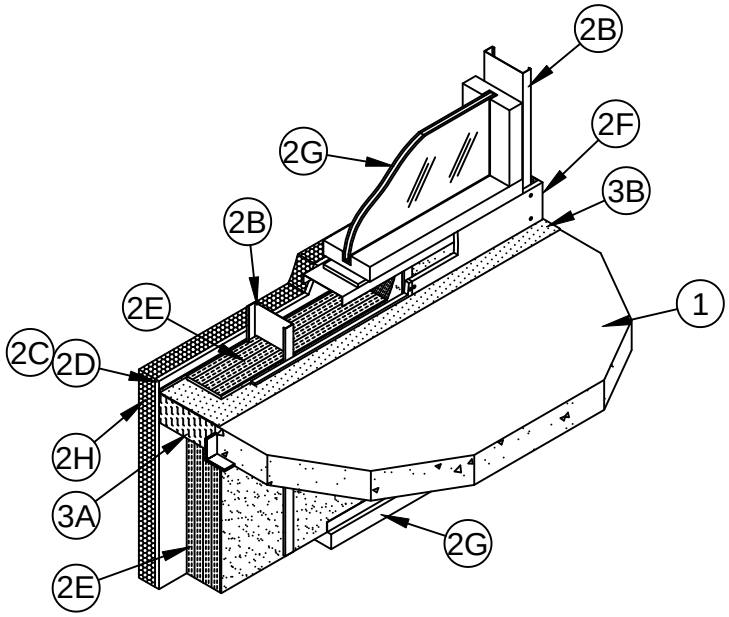
System No. CW-D-1011

F Rating - 2 Hr
T Rating -1/2 Hr
Linear Opening Width - 2-1/2 In. Max
Class II Movement Capabilities - 5% Vertical Shear
L Rating At Ambient - Less Than 1 CFM/Lin Ft
L Rating At 400°F - Less Than 1 CFM/Lin Ft



1. **Floor Assembly -** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Perimeter of floor assembly to be provided with min 3 by 3 by 1/4 in. (76 by 76 by 6 mm) thick cast-in-place structural steel angle for weld-attachment of mounting angles (Item 2A).
2. **Curtain Wall Assembly -** The curtain wall assembly shall incorporate the following construction features:

   A. **Mounting Angles -** (Not Shown) - Nom 3 in. (76 mm) long angles with one nom 3 in. (76 mm) leg for attachment to edge of floor assembly and with one leg approx 2-1/2 to 3 in. (64 to 76 mm) longer than distance to interior face of steel studs. Angles to be formed of min 1/8 in. (3.2 mm) thick steel. Angles welded to cast-in-place structural steel angle at edge of floor assembly (Item 1) on one side of each steel stud (Item 2B) at each floor level. Top edge of each mounting angle to be recessed 1/2 to 1 in. (13 to 25 mm) below top surface of floor.

   B. **Steel Studs -** C-shaped studs formed from min 0.059 in. (1.5 mm) thick galv steel. The steel studs shall be min 6 in. (152 mm) wide by 1-1/4 in. (31 mm) deep with 5/16 in. (8 mm) wide stiffening flanges and shall be assembled using runner channels formed from min 0.059 in. (1.5 mm) thick galv steel. Studs spaced max 16 in. (406 mm) OC and welded, bolted or screwed to mounting angles (Item 2A) at each floor level. To allow for designed amount of movement, elongated holes may be integrated into either the mounting angle (Item 2A) or the stud (Item 2B). Interior face of studs to be max 2-1/2 in. (64 mm) from edge of floor assembly. Studs reinforced by means of nom 1-1/2 in. (38 mm) wide by 9/16 in. (14 mm) deep min 0.059 in. (1.5 mm) thick cold rolled steel channels inserted through steel stud keyways on max 48 in. (1.2 m) centers and welded to steel studs.

   B1. **King Studs -** (Optional, Not Shown) - Where required, a king stud may be substituted for Item 2B. King studs to consist of two min 6 in. (152 mm) wide by 1-1/4 in. (31 mm) deep C-shaped studs formed from min 0.059 in. (1.5 mm) thick galv steel secured together by welds. See Item 3C.

   C. **Gypsum Board* -** One layer of nom 5/8 in. (16 mm) thick, 48 in. (1.2 m) wide gypsum sheathing installed to cover entire exterior surface of wall. Sheathing applied with joints centered over studs and secured to steel studs with min 1 in. (25 mm) long bugle head steel screws spaced max 8 in. (204 mm) OC along the edges and max 12 in. (305 mm) OC in the field of each sheet.

   See **Gypsum Board** (CKNX) category for names of Classified Companies and product types.

