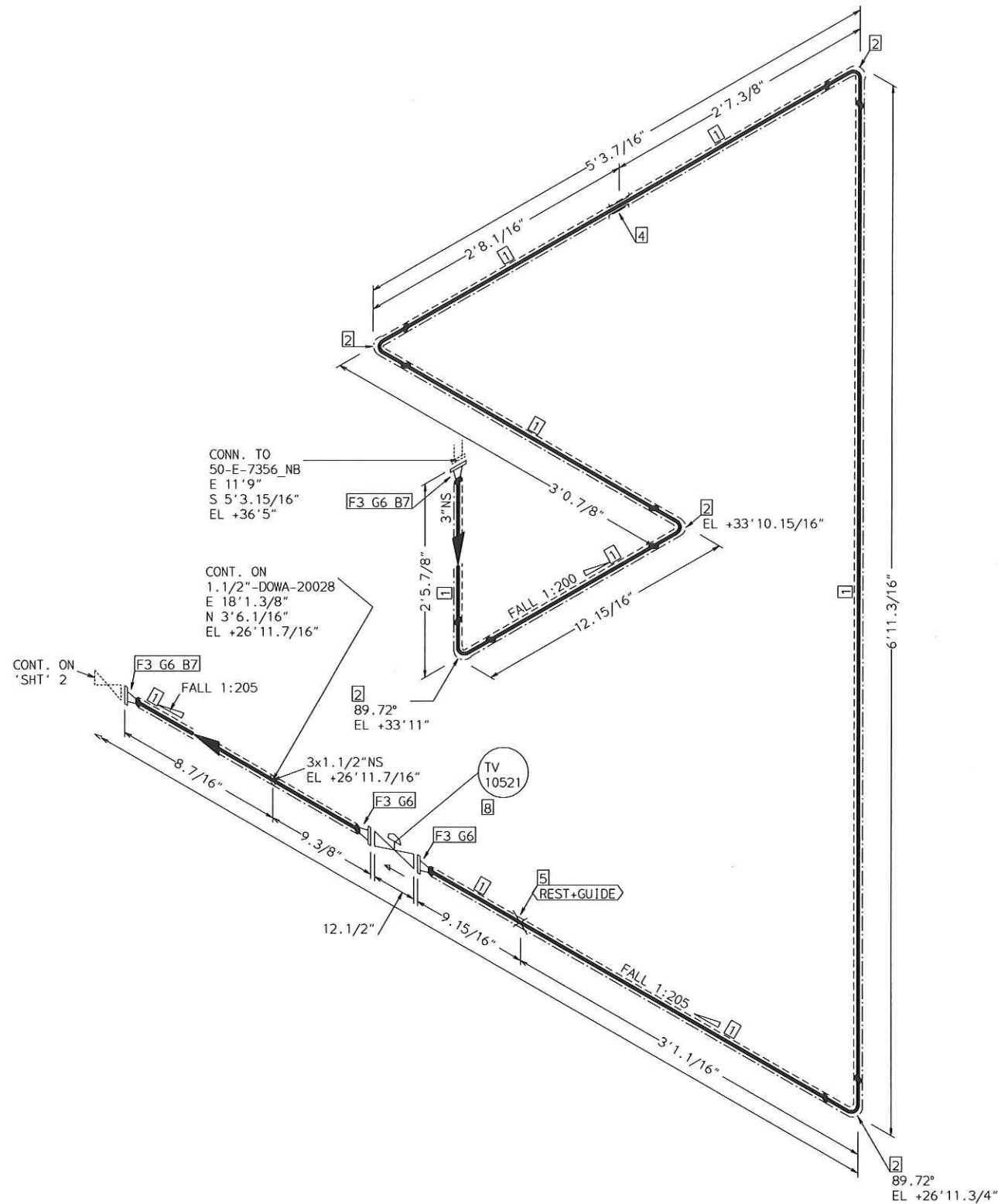


TRACING SPEC: S-TRACING (NOTE-10)

FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
PIPE				
1	DOWA	PIPE STD WT SMLS STL A106-B	1	15.8'
FITTINGS				
2	DOWA	REDUCER CONC STD WT STL A234 WPB BW	1.1/2	1
3	DOWA	ELL 90 DEG LR STD WT STL A234 WPB BW	1 x 1	4
FLANGES				
4	DOWA	FLG WN 300# RF STL STD BORE A105	1	2
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
FITTINGS				
5	SUPP	SPS-2 RESTING SUPPORT	1	1
GASKETS				
6	DOWA	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1	2
BOLTS				
7	DOWA	3.1/8 x5/8" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	11/16	8
VALVES / IN-LINE ITEMS				
8	DOWA	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	1	1

AREA: CETYL		1"-DOWA-20026	
PIPING GA NO: -	P&ID NO: 1020/1009	STRESS CRITICAL: NA	
OP.TEMP: 650°F	OP.PRESS: 75 psig	TEST MEDIUM: Hydro	
DES.TEMP: 750°F	DES.PRESS: 300 psig	TEST PRESS: 450 psig	
SCALE: NONE	INSUL.TYPE: NS-CELLULAR	INSUL.THK: 2 Inch	
LINE NO. / FILE NAME: 1"-DOWA-20026			ISSUE: R3

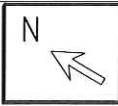


TRACING SPEC: S-TRACING (NOTE-10)

