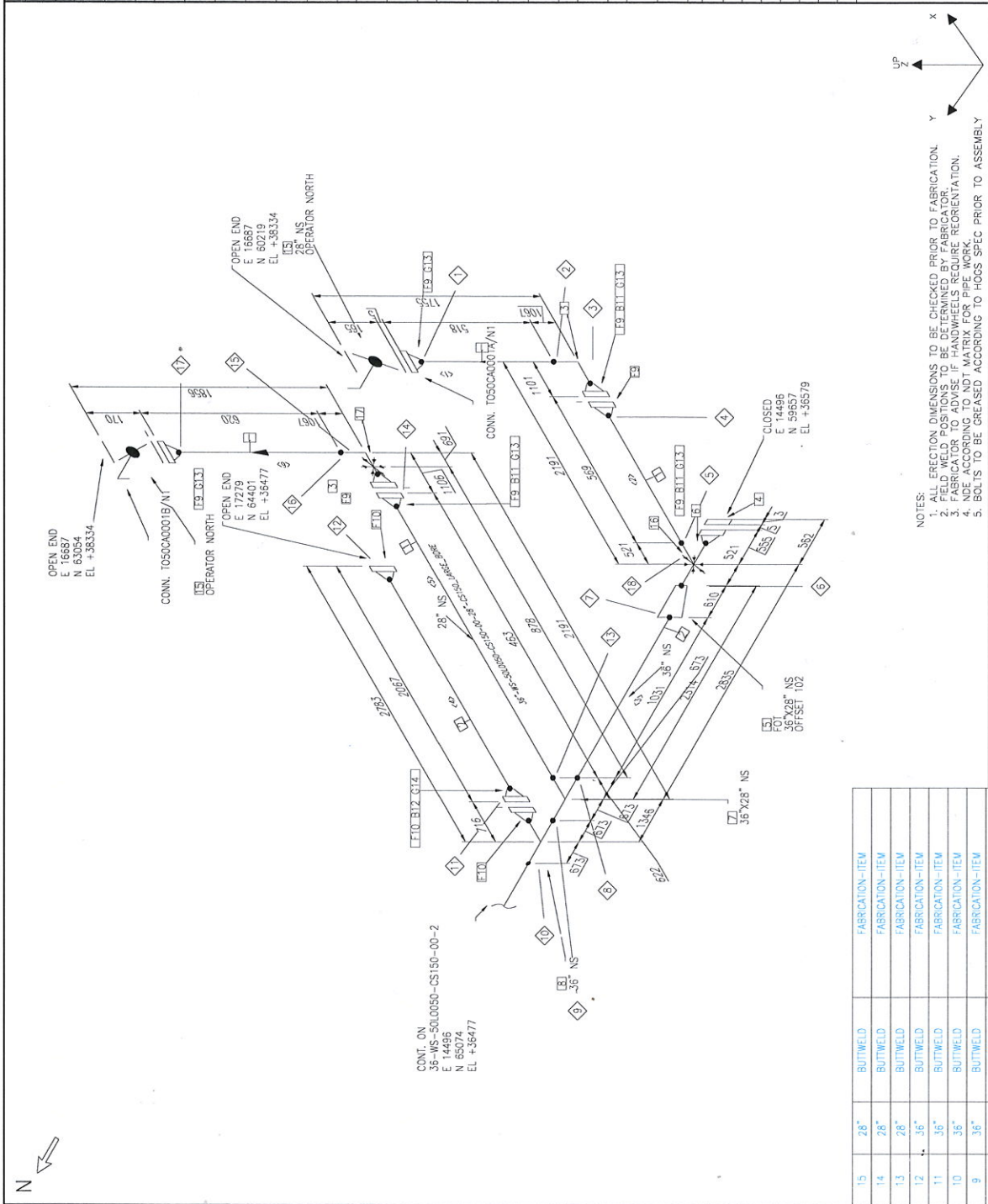


BILL OF MATERIALS				DESCRIPTION	
ID	QTY	NO	SCH/CLASS	PIPE	
1	2.1W	28"		PIPE PE A106 GR.B ASME B36.10	
2	3.1W	36"		PIPE PE A106 GR.B ASME B36.10	
FITTINGS					
3	2	28"		ELL 90 LR BE A234 WPB ASME B16.9	
4	1	28"	150	FLANGE BLIND JIS 10K	
5	1	36"x28"		REDUCER (ERC) BE A234 WPB ASME B16.9	
6	1	28"		TEE BE A234 WPB ASME B16.9	
7	1	36"x28"		TEE BE A234 WPB ASME B16.9	
8	1	36"		TEE BE A234 WPB ASME B16.9	
FLANGES					
9	7	28"	150	FLANGE JIS 10K	
10	3	36"	150	FLANGE JIS 10K	
FASTENERS					
11	84	1/4"x250	150	BOLT SET, RF, 150 LB, STUD BOLT, SERIES A	
12	32	1/2"x310	150	BOLT SET, RF, 150 LB, STUD BOLT, SERIES A	
13	5	28"	150	GASKET	
14	1	36"	150	GASKET	
VALVES					
15	2	28"	150	BUTTERFLY VALVE JIS 10K	
PIPE SUPPORTS					
16	1	28"		CUSTOM SHOE/SLIDE/ANCHOR	
17	1	28"		CUSTOM SHOE/SLIDE/ANCHOR	
CUT PIECE LIST					
ID	LENGTH	NO	END1	END2	
1	4834W	28"	BEVEL	BEVEL	
2	531W	28"	BEVEL	BEVEL	
3	1032W	36"	BEVEL	BEVEL	
4	1992W	36"	BEVEL	BEVEL	
5	429W	28"	BEVEL	BEVEL	
6	5884W	28"	BEVEL	BEVEL	



NOTES:				P&ID			
