Chapter 1 Administration

1-00 Agency Organization and Relations With Other Organizations

GEN 1-00.1 Purpose and Scope of Manual

This manual is published by the State Construction Office as a resource for construction engineering personnel. It provides instruction for administering Washington State transportation projects, recognizes established standards and describes accepted engineering practices. The instruction provided by this manual identifies desired results, establishes standardized requirements, and provides statewide uniformity in the administration and construction of transportation related contracts.

Chapters 1 – 8 of the *Construction Manual* are organized with two types of content. General information that isn't tied to any specific section of the WSDOT *Standard Specifications* is prefaced by "GEN" in the section number. Information that is intended to complement and expand on sections of the WSDOT *Standard Specifications* is prefaced by a "SS" in the section number. Not all sections of the *Standard Specifications* are addressed in the *Construction Manual*.

Construction engineering staff should be familiar with the guidance and instructions included in this manual. The guidance presented by this manual complements the requirements of the *Standard Specifications for Road, Bridge, and Municipal Construction* M 41-10 and the contract provisions and promotes uniformity of results among all Regions of the Washington State Department of Transportation (WSDOT).

Suggestions for corrections, additions, or improvements to this manual and to the *Standard Specifications* or *General Special Provisions* are welcomed and should be submitted to the State Construction Office in the form of a Word document in "track changes" format.

GEN 1-00.2 Definition of Terms

Definitions of words or terms should be the same as set forth under "Definitions and Terms" in *Standard Specifications* Section 1-01. If a conflict should occur between the guidance or instructions offered by this manual and the specifications or provisions identified in the contract, the latter should always prevail.

GEN 1-00.3 WSDOT State Construction Office

The State Construction Office strives for consistent, cost-effective, quality construction through direct support of WSDOT's Regional construction program. The Construction Office coordinates the development of policies and standards, provides training, guidance, oversight, technical expertise and advocacy, introduces innovation, and coordinates and shares information on construction issues.

GEN 1-00.3(1) State Construction Engineer

The Director of the Construction Division is the State Construction Engineer and reports to the Chief Engineer, Assistant Secretary Engineering and Regional Operations. The State Construction Engineer is responsible for all WSDOT contract construction projects, except those contracts executed by the Director of Washington State Ferries Division. The State Construction Engineer is responsible for all matters pertaining to contract administration and represents the Chief Engineer in managing the performance of these contracts. In addition, the State Construction Engineer acts for the Chief Engineer in approving increases or decreases of work, changes in the work or in materials incorporated into the work, authority to accomplish work by force account, extensions of time, and the assessment of any liquidated damages. The State Construction Engineer is responsible for providing guidance and direction to the Regions and State Construction Office personnel who are investigating construction claims and is responsible for the approval of all claim settlements. The State Construction Engineer establishes WSDOT policy relative to inspection and documentation and ensures uniform interpretation and enforcement of the *Standard Specifications* and contract provisions throughout the State. The State Construction Engineer is assisted by the Deputy State Construction Engineer, the Construction Engineer, Roadway, the Construction Engineer, Bridge, and the Assistant Construction Engineers.

GEN 1-00.3(1)A Deputy State Construction Engineer

The Deputy State Construction Engineer reports to the State Construction Engineer. The Deputy State Construction Engineer is delegated the authority to execute documents concerning the following:

- Advertising, award, and execution of contracts;
- Federal Aid project documentation;
- Contract change orders of a value not to exceed $10 million and/or un-limited time;
- Extensions of time;
- Reduction in pre-qualification;
- Certification of materials to FHWA;
- Claims on contracts;
- Final Acceptance

GEN 1-00.3(1)B Construction Engineer, Roadway

The Construction Engineer, Roadway represents the State Construction Engineer by formulating policy in the following areas:

- *Standard Specifications*
  - Division 1 General Requirements
  - Division 3 Aggregate Production and Acceptance
  - Division 4 Bases
  - Division 5 Surface Treatments and Pavements
  - Division 8 Miscellaneous Construction

- *Construction Manual*
  - Chapter 1 Administration
  - Chapter 3 Aggregate Production and Acceptance
  - Chapter 4 Bases
  - Chapter 5 Surface Treatments and Pavements
  - Chapter 8 Miscellaneous Construction

Additionally, the Construction Engineer, Roadway is the lead within the State Construction Office for Environmental Coordination.

The Construction Engineer, Roadway is delegated authority to execute contract documents concerning:

- Force account rates;
- Interpretation of contract provisions;
- Specification and contract requirements;
- Policy related to inspection and documentation;
- Contract change orders of a value not to exceed one million dollars and/or changes in contract time not to exceed 60 days

GEN 1-00.3(1)C Construction Engineer, Bridge

The Construction Engineer, Bridge reports to the Deputy State Construction Engineer and represents the State Construction Engineer by formulating policy in the following areas:

- *Standard Specifications*
  - Division 2 Earthwork
  - Division 6 Structures
  - Division 7 Drainage Structures, Storm Sewers, Sanitary Sewers. Water Mains and Culverts
- *Construction Manual*
  - Chapter 2 Earthwork
  - Chapter 6 Structures
  - Chapter 7 Drainage Structures, Storm Sewers, Sanitary Sewers, Water Mains, and Culverts
- General Contractor/Construction Manager (GC/CM)

The Construction Engineer, Bridge is delegated authority to execute contract documents concerning:

- Force account rates;
- Interpretation of contract provisions;
- Specification and contract requirements;
- Policy related to inspection and documentation;
- Contract change orders of a value not to exceed one million dollars and/or changes in contract time not to exceed 60 days

GEN 1-00.3(1)D Assistant State Construction Engineers

Assistant State Construction Engineers report to the Deputy State Construction Engineer and are assigned as the State Construction Office point of contact for specific Project Engineer Offices or programs. Assistant State Construction Engineers also assist the Construction Engineers in the development of policy and are assigned responsibility for specific sections of the *Standard Specifications* and the *Construction Manual*.

Assistant State Construction Engineers are delegated the authority to execute:

- Contract change orders of a value not to exceed one million dollars and/or changes in contract time not to exceed 60 days

GEN 1-00.3(1)D1 Assistant State Construction Engineer, Administration

The Assistant State Construction Engineer, Administration, reports to the Deputy State Construction Engineer and supports the Construction Engineers in setting requirements for contracting, policy, and responding to questions from the regions on all issues pertaining to *Standard Specifications* Division 1 and *Construction Manual* Chapters 1. The Assistant State Construction Engineer, Administration is responsible for such areas as:

- *Construction Manual*
  - Chapter 10 Documentation
  - Chapter 11 Forms

The-responsibilities of the Assistant State Construction Engineer, Administration include, but are not limited to, time extensions, external civil rights contract changes, prevailing wage issues, documentation, and claims resolution. The Construction Engineer, Administration, also represents WSDOT on task forces with contractor organizations, other public agencies, and at the legislature regarding public contracting issues.

The Assistant State Construction Engineer, Administration, is assisted by:

- **Documentation Engineer** – Provides guidance for contract documentation and contract payments, as well as providing support to Region Documentation Engineers. The Documentation Engineer resolves issues of material documentation deficiencies for all federal aid projects, is responsible for prevailing wage issues, and is also responsible for evaluating the contract for Acceptance. The Documentation Engineer assists the Materials Laboratory with Quality Audits as well as audits performed by FHWA and the State Auditor's Office.
- **Construction Administration Specialist** – Is the CCIS System Manager/ Administrator, the Construction Office Liaison to Management Information Systems (MIS), supports the Region and Project Engineer offices by providing guidance in the use of CCIS, and the IBM Cognos reporting tool used to report from the Construction Data Mart. This position also maintains contact with the publishers of the *Equipment Rental Rate Blue Book*, and is the point of contact for requesting equipment rental rates.
- **Construction Analyst** – Helps with analysis and reporting. The Construction Analyst also monitors the Apprentices Utilization program and provides additional support for the Cognos reporting tool.

GEN 1-00.3(2) State Materials Laboratory

The State Materials Engineer reports to the Director of the Construction Division and represents the Director of the Construction Division by directing the materials acceptance and quality assurance program used on WSDOT projects. The State Materials Engineer directs operating methods to be followed in providing soils and materials analysis and testing; furnishes counsel and technical assistance to the Regional Construction Managers in conducting required materials tests and analysis and provides for periodic review of these test methods and procedures to ensure their conformance to established policies, procedures, and methods.

The State Materials Engineer represents the Director of the Construction Division by formulating policy in the following areas:

- *Standard Specification*
  - Division 9 Materials
- *Construction Manual*
  - Chapter 9 Materials
- *Materials Manual*
  - All Sections
- Design Build Request for Proposal
  - Section 2.25 and 2.28

The State Materials Engineer is delegated the authority to execute documents concerning:

- Reports on soil and test results;
- Approving material sources;
- Approving material for the Qualified Products List and New Products List
- Establishing policy related to construction inspection, materials testing and documentation;
- Interpretation and meaning of contract provisions
- Construction Quality Audits

The State Materials Engineer is assisted by a staff of professional engineers, administrative personnel, engineers and technicians.

GEN 1-00.3(2)B State Pavements Engineer

The State Pavements Engineer reports to the Director of the Construction Division by directing the pavement design and pavement management sections. The State Pavement Engineer establishes statewide pavement policy and provides technical support for pavement design and construction. The State Pavement Engineer approves design changes and material substitutions for pavement design related changes.

The State Pavement Engineer is assisted by a staff of professional engineers, administrative personnel engineers and technicians.

GEN 1-00.3(2)C State Geotechnical Engineer

The State Geotechnical Engineer reports to the Director of the Construction Division, and represents the Director of the Construction Division by formulating and implementing geotechnical design and construction policy, primarily through the Geotechnical Design Manual, but also through *Standard Plans*, General Special Provisions, and portions of the *Standard Specifications*. The State Geotechnical Engineer or his representatives, develop, and/or review and approve, the following types of documents:

- Summary of Geotechnical Conditions
- Boring logs and associated geotechnical test data
- Blasting plan submittals
- Geotechnical aspects of shoring and excavation submittals
- Other geotechnical construction submittals
- For design-build projects, portions of the RFP (primarily Section 2.6), geotechnical baseline reports, geotechnical data reports, and related geotechnical reports

The State Geotechnical Engineer, or his representatives, develop and/or approve geotechnical reports that provide the design basis for construction projects statewide. The State Geotechnical Engineer, or his representatives, provide geotechnical expertise and support for evaluation of construction and changed condition claims to region construction managers and HQ construction staff.

GEN 1-00.4 Region Organization

GEN 1-00.4(1) Regional Administrator

The Regional Administrator, or those delegated Regional Administrator authority, represents the Assistant Secretary in a geographic area, organizes and supervises a staff of personnel which perform administrative duties and supervise location, design, construction administration, and maintenance of the transportation system within the region.

The Regional Administrator is delegated the authority to execute:

- Change orders as Specified in *Construction Manual* SS 1-04.4, Delegation of Execution Authority;
- Approval of subcontractors and agents

GEN 1-00.4(2) Regional Construction Manager

In supervision of construction, the Regional Administrator is assisted by a Regional Construction Manager. The Regional Construction Manager, or those delegated Regional Construction Manager authority, assigns Project Engineers with appropriate supporting personnel and provides training and guidance to the Project Engineers. It is the responsibility of the Regional Construction Manager to ensure that sufficient personnel are provided on all projects at all times to ensure adequate inspection, documentation, and quality controls.

GEN 1-00.4(3) Regional Administration of the Inspector Certification Program

Goal – The purpose of the Inspector Certification Program is to provide training and resources for Construction Inspectors and to provide examinations to confirm the Inspectors' knowledge. This will ensure consistent administration of highway construction contracts. The monitoring of construction activities by Certified Inspectors will help to ensure that only quality materials and workmanship are employed on WSDOT construction projects.

Definitions

Director of the Construction Division (Director) – This is the individual delegated authority from the Secretary of Transportation to administer the Department's Construction Program.

Region Inspector Certification Manager (RICM) – This is the individual designated by the Director of the Construction Division to coordinate all construction training and Inspector Certification in that Region.

Region Inspector Certification Official (RICO) – This is the appointing authority for Region Construction Project Engineers or an individual delegated this responsibility by the appointing authority.

Department – Washington State Department of Transportation.

There are two types of Inspectors, Interim Inspectors and those enrolled in the Inspector Certification Program (ICP). There are two different levels of certification, General and Subdivisional.

An Interim Inspector is a person assigned to work under the supervision of a WSDOT Certified Inspector. This person may be a Temporary employee, Seasonal employee or Permanent employee within the Washington State Department of Transportation. Interim Inspectors should be considered for inclusion within the Inspector Certification Program. Interim Inspectors at the Transportation Technician 2 level and below may serve as Interim Inspectors for up to two years before being required to obtain certification as a General Inspector. Interim Inspectors at the Transportation Technician 3 level and above may only serve as Interim Inspectors for six months before being required to obtain certification as a General Inspector.

An Inspector is entered into the ICP through the Learning Management System (LMS). The employee's supervisor will contact the Region Trainer who will assign the employee a General Inspector Learning Plan the Learning Management System (LMS).

The Inspector will become certified as a General Inspector once they have successfully demonstrated proficiency by achieving a passing score of 75 percent on each open book examination for the following subjects:

- Technical Mathematics
- Contract Plans Reading
- Basic Surveying
- Composing an Inspector's Daily Report
- Force Account Documentation and Payment
- Materials Documentation
- Inspector's Role for Change Order Work
- Inspector Safety
- Utilizing Resources
- Environmental

The Inspector may either take the courses first and then take the examination or take the examination without taking the course. If the Inspector does not achieve a passing score on an examination, they may retake that examination after waiting three days. If they fail an examination a second time, the Inspector will be required to successfully complete the course before attempting another examination for that subject matter. Certification as a General Inspector shall not expire. The General Inspector may be required to successfully complete additional courses to maintain their General Inspector certification should the Department change its work methods or standards, pertaining to the subject matter covered in the General Inspector Certification.

The purpose of the General Inspector Certification phase is to broaden the Construction Inspectors' knowledge base through additional instruction and inspection experience.

The next phase of the Inspector Certification Program includes modules for Subdivision Certifications as shown below. Once the Inspector becomes a Certified General Inspector, their Learning Plan will be updated to include training and certification focus in at least one of the following Subdivisions as they become available. A Subdivision certification will include modules of training and exams for a particular item of work. As modules are developed, the availability throughout the Agency will be announced.

Division 2	Earthwork
Division 5	Surface Treatments and Pavements Hot Mix Asphalt Cement Concrete Pavements & Rehabilitation
Division 6	Structures Cast-in-Place Concrete Foundations Concrete Bridges Steel Bridges Structural Earth Walls Tieback Walls Concrete Walls
Division 7	Drainage
Division 8	Guardrail Signing Illumination, Signal System, Electrical & ITS

The Certified General Inspector will be certified in the Subdivisions listed above when they have successfully demonstrated proficiency by achieving a passing score of 80 percent on the examinations. After completion of the stated requirements, the individual will be granted the title of Certified Inspector in that Subdivision. At this level, the Inspector would be expected to operate independently with limited supervision in that Subdivision.

Each year, the Construction Project Engineers should ensure that Inspectors assigned to them are afforded the opportunity to take additional courses to broaden their knowledge and certifications.

All Certification requirements may be completed by either successful completion of the required training courses and then passing the examinations or the examinations may be taken without completing the training courses. If an exam is failed the RICM will notify the Project Engineer. The Inspector must take an on-line or Instructor Led course for the affected subject prior to re-taking the exam. The exam may be retaken with a minimum of a three day waiting period from the date the original test was failed.

If an exam is failed for a second time, the RICM will notify the Project Engineer and RICO. The Project Engineer and RICO will develop an action plan for training and mentoring on the subject. A period of 30 days minimum is required for the action plan to be completed, and then the Project Engineer will notify the RICM the Inspector is ready to retake the examination.

An Inspector's Subdivision certification will be valid for a period of 4 years from the date of certification, after which they will be required to complete a recertification course and/or examination.

Certification Revocation Based on Lack of Proficiency

If it is determined that a Certified Inspector has demonstrated a lack of proficiency, the RICO will work with the inspector's Project Engineer to develop an action plan to correct the lack of proficiency. The action plan will include successfully completing course work identified and achieving a passing score on course examinations. If the inspector fails to successfully complete the action plan, the RICO will revoke the Inspector's Certification and inform the Director of the Construction Division.

The RICM will maintain a database of all certified Inspectors, in what areas they are certified, and any who have had their certification revoked.

The RICO will initiate notification that a certification has been revoked. Notification shall be in writing and shall be mailed ("return receipt requested") to the affected Inspector. A copy of the notification shall be sent to the employee's supervisor.

Prior to having the certification reinstated, the inspector must meet all requirements stated in their revocation letter and pass any applicable proficiency examination(s).

Reporting

Once each year the RICM will report actions taken under the Inspector Certification Program. The report shall include as a minimum the number of certified inspectors, the Inspector's names, what certifications they hold, and any certification revocations, taken under the Inspector Certification Program. The report will be due to the Director by the last working day in January.

GEN 1-00.5 Relationship With Other Agencies

GEN 1-00.5(1) Federal Highway Administration

The Federal Government provides transportation funding to Washington State through the Federal Highway Administration (FHWA), a division of the U.S. Department of Transportation. These funds are subject to applicable Federal law, Executive Orders, regulations, and agreements.

The WSDOT contact with FHWA for Construction Administration matters is the State Construction Office. In preparing and approving *Standard Specifications*, general special provisions, and this manual, the Construction Office seeks the review and approval of FHWA. Use of approved provisions and meeting the required outcomes described in the manual become the basis of federal reimbursement.

FHWA provides oversight of WSDOT work on some projects and has delegated that responsibility to WSDOT on others. A full discussion of WSDOT responsibilities under Stewardship is included in Section 1-00.10.

GEN 1-00.5(2) Local Agencies

Cities, counties, and other municipalities within the state may also perform work funded with federal dollars. When this happens, the money is passed through the Department of Transportation and we will have entered into agreements with the local agencies to provide services. For example, WSDOT will allow the use of testing facilities by a local agency.

GEN 1-00.5(2)A Project Engineer Administering Local Agency Project

Occasionally, a WSDOT Project Engineer may be assigned to provide engineering and inspection services on a local agency project. The duties of the Project Engineer will be determined by the actual contract provisions and by any specific agreement made between the Region administration and the local agency. The provisions of this manual may or may not apply, depending on the situation.

GEN 1-00.5(2)B Local Agency Administering Its Project on State Right of Way

In some cases, WSDOT may grant approval for a local agency to construct a facility on State Right of Way using local agency staff and contractors. (For example, a city funded overpass of an interstate). When this happens, a Project Engineer will be assigned to provide oversight of the local agency work. The Project Engineer is expected to assure that the local agency provides the same level of engineering and inspection that State employees would accomplish. While the Local Agency may have different administrative provisions with respect to risk-sharing and submittal requirements, all of the technical aspects of the *Standard Specifications* and this manual must be met.

GEN 1-00.5(3) Other Federal, State, and Local Agencies

The design and construction of transportation improvements often incorporates locations and features that fall within the jurisdiction of other agencies. It is the policy of WSDOT to cooperate with all agencies as partners in the completion of each project, recognizing and complying with each agency's legal requirements. The Project Engineer shall cooperate with local authorities to help ensure that the contractor

complies with local laws, ordinances, and regulations. However, unless specifically allowed in the statutes or the contract documents, no WSDOT employee shall engage in any kind of enforcement of laws, rules, regulations, or ordinances which are the responsibility of other agencies. WSDOT needs to maintain the confidence and build trust with resource agencies and the public, so it is critical that we take the proper actions when we are aware of an issue. When WSDOT employees observe something which is questionable or appears to not be in compliance with local laws, ordinances, and regulations, it shall be brought to the Project Engineer's attention. The Project Engineer is responsible for bringing it to the Contractor's attention for proper action. Rely on the Regional and Headquarters expertise and the appropriate agencies when dealing with complex issues such as environmental compliance, safety, or hazardous materials.

GEN *1-00.5(3)A Highways over National Forest Lands*

WSDOT has entered into a Memorandum of Understanding (MOU) with the United States Forest Service (USFS) and the Project Engineer is required to do the following when performing work on National Forest Service Lands:

1. Represent the department in all matters pertaining to the project.
2. Confirm that the USFS has been notified of the project advertisement and award.
3. Notify and obtain approval from the USFS for any changes in the project that will affect National Forest System Lands, beyond that of the original contract.
4. Notify the USFS when the project nears completion, at which time the USFS will indicate if they choose to participate in the final review of the project.

GEN 1-00.6 Relating to the Public

Public confidence is enhanced by WSDOT personnel being responsive to reasonable requests for information, providing timely advanced notice of possible impacts, and reducing inconvenience to traffic while maintaining worker safety. When possible, the Project Engineer should rely on resources such as Regional Public Information Officers and the State Office of Communications and Public Involvement. If there is concern or reason to question the confidentiality or sensitivity of the information requested, consult with your supervisor or seek the advice of the Attorney General's office.

GEN 1-00.7 Application of Contract Provisions, Plans, and Specifications

GEN 1-00.7(1) Construction Contracts Information System (CCIS)

The CCIS system is a mainframe application designed to track contract information and generate reports for all WSDOT administered construction projects. The initial setup of contract information into CCIS is done automatically by using information in CAPS or other systems. However, after the contract has been executed, the project offices must enter the majority of the contract information into the CCIS system. The Project Engineer shall verify that the initial contract information in CCIS is correct, or shall correct the information. The data entered is then maintained and stored on the mainframe.

Among other things, CCIS generates the Weekly Statement of Working Days and Change Orders, and tracks this information. The system creates the forms for these reports so a preprinted form is not needed. Following is a list of data that needs to be entered into the CCIS database over the life of the project:

1. **Contract Information** – This part of CCIS will contain general contract information, including but not limited to:
   - Region administering contract
   - Region the contract is located in
   - Regional Administrator
   - Operations Engineer
   - Project Engineer/PE Org code
   - Description of Work
   - SR Number(s)
   - Begin and End mile post
   - County
   - Prime Contractor's local address, if applicable
   - Prime Contractor contact person
   - Prime Contractor D/M/WBE type if applicable
   - Prime Contractor ethnic code if applicable
   - Date of Statement of Intent to Pay Wages – Prime
   - Date of Contractor and Subcontractor/Agent Cert. for F.A. Projects
   - Date of Affidavit of Wages Paid – Prime
   - Date of Preconstruction Meeting Minutes
   - Date time started
   - Date work started
   - Date Orig. Progress Schedule approved
   - Date Last Supplemental Progress Schedule approved (if applicable)
   - Date of Substantial Completion (if no Substantial Completion granted, use Physical Completion date)
   - Date of Physical Completion
   - Final Estimate to Contractor
   - Date of Completion
   - Final Estimate to State Construction Office (filled in by Region office)
   - Contract time – Original Authorized Working Days
2. **Contractor Information** – This part of CCIS tracks information about Request to Sublet and Affidavits of Amounts Paid.
   - Request to Sublet
   - Affidavit of Amounts Paid

3. **ECR Tracking** – This part of CCIS tracks the Contractor's training program, trainees, and MWDBE reviews.
   - Training Program
   - Apprentice/Trainee Approval Request
   - DMWBE and EEO reviews
4. **Change Orders** – Change orders are created, printed, and tracked in this part of CCIS. It is very important to keep the information current to facilitate correct tracking and reporting.
   - Approval (to proceed when granted).
   - VECP Amount (if the change order is a VECP).
   - A brief description of the change order (if the change order is a VECP).
   - Date sent to Contractor.
   - Date received from Contractor.
   - Is there Surety consent.
   - Date of Surety consent.
   - Dates of approval and execution (***Note:*** *Line 4 "Date Executed" should only be used by Region or the State Construction Office).*
   - Change Order Voided (if applicable).
5. **Weekly Statement of Working Days** – The "*Weekly Statement of Working Days*" is a report generated by CCIS, based on information entered into the system by the project office. This report details the number of workable/unworkable days charged to a project, the reason a day is charged as unworkable, daily weather codes, the current status of contract days, and a summary or the week's construction activity. The Project Engineer must ensure that the appropriate information is entered into CCIS on a weekly basis, a "*Weekly Statement of Working Days*" is generated, and a copy of the report is sent to the Contractor. Weekly statements shall cease when physical completion is granted, or when substantial completion is granted and all working days are expended.

   Refer to the *CCIS Users Guide* for details on using the system. This guide is available on the Construction Office Sharepoint site in the *Shared Documents* folder.

GEN 1-00.7(2) Order Lists

Contract language requiring an order list can be found in *Standard Specifications* Section 6-05.3(2), which addresses piling other than cast in place concrete and steel piles, and in Section 8-21.3, which addresses the determination of lengths of wood and steel sign posts. In other types of work, such as drainage, guardrail, etc., the actual layout will often result in quantities and lengths that vary from the plan estimates. A project engineer could choose to communicate this information in several ways, one of which could be the development of a formal order list. If an order list is used, extra care should be taken to ensure its accuracy. An alternate method of notice could also be a walk through with the contractor representative after staking.

GEN 1-00.8 Emergency Work Performed Under the Contract

When a natural disaster impacting a wide area strikes, WSDOT may utilize an existing construction Contract in order to restore essential travel, minimize damage or protect remaining facilities. RCW 47.28.170(2) allows WSDOT to contract this work on a negotiated basis provided (a) the cost does not exceed force account rates for the work performed and (b) the contract does not exceed thirty working days. There must be an emergency declaration by the appropriate authority, the Project Engineer must complete a Detailed Damage Inspection Report (DDIR) and the Project Engineer must contact the Regional Program Manager, since this work will initially be funded by state funds. The Project Engineer should follow the guidance provided in the WSDOT *Emergency Relief Procedures Manual* M 3014.

Emergency repair work, when performed by the Contractor under an existing Federal-Aid Contract, may be eligible for Emergency Relief funding. In order to qualify for Emergency Relief funding, the repair work must be the result of a natural disaster over a wide area, such as a flood, an unusually severe storm or a landslide. The work must be demonstrated to be beyond the Contractor's responsibility and not work that has already been scheduled for repair or replacement of deficient structures. Only the work required to protect and open the roadway is eligible for Emergency Relief funding.

Adding emergency work to a State funded contract would require the addition of all Federal-Aid specifications, and is not practicable. It is however acceptable to hire the existing contractor to perform emergency work at the same location under a separate emergency force account contract which would include all the Federal requirements.

GEN 1-00.9 Contractor's Performance Reports

The procedures for completing and submitting the Prime Contractor's Performance Report are included with the report DOT Form 421-010 and the *Prime Contractor's Performance Report Manual* M 41-40. The requirement for this report and other direction can also be found in WAC 468-16-150 and WAC 468-16-160.

Should the Contractor's typical performance on a contract become below standard, the Project Engineer should immediately notify the Regional Construction Manager of the facts in the matter, seeking assistance and advice.

GEN 1-00.10 Stewardship

Webster defines "steward" as "one who acts as a supervisor or administrator, as of finances and property, for another or others." The designated steward of all federal highway funds is the United States Department of Transportation, acting through the Federal Highway Administration. In Washington State, FHWA is represented by its Washington Division. Washington Division has delegated a portion of its stewardship responsibility (and the corresponding authority) to the Washington State Department of Transportation through the Federal-Aid Highway Program Stewardship and Oversight Agreement, signed on February 19, 2008.

This section describes further agreement between FHWA and WSDOT concerning the details of the part of the stewardship agreement that applies to construction (Section V c. Construction and Contract Administration and VII Appendix B Construction Monitoring Plan). The subject matter of this sub-agreement is monitoring of construction performed on behalf of WSDOT by independent contractors.

Scope of Construction Monitoring Plan – This plan deals specifically with federally-financed construction performed under contracts with WSDOT and administered through the WSDOT State Construction Office. It is not intended to be all-encompassing. WSDOT Ferries Division contracts for construction of vessels and facilities are not included. Contracts for work through local agencies are not included. Federally-financed utility agreements are not included. Emergency Relief work performed by contractors and administered by WSDOT Maintenance is not included.

Project Responsibility – FHWA, Washington Division, has delegated to WSDOT (and through the WSDOT delegation of authority to the State Construction Office) stewardship responsibility and authority for all federally-funded construction except new construction and re-construction on the Interstate system and certain specially-selected areas of high interest. The special selections are made by FHWA and include significant demonstration projects, special funding agreements, and projects of very high national interest. Projects with full FHWA oversight are listed on the State Construction Office web page at www.wsdot.wa.gov/Business/Construction/AccountabilityAndPerformance.htm.

The Construction Office has further delegated the stewardship reporting responsibility for projects with a contract value less than $6.0 Million to the various WSDOT Regions. The delegation of stewardship authority from the State Construction Office to the Regions is through the *Construction Manual*.

FHWA has also delegated to WSDOT the authority to accept projects on the Interstate system that are not new construction or re-construction. This authority has been further sub-delegated to the Regions for projects with a contract value less than $6.0 Million.

FHWA Review/Approval Actions and Related Processes – With the pre-approval of specifications and processes and the extensive delegation of stewardship authority, there are relatively few approval actions needed from FHWA during actual construction.

For new construction and re-construction on the Interstate system, FHWA has retained the oversight role of interim, or project, inspections, final inspections and acceptance, and the approval of certain high-value change orders.

The following processes will apply:

For project inspections, the WSDOT Project Engineer and the FHWA Area Engineer shall agree on the timing of such inspections. Typically, project inspections will take place quarterly; however, the Area Engineer may select other frequencies. The Project Engineer will advise the Area Engineer when agreed milestones or completion stages have been accomplished and the Area Engineer will schedule the review and prepare the report. (A similar process will be followed between the Project Engineer and the State Construction Office representative for delegated projects when the delegation has been retained at the State Construction Office. Regions will develop processes for those jobs delegated to them.)

For final inspections and acceptance, the review will be conducted in two parts. The first part will be a field review of the work and will be conducted at about the time of physical completion, when the contractor is still available to make corrections or changes identified during the review. The second part of the process will be the final

acceptance review. This will be conducted after WSDOT has accepted the contract and has assembled all cost and materials documents. The second part of the review (acceptance) may be conducted with an exchange of documents and without a physical visit to the site. The Project Engineer will notify the Area Engineer when these times have arrived and the Area Engineer will schedule the reviews and will prepare one final report summarizing both reviews. (A similar process will be followed between the Project Engineer and the State Construction Office representative for delegated projects when the delegation has been retained at the State Construction Office. Regions will develop processes for those jobs delegated to them.)

Change orders on FHWA stewardship projects (for which FHWA has not delegated stewardship responsibility to WSDOT) may be approved by WSDOT unless they alter the termini, character or scope of work of the contract, they have a net value of more than $200,000, or they change contract time by more than 30 days.

Note: Changes that adjust quantities without changing the work may be approved by WSDOT regardless of value. FHWA approval will normally be a written formal response, but may be verbal if the public interest is served by the more timely action. In all cases, the FHWA approval of a change order shall be obtained through the State Construction Office.

The FHWA Area Engineer may also choose to accompany the WSDOT reviewer during the review of any federal-aid project. Such participation will be random and will be initiated by the Area Engineer. This participation by the FHWA will not change any delegation of oversight responsibility or authority in any way. When the Area Engineer has participated in a review, a copy of the summary report will be provided directly to the Area Engineer.

Stewardship Summary Reports – It is important to note the difference between a steward and a stewardship reviewer/reporter. Stewardship on WSDOT federal-aid projects is provided by a wide cross-section of employees who make stewardship decisions according to the requirements of the *Construction Manual* and their own delegated responsibilities and authorities. From the field inspector who observes contract work and prepares pay instructions, to the Project Engineer who reviews and approves a monthly progress payment, to the Region Construction Manager who executes a change order, to the State Construction Engineer who negotiates and approves a claim settlement, all are acting as stewards in their own job descriptions and assignments.

The stewardship reviewer/reporter, on the other hand, is acting as an overseer, observing and collecting information about all of the stewardship activities, evaluating that information, making recommendations concerning the qualification of the covered work for federal funding and preparing reports to summarize the activities. Reviewers may be FHWA Area Engineers, State Construction Engineers, Region Managers or subordinate Region specialists in documentation or contract administration. For the reports that it prepares, WSDOT may assign any person of the classification of Transportation Engineer 3 or above to this duty. The only restrictions are that the reviewer must not have been involved in the project-level administration and the report must be signed by someone with supervisory authority over the Project Engineer or management responsibility over the contract itself.

- **Types of Reports** – Interim Reports (also known as Project Reports) are intermediate summaries of stewardship activities on an uncompleted project. These will be performed on multi-season jobs at least annually. Interim reports may be submitted at a greater frequency or for a special purpose at any time, at the discretion of the stewardship reviewer. Interim reports may be submitted on single-season projects for special purposes, again at the discretion of the reviewer.

  Abbreviated Final Inspection/Acceptance Reports are single page closeout reports for projects between $1.00 and $500,000 that summarizes the project in more of a checklist format with opportunity for comments. It will still be necessary for the Stewardship reviewer to evaluate the project documentation and procedures, but the reporting will not be to the same level of detail as a Final Inspection and Acceptance of Federal Aid Project for a project over $500,001. Final Inspection/Acceptance Reports are single close-out reports that summarize the results of reviews conducted in two parts at the completion of all projects. The first part is a review of the field work conducted at a time when the contractor is still available to perform additional work or corrective work. The second part is after acceptance, when the final cost figures are known and the materials certification is available. For FHWA-retained projects, the final inspection and acceptance will be conducted by the FHWA Area Engineer. For delegated projects with a greater value than $6.0 Million, the final inspection and acceptance will be conducted by a representative of the State Construction Office. For projects further delegated to a Region, the final inspection and acceptance will be conducted by a Region representative. The final acceptance portion of the final review may be done without a site visit, working from documents and computer data only.
- **Timing of Reports** – At least once per year, the State Construction Office will publish a list of all projects that have been started and not closed out for federal funding. The list will be divided to show the responsibility for stewardship reporting for each project. In the past a Final Inspection and Acceptance of federal-aid project report was required for each project financed in part or in whole with federal dollars. In an effort to expedite contract closure and move unused obligated funds back into the various highway programs sooner, stewardship reporting will take the following course:
  - For projects with values between $1 and $500,000: 25 percent of the projects will be selected from each project office from each Region and an abbreviated Final Inspection and Acceptance of Federal-Aid Project will be required.
  - For projects with values between $500,001 and $6,000,000: 50 percent of the projects will be selected from each project office from each Region and a Final Inspection and Acceptance for Federal-Aid Project DOT Form 422-101 will be required.
  - For projects with values greater than $6,000,000: 50 percent of the projects will require a Final Inspection and Acceptance of Federal-Aid Project form.

  Interim reports will be performed at times that are appropriate for the nature and progress of the work and the seasonality of the project. These times will be determined through the judgment of the reviewer. The objective for all reviewers will be to prepare and submit interim reports within 30 calendar days after the field review.

For Abbreviated Final Inspection/Acceptance Reports, final inspection will be conducted around the time of physical completion, while the contractor is still mobilized and able to perform corrective or added tasks. Final acceptance review of the project will be conducted after the State Construction Engineer's final acceptance of the contract itself and after receipt of the Region's Materials Certification. The objective for all reviewers will be to prepare and submit the Abbreviated Inspection/Acceptance Report within 30 calendar days after project final acceptance. Final inspections for projects over $500,001 will be conducted around the time of physical completion, while the contractor is still mobilized and able to perform corrective or added tasks. The Project Engineer is in the best position to identify this time and shall advise the reviewer that a final inspection is needed. Final acceptance reviews will be conducted after the State Construction Engineer's final acceptance of the contract itself and after receipt of the Region's Materials Certification. The objective for all reviewers will be to prepare and submit the final inspection/acceptance report within 60 calendar days after project final acceptance.

Copies of reports prepared by FHWA will be sent to the State Construction Office. Copies of reports prepared by any WSDOT reviewer will be collected by the State Construction Office and forwarded to FHWA.

- **Content of Reports** – Stewardship reports provide a high-level overview for those who may not know the project intimately, but may need to be aware of the more significant details of the contract. Communicating those details in a concise and comprehensive manner is a critical aspect of the report. Any individual reading the report should be able to have a reasonable idea of how the project proceeded.

  In addition to providing an objective view of the project, a stewardship report should clearly identify what is unique to that project and what circumstances made it unique. Most of our projects are routine and the stewardship reports will reflect that. However, when a project has conditions that are out of the ordinary, the stewardship report should explain what occurred on the project to make those conditions significant.

  The ability to write a practical report in a clear and concise manner is a mark of a good engineer.

  Job Description – A description of the major elements of the work. Include a narrative about the job. Include the contractor's name, the award date and the amount of the bid.

  Time and Damages – On an interim report, discuss the present status of time and its relationship to the completion status. If behind, describe what is being done to catch up. Describe any suspensions or time extensions. On a final report, discuss the final time result. If overrun, discuss liquidated damages. Subjectively, comment on the amount of time set up. If working days are extended by 10 percent of the original contract amount, describe the cause(s) that warranted the increase.

Change Orders – Confirm that each change was approved according to the checklist before the work started. Evaluate the preparation of the change order and the justification. For all changes, include a statement of federal participation eligibility. Include more detailed discussions of major or significant changes (e.g., Scope Change, Claim Settlements, Significant Actions, and Changes over $100,000).

Cost – List the final payment, the original amount, the net effect of change orders and the mathematical calculation of net overruns/underruns. Obtain and include a general explanation of the overs and unders.

Materials – On an interim report, review a process in progress by checking for submittals and approvals of RAMs, any drawing or catalog submittals, the testing method and frequency, adjustments to the ROM, observe field tests and include a summary report. Comment on the overall status of materials testing, documentation and adequacy. On a final report, review the Region Materials Certification, comment on any missing items and mention the resolution of the certification for participation purposes. If material deficiencies warrant withholding of Federal participation, define the deficiencies and the amount of Federal participation being withheld. Refer to the following section, "Quality Improvement and Accountability," in the Stewardship and Oversight Agreement, for a discussion on selection of processes for review.

Disputes, Claims – On an interim report, note any claims or major disputes presently underway. Note how previous issues have been resolved. On a final report, note any exceptions to the final voucher certification and describe the issue.

Traffic Control – Comment on the adequacy of the traffic control plans. Discuss the project's use of flagging, devices, pilot cars, etc. And any unusual events during the project.

Training – On an interim report, determine that a plan has been submitted and approved. Also, note the comparison between accomplished training and the completion status. Report any efforts to recover if behind. On the final report, list the amount of training originally included, any changes made to this requirement and the total amount of training accomplished.

Subcontracting – Discuss the level and nature of subcontracted work. Note any DBE requirements and any change orders modifying these requirements by deleting, adding or substituting DBE commitments. Make reference to any Condition of Award requirements. Assure that mandatory DBE contracting did happen and that the DBEs performed a commercially useful function (review the On-Site reports). Review on-site reports for any DBE firm utilized, whether or not its utilization was mandatory.

Other – Talk to the Project Engineer. Look for special notes. If there was an experimental specification or process, discuss it. If there was an unusual event or happenstance, discuss that. Describe the overall impression of the contractual relationship. Describe any evidence of successful collaboration between the parties. Include any other information of interest.

Note: As a significant part of any review, the reviewer must visit the jobsite and confirm that a project of approximately the nature and magnitude of that shown on the plans actually does exist. This is true for all stewardship reporting.

Communication – Much of the day-to-day communication between WSDOT and FHWA is informal in nature. Verbal discussions, telephone consultations and email notices (including digital photos when needed for clarity) are used extensively. Except where formal written notices are specifically required, staff from both agencies will attempt to utilize the simplest form of communication that accomplishes the needed communication in the least time. All reports and correspondence related to a project shall bear both the WSDOT contract number and the FHWA project number as identifiers.

1-02 Bid Procedures and Conditions

SS 1-02.2 Plans and Specifications

When the design phase of a project is completed and funding has been secured, the public is then notified that WSDOT is ready to accept bids for completion of the work involved. This notice is accomplished by publishing an advertisement for the project, along with an invitation to bid the work, in the "*Daily Journal of Commerce.*" The advertisement includes a specific date and time for the opening of bids along with the necessary information for obtaining plans, specifications, and bid documents. Once advertised, these plans and specifications are then made available to all contractors who wish to study the project. Contract proposal forms or bid documents are also furnished, but only to those prospective contractors who have been prequalified to bid on the types and quantities of work involved. Once bids have been opened, an announcement in the "*Daily Journal of Commerce*" will also be made identifying the "Apparent Low Bidder." Specific information regarding the advertisement phase and bidding procedures can be found in the *Advertisement and Award Manual* M 27-02.

SS 1-02.4 Examination of Plans, Specifications, and Site of Work

If the Project Engineer determines that prospective bidders may have difficulty locating the project or determining the project limits, the Project Engineer may choose to post the project limits.

Standard Specifications Section 1-02.4 requires that all requests for explanation or interpretation of the contract documents be submitted, and be answered, in writing. Any answers that may interpret, clarify, or change the Contract shall do so by means of an addendum. Acceptable answers to pre-bid questions are:

1. Your question will be addressed by addendum
2. Refer to the contract documents – Page/sheet #XXX
3. Bid in accordance with the Contract

Anytime the answer to a question from a prospective bidder might be perceived as interpreting, clarifying, or changing the Contract, the Project Engineer should immediately contact the Region Construction Manager or Region Plans Office to facilitate the preparation of an Addendum. Answers to such questions must be provided to all bidders in the same manner.

All questions from prospective bidders regarding an advertised project should be referred to the Project Engineer listed in the "Notice to All Planholders" for a complete response. The Project Engineer will coordinate the effort to determine if any requested

information needs to be addressed by an addendum. If no addendum is required, the response will be posted on the Contract Ad & Award web page. The Project Engineer shall send the response to: ContractAd&Award@wsdot.wa.gov for posting to the web page.

When questions arise regarding the Transfer of Coverage (TOC) for the Construction Stormwater General Permit, the Project Engineer should go to the Environmental Office's Erosion Control page on the internet for guidance.

1-03 Award and Execution of Contract

SS 1-03.2 Award of Contract

Bids for the contract are opened at a public meeting where each prospective bidder's proposal is read and the Apparent Low Bidder is announced. Within 45 calendar days of bid opening, the proposals will be closely reviewed and the contract will be awarded to the lowest bidder deemed responsive. In accordance with *Standard Specifications* Section 1-03, the successful bidder is then allowed 20 calendar days to return the signed documents that are necessary to enter into a contract with WSDOT. The Contract Administration and Payment System (CAPS) Unit of Accountability and Financial Services (AFS) sends the awarded contract to the Contractor for execution within 3 days of award. Additional copies go to the Region, State Construction Office, Bridge and Structures Office, other internal WSDOT divisions and railroads as needed.

SS 1-03.3 Execution of Contract

After these documents are returned to WSDOT, the contract must be approved and executed. No proposal submitted by a Contractor is binding upon WSDOT prior to the date of execution by WSDOT. No work is to be performed within the project limits or WSDOT furnished sites prior to the execution of the contract by WSDOT. Any work that is performed by the Contractor outside of these areas, or any material that is ordered prior to WSDOT execution, is done so solely at the risk of the Contractor.

In order to ensure timely notification to the Contractor regarding execution of the contract and authority to proceed, the following procedure is used:

1. Immediately after execution of the contract documents by WSDOT, the CAPS Unit of AFS or (for Region Ad and Award projects) the Region Plans Office will email notification to the office administering the contract (the Regional Construction Manager's Office, the Director of Terminal Engineering, or the Architecture Office). The CAPS Unit of AFS also notifies, by memorandum, the National Association of Credit Management, and internal interested parties that the contract has been executed and/or the work may proceed.
2. The Regional Construction Manager or a representative should contact the Project Engineer's office as soon as notification is received. The Project Engineer should then contact the Contractor and provide notification of the execution date. The date, time, and method of notification in all instances should be recorded in the project diary.
3. Following the initial contact, the CAPS Unit of AFS will return fully executed copies of the contract to the Contractor.

1-04 Scope of the Work

SS 1-04.3 Reference Information

Reference Information is information provided to the Contractor that is not part of the Contract. Reference Information often includes design files, CAD files, engineering calculations, survey information, geotechnical reports, bridge condition reports, etc. Because the Reference Information is not part of the Contract, any construction requirements described in the Reference Information will need to be captured in the Contract documents (for example, the plans or special provisions).

Reference Information for most WSDOT projects should be linked through the Contract Ad and Award web site – "View Project Information" - under the Reference Information section of the specific project page.

SS 1-04.4 Changes

WSDOT reserves the right, under *Standard Specifications* 1-04.4, to make changes to the work, work methods, working days, or quantities, as necessary to satisfactorily complete the project as originally intended.

Adding work beyond the original scope is, in essence, entering into a contract to perform work without the benefit of a competitive bid. There is a statutory (RCW 47.28.050) exception from the competitive bid requirement for work up to a value of $7,500. If the value of the work is in excess of $7,500 it is necessary to go through the competitive bidding process.

Change order work may impact the design criteria used to develop the project. The Project Engineer must be alert to this, and ensure that the Design Documentation Package is revised to reflect any such changes. The Project Engineer must contact the Region Project Development staff to obtain approval for the change, and for guidance in documenting and incorporating the change into the Design Documentation Package.

Types of Changes

There are several categories of changes that may occur during the course of the work. A change may warrant additional payment to the contractor, a credit to the contracting agency or be a no cost change order. A change may also warrant an increase or decrease in the working days. Every situation is different. The *Standard Specifications* are very specific on what additional costs are eligible for adjustment. The balance of this discussion of types of changes is intended to help describe and explain the various categories of changes. The Project Engineer should also employ the guidance supplied by the WSDOT *Construction Change Order Process Guide*, which is available on the State Construction Office Sharepoint site.

Deletion of Items

A. **Authority to Delete** – As provided in *Standard Specifications* Section 1-04.4 and 1-08.10(2), WSDOT may cancel all or portions of work included in a contract. When deleting work that is condition of award (COA), be sure to also delete that work from the COA requirements by completing the condition of award portion of the change order in CCIS. An adjustment in working days may also be appropriate.

B. **Payment for Remaining Work** – There are some limitations to payment that should be noted under *Standard Specifications* Section 1-09.5. When work is decreased or deleted by the contracting agency, payment will only be for the costs actually incurred for partially completed work. No profit will be allowed for work that was not completed. Consequential damages are also not allowed. Consequential damages may include such things as: loss of credit, loss of bonding capacity, loss of other jobs, loss of business reputation, loss of job opportunities, etc. In the case of a portion of a lump sum item or partially completed unit items, the value of this work will need to be determined. It may also be necessary to negotiate a price adjustment for the work that was performed and paid using a contract unit price if there is a material difference in the nature of the accomplished work when compared to the nature of the overall planned work. Under certain circumstances when the contractor says "you eliminated all the easy work and left the difficult," there may be entitlement to an adjustment.

   In the event that the deletion impacts the critical path for the project, an adjustment in working days may also be appropriate.

C. **Payment for Materials** – When work is deleted from the project and the contractor has already ordered acceptable materials for such work, *Standard Specifications* Section 1-09.5 controls.

   1. **Contractor Restocks** – The first and best method for disposing of the materials is to request that the contractor attempt to return the materials to the supplier at cost or subject to a reasonable restocking charge. If the materials are restocked then, in accordance with *Standard Specifications* Section 1-09, the contractor's actual costs incurred in handling the materials may be paid.

   2. **Contractor Purchases** – If WSDOT cannot utilize the materials, the contractor may elect to retain them for other work. Once again, in accordance with *Standard Specifications* Section 1-09, the contractor's actual costs incurred to handle the materials may be paid.

   3. **State Purchases and Disposes** – As a last resort, if the materials can not be disposed of at a reasonable cost to WSDOT, the Department may choose to purchase the materials from the contractor. There are some limitations that come with the use of federal funds that may require that the materials be purchased with state funds depending on the situation. The State construction office may be contacted for advice. If possible, such materials may be provided to a future contractor (work with Design) or to Maintenance (work with the Regional Maintenance Office). If the materials cannot be used, they shall be disposed of as described in the WSDOT *Disposal of Personal Property Manual* M 72-91. Once again, in accordance with *Standard Specifications* Section 1-09, the contractor's actual costs incurred in handling the materials may be paid.

Contract Modifications

Changes in Materials, Work Method, or Work Sequence may or may not be a change to the contract. The determining factor is if the change is a modification of a specific contract requirement. If the contract includes language such as "recommends," "suggested," or "approved equal" associated with the item or allows the engineer to approve changes, then a change order is probably not required. In essence, this would not be a violation of the contract and therefore, does not require a change to the contract. A common situation is when the contractor proposes a change to a submitted manufacturer's recommendation, drawing or plan such as a falsework drawing or erection plan. Changes to those drawings/plans may be made by the same authority that approved them the first time. Once again, it is not a change to the contract.