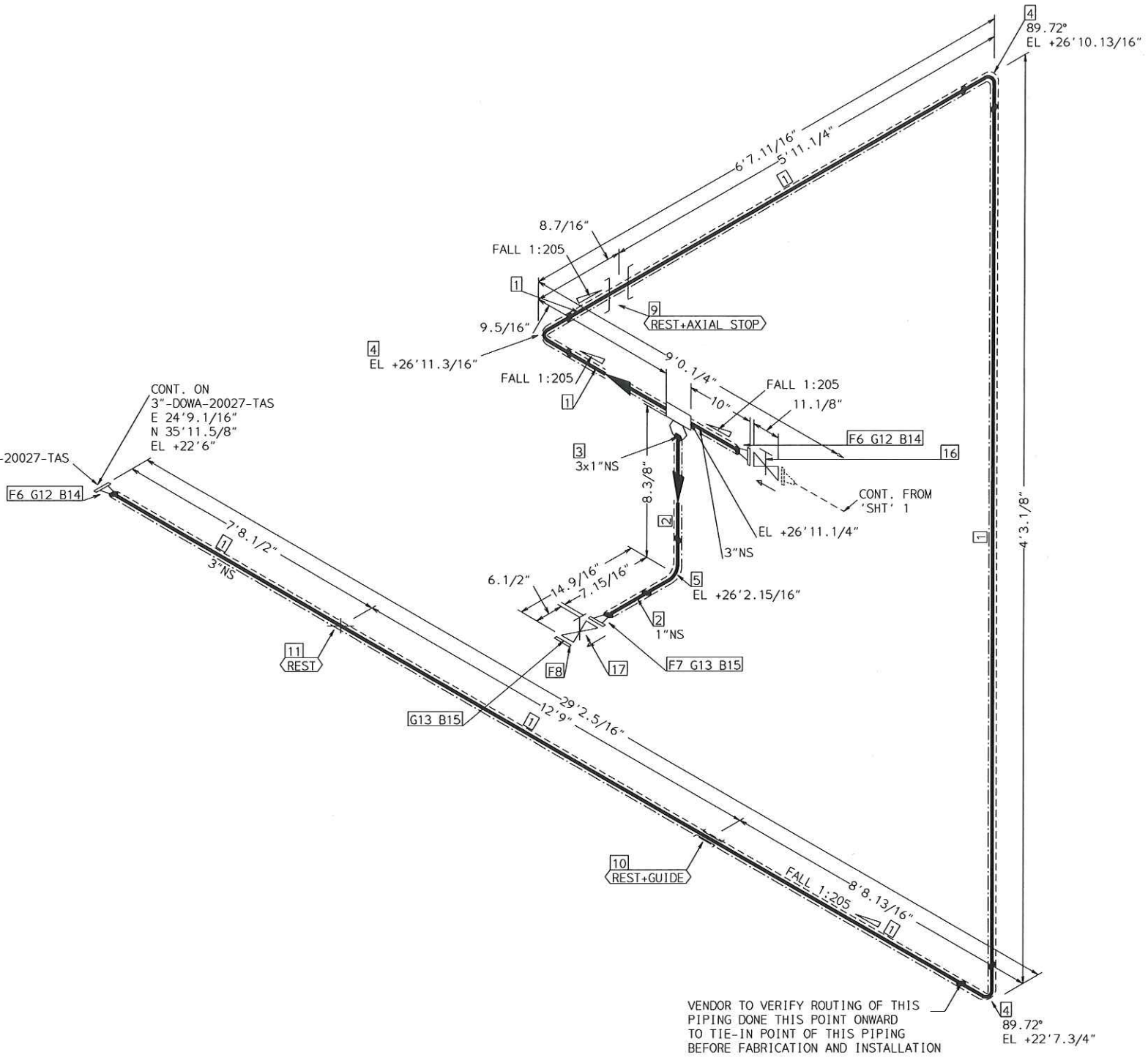
FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
1	DOWA	PIPE	3	19.5'
		PIPE STD WT SMLS STL A106-B		
2	DOWA	FITTINGS	3	5
		ELL 90 DEG LR STD WT STL A234 WPB BW		
		FLANGES		
3	DOWA	FLG WN 300# RF STL STD BORE A105	3	4
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
4	SUPP	FITTINGS	3	1
		SPS-2G GUIDE SUPPORT		
5	SUPP	SPS-67G1 support	3	1
6	DOWA	GASKETS	3	4
		GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG		
7	DOWA	BOLTS	7/8	16
		4.5/16 x3/4" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS		
8		INSTRUMENTS	3	1
		CONTROL VLV. GLOBE 300# RF TV 10521		

AREA: CETYL	3"-DOWA-20027	
PIPING GA NO: -	P&ID NO: 1020	STRESS CRITICAL: NA
OP.TEMP: 650°F	OP.PRESS: 75 psig	TEST MEDIUM: Hydro
DES.TEMP: 750°F	DES.PRESS: 300 psig	TEST PRESS: 450 psig
SCALE: NONE	INSUL.TYPE: N5-CELLULAR	INSUL.THK: 2 inch
LINE NO. / FILE NAME: 3"-DOWA-20027	ISSUE: R3	

