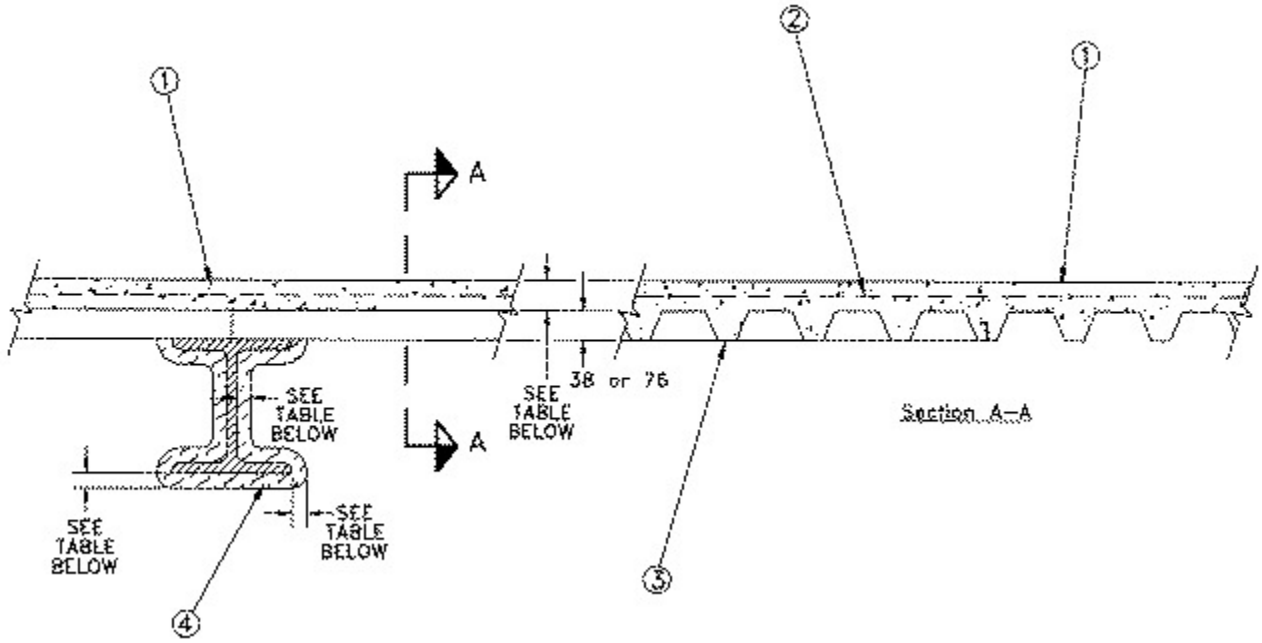
Design No. F910
May 31, 2007

Restrained Assembly Rating - 3 h, 2 h, 1-1/2 h, 1 h (See Item 4)

Unrestrained Assembly Rating - 0 h (See Item 3)

Unrestrained Beam Rating - 1-1/2 h, 1 h (See Item 4)

Load Restriction - 89 percent



Beam — W150x37, minimum size.

1. **Normal-Density or Low-Density Concrete —** Normal-density concrete, carbonate or siliceous aggregate, 2400±50 kg/m^3 density, 24 MPa nominal compressive strength. Low-density concrete, expanded shale, clay or slate aggregate by rotary kiln method, 1760±50 kg/m^3 density, 24 MPa nominal compressive strength.

2. **Wire Fabric —** 152 by 152 MW9.1xMW9.1 wire mesh.

· 3. **Steel Floor Units —** (Guide No. 40 U18.19). Composite or noncomposite floor units. 0.76 mm thick fluted sections welded to supports with 19 mm puddle welds spaced 300 mm OC. Adjacent units button punched or welded 915 mm OC along side joints. When the maximum clear span of the steel floor units is less than or equal to the tested span of 2900 mm, the unrestrained assembly rating is increased to 1 h and 1-1/2 h to match the unrestrained beam rating.

See individual manufacturer's listing for those profiles that may be used in this Design.

ROLL FORM GROUP A DIVISION OF SAMUEL

MANU-TECH INC

LES ACIERS CANAM, DIV OF LE GROUPE

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VICWEST CORP

· 4. **Thin-Flim Intumescent Coatings —** (Guide No. 40 U18.12.9). Intumescent coating designated "A/D FIREFILM II" or "A/D FIREFILM III" applied to steel beam in accordance with manufacturer's instructions to the minimum dry film thicknesses shown below:

A/D FIRE PROTECTION SYSTEMS INC

For W150x37

Restrained Assembly Rating, h	Unrestrained Assembly Rating, h	Unrestrained Beam Rating, h	Min Concrete Cover Thickness, mm		Min Dry Thickness of A/D FIREFILM II or A/D FIREFILM III on Beam, mm
			Normal-Density	Low-Density	
3	0 (see Item 3)	1-1/2	114	Not permitted	2.08
2	0 (see Item 3)	1	114	83	1.14
1-1/2	0 (see Item 3)	1	100	71	1.14
1	0 (see Item 3)	1	83	64	1.14

5. **Shear Connectors —** (optional) (not shown) - Studs 13 mm diameter by 100 mm long, headed type. Welded to top flange of beam through steel floor units for a maximum composite action of 40 percent between the Steel Beam and Concrete. Shear studs are not permitted for Restrained Assembly Rating greater than 2 hour.

6. **Finish Coating —** (not shown) - Silicon alkyd designated "A/D Colorcoat" topcoat applied over intumescent coating (Item 4) to maximum thickness of 0.05 mm.