

Chapter 10 Documentation

10-1 General

10-1.1 Introduction and E-Ticketing

This chapter is intended to provide a reference and to act as guidance for the project office in the keeping of Construction Contract Records. While there may be differing needs or circumstances that must also be met within each project office, it is intended that this guidance be used to help identify the minimum requirements that are necessary in order to establish an adequate method of record keeping. These minimum requirements also help to establish a basic level of uniformity among all project offices statewide. This can help to facilitate the review of records by others and promotes greater efficiency when engineering personnel are transferred or reassigned between different projects or even different project offices. If a clear method of record keeping can be identified prior to the beginning of work, then original field notes and records can be easily prepared and maintained as the work progresses. This will also help to reduce the effort required to produce the final contract records upon completion of the project.

Successful Contract documentation requires that measurements and calculations supporting contract payments are accurate and that records of these actions are complete. Contract records and documentation must be sufficiently detailed and maintained in a manner that will withstand an audit and be clear enough to be read and understood by anyone unfamiliar with the project. The Project Engineer is responsible to ensure that these accurate and complete records are maintained for all construction project work. If questions arise or assistance is needed, the statewide Documentation Engineer and the Regional Documentation Engineer are both available as resources for the Construction Project Office's use.

It is recommended that original field notes be kept in a form that can be filed and retained as basic documentation. Field notes taken on scratch paper and then passed to the office should not be considered as acceptable documentation. Transcription of field notes to final record form should be avoided due to the possibilities of error and the unnecessary cost of duplication.

All personnel are responsible to ensure that notes are made correctly and are complete with all pertinent information. Sample notes have been included with this chapter and are intended as a guide or reference in preparing final record notes.

Project Office staff that utilize Unifier for project documentation may refer to the Unifier Training and Resources page located on the [Construction Office SharePoint](#) site.

Documents which must stand up in a court of law or meet the requirements of a State or Federal Audit require a signature.

A signature, whether digital, electronic, or hand-written, is primarily a symbol signifying intent and identifying those who worked on the documentation record. Now that we are conducting a substantial portion of our business via the computer, each individual should become familiar with those documents which require an original signature and which are acceptable with a printed/computer generated name.

Chapter 11 lists the various electronic construction forms made available by WSDOT. These forms may be used to record, document, and make payment for construction activities and materials on WSDOT construction projects. The forms are categorized by:

- Those persons responsible for completing the form (e.g., project office, Contractor, Materials Lab).
- Whether an original signature is required or a printed/computer generated signature is acceptable.

10-1.2 Requirements for Notes

Documentation of contract items that are not specifically covered by the sample field notes can, in most instances, be created using the examples as a guide for similar items. The following notations should be carefully observed for correct procedure:

1. Each set of notes should contain the date when they were made and the initials of the persons making them.
2. Each set of notes, except staking notes, should contain the date when the phases of work are accomplished, the initials of the persons who compute and check the quantities noted, the dates when the quantities were computed, the dates when the computations were subsequently checked, the locations where the work was performed, and the corresponding group number.
3. When field notes are used as the basic source document in supporting a payment to the Contractor, they must include the date and initials of the person making the entry into the project ledger, the person verifying the entry, and the six-digit entry number.
4. Each pay quantity identified in the field notes should be designated with the corresponding item number and correct item name listed in the contract.
5. It is recommended that the correct field book or loose leaf sheet always be used for the particular kind of work being staked or measured.
6. The degree of accuracy required for computing unit quantities should be consistent with standards established in [Section 10-2.1B](#).
7. It is recommended that sets of field notes and field books be numbered and titled in order to prevent their loss and to aid in tracking payments and their supporting information.

10-1.3 Source Documents

Field notes are one of the many items that might be considered as a Source Document. It is recommended that all field notes, base line notes, centerline notes, and grade books be recorded in bound books. If looseleaf books are to be used, care must be exercised to prevent lost pages.

Notes should be recorded in a manner that is neat, clear, uncrowded, and in sufficient detail so as to be easily understood.

Original entries later determined to be in error must not be obliterated by erasing, application of correction fluid, taped over, or in the case of computer-generated documents, deleted. Instead, a line should be cleanly drawn through the mistaken entry and corrections entered directly above with the date of the correction and the initials of the person making the change. This is very important, as erasures, or deletions will destroy the legal standing of notes. When revisions require abandonment of a

considerable portion of notes, they shall be crossed out and a cross reference made of the book and page number where the revised notes may be found.

Each Final Records book should be labeled and contain a title page using [DOT Form 422-009](#). Each book is to be numbered and a table of contents included on the first page following each book's title sheet. It is essential that original field notes and documents be carefully organized, kept, recorded, and maintained in safe filing facilities during the active stage of a project. These documents should be transferred to safe, adequate, and recoverable storage after the contract is completed. At all times, when not in use, all source documents, reports, survey notes, etc., should be kept in fire resistant files where possible. Additional information on source documents can also be found in [Section 10-4.2](#).

10-2 Measurement of Items of Work

10-2.1 General

10-2.1A Introduction

The Project Engineer must ensure proper controls are exercised when measuring items of Work and that payment made for any item can be substantiated by the project records, regardless of the Work's stage of completion. Items that are paid for based on weight or truck volume require measurement of the quantities involved, evidence of receipt for the materials, and documentation for both operations through use of Item Quantity Tickets (IQT), receiver logs, or other delivery methods.

10-2.1B Quantity Details

The number of significant decimal places to which quantities are measured and/or computed varies with the value or unit bid price of the respective items involved. Unless advised otherwise, the Project Engineer will use the following guidelines.

Bid Price	Significant Decimal Per Unit
Less than \$10 per unit	1.0
From \$10 to \$100 per unit	0.1
Over \$100 per unit	0.01

If a higher significant decimal place is used to calculate various parts of a particular quantity, the total payment amount will be determined using the guidelines above. For example, when totaling daily item quantity tickets, calculate the quantity to the decimal point recorded on the tickets. Payment totals for the day will be rounded to the proper significant decimal place shown above and the rounded quantity is recorded in the CAPS project ledger.

Quite often, good practice would dictate that the various parts of a particular quantity be calculated to a higher significant decimal place or in some other unit, a unit other than that used for payment, and then be converted to the payment unit in the summation. Good judgment should be used in selecting when to actually apply rounding to the quantity. In general, it is considered proper to apply rounding at the first summation of each isolated part. For example, at the summation of a day's item quantity tickets the quantity to be recorded should be rounded to the proper significant decimal place and the rounded quantity recorded into the project ledger.

10-2.1C Item Quantity Ticket

IQTs are used to document items that are paid for based on quantities of material or other bid item services that are received at the project site. IQTs can be provided by the State, the Contractor, commercial sale companies or suppliers at commercial plants/material sources.

The State provided IQT (DOT Form 422-021) shown in Figure 10-1 can be used to document material or services that do not require the use of electronic tickets. The Contractor will receive a copy of all State provided IQTs.

The Project Engineer will ensure that all IQTs include the items noted below, identified as the minimum required information for documenting receipt of materials and for supporting payment of those materials. Additional information may be added to IQTs at the option of the Project Engineer as a convenience when monitoring material use.

All IQTs must include the following minimum required information:

- Contract Number
- Date
- Contract Unit Bid Item No.
- Unit of measure
- Identification of hauling vehicle
- Record of the gross, tare, and net weights
 - If the scale has a tare beam so that the net weight can be read directly or when using batch plants or storage silos with direct reading scales, only the net weight need be recorded.

If the unit of measurement is cubic yards, hours, etc. only the net quantity needs to be recorded.

In addition to the minimum required information, there are a number of other items that could also be included on IQTs. While this information is helpful to others who may also be using these same tickets for monitoring materials, materials placement, or other issues, this additional information is not required to support payment for materials received.

Recording this information on IQTs is solely at the option of the Project Engineer. Some of these optional items may include:

- Group, Station or Mile of material placement
- Contractor/Subcontractor completing the work
- Cumulative totals for the day
- Pit number identifying the source of the material
- Time weighed and initials of the person issuing the ticket
- Time materials or services are received on the job site
- Description of the material that matches the unit bid item name
- Ticket serial number, etc.

Electronic Tickets

An electronic ticket is an example of a Contractor provided IQT. When the Contract requires use of electronic tickets, a WSDOT representative is responsible for monitoring and tracking loads of delivered material at the delivery site or at the site where the item is placed. The receiver can use the Contactless Receipt Log (DOT Form 410-001), to document the number of delivery loads received for each type of material placed. Use of an alternative form is allowed if all the same information included on the Contactless Receipt Log is documented.

Electronic tickets are uploaded by the Contractor to a designated site where the Project Inspector can access them, allowing for additional information to be recorded on the electronic ticket as necessary. If additional notes cannot be made directly on the electronic ticket, record additional information in the comments column of the Contactless Receipt Log. Receiving and accepting tickets in a portal is a common way for tracking the needed information.

Use of electronic tickets allows the receiver to observe and record deliveries from a safe distance away from the point of delivery. Locate the receiver in an area where the Work can be visually observed while maintaining the Contactless Receipt Log. The receiver can access electronic tickets and record the weight of the material incorporated into the project when delivered. If electronic tickets are not immediately accessible, due to internet connection or other issues, the weight can be added when access is restored. If a partial load is placed, note the amount of material incorporated in the weight column and make a note in the comment field.

