

INSTRUCTIONS FOR USE

Construction Specification 7 – Construction Surveys

1. Applicability

Construction Specification 7 is applicable to construction contracts containing clauses requiring the contractor to provide construction surveys, layout, and measurement from government established baselines and bench marks; to provide quantity surveys, measurements, and computations for progress payment estimates; and when Method 3, Section 5, is authorized, provide original and final surveys for final quantity determinations.

2. Material Specifications

No material specifications complement this specification. Any material requirements are to be specified in Section 9.

3. Included Items

Items to be included in contract specifications and drawings follow:

- a. Baselines, bench marks, and all other basic survey control information to be provided by the government are to be indicated on the drawings
- b. Number of copies, format and timing of the submittal of survey data, notes, computations, and other such information is provided to the engineer by the contractor
- c. Special requirements for advance notification of surveys to be performed by the contractor
- d. Quality of any material, as applicable. Example may be the providing of permanent reference stakes.
- e. Qualifications of construction survey personnel, such as qualified construction personnel, certified or licensed land surveyors, or registered engineers. Provide a list outlining the minimum requirements expected.
- f. Special requirements for staking, such as offset reference stakes and hubs for excavations and fills
- g. Requirements other than the standards of the industry, such as being consistent with NRCS procedures or higher levels of accuracy than those specified. Precision and accuracy are described in Engineering Field Handbook (EFH) Chapter 1

- h. Any special surveys to be performed by either the contractor or the government that are not listed in Section 5

4. Methods

Section 5, Construction Surveys

Method 1 – Used where the government provides basic staking that includes alignment, grade, and slope stakes. Other staking shall be performed by the contractor and is considered quality control construction staking and surveys for the determination of work accomplished for progress payment purposes.

Method 2 – Used where the contractor performs all surveys required for the layout and control of construction work and all surveys necessary for progress payment quantities. This does not include original (initial) and final surveys for determining final quantities for payment purposes.

Method 3 – This method is the same as Method 2 except the contractor is required to perform the original (initial) and final surveys for use in determining final payment quantities. Note: The use of Method 3 requires approval to use FAR Clause 52.236-16, Quantity Surveys, Alternate I. NRCS policy for field surveys is in National Engineering Manual (NEM) Section 540.04, Contractor Surveys; Section 540.05, Checking; and, Section 540.06, Responsibility. The project's Quality Assurance Plan should outline the checking requirements. The state conservation engineer has the authority to approve construction documents (drawings and specifications) that outline the survey responsibilities. Administrative authority to use Method 3 rests with the contract specialist on the Regional Office staff.

Section 8, Payment

Method 1 – Used when a related construction survey activity is significant and not expected to be uniform throughout the contract.

Method 2 – Used when the extent of required construction survey is minor and could be expected to be fairly uniform throughout the duration of the contract.

When specifications are prepared using electronic procedures and all methods but one are deleted for use in a contract specification, delete from the last paragraph “*All Methods – The following provisions apply to all methods of measurement and payment.*” Left justify the remaining text.

5. Items of Work and Construction Details

Starting at the top of page 7 – 4, prepare and outline job specific "Items of Work and Construction Details" (IWCD) in accordance with these instructions. For ease of utilization, the use of recyclable color paper for the IWCD should be considered.

Note: Implementation of methods within this construction specification needs to be compatible with the Quality Assurance Plan prepared and approved for the project.
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