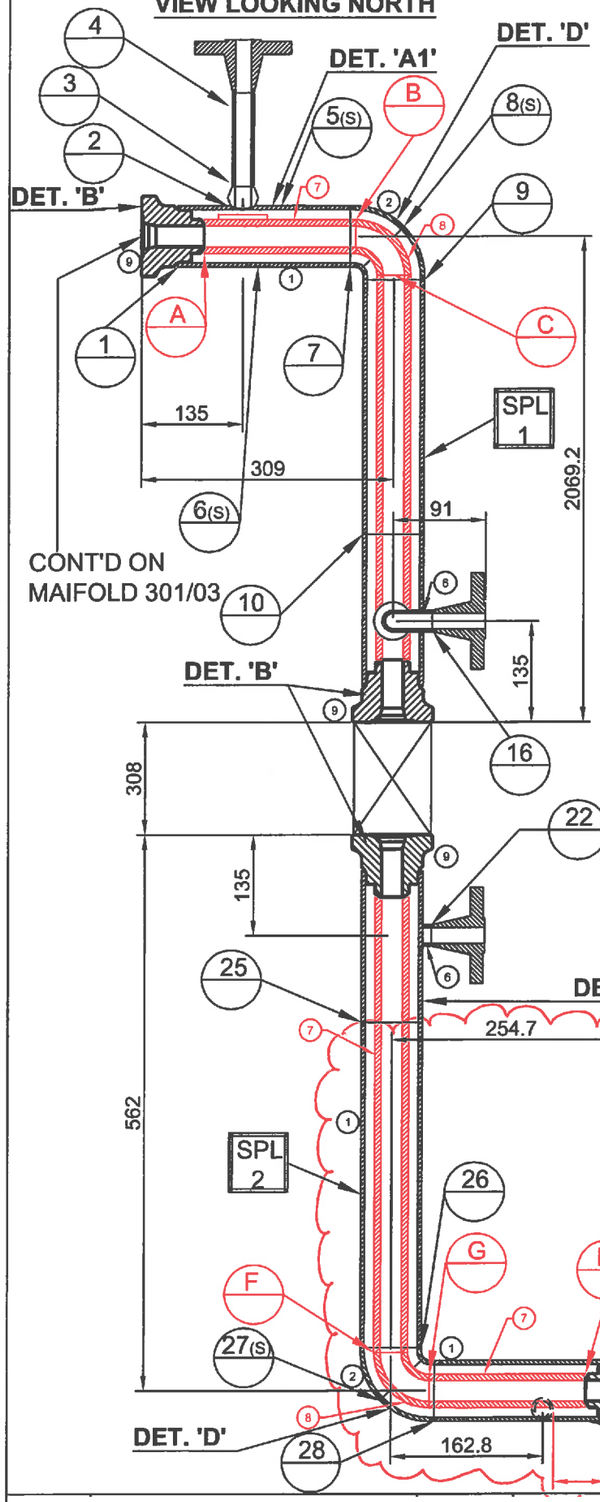
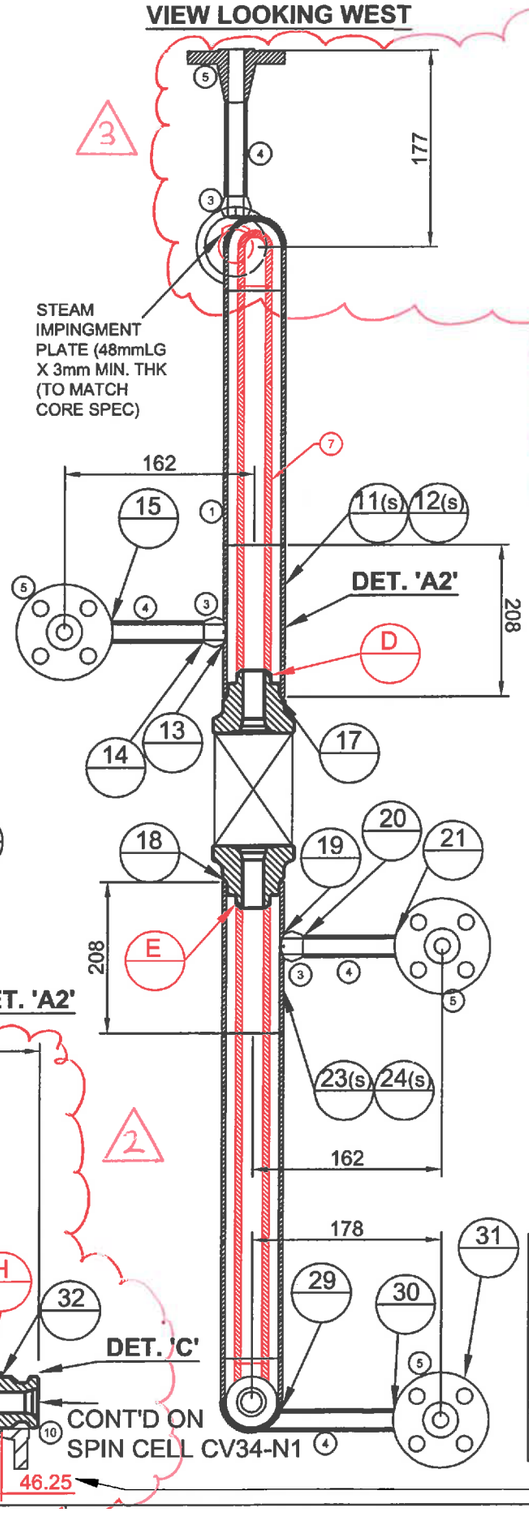
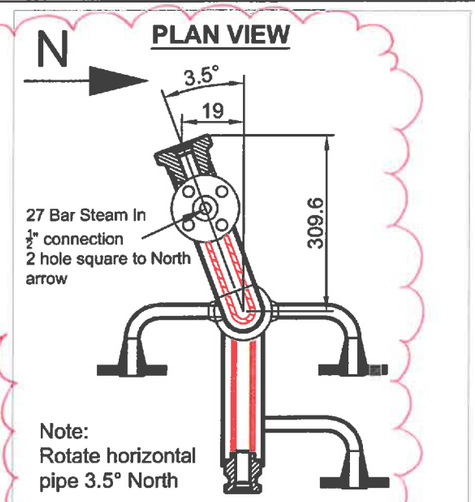
VIEW LOOKING NORTH



