Control of Materials *(Standard Specifications Section1-06.1)*

Prior to use, the contractor shall notify the engineer of all proposed materials. The contractor shall use either the Qualified Product List or the Request for Approval of Material (WSDOT Form 350-071) or agency equivalent.

All material incorporated into the permanent work:
- Shall be new, unless the special provisions permit otherwise.
- Shall meet the requirements of the contract and be approved by the engineer.
- May be inspected or tested at any time during their preparation and use.
- Shall not be used in the work if they become unfit after being previously approved.

**Agency’s Responsibilities**

Your agency is responsible for:
- Reviewing and approving all materials used on the project.
- Compiling a documentation package that tells what was used, how much was used, where it came from, where it was used, and whether or not it met specifications.
- Tracking all material documentation so it can be retrieved at a later date.

**Record of Materials (ROM)**

The ROM is a list of all materials to be used on your project. It is contract specific and based on the WSDOT *Construction Manual* Chapter 9 requirements, your contract documents, and the *Standard Specifications*. You can alter a WSDOT generated ROM to reflect the list of changes allowed by WSDOT *Local Agency Guidelines* Appendix 52.108.

The inspector should be:
- Familiar with the “Record of Materials.”
- Make sure an approved Request for Approval of Material or QPL is on file prior to using a material.
- Understand the difference between material **Approval** and material **Acceptance**.

**Material Approval** – The process that determines the material submitted is appropriate for the intended use.

**Material Acceptance** – The process that you apply to prove the material meets specifications.
**Material Tracking** (A.K.A. “Maintained” ROM) – A material tracking process is **required** for all projects. You can supply updated copies to the inspectors and contractor on a monthly or weekly basis. They can use it to tell immediately that the material for the order of work the contractor plans on doing is pre-approved or needs to be submitted.

Use the ROM for an easy way to track materials. The ROM shall be updated to reflect items added or deleted by change order.

Record of Materials is a tool prepared by WSDOT’s Headquarters Materials Lab or your office. It may be downloaded electronically, printed and filled out with a pen, or filled out electronically in a spreadsheet to keep track of what submittals, certifications, test reports, etc., have been received, approved, rejected, or accepted.

Each inspector should be familiar with the requirements listed on the ROM. We recommend it be shared regularly with the contractor.

A check for a maintained Record of Material or Working ROM will be part of the Documentation and Project Management Reviews.

A useful website to bookmark is [www.wsdot.wa.gov/business/materialslab](http://www.wsdot.wa.gov/business/materialslab).

**Material Approval – QPL**

**Using the Qualified Products List (QPL) for Material Approval** *(Construction Manual Section 9-1.3A)*

Approval is the process that determines the material submitted is appropriate for the intended use.

The QPL is one way for the contractor to request material approval. It is a listing of manufactured products available that have been evaluated and determined suitable for use in highway construction. Each item in the QPL is qualified and listed under the specification for which it may be used. Use for other purposes is not acceptable.

**What’s Really Important**

When you get a QPL submittal from the contractor, check that the specification listed for the product matches the specification listed on your Record of Materials. If it does, you can approve and use the QPL item on the project. If it does not, reject the submittal and return it to the contractor immediately.

When a contractor chooses to use the QPL, the most current list available at the time the product is proposed for use will be used. The QPL submittal must be prepared by the contractor in accordance with the instructions in the QPL and submitted to the engineer prior to use.

Inspectors need to check that what is used is what was approved and document it. IDR s or separate acceptance documents may be used. Be sure to put a copy of any documentation in the file for that material.
Material Approval – RAM

Using the Request for Approval of Material (Construction Manual Section 9-1.3B)

Approval is the process that determines the material submitted is appropriate for the intended use.

The Request for Approval of Material (RAM) is the second way a contractor can request material approval. The RAM can be used when the contractor elects not to use the QPL or the material is not listed in the QPL. The completed RAM will be submitted to the engineer for approval before the material is incorporated into the work.

What’s Important

Investigate, then approve or disapprove the material submitted on the RAM.

When you get a RAM submittal from the contractor, check that the specification listed for the product matches the specification listed on your Record of Materials. If you do not know about the manufacturer of the specific material or the manufacturer of the item is not listed in the QPL for that item, further investigation is required. Ask for information from the contractor. It is their responsibility to prove the material is suitable for the application. The only person who should approve a RAM in your office is the one who is responsible for the work—your project manager.

A more in-depth product evaluation is required on a RAM than a QPL. You may use the QPL to approve a RAM as long as the exact material for the exact specification is listed in the QPL. Use the equal QPL code from the list at the bottom of the RAM or the QPL code to approve the material. If you have questions about approving materials on either RAM or QPL, contact your Region Local Programs Engineer.

What Else is Important

Approval of the material IS NOT acceptance of the material. Additional acceptance actions as noted on the approved RAM or QPL need to be completed prior to the materials being incorporated into the work.

When requesting approval of an item that requires fabrication, both the fabricator and the manufacturer of the material or product shall be identified on the RAM.

To track the approval documents, transfer the information from the RAM or QPL to the “maintained” Record of Materials. Each inspector should have a current copy of the ROM that relates to the work they are in charge of and sometimes copies of the approved QPL and RAM submittals.
Material Approval – Aggregates

Aggregate sources will be approved by consulting the Aggregate Source Approval (ASA) database for the use intended. The ASA database can be found at the WSDOT State Materials Laboratory website. Print the ASA Report and attach it to the approved RAM.

Review the approval date on the ASA Report to verify that the approval of the aggregate source has not expired or will not expire before the end of your contract. If the aggregate source requires evaluation, contact your Region’s Local Programs Office for further direction. The remarks in the ASA Report also need to be reviewed to make sure that there are no additional requirements or restrictions on the material that you intend to use. If you are using concrete aggregate, review the ASR values to see if ASR mitigation is required for the concrete mix design.

Material Acceptance – RAM and QPL Codes

All requests for approval of material, either RAM or QPL, should show the name of the contractor, contract information, applicable specifications, and bid item numbers.

Make sure all actions as designated by the RAM and QPL codes are performed prior to or at the same time as the material is being used.

Material acceptance actions are:

• Manufacturer’s Certificates of Compliance – Prior to use
  – QPL Code generally ends in 2XX
  – RAM Code 2

• Fabrication Inspection – Prior to delivery on the job site
  – QPL Code 5XXX
  – RAM Code 5, usually when this code is used a code 4 (shop drawing) and a 6 (COMO) are also used.

• Visual Inspection – At the job site, before installing
  – Applies to any material, when you sign a paynote or submit pay documents, it is assumed you have checked and verified all materials are as submitted.

• Test Reports – Prior to or concurrent with
  – QPL Code generally ends in 1XX
  – RAM Code 1

• Others as defined in contract documents
**Manufacturer’s Certificate of Compliance (Standard Specifications 1-06.3)**

Some materials can be accepted based on receipt of a Manufacturer’s Certificate of Compliance. These certificates must be received by the engineer prior to incorporating the material into the project. Look at the Record of Material and Appendix 52.108 of the *Local Agency Guidelines* to determine which products may be accepted by Manufacturer’s Certificate of Compliance.

The contractor may request authority from the engineer to install such material prior to submitting the required certification. This request must be in writing. If the request is approved (also in writing), no payment will be made until adequate certification has been provided. Document all of these actions in the files.

If the required certification is not submitted prior to the completion date of the contract, the contracting agency will assess the usefulness of the installed material. At the engineer’s discretion, the contracting agency will either require replacement of the material or process final payment without paying for the materials or any portion of the work performed to install the material.

A Manufacturer’s Certification does not replace a Certification of Materials Origin for iron and steel.

**Transmittal of Manufacturer’s Certificate of Compliance (Checklist)**

(*Construction Manual* Section 9-1.4D)

All material certifications for the material incorporated into the project shall be reviewed for compliance with the specifications. We recommend that the Transmittal of Manufacturer’s Certificate of Compliance (WSDOT Form 350-572) (Figure 5-7) be utilized to assist your evaluation. If all the checklist items can be answered “YES,” sign the completed checklist “Approving” the Manufacturer’s Certificate of Compliance. If all the checklist items except No. 2 and 7a, cannot be answered “YES,” sign the completed checklist and return it to the contractor for corrections, clarification, and resubmit for approval and payment. As with RAMs, your project manager or appointed alternate should sign these transmittals.

The approval of some Manufacturer’s Certificate of Compliance can require multiple documents. For reinforcing steel, the following is needed:

- Fabricators Certificate of Compliance (*Figure 5-8*)
- Rebar Order (Cut) Sheets – for verification of quantity (*Figure 5-9*)
- Certified Mill Test Report – from the manufacture of the base material (*Figure 5-10*)

You really NEED to know the material sent is what your contract asked for. Check all Manufacturer’s Certifications against the project requirements.
Manufacturer Certificate of Compliance

I. Acceptable Mfg. Cert. – Received

Project Office – Do’s

1. Advise field engineer and inspectors of status of all acceptable or approved Mfg. Cert. received.
2. Know which lot or other product identification is on the approved Mfg. Cert.
3. Accept for payment only those materials for which there is an approved Mfg. Cert. on file.

Field Inspector – Do’s

1. Know if an acceptable or approved Mfg. Cert. has been received.
2. Know which lot or other product identification is on the approved Mfg. Cert.
3. Check that material delivered to project matches that identified on Mfg. Cert. and provide information to office.
4. Check material delivered for shipping damage.


Project Office – Do’s

Advise field engineer and/or inspectors of the status and acceptability of all Mfg. Cert. received.

Field Inspector – Do’s

1. Check materials delivered to project, record lot numbers or product identification, provide information to office.
2. Advise contractor that a letter is needed to waive requirements of Standard Specifications Section 1 06.3 and allow installing materials prior to receipt of acceptable Mfg. Cert.

Project Office – Don’ts

Make payment for the work when an acceptable Mfg. cert. has not been received.

Field Inspector – Don’ts

Allow installation of material without advising contractor that payment will be withheld until acceptable Mfg. Cert. is received as per Standard Specifications Section 1-06.3.
Fabrication Inspection – What Is It and Why Is It Important

Fabrication inspection is performed while a product is being fabricated. Precast concrete products, structural steel members, signs, and bridge bearing pads are some of the items that are inspected during their manufacture.

Fabrication inspection is important because it allows trained inspectors to look at the construction, materials, and technique while the items are being built. Problems that may arise from improper fabrication are resolved before the item is delivered to the job site. For example, hidden elements such as rebar under concrete in a catch basin.

WSDOT Materials Lab provides fabrication inspection to Local Agency and WSDOT projects. There is a charge for this service, so it is important to know what is being inspected and where the products are made. In some cases, other inspection services can be used. Contact the Region Local Programs Engineer for help arranging fabrication inspection or questions about who can inspect these items.

Visual Inspection

Visual inspection is done on literally all materials incorporated in the work. Some items are accepted solely on the basis of a visual inspection and a RAM or QPL for the product will indicate that is the case.

Visually inspected means you took the time to check that the contractor used the right thing and it was acceptable at the time the contractor used it.

Visually accepted materials are the sole responsibility of the project inspector. When you approve payment for an item, it is assumed you have done your job and visually inspected and checked that the correct materials in this category were used.

Do not accept damaged material or material that was not preapproved.

Place documentation of your visual inspection in your materials approval file.

Sampling and Testing – There Are Three Different Types of Sample

Preliminary Samples and Tests (Construction Manual Section 9-3.2A)

Preliminary samples are intended to show the general character of the materials available or proposed for use. Preliminary samples are a basis for approving which aggregate site or brand of material will be considered for use. The samples shall represent an identified lot of materials.

Often preliminary samples are used to approve materials submitted on RAMs.

Acceptance Samples and Tests (Construction Manual Section 9-3.2B)

Acceptance samples and tests are defined as those samples tested for determining the quality, acceptability, and workmanship of the materials prior to incorporating the materials into the project.
Verification Samples and Tests (Construction Manual Section 9-3.2C)

Verification samples and tests are used for making checks on the reliability of a manufacturers test results when acceptance of the material is based upon a Manufacturer’s Certificate of Compliance or when an agency wishes to verify test results provided by a testing lab (this type of test is also referred to as an “Assurance” test).

Sampling and Testing Schedule (Construction Manual Section 9-3.7)

The testing frequency schedule in Construction Manual Section 9-3.7 covers the minimum requirements for sampling and testing at the project level for concrete, all aggregates, HMA, and asphalt materials. It includes a list of the types of tests required.

Your WSDOT ROM shows the number of required tests for each material on your project based on this schedule and plan quantities. If material quantities increase or decrease, the number of required test may change.

In some instances, good construction practice will necessitate more frequent tests to ensure adequate control of production.

What’s Important

Sampling and testing will be checked on selected items during all project reviews. We will check that the correct number of tests were performed, that they passed, and if they did not pass, that appropriate actions were taken to address out of specification materials.

We will check the test results against the specifications. Do not rely on the testing lab’s pass/fail remarks to prove the materials are acceptable.

Any material shown to be out of specification must be addressed by either removing and replacing or a change order accepting out of specification material with a CREDIT. In a few cases, you may be able to justify why the material is acceptable without a credit. Check with the Region Local Programs Office first, to ensure this is documented correctly. This is considered a change to the contract and should be treated as one.

What’s Important About Testing

Based on the number of tests required by the Record of Material and the Construction Manual, a reasonable quality for each material is established. Evaluation of the material test results and acceptance actions is verification your agency did, in fact, get what the taxpayers paid for.

Not testing material when required or improperly accepting material is cause for an unsatisfactory project review which can result in loss of funding or potentially higher consequences. Yes, this is a very big deal. All out of spec materials must either be removed and replaced or accepted with a change order accepting an out of spec material with a credit or a justification for why the materials is okay.
Sampling and Testing Small Quantities of Materials

*(Construction Manual* Section 9-1.1A)

The project engineer may elect to accept small quantities of materials without meeting minimum sampling and testing frequencies using the following criteria. The use of this process is to be implemented prior to work being performed and not to retroactively justify deficiencies discovered after the completion of work.

An item can be accepted as a small quantity if the proposed quantity for a specific material is less than the minimum required testing frequency.

Materials that will not be considered under the small quantity definition are:

- Structural concrete with a 28-day compressive strength of 4000 psi or greater.