Contractor Endorsement/Unilateral Execution

In order to facilitate timely processing of all change orders, once the terms of the change have been agreed to by both parties, the *Standard Specifications* require the contractor to endorse or respond to a change order within 14 calendar days of delivery from WSDOT. A contractor signature or separate written approval is required for change orders. Requests for extensions of time for contractor endorsement may be granted with sound justification from the contractor but should be the exception. Items to consider for granting such requests are size, risk and complexity of the change, whether or not terms have been agreed to prior to sending the change order for signature, prompt payment and if surety consent is required.

The PE office should consult the region construction engineer prior to approving a time extension request for endorsement of a change order.

Approval of Changes/Checklist

In addition to noting who can execute a change order, the Change Order Checklist (DOT Form 422-003) further indicates who must approve the change prior to execution. The completed checklist will be a part of the change record and shall accompany the change order when it is transmitted to the State Construction Office, and represents the minimum information required to process the change order. Written approval constitutes agreeing with the general nature of the change and can be granted by memorandum or email. The checklist works as follows: for any item marked "yes," approval from the State Construction Office must be obtained if indicated by the column with the "Xs." The Project Engineer and the Region Construction Office have the authority to decide not to proceed with the change. This approval does not constitute authority to proceed with the work. That authority must come from the person who will execute the change order (see approval to proceed). In an emergency; the Region Construction Manager may authorize work to begin on any change order if the assigned ASCE or other State Construction Office representative cannot be contacted for the required approvals and the work must proceed.

Approval to Proceed

All change orders shall be executed prior to the work being performed unless otherwise approved as an exception. In all cases, approval requests (per the C.O. checklist) should occur immediately after the need for a change is identified and include at a minimum, why the change is necessary, general terms of the change, estimated cost (range of cost acceptable) and the change in contract time. If it is determined to be necessary to proceed with the change work prior to execution of the change order, this exception requires approval per the checklist and approval from the executing authority prior to beginning work. Such an approval to proceed might be warranted if it will provide a cost/time benefit to WSDOT or minimize a cost/time disadvantage to the contractor. In the event that the Project Engineer determines that it is in the State's best interest to proceed with the work prior to having a signed change order, the permission of the executing authority and approval per the checklist to proceed with the change under these circumstances must be documented in the file.

A. **FHWA Approval** – On Projects of Division Interest (PoDI) or Projects of Corporate Interest (PoCI), written FHWA approval, or other less formal prior approval if the public interest is served by the more timely action, is required prior to beginning work on those change orders meeting the threshold as outlined in the project specific PoDI or PoCI agreement.

   Who does what? – The Region will formally submit this type of change order to FHWA for approval if it is within Region approval authority. If it is outside Region approval authority, the State Construction Office will submit the change order to FHWA for approval. A guidance document regarding PoDI/PoCI is available on the HQ Construction Sharepoint site at: http://sharedot/rp/hqconstr/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2Frp%2Fhqconstr%2FShared%20Documents%2FFHWA%201273%20and%20Stewardship&FolderCTID=0x0120004027EB3E3396BD4099F1C8840D6753D9&View=%7B1F31C517%2DC497%2D48C1%2D87D2%2D420DEBD1F416%7D

B. **State Materials Lab**

   Areas of Responsibility – *Standard Specifications* Division 9 (see Section 1-00.3(2)) The State Materials Laboratory also advises the State Construction Office and Regions regarding an alternate material's capability to perform the same function as a required material. However, the State Construction Office makes the final approval based on application of the material, maintenance concerns, etc., as to whether an alternate material is capable of performing.

C. **Bridge Technical Advisor (BTA)**

Assignment of BTA – After the contract has been awarded, the Project Engineer may send a written request to the appropriate ASCE for the assignment of a BTA. Projects that could benefit from BTA support generally have the following attributes:

- Contract uses Design-Bid-Build or General Contractor/Construction Manager delivery.
- Includes work on major structures (e.g. bridges or tunnels).
- Structures are of moderate or high complexity.
- At least one of the major structures in the contract was designed by the WSDOT Bridge and Structures Office.

The State Construction Office will evaluate the request with the Region to determine if BTA assignment is appropriate or necessary for the specific contract under discussion.

Area of Responsibility – The BTA provides on-call support to the Project Engineer during contract work. The BTA is the subject matter expert who speaks on behalf of the structural Engineer of Record. BTA's may be consulted for questions relating to structures design, inconsistencies or clarifications of structural plans, and for recommendations on minor structural issues that are identified during construction.– "Minor" structural issues can generally be addressed by the BTA quickly and with little or no need for calculations or analysis. When there is any doubt about whether a structural issue is "minor", the Assistant State Construction Engineer (ASCE) should be contacted. Items that should be referred to the ASCE rather than the BTA include:

- Changes involving specifications or materials
- Work method changes
- Repairs
- Structural issues which are not "minor" in scope.
- Value Engineering Change Proposals
- Contract administration issues such as payment or determining the existence of a change to the contract
- Questions regarding geotechnical or hydraulics issues

Executing Authority if a BTA is Assigned – When a BTA has been assigned, the Project Engineer may consult directly with the BTA on items that fall within the BTA's area of responsibility. If the work of the BTA will result in a change to the Contract, approval for this change must come from the State Construction Office. The Project Engineer is encouraged to engage the ASCE as soon as the need for a change to the contract is identified.

BTA Guidelines –

- Develop the most economical solutions while considering the Contractor's means and methods.
- Structural concurrence and recommendations for "minor" structural changes should be made in writing to the Project Engineer and the State Construction Office and should include a cost estimate of the change work and written documentation to support the recommendation for changes.
- Keep a project diary of all activities and recommendations.
- Refer contract administration issues or questions to the Project Engineer and the ASCE.
- Conform to the field safety requirements of the Region and the Contractor.
- Give the project priority but be prudent in the use of time and expense charges.
- Copy the ASCE on all written correspondence and recommendations sent to the Project Engineer.
- Avoid direct communications with the Contractor without coordinating through the Project Engineer.

The above guidelines are generally representative of the scope of services to be provided by the BTA. Once a BTA has been assigned, the Project Engineer shall set up a meeting between the Project Office, BTA and ASCE to discuss project roles/responsibilities and communication protocols. The BTA's immediate administrative support on-site will be provided by the Project Engineer. The BTA's technical responsibility will be to the BTA's supervisor in the Bridge and Structures Office. Overall determination and monitoring of the assignments will be made by the State Bridge and Structures Engineer.

Delegation of Execution Authority

Highway Construction

The Change Order Checklist (DOT Form 422-003), in addition to describing the approval requirements previously described, also outlines who has authority to execute a change order.

The State Construction Engineer (or designee) executes the change order:

- If any one of 1, 2, 3, or 4 is true (checklist item # 1, 2, 3, or 4 is yes).

The Region (Regional Administrator (and those designated Regional Administrator authority) may execute a change order provided:

- 1, 2, 3, and 4 are not true of the change (checklist item # 1, 2, 3, and 4 are no).

The Regional Administrator's authority to execute change orders may be:

- Delegated to the Regional Construction Manager.
- Further delegated to the assistant to the Regional Construction Manager.
- Further delegated to the Project Engineer.

Limits of Execution Authority

Executing Authority	Dollar Limit	Time Limit
State Construction Engineer	$1,000,000 and Greater	60 days and Greater
Assistant State Construction Engineers	not to exceed $1,000,000	not to exceed 60 days
Region Administrator (and those designated Regional Administrator authority) or Designee	not to exceed $500,000	not to exceed 30 days

Local Agency Projects

When the project being administered includes local agency participation, the project engineer should coordinate with the Regional Local Programs Engineer and the local agency to establish an approval process acceptable to all the parties. Any funding constraints and timelines for reviews and approvals should be established per an agreement and specified in the contract, if appropriate. Absent an agreement, changes that affect permanent work incorporated within WSDOT right-of-way with use of local agency funds (regardless of which agency is administering the contract) will require following the WSDOT approval process and execution authorities.

Documentation

State Construction Office Role

The State Construction Office will review Region executed change orders and provide appropriate feedback.

Project Files

A. **CCIS Input** – The Project Engineer shall ensure that the following information is input into CCIS accurately and in a timely manner:

- **Page 1**
  - Contract No.: (in 6-digit format)
  - Proposed By: C(Contractor), E(Engineer), or B(Both)
  - Order Date: Date change order entered into CCIS
  - Unilateral Change: Y/N
  - PE Stamp required: Y/N
  - Short Description: Descriptive title for change order
  - Is this a MINOR CHANGE?: Y/N
- **Page 2** – (Use only if approval to proceed is requested)
  - Approval Date: The date approval given
  - Requested By: Who requested approval
  - Approved By: Who gave approval
  - Estimated Amount: The estimated dollar amount of the change order
  - Narrative: Description of why approval is needed

- **Page 3** – (Use only if this change order is a VECP)
  - VECP Amount
  - Commentary on VECP
- **Page 4**
  - Sent To Contr: The date the change order was sent to the contractor for signature/concurrence
  - Rec'd From Contr: The date the change order was returned from the contractor
  - Surety Consent: Was surety consent obtained
  - Surety Date: Date Surety consent obtained
  - PE Recom: Is PE recommending approval by Region or the State Construction Office
  - Exec: Initials of PE if executing change order
  - Date: Date that PE executed or recommended execution (***Note:*** the date field on line 4 is for Region or State Construction Office use only)
  - By Whom: Who voided change order (if applicable)
  - Date: Date change order was voided (if applicable)
- **Page 5**
  - Phase: Contract phase affected by change order (if days added/deleted)
  - Description: Phase description (if days added/deleted)
  - Net Change: Number of days added/deleted by change order
- **Page 6**
  - Description: Change order text (uploaded from MS Word)
- **Page 7**
  - What Section of contract changed?
  - Describe the Detail Change:
  - What created the need or caused the change?
  - What is the purpose of this change order?

If new items are created, contract items modified, or Condition of Award is modified by the change order, this information must be input into CCIS as well.

It is important that CCIS input be accurate and timely. CCIS is used by internal and external customers to monitor project changes and costs. Information on change orders (*including minor changes*) is readily accessible through a numbering process and must be adequate so that everyone involved will understand the need for the change. Some key items to remember are as follows:

- Is there a clear description of the work?
- Is the origin and purpose of the change being entered using at least two of the reasons listed in the system?
- Was there an order, other than a signed change order, by the engineer for the contractor to proceed?
- Is there a reference to any key documents in the change order file?

- Are any increases or decreases in contract time associated with the change order entered in the appropriate field enabling the *Weekly Statement of Working Days* to be automatically updated?
- For condition of award change orders, are the appropriate fields filled in to generate the change order and automatically update the condition of award items?
- Are any disclaimers included in the change order and are any agreed upon disclaimers included in the text?
- Are all the appropriate dates entered?

B. **Change Record (DOT Form 422-002)** – The change record must accompany the change order describing the change in sufficient detail so that everyone involved will understand the need for the change, will see that the price is appropriate and that appropriate checks and consultations have been made. The following is a list of items to include in the change record accompanying the change order:

1. **Evolution & Description of the Change**
   - What is required by contract?
   - What is the change?
   - How does it solve the problem?
   - Reason for entitlement/why is this not paid under the contract?
   - Is there time associated with the change?
   - Did the contractor concur/if not why?
   - Is FHWA participation appropriate?
   - Does the change affect COA?
2. **Basis of Cost & Justification**
   - Any increase or decrease in cost
   - How it was established (see equitable adjustment)
   - Force account must include estimate
3. **Contract Time**
   - Does the change impact the critical path?
   - How was any change in working days established?
   - Note if a change in contract time affects the amount of liquidated damages
4. **Prior Approval**
   - Was the change order executed by the appropriate WSDOT authority prior to proceeding with the work?
   - If not, prior approval by whom and when
5. **List Attachments**
   - Checklist
   - Documentation of approval to proceed
   - Any supporting documentation needed for understanding

C. **Distribution**

1. **Region-Executed** – When the Region (PE or Region Construction Office) has executed a change, copies should be sent via email to the Contractor and the CAPS Unit of Accountability and Financial Services, (if necessary, the CAPS Unit of Accountability and Financial Services creates and coordinates new groups in "CAPS" and "TRAINS"). Region will enter change order information in CAPS, and may replace temporary item numbers with new permanent bid item numbers. A copy of the original signed change order, the change record and backup documents shall be sent to the State Construction Office for review via email, with the original signed hard copy to follow by mail. If the change order requires FHWA approval per Section SS 1-04.4, the Region will request approval from the FHWA representative at the time change approval is requested. If the change order utilizes the "Minor Change" process, the two page document substitutes for the change record and CCIS change order print out. The original two page "Minor Change" document shall be sent to the State Construction Office (up to 3 revised/new plan sheets allowed with minor change).
2. **State Construction Office-Executed** – If the change is required to be executed at the State Construction Office, a copy of the original signed change order, the change record and backup documentation shall be sent to the State Construction Office for review via email (flagged as high priority) with the signed original hard copy following via mail. The original hard copy sent by mail should be flagged with a colored cover sheet (Labeled "State Construction Office Executed Change") to differentiate them from change orders executed by the region. Copies of the executed change order will be sent via email by the State Construction Office to the region, the CAPS Unit of Accountability and Financial Services, (if necessary, the CAPS Unit of Accountability and Financial Services creates new groups and/or items) and, if appropriate, to the State Bridge Office, Design and the Materials Lab. The Region shall provide a copy of the executed change order to the Contractor. If the change order requires FHWA approval per Section SS 1-04.4, the Assistant Construction Engineer will request approval from the FHWA representative at the time the initial approval is granted.
3. **Protecting the Interest of the Surety** – One area for the Project Engineer to watch is the interests of the bonding company. Consent of Surety should be required on any change order that expands the scope of the contract. It is also appropriate on any change of large value or risk. Failure to obtain consent of surety could weaken the State's protection under the bond.
4. **Requiring FHWA Approval** – Upon receipt of the written approval by the FHWA representative, the State Documentation Engineer will route a copy via email to the State Construction Office files, the Region, and the change order final records file.

D. **Change Order Tracking**

In order to provide current status and communication of contract changes Region project offices need to maintain an active change order log. For consistency, a tracking template has been developed and can be found on the State Construction Office web page: www.wsdot.wa.gov/business/construction

SS 1-04.4(1) Minor Changes

All contracts will have a standard item for "Minor Changes." This item will be established in every group as a calculated lump sum. Credits, debits, changes in working days and no cost changes may all be processed under the minor change method subject to the listed criteria.

Criteria for Use

Keep in mind that although the change meets the criteria for using the minor change process, the Project Engineer may decide that this process is not appropriate. The use of this item is at the Region's and the Project Engineer's discretion. Also keep in mind that the limitations and approvals required by the change order checklist still apply as well as all other change order criteria not modified by this *Minor Changes* section. Use of the minor change process is limited to changes that satisfy all of the following criteria:

- The value of the change (credit or debit) is estimated at $25,000 or less.
- Any change in working days not greater than ten days.
- The proposed change can be fully described and explained on page 1 (change order page) and with no more than 3 revised/new plan sheets.

Endorsement

In the interest of being timely, the change order should be a tool to document agreement and not a negotiation tool back and forth. The Contractor's authorized signature on the change order is desirable but not mandatory. A phone call or a verbal agreement with the project superintendent may be appropriate when payment is to be made under the item "Minor Changes." This may be a good discussion item at preconstruction meetings. The Project Engineer should determine when the Contractor's signature is required based on when it is in the State's best interest to document agreement prior to proceeding with a change order. Some situations that may warrant the Contractor's signature are as follows:

- The contract includes substantial incentives.
- There are mutual benefits associated with the change.
- The change might include impacts to time or other work.
- The change is proposed by the Contractor.
- The change is a claim settlement.

In any case, a copy of page 1 (Change Order Page) of the Minor Change form must be sent to the Contractor. If the Contractor does not agree with the terms or conditions of any change order and has not endorsed the change, then the Contractor is required to follow the procedure outlined in *Standard Specifications* Section 1-04.5. This orders the work to proceed and puts the decision to continue negotiations in the Contractor's

hands as detailed in that section. The Contractor is obligated to endorse, write a separate acceptance or protest as described in the specification, and a timeline is provided for these actions.

Execution

Due to the criteria for the application of minor changes, the Project Engineer has the authority to execute these change orders, after obtaining all approvals required by the change order checklist. Approval is required prior to performing the work.

Payment by LUMP SUM

The negotiation of prices for payment under the item "Minor Changes" is intended to be the same as any other change order. The focus, as always, should be forward pricing such that the Contractor controls the work and assumes the risk. However, situations occur where it makes sense to measure portions of the work in a variety of ways such as units, force account and/or lump sum. The method for establishing, measuring and monitoring the total may be by any combination of methods however, the payment will only be by a lump sum under the item "Minor Changes."

Project Files

A. **CCIS Input** – "Minor Change" change orders must be entered into CCIS; however the required input is slightly abbreviated. Since a formal change order document as described in Section SS 1-04.4 is not processed, the *Work Description* section in CCIS requiring a detailed upload of text is not required. However, the *Short Description* is required and should provide enough detail to identify the content of the "Minor Change" change order. All other information requested by CCIS, including changes to working days, is required.

B. **Transmittal** – Under the minor change process Change Order – Minor Changes DOT Form 421-005A) substitutes for the transmittal included in the more formal process described above. The information on the Minor Changes form should at a minimum briefly document three key items:
   - A description of the change.
   - Reason for entitlement/why is this not paid by bid items.
   - Any increase or decrease in cost and time and briefly how it was established.

C. **Distribution** – When utilizing the Minor Change process, the minor change form is substituted for the change order document and the change record. Backup documentation shall be kept in the project file at the Project Office, with a copy of the completed Minor Change form. The original, signed Minor Change form, change approval documentation, and the original, completed change order checklist shall be submitted to the State Construction Office. The Minor Change shall be fully documented on DOT Form 421-005A, which is limited to pages 1 (Change Order Page) and 2 (Change Record Page), with no more than three new or revised plan sheets included. A copy of the form may be used to document the payment.

SS 1-04.4(2) Value Engineering Change Proposal (VECP)

It is the policy of WSDOT to encourage our contractors to be innovative in planning and performing the work when a cost savings can be realized. When a contractor identifies such a savings and provides a significant portion of the efforts needed to develop the proposal, WSDOT will share the resulting savings with the contractor. This policy is carried out through change orders containing Value Engineering Incentive Payments. The Project Engineer should encourage VECPs and seriously consider the mutual benefits of these proposals brought forth by the contractor as a partner in the contract.

A VECP must meet all the requirements enumerated in *Standard Specifications* Section 1-04.4(2)A, General.

SS 1-04.4(2)B VECP Savings

VECP savings are calculated as defined in *Standard Specifications* Section 1-04.4(2)B1, Proposal Savings and *Standard Specifications* Section 1-04.4(2)B2, Added Cost to Achieve Time Savings.

SS 1-04.4(2)C VECP Approval

There are two separate approvals for a VECP. The first is approval of the concept as described in *Standard Specifications* Section 1-04.2(2)C1, Concept Approval and the second approval is described in *Standard Specifications* Section 1-04.4(2)C2, Formal Approval.

SS 1-04.5 Procedure and Protest by the Contractor

Protested Work

Occasions may arise where the contract may not have fully or clearly defined a work activity or financial responsibility. In these cases, the Project Engineer may determine that, in order to avoid delay of other critical work, protect the traveling public, or other critical circumstances, it may be necessary to direct the Contractor to proceed immediately to complete the work. In some instances, this order may be against the Contractor's wishes. While acknowledging the Contractor's verbal protest, the Project Engineer should again direct the contractor to proceed with the work in accordance with *Standard Specifications* Section 1-04.5. The Contractor should also be advised that, as a separate action, they should follow the guidance in this same section for protest and protest resolution. While these provisions require the Contractor to keep accurate records for completing the protested work, it is not advisable for the Project Engineer to rely on these records to determine what may have taken place when trying to verify costs for protested work many months later. In order to help document the Contractor's work, the form Report of Protested Work DOT Form 422-007 was developed as a tool for the Project Engineer's use.

Disagreement, Dispute, Protest

During the course of a contract, differences of opinion may arise over decisions and plan interpretations that benefit one party at the expense of the other. It is the policy of WSDOT to pursue resolution of these differences at the earliest possible

time and to fully recognize all of the contractual rights of the Contractor during the resolution process.

Disagreements, disputes, and protests are the responsibility of the Project Engineer until a formal claim is filed in accordance with *Standard Specifications* Section 1-09.11(2). Contact the State Construction Office for concurrence before taking any issue to a Disputes Review Board. The Project Engineer may employ a variety of techniques and procedures to pursue resolution of these issues. With the high potential for cost impact, it is strongly recommended that all disagreements be identified and tracked.

SS 1-04.6 Variation in Estimated Quantities

Contracts are set up with estimated quantities. Contractors provide unit prices and actual measured quantities are paid using those unit prices. What happens when the actual measured quantity varies from the estimated proposal quantity? *Standard Specifications* Section 1-04.6 require that variations of less than 25 percent be performed without changes in the bid price, but that variations greater than 25 percent may qualify for a payment adjustment of the contract bid. This distribution of estimating risk is a policy of WSDOT and is also a Federal requirement for any project with Federal funds.

Variations may occur because field conditions cause a different quantity for the planned work than was envisioned during the estimating. Other variations may occur when work is added or deleted by change order and original contract unit items are included as the method of pricing the change order. Finally, quantity variations occur when work is added, deleted, or revised without a formal change order (constructive change) and units with unit prices are the only measure of the revision. The work represented by a constructive change order is in fact work not anticipated at the time the contract was bid and executed, and as such would be outside of the requirements of *Standard Specifications* Section 1-04.6. In other words, you cannot deny a payment adjustment based solely on the fact that the accepted quantity of a bid item is within 25 percent of the original proposal quantity.

As discussed below, quantities included in formal change orders are excluded from consideration of quantity variations. The project engineer who allows constructive changes without formal documentation may find an additional negotiation waiting when final adjusted quantities are calculated and compared with the original proposal quantity.

A unit bid price consists of four different parts. First, and most obvious, are the costs of labor, equipment, materials and services needed to accomplish the work. These are the “direct costs” involved and they vary directly with the amount of work. Second are the variable overhead costs, such as field supervision, field support items (phones, computer rental, payroll clerks, sanicans, etc) whose amounts will vary along with the direct costs. Third, and more difficult to assess, are unavoidable, distributed, fixed overhead costs. These are typically long term and exist whether the quantity varies or not. They include things like home office costs, field trailer setup, long term equipment rentals and other fixed costs. These are typically distributed to the project by allocating them to the plan quantity. Fourth, and finally, the unit price will include some amount for profit.

A. ***Standard Specifications* Section 1-04.6** – The standard contract provision calls for the calculation of an adjusted final quantity. This is the method of revising the final measured quantity to allow for proposal item quantities included in agreed change orders. Unit prices as originally bid will be utilized if the adjusted final quantity is more than 75 percent of the original proposal quantity and not more than 25 percent greater than the original proposal quantity.

If the final adjusted quantity is outside these limits, then either party to the contract may initiate a renegotiation. If neither party does so, then unit prices will apply to the entire measured quantity of the item. Neither of these actions would be a change to the contract, as the provisions already allow a price change. A formal change order document might well be initiated to show the agreement, however, and would be the mechanism to create new prices.

If a negotiation is initiated, the provision calls for a new price for the quantity in excess of the 25 percent overrun or a contract price adjustment to compensate for costs and losses associated with an excessive underrun. The renegotiated price for the overrun portion is not an equitable adjustment and this is an important distinction. The new price is based upon actual costs experienced and is completely unrelated to the old bid price. The typical discussion about "what's different from the bid work and what number should be used to modify the bid price?" does not apply in this type of negotiation. The underrun compensation is an equitable adjustment, however, and much of the negotiation is related to the bid price and discussions of the actual work costs as opposed to the planned costs.

Other features of the provision include an exclusion of force account items and other items where an amount has been entered solely to provide a common proposal for the bidders. Consequential damages and lost profits are specifically excluded. The effect of any unbalanced allocation of overhead costs is also excluded from compensation under the provision.

Force accounts and calculated quantities are already taking actual costs into account for overruns. Because of the nature of these items, contractors are unable to allocate unavoidable fixed costs to them except as a share of the allowed markup. The contractor is aware of this provision at the time of bid and knows that this item will not be eligible for renegotiation in the case of an underrun.

Consequential damages are those which are separated from the project and which might be presented as part of a negotiation. "Because of your overrun, I was unable to start work on my other project and had to do that other work in the wintertime." This *consequence* of the quantity variation is not compensable because of the wording of the provision. Similarly, the profit that the contractor might have made on some other work but for the need to perform the extra work in an overrun is also not compensable.

Unbalanced bidding might result in a significantly higher or lower price for an item than normal. It means that too much or too little of allocated overhead or other costs is assigned to the item. This is not a problem in a low bid situation when all items come in at plan quantity. The problem would arise if an unbalanced item were to be involved in an excessive underrun. This provision allows the project engineer to evaluate this possibility during an underrun negotiation (remember that

the overrun pricing takes care of the problem automatically by assessing cost and ignoring the bid price.)

Contract time may be affected by the first unit of overrun or underrun. It may be appropriate to add or delete working days; depending on how the quantity variation affects critical activities, as shown on the Contractor's approved progress schedule.

B. **Negotiation Guidelines**

1. **Adjusted Final Quantity** – The *Standard Specifications* language is quite clear on this subject. Start with the final measured quantity, the number that would be included in the final estimate for the item. Review all change orders that have been approved and have been accepted by the Contractor (see *Standard Specifications* Section 1-04.5 for a definition of contractor acceptance of change orders.) Identify change order increases in the item and subtract these from the final measured quantity. Identify change order decreases in the item and add these to the result of the previous subtraction. The result of these calculations is defined as the Adjusted Final Quantity.

   Compare the Adjusted Final Quantity to the original proposal quantity. If the Adjusted Final Quantity is greater than 1.25 times the original proposal quantity, then the item is eligible for an overrun renegotiation. If the Adjusted Final Quantity is less than 0.75 times the original proposal quantity, then the item is eligible for negotiation of an equitable adjustment due to underrun.

2. **Renegotiation for Overruns** – The first analysis should be to determine, if possible, where and when the overrun took place. This is not necessarily the work done after the quantity of 1.25 times proposal was reached. In many cases, a review of the work will disclose which part of the project actually experienced the low estimate and the resulting extra quantity. This is more common in physical items that are visible and can be measured by weight or physical dimensions (Roadway Excavation, Culvert Pipe, Select Borrow, etc.) These are often detailed in the plans to the extent that actual work can be compared with the relevant portion of the proposal quantity. When actual overrun work can be identified and when records exist showing the resources utilized for that work, then those records can form the basis for the revised payment amount. In other cases, the item is a support function, often measured by time, where the plan segments cannot be separated for analysis. This is common in Flagging, Pollution Control items, etc. To analyze these, the only choice is often to look at the actual work that occurred after the threshold was reached and price it. A third method, where records are adequate, is to evaluate the actual costs for the entire item, and apply those only to the overrun units.

   Regardless of method of determining direct cost, markups will be allowed. A good place to start would be the force account percentages described in *Standard Specifications* Section 1-09.6. If the contractor is providing other records for overhead and profit, these can be used, if they are reasonable. Any overhead items that are unavoidable, distributed fixed costs should be excluded. Remember that the Contractor has already been compensated for these one and a quarter times over.

The revised price will apply only to the units measured in excess of 1.25 times the original proposal quantity. The overrun units between the proposal quantity and the threshold will be paid, according to the terms of the contract, at the bid price.

3. **Equitable Adjustment for Underruns** – The adjustment for an underrun is limited by the contract terms to three factors. The first of these is an adjustment for any increase or decrease in direct costs that result solely from the reduction in quantity. The most common example of this type of cost is the learning curve. "By the time my crew learned how to do this work at this site with these specifications, we were done. They should have been able to apply these skills to an additional 30, 40, or 50 percent of the plan quantity. I experienced the least efficient units and missed out on the most efficient." in negotiation, this might be demonstrated by production rates, by inspectors' reports or by the agreed judgment of the negotiators. If such a condition did exist, then an agreed amount for inefficiency during the learning curve could be included in the adjustment.

   The second factor has to do with the nature of the work actually done, when compared with the work shown in the plans. The most common manifestation of this is "You deleted the easiest units and left me with the most difficult," or "You added units that were much more difficult than those shown in the plan." Compensable, if true. Logic dictates that, if all of the work shown in the plans was performed and, if no work was added except by formal change order, then this factor can have no value. The work that was performed was what was shown in the plans and was what the Contractor bid. If, on the other hand, the project engineer has allowed constructive changes without formal documentation, then this factor could well come into play.

   Finally, the negotiation should include a look at reallocation of undistributed unavoidable fixed overhead costs. The contractor has allocated these to 100 percent of the proposal amount. The bid price is firm as long as 75 percent of the units are measured and paid. If the final adjusted quantity is less than 75 percent, then the anticipated contribution of the units not performed (up to 75 percent) can be identified, negotiated and included in the equitable adjustment.

   One Final Aspect of Underruns – There is a reality that, if more units were paid up to the 75 percent threshold, then there would be no eligibility for negotiation. Because of this, there is a limit to the equitable adjustment. The total paid for the item, including units actually performed and the equitable adjustment cannot exceed 75 percent of the original proposal quantity, multiplied by the unit bid price.

SS 1-04.7 Differing Site Conditions (Changed Conditions)

There are two types of changed conditions. The first (Type I) is a hidden condition that is different from that indicated by the contract (the borings do not show this rock). The second (Type II) is a hidden condition that is not shown differently in the contract, but is unusual and different from what a reasonably prudent contractor would expect (I've never seen this before and nobody else has ever seen it, either). In either case,

to qualify for renegotiation, the condition must have a "material" affect on the cost of doing work. In other words, there must be a definable difference in the way the work will now be done and that difference must be significant.

The contractual rules included in *Standard Specifications* Section 1-04.7 are related to fair notice and to giving the State an opportunity to examine the condition and, perhaps, order a different approach to the work. If the contractor takes away this opportunity, then there may be grounds for denying compensation for the different approach to the work. In some cases, the changed situation is not recognized until much or all of the work has been done. In that case, the determining factor for notice is the time when the Contractor knew or should have known of the condition. Whenever notice is served, it must be written.

In a perfect world, a changed condition will be recognized, notice will be given, and work will be stopped until all the interested parties can reach agreement on how to proceed. In the real world, we are often faced with traffic closures and safety issues. Contractors work on tight schedules with one activity interdependent on others and it is not in the public interest to stop work while a changed condition discussion takes place. As soon as possible, to the extent possible, and in any manner which accomplishes the intent, the Project Engineer is expected to consult with the Region Construction Manager and the State Construction Office to obtain the approval before agreeing that a changed condition exists or before entering negotiations for price adjustments.

The Department response to a contractor's assertion of changed conditions, whether agreement or denial, must be written. The Project Engineer must keep accurate time and material records whether the response was negative or positive.

1-05 Control of Work

SS 1-05.1 Authority of the Engineer

The Project Engineer is designated as the Contracting Agency's representative who directly supervises the engineering and administration of the construction Contract. This provides considerable authority to enforce the provisions of the contract under *Standard Specifications* Section 1-05.1. This authority is tempered by WSDOT's policies and delegation of authority from State Construction the Engineer to the Project Engineer. Accordingly, considerable care and professional judgment must be exercised by the Project Engineer in order to avoid exceeding the authority as delegated and to avoid decisions or actions that may be contrary to WSDOT policy. Should there be any doubts as to the limits of authority; the Project Engineer should consult the Regional Construction Manager.

In many cases the courts have held that where the Project Engineer has exceeded their delegated authority their actions are binding upon Contracting Agency. Because of this, it is important that the Project Engineer make no instructions, verbally or by written memoranda, that are outside of their authority.

Project Engineer's Relationship and Responsibilities

The Region will appoint a Project Engineer to act as the authorized representative of the Secretary of Transportation for each contracted project. After the contract has been executed by WSDOT, the Region may provide the Contractor with written confirmation of the name and address of the Project Engineer assigned. (The Region may rely on the special provisions and forego this letter, unless a change is made.) If a letter is sent, the Contractor should be reminded to send all correspondence and forms regarding the project to the Project Engineer.

The Project Engineer is then responsible for enforcement of the contract specifications and provisions and the completion of all work according to the plans. The Project Engineer supervises the work of WSDOT personnel assigned to the project and ensures that they perform their work in accordance with the Plans, specifications and all applicable WSDOT policies. The Project Engineer is responsible for keeping complete and accurate records of all construction data and work progress, preparing progress and final estimates, and preparing other records necessary for a complete documentation of the project, including a performance evaluation of the Contractor (see Section 1-00.9).

Changes made to the project or substitutions for work detailed in the contract plans or specifications, must be made in accordance with the requirements of *Standard Specifications* Section 1-04 and the guidance provided by Section SS 1-04.4. The Project Engineer should review the project on a regular basis with the Regional Maintenance personnel so they have an opportunity to present any maintenance problems that may arise.

The Project Engineer must, at all times, stay aware of the design implications of actions taken during construction. Change orders and undocumented field adjustments can affect the design standards utilized. If change orders or field adjustments affect the project design criteria, the changes must be documented, approved, and incorporated into the Design Documentation Package. The Project Engineer shall contact the Region Project Development staff for guidance in documenting these design criteria changes. The Project Engineer should also consult with Region Environmental Permit Coordinators to make sure proposed design changes comply with environmental requirements.

Responsibility as a Public Official

The Project Engineer is responsible for a project that is affected by Federal, State, Tribal, and local laws, ordinances, and regulations. While no one could be familiar with every requirement, the Project Engineer should seek to understand as much as possible. Beyond that, the prudent Project Engineer will look for guidance and seek information related to whatever current issue is at hand. Legal requirements could affect State employees, those employed by the Contractor in performing the work, the materials to be incorporated, the equipment that is used on the project, or could otherwise affect the conduct of work.

If the Project Engineer discovers that any provision of the contract, plans, or specifications appears to be inconsistent with a law, ordinance, or regulation, the inconsistency should be investigated and, if appropriate, referred to the Region

Construction Manager. The Project Engineer should, at all times, strive to comply with all laws, ordinances, and regulations.

Relationship With the Contractor

The Project Engineer must be familiar with the conditions of the contract, special provisions, and specifications for the work. The Project Engineer must attend to any reasonable request of the Contractor, i.e., furnishing grades, stakes, plans, whenever necessary and within reason. In general, the Project Engineer should do all things necessary to enable the Contractor to work to advantage and without delay. The Project Engineer should not set any stakes or furnish to the Contractor any plans which are the responsibility of the Contractor to set or provide. The Project Engineer must ensure that the Contractor performs the work in accordance with the contract provisions, plans, and specifications.

Integrity on the part of all employees is essential. The attitude of the Project Engineer and staff toward the Contractor and the Contractor's personnel should be one of cooperation, consistent with the requirements of the specifications. It should be recognized that both the State and the Contractor have explicit rights under the contract and that both parties must respect those rights. The Contractor is generally trying to fulfill the contract honestly, and errors or difficulties, which may arise are usually due to a lack of information or a misunderstanding. If conflict should occur, the Project Engineer should make every effort to determine the cause of the conflict and make appropriate corrections.

Relationship With Other Government Agencies

Other agencies responsible for such things as flood control, land development, resource protection, stream navigation, or pollution may be affected by the work. The Project Engineer must ensure that the contractor follows the contract pertaining to these and other related issues. The Project Engineer is encouraged to obtain a copy of commitments from the project design file or other sources, like the Commitment Tracking System. This should be available from a region or project design office. This file should contain environmental permits/agreements, real estate commitments, utility commitments, design deviations, and other important information. When the Contractor is specifically required by the contract to obtain an approval document from other agencies, the Project Engineer must confirm that the document was received. Other approvals required of the contractor, but not mentioned in the contract documents should be confirmed to the extent that the requirements are known and the confirmation is possible. If a representative of an agency visits the project, the Project Engineer or an inspector should accompany the representative on the visit.

In carrying out construction work in forested areas, the Project Engineer should encourage the Contractor to comply with all Federal and State forest rules and regulations governing the protection of forests and the prosecution of the work within both national and State forests. The Contractor must take all precautions necessary to prevent and suppress forest fires. The Project Engineer shall report to the nearest forest fire warden at the earliest possible moment, the location and extent of any fire and shall take immediate steps to control the fire if practicable.

Construction work in or near streams, rivers, or other bodies of water may require a permit from state and federal agencies, including but not limited to the State Department of Fish and Wildlife, Washington State Department of Ecology, or the U.S. Army Corps of Engineers. The Project Engineer is encouraged to coordinate closely with these (and other) agencies during permit acquisition to ensure the permits don't contain conflicting conditions. Also, be sure to consult across agencies if one of these agencies request modifications to the project that may affect other permits. The Project Engineer should ensure that the provisions of environmental permits are rigidly enforced. If the Contractor's method of operations, weather conditions, design changes, or other factors affect waters of the state in ways not anticipated or represented in the permit, the Project Engineer will work with the Region Environmental Office and the Contractor (if necessary) to modify the existing permit(s) or obtain a new or revised one(s) as appropriate.

The U.S. Department of Labor, Mine Safety and Health Administration (MSHA) has jurisdiction over and inspects mine sites. A pit, quarry, or other aggregate production facilities may be considered a mine site and under the jurisdiction of MSHA. Testing facilities, personnel and equipment located within a mine site are subject to Title 30 Code of Federal Regulations Parts 46 Training and Retraining of Miners engaged in shell dredging or employed at sand, gravel, surface stone, surface clay, colloidal phosphate, or surface limestone mines and Part 56 Safety and Health Standards – Surface Metal and Nonmetal Mines. When possible, WSDOT-owned testing facilities should be located outside the fenced area of the mine. If testing facilities are located on mine property, they should be placed where other mine administrative offices are located.

Before entering a mine site, contact the operator of the site and request site-specific hazard-awareness training which should include what personal protective equipment is required. This training is required by Title 30 CFR for facilities under MSHA jurisdiction. WSDOT employees are not considered miners and therefore must be escorted to/through the mine site by a Trained Miner when obtaining samples, as required by Title 30 CFR Part 46.

The U.S. Department of Labor, Mine Safety and Health Administration, Metal and Non-Metal Mine Health and Safety Division, 3633 136th Place SE, Suite No. 206, Bellevue, WA 98006, 206-553-7037, must be notified at the beginning and closing of all mining operations. This includes surface mining, such as our normal pit site operations. Notification is required for all crusher operations and for all pits and quarries, including borrow pits, which are separated from the roadway under construction. The owner, operator, or person in charge of the mine site is responsible for notification to MSHA for all mining operations; including those taking place in WSDOT furnished pits and must submit the required report as soon as the date of opening or closing can reasonably be determined.

Whenever construction work is performed in navigable waterways, it is necessary to obtain a construction permit from the Coast Guard. One of the requirements of the construction permit is regular submission of Bridge Construction Progress Reports. Two copies of the report should be prepared by the Project Engineer sufficiently in advance of the first working day of the month and transmitted to the State Bridge and Structures Engineer. When a Coast Guard permit modification is proposed

(by the Contractor or WSDOT), it shall be submitted to the Bridge and Structures Engineer for processing through the Coast Guard. The time required for approval/disapproval of the proposed permit modification is variable and depends on the nature and significance of the modification. Up to six months may be required. When all construction obstructions to navigation have been removed, the Project Engineer shall report that fact immediately to the Bridge and Structures Engineer indicating the date removal was completed. Upon completion of all permitted bridge work, a final report indicating the date of completion and certifying that the bridge has been constructed in compliance with the Coast Guard Bridge Permit shall be submitted by the Project Engineer to the State Bridge and Structures Engineer.

Preconstruction Meetings, Discussions

The Project Engineer is required to communicate with the Contractor for the purpose of discussing the project and exchanging a variety of information. Depending upon the complexity of the project, this information can be exchanged in any combination of the following methods:

- Information packets provided to the Contractor.
- Letters transmitting information.
- Informal meetings.
- A single multipurpose formal meeting.
- Several formal meetings with different purposes.

If the Project Engineer decides that a formal meeting is necessary in order to successfully begin work on the project, a meeting should be arranged as soon as practical after the contract is awarded and the Contractor has organized for the work.

In the case of a project that includes utilities to be adjusted, relocated, replaced or constructed by a utility, or their contractor, during the performance of the contract, the Project Engineer shall facilitate a mandatory utility preconstruction meeting with the Contractor, all affected utility owners and their contractors prior to any on-site work. The Project Engineer should request assistance from the Region Utilities Engineer for help in getting utilities to attend this meeting. This meeting should include a discussion of all utility work schedules, in order to enable the utilities and the Contractor to coordinate their work, resolve schedule conflicts, and eliminate delays.

The Revised Code of Washington (RCW 47.01.300) requires that projects with environmental considerations be reviewed during the preconstruction meetings held with the contractor. More information about discussing environmental topics at the preconstruction meeting is found in the Chapter 610 of the *Environmental Manual*. A procedure is available (PRO610-b) to help the Project Engineer prepare environmental topics to discuss at the preconstruction meeting. Verification of the Contractor's Certified Erosion and Sediment Control Lead (CESCL) is required when the project has obtained a NPDES Construction Stormwater General Permit. A procedure is available (PRO610-c) that allows the Project Engineer to verify the Contractor's CESCL credentials are valid.

All information exchanged should be documented in the project records, by formal meeting minutes, by file copies of letters, or by diary entries.

The nature, amounts, and methods of communication with the Contractor are left to the Project Engineer. As a minimum, the following subject areas should be covered during the preconstruction time period:

- **Contractor WSDOT Relationships** – The Project Engineer should begin to develop a positive and effective relationship with the Contractor as soon as the contract is awarded. This is also a good time to introduce the concept of "Partnering" if it has not already been introduced on the project. The Project Engineer should strive to create an environment that encourages a cooperative approach to completing the project. This can be helped by beginning the development of a team consisting of both the Contractor's and WSDOT's project people. The level of authority delegated to each member of the Project Engineer's staff should be discussed with the Contractor. The level of authority of each member of the Contractor's staff, in particular regarding change orders, should be discussed. In addition the methods of establishing the Contractor's Performance ratings can be reviewed (see Section 1-00.9 for additional information). The Contractor should also be informed that there is an opportunity to evaluate the WSDOT construction process as well.

  Especially on projects with Contractor surveying, it is strongly advised to invite the Region Survey Committee member or their representative to discuss the requirements for removing, disturbing, or re-establishing survey monuments.
- **Environmental Commitments** – Almost every project will have environmental commitments resulting from, but not limited to: 1) environmental processes like the National Environmental Policy Act or the Washington State Environmental Policy Act; 2) consultations with federal agencies concerning endangered species; 3) obtaining federal, state, and local permits; or 4) existing inter agency agreements. WSDOT uses the Commitment Tracking System (CTS) to store project specific environmental commitments and to organize them by ownership; Contractor, WSDOT, or both.

  It is WSDOT policy to incorporate all contract-relevant environmental commitments into the contract. As a result, the Special Provisions and the Plans should contain all the contract-relevant environmental commitments not covered by the *Standard Specifications*. The Project Engineer is encouraged to review the Special Provisions and Plans with the Contractor at the preconstruction meeting. The Project Engineer should consider using relevant information from the environmental compliance binder (PRO610-a) during the preconstruction meeting.

  The Contractor's responsibility to obtain any local agency permits should also be discussed. For example if a rock crusher is required for a project, the State Department of Ecology registration requirements should be discussed (WAC 173-400). In addition, a written record of this discussion should be sent to the regional office of the State Department of Ecology so that they are aware of the timing and location of the rock crushing operation.
- **Order of Work and Time Schedules** – The Project Engineer needs to know the Contractor's schedule of work in order to set up the crews, arrange for any special inspections, or provide timely reviews of submittals. The contract requirements for progress schedule or time for completion in accordance with Section 1-08, or as amended by the special provisions, can also be discussed. When shown in the Plans, the first order of work shall be the installation of high visibility fencing to

delineate all areas for protection or restoration. The Project Engineer should review the Plans at the preconstruction meeting to ensure these resources are not disturbed during clearing and grading activities. A procedure exists (PRO610-d) for the Project Engineer to ensure the clearing limits are properly marked in the field to protect sensitive areas..

- **Subcontractors and Lower-Tier Subcontractors** – In accordance with *Standard Specifications* Section 1-08.1, the Project Engineer needs to become aware of the Contractor's plans to delegate portions of the work to subcontractors. These plans must conform to the condition of award, if any, related to disadvantaged business enterprise participation. The Project Engineer should explain the requirements and process involved for subcontractor and lower-tier subcontractor approval, including the prevailing wage rate requirements outlined in the contract documents (see Section SS 1-07.9(1)), the requirement to verify that each subcontractor meets the responsibility criteria outline in 39.04 RCW and possesses any license required by 19.28 RCW or 70.87 RCW, and the requirement that all subcontracts (of whatever tier) on Federal Aid contracts must include FHWA-1273 and Amendments to FHWA-1273. WSDOT/Contractor/Subcontractor relationships should also be discussed. The Project Engineer should remind the Contractor that there is no contractual relationship between WSDOT and the subcontractors. All subcontractor correspondence with WSDOT should pass through the Contractor for submittal to WSDOT or vice versa. Contractor representation should also be discussed. It will be necessary for the Contractor to be represented at the job site at all times, even when there is only subcontractor work in progress.
- **Utilities, Railroads, and Other Third Parties** – If the project affects or is affected by third party organizations, the Project Engineer must advise the Contractor about the relationships with the third parties and the expectations they hold regarding the actions of both WSDOT and the Contractor. The Project Engineer may wish to arrange face-to-face meetings with representatives of affected third parties. In the case of utilities, reference should be made to the underground locator services and the requirements to utilize them (see RCW 19.122). If WSDOT has agreed to notification time limits, these should be communicated to the Contractor. If special insurance is required by any agreements with third parties, then these requirements should be pointed out to the Contractor.

  If utilities are to be adjusted, relocated, repaired or constructed by the utility during the performance of the contract, the Project Engineer shall facilitate a separate, mandatory, utility preconstruction meeting with the Contractor, the utility, and their contractors.

  If public transportation agencies will be impacted, the Project Engineer will consistently supply information to WSDOT's Construction Traffic Management team throughout the life of the project. Keep in mind that public transportation is not just fixed routes, but includes services for people with special needs, vanpools, park and ride lots, and other ride-sharing services. Traffic hot spots and other traffic information is accessible at: www.wsdot.wa.gov/construction/planning
- **Safety and Traffic Control** – The Contractor's safety program should be discussed as outlined in Section SS 1-07.1. WSDOT has an interest in safe operations on the job and the Project Engineer should make clear that this interest will be protected. As part of a discussion of specific safety requirements of the particular

work, safety considerations for workers and WSDOT personnel, such as safety zone requirements, vehicle intrusion protection, fall prevention, closed spaces, hazardous materials, work around heavy equipment, etc., should be addressed. The need for control of speed on all construction equipment should be emphasized.

The Project Engineer should describe WSDOT's traffic requirements. The Contractor's Traffic Control Manager (TCM), Traffic Control Supervisor (TCS) and WSDOT's traffic control contact person should be identified and their responsibilities and authorities clearly stated. Any traffic control requirements that are unique or restrictive should be emphasized and addressed by the Contractor with respect to construction operations. Unacceptable delays to traffic should also be discussed.

The MUTCD, as adopted by WSDOT, is the legal standard for all signing, traffic control devices and traffic control plan requirements on the project. These standards have been incorporated into the project Traffic Control Plans (TCPs.) If the Contractor chooses to use these TCPs, they must be formally adopted in writing as required in *Standard Specifications* Section 1-10.2(2). If the Contractor wishes to use some other traffic control scheme, then that plan must be submitted and approved in advance.

Flaggers and their intended locations must be included in the plans. When Flaggers are utilized, they must have a current flagging card and shall be equipped with hard hats, vests, and standard stop/slow paddles as required in *Standard Specifications* Section 1-07.8 and 1-10.3. Overuse of flaggers is not appropriate as "catch all" traffic control and should be discouraged. Safety of flaggers, through use of physical protection devices where practical, proper flagging methods and formulating an emergency escape plan, should be emphasized.

The Contractor and the Project Engineer should establish communication with the Washington State Patrol (WSP) and local law enforcement agencies. Law enforcement advice about traffic control should be considered. Arrangements for all law enforcement agencies to notify the project office about accidents near, or in, the construction area should be established, if possible. If WSP traffic control assistance is to be used, a general discussion of strategy and responsibilities should be included.

Off-site hauling can pose a safety hazard to the public. WSDOT will cooperate with law enforcement agencies in the enforcement of legal load limit requirements and the covered load regulations. The Project Engineer should discuss this with the Contractor before any hauling begins.