SIZE-A3



FOR CONT REFER LINE NO 3"-DOWA-20027-TAS
MATCH PT-C, REFER NOTE-2

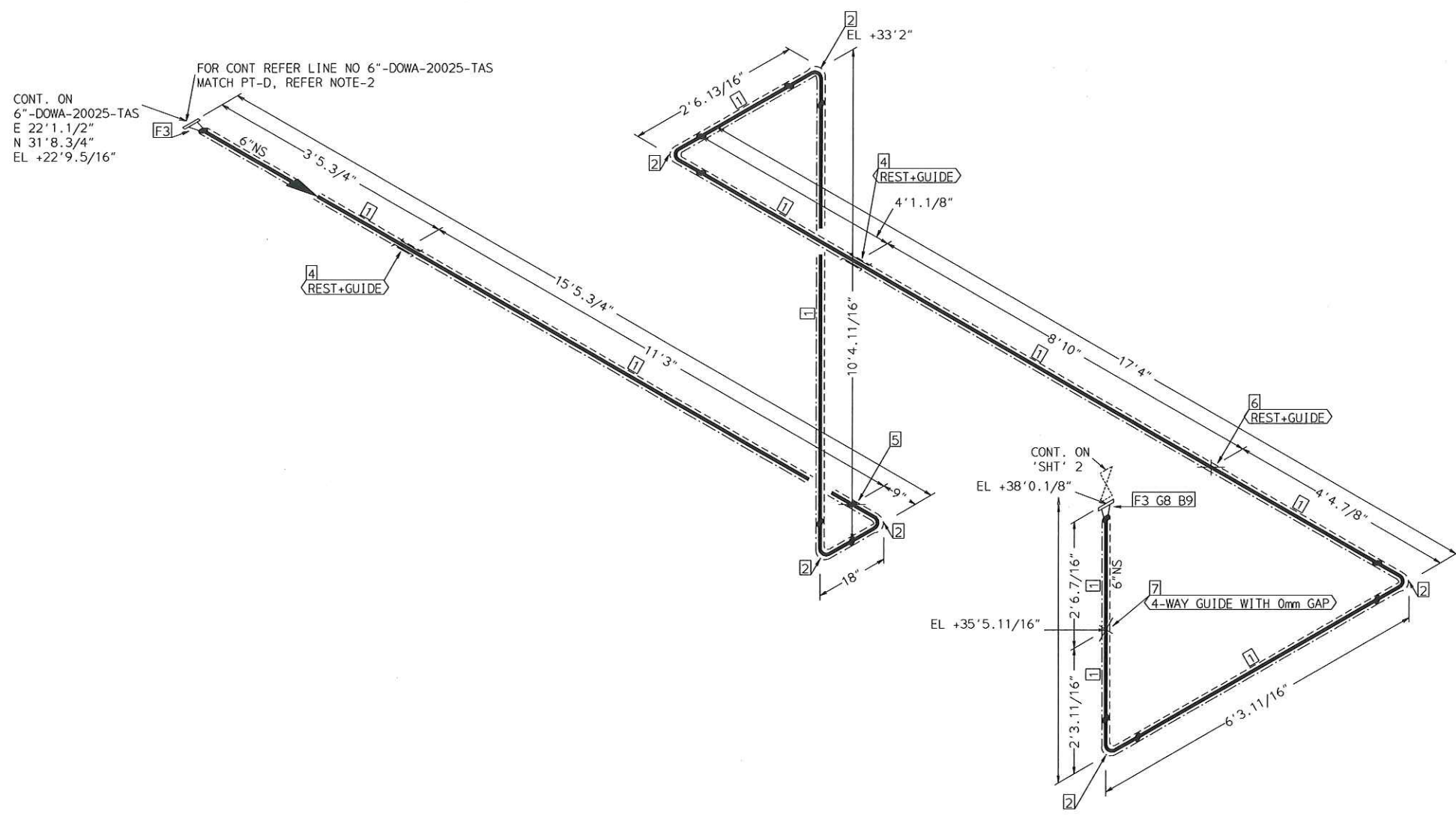


VENDOR TO VERIFY ROUTING OF THIS
PIPING DONE THIS POINT ONWARD
TO TIE-IN POINT OF THIS PIPING
BEFORE FABRICATION AND INSTALLATION

TRACING SPEC: S-TRACING (NOTE-10)

FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
PIPE				
1	DOWA	PIPE STD WT SMLS STL A106-B	3	39.0'
2	DOWA	PIPE STD WT SMLS STL A106-B	1	0.7'
FITTINGS				
3	DOWA	WELDOLET STD WT STL A105 BW	3 x 1	1
4	DOWA	ELL 90 DEG LR STD WT STL A234 WPB BW	3	3
5	DOWA	ELL 90 DEG LR STD WT STL A234 WPB BW	1	1
FLANGES				
6	DOWA	FLG WN 300# RF STL STD BORE A105	3	2
7	DOWA	FLG WN 300# RF STL STD BORE A105	1	1
8	DOWA	FLG BLIND 300# RF STL A105	1	1
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
FITTINGS				
9	SUPP	SPS-54 AXIAL STOP SUPPORT	3	1
10	SUPP	SPS-2G GUIDE SUPPORT	3	1
11	SUPP	SPS-2 RESTING SUPPORT	3	1
GASKETS				
12	DOWA	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	3	2
13	DOWA	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1	2
BOLTS				
14	DOWA	4.5/16 x3/4" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	7/8	16
15	DOWA	3.1/8 x5/8" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	11/16	8
VALVES / IN-LINE ITEMS				
16	DOWA	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	3	1
17	DOWA	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	1	1