At the end of each work shift, the receiver will reconcile quantities captured in the Contactless Receipt Log with the electronic tickets uploaded for each day. To reconcile the form:

- Ensure that tickets are on file for each load received, and
- Add the weight from each ticket to the Contactless Receipt Log
 - To be done throughout the day as incorporated, or once access is restored
- Note partial loads placed in the Comments column to account for any discrepancies between the electronic tickets and the Contactless Receipt Log
- Reconcile any differences between the Contactless Receipt Log and the Contractor provided Daily Summary Report

Once reconciled, check the “Reconciled” box on the bottom of the Contactless Receipt Log and electronically sign the form indicating that the loads shown were delivered and are accepted.

Contactless Receipt Logs are retained with the associated electronic tickets and daily summary reports and filed with the payment documentation. Reconcile missing tickets with the Contractor immediately to avoid contention for payment later. Payment will be based on the reconciled Contactless Receipt Log.

For materials or services that are not paid for by weight, the receiver will complete a State provided IQT at the point of delivery.

Electronic Delivery Management System - E Ticketing System

When the Contract requires the use of electronic tickets, the Contractor is responsible for providing a system capable of meeting the requirements of *Standard Specification 1-09.2* and a Type 2 Drawing that details how the system used meets specification.

The working drawing will need to address:

- How partial loads will be tracked
- Contingency plans for lost internet connectivity and/or phone reception
- Training for everyone who is required to access the e-ticket information
- An alternative method for creating tickets if internet or cell phone service is temporarily unavailable where material is loaded

This would be the appropriate time to discuss other information that would be beneficial to include on the electronic ticket. Many of the systems will have the ability to print information on the tickets that can be used by Project Office staff to help with tracking materials.

10-2.1D Conversion Factors

Where the Plans require a weight measurement for minor items of construction, the Contractor may request permission to convert volume to weight. When approved by the Project Engineer, an agreed factor may be used to make this conversion and volume may be used to calculate the corresponding weight for payment. The provisions for this conversion factor can be found in *Standard Specification Section 1-09.2(5)*. When using a conversion factor, the Project Engineer must perform adequate tests and retain supporting data establishing the conversion factor or new price quotation. A letter of agreement or change order for the conversion factor is needed.

10-2.2 Items Measured by Weight

10-2.2A General Instructions

All materials paid by weight are to be weighed in accordance with the *Standard Specifications*. The Contractor has the option of using:

- Contractor provided scale operations - scales are set up specifically for the project and are used to weigh all or most of the material utilized in the Contract Work, or
- Commercial scale operations - scales that are used to sell materials to the public

All scales must be capable of producing electronic tickets that include the necessary weights and information on the Item Quantity Tickets in accordance with [Section 10-2.1C](#)

The Project Engineer will collect the documentation required in SS 1-09.2(5) for scale verification checks. Scale verification checks:

- Are required twice per project year for Contractor provided scale operations - once near the beginning of scale operation and then again near the end of when the scale will be used.
- Are at the option of the Project Engineer for commercial scale operations.

For most materials, material and tare weights will be measured to the nearest 100 pounds. In determining quantities for materials produced from batch type mixing plants, where individual components of each batch materials are weighed before mixing, the batch weights are acceptable for measurement and payment.

10-2.2B Weighing Equipment

Scales for the weighing of natural, manufactured, or processed highway and bridge construction materials that are required to be proportioned or measured and paid for by weight, are to be furnished, erected, and maintained by the Contractor, or be permanently installed, certified, commercial scales. All weighing equipment and scale operations must meet the specific requirements noted in *Standard Specifications* Section 1-09.2.

When batching scales or platform scales are used, the Project Engineer will collect scale certifications meeting the Standard Specification requirements before use at a new site and 6-month intervals afterwards.

10-2.3 Items Measured by Volume

10-2.3A Truck Measure

Except as noted below, when materials are measured and paid on volume delivered in trucks, the Project Engineer should ensure that a receiver is assigned at the point of delivery to issue or receive load tickets and to make periodic computations of yield where applicable.

Use Item Quantity Tickets (see [Section 10-2.1C](#)) when recording the volume of materials paid based on truck measure. The tickets should include all information previously noted as required for materials measured by weight, with the substitution of measured volume in place of measured weight to be shown as the quantity received.

Surfacing Material, Gravel, Topsoil, Etc.

In lieu of issuing individual load tickets when surfacing materials, gravel backfill, top soil, etc., are measured and paid for based on of volume delivered in trucks, it is acceptable for the Project Engineer to maintain a field record showing a recording for each delivery, issuing one ticket for the total amount delivered for each item at the end of each work shift. The field record will show the Contract number, date, identification number of hauling vehicles, Contract bid item number, time of delivery, and volume for each load. The daily ticket issued will include all pertinent data including reference to the field number.

In documenting the size of loads received, ensure the following procedures are followed:

1. The volume of each truck box will be calculated and recorded to the nearest 0.1 cubic yard based on a struck or water level height for the leveled load
 - The volume may be calculated by using a measurement of the truck box (either from the interior or exterior of the bed) using any standard measurement method. This measurement may be performed by a representative of the Project Engineer or by the Contractor, as verified by the Project Engineer
 - The calculation may also be made based upon verified manufacturer's truck bed dimensions supplied to the Contractor by the manufacturer, or
 - By filling the truck bed and measuring the volume of a full load after it is dumped.

Although State law requires 6 inches of freeboard on loaded aggregate material trucks, the actual quantity hauled or calculated may exceed the measured capacity. This is due to the normal practice of heaping material in the center of the load.

2. The material receiver should have sufficient loads leveled at the point of delivery to judge consistency in the quantity being hauled.
3. Load volume will be recorded to the nearest cubic yard for pay purposes using the volume calculation methods described in part (1) above. If the Project Inspector questions whether a truck is fully loaded, the load will be leveled. If the vehicle is not fully loaded, the Project Inspector will measure and document the amount delivered to the nearest cubic yard.

Water

The amount of water delivered to a project will be documented either by use of a Contactless Receipt Log or by a Contractor provided Item Quantity Ticket (IQT).

If the Contactless Receipt Log is used, the Project Inspector will complete the form and record the number of deliveries made each day.

Contractors can also provide an IQT using the state provided form, or a form that includes:

- Delivery location of each load
- Contract number
- Identifying number for hauling vehicle
- Amount delivered for each load
- Time each load was delivered

If a Contractor provided IQT is used, the Project Inspector must perform daily spot checks to verify quantities delivered and document these checks in the Inspector's Daily Report and on the Item Quantity Ticket. If a note cannot be made directly on the IQT received, the information can be recorded on the Field Note Record when payment is made.

The capacity of each water truck will be determined by measuring, weighing, or using the truck make and model. Record the method used and capacity of each truck in the project records.

When water meters are installed at the discharge point for hydrants or water trucks, the Project Inspector must record the meter reading at the beginning and end of each shift and document readings on the Contactless Receipt Log for the net quantity of water placed in accordance with Contract Specifications for the item.

10-2.3B Cross-Sections

Many excavation items are measured by field cross sections and/or template notes. The Project Engineer will ensure that the project is staked and measured accurately in accordance with guidance noted in the "Basic Surveying" manual and utilizing sound engineering practices. At a minimum, show the date the data was taken, weather, crew members, and their assigned duties in the field records. When these measurements are required, it is important that the same base line and elevation datum be used.

Documentation of volume measurement for excavation areas which require original and final measurements, should contain cross references between the original notes and the re-measure notes. Also reference the transit notes and elevation datum for that excavation area.

10-2.3C Neat Line Measurement

Some items, such as concrete volumes, are paid based on dimensions detailed in the plans. For these items, the quantities need to be calculated and the calculations made a part of the record. If additional sketches or dimensions are also required to compute the quantities, include in the records as well.

Other items, such as structure excavation and gravel backfill, are measured for payment using neat line volumes based on plan dimensions as a maximum limit. These items require field measurement to determine pay quantities that may be less than neat line maximums. Many times, sketches with the dimensions shown are desirable.

Include dimensions to show the limits of the actual Work, except when these limits exceed the maximum allowed for payment, then the dimensions will be limited to the maximum allowed.

10-2.4 Items Measured by Hour/Day

When Contract items are to be measured and paid for on an hourly or daily basis, the Project Engineer is to ensure that a WSDOT representative is assigned to verify the hours or days of payment, and issue Item Quantity Tickets or other verified field note records. Issue at least one ticket at the end of each work shift or working period and show all pertinent information for the item involved.

Some items measured by the hour may be eligible for payment during non-shift hours; for example, a 24-hour flashing arrow used for lane closures or detours in effect during nonworking hours. In these situations, an Item Quantity Ticket for one shift may show more hours for payment than are actually available within the shift.

To ensure agreement on the hours or days of work performed, Item Quantity Tickets for items of work measured by the hour or by the day should be initialed by the Project Inspector and signed by the Contractor's representative daily.

10-2.5 Items Measured by Lump Sum

For items that are to be paid on a Lump Sum basis, the project records should identify the item, the date that the material was received, and/or the date work was accomplished. This can be accomplished by ensuring that a field note record is made showing the dates work was performed, has the initial of the Project Inspector, and shows the work to be 100 percent complete. A field note should also be used to show any estimated portions for progress payment of a Lump Sum amount prior to 100 percent completion. It must include the basis on which any quantities used for progress estimate payments were calculated.

10-2.6 Items Measured by Other Units

10-2.6A Linear Measurement

Records for materials measured by length should show the length measured, initials of the persons making the measurements, and the date measured.