The Contractor should be reminded of *Standard Specifications* Section 1-07.1, requiring the Contractor to comply with all Federal, State, tribal or local laws, ordinances, and regulation that affect Work under the contract.

Particular mention should be made of observance of Industrial Fire Precaution Levels (IFPL) when performing work on or adjacent to forest land under the purview of the Department of Natural Resources (DNR). The Contractor is required to comply with all fire regulation including, but not limited to, fire shutdowns, fire fighting tools required, notifications, etc. Information regarding IFPLs may be found on the DNR webpage listed: www.dnr.wa.gov/RecreationEducation/Topics/FireBurningRegulations/Pages/rp_fire_ifpl.aspx.aspx

- **Control of Materials** – The Contractor should be reminded of *Standard Specifications* Section 1-06.1, requiring the Engineer's approval of all materials prior to their use. In order to expedite these approvals, the Contractor should be encouraged to make these requests as early as possible. The Project Engineer should provide the Contractor with a current copy of the Record of Materials (ROM) for the project. The Project Engineer should discuss the ROM with the Contractor, covering the various requirements for sampling, catalog cuts, shop drawings, certification requirements, etc., which may be needed for approval of materials prior to their use. If the project includes Federal funds, the Project Engineer should discuss the requirements of "Buy America" and DOT Form 350-109, Certification of Materials Origin. The requirements of *Standard Specifications* Section 1-06.2 for ongoing acceptance of approved materials prior to their being incorporated into the work, should also be discussed. The Project Engineer should discuss with the Contractor who should have access to the Statistical Acceptance of Material (SAM) program. If fabricated items will be needed, the inspection process for fabricated materials, including shop drawing approvals and notification requirements for fabrication inspectors, should also be outlined. The requirements of *Standard Specifications* Section 1-06.3 that require manufacturer certifications prior to use of the materials should also be reviewed.

  The Contractor should be reminded that, in order to avoid deferred progress payments for portions of work not completed, all necessary documentation for approval of materials and required certifications must be received and accepted prior to their use. A method of notification of intent to defer payment should be discussed with the Contractor, and an agreed upon method documented in the project files.
- **Other Submittals** – Discuss any other submittals that may be needed during the course of the contract. This may include Falsework and Forming Plans, Traffic Control Plans, Temporary Erosion and Sediment Control Plans, Spill Prevention Control and Countermeasures Plans, Schedules, Installation or Operating Procedures, or other Contractor initiated items requiring WSDOT review and/or approval. There are requirements for a number of submittals which, if not satisfied in a timely manner, could delay the initial progress payment. These include the Statement of Intent to Pay Prevailing Wages, the Progress Schedule, and the Training Plan. There may be others depending on the work to be done and as required by the contract provisions. The Project Engineer should identify and remind the Contractor of these requirements and the potential for deferred payments.
- **DBE Participation/EEO/Training** – The Project Engineer should briefly discuss and answer any questions the contractor may have with regard to the efforts, reports, and monitoring necessary to ensure successful performance for DBE *Participation, EEO, Apprentice Utilization, and Training*. Section SS 1-07.11(2) of this manual provides a breakdown of these various programs and the general requirements each contains. However, the specific requirements and contractor performance information are included in the *Standard Specifications*, the Amendments included in the contract, as well as the contract specific special provisions titled *Equal Employment Opportunity Responsibilities*. If additional assistance or information is necessary, the Project Engineer could also request

assistance from the Region EEO Officer, the State Office of Equal Opportunity, or the State Construction Engineer's Office.

The Contractor should be ready to discuss how utilizing the services of the Department of Employment Security's Work Source will be incorporated into their recruitment program when filling new jobs on the project.

- **Wage Rate Administration** – Advise the Contractor of the requirement to pay prevailing wage rates as identified in the Contract. Advise the Contractor that it is their responsibility to work directly with Washington State Department of Labor and Industries (L&I) for approval of the Statement of Intent to Pay Prevailing Wages (SI) and Affidavit of Wages Paid (AWP) and that:
  - The SI and AWP will be on forms provided by L&I.
  - The forms will be obtained from L&I or can be filed electronically with L&I online at www.lni.wa.gov/tradeslicensing/prevwage/default.asp, if the contractor is registered by L&I to file electronically.
  - The contractors, subcontractors, lower-tier subcontractors, suppliers, manufacturers, and fabricators that are required to submit SI and AWP will pay the approval fee directly to L&I.
  - The Contractor will provide the Project Engineer a copy of the approved forms (SI, before any payment can be made for the work performed and all AWP, before the contract will be accepted). If payrolls are required, establish submittal deadlines in accordance with *Standard Specifications* Section 1-07.9(5). Describe the wage rate interview process. Describe the required and/or recommended job site posters and provide them to the Contractor (see Section SS 1-07.9(2)). On all Federal-Aid contracts, the Project Engineer must remind the Contractor that the work falls under the guidance of Davis-Bacon and Related Acts and the Contract Work Hours and Safety Standards Acts. As indicated in Section SS 1-07.9(1), the U.S. Department of Labor may conduct investigations to ensure compliance with these Acts.
- **Forms** – The Project Engineer should provide the Contractor a description of all required forms, giving the Contractor an initial supply of each. Additional forms required by the Contractor over the course of the work should be provided by the Project Engineer upon request by the Contractor. Remind the Contractor that all form submittals, including those of subcontractors, lower-tier subcontractors, and suppliers, should be routed through the Prime Contractor for submittal to WSDOT.
- **Summary** – While these issues are to be discussed with the Contractor in some manner at the beginning of each contract, the Project Engineer is free to select the most effective method of doing so. A formal preconstruction conference may or may not be the best solution. Perhaps a single meeting is adequate or several meetings may be required. The entire preconstruction communication may also be covered in a short meeting between the Project Engineer and the Contractor. The Project Engineer is responsible to address these subjects, inform the Contractor in some manner and maintain a written summary of the preconstruction meetings or discussions for the contract files.

  The Contractor and Project Engineer may be knowledgeable about those normal requirements listed above. In this situation, some items need only be listed in a mailing as a convenience to the Contractor's staff. Unique features,

constructability, and third party coordination should be focused on with as many of the interested parties as can be assembled.

The key is effective communication, getting the right message to the necessary people. Additional meetings may be required as people change, as new facets of the work become imminent, or as the project goes into a second or third season. In order to assist this process, a checklist has been developed as a tool for the project office's use. It can be used to help identify the issues and track them for completion through the various preconstruction communications.

SS 1-05.3 Plans and Working Drawings

Working Drawings submitted by the Contractor should be checked for conformance to contract requirements. A Change Order is required for any deviation from contract requirements. Any conflicts with the contract plans that have been detected or revisions that may be desired by the Project Engineer should be noted on the copy being forwarded to Headquarters. If Change Orders to cover any deviations from the contract plans have been issued, or are being processed, those changes should also be noted.

Figure 1-1 is a list of the most common Working Drawings and includes references to the specifications that require them and the section of this manual that covers the procedures for processing them. The WSDOT Review Groups column identifies the groups within WSDOT that need to review the various Working Drawings. All review by State groups (Bridge and Structures Engineer, Bridge and Structures Architect, Geotechnical Engineer, Materials Lab and State Construction Engineer) identified in Figure 1-1 is coordinated by the Bridge and Structures Engineer. The Project Engineer should use DOT Form 410-025 to transmit the Working Drawings with State review requirements to the Bridge and Structures Engineer. The Bridge and Structures Engineer will then send a response back to the Project Engineer that incorporates comments from all State review groups.

The Project Engineer should maintain a log of all shop plans or other drawings received for each contract. Shop plans for items that conform to the contract plans or a standard plan, except those listed in Figure 1-1, should be reviewed by the Project Engineer.

Beginning in August 2014, *Standard Specifications* Section 1-05.3 was rewritten to change how Working Drawings are classified. These changes classify Working Drawings as Type 1, 2 or 3 with Types 2 and 3 having the option to be classified as 2E or 3E when the submittal is required to be prepared by a Professional Engineer. Type 1 Working Drawings are generally informational in nature and are often used to provide the Project Engineer a description of work to be completed and allow the Project Engineer an opportunity to prepare for the inspection of this work. A Type 1 Working Drawing does not require a response to the Contractor. Should the Project Engineer determine the work proposed by the Contractor does not comply with the contract, a response should be sent to the Contractor. Type 2 and 2E Working Drawings are required for work that is more complex or specialized than what would be required for a Type 1 Working Drawing. A Type 2 Working Drawing is submitted to the Project Engineer for review and comment and will often be reviewed by support offices that specializes in the type of work. The Project Engineer is allowed up to 20 calendar days for review and the Contractor is not allowed to begin work until the Project Engineer

has provided review comments. It is important that the Project Engineer complete the review and return comments, even if the plan is acceptable, to prevent a delay to the Contractor. Type 3 and 3E Working Drawings require WSDOT's approval prior to the Contractor beginning work and the Project Engineer is allowed 30 calendar days to complete their review. For Type 3 and 3E Working Drawings it is important that the Project Engineer complete the review and reply to the Contractor within the allowed 30 calendar days. Should the Project Engineer fail to complete the review and respond to the Contractor within the allowable time for the Type 2 or 3 Working Drawings, the Contractor may be entitled to compensation for impacts due to the delay.

At this time, not all sections of the *Standard Specifications* and Special Provisions have been updated to reflect the revisions to Section 1-05.3. There will still be some sections that reference different requirements for the submittal and review of Working Drawings. The Project Engineer should review the Contract to confirm the proper Working Drawing requirements are being followed.

Comments on Working Drawings should be related only to conformance of the Working Drawing to the contractual requirements. Possible responses to Working Drawings include:

- Approved (only use for Working Drawings that require WSDOT approval)
- No exceptions taken
- Make corrections noted
- Revise and resubmit
- Rejected

Working Drawings that conform to the requirements of the contract will generally be returned as approved for Type 3 or no exceptions taken for Type 2. Working Drawings that don't comply with the contract will be returned with one of the other responses depending on the nature and severity of the contractual compliance issues.

Working Drawing, Shop Plan, or Submittal Type	Construction Manual Ref.	Standard Spec. or Other References	WSDOT Review Groups	PE Distribution of Drawings	Notes
Working Drawings (Shop Plans for Contract or Standard Plan Item)	SS 1-05.3	1-01.3	Project Engineer	Contractor Fabrication Inspector	
Calculations for Overload of Structure	None	1-07.7(2) 6-01.6	Project Engineer Bridge and Structures Engineer	Contractor	PE stamp is required.
Mfg. Specification for Portable Temporary Traffic Control Signal	None	1-10.3(3)K	Project Engineer	Contractor	
Prefabricated Vertical Drainage Wick Submittals	None	2-03.3(14)H	Project Engineer	Contractor	
Calculation for Backfilling Abutment Prior to Superstructure Placement	None	2-03.3(14)I	Project Engineer Bridge and Structures Engineer Geotechnical Engineer	Contractor	PE stamp is required.
Blasting Plan	None	2-03.3(2)	Project Engineer	Contractor	

Working Drawings, Shop Plans or Submittal Type
Figure 1-1

Working Drawing, Shop Plan, or Submittal Type	Construction Manual Ref.	Standard Spec. or Other References	WSDOT Review Groups	PE Distribution of Drawings	Notes
Excavation Slope Working Drawings and Calculations	None	2-09.3(3)B	Project Engineer Geotechnical Engineer	Contractor	PE stamp is required for Temporary Slopes Greater than 20 ft in Height
Cofferdams, Shoring, Cribs, and Trench Boxes	6-1.5	2-09.3(3)D 2-09.3(4) 6-02.3(16)	Project Engineer Bridge and Structures Engineer Geotechnical Engineer	Contractor Region Construction	PE stamp is required.
Falsework, Forming, and Bracing Plans (including design calculations)	6-1.5	6-02.3(16) 6-02.3(17)F	Project Engineer Bridge and Structures Engineer	Contractor Region Construction	PE stamp is required.
3-Sided Structures	None	7-02.3(6)	Project Engineer Bridge and Structures Engineer Geotechnical. Engineer	Contractor Fabrication Inspection	PE stamp is required.
Project Specific Powder Coating Plan and Materials Submittals	None	6-07.3(11)B	Project Engineer State Materials Engineer (Fabrication Inspection) Bridge and Structures Engineer	Contractor Fabrication Inspection	
Bridge Demolition Plans	None	2-02.3(2)A	Project Engineer Bridge and Structures Engineer State Construction Engineer	Contractor Region Construction	PE stamp is required.
Shaft Installation Plan and Construction Experience for Bridges and Permanent Signing Structures	None	6-19.3(2)	Project Engineer Bridge and Structures Engineer Geotechnical Engineer State Construction Engineer	Contractor	
Precast Vaults	None	See Special Provisions	Project Engineer Bridge and Structures Engineer Geotechnical Engineer	Contractor Fabrication Inspection	PE stamp is required
.Pipe Jacking Plans	None	See Special Provisions	Project Engineer Bridge and Structures Engineer Geotechnical Engineer	Contractor	
Soil Nail Walls	None	6-15.3(3)	Project Engineer Bridge and Structures Engineer Geotechnical Engineer	Contractor	Include State Const. Engr. if shotcrete facing is permanent (6-18.3(1)) Experience criteria to be verified by Project Engineer

Working Drawings, Shop Plans or Submittal Type
Figure 1-1

Working Drawing, Shop Plan, or Submittal Type	Construction Manual Ref.	Standard Spec. or Other References	WSDOT Review Groups	PE Distribution of Drawings	Notes
Soldier Pile Walls	None	6-16.3(2)	Project Engineer Bridge and Structures Engineer Geotechnical Engineer	Contractor	PE stamp is required for concrete fascia panel forming plans only.
Permanent Ground Anchor Submittals	None	6-17.3(3)	Project Engineer Bridge and Structures Engineer Geotechnical Engineer	Contractor	
Roadside Plant/Weed and Pest Control Plan	None	8-02.3(2)	Project Engineer	Contractor Region Construction	Signed by Licensed Chemical Pest Control Consultant
Shop Plans for Light Standard and Traffic Signal Standards	8-20.2B	8-20.2(1)	Project Engineer Bridge and Structures Engineer	Contractor Fabrication Inspection Maintenance	Shop drawings are required for all signal standards and for those light standards without pre-reviewed plans. (per Std. Spec)
Shop Plans for Sign Structures	8-21.3	8-21.3(9) A refers to Section 6-03.	Project Engineer Bridge and Structures Engineer	Contractor Fabrication Inspection	
Column Jacket Shop Drawings and Installation Plans	None	GSP 6-02.3.OPT8(C). GB6 and 6-02.3.OPT8(D). GB6	Project Engineer Bridge and Structures Engineer Geotechnical Engineer	Contractor Fabrication Inspection Maintenance	PE stamp is required on column jacket installation plan
Form Liners (Various patterns per GSP)	None	6-02.3(14)D	Project Engineer Bridge and Structures Architect	Region Construction Contractor	Include 2ft × 2ft sample with drawing to Bridge and Struct. Architect
Welding Steel Piling	6-5.6	6-05.3(6) 6-03.3(25)	Project Engineer Bridge and Structures Engineer	Contractor Fabrication Inspection	Weld splices of steel casing for cast-in-place conc. Piles shall be the Contractor's responsibility
Pile Driving Equipment Adequacy Submittals		6-05.3(9)	Project Engineer Bridge and Structures Engineer Geotechnical Engineer State Construction Engineer	Contractor	PE stamp is required on wave equation analysis
Painting Plan	None	6-07.3(2)	Project Engineer Bridge and Structures Engineer State Construction Engineer	Contractor	
Modified Concrete Overlays (Mix Design, Equipment Specifications and Procedures)	None	6-09.3(2)	Project Engineer State Construction Engineer	Contractor	

Working Drawings, Shop Plans or Submittal Type
Figure 1-1

Working Drawing, Shop Plan, or Submittal Type	Construction Manual Ref.	Standard Spec. or Other References	WSDOT Review Groups	PE Distribution of Drawings	Notes
Shaft Installation Plan for Noise Walls, Soldier Pile Walls, Signal Standard Foundations, and Luminaire Bases	6-2.3E	6-12.3(1) 6-16.3(2)	Project Engineer Bridge and Structures Engineer Geotechnical Engineer State Construction Engineer	Contractor	
Structural Earth Wall Submittals	None	6-13.3(2)	Project Engineer Bridge and Structures Engineer Geotechnical Engineer	Contractor	PE stamp is required.
Geosynthetic Retaining Wall Plans (Includes Std. Plan Type 1-6 Walls)	None	6-14.3(2)	Project Engineer Bridge and Structures Engineer Geotechnical Engineer	Contractor	
Girder Erection Plans (Including falsework and stress calculations)	None	6-02.3(16) 6-02.3(25)N 6-03.3(7)A	Project Engineer Bridge and Structures Engineer	Contractor Region Construction	PE stamp is required.
Welding Reinforcing Steel	6-2.6D	6-02.3(24)E	Project Engineer Bridge and Structures Engineer	Contractor Fabrication Inspection	
Shop Detail Plans of Prestressed Concrete Girders, Prestressed Structures, Prestressed and Precast Conc Piles	6-2.7A	6-02.3(25)A None for Piles	Project Engineer Bridge and Structures Engineer	Contractor Fabrication Inspection	6-02.3(16)B is for the formwork plans for preapproval
Post-Tension Shop Drawings	6-2.8	6-02.3(26)A	Project Engineer Bridge and Structures Engineer State Construction Engineer	State Construction Engr. Contractor Region Construction	PE stamp required
Precast Concrete Panels	None	6-02.3(28)A 6-12.3(1)	Project Engineer Bridge and Structures Engineer	State Construction Engr. Contractor Fabrication Inspection	
Welding Structural Steel (Submitted with Shop Drawings)	6-3.6C	6-03.3(25)	Project Engineer Bridge and Structures Engineer	Region Construction State Materials Lab Contractor	
Shop Plans for Structural Steel for Bridges (Expansion Joints, Metal Bridge Rails, Bridge Drains, Etc.)	6-3.1	6-03.3(7) 6-06.3(2) Special Provisions	Project Engineer Bridge and Structures Engineer	Region Construction State Materials Lab Contractor	
Treated Timber Structures	6-4.1	6-04.3(3)	Project Engineer Bridge and Structures Engineer	Contractor Fabrication Inspection	

Working Drawings, Shop Plans or Submittal Type
Figure 1-1

SS 1-05.4 Conformity With and Deviations From Plans and Stakes

Permanent Monuments

Most permanent monuments which are in the construction zone are relocated by the establishing agency. Normally these monuments are relocated prior to beginning of construction, but if monuments are found within the construction zone, they must be preserved until they can be moved. If the urgency of construction does not allow time for the relocation of the monument, it must be properly referenced so it may be reset or relocated at a later time. When a monument is found within the construction area, the proper agency shall be notified promptly and requested to relocate the monument.

Property Corner Monuments and Markers

It is imperative that land plats and property corners be preserved. The 1973 Legislature enacted a Survey Recording Act, RCW 58.09, to provide a method for preserving evidence of land surveys by establishing standards and procedures for monuments and for recording surveys as a public record. When a general land office corner, plat survey corner, or property line corner exists in the construction zone, it is necessary to properly reference it and reset it after the construction work has been done. RCW 58.09.040 requires that, for all monuments that are set or reset, a record of the monument be filed on a Monumentation Map with the County Engineer in the county in which the corner exists and the original sent to the State Right of Way Plans Branch, who will forward a copy to DNR for their records.

Alignment Monumentation

During construction, alignment monumentation may be altered to fit field conditions. Such changes may include:

- Normally all PCs and PTs are to be monumented. Additional point on tangent (POT) monuments are necessary where line of sight is, or may in the future be obstructed by the horizontal or vertical alignment, buildings, or other barriers.
- When the right of way and the construction alignment do not coincide, the monumentation shall be such that the exact right of way as acquired can be positioned in the field. This will generally require, as a minimum, that the right of way alignment be monumented.
- When safety of the survey crew or survival of the monuments is an issue, monuments may be offset from the true alignment. An extra effort in accuracy must be made when setting offset monuments to ensure an accurate reestablishment of the true alignment. The monumentation, including monument locations, reference distances, stations, and bearings, is to be shown on the as built plans.

Surveying Provided by the State

Unless the contract states otherwise, the Project Engineer is responsible for providing all surveying needed to locate and define the contract work. The staking done in construction surveying must assure that the work will conform to the plans and must also conform to the Contractor's approach to the work. There are numerous survey techniques that will accomplish these objectives. Prior to each phase of the work, the Project Engineer must reach agreement with the Contractor concerning the method, location, and timing of construction staking. Once this agreement is reached, it must

be shared with all WSDOT, Contractor, and subcontractor personnel who place or use construction stakes.

Contractor Surveying

If the contract requires the Contractor to provide some or all of the construction surveying, the Project Engineer is required to provide only the primary control points staked, marked, and verified in the field and the coordinate information for the main alignment points in the plans. The plan alignment and the field control points must be referenced to the same grid coordinate system.

The provisions for contractor surveying are intended to provide the stakes needed to inspect the work, as well as the primary function of locating and defining the work. If the survey stakes required by the contract do not provide the reference data needed for inspection, then the Project Engineer will have to provide additional survey work that is needed. As an alternative, a change could be negotiated with the Contractor to perform the added work.

The Contractor's survey work is a contract item, just like all other contract items. It must be inspected for adequacy and conformance with the contract. Once it is performed and inspected, it must be paid for.

The wise Project Engineer will inspect the survey efforts and check as much of the contractor's work as is practical. Any errors should be brought to the Contractor's attention for corrective action. The inclusion of contractor surveying in a project transfers the risk of survey errors to the Contractor. The Project Engineer must assure that the survey work of the Contracting Agency does not relieve the Contractor of that risk.

Subgrade Grade Control Tolerance

The finish required on roadway subgrades shall ensure a final grade in as close conformity to the planned grade and cross-section as is practicable, consistent with the type of material being placed. Subgrade blue tops shall be set 0.05 ft below subgrade elevation and be accurate to + or – 0.01 ft. The finished subgrade surface shall not deviate from the plan subgrade elevation by more than +0.00 to -0.05 ft. Where excessively rocky materials are being placed, deviations in excess of the above may be accepted where, in the opinion of the Engineer, closer conformance cannot be achieved by normal procedures and with a reasonable amount of effort and care on the part of the Contractor. Conformance to grade shall be checked by rod and level, straight-edging, or other appropriate engineering method as selected by the Engineer.

Surfacing Grade Control Tolerance

Red and Yellow tops for surfacing materials shall be set accurate to + or -0.01 ft. The finish of the compacted materials shall conform to the grade established by the blue tops as closely as is practicable and in general, should not deviate from the established grade in excess of the following: ballast and base course, + or – 0.05 ft; top course for bituminous surface treatment, + or – 0.03 ft; top course for asphalt concrete, + or – 0.02 ft; surfacing under treated base course, + or – 0.03 ft; treated base under Portland cement concrete pavement, + 0.00 to – 0/02 ft.

Conformance should be checked by use of rod and levels from blue tops and/or by string-line or straight edge methods as determined appropriate by the Engineer. The above schedule refers to conformance both longitudinally and transversely to the traveled way. The outer shoulder line finished grades shall not exceed double the deviations outlined for the traveled way.

In the event that additional blue tops are not set for setting grade of surfacing courses, the grade of the surfacing shall be referenced to the earthwork subgrade blue tops and adequate controls shall be used to ensure the placement of the required thickness of surfacing and a final surface meeting the requirements outlined above.

Inspection of Course Thicknesses

Tabulated below are the permissible deviations in measured thickness for specified depths of surfacing and paving. While these are the maximum deviations that can be allowed, the Project Engineer may impose tighter requirements for conforming to the plan dimensions where there is a reason to do so.

Material	Specified Depth	Max. Allowable Deviation at Any One Point	Average Depth Deviation for Entire Project
Untreated Surfacing	0 – 0.25′	-0.05′	-0.025′
	0.26 – 0.50′	-0.06′	-0.03′
	0.51 – 0.75′	-0.07′	-0.035′
	0.76 – 1.0′	-0.08′	-0.04′
	Over 1.0′	-8%	-4%
Hot Mix Asphalt (HMA) (single-lift) (multi-lift)	0.08 – 0.15′	-0.045′	-0.015′
	0.00 – 0.25′	-0.03′	-0.01′
	0.26 – 0.50′	-0.045′	-0.015′
	0.51 – 0.75′	-0.06′	-0.02′
	Over 0.75′	-0.075′	-0.025′

For HMA overlays with a specified depth of less than 0.08 ft, it will be the responsibility of the Project Engineer to ascertain the adequacy of the overlay depth in conformance to the plan.

SS 1-05.7 Removal of Defective and Unauthorized Work

Contract Final Acceptance for all work completed on a project is made solely by the Secretary of Transportation acting through the State Construction Engineer. However, the Engineer relies heavily on the actions and professional opinions of others, involved throughout the course of work, in determining acceptability. Because of this, it is expected that the Project Engineer, working with the assistance of the Regional Construction Manager, as well as making full use of the many resources available at both the Regional and State level, particularly the office of the State Construction Engineer, will ensure that sufficient inspection is conducted in order to determine that the work performed or the materials utilized to construct the project comply with the requirements included in the contract plans and specifications. When inspections or tests are performed that indicate substandard work or materials, the Project Engineer should immediately notify the Contractor, rejecting the unsatisfactory work or material. When a review of the Contractor's work or materials used indicate questionable

acceptability with regard to the specifications, the Contractor should be notified as quickly as possible so that changes in materials or work methods can be made in order to avoid materials or work being rejected.

Defective Materials

The contract plans and specifications for construction of a project require that specific materials and/or work practices be utilized in completing the work. The Project Engineer may reject any materials not conforming to the requirements of the specifications. The rejected materials, whether in place or not, are to be immediately removed from the site of the work unless the following guidelines for acceptance of non-specification materials are followed:

Material Not in Place

1. Nonconforming materials may be accepted for use on the project in accordance with the guidance in Section 9-3.5.
2. There may be situations where WSDOT determines the use of nonconforming materials is acceptable. This requires prior approval of the State Construction Engineer and a change order modifying the project specifications.

Except for 1 and 2 above, materials that are known in advance as failing to comply with the specifications are not to be incorporated into the work.

Material in Place

1. Price adjustments have been developed and are referenced in the contract for acceptance of certain materials whose properties cannot be determined until they are in place. Items this policy applies to include: concrete compressive strength, Portland cement concrete pavement thickness, hot mix asphalt mixture and density, and pavement smoothness.
2. Material incorporated into the work that is subsequently found to be in nonconformance with the specifications and for which price adjustments for acceptance are not included in the contract, must be reviewed to determine acceptability. The determination of acceptability should be made only when, in the Project Engineer's judgment, there is a possible service or benefit to be obtained from its use. If it is determined that no benefit or service is obtained from the material's use, the Project Engineer may direct that the material be immediately removed and replaced at no cost to WSDOT.

The Project Engineer may consult the State Construction Office, State Materials Laboratory, the State Bridge and Structures Office, or other design organizations for assistance in determining the usefulness of the nonconforming material. If consulted, these offices will offer technical advice to the extent that information is available. It is not intended to enter into extensive research to assess material which could be removed and replaced under the contract terms.

If the material is acceptable for continued use, a determination shall by made by the Project Engineer of the possible reduced service life caused by the material substitution and the resulting credit assessed by change order.

This determination of acceptability and the resulting credit must meet with the Region Construction Manager's approval for execution of the change order. In addition, prior review and approval must be obtained from the State Construction Engineer with a recommendation from the State Materials Engineer for the intended application of the material. With this determination for acceptance of non-specification material, discussions should be initiated with the Contractor and a change order completed.

If it is determined that the specification violation will not compromise the performance of the material and the nature of the violation is considered to be more of a technical infraction of the specification, the material may be accepted with a change order, possibly including a price reduction. If there is sufficient data and if the nature of the material makes analysis feasible, a pay factor may be determined using QC/QA methods similar to those described in *Standard Specifications* Section 1-06.2(2). If QC/QA cannot be applied, the Project Engineer may determine an adjustment subjectively, using whatever information is available. This assessment or price adjustment is typically based on the unit bid price and may vary from no price adjustment up to the total contract unit bid price for the item involved. If it is determined that the violation is serious enough that the material cannot be accepted for use on the project, the Project Engineer may direct its complete removal and replacement at no cost to WSDOT.

All change orders for acceptance of nonconforming materials are Contractor proposed and WSDOT is under no obligation to accept or approve any of them.

Unauthorized or Defective Work

The following types of activities will be considered unauthorized work and will be completed solely at the risk and expense of the Contractor:

- Work performed contrary to, or regardless of, the instructions of the Project Engineer.
- Work and materials that do not conform to the contract requirements.
- Work done beyond the lines and grades set by the plans or the Engineer.
- Any deviation made from the plans and specifications without written authority of the Project Engineer.

Until all issues of material acceptance and conformity to the contract plans and specifications can be resolved, unauthorized work will not be measured and paid for by WSDOT. The Project Engineer may direct that all unauthorized or defective work be immediately remedied, removed, replaced, or disposed of. In correcting unauthorized or defective work, the Contractor will be responsible to bear all costs in order to comply with the Engineer's order.

For additional guidance, see *Standard Specifications* Section 1-05.7. If the Contractor fails or refuses to carry out the orders of the Engineer or to perform work in accordance with the contract requirements, the Project Engineer should immediately notify the Regional Construction Manager of the facts in the matter, seeking assistance and advice.

SS 1-05.9 Equipment

The Contractor is required to furnish adequate equipment for the intended use. The Contractor's equipment must also be maintained in good working condition. Prior to the start of work, the Project Engineer should ensure, by inspection, that the Contractor's plant, equipment, and tools comply with the specifications.

Whenever the specifications contain specific equipment requirements, the Project Engineer should verify that the equipment provided meets these specifications. This should be documented in project records such as the Inspector's Daily Report. The Contractor is required to furnish, upon request, any manuals, data, or specialized tools necessary to check the equipment.

It is most important that the operation of automatically controlled equipment be checked carefully and that the Contractor be advised immediately whenever the equipment is not performing properly.

The Contractor's supervisory personnel must be experienced, and able to properly execute the work at hand. If, in the Project Engineer's opinion, the Contractor's supervisory personnel are not fully competent, the Project Engineer should immediately notify the Regional Construction Manager of the facts in the matter, seeking assistance and advice.

It is expected that, consistent with WSDOT's policies and delegated authority, the Project Engineer will assist the Contractor in every way possible to accomplish the work under the contract. However, the Project Engineer must not undertake, in any way, to direct the method or manner of performing the work. Contrary to popular legend, this statement is true of force account work as well. Should the Contractor select a method of operation that results in substandard quality of work, non-specification results, a rate of progress insufficient to meet the contract schedule, or that otherwise violates the contract specifications or provisions, the Contractor should be ordered to discontinue that method or make changes in order to comply with the contract requirements. Where cooperation cannot be achieved, the Project Engineer should notify the Regional Construction Manager of the facts in the matter, seeking assistance and advice.

SS 1-05.10 Guarantees

Standard Specifications Section 1-05.10 and 1-06.5 specifies the Contractor shall provide to the Project Engineer all guarantees, warranties, or manuals furnished as a customary trade practice, for material or equipment incorporated into the project. The Project Engineer should transmit the originals of any such guarantees/warranties or manuals to the organization that will be maintaining the items covered by the guarantee/warranty or manuals. The Project office should maintain a copy of the guarantee/warranty, and a letter of transmittal for manuals, with the materials documentation file for the project.

SS 1-05.14 Cooperation With Other Contractors

When two or more Contractors, including any utility or their contractor, are working in the same area, *Standard Specifications* Section 1-05.14 will apply. The Contractor shall not cause any unnecessary delay or hindrance to the other contractors on the work, but shall cooperate with other contractors to the fullest extent. Progress schedules and plans for all contractors involved should be reviewed by the Project Engineer to detect possible conflicts which might be resolved before a delay of work is experienced or extra costs are incurred as a result. If an adjacent project requiring coordination is known prior to holding a pre-construction meeting, it would be beneficial to invite principals from that project to the meeting.

1-06 Control of Material

SS 1-06.3 Manufacturer's Certificate of Compliance

All material is to be accepted for use on the project based on satisfactory test results that demonstrate compliance with the contract plans and specifications. All work demonstrating compliance is to be completed prior to the material's incorporation into the work. In many cases, this testing has already been completed in advance by the manufacturer. A Manufacturer's Certificate of Compliance provides a means to utilize this testing in lieu of job testing performed prior to each use of the product. This provides for a timely use of the material upon arrival to the job site without a delay in waiting for the return of test results. The project office is required to complete and file a Manufacturer's Certificate of Compliance Check List (DOT Form 350-572). This must be done in a timely manner and is necessary to ensure that the material meets all the requirements of the contract.

Standard Specifications Section 1-06.3 describes the procedures for acceptance of materials based upon the Manufacturer's Certificate of Compliance. *Standard Specifications* Division 9 describes those materials that may be accepted on the basis of these certificates. Since a certificate is a substitute for prior testing, it is intended that all certificates be furnished to the Project Engineer prior to use or installation of the material.

However, there are some circumstances where the Contractor may request, in writing, the Project Engineer's approval to install materials prior to receipt and submittal of the required certificate. The Project Engineer's approval of this request must be conditioned upon withholding payment for the entire item of work until an acceptable Manufacturer's Certificate of Compliance is received. Examples of materials that *shall not* be approved by the Project Engineer for installation prior to the Contractor's submittal of an acceptable certificate are: materials encased in concrete (i.e., rebar, bridge drains); materials under succeeding items where the later work cannot be reasonably removed (i.e., culvert under a ramp to be opened to traffic); etc. The Project Engineer's approval or denial shall be in writing to the Contractor, stating the circumstances that determined the decision. If the requirements of this provision are followed, including the written request by the Contractor and the written approval by the Project Engineer, then the remedy for failure to provide the Certificate is the withholding of 100 percent of the cost of the material and the cost of the work associated with the installation of the material.

At the conclusion of the contract, there may still be some items that are lacking the required certificates. These items must be assessed as to their usefulness for the installation, prior to payment of the Final Estimate and subsequent Materials Certification of the contract. The review of these items may include:

- Comparison with the suitability of other shipments to the project or other current projects.
- If possible, sampling and testing of the items involved or residual material from the particular lot or shipment.
- Independent inspection on site of the completed installation.

If it is determined that the uncertified material is not usable or is inappropriate for the completed work that incorporates the material, the Contractor should be directed to immediately remove the material, replacing it with other certified materials. If the material is found to be usable and is not detrimental to the installation it was incorporated into, it may be left in place but, if the provisions of *Standard Specifications* Section 1-06.3 were followed, with a reduction to no pay. The reduction in pay will be the entire cost of the work (i.e., unit contract price, portion of lump sum) rather than only the material cost. The Contractor should continue to have the option of removing and replacing the uncertified material in order to regain contract payment for the installation. If the provisions of *Standard Specifications* Section 1-06.3 were not followed, then there can be no withholding beyond the value of the missing work itself (the preparation and submittal of the Certificate.)

SS 1-06.6 Recycled Materials

SS 1-06.6(1) Recycling of Construction Aggregate and Concrete Materials

Engrossed Substitute House Bill 1695 requires the use of recycled concrete aggregate in the amount of 25 percent on all WSDOT projects. However; this requirement only applies to those materials included in the Contract that are listed in table in Section 9-03.21 and allow the use of recycled concrete aggregate.

Recycled concrete is hardened concrete that is crushed and may contain coarse and fine mineral aggregate with Portland cement. The *Standard Specifications* encourage the use of recycled aggregates and require that recycled concrete aggregates be incorporated into the work by the Contractor.

Because it is important that the Contractor have a plan for using recycled materials at the beginning of the Contract, the *Standard Specifications* require the Contractor to submit a plan detailing how they will use recycled materials in the work on the Contract. The Contractor's Recycled Materials Utilization Plan is to be submitted as a Type 1 Working Drawing within 30 calendar days of execution of the contract.

Recycled Materials for use on WSDOT projects must be tested by a certified laboratory and the test results submitted to the Engineer prior to the incorporation of the material into the project. The test results must include a certification that the materials are not Dangerous Waste per WAC 173-303.

The Recycled Material Utilization Plan is the Contractor's initial plan for including recycled aggregate in the work detailing how they will meet the 25 percent requirement for recycled concrete aggregate. The details of the plan are not required to be static as

the Contractor should be actively managing their use of recycled materials throughout the Contract. Therefore, the Contractor may alter the plan at their discretion throughout the Contract without submitting a new plan. Should the Contractor alter their plan, the Project Engineer may choose to review with the Contractor their updated plan for meeting the recycling requirement.

At the end of the Contract, prior to Physical Completion, the Contractor is required to submit the Recycled Materials Reporting form (DOT Form 350-075) to the Project Engineer. The Recycled Materials Reporting form will include the quantities of all materials, both recycled and virgin, for aggregates and concretes that were used on the project for the items listed. The Project Engineer should review the quantities submitted on the form. If the final tally of recycled concrete aggregate does not meet the 25 percent requirement the Contractor is required to attach cost estimates, both with and without the use of recycled concrete aggregate, for each material used on the Contract that is listed in *Standard Specification* Section 9-03.23(1)E that allows recycled concrete aggregate. The Project Engineer should review the cost estimate for reasonableness; an independent verification of detailed costs is not required as the Contractor certifies the accuracy of the information.

A copy of Recycled Materials Reporting form is required to be sent to the Documentation Engineer at the State Construction Office. This will be used by the State Construction Office in the annual report to be submitted to the legislature.

1-07 Legal Relations and Responsibilities to the Public

SS 1-07.1 Laws to be Observed

Safety

Safety is not optional in WSDOT. No employee will be permitted to disregard applicable safety and health standards of the State Department of Labor and Industries or other regulatory agencies.

The Secretary of Transportation's Executive Order E 1033 provides direction to all WSDOT employees to adhere to the following basic safety provisions in every work activity:

- Participate in your work group safety plan (or Safety Management System for WSDOT Ferries Division employees).
- Look for ways to prevent accidents.
- Immediately identify hazards and safety concerns.
- Always use personal protective equipment.
- Promptly report all injuries.

The Order also states that all employees at WSDOT Ferries Division are already covered and shall continue to be covered by the existing Ferries Division Safety Management System. Therefore:

- All Ferries Division employees will refresh their knowledge of existing Safety Management System procedures and shall follow them accordingly.
- A concerted effort will be made to address existing and new Safety Management System safety reports in a timely manner.

- All Ferries Division employees shall address issues of concern with existing safety procedures using the existing Safety Management System reporting program.

All other WSDOT employees are covered and continue to be covered by the policies and procedures in the *Safety Procedures and Guidelines Manual* M 75-01, and other related policy documents. Therefore, a pre-activity safety plan is required prior to performing any new field work. Office staff will conduct a hazard assessment and mitigation plan for all office environments.

Since WSDOT employees on transportation construction projects are routinely exposed to a variety of hazards, they must take adequate safety precautions at all times. The following items represent common activities that workers or work crews may encounter, and should be addressed in pre-activity safety plans as needed.

- The employee shall ensure that an area is safe before entering it for the purpose of inspection. For example, a deep trench must be adequately shored and braced before entering it.
- Aggregate production and material processing plants should be inspected for safety hazards. Corrective measures should be called to the attention of the Contractor or producer. Corrections must be completed before WSDOT personnel will be permitted to proceed with entry or work upon the premises.
- The employee must, at all times, watch for backing trucks and not depend upon hearing alone for warning. The noise of plants and other equipment often make it impossible to hear trucks approaching and the truck driver's vision area is restricted when backing a truck.
- Parking WSDOT vehicles too close to the path of construction equipment, behind standing equipment, or in other hazardous locations is not permitted.
- Where traffic is maintained in work zones, care must be taken to avoid approaching traffic when it is necessary for inspectors and others to step onto or cross the traveled portion of the roadway. Whenever possible, work activities, ingress and egress, should be conducted within the relative safety of the work zone.
- WSDOT employees working on foot in the highway right of way and other areas exposed to vehicular traffic must comply with the high visibility clothing requirements of the WSDOT *Safety Procedures and Guidelines Manual* M 75-01 Section 4.2, Chapter 3.
- Where the engineering crew is working adjacent to traffic, without positive barriers, the work area should be marked with proper signs and traffic control devices as shown on the appropriate Traffic Control Plan (TCP). The crew may be protected by a certified flagger as needed.
- When the engineering crew is working under the protection of the Contractor's flaggers and signs, other signs may not be needed, but a "STOP"/"SLOW" paddle should be available for use in special situations. Good communication with the Contractor and Flagger is needed to ensure that they are aware of crew activities within the work zone.
- A survey crew is typically exposed to traffic hazards and should conduct survey work under approved TCPs from the *Work Zone Traffic Control Guidelines* M 5444. The Region Traffic Office will assist survey crews with TCPs for situations not covered in this publication.

- During blasting operations, employees are instructed to seek cover at least 500 ft from the location of the blasting.

In addition to the above requirements for workers and work crews, supervisors also have the following responsibilities:

- Each supervisory employee is charged with the responsibility of providing safety leadership at all times and safety enforcement when necessary.
- Supervisors shall give thorough instructions to employees under their jurisdiction on the safe use of tools, materials, and equipment and the safe prosecution of work on construction projects.
- The Division of Occupational Safety and Health requires that every foreman, supervisor, or other person in charge of a crew have a valid first aid card.
- When employees are injured on the job to the extent that the services of a doctor are required, the Regional Safety Officer shall be notified immediately.
- When traffic control measures are necessary, approved Traffic Control Plans (TCPs) should be used in conformance with the *Manual on Uniform Traffic Control Devices* (MUTCD), as adopted by WSDOT. Supervisors should ensure that the appropriate TCP is used and that the necessary signs, devices and equipment are available. Contact Region Traffic Office for assistance.

Responsibility for Enforcement of Safety and Health Requirements

All contractors doing work for WSDOT must provide safety controls for the protection of life and health of the Contractor's employees and other persons, for the prevention of property damage, and for the avoidance of interruptions in the performance of the work under the contract. As the owner contracting agency, WSDOT has the responsibility for enforcement of the provisions of the contract, however, provisions and regulations which are by law the fundamental responsibility of other agencies, both from the standpoint of interpretation and enforcement, should be monitored by WSDOT, but with full recognition as to the responsibilities and authorities of those agencies. The Project Engineer will cooperate fully with the responsible agency.

Any violations noticed by the Project Engineer will be brought to the attention of the Contractor for correction. The Project Engineer will also notify the responsible agency (if that action is deemed necessary by the Region Construction Manager) and utilize such sanctions as are consistent with contract terms in assisting the responsible agency in enforcing laws, rules, and regulations.

The Contractor is obligated by law to comply with both State and Federal safety regulations. State regulations are administered by the Washington State Department of Labor and Industries under the Washington Industrial Safety and Health Act (WISHA). Federal regulations are administered by the Occupational Safety and Health Administration (OSHA) and the Mine Safety and Health Administration (MSHA) of the U.S. Department of Labor, which has jurisdiction over federal safety requirements for pit and quarry operations up to the point where materials leave the quarry area or go into a batch plant. Inspectors from any or all of these agencies may review the Contractor's operations at any time. (See *Standard Specifications* Section 1-07.1.) In order to fulfill WSDOT obligations to monitor contract operations in accordance with the above, the following procedures should be followed on both Federal-aid and non Federal-aid contracts.

Precontract Preparation

- The Project Engineer shall obtain the WISHA manuals, particularly Safety Standards for Construction Work WAC 296-155, General Safety and Health Standards WAC 296-24, and General Occupational Health Standards WAC 296-62, and shall review them with the key field WSDOT inspectors to ensure reasonable familiarity to the extent that they can recognize important requirements.
- The Contract Plans and contract provisions should be reviewed to identify those aspects of the work meriting special attention from the standpoint of potentially dangerous types of work and hazard elimination.
- The project site should be reviewed to identify those aspects of the location that present hazards such as limited sight distance, confined spaces, difficult terrain, extreme temperatures, illegal encampments, or exposure to biological and physical hazards associated with animals or humans.

Preconstruction Duties

As part of the Preconstruction Meetings and Discussions (see Section SS 1-05.1), the Contractor's safety program should be discussed. Some of the things that the Project Engineer may want to consider are:

- The contractual obligation of the Contractor for complying with State and Federal construction safety standards (see *Standard Specifications* Section 1-07.1).
- The availability of the safety standards that apply to the contract.
- The accident prevention program of the Contractor – organization, staff, names of responsible individuals, meetings, training, reports, etc. A review of specific areas for which plans are required (especially those also affecting WSDOT personnel). These might include Fall Protection, Confined Spaces, Respirators, Hearing, and Hazardous Materials plans. Implementing a mechanism for employees to report "near misses" and/or work zone accidents.
- The Contractor's responsibility for seeing that subcontractors comply with safety regulations.
- The Contractor's plans for meeting specific safety requirements and for eliminating potentially critical hazards on the project for all Contractor employees, Contracting Agency employees, and the public.
- The Contractor's responsibility to meet the requirements of WAC 296-800, which requires employers to provide a safe workplace. Particular mention must be made to WAC 296-800-11025, which prohibits alcohol and narcotics from the workplace.

The PE's Role in Safety on the Project

It is difficult to generalize about safety. It's a judgment call which is dependent on risk, knowledge, authority to direct corrections, etc. As people, professionals and representatives of the State, Project Engineers have an obligation to take action if they become aware of a situation that presents an immediate threat. Project Engineers should advise their employees on what the lines of communication are and what the procedures are for alerting the responsible agencies with regard to serious safety hazards.

Employees should be made aware that the Contractor is obligated to make the work-site safe, to their satisfaction, for inspection activities. Anyone who is uncomfortable with access for inspection should inform their supervisor of the situation and expect resolution. Project personnel should also be made aware of project specific hazards and be trained in specific areas as the project warrants. For example; fall protection, confined space requirements, respirator training, lead paint hazards, hazardous material training, and exposure to medical waste (sharps). It is suggested that the expertise of the Regional Safety Officers or Headquarters Safety Office be utilized as appropriate.

Be aware that the construction contract requires the contractor to perform any measures or actions the Engineer may deem necessary to protect the public, and that the Engineer may suspend work if the Contractor fails to correct unsafe conditions. Project staff should continuously monitor the Contractors' work activities for potential violations of legal safety requirements, and for any condition that poses an immediate threat to the health of any person. Immediately notify the Contractor upon becoming aware of any such condition.

Additional information, such as safety regulations and Department of Labor and Industries (L&I) contacts are available on the internet at www.wa.gov/lni. Keep in mind that many WSDOT employees are not trained to interpret and apply safety regulations; however, employees need to have a reasonable understanding of what hazards may be encountered on a project. Many, but not all, of the requirements are listed under WAC 296-155 Safety standards for construction work under the various "Parts a through V."

State L&I offers consultation service (advise is given) and enforcement (assessment of a violation would result in a citation being issued). A listing of the various L&I field offices is as follows:

- **Region 1**

Bellingham Field Services Location	360-647-7300
Everett Field Services Location	425-290-1300
Mount Vernon Field Services Location	360-416-3000

- **Region 2**

Bellevue Field Services Location	425-990-1400
Seattle Field Services Location	206-515-2800
Tukwila Field Services Location	206-835-1000

- **Region 3**

Bremerton Field Services Location	360-415-4000
Port Angeles Field Services Location	360-417-2700
Tacoma Field Services Location	253-596-3800

- **Region 4**

Aberdeen Field Services Location	360-533-8200
Kelso Field Services Location	360-575-6900
Tumwater Field Services Location	360-902-5799
Vancouver Field Services Location	360-896-2300

- **Region 5**

East Wenatchee Field Services Location	509-886-6500
Kennewick Field Services Location	509-735-0100
Moses Lake Field Services Location	509-764-6900
Yakima Field Services Location	509-454-3700

- **Region 6**
  Pullman Field Services Location 509-334-5296
  Spokane Field Services Location 509-324-2600

American Recovery and Reinvestment Act (ARRA) Projects

Projects that are funded in whole or in part by the American Recovery and Reinvestment Act (ARRA) are subject to the same requirements that apply to other federally funded projects. ARRA funded projects also have specified employment reporting requirements that are in addition to the reporting required on all Federal Aid projects.

ARRA Employment Reports shall be submitted by the Contractor to the Project Engineer on Form FHWA-1589. The report shall be completed according to the specifications and coding instructions provided with the report form, and shall contain project specific information as to the numbers, hours worked, and wages paid by the Contractor and all subcontractors for all of their employees. This report shall include all those employees of the Prime Contractor and of all subcontractors working on the ARRA project at the jobsite, in the project office, in the home office, or teleworking from home or an alternative office; and all engineering personnel, inspectors, sampling and testing technicians, and lab technicians who are actively performing work directly in support of the ARRA project.

