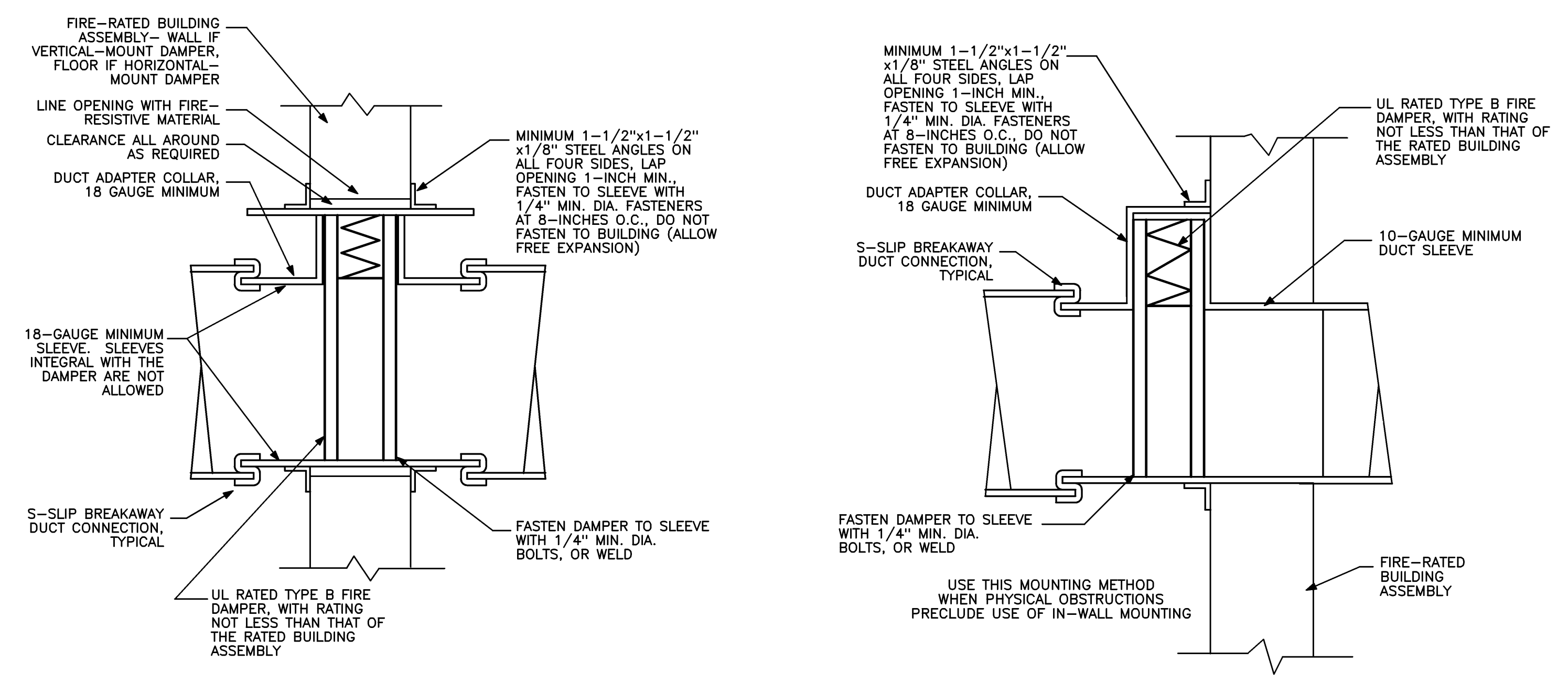


LEGEND

- WR WALL REGISTER
- CD CEILING DIFFUSER
- ER EXHAUST REGISTER
- TG TRANSFER GRILLE
- VD VOLUME DAMPER
- MD MOTORIZED DAMPER
- FD FIRE DAMPER
- EA EACH
- MBH 1000 BRITISH THERMAL UNITS PER HOUR
- AFB ABOVE FINISHED FLOOR
- CFM CUBIC FEET PER MINUTE
- VAV-1 VARIABLE AIR VOLUME BOX
- RH-1 REHEAT COIL
- CUH-1 CABINET UNIT HEATER
- UH-1 UNIT HEATER
- RTU-1 ROOFTOP UNIT
- UV-1 UNIT VENTILATOR
- RAD RADIATION
- SF-1 SUPPLY FAN
- EF-1 EXHAUST FAN
- PTHP-1 PACKAGED TERMINAL HEAT PUMPS
- DN DOWN
- RR RETURN REGISTER
- OED OPEN END DUCT
- BOD BOTTOM OF DUCT
- AFB ABOVE FINISHED FLOOR
- (A) TYP & CAPACITY OF FINN TUBE RADIATION
- FL LENGTH OF FINN TUBE RADIATION
- F.A.I. FRESH AIR INTAKE
- (T) THERMOSTAT/SENSOR
- (FLEX) FLEXIBLE DUCT EQUIPMENT
- (90) 90 DEG ELBOW WITH TURNING VANES, PROVIDE TURNING VANES AT ALL MITERED ELBOWS
- (AL) ACOUSTICALLY LINED DUCT
- (RA) RETURN AIR DUCT
- (SA) SUPPLY AIR DUCT
- S (SUPPLY) R (RETURN) E (EXHAUST) T (TRANSFER) SUPPLY DIFFUSER (TYPE 2)
- (DIFF) DIFFUSER DESCRIPTION (SEE REG., GRILLES & DIFF SCHEDULE)
- (Q) QUANTITY
- (400) 400 CFM EA
- (1) SECTION NUMBER 1 ON DWG M-1

