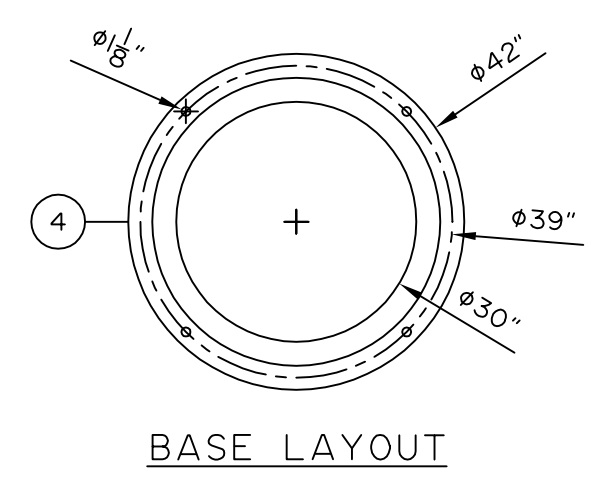
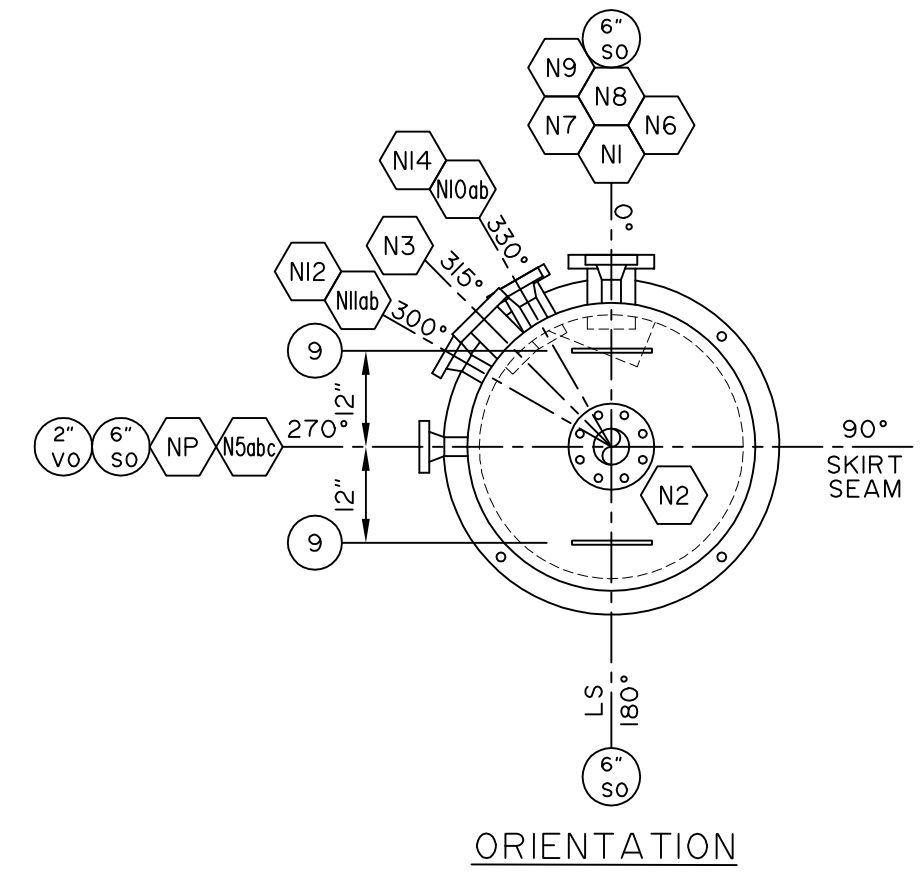


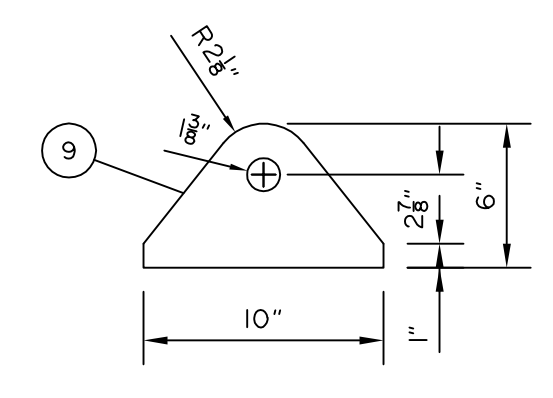
ELEVATION



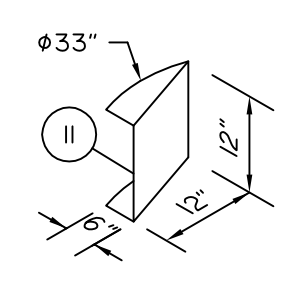
BASE LAYOUT



ORIENTATION



LIFT LUG  
N.T.S.



INLET DIVERTER  
N.T.S.

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
1	2	S.E. HEAD, 36"OD X 1500" NOM. (L4375" MIN.), SA516-70N, HOT FORMED
2	1	SHELL, 36"OD X 1500" X 10'-0" LONG, SA516-70N
3	1	ROLLED PLATE, 36"OD X 0.375" X 27 3/16" LONG, SA516-70N
4	1	BASE PLATE - PLATE, 1/2", SA36/44W (SEE DETAIL)
5	2	RFLWN, 4" 600 ANSI X 10" OAL, SA350LF2 CLI
6	2	RFLWN, 3" 600 ANSI X 9" OAL, SA350LF2 CLI
7	12	RFWN, 2" 600 ANSI SCH. 160, SA105N
8	12	PIPE, 2" SCH. 160 (0.344"), SA106B X 2 7/8" LONG
9	2	LIFT LUG - PLATE, 1", SA516-70N (SEE DETAIL)
10	1	TAG PLATE HOLDER, SA36 & VESSEL ID PLATE, ALUM
11	1	INLET DIVERTER - PLATE, 3/8", SA36/44W (SEE DETAIL)
12	1	DEM 9LB 316LSS, 33"OD X 6"TK, 3 PC, NO GRD
13	40'	FLAT, 1/4" X 1", A36/44W
14	10'	FLAT EXP. METAL, 3/4" X 9LB, CS
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

NOTES:  
ALL STUD LENGTHS GIVEN ARE THREAD TO THREAD

REV. No.	MM	DD	YY	DATE	DESCRIPTION	CALC. No.	BY	CHK'D	SIGN'D
1	02	05	18		AS BUILT		CK	CK	
0	11	08	17		ISSUED FOR CONSTRUCTION		CK	CK	

ASME 2015 ED. SEC. VIII DIV. I

BMS AQP (S) 1009 REGISTERED WELD PROCEDURE 505.2  
 FOR VESSEL TOLERANCES, SEE WELDER HANDBOOK  
 VESSEL TYPE: VERTICAL  
 M.A.W.P.: 1440 PSIG (9929 kPa) AT +130°F (+54°C)  
 M.D.M.T.: -20°F (-29°C) AT 1440 PSIG (9929 kPa)  
 IMPACT TESTING: EXEMPT PER UCS66(a)(b) & UG20f (I-5)  
 P.W.H.T.: 1150°F FOR 90 MIN.  
 RADIOGRAPHY: RT-1 CIRC.: FULL LONG: FULL  
 JOINT EFFICIENCY: HEADS: 1.00 SHELL: 1.00  
 CORROSION ALLOWANCE: 1/8"  
 HYDROSTATIC TEST: 1872 PSIG (12907 kPa)  
 VOLUME: 64.5ft³ (1.84m³)  
 WEIGHT (DRY): 6,600 lb (3000 kg)

WELD DETAIL	WELD DETAIL 1	WELD DETAIL 2	WELD DETAIL 3	WELD DETAIL 4	WELD DETAIL 5	WELD DETAIL 6	WELD DETAIL 7	WELD DETAIL 8	WELD DETAIL 9	WELD DETAIL 10	WELD DETAIL 11	WELD DETAIL 12	WELD DETAIL 13	WELD DETAIL 14
NOZ	NO.	SIZE	RATING	TYPE OF SERVICE	OD OF NOZ NECK	PROJECTION OUTSIDE	REIF PAD INSIDE	WELD DETAIL	FILLET WELD SIZE	BILL OF MAT'L ITEM No.	REMARKS			
N1	1	4"	600	INLET	6.00"	6	1 1/2	5	3/8 5/8	5				
N2	1	4"	600	OUTLET	6.00"	6	1	5	3/8 5/8	5	INSPECTION			
N3	1	3"	600	LSHH	4.62"	6	1 1/2	5	5/8 3/4	6				
N4	1	3"	600	TI	4.62"	6	1 1/2	5	5/8 3/4	6	INSPECTION			
N5abc	3	2"	600	BRIDGE CONN.	2.375"	6	-	4,6	3/8	7,8				
N6	1	2"	600	PSV	2.375"	6	-	4,6	3/8	7,8				
N7	1	2"	600	DUMP	2.375"	6	-	4,6	3/8	7,8				
N8	1	2"	600	DUMP	2.375"	6	-	4,6	3/8	7,8				
N9	1	2"	600	DRAIN	2.375"	6	-	4,6	3/8	7,8				
N10ab	2	2"	600	LG	2.375"	6	-	4,6	3/8	7,8				
N11ab	2	2"	600	LG	2.375"	6	-	4,6	3/8	7,8				
N12	1	2"	600	PIT	2.375"	6	-	4,6	3/8	7,8				

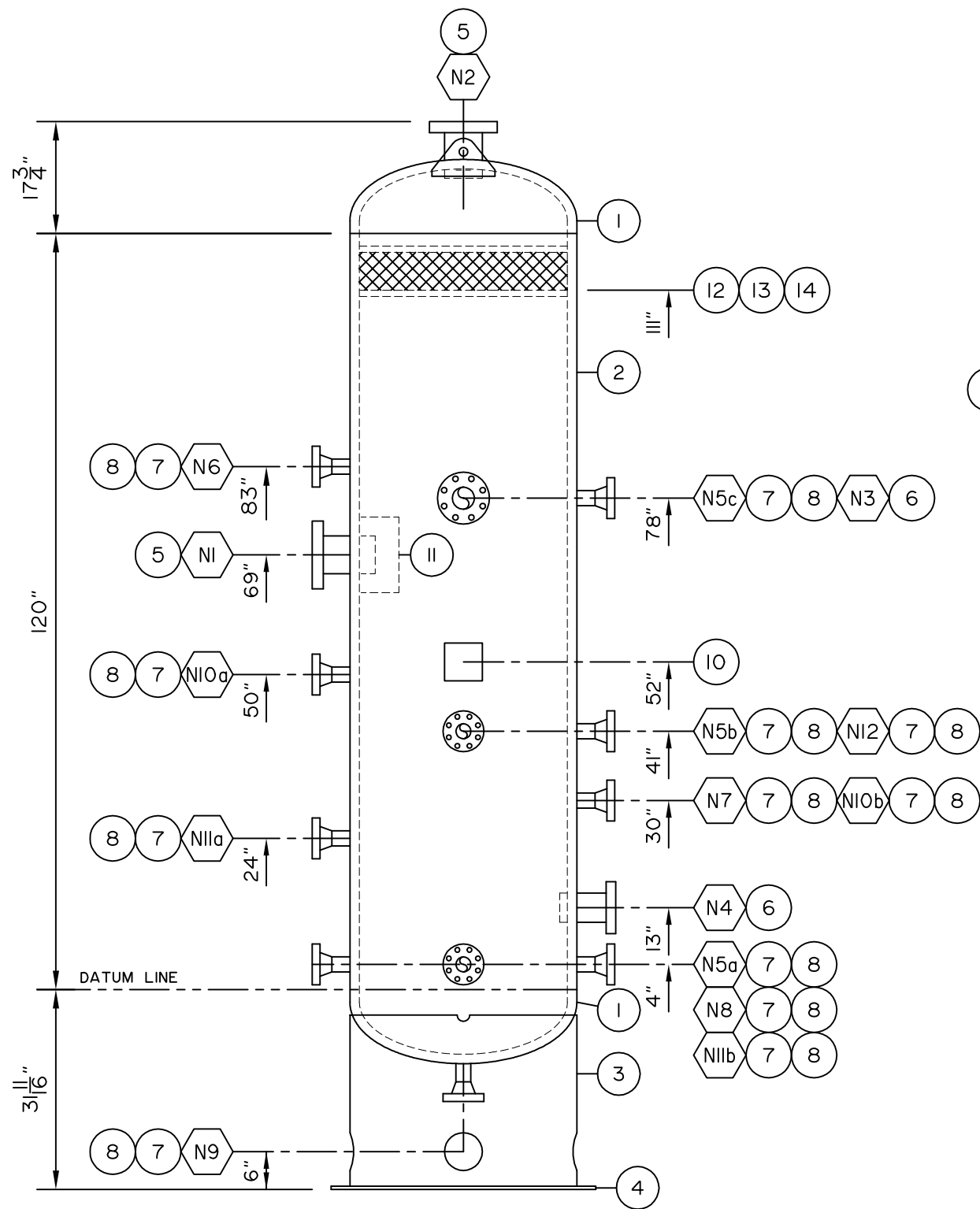
CLIENT:

**BROMLEY MECHANICAL SERVICES**  
 A DIVISION OF ARGON SALES INC  
 925 23 Street SW, Medicine Hat, Alberta, Canada T1A 8R1  
 Ph: (403) 526-3142 Fax: (403) 526-1061  
 Toll Free (800) 215-9806

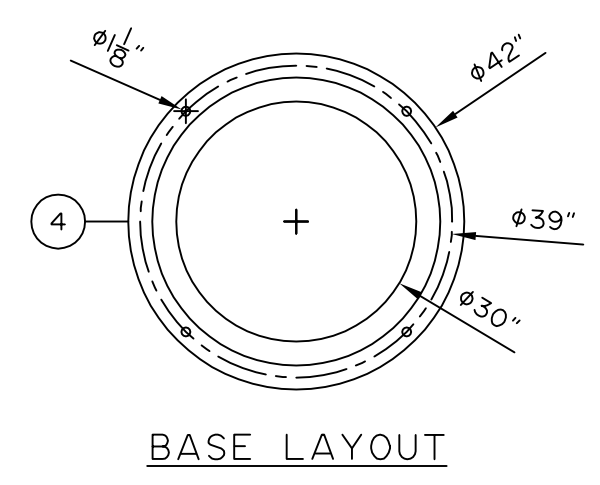
PROJECT: TYPICAL DUAL/TEST SEPARATOR PACKAGE

TITLE: 36"OD X 10'-0" X 1440 PSI GROUP SEP.