Some issues that the project engineer may consider prior to use of small quantity acceptance are:

- Has the material been previously approved?
- Is the material certified?
- Do we have a mix design or reference mix design?
- Has it been recently tested with satisfactory results?
- Is the material structurally significant?

Small quantity acceptance could be visual, by certification, or other methods and the basis of acceptance shall be documented on Reduced Acceptance Criteria Checklist (WSDOT Form 350-120) (*Figure 5-30*). For visual documentation, an entry should be made in the project records as to the basis of acceptance of the material, and the approximate quantity involved.

The small quantity acceptance may be used for any quantity of the following:

- Curbs and sidewalks.
- Driveways and road approaches.
- Paved ditches and slopes.

Where job site mixing of concrete occurs in accordance with *Standard Specifications* Section 6-02.3(4)B small quantity acceptance can be used for acceptance of packaged concrete meeting the requirements of ASTM C 387. The packaged concrete bag must state that the concrete meets the requirements of ASTM C 387.
Material Specifics

Materials that require testing:

1. Structural Concrete
   - Slump
   - Air
   - Temp
   - Compression Testing
   - Certification type delivery ticket per *Standard Specifications* Section 6-02.3(5)B is also required.
   - Curing Compound

2. Asphalt in the Roadway
   - Density
   - Hot Mix
     - Gradation/SE
     - Oil Content
   - Certification of the Binder and Anti Strip is also required.

3. Surfacing Under Roadway and Bridge Approaches
   - Density
   - Gradation and SE

4. Base Material Under Roadway, Embankments, Bridge Approaches
   - Density
   - Gradation and SE

5. Geogrid Behind Walls

6. Structural Grout
   - Compression Testing

7. High Strength Nuts Bolts and Washers*
   - Manufacturer’s Certificate of Compliance
   - Certificate of Material Origin also required

*See *Standard Specifications* Section 9-06.5.

Materials that can be accepted by Certification:

1. Steel
   - Manufacturer’s Certificate of Compliance
   - Certificate of Material Origin
2. Iron
   • Certificate of Material Origin

3. Liquid Asphalt Products
   • Manufacturer’s Certificate of Compliance

   **Special Note on PG Binder:** The PG Binder Bill of Lading acts as a
   Manufacturer’s Certificate of Compliance for the binder material. The Bill of
   Lading (Figure 5-13) should be delivered with each load of binder to the asphalt
   plant. The Asphalt Plant Inspector/Tester should pick up a copy from each delivery
   during the entire period of production of HMA for the project. Put these in your
   files. The Certification for binder is part of the material acceptance documentation
   that will be checked during a project review.

4. Geotextile Fabrics (not including Geogrid behind walls)
   • Manufacturer’s Certificate of Compliance

5. Guardrail Items
   • Certificate of Material Origin for steel components
   • Mill certificate for post items

6. Monument Case and Cover
   • Certificate of Material Origin

7. Bridge Bearing Assemblies that are not welded
   • Manufacturer’s Certificate of Compliance
   • Certificate of Material Origin

Material that can be accepted by Visual Inspection when approved by Catalog Cut:

1. Traffic marking – paints and thermoplastics
2. Electrical items and accessories
3. Fencing
4. Landscaping or irrigation items
5. Drainage items
6. Rebar Tie Wire
7. Backer Rod under RCS Expansion Joints
8. Rebar Chairs and Dobie Blocks
9. Temporary items
10. Compost, bark, and mulch
11. Street furniture etc.

Notation should be made that all materials used were those that were approved for
the project. Certification of materials origin is required for all iron and steel items.
List of materials that Require Fabrication Inspection:

1. Structural Steel Beams or Fabricated, Welded items
2. Structural Precast Concrete Items
3. Bridge Bearing Assemblies that are welded
4. Signs (*Note:* All signs must be inspection by WSDOT Materials Fabrication Inspection Office and bear the Fabrication Approval Decal.)
5. Sign Bridges
6. Cantilever Sign Structures

Fabrication inspection must be performed by qualified professional companies that specialize in quality assurance services. Refer to WSDOT *Construction Manual* Section 9-2 for more detail about WSDOT Fabrication Inspection processes.

When inspection is performed by private inspection companies or other state Departments of Transportation, the Manufacturer’s Certificates of Compliance and Certificates of Material Origin are also required to be in the project files.

**Other Acceptance Actions**

Your contract may list acceptance actions that are not common. Be sure to READ YOUR CONTRACT before starting any inspection of work that is covered by a Special Provision or GSP.

Final Contract Material Certification will be covered during the section on project closure.

**Filing and Tracking**

**Why Do I Care**

- If you don’t have a list, you won’t know what’s missing.
- If you don’t know what’s missing, you won’t ask for it.
- If you don’t ask for it, you won’t get all you need to satisfy the requirements.

**Filing System Basics**

- Design your system for easy retrieval of information rather than storage.
- Consider a log sheet for each file.
- Do not let file folders get overfull.
- Make a guide to files and keep in front or on top.

To test your system, ask the following questions and look for the answers in your files. Better yet, ask someone who is not involved in your project to do this.

- Can I locate all the payrolls for subcontractor ABC Excavating?
- Did I get enough passing tests for CSTC (or another bid item with quantity material)?
• Did CO# XX get executed so I can pay for the new items?
• Did they finally send in all the certifications for the reinforcing steel in the luminaire foundations?
• Can I retrieve all the data from one day of paving in five minutes or less? (RAMs, QPL submittals, mix design, delivery tickets, tests taken, test results, IDR, scale certs, bill of lading for oil, and scale checks.)

**What to Track**
- Contractor and subcontractor submittals
- Materials approvals
- Materials quantities/testing/results
- Materials certifications and backup
- Payrolls
- Change orders
- Wage rate interviews
- DBE interviews
- Correspondence of any sort

**Tips for Making Filing and Tracking Systems Work for You**
1. Highlight problems while they are small (missing payrolls, interviews, certs).
2. Know what is missing so you can ask the contractor to submit it.
3. Prevent “missed paperwork” that cannot be gathered later.
4. Show follow up (test failed, retested two samples, both passed).

**Time for Completion and Schedule**

**Working Days**

The people who designed your project made an educated guess about the order, duration, and interconnectedness of the many activities that are components of your project. The contractor bids the work knowing what the number of working days assigned is and that the number cannot be changed for their convenience without compensation or justification.

**The Way That Time for Completion Can Be Changed**

Write a change order showing added work, deleted work, or delayed critical path work. Be sure you have a written justification of your change order file and that the change is based on changes in the work. You can’t just write a change order at the end, without justifying the added time.
Schedule

In accordance with the *Standard Specifications* Section 1-08.3, the contractor is required, within five calendar days of execution, to submit a schedule showing:

- The proposed order of work.
- Projected starting and completion dates for the total project.
- Projected starting and completion dates for major phases of the work.
- Completion of all work within the specified contract time.

**Why Do I Care About the Contractor’s Schedule**

An accurate schedule is important to you because it tells you the contractor’s plan to get the work done in the number of working days you have specified in your contract documents. This accomplishes several things:

- Confirms that there is a way to get the work done if all goes reasonably well.
- Gives you an opportunity to review the contractor’s plan for reasonableness.
- Identifies a time frame for key activities to help you schedule your own resources.
- Defines critical activities.

**Isn’t the Two Week Schedule They Give Us at the Weekly Meeting Good Enough**

No. It is a useful tool for planning and anticipating the near future but does not provide an overview of the entire project. You need a bar graph showing a critical path or a CPM schedule.

**Bar Graph or CPM – Why Do I Care Which They Submit**

For larger and more complex projects, the contractor submits a schedule developed using the CPM or Critical Path Method. Smaller projects may have a General Special Provision in the special provisions allowing the use of a bar graph. Here is the essential difference:

- A bar graph can simply be a listing of activities and the general order in which they will be accomplished.
- A CPM schedule shows the list of activities but clearly demonstrates how those items of work are interdependent. You will use the critical path to:

  1. Spell out critical activities which you will need to know to prepare the Weekly Statement of Working Days (*Figure 5-14*).
  2. Point up problems or conflicts not previously identified.
  3. Determine additional days for change orders.
  4. Aid in analysis of delay or changed conditions claims.
What Do I Do With It Now That I Have It

Review it and if approved document that you did by dating and initialing.

- Are all key activities included?
- Are potential conflicts addressed?
- Are the activities shown as critical actually critical?
- Do you believe the durations shown are reasonable?
- Are all activities shown that can delay the next activity?

Reviewing Tip – Start at the end of the schedule and work to the front to catch problems. Also ensure activities shown are taking place during allowable times of the year. (In-water work windows, paving, planting, etc.)

When to Ask for a Revised Schedule

You may request a revised schedule when any of the following occur:

- The project has experienced a change that affects critical path.
- The sequence of work is changed from that in the approved schedule.
- The project is significantly delayed.
- Upon receiving an extension of contract time.

A “significant” delay in time is defined as ten working days or 10 percent of the original contract time, whichever is greater.

Why is This Such a Big Deal

When projects drag on, contractors lose money. When contractors lose money, they look for a way to recoup their losses. You will see this as more requests, change orders, delay claims, and complaints. You will need a revised schedule to help you manage these submittals and respond appropriately. Otherwise, you may end up paying more than you should. This also explains why contractors resist most requests for a revised project schedule. Insist at the weekly meetings. Insist in writing. Keep insisting.

Weekly Statement of Working Days (WSWD)

Your agency is required to prepare a Weekly Statement of Working Days. This form counts down, day by day, through the life of the project. The contractor is charged one working day up to five per week whenever work can be performed on a critical activity. You determine critical activities by looking at the contractor’s schedule.

Complete the form weekly and mail to the contractor. They have 10 days after receipt to protest the working day charges.

Maintain documentation in your files of the receipt of the weekly statement of working days by the contractor.
Workable vs. Unworkable Day

You need to understand this to complete the “weekly statement” and to deal with delay claims.

Workable Day – A workable day means that the contractor could reasonably be expected to perform CRITICAL work on that day and to get a reasonable amount of productivity. By this criteria, the contractor could easily be charged a working day during harsh weather or when they do not appear on site.

Unworkable Day – An unworkable day means that the contractor could NOT reasonably be expected to perform CRITICAL work on that day or to get a reasonable amount of productivity due to circumstances beyond the contractor’s control. By this criteria, your contractor may have people working that day but be unable to perform the CRITICAL ACTIVITY work for reasons beyond their control. Note that the contractor staying away does not make it unworkable either. The defining element is whether or not CRITICAL work could have been performed that day.

Partial Days – Some days are only partially workable. Sometimes weather (extreme cold, snow and ice, or hard rain), natural disaster (floods), or other events out of the contractor’s control (traffic accident or vandalism) prevent the contractor from getting full production with a normal crew and/or normal effort. In these cases, you have the option to charge partial days—usually ½ days.

Write weekly statements every week unless work is suspended. When work is suspended, be sure to issue a “Suspend Work Order.” When work is resumed, be sure to issue a “Resume Work Order.” Both situations must be written to the contractor.

Inspector’s Daily Reports (Construction Manual Section 10-3.6B)

Every inspector should be writing a daily report of activities on the project. Most agencies use WSDOT’s Inspector’s Daily Report forms (WSDOT Forms 422-004, 422-004A, and 422-004B) (Figures 5-15, 5-16, and 5-17) to document daily activities. A similar “personalized” version can only be used if it includes the same key components. On a complex project, more than one person will be writing IDR’s. Be sure that the coordination is good so somebody is covering all aspects of the work. Explain any gaps in IDR dates.

Page one of the form is a structured sheet of questions addressing identification of work operations and the associated labor and equipment being used to accomplish the work. This page should be filled out completely. Be sure your form includes these key components:

- **Work Operations** – What is being done, who is doing it, which equipment, location.
- Other equipment on site but not being used.
- Testing and/or test results received.
- Delivery of materials.
• Questions or clarifications to or from the contractor.
• Direction given to the contractor.
• Conflicts or disputed work.
• Weather.
• Unusual conditions.
• Delays in the operation and why.
• Presence of visitors, meetings, and decisions reached.
• Safety concerns.
• Traffic (minor traffic control projects only – otherwise use Traffic Control Report).
• Photos taken.
• Sign it in ink.

This can be hand written in ink on the form or entered electronically on a laptop. The electronically produced document must be complete, including a hand written signature in ink. It should be reviewed by the project manager, chief inspector, or other individual in your organization. That person needs to initial and date that the IDR was reviewed.

This signed and reviewed IDR is the official one and is filed in the project records. Any duplicate copies remain with the inspector and may be discarded when they are no longer useful.

Page two is the narrative portion. This is a place to write facts, not opinion.

If your inspector’s IDR is used to accept a material, you should place a copy in your materials approval file for that material.

**Movie Time – Inspector’s Daily Report**

**Five C's of Good Report Writing**

• **Clear** – Being clear refers to both handwriting and meaning. Messy handwriting is unprofessional. Take the time to write neatly. Written material is useless if it cannot be read and understood.

  Being clear in meaning is just as essential. Whatever is written has to be clear, even to people not involved with the project. It can become a habit to write a kind of shorthand that project personnel understand, but others may not. Other personnel, including auditors, may have to review your documents, months or even years after the project is complete. What may be clear to project personnel now, may be unclear to an auditor at a later date.

• **Concise** – Being concise means using the minimum number of words to get the maximum amount of meaning. The rule is, write enough to be clear, but not any more than is necessary. Record the facts and keep your opinions out of the project diary.
- **Correct** – Being correct means having your facts straight and using the right forms. Using the wrong forms, or making errors, gives the appearance of sloppiness and can cause big problems in arbitrations or litigation proceedings.

- **Complete** – Being complete means including everything necessary to be clear. To be complete, the entry should contain four criteria:
  1. **Activity** – A description of the activity, including location.
  2. **Testing** – Any testing done or the acceptance criteria that was used.
  3. **Results** – The results of any testing.
  4. **Action Taken** – Any action that may have been taken.

Another aspect of being complete is referencing other types of available project documentation. Be sure to mention any photographs, videotapes, contract documents, materials documentation, or anything else that would relate to your entry.

- **Concurrent** – Contract documentation should be completed concurrent with the construction activity. Extensive facts, figures, and conversations are hard to remember. Write them down as soon as possible. If it is not practical to write everything down immediately, then take abbreviated notes. Waiting until the end of the day to write everything down may cause you to forget important details.

