

40 NOT USED

35

NOT USED

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39 NOT USED

SYSTEM N° F-B-2046

F RATING	3 HR
T RATING	0 HR

- FLOOR ASSEMBLY** —LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/MS) CONCRETE FLOOR ASSEMBLY. MIN CONCRETE THICKNESS IS 6 IN. (152 MM).
- FIRESTOP SYSTEM** —FIRESTOP DEVICE*— CAST IN PLACE FIRESTOP DEVICE PERMANENTLY EMBEDDED DURING CONCRETE PLACEMENT OR GROUTED IN CONCRETE ASSEMBLY IN ACCORDANCE WITH ACCOMPANYING INSTALLATION INSTRUCTIONS.

A) FIRESTOP DEVICE* —CAST IN PLACE FIRESTOP DEVICE INSTALLED FLUSH WITH THE BOTTOM SURFACE OF THE FLOOR AND TRIMMED 3 IN (76 MM) BELOW THE TOP SURFACE OF THE FLOOR. SPECIFIED TECHNOLOGIES INC —C02000

B) FIRESTOP DEVICE* — TUB BOX* —NOM 9-5/8 BY 12-3/4 BY 3 IN (244 BY 324 BY 76 MM) POLYPROPYLENE (PP) TUB BOX, WITH ADJUSTABLE LIPS, SECURED TO TOP OF CAST-IN DEVICE, C02000 (ITEM 24) AND CAST INTO CONCRETE SLAB, FLUSH WITH TOP SURFACE OF FLOOR. SPECIFIED TECHNOLOGIES INC —C02000T

- DRAIN FITTING** —NOM 1-1/2 IN. (38 MM) OR 2 IN. (51 MM) DRAIN SCHEDULE 40 CELLULAR OR SOLID CORE POLYVINYL CHLORIDE (PVC) PIPE AND DRAIN FITTINGS CEMENTED TOGETHER.
- WASTE/OVERFLOW FITTING** —NOM 1-1/2 IN. (38 MM) OR 2 IN. (51 MM) DRAIN WASTE/OVERFLOW FITTING, FORMED OF POLYVINYL CHLORIDE (PVC).


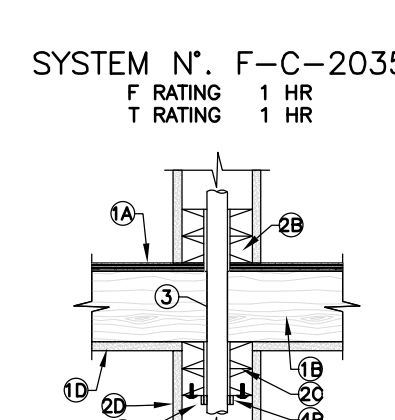
* Bearing the UL Classification Mark

FB 2046

N.T.S.

