

SUBJECT: MCMS Documentation and Review of Pay Quantities for Construction Projects in Preparation for Final Acceptance and Final Payment.

The requirements of this Directive supersedes the Construction Manual procedures. The Construction Manual will be revised at a later date to incorporate the changes.

TITLE CHANGE: Sketch Book – The title Sketch Book is changed to Summary of Final Field Quantities.

SPECIFICATION: TC-7.06 FINAL ACCEPTANCE AND FINAL PAYMENT

FORM: OOC10

PURPOSE:

To ensure all estimated and final field quantities on construction projects are documented by the CPE and Project Staff, audited by the District Engineer or Director, and reviewed by the Contractor during the progress of the work to expedite the Contract Final Acceptance and Final Payment.

POLICY:

Original Source Document: The Inspector's Daily Report (IDR) with a signature is the original source document on the Construction Project.

PROCEDURE:

- A. Responsibility of District Engineer or Director (DE/D): The DE/D will document, record, and audit the estimated and final field quantities, complete the Summary of Final Quantities, Semi-final, Final Estimate and the Final Closeout Package.
- B. Appointment of Field Document Reviewer (FDR): Each DE/D will appoint one or more staff members to audit pay quantities and other Contract Documents while the project is in progress and when the Contract Documents are turned in by the Construction Project Engineer (CPE) to the DE/D. The FDR will be responsible to the DE/D.
- C. Duties of FDR:
 - 1. Audit estimated quantities for progress payments prepared by CPE.
 - 2. Audit CPE's Final Field Quantities in preparation for submission of the Summary of Final Field Quantities to the DE/D.
 - 3. Review other Contract Documents as directed by the DE/D.

CONSTRUCTION DIRECTIVE 07220.100.12

PROCEDURE: (continued)

- D. Guideline for FDR: The DE/D will require the FDR to follow guidelines listed below when making an audit: FDR will initial checks and corrections in red on hardcopies or an MCMS Final Audit Report may be printed.
1. Check to verify measurement and payment for each Contract Item (item) is in accordance with the Contract Documents.
 2. Random sample items in the Summary of Final Field Quantities and verify against the IDR prepared in the field by Inspectors. Sample a minimum of ten percent to verify the IDR quantities are correct and agree with the Summary of Final Field Quantities.
 3. Check for each item being documented in accordance with procedures outlined in Construction Manual and this Construction Directive.
 4. Check Summary of Final Field Quantities against "As Built" Plans to ensure agreement.
 5. Random sample a minimum of ten percent of items and check for arithmetical accuracy.
 6. When checking hardcopies date and initial all checks and corrections in red. Use the MCMS audit features for on line audits.
 7. When correcting a hard copy, draw a single line through CPE's original entry without obliterating that entry and insert correction. Erasures and alterations are prohibited. Parts of pages or entire pages may be marked "void". Remove no page or parts of pages from the hard copy of the Summary of Final Field Quantities. Insert new pages in the hard copy of Summary of Final Field Quantities and mark "correction." The FDR will initial and date all corrections or entries. Use MCMS for on line audits. Authorized changes or additions to field quantities must be made using MCMS. FDR will add his/her name in the list of construction personnel. Estimates submitted by FDR will be marked as "semi-final" or "final".
 8. Audit estimated and final quantities during field visits to Projects as work progresses. As a minimum, conduct audits at approximately 10 percent completion to ensure proper procedures are being implemented, at approximately 50 percent completion and during the final construction phase.
- E. Spot Checks of Progress Estimates: FDR will make random spot checks of Progress Estimates prepared by CPE:
1. The FDR has full authority to examine all project records and documentation.
 2. The FDR will spot check project documents to verify quantities entered on progress estimates.
 3. The FDR will document each visit to project on form OOC10 and by initialing hard copies of project documents, Item Ledger/Summary of Final Field Quantities pages, estimates, and other Field Office records reviewed. Initials must be adjacent to all entries reviewed. For on line audits utilize the audit features of MCMS.

CONSTRUCTION DIRECTIVE 07220.100.12

PROCEDURE: (continued)

- F. MCMS File Retention: Once weekly, the CPE must save a working and updated MCMS project contract mdb (file name. extension), on SHA network drive, removable media. (CD rom, floppy disk, zips disk, etc.) or SHA web server.
- G. Inspectors Signature Sheet: The Summary of Final Field Quantities will contain an Inspectors Signature Sheet for listing the CPE, Inspectors assigned to project, and the FDR's. On the same line as the printed name, enter the full signature and initials. Place this sheet in the front of the Summary of Final Field Quantities. For the purpose of identifying the originator of entries or checks to field documents, Item Ledgers and the Summary of Final Field Quantities pages, it is permissible for each Inspector who makes entries or checks, and checks made by the FDR to initial the page instead of signing their full name, provided their printer name, signature, and initials appear on the Inspectors Signature Sheet.
- H. Setting up and Changes to the Item Ledger/Summary of Final Field Quantities: CPE will use MCMS to prepare an Item Summary Sheet for each Item with item number, description, unit, unit price and all other information required on the Item summary sheet. Work on the Summary of Final Field Quantities will proceed concurrently with contract progress and, as each Item of work is completed, the necessary final measurements, sketches when necessary, and computations will be completed and included on the IDR. The CPE must verify all work shown on the plans is included on the item summaries. In addition, field changes, Green Line and Red Line Revisions must be added to the appropriate item of work. This is done so the DE/D FDR will be able to immediately identify changes to the Plans and relate those changes to the "As Built" Plans. Change Orders are downloaded from SHA MCMS web server.
- I. Additional Work Request: All contracts (except Fund 29 projects) will include an Additional Work Item. Funding for the Additional Work Item is included in the Contract and a Change Order will not be required. However, all Additional Work Item requests must be signed by the DE/D authorized representative and all Additional Work request for Non-Exempt FHWA Contracts must be faxed to FHWA and signed prior to submitting for authorization.
- The additional work requests in MCMAN will be performed by the Contract Payment Team. Although no change order will be required, complete all supporting documentation for the additional work request in conformance with the standard procedures.
- J. Verification of Change Orders and Additional Work Requests: The CPE will check to verify that the information on the signed and executed Change Orders as well as the information on the approved Additional Work Request coincides with; Item No., negotiated price, quantity, and dollar amount of the Change Orders entered in MCMS.
- K. Final Field Measurements and Degree of Precision: Final field measurements and computation of quantities are original documentation for final pay quantities. Record measurements and quantities on the IDR, and when sketches are required include or attach the sketch to the IDR. Identify, sign and file these documents. All unit price pay quantities must be carried out to two decimals regardless of the precision used in measurement and computations. Lump sum items must be posted as a percent to one decimal. The degree of precision applies to estimated and final pay quantities entered in MCMS.

