ROOF & FLOOR/CEILING TYPES

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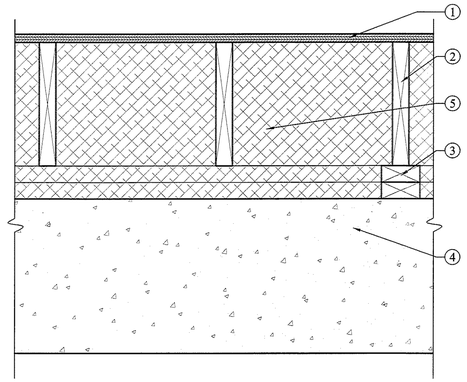

F1 2 HOUR FLOOR/CEILING ASSEMBLY

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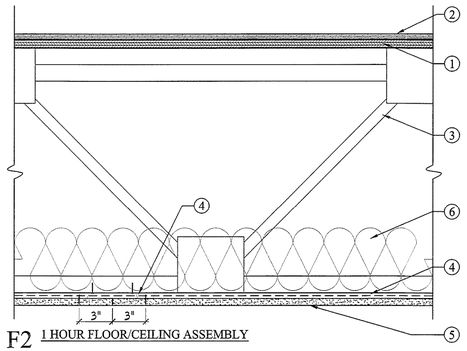
IBC 2003 TABLE 720.1(3)
R-VALUE = 53

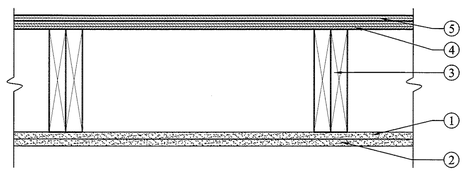
1. **Subflooring --** Nom 23/32 in. thick wood structural panels installed perpendicular to joists with end joints staggered. Plywood or panels secured to joists with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each joist.
2. Wood joists -- 2x12 at 24" O.C.
3. Sleepers -- Pressure treated double 2X4 plates at 48in O.C. perpendicular to joists.
4. Concrete Slab -- Cast-in-place concrete flat slab on 18in square cast-in-place concrete columns. (SEE STRUCTURALS). Fire rating of second floor separation between dwelling units and garage is accomplised according to IBC 2003 which states that 4.6in of concrete provides 2-Hour fire protection. No ceiling material is required. The minimum cover over non-prestressed reinforcement shall not be less than 3/4 in.
5. **Fiber, Sprayed** (ADDED)-- Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3.2 lb/ft3. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft3.



F2 1 HOUR FLOOR/CEILING ASSEMBLY

F2 FLOOR SYSTEM - 1 HOUR
DESIGN NUMBER U.L. L521
(STC 54 - IIC 51) F.H.A.-Materials Release No. 930e &
1150d ICBO-Report No. 1016 ICC-ES File No. 04-02-05

1. **Subflooring --**Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.
2. **Mineral and Fiber Board--**Min 1/2 in. thick, supplied in sizes ranging from 3 ft by 4 ft to 8 ft by 12 ft. All joints to be staggered a min of 12 in. with adjacent sub-floor joints.
HOMASOTE CO -- Type 440-32 Mineral and Fiber Board
3. **Trusses --** Parallel chord trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Min truss depth is 12 in. Truss members secured together with min 0.0356 in. thick galv steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approx. 7/8 in. centers with four rows of teeth per inch of plate width.
4. **Resilient Channels --** Formed from min 0.020 in. thick galv steel, 1/2 in. deep by 2-3/8 in. wide at the base and 1-3/8 in. wide at the face as shown, spaced 12 in. OC perpendicular to trusses. Channels secured to each truss with 1-1/4 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each other at gypsum panel end joints as shown in the illustration. Additional channels shall extend min 6 in. beyond each side edge of panel.
5. **Gypsum Board --** Nom 5/8 in. thick, 48 in. wide gypsum panels. Gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. End joints secured to both resilient channels as shown in end joint detail.
6. **Batts and Blankets --** 8" Glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. When the resilient channels are spaced a max of 12 in. OC there is no limit in the overall thickness of insulation, and the insulation can be secured against the subfloorng, held suspended in the concealed space or draped over the resilient or furring channels and gypsum panel membrane.

