Design No. CEJ 118 P

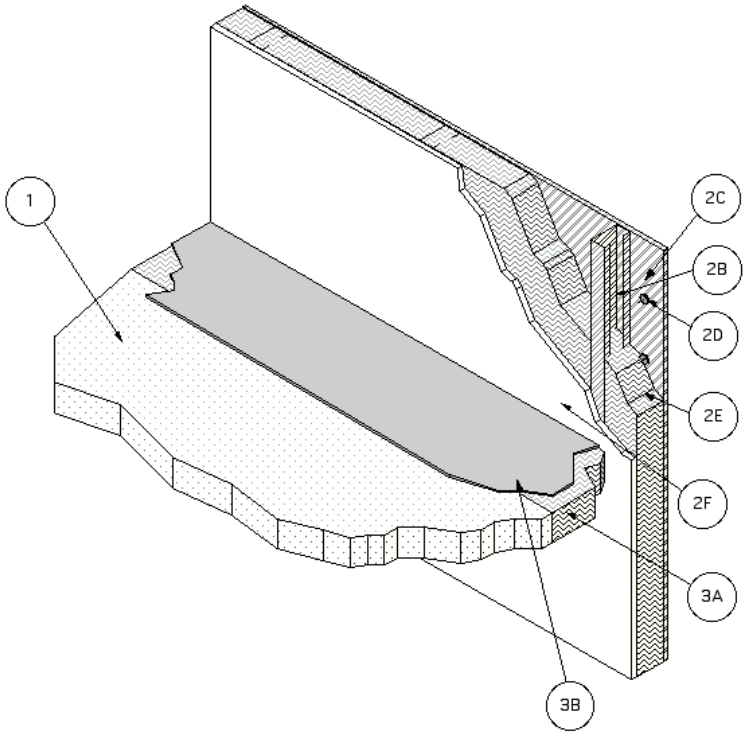
PERIMETER FIRE BARRIER SYSTEM

T-Rating - 1/2 hr.

F-Rating - 1 hr

L-Rating <2 SCFM/FL

Rated for ± 16.7% 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 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, the 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 a min. 3-5/8 in. by 1-5/8 in., 18 GA steel "C" studs. Attachment shall be according to the curtain wall system manufacturer's guidelines. Vertical framing shall not exceed a spacing of 48 in. o.c. If required, horizontal framing members shall be installed according to the curtain wall system manufacturer's guidelines.

C. Steel Panels: Steel panels shall be installed to curtain wall framing according to the curtain wall system manufacturer's guidelines. Use a min. 20 GA sheet steel panel with max. dimensions of 48 in. by 144 in.

D. Impaling Pins: (Not Shown) When used with insulation and framing covers, the aluminum pins shall be located, sized and installed according to the curtain wall system manufacturer's guidelines, or be a min. 4-1/2 in. long, 12 GA pin attached to a nom. 2 in. by 2 in. plate, a nom. 2 in. by 2 in. by 2 in. long angle, and can be directly attached to the framing using a stud gun. Pins shall be spaced a max. of 12 in. o.c. and installed around the periphery (min.) so that the interior face of the curtain wall insulation is flush with the interior face of the framing.

E. Curtain Wall Insulation: (Optional) When curtain wall insulation is used, it may be either mineral wool or fiberglass batt insulation. Install according to manufacturer's instructions.

F. Interior Curtain Wall Surface: Use a min. 5/8 in. thick, 48 in. wide by 96 in. long, Type X gypsum wallboard, placed over and secured to framing with 1 in. long Type S drywall screws 8 in. o.c. on the periphery and 12 in. o.c. in the field. Screw heads are covered with joint compound. Joints created between gypsum wallboard are taped and floated with joint compound.

3. PERIMETER JOINT PROTECTION: The perimeter joint (linear opening) shall not exceed a 6 in. nom. joint width (joint width at installation) and the perimeter joint treatment shall incorporate the following construction features:

A. Packing Material: Use a nom. 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. 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. (** Listed with Omega Point Laboratories)

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

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).