National Standard Construction Specifications

Part 642 National Engineering Handbook

Instructions of use Construction Specification 83—Timber Fabrication and Installation

1. Applicability

Construction Specification 83 is applicable to all types of timber construction (except pile driving or the use of round timber) that are normally an integral part of structures designed and installed under agency programs. Supplementary specifications will be required for works of a special nature, such as bridges or buildings.

2. Material specifications

Material Specifications 581, 582, 584, and 585 and Construction Specification 84 complement Construction Specification 83.

3. Included items

Items to be included in contract specifications and drawings follow:

- a. Plans and dimensions of all structural elements.
- b. Complete details of all connections including number, type, size, and kind of nails or spikes or bolts with nuts if the design requires that these be specified; depth of embedment of screws and pins, and other such information.
- c. For lumber and timber, specify:
 - (1) Stress grade
 - (2) Species according to standard commercial name
 - (3) Heartwood requirements or other special requirements
 - (4) Nominal size and dress requirements (rough or dressed)
 - (5) Preservative treatment, if required (refer to ASTM D 1760 for guidance to type of treatment)
 - (6) Applicable grading rule, including the name of the agency that sponsors the rule (such as National Hardwood Lumber Association), the paragraph number, and year of issue.

- d. For plywood and chipboard, specify:
 - (1) Number of plies, width and length of sheet
 - (2) Species or group according to PS 1
 - (3) Grade
 - (4) Type (exterior, interior)
 - (5) Finished thickness
 - (6) Finish requirements (such as sanded or unsanded)
- e. Designation of surfaces to be painted.
- f. Special instructions concerning cutting of treated lumber or timber, if such operations are to be allowed.

4. Methods

Section 6, Measurement and payment

Method 1—Intended for use in cases where the quantities of lumber and timber are large and the measurement of structural elements is feasible.

Method 2—Considered more appropriate for structures of moderate size.

Method 3—Provides a flexible method of payment when there are some structure units that can be paid for as completed structures and also structures that lend themselves to partial payment on a linear foot basis.

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 83–3, 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.