

Western Federal Lands Highway Division

**Construction Management Manual**

## CHAPTER 1

### SCOPE

#### 1.1 INTRODUCTION

This manual establishes procedures and policies to be implemented by the Construction Management Team. This manual also delineates the role, responsibilities, and activities of the Construction Manager and Project Manager on the project. Information in this manual provides guidance and does not supersede the *Construction Management for Highways/Bridges Contract*, or the Delegation of Authority letter.

The use of the term "Construction Manager" or the abbreviation "CM" throughout this manual in conjunction with an activity, action, or response does not necessarily imply that the CM is personally executing these tasks. Many functions are appropriately delegated to members of the CM's support staff. The CM, as the senior manager at the site, retains responsibility for actions and performance of the assigned staff.

## 1.2 PURPOSE AND OBJECTIVES

The purpose of this manual is to achieve uniformity in construction contract management practices and administrative procedures. Although this manual is not a contract document and is not intended to supersede any contract documents or to serve as a substitute thereof, it discusses and presents procedures for fulfilling contract requirements.

The manual does not contain detailed discussions of every technical area of construction engineering. To effectively carry out their responsibilities, users will find it necessary to also refer to other sources of information such as the *Construction Management for Highways/Bridges Contract*, *FLH Field Materials Manual*, the *Manual on Uniform Traffic Control Devices (MUTCD)*, various publications by AASHTO, ASTM, Federal Regulations, and construction industry standards.

### 1.3 DEFINITIONS

**Construction Contract Contracting Officer (CCCO)** – The Government’s representative having full authority to execute, administer, and/or terminate the construction contract. The CCCO may delegate certain responsibilities to an authorized representative.

**Construction Inspector** – A construction management employee responsible for performing actual field inspection work, recommending approval/rejection of materials and workmanship, monitoring labor and safety provisions, and maintaining inspection logs and records.

**Construction Management Contracting Officer (CMCO)** – The Government’s representative having full authority to execute, administer, and/or terminate the construction management contract and any subsequent task orders. The CMCO may delegate certain responsibilities to an authorized representative.

**Construction Management Analyst (CMA)** – The authorized representative (COTR) of the Construction Management Contracting Officer (CMCO) during the construction management contract and any subsequent task orders.

**Construction Manager (CM)** – The construction management employee responsible for ensuring delivery of the day-to-day construction management services for the duration of a construction project.

**Construction Operations Engineer (COE)** – The immediate supervisor of the Project Manager who is also a warranted Contracting Officer with limited contract administration delegations with respect to construction contracts.

**Construction Engineer (CE)** – The immediate supervisor of the COE who is also a warranted Contracting Officer with delegations for most contract administration functions.

**Contracting Officer (CO)** – The Agency representative having full authority to execute and administer the contract on behalf of the Government, or a warranted delegate of that official who has been delegated some of that authority, e.g. contract administration.

As this term is used in the Standard Specifications it also includes the COTR (see below) operating within his/her delegated authority.

**Contracting Officer’s Technical Representative (COTR)** – The Government’s representative or representatives having authority on behalf of the Contracting Officer as provided in the delegation letter. For construction contracts this representative is the Project Manager. For construction management contracts this representative is the Project Manager and/or the Construction Management Analyst.

**Contractor/Subcontractor** – As used in the manual, is defined as the Contractor/Subcontractor performing the construction contract work on the project being administered.

**Director of Project Delivery (DPD)** – The immediate supervisor of the CE, and the person in charge of Construction and Project Development in one of the Federal Lands Highway Divisions.

**Division Engineer (DE)** – The immediate supervisor of the DPD, and the person in charge of one of the Federal Lands Highway Divisions.

**Division Office or Division** – The Federal Lands Highway Division with jurisdiction for the project. References to Federal-Aid Division Offices will be specified.

**Federal Acquisition Regulation (FAR)** – The uniform Federal Government-wide procurement regulations found in the Code of Federal Regulations (CFR) at 48 CFR, Chapter 1. Some parts will be made contract clauses. Others will be furnished separately to the Project Manager, depending on need.

**FLH Field Materials Manual** – A companion to this manual giving FLH test methods as well as policies and procedures for monitoring materials and materials related functions on construction contracts.

**Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)** – The industry standard for design and utilization of standard traffic control devices.

**Project Manager (PM)** – The authorized representative (COTR) of the Construction Management Contracting Officer (CMCO) and the Construction Contract Contracting Officer (CCCO) during the construction phase of the work.

**Western Federal Lands Highway Division (WFLHD)** – The FLH Division for the assigned project.

#### 1.4 BASIC FUNCTION

The construction management team oversees the performance of each contractor and assures that all work is constructed, inspected, and is in accordance with the contract documents. Additionally, the construction management team will also provide contract administration to ensure completion within budget and schedule constraints.

The primary functions of the construction management team are to verify that:

- The work is constructed in accordance with the Contract documents;
- The work is performed in a safe manner, and is completed on schedule and within budget;
- Claims avoidance techniques are employed and the Contract is administered in a fair and equitable manner and contractual actions are accurately documented, and;
- The interests of WFLHD, the public, partner agencies, and other agencies are safeguarded at all times.

## **1.5 WESTERN FEDERAL LANDS HIGHWAY DIVISION (WFLHD) ORGANIZATION**

The Western Federal Lands Highway Division operates as part of the Federal Lands Highway Program, serving the needs of Oregon, Washington, Idaho, Montana, Alaska, and Yellowstone and Grand Teton National Parks in Wyoming. WFLHD actively administers the surveying, designing and constructing of forest highway system roads, parkways and park roads, Indian reservation roads, defense access roads, and other Federal lands roads. WFLHD also provides training, technology, deployment, engineering services, and products to other customers.

Full authority for executing and administering WFLHD highway construction projects, is held by the Division Engineer. The Division Engineer delegates and assigns specific authorities and responsibilities to lower level Contracting Officers and to COTR's including the PM. The Project Manager cannot formally re-delegate authority or responsibility.

## 1.6 RESPONSIBILITIES AND AUTHORITY OF THE CONSTRUCTION MANAGER

Responsibilities of the CM are outlined in the *Construction Management for Highways/Bridges Contract*.

Authority of the CM and any CI's is defined in a Delegation of Authority letter (**Exhibit 1.6A**) provided to the Contractor. Questions of authority should be discussed at the *Preconstruction Conference*.



U.S. Department  
of Transportation

Federal Highway  
Administration

WESTERN FEDERAL LANDS HIGHWAY DIVISION  
610 EAST FIFTH STREET  
VANCOUVER, WA 98661-3801

Attn: Tom Konitz, President  
Konitz Contracting, Inc.  
77335 US Highway 87  
Lewistown MT 59457

Dear Mr. Konitz:

MT OMAD 18(38)  
MINUTEMAN MISSILE BASE ROADS  
Contract No. DTFH70-05-C-00009

As the primary Level III Contracting Officer for this contract, I have Contracting Officer authority as provided in the Federal Acquisition Regulation (FAR), granted to me by Contracting Officer Warrant #05-01. Julee McTaggart warrant #WFL-1c, and Michael L. Johnson, warrant #WFL-9a are also Level III Contracting Officers located at the Western Federal Lands Highway Division office in Vancouver. Both of these individuals have the same Contracting Officer authority as I and may exercise those authorities on this contract in my absence.

Administration of this contract is assigned to the Construction Branch of Western Federal Lands Highway Division. Robert B. Lale, III, Construction Engineer, WFL-16, has the authority to perform all of the applicable contract administration functions listed in FAR 42.302(a) and (b), except:

- Assigning contract administration functions to another Contract Administration Office.
- Executing a change order or supplemental agreement, increasing or decreasing the contract amount by more than \$200,000 or contract time by more than 100 calendar days.
- Approving payment of final invoices.
- Issuing "Show Cause" or "Cure" notices as a prelude to a termination for default.
- Issuing a termination for default.
- Ordering a compensable suspension of work with estimated liability to the Government greater than \$200,000.
- Issuing a partial or complete termination for convenience of the Government.
- Ordering an increase in the penal amount of payment or performance bonds.

**EXAMPLE DELEGATION OF AUTHORITY LETTER**

**Exhibit 1.6A**

- Issuing a stop-work order resulting from a protest after award.
- Acknowledging a constructive change or differing site condition with estimated liability to the Government greater than \$200,000.
- Authorizing use and possession of part of work prior to acceptance with estimated liability to the Government greater than \$200,000.
- Authorizing waiver of a field pricing report for actions increasing the contract amount by more than \$500,000.
- Requiring a field pricing report for actions less than \$500,000.

Jane Traffalis, Construction Operations Engineer, WFL-7b has authority as described for the Construction Engineer. However, actions increasing or decreasing the Government's liability are limited to \$50,000, and changes to contract time are limited to 50 calendar days. In addition, the COE has the specific contract authority to perform the following:

- Issue the Notice to Proceed.
- Agree to accept noncomplying work at a reduction in contract price.
- Approve/disapprove the use of equipment and methods deemed equivalent to those in the contract.
- Order a suspension of work for convenience of the Government, for a reasonable (noncompensable) period of time.
- Negotiate contract modifications for approval by the appropriate Contracting Officer.
- Written acceptance of all or part of the work.

Mark Guse is the Project Manager. He will establish a project office near the project area. Mr. Guse, or in the absence of the assigned Project Manager the FHWA acting Project Manager has specific contract authority to perform the following:

- Quality assurance activities including testing and inspection to assure and document compliance with the contract requirements.
- Order the correction or replacement of noncomplying work.
- Authorize the proceeding with work, which is in apparent compliance with the contract.
- Provide stakeout or other technical information, not included in the contract, but required to perform the work included in the contract; or required to fit field conditions.
- Answer technical questions of the contractor clarifying, but not changing, the contract requirements.
- Approve/disapprove contractor shop drawings and other submittals (including CPM schedules and QC plans).
- Measure or verify the quantities of work performed for the Government's receiving report.
- Approve payment of progress invoices including all components of the invoice, e.g., incentives, disincentives, retention, and liquidated damages.
- Provide written authorization to furnish and install contract work such as traffic control devices, erosion control devices, piling, equipment/labor hour items, and other work required by the contract requirements.
- Review contractor payrolls.
- Verify compliance with contract labor provisions and provide notice of noncompliance.

**EXAMPLE DELEGATION OF AUTHORITY LETTER**

**Exhibit 1.6A (continued)**

- Order the removal of contractor personnel performing objectionably.
- Issue stop work order for work which is not being performed in compliance with the contract or which is causing damage and/or liability to the Government.
- Prepare the Government's estimate of construction costs for a contract modification.
- Negotiate contract modifications for approval by the appropriate Contracting Officer.
- Make qualitative or quantitative judgements which are required by the contract at the site of work, e.g., determining if specific sections of guardrail can be salvaged.
- Approve operations and storage areas on Government property.
- Notify contractor of safety deficiencies and if deficiency is life threatening, suspend work until deficiency is corrected.
- Evaluate a contractor's progress with respect to approved progress schedule and request updated schedules when necessary.
- Verify compliance with subcontracting plans, provide notice of noncompliance, and assess liquidated damages for noncompliance.

Employees of a Construction Management firm, Thomas/Wright, Inc., will oversee construction operations on behalf of FHWA. Thomas/Wright will assign Jim Penzkover as the Construction Manager (CM). The CM is responsible for ensuring delivery of the day-to-day construction management services for the duration of the construction project. Mr. Penzkover:

- **Has no authority to authorize deviations from the terms of your construction contract.** Any variations or deviations should be brought to the attention of the CM who will bring it to the attention of the FHWA Project Manager.
  - **Cannot accept or reject work.**
- **Cannot accept notification from you concerning changed conditions** as outlined in FAR Clause 52.242-4 *Changes*. Rather, you must submit your notification in writing to the FHWA Project Manger through the CM.
- Shall receive all deliverables designated for the CO.
- Shall identify construction limits in coordination with the FHWA Project Manger.
- May perform confirmation testing.
- May deliver items to you, such as reviewed shop drawings, FHWA forms, profilograph, and so on.
- Shall coordinate use of Rental Equipment (Section 622) after the FHWA Project Manger orders the work in writing.
  - Reports to the FHWA Project Manger regarding the status of the construction work, problems, disputes, etc.
  - Recommends the correction or replacement of non complying work.
    - Recommends that the Construction Contractor proceed with work that is in apparent compliance with the construction contract.
  - Identifies and recommends necessary changes, plan errors, or required field adjustments to the plans or contract.

**EXAMPLE DELEGATION OF AUTHORITY LETTER**

**Exhibit 1.6A (continued)**

- Recommends suspension of work which is not being performed in compliance with the construction contract or which is causing damage and/or liability to the Government
- Reports safety deficiencies and if deficiency is life threatening, recommends suspending work until deficiency is corrected.
  - Monitors and interacts with the Construction Contractor's representative on the day-to-day activities of the construction work. They may perform tasks such as the following:
- Performs quality assurance activities related to testing, inspection and construction surveying to assure and document compliance with the construction contract requirements.
- Provides stakeout, survey or other technical information, not included in the construction contract, but required to perform the work included in the construction contract, or required to fit the field conditions.
- Answers technical questions of the construction contractor clarifying, but not changing, the construction contract requirements.
- Measures or verifies the quantities of work performed for the Government's receiving report.
- Makes qualitative or quantitative judgments that are required by the construction contract at the site of work, e.g., determining if specific sections of guardrail can be salvaged.

If there is any doubt about proper authority, you should immediately contact Mr. Lale at (360) 619-7717 for clarification.

Sincerely yours,

Elizabeth M. Firestone  
Contracting Officer

cc: Jane Traffalis, Construction Operations Engineer  
Mark Guse, Project Manager  
Financial Specialist

**EXAMPLE DELEGATION OF AUTHORITY LETTER**

**Exhibit 1.6A (continued)**

## CHAPTER 2

# PROJECT START UP

### 2.1 OVERVIEW

This chapter contains guidelines for initial project set up. These initial project tasks are usually performed in the two to three weeks before the Notice to Proceed is issued.

## **2.2 FIELD OFFICE**

Specific field office requirements are provided in the Construction Management Services Contract.

The PM will provide an "Office of the Project Manager" sign to the CM. Place the sign in a conspicuous place near the entrance to the office.

## 2.3 INFORMATION PROVIDED to the CM

The PM will provide the information listed below to the CM at least two weeks before the Notice to Proceed. The documents listed in Section 2.3.1 and 2.3.2 will be provided in hard copy. The information listed in Sections 2.3.3 and 2.3.4 is available on the Western Federal Lands Highway Division Construction Management website, <http://www.wfl.fhwa.dot.gov/construction/cmr/>.

### 2.3.1 Project Specific Documents and Information

- An appropriate number of copies of the Contract (Plans and SCR)
- An appropriate number of copies of the cross-sections
- Project Staking Notes
- One copy of each item listed in FAR Clause 52.236-4 (Geotech reports, etc.)
- Project Manager's Hold File ("PE" Hold File) (**Exhibit 2.3A**)
- "Office of the Project Manager" sign
- Project Stamps
  - Received By:   Date:
  - Project Name and Number
  - Accepted
  - Not Accepted
  - Entered to Record
  - Checked By:   Date:

### 2.3.2 Manuals

- Western Federal Lands Highway Division, Construction Management Manual
- Federal Lands Highway Field Materials Manual
- Contract Inspector's Handbook
- Sample Field Note Book
- Contract Modification Manual

### 2.3.3 Computer Programs

- Engineer's Estimate program w/Instructions
- QL-Pay program w/instructions

### 2.3.4 Miscellaneous Forms and Supplies

- Accident report form
- Labor Standards Review form
- Electronic copies of all miscellaneous forms (eForms)
- Electronic copy of the standard letterhead

**PROJECT ENGINEER (PE) HOLD FILE CHECKLIST**  
 PROJECT DEVELOPMENT TO COMPLETE PE HOLD FILE PRIOR TO AWARD DATE

Project: \_\_\_\_\_

Prepared by: \_\_\_\_\_

Date: \_\_\_\_\_

✓=Included  
 AV=Avail/Not Incl  
 NA=Not Applicable

Document Name

◆ **AGREEMENTS:**

- Project Agreement ..... \_\_\_\_\_
- Material Source Agreements ..... \_\_\_\_\_
- ROW and Easement Agreements ..... \_\_\_\_\_
- Utility Agreements ..... \_\_\_\_\_
- Cooperating Agency Agreements ..... \_\_\_\_\_

◆ **DESIGN BOOK INFORMATION:**

- Highway Design Standards: WFLHD-3 (design exceptions list) ..... \_\_\_\_\_
- Quantity Support Calculations (including structures) ..... \_\_\_\_\_
- All Correspondence ..... \_\_\_\_\_
- Field Review Memos and Trip Reports ..... \_\_\_\_\_
- Mail/Telephone Listing of principal contacts (Design, Environment, etc.) ..... \_\_\_\_\_
- Design Narrative (Special Design Considerations) ..... \_\_\_\_\_

**DESIGN INFORMATION:**

- ◆ Staking Books (Default accuracy settings to 2 decimal places):
  - Clearing Notes (2 copies) ..... \_\_\_\_\_
  - Slope Stake Notes, Version 2 (2 copies)
    - Metric decimal settings to 2 places
    - US Customary decimal settings to 1 place ..... \_\_\_\_\_
  - Staking Detail (2 copies) ..... \_\_\_\_\_
  - XYZ Reports (All layers) (2 copies)
    - Metric decimal settings to 4 places
    - US Customary decimal settings to 3 places ..... \_\_\_\_\_
  - Seeding Design Listing (8½" x 11") (2 copies) ..... \_\_\_\_\_
- ◆ Horizontal Alignment Data Listings, Geopak "Describe Alignment" (8½" x 11")
  - Metric decimal settings to 4 places
  - US Customary decimal settings to 3 places ..... \_\_\_\_\_
- ◆ Vertical Alignment Data Listings (8½" x 11") (2 copies)
  - Metric decimal settings to 3 places
  - US Customary decimal settings to 2 places ..... \_\_\_\_\_
- Profile (22" paper) 1:1000 [1" = 100'] H; 1:100 [1" = 10'] V (2 copies) ..... \_\_\_\_\_
- ◆ Earthwork Report (8½" x 11") (2 copies)..... \_\_\_\_\_
  - Slope Stake/Cogo Radial Stake Out (CSV Format -- Digital)..... \_\_\_\_\_
  - R/W Radial Stake Out (CSV Format -- Digital) ..... \_\_\_\_\_
  - Excel Earthwork spreadsheet on Computer Disk ..... \_\_\_\_\_

**PROJECT ENGINEER HOLD FILE CHECKLIST**

Exhibit 2.3A

✓=Included  
 AV=Avail/Not Incl  
 NA=Not Applicable

<u>Document Name</u>	
① Plotted Cross-Sections with Subgrade shots labeled: (11" x 17") (2 copies) .....	_____
② Plotted Culvert Cross Sections (11" x 17") (2 copies) .....	_____
Right-Of-Way Plats and Plans (2 copies) .....	_____

**CONTRACT INFORMATION:**

Environmental Documents (2 copies) .....	_____
Geotechnical Report (2 copies).....	_____
* Contract Package with Addenda (2 copies) .....	_____
* SCR in Digital Format .....	_____
* Telephone Question Forms .....	_____

**PROVIDED UPON REQUEST:**

Plans (34" x 22") (2 copies) (Contracts to provide) .....	_____
Cross Sections: Larger size .....	_____
Ditch Line Profile (22" paper) 1:1000 [1" = 100'] H; 1:100 [1" = 10'] V (2 copies) .....	_____
Cross Sections: (11" x 17") (Additional Copies) .....	_____
Working Design files in Digital Format with <a href="#">Notice Letter</a> .....	_____

◆ To be placed in binders

\* To be furnished 15 days after Bid opening

- ① Include within the normal plotted cross sections, all culvert cross sections (culverts designed to displace ditch and surface runoff). Cross sections should reflect excavation quantities required in the construction of catch basins, flat bottom ditches, warped cut slopes, etc... for the pipe installations. Typically these culvert cross sections would only occur at the inlet stations.
- ② Provide plotted, skewed cross sections at major culverts (>900 mm [36"]) where the drainage design is not shown on a separate plan sheet within the plans. Cross sections should reflect the final proposed road template (Geopak-Proposed Tin), to accurately determine culvert length and design.

**Remarks:**

Project Engineer Hold File Delivered to Project Engineer at Handoff Meeting

Received By: \_\_\_\_\_

Date: \_\_\_\_\_

**PROJECT ENGINEER HOLD FILE CHECKLIST**

**Exhibit 2.3A**

## 2.4 COORDINATION WITH WFLHD

### 2.4.1 Contact List

The PM will provide a contact list identifying who in WFLHD or other agencies may be contacted, their role in the project, along with phone numbers and e-mail addresses. The contact list is available at <http://www.wfl.fhwa.dot.gov/construction/cmr/>. At a minimum, the list will include:

- Project Manager
- Construction Operations Engineer
- Construction Management Analyst
- Construction Program Assistant
- Contract Administration Specialist
- FOIA Officer
- Cross-functional team members (as necessary)
  - Designer
  - Environmental Specialist
  - Geotechnical Engineer or Geologist
  - Hydraulics Engineer
  - Materials Engineer
  - Structural Engineer
  - Quality Assurance Engineer
  - Final Review Engineer
  - Materials Lab Chief
  - Materials Quality Assurance Engineer
- Computer Help Desk personnel
- County contact person
- Owning agency contact person

### 2.4.2 Notification To WFLHD Personnel

Once the construction management team has been selected, the PM will notify all pertinent WFLHD staff that a construction management firm will administer the particular project, and that they are likely to be contacted by the construction manager. The PM should provide names of the construction management staff, along with contact information to the WFLHD staff.

## CHAPTER 3

### CONTACTS

#### 3.1 GENERAL

The construction management team members conduct shall be professional, ethical, and business-like during any and all contact with representatives of the Contractor, the public, and any third parties concerned with the project.

The CM should maintain a complete list of contacts related to the project including name, agency or company, address, phone and fax number, and relationship to project. This list will expedite appropriate communication of project problems and assist new personnel assigned to the project. This list should be turned in with the final records of the project.

### **3.2 CONTACT WITH WFLHD REPRESENTATIVES**

A WFLHD contact list will be provided to the CM for each project. The CM may contact anyone on the list for technical or other support. It is essential that the cross-functional team members be kept apprised of potential changes to the project. Other than for very minor issues, the PM and COE should be made aware of discussions between the CM and other WFLHD contacts.

### **3.3 CONTACT WITH THE CONTRACTOR**

The CM shall maintain primary contact with authorized representatives of the Prime Contractor. Contact with Subcontractors or vendors shall only be made through, or with the consent of, the Prime Contractor. Orders, which alter the Contract or create additional liability to the Government must be in writing and must be executed (signed) in accordance with prevailing construction contract administration delegations. Except for certain minor orders, this means a warranted Contracting Officer.

#### **3.3.1 Gifts and Favors**

Integrity on the part of all Construction Management employees is essential. The acceptance of most gifts and favors from Contractors and others doing business with WFLHD is strictly forbidden. Federal law and regulations prohibit the acceptance of (1) unsolicited gifts with a market value of more than \$20 (\$10 for designated procurement officials) per occasion, (2) gifts of any value aggregating to more than \$50 in a calendar year, or (3) gifts of any value that are solicited, or which are associated with an expectation, stated or implied, of a return favor. It is WFLHD policy that acceptance of any gift or favor, regardless of value, which might give the appearance of impropriety is unacceptable. Gifts should therefore be avoided except in situations where refusing a small gift (such as a calendar intended as a promotional item) would embarrass either or both parties.

Construction Management staff must never place themselves under obligation to the Contractor, as this would impair their ability to effectively represent the Government, and might create a condition where more serious improprieties could occur. Offers of gifts, or other actions on the part of the Contractor or its representatives that could be construed as an attempt to influence the actions of a WFLHD representative, should be immediately reported to the PM. Other offers of gifts should also be reported to the PM who will advise as to a polite refusal.

#### **3.3.2 Fraternalization**

Absolute integrity is required and fraternization with personnel of the Contractor is not permitted.

### **3.4 CONTACT WITH COOPERATING AND OTHER AGENCIES**

#### **3.4.1 General**

As soon as possible after assignment to the project, the CM should become acquainted with the local State, county, Forest Service, National Park Service, and/or other interested officials, and discuss with them any phases of the work pertinent to them.

It should be emphasized to these officials that contact with the Contractor, on Contract issues should be exclusively through the CM. However, this should not preclude them dealing directly with the Contractor on non-contract issues, such as overweight permits, pollution regulations, speeding enforcement, etc.

Local officials should also be advised of limitations in WFLHD's ability to add to, or change contract work; and such requests should be in writing and will have to be cleared by all appropriate officials.

These issues should be discussed at the Preconstruction Conference so that Contractor understands the relationship involved.

#### **3.4.2 Forest Service**

The U.S. Forest Service is one of the *Tri-Agency* group charged with overall administration of the Forest Highway Program. Therefore, Forest Service officials have legitimate interest beyond the immediate relationship of the project and its National Forest environs.

During the project development stage of the project, most of WFLHD's contact with the Forest Service will be through the Regional Forester's Office (including the Regional Engineer). During construction the CM should be careful to avoid taking actions, making changes or making informal agreements with local officials that are inconsistent with previous agreements, unless such issues are adequately coordinated.

During the construction of a Forest Highway project, the CM and PM should maintain close liaison with the District Ranger assigned to the locality of the project. The Ranger and his/her staff may be most interested in the following: erosion control, landscape preservation, prevention of fires and damage outside the right-of-way, sources of borrow and aggregates, other matters pertaining to land use, and the preparation and disposal of merchantable timber.

In addition to visits by the District Ranger, the Forest Supervisor, Forest Engineer, Regional Engineer, and Regional Forester may also visit the project. Generally speaking, however, these officials should be encouraged to channel all requests or requirements through a single contact official designated by the Forest Service for the project.

The CM should take immediate action on all appropriate Forest Service requests that are within the scope of the Contract. Requests or instructions that are not of an emergency nature, and that would necessitate a contract modification, should be in writing and referred to the PM. Requests or instructions that are of an emergency nature shall be acted on promptly; therefore the PM should be notified as soon as possible.

#### **3.4.3 National Park Service**

Since the National Park Service normally owns the highway right-of-way, adjacent property and is responsible for maintenance and operation after construction, it maintains an active interest in all phases of WFLHD Park Service projects. Normally, the Park Service is represented on the project by a designated liaison such as a landscape architect. However, the CM should also develop a good working relationship with the Park Superintendent, local Park Rangers and maintenance personnel.

Park Service requests or instructions are to be coordinated through the designated Park Service liaison. If conflicting instructions or changes become a problem, the PM should be advised so that coordination above the project level can be clarified.

#### **3.4.4 Other Federal Cooperating Agencies**

Other Federal agencies, with whom WFLHD has an active relationship include the Department of Interior's Fish and Wildlife Service and Bureau of Land Management, and the Department of Defense (DOD). The relationship of WFLHD to these agencies varies. Some are landowning agencies like the Park Service and have interest in all aspects of the project, including maintenance. Others, like DOD have a stake in programming and funding as well as the operational functioning of the project. But DOD projects are usually destined to become State or county highway with respect to maintenance. Therefore a "tri-agency" relationship is created.

Whenever a construction project is undertaken for, or involving one of these agencies, the PM will assure that the CM is aware of all necessary administrative information regarding our obligations to the agency, and furnish copies to the CM as appropriate. This documentation will usually include a Memorandum of Agreement (MOA) for the project.

#### **3.4.5 Non-Federal Cooperating Agencies**

Except in National Parks and on National Parkways, States or counties in accordance with previously executed agreements generally perform the maintenance of roads constructed by WFLHD. In such cases, the maintaining agency will be asked to inspect the project prior to assuming the maintenance obligation. It is therefore important to identify these officials early in the project and to maintain a good working relationship with them. Their interest in the project will mostly focus on the technical details and maintainability rather than impact on the surrounding environment. They will also be interested in traffic control, and whether hauling might adversely impact adjacent roads. When changes are proposed which impact these technical details, maintainability and traffic operations, they should be coordinated with these officials. Their requests should be promptly honored if reasonable, and within the CM's authority. Other requests should be referred to the PM.

With respect to Forest Highways, the State highway department is another of the "Tri-Agency" group charged with overall administration of the Forest Highway program. With respect to other Public Lands highways, the Forest Service has less of a role in planning and setting priorities, but has an interest in the highway's impact on the environment. The State may also have specific assigned responsibilities for local roads in the State regardless of whether or not they are on the State system. Therefore, even if the county is the maintaining agency for a particular project, the State may also have legitimate interest and should be consulted appropriately.

The acquisition of rights-of-way across private lands is generally a function of the cooperating agencies. In some instances, only a right-of-entry or easement for a construction project will have been obtained prior to construction. In such cases, the PM should cooperate fully with appraisers and other agents in their work of obtaining the actual right-of-way. The CM must also be aware of the limitations (if any) of the right-of-entry and attempt to maintain good relations with the property owner during construction.

The CM should also be aware of any limitation in the Government's authority to approve or agree to any work that would change the limit of construction with respect to available right-of-way. The PM should be consulted if any uncertainty develops.

#### **3.4.6 Regulatory Agencies**

A number of Federal and State agencies have regulatory responsibilities that might result in their coming onto the project and interacting with the Contractor or construction management personnel. These

agencies include those responsible for water pollution control, air pollution control, occupational safety, erosion control, storm water management, or protection of endangered species.

The involvement of these Federal and State regulatory agencies has increased in recent years as a result of changes in Federal regulations requiring compliance with all local and State regulations. Most WFLHD permits allow these agencies the right to inspect the project and to review project records at any reasonable time.

In addition to diary notation, the PM should be notified of all visits, and any anticipated further action. When regulatory agencies take issue with WFLHD's compliance with permit or project agreements, PM should be advised and arrange for technical assistance from Division office specialists.

### **3.5 CONTACT WITH THE PUBLIC**

Field personnel of the CM firm are in daily contact with and under the critical eyes of our ultimate customer, the public. This might include adjacent property owners, daily commuters, residents of nearby communities, tourists, groups with special environment or other interests, and representatives of various news media. For these and other reasons, it is essential that all employees strive to conduct themselves in a manner that will command respect and confidence. In addition, the importance of conducting construction in a way that facilitates cooperation with the public and minimizes the potential for complaints cannot be overstated.

In any community, information concerning highway improvement is of primary interest. From the standpoint of good public relations, it is important that information pertaining to the project be made available as soon as possible, and that it be both accurate and complete. Weekly project newsletters should be provided to all landowners along the project, plus any other interested party.

On most Park Service and similar projects where there is a single, strong cooperating agency, all questions and requests from the public dealing with the project should be referred to and coordinated by a designated cooperating agency contact. Sometimes, especially on low profile projects, the cooperating agency(s) will defer to WFLHD for routine public interaction. If the PM advises that this is the case, the CM should become acquainted with local editors, reporters, and heads of civic groups, and furnish such information of local interest as is pertinent to the project to which they are assigned. Care must be exercised to avoid the release of information concerning controversial matters or items that might be misconstrued or misunderstood. Reference to any conflict or disagreement between WFLHD and the State, county, or another Federal agency should be avoided. A statement such as the "the matter is being jointly studied" is preferred over "there is a conflict."

When the CM is specifically assigned to be the focal point of public contacts and information, the following are some guides as to the kinds of information that should be of interest to the public, along with the actions to be taken in making timely releases with the object of establishing and maintaining good public relations:

- Information concerning road closures, detours, speed restrictions, or other items related to public safety, and of general interest to motorists should be given timely publicity. In some instances, sketch maps will be helpful in conveying such information.
- Refrain from stating opinions on local issues that have no connection with the project, or involve choices that are the prerogative of the local authorities.
- Questions directed to the survey crew, construction engineering crewmembers, or contract inspectors should generally be referred to the CM for an answer.
- Requests for information pertaining to matters of recognized public interest that cannot be completely answered at the project level should be promptly referred to the PM.

WFLHD is very sensitive to the public's opinion of our projects and the quality of the project delivery process. The *Completed Project Survey* is often requested from local officials attuned to local public opinion. The public often writes their elected officials to provide input or to voice complaints relative to our projects. It is important to respond professionally and to accommodate if possible, public requests and input.

## 3.6 CONTACTS WITH THE NEWS MEDIA

### 3.6.1 General

The CM on occasion may be required to submit project related information to the local media. This may be as easy as sending the weekly newsletter or as complex as writing up an article for the local paper detailing the project or its impacts on the public.

The CM should also establish a simple agreement with the "Owner Agency" regarding media contacts.

The CM should also establish a procedure to contact the local media in case of an emergency that could endanger the traveling public.

### 3.6.2 FHWA Media Policy for Federal Lands Offices

Field offices should respond directly to local media inquiries on project- or state-specific requests and advise HPA when they receive such calls using the standard contact form (FHWA 1537 on Informs) or by sending an e-mail or calling us. HPA reports media contacts weekly.

However, if a field office receives questions about broader policy or program issues or questions about major project(s) from a major newspaper in their state (i.e., *Salt Lake Tribune*, *Dallas Morning News*, *Chicago Tribune*, etc), refer the caller to HPA (202-366-0660). HPA's role is to assist you on these calls.

All national media calls should be referred to HPA. If a national media outlet is calling a field office, the issue in question is likely to be national in nature. National media are:

- Television networks (ABC, CBS, CNN, C-SPAN, Fox, NBC, NPR)
- Magazines (Time, Newsweek, US News & World Report, ENR)
- Major newspapers (NY Times, Washington Post, LA Times, WS Journal, USA Today)
- Wire service (Associated Press, Reuters, United Press International)
- National Radio (NPR, ABC, CBS or ABC Radio etc)

The purpose of this policy is to:

- Ensure that the appropriate messages and information are communicated in a professional way to the media;
- Help to ensure a corporate and consistent response by the agency to media inquiries;
- Ensure that HPA staff members, who have special training and experience in dealing with the media, are able to make use of that expertise;
- Enable HPA to monitor the number and the nature of media contacts and to establish and maintain professional relationships with the media, all of which helps us to fashion and conduct a more effective communication program; and
- Reduce the amount of time and resources that program offices spend in responding to media requests for information, especially those of a routine nature.

Also, when HPA asks a program office to respond, HPA provides additional information about the query, establishes ground rules if an interview is requested (background, on the record, live or taped, etc.) and conducts follow-up steps as required. All this enables HPA to better identify media outlets, provide information about the agency, and establish contacts with reporters and media outlets that could prove beneficial in the future.

### 3.6.3 Media Interview Guidelines

When a reporter calls, ask as many questions as you can.

1. What the story is about.
2. Who else the reporter has talked to.
3. What documents the reporter has seen.
4. What the reporter wants to know from you or your organization.
5. Get the reporter's name, affiliation, and phone number.
6. Find out when he or she must have the information to meet the deadline.
7. Take notes if you need to in order to remember precisely what the reporter wants.

Before the interview:

1. Determine whether you are the appropriate person to answer the reporter's questions: Is there another person who is closer to the issue? If questions involve policy issues, should you be the person to respond, or should it be a higher authority?
2. Gather information for the reporter and assemble it in a form you can explain clearly and the reporter can use easily. Anticipate additional questions the material may raise in the reporter's mind, and prepare answers for those questions.
3. Develop a few key points you want to make. Think of ways to work them in to your response to the reporter.
4. Rehearse your answers before you return the reporter's call or go before the camera. **Practice, practice, practice!**

During the interview:

1. Start with your most important points first. Follow with an example, then explain what it means to the viewer or reader. Be brief!
2. Avoid jargon or technical terms. Speak in everyday English. Stay away from complex numbers and concepts. Don't try to be humorous unless you are very good at it.
3. Create opportunities to make your key points. Bridge to them, and repeat them again and again.
4. Answer all questions. If you can't answer, for proprietary, legal or other reasons, explain that to the reporter. **Never say: "No Comment."**
5. Speak from the public's viewpoint, not yours or your organization's. Be compassionate and concerned. The public's safety is always your first concern.
6. Fight fire with cool water. If the reporter becomes hostile, remain calm. Don't respond to attempts to provoke.
7. Do not offer your personal opinion, and don't speak for others.
8. Don't speculate. Don't guess. If you don't know the answer, say so and promise to get it. Then get the answer to the reporter before the deadline!
9. To make your point stand out, use anecdotes, colorful words, absolutes, relative numbers and cite personal experience.
10. **If you do not want it to appear in print, or on the air, do not say it.** "Off-The-Record" and "Background" are dangerous waters.
11. Always assume the camera and microphone are on. Behave as though every word you say and every gesture you make will be on the air.
12. Your gestures, facial expressions and tone of voice say more about you than the words you speak. Relax and talk to the reporter in a natural way. Look at the reporter; not at the camera.
13. Never argue with or debate a reporter. You can't win an argument with someone who buys ink by the barrel. Keep cool! The reporter always has the last word.
14. **When you've answered the question, stop talking.**
15. Above all, be honest. Tell the truth. If made a mistake, admit it and shift the focus to what you're doing to correct the situation, or assume that it can't happen again. Never lie to a reporter!
16. Be positive. Talk about what you are doing. Defensive players seldom score.
17. Remember that you have rights, too. You are entitled to be treated courteously, to answer questions fully, and to make some of your own points.

### 3.6.4 Appearance And Conduct For The TV Interview

Personality is all-important in a television interview. The audience may only remember (or hear) one point that you actually make in the interview, but they will remember your demeanor and the way you looked and acted for much longer. **You are always on camera:**

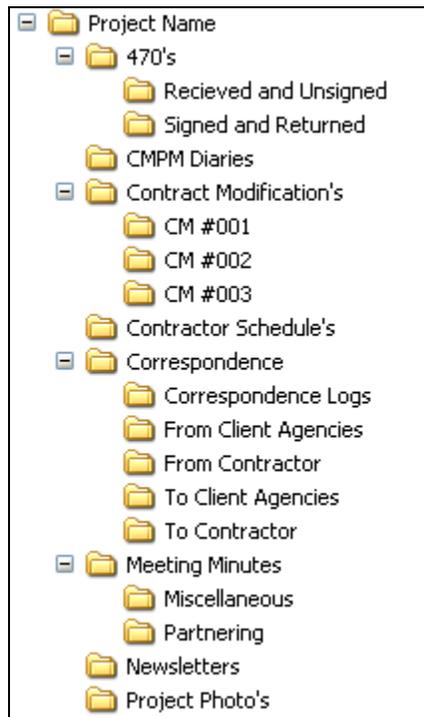
1. Watch what you say around others when you're waiting for the interview.
2. Avoid white, it flares up in the light.
3. Avoid black, it absorbs too much light.
4. Women, don't wear too much makeup. No rouge or red lipstick.
5. Gray, dark blue, yellow, and beige are good clothing choices.
6. No patterned clothes like herringbone or small stripes.
7. No prints, flowers, or bright geometric patterns. The viewer will watch your clothes instead of you.
8. Stand erect. If you are sitting, cross your legs. It makes you more relaxed. Don't recline or slouch.
9. Hands: rest them in your lap or at your sides. Don't use your hands to demonstrate your points.
10. Learn if you have a nervous habit and continuously avoid doing it while you are on camera.
11. If you need to cough, just turn away from the mike and clear your throat.
12. If you get "butterflies" that's okay, everybody does. A little fright will help you keep alert and react faster. Practice some relaxation before the interview starts and **be well-prepared**. A little nervousness can make you more believable to the viewers. It is not taken as a sign of weakness.

## CHAPTER 4

### DOCUMENT CONTROL

#### 4.1 COMPUTER SETUP

Use the directory set up in Exhibit 1.5A to organize files and programs, except the Engineer's Estimate program. When you load the Engineer's Estimate program, it will automatically be stored in a certain location. Do not try to change the file storage location for the Engineer's Estimate program, as it will prevent you from using the program.



#### COMPUTER DIRECTORY SET UP

Exhibit 4.1A

## **4.2 PROJECT FILES SETUP**

The PM will prepare binders and files with all the appropriate dividers for miscellaneous pay notes, reports, meeting minutes, sampling and testing, and correspondence, etc. for the CM. The CM is responsible for maintaining and adding to these files as needed throughout the project.

It is best to remove staples from any documents when filing. Staples that are left in tend to tear the documents when you go back through them, as well as fill up files and binders unnecessarily.

Use hanging files for the following documents:

- Contract
- Plans
- SCRs
- Geotech Report
- EA, BA, other environmental documents or reports
- Design Changes

Use separate three-ring binders for the items listed below. Use tab dividers as necessary.

- Outgoing Correspondence
- Incoming Correspondence
- Contractor Daily Records (prime)
- Contractor Daily Records (subs)
- Contractor Payroll (prime)
- Contractor Payroll (subs)
- Pay Notes (With tab dividers for each pay item.)
- Estimates (with tab dividers for each receiving report, invoice, and estimate)
- Testing (The following tab dividers are just an example of what you might need to include for the testing binders.)
  - Item 20401, Proctors
  - Item 20401, Density Reports
  - Item 30101, Base Aggregate, Process Control
  - Item 30101, Maximum Density Report (Humphres)
  - Item 30101, Density Reports
  - Item 30101, Base Aggregate, CVS (Contractor Verification Sample)
  - Item 40101, "A" pile, Process Control
  - Item 40101, "B" pile, Process Control
  - Item 40101, "C" pile, Process Control
  - Item 40101, Mix Design
  - Item 40101, Hot Asphalt Concrete Pavement, CVS
  - Item 40103, Asphalt Cement grade SHRP PG 58-34, CVS
  - Item 55201, Structural Concrete, (Air, Slump, & Unit Weight)
  - Item 55201, Structural Concrete, Cylinder Breaks
  - Item 55201, Job-Mix Formula
- Surveying
  - Contractors Notes
  - Grade Change Notes
  - New Control Point List

- Reports/Plans from the Contractor
  - Quality Control Plan (Approved)
  - Accident Prevention Plan (Approved)
  - Fire prevention Plan (Approved)
  - Spill Prevention Plan (Approved)
  - Traffic Control Plan (Approved)
  - Blasting (Approved)
  - Night Lighting (Approved)
  - EEO Policy
  - Accident Reports
  - Burn Permits
  - NPDES, SWPPP Reports
  - Material Source Permits
  - Reclamation Plan
- Meetings Binder(s)
  - Preconstruction Conference agenda/minutes
  - Pre-Paving Meeting agenda/minutes
  - Pre-Pour Meeting
  - Initial Partnering Meeting
  - Weekly Partnering agenda/minutes
- Contract Modifications

**4.3 CORRESPONDENCE**

**4.3.1 Correspondence Logs**

All project correspondence binder(s) should have a correspondence log and should be updated as documents are filed. These logs (see Exhibit 4.3A) are easily made up using spreadsheet software.

<b>Outgoing Correspondence Record</b>		
<b>Date Written</b>	<b>Serial Number</b>	<b>Subject</b>
05/03/02	PUM-001	Award Letter
05/30/02	PUM-002	Preliminary Schedule Acceptance
06/05/02	PUM-003	QC Plan Rejection

**EXAMPLE CORRESPONDENCE LOG**

**Exhibit 4.3A**

**4.3.2 Outgoing Correspondence**

Outgoing correspondence should conform to the following general principles:

- Use the format shown in **Exhibit 4.3B**
- Serialize outgoing correspondence and address it to the Contractor's authorized representative;
- The subject should include the project name and number, contract number, and subject description;
- Confine the correspondence to one subject per document;
- Make reference to the Contractor's correspondence, or any other correspondence, by date, subject, and document number, as appropriate;
- Address all points raised in incoming correspondence in the order in which they appear (if complete answers cannot be provided, the correspondence shall provide the best information available and indicate a reasonable time when complete information will be provided);
- Use the FHWA letterhead provided on the website.

All outgoing correspondence to the construction contractor must be signed by the PM. Use the following process for sending correspondence to the construction contractor:

1. The CM prepares all correspondence.
2. The CM e-mails the correspondence to the PM for review and/or revisions.
3. The PM will review and revise as needed, attach electronic signature to the correspondence, and e-mail back to CM. If significant revisions are required the correspondence may be sent back to the CM for corrections and resubmission before being signed electronically.
4. The CM will print correspondence and send to the construction contractor.
5. Print one copy of the correspondence and attachments. File that in the Project Files. For the WFLHD Central Files copy, e-mail the correspondence to the COE and to Gina Forncrook. In the subject line of the e-mail, type "Central Files." With this subject line, Gina knows that she just needs to print and file the correspondence. If there are any attachments, they should be scanned and e-mailed as well.

#### 4.3.3 Incoming Correspondence

It is imperative that the original copy of all incoming correspondence be sent to the WFLHD Central Files through the COE. This applies only to correspondence, construction schedules, the QC/QA Plan, Accident Prevention Plan, Hazardous Spill Plan, etc. For documents such as pay notes, payrolls, certifications, test reports, etc., file the original copy at the project office.

Follow the process outlined below for incoming correspondence and documents:

1. The CM/Inspector stamps with *Received by* and *Date* stamp.
2. CM reviews correspondence.
3. CM scans correspondence and attaches to an e-mail along with comments and recommendations to the PM.
4. The PM will review and send any suggestions or comments back to the CM to follow up on.
5. The original correspondence is sent to Central Files through the COE. File a **copy** in the "From:" project correspondence book(s).

If multiple originals are submitted, like construction schedules, send one to central files after reviewing it and stamping it "accepted" or "not accepted," and file one copy in the project office correspondence book. The other copy may be sent to the PM or COE for their review and disposition.

Encourage the Contractor to always send an original copy of all faxes submitted. Attach the faxed copy to the original copy when it's received and follow the above procedures for filing.



**U.S. Department of Transportation  
Federal Highway Administration**

**WESTERN FEDERAL LANDS HIGHWAY DIVISION**

**C/O CM's name, Construction Manager  
Thomas/Wright, Inc.  
1361 Elm Street, Suite 7  
Helena, Montana 59601**

June 21, 2005  
Serial letter CC-14

Jim McDonald, President  
Coin Construction, Inc.  
1220 Francis Road  
Billings, Montana 59101

Subject: MT PFH 43-1(4), Pine River Road  
**Contract No. DTFH70-05-C-00000**  
description

Dear Mr. McDonald:

Xxxx  
Xxxx  
xxxxx

Sincerely,

Jane Doe  
Project Manager

**FORMAT FOR LETTERS**

**Exhibit 4.3B**

#### 4.4 REQUESTS FOR PROJECT RECORDS

Requests to inspect diaries or other records (except as covered below) should be referred to the PM and Freedom of Information (FOIA) Officer. If a contractor indicates it wants to review or have copies of project records notify the contractor that it needs to make the request in writing to the FOIA officer at the Vancouver office address. Notify the FOIA officer and your PM of any such indications or requests. The FOIA officer will coordinate with the PM on providing documents for copying and/or review.

The project staff should not allow the contractor to review and/or copy any project documents (except as covered below). The Government is obligated to protect privacy type information that may be included in any project documents, so it is necessary to follow these procedures.

The exception to the above is pay notes, progress estimates, any documents submitted by the contractor (including any subcontractor or supplier documents) and any documents we sent to the contractor (including subcontractors or suppliers). The prime contractor is allowed to review these documents and the project staff is allowed to make copies of these documents for the contractor, as long as it is not more than 100 pages. Anything more than 100 pages needs to go through the FOIA process. You should not give these records to the contractor to make its own copies.

Any requests directly from a subcontractor must go through the FOIA process (even if it is to look at its daily report). There is no exception to this. A prime contractor can request to view or have copies of documents on the subcontractor's behalf, but all interactions are to be between the Government and the prime following the process outlined above. The subcontractor can view allowed documents as long as the prime contractor is present throughout the review.

## CHAPTER 5

### DELIVERING THE PROJECT

#### 5.1 AWARD OF THE CONTRACT

WFLHD will conduct responsiveness and responsibility checks of the low bidder. If all requirements are met, a WFLHD Contracting Officer will issue the contract award letter to the Contractor, which indicates the name and contact information of the COE. The award letter also requests the contractor to provide performance and payments bonds, and a certificate of insurance.

## 5.2 PRECONSTRUCTION CONFERENCE

### 5.2.1 Date

As soon as practicable after the Contract is awarded and before contractor begins work, the COE will schedule the preconstruction conference date with the Contractor.

### 5.2.2 Invitees

The PM or COE will invite the Environmental Specialist and other WFLHD specialists as needed. The PM or COE should provide two months notice to the Environmental Specialist of the likely time frame for the preconstruction conference (normally in the two week period prior to issuance of the NTP) for scheduling purposes.

The CM will invite all non-WFLHD parties. At a minimum, include the County, Forest Service, and National Park service representatives as appropriate. In addition, it may be appropriate to invite the State DOT, utility companies, and any other groups that will be significantly affected by the construction. Invitations may be via e-mail, regular mail, or telephone.

### 5.2.3 Agenda and Roles

The CM will prepare and send a meeting agenda to the Contractor to assist them in preparing for the meeting. See **Exhibit 5.2A**, Part I Preconstruction Conference Agenda. The agenda should be augmented to reflect unique features of the contract and project specific issues.

The purpose of the conference is to discuss the plans and specifications for the project; unusual conditions; environmental and permit requirements and restrictions; the Contractor's plan and schedule of operation; type and adequacy of equipment; labor requirements; equal employment opportunity requirement; maintenance of traffic; requirements for traffic control; the Contractor's responsibilities for accident prevention; material sources and testing requirements; subcontracting requirements; required submissions; and any other pertinent items which will result in better job coordination and performance.

Either the PM or COE will begin the conference by welcoming the participants and explaining the WFLHD organization, how the CM firm fits into that organization, and how the Construction Contract will be administered, specifically covering channels of authority and methods of conveying instructions and orders. It should be emphasized that all orders to the Contractor relating to the Contract will be issued by WFLHD.

At this point, the CM will run the preconstruction conference, beginning with introducing the cooperating agencies and explaining their role in the project. The CM will run the remainder of the conference, but it works very well if a team approach is taken between the CM, PM, and COE. This allows the next facilitator to gather their thoughts for the next agenda item and gives the current facilitator time to capture any notes.

The Contractor's representatives should explain their organization, and designate or identify a representative who will be assigned to the project with full authority to act for the Contractor. See *FAR Clause 52.236-6, Superintendence by the Contractor*. If a representative is not identified at the conference, the Contractor should be requested to submit a written designation at a later date, but before the NTP.

The remainder of the main preconstruction conference is self-explanatory.

A second preconstruction conference, attended by only the CM, PM, and Contractor, should be scheduled at a later time, but before work starts. At this meeting, the CM and PM will discuss contract requirements, mainly legal and paperwork, that are not of interest to the County, Forest Service, etc. Exhibit 5.2B, Part II Preconstruction Conference Agenda shows what to address in this follow-up meeting.

#### **5.2.4 Notes**

The CM will be the primary note recorder for the preconstruction conference, but the PM and COE should also take notes of relevant issues. Shortly after the conference, all notes should be provided to the CM for inclusion into the official copy.

The CM should provide the official preconstruction conference agenda, with all notes and details from the meeting added, to the Contractor for their signature. The CM will also sign this copy and provide it to WFLHD central files. Provide a copy with a cover letter to the Contractor as well.

**Preconstruction Conference**

**Contractor:**

**1. Introductions.**

**FHWA Organization.**

- A. Construction Engineer, *name*  
Construction Operations Engineer, *name*  
Bridge Design Engineer, *name*  
Environmental Protection Specialist, *name*  
Project Engineer, *name*
- B. FHWA Delegation of Authority  
  
Contracting Officer, *name*  
Construction Engineer, *name*  
Construction Operations Engineer, *name*  
Project Engineer (COTR), *name*  
Inspector(s)
- C. Correspondence from the Contractor addressed, unless otherwise directed, to:  
  
*name*  
Federal Highway Administration  
*street address*  
*city, state zip code*

**3. Cooperating Agencies.**

- A. *U.S. Forest Service, National Park Service, U.S. Fish and Wildlife (pick one or modify)*
- B. *state department of transportation's name*
- C. *county*

**4. Contractor's Organization.**

- A. Contractor's organization and definition of each representative's authority.
- B. Correspondence from Project Engineer addressed to:  
  
*Contractor Rep's name*  
*Mailing Address*

**5. Subcontracting.**

- A. Subcontractors and subcontracted work
- B. Contractual relations between the government and the subcontractors. (FP-96 108.02)
  - 1. Subcontracting does not create any contractual relationship between subcontractors and the Government.
  - 2. The Contractor is responsible for the subcontractor's performance and contract compliance.
  - 3. All correspondence from the subcontractor will be routed through the Prime Contractor.

**6. Labor Provisions**

- A. Contract Work Hours and Safety Standards. (FAR 52.222-4)
  - 1. No Contractor or subcontractor employing laborers or mechanics shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and ½ times the basic rate of pay for each hour worked over 40 hours.
- B. Davis-Bacon Act. (FAR 52.222-6)
  - 1. No laborer or mechanic employed directly upon the site of the work shall receive less than the prevailing wage rates and fringe benefits as determined by the Secretary of Labor. (SCR page D-1)
  - 2. Paid not less often than once a week.
  - 3. Surveyors, inspectors, and testers are not subject to Davis-Bacon wage rates.
  - 4. Material source workers are not subject to Davis-Bacon wage rates unless the source is immediately adjacent to the project site.
  - 5. The "owner/operator" classification applies only to trucks. Anyone other than the truck owner operating the truck must appear on a payroll.
- C. Payrolls
  - 1. One copy of certified payrolls from both the Prime and the subcontractors are to go to the Project Engineer within 7 days of the payment date. (FAR 52.222-8(b)(1))
  - 2. Subcontractor payrolls are to be submitted through the Prime Contractor.
  - 3. If classification codes are used, two copies are to be submitted with the first payroll.

