

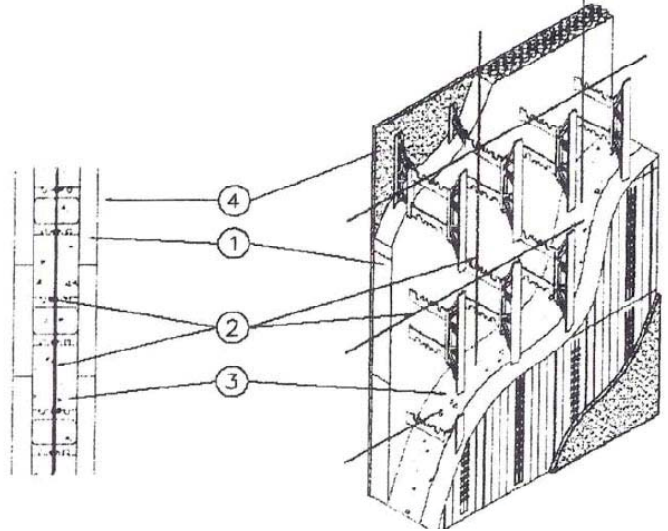
## 7.4 – QAI FIRE RESISTANCE RATING

Standards: ASTM E119 - “Standard Test Methods for Fire Tests of Building Construction and Materials”;

CAN/ULC S101 – “Standard Methods of Fire Endurance Tests of Building Construction and Materials”

	Rating	Product Density	Maximum Cavity Width	Maximum Panel Thickness
ASTM E119 /	2-Hour	1.35 pcf	4 inches	2 3/4 inches
CAN/ULC S701	3-Hour	1.35 pcf	6 1/8 inches	2 3/4 inches
Ratings:	4-Hour	1.35 pcf	8 inches	2 3/4 inches

Structural Rating at above durations for concrete wall at structural design load.



### Assembly Details:

1. Insulated Concrete Forms – Standard forms made of two 16” x 48” by 2.75” thick expanded polystyrene (EPS) block panels connected by polypropylene detail webs at 8” O.C. The minimum width of the cavity is 4” as shown in the ratings table above (rating depends on cavity thickness).
2. Reinforcing Steel - No. 4 steel reinforcing bars placed horizontally in each course and vertically at 16” O.C. along centerline of wall cavity thickness.
3. Sand-Limestone Concrete – 145 +/- 5 pcf density, 2900 psi nominal compressive strength concrete.
4. Gypsum Wallboard – Min. ½” thick, 1.5 psf minimum density, 48” wide gypsum wallboard fastened to flanges of polypropylene webs with 2” long drywall screws at 16” horizontally and vertically. Joints covered with joint compound, covered with joint tape, and covered with an additional coat of joint compound. Screw heads covered with joint compound.

December 6, 2010

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