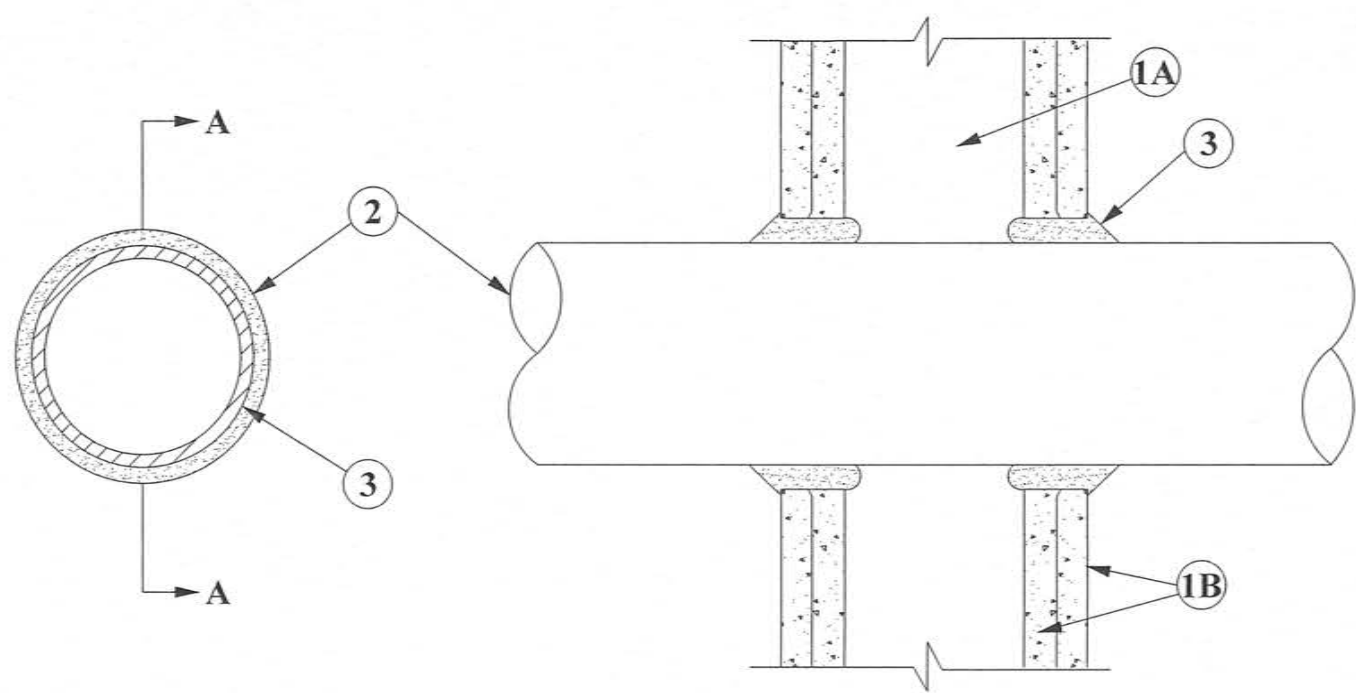


SYSTEM NO. W-L-1001  
F RATING - 1,2,3 AND 4 HR (SEE ITEMS 2 AND 3)  
T RATING - 0,1,2,3 AND 4 HR (SEE ITEM 3)  
L RATING AT AMBIENT - LESS THAN 1 CFM/SQ FT  
L RATING AT 400 F - LESS THAN 1CFM/SQ FT



SECTION A-A

1. **WALL ASSEMBLY** -- THE 1, 2, 3 OR 4 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. **STUDS** -- WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 H FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE BY 1 3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. OC.

B. **GYPSUM BOARD\*** -- NOM 1/2 OR 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THEUL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 26 IN.

2. **THROUGH-PENETRANT** -- ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN OF 0 IN. (POINT CONTACT) TO MAX 2 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:

A. **STEEL PIPE** -- NOM 24 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

B. **IRON PIPE** -- NOM 24 IN. DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN DIAM (OR SMALLER) OR CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE.

