

CONSTRUCTION OF WOODMEAD INLET BULK

JOHANNESBURG WATER CONTRACT NAME: UR1305B CONSTRUCTION OF WOODMEAD INLET BULK

CONTRACT NUMBER: JW14358

NYELETI PROJECT NO: 16941

BOOK OF TENDER DRAWINGS

VOLUME 3

REVISION D

JANUARY 2023



CLIENT:
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Woodhill Office Park

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CLIENT:
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16941 - WOODMEAD WATER UPGRADE			
LIST OF DRAWINGS			
DRAWING DETAILS			
DRAWING PROJECT No.	INTERNAL DRAWING No.	SHEET No.	DESCRIPTION / DRAWING TITLE
GENERAL			
16941	JW14358-16941-T-001-S01-00-TMS	S01	COVER PAGE
16941	JW14358-16941-T-002-S01-00-TMS	S01	LIST OF DRAWING
16941	JW14358-16941-T-003-S01-00-TMS	S01	PROCESS FLOW DIAGRAM
16941	JW14358-16941-T-004-S01-00-TMS	S01	GENERAL NOTES
LAYOUT AND LONG SECTIONS			
16941	JW14358-16941-T-010-S01-00-TMS	S01	LAYOUT PLAN
16941	JW14358-16941-T-011-S01-00-TMS	S01	DN 600 STEEL MAIN PIPELINE LAYOUT AND SETTING OUT SHEET 1 OF 6
16941	JW14358-16941-T-011-S02-00-TMS	S02	DN 600 STEEL MAIN PIPELINE LAYOUT AND SETTING OUT SHEET 2 OF 6
16941	JW14358-16941-T-011-S03-00-TMS	S03	DN 600 STEEL MAIN PIPELINE LAYOUT AND SETTING OUT SHEET 3 OF 6
16941	JW14358-16941-T-011-S04-00-TMS	S04	DN 600 STEEL MAIN PIPELINE LAYOUT AND SETTING OUT SHEET 4 OF 6
16941	JW14358-16941-T-011-S05-00-TMS	S05	DN 600 STEEL MAIN PIPELINE LAYOUT AND SETTING OUT SHEET 5 OF 6
16941	JW14358-16941-T-011-S06-00-TMS	S06	DN 600 STEEL MAIN PIPELINE LAYOUT AND SETTING OUT SHEET 6 OF 6
16941	JW14358-16941-T-011-S07-00-TMS	S07	DN 600 BYPASS PIPELINE LAYOUT AND SETTING OUT
16941	JW14358-16941-T-011-S08-00-TMS	S08	DN 200 PIPELINE LAYOUT AND SETTING OUT
16941	JW14358-16941-T-011-S09-00-TMS	S09	DN 800 PIPELINE LAYOUT AND SETTING OUT
16941	JW14358-16941-T-012-S01-00-TMS	S01	DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION SHEET 1 OF 10
16941	JW14358-16941-T-012-S02-00-TMS	S02	DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION SHEET 2 OF 10
16941	JW14358-16941-T-012-S03-00-TMS	S03	DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION SHEET 3 OF 10
16941	JW14358-16941-T-012-S04-00-TMS	S04	DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION SHEET 4 OF 10
16941	JW14358-16941-T-012-S05-00-TMS	S05	DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION SHEET 5 OF 10
16941	JW14358-16941-T-012-S06-00-TMS	S06	DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION SHEET 6 OF 10
16941	JW14358-16941-T-012-S07-00-TMS	S07	DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION SHEET 7 OF 10
16941	JW14358-16941-T-012-S08-00-TMS	S08	DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION SHEET 8 OF 10
16941	JW14358-16941-T-012-S09-00-TMS	S09	DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION SHEET 9 OF 10
16941	JW14358-16941-T-012-S10-00-TMS	S10	DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION SHEET 10 OF 10
16941	JW14358-16941-T-012-S11-00-TMS	S11	DN 600 BYPASS PIPELINE LAYOUT AND LONGSECTION SHEET 1 OF 1
16941	JW14358-16941-T-012-S12-00-TMS	S12	DN 200 PIPELINE LAYOUT AND LONGSECTION SHEET 1 OF 2
16941	JW14358-16941-T-012-S13-00-TMS	S13	DN 200 PIPELINE LAYOUT AND LONGSECTION SHEET 2 OF 2
16941	JW14358-16941-T-012-S14-00-TMS	S14	DN 800 PIPELINE LAYOUT AND LONGSECTION SHEET 1 OF 1
CHAMBER DETAILS			
16941	JW14358-16941-T-013-S03-00-TMS	S03	DN 600 AIR VALVE CHAMBER TYPE 1 SHEET 1 OF 2
16941	JW14358-16941-T-013-S04-00-TMS	S04	DN 600 AIR VALVE CHAMBER TYPE 1 SHEET 2 OF 2
16941	JW14358-16941-T-013-S05-00-TMS	S05	DN 200 AIR VALVE CHAMBER TYPE 2 SHEET 1 OF 2
16941	JW14358-16941-T-013-S06-00-TMS	S06	DN 200 AIR VALVE CHAMBER TYPE 2 SHEET 2 OF 2
16941	JW14358-16941-T-013-S07-00-TMS	S07	DN 600 AIR VALVE CHAMBER TYPE 2 SHEET 1 OF 2
16941	JW14358-16941-T-013-S08-00-TMS	S08	DN 600 AIR VALVE CHAMBER TYPE 2 SHEET 2 OF 2
16941	JW14358-16941-T-013-S09-00-TMS	S09	DN 600 AIR VALVE CHAMBER TYPE 3 SHEET 1 OF 2
16941	JW14358-16941-T-013-S10-00-TMS	S10	DN 600 AIR VALVE CHAMBER TYPE 3 SHEET 2 OF 2
16941	JW14358-16941-T-013-S11-00-TMS	S11	DN 200 SCOUR VALVE CHAMBER TYPE 1 SHEET 1 OF 1
16941	JW14358-16941-T-013-S12-00-TMS	S12	DN 600 AIR VALVE CHAMBER TYPE 4 SHEET 1 OF 2
16941	JW14358-16941-T-013-S13-00-TMS	S13	DN 600 AIR VALVE CHAMBER TYPE 4 SHEET 2 OF 2
16941	JW14358-16941-T-013-S14-00-TMS	S14	DN 600 SCOUR VALVE CHAMBER TYPE 1 SHEET 1 OF 2
16941	JW14358-16941-T-013-S15-00-TMS	S15	DN 600 SCOUR VALVE CHAMBER TYPE 1 SHEET 2 OF 2
16941	JW14358-16941-T-013-S16-00-TMS	S16	DN 600 SCOUR VALVE CHAMBER TYPE 2 SHEET 1 OF 1
16941	JW14358-16941-T-013-S17-00-TMS	S17	DN 200 NON-RETURN VALVE CHAMBER 1 SHEET 1 OF 2
16941	JW14358-16941-T-013-S18-00-TMS	S18	DN 200 NON-RETURN VALVE CHAMBER 1 SHEET 2 OF 2
16941	JW14358-16941-T-013-S20-00-TMS	S20	DN 600 PRESSURE REDUCING VALVE CHAMBER 1 SHEET 1 OF 2
16941	JW14358-16941-T-013-S21-00-TMS	S21	DN 600 PRESSURE REDUCING VALVE CHAMBER 1 SHEET 2 OF 2
16941	JW14358-16941-T-013-S23-00-TMS	S23	DN 200 FLOW METER AND SCOUR VALVE CHAMBER SHEET 1 OF 2
16941	JW14358-16941-T-013-S24-00-TMS	S24	DN 200 FLOW METER AND SCOUR VALVE CHAMBER SHEET 2 OF 2
16941	JW14358-16941-T-013-S26-00-TMS	S26	DN 600 TIE-IN CHAMBER 2 SHEET 1 OF 2

16941 - WOODMEAD WATER UPGRADE			
LIST OF DRAWINGS			
DRAWING DETAILS			
DRAWING PROJECT No.	INTERNAL DRAWING No.	SHEET No.	DESCRIPTION / DRAWING TITLE
16941	JW14358-16941-T-013-S27-00-TMS	S27	DN 600 TIE-IN CHAMBER 2 SHEET 2 OF 2
16941	JW14358-16941-T-013-S28-00-TMS	S28	DN 600 SCOUR VALVE CHAMBER TYPE 3 SHEET 1 OF 2
16941	JW14358-16941-T-013-S29-00-TMS	S29	DN 600 SCOUR VALVE CHAMBER TYPE 3 SHEET 2 OF 2
16941	JW14358-16941-T-013-S30-00-TMS	S30	DN 800 TO DN 525 TIE-IN CHAMBER SHEET 1 OF 2
16941	JW14358-16941-T-013-S31-00-TMS	S31	DN 800 TO DN 525 TIE-IN CHAMBER SHEET 2 OF 2
16941	JW14358-16941-T-013-S32-00-TMS	S32	DN 600 TO DN 1500 TIE-IN CHAMBER SHEET 1 OF 2
16941	JW14358-16941-T-013-S33-00-TMS	S33	DN 600 TO DN 1500 TIE-IN CHAMBER SHEET 2 OF 2
16941	JW14358-16941-T-013-S35-00-TMS	S35	DN 400 TIE-IN CHAMBER SHEET 1 OF 2
16941	JW14358-16941-T-013-S36-00-TMS	S36	DN 400 TIE-IN CHAMBER SHEET 2 OF 2
16941	JW14358-16941-T-013-S38-00-TMS	S38	WELLING CHAMBER TYPE 1
16941	JW14358-16941-T-013-S39-00-TMS	S39	WELLING CHAMBER TYPE 2
16941	JW14358-16941-T-013-S41-00-TMS	S41	DN 350 PIPELINE TEMPORARY ISOLATING VALVE BOX DETAIL
16941	JW14358-16941-T-013-S42-00-TMS	S42	DN 600 BYPASS PRESSURE REDUCING VALVE CHAMBER
16941	JW14358-16941-T-013-S43-00-TMS	S43	DN 600 BYPASS PRESSURE REDUCING VALVE CHAMBER
16941	JW14358-16941-T-013-S45-00-TMS	S45	EXISTING BUTTERFLY VALVE CHAMBER 1 UPGRADE SHEET 1 OF 2
16941	JW14358-16941-T-013-S46-00-TMS	S46	EXISTING BUTTERFLY VALVE CHAMBER 1 UPGRADE SHEET 2 OF 2
16941	JW14358-16941-T-013-S47-00-TMS	S47	EXISTING BUTTERFLY VALVE CHAMBER 2 UPGRADE
16941	JW14358-16941-T-013-S49-00-TMS	S49	EXISTING DN 150 PRV CHAMBER UPGRADE SHEET 1 OF 2
16941	JW14358-16941-T-013-S50-00-TMS	S50	EXISTING DN 150 PRV CHAMBER UPGRADE SHEET 2 OF 2
16941	JW13038-16942-T-013-S51-00-TMS	S51	DN 800 TO DN 1200 TIE-IN CHAMBER SHEET 1 OF 2
16941	JW13038-16943-T-013-S52-00-TMS	S52	DN 800 TO DN 1200 TIE-IN CHAMBER SHEET 2 OF 2
16941	JW13040-16944-T-013-S53-00-TMS	S53	DN 800 ISOLATION, SCOUR AND FUTURE TIE-IN CHAMBER SHEET 1 OF 2
16941	JW13041-16945-T-013-S54-00-TMS	S54	DN 800 ISOLATION, SCOUR AND FUTURE TIE-IN CHAMBER SHEET 2 OF 2
ROAD AND BRIDGE CROSSING DETAILS			
16941	JW14358-16941-T-014-S12-00-TMS	S09	DN 600 ABOVE GROUND CONCRETE PIPE TUNNEL
16941	JW14358-16941-T-014-S10-00-TMS	S10	M1 BRIDGE CROSSING DETAIL SHEET 1 OF 2
16941	JW14358-16941-T-014-S11-00-TMS	S11	M1 BRIDGE CROSSING DETAIL SHEET 2 OF 2
TRAFFIC ACCOMMODATIONS			
16941	JW14358-16941-T-014-S12-00	S12	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 01 OF 16
16941	JW14358-16941-T-014-S13-00	S13	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 02 OF 16
16941	JW14358-16941-T-014-S14-00	S14	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 03 OF 16
16941	JW14358-16941-T-014-S15-00	S15	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 04 OF 16
16941	JW14358-16941-T-014-S16-00	S16	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 05 OF 16
16941	JW14358-16941-T-014-S17-00	S17	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 06 OF 16
16941	JW14358-16941-T-014-S18-00	S18	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 07 OF 16
16941	JW14358-16941-T-014-S19-00	S19	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 08 OF 16
16941	JW14358-16941-T-014-S20-00	S20	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 09 OF 16
16941	JW14358-16941-T-014-S21-00	S21	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 10 OF 16
16941	JW14358-16941-T-014-S22-00	S22	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET11 OF 16
16941	JW14358-16941-T-014-S23-00	S23	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 12 OF 16
16941	JW14358-16941-T-014-S24-00	S24	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 13 OF 16
16941	JW14358-16941-T-014-S25-00	S25	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 14 OF 16
16941	JW14358-16941-T-014-S26-00	S26	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 15 OF 16
16941	JW14358-16941-T-014-S27-00	S27	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 16 OF 16
16941	JW14358-16941-T-014-S28-00	S28	DN 600 BYPASS TRAFFIC ACCOMMODATION LAYOUT SHEET 1 OF 2
16941	JW14358-16941-T-014-S29-00	S29	DN 600 BYPASS TRAFFIC ACCOMMODATION LAYOUT SHEET 2 OF 2
16941	JW14358-16941-T-014-S30-00	S30	DN 200 MPVC TRAFFIC ACCOMMODATION LAYOUT SHEET 1 OF 3
16941	JW14358-16941-T-014-S31-00	S31	DN 200 MPVC TRAFFIC ACCOMMODATION LAYOUT SHEET 2 OF 3
16941	JW14358-16941-T-014-S32-00	S32	DN 200 MPVC TRAFFIC ACCOMMODATION LAYOUT SHEET 3 OF 3
16941	JW14358-16941-T-014-S33-00	S33	DN 800 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 1 OF 1
16941	JW14358-16941-T-014-S34-00	S34	DN 600 MAIN TRAFFIC ACCOMMODATION LAYOUT SHEET 1 OF 1

16941 - WOODMEAD WATER UPGRADE			
LIST OF DRAWINGS			
DRAWING DETAILS			
DRAWING PROJECT No.	INTERNAL DRAWING No.	SHEET No.	DESCRIPTION / DRAWING TITLE
EXISTING TREE SERVITUDE			
16941	JW14358-16941-T-015-S01-00	S01	DN 600 MAIN EXISTING TREES SERVITUDE SHEET 1 OF 2
16941	JW14358-16941-T-015-S02-00	S02	DN 600 MAIN EXISTING TREES SERVITUDE SHEET 2 OF 2
16941	JW14358-16941-T-015-S03-00	S03	DN 200 MAIN EXISTING TREES SERVITUDE SHEET 1 OF 1
SETTING OUT DETAILS			
16941	JW14358-16941-T-016-S01-00-TMS	S01	DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT SHEET 1 OF 8
16941	JW14358-16941-T-016-S02-00-TMS	S02	DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT SHEET 2 OF 8
16941	JW14358-16941-T-016-S03-00-TMS	S03	DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT SHEET 3 OF 8
16941	JW14358-16941-T-016-S04-00-TMS	S04	DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT SHEET 4 OF 8
16941	JW14358-16941-T-016-S05-00-TMS	S05	DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT SHEET 5 OF 8
16941	JW14358-16941-T-016-S06-00-TMS	S06	DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT SHEET 6 OF 8
16941	JW14358-16941-T-016-S07-00-TMS	S07	DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT SHEET 7 OF 8
16941	JW14358-16941-T-016-S08-00-TMS	S08	DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT SHEET 8 OF 8
16941	JW14358-16941-T-016-S09-00-TMS	S09	DN 600 BYPASS PIPELINE CHAMBER SETTING OUT SHEET 1 OF 1
16941	JW14358-16941-T-016-S10-00-TMS	S10	DN 200 PIPELINE CHAMBER SETTING OUT SHEET 1 OF 3
16941	JW14358-16941-T-016-S11-00-TMS	S11	DN 200 PIPELINE CHAMBER SETTING OUT SHEET 2 OF 3
16941	JW14358-16941-T-016-S12-00-TMS	S12	DN 200 PIPELINE CHAMBER SETTING OUT SHEET 3 OF 3
16941	JW14358-16941-T-016-S13-00-TMS	S13	DN 800 PIPELINE CHAMBER SETTING OUT SHEET 1 OF 2
16941	JW14358-16941-T-016-S14-00-TMS	S14	DN 800 PIPELINE CHAMBER SETTING OUT SHEET 2 OF 2
STANDARD DETAILS			
16941	JW14358-16941-T-017-S01-00-TMS	S01	STANDARD DETAILS - CONSTRUCTION NAME BOARD SHEET 1 OF 2
16941	JW14358-16941-T-017-S02-00-TMS	S02	STANDARD DETAILS - CONSTRUCTION NAME BOARD SHEET 2 OF 2
16941	JW14358-16941-T-017-S03-00-TMS	S03	STANDARD DETAILS - THRUST BLOCK DETAIL
16941	JW14358-16941-T-017-S05-00-TMS	S05	STANDARD DETAILS - PIPE BEDDING DETAIL
16941	JW14358-16941-T-017-S07-00-TMS	S07	STANDARD DETAILS - SERVICE MARKERS
16941	JW14358-16941-T-017-S09-00-TMS	S09	STANDARD DETAILS - CHAMBER DETAILS
16941	JW14358-16941-T-017-S10-00-TMS	S10	STANDARD DETAILS - PIPE SUPPORT DETAILS
16941	JW14358-16941-T-017-S11-00-TMS	S11	DN 600 PIPE JACKING DETAIL SHEET 1 OF 2
16941	JW14358-16941-T-017-S12-00-TMS	S12	DN 600 PIPE JACKING DETAIL SHEET 2 OF 2
16941	JW14358-16941-T-017-S15-00-TMS	S15	STANDARD DETAILS - CONSTRUCTION LAYOUT AND DETAILS
CATHODIC PROTECTION			
16941	JW14358-16941-T-018-S02-00-TMS	S02	CATHODIC PROTECTION MONITORING STATION AND TRU/NDU ENCLOSURES
16941	JW14358-16941-T-018-S03-00-TMS	S03	CATHODIC PROTECTION GRADIENT CONTROL MAT FOR VALVE CHAMBERS

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2022-07-29
		SIGNATURE	
CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	APPROVED BY:	P.GROBLER	DATE 2021-06-07
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

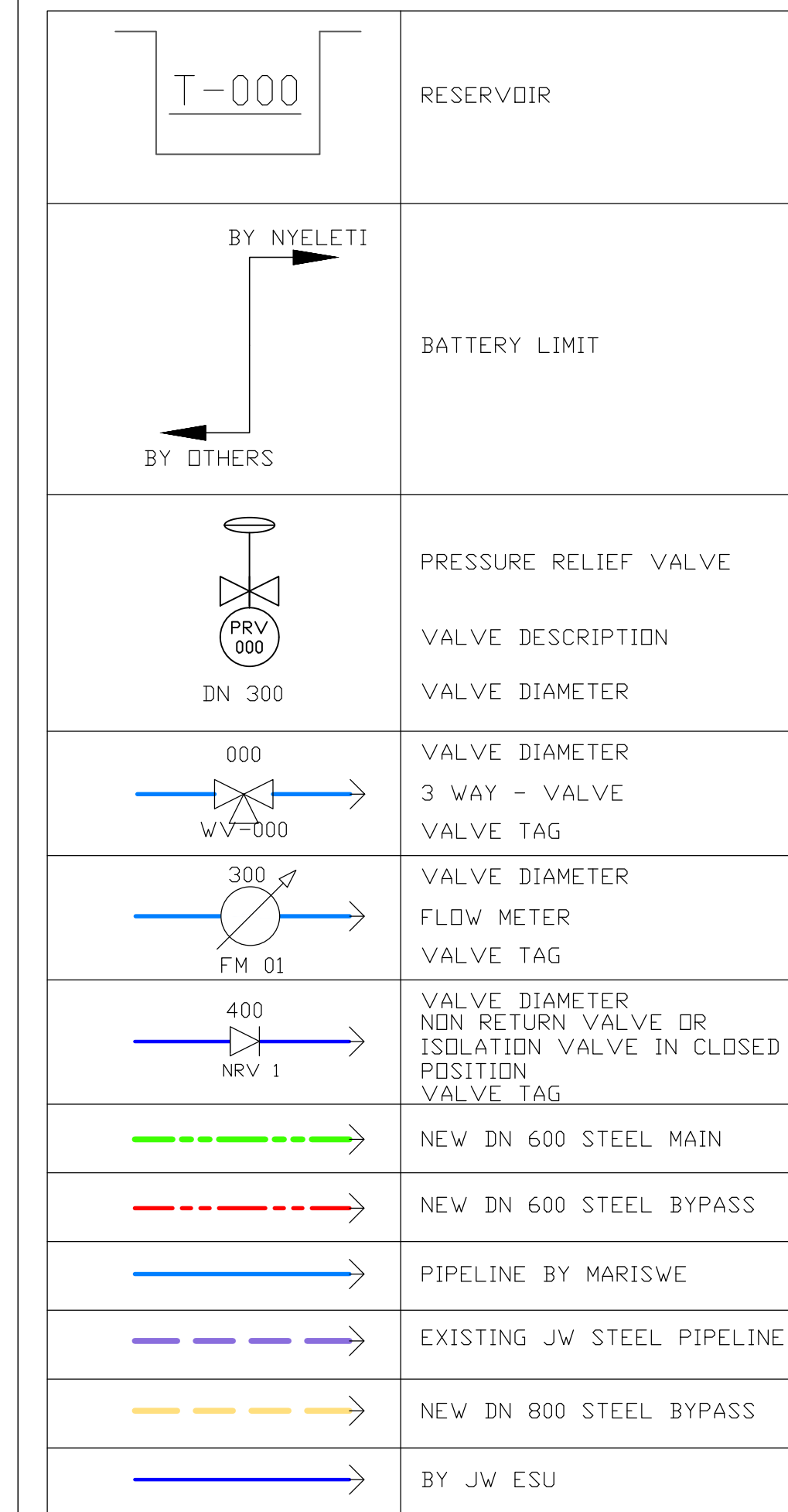
TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

LIST OF DRAWINGS

AMENDMENTS					DRAWING No. JW14358-16941-T-002-S01-00-TMS
SCALE	REV:	DESCRIPTION	APPROVED	DATE:	
NTS	A	ISSUED FOR TENDER	P.GROBLER	2021-06-07	
NTS	B	ISSUED FOR TENDER	P.GROBLER	2021-12-14	
NTS	C	ISSUED FOR TENDER	P.GROBLER	2022-07-29	CONTRACT No.: JW14358 UR1305B PROJECT No. A1 SHEET OF REV. B ORIGINAL PAGE SIZE FILE No.



