

## **1:3:B REVIEW & PROCESS MONTHLY & FINAL ESTIMATES**

**Note: Weighmaster's signature is not required for asphalt pavement tickets on projects using the department's eTicketing portal. Only the weighmaster's name is required.**

### **PREPARATION OF ESTIMATES AT PROJECT LEVEL.**

The information contained in this section is recommended for use by the Project Engineer and his/her staff in preparing and documenting pay quantities shown on each monthly estimate and the final estimate. All pay quantities must be properly documented and referenced. **Delivery tickets covering commercial materials (Except reinforcing steel and structural steel) which are measured by weight for pay purposes shall contain the original signature (No initials) of a qualified weighmaster. Delivery tickets shall not be paid without this signature nor the validation receipt signature of the project field inspector.** The methods contained herein will accomplish this end.

### **RESPONSIBILITY.**

The keeping of complete and accurate project records in support of all pay quantities is one of the major responsibilities of the Project Engineer and his/her staff. All construction records for the project shall be prepared under the direct and active supervision of the Project Engineer. The preparation of data for estimates should begin the day the Project Engineer is assigned to the project and continue until the completion of the project.

The Project Engineer should make a thorough study of the plans and the various pay items included in the contract. Considerable forethought should be given to the methods of measurement for the various items and steps taken to keep adequate supporting data for documenting all pay quantities shown on each monthly estimate as well as the final estimate. The method presented in this manual for the documentation of pay quantities is an acceptable method of maintaining proper documentation.

### **ESTIMATE DATA.**

Estimate data shall include all field data books, project files, Inspector's Daily Reports, Project Diaries, Material Test Reports, haul tickets, bar lists, shipping invoices, Change orders, Supplemental Agreements and any special official instructions or documents required to support the measurements and computations for all pay quantities used on the project.

The estimate data should be complete enough to allow any subsequent audit and complete check of the estimate quantities by competent personnel. Project records must be adequate to support all official statements and figures contained in the project files. These records should clearly indicate the place, date, time, person, method, and original basic source document from which the information was obtained.

The Project Engineer must not lose sight of the fact that he/she must keep his/her estimate data in complete clear detail so that he/she can produce at any time the basic recorded or tabulated measurements, weights, cross-sections, haul tickets, shipping invoices or other documents from which his/her pay quantities were developed.

The project records must be complete so that the merit or lack of merit of a claim can be properly evaluated.

Most ALDOT projects involve Federal Funds. Project records and estimate data must be complete so as to permit ready verification of quantities by Federal Highway Administration Engineers and Auditors. Good, clear records will expedite FHWA approval of work and payment of Federal Funds.

### **TEST REPORTS.**

The preparation of **Form BMT-38**, Summary of Tests, should begin with the start of the project and all Test Reports should be posted as received (**See Plate H contained herein**). A running total shall be kept on all pre-tested and tested materials approved by the Department (**See Form C-30 - Plate "Z"**).

The "To Date Quantity" for materials in place should be checked against this record each month prior to including them on the monthly estimate. No payment will be made for any item for which the Contractor is responsible for furnishing the test report (excepting Structural Steel and cylinder breaks for concrete) until the test report has been received.

The Engineer may permit use, prior to sampling and testing, of certain materials accompanied by a signed materials guaranty on the form furnished by the Department which guarantees the materials conform to Departmental Specifications. See Subarticle 106.02(a).

### **PROJECT DIARY AND INSPECTOR'S DAILY REPORTS.**

**Refer to Part 1, Section 2, Article M of this manual.**

### **PROJECT DIARIES.**

Of all records kept by the Project Engineer and his/her staff, none is more important than the daily record of activities on a project. While the Project Diary is not to be used primarily as a construction detail book, it should carry sufficient construction data to verify the construction records kept in the Inspector's Daily Reports and other record books. A detailed description of each construction operation is not necessary since this information is shown in the Inspector's Daily Report.

A properly kept Project Diary is invaluable to the Project Engineer and to the Department. Primarily, the Project Diary should be a record of administrative details, working conditions, and personnel on the work performed. The Project's entire field and field office staff and all of the Contractor's personnel should be listed each day. A well kept Project Diary should also contain information as to special instructions given the Contractor as well as an accurate record of happenings on the project which cannot be considered normal.

The Project Engineer should keep a complete record of special instructions to the Contractor, with names of witnesses and Contractor's representatives involved, especially those dealing with phases of work over which some controversy has developed or may develop. Sound judgement and foresight should be employed because that which may seem to be an insignificant instruction or incident today may develop into a major controversy or lawsuit against the Contractor or the Department at some later date. An accurate documentation of events can contribute heavily towards the resolving of an issue.

The Project Diary sometimes becomes a court exhibit in litigation by Contractors or property owners regarding claims. Each entry should be made with the thought in mind that it may someday be a legal

instrument that will substantiate a just claim or disprove an unjust one. Do not erase recorded data. Draw a single line through an incorrect entry so that it is still legible, and place the correct value above it. Void an entire page by drawing diagonal lines to the corners of the page. The person making the corrections should initial each change.

