

E 33'1.9/16"
N 9'1.7/8"
EL +7'1.7/8"
1"NS
F4 G7 B8
FOR CONT REFER LINE NO 1"-ALCG-20032
MATCH PT-H, REFER NOTE-2

CONT. ON
'SHT' 2
1"NS
19.1/8"
17.13/16"
23.1/8"
3'4.15/16"
2
EL +5'6.1/16"
VENDOR TO SITE VERIFY ROUTING FROM
THIS PT. ONWARDS TO THE TIE PT. BEFORE
FABRICATION AND INSTALLATION

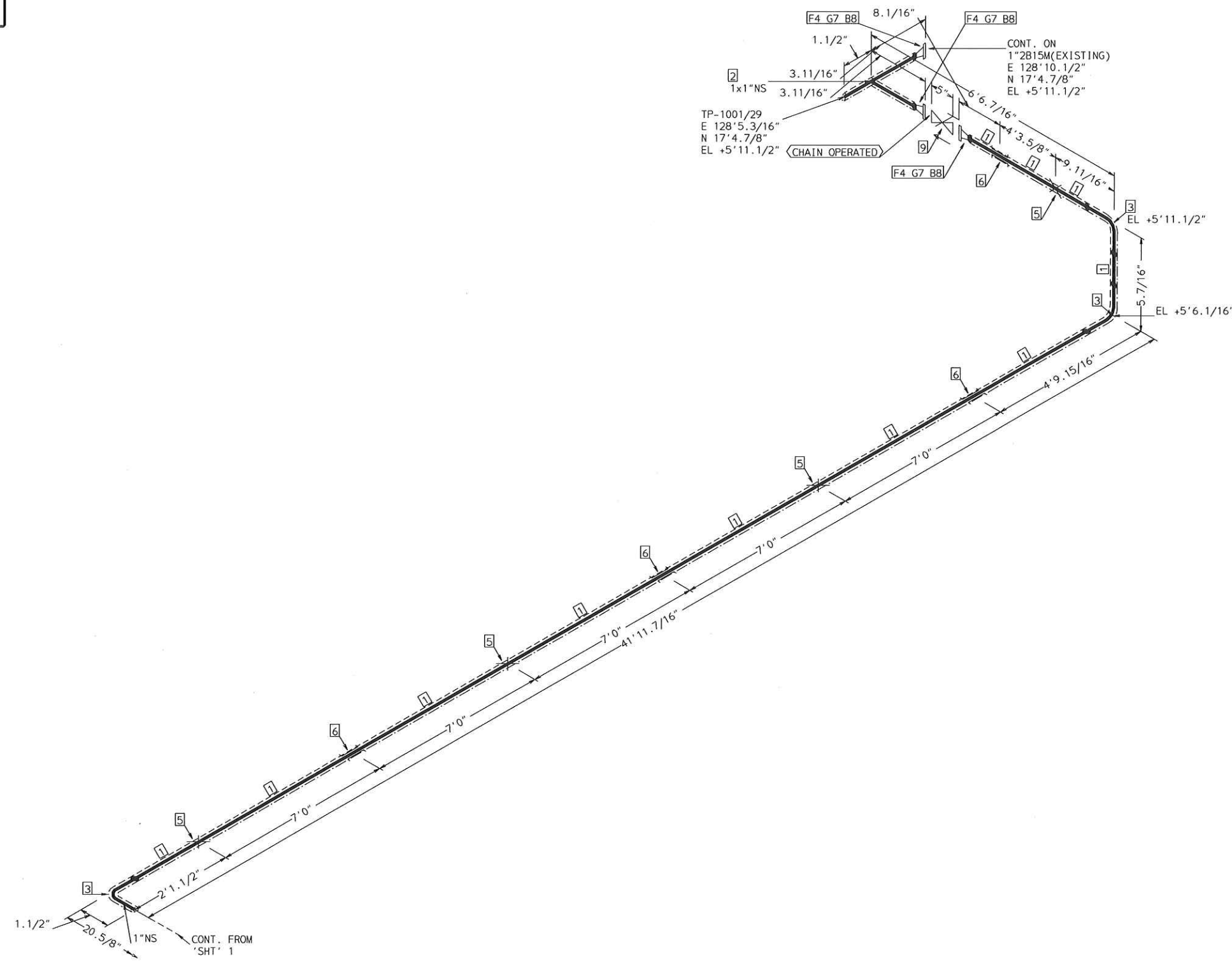
TRACING SPEC: S-TRACING (NOTE-10)

FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
PIPE				
1	ALCG	PIPE STD WT SMLS STL A106-B	1	55.8'
FITTINGS				
2	ALCG	ELL 90 DEG LR STD WT STL A234 WPB BW	1	3
FLANGES				
3	ALCG	FLG BLIND 150# RF STL A105	1	1
4	ALCG	FLG WN 150# RF STL STD BORE A105	1	1

ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
FITTINGS				
5	SUPP	SPS-2 RESTING SUPPORT	1	4
6	SUPP	SPS-2G GUIDE SUPPORT	1	5
GASKETS				
7	ALCG	GASKET 150# 1/8" 304 SPRL WND W/FLEXICARB TYPE CG	1	1
BOLTS				
8	ALCG	2.9/16 x1/2" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	9/16	4

AREA: CETYL		1"-ALCG-20032-TAS	
PIPING GA NO: -	P&ID NO: 1020	STRESS CRITICAL: NA	
OP.TEMP: 300	OP.PRESS: 80psig	TEST MEDIUM: Hydro	
DES.TEMP: 400	DES.PRESS: 150	TEST PRESS: 165	
SCALE: NONE	INSUL.TYPE: N5-CELLULAR	INSUL.THK: 1.5	
LINE NO. / FILE NAME: 1"-ALCG-20032-TAS			ISSUE: R3

