

Applicant: LITECON CORPORATION
Product: LITECON PRECAST AUTOCLAVED AERATED CONCRETE (PAAC) SUBFLOOR PANELS
Standard: ASTM E119
Assembly Type: Floor/Ceiling (Unrestrained)
Assembly Rating: 1-hour
Load: Load Bearing

PSC = Precast Structural Concrete

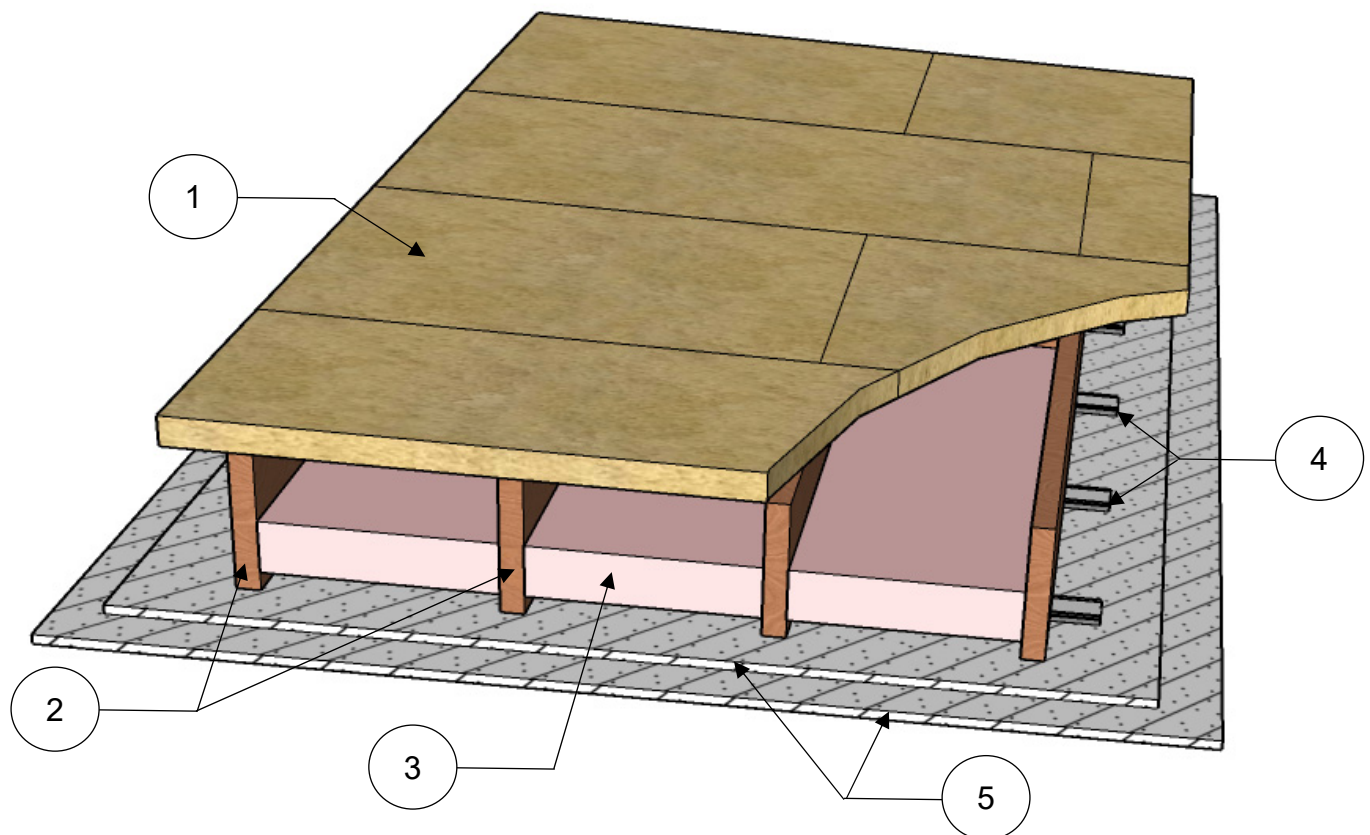
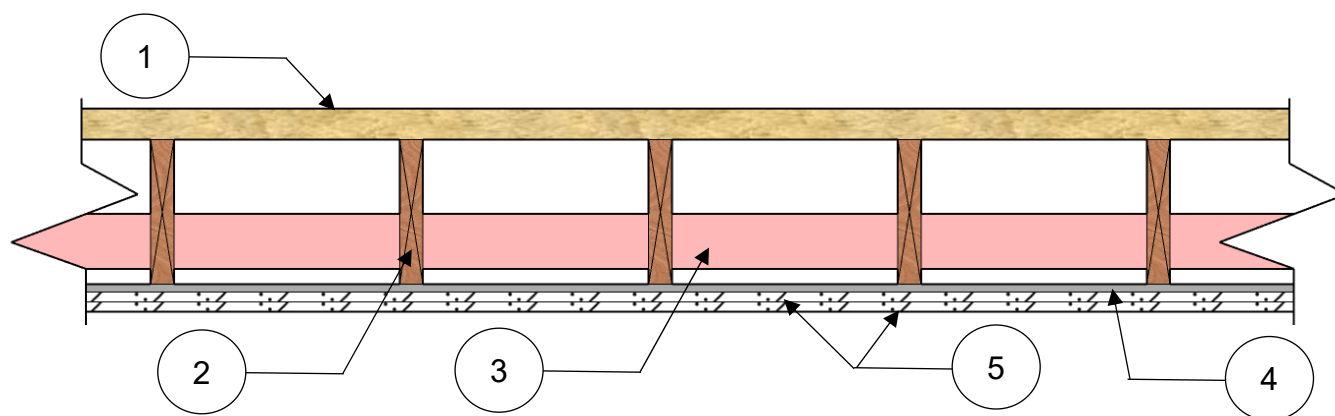