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38 NOT USED

<p>SYSTEM N°. F-C-2035</p>	<p>F 1 HR T RATING R 1 HR</p>	
		
<p>1. FLOOR CEILING ASSEMBLY THE 1 HR FIRE-RATED SOLID OR TRUSSED LUMBER JOIST FLOOR-CEILING ASSEMBLY SHALL THE 1 HR FIRE-RATED SOLID OR TRUSSED LUMBER JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY, AS SUMMARIZED BELOW:</p>		
<p>A) FLOORING SYSTEM LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX DIAM OF FLOOR OPENING IS 4-1/2 IN. (114 MM).</p>		
<p>B) WOOD JOISTS NOM 2 BY 10 IN. (51 BY 254 MM) LUMBER JOISTS SPACED 16 IN. (406 MM) OC WITH NOM 1 BY 3 IN. (25 BY 76 MM) LUMBER BRIDGING AND WITH ENDS FIRESTOPPED, AS AN ALTERNATE TO LUMBER JOISTS, NOM IN. (25.4 MM) DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OR STRUCTURAL WOOD MEMBERS* WITH BRIDGING AS REQUIRED WITH ENDS FIRESTOPPED.</p>		
<p>C) FURRING CHANNELS (NOT SHOWN) RESIDENTIAL GALV STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS (ITEM 1B) THROUGH GYPSUM BOARD (ITEM 1D) AND WOOD JOISTS AS REQUIRED IN THE INDIVIDUAL FLOOR-CEILING DESIGN.</p>		
<p>D) GYPSUM BOARD* NOM 4 FT (1.2 M) WIDE BY 5/8 IN. (16 MM) THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. GYPSUM BOARD SECURED TO WOOD JOISTS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX DIAM OF CEILING OPENING IS 5 IN. (127 MM).</p>		
<p>2. CHASE WALL (OPTIONAL) - THE THROUGH PENETRANT (ITEM 3) MAY BE ROUTED THROUGH A 1 HR FIRE RATED SINGLE, DOUBLE OR STAGGERED WOOD STUD/GYPSUM BOARD CHASE WALL CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN INDIVIDUAL L500 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL HAVE THE FOLLOWING CONSTRUCTION DETAILS:</p>		
<p>A) STUDS NOM 2 BY 6 IN. (51 BY 152 MM) OR DOUBLE NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER STUDS.</p>		
<p>C) SOLE PLATE NOM 2 BY 6 IN. (51 BY 152 MM) OR PARALLEL 2 BY 4 IN. (51 BY 102 MM) LUMBER PLATES, TIGHTLY BUTTED.</p>		
<p>TOP PLATE THE DOUBLE TOP PLATE SHALL CONSIST OF TWO NOM 2 BY 6 IN. (51 BY 152 MM) OR TWO SETS OF PARALLEL 2 BY 4 IN. (51 BY 102 MM) LUMBER PLATES, TIGHTLY BUTTED. MAX DIAM OF OPENING IS 5 IN. (127 MM).</p>		
<p>D) GYPSUM BOARD* THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS SHALL BE AS SPECIFIED IN INDIVIDUAL WALL AND PARTITION DESIGN.</p>		
<p>3. THROUGH PENETRANTS ONE NONMETALLIC PIPE TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. DIAM OF OPENING HOLE-SAWED THROUGH FLOORING (ITEM 1B) TO BE EQUAL TO THE OUTSIDE DIAM OF PIPE. DIAM OF CIRCULAR OPENING HOLE-SAWED THROUGH TOP PLATE (ITEM 2C) TO BE MAX 1/2 IN. (13 MM) LARGER THAN OUTSIDE DIAM OF PIPE THROUGH BOTH THICKNESSES OF THE LUMBER TOP PLATE. MAX ONE PIPE PER PENETRANT. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES MAY BE USED:</p>		
<p>A) POLYVINYL CHLORIDE (PVC) PIPE NOM 4 IN. (102 MM) DIAM (OR SMALLER) SCHEDULE 40 CELLULAR OR SOLID CORE PVC PIPE FOR USE IN CLOSER (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING</p>		

SYSTEM N°. F-C-2032

F RATING 1 HR

T RATINGS 0, 1/4, 3/4 AND 1 HR (SEE ITEM 2)

L RATING AT AMBIENT LESS THAN 1 CFM/SQ FT

L RATING AT 400 F LESS THAN 1 CFM/SQ FT

SECTION A-A

1. FLOOR CEILING ASSEMBLY THE 1 HR FIRE-RATED SOLID OR TRUSSED LUMBER JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN INDIVIDUAL LSOD SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE

GENERAL CONSTRUCTION DETAILS OF THE FLOOR-CELING ASSEMBLY ARE SUMMARIZED BELOW:

A) FLOORING SYSTEM LUMBER OR FLOORJOIST SUBFLOOR WITH FINISH FLOOR OF LUMBER, LYSPOND OR FLOOR TOPPING MIXTURE* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CELING DESIGN. MAX DIAM OF CEILING OPENING IS 4 IN. (102 MM).

B) WOOD JOISTS NOM 2 BY 10 IN. (51 BY 254 MM) LUMBER JOISTS SPACED 16 IN. (406 MM) ON CENTER BY NOM 1 BY 3 IN. (25 BY 76 MM) LUMBER BRIDGING AND WITH ENDS FIREPROOFED. AS APPLICABLE, JOISTS TO LUMBER JOISTS, NOM 10 IN. (254 MM) DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS; TRUSSES OR STRUCTURAL WOOD MEMBERS* WITH BRIDGING AS REQUIRED AND WITH ENDS FIREPROOFED.