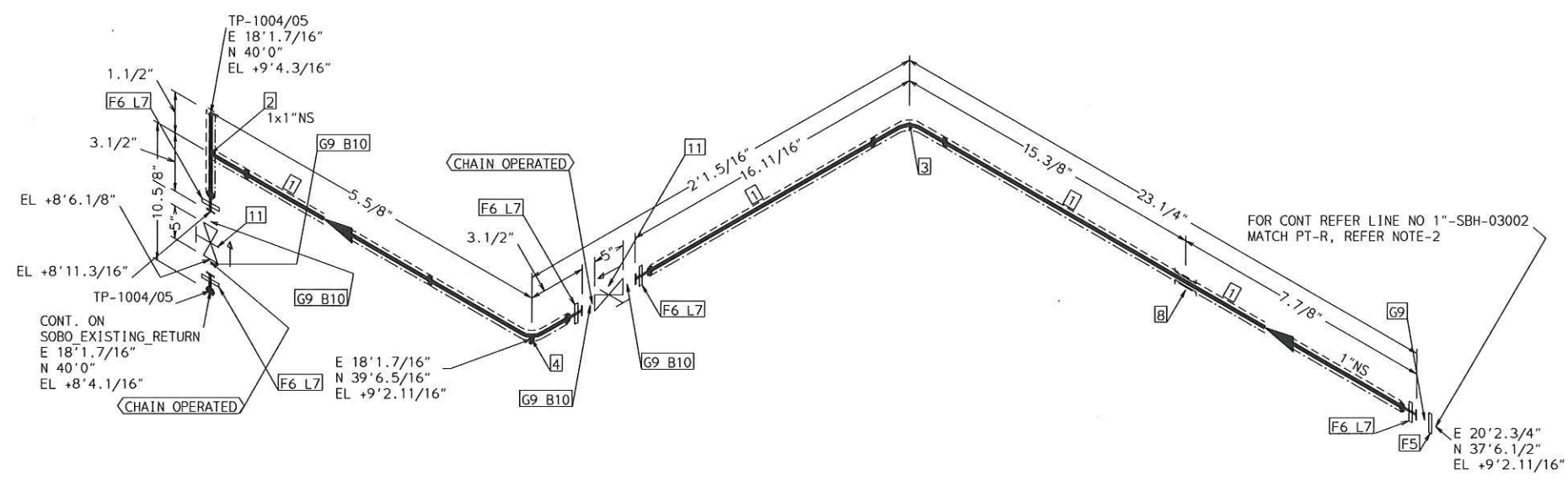
SIZE-A3



TRACING SPEC: S-TRACING (NOTE-10)

FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
1	ALCG	PIPE PIPE STD WT SMLS STL A106-B	1	47.4'
2	ALCG	FITTINGS TEE STD WT STL A234 WPB BW	1 x 1	1
3	ALCG	ELL 90 DEG LR STD WT STL A234 WPB BW	1	3
4	ALCG	FLANGES FLG WN 150# RF STL STD BORE A105	1	3
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
5	SUPP	FITTINGS SPS-2 RESTING SUPPORT	1	4
6	SUPP	SPS-2G GUIDE SUPPORT	1	4
7	ALCG	GASKETS GASKET 150# 1/8" 304 SPRL WND W/FLEXICARB TYPE CG	1	3
8	ALCG	BOLTS 2.9/16 x1/2" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	9/16	12
9	ALCG	VALVES / IN-LINE ITEMS GATE 150# FLANGED RF C.STL F6 TRIM	1	1

AREA: CETYL	1" -ALCG-20032-TAS	
PIPING GA NO: -	P&ID NO: 1020	STRESS CRITICAL: NA
OP.TEMP: 300	OP.PRESS: 80psig	TEST MEDIUM: Hydro
DES.TEMP: 400	DES.PRESS: 150	TEST PRESS: 165
SCALE: NONE	INSUL.TYPE: N5-CELLULAR	INSUL.THK: 1.5
LINE NO. / FILE NAME: 1" -ALCG-20032-TAS	ISSUE: R3	



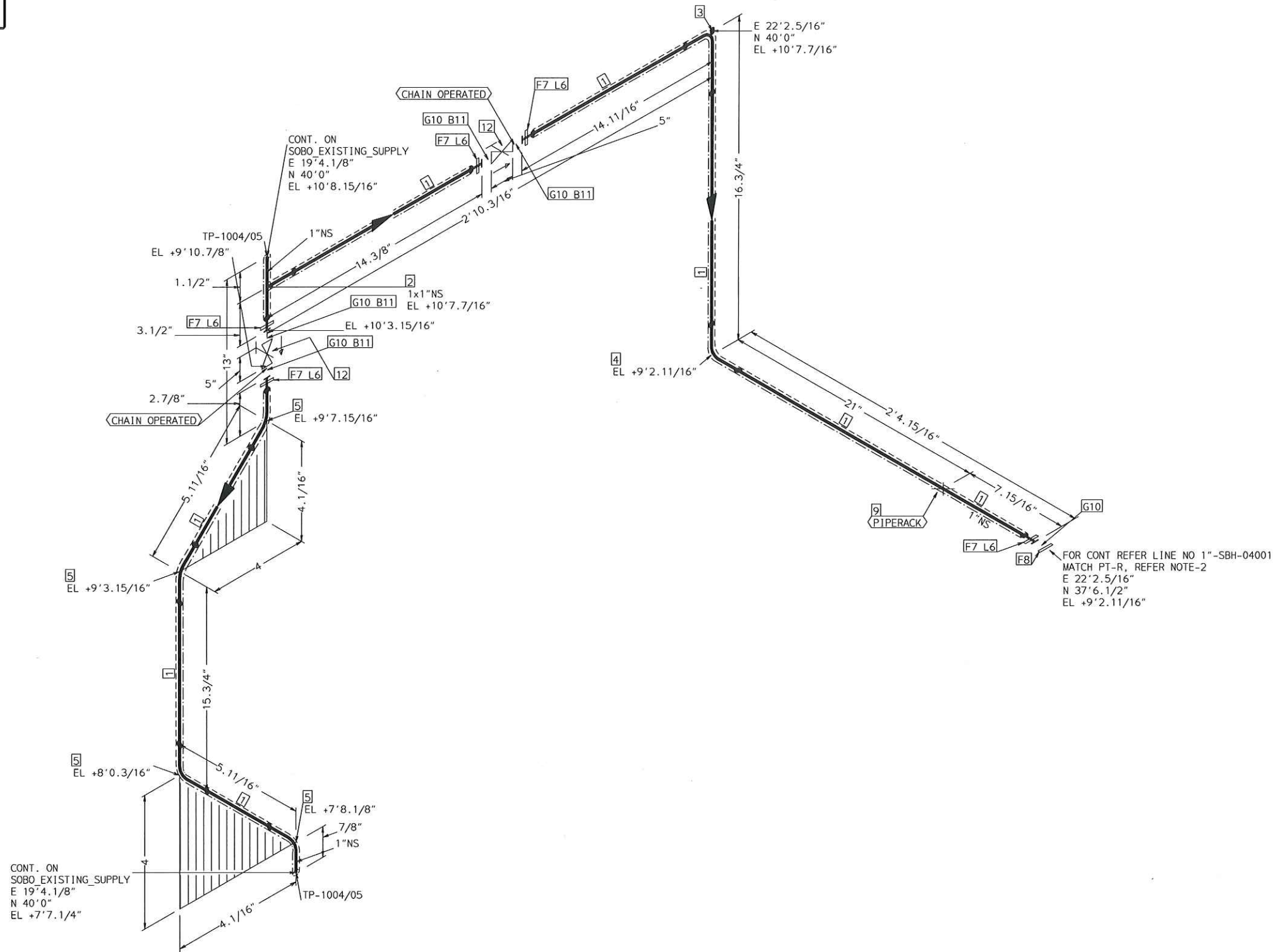
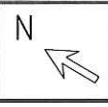
TRACING SPEC: S-TRACING (NOTE-10)

FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
<u>PIPE</u>				
1	SBH	PIPE SMLS BE ASME B36.19 SCH10S ASTM A312 GR. TP304	1	3.0'
<u>FITTINGS</u>				
2	SBH	TEE SCH 10S STN.STL A403 SS304 BW	1 x 1	1
3	SBH	ELL 90 DEG LR SCH 10S STN.STL A403 SS304 BW	1	1
4	SBH	ELL 90 DEG LR SCH 10S STN.STL A403 SS304 BW	1	1
<u>FLANGES</u>				
5	SBH	FLG BLIND 150# RF STL ASTM A182 GR.F304	1	1
6	SBH	FLG LAP JOINT 150# FF STL A105	1	5
7	SBH	STUB-END 150# RF MSS SP 43 SCH10S TYPE A (SHORT PATTERN LENGTH) BW	1	5

ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
<u>FITTINGS</u>				
8	SUPP	SPS-2G GUIDE SUPPORT	1	1
<u>GASKETS</u>				
9	SBH	GASKET 150# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1	5
<u>BOLTS</u>				
10	SBH	2.9/16 x1/2" STUD BOLT A307 GR B/ 2 A307 GR B NUTS	9/16	16
<u>VALVES / IN-LINE ITEMS</u>				
11	SBH	GATE 150# FLGD RF 316 S.S.STLITE TRIM GRA PKG	1	2

AREA: CETYL		1"-SBH-03002-TAS	
PIPING GA NO: -	P&ID NO: 1003	STRESS CRITICAL: NA	
OP.TEMP: 150	OP.PRESS: 25psig	TEST MEDIUM: Hydro	
DES.TEMP: 177	DES.PRESS: 150	TEST PRESS: 225	
SCALE: NONE	INSUL.TYPE: N5-CELLULAR	INSUL.THK: 1	
LINE NO. / FILE NAME: 1"-SBH-03002-TAS			ISSUE: R3

SIZE-A3

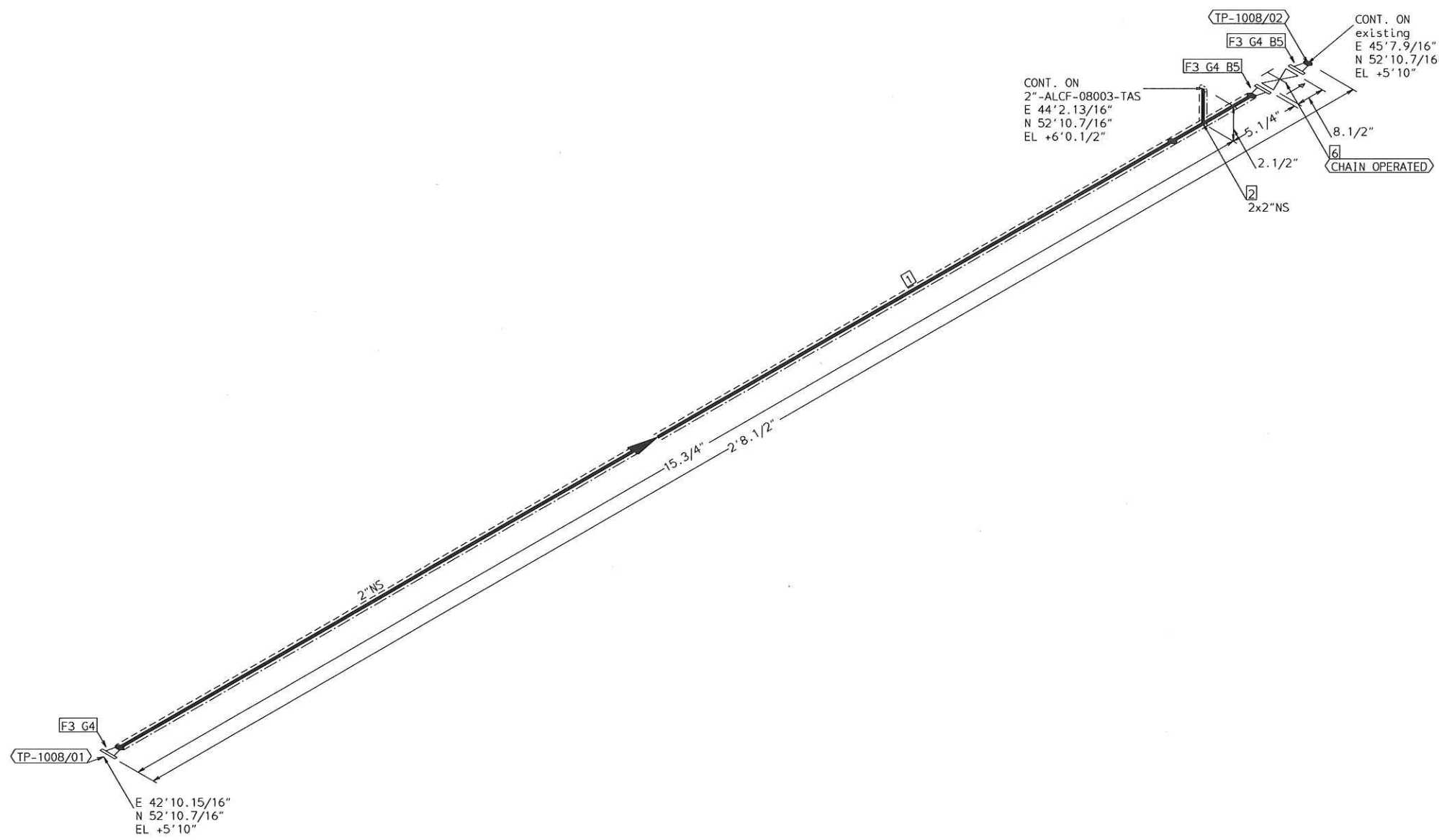
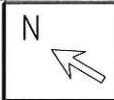


FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
<u>PIPE</u>				
1	SBH	PIPE SMLS BE ASME B36.19 SCH10S ASTM A312 GR. TP304	1	7.0'
<u>FITTINGS</u>				
2	SBH	TEE SCH 10S STN.STL A403 SS304 BW	1 x 1	1
3	SBH	ELL 90 DEG LR SCH 10S STN.STL A403 SS304 BW	1	1
4	SBH	ELL 90 DEG LR SCH 10S STN.STL A403 SS304 BW	1	1
5	SBH	ELL 45 DEG SCH 10S STN.STL A403 SS304 BW	1	4
<u>FLANGES</u>				
6	SBH	STUB-END 150# RF MSS SP 43 SCH10S TYPE A (SHORT PATTERN LENGTH) BW	1	5
7	SBH	FLG LAP JOINT 150# FF STL A105	1	5
8	SBH	FLG BLIND 150# RF STL ASTM A182 GR.F304	1	1
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
<u>FITTINGS</u>				
9	SUPP	SPS-2 RESTING SUPPORT	1	1
<u>GASKETS</u>				
10	SBH	GASKET 150# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1	5
<u>BOLTS</u>				
11	SBH	2.9/16 x1/2" STUD BOLT A307 GR B/ 2 A307 GR B NUTS	9/16	16
<u>VALVES / IN-LINE ITEMS</u>				
12	SBH	GATE 150# FLGD RF 316 S.S.STLITE TRIM GRA PKG	1	2

TRACING SPEC: S-TRACING (NOTE-10)

AREA: CETYL		1" - SBH-04001-TAS	
PIPING GA NO:	P&ID NO: 1004	STRESS CRITICAL: NA	
OP.TEMP: 176	OP.PRESS: 30	TEST MEDIUM: Hydro	
DES.TEMP: 203	DES.PRESS: 150	TEST PRESS: 225	
SCALE: NONE	INSUL.TYPE: NS-CELLULAR	INSUL.THK: 2	
LINE NO. / FILE NAME: 1" - SBH-04001-TAS			ISSUE: R3