AREA: CETYL		3"-DOWA-20027	
PIPING GA NO: -	P&ID NO: 1020	STRESS CRITICAL: NA	
OP.TEMP: 650°F	OP.PRESS: 75 psig	TEST MEDIUM: Hydro	
DES.TEMP: 750°F	DES.PRESS: 300 psig	TEST PRESS: 450 psig	
SCALE: NONE	INSUL.TYPE: NS-CELLULAR	INSUL.THK: 2 Inch	
LINE NO. / FILE NAME: 3"-DOWA-20027	ISSUE: R3		SIZE-A3



CONT. ON
6"-DOWA-20025-TAS
E 22'1.1/2"
N 31'8.3/4"
EL +22'9.5/16"

FOR CONT REFER LINE NO 6"-DOWA-20025-TAS
MATCH PT-D, REFER NOTE-2

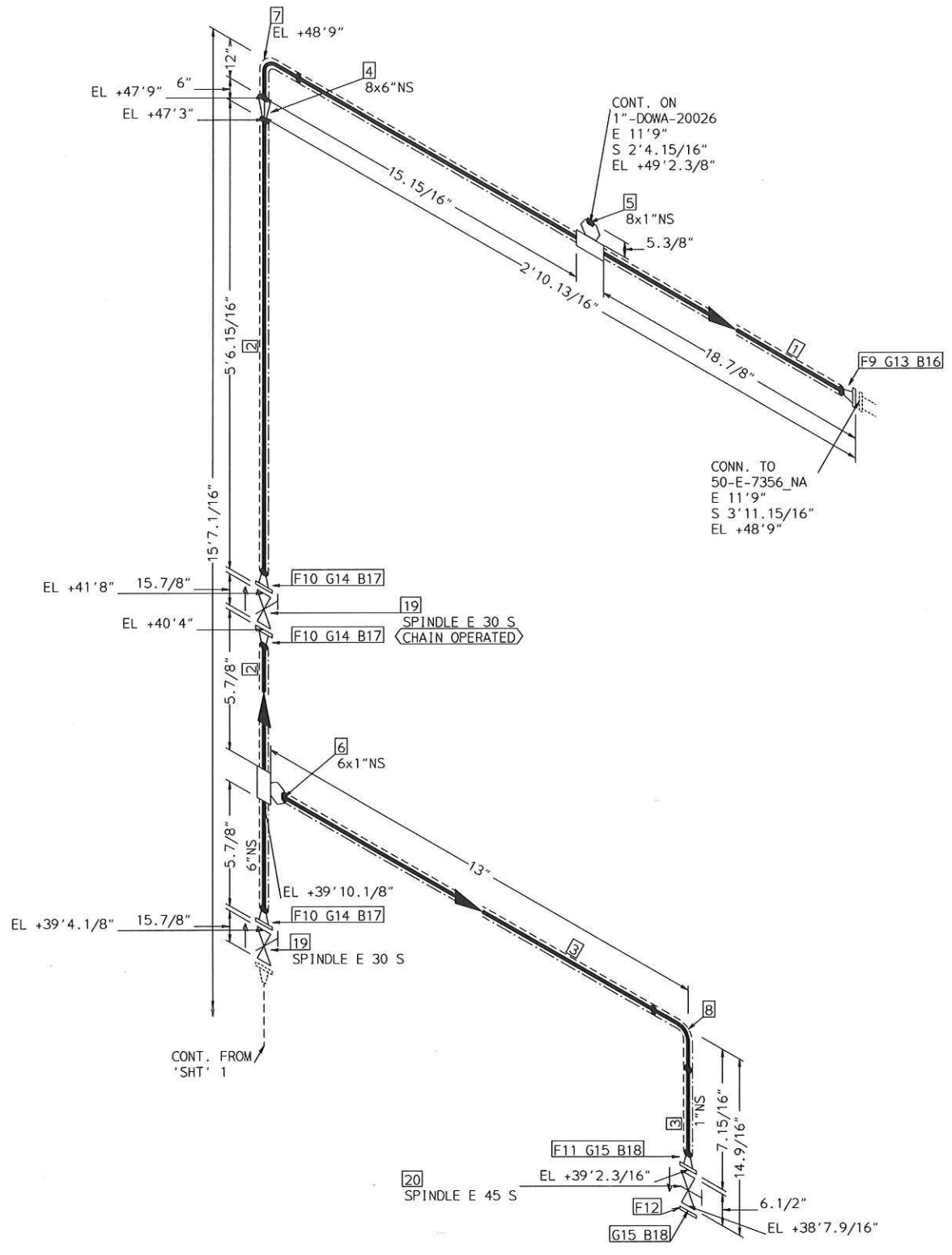
CONT. ON
'SHT' 2
EL +38'0.1/8"
EL +35'5.11/16"
F3 G8 B9
4-WAY GUIDE WITH 0mm GAP

TRACING SPEC: S-TRACING (NOTE-10)

FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
PIPE				
1	DOWA	PIPE STD WT SMLS STL A106-B	6	48.8'
FITTINGS				
2	DOWA	ELL 90 DEG LR STD WT STL A234 WPB BW	6	6
FLANGES				
3	DOWA	FLG WN 300# RF STL STD BORE A105	6	2
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
FITTINGS				
4	SUPP	SPS-2G GUIDE SUPPORT	6	2
5	SUPP	SPS25 TRUNNION SUPPORT	6	1
6	SUPP	SPS-67G1 support	6	1
7	SUPP	SPS-25 TRUNNION SUPPORT	6	1
GASKETS				
8	DOWA	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	6	1
BOLTS				
9	DOWA	4.15/16 x3/4" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	7/8	12

AREA: CETYL		6"-DOWA-20025	
PIPING GA NO: -	P&ID NO: 1020	STRESS CRITICAL: NA	
OP.TEMP: 650°F	OP.PRESS: 75 psig	TEST MEDIUM: Hydro	
DES.TEMP: 750°F	DES.PRESS: 300 psig	TEST PRESS: 450 psig	
SCALE: NONE	INSUL.TYPE: NS-CELLULAR	INSUL.THK: 3 Inch	
LINE NO. / FILE NAME: 6"-DOWA-20025			ISSUE: R3

SIZE-A3



CONT. ON
1"-DOWA-20026
E 11'9"
S 2'4.15/16"
EL +49'2.3/8"

CONN. TO
50-E-7356_NA
E 11'9"
S 3'11.15/16"
EL +48'9"

CONT. FROM
'SHT' 1

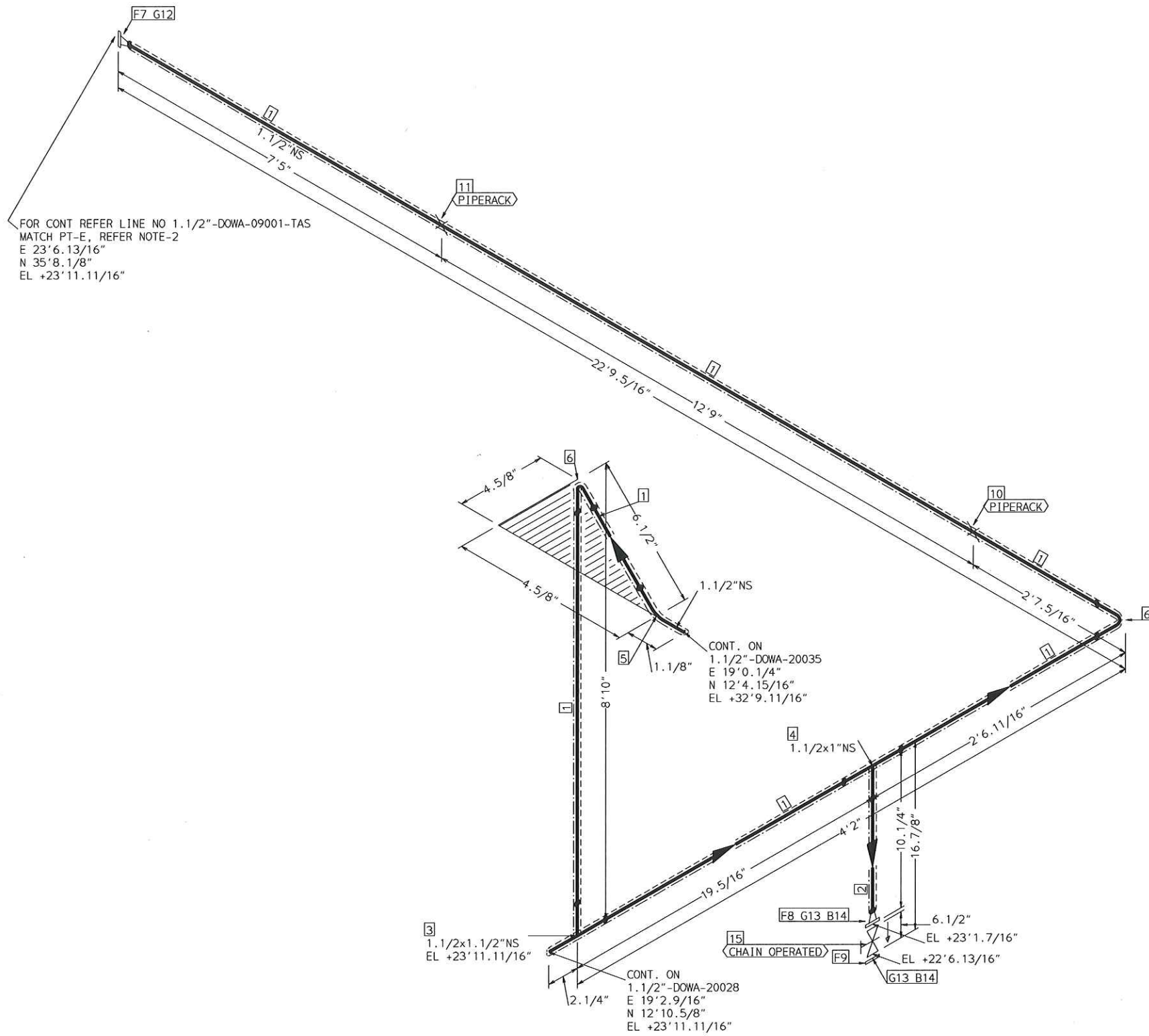
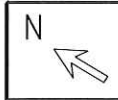
TRACING SPEC: S-TRACING (NOTE-10)

FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
PIPE				
1	DOWA	PIPE STD WT SMLS STL A106-B	8	1.6'
2	DOWA	PIPE STD WT SMLS STL A106-B	6	5.6'
3	DOWA	PIPE STD WT SMLS STL A106-B	1	1.0'
FITTINGS				
4	DOWA	REDUCER CONC STD WT STL A234 WPB BW	8 x 6	1
5	DOWA	WELDOLET STD WT STL A105 BW	8 x 1	1
6	DOWA	WELDOLET STD WT STL A105 BW	6 x 1	1
7	DOWA	ELL 90 DEG LR STD WT STL A234 WPB BW	8	1
8	DOWA	ELL 90 DEG LR STD WT STL A234 WPB BW	1	1
FLANGES				
9	DOWA	FLG WN 300# RF STL STD BORE A105	8	1
10	DOWA	FLG WN 300# RF STL STD BORE A105	6	3
11	DOWA	FLG WN 300# RF STL STD BORE A105	1	1
12	DOWA	FLG BLIND 300# RF STL A105	1	1

ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
GASKETS				
13	DOWA	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	8	1
14	DOWA	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	6	3
15	DOWA	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1	2
BOLTS				
16	DOWA	5.1/2 x7/8" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	15/16	12
17	DOWA	4.15/16 x3/4" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	7/8	36
18	DOWA	3.1/8 x5/8" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	11/16	8
VALVES / IN-LINE ITEMS				
19	DOWA	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	6	2
20	DOWA	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	1	1

AREA: CETYL	6"-DOWA-20025	
PIPING GA NO: -	P&ID NO: 1020	STRESS CRITICAL: NA
OP.TEMP: 650°F	OP.PRESS: 75 psig	TEST MEDIUM: Hydro
DES.TEMP: 750°F	DES.PRESS: 300 psig	TEST PRESS: 450 psig
SCALE: NONE	INSUL.TYPE: NS-CELLULAR	INSUL.THK: 3 inch
LINE NO. / FILE NAME: 6"-DOWA-20025	ISSUE: R3	

SIZE-A3



FOR CONT REFER LINE NO 1.1/2"-DOWA-09001-TAS
 MATCH PT-E, REFER NOTE-2
 E 23'6.13/16"
 N 35'8.1/8"
 EL +23'11.11/16"

CONT. ON
 1.1/2"-DOWA-20035
 E 19'0.1/4"
 N 12'4.15/16"
 EL +32'9.11/16"

CONT. ON
 1.1/2"-DOWA-20028
 E 19'2.9/16"
 N 12'10.5/8"
 EL +23'11.11/16"

3
 1.1/2x1.1/2"NS
 EL +23'11.11/16"