**Photographs** *(Construction Manual Section 10-3.14)*

Pictures are an important part of the project documents. This could include 35 mm or digital photos, infrared photographs, video, etc. Whoever has the best documentation wins any argument about the past. Be sure yours is the best. Pictures are a compelling part of that discussion.

**What Do I Photograph**

- Unusual equipment.
- Construction methods.
- Problem areas.
- Areas of possible controversy.
- Traffic control.
- Conditions in the area of an accident.
- Proof of fabrication inspection.
- “Before” and “after” views taken from the same vantage point.
- Safety issues.
What Do I Do With All These Pictures Now

Your photo is only as good as your documentation of when, where, and why it was taken.

Turn on your date/time stamp. Make a note in your project diary or IDR. Remember not to say anything while recording video that you would not like to hear played in court.

- Ideally you are labeling the back of each photo like this:
  
  Contract: SA-3228
  Project: Allen Street Bridge
  Date Taken: 2/17/00, 1:00 pm
  Taken By: J. Sorrell
  Direction Looking: Northwest
  Description: Setting girders in span 3

In case you aren’t, at least do one or more of the following:

- Save each download in a computer file labeled with your name, date, and the project name. Back up regularly.
- Print out selected pictures on plain paper for the file and do at least minimal labeling.
- Burn a CD regularly (weekly) and store it with the contract documents.

If you are using photographs as material acceptance documentation, place a copy in your material acceptance file.

Project Diary

In addition to the IDR, we recommend that you have a method to capture high level, off-the-project conversations and emails. The most important thing is that your agency does not lose track of off-the-project conversations and decisions that affect the project. This would include communication from the project manager and other key agency staff or from consultants. The issue that we are trying to avoid is when the city/county engineer or the consultant attends a meeting or has a phone conversation or makes a decision and it doesn’t get recorded.

WSDOT offices use a bound book called the Project Diary. You may find it more useful to have a file folder for these records. The important thing is to have a way to capture notes to file, telephone conversation logs, and emails about discussions and decisions that affect the project.

At the end of the project, be sure that all diary-type entries are in your records, even if they are stored on CD rather than paper records. Although this system is not as fast for retrieval, at least the information is all captured. In case of an audit, claim, or review, the information is available.
Wages *(Standard Specifications* Section 1-07.9)

*Enforcement of Federal Prevailing Wage Provisions* *(Construction Manual Section 1-2.6C)*

**Why Do I Care What Wage Workers Make**

*Standard Specifications* Section 1-07.9 outlines prevailing wage responsibilities for the contractor, subcontractor, lower-tier subcontractor, or agents performing work under the contract. In addition, contracts financed in whole or in part by federal funds have additional federal contract provisions included in the contract documents.

After some abuses, federal wage rate laws were written. These include Davis Bacon and related acts. One goal was to prevent contractors from states where people make a lower wage from winning bids by bringing in out-of-state crews. The result is that workers are paid the usual and accustomed rate where the project will be constructed. This gives local contractors a fair chance to compete and ultimately provides local jobs.

By accepting federal dollars for your project and by adding in the required federal aid specifications, you are committed to both monitor and enforce the federal prevailing wage requirements.

**How Do I Know What That Rate Is**

Look in the contract provisions. There will be two sets of wage rates for most projects. One is the state rate. One is the federal rate. For each job classification, you need to determine which rate is the higher of the two. That is the prevailing rate you must enforce.

**But the State Rate and Federal Rate Are Not the Same**

Right. You need to know both rates before you can determine which one is higher for each job description. You may want to prepare a worksheet showing what each job description you have already looked up should be paying. That way you do not have to look it up fresh every single time you check a payroll for compliance.

**What If the Union or Prevailing Wages Change During My Project**

The commitment your contractor makes is to pay either the state rate or the federal rate—whichever is higher—10 days before the project goes to ad. This wage will often be the union wage for a particular kind of work in your area. If the union wage changes during your contract, you are not responsible to enforce the change.

**What Am I Trying to Accomplish**

You want to be sure that each individual working on the project is being paid at least the minimum prevailing wage. To that end, you will check certified payrolls and conduct wage rate interviews.

You need to confirm that the contractor has met their requirements too.
In order to comply with these requirements, the prime contractor, each subcontractor, and each agent or lower-tier subcontractor must:

- Submit weekly certified payrolls within 10 days.
- Allow interview of employees during working hours.

**Certified Payrolls – Checking Wage Rates**

The wage rate side lists individual workers and shows their wages. Your commitment is to check all entries on the first payroll and 10 percent of entries thereafter*. What that normally means is that you spot check (once every payroll or two depending on the size of the work crews) after you have thoroughly checked the first payroll from the prime and each sub. If errors are found during any spot check of the payrolls, a more complete check should occur until you are confident that the errors have been corrected. See *Construction Manual* Section 1-2.6C(2).

Payrolls are checked to ensure that the required information has been included and is correct. A complete payroll includes the following:

- Contract name or number.
- Sequential payroll number.
- Payroll period (i.e., week ending February 2, 2007).
- Name of the employer.
- Name of employee.
- Each employee’s unique identification number (i.e., last four 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.
- Correct minimum wage rate for the worker’s classification.

*If a project runs more than one construction season, consider taking a look again in the spring of subsequent years or anytime the person signing the payrolls changes.

**What Are the Most Common Errors**

- Paid the wrong rate in the right classification.
- Paid in the wrong classification.
- Reported the wrong number of hours on this project.
- Paid the same as last week (which was not federal aid).
- Paid general labor at the landscape labor rate.
What Are the Most Common Frauds

- Underpaying non-English speaking workers.
- Fraudulent certification.
- Paying the right amount but getting a kick back.

Protecting Personal Information

Certified payrolls include a wealth of personal information including home address and social security numbers. In the wrong hands, this is enough personal information to cause serious problems. Provide for the security of payrolls in job shacks and your offices. Protect this personal information it as if it were your own.

If your agency releases payrolls as part of a public disclosure request, cover the home address and social security number with a post-it before copying or ask your attorney for advice.

Checking for Certification and Signature

The other side of a certified payroll is where the contractor certifies that the wage paid is correct.

The certification must say four things:

1. That the payroll copy furnished is a true copy.
2. That the payroll is correct and complete.
3. That the wage rates contained therein are not less than those determined by the Secretary of Labor, and that the classification conforms with the work being performed.
4. That the appropriate Fringe Benefits due each employee have been paid in full.

Look for an X in a or b in item 4.

This must be signed by a company representative. This should be signed by a permanent employee that actually understands what they are signing.

What Happens When They Do Not Send It to Me

Standard Specifications Section 1-07.9(5) says that “any or all payments may be withheld until compliance is achieved.” You have a contractual basis to withhold payment for any prime and/or sub that is not submitting payrolls.

You must write a letter to the contractor giving ten days notice that payment for items affected by missing payrolls will be withheld if certified payroll is not received. Outline the consequences in your letter.
Which Posters Are Required

<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHWA 1495</td>
<td>Wage Rate Information</td>
</tr>
<tr>
<td>FHWA 1022</td>
<td>Fraud Notice Poster</td>
</tr>
<tr>
<td>EEOC P/E-1</td>
<td>Know Your Rights Under the Recovery Act (ARRA projects only)</td>
</tr>
<tr>
<td>WISHA F416-081-909</td>
<td>Job Safety and Health Protection</td>
</tr>
<tr>
<td>F242-191-909</td>
<td>Notice to Employees (L&amp;I)</td>
</tr>
<tr>
<td>F700-074-909</td>
<td>Your Rights as a Worker in Washington State</td>
</tr>
<tr>
<td>EMS 9874</td>
<td>Notice to Employees (Employment Security)</td>
</tr>
<tr>
<td>WH 1088</td>
<td>Employee Rights Under the Fair Labor Standards Act</td>
</tr>
<tr>
<td>WH 1462</td>
<td>Employee Polygraph Protection Act</td>
</tr>
<tr>
<td>WH 1420</td>
<td>Employee Rights and Responsibilities Under the Family and Medical Leave Act of 1993</td>
</tr>
</tbody>
</table>

Copies of posters can be found at the WSDOT Construction Office website. Remember to post the state and federal wage rates too.

Where Are Posters and Wage Rates Displayed

For projects with an office or storage trailer:
- A board outside the job shack (protect from weather).
- A bulletin board inside the job shack.

Small projects with no office or trailer:
- On the outside of the outhouse (protect from weather).
- Anywhere that workers have full access to the information.

No office or outhouse?
- Discuss at contractors tool box meeting and document by getting worker signatures and submit a copy to the agency.

What Is a Wage Rate Interview

The purpose of employee interviews is to establish, with reasonable certainty, that the correct minimum prevailing wages are being paid. This means that the classifications are correct and that the workers in those classifications got the right pay.

Wage rate interviews accomplish four things:

1. May protect your agency from costly prevailing wage issues. Your agency is ultimately responsible for being sure that workers are paid the prevailing wage. Even after the project is over, wage rate issues may surface. If the contractor does not correct the problems, then your agency will pay the workers.
2. Provide a mechanism to spot errors.

3. Provide a way to spot wage fraud.

4. Educate workers about minimum prevailing wage requirements. Tell them where to find the posters and wage rate information. Most wage fraud is reported to L&I after the project is complete.

Who Do I Interview

- Employees of the prime contractor (required).
- Employees of major (30 percent or more of the contract dollars) subcontractors (required).
- Anybody that says they are not paid correctly (required).
- Employees from any other subcontractor that is on the project more than two or three weeks (recommended).
- Employees of landscaping subcontractors or any other crew that includes non-English speaking members (recommended).

What If They Won’t Tell Me

Your job is to ask the question. Just write down what they tell you, even if the answer is “don’t know” or a general amount (about $25 bucks). There are many reasons that they won’t tell you.

- They do not understand why you are asking.
- They are afraid that answering will cause trouble for them or cost them their job.
- They genuinely do not remember.
- They move around from job to job and do not know what they will be paid on this project.
- They never talk to strangers about money.

Four Steps – To Complete One Form

- **Step 1** – Ask the employee what they are paid.
- **Step 2** – Enter the prevailing wage.
- **Step 3** – Enter the amount from the certified payroll.
- **Step 4** – Resolve any differences and note how you did.

How Do I Resolve Problems

All discrepancies found during an employee interview must be resolved. This means you need to ask the contractor about the difference and follow through until you understand what happened. If one phone call does not get things resolved, start writing letters. Document the steps you take, what you find, and how the problem was ultimately resolved.
What If It Never Gets Resolved

It is expected that a satisfactory correction or explanation will be made within a reasonable amount of time. To ensure this happens, you may request a cancelled check indicating that any wages owed to a worker have been received. If this does not happen, tell the contractor that the matter might be referred to L&I for further action. Call your Region Local Programs Engineer for assistance.

Change Orders *(Standard Specifications* Section (1-04.4))

You have an executed contract with the prime contractor for your project. As plan errors, changes, or problems are discovered, it will become necessary to modify that contract so that it continues to define and detail the work you expect your contractor to perform. The method used is the change order which, once properly executed, becomes a part of the contract documents. The change order must stand on its own, clearly and unambiguously defining a change to the original contract. It needs to be signed by the same level of authority that signed the original contract unless the authority to sign change orders has been designated (in writing) to others.

**Why Should I Bother to Write a Change Order**

- This is your legal way to pay the contractor for work not covered in the plans and specs.
- It settles issues as they come up so you may avoid some end-of-project claim situations.
- Any quantities of bid items included in a change order are not counted in the +/- 25 percent calculation.
- To satisfy auditors and protect the federal funding.

**When Do I Write a Change Order**

- Field adjustment. NO
- Design error. YES
- New situation not covered by plans and specs. YES
- Changing the materials requirements. YES (Unless the specs say “or approved equal.”)
- Changing the method, spec or other key component of the work. YES
- When deleting work. YES (Remember to consider a time credit too.)
- Equitable Adjustment – When prices are renegotiated because final quantities for an item below 75 percent or above 125 percent. If requested by contractor or desired by the agency.
- When you accept out of spec material.
What Do I Need to Say

Keep it simple in the body of the change order. The text is basically like a special provision. Use existing bid items when the work is the same. Make new items when you need them. Be sure you include the following:

- Work description.
- Materials to be used to a specification you want it to meet (“supply Crushed Surfacing Base Coarse meeting the requirements of Section 9-03.9(3)”, for example).
- Include a plan sheet if you need to show detail. You may need to have it stamped.
- Include information on both measurement and payment.
- Talk about contract time on every change order, whether or not you will give them additional working days.
- If the change order settles a claim, a waiver must also be included.

What Units Should I Use

Generally, these guidelines will work but your circumstances may make another choice better:

- Use a bid item if the work matches exactly.
- Use lump sum if you and the contractor agree on price and time before the work is done.
- Use lump sum if the work is already complete.
- Use force account if you documented the work on a force account sheet.
- Use force account if you and the contractor cannot agree on price and time.
- Use unit prices for a new item if you anticipate needing the pay item again.

How Much Am I Supposed to Pay

For owner-generated changes, the goal is to leave the contractor in the same position for profit, loss, and time as before the change. That means be fair but do not be taken advantage of. The truth is that work added by change order often costs more than work that is competitively bid for many reasons including:

- May not come at the most convenient time for the contractor’s operation.
- May change the productivity and efficiency of the changed work.
- May change the schedule, productivity, or efficiency of other work.
- May require extra traffic control, planning, or supervision.
- May require rental or mobilization or equipment and materials.
Make an Independent Engineer’s Estimate for Dollars and Time

Independent is the key word here. Do not just OK the contractor’s proposal. Ideally, you will already have worked up a written estimate before the contractor’s price arrives. Then you can negotiate to get to fair.

Your estimate should explain in detail why you think the price is appropriate. This is usually an independent cost breakdown of labor, equipment, and materials with appropriate markups. For some work, it can also be a comparison to similar work on this or other recent projects. At the end, it needs to be clear to everybody why you thought it was okay to pay this price and/or give this time. It should include these components:

1. Description of the change.
2. Explanation of why the change order is necessary.
3. Evolution of the change (did you consider other alternatives, consult others).
4. How do you know the price is appropriate.
5. Why did you add, delete, or not change time.
6. Summary. How does the project benefit from this change.

Document a “Verbal Approval” in the File

If you are doing the work before the change order is executed, you need to document that you told the contractor to go ahead. Include details you and the contractor agreed to regarding payment, materials, equipment, and time even if your entire price/time are not firm. If the agreement is to document on force account and write a lump sum change order when the work is done, say so. This can be a separate note to the file, a copy of an email or a note in the IDR. Consider placing verbal approval, date, and approved by on your change order.

