

Design No. CEJ 194P

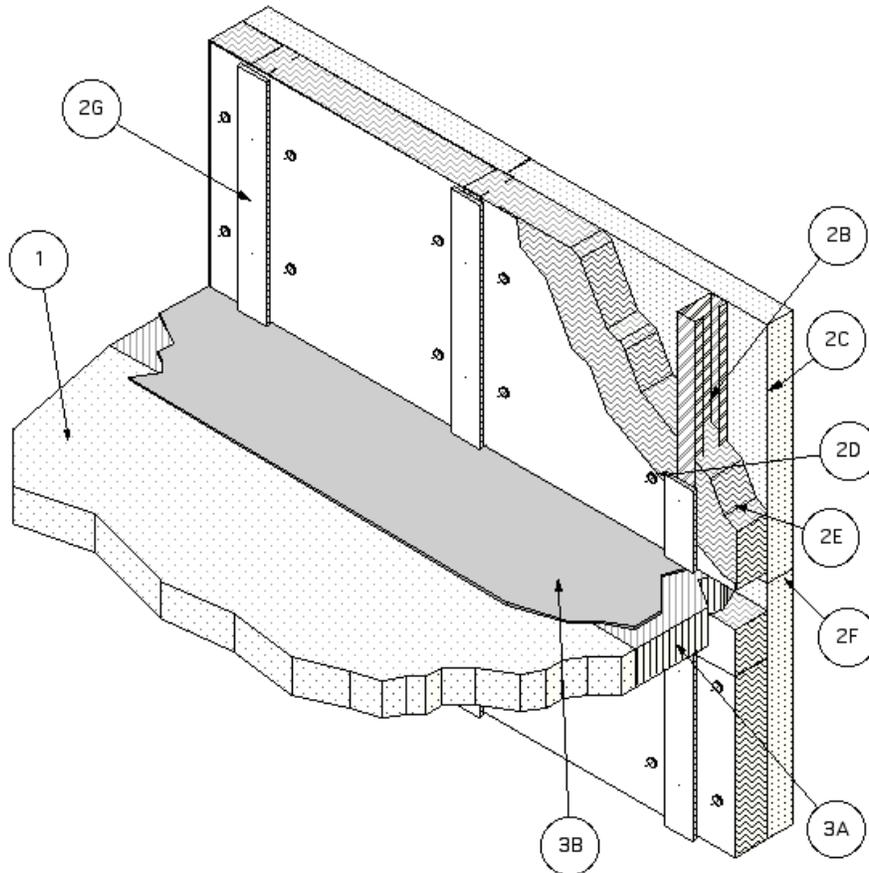
PERIMETER FIRE BARRIER SYSTEM

T-Rating - 1/4 hr.

F-Rating - 2 hr.

L-Rating NR

Rated for $\pm 15\%$ movement



1. CONCRETE FLOOR ASSEMBLY: Two-hour rated concrete floor assembly made from either lightweight or normal weight concrete with a density of 100-150 pcf, with a min. thickness of 4-1/2-in. at the joint face. Overall slab thickness may vary to accommodate various blockout depths (longitudinal recesses) formed in the concrete, to house the architectural cover plate. The blockout width may also vary without restriction.
2. CURTAIN WALL ASSEMBLY: The concrete curtain wall assembly shall incorporate the following construction features:
 - A. Mounting Attachment: (Not shown) Attachment of the curtain wall framing to the structural framing shall be according to the curtain wall manufacturer's instructions. When required, mounting attachments to the floor slab shall be connected to the joint face of the floor slab, according to the curtain wall manufacturer's instructions. Max. distance between mounting attachments shall be 10 feet.
 - B. Steel-Stud Framing: Vertical framing members shall be min. 3-5/8 in. by 1-5/8 in., 18 GA steel "C" studs. Attachment shall be according to the curtain wall

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- system manufacturer's guidelines. Vertical framing not to exceed a spacing of 60 in. o.c. and shall be completely covered by the concrete panels. If required, horizontal framing members shall be installed according to the curtain wall system manufacturer's guidelines.
- C. Concrete Panels: Any non-combustible exterior concrete based panel. Panels shall not be less than 1 in. thick, 12 in. high or 12 in. long. Attachment to the framing shall be according to the curtain wall system manufacturer's guidelines. The panels shall be attached to each other and to the structural framing.
 - D. Impaling Pins: When required by insulation manufacturer, use with insulation. The pins shall be located, sized and installed according to the curtain wall system manufacturer's guidelines.
 - E. Curtain Wall Insulation: Insulation is optional. Perimeter joint treatment shall be installed before curtain wall insulation. Insulation material designed and installed according to the curtain wall system manufacturer's guidelines for steel framing. Insulation shall be installed flush against the top and bottom surfaces of the perimeter joint protection without deforming it.
 - F. Concrete Panel Joint: Vertical and horizontal concrete panel joints created between panels can be either flush type (butt joint) or key way type (tongue and groove). Concrete panel edges must be in contact with each other. If required, the surface of the panel joints can be sealed with gaskets or sealants.
 - G. Framing Covers: Framing covers used over the mullions and transoms are optional. When used, the framing covers shall be located, sized and installed according to the curtain wall system manufacturer's guidelines. Framing covers do not pass through the perimeter joint treatment. They are butted to the top and bottom surfaces of the perimeter joint treatment without deforming it.
3. PERIMETER JOINT PROTECTION: The perimeter joint (linear opening) shall not exceed an 8 in. nom. joint width (joint width at installation) and the perimeter joint treatment shall incorporate the following construction features:
- A. Packing Material: Use a min. 4 in. thick, 4 pcf density, mineral wool batt insulation installed with the fibers running parallel to the slab edge and curtain wall. The packing material shall be compressed 50% in the nominal joint width. Compress the batt insulation into the perimeter joint such that the top surface of the batt insulation is flush with the top surface of the concrete floor slab. Splices (butt joints) in the lengths of mineral wool batt insulation are to be tightly compressed together. A min. 16 GA angle, with 1.5 x 1.5 in. legs, is to be horizontally located at the mid height of the packing material and attached to each mullion. The 16 GA angle has a min. 15 in. vertical upturn at each end which is created by cutting one of the legs of the angle and bending the angle upwards forming a "U" shaped piece of metal. These vertical ends are attached to the mullions with screws. Reference the Introduction to Fire Resistive Joint Systems Section of this Directory for more details on how to determine the cut width of the insulation to be installed in the nominal joint width, and how to determine the compressed percentage of a known insulation width installed in a known nominal joint width.
 - B. Fill, Void or Cavity Material: Liquid is to be spray applied to cover the exposed surface of the mineral wool installed in the perimeter joint. Apply a min. wet film thickness of 1/8 in. and overlap the material a min. 1/2 in. onto the adjacent curtain wall assembly and concrete floor slab assembly. If the spraying process is stopped and the applied liquid cures to an elastomeric film before process is restarted, then overlap the edge of the cured material at least 1/8 in. with the spray. Reference Product Section of this Directory for more details about the Listed product.

Listed Manufacturer:

Specified Technologies, Inc.

Joint Sealant

Spray

SpecSeal® Elastomeric Spray

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C. Support Clips: (Not Shown) Support clips are optional but recommended for installations subject to vertical shear movement. Standard Z-shaped clips are 20 GA galvanized steel with the following dimensions: 1 in. wide by 3 in. high with a 2 in. upper leg and 3 in. lower leg.

** Before testing, the spliced, test specimen was cycled 500 times according to ICBO ES AC 30 (Jan. 1997).