1. ALL ERECTION DIMENSIONS TO BE CHECKED PRIOR TO FABRICATION.				1258411			
2. FIELD WELD POSITIONS TO BE DETERMINED BY FABRICATOR.				OPER. PRESSURE 2 BARG			
3. FIELD WELD POSITIONS TO BE DETERMINED BY FABRICATOR.				OPER. TEMP. 25 DEG. CELCIUS			
4. NOE ACCORDING TO NOT. MATRIX FOR PIPE WORK.				DESIGN PRESSURE 10 BARG			
5. BOLTS TO BE GREASED ACCORDING TO HOGS SPEC PRIOR TO ASSEMBLY.				DESIGN TEMP. 32/4 DEG. CELCIUS			
ISSUED FOR CONSTRUCTION				TEST PRESSURE 15 BARG			
REV.	DESCRIPTION	DATE	CHKD	APPD	TEST TEMP.	AMB.	
OO		11/06/12	TL	KS			
ID	ND	TYPE	WELD LIST				
15	28"	BUTTWELD	FABRICATION-ITEM				
14	28"	BUTTWELD	FABRICATION-ITEM				
13	28"	BUTTWELD	FABRICATION-ITEM				
12	36"	BUTTWELD	FABRICATION-ITEM				
11	36"	BUTTWELD	FABRICATION-ITEM				
10	36"	BUTTWELD	FABRICATION-ITEM				
9	36"	BUTTWELD	FABRICATION-ITEM				
8	36"	BUTTWELD	FABRICATION-ITEM				
7	36"	BUTTWELD	FABRICATION-ITEM				
6	28"	BUTTWELD	FABRICATION-ITEM				
5	28"	BUTTWELD	FABRICATION-ITEM				
4	28"	BUTTWELD	FABRICATION-ITEM				
3	28"	BUTTWELD	FABRICATION-ITEM				
2	28"	BUTTWELD	FABRICATION-ITEM				
1	28"	BUTTWELD	FABRICATION-ITEM				