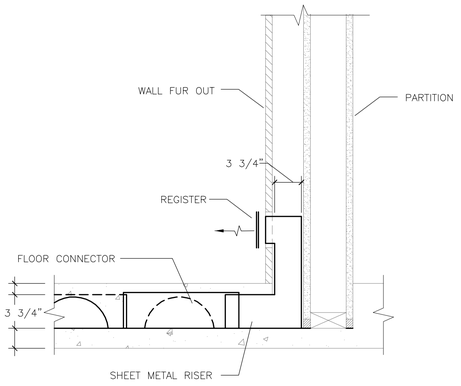
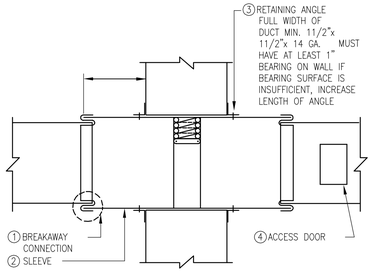


AIRFLOOR SIDEWALL GRILLE DETAIL

NOT TO SCALE



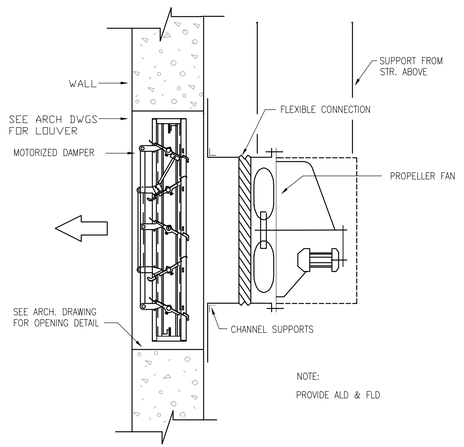
IN-DUCT MOUNTED FIRE DAMPER

NOTE: THIS INSTALLATION DETAIL IS TYPICAL FOR ALL TYPES OF DAMPERS (A-B-C). FOR TYPE B & C DAMPERS, THE SHUTTER SHALL BE OUTSIDE OF AIR STREAM.

1. BREAKAWAY CONNECTION SHALL BE SIMILAR TO UL555 SEC. 14.4 AND NFPA 90A APPROVED TYPES
2. SLEEVE MAY BE DUCT GAUGE IF UL555 CONNECTIONS ARE USED GAUGE SHALL BE #16 UP TO 36Wx24H OR 14 GA. FOR LARGER SIZES.
3. SHEET METAL CONTRACTOR SHALL FURNISH CONSTRUCTION CONTRACTOR WITH OPENING SIZES, ALL OPENINGS SHALL BE PACKED WITH SUITABLE FIRE RETARDANT MATERIAL.
4. ACCESS DOOR MUST BE LOCATED AS REQUIRED TO ENABLE RESETTING OF DAMPER. MORE THAN ONE DOOR MAY BE REQUIRED ON LARGE DUCTS.

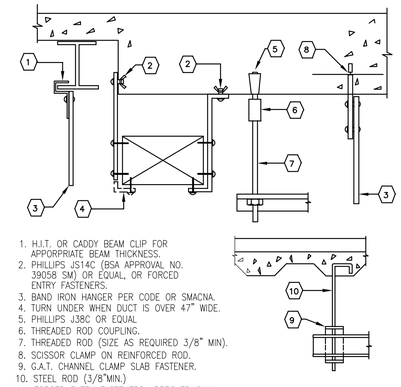
FIRE DAMPER

FOR DUCT SYSTEMS WHICH ARE NOT PART OF SMOKE EXHAUST SYSTEM AND WITHOUT NFPA BOOT.



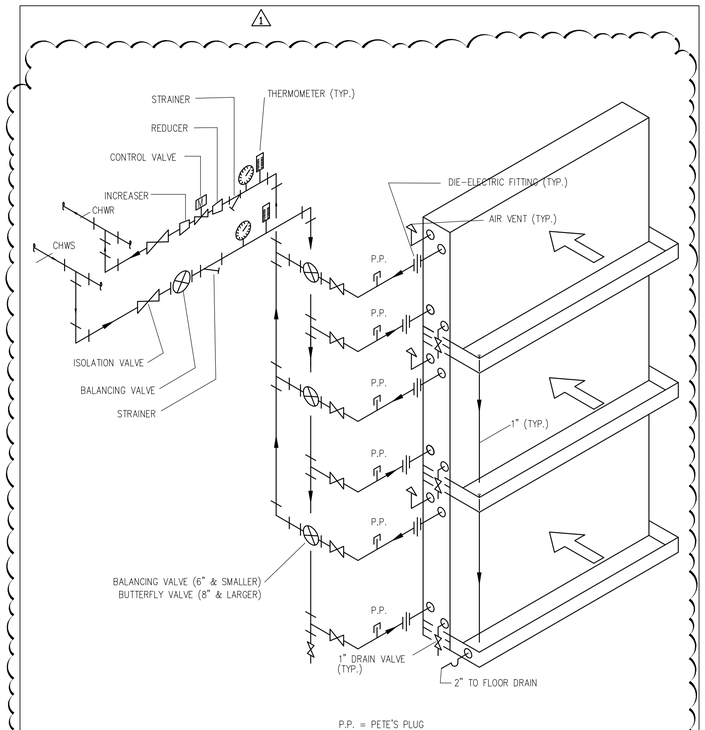
WALL EXHAUST FAN DETAIL

NOT TO SCALE



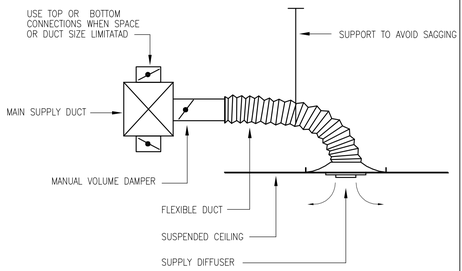
METHOD OF HANGING DUCTWORK

NOT TO SCALE



TYPICAL MULTIPLE CHILLED WATER COOLING COIL PIPING DETAIL

N.T.S.

