

\*\*\*\*\*  
 USACE / CESAJ

Adapted for CESAJ programs September 2000.

DEPARTMENT OF THE ARMY  
 U.S. ARMY CORPS OF ENGINEERS

CESAJ 01270 (Sep 2002)  
 -----  
 Superseding  
 CESAJ 01270 (May 2002)  
 Coordinated with  
 UFGS 01270A (Feb 1994)

JACKSONVILLE DISTRICT LOCAL MASTER GUIDE SPECIFICATION

\*\*\*\*\*

SECTION 01270

MEASUREMENT AND PAYMENT  
 06/04

\*\*\*\*\*

NOTE: This guide specification provides an example of the appropriate form to be used in developing a project specification covering lump sum schedule payment items and unit price schedule payment items.

Comments and suggestions are welcome. Using E-mail for feedback is encouraged. Comments should be directed to:

Engineering Division, Design Branch, Specifications Section.

ALL COMMENTS RECEIVED WILL BE DISSEMINATED TO THE PROPER OFFICE FOR RESPONSE.

"Technical Proponent" in CO-CQ is Mr.Pastorini  
 904-232-1699, bruce.b.pastorini@saj02.usace.army.mil.

This section is recommended to be included in all Civil Works projects. Parts of this section are shown for illustration purposes only and the section must be extensively edited to fit the job.

\*\*\*\*\*

PART 1 GENERAL

\*\*\*\*\*

NOTE: Ensure Line Item (CLIN) numbers on bidding schedule match those listed in this section. CLINs are generated in PD2 by Contracting and numbered to "roll up."

<u>Line Item</u> (CLIN)	<u>Description</u>	<u>QTY</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Total</u>
0001	Building		LS		_____

0002           Excavation  
 \*When a CLIN has subCLINS (e.g., 0002AA), the CLIN  
 is not priced. Only the subCLINS are priced.  
 0002AA       East Trench    100   CY     \_\_\_       \_\_\_  
 0002AB       West Trench    200   CY     \_\_\_       \_\_\_

\*\*\*\*\*

1.1   SUMMARY

This section describes how Line Items will be measured and paid for progress payments. Work to be measured is described in specification sections listed for each Line Item. Measurement procedures for payment, required quantity survey or procurement documentation and payment restrictions are described in applicable specification sections. Allocate costs for work not specifically mentioned to the Line Item most closely associated with work involved. Unless there is a specific Line Item for administrative costs, such as Quality Control and Safety, allocate such costs proportionally across all Line Items.

1.2   DEFINITIONS

The terms "Contract Line Item Number (CLIN)" and "Line Item" are interchangeable herein (e.g.: CLIN 0001 is Line Item 0001). The term "CLIN" is a contracting term used in the Quality Control System (QCS) payment data base. See Section 01312 QUALITY CONTROL SYSTEM (QCS).

1.3   SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Transmit submittal items in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Schedule of Values; G|COR

Provide a breakdown of lump sum items into proposed pay activities. Schedule of Values will become basis for CLIN and Pay Activity data in the QCS payment data base.

1.4   LUMP SUM PAYMENT ITEMS

\*\*\*\*\*

**NOTE: The number and identification of lump sum payment items is primarily a Construction-Operations Division concern. Generally, it is better to keep the number of lump sum payment items to a minimum. The description of the work included in a payment item is unique for each job and must be developed for each construction contract.**

\*\*\*\*\*

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the LINE ITEMS AND PRICING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated

with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

Progress payments for lump sum CLINs will be made in accordance with the Payments Under Fixed-Price Construction Contracts clause of Section 00700 CONTRACT CLAUSES. Provide a list of pay activities, (Schedule of Values) to breakdown bid for each lump sum CLIN. Within 20 calendar days after receiving Notice to Proceed, submit Schedule of Values for Government approval. An unbalanced Schedule of Values and Pay Activity Schedule will be returned for revision. Linking a CLIN to a schedule of values of pay activities and construction schedule are described in Section 01312 QUALITY CONTROL SYSTEM (QCS). If this contract contains either the Continuing Contracts clause or the Continuing Contracts (Alternate) clause, the Contractor should take into account the amount reserved for contract payments when preparing the construction schedule.