Prompt Pay Law

State law requires that you pay the contractor promptly—within 30 days—which for us means the next estimate payment. If there are reasons you will not be paying them then, you need to let them know by letter or email at least eight days before they won’t be getting paid. This is to give them time to make the situation better if they are part of the hold up.

Can’t Agree On All Change Order Issues

Sometimes you and the contractor cannot reach agreement on part or all of a change order issue. When that happens, you need to pay something as follows:

- If you are in agreement on part of the issues, include the dollars and time you agree on and state clearly what the change order does not resolve. Keep negotiating.
- Process a change order unilaterally (without the contractor’s signature) and include the dollars and time you think are appropriate. Note that this is a unilateral payment, not an agreed amount. Keep negotiating.
Do Not Pay for Any New Items Until the Change Order is Executed

You do not have any legal authority to pay until you have an executed change order.

What is in a Complete Change Order File?

1. A copy of the executed change order.
2. A memo to file or IDR that explains why you need a change order.
3. Any correspondence or emails from the contractor.
4. A documented verbal approval.
5. An independent cost and time analysis.

This is intended to help with the more common situations. It does not apply to CRIPS, schedule recovery, termination, scope change, changes in COA DBE work, unilateral, complex claims, or other unusual change orders. For these more complex situations, see the Construction Manual or call your Region Local Programs Engineer for help.

Minor Changes (Standard Specifications Section 1-04.4(1))

Credits, debits, non-structural, payments or credits for $15,000 or less, changes in working days of 10 or less, and no cost changes may all be processed under the minor change method. You are still required to have supporting documentation including an independent estimate and working day calculation in your files as backup. Use the minor changes item over and over in your project whenever all of the following are true:

- Your project includes the bid item “Minor Changes.”
- The amount of the individual change is $15,000 or less.
- Payment can be made as a lump sum item.
- You use the Change Order – Minor Change (WSDOT Form 421-005A) (Figure 5-25).
- The change is signed by the contractor or a verbal is documented.
- A copy is provided to the contractor.

Note: Must be signed by the same person as any other change order. See Construction Manual Section 1-2.4(C7). You still need to document verbal approval and independent estimate.
Project Payment/Source Documents

Prompt Pay Law

State law requires that you pay the contractor promptly—within 30 days—which for us means the next estimate payment. If there are reasons you will not be paying them then, you need to let them know by letter or email at least eight days before they won’t be getting paid. This is to give them time to make the situation better if they are part of the hold up.

Source Documents

In some way, you need to create documents in the field that will ultimately result in payment. Measurements and calculations of contract quantities need to be complete, accurate, and detailed enough to sustain audit. Common types of documentation:

- Item quantity tickets
- Field note records
- Field note records for drainage
- Force account
- Lump sum

Whichever type you use, the message is the same – PAY THIS AMOUNT BECAUSE … I measured it … I counted it … I calculated it … I looked at the lump sum breakdown …

Tickets

Either on the delivery ticket itself or a cover sheet for today’s tickets, you need to show which material (BI #), where it went (station, street, or landmark), and who received it (initials). Usually daily tickets are bundled together and a total is run.

Some agencies also use WSDOT tickets to document anything they can count or measure. The advantage is that you and the contractor agree on the quantity and have identical records.

If the ticket comes from a commercial source, be sure it includes the following:

- Contract number or project name.
- Date.
- Contract unit bid item number or name.
- Initials of person accepting the item on the job site.
- Unit of measure.
- Identification of hauling vehicle.
- Record of the gross, tare, and net weights. In the case of a batch plant with direct reading scales, or if the unit of measure is cubic yard or hour, only the net weight need be recorded.
Weighing (Standard Specifications Section 1-09.2(5))

Platform scales must be certified accurate at the beginning of use and every six months during the life of the project. This certification must be performed by a scale manufacturer or by Washington State Department of Agriculture (Construction Manual Section 10-2.2C(1)).

Items Measured by Weight

In accordance with Standard Specifications Section 1-09.2(1), commercial scale operators will test the scales at least once daily. Several times each day the operator will also make certain the scale balances and returns to zero when the load is removed. The results of scale testing including determination of scale variance, AM/PM tare weights where needed, and intermittent scale balancing are to be recorded for each day’s production on the Scaleman’s Daily Report (WSDOT Form 422-027) (see Figure 5-34). These reports representing each day’s production are to be submitted to the engineer daily.

When platform scales are used, the scale platform shall be of sufficient length to weigh the entire hauling vehicle or combination of connected vehicles at one time. When needed for gross weight determinations, tare weights for each truck are to be taken at least twice daily and recorded on a tare sheet, scaleperson’s diary, or shown on the Scaleman’s Daily Report. When using a tare beam scale, the tare weight for each individual truck is to be set on the beam at the time of weighing.

Please refer to Standard Specifications Section 1-09.2 for more information on Weighing Equipment.

Field Note Records (Construction Manual Section 10-1.2)

These can be used to document payment amounts for nearly anything. They should be neat, clear, uncrowded, and in sufficient detail to be easily understood. The field note includes the following:

1. WHAT (bid item # and name).
2. WHERE (station 14+66, Wall 7 backfill, N. end of Oak Street, etc). If you have multiple groups/schedules for this work, show the groups/schedules number or name.
3. WHEN (date or range of dates when work was done).
4. HOW MUCH (what quantity to pay; show your work if calculated).
5. WHY (how do you know this is the right amount). Use the words field measured, field counted, or field calculated.
6. WHO (sign as inspector, initial as checker of record, initial as person who transferred data to the ledger).

Never erase or use white out. Instead, draw a line through the error and include the initials of the person making the correction.
Check for discrepancies between field note quantities and plan quantities before you pay the estimate.

**Force Account**

The purpose of force account is to fully reimburse the contractor for costs incurred on specific work. Use for the following:

- Bid items that are shown as force account.
- Changes that you agree you will be paying for by Force Account.

**Force Account Sheets in the Field**

Use these when you and the contractor agree that the work is compensable—either an existing bid item or if you are tracking added work. Give the contractor a copy in the field.

While you have the authority to direct every aspect of force account work, 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 to suggest modifications to the plan. Before any work is performed by the contractor on force account basis, the inspectors should review and agree with the contractor on the use of labor (including overtime labor), equipment, and materials since the purpose of force account is to fully reimburse the contractor for costs incurred on the work.

Fill them out on the day the work is done. Do not trust your memory. Be sure you have included enough detail that the office staff can complete them and get them paid.

Change order sheets must be signed by both the inspector and the contractor.

- **Labor** – Force account payments are not usually allowed for general supervisory work. 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. Ask yourself if they were really present and added value to the force account work.

- **Equipment** – Include enough detail about the equipment that is used so the office staff can complete and process the force account sheet in a timely manner. Remember to include extras that were used—like buckets or thumbs.

- **Materials** – Include the basic list of materials that you observed were used. Document daily, unless you and the contractor agree that some other arrangement will work. Note this agreement on the force account sheet.

The specifications allow the engineer to require competitive quotations, if this is done before the work is started and sufficient time is available.

- **Mobilization** – Mobilization and demobilization are reimbursable expenses for assembling equipment, materials, supplies, and tools.

**Caution:** Documenting disputed work.
**Track Disputed Work** – The contractor may prevail and need to be paid after all. You will need to have accurate records of the work. If you are not sure that you want to pay for it, do not use a force account sheet. Far better to use a blank sheet of paper that you date or use Report of Protested Work (WSDOT Form 422-007) (Figure 5-31). If you do use a force account sheet, write DOCUMENTING DISPUTED WORK– DO NOT PAY or something similar in large letters then initial your note but do not sign the force account sheet. Signing a force account sheet is a commitment to pay. Do not sign it unless you mean it.

**Force Account Sheets in the Office**

**Markups** – Be sure you are applying the right markups (*Standard Specifications* Section 1-09.6).

- Labor – 29%
- Equipment, Materials, Services – 21%

**Contractor Markup for Subcontractor’s Work:**

<table>
<thead>
<tr>
<th>Amount</th>
<th>Markup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to $25,000</td>
<td>12%</td>
</tr>
<tr>
<td>$25,000 up to $100,000</td>
<td>10%</td>
</tr>
<tr>
<td>$100,000 and greater</td>
<td>7%</td>
</tr>
</tbody>
</table>

The amount and markup rates must be calculated separately for each subcontractor on each force account item.

**Paying for Equipment** – There are three methods of acquiring equipment for use on a force account:

- **Owned** means that the contractor controls and operates the equipment. Long-term lease arrangement would be the same as ownership. Owned equipment is priced according to Blue Book. For multiple day work, you pay whichever works out to be less—the daily, weekly, or monthly rate.

- **Rented to Operate** means that the contractor has obtained a piece of equipment through a short-term rental and will operate the equipment with its own employees. Reimburse rented to operate equipment 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. Reimburse the invoice cost.

**Paying for Materials** – The contractor adds prices to the list and attaches invoices to support the prices. If the contractor does not have an invoice, as in the case of stockpiles or some warehouse stock, then an affidavit will suffice. When you review the affidavit, you can either accept the price or declare it unreasonable and substitute another price you can substantiate as reasonable.

**Paying for Services** – Services billed by invoice can be paid by invoice if that is the typical method. Billing by invoice does not excuse the service provider from the requirements of the prevailing wage laws. However, the force account payment system will not be used to enforce contract wage or other requirements.
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 provisions for subcontractors, with the underlying overhead and profit assumed to be embedded in the invoice.

**Lump Sum Breakdown (Schedule of Payment)** – When you have a lump sum pay item, you need a method to make payment if only a portion of the work is complete. To make this a fair process, the contractor submits a “lump sum breakdown” or “schedule of payment.” This shows what percentage of the labor, equipment, and material costs the contractor will expend for various components of the work. It must include the basis on which any quantities used for progress estimate payments were calculated.

**Example:** Assume that a $10,000 lump sum bid item includes four distinct activities. If you have done 50% of Activity A, 40% of B, 10% of C and 0% of D, how will you decide how much to pay?

What if you know that the contractor has weighted the activities this way – Activity A is 10% of the whole, B is 20%, C is 50%, and D is 20%.

Now you have enough information to calculate a fair payment as follows:

- Activity A – 50% complete, 10% of whole bid item
  $500 x 10% or .5 x .1 = .05 x $10,000 or $ 500

- Activity B – 40% complete, 20% of whole bid item
  $800 x 20% or .4 x .2 = .08 x $10,000 or $ 800

- Activity C – 10% complete, 50% of whole bid item
  $500 x 50% or .5 x .5 = .25 x $10,000 or $ 500

- Activity D – 0% complete, 20% of whole bid item
  $0 x 20% or 0.0 x .2 = 0 x $10,000 or $ 0

**Dual Custody of Pay Records** – All pay records should be reviewed and initialed by a 2nd person. When they are entered into a ledger, that entry should also be reviewed and initialed.

**Progress Payment Deferral** (*Construction Manual* Section 1-3.1B(9)) – Documents that can potentially cause delay on all or part of the monthly progress payments to the contractor are:

- Statement of Intent to Pay Prevailing Wages (Prime or Subcontractors)
- Initial Progress Schedule
- Manufacturer’s Certificate of Compliance*
- Others as detailed in your project Special Provisions

*Manufacturer’s Certificate of Compliance is unique in that this is a situation, specified as part of the contract, where the contractor may assume the risk of no certificate in writing and end up never being paid for the related work if they do not produce the certificate. See the *Standard Specifications* Section 1-06.3.
Withholding payments for work the contractor has performed and completed should not be done casually. There must be clear contract language supporting the action.

Before delaying or deferring payment, you should be able to demonstrate:

- Specifically what was not in accordance with the contract.
- The amount withheld is commensurate with the amount of work. Missing paperwork does not mean you can withhold payment for labor, equipment, and materials. If you allowed them to do the work with missing documentation, you must pay them in most cases.
- Notify the contractor in writing in a timely manner (within eight days per prompt pay law).

All deferred items must be properly addressed in the monthly progress estimate. Show the deferred quantity and note “payment deferred” or similar entry. When you pay it next time, note “payment undeferred.”

Traffic Control

Records of Construction Signing and Accidents (Construction Manual Section 1-2.3E)

Traffic Control Diary and Log (Standard Specifications Section 1-10.2(1)B)

Before Work Begins

1. Your contract plans show a method of handling traffic control through your project. The contractor must either adopt these specific traffic control plan or plans (in writing) and/or submit their own for approval. Most contractors bring this to the precon. You must have this in hand before on-site work begins.