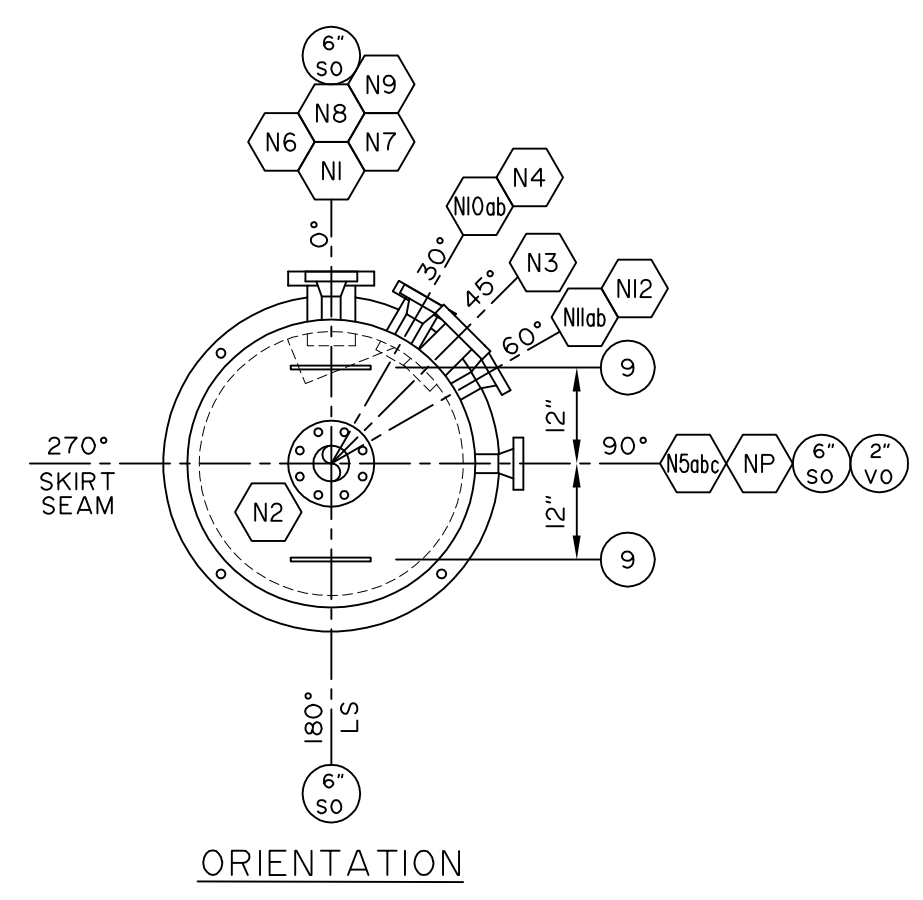
CRN: V4393.231	Wo No.: 35527	SER. No.: 35527-03/04
DRAWN BY: C. KARPIUK	REV. No.: 1	DATE: MM/DD/YY 02/05/18
DATE: MM/DD/YY 10/11/17	SCALE: 1/2"=1'-0"	CAD No.: 35527-GROUP



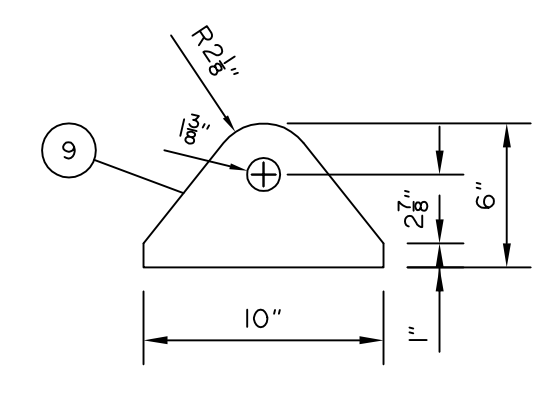
ELEVATION



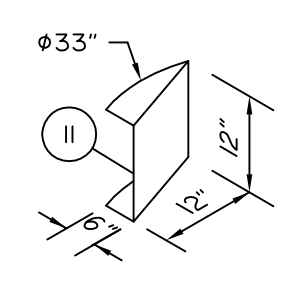
BASE LAYOUT



ORIENTATION



LIFT LUG  
N.T.S.



INLET DIVERTER  
N.T.S.

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
1	2	S.E. HEAD, 36"OD X 1500" NOM. (1.4375" MIN.), SA516-70N, HOT FORMED
2	1	SHELL, 36"OD X 1500" X 10'-0" LONG, SA516-70N
3	1	ROLLED PLATE, 36"OD X 0.375" X 27 3/16" LONG, SA516-70N
4	1	BASE PLATE - PLATE, 1/2", SA36/44W (SEE DETAIL)
5	2	RFLWN, 4" 600 ANSI X 10" OAL, SA350LF2 CL1
6	2	RFLWN, 3" 600 ANSI X 9" OAL, SA350LF2 CL1
7	12	RFWN, 2" 600 ANSI SCH. 160, SA105N
8	12	PIPE, 2" SCH. 160 (0.344"), SA106B X 2 7/8" LONG
9	2	LIFT LUG - PLATE, 1", SA516-70N (SEE DETAIL)
10	1	TAG PLATE HOLDER, SA36 & VESSEL ID PLATE, ALUM
11	1	INLET DIVERTER - PLATE, 3/8", SA36/44W (SEE DETAIL)
12	1	DEM 9LB 316LSS, 33"OD X 6"TK, 3 PC, NO GRD
13	40'	FLAT, 1/4" X 1", A36/44W
14	10'	FLAT EXP. METAL, 3/4" X 9LB, CS
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

NOTES:  
ALL STUD LENGTHS GIVEN ARE THREAD TO THREAD

REV. No.	MM	DD	YY	DATE	DESCRIPTION	CALC. No.	BY	CHK'D	SIGN'D
1	02	05	18		AS BUILT		CK	CK	
2	11	08	17		ISSUED FOR CONSTRUCTION		CK	CK	

ASME 2015 ED. SEC. VIII DIV. 1

BMS AQP (S) 1009 REGISTERED WELD PROCEDURE 505.2  
 FOR VESSEL TOLERANCES, SEE WELDER HANDBOOK  
 VESSEL TYPE: VERTICAL  
 M.A.W.P.: 1440 PSIG (9929 kPa) AT +130°F (+54°C)  
 M.D.M.T.: -20°F (-29°C) AT 1440 PSIG (9929 kPa)  
 IMPACT TESTING: EXEMPT PER UCS66(a)(b) & UG20f (I-5)  
 P.W.H.T.: 1150°F FOR 90 MIN.  
 RADIOGRAPHY: RT-1 CIRC.: FULL LONG: FULL  
 JOINT EFFICIENCY: HEADS: 1.00 SHELL: 1.00  
 CORROSION ALLOWANCE: 1/8"  
 HYDROSTATIC TEST: 1872 PSIG (12907 kPa)  
 VOLUME: 64.5ft³ (1.84m³)  
 WEIGHT (DRY): 6,600 lb (3000 kg)

WELD DETAIL	1	2	3	4	5	6	7	8	9	10	11	12	13	14
ROOT: BA-1 FBC: BA-1	ROOT: BA-1 FBC: BA-1	ROOT: BA-1 FBC: BA-1	ROOT: BA-2 OR BM-19 FBC: BA-2 OR BM-19	ROOT: BA-2 OR BM-19 FBC: BA-2 OR BM-19	ROOT: BM-2 FBC: BM-2 OR BMS-710M HT BM-19	ROOT: BM-2 FBC: BM-2 OR BMS-710M HT BM-19	ROOT: BM-2 FBC: BM-2 OR BMS-710M HT BM-19	ROOT: BM-2 FBC: BM-2 OR BMS-710M HT BM-19	ROOT: BM-2 FBC: BM-2 OR BMS-710M HT BM-19	ROOT: BM-2 FBC: BM-2 OR BMS-710M HT BM-19	ROOT: BA-2 OR BM-19 FBC: BA-2 OR BM-19	ROOT: BA-2 OR BM-19 FBC: BA-2 OR BM-19	ROOT: BA-2 OR BM-19 FBC: BA-2 OR BM-19	ROOT: BA-2 OR BM-19 FBC: BA-2 OR BM-19
NOZ	NO.	SIZE	RATING	TYPE OF SERVICE	OD OF NOZ NECK	PROJECTION OUTSIDE	REIF PAD OD x THK	WELD DETAIL	FILLET WELD SIZE	BILL OF MAT'L ITEM No.	REMARKS			
N1	1	4"	600	INLET	6.00"	6	1 1/2	5	3/8 5/8	5				
N2	1	4"	600	OUTLET	6.00"	6	1	5	3/8 5/8	5	INSPECTION			
N3	1	3"	600	LSHH	4.62"	6	1 1/2	5	5/8 3/4	6				
N4	1	3"	600	TI	4.62"	6	1 1/2	5	5/8 3/4	6	INSPECTION			
N5abc	3	2"	600	BRIDLE CONN.	2.375"	6	-	4,6	3/8	7,8				
N6	1	2"	600	PSV	2.375"	6	-	4,6	3/8	7,8				
N7	1	2"	600	DUMP	2.375"	6	-	4,6	3/8	7,8				
N8	1	2"	600	DUMP	2.375"	6	-	4,6	3/8	7,8				
N9	1	2"	600	DRAIN	2.375"	6	-	4,6	3/8	7,8				
N10ab	2	2"	600	LG	2.375"	6	-	4,6	3/8	7,8				
N11ab	2	2"	600	LG	2.375"	6	-	4,6	3/8	7,8				
N12	1	2"	600	PIT	2.375"	6	-	4,6	3/8	7,8				

CLIENT:

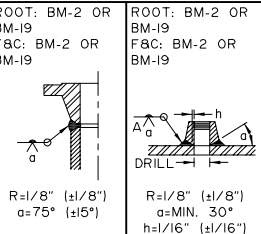
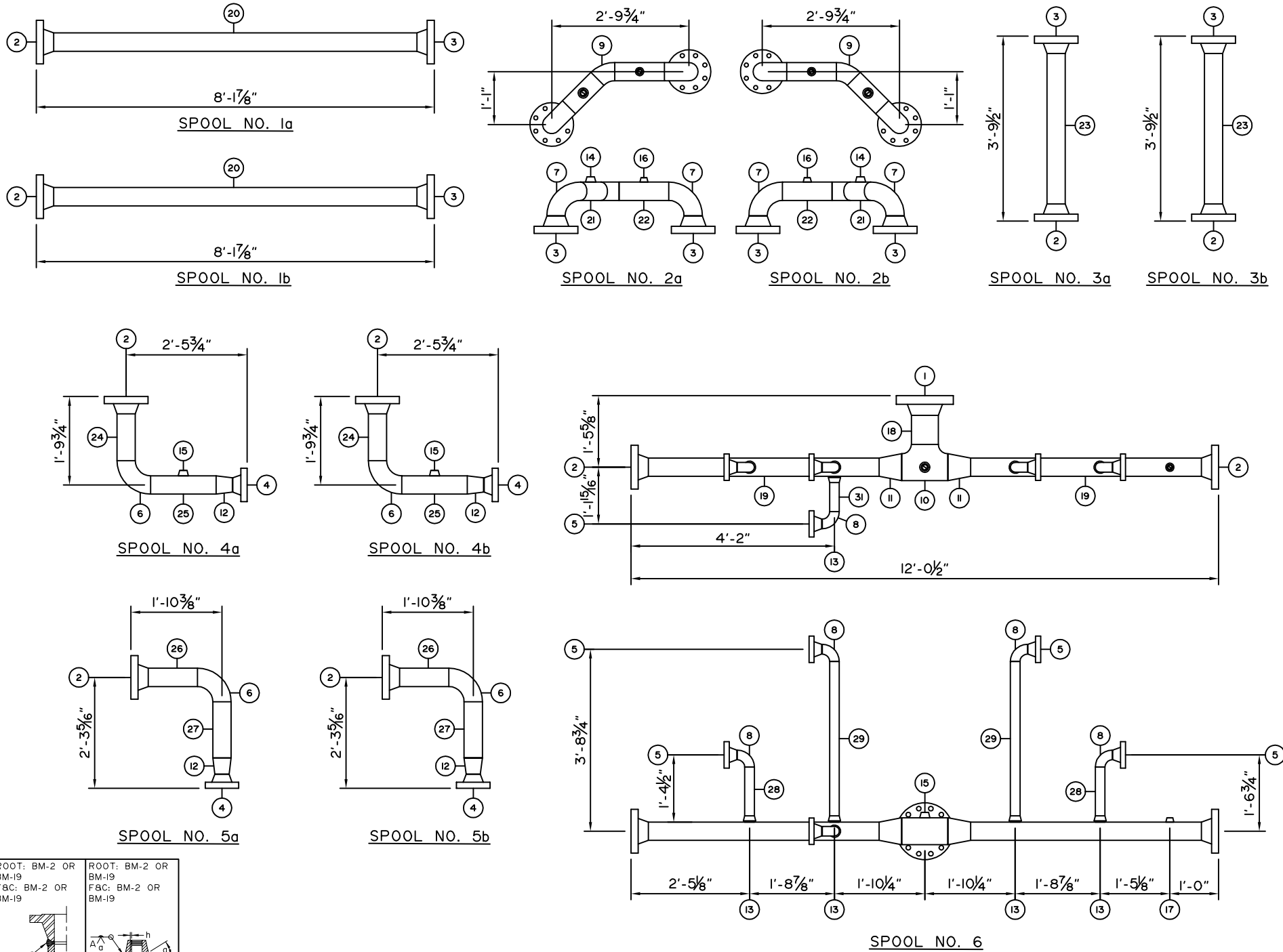
**BROMLEY MECHANICAL SERVICES**  
 A DIVISION OF ARGOS SALES INC  
 925 23 Street SW, Medicine Hat, Alberta, Canada T1A 8R1  
 Ph: (403) 526-3142 Fax: (403) 526-1061  
 Toll Free (800) 215-9806

PROJECT: TYPICAL DUAL/TEST SEPARATOR PACKAGE

TITLE: 36"OD X 10'-0" X 1440 PSI TEST SEP.