NOTES:

1. REFER TO PIPELINE LONG SECTIONS FOR AIR VALVE, SCOUR VALVE AND ISOLATION VALVE PLACEMENT
2. INSTRUMENTATION AND PIPE FITTINGS ARE NOT SHOWN
3. THIS DRAWING IS NOT TO SCALE
4. THIS LAYOUT ONLY COVERS THE SCOPE FOR THE WOODMEAD BULK WATER SUPPLY PIPELINE
5. RETICULATION SYSTEM NOT SHOWN

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbretcht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	T FOSA	2021-10-21	 Johannesburg Water	Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg TEL: (011) 688-1400 FAX: (011) 688-1529	 WOODMEAD WATER UPGRADE PROCESS FLOW DIAGRAM	AMENDMENTS				DRAWING No. JW14358-16941-T-003-S01-00-TMS																																									
	DRAWN	T FOSA	2021-10-21				<table border="1"> <thead> <tr> <th>SCALE</th> <th>REV.</th> <th>DESCRIPTION</th> <th>APPROVED</th> <th>DATE:</th> </tr> </thead> <tbody> <tr> <td>NTS</td> <td>A</td> <td>FOR TENDER</td> <td>P GROBLER</td> <td>2021-10-21</td> </tr> <tr> <td>NTS</td> <td>B</td> <td>FOR TENDER</td> <td>P GROBLER</td> <td>2022-01-14</td> </tr> <tr> <td>NTS</td> <td>C</td> <td>FOR TENDER</td> <td>P GROBLER</td> <td>2022-06-14</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				SCALE	REV.	DESCRIPTION	APPROVED	DATE:	NTS	A	FOR TENDER	P GROBLER	2021-10-21	NTS	B	FOR TENDER	P GROBLER	2022-01-14	NTS	C	FOR TENDER	P GROBLER	2022-06-14																					CONTRACT No.: JW14358 UR1305B C PROJECT No. REV. A1 SHEET 1 OF 1 ORIGINAL PAGE SIZE FILE No.	
	SCALE	REV.	DESCRIPTION				APPROVED	DATE:																																												
	NTS	A	FOR TENDER				P GROBLER	2021-10-21																																												
	NTS	B	FOR TENDER				P GROBLER	2022-01-14																																												
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	SIGNATURE																																																			
	ECSA REG. No	950304																																																		

GENERAL NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
- ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN.
- CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE.
- CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING.
- ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
- ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE PROJECT MANAGER OR SUPERVISOR PRIOR TO PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR THE NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS.
- THE EXACT POSITION AND DEPTH OF ALL EXISTING SERVICES ON AND OFF THE SITE WHERE AFFECTED BY THE WORKS SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION WORK. THE CONTRACTOR SHALL PROTECT THEM FROM DAMAGE THROUGHOUT THE DURATION OF THE WORKS.
- ALL WORK MUST BE CARRIED OUT IN ACCORDANCE WITH SANS 1200 AND SANS 2001. ALL MATERIALS USED SHALL BE OF AT LEAST SANS STANDARD AND MUST CARRY THE MARK WHERE APPLICABLE. ALL WORK AND MATERIALS SHALL COMPLY WITH THE MINIMUM REQUIREMENTS OF JOHANNESBURG WATER (SOC) LTD.
- ALL LEVELS AND CONTOURS GIVEN IN METERS ABOVE SEA LEVEL.
- THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES, WITH REGARDS TO STANDARDS AND SPECIFICATIONS, TO THE PROJECT MANAGER BEFORE ORDERING ANY MATERIAL.
- ALL DIMENSIONS MUST BE CHECKED AND APPROVED ON SITE. ANY DISCREPANCIES TO BE REPORTED TO THE PROJECT MANAGER.
- DO NOT SCALE FROM THESE DRAWINGS.

ISOLATING AND SCOUR VALVE NOTES:

- ALL ISOLATING AND SCOUR VALVES ≤ 150mm DIAMETER SHALL BE NON RISING SPINDLE RESILIENT SEAL GATE VALVES.
- ALL ISOLATING AND SCOUR VALVES ≥ 200mm DIAMETER SHALL BE NON RISING SPINDLE WEDGE TYPE GATE VALVES.
- VALVES SHALL BE SUPPLIED TO SANS 664 AND WITH FLAT FACE FULLY MACHINED FLANGES ON BOTH ENDS DRILLED TO SANS 1123 TABLE 1600/3 AS INDICATED.
- ALL VALVE BODIES SHALL BE CONSTRUCTED SUCH THAT THERE IS NO LEAKAGE OF WATER WHEN SUBJECTED TO AN INTERNAL HYDRAULIC TEST PRESSURE OF 3200kPa FOR PN16 VALVES AND 3800 kPa FOR PN25 VALVES AT A MINIMUM TEST DURATION OF 5 MINUTES.
- VALVE TO INCLUDE THE FOLLOWING LEGIBLE INSCRIPTION
 - NAME OF MANUFACTURE OR TRADE MARK
 - VALVE SIZE
 - CLASS (PN 16 / PN25)
 - SANS MARK APPROVAL
- VALVES MUST CLOSE ANTI-CLOCKWISE DIRECTION AND BE FITTED WITH SPHEROIDAL GRAPHITE IRON VALVE CAPS TO SANS 936 GRADE 42.
- VALVE OF SIZE DN200 AND LARGER MUST HAVE EYEBOLTS OF REQUISITE STRENGTH FOR LIFTING.
- VALVES DN300 UP TO DN400 MUST HAVE MULTI-STAGE OPEN SPUR GEARED DRIVES WITH A MINIMUM GEAR RATIO OF 4:1 AND VALVES DN450 UP TO DN900 SHALL HAVE A 6:1 GEAR RATIO.
- REFER TO JW DESIGN GUIDELINES ANNEXURE E SECTION 9 AND 10.
- A METAL PLATE MUST BE PERMANENTLY FIXED ONTO ALL VALVES IDENTIFYING MANUFACTURES NAME, NOMINAL PRESSURE, NOMINAL SIZE IN mm, SERIAL NUMBER, DATE OF MANUFACTURE, TYPE OF TRIM, AND MASS OF VALVE IN KILOGRAMS.
- VALVE SHALL HAVE A LEGIBLE WORDING " CLOSE " AND THE DIRECTION ARROW INDICATED HIGHLIGHTED RED ON BLACK VALVE CAP

PRV NOTES:

PRESSURE REDUCING VALVES (WITH ANTI CAVITATION RING)

ALL PRV'S SHALL TO BE INSTALLED WITH BATTERY OPERATED REMOTE DATA LOGGERS THAT MUST INTERFACE WITH THE EXISTING JW TELEMETRY-SCADA SYSTEM IN ORDER FOR 24/7 MONITORING OF THE CONTROLLED (DOWNSTREAM) PRESSURE TO OCCUR.

ALL PRV's SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

- DUCTILE IRON BODY AND COVER WITH STAINLESS STEEL TRIM.
- FUSION BONDED EPOXY COATED INTERNALLY AND EXTERNALLY TO A MINIMUM OF 250 MICRONS, PN16 OR PN25 AS INDICATED.
- COMPLETE WITH FULLY ADJUSTABLE CRD PRESSURE REDUCING PILOT VALVE (ADJUSTABLE DOWNSTREAM AS SPECIFIED ON THE DRAWINGS).
- WITH PRESSURE GAUGE, OPENING AND CLOSING SPEED CONTROLS AND x101 VISION POSITION INDICATOR.
- MUST BE FLANGED AND DRILLED TO SANS 1123 TABLE 1600/3 OR TABLE 2500/3
- MUST BE COMPLETE WITH Y-TYPE STRAINER. DUCTILE IRON BODY AND COVER. STAINLESS STEEL REMOVABLE IN A DUCTILE IRON FUSION BONDED EPOXY COATED FRAME 2 mm MESH-FUSION BONDED EPOXY INTERNALLY AND EXTERNAL TO A MINIMUM OF 250 MICRON. PN16 OR PN25 RATED FLANGE AND DRILLED TO SANS 1123 TABLE 1600/3 OR TABLE 2500/3.

FLOW METER NOTES:

FLOW METERS IN NETWORKS:

- BULK FLOW METERS INSTALLED IN THE NETWORKS MUST BE PROCURED AND INSTALLED WITH A PRESSURE SENSOR INTEGRATED INTO THE METER CONVERTER IN ORDER FOR FLOW AND PRESSURES TO BE MONITORED SIMULTANEOUSLY.
- BULK FLOW METERS LOCATED WITHIN LOCKABLE, METERING CHAMBERS/ VALVE CHAMBERS/ WITH CONVERTERS INSTALLED IN CONCRETE BUNKERS TO BE **BATTERY OPERATED GSM ENABLED ELECTROMAGNETIC BULK FLOW (EMF) METERS** COMPLYING WITH THE REQUIREMENTS AS SET OUT IN THE CONTRACT DOCUMENT.

AIR VALVE NOTES:

- VALVES SHALL BE DOUBLE ACTING AIR VALVES OF COMPACT SINGLE CHAMBER DESIGN WITH BOTH SMALL AND LARGE AIR RELEASE ORIFICES INSIDE THE CHAMBER
- AN INDEPENDENT TEST CENTRE MUST SUBSTANTIATE THE DISCHARGE AND INTAKE RATES
- END CONNECTIONS TO BE FLANGED AND DRILLED TO SANS 1123 TABLE 1600/3 OR TABLE 2500/3 AS INDICATED.
- ALL AIR VALVES SHALL BESUPPLIED WITH A RESILIENT SEAL GATE VALVE COMPLYING TO THE SPECIFICATIONS FOR ISLOATING VALVES
- THE VALVE BODY MUST BE STAINLESS STEEL T316 OR S316 AND THE END CONNECTIONS MUST BE THE SAME NOMINAL SIZE AS THE VALVE DESIGNATION.
- A STAINLESS STEEL SCREEN ON THE AIR OUTLET PORT MUST PROVIDE PROTECTION AGAINST DIRT.
- A METAL PLATE MUST BE PERMANENTLY FIXED ONTO ALL VALVES IDENTIFYING MANUFACTURES NAME, NOMINAL PRESSURE, NOMINAL SIZE IN mm, SERIAL NUMBER, DATE OF MANUFACTURE, TYPE OF TRIM, AND MASS OF VALVE IN KILOGRAMS

COATING AND LINING NOTES:

THE PIPELINE WILL BE AFFECTED BY CORROSIVE INFLUENCES FROM DC STRAY CURRENT, AC INTERFERENCE AND CORROSIVE SOILS. THE CONTRACTOR SHALL CONSULT THE CATHODIC PROTECTION AND AC MITIGATION CONSULTANT, VIA THE PROJECT MANAGER, SHOULD THERE BE PERMANENT GROUNDWATER ALONG THE PIPELINE ROUTE.

THE LINING AND COATING SHALL BE:

- LINE PIPE COATING : THE SPECIFIED COATING IS RIGID POLYURETHANE (RPU).
- FIELD JOINT COATING : THE SPECIFIED METHOD FOR REPAIR AND PROTECTION OF FIELD JOINTS IS A POLY-ISOBUTENE SELF-HEALING VISCO-ELASTIC COATING COMPLETE WITH HIGH DENSITY POLYETHYLENE OUTER WRAP COMPLIANT WITH ISO 21809.

IN ALL CASES, COATINGS AND LININGS ARE TO BE APPLIED IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS BY SUITABLY QUALIFIED PEOPLE UTILISING SUITABLE EQUIPMENT. ALL COATING PROCESSES ARE TO BE MONITORED AND CONTROLLED BY SUITABLY QUALIFIED COATING INSPECTORS. ALL MOVEMENT AND STORAGE OF COATED PIPES IS TO COMPLY WITH MANUFACTURER'S GUIDELINES AND SPECIFICATIONS AND BACKFILL QUALITY IS TO BE STRICTLY CONTROLLED. ALL SITE ACTIVITIES ASSOCIATED WITH THE MOVEMENT, STORAGE, INSTALLATION AND BACKFILLING OF PIPES SHOULD TO BE MONITORED BY SUITABLY QUALIFIED COATING INSPECTORS.

REFER TO PROJECT SPECIFICATIONS FOR LINING AND COATING TECHNICAL SPECIFICATIONS AND STANDARDS.

AC MITIGATION AND CATHODIC PROTECTION:

- CATHODIC PROTECTION AND AC MITIGATION IS REQUIRED FRO ALL NEW STEEL PIPELINES INSTALLED.
- CATHODIC PROTECTION MONITORING POINTS WILL BE REQUIRED AT LOCATIONS ALONG THE PIPELINE AS SHOWN ON THE DRAWINGS.
- INSULATING FLANGES WILL BE REQUIRED AT ALL TIE-INS TO EXISTING PIPELINES AND ALL ELECTROMAGNETIC FLOW METERS.
- BURIED CONTINUITY BONDS WILL BE REQUIRED AT ALL CHAMBERS.
- THE CONTRACTOR SHALL ENSURE THAT A 600 m LONG CONTINUITY BOND IS INSTALLED TO CONNECT THE DN 800 mm DIAMETER PIPE TO THE DN 600 mm DIAMETER MAIN PIPE.
- THE CONTRACTOR SHALL INSTALL AC MITIGATION GRADIENT CONTROL MATS AT ALL VALVE CHAMBERS LOCATED ON THE STEEL PIPELINES.

NOTE:

- IN ALL CASES, THE INSTALLATION OF AC MITIGATION AND CATHODIC PROTECTION EQUIPMENT AND INSTRUMENTATION SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS BY SUITABLY QUALIFIED PEOPLE UTILISING SUITABLE EQUIPMENT. ALL PROCESSES ARE TO BE MONITORED AND CONTROLLED BY SUITABLY QUALIFIED CP INSPECTORS.
- REFER TO PROJECT SPECIFICATIONS FOR TECHNICAL SPECIFICATIONS AND STANDARDS FOR AC MITIGATION AND CATHODIC PROTECTION.

CONCRETE:

- THE FOLLOWING CONCRETE STRENGTHS APPLY TO VALVE CHAMBERS:
 - REINFORCED CONCRETE 30/19
 - BLINDING AND SCREED 15/19
- CONCRETE FINISH:
 - WALLS: F1
 - FLOOR AND ROOF SLABS: U2
- ALL EXPOSED CONCRETE EDGES TO HAVE A 25 X 25 mm CHAMFER.
- ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.
- ALL BOX-OUTS TO BE CLOSED WITH NON-SHRINK CEMENTITIOUS GROUT
- SCREED SHALL HAVE A MINIMUM THICKNESS OF 25 mm.
- CHAMBERS TO BE CONSTRUCTED STRICTLY AS PER THE DRAWINGS.

STEEL PIPES / PIPELINES AND FITTINGS NOTES:

ALL STEEL PIPES AND FITTINGS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

- API 5LX42, 6 mm WALL THICKNESS FOR PIPES UP TO DN 600 AND 8 mm FOR DN800 PIPES, UNLESS OTHERWISE SHOWN.
- WHERE FLANGES ARE WELDED ON SITE, COATING AND LINING MUST BE MADE GOOD AS SET OUT IN THE PROJECT SPECIFICATIONS.
- ALL PIPES SHALL BE INTERNALLY LINED WITH AN APPROVED SOLVENT FREE LIQUID EPOXY TO SANS 1217 WITH A MINIMUM THICKNESS OF 500 MICRONS, BUT TARGET THICKNESS OF 600 MICRONS.
- ALL BURIED PIPES TO BE EXTERNALLY COATED WITH RIGID POLYURETHANE TO A THICKNESS OF 1.7 mm AS SPECIFIED IN THE PROJECT SPECIFICATIONS. PIPES AND FITTINGS INSIDE CHAMBERS SHALL ALSO BE COATED WITH RIGID POLYURETHANE TO 1.7 mm THICKNESS.
- ALL WELDING TO BE DONE BY APPROVED AND CERTIFIED WELDERS. CONTRACTOR TO SUBMIT WPS, PQR AND WQR IN ACCORDANCE WITH API 1104 TO PROJECT MANAGER FOR APPROVAL PRIOR TO ANY WELDING COMMENCING ON SITE.
- ALL PIPES TO BE FLUSHED AND DISINFECTED BEFORE COMMISSIONING.
- ALL STEEL PIPES MUST BE CATHODICALLY PROTECTED AS PER SANS 10121 AND IN LINE WITH THE JOHANNESBURG WATER SPECIFICATION PROVIDED IN THE PROJECT SPECIFICATIONS.
- ALL FLANGES SHALL BE DRILLED IN ACCORDANCE WITH SANS 1123 TABLE 1600/3 OR TABLE 2500/3 (FLAT FACE MACHINED).
- FLANGES TO BE POSITIONED WITH HOLES OFF CENTRE TO TOP OF PIPE.
- ALL FLANGED FITTINGS SHALL BE SUPPLIED COMPLETE WITH GALVANIZED METRIC STANDARD THREAD BOLTS, NUTS AND GASKETS. BOLTS TO BE GRADE 8.8
- GASKETS SHALL BE 3 mm THICK, NON-ASBESTOS TYPE, PURPOSE MADE TO THE DIMENSIONS OF THE MATCHING FLANGE FOR A PIPE PRESSURE OF 1600 kPa OR 2500 kPa. BODY GASKETS IN CONTACT WITH WATER MUST BE NON-HYGROSCOPIC.
- BEDDING, BACKFILLING, AND COMPACTION TO CONFORM TO SANS 1200 LB AND SANS 1200 DB.
- MINIMUM PIPE COVER OF 800 mm.
- GALVANIZED STEEL MEMBERS AND BOLTS TO BE HOT DIPPED GALVANIZED TO A MEAN COATING THICKNESS OF 85µm.
- ALL HOT DIPPED GALVANIZING TO BE CARRIED OUT IN STRICT ACCORDANCE WITH SANS 121:2000 / ISO 1461:1999 BY AN SABS ACCREDITED GALVANISER.
- DN600 PIPES MAY BE ENTERED BY A SUITABLY SIZED PERSON WITH STRICT RESTRICTIONS AND ONLY IF PERMISSION IS REQUESTED FROM AND GRANTED BY THE DEPARTMENT OF LABOUR (DOL) SPECIFICALLY FOR THE PROJECT. THIS CONCESSION WOULD BE SUBJECT TO ENTRY INTO NEW PIPE ONLY THAT IS BEING LAID IN A CONTROLLED ENVIRONMENT, WITH SUITABLE PERSONNEL ALWAYS AVAILABLE OUTSIDE THE PIPE TO EXTRACT THE PERSON IN AN URGENCY/EMERGENCY, THAT APPROPRIATE PPE IS WORN AND SAFETY EQUIPMENT USED, AND A MAXIMUM OF TWO PIPE LENGTHS IS ENTERED AT ANY POINT IN TIME

SPECIALS AND BENDS:

- 100% OF WELDS ON SPECIALS AND BENDS TO BE RADIOGRAPHICALLY EXAMINED.
- ALL PIPES TO BE FLUSHED AND DISINFECTED BEFORE COMMISSIONING.
- ALL STEEL PIPES MUST BE CATHODICALLY PROTECTED AS PER SANS 10121 AND IN LINE WITH THE JOHANNESBURG WATER SPECIFICATION PROVIDED.
- ALL FLANGES SHALL BE DRILLED IN ACCORDANCE WITH SANS 1123 TABLE 1600/3 OR TABLE 2500/3 (FLAT FACED) UNLESS OTHERWISE SPECIFIED.
- FLANGES TO BE POSITIONED WITH HOLES OFF CENTRE TO TOP OF PIPE.
- ALL FLANGED FITTINGS SHALL BE SUPPLIED COMPLETE WITH GALVANISED METRIC STANDARD THREAD BOLTS, NUTS AND GASKETS. BOLTS TO BE GRADE 8.8
- GASKETS SHALL BE 3 mm THICK, NON-ASBESTOS TYPE, PURPOSE MADE TO THE DIMENSIONS OF THE MATCHING FLANGE FOR A PIPE PRESSURE OF 1600 kPa OR 2500 kPa.
- FLEXIBLE JOINTS INCLUDING DISMANTLING JOINTS, VJ COUPLINGS, VICTAULIC CLAMPS OR FLANGE ADAPTORS ETC. SHALL ONLY BE ALLOWED WHERE INDICATED ON THE DRAWINGS.
- CHAMBERS TO BE CONSTRUCTED STRICTLY AS PER THE VALVE CHAMBER DRAWINGS.
- ALL THE FITTINGS FOR THE TIE-IN OR CONNECTION DETAILS TO HAVE A PRESSURE RATING AS SPECIFIED ON THE RELEVANT DRAWINGS.

Reference drawings:

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTING ENGINEERS

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DRAWN	T. FOSA	
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	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304
	-	DWG NO.