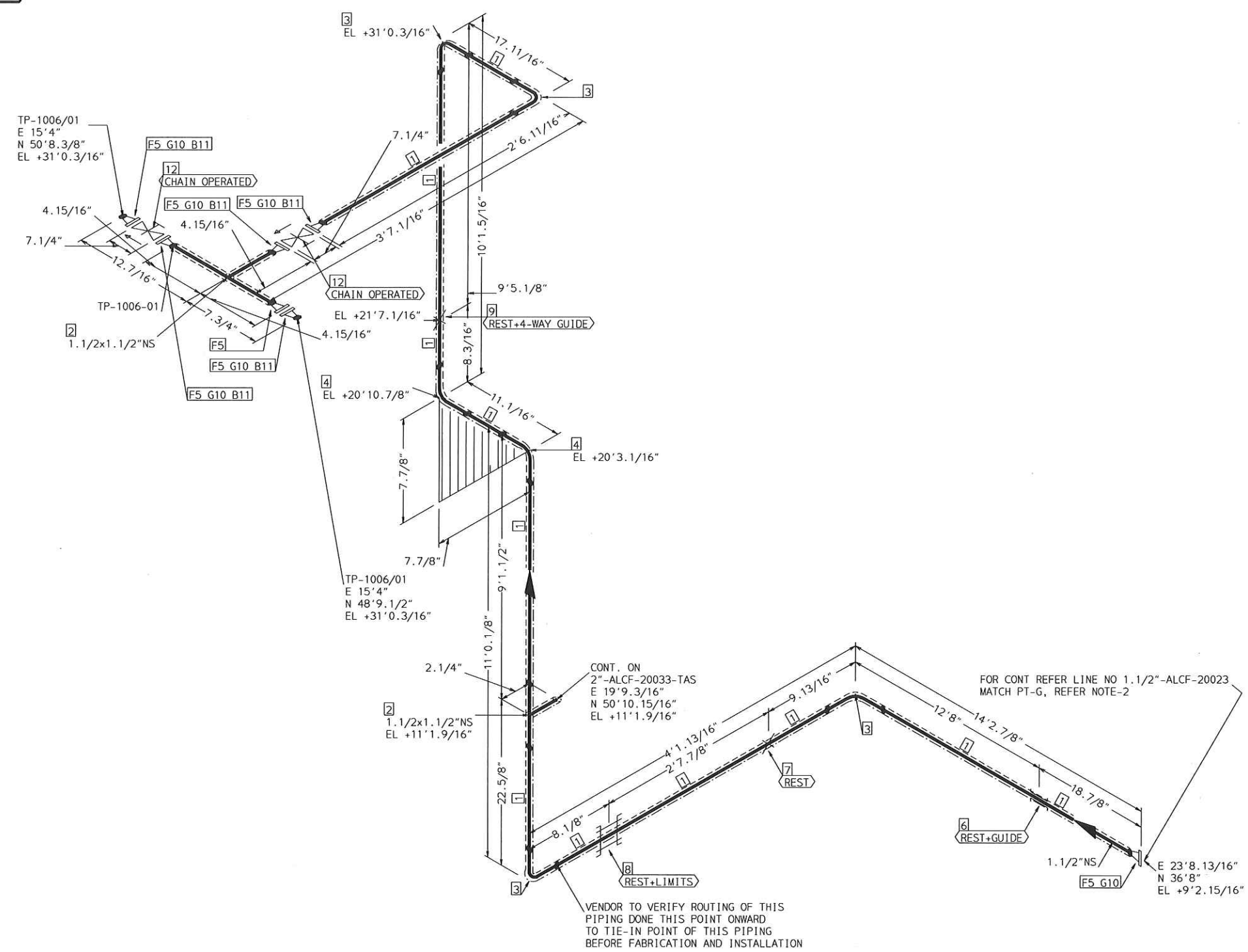
SIZE-A3



FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
<u>PIPE</u>				
1	ALCF	PIPE STD WT SMLS STL A106-B	2	0.9'
<u>FITTINGS</u>				
2	ALCF	TEE STD WT STL A234 WPB BW	2 x 2	1
<u>FLANGES</u>				
3	ALCF	FLG WN 300# RF STL STD BORE A105	2	3
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
<u>GASKETS</u>				
4	ALCF	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	2	3
<u>BOLTS</u>				
5	ALCF	3.9/16 x 5/8" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	11/16	16
<u>VALVES / IN-LINE ITEMS</u>				
6	ALCF	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	2	1

TRACING SPEC: S-TRACING (NOTE-10)

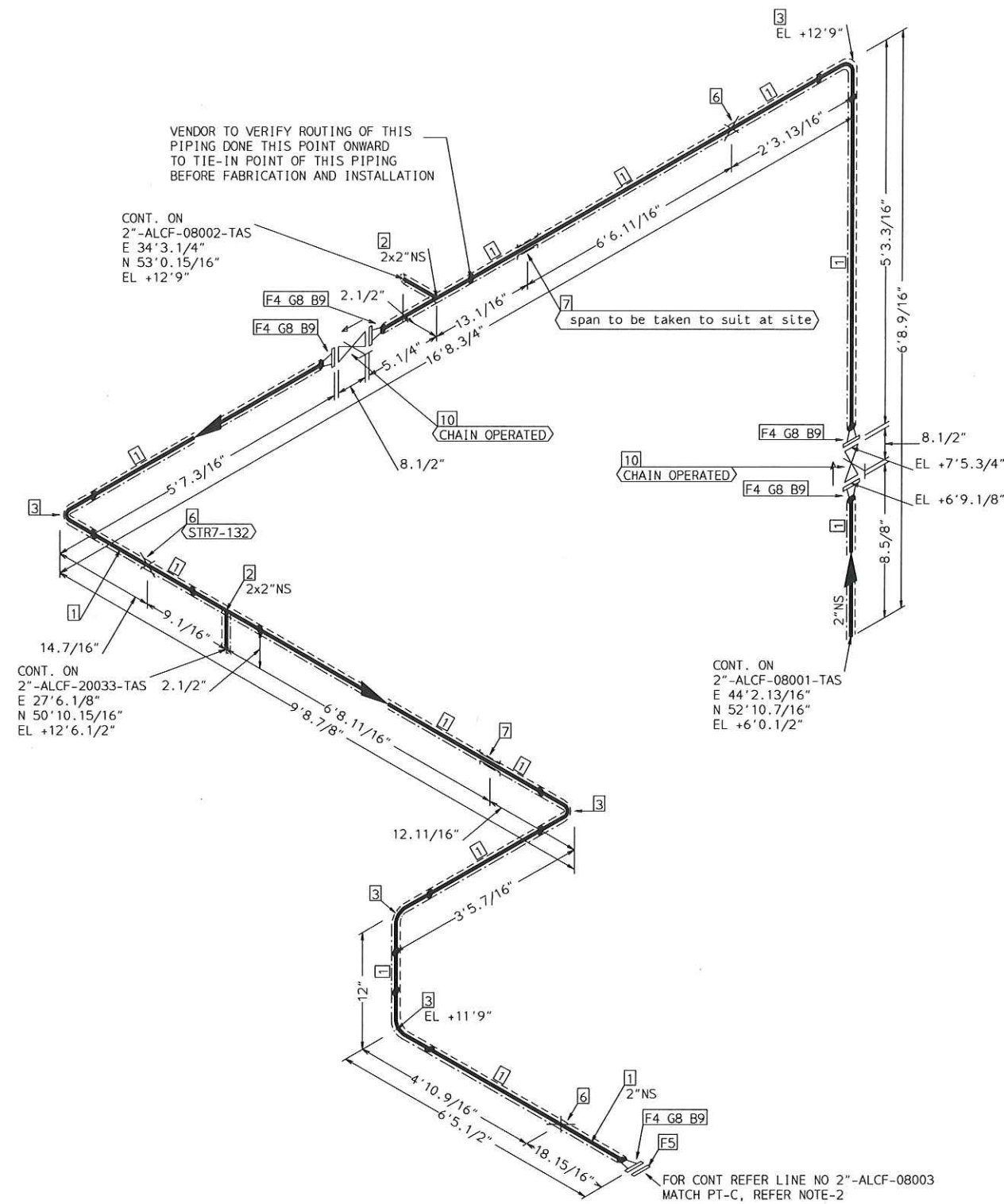
AREA: CETYL		2"-ALCF-08001-TAS	
PIPING GA NO: -	P&ID NO: 1008	STRESS CRITICAL: NA	
OP.TEMP: 490°F	OP.PRESS: 30 psig	TEST MEDIUM: Hydro	
DES.TEMP: 600°F	DES.PRESS: 300 psig	TEST PRESS: 450 psig	
SCALE: NONE	INSUL.TYPE: NS-CELLULAR	INSUL.THK: 1.5 inch	
LINE NO. / FILE NAME: 2"-ALCF-08001-TAS			ISSUE: R3



FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
PIPE				
1	ALCF	PIPE STD WT SMLS STL A106-B	1.1/2	41.8'
FITTINGS				
2	ALCF	TEE STD WT STL A234 WPB BW	1.1/2	2
3	ALCF	ELL 90 DEG LR STD WT STL A234 WPB BW	1.1/2	4
4	ALCF	ELL 45 DEG STD WT STL A234 WPB BW	1.1/2	2
FLANGES				
5	ALCF	FLG WN 300# RF STL STD BORE A105	1.1/2	7
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
FITTINGS				
6	SUPP	SPS-2G GUIDE SUPPORT	1.1/2	1
7	SUPP	SPS-2 RESTING SUPPORT	1.1/2	1
8	SUPP	TWO DIRECTIONAL RESTRAINT SUPPORT SPS-69	1.1/2	1
9	SUPP	SPS-67G1 support	1.1/2	1
GASKETS				
10	ALCF	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1.1/2	6
BOLTS				
11	ALCF	3.9/16 x3/4" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	7/8	20
VALVES / IN-LINE ITEMS				
12	ALCF	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	1.1/2	2