CRN: V4393.231	Wo No.: 35527	SER. No.: 35527-01/02
DRAWN BY: C. KARPIUK	REV. No.: 1	DATE: MM/DD/YY 02/05/18
DATE: MM/DD/YY 10/11/17	SCALE: 1/2"=1'-0"	CAD No.: 35527-TEST





ASME B31.3 2014 ED. (NORMAL SERVICE)	
BMS AQP (S) 1009	REGISTERED WELD PROCEDURE 505.2
FOR PIPING TOLERANCES, SEE WELDER HANDBOOK	
FLUID TYPE: WATER, OIL, GAS	
M.A.W.P.: 1440 PSIG (9929 kPag) AT +130°F (+54°C)	
M.D.M.T.: -20°F (-29°C) AT 1440 PSIG (9929 kPag)	
P.W.H.T.: 1150°F FOR 60 MIN.	
RADIOGRAPHY: 100%	
CORROSION ALLOWANCE: 1/8"	
HYDROSTATIC TEST: 2160 PSIG (14893 kPag)	

### BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
1	1	RFWN, 6" 600 ANSI SCH. 80, SA350LF2 CLI
2	10	RFWN, 4" 600 ANSI SCH. 80, SAI05N
3	8	RFWN, 4" 600 ANSI SCH. 80, SA350LF2 CLI
4	4	RFWN, 3" 600 ANSI SCH. 80, SAI05N
5	13	RFWN, 2" 600 ANSI SCH. 80, SAI05N
6	4	WELD 90, 4" SCH. 80 LR, SA234WPB
7	4	WELD 90, 4" SCH. 80 LR, SA420WPL6
8	5	WELD 90, 2" SCH. 80 LR, SA234WPB
9	2	WELD 45, 4" SCH. 80 LR, SA420WPL6
10	1	WELD TEE, 6" SCH. 80, SA234WPB
11	2	WELD CONC, 6" X 4" SCH. 80, SA234WPB
12	4	WELD CONC, 4" X 3" SCH. 80, SA234WPB
13	5	WOL, 2" SCH. 80, SAI05N
14	2	TOL, 1" 3M SA350LF2 CLI
15	3	TOL, 1" 3M SAI05N
16	2	TOL, 3/4" 3M SA350LF2 CLI
17	5	TOL, 3/4" 3M SAI05N
18	1	PIPE, 6 SCH. 80 (0.432"), SA333GR6 X 7 1/8" LONG
19	2	PIPE, 4 SCH. 80 (0.337"), SAI06B X 56 3/4" LONG
20	2	PIPE, 4 SCH. 80 (0.337"), SA333GR6 X 89 3/8" LONG
21	2	PIPE, 4 SCH. 80 (0.337"), SA333GR6 X 9 7/8" LONG
22	2	PIPE, 4 SCH. 80 (0.337"), SA333GR6 X 12 1/4" LONG
23	2	PIPE, 4 SCH. 80 (0.337"), SA333GR6 X 37" LONG
24	2	PIPE, 4 SCH. 80 (0.337"), SAI06B X 11 1/2" LONG
25	2	PIPE, 4 SCH. 80 (0.337"), SAI06B X 16 1/8" LONG
26	2	PIPE, 4 SCH. 80 (0.337"), SAI06B X 12 1/8" LONG
27	2	PIPE, 4 SCH. 80 (0.337"), SAI06B X 13 13/16" LONG
28	2	PIPE, 2 SCH. 80 (0.218"), SAI06B X 12" LONG
29	2	PIPE, 2 SCH. 80 (0.218"), SAI06B X 38" LONG
30	4	PIPE, 2 SCH. 80 (0.218"), SAI06B X 6 1/2" LONG
31	1	PIPE, 2 SCH. 80 (0.218"), SAI06B X 7 3/16" LONG

REV. No.	MM	DD	YY	DESCRIPTION	BY	CHK'D	APP'D
2	02	05	18	AS BUILT	CK	CK	-
1	12	20	17	SPOOL 6 REVISED	CK	CK	-
0	11	08	17	ISSUED FOR CONSTRUCTION	CK	CK	-

### BROMLEY MECHANICAL SERVICES

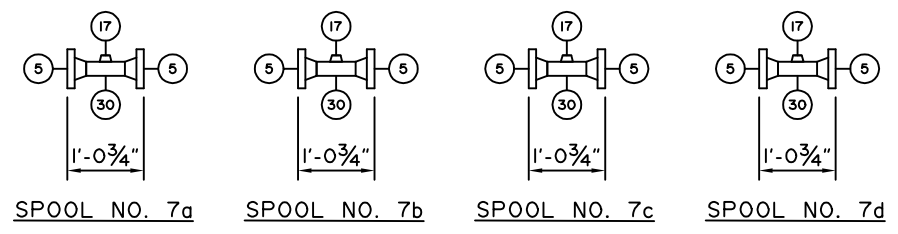
925 - 23rd Street S.W., Medicine Hat, Alberta, Canada, T1A 8R1 (403) 526-3142

CLIENT

PROJECT: TYPICAL DUAL/TEST SEPARATOR PACKAGE

TITLE: PIPING SPOOLS 1-7

Wo No.:	35527
DRAWN BY:	C. KARPIUK
DATE: MM/DD/YY	10/31/17
REV. No.:	2
DATE: MM/DD/YY	02/05/18
SCALE:	3/8"=1'
CAD No.:	35527-SPOOLS-1



# BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
1	4	RFWN, 2" 600 ANSI SCH. 160, SAI05N
2	53	RFWN, 2" 600 ANSI SCH. 80, SAI05N
3	5	RFWN, 2" 600 ANSI SCH. 80, SA350LF2 CLI
4	2	RFWN, 1" 600 ANSI SCH. 160, SAI05N
5	21	WELD 90, 2" SCH. 80 LR, SA234WPB
6	14	WELD TEE, 2" SCH. 80, SA234WPB
7	2	WELD RED TEE, 2" X 1" SCH. 160, SA234WPB
8	2	TOL, 1" 3M SAI05N
9	4	TOL, 1/2" 3M SAI05N
10	8	PIPE, 2" SCH. 80 (0.218"), SAI06B X 12 1/2" LONG
11	4	PIPE, 2" SCH. 80 (0.218"), SAI06B X 33 7/8" LONG
12	2	PIPE, 2" SCH. 80 (0.218"), SAI06B X 2" LONG
13	2	PIPE, 2" SCH. 80 (0.218"), SAI06B X 11 3/4" LONG
14	2	PIPE, 2" SCH. 80 (0.218"), SAI06B X 2 1/2" LONG
15	2	PIPE, 2" SCH. 80 (0.218"), SAI06B X 11 1/4" LONG
16	4	PIPE, 2" SCH. 80 (0.218"), SA333GR6 X 12" LONG
17	2	PIPE, 2" SCH. 80 (0.218"), SAI06B X 17 7/8" LONG
18	2	PIPE, 2" SCH. 80 (0.218"), SAI06B X 1 3/4" LONG
19	2	PIPE, 2" SCH. 80 (0.218"), SAI06B X 25 5/16" LONG
20	1	PIPE, 2" SCH. 80 (0.218"), SAI06B X 40 3/4" LONG
21	1	PIPE, 2" SCH. 80 (0.218"), SAI06B X 5 1/2" LONG
22	1	PIPE, 2" SCH. 80 (0.218"), SAI06B X 162 1/8" LONG
23	1	PIPE, 2" SCH. 80 (0.218"), SA333GR6 X 19 7/16" LONG

REV. No.	MM	DD	YY	DESCRIPTION	BY	CHK'D	APP'D
2	02	05	18	AS BUILT	CK	CK	-
1	12	21	17	REVISED BILL OF MATERIALS, CHANGED ITEMS 4 & 7 TO 1"	CK	CK	-
0	11	08	17	ISSUED FOR CONSTRUCTION	CK	CK	-

ASME B31.3 2014 ED. (NORMAL SERVICE)

BMS AQP (S) 1009 REGISTERED WELD PROCEDURE 505.2

FOR PIPING TOLERANCES, SEE WELDER HANDBOOK

FLUID TYPE: WATER, OIL, GAS

M.A.W.P.: 1440 PSIG (9929 kPag) AT +130°F (+54°C)

M.D.M.T.: -20°F (-29°C) AT 1440 PSIG (9929 kPag)

P.W.H.T.: 1150°F FOR 60 MIN.

RADIOGRAPHY: 100%

CORROSION ALLOWANCE: 1/8"

HYDROSTATIC TEST: 2160 PSIG (14893 kPag)

## BROMLEY MECHANICAL SERVICES

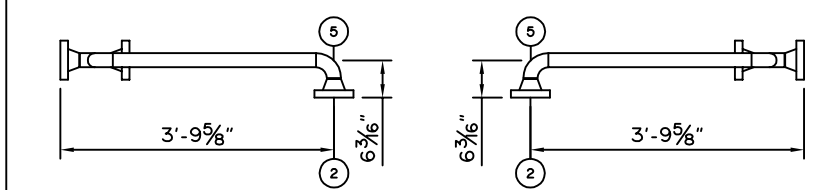
925 - 23rd Street S.W., Medicine Hat, Alberta, Canada, T1A 8R1 (403) 526-3142

CLIENT \_\_\_\_\_

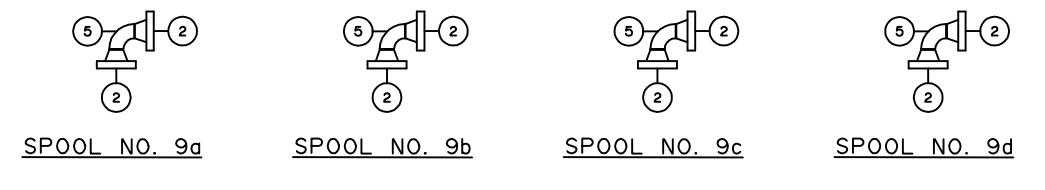
PROJECT TYPICAL DUAL/TEST  
SEPARATOR PACKAGE

TITLE PIPING SPOOLS 8-19

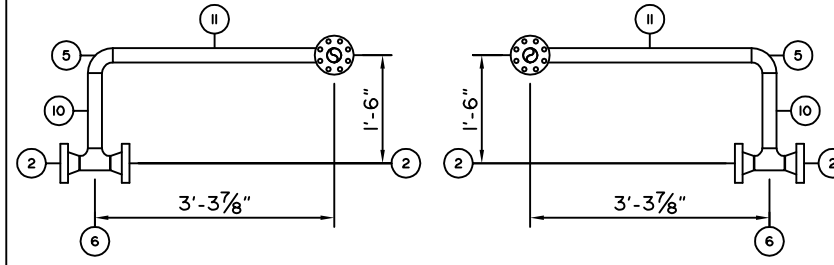
Wo No.: 35527	DRAWN BY: C. KARPIUK	REV. No.: 2	DATE: MM/DD/YY 02/05/18
DATE: MM/DD/YY 10/31/17	SCALE: 3/8"=1'	CAD No.: 35527-SPOOLS-2	



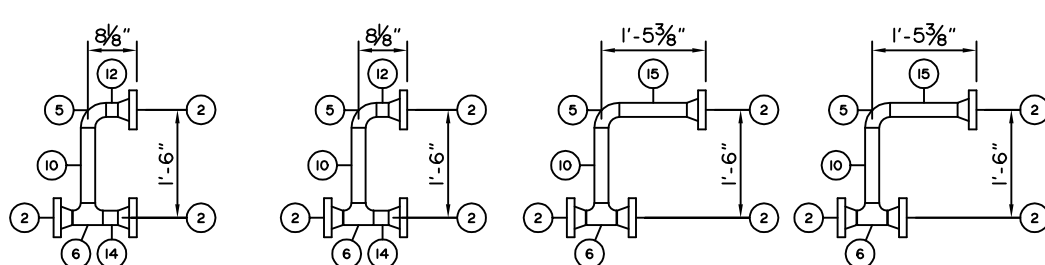
SPOOL NO. 8a      SPOOL NO. 8b



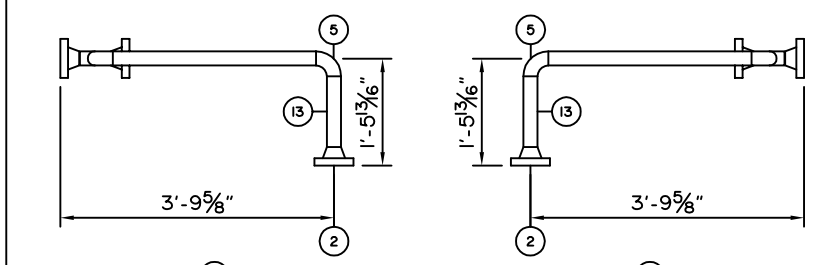
SPOOL NO. 9a      SPOOL NO. 9b      SPOOL NO. 9c      SPOOL NO. 9d