For features, such as guard rail and barrier, that are paid by length and which contain repetitive elements or units, the length may be “measured” by calculation. In other words, if the length of a single element is known, then the number of elements may be counted and multiplied by that amount and a total “measured” length determined. Care should be taken to account for odd length elements, such as end sections and custom-fabricated pieces, and for areas where elements overlap or gaps exist.

Records for measurement should also include the beginning and ending stations of the work, recorded by the Project Inspector or person making the measurement, tying the work to its location on the project. The dates of construction should also be recorded.

10-2.6B Area Measurement

Records for materials or work measured by area should show the length and width measured or otherwise determined, initials of the persons making the measurements, and the date measured. In many instances a sketch of the area with the measurements would be very helpful in showing the computed area. The dates of construction should also be recorded.

10-2.6C Per Each Measurement

Records for materials or work measured per each unit should provide a listing showing the location of each item constructed, dates constructed, and initials of the Project Inspector or person measuring the item.

10-2.7 Items Bid at “No Charge”

Normal documentation procedures are not required for items bid at “no charge” if the items do not physically constitute a portion of the finished work. However, notes in the Inspector’s Daily Report are necessary to show when the work was done. Examples of these items might include water, haul, and embankment compaction.

For items bid at “no charge” which physically constitute a portion of the finished work, normal documentation procedures, such as Item Quantity Tickets or cross sections, are required to show how the item was incorporated into the project. Examples of these items might include layering materials and prime coat aggregate.

10-3 Final Records for Projects Constructed by Contract

10-3.1 Records

All records created during a construction project are placed in one of two categories, *Permanent Final Records* - records kept by Headquarters and State Archives for future reference, and *Temporary Final Records* - records kept for a limited period of time after which they are discarded. Any record created during the life of a project not specified as a Permanent Final Record becomes part of the Temporary Final Records.

10-3.1A Permanent Final Records

Documents designated as Permanent Final Records are permanently filed, meaning that they are never destroyed. Permanent Final Records are filed electronically using the Enterprise Content Management (ECM) system.

Contact the State Construction Office to request approval to file Permanent Final Records in paper format for projects that are not in Unifier or that are older and have received most or all submittals in paper.

The following documents are part of the Permanent Final Records and are filed in the ECM by HQ - specifically Accounting Financial Services (AFS) or Region Staff:

- Original Signed Contract Form - filed by AFS
- Original Change Orders - filed by Region
- Contract Estimate Payments - filed by AFS
- Final Contract Voucher Certification - filed by AFS
- Final Estimate Package - filed by AFS

To use the ECM, projects must be in CCIS and set up individually in the system. Project Offices can set projects up in the ECM by sending an email to the address shown in the Construction ECM User Guide available on the [Construction SharePoint](#) site.

Refer to the ECM User Guide for detailed instruction on submitting Permanent Final Records.

Permanent Final Records stored in the ECM must meet the following criteria:

Type/Format: All documents uploaded to the ECM must be flattened PDF's and created electronically. Scanned documents are acceptable if emailed from a recognized agent of the Contractor.

Resolution: 300 DPI

Dimensions: Electronic records shall be standard dimensions of 8 ½"×11" or 11"×17".

File names: When each document is created by WSDOT or submitted by the Contractor or Design Builder, it must be named according to the naming conventions outlined in the ECM User Guide.

File Size: Files should be broken up, compressed, or formatted so that the file size is not larger than 200 MB.

Permanent Final Records are filed in books as outlined below:

1. Final Records Book No. 1 (See [Section 10-3.2](#) for requirements)
2. Construction Project Diaries (DOT Form 422-004A)
3. Inspector's Daily Reports
4. Traffic Control Reports
5. Pile Driving Records
6. Post Tensioning Records
7. Contaminated Materials Records
8. Miscellaneous Records

Permanent Final Records also include a set of electronic as-built plans and complete Contractor provided shop drawings.

After documents are uploaded into the directory, they can be found in the ECM Portal located at <http://wsdotecm/Portal>. Refer to the Construction ECM Search Guide for more information.

Once all electronic final record documents for the Contract are assembled and complete at the project engineer office, they are sent to Region for review through the ECM. When one group completes their review, the records are locked to that group and are made available to the next. If a reviewer finds issues within the records, comments are added, and the records are returned to the previous reviewer. Once all reviews are complete, HQ Record Services are notified by Region that final records for the Contract are complete.

10-3.1B Temporary Final Records

Records designated as *Temporary Final Records* are retained for a period of three years after which they may be destroyed. If a claim, lawsuit, or other circumstance is pending at the end of this three-year period, the Region will further retain those pertinent records until the issues have been resolved.

For State-funded projects, the three-year retention period begins when the Final Contract Voucher is signed by the State Construction Engineer, shown as the Acceptance Date in the CCIS A1 screens:



Acceptance Date: 12 30 2020

For Federally funded projects, the three-year retention period begins when FHWA accepts the final payment voucher. The Headquarters Accounting and Financial Services (AFS) Division will send a Retention of Records on Federal Aid Projects letter to the Region that specifically indicates when the three-year retention period begins and ends.

Prior to destroying Temporary Final Records, complete a Public Records Destruction Log, DOT Form 720-025, to request approval from the Records Officer (identified on the form) and attach a copy of:

- A CCIS screenshot (Page 4 of the A1 screens) for State-funded projects showing the acceptance was at least three years prior
- The letter sent from AFS indicating that the retention period has been met for Federal funded projects

Regions must keep copies of approved destruction logs in a location that is easily accessible for public disclosure requests.

The following list contains some of the items that may be kept as Temporary Final Records. This listing is not a complete listing of all the possible items that could be grouped into this category. In short, Temporary Final Records consist of all project records that are not identified as Permanent Final Records. If Temporary Final Records are kept in numbered books, begin with Book Number 9 to eliminate confusion with Permanent Final Records.

Examples of Temporary Final Records include:

- Item Quantity Tickets
- Project Engineer's Copy of Estimates Payments - with the PE's signature
- Project Correspondence
- Inspector's Record of Field Tests
- Concrete Pour Records
- Approval of Source of Materials - Request for Approval of Materials (RAM) and Qualified Product Lists (QPL)
- Quantity Computation Sheets
- Surfacing Depth Check Records
- Source document files
- Alignment (Transit) Book
- Grade Book
- Cross-Section Notes
- Drainage Notes
- Photographs
- Falsework and Form Plans
- Daily Report of Force Account Worked
- Field Note Records
- Final DBE Utilization Plan Report
- Milestone Letters (Substantial, Physical and Completion)
- Washington State Patrol Field Check list
- Recycled Material Report and Utilization Plan

Documents submitted to the Project Engineer through Labor and Industries' Prevailing Wage, Intents and Affidavits (PWIA) system will be stored within and do not need to be printed for inclusion with the Temporary Final Records. PWIA's retention schedule keeps records for six years after the Notice of Completion for the project or longer if there are outstanding issues, exceeding our retention schedule for Temporary Final Records.

Examples of records stored in PWIA include:

- Statement of Intents
- Affidavits of Wages Paid
- Certified Payrolls
- Apprenticeship Utilization Reports
- Apprenticeship GFE Documentation
- Apprenticeship Utilization Plan

10-3.2 Final Record Book No. 1

Final Record Book No. 1 is the first book of the *Permanent Final Records* for a construction Contract. It contains indices for the records that have been compiled for both *Permanent and Temporary Final Records*. It identifies the people who worked on the project and provides specific summary information. Final Record Book No. 1 will include a title page [DOT Form 422-009](#).

The following records are to be incorporated into Final Record Book No. 1 in the order as arranged below. No other documentation is included in this book.

1. **Title Page and Index** – Include a completed copy of DOT Form 422-009 as the first page. There are also two indexes included in Final Record Book No. 1.
 - The first is an index or detailed listing showing the various sections of Final Record Book No. 1 itself. An example of an index for Final Record Book No. 1 can be found in [Figure 10-2](#).
 - The second index provides a detailed listing of all records that have been kept and assembled for the project in both the Permanent and Temporary Records. An example of this index can be found in [Figure 10-3](#).

2. **WSDOT Personnel List** – Section 2 of Final Record Book No. 1 contains a listing of all WSDOT personnel assigned to the project and their classifications. Each person noted should place their electronic signature and initials after their name on the listing in the same manner as it appears in other final record documents. The Project Office may use Project Personnel Listing [DOT Form 422-001](#) for this purpose.
3. **Comparison of Quantities** – Section 3 of Final Record Book No. 1 contains this CAPS report prepared from the Final Estimate.
4. **Change Orders** – Section 4 of Final Records Book No. 1 contains a listing of all change orders prepared for the completed project.
5. **Record of Construction Materials** – Section 5 of Final Records Book No. 1 contains a tabulation showing the source of all construction materials. If material of a certain type was obtained from two or more sources, the station limits or parts of a structure relative to each source should be shown. If a maintained Record of Materials was used, a copy of the final maintained Record of Materials per *Construction Manual Section 9-1.2C* shall also be included.

When preparing the individual Final Record Books, other than Book No. 1, it is not necessary to label pages within each book. Where it is appropriate, a table of contents may be added to identify sections within a particular book.

10-3.3 Construction Project Diaries - Final Records Book No. 2

The Project Engineer may include records of conversations, meetings, or other pertinent information that is not covered by routine reporting. Page 2 of the Inspector's Daily Report (DOT Form 422-004A) may be used to document:

- Routine matters if the circumstances are unusual
- Conferences or meetings with the Contractor or the Contractor's field representative
- Agreements made with the Contractor
- Special notes regarding equipment or labor conditions, weather, or any other causes for delays
- Matters that might impact completion of the Contract

Book No. 2 can also be used to incorporate emails, photos, or other documents that the Project Engineer wants to include in the Permanent Final Records. As these records are kept forever, only include documentation that includes information outside of daily correspondence.

