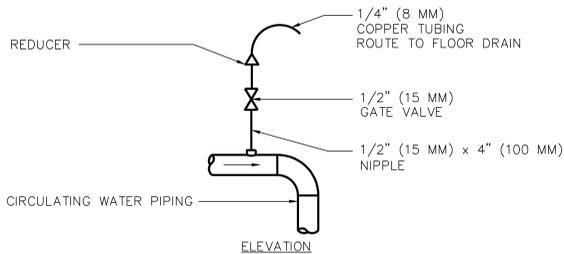


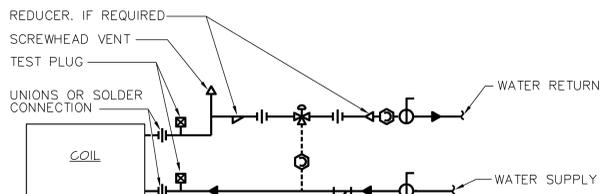
1 PIPE/DUCT PENETRATION OF FIRE/SMOKE BARRIERS

NOTE:
1. APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBRANES, IN ACCORDANCE WITH NFPA 101. REFER TO SPECIFICATIONS SECTION 07270, FIRE STOPPING SYSTEMS.



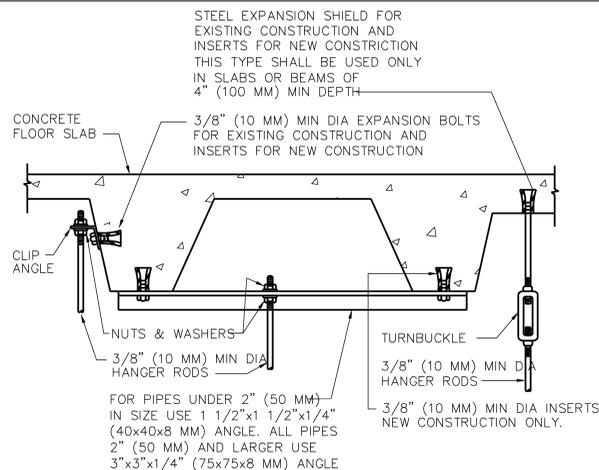
2 TYPICAL AIR VENT

NOTES:
1. VENT ALL HIGH POINTS INDICATED ABOVE.
2. IF AUTOMATIC AIR VENTS ARE USED, PIPE DISCHARGE TO DRAIN

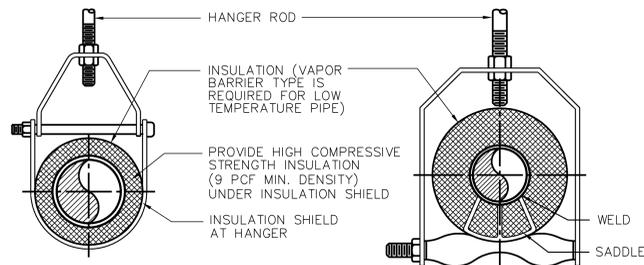


3 TYPICAL PIPING CONNECTIONS TO VAV BOX REHEAT COIL

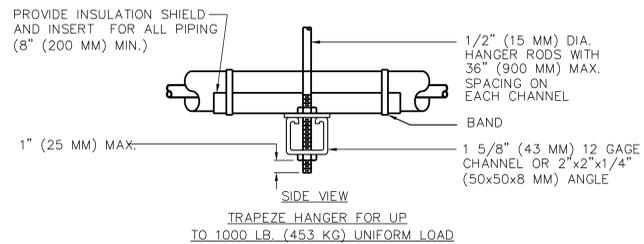
NOTES:
A STRAIGHT-THRU MODULATING CONTROL VALVE IS SHOWN BY SOLID PIPING. WHEN CONTROL DIAGRAM INDICATES THAT A THREE-WAY MODULATING CONTROL VALVE IS REQUIRED, PROVIDE DASHED PIPING AND FITTINGS ALSO.



