

PART 1 – GENERAL

1.06 SUBMITTALS

C: Shop Drawings:

1. Submit shop drawings showing complete information for fabrication and installation of precast concrete units. Include separate shop drawings for mock-ups **and insulation**. Indicate dimensions and cross-section; locations, size and type of reinforcement, including special reinforcement and lifting devices necessary for handling and erection.

d. Show layout, dimensions, and identification of each insulation board. Indicate pre-formed hole locations to identify connector placement.

PART 2 – PRODUCTS

2.05 ACCESSORY MATERIALS

B. Thermal Insulation System:

1. Description: Thermal insulation system for sandwich insulated precast concrete units shall consist of non-thermal conductive fiber composite connectors (ties) and insulation boards between concrete wythes of a precast unit.
 - a. Connectors: Non-thermal conductive, **corrosion, and alkali resistant** connector device for connecting concrete wythes of a sandwich insulated precast concrete unit. Connectors **shall be tested in accordance with ICC ES AC320 and have the following:**
 - 1) **Flange to limit insertion depth into insulation.**
 - 2) **Serrated profile to provide interference fit with pre-formed holes in insulation as to prevent connector from backing out of insulation after installation.**
 - 3) **Thermoplastic molded sealing collar to provide friction fit with pre-formed holes in insulation.**
 - b. Insulation Board: **Tongue and groove or lapped edge** extruded polystyrene thermal insulation board **supplied with holes to identify connector placement** meeting requirements of ASTM C578, Type IV, and following:
 - 1) Compressive Strength: 25 psi minimum, ASTM D1621
 - 2) R-Value: 5.0 minimum at 75 F, at 5 year age, ASTM C518
 - 3) Water Absorption: 0.1 percent maximum, ASTM C272
 - 4) Vapor Transmission: **1.6 perms** per inch thickness, ASTM E96
2. Acceptable Products:
 - a. Thermomass **Building Systems: Composite Technologies Corporation**

PART 3 – EXECUTION

3.04 FIELD QUALITY CONTROL

A. General

4. **Owner will employ, except as otherwise required, a thermography service provider to perform exterior and interior thermal imaging services to verify compliance of work with requirements of contract documents.**