C. **CONDUIT** -- NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT OR NOM 4 IN DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING

D. **COPPER TUBING** -- NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING

E. **COPPER PIPE** -- NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

F. **THROUGH PENETRATING PRODUCT\*** -- FLEXIBLE METAL PIPING THE FOLLOWING TYPES OF STEEL FLEXIBLE METAL GAS PIPING MAY BE USED:

1. NOM 2 IN. DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

OMEGA FLEX INC

2. NOM 1 IN. DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

TITFLEX CORP

A BUNDY CO

3. NOM 1 IN. DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

WARD MFG INC

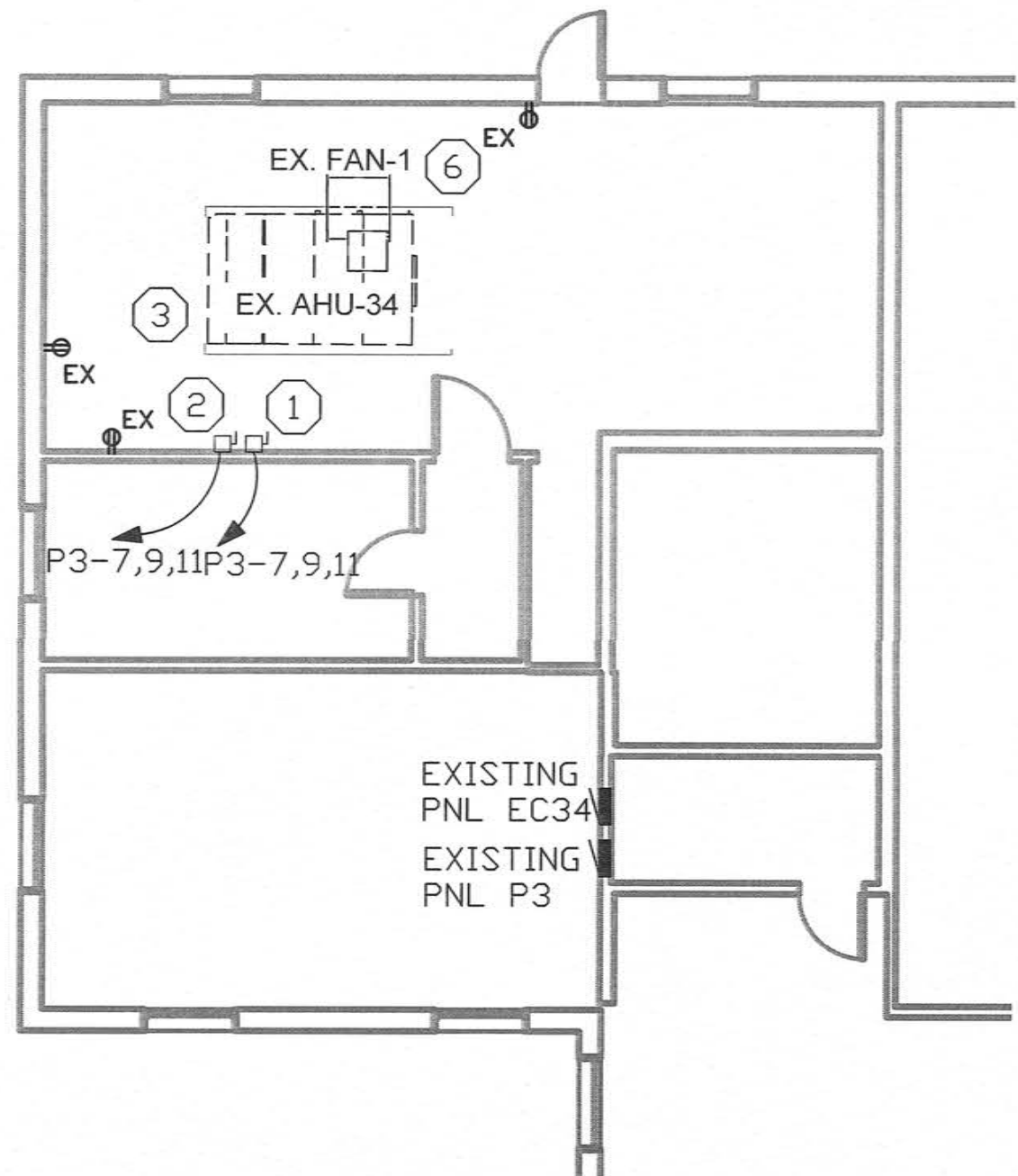
3. **FILL, VOID OR CAVITY MATERIAL\*** -- **CAULK** -- MIN 5/8, 1-1/4,1-7/8 AND 2-1/2 IN. THICKNESS OF CAULK FOR 1, 2, 3 AND 4 HR RATED ASSEMBLIES, RESPECTIVELY, APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. MIN 1/4 IN. DIAM BEAD OF CAULK APPLIED TO GYPSUM BOARD/PENETRANT INTERFACE AT POINT CONTACT LOCATION ON BOTH SIDES OF WALL. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX PIPE OR CONDUIT DIAM IN.	ANNULAR SPACE IN.	F RATING HR	T RATING HR
1	0 TO 3/16	1 OR 2	0+, 1 OR 2
1	1/4 TO 1/2	3 OR 4	3 OR 4
4	0 TO 1-1/2	1 OR 2	0
6	1/4 TO 1/2	3 OR 4	0
12	3/16 TO 3/8	1 OR 2	0

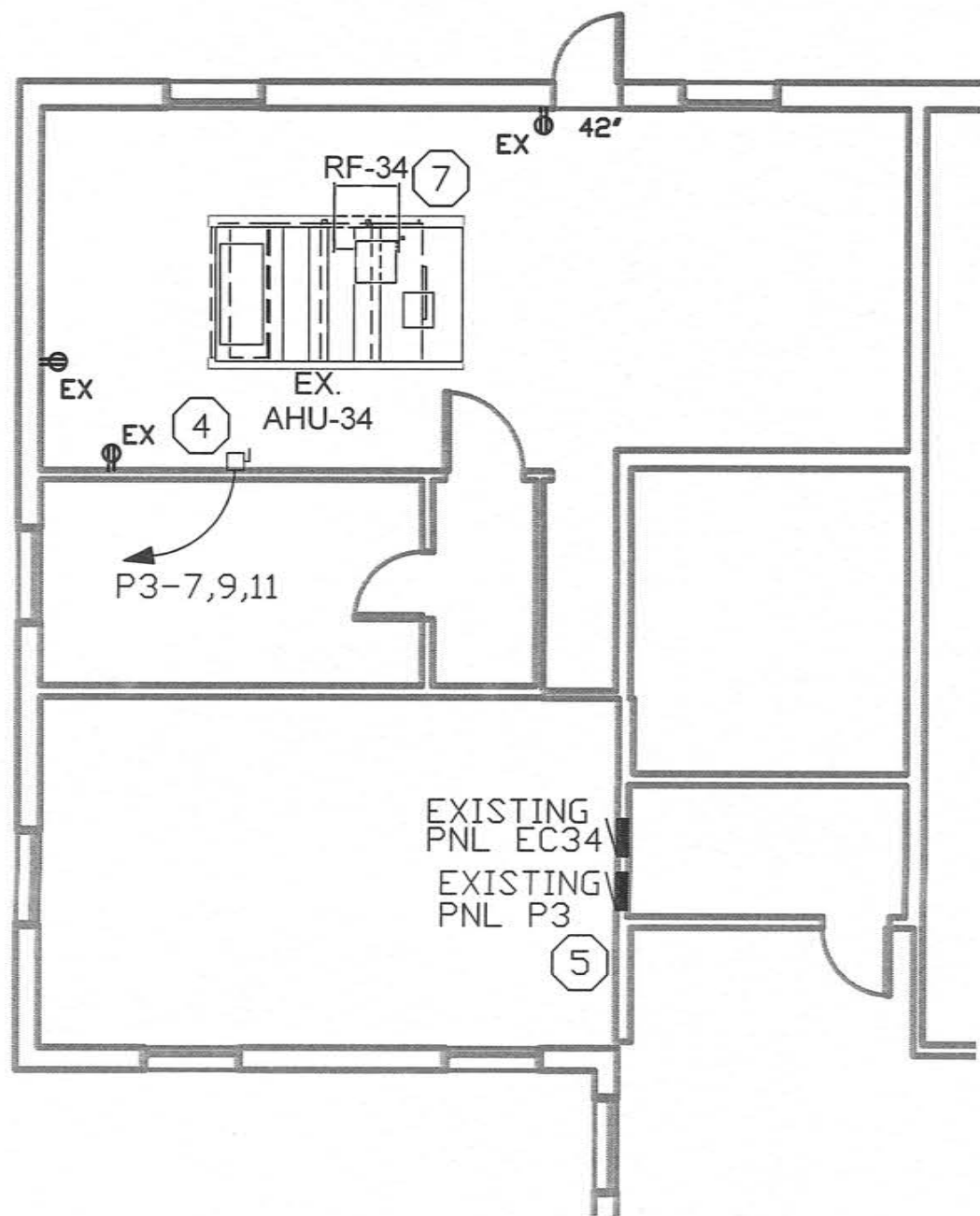
3M COMPANY -- CP 25WB+.

