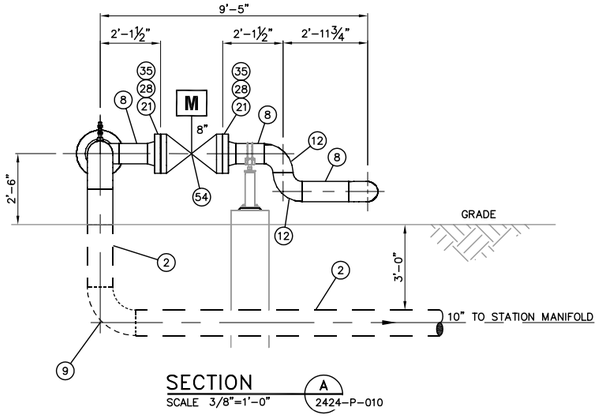
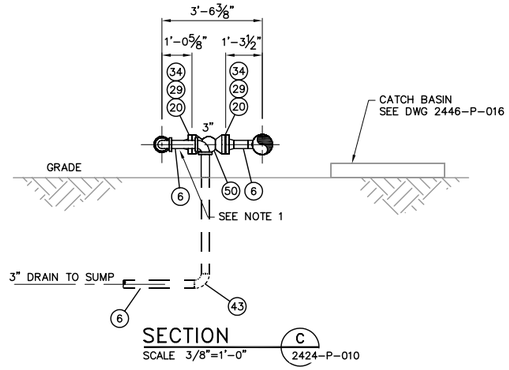
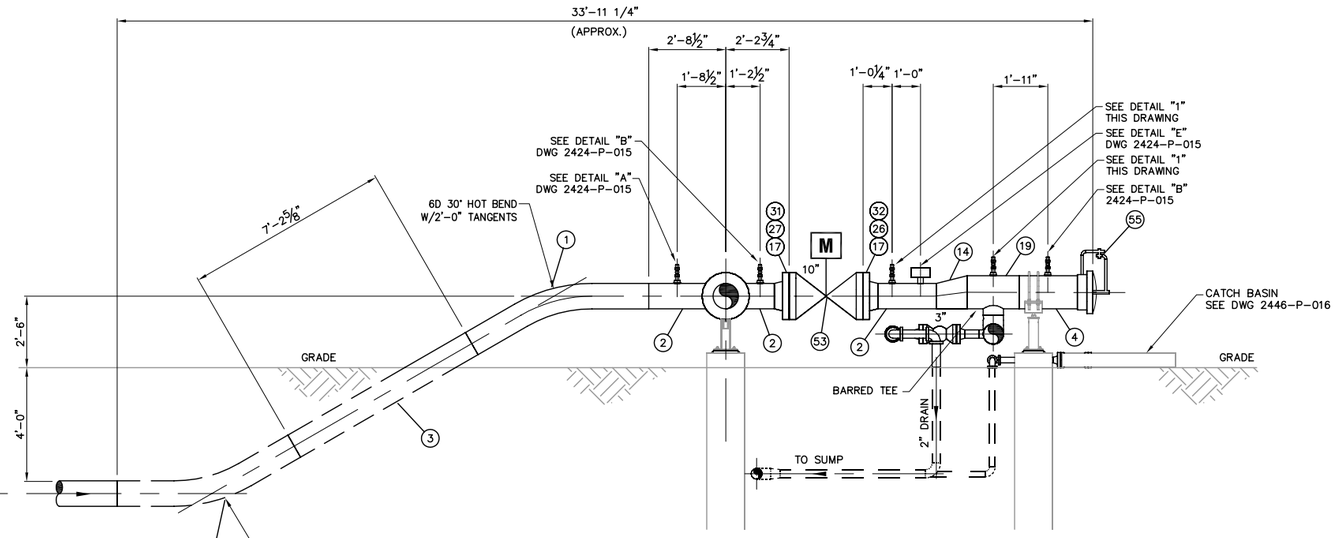