**7. Safety**

- A. Fire control plan (SCR page J-3)
- B. It is the Contractor's responsibility to monitor safety and identify deficiencies on the project (FAR 52.236-13, FP-96 107).
  - 1. ***Safety is the #1 priority!***
  - 2. MSHA Part 46 compliance for crushing operation.
- C. Project personnel will not inspect under unsafe conditions.

**TAILOR THE REMAINING SECTIONS TO YOUR PARTICULAR PROJECT  
THE FOLLOWING IS JUST AN EXAMPLE OF WHAT WAS USED FOR A PAST PROJECT**

**8. Section 103 - Scope of Work**

- A. Value Engineering Proposals (FAR 52.248-3)
  - 1. Gabion wall design
  - 2. Other proposals??

**9. Section 104 - Control of Work**

- A. Shop Drawings
- B. As-Built Drawings
- C. Load Restrictions--Comply with all legal load restrictions when hauling material and equipment on public roads to and from the project. A special permit does not relieve the contractor of liability for damage resulting from the moving of material or equipment. (FP-96 104.05)

10. Section 105 - Control of Material

- A. No Government-provided sources
- B. Contractor-located sources
- C. Storage and Staging Areas
  - 1. West Fork Ranger Station Administrative Site
  - 2. Nez Perce Road/West Fork Bitterroot Road Parking Area
  - 3. Other sites?

11. Section 106 - Acceptance of Work

- A. Certification requirements. (FP-96 106.03)
- B. Measured or tested conformance. (FP-96 106.04)
- C. Elements of statistical acceptance, target values, pay factors, QL-Pay, etc. (FP-96 106.05)

12. Section 107.—Legal Relations and Responsibility to the Public

- A. Utilities
  - 1. Utilities have been relocated or adjusted. (SCR 107.02)
  - 2. Coordination of activities to transfer utility lines to new bridge. \*
  - 3. Spacing for utility hangers is 3 meters (10 feet).
  - 4. Names and telephone numbers for emergency contacts in case of damage.
- B. Cooperation and coordination of work with other construction projects in the area.
- C. Protect existing structures, utilities, work, and vegetation (FAR 52.236-9, FP-96 107.02)
  - 1. The Contractor shall preserve and protect all structures, equipment, and vegetation on or adjacent to the work site, which are not to be removed and which do not unreasonable interfere with the work required under this contract. **Do not disturb the area beyond the construction limits.**
- D. Storm Water Pollution Prevention Plan inspections and modifications to the plan.
- E. Environmental protection requirements. (FP-96 and SCR 107.10)
  - 1. Clearances for material sources, disposal sites, waste areas, haul roads, and staging areas outside of the project limits.
    - a. Time frame for documentation for ESA, SHPO, and Wetland clearances.
    - b. Tentative date when the source approval is Needed:\_\_\_\_\_
  - 2. In-stream work window July 15 to October 15.
  - 3. Submit a Hazardous Spill Plan, prior to construction.
  - 4. All equipment, materials, and vehicles to be used at the project site shall be cleaned and certified free of noxious weeds prior to entrance onto the project site.
  - 5. Discovery and requirements for notice.
- F. Process for informing workers of environmentally sensitive areas.
- G. Ramifications of non-compliance of permit requirements for FHWA and the Contractor.

**Section 152.—Construction Survey and Staking**

- A. Survey control.
  - 1. The Government has set the initial horizontal and vertical control points. (SCR 152.02)
  - 2. Review survey control set by the government. (Reference line, control points, pertinent data)
  - 3. Contractor is responsible for line, grade, preservation of control points, etc.
- B. Start work only after staking for affected work is accepted (FP-96 152.02)
- C. Furnish all survey notes at least weekly. (SCR 152.02)
- D. Compute and furnish calculations supporting pay quantities. (SCR 152.02)

**Section 153.—Contractor Quality Control and Assurance**

- A. Quality Control Plan
- B. Government Inspection
  - 1. Notification of Completion of Work (Form WFLHD 470)
- C. Records (SCR 153.07)
  - 1. Contractor's Daily Record of Construction Operations (Form WFLHD 465)
  - 2. Quality Control and Assurance Report

**Section 154.—Contractor Sampling and Testing**

**Section 155.—Schedules for Construction Contracts**

- A. Notice to proceed date and completion date. (FAR 52.211-10)
  - 1. Notice to Proceed Date, December 10, 2003
  - 2. Fixed Completion Date, August 30, 2005
- B. Work shift time and days. Furnish notification at least 14 days in advance of any change to the work shift schedule.
- C. Preliminary schedule.
- D. Schedule approvals and updates. (SCR 155.06)
  - 1. Updates submitted by the 15<sup>th</sup> of each month.
  - 2. The CO will accept or reject the updated schedule within 5 days.

**Section 203.—Removal of Structures and Obstructions**

- A. Coordinate delivery of bridge stringers and asphalt disposal with Ravalli County Road Dept.
- B. Disposal plan for removing bridge material.

**Section 204.—Excavation and Embankment**

- A. Disposal site for unsuitable or excess material.\*

**Section 551.—Driven Piles**

A. Equipment and wave equation submittal at least 30 days before pile driving begins.

**Section 552.—Structural Concrete**

**Section 554.—Reinforcing Steel**

**Section 555.—Steel Structures**

**Section 562.—Temporary Works**

**Final Comments**

**SIGN THIS AFTER YOU HAVE INCLUDED ALL OF THE NOTES TAKEN AT THE PRECON.  
DO NOT SIGN AT THE PRECON**

**CERTIFICATION:** The preceding items have been discussed.

**Signature for the Contractor:** \_\_\_\_\_.

**Signature for the Government:** \_\_\_\_\_.

**PART I PRECONSTRUCTION CONFERENCE AGENDA**

**Exhibit 5.2A**

**Preconstruction Conference – Part II**

**Attendees:**

**1. Contractor's Organization**

- A. WFLHD-298 (Contractor's Delegation of Authority) submitted.
- B. Superintendent identified in writing.
- C. Safety and/or Traffic Control Officers identified in writing. (FP-96 156.08)
- D. Quality Control Manager identified in writing. (SCR 153.03)

**2. Subcontracting**

- A. FAR clause 52.219-8 states that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in subcontracts under a Federal contract. This policy also states the importance of timely payments to these types of business concerns.
- B. Subcontracting plan and submittal of SF-294 and SF-295. (FAR 52.219-9)
- C. WFLHD-130 (Subcontracting Statistics) and SF-1413 (Statement and Acknowledgment) furnished for each subcontract within 14 days of award of the contract. (FAR 52.222-11; FP-96 108.02)
- D. Subsequent subcontract awards require the SF-1413 and WFLHD-130 within 14 days of their award. (FAR 52.222-11)
- E. Required labor clauses incorporated into the subcontracts. (FAR 52.222-11)
- F. Limits of subcontracted work amount. (FAR 52.236-1)
- G. Remind the contractor of his obligation to file **Notice Requirement for Affirmative Action to Ensure Equal Opportunity for each on site subcontract exceeding \$10,000**. The Notice is submitted directly to the Office of Federal Contract Compliance Programs (OFCCP). (FAR 52.222-23)

**3. Labor Provisions**

- A. Apprentices and trainees may be paid less than the Davis-Bacon wage rates, if they belong to a bona fide Apprenticeship or Trainee Program in accordance with FAR 52.222-9.
- B. Labor compliance reviews may be conducted on the job site.
  - 1. Labor and payroll complaints will be reported to the Department of Labor.
- C. Withholding of funds. (FAR 52.222-7)
  - 1. The CO can withhold progress payments from contractors who violate the Davis-Bacon Act to pay wages.
  - 2. The Prime Contractor is ultimately responsible for payments.
- D. Compliance with Copeland Act Requirements. (FAR 52.222-10)

1. The Copeland Act makes it unlawful to induce, by force, intimidation, threat of procuring, dismissal from employment, or otherwise, any person employed in the construction or repair of public buildings or public works, financed in whole or in part by the United States, to give up any part of the compensation to which that person is entitled under a contract of employment. The Copeland Act also requires each contractor and subcontractor to furnish weekly a statement of compliance with respect to the wages paid each employee during the preceding week. Subcontractors shall comply with the same, and all subcontracts shall contain a clause to this effect.
  - E. Contractor obligation to file VETS-100, Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era. The report is filed annually by March 31, to the Department of Labor. (FAR 52.222-37)
- 4. Bulletin board requirements. (FP-96 107.03)**
- A. "Equal Opportunity" poster
  - B. "Notice" that the project is subject to Title 18, U.S. Criminal Code, Section 1020
  - C. "Notice to Employees" poster, WH-1321, regarding proper pay
  - D. "Safety and Health Protection on the Job" poster
  - E. "General Wage Decision" contained in the contract
  - F. "Beck" poster, FAR Clause 52.222-39.
  - G. Company equal employment opportunity policy
  - H. Emergency telephone numbers
- 5. Worker Safety**
- A. Contractor must furnish accident reports. (FP-96 107.08). Maintain a "Log of Occupational Injuries and Illnesses," OSHA form 100, and make it available for inspection.
  - B. WFLHD-28 (Guide Outline of Contractor's Accident Prevention Plan). (SCR 107.08)
  - C. Accident Prevention Plan. (FAR 52.236-13, SCR 107.08)
- 6. EEO**
- A. Contractor's designated official to monitor EEO Policy, submit reports and keep records. (FAR 52.222-27(n))
  - B. Contractor obligation to file SF-100 (EEO-1) annually by March 31, to the Equal Opportunity Commission and the OFCCP jointly. (FAR 52.222-26, must file if 50 or more employees and minimum \$50,000 contract or subcontract.)
  - C. Contractor obligations under FAR 52.222-26. Shall not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin.
  - D. Contractor Affirmative Action goals. (FAR 52.222-23, FAR 52.222-27)
    1. Goals for minority participation for each trade: 2.7% Ravalli County
    2. Goals for female participation for each trade: 6.9%

**7. Drug-free Workplace**

- A. Contractor's drug-free awareness program. (FAR 52.223-6(b)(2))
- B. Within 30 days of award, the contractor is required to publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for such violations of such prohibition. (FAR 52.223-6(b)(1))
- C. Government remedies for noncompliance (i.e., suspension, debarment, suspension of payments, or termination for default). (FAR 52.223-6(d))

**8. Paperwork**

- A. Control Charts (QL-Pay program at <http://www.wfl.fha.dot.gov/projects/quality/>)
- B. Pay Notes (FP-96 and SCR 109)
  - 1. Format (Field Note Samples book)
  - 2. Support documentation
  - 3. Submittal time
- C. Weekly Erosion Control checks (FP-96 157.12, SCR page I-12)
- D. Weekly Traffic Control reports (FP-96 156.08(h))
- E. As-built working drawings (SCR 104.03(c))
- F. Copies of examples of note formats, report forms, etc.

**9. Contract Modifications**

- A. The CO may make changes in the work within the general scope of the contract. (FAR 52.243-4)
- B. Pricing of contract modification (FP-96 and SCR 109.06)
- C. Early notification of modification is required for an early settlement.
- D. Contractor must provide written notice of constructive changes, delays, and differing site conditions within 10 days.
- E. Completed and upcoming contract modifications.
  - 1. Government Receiving
  - 2. Reviewing and Reconciling

**10. Schedule**

- E. A maximum of 10 percent of the total progress payment amount will be retained if an acceptable schedule is not received within 30 days after the notice to proceed is issued. (SCR 155.02)
- F. CO's recourse if contractor fails to maintain progress explained in FAR 52.236-15.
  - 1. If the CO determines the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract, the CO may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of the contract.
- G. Liquidated Damages. (FAR 52.211-12; SCR Table 108-1)
  - 1.        for each calendar day beyond the fixed completion date that work is not substantially completed.
- H. Contract time extensions. (FP-96 108.03)
  - 1. Only delays or modifications that affect critical activities or cause non-critical activities to become critical will be considered for time extension.
- I. Suspension of work conditions. (FAR 52.242-14)
- J. Stop work order. (FP-96 108.05)
  - 1. Weather or soil conditions.
  - 2. Failure to correct unsafe conditions.
  - 3. Failure to carry out written orders given by the CO.
  - 4. Failure to perform any provision of the contract.

**11. General Requirements**

- A. Insurance requirements (FP-96 107.05)
  - 1. Worker's compensation
  - 2. Comprehensive or commercial general liability
  - 3. Automobile liability
- B. Measurement and Payment - Section 109.
  - 1. Prompt Payment Act and invoice certification process.
    - a. The Government shall make progress payments monthly as the work proceeds. (FAR 52.232-5)
    - b. A proper invoice must include the items listed in subdivisions (a)(2)(i) through (a)(2)(ix) of this clause. (FAR 52.232-27(a)(2))
    - c. Progress payment requirements. (SCR Subsection 109.08)
    - d. Failure to provide required materials documentation, test reports and certifications will result in nonpayment for the work in question.
  - 2. Prompt Payment Act application to subcontract payments.
    - a. Contractor's obligation to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract. (FAR 52.232-27(c)(1))

3. Payment for materials on hand and preparatory work.
  - a. Invoices may include partial payment for material to be incorporated into the work, provided the material meets the requirements of the contract and is delivered on or in the vicinity of the project site or stored in acceptable storage places. (SCR 109.08(f)(1))
  - b. Partial payment does not constitute acceptance of material or work.
  - c. The CO may adjust partial payments as necessary to protect the Government.
4. Closing Date
5. Process
  - a. Invoice
  - b. Government Receiving Report
  - c. Reviewing and Reconciling
6. Electronic Funds Transfer. (FAR 52.232-27)

**12. Quality Control**

- A. Qualifications of the surveyors, inspectors, and testers. (FP-96 152.01 and SCR 153.03)
- B. Inspection
  1. The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. (FAR 52.246-12(b))
  2. Presence or absence of a Government inspector does not relieve the contractor from any contract requirement. (FAR 52.246-12 (d))
- C. Submittal, approval and review time for shop drawings. Correction procedures.
- D. Contractor's weighing system and checking procedure.
  1. Ensure capability of equipment and personnel to comply with the contract requirements. (SCR 153.03(b)(1)(c))
  2. Weighing Procedures and Devices. (FP-96 and SCR 109.03)
- E. Maintain a clean work area. (FAR 52.236-12)
- F. Protection of the work until final acceptance. (FP-96 107.06)
  1. Protect the work against injury, loss, or damage from all causes whether arising from the execution or nonexecution of the work. The Government will only be responsible for losses, injuries, and damages caused by declared enemies and terrorists of the Government and cataclysmic natural phenomenon such as tornadoes, earthquakes, major floods, and officially declared natural disasters.
- G. Work zone traffic safety (FAR 52.236-13, FP-96 107.08, 156)
  1. Protection of the public, government employees, and contractor's employees.

**13. Contractor Performance Evaluations.**

A performance evaluation will be prepared when the project is completed. Interim evaluations will be prepared if necessary, however an interim unsatisfactory evaluation is not a pre-requisite to a final unsatisfactory evaluation. The contractor will receive either a satisfactory or unsatisfactory rating based on the "Contractor Performance Evaluation Criteria." The performance evaluation will be one of the criteria used to make responsibility determinations on future projects. The Contractor's performance will be evaluated in each of the following 5 major categories:

A. Quality of work, examples:

Satisfactory- a sound QC plan resulting in a quality product; identifying and correcting deficient work.  
Unsatisfactory- consistently late or incomplete QC documentation; late submittals.

B. Timely performance, examples:

Satisfactory- project progress meets or exceeds the project schedule, project milestones are met.  
Unsatisfactory- progress consistently falling behind in schedule; failure to submit updated schedules as required.

C. Effectiveness of management, examples:

Satisfactory- field and home office personnel demonstrate ability to plan, organize and deliver a quality product on time.  
Unsatisfactory- management not able to coordinate work effectively; subcontracting plan not followed.

D. Compliance with labor standards, examples:

Satisfactory- payroll records submitted in a complete and timely manner.  
Unsatisfactory- affirmative action and EEO requirements are not met.

E. Compliance with safety standards, examples:

Satisfactory- personnel are provided with safety equipment and training, safety meeting held regularly.  
Unsatisfactory- unsafe conditions are not corrected without government intervention.

**CERTIFICATION: The preceding items have been discussed.**

**Signature for the Contractor:** \_\_\_\_\_.

**Signature for the Government:** \_\_\_\_\_.

**PART II PRECONSTRUCTION CONFERENCE AGENDA**

**Exhibit 5.2B**

### **5.3 NOTICE TO PROCEED**

#### **5.3.1 Issuing the Notice to Proceed**

The COE will issue the Notice to Proceed (NTP).

The NTP can be issued once Legal Counsel and Contracts have reviewed and approved the contractor's bonds and insurance. If the contractor has fulfilled these two obligations, but has not met other requirements of the contract such as construction schedules, subcontracting, Quality Control Plan, etc., the Notice to Proceed still should be issued. However, in accordance with the terms of the contract, the contractor may be prevented from commencing work at the project site(s) until the other contract requirements are met.

FAR Clause 52.211-10, Commencement, Prosecution, and Completion of Work, provides a specific number of calendar days (i.e., after the bid opening or receipt of acceptable bonds) or a specific date, by which time the Notice to Proceed must be issued. In the event the NTP is not issued within the specified time period, for reasons not the fault of the contractor, the Government is obligated to extend the fixed completion date accordingly. This revision should be incorporated into the contract via a bilateral Contract Modification.

Inordinate delays in issuing the NTP may warrant more than just a day-for-day extension if the project completion date has been pushed into a season with less favorable working conditions. In addition, the Contractor may be due compensation for additional costs such as remobilization for the extra season. Such costs should be addressed in a contract modification.

#### **5.3.2 Selecting the Actual Notice to Proceed Date**

FAR Clause 52.211-10, Commencement, Prosecution, and Completion of Work, requires the contractor to commence work within a specified period of time after receipt of the NTP. To allow the Contractor to coordinate operations and mobilization, the date for issuing the NTP should be discussed with the Contractor. However, it is important that the PM and COE remain aware of the status of project award and establish a NTP date that falls within the time period specified in the contract. If WFLHD and the contractor mutually agree to delay the NTP date, a bilateral contract modification should be executed.

#### **5.3.3 Progress Payments Before the Notice to Proceed**

On occasion, the Contractor will perform preliminary work before the NTP is issued. This may include developing their construction schedule, preparing shop drawings, and ordering materials.

Unless the contract specifically requires the work to be performed before the NTP, the government should not make a progress payment for the work. However, reimbursement for bond premiums may be paid as provided in FAR Clause 52.232-5, part (a). Payment for preparation of construction schedules before the preconstruction conference may also be payable under the normal procedures for progress payments.

If the contractor elects to perform other work before the NTP date, and the contract does not require that the work be performed before the NTP, the contractor must wait until the NTP has been issued before submitting an invoice for that work.

## **5.4 PARTNERING**

### **5.4.1 Background**

Contractors will be invited to participate in a partnering program to establish good communications and a good working relationship between WFLHD, the Contractor, and the cooperating agencies. WFLHD's goal of partnering is to enhance communication, improve efficiency, promote creativity and problem solving, and reduce construction claims. The CM and all WFLHD personnel involved in the project are expected to support this intent in dealing with the Contractor.

While the Contract establishes the legal relationships, the partnering process attempts to establish working relationships among the parties (stakeholders) through a mutually developed, formal strategy of commitment and communication. It attempts to create an environment where trust, continuous communication, and teamwork prevent disputes, foster a cooperative bond to everyone's benefit, and facilitate the completion of a successful project.

Making changes to the Contract requirements or relaxation of the specifications are not a part of the partnering process. However, when changes are appropriate to solve a problem or make the project run smoother, partnering is the forum that the stakeholders can use to recognize the need for the change and to quickly reach an equitable agreement.

### **5.4.2 Decision To Partner**

As part of the notice to bidders, an invitation to partner is included in the Contract. Prior to the preconstruction conference, the Project Manager or COE will determine from the Contractor if the project will be partnered. Jointly, they will agree upon the level of the partnering effort, the location and tentative date of the workshop, and most importantly, who should participate.

### **5.4.3 Partnering Facilitator**

Next, the Project Manager or COE and the contractor will determine who will facilitate the workshop. Generally, if the Contractor has a preference, WFLHD will honor that selection. If prior arrangements and commitments are made, consideration should be given to have the partnering workshop in conjunction (before or after) with the preconstruction conference.

The success of most partnering efforts often rests with the facilitator; therefore, the selection process is most important. If a nominated facilitator (or firm offering such services) is not well known, a qualification review should be done by the COE, particularly through telephone contact with references, other clients, and State agencies. Since the cost of their services will often range from \$1,000 to \$2,000 per day, the need to evaluate the facilitator's capabilities and credentials is essential.

The partnering facilitator should bill the Contractor directly. WFLHD will pay for half the cost as provided in Subsection 103.05 of the Contract. The Contractor should provide the invoice to the CM, and payment will be in the next monthly progress payment. The item should be added as a line item payment, similar to incentives for quality materials.

### **5.4.4 Attendance List**

Following selection of the facilitator, the CM, Project Manager or COE should finalize the attendance list with the Contractor. The availability and role of key decision makers in the management of the Contract is very important. Ideally, both WFLHD and the Contractor should strive to have their respective key persons attend all formal partnering workshops.

A successful match-up for a partnering workshop could include:

For the Contractor

Senior Vice-President  
Branch Manager  
Project Manager  
Project Superintendent  
Foreman

For WFLHD

Division Engineer/CO  
Construction Engineer  
COE/Project Manager  
CM  
Assistant CM

Other representation may include the clients or customers, the State or county maintaining agencies, regulatory or compliance groups and others that may impact the project during construction.

When deciding on the appropriate attendees, do not unnecessarily expand the size of the group to the extent that the partnering process may fail. Keep in mind the success of the partnering workshop depends on the expertise and actions of the facilitator and, most important, the cooperation and commitment of the key decision makers.

**5.4.5 Length Of Partnering Session**

Another critical question in scheduling a formal partnering workshop is: “How long should the session last?” Since key individuals must allot their time carefully due to their respective positions and responsibilities, it is suggested that one-half day to two days is ideal for the typical large or complex WFLHD contract. Of course, if all parties agree, additional time should be scheduled. Often the selected facilitator can provide input here. But, follow the rule: Don't make the partnering workshop too long; it will deter from the intended goals and expectations.

**5.4.6 Location**

The CM will locate and secure facilities for the partnering meeting, then proceed to contact the identified individual participants by telephone and personally invite them to the workshop, identify the facilitator, and present an overview of the partnering concept. At this time, the date and location of the workshop should be confirmed. Often the facilitator will wish to call each of the participants to outline the partnering process and establish common goals.

**5.4.7 After The Initial Partnering Session**

Beyond the workshop, it will be necessary to agree on the approximate frequency of subsequent meetings of the stakeholders, and if those meetings will be facilitated. Generally, facilitated meetings are more formal and less frequent – say quarterly – than non-facilitated meetings. However, if serious conflicts develop, facilitated meetings may be more effective than non-facilitated.

## **5.5 MEETINGS**

### **5.5.1 General**

The CM must attend all project-related meetings, and is expected to facilitate and conduct meetings set up on the Government's behalf. The CM will take a proactive, collaborative approach in facilitating and conducting the meeting to ensure good project-level lines of communication. The CM will prepare and circulate the agenda if required as well as all meeting minutes. Some of these meetings are but not limited to preconstruction conference, mid-construction reviews, partnering both initial and weekly, and facilitate project visitors from the WFLHD, client agencies, resource agencies, or any other project stakeholder.

### **5.5.2 Weekly Job Progress Meetings**

Regular job progress meetings, sometimes referred to as partnering meetings, between the various parties to the project, probably cover more issues and contribute more to the exchange of information necessary to complete the work than all the correspondence on the project. What occurs at such meetings is therefore of great importance and should be documented well.

At the Preconstruction Conference or initial partnering session, the CM and Contractor will establish a day and time for weekly job progress meetings. The purpose of these meetings is to discuss any ongoing issues, coordinate submittals, and to look ahead and prepare for the upcoming work.

At a minimum, the Contractor's project superintendent, quality control manager, and project manager should attend. The Contractor is encouraged to invite subcontractors, as appropriate.

Minutes of the meeting shall be recorded by the Contractor or CM, and distributed to all parties by the next business day.

### **5.5.3 Meeting Minutes**

Use the following guidelines for conducting and documenting all meetings.

1. At the opening of each regular meeting, the notes from the previous meeting can be reviewed to confirm their accuracy and the mutual understanding of the participants. By identifying those items that remain outstanding, the previous meeting's notes can serve as an agenda for the current meeting.
2. The name, title, and affiliation of each participant should be listed. A sign-in sheet can be passed around at the start of each meeting. In the minutes, note any absentees or visitors.
3. Record the subjects covered, the nature of the discussion, the future actions to be taken and by whom. The notes should be concise but informative. The items discussed could be indexed or designated in a manner that they can be located for future reference.
4. Minutes should then be prepared and copies distributed to all participants and those affected. Objections or exceptions taken by any of the parties involved should be documented in the minutes. The objective of the meeting minutes is to provide a complete and accurate record of agenda and a summary of substantial discussions. Any party taking exception or objecting to any aspect of the content of the meeting minutes must be required to do so in writing by a certain time after each meeting.

## **5.6 PROJECT NEWSLETTER**

### **5.6.1 General**

The Project Manager is required to prepare and distribute weekly newsletters of project activities. The newsletter provides a weekly forecast of upcoming construction operations to keep management, the cooperating agency(s), and the public well informed of project issues.

### **5.6.2 Newsletter Guidelines**

- Obtain buy in from the PM on the format of the newsletter.
- Distribute to agency contact(s), landowners, cross functional team, your PM and COE, the general public and other avenues as appropriate.
- Use lay (general) terms, not engineering terms.
- Keep to one page if possible.
- Provide project identification and date of the report.
- Include project phone number; fax number and mailing address in every newsletter.
- Provide the schedule for the upcoming week and the possibly the week after that.
- Suggest distributing on Fridays so people can plan their next week, but use what date works best for the project.
- Highlight traffic and safety restrictions, such as road closures.
- Unless instructed otherwise by your PM, only prepare newsletters during active construction.
- Send via fax, e-mail or in person when possible to keep the information timely.

See Exhibits 5.6A through 5.6D for several example newsletters.

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
WESTERN FEDERAL LANDS HIGHWAY DIVISION  
P.O. Box 370  
Packwood, Washington 98361  
(360) 494-9204**

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**REHAB BACKBONE RIDGE VIADUCT  
NEWS LETTER**

**Status Report  
Week Ending 4/26/03**

- The Rehab Backbone Ridge Viaduct Project was awarded to Johnson Western Gunitite Company on December 27, 2002 for an award amount of \$593,289.00. A Preconstruction conference was held February 13, 2003 and the Notice to Proceed was given February 1, 2003. The contract completion date is August 25, 2003.
- FHWA has set up a project office in Packwood, Washington. FHWA's representative Project Manager is Chuck Dissen and can be contacted at the number given above or:  
E-mail: Charles.Dissen@fhwa.dot.gov  
Fax : (360) 494-2610
- Johnson Western Gunitite Company (JWG) began mobilizing equipment on April 15<sup>th</sup> and 16<sup>th</sup>. JWG work shift is scheduled to be 4 – 10 hour days, Monday thru Thursday.
- Coring the bents began April 22 at pier 9 on the north end.
- The Chinook pass is closed to public travel and the gate remains locked at the Hwy 123 intersection. JWG is planning to work the next two Friday and Saturday to take advantage of the road being closed.

**Scheduled activities**  
**4/27/03 to 5/03/03**

- Excavation, placing scaffolding and coring of the bents will continue this week
- Traffic Control issues - The gate will remain closed at Hwy 123 and Stevens Canyon road will not be open to the public until Chinook Pass is opened.

**Note from the Project Engineer:**

If you would like to receive this News Letter by E-mail contact me at the E-mail address provided above. If you do not want to receive this News Letter, or know someone who would like to receive it please contact me.

Sincerely,  
Chuck Dissen  
Project Manager

**EXAMPLE PROJECT NEWSLETTER (BACKBONE RIDGE VIADUCT PROJECT)**

**Exhibit 5.6A**



# Pioneer Mountains Scenic Byway MT PFH 73-1(5) Weekly Newsletter

## Work completed during the week of June 26 through July 2:

Chipping of the slash piles continued through the week. Cuddy & Associates continued survey staking. Coleman Construction continued rebar placement for the snowmobile bridge abutments. Riprap production began and work on the Monday-Friday detour route continued. Silt fence installation also continued.

## Activities scheduled for the week of July 3 through July 9:

Aggregate surfacing will be placed on the Monday-Friday detour. Cuddy & Associates will continue survey staking. Work on the snowmobile bridge and slash pile chipping will continue. Culvert installation is also expected to begin this week.

## Traffic Control:

During weekdays, flaggers and a pilot car will guide traffic through the project where construction activities are underway. To date, traffic delays have been short, but delays of up to 30 minutes are possible. During the weekend, the Byway is open to public travel.

If you have any questions or comments regarding the status of the project, please call me at (406) 683-3452. Project information is also available at: [http://www.wfl.fha.dot.gov/projects/pioneer\\_mountains/](http://www.wfl.fha.dot.gov/projects/pioneer_mountains/)

Respectfully,  
Daniel L. Christianson, Project Engineer  
610 North Montana Street CL #8  
Dillon, MT 59725

EXAMPLE PROJECT NEWSLETTER (PIONEER MOUNTAINS PROJECT)

Exhibit 5.6B

WFLHD & DODD CONSTRUCTION



**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
WESTERN FEDERAL LANDS HIGHWAY DIVISION  
Tillamook, Oregon**

**CONSTRUCTION STATUS REPORT  
NOTICE TO THE CITIZENS THAT UTILIZE AND ENJOY THE  
SANDLAKE-GALLOWAY AREA ROADS  
Monday May 26, 2003 thru June 1, 2003**

**Planned Construction for this period**

The contractor will be working on Sandlake Road this week weather permitting beginning Tuesday May 27.

Travelers will find traffic control and flaggers near station 5+600 or about 3.3 miles in on Sandlake Road from the Highway 101 intersection starting Tuesday. This is at one of the large embankment construction locations and traffic control is needed for trucks hauling out mud and hauling in rock.

It's also possible that near station 0+480 or about 0.3 mile in on Sandlake Road from Highway 101 intersection, traffic control could be encountered to meet the needs of embankment material. Although off the roadway it will continue to impact traffic with trucks needing to back in for loading material.

**Project Comments for this Week**

You might notice the detour fills are almost completed for the West Beaver Creek culvert location there at Mr. Remington's house. These are almost ready for the detour bridge, which is currently in place at the Galloway Bridge site.

**TRAFFIC CONTROLLED BY FLAGGERS AND PILOT CAR WILL OCCUR  
TUESDAY AND CONTINUE THROUGH THURSDAY THIS WEEK.**

**EXPECT TRAFFIC CONTROL AND WORK SITES THROUGHOUT THE  
PROJECT AND DRIVE WITH CAUTION, AN ACCIDENT WILL RUIN YOUR  
DAY.**

**Thank you for your patience and consideration.**

**Contractor:** ELTE, Inc., Boring, Oregon

**Client Agency:** Tillamook County and Siuslaw National Forest, Hebo Ranger District, Hebo, Oregon

**Contract Administration:** Federal Highway Administration, Vancouver, WA.

**For information please contact Chuck Mikkola, Project Engineer, at (503) 842-0030 at the Federal Highway Administration Project Office, Tillamook, Oregon.**

**EXAMPLE PROJECT NEWSLETTER (SANDLAKE – GALLOWAY ROAD PROJECT)**

**Exhibit 5.6C**

# Kamiah - Pierce Road

Construction  
for the week of  
May 19, 2003

The following work is *tentatively* planned for the coming week –

- On Monday, **excavation of the rock cut** on the right from **14.6** to **14.8** (far end of the Geiger property) will begin. This material will be hauled to various areas between the excavation and the beginning of the project where additional material is needed. Embankment construction will be taking place intermittently between **10** and **15**. This work will be ongoing all week.
- **Subexcavation** of the roadbed *may* resume this week. If it does resume, it will occur between **10** and **12**, as shown on the enclosed map.

Traffic control will be in place during work hours, with a flagger at each end of the work zone. Delays to traffic will be minimized, however, delays of up to 30 minutes should be anticipated.

The contractor plans on working a 10 hour shift, from 7 a.m. to 5 p.m., Monday through Friday.

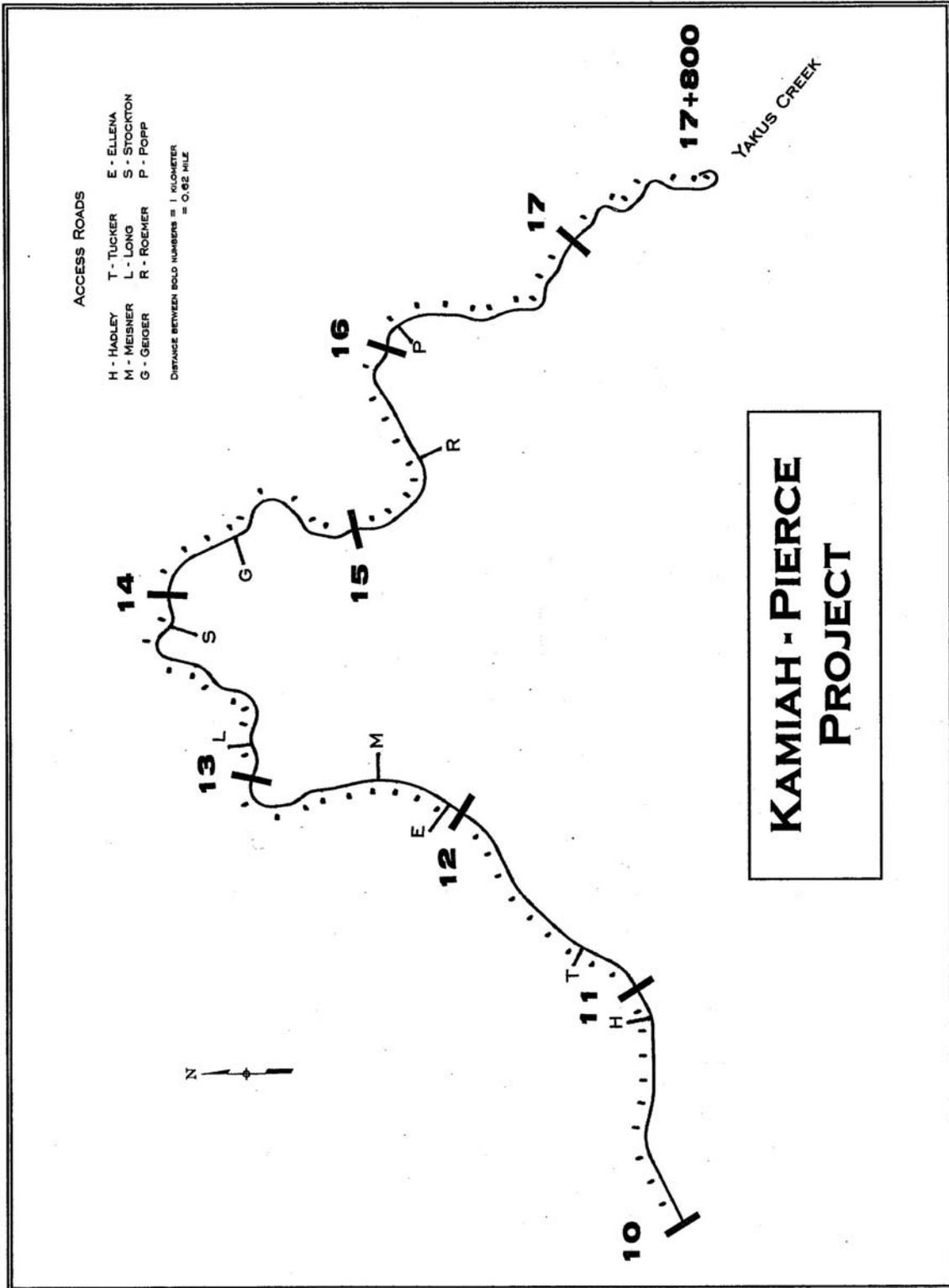
This tentative schedule is contingent upon weather and progress of prior work. Depending on the progress of the planned work, other work areas may be encountered throughout the project.

Jim Phillips Contracting is the prime contractor for this project and will be performing most of the work. A number of subcontractors will also be working throughout the project at various times.

Questions regarding the construction may be directed to Tom Craig at the Federal Highway Administration office in Kamiah at 935.0610. The office is located at 613 4<sup>th</sup> Street.

EXAMPLE PROJECT NEWSLETTER (KAMIAH – PIERCE PROJECT)

Exhibit 5.6D



EXAMPLE PROJECT NEWSLETTER (KAMIAH - PIERCE PROJECT *continued*)

Exhibit 5.6D

## 5.7 WORKING DRAWINGS

### 5.7.1 General

See FAR Clause 52.236-21 - *Specifications and Drawings for Construction* and Subsection 104.03 of the FP.

The Contract states the time requirements for submission and approval of working drawings.

The CM should go over the Contractor's schedule for submissions so that the Government can schedule its own resources. The Contractor should also be advised to promptly submit information on suppliers and subcontractors whose work will require Government inspection and testing, particularly offsite inspection.

### 5.7.2 Submittal and Working Drawing Approval Procedures

Follow the steps below for submittal and working drawing approval of all items.

1. As specified in subsection **C.5.1.5 Contractor Submittals** of the construction management contract, establish a system for scheduling and tracking submittals or working drawings. Consult the PM for input and direction when setting up this system. This system should determine which of the cross-functional team members (approving official) the particular submittal should be sent to. This system may determine that the PM can approve with input from the CM.
2. Once the construction contractor submits the specified number of prints, drawings or submittals to the CM, the CM promptly forwards all but one set of prints, drawings or submittals to the appropriate cross-functional team member for review, unless approval can be done by the PM. If the PM can approve, send all but one to the PM.
3. The CM also reviews the drawings and provides the approving official with pertinent comments. The approving official reviews and marks each sheet with the notation "**Approved**," "**Approved as Noted**," or "**Returned for Correction**," as appropriate.
4. Upon approval of the print, drawing or submittal the approving official will return them to the CM for distribution as follows:
  - A. **If required**, one set to the Quality Assurance Engineer who will arrange for inspection by an outside agency.
  - B. One set to the contractor
  - C. One set to the PM
  - D. One set to Central Files through the COE
  - E. One set to project files
  - F. One set CM
  - G. One set any appropriate inspectors

Make any additional copies as needed.

## **5.8 AS-BUILT WORKING DRAWINGS**

### **5.8.1 General**

As-built working drawings are required on all WFLHD projects (FP Section 104). The construction contractor is required to complete the as-built drawings on full-sized project plans if supplied. If not supplied, normal-sized plans are acceptable.

At the completion of the project, the marked plans should be sent in with the rest of the project records.

The items listed below are to be covered as well as any other items specified in the SCRs.

### **5.8.2 Plans**

- **Alignment** - All revised alignment should be shown. Where bearings, curve data, etc., do not change, the data should be checked for accuracy.
- **Changes** - Changes in construction limits, if any, should be shown.
- **Bridges** - Stations of all bridge ends should be shown.
- **Ties** - Ties to any additional found corners should be shown.
- **Approach Roads** - The constructed location of all road approaches are to be shown.
- **Right-of-Way** - All right-of-way adjacent to private property is to be shown with care for correctness.
- **Monuments** - All monuments should be shown.
- **Utilities** - All utilities should be shown (e.g., gas, water, commercial power, sewers, etc.), including new, existing, abandoned, and removed facilities.
- **Underdrains** - Location, size, and depth of underdrains should be shown.
- **Channel Changes** - As-constructed channel changes should be shown.
- **Crossings** - Elevations for all aerial and underground crossings of utilities should be shown. (One should not attempt to measure directly from the road to the sag in overhead crossings.)

### **5.8.3 Profile**

- **Grades** - Corrected grades and grade points of intersection (P.I.s) should be shown.
- **Equations** - All equations and stationing should be shown.
- **Culverts** - Correct culvert lengths, type, invert elevations, and stations are to be shown. Skew angles and as-built grades should be shown.
- **Extensions** - On culvert extensions, the length of existing pipe, as well as extension, should be shown.

### **5.8.4 Permanent Bench Marks**

- **Monuments** - Data on monuments should be shown.
- **Datum** - Datum used for levels should be shown.

### **5.8.5 Retaining Walls**

- Limits and type of wall are to be shown on profile sheets.

### **5.8.6 Guardrail**

- Corrected stationing, lengths, and offsets from edge of pavement or travel lane, if different than original plans, should be shown.

### 5.8.7 Fencing

- Construction limits of fencing in relation to centerline should be shown.

### 5.8.8 Typical Sections

- Any revisions in both dimensions and materials should be shown. Also, stations, if termini were revised, should be shown.

### 5.8.9 Bridges

- Any changes in bridge plans should be shown. If built without changes, it should be indicated on the plans that no changes were made.
- Information required for bridges includes the following:
  - **Subsurface Log** - A log of foundation material encountered if substantially different than information shown on plans. Log sheets should be attached to plans if necessary or convenient.
  - **Pile Driving Records** - Pile driving records including size, length, type, bearing, and tip elevation should be included. Record sheets should be attached to plans if necessary or convenient.
  - **Elevations** - Footing and seal elevations, if different than plan, should be included.
  - **Changes** - Any changes in plan or dimensions should be noted, including any major changes in reinforcing.

## 5.9 LOAD LIMITS

Subsection 104.05 of the FP requires the Contractor to comply with load limits on public roads in the vicinity of the project. As a practical matter, this is difficult to enforce except where materials are being delivered by the ton with weigh tickets. The CM should, however, be particularly sensitive to this problem when there are complaints from local officials, and during periods of wet/thawing subgrade. Construction Management staff should cooperate with these officials in their reasonable attempts to protect their roads, even when our contractor may be inconvenienced.

In terms of WFLHD's contract liability, it is preferable to have a legal order from the local official, or a strongly worded demand, that says, hauling be temporarily discontinued or loads restricted, than for Construction Management staff to take actions based on verbal or other poorly documented requests. Actions, which may be perceived as unilateral on the part of Construction Management staff or FLH, could be considered a change, and subject the Government to liability for the Contractor's increased costs. The CM should contact the Project Manager for advice when in doubt.

On the project itself, overloads are not normally a problem through construction of the untreated base layers of the pavement structure. However, once construction of asphalt concrete or treated layers begins, they must be protected from damage.

Although the Contractor is required to repair damage caused by overloads, there may be times when it is appropriate to prohibit heavy loads (even loads less than the legal maximum) in certain circumstances when the probability of damage is present. Again, the Project Manager should be solicited for advice.

## **5.10 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE**

### **5.10.1 General**

The Contractor is responsible for the protection of all public and private properties adjacent to the construction insofar as they are endangered by the construction operations. This responsibility also extends to designated materials sources and property adjacent to haul roads. If the Contractor fails to take proper precautions or persists in performing the work in a manner, which causes damage to such property, the matter should be called to its attention in writing. The Contractor is obligated to repair, rebuild, or otherwise restore such damaged property, or make good such damage or injury.

Occasionally there are claims against the Contractor related to damage to its own (non-designated) materials sources or to property not directly related to the Contract. WFLHD or the Construction Management firm should try not to become involved in such disputes. However, there are times when, for political or public relations reasons, our involvement is necessary. There are also certain environmental protection laws, which make the Government partially responsible even for private sites, which are related to the construction project. The CM should discuss such cases with the Project Manager prior to taking action.

Since landscape degradation often cannot be completely restored, emphasis should be placed on prevention of damage. In cases of damage, the CM should contact the appropriate representative of the agency concerned and discuss the extent of repairs that the Contractor must make. Request a written description of the repairs so that the Contractor may be given a copy. As long as the requested repairs are reasonable, the Contractor should be given a written directive to complete them at no cost to the Government. If the requested repairs seem unreasonable or excessive, discuss the situation with the Project Manager. If WFLHD orders corrective action under the Contract, which is later deemed excessive, we may ultimately be liable for the excess costs.

### **5.10.2 Trespassing**

WFLHD should do no staking on private property without written permission from the owner. If the Contractor performs any construction operations outside the limits of the acquired right-of-way, or permits employees to trespass on private property, the CM should notify the Contractor of its liability for damages to such property. If for any reason additional easements or right-of-way should be necessary, the CM should notify the Project Manager well in advance of the time when access will be required and secure proper written permission for right of entry.

## **5.11 UTILITIES**

### **5.11.1 General**

Utility relocation and adjustments are to be made by the utility company unless otherwise provided in the Contract. The specifications usually provide that the Government is responsible for coordinating with the utility and endeavoring to have all necessary adjustments made as soon as practicable, and that no additional compensation will be allowed the Contractor for any delays, inconvenience, or damage sustained due to any interference from the utility appurtenances or the operation of moving them. However, if such delays are unforeseeable, and beyond the control of the Contractor, an adjustment in contract time may be justified. Also, if the utility fails to assume their responsibility for the adjustments in a reasonably expeditious manner, the Contractor may be entitled to a price adjustment in accordance with the Changes clause.

The specifications also usually provide that the Contractor shall not start work in areas where damage to utilities might result in considerable expenses, loss, or inconvenience, until after all arrangements necessary for the protection of the utilities have been made. The Contractor also must cooperate with the utility owners in their removal and rearrangement operations.

### **5.11.2 Government-Owned Utilities**

Special procedures for removal and/or reconstruction of Government-owned telephone lines and other utilities have been agreed upon between WFLHD and some of the Regions of the Forest Service, but such procedures usually vary in minor details in the different Forest Regions. In general, all repair, reconstruction, and other telephone work should be handled by the Forest Supervisor or authorized representative. Park Service utility lines should be handled in a similar manner.

### **5.11.3 Privately-Owned Utilities**

In most cases, the work by utility companies must precede work by the Contractor in the affected area. The CM should request the Project Manager to verify that such work has been arranged. When possible, the CM should make diary entries to document the operations of the utility companies as the work of adjustment or relocation progresses. Such data as the date of beginning of the work, the number of personnel working each day, the equipment and materials used, disposal of any salvaged material, and the date of completion of the work are particularly important.

When it is necessary to change the planned relocation from that shown on the plans accompanying the utility agreement, or when a significant increase in the estimated relocation costs is apparent, the Project Manager must be immediately notified so that arrangements can be made for financing and modification of the agreement.

When utility adjustment is delayed, and the Contractor proceeds to work in the affected area or is hindered by such delay, the CM must keep adequate records in the project diary, and support them with appropriate photographs whenever practical. This information is of value in the event the Contractor files a claim.

The CM may deal directly with the State or County right-of-way officials, and with public utilities on matters arising during construction, and keep the Project Manager informed of all actions taken. Keep the Project Manager informed of any information furnished, services performed, changes or problems. The Project Manager will provide additional assistance and instructions when needed.

When field conditions require significant changes from plans or agreements, the CM should request the Project Manager to arrange for a meeting with representatives from the utility company to reach a final decision on the change. Agreement modifications will be processed, funded, and approved by WFLHD staff, based on data and estimates obtained at the above-described joint meeting.

## 5.12 BULLETIN BOARD

Subsection 107.03 of the FP requires the Contractor to maintain a weatherproof bulletin board, accessible to all employees at the site. The following items are contractually required to be posted on the bulletin board. WFLHD furnishes Items 1, 2, and 3 upon award of the contract.

1. Davis-Bacon wage decision - Remove pages from Contract booklet
2. EEO Poster
3. Beck Poster
4. Contractor's EEO policy

The following items may not be contractually required but may be required by regulation. WFLHD should furnish Items 1, and 2. WFLHD may furnish Item 3, if such resources are maintained by the cooperating agency, e.g. inside certain large National Parks.

1. Notice to Employees working on Federally Financed Construction Projects, Form WH 1321 - To be displayed with Davis-Bacon rates.
2. Job Safety and Health Protection poster.
3. Telephone numbers of physicians, hospitals or ambulances.
4. Blasting signals, if applicable.
5. Crane hoisting signals, if applicable.

### 5.13 CONTRACTOR'S RESPONSIBILITY FOR WORK

The contract provides that the Contractor is not responsible for damages due to cataclysmic phenomena of nature, acts of the public enemy, or acts of Government authorities. The Contractor is responsible for other kinds of damage to the work, even damages which are not the result of the fault or negligence of the Contractor. See FAR Clause 52.236-7, Permits and Responsibilities.

When damages occur, and the responsibility for those damages is in doubt, the CM should discuss the issues with the Project Manager; and if immediate action is necessary, direct the Contractor to take necessary steps to repair the work. If a contract modification and compensation is in order, the contract modification should be processed through normal channels. The CM will keep exact accounts of work performed, so that payment can be made on an actual cost basis if necessary.

The payment to be made to the Contractor under the foregoing conditions should be full reimbursement for restoring the work to the condition at the time of the damage, less any salvage value of removed material.

#### 5.14 OPENING SECTIONS OF THE PROJECT TO TRAFFIC

There are two contractual situations where the Contractor may be required to open a partially completed portion of the project to public traffic.

If the opening is a part of an overall stage construction scheme, which is a part of the Contract requirements, no special written order or directive is required. However, it may be prudent to go over the incomplete work involved and agree with the Contractor on the work remaining, and the Contractor's plan to protect and maintain the completed work. Generally the Contractor is responsible for such maintenance including vandalism and private vehicular accidents.

If the opening is unplanned, i.e. not a requirement of the Contract, the Government has a right under the Contract (FAR Clause 52.236-11) to order an opening, but may incur some liability for doing so. This situation should be discussed with the Project Manager. The liability may include, but not be limited to increased construction costs to complete under traffic, and increased maintenance and possible vandalism costs. If the Government decides to open in spite of this liability, a written direction signed by a Contracting Officer is required.

In neither of these two cases is the Government accepting the partially complete work and the Contractor should be clearly advised of that and its continuing responsibility for completion and maintenance as appropriate.

## 5.15 SAFETY OF THE CONSTRUCTION MANAGEMENT TEAM

### 5.15.1 General

The safety of Construction Management employees on the project is the responsibility of the CM. The CM shall orient new employees as to the special safety concerns of the project, and shall instruct all personnel by holding frequent safety meetings, and should emphasize those areas of danger that might be encountered on the project.

The CM should become familiar with regulations regarding operation of vehicles, and with local traffic laws and regulations. They shall see that all personnel required to operate vehicles are properly licensed. The CM should withdraw any construction management team member from the project who commits serious or repeated safety violations, or who otherwise seems incapable of safely operating vehicles of any kind. Special situations should be discussed with the PM.

The working environment of all WFLHD construction projects is largely under the control of the Contractor. In fact the Contract, *FAR Clause 52.236-13, Accident Prevention*, specifically requires, among other things, the Contractor to maintain a work environment that will safeguard the health of the public, Government personnel, and its representatives. However, it is the CM's responsibility to see that the Contractor effectively fulfills this responsibility. WFLHD employees or Construction Management staff cannot be permitted to work in an environment that is unsafe in ways that are correctable or controllable.

### 5.15.2 Clothing and Footwear

All Construction Management personnel are required to wear hard hats on construction project work sites. This *badge of the industry* is worn in part to demonstrate emphasis on employee safety, and therefore is not dependent on the relative hazard of operations on any particular occasion.

When working in areas subject to traffic, personnel must wear some distinctive article of protective clothing, such as a bright orange vest or jacket.

Suitable footwear, normally steel-toed, laced boots, is required.

## 5.16 CONSTRUCTION SITE SAFETY

### 5.16.1 General

Federal law requires all WFLHD contracts to contain *FAR Clause 52.236-13, Accident Prevention*. This clause requires the work to be performed in accordance with the *Safety and Health Regulations for Construction (OSHA Part 1926)* published by the U. S. Department of Labor. Each Project office should have a copy of these regulations. The clause also obligates the Contractor, without separate or additional payment, to safeguard the public, Government employees, Construction Management firm employees and Government property exposed to the construction. This obligation gives the Government and the CM the discretion to order correction of hazards *whether or not a specific hazard is specifically covered by the OSHA regulations*. The following procedures are to be followed to monitor and assure that the contractor's safety program meets the requirements of the contract.

### 5.16.2 Contractor's Accident Prevention Plan

Consistent with the requirements of FAR Clause 52.235-13, Accident Prevention, all WFLHD contracts require the Contractor to submit an Accident Prevention Plan. Contractors should use Form WFLHD-28, Guide for Contractor's Accident Prevention Plan when preparing their plan.

### 5.16.3 Weekly Traffic Control Certification

Subsection 156.08(h) of the FP requires the Traffic and Safety Supervisor (TSS) to prepare a weekly certification that inspections and reviews were conducted and that the traffic control devices meet contract requirements. The CM should review the certification and routinely verify its accuracy through discussions with the TSS and field checks. This is only required on projects where there is a TSS.

