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Preparing Activity: USACE (CW) Replacing without change
UFGS-01270A (February 1994)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated July 2007

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MEASUREMENT AND PAYMENT
04/06

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.

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.

Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable items(s) or insert appropriate information.

Remove information and requirements not required in respective project, whether or not brackets are present.

Comments and suggestions on this guide specification are welcome and should be directed to the technical proponent of the specification. A listing of technical proponents, including their organization designation and telephone number, is on the Internet.

Recommended changes to a UFGS should be submitted as a Criteria Change Request (CCR).

PART 1 GENERAL

1.1 REFERENCES

NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a RID outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM A 615/A 615M	(2006a) Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM C 127	(2004) Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
ASTM C 128	(2004a) Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
ASTM D 1250	(2004) Petroleum Measurement Tables

1.2 SUBMITTALS

NOTE: Review submittal description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list to reflect only the submittals required for the project. Submittals should be kept to the minimum required for adequate quality control.

A "G" following a submittal item indicates that the submittal requires Government approval. Some submittals are already marked with a "G". Only delete an existing "G" if the submittal item is not complex and can be reviewed through the Contractor's Quality Control system. Only add a "G" if the submittal is sufficiently important or complex in context of the project.

For submittals requiring Government approval on Army projects, a code of up to three characters within the submittal tags may be used following the "G" designation to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the

District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy, Air Force, and NASA projects.

Choose the first bracketed item for Navy, Air Force and NASA projects, or choose the second bracketed item for Army projects.

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for [Contractor Quality Control approval.][information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.] The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Weight Certificates

Submit certified weight certificates for M 90 R 200 Riprap.

1.3 LUMP SUM PAYMENT ITEMS

NOTE: The number and identification of lump sum payment items is primarily a Construction 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 BIDDING 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.

1.3.1 Mobilization and Demobilization

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

1.3.1.1 Payment

Payment will be made for costs associated with mobilization and demobilization, as defined in Special Clause PAYMENT FOR MOBILIZATION AND

DEMobilization.

1.3.1.2 Unit of Measure

Unit of measure: lump sum.

1.3.2 Structure No. 1

1.3.2.1 Payment

Payment will be made for costs associated with operations necessary for construction of the structure at Station XX+XX.

1.3.2.2 Unit of Measure

Unit of measure: lump sum.

1.3.3 Structure No. 2

1.3.3.1 Payment

Payment will be made for costs associated with operations necessary for construction of the structure at Station YY+YY.

1.3.3.2 Unit of Measure

Unit of measure: lump sum.

1.4 UNIT PRICE PAYMENT ITEMS

NOTE: Unit price payment items should be used only where appropriate under the guidance of Federal Acquisition Regulation (FAR) Part 36 - Construction and Architect-Engineer Contracts paragraph 36.207.

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.

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the BIDDING 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.

1.4.1 Excavation

NOTE: Since there is no UFGS Guide Specification for Civil Works "Excavation", this example was taken

from a job specification.

1.4.1.1 Payment

Payment will be made for costs associated with excavation for the channel and for the structure, which includes performing required excavation and other operations incidental thereto, Contractor-furnished disposal area(s) and disposition of excess excavated material and unsuitable and frozen materials.

1.4.1.2 Measurement

The total quantity of excavated material for which payment will be made will be the theoretical quantity between the ground surface as determined by a survey and the grade and slope of the theoretical cross sections indicated. No allowance will be made for overdepth excavation or for the removal of any material outside the required slope lines unless authorized.

1.4.1.3 Unit of Measure

Unit of measure: cubic meter yard.

1.4.2 M 90R 200 Riprap

NOTE: This example was taken from Section 35 31 19
STONE, CHANNEL, SHORELINE/COASTAL PROTECTION FOR
STRUCTURES.

1.4.2.1 Payment

Payment will be made for costs associated with furnishing, transporting, stockpiling (if applicable), placing, and constructing the stone protection as specified.