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WOODMEAD WATER UPGRADE

GENERAL NOTES

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
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	B	FOR TENDER	PG	2022-01-05

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CONTRACT No.: JW14358

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PROJECT No.

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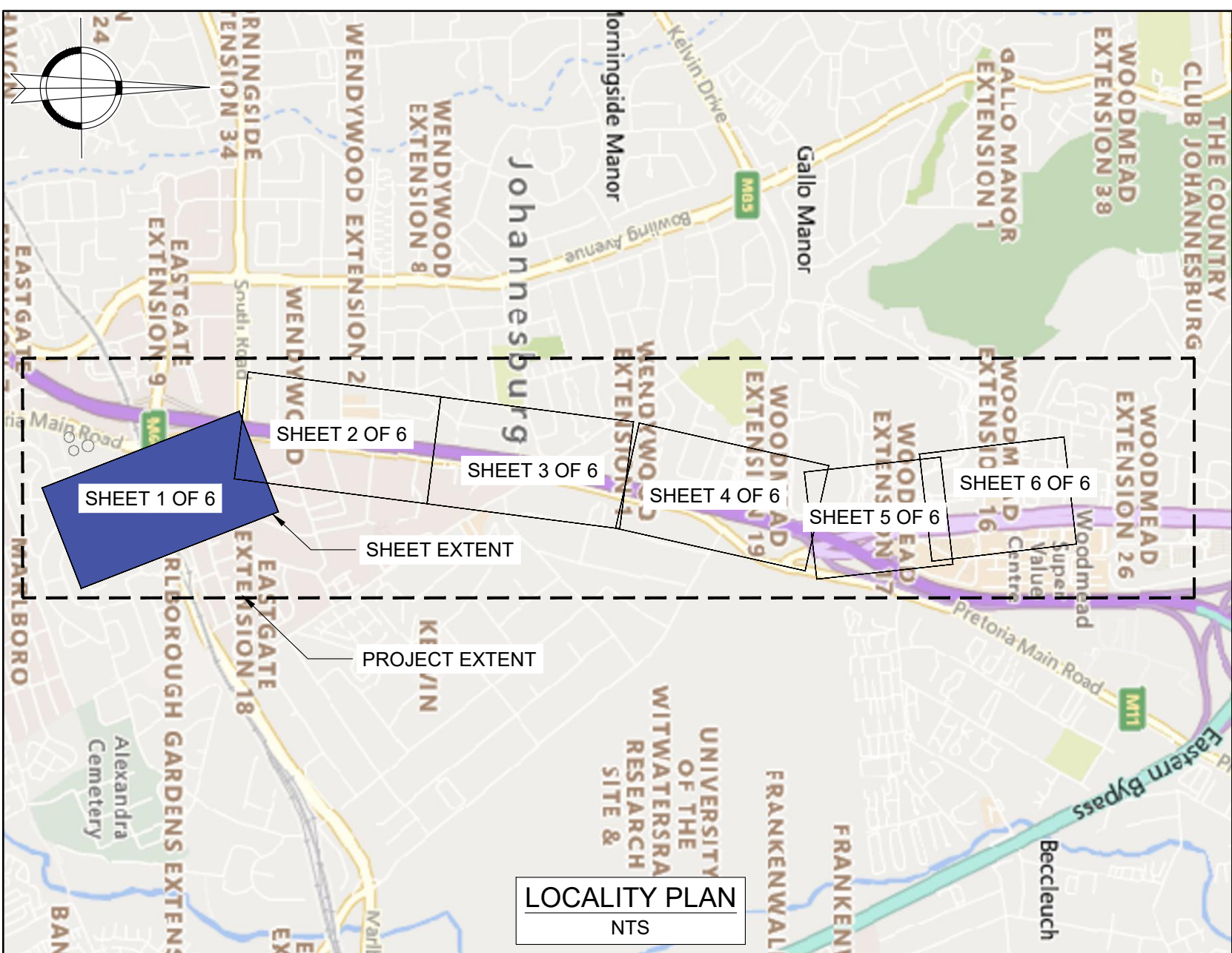
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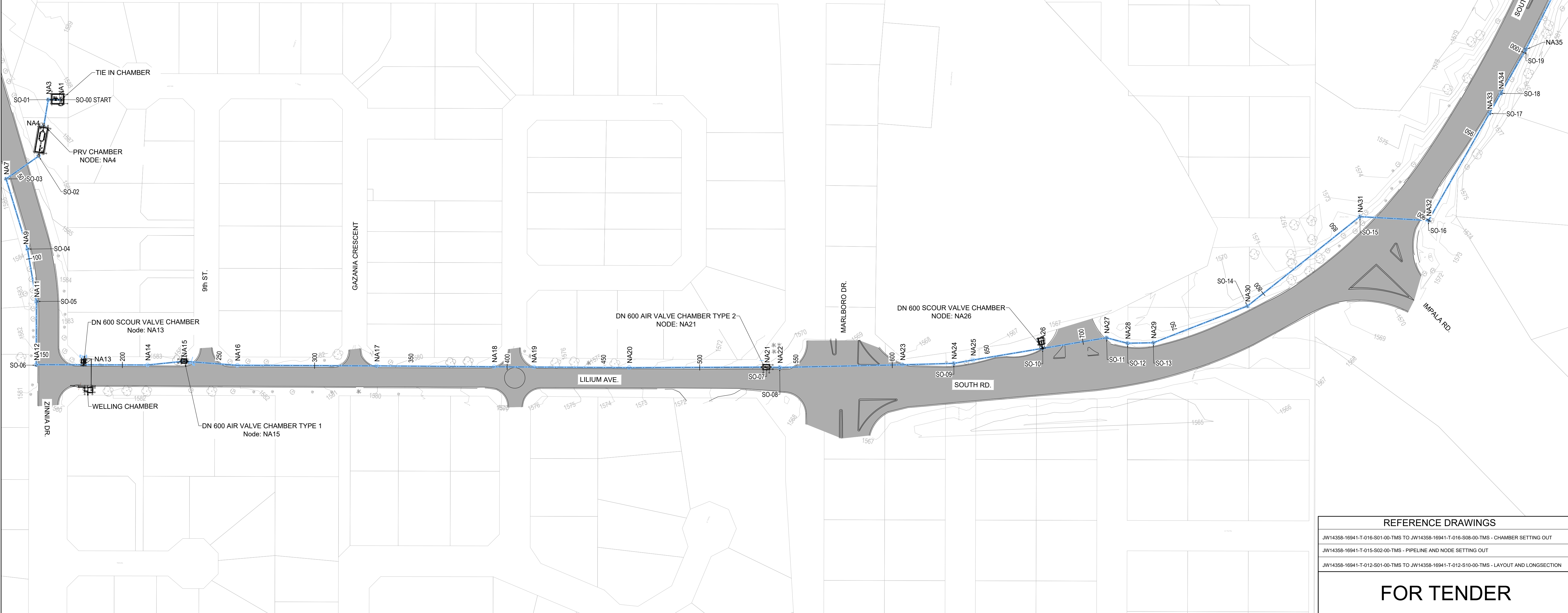
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REFERENCE DRAWINGS
JW14358-16941-T-016-S01-00-TMS TO JW14358-16941-T-016-S08-00-TMS - CHAMBER SETTING OUT
JW14358-16941-T-015-S02-00-TMS - PIPELINE AND NODE SETTING OUT
JW14358-16941-T-012-S01-00-TMS TO JW14358-16941-T-012-S10-00-TMS - LAYOUT AND LONGSECTION

FOR TENDER

CONSULTING ENGINEERS Woodhill Office park 53 Phillip Engelbretch Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2022-12-08
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2022-12-08
		SIGNATURE	
		ECSA REG. No	950304



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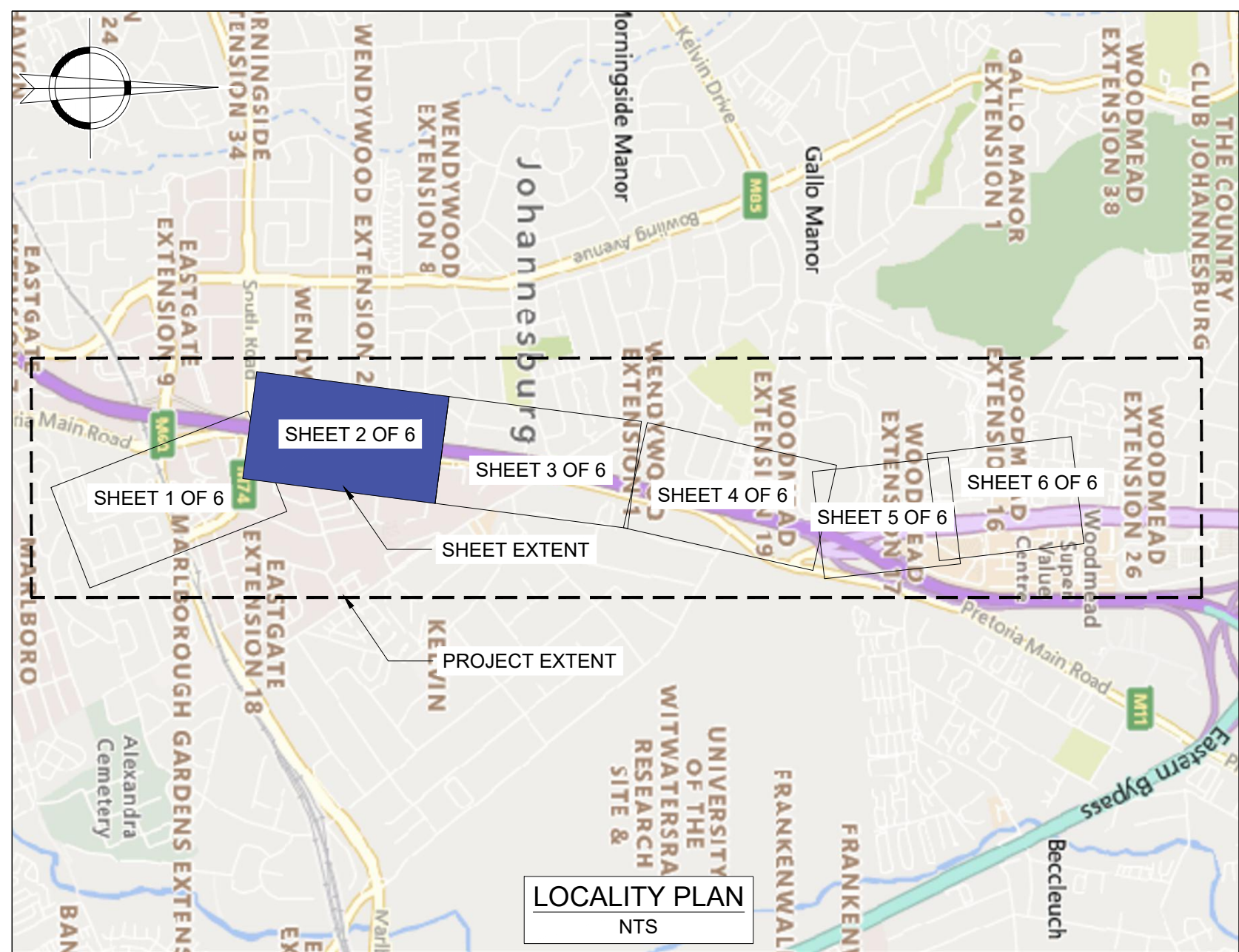
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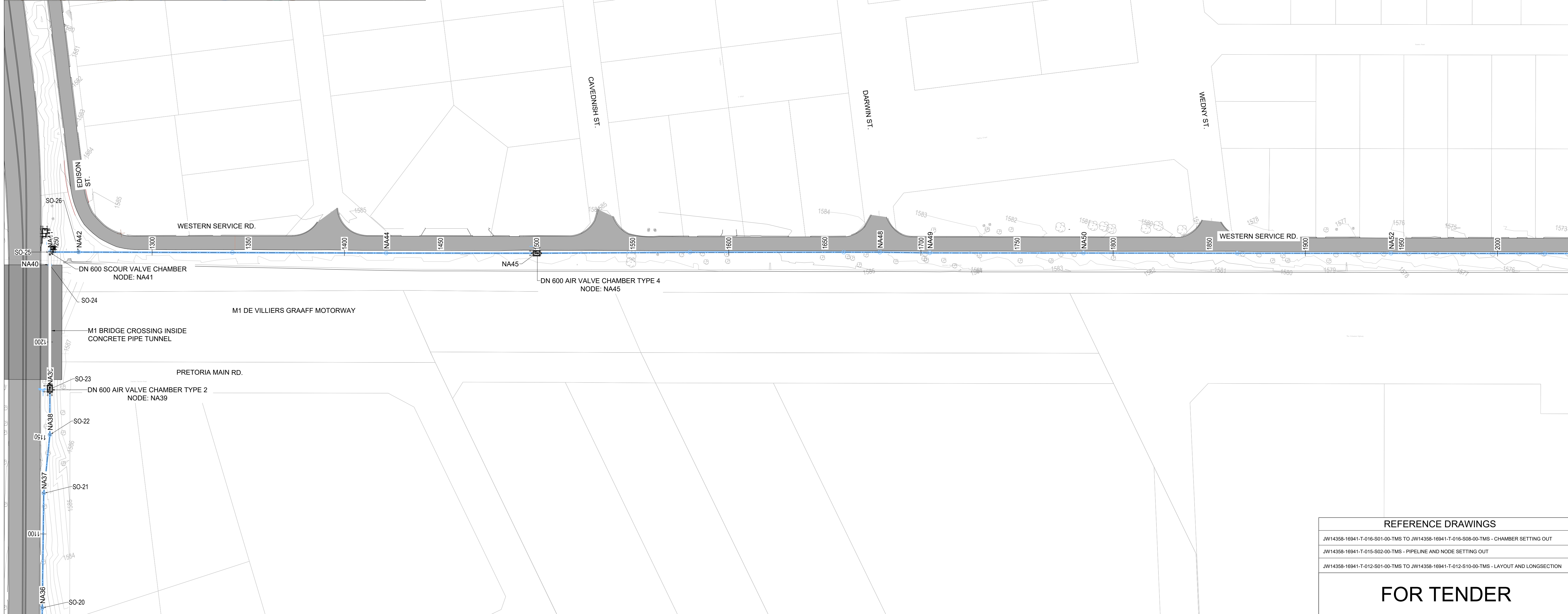
WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPE LAYOUT AND SETTING OUT
SHEET 1 OF 6

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WOODMEAD WATER UPGRADE

DN 600 STEEL MAIN PIPE LAYOUT AND SETTING OUT
SHEET 2 OF 6

AMENDMENTS				
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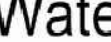
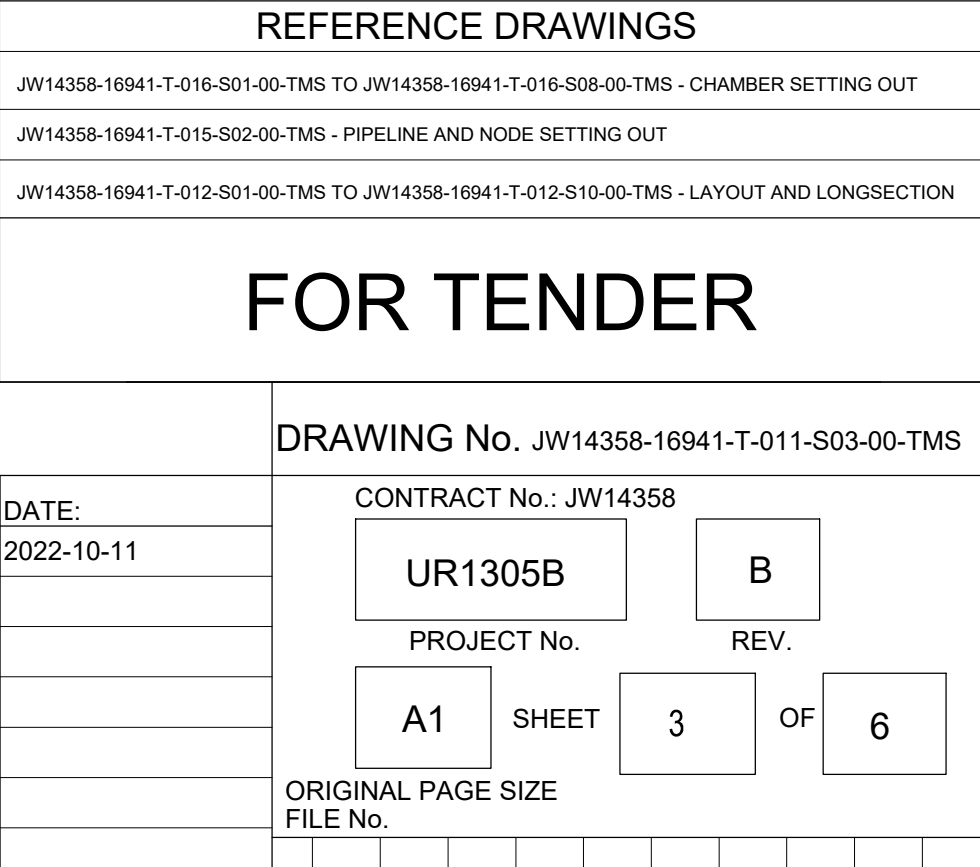
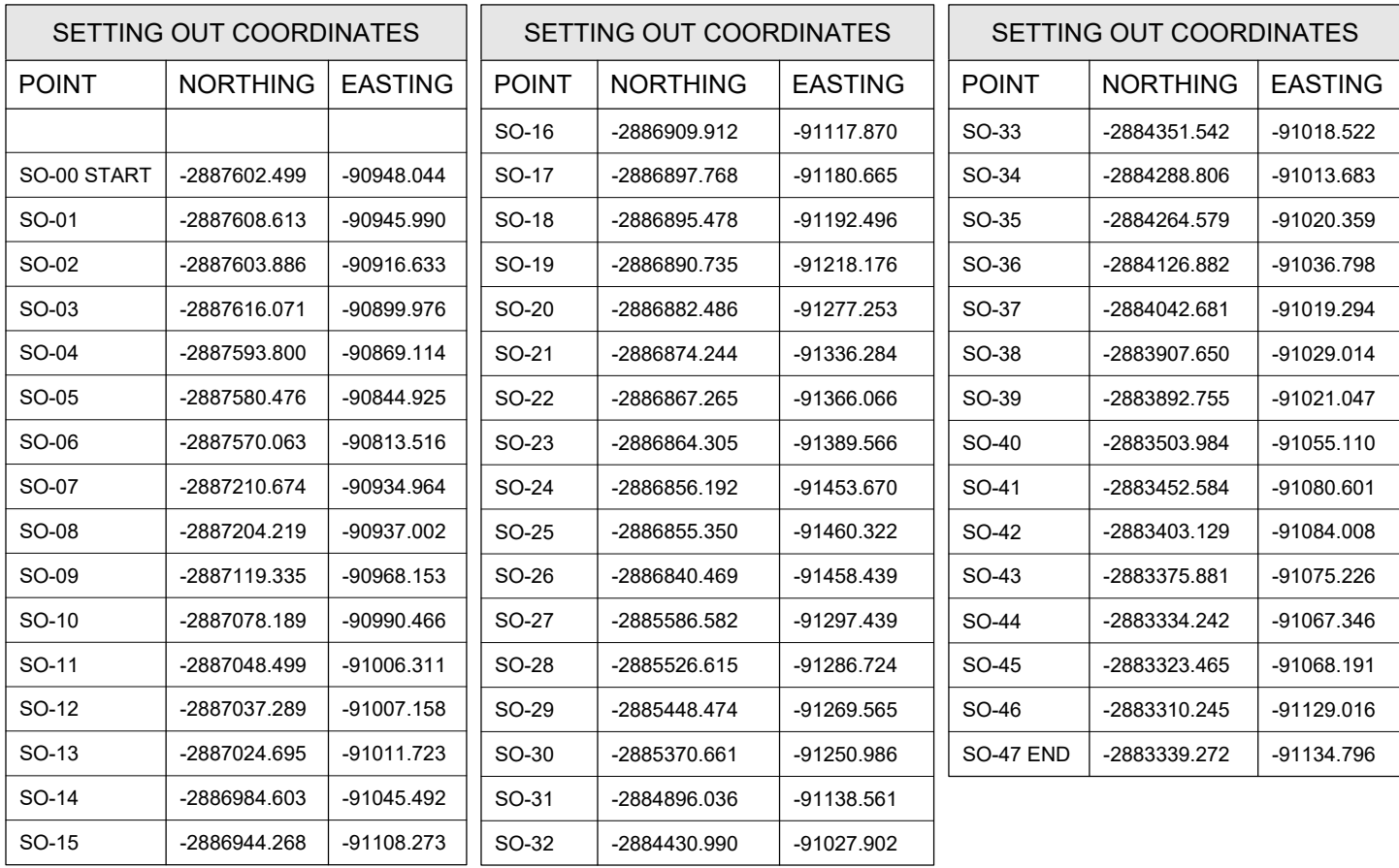
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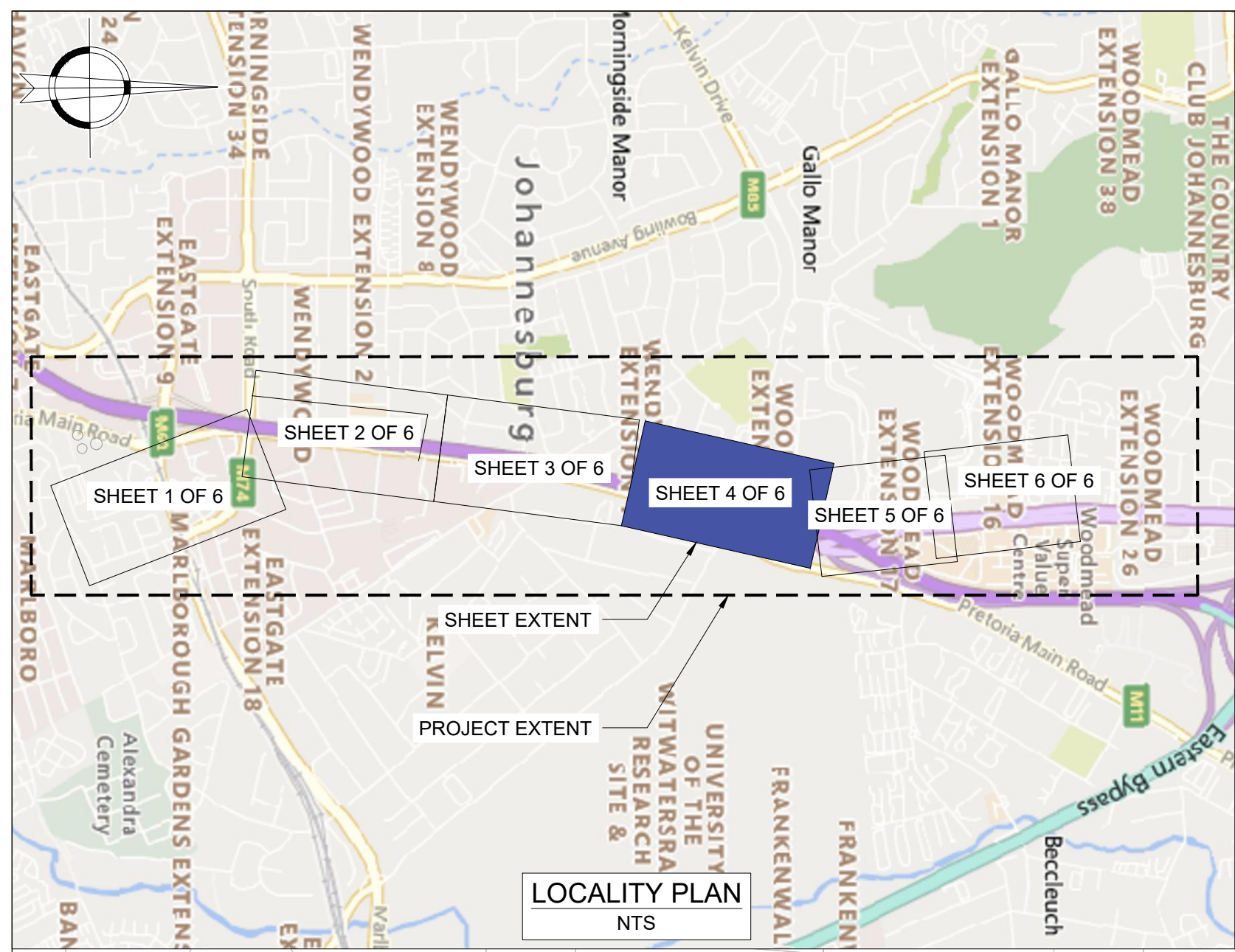