### 5.16.4 Construction Management Firm Safety Responsibilities Prior to Start of Construction

1. At the Preconstruction Conference, emphasize the Contractor's safety responsibilities under FAR Clause 52.236-13, Section 100 of the FP and Contract provisions dealing with specific subjects such as work zone traffic control and explosives.
2. Accept or otherwise respond to the Contractor's Accident Prevention Plan. If the plan is acceptable as submitted, stamp it "Accepted" and return a stamped copy to the Contractor.
3. Emphasize that the Contractor, not the Project Manager or CM, is obligated to:
  - a. Perform routine safety inspections and otherwise monitor project safety.
  - b. Immediately correct or otherwise determine an appropriate response to complaints of safety deficiencies whether those complaints come from Contractor employees, the Government or the public.
  - c. Provide the required safety expertise to fulfill these obligations. It should not be assumed that WFLHD or the Construction Management firm have, or will provide, such expertise.
4. Advise the Contractor that the Contract requires that WFLHD notify the Contractor in writing of alleged safety deficiencies, and that the WFLHD will notify the State or Federal OSHA office responsible for construction safety monitoring if deficiencies are chronic or unresolved.
5. Advise the Contractor that if it fails to immediately correct safety deficiencies, especially high risk deficiencies, the Project Manager is empowered to stop work on the affected operations until the deficiencies are corrected.

6. Advise the Contractor that the safety of public traffic and pedestrians in the vicinity of the project is of paramount concern; and that all accommodation of the public will be in strict accordance with the Contract or subject to the direction and approval of the CM.
7. Advise the Contractor that inspectors, testers, and other Government employees and/or Construction Management staff and other contractors working at the site are not obligated to work under unnecessary or unreasonable risks; and that the inspection and acceptance of the work may require accommodations to protect those personnel.
8. Advise the Contractor that it will be required to provide copies of all accident reports prepared for Government agencies or insurance carriers, to the CM.

#### **5.16.5 Construction Management Firm Safety Responsibilities During Construction Operations**

1. Construction Management staff are encouraged to perform periodic, unscheduled reviews of the Contractor's traffic control operations. Form WFLHD 404c, Traffic Safety Checklist, - Flagger Operations is useful in conducting these inspections. It is not necessary for the TSS to accompany you during these inspections, but it may be of benefit to them and you.
2. Construction Management staff will not normally perform periodic, comprehensive project safety inspections or safety inspections of Contractor equipment, tools or workplace. However, if during the course of their other duties, Construction Management staff become aware of hazardous conditions which result from the Contractor's known or possible violation of either OSHA regulations, or reasonable standards of construction safety practice, as determined by the CM, the Contractor shall be notified immediately with a written follow up. See **Exhibit 5.16B** for an Example Safety Deficiency Notification.
3. Allegations of safety deficiencies may come from sources outside WFLHD and its onsite inspection staff. Client agencies employees, contractor employees, others working at the site, or sometimes just private citizens passing through the site may point out what they think are safety violations. These allegations should be conveyed to the contractor in writing. The contractor shall be instructed to correct the deficiency if the CM is convinced that there is a deficiency. The contractor shall be asked to investigate the deficiency and take appropriate corrective action if there is doubt as to whether a deficiency exists.
4. All safety deficiencies identified whether serious or minor, singular or repeated, should be considered failures of the Contractor's Accident Prevention Plan, and the Contractor should be advised of the necessity not only to correct the deficiency, but to review and modify the Plan to prevent repeat occurrences.
5. When the Contractor has repeated minor deficiencies or avoidable accidents (more than three in any three month period), any serious or life threatening deficiencies, or any deficiencies which the Contractor failed to immediately correct, a copy of the written notification to the Contractor shall be provided to the State or Federal agency responsible for OSHA enforcement at the Project. See **Exhibit 5.16C** for an Example Chronic Safety Deficiencies Notification. The Project Manager should be advised prior to copying the State or Federal OSHA office. This level of safety deficiencies may also be a basis to request that the Division safety resource person assist in an overall inspection and evaluation of the Contractor's safety program. On National Park Service projects, NPS safety specialists may be invited to participate in such evaluations on a consultative basis. Such an inspection and evaluation would be especially appropriate if the response of the State OSHA office is inadequate to resolve the problem.
6. Once safety specialists have concurred in the CM's determination of chronic or unresolved deficiencies, appropriate actions under the terms of the Contract, such as issuance of a stop work order, may be warranted. Except for life-threatening situations discussed below, the Project Manager and COE should be advised of, and concur in such actions.

7. When any Construction Management staff observes a life-threatening condition resulting from the Contractor's operations, the Contractor shall be ordered to immediately correct the situation. In addition, that portion of the work should be stopped until the hazard is corrected.
8. When in doubt, the CM may elect to discuss the situation with the Project Manager before taking action. However, it is generally better to err on the conservative side than to not take action when appropriate.
9. Construction Management staff should not directly or indirectly assume control, direction or responsibility for the Contractor's safety. In advising the Contractor of apparent deficiencies, do not prescribe the corrective measures or procedures to be taken by the Contractor. In many cases, you may not know for sure that there is an OSHA violation; for example whether a given piece of equipment is required to have a ROPS (Roll Over Protection System) or other features. Upon notification, it is up to the Contractor to provide the expertise to determine if there is a violation, and to correct it if necessary, or respond to the CM in some credible manner if there is no deficiency.
10. In addition to its contractual responsibilities, WFLHD has a responsibility to ensure a safe working environment for its employees, Construction Management staff and other Government employees working in the vicinity and its other contractors. None of these personnel should be required to perform inspection or other duties in an unsafe environment. If the unsafe environment is under the control of the Contractor, advise the superintendent that the work requiring inspection cannot be accepted until the unsafe condition is corrected. For example, rolling operations may have to be suspended during testing if the compaction tester perceives a hazard associated with that equipment. If verbal notice proves ineffective, provide written notice to this effect.

#### **5.16.6 High Risk Situations**

There are certain high-risk categories of safety hazards, which are statistically of paramount importance and deserve special attention during administration of construction contracts.

##### **5.16.6.1 Construction Vehicle Accidents**

This category receives little mention in the OSHA regulations because it is so difficult to write general standards when every situation is different. However, it is a leading cause of construction accidents and fatalities. If you perceive that deficiencies or unnecessary risks are present with respect to the use of construction vehicles, advise the Contractor whether or not a specific OSHA violation has occurred. Some of the deficiencies associated with vehicular accidents are:

- Failure to separate pedestrian workers from heavy equipment and other construction vehicles.
- Failure to provide working backup alarms.
- Failure to adequately plan and manage the movement of vehicles in congested or low visibility conditions.
- Failure to maintain brakes, ROPS and other safety equipment adequately.
- Failure to operate vehicles using due care and caution.
- Altering "as designed" configuration or safety features of equipment.

##### **5.16.6.2 Interaction with Public Traffic**

This is an increasingly serious category due to the percentage of highway construction projects being performed under traffic. See Sections 156 and 635 of the Contract, as well as corresponding sections of this manual for additional guidance.

### **5.16.6.3 Trenching and Excavation**

This is a leading cause of construction accidents and fatalities, mostly due to the sudden and unexpected nature of such accidents when required precautions are not taken. In 1989 OSHA substantially revised the safety standards associated with trenching and excavation. See CFR 1926, Subpart P. **Exhibit 5.16D** is a Summary of OSHA Trenching and Excavation Requirements. The actual regulations should be reviewed for exceptions and more detailed information. It is the contractor's obligation to have personnel who are trained in, or otherwise competent to implement the new regulations. Construction Management staff should not be put in the position of providing that competence, training the contractor or approving each trenching operation.

### **5.16.6.4 Falls**

Scaffolding, rails, stairs & ladders meeting OSHA standards are the primary requirement. If that is impractical then safety belts and lifelines are required. If both are impractical then safety nets shall be provided at heights exceeding 7.6 meters. Vertically protruding reinforcing steel below walkways or persons working must be protected.

### **5.16.6.5 Explosives**

Accidents often result from failure to have competent personnel in charge of blasting or failure to develop and follow a valid blasting plan. CFR 1926, Subpart U, and the Contract provisions contain the pertinent requirements.

WFLHD-404C  
(10-81)  
(DOC.#2458C)

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U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
WESTERN FEDERAL LANDS HIGHWAY DIVISION

**TRAFFIC SAFETY CHECKLIST**  
**FLAGGER OPERATIONS**

PROJECT: \_\_\_\_\_

STATIONS: \_\_\_\_\_

DATE: \_\_\_\_\_

WEATHER: \_\_\_\_\_

REVIEWER (TSS): \_\_\_\_\_

	<u>O.K.</u>	<u>Needs Correction</u>
1. <u>Are the appropriate number of flaggers being utilized?</u>	_____	_____
2. <u>Are flaggers properly equipped with hardhat (any color); vest, shirt, or jacket of High-Viz color and reflectorized?</u>	_____	_____
3. <u>Are flaggers equipped with required stop/slow sign? (18" or more in diameter)</u>	_____	_____
4. <u>Does the flaggers meet minimum qualifications:</u>		
a. <u>Sense of responsibility for safety of the public and crew?</u>	_____	_____
b. <u>Trained in safe traffic control practices?</u>	_____	_____
c. <u>Average intelligence?</u>	_____	_____
d. <u>Good physical condition, including sight and hearing?</u>	_____	_____
e. <u>Mental alertness and the ability to react in an emergency?</u>	_____	_____
f. <u>Courteous but firm manner?</u>	_____	_____
g. <u>Neat appearance?</u>	_____	_____
5. <u>Are flaggers certified by ATSSA, state agency, or approved organization?</u>	_____	_____
6. <u>Are flaggers checked for quality of operations by contractor on a frequent basis?</u>	_____	_____
7. <u>Do flaggers stop traffic properly?</u>	_____	_____
8. <u>Do flaggers direct traffic to proceed properly?</u>	_____	_____

**TRAFFIC SAFETY CHECKLIST – FLAGGER OPERATIONS (Page 1 of 2)**

**Exhibit 5.16A**

WFLHD-404C (10-81)  
 TRAFFIC SAFETY CHECKLIST – FLAGGER OPERATIONS  
 (DOC.#2458C)

Page 2 of 2

	<u>O.K.</u>	<u>Needs Correction</u>
9. Do flaggers alert and slow traffic properly?	_____	_____
10. Is the <u>flagger</u> stationed the proper distance from the traffic hazard and/or the construction site? (150 meters)	_____	_____
11. Are the <u>flagger</u> stations highly visible to approaching traffic?	_____	_____
12. Are the <u>flagger</u> stations adequately protected and preceded by the proper number of warning signs?	_____	_____
13. Are signs the proper size, shape and color?	_____	_____
14. Are signs properly spaced?	_____	_____
15. Are signs unobstructed and clean?	_____	_____
16. Are signs positioned properly horizontally and vertically from edge of roadway?	_____	_____
17. Are night operation signing positioned properly horizontally and vertically from edge of roadway?	_____	_____
18. Are flaggers equipped with two-way radio communication equipment when out of sight from each other?	_____	_____
19. Roadway condition through work zone?	_____	_____

REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

TSS: \_\_\_\_\_

FHWA Inspector: \_\_\_\_\_

**TRAFFIC SAFETY CHECKLIST – FLAGGER OPERATIONS (Page 2 of 2)**

**Exhibit 5.16A (continued)**



**U.S. Department of Transportation  
Federal Highway Administration**

WESTERN FEDERAL LANDS HIGHWAY DIVISION  
C/O CM's name, Construction Manager  
Thomas/Wright, Inc.  
Street Address  
City, Montana xxxxx

May 16, 2005  
Serial letter CC-20

Jim McDonald, President  
Coin Construction, Inc.  
1220 Francis Road  
Billings, Montana 59101

Subject: MT PFH 43-1(4), Pine River Road  
Contract No. DTFH70-05-C-00000  
Safety Issues

Dear Mr. McDonald:

On May 15, 2005 WFLHD inspectors observed an employee of your testing subcontractor attempting to take a compaction test in the vicinity of Station 11+00. Visibility was poor due to dust from the scrapers. The tester had no safety vest. He was not shielded by a vehicle. Scrapers and other equipment seemed oblivious to his presence as they passed by at speed less than three meters away.

You are directed to review your overall safety plan for adequacy in this area, specifically how pedestrian workers are effectively protected when working in the vicinity of heavy equipment. Please advise the Project Engineer of actions you are taking to minimize this problem and similar situations in the future.

Sincerely,

John Cable  
Project Manager

**EXAMPLE SAFETY DEFICIENCY NOTIFICATION**

**Exhibit 5.16B**



**U.S. Department of Transportation  
Federal Highway Administration**

WESTERN FEDERAL LANDS HIGHWAY DIVISION  
C/O CM's name, Construction Manager  
Thomas/Wright, Inc.  
Street Address  
City, Montana xxxxx

June 23, 2005  
Serial letter CC-20

Jim McDonald, President  
Coin Construction, Inc.  
1220 Francis Road  
Billings, Montana 59101

Subject: MT PFH 43-1(4), Pine River Road  
Contract No. DTFH70-05-C-00000  
Safety Issues

Dear Mr. McDonald:

This letter summarizes a number of safety problems, which have occurred at the jobsite in the last several months. The frequency and/or seriousness of at least some of the problems suggest that your overall safety program is inadequate; or that to be effective, it should be implemented more assertively.

In March a crane outrigger foundation failed, causing the crane's load to swing and damage some concrete formwork,

Also in March, we advised you of concrete finishers working on planks approximately five meters above the ground, without adequate safety belts.

In May we advised you that you compaction tester was observed working immediately adjacent to compaction and hauling equipment during periods of poor visibility and without adequate isolation of the test site from the construction operations.

On May 26, 2004 several form bolts fell off the top of scaffolding at Pier No. 4 narrowly missing a workman.

You are hereby directed to review your overall safety program and to provide the enhancements necessary to prevent, in the future, these kinds of deficiencies and accidents, any one of which could have resulted in a fatality or serious injury. Please respond to this office in writing by July 1, 2005, detailing the actions you have taken or are taking to enhance your program. If the Government believes your safety program continues to be inadequate, FAR Clause 52.236-13 permits the suspension of all or part of the work pending corrections to the program. We will be compelled to consider such an action if the frequency of accidents and safety deficiencies does not diminish.

Sincerely,

John Cable  
Project Manager

**EXAMPLE CHRONIC SAFETY DEFICIENCY NOTIFICATION**

**Exhibit 5.16C**

**Summary<sup>1</sup> of OSHA Trenching and Excavation Requirements**

**Soil Classification**

Classification	Description
Stable Rock	Solid rock, which can be excavated with vertical sides, which remain intact while exposed.
Type A Soil	Cohesive soil, caliche or hardpan that is not fissured, subject to vibration or other factors which would require it to be classified as a less stable material; and which has an unconfined compressive strength of at least 150 kilopascals.
Type B Soil	Cohesive soil that is fissured, subject to vibration or other factors which would require it to be classified less than Type A, but not Type C and which has an unconfined compressive strength between 50 and 150 kilopascals; granular cohesionless soils including silt, silty loam, sandy loam; angular gravel or crushed rock; previously disturbed soil.
Type C Soil	Cohesive soil with an unconfined compressive strength of less than 50 kilopascals; cohesionless soils including rounded rock, sand; submerged or saturated soil, submerged rock that is not stable; layered systems which dip into the excavation at a slope of 1:4 or steeper.

**Maximum Slope and Trenching Depth  
Unsupported Trenches**

Soil Type	Maximum Slope	Maximum Depth <sup>2</sup>
Stable Rock	Vertical	6.0 meters
Type A, B or C	Vertical	1.5 meters
Type A Soil	1.3:1	6.0 meters
Type A Soil (Alternate)	Vertical and 1.3:1 <sup>3</sup>	1.1 meters 2.5 meters <sup>4</sup>
Type A Soil (Alternate)	Vertical and 1:1 <sup>3</sup>	1.1 meters 3.6 meters <sup>4</sup>
Type A Soil (Short Term) <sup>5</sup>	2:1	3.6 meters
Type B Soil	1:1	6.0 meters
Type C Soil	1:1.5	6.0 meters

Notes:

- 1 - This material is a summary of OSHA regulations published in CFR 1926, Subpart P, Appendix A and B. The regulations themselves are not written in SI units, and are more detailed than the summary presented here; and therefore should be used to resolve actual job site questions and interpretations.
- 2 - Support systems for trenches over 6.0 meters deep must be designed by a registered Professional Engineer.
- 3 - Maximum slope above vertical portion of trench.
- 4 - Maximum total depth including vertical portion of trench.
- 5 - Short term means 24 hours or less.
- 6 - All soil must assumed to be Type C, unless a competent person, provided by the Contractor, following the procedures in CFR 1926, Subpart P, Appendix A, determines that it is Type A or Type B.
- 7 - See CFR 1926, Subpart P, Appendix B for details regarding compound slopes, stepped slopes and permitted use of shoring and support systems.
- 8 - Design of shoring and support systems must comply with CFR 1926, Subpart P, Appendix C or D; be a commercial system used in accordance with manufacturers recommendations; or be designed by a registered Professional Engineer.

**SUMMARY OF OSHA TRENCHING AND EXCAVATION REQUIREMENTS**

**Exhibit 5.16D**

## **5.17 ACCIDENT REPORTING AND INVESTIGATIONS**

### **5.17.1 Work Zone Accident Report**

All accidents should be reported verbally to the PM the same day of the accident.

Use the Work Zone Accident Report to document any type of accidents occurring within the project limits. Fill in all requested information, use diagrams, etc. Be sure to document traffic control signs and devices in the area, and take several photos.

The local law enforcement agency may be called in to investigate, which they will then do their own report. Ask to get a copy of their report to attach to yours.

The completed report, with any attached law enforcement reports, photos and other documentation, is to be sent to the PM who will forward it to the COE and the Safety Engineer.

### **5.17.2 Accident Inquiries and Investigations**

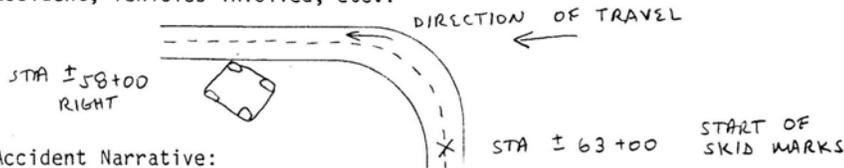
Accidents and injuries often result in inquiries from insurance investigators and attorneys. Any subpoenas, depositions and requests for information associated with accidents on the project should immediately be referred to the PM.

WDFD-27  
(10/88)  
Doc. #0124F:1

WORK ZONE ACCIDENT REPORT

Date: 10/7/96 Time: 1304 Light Conditions: BRIGHT SUN  
 Project Name & No.: ID PFH 63-1(3) COUNCIL-CUPRUM ROAD  
 Driver Names (If known): BUZZ LIGHTYEAR  
1122 BOOGIE WOOGIE AVE.  
TUCSON, AZ 85799  
 County: ADAMS Weather: CLEAR AND DRY  
 Location, Milepost, or Station: 63+00 TO 58+00 1 MILE N.W. OF B.O.P.  
 No. of Vehicles Involved: 1 Severity:  Minor damage  Major damage  
 No. of Pedestrians Involved: 0  
 Surface condition: Wet  Dry  Injury  Death  
 Adjacent Construction Activity: NONE  
 Method of Traffic Control: Signs , Temporary Barriers , Flaggers ,  
 Pilot Car , Other (explain) TEMPORARY PAVEMENT MARKING  
 Contributing Factors: Excess speed , Failure to yield , Weather ,  
 Improper movement , Highway condition , Drugs/Alcohol ,  
 Mechanical , Unknown , Other   
 Have other accidents of similar nature occurred in this zone? NO  
 If yes, give dates: \_\_\_\_\_  
 Investigated by: (INSPECTOR) JOE FRIDAY

Accident diagram including all traffic control devices present at the time of accident, vehicles involved, etc.:



Accident Narrative: MR. LIGHTYEAR WAS DRIVING EAST ON COUNCIL CUPRUM HEADING INTO TOWN WHEN HE LOST CONTROL OF HIS TRUCK COMING AROUND A CURVE. AFTER TRYING TO CORRECT HE ENDED UP FLIPPING THE TRUCK INTO THE DITCH. FURTHER INVESTIGATION REVEALED HE WAS UNDER THE INFLUENCE, AND EXCEEDING THE POSTED SPEED LIMIT.  
 Resulting action: NONE

Time and date that action was taken: \_\_\_\_\_  
 Name and title: Joe Friday, Inspector

WORK ZONE ACCIDENT REPORT

Exhibit 5.17A

## **5.18 FIRE PREVENTION AND CONTROL**

Construction Management staff, WFLHD and the Contractor must comply with the rules and regulations of the Forest Service, Park Service, State, or other public agency having jurisdiction governing fire prevention and control. If they are incorporated into the Contract specifically or by reference, the CM is responsible for enforcing the rules and regulations governing fire prevention and control, and therefore should obtain copies of manuals of instructions and fire plans of the agency having jurisdiction. Forest Service fire control plans are sometimes included in the special provisions of the contract.

Construction Management staff are required to take appropriate action to suppress unauthorized or accidental fires on public lands; and they shall immediately report fires to the nearest responsible official. WFLHD and/or contractors may also be called upon by officials to help in suppressing fires regardless of the fire's origin or location. In such instances, assistance should be given promptly by all willing, able-bodied employees, and should continue until other forces are available.

If WFLHD and/or Construction Management staff are called upon to help extinguish fires, the CM should immediately forward this information to the Project Manager, giving the names of the project personnel involved in fire fighting and other pertinent information. The Project Manager should be asked for instructions regarding payment by other agencies for labor and other costs incurred.

Fire prevention is an item that should be discussed at the preconstruction conference. If Forest or Park officials are not present at the conference, the CM should arrange a meeting with them and the Contractor to discuss the subject.

The specifications impose a very strict obligation on the Contractor for any fires in the vicinity of the project caused by Contractor personnel. The CM should direct the attention of the Contractor to the contract requirements before work on the contract starts, and again when permitted burning operations begin.

When burning is permitted, the CM should determine that the Contractor has secured written permission from the Forest Service, National Park Service, or the local fire control authority, or any other agency having jurisdiction over the area. The special provisions may require the Contractor to furnish a fireguard, either as a subsidiary obligation or with the method of payment specified. When a fireguard is not required by the special provisions but is requested by the agency having jurisdiction over the area because of special conditions, the CM must take appropriate action to provide such a guard. The Contractor may be ordered to furnish a fireguard by contract modification if necessary and not provided in the contract.

The specifications usually provide that the Contractor, when requested by the Federal agency having local authority, make its forces temporarily available for fighting fires that occur in the vicinity of the project but are not caused by the Contractor. Although payment for such services is the obligation of the requesting agency, the CM should make appropriate entries in the project diary concerning the fire and the extent of the services provided by the Contractor.

## **5.19 RIGHT-OF-WAY**

### **5.19.1 Encroachments On Highway Right-Of-Way**

Where the right-of-way lies through privately owned land, the CM may become aware of the encroachment of buildings, fences, fixtures, or advertising signs on the right-of-way. The CM must ascertain from the plans or from the right-of-way agreement, whether the removal of such items is to be by the owner or the Contractor, and if by the Contractor, whether any salvage right has been retained by the owner or the Government. Any new encroachments, after construction has begun, must be reported to the Project Manager, who will follow up with instructions on the proper course of action.

## **5.20 PROTECTION OF FORESTS, PARKS, AND PUBLIC LANDS**

The specifications usually provide that when working within or adjacent to State or National Forests, Parks, or other public lands, the Contractor shall comply with all regulations of the authority having jurisdiction over such lands.

The governing rule concerning sanitary facilities on Public Lands specifically requires the Contractor to obtain permits for latrine construction from the public agency having jurisdiction. It has been found that some district officers of public agencies do not allow open pit toilets (chemical toilets, minimum), while others do. This matter should be cleared before the start of construction, preferably at the preconstruction conference.

## 5.21 CONTRACTOR PAYROLLS

The CM should monitor Contractor payrolls for prompt submission and proper certification. A minimum of 10% of the payrolls should be spot checked for classifications and wage rates. **Exhibit 5.21A** is an example **Contractor Payroll Checklist**. Checks should also include whether all covered personnel, including owner operators are included on a certified payroll. This includes all personnel who operate equipment or perform labor in the construction of the project. It does not include supplier employees working at a commercial plant or delivering materials. Nor does it include salaried professional services personnel, such as surveyors and materials testers unless their jobs are specifically included in the Contract Davis-Bacon wage decision.

The preconstruction conference should include an overview of the labor and payroll reporting requirements, and the minutes should reflect that these items were covered.

The Contractor shall submit one copy of Contractor and Subcontractor payrolls to the CM. The CM shall maintain the payrolls in the project files. When the project is complete, the CM shall send the payrolls to the PM.

If the Contractor does not make timely submission of certified payrolls, the CM may, after written notice, withhold progress payments until compliance is secured. In the case of subcontractor non-submission, the withholding of only the subcontractor's portion of the work may be appropriate. These actions should be discussed with the PM if they are deemed necessary.

Project No:	Payroll No:	
Contractor:	Week ending:	
Check one: <input type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor	Date Received:	
<b>PAYROLL</b>		
	<b>YES</b>	<b>NO</b>
Project No., location, etc. shown		
Period covers entire week		
Employee name, address, and social security number shown		
Employee classification correct for work performed		
Wage rates in accordance with general wage schedule		
Hours worked in reasonably close conformity with project records		
Net pay calculations correct (Spot check as necessary)		
<b>STATEMENT OF COMPLIANCE</b>		
Project No., location, etc. shown		
Deductions statement		
Fringe benefits statement		
Signed, title shown		
Remarks and/or Deficiencies:		
Checked by:	Date:	
Project Manager:	Date:	

**CONTRACTOR PAYROLL CHECKLIST**

**Exhibit 5.21A**

## **5.22 EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS**

### **5.22.1 Overview**

The Contractor's Equal Employment Opportunity (EEO) responsibilities are specifically outlined in the following FAR Provision and Clauses:

- FAR Provision 52.222-23, Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity for Construction
- FAR Clause 52.222-26, Equal Opportunity
- FAR Clause 52.222-27, Affirmative Action Compliance Requirements for Construction
- FAR Clause 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans
- FAR Clause 52.222-36, Affirmative Action For Workers with Disabilities
- FAR Clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans

### **5.22.2 Nondiscrimination**

Federal law prohibits discrimination on the basis of race, color, religion, sex or national origin. The Department of Labor (DOL), Office of Federal Contract Compliance Programs (OFCCP), is responsible for enforcement and the imposition of civil sanctions (termination, debarment, etc.). OFCCP may also refer serious violation to the Justice Department for criminal prosecution.

CM employees, as representatives of the contracting agency, have no formal authority to monitor nondiscrimination or to impose sanctions for apparent violations. However, project personnel should be alert to indications of such violations and will report them through contractual channels for possible referral to the OFCCP.

At preconstruction conferences, the CM should emphasize the prohibition against discrimination on the basis of race, color, religion, sex, or national origin. This emphasis should be reflected in the minutes of such meetings.

Any CM employee who receives a discrimination complaint (verbal or otherwise) or observes a case of apparent discrimination will report the incident immediately through contractual channels for resolution or referral to the OFCCP.

### **5.22.3 Affirmative Action**

Affirmative action programs to correct past discriminatory practices are permitted by the 1964 Civil Rights Act. Monitoring and enforcement responsibilities related to affirmative action programs are delegated to the Department of Labor, Office of Federal Contract Compliance Programs (OFCCP).

Affirmative action goals for the project are listed in FAR Provision 52.222-23, Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity for Construction. At preconstruction conferences, the CM should emphasize the Contractor's obligations to meet these goals and submit to submit all required forms. This emphasis will be reflected in the minutes of such conferences.

## 5.22.4 Reporting Requirements

### 5.22.4.2 Notice of Subcontract Award

FAR Provision 52.222-23, Notice of Requirement for Affirmative Action to Ensure Equal Opportunity requires the Contractor to provide written notification for each onsite subcontract (but not materials supply) exceeding \$10,000. The notification must be provided within 10 working days following award of the subcontract and shall list the following:

- o Name, address, and telephone number of the subcontractor;
- o Employer's identification number of the subcontractor;
- o Estimated dollar amount of the subcontract;
- o Estimated starting and completion dates of the subcontract; and
- o Geographical area in which the subcontract is to be performed.

The information should be submitted to the OFCCP area/field office. A list of these offices can be found online at <http://www.dol.gov/esa/contacts/ofccp/ofnation2.htm>.

### 5.22.4.2 SF 100 (EEO-1)

This form is required by *FAR Clause 52.222-26, Equal Opportunity*. It is required to be submitted directly to the EEOC, Joint Reporting Committee, annually by March 31.

### Veteran's Employment Report VETS-100

This is required by *FAR Clause 52.222-37, Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era*. It must be submitted annually by March 31 to the Department of Labor.

## **5.23 SUBCONTRACTING**

### **5.23.1 General**

The Standard Specifications permit subcontracting a portion of the work. The FAR specifically encourages subcontracting to small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged, and women owned small business concerns. However, the Contractor is usually required to perform, with its own organization, work amounting to not less than 50 percent of the original Contract amount. This requirement is contained in FAR Clause 52.236-1. In some contracts an alternate percentage may be inserted. Contracts, which are Small Business Set Asides, contain FAR Clause 52.219-14, which permits a far higher percentage of the work to be subcontracted (85% less materials). For most WFLHD contracts written consent to subcontract is not required. However, contracts and subcontractors may be required to furnish certain regulatory and administrative items prior to beginning work on a subcontract. These items are as listed below.

### **5.23.2 SF 1413, Statement and Acknowledgement**

SF 1413 is a standard form in which the prime and the subcontractor certify that the standard labor provisions are included in the subcontract. *This form is required for all subcontracts involving onsite (Davis-Bacon) labor.* It must be submitted to the Government within 14 days of award of the prime contract or 14 of the award of any applicable subcontract. See Exhibit 5.23A, **Subcontracting Statistics Forms Diagram Tree** and Exhibits 5.23B through 5.23K for examples of completed SF1413 and WFLHD 130s for multiple-tiered subcontractors.

The completed SF 1413 and WFLHD 130 forms are to be routed though the Contract Administration Specialist to Central Files when received from Contractor.

### **5.23.3 WFLHD 130, Subcontractor Statistics**

WFLHD 130 is designed to solicit certain data on the size and socio-economic status of the subcontractor in order to report such data accurately to the Small Business Administration. The form also provides for documentation of the amount subcontracted to date.

Prices shown should be based on the actual prices in the subcontract, regardless of the bid prices. Significant differences between the subcontracted prices and the bid prices should be reviewed with respect to the prime's entitlement to full progress payments. For example if the prime bid \$250,000 for clearing, but subcontracted the work for \$25,000, the bid item may be an improper augmentation to the mobilization item and should be questioned. The Contractor would be entitled to any amount bid, but the Government may take the position that these excess amounts cannot be paid early in the Contract because they represent payment for underbid work to be completed later in the Contract. Instead the payments should be prorated on a reasonable schedule, through the remaining Contract. Situations such as this must be discussed with the Project Manager and COE, who will probably seek legal advice before proceeding.

This form should be obtained from all subcontractors, including supply subcontracts, whether they involve onsite labor or not. See Exhibits 5.23B through 5.23K for example completed WFLHD 130, Subcontractor Statistics forms for multiple-tiered subcontractors.

#### **5.23.4 Contracts Awarded to HUBZone Small Businesses**

Contracts awarded to HUBZone small businesses under FAR Clause 52.219-3, *Notice of Total HUBZone Small Business Set-Aside* or FAR Clause 52.219-4, *Notice of Price Evaluation Preference for HUBZone Small Business Concerns* have additional monitoring requirements. These contracts require that at least 15 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns. The percentage of the cost of contract performance incurred for personnel will be computed as 100 percent of the total Davis-Bacon wages/benefits paid during the life of the contract less the combined Davis-Bacon wages/benefits paid during the life of the contract to subcontractor employees who do not work for a certified HUBZone Small Business. Certified payrolls will be used to evaluate Davis-Bacon wages and benefits paid.

#### **5.23.5 Contracts Awarded to Large Business Concerns**

Contracts which are awarded to large business concerns and which exceed \$1,000,000 (original contract amount) contain a Subcontracting Plan submitted by the Contractor and approved by the Contracting Officer. Failure to comply with these goals may result in liquidated damages being assessed in accordance with *FAR Clause 52.219-16, Liquidated Damages - Small Business Subcontracting Plan*. A contractor who is operating under a Subcontracting Plan is required to submit periodic documentation to the Small Business Administration through the Contracting Officer, FLHO and DOT.

SF-294, Subcontracting Report for Individual Contracts is required to be submitted semiannually on April 30 and October 30 each covering the semiannual periods ending March 31 and September 30.

SF-295, Summary Subcontract Report is required to be submitted annually on October 30 covering the fiscal year ending September 30.

#### **5.23.6 Submitting Documentation**

The Project Manager and COE should be advised when the Contractor fails to submit required documentation, when there is apparent noncompliance with the subcontracting plan or when the invoking of such damages is apparently warranted.

During the preconstruction conference the Contractor should be apprised in detail of the subcontracting requirements and the required certification forms should be discussed and made available at that time. It should be made clear to the Contractor that, insofar as the Government is concerned, the prime Contractor is responsible for all work subcontracted and re-subcontracted, and that all subcontracts must include the appropriate provisions of the original Contract.

#### **5.23.7 Percent Subcontracted**

In order to verify compliance with FAR Clause 52.236-1, Performance of Work by the Contractor, it is necessary, with each subcontract, to recompute the amount of the original contract which the prime Contractor is performing with its own forces (labor). To calculate the amount of work being performed by the prime Contractor, you take what the prime Contractor performs on-site divided by the total contract amount. Supply type subcontracts do not count; nor do hauling subcontracts unless they are subject to Davis-Bacon.

*FAR Clause 52.219-14, Limitations on Subcontracting*, applies to Small Business Set Asides and 8(a) contracts. It permits the prime to perform as little as 15 percent of the amount of the original contract (exclusive of materials). Generally this percentage is so low, that as long as the prime has some presence on the site, including the submission of payrolls, no further documentation is necessary to verify the 15 percent requirement. If documentation is generated, the full amounts of all materials supply subcontracts (at any tier) must be deducted from the original Contract amount, and from the amounts of all subcontracts prior to computing the amount subcontracted.

### 5.23.8 Materials Supply Subcontracts

For purposes of computing the percent of subcontracted work, it is important to define a materials supply subcontract.

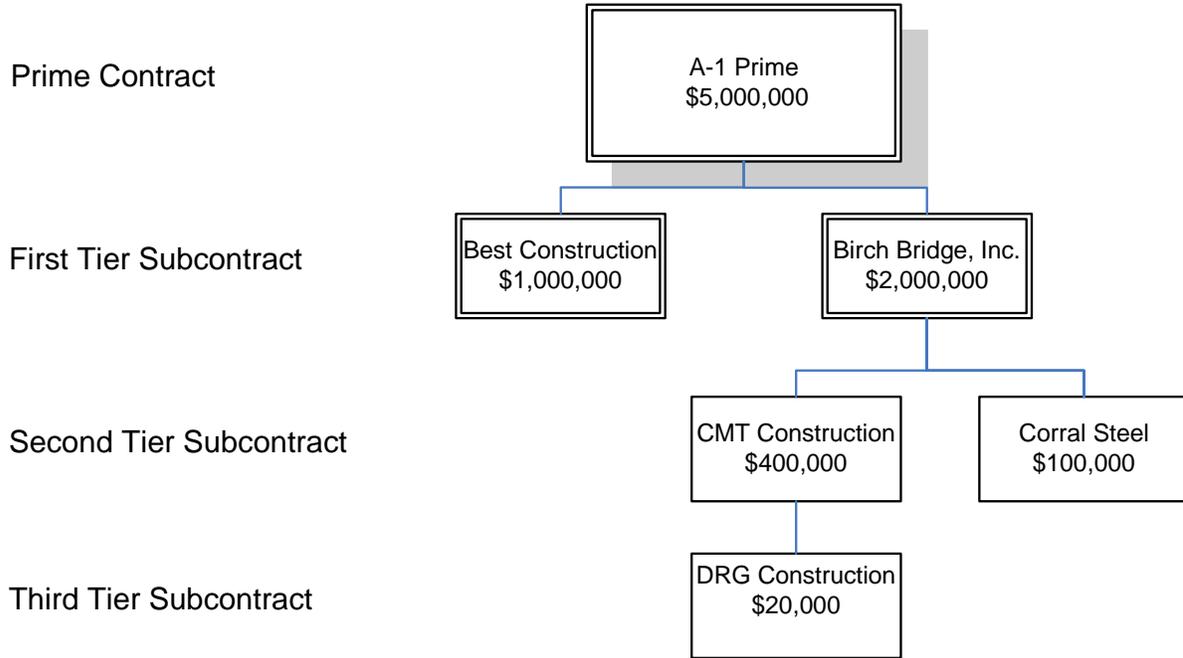
- Materials supply subcontracts provide for the furnishing of materials that are to be incorporated in the work, such as concrete, steel and asphalt. Other materials such as form lumber, explosives or fuel do not count as materials supply subcontracts.
- Such subcontracts must be in writing prior to the delivery of the material, and both parties (the Contractor and the supplier) must have mutually enforceable obligations under the subcontract. Usually the prime agrees to purchase certain quantities of materials, the supplier agrees to a specific price for the materials. Simple price quotes or the purchase of occasional concrete from a local supplier to build headwalls would usually not count as materials supply subcontracts.

Traditionally, in accordance with the Labor Department regulations, materials supply subcontractors were simply called “suppliers” rather than subcontractors. That remains true in all DOL laws and regulations. However the FAR defines suppliers as a form of subcontractor, not a separate entity. This is important when applying Prompt Payment and other non-Labor provisions in the Contract.

### 5.23.9 Small and Small Disadvantaged Business Concerns

The FAR encourages small business and small disadvantaged business subcontracting. In order to be a disadvantaged business as defined by the FAR, the company must also be a small business. Whether a company is a small business is determined by standards set by the Small Business Administration (SBA) and published in Part 19 of the FAR. A company’s status also depends on the nature of the work it is doing. A company might be a large business as a general highway contractor, but a small business as an asphalt supplier.

Exhibits 5.23B through 5.23K are for multiple tiered subcontracts and are based on the following contractor / subcontractor setup.



**SUBCONTRACTING STATISTICS FORMS DIAGRAM TREE**

**Exhibit 5.23A**

<b>STATEMENT AND ACKNOWLEDGMENT</b>		OMB No.: 9000-0014 Expires:		
<p>Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, DC 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0014), Washington, DC 20503.</p>				
<b>PART I - STATEMENT OF PRIME CONTRACTOR</b>				
1. PRIME CONTRACT NO. DTFH70-01-C-00011	2. DATE SUBCONTRACT AWARDED 04/05/05	3. SUBCONTRACT NUMBER 01		
4. PRIME CONTRACTOR (Name, address and ZIP code) A-1 Prime Anytown, Montana 59700		5. SUBCONTRACTOR (Name, address and ZIP code) Best Construction Anytown, Montana 59700		
<p>6. The prime contractor states that under the contract shown in item 1, a subcontract was awarded on the date shown in Item 2 by (Name of Awarding Firm) <u>A-1 Prime</u> to the subcontractor identified in Item 5, for the following work:</p> <p>Base Aggregate Crushing, Hauling, and Placing                  Select Topping Aggregate Crushing                  Asphalt Aggregate Crushing                  Road Maintenance Aggregate Crushing</p>				
7. PROJECT Auto Tour Loop MT PFH 78-1(4)		8. LOCATION Sims, Montana		
9. NAME AND TITLE OF PERSON SIGNING John Doe, President	10. BY (Signature) 	11. DATE SIGNED 04/05/05		
<b>PART II - ACKNOWLEDGMENT OF SUBCONTRACTOR</b>				
<p>12. The subcontractor acknowledges that the following clauses of the contract shown in Item 1 are included in this subcontract:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;">                     Contract Work Hours and Safety                      Standard Act - Overtime                      Compensation - Construction                      Payrolls and Basic Records                      Withholding of Funds                      Disputes Concerning Labor Standards                 </td> <td style="width: 50%; vertical-align: top;">                     Davis-Bacon Act                      Apprentices and Trainees                      Compliance with Copeland Regulations                      Subcontracts                      Contract Termination-Debarment                      Certification of Eligibility                 </td> </tr> </table>			Contract Work Hours and Safety Standard Act - Overtime Compensation - Construction Payrolls and Basic Records Withholding of Funds Disputes Concerning Labor Standards	Davis-Bacon Act Apprentices and Trainees Compliance with Copeland Regulations Subcontracts Contract Termination-Debarment Certification of Eligibility
Contract Work Hours and Safety Standard Act - Overtime Compensation - Construction Payrolls and Basic Records Withholding of Funds Disputes Concerning Labor Standards	Davis-Bacon Act Apprentices and Trainees Compliance with Copeland Regulations Subcontracts Contract Termination-Debarment Certification of Eligibility			
13. NAME(S) OF ANY INTERMEDIATE SUBCONTRACTORS, IF ANY				
14. NAME AND TITLE OF PERSON SIGNING Jim Smith, President	15. BY (Signature) 	16. DATE SIGNED 04/07/05		
<small>NSN 7540-01-151-4297 Previous edition is usable</small>		<b>STANDARD FORM 1413 (REV 9/98)</b> Prescribed by GSA - FAR(48 CFR) 53.228(e)		

**SF 1413, STATEMENT AND ACKNOWLEDGEMENT**

**Exhibit 5.23B**

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
WESTERN FEDERAL LANDS HIGHWAY DIVISION**

WFLHD Form No. 130  
6/00

**ATTN: Prime Contractor - This form shall be completed for EACH subcontract.**

Report No. 01

Contract No: DTFH70-01-C-00C Date 04/05/05

Project Name & No: Auto Tour Loop MT PFH 78-1(4)

Prime Contractor Name: A-1 Prime

**Subcontractor Statistics**

Name: Best Construction

Address: Anytown, Montana 59700

Subcontracted Work: Base(placing); Select Topping; Asphalt; and Maintenance Aggregate Crushi

Total amount sublet to the above contractor . . . . .	\$	<u>1,000,000.00</u>
Amount previously contracted . . . . .	\$	<u>                    </u>
<b>Amount sublet to date:</b>	\$	<u>1,000,000.00</u>
Original Contract Amount . . . . .	\$	<u>5,000,000.00</u>
<b>Total Percent subcontracted</b>		<u>20</u> %

Check applicable description(s) of subcontractor:

<input type="checkbox"/> Small Business	<input type="checkbox"/> Small Disadvantaged Business
<input checked="" type="checkbox"/> Women-owned Business	<input checked="" type="checkbox"/> HUBZone Small Business
<input type="checkbox"/> Veteran-owned Small Business	<input type="checkbox"/> Service-disabled Veteran-owned Small Business
	<input type="checkbox"/> None of the Above

As an authorized signatory for the prime contractor, I acknowledge and certify that all of the required contract clauses (including labor clauses) have been incorporated into and made a part of this subcontract. The amounts and percentages shown above are true and accurately stated.

Signature:  Date: 04/05/05

Name & Title: John Doe, President

**WFLHD 130, SUBCONTRACTOR STATISTICS**

**Exhibit 5.23C**

<b>STATEMENT AND ACKNOWLEDGMENT</b>		OMB No.: 9000-0014 Expires:		
<p>Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, DC 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0014), Washington, DC 20503.</p>				
<b>PART I - STATEMENT OF PRIME CONTRACTOR</b>				
1. PRIME CONTRACT NO. DTFH70-01-C-00011	2. DATE SUBCONTRACT AWARDED 04/08/05	3. SUBCONTRACT NUMBER 02		
4. PRIME CONTRACTOR (Name, address and ZIP code) A-1 Prime Anytown, Montana 59700		5. SUBCONTRACTOR (Name, address and ZIP code) Birch Bridge, Inc. Anytown, Montana 59700		
<p>6. The prime contractor states that under the contract shown in item 1, a subcontract was awarded on the date shown in item 2 by (Name of Awarding Firm) <u>A-1 Prime</u> to the subcontractor identified in item 5, for the following work:</p> <p style="padding-left: 40px;">Bridge construction, including concrete, reinforcing steel, waterproofing, barrier, temporary bridge, and drilled shafts.</p>				
7. PROJECT Auto Tour Loop MT PFH 78-1(4)		8. LOCATION Sims, Montana		
9. NAME AND TITLE OF PERSON SIGNING John Doe, President	10. BY (Signature) 	11. DATE SIGNED 04/08/05		
<b>PART II - ACKNOWLEDGMENT OF SUBCONTRACTOR</b>				
<p>12. The subcontractor acknowledges that the following clauses of the contract shown in item 1 are included in this subcontract:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>Contract Work Hours and Safety</li> <li>Standard Act - Overtime</li> <li>Compensation - Construction</li> <li>Payrolls and Basic Records</li> <li>Withholding of Funds</li> <li>Disputes Concerning Labor Standards</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>Davis-Bacon Act</li> <li>Apprentices and Trainees</li> <li>Compliance with Copeland Regulations</li> <li>Subcontracts</li> <li>Contract Termination-Debarment</li> <li>Certification of Eligibility</li> </ul> </td> </tr> </table>			<ul style="list-style-type: none"> <li>Contract Work Hours and Safety</li> <li>Standard Act - Overtime</li> <li>Compensation - Construction</li> <li>Payrolls and Basic Records</li> <li>Withholding of Funds</li> <li>Disputes Concerning Labor Standards</li> </ul>	<ul style="list-style-type: none"> <li>Davis-Bacon Act</li> <li>Apprentices and Trainees</li> <li>Compliance with Copeland Regulations</li> <li>Subcontracts</li> <li>Contract Termination-Debarment</li> <li>Certification of Eligibility</li> </ul>
<ul style="list-style-type: none"> <li>Contract Work Hours and Safety</li> <li>Standard Act - Overtime</li> <li>Compensation - Construction</li> <li>Payrolls and Basic Records</li> <li>Withholding of Funds</li> <li>Disputes Concerning Labor Standards</li> </ul>	<ul style="list-style-type: none"> <li>Davis-Bacon Act</li> <li>Apprentices and Trainees</li> <li>Compliance with Copeland Regulations</li> <li>Subcontracts</li> <li>Contract Termination-Debarment</li> <li>Certification of Eligibility</li> </ul>			
13. NAME(S) OF ANY INTERMEDIATE SUBCONTRACTORS, IF ANY				
14. NAME AND TITLE OF PERSON SIGNING Jack Shaft, President	15. BY (Signature) 	16. DATE SIGNED 04/08/05		
<small>NSN 7540-01-151-4297 Previous edition is usable</small>		<b>STANDARD FORM 1413 (REV 9/98)</b> <small>Prescribed by GSA - FAR(48 CFR) 53.228(e)</small>		

**SF 1413, STATEMENT AND ACKNOWLEDGEMENT**

**Exhibit 5.23D**

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
WESTERN FEDERAL LANDS HIGHWAY DIVISION**

WFLHD Form No. 130  
5/00

**ATTN: Prime Contractor - This form shall be completed for EACH subcontract.**

Report No. 02

Contract No: DTFH70-01-C-000 Date 04/06/05

Project Name & No: Auto Tour Loop MT PFH 78-1(4)

Prime Contractor Name: A-1 Prime

**Subcontractor Statistics**

Name: Birch Bridge, Inc.

Address: Anytown, Montana 59700

Subcontracted Work: Bridge construction concrete, reinforcing steel, waterproofing, temp. bridge.

Total amount sublet to the above contractor . . . . .	\$ <u>2,000,000.00</u>
Amount previously contracted . . . . .	\$ <u>1,000,000.00</u>
<b>Amount sublet to date:</b>	\$ <u>3,000,000.00</u>
Original Contract Amount . . . . .	\$ <u>5,000,000.00</u>
<b>Total Percent subcontracted</b> <u>60</u> %	

Check applicable description(s) of subcontractor:

<input type="checkbox"/> Small Business	<input type="checkbox"/> Small Disadvantaged Business
<input type="checkbox"/> Women-owned Business	<input checked="" type="checkbox"/> HUBZone Small Business
<input checked="" type="checkbox"/> Veteran-owned Small Business	<input type="checkbox"/> Service-disabled Veteran-owned Small Business
	<input type="checkbox"/> None of the Above

As an authorized signatory for the prime contractor, I acknowledge and certify that all of the required contract clauses (including labor clauses) have been incorporated into and made a part of this subcontract. The amounts and percentages shown above are true and accurately stated.

Signature:  Date: 04/06/05

Name & Title: John Doe, President

**WFLHD 130, SUBCONTRACTOR STATISTICS**

**Exhibit 5.23E**

<b>STATEMENT AND ACKNOWLEDGMENT</b>		OMB No.: 9000-0014 Expires:
<p>Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, DC 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0014), Washington, DC 20503.</p>		
<b>PART I - STATEMENT OF PRIME CONTRACTOR</b>		
1. PRIME CONTRACT NO. DTFH70-01-C-00011	2. DATE SUBCONTRACT AWARDED 04/07/05	3. SUBCONTRACT NUMBER 02-A
4. PRIME CONTRACTOR (Name, address and ZIP code) A-1 Prime Anytown, Montana 59700		5. SUBCONTRACTOR (Name, address and ZIP code) Corral Steel Anytown, Montana 59700
6. The prime contractor states that under the contract shown in item 1, a subcontract was awarded on the date shown in item 2 by (Name of Awarding Firm) <u>Birch Bridge, Inc.</u> to the subcontractor identified in item 5, for the following work:  Reinforcing Steel		
7. PROJECT Auto Tour Loop MT PFH 78-1(4)		8. LOCATION Sims, Montana
9. NAME AND TITLE OF PERSON SIGNING John Doe, President	10. BY (Signature) 	11. DATE SIGNED 04/07/05
<b>PART II - ACKNOWLEDGMENT OF SUBCONTRACTOR</b>		
12. The subcontractor acknowledges that the following clauses of the contract shown in item 1 are included in this subcontract:		
<ul style="list-style-type: none"> <li>Contract Work Hours and Safety</li> <li>Standard Act - Overtime</li> <li>Compensation - Construction</li> <li>Payrolls and Basic Records</li> <li>Withholding of Funds</li> <li>Disputes Concerning Labor Standards</li> </ul>	<ul style="list-style-type: none"> <li>Davis-Bacon Act</li> <li>Apprentices and Trainees</li> <li>Compliance with Copeland Regulations</li> <li>Subcontracts</li> <li>Contract Termination-Debarment</li> <li>Certification of Eligibility</li> </ul>	
13. NAME(S) OF ANY INTERMEDIATE SUBCONTRACTORS, IF ANY  Birch Bridge, Inc.		
14. NAME AND TITLE OF PERSON SIGNING Jimmy Smitt, President	15. BY (Signature) 	16. DATE SIGNED 04/09/05
<small>NSN 7540-01-151-4297 Previous edition is usable</small>		<b>STANDARD FORM 1413 (REV 9/98)</b> <small>Prescribed by GSA - FAR(48 CFR) 53.228(e)</small>

**SF 1413, STATEMENT AND ACKNOWLEDGEMENT**

**Exhibit 5.23F**



**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
WESTERN FEDERAL LANDS HIGHWAY DIVISION**

WFLHD Form No. 130  
500

**ATTN: Prime Contractor - This form shall be completed for EACH subcontract.**

Report No. 02-A

Contract No: DTFH70-01-C-000 Date 04/07/05

Project Name & No: Auto Tour Loop MT PFH 78-1(4)

Prime Contractor Name: A-1 Prime - 1st. tier: Birch Bridge Inc.

**Subcontractor Statistics**

Name: 2nd. tier: Corral Steel

Address: Anytown, Montana 59700

Subcontracted Work: Reinforcing Steel

Total amount sublet to the above contractor . . . . .	\$ <u>100,000.00</u>
Amount previously contracted . . . . .	\$ <u>0.00</u>
<b>Amount sublet to date:</b>	<b>\$ <u>100,000.00</u></b>
Original Contract Amount . . . . .	\$ <u>2,000,000.00</u>
<b>Total Percent subcontracted</b>	<b><u>5</u> %</b>

Check applicable description(s) of subcontractor:

<input type="checkbox"/> Small Business	<input checked="" type="checkbox"/> Small Disadvantaged Business
<input checked="" type="checkbox"/> Women-owned Business	<input type="checkbox"/> HUBZone Small Business
<input type="checkbox"/> Veteran-owned Small Business	<input type="checkbox"/> Service-disabled Veteran-owned Small Business
	<input type="checkbox"/> None of the Above

As an authorized signatory for the prime contractor, I acknowledge and certify that all of the required contract clauses (including labor clauses) have been incorporated into and made a part of this subcontract. The amounts and percentages shown above are true and accurately stated.