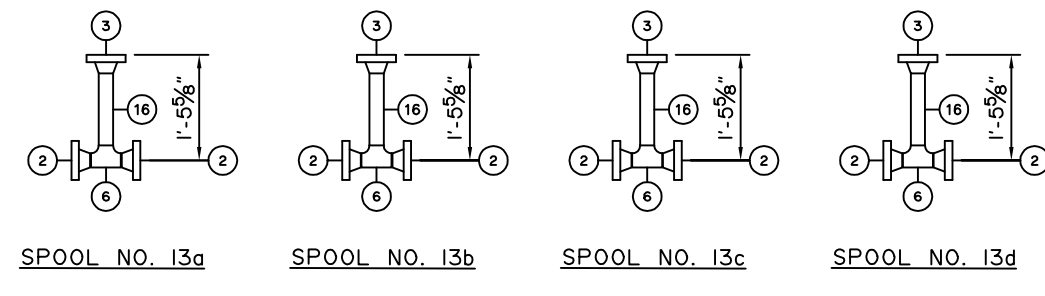
SPOOL NO. 10a      SPOOL NO. 10b



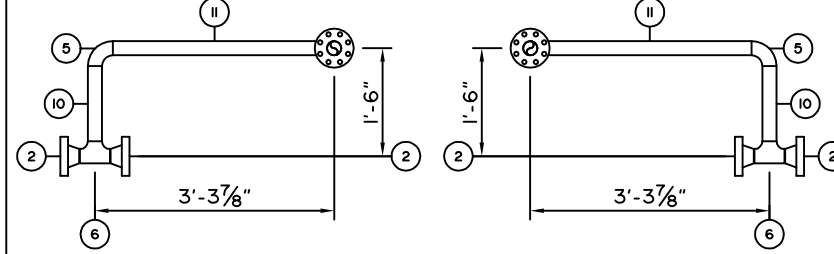
SPOOL NO. 11a      SPOOL NO. 11b



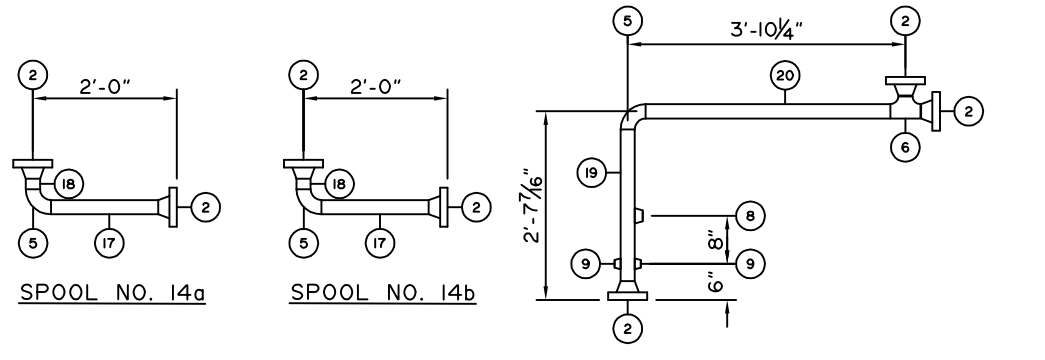
SPOOL NO. 12a      SPOOL NO. 12b



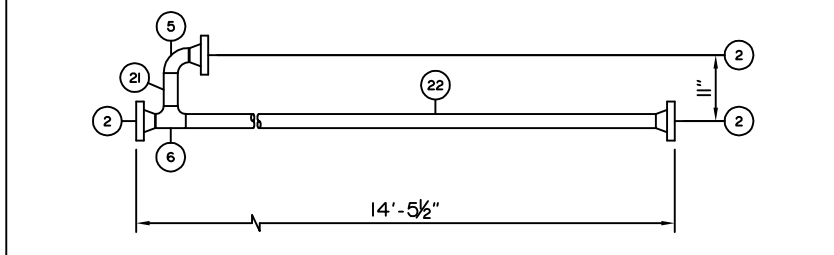
SPOOL NO. 13a      SPOOL NO. 13b      SPOOL NO. 13c      SPOOL NO. 13d



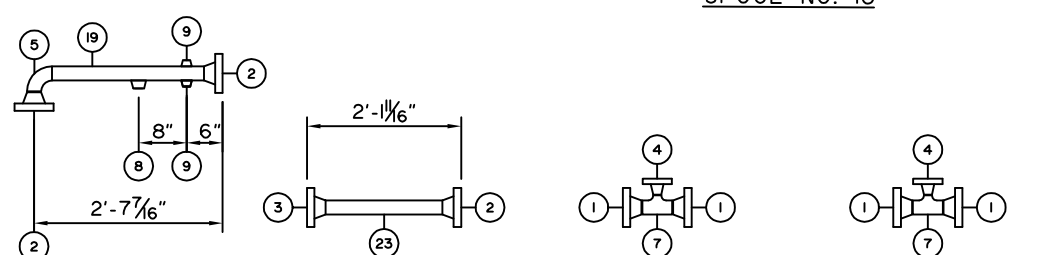
SPOOL NO. 14a      SPOOL NO. 14b



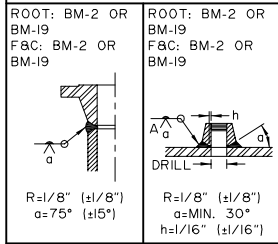
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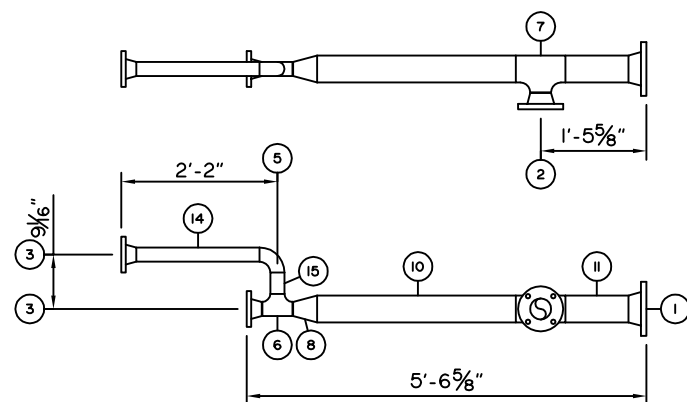


SPOOL NO. 16

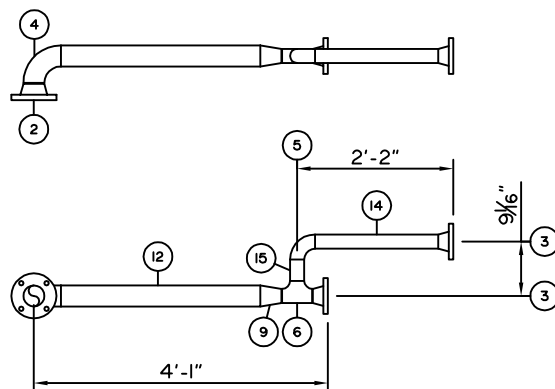


SPOOL NO. 17      SPOOL NO. 18      SPOOL NO. 19a      SPOOL NO. 19b

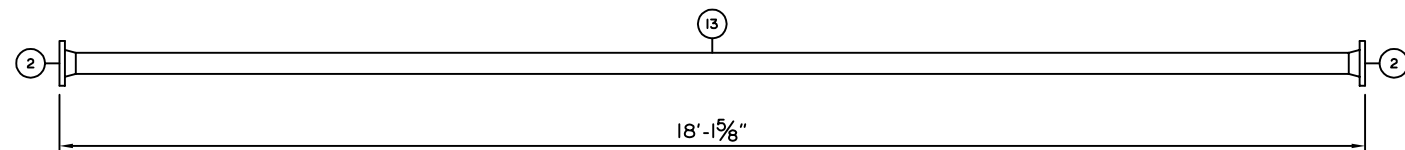




SPOOL NO. 20a



SPOOL NO. 20b



SPOOL NO. 21

### BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
1	1	RFWN, 4" ISO ANSI SCH. 40, SA350LF2 CLI
2	4	RFWN, 3" ISO ANSI SCH. 40, SAI05N
3	4	RFWN, 2" ISO ANSI SCH. 80, SAI05N
4	1	WELD 90, 3" SCH. 80 LR, SA234WPB
5	2	WELD 90, 2" SCH. 80 LR, SA234WPB
6	2	WELD TEE, 2" SCH. 80, SA234WPB
7	1	WELD RED TEE, 4" X 3" SCH. 40, SA234WPB
8	1	WELD CONC, 4" X 2" SCH. 40/80, SA234WPB
9	1	WELD CONC, 3" X 2" SCH. 40/80, SA234WPB
10	1	PIPE, 4" SCH. 40 (0.237"), SAI06B X 33 1/8" LONG
11	1	PIPE, 4" SCH. 40 (0.237"), SA333GR6 X 10 1/2" LONG
12	1	PIPE, 3" SCH. 40 (0.216"), SAI06B X 33 1/4" LONG
13	1	PIPE, 3" SCH. 40 (0.216"), SAI06B X 212 1/8" LONG
14	2	PIPE, 2" SCH. 80 (0.218"), SAI06B X 20 1/2" LONG
15	2	PIPE, 2" SCH. 80 (0.218"), SAI06B X 3 9/16" LONG
16		
17		
18		
19		
20		

△	02	05	18	AS BUILT	CK	CK	-	
△	02	08	17	ISSUED FOR CONSTRUCTION	CK	CK	-	
REV. No.	MM	DD	YY	DATE	DESCRIPTION	BY	CHK'D	APP'D

ASME B31.3 2014 ED. (NORMAL SERVICE)  
 BMS AQP (S) 1009 REGISTERED WELD PROCEDURE 505.2  
 FOR PIPING TOLERANCES, SEE WELDER HANDBOOK  
 FLUID TYPE: WATER, OIL, GAS  
 M.A.W.P.: 285 PSIG (1965 kPag) AT +130°F (+54°C)  
 M.D.M.T.: -20°F (-29°C) AT 285 PSIG (1965 kPag)  
 P.W.H.T.: 1150°F FOR 60 MIN.  
 RADIOGRAPHY: 100%  
 CORROSION ALLOWANCE: 1/8"  
 HYDROSTATIC TEST: 428 PSIG (2951 kPag)