The Project Diary must be complete with an entry made each day throughout the life of the contract. Particular attention must be given to the controlling item or items of work in effect, and to the working conditions on these items. The Contractor's personnel and equipment, the hours worked, etc., must be placed in their proper spaces in the diary. Any day on which there might be a question concerning time charges, there must be a full discussion as to the reason for charging or for not charging a working day. The adequacy of the Contractor's work force and equipment is of vital concern. The Project Engineer should indicate each day whether in his/her opinion progress is satisfactory or unsatisfactory. Record all conferences of consequence with the Contractor or his/her representatives regarding safety requirements, labor conditions and EEO activities. Record all precipitation and time it fell on project.

To assist the Project Engineer in recording the proper information in the Project Diary, each inspector is required to prepare an **Inspector's Daily Report (Form BC-IO1)** describing in full the daily activities on the work, which he/she inspects. (See the example of a properly prepared Inspector's report in this manual). This report is to be used as a backup document for specific details to support the Project Diary. The original copy of the Inspector's Daily Report is to be filed and made a part of the permanent documentation for the project, with the carbon copy of this report being retained by the inspector.

The Project Engineer shall check these reports daily, writing in any comments which may add to the completeness of the record and initial each daily entry.

The grading Inspector's Daily Report should show the number and type of equipment, approximate crew at each grading site (described by Station numbers), points from and to which excavation or borrow is being moved, approximate amounts, and any comment on lack or excess of watering and on compaction results. Comments should be made on items inspected as to satisfactory or unsatisfactory conditions and any other information of importance not discussed with the Project Engineer.

All Inspectors' Daily Reports should follow the same format. The Project Engineer shall see that all items of work are included on an Inspector's Daily Report.

A Daily Utility Relocation Report (**Form SP-1**) shall be kept covering work by utility companies. (See example contained herein). This report should show all Utility personnel on the project and hours worked, type equipment, materials used, and any recovered materials. Any deviation from plans shall be noted on the report and indicated on the plans "as built." Comment should be made regarding any lag in utility work as compared to the original agreement, any interference of utilities or utility relocation work with the Contractor's operations, and any conferences or decisions of consequence regarding utility work. All information necessary to check the Utility's final bill or claim should be shown on the reports and submitted for review and approval by the Division Utility Engineer.

Any reports, letters, memoranda, computations, notes, etc., affecting important entries in the Project Diary should be retained for possible future reference. Upon completion of the project, all Project Diaries and Inspector's Daily Reports must be delivered to the Division Office for safekeeping, along with other project documents.

## **MONTHLY ESTIMATES**

In order to provide the Contractor with operating capital, the Standard Specifications provides that once in each month the Project Engineer will make an estimate of the work or portion of the work completed and the value thereof based on the Contract Unit Prices or proportional part thereof for Lump Sum items.

Preprinted estimate forms will be used on all projects. Before using, these forms should be checked against the contract to assure correctness of the Contractor's address, project number, item descriptions, unit and unit prices.

When preparing this form, extreme care should be taken that sufficient documentation is on hand whereby all quantities may be verified. It is the responsibility of the Project Engineer to keep an accurate station to station record substantiating the quantity or amount of each item included for payment on the monthly estimate.

Records may be kept in a Monthly Estimate Book or on loose-leaf sheet attached to the Project Engineer's copy of monthly estimates. Each pay quantity must be documented on **form C-30** and referenced to the backup information, which will support the pay quantity.

It is not intended that the Project Engineer make actual field measurements on every item in order to verify the quantities allowed on the estimate, but that he/she be able to verify his/her estimated quantities as taken from the plans Summary of Quantities Sheets or on the job inspection. However, there are many items, which of necessity must be accurately field measured and documented as they are completed since they may be obliterated or covered during the progress of construction. When this is the case, the Project Engineer should make accurate measurements prior to removal in cases where the item is to be removed or as soon as the work is completed in cases of new work.

The Project Engineer or other person responsible for preparing the "Work" copy of the monthly estimate should first enter the estimate number in the heading of the preprinted forms along with the code number. The period covered by the estimate will begin on the date work began on any pay item and end each month on the estimate date established by the Division Office.

All quantities performed during the current month should be shown in the "This Month" column, proper money extensions should be made under the same column. The above quantities and money extensions shall be carried over to the "To Date" column to include any amounts shown on previous estimates.

The preparation of estimates for projects, which are not furnished preprinted forms, is the same, except the Contractor's address, item descriptions, and units prices must be written in.

Occasionally, it is necessary for partial payments to be made on certain items stored at or near the project site. Since the amount of payment for stored or stockpiled items will be different than the contract unit price, the recommended procedure for incorporating these items into the pre-printed estimate form is as follows:

Add the item, indicating that it is a partial payment covered by a specific Article in the Standard Specifications, "between-the-lines" either above or below the contract bid item. If space does not allow for adding-in, the partial payment may be placed on an additional sheet numbered X-A. This additional sheet should precede the pre-printed estimate sheet that shows the subtotal for the particular section

(Roadway, Construction Engineering, or Bridge) concerned.