Signature:  Date: 04/07/05

Name & Title: John Doe, President

**WFLHD 130, SUBCONTRACTOR STATISTICS**

**Exhibit 5.23G**

<b>STATEMENT AND ACKNOWLEDGMENT</b>		OMB No.: 9000-0014 Expires:		
<p>Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, DC 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0014), Washington, DC 20503.</p>				
<b>PART I - STATEMENT OF PRIME CONTRACTOR</b>				
1. PRIME CONTRACT NO. DTFH70-01-C-00011	2. DATE SUBCONTRACT AWARDED 04/07/05	3. SUBCONTRACT NUMBER 02-B		
4. PRIME CONTRACTOR (Name, address and ZIP code) A-1 Prime Anytown, Montana 59700		5. SUBCONTRACTOR (Name, address and ZIP code) CMT Construction Anytown, Montana 59700		
<p>6. The prime contractor states that under the contract shown in item 1, a subcontract was awarded on the date shown in item 2 by (Name of Awarding Firm) <u>Birch Bridge, Inc.</u> to the subcontractor identified in item 5, for the following work:                  Detour Bridge</p>				
7. PROJECT Auto Tour Loop MT PFH 78-1(4)		8. LOCATION Sims, Montana		
9. NAME AND TITLE OF PERSON SIGNING John Doe, President	10. BY (Signature) 	11. DATE SIGNED 04/07/05		
<b>PART II - ACKNOWLEDGMENT OF SUBCONTRACTOR</b>				
<p>12. The subcontractor acknowledges that the following clauses of the contract shown in item 1 are included in this subcontract:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;">                     Contract Work Hours and Safety                      Standard Act - Overtime                      Compensation - Construction                      Payrolls and Basic Records                      Withholding of Funds                      Disputes Concerning Labor Standards                 </td> <td style="width: 50%; vertical-align: top;">                     Davis-Bacon Act                      Apprentices and Trainees                      Compliance with Copeland Regulations                      Subcontracts                      Contract Termination-Debarment                      Certification of Eligibility                 </td> </tr> </table>			Contract Work Hours and Safety Standard Act - Overtime Compensation - Construction Payrolls and Basic Records Withholding of Funds Disputes Concerning Labor Standards	Davis-Bacon Act Apprentices and Trainees Compliance with Copeland Regulations Subcontracts Contract Termination-Debarment Certification of Eligibility
Contract Work Hours and Safety Standard Act - Overtime Compensation - Construction Payrolls and Basic Records Withholding of Funds Disputes Concerning Labor Standards	Davis-Bacon Act Apprentices and Trainees Compliance with Copeland Regulations Subcontracts Contract Termination-Debarment Certification of Eligibility			
<p>13. NAME(S) OF ANY INTERMEDIATE SUBCONTRACTORS, IF ANY                  Birch Bridge, Inc.</p>				
14. NAME AND TITLE OF PERSON SIGNING Jack Frist, President	15. BY (Signature) 	16. DATE SIGNED 04/08/05		
<small>NSN 7540-01-151-4297 Previous edition is usable</small>		<b>STANDARD FORM 1413 (REV 9/98)</b> Prescribed by GSA - FAR(48 CFR) 53.228(e)		

**SF 1413, STATEMENT AND ACKNOWLEDGEMENT**

**Exhibit 5.23H**

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
WESTERN FEDERAL LANDS HIGHWAY DIVISION**

WFLHD Form No. 130  
5/00

**ATTN: Prime Contractor - This form shall be completed for EACH subcontract.**

Report No. 02-B  
 Contract No: DTFH70-01-C-000 Date 04/07/05  
 Project Name & No: Auto Tour Loop MT PFH 78-1(4)  
 Prime Contractor Name: A-1 Prime - 1st. tier: Birch Bridge Inc.

**Subcontractor Statistics**

Name: 2nd. tier: CMT Construction  
 Address: Anytown, Montana 59700

Subcontracted Work: Detour Bridge

Total amount sublet to the above contractor . . . . .	\$	<u>400,000.00</u>
Amount previously contracted . . . . .	\$	<u>100,000.00</u>
<b>Amount sublet to date:</b> . . . . .	\$	<u>500,000.00</u>
Original Contract Amount . . . . .	\$	<u>2,000,000.00</u>
<b>Total Percent subcontracted</b> <u>25</u> %		

Check applicable description(s) of subcontractor:

<input checked="" type="checkbox"/> Small Business	<input type="checkbox"/> Small Disadvantaged Business
<input type="checkbox"/> Women-owned Business	<input type="checkbox"/> HUBZone Small Business
<input type="checkbox"/> Veteran-owned Small Business	<input type="checkbox"/> Service-disabled Veteran-owned Small Business
	<input type="checkbox"/> None of the Above

As an authorized signatory for the prime contractor, I acknowledge and certify that all of the required contract clauses (including labor clauses) have been incorporated into and made a part of this subcontract. The amounts and percentages shown above are true and accurately stated.

Signature:  Date: 04/07/05  
 Name & Title: John Doe, President

**WFLHD 130, SUBCONTRACTOR STATISTICS**

**Exhibit 5.23I**

<b>STATEMENT AND ACKNOWLEDGMENT</b>		OMB No.: 9000-0014 Expires:
<p>Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, DC 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0014), Washington, DC 20503.</p>		
<b>PART I - STATEMENT OF PRIME CONTRACTOR</b>		
1. PRIME CONTRACT NO. DTFH70-01-C-00011	2. DATE SUBCONTRACT AWARDED 04/09/05	3. SUBCONTRACT NUMBER 02-B(1)
4. PRIME CONTRACTOR (Name, address and ZIP code) A-1 Prime Anytown, Montana 59700		5. SUBCONTRACTOR (Name, address and ZIP code) DRG Inc. Anytown, Montana 59700
6. The prime contractor states that under the contract shown in item 1, a subcontract was awarded on the date shown in item 2 by (Name of Awarding Firm) <u>CMT Construction</u> to the subcontractor identified in item 5, for the following work:  Placement of detour bridge.		
7. PROJECT Auto Tour Loop MT PFH 78-1(4)		8. LOCATION Sims, Montana
9. NAME AND TITLE OF PERSON SIGNING John Doe, President	10. BY (Signature) 	11. DATE SIGNED 04/07/05
<b>PART II - ACKNOWLEDGMENT OF SUBCONTRACTOR</b>		
12. The subcontractor acknowledges that the following clauses of the contract shown in item 1 are included in this subcontract:		
<ul style="list-style-type: none"> <li>Contract Work Hours and Safety</li> <li>Standard Act - Overtime</li> <li>Compensation - Construction</li> <li>Payrolls and Basic Records</li> <li>Withholding of Funds</li> <li>Disputes Concerning Labor Standards</li> </ul>	<ul style="list-style-type: none"> <li>Davis-Bacon Act</li> <li>Apprentices and Trainees</li> <li>Compliance with Copeland Regulations</li> <li>Subcontracts</li> <li>Contract Termination-Debarment</li> <li>Certification of Eligibility</li> </ul>	
13. NAME(S) OF ANY INTERMEDIATE SUBCONTRACTORS, IF ANY  Birch Bridge, Inc.		
14. NAME AND TITLE OF PERSON SIGNING Bob Smyth, President	15. BY (Signature) 	16. DATE SIGNED 04/10/05
<small>NSN 7540-01-151-4257 Previous edition is usable</small>		<b>STANDARD FORM 1413 (REV 9/98)</b> <small>Prescribed by GSA - FAR(48 CFR) 53.228(e)</small>

**SF 1413, STATEMENT AND ACKNOWLEDGEMENT**

**Exhibit 5.23J**



**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
WESTERN FEDERAL LANDS HIGHWAY DIVISION**

WFLHD Form No. 130  
500

**ATTN: Prime Contractor - This form shall be completed for EACH subcontract.**

Report No. 02-B(1)  
 Contract No: DTFH70-01-C-00C Date 04/07/05  
 Project Name & No: Auto Tour Loop MT PFH 78-1(4)  
 Prime Contractor Name: A-1 Prime - 1st. tier: Birch Bridge Inc. - 2nd tier: CMT Construction

**Subcontractor Statistics**

Name: 3rd. tier: DRG, Inc.  
 Address: Anytown, Montana 59700

Subcontracted Work: Placement of detour Bridge

Total amount sublet to the above contractor . . . . .	\$	<u>20,000.00</u>
Amount previously contracted . . . . .	\$	<u>0.00</u>
<b>Amount sublet to date:</b> . . . . .	\$	<u>20,000.00</u>
Original Contract Amount . . . . .	\$	<u>400,000.00</u>
<b>Total Percent subcontracted</b> <u>5</u> %		

- Check applicable description(s) of subcontractor:
- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Small Business    | <input type="checkbox"/> Small Disadvantaged Business                  |
| <input type="checkbox"/> Women-owned Business         | <input type="checkbox"/> HUBZone Small Business                        |
| <input type="checkbox"/> Veteran-owned Small Business | <input type="checkbox"/> Service-disabled Veteran-owned Small Business |
|   | <input type="checkbox"/> None of the Above                             |

As an authorized signatory for the prime contractor, I acknowledge and certify that all of the required contract clauses (including labor clauses) have been incorporated into and made a part of this subcontract. The amounts and percentages shown above are true and accurately stated.

Signature:  Date: 04/07/05  
 Name & Title: John Doe, President

**WFLHD 130, SUBCONTRACTOR STATISTICS**

**Exhibit 5.23K**

## 5.24 CONTRACT TIME

### 5.24.1 General

The time allowed for completion of the work will be based on a specified completion date as stated in FAR 52.211-10. All work on the project is to be completed no later than on the date specified in the Contract, as adjusted under the Contract provisions.

### 5.24.2 Failure to Complete Work Within the Time Allowed

If the Contractor fails to complete the work by the close of business on the specified completion date (as adjusted), the charge of contract time and the attendant liquidated damages will include each calendar day between the specified completion date and the actual date of substantial completion.

Substantial completion is defined in FP Subsection 101.04 as: *The point at which the project is complete such that it can be safely and effectively used by the public without further delays, disruption, or other impediments. For conventional bridge and highway work, the point at which all bridge deck, parapet, pavement structure, shoulder, drainage, sidewalk, permanent signing and markings, traffic barrier, safety appurtenance, utility, and lighting work is complete.*

### 5.24.3 Methods of Adjusting Time Allowance

Adjustments in contract time are permitted under the following clauses:

- FAR 52.211-10, *Commencement, Prosecution, and Completion of Work*
- FAR 52.211-18, *Variation in Estimated Quantity*
- FAR 52.242-14, *Suspension of Work*
- FAR 52.236-2, *Differing Site Conditions*
- FAR 52.243-4, *Changes*
- FAR 52.249-10, *Default (Fixed Price-Construction)*

General information regarding time extensions is included in *FP Subsection 108.03, Determination and Extension of Contract Time*.

Increases in contract time may be authorized as follows:

- By supplemental agreement which includes a revised fixed completion date.
- By change order providing a unilateral revised fixed completion date for performing work for which there has been no agreement.
- By supplemental agreement issued in settlement of a claim.
- By Contracting Officer's decision in accordance with *FAR Clause 52.233.1, Disputes*.

### 5.24.4 Consideration of Time Adjustments

When contract modifications are issued, consideration must be given to the modification's effect on overall contract time. Failure to grant a time extension for increased work or changed work with a definite bearing on time for performance may result in an acceleration claim. If it is critical that the original contract completion date be maintained, it may be in the Government's interest to compensate the Contractor for accelerating the work to meet the original completion date. Generally, time adjustments will not be made unless the modification or change in work is on the critical path items.

When an adjustment in contract time is negotiated, it must be ensured that the proposed adjustment is in accordance with the Contract provisions and is fair to both the Contractor and the Government. The actual time allowed should be tailored to the particular *change* situation along with consideration of the *effect on non-changed work* as to total Contract performance time. Consider the time of performance of the changed work and the need to acquire and mobilize/demobilize equipment to perform the work.

Unusual weather patterns impacting the work should be considered as appropriate. The CM should obtain rainfall information from local weather data centers for the past 10-year period to provide a base for any adjustments. Rainfall and other weather conditions should be documented throughout the life of the project.

Ideally, contract time should be determined by the effect of the change on the construction schedule, which is current at the time of the change. Each modification should be clear and specific as to its effect on contract time such that all parties recognize and agree to the impact of the changed work.

A reduction in performance time to less than the original number of days allowed in the contract is rarely necessary, but is provided for under the Contract where early delivery of the facility is in the public interest. When a decrease in performance time is contemplated, the contract modification should be negotiated (a unilateral order is inappropriate) and an equitable adjustment is normally required.

## 5.25 WORK SUSPENSIONS AND STOP ORDERS

### 5.25.1 Definitions

Note that the word *suspension* is commonly used in the FAR as meaning a suspension for the convenience of the Government pursuant to *FAR Clause 52.242-14, Suspension of Work*, i.e. a suspension which implies liability or potential liability to the Government. In Federal Lands, on the other hand, the word *suspension* has been most often used to describe directives to suspend due to unsuitable weather or failure of the Contractor to comply with contract requirements, neither of which implies liability to the Government. To resolve this inconsistency the following terms are defined to distinguish between these conditions.

- **Suspension:** An interruption, delay, or halting of all or any part of the work by, and for the convenience of the Government, or resulting from an act (or failure to act) of the Contracting Officer. (See FAR 52.242-14, Suspension of Work).
- **Stop Order:** An interruption, delay, or halting by the Government, of all or any part of the work resulting from unsuitable weather or soil conditions, an act of the Contractor, or the failure of the Contractor to act. (See FP Subsection 108.05)

### 5.25.2 Suspension of Contractor Operations

FAR 52.242-14 permits work to be suspended for the convenience of the Government. If a suspension is for longer than a *reasonable* time the Contractor may be entitled to an equitable adjustment. What is *reasonable* depends on the circumstances, and the liability of the Government for not suspending should be considered.

For example if the Contractor begins excavating from a Government designated borrow source, and it becomes apparent that the material may be unsuitable for its intended use, a suspension for one day to decide if it is in fact unsuitable would probably be reasonable. If the Government decided after one day that the source was acceptable, it could argue that no liability was incurred.

Authority to issue emergency or urgent suspensions within the window of *reasonableness* may be delegated to the Project Manager. Once it is recognized that the suspension will result in liability to the Government, the letter or notice ordering the suspension of work, or documenting the suspension after the fact, shall be issued by the COE or the Construction Engineer depending on Division delegations.

Constructive suspensions of work can occur by failure of the Government to act. For example:

- Failure to approve shop drawings or mix designs within the time period specified in the Contract, or within a reasonable time if not specified
- Failure to perform timely inspections
- Delays due to defective specifications

### 5.25.3 Stoppage of Contractor Operations

The Standard Specifications permit the Contracting Officer to stop the work wholly or in part due to the following:

#### 1. Weather or soil conditions considered unsuitable for prosecution of the work

When the Contractor fails to act responsibly by voluntarily stopping operations when weather or soil conditions are unsuitable, the CM may issue a letter ordering work to stop. Normally this would be done only if the Contractor's continued work was causing damage to previously

completed work, adjacent public or private property, or otherwise causing a potential liability to the Government.

In the letter, describe the problem, which makes conditions unsuitable for work and the condition(s), which must exist before work can be resumed.

No order is required when the Contractor elects to stop work because of unsuitable conditions, which are usually of short duration and expected during the project duration. However, the project records should document and indicate such periods of no work.

For completion date contracts, there is no *counting* of contract time; therefore, normal unsuitable weather or soil conditions have no effect on the completion date. However, a time extension and new completion date may be established if the Contractor can demonstrate the amount of unsuitable weather is extraordinary or unusually severe. Such a demonstration will require careful review and documentation of weather history in the project area. In the event the Government agrees the weather is unusually severe, the completion date may be adjusted by contract modification. Such an adjustment is not dependent on a stop order having been issued by the Government, but only on the weather being demonstrated as unusually severe, and adversely impacting the Contractor's progress.

## 2. Failure of the Contractor to:

- (a) Correct conditions unsafe for the workers or the general public.
- (b) Carry out orders given by the Contracting Officer.
- © Perform any provision of the contract.

In cases where these conditions exist, the CM should issue the Contractor a written notice covering the deficiencies that require correction. The notice should include a statement that failure to immediately take corrective action may result in the issuance of a stop order covering the work in question. At the same time, the Project Manager should notify the COE by telephone and request instructions.

If the Contractor refuses or fails to correct the identified deficiencies, the CM may issue a stop order for periods of short duration due to reasons 1. and 2.(a) above. Stop orders for long durations or those due to reasons 2.(b) or 2.(c) shall be issued by, or have the concurrence of, the COE or the Construction Engineer.

Stop orders should cover only those items of work that are deficient. Stopping other work may be construed as punitive; stop orders or suspensions are not to be punitive.

### 5.25.4 Content of Suspensions and Stop Orders

Use a letter format for suspensions and stop orders, and include the following information:

1. Date, Contractor's name and address, contract number, and project designation.
2. Reason for suspension or stop order and whether the order pertains to all work underway or only part of the work. If the suspension or stop order affects only part of the work, describe that work which is affected.

For stop orders covered by Subsection 108.05 of the FP, cite that provision.

For suspensions of work for the convenience of the Government, cite *FAR Clause 52.242-14, Suspension of Work*.

3. Effective date of suspension or stop order.

4. Statement that work will not be resumed until directed in writing. For work stopped under Section 108.05, include a description of what conditions must exist before the Contractor can resume work.

5. A statement regarding the effect of the suspension or stop order on the contract time and amount. If an unusually severe weather-related delay is recognized by the Government, note that a contract modification may be requested adjusting contract time.

For other stop orders covered by Subsection 108.05 include a statement that says there will be no change in contract completion date or contract amount.

For suspensions of work for the convenience of the Government, state that any adjustment(s) to the contract completion date or amount as a result of the suspension will be made by contract modification.

The Contractor should be requested to acknowledge receipt of all suspensions and stop orders. If the Contractor's superintendent is absent, or due to strained relations, refuses to acknowledge the letter, its delivery should be noted in the diary and a copy sent to the Contractor's main office.

Examples of suspensions and stop orders are included in **Exhibits 5.26A** through **5.26C**.

#### **5.25.5 Content of Resumption Orders**

After the reasons for a suspension or stop order have been resolved, provide a written resumption order to the Contractor to rescind the suspension or stop order. The resumption order should be signed by, or have the concurrence of the official who signed the suspension or stop order. The order should include the following:

1. Date, Contractor's name and address, contract number, and project designation.
2. Reference the suspension or stop order, and identification of the item(s) of work affected by the resumption.
3. Effective date of resumption.
4. A statement regarding the effect of the suspension or stop order on the Contract time and amount.

Resumption orders after periods of short duration may be made effective immediately if conditions permit normal resumption of the work. After long suspension periods, resumption orders should be issued sufficiently in advance of the effective date to permit the Contractor to coordinate the start-up of work. The Contractor should be requested to acknowledge receipt of all letters to resume work.



**U.S. Department of Transportation  
Federal Highway Administration**

WESTERN FEDERAL LANDS HIGHWAY DIVISION  
C/O CM's name, Construction Manager  
Thomas/Wright, Inc.

**Street Address**  
City, Montana xxxxx

August 1, 2005  
Serial letter CC-20

Jim McDonald, President  
Coin Construction, Inc.  
1220 Francis Road  
Billings, Montana 59101

Subject: MT PFH 43-1(4), Pine River Road  
Contract No. DTFH70-05-C-00000  
Suspension of Work

Dear Mr. McDonald:

This confirms the September 1 telephone conversation in which you were verbally ordered to cease grading operations between Stations 115+00 and 130+00 because of the anticipated repair of a main gas line adjacent to the project by CP&L Gas Company. This suspension is for the convenience of the Government, FAR Clause 52.212-12.

You may resume work in the above vicinity effective September 10, 2005.

Since Item 102(1), Unclassified Excavation, is a critical path item, the contract completion date will be extended by 8 days. A contract modification will be prepared and issued reflecting this adjustment. If you believe that you incurred an increased in the cost of performance of the Contract as a result of this suspension, you may submit a cost proposal for the consideration of the Government.

Sincerely,

Julie Cable  
Project Manager

**EXAMPLE SUSPENSION OF WORK LETTER**

**Exhibit 5.25A**



**U.S. Department of Transportation  
Federal Highway Administration**

WESTERN FEDERAL LANDS HIGHWAY DIVISION  
C/O CM's name, Construction Manager  
Thomas/Wright, Inc.  
**Street Address**  
City, Montana xxxxx

August 1, 2005  
Serial letter CC-20

Jim McDonald, President  
Coin Construction, Inc.  
1220 Francis Road  
Billings, Montana 59101

Subject: MT PFH 43-1(4), Pine River Road  
Contract No. DTFH70-05-C-00000  
Stop Work Order

Dear Mr. McDonald:

Due to safety hazards to the public, aggravated by your hauling operations on Mountain Road in the rain and fog, you are hereby directed to discontinue this operation during periods when visibility is less than 300 meters. If there is doubt as to the evaluation of this criterion, WFLHD's on-site inspector is empowered to make determinations as to when hauling may take place

This order is issued pursuant to FP-96, Section 108.05(a). Since these weather conditions are normal this time of the year, and you are obligated to accommodate normal weather conditions in safely constructing the project, no adjustment will be in the contract amount or the contract completion date of September 1, 2005.

Sincerely,

Julie Cable  
Project Manager

**EXAMPLE STOP WORKORDER**

**Exhibit 5.25B**



**U.S. Department of Transportation  
Federal Highway Administration**

WESTERN FEDERAL LANDS HIGHWAY DIVISION  
C/O CM's name, Construction Manager  
Thomas/Wright, Inc.  
**Street Address**  
City, Montana xxxxx

August 1, 2005  
Serial letter CC-20

Jim McDonald, President  
Coin Construction, Inc.  
1220 Francis Road  
Billings, Montana 59101

Subject: MT PFH 43-1(4), Pine River Road  
Contract No. DTFH70-05-C-00000  
Stop Work Order

Dear Mr. McDonald:

By letter dated September 1, you were instructed to clear Station 210+00 to 215+00 of remaining timber slash and vegetation in accordance with Subsection 204.04, of the Contract, prior to initiating excavation in this area. Your forces have started excavating cut material in this area several times over the last two weeks. However, as we have discussed on several occasions, the clearing and grubbing has not been completed.

Since you have failed to perform the work require by the Contract, stop all excavation operations within the above noted limits effective September 15. This stop order is issued is in accordance with subsection 108.05(b) of the FP-92.

Work may resume at such time the area is cleared of all slash, debris and vegetation.

No adjustments to the contract completion date or the contract amount will be made as a result of this order.

Sincerely,

Julie Cable  
Project Manager

**EXAMPLE STOP WORK ORDER LETTER**

**Exhibit 5.25C**

## **5.26 STAKING**

### **5.26.1 General**

Unless otherwise stated in the contract, the Government will have set horizontal and vertical control points of the project, and all other staking is to be performed by the contractor. Control points found to be missing by the contractor and deemed necessary by the CO for the control of the work will either be reestablished by the Government or the contractor will be equitably compensated for the reestablishment by contract modification.

The Government will usually furnish data relating to horizontal and vertical alignment, theoretical slope stake catch points, and other pertinent design data to stake and build the project. This does not mean that all the required staking information will be furnished in whole or in a format normally used by every contractor. The contractor may be required to use calculations or other methods, such as computer programs to manipulate the furnished information to obtain staking information for particular portions of the project, and to get the information into a format that is easily used by their forces.

The CM should randomly check at least 10% of each of the contractor's staking operations. If 10% or more of the checks are out of contract specification it can be deduced that the problem is not isolated and the contractor should be required to correct the entire area that was checked. If this becomes a regular occurrence the contractor is to be notified in writing that their QC plan and/or QC procedures need to be corrected. If this does not correct the deficiencies then a written order stopping the unacceptable operations until acceptable work can be performed should be considered and discussed with the PM and COE.

### **5.26.2 Verification of Staking Documents**

The first step in verifying the accuracy of the survey control is taken before any work has been done by the Contractor. The CM is to receive copies of such documents as: earthwork listing, cross sections, clearing book, slope stake book, coordinate listing, etc. A list of such documents is called out in the special contract requirements to be made available to the Contractor. The CM needs to cross check this information with the plans to insure consistency. Sometimes the plans contain control point coordinates. The CM should compare these coordinates with the data listing. The CM should calculate some coordinates of PC's, PT's, etc., using data from the Plans. Then the CM should compare the calculated coordinates with the design listing. The CM should contact the PM and then the Design Section for help if discrepancies are found or if questions develop.

### **5.26.3 Government Field Control**

The next phase of staking verification is in the field. Initial project surveys are done by WFLHD or a consultant surveyor under a separate contract, before the award of the construction contract. Such surveys will provide control points to be used later by the Contractor.

If the design line staking is still available, or if the Contractor has staked the alignment, it is good practice to verify that the information in both the special contract requirements and the plans match and fit with what is in the field. The CM should walk the design line with the plans and cross sections to verify that enough survey control points exist to construct the project. (It is not uncommon for some of these points to be destroyed or moved between the time of staking and the time of award of the construction contract.) Walking the alignment is also a good opportunity for the CM to become familiar with the design and to note which control points will need to be relocated by the contractor prior to being destroyed by construction operations.

The CM should assume the quality of the Government control is adequate for the project, unless there is reason to believe it may have been disturbed, or unless the Contractor's beginning survey efforts lead to

questions or allegations of errors. If errors are alleged or suspected for any reason, the PM is to be quickly consulted to arrange for or provide expert advice and/or assistance.

If so many Government control points have been lost or disturbed that replacement by available project staff is not feasible, the CM should contact the PM. Options available to reset the control points include:

- A contract modification to have the Contractor do the work
- Contracting with a local surveyor
- Bringing in a Government survey crew
- Temporary additional project staff

Any needed work relating to control points should be done as soon as possible to avoid delaying the Contractor's operations.

#### **5.26.4 Establishing and Referencing Centerline and/or other Roadway Control**

At some point during construction of the project, the centerline is established by the Contractor. Shoulder points are often set in the same operation. The degree of accuracy depends on the phase of construction taking place. Most staking tolerances are found in the specifications. When they are not, standard practice for the type of work will govern.

During initial grading, the inspector can check work by measuring from the slope stakes or the slope stake reference hubs. When doing this, the inspector should line up with the reference hub or the slope stake on the other side of the road. This insures that centerline is intercepted at the station listed on the stake. Use of a cloth tape and hand level should be adequate at this stage, so long as the Contractor's work is being found generally in compliance. Tools such as the Rhodes Arc or Easy Arc are convenient for steep terrain. If it appears there are serious or chronic errors, more accurate checking methods may be warranted.

When finishing subgrade, fine grade control stakes (*blue tops*) or stakes for string lining are set by the Contractor. Usually, a Contractor sets the horizontal location of grade control stakes for about 1,000 meters of roadway, then comes back to set the proper elevations. To check the work at this stage, the inspector should have a total station and level. Radial survey methods can then be used. By occupying a point of known coordinates and having a similar backsight you can check the Contractor's grade control stakes.

Regardless of the method chosen for checking, the CM should perform as independent a check as is feasible. Occupying points different from those used by the Contractor, or using a different method, are approaches to that. The purpose of an independent check is to lessen the chance of duplicating any error. Points set for checking may not match the Contractor's points exactly, but they should fall within tolerances.

Referencing centerline, as used in this section, means to set additional control outside of the construction limits, and out of harm's way generally. These references are used to reestablish centerline or other control points. The control referenced may be any of PC's, PT's, P-line points, state coordinate points, etc.

A wide range of methods exists to reference centerline depending on the equipment available and the importance of the point. Regardless of how the Contractor references centerline, a record is to be given the CM, in an acceptable format. The CM should mathematically check a sampling of calculations, and should field-check some of the reference points in order to verify the competence of the Contractor's work. Field verification consists of making sure the references do exist, insuring that references are out of harm's way, and checking that the points match the data submitted by the Contractor. The CM should check enough points to feel satisfied that all are correct. The Contractor is to be notified of any discrepancies found and required to correct anything that will be left in place.

Where construction plans show equations in the stationing, these equations must be left in, and the station ahead must not be altered. The back station may be corrected if any error or distance is found when rerunning the line. This is necessary to preserve the relation of centerline to landmarks.

If the stationing at the crossing of property lines does not agree with the original plans (except minor differences in chainage), it will be necessary to equate to the original station ahead. The CM should coordinate with the PM and Project Development when any changes are necessary that affect the right-of-way description.

The terminal stations of the project should be left as shown on the plans, unless, a change has been approved by Project Development through the PM and the COE. If errors, equations or centerline corrections cause a terminal station to be in a significantly different location relative to the geometrics of the road and physical features of the right-of-way, the CM should coordinate with the PM and the COE to see if an equation or a revision to the terminal station is appropriate. Such actions should be kept to a minimum.

### **5.26.5 Permanent Monuments**

Permanent monuments such as United States Coast and Geodetic Survey (USCGS) monuments, Public Land corners, State coordinate points, Corps of Engineers monuments, or property corners might be in the way of the work. The Contract should provide for relocation of such monuments before construction, in accord with legal and/or agency requirements. If a monument is discovered that is not called out in the Contract, the CM should contact the PM and the owning agency as soon as possible for instructions.

### **5.26.6 Bridges**

The Government provides initial control from which the Contractor can locate the bridge. The Contractor determines what additional control is needed for construction purposes and is responsible for staking it. The Contractor is required to submit this staking information to the CM. The CM should check its accuracy. Guidance for handling missing or inaccurate control is provided in Section 5.26.3.

If the control is good, the CM may want to set additional control for checking purposes outside the construction limits. Usually, points set at right angles and even distances are best. The points should be clearly marked, i.e. *"offset from bridge chord," "end of bridge,"* etc. Vertical control should be set close to the bridge to reduce the number of turning points required. Complete level circuits should always be done. Bridge tolerances are much tighter than roadway tolerances, so accuracy is important.

### **5.26.7 Retaining Walls**

This section is written for cast-in-place concrete, cantilever retaining walls. The CM can apply most of the ideas presented here to other types of walls as well. However, each wall type (cast in place, reinforced earth, gabion, bin wall, keystone block, etc.) has some things unique to it. For an unfamiliar wall type, the CM may contact the manufacturer to gain insight for laying it out. The Contractor, per the Contract requirements, does actual layout.

Unlike bridges, locations of retaining walls may not be precisely established on the plans. In many situations, the Contract requires the CM to field check the beginning and ending station of the wall before the Contractor can order materials or begin work.

A common method used to check the Contractor's staking involves setting an offset line parallel to the wall. The inspector measures from this line to check the wall. On walls, setting the radius points is sometimes more practical and useful. Once the footing for a wall is complete, the Contractor often places control on it. This is convenient to use. It is a good idea to check the location of the top of the form. This is to insure the proper batter is being obtained.

The CM might rely on the Contractor's control after checking its accuracy. However, this is not an independent check.

### **5.26.8 Slope Stakes**

This section assumes that project personnel have some experience with slope staking. If not, the CM should provide special training. Many survey books give only a brief description of the subject as compared to traversing, running levels, and other aspects of surveying, which are well explained. When explanations are given, they are often of flat country work, not practical for most WFLHD projects. See **Exhibit 5.26A** for an Example Slope Stake and Reference Stake markings and notes.

The CM should closely review the printed earthwork listings and the plotted cross-sections for knowledge of the overall earthwork and stakeout required. Close study of plotted cross-section data proves very helpful in understanding the intended template for the road. The CM should note anything appearing odd, or contrary to the plans or Contract, for later field checking.

The CM should review the earthwork and staking data with the Contractor and its staking crew before the contractor does any staking. The CM should discuss write-up and color-coding of slope stakes and their reference stakes, and whether or not the cuts marked on the slope stakes are to ditch grade or shoulder grade. The CM should ask the Contractor and its staking crew to demonstrate how they will mark the catch and reference stakes. The Contractor also should explain where substantial differences between the data contained in the furnished field notes and actual ground shots being recorded. The CM should point out that care must be taken to assure measuring is accurate, particularly when staking is done with a hand level, rod and cloth tape. The Contractor must submit accurate and timely staking notes throughout the life of a project. Failure to furnish staking notes on time prevents or delays review of that work, and causes delay to the total operation.

Once the Contractor has started placing slope stakes in the ground, the CM should look at the staked line to see if it flows smoothly with the terrain. If there is a slope stake out of line, the CM should check the plans to see if there is a reason for it. An inlet basin for a culvert may cause a station to appear out of line. If there is no apparent reason for the misalignment, the CM should check the slope stake book and compare it to the writing on the slope stake. The CM should check data recorded on slope stakes and R.P.'s for legibility, as well as for content.

The CM's method for review of the Contractor's staking depends on the equipment available. If a theodolite with an electronic distance meter or a total-station is on the job, the CM can shoot catches (slope stake positions) in from a control point. These can be compared to slope stakes the contractor has set. Unless something was wrong with the original topographic data, the two should compare closely. The CM should check the Contractor's stakes to see that they meet the horizontal and vertical tolerances for the Contract.

Sampling is permissible for checking staking. Unless sample size is specified, the CM may select about 10% of the stakes in any group being tested. The sample selection method must insure all stakes in the group have an equal selection chance. The average error in the sample is taken to represent the mean error in the work being checked. Vertical and horizontal errors are best considered separately.

If the mean error exceeds specification tolerances, or 10% if none are specified, corrective action is warranted. Some time spent at that point to determine why the error is so large will likely be worthwhile. Check both parties equipment, methodology, and conventions such as measuring from and to the center of stakes or hubs. The Construction Management staff might work with the Contractor's crew for a time, or observe its work very closely. The PM might be asked to provide or arrange for help if necessary to find problems.

When re-checking a rejected unit of work, one should take a new sample and proceed as above.

### **5.26.9 Fine Grade Control Stakes**

Fine grade control stakes (red tops, blue tops etc.) can initially be checked similarly to checking slope stakes. The eyeball method will usually show any large bust in the staking. The CM should require complete level circuits, always tying into a benchmark to close the circuit. To meet the horizontal tolerances, the grade control stakes must be set and checked, using a survey instrument of some type. Taping off slope stakes or slope stake reference hubs does not assure the required accuracy. Section 5.26.4 contains additional information on checking grade control stakes. The checking procedures are the same for all fine grading control points. Definition of various grade control stakes by color code is often in the special contract requirements.

In some situations, the grade control stakes have to be fine-tuned by the CM to get a smooth ride, and/or to ensure proper drainage of the surface. In a very curvilinear alignment, the tangent run outs can get shortchanged. The CM may have to adjust the designed superelevation to soften dips or humps, but this should only be done through concurrence with the Designer.

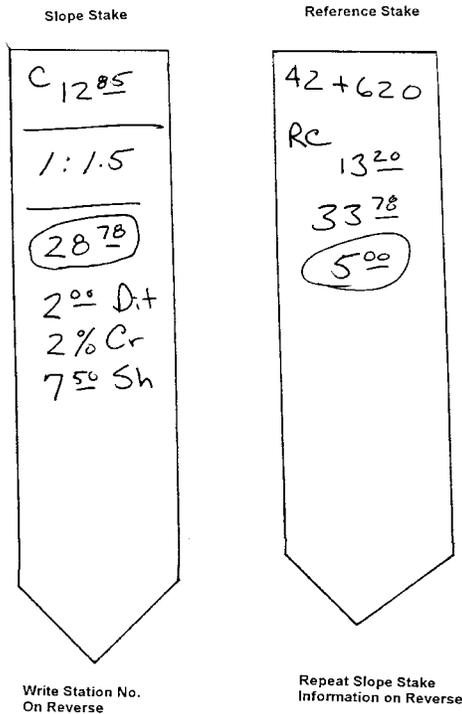
### **5.26.10 Sight Levels (Swede's) (Exhibit 5.26B)**

These are tools with which one person can check the crown, superelevation or linear grade without a level and rod. These are three metal rods each welded to a small base to enable them to stand vertically unsupported. The main rod has a small *tee* section of tubing welded horizontally to the top that serves as a sight and target. To see if the three levels are all on the same plane, the inspector chooses any random cross-section of the roadway, places a level on the right shoulder, one on the center of the road, and the third on the left shoulder. The inspector then sights from one on either shoulder to the one on the other shoulder. The inspector measures the amount of crown by how far the top of the center level is above the line of sight on centerline. A string line will settle arguments. The levels are usually painted with alternating colored stripes at fixed increments.

To check a roadway section that has a turnout or passing lane, the inspector places one level on centerline and another on the shoulder. Then the third level is placed in between to see that the crown at centerline is carried over the entire length of the template.

The inspector may use this same method of placing three levels across the roadway at a cross-section to check the superelevation by sighting over the top of the handles. This method also works for checking the linear grade of the roadway between stations. The inspector places two levels on consecutive grade hubs, and the third level in between and sights over the top to see if they line up.

The levels give a quick check of uniformity and smoothness of the subgrade, base aggregate course, and later courses. Using levels on vertical curves, horizontal curve transitions and curvilinear alignment will not work as described. The main use of levels is to rough check that the grade is conforming to the template shown in the Contract drawings.



**Slope Stake**

The intersection of the stake and ground is 12.85 meters above grade of ditch.

The cut slope ratio is 1 unit vertical to 1.5 units horizontal.

The stake is 28.78 meters from centerline. Some conventions show distance to bottom of slope.

(Optional) The template at this station has a 2.00 meters wide ditch. Ditch depth might be shown if it varies.

(Optional) The roadbed is crowned at 2% at this station.

(Optional) The subgrade shoulder break is 7.50 meters from centerline at this station.

**Reference Stake**

The stake is at Station 42+620

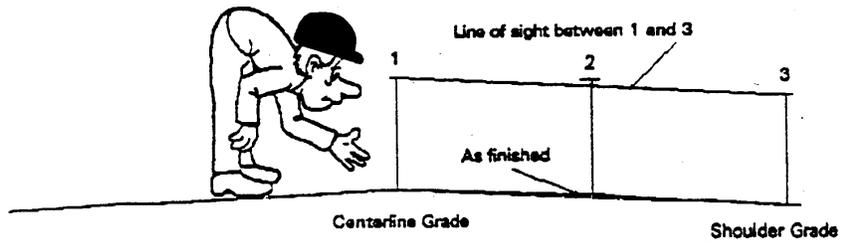
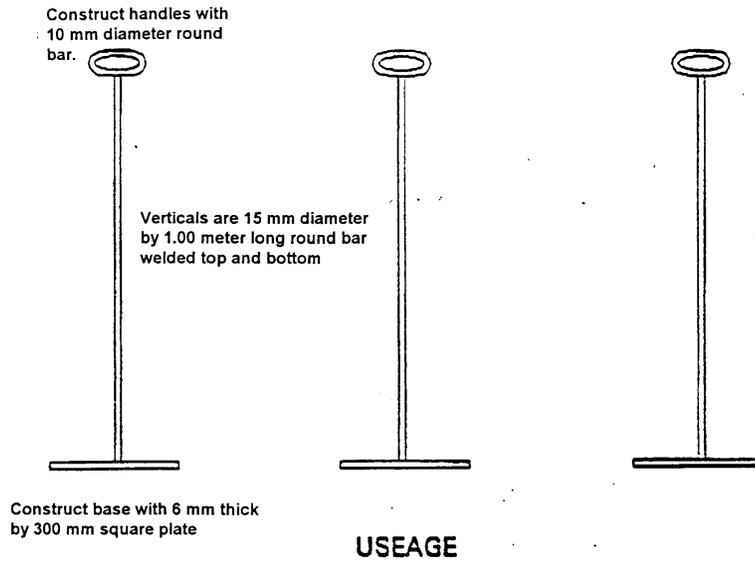
The stake is a reference cut (RC), 13.20 meters above the grade of the ditch.

The stake is 33.78 meters from centerline.

The stake is 5.00 meters horizontally behind the slope stake.

**EXAMPLE SLOPE STAKE AND REFERENCE STAKE**

**Exhibit 5.26A**



**SIGHT LEVELS**

**Exhibit 5.26B**

## 5.27 CONSTRUCTION SCHEDULES

### 5.27.1 General

*FAR Clause 52.236-15, Schedules for Construction Contracts*, and Section 155 of the Standard Specifications (FP) require the Contractor to submit a construction schedule. This construction schedule is to represent the sequence in which the Contractor plans to perform the contract work, showing start and end dates for each work activity including material ordering and delivery.

### 5.27.2 Limitations on Completing Work

The time allowed for completion of a contract is the ultimate limitation or constraint on the construction activities required for the project. Numerous activities can be planned, supplied and constructed within the contract time by recognizing the limitations on the work and the interdependence between activities of work.

Most activities are resource dependent, i.e., they rely on resources such as equipment and labor. Other activities of work are independent and can be carried out simultaneously if sufficient resources are available such as constructing a bridge while earthwork or paving are being completed.

Some activities, however, are completely dependent on the completion of another activity such as the sequence of excavation to embankment construction, then fine-grading, followed by placement of any base courses, and finally the asphalt paving.

Other activities, such as concrete curing or form removal, are restraints since they cannot be completed before a minimum amount of time has elapsed, i.e., seven days is required for curing and a percentage of the 28-day strength must be achieved before the forms can be removed. Other possible restraints are shop drawing approvals, traffic lane closure restrictions, limited work hours and climatic conditions. To properly manage a construction project, all of these activities, constraints, and limitations must be logically organized and developed into a construction schedule.

### 5.27.3 Construction Schedule Format

The general format for the construction schedule includes a graphic representation of the sequencing of work activities and the time to complete each of these activities, and a written narrative supporting the Contractor's logic in the development of the graphic representation. The FP requires the Contractor to use one of two standard formats, the Bar Chart Method or the Critical Path Method. The Special Contract Requirements (SCR) may limit the choice to only one of these specific formats; otherwise it is the Contractor's option.

#### 1. Bar Chart Method (BCM)

The BCM format consists of a progress bar chart and a written narrative. The FP outlines the information to be included on the bar chart and in the written narrative. The bar chart typically is comprised of a horizontal time scale and a vertical listing of project work activities. Bars are drawn to graphically represent the span of time necessary to accomplish each activity. BCM schedules are usually not allowed on WFLHD projects except for very small short duration ones.

Bar charts are the least sophisticated of scheduling methods because they do not show the relationships and dependencies of different work activities; do not tie the work to resource utilization; do not show float time; and are not effective in determining overall impact (cause-effect) on time resulting from a change or disruption. As such, delay analysis is impossible to perform accurately.

Bar charts are appealing to operations personnel because they identify the general course of the work in an uncomplicated fashion and they are easy to use in routinely monitoring the Contractor's progress.

The narrative requirement for the BCM method of scheduling increases the usefulness of the bar charts. The Contractor is required to identify anticipated resources and production rates. If during construction, the scheduled resources are not used on the project, or if the production rates are not achieved for unchanged work, it is possible to prove the Contractor's original schedule was defective. However, when the Government is responsible for a delay, using the BCM, it remains a difficult, if not impossible, job to evaluate the impact of each delay or inefficiency encountered through the course of the project, and quantify the true delay for which the Government is liable.

## **2. Critical Path Method (CPM)**

The CPM format consists of a diagram, a tabulated schedule, and a written narrative. The FP outlines the information required for each of these submittals. The CPM is the more sophisticated and useful format and will normally be required on complex or larger contracts. It represents the sequence and interdependence of work activities and time, factors in any constraints and restrictions, and clearly defines the critical activities of work. Through this maze of activities, constraints and restrictions, lies a *critical path* sequence that cannot be altered without affecting the overall completion date.

### **a. The Critical Path**

The critical path is the longest chain of dependent activities. These dependent activities are critical activities, also described as controlling activities of work. The critical path is of obvious importance when considering the impact of a CM on the completion date. If a CM affects a critical activity, a time extension should be considered. An event that causes a delay to part of the project may not increase the time required to perform the entire project unless it delays a critical activity on the critical path.

### **b. Float Time**

For work activities not on the critical path, the Contractor has some leeway as to when these non-critical work activities are started. This leeway is called float time. Float time is the amount of time an activity can be delayed without affecting the completion date of the contract. Float time can also be defined as the amount of time between the earliest start date and the latest start date, or between the earliest finish date and the latest finish date. When the float time for an activity is exceeded, it becomes a controlling activity of work, moves onto the critical path, and affects the contract completion date. Activities on the critical path have no float time.

### **c. No Float and Multiple Critical Path CPM's**

It is important that the Contractor assign a reasonable amount of time to all work activities and identify any float time in the schedule. With any delay, an activity with little float time can become a controlling activity of work.

A schedule with little float time for most of the work activities often puts the Government at a disadvantage, since any delay will soon affect completion and could result in a delay claim.

CPM's with multiple critical paths should also be closely reviewed, since seldom is there more than one truly critical path. If a schedule with multiple critical paths is accepted, the Government is at a disadvantage because any delay will probably impact one of the paths. Multiple critical paths are usually created by assuming low production rates and eliminating float on non-critical activities so that the activities appear critical.

If the Government can show that actual production and activity durations were consistently better than those assumed on the original schedule, that evidence can be

used to question whether those durations were *realistic*, and whether the activities were therefore *critical*. A new schedule can be requested on this basis. It is best to make such observations prior to a change or differing site condition, which may impact time.

#### **5.27.4 Submittal Requirements and Review**

The FP requires that three copies of a preliminary construction schedule (PCS) be submitted at least 7 days before the preconstruction conference. The PCS is a written narrative detailing the Contractor's contract activities for the first 45 calendar days after the NTP is issued. Seven calendar days after the preconstruction conference, the PCS must be accepted or rejected and returned for revisions. The Contractor should not be permitted to start any work, except mobilization and traffic control, i.e., erection of construction signs, until the PCS is approved. If the preliminary schedule is acceptable without reservations, stamp it "Accepted" and return a copy of the stamped page to the Contractor, or send a letter "accepting" the schedule to the Contractor.

The PCS should be reviewed to determine if it generally represents those activities that logically should occur in the beginning of the specific type of contract. This could involve all traffic control as on an urban road rehabilitation project; erection of an onsite batch plant for a remote paving or concrete project; or only time for material ordering and delivery for a pre-manufactured installation, i.e., precast guardwalls. This review must consider the type of project and need not be overly critical. The PCS should also be used to plan and schedule the Government's initial onsite personnel and equipment needs.

The FP requires that three copies of the initial or "as bid" construction schedule for the total contract work be submitted within 30 calendar days after the NTP is issued. This initial schedule must be accepted, or rejected and returned for revisions within 14 calendar days after receipt by the Government. This initial construction schedule, whether in the BCM or CPM format, is of particular importance. The Contractor's initial construction schedule should show how they plan to begin, sequence, and complete the principal phases of work within the time allotted by the Contract.

It is the Contractor's initial construction schedule that normally warrants the most thorough, in-depth review by the Government. Once accepted, this initial schedule will establish the basis against, which all future schedule changes or updates and claims will be compared and justified. The Government's review should carefully consider each work activity on the schedule and the time proposed for its completion. Any unrealistic production rates based on proposed crew size or number of equipment should be questioned. Any impractical sequencing of work activities either for contractual reasons, e.g., impermissibly staged or phased construction, physical constraints such as assuming access where there is none, or for improper workmanship or aesthetic, e.g., placing final asphalt surface before construction of adjacent curb, should be questioned. Also, any actions involving the Government such as shop drawing approvals or time allotted for testing should be carefully reviewed. All reservations should be documented in writing and returned for resolution before final acceptance of the schedule. If it is determined that there are no contractual or supportable operational reasons for rejecting an optimistic schedule, all reservations should still be included in the acceptance letter. By accepting an unrealistic schedule from the Contractor, the Government could be at a distinct disadvantage when defending against any future delay or impact claims. If there are no reservations, stamp the initial project schedule "Accepted" and return a copy to the Contractor, or provide a letter stating that the schedule was accepted.

The FAR permits the withholding of a portion of the progress payment if the Contractor fails to submit their schedule within the time prescribed. Progress payments should be withheld until receipt and acceptance of the Contractor's initial construction schedule. Progress payments may be withheld, in part, if schedule updates are not submitted as required. Prudent judgment should be used in withholding payment due to disagreements with the Contractor concerning his submitted schedule. Generally, if the required initial schedule has been submitted in good faith, but is not acceptable for clear, objective reasons, or if the approved schedule has proven obsolete and the Contractor has failed to submit a requested update, the maximum ten percent retainage provision contained in *FAR Clause 52.232-5, Payments Under Fixed-Price Construction Contracts* is an appropriate withholding. Minor problems do not normally justify any withholding.

### 5.27.5 Schedule Updates

FAR Clause 52.236-15 and the FP both require the Contractor to document actual progress on the approved construction schedule. Three copies of an updated construction schedule must be submitted at least every month or when any delay or change occurs as outlined in the FP. The SCR may specify a different submittal frequency.

Construction schedules, especially those in the CPM format, should be updated frequently because any change in production or other events that impact time can make the schedules obsolete, may alter the critical path, and therefore change the controlling activities of work. Schedules reconstructed *after the fact* can be biased so that the true picture of the past work is not shown.

If the Contractor's progress is not satisfactory – usually defined as when the progress falls 10 percent behind the current schedule – an updated schedule should be requested, in writing. The request should ask the Contractor to identify any Government caused delays. It should also notify the Contractor of any intent to withhold a monetary retention due to unsatisfactory progress, or the assessment of liquidated damages if the Contract time is about to elapse. It is also prudent to request an updated schedule when issuing a major CM, time extension, or a directed acceleration.

All updated construction schedules should be reviewed, accepted, or rejected and returned for revisions. The review can focus on the areas of the updated schedule, which have been significantly changed from the previously accepted schedule. The Contractor should identify these changes in the narrative submittal. Any reservations should be documented in the acceptance letter. If there are no reservations, stamp the update "Accepted", and return a copy to the Contractor, or provide a letter stating that the schedule was accepted.

## 5.28 REPORT ON PARTIALLY COMPLETED PROJECT

When a project is inactive for the winter or other long period of time, the PM may request a detailed project status report on the project. This should be a memorandum report containing a brief outline of the work done, work remaining, problems outstanding, and suggestions and ideas which might be helpful to a new CM unfamiliar with the project. Winter maintenance responsibility and anticipated activities might be described in such a report. Agency and Contractor contacts should be identified.

Prior to temporary shutdowns or other discontinuity, it is also a good idea to prepare a status report for all pending contract modifications. This will be a useful reminder of issues that may need to be attended to, such as:

- Complete vs. incomplete work
- Submittals due from Contractor
- Pending negotiations relative to contract time or payment
- Documentation of effects on other work

## **5.29 FINAL INSPECTION AND COMPLETED PROJECT SURVEY**

### **5.29.1 All Projects Except OMAD**

A final inspection is held at the completion of a project. The CM may issue verbal or written invitations to the contractor, client agency and any other interested parties. The purpose of the final inspection is to review the project to ensure completion of the project in compliance with the contract requirements, and to ensure the satisfaction of the client agency(s). Upon a satisfactory inspection the COE sends the final acceptance letter for the project to the contractor. The COE also sends a final acceptance letter to the cooperators to the Project Agreement (client agency(s) and maintaining agency(s) as appropriate).

The final inspection should be a formality to do the "final check" before the final acceptance letter is written. Prior to this inspection, the CM should coordinate with the contractor to ensure the project is in compliance with the contract and that all punch list items have been identified and will be completed prior to the final inspection. The CM should also coordinate with the client agency(s) prior to the final inspection to ensure their acceptance of the project.

After the inspection has been completed, the COE or the CM asks each Client Agency to fill out a *Completed Project Survey*. Surveys may be obtained from the Construction Branch Administrative Assistant. To ensure proper credit and timeliness, the CM should make sure the project is identified and a due date is noted on the cover of the survey. Time may be allowed after the final inspection for filling out the questionnaires or they can be mailed directly to WFLHD, c/o Construction Branch Administrative Assistant. An address label is attached to the survey and postage can be added upon request to the Construction Branch Administrative Assistant.

### **5.29.2 OMAD Projects**

After a road, or a group of roads in an area are completed, the CM, County, and the Air Force will inspect the road(s). The Air Force then prepares a memo describing the inspection, and notes if the road(s) is acceptable, or if corrective work is required. A copy of this memo is provided to the CM, who forwards it to the COE and notifies the PM. The COE then writes a letter to the contractor indicating that "a, b, c" roads have been accepted.

When all of the roads in a particular county are completed and accepted, the COE should send a letter to the County stating such, along with a Completed Project Survey. When all of the roads in the contract are completed, the COE should send a letter to the Air Force stating such, along with a Completed Project Survey, and should send the final acceptance letter to the contractor.

## 5.30 CONTRACTOR PERFORMANCE EVALUATION

### 5.30.1 General

It is the policy of the Federal Highway Administration; to award work to contractors with a track record of successful past performance or that demonstrate a superior current ability to perform. This section establishes procedures for evaluating construction contractor performance.

### 5.30.2 Definitions

**Construction Contractor Appraisal Support System (CCASS)** is a centralized and automated database containing performance evaluation information on federal government construction contractors. It is maintained by the U.S. Army Corps of Engineers (USACE) in Portland, Oregon.

**Contracting Officer's Technical Representative (COTR)** is the on-site Project Manager or Resident Engineer responsible for administering the contract. The COTR is also the "evaluating official" identified in FAR 36.201.

**DD Form 2626, Performance Evaluation - Construction** is the form used to complete a contractor's performance evaluation. DD Form 2626 is compatible with CCASS.

### 5.30.3 Ratings

DD Form 2626 provides 5 rating scores, including: unsatisfactory, marginal, satisfactory, above average, and outstanding. Agencies using the CCASS consider marginal ratings to be as serious as unsatisfactory ratings, and therefore a marginal rating must be supported and documented to the same extent that an unsatisfactory rating would be supported. The key difference between the two ratings is that under a marginal rating, the contractor's degree of noncompliance is less severe than under an unsatisfactory rating.

The following sections primarily discuss satisfactory and unsatisfactory ratings. Marginal ratings should follow the same process as outlined for unsatisfactory ratings.

### 5.30.4 Criteria

The criteria listed below is used to evaluate the contractors performance.

#### **Quality of Work (Contractor Quality Control)**

Quality of work reflects the contractor's management of the quality control program, as well as the work performed. Questions, which should be addressed, are as follows: Has a quality product been provided? If not, specifically describe the deficiency in quality and the shortcomings in the contractor's quality control system responsible for it, for example:

- Inadequate control
- Failure to perform necessary testing
- Failure to implement 3-phase inspection process
- Inadequate or incomplete quality control documentation
- Failure to identify and correct deficient work
- Inadequate materials and shop drawings submittals
- Incorporation of unspecified materials

### **Timely Performance**

Is the contractor completing the construction activities in a timely manner? This includes administrative activities, as well as physical construction activities such as submittal management response to RFPs, etc.

