SPECIFICATIONS FOR CORESLAB HOLLOW CORE SLABS

1.GENERAL:

1.1 Furnish all labor and materials for the manufacturer, delivery and installation of Coreslab hollow core as specified herein and shown on drawings.

2. APPLICABLE PUBLICATIONS:

2.1 American Concrete Institute (ACI), latest issue

2.2 American Society for Testing and Materials (ASTM), latest issue

2.3 PCI Manual for Quality Control MNL116, latest issue

2.4 PCI Manual for the Design of Hollow core Slab, latest issue

2.5 Florida Building Code, latest issue

3. QUALIFICATIONS:

3.1 Manufacturer shall be a firm specializing in providing prestressed concrete products and service of the types specified herein; and shall have a proven background of experience and record of performance in the fabrication of prestressed hollow core of the quality and scope required on this project.

3.2 Manufacturer shall be PCI Plant Certified.

3.3 Fire Resistance Rated Prestressed Units: Where prestressed concrete units are shown or scheduled as requiring a fire resistance classification, provide units that are designed by the PCI Rational Method of Design as specified in the Florida Building Code. Standard units provide one hour fire resistance.

4. TESTING

4.1 Manufacturer shall make and test concrete compression specimens representative of the work in accordance with ASTM C-192, latest issue.

5. SUBMITTALS

5.1 Shop drawings shall be submitted for approval prior to fabrication, showing identifying marks of each unit, openings requiring hangers (other than plumbing and electrical) and anchorage details.

5.2 Design calculations shall be submitted with shop drawings when required, signed and sealed by a Registered Engineer licensed in the State of Florida.

6. MATERIALS

6.1 Concrete Materials

6.1.1 Portland Cement Type l/ll or lll shall conform to ASTM C-150
6.1.2 Aggregates - ASTM C-33 or C-330
6.1.3 Concrete shall be zero slump.

6.2 Prestressing steel: Uncoated seven wire, 1/2" diameter lo-lax strand (270 KSI) conforming to ASTM-416. The wire shall be free of substances which would prevent bond to concrete.

7. FABRICATION

7.1 Prestressed concrete hollow core shall be machine extruded in one single operation on long production lines in 4’-0" nominal widths.

7.2 Openings

7.2.1 Openings requiring hanger type supplementary steel members shall be by prestressed concrete manufacturer.

7.2.2 All other holes or openings shall be cut in field by trade requiring the openings.

7.2.3 In no case shall any hole be cut without approval of the prestressed concrete manufacturer.

8. TOLERANCES

8.1 Provide units with tolerances recommended by the Prestressed Concrete Institute's "Manual for Quality Control for Plants and Production of Precast Prestressed Concrete Products."

8.2 Tolerances

Width Full Units +/-1/4"	Length +/-1/2"
Width Sawcut Units +/-1/2"	Thickness +/-1/4"
Deviation from Square +/-1/4"	

9. ERECTION

9.1 Prestressed concrete units shall be erected into final position under the supervision of the manufacturer or erector experienced in the installation of the type of units specified herein.

9.2 Product not hauled or erected by the manufacturer will not be the responsibility of Coreslab.

10. GROUTING

10.1 Prestressed concrete units shall be aligned and leveled prior to grouting keyway joints in accordance with requirements and tolerances of PCI-MNL-116. This operation is to be performed prior to units being loaded or ends restrained.

10.2 Keyways between units shall be cleaned and filled solidly with grout. Grout that may have seeped through to surface areas below shall be removed before hardening.

10.3 Grout for joints shall be mixed in proportions of one part portland cement and three parts sand and shall have a consistency allowing joints to be completely filled.

10.4 Tops of grout joints shall be adequately smooth to prevent any unevenness that might interfere with the placing of carpet with a suitable separate pad, or roofing. Transitions due to differential levels should be finished not steeper than 1:12. When installing tile or linoleum, slabs should have a leveling course before applying finished floor covering, not by Coreslab.

11. TOPPING

11.1 Where structural topping is to be applied, slabs are to be thoroughly cleaned and prepared by General Contractor prior to pouring to insure adequate bond. Structural concrete topping shall have a minimum strength of 3000 psi at 28 days.

11.2 The thickness of such topping at the center of span shall be the thickness shown on the drawings and may vary due to camber from the center to the supports as required for a level surface.

11.3 The design of supplemental reinforcing steel to be placed in the topping to satisfy certain design requirements is not by Coreslab.

12. FINISHING

12.1 Prestressed concrete slabs shall have a plant finish as indicated on the drawings. It is the responsibility of the General Contractor to make sure adequate preparations are made regarding sealing of slabs, etc. to ensure proper coverage of specified ceiling finish.

13. LOADING

13.1 Construction loads are not to exceed design loads.