CONSTRUCTION DIRECTIVE 07220.100.12

PROCEDURE: (continued)

- L. Cross-Reference Payment Entries: When entering a Final Field Quantity include a cross-reference to the IDR number on the Summary Sheet for the entry of the quantity on the item Ledger/Summary of Final Field Quantities.
- M. For Items Where Tickets are Used as a Basis of Payment: For items where tickets are used as a basis of payment (i.e. liquid asphalt material, HMA etc.) cross reference the quantity entries to the file that contains the tickets that document the quantities.
- N. Item Ledger Quantities/Final Field Quantities: Reconcile discrepancies between the Final Field Quantities and the estimated quantities as the Items are completed and final field quantities become available. When an item is satisfactorily completed and the final field quantities agree with the item ledger quantities no adjustment will be necessary. When there is a discrepancy, between the final field quantities and the item ledger quantities make an entry in MCMS to subtract all previously estimated pay quantities and enter the final field quantities in the Summary of Final Field Quantities and in the item ledger. The Item ledger and Summary of Final Field Quantities must agree for each item in MCMS. The estimate (progress, semi-final or final) will then be calculated by MCMS.
- O. Expediting Final Payment by CPE: Review Final Payment to the Contractor for work done by both the Contractor and subcontractors as the work progresses and prior to submitting final field quantities to the DE/D Office.
- P. Disputed Final Field Quantities: Make every effort to resolve any Contractor disputes concerning final field measurements and quantities for work done by the Contractor and subcontractors prior to submitting the MCMS Summary of Final Field Quantities to the DE/D.
- Q. District Engineer or Director Review: Conduct final review of the Summary of Final Field Quantities in a timely sequence that will provide final quantities to the Contractor as early a date as possible, but no later than 60 days as specified in TC-7.06 (a.) (3). When submitting final quantities for Contractor's review, any changes to total item quantities other than those shown on the last progress estimate must be identified with the reason for the changes.
- R. Disputed Quantities: Final quantities disputed by the Contractor must be submitted to the DE/D in the time allowed by TC-7.06 (b) (1) & (2) with detailed documentation.
- S. Timely Closeout of Contract: All parties are expected to work together to expedite the timely Final Acceptance and Final Payment for the Contract.
- T. Overruns/Underruns: Submit an explanation for any individual item that overruns or underruns by an amount greater than \$5,000. Explanation for any overruns/underruns covered by a Change Order is not required.

CONSTRUCTION DIRECTIVE 07220.100.12

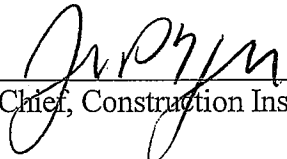
PROCEDURES: (continued)

U. Issue of Final Reports – FHWA Contracts

1. Non-Exempt Contracts: In order for FHWA to issue a Final Report on Non-Exempt Contracts, FHWA must have a completed Form OOC3 District Engineers Certification of Completion of Work, a State Materials Certification, and the explanation of overruns/underruns as noted in T. Forward all documents to FHWA as a package with a Letter of Transmittal to the FHWA Division Engineer.
2. Exempt Contracts: OOC must have a completed Form OOC3 District Engineers Certification of Completion of Work, a State Materials Certification, Regional Construction Engineers Final Inspection Report, and the explanation of overruns/underruns as noted in T. The Director, Office of Construction will then issue a Memorandum of Action with a copy to FHWA.


V. Filing Records at District Office: Keep Project Records in the District Office neat and orderly. File IDR's as the original documentation in folders by date of the IDR or under Item number for audits by either State or Federal Auditors at any time during retention period.

W. Retention Period for Project Documents: State Funded with no Federal-aid involved: the MCMS Summary of Final Field Quantities, all IDR's, the complete MCMS File, and any other original documentation, are kept at the District Engineer or Director's Office for five years after date of final payment. When Federal-aid is involved: the five year retention period will begin the date the Federal Highway Administration (FHWA) has cleared the final voucher. The listing of the final Voucher clearance dates from Federal Highway for each contract will be provided by the Administration's Division Manager, Capital Programs Division of the Office of Finance And Information Technology (OFIT). Contact the Division Manager, Capital Programs Division @ 410-545-5789 for the status of the final voucher clearances.



Chief, Construction Inspection Division

APPROVED:



Director, Office of Construction