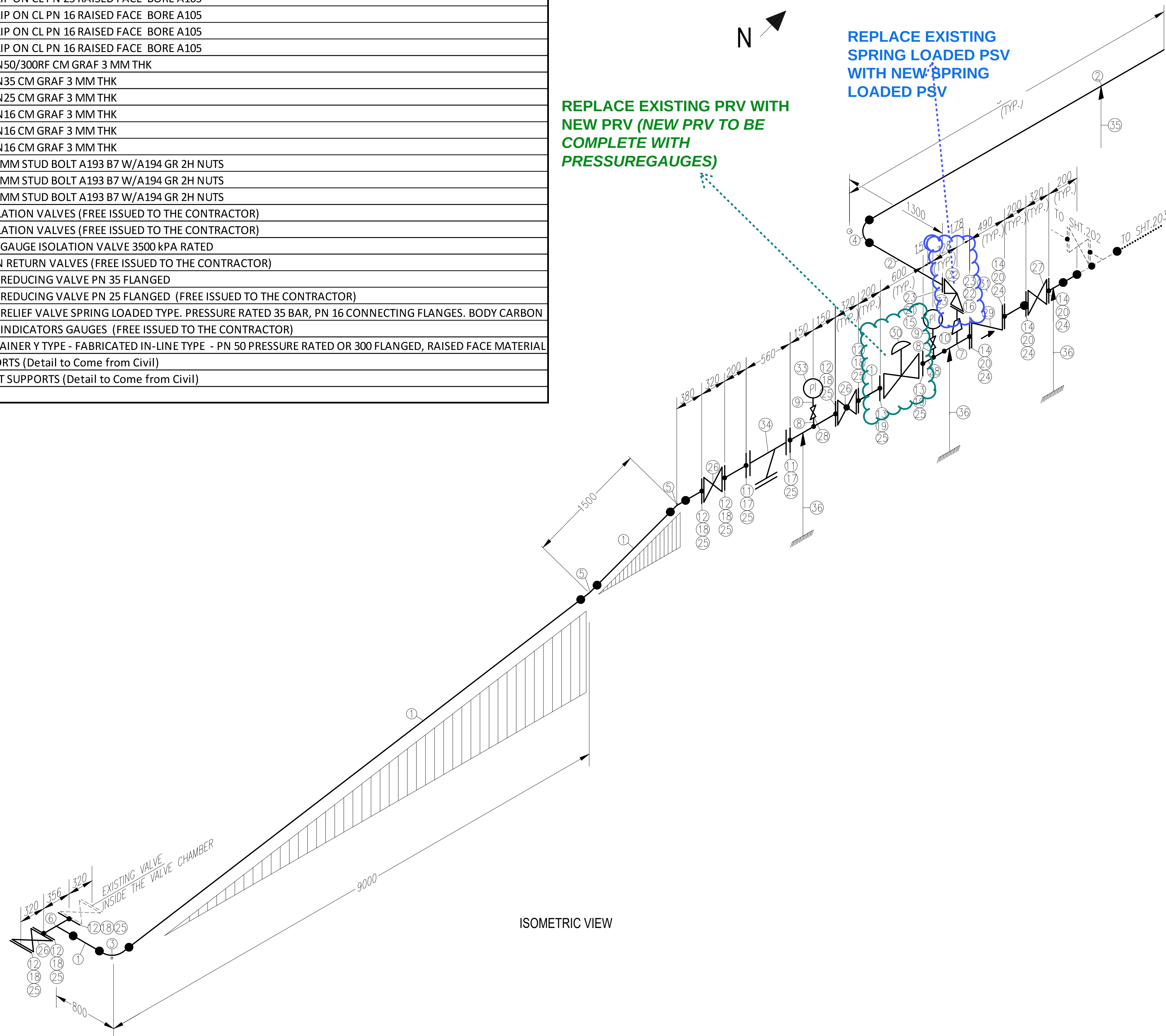


MECHANICAL-CARRIAGE WATER BILL OF MATERIAL			
No.	Size	Quantity	Description
1	200 NB	11.6 M	PIPE SMLESS SCH 40 A106 GR.B (FREE ISSUED TO THE CONTRACTOR)
2	100 NB	11 M	PIPE SMLESS SCH 40 A106 GR.B
3	200 NB	1	ELL 90DEG LR SCH40 STL A234 WPB
4	100 NB	1	ELL 90DEG LR SCH40 STL A234 WPB
5	200 NB	2	ELL 45 DEG LR SCH40 STL A234 WPB
6	200 NB	2	TEE STD WT STL A234 WPB
7	200x100	1	REDUCING TEE STD WT STL A234 WPB
8	20 NB	2	NIPPLE THREADED ONE END A106 GRD B
9	20 NB	2	NIPPLE THREADED ONE END MALE AND ONE END FEMALE A106 GRD B
10	100 NB x 80 NB	1	CONCETRIC REDUCER STD WT STL A234 WPB
11	200 NB	2	FLANGE SLIP ON CL 300/PN 50 RAISED FACE BORE A105
12	200 NB	9	FLANGE SLIP ON CL PN 35 RAISED FACE BORE A105
13	200 NB	2	FLANGE SLIP ON CL PN 25 RAISED FACE BORE A105
14	200 NB	2	FLANGE SLIP ON CL PN 16 RAISED FACE BORE A105
15	100 NB	1	FLANGE SLIP ON CL PN 16 RAISED FACE BORE A105
16	80 NB	1	FLANGE SLIP ON CL PN 16 RAISED FACE BORE A105
17	200 NB	2	GASKET PN50/300RF CM GRAF 3 MM THK
18	200 NB	9	GASKET PN35 CM GRAF 3 MM THK
19	200 NB	2	GASKET PN25 CM GRAF 3 MM THK
20	200 NB	4	GASKET PN16 CM GRAF 3 MM THK
21	100 NB	1	GASKET PN16 CM GRAF 3 MM THK
22	80 NB	1	GASKET PN16 CM GRAF 3 MM THK
23	M16	24	M16 x 100 MM STUD BOLT A193 B7 W/A194 GR 2H NUTS
24	M20	32	M20 x 110 MM STUD BOLT A193 B7 W/A194 GR 2H NUTS
25	M27	104	M27 x 130 MM STUD BOLT A193 B7 W/A194 GR 2H NUTS
26	200 NB	3	PN 35 ISOLATION VALVES (FREE ISSUED TO THE CONTRACTOR)
27	200 NB	1	PN 16 ISOLATION VALVES (FREE ISSUED TO THE CONTRACTOR)
28	20 NB	3	PRESSURE GAUGE ISOLATION VALVE 3500 kPA RATED
29	200 NB	1	PN 16 NON RETURN VALVES (FREE ISSUED TO THE CONTRACTOR)
30	200 NB	1	PRESSURE REDUCING VALVE PN 35 FLANGED
31	200 NB	0	PRESSURE REDUCING VALVE PN 25 FLANGED (FREE ISSUED TO THE CONTRACTOR)
32	100 NB x 80 NB	1	PRESSURE RELIEF VALVE SPRING LOADED TYPE. PRESSURE RATED 35 BAR, PN 16 CONNECTING FLANGES. BODY CARBON
33	15 NB	2	PRESSURE INDICATORS GAUGES (FREE ISSUED TO THE CONTRACTOR)
