



NTICC – Big Sky, Montana

September 18, 2019



Project Construction Management & Documentation



U.S. Department of Transportation
Federal Highway Administration

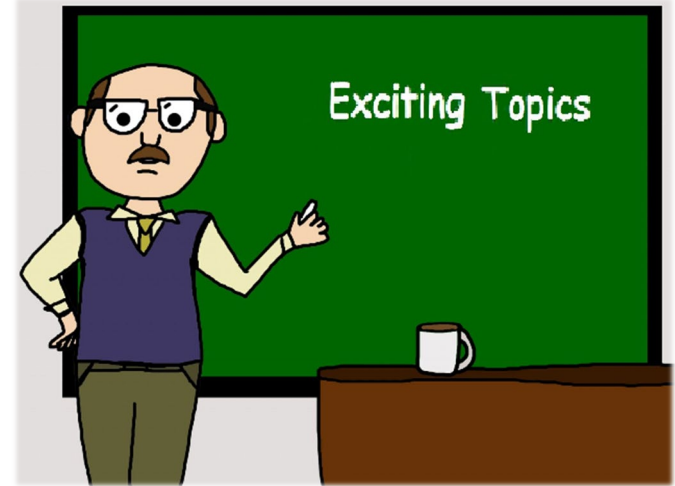
*Karl Gleason, P.E.
Tribal Coordinator, FHWA
Office of Tribal Transportation*



Project Construction Management & Documentation - What We Will Cover Today

- Preconstruction Activities
- Project Manager Duties
- Project Inspection
- Reports and Forms
- Project Reviews
- Project Close-out

Note: All of these apply to **Force Account** projects as well as **Contractor built** projects.



Preconstruction Activities - Preconstruction Conference



Preconstruction Conference:

- A recommended practice, not required by regulations;
- Held before construction begins.
- It is run by the Tribe's **Construction Manager**:
 - Keeps records of who attended and what was covered;
- **Also attended by:** the Tribe's **Inspectors**, the **Contractor**, the facility owner, and key stakeholders.



Preconstruction Activities - Preconstruction Conference (cont'd.)



- The Meeting covers these items:
 - Delegation of Authority;
 - Roles & responsibilities of the Tribe's **Construction Manager** and **Inspectors**, and the **Contractor**;
 - The **PS&E** (plans, specifications and estimate);
 - Environmental permits and their requirements;
 - The Project schedule (provided by the **Contractor**);
 - Project issues with a risk:
 - Access to project, traffic management, etc.);
 - Electronic payment information.

Preconstruction Activities - Walkthrough & Photographs

- Before work starts, the Tribe's **Construction Manager** should walk through and take photos or videos of the entire Project routes. Keep in the Project files.



Preconstruction Activities - Project Files – Setting Them Up



- Tribe's **Construction Manager** should set up these Project File folders before work starts on project:
 - **Inspector** Daily Reports (IDR's);
 - **Construction Manager's** Daily Diary;
 - Testing plan and testing reports;
 - Fabrication approvals;
 - Material certifications & bills of material;
 - List of materials suppliers;
 - Payroll / Labor records, Davis–Bacon pay list;
 - **Contractor's** Daily Reports (CDR's); and...



Preconstruction Activities - Project Files – Setting Them Up (cont'd.)



- **Folders (cont'd.)**
 - **Contractor** submittals and record log of them;
 - **Contractor's** project schedule;
 - Photographs/videos of Project;
 - EEO and TERO requirements;
 - Environmental & other permits;
 - Traffic control;
 - Construction phasing plan;
 - Access to project (haul roads);
 - Erosion control reports; and...



Preconstruction Activities - Project Files – Setting Them Up (cont'd.)



- **Folders (cont'd.)**
 - Progress Payments to Contractor;
 - Utility Relocations;
 - Right-of-way and property, driveways, etc.;
 - Waste / Borrow site Agreements
 - **Contract modifications (CMs), IGEs;**
 - Change Orders;
 - **Contractor** Claims and dispute resolutions;
 - Project modifications/design changes; and
 - Emails and other correspondence.

Preconstruction Activities - Additional Guidance



- A Tribe should usually have a **Field Office** at the Project site:
 - For the Tribe's **Construction Manager** and **Inspectors**;
 - To store Project Files, testing equipment, gear, etc.
- Project files are required by 25 CFR § 170.472, and 25 CFR § 900.130-131 or 25 CFR §§ 1000.243 and 1000.249, as appropriate.



Construction Manager Duties



- What is a **Construction Manager**?
 - Employed or contracted by the Tribe;
 - Also known as a Project Manager or Project Engineer;
 - Oversees the setting up and operation of the project;
 - Supervises Tribe's **Inspectors** & Force account crew;
 - Recommended duties are in the **Position Description (Example) for a Construction Manager** in your handout packet;
 - May delegate some of his/her duties to the Tribe's construction **Inspectors**, as appropriate.