FIGURE 1 – DESIGN NO. PSC-1594-01

TABLE 1 – DESIGN NO. PSC-1594-01 COMPONENTS OF CONSTRUCTION



ITEM NO.	COMPONENTS	MATERIALS
1	Flooring System Use Either A or B	<p>A - 2-inch (50.8 mm) thick LITECON PAAC Subfloor Panels with long edges perpendicular to the framing members with end joints staggered minimum 16-inches (406.4 mm). Prior to installation of PAAC Subfloor Panels, a bead of subfloor construction adhesive conforming to ASTM D3498 must be applied to the top edge face of the ceiling joist. The PAAC Subfloor Panels must be secured to the floor joists using minimum 3 ¼-inch (82.6 mm) long x 0.131-inch (3.3 mm) smooth shank nails or No. 10 – 3 ½-inch long, Type W screws spaced maximum 6-inches (152.4 mm) on center along each joist. Fasteners must be positioned a minimum 2-inches (50.8 mm) from the corner of panels. LITECON Adhesive must be applied ⅛-inch (3.2 mm) thick entirely across each mating face of the LITECON Subfloor Panels.</p> <p>B - 3-inch (76.2 mm) thick LITECON PAAC Subfloor Panels with long edges perpendicular to the framing members with end joints staggered minimum 16-inches (406.4 mm). Prior to installation of PAAC Subfloor Panels, a bead of subfloor construction adhesive conforming to ASTM D3498 must be applied to the top edge face of the ceiling joist. The PAAC Subfloor Panels must be secured to the floor joists using minimum No. 10 - 4 ½-inch (114.3 mm) long Type W screws spaced maximum 6-inches (152.4 mm) on center along each joist. Fasteners must be positioned a minimum 2-inches (50.8 mm) from the corner of panels. LITECON Adhesive must be applied ⅛-inch (3.2 mm) thick entirely across each mating face of the LITECON Subfloor Panels.</p>
2	Floor Framing	<p>Minimum 2-inch by 10-inch (50.8 mm by 254 mm) wood joists spaced maximum 16-inch (406.4 mm) on center. Minimum 2-inch by 10-inch (50.8 mm by 254 mm) solid blocking installed at mid-span of joists.</p> <p>Note: See Condition of Listing Item 5 of ESL-1594</p>
3	Insulation	Minimum 3 ½-inch (88.9 mm) thick, Class A fiberglass batt insulation or non-combustible mineral wool batt insulation complying with Type I per ASTM C665, draped over 0.087-inch (2.2 mm) diameter steel insulation support wire spaced 16-inches (406.4 mm) on-center within each stud cavity. Additional insulation support wire must be placed 2-inches (50.8 mm) from each end of insulation batts. Insulation support wire must be positioned 1-inch (25.4 mm) above the hat channel.
4	Furring Type (Hat Channel)	⅞-inch (22.2 mm) deep, minimum GSG No. 20 galvanized steel hat channel installed perpendicular to framing members and secured to the underside of the framing members using 1 ⅝-inch (41.3 mm) long No. 6 Type W bugle-head screws. The channels must be spaced a maximum 16-inches (406.4 mm) on center. The channels must be overlapped a minimum of 4-inches (101.6) at splices. Additional channels must be installed 3-inches (76.2 mm) from ceiling membrane board end joints and secured to adjacent framing members.
5	Ceiling Membrane	Two layers of minimum ⅝-inch (15.9 mm) thick, Type X Gypsum Board conforming to ASTM C1396 must be installed with long dimension perpendicular to furring channels with end joints staggered a minimum of 4-feet (1219.2 mm). The base layer of Gypsum board must be secured to channels using minimum 1 ¼-inch (31.8 mm) long No. 6 Type S bugle-head steel drywall screws spaced 8-inches (203.2 mm) on center. The face layer of Gypsum board must be secured to the channels through the base layer gypsum board using minimum 1 ⅞-inch (47.6 mm) long, No. 6 Type S bugle-head steel drywall screws spaced 8-inches (230.2 mm) on-center. Fasteners along the long edge of panel are spaced 1-inch (25.4mm) away from the edge, and 3-inches (76.2 mm) from the butt joints into the resilient channel at the end of the panel. All panel edge joints must be treated with two coats of joint compound with nominal 2-inch (50.8 mm) wide paper tape embedded in the first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft³ = 16.01 kg/m³.