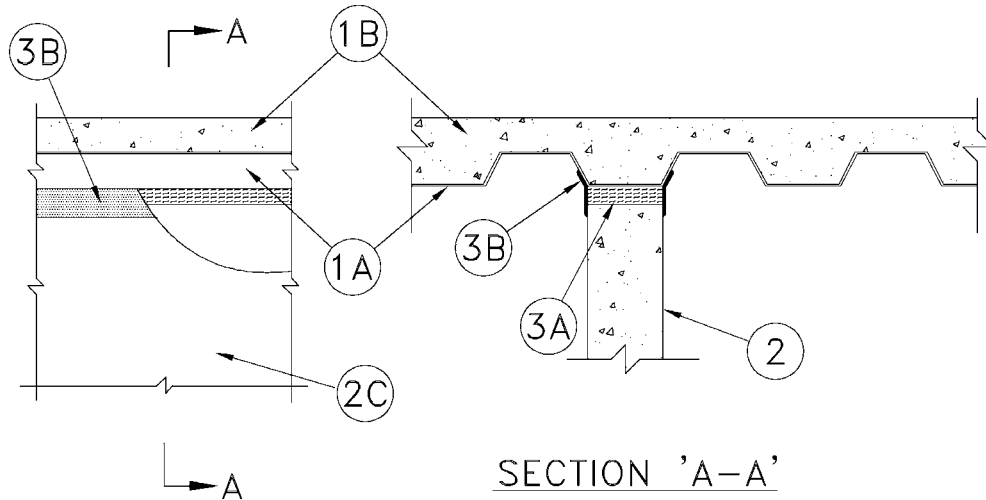


## ULC SYSTEM No. HW51

(For Vertical or Horizontal Separations)

F and FH Ratings - 1 h  
FT and FTH Ratings - 3/4 h

Joint Width – 25 mm Maximum  
Movement Capabilities – 18.75% Compression and Extension



**1. Floor Assembly** – The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual floor-ceiling design in the ULC List of Equipment and Materials, and shall include the following construction features:

(a) **Steel Floor and Form Units** – Maximum 76 mm deep galvanized steel fluted units.

(b) **Concrete** – Minimum 64 mm thick reinforced concrete as measured from the top plane of the floor units.

**1A. Roof Assembly** (not shown) - As an alternate to the floor assembly, a fire-rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual R900 Roof and Ceiling Assemblies in the ULC List of Equipment and Materials, Fire Resistance. The roof assembly shall include the following construction features:

(a) **Steel Roof Deck** – Maximum 76 mm deep galvanized steel fluted roof deck.

(b) **Roof Insulation** – Minimum 63 mm thick poured insulating concrete, as measured from the top plane of the roof deck.

**The hourly rating of the floor or roof assembly shall be equal to or greater than the hourly rating of the wall assembly.**

**2. Wall Assembly** – Minimum 150 mm thick reinforced low-density or medium-density ( $1600\text{-}2400\text{ kg/m}^3$ ) structural concrete. Wall may also be constructed of nominal 200 mm thick concrete block.

**3. Joint System** – Maximum separation between bottom of floor and top of wall is 25 mm. The joint system is designed to accommodate a maximum 18.75% compression or extension from its installed width. The joint system consists of forming material and a firestop material as follows:

- (a) **Firestop System Component** – (Guide No. 40 U19.13). Minimum 150 mm thickness of minimum  $64\text{ kg/m}^3$  density ULC labelled mineral wool batt insulation, compressed 33% in thickness and installed edge first to fill the 25 mm gap between the top of the concrete wall and the bottom of the steel floor units. The mineral wool insulation shall be installed flush with each side of the wall.

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- (b) **Firestop System Component** – (Guide No. 40 U19.13). Minimum 3.2 mm wet thickness of A/D FIREBARRIER Seal N/S sprayed or brushed on each side of the wall, between the top of the wall and the bottom of the steel floor units to completely cover mineral wool and overlap a minimum of 13 mm onto concrete wall and steel deck on both sides of wall.

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January 29, 2003