1.4.2.2 Measurement

Riprap will be measured for payment by the ton (metric) (2,000 pounds) by weighing each truckload to the nearest 0.1 ton, and the final quantity of [each truckload] [the whole sum] will be rounded to the nearest whole ton. The riprap will be measured for payment by being weighed on approved scales before being placed in the work. Quarry weights will not be accepted. Scales shall be of sufficient length to permit simultaneous weighing all axle loads and shall be inspected, tested and sealed as directed to assure accuracy with 0.5 percent throughout the range of the scales. The scales, located at the site of the work, shall be certified as to accuracy by an acceptable scales company representative prior to weighing any riprap. Scales will be checked and certified before riprap hauling and rechecked and recertified whenever a variance is suspected. The Contractor shall furnish the scales. If commercial scales are readily available in close proximity 15 kilometers 10 miles of site of work, the Contracting Officer may approve the use of the scales. The riprap shall be weighed in the presence of the Government representative. The Contracting Officer may elect to accept certified weight certificates furnished by a public weighmaster in lieu of scale weights at the jobsite.

1.4.2.3 Unit of Measure

Unit of measure: ton (metric) (2,000 pounds).

1.4.3 Deformed Steel Bars for Concrete Reinforcement

NOTE: This example was taken from Section 03 20 02
STEEL BARS AND WELDED WIRE FABRIC FOR CONCRETE.

1.4.3.1 Payment

Payment will be made for costs associated with furnishing, transporting, delivering, and placing deformed steel bars for concrete reinforcement, which includes steel in laps as indicated or as required. No payment will be made for the additional steel in laps which are authorized for the convenience of the Contractor. No separate payment will be made for accessories and payment shall be included in the contract unit price for the items of work to which the accessories are incidental.

1.4.3.2 Measurement

The measured lengths of deformed steel bars for concrete reinforcement will be converted to weights for the size of bars listed by the use of the nominal weights per lineal meter foot specified in ASTM A 615/A 615M.

1.4.3.3 Unit of Measure

Unit of measure: per kilogram pound in place.

1.4.4 Bituminous Base Course

NOTE: Paragraph UNIT PRICES of Section 32 11 26
BITUMINOUS BASE COURSE was edited to develop this
example.

1.4.4.1 Payment

Payment will be made for costs associated with bituminous base course, which includes preparing and reconditioning the underlying layer, and other incidentals necessary to complete the work required by Section 32 11 26 BITUMINOUS BASE COURSE. No payment will be made for defective areas until corrected.

1.4.4.2 Measurement

Bituminous Base Course will be measured for payment based upon the number of tons (metric) (2,000 pounds) 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. Quantities of paving mixtures called for in bid schedule are based on aggregates having a specific gravity of 2.65 as determined according to apparent specific gravity paragraphs in ASTM C 127 and ASTM C 128. Correction in the tonnage of bituminous base course mixtures shall be made to compensate for the difference in the tonnage of mixtures used in the project, when specific gravities of aggregates used are more than 2.70 and

less than 2.60. The tonnage paid for shall be the number of tons used, proportionately corrected for specific gravities using 2.65 as the base correctional factor.

1.4.4.3 Unit of Measure

Unit of measure: ton (metric) (2,000 pounds).

1.4.5 Bituminous Materials

NOTE: Paragraph UNIT PRICES of Section 32 11 26
BITUMINOUS BASE COURSE was edited to develop this
example.

1.4.5.1 Payment

Payment will be made for costs associated with bituminous materials.

1.4.5.2 Measurement

Bituminous materials will be measured for payment based upon the number of [liters gallons of the material used in the accepted work, corrected to [_____] liters gallons at 15 degrees C 60 degrees F in accordance with ASTM D 1250.] [tons (metric) 2,000 pounds of the material used in the accepted work.]

1.4.5.3 Unit of Measure

Unit of measure: [liters gallons] [tons (metric) (2,000 pounds)].

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --