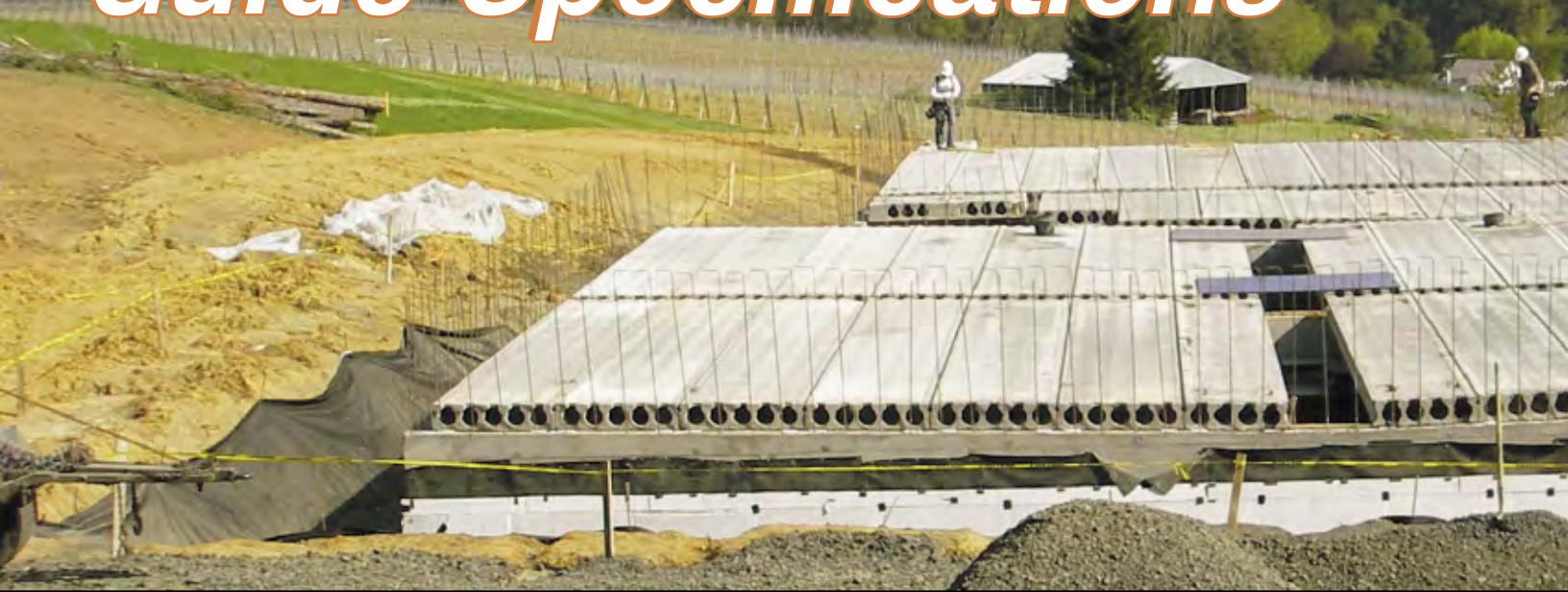


Guide Specifications



Precast Concrete Hollowcore Slabs (Section 03411)

See the note at the beginning of the Guide Specification section of this catalog regarding the use of the following specifications.

PART 1 – GENERAL

1.01 DESCRIPTION

A. WORK INCLUDED:

Delete if all work to be included is indicated in drawings.

1. _____

1.02 QUALITY ASSURANCE:

A. APPROVED MANUFACTURERS:

Include one of the following manufacturer standards:

1. Morse Bros, Incorporated
Prestressed Concrete Group
P.O. Box 181, Harrisburg, OR 97446
(541) 995-6327

or

1. The manufacturer shall be certified by the Prestressed Concrete Institute.

B. REFERENCED STANDARDS:

1. Unless otherwise specified herein, comply with requirements specified in MNL-116, Manual for Quality Control for Plants and Production of Precast Prestressed Concrete Products, published by the Prestressed Concrete Institute. Copies

may be obtained from the Institute at 209 W. Jackson Blvd., Ste 500, Chicago, IL 60604, (312) 786-0300.

1.03 SUBMITTALS

A. PRODUCT DESIGN CRITERIA:

1. Submit _____ copies of the following design loadings:
 - a. dead and live loads specified on the contract drawings
 - b. other specified loads
2. Design calculations of products not shown on the contract drawings shall be performed by an engineer experienced in precast hollowcore concrete slab design and registered in the state where the project is located. These calculations shall be submitted for approval upon request.
3. The design shall comply with applicable ACI 318 requirements.

B. SHOP DRAWINGS:

1. Submit the following:
 - a. dimensioned plans locating all products to be furnished by the manufacturer and indicating the identity mark for each slab
 - b. sections and details showing connections, attached items, and their relations to the structure



MBI
MORSE BROS INC



- c. descriptions of all attached items
- d. erection sequences and handling requirements

1.04 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. GENERAL:

- 1. Protect against damage, distortion, and discoloration.

B. STORAGE:

- 1. Place stored slabs so identification marks are discernible.
- 2. Maintain in flat position.
- 3. Separate and support stacked slabs with battens placed across the full width of the bearing point. Locate battens no further from designated pick-up points than a distance equal to the depth of the slab.

C. HANDLING:

- 1. Pick up and support slabs near the ends, unless otherwise approved.

1.05 FIELD MEASUREMENTS

A. PRIOR TO FABRICATION:

- 1. If field measurements differ slightly from drawing dimensions, modify the work as required for a accurate fit. If measurements differ substantially, notify the architect / engineer prior to fabrication.

PART 2 - PRODUCTS

2.01 MATERIALS

Delete or add materials to the following list as required for the particular job.

A. PORTLAND CEMENT:

- 1. ASTM C150 – Type I or III.

B. AGGREGATES:

- 1. ASTM C33.

C. WATER:

- 1. Potable and free from amounts of foreign materials harmful to concrete and embedded steel.

D. PRESTRESSING STRAND:

- 1. Uncoated, seven-wire, stress-relieved: ASTM A416, Grade 270K.

Precast Concrete Hollowcore Slabs (Section 03411)

E. GROUT:

1. One part Portland cement.
2. Three parts sand.
3. Water: minimum amount necessary to fill joints without seepage through joints.

F. BEARING PADS:

1. Hard plastic, pressed, non-staining hardboard, or rubber-fabric masticord, or as approved.

G. SEALANT:

1. Contractor's choice. Satisfy conditions of use.

2.02 CONCRETE MIXES

A. COMPRESSIVE STRENGTH:

1. Minimum 28-day compressive strength: 6000 psi.

B. RELEASE STRENGTH:

1. Minimum prestress release strength: 4000 psi.

C. USE OF SALTS:

1. Use of calcium chloride, chloride ions, or other salts is not permitted.

2.03 MANUFACTURE

A. FORMING AND FINISHING:

- 1 Slab size:
 - a. width: 48 inches
 - b. thickness: _____ inches (8,10, or 12 inches)
2. Concealed surfaces:
 - a. fill any large holes and rock pockets
 - b. air bubble holes and minor chips and spalls are acceptable
3. Surfaces to receive concrete topping:
 - a. roughen for mechanical bond
4. Exposed surfaces – general:
 - a. remove large projections
 - b. fill large holes and rock pockets
 - c. smooth any ragged edges
5. Exposed surfaces to be painted:
 - a. fill holes larger than ¼ inch with spackle
 - b. leave surfaces straight and clean,
6. Exposed surfaces to receive plaster:
 - a. leave surfaces straight and clean

B. OPENINGS:

To maintain the structural integrity of slabs, openings through slabs must be a maximum of six inches in diameter and be placed through the hollowcore opening of the slab, unless otherwise approved by the manufacturer. Drilled holes up to and including six inches in diameter can be core-drilled. Openings larger than six inches in diameter must be chisel-cut, which produces a ragged appearance.

1. Openings of six inches or less in diameter shown on drawings:
 - a. where exposed to view, core-drill neatly following approved shop drawings
 - b. where concealed, chisel-cut following approved shop drawings
2. Openings of six inches or less in diameter not shown on drawings:
 - a. to be core-drilled neatly by the trade requiring the opening
3. Openings larger than six inches in diameter shown on drawings:
 - a. chisel-cut following approved shop drawings
4. Openings larger than six inches in diameter not shown on drawings:
 - a. to be saw-cut by the trade requiring the opening
5. Do not cut reinforcement without the manufacturer's approval.

C. MANUFACTURING AND ERECTION TOLERANCES:

1. All work shall be true, with straight sides and sharp corners, in accordance with drawings and within the following maximum allowable tolerances:



- a. slab width: $\pm\frac{1}{4}$ inch
- b. slab length: $\pm\frac{1}{2}$ inch
- c. thickness: $\pm\frac{1}{4}$ inch
- d. center of gravity of strand group: $\pm\frac{1}{4}$ inch
- e. opening locations: ± 2 inches
- f. opening dimension: ± 1 inch
- g. differential from design camber: $\pm\frac{1}{8}$ inch per 10 feet of length, $\pm\frac{1}{2}$ inch maximum
- h. differential camber between adjacent members of same design: $\frac{1}{4}$ inch per 10 feet of length, $\frac{3}{4}$ inch maximum

PART 3 – EXECUTION

3.01 INSPECTION

A. VERIFICATION OF EXISTING CONDITIONS:

1. The erection contractor shall verify that the structure and surfaces to receive prestressed concrete are accurately sized and located, sound, true, and otherwise properly prepared.
2. The general contractor shall be notified prior to the start of work of any conditions requiring correction.
3. Work shall not be started until conditions are satisfactory.

3.02 INSTALLATION

A. ERECTION:

1. Follow the manufacturer's directions and approved shop drawings.
2. Locate slabs accurately within allowable tolerances.

3. Stabilize slabs securely during erection.
4. Anchor slabs securely and permanently as indicated on approved shop drawings.
5. Remove any temporary bracework upon completion.

B. ATTACHMENTS:

1. Secure as shown on drawings.
2. Members may be drilled or "shot" provide no contact is made with prestressing steel, subject to the approval of the architect / engineer.

3.03 FINISHING

A. PATCHING:

1. Patching will be acceptable providing structural adequacy and appearance are not impaired.

B. JOINT GROUTING:

1. After the installation of any attachments or hangers that pass through joints between slabs, fill the joints completely with grout.

3.04 PREPARATION FOR TOPPING SLABS

A. PRIOR TO PLACING TOPPING:

1. Clean and wet the top surface to surface saturated dry condition (SSD).

See the note at the beginning of the Guide Specification portion of this catalog (p.24) regarding the use of the following specifications.