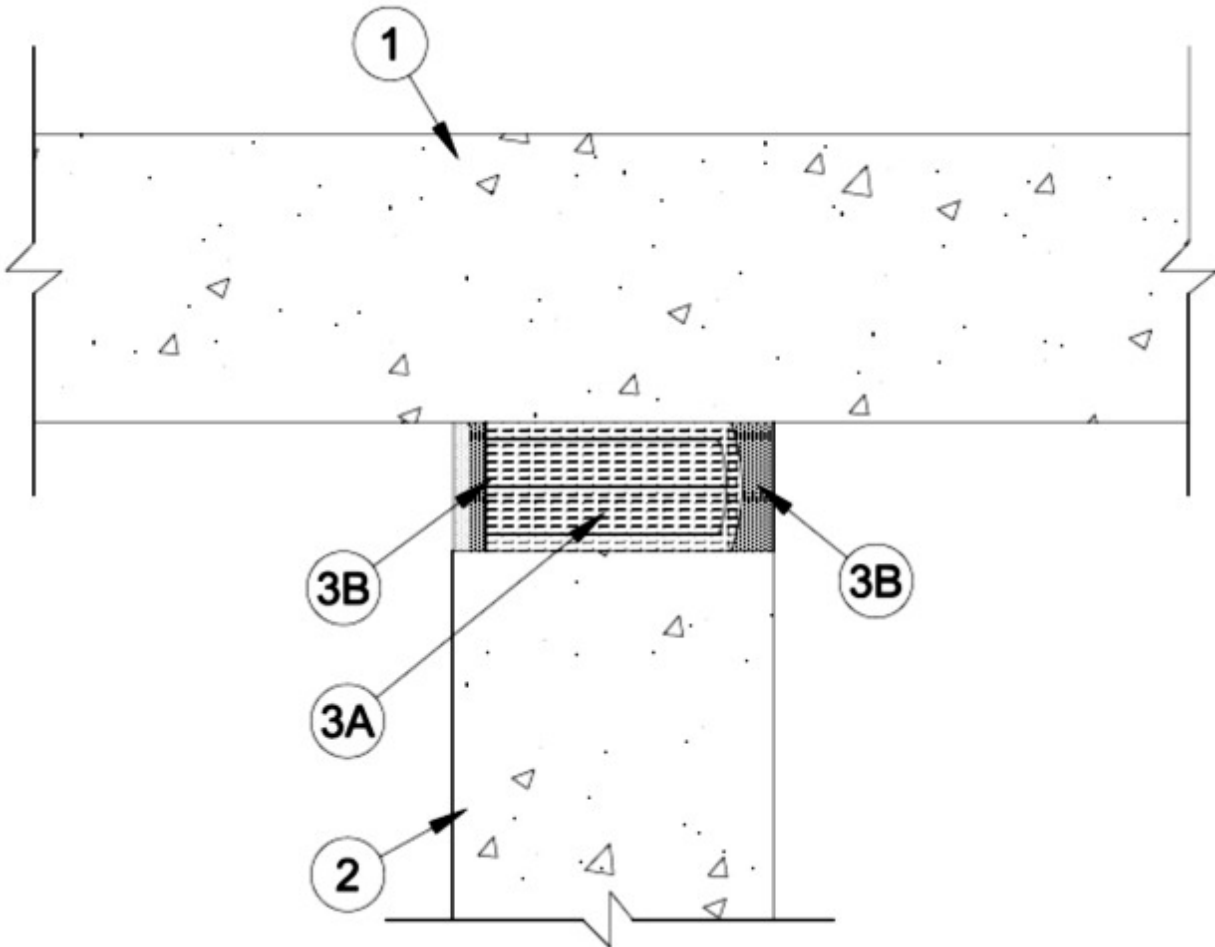


**System No. HW-S-1019**

February 10, 2014

**Assembly Rating — 2 Hr****Joint Width — 4 In. Max**

1. **Floor Assembly** — Min 4-1/2 in. (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete.

2. **Wall Assembly** — Min 5 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Wall may also be constructed of any UL Classified **Concrete Blocks**\*.

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

3. **Joint System** — Max separation between bottom of floor and top of wall is 4 in. (102 mm). The joint system shall consist of the following:

A. **Forming Material\*** — Nom 11 in. (279 mm) wide by 3-3/8 in. (86 mm) thick blanket folded in half and compressed min 40 percent in thickness. Forming material installed into opening as a permanent form and to be recessed from each surface of wall to accommodate the required thickness of fill material.

**BACKER ROD MFG INC — ULTRA BLOCK®**

**B. Fill, Void or Cavity Material\*** — Min 1/2 in. (13 mm) thickness of fill material applied within the joint, flush with each surface of wall.

**RECTORSEAL** — FS4000 Sealant, Metacaulk 835+, Biotherm 100

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.