C) FURRING CHANNELS (NOT SHOWN) RESILIENT GALV STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS (ITEM 18) BETWEEN GYPSUM BOARD (ITEM 1D) AND WOOD JOISTS AS REQUIRED IN THE INDIVIDUAL FLOOR-CELING DESIGN.

D) GYPSUM BOARD* NOM 4 FT (1.2 M) WIDE BY 5/8 IN. (16 MM) THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CELING DESIGN. GYPSUM BOARD SUBJECTED TO WOOD JOISTS OR FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CELING DESIGN. MAX DIAM OF CEILING OPENING IS 4 IN. (102 MM).

1. CHASE WALL (OPTIONAL, NOT SHOWN) THE THROUGH PENETRANT (ITEM NO. 2) MAY BE ROUTED THROUGH A FIRE RATED OR NON FIRE RATED SINGLE, DOUBLE OR STAGGERED WOOD STUD/GYPSUM BOARD CHASE WALL. WHEN FIRE RATED THE CHASE WALL SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL FLOOR-CELING DESIGN. THE CHASE WALL SHALL BE A FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A) STUDS NOM 2 BY 4 IN. (51 BY 102 MM), 2 BY 6 IN. (51 BY 152 MM) OR DOUBLE 2 BY 4 IN. (51 BY 102 MM) LUMBER STUDS.

B) PLATE NOM 1/4 IN. (6 MM) THICK, 51 BY 102 MM, 2 BY 6 IN. (51 BY 152 MM) OR PARALLEL 2 BY 4 IN. (51 BY 102 MM) LUMBER PLATES, TIGHTLY BUTTED.

C) TOP PLATE THE DOUBLE TOP PLATE SHALL CONSIST OF TWO NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER PLATES. THE TOP PLATE SHALL BE 1/4 IN. (6 MM) THICK. THE TOP PLATE SHALL BE 51 BY 102 MM LUMBER PLATES, TIGHTLY BUTTED, MAX DIAM OF OPENING IS 4 IN. (102 MM).

D) GYPSUM BOARD* THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS SHALL BE AS SPECIFIED IN INDIVIDUAL WALL AND PARTITION DESIGN.

2. THROUGH PENETRANTS ONE NONMETALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED WITHIN THE CHASE WALL SYSTEM. THROUGH PENETRANTS ARE TO BE INSTALLED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM BOARD CEILING TO BE 1/4 TO 1-5/8 IN. (6 TO 41 MM) LARGER THAN THE OUTSIDE DIAM OF THROUGH-PENETRATING PIPE, CONDUIT OR TUBING TO BE. BE RIDGHTLY SUPPORTED ON BOTH SIDES OF THE FLOORING ASSEMBLY. THE FOLLOWING TYPES AND TERS OF NONMETALLIC PIPES, CONDUITS OR TUBING MAY BE USED:

A) POLYVINYL CHLORIDE (PVC) PIPE NOM 2 IN. (51 MM) DIAM (OR SMALLER) SCHEDULE 40 STEEL OR CELLULOSE CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THIS PENETRANT IS USED IS 1 HR EXCEPT THAT WHEN NOM DIAM OF PIPE EXCEEDS 1 IN. (25 MM), THE T RATING IS 1 1/4 HR.

B) NONMETALLIC CONDUIT+ NOM 2 IN. (51 MM) DIAM (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH ARTICLE 347 OF THE NATIONAL ELECTRICAL CODE (NFPA NO. 70). THE T RATING FOR THE FIRESTOP SYSTEM WHEN THIS PENETRANT IS USED IS 1 HR EXCEPT THAT WHEN NOM DIAM OF PIPE EXCEEDS 1 IN. (25 MM), THE T RATING IS 1 1/4 HR.

C) CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE NOM 2 IN. (51 MM) DIAM (OR SMALLER) SDR 9 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THIS PENETRANT IS USED IS 1 HR EXCEPT THAT WHEN NOM DIAM OF PIPE EXCEEDS 1 IN. (25 MM), THE T RATING IS 1 1/4 HR.

D) ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE NOM 2 IN. (51 MM) DIAM (OR SMALLER) SDR 9 ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THIS PENETRANT IS USED IS 1 HR.

E) POLYETHYLENE (PE) PIPE NOM 2 IN. (51 MM) DIAM (OR SMALLER) SDR 11 PE PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THIS PENETRANT IS USED IS 1 HR.

F) CROSS LINKED POLYETHYLENE ALUMINUM-CROSS LINKED POLYETHYLENE (PEXAL-PEX) TUBING NOM 1 IN. (25 MM) DIAM (OR SMALLER) SDR 5 PEXAL-PEX TUBING FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THIS PENETRANT IS USED IS 1 HR.

G) CROSS LINKED POLYETHYLENE (PEX) TUBING NOM 2 IN. (51 MM) DIAM (OR SMALLER) SDR 9 PEX TUBING FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THIS PENETRANT IS USED IS 1 HR.

H) ELECTRICAL NONMETALLIC TUBING (ENT+) NOM 2 IN. (51 MM) DIAM (OR SMALLER) PVC TUBING INSTALLED IN ACCORDANCE WITH ARTICLE 331 OF THE NATIONAL ELECTRICAL CODE (NFPA NO. 70). THE THROUGH PENETRANT FOR THE THROUGH PENETRANT IS USED IS 1 HR EXCEPT THAT WHEN NOM DIAM OF TUBE EXCEEDS 1 IN. (25 MM), THE T RATING IS 1 1/4 HR.

I) CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE NOM 2 IN. (51 MM) DIAM (OR SMALLER) SDR 9 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THIS PENETRANT IS USED IS 1 HR EXCEPT THAT WHEN NOM DIAM OF PIPE EXCEEDS 1 IN. (25 MM), THE T RATING IS 1 1/4 HR.

J) POLYETHYLENE TEREPHTHALATE (PET) PIPE NOM 2 IN. (51 MM) DIAM (OR SMALLER) SDR 9 PET PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THIS PENETRANT IS USED IS 1 HR EXCEPT THAT WHEN NOM DIAM OF PIPE EXCEEDS 1 IN. (25 MM), THE T RATING IS 1 1/4 HR.

3. FILL, VOID OR CAVITY MATERIAL SEALANT - NOM 3/4 IN. (19 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS ON TOP SURFACE OF FLOOR, MIN 5/8 IN. (16 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS ON BOTTOM SURFACE OF CEILING OR LOWER TOP PLATE OF CHASE WALL. ADDITIONAL FILL MATERIAL SHALL BE APPLIED TO THE BOTTOM SURFACE OF THE CROWN IS FORMED AROUND THE THROUGH PENETRATION ON BOTTOM SURFACE OF CEILING OR LOWER PLATE OF CHASE WALL ASSEMBLY.

SPECIFIED TECHNOLOGIES INC. - SPECIALS SERIES SSS SEALANT, R SPECIALS ILC SEALANT, ON TYPE W5000 FIRESTOP CALULA

302 FC 2032

N.T.S.

SYSTEM N°. F-C-2022

F RATINGS 1 AND 2 HR (SEE ITEM 1)

T RATINGS 1 AND 2 HR (SEE ITEM 1)

L RATING AT AMBIENT 1 CFM/SQ FT

L RATING AT 400 F LESS THAN 1 CFM/SQ FT

SECTION A-A

FLOOR-CEILING ASSEMBLY – THE 1 HR FIRE-RATED SOLID OR TRUSSED LUMBER JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE ULR FIRE RESISTANCE DIRECTORY. THE 2 HR FIRE-RATED JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN DESIGN SERIES L500S, L511 OR L536 IN THE ULR FIRE RESISTANCE DIRECTORY. THE F AND T RATINGS OF THE FIRESTOP SYSTEM ARE EQUAL TO THE HOURLY FIRE RATING OF THE FLOOR-CEILING ASSEMBLY. THE GENERAL CONSTRUCTION FEATURES OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:

- A) FLOORING SYSTEM** – LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MATERIALS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAXIMUM DIAM OF FLOORING OPENING IS 5 IN. (127 MM).
- B) WOOD JOIST** – FOR 1 HR FIRE-RATED FLOOR-CEILING ASSEMBLIES, NOM 10 IN. (254 MM) DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OR STRUCTURAL WOOD MEMBERS* WITH BRIDGING AS REQUIRED AND WITH ENDS FIREPROOFED. FOR 2 HR FIRE-RATED FLOOR-CEILING ASSEMBLIES, NOM 12 BY 10 IN. (51 BY 254 MM) LUMBER JOISTS SPACED 16 IN. (406 MM) OC WITH NOM 1 BY 3 IN. (25 BY 76 MM) LUMBER BRIDGING AND WITH ENDS FIREPROOFED.
- C) FURRING CHANNELS** – (NOT SHOWN) – IN 2 HR FIRE-RATED ASSEMBLIES, RESILIENT GUY STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN FIRST AND SECOND LAYERS OF WALBOARD (ITEM 10). FURRING CHANNELS SPACED MAX 24 IN. (610 MM) OC. IN 1 HR FIRE-RATED ASSEMBLIES, RESILIENT GUY STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN WALBOARD AND WOOD JOISTS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FURRING CHANNELS SPACED MAX 24 IN. (610 MM) OC.
- D) GYPSUM BOARD** – NOM 4 FT (1220 MM) WIDE BY 5/8 IN. (16 MM) THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FIRST LAYER OF GYPSUM BOARD SECURED TO WOOD JOISTS OR FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. SECOND LAYER OF GYPSUM BOARD SECURED TO FIRST LAYER OF FIRE-RATED ASSEMBLY WITH SCREW-ATTACHED TO FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. THE SECONDARY STEEL JOIST/WRAP/STRAP ASSEMBLY (ITEMS 3B AND 3C) MUST BE INSTALLED IN THE JOIST CAVITY PRIOR TO INSTALLATION OF GYPSUM BOARD CEILING. MAX DIA OF CEILING OPENING IS 5 IN. (127 MM).
- E) THROUGH PENETRANTS** – ONE NONMETALLIC PIPE OR CONDUIT TO BE INSTALLED APPROXIMATELY MIDWAY BETWEEN WOOD JOISTS. PENETRANT FROM FLOORING SYSTEM, DIA OF OPENINGS HOSE-SAVED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM WALBOARD CEILING TO BE NOM 1/4 IN. (6 MM) LARGER THAN THE OUTSIDE DIA OF THROUGH-PENETRANT. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES OR CONDUITS MAY BE USED:
 - A) POLYETHYLENE GLYOIDE (PVC) PIPE** – NOM 4 IN. (102 MM) DIA (OR SMALLER) SCHEDULE 40 SOLID OR CELLULAR PIPE FOR USE IN USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEM.
 - B) RIGID NONMETALLIC CONDUIT** – NOM 4 IN. (102 MM) DIA (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH ARTICLE 347 OF THE NATIONAL ELECTRICAL CODE (NFPA NO. 70).
 - C) COLORBATED POLYOLYNE CONDUIT** – NOM 4 IN. (102 MM) DIA (OR SMALLER) SRSS 13.5 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.
- F. FIRESTOP SYSTEM** – THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
- A. FILL, VOID OR CAVITY MATERIAL** – SEALANT – FILL MATERIAL FORCED INTO ANNUAL SPACES TO MAX EXTENT POSSIBLE, FILLING THE BOTH SIDES OF THE FLOOR-CEILING ASSEMBLY.
- SPECIFIED TECHNOLOGIES INC** – SPECIALS, SSS SEALANT, WRAP OR SPECIALS LO SEALANT
- B. FILL VOID OR CAVITY MATERIAL** – WRAP STRIP – NOM 1/8 OR 3/16 IN. (3.2 OR 4.8 MM) THICK INTUMESCENT MATERIAL FACED ON BOTH SIDES WITH A PLASTIC FILM, SUPPLIED IN 2 IN. WIDE STRIPS OR NOM 1/4 IN. (6 MM) THICK INTUMESCENT MATERIAL FACED ON BOTH SIDES WITH A PLASTIC FILM, SUPPLIED IN 1-1/2 IN. (38 MM) WIDE STRIPS. THE LAYERS OF WRAP STRIPS ARE INDIVIDUALLY WRAPPED THROUGH THE THROUGH-PENETRANT WITH THE ENDS BUTTED AND HELD IN PLACE WITH MASKING TAPE. THE WRAP STRIPS ARE WRAPPED AROUND THE THROUGH-PENETRANT ON UNDERSIDE OF ITEM 1A) AND BOTH SIDES OF ITEM 1B) AND 1C). THE NUMBER OF WRAP STRIPS REQUIRED IS DEPENDENT UPON THE DIA OF THE THROUGH-PENETRANT AS TABULATED BELOW.
- SPECIFIED TECHNOLOGIES INC** – SPECIALS, BLU WRAP STRIP, SPECIALS BLUZ WRAP STRIP OR SPECIALS RED WRAP STRIP