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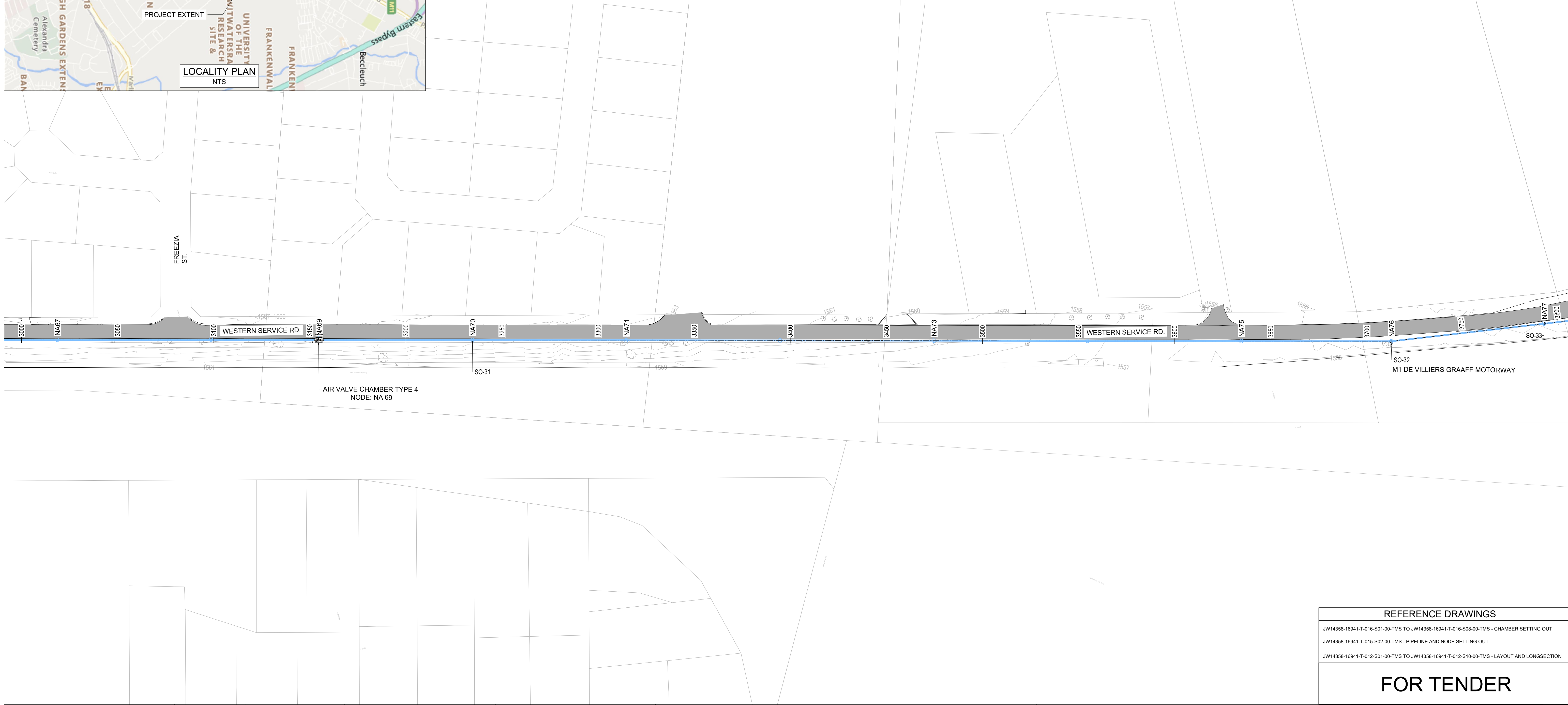

WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPE LAYOUT AND SETTING OUT
SHEET 3 OF 6

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SO-01	-2887608.613	-90945.990	SO-17	-2886897.768	-91180.665	SO-34	-2884288.806	-91013.683
SO-02	-2887603.886	-90916.633	SO-18	-2886895.478	-91192.496	SO-35	-2884264.579	-91020.359
SO-03	-2887616.071	-90899.976	SO-19	-2886890.735	-91218.176	SO-36	-2884126.882	-91036.798
SO-04	-2887593.800	-90869.114	SO-20	-2886882.486	-91277.253	SO-37	-2884042.681	-91019.294
SO-05	-2887580.476	-90844.925	SO-21	-2886874.244	-91336.284	SO-38	-2883907.650	-91029.014
SO-06	-2887570.063	-90813.516	SO-22	-2886867.265	-91366.066	SO-39	-2883892.755	-91021.047
SO-07	-2887210.674	-90934.964	SO-23	-2886864.305	-91389.566	SO-40	-2883503.984	-91055.110
SO-08	-2887204.219	-90937.002	SO-24	-2886856.192	-91453.670	SO-41	-2883452.584	-91080.601
SO-09	-2887119.335	-90968.153	SO-25	-2886855.350	-91460.322	SO-42	-2883403.129	-91084.008
SO-10	-2887078.189	-90990.466	SO-26	-2886840.469	-91458.439	SO-43	-2883375.881	-91075.226
SO-11	-2887048.499	-91006.311	SO-27	-2885586.582	-91297.439	SO-44	-2883334.242	-91067.346
SO-12	-2887037.289	-91007.158	SO-28	-2885526.615	-91286.724	SO-45	-2883323.465	-91068.191
SO-13	-2887024.695	-91011.723	SO-29	-2885448.474	-91269.565	SO-46	-2883310.245	-91129.016
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SO-15	-2886944.268	-91108.273	SO-31	-2884896.036	-91138.561			
			SO-32	-2884430.990	-91027.902			



CONSULTING ENGINEERS



Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

DESIGNED

T.FOSA

DRAWN

Y.GOVENDER

CHECKED

P.SEKOAILA

SIGNATURE

APPROVED BY:

P.GROBLER

SIGNATURE

DATE: 2022-12-08

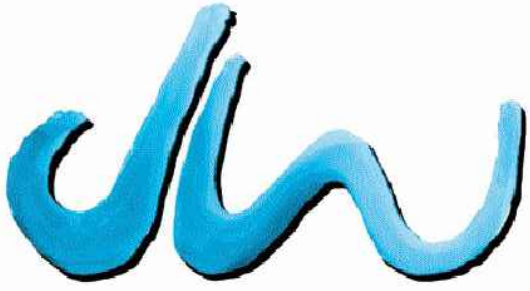
DATE 2022-12-08

CLIENT

Johannesburg Water SOC LTD

CLIENT

Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg



Johannesburg Water

Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPE LAYOUT AND SETTING OUT
SHEET 4 OF 6

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
1:1000	B	ISSUED FOR TENDER	P.GROBLER	2022-12-08

REFERENCE DRAWINGS

JW14358-16941-T-016-S01-00-TMS TO JW14358-16941-T-016-S08-00-TMS - CHAMBER SETTING OUT

JW14358-16941-T-015-S02-00-TMS - PIPELINE AND NODE SETTING OUT

JW14358-16941-T-012-S01-00-TMS TO JW14358-16941-T-012-S10-00-TMS - LAYOUT AND LONGSECTION

FOR TENDER

DRAWING No. JW14358-16941-T-011-S04-00-TMS

CONTRACT No.: JW14358

UR1305B

B

PROJECT No.

REV.

A1

SHEET

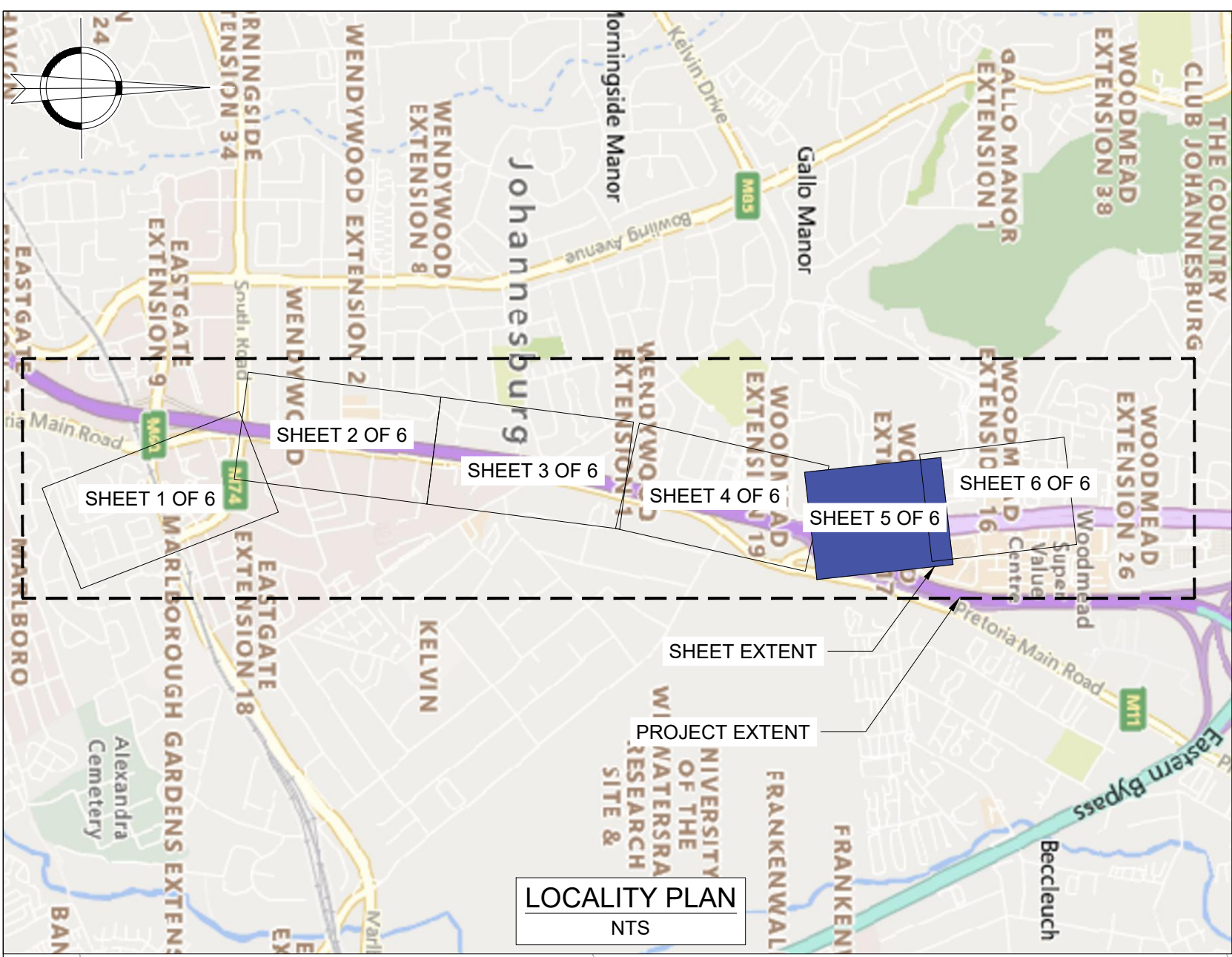
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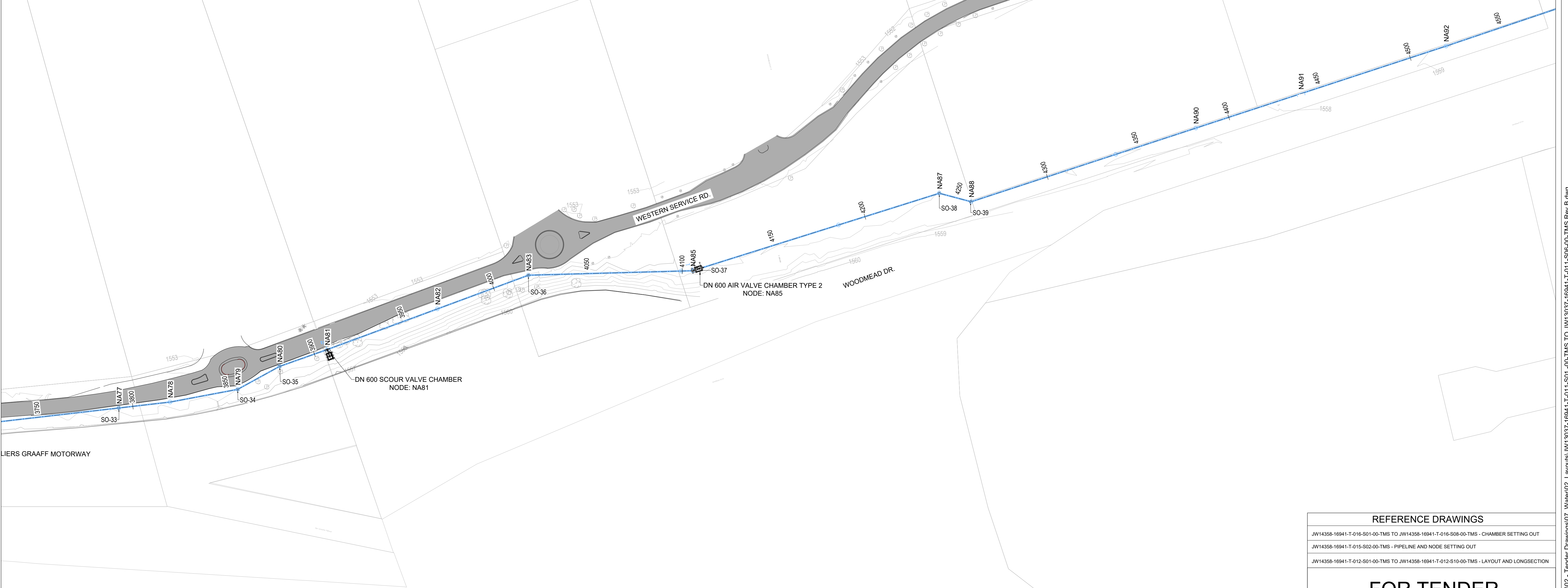
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SO-01	-2887608.613	-90945.990	SO-17	-2886897.768	-91180.665	SO-34	-2884288.806	-91013.683
SO-02	-2887603.886	-90916.633	SO-18	-2886895.478	-91192.496	SO-35	-2884264.579	-91020.359
SO-03	-2887616.071	-90899.976	SO-19	-2886890.735	-91218.176	SO-36	-2884126.882	-91036.798
SO-04	-2887593.800	-90869.114	SO-20	-2886882.486	-91277.253	SO-37	-2884042.681	-91019.294
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SO-09	-2887119.335	-90968.153	SO-25	-2886855.350	-91460.322	SO-42	-2883403.129	-91084.008
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SO-12	-2887037.289	-91007.158	SO-28	-2885526.615	-91286.724	SO-45	-2883323.465	-91068.191
SO-13	-2887024.695	-91011.723	SO-29	-2885448.474	-91269.565	SO-46	-2883310.245	-91129.016
SO-14	-2886984.603	-91045.492	SO-30	-2885370.661	-91250.986	SO-47 END	-2883339.272	-91134.796
SO-15	-2886944.268	-91108.273	SO-31	-2884896.036	-91138.561			
			SO-32	-2884430.990	-91027.902			



CONSULTING ENGINEERS



Woodhill Office park
53 Phillip Engelbretcht Drive
Alberton
1450

DESIGNED

T.FOSA

DRAWN

Y.GOVENDER

CHECKED

P.SEKOAILA

APPROVED BY:

P.GROBLER

DATE:

2022-12-08

DATE

2022-12-08

SIGNATURE

SIGNATURE

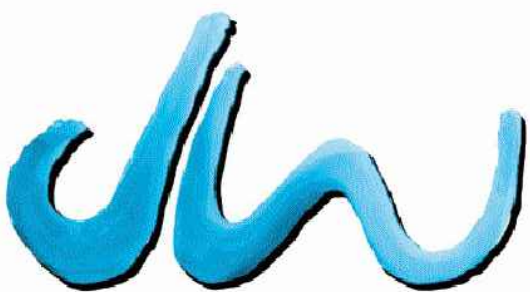
ECSA REG. No

950304

ECSA REG. No

CLIENT

Johannesburg Water SOC LTD
Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg



Johannesburg Water

Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPE LAYOUT AND SETTING OUT
SHEET 5 OF 6

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
1:1000	B	ISSUED FOR TENDER	P.GROBLER	2022-12-08

REFERENCE DRAWINGS

JW14358-16941-T-016-S01-00-TMS TO JW14358-16941-T-016-S08-00-TMS - CHAMBER SETTING OUT

JW14358-16941-T-015-S02-00-TMS - PIPELINE AND NODE SETTING OUT

JW14358-16941-T-012-S01-00-TMS TO JW14358-16941-T-012-S10-00-TMS - LAYOUT AND LONGSECTION

FOR TENDER

DRAWING No. JW14358-16941-T-011-S05-00-TMS

CONTRACT No.: JW14358

UR1305B

B

PROJECT No.

REV.