Construction Manager

Duties (cont'd.)



- **Contractor's Submittals:**
 - Find out the ones required, by reviewing the Project's Plans, Specifications, & supplemental Specifications.
 - Obtain submittals early that need review by others;
 - Review the **Contractor's Construction Schedule**.
- **Progress Payments** by Tribe.
 - Don't pay 100% if work is not acceptable.
- **Progress Meetings** with **Contractor's Superintendent:**
 - Tribe's **Construction Manager** holds once per week, or more often for complex Projects.
 - May include Tribes **Inspectors** as applicable.

Progress Meeting – Example Agenda

- Here's an example of an Agenda for the Progress Meeting.
- A copy is in your handout package.

1. Corrections to last Progress Meeting Minutes
2. Outstanding Issues
3. Safety
4. Work in Progress
 - a. Prime Contractor
 - i. In progress
 - ii. Look ahead (time period)
 - b. Sub Constructors
 - i. In progress
 - ii. Look ahead (time period)
5. Progress Schedule (Project Schedule)
 - a. Current Schedule Update
 - b. Critical Path Activities
 - c. Current Completion Date
 - d. Next Schedule Update
6. Critical Delays (work on critical path)
 - a. Any delays since the last meeting?
 - b. Current
 - i. Excusable
 - ii. Non-Excusable
 - iii. Concurrent?
 - c. Potential
 - i. Excusable
 - ii. Non-Excusable
 - iii. Concurrent?
7. Non-Critical Delays (work NOT on critical path)
 - a. Any delays since the last meeting?
 - b. Current
 - c. Potential
8. Time Extensions
 - a. Requests by Contractor
 - b. Compensable
 - i. Granted
 - ii. Pending
 - c. Non-Compensable
 - i. Granted
 - ii. Pending
9. R/W and Utilities
10. Environmental
 - a. Regulated Materials
 - i. Stock Piles
 - ii. Handling
 - iii. MSDS/PPE
 - b. Regulated Wastes
 - i. Locations on Project
 - ii. Handling
 - iii. Documentation
 - c. Regulatory Permits
 - i. 404/401
 - ii. NPDES
 - iii. Other Permits
11. Change Order Status
12. Maintenance of Traffic
 - a. Upcoming Closures
 - b. Other
13. Public Relations
 - a. Complaints
 - b. Other
14. Testing / Materials
15. Submittals
 - a. Under Review
 - b. To Be Submitted
16. Value Engineering Change Proposals (if required)
17. Request for Information
 - a. Outstanding
 - b. Upcoming
 - c. Other
18. Completed Items & Agreement on Final Quantities
19. Dispute Resolution
 - a. Disputes
 - i. Current
 - ii. Potential
 - b. Claims
 - i. Current
 - ii. Potential
20. Estimates
21. EEO / Wages
22. Partnering
23. Contractor Issues
24. Open Discussion
25. Next Meeting
 - a. Date
 - b. Location



Construction Manager

Duties (cont'd.)



- **Contract Modification (CM)**
 - Is a **change** to the project's contract or design (PS&E) during construction;
 - Is proposed by the **Contractor** or the Tribe's **Construction Manager**;
- A **CM** is caused by:
 - Differing site conditions,
 - "Value engineering" proposal, or
 - Deleting or adding to the Project.
- A Tribe may use FHWA's **CM** forms at <https://flh.fhwa.dot.gov/resources/construction/forms/wfl/internal.htm>

Construction Manager

Duties (cont'd.)



- **CM** (cont'd.):
 - Tribe's **Construction Manager** checks the proposed **Contract Modification** to see if it violates:
 - The PS&E or environmental permits;
 - ROW, wetland, wildlife, or archeological resources;
 - Road closure and traffic delay schedules;
 - Project's design guidelines (visual appearance etc.);
 - Financial constraint, available funding.
 - If no violations, then Tribe's **Construction Manager** and Tribe's Contracting Officer can approve the **CM**.

Construction Manager

Duties (cont'd.)



CMs are these two types* :

1. **Bilateral Modification** (aka “supplemental agreement”) is signed by the **Contractor** and Tribe’s Contracting Officer.

Bilateral Modifications are used to:

- Make negotiated adjustments that result from a **change order**;
- Definitize letter contracts; and
- Reflect other agreements of the parties modifying the terms of contracts.

* Note: These are for Federal contracts using FAR clauses. The terms in a Tribal Contract may be different.

Construction Manager

Duties (cont'd.)



CMs are these two types (cont'd.):

2. Unilateral Modification is signed only by the Tribe's Contracting Officer. The **Contractor** does not agree. The Tribe may determine the cost, but if **Contractor** doesn't agree with the cost, then **Contractor** may file a claim.