5 TYPICAL METHOD OF SECURING HANGER RODS IN CONCRETE SLABS AND BEAMS

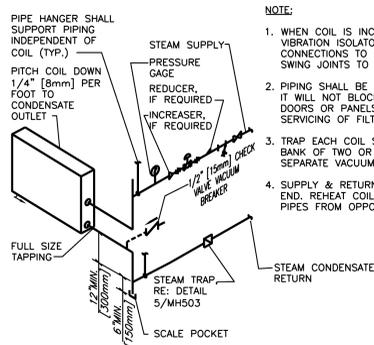


6 TYPICAL PIPE HANGERS



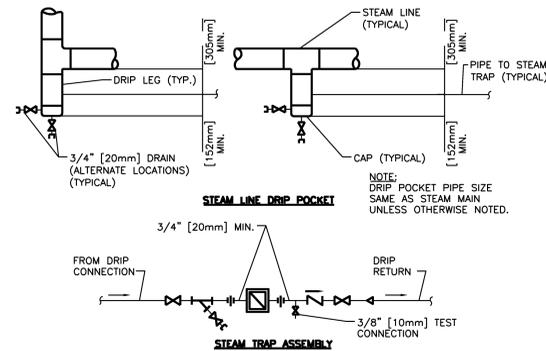
		MAXIMUM PIPE/TUBING SUPPORT SPACING																							
NOM. SIZE	IN. (MM)	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24						
PIPE	FT (M)	(20)	(25)	(32)	(40)	(50)	(65)	(75)	(100)	(125)	(150)	(200)	(250)	(300)	(350)	(400)	(450)	(500)	(600)						
		7	7	7	9	10	11	12	14	16	17	19	22	23	25	27	28	30	32						
		(2.1)	(2.1)	(2.1)	(2.7)	(3.0)	(3.4)	(3.7)	(4.1)	(4.9)	(5.2)	(5.8)	(6.7)	(7.0)	(7.6)	(8.2)	(8.5)	(9.1)	(9.6)						
TUBING	FT (M)	5	6	7	8	8	9	10	12	13	14	16	-	-	-	-	-	-	-						
		5	6	7	8	8	9	10	12	13	14	16	-	-	-	-	-	-	-						
		(1.8)	(2.1)	(2.4)	(2.4)	(2.7)	(3.0)	(3.7)	(4.0)	(4.1)	(4.9)	-	-	-	-	-	-	-	-						

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.



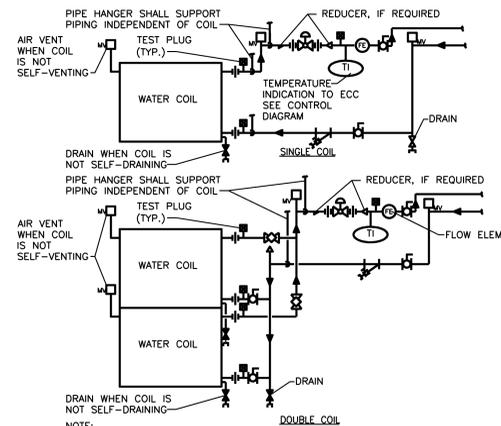
7 STEAM COIL - PIPING CONNECTIONS

NOTE:
1. WHEN COIL IS INCLUDED IN CASING MOUNTED ON VIBRATION ISOLATOR UNITS, THE RUNOUT PIPING FOR CONNECTIONS TO COIL SHALL BE INSTALLED WITH SWING JOINTS TO ALLOW FOR THE VIBRATION.
2. PIPING SHALL BE INSTALLED IN SUCH MANNER THAT IT WILL NOT BLOCK THE SWING OR USE OF ACCESS DOORS OR PANELS; NEITHER SHALL IT BLOCK THE SERVICING OF FILTERS, VALVES, OR EQUIPMENT.
3. TRAP EACH COIL SEPARATELY WHEN INSTALLED IN A BANK OF TWO OR MORE HIGH. ALSO PROVIDE SEPARATE VACUUM BREAKER FOR EACH COIL.
4. SUPPLY & RETURN PIPES ARE SHOWN FROM SAME END. REHEAT COIL MAY HAVE SUPPLY & RETURN PIPES FROM OPPOSITE ENDS.



8 STEAM LINE DRIP POCKET AND STEAM TRAP ASSEMBLY

NTS



9 WATER COILS - PIPING CONNECTIONS

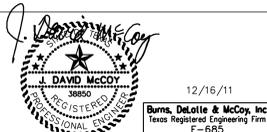
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NOTE:
1. WHEN COIL IS INCLUDED IN CASING MOUNTED ON VIBRATION ISOLATORS THE FIRST 2 HANGERS FOR EACH PIPE SHALL BE SPRING & NEOPRENE TYPE, TYPE "H" FOR 4" [100mm] PIPE & SMALLER, TYPE "H-P" FOR 5" [125mm] PIPE & LARGER.
2. PIPING SHALL BE INSTALLED IN SUCH MANNER THAT IT WILL NOT BLOCK THE SWING OR USE OF ACCESS DOORS OR PANELS; NEITHER SHALL IT BLOCK THE SERVICING OF FILTERS, VALVES, OR EQUIPMENT.
3. THE FLOW ELEMENT MAY BE INSTALLED IN THE SUPPLY PIPING IF THE REQUIRED MINIMUM UPSTREAM AND DOWNSTREAM DIMENSIONS CANNOT BE OBTAINED IN THE RETURN PIPING.

"ISSUED FOR BIDS" - FULLY SPRINKLERED

SCHEMATIC DESIGN SUBMISSION	08/02/10
DESIGN DEVELOPMENT SUBMISSION	09/03/10
CONSTRUCTION DOCUMENT SUBMISSION	11/22/10
ISSUE FOR BIDS	12/19/11
Revisions	Date

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CIVIL ENGINEERS

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PINNACLE STRUCTURAL
PROTECTION DEVELOPMENT INC.
BREWER AND ESCALANTE

Drawing Title

MECHANICAL DETAILS

Approved Project Director

Project Title

BUILDING 11 ADDITION AND INTERIOR RENOVATIONS

Location

WACO, TEXAS

Date

19 DEC 2011

Checked

FP

Drawn

JKL

Project Number

674A4-C51-516

Building Number

11

Drawing Number

MH502

Dwg. of

Office of Construction and Facilities Management