2. The contractor must submit a letter designating after hours contact personnel and a Traffic Control Supervisor.

During the Project

Keep detailed records of signing and delineation:

- Be sure that construction signing in place matches the approved traffic control plan. If minor field changes are made, be sure they are documented. Significant, lasting changes should be reflected in a revised traffic control plan submitted by the contractor and approved by your agency.
- Turn on your date time stamp and take lots of pictures. A picture is worth a thousand words if there is an accident. At a minimum, photograph traffic control at the beginning and end of your work day and/or anytime the set up changes. More often is better protection for your agency.
- Be aware of any accident that occurs within the project area even after hours. Document site conditions and the status of signing and other traffic control measures.
• The contractor’s Traffic Control Supervisor must complete a daily traffic control report and submit it to you. WSDOT Forms 421-040A and 421-040B are commonly used for this task. Included in the daily report are such items as:

1. When traffic control devices are installed and removed.
2. Location and condition of signs and traffic control devices and the time of observation.
3. Revisions to the traffic control plan.
4. Lighting utilized at night.
5. Observation of traffic conditions.
6. Any accidents within the project limits.
Example of a ROM from WSDOT

Record of Materials Search Results

<table>
<thead>
<tr>
<th>PS&amp;E No.</th>
<th>Contract</th>
<th>Bid Item</th>
<th>Item Qty</th>
<th>Description</th>
<th>Source</th>
<th>Acceptance</th>
<th>Std Spec</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>008.01</td>
<td>1250</td>
<td>C.Y. GRAVEL BORROW INCL. HAUL</td>
<td></td>
<td>1 Acceptance Sample(s) Required</td>
<td>6-03.14 (1)</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>009.01</td>
<td>390</td>
<td>TON CRUSHED SURFACING TOP COURSE</td>
<td></td>
<td>1 Acceptance Sample(s) Required</td>
<td>6-03.0 (2)</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>010.01</td>
<td>120</td>
<td>TON CRUSHED SURFACING TOP COURSE (for shoulder ballast)</td>
<td></td>
<td>1 Acceptance Sample(s) Required</td>
<td>6-03.9 (3)</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>011.01</td>
<td>561</td>
<td>TON HMA CL. 1/2 IN. PG 64-22</td>
<td></td>
<td>1 Acceptance Sample(s) Required</td>
<td>6-03.0 (4)</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>011.02</td>
<td>34.96</td>
<td>TON PAVING ASPHALT</td>
<td></td>
<td>1 Sample for every other item listed or see Current QPL</td>
<td>6-02.1 (4)</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>011.03</td>
<td>546.14</td>
<td>TON CL. 1/2 IN. MIN. AGG.</td>
<td></td>
<td>1 Acceptance Sample(s) Required</td>
<td>6-02.8</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>011.04</td>
<td></td>
<td>ASPHALT FOR TACK COAT</td>
<td></td>
<td>Supplier’s Certificate of Compliance or See Current QPL</td>
<td>6-04.3 (5A) &amp; (5B) (5C)</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>012.01</td>
<td>14</td>
<td>TON HMA FOR PAVEMENT REPAIR CL. 1/2” PG 64-22</td>
<td></td>
<td>1 Acceptance Sample(s) Required</td>
<td>6-04.6 (5A)</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>012.02</td>
<td>6.66</td>
<td>TON PAVING ASPHALT</td>
<td></td>
<td>1 Sample for every other item listed or see Current QPL</td>
<td>6-02.1 (4)</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>012.03</td>
<td>10.34</td>
<td>TON CL. 1/2” MIN. AGG.</td>
<td></td>
<td>1 Acceptance Sample(s) Required</td>
<td>6-03.5</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>012.04</td>
<td></td>
<td>ASPHALT FOR TACK COAT</td>
<td></td>
<td>Supplier’s Certificate of Compliance or See Current QPL</td>
<td>6-04.3 (5A) &amp; (5B) (5C)</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>013.01</td>
<td>335</td>
<td>S.Y. SOIL RESIDUAL HERBICIDE</td>
<td></td>
<td>Submit commercial pesticide application record by 02-31/DA</td>
<td>6-02.1 (4)</td>
</tr>
<tr>
<td>TA4289</td>
<td>TA4289</td>
<td>016.01</td>
<td>100</td>
<td>L.F. TEMPORARY PAVEMENT MARKING</td>
<td></td>
<td>See Current Qualified Products List</td>
<td>6-23.2</td>
</tr>
</tbody>
</table>

To change the ROM as it is delivered to one that you can use, start by:
1. Deleting all columns you do not need.
2. Add lines between bid items so you have a place to record documentation.
3. Color code requirements and submittals to your liking. Whatever works for your office is acceptable as long as it is current.
### City of Longbranch
#### Example WSDOT ROM - Converted into a spreadsheet

**Short Lane Reconstruction**

**WSDOT Contract Number TA7896**

<table>
<thead>
<tr>
<th>Bid Item nbr</th>
<th>Item Qty</th>
<th>unit of meas.</th>
<th>Bid Item desc</th>
<th>spec source</th>
<th>Doc Requirement</th>
<th>QPL</th>
<th>Std Spec Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.01</td>
<td>1250</td>
<td>C.Y.</td>
<td>GRAVEL BORROW INCL. HAUL</td>
<td>1 Acceptance Sample(s) Required</td>
<td>9-03.14(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.01</td>
<td>390</td>
<td>TON</td>
<td>CRUSHED SURFACING TOP COURSE</td>
<td>1 Acceptance Sample(s) Required</td>
<td>9-03.9(3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.01</td>
<td>11</td>
<td>TON</td>
<td>HMA FOR PAVEMENT REPAIR CL. 1/2&quot; PG 64-22</td>
<td>1 Acceptance Sample(s) Required</td>
<td>5-04 &amp; SP 70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.02</td>
<td>0.66</td>
<td>TON</td>
<td>PAVING ASPHALT</td>
<td>1 Sample for every other mix sample or See Current QPL</td>
<td>Y 9-02.1(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.03</td>
<td>10.3</td>
<td>TON</td>
<td>CL. 1/2&quot; MIN. AGG.</td>
<td>1 Acceptance Sample(s) Required</td>
<td>9-03.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.01</td>
<td>635</td>
<td>S.Y.</td>
<td>SOIL RESIDUAL HERBICIDE</td>
<td>Submit commercial pesticide application record per 8-02.3(2)A</td>
<td>5-02.3(2)C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.01</td>
<td>300</td>
<td>L.F.</td>
<td>UNDERDRAIN PIPE</td>
<td>Mfr. Cert. per Std. Spec. 1-06.3 or See Current QPL</td>
<td>Y 9-05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.01</td>
<td>1 EACH</td>
<td></td>
<td>CATCH BASIN TYPE 1</td>
<td>WSDOT Inspected Tag/Stamp</td>
<td>7-05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.02</td>
<td>1 EACH</td>
<td></td>
<td>FRAME &amp; GRATE</td>
<td>&quot;WSDOT-A&quot; Stamp per 9-4.20 of Const. Manual</td>
<td>7-05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.03</td>
<td>1 EACH</td>
<td></td>
<td>PREFABRICATED LADDER OPTION</td>
<td>Mfr. Cert. per Std. Spec. 1-06.3</td>
<td>AASHTO M199</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.01</td>
<td>1 ACRE</td>
<td></td>
<td>SEEDING AND FERTILIZING</td>
<td>Retain Label Showing Content Analysis for each placement pay period</td>
<td>8-02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.02</td>
<td></td>
<td></td>
<td>SEED</td>
<td>Visual Acceptance per 9-4.48 of Const. Manual</td>
<td>9-14.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.02</td>
<td></td>
<td></td>
<td>STRAW</td>
<td>(Mulch &amp; Tackifier)</td>
<td>9-14.4(1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For each material used on a construction project a certain number of documents should be submitted, reviewed, approved, filed and copies returned to the contractor.

Material documentation files should include the following documents for HMA:

- RAM, QPL or other Material Approval Document – See examples on pages ????? of this handout.
- ASA Approval Report on page ?????.
- An approved Mix Design – Example on pages ????? of this handout.
- Delivery Tickets for the HMA (no example included)
- PG Binder Bills of Lading (these show the binder used is what was approved and also show the amount of)
- Anti-Strip in the binder in cases where it is added at the refinery – Example on page ????? of this handout
- Test Reports if any testing is done – Examples on pages ????? of this handout.
- Composite Pay Factor worksheets where applicable – Example on page ??.

---

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- Anti-Strip in the binder in cases where it is added at the refinery – Example on page ????? of this handout
- Test Reports if any testing is done – Examples on pages ????? of this handout.
- Composite Pay Factor worksheets where applicable – Example on page ??.
### Record of Material

<table>
<thead>
<tr>
<th>Contract No.</th>
<th>Bid Item</th>
<th>Quantity Unit Description</th>
<th>Quantity</th>
<th>Spec. Ref.</th>
<th>Documentation Req'd</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA2312</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Part 5 Construction Activities**

WSDOT Construction Training Guide for Local Agencies  M 3075.01  Page 5-39  January 2012

**Figure 5-2**

ROM as a Tracking Document – Low Tech Version (paper/ink) Working ROM
### Example ROM Updated with Material Acceptance Noted

<table>
<thead>
<tr>
<th>Bid Item</th>
<th>Qty</th>
<th>Unit of meas.</th>
<th>Bid Item desc</th>
<th>spec source</th>
<th>Doc Requirement</th>
<th>QPL</th>
<th>Std Spec Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.01</td>
<td>1442</td>
<td>C.Y.</td>
<td>GRAVEL BORROW INCL. HAUL</td>
<td>Big Hole Pit ASA BH1234</td>
<td>1 Acceptance Sample(s) Required</td>
<td>9-03.14(1)</td>
<td></td>
</tr>
<tr>
<td>9.01</td>
<td>390</td>
<td>TON</td>
<td>CRUSHED SURFACING TOP COURSE</td>
<td>Big Hole Pit ASA BH1234</td>
<td>1 Acceptance Sample(s) Required</td>
<td>9-03.9(3)</td>
<td></td>
</tr>
<tr>
<td>12.01</td>
<td>12.7</td>
<td>TON</td>
<td>HMA FOR PAVEMENT REPAIR CL. 1/2&quot; PG 64-22</td>
<td>Mix Design TA4289</td>
<td>1 Acceptance Sample(s) Required</td>
<td>5-04 &amp; SP 70</td>
<td></td>
</tr>
<tr>
<td>12.02</td>
<td>0.66</td>
<td>TON</td>
<td>PAVING ASPHALT</td>
<td>Big Oil and Marketing Co., Anacortes - WA</td>
<td>QPL Code 2535 - Bill Lading 4/5/11</td>
<td>Y 9-02.1(4)</td>
<td></td>
</tr>
<tr>
<td>12.03</td>
<td>11.1</td>
<td>TON</td>
<td>CL. 1/2&quot; MIN. AGG.</td>
<td>Big Hole Pit ASA BH1234</td>
<td>Small Quantity Acceptance Sample 2/2/2011 from City wide Paving</td>
<td>9-03.8</td>
<td></td>
</tr>
<tr>
<td>13.01</td>
<td>652</td>
<td>S.Y.</td>
<td>SOIL RESIDUAL HERBICIDE</td>
<td>RAM 12 Plants R Dead Paving Herbicide</td>
<td>Submit commercial pesticide application record per 8-02.3(2)A</td>
<td>5-02.3(2)C</td>
<td></td>
</tr>
<tr>
<td>18.01</td>
<td>300</td>
<td>L.F.</td>
<td>UNDERDRAIN PIPE</td>
<td>Prison Pipe Warden WA</td>
<td>Mfr. Cert.</td>
<td>9-05</td>
<td></td>
</tr>
<tr>
<td>21.01</td>
<td>1</td>
<td>EACH</td>
<td>CATCH BASIN TYPE 1</td>
<td>Tacoma Concrete</td>
<td>&quot;WSDOT Inspect&quot; Tag/Stamp IDR &amp; Photo : 3/11/2011</td>
<td>7-05</td>
<td></td>
</tr>
<tr>
<td>21.02</td>
<td>1</td>
<td>EACH</td>
<td>FRAME &amp; GRATE</td>
<td>Tacoma Iron</td>
<td>&quot;WSDOT-A&quot; Stamp IDR and Photo 3/11/2011</td>
<td>7-05</td>
<td></td>
</tr>
<tr>
<td>24.01</td>
<td>1</td>
<td>ACRE</td>
<td>SEEDING AND FERTILIZING</td>
<td>RAM 1 Comucopia Seeds Co.</td>
<td>Label 3/14/2011 Label 4/2/11</td>
<td>9-14.2</td>
<td></td>
</tr>
<tr>
<td>25.02</td>
<td></td>
<td></td>
<td>STRAW</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ROM Updated to reflect actual quantities placed and material acceptance actions.
Qualified Product List

Contractor Product Information

Contractor: Lakeside Industries
Sub Contractor: Apply-A-Line
Bid Item: 62

Contract No: TA9999
Date: 7/12/2011

Manufacturer: Rayolite, Division of Pac-Tec, Inc - Houston, TX

Product Name: Model AA
Standard Spec: 9-21.2, Pavement Marking - RPM - Type 2 (Standard Coating)

Product Description: RPM Type 2: standard coating, 4 inch by 4 inch by 0.7 inch
Product Restriction:

Acceptance Code: 3101
Code Description: Visually verify the product delivered to the job site is the product that was originally submitted by the Contractor and approved from the QPL. Note 'Restrictions' when present.

Note 3: Installation of this type of Raised Pavement Marker is not allowed on multi-lane divided highways.

Last Updated: Sep 13, 2010

To be completed by the field inspector:
Quantity: ________ Verified By: ________ Date: ________

## Request for Approval of Material

### Figure 5-5

<table>
<thead>
<tr>
<th>Bid Item No.</th>
<th>Material or Product Type</th>
<th>Name and Location of Fabricator, Manufacturer or Plant Number</th>
<th>Specification Reference</th>
<th>PE/QPL Code</th>
<th>Hdqtr./QPL Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>57</td>
<td>Electrical Service</td>
<td>Skyline Electric</td>
<td>9-29.24</td>
<td>3,4</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Luminaric Poles</td>
<td>Valmont Industries</td>
<td>9-29.6</td>
<td>5,6</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Steel Rebar</td>
<td>Far West Steel</td>
<td>9-07.2</td>
<td>2,6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nucor Steel</td>
<td>9-07.2</td>
<td>2028</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Birmingham Steel</td>
<td>9-07.2</td>
<td>2028</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Anchor Bolts</td>
<td>Portland Bolt</td>
<td>9-29.6(5)</td>
<td>5,6</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Luminaries</td>
<td>G.E. Company</td>
<td>9-29.10</td>
<td>3001</td>
<td></td>
</tr>
</tbody>
</table>

### Acceptance Action Codes for use by Project Engineer and State Materials Laboratory

1. Acceptance Criteria: Acceptance based upon 'Satisfactory' Test Report for samples of materials to be incorporated into project.
3. Acceptance Criteria: Catalog Cuts for 'Acceptance' prior to use of material. Catalog Cut Approved □ Yes □ No
4. Acceptance Criteria: Submit Shop Drawings for 'Approval' prior to fabrication of material.
5. Acceptance Criteria: Only 'Approved for Shipment', 'WSDOT Inspected' or 'Fabrication Approved Decal' material shall be used.
7. Acceptance Criteria: Request Transmitted to State Materials Laboratory for Approval Action.
8. Source Approved: 

<table>
<thead>
<tr>
<th>Project Engineer Distribution</th>
<th>State Materials Engineer Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor</td>
<td>General File</td>
</tr>
<tr>
<td>Region Operations Engineer</td>
<td>Signing Inspection</td>
</tr>
<tr>
<td>Fabrication Inspection</td>
<td>Other</td>
</tr>
</tbody>
</table>

**Remarks:**
- 3001 - Material Approved, Inspector must document field acceptance.

**DOT Form 350-071 EF**
Revised 12/2008

---

**For WSDOT Use Only**

RAM # 16
Aggregate Source Approval Report

WSDOT MATERIALS LAB
10/10/2011

Aggregate Source Approval Report

Owner: Pacific Rock Products dba Camex

Lessees: Aggregate Source: PS-G-106 Known as: English Pit
Located in: W1/2NW1/4, SE1/4, SE1/4, Section 30, SW1/4 Section 31, Section 30, 1/2N, R3E County: Clark

Remarks:
Deg Factor: 69, 1 Year ASR completed 7/8/2010. 1 Year ASR: 0.04. No mitigation required. 1 year ASR Expires 7/8/2015.