10-3.4 Inspector's Daily Report - Final Records Book No. 3

The Inspector's Daily Report (IDR) is a record of operations for a specific type of work on the project, such as surfacing, grading, paving, bridge, etc., which is being inspected by the writer. The IDR documents the normal work process completed each day and anything unusual that occurred on the project.

The first section of the IDR is a structured sheet of questions addressing identification of Work operations and the associated labor and equipment being used to accomplish the Work. Fill out the first section completely for all questions that pertain to the specific type of Work activity being inspected.

The second section is a narrative portion that should include a notation of any orders given or received, discussions with the Contractor, unusual conditions, delays in the operations, and the presence of any visitors. If an operation is being inspected which results in the partial payment of an item, the item should be identified along with the basis for calculating the partial payment. It is also of value to note the Project Inspector or Engineer's activities in the daily report.

Electronic versions of Inspector's Daily Reports are available depending on the application used during administration:

SharePoint - DOT Form 422-004 & 422-004A

Unifier - Use IDR forms built into the system

IDRs are required for each day any contractor is on-site or any chargeable working day and are submitted to the Project Engineer daily. Each page of the IDR will be stored electronically in the Permanent Final Records.

When necessary, the Project Engineer will add clarifying comments or remarks on the electronic copies of the IDR after they have been submitted. The Project Engineer will:

- Create a copy of the IDR
- Add clarifying comments or remarks to the document
- Initial and date all changes made
- Save the changed IDR using the original file name with "-amended"

IDR Content

The IDR is intended to document communication, progress of Work, Contractor workforce/equipment and materials sampling/acceptance. The following are general rules for content of IDRs (including those created in Unifier):

1. The IDR is public record and may be called upon in case of litigation. The level of detail and professionalism exhibited may be of great benefit.
2. Do not make (or document) derogatory comments, as this is unprofessional behavior, and may be used to demonstrate that the inspector was hostile toward the Contractor and did not behave in a manner consistent with good faith.
3. All statements must be based on facts and requirements should reference the contract requirements.
4. All entries should be clear, concise, correctly spelled, concurrent and complete.
5. Summarize key points of any discussion of work activities with the Contractor.
6. Attach relevant photos to document the Work happening to ensure they are included with the IDR in the Permanent Final Records. Photos can be added to the IDR by including them with the written narrative of daily activities or electronically attached to the document.

Every photo taken does not need to be attached to the IDR, only photos that enhance the written notation for the Work activities performed that day or if unusual circumstances occurred.

7. Be specific when recording information about Work activities. Use drainage codes, exact bid item numbers, line and station limits, etc. Avoid referencing a co-worker's IDR, but if doing so, attach a copy.
8. Be specific when recording deliveries of materials to the project. Use bid item numbers, drainage codes, RAM number, etc. Record heat numbers, lot numbers, "Approved For Shipment" and "WSDOT Inspected" tags or stamps, etc. Using the IDR as materials documentation is acceptable. If used as documentation for acceptance, a copy of the IDR, with the appropriate items high-lighted, should be included with the materials documentation file.
9. Daily Equipment Status Reports should be complete and current.
 - Record all equipment, including any trailer or transport used to deliver equipment to the project.
 - Record the make, model and year of equipment. Request an equipment list from the Contractor and keep it updated. Photos make a good record of condition and configuration.
 - Record the exact bid item on which the equipment was working.
 - Understand the difference between down, idle, and standby time and use the correct term on the report.
 - Record crew composition (once a week or whenever it changes) along with the hours worked where practicable. This can be done on a separate IDR or in the narrative portion (page 2).
10. Record a chronology of events throughout the day, as they occur. Taking notes and transferring them to the IDR will work, but duplicates work and introduces an opportunity for error.
11. Record any potential delay, in as much detail as possible. Include start and end time, who was notified of the issue and when; along with any mitigating action by the Inspector or the Contractor.
12. Record every time the Contractor disagrees with a determination or protests a decision by the Project Engineer, and refer the Contractor to follow the process for protest as defined in the *Standard Specifications*.

10-3.5 Traffic Control Reports - Final Records Book No. 4

10-3.5A Record of Collisions and Traffic Surveillance

Records of Accidents (now known as Record of Collisions) received by the Project Office are recorded by the WSP and are part of WSDOT's Transportation Data Office records (TDO), and do not need to be kept in the Temporary or Permanent Final Records.

If it is necessary to change traffic control as a result of a collision, the Project Office only needs to reference the Record of Collision report in the Project Construction Diaries or the Inspector's Daily Report. The Record of Collisions is only used during the life of the project to augment decisions on changing traffic control plans during construction. It should be noted that Section [SS 1-10](#), Temporary Traffic Control does not require a collision report be obtained for every collision that may occur within the project limits.

A separate file should also contain the records of traffic control surveillance prepared in accordance with Section [SS 1-10](#), Temporary Traffic Control. Information in this file should be kept current until completion of the Contract. When the Washington State Patrol provides the Project Engineer with traffic control assistance they also provide the engineer with a WSP Traffic Control Checklist [DOT Form 421-045](#). While this form is a part of the traffic control operations, it can be kept separately and made part of the Temporary Final Records.

10-3.5B Contractor's Daily Report of Traffic Control

The Contractor's Daily Report of Traffic Control ([DOT Form 421-040A](#) and [421-040B](#)), completed by the Contractor's Traffic Control Supervisor, is also included as part of the project's Permanent Final Records. The Contractor's Daily Report of Traffic Control is discussed in more detail in Section [SS 1-10](#), Temporary Traffic Control.

10-3.6 Pile Driving Records - Final Records Book No. 5

Pile Driving Record Book DOT Form 450-004 or Pile Driving Log DOT Form 450-004A, if used, is a part of the Permanent Final Records. The requirements for pile driving and pile driving records are further detailed in [Chapter 6](#).

10-3.7 Post Tensioning Records - Final Records Book No. 6

Post Tensioning Record Book DOT Form 450-005, if used, is a part of the *Permanent Final Records*. The requirements for post tensioning and post tensioning records are further detailed in [Chapter 6](#).

10-3.8 Contamination Material Records - Final Records Book No. 7

Contamination records document the disposal of contaminated materials.

10-3.9 Miscellaneous Records - Final Records Book No. 8

Miscellaneous Records are optional records and may be included in the permanent records at the Project Engineer's discretion. This part of the permanent records is intended to allow for inclusion of records that might be considered of added importance by the Project Engineer. Optional records could include the following:

- Photographs – photos of special features or construction methods.
- Traffic Information – information on openings to traffic.
- Ceremonies – reports on dedication activities.

Miscellaneous Records that must be included in Book 8 are:

- Environmental Contamination – records or documents on environmental contamination. Disposal records of contaminated materials are placed in Book 7.

Documents placed in the Permanent Final Records are retained forever and are subject to public disclosure requests.

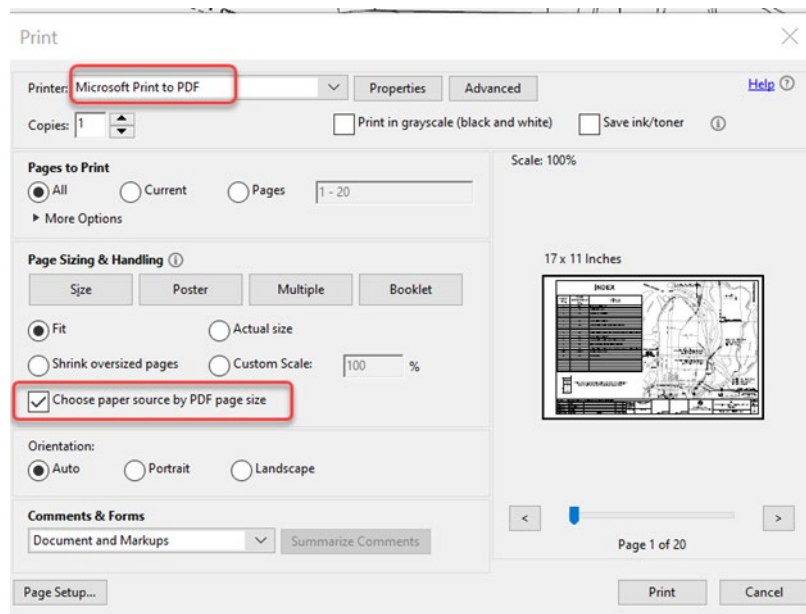
10-3.10 As-Built Plans and Shop Drawings

As-built plans are a record of changes made to the originally intended physical product of the Contract. As-built plans reflect the same degree of detail as the original plan drawings, and preserve the historical detail of what occurred on the project. As-built plans can also be used as a basis to plan and design future projects in the same location and to make repairs to damaged structural components or other non-functioning facilities. In addition, state law requires that owners of “underground facilities” be able to locate these facilities within 24 inches of the outside dimensions. As-built plans offer a convenient means for recording these facilities.

10-3.11A Preparing As-Built Plans

As-built plans are prepared as electronic flattened PDF files. A full set of the Contract plans are available on the Active Contract Directory ([FTP DIRECTORY](#)). This set of plans can be used by the Project Engineer for the purpose of preparing as-built plans. Contract plans that are locked can be flattened by printing to PDF (for best results, select the option “Choose paper source by PDF page size” under Page Sizing & Handling:

Figure 10-3.11A-1



All corrections, repairs, revisions and additional details necessary to depict the Work as it was constructed shall be shown on the as-built plans, whether considered the practice of engineering or not and whether considered a change to the Contract or not.