- Did the contractor adequately schedule the work?
- Has the contractor met administrative milestone dates?
- Has the contractor met physical milestone dates specified by contract or agreed to in the project schedule?
- If the schedule has slipped through the contractor's fault or negligence, has he taken appropriate corrective action of his own volition?
- Has the contractor furnished updated project schedules on a timely basis?

### **Effectiveness of Management**

- Are the contractors on-site and home office management personnel exhibiting the capacity to adequately plan, schedule, resource, organize and otherwise manage the work? If not, describe and relate to other rated elements.
- Is the contractor making a good faith effort to comply with its subcontracting plan?

### **Compliance with Labor Standards**

- Has the contractor complied with all required labor standards and provisions?
- Have necessary corrective actions been made without significant Government intervention?
- Are payroll records being submitted in a complete and timely manner?
- Is the contractor complying with affirmative action and EEO compliance requirements?

### **Compliance with Safety Standards**

- Has the contractor implemented an effective safety program; which minimizes/mitigates potential accidents?
- Has the contractor provided appropriate personnel protective equipment and associated necessary training?
- Has the contractor taken necessary corrective actions when safety deficiencies are noted or are violations corrected after significant Government intervention?

### **Coordination with the Customer**

- It is recommended that the evaluating official solicit observations and written comments from the customer concerning the contractor's overall performance prior to finalizing the evaluation.

### **5.30.5 Procedures**

The CM shall evaluate contractor's performance and prepare a performance evaluation using DD Form 2626, Performance Evaluation - Construction, and forward to PM for concurrence, for each construction contract of:

- a) \$100,000 or more;
- b) \$25,000 or more, if any element of performance is either unsatisfactory or outstanding;
- c) \$10,000 or more, if the contract is terminated for default.

The preceding construction contract costs are based on the contract cost at the time of substantial completion or at the time of award, whichever is greater.

An interim performance evaluation shall be prepared for ongoing contracts when a contractor's performance is generally unsatisfactory for any element for a period of 30 days or longer. Interim evaluations should be issued if the contractor's performance is headed toward an overall 'unsatisfactory'

or 'marginal' rating. The final performance evaluation shall be prepared within 10 days of final acceptance of the work or at the time of contract termination. The Construction Engineer shall approve both interim and final unsatisfactory and marginal evaluations. Satisfactory evaluations are approved by the COE.

Copies of all correspondence regarding a contractor's performance evaluation shall be sent to Central Files along with the evaluation. Evaluations and support documentation shall be distributed as shown in the contractor evaluation process diagrams.

### **5.30.6 Implementation**

#### **5.30.6.1 Initial Notification**

The first step in evaluating contractor's performance is to notify the contractor at the preconstruction conference of the performance elements against which their performance will be evaluated. The contractor should be informed as to what constitutes satisfactory and unsatisfactory performance during the life of the contract, and that the performance evaluation will be one of the criteria used to make responsibility determinations on future projects.

The criteria listed in **below** are not intended to be all-inclusive, but should provide a point of departure to develop additional questions and responses, which will result in the preparation of a well-documented performance evaluation.

#### **5.30.6.2 Interim Performance Evaluation Process**

The CM must be on the alert for indications of unsatisfactory or marginal performance and must initiate the interim performance evaluation process when a contractor's performance is unsatisfactory on one or more elements for a period of 30 days or longer, or when circumstances dictate as noted in the following paragraph. Interim unsatisfactory or marginal ratings alert contractors of their shortcomings and serve as a valuable tool in energizing them to improve their performance, correct deficiencies, and avoid a final unsatisfactory or marginal rating. The PM should be kept personally aware of the status of the contractor's performance and the CM's intent to recommend an interim unsatisfactory or marginal rating. It is mandatory that the contractor be given the opportunity to meet with the Construction Engineer prior to issuance of the interim unsatisfactory or marginal rating. DD Form 2626 is used to prepare interim unsatisfactory or marginal performance evaluations.

As stated in the preceding paragraph, the normal time frame for initiation of the interim performance evaluation process usually occurs after 30 days of unsatisfactory or marginal performance. However, in circumstances involving a critical feature of the work that the contractor must perform satisfactorily and does not, or if the project is of a short duration, the process may begin without waiting for the end of the 30-day evaluation period.

After the issuance of an interim unsatisfactory or marginal rating, the CM must continue to monitor the contractor's performance and re-evaluate the contractor's performance.

Specific requirements of the interim performance evaluation process are illustrated in **Exhibit 5.30A**, Interim Performance Evaluation Process.

### 5.30.6.3 Final Performance Evaluation Process

There are no rigid rules governing the number of items on a performance evaluation, which must be unsatisfactory before an overall unsatisfactory or marginal rating is issued. Unsatisfactory performance on one or more of the elements to be rated may be sufficient to justify an overall unsatisfactory rating. If an unsatisfactory rating is contemplated, the COE should be involved in reviewing the supporting documentation. The Construction Engineer and the COE must be satisfied that the justification and documentation supporting an unsatisfactory or marginal rating is adequate.

Final unsatisfactory or marginal ratings should not be a surprise to the contractor since interim notification of the contractor's deficiencies should be fully documented during the course of the contract, and it is mandatory that the contractor be given the opportunity to meet with the Construction Engineer prior to issuance of the unsatisfactory or marginal rating. However, an interim unsatisfactory evaluation is not a prerequisite for issuing a final unsatisfactory or marginal rating.

Specific requirements for preparing final performance evaluations are shown in Exhibit 5.30B, **Final Performance Evaluation Process**. Performance evaluations must be completed for all contracts as specified above, regardless of rating. The final performance evaluation will supersede any previous interim evaluations.

### 5.30.7 Justification and Documentation

If the contractor is given an unsatisfactory or marginal rating on any element (15a through 19c of DD2626), the rating must be justified in Block 20 of DD2626. Justification includes a brief but specific description of the basis for the unsatisfactory or marginal rating, and identification of correspondence or documentation relating to that area. Include all documentation when forwarding DD2626 to the PM for review.

#### Specific Instructions for Completing DD2626

Block 2. This block is for the DUNS (Dun & Bradstreet) number (which has been provided by the contractor). The number is located in the "B" pages of the contract, usually following the Partnering provision.

Block 5. Use the contractor's name and address listed on the front cover of the contract. Do not use the contractor's project office address.

Block 7. Include the project name, number, and contract number.

Block 8. List the type of subcontract and the percentage performed (i.e., crushing - 7%, paving - 4.6%). Do not list the subcontractor's names.

Blocks 9b, 9c, and 9d. Use estimated amounts if the final amounts are not available.

Blocks 15 through 19. Be sure to rate each factor in each section. The CCASS will not accept an evaluation unless each factor has one rating (N/A through unsatisfactory). Also, be sure that only one rating is entered for each factor.

Block 20. The CCASS will only accept 17 lines of data in this block. Briefly describe the deficiency (i.e., failed to submit construction schedule updates) and then list the dates of your support data (letters, diary entries, etc.). Your justification (that goes to the Central Files and the contractor) should include a more thorough description of the deficiency

FOR OFFICIAL USE ONLY (WHEN COMPLETED)

<b>PERFORMANCE EVALUATION (CONSTRUCTION)</b>		1. CONTRACT NUMBER	
		2. CEC NUMBER	
IMPORTANT: Be sure to complete Part III - Evaluation of Performance Elements on reverse			
<b>PART I - GENERAL CONTRACT DATA</b>			
3. TYPE OF EVALUATION (Check one)		4. TERMINATED FOR DEFAULT	
<input type="checkbox"/> INTERIM (List percentage) _____ % <input type="checkbox"/> FINAL <input type="checkbox"/> AMENDED		<input type="checkbox"/>	
5. CONTRACTOR (Name, Address, and ZIP Code)		6a. PROCUREMENT METHOD (Check one)	
		<input type="checkbox"/> SEALED BID <input type="checkbox"/> NEGOTIATED	
		6b. TYPE OF CONTRACT (Check one)	
		<input type="checkbox"/> FIRM FIXED PRICE <input type="checkbox"/> COST REIMBURSEMENT	
7. DESCRIPTION AND LOCATION OF WORK			
8. TYPE AND PERCENT OF SUBCONTRACTING			
9. FISCAL DATA		a. AMOUNT OF BASIC CONTRACT	b. TOTAL AMOUNT OF MODIFICATIONS
		\$	\$
		c. LIQUIDATED DAMAGES ASSESSED	d. NET AMOUNT PAID CONTRACTOR
		\$	\$
10. SIGNIFICANT DATES		a. DATE OF AWARD	b. ORIGINAL CONTRACT COMPLETION DATE
		c. REVISED CONTRACT COMPLETION DATE	d. DATE WORK ACCEPTED
<b>PART II - PERFORMANCE EVALUATION OF CONTRACTOR</b>			
11. OVERALL RATING (X appropriate block)			
<input type="checkbox"/> OUTSTANDING <input type="checkbox"/> ABOVE AVERAGE <input type="checkbox"/> SATISFACTORY <input type="checkbox"/> MARGINAL <input type="checkbox"/> UNSATISFACTORY (Explain in Item 20 on reverse)			
12. EVALUATED BY			
a. ORGANIZATION (Name and address (Include ZIP Code))		b. TELEPHONE NUMBER (Include Area Code)	
c. NAME AND TITLE		d. SIGNATURE	e. DATE
13. EVALUATION REVIEWED BY			
a. ORGANIZATION (Name and address (Include ZIP Code))		b. TELEPHONE NUMBER (Include Area Code)	
c. NAME AND TITLE		d. SIGNATURE	e. DATE
14. AGENCY USE (Distribution, etc.)			

DD FORM 2626, JUN 94

EXCEPTION  
APPROVED BY GSA

CONTRACTOR PERFORMANCE EVALUATION, FORM DD2626

Exhibit 5.30A

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PART III - EVALUATION OF PERFORMANCE ELEMENTS

N/A = NOT APPLICABLE O = OUTSTANDING A = ABOVE AVERAGE S = SATISFACTORY M = MARGINAL U = UNSATISFACTORY

15. QUALITY CONTROL							16. EFFECTIVENESS OF MANAGEMENT						
	N/A	O	A	S	M	U		N/A	O	A	S	M	U
a. QUALITY OF WORKMANSHIP	<input type="checkbox"/>	a. COOPERATION AND RESPONSIVENESS	<input type="checkbox"/>										
b. ADEQUACY OF THE CQC PLAN	<input type="checkbox"/>	b. MANAGEMENT OF RESOURCES/PERSONNEL	<input type="checkbox"/>										
c. IMPLEMENTATION OF THE CQC PLAN	<input type="checkbox"/>	c. COORDINATION AND CONTROL OF SUBCONTRACTOR(S)	<input type="checkbox"/>										
d. QUALITY OF QC DOCUMENTATION	<input type="checkbox"/>	d. ADEQUACY OF SITE CLEAN-UP	<input type="checkbox"/>										
e. STORAGE OF MATERIALS	<input type="checkbox"/>	e. EFFECTIVENESS OF JOB-SITE SUPERVISION	<input type="checkbox"/>										
f. ADEQUACY OF MATERIALS	<input type="checkbox"/>	f. COMPLIANCE WITH LAWS AND REGULATIONS	<input type="checkbox"/>										
g. ADEQUACY OF SUBMITTALS	<input type="checkbox"/>	g. PROFESSIONAL CONDUCT	<input type="checkbox"/>										
h. ADEQUACY OF QC TESTING	<input type="checkbox"/>	h. REVIEW/RESOLUTION OF SUBCONTRACTOR'S ISSUES	<input type="checkbox"/>										
i. ADEQUACY OF AS-BUILTS	<input type="checkbox"/>	i. IMPLEMENTATION OF SUBCONTRACTING PLAN	<input type="checkbox"/>										
j. USE OF SPECIFIED MATERIALS	<input type="checkbox"/>	<b>18. COMPLIANCE WITH LABOR STANDARDS</b>											
k. IDENTIFICATION/CORRECTION OF DEFICIENT WORK IN A TIMELY MANNER	<input type="checkbox"/>	a. CORRECTION OF NOTED DEFICIENCIES	<input type="checkbox"/>										
<b>17. TIMELY PERFORMANCE</b>							b. PAYROLLS PROPERLY COMPLETED AND SUBMITTED	<input type="checkbox"/>					
a. ADEQUACY OF INITIAL PROGRESS SCHEDULE	<input type="checkbox"/>	c. COMPLIANCE WITH LABOR LAWS AND REGULATIONS WITH SPECIFIC ATTENTION TO THE DAVIS-BACON ACT AND EEO REQUIREMENTS	<input type="checkbox"/>										
b. ADHERENCE TO APPROVED SCHEDULE	<input type="checkbox"/>	<b>19. COMPLIANCE WITH SAFETY STANDARDS</b>											
c. RESOLUTION OF DELAYS	<input type="checkbox"/>	a. ADEQUACY OF SAFETY PLAN	<input type="checkbox"/>										
d. SUBMISSION OF REQUIRED DOCUMENTATION	<input type="checkbox"/>	b. IMPLEMENTATION OF SAFETY PLAN	<input type="checkbox"/>										
e. COMPLETION OF PUNCHLIST ITEMS	<input type="checkbox"/>	c. CORRECTION OF NOTED DEFICIENCIES	<input type="checkbox"/>										
f. SUBMISSION OF UPDATED AND REVISED PROGRESS SCHEDULES	<input type="checkbox"/>												
g. WARRANTY RESPONSE	<input type="checkbox"/>												

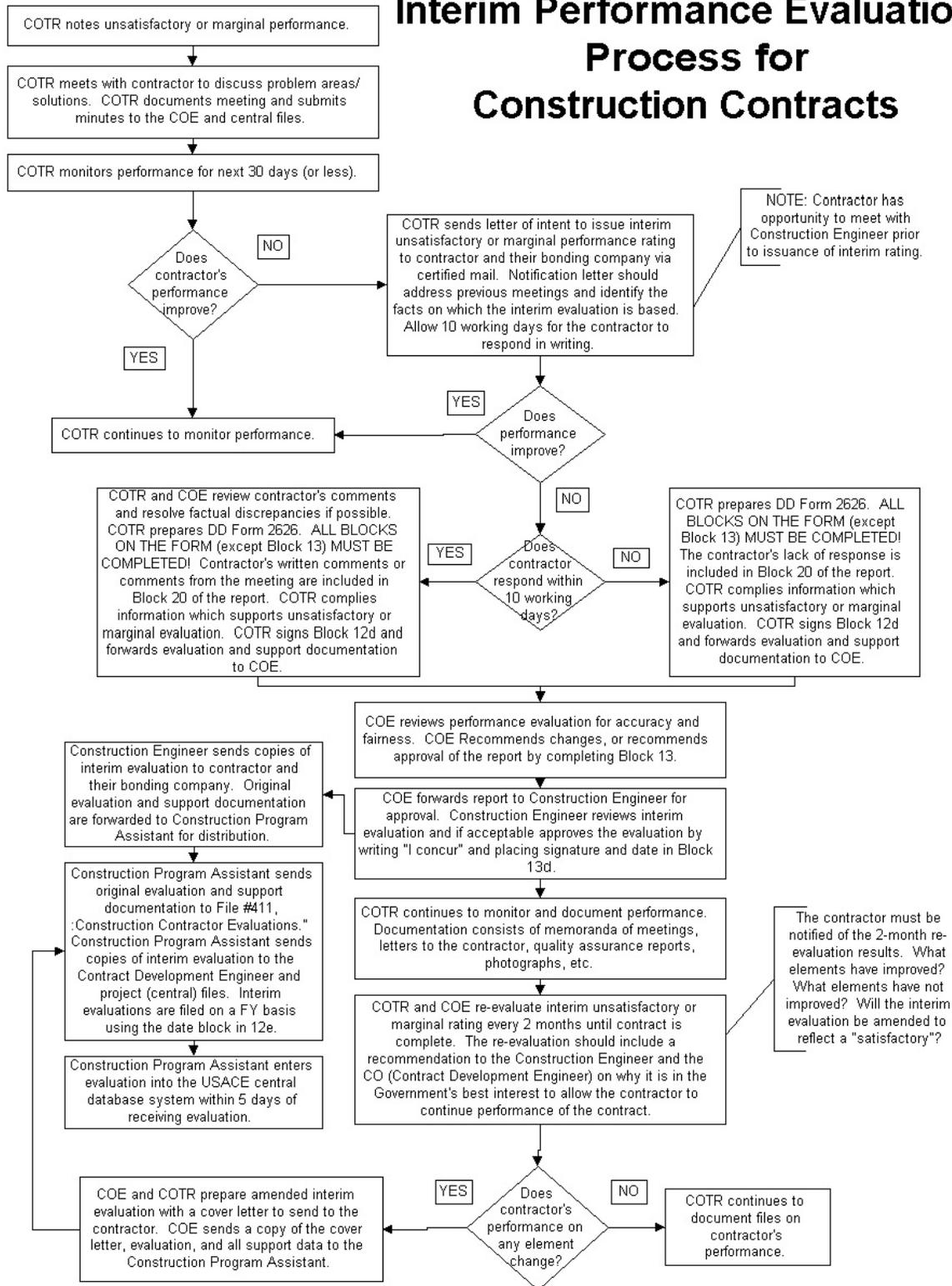
20. REMARKS (Explanation of unsatisfactory evaluation is required. Other comments are optional. Provide facts concerning specific events or actions to justify the evaluation. These data must be in sufficient detail to assist contracting officers in determining the contractor's responsibility. (Continue on separate sheets, if needed)

DD FORM 2626, JUN 94 (BACK)

CONTRACTOR PERFORMANCE EVALUATION, FORM DD2626

Exhibit 5.30A

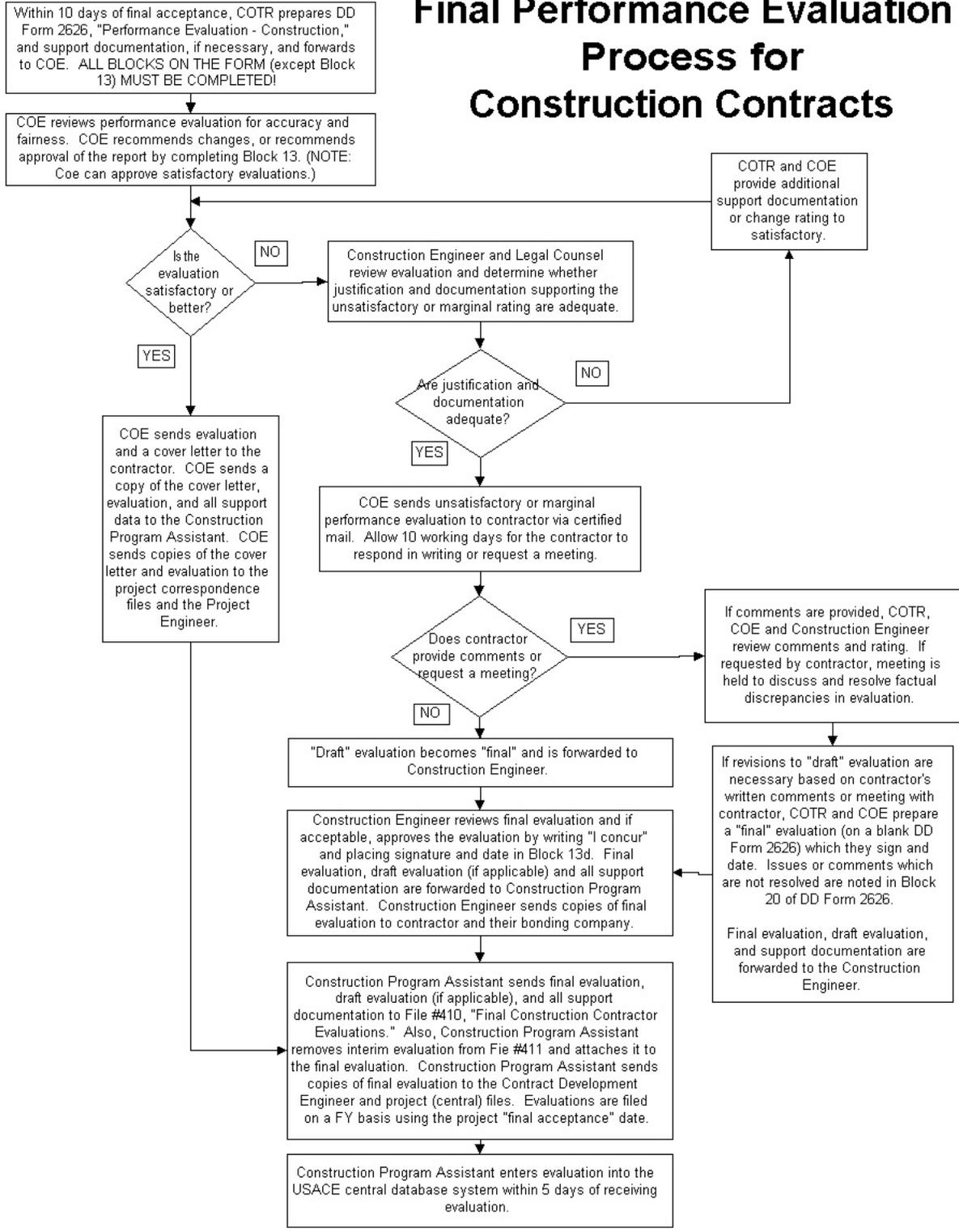
## Interim Performance Evaluation Process for Construction Contracts



### INTERIM PERFORMANCE EVALUATION PROCESS FOR CONSTRUCTION CONTRACTS

Exhibit 5.30B

# Final Performance Evaluation Process for Construction Contracts



## FINAL PERFORMANCE EVALUATION PROCESS FOR CONSTRUCTION CONTRACTS

Exhibit 5.30C

## **5.31 CLAIMS AND DISPUTES**

### **5.31.1 General**

In the course of construction, it is not uncommon for differences of opinion to arise between the Contractor and the Government over interpretation of the Contract provisions, or as to whether increased costs or time extensions are allowable for changes, differing site conditions, or delays. The Contractor may also express dissatisfaction or disagreement with contract modifications.

Most differences can be resolved by negotiation that leads to appropriate contract modifications. Prompt action should be taken to resolve issues and to make any equitable adjustments, giving full consideration to the terms of the Contract.

The CM must keep the PM informed of issues that arise. The PM will keep the COE and legal office and higher-level Contracting Officers informed as necessary; and will advise the CM on appropriate actions in the meantime.

### **5.31.2 Guidance for Preventing Claims**

- Remember that the goal is to work collaboratively to get the project constructed.
- Develop a thorough knowledge of plans and specifications.
- Read all relevant portions of the Contract before answering questions or making decisions.
- Perform accurate and consistent timely inspections, testing and reporting.
- Strictly adhere to established testing procedures.
- Accept nothing less, nor require nothing more than required by the Contract.
- Insure that all inspectors are properly instructed to apply consistent standards for the work being performed.
- Maintain professional and cooperative attitude with Contractor personnel.
- Be sympathetic to Contractor's problems, complimentary when Contractor delivers exceptional quality.
- View project accomplishments as a team effort between Contractor and WFLHD personnel.
- Deal with the superintendent or at least the same people on the same issues all the time.
- Try to anticipate and recognize potential claim situations.
- Face problems including WFLHD mistakes, and seek fair and equitable resolutions.
- Track proposed CM to be sure those charged with making decisions know that the project is waiting for those decisions.
- Act promptly and decisively in dealing with problems. If you can't resolve an issue, refer it to someone who can.
- Realize that communication is probably the most effective deterrent to claims – thorough documentation is the best defense.

## CHAPTER 6

# ENVIRONMENTAL PROTECTION

### 6.1 INTRODUCTION

One of the highest priorities on any WFLHD construction project is to ensure continuous compliance with the environmental requirements. One wrongdoing, no matter how unintentional or seemingly undamaging, can irreversibly harm the environment, result in civil and criminal actions, and can adversely affect WFLHD's ability to get permits and environmental clearances in the future.

The entire construction management team is responsible for being mindful of all the environmental facets of the project and foreseeing where difficulties may arise. Close coordination with the Environmental Specialist is essential to a successful project.

## **6.2 ENVIRONMENTAL CLEARANCE**

### **6.2.1 General**

Environmental clearance requirements for material sources, staging and disposal areas, etc., will vary depending on the state in which the project is located, and whether the source or site is Government-provided or contractor-located. The Government will have acquired the permits, clearances, and rights for Government-provided sources, disposal areas, and staging areas. Clearance requirements for contractor-located sources, staging areas, and disposal sites, etc. are listed in Subsection 107.10 of the Contract. In simple terms, the contractor needs clearance in three areas: historic/archaeological, endangered species, and wetlands.

#### **6.2.1 Government-provided Sources**

The Government will have acquired the permits and rights to remove materials from Government-provided sources. However, there are two things to keep in mind. First, if during source development or production, archeological remains are discovered, the contractor needs to stop work and the CM needs to notify the PM and COE. Second, the Contractor must stay within the source's physical boundaries identified in the Contract. Those boundaries might be the limits of what has been cleared environmentally.

#### **6.2.2 Contractor-located Sources**

Subsection 107.10 of the Contract identifies the process for obtaining environmental clearance for Contractor-located sources and sites.

Immediately after Contract award, the COE should contact the Contractor to determine their intentions regarding material sources, disposal sites, staging areas, etc. If the Contractor intends to locate their own source(s) or sites, the COE should set up a conference call between the Contractor, Environmental Specialist, and COE. If the CM and PM are available, they should be included as well. During this conference call, review the details of Subsection 107.10 with the contractor. The Environmental Specialist should explain the exact process that the contractor will undertake for each clearance. Emphasize the process may take 60 days or more, and encourage the contractor to provide the necessary submittals as soon as possible. (Note: This conference is also a good opportunity to discuss source approval requirements.) The State mining permits do not suffice for the archaeological, Endangered Species, and Corps clearances required under Subsection 107.10, and this needs to be stressed with the Contractor. The contractor must hire an archaeologist, biologist, and wetlands specialist for the historic/archaeological, endangered species, and wetlands assessments.

Once the CM receives a submittal, give it a cursory review. If it clearly doesn't meet the Subsection 107.10 requirements, alert the contractor to the deficiencies, and document them in a letter. If the submittal appears to meet the contract requirements, or if it's fairly close, forward the submittal to the Environmental Specialist. Leave most judgment calls to the Environmental Specialist. They have experience in this area, and might be able to accept a document you might believe is inadequate.

Provide the submittals (archaeological, Endangered Species, and wetlands) to the Environmental Specialist as you receive them. This piecemeal approach will expedite the overall clearance.

As you receive clearances on the submittals, verbally notify the contractor. When all clearances required by Subsection 107.10 are obtained, write a letter to the contractor stating the source or site has received environmental clearance, and they may proceed with source development.

If there are problems with any submittal, immediately notify the contractor verbally and in writing. It is critical not to waste any time with this process, as it could have severe impacts on the project schedule.

## **6.3 PERMITS**

### **6.3.1 General**

The Government will have acquired all permits necessary to construct the project. The permits are included in Sections H and I of the Contract. Review the permits word-for-word before the project starts and ensure that the Contractor has done the same.

### **6.3.2 Permits Acquired by the Contractor**

Depending on the project, the Contractor may have to acquire a few permits, most commonly for obtaining water and mining.

### **6.3.3 Deviations to Permits**

If a change to any work covered by a permit is contemplated, coordination with the Environmental Specialist is absolute. They will have the background on the original permit application and will understand concerns the permitting agencies may have with the proposed deviation. The Environmental Specialist should do all of the communication with the permitting agency. In rare cases, the Environmental Specialist may suggest that the CM, PM, or COE contact the agency directly, but this is not recommended.

For projects in Alaska, the Alaska DNR needs to review any culvert changes. The PM usually does this coordination.

## 6.4 NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS

### 6.4.1 Introduction

In accordance with the Clean Water Act, Section 402(p), all construction activities that disturb five or more acres of land require a Storm Water Discharge Permit from the U. S. Environmental Protection Agency (EPA) or a federally-approved state agency. Clearing, grading, excavation, borrow areas, staging areas, and waste areas constitute a disturbance. Within WFLHD's geographical area, EPA is the permitting agency for Alaska, Idaho, and Federally-owned roads in Washington. The EPA is also the permitting agency for Indian Lands in all states. An appropriate state agency is the permitting agency for Montana, Oregon, Wyoming, and county or State-owned roads in Washington.

In many States, inspections by State personnel responsible for administering NPDES are common. These personnel should be treated with respect and cooperation. They will often request to see the permit, the erosion control plan, inspection reports and related documentation. The files on this subject should be kept up to date and easily accessible. A Freedom of Information Act (FOIA) request is not necessary for the inspectors to access WFLHD files. If State inspectors issue instructions or make demands that seem to go beyond the requirements of the Contract and existing permits, discuss the issue with the PM before implementing these actions – especially if the actions may result in unforeseen expenses or liability to the Government.

In many States, monitoring and enforcement by State personnel is active and aggressive. Failure to comply with the requirements of the permit may result in shutdowns, injunctions, lawsuits and other adverse actions against WFLHD and/or the Contractor.

### 6.4.2 Definitions

National Pollution Discharge Elimination System (NPDES) - The part of the Clean Water Act regulating the discharge of storm water from industrial and construction sites.

Best Management Practices (BMPs) - Temporary and permanent methods of managing sediment and erosion that will prevent erosion, prevent pollutants from the construction materials from mixing with storm water, and trap pollutants before they can be discharged.

Storm Water Pollution Prevention Plan (SWPPP) - A plan designed by the site operators that incorporates BMPs to prevent or control the pollution of storm water before it affects receiving streams.

Operators - For WFLHD purposes, this includes the government, which has the ability to change the specification and the contractor, who maintains day-to-day control of the site activities.

Notice of Intent (NOI) - A form filed with the EPA or appropriate state agency indicating that the operators of the construction site will comply with the terms of the General Permit for Storm Water Discharge from Construction Activities, which EPA published in the September 9, 1992, Federal Register.

Notice of Termination (NOT) - A form filed with the EPA or appropriate state agency that certifies that activities in the SWPPP have ended and:

- 1) Final stabilization is complete and temporary erosion and sediment controls have been removed or,
- 2) All discharges from the construction area have been eliminated or,
- 3) The operator has changed and a new operator is responsible for compliance.

Storm Water - A point source discharge from any discernible, defined conveyance to a water of the United States.

### 6.4.3 Obtaining the Permit

EPA permits are issued through a self-certification process. The Division Engineer submits a "Notice of Intent" (NOI) to the EPA. In addition to providing information on the location and nature of the activity, the NOI constitutes a certification that WFLHD will comply with the terms and conditions of the General Permit for Storm Water Discharge from Construction Activities which EPA published in the September 9, 1992, Federal Register. The contractor must post the NOI at the construction site.

### 6.4.4 Basic Terms and Conditions of the General Permit

The basic terms and conditions of the NPDES General Permit are:

1. Preparation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with Best Management Practices (BMPs) to reduce the amount of sediments in storm water discharges during and after the construction activity. The Plan must include:
  - a. Description of the construction site
  - b. Sequences of disturbance activities (i.e. clearing, grading, culvert installation, etc.)
  - c. Erosion control measures to prevent soil erosion. Such measures must include stabilization practices that minimize the amount of soil disturbance or cover the soil within certain time lines after disturbance, and structural measures, which divert the flow of storm water through the disturbed soils, store the flow, or limit the runoff from the site.
  - d. Sediment control measures which remove the sediment from the storm water before it is discharged from the construction site.
  - e. Management measures to reduce the discharge of pollutants from the roadway after construction.
2. Maintaining the erosion and sediment control measures in effective operating condition.
3. Inspecting the structural control measures and the disturbed areas to ascertain whether the control measures are effectively preventing significant sedimentation in the receiving waters, and if not, revising the plan to prevent the discharge of such sediments.

The permittee is always responsible for making enhancements to the erosion control plan if the construction operations and/or original plan are resulting in unacceptable levels of sediment runoff. However, the CM should be very wary of eliminating specific features of the original plan even if they appear to be unnecessary. Such actions should be taken only after discussions with the PM, the COE, and the Environmental Specialist.

#### 6.4.5 State Permits

The procedures for discharging storm water from construction sites differ slightly in Wyoming, Montana and Oregon.

In Wyoming the NOI is sent to the Wyoming Department of Environmental Quality, Water Quality Division in Cheyenne, Wyoming. Wyoming's General Permit for Storm Water discharge is essentially the same as the EPA permit.

In addition to the permit for disturbance of five or more acres, Montana also requires a storm water permit if the disturbance is one or more acres and within 100 feet of a stream. In Montana, the SWPPP must be submitted to the Montana Department of Health and Environmental Sciences (MDHES) at least 30 days prior to the start of construction. The SWPPP must be submitted using a standard form, and must describe the best management practices (BMPs) that the applicant will use during construction to control sediment. Design submits the SWPPP. After contract award, the contractor signs as co-permittee on the general permit form included in the contract and sends it to the Department of Health and Environmental Sciences, Water Quality Bureau. The maintenance and inspection requirements are the same as for the EPA General Permit. Also, Montana requires an application fee and an annual renewal fee for maintaining the permit.

In Oregon, the Department of Environmental Quality issues an NPDES permit which is renewed every five years. This permit does not require the submittal of an NOI for individual projects. This permit is essentially the same as the EPA General Permit except that it prohibits the discharge of any quantities of sediment in excess of 1/2 cubic foot in volume in any area of 100 square feet or less on public or private streets, adjacent property, or into the storm and surface water systems, either by direct deposit, dropping, discharge, or as a result of the action or erosion, and earth slides, mud flows, earth sloughing, or other earth movement which leaves the property. Oregon is the only state that includes such substantive provisions in its permit. The permittee is technically in violation of the permit if it discharges such quantities of sediment or if such earth movements leave the permittee's property.

#### 6.4.6 Administration

The CM should be familiar with Section 157 of the Contract, the SWPPP, and the permit for the project. The CM is responsible for ensuring that the contractor performs the work specified in Section 157, the SWPPP, and the Plans. The first order of business is to ensure that the contractor reviews the SWPPP and executes the contractor certification on the last page of the plan. In executing the certification, the contractor certifies that he understands the terms and conditions of the General Permit, that he is a co-permittee with WFLHD to the General Permit, and that as co-permittee, he is obligated to comply with the Plan and the General Permit.

The Montana and Wyoming permits includes a page for contractors and subcontractors to fill in at the time of award. The form asks for the contractor/subcontractor name, the designated personnel, and what items of work they are responsible for implementing under the SWPPP.

The CM should review the Plan with the contractor during the preconstruction conference and have the contractor sign the certification if he has not already done so. In addition, any subcontractor who will implement any erosion control measures identified in the Plan must also sign a certification. A **Sample Certification** is included as **Exhibit 6.4A**.

The CM must ensure that the erosion and sediment control measures provided for in the SWPPP, Section 157 of the Contract, Plan Sheets and Bid Schedule are furnished, constructed, and maintained in accordance with the terms and conditions of the contract. The SWPPP must be available at the project site and made available to inspectors from the EPA or the appropriate State Agency upon request. The General Permit does not contain specific performance standards. Instead, it relies on the visual inspections to correct any problems with the SWPPP. The EPA does, however, "...anticipate that Storm

Water Management measures at many sites will be able to provide for removal of at least 80 percent of Total Suspended Solids,” at completion of the construction.

The **Montana** permit states that the permittee(s) “...must insure sediment does not reach State waters by using appropriate erosion control practices.”

The **Wyoming** permit states: “You must insure that turbidity will not increase more than 10-15 turbidity units above background levels. Discharge of discolored water could cause a violation.” Wyoming, like the EPA, expects that 80 percent of the total suspended solids will be removed.

The **Oregon** permit states that visible or measurable erosion, which leaves the construction site, is prohibited. One definition of visible or measurable erosion is the deposition of 0.5 cf of sediment per 100 sf or less.

Questions regarding the SWPPP and permit should be directed to the Environmental Specialist.

### CONTRACTOR CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of the National Pollution Discharge Elimination System (NPDES) permit that authorizes the water discharges associated with construction activity from the construction site identified as part of this certification. Further, by my signature, I understand that I am becoming a co-permittee, along with the owner, to the NPDES permit for storm water discharges associated with construction activity from the identified site. As co-permittee, I understand that I and my company are legally required under the Clean Water Act to ensure compliance with the terms and conditions of the storm water erosion control plan developed under the NPDES permit and the terms of the NPDES permit.

\_\_\_\_\_  
Contractor Signature

Date

### SAMPLE NPDES CERTIFICATION

#### Exhibit 6.4A

### 6.4.7 Temporary Stabilization

Temporary stabilization measures, such as temporary seeding and mulching or geotextiles, must be initiated within 14 days after construction activity temporarily ceases, unless such activity is scheduled to resume within 21 days of the date the activity ceased. Temporary stabilization measures are included in the contract. If additional items are needed, contact the PM.

If snow cover prevents the initiation of stabilization measures, stabilization measures must be initiated as soon as practicable. In arid regions (average annual rainfall 0 to 10 inches) and semi-arid regions (average annual rainfall 10 to 20 inches) where initiation of stabilization measures is prevented by seasonal arid conditions, stabilization measures must be initiated as soon as practicable.

### 6.4.8 Inspections

The CM or their representative, and the contractor's representative must jointly inspect the following:

- erosion and sediment control measures which have been installed,
- disturbed areas that have not been finally stabilized,
- material storage areas that are exposed to precipitation,
- accessible discharge locations or points, and
- locations where vehicles enter or exit the site.

These inspections must be performed at least once a week and within 24 hours of the end of a 0.5 inch or greater storm.

The CM may rely on weather reports, readings from the nearest Weather Bureau Gauge Station, or local Forest Service gauges for determining when a 0.5 or greater storm has occurred. The CM may order a rain gauge for the project, but the General Permit does not require this.

The inspection is to determine whether the control measures are effectively preventing the discharge of significant quantities of sediment to the receiving waters. If the control measures are not effective, action must be taken and the SWPPP must be revised within seven calendar days of the inspection to prevent such discharge. Any modifications to the Plan should be included in the SWPPP file. An inspection report must be prepared for each inspection. An NPDES Inspection Report is provided as **Exhibit 6.4B**. The report must include a certification that the facility is in compliance with the SWPPP or identify any incidents of non-compliance. The report must be signed by the government and the contractor's representative and retained with the SWPPP.

For areas that have reached "final stabilization" (see definition below), or during seasonal arid periods in arid and semi-arid regions, inspections shall be conducted once per month.

For **Montana**, the permit requirements for inspection are basically the same as for the EPA General Permit. However, if the SWPPP needs to be revised, MDHES must approve it. A letter describing the changes, a map or drawing of the situation, and the reasons why the changes are needed should be sent to the MDHES-WQB. MDHES-WQB will review the changes and advise as to acceptability. Changes shall not be made until approved by MDHES.

Types of changes that should be submitted to MDHES include deletion of erosion control items, major changes in the type of BMPs being used, or substantial changes to the plan. Addition of silt fence or straw bales, etc., would not need to be submitted. The CM may call MDHES if in doubt about sending in a modification.

**Oregon** has an additional requirement that during stormy periods or periods of snow melt when runoff occurs daily, all erosion control facilities shall be inspected daily.

**Wyoming** requires the same inspection frequency as the EPA, except that 0.5 inches or more of snowmelt is an added inspection. Also, if deficiencies in the pollution control structures are found, they

must be corrected immediately. Wyoming requires a different certification statement on the inspection report as shown in **Exhibit 6.4C**.

Final Stabilization as defined by the EPA: "... all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70 percent of the cover for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization (such as the use of riprap, gabions, or geotextiles) have been employed." (70 percent refers to the amount of vegetative cover existing before construction began).

Wyoming defines final stabilization as "slopes and vegetation approximate preconstruction conditions."

For a definition of final stabilization in Montana, see **Exhibit 6.4D**, Montana Vegetation Stabilization Criteria. Note that termination of coverage under the general permit will be at the discretion of MDHES professional staff.

The CM shall document the existing vegetative cover with photographs or videotape so there is a basis for comparison of vegetation at the time of final stabilization.

#### **6.4.9 Reportable Spills**

The General Permit provides that the discharge of hazardous substance or oil from a facility must be eliminated or minimized in accordance with the SWPPP. Where a permitted storm water discharge contains a hazardous substance or oil in an amount equal to or in excess of a reporting quantity established under 40 CFR 110 or 40 CFR 302 during a 24 hour period, the following action is required:

1. The permittee must notify the National Response Center (NRC) at 800-424-8802 in accordance with the requirements of 40 CFR 110 and 40 CFR 302 as soon as he has knowledge of the discharge.
2. The permittee must modify the SWPPP within 14 calendar days of having knowledge of the release to provide:
  - (a) a description of the release,
  - (b) date of the release, and
  - (c) circumstances leading to the release.

In addition, the plan must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases. The plan must be modified where appropriate.

3. Within 14 calendar days of knowledge of the release, the permittee must submit to the appropriate EPA Regional Office:
  - (a) a written description of the release including the type and estimated quantity of material released,
  - (b) the date of the release,
  - (c) the circumstances leading to the release, and,
  - (d) any steps taken to modify the SWPPP.

These instructions apply only to the discharge of hazardous substance or oil caused by storm water discharge. The Operations Branch maintains a copy of 40 CFR 110 and 40 CFR 302, since it is rather lengthy. The CM shall notify the PM as soon as he has knowledge of a release. The COE will check the reportable quantity.

The EPA Regional office for Alaska, Idaho and Washington is EPA, Region X, Water Management Division (WD-134), Storm Water Staff, 1200 Sixth Street, Seattle, Washington, 98101.

**For the states of Montana, Wyoming, and Oregon, the PM should check the individual permit for instructions regarding reportable spills.**

#### **6.4.10 Notice of Termination**

When work has been completed and the site has been finally stabilized, a Notice of Termination (NOT) of coverage under the NPDES General permit for Storm Water Discharge must be prepared, executed by the Division Engineer, and mailed to the EPA or appropriate State Agency. The NOT is essentially a certification that all storm water discharges associated with the construction activity have been eliminated, or that final stabilization has been achieved, or that WFLHD is no longer the operator of the facility. Oregon does not require an NOT.

The Environmental Specialist will prepare the NOT and make arrangements for meeting permit requirements after completion of other work on the project if final stabilization is incomplete. The NOT shall be filed with the SWPPP.

After the NOT has been completed, the PM shall send the SWPPP including all inspection reports, modifications to the plan, etc., to the Central File where it will be kept for 3 years.

**National Pollution Discharge Elimination System  
Storm Water Pollution Prevention Plan  
Inspection Report**

Project No. \_\_\_\_\_  
 Project Name \_\_\_\_\_ Date \_\_\_\_\_  
 Contractor \_\_\_\_\_

Weekly report \_\_\_\_\_  
 1/2" or greater storm report \_\_\_\_\_  
 Other \_\_\_\_\_

1. Are erosion control measures identified in the storm water pollution prevention plan such as silt fence, straw bale dikes, diversion channels, etc. functioning properly?  
 yes \_\_\_ no \_\_\_ If no, explain deficiencies and list corrective action to be taken.
  
2. Is there any off site vehicle tracking of sediment?  
 yes \_\_\_ no \_\_\_ If yes, explain and list corrective action to be taken.
  
3. Are there any signs of erosion or sediment at the receiving waters associated with the discharge site?  
 yes \_\_\_ no \_\_\_ If yes, explain and list corrective action to be taken.
  
4. Is there any potential for pollutants to enter the drainage system from material storage areas?  
 yes \_\_\_ no \_\_\_ If yes, list measures to be used to protect the drainage system.
  
5. Additional comments (optional).

**Certification: The above listed construction project is in compliance with the storm water pollution prevention plan and the NPDES permit.**

\_\_\_\_\_  
 Contractor's Representative

\_\_\_\_\_  
 WFLHD Representative

**NPDES INSPECTION REPORT**

**Exhibit 6.4B**

**Wyoming Certification for NPDES Inspection Report**

Certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

**WYOMING CERTIFICATION STATEMENT FOR NPDES INSPECTION REPORTS**

**Exhibit 6.4C**

MONTANA DEQ WATER QUALITY DIVISION  
VEGETATION STABILIZATION CRITERIA FOR STORM WATER

This document shall serve as the basis for determining final stabilization for terminating coverage under the General Discharge Permit for Storm Water Associated with Construction Activity effective September 22, 1994.

**Vegetative Cover**

The revegetation for final stabilization shall form an effective and permanent vegetative cover which prevents soil movement prior to termination under the general permit. The minimum vegetative cover requirement shall be the amount of cover sufficient to prevent accelerated erosion. Accelerated erosion shall be defined as rills of 2 inches deep or more, earth slides, mud flows, sediment deposition, or evidence of concentrated flows of water over bare soils.

Final revegetation stabilization shall be accomplished using seeding mixtures of forbes, grasses, and shrubs that are adapted to the conditions of the site.

The DEQ staff shall take into consideration final stabilization in relation to the percent cover of vegetation at the site prior to disturbance.

**Documentation**

Documentation supporting that the site has been adequately stabilized shall be submitted. The documentation required shall include:

1. Pictures of the present revegetative growth at the construction project shall be required. Pictures of the location where each transect was conducted shall be required. Low-level photography shall occur at approximately 90 degrees to the surface in order to properly assess ground cover.
2. A minimum of at least one 100 feet transect of revegetation shall be conducted for every 5 acres that is cleared, graded or excavated. Additional transects may be required by the department on a site-by-site basis. The DHES shall determine the number of transects required for large construction projects (>20 acres). Transects shall be located in an area(s) that is representative of the revegetation for the whole construction project. Transects shall be conducted by laying out a 100 feet tape. At every footmark, note whether vegetation, litter/mulch or bare soil is encountered. Determine the average cover by multiplying the number of points where litter or vegetation is encountered by 100%.
3. Areas in which final stabilization may be less than satisfactory due to poor soil or other natural site conditions, shall document-the percent cover of the indigenous vegetation with pictures and a transect(s).

**Termination**

Termination of coverage under the general permit will be at the discretion of DEQ professional staff. A contractor may terminate coverage once they have been released from a construction contract by the owner. The owner is responsible for permit coverage and final stabilization once the contractor has been relieved of the contract requirements for a construction project.

**MONTANA VEGETATION STABILIZATION CRITERIA**

**Exhibit 6.4D**

## 6.5 Technical References

Technical references for erosion and sediment control are available from the Hydraulics Team. The available resources include:

- 1) Effective Erosion and Sediment Control on Highway Projects – Dr. Fifield
- 2) NPDES Storm Water Sampling Guidance Document- EPA
- 3) Retention, Detention and Overland Flow for Pollutant Removal from Highway Storm Water Runoff- Interim Guidelines for Management Measures
- 4) Controlling Urban Runoff: A practical Manual for Planning and Designing Urban BMPs- Metro Washington Council of Governments
- 5) A method for Evaluating Erosion Control Plans- Mark Browning
- 6) Virginia DOT Manual of Practice for Planning Storm Water Management
- 7) Storm Water Management for Construction Activities - Developing Pollution Prevention Plans and Best Management Practices- EPA
- 8) Texas DOT- Storm Water Management for Construction Activities
- 9) Test Procedures and Evaluation Criteria for Temporary Erosion Control Blankets, Flexible Channel Lining Material and Cellulose Fiber Mulch Products – Texas DOT
- 10) Guidance Specifying Management Measures for Sources of Non-point Pollution in Coastal Waters – EPA
- 11) WSDOT Highway Runoff Manual
- 12) Montana Sediment and Erosion Control Manual – MDHES
- 13) International Erosion Control Assoc. – 1994 Products Directory
- 14) WFLHD Erosion Control Notebook

## CHAPTER 7

### MATERIALS and ACCEPTANCE OF WORK

#### 7.1 OVERVIEW

This chapter deals with the general requirements for materials inspection and control, including the inspection and control of the *installation* of those materials, i.e. the work itself. The *FLH Field Materials Manual* is the primary guide for sampling and testing materials.

Materials incorporated into highway work are of three basic types:

- Off-the-shelf commercial items which are represented by the manufacturer as meeting a standard or industry specification, e.g. guardrail, traffic paint, culvert pipe.
- Commercial items manufactured specifically to meet the requirements of FLH, or which are of sufficient criticality to require inspection and quality assurance by WFLHD or an organization engaged by WFLHD, e.g. structural steel, precast structural elements. Specialists engaged by WFLHD will generally conduct testing and inspection of commercial items, other than off-the-shelf items, at the site of manufacture. State Department of Transportation (DOT) personnel will often be engaged to perform these quality assurance functions.
- Items manufactured at or near the site of work by the Contractor, subcontractor, or supplier, and which are subject to routine inspection and quality assurance procedures by FLH, e.g. asphalt concrete and aggregate base course. The Contractor will perform tests for locally produced materials in accordance with the requirements of the Contract. FHWA will perform verification testing at the WFLHD Materials Laboratory in Vancouver, Washington.

This chapter also covers acceptance of work, and issues related to work that does not meet the contract requirements.

## **7.2 SOURCE APPROVAL**

Before the contractor may begin production at a source, WFLHD must approve the source. This approval is based on the material in the source meeting the contract requirements for the particular item being produced (i.e., base aggregate, riprap, etc.).

### **7.2.1 Government-provided Sources**

When a source is government-provided, you can assume that it has been tested and that material within the source, with proper selection and sufficient processing, will meet the quality requirements for source approval. No further source approval sampling or testing is required. Source approval is not required for Government-provided sources. While the contractor is responsible for producing an aggregate material that meets the manufactured product requirements listed in the contract by appropriate crushing, screening, and even reasonable wastage, the contractor is not responsible for quality aggregate properties processing cannot change, such characteristics as soundness, durability, weathering, abrasion, or stripping resistance of the aggregate, nor the quantity of material in the deposit. Therefore, the Government assumes these responsibilities when proposing sources.

If the contractor attempts, using reasonable and accepted industry processing practices, to produce specification material from a Government-provided source, and is unable to do so, the contractor may be eligible for a equitable adjustment for increased costs incurred in producing material from a new source. This additional compensation may include the costs of equipment moves and setup, additional haul, and additional costs of producing the material. This adjustment would be handled through a contract modification. The Project Manager, Construction Operations Engineer, and appropriate specialists will have to evaluate the situation and agree that the Government-provided source is not acceptable.

### **7.2.2 Contractor- located Sources**

Sampling and testing for source approval is critical, as it may alert you, the Government, and the contractor to potential problems with the material source. Correcting these problems or moving to another source at this point in the project may save the contractor money, time, and headaches in the long run.

If you have any questions or concerns regarding sampling, testing, or shipping, or anything about source approval contact the Materials Engineer or the Materials Lab Chief. A phone call early on can quickly resolve problems in the field, and may prevent the need for shipping and testing of additional samples.

### **7.2.3 Source Approval Requirements**

Source approval requirements are listed in the Contract, in the tables at the end of any particular section. Review these tables to determine what sampling and testing is required for source approval for the product(s) intended. For example, Table 301-1 provides the sampling and testing requirements for untreated aggregate courses. The characteristics that will be used to determine aggregate source quality are listed in Table 301-1.

Follow the sampling and shipping procedures outlined in Section 7.5.

The contractor will provide you with their source approval test results. If all test results indicate the source meets the contract requirements on all characteristics, notify the contractor in writing that the source is acceptable for the particular product(s). If any Contractor or Government test fails to meet contract requirements, the source is not acceptable. Coordinate with the Project Manager, COE, and the Materials Engineer before notifying the contractor in writing to determine the appropriate action to be taken.

### **7.3 MATERIAL PRODUCTION**

For FP-96 projects, the production sampling and testing requirements are in the table at the end of each section ordering the work (i.e., Section 301, Section 401, etc.). For FP-03 projects, the production sampling and testing requirements are in the Section 153 tables. Review these tables to determine what sampling and testing is required during production of the intended item(s).

#### **7.3.1 Number of Samples to Submit for Verification Testing**

As the contractor is producing material, be sure to obtain the Government's split of all samples taken by the contractor. Forward the first three split samples to Vancouver for verification testing. Compare these results to the Contractor's results to verify the quality control process. If the Contractor's results are verified, you only need to submit 10% (at random) of the remaining samples. Obtain all of the split samples, but hold the other 90% at your project office until all of that particular material has been placed on the project and you have discussed material disposition with the PM.

Additional consideration for the test results need to be given to determine compliance with contract specifications. Since gradation target values would not be established at this point, the test results should indicate consistent production that is within the broadband specification limits. Consult with the PM or COE to discuss all quality control test results.

If the test results indicate even the smallest of problems, forward all samples to Vancouver for testing until you and the PM are confident that problems are corrected and that acceptable material is being produced. Alert the contractor to the problems and do not hesitate to obtain assistance from the Materials Engineer.

#### **7.3.2 Material Not Meeting Contract Requirements**

If the test results indicate that the material does not meet the requirements for one or more characteristics, it may be necessary to issue a stop work order for material production. The contractor may want to continue at their own risk. Every situation and project is different, but it is suggested that you do not allow the contractor to proceed with production. If you do, it could result in 40,000 tons of unacceptable material instead of 1,000 tons. Also, allowing the contractor to proceed doesn't solve the problem. It only pushes the issue to a later, and more costly, point in the project.

The stop work order is a serious action, and it must be discussed with the PM, COE, and Construction Engineer before issuance.

#### **7.3.3 Pay Factor Projections**

Enter the production test results into the QL-Pay program. This will enable you to project the pay factor. For most items, you can reasonably predict the pay factor if the material is handled properly and segregation is minimized. For items such as paving aggregates, which usually have multiple stockpiles, it becomes difficult to predict the pay factor because the blend ratios usually won't be established until crushing is completed.