Unilateral Modifications are used to:

- Make administrative changes;
- Issue **change orders**;
- Make changes authorized by clauses other than a changes clause (*e.g.* Property clause, Options clause, or Suspension of Work clause); and
- Issue contract termination notices.

Project Inspection



- **Performed by** the Tribe's **Inspectors:**
 - Or by Tribe's **Construction Manager** on small projects;
 - Their **Roles** in the Project should be spelled out at the Preconstruction Conference.
- **General Inspection Duties:**
 - Identify and document **Contractor's** Daily Operations;
 - Know the Project plans and specifications;
 - Notify partners, residents etc. of major operations;
 - Perform other duties listed on the following slides;
 - A good guide is **Contract Inspector (CI) Handbook** at <https://flh.fhwa.dot.gov/resources/construction/cih/documents/ci-handbook.pdf>

Project Inspection (cont'd.)



- **Materials:**

- Verify that **Contractor's** certifications are available;
- Check the materials and testing requirements in the Project's specifications & supplemental specifications.
- Verify materials being used are same as certifications;

- **Testing:**

- Verify **material testing** is getting done by **Contractor's** Quality Control people; Spot check the testing done;
- FLH Field Materials Manual available at <http://flh.fhwa.dot.gov/resources/manuals/fmm/>



Project Inspection (cont'd.)



- **Safety:**

- Check the Project's specifications for any specific safety requirements;
- Tribe's **Inspectors** or **Construction Manager** can't replace Occupational Safety & Health Administration (OSHA);
- However, if there is a life threatening safety issue, then you stop the Project work immediately.

- **Workmanship:**

- Verify construction crew is experienced;
- Make sure proper equipment/tools are being used.



Project Inspection (cont'd.)



- **Sediment & Erosion Control:**

- Check devices once per week and after significant rain;
- Some laws vary by State;
 - Make sure the Project stays in compliance.

- **Measurements/Daily quantities:**

- Verify w/**Contractor** the pay items & how to measure;
- Come to agreement w/**Contractor** on quantities daily;
- Don't pay 100% if work is not acceptable;
 - Check with the Project Contract specifications on payment withholding policy.

Project Inspection (cont'd.)



- **Traffic Control:**

- Know the **MUTCD Manual** and the Traffic Control plan in the Project's Plans and Specifications;
- Each day complete a Work Zone Traffic Control inspection;
- Report on the **IDR any** non-conformance with the MUTCD and Plans/Specifications.
- The **MUTCD** is available on-line from FHWA at http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/pdf_index.htm



Reports and Forms



- **Inspector's Daily Report (IDR)**
("Daily Diary")
 - Tribe's **Inspector** fills it out daily;
 - Optional version at <https://flh.fhwa.dot.gov/resources/construction/forms/cfl/IDR-1413.pdf>
 - A copy is in your handout package.
- **Construction Manager's Daily Diary:**
 - This is the Construction Manager's daily summation of the **Inspector's Daily Reports (IDRs)**;
 - A copy is in your handout package.

Reports and Forms

(cont'd.)



Some more reports and forms:

- **Testing Reports** from Tribe's **Inspector's** QA spot testing;
- **Weekly/Monthly Status Reports** by Tribe's **Inspector** to verify **Contractor's** request for Progress Payments;
- **Traffic Control Checks**;
- **Erosion Control Checks**.
- **Contractor's Daily Report (CDR)**
 - **Contractor** and Subcontractors prepare & submit the **CDR** on same day as work performed;
 - The prime **Contractor** should assist the Subcontractors to do their **CDRs**.

Reports and Forms

(cont'd.)



- **Contractor's CDR** (cont'd.):
 - Tribe's **Construction Manager** reviews **CDR** every day to:
 - Verify **Contractor's** progress vs. project schedule;
 - Estimate amount of work completed;
 - Assist in pricing fairly the contract modifications;
 - Compares it with **Inspector's Daily Reports**, and inform **Contractor** of differences.
 - Help analyze **Contractor** Claims;
 - Optional **CDR** form at <https://flh.fhwa.dot.gov/resources/construction/forms/wfl/documents/wflhd-472.pdf>
 - The optional **CDR** form also in your handout packet.

Inspector's Daily Report (IDR): To Include or Not to Include?



Scenarios:

- There was no gravel haul today because the Contractor did not get subgrade finished.
- Went and talked with the Contractor. He talked about his divorce for about an hour.



Inspector's Daily Report (IDR): To Include or Not to Include?



Scenarios:

- Contractor placed asphalt from station 32+00 to 34+00. Density was met, I think.
- John, the tester, checked the compaction of borrow at the culvert 19+25 but he didn't know what the optimum moisture content or maximum density was.



Inspector's Daily Report (IDR): To Include or Not to Include?



