



System No. HW-D-0027

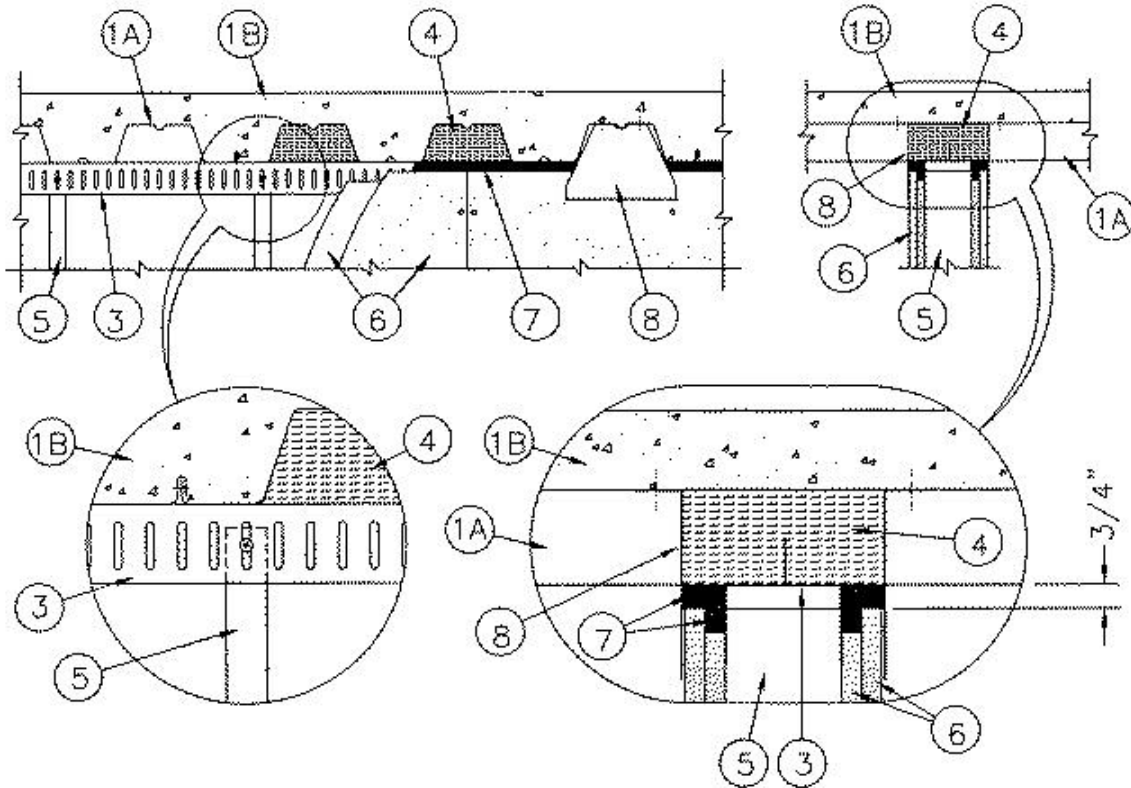
Joint Systems "The System"

May 25, 2001

Assembly Rating — 2 Hr

Nominal Joint Width — 3/4 in.

Class II and III Movement Capabilities — 33 Percent Compression or Extension



1. Floor Assembly - The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling design in the UL Fire Resistance Directory and shall include the following construction features:

A. Steel Floor And Form Units* Nom 3 in. deep galv steel fluted units with symmetrical nom 5 in. wide valleys and crests spaced 12 in. OC.

See **Steel Floor and Form Units** — (CHWX) category for names of manufacturers.

B. Concrete Min 2-1/2 in. thick reinforced concrete, as measured from the top plane of the floor units.

2. Floor Track (Not Shown) - Floor track of wall assembly shall consist of min 20 ga galv steel channels sized to accommodate steel studs (Item 5). Attached to floor with steel fasteners spaced max 24 in. OC.