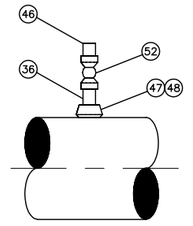
SECTION A
SCALE 3/8"=1'-0" 2424-P-010



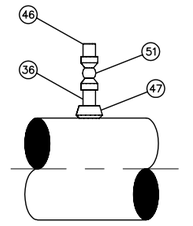
SECTION C
SCALE 3/8"=1'-0" 2424-P-010



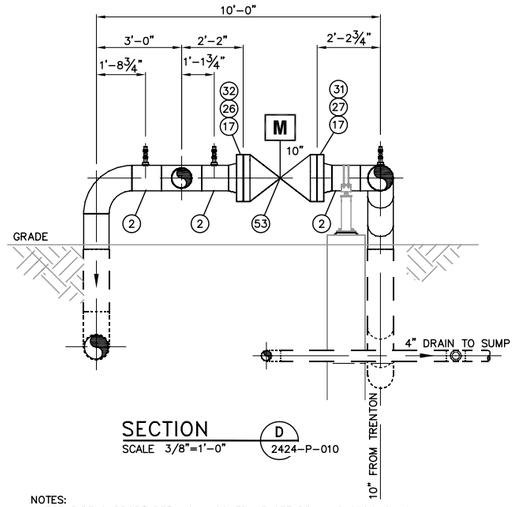
SECTION B
SCALE 3/8"=1'-0" 2424-P-010



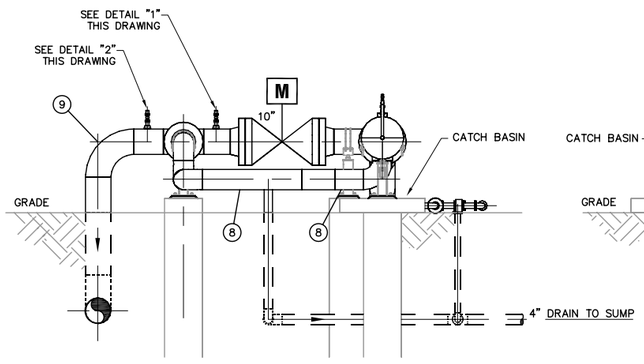
DETAIL 1
SCALE N.T.S.
(3 PLCS)



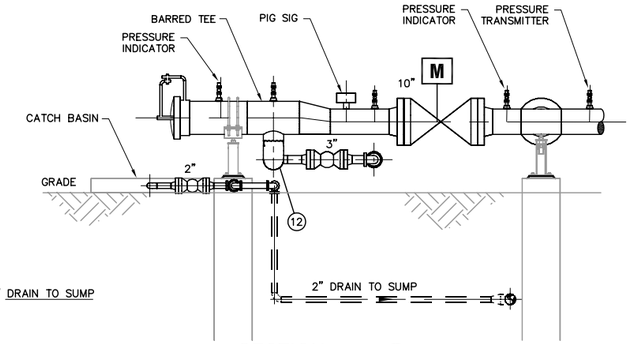
DETAIL 2
SCALE N.T.S.
(1 PLCS)



SECTION D
SCALE 3/8"=1'-0" 2424-P-010



SECTION E
SCALE 3/8"=1'-0" 2424-P-010



SECTION F
SCALE 3/8"=1'-0" 2424-P-010

NOTES:
1. FOR PIPE SUPPORT DETAILS & SCHEDULE SEE DRAWING 2424-S-101.

BILL OF MATERIAL

MARK	QTY	SIZE	DESCRIPTION	LENGTH
47	2	10"x1"	THRED-O-LET, ASTM A-105, FNPT, 3000#, GRADE B	
48	1	14"x1"	THRED-O-LET, ASTM A-105, FNPT, 3000#, GRADE B	
49	1	2"	BALL VALVE, ANSI 600, RFFE , FULL PORT, 316 SS BALL AND TRIM, PTFE SEATS, API 6D, FIRE SAFE DESIGN, SN 642740	11 1/2"
50	1	3"	BALL VALVE, ANSI 600, RFFE , FULL PORT, 316 SS BALL AND TRIM, PTFE SEATS, API 6D, FIRE SAFE DESIGN, SN 642099	1'-2"
51	1	1"	BALL VALVE, SERIES 800 WOG 3000# , FNPT , FULL PORT, 316 SS BALL AND TRIM, SS BODY, PTFE SEATS, API 6D OR ASME B16.34, FIRE SAFE DESIGN	2 1/8"
52	3	1"	BALL VALVE, SERIES 800 WOG 3000# , FNPT , REDUCED PORT, 316 SS BALL AND TRIM, SS BODY, PTFE SEATS, API 6D OR ASME B16.34, FIRE SAFE DESIGN	2 1/8"
53	2	10"	GATE VALVE, ANSI 600, RFFE , FULL CONDUIT, SLAB GATE, FABRICATED STEEL BODY, C.S. ENP GATE, VITON SEATS, API-6D, FIRE SAFE DESIGN	2'-7"
54	1	8"	GATE VALVE, ANSI 600, RFFE , FULL CONDUIT, SLAB GATE, FABRICATED STEEL BODY, C.S. ENP GATE, VITON SEATS, API-6D, FIRE SAFE DESIGN	2'-2"
55	1	14"	CLOSURE, YALE, FIG. 500, ANSI 600	