Pit Run Materials:
Prior to incorporating any of the following into a job, Gradation and Sand Equivalent tests shall be performed to determine if the material does in fact meet specification for the intended use:
- Backfill for Rock Wall
- Backfill for Sand Drains
- Bedding Material for Thermoplastic Pipe
- Blending Sand
- Gravel Backfill for Drains and Drywells
- Gravel Backfill for Foundation Class B
- Gravel Borrow
- Gravel Backfill for Walls
- Sand Drainage Blanket
- Select or Common Borrow

No Preliminary Tests are required to be performed by the State Materials Lab.

Gravel Base: Test Date: 04/04/2011 Swell Pressure: 0
Drainage: Free R Value: 69

Contact the Regional Materials Office to request PRELIMINARY SAMPLES be acquired. Evaluation and approval of this site as a source of GRAVEL BASE is required prior to use.

Mineral Agg. and Surfacing:
Absorption: 2.02 Test Date: 04/04/2011 Expiration Date: 04/04/2016

Currently approved as a source of aggregate for:
- ATB
- BST Crushed Screenings
- Crushed Surfacing Top Course
- HMA Wearing Course
- Gravel Backfill for Foundation Class A
- Maintenance Rock
- Gravel Backfill for Rigid Pipe
- Foundation Material for Classes A, B or C
- Gravel Backfill for Pipe Zone Bedding
- Sand Drainage Blanket

Acceptance tests need to be performed as necessary.

Portland Cement Concrete Aggregates:
ASR - 14 Day: 0.96 Test Date: 05/06/2011 Expiration Date: 05/06/2016
FCA Absorption: 3.18 CCA Absorption: 2.42
FCA Org: 1 CCA Sp. G: 2.874
Petrographic Analysis: LA: 16

Currently approved for:
- Coarse Concrete Aggregates
- Fine Concrete Aggregates

ASR MITIGATION MEASURES ARE REQUIRED PER WSDOT STD. SPEC. 9-03.1(1), WHEN USING AGGREGATE FROM THIS SOURCE FOR PORTLAND CEMENT CONCRETE.
Acceptance tests need to be performed as necessary.

Riprap and Quarry Spalls: Test Date: 04/04/2011 Expiration Date:


Figure 5-6
Transmittal of Manufacturer's Certificate of Compliance

<table>
<thead>
<tr>
<th>Date</th>
<th>Contract No.</th>
<th>SR No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-1-04</td>
<td>4329</td>
<td>5</td>
</tr>
</tbody>
</table>

From (Project Engineer) DEPARTMENT OF TRANSPORTATION
Mike L. Niemi, P.E.
18102 N.E. 10th Ave.
Ridgefield, WA 98642

To (Contractor) Howard Constr. Inc.

The attached Manufacturer's Certificate of Compliance for a quantity of C755 b.16a for Bid Item # 72: Material Superstructure Steel Rebar has been checked for conformance to Section 1-06.3 of the Standard Specifications per the checklist shown below.

1. Is the certification being provided PRIOR to the material being installed? [ ] YES [ ] NO

2. If the answer to number 1 above is "NO," attached is a copy of the contractor's approved request for permission to install prior to providing a Mfg. Cert. for acceptance. [ ] YES [ ] NO

3. Is a Mfg. Cert. proper documentation for this item of material? See Note 2. [ ] YES [ ] NO

4. Is this manufacturer an approved source for this bid item? [ ] YES [ ] NO

5. Does the Mfg. Cert. identify the name of the mfg. and/or fabricator? [ ] YES [ ] NO

6. Does the Mfg. Cert. identify the type or size of material being certified? [ ] YES [ ] NO

7a. Does the Mfg. Cert. identify the quantity of material being certified by type, size, lot, or heat number? See Note 3. [ ] YES [ ] NO

7b. Is a Bill of Lading or invoice attached to verify the quantity? See Note 3. [ ] YES [ ] NO

8. Does the Mfg. Cert. identify the applicable specification (i.e., AASHTO, ASTM, AWWA) that the material is to meet? See Note 4. [ ] YES [ ] NO

9. Does the applicable specification (i.e., AASHTO, ASTM, AWWA) shown on the Mfg. Cert. conform to the contract requirements? See Note 5. [ ] YES [ ] NO

10. Is the Mfg. Cert. signed by a corporate official? [ ] YES [ ] NO

11. Where more than one delivery is made, are the lot numbers identified? [ ] YES [ ] NO

12. Is a supporting mill test attached showing the physical and chemical test values? See Note 5. [ ] YES [ ] NO

Remarks:

Notes:
1. This form is not required for concrete delivery tickets.
2. Check the Record of Materials, Special Provisions, or the completed Request for Approval of Material Specifications.
3. No required for concrete admixtures, cement, liquid asphalt, plastic pavement markings, traffic paint, Reinforcement for use in lieu of a bill of lading or invoice.
4. Check special provisions for specifications or requirements for materials such as guide posts, plastic pavement markings, traffic paint, geotextiles, and others.

5. Test values required to be supplied with Mfg. Cert. for steel reinforcing bars and structural steel. Mfg. Cert. for some steel items, such as steel culvert pipe items, may reference heats used.
6. If answer is "NO," submit Mfg. Cert. to Headquarters Material Laboratory for approval.

☐ Accepted as proper documentation per Section 1-06.3 of the Standard Specifications.
☐ Manufacturer Certificate of Compliance submitted to Headquarters’ Materials Laboratory for “APPROVAL ACTION.”
☐ Returned to contractor for correction of "NO" answers recorded in items.

Distribution: HQ Lab – Original
District Construction

Signed
Date: 11-1-04

Figure 5-7
GRAHAM STEEL

FABRICATORS CERTIFICATE OF COMPLIANCE

CONTRACTOR: Metro Rebar

PROJECT: NE 78th to Salmon Creek

G.S.C. JOB #: 4394

W.S.D.O.T. CONTRACT #: 7213, 7216

The reinforcing steel covered by this certification was manufactured and fabricated in compliance with the Standard Specification of Washington State Department of Transportation and ASTM A615. Based on rolling mill documentation, it is certified that representative samples of the material have been tested and that test results conform to the applicable requirements listed above.

Copies of these certified test reports for each heat number are enclosed.

Each heat number and bar size are listed on the summary sheet.

Signed:

Christi Phelps, MTR Dept.

Date: 11/21/99

Graham Steel Corporation, P.O. Box 556, Kirkland, Washington 98083, (206) 823-5656, Fax (206) 823-1590,
Contractors Lic. #223-01-GR-AH-AS-C21505

Fabricators Certification of Compliance

Figure 5-8
Rebar Order (Cut) Sheets

*Figure 5-9*
## Certified Mill Test Report

**Figure 5-10**
### Ignition Furnace Worksheet

**Figure 5-11**

<table>
<thead>
<tr>
<th>Work Order No.</th>
<th>Class Mix</th>
<th>Sample No.</th>
<th>Plant Location</th>
<th>Agg. Source</th>
<th>Date Sampled</th>
</tr>
</thead>
</table>

**Time Sampled:** 10:15 PM

**Truck Number:** 375

**Mix ID Number:** G0113399

**% AC JMF:** 5.2

**% AC Ordered:** 5.2

**% AC Calc From Production:**

<table>
<thead>
<tr>
<th>Ignition Furnace Data (AASHTO T-308)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(5) Mass of Empty Basket(s)</strong>**</td>
</tr>
<tr>
<td><strong>(6) Mass of Basket(s) and Sample</strong></td>
</tr>
<tr>
<td><strong>(7) Mass of Sample (Enter in Furnace Controller)</strong></td>
</tr>
<tr>
<td><strong>(8) Calibration Factor</strong></td>
</tr>
<tr>
<td><strong>(9) Furnace Mass Reading</strong></td>
</tr>
<tr>
<td><strong>(10) Chamber Set Point (°C)</strong></td>
</tr>
<tr>
<td><strong>(11) Calibrated Asphalt Content (Printed Ticket)</strong></td>
</tr>
<tr>
<td><strong>(12) Corrected Asphalt Content (11) - (4)</strong></td>
</tr>
<tr>
<td><strong>(13) Mass of Residual Aggregate (use to calculate gradation)</strong></td>
</tr>
<tr>
<td><strong>(14) Mass of dry aggregate after wash</strong></td>
</tr>
</tbody>
</table>

**Aggregate Gradation (AASHTO T-30)**

<table>
<thead>
<tr>
<th>Sieve Size (in.)</th>
<th>Accumulative Mass Retained</th>
<th>Percent Retained</th>
<th>Percent Passing</th>
<th>JMF</th>
<th>Tolerance</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2”</td>
<td>0.0</td>
<td>100</td>
<td>100</td>
<td>90-100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/8”</td>
<td>84.0</td>
<td>16</td>
<td>84</td>
<td>90 Max</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 4</td>
<td>257.0</td>
<td>49</td>
<td>51</td>
<td>52</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 8</td>
<td>350.0</td>
<td>67</td>
<td>33</td>
<td>34</td>
<td>28-58</td>
<td></td>
</tr>
<tr>
<td># 16</td>
<td>410.0</td>
<td>79</td>
<td>21</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 30</td>
<td>451.3</td>
<td>86</td>
<td>14</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 50</td>
<td>468.0</td>
<td>90</td>
<td>10</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 100</td>
<td>470.0</td>
<td>90</td>
<td>10</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 200</td>
<td>498.7</td>
<td>95.6</td>
<td>4.4</td>
<td>6.2</td>
<td>2.0-7.0</td>
<td></td>
</tr>
</tbody>
</table>

**Pan**

**Percent Retained =** \( \frac{\text{Mass Retained}}{13} \times 100 \)

**Percent Passing =** 100 - Percent Retained

**% Must be within 0.2% of the mass of dry aggregate after wash (14).**

**Signature of Contractor’s Representative**

**Date**

**Inspector**

**Date**

**Distribution:** State Materials Lab, Region Materials Lab, Contractor

**Figure 5-11**
# Hot Mix Asphalt Compaction Report (Station)

<table>
<thead>
<tr>
<th>Test Number</th>
<th>(X) Value (A) x (L)</th>
<th>Random Length (X) x (L)</th>
<th>Sublot Length (L)</th>
<th>Lot Length (A)</th>
<th>Width (W)</th>
<th>Lane</th>
<th>HMA Test Temp.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Zero</td>
<td>(L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>(L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>(L) x 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>(L) x 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>(L) x 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Remarks**: Rollers
  - **Roller Codes**:
    - SDV - Single Drum Vibrator
    - DDV - Double Drum Vibrator
    - P - Pneumatic
    - TS - Tandem Steel
HMA Acceptance For Local Agencies

Bill of Lading

Manufacturer’s Certification

Anti-Strip additive may be documented here

Material Type

Figure 5-13
**Weekly Statement of Working Days**

*Figure 5-14*

<table>
<thead>
<tr>
<th>DATE</th>
<th>DAY</th>
<th>WEATHER CONDITION</th>
<th>WORKABLE DAYS</th>
<th>UNWORKABLE DAYS</th>
<th>REASON FOR UNWORKABLE DAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DAYS THIS WEEK**

**DAYS PREVIOUSLY REPORTED**

**TOTAL DAYS TO DATE**

**CURRENT STATUS**

- Working days specified in contract
- Approved extension of time
- Total authorized time of contract
- Less workable days charged
- Working days remaining

**SUMMARY OF WEEK'S ACTIVITIES**

**NOTE:** The contractor will be allowed 10 days from date of this report in which to protest in writing the correctness of this statement, otherwise it shall be deemed to have been accepted as correct.
# Inspector's Daily Report

**Figure 5-15**

## Inspector's Daily Report

<table>
<thead>
<tr>
<th>Item No</th>
<th>Contract Item Description</th>
<th>Location</th>
<th>Y/N</th>
<th>Y/N</th>
<th>Y/N</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>130</td>
<td>Heritage Building Visitor Center</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>N/A</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Clearing &amp; Grubbing 34+00 to 39+50</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>ACP Removal 33+00 to 34+00</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Contractor's Equipment

<table>
<thead>
<tr>
<th>No.</th>
<th>Operating Contractor's ID (A-E, see above)</th>
<th>Equipment - ID No. and Description</th>
<th>Opr</th>
<th>Stdby</th>
<th>Down</th>
<th>Idle</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1 Excavator - Cat 350</td>
<td></td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>A</td>
<td>1 Excavator - Hitachi 400</td>
<td></td>
<td>6</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>1 Dozer - Cat D-7</td>
<td></td>
<td>2</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>1 Kenworth Dump Truck - 10 yard</td>
<td></td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>1 Chevy P.U.</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>1 Paint Truck</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Contractor's Workforce

<table>
<thead>
<tr>
<th>Laborers</th>
<th>Carpenters</th>
<th>Operators</th>
<th>Number / Teamsters</th>
<th>Total Hours Ironworkers</th>
<th>Masons</th>
<th>Flaggers</th>
<th>Electricians</th>
<th>Number</th>
<th>Male</th>
<th>Female</th>
<th>Appr</th>
<th>Trme</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1 / 8</td>
<td>3 / 24</td>
<td>1 / 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>B</td>
<td>3 / 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>No</td>
<td>1</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>C</td>
<td>1 / 2</td>
<td></td>
<td>1 / 2</td>
<td></td>
<td>3</td>
<td>24</td>
<td></td>
<td>3</td>
<td>No</td>
<td>1</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>D</td>
<td>2 / 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>No</td>
<td>1</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### Traffic Control

<table>
<thead>
<tr>
<th>Was Traffic Control Required Today?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was WZTC according to approved TCP?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

| Photos/Videos taken Today? | Yes | No |
| Do all Flaggers and Spotters have current flagging card? | Yes | No |

Inspector's On Site Hours

- From: 8:00 AM
- To: 4:30 PM

Reviewed By

DOT Form 422-204 EF
Revised 03/2008

**WSDOT Construction Training Guide for Local Agencies**

**M 3075.01**

**January 2012**
## Inspector's Daily Report

<table>
<thead>
<tr>
<th>IDR Sheet</th>
<th>of</th>
<th>Sheets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract</td>
<td>Day</td>
<td>Date</td>
</tr>
</tbody>
</table>

**DIARY** - Including but not limited to: a report of the day's operations, time log (if applicable), orders given and received, discussions with contractor, and any applicable statements for the monthly estimate.