GENERAL NOTES

1. MECHANICAL CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE WORK OF ALL OTHER TRADES.
2. ALL DUCTWORK AND MECHANICAL EQUIPMENT SHOWN DIAGRAMMATICALLY. DETERMINE EXACT LOCATIONS IN FIELD.
3. COORDINATE LOCATION OF ALL NEW ROOFTOP EQUIPMENT, LOCATED ON ROOF, WITH ROOF JOIST.
4. THE MECHANICAL CONTRACTOR SHALL NOT FABRICATE ANY DUCTWORK UNTIL HE HAS COORDINATED WITH ALL OTHER TRADES TO INSURE THAT THE DUCTWORK CAN BE INSTALLED WITH THE SIZES INDICATED ON THE DRAWINGS AND IN THE LOCATIONS SHOWN ON THE DRAWINGS.
5. REFER TO REFLECTED CEILING PLAN ON ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF CEILING DIFFUSERS AND REGISTERS.
6. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF LOUVERS AND ROOF OPENINGS. COORDINATE ALL DIMENSIONS WITH GENERAL CONTRACTOR.
7. ALL LOUVER DIMENSIONS SHALL BE CLOSELY COORDINATED WITH THE WORK OF ALL OTHER TRADES.
8. PROVIDE VOLUME DAMPERS SO THAT EVERY REGISTER, GRILLE, AND DIFFUSER (SUPPLY, RETURN, AND EXHAUST) CAN BE INDIVIDUALLY BALANCED. RETURN DAMPERS SHALL BE LOCATED AS FAR AWAY FROM REGISTERS, GRILLES, AND DIFFUSERS AS POSSIBLE TO MINIMIZE NOISE. VOLUME DAMPERS SHALL BE LOCATED ABOVE SUSPENDED CEILINGS WHEREVER POSSIBLE AND SHALL BE UNOBSTRUCTED AND EASILY ACCESSIBLE FOR THE BALANCING CONTRACTOR. CONTRACTOR SHALL VERIFY INSTALLATION OF EXISTING VOLUME DAMPERS AT ALL BRANCHES IN EXISTING SUPPLY DUCT. CONTRACTOR SHALL INSTALL NEW VOLUME DAMPERS WHERE REQUIRED. IN LOCATIONS WHERE VOLUME DAMPERS CANNOT BE LOCATED ABOVE SUSPENDED CEILINGS AND MUST BE LOCATED ABOVE GYPSBOARD CEILINGS, PROVIDE ACCESS PANELS AS SPECIFIED AND NOTIFY THE ARCHITECT VERBALLY AND IN WRITING OF ALL SUCH LOCATIONS. ACCESS PANELS SHALL NOT BE INSTALLED WITHOUT PERMISSION FROM THE ARCHITECT.
9. PROVIDE SINGLE THICKNESS TURNING VANES AT ALL 90 DEGREE ELBOWS IN ALL SUPPLY DUCTWORK.
10. FLEXIBLE DUCT WORK IS NOT ALLOWED IN NEGATIVE PRESSURE SYSTEMS. DO NOT USE FLEXIBLE DUCTWORK IN RETURN AND EXHAUST SYSTEMS. WHERE FLEXIBLE DUCT IS USED, LENGTHS SHALL NOT EXCEED 5'-0".
11. ALL DUCTWORK VISIBLE THROUGH CEILING OPENINGS, DUCT OPENINGS, REGISTERS, GRILLES, AND DIFFUSERS SHALL BE PAINTED BLACK.
12. ALL FRESH AIR AND EXHAUST AIR PLENUMS SHALL HAVE FLOOR PITCHED TO DRAIN THROUGH LOUVER.
13. VERIFY EXISTING DUCT SIZES PRIOR TO FABRICATION OF NEW DUCTWORK. IF DISCREPANCIES EXIST, NOTIFY THE ENGINEER.
14. FOR ALL NEW HVAC UNITS, SUPPLY AND RETURN DUCT MAINS OUT OF UNITS SHALL DROP DOWN AS CLOSE TO CEILING AS POSSIBLE (COORDINATE WITH LIGHTING, SPRINKLER, & OTHER TRADES) BEFORE FIRST RADIUS ELBOW FITTING IS INSTALLED. THE INTENT IS TO PROVIDE THE LONGEST RUN OF DUCT POSSIBLE OUT OF THE HVAC UNITS SO THAT STATIC PRESSURE LOSS IS MINIMIZED.
15. THE CONTRACTOR SHALL VISIT THE BUILDING SITE PRIOR TO BIDDING TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND TO TAKE MEASUREMENTS AS NECESSARY SO THAT HE CAN PROPERLY COMPLETE ALL WORK ASSOCIATED WITH THE DESIGN INTENT OF THESE DOCUMENTS.
16. ALL DUCTWORK AND PIPING PENETRATIONS THROUGH MECHANICAL ROOM WALLS AND FLOORS SHALL BE SEALED WITH FIRE CAULKING.



IN-WALL MOUNTING

ON-WALL MOUNTING

- NOTES:**
1. INSTALLATION & MATERIALS SHALL CONFORM WITH U.L. & N.F.P.A. REQUIREMENTS
 2. PROVIDE ACCESS OPENING WITH AIRTIGHT COVER PLATE SECURED AND SEALED WITH HIGH VELOCITY DUCT SEALER AND TAPE. INSTALL IN ACCESSIBLE LOCATION FROM CLG.