Corrections to existing plans are to be made by lining out quantities or features that were changed during construction, then noting the correction or change in red. Note corrections and revisions on the plans in a manner that results in neat and legible sheets. Use medium width line styles when making changes or corrections to plan sheets. If desired, the changes may be further identified by placing them in a “cloud” symbol.

Include the most current version of additional or replacement plan sheets from change orders in the as-built plans. The changes shall be clearly marked by methods that may include revision numbers, clouding or other means and need not be made in red.

Changes shown in as-built plans shall include a reference to the appropriate change order number, if applicable.

Note construction changes on all Contract plan sheets that were affected the by the change. For instance, the change in location of a catch basin or manhole may affect the location listed in the structure note sheet, the drainage plan view sheet, and the drainage profile sheet.

As-built plans for Design-Build Contracts must meet the same requirements as any other set of as-built plans, unless specifically stated otherwise in the Contract documents. This is to include formatting, file size, and naming conventions.

If concrete foundations are partially removed, show the remaining portions of the foundations on the as-built plans. It is not required that the as-built, Summary of Quantity sheets be revised to reflect final estimate quantities. Summary of Quantity sheets reflect original plan quantities which are shown as preliminary estimates of the Work. Final as-built quantities for individual unit bid items can be obtained from the final CAPS ledger for the project.

In order to help identify changes in Work location or changes in the Work completed at a particular location, the Quantity Tabulation and Structure Note sheets must be updated to show the actual physical feature items or the locations of installations where changes were made. Changes may include revisions to guardrail, guardrail termini, post types, anchors or anchor types, revisions to monuments, structure notes that were added or revised, pipe size and types that were changed, revised locations for catch basins, manholes, etc. The intent is to show what changes to the planned Work were made. Changes to quantities of items used which increase or decrease the original quantities by more than 25 percent and items added or deleted at a particular installation, shall be updated. Final as-built quantities for the individual unit bid items can be more accurately obtained from the final CAPS ledger for the project.

In addition to the requirements outlined above for as-built plans, the *Standard Specifications* also require that the Contractor furnish the Project Engineer with an electronic copy of: shop drawings, schematic circuit drawings, prestressed structural elements, structural steel components, etc. to be included with the electronic copy of the as-builts. Refer to the *Standard Specifications* for specific requirements of each plan.

As-Built Plans for Bridges and Structures

Changes shown in as-built plans considered practice of engineering and also a change to the Contract shall include the signed and dated seal of the Engineer-of-Record approving the change. Changes shown in as-built plans considered practice of engineering but not a change to the Contract shall include a reference to the licensed Professional Engineer who evaluated the change and the date of their recommendation. See Section [SS 1-04.4](#) Changes/Responsibility of Licensed Professionals for Changes to Structural Engineered Drawings During Design-Bid-Build Construction Contracts for reference.

Prior to submitting the as-built plans to Engineering Records, the Project Engineer shall submit a draft version to the Bridge and Structures Office for review. The Bridge and Structures Office will compare the draft as-built plans with their construction support records, and will inform the Project Engineer if any discrepancies are noted. Please allow 30 days for this review process.

10-3.11A(1) Requirements for Submitting Electronic As-Built Plans and Shop Drawings

As-built plans and shop drawings can be electronically transferred as PDF files into the designated download site shown below. For each Contract that is submitted electronically, a Region staff member must be responsible for:

- Verifying that all necessary documentation is complete,
- Uploading all electronically transferred as-built content into the Electronic Content Management System (ECM)
- Verifying that the as-builts are available to view in the ECM before deleting the Region's copy of the electronic as-builts

Format – PDF

Dpi – 300

Size – 11 in × 17 in (capable of printing full size plan sheets)

As-Built Plans – Mark each sheet with “FOR AS-BUILT PLANS ONLY” or “FOR AS-CONSTRUCTED PLANS ONLY”. This mark can either be a grey watermark applied to each sheet or stamped in red to each sheet.

As-built Sheet Contract Numbers – Each sheet should have the Contract number applied, for example, “1234”.

Naming Convention – Each PDF document must be named using the Contract number, for example, “001234.pdf”. If the Contract is large, you would need to break it up in volumes no greater than 50 Mb each. An example of PDF naming with the Contract number and volume for volume 1 of a 10 volume set would be “001234-Vol-1-of-10.pdf”. An example of PDF naming for volume 10 of a 10 volume set would be “001234-Vol-10-of-10.pdf”.

As-Built Cover Sheet – The first page of Volume 1 will be a completed As-Built Cover Sheet, DOT Form 722-025, which will be used to key in the metadata. Fill out the form electronically and include it as the first page of Volume 1. WSDOT Form 722-025 shall be signed and sealed by the Project Engineer.

Design-Bid Build P.E. Stamps and Signatures – All appropriate WSDOT P.E. stamps and signatures as shown in awarded Contract Plans must be shown on the as-builts plans.

Design Builder P.E. Stamps & Signatures – All appropriate Design-Builder P.E. stamps and signatures as shown in the Released for Construction (RFC) plans must be shown on the final as-builts.

ILINX Capture of PDF Files - Upload PDFs to the ECM using the ILINX Capture for As-Builts. Refer to the ECM Construction User Guide for additional information.

10-3.12 Final Record Field Notebooks

Field notebooks are bound books of notes that are used for specific kinds of work such as alignment notes, grading notes, pile driving notes, etc. Field notebooks can also consist of loose leaf field notes that have been bound together into books as well. Records that appear in the field books should not be duplicated and placed in other final record books. The only exception to this rule is copies of Field Note Records with multiple item numbers which may be copied as described in [Section 10-4.3](#).

Field notebooks should be consecutively numbered and each should have the pages numbered beginning with number one. Typing information in the field book is not necessary as hand lettering is preferred. As with other project records, erasure corrections of any kind are not permitted.

The quantities for payment for each item of Work in the field notebook shall correspond directly to entries in the CAPS project ledger. Adequate cross-referencing must be made between the field notebook and the project ledger in order to trace item quantities and entries from one to the other.

The field notes should show the initials of the persons or person making them, the date, and the weather conditions if appropriate. In some cases, different stages of Work will be noted on the same page, such as staking, measurement, and construction. This would require dates and initials at each stage of work. The notes shall also show the dates that quantities are computed and checked along with the initials of those persons doing the work. In all cases, field notes should be neat and legible and show all necessary information. [Figure 10-4](#) and [10-5](#) show sample field notes and summary for clearing.

Sketches should be shown when necessary to compute a quantity that cannot be computed from the As-Built Plans. Sometimes structure excavation sketches are helpful for determining the pay limits and computing the volume; other sketches are helpful on special details.

Current business practices provide for electronic calculation and storage of all types of detailed surveying data, quantity calculations, etc. Data forms for template input, calculation setup, forms for direct recording of field information, storage media for electronic files, as well as output for the calculated data shall all be treated as an original source documents. See [Section 10-3.13](#) for further direction in regards to electronic data.

Remeasure cross section notes, where a deviation from the established roadway section or slopes has occurred, should be indexed carefully so that they can be identified readily with the original cross section. For convenience of calculation on remeasure, plotted cross sections may also be used.

Structure and drainage notes in the Final Record Field Notebook should show the stationing, distance left or right, angle or skew if applicable, flow line elevation and grade in the case of culverts, drains and ditches, and all information necessary for computation of the pay items involved in the construction. For convenience, it is recommended that all pay quantities pertaining to the construction of items listed on the Structure Notes sheets of the plans, be shown in the field book with structure note number, item number, and quantities, and that cross-references be used to show where the totals were obtained. It should be remembered that quantities must be segregated by group number as shown in the summary of quantities contained in the contract plans.

For use as an example, [Figure 10-6](#) and [10-7](#) show the front and back of a completed field note for the installation of a reinforced concrete sewer pipe.

10-3.13 *Electronically Produced Documents*

There are many computer applications available for use on a WSDOT highway construction project. Included are programs for earthwork quantities, mass diagrams, basic cut and fill, geometrics, surveying, and for determining structural quantities. In addition, there are many other “stand alone” applications created by individuals in each office for use on personal computers that are also recognized for these kinds of uses.

When electronic computations are used, the output generated must be bound together and identified with a title sheet for final record purposes. These documents are to be made a part of the three-year *Temporary Final Records* retained by the Region as explained in [Section 10-3.1](#). When a computer program is used to calculate quantities for payment, the summary sheets containing the quantities entered in the project ledger must be treated as source documents with all required signatures, dates, ledger entry number, and sufficient cross-referencing to provide a good audit trail.

10-3.14 *Photographs*

A detailed photographic record is an important part of the project documents. A photographic record could consist of filmed photographs, digital photos, infrared photographs, video, etc. A photographic record should be taken of unusual equipment, construction methods, problem areas, areas of possible controversy, traffic control, and especially conditions in the area of an accident. In addition to these are “before” and “after” views taken from the same vantage point. These are particularly useful in documenting the progress of work. When photographs are to be maintained as a part of the project documents they must be fully identified. Photographs should clearly note when they were taken (date and time), where they were taken, and who took the picture. Although photographs are placed in the category of three-year *Temporary Final Records*, some regions have extended the Region retention period for photographs or have even included them as a part of the project’s *Permanent Final Records* for permanent retention.