AREA: CETYL	1.1/2"-ALCF-20023-TAS	
PIPING GA NO: -	P&ID NO: 1020	STRESS CRITICAL: NA
OP.TEMP: 490	OP.PRESS: 15psig	TEST MEDIUM: Hydro
DES.TEMP: 600	DES.PRESS: 300	TEST PRESS: 450
SCALE: NONE	INSUL.TYPE: N5-CELLULAR	INSUL.THK: 1.5
LINE NO. / FILE NAME: 1.1/2"-ALCF-20023-TAS	ISSUE: R3	

SIZE-A3

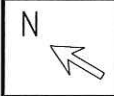


FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
PIPE				
1	ALCF	PIPE STD WT SMLS STL A106-B	2	38.2'
FITTINGS				
2	ALCF	TEE STD WT STL A234 WPB BW	2 x 2	2
3	ALCF	ELL 90 DEG LR STD WT STL A234 WPB BW	2	5
FLANGES				
4	ALCF	FLG WN 300# RF STL STD BORE A105	2	5
5	ALCF	FLG BLIND 300# RF STL A105	2	1
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
FITTINGS				
6	SUPP	SPS-2 RESTING SUPPORT	2	3
7	SUPP	SPS-2G GUIDE SUPPORT	2	2
GASKETS				
8	ALCF	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	2	5
BOLTS				
9	ALCF	3.9/16 x 5/8" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	11/16	40
VALVES / IN-LINE ITEMS				
10	ALCF	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	2	2

TRACING SPEC: S-TRACING (NOTE-10)

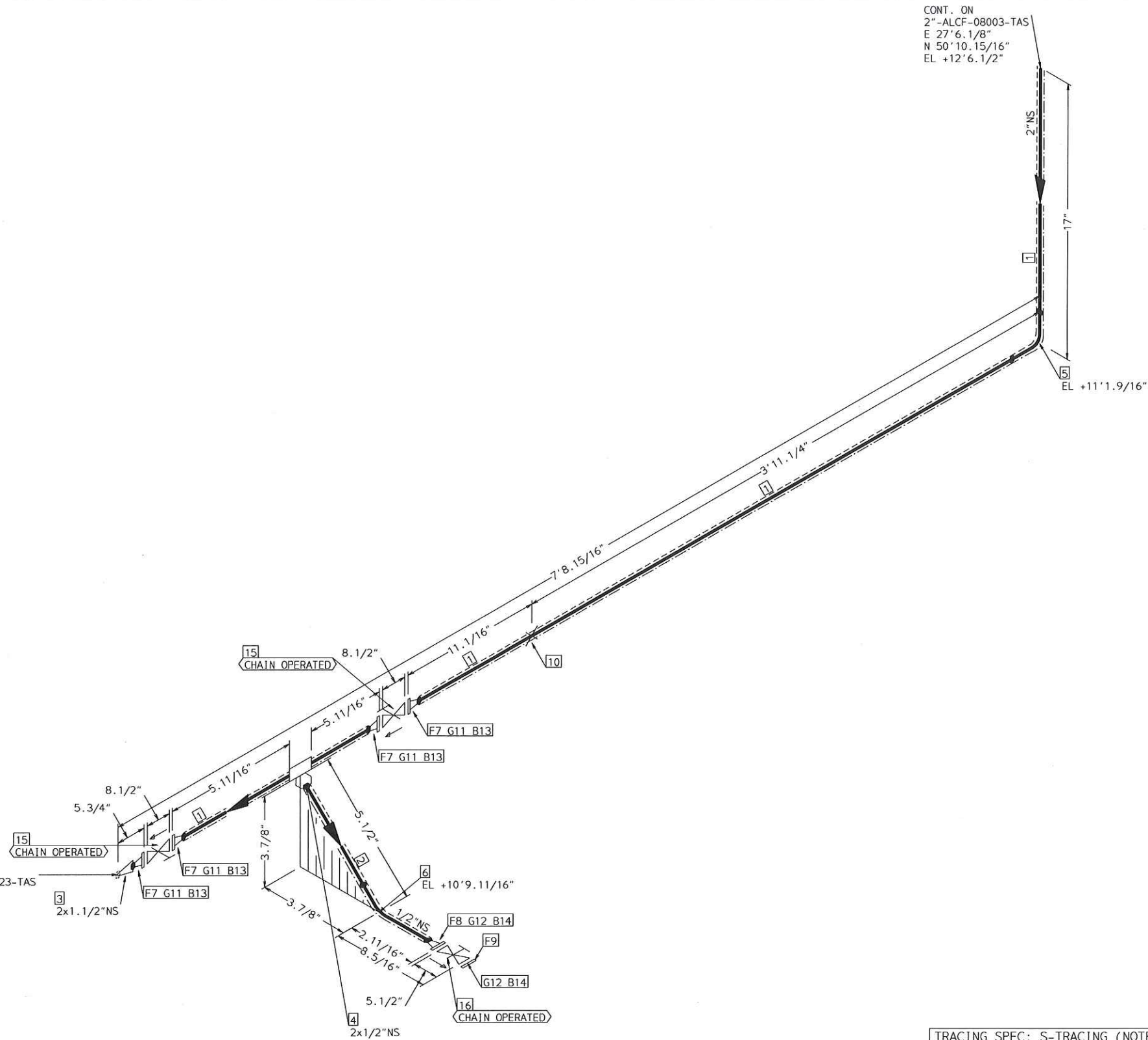
AREA: CETYL		2"-ALCF-08003-TAS	
PIPING GA NO: -	P&ID NO: 1008	STRESS CRITICAL: NA	
OP.TEMP: 490	OP.PRESS: 30psig	TEST MEDIUM: Hydro	
DES.TEMP: 600	DES.PRESS: 300	TEST PRESS: 450	
SCALE: NONE	INSUL.TYPE: N5-CELLULAR	INSUL.THK: 2	
LINE NO. / FILE NAME: 2"-ALCF-08003-TAS			ISSUE: R3