Within 30-days of execution of the contract, the Contractor shall submit to the Project Engineer an initial report for each ARRA project awarded to the Contractor. Each month thereafter, the Contractor shall submit a monthly report for each ARRA project, submitted no later than the 10th day of each month, reporting employment information for the previous month. In those cases where there is no active work on the project for a specific month, the report will be submitted with "zeros" reported for number of employees, hours and wages.

Do not confuse Employment Reporting with Federal Wage Administration, as they are not the same. WSDOT is not provided with data that would allow for verification, nor is WSDOT required to verify employment data. Because certified payrolls are not required to include the salaried employees, owner-operators, or professional services that are required to be included in the employment report, there is no way to verify the employment data through comparison with certified payrolls. Because employment reports are required to include contractors' home-office and telework employees, there is no way to verify employment data through field observations. Accordingly, ARRA Employment Reports should be checked only to verify that they are reasonably complete (all subs observed to be active on the project are reported).

Failure on the part of the Contractor to submit these reports by the due date may result in the withholding of all progress payments to the Contractor until reports are received, as provided in *Standard Specifications* Section 1-09.9. If the report is not received by the due date, the Project Engineer shall notify the Contractor of intent to defer payment within eight (8) calendar days of the report due date. When payments must be withheld, the Project Engineer must ensure that the Region Construction Manager/ Construction Engineer and the State Construction Office are notified.

The original initial report and subsequent monthly reports should be placed in the project file and maintained with the temporary final records for the project. The Project Office will submit copies of the ARRA reports to the Region Construction Office and to the State Construction Office, and must be received by the 15th day of each month. The Project Office may utilize the State Construction Office Sharepoint site for purposes of submitting the monthly Contractor reports to the State Construction Office. The State Construction Office will submit this information to the FHWA Division Office and to FHWA headquarters.

WSDOT is required to report on WSDOT employees, hours and wages for each ARRA funded project. This will be handled using the reporting tool available at: https://remoteapps.wsdot.wa.gov/Mapsdata/tools/DBEParticipation.

SS 1-07.4 Sanitation

SS 1-07.4(2) Health Hazards

Site Cleanup – Some contracts contain specifications for site cleanup. This may include the removal of illegal encampments, unauthorized pedestrians, personal property, refuse, and other biological and physical hazards from the work area. The Contractor is required to perform all necessary work, and to take precautions to maintain the health and safety of all workers and the public, who may be in the work area. It is the responsibility of the Project Engineer to inspect the Contractor's work and ensure compliance with the contract requirements and with all applicable laws. Each Project Engineer should appoint a contact for encampment removal issues.

The Contractor is required to have a Health and Safety Plan, and to submit the plan to the Project Engineer prior to commencing any cleanup work. The Project Engineer should ensure that the plan is prepared in accordance with contract provisions.

The Contractor will furnish and install "No Trespassing" signs in all areas where pedestrians may be encountered, except where pedestrians are legally allowed. "No Trespassing" signs must be posted no less than 72 hours prior to beginning site cleanup work or any other potentially hazardous work. If the site contains encampments, the signs should be posted at each encampment. The Project Engineer should conduct a site visit in order to verify that the signs are posted correctly and meet the requirements of the contract.

At the time the signs are posted the Contractor should provide written notification to the Project Engineer and local jurisdictions. When the work includes removal of encampments the Contractor should also notify local advocacy groups that site cleanup and removal is scheduled.

After the initial removal of encampments, the Contractor should revisit the area at regular intervals, and if encampments persist, permanently post the area with "No Trespassing" signs and proceed with removal activities.

Immediately prior to commencing cleanup and removal, brush clearing, or other potentially hazardous work, and periodically throughout the day, the Contractor should visually inspect the area to ensure that no unauthorized pedestrians are present. The Project Engineer should verify that the site is cleared of pedestrians and that periodic area checks are being done. Special attention should be given to areas hidden from

view, such as in dumpsters or equipment, or under blankets. The Project Engineer may consider the use of non-invasive detection aids, such as infrared detectors, to ensure that no unauthorized persons are present.

Removal, Storage, and Return of Personal Property – Personal property that is not refuse will be removed from the work area, by the Contractor. Items should be placed in large transparent plastic bags, labeled, and stored for return to the property owner. The Project Engineer should ensure that personal property is handled and stored in accordance with the requirements of the contract and all applicable laws.

SS 1-07.5 Environmental Regulations

The following procedure pertains to WSDOT personnel on all WSDOT contracts and contains duties and activities by persons other than the project staff, but all of which are related to construction contracts and affect the Project Engineer to one degree or another. The Project Engineer must stay aware of this procedure and follow it as written.

Environmental Compliance Assurance Procedure

The purpose of the Environmental Compliance Assurance Procedure (ECAP) is to recognize and rectify environmental non-compliance events during the construction phase on WSDOT construction sites, and to ensure prompt notification to WSDOT management and agencies. For purposes of this procedure, non-compliance events are defined as actions that are not in compliance with environmental standards, permits, agreements, or laws.

When any action (Notification Trigger) below occurs, the Project Engineer (PE) shall initiate the Notification and Resolution process. The Regional Environmental Manager (REM) will serve as a resource to the PE and give priority to addressing the actions, activities, or situations that stem from notification triggers. The PE and REM will work together on an appropriate response to the notification trigger to avoid or minimize environmental damage.

Notification Triggers

Notification Triggers (listed below) means an action, activity, or situation that requires the Project Engineer to implement the Environmental Compliance Assurance Procedure.

1. Verbal or written notice from an environmental regulatory agency or tribe that a violation has occurred.
2. Any action that may violate environmental permit conditions, agreements, or approvals for the project; or other environmental laws, ordinances, or regulations.
3. Any unauthorized work, activity, or fill in wetlands, shorelines, creek beds (including dry channels), other waters of the state, or critical habitat.
4. Any emergency protection activity that involves unauthorized placement of fill in wetlands, shorelines, creek beds (including dry channels) or waters of the state or for bank stabilization activities where fill or structures are placed on the bank.
5. Any action or project revision requested by an agency after a site inspection that is in conflict with other permits.

6. Any spill, or release of hazardous materials, petroleum products, or chemicals to:
   - water or areas that have the potential to enter waters of the state (i.e., stormwater conveyances, ditches, swales, ground water).
   - land, when the spill or release is an immediate threat to human health or the environment (i.e., dangerously toxic, explosive or flammable situations that result in severe or substantial consequences).1
7. Encountering an unknown underground storage tank.
8. Any situation that results in a fish kill, or if dead or dying fish are discovered in the vicinity of the project.
9. Activities that construction monitoring shows are out of compliance.
10. Failure to implement the Unanticipated Discovery Plan or commitments associated with cultural resource monitoring.

Notification and Resolution Process

In the event of a notification trigger, the following steps shall be taken:

1. If a notification trigger is observed, immediately notify the Project Engineer.
2. The Project Engineer must:

   Step 1 – Immediately notify the Contractor of the situation, suspend all non-conforming work on the site, and implement emergency response procedures.

   Step 2 – Immediately notify the Regional Environmental Manager (REM) or designee. In consultation with the REM, determine the regulatory agencies having jurisdiction and who will notify them. Ensure timely notification to appropriate regulatory agencies. Consult with the REM regarding response actions taken and any additional remediation actions that may be necessary.

   Step 3 – In consultation with REM, determine if the activity constitutes a violation of a permit condition or environmental regulation and if so, assemble the following information:
   - The activities that triggered the notification and why they occurred.
   - The permit condition or environmental regulation that has been violated.
   - Location(s) of the work.
   - Potential solutions to the problem, or if additional investigation is needed, the agreed upon course of action.
   - Any related site constraints or safety issues.
   - Urgency of the issue.
   - Which regulatory agencies and staff were notified and any tracking numbers provided.

   Step 4 – Notify the Assistant Region Administrator for Construction (also known as the Region Construction Engineer) and the assigned Assistant State Construction Engineer (ASCE). The ASCE should be notified via email or by telephone and will notify the State Construction Engineer, if warranted.

[1]All spills need to be contained and disposed of and reported properly. Follow the procedures outlined in the project specific Spill Prevention, Control and Countermeasures Plan (SPCC).

Step 5 – If warranted by the severity of the issue, notify the Region Administrator and State Construction Engineer. This step is mandatory when the non-compliance event: (1) results in agency enforcement staff coming on site to conduct enforcement review; and/or (2) there is a high likelihood the event will result in a Notice of Violation or a monetary penalty. (***Note:*** Notices of Violation are formal written or verbal notices from a regulatory agency that a violation has occurred, including but not limited to Corrections Required Notices.)

Step 6 – Document all actions, conversations and activities.

3. The Regional Environmental Manager, or their designee, must immediately:

   Step 1 – If warranted by the severity of the issue, notify the Director of Environmental Services. This step is mandatory when the non-compliance event: (1) results in agency enforcement staff coming on site to conduct enforcement review; and/or (2) there is a high likelihood the event will result in a Notice of Violation or a monetary penalty. (***Note:*** Notices of Violation are formal written or verbal notices from a regulatory agency that a violation has occurred, including but not limited to Corrections Required Notices.)

   Step 2 – Notify his or her immediate supervisor.

   Step 3 – Work with the Project Engineer to resolve the issue that caused the notification trigger.

   Step 4 – In consultation with the Project Engineer, identify and obtain permits or permit revisions, if required.

   Step 5 – Document all actions, conversations, and activities. Communicate issues and send appropriate documentation to Regulatory and/or Resource Agencies.

   Step 6 – Document non-complying event in WSDOT's Commitment Tracking System. ***Note:*** If the activity is found not to be in violation of a permit condition or environmental regulation, it should not be entered into the Commitment Tracking System.

4. The Director of Environmental Services must:

   Step 1 – Notify Compliance Branch Manager and any other ESO Program Managers associated with the resource issue.

   Step 2 – If warranted by the severity of the issue, notify the Chief Engineer for Engineering and Regional Operations.

5. The Regional Administrator will:

   Step 1 – If warranted by the severity of the issue, coordinate with the Director of Environmental Services to contact the Chief Engineer for Engineering and Regional Operations advising him or her of the situation, and provide updates as needed on the situation.

   Step 2 – Ensure that the Project Engineer and the Regional Environmental Manager have the necessary resources, authority and organizational support to successfully resolve the non-complying activity.

Timing

Due to costs of project delays, or risk of not acting quickly during emergency situations, the REM shall provide a 24 hour contact person for environmental consultation.

Documentation

1. The Project Engineer shall document the details of the notification and non-complying activity resolution in the contract records.
2. The Regional Environmental Manager shall maintain a record of all regional noncompliance events. REMs shall collect and maintain, at a minimum, the following data on all non-compliance events:
   - Project name and location.
   - Project Engineer and Contractor.
   - Incident date.
   - Incident description.
   - Permit/regulation or agreement violated.
   - Resource agency(s) notified and date of notification.
   - Whether or not resource agency staff conducted site review in response to notification.
   - Record of Notice of Violation and/or penalties issued.

   The REM shall document the non-compliant event in the WSDOT Commitment Tracking System for purposes of annual reporting and review of compliance performance. ***Note:*** Only non-compliant events need to be documented in WSDOT's Commitment Tracking System. If the REM determines that an event does not violate environmental permit conditions, agreements, or approvals for the project; or other environmental laws, ordinances, or regulations, then it does not need to be documented in WSDOT's Commitment Tracking System.
3. The Project Engineer and the Regional Environmental Manager shall coordinate and prepare the appropriate response to the regulatory and/or resource agency. The response shall include documentation about the non-compliance event and how it was resolved, including any preliminary mitigation solutions.

Roles and Responsibilities

Project Engineer – Is the person responsible for the project and administration of the construction contract. This responsibility may be delegated to a subordinate employee on site, but the ultimate responsibility for making sure these procedures are followed will be with the Project Engineer. The Project Engineer shall have a thorough knowledge of all of the environmental permit conditions and design requirements for the project, and have such certifications and other qualifications as may be required.

Regional Environmental Manager – Is the person responsible for administering the regional environmental program. This responsibility may be delegated to a subordinate employee with knowledge of environmental permitting and procedures, but the ultimate responsibility for setting and interpreting regional environmental policy will be with the Regional Environmental Manager. Due to costs of project delays, or risk

of not acting quickly during emergency situations, the REM shall provide a 24-hour contact person for environmental consultation.

Contractor – Is as defined in *Standard Specifications* Section 1-01.3.

Working in Water

When working in water, the Project Engineer shall ensure the Contractor complies with the environmental and navigation provisions of the contract. If the contract requires the Contractor to obtain special permits, the permits shall be obtained before the work covered by them is begun. Project work occurring in water must meet state water quality standards. Monitoring is required to verify the work achieves compliance with state water quality standards. WSDOT is required by law to report noncompliance with water quality standards to the Department of Ecology. Please follow the Environmental Compliance Assurance Procedures if standards are not achieved (see Section SS 1-07.5).

(I) Monitoring Water Quality

WSDOT is responsible for monitoring water quality during the Contractor's work in the water. Information is available that helps the Project Engineer successfully apply WSDOT's *Monitoring Guidance for In-Water Work* and collect a representative sample.

The Project Engineer may need to prepare a Water Quality Monitoring and Protection Plan (WQMPP) if required as a condition of a permit. Check the permits early and prepare the plan in advance to prevent delays in the Contractor conducting the work. A procedure exists (PRO610-e) that helps the Project Engineer develop the WQMPP.

Note that water quality monitoring of work occurring in water is different than monitoring construction stormwater discharging from a construction site. Refer to Section 8-1.3 for information about monitoring stormwater discharges from construction sites.

(II) Work Area Isolation/Stream Diversions

The Project Engineer should review project permits to determine whether WSDOT is required to isolate the work from or divert the water around work occurring below the ordinary high water line (or mean higher high-water line). WSDOT may provide plans for conducting the work. If not, the Contractor's work area isolation or stream diversion should be reviewed and approved by the Project Engineer. Check the Contractor's plan for consistency with the JARPA. A stream diversion template exists for Contractors to use in case WSDOT does not provide one in the Plans.

(III) Fish Moving Protocols and Standards

The Project Engineer should check project permits to determine whether WSDOT is required to isolate and remove fish from the work area in advance of the Contractor's work. The Project Engineer must coordinate these activities with the WSDOT biologist. Refer to the WSDOT *Fish Exclusion Protocols and Standards* to learn about the roles and responsibilities for these activities.

(IV) Reporting Monitoring Data

The Project Engineer is responsible for ensuring any monitoring data is submitted to the Washington State Department of Ecology's Federal Permit Coordinator. The Project Engineer should coordinate with Region Environmental Staff to ensure that reporting is done correctly.

(V) Reporting Spills to Water

Work that results in a spill to water generates multiple reporting obligations. At a minimum, the Project Engineer must follow the Environmental Compliance Assurance Procedure (see Section SS 1-07.5) of this manual) to start WSDOT's internal spill response. Also, the Project Engineer must ensure the Contractor enacts the spill response section of their Spill Prevention, Control, and Countermeasures Plan.

Infiltration of Slurry

In accordance with 8-01.3(1)C, some classifications of shaft drilling slurry wastewater may be disposed of on-site by using upland infiltration. If the Contractor plans to infiltrate these types of slurry wastewater on-site, they must submit a Shaft Drilling Slurry Wastewater Management and Infiltration plan in accordance with Section 8-01.3(1)C. Project specific site conditions, such as a high water table or contaminated soil, may exclude the use of on-site infiltration as a slurry disposal option. The Project Engineer shall review and accept the plan prior to any on-site slurry wastewater infiltration.

Guidelines for reviewing and accepting Contractor plans are as follows:

1. The classification of slurry wastewater to be infiltrated and the Contractor's Shaft Drilling Slurry Wastewater and Infiltration plan both meet the specified requirements in Section 8-01.3(1)C.
2. The proposed best management practices (BMPs), controls, or other methods included in the plan are adequate to prevent surface wastewater runoff from leaving the infiltration location. What is "adequate" is site specific and dependent on how much water is being infiltrated and where, some examples may include:
   - The basis for the selection of an infiltration location (e.g., subsurface conditions, soil type, estimated infiltration rate, location of surface water)
   - Barrier BMPs (e.g., sandbags, berms, water bladders, silt fence) used to prevent surface wastewater runoff from leaving the infiltration area.
   - Interceptor BMPs (e.g., trenches, traps, pipe drain to containment area) used to capture wastewater surface runoff before it leaves the infiltration area.
   - A metering device that can be adjusted to discharge water to the ground at a rate that will prevent surface runoff from developing.
   - Digging a temporary infiltration containment area to hold a specific volume of wastewater. Keep in mind that digging will diminish the layer of unsaturated soil (prior to infiltration occurring, there must be a minimum of 5 feet of unsaturated soil between the soil surface where the infiltration will occur and the saturated soil). In addition, using heavy equipment to dig the infiltration containment area may cause soil compaction at the location, thereby lowering the effective infiltration rate.

3. The Contractor's plan includes an adequate level of detail to demonstrate that the planned controls and methods will prevent potential impacts to receiving waters of the State, including groundwater, for example:
   - Containment strategy for wastewater prior to infiltration.
   - Strategy for managing wastewater pH neutralization prior to infiltration.
   - Monitoring strategy to ensure infiltration activity is in compliance.
4. The Contractor's plan identifies a contingency plan that will be implemented immediately if it becomes evident that the controls and methods in place are not adequate to meet the requirements in Section 8-01.3(1)C. Contingency plans must be capable of being implemented immediately, such as:
   - Identifying procedures for rectifying plan deficiencies.
   - Having additional BMP materials on hand.
   - Eliminating the discharge to the ground (stopping infiltration activity).

Responsibility for Environmental Considerations

During the precontract period, the Project Engineer should obtain copies of the final environmental documents and permits related to the project. The Project Engineer should review all contract commitments in the WSDOT Commitment Files and participate in any Environmental Commitment Meetings. It is important that all key personnel become familiar with the environmental decisions considered during the design process. The contract documents should include any necessary provisions for protection of the environment and cultural resources, including requirements that the Contractor secure all permits as required by the contract and abide by regulations of appropriate Federal, State, and local agencies. Any changes in contract work that may become necessary must also be reviewed to ensure conformance with the requirements, and commitments established during the environmental design of the project.
For more information on Environmental Commitment Meetings please reference Project Delivery Memo #09-01 – Incorporating Environmental Commitments Into WSDOT Contracts.

SS 1-07.9 Wages

SS 1-07.9(1) General

The payment of predetermined minimum wages on Federal-aid contracts is derived from the Davis-Bacon Act of 1931 and is prescribed by 23 USC 113. The payment of predetermined minimum wages on State funded contracts is partly modeled after the federal Davis-Bacon Act and was enacted into law in 1945 under the Washington State Prevailing Wages on Public Works Act, RCW 39.12. Both Acts are intended to protect the employees of contractors who are performing public works construction from substandard earnings and to preserve local wage standards.

The guidance provided herein is intended to help those project offices administering construction contracts understand the laws, regulations and contractual obligations regarding prevailed wages. It is not meant to be a substitute for reading and understanding federal and state laws and it is not intended to be legal advice. If a labor issue arises and cannot be resolved at the project office level, it will be elevated to the Region Construction office and if necessary, the State Construction Office.

Enforcement of Federal Prevailing Wage Provisions

In addition to the requirements of *Standard Specifications* Section 1-07.9, all contracts financed with Federal-aid funds include the *Required Contract Provisions for Federal-aid Construction Contracts* (FHWA-1273). These provisions identify federal wage requirements. The federal prevailing wage requirements included in these provisions are also commonly referred to as Davis Bacon and Related Acts (DBRA). It is the responsibility of the Project Engineer to both monitor and enforce these provisions to the degree necessary to ensure full compliance. In order to comply with these requirements, the Contractor must:

- Submit weekly certified payrolls to the Project Engineer for themselves, each subcontractor, and each agent or lower-tier subcontractor. These consist of copies of weekly payrolls along with a signed Statement of Compliance.
- Post wage rate posters.
- Post the wage determinations of the United States Secretary of Labor. These determinations consist of the listing of Federal Wages that are included in the provisions of each contract.
- Allow interviews of employees during working hours by authorized representatives of WSDOT, the Federal Highway Administration, and the U.S. Department of Labor.

The prime Contractor is ultimately responsible for all subcontractor, agent, or lower-tier subcontractor compliance with the requirements for federal prevailing wages.

When the project is subject to both State and Federal hourly minimum rates, the Contractor is required to pay the higher of the two rates unless specifically preempted by federal law.

Owner-Operators of Trucks and Other Hauling Equipment

The FHWA neither defines the term “owner-operator” nor uses it in regulation. The FHWA regulates “employers” and “drivers.” An owner-operator may act as both an employer and a driver at certain times or as a driver for another employer at other times depending on contractual arrangements and operational structure (Federal Register/Vol. 62, No. 65/Friday, April 4, 1997/Rules and Regulations).

Bona fide owner-operators of trucks and similar construction hauling equipment, who are ***independent contractors***, are not subject to enforcement of contract labor standard provisions of the Davis Bacon Act and/or RCW 39.12. Owner-operators of other non-hauling type equipment (dozers, scrapers, backhoes, etc.) are considered a sub-contractor, a lower tier subcontractor or an employee of the Prime Contractor or of a sub-contractor. If they are an employee of the Prime Contractor or a sub-contractor, they must appear on that contractor’s payroll as an employee, not as an “owneroperator.”

A ruling by the U.S. Department of Labor (DOL) states in effect that:

Because owner-operators usually work under payment arrangements based on a unit price (e.g., so much per cubic yard hauled) rather than on an actual truck or equipment rental rate plus the driver’s (or operator’s) rate, and, because of difficulties that have arisen with respect to securing adequate data on rental arrangements in order

to determine whether contract minimum rates are being paid, therefore, as a matter of administrative policy, the provisions of Davis-Bacon and related acts will not be applied to bona fide owner-operators of trucks or other similar construction equipment used exclusively for hauling and who are ***independent contractors***.

"Certified Payrolls" for owner-operators shall be in accordance with the *Required Contract Provisions for Federal-aid Construction Contracts* (FHWA-1273) and shall include the names of such bona fide owner-operators. The certified payroll need not show hours worked nor rates allegedly paid, but only operator's name and the notation "owner-operator." In this way, such individuals may be recognized as bona fide ***independent contractors***, who are NOT subject to contract labor standard provisions and can be distinguished from equipment operators, who ARE subject to such provisions. This position does not apply to owner-operators of other equipment such as bulldozers, backhoes, cranes, welding machines, etc. These other owner-operators are considered to be operators and subject to labor standard provisions.

A ruling by the Chief Counsel for the Federal Highway Administration requires that data for each driver employee of truck owner-operators, regardless of number of trucks owned, must be shown the same as for any other laborer or mechanic. This means all such employees shall be listed on the payroll with a complete breakdown of hours worked, hourly rate paid, and all other required information according to the FHWA-1273. During a multi-shift operation when an owner may hire a driver for a subsequent shift, a complete breakdown of information relative to daily hours worked, hourly rate paid, etc., must be shown on the payroll for "employee of owner-operator." This same procedure shall be followed if owners have several trucks for which they hire drivers. The only exception to showing a complete breakdown of information is when "owner operators" physically drive their own trucks.

Though owner-operators who drive their own trucks may not be subject to prevailed wages as defined in the Davis Bacon Act and RCW 39.12, they are required under State statute to submit *Statement of Intent to Pay Prevailed Wages* and *Affidavit of Wages Paid*. There is no exception to this requirement.

References, but not limited to:

- *Required Contract Provisions* FHWA-1273
- RCW 39.04
- RCW 39.12
- U.S. Department of Labor Davis-Bacon Resource Book 11/2002
- Davis-Bacon Manual on Labor Standards for Federal and Federally Assisted Construction, Copyright © August 1993 by The Associated General Contractors of America

Employee Interviews

The Project Engineer must conduct periodic employee interviews. The purpose of these spot interviews is to establish, with reasonable certainty, that the provisions for federal prevailing minimum wages are being complied with and that there is no misclassification of workers or disproportionate employment of laborers, helpers, or apprentices. The occupation description must be shown on the form used for the

employee interview noted under current duties. The occupation description is noted in the wage listing included in the contract provisions.

Some employees may refuse to reveal their rate of pay. This is acceptable and should be noted in the remarks column. Many employees do not know or may guess at the rate. If possible, a determination of the accuracy of the stated rate should be made, and any uncertainty noted in the remarks column to reduce the need for follow up interviews. If either the stated rate (from the employee) or the record rate (from the certified payroll) is below the minimum rate (from the contract wage listing), an investigation by the Project Engineer must be conducted. The investigation may be as simple as a follow up interview with the employee or a more in depth investigation may result in a requirement for a supplemental payroll. In any event, the matter must be resolved so that the employee interview report describes what corrective action was taken to ensure that the employee has been paid the minimum prevailing wage rate. This corrective action is to be reported under remarks on the form or by attached memo if more space is needed. All discrepancies found must be resolved.

The frequency and extent of these interviews should be sufficient to ensure a representative sampling has been made for all classes of workers employed on the contract. A minimum sampling should include employees of the Contractor and all major (30 percent or more of the contract dollars) subcontractors. The interviews should be made with such frequency as may be necessary to ensure compliance. An Employee Interview Report DOT Form 424-003 is used to record and report interviews.

Complaints

Any complaints regarding violations of minimum wage rate regulations that are referred to the Project Engineer by employees of the Contractor, subcontractor, or lower-tier subcontractors should be treated as confidential, and should be promptly investigated by the Project Engineer. If there are questions regarding complaints and the application or interpretation of the federal prevailing wage provisions, the Project Engineer should consider referring the issue to the Region Construction Manager or contacting the State Construction Office for further assistance.

Federal Prevailing Wage Violations

In the event the Project Engineer identifies or receives a complaint from any employee of the Contractor regarding improper application or nonpayment of federal prevailing wages, improper application of overtime pay, or any other requirement noted in the *Required Contract Provisions for Federal-aid Construction Contracts* (FHWA-1273), the Project Engineer should immediately notify the Contractor requesting prompt corrective action. All issues of noncompliance involving either the Contractor, subcontractor, and any lower-tier subcontractors are to be addressed through the prime contractor for resolution.

If the Project Engineer determines the Contractor is in violation of the provision noted in the FHWA-1273 or *Standard Specifications* Section 1-07.9, the Contractor should be immediately informed and requested to make the necessary corrective actions. Once the Contractor has been informed that an apparent violation has occurred, it is expected that a satisfactory correction or explanation will be made within a reasonable period of time. If this does not happen, the Project Engineer should withhold an appropriate

portion of payment (see Section SS 1-09.9). If the failure to act continues, the Project Engineer should refer the issue to the Region Construction Manager.

Department of Labor Investigation

The U.S. Department of Labor may investigate compliance with the DBRA and the Contract Work Hours and Safety Standard Act (CWHSSA) when conducting any investigations relative to compliance with the Fair Labor Standards Act or any other acts under its enforcement authority. Investigative action taken by the U.S. Department of Labor with respect to DBRA and CWHSSA do not, in any way, change the degree of authority or responsibility of WSDOT for enforcement of these Acts. Any actions taken by the U.S. Department of Labor should be considered as services we may use to assist us in our enforcement activities but, should not be considered to relieve us of our basic responsibility to investigate fully all potential violations and to apply such sanctions as are deemed applicable under our enforcement authority to ensure compliance.

Request For Authorization of Additional Classification and Rate

The U.S. Department of Labor (DOL) issues wage determinations under the Davis-Bacon Act (DBA) using available statistical data on prevailing wages and benefits paid in a specific locality. On occasion, the data does not contain sufficient information to issue rates for a particular classification of worker needed in the performance of the contract. Because of this, DBA provisions contain a conformance procedure for the purpose of establishing an enforceable wage and benefit rate for the missing classification (*Standard Specifications* Section 1-07.9(1) and FHWA-1273).

Contractors are responsible for determining the appropriate staffing necessary to perform the contract work. Contractors are also responsible for complying with the minimum wage and benefits requirements for each classification performing work on the contract. If a classification considered necessary by the contractor for performance of the work is not listed on the applicable wage determination, the contractor must initiate a request for approval of an additional classification along with the proposed wage and benefit rates for that classification.

The Contractor initiates the request by preparing form SF1444, Request for Authorization of Additional Classification and Rate, at the time of employment of the unlisted classification. (Reference FAR 22.406-3 and 52.222-6(b), and Title 29 CFR Part 5, Section 5.5(a)). The Contractor completes blocks 2 through 15 on the form. Standard Form 1444 is readily available via the internet and is accessible by going to www.gsa.gov/portal/forms/type/sf, and searching by the form number.

The Contractor submits the request to the State Construction Office via the Project Engineer's office. The Project Engineer's office will need to review the request and if applicable, provide backup data showing that the requested classification(s) have been prevailed in other counties within the state. The project office will also need to describe the work being performed and verify that the duties performed, as described in the request, are not covered by any other classification(s). This documentation, along with the request, will be forwarded under cover letter from the Project Engineer's office, through the Region Documentation office, to the State Construction Office.

The State Construction Office reviews the request for completeness and signs the form designating the contracting agency's concurrence or disagreement with the

Contractor's proposal. If the Project Engineer or the State Construction Office indicates disagreement with the Contractor's proposal, a statement must be attached supporting a recommendation for different rates. The State Construction Office then submits the proposal with all attachments to DOL for approval. The Contractor is obligated to pay the proposed wage and benefit rates during the request for determination and pending a formal response from DOL.

When a determination has been received from DOL, the Contractor is obligated to pay that determined wage and benefits. If the Contractor has underpaid the employee(s), they are required to make back payment and re-submit corrected certified payrolls.

SS 1-07.9(2) Posting Notices

A combination of both State and Federal laws require that on all WSDOT administered contracts some or all of the posters listed below are to be posted at the place of employment such that all employees have ready and free access to inspect their contents. The Project Engineer must ensure that the Contractor complies with these requirements.

- WH 1321 – Employee Rights Under the Davis-Bacon Act (Project Engineer to fill-in contact information on the form prior to supplying to the Contractor)
- FHWA-1022 – NOTICE Federal Aid Project (Project Engineer to fill-in contact information on the form prior to supplying to the Contractor)
- EEOC-P/E-1 – Equal Employment Opportunity IS THE Law
- Whistleblower (ARRA projects only)
- WHD Publication 1088 – Employee Rights Under the Fair Labor Standards Act
- WHD Publication 1420 – Employee Rights And Responsibilities Under The Family And Medical Leave Act
- WHD 1462 –Employee Polygraph Protection Act
- WISHA F416-081-909 – Job Safety and Health Law
- F242-191-909 – Notice to Employees (L&I)
- F700-074-909 – Your Rights as a Worker in Washington State
- EMS 9874 – Unemployment Benefits
- Copy of approved Statement of Intent to Pay Prevailing Wages for the Prime Contractor and each subcontractor and lower-tier subcontractor in accordance with RCW 39.12.020
- Copy of company EEO policy for the Prime Contractor and on Federal-Aid contracts, for each subcontractor and lower-tier subcontractor
- Copy of prevailing wage rates from the contract provisions
- Emergency phone numbers for Safety and EEO officers for the Prime Contractor and each subcontractor and lower-tier contractor.

If Federal funds are involved, all of these posters are required, except that the "Whistleblower" poster is required only for ARRA funded projects. If only State funds are involved, the first four do not apply. After contract execution and before work begins, the Contractor should be given a package containing the appropriate required job site posters. There are links to these posters on the State Construction Office website. This package should also be accompanied by either a written or verbal

explanation of the contents and include notification that on all contract the Contractor, each subcontractor, and each lower-tier subcontractor will have to post a copy of the State L&I approved Statement of Intent to Pay Prevailing wages. This action shall be specifically noted in the project records.

Fraud Notice Poster

Fraud Notice, FHWA-1022, Title 18 USC 1020, must be displayed on all Federal-aid projects during the course of the work. This notice points out the consequences of any impropriety on the part of any contractor or WSDOT employee working on the project.

Federal Prevailing Wage Rates

The Contractor must post the federal wage determination, consisting of the wage listing included in the contract provisions, in a prominent place where it can easily be seen by workers. Standard posters (form WH 1321) are also to be posted and are available to the Region from the Support Services Supervisor, FHWA, Olympia, Washington.

SS 1-07.9(5) Required Documents

The requirements for the Contractor's compliance with State prevailing wages are noted in *Standard Specifications* Section 1-07.9. Specific wage rate determinations for State prevailing wages are noted in the contract itself. Though certified payrolls can be requested regardless of the contract's source of funds, these are a specific requirement for enforcement of federal wage laws only and are not routinely used for monitoring of State prevailing wage issues.

Requirements for State prevailing wages include:

- *Standard Specifications* Section 1-07.9 requires that the Contractor submit a *Statement* of *Intent* to *Pay Prevailing Wages* (SI) prepared on the State L&I form and approved by that agency. Statements are required for the Contractor and for each subcontractor, agent and lower-tier subcontractor. The specification requires that no progress payments be released to the Contractor for work completed by the Contractor, or for portions of work completed by subcontractors, agents or lower-tier subcontractors prior to the Project Engineer's receipt of the approved statement for the entity performing the work. State L&I will approve the statements and further certify that the documents meet the requirements of State laws.
- Prior to the project being granted Completion by WSDOT, the Contractor, all subcontractors, and all lower-tier subcontractors must submit an *Affidavit of Wages Paid* (AWP) prepared on the State L&I form and approved by that agency. (The form may be submitted earlier by a subcontractor or lower-tier subcontractor should that firm's work be completed prior to completion of the contract.) It is the Contractor's responsibility to obtain and provide all AWP to the Project Engineer for all subcontractor and lower-tier subcontractors performing work on the project. In the event a subcontractor or lower-tier subcontractor cannot or will not provide a completed AWP form, the Contractor should consult with State L&I to seek assistance in filing an affidavit "On Behalf Of" these subcontractors. Failure to provide all required AWP for all contractors who worked on the project will result in the withholding of Contract Completion and release of retainage or bond.

- A contractor or subcontractor may enter into an agreement with his or her employees to work 10 hours per day without having to pay overtime. This is provided that no employee work more than 4 calendar days a week.
- State L&I has also defined "Contractor" to include some fabricators or manufacturers who produce nonstandard items specifically for use on the public works project. Additionally some companies who may contract with the Contractor, subcontractors, or lower-tier subcontractors for the production and/or delivery of gravel, concrete, asphalt, or similar materials may perform activities that cause employees of these firms to be covered by state prevailing wage laws.

  Specific circumstances that may cause employees of these firms to be covered by State prevailing wage laws are described in State L&I publications. These publications are included in the provisions of each contract adjacent to the State Prevailing Wage listings. Where these firms are covered by State prevailing wage laws, an approved *Statement of Intent to Pay Prevailing Wages and Affidavit of Wages Paid* must be submitted to the Project Engineer on State L&I forms.

The Project Engineer should monitor the Contractor's efforts in regards to state prevailing wages by:

- Monitoring to ensure an approved Statement of Intent is received prior to releasing any progress payments for work completed by the Contractor, subcontractor or lower-tier subcontractors as well as any fabricators or suppliers of materials whom L&I may also determine as being covered.
- Monitoring to ensure that Affidavits of Wages Paid have been received for the Contractor as well as each subcontractor or lower-tier subcontractor who performed work on the contract. In addition, AWP are also required of each fabricator or supplier who was also covered by state prevailing wages. Ensure that the company name on the Affidavit of Wages Paid matches the company name on the Statement of Intent to Pay Prevailing Wages. If this is not the case, the Affidavit is not acceptable; unless the Contractor or subcontractor can supply a copy of their business license showing both names (i.e., Company Name and Trade Name).
- Monitoring by observing concerns of employees of the Contractor, subcontractors, or lower-tier subcontractors. In particular, the Project Engineer should note any employee complaints regarding specific state prevailing wage violations by the employer.

In the event the Project Engineer identifies or receives a complaint from any employee of the Contractor regarding improper application or nonpayment of state prevailing wages, or improper application of overtime pay, the Project Engineer should immediately notify the Contractor requesting prompt corrective action. All issues of noncompliance involving either the Contractor, subcontractor, and any lower-tier subcontractors are to be addressed through the Prime Contractor for resolution.

Once the Contractor has been informed that an apparent violation of state prevailing wages has occurred, it is expected that a satisfactory correction or explanation will be made within a reasonable period of time. If this does not happen, the Project Engineer should inform the Contractor that the matter may be referred to the Washington State Department of Labor and Industries (L&I) for further action. If the failure to act continues, the Project Engineer should refer the issue to the Region Construction Manager.

Except as noted for missing Statements of Intent, routine monthly progress payments made to the Contractor for work completed should not be deferred for enforcement of state prevailing wage laws. The State Construction Office will refer the matter to State L&I for further investigation that may be appropriate. Should State L&I choose to investigate, L&I will establish the amount of any unpaid wages due employees of the contractor. In order to recover these wages for employees, L&I may choose to file a claim against the Contractor's retainage held under the contract. State L&I may also choose to recover unpaid wages by requesting that the Project Engineer withhold funds from monthly progress estimates for work completed by the Contractor.

Certified Payroll Inspection

The "Contract Provisions for Federal-Aid Construction Contracts" (FHWA-1273) require the Contractor, subcontractors, agents or lower-tier subcontractors to submit certified payrolls. These are to be checked by the Project Engineer to ensure the required information has been included and is correct. The Project Engineer should accomplish this by making a complete check of the first payroll submitted on the project by the Contractor, each subcontractor, and each lower-tier subcontractor. Once satisfied that these first payrolls are correctly prepared, subsequent payrolls for that project may be accepted by a random spot checking of approximately 10 percent of the payrolls submitted. If errors are found during any spot-checking of the payrolls, a more complete or thorough check should occur until the Project Engineer has determined that the errors detected have been corrected and monitoring can be returned to a spot checking basis. The *Contract Provisions for Federal-Aid Construction Contracts* (FHWA-1273) identify the required items to be included in certified payrolls. A complete payroll inspection by the Project Engineer should confirm that the following items are present:

- The contract number and contract name noted on the payroll form, together with the payroll number and payroll period. The name of the employer, identifying the Contractor, subcontractor, or lower-tier subcontractor, must be shown.
- A specific minimum wage rate is to be identified for each worker. The *Standard Specifications* require the Contractor to use word descriptions for the labor classifications that are included in the contract provisions identifying federal wage rates, and are to be used on all payrolls. *Standard Specifications* Section 1-07.9 permits the Contractor to use an alternative method to identify or correlate the labor descriptions used, if approved by the Engineer, in order that they may be compared to the contract provisions.
- Each employee's unique identification number (i.e., last four digits of the employee's Social Security number). The payroll shall not include the full Social Security number or home address of the employee; however the contractor or subcontractor shall maintain this information on file and provide this information upon request by the Agency. If a project office receives a certified payroll displaying an employee's full social security number or home address from the Contractor that payroll should be returned to the Contractor and a corrected payroll shall be submitted without full social security numbers and/or employee addresses. The office will make the Contractor aware of the requirements in the contract federal provisions (1273) section IV. Davis-Bacon and Related Act Provisions, part 3.b. that states that employee "social security numbers and home addresses shall

not be included". An individual identification number (e.g., the last four digits of the social security number) are allowed to be listed on payroll.

- Payroll deductions must conform to Section IV of the *Required Contract Provisions for Federal-aid Construction Contracts* (FHWA-1273). If payroll deductions are questionable, contact the State Construction Office for assistance.
- Every laborer or mechanic working on the contract must be classified for the proper minimum prevailing wage in accordance with the designated wage determination. If a classification of worker is used that does not appear in the contract special provisions, *Standard Specifications* Section 1 07.9 makes it the Contractor's responsibility to contact the U.S. Department of Labor (through the Project Engineer) for a determination of the proper wage rate. The *Required Contract Provisions for Federal-aid Construction Contracts* (FHWA-1273) provides a method for resolving this.
- The Contractor can submit weekly payroll information in any form desired; however Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at www.dol.gov/whd/forms/wh347instr.htm
- Each payroll submitted shall be accompanied by a "Statement of Compliance", signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract certifying the requirements listed in item (2), under part *3. Payrolls and basic records, of Section IV of the Required Contract Provisions Federal-aid Construction Contracts* (FHWA-1273). The reverse side of Optional Form WH-347 satisfies the requirements for submission of the "Statement of Compliance" required in the FHWA-1273.

Subcontractors and lower-tier subcontractors are required to submit payrolls through the Prime Contractor to the Project Engineer. Any payrolls which do not comply fully with the requirements outlined above must be corrected by a supplemental payroll.

SS 1-07.11 Requirements for Nondiscrimination

SS 1-07.11(1) General Application

EEO, D/M/WBE, and Training

Differences between State and Federal laws require a variety of guiding requirements. As a result individual contracts may have different guiding requirements depending on what laws were in place at the time the contract was executed and how the project is funded. The special provisions, *Standard Specifications*, and amendments determine the specific requirements for each project. The *Construction Manual* is one of many resources available for general information on the obligations and policy of WSDOT with regard to external civil rights. Other resources include:

1. **Office of Equal Opportunity (OEO)** – OEO monitors, maintains, and updates WSDOT Equal Employment Opportunity (EEO) policies and commitments to FHWA. As part of that effort they maintain the following documents which are available through the OEO homepage:
   - Equal Employment Opportunity Compliance Program (EEO and on-the-Job Training)

- Disadvantaged Business Enterprise Participation Plan (contract goals, if included in a project, will be mandatory)
- Title VI Plan (nondiscrimination)

2. *Standard Specifications*, as follows, apply to all projects:
   - 1-07.11 Requirements for Nondiscrimination
   - 1-08.1 Subcontract Completion and Return of Retainage Withheld
3. General Special Provisions (GSPs) which may be included in the contract include:
   - Voluntary Minority, Small, Veterans and Women's Business Enterprise (MSVWBE) Participation (included in projects funded with only State funds)
   - Requirement for Affirmative Action to Ensure Equal Employment Opportunity (included in projects with FHWA participation)
   - Disadvantaged Business Enterprise Participation (included in projects with FHWA participation)
   - Special Training Provisions (included in projects with FHWA participation and only if the contract is selected for training)
   - Indian Preference and Tribal Ordinances (TEROs) (only if the project includes work on the reservation and only if the ordinances exist)
   - Federal Small Business Enterprise (FBE) "Voluntary Goal" Participation (included in all projects with FHWA participation and no COA goal). Federal Small Businesses will be designated as FBE on the "Request to Sublet Work" (DOT Form 421-012), and in CCIS in order to differentiate them from businesses participating in the State Small Businesses Program, which will be designated as SBE on DOT Form 421-012 and in CCIS.

While some requirements and provisions apply to all projects, others apply to projects with State funds only and others yet apply to projects that are partially or fully financed with Federal funding.

SS 1-07.11(2) Contractual Requirements

Voluntary Minority, Small, Veterans and Women Owned Business Enterprise (MSVWBE)

MBE, SBE, VBE or WBE are the designations for holding State certification as a minority, small, veteran or women owned business enterprise. The State Office of Minority and Women's Owned Business Enterprises (OMWBE) certifies businesses as either a minority owned business (MBE), a small business (SBE), a women owned business (WBE), or a combination of both Minority and Women Owned Business (M/WBE). The Department of Veteran Affairs certifies a business as a Veteran Owned Business. On projects funded in whole with State funds, and containing no Federal funds, the contract provisions will include the MSVWBE special provision. This provision requires that the Prime Contractor submit an MSVWBE Inclusion Plan, except for those projects with an estimated value of $250,000 or less. The provision also includes suggested methods for encouraging MSVWBE participation. As noted, these requirements are indeed voluntary and there are neither preferences for accomplishment nor sanctions for noncompliance. When the Project Engineer's Office receives the Prime Contractor's MSVWBE Inclusion Plan, it should be reviewed

for completeness. Incomplete plans will be returned for correction and resubmittal. When an MSVWBE is employed on any project, a Monthly Report of Amounts Paid to MSVWBEs shall be submitted to the Engineer each month between execution and physical completion of the contract using the tool available at: https://remoteapps.wsdot.wa.gov/Mapsdata/tools/DBEParticipation.

Disadvantaged Business Enterprise (DBE)

As a condition of receiving federal financial assistance, WSDOT has given assurance to FHWA that it will comply with Title 49 CFR Part 26. WSDOT divisions and offices are committed to provide contracting opportunities for DBE businesses by achieving the agency programmatic goal for DBE participation at both the project and program level. For the projects under the authorities of regions and the State Construction office, all contractual matters relating to DBE must follow the same path as any other contract matters. The OEO DBE Liaison Officer (DBELO) has the agency program level authority for the regular dealer status, pre award and post execution contract specific approval of Good Faith Effort (GFE), pre award clearing of DBE Commitments, approval of changes to condition of award DBEs, Commercially Useful Function reviews, and applicable sanctions. However, any contractual DBE issues, including those listed above must be elevated through the State Construction office and they will seek concurrence and approval of the DBELO.

The State OMWBE certifies DBEs and maintains the certified DBE directory. Each DBE is certified for the work identified in the Description of Work. Only the amounts paid to DBE for the certified work is reported and applied towards the Contract DBE participation. North American Industry Classification System (NACIS) codes listed on the certification directory is for the purpose of the business size standards as it applies towards the DBE graduation from the program. Federally funded projects will contain DBE requirements as specified by the GSPs. These GSPs may include:

Requirements for Affirmative Action to Ensure Equal Employment Opportunity

This General Special Provision will be in all federally funded projects exceeding a contract cost of $100,000. The GSP draws the bidder's attention to the Equal Employment Opportunity requirements of the contract.

Disadvantaged Business Enterprise (DBE) Participation

When *No Condition of Award (COA) Goal* is specified, the contractor is encouraged to take actions that promote DBE participation. The GSP is intended to draw the attention of bidders to the opportunity to subcontract with DBE's. However, these requirements are indeed voluntary and there are neither preferences for accomplishment nor sanctions for non-compliance. They do contribute to the overall goal established by the Department. It is therefore important that the Department capture the work that is being performed. Payments made to non-COA DBE Subcontractors will be counted as race neutral participation if the subcontractor is performing work for which they are OMWBE certified and the payments are reported using the application available at: https://remoteapps.wsdot.wa.gov/Mapsdata/tools/DBEParticipation.

Disadvantaged Business Enterprise (DBE) Condition of Award Participation

When a *Condition of Award (COA) Goal* is specified, the Contractor is required to employ DBE participation to at least the extent identified in the GSP. This is a condition of awarding the contract to the Contractor and a project cannot be considered successful unless the Contractor meets the COA DBE Commitment. The Contractor's DBE Commitment as identified in the Contract Utilization Certification form, as further detailed in the post award bid item breakout information provided by the Contractor, and as verified/entered into CCIS. The Contractor may demonstrate that a good faith effort was made to deliver on the Condition of Award for full or partial DBE participation.

The project DBE goal is also applied towards increased costs to a project via changes. Remember, the Contractor is obligated to meet the Contract DBE Commitment and the Project Engineer is responsible for the additional DBE participation, if any, as the result of changes that increases the Contract amounts paid. The project DBE participation to these changes is managed by the Project Engineer while working closely with the Contractor. The Project Engineer must look for the additional DBE participation necessary to meet the overall project DBE goal as it is applied to the total amounts paid on a project. Project engineer must do so by asking the Contractor for quotes from DBEs, review the status of non-COA DBEs participation, or demonstrate a good faith effort. Depending on the type of changes, where in the project schedule the change occurs, and the availability of DBEs, it is possible the change work with the additional DBE participation can cost more as compared to a quote from non DBE subcontractors. The determination of the reasonableness of the additional cost of DBE participation must be approved by the State Construction office. These specifications are placed in contracts as a condition of continued Federal Funding for the Department.

- As a *Condition of Award*, the Contractor must commit to, and follow through on, subcontracting at least the work and the amount identified by the COA to certified DBE firms or make a good faith effort to do so.
- Measurement of attainment is not simply the payments made to the DBE. Attainment is measured in accordance with the provisions of the "DBE Participation" section of the contract special provisions.
- Changes to the amounts specified for COA must be made in accordance with the procedures outlined in this section.
- All amounts paid for certified work to non-COA DBEs shall be reported by the Contractor. All non-COA DBE amounts reported on the project can be used for COA DBE substitution, applied towards the DBE participation on changes that increase the Contract amounts, or be applied towards overall agency DBE goal as race conscious DBE participation.
- When a DBE is the Contractor, the total project DBE participation is reported as race neutral, and all of the certified work completed by the DBE Contractor is reported as well as any other DBE subcontractor's work as long as it meets the Contract DBE requirements.

Federal Small Business Enterprise (SBE - Designated in CCIS as FBE)

The Federal Small Business Enterprise (SBE) Program is an element of the Disadvantaged Business Enterprise (DBE) Program. For purposes of tracking and reporting, a Federal Small Business will be designated as FBE on the "Request to Sublet Work" (DOT Form 421-012) and in CCIS. This is in order to differentiate from a State Small Business which will be designated on DOT Form 421-012 and in CCIS as SBE. Affirmative efforts to utilize SBE certified firms are required, and a voluntary goal of ten percent of the contract bid amount has been established, for all federally funded contracts that do not contain a DBE Condition of Award goal.