A1

SHEET

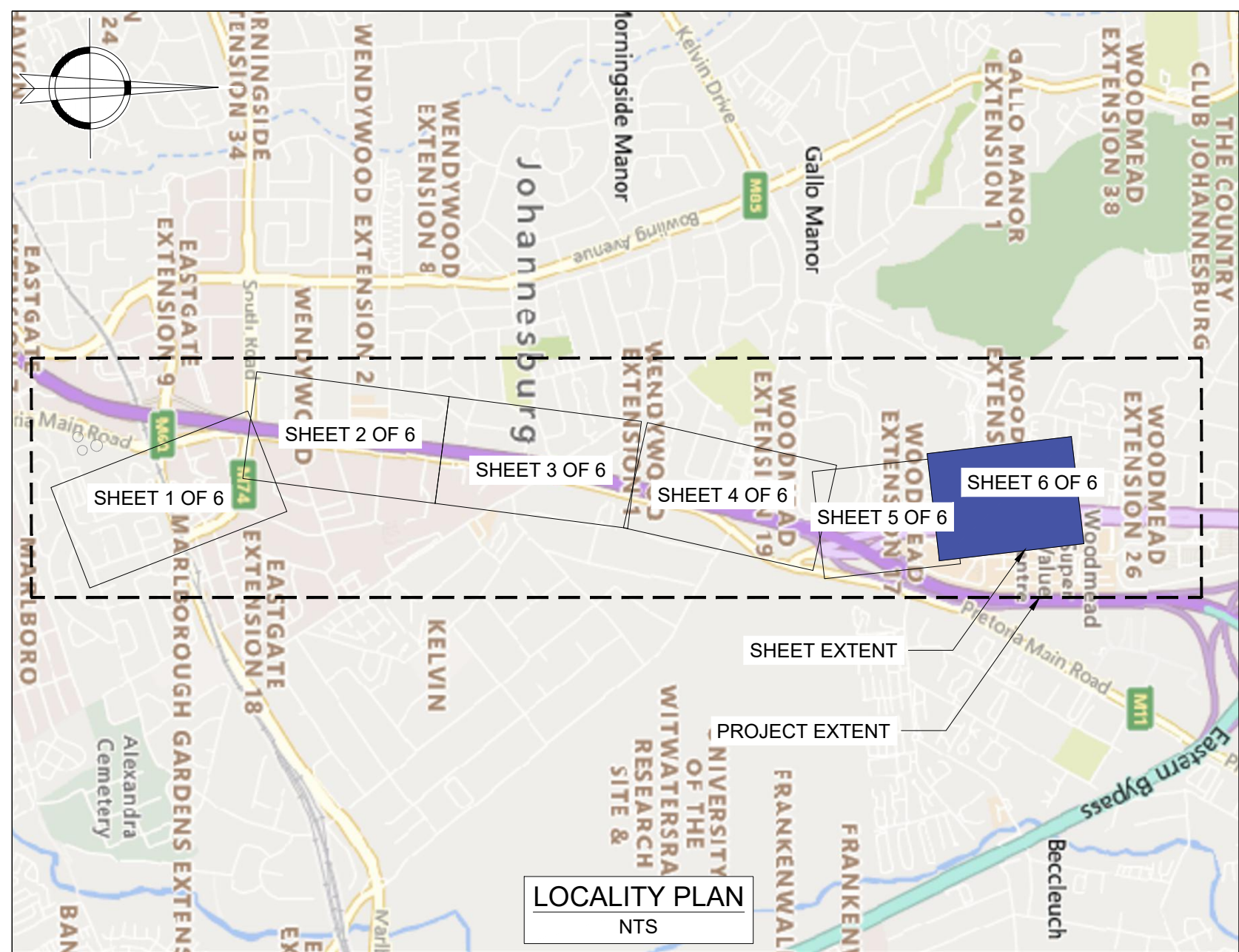
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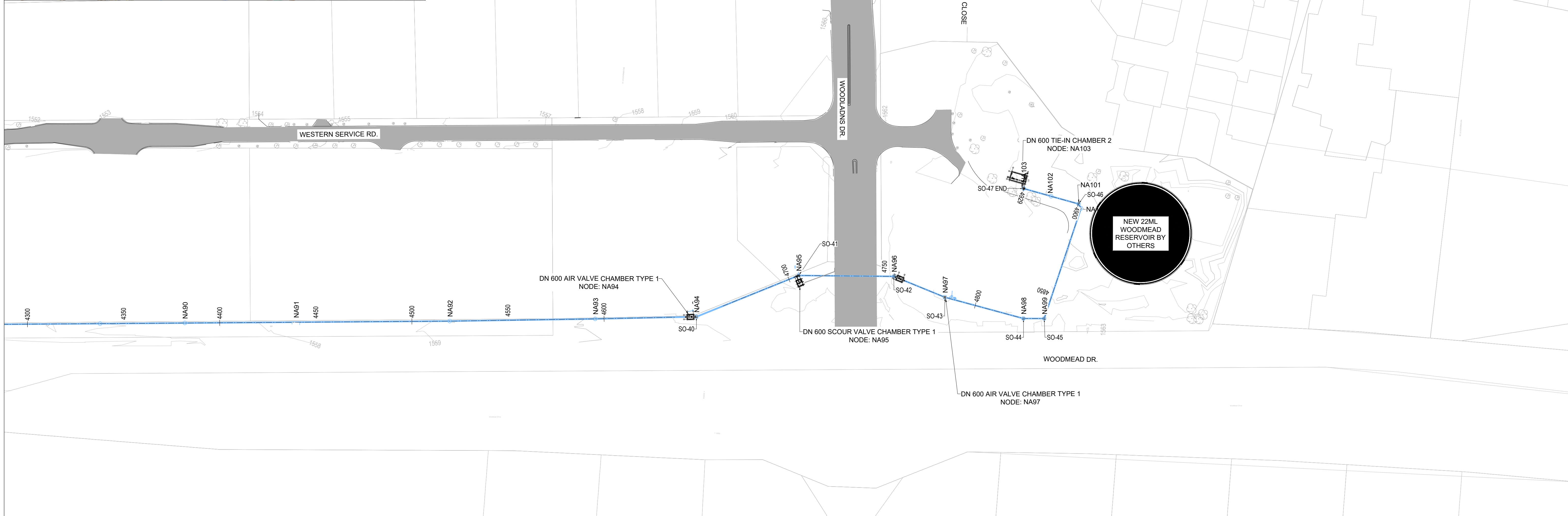
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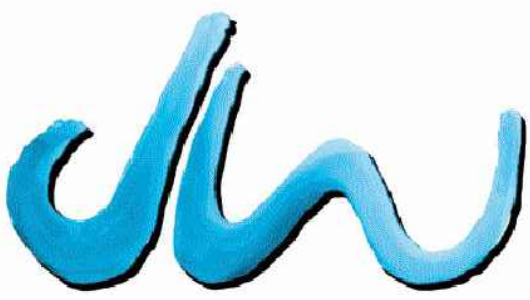
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SO-01	-2887608.613	-90945.990	SO-17	-2886897.768	-91180.665	SO-34	-2884288.806	-91013.683
SO-02	-2887603.886	-90916.633	SO-18	-2886895.478	-91192.496	SO-35	-2884264.579	-91020.359
SO-03	-2887616.071	-90899.976	SO-19	-2886890.735	-91218.176	SO-36	-2884126.882	-91036.798
SO-04	-2887593.800	-90869.114	SO-20	-2886882.486	-91277.253	SO-37	-2884042.681	-91019.294
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SO-06	-2887570.063	-90813.516	SO-22	-2886867.265	-91366.066	SO-39	-2883892.755	-91021.047
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SO-09	-2887119.335	-90968.153	SO-25	-2886855.350	-91460.322	SO-42	-2883403.129	-91084.008
SO-10	-2887078.189	-90990.466	SO-26	-2886840.469	-91458.439	SO-43	-2883375.881	-91075.226
SO-11	-2887048.499	-91006.311	SO-27	-2885586.582	-91297.439	SO-44	-2883334.242	-91067.346
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SO-13	-2887024.695	-91011.723	SO-29	-2885448.474	-91269.565	SO-46	-2883310.245	-91129.016
SO-14	-2886984.603	-91045.492	SO-30	-2885370.661	-91250.986	SO-47 END	-2883339.272	-91134.796
SO-15	-2886944.268	-91108.273	SO-31	-2884896.036	-91138.561			
			SO-32	-2884430.990	-91027.902			



REFERENCE DRAWINGS
JW14358-16941-T-016-S01-00-TMS TO JW14358-16941-T-016-S08-00-TMS - CHAMBER SETTING OUT
JW14358-16941-T-015-S02-00-TMS - PIPELINE AND NODE SETTING OUT
JW14358-16941-T-012-S01-00-TMS TO JW14358-16941-T-012-S10-00-TMS - LAYOUT AND LONGSECTION

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbretcht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2022-12-08
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2022-12-08
		SIGNATURE	
		ECSA REG. No	950304



Johannesburg Water

Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPE LAYOUT AND SETTING OUT
SHEET 6 OF 6

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
1:1000	A	ISSUED FOR TENDER	P.GROBLER	2022-12-08

DRAWING No. JW14358-16941-T-011-S06-00-TMS

CONTRACT No.: JW14358

UR1305B

B

PROJECT No.

REV.

A1

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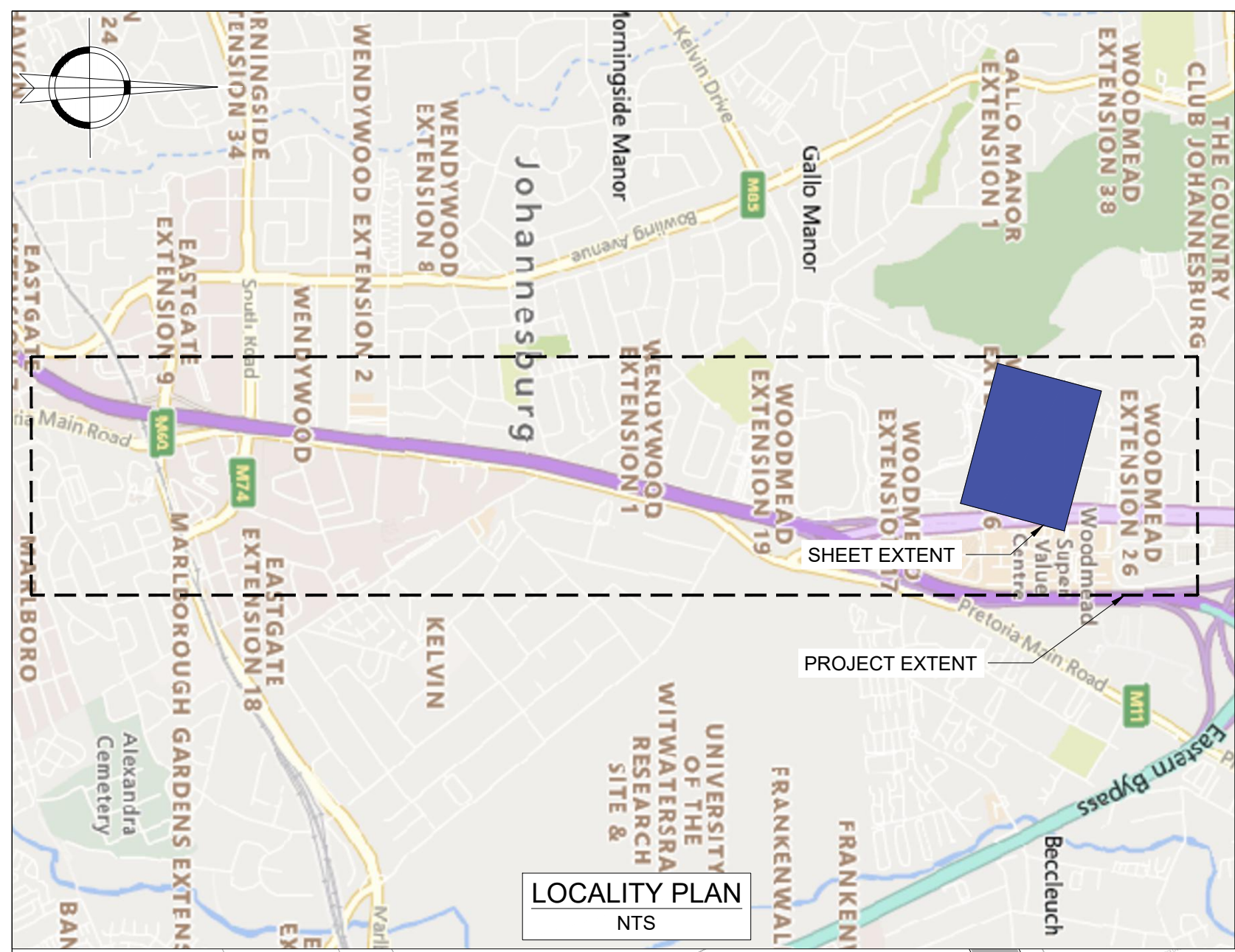
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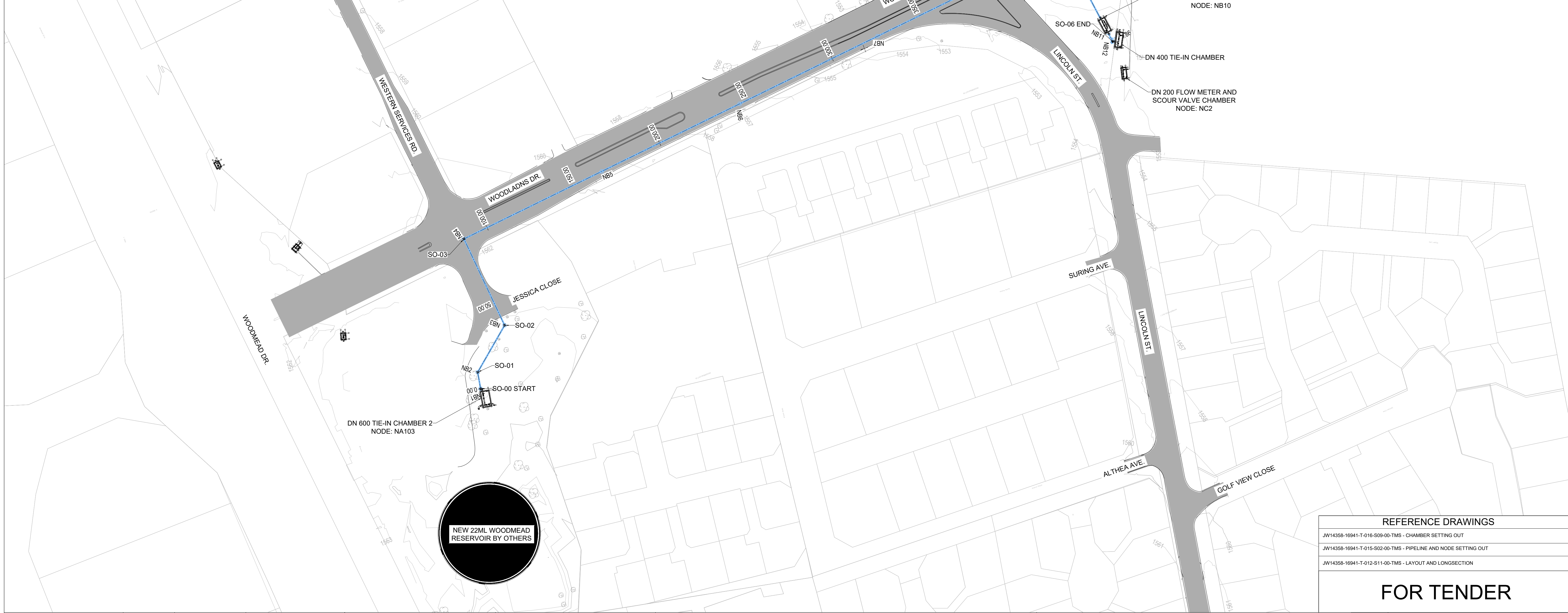
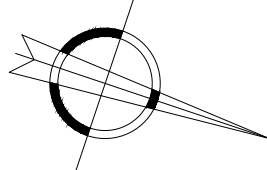
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POINT	NORTHING	EASTING
SO-00 START	-2883348.471	-91139.467
SO-01	-2883357.040	-91141.174
SO-02	-2883374.671	-91163.154
SO-03	-2883424.273	-91159.917
SO-04	-2883451.961	-91498.838
SO-05	-2883440.510	-91506.690
SO-06 END	-2883396.477	-91511.661



REFERENCE DRAWINGS	
JW14358-16941-T-016-S09-00-TMS - CHAMBER SETTING OUT	
JW14358-16941-T-015-S02-00-TMS - PIPELINE AND NODE SETTING OUT	
JW14358-16941-T-012-S11-00-TMS - LAYOUT AND LONGSECTION	

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office Park 53 Phillip Engelbretch Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2021-06-07
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2021-06-07
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

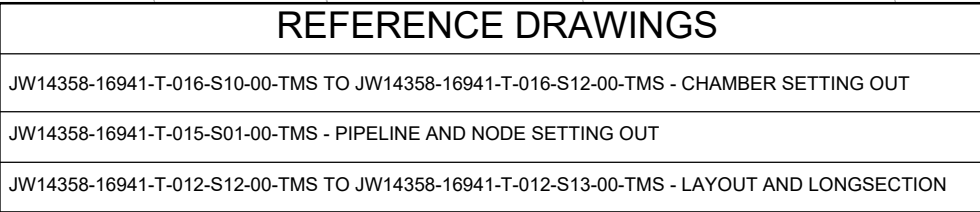
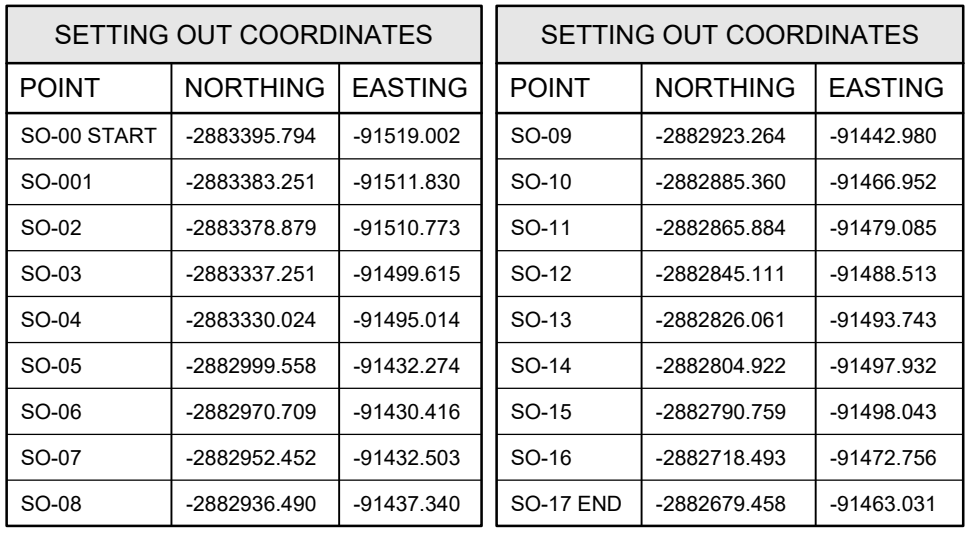
TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 BYPASS PIPE LAYOUT AND SETTING OUT

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
1:1000	B	ISSUED FOR TENDER	P.GROBLER	2022-10-11

DRAWING No. JW14358-16941-T-011-S07-00-TMS			
CONTRACT No.: JW14358			
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PROJECT No.		REV.	
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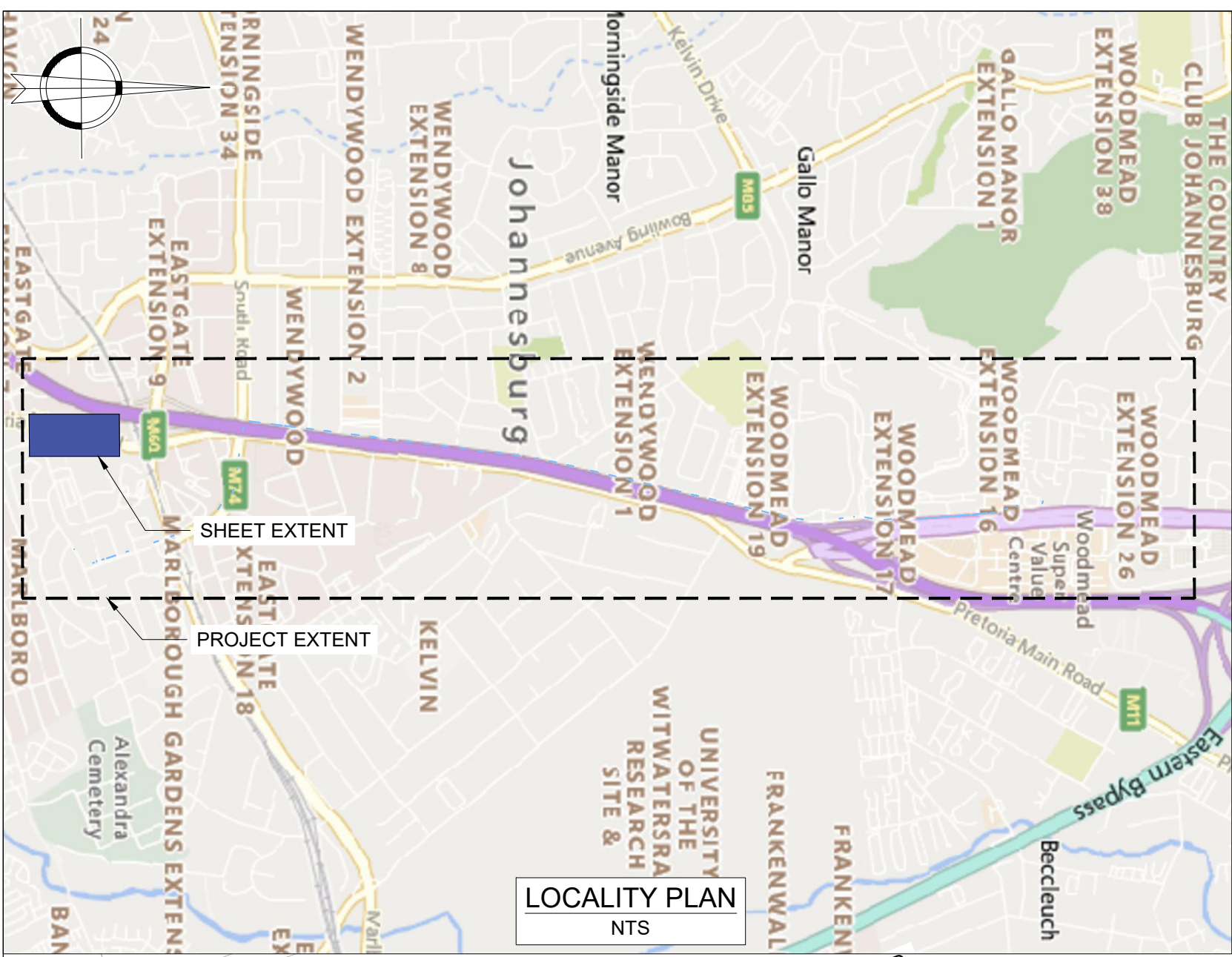