34	200 NB	1	ITEM - STRAINER Y TYPE - FABRICATED IN-LINE TYPE - PN 50 PRESSURE RATED OR 300 FLANGED, RAISED FACE MATERIAL
35		1	TEE SUPPORTS (Detail to Come from Civil)
36		4	GOAL POST SUPPORTS (Detail to Come from Civil)

[illegible]

ISOMETRIC VIEW

NOTES

- 1.) THE CONTRACTOR SHALL ALLOW FOR DIAMOND TIPPED CORE DRILLING IN THE STEEL REINFORCED CONCRETE STRUCTURES FOR THE HOLDING DOWN "RAMBOLT" ISHOLE.
- 2.) DIMENSIONS ARE SHOWN FOR TENDER PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR MEASURING UP ON SITE PRIOR TO MANUFACTURE.
- 3.) THE PIPING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CUTTING ALLOWANCE, ALLOCATION AND LOCATION OF FIELD FIT WELDS ON ALL PIPING SYSTEMS.
- 4.) THE PIPING CONTRACTOR SHALL CONFIRM ALL DIMENSIONS ON SITE PRIOR TO THE COMMENCEMENT OF FABRICATION.
- 5.) ALL FLANGE BOLT TO STRADDLE PIPE CENTRE LINE.
- 6.) THE PIPING ERECTOR SHALL VERIFY INSTALLED STRUCTURAL/MECHANICAL CIVIL WORKS CO-ORDINATIONS AND CO-ORDINATES & ELECTRICAL RACEWAYS ROUTES PRIOR TO INITIATING RELATED WORKS AND REPORT POTENTIAL CLASHES TO THE RESPONSIBLE SITE REPRESENTATIVE.
- 7.) ALL HDPE PIPE 150NB AND SMALLER SHALL BE CONNECTED USING COMPRESSION FITTINGS.
- 8.) ALL HD PIPE 150NB AND BIGGER SHALL BE CONNECTED BY BUT-FUSION, STUBS AND BACKING RINGS.
- 9.) THE BURIED PIPES DEPTH SHOULD NOT BE MORE THAN 500MM.
- 10.) THE METAL PIPE SHOULD BE WELDED ACCORDING TO API 1104.

REVISIONS				
No	DATE	CHECKED	APPROVED	DESCRIPTION

[illegible]

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JOHANNESBURG
2000
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SAP No.	P.03797	CHECKED BY	
CONTRACT No.	RW00000/19	D.O.M.	C. TUMBARE
DESIGNED BY	R.MSWELI	APPROVED	 Pr Eng
DRAWN BY	M.MTOTOBA	REG. No.	
DATE	2020/02/20	DATE	

CARRIAGE WATER PIPE

STATION			WKS								DOC. TYPE			S	
E	I	K	U	G								D	C	G	A
SCALE : AS SHOWN															

REVISION

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