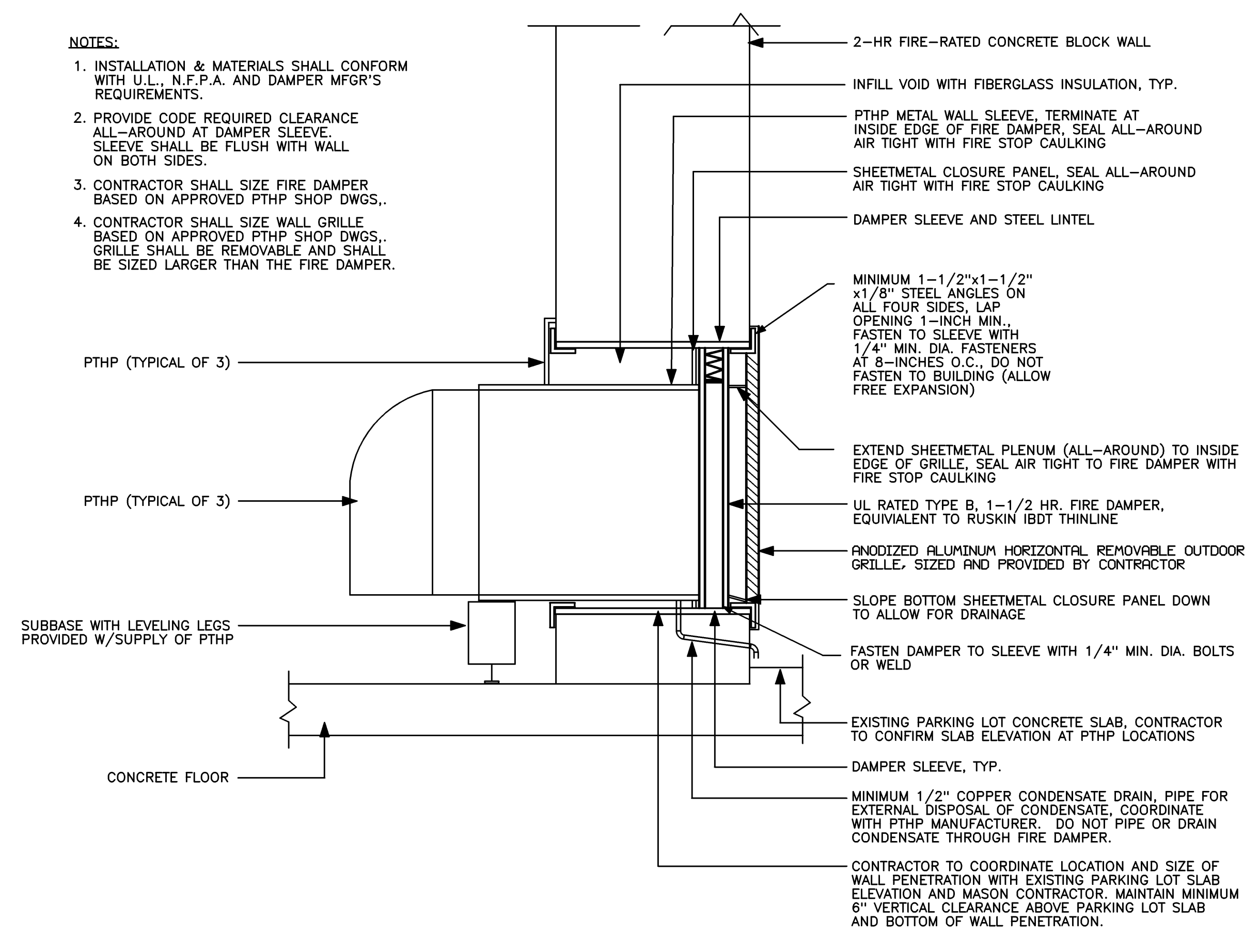
NO SCALE

FIRE DAMPER MOUNTING DETAILS

NO SCALE

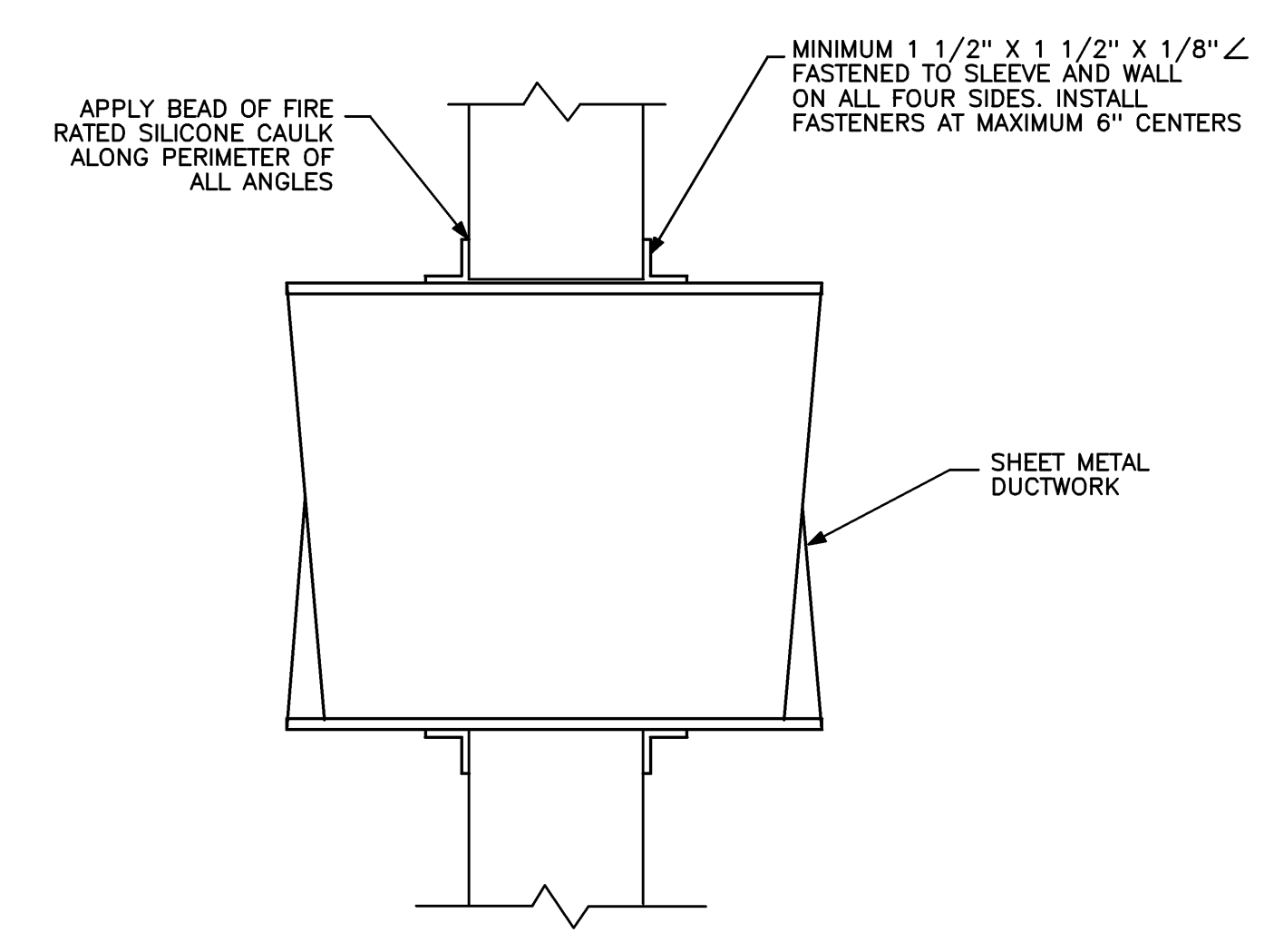
NOTES:

1. INSTALLATION & MATERIALS SHALL CONFORM WITH U.L., N.F.P.A. AND DAMPER MFGR'S REQUIREMENTS.
2. PROVIDE CODE REQUIRED CLEARANCE ALL-AROUND AT DAMPER SLEEVE. SLEEVE SHALL BE FLUSH WITH WALL ON BOTH SIDES.
3. CONTRACTOR SHALL SIZE FIRE DAMPER BASED ON APPROVED PTHP SHOP DWGS..
4. CONTRACTOR SHALL SIZE WALL GRILLE BASED ON APPROVED PTHP SHOP DWGS.. GRILLE SHALL BE REMOVABLE AND SHALL BE SIZED LARGER THAN THE FIRE DAMPER.



FIRE DAMPER AT PACKAGED TERMINAL HEAT PUMP DETAIL

NO SCALE



DUCT PENETRATION DETAIL AT ONE HOUR FIRE RATED PARTITIONS

NO SCALE

Mark	Date	Description
-	04-28-05	ISSUED FOR BID
-	04-11-05	100% REVIEW
-	01-10-05	DD REVIEW
Issue Dates		

Drawing Status

LEGEND, NOTES AND DETAILS

PA / PE: **CG** Drawn By: **KCW**
 Drawing Number

M00.1