### BROMLEY MECHANICAL SERVICES

925 - 23rd Street S.W., Medicine Hat, Alberta, Canada, T1A 8R1 (403) 526-3142

CLIENT

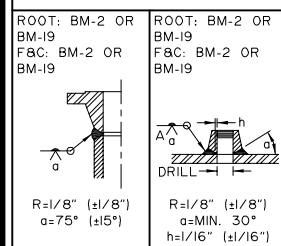
PROJECT  
TYPICAL DUAL/TEST SEPARATOR PACKAGE

TITLE  
PIPING SPOOLS 20-21

Wo No.: 35527

DRAWN BY: C. KARPIUK REV. No.: 1 DATE: MM/DD/YY 02/05/18

DATE: MM/DD/YY 10/31/17 SCALE: 3/8"=1' CAD No.: 35527-SPOOLS-3



## INSTRUMENTS

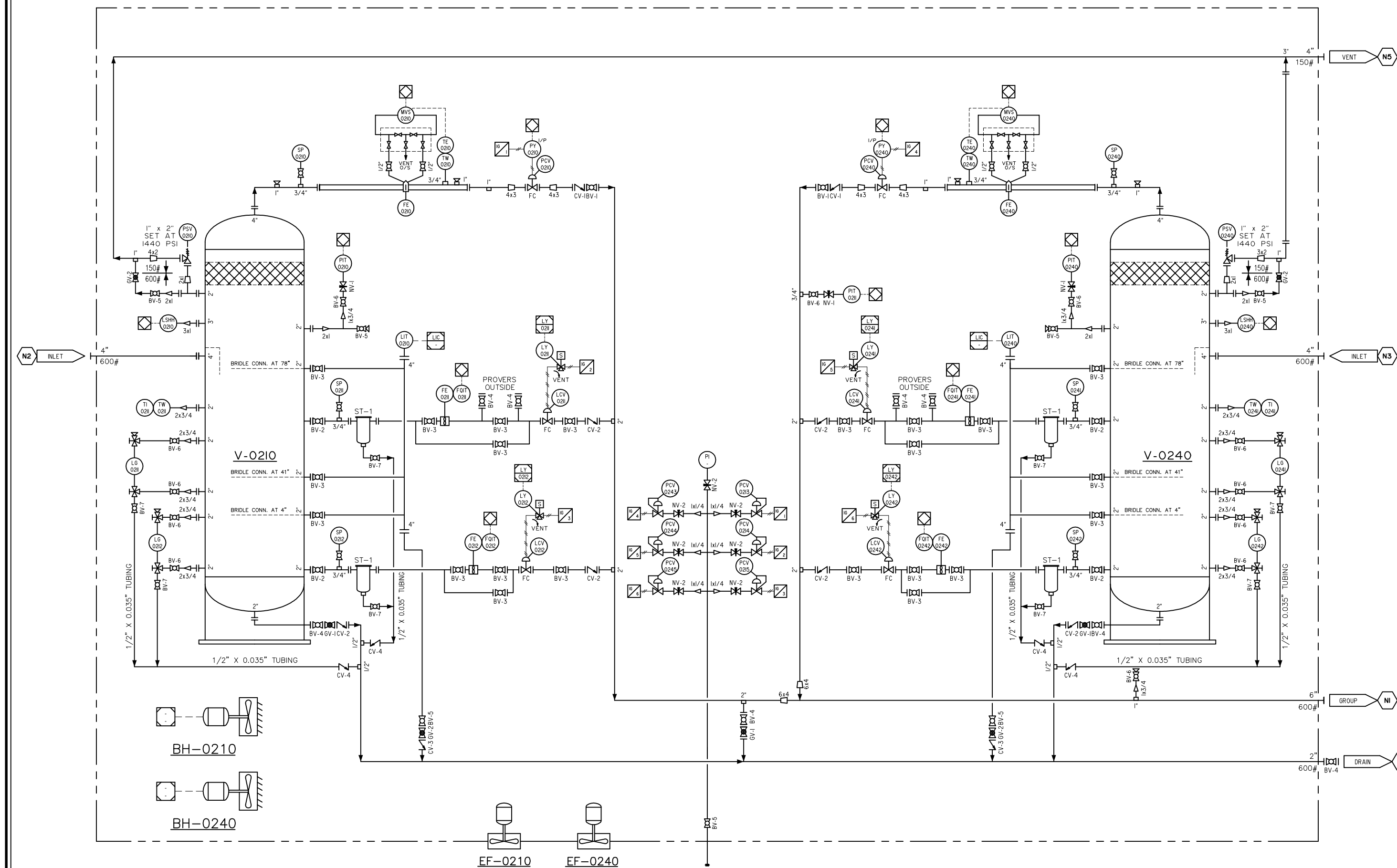
TAG No.	DESCRIPTION
BH-0210/0240	RUFFNECK ELECTRIC HEATER, MODEL FX52-240160-100-W-T, 1" NPT CONNECTIONS, EXP. PROOF
V-0210/0240	36"OD X 10'-0"S/S X 1440 PSI VERTICAL SEPARATOR, SOUR
EF 0210/0240	EXPLOSION PROOF BUILDING FAN TO PROVIDE 12 ACPH, IIS/208-230VAC, IPH, 60Hz, 1/4 HP
FE 0210/0240	(CUSTOMER SUPPLIED)
FE/FQIT 0211/0212	SURFLO TURBINE METER, 2" 600 ANSI FLANGED 16" F/F 2" SCH. 160 C/W MAG PICKUP AND MC-III TOTALIZER
FE/FQIT 0241/0242	SURFLO TURBINE METER, 2" 600 ANSI FLANGED 16" F/F 2" SCH. 160 C/W MAG PICKUP AND MC-III TOTALIZER
MVS/TE/TW 0210	(CUSTOMER SUPPLIED)
MVS/TE/TW 0240	(CUSTOMER SUPPLIED)
LCV 0211/0212	FISHER D4 CONTROL VALVE, 2" 600 ANSI CW 1-1/4" TUNGSTEN TRIM, NACE
LY 0211/0212	ASCO SOLENOID 1/4" NPT, MODEL EF8320G202-24VDC
LCV 0241/0242	FISHER D4 CONTROL VALVE, 2" 600 ANSI CW 1-1/4" TUNGSTEN TRIM, NACE
LY 0241/0242	ASCO SOLENOID 1/4" NPT, MODEL EF8320G202-24VDC
LG 0211/0212	QUALITY Q24-T-32 LEVEL GAUGE C/W GAUGE COCKS, NACE
LG 0241/0242	QUALITY Q24-T-32 LEVEL GAUGE C/W GAUGE COCKS, NACE
LIT 0210/0240	ROSEMOUNT 5302 GWR, 4" 600 ANSI, 8" LONG PROBE c/w REMOTE MOUNT CABLES
LSHH 0210/0240	ROSEMOUNT 2120 VIBRATING FORK, 1" NPT
PCV/PY 0210/0240	FISHER 667-ET, 3" 600 ANSI, EQ% TRIM, FC C/W DVC-6200 I2P/POSITIONER
PCV 0213-0215	FISHER 67CFR, 1/4", 0-35 PSI
PCV 0243-0245	FISHER 67CFR, 1/4", 0-35 PSI
PIT 0210/0240	(CUSTOMER SUPPLIED)
PIT 0211	(CUSTOMER SUPPLIED)
PSV 0210/0240	FARRIS 1" 600 ANSI X 2" 150 ANSI 'E' ORIFICE, MODEL 26EAI3-120/00
SP 0210-0212	WELKER SP-2, 3/4" GAS SAMPLE PROBE
SP 0240-0242	WELKER SP-2, 3/4" GAS SAMPLE PROBE
TI/TW 0211/0241	WGI TI, 3"F X 6"ST, 0/250F C/W WGI TOW, 3/4" X 1/2" X 6", 316SS

## VALVES & SPECIAL ITEMS

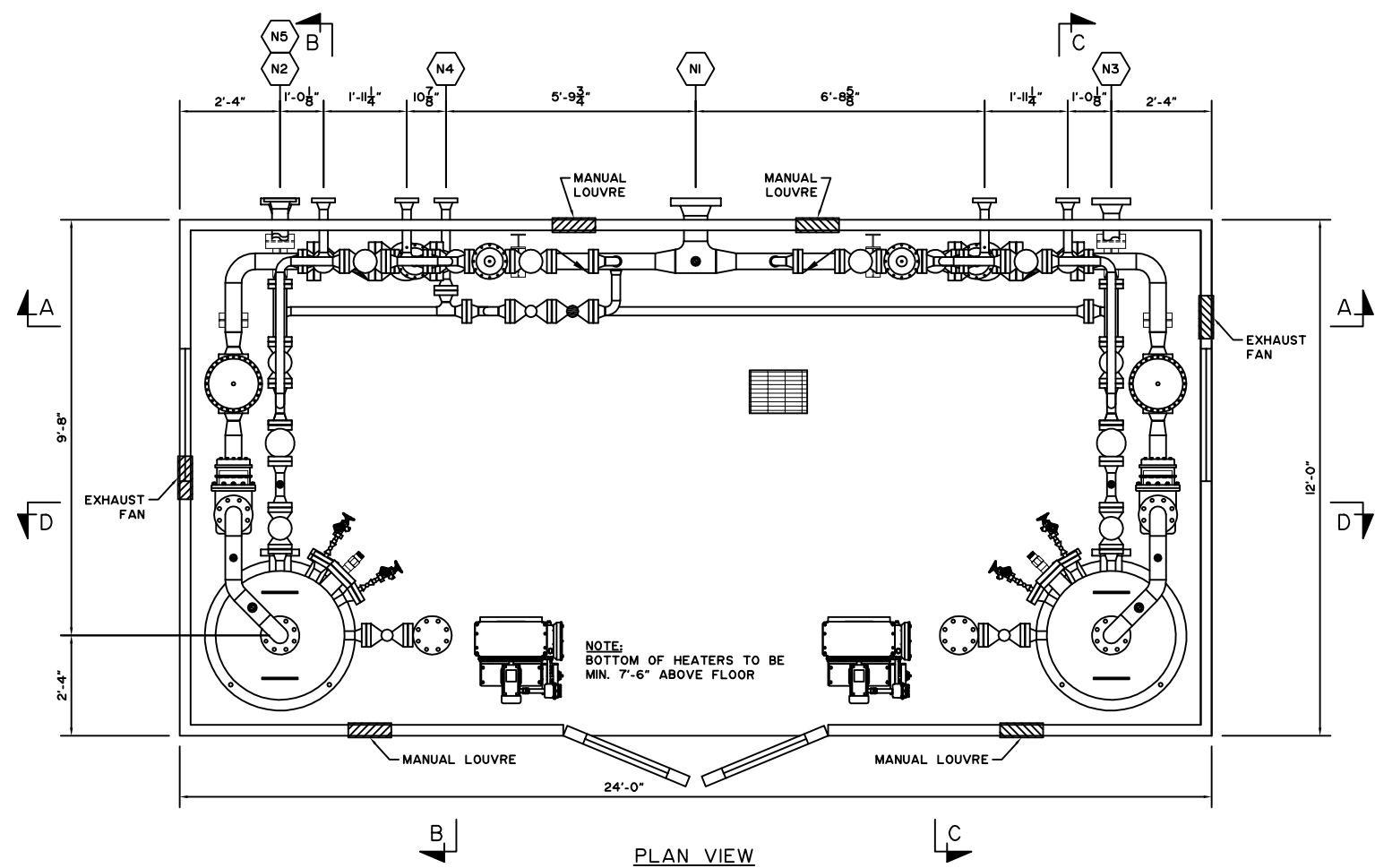
ITEM	QTY.	DESCRIPTION
BV-1	2	WKM BV, 4" 600 ANSI RF FP TRUNION, NACE
BV-2	4	WKM BV, 2" 600 ANSI RF FP DBB FLOATING, NACE
BV-3	22	WKM BV, 2" 600 ANSI RF FP DBB TRUNION, NACE
BV-4	8	WKM BV, 2" 600 ANSI RF FP FLOATING, NACE
BV-5	7	WKM BV, 1" NPT 3M RP, NACE
BV-6	12	WKM BV, 3/4" NPT 3M FP, NACE
BV-7	8	WKM BV, 1/2" NPT 3M FP, NACE
CV-1	2	WHEATLEY CHECK VALVE, 4" 600 ANSI, NACE
CV-2	6	WHEATLEY CHECK VALVE, 2" 600 ANSI, NACE
CV-3	2	WHEATLEY CHECK VALVE, 1" NPT, 3600 PSI, NACE
CV-4	4	WHEATLEY CHECK VALVE, 1/2" NPT, 3600 PSI, NACE
GV-1	3	VELAN GLOBE VALVE, 2" 600 ANSI, NACE
GV-2	4	VELAN GLOBE VALVE, 1" NPT CLASS 800, NACE
NV-1	3	WGI NV, 3/4" X 1/2" MXF, 316SS
NV-2	7	WGI NV, 1/4" MXF, 316SS
ST-1	4	ALTA BASKET STRAINER, 2" 600 ANSI, NACE

△	O2	O5	I8	AS BUILT	CK	CK	.
	II	O8	I7	ISSUED FOR CONSTRUCTION	CK	CK	.
REV. No.	MM	DD	YY	DESCRIPTION	BY	CHK'D	SIGN'D

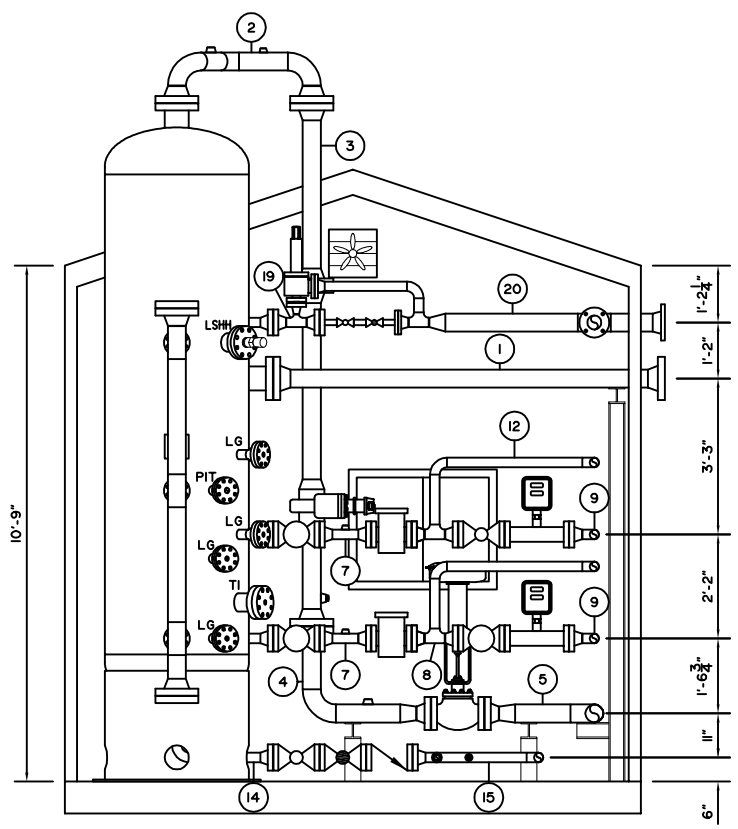
CLIENT		<b>BROMLEY</b> MECHANICAL SERVICES A DIVISION OF ARGON SALES INC	
		925 23 Street SW, Medicine Hat, Alberta, Canada T1A 8R1 Ph: 1403) 526-3142 Fax: 1403) 526-1061 Toll Free (800) 215-9806	
PROJECT		TYPICAL DUAL/TEST SEPARATOR PACKAGE	
TITLE		P&ID-1	
WO No.:	35527	REVISION:	I
DATE: MM/DD/YY	10/11/17	SCALE:	N.T.S.
DRAWN BY:	C. KARPIUK	DATE: MM/DD/YY	02/05/18
		CAD No.:	35527-P&ID-1