In both cases, you can also compare the results of the Vancouver Materials Lab with the contractor's results. This will help you find testing procedural problems that the contractor may be having.

#### **7.4 MATERIAL STORAGE**

The contractor is responsible for the handling and storage of materials to ensure the preservation of their quality and fitness for the work. If you believe the contractor's handling and storage operations will be detrimental to quality, and the belief continues after consultation with and/or suggestions to the contractor, you should consult the Project Manager and the Construction Operations Engineer. The Government always has the right to retest materials to verify they have not been compromised by contract operations or the lack of adequate protection. The Government can decline to make advance payment for materials that are not properly stored and protected from contamination.

## **7.5 SAMPLING AND TESTING**

### **7.5.1 Collecting Samples**

Prior to obtaining samples, review the acceptability requirements of containers (quality, size, type) with the contractor. Test results, and ultimately the pay factor, can be directly affected by the manner in which a sample is shipped.

Sample sizes for the various tests are listed in Exhibit 7.5A. Codes for the various tests are listed on the back of the transmittal form, as shown in the FLH Field Materials Manual. Note that these sample sizes are for one series of tests. The contractor will need to double the sample size when collecting for themselves and the Government. Contact the Materials Lab if you have any questions regarding sample sizes.

Detailed information on selecting samples is provided in Section 3.20 of the FLH Field Materials Manual. When the contractor collects their sample for testing by their laboratory, be sure that you are present to observe the contractor collecting and splitting to obtain the Government's portion of the sample. This is especially important for source approval.

Masses (weights) listed below are minimum amounts required by WFLHD lab to run tests. One canvas bag holds approximately 23kg (50 pounds). DEFINITION OF NOMINAL: For processed aggregate, the nominal maximum size of particles is the largest sieve size listed in the applicable specification, upon which any material is permitted to be retained. (AASHTO T 2).						
TEST ON SUBBASE, BASE, & SURFACING AGGREGATES			TESTS ON SOILS			
		kgs	lbs		kgs	lbs
AG-PG Complete Preliminary Testing of Gravel				SO-PS Complete Preliminary Testing Soils	40(3)	90(3)
AG-1 to 10, 12 & 13	Subbase "A":	180	400	SO-1 to 5		
	Subbase "B," or			SO-RI Routine Identification (classification) of soils	25	55
	Base "C," "D," or "E":	160	350	SO-1&2		
AG-PQ Complete Preliminary Testing of Quarry						
AG-4 to 10, 12 & 13	Subbase "A":	160	350	SO-2 Plasticity Index AASHTO T 89/90	5(2)	12(2)
	Subbase "B," or			SO-3 Specific Gravity AASHTO T 100	5(2)	12(2)
	Base "C," "D," or "E":	140	300	SO-4 R-Value, 300 PSI Exudation	40(3)	90(3)
				AASHTO T 190		
AG-EV Base or Subbase Evaluation						
AG-1 to 6 & 16	Subbase "A":	90	200	SO-7 Natural Moisture Content AASHTO T 265	2	5
	Subbase "B" or			SO-8 Moisture Density, AASHTO T 99	40(3)	90(3)
	Base "C," "D," or "E":	70	150	SO-9 Moisture Density, AASHTO T 180	40(3)	90(3)
AG-1 Sieve Analysis AASHTO T 11/T 27				SO-21 California Bearing Ratio AASHTO T 193	40	90
	Subbase "A":	45*	100*	SO-22 pH of Soil AASHTO T 289	5(2)	12(2)
	Subbase "B" or			SO-24 Direct Shear AASHTO T 236	5(2)	12(2)
	Base "C," "D," or "E":	23*	50*	SO-25 Resistivity AASHTO T 288	5(2)	12(2)
AG-10 Immersion Compression AASHTO T 165		80	180	SO-26 Revegetation Analysis	2	4
AG-16 R-Value, 300 PSI exudation AASHTO T 190	19mm nominal size:					soil with no large rocks
	50		110			
	75 mm nominal size:					
	75		160	SO-27 Conductivity		1 quart of water In a plastic jug
AG-17 Humphre's Granular Compaction		180	400			
(NOTE: The FP calls for 150kg but 180kg is preferable.)						
* This is sufficient quantity to process the entire test group AG-1 thru AG-4						
TESTS ON CONCRETE AGGREGATES AND CONCRETE			TESTS ON BITUMINOUS MATERIALS			
					kgs	lbs
				AC-MD Hot Mix Design, consult with laboratory	363	800
		kgs	lbs	AC-IC Preliminary Immersion Compression/CKE T 270	80	180
CO-1 Sieve Analysis	AASHTO T 11/T 27	15(1)	34(1)	AB-CC Complete Classification of liquid asphalt		1 quart metal can
				AB-VG Verification of liquid asphalt grading		1 quart metal can
				AB-RI Routine Identification of liquid asphalt		1 quart metal can
				AB-EA Tests on emulsified asphalt		1 gallon plastic jug
CO-11 Compressive Strength (28-day break) AASHTO T 22	2 cylinders			AC-2 Bulk SG & air voids AASHTO T 166		6" diameter core
				AC-5 & AC-3 Asphalt Content & gradation (T 30)	4	9
				AC-6 Resilient Modulus		4" diameter core
(1) Sample size may vary depending on maximum nominal size as follows:						
		kgs	lbs			
85% - 4.75 mm and 5% + 2.36mm		0.5	2			
9.5mm to 50.0 (nom. max. size)		50	110			
For material with nominal sizes larger than 50mm call the Materials Lab						
(2) Minimum amount of minus 4.75mm (#4) material that must be contained in the sample material being submitted. If the sample contains other size material, enough <b>representative material</b> must be sent so that sufficient minus 4.75mm material is obtained after sieving.						
(3) Sample size may vary depending on maximum nominal size as follows:						
		kgs	lbs			
				19.0mm nominal maximum size	40	90
				75.0mm nominal maximum size	50	110

**WFLHD SAMPLE SIZE GUIDANCE**

**Exhibit 7.5A**

## **7.5.2 Shipping Containers**

The type of shipping container to use will depend on the material being shipped. The contractor is required to supply all sampling and shipping containers.

### **7.5.2.a Bagged Samples of Aggregate or Soils**

Use new, clean, dry canvas sacks for these samples. Bags showing signs of mildew or dry rot are likely to fail during shipping or handling. Put a plastic liner bag (garbage bag) inside these sacks to prevent the loss of fines, especially with high-moisture samples. The woven poly sacks are not acceptable because they tear easily in transit and leak material, which voids the sample. The sack should be closed with a wire tie in addition to the sewn-on tie. Plastic 5-gallon buckets with tightly sealed lids are also appropriate shipping containers for aggregates or soils.

### **7.5.2.b Cement, Lime, Or Fly-Ash**

Use water-tight containers of any kind that can be shipped.

### **7.5.2.c Asphalt Binders or Cutback Asphalts**

Use one-liter (one-quart) metal cans, with friction type lids or screw-on caps. The containers must be metal to allow reheating of the sample at the Lab. A can filled three-quarters full contains sufficient material to test. Several cans can be packed in a box for shipping to the Lab.

On asphalt samples being sent to the Lab for mix-design verification, be sure the contractor tells the supplier to send the asphalt in metal quart or one-gallon cans. Do not send any containers larger than a one-gallon size.

### **7.5.2.d Emulsified Asphalt**

Containers must be plastic. Wide-mouth plastic jars are the best; a plastic milk jug type container is also acceptable. Metal containers are not allowed because they chemically alter the emulsified asphalt and affect the test results. If shipping the sample to the Lab, tape the lid on to prevent spilling, and pack in boxes. Whichever shipping or delivery methods are used, the sample must not be allowed to freeze, and should be sent for testing within one week after it was taken.

### **7.5.2.e Hot Asphalt Concrete**

One eight-inch (cubic measurement each side) box, filled two-thirds full, is the ideal sample size and container for this material. Please do not send more material than this.

### **7.5.2.f Asphalt Pavement Cores**

Ideally, pack the cores in six-inch diameter concrete cylinder molds. They need to be well packed to prevent damage during transit. Place the flat surfaces 'back-to-back' to prevent deformation. Newspaper works well for padding. If sand or styrofoam peanuts are used as packing material, wrap the cores in newspaper or plastic first so they don't become contaminated with the padding material. After the cylinder mold is packed with the cores, then pack it in a cushioned box for shipping.

### 7.5.2.g Concrete Cylinders

The best method is a wooden box built by the contractor, designed to hold two cylinders in their molds. It should be lined with styrofoam insulation to maintain the appropriate temperature range and provide sufficient padding to prevent damage to the cylinders. These boxes can be sent back to the project for reuse, on request.

Cylinders demand special attention. Because the contractor is given the responsibility of shipping these samples, often they arrive in Vancouver with little or no identification or documentation. If the tags that were inserted into the cylinder have become lost or unreadable, project information and identification needs to be provided on the mold itself. If the cylinder has been removed from the mold prior to shipping, a waterproof marker (such as a 'Meanstreak' marker) can be used.

Because of the way cylinders are processed in the Lab, every cylinder must have its own transmittal. This is true even if several cylinders are from the same batch.

### 7.5.3 Sample Transmittal Form

Every sample must have a completed Form FHWA 1600W, Request for Laboratory Tests. It is in everyone's best interest to fill out this transmittal completely, as samples arriving in Vancouver with incomplete transmittals can result in delayed test results.

Make three copies of the transmittal. You will need two envelopes.

Put one copy of the transmittal, in an envelope, inside of the sample shipping container, whether it is a box or a canvas sack. If the sample material contains any moisture, you will need to put the transmittal inside a plastic baggie. Even moisture contents as low as 2% can make a transmittal unreadable.

Mail, fax, or e-mail a copy of the transmittal directly to the Lab. This alerts the Lab that the sample is coming.

Attach the third transmittal copy, inside an envelope, to the outside of the container or stapled to the shipping tag. Remember, each sample needs its own transmittal.

Keep the original transmittal for your project files.

### 7.5.4 Shipping Container Labeling

Have the contractor label the shipping containers with project information. For example:

Project Name: Minuteman Missile Base Roads  
Project Number: MT OMAD 18(38)  
Pay Item No.: Item 30101  
Pay Item Description: Aggregate Surface Course, Grading C  
Sample No. CVS-30101-1  
Date and Location of Sample: 7/1/05 Road J-3, Station 4+00, Lt.

### 7.5.5 Shipping Address

The contractor should mail all samples to:

ATTN: Materials Lab  
FHWA  
610 East Fifth Street  
Vancouver, WA 98661

## 7.6 ACCEPTANCE

There are four methods of acceptance -- certification, visual, measured and tested, and statistical. The four acceptance methods are defined in detail in Subsections 106.02 through 106.05 of the Contract. The "Acceptance" subsection of the section ordering the work (i.e., 301, 401, etc.) will identify the acceptance method(s) for the particular items of work under that section.

With respect to acceptance, construction materials will fall into one of the following categories:

- Those found to exceed minimum specification requirements and are accepted at a pay factor exceeding 1.00 as per a statistically based acceptance plan in the Contract.
- Those found to be in reasonably close conformance with the specifications and are therefore accepted at full payment.
- Those not in reasonably close conformance but deemed technically serviceable and therefore accepted at reduced payment as provided by a contract acceptance plan or as mutually agreed if there is no acceptance plan.
- Those not in reasonably close conformance, and not deemed technically serviceable, which are therefore rejected and required to be removed, replaced, or acceptably corrected.

### 7.6.1 Determining Acceptance.

#### 7.6.1.a Visual

Accept or reject the material based on visual inspection for compliance with the contract and prevailing industry standards. Use engineering judgment to determine if the material is satisfactory. Document that you have visually verified the material has no defects and meets the contract requirements. File your documentation in the back portion of the pay item tab in the Pay Item book.

This check should be performed as soon as possible. If you can check the material before it is incorporated into the work, do so. If it is only possible to check the material after placement, do so as soon as practicable so as to avoid unnecessary rework on the part of the contractor.

#### 7.6.1.b Certification

A certification should accompany the material to document that the material meets the specifications. Check the certification for evidence that the prime contractor verified that the certification is acceptable. If they haven't, continue with your check, but also notify the contractor that they are expected to review the certifications before passing them on to you. Perform your check before the material is incorporated into the project work.

Verify the certification meets the required specification. Subpart 2.42 of the [FLH Field Materials Manual](#) provides detailed guidance on certifications. You may have to refer to AASHTO, ASTM, or the Contract to find out what the requirements are. If the certification is acceptable, stamp it "Checked By" with the date, and stamp the "Approved." If the certification is not acceptable, notify the contractor of that the certification is incomplete and/or incorrect. File the approved certification in the back portion of the pay item tab in the Pay Item book.

### 7.6.1.c Measured and Tested

If the material was produced off-site the contractor will need to provide the required test results. Review these test results according to the process for certifications above.

If the material is produced on-site, or if the work is performed on-site, review the test results or the work itself to ensure compliance with the specifications. If the work does not meet the specification, the contractor is required to correct or replace it. In lieu of this, the contractor may request to have the work accepted at a reduced price. More information on this is provided in Section 7.6.2.

If the contractor is required to perform production testing on material accepted by the measured and tested method, enter these test results in QL-Pay. That will allow you to track the test results and ensure the material is consistent and meeting contract requirements.

The timing of this check is similar to the guidance provided for visual acceptance.

### 7.6.1.d Statistical

For work that is accepted statistically, enter the test results into QL-Pay. Print a report and provide it to the contractor. This usually needs to be done only once a day, unless several test are being performed per day, and it is imperative that you or the contractor know the QL-Pay status immediately.

Before determining the final pay factor for any material, provide all of the QL-Pay files to the WFLHD Quality Assurance Engineer. He will verify the final pay factor.

The test results, the variance from the target value, and the number of test results will all affect the pay factor. Depending on the standard deviation and number of tests, a lot with several test results outside the specification limit could have a pay factor above or below a 0.90.

If the pay factor falls below 0.90, Subsection 106.05 of the Contract requires the contractor to stop production. In the event this occurs, you should prepare correspondence to the contractor indicating that the current pay factor is below 0.90, and under Subsection 106.05 of the Contract, they are required to stop production. Provide a short synopsis of what is out of tolerance (specify the characteristic or sieves) and request them to make changes to the material or process. If the change is significant, the contractor may request to terminate the current lot and start a new lot.

If the contractor is obtaining the material from a stockpile, and all production is complete, it may be necessary for them to do additional screening or processing. If the material has already been placed by the time the test results are received and verified, reprocessing may not be practical. Section 7.6.2, Non-conforming Material or Work, provides more guidance on handling work or material that doesn't meet the contract requirements.

### 7.6.2 Non-conforming Material or Work

If the material or work does not meet the contract requirements, the contractor has three options (See Subsection 106.01 of the FP). They are:

- a) remove and replace the defective material or work
- b) correct the defect
- c) propose to have the material or work accepted at a reduced price

Depending on the situation, a) or b) may or may not be practical. The earlier the defect is found, the more opportunity there is to correct it. If the contractor is obtaining the material from a stockpile, and all production is complete, it may be necessary for them to do additional screening or processing. Corrective action (or removal and replacement) would be required on the material already placed. Care should be taken when evaluating materials after a Contractor's corrective efforts. One common misconception is that an individual sample and test result represents a discrete quantity of material. However, poor quality materials often contain both passing and failing quantities. One passing test may be due solely to chance.

In fact, any quantity of material is collectively represented by all the samples taken from it. Any corrective effort should be applied to the whole of any material represented by a series of samples, unless additional testing convincingly isolates the defective areas. After corrective action, additional testing must be used to verify that the corrective actions were effective.

If the material has already been placed by the time the test results are received, reprocessing may not be practical, and the contractor may propose to have the material or work accepted at a reduced price. To accept nonconforming materials at reduced payment two things must happen. The Government must make a determination that the materials will serve the purpose intended and the contractor and the Government must agree on the amount of the reduced payment. If you are in this situation, coordinate very closely with the PM, COE, and the Materials Section. The Materials Section will provide the technical advice, but you, the PM, and the COE have to weigh the overall risks and determine the appropriate administrative action.

Since a) or b) ultimately result in conforming material or work, no further administrative action is required. However, if the contractor proposes to have the work accepted at a reduced price, the Government is allowing a deviation to the Contract, and a contract modification is necessary. The modification should address the this-for-that tradeoff. The Government gets a lesser product than it originally bargained for, and the contractor gets less compensation than they originally bargained for.

When determining the value of the price reduction, coordinate with the Materials Engineer for materials items, and the PM and COE for other work items. Section 2.45 of the FLH Field Materials Manual provides detailed guidance on price reduction values.

## CHAPTER 8

# QUALITY CONTROL, QUALITY ASSURANCE, and INSPECTION

### 8.1 CONTRACTOR'S QC/QA PLAN

#### 8.1.1 Definitions

Contractor Quality control (QC) is the sum total of activities (inspections, tests, checklists, measurements, instructions and communications) completed by the Contractor that are specifically performed to ensure that specific items of work meet contract requirements. The results of QC activities allow the Contractor to assess and adjust production processes and methods to control the level of quality being produced for a specified end product.

Contractor Quality Assurance (QA) is the overall sum total of planned and systematic activities (reviews, inspections, tests, checklists, measurements, analysis, training and instructions) performed by the Contractor that assures that individual QC processes are functioning effectively. QA is the Contractor's management tool to assure that QC is being performed adequately and that the project in its entirety is being delivered in compliance with the terms of the Contract.

#### 8.1.2 Responsibility

The responsibility for quality control on all construction matters lies with the Contractor. The Contractor is ultimately responsible for the quality of all work performed under the contract, and has primary responsibility for testing of all materials and any specified field tests. The Contractor is also responsible for performing Contractor Quality Assurance. This is carried out through implementation of a QC/QA system. The goal of the QC/QA system is to assure that the project in its entirety is delivered in accordance with the contract requirements (materials, workmanship, tolerances and schedules).

#### 8.1.3 Content of the Contractor's QC/QA Plan

The Contractor's QC/QA Plan should minimize any parroting or paraphrasing of requirements in the contract, and should avoid simply promising to comply with the contract. These kinds of statements and assurances are of essentially no added value. The QC/QA Plan must go beyond boilerplate descriptions and should address the Contractor's QC/QA organization and process for consistently delivering the level of quality that the contract requires.

It is permissible for the Contractor to submit a partial plan. In many cases, a Contractor may not be able to develop a thorough and concise QC/QA plan for many of the components of work by the notice to proceed date. The Contractor may not have developed an internal plan on the methods, materials and approach or crews that will be used in the performance of the work. A good QC/QA plan cannot be developed until the Contractor has decided how they intend to complete the work. A QC/QA plan that is submitted very early on, and that is full of generalities can be more harmful than beneficial. A QC/QA plan without details and specifics that addresses the requirements of the contract will not be acceptable.

#### 8.1.4 Updating and Using the QC/QA Plan

QC/QA plans are living documents and should be continually updated and revised as needed by the Contractor. The Contractor and the Construction Management team should constantly refer to the QC/QA Plan during the life of the project. QC/QA plans that are approved and then quickly placed in the file not to be looked at again are of no value. Contractors should constantly be reminded to adhere to, to update as needed and comply with their QC/QA plan. It is highly recommended that Contractor QC/QA Plan is championed and enforced by the Construction Management team and the PM.

## 8.2 REVIEWING THE CONTRACTOR'S QC/QA PLAN

### 8.2.1 General

When reviewing QC plans, ensure that the Contractor describes the QC personnel, and what inspections, tests, and activities will be performed for the start up, production, and closeout phase of each component of work. The Contractor should also describe inspections, testing or other activities that will be used to monitor quality and make adjustments.

When reviewing QA systems, ensure that the narrative describes QA personnel, and what inspections, tests, plans, activities (e.g., such as materials certification verification, site preparation verification, staking adequacy, methods of construction adequacy, environmental restriction considerations), and training or instructions will be performed and provided. A QA plan should describe what steps will be taken when deficiencies are noted during a QA review, inspections or testing. QA plans should describe what activities will be performed to verify that all work is prepared, started and completed in accordance with the contract.

QC/QA plans should be specific as to **Who, What, When, Where** and **How**. For each described component of work, the QC/QA plan should answer these questions.

### 8.2.2 Who

Who will be responsible for QC/QA throughout the operation? A Quality Control Technician may be assigned responsibility for testing and documentation and perhaps even training and monitoring of startup. As the operation moves toward production and closeout however, other QC/QA personnel may be assigned increasing responsibility. Who will be responsible to perform a follow up QA activity? Who has overall QC and QA authority?

### 8.2.3 What

What will be done? What component of work, what stage and at what frequency will work be inspected and tested? What will be inspected . . . grade?, alignment?, spacing of reinforcing steel?, construction survey staking?, aggregate gradations? What authority will the person have over operations? What portion of the time during the work will the identified person actually be present to perform QC or QA responsibilities? Testers and inspectors cannot control quality if their responsibilities are limited to testing, measuring and documentation. "What" should address not only personnel and activities, but materials and equipment used in the construction. These items often have stated or implied contract requirements, and the QC/QA system must verify that those requirements are met. What documentation will be provided to record inspection and results of QC and QA inspections? When a QC or QA process identifies deficiencies what will be done?

### 8.2.4 Where

Where will these activities be performed? Will optional production testing and inspections be performed? Will manufactured materials be inspected at the plant, at the Contractor's facility or at the site of work? Will the equipment be inspected at the yard, or will inspections be performed at the site?

### 8.2.5 When

When will these activities be performed? How many inspections or tests will be performed at what frequency? The earlier QC/QA activities are performed, the more latitude the Contractor has in dealing with problems. However, when activities are performed too early there is a risk of unforeseen changes or glitches prior to actual construction. When will test results and inspection narrative be available? This is a key component of the QC/QA plan, which determines largely how responsive it can be to deficiencies.

**8.2.6 How**

How will inspections or any QC or QA activity be performed? Will standard checklists be developed from the specifications? Have arrangements been made with subcontractors or others to provide access to the work? What equipment will be needed to perform the inspections or tests? What documentation will be produced as a result of the inspections or tests? The more generalized and vague the inspection procedures are, the more likely they will not be consistently effective.

### 8.3 CONSTRUCTION MANAGEMENT TEAM'S QA ROLE

The Construction Management Team (CM, CI's, and PM) is responsible for Government quality assurance on the project. This is done through daily inspections, testing performing at the WFLHD Materials Laboratory, and other field work such as reviewing material certifications. Essentially, the CM, CI's, and PM are responsible for verifying and documenting that the project is constructed in reasonably close conformity with the plans and specifications, and in compliance with the terms of the contract.

The Construction Management Team is also responsible for reviewing the Contractor's daily submittals (*Contractor's Daily Record of Construction Operations, Daily Quality Control and Quality Assurance Report, Notification of Completion of Work, WFLHD-470*), and preparing their own documentation of project happenings.

Continuous or full time inspection should be avoided whenever possible, as it tends to result in WFLHD taking over the Contractor's quality control and quality assurance responsibilities. However, it is recognized that some work is of such criticality or is being obscured by subsequent construction to the extent that continuous inspection is prudent.

Unless otherwise provided for in the plans or specifications, construction methods and sources of materials are the Contractor's option. The CM may suggest methods of improving workmanship, and may suggest sources of better materials. However, it should always be clear that these are just suggestions, and that the decision is up to the Contractor. In the event the Contractor's methods continue to produce unsatisfactory work, and the Contractor will not accept suggestions, the CM should discuss with the PM the possibility of ordered changes, stoppage of nonconforming work, or in extreme cases, a "Show Cause" notice.

Detailed information on the CI's role is provided in the *CI Handbook*.

## **8.4 CONTRACTUAL REPORTING DOCUMENTS**

### **8.4.1 Ink, Whiteout, Etc.**

All project documentation is to be done in dark ink, including all submittals being turned in by the construction Contractor.

Do not use or allow red ink on anything that will become part of the project records. Only the Construction Operation Specialist, who will audit all project records and make their own notations, reserves this color for use.

Do not use or allow the use of “whiteout” on any project records.

Use “√” when checking submitted Contractor documents. They are used to indicate the correctness of computations and quantities on pay notes, and the agreement of hours and statements made by the Contractor on the Contractor’s Daily Records of Construction Operations and quality assurance/control report.

### **8.4.2 Contractor’s Daily Record of Construction Operations**

Section 153 of the Contract requires the Contractor to prepare a Contractor’s Daily Record of Construction Operations (Exhibits 8.4A and 8.4B) for each day that work is performed on the project. It is critical that the form be completed with enough detail to determine what items were worked on that day, the locations of work, the equipment and labor crews (hours and description of equipment and labor), the weather, who performed the work (name of prime or subcontractor), brief comments about the work that day, any issues that arose, and quantities of work completed.

The Contractor is required to provide the Contractor’s Daily Record of Construction Operations within one working day. It is very difficult to “catch up” one the Contractor gets behind in providing this documentation, so be diligent in requiring the reports each day.

An appropriate person with knowledge of the daily work (CM or CI) should review the Contractor’s Daily Record of Construction Operations and sign it if it’s acceptable. Provide a copy to the Contractor, and file the original in the project office files.

The original of Form WFLHD 465 will be retained in the project files and a copy given to the Contractor, once verified and signed. It is important that the daily sheets be made out and agreed to as soon as possible so that any differences may be resolved at the time the work is performed.

If the Contractor’s Daily Record of Construction Operations has errors, diligent effort should be made to reconcile any differences in the content of the report with the contractor so that the report may be bilaterally agreed to. On the occasion that agreement cannot be reached, the original should be annotated as to details of the disagreement and a copy will be returned to the contractor.

### **8.4.3 Daily Quality Control and Quality Assurance Report**

The Contractor Quality Control and Quality Assurance Report is where the outcome of the QC/QA plans actualization and results are documented. It is a separate report that is for the Contractor’s Quality Manager to document and attach details of all quality control and assurance activities. Test reports, WFLHD-470 forms and results of other reviews, inspections, measurements and process or method adjustments should be included or attached. Consider the Daily Quality Control and Assurance Report as a daily record similar to that you would receive describing a prime or subcontractors operation, however it should not duplicate information found on the Contractor’s Daily Record of Construction Operations. The Contractor Quality Control and Quality Assurance Report does not need to describe the work locations, except to the extent the locations are necessary to describe the QC/QA activities. The Contractor Quality

Control and Quality Assurance Report should not list daily production or inefficiencies of the operations. That information should be included on the Contractor's Daily Record of Construction Operations.

Look for reports that are factual and concise as to specific QC/QA activities. Reports that simply parrot the contractor's activities in general that are not related to QC/QA are of no value. Reports that provide descriptions of QCQA personnel that only describe individuals daily whereabouts are not of much value. Reports that specifically speak to individual components of work that had QC/QA related activities associated with them are of value.

On smaller projects with fewer activities the Daily Quality Control and Assurance Report may be combined with the Contractor's Daily Record of Operations.

#### **8.4.4 Notification of Completion of Work, WFLHD-470**

Section 153 of the Contract also requires the Contractor to complete a Notification of Completion of Work.

When a phase or element of work is completed, the Contractor initiates "acceptance" of the work by submitting a Notification of Completion of Work form, or WFLHD-470 (Exhibit 8.4C). Acceptance, as used in terms of the WFLHD-470, means that the Government has, to the best of their knowledge, found the element of work to be in compliance with the Contract, and that the Contractor may proceed with subsequent work.

Once the Contractor submits the WFLHD-470 form, the CM inspects the work shown on the WFLHD-470 form, and marks the appropriate responses and makes any necessary comments. The WFLHD-470 is then scanned and e-mailed to the PM along with comments explaining what the WFLHD-470 is for, what inspections were done, the reasons for the marked responses on the form and a recommendation for signing the approval or rejection of the work. The PM will review the documentation and either call for more information and/or details or attach an electronic signature and return the WFLHD-470. The WFLHD-470 is then returned to the Contractor. If there are no deficiencies then the Contractor may proceed with the work. If there have been deficiencies identified then the Contractor must correct them before continuing. This process should be expedited to ensure the Contractor is not being held up unreasonably. The contract usually allows 24-hours for this process.

When rejecting work for either unsatisfactory materials or workmanship, the cause for rejection should be documented and photographed if appropriate. The contract provision or specification being violated should also be clearly documented.

WFLHD-465 (Rev. 10/90)

U. S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
WESTERN FEDERAL LANDS HIGHWAY DIVISION

FEDERAL LANDS HIGHWAY  
"Commitment to Excellence"

DESCRIPTION AND LOCATION OF WORK  
(PLEASE BE CONCISE)

(A) - Mason Dam approach - Haul, Place, Process aggrev. Item 30110  
(B) - Mowich Loop - Place paving Item 40201  
(C) - Tailings Overlook - Process aggregate Item 30110  
(D) -  
(E) -  
(F) -  
(G) -  
(H) -  
(I) -  
(J) -  
(K) -

**RECEIVED**  
**SEP 13 1998**  
BY PROJECT ENGINEER

CONTRACTOR'S DAILY RECORD OF CONSTRUCTION OPERATIONS

ELKHORN DRIVE SCENIC BYWAY  
PROJECT: OR PFH 113-1(2)

CONTRACTOR/SUB-CONTRACTOR:  
XYZ Paving, Inc.

DATE: 9-12-98 DAY: Saturday

WEATHER Sunny, 80 F

SHIFT:  
0700 TO: 1730

NO:	LABOR CLASSIFICATION:	NO:	EQUIPMENT TYPE:	PRODUCTION TIME: (MAN HOURS WORKED)											EQUIPMENT TIME				
				(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	WORK	IDLE	DOWN		
1	Teamster, Gp. 3	1	10-CY End Dump w/pup, #B-11	8	2												10	0	0
1	Teamster, Gp 3	1	10-CY End Dump, #B-10	9													9	0	1
1	Teamster, Gp. 3	1	10-CY End Dump, w/pup, #B-15		10												10	0	0
3	Oper., Group 2	3	25-Ton Vibratory Roller, Bomag	10	10	10											30	0	0
2	Op., Gp. 4	2	Grader, Cat 16G	10		10											20	0	0
1	Op., Gp.2	1	Blaw Knox Laydown Machine		10												10	0	0
1	Teamster, Gp. 6	1	14.0 m3 Water Truck, #W-22	4	2	4											10	0	0
2	Labor, Gp. 3				20														
1	Superintendent			2	6	2													
1	Q.C. Manager			1	8	1													
1	Paving Foreman				10														

**EXAMPLE FHWA FORM 465**  
**CONTRACTOR'S DAILY RECORD OF**  
**CONSTRUCTION OPERATIONS**

The construction contractor will complete and submit this daily, and the CI will check and verify it (corrections may be necessary). This is an important legal document, as it becomes the official record of the construction project.

CONTINUE TO BACK OF SHEET

BY: Tom Biggmen  
SIGNATURE FOR CONTRACTOR (\*)  
*Tom Biggmen*

DATE: 9-12-98

REVIEWED BY: Jack Phillips  
SIGNATURE, PROJECT ENGINEER OR INSPECTOR:  
*Jack Phillips*  
CONTRACT INSPECTOR

DATE: 9-13-98

(\*) IT IS HEREBY CERTIFIED THAT THE INFORMATION CONTAINED IN THIS RECORD IS ACCURATE, AND THAT ALL WORK DOCUMENTED HEREIN COMPLIES WITH THE REQUIREMENTS OF THE CONTRACT. ANY EXCEPTIONS TO THIS CERTIFICATION ARE DOCUMENTED AS PART OF THIS RECORD. ALSO, I CERTIFY THAT ALL CONSTRUCTION SIGNING AND TRAFFIC CONTROL (INCLUDING TEMPORARY STRIPING) IS CORRECT FOR THE STATUS OF THE PROJECT AND IS IN FULL CONFORMANCE WITH THE "MUTCD" AND THE CONTRACT REQUIREMENTS FOR THE PROJECT IDENTIFIED ABOVE.

CONTRACTOR'S DAILY RECORD OF CONSTRUCTION OPERATIONS (front page)

Exhibit 8.4A

EQUIPMENT MOVE-IN/MOVE-OUT				
EQUIPMENT:			DATE:	
TYPE:	MAKE:	MODEL/SIZE:	IN:	OUT:
Grader	Cat	16G	9-12-98	
Grader	Cat	16G	9-12-98	9-12-98
Laydown Machine	Blaw Knox	PF-3200	9-12-98	
Roller	Bomag	DD-2500	9-12-98	
Front End Loader	Cat	966	9-10-98	9-12-98
<p><b>EXAMPLE FHWA FORM 465</b>  <b>CONTRACTOR'S DAILY RECORD OF</b>  <b>CONSTRUCTION OPERATIONS</b></p> <p>The construction contractor will complete and submit this daily, and the CI will check and verify it (corrections may be necessary). This is an important legal document, as it becomes the official record of the construction project.</p>				
REMARKS:				
Started paving operation today, while continuing to haul and process gravel at two other sites. Completed processing gravel item at Tailings Overlook--will have surveyors red-top in the morning.				
USFS visited project and began their own seeding operation (our subcontractor will mulch next week)				
Weekly safety meeting was held today, attended by all employees and FHWA inspector.				
Erosion control devices were checked at all project sites.				
Traffic control devices were checked and cleaned at Powder River site.				
<p style="font-size: 2em; transform: rotate(-15deg); opacity: 0.5;">RECEIVED</p> <p style="font-size: 1.5em; transform: rotate(-15deg); opacity: 0.5;">SEP 13 1998</p> <p style="font-size: 1.2em; transform: rotate(-15deg); opacity: 0.5;">BY PROJECT ENGINEER</p>				
ACCIDENTS		PRODUCTION SUMMARY (Loads, Tons, Cu. Yd. Lin. Ft., etc.)		
YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	ITEM NO.	STATION TO STATION	QUANTITY
UNSAFE OPERATIONS		30110	Mason Dam Boat Ramp Approach	450
YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	30110	Tailings Overlook	200
INTENTIONALLY LEFT BLANK		40201	Mowich Loop	700

This form was electronically produced by Elite Federal Forms, Inc.

**CONTRACTOR'S DAILY RECORD OF CONSTRUCTION OPERATIONS (back page)**

**Exhibit 8.4B**



## **8.5 PROJECT DIARIES**

### **8.5.1 General**

Federal Regulations generally allow inspection of public records, such as Government diaries, by the Contractor and even the general public. Certainly, all entries should be made as if the Contractor and others involved in the contract will eventually see them.

In maintaining these reports, project personnel must be consistent in recording the events and activities on the job, particularly those relating to claims or potential claims. The failure to record an event, once the responsibility of a daily diary is undertaken, carries with it the implication that the event did not occur or was insignificant and also threatens the credibility of the entire log.

It is mandatory that the CM and each inspector maintain a daily diary. Diaries are considered an official government document and must be turned in with other project records at the conclusion of a project. This is also applicable to any retained voice recordings.

The PM must also keep a separate diary for each construction management project they are overseeing. A diary entry is required for any day in which the PM does work or has dealings related to the project.

### **8.5.2 Purpose of the Diary**

The purpose of project diaries is to document work progress, site conditions, and the Contractor's ability (or inability) to perform its work so that WFLHD has valuable information necessary to accurately reconstruct the events of the project in preparation of a claim.

### **8.5.3 Diary Format**

Two options are available for keeping diaries, bound books or computer generated diaries. When using bound books, all diary entries should be written in ink. When using the computer, a hardcopy of the daily diary must be printed, signed, and filed at the end of each day.

The CM may find a voice recorder helpful, either for recording notes to be used at the end of the day in making diary entries, or for recording events, which can later be transcribed into the diary and signed by the CM. Have discretion when using the voice recorder. Strive to record what is necessary, not a play-by-play description of all events that happened in a day. It may be helpful to file certain tapes regarding claims and disputes in addition to the transcription. If this occurs, there should be a notation in the diary or in the transcription.

#### **8.5.4 Information to Record in the Diary**

Diary entries should be factual, concise, complete, and legible. Entries should avoid vague generalizations like, "Contractor operations remain inefficient." State why they are inefficient and how long they have been that way. If there is a dispute in, say, interpretation of the specifications, try to express both (Government's and Contractor's) points of view. When a decision is made, or agreement reached on further action, state the outcome. If no agreement was reached, state what instructions were given to the Contractor. If an opinion is included, identify as an opinion, not fact. Diary guidelines and examples are provided on the following pages.

The information shown in the following list shall be included, as appropriate, in each diary entry. Remember, the purpose of the diary is to document the project operations, not what you (CM or inspector) did each day. Each entry must be signed (not initialed) at the end of the day.

- Date and weather conditions (morning and afternoon).
- Work of inspectors. (Note: This only needs to be logged by the CM and should just be a brief entry of the inspector's assignments for the day.)
- Names of visitors to the project and purpose of visit.
- Comments on the progress of operations as compared to the Contractor's approved schedule.
- Explanations of why work was not started or completed as planned by the Contractor.
- The substance of important conversations with the superintendent, Contractor employees, subContractors, suppliers concerning conduct, progress, changes, interpretation of specifications, or other details.
- Comments on construction safety hazards and corrective measures.
- Discussion of erosion control and other environmental concerns as appropriate.
- Information concerning accidents occurring on the project or incidental to the construction work.
- Comments on traffic control and signing.
- Any information not covered in other notebooks that might have a bearing in case of future disagreement, such as difficulties encountered in construction and their causes, delays caused by breakdowns of equipment, comments relative to improper use of equipment reflecting inefficient operations by the Contractor, etc.

### 8.5.5 Information to Record, But NOT in the Diary

In order to properly evaluate the *Contractor's Daily Record of Construction Operations*, the inspectors should keep some form of notes that document the Contractor's labor, equipment, and work areas. The CM or Inspectors may use FHWA Form 1413, *Inspector's Daily Record of Construction Operations*, or another format as agreed by the PM. In any case, the information used to validate the *Contractor's Daily Record of Construction Operations* **should not be recorded on the same sheet as the inspector's diary**. While the inspector's diary will be retained indefinitely by FHWA, the inspector's notes (of Contractor's labor, equipment, and work areas) for that day will be discarded once the *Contractor's Daily Record of Construction Operations* is signed by the CM. It is not necessary to document every hour worked by the Contractor; the inspector's notes just have to be of sufficient detail to review, and accept or reject the *Contractor's Daily Record of Construction Operations*.

Field measurements and notes for documenting monthly progress estimate quantities should not be recorded in the project diary.

### 8.5.6 Things to Record in the Diary

- **Identify problem and possible cause.**
  - At the crusher at 3:00 a.m. Talked with foreman Russ. Production is a lot slower due to the material pushed down by D8N dozer. There are very little fines. The jaw isn't big enough to handle straight rock and still get production.
  - Mike claimed he had only 20, 000 yd<sup>3</sup> of waste in the pit. In my opinion there is twice that much in it. XYZ Construction Company is scrambling for disposal volume because of failure to decrease the slash volume by burning.
- **Identify what happened and the ramifications.**
  - Crushing operation is going well. The loader operator let the feeder run out at 11:00 p.m. while he was stockpiling. This will cause some inconsistency in product. The crusher is crushing 20408A material.
- **Note how operation is not consistent with the Contractor's approved changes.**
  - From 12:20 p.m. to 1:20 a.m. I observed WA500 feeding Pugmill. I noticed no change in pattern for getting rock from stockpile. The loader operator is taking rock from the east end of the stockpile. I have yet to see him get a bucket of rock from the edge of the stockpile like XYZ Construction Company said in the letter they wrote.
- **Identify what is occurring and why it is not correct. Also reference pictures.**
  - The two 10-cy trucks began haul of Select Topping to 563+00 back - This area again has not been approved for placement. Picture #19 - sta. 558 ahead.
- **Record why a scheduled operation isn't going to occur.**
  - No gravel haul tonight because no areas are ready for Select Topping or base rock
- **Record problems with operation, source of the material, and impacts to the operation.**
  - At the crusher site there are clay balls coming off of the product belt. The sta.800 material is wet and the fines seem to have plugged the scalping screen.

- **Identify how operation is contributing to non-spec material**
  - At 4:15 pm the Sylvan crusher was producing 30101 base and the material was dropping on the cone-shaped stockpile of out of spec. aggr.-see previous page—photos
- **Record improper testing techniques and inadequate testing.**
  - To 5:50 at Lab Trailer - observed Todd do P.I. test. He did it wrong. He took about a 20-gram sample, rolled part of it, and put the whole thing in a tin. Before this, he worked the material quite a bit with his hands, looked like he was trying to work moisture out that way.
- **Record testing problems.**
  - 1) Lloyd says large square No. 4 screen is out of Spec.; 2) Mechanical shaker motor appears to be going out; also the base is not sufficiently *anchored to work properly*; 3) *Outside dryer still not working (I was told it was but it's not)*; 4) *Air conditioner doesn't work adequately to maintain proper temperature to run S. E. tests. All these things need attention but testers refuse to tell XYZ Construction Company about them so they can be fixed. He says when the tests start failing XYZ Construction Company will be interested in finding out why.*
- **Record tester's abilities and techniques.**
  - Tom the tester took some density tests. FHWA Inspector said Tom the tester did not know what he was doing. He **wasn't using the right proctor, he was testing 2" down** into subgrade. I talked with Mr. Mitre and found out he had **very little if any experience with a nuclear gauge**. He also said **he never pounded a proctor**. From talking with him it sounds like his specialty is in **roof inspection**. Also while talking with Tom the tester I asked him how they split their half of the sample and he said they **used the mechanical splitter**. Just before this he said that they thought the mechanical splitter was out of spec. due to loose dividers.
  - Tom the tester also tried to take some density tests in the  $\pm 870$  area. He **didn't know the maximum or optimum moisture content**. He took  $\pm 10$  minutes trying to figure out how to change the depth.
- **Identify what was checked, what stations, and how much it was in/out of spec.**
  - Check subgrade at centerline and shoulders, stations 510+49 & 511+99. It's just 0<sup>101</sup> to 0<sup>251</sup> off--out of spec.
- **Note Contractor's performance and attitude.**
  - At 4:30 the culvert crew backfilled the lower sections of the culvert at 769+41. I reminded Claude that the part in the roadway was hastily covered with a 2-3' lift, temporarily, and will have to be dug and compacted sometime - tonight or later. (Thinking that already being here makes it easy right now) Claude responded with, "no way I ain't tearing that out, now or ever. We got a test on it and it passed." And he walked away.
- **Record Contractor employee's opinion of operation (especially if the employee has a good reputation).**
  - Talked with the crusher foreman. He told me that in 20 years of crushing for XYZ Construction Company, this was the worst ran job he had ever been on. He said there

was no organization or coordination between the different operations. He has been trying for three days to get the crusher at Smith Pass setup with no help, no mechanics, and no transportation. Said his crusher operator was quitting tomorrow, and that he was “only half a day behind him.”

- **Record disagreements between Contractor superintendent and Contractor employees.**
  - Crusher Foreman also mentioned how he wanted the crusher set up on the south side and the pugmill set up on the north side. But Contractor Superintendent disagreed. Crusher Foreman said under his way he would of had a lot more stockpile room and would be on the side where the plant mix rock would come from. Under the current set-up he is having to build two stockpiles for 20804 rock and will probably have to truck the rock for plant mix.
- **Record conversations with subContractor regarding their thoughts on the project.**
  - Earlier today (about 1:00 p.m.) SubContractor Superintendent stopped to say that signs are not getting put up for his flaggers and that that is **out** of his control. He'll be glad to be done with this job and the total lack of communication.
- **Record what Contractor encountered and whether you agree or disagree.**
  - Contractor Superintendent stated that ice is being encountered at  $\pm 7'$  in area 3; reviewed area 3, Contractor Superintendent is correct, ice layer is  $\pm 7'$  below surface.

#### 8.5.7 Things NOT to Record in the Diary

- **Do not record information that should be on the Contractor's daily reports.**
  - Select placement Sta. 608 – 580  $\pm 7$  Belly Dumps, 5 End Dumps, 1 Rock Truck, SDJ50, 2 16G Blades.
- **Do not use the inspector's diary to record what you did each day. It should be used to record the Contractor's operation, not yours.**
  - I cleaned the battery terminals on two vans with dead batteries, jump started them, and let them run for 25 minutes to charge. When I turned the key off they still wouldn't start. Bud, Carol, Jeff and I assembled the survey equipment and began learning the data collection system.
- **Do not write a statement unless you can give details and conclusions.**
  - i.e., in the example below, what were the problems and what was proposed to correct them?
    - Project Manager called with concerns about Contractor's superintendent.
  - **i.e., what screen what out of spec? and what was not computed correctly?**
    - Test results (gradation) are not good - Test results are not computed correctly. We must have good test results.
- **Do not record statements unless the reason for the statement is clear.**
  - Observed 2 Belly Dump Trucks at scale, ready to haul 20408 Rock tonight.

## **8.6 PHOTOGRAPHS**

Photographs are an important part of the project records and should be turned in with the project records at the end of the project. They serve to document the record with respect to slides, cave-ins, floods, and other unusual occurrences; actual conditions when a Contractor alleges *Differing Site Conditions*; unusual construction features or practices; accidents involving death, personal injury or property damage; encroachments within the right-of-way; and other such occurrences and conditions. They are useful in illustrating reports on experimental features and unusual construction practices, final construction reports, and other reports. They are invaluable as evidence in case a controversy develops during the Contract, which results in litigation. They are especially useful when a construction contract encompasses a long period of time, as much as 2 or 3 years. As memories fade and PM's are transferred to other projects or retire, photographs provide direct evidence of the conditions that existed at the time the dispute arose. The old adage that "a picture is worth a thousand words" applies here.

In order to best serve the intended purpose, a photographic history of all construction projects should be made. Photographs should be taken of the construction site before construction begins, during each stage of construction as it progresses, and of the completed project. For example, during a project on which major excavation is to be accomplished, photographs should be taken on a regular basis (perhaps as often as once a week) to document progress made by the Contractor. Such photographs should be taken from the same location and the camera should be aimed at the same reference point in order that a person looking at the pictures can actually see the progress, or lack of progress, which was made by the Contractor during a certain period of time.

If a project is of sufficient length, the CM should choose several reference points from which photographs can be taken during the course of a project. Special consideration should be given to those areas along the project length where experience has shown that difficulties may be encountered. For example, if there are unusual rock formations that might be encountered as excavation progresses, that site should be chosen and photographs should be taken on a regular basis.

In addition to photographs taken from specified reference points on a regular basis, photographs also should be taken immediately after unusual occurrences and before unusual conditions are disturbed. The CM and all inspectors should have, or have easy access to a camera at all times during construction. The CM should emphasize the use of these resources.

Clarity and good composition are very important, and proper identification is necessary. In some cases, it would be appropriate to have an individual stand by the unusual condition in order that the relative size of the condition may be determined. For prints from film, the photo should be labeled with the name or initials of the photographer, the date taken, and the location. No photo log is required, as long as the pictures are properly identified. For digital photographs, the identification of the subject, the date and the name of the person who took the photo need to be attached to the photo. This can be accomplished via a photo managing software or by printing out the photo and writing the information down. In any event, the digital image needs to be identified.

## **8.7 CONSTRUCTION FEEDBACK REPORT**

### **8.7.1 General**

Feedback is used to obtain information to improve Project Delivery processes, as well as to improve support services to the construction field employees. The Construction Feedback Report (Form WFLHD-81) is used to initiate the improvement process. The report should be used to:

- Identify any problems encountered in the plans, specifications or administration of the Contract
- Identify any problems associated with support services
- Identify any other deficiencies where corrective action or improvements can be incorporated into future projects
- Provide recommendations for future improvement

It is best if the feedback forms are completed as the problems arise, instead of waiting until the end of the project when they become less important and are forgotten.

### **8.7.2 Instruction for Completing the Construction Feedback Report**

- Report Number: Number reports sequentially for the project.
- The Project Manager completes Item I and Item II (pen or pencil are acceptable), and sends the form to their Construction Operations Engineer (COE).
- The COE completes Item III by reviewing the problems, the corrective action taken and the recommended improvements by the PM. The COE provides comments, identifies the appropriate office to take action, and forwards the form to the Construction QA Specialist (CQAS). Note: The COE should be as specific as possible when identifying the action office.
- The CQAS forwards the form to the appropriate action office, which completes Item IV by reviewing the problem and the recommended improvements. The office initiates action or provides an explanation for non-action, and returns the form to the CQAS.

## CHAPTER 9

# CONTRACT MODIFICATIONS

### 9.1 OVERVIEW

The following chapter provides guidance and the requirements for developing and processing contract modifications. The CM is responsible for the tasks listed in the process, except as otherwise noted. Throughout the process, the CM should coordinate with the Project Manager (PM).

A contract modification is a negotiated acquisition. Part 15 of the Federal Acquisition Regulations (FAR) prescribes the policies and procedures governing negotiated acquisitions. The process outlined on the following pages is based on FAR Part 15, the Transportation Acquisition Manual (TAM), and the Transportation Acquisition Regulations (TAR). The process applies to all contract modifications except contract modifications written to exercise an option (FAR Part 17). The process does not apply to resolution of claims submitted under FAR Part 33.

To the maximum extent possible, a separate modification should be prepared for each situation. Avoid combining multiple unrelated issues in the same modification.

**9.2 AUTHORITY**

Only contracting officers acting within the scope of their contracting officer warrant are authorized to execute contract modifications on behalf of FHWA. Except for life-threatening or emergency situations, other FHWA personnel or its representatives shall not:

- act in such a manner as to cause the contractor to believe that they have authority to bind the FHWA
- direct or encourage the contractor to perform work that could be the subject of a contract modification

The delegation of authority letter, issued to the contractor between the time of award and issuance of the notice to proceed, identifies the specific levels of authority for a particular project. The PM has authority to negotiate modifications up to the dollar amount approved by the Contracting Officer in the pre-negotiation memorandum. (Note: Where a pre-negotiation memo is not required, the price negotiation memorandum establishes the negotiation authority.) Authority to approve modifications is as follows:

modifications \$50,000 or less (time: max 50 days)	Construction Operations Engineer
modifications \$200,000 or less (time: max 100 days)	Construction Engineer
modifications \$500,000 or less	Contract Development Engineer
modifications greater than \$500,000	Contract Development Engineer*

\*(with 2<sup>nd</sup> level concurrence by a Level III CO)

The CM has no authority to negotiate a contract modification, however, the CM may be asked to take the lead in the negotiations since you will have the greatest knowledge of the circumstances. The PM will either be present or be available by conference call or some other means for all negotiations.

### **9.3 CHANGE ORDERS**

FHWA contracts contain a Changes clause that permits the contracting officer to make unilateral changes within the general scope of the contract. If halting or impeding the changed work would adversely affect the government's interest, a change order should be issued. A change order is a written directive, signed by the contracting officer, requiring the contractor to make a change without the contractor's consent. A change order allows the contractor to proceed with the work even though the terms and conditions of the contract modification have not been definitized. Change orders are not typically forward priced and therefore they require two documents: the change order (using SF 30) and a supplemental agreement reflecting the resulting equitable adjustment in contract terms.

Include the following in the change order:

- scope of work
- a specific timetable for definitizing a bilateral contract modification
- a not-to-exceed estimate of cost which is used to obligate funds for the modification

While issuance of a change order allows the contractor to begin work before the contractor and government have an opportunity to agree on the terms and conditions of the modification, a change order does not negate the process requirements outlined in Section 9.6. You must still coordinate with FHWA and external parties, develop an approximate cost estimate, and secure an approved procurement request prior to having the Contracting Officer approve the change order. Follow the process outlined in Section 9.6 for definitization of the change order.

## **9.4 TYPES OF CONTRACT MODIFICATIONS**

### **9.4.1 General**

Contract modifications are either bilateral or unilateral. Both types are explained in detail below.

### **9.4.2 Bilateral Contract Modifications**

A bilateral modification (supplemental agreement) is a contract modification that is signed by the contractor and the contracting officer. Bilateral modifications, for example, are used to:

- make negotiated equitable adjustments resulting from the issuance of a change order
- definitize letter contracts
- reflect other agreements of the parties modifying the terms of the contract

### **9.4.3 Unilateral Contract Modifications**

A unilateral modification is a contract modification that is signed only by the contracting officer. Unilateral modifications are used, for example, to:

- allow performance and payment of work without agreement on terms and conditions (i.e. price and time) of the modification
- make administrative changes
- issue change orders
- make changes authorized by the Options clause
- issue termination notices

## **9.5 CONTRACT CLAUSES**

### **9.5.1 General**

The authority to change the contract and make adjustments to the contract amount originates from the various FAR clauses. The majority of contract modifications are authorized by the Changes clause. The Changes clause and the other most commonly used FAR clauses are described below. For more information on any particular clause, contact your PM or refer to *Administration of Government Contracts* by Nash and Cibinic.

### **9.5.2 FAR Clause 52.243-4, Changes**

The Changes clause gives the government the unilateral right to make changes in the work within the general scope of the contract, including changes to the plans and specifications, the method of work, government furnished materials, and the time allowed to complete the contract. The Changes clause also provides the means under the contract for the government to make an equitable adjustment for constructive changes and defective plans or specifications. The term “within the general scope of the contract” is defined as work that “should be regarded as fairly and reasonably within the contemplation of the parties when the contract was entered into.” Changes outside the scope of the contract are referred to as “cardinal changes” and are not within the authority of the Construction Branch.