The contract special provisions require the Contractor to submit an SBE Participation Plan to the Project Engineer prior to commencing any work on the project. The Project Engineer will transmit the plan to the Region Equal Employment Opportunity (EEO) Officer for review. The EEO Officer will review the plan for compliance with the examples shown on the Office of Equal Opportunity (OEO) web site, and if appropriate will provide feedback to assist the Contractor in formulating a plan and administering an SBE program.

The EEO Officer will transmit a copy of the submitted plan to Headquarters Office of Equal Opportunity (OEO) for review.

Reporting of payments made to SBEs will be by means of the application available at: https://remoteapps.wsdot.wa.gov/Mapsdata/tools/DBEParticipation.

Additional Execution Documents

Prior to execution of the contract, successful bidders are required to provide bid item break out information for the COA DBE work and a "Bidders List" to the Department. This information is used to verify the COA DBEs planned work as related to the list of bid items along with the amounts for each COA DBE. This information is entered in to CCIS for the monitoring/tracking purpose. The bidders list is to include the names and addresses of every firm that submitted a bid or quotation to the Prime, whether or not that bid was used as part of the overall proposal. The bidder is also required to submit a complete list of all DBE firms shown on the DBE Utilization Certification and all the Bid Items, along with unit prices and extensions, assigned to each DBE firm. The Contractor is directed to send the bid item breakout information and the bidders list directly to the WSDOT Office of Equal Opportunity in Olympia and normally the Project Engineer will have no involvement.

On Site Reviews

The Project Engineer shall ensure that an on-site review is conducted on each DBE Subcontractor, Regular Dealer, or Manufacturer performing work or supplying materials for each Federal-aid contract. The Project Engineer shall also ensure that this information is entered into the Construction Contract Information System (CCIS). On-site reviews shall be conducted at periodic intervals—when the DBE begins work, during the peak period of the DBE's work, and any time there is a change in the nature or methods of the DBE's work. An on-site review must also be conducted when there is a change in the DBE performing the work (substitution of a DBE firm). These on-site reviews shall be performed for all DBE's performing work on the project, whether Condition of Award work or other work. On multi-year projects a new review will

be performed for each DBE performing work on the contract each year. An on-site review is a "snapshot in time" and should record personal observations, documentation reviews and personnel interviews, as applicable. Once completed, the information from each on-site review shall be entered into CCIS by the Project Office. A copy of the completed on-site review DOT Form 272-052 should be forwarded to WSDOT's Office of Equal Opportunity (OEO).

One of the requirements of the overall DBE Program is that all DBE firms working on Federal aid project are in control of their specific items of work and are performing a "Commercially Useful Function" (CUF), as described by the specification. An on-site review may lead to a more in-depth CUF review, conducted by the OEO. These in-depth CUF reviews may be a result of concerns identified during the initial on-site review, or the OEO may select DBE firms on a periodic basis for a more in-depth review. The OEO uses these in-depth reviews to stay abreast of the DBE firm's capabilities. The OEO will contact the Project Office directly to schedule these reviews. The fact that the OEO is going to conduct a review shall be kept in confidence in order to ensure that the review truly reflects a sampling of the typical work of the DBE firm. The CUF review will include observations of the work, as well as interviews with key staff of all parties on the contract, in addition to the DBE firm.

On those projects containing a COA goal, the COA letter requires that the identified DBE firms perform specific items of work for the estimated dollar amounts included in the proposal. The COA letter also identifies whether the DBE firm will be performing as a "subcontractor," "manufacturer," or "regular dealer (supplier)." Regular dealers must be approved for each individual contract in order to be counted. Any issues regarding DBE compliance should be brought to the attention of the appropriate Assistant State Construction Engineer (ASCE).

In order for WSDOT to take credit for DBE participation (as reflected by the monthly on-line reports), WSDOT must ensure that all DBE firms perform a "Commercially Useful Function." Determination of whether or not a firm is performing a "Commercially Useful Function" requires on-site monitoring. The Project Office plays a key role in this monitoring by acting as the Departments "eyes and ears" in the field.

Changes to the Condition of Award (COA)

The Contractor is required to utilize the COA subcontractors, manufacturers, etc., to perform the work as committed in the DBE Utilization Certification and the bid item breakout as provided by the Contractor.

This COA is a Contract requirement and any Contractor initiated changes that reduce the DBE Commitment amount requires prior approval to terminate (whole or partial) COA work with a good cause and substitution is required to fulfill the COA Commitment amount. Substitution of COA DBE cannot occur without termination. Project Engineer should be discussing the Contractor's plan for substitution as part of the discussion of the termination approval process.

Exceptions to the substitution requirement may be allowed under any of the following circumstances:

- WSDOT deletes the COA firm's intended work.
- The Contractor can show substantial financial loss if a substitution is required.
- The work has progressed to the point where no other work remains to be subcontracted.
- The DBE subcontractor has taken the positive step of graduating from the DBE program.

The State Construction Office must approve any substitution with concurrence from the Office of Equal Opportunity.

Substitution

Substitutions must meet the following requirements:

- Substitution is a part of the whole/partial COA DBE subcontract termination; hence the DBE termination with a good cause must exist for any DBE substitution requests.
- The new firm must do an equal dollar value of work on the contract.
- The change order does not increase the dollar amount of the original DBE Commitment. WSDOT may request DBE participation as part of the change order when necessary.

Condition of Award (COA) Change Orders

Changes to the contract COA DBE Subcontractors or decreases to the COA DBE commitment amounts must be made through a change order executed by the State Construction Office. Approval is granted by the appropriate ASCE. This approval shall be obtained and documented prior to the changed work, and any related work, being performed. Types of COA change orders may include:

- **Substitution** – Contractor requests to substitute for a COA DBE Subcontractor. The COA change order will include a DBE termination for the DBE Subcontractor being replaced and assigning an equal amount of COA work to another DBE Subcontractor.
- **Change to Allocated Dollars** – Contractor requests to change the allocation of dollar amounts of work assigned to a COA DBE Subcontractor as shown on the Bid Item Breakdown. The COA change order will include the removal or reduction of some bid items and increase of other bid items of work for the COA DBE Subcontractor.
- **Using COA DBE for Bid Item Not Listed** – Contractor requests to use COA DBE Subcontractor for a bid item that is not listed on the Bid Item Breakdown. In order to be counted toward the COA Goal amount, a COA change order must add this bid item work to the COA items for the COA DBE Subcontractor. The COA DBE Subcontractor must be OMWBE certified to perform this work.
- **Change Due to Contractor Initiated Change** – Contractor proposes a change that deletes or reduces work to be performed by a COA DBE Subcontractor. A change order is require for all changes to the contract. The Contractor should find

substitute work to replace this COA work. If the Contractor cannot guarantee COA DBE participation the requested change order may be denied.

- **Change Due to Owner Initiated Change** – Owner initiates a change that deletes or reduces COA DBE work. The ASCE should negotiate inclusion of additional COA DBE work (may include paying a premium) or GFE to be included in the change order.

The amounts shown in the COA change order should be limited to the credit necessary to accomplish the original contract DBE commitment amount. The request for approval and the change order as well as the change order package needs to contain the following information:

- An explanation of why the change is necessary.
- Identification of all deleted work and all added work.
- Revised subtotals for all affected COA DBE firms. The change order only needs to address each affected DBE firm, not all COA DBE firms.
- Revised total attainment for DBE participation.
- Documentation of a good faith effort to substitute should go in the change order file (if required, see Section SS 1-07.11).

Consulting With the Office of Equal Opportunity

The Department's DBE program is managed by the External Civil Rights Branch of the Office of Equal Opportunity (OEO) at Headquarters. For day-to-day issues that may arise, the Project Engineer should communicate with the ASCE assigned responsibility for that Project Office about any aspect of the DBE activities on the project. Any questions received from the Contractor or subcontractor about DBE provisions or enforcement should be answered only with full knowledge of the opinions and directions of the State Construction Office and with the OEO. When appropriate, the ASCE will consult with the Office of Equal Opportunity.

The Office of Equal Opportunity is also required to approve DBE firms that are manufacturers and regular dealers (suppliers) on a contract by contract basis.

The State Construction Office must execute any change orders that revise the COA commitment. When preparing the change order in CCIS pending CO's menu use option 3, "Condition of Award Items." Include the first three items listed above in the change order document. When submitting the change order to the Contractor for signature, the Project Engineer should also send copies to the affected DBE firms as notification of the change and should advise the Contractor that this has been done.

On-the-Job Training (OJT)

On-the-Job Training Special Provisions – General

The requirements for training are made a part of the contract by the special provision, Special Training Provisions. The amount of training is set by the WSDOT Office of Equal Opportunity based on the opportunities presented by the work and the needs in the geographical area involved. The requirements for trainee, training plan approval, and trainee payment are all specified in the contract special provisions.

Payment for "Training"

At progress estimate cutoff time, the Contractor shall submit a certified invoice requesting payment for training. The invoice must provide the following information for each trainee:

- The related weekly payroll number
- Name of trainee
- Total hours trained under the program
- Previously paid hours under the contract
- Hours due for current estimate
- Dollar amount due for current updated estimate

Retroactive payment may be allowed provided:

- The Training Program is approved
- There are no outstanding issues or circumstances that would have prevented approval of the apprentice/trainee

  Increases in training hours are allowable and may be approved on a case by case basis by the Project Engineer in consultation with the Regional EEO Officer.

Apprentice Participation

Apprentice Participation Special Provision – General

The requirements for apprentice utilization are made a part of the contract by the General Special Provision (GSP) "*Apprentice Utilization*." The use of this provision and the apprentice participation goal will be:

- 15 percent – On contracts estimated to cost $3 million dollars or greater.

Only apprentices enrolled in an apprenticeship program approved by the Washington State Apprenticeship Council may be counted toward attainment of the apprentice utilization requirement. The Contractor may attain the apprentice utilization requirement as part of their work activities, or through the work activities of subcontractors or lower-tier subcontractors. Attainment of the requirement will be calculated by comparing the total labor hours worked by all the enrolled apprentices performing work for the Contractor and any subcontractors, in all trades, with the total labor hours performed on the project, in all trades.

It is important to note that the Apprentice Utilization Requirement is a separate program from the Federal Training requirements included in all contracts which contain federal monies. The two programs are not mutually exclusive. The intent of the federal program is to increase the availability of women and minorities within the construction trades; whereas as the Apprentice Utilization Requirement (state program) is promoting the use of apprentices in general. A female or minority apprentice enrolled in a program approved by the Washington State Apprenticeship Council meets both requirements.

Apprentice Utilization Plan

The Contractor is required to submit an apprentice utilization plan, using the application available at: https://remoteapps.wsdot.wa.gov/Construction/Training/Apprenticeship/ , to the Project Engineer within 30 days of execution of the contract. This plan is not submitted for approval; but to inform the Project Engineer as to how the Contractor will attain the utilization requirement. The intent of the plan is to provide the Project Engineer with enough information to track the Contractor's progress in the utilization requirements. If the plan indicates that the Contractor will not attain the requirement, a revised plan should be requested and/or the Contractor should be notified that "Good Faith" documentation will be required, by the physical completion date as specified.

"Good Faith" Procedures

"Good Faith" is the action taken by the Contractor to meet the Apprentice Utilization requirement. Documentation of the Contractor's "Good Faith" efforts is only required if the Contractor fails to attain the requirement. "Good Faith" documentation may arrive with the monthly report or at the completion of the contract. The need to provide "Good Faith" documentation should be stressed prior to physical completion if it is determined that the monthly reports show a level of attainment that significantly differs from that in the Apprentice Utilization Plan. If this should occur, the Project Engineer should request a revised Apprentice Utilization Plan and/or "Good Faith" documentation from the Contractor. "Good Faith" documentation should demonstrate that the Contractor took the following steps:

1. Solicit Apprentice(s) from State-approved Apprenticeship Training Program(s).
2. Document the solicitation and, in the event that Apprentice(s) are not available, obtain supporting documentation from the solicited program(s).
3. Demonstrate that the plan was updated as required elsewhere in this section.
4. Provide documentation demonstrating what efforts the Contractor has taken to require subcontractors to solicit and employ Apprentice(s).

The Contractor may also provide supplemental narrative about other factors that prevented them from meeting the apprenticeship requirement, past apprentice utilization and company-wide efforts. The narrative does not substitute for the above listed items, but is addition to them. In unusual circumstances, it is possible that the Contractor would not be able to meet the apprenticeship requirement for a reason that does not fall into the above "Good Faith" process. Some examples of other circumstances that may prevent the Contractor from meeting the apprenticeship requirement are listed below, and should be documented in the "Good Faith" submittal.

- A large amount of rock-scaling or other work specified in the contract where the use of experienced worker is part of the contract requirements.
- A large amount of work in occupations that are not apprentice-able or have few apprentice opportunities, such as flagging.
- Conflicting TERO requirements.
- Competing Federal requirements.
- The use of specialty equipment that no apprentices were able to operate.

- Added or deleted work that significantly altered a Contractor's workforce and apprentice utilization plan.
- Small crew sizes and the ration of apprentices to journeymen allowed by the apprentice program did not allow a Contractor to meet the requirement.

Any "Good Faith" documentation should be reviewed by the Project Engineer, who will determine if the Contractor met the requirement through "Good Faith." Their determination and a copy of the "Good Faith" documentation should be submitted to the State Construction Office through the Region. If the Contractor fails to meet the apprenticeship requirement and does not submit a "Good Faith" effort, the Project Engineer shall reflect this in the Contractor's Performance Evaluation. Failure to comply with the apprentice utilization requirement may result in reduction or revocation of prequalification as allowed by WAC 468-16-190.

SS 1-07.11(2)A Equal Employment Opportunity (EEO) Responsibilities

EEO (Federally Funded Projects)

WSDOT has committed to FHWA to perform comprehensive construction compliance reviews to ensure that the requirements of *Standard Specifications* Section 1-07.11 have been adhered to. This review is performed by the WSDOT Office of Equal Opportunity (OEO) on a selected number of FHWA funded projects and may take place at any point during the life of the project or after the project has been completed. A Contractor that is found in violation of the contractually required affirmative action good faith efforts will be invited to a compliance conference to develop a corrective action plan. Failure to accept and comply with a corrective action plan may result in sanctions. The records that have been maintained at the Contractor's office will be utilized for these reviews. The FHWA also retains the authority to review the Contractor's records for EEO compliance. These reviews do not normally involve the project office other than notification of their occurrence and the resulting findings.

Contract compliance reviews include an on-site review, and interviews of contractor employees, while the contractor is actively engaged in performing work associated with the contract. If interviews cannot be conducted during the site review, such interviews may be conducted off-site, at other locations, or at a later time. The WSDOT Office of Equal Opportunity (OEO) may also interview WSDOT personnel associated with the project. FHWA has established narrow time frames during the execution of the project that maximize the potential for obtaining the information required for an on-site review. OEO will contact the Region EEO Officer or project staff to facilitate the timing of the review. Federal regulations for projects having federal-aid dollars as part of their funding source require the full cooperation of any contractor who performs work on the project.

Prompt Return of Retainage to All Subcontractors

As a condition of receiving Federal funding, WSDOT is required to ensure prompt payment to all subcontractors on all contracts regardless of funding. State Statutes (Revised Code of Washington) pertaining to prompt pay require that the contracting agency make prompt payment to the prime contractor and that the prime contractor, in turn, pass these payments on to subcontractors in a timely manner.

Return of the subcontractor's retainage held by the prime contractor is required by the Contract Special Provision. This is a race neutral effort intended to support all small businesses in their efforts to participate in WSDOT contracts. Therefore, in accordance with the contract provisions, the prime contractor is required to release any and all retainage to the subcontractor within a designated time period after subcontract completion. The Project Engineer has no role in this process other than to respond to allegations of non-compliance with this contract requirement as with any other. We need to keep in mind that our contract is with the prime contractor, and we are not a party to the prime contractor's subcontract documents. We should avoid becoming involved in a prime's relationship with their subcontractors.

In the prime contractor's effort to determine completion of subcontract work, as required by the contract provisions, the Project Engineer may be asked to determine completion of a portion of the work. While we need to work with the Contractor to comply with the requirements of the specification, we should also take specific care to not issue partial punch lists or to place ourselves in a position of "accepting" portions of the work. In some cases we may provide the Contractor relief under certain conditions as described in *Standard Specifications* Section 1-07.13, Contractor's Responsibility for the Work.

EEO (State Funded Projects)

The Contractor is required to comply with the EEO requirements detailed in *Standard Specifications* Section 1-07.11, Requirements for Nondiscrimination. In general, these requirements include having an EEO Officer, developing, maintaining, making known, and utilizing an EEO program. The Project Engineer should be alert for and respond to any indications or accusations of discrimination. If the Project Engineer, or any other WSDOT personnel, becomes aware of any indications or accusations of discrimination, they should immediately notify the Region EEO Officer, who will in turn immediately notify WSDOT OEO. WSDOT OEO will handle any investigation that is warranted. The Office of Equal Opportunity and your regional OEO staff are available for guidance and assistance in these types of situations.

EEO (Federally Assisted Projects)

The requirements for EEO and nondiscrimination for federally assisted contracts are similar to those required for State funded projects. However, additional monitoring, reporting, and authority are mandated by Federal laws as noted in the Federal contract requirements known as the FHWA-1273. The FHWA-1273 is included in every Federally-assisted contract. These requirements are reiterated in *Standard Specifications* Section 1-07.11, Requirements for Nondiscrimination.

SS 1-07.11(10) Records and Reports

EEO Reporting and Records Retention

- Federal-Aid Highway Construction Contractors Annual EEO Report, Form FHWA-1391 – This form is required for all Federally assisted projects provided the prime contract is equal to or greater than $10,000 and for every associated subcontract equal to or greater than $10,000. Each contract requires separate reports be filed for the prime contractor and each subcontractor (subject to the above noted criteria.)

These forms are to be submitted to the Project Engineer, and are due by August 25th each year in which work was performed in the month of July.

The payroll period to be reflected in the report is the last payroll period in July in which work was performed. A contractor who works on more than one Federally assisted contract in July is required to file a separate report for each of those contracts. For multi-year projects, a report is required to be submitted each year work was performed during the month of July throughout the duration of the contract. A responsible official of the company must sign the completed report.

Upon receipt, the Project Engineer will forward the annual report to the Region's EEO Officer by September 5th. The Region EEO staff at the direction of the OEO will compile and report the information noted on the forms. The figures reported must reflect the number of employees, not hours, in each category, with subtotals broken out for women and minorities and grand totals for the category. Tables a through E reflect both apprentices and on the job trainees that were also utilized within each trade. The form must also include the corresponding subtotals in each category, a through E, broken out by both women and ethnicity.

- Summary of Employment Data Report, Form FHWA-1392 – As a part of the WSDOT OEO Equal Employment Opportunity Contractor Compliance Program, WSDOT is required to submit a summary of employment data to FHWA for each Federal fiscal year. This Summary of Employment Data Report, FHWA-1392, is prepared from forms FHWA-1391 (project specific annual reports) that have been submitted to the Region by the Project Engineer's offices. This summary is prepared by the Region EEO lead or other Region designee for each Federally assisted project. This report also includes Local Agency projects administered through the Region's Highways and Local Programs offices. The completed FHWA-1392 summary reports, including all forms FHWA-1391, are then submitted by the Region EEO lead to the WSDOT Office of Equal Opportunity by September 15th each year.
- Monthly Employment Utilization Reports, DOT Form 820-010 – This form, or approved substitute, is required for all federally assisted projects if the prime contract is equal to or greater than $10,000 and for every associated subcontract equal to or greater than $10,000. This report includes the total work hours for each employee classification as well as the total number of employees, broken out by ethnicity, in each trade, for each WSDOT project. Instructions for completing the form can be found on the back of the form itself. These monthly reports are to be maintained by the Contractor in the respective prime or subcontractor's records for a period of three years from acceptance of the contract, and available to WSDOT and/or Federal reviewers upon request.

  The information required by DOT Form 820-010 may be accepted in an alternate format provided that format contains all of the data required by and is completed in accordance with the instructions for DOT Form 820-010. The Region EEO staff should be consulted regarding the acceptability of any alternate format proposed by the Contractor.

The Contractor is required to maintain all project records, including the aforementioned EEO records, for three years following completion of the contract.

DBE Reporting

The contract special provisions require the Contractor to submit to the Project Engineer a Monthly Report of Amounts Credited as DBE contractor Participation for each month between execution of the contract and completion of the contract and upon completion of the project. This report will be submitted utilizing the application available at: https://remoteapps.wsdot.wa.gov/mapsdata/tools/dbeparticipation. Again, the measurement is not simply the payments made to the DBEs, rather it is in accordance with the "DBE Participation" section of the contract special provisions. This report should contain all DBEs utilized on the contract not just the COA DBEs. The information is used to track the Departments attainment of our overall goal and it is important to insure that they are received and processed in accordance with the contract provision.

MSVWBE Reporting

- The Prime Contractor is required to submit a Monthly Report of Amounts Paid to MSVWBEs to the Project Engineer each month between execution of the contract and physical completion of the contract regardless of whether payments were made or work occurred. This report is due twenty (20) calendar days following the end of the month for each month and shall be submitted using the application and instructions available at: https://remoteapps.wsdot.wa.gov/mapsdata/tools/dbeparticipation.

On-the-Job-Training Required Reports

The contract provisions allow the Contractor to accomplish training as part of their work activities, or through the activities of their subcontractors or lower-tier subcontractors. However the prime contractor is designated as being solely responsible for the completion of the training requirements as they are outlined in the contract provisions.

- **Training Program DOT Form 272-049** – A training program is to be completed by the Contractor. The program must be submitted to the Engineer for approval prior to commencing contract work. The Project Engineer's office may approve Office of Apprenticeship, Training, Employer and Labor Services (OATELS) or Washington the State Apprentice and Training Council (WSATC) programs provided they meet the requirements specified in the contract provisions. The Region will review any non-OATELS/WATC training plans submitted under section III of the form for compliance. If the plan appears to be in compliance, the Region will sign it, check "Approval Recommended," and submit it to the WSDOT Office of Equal Opportunity (OEO) for concurrence. If concurrence is granted, OEO will note this on the plan and will submit the plan to FHWA for approval.
- **Apprentice/Trainee Approval Request DOT Form 272-050** – Approval of an individual trainee cannot be authorized until an approved Training Program is filed with the Region. This form is to be submitted by the Contractor for each trainee to be trained on the project. When an OATELS/WSATC apprentice/trainee is first enrolled, a copy of the apprentice/trainee's certificate showing apprenticeship/training registration must accompany the Trainee Approval Request. Trainees are approved by the Project Engineer's office based on the criteria in the special provisions. If the contractor submits a request for approval of trainee who is neither

female, nor a minority, the region must obtain concurrence from the WSDOT Region EEO Officer or the WSDOT Office of Equal Opportunity prior to approval of the requested trainee.

- **Trainee Interview Questionnaire DOT Form 226-012** – One trainee interview is to be conducted for each craft designated on an approved training program for contracts which have 600 or more training hours or on projects otherwise designated by the Region EEO. The Region EEO shall designate additional contracts on which trainee interviews are to be completed in conjunction with those that meet the criteria above to insure that trainee interviews are conducted on at least one fourth of all the contracts that have training hours established for any given construction season. The intent of these training interviews is to document that the trainees are working and receiving proper training consistent with their approved programs. DOT Form 226-012 should be used to document these spot checks.
- **Federal-aid Highway Construction Annual Training Report DOT Form 272-060** – This report is to be completed annually by the Project Engineer summarizing the training accomplished by the individual trainees during the reporting period beginning January 1 and ending December 31 of the calendar year. This report is due at the Regional EEO Office by December 20th of the same calendar year as the reporting period. The "gap" between the reporting deadline (December 20) and the end of the reporting period (December 31) is not significant enough to adversely affect the data, and should not be a source of concern for the project staff.

Apprentice Reporting

For each contract with an apprentice utilization requirement, the Contractor is required to submit a monthly Statement of Apprentice/Journey Participation using the application available at: https://remoteapps.wsdot.wa.gov/construction/training/apprenticeship to the Project Engineer. This report shall be a consolidated report, and include data from the Contractor's work activities, as well as from the work activities of all subcontractors. This report will include the total hours and number of apprentices and journeymen working on the contract during the reporting period. The report will list the apprentices by name, registration number, and craft or trade; as well as the name of the Contractor or subcontractor for whom the apprentice is working. The Project Engineer should verify that the report is reasonable and is a complete account of all workers receiving an hourly wage who are directly employed on the project site for both the Contractor and all subcontractors. The hours reported do not need to be checked against payrolls. Instead the Project Engineer should review the report to determine if the number of workers, the contractors listed, and the occupations reported are a fair representation of the work that was performed. The reports do not need to include hours performed by foremen, superintendents, owners, and workers who are not subject to prevailing wage requirements. The reports should include off-site workers involved in fabrication or plant operations and truck drivers. Do not confuse apprenticeship reporting with Federal Wage Administration or the Special Training Provisions. The reporting period starts on the first day of the month and runs through the last day of the month, and will be reported on the last working day of the following month. During periods of no work, the Project Engineer may suspend the reporting requirement. Notification of this suspension may be accomplished through

the Suspension of Work letter to the Contractor. The Project Office should use the monthly reports and the apprentice utilization plan to measure the Contractor's progress toward attainment of the utilization requirement. If apprentices are not being reported on the project when the plan shows that they should be working, the Project Engineer should contact the Contractor and request a revised plan. If it appears that the Contractor may no longer be able to meet the apprenticeship requirement the Project Engineer should notify the Contractor that "Good Faith" documentation will be required by the date of physical completion, as specified. The Project Engineer is responsible for reviewing the report in the application. Reports should be revised and resubmitted if is determined that they are incomplete.

SS 1-07.12 Federal Agency Inspection

Construction Work in International Boundary Strip

The International Boundary Commission of Washington, D.C., by treaty with Canada, has the exclusive jurisdiction of the 20-ft boundary strip, 10 ft on each side of the International Boundary. Any construction work within this strip must be with the exclusive permission of the International Boundary Commission (IBC). Boundary monuments are not to be moved or disturbed in any manner without the expressed approval of the IBC. It is expected that permission for all work within the boundary strip will be obtained from the IBC during the design stage of a project. However, it is the Project Engineer's responsibility to ascertain that permission has, in fact, been obtained from the IBC for all work performed within the boundary strip. The Region shall be immediately notified if, upon construction, it is found that permission has not been obtained to relocate boundary markers or perform construction work in the 20 ft boundary strip.

Responsibilities When Working on Tribal Lands

Indian nations have the political distinction of being sovereign. This is different from being designated as having protected group status based on racial classifications. Being sovereign, tribes have the ability to create and enforce tribal ordinances such as Tribal Employment Rights Ordinances (TERO). These are legal requirements pertaining to work within the boundaries of the reservation which are enforced by the respective tribes. When a contract includes work on a reservation, the project should include a general special provision "Indian Preference and Tribal Ordinances" that alerts the contractor to the possibility that TERO requirements may apply and provides a contact person for the tribe. The provision also reminds the contractor to bid any costs associated with TERO compliance into associated items of work. TERO requirements may take a variety of forms, some of which are listed in the noted provision. The provision also notes that complying with TERO requirements shall not be a violation of the contract equal employment opportunity requirements. The end result is that the contractor is expected to comply with TERO requirements as they would any other legal obligations. The underlying intent is to reduce Indian unemployment and most tribes are willing to work with contractors to best meet this goal. We want to avoid creating any contractual requirements that interfere with their ability to do so. Our role is to assist in communication but not become involved in determining or paying the tax.

Cargo Preference Act (CPA) 46 CFR Part 381

The Contract Provisions for federal-aid construction contracts (FHWA 1273) requires the implementation of the Cargo Preference Act (CPA) of 1954. The regulations for the Act are given in 46 CFR Part 381, and require that at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government, and are transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available. A listing of United States-flag commercial vessels is maintained by MARAD at: www.marad.dot.gov/wp-content/uploads/pdf/MAR620.US_.Flag_.Vessels.pdf

The Federal Highway Administration has stated that Part 381.7 (a)-(b), shown below, are the appropriate clauses for use in the Federal-aid highway program.

(a) Agreement Clauses. "Use of United States-flag vessels:

"(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

"(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) Contractor and Subcontractor Clauses. "Use of United States-flag vessels: The contractor agrees-

"(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

"(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United State of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.tes, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment

The CPA requirements would be appropriate for oceanic shipments of materials or equipment that is intended for use on a specific Federal-aid project, such as a precast concrete structural members, fabricated structural steel, tunnel boring machines, or large-capacity cranes.

The CPA requirements are not applicable for goods or materials that come into inventories independent of an FHWA funded-contract. For example, the requirements would not apply to shipments of Portland cement, asphalt cement, or aggregates, as industry suppliers and contractors use these materials to replenish existing inventories. In general, most of the materials used for highway construction originate from existing inventories and are not acquired solely for a specific Federal-aid project.

A test for whether CPA requirements apply or do not apply to shipped goods or materials would be if the goods or materials are what one would consider to be common inventory supplies for highway construction contractor, then CPA would **not apply**. If the materials or goods are considered to be supplies one would consider to be not common supplies of a highway construction contractor then CPA would **apply**.

When the CPA requirements apply, the Contractor must furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo as described in 46 CFR Part 381.7 (b) (1). Copies shall be provided to the Contracting Agency (Engineer) by the Contractor (through the prime contractor in the case of subcontractor bills-of-lading), and also to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

SS 1-07.13 Contractor's Responsibility for Work

SS 1-07.13(1) General

Standard Specifications Section 1-07.13(1) specifically designates the Contractor as being solely responsible for the completed work or material until the entire improvement has been completed. All work and material, including change order work, is at the sole risk of the contractor and when damaged must be rebuilt, repaired, or restored. When these damages occur to either the permanent or temporary work, and have occurred prior to the contract Completion Date, the costs for these repairs shall be entirely at the Contractor's expense. However, the specification does provide the contractor exceptions for causes that are generally beyond the contractor's control.

While the Contractor is fully responsible for the work and materials, the section does provide the contractor some options for relief. Relief is broken into 2 categories. The first category is relief of maintenance and protection for portions of works that have been completed. The second category is for relief of damage caused by the public when it is necessary that the public use the facility during construction. Both options for relief have specific criteria in order to exercise them. While a brief explanation of each option is provided, the Project Engineer should review the entire *Standard Specifications* Section 1-07.13 to ensure that the extent of responsibilities are understood and that any relief from responsibility is granted in accordance with those provisions.

SS 1-07.13(2) Relief of Responsibility for Completed Work

Standard Specifications Section 1-07.13(2) provides relief to the Contractor from maintaining and protecting specific portions of contract work as they are completed. The Contractor must submit a written request for relief to the Project Engineer. Before granting any relief, the Project Engineer will review the request to ensure that the items of work noted conform to the requirements and limitations outlined in *Standard Specifications* Section 1-07.13(2) and have been fully completed in all respects of the contract. The Regional Construction Manager or designee may approve these requests for relief. Relief may be granted for several specific items, for example: "Item 17, Beam Guardrail, Type l; Item 18, Beam Guardrail Anchor Type l; etc." Relief may also be granted for all work except certain items, for example: "All work except Item 38, Electrical." the approval of the Contractor's request must be in writing.

SS 1-07.13(3) Relief of Responsibility for Damage by Public Traffic

When it is necessary for public traffic to utilize a highway facility during construction, *Standard Specifications* Section 1-07.13(3) provides relief of responsibility to the Contractor for damage caused to the permanent work by the public traffic. When the conditions specified in this section are met, the Contractor is automatically relieved of this responsibility. However, this section may not provide relief for damage caused by vandalism or other causes. The Contractor will resume full responsibility for both temporary and permanent work if traffic is relocated to another section of roadway. This responsibility will again continue until contract completion unless the section is reopened to public traffic or the Contractor is granted relief under *Standard Specifications* 1-07.13(2).

The first paragraph of *Standard Specifications* Section 1-07.13(3) refers to damage to "permanent work." This refers to work included in the contract that is being constructed in accordance with the requirements noted in the plans and specifications and is damaged. The intent is to exclude equipment, temporary facilities and temporary materials such as formwork and falsework and "Temporary Traffic Control Devices."

SS 1-07.1(4) Repair of Damage

Section SS 1-07.13(4) details when WSDOT assumes responsibility and pays for third party damages. The WSDOT *Risk Management Manual* M 72-01, provides detailed guidance on procedures, including lines of communication. Payment should be made under the item "Reimbursement for Third Party Damages." This item is only intended to be used for costs that are the responsibility of the contracting agency. If this item was not included in the contract, it may be added by change order using a separate group for each Control Section (as shown in the Plans) in which an incident occurs.

Risk Management has created a form that is to be used to report each new occurrence of Third Party Damages, "DOT Form 350-013". The form is available from Forms Management. Any supporting documents should be attached to the form and submitted as well. The form should be filled out and submitted per the routing listed on the bottom of the form. This routing includes:

- AFS – Contract Payments
- Enterprise Risk Management
  - For AFS and Risk Management use thirdpartydamage@wsdot.wa.gov
- Region Construction Office

Region Construction may need to send to Region Program Management and to Region Financial Services if additional funds are required. If this item was not included in the contract, it may be added by change order using a new group for the Control Section (as shown in the Plans) in which an incident occurred. Once the item has been added to the contract, use DOT Form 350-013 when establishing the group for the occurrence. This group will be used for only one occurrence. A new group will be required for each new occurrence.

If the item is included in the contract and a new occurrence of Third Party Damage occurs, use DOT Form 350-013 to add a group for each new occurrence. You will need a group for each occurrence of Damage.

If additional information (responsible party, police reports, Field Notes, paynotes, etc.) becomes available after the initial report form has been submitted, you may send an updated form to the same routing. Be sure to indicate that this is a revised form by selecting the "Revised Report" radio button.

SS 1-07.14 Responsibility for Damage

Claims Against the Contractor – Damage

The Department has a claims office, now known as the WSDOT Risk Management Office (RMO). All receptionist job descriptions, all Region operations manuals, and all telephone training is set up to refer citizens with damage claims related to construction to the RMO and to provide the toll free number (1-800-737-0615). The RMO will react to the call, issuing claims forms, contacting the contractor, and following up on the actions taken. The Project Engineer's role is to appropriately advise the RMO, if needed. There may be confusion about which contract is involved. Field office knowledge about the incident and the surrounding circumstances may be solicited. The contractor's insurance and the insurance provided by the Contractor for the State may be involved and information about the policy will, most likely, be requested.

If, in spite of the Department process, the claimant contacts the field office directly, the Project Engineer should refer the claimant to the State Risk Management Office (1-800-737-0615).

Claims Against the Contractor – Money

Claims received by the Region for money owed by the Contractor should be referred to the Contractor. A claimant should be advised of the legal right to file a lien against the retained percentage or performance bond for claims involving labor, equipment, or materials used on the project and be referred to the State Accounting Services Office for obtaining the necessary lien forms.

Claims Against Officials and Employees

The statutes provide that claims may be filed against the State of Washington, State officers and employees, for damages resulting from their conduct and prescribes the manner in which the action must be taken. Whenever this occurs, the state will furnish the legal defense and pay any judgments if the act which caused the alleged damage was within the scope of the person's duties, was in good faith, and without negligence.

SS 1-07.15 Temporary Water Pollution Prevention

SS 1-07.15(1) Spill Prevention, Control, and Countermeasures Plan

Spill Prevention, Control, and Countermeasures (SPCC) Plans are written by the Contractor to prevent, respond to, and report hazardous material spills in a safe and effective manner. All WSDOT projects should have a project specific SPCC Plan and the plan must be submitted to the Project Engineer prior to starting any on-site work. The plan should be reviewed by the Project Office for compliance with the WSDOT *Temporary Erosion and Sediment Control Manual* M 3109. WSDOT personnel who review SPCC Plans are required to take the Spill Plan Reviewer and Preparedness Training class available through the Learning Management System (LMS).

SPCC Plans should include information regarding the project site and contractor activities as they relate to spill prevention, control, and response activities. Additionally, SPCC Plans should identify possible sources of hazardous materials, methods to prevent and control spills, and spill response procedures. SPCC Plans are written and maintained by the Contractor and are required on all WSDOT projects, regardless of the size or duration of construction activities.

SPCC Plans are applied to the life of a construction project and may need to be amended over time with changing conditions. Periodic inspections will ensure that the required preparation and preventative steps identified in the SPCC Plan have been taken to keep the site in compliance throughout the life of the project.

The *Standard Specifications* provide the complete list of required contents for the Contractors SPCC Plan in Section 1-07.15(1).

SS 1-07.16 Protection and Restoration of Property

SS 1-07.16(1) Private/Public Property

Standard Specifications Section 1-07.16(1) restricts the contractor from using Contracting Agency owned or controlled property other than property directly affected by the contract work without the approval of the Engineer. The Engineer has the authority to allow the use of Contracting Agency owned or controlled property within the project limits and any other property specifically listed for use in the contract. The use of any other Contracting Agency owned or controlled property would require a lease agreement as detailed in WSDOT *Right of Way Manual* M 26-01 Chapter 11.

In many cases the courts have held that where the Project Engineer has exceeded their delegated authority their actions are binding upon Contracting Agency. Because of this, it is important that the Project Engineer make no instructions, verbally or by written memoranda, that are outside of their authority.

SS 1-07.16(4) Archaeological and Historical Objects

It is both National and State policy to preserve historical or prehistorical objects and ruins. These objects and ruins may include sites, buildings, artifacts, fossils, or other objects of antiquity that may have particular significance from a historical, cultural, or scientific standpoint.

If provisions for archaeological and historical salvage have not been made in the contract and it appears that significant historic or prehistoric objects or ruins have been or are about to be encountered, the Project Engineer should immediately take steps to preserve and protect the objects or ruins. Once the objects or ruins have been sufficiently protected, the Project Engineer should immediately notify the Region Construction Manager, who will provide any necessary initial assistance to the Project Engineer. Where the Region determines appropriate, the Project Engineer will contact and inform through existing Region environmental staff, the cultural resources consultant, the State Historic Preservation Officer (SHPO), FHWA, and affected tribes of the discovery. The Project Engineer will also help facilitate any on-site meetings for the appropriate parties should either FHWA, SHPO, or the cultural resources consultant believes it necessary.

Cultural Resource Monitoring

When cultural resource monitoring is necessary for a project, the Project Engineer will invite the Cultural Resource Specialist to the preconstruction meetings to review and explain project specific cultural monitoring requirements.

The Project Engineer will coordinate with the Contractor to ensure that notice is provided to the Region Environmental Office seven (7) calendar days prior to the beginning of any ground disturbing activities in any area designated as requiring monitoring.

The Project Engineer will coordinate with the Region Environmental Office to ensure that a monitor will be present on-site prior to the Contractor beginning any ground disturbing activities in any area designated as requiring monitoring.

On any project that has Cultural Resource Monitoring commitments, the Project Engineer will coordinate with the Region Environmental Office to ensure that a monitor is present and the appropriate notifications are made prior to the Contractor beginning any ground disturbing activities in any area designated as requiring monitoring.

Responsibilities Following Unanticipated Discovery of Cultural Resources

Given the wealth of historical and archeological resources found in Washington, the Project Engineer should be familiar with the requirements of the National Historic Preservation Act (NHPA), *Standard Specifications* Section 1-07.16(4), and any contract specifications regarding the discovery of cultural resources. The Project Engineer should discuss these requirements with the Contractor and WSDOT staff at the PreConstruction Conference. These resources include, but are not limited to:

- Human skeletal remains
- Anthropogenic soil horizons (areas showing the influence of humans on nature), occupational surfaces (areas showing evidence of human activity or habitation), midden (refuse heap), etc.

- Areas of charcoal or charcoal-stained soil and stones.
- Stone tools or waste flakes (i.e., arrowheads or stone chips).
- Bones, burned rocks, or other food related materials in association with stone tools or flakes.
- Clusters of tin cans or bottles.
- Logging or agricultural equipment more than 50 years old.

The Project Engineer will include a project-specific unanticipated discovery plan (UDP) in the project provisions for use by the Contractor. A sample of a UDP may be found at www.wsdot.wa.gov/Environment/CulRes/Compliance.htm. The Cultural Resources Office, at the Headquarters Environmental Services Office, will assist with completing the plan.

Discovery of Human Skeletal Remains

The following guidance is given to assist the Project Engineer when construction activities cause disturbance to human skeletal remains. All human skeletal remains, which may be discovered, shall at all times be treated with dignity and respect.

Should any WSDOT employee, contractor, or subcontractor believe that he or she has discovered human skeletal remains; the following steps shall be initiated:

1. Ensure that all work adjacent to the discovery has ceased. The area of work stoppage shall be adequate to provide for the total security and protection of the integrity of the human skeletal remains.
2. The Project Engineer shall:
   a. Notify the Region Construction Manager.
   b. Immediately notify the local coroner and the local sheriff, or other appropriate law enforcement official, requesting that a person who is competent and qualified to identify human skeletal remains be present. Do not call 911 or the media.
      - No persons other than the coroner or proper law enforcement personnel, WSDOT Cultural Resources staff, SHPO (State Historical Preservation Officer), and DAHP (Department of Archeological and Historic Preservation) staff will be authorized direct access to the discovery location. This access must comply with all safety and security procedures.
      - The coroner will make a determination as to whether the human skeletal remains are forensic (evidence of a possible crime) or non-forensic (historical). If the human skeletal remains are determined to be forensic, the coroner will retain control of the human skeletal remains and the discovery site will be treated as a crime scene. If the human skeletal remains are determined to be non-forensic, the coroner will notify DAHP.
      - The DAHP state physical anthropologist will make the initial determination as to whether the human skeletal remains are of Native American ancestry. If the human skeletal remains are determined to be of Native American ancestry, DAHP will notify the affected tribe(s).

c. Notify the WSDOT Cultural Resource Manager at HQ Environmental Services, who will notify:
   - FHWA Area Engineer or Environmental Program Manager.
   - State Historic Preservation Officer (SHPO).
   - WSDOT Tribal Liaison Office. The WSDOT Tribal Liaison Office will contact the affected tribe(s) and notify them of the unanticipated discovery.
   - Region Environmental Manager.

3. If the human skeletal remains are determine to be of Native American ancestry, tribal access will be allowed to the designated representative(s) of the affected tribe(s). WSDOT and FHWA will make a good faith effort to accommodate requests from affected tribe(s) to be present, prior to implementation of mitigation measures. The Project Engineer, WSDOT Cultural Resources, SHPO, and the affected tribe(s), in consultation, will determine what treatment is appropriate. If disinterment of Native American remains becomes necessary, FHWA, WSDOT, SHPO, and the affected tribe(s) will jointly determine the final custodian of the human skeletal remains for re-interment.

Discovery of Other Cultural Resources

The following guidance is given to assist the Project Engineer when construction activities cause the disturbance of cultural resources, other than human skeletal remains.

Should any WSDOT employee, contractor, or subcontractor believe that he or she has uncovered a cultural resource, at any point in the project, the following steps should be initiated:

1. Ensure that all work adjacent to the discovery has ceased.
2. Immediately notify the Project Engineer. The Project Engineer shall immediately notify:
   a. The Regional Construction Manager
   b. The WSDOT Cultural Resource Manager at HQ Environmental Services who will notify:
      - FHWA Area Engineer or Environmental Program Manager
      - State Historic Preservation Officer (SHPO)
      - WSDOT Tribal Liaison Office
      - Region Environmental Manager
3. Ensure that the area of work stoppage is adequate to provide total security and protection of the integrity of the resource. Vehicles, equipment and unauthorized personnel will not be permitted to traverse the site, nor will work resume, until treatment of the cultural resource is completed.
4. All archeological deposits discovered during construction are to be treated as if they are eligible for inclusion in the National Register of Historical Places (NRHP). Intentional disturbance of archeological sites without a permit from DAHP is prohibited by RCW 27.53. Disturbance of Indian burials, cairns and glyphs is prohibited by RCW 27.44.

5. If cultural resources are discovered, but additional project effects to the resource are not anticipated, project construction may resume, away from the site of the discovery, while documentation and assessment of the resource proceeds.

SS 1-07.17 Utilities and Similar Facilities

Relationship With Public and Private Utilities

In some cases, utility adjustments will be completed prior to contract work. In other cases, adjustments are to be made concurrently with the work. The Project Engineer and the Contractor should meet with the public utility companies, individuals, and others owning or maintaining utility features within the limits of the highway right of way and confirm the relationship, the terms of the relocation agreements, and the relocation work schedule. Where the feature will require adjustment during construction, notice should be provided far enough in advance to allow the utility to perform the adjustment without affecting the Contractor's work schedule.

Utilities should have been given prints of the preliminary plans, prior to awarding of the contract, showing grade lines and right of way to enable them to prepare plans and estimates for making the necessary changes to their facilities in as timely a manner as possible. The Project Engineer should determine that plans for the work have been made, that the relocated facilities will be clear of the construction, and that the utilities coordinate with the Contractor's operations to the fullest extent possible.

When utilities are known to exist within the limits of the project and are not planned for relocation but may be affected by the Contractor's construction activities, the Project Engineer and the Contractor should become familiar with the requirements of RCW 19.122, Underground Utilities. The Project Engineer may wish to obtain copies of the RCW for review at Preconstruction Meetings.

The approximate locations of most existing underground utilities are shown on the contract plans. However, the existence of some underground utilities may not have been known or detected during design. If a one number locator service is available, the Contractor must utilize it in an attempt to locate all affected utility features. If no one number locator service is available, notice shall be provided individually to those owners of underground facilities known to have or suspected of having underground facilities within the area of proposed excavation. Even areas covered by a one number service may contain utilities not included in the service. If the Contractor discovers underground facilities which are not identified, the Contractor shall cease excavating in the vicinity of the facility and immediately notify the owner or operator of such facilities, or the one number locator service.

Work Performed Under Utility Agreements

Utility agreement work associated with a contract exists in two categories. The first is work done for a utility by WSDOT that is included in the contract and performed by the WSDOT contractor. The second is work done, either by the utility or the utility's contractor, that is associated with and done near the WSDOT project.

If the utility work is included in the contract, the plans will show the work and will include pay items exactly as if the work was part of the transportation improvement. The responsibility of the Project Engineer is to treat this work the same way that

"normal" work is handled. There will be a necessity for communication with the utility itself, inviting comments and joint reviews and inspection of the work. In many cases, the utility will provide materials or equipment to be incorporated into the work. The utility will also provide certification that provided material meets the requirements of the contract. If problems arise and changes are considered, there are additional paperwork demands. The Project Engineer should consult with the Utility and the Region Utility Engineer.

If the work is associated with the project, or if unrelated work is being done nearby, and the utility or its contractor is performing the work, the Project Engineer should treat the neighboring work in the same manner that adjacent WSDOT work would be treated (see *Standard Specifications* Section 1-05.14 and Section SS 1-07.17.)

Responsibility for Coordination of Railroad Agreements

When railroads are involved within the project limits, an agreement covering the work involved is usually entered into between WSDOT and the Railroad Company. Upon identifying that the contract involves work or involvement by a railroad, the Project Engineer should immediately obtain a copy of the Railroad Agreement or contact the Region Utilities Engineer to determine the status of the agreement and to make sure it contains all elements needed to accommodate the construction of the project. If an agreement has not been made with the railroad, the Project Engineer should coordinate and monitor the development and processing of the agreement through the Region Construction and Region Utilities Engineers. Where notices are required, The Project Engineer should ensure that proper notice is provided to the railroad company and that such notice is acknowledged by them. The Project Engineer should work with the Region Construction Manager and Utilities Engineer to resolve any conflicts with the Railroad Company and prevent delays to the Contractor's operations.

Work Performed Under Railroad Agreements

Railroad work associated with a contract exists in three categories. The first is work done for a railroad by WSDOT that is included in the contract and performed by the WSDOT contractor. The second is work done, either by the railroad or the railroad's contractor, that is associated with and done near the WSDOT project. The third category is railroad protective services. Protective services, such as flagging, are typically provided by the railroad.

If the railroad work is included in the contract, the plans will show the work and will include pay items exactly as if the work was part of the transportation improvement. The responsibility of the Project Engineer is to treat this work the same way that "normal" work is handled. There will be a necessity for communication with the railroad itself, inviting comments and joint reviews and inspection of the work. In many cases, the railroad will provide materials or equipment to be incorporated into the work. The railroad will also provide certification that provided material meets the requirements of the contract. If problems arise and changes are considered, there are additional paperwork demands. The Project Engineer should consult with the Railroad Company and the Region Utility Engineer.