10-3.15 *Pre-Estimate Reports*

A pre-estimate report prepares the CAPS system to make an estimate payment. This report provides the opportunity for the Project Office to preview the estimate and is a means to allow for any corrections or deferments to be made before actual payment. The corrected pre-estimate report used to make a progress payment must be signed by the Project Engineer in order to indicate authorization for payment. The signed pre-estimate report must be retained in the project files and become a part of the three-year *Temporary Final Records*. For additional information regarding progress payments and the CAPS system, see [Section SS 1-09.9](#), Payments.

10-3.16 *Estimate Reports*

When a payment is made to the Contractor for a progress or Final Estimate, the Project Office receives a copy of all the reports that are sent to the Contractor along with the warrant. The Contract Estimate Payment Advice report and the Contract Estimate Payment Totals report should be compared to the pre-estimate report verifying that the amount actually paid is the same as the amount authorized. These estimate reports should be kept with the completed pre-estimate reports in the project files, and become a part of the three-year *Temporary Final Records*. For additional information regarding progress payments and the CAPS system, see [Section SS 1-09.9](#), Payments.

10-3.17 Final DBE Utilization Plan Report

The Final DBE Utilization Plan Report (DOT Form 272-055) is required on all projects that include DBE requirements and must be accompanied by a report of the final amounts paid to DBE's. Most likely, this will be a final report from an electronic DBE payment system (DBEP, B2GNow, etc.). The signed "Final DBE Utilization Plan Report" and the attached final amounts paid report become part of the three-year Temporary Final Records retained by the Region. The form may be signed by the Project Engineer, Region Construction Engineer or the Region EEO officer.

The Final DBE Utilization Plan Report represents a certification that on-site performance has been monitored, and signing it indicates that all DBE On-site Reviews are complete, on file, and can be retrieved as supporting documentation for the certification.

This certification is a requirement of 49 CFR Part 26.37(b).

10-4 Project Ledger System

10-4.1 General

The Contract Administration and Payment System (CAPS) provides both an accounting and payment system, while also acting as an information collection system. The CAPS program uses an electronic project ledger that is maintained current throughout the life of the project as the backbone of the system. All items of work on a project for which payment is made must be entered into the electronic project ledger. Items posted in the ledger become the basis for payment and summary record document for dollars paid to the Contractor, quantity of work performed by the Contractor, status reports during the active life of the contract, and are also used as the basis for final reports when the project is completed.

As work is completed on the project, the project office continuously enters those quantities into the ledger; those records then become eligible for payment when the next progress estimate is due. Processing of monthly progress and project final estimates is further detailed in Section [SS 1-09.9](#), Payments. With the ledger entries completed, the application compiles all those records eligible for payment and transfers the data to the payment portion of the CAPS system. Because of the system's ability to store information it is also used as an extensive resource for corporate information regarding the construction program and is used extensively by many other groups throughout WSDOT.

All electronic data incorporated into the CAPS system is stored on either an active file or a history file. These files are both permanently retained and are available for use whenever the need arises. It is not necessary, or intended, that paper copies of the project ledger be retained for final records.

Detailed instructions for the use of the CAPS system can be found in the [HQ Construction SharePoint site](#).

A key function of CAPS is to provide a complete accounting trail for every pay item. An accounting trail must be clearly maintained from the original source document through the actual payment to the Contractor. Audits are an effective tool used by both state and federal governments to ensure established procedures and processes are correctly used to maintain the most effective use of the public's funds. It is important that WSDOT maintain sufficient records and documentation to clearly identify an accounting trail that is capable of withstanding the test of audits.

In order to satisfy the requirements of an accounting audit, the following conditions must be met:

- There must be a source document for every ledger entry and vice-versa.
- There must be an orderly filing system to facilitate timely retrieval of source documents.
- Both Interim Progress Estimate and Final Estimate reports must be signed by the Project Engineer.
- The Contract Estimate Payment Advice report must be filed along with its corresponding Progress Estimate report.

10-4.2 Source Documents

Each ledger entry must be supported by a detailed source document, which specifically identifies the type, amount, and location of the work or material that is being entered into CAPS for payment. Source documents used to support these entries are intended to be complete documents, documents that stand alone, and fully support the payment that is being made. If information from other documents is used in the source document, these additional document(s) must be clearly identified in order to complete the audit trail.

Some examples of source documents include Item Quantity Tickets, Field Note Records, and Force Account sheets. Source documents are the beginning of the audit trail. They show that a WSDOT Inspector has observed and determined the amount of work performed by the Contractor. Also, the source document must show that all calculations have been checked by a second WSDOT employee to ensure they are correct.

Source documents must show four sets of dated initials or full names for each person who:

- (1) completed the original calculations,
- (2) checked the original calculations,
- (3) entered the payment quantity/amount in the CAPS ledger, and
- (4) verified the CAPS ledger entry.

For Unifier documents, the audit log meets the requirements listed above.

In addition, the source document must also show the ledger entry number.

All of the checks and initials or names noted above must be complete prior to payment to ensure that information entered into the CAPS ledger is accurate. It is not appropriate to complete any of these checks after payment is made.

Ledger entries for estimates of monthly progress quantities for grading, lump sum, or other such items must also be supported by a source document. Among other things, the source document must show the method used for determining the estimate. These methods and source documents must lead to an accurate measurement after the item of work has been completed. For lump sum items, the field notes or diaries can show an estimated percentage of work completed. If this percentage method is used, then a brief discussion outlining the basis for the calculation and any assumptions that were used should also be included.

Many project offices use electronic data collectors for surveying work. These data collectors eliminate the need for hand prepared field transit and field level books. Many project offices have also developed or routinely use other electronic programs or applications, which perform calculations and produce a report of the results. In using these applications there can be confusion regarding the need for checking data that has been compiled and reported electronically. In the absence of specific direction, when an electronically produced record or set of notes is used as a source document for a contract payment, the individual who originated the document should be noted. A second person can then check both input and output for both reasonableness and accuracy. This check may range from duplicating the process to verifying the input. Whatever the case may be, it is recommended that the dated initials of those two individuals be on the source document.

10-4.3 Source Document Filing Systems

Basic criteria for a good Source Document Filing System would include ease of set up, ease of use, and the capability to retrieve any specific document in a timely manner. The source document filing system should also be set up to coordinate easily with final records requirements. The filing system described here for source documents is not mandatory. However, it is presented as one alternative that works well with the CAPS electronic ledger system, the final records process, and is easy to use. The unique ledger entry number from CAPS makes this method work. Files are set up in two books or sets of notes. The first book is organized by Unit Bid Item Number and the second book is organized by Structure Note Number. Source documents are filed by Unit Bid Item Number except for drainage items, which are filed by Structure Note Number. With this method there is only one item per source document except for the drainage items. Drainage items are filed by Structure Note Number because their source document (field note record) normally has multiple items while the Structure Note Number is unique to a specific drainage facility. For all other items, if more than one item appears on a source document, a copy is made for each item noted, the desired item number is highlighted, and then the copy is filed behind their respective Unit Bid Item Number locations. This works extremely well if the source documents are placed in order by date in their respective files.

To look at the source document for a ledger entry, simply note the item number, entry number, and date; go to the file and look for the entry number within the item file. If files are maintained in order by date, this is made even easier. For ledger entries of drainage items, it is necessary to include the structure note number in the remarks section.

This system allows anyone to easily locate the source documents that support a contract payment. These records are retained in the Project Office until Final Record time when the source documents are bound into books with their respective titles and made a part of the three-year *Temporary Final Records*.

10-5 Region Project Documentation Reviews

10-5.1 General

The Region is responsible to ensure that reviews of record keeping and documentation procedures are completed during the progress of the work. This will help to ensure that the original field records and pay notes are being properly prepared and that proper procedures are being followed. The Region should review specific pay items for correctness of the payments made as well as for procedural requirements for documenting and processing of contract payments, acceptance of materials and other pertinent contract administration requirements. Reviews of specific pay items should be recorded on [DOT Form 421-014](#). Reviews of procedural items should be recorded on either [DOT Form 230-036A](#) or [230-036B](#). Version A should be used for the first review made on a project. Version B places more emphasis on individual pay items and should be used for the second review or on larger projects during the initial review phase where this emphasis is more appropriate.

On projects that are estimated to cost more than \$1,000,000, and require more than 35 working days to construct, the Region should conduct an interim documentation review when the project is approximately 50 percent complete. This review should be thorough and complete to ensure that the documentation records are adequate and are being properly maintained. This review should include both procedural checks for those items listed on [DOT Form 230-036A](#) and detailed reviews of specific pay items for accurate documentation practices of contract payments completed to date. Audit work for pay items may also be started at this time in preparation for the Final Records general Review at Physical Completion. This early audit work could consist of checking any individual items that have been fully completed. Reviews of completed items that are recorded on [DOT Form 421-014](#) can be kept and then made a part of the Final Records check upon Physical Completion. Once the project has been completed, information from both procedural reviews and specific pay item reviews can then become a part of the *Temporary Final Records*.

On projects that are estimated to cost more than \$500,000 and require more than 100 working days to construct, the interim documentation review should be considered as early as 30 percent completion but, where possible, no later than 50 percent completion. On these larger projects, it is particularly important that the interim reviews be sufficient to verify both documentation and procedural practices. However, on many projects, the nature of the work completed at 30 percent may not provide an adequate representation of the documentation procedure to merit a documentation review. In these instances, the Region should exercise considerable judgment regarding the timing of interim documentation reviews.