1.4.1 Mobilization and Demobilization (Line Item [ ])

\*\*\*\*\*

**NOTE: If mobilization and demobilization costs are expected to be a minor cost under the contract, this clause and payment item should be deleted.**

**NOTE TO SPEC WRITER: EACH PARAGRAPH SHOULD BE EDITED ACCORDINGLY; SELECT/DELETE BRACKETED INFORMATION AND FILL IN ALL BLANKS.**

\*\*\*\*\*

a. Payment will be made for costs associated with or incidental to mobilization and demobilization and establishment of initial project management and coordination. See Clause PAYMENT FOR MOBILIZATION AND DEMOBILIZATION of Section 00700 CONTRACT CLAUSES and Section 01310 ADMINISTRATIVE PROCEDURES.

b. Payment will be made for costs associated with or incidental to mobilization and demobilization for sea turtle trawling and relocation (For Hopper Dredges Only). See Section 01355 ENVIRONMENTAL PROTECTION.

1.4.2 Endangered Species Observers [(For Hopper Dredges Only)] (Line Item [ ])

Payment will be made for costs associated with or incidental to endangered species observers. See Section 01355 ENVIRONMENTAL PROTECTION.

1.4.3 Turbidity Monitoring (Line Item [ ])

Payment will be made for costs associated with or incidental to obtaining, analyzing, and reporting the results of monitoring for turbidity. See Section 01411 TURBIDITY AND DISPOSAL MONITORING.

1.4.4 Lighted Aids to Navigation (Line Item [ ])

Payment will be made for costs associated with or incidental to the installation, operation, maintenance, and removal of lighted aids to navigation. Other markers as required by different sections of this

contract shall be included and addressed by that Section. See Section 02391 BEACH FILL.

1.4.5 Construction/Vibration Control and Monitoring (Line Item [ ])

Payment will be made for costs associated with or incidental to the protection of existing structures from construction activities and monitoring. See Section 02290 VIBRATION MONITORING REQUIREMENTS FOR EXISTING STRUCTURES.

1.4.6 Structure [ ] (Line Item [ ])

\*\*\*\*\*  
NOTE: Consult the concrete materials design memorandum to choose the appropriate cementitious materials and admixtures for measurement and payment.  
  
Repeat this lump sum line item for each structure to be paid for by lump sum, renumbering the line items appropriately.  
\*\*\*\*\*

Payment will be made for costs associated with operations necessary for construction of the structure at Station [ ]. See Section 03301 CAST-IN-PLACE STRUCTURAL CONCRETE.

1.4.7 [ ] (Line Item [ ])

Payment will be made for costs associated with or incidental to the [ ]. See Section [ ] [ ].

1.4.8 [ ] (Line Item [ ])

Payment will be made for costs associated with or incidental to the [ ]. See Section [ ] [ ].

1.5 UNIT PRICE PAYMENT ITEMS

\*\*\*\*\*  
NOTE: THE UNIT PRICE PAYMENT ITEMS SHOWN BELOW ARE FOR ILLUSTRATION PURPOSES ONLY. UNIT PRICE PAYMENT ITEM LANGUAGE MUST BE WRITTEN SPECIFICALLY FOR EACH JOB. UNIT PRICE PAYMENT ITEM LANGUAGE APPROPRIATE FOR INCLUSION BELOW IS CONTAINED IN GUIDE SPECIFICATION SECTIONS AND MUST BE MOVED TO THIS SECTION TO DEVELOP THE PAY ITEMS FOR THE PROJECT.  
  
NOTE TO SPEC WRITER: EACH PARAGRAPH SHOULD BE EDITED ACCORDINGLY; SELECT/DELETE BRACKETED INFORMATION AND FILL IN ALL BLANKS.  
\*\*\*\*\*

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the LINE ITEMS AND PRICING SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the

unit price items.