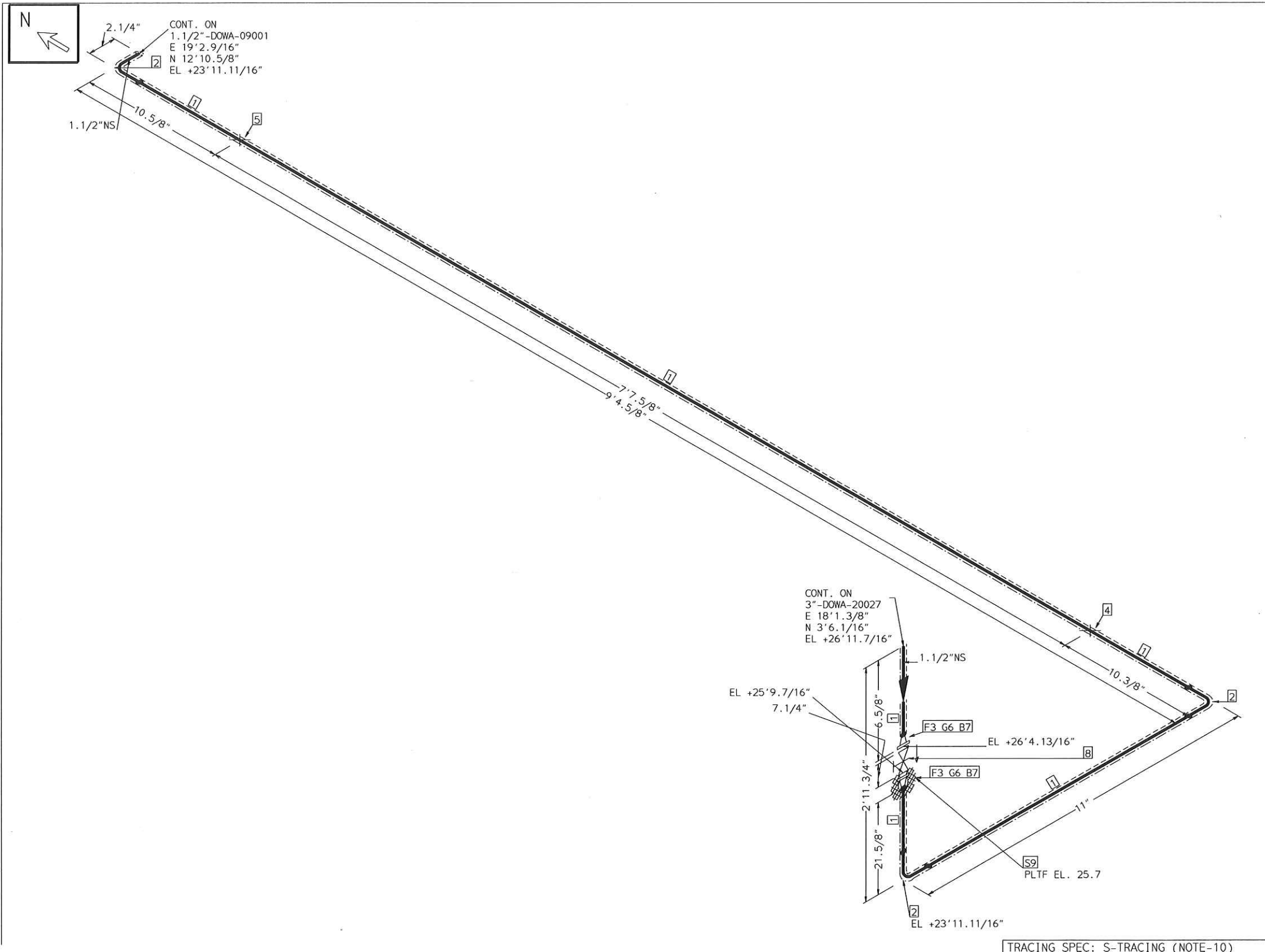
15
 CHAIN OPERATED

TRACING SPEC: S-TRACING (NOTE-10)

FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
PIPE				
1	DOWA	PIPE STD WT SMLS STL A106-B	1.1/2	34.5'
2	DOWA	PIPE STD WT SMLS STL A106-B	1	0.5'
FITTINGS				
3	DOWA	TEE STD WT STL A234 WPB BW	1.1/2	1
4	DOWA	TEE STD WT STL A234 WPB BW	1.1/2	1
5	DOWA	ELL 45 DEG STD WT STL A234 WPB BW	1.1/2	1
6	DOWA	ELL 90 DEG LR STD WT STL A234 WPB BW	1.1/2	2
FLANGES				
7	DOWA	FLG WN 300# RF STL STD BORE A105	1.1/2	1
8	DOWA	FLG WN 300# RF STL STD BORE A105	1	1
9	DOWA	FLG BLIND 300# RF STL A105	1	1
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
FITTINGS				
10	SUPP	SPS-2 RESTING SUPPORT	1.1/2	1
11	SUPP	SPS-67G1 support	1.1/2	1
GASKETS				
12	DOWA	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1.1/2	1
13	DOWA	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1	2
BOLTS				
14	DOWA	3.1/8 x5/8" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	11/16	8
VALVES / IN-LINE ITEMS				
15	DOWA	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	1	1

AREA: CETYL		1.1/2"-DOWA-09001	
PIPING GA NO: -	P&ID NO: 1009	STRESS CRITICAL: NA	
OP.TEMP: 650°F	OP.PRESS: 58psig	TEST MEDIUM: Hydro	
DES.TEMP: 677°F	DES.PRESS: 150psig	TEST PRESS: 225psig	
SCALE: NONE	INSUL.TYPE: NS-CELLULAR	INSUL.THK: 2	
LINE NO. / FILE NAME: 1.1/2"-DOWA-09001			ISSUE: R3

SIZE-A3



FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
PIPE				
1	DOWA	PIPE STD WT SMLS STL A106-B	1.1/2	11.3'
FITTINGS				
2	DOWA	ELL 90 DEG LR STD WT STL A234 WPB BW	1.1/2	3
FLANGES				
3	DOWA	FLG WN 300# RF STL STD BORE A105	1.1/2	2
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
FITTINGS				
4	SUPP	SPS-67G support	1.1/2	1
5	SUPP	SPS-2 RESTING SUPPORT	1.1/2	1
GASKETS				
6	DOWA	GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG	1.1/2	2
BOLTS				
7	DOWA	3.9/16 x3/4" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS	7/8	8
VALVES / IN-LINE ITEMS				
8	DOWA	GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)	1.1/2	1
SUPPORTS				
9	DOWA	FLOOR PENETRATION ATTA	1.1/2	1