The Region reviewer should also exercise considerable judgment in deciding whether or not to perform additional documentation reviews in conjunction with the reviews described above. In addition to cost and time, other criteria should also be used to evaluate the need for additional documentation reviews. This could include results of previous documentation reviews as well as the history, knowledge, and experience of the specific Project Office personnel involved. The Region reviewer should be satisfied on a case-by-case basis that each project's records are adequate and are being properly maintained. A copy of the final region review shall be sent to the Materials Quality Assurance section at the State Materials Laboratory.

It is recommended that each time a documentation review is performed on a project the Region reviewers discuss the results of the review with the Project Office staff, leaving a completed copy of DOT Form 230-036 and [421-014](#) to be included in the project temporary records.


10-5.2 Review Procedures for Final Estimates and Final Records

When work on the project is physically complete, it is important that the final records be completed and assembled in as timely a manner as possible. The final quantities should be checked and the final estimate or Final Contract Voucher Certification furnished to the Contractor as soon as is reasonably possible.

In order to facilitate this, the Project Engineer should ensure that the overall project final records, including the final contract quantities, are made ready for Region review as timely as can be and that the Region has completed their review work shortly thereafter.

The Region is responsible to ensure that the final records for the contract are complete, accurate and maintained in an orderly manner. The Region may exercise considerable judgment regarding the procedures used for this check. These procedures may include a complete check of all records or a representative sampling of records in order to validate all records maintained. If problems are discovered during the review of the representative sample, and if those problems indicate that the entire population might be flawed, then the entire population should be checked and corrected by the field office and a new representative sample taken. In conducting these final reviews the Region reviewer should mark the areas that have been checked, initialing and dating the records or portions of records that have been reviewed. The Examination Sheets for Contract Items [DOT Form 421-014](#) and Documentation Review (Procedures) DOT [Form 230-036A](#) and [230-036B](#) should be kept until the contract final records check is completed and then filed with the *Temporary Final Records* where they can be further reviewed should an audit occur.

Figure 10-1



**Washington State
Department of Transportation**

Item Quantity Ticket

Date *	Location	Group
Remarks		
Time Received	<input type="radio"/> AM <input type="radio"/> PM	Time Weighed
Received By *	Weighed By	
Pit Number	Truck Number *	
Check One * <input type="radio"/> Tons <input type="radio"/> Hours <input type="radio"/> Cu. Yds. <input type="radio"/> M. Gal. <input type="radio"/> LBS. <input type="radio"/> Each <input type="radio"/> Days	Legal Gross Weight	
	Gross *	
	Tare *	
	Net *	
Other Unit of Measure	This Load	Total

Item Identification	
Contract Number *	Item Number *
Item Description	
Subcontractor	
Contractor	
* Required Information	Ticket Number

DOT Form 422-021
Revised 4/00

Figure 10-2


**Contract #6767
Johnson Creek Bridge 112/38
Columbia Basin Region
Final Records Book 1**

Item	Section
Index of Final Records Books	1
Listing of State Personnel	2
Comparison of Quantities	3
Listing of Change Orders	4
Record of Construction Materials	5

Figure 10-3

<u>Contract # 7767</u>	
<u>Johnson Creek Bridge 112/38</u>	
<u>Columbia Basin Region</u>	
<u>Permanent Final Records</u>	
(Retained at HQ Records Services)	
<u>Book Description</u>	<u>Book No.</u>
Final Records Book No. 1	1
Construction Project Diaries	2
Inspector's Daily Reports	3
Traffic Control Reports	4
Pile Driving Records	5
Post Tensioning Records	6
Contaminated Materials Disposal Bills	7
Miscellaneous Records	8
As-Built Plans (Submitted under separate cover dated 08/10/2000)	
<u>Temporary Final Records</u>	
(Retained Within the Region)	
<u>Description</u>	<u>Book No.</u>
Item Quantity Tickets	9
Project Engineer's Copy of Estimates	10
Inspector's Record of Field Tests	11
Scale Test Report	12
Concrete Pour Records	13
Field Note Records	14
Drainage Notes	15
Approval of Source of Materials	16
Daily Report of Force Account Worked	17
Other Source Document Files	18
Quarterly Report of Amounts Credited DBE Participation	19
Quarterly Report of Amounts Paid MBE/WBE Participation	20
Contractor's Payrolls (Fed-Aid Projects)	21
FHWA Form 1589 (ARRA Projects)	22
Alignment (Transit) Book	23
Grade Book	24
Cross Section Notes	25
Quantity Computation Sheets	26
Record of Field Audits	27
Surfacing Depth Checks	28
Washington State Patrol Field Checklist	29

Figure 10-4



**Washington State
Department of Transportation**

Field Note Record

Contract No. 4747	Station SEE DETAIL	Line L-LINE	C/S 231b
Staked By M. Lewis	Date 2-12-98	Work Started 2-5-98	Work Completed 2-9-98
Calculated By J.R.	Date 2-14-98	Checked By CB	Date 2-15-98
Inspector's Signature John Smith		Date 2-9-98	

CREW: LEWIS M, BARNES, TOMS

WEATHER: CLEAR, COOL

CLEARING & GRUBBING

GROUP 1 TOTAL 21172 M² FROM REVERSE SIDE
= 2.12 HECTARES

GROUP 2 TOTAL 14609 FROM PAGE 4
= 1.46 HECTARES

PROJECT TOTAL = 3.58 HECTARES

Item No.	Material	Manufacturer	Brand Name Model/Type	RAMS/QPL Ref. No.	Appr/Accept Code	Basis of Acceptance

Item No.	Item Description	Group	Date Work Completed	Unit	Quantity	CAPS Entry No.	Posted By		Checked By		Est. No.
							Initials	Date	Initials	Date	
2	CLEARING & GRUBBING	1	2-9-98	HECTARE	2.12	7	AS	4/16	CR	4/20	1
2	"	2	2-9-98	HECTARE	1.46	8	AS	4/16	CR	4/20	1

DOT Form 422-635 EF
Revised 3/98


Page No. _____

Figure 10-5

Station	Left	Right	Length or Width	Area M^3	Remarks
Contract No. <u>4747</u>					
GROUP 1	BEGIN CLEARING				
57+400		8-15	7	140	
57+420		8-15	6	120	
57+440		10-15	5	100	
57+460	0	10-15	8	160	
57+480	18-10	12-15	13	260	
57+500	18-3	0	16	320	
57+520	18-1		21	420	
57+540	18-0	0-7	26.5	530	
57+560	21	7	29.5	590	
57+580	24	7	31		
57+600	24	7			
57+620	24				
57+64				590	
		7	29.5	590	
	21	10	31	620	
61+000	18	7.5	28.25	565	
61+020	18	7.5	25.5	510	
61+040	18	5.5	24.5	490	
61+060	18.5	5.5	23.75	475	
61+080	17.5	5	23.25	465	
61+100	17.5	5.5	22.75	455	
61+120	17.5	5.5	23	460	
61+140	17	5	22.5	450	GROUP 1 END CLEARING
Page Total				21172	

DOT Form 422-635 EF
Revised 3/98

Figure 10-6

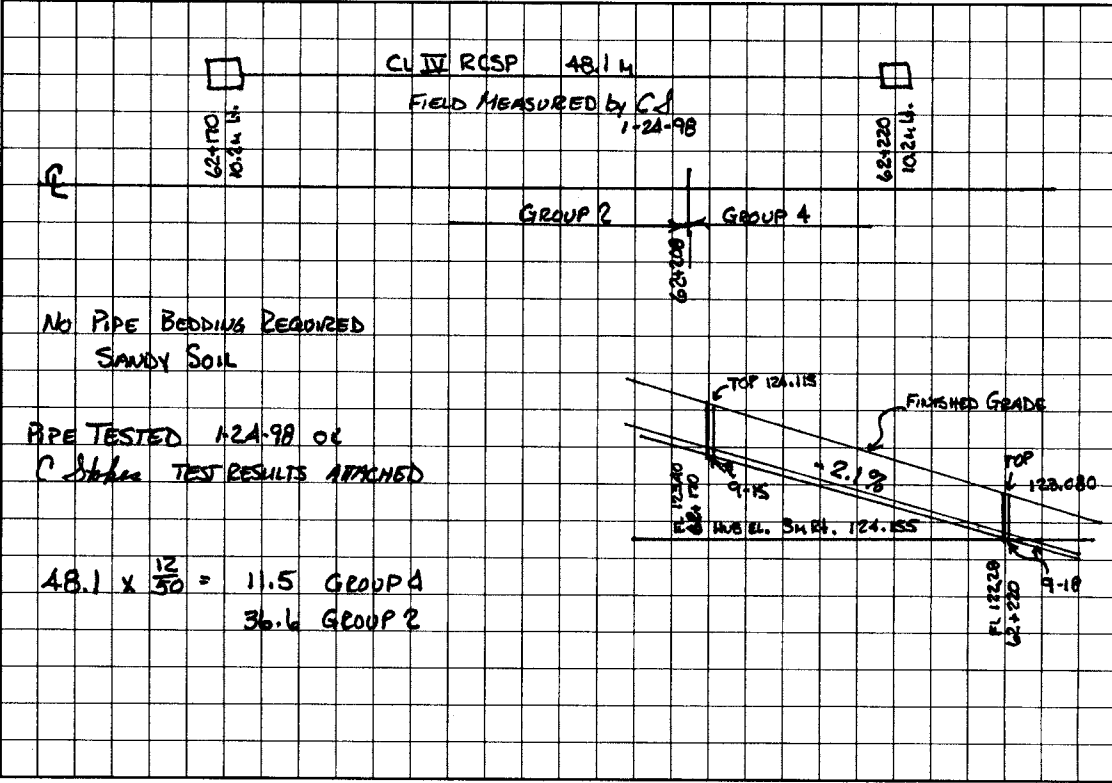


Washington State Department of Transportation

Field Note Record For Drainage

Book No. _____
Page No. _____

Contract No. 4747	Station 62+170 to 62+220	Line L LINE	C/S 1701	Code Number 9-15
Staked By T. ROBERTS	Date 1-12-98	Work Started 1-16-98	Work Completed 1-24-98	
Calculated By TMC	Date 1-26-98	Checked By DEM	Date 1-30-98	Inspector's Signature <i>C. Stuber</i>
		Date 1-24-98		