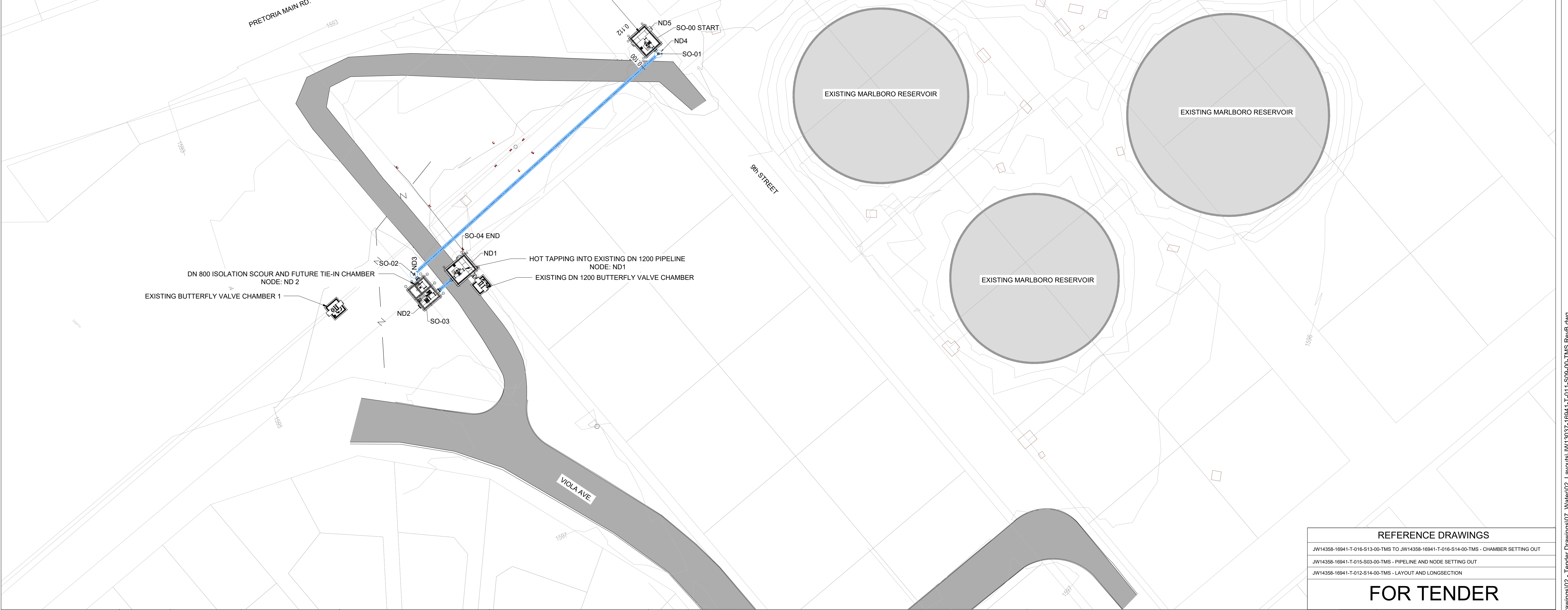
WOODMEAD WATER UPGRADE

DN 200 PIPE LAYOUT AND SETTING OUT

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SETTING OUT COORDINATES		
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SO-00 START	-2887682.671	-91420.057
SO-01	-2887681.444	-91416.543
SO-02	-2887762.104	-91386.244
SO-03	-2887761.048	-91380.871
SO-04 END	-2887749.759	-91382.888



REFERENCE DRAWINGS
JW14358-16941-T-016-S13-00-TMS TO JW14358-16941-T-016-S14-00-TMS - CHAMBER SETTING OUT
JW14358-16941-T-015-S03-00-TMS - PIPELINE AND NODE SETTING OUT
JW14358-16941-T-012-S14-00-TMS - LAYOUT AND LONGSECTION

FOR TENDER

CONSULTING ENGINEERS Woodhill Office park 53 Phillip Engelbretcht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntami Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2021-06-07
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY: P.GROBLER	DATE	2021-06-07
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntami Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 800 PIPE LAYOUT AND SETTING OUT

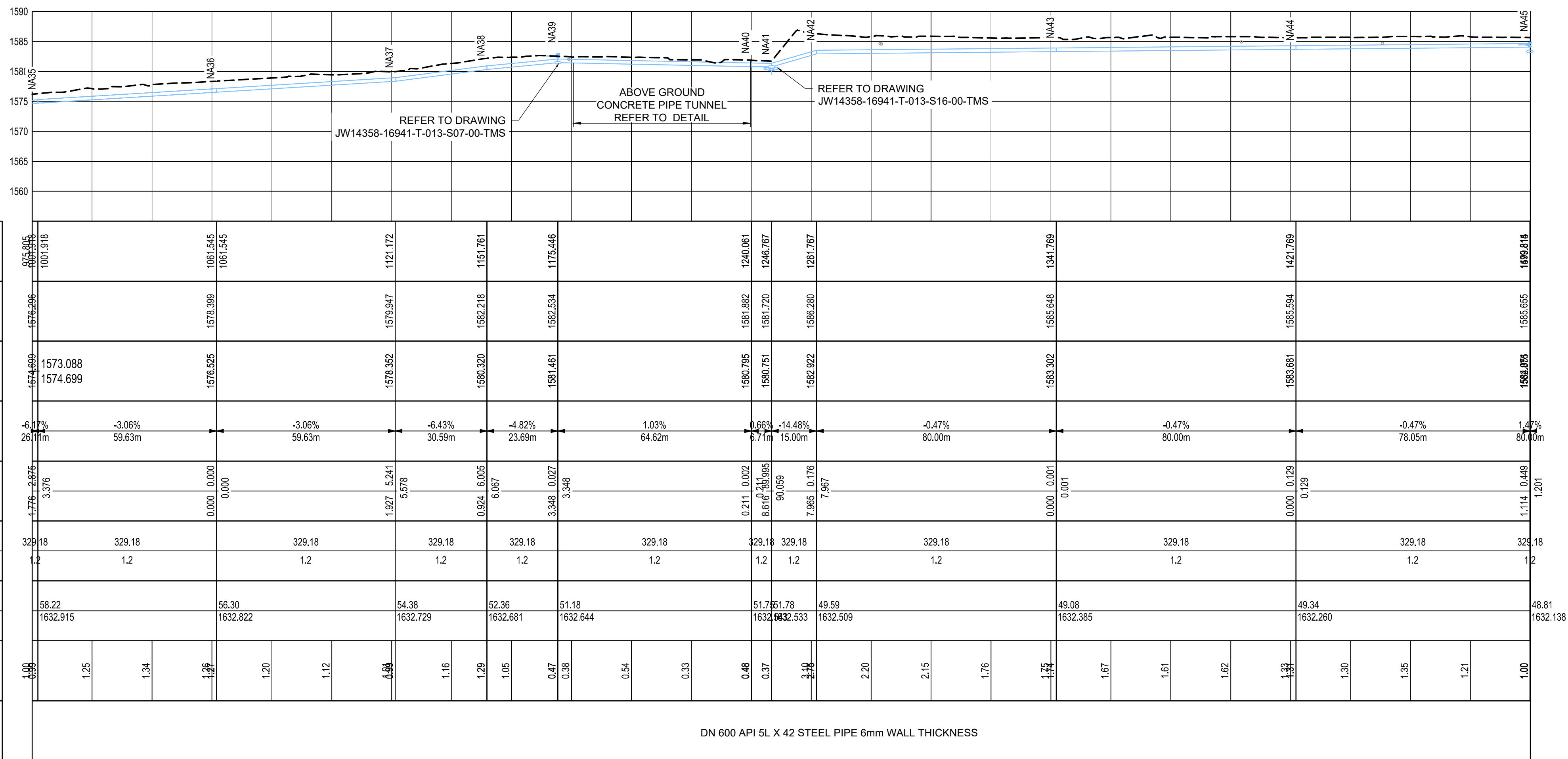
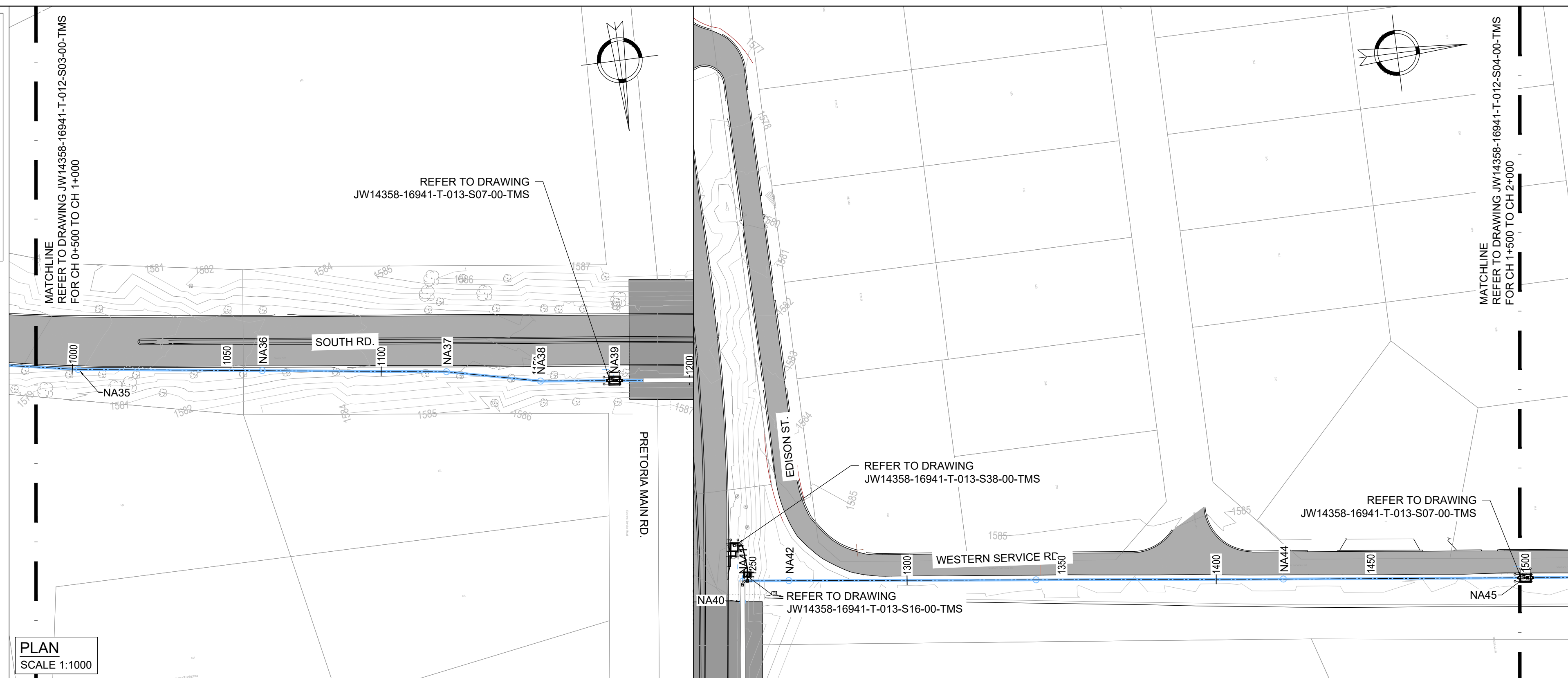
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SCALE	REV:	DESCRIPTION	APPROVED	DATE:
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DRAWING No. JW14358-16941-T-011-S09-00-TMS				
CONTRACT No.: JW14358				
UR1305B		B		
PROJECT No.		REV.		
A1	SHEET	1	OF	1
ORIGINAL PAGE SIZE				
FILE No.				

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[illegible]

LEGEND	
	AIR VALVE
	SCOUR VALVE
	ISOLATING VALVE
	PRESSURE REDUCING VALVE
	BULK WATER LINE (PROFILE)
	BULK WATER LINE (PLAN)
	TREE
	CONTOUR LINES (EXISTING GROUND)



NGL -----
 SCALES:
 Horizontal 1:1000
 Vertical 1:500

DATUM 1555.000		
CHAINAGE (m)		
GROUND LEVEL		
PIPE INVERT LEVEL		
SLOPE / LENGTH		
CHANGE IN DIRECTION		VERT HOR COMBINED
HYDRAULICS	DESIGN Q(l/s)	
	DESIGN V(m/s)	
PRESSURE	PRESSURE (m)	
	HGL (masl)	
PIPE COVER (m)		
PIPE SPECIFICATION		

GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE FOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY REVISIONS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
7. REFER TO DRAWING JW14358-16941-T-004-001-00-TMS FOR GENERAL NOTES.

REFERENCE DRAWINGS
JW14358-1694-T-011-S01 -00-TMS TO JW14358-1694-T-011-S06-00-TMS - LAYOUT AND SETTING OUT
JW14358-1694-T-016-S01-00-TMS TO JW14358-1694-T-016-S08-00-TMS - CHAMBER SETTING OUT
JW14358-1694-T-015-S02-00-TMS - PIPELINE AND NODE SETTING OUT

FOR TENDER

 CONSULTING ENGINEERS Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntengi Pilliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2023-01-31
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2023-01-31
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPELINE LAYOUT AND LONGSECTION
SHEET 3 OF 10

AMENDMENTS			
SCALE	REV:	DESCRIPTION	APPROVED
AS SHOWN	C	ISSUED FOR TENDER	P.GROBLER

DRAWING No. JW14358-16941-T-012-S03-00-TMS			
CONTRACT No.: JW14358			
UR1305B		C	
PROJECT No.		REV.	
A1	SHEET	3	OF 10
ORIGINAL PAGE SIZE			
FILE No.			

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AIR VALVE

SCOUR VALVE

ISOLATING VALVE

PRESSURE REDUCING VALVE

BULK WATER LINE (PROFILE)

BULK WATER LINE (PLAN)

TREE

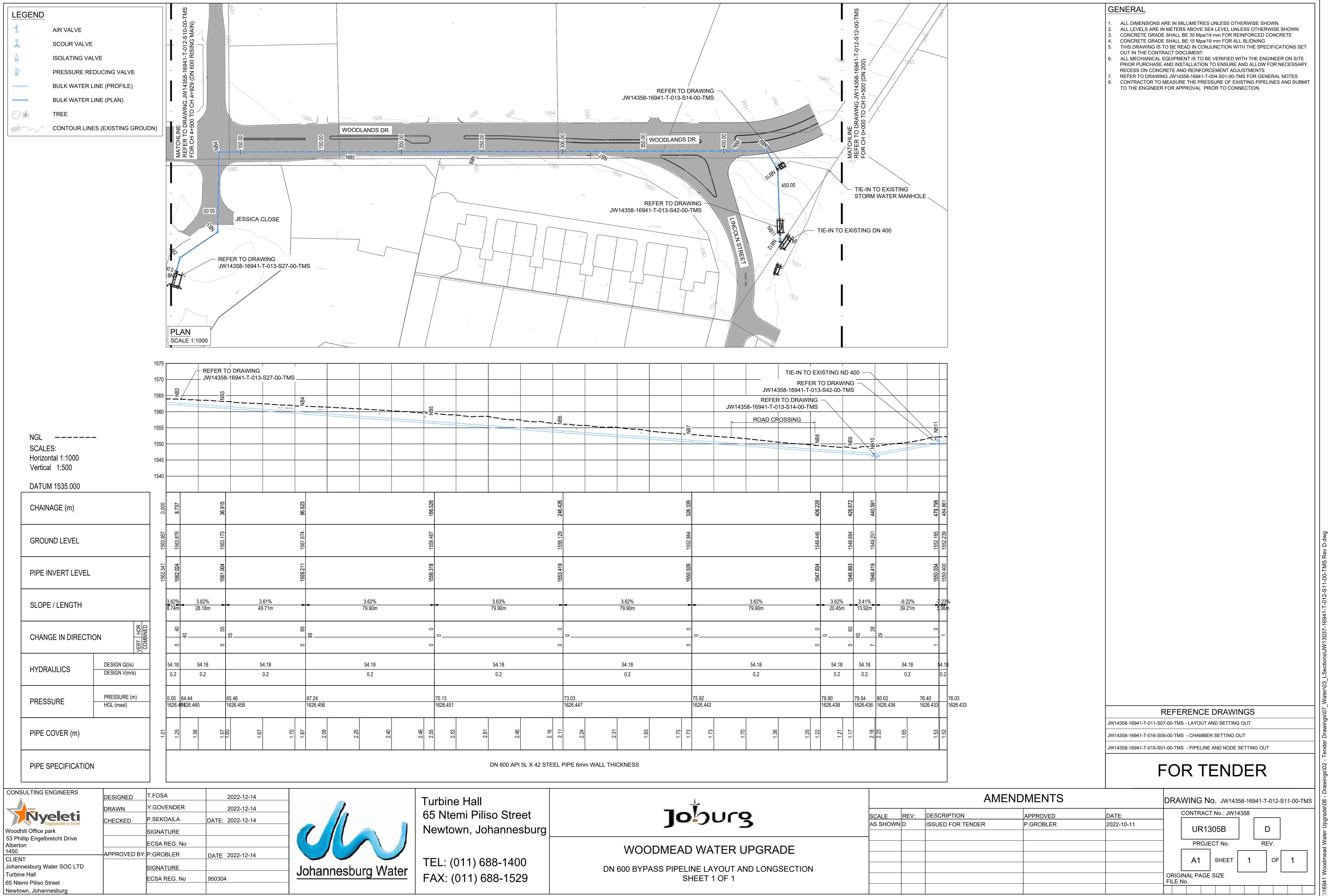
CONTOUR LINES (EXISTING GROUNDN)

MATCHLINE
REFER TO DRAWING JW14358-16941-T-012-S06-00-TMS FOR CH 2+500 TO CH 3+000

FREEZIA ST.

NAT7 NAT8 NAT9 NAT10 NAT11 NAT12 NAT13 NAT14 NAT15 NAT16 NAT17 NAT18 NAT19 NAT20 NAT21 NAT22 NAT23 NAT24 NAT25 NAT26 NAT27 NAT28 NAT29 NAT30 NAT31 NAT32 NAT33 NAT34 NAT35 NAT36 NAT37 NAT38 NAT39 NAT40 NAT41 NAT42 NAT43 NAT44 NAT45 NAT46 NAT47 NAT48 NAT49 NAT50 NAT51 NAT52 NAT53 NAT54 NAT55 NAT56 NAT57 NAT58 NAT59 NAT60 NAT61 NAT62 NAT63 NAT64 NAT65 NAT66 NAT67 NAT68 NAT69 NAT70 NAT71 NAT72 NAT73 NAT74 NAT75 NAT76 NAT77 NAT78 NAT79 NAT80 NAT81 NAT82 NAT83 NAT84 NAT85 NAT86 NAT87 NAT88 NAT89 NAT90 NAT91 NAT92 NAT93 NAT94 NAT95 NAT96 NAT97 NAT98 NAT99 NAT100 NAT101 NAT102 NAT103 NAT104 NAT105 NAT106 NAT107 NAT108 NAT109 NAT110 NAT111 NAT112 NAT113 NAT114 NAT115 NAT116 NAT117 NAT118 NAT119 NAT120 NAT121 NAT122 NAT123 NAT124 NAT125 NAT126 NAT127 NAT128 NAT129 NAT130 NAT131 NAT132 NAT133 NAT134 NAT135 NAT136 NAT137 NAT138 NAT139 NAT140 NAT141 NAT142 NAT143 NAT144 NAT145 NAT146 NAT147 NAT148 NAT149 NAT150 NAT151 NAT152 NAT153 NAT154 NAT155 NAT156 NAT157 NAT158 NAT159 NAT160 NAT161 NAT162 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GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN

3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE

4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLIDNING

5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.

6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS

7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

8. CONTRACTOR TO MEASURE THE PRESSURE OF EXISTING PIPELINES AND SUBMIT TO THE ENGINEER FOR APPROVAL PRIOR TO CONNECTION.

REFERENCE DRAWINGS

JW14358-16941-T-011-S07-00-TMS - LAYOUT AND SETTING OUT

JW14358-16941-T-016-S09-00-TMS - CHAMBER SETTING OUT

JW14358-16941-T-015-S01-00-TMS - PIPELINE AND NODE SETTING OUT

FOR TENDER

T:\16941 Woodmead Water Upgrade\08 - Drawings\02 - Tender Drawings\07 - 16941-T-012-S11-00-TMS Rev D.dwg

[illegible]

[illegible]

	AIR VALVE
	SCOUR VALVE
	ISOLATING VALVE
	PRESSURE REDUCING VALVE
	BULK WATER LINE (PROFILE)
	BULK WATER LINE (PLAN)
	TREE
	CONTOUR LINES (EXISTING GROUND)



NGL -----
 SCALES:
 Horizontal 1:1000
 Vertical 1:500

DATUM 1570.000

[illegible]

CONSULTING ENGINEERS  Nyeleti Engineering & Excel Woodhill Office park 53 Philip Engelbretch Drive Alberton 450 CLIENT Johannesburg Water SOC LTD Turbine Hall 5 Ntumi Piliso Street Jewtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2023-01-25
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2023-01-25
	SIGNATURE		
	ECSA REG. No	950304	



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

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FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 800 PIPELINE LAYOUT AND LONGSECTION
SHEET 1 OF 1

SCALE	REV:	DESCRIPTION	APPROVED
1:1000	C	ISSUED FOR TENDER	P.GROBLER

DRAWING No. JW14358-16941-T-012-S14-00-TMS

CONTRACT No.: JW14358

LIP1305B

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PROJECT No.

REV.

