction contractor, and provides copies to the facility owner and the TC.

- b. **Project Closeout Report** (25 CFR §§ 170.473 and 170.474). The Tribe submits a project closeout report to the TC and the facility owner. The project closeout report is submitted after completion of the final inspection and any required construction corrections, and within 120 calendar days (4-months) of the final acceptance of the project by the Tribe and the facility owner. The closeout documents and report are typically generated by the Tribe's TOSR.

The project closeout report is the final accounting of all construction project expenditures and is the closing of the financial books for the construction project.

The project closeout report shall include:

- A summary of the construction project records to ensure compliance requirements have been met,
- A review of the bid item quantities and expenditures to ensure reasonable conformance with the PS&E and contract modifications,
- A listing of the construction and construction engineering funds expended to date for the project
- Final as-built plans (as-built drawings),
- Photographs,
- Change orders,
- Final Inspection report,
- Letter of Acceptance.

Project information made available during final inspection per 25 CFR §§ 170.472-474 can also be used to develop the project closeout report.

Tribes may, at their option, use the forms located in Appendix C - [Exhibit 11.5 – Project Closeout Forms for Tribes - Optional](#), and include them in the project closeout report.

Once the project is complete, the Tribe must update the National Tribal Transportation Facility Inventory to reflect any changes, and submit cost to construct detail sheets to BIADOT.

- c. Project Closeout.** The Tribe is responsible for ensuring, and the TC is responsible for verifying, that the following items are completed:
- Final Contract Modification (CM) – Actual final item quantities often vary from the original contract item quantities and as a result, a final CM may be required in order to close out the contract. The final CM will change the item quantities to match the actual amounts incorporated into the project. This work should be carried out by the TOSR.
 - The Final Estimate – The final estimate should account for all final quantities, a time count, and any assessment of liquidated damages. The final amount of the contract should also be identified.
 - Claims – It is recommended that the Tribe, the facility owner (the BIA, if owner of the facility), and the construction contractor address and resolve any pending claims, which pertain to the contract as part of the close-out process.
 - The Tribe should receive and maintain all project records. The records should include certifications showing that all of the materials used on the project were in conformance with project specifications. The U.S. Department of Transportation recommends that project records be maintained for at least 10 years.
 - Verify completion and/or status of environmental commitments.

F. Roles and Responsibilities for Construction and Construction Engineering. The following table summarizes the roles and responsibilities of the TC, the Tribe and others as applicable.

Roles and Responsibilities for Construction and Construction Engineering		
Program Activity / Process	Authority / Reference	Responsible Party
Ensure the project is constructed according to the plans, specifications and estimates (PS&E)	25 CFR §§ 170.470-474	Tribe
Project construction documentation: Ensure it is current and complete.	25 CFR § 170.472	
Facility Owner and Project Acceptance: It is expected that the facility owner was informed of any issues during construction. The Tribe should request an “Acceptance” written document or letter for the project.	25 CFR § 170.473	Tribe and Facility Owner

Roles and Responsibilities for Construction and Construction Engineering (cont'd.)		
Program Activity / Process	Authority / Reference	Responsible Party
Tribal Project Acceptance: Provide “Letter of Acceptance” to contractor if project is accepted; provide a copy to the TC. The TC will keep and file a copy of the acceptance letter in the Tribe folder on the agency’s TTP database.	25 CFR § 170.473	Tribe
Project closeout report: Tribe finalizes project paperwork. Tribe provides a project closeout report to the TC, and to the facility owner (or to the BIA if BIA is the facility owner).	25 CFR § 170.473	

G. Resources.

- FHWA Construction website at <http://www.fhwa.dot.gov/construction/>
- FLH Construction Manual at <http://flh.fhwa.dot.gov/resources/manuals/cm/>