### **9.5.3 FAR Clause 52.249-10, Default**

The Default clause serves two purposes. First, it allows the government to terminate the contractor’s right to proceed if the contractor has not performed with due diligence, or if the contractor has not completed work within the time specified in the contract. Second, the clause allows for an adjustment to contract time if the contractor or its subcontractor is delayed due to: acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, acts of another contractor in the performance of a contract with the Government, fires, floods, epidemics, quarantine restriction, strikes, freight embargoes, and unusually severe eather. Under the Default clause, the contractor is only entitled to time extensions; there is no provision for monetary compensation.

### **9.5.4 FAR Clause 52.236-2, Differing Site Conditions**

The Differing Site Conditions clause provides a remedy for situations where the actual physical conditions at the work site are materially different than either the conditions represented in the contract (Type I Differing Site Condition) or the conditions that would normally be encountered during work of that nature in the particular area (Type II Differing Site Condition).

### **9.5.5 FAR Clause 52.242-14, Suspension of Work**

The Suspension of Work clause allows the government to suspend, delay, or interrupt the contractor’s work for the period of time that is appropriate for the convenience of the government. If the contractor’s performance is suspended, delayed, or interrupted for an unreasonable period of time by the government, the contractor is entitled to an adjustment for any increase in the cost of performance. Under the Suspension of Work clause, the contractor is not entitled to profit.

### **9.5.6 FAR Clause 52.211-18, Variation in Estimated Quantity (VEQ)**

The VEQ clause allows an adjustment to the contract when the actual quantities vary by more than 15 percent from the bid schedule quantities. Adjustments are allowable only if the contractor’s costs increase or decrease due solely to the variation. The unit price adjustment must reflect only reduced performance costs realized due to economies of scale on overrun units or increased performance costs experienced due to loss of efficiency on underrun units. The clause does not provide a remedy for situations where the contractor lost money due to a low bid, or where the contractor gained a windfall

profit due to a high bid. The VEQ clause cannot be used for price adjustments in situations where the increase or decrease in quantity was caused by a differing site condition, a bid quantity error, or a contract change.

**9.5.6 FAR Clause 52.248-3, Value Engineering (VE)**

Contractors may be able to perform work in less expensive ways than provided in the contract. The Value Engineering clause is the appropriate avenue for addressing a contractor-initiated change. The clause is an incentive for the contractor to develop cost savings proposals, as it allows the contractor a share of the cost savings realized from the approved value engineering change proposal.

## **9.6 CONTRACT MODIFICATION PROCESS**

### **9.6.1 Overview**

The process outlined on the following pages provides the requirements for developing, preparing, and executing a contract modification. While the process applies to the majority of contract modifications, the steps may be reordered or modified depending on the situation.

The CM is responsible for complying with the process and ensuring that the PM is kept involved and informed throughout the process.

### **9.6.2 Identify the Need for a Contract Modification**

Contract modifications are initiated for a multitude of reasons. In general, either the land-owning agency, a cooperating agency, the contractor, or FHWA can identify the need for a contract modification. Typical situations, which may necessitate a modification, are listed below.

- **Land-Ownning Agency**
  - Provide an alternate materials source
  - Paving of campgrounds or parking areas
- **Road Maintaining or Owning Agency**
  - Stockpiling aggregate for owner's use
  - Change work restrictions listed in the contract
- **Resource or Regulatory Agency**
  - Change environmental restrictions listed in the contract
  - Revise culvert pipe details to improve fish passage
  - Revise revegetation plans
- **Contractor**
  - Correction of an error or omission in the plans or specifications
  - Price adjustment for acceptance of work or material which does not conform to the contract requirements
  - Value engineering proposals
  - Equitable adjustments for differing site conditions or variations in quantity
  - Time extensions for excusable delays
- **FHWA**
  - Change in the plans or specifications
  - Adjustments for suspensions or terminations for convenience
  - Correction of an error or omission in the plans or specifications
  - Adding work not provided for in the plans and specifications
  - Substituting or deleting work
  - Accelerating work

### **9.6.3 Coordinate with FHWA and External Agencies**

Once the need for a modification has been identified, it is essential for you and the PM to coordinate with the parties who may have an interest in the modification. Continue this coordination throughout development of modification. Coordination with appropriate parties will ensure the modification is developed properly and issued timely. Also, the earlier an interested party is brought into the process, the greater likelihood that the modification will be developed smoothly and successfully.

The parties, which are most commonly involved in the contract modification process and their roles in the process, are listed below. As this list is not all-inclusive, use judgment and discretion in selecting who will be involved for the particular situation.

Document the cross-functional team members' involvement and concurrence with the development of the contract modification. Include this documentation with the modification support data.

#### **9.6.3.a Land Owning and Road Owning or Maintaining agencies** (U.S. Forest Service, County, State DOT, NPS, etc.)

You will need the agency's concurrence in context of all changes. Although some modifications may not affect the road owners, it is a good idea to keep them informed of all modifications. It gives them the sense of being a partner in the project and results in a smoother running project. If the road owner requests the modification, this request should be provided in writing. Depending on the scope of the modification, the road owner may need to provide approval and funding. In general, the same guidelines exist for the landowners as for the road owners.

For National Park Service projects, you should prepare a letter to the appropriate officials, explaining the general scope of the change as well as the expected dollar range.

#### **9.6.3.b FHWA**

- Financial Manager

This individual will establish the availability of funds for the proposed modification. If funds are not currently available, the Financial Manager will research other funding avenues. For modifications estimated to be greater than \$50,000 or modifications developed during the last quarter of the fiscal year, notify the Financial Manager of the approximate dollar amount prior to refining the scope of the modification. The availability of funds can severely impact both the scope and the timing of the modification.

- Designer

The Designer is your main point of contact for nearly all contract modifications. Communication with the Designer is critical to identifying both the underlying reasons for particular design details or specifications, as well as commitments (to owning, maintaining, and resource agencies) that may be impacted by the modification. The Designer can also assist in coordinating with other FHWA technical specialists.

- Environmental Engineer or Specialist

Contact the Environmental Engineer or Specialist if there is any possibility that the proposed modification might have environmental or permit consequences, or might alter the environmental mitigation features established in the contract. The Environmental Engineer or Specialist will coordinate any permit requirements.

- Materials Team

Coordinate proposed changes to materials specifications (gradation, sand equivalent, pavement structure, material sources, etc.) with the Materials Team.

- Bridge Team

Discuss proposed changes to structures (bridge, retaining wall, box culvert, etc.) with the Bridge Team.

- Hydraulics Team

Coordinate proposed modifications to culverts and major erosion control features with the Hydraulics Team.

- Geotechnical Team

- Coordinate proposed modifications to slopes, retaining walls, pavement structure, material sources, etc., with the Geotechnical Team.

### **9.6.3.c Cooperating Agencies**

Cooperating agencies include: State Fish and Game, U.S. Fish and Wildlife, National Marine Fisheries Services, U.S. Army Corps of Engineers, U.S. Forest Service, State Department of Transportation, BLM, military, etc.

### **9.6.4 Identify Scope of Work**

Identification of a clear and concise scope of work will enable the contractor to develop their price proposal and will provide a basis for negotiations. The scope of work needs to include sufficient detail for the contractor to reasonably develop their proposal. The scope of work may be revised based on information provided in negotiations or discussions with the contractor.

Include the following in the scope of work:

- General description of the proposed modification
- Location
- Preliminary specifications and design details
- Quantity of work
- Restrictions on when and how the work can be performed

### **9.6.5 Request Contractor to Prepare a Proposal**

Once the scope of work has been identified, prepare a letter for the PM's signature requesting the contractor to develop a price proposal for the proposed modification. Include the following in the letter:

- Proposed modification number (Note: To the extent possible, CM's should be number sequentially. If an earlier proposed contract modification voided, do not use that number for your new CM)
- Scope of work
- Request to prepare a price proposal for the identified scope of work
- Preferred pricing format (square meter, lump sum, day, etc.)
- Time
- Date by which the price proposal should be submitted to the CM

### 9.6.6 Prepare an Independent Government Estimate (IGE)

IGEs are required for all contract modifications except modifications to exercise fixed priced options (FAR Part 17).

A well-prepared IGE is essential if the government is to receive a fair and reasonable price for the contract modification work. Without an accurate IGE, the government has no basis upon which to evaluate the contractor's proposal. Therefore, it is imperative to prepare the independent government estimate prior to receiving the contractor's proposal and to not base the IGE on data furnished by the contractor. The level of detail should be commensurate with the complexity and value of the modification.

Sign and date the IGE once it is completed. Also, label the top of the IGE "*For Official Use Only.*" Do not disclose the IGE prior to conducting negotiations with the contractor.

#### 9.6.6.a Sources for IGE Data

Data for the IGE can be obtained from the following:

- Bid prices within the contract or prices from other current, competitively bid contracts, if determined to be fair and reasonable
- Costs established from estimates of labor, equipment, materials, and amounts for overhead and profit
- Historical data such as average bid prices
- Quotes from suppliers or other contractors
- Unit prices or production rates from sources such as the Means or Dodge handbooks
- U.S. Army Corps of Engineers *Construction Equipment Ownership and Operating Expense Schedules*
- Data from the contractor's bid papers

The data should be adjusted for:

- Inflation
- Location – does remoteness affect the cost?
- Quantity and Specifications – are similar quantities and specifications involved for those items being compared?
- Timing of Work – will the work be performed during good or adverse weather conditions?
- New technology
- Overhead and Profit – are overhead, profit, and other factors included in the prices?
- Any other factors, which may affect the contractor's cost.

#### 9.6.7 Determine If Cost and Pricing Data Are Required

Cost or pricing data may be required in the event the modification exceeds \$550,000 aggregate (i.e., consider both increases and decreases when determining the price adjustment). If the IGE is greater than \$550,000 (aggregate), the COE or the Contract Administration Engineer should review the FAR and advise you on the cost or pricing data requirements for your particular situation. If the IGE is greater than \$550,000 and it is determined that Cost or Pricing Data is not required, document the exception used and the basis for using it. Include this information in the Price Negotiation memorandum (Section 9.6.13)

For modifications less than \$550,000 (aggregate), you should not request the contractor to provide cost or pricing data.

### 9.6.8 Analyze the Contractor's Proposal

The objective of analyzing the contractor's proposal is to develop a negotiation position that permits you (CM), the Project Manager and the contractor an opportunity to reach agreement on a fair and reasonable price. You and the Project Manager are responsible for evaluating the reasonableness of the offered prices. The complexity and circumstance of each modification should determine the level of detail of the analysis required.

When the contractor's proposed price is significantly lower than the IGE, you need to ensure that you and the contractor completely understand the scope of work.

The three techniques for analyzing a contractor's proposal are price analysis, cost analysis, and profit analysis. Their applicability is dependent on whether Cost or Pricing Data is required. Each type and their applicability are described below.

#### 9.6.8.a Technique Applicability

Modifications not requiring Cost or Pricing Data

When Cost or Pricing Data is not required, you should first analyze the contractor's proposal using price analysis. Compare their bottom line price to your IGE price. If their price is comparable to the IGE price, it is not necessary to obtain additional information from the contractor or to conduct a cost analysis.

If the contractor's price is not within an acceptable range of the IGE, you should consider requesting a cost breakdown of the contractor's proposal. Using their cost breakdown, you then can perform cost analysis to determine where the difference originates and which elements of the proposal you need to discuss with the contractor.

Modifications requiring Cost or Pricing Data

When Cost or Pricing Data is required, you will need to analyze the contractor's proposal using cost, price, and profit analysis.

#### 9.6.8.b Analysis Techniques

Price Analysis

- Definition. Price analysis is the process of examining and evaluating a proposed price without evaluating its separate cost elements and proposed profit.
- Examples. Various price analysis techniques and procedures may be used to ensure a fair and reasonable price, given the circumstances surrounding the modification. Examples of such techniques include, but are not limited to the following:
  - Comparison of proposed prices with independent government price estimates.
  - Comparison of contract unit prices with proposed prices for the same or similar items.
  - Comparison of proposed prices with historical bid data for similar items.

Cost Analysis

- Definition. Costs analysis is the review and evaluation of the separate cost elements and profit in a contractor's proposal, and the application of judgment to determine how well the proposed costs represent what the cost of the modification should be.

- Examples. Various cost analysis techniques and procedures may be used to ensure a fair and reasonable price, given the circumstance surrounding the modification. Examples of such techniques include, but are not limited to the following:
  - Comparison of the individual cost elements of the contractor's proposal with:
    - actual costs previously incurred by the same contractor
    - independent government cost estimates
    - various cost schedules (Corps equipment rates, Means, etc.)
  - Verification of cost or pricing data and evaluation of cost elements, including:
    - the necessity for, and reasonableness of, proposed costs, including allowances for contingencies
    - the application of audited or negotiated indirect cost rates and labor rates

#### Profit Analysis

- General. Both the government and contractors should be concerned with profit as a motivator of efficient and effective modification performance. Negotiations aimed merely at reducing prices by reducing profit, without proper recognition of the function of profit, are not in the government's best interest. Negotiation of extremely low profits, use of historical averages, or automatic application of predetermined percentages to total estimated costs do not provide proper motivation for optimum modification performance.
- Determination of Profit Amount
  - Modifications not requiring Cost or Pricing Data
    - If a change or modification calls for essentially the same type and mix of work as the basic contract and is of relatively small dollar value compared to the total contract value, the government may use the basic contract's profit rate as the pre-negotiation objective for the modification. For post-priced modifications, the contractor's risk has been eliminated. This factor should be considered when determining the profit rate for post-priced modifications. A five to ten percent profit margin is reasonable for post-priced work.
  - Modifications requiring Cost or Pricing Data
    - If cost or pricing data is required, use the structured approach to analyze profit.

#### **9.6.9 Accept the Contractor's Proposal or Perform Additional Fact Finding**

If the contractor's price proposal is determined fair and reasonable using either price analysis, or cost and price analysis, accept the contractor's price without further negotiations. In this case, proceed to Section 9.11 and then 9.6.13.

If your prices differ appreciably from the contractor's, and you cannot accept their price as is, you may have to request more information from the contractor. For instance, you may need more detailed information on the cost elements of the contractor's proposal. The purpose of fact-finding is to provide the government with sufficient information to develop a defensible position. Discuss the pertinent issues with the contractor and ask for a revised proposal to reflect the information learned and understanding reached in the discussions. Document all discussions and include in the pre-negotiation memorandum.

### 9.6.10 Prepare a Pre-negotiation Memorandum

The pre-negotiation memorandum is required for all proposed modifications where negotiations are necessary.

#### 9.6.10a Purpose

The two primary purposes of the pre-negotiation memorandum are to: 1) establish the government's negotiation positions and 2) obtain the contracting officer's approval of the pre-negotiation objectives. **Project Managers are not authorized to negotiate with the contractor until the appropriate Contracting Officer has approved the pre-negotiation memorandum.**

#### 9.6.10b Format

The pre-negotiation memorandum should be a 'memo' prepared by the CM for the Project Manager to the CO authorized to approve the proposed modification. If the authorizing CO is at a level above the COE (and CE), the pre-negotiation memorandum should be written through the COE (and CE) for their concurrence. For example, if the Contract Development Engineer were the approving CO, you must send the pre-negotiation memorandum through the COE and CE for their concurrence.

#### 9.6.10c Content

- Subject "Pre-negotiation Memorandum"
- Identification "Project name and number"  
"Contract number"  
"Proposed contract modification number"
- Date
- From "CM's Name" and signature
- To "Approving CO's name, *Contracting Officer*"
- Through (if necessary) "PM's, COE's (and CE's) name"
- Modification Reason and Description
  - What necessitated the proposed modification? If the modification was requested, attach correspondence, e-mails, or diary entries documenting the request.
  - Scope of work
- Prices
  - IGE amount
  - Contractor's proposed price
  - Government's pre-negotiation objective
- Time
  - IGE time extension or decrease
  - Contractor's requested time extension or decrease
  - Government's pre-negotiation objective
- Basis for Pre-negotiation Objectives
 

The "explanation" is the most important part of the pre-negotiation memorandum as it is the justification for a fair and reasonable pre-negotiation objective. This part of the pre-negotiation memorandum needs to explain:

  - How the Project Manager established the pre-negotiation objective
  - Why the pre-negotiation objective is reasonable
- Proposed Total Price of the Proposed Modification (list items individually and show the total) and Requested Negotiation Authority

**9.6.10d Concurrence and Approval**

The CM or the PM must obtain written approval of the pre-negotiation memorandum prior to negotiating with the contractor. Verbal approvals are not acceptable. All signatures (concurring and approving) should be on the pre-negotiation memorandum or in an e-mail attached to the pre-negotiation memorandum.

When the authorized CO approves the pre-negotiation memorandum, they will indicate the dollar range, which the PM is approved to negotiate within.

The various levels of concurrence and approvals listed below are based on the net amount of the modification. The aggregate amount of the modification is used only to determine if cost or pricing data is required.

- |    |                                   |                       |  |
|----|-----------------------------------|-----------------------|--|
| 1. | Contract Modification             | \$50,000              |  |
| a. | Approval                          |                       | COE  |
| 2. | Contract Modification             | \$50,000 < \$200,000  |  |
| a. | Concurrence                       |                       | COE  |
| b. | Approval                          |                       | Construction Engineer                      |
| 3. | Contract Modification             | \$200,000 < \$500,000 |  |
| a. | Concurrence                       |                       | COE and Construction Engineer              |
| b. | Approval                          |                       | Contract Development Engineer              |
| 4. | Contract Modification             | > \$500,000           |  |
| a. | Concurrence                       |                       | COE, CE, and Contract Development Engineer |
| b. | 2 <sup>nd</sup> Level concurrence |                       | Level III CO                               |
| c. | Approval                          |                       | Contract Development Engineer              |

**9.6.11 Complete a Procurement Request**

Contract modifications either increase, decrease, or have no effect on the contract amount. Procurement requests are required for modifications, which increase or decrease the contract amount. Procurement requests are not required for “no cost” situations (e.g. the contractor can begin work in a restricted area early and therefore the contract fixed completion is modified, or \$100,000 of work is added and \$100,000 of work is deleted from the contract).

Include the information listed below on the Procurement Request. Use the pre-negotiation objectives as the starting point for establishing the PR dollar amount. The PR must be approved before you begin negotiations with the contractor.

<b>Block</b>	<b>Data</b>
1	Project Manager's Name
2C	Contract Number
4	Project Number and Name
5A (1)	Name, title, and signature of requisitioner
5C (1)	Date
6	CM's Name Project Office Address
9	CONTRACT MODIFICATION number, Item Number and Name, Quantity, Unit, Unit Price, etc. (Note: The list of items is necessary in order for PP&C to accurately track the cost on the estimate to ensure that sufficient funds have been set aside to cover the full cost of the contract modification.)
10	Account Number

Funds for the proposed modification can originate from two places –

- Within the Contract

These are project funds that will not be used due to quantity underruns or unused incentives (DBE and pay factor). In the quantity underrun case, the contract modification must delete the unnecessary items and quantities in order to make those funds available for the added work in the modification. If funds for the added work will come from unused incentives, specify which item(s) the funds are coming from (i.e., DBE, Item 40101, Item 30101, etc.). Before using incentive money as a source of funds for the modification, be absolutely sure that the incentive money is definitely unneeded.

Even though funds for a modification are provided by 'within the contract' sources, the Financial Manager needs to approve the Procurement Request. This will facilitate proper tracking of funds.

- Outside the Contract

These are funds, which are made available through the WFLHD Financial Manager.

### **9.6.12 Negotiate with the Contractor**

The goal of negotiations is to agree on a fair and reasonable price. A fair and reasonable price does not require that agreement be reached on every element of cost, nor is it mandatory that the agreed price be within the government's initial negotiation position. Successful negotiations depend on good faith and fair dealing, and an understanding of both parties' interests.

#### **9.6.12a The government's negotiator**

In most cases, the Project Manager is the government's negotiator. The PM is approved to negotiate within the dollar range approved by the CO in the pre-negotiation memorandum. Since you (CM) are closest to the project, and have analyzed the prices and work related to the modification, the PM will rely heavily on you to provide input during negotiations.

#### **9.6.12b Agenda for negotiations**

The agenda can play an important part in negotiations and should be prepared by you (CM). Some negotiators will initially discuss non-controversial elements at the negotiations in order to create a climate of cooperation; others prefer to start by bringing up an issue where the government has strength to create positive momentum. In any case, all elements of the contract modification must be clear to both parties, including the work involved, any unusual features or technicalities, time required for work, and impacts on other work.

#### **9.6.12c Dealing with new information**

During negotiations, a new concept or additional information, which alters the basics of the pre-negotiation objectives, could be brought forth. Review the new information and if additional time for study is required, advise the contractor and reschedule the negotiations as appropriate.

#### **9.6.12d Negotiation minutes**

The CM should document each negotiation session with minutes of the negotiations. These minutes will be used to develop the price negotiation memorandum.

### **9.6.13 Prepare a Price Negotiation Memorandum**

Price negotiation memoranda are required for all contract modifications. The complexity of a price negotiation memorandum will depend upon the nature of the modifications and the negotiations. (Note: If the modification does not involve money, i.e. the proposed contract modification revises the contract start and completion dates, a price negotiation memorandum is still required; however, it only needs to explain how you arrived at the final terms and conditions of the agreement.)

#### **9.6.13a Purpose**

The two primary purposes of the price negotiation memorandum are to: 1) document the outcome of negotiations and how the final price was reached, and 2) obtain the contracting officer's approval of the final price.

#### **9.6.13b Format**

The price negotiation memorandum should be a "memo" written by you (CM) through the PM to the CO authorized to approve the proposed modification. If the authorizing CO is at a level above the COE (and CE), the price negotiation memorandum should be written through the COE (and CE) for their review and concurrence.

#### **9.6.13c Content**

- Subject "Price Negotiation Memorandum"
- Identification "Project name and number"  
"Contract number"  
"Proposed contract modification number"
- Date
- From "CM's name" and signature
- To "Approving CO's name, *Contracting Officer*"
- Through (if necessary) "PM's, COE's (and CE's) name"
- Purpose of the negotiation
- The government's negotiation objective
- Negotiation Details
  - The contractor's proposal
  - The government's negotiation objective
  - The negotiations, i.e., what was discussed, what were the agreements, what were the final prices, how did you arrive at the final prices, and will contract time be extended.
  - The remaining unresolved issues and the next steps if needed.
  - Price reasonableness
    - If price reasonableness was based on price analysis, the summary shall include the source and type of data used to support the determination.
    - If price reasonableness was based on cost analysis, the summary shall address each major cost element.
- If the contract modification will exceed \$550,000 and Cost or Pricing Data was not required, explain the exception used and the basis for using it (see Section 9.6.7). If Cost or Pricing Data was required for the modification, contact the PM to determine what additional documentation is required for the price negotiation memorandum.

### 9.6.13d Review, Concurrence, and Approval

Obtain written approval of the price negotiation memorandum prior to sending the contract modification to the contractor for their signature. Verbal approvals are not acceptable. All signatures (concurring and approving) should be on the price negotiation memorandum or in an e-mail attached to the price negotiation memorandum.

The various levels of concurrence and approval listed below are based on the net amount of the modification. The aggregate amount of the modification is only used to determine if cost or pricing data is required.

1. contract modification < \$50,000
  - a. Approval COE
2. \$50,000 < contract modification < \$200,000
  - a. Concurrence COE
  - b. Approval Construction Engineer
3. \$200,000 < contract modification < \$500,000
  - a. Concurrence COE and Construction Engineer
  - b. Approval Contract Development Engineer
4. contract modification > \$500,000
  - a. Concurrence COE and Construction Engineer
  - b. Legal review Legal Counsel
  - c. Concurrence Contract Development Engineer
  - d. 2<sup>nd</sup> Level concurrence Level III CO
  - e. Approval Contract Development Engineer

#### 9.6.14 Amend the PR

If the final negotiated amount is greater than the “total estimated cost” shown on the procurement request, notify the PM and they will have the funding amount amended. The Financial Manager will send a copy of the amended PR to you.

#### 9.6.15 Determine What Type of Contract Modification to Issue

##### 9.6.15a Bilateral Contract Modification

If the contractor and the government have reached full agreement on the work, price, and time considerations included in the modification, issue a bilateral modification and include the release language (SF 30, Block14) shown in Section 7.

##### 9.6.15b Bilateral Contract Modification with Exceptions

When only a portion of a modification can be agreed upon, prepare a bilateral modification, which identifies the agreed upon elements, as well as the elements where no agreement was reached. For instance, if the contract modification increases the borrow excavation, equipment rental, and traffic control quantities, and the contractor agrees with prices for the borrow excavation and equipment rental, but not the traffic control items, the modification (SF-30a) should state:

*In consideration of the equitable adjustments paid pursuant to this contract modification, the Contractor hereby releases the Government from any and all liability under this contract due to any facts or circumstances arising out of this contract modification, except for direct and indirect costs for the following:*

*Temporary Concrete Barrier*

*Type A Warning Light*

*The Contractor reserves the right to pursue further administrative action on Temporary Concrete Barrier and Type A Warning Light as established within this supplemental agreement under FAR Clause 52.234-1, Disputes.*

In the “exception,” specifically state whether the exceptions apply to direct costs only, indirect costs (indirect costs overhead, profit, impact, delay, etc.) only, or to both direct and indirect costs. Clear and concise wording is essential when writing exceptions to the release language.

##### 9.6.15c Unilateral Contract Modification

If there is no agreement between FHWA and the contractor, the CO should issue a unilateral contract modification. Exhaust all avenues of reaching agreement on a bilateral modification (or bilateral with exceptions) before issuing a unilateral contract modification.

Unilateral modifications are also used to issue change orders (see Section 4-3).

#### 9.6.16 Prepare the Contract Modification Package

##### 9.6.16a Contract Modification

- SF-30 (see Section 9.8)
- SF-30a (see Section 9.8)
- Plans, details, specifications, drawings or other data required to clearly state the nature and scope work required by the modification
- WFLHD 10 (see Section 9.8)

### 9.6.16b Support Documentation

- Procurement Request
- IGE
- Contractor's price proposal
- Pre-negotiation Memorandum
- Price Negotiation Memorandum
- Documentation of cross-functional team involvement and concurrence
- Correspondence - Include copies of pertinent correspondence. **DO NOT** include original correspondence with the modification.
  - Contractor
  - FHWA (memos, e-mails, client and contractor correspondence)
  - Miscellaneous (client, resource agency, etc.)
- Records of any relevant discussions or field reviews
- Certification for cost or pricing data (if required)
- Concurrence from client agencies if needed, including commitments of any funding they may provide

### 9.6.17 Send the Contract Modification to the Contractor for Signature

The CM should e-mail a copy of the modification to the PM and COE for their review. For modifications greater than \$500,000, the COE will provide a copy of the contract modification to Legal Counsel for review. Once you have the PM's and COE's (Legal Counsel if necessary) approvals, send the contract modification to the contractor.

For bilateral modifications, send three copies of the contract modification (SF-30, SF-30a, WFLHD 10, plans, specifications, drawings, and other data which identifies the scope of work) to the contractor. One copy is for their use and the other two copies should be signed and returned to you for the CO's approval. Do not send any support documentation to the contractor.

For unilateral modifications, make one copy of the entire package for yourself and proceed to Section 9.6.19. Do not send anything to the contractor.

### 9.6.18 Copy Contract Modification Package for the Project Office

Once the contractor has signed and returned the contract modification (bilateral CMs only), make one copy of the entire package (Sections 9.6.16a and 9.6.16b) for the project office.

### 9.6.19 Complete the Contract Modification Database Report

The *Contract Modification Database Report* is used to measure the amount of and reasons for contract growth. Complete the report and include it with the contract modification package.

### 9.6.20 Forward the Contract Modification (with all support documentation) to the COE

Forward the entire package (2 originals of Section 9.6.16a and 1 set of Section 9.6.16b) to the COE, and a single copy of the entire package to the PM (scanned and e-mailed). It is imperative that you provide the entire package to the COE immediately after the contractor has signed the modification (for bilateral modifications). Until the appropriate CO signs the modification, it is not an executed agreement, and the contractor has the right to withdraw their offer. Work provided in the modification cannot legally begin until the CO has signed the modification.

**9.6.21 Review and Approve Contract Modification**

The COE is responsible for ensuring that the appropriate level CO approves the modification within a timely manner.

Once the appropriate CO has signed the modification, the COE forwards the modification to the Contract Administration Specialist for copying and distribution to the Project Manager, CM and others. One original modification, with all support documentation is sent to the central files, and the other original (modification only) is sent to the contractor. The Contract Administration Specialist also enters the contract modification data into the Construction Status Database.

**9.7 INSTRUCTIONS FOR COMPLETING SF-30 AND CONTINUATION SHEETS**

**9.7.1 SF 30, Amendment of Solicitation/Modification of Contract**

<b>Block</b>	<b>Title</b>	<b>Instructions</b>
1	Contract ID Code	Leave blank.
	Page of Pages	Include only pages to be sent to the contractor.
2	Amendment/ Modification Number	Enter four-digit consecutive number assigned to each bilateral or unilateral contract modification (e.g., "Contract Modification No. 0004").
3	Effective Date	Enter "See block 16C."
4	Requisition/Purchase Req. No.	Leave blank.
5	Project No.	Enter the Project Number, such as MT PFH 66-1(2).
6	Issued by	Enter "Western Federal Lands Highway Division" and the Vancouver address.
7	Administered by	Leave blank.
8	Name and address of contractor	Enter contractor name and address as shown on the contract.
9	Amendment of solicitation no. and date	Leave blank.
10A	Modification of Contract/Order No.	Enter the DOT contract number, such as DTFH70-95-C-00001. This is on the award letter and the executed contract.
10B	Dated	Enter the contract award date.
11		Not applicable. Leave blank.
12	Accounting and appropriation data	Use the appropriate account such as, 151716055002 540.00.F150.16
13A		Mark this block for a unilateral modification under the Changes clause (FAR Clause 52.244-4).
13B		Mark this block for administrative changes.
<b>Block</b>	<b>Title</b>	<b>Instructions</b>
13C		Mark this block for bilateral modifications. Cite the appropriate contract clauses by number and name (e.g., FAR Clause 52.236-2, Differing Site Conditions; FAR Clause 52.244-4, Changes; FAR Clause 52.242-14, Suspension of Work, etc.)
13D		Mark this block for unilateral modifications performed under any clause other than the Changes clause (e.g., FAR Clause 52.236-2, Differing Site Conditions; FAR Clause 52.242-14, Suspension of Work, etc.). Cite the appropriate clause by number and name.
13e		For bilateral modifications, mark the, "is required to sign this document and return <b>2</b> copies to the issuing office" block. For unilateral modifications, mark the, "is not required to sign this document". Send unilateral modifications via certified mail.

14	Description of amendment/ modification	<p>Give a concise general description of the modification and the effect on contract time. Do not include all the details of the modification in this description, as those details will be provided in the text (SCR changes and Plan changes) of the CM.</p> <p>Also, state the purpose for the modification. This should be a very concise, one to three sentence summary of what issue the modification seeks to address. For example . . .</p> <ul style="list-style-type: none"> <li>o If the contract modification reduces the 40101 quantity by 10,000 tonnes because the client agency has requested us to eliminate that section of paving, the contract modification would state: "This contract modification covers all charges associated with the elimination of paving from Station X+XXX to Station X+XXX."</li> <li>o If the amount of rock to be encountered on the site is more than the contract indicates and the contractor is alleging a differing site condition, the contract modification may state: "This contract modification covers all changes associated with the increase in rock quantities at stations xxx to xxy." or, "This contract modification covers all costs associated with the alleged differing site condition at stations xxx to xxy."</li> <li>o If the Government makes a change in the contract plans, calling for more MSE walls, the contract modification may state: "This contract modification covers all quantity increases for Item zzzzz due to conditions at stations xxx to xxy."</li> <li>o If the modification is necessary because the Plans or SCR's were in error, simply say, "This modifications adds fence at Station X+XXX to Station X+XXX. In this case the statement in quotes fully describes the purpose for the contract modification, therefore it is not necessary to state why the quantity is being added.</li> </ul> <p>Include the following release language: <i>"In consideration of the modification agreed to herein as complete equitable adjustments for the changes detailed herein, the contractor hereby releases the government from any and all liability under this contract attributable to the facts or circumstances giving rise to, arising, from, or relating to, this modification."</i></p>
<b>Block</b>	<b>Title</b>	<b>Instructions</b>
15A	Name and title of signer	This block is usually filled in by the contractor OR can be completed prior to sending to Contractor.
15B	Contractor/ Offeror	The person named in Block 15A, the authorized representative of the contractor, signs in this block to indicate agreement to a bilateral contract modification.
15C	Date signed	The person signing in Block 15B enters the date signed.
16A	Name and title of contracting officer	Enter the appropriate CO's name and their Warrant number.
16B	United States of America by	The person named in Block 16A will sign here.
16C	Date signed	The signing CO will enter the date.

**9.7.2 SF30a, Continuation Sheet**

SF30a is used to continue the description of the modification (Block 14) and to present any changes to the plans or specifications.

When adding or modifying specifications, use the format presented in the FP. Place the specification revision under the appropriate section number and name, heading (e.g., Description, Material, Construction Requirements, Measurement, or Payment) and subsection title (i.e., 601.03 Concrete Composition, 601-5 Placing Concrete, etc.). For instance, if you were modifying the first paragraph of 601.04, your specification would appear as follows:

**Section 601. – MINOR CONCRETE STRUCTURES  
Construction Requirements**

**601.04 General.** Delete the first paragraph and substitute the following:

Perform excavation and backfill work under Section 208. When concrete is cracked, spalling, or scaling, remove concrete to the nearest joint.

Use the following instructions when modifying the specifications:

Add the following:

Amend as follows:

Add the following before the first paragraph:

(Added Subsection.)

Delete the first paragraph and substitute the following:

**9.7.3 WFLHD 10, Continuation Sheet**

WFLHD 10 is used to summarize the contract items and dollar amount changes included in the modification. Complete the following on WFLHD 10:

<b>Block</b>	<b>Instructions</b>
Reference No. of Document Being Continued	Type the contract modification number (e.g. CONTRACT MODIFICATION No. 0004) here.
Page of Pages	Include only the pages in the CONTRACT MODIFICATION itself (i.e. the part you are sending to the contractor.)
Name of Offeror or Contractor	Contractor's Name
Item Number	e.g. 20401, 60201  Use the FP or the Master Pay Item Listing to determine the appropriate item number.  If you are increasing or decreasing the quantity of an item, which is already in the contract, with no change to the price, place the item number in the "existing" column.  If the item doesn't already exist in your contract (bid schedule or prior CMs), put the item number in the "new" column.
Item Name	e.g., Roadway excavation  Use the FP or the Master Pay Item Listing to determine the appropriate item number.
Quantity	The quantity added, deleted, or modified
Unit	e.g. square meter, metric ton, etc.
Unit price or lump sum price	Unit price or lump sum price
Amount	The product of the quantity and the unit price
Bottom block	Check "( ) <i>without modification</i> " if you have not revised any specifications. Otherwise, check "( ) <i>as modified . . .</i> "

## CHAPTER 10

### MEASUREMENT AND PAYMENT

#### 10.1 MEASUREMENT OF QUANTITIES

##### 10.1.1 General

The Standard Specifications prescribe methods of measuring quantities but are not intended to be all-inclusive. Refer to the plans, special contract requirements, and to this chapter of the manual for measurement details.

Each *Construction Requirements* section of the Standard Specifications contains a subsection entitled *Measurement*, stating what is to be measured and how it is to be measured. Further, the *Payment* subsection of each section states what work is covered by the payment. Work that is not specifically identified for payment is assumed to be a subsidiary obligation and no payment is required.

Occasionally, plans and special contract requirements will change the standard methods of measurement and payment, or include provisions for measurement and payment for items not in the Standard Specifications.

Before making any measurements on a project, study the plans, specifications, and special contract requirements to determine first, what is to be measured, and second, how it is to be measured.

##### 10.1.2 Basic Types of Measurement

There are three basic methods of measuring contract items: contract quantity, staked or ordered quantity, and as-constructed quantity. The first is *contract quantity* (or lump sum). For these items the work authorized by the contract is verified and paid for. No detailed re-measurement is required. A Contract Modification must document changes or correction of errors. Examples of contract quantity would be mobilization and structural concrete (usually).

The second method is *staked or ordered quantity*. That is, when work is staked out or ordered by the Engineer, before the work is performed, the quantity is defined, and that is what is paid for. Again, although verification that the work is done is necessary, no detailed re-measurement is required. Examples of this method would be culverts, curbing and earthwork (usually).

The third method is *as-constructed* quantity. The performance of work is authorized by the contract, and, subject to WFLHD inspection, it is performed, measured, computed (if necessary) and paid for. Examples of this method would be paving items paid by the ton, subexcavation of soft spots, and watering.

##### 10.1.3 Quantity Significant Figures

The minimum number of significant decimal places to which quantities should be measured, computed and reported is generally dependant on the value or bid price of an individual unit; and with the degree of precision with which it is practical to measure the item.

The WFLHD Progress Estimate program, which generates the receiving reports, (progress or final estimate) generally allows up to four figures to the right of the decimal point. However, usually not all of these figures are required to be significant. The payment precision for bid items is pre-set for the zero-estimate by the Contract Specialist in Vancouver. For contractual reasons, do not change the decimal settings for any of the original contract bid items. Note that precision for some items may differ from those shown in the Special Contract Requirement "*Bid Schedule*" and the Plan sheet "*Summary of Quantities*".

For progress estimates the methods used to measure quantities may sometimes be faster but less accurate than methods used for final payment. For this reason progress payment quantities may be (but are not required to be) less precise than final quantities. For progress estimates the minimum reported precision for any contract item should be the quantity that has a value between \$10 and \$100. For final payment the minimum reported precision for contract item should be the quantity that has a value between \$1 and \$10.

Quantities should generally be computed to at least one significant figure more than the minimum required for reporting. Pay notes should state the method of measurement. E.g., was the measurement estimated, paced, chained, or wheeled? The measurement method should be consistent with computational rounding.

If the measurement and computational methods used yield significant figures beyond the minimum required, the figure should be rounded to the significant figure as shown in the progress estimate. Once quantities are computed and reported on progress estimates, do not later round arbitrarily.

Items specified as contract quantity items should always be reported for final payment with the same precision implied in the contract.

Items measured by weigh tickets should be reported to the same precision as the ticket for both progress and final payment. Examples are provided below:

- (1) Item 20101 - Clearing and grubbing is bid at \$3,500 per hectare. One-hundredth (.01) hectare is valued at \$35. Therefore report clearing and grubbing quantities for progress payments to a precision of not less than 0.01 hectare. Report the final quantity to a precision of not less than 0.001 hectare.*
- (2) Item 60103 - Concrete is bid at \$18,500 lump sum. One-thousandth (.001) of one percent is valued at \$18.50. Therefore report this lump sum item to a precision of not less than 0.001 percent for progress payments.*
- (3) Item 25303 - U is bid at \$167.00 per cubic meter. One tenth (0.1) of a cubic meter is valued at \$16.70. Therefore report gabion quantities for progress payments to a precision of not less than 0.1 cubic meters. Report final payment to a precision of not less than 0.01 cubic meters.*
- (4) Item 62902 - U is bid at \$0.85 per square meter. One hundred (100) square meters has a value of \$85.00. Therefore report roving quantities for progress payments to a precision of at least 100 square meters Report the final quantity to a precision of at least 10 square meters.*

#### 10.1.4 Measurement of Materials (Weight Basis)

For materials paid for on a weight basis, a daily summary of all weighed (Weight Report, and Tare Report) and accepted loads (Spread Report) should be generated. See **Exhibits 10.1A, 10.1B, and 10.1C**. The summary should be filed with the tickets indicating certified weight and acceptance, which remain the original or source document. Separate ticket books and summary reports are best used for each contract item when more than one item is being produced at once.

When standard tickets are used, the weigher should fill them in completely, except for the station of placement, and shall deliver the original and duplicate to the truck driver, and retain the triplicate. If an original is lost or missing at the end of the shift and delivery on the road was accomplished, the triplicate may be used to verify the quantity provided it can be confirmed that the material was delivered.

When approved recording scales are used, the detail of checking and delivering material will vary according to the form of the tickets, but must be arranged so as to furnish both the weigher and checker with a record of each load and the Contractor with a ticket issued as each load is weighed. When the recording scales accommodate tickets in duplicate only, it will be necessary for the weigher to keep a complete tabulation showing ticket number, tare, total weight, and pay weight. Both tickets will then be given to the truck driver. The checker on the road will fill in the station of placement, initial both copies, return the duplicate to the truck driver, and retain the original. The checker completes the accepted loads spreadsheet (Spread Report) mentioned above in the first paragraph of this section.

Weighing by an accredited public weighmaster is acceptable, provided the same basic procedures described above are used.

Tare weights of each empty truck are to be determined at least twice daily and at such other times as the CM directs. It is important that tare weights be determined at random times during the day, and that the random selection process not be controlled by the truck driver or biased toward weighing when the fuel tanks are empty. The tare weights (and the date and time determined) should be recorded (**Exhibit 10.1C**).

Where direct reading platform scales are used the tare weight should be recorded (automatically or manually) on each ticket to give additional assurance that the correct tare weight was in fact set on the scale prior to reading the net weight. When belt scales, batch scales or other devices weigh the net weight of material without depending on gross truck weight, the ticket will be considered satisfactory when only net weight is shown. If scales of these types are used, a notation of scale type should be made in the diary.

Unless otherwise specified in the special contract requirements, no deduction will be made from aggregate weights for moisture content. When such deduction is specified, its method of determination should be specified. If a correction is required but no method specified, a deduction based on the daily average moisture content determined by heat drying no less than three representative samples taken at random intervals from each 8-hour production should suffice. Depending on contract requirements, the actual deduction will probably be for excess moisture, i.e., the difference between actual and optimum moisture.

The Standard Specifications provide that weighing devices shall be accurate within 0.5 percent throughout the range of use, and shall be inspected, tested, and sealed as often as the CM may deem necessary to assure continued accuracy. For noncommercial scales, the CM should request a copy of the inspection documentation for the project files. For commercial scales, the documentation should also be requested.

The National Institute of Standards and Technology (NIST), Handbook 44 is the standard by which scales are tested and sealed (<http://ts.nist.gov/ts/htdocs/230/235/h44-04.htm>). If the CM has reason to doubt the accuracy of a weighing device at any time, the Contractor should be required to stop weighing operations and have the weighing device tested and resealed.





WFLHD-443M  
(Rev 4/99)

TARE CHART

PAGE NO. \_\_\_\_\_

PROJECT: \_\_\_\_\_

LOADS NOT APPEARING ON  
STREET DELIVERY REPORT  
WILL BE DELETED UNLESS  
SATISFACTORILY EXPLAINED.

DATE \_\_\_\_\_

ITEM NO.: \_\_\_\_\_

SOURCE NO.: \_\_\_\_\_

Pay Lot No.: \_\_\_\_\_

SHEET NO. \_\_\_ OF \_\_\_

TRUCK NO.					
TARE 1 (kg)					
TARE 2 (kg)					
TARE 3 (kg)					
TARE AVE. (kg)					
TRUCK TALLY					
NUMBER LOADS					
TARE WEIGHT (kg)					
TRUCK NO.					
TARE 1 (kg)					
TARE 2 (kg)					
TARE 3 (kg)					
TARE AVE. (kg)					
TRUCK TALLY					
NUMBER LOADS					
TARE WEIGHT (kg)					
TRUCK NO.					
TARE 1 (kg)					
TARE 2 (kg)					
TARE 3 (kg)					
TARE AVE. (kg)					
TRUCK TALLY					
NUMBER LOADS					
TARE WEIGHT (kg)					

TOTAL TARE WEIGHT (kg) \_\_\_\_\_

I CERTIFY THIS INFORMATION TO BE  
C O R R E C T  
BY: \_\_\_\_\_

DATE: \_\_\_\_\_

COMPANY: \_\_\_\_\_

[Save Data Only](#) [Clear Form](#) [Save Form & Data](#) [Email Form](#) [Retrieve Data](#)

**TARE CHART, WFLHD 443 FORM**

**Exhibit 10.1C**

## 10.2 ACTUAL COST WORK

### 10.2.1 General

The Standard Specifications provide for the performance of Contract Modification work on an actual cost basis when it is not possible to define the quantity of work and negotiate a price prior to the performance of the work being accomplished. Actual cost pricing should be used only when it is not practically possible to establish fixed unit prices or lump sum prices.

When actual cost work is agreed to, or when work is commenced on an actual cost basis pending negotiation of unit or lump sum prices, the CM or CI monitoring the work should agree with the Contractor on the exact hours for labor and equipment (as well as materials) associated with the work each shift.

Strict adherence to the requirement that the cost records be maintained and signed daily as the work progresses is essential.

### 10.2.2 Daily Records of Actual Cost Work

When actual cost work is being performed, detailed labor, material and equipment information should be recorded on the "Contractor's Daily Record of Construction Operations" (WFLHD 465). See **Exhibit 8.4C** for a completed WFLHD 465 Form.

- **Labor** - The name and complete minimum wage schedule description, i.e., laborer unskilled; or operator, asphalt milling machine. The Project Manager must ascertain that the daily records of hours worked do not exceed the hours shown on the Contractor's payrolls.
- **Equipment** - Complete Corps of Engineers ownership and operating rate information, e.g., Dozer, Caterpillar, D-8L, 250 kW; and the Corps unit number if available, e.g., #T15CA015. In addition, the contractor may have equipment rental receipts or reliable equipment operation costs.
- **Material** - A description of the material and source together with certification or test data and invoices or other cost information.

The original copies of the signed daily sheets and the materials invoices are the minimum documentation required for actual cost work. All pertinent information should be recorded on the WFLHD 465, and not in various inspectors' diaries.

### 10.2.3 Summary of Actual Cost Work

Current monthly summaries of actual cost work should be prepared. Separate summaries should be kept for each actual cost contract modification. The contractor may be paid only after the contract modification has been signed by the Government. Computations supporting the subtotals and totals should be attached to the daily sheets with each bid item. This can be done by the use of a copy of the adding machine tape or computer spreadsheet, which will also facilitate checking.

## 10.3 PROMPT PAYMENT ACT

### 10.3.1 FAR Clauses

The requirement for processing progress payments included in *FAR Clause 52.232-5, Payments Under Fixed Price Construction Contracts*, *FAR Clause 52.232-27, Prompt Payment for Construction Contracts*, and FP Subsection 109.08, Progress Payments. These clauses appear in each contract and should be reviewed in detail. The following guidance addresses the highlights and common problems.

### 10.3.2 Requirements

Some of the basic requirements of the Prompt Payment Act are:

- The Government is required to make payment to the Contractor within 14 days after a **valid** invoice is received at the designated billing office from the Contractor. Over the years, the interpretation of whether to use the “received” or the “approved” date to start the 14 day clock has changed back and forth. The current interpretation is to use the “Contractor’s Billing Received:” date, shown on the cover sheet of the progress estimate.
- The Government must advise the Contractor in writing within 7 days if the invoice is defective.
- The Government is obligated to pay the Contractor interest if payment is not made in a timely manner. The Contract Administration Specialist (Rich Buchholz), will notify you of interest payments made to the contractor. Normally, he will insert the interest payment into a copy of your progress estimate and email you the corrected version. Do not make “corrections” to past estimates without first consulting with the Contract Administration Specialist.
- The Contractor may invoice only subcontractor's work for which it is committed to paying the subcontractor within 7 days of payment by the Government.
- The Contractor may be obligated to pay interest to the Government and an interest penalty to the subcontractor on any amounts for subcontractor work it invoices, and is paid by the Government; and fails to pay the subcontractor within 7 days.
- The Government is not to become involved in disputes between subcontractors and contractors.

### 10.3.3 Preconstruction Conference

The payment and invoice process as well as the Contractor’s obligations in this process should be emphasized at the preconstruction conference. In particular the Contractor should understand that failure to provide required materials documentation, test reports and certifications will result in nonpayment for the work in question. Special Contract Requirements Section **109.08 - Progress Payments** discusses current invoice requirements.

## 10.4 SUBCONTRACTOR PAYMENTS

### 10.4.1 Prompt Payment Requirements

If the Contractor invoices the Government for work performed by a subcontractor, the Contractor must pay the subcontractor within 7 days of receiving payment from the Government. Failure to make prompt payment results in an interest penalty due from the Contractor to the Government. Interest continues as long as the Contractor has received payment from the Government, but failed to pay the subcontractor. If the Contractor has violated the terms of the subcontract by failure to make payment, it may owe a second interest penalty to the subcontractor. Generally, the Government is not a party to the latter obligation, and the CM should not attempt to monitor or enforce subcontract provisions.

There is no prohibition against a Contractor withholding payment from a subcontractor for cause – such as producing defective work (whether or not the Government considers it defective), or not completing its work on time. However, the Contractor cannot invoice the Government for work for which it is *temporarily* withholding payment from the subcontractor. *Temporarily* means the Contractor recognizes an obligation to pay the subcontractor as soon as the problem, which precipitated the withholding, is corrected.

If the withholding from the subcontractor is permanent, that is considered a de facto reduction in the amount of the subcontract and should be reported in the invoice documentation as such. For example: A subcontractor building a box culvert is unable to obtain credit to buy ready mix concrete. The prime purchases the concrete and deducts payment from the subcontractor's payments. This transaction reduces the amount of the subcontract. The prime may invoice the Government for the full amount of the completed work, and is not obligated to pay interest to the subcontractor or to the Government.

The Prompt Payment Act takes precedence over the terms of the Contract. For example, the Contract may provide that temporary traffic control devices are paid at 50% on delivery to the site. However, the Contractor may have a subcontract, which provides payment at 5% per month for the first 20 months of the Contract. In this case the Contractor may invoice the Government only for the amounts it will pay the subcontractor, plus a proportionate share of any overhead and profit markup if applicable. The CM will often not have enough information to know if there is a significant difference in subcontract payment terms and those in the contract. A comparison of the tabulation of the status of all subcontract payments required by FP Section 109.08 of the Contract, with the CM's knowledge of how much subcontracted work has been paid for under the Contract, will often give indications of problems which should be questioned.

### 10.4.2 Handling Subcontractor Non-Payment Complaints

Occasionally, subcontractors or even individuals may contact the CM about unpaid bills for labor, materials or services furnished to the project, and request help in collecting payment from the Contractor or subcontractors.

Complaints from subcontractors who say they have not been paid have two implications under the Contract. The first is a possible Miller Act claim by the subcontractor against the Contractor's surety. The second is a possible violation of the Prompt Payment Act, if the payment in question was invoiced the Government and paid to the Contractor, but not passed on to the subcontractor.

**Exhibit 10.4A** provides guidelines for handling subcontractor non-payment complaints. The CM and PM should seek advice from the COE prior to preparing correspondence to the contractor or subcontractor.

In the United States, the law requiring contract surety bonds on federal construction projects is known as the Miller Act (40 U.S.C. Section 3131 to 3134). This law requires a contractor on a federal project to post two bonds: a performance bond and a labor and material payment bond.

The Miller Act payment bond covers subcontractors and suppliers of material who have direct contracts with the prime contractor. These are called first-tier claimants. Subcontractors and material suppliers who

have contracts with a subcontractor, but not those who have contracts with a supplier, are also covered and are called second-tier claimants. Anyone further down the contract chain is considered too remote and cannot assert a claim against a Miller Act payment bond posted by the contractor.

When a non-payment complaint is received, the CM should provide a Miller Act letter (**Exhibit 10.4B**) to the subcontractor. The letter will advise the subcontractor of their rights under the Miller Act. Include, as attachments to the letter, a copy of the pertinent parts of the law itself (**Exhibit 10.4C**) and a copy of the payment bond.

If there is an apparent violation of the Prompt Payment Act, write to the Contractor detailing the allegations and facts, as you know them, and request a written explanation from the Contractor. The Contractor's bonding company should be provided with a copy of the letter. See **Exhibit 10.4D** for an example letter. Note that the Government's only interest in underpayments to subcontractors is possible violations of the Prompt Payment Act and the interest that might therefore be due the Government. The Government should avoid becoming involved in disputes between the Contractor and its subcontractors; and especially avoid ordering the Contractor to pay subcontractors. The Government's position is simply that if the Contractor is not paying the subcontractors, it cannot invoice the Government for the subcontractor's work. It should be made clear to the Contractor that WFLHD is not a policing or audit agency; and if disputes linger on, or appear to indicate improper actions of the Contractor prejudicial to the Government, we will have no choice but to request intervention of an appropriate legal authority such as the DOT Office of the Inspector General.