Each Unit Price CLIN may be a single pay activity item or may be broken down into pay activities with smaller quantities equal to CLIN total. Contract unit price multiplied by agreed quantity is full compensation.

1.5.1 Excavation, Unclassified (Line Item [ ])

\*\*\*\*\*  
**NOTE: For dredging projects.**  
\*\*\*\*\*

1.5.1.1 Payment

a. Payment will be made for costs associated with or incidental to excavation, transportation, and disposal of materials; providing and maintaining access to the work site(s) and disposal area(s); removal of utility cable; noise control; debris removal; [installation, operation or maintenance of the electronic tracking system for surveillance of all dredging and disposal activities]; [nearshore disposal area marking]; and, monitoring sea turtles. See Sections 02325 DREDGING and 01355 ENVIRONMENTAL PROTECTION.

b. Insofar as consistent with the paragraph [CONTINUITY OF WORK] [CONTINUITY OF WORK -- DREDGING OF ROCK] of Section 02325 DREDGING, monthly partial payments will be based on approximate quantities determined by soundings or sweepings performed by the Contractor behind the dredge. The term "area designated by the Contracting Officer" as used in the CONTINUITY OF WORK paragraph, is defined as "acceptance section".

[ c. Soundings for payment purposes will be made by the Government at the frequency listed in the Channel Survey Notes on the contract drawings.]

1.5.1.2 Measurement

a. The maps and/or drawings already prepared (clause CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS of Section 00700 CONTRACT CLAUSES) are believed to represent accurately average existing conditions, but the depths shown thereon may be verified and corrected by soundings taken before dredging. Determination of quantities removed and the deductions made therefrom to determine quantities by place measurement to be paid for in the area specified, after having once been made, will not be reopened, except on evidence of collusion, fraud, or obvious error.

b. The total amount of material removed, and to be paid for under the contract, will be measured by the cubic yard in place [and quantities determined by the average end area method]. The volume computed shall be between the bottom surface shown by soundings taken within 3 weeks before dredging and the bottom surface shown by the soundings taken within 3 weeks after the work specified in each acceptance section indicated on the drawings has been completed. The Contractor shall give [3 weeks] [10 days] advance notice, in writing, to the Contracting Officer's Representative of the need for a pre-dredging survey or after-dredging survey for final acceptance for each acceptance section. The quantity shall include the volume within the limits of the side slopes described in subparagraph "Side Slopes"

of paragraph REQUIRED DEPTH, ALLOWABLE OVERDEPTH, AND SIDE SLOPES of Section 02325 DREDGING, less any deductions that may be required for misplaced material described in subparagraph "Misplaced Materials" of paragraph DISPOSAL OF EXCAVATED MATERIAL of Section 02325 DREDGING.

1.5.1.3 Unit of Measure

Cubic yard.

1.5.2 Beach Fill (Line Item [ ])

\*\*\*\*\*  
**NOTE: For beach fill projects.**  
\*\*\*\*\*

1.5.2.1 Payment

a. Payment will be made for costs associated with or incidental to barricades and signs, debris removal, [rock removal/disposal,] pipeline crossing, excavation and transportation of beach fill, constructing the beach profile and final dressing; noise control; [dive reports]; [installation, operation, or maintenance of the electronic positional monitoring equipment]; [condition surveys and monitoring of hardbottom/reef communities and operational box for protection of hardbottom/reef communities]; monitoring sea turtles; and, monitoring and reporting turbidity. See Sections 01355 ENVIRONMENTAL PROTECTION, 01411 TURBIDITY AND DISPOSAL MONITORING, and 02391 BEACH FILL.

b. In addition to the above, payment will be made for in-place beach fill to plus 0.5 foot tolerance line on both berm and slope. Payment quantities [will] [shall] be determined by the [Contracting Officer's Representative] [Contractor] using average end area method of calculation. When beach fill is placed up-slope above slough zone to compensate for wave action, payment of end area will be based on a cut and fill calculation. No payment will be made for material placed on the up-slope above the tolerance A(u) that exceeds A(s) (Refer to Beach Fill Tolerance figure indicated in the paragraph CONSTRUCTION FORMS AND DETAILS of Section 02391 BEACH FILL).