Scenarios:

- I cleaned out my truck for about 2 hours today before going up to the project.
- There was only 3 trucks hauling rock today. The haul is about 4 miles and not having the trucks is slowing their production down substantially.



Inspector's Daily Report (IDR): To Include or Not to Include?



Scenarios:

- The Contractor asked for my direction on which trees to remove. I told him that he can remove the two trees to the right of the culvert inlet. When cutting down the trees they did it according to the special contract requirements, and the environmental permit requirements.
- Today at 10:00 am, it started raining. The Contractor said that the weather was ridiculous, and he should ask for extra working days. I think he should too.



Inspector's Daily Report (IDR): To Include or Not to Include?



Scenarios:

- I checked the subgrade stations from 52+45 to 60+80. The grade was in tolerance.
- At 1:00 pm Josh (flagging subcontractor foreman) stopped me and told me that the flagging signs are not getting put up and it's out of his control. He said that he is appalled with the complete lack of communication with the Prime Contractor.





Project Reviews

- Intermediate Project Review(s):
 - Held at the Project site.
 - How often held depends on:
 - If FHWA or BIA Tribal Coordinator can attend;
 - Complexity of the Project;
 - FHWA or BIA Tribal Coordinator, the Tribe's **Construction Manager**, and the facility owner attend;
 - If Project construction is more than 1 year, have Project Review at least once per year.





Project Closeout



- Final Project Inspection:

- Held at the Project site when Project is “substantially complete” (~95%);
- Tribe’s **Construction Manager**, the FHWA or BIA Tribal Coordinator, and the facility owner attend;
- Purpose is to assure Project was built “in reasonable accordance” to the PS&E;
 - And **Contract modifications**, and **design changes**;
- List the Work items not finished onto a “Punch List”.



Project Closeout (cont'd.)



Project Files at Closeout

- When the **Project** is completed, the Tribe's **Construction Manager** submits the Project files to the Tribe.
- The Tribe keeps all the Project files after the project is finished;
 - U.S. DOT recommends the Tribe keep them 10 years.





Project Closeout (cont'd.)



Project Files at Closeout include:

- All the files listed in the **Preconstruction Activities** section earlier in this presentation;
- The Final Contract Modification;
- The Final Estimate;
- Contractor's Project records;
- Letters of Acceptance:
 - From Tribe to Contractor,
 - From Facility owner to Tribe;

Optional **Project closeout** forms are available at
<https://flh.fhwa.dot.gov/programs/ttp/guide/forms.htm>

Project Closeout (cont'd.)



Final Project Closeout Report (25 CFR 170.473 and 170.474):

- Prepared by the Tribe after:
 - Final Project Inspection;
 - Completion of required construction corrections (“Punch list” items); and
 - Final acceptance of the Project by the Tribe and the facility owner.
- Tribe submit Copies to the FHWA or BIA, & facility owner
 - Within 120 calendar days of Project acceptance by facility owner (in writing).

Project Closeout (cont'd.)



The **Final Project Closeout Report** includes:

- Summary of the construction Project records & files;
- Final amount of project construction cost;
- List of Contract Modifications;
- List of Contractor Claims;
- Letter(s) of Acceptance (from Tribe and Facility owner);
- Material Acceptance.
- Final as-built plans (“As-built drawings”);
- Photographs.



Statutes & Regulations for Construction Projects

- **Indian Employment Preference/
Tribal Preference/TERO:**

- See 25 CFR 170.911 through 25 CFR 170.917 at

<https://www.law.cornell.edu/cfr/text/25/part-170/subpart-H>

- **Construction and Construction Monitoring:**

- See 25 CFR 170.470 – 170.474 at

<https://www.law.cornell.edu/cfr/text/25/part-170/subpart-D>

- **Tribe's Written Policies**



Statutes & Regulations for Construction Projects (cont'd.)

- **Construction Safety Regulations:**

- **Tribe's Written Safety Policies.**
- **Occupational Safety and Health Administration (OSHA):**
 - 29 CFR 1900, Labor – Construction Standards, based on the Occupational Safety and Health Act of 1970 (PL 91–596) as amended;
- **Mine Safety and Health Administration (MSHA) labor standards (as applicable):**
 - 30 CFR 1–199, Mineral Resources, based on the Federal Mine Safety and Health Act of 1977 (PL 91–173) as amended.



Questions?



Contact & Program Info



- **Karl Gleason**
FHWA TTP Tribal Coordinator
(360) 619-7823
email: karl.gleason@dot.gov
- **FHWA Office of Tribal Transportation (OTT) website:**
<http://flh.fhwa.dot.gov/programs/ttp/>
- **FHWA OTT Program Delivery Guide:**
<http://flh.fhwa.dot.gov/programs/ttp/guide>