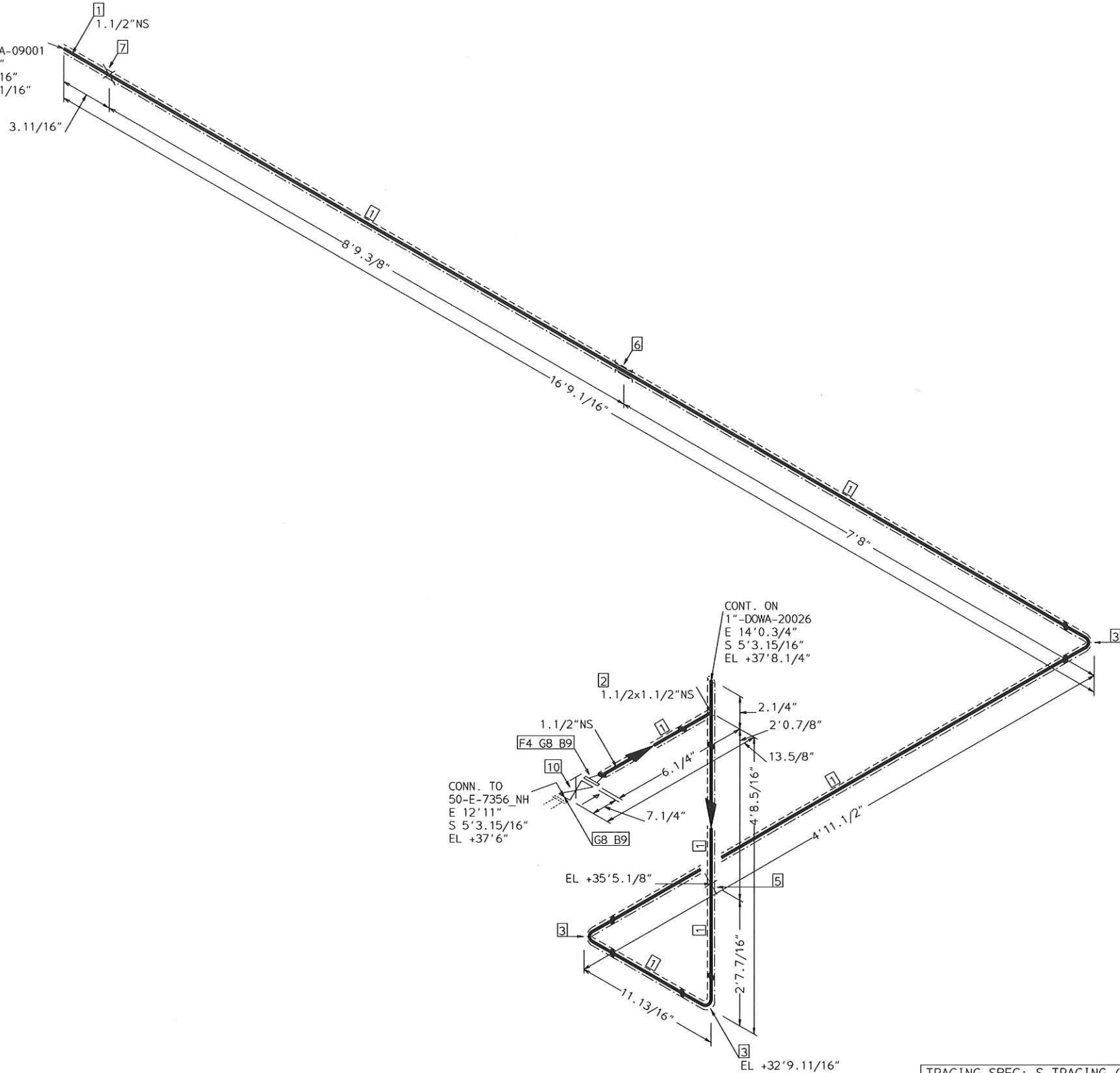
TRACING SPEC: S-TRACING (NOTE-10)

AREA: CETYL		1.1/2"-DOWA-20028	
PIPING GA NO: -	P&ID NO: 1020	STRESS CRITICAL: NA	
OP.TEMP: 650°F	OP.PRESS: 75psig	TEST MEDIUM: Hydro	
DES.TEMP: 750°F	DES.PRESS: 300psig	TEST PRESS: 450psig	
SCALE: NONE	INSUL.TYPE: NS-CELLULAR	INSUL.THK: 2	
LINE NO. / FILE NAME: 1.1/2"-DOWA-20028			ISSUE: R3

SIZE-A3



CONT. ON
1.1/2"-DOWA-09001
E 19'0.1/4"
N 12'4.15/16"
EL +32'9.11/16"



TRACING SPEC: S-TRACING (NOTE-10)

FABRICATION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
1	DOWA	PIPE	1.1/2	26.2'
		PIPE STD WT SMLS STL A106-B		
2	DOWA	FITTINGS	1.1/2	1
		TEE STD WT STL A234 WPB BW		
3	DOWA	ELL 90 DEG LR STD WT STL A234 WPB BW	1.1/2	3
		FLANGES	1.1/2	
4	DOWA	FLG WN 300# RF STL STD BORE A105	1.1/2	1
ERECTION MATERIALS				
PT NO	SPEC	COMPONENT DESCRIPTION	N.S.	QTY
5	SUPP	FITTINGS	1.1/2	1
		SPS-25 TRUNNION SUPPORT		
		SPS-2G GUIDE SUPPORT		
6	SUPP	SPS-2 RESTING SUPPORT	1.1/2	1
8	DOWA	GASKETS	1.1/2	2
		GASKET 300# 1/8" 316 SPRL WND W/FLEXICARB TYPE CG		
9	DOWA	BOLTS	7/8	8
		3.9/16 x3/4" STUD BOLT A193 GR B7 W/2 A194 GR 2H NUTS		
10	DOWA	VALVES / IN-LINE ITEMS	1.1/2	1
		GATE 300# FLANGED RF C.STL F6 TRIM(API TRIM#5) (HIGH TEMP PACKING REQUIRED ON VALVES)		

AREA: CETYL	1.1/2"-DOWA-20035	
PIPING GA NO: -	P&ID NO: 1020/1009	STRESS CRITICAL: NA
OP. TEMP: 650°F	OP. PRESS: 75psig	TEST MEDIUM: Hydro
DES. TEMP: 750°F	DES. PRESS: 300psig	TEST PRESS: 450psig
SCALE: NONE	INSUL. TYPE: NS-CELLULAR	INSUL. THK: 2
LINE NO. / FILE NAME: 1.1/2"-DOWA-20035	ISSUE: R3	