BILL OF MATERIAL

MARK	QTY	SIZE	DESCRIPTION	LENGTH
1	2	10"	HOT BEND; API 5L, 30 DEG BEND, .307 WT., X-52, W/ 2'-0" TANGENTS	6'-7 3/8"
2	1	10"	PIPE, API 5L, STD, GRADE B, ERW, DRL, PE	66'-6 3/8"
3	1	10"	PIPE; API 5L, .307 WT., X-52, ERW, DRL	7'-2 5/8"
4	1	14"	PIPE, API 5L, STD, X-42, ERW, DRL, PE	2'-0"
5	1	2"	PIPE, API 5L, XH, GRADE B, SMLS, DRL, PE	11'-9 5/8"
6	1	3"	PIPE, API 5L, STD, GRADE B, SMLS, DRL, PE	4'-0 3/8"
7	1	4"	PIPE, API 5L, STD, GRADE B, SMLS, DRL, PE	16'-7 7/8"
8	1	8"	PIPE, API 5L, STD, GRADE B, SMLS, DRL, PE	8'-1 3/4"
9	2	10"	ELL, 90° LR, ASTM A-234, BUTT WELD, STD WALL, WPB	
10	2	2"	ELL, 90° LR, ASTM A-234, BUTT WELD, STD WALL, WPB	
11	1	4"	ELL, 90° LR, ASTM A-234, BUTT WELD, STD WALL, WPB	
12	4	8"	ELL, 90° SR, BUTT WELD, STD, ASTM A-234 WPHY-42	
13	1	3"	ELL, 90° LR, BUTT WELD, STD, ASTM A-234 WPB	
14	1	14"x10"	REDUCER, ECC., ASTM A-234, BUTT WELD, STD WALL, WPHY-42	
15	1	10"	TEE, ASTM A-234, BUTT WELD, STD WALL, WPB (BARRED WITH 2-1/2"x2" ASTM A36 FLAT STOCK)	
16	2	4"	TEE, ASTM A-234, BUTT WELD, STD WALL, WPB	
17	4	10"	FLG, ANSI 600 RFWN, ASTM A-105, STD WALL, WPB	
18	1	10"x8"	TEE, REDUCING, ASTM A-234, BUTT WELD, STD WALL, WPB	
19	1	14"x8"	TEE, REDUCING, ASTM A-234, BUTT WELD, STD WALL, WPHY-42 (BARRED WITH 2-1/2"x2" ASTM A36 FLAT STOCK)	
20	2	3"	FLG, ANSI 600 RFWN, ASTM A-105, STD WALL, WPB	
21	2	8"	FLG, ANSI 600 RFWN, ASTM A-105, STD WALL, WPB	
22	1	8"x3"	TEE, REDUCING, ASTM A-234, BUTT WELD, STD WALL, WPB	
23	1	4"x2"	REDUCER, CONC., ASTM A-234, BUTT WELD, STD WALL, WPHY-42	
24	1	4"x3"	REDUCER, CONC., ASTM A-234, BUTT WELD, STD WALL, WPHY-42	
25	2	2"	FLG, ANSI 600 RFWN, ASTM A-105, XH, WPB	
26	2	1 1/4"	(16) STUD BOLTS FOR 10" 600LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH	8 1/4"
27	2	1 1/4"	(16) STUD BOLTS FOR 10" 600LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH	10"
28	2	1 1/8"	(12) STUD BOLTS FOR 8" 600LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH	7 1/2"
29	2	3/4"	(8) STUD BOLTS FOR 3" 600LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH	4 3/4"
30	2	5/8"	(8) STUD BOLTS FOR 2" 600LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH	4"
31	2	10"	FLANGE INSULATION KIT	
32	2	10"	GASKET, ANSI 600, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, FLEXITALLIC CGI CENTERING RING, SOLID INNER RING	
33	2	2"	GASKET, ANSI 600, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, FLEXITALLIC CGI CENTERING RING, SOLID INNER RING	
34	2	3"	GASKET, ANSI 600, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, FLEXITALLIC CGI CENTERING RING, SOLID INNER RING	
35	2	8"	GASKET, ANSI 600, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, FLEXITALLIC CGI CENTERING RING, SOLID INNER RING	
36	5	1"	NIPPLE, ASTM A-106, MNPT, SCH. 160, GRADE B TBE	3"
37	1	2"	NIPPLE, ASTM A-106, MNPT, SCH. 160, GRADE B BOE-TOE	6"
38	1	2"	NIPPLE, ASTM A-106, MNPT, SCH. 160, GRADE B BOE-TOE	3'-6 1/2"
39	2	2"	NIPPLE, ASTM A-106, MNPT, SCH. 160, GRADE B TBE	6"
40	1	3"	NIPPLE, ASTM A-106, MNPT, SCH. 160, GRADE B BOE-TOE	6"
41	2	3"	NIPPLE, ASTM A-106, MNPT, SCH. 160, GRADE B TBE	6"
42	2	2"	ELL, 90°, FNPT, 3000#, ASTM A-105, GRADE B	
43	2	3"	ELL, 90°, FNPT, 3000#, ASTM A-105, GRADE B	
44	1	2"	UNION, FNPT, 3000#, ASTM A-105, GRADE B	
45	1	3"	UNION, FNPT, 3000#, ASTM A-105, GRADE B	
46	4	1"	PLUG, ASTM A-106, MNPT, SCH. 160, GRADE B	

NO	REVISION	DATE	APPR	BY
1	ISSUED FOR AS-BUILT	01/31/08	JRW	ADJ
0	ISSUED FOR CONSTRUCTION	05/23/07	JRW	ADJ

ENBRIDGE PIPELINES (ND)

BEAVER LODGE (ND) STATION

10" RECEIVER
SECTIONS AND BILL OF MATERIAL

PROJECT:		
SCALE: AS NOTED	DATE: 02/23/07	DRAWN: TJP
CHECK:	APPR:	DATE:

DWG. NO. 2424-P-011

Rooney Engineering, Inc.
12201 E. Arapahoe Rd.
Centennial, CO 80112
(303) 792-5911