---

**Inspector's Daily Report – Diary**

*Figure 5-16*
### Inspector's Daily Report

**Figure 5-17**

<table>
<thead>
<tr>
<th>Surface Temp.</th>
<th>Air Temp.</th>
<th>Paver Speed (feet per minute)</th>
<th>Pneumatic Roller</th>
<th>Tire Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. Max.</td>
<td>Min. Max.</td>
<td>Min. Max.</td>
<td>Tons of Mix</td>
<td></td>
</tr>
<tr>
<td>From Station</td>
<td>To Station Sq. Yd.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paver Speed</th>
<th>Tons of Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min.</td>
<td>Max.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total To Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan Quantity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DOT Form 422-094B EF**

Revised 07/2008

Inspector

DIARY - Including but not limited to: a report of the day's operations, time log (if applicable), orders given and received, discussions with contractor, and any applicable statements for the monthly estimate.
8-31-04

Met with contractor in my office today at 1:00 pm to discuss utility conflicts with the drainage work. We both came to agreement that the existing water line was occasionally causing what delays to the drainage installation. We also agreed that the delays were random and of varying lengths of time. Because of the randomness of the delays we agreed that both the inspector and the foreman would document the disputed work and that compensation and working days would be agreed upon at the completion of the drainage work.

9-1-04

I received a call today from the contractor to discuss extension of the paving cutoff from October 18th to October 31st. I asked the contractor to put his request in writing and submit it to me for consideration.

9-6-04

Called J. Jones, project inspector at 9:00 am to inform him that CD #3 was verbally approved. I also asked him to inform the Contractor.

SIGN:

All entries made by person signed above unless otherwise indicated by other signature adjacent to entry.
### Payroll Form

#### Figure 5-19

**PAYROLL**

<table>
<thead>
<tr>
<th>PAYROLL</th>
<th>PAYROLL NO. FOR WEEK ENDING</th>
<th>PROJECT AND LOCATION</th>
<th>PROJECT OR CONTRACT NO.</th>
<th>DAY AND DATE</th>
<th>DEDUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.**

**U.S. Department of Labor**

**Employment Standards Administration**

**Wage and Hour Division**

**PAYROLL (For Contractor's Optional Use; See Instructions, Form WH-347 Inst.)**

**Persons and contractors required to return the collection of information unless it displays a currently valid OMB control number.**

**WASHINGTON STATE DEPARTMENT OF TRANSPORTATION**

**Construction Training Guide for Local Agencies**

**Figure 5-19**
**Payroll Form (page 2 of 2)**

---

**Payroll Form**

**Figure 5-19**

---

Date ________________________

I, ____________________________ (Name of Signatory Party) ____________________________ (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

[Contractor or Subcontractor]

on the

[Building or Work]

day of ____________________________, and ending the day of ____________________________, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

[Contractor or Subcontractor]

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 CFR 786.861), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 276c), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, of if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ — in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments for fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ — Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

<table>
<thead>
<tr>
<th>EXCEPTION (CRAFT)</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REMARKS:

__________________________

[Signature]

Date ________________________

I, ________________ (Name of Signatory Party) ____________________________ (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

[Contractor or Subcontractor]

on the

[Building or Work]

day of ____________________________, and ending the day of ____________________________, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

[Contractor or Subcontractor]

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 CFR 786.861), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 276c), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, of if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ — in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments for fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ — Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

<table>
<thead>
<tr>
<th>EXCEPTION (CRAFT)</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
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<tr>
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<td></td>
</tr>
</tbody>
</table>

REMARKS:

__________________________

[Signature]

Date ________________________

I, ________________ (Name of Signatory Party) ____________________________ (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

[Contractor or Subcontractor]

on the

[Building or Work]

day of ____________________________, and ending the day of ____________________________, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

[Contractor or Subcontractor]

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 CFR 786.861), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 276c), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, of if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ — in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments for fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ — Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

<table>
<thead>
<tr>
<th>EXCEPTION (CRAFT)</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
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<td></td>
</tr>
</tbody>
</table>

REMARKS:

__________________________

[Signature]
### Employee Interview Report

**Figure 5-20**

<table>
<thead>
<tr>
<th>Contract Title</th>
<th>Sub-Contractor</th>
<th>Employee</th>
<th>Current Duties</th>
<th>Date</th>
<th>Hourly Wage Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Supervising Work</td>
<td></td>
<td>22.55 +7.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Driving 4,000 gallon water truck</td>
<td></td>
<td>31.35 +7.05</td>
</tr>
</tbody>
</table>

**Remarks (4):**

- Hourly wage may be slightly different.
- Not certain of wage.

**Employee Labor Description:**

- Operator
- Foreman
- Teamster
- Bill Pierce

**Contractor:**

- TA-1234
- WSDOT
- Department of Transportation

**Federal-Aid Number:**

- STPUL-4301(001)

**Min. (3):**

- Minimum wage rate prescribed by the contract wage determination schedule

- Indicate references to supplemental reports, if any.
<table>
<thead>
<tr>
<th>Change Order</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page _____ of _____ Pages</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>Federal Aid Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contract Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change Order Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prime Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

| ☐ Ordered by Engineer under the terms of Section 1-04.4 of the Standard Specifications |
| ☐ Change proposed by Contractor |

<table>
<thead>
<tr>
<th>Endorsed By</th>
<th>Surety Consent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Attorney on Fact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Contract Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated Net Change This Order</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated Contract Total After Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>☐ Approval Recommended</th>
<th>☐ Approved</th>
<th>Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Engineer</td>
<td></td>
<td>Approving Authority per C.A. Agreement</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>☐ Approval Recommended</th>
<th>☐ Approved</th>
<th>Other Approval When Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>By</td>
<td>Signature</td>
<td>Date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Representing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DOT Form 140-005 EF Revised 4/06

Change Order

Figure 5-21
## Change Order Checklist

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does the change order alter the termini, character, or scope of the work?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, you must have H&amp;LP approval to be eligible for federal funds.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, you must submit a revised Page 1 of the prospectus.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Is the Change Order over $7,500.00 and outside the scope of work?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, the change cannot be a change order and must be an independent work.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Does the Change Order detail all items involved with the change?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Does the Change Order include an adjustment in working days?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, the time extension must be stated in the Change Order.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, an independent engineer's estimate of time must be included to document the extension.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If no, that must be stated in the Change Order.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Does the Change Order alter the DBE Condition of Award?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, you must obtain concurrence form H&amp;LP.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, you must obtain the DBE’s signature on the Change Order.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Does the Change Order involve a material substitution?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, you must determine if a material credit is appropriate.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. If Change Order work started prior to it’s execution, prior verbal approval by the Approving Authority must be granted and documented.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Has the Change Order been signed by the contractor?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Has the Change Order been executed by the Approving Authority?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you are a “non CA Agency,” you must have the acting CA Authority’s approval.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Has an independent engineer’s estimate justifying the costs and time extensions been completed and documented?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Has a detailed memo outlining the chronology of events, basis of need, costs, and working days been prepared and placed in the file accompanying the Change Order?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Construction Activities

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER # 7

CONTRACT NO: TA2433

5/8/2003

General
You are ordered to perform the following described work upon receipt of an approved copy of the change order.

Description of Work
The contractor shall install Roof Drains as detailed on sheet 4 of 4.

Measurement
Measurement for Roof Drains shall be by each.

Payment
Payment for Roof Drains shall be by each.

Working Days
Working days are not affected by this change order.

<table>
<thead>
<tr>
<th>CONTRACT NO:</th>
<th>CHANGE ORDER NO:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM NO</td>
<td>GROUP NO</td>
</tr>
<tr>
<td>151</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL: $6,000.00

Change Order (page 1 of 3)

Figure 5-23
10 ROOF DRAINS - LOCATIONS VARY BETWEEN STATIONS 668+50 TO 681+00. FINAL LOCATION TO BE DETERMINED BY THE ENGINEER.
## JUSTIFICATION FOR ROOF DRAINS

<table>
<thead>
<tr>
<th></th>
<th>FOREMAN</th>
<th>2 LABORER</th>
<th>OPERATOR</th>
<th>SUB TOTAL FOR LABOR</th>
<th>PRIME MARKUP IS 29%</th>
<th>GRAND TOTAL FOR LABOR INCLUDING MARKUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL HOUR</strong></td>
<td>10</td>
<td>20</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HOURLY RATE</strong></td>
<td>$40.00</td>
<td>$37.00</td>
<td>$40.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>COLUMN TOTAL</strong></td>
<td>$400.00</td>
<td>$740.00</td>
<td>$400.00</td>
<td>$1,540.00</td>
<td>129.00%</td>
<td>$1,986.60</td>
</tr>
<tr>
<td><strong>ADDITIONAL MATERIAL COST INCLUDING CONCRETE FOR BORDER AND 3 INCH SCHEDULE 40 PIPE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MATERIAL COST</strong></td>
<td></td>
<td></td>
<td></td>
<td>$200.00</td>
<td>129.00%</td>
<td>$258.00</td>
</tr>
<tr>
<td><strong>PRIME MARKUP OF 21%</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GRAND TOTAL FOR MATERIALS INCLUDING MARKUPS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL BEFORE SUB MARKUP OF 12%</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$2,244.60</td>
</tr>
<tr>
<td><strong>TOTAL ROOF DRAINS INSTALLED PER SHIFT.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>JUSTIFIED COST PER EACH ROOF DRAIN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$628.49</td>
</tr>
</tbody>
</table>
VERBAL APPROVAL

DATE: 07/12/01 CONTRACT: TA-1483
PROJECT NAME: Raymond Business Loop
Is HQ Approval Needed?: (number from Checklist) N/A
Is Region Approval Needed?: (number from Checklist) 2
REQUESTED BY: City of Raymond

Discussion/Remarks:
Over-exavcation of unsuitable material under the sidewalk area. The Contractor will over-exavcate up to 1.5’ deep, construction geotextile will be placed on the existing material and the excavation will be backfilled with crushed surfacing. All in accordance with the following provisions:

1. All costs are federally eligible. All costs in excess of approved Local Agency Agreement will be born by the City of Raymond.
2. Work can begin immediately upon receipt of the verbal approval and upon approval by the City. The City, Contractor, Consultant and Local Programs Engineer shall sign final Change Order.

APPROVED BY: ____________________________ (William Pierce)

FHWA: PERSON NOTIFIED: N/A
DATE: ___________ REMARKS: ________________________________

Change Order Checklist:
A. HQ Signs Change Order
B. Region Signs Change
2. Modified CA Project.

Figure 5-24
Change Order - Minor Change

Change Order Number
22

Change Description
MC - G-Line Culvert Removal

Date
Apr 15, 2011

Region
Olympic Region

Project Engineer
MaryLou Nebergall

Prime Contractor / Design-Build
Tri-State Construction Inc.

Ordered by Engineer under the terms of Section 1-04.4 of the Standard Specifications or the RFP

Change proposed by Contractor / Design-Build

Change Description

Description:
This change order compensates the Contractor for all labor, equipment, and materials required to remove and dispose of an existing ductile iron culvert, and backfill the resulting void, G1-Line 15+55 Rt to 15+70 Lt.

Material Requirements:
Backfill material shall be gravel borrow as specified in this project.

Construction Requirements:
Work shall be completed as directed by the Engineer and in accordance with Section 2-02 of the Standard Specifications.

Measurement & Payment
The total estimated cost for this change order is $600.00. The actual cost for the work described by this change order will be calculated by force account as provided in Section 1-09.6 of the Standard Specifications. This item of work will be paid under Bid Item #199 “Minor Change”.

Contract Time:
This change order does not include time related impacts. Contract time will be addressed as necessary when this change order work is complete and when the actual time and time related impacts have been determined.

Original Contract Amount
$15,517,831.55

Current Contract Amount
$15,519,903.25

Est. Net Change This C.O.
$600.00

Est. Revised Contract Amount
$15,520,503.25

Prime Contractor / Design-Build
Signature or Method of Concurrence:

Project Engineer’s Signature for Execution:

Distribution:
Copy of Change Order Page & Memorandum Page w/Backup - Project Engineer
Copy of ONLY Change Order Page - Prime Contractor / Design-Build
Copy of Change Order Page & Memorandum Page w/Backup - Region Construction Office
Original of Change Order Page & Memorandum Page w/Checklist and Approval Documentation - State Construction Office

DOT Form 421-005A EF
Revised 1209

Change Order Page
Change Order - Minor Change

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>Contract Title</th>
<th>Change Order Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>7998</td>
<td>Grand Mound to Maytown Stage 2 - Replace Interchange</td>
<td>22</td>
</tr>
</tbody>
</table>

**Brief Description of Problem / Reason for Entitlement:**
On 3/21/2011, the Contractor contacted WSDOT concerning the existing steel culvert pipe that crossed the G1-Line. The site prep plans showed that the culvert pipe was to remain in place. However, the top of pipe elevation was shown to be above the subgrade limits and impinging into the surfacing lifts. WSDOT’s survey crew checked the elevation of the pipe and confirmed the Contractor’s concern. On 3/22/2011, MaryLou Nebergall (Tumwater PEO PE) gave her approval for the change. On 3/23/2011, the Contractor removed the culvert and backfilled the void.

The Contractor is entitled to compensation per Section 1-04.4 of the Standard Specifications since this is added work to the Contract. The culvert pipe was not called out for removal in the site prep plans.

**Justification of Cost:**
$600.00 is the estimated cost to complete the work described in this change order. An Independent Engineer’s Estimate was performed using approved wage rates for labor, Blue Book rates for equipment, and quoted rates by suppliers for materials. The breakdown of the Independent Engineer’s Estimate to remove the culvert pipe and backfill void is as follows:

- Labor (inc. 29% M.U.): $150.56
- Equipment (inc. 21% M.U.): $162.38
- Materials (inc. 21% M.U.): $273.67

Independent Engineer’s Estimate Total: $586.60 → use $600.00 for estimate

The actual cost will be verified and calculated by force account for work performed on 3/23/2011 per Section 1-09.6 of the Standard Specifications.