For partial payments that are made based on the Contractor's cost of the items, the Contractor as required by the Standard Specifications should furnish a certified invoice with the items listed in detail. Payment for "Per Each" items will be made based on the percent complete. An example of this would be if 20 inlets are 50% complete, then make payment for 10 inlets. Careful documentation of this type of payment must be kept to avoid any under/over payment.

Work performed by Force Account may be shown on the estimate as a lump sum item. A detailed listing of the Contractor's labor, equipment and material used should accompany the estimate. When partial payment is to be made on Force Account work, the payment must have sufficient documentation to substantiate the amount paid on the estimate. See Subarticle 109.04(b).

**No estimate will be required when the work performed since the last estimate amounts to less than \$2,500.00. See Article 109.07.**

### **Final Estimate Documentation**

Following the check and verification of final quantities the following supporting data shall be provided as a part of final estimate documentation.

(1) A non-resident Contractor must provide a certified "statement of good standing" from the State Department of Revenue and the appropriate County and/or City authority. This statement shall certify that the non-resident Contractor has paid all taxes due and payable to the State of Alabama or any political subdivision thereof. This document is required for each county and city in which work is performed.

(2) Proof of publication of advertisement of project completion as per Item 105.15(c)4.

(3) No payment will be made until the Contractor submits a signed affidavit attesting that all known debts for labor and materials used on the project and all approved sub-contractual obligations associated with the construction of the project have been paid or will be paid within five days after final payment.

(4) A certification of actual payments to DBE firms. This certification requires sign off by the Prime Contractor and the individual DBE firms involved on the project.

(5) In addition to pre-printed estimate forms a completely executed and notarized original of the signature page of **Form 3** is required to be a part of the final estimate.

### **FINAL PLAN ASSEMBLIES.**

**The Final Plan Assembly shall consist of the following sheets: Title Sheet.**

Full size plan Title Sheet shall be used. Correct index of sheets to agree with sheets in Final Plan Assembly.

Correct all project data that is shown on the Title Sheet with black ink so that it will conform to the actual construction.

### **Typical Section Sheets.**

Full size plan sheets should be used with all revisions made on construction shown in black ink.

### **Summary of Quantities Sheets.**

The Summary of Quantities Sheet shall list all contract pay items with both the plan quantity and the final quantity for each item. Use full size Summary of Quantities Sheet or, if required information cannot be clearly shown, remake this sheet in dark pencil on cross-section paper. Be sure to indicate items either added or deleted by Supplemental Agreement. If no work was performed on an item, show the figure zero in the final quantity column. Following the description of each Pay Item, give a reference for the supporting data for the final quantity. **(Refer to example plate A contained herein.)**

### **Summary of Quantities Box Sheets.**

In order to show a tabulation of the various pay items involved in the construction of minor structures, pipe, flumes, fencing, relocation of structures, guardrail, etc., "boxes" similar to those in the plans should be prepared. These sheets should be in dark pencil on cross-section paper. Preparation of these sheets tends to prevent the omission of an entire structure with all pay quantities involved. Experience has shown that such omissions are easily made when the quantities to be totaled are scattered in several different books.

### **Plan-Profile Sheets.**

Full size plan-profile sheets shall be used. Line out with black ink all original data that is incorrect and insert correct construction data. Be sure to show all pipe lines, culverts, flumes, etc., that were added on construction.

### **Pit Layout Sheet.**

Full size plan sheets should be used, if pit indicated in plans. Changes in pit owners and locations should be corrected in black ink. On Contractor material sources, maintain cross-section sheets with original/final sections and calculated quantities.

### **Special Drawings.**

On construction, many times, it is necessary to adapt a Standard Drawing to fit the local conditions. When this is done sheets showing detailed drawings completely dimensioned and all calculations necessary to determine the quantities should be prepared. Each drawing should be identified by Station location.

### **Paving Layout Sheets.**

The plans for projects in urban areas usually have Paving Layout Sheets on a large scale showing curb and gutter, sidewalks, drainage, paving details, etc. These sheets should be corrected in black ink to conform to changes on construction.

### **Standard Drawings**

Full size plan copies of Standard Drawings that are not included in the Standard Drawing Book used on construction should be included in the Final Plan Assembly to aid in checking the Final

### **Drainage Sheets**

Special drainage sheets for all minor structures and pipes should be included in the Final Plan Assembly. Show all quantities for each structure on the drainage sheet.

### **Cross-Section Sheets**

The final cross-sections can be plotted by either project personnel or the design section of the Division Office utilizing data collectors and computerized equipment. The original cross-sections should be inked. Do not use blueprinted plan cross-section sheets. All computations of quantities should be shown on the cross-section sheets. If quantities are calculated by computer, quantity reports should be generated and included with cross section sheets. Be sure to indicate the scale being used.

### **Shop and Working Drawings**

Include an approved copy of all Working Drawings and Shop Drawings used on the Project.