DIA OF THROUGH-PENETRATION, IN. (MM)	NO. OF WRAP STRIPS
2 (51)	2
3 (76)	2
4 (102)	3

- C) STEEL COLLAR** – COLLAR FABRICATED FROM CROS OF PRECUT 0.016 IN. (0.4 MM) THICK (30 MSG) GALV SHEET STEEL, AVAILABLE FROM FLOOR STRIP MANUFACTURER. COLLAR SHALL BE 1-1/2 IN. (38 MM) OR 2 IN. (51 MM) DEEP WITH MIN. 1 IN. (25 MM) WIDE BY 1 IN. (25 MM) LONG ANNUAL TABS FOR SECUREMENT TO THE CONCRETE FLOOR OR WALL. RETAINER TABS, 3/4 IN. (19 MM) WIDE TAPERING DOWN TO 1/4 IN. (6 MM) WIDE AND LOCATED OPPOSITE THE ANNUAL TABS, ARE FOLDED 90 DEGREES TOWARD PIPE SURFACE TO MAINTAIN THE ANNUAL SPACE AROUND THE PIPE AND TO HOLD THE WRAP STRIPS. STRIPS SHALL BE 3 IN. (76 MM) LONG AND THROUGH-PENETRANT WITH A 1 IN. (25 MM) WIDE OVERLAP ALONG ITS PERIMETER JOINT AND SECURED TOGETHER BY MEANS OF THREE NO. 8 BY 3/8 IN. (10 MM) STEEL SCREWS. AS AN ALTERNATE TO THE STEEL SCREWS, THE STEEL COLLAR CAN BE SECURED TOGETHER BY MEANS OF A 1/2 IN. (13 MM) DIA (13 MM) DIA STEEL STAINLESS STEEL HOSE CLAMP INSTALLED AT MIDDLE OF THE COLLAR. COLLAR SECURED TO SUBFLOOR WITH MIN. NO. 8 BY 3/4 IN. (19 MM) LONG WOOD SCREWS IN CONJUNCTION WITH 1/4 IN. (6 MM) BY 1/4 IN. (32 MM) DIAM STEEL FENDER WASHERS. COLLAR SECURED TO FINISHED GYPSUM BOARD CEILING WITH 3/16 IN. (4.8 MM) DIA BY 3-1/2 IN. (89 MM) LONG STEEL TOGGLE BOLTS IN CONJUNCTION WITH 1/4 IN. (6 MM) BY 1/4 IN. (32 MM) DIAM STEEL FENDER WASHERS. THE NUMBER OF SCREWS USED IS DEPENDENT UPON THE NOM DIA OF THE THROUGH PENETRANT. TWO SCREWS, SYMMETRICALLY LOCATED, ARE REQUIRED FOR NOM 1-1/2 AND 2 IN. (38 AND 51 MM) DIA THROUGH PENETRANTS. THREE SCREWS SYMMETRICALLY LOCATED, ARE REQUIRED FOR 3 IN. (76 MM) AND 4 IN. (102 MM) DIA THROUGH PENETRANTS. FOUR SCREWS, SYMMETRICALLY LOCATED, ARE REQUIRED FOR NOM 3 IN. (76 AND 4 IN. (89 AND 102 MM) DIA THROUGH PENETRANTS.

[illegible]2203

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DATE	11/09/21
DRAWN	CR
PROJECT No.	2203
SCALE	AS-SHOWN

FIRE STOPPING
DETAILS
RC
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100000000