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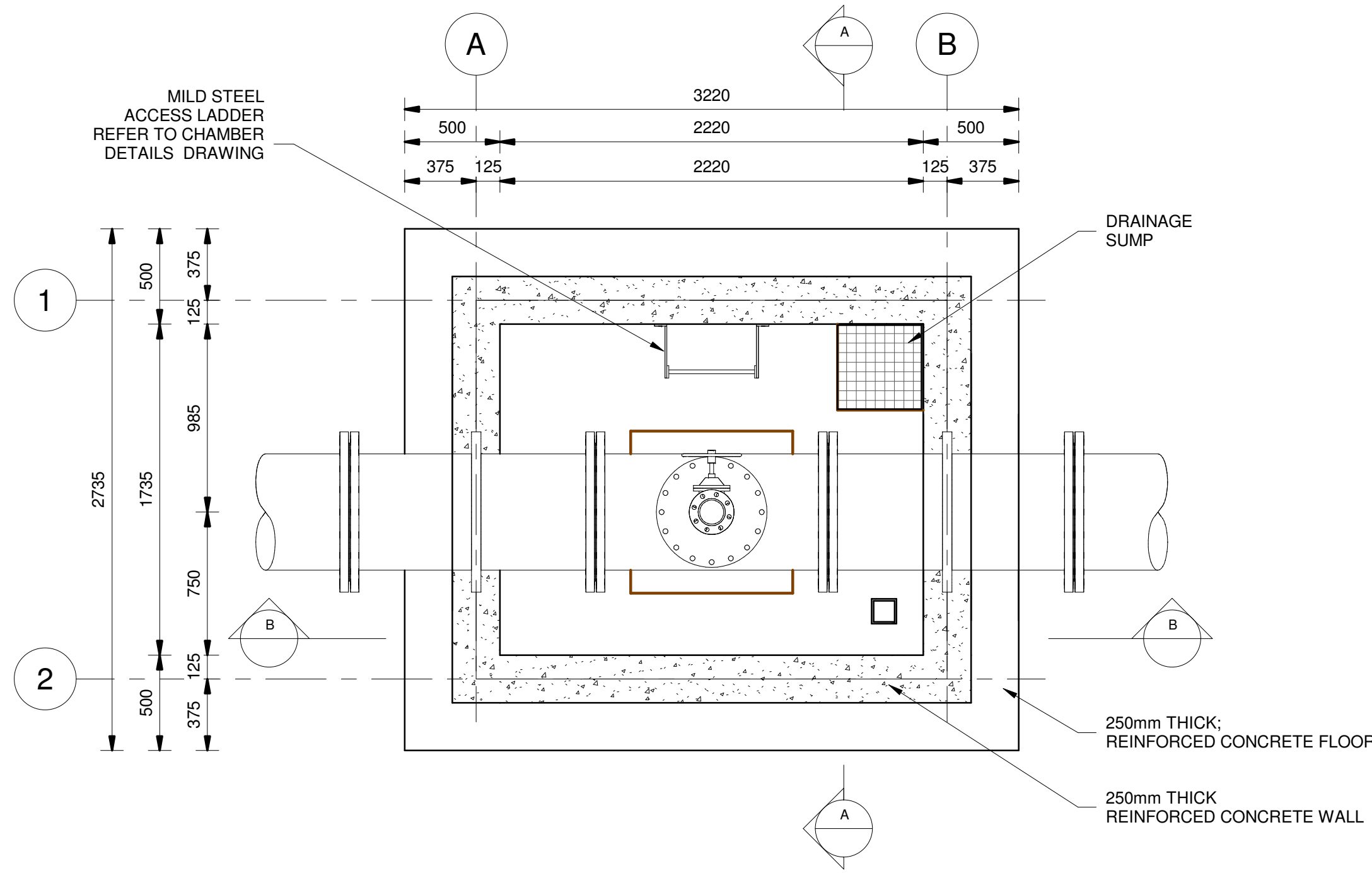
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
7. REFER TO DRAWING JWI4358-16941-1-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS

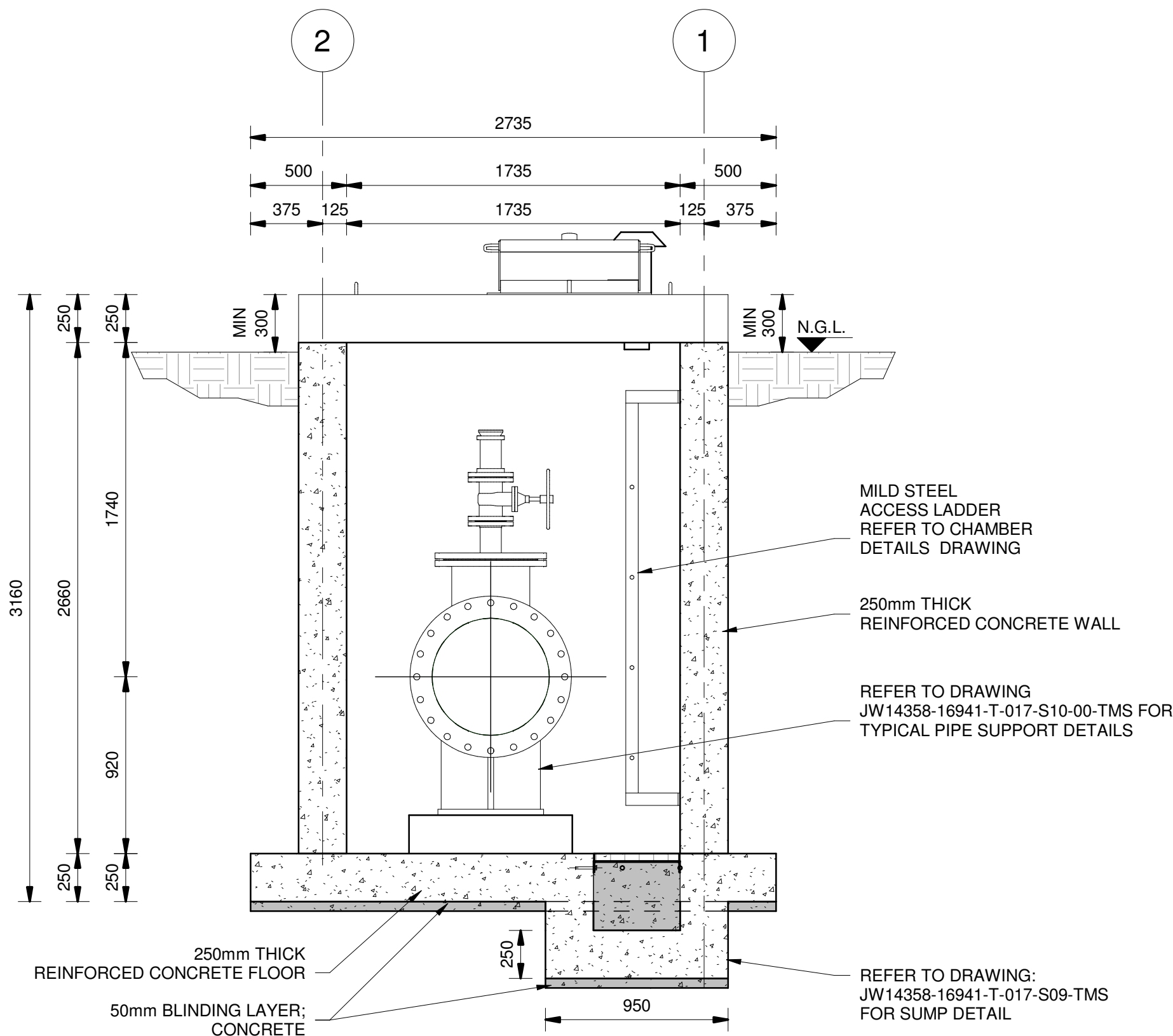
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JW14358-16941-T-015-S03-00-TMS - PIPELINE AND NODE SETTING OUT

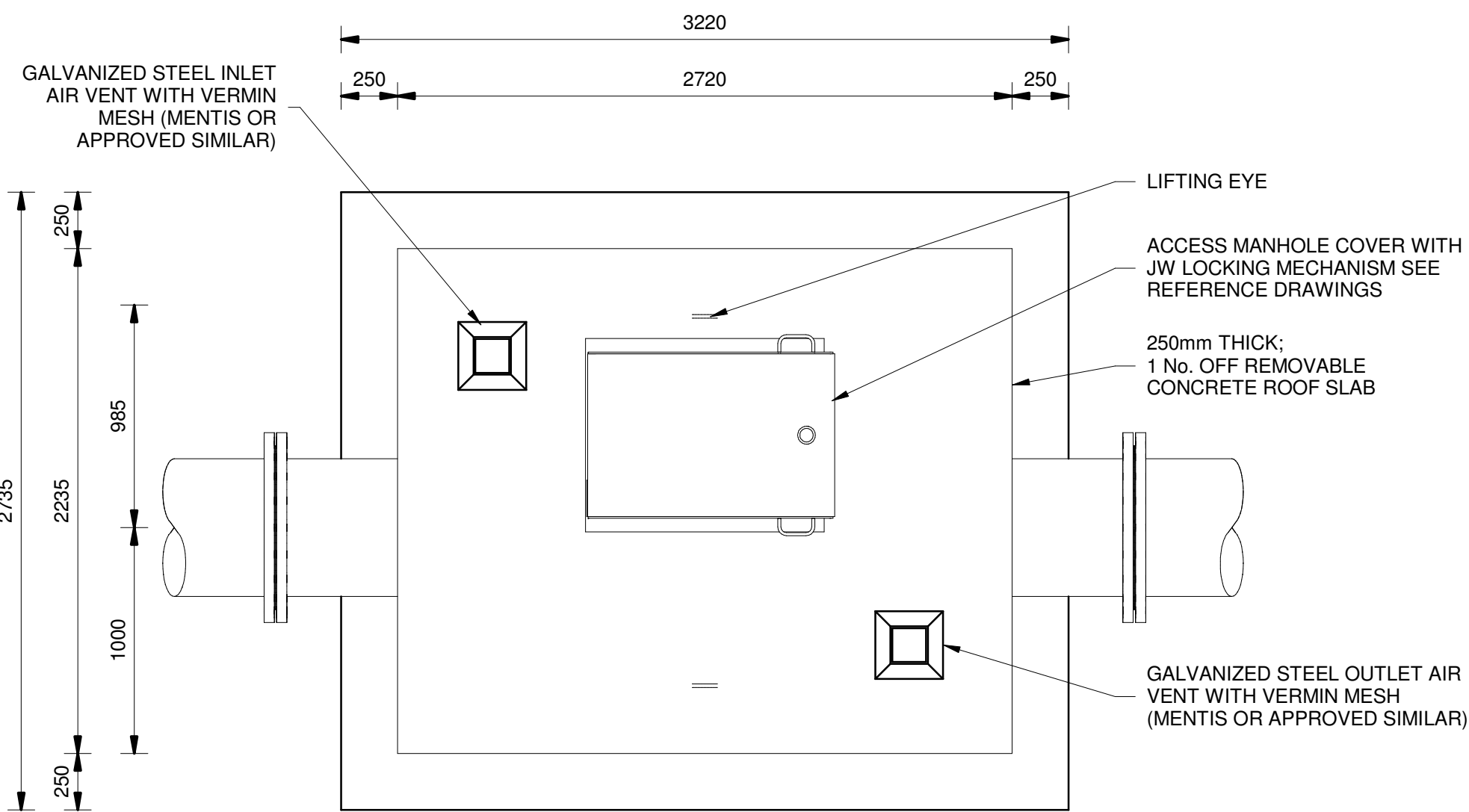
FOR TENDER



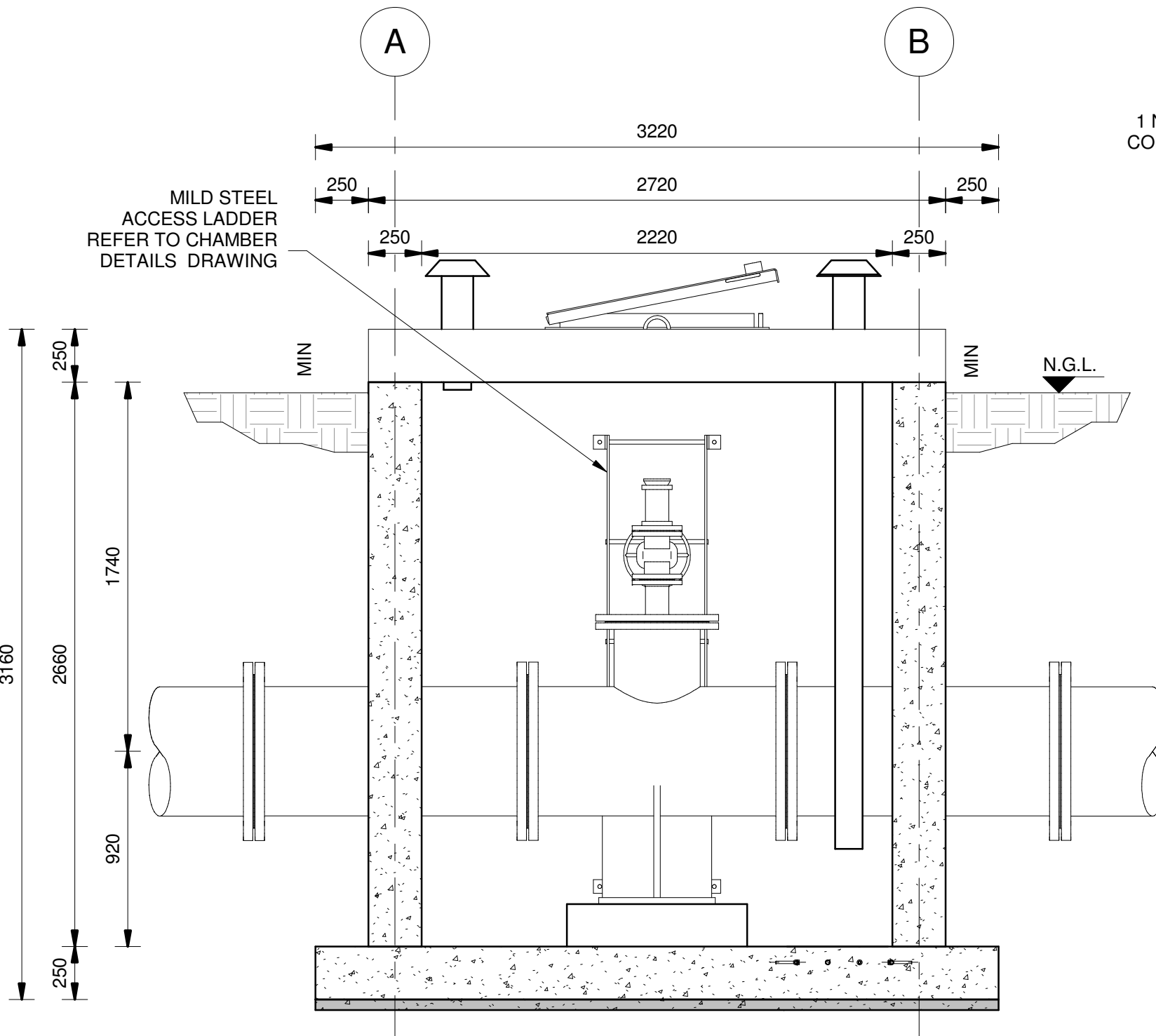
FLOOR PLAN
SCALE 1 : 25



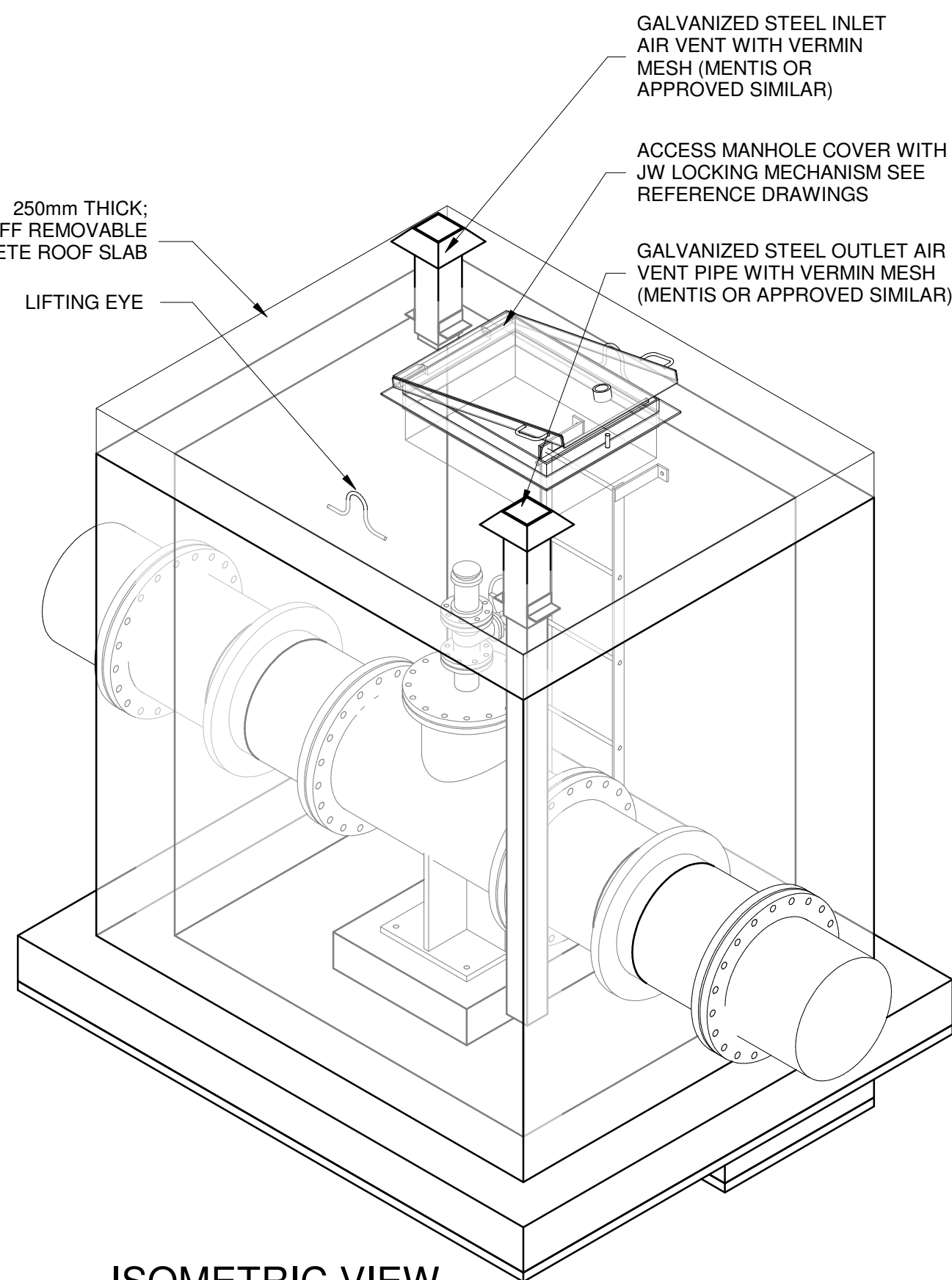
SECTION A-A
SCALE 1 : 25



ROOF PLAN
SCALE 1 : 25



SECTION B-B
SCALE 1 : 25



ISOMETRIC VIEW
SCALE 1 : 25

- GENERAL**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
 3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
 4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING
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 7. JOINTS TO BE FILLED WITH POLYSULPHIDE
 8. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS

JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS
JW14358-16941-T-012-S01-00-TMS - LAYOUT AND LONGSECTION
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL
CONSULTING ENGINEERS

Nyeleti
Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T.FOSA	
DRAWN	Y.GOVENDER	
CHECKED	P.SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304



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Newtown, Johannesburg

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WOODMEAD WATER UPGRADE

DN 600 AIR VALVE CHAMBER TYPE 1
SHEET 1 OF 2

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS-SHOWN	D	ISSUED FOR TENDER	PG	14/10/2022

DRAWING No.: JW14358-16941-T-013-S03-00-TMS

CONTRACT No.: JW14358

UR1305B

PROJECT No.