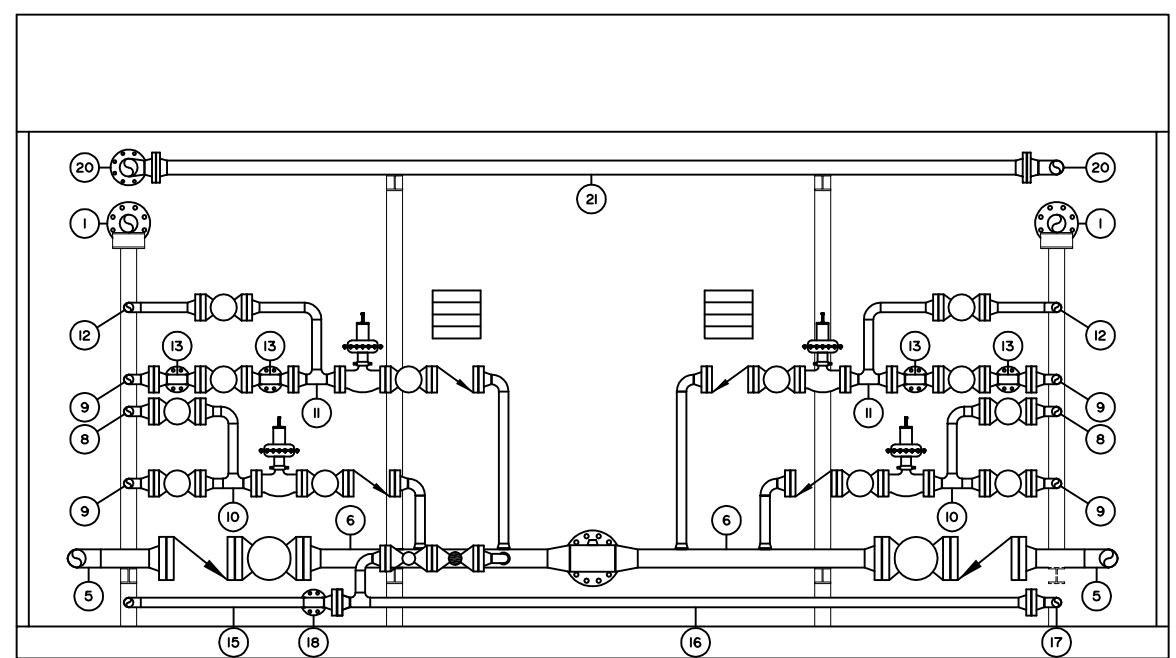
NOTES:  
 ALL TUBING TO BE 316SS  
 PROCESS/SENSING: 1/2" X 0.049" W.T. 316SS SMLS TUBING  
 INSTRUMENT LINES: 3/8" X 0.035" W.T. 316SS SMLS TUBING  
 ALL TUBE FITTINGS TO BE SWAGelok SS  
 ALL PROCESS TUBING LINES TO BE HYDRO TESTED AT 1.5 TIMES MAWP  
 VENT ALL INSTRUMENTS OUTSIDE  
 APPROXIMATE SHIPPING DIMENSIONS ARE 13'-3" X 26'-0" X 14'-6" HIGH  
 PACKAGE WEIGHT IS APPROXIMATELY 55,000 LBS  
 VENT ALL INSTRUMENTS TO COMMON HEADER  
 ALL SOLENOIDS TO BE LOW WATT  
 NO BAR STOCK VALVES ALLOWED



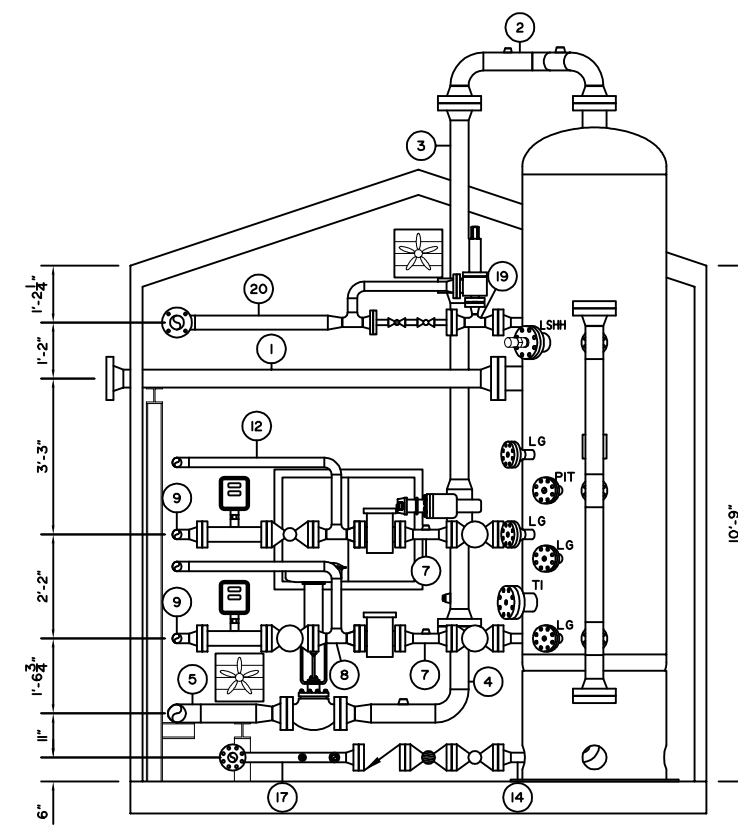
PLAN VIEW



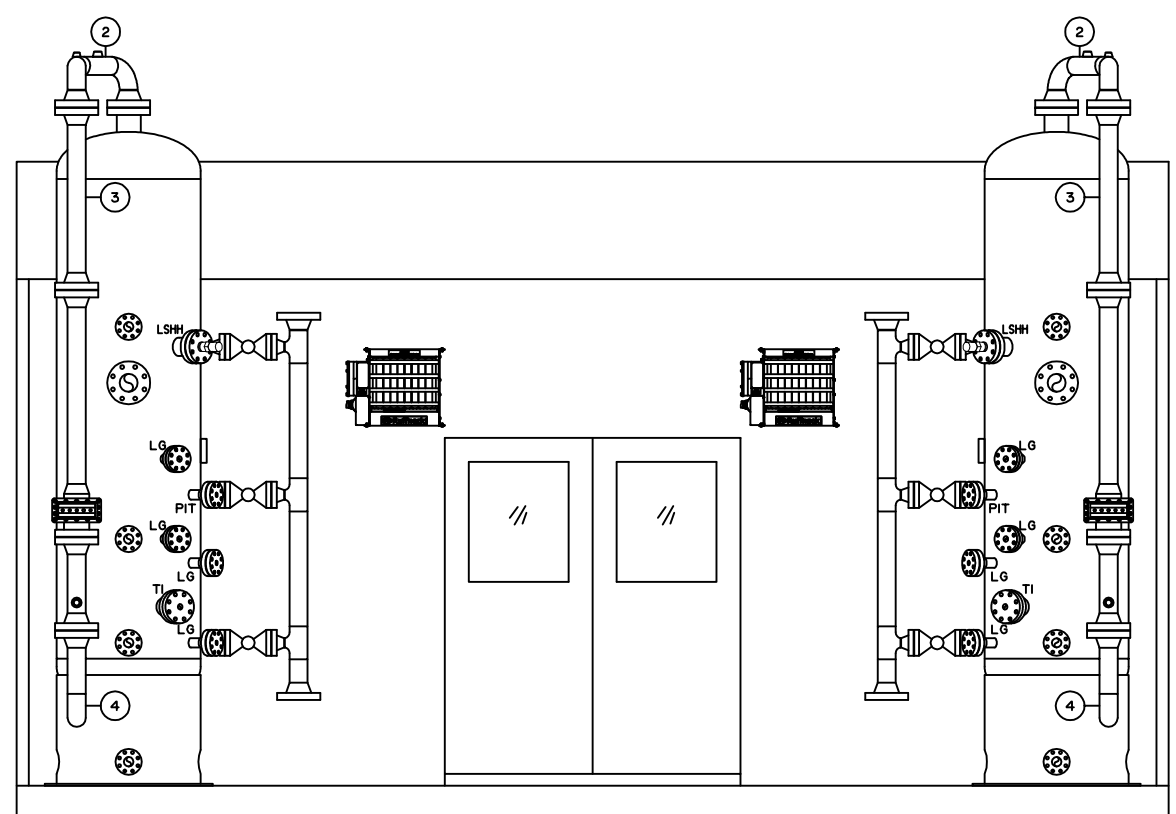
SECTION 'B'



SECTION 'A'



SECTION 'C'



SECTION 'D'

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
1	1	SPOOL 1 - SEE DRAWING 35527-SPOOLS-1
2	1	SPOOL 2 - SEE DRAWING 35527-SPOOLS-1
3	1	SPOOL 3 - SEE DRAWING 35527-SPOOLS-1
4	1	SPOOL 4 - SEE DRAWING 35527-SPOOLS-1
5	1	SPOOL 5 - SEE DRAWING 35527-SPOOLS-1
6	1	SPOOL 6 - SEE DRAWING 35527-SPOOLS-1
7	1	SPOOL 7 - SEE DRAWING 35527-SPOOLS-1
8	1	SPOOL 8 - SEE DRAWING 35527-SPOOLS-2
9	1	SPOOL 9 - SEE DRAWING 35527-SPOOLS-2
10	1	SPOOL 10 - SEE DRAWING 35527-SPOOLS-2
11	1	SPOOL 11 - SEE DRAWING 35527-SPOOLS-2
12	1	SPOOL 12 - SEE DRAWING 35527-SPOOLS-2
13	1	SPOOL 13 - SEE DRAWING 35527-SPOOLS-2
14	1	SPOOL 14 - SEE DRAWING 35527-SPOOLS-2
15	1	SPOOL 15 - SEE DRAWING 35527-SPOOLS-2
16	1	SPOOL 16 - SEE DRAWING 35527-SPOOLS-2
17	1	SPOOL 17 - SEE DRAWING 35527-SPOOLS-2
18	1	SPOOL 18 - SEE DRAWING 35527-SPOOLS-2
19	1	SPOOL 19 - SEE DRAWING 35527-SPOOLS-2
20	1	SPOOL 20 - SEE DRAWING 35527-SPOOLS-3
21	1	SPOOL 21 - SEE DRAWING 35527-SPOOLS-3
22	2	RFHB, 4" 600 ANSI TAPPED 1", SA105N
23	2	RFHB, 3" 600 ANSI TAPPED 2", SA105N
24	2	RFHB, 3" 600 ANSI TAPPED 3/4", SA105N
25	4	RFHB, 2" 600 ANSI TAPPED 1", SA105N
26	8	RFHB, 2" 600 ANSI TAPPED 3/4", SA105N
27	2	RFHB, 2" 150 ANSI TAPPED 1", SA105N
28	18	316 SPIRALWIND GSKT, 4" 600 ANSI, NASB
29	8	316 SPIRALWIND GSKT, 3" 600 ANSI, NASB
30	108	316 SPIRALWIND GSKT, 2" 600 ANSI, NASB
31	2	316 SPIRALWIND GSKT, 1" 600 ANSI, NASB
32	2	316 SPIRALWIND GSKT, 3" 150 ANSI, NASB
33	2	316 SPIRALWIND GSKT, 2" 150 ANSI, NASB
34	144	B7M STUD, 7/8" X 5 3/4", SA193-B7M
35	64	B7M STUD, 3/4" X 5", SA193-B7M
36	8	B7M STUD, 3/4" X 4 1/4", SA193-B7M
37	864	B7M STUD, 5/8" X 4 1/4", SA193-B7M
38	16	B7M STUD, 5/8" X 3 1/2", SA193-B7M
39	16	B7M STUD, 5/8" X 3 1/4", SA193-B7M
40	288	2HM HEX NUT, 7/8", SA194-2HM
41	144	2HM HEX NUT, 3/4", SA194-2HM
42	1792	2HM HEX NUT, 5/8", SA194-2HM

NOTES:  
 ALL STUD LENGTHS GIVEN ARE THREAD TO THREAD  
 ALL PROCESS THREADED PIPING TO BE SCH. XXH  
 ALL UTILITY THREADED PIPING TO BE SCH. 80  
 ALL THREADED FITTINGS TO BE 3000 PSI  
 APPROXIMATE SHIPPING DIMENSIONS ARE 13'-3" X 26'-0" X 14'-6" HIGH  
 PACKAGE WEIGHT IS APPROXIMATELY 40,000 LBS

△	02	05	18	AS BUILT	CK	CK	.
△	11	08	17	ISSUED FOR CONSTRUCTION	CK	CK	.
REV. No.	MM	DD	YY	DESCRIPTION	BY	CHK'D	APP'D

CLIENT:

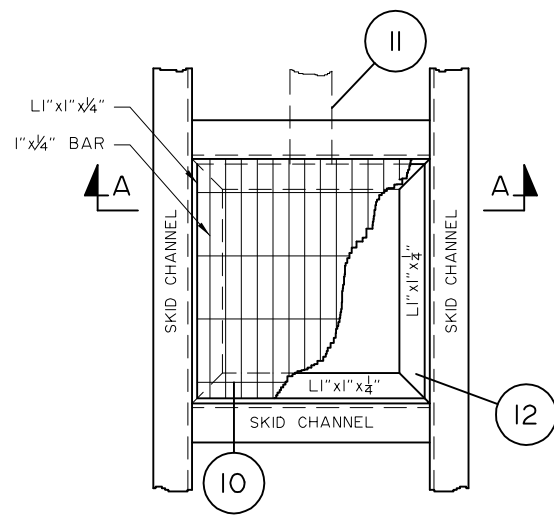
**BROMLEY**  
 MECHANICAL SERVICES  
 A DIVISION OF FARGO SALES INC  
 925 23 Street SW, Medicine Hat, Alberta, Canada T1A 8R1  
 Ph: (403) 526-3442 Fax: (403) 526-1061  
 Toll Free (800) 215-9806