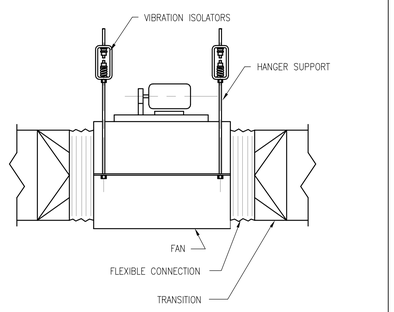


NOTE :

1. LENGTH OF FLEXIBLE DUCTS SHALL NOT EXCEED 5'-0", INCLUDING ELBOWS.

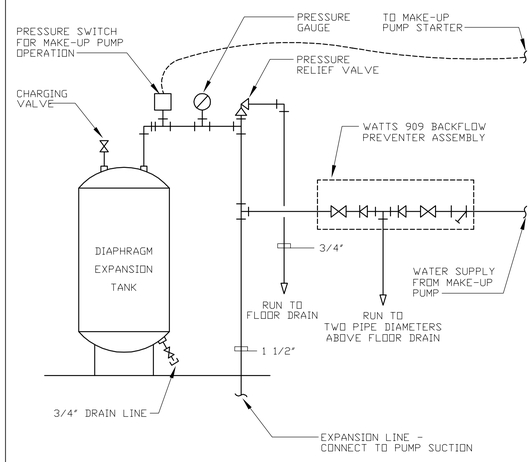
TYPICAL SUPPLY DIFFUSER CONNECTION

NOT TO SCALE



IN-LINE FAN SUPPORT DETAIL

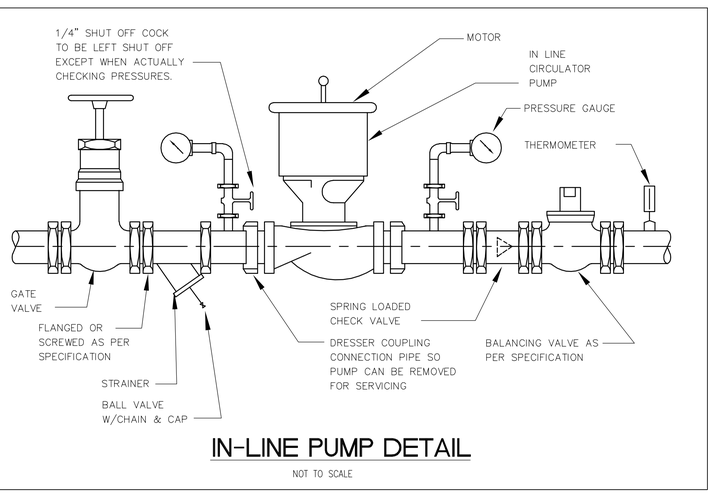
NOT TO SCALE



NOTE:

1. USE ONLY WHERE DOMESTIC WATER PRESS IS HIGHER THAN INITIAL TANK CHARGE PRESS AND WHERE DIRECT DOMESTIC WATER CONNECTION IS ALLOWED.

COMPRESSION TANK DETAIL DIAPHRAGM TYPE



IN-LINE PUMP DETAIL

NOT TO SCALE

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218-722-1227 Fax: 218-722-1052
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DULUTH AIRPORT AUTHORITY

DULUTH INTERNATIONAL AIRPORT
DULUTH, MN

NEW PASSENGER TERMINAL

CONSULTANTS

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BNP ASSOCIATES INC.
101 East Ridge Office Park, Suite 103, Danbury CT 06810
TEL: (203) 792-3000 / FAX: (203) 792-4900

Landscaping Consultants:
APPOLD DESIGN
2432 East First Street, Duluth MN 55812
TEL: (218) 591-5079

ENGINEER CERTIFICATION

I hereby certify that the engineerinhg plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Douglas C. Mass

Signature:

Date: 08/16/10
Reg. No.: 21067

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10
	100% REVIEW	12.17.10
	BID PACKAGE 2A	1.24.11
1	BP2A ADDENDUM 2	2.25.11

DATE ISSUED: 02-25-11
REVIEWED BY: MXB
DRAWN BY: MXB
DESIGNED BY: MXB

AEP PROJECT NUMBER
213-1882-091

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SHEET TITLE

MECHANICAL DETAILS III

SHEET NUMBER

M503

BID PACKAGE 2A
ADDENDUM 2

Drawing: I:\5038.00 Duluth Airport\9.0 CADD\(9.4) HVAC\Dwgs\M503_M503.dwg Plotted on: 2/25/2011 11:05 AM Plotted by: Brandt, Mark