National Standard Construction Specifications Part 642 National Engineering Handbook

Instructions for use Construction Specification 32—Structure Concrete

1. Applicability

Construction Specification 32 is applicable for the installation of low and moderate hazard structures, where the quantity of concrete is generally 75 cubic yards or less per structure, and where the location of the structure will allow economical maintenance or replacement.

2. Material specifications

The following material specifications complement Construction Specification 32:

- 522—Aggregates for Portland Cement Concrete
- 531—Portland Cement
- 532—Mineral Admixtures for Concrete
- 533—Chemical Admixtures for Concrete
- 534—Concrete Curing Compound
- 535—Preformed Expansion Joint Filler
- 537—Nonmetallic Waterstops
- 538—Metal Waterstops

When local aggregates do not conform to the requirements of Material Specification 522, but are known to produce concrete of adequate quality, reference to Interim Standard Material Specification is permissible, or requirements may be stated in the construction details in section 24.

3. Included items

Items to be included in contract specifications and drawings follow:

- a. Class of concrete.
- b. Type, size and quantity of joint filler, waterstop, and any other items to be embedded.
- c. Type of cement.
- d. Specify in section 24 if fly ash or ground blast-furnace slag is required or is not allowed in the design mix as a partial substitute for cement.

- e. Nominal size of coarse aggregate; or specifications for aggregate if Material Specification 522 does not apply.
- f. Type of admixtures, if any.
- g. Special slump and air content requirements, if applicable.
- h. Include a statement if volumetric batching and continuous mixing are not permitted.
- i. Special type of finish or coating of finished surfaces.
- j. Note in section 24 any other deviations from the basic specifications.
- k. Describe method of measurement and payment if it differs from the methods listed in section 23.

4. Items of work and construction details

Starting at the top of page 32–7, 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.