PROJECT: TYPICAL GROUP/TEST SEPARATOR PACKAGE

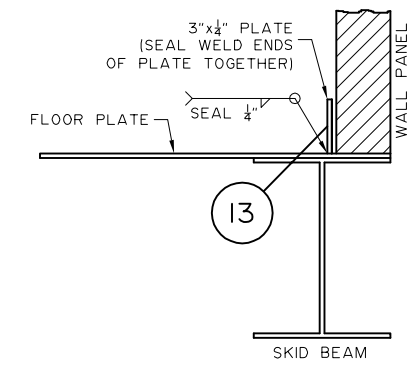
TITLE: LAYOUT-I

Wo No.:	35527	REV. No.:	1	DATE: MM/DD/YY	02/05/18
DRAWN BY:	C. KARPIUK	SCALE:	1/4"=1'-0"	CAD No.:	35527-LAYOUT-I
DATE: MM/DD/YY	10/11/17				

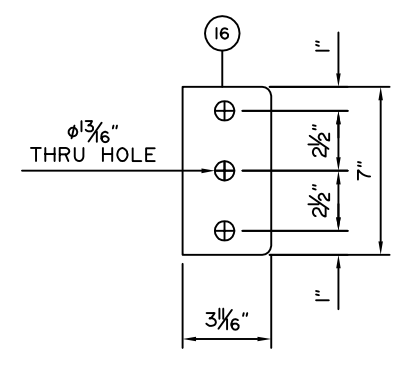




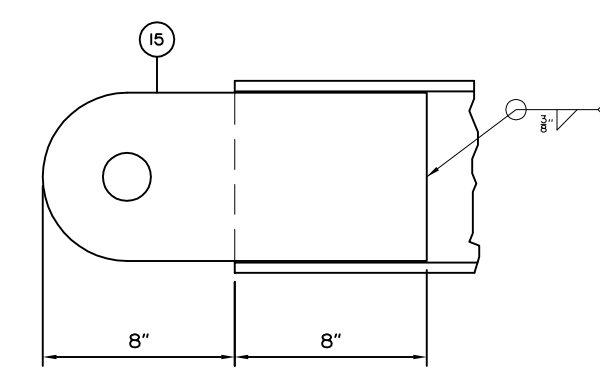
SKID DRAIN DETAIL  
N.T.S.



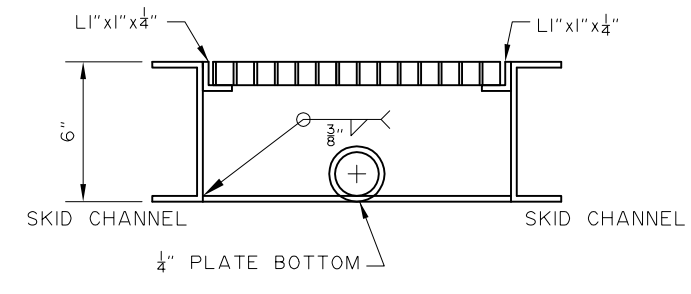
CONTAINMENT BARRIER  
N.T.S.



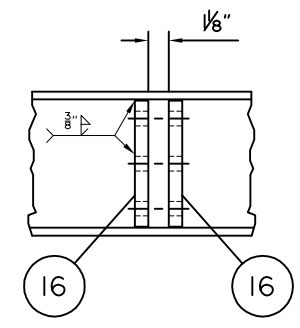
WEB STIFFENER DETAIL  
N.T.S.



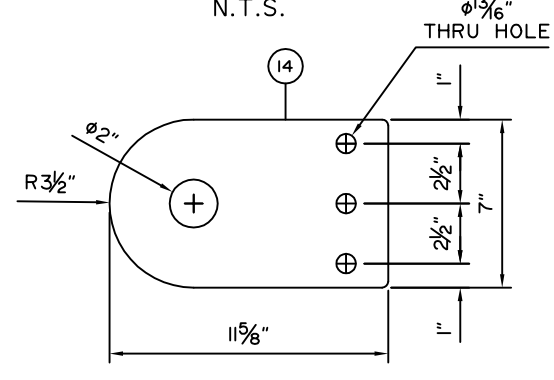
LIFTING LUG PLACEMENT  
N.T.S.



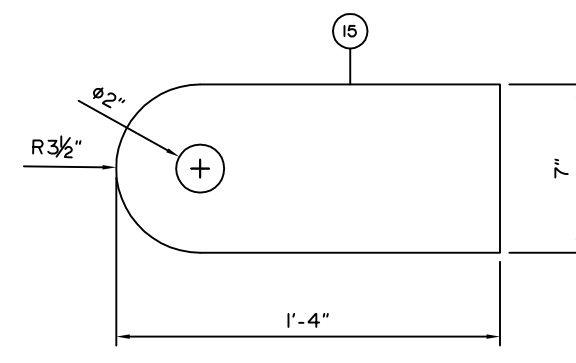
SKID DRAIN SECTION 'A-A'  
N.T.S.



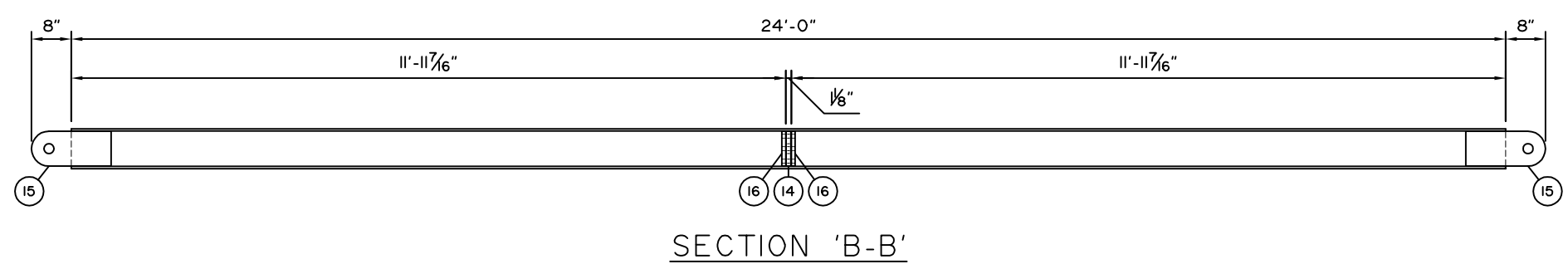
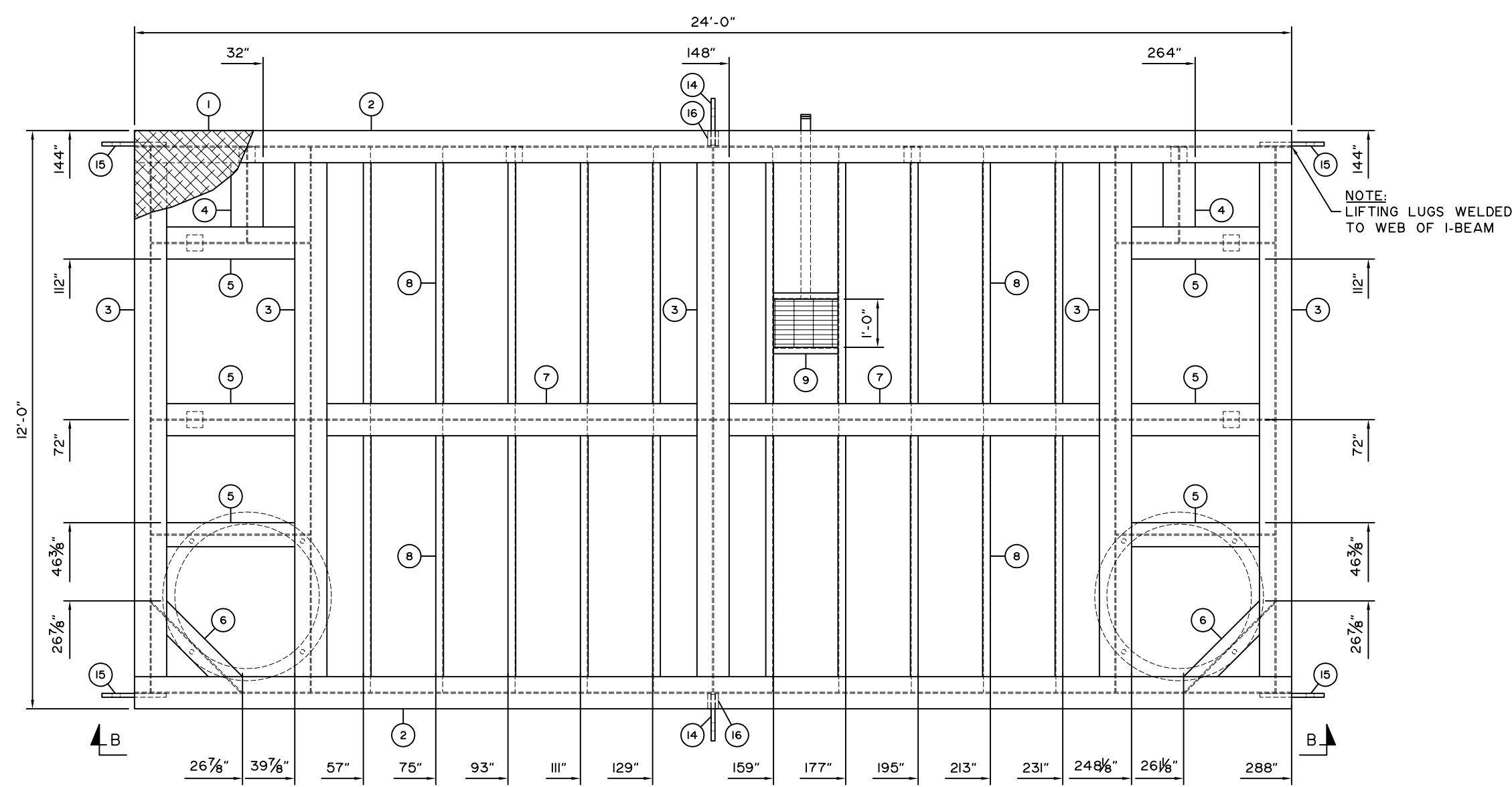
WEB STIFFENER PLACEMENT  
N.T.S.



REMOVABLE LIFT LUG DETAIL  
N.T.S.



LIFT LUG DETAIL  
N.T.S.



SECTION 'B-B'

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
1	288'	FLOOR (CHECKER) PLATE, 1/4", A36/44W (12'-0" X 24'-0")
2	2	W8 X 31 LB/FT X 288" LONG, 350W/50W BEAM
3	5	W8 X 31 LB/FT X 135 11/16" LONG, 350W/50W BEAM
4	2	W8 X 31 LB/FT X 23 11/16" LONG, 350W/50W BEAM
5	6	W8 X 31 LB/FT X 39 9/16" LONG, 350W/50W BEAM
6	2	W8 X 31 LB/FT X 31 15/16" LONG, 350W/50W BEAM
7	2	W8 X 31 LB/FT X 99 7/8" LONG, 350W/50W BEAM
8	20	STD CHANNEL, C6 X 8.2 LB/FT X 67 11/16" LONG, A36/44W
9	2	STD CHANNEL, C4 X 5.4 LB/FT X 16 1/16" LONG, A36/44W
10	2'	U BAR GRATING, 1" X 3/16", CS
11	1	PIPE, 2" SCH. 80 (0.218") X 46" LONG, SA106B
12	5'	ANGLE, L1.250" X 1.250" X 1/4", A36/44W
13	72'	FLAT, 1/4" X 3", A36/44W
14	2	REMOVABLE LIFT LUG - PLATE, 1", A36/44W, SEE DETAIL
15	4	LIFT LUG - PLATE, 1", A36/44W, SEE DETAIL
16	4	WEB STIFFENER - PLATE, 3/4", A36/44W, SEE DETAIL

- NOTES:
- SKID UNDERSIDE TO HAVE 3" INSULATION
  - INSTALL FLAT BAR AT 3 1/2" IN FROM BUILDING EDGE
  - SKID WEIGHT IS APPROXIMATELY 9,000 LBS
  - SEE BROMLEY INTERNAL DRAWING: "BMS-SKID-FAB: SKID
  - WELDING SPECS FOR FURTHER WELDING AND COPING DETAILS
  - SKID TO BE PAINTED BLACK

REV.	MM	DD	YY	DESCRIPTION	BY	CHK'D	APP'D
2	02	05	18	AS BUILT	CK	CK	.
1	11	28	17	LIFTING LUGS RELOCATED (x4) (WELD LUGS TO WEB OF I-BEAM)	CK	CK	.
0	11	06	17	ISSUED FOR CONSTRUCTION	CK	CK	.