VIEW LOOKING WEST

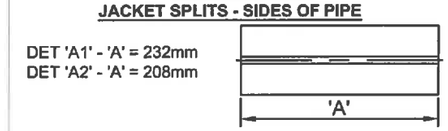


PLAN VIEW

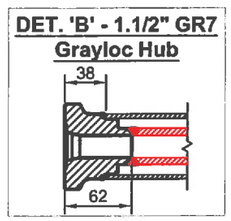


DET. 'A1 & A2'

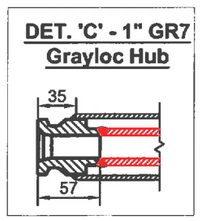
JACKET SPLITS - SIDES OF PIPE



DET. 'B' - 1.1/2" GR7 Grayloc Hub



DET. 'C' - 1" GR7 Grayloc Hub



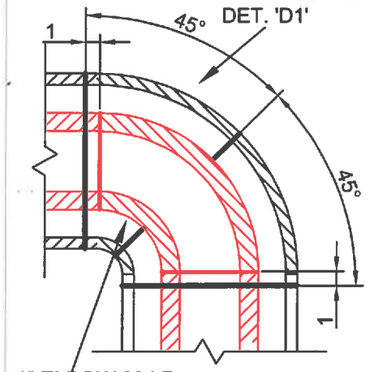
DET. 'E' - Tangential Branch

Due to the minimal clearance between welds at this location, the following must apply:

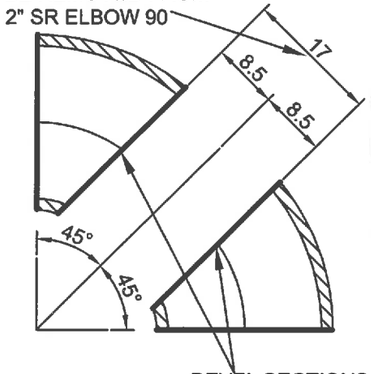
- Joints shall be welded using GTAW/TIG process
- RT of first weld followed by second weld shall be performed to ensure integrity of the joints
- In case of overlapping, welds shall be ground flush for the portion of the weld to be covered.
- Weld shall be smooth grounded to avoid any stress raiser

	ITEM	SIZE	BILL OF MATERIAL	QTY
JACKET	1	2"	Pipe, Carbon Steel, Seamless, ASTM A106 Gr.B, Sch 40	3.0M
	2	2"	Elbow 90 Deg, SR, Butt Weld, Carbon Steel, A234 WPB, Sch 40	2
	3	½"	Weldolet, Butt Weld, Carbon Steel, FRG ASTM A105, Sch 40	3
	4	½"	Pipe, Carbon Steel, Seamless, ASTM A106 Gr.B, Sch 40	0.5M
	5	½"	Weldneck Flange, 300#. RF, Carbon Steel, ASTM A105 ASME B16.5	4
	6	½"	Elbow 90 Deg, LR, Butt Weld, Carbon Steel, A234 WPB, Sch 40	3
CORE	7	1"	Pipe, Carbon Steel, Seamless, ASTM A106 Gr.C, Sch 160	3.0M
	8	1"	Elbow 90 Deg, LR, Butt Weld, Carbon Steel, A234 WPC, Sch 160	2
HUBS	9	1.1/2"	Grayloc Hub, 1.1/2" GR7, A350-LF2 c/w Clamp (AISI 4140), Seal Ring (AISI 630 NACE, MOS2 Coated), Studs & Nuts	3
	10	1"	Grayloc Hub, 1" GR7, A350-LF2 c/w Clamp (AISI 4140), Seal Ring (AISI 630 NACE, MOS2 Coated), Studs & Nuts	1

DET. 'D'



DET. 'D-1'



CUTS ON 2" E90 SR JACKET