INSTALL PER UL SYSTEM W-L-1054
USE HILTI FS-ONE MAX FIRESTOP SEALANT

METAL PIPE	
TYPE	MAX. DIA.
STEEL PIPE (SCH. 10 OR HEAVIER)	30"
CAST IRON PIPE	30"
COPPER PIPE	6"
STEEL CONDUIT	6"
EMT	4"

1 M.4.1 METAL PIPE THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
NOT TO SCALE

INSTALL PER UL SYSTEM W-L-1389
USE HILTI FS-ONE MAX FIRESTOP SEALANT

METAL PIPE	
TYPE	MAX. DIA.
STEEL PIPE (SCH. 5 OR HEAVIER)	2"
STEEL CONDUIT	2"
EMT	2"

2 M.4.1 MULTIPLE METAL PIPES THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
NOT TO SCALE

ATTACH COLLAR WITH HILTI TOGGLER BOLTS

INSTALL PER UL SYSTEM W-L-2078
USE HILTI FS-ONE MAX FIRESTOP SEALANT AND CP 643N OR CP 644 FIRESTOP COLLAR

PLASTIC PIPE	
TYPE	MAX. DIA.
PVC PIPE (SCH. 40) (CELLULAR OR SOLID CORE)	10"
CPVC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM ONLY)	10"
ABS PIPE (SCH. 40) (CELLULAR OR SOLID CORE)	6"
FRPP PIPE (SCH. 40)	6"
PVDF PIPE (SDR 32.5)	4"

3 M.4.1 PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
NOT TO SCALE

SLEEVE OPTIONAL

INSTALL PER UL SYSTEM W-L-2128
USE HILTI FS-ONE MAX FIRESTOP SEALANT

PLASTIC PIPE	
TYPE	MAX. DIA.
PVC PIPE (SCH. 40) (CELLULAR OR SOLID CORE)	2"
CPVC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM ONLY)	2"

4 M.4.1 PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
NOT TO SCALE

INSTALL PER UL SYSTEM W-L-5028
USE HILTI FS-ONE MAX FIRESTOP SEALANT

METAL PIPE	
TYPE	MAX. DIA.
STEEL PIPE (SCH. 40 OR HEAVIER)	4"
COPPER PIPE OR TUBING	2"

AB/PVC INSULATION

5 M.4.1 METAL PIPE WITH AB/PVC INSULATION THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
NOT TO SCALE

INSTALL PER UL SYSTEM W-L-5029
USE HILTI FS-ONE MAX FIRESTOP SEALANT

METAL PIPE	
TYPE	MAX. DIA.
STEEL PIPE (SCH. 10 OR HEAVIER)	12"
CAST OR DUCTILE IRON PIPE	12"
COPPER PIPE OR TUBING	6"

GLASS FIBER OR CALCIUM SILICATE INSULATION

6 M.4.1 METAL PIPE WITH GLASS FIBER OR CALCIUM SILICATE INSULATION THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
NOT TO SCALE

INSTALL PER UL SYSTEM W-L-7042
USE HILTI FS-ONE MAX, CP 601S, OR CP 606 FIRESTOP SEALANT

METAL DUCT	
TYPE	MAX. DIA.
SPIRAL WOUND SHEET METAL DUCT (MIN. 24 GA.)	20"
SHEET METAL DUCT (MIN. 28 GA.)	12"

7 M.4.1 METAL DUCT (WITHOUT DAMPER) THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
NOT TO SCALE

STEEL RETAINING ANGLES

INSTALL PER UL SYSTEM W-L-7155
USE HILTI FS-ONE MAX, CP 606, OR CFS-S SIL GG FIRESTOP SEALANT

METAL DUCT
MAX. 100" X 100"

8 M.4.1 METAL DUCT THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
NOT TO SCALE

STEEL RETAINING ANGLES

INSTALL PER UL SYSTEM W-L-7156
USE HILTI FS-ONE MAX FIRESTOP SEALANT

METAL DUCT
100" X 100"

GLASS FIBER INSULATION

9 M.4.1 METAL DUCT WITH GLASS FIBER INSULATION THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
NOT TO SCALE

INSTALL PER UL SYSTEM W-L-8079
USE HILTI FS-ONE MAX FIRESTOP SEALANT

10 M.4.1 MULTIPLE PENETRATIONS THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
NOT TO SCALE

Penetrations in or through fire resistance rated assemblies shall be protected by an approved penetration firestop system.

Penetrations of ducts in fire resistant assemblies without dampers shall be Protected per IBC Sec. 713. Ducts that are protected with dampers shall Also comply with Sec. 716.

Through penetrations and membrane penetrations in fire walls, fire Barrier Walls, and fire resistance rated horizontal assemblies shall be protected by Firestop systems.

1) 716.5.2 All penetrations through 1 hour assemblies shall be solid ducting of a min of 26 gauge duct and do not require fire dampers per IBC sec 216.5.2 exception 3 with fully automatic sprinkled building. We have avoided any penetrations with any fire rated assemblies greater than 1 hour

2) 716.5.4.1 Corridors , again we will be installing solid duct not less than 26 gauge. 716.6.2.1 Ceiling radiation dampers ASTM E 119 with solid duct not less than 26 gauge.

3) If Conditions prevent us from ducting them with 26 gauge pipe we will need to install per ASTM E 119. Our intent is to hard duct all terminations for 1 hour rated assemblies.

1

JOB NUMBER:

DRAWN:

CHECKED:

ISSUE DATE:

REVISIONS:

CONTENTS:

MECHANICAL PENETRATIONS GYPSUM WALL 1 HR.

SHEET NAME:

M.4.1

SHEET NUMBER:

Reviewed for Code Compliance
Inspections Division
Date: 09/21/17