CLIV RCSP 48.1 M
FIELD MEASURED by C.J. 1-24-98

GROUP 2 GROUP 4

NO PIPE BEDDING REQUIRED
SANDY SOIL

PIPE TESTED 1-24-98 ok
C. Stuber TEST RESULTS ATTACHED

$48.1 \times \frac{12}{30} = 11.5$ GROUP 4
36.6 GROUP 2

Item No.	Item	Group No.	Date	Unit	Quantity	RAMS No.	Basis of Material Acceptance	CAPS Entry No.	Initials		Est. No.
									Post	OK	
7	Str. Exc. Cl. B	2	1/8/98	M ³	17.6			53	DS 1/19	CR 1/20	1
7	" " "	4	1/8/98	M ³	6.7			54	DS 1/19	CR 1/20	1
24	CLIV RCSP 300MM	2	1/24/98	M	36.6	4063	TAG # A123A56	76	DS 1/25	CR 1/26	1
24	" " "	4	1/24/98	M	11.5	4063	TAG # A123A56	77	DS 1/25	CR 1/26	1
25	TESTING SEWER PIPE	2	1/24/98	M	36.6			78	DS 1/25	CR 1/26	1
25	" " "	4	1/24/98	M	11.5			79	DS 1/25	CR 1/26	1
26	C.B. TYPE 1	2	1/24/98	EACH	1	4063	TAG # A123A56	80	DS 1/25	CR 1/26	1

DOT Form 422-637 EF
Revised 9/97

Figure 10-7

BOOK NO. _____ PAGE NO. _____

STRUCTURE EXCAVATION

(PIPE STRUCTURE EXCAVATION WIDTH = 1 m)


STATION	FLOW LINE GRADE	ORIGINAL GROUND	SUB-GRADE	CENTERLINE CUT		RK 1.0m Rt OFFSET HUB	OFFSET CUT-F.L.	REMARKS
				FLOW LINE	BOTTOM DITCH			
CB9-18								
0+000	122.28	123.02		C-0.74		122.97	C-0.69	
0+000.7	122.29	123.02		C-0.73				Begin Str. Exc.
0+010	122.53	122.96		C-0.43				
0+020	122.80	123.14		C-0.34		123.51	C-0.71	
0+030	123.00	123.38		C-0.38				
0+040	123.33	123.60		C-0.27		124.05	C-0.72	
0+049.3	123.38	123.81		C-0.43				End Str. Exc.
0+050 CB9-15	123.40	123.81		C-0.41		124.21	C-0.81	

0.05m added for pipe thickness

REMARKS	STN	EXC.	m ³	
GRP 4 GRP 2	0+000.7	C-0.74	0.64 X 9.3	X 1 = 5.95
	0+010	C-0.43	0.48 X 1.5	X 1 = 0.72
	0+011.5	C-0.42	0.43 X 8.5	X 1 = 3.66 6.7 Group 4
	0+020	C-0.34	0.41 X 10	X 1 = 4.10
	0+030	C-0.38	0.38 X 10	X 1 = 3.80
	0+040	C-0.27	0.40 X 9.3	X 1 = 3.72
	0+049.3	C-0.43		15.3 Group 2
CB 0.85 X 0.91 X 0.61				
1.46 X 1.52 X 1.04 = 2.3 m ³				6.7
				15.3
				2.3
Pay	6.7 m ³ Grp. 4		24.3 m ³ Total Str. Exc.	
	17.6 m ³ Grp. 2			

DOT Form 422-637 (Back)
Revised 9/95

Figure 10-8



**Washington State
Department of Transportation**


Field Note Record

Contract No. C7616	Station Project Limits	Mile/Line: SR 26	C/S 0134 - G1/ 3830 - G2
Staked by Jason Lefler 3/23/2009		Work Started Date 4/27/2009	Work Completed Date 4/27/2009
Calculated by Jason Lefler 4/27/2009		Checked by Sean Carpenter 5/6/2009	Inspector Jason Lefler 4/27/09

One Type B Guardrail Connection installed at each bridge corner; 4 total.

Group 1
Station 299+93 Left and Right = 2
Pay 2.00 each

Group 2
Station 302+43 Left and Right = 2
Pay 2.00 each



Item Num	Material Brand Name/Model Type	Manufacturer	RAMS/QPL Ref. No.	Appr/Acc Code	Basis of Accept	Acceptance	
						Date	Init.
019.01	9-16 Fence and Guardrail W and Thrie Beam + componants	Trinity Highway Products, LLC	QPL-0012	3002	Document conformance to approved plan	04/27/09	JL
019.02.00	9-09 Timber and Lumber	Superior Wood Treating	QPL-0013	2110	Verify Cert of Treatment and Lumber Grade Stamp.	04/27/09	JL
019.02.02	Steel Fasteners Threaded Rods,Nuts,and Washers	Portland Bolt and Mfrg	QPL-0022	2015	Verify Product along with MCC and CMO	04/27/09	JL
019.02.03	9-26 Epoxy Resins Acrylic Tie (AT)	Simpson Strong Tie Co., Inc.	QPL-0021	3008	Visually Verify Product	04/27/09	JL

Item Num	Item Description	Grp	Date Work Complete	Unit	Quantity	Ledger Entry No.	Posted By		Checked By		Est. No.
							Init.	Date	Init.	Date	
0019	TYPE B GUARDRAIL CONNECTION	1	4/27/2009	EACH	2.00	48	rah	05/07/09	TH	05/07/09	
0019	TYPE B GUARDRAIL CONNECTION	2	4/27/2009	EACH	2.00	49	rah	05/07/09	TH	05/07/09	


Attachments

File Attachment

DOT Form IP 422-635ER EF
Revised 2/2009

Figure 10-9

IDR Sheet 1 of 3 Sheets



**Washington State
Department of Transportation**

Inspector's Daily Report

Contract C7762	SR Nos. SR 206	Day Tuesday	Shift Day	Date 7/28/2009
-------------------	-------------------	----------------	--------------	-------------------

Weather
AM PM

Prime Contractor A. Inland Asphalt	Representative/Title Tony Via		
Subcontractor or Agent a Northstar	Appr'd y	DBE y	Representative/Title Jeremy Simpkins

Work Activity Summary
Description and Location

Installing Class A construction signs.

Pay Note Made Today?

No - Work not complete. Will complete Paynote on completion or at estimate cutoff.

No - LS Item. Work is not completed. Will complete paynote on completion or percentage at estimate cutoff.

NOTE: Any "No" will be explained in Diary.

Required Backup Samples Taken

Mats Documentation Approved

Mats Source Approved

Item No.	Contract Item Description	Location	Y/N	Y/N	Y/N	Y/N
41	Construction Signs Class A	Throughout project	NA	No	NA	No

File Upload

File Attachment

Contractor's Equipment
Operating Contractors Id (A-E Above)

No.	Equipment - ID No. and Description	Opr	StdbY	Down	Idle
a 1	GMC 3500 20,000 GVW flatbed truck, #45A	8			
a 1	Dodge 1500 pickup, #39A	6			
a 1	20 foot flatbed trailer #18	8			

Contractor's Workforce
Operating contractors ID(A-E see above)

	Number/Hours								Number			
	Laborers	Carpenters	Operators	Teamsters	IronWorkers	Masons	Flaggers	Electricians	Male	Female	Appr	Trnee
a	4	32					1	3	4	1		

Traffic Control

Was Traffic Control Labor Required Today? Yes No

Was WZTC according to approved TCP? Yes No

Photos/Video taken Today? Yes No

Do all Flaggers and Spotters have current flagging card? Yes No

Inspector's On Site Hours


From	<input type="text" value="9:00 am"/>	Inspector
To	<input type="text" value="2:30 PM"/>	Reviewed By

DOT Form IP 422-004 EF
Revised 3/2009

Reviewed by **C.I./P.M.** **A.P.E.** **P.E.** **O.E.**

Figure 10-9 (continued)

IDR Sheet 3 of 3 Sheets



Washington State
Department of Transportation

Inspector's Daily Report

Contract C7762	Day Tuesday	Date 2009-07-28
File Upload		
<input type="button" value="File Attachment"/>		
<p>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.</p>		
<p>Northstar called the office this morning at 8:30 with questions about the Class A signing. This was the first we heard that they were working today. Northstar still does not have an approved traffic control plan for short duration shoulder work.</p> <p>I met the installation crew on the jobsite around 9:00 am and answered their questions. A couple of stakes had been knocked over which I located and set back in place.</p> <p>Kevin Littleton and Chad Swenson visited the site to evaluate the proposal to not grind out the shoulders between US 2 and Yale rd. to avoid adjusting the drainage structures.</p> <p>Spent the day on site answering questions from the sign installation crew and working on documentation.</p> <p>Off site at 2:30 PM</p>		
		Gordon Hurt Inspector

This page intentionally left blank.