If the work is associated with the project, or if unrelated work is being done nearby, and the railroad or its contractor is performing the work, the Project Engineer should treat the neighboring work in the same manner that adjacent WSDOT work would be treated (see *Standard Specifications* Section 1-05.14 and Section SS 1-07.17.)

Protective services may be called for when the Contractor is performing work on railroad facilities (first category above) or when the Contractor's work is conflicting or adjacent to a railroad facility that is not being changed. Typically, the railroad will determine the need for service, provide the protective services, and send the bill to WSDOT. There may be an agreement in place, or the railroad's actions may be unilateral. On all projects including railroad flagging, the Project Engineer will notify the Railroad Company when all work involving the railroad is physically complete.

The addition or revision of agreements with the railroad can be lengthy processes. The Project Engineer should stay alert for possible changes and the need for revisions to the agreement. When these arise, the Railroad Company and the Region Utility Engineer should be contacted early and often.

Railroad Flagging

All dollar amounts actually incurred by the Railroad Company for railroad flagging, under the terms of the typical railroad agreement, will be paid by WSDOT. The Contractor will incur no costs for railroad flagging unless the flagging is for the Contractor's benefit and convenience. In this case, the Project Engineer will deduct this cost on monthly progress estimates as a below the line item in the Contract Administration and Payment System.

SS 1-07.18 Public Liability and Property Damage Insurance

Projects which include work on railroad right of way generally require special insurance protection. Pay particular attention to the Contract Special Provisions for project requirements because they vary from project to project. It is the responsibility of the Project Engineer to enforce the provisions. The required insurance documents are to be furnished by the Contractor (usually through the Project Engineer) to the State Accounting Services Office who will (a) review the documents and (b) obtain approval of the insuring documents from the railroad company. Written notification of approval by the railroad company will be furnished to the Project Engineer by the State Accounting Services Office as soon as approval is obtained.

No work shall be started on railroad property until the necessary approvals have been obtained. The railroad insurance must be maintained until the date of physical completion of the project unless otherwise stated. However, the Contractor may make a written request to be relieved of the responsibility to continue all or part of the railroad protective liability insurance before the completion date under certain conditions. The details and conditions for this relief are specifically set forth in the special provisions of the contract. If the Contractor should make a request for relief, the Project Engineer should contact the Region Construction Manager and Utilities Engineer for guidance and assistance in coordinating this effort with the railroad.

SS 1-07.23 Public Convenience and Safety

SS 1-07.23(1) Construction Under Traffic

General

Under the many special conditions encountered where traffic must be moved through or around construction operations, serious problems of traffic control can occur. Most conditions are temporary and are, therefore, dangerous and difficult to deal with because they are unexpected and not in accordance with the normal pattern of highway traffic. *Standard Specifications* Section 1-07.23(1) requires the Contractor to conduct all operations with the least possible obstruction and inconvenience to the public and to provide adequate safeguards, safety devices, protective equipment, and any other needed actions to protect the life, health, safety, and property of the public. The responsibility to comply with these requirements is the Contractor's. It is the Project Engineer's responsibility to ensure that the Contractor complies.

Work Zone Clear Zone (WZCZ)

When a project requires traffic control, a Work Zone Clear Zone (WZCZ) shall be established and will apply during both working and non-working hours. During non-working hours no equipment or materials shall be within the WZCZ, unless it is protected by permanent guardrail or temporary concrete barrier (location and installation to be approved by the Project Engineer). During working hours, unless protected as stated for non-working hours, only materials or equipment absolutely necessary to construction shall be allowed in the WZCZ or allowed to park on the shoulder of the roadway.

The minimum clear zone distance, measured from the edge of traveled way, shall be based on the posted speed as follows:

Posted Speed	Distance From Traveled Way
35 mph or less	10 ft
40 mph	15 ft
45 to 55 mph	20 ft
60 mph or greater	30 ft

Any deviation from these requirements shall only be allowed if the Contractor has requested the deviation in writing and the Engineer has provided written approval. The Region Traffic Office should be contacted to help evaluate the deviation and determine if the requested deviation is approvable.

Speed Reductions

If speed reductions are considered, the Project Engineer shall follow Executive Order E 1060 and the guidance found in *Traffic Manual* Appendix 5B.

Temporary Breaks in Limited Access for Construction

The Federal Highway Administration (FHWA) cannot delegate its approval authority to add access points to existing limited access controlled Interstate facilities through the WSDOT-FHWA Stewardship Agreement. The FHWA has granted approval to break limited access in order to gain access to the worksite from adjacent properties. This approval was granted through the FHWA approval of *Standard Specifications* Section 1-07.16. This approval does not extend to allowing the contractor to use this access to merge construction vehicles and equipment with public traffic in the traveled way, auxiliary lanes, or shoulders. It is therefore necessary to seek approval from the FHWA when proposing to break limited access and merge construction vehicles with public traffic in the traveled way, auxiliary lanes, or shoulders.

Standard Specifications Section 1-07.16 allows the contractor to access the worksite from adjacent properties but does not allow the contractor to merge construction vehicles or equipment (including contractor workforce vehicles of any type) from that access with public traffic. *Standard Specifications* Section 1-07.23 allows the Interstate highway system to be accessed through existing facilities or through access points allowed within the contract only. These access points allowed in the contract will either be in the form of site specific traffic control plans or by contract provisions included in the contract documents.

If the contractor proposes to merge construction vehicles with public traffic in the traveled way, auxiliary lanes or shoulders and the contract contains the General Special Provision (GSP) that allows this access, then the contractor shall submit a site-specific plan for traffic control in accordance with the MUTCD Part VI. The Region Traffic Engineer should review this plan and it should be submitted to FHWA.

During construction on Interstate projects the Project Engineer will notify the appropriate Assistant State Construction Engineer (ASCE) who will forward the information to the FHWA Area Engineer and the WSDOT Access Manager by sending them a copy of the approved vicinity map showing the location of the access break and site-specific traffic control plan. FHWA approval of a PS&E containing this GSP constitutes approval of access from adjacent properties to the traveled way, auxiliary lanes or shoulders. Consultation with Region and Headquarters Design offices and approval by FHWA must occur prior to deciding to include this GSP in a contract on Interstate facilities.

While some contracts may not contain provisions for breaking limited access for construction and for merging of construction vehicles with mainline and/or interchange ramp traffic, the contractor may request one. If the Region agrees and the project is on limited access controlled Interstate, the Project Engineer shall contact the appropriate ASCE who will forward the request to the FHWA Area Engineer for approval. The ASCE will cc the Access Manager when forwarding the request to FHWA. The contractor shall submit a vicinity map showing the location of the access break, a site-specific plan for traffic control in accordance with the MUTCD Part VI, and the duration for which the accesses will be in operation. On non-interstate limited access controlled facilities, approval will be required by the Region. If approval is granted and the facility is a limited access facility, the GSP will be added to the contract by change order. On managed access roadways the Project Engineer, with Region concurrence, has approval authority to grant the contractor temporary access, in accordance with the *Standard Specifications*.

Public Information and Customer Focus

Most drivers still have the expectation of proceeding to their destination with little or no delay even though traffic conditions on many of our highways are deteriorating, primarily due to increased traffic volume. This increased volume may create congestion, delays, accidents, and aggressive driving during normal daily operation. Highway construction will usually require a more restricted roadway to accommodate work zones and can further reduce traffic mobility and safety. Even some of our lower volume rural highways can present a challenge due to factors such as drivers not expecting construction work and seasonal/recreational traffic increases. Construction and user delays present significant costs in addition to costs associated with crashes and worker safety. These delays and costs can be minimized by implementing a traffic control strategy based on traffic conditions and construction requirements, and which includes public information and customer focus considerations.

Our goal on every highway construction project should be to provide the best overall balance of work zone safety and traffic mobility while constructing quality highway projects. Much of our effort is directed at engineering responses to safety and mobility issues and is generally included in the contract requirements. Recent customer focused highway construction studies have shown that accurate and timely project information is a valuable element in an overall traffic control strategy. Advance planning and coordination between the project engineer and contractor is necessary to ensure that there is an opportunity to provide public information for all phases of the project that impact traffic. Proper use of public information and customer focused techniques will provide safety and mobility benefits that would not otherwise be gained, as listed below:

- Alert drivers to potential delays by advance notice through project signing and the news media that would allow drivers to take alternate routes, adjust scheduled trips and have better awareness of traffic impacts and how to avoid them.
- Provide benefits to the Contractor from reduced traffic volume and better driver awareness through fewer crashes, less material delivery delay, better worker safety, fewer complaints and overall public acceptance of the project.
- Achieve better driver acceptance, reduced aggressive driving and improved work zone credibility by minimizing delays and providing accurate and timely information.
- Consider innovative construction techniques and shorter term intense work stages with more severe traffic restrictions, such as weekend closures, if possible.
- Closely monitor traffic conditions when traffic is restricted to determine the need for any traffic control or work hour adjustments that would improve traffic flow. Specified working hours and the accompanying traffic restrictions are critical elements of the project traffic control strategy and should not be adjusted without proper traffic analysis.
- Maintain ongoing communication during the life of the project with local law enforcement, emergency services, local agencies, transit groups, affected local businesses, etc.
- Continue use of innovative devices such as portable, changeable message signs, project information signs with information phone number and highway advisory radio systems.

The Regional Construction Manager, Traffic Engineer, and Public Information Officer should be involved in the project traffic control strategy and may be able to offer assistance.

Road/Ramp Closures and Use Restrictions

When it is necessary to close a road, street, or ramp, the Project Engineer shall submit a request that includes the appropriate closure/detour plan to the Region Traffic Engineer in advance of the need. Per RCW 47.48.010, the Regional Administrator may close a road, street, or ramp.

With proper planning and implementation, road/ramp closures can be an effective and safe method of traffic control. As required by RCW, notice of the closure shall be published in one issue of a newspaper in the area in which the closure is to take place. Signs indicating dates and times of the closure shall be placed at each end of the section to be closed on or before publishing the notice in the newspaper. Publishing the notice and placing of the signs shall be a minimum of three days in advance of the closure. Advance notice using local radio, portable changeable message signs or HAR may be effective in diverting traffic from the closed or impacted locations.

Coordinate with the Region Public Information Officer for assistance with public notification.

In cases of emergency, or closures of 12 hours or less, the road, street, or ramp may be closed without prior notice to the public. If possible, a notice should be posted one working day in advance of the closure.

When planning to close or restrict use for more than 12 hours on one or both directions of mainline on Interstate systems, system to system ramps or Federal-aid Primary Routes, FHWA must be notified as shown in the table below. Use restrictions are defined as any limitation on the vehicle type, load or function of the facility. These notification requirements apply even to projects with onsite or offsite detours in place. Federal-aid Primary Routes are US routes 2, 12, 97, 101, 395 and State Routes 16, 18, 99, 167, 520, 522. FHWA notification shall be made to the following email address: washington.fhwa@dot.gov

WORK Activity	WSDOT Action
Interstate closures or use restrictions of 7 or more consecutive days	Send notification to FHWA 60 days in advance of potential closure and provide updates as available
Federal-aid Primary Routes closures or use restrictions of 7 or more consecutive days	Send notification to FHWA 14 days in advance and provide updates as available
Interstate closures or use restrictions between 48 hours and 7 consecutive days	Send notification to FHWA 14 days in advance and provide updates as available
Interstate closures or use restrictions between 12 hours and 48 consecutive hours	Send notification to FHWA 7 days in advance and provide updates as available

Pedestrian Safety

When the work area encroaches upon a sidewalk, crosswalk, or other areas that are near an area utilized by pedestrians or bicyclists, special consideration should be given to their accommodation and safety. Pedestrians are more susceptible to personal injury in work areas than are motorists. Visibility and recognition of hazards is an important requirement for the safety of pedestrians and bicyclists.

Protective barricades, fencing, handrails, and bridges, together with warning and guidance devices, should be used so that pathways for pedestrians, bicyclists, equestrians, and other non-motorists are safe and well defined. Where walks are closed by construction or maintenance, an alternate walkway should be provided where feasible. Where it is necessary to divert pedestrians into the parking lane of a street, barricades and delineation should be provided to separate the pedestrian walkway from the adjacent traffic lane. Pedestrians should not be diverted into a portion of the street used by vehicular traffic. At locations where adjacent alternate walkways cannot be provided, pedestrians can be diverted across the street by placing appropriate signs at the construction limits and at the nearest crosswalk or intersection. When hazardous work conditions exist overhead, it may be necessary to install a fixed pedestrian walkway of the fence or canopy type to protect and control pedestrians. In such cases, wood and chain link fencing can be used with warning lights and illumination to warn and guide both pedestrians and motorists. These accommodations for pedestrians and bicycles should be included in Traffic Control Plans.

Fences around a construction area are often necessary and may be a requirement of the local jurisdiction building code. They are often constructed in conjunction with a special pedestrian walkway or when there are deep excavations or when pedestrian access to the job site is not desirable. Installation of such fencing must take into account relocation of existing control devices and facilities such as traffic signals, pedestrian signals, traffic signs, and parking meters. The use of chain link fencing which can be seen through may be needed at intersections to provide adequate sight distance.

Relocating a walkway without unreasonable inconvenience to pedestrians, residents, or commercial interest, is the safest practice of all. Remember, however, that pedestrians like to “see what’s going on.” Simply denying them access does not, of itself, prevent their encroachment onto the worksite. Sometimes it is advisable to design and construct a pedestrian observation area for this purpose.

SS 1-07.23(2) Construction and Maintenance of Detours

Construction zone detours will normally be detailed in the plans. When detours not shown in the plans are required, the design will likely be done by the construction office under the direction of the Project Engineer and requirements of the MUTCD. If the detour is a full-fledged roadway, design and traffic reviewers should check the design. Short-term minor detours may be installed and operated without formal review, but the Project Engineer must be satisfied that the facility is suitable and safe for traffic use.

Existing pavement markings on asphalt pavement shall never be merely blacked out with oil or paint; this is not allowed by the MUTCD. Rather, the striped and adjacent areas should be hydroblasted, or ground in a pattern different from the original marking until the marking is no longer visible. This change in pattern minimizes the

possibility that the original marking will still be visible to drivers, especially at night or in rainy weather when covered-over stripes have a tendency to shine in contrast to the pavement. Temporary pavement marking tape, either for temporary lane marking or masking of existing markings may offer another option and approved removable tapes are listed on the QPL. Existing conflicting markings should never be allowed to remain in place. When markings remains from an alignment shift or the marking goes under a device (like barrier), the existing marking must be removed in order to eliminate confusion to the motorist.

Temporary concrete barrier should be part of the plan design for positive protection of the work area. Barrier is not to be used as primary delineation to guide traffic. A combination of pavement markings and temporary channelization devices are to be used along with the barrier. Temporary barrier delineators must be maintained, and kept clean. When delineators become covered with grime or are damaged, they become ineffective. The condition and positioning of these devices should be checked daily.

1-08 Prosecution and Progress

SS 1-08.1 Subcontracting

Requests by the Contractor to sublet work are submitted to the Project Engineer on a Request to Sublet Work DOT Form 421-012 and are to be approved by the Regional construction manager or designee. The request will not be approved if the contractor is debarred from bidding on or performing work on a public works contract (search Debarred Contractors on the Labor & Industries webpage). The request must be reviewed in order to ensure that the proposed subcontractor meets the requirements of WAC 296.127.10.

On Federal-aid projects, the request may indicate that the subcontractor is a Disadvantaged Business Enterprise (DBE), a Federal Small Business (designated on DOT Form 421-012 and in CCIS as FBE), Minority Business Enterprise (MBE), or a Women Owned Business Enterprise (WBE). Upon receipt of the request, the project office should verify that the subcontractor is indeed certified by the Office of Minority and Women Business Enterprises (OMWBE) using the links at: www.wsdot.wa.gov/equalopportunity/bddirectory.html.

On projects funded wholly by the State, the request may indicate that the subcontractor is a Minority Business Enterprise (MBE), Small Business (designated on DOT Form 421-012 and in CCIS as SBE), Veteran Business (VBE) or a Women Business Enterprise (WBE). Upon receipt of the request, the project office should verify that the subcontractor is certified by using the links at: www.wsdot.wa.gov/equalopportunity/bddirectory.html.

Once the request has been verified and approved, this information should be entered into CCIS to enable tracking and reporting. DOT Form 421-012 allows the Contractor to indicate more than one type of certification for subcontractors, however only one type may be entered into CCIS.

The request must be approved by signature prior to the performance of any work on the project by either the subcontractor or a lower-tier sub. A copy of the Statement of Intent to Pay Prevailing Wages (SOI), executed by the subcontractor or lower-tier sub and approved by Washington State L&I, must be provided to the Project Engineer

by the Contractor prior to payment for any work performed by that subcontractor or lower-tier sub. An SOI will be required for each subcontract or lower-tier subcontract executed on the project, even if the subcontractor has already submitted an SOI for work under another subcontract. In addition, for Federal-aid projects, a Contractor and Subcontractor or Lower-Tier Subcontractor Certification for Federal-Aid Projects DOT Form 420-004 must be submitted with the Request to Sublet.

Standard Specifications Section 1-08.1 defines what is not considered to be subcontracting. By default, any entity performing bid item work on the project is a subcontractor, unless: (1) they are the Prime Contractor, (2) an Owner furnished resource (such as WSP, utility owner or its contractor or consultant), or (3) they are specifically excluded from consideration as a subcontractor in *Standard Specifications* Section 1-08.1. Do not be confused by the distinction between Professional Services and Subcontractors in the markups for force account work described in *Standard Specifications* Section 1-09.6. Those provisions apply only to how the markup for overhead and profit is applied to force account work, and they have no relationship to the requirement for a Request to Sublet.

If a subcontractor wishes to further sublet a portion of its work to a lower-tier firm, the Contractor must submit the name of the lower-tier firm along with the request to sublet the work to the subcontractor. If more than one subcontractor on a project wants to utilize the same firm as a lower-tier subcontractor, separate requests are required. *Standard Specifications* Section 1-08.1 sets limitations on the amount of work a lower-tier sub may perform for each subcontractor. *Standard Specifications* Section 1-08.1 also sets forth the procedure for subletting portions of the project, and the percentage of the contract which may be sublet. The dollar value to be used for determining the amount of work that must be performed by the Prime Contractor is the total original contract amount less the amount of any specialty items which have been subcontracted. In order to ensure proper tracking and reporting of sublet information, the Project Office shall enter data from each request to sublet into the CCIS database. When the Project Office is in a situation where the CCIS database is not utilized during the administration of a project (i.e., Emergency Contracts, State Aid Contracts), and requires the "hand calculation" of the percentage of amount sublet, the percentage will be calculated for all items except specialty items, using the amount shown on the Request to Sublet or the bid amount whichever is smaller.

A contractor withholding payment from a subcontractor must notify the subcontractor and the Contracting Agency identifying the reason for the withholding and providing remedy for the release of payment. The Contractor is also required to submit a Monthly Payment Summary as described in section 1-08.1. Upon receipt of the Summary the Project Engineer should ensure that if any payments are withheld a copy of the notice provided to the subcontractor is attached, containing a clear description of the required remedy for release of payment is included. If the issue is not resolved prior to the next progress estimate, the Project Engineer should withhold from payment the same amounts as were withheld from the subcontractor.

When Condition of Award items are sublet, ensure that the total amount is equal to or greater than the amount in the Condition of Award letter and that the Condition of Award items will be sublet to the proper Condition of Award subcontractor. If a bid item shown on the Condition of Award letter is not sublet to the proper D/M/WBE, then the request cannot be approved until the contract is changed.

Owner-Operators of Trucks and Other Hauling Equipment

Bona fide owner-operators of trucks and similar construction hauling equipment, who are ***independent contractors*** performing bid item Work, are considered to be subcontractors and shall adhere to all requirements of *Standard Specifications* Section 1-08.1 and FHWA-1273.

WSDOT has received requests from Prime Contractors to use a sub-contracted owner-operator to "broker" or "rustle-up" other owner-operators to perform contract Work. From a business standpoint, this may be practical. However, in order to comply with 23 CFR 633, 23 CFR 635.116 and *Standard Specifications* Section 1-08.1, a Prime Contractor or a subcontractor shall perform a defined percentage of the Work with their own organization.

A "broker" is identified as "one who acts as an intermediary in a sale or other business transaction between two parties." An approved subcontracted owner-operator may act as a "broker" and can certainly "rustle-up" additional owner-operators to perform portions of the Work, however, those other owner-operators can only be one of three entities: (1) a lower tiered subcontractor to the original sub-contracted owner-operator, (2) another subcontractor to the Prime Contractor, or (3) an employee to the Prime or the original owner-operator subcontractor. All required contractual obligations would be the same depending upon the relationship. A true "broker" may not own tools and equipment and therefore would not be considered a subcontractor since they would not be performing any portion of the Work other than the required documentation.

Individual owner-operators operating leased trucks can be considered owner-operators if they provide evidence, satisfactory to the Project Engineer, that they have a bona fide lease agreement. If the vehicle is being leased, ask to see the lease agreement. Existence of a bona fide lease agreement depends on evidence that the individual claiming to be an owner-operator is independently established in his/her own trucking business and that he/she bears ultimate responsibility for operation of the unit and is wholly responsible for cost items such as:

- Maintenance
- Insurance (Comprehensive, collision, liability, etc.)
- Permits, base plates, licenses and taxes
- Fuel
- Oil
- Major and minor repairs
- Ferry charges and tolls
- Other Driver's remuneration

It also must be demonstrated that there is no close or continued supervision of the operation of the truck by the company leasing the truck. This means that the owner-operator may not work on a project upon which the lessor is a Prime or subcontractor.

SS 1-08.1(1) Prompt Payment, Subcontract Completion and Return of Retainage Withheld

The Project Engineer will ensure that the Contractor and all subcontractors make payment to all subcontractors in accordance with the requirements of RCW 39.04.250.

Each payment period the Contractor will submit a completed copy of "Subcontractor Monthly Payment Summary" to the Project Engineer. This form (supplied by the Project Office) shall list:

- Each subcontractor;
- Payment Date;
- Whether Payment was withheld;
- Withheld Amount;
- Payment Amount;
- Whether the Work is completed; and
- If retainage was released.

The Project Engineer shall also ensure that if a contractor withholds payment from a subcontractor they follow the procedures a described in Section 1-08.1(1).

If the withholding is not resolved prior to the next progress estimate payment to the Contractor, the Project Engineer will withhold an amount equal to the amount withheld from the subcontractor from the next progress estimate payment to the Contractor.

SS 1-08.3 Progress Schedules

SS 1-08.3(1) General Requirements

The requirements for progress schedules are specified in *Standard Specifications* Section 1-08.3. A copy of the specified reference, *Construction Planning and Scheduling, Second Edition*, published by the Associated General Contractors of America, has been sent to each Project Office and each Region Construction Office. One of three progress schedules will be specified in the contract. Two types of progress schedules are identified in the *Standard Specifications*, Type A and Type B. A third type may be inserted in the contract as a General Special Provision specifying a Type C Progress Schedule. The three types of progress schedules represent levels of job complexity. Type A being the simplest and easiest to produce and Type C being the most complex. Application is such that the complexity of the project (whether it be timing, coordination or the work itself) will be reflected in the complexity of the schedule.

In addition, a preliminary schedule is required on contracts requiring Type B or C Progress Schedules. Preliminary progress schedules show the work to be accomplished within the first 60 working days. As always the contract provisions may contain requirements that add to, or supersede, all or parts of *Standard Specifications* Section 1-08.3 to allow for special circumstances.

There are four basic reasons that we ask for a schedule:

- To better understand the contractor's plan to deliver the project within the time allowed.
- To plan our work force and other resource requirements.

- To advise the public and executive staff of major milestones.
- And to enable us to actively manage impacts to the contract.

Progress schedules should have sufficient detail such that the progress of the work can be evaluated accurately at any time during the performance of the contract. The owner is obligated by contract to return the schedule for correction or approve it within 15 calendar days of receipt. Approval requires that the schedule complies not only with *Standard Specifications* Section 1-08.3 but it demonstrates compliance with other contract requirements such as interim completions, staged work, order of work, etc. Periodically as warranted by progress, delays, or changes, the Project Engineer should review the schedule for accuracy and progress of work. If it is determined that the current schedule does not provide the required information or is no longer accurate, a Type B supplemental schedule update may be requested from the Contractor. Monthly updates are required when Type C progress schedules are specified, and the cost of the updates is included in the Lump Sum price of the bid item.

The cost of Type B schedule updates is not included in the Lump Sum price of the bid item. When work is added to the project or the work method is changed at the request of the contracting agency, the respective cost to update the Type B progress schedule should be included in the change order. Type B schedule updates driven by the contractor's actions shall be provided to the contracting agency and are considered incidental to other work. No payment is made for Type a Progress Schedules or Type a schedule updates. Type B and C Progress Schedules are paid as a lump sum. Eighty percent of the lump sum payment is paid upon approval of the initial schedule. The remaining portion is paid when eighty percent of the original work is completed, provided updates have been provided as requested. Weekly look-ahead schedules are considered incidental to other items of work in the contract and therefore are not paid for separately.

When the Contractor has failed to provide a required schedule, the Engineer may:

- Withhold payment for the Type B or Type C schedule if it is not received (but not for other conforming work).
- Withhold all progress payments for failure to comply with the terms of the contract as specified in *Standard Specifications* Section 1-09.9 (this should be a rare event).
- Suspend work and continue to charge each day as workable (this should only be implemented when the Agency is harmed by lack of knowledge of the contractor's intended approach to the work).

In extreme cases, the Agency may determine that the Contractor is in breach of contract according to *Standard Specifications* Section 1-08.10 (usually accompanied by other serious breaches).

When lacking a progress schedule, the Engineer must base progress on the information available and their best judgment. According to *Standard Specifications* Section 1-08.5, the Contractor may protest working day charges, but must support the protest in sufficient detail to enable the Engineer to ascertain the basis and amount of time disputed. This provides another opportunity for the PE to communicate our need for a progress schedule.

Review and Approval of Progress Schedules

It is the responsibility of the Project Engineer to insure that the Contractor submits a correct and complete progress schedule in the time specified. Progress schedules must meet the general as well as type specific criteria. Once it is determined that the progress schedule submitted is of the type specified by the contract, the Project Engineer should evaluate the schedule to determine if it meets the requirements of *Standard Specifications* Section 1-08, the Special Provisions and the Contract.

- The progress schedule must include all activities necessary to physically complete the project. By definition, activities consume time and usually consume resources. Activities like concrete curing time and slope staking earthwork may be rolled-up into the overall duration of the activity.
- The progress schedule must show the planned order of work in logical sequence, and in compliance with any requirements of the contract. The reviewer should remember that some work is sequenced by factors inherent in the work, but the Contractor may sequence the work by their preference as long as the project is completed within the authorized time and in conformance to the contract.
- The progress schedule must show durations of work activities in working days. Except for defining nonworking days, the calendar has no relationship to administering contract time. An activity may be stalled by unsuitable weather for days or weeks and remain "on schedule."
- The progress schedule must show activities in durations that are reasonable for the intended work. Since durations of work are a function of resource allocation, the Project Engineer may be required to estimate production rates using estimating manuals, experience or other resources, or to ask the Contractor to explain their planned resource allocation to support the duration.
- The progress schedule must define activities in sufficient detail that progress of individual activities may be evaluated on a daily basis. The reviewer should keep in mind that the level of detail required in a progress schedule is driven by the amount of precision required to perform and monitor the work. For example a single activity that represents several miles of grading may not provide adequate detail, and may need to be subdivided into smaller activities described by station limits.
- The progress schedule must show the physical completion of all contract work within the authorized contract time.

WSDOT may accept a Progress Schedule indicating an early physical completion date but cannot guarantee that WSDOT's resources will be available to meet an accelerated schedule.

If the progress schedule does not provide the required information, it should be returned to the Contractor for correction and resubmittal. Because the *Standard Specifications* do not specify timelines for resubmittal, the Engineer should provide a reasonable amount of time for the Contractor to revise and resubmit the schedule, and advise the Contractor of the expected date of resubmittal.

SS 1-08.3(2) Progress Schedule Types

Type C Progress Schedule

Type C Progress Schedules are required for all projects that include the bid item for Type C Progress Schedule. The Contractor is required five copies of a preliminary Type C Progress Schedule to the Engineer no later than the first working day (as defined in *Standard Specifications* Section 1-08.5). The preliminary schedule must meet all requirements of a Type C Progress Schedule and of *Standard Specifications* Section 1-08.3(1) except that it may be limited to activities occurring within the first 60 working days.

The Contractor is required to submit five printed copies of a Type C Progress Schedule no later than 60 calendar days after the contract is executed. If the Contractor can demonstrate that they are unable to determine resource availability, and that this lack of information prevents them from preparing a reasonable schedule, the Engineer may allow an additional 30 calendar day for schedule submittal.

Each time that a preliminary schedule, Progress Schedule, or Schedule Update is submitted, the Contractor is required to provide the Engineer with an electronic copy of that schedule, on CD-ROM in Primavera Project Planner Enterprise Version, P3e/c or P3 format.

Type C Progress Schedules must contain all of the information required of a Type B schedule, and the following additional information:

- A timed scale logic diagram.
- Activities for traffic detours and closures.
- Milestones for required delivery of State furnished materials (if any)
- Activities for State furnished traffic controller resources (if any).
- Activities for fabrication of materials with longer than 120 calendar days lead time.
- Fixed constraints shall be identified on the activity listing and be supplemented with a written narrative describing why the constraint exists.
- Monthly schedule updates.

If requested by the Engineer, the Contractor shall provide a written narrative describing assumed production rates and planned resource allocation to support activity durations.

SS 1-08.3(2)A Type A Progress Schedule

Type A Progress Schedules are required for any projects that do not include the bid item for Type B Progress Schedule or Type C Progress Schedule. The Contractor is required to submit five copies of Type A Progress Schedules to the Engineer no later than the first working day of the project. This may be a critical path method (CPM) schedule, a bar chart, or other standard schedule format, such as fenced bar charts, linear schedules, PERT networks and others. These scheduling methods are described in detail in the benchmark document "Construction Planning and Scheduling, Second Edition," a copy of which has been provided to each Project Office and each Region Construction Office. The Contractor is required to identify the critical path of the project, because a bar chart schedule does not rely on network calculations to determine the critical path.

The Engineer will evaluate this schedule and approve or return it for correction within 15 calendar days of receiving the submittal.

SS 1-08.3(2)B Type B Progress Schedule

Type B Progress Schedules are required for all projects containing the bid item for Type B Progress Schedule.

The Contractor is required to submit a preliminary schedule to the Engineer no later than five calendar days after the date the contract is executed. Preliminary schedules must meet all requirements of a Type B Progress Schedule except that they may be limited to activities occurring in the first 60 days of the project.

The Contractor is required to submit five copies of the Type B Progress Schedule to the Engineer no later than 30 calendar days from the date that the contract is executed. This schedule must be a critical path method (CPM) schedule developed by the Precedence Diagramming Method and may employ restrains provided the restraints do not alter the network logic or critical path. As a minimum the Type B Progress Schedule must show:

- The Contract Number and Title
- Construction Start Date
- Critical Path
- Activity Description
- Milestone Description
- Activity Duration
- Predecessor Activities
- Successors Activities
- Early Start and Early Finish for each activity
- Late Start and Late Finish for each activity
- Total Float and Free Float for each activity
- Physical Completion Date
- Data Date

(Many of these terms are defined in “Construction Planning and Scheduling.)

The reviewer should watch for fixed date constraints that override network logic and force activities to become critical. Specific work windows or “open to traffic” milestones may legitimately influence sequence and duration of related activities. Resource constraints (such as availability of a large crane) may be preferential and may be explained by the Contractor if necessary. Fixed completion milestones for work that is susceptible to unsuitable weather are inappropriate because completion may be extended by the determination of unworkable days.

It is not unusual to see dual critical paths on a CPM schedule, nor is it prohibited. Multiple critical paths are generally very short in duration. Lengthy occurrences of parallel critical activities should be cause for careful scrutiny of activity durations and sequencing.

The Engineer will evaluate this schedule to insure that all required information is included in the schedule, check the network calculations, and approve or return it for correction within 15 calendar days of receiving the submittal.

SS 1-08.3(2)D Weekly Look-Ahead Schedule

Weekly Look-Ahead Schedules are required for all projects. The Contractor is required to submit a Weekly Look-Ahead Schedule, for each week that work is to be performed on the project, showing Contractor and all subcontractor activities for the next two weeks. The Weekly Look-Ahead Schedule must show:

- Description of the work.
- Duration of the work.
- Sequence of the work.
- Planned hours of work.

The specification requires that Look-Ahead Schedules show the contractor's planned hours of work. This information is necessary to evaluate the results of unsuitable weather on the critical path and to assess working days charges correctly.

This schedule is to be submitted by mid-week of the week preceding the scheduled work, or other mutually agreed upon submittal time.

SS 1-08.3(3) Schedule Updates

Schedule Updates are required for all projects. The Engineer may request schedule updates when any of the following events occur:

- A change that affects the critical path.
- The sequence of work is changed from that in the approved schedule.
- The project is significantly delayed (10 days or 10 percent of the original contract time, whichever is greater).
- An extension of contract time is requested.

It is important to note that schedule updates are only required when they are requested by the Project Engineer, when a contractor submits a request for a time extension, or monthly in the case of a Type C Progress Schedule. The Project Engineer may request an update when any of the triggers occurs, but may choose to forego the update if the impacts to the schedule are readily evident.

The Contractor is required to submit five copies of the Schedule Update for approval within 15 calendar days of a written request, or when an update is required by contract provisions.

In addition to all other requirements, a Schedule Update must show:

- Actual duration and sequence of as-constructed work activities, including changed work.
- Approved time extensions.
- Construction delays or other conditions that affect the progress of work.
- Modifications to sequence or duration of remaining work.
- Physical completion of all remaining work within the remaining time authorized.

It is important to know the difference between an as-planned schedule and an as-constructed schedule. All updates must show the as-constructed sequence and actual durations of all activities prior to the status date.

When the need for a schedule update is triggered by an event that is the contractor's doing, they are responsible for the cost. When WSDOT causes an event or requests an update for their need, payment will be made as part of an equitable adjustment. When WSDOT is adding work or time by means of a change order, the price of the schedule update can be included as part of the work.

Any unresolved request for time extension must be shown by assuming that no time extension will be granted, and by showing the effects to follow-on activities necessary to physically complete the project within the currently authorized time for completion.

SS 1-08.4 Prosecution of Work

The first working day will be established in accordance with *Standard Specifications* Section 1-08.4 or such other date as prescribed by the contract provisions. *Standard Specifications* Section 1-08.4 indicates that time may start at a time different from that specified if "otherwise approved in writing." Such other approval is intended only for very unusual circumstances, usually associated with mis-handling of contract documents. It will only be granted in consultation with the State Construction Office. Time associated with each phase of work established in the contract is to be shown on the Weekly Statement of Working Days. The Project Engineer is to furnish a weekly statement advising the Contractor of the current status of working day charges against the contract. Weekly Statements are generated by the CCIS computer system. This statement is to be issued in accordance with *Standard Specifications* Section 1-08.5. The purpose of this statement is to advise the Contractor about the Project Engineer's decision for each passing day. The questions to be answered when determining if a day is chargeable are; is it a nonworking day (holiday or a day the contract does not allow critical work to advance)? was it a chargeable working day (critical work progressed uninhibited)? or was it an unworkable day (critical work delayed by weather or conditions caused by the weather)? in evaluating each day, the Project Engineer should take into consideration the following conditions:

1. The effect of inclement weather on critical activities.
2. The effect of conditions caused by inclement weather on critical activities.
3. Critical work restrictions imposed by the contract or the Project Engineer.

If any of the above conditions prevent work or reduce the Contractor's efficiency on critical activities on the project, working day charges shall be adjusted accordingly. If the Contractor is able to continue work on critical activities but the efficiency is significantly reduced, a half day may be charged. When determining unworkable days the Project Engineer shall take into consideration the prolonged effects of weather events. If the contractor is required to divert resources from working on critical path activities due to the lasting effects of a weather event the Project Engineer may determine a half day, the whole day or several days as unworkable.

If the contract does not specifically define a working day, a working day will be considered a 24 hour period. The contractor establishes the hours of work in the Weekly-Look Ahead Schedule and the start of the day should be by mutual agreement. The contractor shall be charged for one day during the defined 24 hour period regardless of how many shifts are worked.

SS 1-08.5 Time For Completion

General

Standard Specifications Section 1-08.5 grants the Contractor the right to protest working day determinations and working day charges determined by the Engineer. In the event the Contractor submits the required written protest within 10 calendar days following the date of the statement, the Project Engineer will analyze the information provided, and respond to the Contractor by either denying the protest or revising the Weekly Statement of Working Days.

The Project Engineer will complete Weekly Statements of Working Days throughout the course of the project, showing workable , nonworking and unworkable days as they occur. These statements will continue to be completed until the project has reached Substantial Completion and the Working Days assigned to the contract have been exhausted. Following are the three possible scenarios:

- The working days are exhausted prior to reaching Substantial Completion. Weekly Statements of Working Days continue until Substantial Completion.
- The working days are exhausted on the day Substantial Completion is achieved. Weekly Statements of Working Days cease upon Substantial Completion.
- The working days are not exhausted upon reaching Substantial Completion. Weekly Statements of Working Days continue until the working days are exhausted or until physical completion.

Upon Substantial Completion the Project Engineer will ensure that the date is entered into CCIS and is noted in the remaining Weekly Statements of Working Days. After Weekly Statements have stopped, comments concerning weather and other events beyond the Contractor's control should be entered into the project diary. The effect of these conditions on remaining work and on the scheduled completion should also be noted.

If contract time is expressed in calendar days, then *Standard Specifications* Section 1-08.5 becomes difficult to interpret and the contract special provisions will provide guidance for the charging of contract time.

The contract duration specified for physically completing the contract is stated in the contract provisions normally under the general special provision "Time For Completion." Although there are exceptions, the guidance in this chapter pertains to contracts in which time is accounted for in terms of working days.

The Contractor may begin work as soon as the contract is executed and shall prosecute the work diligently until physical completion has been reached.

The Region will be notified by telephone on the day the contract is executed by WSDOT. Because it can take several days for the executed contract to reach the Contractor, the Region should immediately provide the Contractor with verbal notification of the date of execution so that the Contractor may order materials and prepare to mobilize onto the project and begin work. The date the contractor actually begins work on the project is to be noted and entered into CCIS.

Between the execution of the contract and the acceptance by the State Construction Engineer, the Project Engineer will likely encounter time-related issues. These will be documented through Weekly Statements of Working Days (*Standard Specifications*

Section 1-08.5), Suspensions of Work (*Standard Specifications* Section 1-08.6), Protested Work (*Standard Specifications* Section 1-04.5), and Time Extensions (*Standard Specifications* Section 1-08.8).

Contract Completion Milestones – There are two milestones that establish the end of contract time. They are defined *Standard Specifications* Section 1-01.3 as Substantial Completion and Physical Completion. These two milestones are discussed in greater detail later in this chapter.

Substantial Completion

Substantial Completion may be granted when only minor, incidental items of work, replacement of temporary facilities or correction remain in order to physically complete the contract. In determining Substantial Completion, the Project Engineer should consider whether or not:

- The public has full use and benefit of the facility.
- Major safety features are installed and functional, including guardrail, striping, and delineation.
- Illumination, if required, is installed or a temporary system with equal functional capabilities is operating.
- Signals, if required, are installed or a temporary system with equal functional capabilities is operating.
- The need for temporary traffic control on a regular basis has ceased. Only minor traffic restrictions will be needed for the remaining work.
- The traffic is operating in its permanent configuration.

The Project Engineer is responsible for determining the Substantial Completion date. When this has been done, the Contractor will be notified by letter, specifically noting the date on which Substantial Completion was achieved. Per *Standard Specifications* 1-07.18, Substantial Completion is tied to the contract insurance requirements and the Contract Administration and Payment System (CAPS) Unit of Accountability and Financial Service (AFS) must also be notified of the substantial completion date (email to caps@wsdot.wa.gov). In order to be in concurrence, the project engineer will also provide notification of Substantial Completion to the State Materials Laboratory Documentation Section and to the State Construction Office (email to DOTconstruction@wsdot.wa.gov).

Physical Completion

The date on which the Project Engineer determines that all physical work has been completed is noted and then established as the date of Physical Completion. The Project Engineer will immediately notify the Contractor by letter of the date determined for Physical Completion. Copies of the letter will be sent to:

- The Railroad companies, if applicable.
- The Contract Administration and Payment System (CAPS) Unit of Accountability and Financial Services (AFS) by means of a copy of the letter sent by email to caps@wsdot.wa.gov.
- The Regional Local Programs Engineer on all city and county projects.
- The GIS and Roadway Data Office (GRDO) Roadway Geometrics Office (email to roadway@wsdot.wa.gov).

- The State Construction Office, (email to DOTconstruction@wsdot.wa.gov).
- Any other distribution that the Region deems appropriate.

Actions the Project Engineer should consider taking once Physical Completion has occurred include:

- Initiate a discussion of contract time.
- Identify any unresolved disputes and initiate discussions.
- Initiate a full review of item quantities, seeking contractor concurrence.
- Initiate a final review of materials documentation.
- On Federal-aid projects, initiate a Stewardship Final Inspection and Acceptance.
- Compile a list of all approved subcontractors performing work on the project and transmit to Contractor, who will review the list for completeness and return the list annotated with each subcontractor Universal Business Identifier (UBI).

Assembly of Delinquent Records

Immediately after the Physical Completion date has been established, the Project Engineer is to notify the Contractor of all outstanding documents that are required in order to establish a project Completion Date. Once all the obligations of the contract have been performed by the Contractor, the Project Engineer will provide the Contractor written notice of project completion, identifying the Completion Date established for the contract.

In order for the project Completion Date to be established, all the physical work on the project must be completed, and the Contractor must have furnished all documentation required by the contract. This includes all approved Affidavits of Wages Paid, and the signed Final Contract Voucher Certification. (***Note:*** Establish the Completion Date as soon as the last item of paper work is received.) The notice to the Contractor should be prepared and mailed on the same day that is designated as the completion date. A copy of the completion letter, with attached completed Subcontractor List, must be emailed to caps@wsdot.wa.gov on the day the letter is written. The completed Subcontractor List must include the UBI number and Affidavit of Wages Paid ID number for the Prime Contractor and all subcontractors.

If the Contractor refuses, or is unable to return, a signed FCVC or any of the required documents, the Project Engineer, the Region and the State Construction Office can work together to move the project towards closure by establishing a unilateral completion date allowing WSDOT Acceptance of the contract. See Section SS 1-09.9 for Unilateral Acceptance procedures.

SS 1-08.6 Suspension of Work

When, in the judgment of the Project Engineer, it is in the best interest of the public; or inclement weather, or conditions caused by inclement weather, make it impracticable to achieve satisfactory results on a critical item of work, an order should be issued to suspend the affected portions of the contract work or the entire project. If at all possible, suspensions for weather should be made with the concurrence of the Contractor. If the Contractor does not agree to a weather suspension, the Project Engineer should consult with the Region Construction Manager before issuing a unilateral suspension.

During suspensions of long duration, for example a winter shutdown, the publication of Weekly Statements may be suspended. Notices to suspend or resume work should be written. DOT Forms 421-006 and 421-007 have been developed for this purpose. A letter may accomplish the same purpose. If it is determined that some items of noncritical work on the project could be continued unaffected by weather conditions, those items may be excluded from the order to suspend work. The prime consideration for unworkable days or suspensions is always the ability to work on critical items.

In the event that a suspension of work for weather is necessary for an extended period of time, the Project Engineer may recommend that the Contractor be relieved of routine maintenance during the period of suspension. Before WSDOT will assume the responsibility for maintenance, the Contractor must have taken all necessary actions to control erosion, pollution, and runoff prior to, and during, the shutdown period. The extent of the project area that will be maintained by WSDOT is the subject for a three party negotiation and agreement among the Project Engineer, the Maintenance Superintendent and the Contractor.

The suspensions described above as related to weather apply only to critical work items and, therefore, always result in a determination of an unworkable day. If the Engineer and the Contractor agree to stop working on a noncritical item for one of these causes but to continue critical work, then the agreement should be noted in the records and weekly statements should be issued in the normal fashion.

The contract also gives the Engineer the right to suspend work on any part of the project when the Contractor is not complying with the contract's terms or the orders of the Engineer. This would be a significant action and, except in an emergency situation, should not be undertaken without the full and informed consent of the Region Construction Manager and the State Construction Office. If work is suspended under this contract provision, then weekly statements and the charging of workable days will continue in the normal fashion.

SS 1-08.8 Extensions of Time

In general time extensions are appropriate whenever the critical work is delayed due to an action or inaction of the contracting agency, or by a cause that is not the responsibility of the Contractor. *Standard Specifications* Section 1-08.8 includes a list of reasons that entitle the Contractor to a time extension, and a list of reasons for which no time extension will be granted. In all cases, the change or delay must delay critical work or an extension is not appropriate.

The contract requires the Contractor to identify a delay within 10 working days. If a delay is readily identifiable, the Project Engineer should enforce this provision. If the delay is not immediately apparent the time extension discussion should take place as soon as the delay is recognized. Before discussing a potential delay for which adequate notice was not given, the Project Engineer should discuss the situation with the Region Construction Manager to seek guidance. The Contractor should be encouraged to identify delays and bring them to the State's attention at the earliest opportunity. This allows the contracting agency to mitigate the delay by adding time, modifying the work or recovering the schedule. In the interest of actively managing a delay the project engineer may act unilaterally to address time if the contractor avoids the discussion.

If possible, all time associated with work added by change order should be addressed as part of the change order. If you are unable to come to agreement on the number of working days to add, the Region Construction Manager should be consulted concerning the need to unilaterally add time to the contract. Deferring the discussion of time in a change order to a later date should be a last resort. If the contractor is not granted time for an item, they are required to complete the contract in the number of working days that remain. This may require that the contractor to accelerate their efforts, by adding additional crews, equipment or working longer hours or extra days. If these actions are taken as a result of the contracting agency not granting time extensions when the contractor is entitled to them, the cost for these items would be paid by the contracting agency. If you do choose to defer the time discussion to later, set a time frame during in which the decision will be made.

The State has a responsibility to inform the Contractor's surety whenever increased time is being considered and the current extension, combined with previous extensions, would exceed 20 percent of the original allotted time in the contract. This information could be represented by the Surety's signature on the change order that adds time, by a separate letter from the Surety, or by a notice letter direct to the Surety office. Such notice and surety consent is a legal requirement and will help maintain the State's rights to be protected by the performance bond.

Standard Specifications Section 1-08.6 provides under what circumstances the Contractor may be entitled to compensation. Anytime that a project is delayed for any cause, the Project Engineer and the Contractor should consider methods of mitigating the delay damage. A common approach is to pursue schedule recovery by allocating additional resources to the work to get the project back on schedule. When the Project Engineer suspects that the State may be responsible for the delay, then compensation for the mitigation efforts may be proposed.

Any time extension will be documented either in a change order with approval levels defined in Section SS 1-04.4 or in a letter to the Contractor from the State Construction Office.

SS 1-08.9 Liquidated Damages

Liquidated Damages and Direct Engineering, or other related charges, are to be addressed as described in the contract specifications, *Standard Specifications* Section 1-08.9. Direct Engineering charges are a form of Liquidated Damages and must be listed on the monthly progress estimates on the line for Liquidated Damages. Traffic related damages as described in Section SS 1-08.9 are to be listed under Miscellaneous Deductions. The Project Engineer must evaluate potential Liquidated Damages that have accrued as a result of the expiration of contract time before the damages are withheld from moneys due the Contractor. The work and circumstances that have occurred over the course of the project should be reviewed to determine if there is potential entitlement for granting additional contract time. Liquidated Damages that have accrued should be adjusted for this evaluation. Liquidated Damages deemed chargeable should then be withheld from moneys due the Contractor each monthly progress estimate as Liquidated Damages accrue. While the Project Engineer takes the action to withhold damages as the work progresses, only the State Construction Office may actually assess those damages.

Liquidated Damages must be resolved before the final estimate can be completed and processed. Guidance for assessing Liquidated Damages can be found in *Standard Specifications* Section 1-08, and in some cases in the contract provisions.

Any withholding or assessment made against the Contractor's payments, is to be preceded by a fair notice written communication to the contractor. For those issues that could be remedied with actions taken or initiated by the Contractor, this notice should also include a reasonable period of time that will allow the contractor to take action to mitigate or completely avoid the withholding or assessment.

The term "withhold" refers to a temporary deduction shown on a progress estimate. The term "assess" refers to a permanent deduction that could be shown on a progress estimate, but will be shown on the final estimate. Liquidated damages fall into two categories – one deals with contract time and the other deals with miscellaneous provisions such as ramp or lane closures. These two categories are described below.