D. **Cementitious Backer Units* -** As an alternate to the gypsum sheathing (Item 2C), nom 1/2 in. or 5/8 in. (13 or 16 mm) thick square-edge boards attached to studs with 1-1/4 in. (31 mm) long corrosion resistant self-tapping wafer-head steel screws spaced 6 in. (152 mm) OC. Joints covered with glass fiber mesh tape.

UNITED STATES GYPSUM CO - Durock Exterior Cement Board, Durock Cement Board or Durock WMB

E. **Batts and Blankets* -** Any glass fiber insulation bearing the UL Classification Marking as to fire resistance or surface burning characteristics, of a width and thickness to completely fill stud cavity. Insulation batts friction fit to completely fill all stud cavities of curtain wall above the top of the fill material (Item B) and below the forming material (Item 3A).

See **Batts and Blankets** (BZJZ) category for names of manufacturers.

F. **Gypsum Board* -** One layer of nom 5/8 in. (16 mm) thick, 48 in. (1.2 m) wide gypsum board applied with joints centered over studs. Gypsum board secured to steel studs on interior surface of curtain wall with min 1 in. (25 mm) long bugle head steel screws spaced max 8 in. (204 mm) OC along the edges and max 12 in. (305 mm) OC in the field of each sheet. Gypsum board installed to cover interior surface of wall above the top of the fill material (Item 3C) for a min distance of 6 in. (152 mm). Gypsum board is optional below floor assembly.

See **Gypsum Board** (CKNX) category for names of Classified Companies and product types.

G. **Framed Window -** Metal-framed window with nom 1 in. (25 mm) thick (double pane) transparent heat-strengthened or tempered glass panels. Sill of window to be min 6 in. (152 mm) above top of floor slab. Vertical separation between window punch-outs to be min 36 in. (914 mm). Top of window to be min 22-1/2 in. (572 mm) below bottom of floor slab.

H. **Exterior Insulation and Finish System (EIFS) -** Nom 2 in. (51 mm) thick extruded polystyrene Foamed Plastic* insulation bearing the UL Classification Marking, attached over sheathing and finished with coating system, or Portland cement or synthetic stucco systems, in accordance with manufacturer's instructions.

See **Foamed Plastic** (BRYX or CCVW) category for names of Classified companies.

I. **Siding, Brick or Stucco -** (Not Shown) - Aluminum siding, steel siding, brick veneer or stucco installed over gypsum sheathing or cementitious backer units and meeting the requirements of local code agencies. Brick veneer wall attached to studs with corrugated metal wall ties attached to each stud with steel screws.

J. **Glass Fiber Reinforced Concrete (GFRC) Panels -** (Not Shown) - Min 1/2 in. (13 mm) thick glass fiber reinforced concrete (GFRC) panels installed over gypsum sheathing or cementitious backer units and meeting the requirements of local code agencies.

3. **Safing System -** Max separation between edge of floor assembly and face of framing members is 2-1/2 in. (64 mm). The safing system is designed to accommodate vertical shear movement up to a max of 5 percent of its installed width. The safing system shall incorporate the following construction features:

A. **Forming Material* -** Nom 4 pcf (64 kg/m3) density mineral wool batt insulation. Batt sections to be cut to a min width of 4 in. (102 mm) and stacked to a thickness which is 25 percent greater than the width of linear gap between the gypsum sheathing and the edge of the concrete floor to attain a min 20 percent compression in the thickness direction when installed. The forming material is compressed and inserted cut-edge-first into linear gap between edge of floor slab and sheathing material such that its top surface is flush with the top surface of the floor assembly. Length of batt to be equal to on-center spacing of steel studs such that it is friction-fitted between studs and mounting angles without seams. Additional pieces of mineral wool batt to be stuffed inside the channel of each steel stud throughout the thickness of the forming material.

THERMAFIBER INC - SAF

B. **Fill, Void or Cavity Material* - Spray -** Min 1/8 in. (3.2 mm) wet thickness (min 1/16 in. or 1.6 mm dry thickness) of fill material spray-applied over top of forming material and lapping min 1/2 in. (13 mm) onto the top surface of the floor and onto the gypsum sheathing and steel studs.

SPECIFIED TECHNOLOGIES INC - SpecSeal AS200 Elastomeric Spray or SpecSeal Fast Tack Spray

C. **Fill, Void or Cavity Material* - Pillows -** (Not Shown) - Where king studs (Item 2B1) are located, channel within stud to be sealed with pillows. Max 9 in. long by 6 in. wide by 3 in. thick plastic covered intumescent pillows compressed and tightly packed into channel at each floor line.

SPECIFIED TECHNOLOGIES INC - SpecSeal Firestop Pillows

*Bearing the UL Classification Mark