1.5.2.2 Measurement

\*\*\*\*\*  
**NOTE: Reference to paragraph QUANTITY SURVEYS - ALTERNATE I below will be used when determination is made that Contractor will perform ALL surveys. If Government will perform pre- and post-surveys then use QUANTITY SURVEYS reference.**  
\*\*\*\*\*

a. The maps and/or drawings already prepared (clause CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS of Section 00700 CONTRACT CLAUSES) are believed to represent accurately the existing conditions at the time the surveys were performed, but the depths and elevations shown thereon may be verified and corrected by elevations and soundings taken before commencing the work. Determination of quantities placed and the deductions made therefrom to determine quantities by place measurement to be paid for within a specified reach or section, after having once been made, will not be reopened, except on evidence of collusion, fraud, or obvious error.

b. Beach fill satisfactorily placed will be measured for payment by use of the average end area method. The quantities will be computed by the Government in accordance with clause [QUANTITY SURVEYS] [QUANTITY SURVEYS - ALTERNATE I] of Section 00700 CONTRACT CLAUSES. Measurement of quantity placed for pay purposes will be based on original and final cross sections made on the section or reach indicated on the drawings. The Contractor shall give 3 calendar days advance notice, in writing, to the Contracting Officer's Representative of the need to perform the original and final surveys. Quality Control Surveys shall be the responsibility of the Contractor. Monthly partial payments will be based on approximate quantities determined by measurement of the in-place beach fill and in accordance with clause [QUANTITY SURVEYS] [QUANTITY SURVEYS - ALTERNATE I] of Section 00700 CONTRACT CLAUSES.

c. In accordance with clause [QUANTITY SURVEYS] [QUANTITY SURVEYS - ALTERNATE I] of Section 00700 CONTRACT CLAUSES, [Contracting Officer's Representative will] [Contractor shall] perform pre- and post-construction topographic survey at profile monument stations shown from base line to point slope intercepts pre-construction surveyed condition shore surface. In order to achieve final grade in slough zone, Contractor shall place material to final grade within tolerance for entire slope or may stockpile beach fill up-slope of slough zone. After stockpiled beach fill is measured for payment, Contractor shall shape slope to within 0.5 foot of final grade from top of slope to waterline producing a smooth uniform slope. Once post-construction survey is performed, no measurements will be revised except on suspicion of fraud or obvious error.

1.5.2.3 Unit of Measure

Cubic yard.

1.5.3 Excavation (Line Item [ ])

\*\*\*\*\*  
**NOTE: For excavation other than dredging.**  
 \*\*\*\*\*

1.5.3.1 Payment

Payment will be made for costs associated with or incidental to [blasting,] excavation, transportation, and disposal of materials; excavation, hauling and stockpiling of topsoil; providing and maintaining access to the work site(s) and disposal area(s); noise control; and, debris removal. See Sections 01525 GENERAL SAFETY REQUIREMENTS and 02300A EARTHWORK

1.5.3.2 Measurement

The total amount of material removed, and to be paid for under this contract, will be measured by the volume in-place prior to excavation with quantities determined by the average end area method. The Government will perform initial and final surveys in accordance with the clause QUANTITY SURVEYS of Section 00700 CONTRACT CLAUSES. Cross sections will be taken at a 100-foot interval. The cross sections used for calculation of final quantities will be determined from the original survey performed by the Government after clearing and before excavation, and the finished grades shown on the drawings. The final survey performed by the Government will be used to verify that excavation is complete to the required finished

grades, and that tolerances have not been exceeded. Excavation below required finished grades will not be included in quantities calculated for final payment. The estimated quantity for this line item does not include tolerances. The Contractor is responsible for considering the cost of required tolerances, and including this cost in the unit price for this line item (See Section 00010A LINE ITEMS AND PRICING SCHEDULE). Cross sections used for calculation of quantities for progress payments will be determined from the original survey performed by the Government, and elevations above finished grade obtained from progress surveys performed by the Contractor in accordance with the clause QUANTITY SURVEYS of Section 00700 CONTRACT CLAUSES.