Contract Time Liquidated Damages

Standard Specifications Section 1-08.9 (and, at times, the contract provisions) establishes the amount of Liquidated Damages to be assessed the Contractor for overruns in contract time. These assessments are either: (1) the formula calculated liquidated damages, or the liquidated damages prescribed by the contract provisions; or (2) the direct engineering and related costs. All temporary withholding or final assessment of these Liquidated Damages are to be shown as a below the line "Liquidated Damages" deduction on progress estimates and the final estimate.

The State Construction Engineer has not subdelegated to the Region the authority to assess time related damages on progress estimates or the final estimate. However, the authority to withhold below the line "Liquidated Damages" on progress estimates has been subdelegated to the Regions, and may be further subdelegated to the Project Engineer. Liquidated Damages should be addressed whenever it is apparent that the number of working days provided in the contract will be used before Substantial Completion. It is emphasized once again that fair notice and communication is necessary as a legal requirement.

In some cases, there are legitimate reasons for time extensions which would preclude withholding liquidated damages on progress estimates. If the Project Engineer is aware of or anticipates a possible time extension that would preclude withholding liquidated damages on progress estimates, the Region and/or the State Construction Office should be consulted for guidance. If the Project Engineer determines that withholding of liquidated damages on progress estimates would not be appropriate, the reasons for not withholding are to be documented by a memorandum to the files. The following describes the procedures for addressing contract time related liquidated damages in the various stages or phases of the project:

- **Phases (Interim Physical Completion Dates)** – Liquidated damages for phases will be shown in the special provisions. When the contract includes additional phases, and the time for physical completion of a phase has overrun, the overrun should be resolved as it occurs. This involves the Contractor either being granted an extension of time or being assessed liquidated damages by the State Construction Office.

- **After Substantial Completion Date of the Contract** – If substantial completion is granted after the expiration of contract time the formula for liquidated damages in *Standard Specifications* Section 1-08.9 will be assessed for that period of time between the expiration of contract time and the substantial completion date. Liquidated damages assessed after the date of substantial completion will be only those costs identified as Direct Engineering and related costs that have been incurred by WSDOT. The direct engineering and related costs are defined as field engineering and inspection time charges plus any vehicle, travel pay, per diem, or other charges connected with the delayed contract physical completion. Engineering costs such as computing grades, quantities, etc. which would have been incurred by WSDOT under normal conditions should not be included in the determination of direct engineering and related costs. If substantial completion is granted on or prior to the expiration of contract time, direct engineering costs will only be assessed for that period of time between the date contract time expired and the physical completion date.
- **Before Physical Completion** – If Substantial Completion has not been established, the formula for Liquidated Damages in accordance with *Standard Specifications* Section 1-08.9, will be assessed for that period of time between the expiration of contract time and the Physical Completion date.

Working days added to the contract by time extensions when time has overrun shall only apply to the days on which Liquidated Damages or Direct Engineering have been charged, such as:

- If Substantial Completion has been granted prior to all of the authorized working days being used, then the number of days in the time extension will eliminate an equal number of days on which Direct Engineering charges have accrued.
- If the Substantial completion date is established after all of the authorized working days have been used, then the number of days in the time extension will eliminate an equal number of days on which Liquidated Damages or Direct Engineering charges have accrued.

Miscellaneous Liquidated Damages

The contract provisions may provide for assessment of other liquidated damages not connected to contract working days. These liquidated damages may include, but are not limited to, failure to open traffic lanes or ramps within the prescribed time, fabrication inspection costs, or the cost of challenge tests that do not show a passing result. Any temporary withholding or final assessment of these liquidated damages shall be shown as a below the line “miscellaneous” deduction on progress estimates and the final estimates. The State Construction Office has subdelegated the authority to the Regions to withhold and assess these types of liquidated damages on progress estimates and the final estimate. The Project Engineer shall notify the Contractor in writing when these types of liquidated damages are to be assessed. The Project Engineer shall include an explanation of miscellaneous liquidated damages with the Final Estimate package when it is submitted to the State Construction Office.

SS 1-08.10 Termination of Contract

Contract termination is divided into two major categories, termination for default and termination for public convenience. *Standard Specifications* Section 1-08.10(1) defines the situations when a contract may be terminated for default (doesn't happen very often.) *Standard Specifications* Section 1-08.10(2) defines the situations when a contract may be terminated for public convenience.

Keep in mind that the conditions of the termination may be negotiated in the event that the termination is in the best interest of both parties. An example would be if a major change is beyond the abilities of the contractor. Negotiations with regard to conditions of the termination may include pricing partially completed items, mobilization payment, or the State taking possession of fabricated/purchased materials.

In both categories, if federal funds are involved, FHWA needs to be notified and informed of the situation early in the process. Specifically, Federal participation eligibility should be discussed prior to making a decision on termination. Formal notification and discussion should use normal channels through the Region to the State Construction Office. Authority to terminate a contract rests with the same position that had authority to execute the contract.

SS 1-08.10(2) Termination for Public Convenience

A. **Authority to Terminate** – As provided in *Standard Specifications* Section 1-08.10(2), WSDOT may cancel all or portions of the Work included in a contract. If the project is to be terminated in whole and contains Federal funds, FHWA must be notified and a discussion of Federal participation eligibility should take place prior to the decision to terminate is finalized. The authority to terminate a contract resides in the same position that is authorized to execute the project. Change order approvals, per the Change Order Checklist, are required for termination change orders.

B. **Cost Associated With Deleted Work** – The Contractor must submit a request for payment of costs associated with termination of the contract no later than 90-calendar days from the effective date of the termination. There are some limitations to payment that should be noted under *Standard Specifications* Section 1-09.5. When Work is deleted by the termination of a contract by the contracting agency, payment will only be for the costs actually associated with the termination. No profit will be allowed for Work that was not completed. Consequential damages are also not allowed. Consequential damages may include such things as loss of credit, loss of bonding capacity, loss of other jobs, loss of business reputation, loss of job opportunities, etc.

C. **Payment for Materials** – When Work is deleted from the project by termination and the contractor has already ordered acceptable materials for such Work, payment for these materials may be negotiated in accordance with *Standard Specifications* Section 1-09.5.

D. **Deletion of Contract Items** – Since a termination change order is deleting work from the contract, uncompleted and unused contract items, if they are to remain uncompleted, must be deleted from the contract by the change order. "Zeroing out" these items assists in releasing funding from the project. When

terminating a contract that contains work that is condition of award (COA), be sure to delete that work from the COA requirements by completing the condition of award portion of the change order in CCIS. Due to limited character space in CCIS, it may be necessary to create more than one change order to complete the termination change order. Be sure these multiple change orders are concurrent.

E. **Physical Completion** – If the Contractor is not required to complete any contract Work after execution of the change order, the execution date of the change order should be established by the Project Engineer, and entered into CCIS, as the Physical Completion date for the contract. If the Contractor must complete some items of the Work, Physical Completion will be granted by the Project Engineer upon satisfactory completion of the Work (*Standard Specifications* Division 1-03). This date assists the CAPS unit of AFS to know if insurance must be maintained on the project.

F. **Time** – The change order should contain a time statement, just like any other change order.

G. **Waiver** – The change order should contain waiver language similar to that found in Section SS 1-04.4.

1-09 Measurement and Payment

SS 1-09.4 Equitable Adjustment

Pricing

Standard Specifications Section 1-04.4 specifies that an equitable adjustment (EA) in accordance with *Standard Specifications* Section 1-09.4 will be made when changes cause an increase or decrease in the cost of performing work on the contract. The basic theory of an EA is to leave the parties to the contract in the same position cost wise and profit wise as they would have been without the change, preserving to each as nearly as possible the advantages and disadvantages of their agreement. Although the contractor is entitled to profit on the changed work, the profit (or loss) on the unchanged work should remain unaffected by the equitable adjustment.

- This is an important point, *for unchanged work*, the contractor is entitled to the profit bid or a windfall, if the work turns out to be easier than expected.
- On the other hand, *for unchanged work*, the contracting agency is not obligated to make the contractor well for an under bid item.

Consequential damages are never allowed as part of a negotiated equitable adjustment. Consequential damages may include such things as: loss of credit, loss of bonding capacity, loss of other jobs, loss of business reputation, loss of job opportunities, impacts to another project, etc.

A. **Unit Prices** – An appropriate price may be established using average unit bid prices, citing similar unit bid prices, a determination of market value, by estimating the cost to perform the work, or a combination of these methods. Unit bid price is one indication of an equitable price; however the contracting agency should be prepared to support the price by other means.

B. **Force Account** – When added work is paid by force account, a change order shall be prepared detailing the added work to be performed and the estimated cost. Standard Item Number 7715 is to be used for all force account items that do not have an assigned standard item number. Force account should be a last resort used only if the work can't be clearly defined.

C. **Overhead** – There are two basic types of overhead as follows:

- **Distributed Fixed Costs** – Offsite "home office overhead" is the cost of running a company. These costs are assumed to be distributed among all the projects performed by the company. Onsite overhead is incurred as a function of time needed to accomplish the project. Onsite costs are assumed to be evenly distributed among contract items. This category of overhead is eligible under an equitable adjustment if working days are added to the contract as part of the adjustment.
- **Variable Fixed Costs** – these costs are directly associated with performing an item of work on the project and therefore vary with the quantity, the contractor is entitled to recover these costs as a part of an equitable adjustment.

Forward Pricing and Risk

The first and best option for an equitable adjustment is agreement in advance between the contractor and WSDOT on the increased or decreased cost and time for performance of the changed work. The Project Engineer should expend every effort possible to obtain a satisfactory negotiated equitable adjustment prior to submitting the change order to the contractor for endorsement. The Project Engineer must remember that the contractor is a full participant in the contract and retains all the rights and privileges during a negotiation. When bidding a job, the contractor must be optimistic and take appropriate risks. When negotiating, it is understandable and acceptable for the contractor to be pessimistic and avoid risk, unless compensated. Some key points to remember are:

- A negotiated price will likely be higher than a competitive bid price.
- A proposal which assigns extensive risk to the contractor will likely be more costly yet.
- The contractor may be willing to take on this risk if the price is a bit higher
- The significant advantage of reaching a price agreement before the work is started (forward pricing) is that the contractor assumes the risk of the accuracy of the pricing assumptions and predicted duration for performing the work.
- (when forward pricing) the Project Engineer may utilize the high end of the estimating range in justification.
- (when forward pricing) an audited overhead rate may be substituted for the markups described in *Standard Specifications* Section 1-09.6. Contractors can usually provide an estimated home office overhead rate which may be checked by an annual audit, if warranted.

Pricing After Fact

When establishing prices after the work has been performed, actual costs should be used to the extent they are available. The following are key points to keep in mind:

- Costs for equipment cannot exceed the rates established by the AGC/WSDOT *Equipment Rental Agreement* for an equitable adjustment.
- When pricing after the fact, the markups described in *Standard Specifications* Section 1-09.6 are appropriate for measuring time and materials because there is no risk involved in after the fact pricing.

Unilateral Pricing

In the interest of being timely, the change order should be a tool to document agreement and not a negotiation tool back and forth. Ideally we will have agreement with the contractor when pricing the work. On occasion, however, due to time constraints and difference of opinion, we can't always come to agreement. The difference of opinion may be for only a small portion of the work. *Standard Specifications* Section 1-09.4(2) provides, "If the parties cannot agree, the price will be determined by the Engineer using unit prices, or other means to establish costs." This is not to say that the contractor is obligated to honor unit bid prices for work that qualifies for an equitable adjustment. This allows us to proceed with changed work prior to reaching an agreement on the price. In the interest of being timely, and provided the Project Engineer is comfortable that the included price can be supported, there's nothing wrong with issuing a change order to the contractor unilaterally. This orders the work to proceed, establishes the State's position on cost, and puts the decision to continue negotiations in the contractor's hands as detailed under *Standard Specifications* Section 1-04.5. The contractor is obligated to endorse, write a separate acceptance, or protest as described in the specification and a timeline is provided for these actions.

Time

The completed equitable adjustment should include provisions for any increases or decreases in contract time based on impacts to overall contract duration. The decision on time should be supported by an analysis of the project schedule. Analyzing time in advance encourages communication between the parties allowing the contracting agency to make an informed decision on the true costs. It also enables the contracting agency to mitigate time impacts if that is in the agency's best interest.

SS 1-09.6 Force Account

General

When it is difficult to provide adequate measurement or to estimate the cost for certain items of work, force account may be used in order to pay the Contractor for performing the work. Some contract items may be set up to be paid by force account. Some change orders may require payment by force account. *Standard Specifications* Section 1-09.6 describes the boundaries for payment of work performed by the force account method. In any case, the purpose of force account is to fully reimburse the Contractor for costs incurred on the work. These costs may also include indirect segments, such as travel, per diem, safety training, industrial safety measures, overhead, profit and other hidden costs. The objective is to minimize the inclusion of any "contingencies" included in

the contract bid in anticipation of costs that may be incurred during force account work and not reimbursed.

When work is added to the contract and is to be paid by force account, a change order will have been prepared describing the added work to be performed. The change order package will also contain an independent estimate of the cost to perform the added work. All non-standard force account items are assigned the Standard Item Number 7715.

Force account payments are typically not authorized for employees engaged in management or general supervisory work. The cost for this type of activity is presumed to be included in the Contractor's markups for overhead and profit. However a foreman or, in some cases, a dedicated superintendent devoting full time to the force account work is eligible for payment on the force account.

On projects that require the Contractor to employ trainees, these employees may be utilized in force account work.

In the case of some Emergency Contracts (see the WSDOT *Emergency Relief Procedures Manual* M 3014) which will be measured and paid by Force Account, it is appropriate for the Engineer to consider payment for mobilization of equipment to the site of the emergency, including all staff time employed to procure and coordinate the mobilization. It may also be appropriate to include the labor payment for a dedicated superintendent and foremen employed solely to oversee the emergency work. On emergency contracts the mark ups may not be enough to cover the cost of performance bonds; the Project Engineer may consider payment for performance bond costs when making payment under emergency force account contracts.

The Project Engineer should consider a decision to direct force account work with the same degree of caution that would be applied to directing any other work on the contract. The Contractor should have the expertise to schedule the work and determine what equipment is required. In most cases, it is best that we allow the Contractor to propose the method and approach to the work. Our most effective role would be to concur or approve of the Contractor's proposal or suggest modifications to it. Before any work is performed by the Contractor on a force account basis, the inspectors should review and agree with the Contractor upon:

1. **Labor** – The classification and approximate number of workers to be used, the wage rate to be paid those workers, whether or not travel allowance and subsistence is applicable to those workers, and what foreman, if any, will be paid for by force account. This agreement will be closely tied to the development of the Labor List.
2. **Materials** – The material to be used, including the cost and any freight charges whether the material is purchased specifically for the project or comes from the Contractor's own supply. For materials representing a significant cost, or where the industry experiences fluctuations in price, the contract allows for shopping and the Contractor may be directed to obtain quotations.
3. **Equipment** – The equipment to be used including the size, rating, capacity, or any other information requested by the Engineer. Whether the equipment to be used is owned by the Contractor or is to be rented. The cost per hour for the equipment to be used. In the case of rented equipment, the Engineer may ask for competitive quotations, provided the request is made in advance and there is time to obtain them.

Payment for force account work should be made on the same timely basis as any other item of work. When money is being withheld from a progress estimate, the criteria for withholding should apply equally to all items of work, not just to force account work, because of its method of payment.

The procedure for record keeping and payment of force account work on change orders shall be the same as for contract items to be paid by force account. Separate records are to be kept for each force account whether it is an item in the original contract or established as a result of a change order.

Payment Procedures for Force Account Work

1. **Labor** – The specifications require the Contractor to prepare and submit a "Labor List" in advance of force account work. Once approved by the Project Engineer, this list provides the hourly rate for force account calculations until a new list is approved. New lists will not be approved retroactively and calculations previously made from an approved list will not be changed when a new list is approved. If the Contractor fails to submit a list before the first force account calculations are made, then the Project Engineer will determine the rates from the best data available (payrolls on this job, payrolls on other jobs, prevailing wage requirements, union information, etc). Labor list rates will include all the pieces of wage expense – base rates, benefits, assessments, travel, with allocations shown where necessary. Examples of Labor List entries might be:

Generic Laborer (Straight Time)		John Doe, Teamster (Overtime)	
Basic Wage/hr	$21.36	Basic OT Wage/hr	$32.81
FICA (7.65%)		FICA (7.65%)	
FUTA (0.80%)		FUTA (0.80%)	
SUTA (5.42%) Total =	2.96	SUTA (5.42%) Total =	4.55
Indust Ins $1.01/hr	1.01	Indust Ins $1.01/hr	1.01
Benefits/Hr	5.45	Benefits/Hr	8.00
Subtotal	$30.78/hr	Subtotal	$46.37/hr
Travel Expense		Travel Expense	
$250/40 hrs	6.25/hr	$250/40 hrs	$6.25/hr
Total	$37.03/hr	Total	$52.62/hr
Use	$37per hr	Use	$53per hr

These examples show the rate rounded to the nearest dollar, which is permissible. If either party would prefer to use the unrounded amount, that is also acceptable. When deciding how many hours require compensation, the specification allows all hours that are a contractual obligation or are customary payments made to all employees. This means that, if a labor contract calls for 4 hours of pay for any call out, then that is a contractual obligation and the 4 hours would be eligible for reimbursement. (As always, the Contractor is expected to reassign the employees, if possible, to avoid the penalty.). In the same vein, a non-Union contractor, who has made call out payments to all employees for years, would be eligible for reimbursement for similar payments in a force account.

2. **Materials** – Materials also work from a list, but the list is generated in a different fashion. The Project Engineer provides the basic list of materials observed by the inspector. This is done in a timely manner (daily, unless the Contractor agrees otherwise). The Contractor adds prices to the list and attaches invoices or affidavits to support the prices. Once the list is returned and checked, payment can be made.

   If a shipment of material is only partially consumed during the force account reporting period, the inspector may choose to include the entire amount in the first report or to estimate the amount consumed during each reporting period. The decision should be based upon the amount of the shipment, the nature and cost of the shipment and the security of the stockpile. A case of empty sandbags to be utilized throughout the winter for pollution control would adapt well to a single report, while a stockpile of galvanized conduit should probably be reported piecemeal as it is used in the work. The Contractor may use copies of the original invoice when the material is reported incrementally. If the Contractor has to restock unused material, restock charges can be reimbursed if the original order was reasonable for the work planned.

   Along with supplying prices and invoices, the Contractor may suggest additions or corrections to the Materials List. These suggestions will be reviewed by the Project Engineer and, if appropriate, added before payment is made.

   If the Contractor does not have an invoice, as in the case of stockpiles or some warehouse stock, then an affidavit will suffice. The Engineer may review the affidavit and, if it is an unreasonable price that cannot be supported, the Engineer may substitute another price, utilizing the best data available. The reasonableness of the price must consider the circumstances of the purchase and all costs associated with obtaining material from another source.

   The specifications allow the Engineer to require competitive quotations, if this is done before the work is started and sufficient time is available. If the Contractor has to divert an employee to obtain the quotations, then that employee may be included in the labor reimbursement for the force account.

3. **Equipment** – The Project Engineer should review and comply with the rules governing payment for equipment as outlined in the most current AGC/WSDOT Equipment Rental Agreement. This agreement was developed as a supplement of the specifications and is relatively self explanatory.

   There are three methods of acquiring equipment for use on a force account. “Owned” means that the Contractor controls and operates the equipment. A long term lease arrangement would be the same as ownership. Owned equipment is priced according to the Blue Book. “Rented to Operate” means that the Contractor has obtained a piece of equipment through a short term rental and will operate that equipment with its own employees. Rented to Operate equipment is priced according to the invoice from the rental agency. “Rented Operated” means that the Contractor has obtained a service from an individual or a company to provide a piece of equipment with an operator. An operated rental is not paid as equipment, but rather as a Service. In some cases, the Service will be reclassified as an entity performing in the manner of a subcontractor (see below).

Damage waivers are compensable. The Engineer has the discretion to reimburse for a damage waiver when it makes good business sense. Upon request, the Contractor should be able to demonstrate that the purchase of the damage waiver is consistent with their standard business practice. Consideration should be given to the potential risk of damage to the equipment versus the cost of paying for the damage waiver. In most cases, the cost of the waiver is minimal. The damage waiver does not cover damage caused by operator negligence, nor should the Department reimburse the Contractor for repair of any damage caused by operator negligence.

Normal wear and tear on equipment is included in the Blue Book rental rates. The ownership rates include major overhaul of the equipment. The Blue Book defines major overhaul as the periodic rebuilding of the engine, transmission, undercarriage, and other major equipment components. The operating rates include the cost of daily servicing of the equipment, including the replacement of small components such as pumps, carburetors, injectors, filters, belts, gaskets and worn lines. The operating rates also include the cost of expendables such as fuel, lubricants, filters, tires, and ground engaging components, such as pads, blades bucket teeth, etc.

The costs of extraordinary operating expendables are not covered in the operating rates due to their highly variable wear patterns. These extraordinary operating expendables may include certain ground engaging components, such as hammer and drill bits, drill steel, augers, saw blades, and tooth-bits. The cost for these items will normally be recovered separately, based upon invoices for their cost.

Repair of damage is considered a risk of providing equipment. The cost of this risk is assumed to be in the markup for overhead and profit. Costs for repair of damage should not be included in the force account direct charges. A common event is the offer of a Damage Claim Waiver by a renting agency. If such a charge appears on an invoice, it may be considered for inclusion when payment is calculated.

As with Materials, the Engineer may require competitive bids for equipment rentals. Normally, this requirement must be made in advance, before the work is started. However, if the rental is not made in an “arm’s length” transaction, for example when the contractor rents the equipment to himself through some sort of business structure, then after the fact quotations may be obtained from independent rental agencies and the lowest such quotation may be used in place of the rental invoice.

Finally, as a special insertion into this manual, there is a separate method of paying for Pavement Routers for Crack Sealing. WSDOT has agreed to set aside the Blue Book rate for this equipment and to pay $20 per hour for the operated router.

4. **Services** – Services billed by invoice will be compensated according to the invoice if that is the typical method in standard industry practice. Typical industry practice might include specialized technical services, such as Testing Labs and Environmental Cleanup firms. Also included might be unit price invoices, such as Sweeping per mile or Concrete Pumping per cubic yard, or lump sum quotation invoices, such as Remove Danger Tree or Pump Septic Tanks.

The markup for services depends on the nature of the firm's activities on the project. If the firm is clearly an uninvolved supplier, then the Service markup will apply. If the firm is acting as a subcontractor, then the markup will be made under the subcontractor provisions described below, with the underlying (subcontractor's) overhead and profit assumed to be embedded in the invoice.

It should be noted that payment of force account work through an invoice does not excuse the Contractor from other requirements of the contract. Wage rate rules, subcontractor approvals and other provisions are still contract requirements and must be enforced. Such enforcement, however, is independent of the administration of force accounts and force account payment will not ordinarily be withheld to aid in the enforcement. Note that the statutes associated with some provision requirements do involve the withholding of payment for associated work.

As with materials and equipment rentals, the Engineer may require competitive bids for invoiced services. Normally, this requirement must be made in advance, before the work is started. However, if the service is not obtained in an "arm's length" transaction, for example when the invoice comes from a subcontractor without sufficient effort to find competitive prices, then after the fact quotations may be obtained from independent service providers and the lowest such quotation may be used in place of the service invoice.

5. **Mobilization** – Mobilization and demobilization are reimbursable expenses for assembling equipment, materials, supplies and tools for any force account item and then returning those items to the previous location when the work is finished. Demobilization can include restocking costs for materials not utilized. Force account mobilization applies to original bid item force accounts as well as force accounts added through change orders. The standard bid item "Mobilization" is assumed to not include mobilization activities for force account work.

   Mobilization may occur within the project limits if special efforts are required to assemble needed items to the force account location. For example, if a lowboy is required to move a bulldozer from one end of a project to the other, then that mobilization effort would be reimbursed.

   If off site preparation work is needed, the Contractor must notify the Engineer in a timely enough manner that the work can be observed, if that is desired. Without such notice, that preparation work will not be reimbursed.

   The AGC Agreement allows for pro-rating mobilization costs for equipment that will be used in both force account and bid item work. This will be done by negotiation and agreement. For example, if the Project Engineer and Superintendent agree that a mobilized backhoe will be used three hours on regular work for each hour on force account, then 25 percent of the mobilization costs would be paid on the force account.

   All mobilization activities can be categorized as Labor, Equipment, Materials, or Services and will be listed under those categories for payment.

6. **Other Payments**
   - **Permits or Fees** – When a force account requires the Contractor to pay for permits or fees (hazardous waste dumping, etc.) that would fall outside the scope of overhead, these costs are reimbursable and may be included in the "Services" section of the force account payment.
   - **Retail Sales and Use Tax** – How retail sales tax and use tax is handled on the overall project depends on the ownership of the property upon which it rests. The retail sales tax consequences related to construction projects and land owned by the state of Washington or privately is addressed by WAC 458-20-170 ("Rule 170"), while the retail sales tax consequences related to construction projects and land owned by a municipal corporation, political subdivision of the state of Washington, or by the United States is addressed by WAC 458-20-171 ("Rule 171").

     With respect to Rule 171, ownership refers to ownership for the street, place, road, highway, easement, right of way, etc. being constructed and not the underlying real property. See RCW 82.04.050(10); Rule 170; and Rule 171. Thus, for instance if WSDOT has an easement with respect to a road subject to a construction project, then Rule 171 treatment will not apply even if the underlying real property were owned by the United States, Indian tribe, or municipal entity.

     The Contractor's books may be audited by the Department of Revenue upon completion of each project to ensure compliance.

     – **State and Local Tax: WAC 458-20-170 – Retail Sales and Use Tax** – Item quantities listed in the summary of quantities under *Standard Specifications* Section 1-07.2(2) require retail sales tax on the item to be paid by the Contracting Agency; therefore; Contractor would not include the tax in their bids. The Contracting Agency provides this tax payment to the Contractor on the total cost summation of the bid items listed under Section 1-07.2(2). Contractor remits this retail sales tax through to Department of Revenue. Under state tax law project Work requires remittance of retail sales tax on the full contract price.
       - **Resale Items –** Materials purchased for incorporation into the permanent project.
       - **Use of Reseller Permits** – Generally, purchases of tangible personal property by persons without a valid reseller permit are subject to retail sales tax. See WAC 458-20-102. For example, a Contractor's purchases of materials incorporated permanently into the structure being built or improved as part of the project Work (including but not limited to cement concrete, lumber, finished hardware, asphalt concrete pavement) are treated as a retail sale at the point of purchase unless the contractor has a valid reseller permit. If the contractor has a valid reseller permit, the Contractor can provide it to their vendors to purchase these materials permanently incorporated into a structure being built or improved under a project without paying retail sales tax. These materials if purchased with a reseller permit are considered to be purchased for "resale".

- **Tax Paid at Sourced Deduction** – If the contractor does not have a valid reseller permit when purchasing materials permanently incorporated into a structure being built or improved as a part of the project Work, the contractor must pay retail sales tax at point of purchase and then may take the appropriate deduction (tax paid at source) when filing its Washington state excise tax return. The Contracting Agency pays retail sales tax to the Contractor when the material is incorporated into the permanent work of the project.
- **Consumables Items** – There may be items that the contractor **is required** to pay retail sales tax on at the point of purchase because they are consumed by the Contractor rather than resold ("consumables"). For example, tools, machinery and equipment, and supplies consumed (including but not limited to concrete forms, fuel or tools, equipment purchased or rented) during the performance of the project work are "consumables", which are a part of the overall cost of doing business for the Contractor. The Contractor is required to pay retail sales tax at the point of purchase/rental for these items or use tax if retail sales tax is not paid. These costs are bid as a part of the associated bid items.

  The contractor is considered the "consumer" when renting equipment for use in Washington State and must pay sales tax on the total charge. This is no different than purchasing a tool the contractor must have in order to perform its services and passing the cost on to the customer. The sales tax paid by the contractor to the rental company is a cost of doing business and, if it is passed on to the customer, it is considered to be part of the gross contract price that is subject to sales tax.

When calculating or estimating the cost of force account or change order work, retail sales tax will always be applied and paid by the Contracting Agency on the whole summation of daily force account cost including labor, equipment and material costs, which can in the case of "consumable" items include paying retail tax on a tax..

– **State and Local Tax: WAC 458-20-171 – Retail Sales and Use Tax** – For item quantities listed in the summary of quantities under *Standard Specifications* Section 1-07.2(1) retail sales tax **is not required** on the item.

However, the Contractor **is required** to pay retail sales tax on all of its own retail sales taxable purchases regardless of use ("consumable" or not) or use tax if retail sales tax is not paid. For contract work, this expense is incidental and therefore included in the individual contract items as a part of the bid amount.

- **Ownership By Covered Persons** – Rule 171 applies where the operative public road construction is owned by a municipal corporation, political subdivision of the state of Washington, the United States, or an Indian or Indian tribe in Indian country. RCW 82.04.050(10); Rule 171, and WAC 458-20-192.

- **WSDOT Not A Covered Person** – WSDOT is not a municipal corporation, political subdivision of the state of Washington, the United States, or an Indian or Indian tribe. Therefore, where the operative public road construction is owned by WSDOT, the construction is subject to retail sales tax consistent with Rule 170 above.
- **WSDOT Easements** – Washington Excise Tax Advisory (ETA) 3068.2009 explains that where "title to the land upon which the highway, street, place, or road is being constructed vests in the state of Washington, the construction contract is a retail sale." ETA 3068.2009 further makes clear that this vesting provision refers to the street, place, road, highway, easement, right of way, etc. being constructed and not the underlying real property. Thus, for instance if WSDOT has an easement with respect to a road subject to a construction project, then Rule 171 treatment will not apply regardless of whether the underlying real property is owned by another party.

When calculating or estimating the cost of force account or change order work, sales tax should be included on all invoices. As stated previously, the fact that taxes are shown or not shown on invoices is not a reliable indication of what the contractor is obligated to pay. The contractor may receive reimbursement later or be required to pay additional taxes when the contract is complete.

- **Exceptions** – Consistent with Rule 171, construction of the following facilities has been specifically exempted. Work on these facilities falls under Rule 170 even if they are on non state owned land:
  - Water mains.
  - Telephone, telegraph, electrical power, or other conduits or lines in or above streets and roads, unless such power lines become a part of a street or road lighting system.
  - Construction of sewage disposal facilities.
  - The installing of sewer pipes for sanitation, unless the installation thereof is within, and a part of, a street or road drainage system.
- **Conclusion** – Most of the time, retail sales tax on invoices is required. In turn, we need to reimburse the contractor for the tax (paid or deferred) on force account invoices and include the costs when estimating the value of change order work.

  The one exception is "resale" items if the contract falls under Department of Revenue rule 170 where retail tax sales need not be paid at the point of purchase.

  These rules should be adhered to regardless of whether retail sales tax is shown on the invoice.
- **Subcontractor Markup** – If work is being performed by a subcontractor (or by a service supplier acting in the manner of a subcontractor), then a supplemental markup will be added. This supplement will be added one time for each payment, even if a lower-tier subcontractor is doing the work. The markup is a graduated step down rate, which gets smaller for each force account item as the amount of work increases.

The amounts on which the rate is determined will be tracked separately for each subcontractor on each force account item included in the original contract or added by change order. If two subcontractors work on the same force account, then the accumulated total will be tracked for each, and markup for work done by each will be according to the respective total. If a single subcontractor works on two force accounts, then there will be a running total of work done by that subcontractor on each account and the markup rate for the same sub on different force accounts could be different.

Records and Source Documents

Accurate daily time records should always be kept when performing force account work. A Daily Report of Force Account Worked DOT Form 422-008 is provided for the Project Engineer's use to help facilitate timely, accurate, and complete records of the daily force account activities. Whatever method of record keeping is used, it is recommended that the document be signed by both the Inspector and a representative of the Contractor agreeing on the materials used and the hours noted for labor and equipment. A copy of the daily report must be provided to the Contractor. When the work is performed by a subcontractor, a copy should also be provided to the subcontractor.

The costs for force account work should be determined and entered into the CAPS system in as timely a manner as possible.

All calculations for determining force account costs should be checked, initialed, and dated. After the cost of the work has been computed in the office, a copy of calculations shall be furnished to the Contractor.

Summary

To summarize, the purpose of force account is to fully reimburse the Contractor for costs incurred on the work. The objective of force account administration is to minimize the inclusion of any "contingencies" included in the contract bid in anticipation of costs that may be incurred during force account work and not reimbursed.

Items which are bid or negotiated with a unit price or a lump sum agreement will not be converted to force account unless a change (as defined in *Standard Specifications* Section 1-04.4) has occurred. On the other hand, any work to be done or the remaining portion of work underway on a force account basis may be converted to unit prices or a lump sum at any time the parties can reach an agreement. Such a conversion is highly desirable and should always be a goal of the Project Engineer.

SS 1-09.8 Payment for Material on Hand

Payment for material on hand (MOH) may be considered for materials intended to be incorporated into the permanent work. The requirements for payment of MOH are noted in *Standard Specifications* Section 1-09.8. Payments for MOH are made under the 900 series of item numbers as ledger entries and need to be backed out as items are utilized such that 900 series entries are zeroed at close out of the contract. Therefore logically payment for MOH shall not exceed the value of the corresponding bid item. It is the responsibility of the project engineer to devise procedures that assure this is done correctly.

Payments may be made provided the contractor submits documentation verifying the amounts requested, the materials meet the requirements of the contract and the materials are delivered to a specified storage site or stored at the suppliers/fabricators as approved by the project engineer. Materials shall be segregated, identified and reserved for use on a specific contract or project. Payments commensurate with the percentage of completion may be paid for partially fabricated items.

All materials paid for as MOH must be readily available for inspection by the owner. Steel materials must be available for inspection but this availability need not be immediate. Reasonable notice should be given to allow the contractor to locate and make the material available for inspection. The project engineer may accept a higher level of risk that steel material may not be reserved for our use. The contractor's obligation to perform the work and the surety's guarantee of this obligation serve to offset the risk that reserved materials are diverted to other projects.

When materials paid for as MOH are stored in areas outside the general area the region shall make arrangements for inspection as deemed necessary prior to making payment. The region may utilize other regions or the State Materials Laboratory in doing so.

When contracts are estimated to cost more than $2 million and require more than 120 working days to complete, a General Special Provision (GSP) will be included in the contract provisions, requiring documentation from the contractor as the basis for MOH payments and deductions. When this GSP is included in the contract provisions, the following procedure is used to determine how much of the MOH payment should be deducted from an estimate:

- Each month, no later than the estimate due date, the contractor will submit a document and the necessary backup to the Project Engineer that clearly states:
  - The dollar amount previously paid for MOH,
  - The dollar amount of the previously paid MOH incorporated into the various work items during the month, and
  - The dollar amount that should continue to be retained in MOH items.

  If work is performed on the items and the contractor does not submit a document, all previous associated MOH payments may be deducted on the next progress estimate.

SS 1-09.9 Payments

General

Payment for work performed by the Contractor and for materials on hand must be made in accordance with *Standard Specifications* Section 1-09. To facilitate payments to the Contractor and ensure proper documentation, WSDOT utilizes an automated computer system to record project progress in terms of bid item quantity accomplishment. This is then used to pay the Contractor for actual work performed during each designated pay period or for materials on hand. The automated system that completes this task is called the Contract Administration and Payment System (CAPS). CAPS utilizes an electronic tie between each project office's computer system and the mainframe computer. This system provides access to a large volume of corporate data and facilitates the maintenance of this data by different groups in different locations. Some of these different activities include:

- **Contract Initiation** – A Headquarters action whereby new contracts are created and stored in a computer file. The information consists of the names of the Contractor and the Project Engineer, project descriptive data, accounting identifier numbers, preliminary estimate, proposal date, bid opening date, award date, execution date, accounting groups and distributions, and an electronic ledger.
- **Project Ledger** – An updating process by the Project Office which keeps track of work performed on the contract as it is completed.
- **Estimate Payments** – A Project Office action whereby progress estimates and Regional final estimates are processed directly from the Project Office. The Headquarters Final Estimate process activates the Region Final when all the required paperwork is in place. Supplemental final estimates are processed by Headquarters only. Complete instructions for use of the CAPS computer system are included in WSDOT *Contract Administration and Payment System* M 13-01.

Progress Estimates

Progress estimates are normally processed on the 5th of the month for odd numbered contracts and on the 20th of the month for even numbered contracts. Where the Project Engineer deems it appropriate, estimates may also be run on other dates.

Estimates may also be run on other dates if the progress estimate or parts of the progress estimate were withheld to encourage compliance with some provision of the contract and the Contractor resolves the issue that caused the withholding. These estimates should be paid immediately upon resolution by the Contractor.

Within the CAPS system, the basis for making any estimate payment is information from the project ledger. Every entry in the ledger is marked by the computer as paid, deferred, or eligible for payment. Before an estimate can be paid, a Ledger Pre-Estimate Report (RAKD300C-PE) must be produced. In constructing this report, the CAPS system gathers all the ledger entries that are identified as eligible for payment, prints them on the report summarized by item, and shows the total amount completed to date for that item but not yet paid for by progress estimate. The report also shows any deferred entries or exceptions if they exist and includes a signature block for the Project Engineer's approval.

If there are errors or omissions in this report, the ledger must be changed to reflect the correct data. After corrections are made, the Ledger Pre-Estimate Report must be run again in order to get the corrections into the report and made available for payment by progress estimate. Once the Ledger Pre-Estimate Report is correct, an actual estimate can be paid. The report containing the Project Engineer's signature should be retained in the project files.

The estimate process is then accomplished with a few keystrokes in option 2, estimate payments, in the CAPS main menu. At this point, the CAPS system will automatically calculate mobilization, retainage (on projects containing no Federal funds), and the sales tax. The warrant will be produced, signed, and sent to the Contractor along with the Contract Estimate Payment Advice Report and two different sales tax summary reports. Copies of these reports will also be sent to the Project Office. When the Project Office receives their copy of the Contract Estimate Payment Advice Report, the total amount paid for contract items should be checked against the Pre-Estimate Report. This helps to verify that the amount paid was what the Project Engineer intended to

pay. In addition, the ledger records that produced the estimate will now be marked by the CAPS system as being paid.

Once the estimate is paid, the Project Engineer should ensure that estimate payment information is available to all subcontractors and any other interested parties who request the information. This may be accomplished by posting to a project specific web-page, a Region Construction web-page, email, or other means as determined by the Project Engineer and the Region Construction Office.

Up to the point of actually producing the warrant, the entire process for making a progress estimate payment is initiated and controlled by the Project Office.

Particular attention should be given to the comparison of the plan quantities and the estimate quantities for the various groups on the project as shown on the Ledger PreEstimate Report. Overpayments on intermediate progress estimates are sometimes difficult to resolve with the Contractor at the conclusion of the project.

New groups which do not change the termini of the original contract or changes in groups should be accomplished by memorandum from the Region to the State Accounting Services Office.

An additional estimate may be prepared if considerable work has been done between the date of the last progress estimate and the date of physical completion when the Engineer anticipates delays in preparing the final estimate. Should this circumstance occur, the additional estimate should show the work done to date no later than the day before the date of physical completion.

Payment for Lump Sum Items

The Contractor is required to submit a detailed Lump Sum price breakdown for those items specified as Lump Sum for which there is no specified payment described in the payment clause of the applicable specification. Estimate payments for items specified as Lump Sum will be a percentage of the price in the Proposal, based on the Project Engineer's determination of the amount of work performed. Consideration will be given to, but payment will not be based solely on, the Contractor's Lump Sum breakdown. The Project Engineer should verify that the price breakdown is based upon a reasonable proportioning of the work, and detailed enough to allow a determination of the work performed on a monthly basis.

Payment of the first 80 percent of the Lump Sum price for Type B Progress Schedules will be made on the next progress estimate following the submittal and approval of the Type B Progress Schedule. The payment will be increased to 100 percent of the Lump Sum price when the Contractor has attained 80 percent of the Original Contract Award amount, as shown on the CAPS Pre-Estimate Report (inclusive of payments made for Material on Hand).

On WSDOT contracts for which payment is made through CAPS (Contract Administration and Payment System), payment for mobilization is calculated and paid automatically by the system. On contracts that do not use CAPS, the Project Office must calculate, and make payment for, the Contract item "Mobilization." Payment will be made in accordance with *Standard Specifications* Section 1-09.7. Based on the lump sum Contract price for "Mobilization," partial payment will be made as follows:

1. When 5 percent of the original Contract amount has been earned from other Contract items, excluding any amounts paid for materials on hand, the Contractor is also entitled to a partial payment of the Bid item "Mobilization." This payment, which is in addition to payment for contract work performed, will be calculated as 50-percent of the amount bid for "Mobilization" or 5 percent of the original Contract amount, whichever is the least.
2. When 10 percent of the original Contract amount has been earned from other Contract items, excluding any amounts paid for materials on hand, the Contractor will be paid 100 percent of the amount bid for "Mobilization" or 10 percent of the original Contract amount, whichever is the least. This payment is in addition to payment for contract work performed.
3. When the Substantial Completion date has been established for the project, payment of any remaining portion of the lump sum item "Mobilization" will be made.

Payment for Falsework

On those projects which include a lump sum item for bridge superstructure, payment may be made on request by the Contractor for falsework as a prorated percentage of the lump sum item as the work is accomplished. The Project Engineer may require the Contractor to furnish a breakdown of the costs to substantiate falsework costs. For any given payment request, the Contractor may be required to furnish invoices for materials used and substantiation for equipment and labor costs.

Payment for Shoring or Extra Excavation

When Shoring or Extra Excavation Class A is included as a bid item, payment must be made as the work under the bid item is accomplished, the same as for any other lump sum bid item. When Shoring or Extra Excavation Class B is included as a bid item, measurement and payment shall be made in accordance with *Standard Specifications* Section 2-09.4 and 2-09.5. RCW 39.04 provides that the costs of trench safety systems shall not be considered as incidental to any other contract item, and any attempt to include the trench safety systems as an incidental cost is prohibited. Accordingly, when no bid item is provided for either Shoring or Extra Excavation Class A or Shoring or Extra Excavation Class B and the Engineer deems that work to be necessary, payment will be made in accordance with *Standard Specifications* Section 1-04.4.

Payment for Asphalt, CRS-2P, Steel, and Fuel Cost Adjustment

Some projects may include the specifications for Asphalt Cost Adjustment, CRS-2P Cost Adjustment, Steel Cost Adjustment, or Fuel Cost Adjustment (one or more) as a General Special Provision. Not all projects will contain these provisions, since their use depends on the type of work, the duration of the contract, and Region preference. For those contracts containing one or more of the cost adjustment bid items, an adjustment (payment or credit) will be calculated monthly for qualifying changes in the index price of the commodity. No adjustment (payment or credit) shall be made if the 'Current Reference Cost' is within the percentage of the 'Base Cost' specified in the contract, and only those items that are included in the provision are eligible for adjustment. Worksheets are available, in the "Shared Documents" folder of the State Construction Office Sharepoint site (http://sharedot/rp/hqconstr/default.aspx), to

assist the Project office in computing these price adjustments, and on the Construction Office web page (www.wsdot.wa.gov/business/construction/default.html) to assist the Contractor and local agencies.

It is important to understand that the adjustments provided by these provisions are not a guarantee of full compensation for changes in the contractors cost, and that they are intended only to absorb some of the risk of severe cost escalation during contract performance. Because of this, the method of computing the adjustment has been simplified to eliminate tedious considerations that would otherwise be required to provide precise reimbursement of actual costs.

Payment for "Asphalt Cost Price Adjustment," "CRS-2P Cost Adjustment," and "Fuel Cost Adjustment" is based on quantities of the eligible material(s) incorporated during the period covered, as demonstrated by pay notes for those items. Payment for "Steel Cost Adjustment" is based on the quantity of eligible steel items incorporated or paid as Materials on Hand for the period covered. The Contractor is required to provide documentation of the quantities and the date shipped from the producing mill to the manufacturer. If the Contractor fails to provide the required documentation, any adjustment credit will be unilaterally computed by the Project Office using a shipment date determined by the Engineer. If the Contractor wishes to protest this adjustment, it must be done in accordance with *Standard Specifications* Section 1-04.5.

The provisions for these items are prescriptive, and should result in the correct adjustment if they are followed to the letter. Regardless of whether the estimate cutoff is the 5th of the month or the 20th of the month, any adjustment will apply the most current reference cost to the entire current quantity of each eligible item paid (or deferred) in the current estimate. When a portion of the payment for an eligible item is deferred, a similar portion of the price adjustment for that item should be deferred.

The provisions for these cost adjustments are silent in regard to changed work because there are other contract clauses that address how the Department will pay for changed work. Should changes occur in bid items that are eligible for adjustment, equitable adjustments should adhere to the guidance provided in Section SS 1-04.4. Under no circumstances should eligible items that were not included in the specifications at the time of bid be added by change order after award and execution of the contract. Likewise, these provisions should not be added by change order. FHWA will not participate in the cost of retroactive price adjustments.

Credits

Dollar amounts may be deducted as a "Below the Line Miscellaneous Deduction" from progress or final estimates when WSDOT is due a credit from the Contractor. Routine credits from the Contractor to WSDOT include, but are not limited to, the following items:

- Engineering labor costs when due to Contractor error or negligence, additional engineering time is required to correct a problem. This includes the costs of any necessary replacement of stakes and marks which are carelessly or willfully destroyed or damaged by the Contractor's operation.
- Lost and/or damaged construction signs furnished to the Contractor by WSDOT. The Contractor should be given the opportunity to return the signs or replace them in kind prior to making the deductions.

- Assessment to WSDOT from a third party that is the result of the Contractor's operations causing damage to a third party, for example, damage to a city fire plug. Actual costs will be deducted from the estimate.
- Other work by WSDOT forces or WSDOT materials when the Contractor cannot or will not repair damages that are the responsibility of the Contractor under the contract.
- Liquidated damages not associated with contract time, i.e., ramp closures, lane closures (see Section SS 1-10).
- As provided for in the specifications, specific costs or credits owed WSDOT for unsuccessful contractor challenged samples and testing.

The authority to withhold and assess routine "Below the Line Miscellaneous Deduction" on progress and final estimates has been delegated to the Regional Construction Manager, and may be further subdelegated to the Project Engineer. The Project Engineer must give written documentation to the Contractor describing the deduction and provide sufficient notice of the impending assessment.

Credit items which are specifically provided for by the *Standard Specifications* or contract provisions, such as non-specification density, non-specification materials, etc. may be taken through the contract items established for those purposes. A change order is required for credit items which are not specifically provided for by the contract provisions.

Occasionally a Contractor will send a check directly to a Project Office for payment of money due WSDOT. (The Project Office should not request payment.) Whenever a Project Office or WSDOT employee receives a check or cash directly from a Contractor, it is very important that the guidance found in the WSDOT *Accounting Manual* M 13-82, Section 2-1, Control of Cash Receipts, be followed.

Withholding of Payments

Withholding payments for work the Contractor has performed and completed in accordance with the contract should not be done casually. There must be clear contract language supporting the action. The authority to withhold progress payments is subdelegated to the Regions. Further delegation to the Project Engineers is at the discretion of each Region.

There are very few occasions when it would be appropriate to withhold the total amount of a payment for completed work. If a minor amount of cleanup remains, if a portion of the associated paperwork has not been submitted, or if minor corrective measures are needed, then the correct action is to pay for the work and defer an amount commensurate with the needed remaining effort.

The concept of "allowing the Contractor to proceed at his own risk" and then withholding payment is not often supported by the contract. There is a contractual obligation to finish the work correctly, there would certainly be a "moral obligation" on the part of the Contractor to live up to the bargain, but there is no contract language that allows such an action. Specific exceptions to this rule are listed below.

Once a decision to withhold any part of the monthly payment has been reached, then it is imperative that the Contractor receive fair notice of this action. The method of this notice can be negotiated with the Contractor and could be a listing at the time of

estimate cutoff, a copy of the pre-estimate report or other mechanism. Once notice has been provided, then it is also necessary to allow a reasonable time for corrections to be made.

No Payment for the Work – *Standard Specifications* Section 1-06.3 is unique in that this is a situation, specified as part of the contract, where the contractor may request permission to assume the risk for no certificate and end up never being paid for the related work.

Progress Payment Deferral – In the following situations, the contract specifies that the contracting agency has the authority to defer the entire progress payment:

- The contracting agency may not make any payments for work performed by a Prime/Subcontractor until the contractor performing the work has submitted a Statement of Intent to Pay Prevailing Wages approved by Labor and Industries (RCW 39.12.040).
- Failure to submit the "*required reports*" by their due dates (*Standard Specifications* Section 1-07.11(10)B).