SIZE-A3



CONT. ON
 2" -ALCF-08003-TAS
 E 27'6.1/8"
 N 50'10.15/16"
 EL +12'6.1/2"

CONT. ON
 1.1/2" -ALCF-20023-TAS
 E 19'9.3/16"
 N 50'10.15/16"
 EL +11'1.9/16"

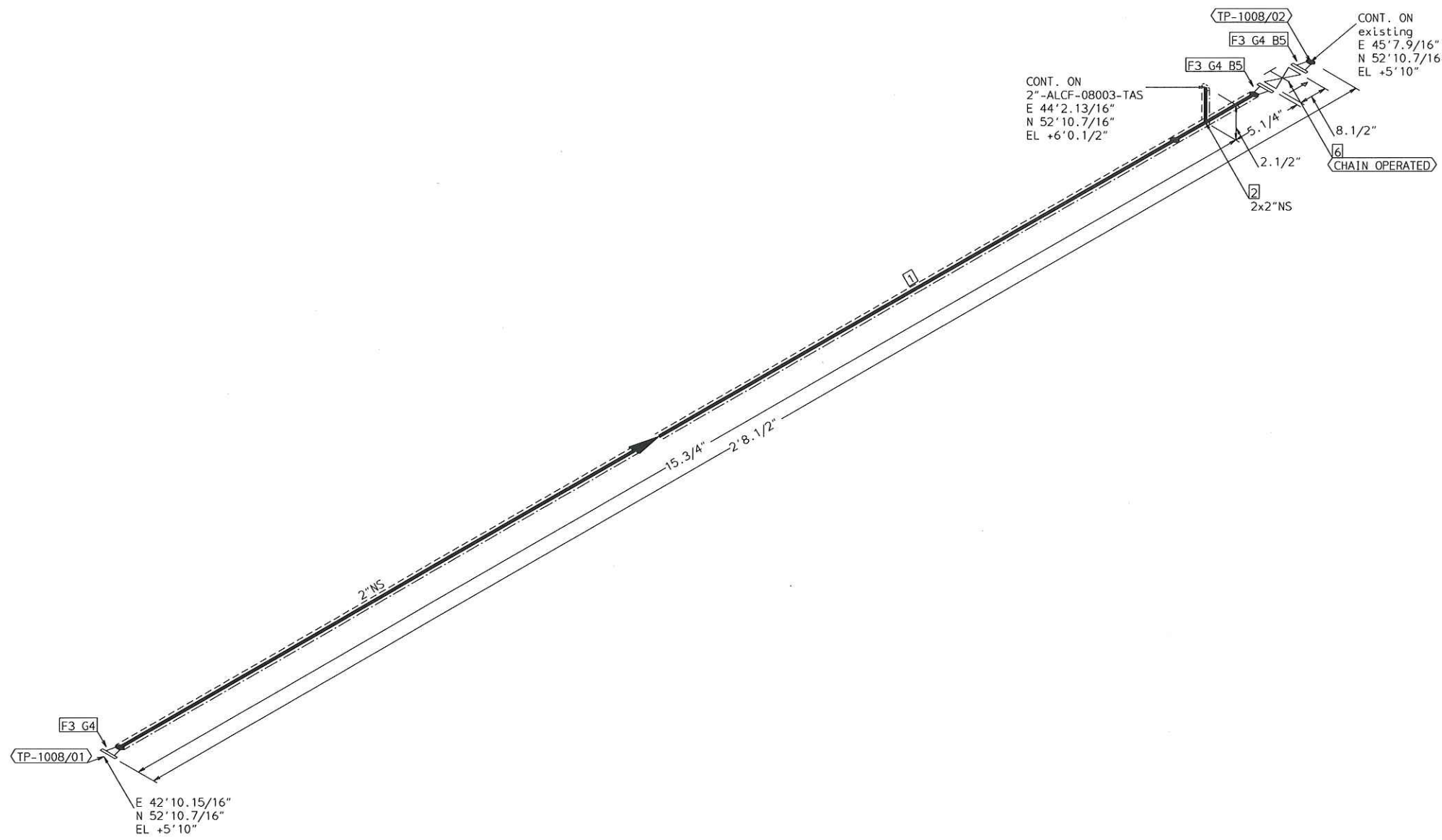


TRACING SPEC: S-TRACING (NOTE-10)

FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
PIPE				
1	ALCF	PIPE STD WT SMLS STL A106-B	2	6.1'
2	ALCF	PIPE STD WT SMLS STL A106-B	1/2	0.3'
FITTINGS				
3	ALCF	REDUCER CONC STD WT STL A234 WPB BW	2 x 1.1/2	1
4	ALCF	WELDOLET STD WT STL A105	2 x 1/2	1
5	ALCF	ELL 90 DEG LR STD WT STL A234 WPB BW	2	1
6	ALCF	ELL 45 DEG STD WT STL A234 WPB BW	1/2	1
FLANGES				
7	ALCF	FLG WN 300# RF STL STD BORE A105	2	4
8	ALCF	FLG WN 300# RF STL STD BORE A105	1/2	1
9	ALCF	FLG BLIND 300# RF STL A105	1/2	1

ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
FITTINGS				
10	SUPP	SPS-2 RESTING SUPPORT	2	1
GASKETS				
11	ALCF	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	2	4
12	ALCF	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1/2	2
BOLTS				
13	ALCF	3.9/16 x 5/8" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	11/16	32
14	ALCF	2.9/16 x 1/2" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	9/16	8
VALVES / IN-LINE ITEMS				
15	ALCF	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	2	2
16	ALCF	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	1/2	1