<b>COMPLAINT</b>	<b>RESPONSE</b>
Verbal complaint from subcontractor or supplier of nonpayment.	Verbally advise subcontractor/supplier that no action can be taken unless a written complaint is provided.
	Verbally advise subcontractor/supplier that in order to ascertain a violation of the Prompt Payment Act, the Government needs a detailed statement of payments under the subcontract, dates payments made, and amounts subcontractor/supplier believes were due on those dates.
	Verbally advise contractor superintendent of complaint and remind him/her of Prompt Payment Act requirements.
	Document all exchanges in diary. No further action in absence of written statement/complaint.
Written complaint from subcontractor/supplier of nonpayment, but without detailed accounting of amounts paid and dates.	Furnish copy of bond and Miller Act information to subcontractor/supplier. See Section 7-1.6.
	Request a statement of payments under the subcontract, dates payments made, and amounts subcontractor/supplier believes were due on those dates.
	No further action unless statement of payments is provided.
Written complaint from subcontractor/supplier of nonpayment, including detailed accounting of amounts paid and dates.	Furnish copy of bond and Miller Act information to subcontractor/supplier. See Section 7-1.6.
	Compare subcontractor/supplier's detailed statement of payments, Contractor accounting of subcontractor payments, and Government's payments for contract items known to be part of the subcontract.
Subcontractor statement of payments generally agrees with Contractor's accounting and amounts paid by Government for subcontracted work.	No further action. Subcontractor may have recourse under Miller Act, but no apparent Prompt Payment Act violation.
Subcontractor statement indicates payments less than corresponding invoiced percentages of contract items associated with the subcontract.	Write letter to Contractor requesting resolution of payment discrepancies. See Section 9-3.6.
Contractor fails to respond to letter requesting resolution of alleged underpayment.	Notify Contractor in writing that without an adequate response to nonpayment allegations, further invoices including the payment in question must be presumed to be defective.
	Refer file to Regional Counsel for possible referral to DOT Office of Inspector General as false claim.
Contractor responds that payment information provided by subcontractor/supplier is in error and that all payments have been made in accordance with the Prompt Payment Act, but does not provide credible evidence that this is the case.	Refer file to Regional Counsel for advice on possible nonpayment of invoices and referral to DOT Office of Inspector General as false claim.
Contractor responds in a way that confirms that payments made to subcontractor/supplier have been less than those invoiced the Government for the contract items associated with the subcontract.	On next invoice, require Contractor to debit appropriate interest from next progress payment. Require debit of overpayment unless Contractor pays subcontractor/supplier by then.

**GUIDELINES FOR HANDLING NON-PAYMENT COMPLAINTS**

**Exhibit 10.4A**



U.S. Department of Transportation  
Federal Highway Administration

WESTERN FEDERAL LANDS HIGHWAY DIVISION  
C/O CM's name, Construction Manager  
Thomas/Wright, Inc.  
**Street Address**  
**City, Montana xxxxx**

June 21, 2005  
Serial letter CC-14

Gabe Neidelstrom  
Fishaven Construction, Inc.  
814 Anna Road  
Billings, Montana 59101

Subject: MT PFH 43-1(4), Pine River Road  
Contract No. DTFH70-05-C-00000  
Non-payment Complaint

Dear Mr. Neidelstrom:

This is to acknowledge your notice of nonpayment related to materials provided on this project which is being administered by this office of the Federal Highway Administration.

In accordance with the Miller Act (Title 40, United States Code, Section 270), the prime contractor, XYZ Construction, submitted a payment bond, under which it bound itself through its bonding company (surety) to pay all legitimate claims of its subcontractors and suppliers under the contract. A copy of the pertinent sections of the Act (and the Payment Bond for the contract) is enclosed.

**NOTE: The following paragraph may be omitted if the complainant obviously does have a contractual relationship with the prime. DELETE these instructions.**

If you do not have a direct contractual relationship with the prime contractor, you must notify the prime contractor in writing of your request for payment within ninety days of the last day you performed the labor or furnished the supplies. You have the right, after failing to receive a response to your request for payment from the prime contractor, to file a claim under the Miller Act.

In addition, this contract is subject to the terms of the Prompt Payment Act. This law obligates the contractor to make payment on any work performed by subcontractors and which it invoices to. And is paid by the Government. If you provide this office with a detailed accounting of the work you have performed on the contracts, and the date/amounts you have been paid for the work, we will evaluate if there has been an apparent violation of the Prompt Payment Act.

If you choose to file a claim under the Miller Act, please contact **Jane Doe**, WFLHD Construction Operations Engineer. Please note that neither the Miller Act, the contract, nor any other Federal or State laws or regulations creates any right for you to bring this type of claim directly against the Federal Highway Administration; or the United States Government; or permits payment by the Government directly to you. Your exclusive recourse under the law is against the prime contractor and its surety. If you have any further questions on this matter please contact this office.

Sincerely,

John Cable  
Project Manager

**EXAMPLE MILLER ACT LETTER**

**Exhibit 10.4B**

**270.b, Rights of persons furnishing labor or material**

(a) Every person who has furnished labor or material in the prosecution of the work provided for in such contract, in respect of which a payment bond is furnished under sections 270a to 270d of this title and who has not been paid in full therefore before the expiration of a period of ninety days after the day or which the last of the labor was done or performed by him or material was furnished or supplied by him for which such claim is made, shall have the right to sue on such payment bond for the amount, or the balance thereof, unpaid at the time of institution of such suit and to prosecute said action to final execution and judgment for the sum or sums justly due him: Provided, however, that any person having direct contractual relationship with a subcontractor but no contractual relationship express or implied with the contractor furnishing said payment bond shall have a right of action upon the said payment bond upon giving written notice to said contractor within ninety days from the date on which such person did or performed the last of the labor or furnished or supplied the last of the material for which such claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the material was furnished or supplied or for whom the labor was done or performed. Such notice shall be served by mailing the same by registered mail, postage prepaid, in an envelop addressed to the contractor at any place he maintains an office or conducts his business, or his residence, or in any manner in which the United States marshal of the district in which the public improvement is situated is authorized by law to serve summons.

(b) Every suit instituted under this section shall be brought in the name of the United States for the use of the person suing, in the United States District Court for any district in which the contract was to be performed and executed and not elsewhere, irrespective of the amount in controversy in such suit, but no such suit shall be commenced after the expiration of one year after the day on which the last of the labor was performed or material was supplied by him. The United States shall not be liable for the payment of any costs or expenses of any such suit.

(Aug. 24, 1935, ch. 642. § 2. 49 Stat. 794; Aug. 4, 1959, Pub. L. 86-135. § 1.73 Stat. 279.)

Amendments

1959—Subsec. (b). Pub. L. 86—135 substituted “day on which the last of the labor was performed or material was supplied by him” for “date of final settlement of such contract”.

Effective Date

Section effective upon the expiration of sixty days after Aug. 21, 1935, but shall not apply to any contract awarded pursuant to any invitation for bids issued on or before the date it takes effect, or to any persons or bonds in respect of any such contract, see section 5 of act Aug. 24, 1935, set out as a note under section 270a of this title.

Retroactive Effect

Section 3 of Pub. L. 86-135 provided that: “The right’s of laborers and material men under contracts entered into before the effective date (Aug. 4. 1959) of this amendment (amending subsec. (b)) of this section and section 270c of this title shall not be affected,”

Federal Rules of Civil Procedure

Parties, see rule 17. Title 28, Appendix, Judiciary and Judicial Procedure.

Section Referred to in Other Sections

This section is referred to in sections 270d, 270e. 270f of this title; title 15 section 636; title 25 sections 47a. 450j, 1656; title 31 sections 3905, 9303; title 39 section 410; title 42 section 11705.

**MILLER ACT PROVISIONS**

**Exhibit 10.4C**

**§ 270c. Right of person furnishing labor or material to copy of bond**

The department secretary or agency head of the contracting agency is authorized and directed to furnish, to any person making application therefore who submits an affidavit that he has supplied labor or materials for such work and payment therefore has not been made or that he is being sued on any such bond, a certified copy of such bond and the contract for which it was given, which copy shall be prima facie evidence of the contents, execution, and delivery of the original. Applicants shall pay for such certified copies such fees as the department secretary or agency head of the contracting agency fixes to cover the cost of preparation thereof.

(Aug. 24, 1935. ch. 642, § 3, 49 Stat. 794; Aug. 4, 1959, Pub. L. 86—135, § 2, 73 Stat. 279; Apr. 18, 1984, Pub. L. 98—269. 98 Stat. 156.)

Amendments

1984—Pub. L. 98-259 substituted “department secretary or agency head of the contracting agency” for Comptroller General” In two places.

1959—Pub. L. 86-13k struck out “. And, in case final settlement of such contract, has been made, a certified statement of the date of such settlement, which shall be conclusive as to such date upon the parties” and “and certified statements” after “original” and “certified copies”, respectively,

Effective Date

Section effective upon the expiration of sixty days after Aug. 24, 1935, but shall not apply to any contract awarded pursuant to any invitation for bids issued on or before the date it takes effect, or to any persons or bonds in respect of any such contract, see section 5 of act Aug. 24, 1935, set out as a note under section 270a of this title.

Retroactive Effective

Rights of laborers and material men under contracts entered into before Aug. 4, 1959, unaffected. See section 3 of Pub. L. 86-135, set out as a note under section 270b of this title.

Federal Rules of Civil Procedure

Proof of official records, see rule 44, Title 28, Appendix. Judiciary and Judicial Procedure.  
Effect of rule 44 on this section. See note by Advisory Committee under that rule.

Section Referred to in Other Sections

This section is referred to in sections 270b, 270d, 270e, 270f of this title; title 13 section 636; title 25 sections 47a, 450j, 1656; title 31 section 9303; title 39 section 410; title 42 section 11705.

**MILLER ACT PROVISIONS (continued)**

**Exhibit 10.4C**



**U.S. Department of Transportation  
Federal Highway Administration**

WESTERN FEDERAL LANDS HIGHWAY DIVISION  
C/O CM's name, Construction Manager  
Thomas/Wright, Inc.  
**Street Address**  
**City, Montana xxxxx**

February 1, 2005  
Serial letter CC-20

Jim McDonald, President  
Coin Construction, Inc.  
1220 Francis Road  
Billings, Montana 59101

Subject: MT PFH 43-1(4), Pine River Road  
Contract No. DTFH70-05-C-00000  
Subcontractor Non-payment Complaint

Dear Mr. McDonald:

Your subcontractor, Fishaven Construction, Inc. has advised us that payment for structural steel furnished on the above-referenced project is past due. According to Fishaven, \$25,000 on the \$219,000 subcontract was paid on October 14, 2004 and no further payments have been received. Your invoice dated December 1, 2004 billed the Government for 90% (\$315,000) of the \$350,000 bid for Item 55501. The Government paid you this amount on December 12, 2005.

Fishaven has been advised of their rights under the Miller Act. In addition, Fishaven allegation indicates a possible violation of the Prompt Payment Act, which obligates the prime contractor to pay subcontractors within 7 days of receipt of payment by the Government, any amounts, associated with the subcontractor's work, which have been invoiced by the contractor and paid by the Government. You are therefore requested to provide, within 30 days, a written response to Fishaven's allegation.

If Fishaven has been underpaid as indicated by the allegations you must make payment in full, including any interest due the subcontractor, prior to your next invoice to the Government, and provide the Government with documentation to that effect. If you choose not to make payment to Fishaven, the amounts of all overpayments by the Government must be rescinded and credited to the Government on your next invoice.

In addition, if Fishaven allegation is valid, you are obligated to credit the Government with interest on the amount of all overpayments for the period of time from when they were due to be paid to the subcontractor (December 19) until they were paid, or until they were rescinded and credited to the Government. The Treasury Department interest rate for the six months ending December 31, 1993 was 6.52%, and the rate for the first six months if 1994 is 6.34%.

Your failure to resolve this apparent violation of the Prompt Payment Act by the due date of your next invoice and progress payment may result in the invoice being deemed defective and returned to you for correction. If the Government cannot determine from your response whether a violation of the Prompt Payment Act has occurred, the issue may be referred to the Department of Transportation, Office of the Inspector General for investigation.

Sincerely,

John Cable  
Project Manager

**EXAMPLE PROMPT PAYMENT ACT LETTER**

**Exhibit 10.4D**

## 10.5 PROGRESS PAYMENT PROCESS

### 10.5.1 Introduction

The following sections address the process for making payment to the contractor. The process starts at receiving the pay notes and essentially ends for the CM and PM when the approved invoice is sent to the Contract Administration Specialist in Vancouver for processing and payment.

### 10.5.2 Pay Notes

The Contractor is to be submitting pay notes to the CM as the work is completed, or at definite intervals for items that continue on a daily basis (i.e., Flaggers, Pilot Car) or will extend beyond the invoice closing date (i.e., Excavation). The contractor should have submitted all pay notes by the estimate closing date, except those lump sum items that are computed based on percentage complete of all items (Mobilization, Surveying and Staking, etc.). The Daily Record of Miscellaneous Items form (**Exhibit 10.5A**) is the most common format form used for pay notes.

All pay notes are to be stamped with the "Received By" and "Date" stamp when received. The pay notes are to be checked for accuracy, including pay decimal, and that the work meets contract requirements, and if correct signed by you or a CI. This may include doing actual measurements in the field or going over your notes taken when the work was being completed.

If a submitted pay note is found to be incorrect due to computation errors, you should correct the pay note by putting a single line through the incorrect information and inserting the correct information. Correct the pay note regardless if it increases or decreases the pay quantity. Make sure that you include all information you used to change the pay note, and a short explanation for the change to the pay note. You should also initial the changes and sign the pay note in the appropriate area.

If you are not sure what the problem is or you are not comfortable with changing the pay note you should zero out the pay note (Line through the quantity and write a "Ø" next to the contractor's quantity.). If a pay note has been submitted on work not complete at the time of submission, you should zero out the pay note. Make sure that you include an explanation for zeroing out the pay note, also include that the pay note should be resubmitted when it is corrected or when the work is completed. You should also initial your comments and sign the pay note in the appropriate area.

Do not return the original pay note back the Contractor for corrections. Contractors usually keep a copy of all their pay notes submitted for payment, and for some reason the returned pay note gets lost. The Contractor will want payment for work that you have not approved, and with out any record of the submitted pay note it may be difficult to dispute.

The CM should only approve pay notes for work, which the Contractor has provided the required documentation, test results or certifications.

The basis of percentage payments, and temporary items like materials on hand (MOH) should be documented on the pay note.

### 10.5.3 Entering Data

After the pay notes have been checked and signed, you will need to enter the quantities into the “Modify Daily Production Data” portion of the *Progress Estimate* program. The only information entered is the date the work was completed (or date on the pay note), the number of days of production, and the quantity on the pay note. Also always include information in the notes area. These notes may include the stations of the work included on the pay notes, the status of the item of work (50% complete, estimated to be 70 % complete), or any other pertinent information pertaining to the quantity of work on the pay note.

Even if a pay note has been submitted and the quantity was zeroed out for being incorrect, always enter it into the “Production Data Summary” as zero and explain why it was zeroed out in the note area. In this case, it is not necessary to enter days of production. The production summary quantity will show up blank when a zero is entered into it, this is why you need to always complete the notes area as well to explain the quantity.

Once the pay note has been entered into the “Production Data Summary,” stamp the pay note with the “Entered to Record” stamp. Make a copy of all pay notes including those changed or zeroed out and return them to the Contractor as soon as possible.

Information for using the *Progress Estimate* program has been supplied as indicated in Chapter 2. Contact the PM or the Contract Administration Specialist if you have any other questions concerning entering information into the estimate program.

When entering new item numbers follow the directions provided later in this chapter.

#### 10.5.3.1 Pay Factor Adjustments

Any material pay factor adjustment to Contract unit prices should be documented with a QL-Pay printout or manual computations. The contractor should receive full pay for 100% of the quantity used under the original bid item. A new pay item such as QL-PAY-1 should be created to pay for the material factor adjustment. This is to be done after item of work is completed to prevent multiple entries at different pay factors for the same item. In the item description, include a reference back to the original bid item, and describe the adjustment being made. See **Exhibit 10.5B** for adding new pay items.

#### 10.5.3.2 Probables

As part of the monthly progress payment procedure, the CM should estimate the total expected quantity for each item – its *probable*, in the Progress Estimate program. Probable quantities translate to probable costs. By keeping the probables up to date, Finance can track the needed funds for a project. The Contract bid quantity may be used for each item initially, unless there is information to the contrary.

#### 10.5.3.3 Preparatory Work

General mobilization and preparatory work for starting construction is included in the Mobilization pay item. See Section 151 of the Standard Specifications. Preparatory work, or the beginning stages of work on a particular item should be included in the Contractor’s invoice and paid as an agreed percentage of that item. While it is possible to pay preparatory work on an actual expenses basis, this is not recommended because it entails additional bookkeeping and control to prevent overpayment. See **Exhibit 10.5C** for Guidelines for Percentage Payments for Partially Complete Work.

#### 10.5.3.4 Materials to be Incorporated into the Work (Material on Hand)

Partial payment for preparatory work and material on hand is discretionary. Materials on hand (MOH) can be shown on the progress estimate as line items in one of two ways. These methods are shown in **Exhibit 10.5B**. One method places the MOH after the original contract items, while the other method places the MOH items grouped together at the bottom of the estimate. When using the current progress estimate program, be sure to check the “materials on hand” box when creating this item, which will not allow the item to have probables. Since this is a temporary item that will ultimately be *zeroed out*, it should not increase the job *probables*. Partial payments should not be made where the payment would place undue risk on the Government.

Materials on hand (MOH) may be included in the Contractor's invoice and paid for as one or more separate (temporary) line items, provided:

- The materials are stored onsite or otherwise under the control of the Contractor. If materials are stored offsite the Contractor must provide documentation that it has acquired title to the materials. A paid invoice from the supplier to the contractor is normally adequate. However, *title* does not necessarily mean the Contractor has paid for the materials. Under prompt payment, the obligation to pay for them does not begin until payment is received from the Government.
- The materials are designated for incorporation into the work. Form lumber, explosives, and diesel fuel cannot be paid as stockpiled materials. They should be included in the mobilization item. MOH cannot be paid for living and perishable items.
- There are test reports, certifications or other reasonable documentation that the materials comply with Contract requirements, or that the item into which they will be incorporated will comply with those requirements. Though not required, it is prudent to enter material production results into QL-Pay to quantify the risk that the government has for this MOH.

Payment for stockpiled materials is intended to allow the Contractor to order materials sufficiently in advance of the work to avoid delivery delays. Payment does not constitute *acceptance* of the material, although the Government may argue that it legally *owns* the materials in the event of a default. It is also not intended as a means of providing advance payments. Payments must represent the reasonable value of the materials as compared to the bid prices for the work into which they will be incorporated. Whenever there is payment for MOH, such payment is covered by the conditions of the Prompt Payment Act, i.e., the Contractor is required to make payment to the subcontractor (supplier) within 7 days of receiving payment from the Government.

As the materials previously paid for are incorporated into the work and paid under Contract items, the temporary line item created to pay for them must be reduced or *zeroed out* accordingly.

#### 10.5.3.5 Retainage and Liquidated Damages for Poor Progress

Retainage or retent is money withheld from progress payments. FAR Clause 52.232-5(e) (see also Special Contract Requirements section 155.06) permits retainage of 10 percent of any progress payment when progress is unsatisfactory. See Chapter 5 for a discussion of administration of contract time. Unsatisfactory progress means one of the following:

- Contractor is significantly behind the approved construction schedule.
- Contractor is following a construction schedule, which shows completion
- Contractor does not have an approved construction schedule, or the originally approved schedule has been rendered obsolete and invalid, thereby making it impossible to determine if progress is satisfactory.

Retainage is not applied to the entire amount of payments to date, but only to those payments earned since progress became unsatisfactory. Withholding of additional retent is discontinued as soon as progress and the approved schedule are demonstrated to be consistent. However, previously withheld retainage will continue to be withheld until the Contractor demonstrates an ability to complete the project by the contract completion date (as modified by any Contract Modifications or incentives).

Once the Contract completion date has passed without completion, the Government is to withhold liquidated damages for each day of delay, in accordance with Subsection 108.04 of the FP. Whereas retent is a *discretionary* condition of the Contract, liquidated damages are mandatory unless there is a CM modifying or waiving them. If substantial retent *and* liquidated damages are being withheld, it is reasonable to estimate what the final amount of liquidated damages will be, and to assess a combined amount of retent and current liquidated damages not to exceed this amount. This is done by reducing the retent to some number less than 10 percent of the final contract amount. This situation should be discussed with the PM and the COE.

#### **10.5.3.6 Adding Items**

All pay items associated with Contract Modifications should be listed separately and identified as to the number of the Contract Modification.

Generally add items so they will show up on the progress estimate printout after the original contract item. To do this, use text in the "item numbers" to differentiate them. See **Exhibit 10.5B** for examples of how to add contract modification items, adjust materials payments based on QL-Pay, and add contractor interest payments.



**Keep MOH associated with the original contract item, or keep after original contract items**

63501	Temporary traffic control Lpsm
63501MOH	(Materials on hand) Temporary traffic control Lpsm
MOH 1	63501 - (Materials on hand) Temporary traffic control Lpsm

---

**Keep all QLPAY items together – Pay for 100% of original item, and then create adjustment as a lump sum. Show the contractor what you are doing. Apply the pay factor to the total quantity, not the unit price, since the program will not allow a unit price to more than 2 decimal places.**

QLPAY 1 Item 30101 – Materials Quality Incentive, Lot 1 = 30,000t @ 0.99 pay factor; (30,000t*-0.01*\$12.00/t)=-\$3,600.00			
	Lpsm	-3,600.00	-3,600.00
QLPAY 2 Item 40101 – Materials Quality Incentive, Lot 1 = 10,000t @ 1.05 pay factor; (10,000t*0.05*\$25.00/t)=\$12,500.00			
	Lpsm	12,500.00	12,500.00
QLPAY 3 Item 40101B, Type II– Pavement Smoothness Incentive, \$7,800.00			
	Lpsm	7,800.00	7,800.00

---

**Note: Similar to QLPAY items, Retent 2 paid for 100% of the tonnage under the original item, then the retent is applied. Should this be done for traffic control devices as well?**

LD 1	Section 10908 – Liquidated Damages -\$1,000 day	23	-23,000
RET 1	Section 10908 – Retent resulting from failure to maintain acceptable progress. 10% of estimate 1 = \$14,122.02		
	Lpsm	14,122.02	14,122.02
RET 2 \$150,000.00	Section 10908 – Retent of 20 % of Item 40101 due to unacceptable work (30,000t*\$25.00/t*0.20) =		
	Lpsm	150,000.00	150,000.00

---

**The Final Review Engineer will normally add these items after the completion of the project**

INT 1	FAR 52.232-27 - Prompt payment interest Estimate 1, 4 days @ 3.25% = \$80.23		
	Lpsm	80.23	80.23
ADJ 1	Section 10908 – Due to clerical error, the contractor was underpaid \$100.00 for Estimate 2.		
	Lpsm	100.00	100.00

---

**Food for thought. FP03 contract numbers are 9 digits long. The database will only accept 10 digits. If the letter Z proceeds the new CM item #, then all new CM item numbers will show after the original contract items in numerical order. (Add CM references to existing item numbers)**

Z617020015	CM 005 - Item 617020015 – Terminal section type MELT Each
CM06, 2	Item 617020035 – Terminal section type G4-BAT Each

**SUGGESTED FORMAT FOR NEW CONTRACT ITEMS**

**Exhibit 10.5B**

Description	Allowance(Cumulative)
<b>Clearing and Grubbing</b>	
Felled and slashed	35
Bucked and piled (slash, brush and logs)	60
Grubbed	75
Burned or chipped and removed	98
Substantially complete including cleanup	100
<b>Excavation and Embankment</b>	
Pioneered	5
Drilled	20
Blasted	35
Roughed out to grade	85
Roadbed finished to grade	90
Slopes seeded	98
Substantially complete including cleanup	100
<b>Structural Excavation</b>	
Excavation complete	85
Backfill complete	98
Substantially complete including cleanup	100
<b>Aggregate Courses</b>	
Crushed and stockpiled onsite	50
Placed on roadway	80
Spread, compacted and tested	98
Substantially complete including cleanup	100
<b>Asphalt Pavements</b>	
Aggregates crushed and stockpiled onsite	50
Placed, compacted and tested	98
Substantially complete including cleanup	100
<b>PCC Pavement</b>	
Forms set	35
Concrete in place	90
Forms removed and testing complete	98
Substantially complete including cleanup	100
<b>Concrete Structures</b>	
Falsework erected	10
Forming complete	20
Concrete in place	80
Forms removed	90
Concrete tested and finished	98
Substantially complete including cleanup	100
<b>Steel Structures</b>	
Falsework erected	10
Steel in place	80
Bolting and welding complete	90
Painting complete	98
Substantially complete including cleanup	100
Notes:	
1. These percentages are typical. They may be adjusted based on a detailed analysis of circumstances on a given project.	
2. Whenever partially complete work entails continuing maintenance, an appropriate percentage should be retained to cover those costs.	

**GUIDELINES FOR PERCENTAGE PAYMENTS FOR PARTIALLY COMPLETE WORK**

**Exhibit 10.5C**

#### 10.5.4 Filing

Once the pay note information is entered into the estimate program, stamped, and copied for the contractor, the original is then filed in the appropriate section of the Items book(s).

#### 10.5.5 Preparing Receiving Report

Under the Prompt Payment Act the Government's estimate (printout from the *Progress Estimate Program*) is defined as the Receiving Report. Its purpose is to validate the accuracy of the Contractor's invoice. See **Exhibit 10.5D** for an **Example Receiving Report**. Together, the Government's receiving Report and the Contractor's invoice initiate payment.

In order for payment to be made, the Contractor's invoiced quantity and unit price for any item must not exceed the receiving report quantity and unit price for that item. Therefore, the Contractor must have access to measurement, quantity, and pay factor information that only the CM may have; at the time the receiving report is prepared. For example: allowances for partially completed work or computation of quantities based on survey notes which only the Government has access to.

All quantities shown on the receiving report must be documented in the bid item summaries and cross-referenced to an appropriate field book or file.

All contract items and probable quantities should be shown on the receiving report so that the status of the probable contract amount can be monitored easily. Probable quantities are normally not provided to the Contractor unless they are requested, or unless the Contractor needs to know (i.e., to order materials).

U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION  
Western Federal Lands Highway Division

MT RRP CHRU 101 (1)  
Sample Project

Contract No. DTFH-99-C-00004      Award Date: 01/07/1999

Progress Estimate No. 001      From 02/01/1999 to 02/28/1999

To: We Move Dirt Construction  
1111 US Highway 99  
Horizon, Wa 95555

Payment this Estimate: \$12,847.25

*I certify that the quantities, including overruns, shown herein are supported by measurements or are estimated in accordance with prescribed methods, that applicable tests have been performed and that contractor's payrolls and invoices have been submitted as prescribed.*

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Project Engineer

\_\_\_\_\_ Date: \_\_\_\_\_  
Construction Operations Engineer

Contractor's Billing Received: 03/02/1999  
Contractor's Billing Approved: 03/03/1999

**EXAMPLE RECEIVING REPORT**

**Exhibit 10.5D**

MT RRP CHRU 101(1)  
Sample Project

Contract No. DTFH70-99-C-00004 Estimate No. 1

Item No.	Quantities	Unit Price	Unit	Amount	Current	Previous	To Date	Amount	Comp.	Quantity	Probables	% Over/ Under
Descr.	Contracted Quantities					Estimated Quantities					Amount	
15101	Mobilization											
	9,000.00	\$9,000.00	LFSM	\$9,000.00						9,000.00	9,000.00	100.0%
15401	Contractor testing											
	5,000.00	\$5,000.00	LFSM	\$5,000.00						5,000.00	5,000.00	100.0%
15801	Watering for dust control											
	1,100	\$5.00	m3	\$5,500.00						1,100	5,500.00	100.0%
30107	Aggregate surface course grading R											
	10,800	\$12.82	t	\$138,456.00						10,800	138,456.00	100.0%
30301	Road reconditioning											
	5.00	\$1,500.00	km	\$7,500.00	1.00		1.00	1,500.00	20.0%	5.00	7,500.00	100.0%
62201A	Compaction equipment											
	8	\$80.00	hour	\$640.00						8	640.00	100.0%
62201B	Grader, motor, 110 kW minimum											
	8	\$80.00	hour	\$640.00						8	640.00	100.0%
62201C	Loader/backhoe, wheel type tractor, 35 kW minimum											
	8	\$50.00	hour	\$400.00						8	400.00	100.0%
62201D	Truck, highway, dump body, rear, 7.6 m3 minimum capacity											
	8	\$55.00	hour	\$440.00	5		5	275.00	62.5%	8	440.00	100.0%
63501	Temporary traffic control											
	5,000.00	\$5,000.00	LFSM	\$5,000.00						5,000.00	5,000.00	100.0%
63501MOH	(Materials on hand) Temporary traffic control *comment - this keeps the MOH with the items or use MOH1, MOH2 etc, keeps all MOHs together*											
			lpsm		1,500.00		1,500.00	1,500.00				

EXAMPLE RECEIVING REPORT

Exhibit 10.5D (continued)

MT RRP CHRU 101(1)  
Sample Project

Contract No. DTFH70-99-C-00004 Estimate No. 1

Item No.	Contracted Quantities	Unit	Amount	Current	Previous	To Date	Amount	Comp.	Quantity	Probables	% Over/ Under	
ADJ 1	Section 10908 - Due to clerical error, the contractor was underpaid \$100.00 for Estimate 2											
	lpsm		100.00	100.00		100.00	100.00	100.0%	100.00		100.00	
CM01,2	Item 60502 - Standard underdrain system *comment - this keeps items together by cm, following the original icontract tems*											
	0.0	\$120.00	m	54.0		54.0	6,480.00	50.9%	106.0		12,720.00	
CM02,1	Item 15402A - Government test trailer rental *comment - this keeps items together by cm, following the original icontract tems*											
	lpsm		4,720.00	4,720.00		4,720.00	4,720.00	100.0%	4,720.00		4,720.00	
INT-1	FAR 52.232-27 - Prompt Payment interest Estimate 1, 4 days @ 3.25% = \$80.23 *comment - Final Review Engineer will input*											
	lpsm		80.23	80.23		80.23	80.23	100.0%	80.23		80.23	
LD-1	Section 10804 - Liquidated Damages											
	0	-\$1,000.00	day	23		23	-23,000.00	100.0%	23		-23,000.00	
MOF-1	Item 15703 - Silt fence (materials on hand) *this method keeps all of the MOFs together*											
	0	\$2.74	m	500		500	1,370.00					
QLEPAY-1	Item 30101 Materials Quality Incentive, Lot 1 = 30,000t 80.99 pay factor: ( 30,000*-0.01*\$12.00/t) = -\$3,600.00 *do not convert to price per ton*											
	lpsm		-3,600.00	-3,600.00		-3,600.00	-3,600.00	100.0%	-3,600.00		-3,600.00	
QLEPAY-2	Item 40101 Materials Quality Incentive, Lot 1 = 10,000t @1.05 pay factor: (10,000*0.05*\$25.00/t) * do not convert payment to price per ton*											
	lpsm								11,770.90		11,770.90	
QLEPAY-3	Item 40101B Type II, Pavement Smoothness Incentive \$7,800.00 *keep all QLEPAYs together*											
	lpsm		7,800.00	7,800.00		7,800.00	7,800.00	100.0%	7,800.00		7,800.00	
REF-1	Item 10908 (8) (a) Retent resulting from failure to maintain acceptable progress 10% of estimate 1 = \$14,122.02											
	lpsm		14,122.02	14,122.02		14,122.02	14,122.02	100.0%	14,122.02		14,122.02	
Z617020035	CM 005 - Item 617020035 - Terminal section type MELT * comment - use for FP03 cms. All cm items are together organized by item #*											
	0.00	\$1,500.00	each	1.00		1.00	1,500.00	100.0%	1.00		1,500.00	

EXAMPLE RECEIVING REPORT

Exhibit 10.5D (continued)

Page 4  
03/22/2005  
07:02:30

C O N S T R U C T I O N   C O S T   S U M M A R Y

MT RRP CHRU 101(1)  
Sample Project

Period 02/01/1900 through 02/28/1900      Contract No. DTEH70-99-C-00004      Estimate No. 1

Contract time began:	Total payments approved to date:	\$12,847.25
Probable Completion Date:	Total Payments Previously Paid:	\$0.00
Fixed Completion Date:	Amount to be paid this Estimate:	\$12,847.25
Revised Completion Date:		
Date Contract Complete:		

Percent of Work Complete: 6.5 %

**EXAMPLE RECEIVING REPORT**

**Exhibit 10.5D (continued)**

Page 5  
03/22/2005  
07:02:30

P R - 5 8 R E P O R T

MT RRP CHRU 101 (1)  
Sample Project

Period 02/01/1900 through 02/28/1900 Contract No. DTFH70-99-C-00004 Estimate No. 1

State: MT  
County: PHILLIPS  
Coop Agency:  
Length: 5.000 km  
Type:

	----- Amounts -----		
	Bid	To date	Probable
Construction:	\$172,576.00	\$12,847.25	\$198,789.15
Construction Engineering:	\$40,000.00	\$0.00	\$40,000.00
Total Liabilities:		\$12,847.25	\$238,789.15
Funds authorized:			\$233,281.00
Deficit:			-\$5,508.15

EXAMPLE RECEIVING REPORT

Exhibit 10.5D (continued)

Page 5  
03/22/2005  
07:02:30

P R - 5 8 R E P O R T

MT RRP CHRU 101 (1)  
Sample Project

Period 02/01/1900 through 02/28/1900 Contract No. DTFH70-99-C-00004 Estimate No. 1

State: MT  
County: PHILLIPS  
Coop Agency:  
Length: 5.000 km  
Type:

	----- Amounts -----		
	Bid	To date	Probable
Construction:	\$172,576.00	\$12,847.25	\$198,789.15
Construction Engineering:	\$40,000.00	\$0.00	\$40,000.00
Total Liabilities:		\$12,847.25	\$238,789.15
Funds authorized:			\$233,281.00
Deficit:			-\$5,508.15

**EXAMPLE RECEIVING REPORT**

**Exhibit 10.5D (continued)**

### 10.5.6 Compare and Reconcile the Contractor's Invoice with the Receiving Report

Subsection **109.08 Progress Payments** of the SCR states you will meet with the contractor, by appointment at your office, within 4 days of the closing date to go over your receiving report.

Make sure you have checked and entered all received pay notes into the estimate program and they appear in the receiving report prior to meeting with the Contractor.

To help expedite the payment process it is recommended that the contractor bring the original signed certifying cover letter to this meeting. Set it aside until you receive and verify all quantities to be correct.

Go through the receiving report item by item with the Contractor to verify quantities that have been approved for payment. If there are differences in the quantities between the receiving report and the Contractor's information this will have to be reconciled. As mentioned previously in this section, the Government cannot pay for more than the Contractor is requesting on any one item or in total. If you do not have particular pay notes, have the contractor locate and submit them, as payment cannot be made without them.

While the CM should be reasonable in resolving disputes or differences with the Contractor on what the receiving report should include, the CM has the final say (within the terms of the Contract), and agreement on the content of the receiving report is not required.

## 10.5.7 Contractor's Invoice

### 10.5.7.1 General

The invoice can be faxed to you and does not have to be original. The fax should be clear and legible, and contain all requirements as mentioned below. You already have the original signed certifying cover letter that you set aside in **10.5.6** above.

You should now go through your receiving report and compare it to the Contractor's invoice making sure it matches all items and total, except as allowed in 10.5.8 below.

### 10.5.7.2 Invoice Requirements

The Contractor's invoice package must contain the items listed in Section 109 of the FP or as modified by the Special Contract Requirements. See **Exhibit 10.5E** for an Example Contractor's Invoice, and Certification with Subcontractor Payment Information. The Contract specifies where the invoice must be sent or delivered in order for the 14-day *clock* to start. During the construction season, this is typically the Project Field Office. During the off-season, invoices are normally sent to the Division Office. It is important to stamp the invoice when received with the "Received By" and "Date" stamp (make sure the invoice is correct before stamping the certifying cover letter, you set aside earlier in 10.5.6). It is also important to know the maximum time it may be retained during processing by the billing office, and still be within the 14-day limit for payment. Finance is unable to process pay estimates the last few days of the month, and much of September.

There are generally three major components of a Contractor invoice:

- Tabulation of quantities and unit prices. No quantity for an individual item should exceed the quantity for that item on the Government's receiving report. However, quantities for certain items may be less - for example if a subcontract provided that certain work not be paid for until complete (see below). Payment would then be based on the lower (contractor's) quantity.
- Accounting of subcontractors, with the total amounts, amounts previously paid, and amounts to be paid from this estimate.
- Signed certification conforming to FAR Clause 52.232-5(c)

FAR Clause 52.232-27 requires *interest penalties* and similar adjustments to also be included in the invoice. e.g., if the Contractor previously invoiced the Government for work that it then withheld from a subcontractor, it is required to show the interest penalty (credit to the Government) on the invoice. We expect this sort of adjustment to be very infrequent. However, if the occasion arises, and the Contractor needs the correct current interest rate, the information should be obtained from the PM or the COE.

To: U.S. Department of Transportation  
Federal Highway Administration  
Western Federal Lands Highway Division

Prepared By: Ace Contracting

For Payment To:

RE: Contract No.: DTFH70-XX-C-00XX  
Award Date: 9/12/1997

Project Name: Happy Trails Creek Road  
Project No.: OR FS 108-2(11)

Progress Estimate No. 003

For the period: 7/01/1998 To: 7/31/1998

Pursuant to FAR Clauses 52.232-5, and 52.232-27, and Special Contract Requirements Subsection 109.08, the attached invoice is submitted for the work accomplished to date. Payment is hereby requested.

I hereby certify, to the best of my knowledge and belief, that--

- (1) The amount requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
- (2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of Chapter 39 of Title 31, United States Code;
- (3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.
- (4) This certification is not to be construed as final acceptance of a subcontractor's performance.

Name: Robert G. Jones Title: Project Manager  
 Signature: Robert G. Jones Date: 8/5/1998  
 Date Received: 8/6/98 Date Approved: 8/9/98  
 Signature: James Smith, PROJECT ENGINEER, WFLHD

WFLHD12.WP  
Rev. 8/98

CONTRACTOR'S INVOICE (CERTIFICATION PAGE)

Exhibit 10.5E

PROGRESS ESTIMATE NO. 003  
 OR FS 108-2(11)  
 HAPPY TRAILS CREEK ROAD

FOR WORK PERFORMED JULY 1, 1998 THROUGH JULY 31, 1998  
 CONTRACT NO. DTFH70-XX-C-000XX  
 ACE CONTRACTING, INC.

ITEM NO.	NAME	CONTRACT QUANTITY	UNIT PRICE	UNIT	AMOUNT	CURRENT QTY.	PREV. QTY.	QTY. TO DATE	CURRENT AMOUNT	AMOUNT TO DATE
15101	Mobilization	1	\$200,000.00	LS	\$200,000.00	0.00	1.00	1.00	\$0.00	\$200,000.00
15201	Constr. Survey and Staking	1	\$51,500.00	LS	\$51,500.00	0.05	0.80	0.85 *	\$2,575.00	\$43,775.00
15401	Contractor Testing	1	\$35,000.00	LS	\$35,000.00	0.10	0.80	0.90	\$3,500.00	\$31,500.00
15501	Construction Schedule	1	\$2,500.00	LS	\$2,500.00	0.50	0.25	0.75	\$1,250.00	\$1,875.00
15703	Silt Fence	4,100	\$9.30	m	\$38,130.00	500.00	2,000.00	2,500.00	\$4,650.00	\$23,250.00
15708	Straw Bales	340	\$7.50	EA	\$2,550.00	24.00	105.00	129.00	\$180.00	\$967.50
15709	Check Dams	70	\$150.00	EA	\$10,500.00	15.00	10.00	25.00	\$2,250.00	\$3,750.00
20101	Clearing and Grubbing	13	\$5,600.00	ha	\$72,800.00	13.00	0.00	13.00	\$72,800.00	\$72,800.00
20401	Roadway Excavation	108,000	\$3.82	m3	\$412,560.00	29,000.00	46,000.00	75,000.00	\$110,780.00	\$286,500.00
25101	Placed Riprap	350	\$14.50	m3	\$5,075.00	66.00	205.00	271.00	\$957.00	\$3,929.50
30101	Aggregate Base, Grading D Incentive Bonus	33,000	\$9.76	t	\$322,080.00	21,000.00	0.00	21,000.00	\$204,960.00	\$204,960.00
40101	Hot Asph. Concr. Pavement	6,300	\$0.10	t	\$148,302.00	21,000.00	0.00	21,000.00	\$2,100.00	\$2,100.00
60201	1200 mm Pipe Culvert	50	\$23.54	t	\$1,177.00	0.00	0.00	0.00	\$0.00	\$0.00
63509	Flagger	700	\$590.00	m	\$29,500.00	15.00	12.00	27.00	\$8,850.00	\$15,930.00
			\$39.00	HR	\$27,300.00	24.00	0.00	24.00	\$936.00	\$936.00
Contract Modifications										
25102	CM-0001 Keyed Riprap	50	\$45.00	m3	\$2,250.00	30.00	15.00	45.00	\$1,350.00	\$2,025.00
60901	CM-0002 Stone Curb	500	\$150.00	m	\$75,000.00	38.00	186.00	224.00	\$5,700.00	\$33,600.00
Temporary Items										
30101	Materials on Hand Advance	33,000	\$4.20	t	\$138,600.00	(21,000.00)	33,000.00	12,000.00	(\$88,200.00)	\$50,400.00
<b>TOTALS</b>										
									\$334,638.00	\$978,298.00

\* Note Quantity reflects 10% (\$5,150) being withheld from subcontractor as a condition of subcontract.  
 \*\* Note Incentive bonus reflects 1.02 payfactor, in accordance with Subsection 106.05

**CONTRACTOR'S INVOICE**

**Exhibit 10.5E**

PROGRESS ESTIMATE NO. 003  
 OR FS 108-2(11)  
 HAPPY TRAILS CREEK ROAD

ACE CONTRACTING, INC.  
 CONTRACT NO. DTFH70-XX-C-000XX

THE FOLLOWING IS A LIST OF SUBCONTRACTORS TO WHOM PAYMENTS HAVE BEEN MADE AND A LISTING OF TOTAL AMOUNTS EXPECTED TO BE PAID THESE SUBCONTRACTORS RELATING TO WORK PERFORMED UNDER THIS CONTRACT.

SUBCONTRACTOR	TOTAL AMOUNT SUBCONTRACTED	DUE THIS ESTIMATE	PAID TO DATE
Acme Striping, Inc.	\$21,000.00	\$0.00	\$0.00
Our-Way Traffic Control Co.	\$25,000.00	\$700.00	\$700.00
Zippy Surveying, Inc.	\$51,500.00	\$2,575.00	\$43,775.00
Movers & Shakers Logging Co.	\$65,000.00	\$65,000.00	\$65,000.00
Stone & Sons Masonry Co.	\$65,750.00	\$4,997.00	\$29,456.00
Smith Testing, Inc.	\$30,000.00	\$3,000.00	\$27,000.00
TOTALS	\$258,250.00	\$76,272.00	\$165,931.00

\* Denotes DBE Subcontractor

SUBMITTED: *Robert G. Jones*

BY: Robert G. Jones, Project Manager

DATE: Aug. 5, 1998

**CONTRACTOR'S INVOICE (SUBCONTRACTOR PAYMENT INFORMATION)**

**Exhibit 10.5E**

## 10.5.8 Invoice Approval

### 10.5.8.1 General

If the invoice is proper as defined above in **9-3.4f** and in **Section 109. – MEASUREMENT AND PAYMENT** of the contract, and all item amounts and total amount are correct, send the Contractor's invoice to the Contract Administration Specialist in the Division office. Fax or scan and e-mail a copy of the Contractor's invoice to the PM and file a copy in the appropriate book of your project records. You will also need to e-mail your receiving report to the PM, along with a recommendation for approval.

The PM will print the receiving report, sign it, and forward it onto the Final Review Engineer for processing. The PM will also send a signed copy of the approved estimate back to you for the project files.

Once the estimate is paid, the Contract Administration Specialist will send two copies of the paid estimate back to you. One copy is for your project records "Engineer's Copy" and one copy is for the Contractor's project superintendent "Contractor Foreman's Copy".

### 10.5.8.2 Adjustment to Contractor's Invoice

Proposed adjustments to the Contractor's invoice may be shown on the receiving report; however, if their approval is not delegated to the Project Manager, they are considered tentative until approval of the estimate payment in the Division office.

Generally any change that the Government makes to the Contractor's invoice invalidates the certification accompanying the invoice and should therefore be avoided. The principal exception to this guidance is, if an error in the Contractor's invoice is based on erroneous information that the Government provided or failed to provide at the onsite meeting before the invoice was submitted, we should try to reconcile the error administratively rather than declare the invoice to be defective. Such reconciliation's or corrections can be handled by phone, with a follow-up confirmation in writing to the Contractor.

Certain additions or adjustments discussed in Section 109 of the Standard Specifications may be made to the Contractor's invoice. These adjustments generally relate to retent, liquidated damages, or other liabilities to the Government, which are handled outside the normal contract items. Some of these items, such as liquidated damages may be in dispute. It is awkward to ask a Contractor to certify to the correctness of liquidated damages at the same time they are being contested, so they may not appear on the Contractor's invoice, which is fine. It is therefore acceptable for the Government to make such adjustments administratively after the invoice is received. These adjustments do not make the certification invalid.

Any adjustments to the Contractor's invoice which are an adverse action (i.e., retent, liquidated damages, or other liabilities to the Government) should be documented by written notice to the Contractor explaining the reason for the adjustment, and if temporary, the conditions which would cause the adjustment to be rescinded.

## 10.5.9 Payment

The Contractor will be paid on the 14<sup>th</sup> day after the contractor's approved invoice is received by the billing office (Project Office). If the Contractor has any questions regarding the payment date, or hasn't received payment they should, contact the Contract Administration Specialist.

## CHAPTER 11

# PROJECT CLOSEOUT

### 11.1 OVERVIEW

This chapter contains guidelines for project close out. This is usually performed in the two to three weeks after the project final acceptance review.

## 11.2 FILE AND BINDER CHECKS

### 11.2.1 General

Check all files and binders for completeness of documentation and correctness of documentation. The following guidelines are for some of the different files and/or binders:

### 11.2.2 Pay Items

You will need to make sure all required support documentation (material certifications, measurement drawings, and/or weight tickets for water trucks, cut sheets, and/or shop drawings for structural elements, etc.) for the item of work are included at the back of the pay item section. If any of this information is missing you will need to get it from the contractor before finaling the project books.

You will need to go through all pay notes and recheck them, to make sure they are complete (Project, date, item number, signatures, etc.) and correct (computations, quantity, etc.). You should physically put a “√” check mark by all correct computations and quantities.

- If correct and complete – Stamp with “*Checked By*” and “*Date*” stamp and sign.
- If incorrect and/or incomplete – Make required corrections to the pay note.
- If the changes made were only for having incomplete information and not computations or quantity, then stamp with “*Checked By*” and “*Date*” stamp and sign.
- If the changes made were in computations or the quantity, put a brief note of the change on the pay note and initial. This note should then be stamped with “*Checked By*” and “*Date*” stamp, and all original work as well as the changes made should be checked by a separate individual if available and signed if correct.
- In either instance above make a copy for the contractor of the corrected paynote and send via mail.

Corrections will also need to be made to the Progress Estimate program. You will have to enter a new quantity into the Daily Production Summary regardless of being positive or negative. Information must be entered into the Notes area of the Daily Production Summary form, be very specific to what the quantity is for and why you made the change. You cannot correct the original quantity entered into the Progress Estimate program if it has been posted to the estimate and paid.

Once an entire item has been checked and found to be correct, you will need to print out the Item Production Sheet Report from the Progress Estimate program, and cross check “√” it to the individual pay notes if correct. Stamp with “*Checked By*” and “*Date*” stamp and sign. If not correct you will need to reconcile the problem and redo the entire process if necessary to correct the problem. Place the checked summary in the front of the particular pay item section.

Once all the items have been checked, cross-check their totals with what has been or will be paid to the Contractor.

### 11.2.3 Progress Estimate

- Zero out progress estimate probables to the extent possible.
- In the “location” column of the Progress Estimate program, show where paynote information resides. E.g. – Book 1-20401; or Book 2-40101 & Book 4-QL-Pay. One entry is sufficient if they are all located in the same location. (When the Progress Estimate Summary Book is printed, these locations are included as part of the printout. Contrary to past procedures, you do not have

to number all of the pages for each binder unless it is how you conduct your business. Some folks number pay notes for each pay item to facilitate tracking quantities.

- Print out the Progress Estimate Summary book to use for checking the quantities for contract items. Once checked, stamp and sign each item in the Summary Book. Include any pertinent notes. The project engineer is required do a 100% record check. Ideally, two people will perform and sign that they have checked the records. For QL-Pay items, lots and pay factors should be correlated with paynotes. Subsequent checkers should be able to easily locate and evaluate your documentation. Vancouver will do spot checks.
- Include a progressive running total summary with each bid item. This summary should show all paynotes and for which estimate they were paid. (See attached "Running Total v2" sample). If you use the "Daily Production Form" from the Progress Estimate Program to post estimates, then you will already have a running total of all pay items. (You may need to hand write in which were paid for a particular estimate). This report can be printed using the "Item Production Sheets" Report.

#### 11.2.4 Correspondence

Go through the correspondence books and make sure the index is complete, neat, and legible. Make any necessary updates. There should only be copies of correspondence in these books; all originals were to be sent to the recipient or central files through the COE.

#### 11.2.5 Other Books and Files

Go through all other books and files to make sure they are complete.

- **Survey Information** – Do you have all the surveyors' notes, which were to be turned in at least weekly?
- **Payrolls** – Are all payrolls submitted, correct, and checked? Stamped with "*Checked By*" and "*Date*" stamp and signed?
- **Testing** – Have all required test results been submitted and checked? Stamped with "*Checked By*" and "*Date*" stamp and signed? Has QL Pay been completed and results e-mailed to the Materials Quality Assurance Engineer?
- **Plans and Reports** – Have all required plans and reports been submitted, checked (Stamped with "*Checked By*" and "*Date*" stamp and signed?), and/or approved (Stamped with "*Approved*" stamp?).
- **Other Miscellaneous Books and Files** – Complete, Correct, Stamped, Checked "*√*", and/or Approved?

### **11.3 AS-BUILT DRAWINGS**

Make sure the As-Built drawings have been submitted and are complete per the requirements addressed in Chapter 5 of this manual.

#### 11.4 CLOSEOUT CHECKLIST

Complete the project closeout checklist (**Exhibit 11.4A**) found on the Construction Management Resources web site.

**Include a completed checklist with your Final Records submittal**

Project Name and number: \_\_\_\_\_

Project Engineer: \_\_\_\_\_

COE: \_\_\_\_\_

Contractor: \_\_\_\_\_

Potential Claim Status (Circle one)    No outstanding issues    Outstanding issues    Claim  
pending

Describe any outstanding issues

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Personnel (FHWA):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Substantial Completion Date: \_\_\_\_\_

Final Inspection Date: \_\_\_\_\_

Final Completion Date: \_\_\_\_\_

**Database report stuff**

Lane km of paved road \_\_\_\_\_

Lane km of gravel road \_\_\_\_\_

Number of bridges (new) \_\_\_\_\_

Number of bridges (rehab) \_\_\_\_\_

Improvements (circle )    3R    4R    New    Gravel

**PROJECT CLOSEOUT CHECKLIST**

**Exhibit 11.4A**

## 11.5 PREPARING PROJECT RECORDS FOR SHIPMENT

### 11.5.1 General

Once all books and files have been checked, box all records and prepare needed paperwork per the closeout checklist. Deliver or ship these files to the PM or the Contract Administration Specialist as directed by the PM for final review.

Complete a transmittal letter, or a form similar to that shown in **Exhibit 11.5A**, when transferring records to the Contract Administration Specialist or PM. This will ensure a proper accounting of the records during the final review and transmittal to central files.

### 11.5.2 Mailing instructions

- Use uniform size boxes for project records
- Label the front and back of each box with the project number/project name/contract number and Box X of XX (see attached label master)
- Put books in order sequentially in boxes. Generally put the spines down, so the contents don't spill out when subsequently being removed.
- Don't overload binders! Add extra binders as needed.
- If a large binder only has a couple of sheets of paper in it, consider combining the contents with another binder or using a smaller binder.
- Insure that tab labels are secure
- Prepare an SF10-110 and place copy in each box. (use attached Word or Excel template) (The "Central files #" section will be filled out in Central files after the books have been checked and delivered to them.) **Put one book/folder per line, and title the Book/folder.**
- SF10-110 - Email to Contract Administration Specialist (Richard Buchholz)
- Project CD – provide a CD containing project computer files. At a minimum, include all project photos and QL-Pay data files. Also include other easily accessible files such as correspondence, item summaries, etc. If significant negotiations or a claim is anticipated provide as many electronic files as possible. These computer files will help Claims folks locate pertinent information.
- Project Quality Award CD – Provide a second CD with approximately 30 photos that provide a snapshot of your project (some before, during, & final, as well as the project staff). These photos will likely be used during the project awards presentation. Also include a list of the project personnel along with their names, as you would like them to be shown with the project introduction slide.
- Send in As-Constructed plans on field size plans (for other requirements see Construction Manual section 2-14). Roll up the As-built plans and label on the outside.
- Fold bridge drawings, shop drawings, and large Construction Schedules and place them in labeled expandable folders. If they are already in binders, leave them there.
- Do send in the PE hold file with your project records. Though redundant, also send in things previously sent to central files such as correspondence, QL-Pay results, and contract modifications.

TRANSMITTAL LETTER

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
Western Federal Lands Highway Division

Date: \_\_\_\_\_  
File: Construction  
State: \_\_\_\_\_  
Route: \_\_\_\_\_  
Project: \_\_\_\_\_

To: Richard Buchholz (Final Review)

From: \_\_\_\_\_

We are transmitting to you:

_____	Book	_____

Please acknowledge receipt by signing, dating and returning one copy of this letter enclosed with the notes.

Received by \_\_\_\_\_

Date \_\_\_\_\_

Records delivered by: (Project Manager)

EXAMPLE TRANSMITTAL FORM

Exhibit 11.5A

**11.6 GOVERNMENT FURNISHED MATERIALS**

Return all Government supplied items (manuals, stamps, and equipment etc.) to the PM.