Wage Administration in General – The administration of wages and payment for the work are separate issues. Holding a force account payment for certified payrolls is not appropriate. Withholding payments on the contract is suggested as a method to achieve compliance under *Standard Specifications* Section 1-07.9(1) pertaining to wages. This remedy should not be used without approval of the State Construction Office. Routine enforcement of wage requirements should be done on their own merits utilizing the sanctions specified as follows:

State Wage Administration – Labor and Industries is the enforcement agency for state prevailing wage administration. The State (WSDOT) is protected under the contract from wage claims by reserving 5 percent of the moneys earned as retained percentage. This 5 percent is made available for unpaid or underpaid wages liens among other claims. Contract payments should not be deferred due to a contractor's failure to pay the State minimum prevailing wage.

Federal Wage Administration – FHWA-1273 specifies that the State Highway Administration (SHA) is in the enforcement role for federal prevailing wage administration. Under Section IV "*Payment of Predetermined Minimum Wage*" subsection 6., "*Withholding,*" the State Highway Administration (contracting agency) is authorized to withhold an amount deemed necessary to make up any shortfalls in meeting Davis Bacon prevailing wage requirements. It goes on to authorize the deferral of all payments, under certain conditions, until such violations have ceased. This is only for federal wage requirements and the amount "deemed necessary" must be based on the amount of the underpayment.

Application of the *Standard Specifications* – *Standard Specifications* Section 1-05.1 reads in part as follows: "If the Contractor fails to respond promptly to the requirements of the contract or orders from the Engineer: …. 2. The Contracting Agency will not be obligated to pay the Contractor, and …."

Standard Specifications Section 1-09.9 reads in part as follows: "Failure to perform any of the obligations under the contract by the Contractor may be decreed by the Contracting Agency to be adequate reason for withholding any payments until compliance is achieved."

Sounds good and we can do so, but withholding of payments owed the contractor must not be done on an arbitrary basis. Other than the previously noted exceptions, money is normally withheld because work/work methods are not in accordance with contract specifications. Also, the amount withheld must have a logical basis. We cannot penalize the contractor by withholding more than the out of compliance work is worth.

Withholding payments should not be used routinely as a tool for forcing compliance on general contract administration requirements. The State is protected against nonperformance by requiring a performance bond. In the event that lack of contract compliance puts the State at substantial risk monetarily or safety wise, it may be appropriate to inform the contractor of the compliance problem and suspend work under *Standard Specifications* Section 1-05.1 until corrections are made.

When withholding money, remember that delaying the contractor's cash flow may damage the contractor's ability to perform work. Before doing so, the State should be able to demonstrate:

- Specifically what was not in accordance with the contract and where the requirement is specified in the documents.
- That the amount withheld is commensurate with the amount of the unauthorized, uncompleted or defective work.
- That the contractor was notified in a timely manner (within eight days per prompt pay laws) and given a chance to make corrections.
- That the State has worked with the contractor to mitigate corrections to non-specification work in order to minimize the cost.

The State is required to pay the contractor in a prompt manner within 30 days after receipt of the work or after recognition of entitlement to additional compensation. The Project Engineer must keep an eye on the calendar when scheduling monthly estimate payments.

Regions are not authorized to withhold amounts that are greater than the estimated cost of the missing or incorrect portion of the work. Any such excess withholding must be approved by the State Construction Office.

Delinquent Contractor Submittals

Missing submittals is a principal source of delays in closing out the project and processing the final estimate. As the project proceeds toward completion, the Project Engineer and the Contractor should attempt to obtain all submittals as the need arises. These might include such things as materials certificates, certified payrolls, extension of time requests, or any other item or document that might delay processing the final estimate. Attention is needed to assure the receipt of these items from subcontractors as they complete their work.

Final Estimates – Regions

The final estimate for a project is processed in the same manner as a routine monthly progress estimate. The *Work Done to Date* entry on a final estimate is the physical completion date. When the Region final estimate is completed and is run in CAPS at the Region, it will not generate a warrant for the Contractor. Instead, the Region final estimate will produce several reports: a final Comparison of Quantities; the Contract

Estimate Payment Advice; the Contract Estimate Payment Total; and the Sales Tax Summary.

These reports should be carefully checked to verify the accuracy of items, quantities posted, and the costs that have accumulated through various progress estimates during the life of the contract. Where necessary, corrections can be made to the ledger and the Region final estimate rerun as many times as it takes to make it correct before proceeding with the final estimate process.

If the final estimate shows an overpayment has been made to the Contractor, the estimate should still be processed in the same manner as a normal final estimate. If this occurs, the Contract Estimate Payment Totals report will show a minus amount due the Contractor. When the State Accounting Services Office receives the accepted final estimate package, that office will request any reimbursement due from the Contractor. The Project Engineer should not request reimbursement from the Contractor.

Once the Project Engineer has validated the final estimate amounts, a copy of the Comparison of Quantities Report, the Contract Estimate Payment Advice Report, and the Contract Estimate Payment Totals Report should be forwarded to the Contractor along with the Final Contract Voucher Certification. The Project Engineer might remind the Contractor that the person signing the Final Contact Voucher Certification must be authorized to do so. Authorized signatures are submitted by the contractor at the beginning of each contract.

Once the project has been physically completed, the final estimate package described above should be submitted to the Contractor for signature as soon as is reasonably possible. The final estimate package and request for the Contractor's signature should be transmitted to the Contractor formally. The effort to prepare the final estimate package will vary in nature and magnitude, depending on the project. In some cases, this work will conflict with field work on other projects. It is expected that final estimate preparation will be scheduled and accomplished as soon as possible, but not later than six months after physical completion.

Once the signatures and all necessary documents have been obtained, the final estimate package should be assembled by the Region and, for those contracts not executed by the Region, submitted to the State Construction Office. If any needed recommendations for assessment of liquidated damages associated with contract time have not already been submitted, this submittal should include them. The State Construction Office must resolve all issues of liquidated damages before the final estimate can be accepted and submitted to the State Accounting Services Office.

Final Estimates – Contract Acceptance

The final estimate package consists of the following:

- **Project Status Report** – the Project Status Report should address:
  - Contract time and recommendations for liquidated damages related to contract time.
  - Amount of railroad flagging used if any.
  - Miscellaneous Deductions identified.
  - Explanation of any Monies Due WSDOT as indicated in the Contract Estimate Payment Totals.

  - Identification of overruns/underruns in contract quantities and a brief explanation of resolution.
  - In addition, the report should indicate whether or not all Affidavits of Wages Paid have been received for the Contractor, and all subcontractors, agents or lower-tier subcontractors. List all Contractors, subcontractors, etc. for whom an Affidavit has not been received.
- **Final Contract Voucher Certification** – DOT Form 134-146, original only.
- If an assessment of liquidated damages has been made previously, include a copy of the letter from the State Construction Engineer to the Contractor assessing these.
- If an assessment of miscellaneous damages or liquidated damages resulting from causes other than time, include copies of letters from the Region to the Contractor for assessment of these.
- **Contract Estimate Payment Totals** – RAKC300F-EA.

The final estimate package for contracts executed by the Region will be reviewed by Region Construction and the Final Contract Voucher Certificate will be signed by the Region Administrator (as Designee) accepting the contract. The date on which the Region Administrator signs the Final Contract Voucher Certificate becomes the final acceptance date for the contract. The final estimate package is then submitted to the Division of Accounting and Financial Services.

When the final estimate package is reviewed by the State Construction Office, and submitted to the State Construction Engineer for acceptance of the contract, the date on which the State Construction Engineer signs the Final Contract Voucher Certification becomes the final acceptance date for the contract. The final estimate package is then submitted to the Division of Accounting and Financial Services.

Final Estimate Claim Reservations

Should the Contractor indicate a claim reservation on the Final Contract Voucher Certification, it must be accompanied by all of the requirements of *Standard Specifications* Section 1-09.11(2) (provided these have not been met in a previous claim submittal). The Project Engineer must assure that the requirements have been met prior to submitting the final estimate package to the State Construction Office. If the claim package is incomplete, return the voucher to the Contractor with notice of the missing parts.

Unilateral Acceptance of Final Estimates

The Project Engineer cannot establish a completion date for the contract if the Contractor is unwilling or unable to submit one or more of the required documents noted in *Standard Specifications* Section 1-08.5. However, the Region can request that the State Construction Engineer accept the contract by signing the Final Contract Voucher Certification (FCVC) in spite of the missing documents.

If the Contractor has not signed the FCVC, the Region can request that the State Construction Engineer accept the contract without the Contractor's signature. The Region is responsible for notifying the Contractor before such a request is made. The State Construction Office will generate the certified letter notice mentioned in *Standard Specifications* Section 1-09.9. The date of the State Construction Engineer's signature of the FCVC becomes both the acceptance date and the completion date of the contract, both established unilaterally.

Supplemental Final Estimates

A Supplemental Final Estimate is a payment adjustment made to a contract after the Final Estimate has been processed and the project has been accepted by the State Construction Engineer. A Supplemental Final Estimate may be necessary to correct an inadvertent under payment or where a claim settlement may require additional payment be made to the Contractor. In order to complete a Supplemental Final Estimate, the Project Engineer should complete and assemble the following items, routing them through the Region to the State Construction Office for review and further processing:

1. Complete any corrections or additional postings necessary in CAPS, including any postings to change order items added to CAPS for the settlement of a claim. (Please note, where additional CAPS postings are necessary after the Physical Completion date has been established, the *"Work Done To"* date in CAPS must be entered as the Physical Completion date or prior.)
2. Complete a Pre-Estimate report including the Project Engineer's recommendation for payment.
3. Assemble the backup information supporting the necessity and substantiating the cost of the changes to be made.
4. *Send 2 and 3 above via email or campus mail to the State Construction Office.*

After review, the Pre-Estimate report will be signed by the State Construction Engineer authorizing payment to proceed.

While postings and corrections to CAPS may continue, once the Completion date has been established for a contract, CAPS will no longer allow the Project Engineer or the Region to process further payments to the Contractor. As a result, payment of the Supplemental Final Estimate will need to be completed for the Project Engineer by the WSDOT HQ Accountability and Financial Services Office/Vendor Payments & Receipts – contract payments section.

If this process requires a more timely response, the above documentation may be scanned and emailed to the State Construction Office and CAPS; and the contract payments section can be requested to print out the pre-estimate report to be taken to the State Construction Engineer for signature prior to processing the supplemental final estimate. Once the supplemental payment is completed, the signed and executed Pre-Estimate report will be returned to the Project Engineer where it can be maintained as a part of the project payment files and made a part of the Region Temporary Final Records.

The above process will also be used when there has been an inadvertent over payment to the Contractor, the Final Estimate has been processed, and the project has been accepted by the State Construction Engineer. In this case, the Project Engineer must work with the Region, the contract payments section of the WSDOT Accountability and Financial Services Office, and the State Construction Office to make the correction.

If WSDOT Accountability and Financial Services Office requires a supplemental Final Contract Voucher to reflect the new cost of the contract due to the supplemental estimate, the new voucher will not be signed by the Construction Engineer as that would reestablish the final acceptance date and restart the 30 day period to file claims

against the bond (RCW 39.08.030) and restart the 180 day period for Contractor to file suit (Section 1-09.3(11). The original acceptance dates will not change from the dates the Construction Engineer signed the original Final Contract Voucher Certificate.

SS 1-09.9(1) Retainage

Retained percentage withholding is based upon RCW 60.28, which provides that:

- A sum not to exceed 5 percent of the money earned by the Contractor on estimates for projects containing no Federal funds is to be retained by the Contracting Agency.
- The Contractor may submit a bond for all or any portion of the amount of funds retained by WSDOT.

  When a contract is awarded, the Division of Accountability and Financial Services (AFS)/Contract Administration and Payments System (CAPS) unit or the Region Plans Office sends a package of contract documents to the Contractor.

  This package of contract documents also includes the necessary instructions for the Contractor to make application for a bond to replace all or any portion of the retainage. The bond form will be processed by AFS/CAPS without involvement from Project Engineer's Office, although the payment system will not allow them to process a payment until some form of retainage is in place.

  The Contractor, at any time during the life of the contract, may make a request to the Project Engineer for the release of all or any portion of the amount of funds retained. This request does not need consent of surety since the retainage bond form, for this purpose, requires their consent. The Region must forward this request by transmittal letter to AFS/CAPS, which will furnish the appropriate bond form to the Contractor for execution. The Contractor may return the executed bond form directly to AFS/CAPS for final approval and signature by WSDOT.
- Effective June 27, 2011, for projects containing no Federal funds that include landscaping work the Contractor may request that, 30 days after completion of all contract work other than landscaping work, WSDOT release and pay in full the amount of funds retained during the life of the contract for all work except landscaping. In order to initiate this release of funds, DOT Form 421-009 should be completed by the Contractor and submitted to the Project Engineer. In signing the request, the Project Engineer will confirm that all work, except landscaping work, is in fact physically completed. For any landscaping work that may have been completed, the Project Engineer will designate the amount of landscaping moneys, if any, that have been earned to date by the contractor. In the space designated for remarks the Project Engineer will identify the landscaping or plant establishment work that remains to be completed and its approximate value. Except for landscaping work, the Project Engineer will determine if all Statements of Intent and Affidavit of Wages Paid have been received for the work that has been physically completed. The Project Engineer will transmit to the Contractor a list of all subcontractors, including UBI numbers, believed to have performed work on the project. The Contractor will verify which subcontractors did work on the project and that the UBI number listed is correct for each subcontractor. DOT Form 421-009 will not be transmitted to AFS/CAPS until the Contractor has verified the subcontractors and UBI numbers. WSDOT will continue to withhold a 5 percent retainage of any moneys earned for landscaping work that may have

been completed to date and will continue to retain 5 percent of the moneys that are to be earned for landscaping that is yet to be completed. A bond is not required.

The completed request along with the Project Engineer's cover memo confirming receipt of Statement of Intent and Affidavit of Wages Paid for the Contractor, subcontractor, and any lower-tier subcontractors, who were involved in the completed work, is then forwarded to the State Construction Office, through the Region Construction Office, for approval. Once approved, the Construction office will submit the request to AFS/CAPS for further processing. If there are no claims against the retainage still in place and releases have been received from Revenue and Employment Security within the designated 60 day period, AFS/CAPS will release the appropriate portion of retainage to the Contractor.

SS 1-09.10 Payment for Surplus Processed Materials

When excess aggregate is produced by the Contractor from a WSDOT furnished source, the Contractor will be reimbursed actual production costs if the excess materials meet the requirements of *Standard Specifications* Section 1-09.10. If more than one type of aggregate is involved, the provisions of *Standard Specifications* Section 1-09.10 apply to each type.

If WSDOT has a need for the excess aggregate for either maintenance or future construction contracts, the material may be purchased into the appropriate inventory account. The Project Engineer should contact Region Maintenance and Accounting for guidance. If aggregates are to be disposed of as surplus, the Project Engineer should contact the State Administrative Services Office, Purchasing and Inventory Section, for additional assistance.

SS 1-09.11 Disputes and Claims

Claims By the Contractor

When a protest occurs during a contract, the Contractor shall pursue resolution through the Project Engineer as outlined in *Standard Specifications* Section 1-04.5. The Specification contains specific requirements which, if not followed, may result in a waiver of the Contractor's claim. The Project Engineer should monitor whether the Contractor is meeting these requirements. If all of the requirements have been met, the Project Engineer shall evaluate the merits of the protest and take whatever appropriate action is needed to resolve the issue. If it appears that the Contractor has failed to meet any of the requirements set forth in *Standard Specifications* Section 1-04.5, the Project Engineer should advise the State Construction Office and request guidance. Pending such guidance, the Project Engineer may continue to discuss the protest with the Contractor with the qualification that no final evaluation of the protest will be made until permission is received from the State Construction Office.

Claims

If the Contractor has pursued and exhausted all the means provided in *Standard Specifications* Section 1-04.5 to resolve a dispute, the Contractor may file a formal claim. A formal claim, filed in accordance with *Standard Specifications* Section 1-09.11(2), is a much more structured device and demands a high level of conformance with the contract requirements. The objective is to utilize the rights

that WSDOT has under the contract to identify the issues, obtain a sufficient level of information from the Contractor and limit the discussion to a defined subject matter. To accomplish this, and to maintain the Department's rights in a situation that may lead to court action and expensive lawsuits, the Project Engineer must insist on rigid conformance with the requirements of the provision. In fact, the first evaluation must not be of the claim's merit, but rather of the claim's structure and content. If the package fails the specification requirements in any way, it should be returned to the Contractor immediately with a written explanation. Conversely, if the package meets the contract requirements, then the Project Engineer must comply with the demands for WSDOT actions that are included in the same specification.

The existence of a formal claim does not diminish the responsibility of the Project Engineer to pursue resolution. The only difference is that State Construction Office final approval of a proposed settlement is required. The change order settling a formal claim must include waiver language similar to the following:

> "The Contractor, (company name), by the signing of this change order agrees and certifies that:
>
> Upon payment of this change order in the amount of $_____, any and all claims set forth in the letter(s) to the Department of Transportation, dated _____ and signed by _____ of (company name) in the approximate amount of $_____, have been satisfied in full and the State of Washington is released and discharged from any such claims or extra compensation."

If the settlement is intended to close out all dispute discussions for the contract, use language similar to:

> "The Contractor, (company name), by the signing of this change order agrees and certifies that:
>
> Upon payment of this change order in the amount of $_____, any and all claims in any manner arising out of, or pertaining to, Contract No. _____, (including but not limited to those certain claims set forth in the letter(s) to the Department of
>
> Transportation, dated _____and signed by _____ of (company name) in the approximate amount of $_____, have been satisfied in full and the State of Washington is released and discharged from any such claims or extra compensation in any manner arising out of Contract No. _____."

Legal Filing

Once the Contractor has submitted a formal claim in acceptable form and the State has either denied the claim or failed to respond in the time allowed, the Contractor is free to seek judicial action by filing a lawsuit or, in some cases, demanding binding arbitration. Note that the Contractor must fully comply with the provisions of *Standard Specifications* Section 1-09.11 before it can seek judicial relief. Once any legal action has been started, the Project Engineer may only continue with settlement efforts if the Attorney General's office has given specific permission to do so. Such permission may be sought through the State Construction Office. Settlements of claims which have resulted in a judicial filing need review and approval by the Attorney General's office and different waiver language similar to the following:

"The Contractor, (company name), by the signing of this change order agrees and certifies that:

Upon payment of this change order in the amount of $_____, any and all claims in any manner arising out of, or pertaining to, Contract No. _____, (including but not limited to those certain claims set forth in the complaint filed under Thurston County Cause No._____ (Contractor's name) vs. State of Washington), have been satisfied in full and the State of Washington is released and discharged from any such claims or extra compensation in any manner arising out of Contract No. _____."

Final Contract Voucher Certification

In some cases, of course, the Contractor will not have been so cooperative as to participate in resolution efforts. After a protest has been disallowed, there may have been no formal claim filed and the Project Engineer really doesn't know if there is a continuing problem. The way to resolve this after the project is physically complete is to assemble the final estimate and send it to the Contractor with a Final Contract Voucher Certification (FCVC). The FCVC is the Contractor's last chance to formally file a claim. If there is no exception above the Contractor's signature on the FCVC, there is no claim. The contract will be over as soon as the State Construction Engineer accepts it. If the Contractor does not return the FCVC in a reasonable time, WSDOT may unilaterally set the completion date and process the final estimate without the Contractor's signature. Proposals to unilaterally accept a contract should be discussed with Region managers before any action is initiated.

SS 1-09.12 Audits

The Project Engineer is responsible for preparing all necessary records in order to document the work performed on the contract. Detailed instructions on the records required and methods of preparing them are covered in Chapter 10.

Construction Quality Audits

Construction Quality Audits will be performed by the Construction Division - State Materials Laboratory to document conformance of project records to DBE compliance, construction administration and materials certification standards.

The construction quality audit consists of documentation review and may include a field review. The documentation review will normally be conducted at the Project Engineer office unless arrangements are made for it to be conducted elsewhere.

The goal is to perform a construction quality audit on at least one project per Project Engineer office every three years. Construction quality audits may be conducted more frequently at the discretion of the Construction Division. Projects will be selected with consideration given to project size and complexity.

Audits will be performed during the active life of the project; generally, 20 percent to 80 percent complete. Construction quality audits are performed to validate the performance level achieved in adhering to construction inspection, contract administration and materials documentation standards; as well as contract compliance.

Records reviewed will include those maintained and developed by the Project Engineer for DBE compliance, inspection requirements, approval, acceptance and field verification of materials placed and paid for on the contract.

Upon completion of the audit, the findings will be discussed with the Project Engineer and/or their representative. A copy of the final report will be sent to the Region Documentation Engineer, Region Construction Engineer, State Construction Office, and the FHWA Division Office.

The Project Engineer will address any deficiencies found by the audit with the Assistant State Construction Engineer assigned to the Region, documenting the correction, deviation or change that resolved the deficiency. Deficiencies not rectified or meeting the requirements of Section 9-1.2F shall be noted during the Materials Certification. The Project Engineer is responsible developing and implementing a corrective action plan for ensuring that repeated deficiencies are avoided on future audits.

All contract documentation shall be available for review by the Audit Team. The following items of documentation will be requested by the Audit Team:

1. Request to Sublet Work Form 421-012
2. DOT Form 420-004
3. DBE On-Site Review Form 272-052
4. Record of Materials, as revised and amended by the Project Engineer office (see Section 9-1.2C)
5. Approval Documents
   a. Request for Approval of Material (see Section 9-1.3B)
   b. *Qualified Products List* pages (see Section 9-1.3A)
6. Acceptance Documents
   a. Test Results
      - Acceptance Test Reports
      - Assurance Test Reports (where applicable)
      - Independent Assurance Test Reports (where applicable)
      - Verification Test Reports (Cement and Liquid Asphalt)
   b. Manufacturer's Certificate of Compliance (see Section 9-1.4D)
   c. Miscellaneous Certificates of Compliance (see Section 9-1.4E)
      - Lumber Grading Certificate
      - Certification of Cement Shipment
      - Notice of Asphalt Shipment or Certified Bill of Lading
      - Any other certificates required by the contract documents
   d. WSDOT Fabrications Inspected Items (see Section 9-1.4B)
   e. Concrete Pipe Acceptance Report (see Section 9-1.4B(3))
   f. Catalog Cuts (see Section 9-1.4G)

g. Proprietary or Agency Supplied Items (see Sections 9-1.3B(1)(IV) and 9-1.3B(1)(V))

h. Visual Acceptance Items (see Section 9-1.4C)

i. Reduced Acceptance Criteria Checklist (see Section 9-1.1)

7. Field Verification Documentation (see Section 9-1.5)

   a. Inspectors Daily Reports

   b. Field Note Records

8. Inspectors Daily Reports

9. Field Note Records

10. Comparison/Summary of Quantities

11. List of Change Orders

12. Project Engineer office Signature/Initial List

1-10 Temporary Traffic Control

SS 1-10.1 General

Work Zone Traffic Control

The primary function of work zone traffic control is to move vehicles and pedestrians safely through or around work zones while protecting on-site workers and accommodating the contractor's construction operations.

All work is to be performed by the contractor under the contractor's control and supervision. All resources are to be provided by the contractor unless the Special Provisions of the contract specifically states that the department will provide some resource(s), what those resources will be and how they are to be utilized. Such provided resources will be placed in the contractor's control to be used in the contractor's operation. Any additional resources provided to the contractor during the project should be accompanied by a change order to the contract and, where appropriate, a price reduction.

The "General" requirements for traffic control (*Standard Specifications* Section 1-10.1) address the responsibility to provide adequate traffic control measures at work zones as follows:

- No work shall be done until all necessary signs and traffic control devices are in place and/or conflicting and confusing signs are covered.
- If the Contractor does not provide necessary traffic control, WSDOT may do it and deduct the cost from the Contractor's payments.
- The Contractor is responsible regardless of whether or not WSDOT orders, furnishes, or pays for necessary traffic control.

It is important for the Project Engineer to ensure that the Contractor has an approved traffic control plan in place and implemented providing all necessary signs and other traffic control devices so that the traveling public is aware of all deviations from the normal traffic conditions and is furnished adequate direction and guidance to permit safe travel through the construction area.

Washington State Patrol (WSP) Traffic Control Assistance

Washington State Patrol (WSP) troopers may fulfill two roles on a construction project. In the first case, troopers may be dispatched to participate in the Contractor's traffic control activity, perhaps as Flaggers, or to perform rolling slowdowns. The WSP role will be defined in the contract provisions.

WSDOT has an agreement, GC5080, with the Washington State Patrol (WSP) for that agency to provide troopers and vehicles to help with traffic control on construction projects. WSP traffic control assistance is considered an enhancement to the required work zone traffic control and should be reserved for those work zones that have unusual hazards or a high degree of worker exposure to traffic, which cannot be addressed by traditional traffic control means.

The Project Engineer should ensure that good communication is maintained with WSP troopers assigned to the project and that the appropriate traffic control strategy is applied. On each shift of WSP traffic control assistance, DOT Form 421-045, WSP Field Check List, shall be filled out. WSDOT will fill out the top portion of the form and give it to the WSP trooper on the project to complete. At the end of the officer's shift, the completed form shall be returned to WSDOT.

The Contractor shall direct the activities of the WSP troopers assigned as a labor resource provided by the State. Instructions for WSP assistance are in *Traffic Manual* M 51-02 Appendix 5A.

The second case of WSP involvement is in the area of enforcement. In this case, the troopers are not considered to be a State-provided resource and do not participate in the Contractor's traffic control work. When this situation occurs, WSP is present (at WSDOT expense) to provide enhanced, increased and visible enforcement of all traffic regulations, including those installed by the Contractor in the course of the work.

Enforcement officers are simply doing more of what they usually do. Their presence or lack of presence is due to administrative decisions by the department and WSP that are completely independent of the contract. They are not to be considered a provided resource, there shall be no entitlement to their services and neither the Contractor nor the Project Engineer shall direct their activities.

As stated above, a mid-project decision to provide troopers would be a change order. To be fair to unsuccessful bidders, such a change would need a price adjustment if nothing else had changed.

Records of Construction Signing, Collisions, and Surveillance

Due to the increased damages being awarded by the courts for improper signing, it has become more important that detailed records of signing and delineation be continuously maintained on every project on sections of highway within the construction limits under traffic. The following are recommended procedures and methods of recording the signing on the project:

- Use extensive photographic, digital or videotape records.
- The Contractor's signing must adhere to the TCP, and the records must confirm that the sign installation is checked against that plan. The Regional Traffic Engineer should only be involved in significant changes to TCPs and need not be involved in minor adjustments.

- Documentation of the Contractor's activity for traffic control, including signing, should be completed by the Contractor's Traffic Control Supervisor (TCS). In accordance with the *Standard Specifications*, the TCS must maintain a daily project traffic control diary. DOT Form 421-040A Contractor's Daily Report of Traffic Control – Summary, and 421-040B Contractor's Daily Report of Traffic Control – Traffic Control Log, are provided to the Contractor for this purpose.

  The Summary report will typically contain a brief description of the daily activities of the TCS with expanded details of any important happening such as traffic collisions, meetings, decisions, or rapidly deteriorating conditions of traffic or weather. The Summary report is usually sufficient to verify the location and status of Class A signs once they are installed.
- The Traffic Control Log report is used to specifically identify all details of each Class B work zone setup. This includes identification of specific signs used, location of the signs, location of flaggers, location of the work zone, the time it was set up, and the time it was removed. Additional information includes cone layout, if used, comments about piloted traffic, and comments about the relationship of the setup to an approved traffic control plan.

The Project Engineer should make an effort to become aware of any traffic collisions that occurs within the project area. Thorough records should be maintained about the collision, including site conditions and the status of signing and other traffic control measures. When an incident is investigated by the WSP, do not move signs until released to do so by the trooper. When inspections are made of the work zone, either by project or region personnel, the documentation of these inspections should be maintained in the project files along with responses to any action items that resulted from the inspection.

Work Zone Safety and Mobility

In keeping with the above recommendations, the Project Engineer should utilize the information obtained from traffic control reports, collision reports, and other field observation in order to better manage Work Zone impacts. This will allow the Project Engineer to implement any necessary changes to traffic control in order to increase safety and to enhance mobility through the work zone.

At the completion of each project, the Project Engineer should review the traffic control used on the project in order to identify trends, etc. that may be used to improve Work Zone practices or strategies. This information should be summarized and provided to the Region Traffic Office for inclusion in annual reports.

SS 1-10.2 Traffic Control Management

Standard Specifications Section 1-10.2 addresses the requirements and duties of the Contractor's management personnel responsible for traffic and the Traffic Control Supervisor (TCS). The Contractor has the responsibility for managing traffic control and providing safe traffic control measures that are appropriate for the type of work and consistent with the requirements of the contract plans and specifications. The Contractor's traffic control work is a contract activity. Just like other contract activities, it is associated with pay items. The activity must be inspected for adequacy and conformance with the contract. Once it is performed and inspected, associated

contract items must be measured and paid. Traffic management actions affect not only the Contractor's work operations, but also those of subcontractors. The process for coordinating and approving those actions must be well defined and consistent with the contract requirements.

Contractor management and the TCS work together with the Project Engineer and WSDOT's traffic control contact person to address traffic control issues as the work progresses. Planning and coordination of the Contractor's work efforts with appropriate traffic control measures are the primary responsibilities of contractor management. It is also the responsibility of management to ensure that any adopted State-provided or approved Contractor-proposed Traffic Control Plans (TCPs) needed to implement the contract work operations are provided to the TCS and that any necessary resources to implement the TCP are available.

SS 1-10.2(1) General

SS 1-10.2(1)B Traffic Control Supervisor

The TCS ensures that the traffic control measures shown on the approved traffic control plans (TCPs) are properly implemented, operating, and documented on the project. The Contractor's TCS may not be required full time on the project, but is required to perform all the duties required by the specifications. When the Contractor is working multiple shifts, it may be necessary to have more than one person assigned to the role.

In addition to the Contractor's responsibility to designate a Traffic Control Supervisor, WSDOT may designate a DOT employee who is qualified, but not necessarily certified, to serve as the State's traffic control contact. It is intended to have qualified, trained representatives from both the Contractor and WSDOT work together to achieve safe traffic control operations on the project.

Among the duties of the Project Engineer in the area of Traffic Control are the following:

- **Communication** – About the planned work, traffic control needed and adjustments to the approved Traffic Control Plan. During the work, to stay aware of changes, events and issues.
- **Monitoring** – The activities of the Contractor TCS and traffic control workers. The status of signs and control devices. Conformance with specifications and requirements.
- **Documentation** – Obtaining and reviewing daily reports. Handling Traffic Control Plans and their approvals.
- **Coordination** – With adjacent projects, with DOT Traffic offices, notices to the media.

The Project Engineer may assign these duties in any manner. It would make sense to include the State's traffic representative in these activities.

When reference is made to the Traffic Control Supervisor (TCS) in these provisions or in the *Standard Specifications*, it shall mean the Contractor's Traffic Control Supervisor unless stated otherwise.

SS 1-10.2(2) Traffic Control Plans

Standard Specifications Section 1-10.2(2) addresses the requirements of Traffic Control Plans (TCPs). The Contractor must either adopt the TCPs appearing in the contract or propose modified TCPs to be used for the project. The Contractor must submit proposed modifications to plan TCPs or alternate plans at least ten calendar days in advance of the time the traffic control will be required. Approval of these plans must be obtained before the work can begin.

The possibility of alternate plans is covered by the contract. No change order will be needed because of that reason. However, if a price adjustment is needed then a change order will be necessary to accomplish that. We would allow additional payment, either through added units or revised lump sums, only if the original contract TCP was shown to be inadequate or in the case of traffic control needed for another change in the work. If the proposal is only for contractor convenience or preference, then a discussion of no pay for added traffic control or a credit for less traffic control would be appropriate. If the contractor should balk at this, the response could be "build according to plan."

Minor modifications to the TCP may be made by the Traffic Control Supervisor to accommodate site conditions. Modifications or adjustments to the plan must maintain the original intent of the plan. When there is a change in the intent and/or substantial revisions are needed, a revised TCP shall be submitted for approval through the TCM to the Project Engineer. The Regional Traffic Office should be consulted when this situation occurs. Again, changes may call for a formal change order.

Traffic Control Plans should not only address all work zones and standard devices and signs but should also address issues such as:

- Conflicting or temporary pavement markings.
- Maintaining existing operational signs and covering conflicting signs.
- Staging requirements.
- Temporary vertical or lateral clearance restrictions.
- Temporary work zone illumination.
- Consistency with any existing work hour restrictions.
- Position of positive barriers for traffic hazards or worker protection.
- Vertical drop-offs.
- Work zone access.
- Intersection or access control (traffic signals, road approaches).
- Pedestrians and bicycles.
- Work zone capacity and related mobility impacts.

If the Contractor's method of operation or the work area conditions require other than minor modification of the specific TCP appearing in the contract or any of the TCP's previously designated and adopted by the Contractor, the Contractor shall submit a proposed modification of the TCP for approval. If the Contractor's proposed modifications comply with the MUTCD requirements and are consistent with contract requirements as well as State and Region policy, the Project Engineer may approve these proposed modifications (perhaps utilizing a change order, if appropriate.) If the Contractor's proposed modifications do not comply with the MUTCD requirements, the Project Engineer should consult with the Region Traffic Engineer.

Any Contractor proposed TCP or modifications to an existing TCP should be evaluated for their effects on work zone safety and mobility. The Project Engineer should refer to the guidance in the *Design Manual* M 22-01 Chapter 1010 when evaluating how the new TCP works within the projects overall Transportation Management Plan (TMP).

On heavily used freight routes (I-5, I-205, I-405, I-90, I-82, I-182, SR 18, SR 167, and US 395-Tri-cities to Spokane), the contract may require that the Contractor provide the Engineer 30 calendar days of notice before implementing a TCP that reduces the travelled way to a single lane with a clear width of less than 16 feet for more than 4 calendar days. The request from the Contractor will include a schedule showing the dates of the width reduction, details of the limits and amount of the width reduction, description of available detour routes and a plan to provide unrestricted travel windows through the work zone when possible. The Engineer must provide 21 days of advance notice to Commercial Vehicle Services (CVS) at CVSPermits@wsdot.wa.gov. The Engineer should provide details of the width reduction to CVS and provide updates if there are any changes or adjustments in the schedule for the width reduction.

If there is any doubt that the proposed TCP complies with the MUTCD or provides for the safe movement of traffic, the Project Engineer shall consult with the Region Traffic Engineer or the Region Construction Manager.

SS 1-10.2(3) Conformance to Established Standards

Standard Specifications Section 1-10.2(3) addresses the requirements for standards and condition of signs and all other traffic control devices. In addition to standards established in the latest adopted edition of the MUTCD and/or as specified in the contract plans, all traffic control devices shall meet the crashworthiness standards of the "National Cooperative Highway Research Project, 350" (NCHRP 350) or the AASHTO Manual for Assessing Safety Hardware (MASH). There are four categories of traffic control devices. Category 1 devices consist of small lightweight devices that generally do not present a hazard. Typical Category 1 devices are cones, tubular markers, and plastic drums with no attachments. The Contractor is required to keep the manufacturer's certification document on file and available for inspection if needed. Inspection of certification documents by WSDOT is not routinely required but should be considered if operational or safety issues are observed.

Category 2 contains devices that are more hazardous due to their rigid construction, such as barricades, portable sign stands, and drums with lights. The collision test certification rules apply to all Category 2 devices. The Inspector should verify, and document, that all portable sign stands have an identifying label affixed. The label will display the FHWA approval letter designation and will appear similar to the image below.

Category 3 devices are fixed or substantial in mass and could cause significant damage to a vehicle or its occupants. Devices such as barriers, fixed sign supports, and TMAs are included in this category. WSDOT maintains a list of approved devices in this category on the QPL. Barrier is to be included in the contract plans to ensure that it meets WSDOT design standards.

Category 4 devices are typically trailer or truck mounted devices such as arrow boards, PCMS, portable signals, and portable lighting units. Crash testing is not required for these devices but care must be given to their placement to ensure that they do not pose an undue hazard to drivers, and that they meet the requirements of Section SS 1-10.3(3).

Resources for Traffic Control and Work Zone Safety

The following information may provide additional guidance and more specific detail. Also, this list includes the staff, reference documents, and manuals mentioned throughout Section SS 1-10.2(3).

- *Work Zone Traffic Control Guidelines* M 54-44
- *Traffic Manual* M 51-02 Chapter 5
- MUTCD Part VI
- Work Zone Safety Task Force Recommendations
- Quality Guidelines for Temporary Traffic Control Devices (ATSSA)
- Work Zone Traffic Control Supervisor's Notebook
- Highway Work Zone Reviews, 1997 (Work Zone Safety Task Force)
- Planning and Scheduling Work Zone Traffic Control (FHWA-IP-81-6)
- Executive Order E 1060 *Speed Limit Reductions in Work Zones*
- *Traffic Manual* M 51-02 Appendix 5A Work Zone Traffic Control
- Traffic Control Supervisor Evaluation – Final Report
- Region Construction or Traffic Office (Traffic Engineer or Work Zone Traffic Control Specialist) and Public Information Officer
- State Traffic Office (Mobility and Safety Manager or the State Traffic Control Engineer)

SS 1-10.3 Traffic Control Labor, Procedures, and Devices

SS 1-10.3(1) Traffic Control Labor

All traffic control labor must be trained to ensure safety in the work zone. Flaggers have additional requirements concerning flagging cards and apparel.

All flaggers working on WSDOT construction projects must have a valid State of Washington flagging card or a flagging card issued by the states of Oregon, Montana, or Idaho. Flaggers and all other personnel performing the Work described in *Standard Specifications* Section 1-10, are required to wear high visibility apparel as specified in *Standard Specifications* Section 1-07.8. Other workers may certainly use this type of clothing, but doing so is not a contract requirement, unless they are performing work on foot within the work zone of a Federal-Aid highway.

SS 1-10.3(1)A Flaggers and Spotters

Typically, flaggers have the highest exposure to traffic hazards and are more frequently injured or killed than other workers. Flaggers should only be used when all other forms of traffic control are inadequate to control traffic. When flaggers are used, flagging stations must be shown on the TCP along with the required illumination, warning signs and devices. Flagger stations should be protected with a positive barrier, if possible. The flagger must also have in mind an "escape plan" to avoid errant vehicles. It is not allowed to use flaggers at locations, such as freeways, where their primary function of warning or directing traffic is ineffective or not intended. Use of flaggers to exclusively display the "SLOW" message is also not recommended and is, in fact, not required by the contract. The provisions call for a flagger with intermittent responsibilities to direct traffic to step back from the flagging station between tasks. Additional guidance on the use of flaggers is located in the *Traffic Manual* M 51-02 and the *Work Zone Traffic Control Guidelines* M 54-44.

SS 1-10.3(1)B Other Traffic Control Labor

For some projects, labor in addition to the assigned Flaggers is needed for a variety of traffic-related tasks. Some of these tasks are listed in the provisions. Hours for this item are measured only for work on certain defined tasks (see *Standard Specifications* Section 1-10.4(2)).

SS 1-10.3(2) Traffic Control Procedures

SS 1-10.3(2)A One-Way Traffic Control

The major points to note in *Standard Specifications* Section 1-10.3(2)A are:

- The provision does not limit one-way traffic control to treated bases, surface treatments, and pavements. This type of configuration can be used in other operations, such as grading, when appropriate.
- Line of sight is important in coordination of side roads and approaches with the limits of the one-way operation.
- When the contract does not stipulate a pilot car operation (i.e., bid proposal does not include such an item), a new item can be established by change order if the Engineer deems that method of traffic control to be most appropriate; and
  - Contractor vehicles and equipment may utilize the closed lane in any manner. The one-way controlled open lane is for public traffic and, should the contractor use that lane, all rules and procedures applicable to public traffic will apply to the contractor. There will be no "wrong-way" travel in the open lane, no heavy equipment will join the public traffic and any additional traffic control will be performed according to approved plans only.
  - The contractor is required to plan and conduct operations so that the roadway can be reopened to two-way traffic at the end of the shift. If the nature of the work prevents this or if the work area is left in a condition unsafe for public two-way traffic, then the contractor must continue the one-way operation throughout the off-shift hours.

SS 1-10.3(2)B Rolling Slowdown

This can be a useful method of creating gaps in traffic for specific, very short-term non-repetitive activities such as sign bridge removal or utility wire crossing. Rolling slowdown traffic control operations are not to be used for routine work that can be addressed by standard lane or shoulder closure traffic control. The Contractor may implement a rolling slowdown on a multilane roadway, as part of an approved traffic control plan per *Standard Specifications* Section 1-10.3(2)B. The key is planning and communication. If all goes well, the gap will arrive at the site and be of long enough duration that the activity can be completed. If this breaks down, the contractor must undertake the most expeditious method of restoring the open roadway. If demobilizing and pulling off is faster than finishing the task, then demobilizing is the path that will be followed, without regard to cost, efficiency, or schedule.

SS 1-10.3(2)C Lane Closure Setup/Takedown

The use of truck-mounted attenuators (TMA) with arrow boards is required by the provisions. This combination is to be used during the transition from open lane to closed lane. Once a lane is closed, the TMA may be removed, leaving the arrow board alone.

SS 1-10.3(2)D Mobile Operations

The key to this operation is to keep the traffic control equipment effectively close to the work and moving to match the work operation. Two traffic protection devices are used. One is a TMA/Arrow Board combination upstream of the work. The primary purpose of this device is to protect the errant vehicle from fixed object collisions. The second device (preferably a TMA) is immediately adjacent to the work area. Its purpose is to protect the workers from the errant vehicle.

SS 1-10.3(2)E Patrol and Maintain Traffic Control Measures

This activity is to observe, repair and maintain traffic control devices and layout. The provisions require an hourly visit to each device and layout. Depending on the extent of the control measures, more than one patroller may be required.

SS 1-10.3(3) Traffic Control Devices

SS 1-10.3(3)A Construction Signs

The standard of these provisions is that the contractor provides all signs, posts and supports. If the special provisions do not promise that some or all of these will be furnished by the State, then the contract requires the contractor to do it all. All signs shall be constructed from either aluminum or aluminum composite materials.

“Do Not Pass” and “Pass With Care” signs are the responsibility of the Contractor. The provisions explain how to determine the number of these and that determination is to be made by the Contractor as well.

Construction Signs (*Standard Specifications* Section 1-10.3(3)) divides construction signs into two categories, Class A and Class B, and lists the work required for the Contractor.

At no time should signs be left in traffic control position during periods when they are not necessary to traffic safety. Indiscriminate use of traffic control signs soon destroys public confidence and respect for the signs. Unnecessary traffic restriction and inconvenience tends to reduce the effectiveness of all signing and causes difficulty in enforcement by authorities. The Project Engineer should ensure that signs are removed or completely covered per *Standard Specifications* Section 8-21.3(3) during the hours they are not needed, either before or after working hours and on nonworking holidays or nonworking weekends. Tripod-mounted signs in place more than 3-days in any one location, unless approved by the Project Engineer, shall be required to be post mounted to improve visibility, and to keep useable shoulders clear.

Signing for nighttime traffic is more difficult than that required for daylight hours. A review of the project signing should be made and recorded during the hours of darkness.

Signs and other traffic control devices should be shown on the traffic control plan (either State-provided or contractor-submitted) approved and in use and should be installed with adjustments for work zone and traffic conditions. The Contractor and WSDOT should ensure proper use and placement of signs and devices. For situations not addressed by the TCPs, the Project Engineer will determine who is responsible for preparing a revised TCP. Refer to the Work Zone Traffic Control Guidelines Book, MUTCD, or seek assistance from the Region Traffic Engineer for appropriate TCP revisions. A modified or new TCP may be needed if adjustments to signs and devices do not adequately address existing hazards or resolve observed traffic problems or accidents.

Judgment will be required when a traffic control plan is changed. The project engineer must determine if the change has arisen because of a flaw in the original plans or because of the contractor's activities or preferences. In the first case, a change order, perhaps with compensation, may well be needed.

The remaining devices listed in the provisions are the following:

- Sequential Arrow Signs
- Portable Changeable Message Sign
- Barricades
- Traffic Safety Drums
- Traffic Cones
- Tubular Markers
- Warning Lights and Flashers
- Truck-Mounted Attenuator
- Tall Channelization Devices
- Portable Temporary Traffic Control Signal

The specifications for these devices should be sufficient to explain their use and requirements.

SS 1-10.4 Measurement

Measurement is the key element of the new provisions, which now contain lump sum bid items. The provisions will define one of several pay item strategies, which will determine the measurements to be made.

First, the "normal" project with these provisions will contain items. The items are different from previous contracts and are non-standard, although several have very similar item names. Each of these is described below.

Instead of items, the project may be designated as a "Total Project Lump Sum." This will be the case if the item "Project Temporary Traffic Control, Lump Sum" is included in the proposal. If this is the strategy of the project, then all measurement and payment provisions for all other pay items are deleted from the contract. When this occurs, then all temporary traffic control costs of whatever nature (everything defined in Section 1-10) are included in the lump sum.

The project may be a lump sum hybrid. In this case, the Total Project Lump Sum item will be present, but the provisions will reinstate one or more of the deleted standard items. If that happens, the measurement and payment of the reinstated item(s) will be separate from and not included in the lump sum.

These are the items and a discussion of the features of the measurement spec for each:

- **Traffic Control Supervisor (Lump Sum)** – Previously paid by the hour, this item is now a fixed cost. Overtime is not considered, a second TCS for a night shift makes no difference. This lump sum status will likely cause TCS to become a part of change order negotiations. If the change does, in fact, require additional TCS work, then there would be entitlement. This will also apply to extended contract duration, as the TCS can be considered part of on-site overhead.
- **Flaggers (Per Hour)** – This contract activity is separated from other kinds of traffic control labor. It is measured according to the hours that an approved flagging station is manned. We will not count minutes and seconds; time will be rounded up to the half hour as specified in *Standard Specifications* Section 1-09.1. If a station is manned, but full-time presence of the flagger is not necessary (trucks entering roadway, equipment crossing) then the flagger is expected to step back out of harm's way until the next event. No deduction will be made for this stepping back, provided the flagger cannot be assigned to other duties while waiting. In measuring flagging, disregard overtime, split shifts, union rules for show-up time, the trade classification of the flagger and any other payroll issues. The flagging is a service that is provided and paid by the hour. It is only peripherally related to the flagger's paycheck.
- **Other Traffic Control Labor (Per Hour)** – There are other duties for traffic control labor besides flagging and spotting. Some of them are included in this item for separate measurement. If one of the activities listed in the provision is provided, then measurement of that activity is appropriate. Only the hours that the activity is performed will be measured. Again, this is not a payroll measurement.

  Note the limit under patrolling and maintaining. No matter how many people are involved in this activity, measure only one hour for each hour that each approved route is operated.

Another little feature shows up under the last bullet (Installing and removing devices). Time spent ahead of the setup marking layout points on the shoulder or getting signs ready in the yard will be measured under this item.

Do not succumb to pressures to add other hours to this item. As the payment spec for "Other Temporary Traffic Control" states, all costs not compensated by other items are covered there.

Construction Signs, Class A (per sq ft) to qualify for payment under this item, the sign must be designated as Class A on an approved TCP or be directed installed by the Engineer and designated as Class A at the time of direction. After-the-fact re-designations of signs that have been originally thought to be Class B should not be considered.

- **Other Unit Price Items** – The traffic control provisions limit unit items to major devices. These include Sequential Arrows, Changeable Message Signs, Portable Signal and Transportable Attenuators. The measurement and payment requirements for these are similar or identical to those which have been in use for some time and are relatively straightforward.

One point to make is with the force account item for Repair Transportable Attenuator. Because this is a temporary installation and not a part of the permanent work, the Third Party Damage item does not apply and that is why a separate force account is established. If the damage was caused by a third party, the department may well be able to recover the costs paid to the Contractor under this item. The Project Engineer should take steps to protect the department's interest and involve the Maintenance, Accounting and Risk Management offices to initiate the efforts to recover costs.

SS 1-10.5 Payment

The payment provisions of the new specifications are intended to provide a mechanism that accounts for all of the Contractor's costs for temporary traffic control. The total project lump sum item is self-explanatory. There is no additional payment unless there is a change order.

If the job contains items, the pay definition for each describes the limited portion of the Contractor's costs that are covered by each item. The summary lump sum item (Other Temporary Traffic Control) is written to be a catchall cleanup that lets nothing escape for "additional compensation" discussions.

Watch out for change orders. A principal concern over lump sum items is that work will be added that is not required by the original contract and no mechanism exists to increase traffic control payment. This can be straightforward in identified changes, merely becoming an additional aspect of the negotiation. More troubling are constructive changes, which are not written, but which do end up in negotiation. An "overrun" of asphalt pavement to add a few driveways may be a convenient way to do field decisions, but may also create a dispute over the related traffic control costs (not to mention the dispute about the changed nature of the paving.).