<table>
<thead>
<tr>
<th>Calculated By</th>
<th>Date</th>
<th>Checked By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspector</td>
<td>Date</td>
<td>Work Started</td>
<td>Work Completed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
<th>Group</th>
<th>Date</th>
<th>Unit</th>
<th>Quantity</th>
<th>RAM/QPL</th>
<th>Ledger no.</th>
<th>Post</th>
<th>Ckd</th>
<th>Est. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>199</td>
<td>Minor Change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Distribution:**
- Copy of Change Order Page & Memorandum Page w/Backup - Project Engineer
- Copy of ONLY Change Order Page - Prime Contractor / Design-Builder
- Copy of Change Order Page & Memorandum Page w/o Backup - Region Construction Office
- Original of Change Order Page & Memorandum Page w/Checklist and Approval Documentation - State Construction Office

DOT Form 421-065A EF
Revised 12/09

Memorandum Page
### CHANGE ORDER-CHECKLIST

<table>
<thead>
<tr>
<th>C.O. #: 22</th>
<th>C.O. Title:</th>
<th>MC: G4 line Calvert Removal</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Executed by the State Construction Office</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Cost or credit equal to or exceeding $500,000. *1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Change in the contract documents beyond the scope, intent or termini of the original contract. *2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Any proposed revision or deletion of work that affects the condition of award requirements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No □ X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| II. Executed by the Region |
| 4. Cost or credit greater than $100,000 but less than $500,000. *1 |
| 5. Change in contract time greater than 10 and less than or equal to 30 working days, must be related to changes implemented by change order. |
| 6. Change in contract time greater than 30 working days. |
| □ Yes □ No □ X |

| III. Executed by the Project Engineer |
| 7. Determination of impacts and/or overhead. |
| 8. Specification change involving Headquarters generated specification. (Includes Region generated specification requiring State Construction Office Approval) |
| 10. Material or product substitution. |
| 11. Structural design change in the roadway section. (Requires State Materials Lab approval) |
| 12. Determination of changed condition. (Section 1-04.7 of the Standard Specifications) |
| 13. Settlement of a claim. (Section 1-09.11(2) of the Standard Specifications) |
| 14. Repair of damage regarding “acts of God” or “acts of the public enemy or of government authorities”. (Section 1-07.13 of the Standard Specification) |
| 15. Structural change to structures. (See BTA authority as shown in the Construction Manual) |
| □ Yes □ No □ X |

**Approvals obtained:**
- Project Engineer (Required): Mary Lou Nebelgerl
- Region (Required if yes marked)
- Date 3/22/2011
- State Construction Office
- Date
- State Materials Lab
- Date
- Other (Local Agency, FHWA, Surety, etc.): Date

**To be completed by the Project Engineer:**

| Change Order Prepared By: Tim Meckel |
| PM/LP, AW |
| Date 3/3/2011 |

Has change been entered as lesson learned? □ Yes □ No
Has design documentation been updated? □ Yes □ No

Is this project under full FHWA stewardship oversight? *1 □ Yes □ No

**ATTACHMENT NO:** 2
**CONTRACT NO:** 3 991
**CHANGE ORDER NO:** 2 3
**PAGE:** 2 1

*1 Change (Cost or Credit) greater than $200,000 or greater than 30 days on Full Federal Stewardship Oversight projects requires FHWA approval. (see Construction Manual - Chapter 1-2, 4C(3), Chapter 1-3.4, and http://www.wsdot.wa.gov/biz/construction/Stewardship/Stewardship.xsl)

*2 Per RCW 47.28.050, any change beyond $7,500 that is beyond the original scope shall go through the competitive bidding process.

This form represents the minimum information required by the State Construction Office. If you wish to supplement this information, you may do so on a separate sheet of paper.

Revision: 01/01/09

---

**Change Order - Minor Change** (page 3 of 3)

*Figure 5-25*
## Item Quantity Ticket

**DATE:** 1-17-95  
**STATION:** 27+860  
**KILOMETER GROUP:** 1  

**REMARKS:** Legal Gross 23,587 kg  
From PS-201-48

<table>
<thead>
<tr>
<th>TIME RECEIVED</th>
<th>TIME WEIGHTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:34 A.M.</td>
<td>11:47 P.M.</td>
</tr>
</tbody>
</table>

**RECEIVED BY:**  
**WEIGHED BY:**

**CHECK ONE:**  
- **TONNES:**  
- **HOURS:**  
- **KG:**  
- **LITERS:**  
- **M³:**  
- **EACH:**

**TRUCK NUMBER:** 32  
**GROSS:** 16,850  
**TARE:** 7,550  
**NET:** 9,300

**OTHER UNIT OF MEASURE:**

<table>
<thead>
<tr>
<th>ITEM IDENTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM NO.</td>
</tr>
</tbody>
</table>
| CONTRACTOR | CONTRACT 4711  
ACE CONSTRUCTION CO  
ITEM NO. 36  
GRAVEL BACKFILL  
FOR DRAINS |

**GRAVEL BASE:**  
**BALLAST:**  
**CRUSHED BASE:**  
**SURFACING TOP:**  

<table>
<thead>
<tr>
<th>A.T.B.</th>
<th>C.T.B.</th>
<th>WATER</th>
<th>TOP SOIL</th>
<th>A.C. CLASS</th>
</tr>
</thead>
</table>

**OTHER (SPECIFY):** No.

**DOT Form 422-021 Metric**  
**99G**  
**ORIGINAL**
Certificate of Inspection

Figure 5-27
Field Note Record

**Contract No.** TA-9999

**Station** 34+00 - 39+50

**Line** Main Street

**C/S** N/A

Staked By: S. Michelle Gellar

Date: 9-8-2011

Work Started: 9-10-2011

Work Completed: 9-12-2011

Calculated By: K. Hash

Date: 9/12/11

Checked By: K. Molyneux

Date: 9/14/11

**Figure 5-28**

*Measurement Details*

- **2000 FT²**
- **7,500 FT²**
- **5000 FT²**

\[ \frac{14,500 \text{ FT}²}{43,560} = 0.33 \text{ ACRE} \]

**Item No.** 1

**Item Description** Clearing & Grading

**Group** N/A

**Date Work Completed** 9/12/11

**Unit** ACRE

**Quantity** 0.33

**Ledger Entry No.** 35

**Posted By** DC

**Date** 9/20

**Initials** S

**Date** 9/21

**Est. No.** 1

DOT Form 422-835 EF

Revised 03/2008

Page No. _____

**Figure 5-28**
### Daily Report of Force Account Worked

**Figure 5-29**

<table>
<thead>
<tr>
<th>No.</th>
<th>Workers and/or Equipment Working</th>
<th>Occupation of Workers or Equipment Size</th>
<th>Hours Worked</th>
<th>Reg. O.T.</th>
<th>O.T. Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A. Shaham</td>
<td>Foreman</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>M. Hamilton</td>
<td>Laborer</td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>S. Geltz</td>
<td>Operator / Traineer</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>B. Graham</td>
<td>Laborer</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>T. Blair</td>
<td>Laborer</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Ford Pickup #483</td>
<td>1992 F 250 (Diesel)</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Ford Pickup #555</td>
<td>1992 F 250 (Gas)</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Sullivan Air Compressor 185 CFM</td>
<td>(Gas)</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Hammer, Spuds, Hose</td>
<td>Model 730 Impact Hammer</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
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<td>13</td>
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</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Motor Mix C 50 lb bags</td>
<td>(BMC West Invoice #207315c)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>6 x 8 x 8 Half blocks 20 cty</td>
<td>(BMC West Invoice #2073215)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
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<tr>
<td>19</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Calculated By</td>
<td>Date</td>
<td>Checked By</td>
<td>Date</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAPS Entry Number</td>
<td>Entered By</td>
<td>Entry Verified</td>
<td>Date</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Inspector:**

[Signature]

**Contractor's Representative:**

[Signature]

**Title:**

[Signature]
Reduced Acceptance Criteria Checklist

This checklist is required to be filled out for individual materials and be put in the Materials File. If the material is listed in the CM Section 9-1.3C - 'Low Risk Materials' or this material qualifies for Visual Acceptance per 9-1.4C, then you do not need to proceed with this form.

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>Contract Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid Item Number</td>
<td>Plan Quantity</td>
<td>Material Description</td>
</tr>
</tbody>
</table>

Description of Change to Materials Acceptance: Explain the work being performed and the proposed changes to the normal materials acceptance, and/or inspection criteria. Explain why this is being proposed, what is the justification for the change, is this a 'critical' item of work and has proper approval (RAM/QPL) been performed?

Acceptance Criteria per RAM/QPL Proposed Acceptance Criteria

R = Region Materials Engineer  
M = State Materials Laboratory  
C = State Construction Office

| I. Sampling and Testing for Small Quantities of Material (CM 9-1.1A) | | Yes | No |
|-------------------------------------------------------------------|-----------------|------|
| Is the proposed quantity greater than the minimum required frequency? | STOP If 'Yes' |
| For concrete, is the concrete Cl 4000 psi or greater? | STOP If 'Yes' |
| Is the material structurally 'significant'? | M | C |

| II. Reduce Frequency of Testing: (CM 9-1.1B) | | Yes | No |
|-------------------------------------------------|-----------------|------|
| Is the material running well within specification limits? | STOP If 'No' |
| Have ten consecutive samples been taken at normal frequency that indicate complete conformance within specification requirements? | STOP If 'No' |
| Is the proposal for deviation greater than 10% and less than 20%? | M |
| Is the proposal for deviation greater than 20% or elimination of test? | R |
| For Quarry Sites, is 'fracture' being eliminated? | R |

| III. Project Engineer Discretionary Materials Acceptance (CM 9-1.1C) | | Yes | No |
|---------------------------------------------------------------------|-----------------|------|
| Is the work ‘within’ the vertical limits of the roadway? | M | C |
| Is the dollar amount over $20,000 for this Bid Item? $ | M | C |
| Is the total dollar amount over $50,000 for the entire project? $ | M | C |

State Materials Laboratory and Headquarters Construction concurrence documentation must be attached.

Approvals

Project Engineer Approval By: ______________________________ Date ______________________________
Region Materials Laboratory: ______________________________ Date of Concurrence ______________________________
State Materials Laboratory: ______________________________ Date of Concurrence ______________________________
State Construction Office: ______________________________ Date of Concurrence ______________________________

DOT Form 350-120 EF 10/09  
Distribution: ☐ Region Materials Lab ☐ State Materials Lab ☐ State Construction Office

Reduced Acceptance Criteria Checklist  
Figure 5-30
## Report of Protested Work

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>Date</th>
<th>Location of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime Contractor</td>
<td>Subcontractor / Lower Tier Subcontractor</td>
<td>Other</td>
</tr>
</tbody>
</table>

Description of Work Performed and Why Protested

### Time Worked Record

<table>
<thead>
<tr>
<th>Workers and/or Equipment Working</th>
<th>Occupation of Workers or Equipment Size</th>
<th>Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Regular</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
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<tr>
<td>4</td>
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<tr>
<td>20</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operated</td>
</tr>
<tr>
<td>Standby</td>
</tr>
</tbody>
</table>

This form is for the sole purpose of documenting the use of labor, equipment, and materials on work protested under Section 1-04.5 and 1-09.11 of the Standard Specifications.

Inspector’s Signature | Contractor’s Representative’s Signature | Title

DOT Form 422-007 EF
Revised 03/2008

Report of Protested Work

Figure 5-31
### Contractor's Daily Report of Traffic Control - Summary

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>SR Number</th>
<th>Day</th>
<th>Date</th>
</tr>
</thead>
</table>

**Photos / Videos taken today for record?**

- [ ] Yes
- [ ] No

If Yes, note locations:

- 
- 
- 
- 
- 

**Summary of TCS Activities**

- 
- 
- 
- 
- 
- 
- 
- 
- 

**Contractor**

**Contractor’s Traffic Control Supervisor’s Signature**

---

To be Completed by Contractor’s Traffic Control Supervisor (TCS)

DOT Form 421-040A EF  
Revised 4/2004  
Distribution: White - Contractor; Canary - Project Engineer

---

**Contractor’s Daily Report of Traffic Control – Summary**

*Figure 5-32*
## Contractor's Daily Report of Traffic Control - Traffic Control Log

Use separate sheets for each setup. (May be altered to record Class A signs.)

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>SR Number</th>
<th>Day</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Legend

(List of Signs Used)

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

### Work Area

<table>
<thead>
<tr>
<th>Setup</th>
<th>STA A</th>
<th>STA B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Other Traffic Control Labor

<table>
<thead>
<tr>
<th>Name</th>
<th>Start</th>
<th>End</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Type of Traffic Control

<table>
<thead>
<tr>
<th>Time Set Up</th>
<th>Time(s) Checked</th>
<th>Time Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To be Completed by Contractor’s Traffic Control Supervisor (TCS)

Contractor’s Traffic Control Supervisor’s Signature:

---

DOT Form 421-040B EF
Revised 03/2008

Contractor’s Daily Report of Traffic Control – Traffic Control Log

Figure 5-33
### Scaleman’s Daily Report

<table>
<thead>
<tr>
<th>Contract No.</th>
<th>Date</th>
<th>Pit No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale Location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials Hauled</td>
<td>Item No.</td>
<td></td>
</tr>
<tr>
<td>State Scaleman Signature</td>
<td>Contractor’s Scaleman Signature</td>
<td></td>
</tr>
</tbody>
</table>

#### Morning Tare

<table>
<thead>
<tr>
<th>Time</th>
<th>Truck No.</th>
<th>Tare</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Truck No.</th>
<th>Tare</th>
</tr>
</thead>
</table>

#### Afternoon Tare

<table>
<thead>
<tr>
<th>Time</th>
<th>Truck No.</th>
<th>Tare</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Truck No.</th>
<th>Tare</th>
</tr>
</thead>
</table>

#### Remarks

Contractor’s weighman operated the scales and the state inspector observed ( ) or weighing operations were performed by the commercial scale operator ( ).

Scale Tested By (Company or Agency): Date

The reverse side of this form must be used weekly to document scale verification checks.

DOT Form 422-027 EF
Revised 10/2011

Distribution: Original-Project Engineer
Copy-Contractor

---

**Scaleman’s Daily Report**  
*Figure 5-34*