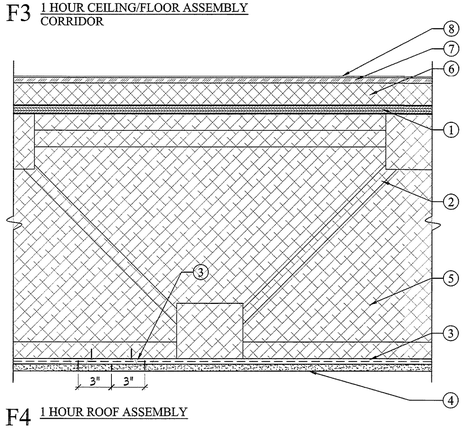


F3 1 HOUR CEILING/FLOOR ASSEMBLY
CORRIDOR

F3 1 HOUR CEILING/FLOOR ASSEMBLY
GA FILE NO. FC5406 - APPENDED GA 610-02

1. Base layer 5/8" type X gypsum wallboard applied at right angles to wood framing with 1 1/4" Type W or S drywall screws 24" o.c.
2. **Face** layer **5/8"** type X gypsum wallboard or gypsum veneer base applied at right angles to framing with 1 7/8" Type W or S drywall screws 12" o.c. at joints and intermediate joists and 1 1/2" type G dyrwall screws 12" O.C. placed 2" back on either side of end joints. Edge joints offset 24" from base layer edge joints.
3. Wood joists (2)2x10 @ 24" o.c. (SEE STRUCTURALS)
4. 3/4 " plywood with exterior glue applied at right angles to joists with 8d nails.
5. Underlayment -- 1/2 in plywood underlayment. (ADDED).

Ceiling provides one hour fire resistance protection for framing, including trusses.



F4 1 HOUR ROOF ASSEMBLY

F4 ROOF SYSTEM - 1 HOUR
DESIGN NUMBER U.L. L521
(STC 54 - IIC 51) F.H.A.-Materials Release No. 930e &
1150d ICBO-Report No. 1016 ICC-ES File No. 04-02-05
R-VALUE = 68

1. 19/32" APA rated sheathing with exterior glue applied at right angles to trusses with 8d nails.
2. **Trusses --** Parallel chord trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Min truss depth is 12 in. Truss members secured together with min 0.0356 in. thick galv steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approx. 7/8 in. centers with four rows of teeth per inch of plate width.
3. **Resilient Channels --** Formed from min 0.020 in. thick galv steel, 1/2 in. deep by 2-3/8 in. wide at the base and 1-3/8 in. wide at the face as shown, spaced 12 in. OC perpendicular to trusses. Channels secured to each truss with 1-1/4 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC, oriented opposite each other at gypsum panel end joints as shown in the illustration. Additional channels shall extend min 6 in. beyond each side edge of panel.
4. **Gypsum Board --** Nom 5/8 in. thick, 48 in. wide gypsum panels. Gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from the end joints. End joints secured to both resilient channels as shown in end joint detail.
5. **Fiber, Sprayed** (ADDED)-- Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3.2 lb/ft3. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft3.
6. Tapered Rigid Insulation - SEE ROOF PLAN FOR THICKNESSES AND LAYOUT
7. 1/2" High Density Fiberboard
8. Fully Adhered 0.060" EPDM Roofing - SEE SPECIFICATION

REGISTERED ARCHITECT
DAVID LLOYD NO. 938
STATE OF MAINE

OWNER:
53 DANFORTH STREET, LP
C/O THE SZANTON COMPANY
ONE CITY CENTER - 4TH FLOOR
PORTLAND, ME 04101

ARCHETYPE, P.A.
ARCHITECTS
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Project:
53 DANFORTH
53 DANFORTH STREET
PORTLAND, MAINE

Revisions:
28 May 2008 - 50% MSHA Submittal
1 July 2008 - 90% MSHA Submittal
15 July 2008 - Pricing Set
25 July 2008 - 100% MSHA Submittal

Scale: Not to Scale
Date: 28 May 2008

FLOOR ASSEMBLIES

A4.02