1.5.3.3 Unit of Measure

Cubic yard.

1.5.4 Fill (Line Item [ ])

\*\*\*\*\*  
**NOTE: For upland fill (not beach fill).**  
\*\*\*\*\*

1.5.4.1 Payment

Payment will be made for costs associated with or incidental to borrow, processing (removal of unsuitable fill), transportation, and placement of suitable materials; providing and maintaining access to the work site(s) and borrow area(s); and noise control. See Sections 01525 GENERAL SAFETY REQUIREMENTS and 02300A EARTHWORK

1.5.4.2 Measurement

The total amount of material placed, and to be paid for under this contract, will be measured by the volume in-place with quantities determined by the average end area method. The Government will perform initial and final surveys in accordance with the clause QUANTITY SURVEYS of Section 00700 CONTRACT CLAUSES. Cross sections will be taken at a 100-foot interval. The cross sections used for calculation of final quantities will be determined from the original survey performed by the Government after clearing and before fill placement, and the finished grades shown on the drawings. The final survey performed by the Government will be used to verify that fill placement is complete to the required finished grades, and that tolerances have not been exceeded. Fill above required finished grades will not be included in quantities calculated for final payment. The estimated quantity for this line item does not include tolerances. The Contractor is responsible for considering the cost of required tolerances, and including this cost in the unit price for this line item (See Section 00010A LINE ITEMS AND PRICING SCHEDULE). Cross sections used for calculation of quantities for progress payments will be determined from the original survey performed by the Government, and elevations below finished grade obtained from progress surveys performed by the Contractor in accordance with the clause QUANTITY SURVEYS of Section 00700 CONTRACT CLAUSES.

1.5.4.3 Unit of Measure

Cubic yard.

1.5.5 Post-Fill Restoration (Line Item [     ])

1.5.5.1 Payment

Payment will be made for costs associated with or incidental to restoration of the beach in the vicinity of the breakwaters after the initial construction. See Section 02391 BEACH FILL.

1.5.5.2 Unit of Measure

Cubic yard.

1.5.6 Deformed Steel Bars for Concrete Reinforcement (Line Item [     ])

\*\*\*\*\*  
**NOTE: This example was taken from UFGS Section  
03201 STEEL BARS AND WELDED WIRE FABRIC FOR CONCRETE  
REINFORCEMENT FOR CIVIL WORKS.**  
\*\*\*\*\*

1.5.6.1 Payment

Payment will be made for costs associated with furnishing and placing deformed steel bars for concrete reinforcement. No payment will be made for the additional steel in laps wherein the additional steel lap was made for the convenience of the Contractor.

1.5.6.2 Measurement

The measured lengths will be converted to weights for the size of bars listed by the use of the nominal weights per linear foot.

1.5.6.3 Unit of Measure

Unit of measure: per pound.

1.5.7 Bituminous Base Course (Line Item [     ])

\*\*\*\*\*  
**NOTE: Paragraph UNIT PRICES of UFGS Section 02713A  
BITUMINOUS BASE COURSE was edited to develop this  
example.**  
\*\*\*\*\*

1.5.7.1 Payment

The quantities of bituminous base course shall be paid for at the respective contract unit price in the LINE ITEMS AND PRICING SCHEDULE. Payment shall constitute full compensation for preparing and reconditioning the underlying layer; for furnishing all material, equipment, plant, and tools; and other incidentals necessary to complete the work required by Section 02713A BITUMINOUS BASE COURSE. No payment will be made for defective areas until corrected.