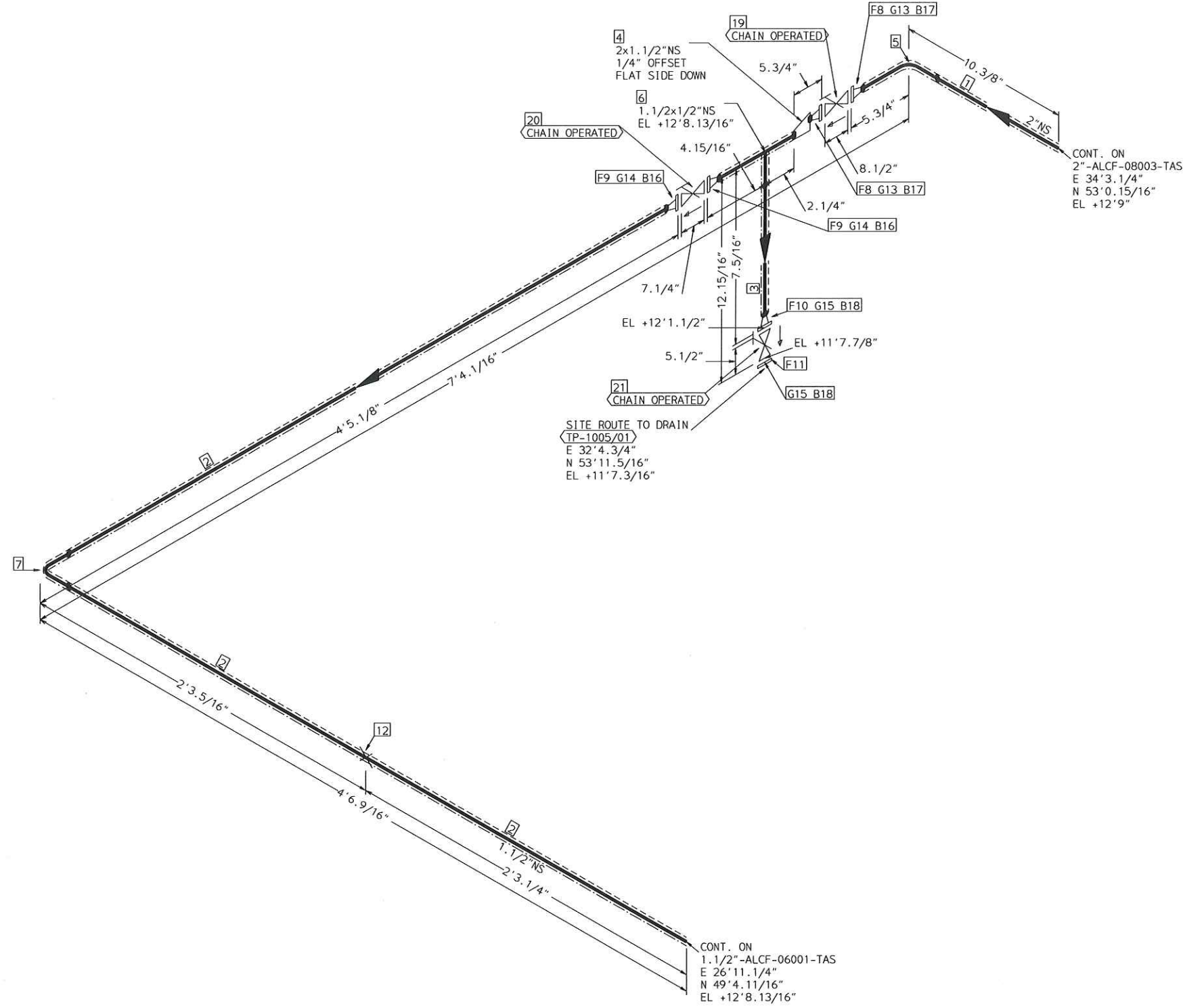
AREA: CETYL		2" -ALCF-20033-TAS	
PIPING GA NO: -	P&ID NO: 1020	STRESS CRITICAL: NA	
OP.TEMP: 490	OP.PRESS: 30psig	TEST MEDIUM: Hydro	
DES.TEMP: 517	DES.PRESS: 300	TEST PRESS: 450	
SCALE: NONE	INSUL.TYPE: N5-CELLULAR	INSUL.THK: 2	
LINE NO. / FILE NAME: 2" -ALCF-20033-TAS			ISSUE: R3



FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
<u>PIPE</u>				
1	ALCF	PIPE STD WT SMLS STL A106-B	2	0.9'
<u>FITTINGS</u>				
2	ALCF	TEE STD WT STL A234 WPB BW	2 x 2	1
<u>FLANGES</u>				
3	ALCF	FLG WN 300# RF STL STD BORE A105	2	3
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
<u>GASKETS</u>				
4	ALCF	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	2	3
<u>BOLTS</u>				
5	ALCF	3.9/16 x 5/8" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	11/16	16
<u>VALVES / IN-LINE ITEMS</u>				
6	ALCF	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	2	1

TRACING SPEC: S-TRACING (NOTE-10)

AREA: CETYL		2"-ALCF-08001-TAS	
PIPING GA NO: -	P&ID NO: 1008	STRESS CRITICAL: NA	
OP.TEMP: 490°F	OP.PRESS: 30 psig	TEST MEDIUM: Hydro	
DES.TEMP: 600°F	DES.PRESS: 300 psig	TEST PRESS: 450 psig	
SCALE: NONE	INSUL.TYPE: NS-CELLULAR	INSUL.THK: 1.5 inch	
LINE NO. / FILE NAME: 2"-ALCF-08001-TAS			ISSUE: R3



ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
FITTINGS				
12	SUPP	SPS-2 RESTING SUPPORT	1.1/2	1
GASKETS				
13	ALCF	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	2	2
14	ALCF	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1.1/2	2
15	ALCF	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1/2	2
BOLTS				
16	ALCF	3.9/16 x3/4" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	7/8	8
17	ALCF	3.9/16 x5/8" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	11/16	16
18	ALCF	2.9/16 x1/2" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	9/16	8
VALVES / IN-LINE ITEMS				
19	ALCF	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	2	1
20	ALCF	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	1.1/2	1
21	ALCF	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	1/2	1

TRACING SPEC: S-TRACING (NOTE-10)

AREA: CETYL	2"-ALCF-08002-TAS	
PIPING GA NO: -	P&ID NO: 1008	STRESS CRITICAL: NA
OP.TEMP: 490°F	OP.PRESS: 30 psig	TEST MEDIUM: Hydro
DES.TEMP: 600°F	DES.PRESS: 300 psig	TEST PRESS: 450 psig
SCALE: NONE	INSUL.TYPE: N5-CELLULAR	INSUL.THK: 2 inch
LINE NO. / FILE NAME: 2"-ALCF-08002-TAS	ISSUE: R3	

SIZE-A3