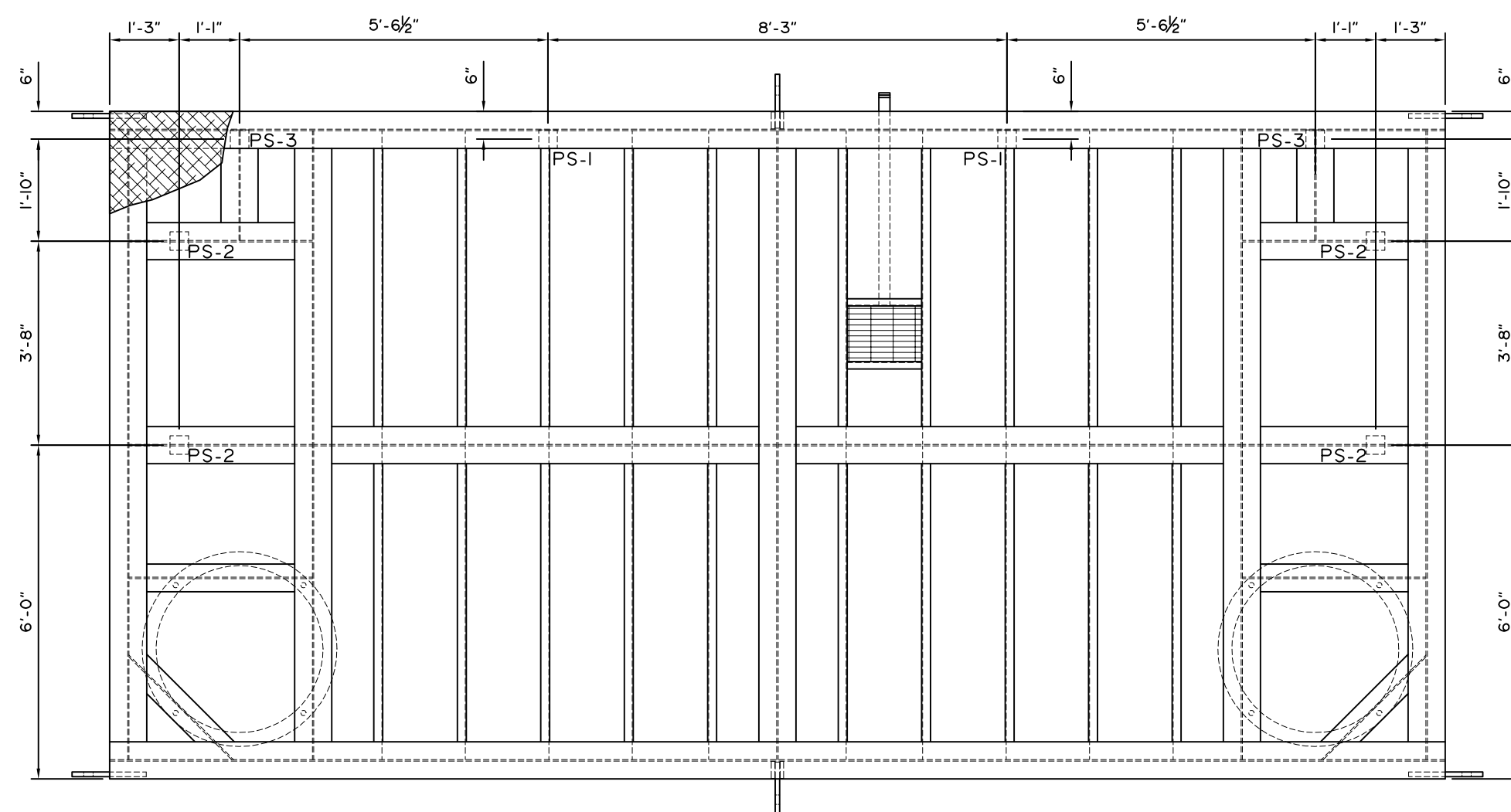
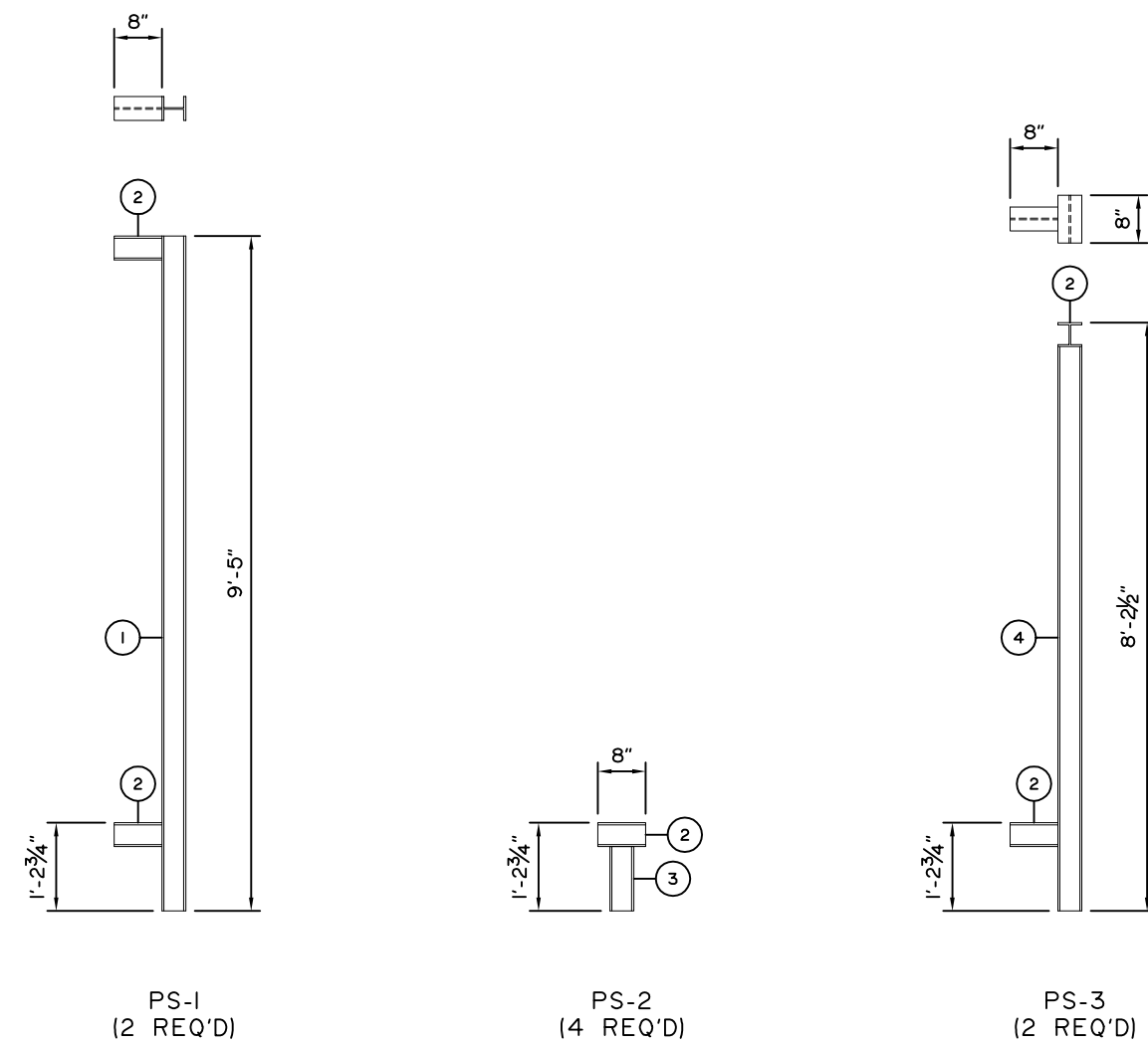
CLIENT:

**BROMLEY**  
MECHANICAL SERVICES  
A DIVISION OF FARGO SALES INC  
925 23 Street SW, Medicine Hat, Alberta, Canada T1A 8R1  
Ph: (403) 526-3142 Fax: (403) 526-1061  
Toll Free (800) 215-9806

PROJECT: TYPICAL DUAL/TEST SEPARATOR PACKAGE

TITLE: SKID

Wo No.: 35527	REV. No.: 2	DATE: MM/DD/YY 02/05/18
DRAWN BY: C. KARPIUK	SCALE: 3/8"=1'-0"	CAD No.: 35527-SKID
DATE: MM/DD/YY 10/11/17		



### BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
1	2	W4 X 13 LB/FT X 113" LONG, 350W/50W BEAM
2	12	W4 X 13 LB/FT X 8" LONG, 350W/50W BEAM
3	4	W4 X 13 LB/FT X 10 3/4" LONG, 350W/50W BEAM
4	2	W4 X 13 LB/FT X 94 1/2" LONG, 350W/50W BEAM

NOTES:  
SEE BROMLEY INTERNAL DRAWING: "BMS-SKID-FAB: SKID"  
WELDING SPECS FOR FURTHER WELDING AND COPING DETAILS

REV. No.	MM	DD	YY	DATE	DESCRIPTION	BY	CHK'D	APP'D
I	02	05	18		AS BUILT	CK	CK	.
0	11	06	17		ISSUED FOR CONSTRUCTION	CK	CK	.

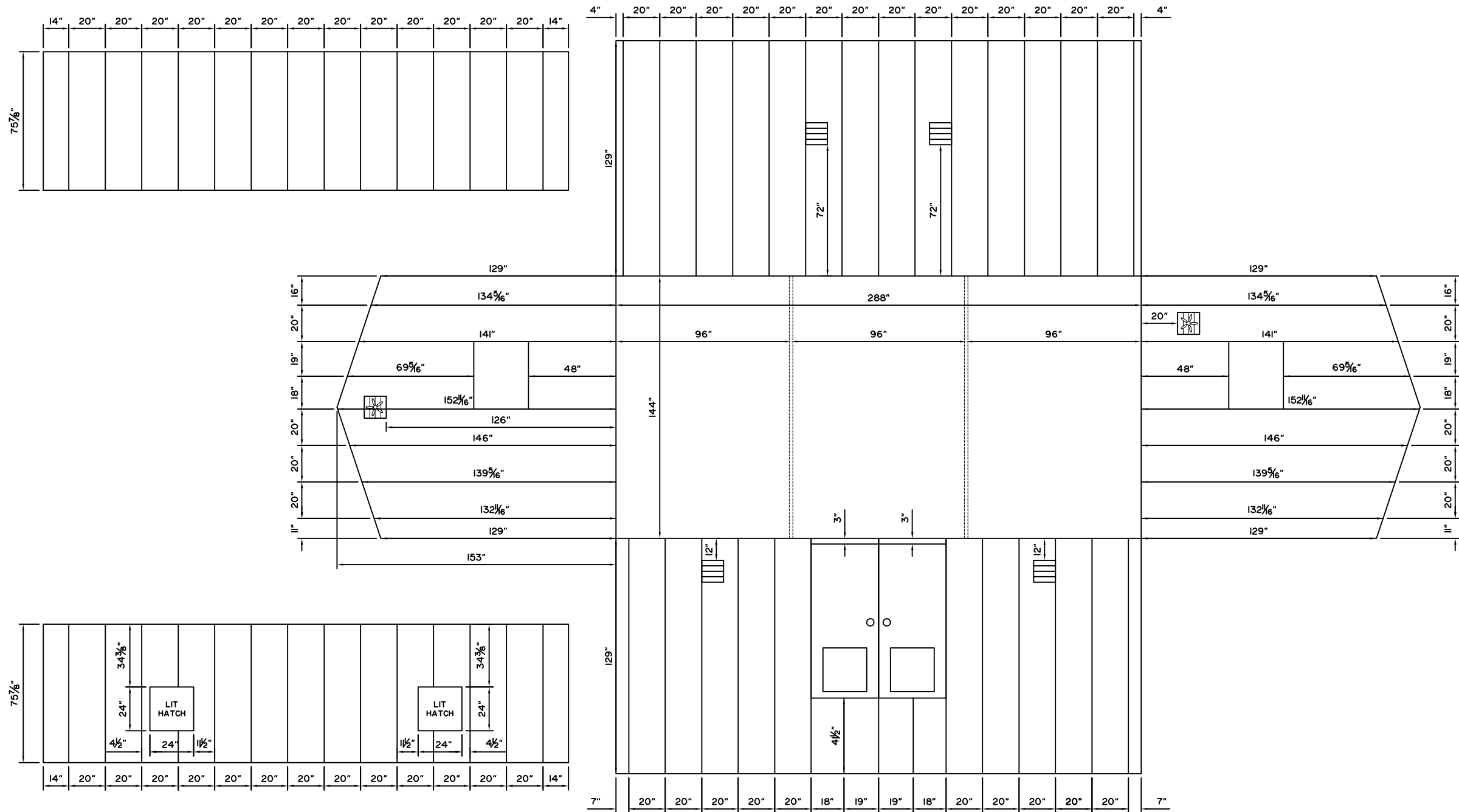
CLIENT:

**BROMLEY**  
MECHANICAL SERVICES  
A DIVISION OF FARGO SALES INC  
925 23 Street SW, Medicine Hat, Alberta, Canada T1A 6R1  
Ph: (403) 526-3142 Fax: (403) 526-1061  
Toll Free (800) 215-9806

PROJECT: TYPICAL DUAL/TEST SEPARATOR PACKAGE

TITLE: PIPE SUPPORTS

Wo No.:	35527	REV. No.:	1	DATE: MM/DD/YY	02/05/18
DRAWN BY:	C. KARPIUK	SCALE:	3/8"=1'-0"	CAD No.:	35527-SUPPORT
DATE: MM/DD/YY	10/11/17				



REV. No.	MM	DD	YY	DATE	DESCRIPTION	BY	CHK'D	APP'D
I	02	05	18		AS BUILT	CK	CK	.
II	08	17			ISSUED FOR CONSTRUCTION	CK	CK	.

**BROMLEY MECHANICAL SERVICES**  
 925 - 23rd Street S.W., Medicine Hat, Alberta, Canada, T1A 8R1 (403) 526-3142

CLIENT

PROJECT  
**TYPICAL DUAL/TEST SEPARATOR PACKAGE**

TITLE  
**BUILDING**

Wo No.: 35527  
 DRAWN BY: C. KARPIUK  
 DATE: MM/DD/YY 10/11/17

REV. No.: I  
 SCALE: 3/16"=1'

DATE: MM/DD/YY 02/05/18  
 CAD No.: 35527-BUILDING