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3. Light Gauge Framing* - Slotted Ceiling Track Slotted ceiling track shall consist of galv steel channels with slotted flanges and with pop-up tabs in the web. Slotted ceiling track sized to accommodate steel studs (Item 5) and installed with pop-up tabs centered in flutes of steel floor units. Attached to fluted steel deck at ceiling with steel fasteners in each valley (12 in. OC).

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4. Flute Insulation - Forming Material* Min 3 pcf density mineral wool batt insulation supplied in 24 by 48 by 2 or 3 in. thick sheets. Pieces cut approx 25 percent wider than the flutes and approx 4 in. longer than the width of the slotted ceiling track. Pieces stacked to height of 6 in. and then compressed 50 percent in thickness and inserted into the flutes of the steel floor units above the top of the slotted ceiling track. The excess length of the mineral wool batt insulation is to project approx 2 in. beyond each side of the slotted ceiling track. Mineral wool batt insulation locked in place by bending pop-up tabs of slotted ceiling track upward 90 deg. After installation of the joint insulation (Item 8), the excess length of flute insulation projecting beyond the finished surface of the wall is to be compressed into the steel deck flute above the wall, flush with the wall surfaces.

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5. Studs - Studs to be min 3-5/8 in. wide and formed from min 20 ga galv steel. Studs cut 1/2 to 3/4 in. less in length than assembly height with bottom nesting in and resting on floor track and with top nesting in slotted ceiling track. Studs secured to flange of floor track on each side of wall with No. 8 by 1/2 in. long self-drilling, self-tapping wafer head steel screws. Studs secured to flange of slotted ceiling track on each side of wall with No. 8 by 1/2 in. long self-drilling, self-tapping wafer head steel screws. Stud spacing not to exceed 16 in. OC.

6. Gypsum Board* - Two layers of nom 5/8 in. thick, applied vertically with joints centered over steel studs. Inner layer of gypsum board on each side of wall to terminate 1-1/2 in. below valleys of steel deck at ceiling and secured to steel studs with 1 in. long Type S steel screws spaced 16 in OC in the field and along the vertical edges. Outer layer of gypsum board on each side of wall to terminate 3/4 in. below valleys of steel deck at ceiling and secured to steel studs with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer of gypsum board also secured to floor track with 1-5/8 in. long type S steel screws midway between studs. Uppermost screws securing inner and outer layers of gypsum board to the studs are to be located 3 to 4 in. below the valleys of the steel deck at the ceiling. No board attachment screws are to penetrate the slotted ceiling track. Joints of outer layer to be offset from inner layer joints. Joints covered with paper tape and joint compound.

See **Gypsum Board** (CKNX) category for names of manufacturers.



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7. Joint Insulation - Forming Material* Min 3 pcf density mineral wool batt insulation supplied in 24 by 48 by 2 or 3 in. thick sheets. Nom 1 in. wide by 2 in. thick insulation strips compressed in thickness and inserted in the 3/4 in. deep recess between the slotted ceiling track and the outer layer of gypsum board above the top edge of the inner layer of gypsum board. The insulation strips are to be pressed down until flush with the top edge of the outer layer of gypsum board. Nom 1-1/2 in. wide by 2 in. thick insulation strips compressed in thickness and inserted in the 3/4 in. linear gap between the gypsum board and the valleys of the steel floor units or the flute insulation. The joint insulation is to be packed into the linear gap until it is flush with the wall surfaces. After installation of the joint insulation, the excess length of flute insulation (Item 4) projecting beyond the finished surface of the wall is to be compressed into the steel deck flute above the wall, flush with the wall surfaces.

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8. Light Gauge Framing* - Flute Cover Plates Flanged steel plates conforming to the profile of the steel deck flute. Plates installed within 1/8 in. of gypsum board surface on each side of wall to cover mineral wool batt forming material in flutes of steel deck above slotted ceiling track. Plates secured to steel deck in each crest with welds or steel fasteners in each flange.

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