\*BEARING THE UL CLASSIFICATION MARK

3  
E-103  
SCALE: NTS  
GYPSUM WALL ADDEMBLY PENETRATION DETAIL (UL# W-L-1001)



1  
E-103  
SCALE: 1/8" = 1'-0"  
FOURTH FLOOR ELECTRICAL DEMOLITION PLANS



2  
E-103  
SCALE: 1/8" = 1'-0"  
FOURTH FLOOR ELECTRICAL PLANS

KEYNOTES

- EXISTING SQUARE D 30A, 240V FUSIBLE DISCONNECT SWITCH WITH 20A FUSES TO BE REMOVED, CURRENTLY SERVING AHU-34 SUPPLY AIR MOTORS.
- EXISTING SQUARE D 30A 240V FUSIBLE DISCONNECT SWITCH WITH 20A FUSES TO BE REMOVED, CURRENTLY SERVING AHU-34 RETURN AIR MOTORS.
- DISCONNECT ALL POWER CONNECTIONS TO EXISTING AHU-34.
- 240V RATED, 60A 3 POLE FUSIBLE DISCONNECT SWITCH FOR NEW AHU-34. FUSE PER THE NAMEPLATE OF THE UNIT. CIRCUIT TO NEW 3 POLE, 60 AMP BREAKER LOCATED IN EXISTING PANEL 'P3' WITH 3-6AWG, 1-6 AWG EG IN 1" CONDUIT.
- PROVIDE NEW 3 POLE, 60 AMP BREAKER IN EXISTING SQUARE D PANEL 'P3' TO POWER NEW AHU-34.
- DISCONNECT POWER FROM EXISTING RETURN FAN AND PROTECT FOR REUSE WITH NEW RETURN FAN.
- RECONNECT EXISTING CIRCUIT FROM DEMOLISHED RETURN FAN TO NEW RETURN FAN. MAKE ALL FINAL ELECTRICAL CONNECTIONS.

CONSULTANTS:		PROJECT MANAGER:		Project Number 2013121	Scale 1/8" = 1'-0"	Drawing Title ELECTRICAL PLANS AHU-4	Project Title REPLACE AIR HANDLING UNITS 3, 14, & 34	VA Project Number 246-13-C-0106	Office of Facilities Management  Department of Veterans Affairs
						Approved: Project Director	Location 2300 RAMSEY STREET, FAYETTEVILLE, NC 28301	Building Number 1 AND 3	
Amended Per Owner's Comments No Rev Clouds 10/17/2014						Date 08/28/2014	Checked JKM	Drawn JKM	
Revisions									

100% CONSTRUCTION DOCUMENTS