

PILING

1. APPLICABILITY

Construction Specification 13 is applicable to the furnishing and installation of timber piles, steel piles, steel sheet piles, pre-cast concrete piles, and shells for cast-in-place piles. It is not applicable to the installation of drilled, cast-in-place piles.

2. MATERIAL SPECIFICATIONS

Material Specifications 511 (Steel Piles), 512 (Wood Piles), 513 (Precast Concrete Piles), and 514 (Cast-in-Place Concrete Piles) are complementary to Construction Specification 13. Include Construction Specification 31, Concrete for Major Structures, or 32, Structure Concrete, as appropriate, when not included in the contract for other concrete installation.

3. ITEMS TO BE INCLUDED IN CONTRACT SPECIFICATIONS AND DRAWINGS

- a. Plan showing the location of all piles, including test piles, if any.
- b. Foundation profiles and sections showing:
 - (1) Log of borings, including penetration test results;
 - (2) Required or estimated pile penetration;
 - (3) Cutoff elevations.
- c. Required bearing capacities. (Note: Specify (1) required bearing capacity or (2) required penetration or (3) required bearing capacity and minimum penetration, as appropriate.)
- d. For timber piles state the type, class, species and length of piles required. For Type I piles, state where the piles will be inspected. For Type II piles, state the type of treatment and minimum retention of preservative per cubic foot of pile.
- e. Details of pre-cast or cast-in-place concrete piles including dimensions, reinforcement details, class of concrete, size of aggregate, type of cement and slump required.
- f. Nominal size and weight of Section for H-bearing piles.
- g. Authorization to use gravity drop hammers, if appropriate.
- h. Details of load tests that will be required, if appropriate.
- i. Methods of measurement and payment if the standard specification includes more than one method.

4. DISCUSSION OF METHODS

a. Section 12, Measurement and Payment

- (1) Methods 1 and 2 are intended for use when a considerable number of piles of about the same length are required. Method 1 provides for a single pay item for furnishing and driving piles. Method 2 provides for separate pay items for furnishing piles and driving piles.
- (2) Method 3 may be used when the lengths of piles required may be quite variable. It is particularly suitable where the cutoff portions of the piles may be salvaged and used on the job, such as when steel bearing piles are specified.
- (3) Method 4 may be used for sheet pile walls when the required depth of penetration is known.

When specifications are prepared using electronic procedures and all but one method are deleted for use in the contract specification, delete "All Methods The following provisions apply to all methods of measurement and payment." and left justify the remaining text.