1.5.7.2 Measurement

The amount paid for will be the number of 2,000-pound tons of bituminous mixture used in the accepted work. Bituminous mixture shall be weighed after mixing, and no deductions will be made for the weight of bituminous

material incorporated in the mix. No payment will be made for defective areas until corrected.

1.5.7.3 Unit of Measure

Unit of measure: 2,000-pound ton.

1.5.8 Bituminous Materials (Line Item [ ])

\*\*\*\*\*  
**NOTE: Paragraph UNIT PRICES of UFGS 02713A  
BITUMINOUS BASE COURSE was edited to develop this  
example.**  
\*\*\*\*\*

1.5.8.1 Payment

The quantities of bituminous materials shall be paid for at the respective contract unit price in the LINE ITEMS AND PRICING SCHEDULE. Payment shall constitute full compensation for preparing and reconditioning the underlying layer; for furnishing all material, equipment, plant, and tools; and other incidentals necessary to complete the work required by Section 02713A BITUMINOUS BASE COURSE. No payment will be made for defective areas until corrected.

1.5.8.2 Measurement

Bituminous material to be paid for shall be measured in the number of [gallons of the material used in the accepted work, corrected to gallons at 60 degrees F.] [2,000-pound tons of the material used in the accepted work.]

1.5.8.3 Unit of Measure

Unit of measure: [gallons] [2,000-pound tons].

1.5.9 Concrete for [ ] (Line Item [ ])

\*\*\*\*\*  
**NOTE: Consult the concrete materials design  
memorandum to choose the appropriate cementitious  
materials and admixtures for measurement and payment.**  
  
**Repeat this unit price line item and its respective  
subparagraphs for each line item of concrete,  
renumbering the line items appropriately.**  
\*\*\*\*\*

1.5.9.1 Payment

Payment will be made for costs associated with completing the concrete work for concrete placed in the [ ]. However, these costs will not include the cost of embedded parts that are specified to be paid for separately. No payment will be made for concrete, as such, that is placed in structures of which payment is made as a lump sum. See Section 03301 CAST-IN-PLACE STRUCTURAL CONCRETE.

1.5.9.2 Measurement

Concrete will be measured for payment based upon the actual volume of

concrete within the pay lines of the structures as indicated on the drawings. Measurement of concrete placed against the sides of any excavation without the use of intervening forms shall be made only within the pay lines of the structure. No deductions shall be made for rounded or beveled edges, space occupied by metal work, electrical conduits or reinforcing steel, or for voids or embedded items that are either less than 0.14 cubic meters5 cubic feet in volume or 0.09 square meter1 square foot in cross section.

#### 1.5.9.3 Unit of Measure

Unit of measure: cubic metersyards.

### PART 2 PRODUCTS (NOT APPLICABLE)

### PART 3 EXECUTION

#### 3.1 PAYMENT PROCEDURES

See Section 01312 QUALITY CONTROL SYSTEM (QCS) for in-depth payment procedure instructions. Upon receiving initial Resident Management System import file, go to "Pay Activities" and establish a link between bid breakdown schedule of values of "Pay Activities" to contract CLINs using "Schedule Activities" data entry page.

##### 3.1.1 Requesting Progress Payment

For progress payments, ensure "Activity Schedule", "Feature Schedule", submittal register, and punchlists are all up to date. Use "Progress Payments" to "request Activity Earnings" for both "Activity Earnings" data entry page and "Other Earning". Provide hard copies of supporting invoices and quantity measurements to support all requested earnings. Ensure that sum of payment activities do not exceed contract award CLIN funding amounts, or "unbalanced" CLINs error will prevent processing the payment.

##### 3.1.2 Options and Modification CLINS

When additional work is added by modification, existing CLINs funding amounts must be updated, or new CLINs for modification will be created. If contract has option CLINs not yet awarded, option CLINs will appear as zero dollar CLINs until option is awarded by modification. No payment may be requested for Options or Modification CLINs until contract modification has been funded and signed.

-- End of Section --