A1

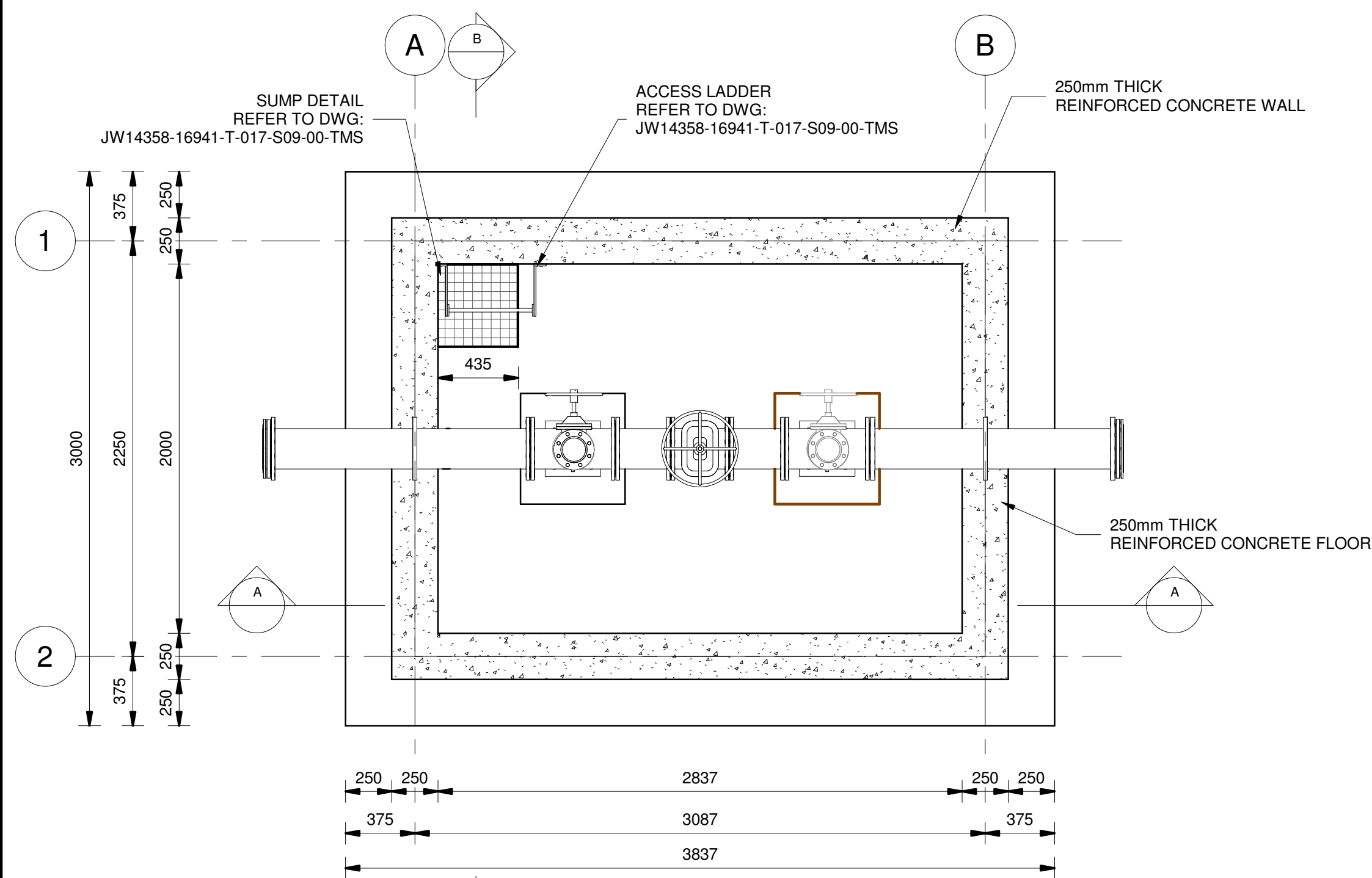
SHEET

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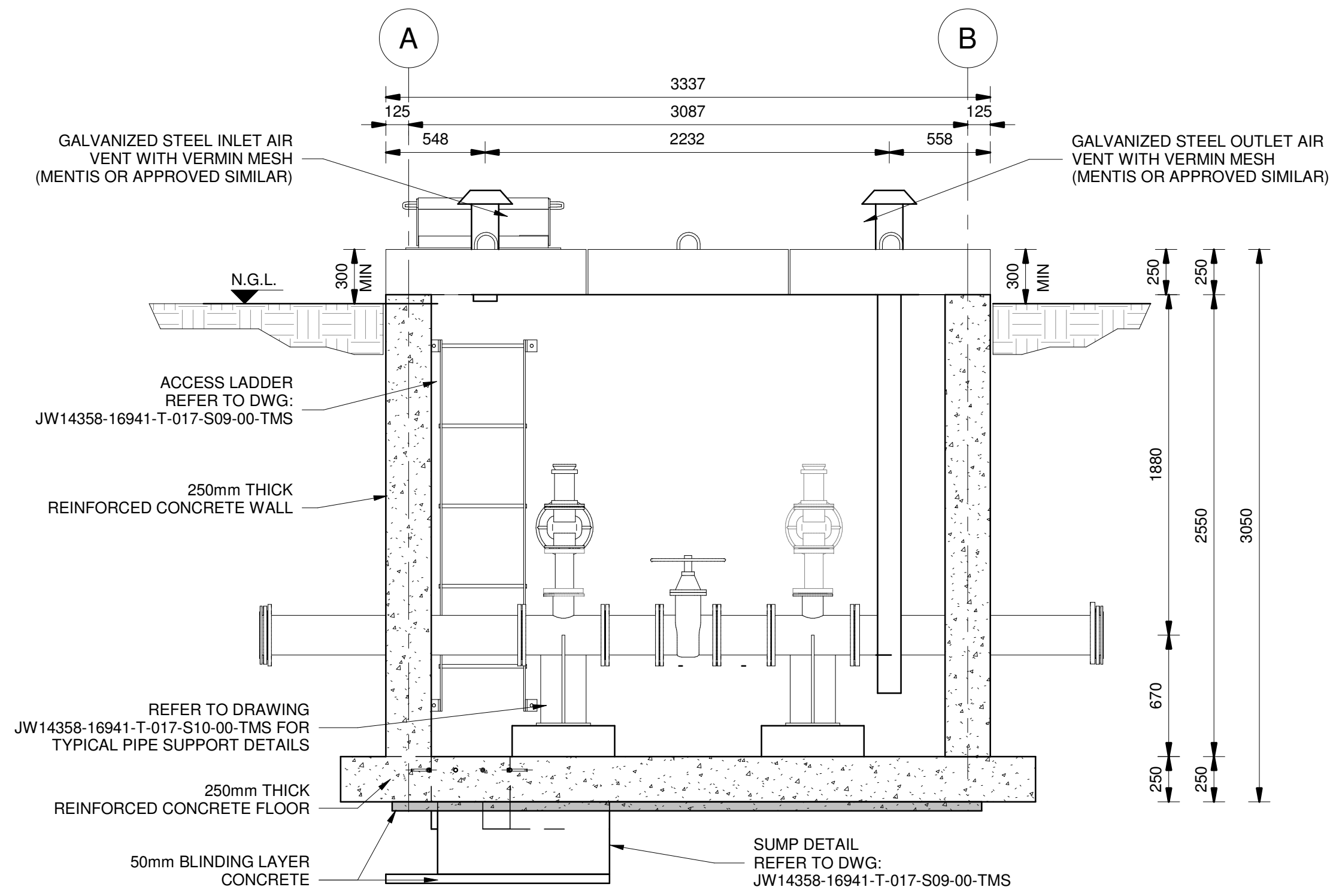
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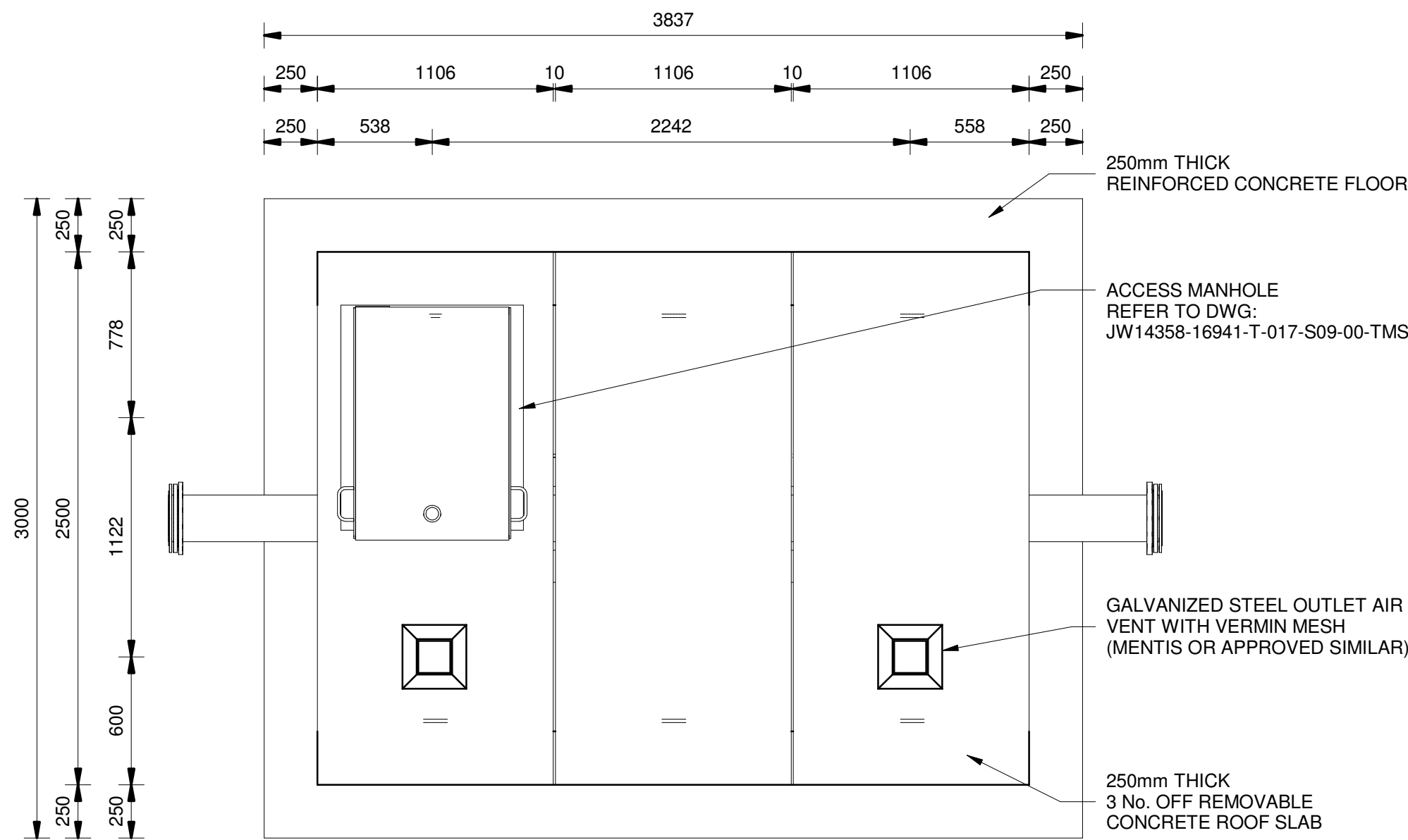
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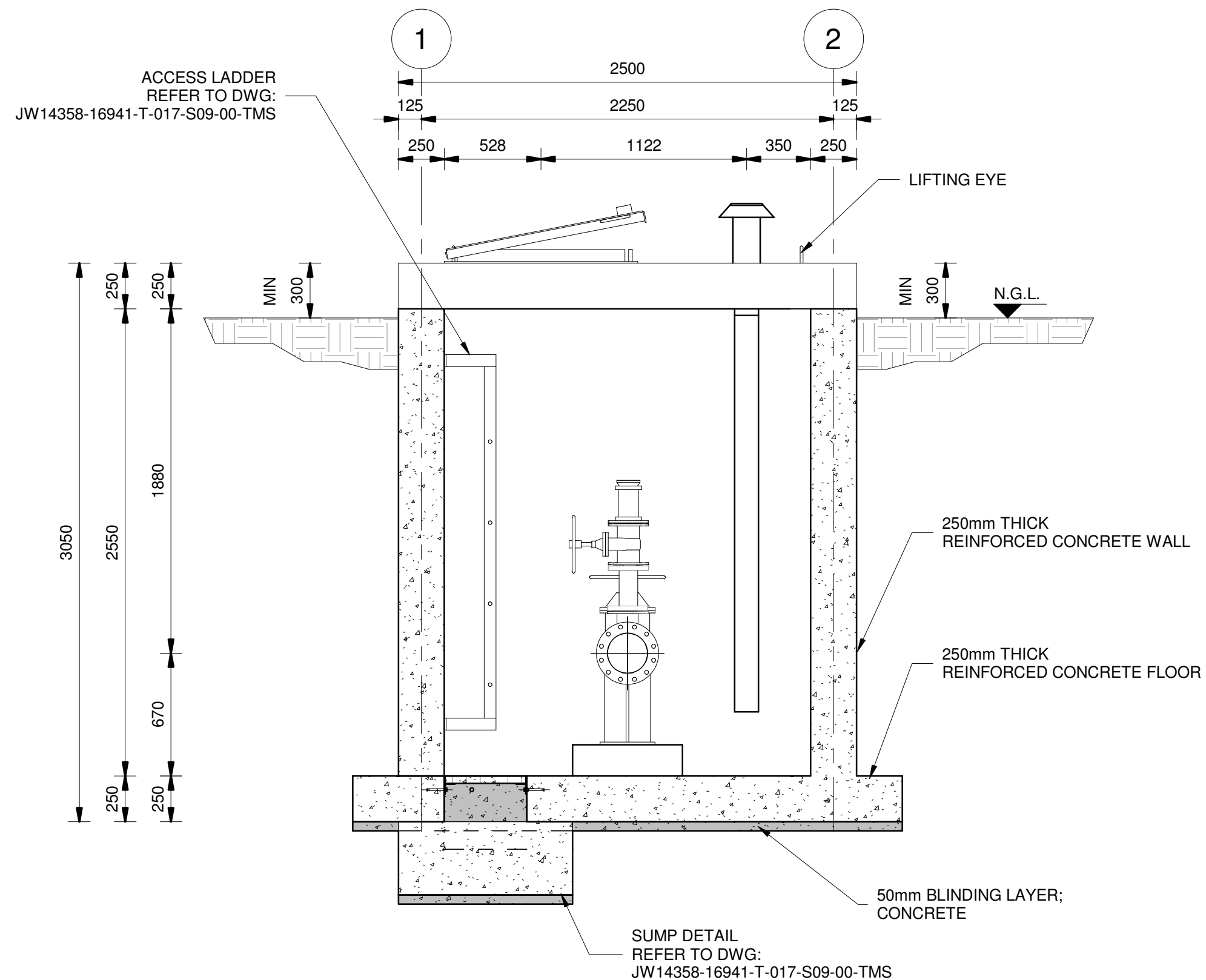
FLOOR PLAN
SCALE 1 : 25



SECTION A-A
SCALE 1 : 25



ROOF PLAN
SCALE 1 : 25



SECTION B-B
SCALE 1 : 25

- GENERAL**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN.
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 7. JOINTS TO BE FILLED WITH POLYSULPHIDE.
 8. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES.

REFERENCE DRAWINGS

JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTING ENGINEERS

Nyeleti
Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

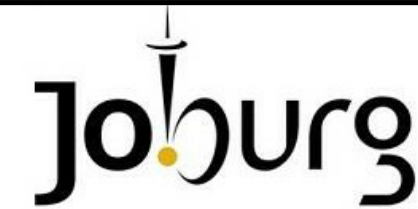
CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T.FOSA	
DRAWN	Y.GOVENDER	
CHECKED	P.SEKAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304



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WOODMEAD WATER UPGRADE

DN 200 AIR VALVE CHAMBER TYPE 2
SHEET 1 OF 2

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	D	ISSUED FOR TENDER	PG	2022-10-14

DRAWING No.: JW14358-16941-T-013-S05-00-TMS

CONTRACT No.: JW14358

UR1305B

PROJECT No.

A1

SHEET

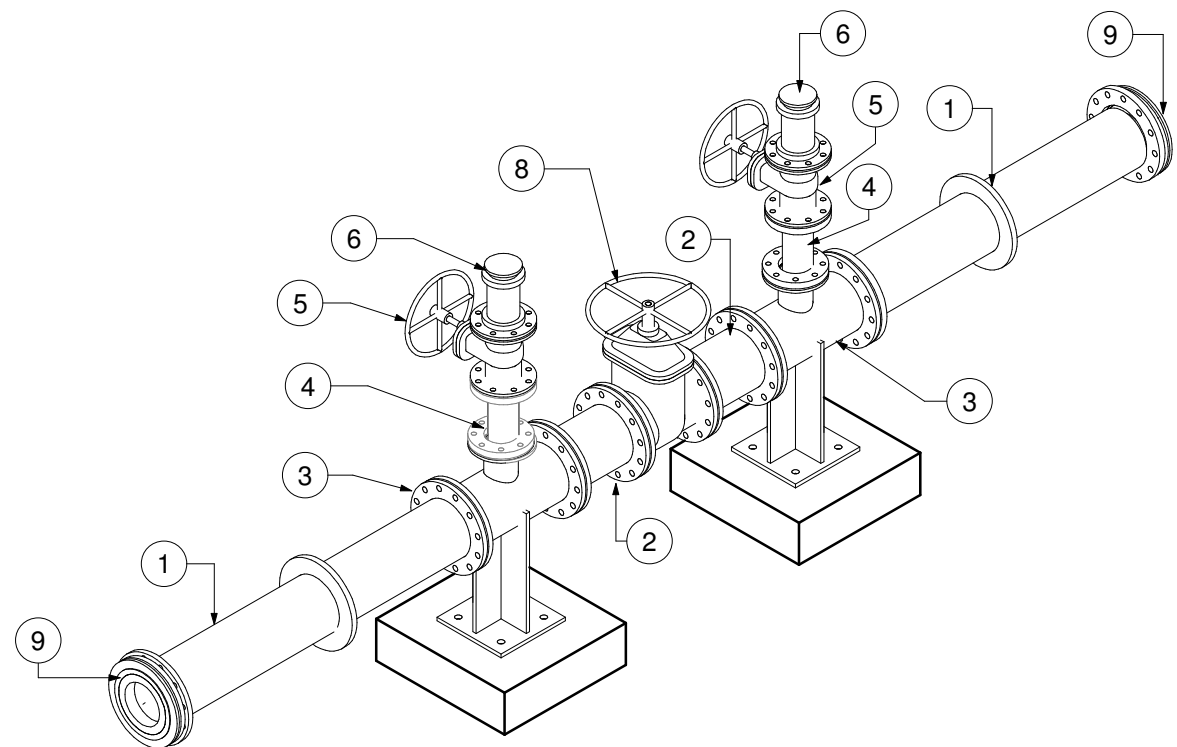
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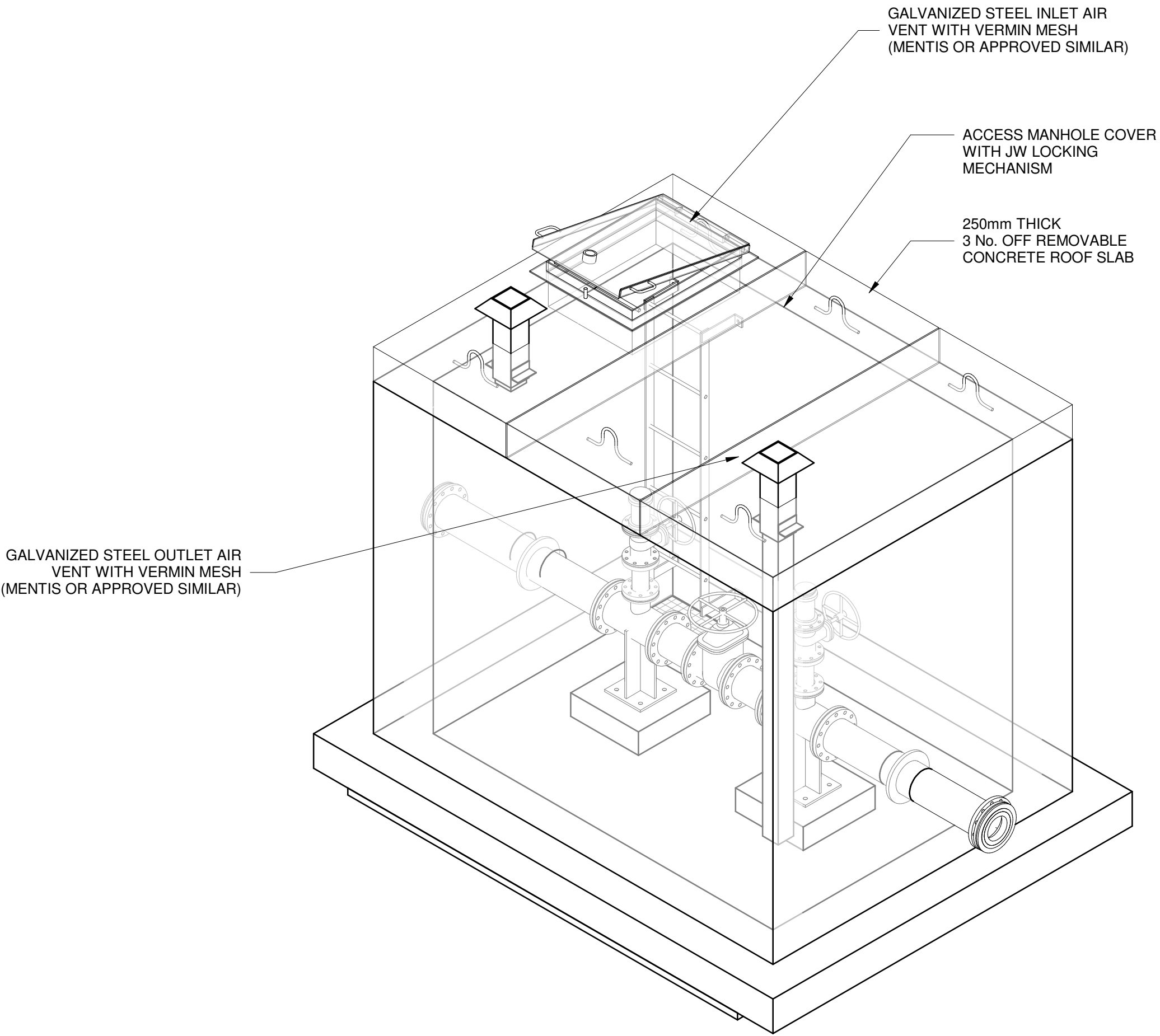
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FILE No.

PIPE SCHEDULE - DN 200 AIR VALVE CHAMBER 2						
ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
1		PN16	SPOOL PIECE DN 200 x 6 mm SANS 719; FLANGED BOTH END SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	2	DN 200
2		PN16	SPOOL PIECE DN 200 x 6 mm SANS 719; FLANGED BOTH END SANS 1123 TABLE 1600/3	RPU	2	DN 200
3		PN16	UNEQUAL TEE; DN 200 x DN 100 x 6 mm SANS 719 ; FLANGED TO SANS 1123 TABLE 1600/3; PIPE SUPPORT SINGLE DN 200 AS PER DETAIL DRAWING JW14358-16941-T-017-S10-00-TMS	RPU	2	DN 200 - DN 100
4			SPOOL PIECE DN 100; SAN 62 MEDIUM CLASS, FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3		2	DN 100
5		PN16	DN 100 RESILIENT SEAL GATE VALVE; NON RISING SPINDLE ; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED VOSA OR SIMILAR APPROVED. BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	2	DN 100
6		PN16	DN 100 DOUBLE ORIFICE WITH ANTI-SHOCK ORIFICE MECHANISM AIR RELEASE VALVE; VENTO-MAT RBX OR SIMILAR; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	2	DN 100
8		PN16	DN 200 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED; VOSA OR SIMILAR APPROVED; BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 200
9		PN16	DN 200 FLANGE AGAPTOR FOR HIGH IMPACT MPVC CLASS 16 COMPLETE WITH SHOULDERED END COUPLING SYSTEM; FLANGE DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	2	DN 200



MECHANICAL ISOMETRIC VIEW
SCALE



ISOMETRIC VIEW
SCALE 1:25

- GENERAL**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
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 - REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS

JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

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DESIGNED	T.FOSA	
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	ECSA REG. No	950304

Johannesburg Water

Turbine Hall
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Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

Joburg

WOODMEAD WATER UPGRADE
DN 200 AIR VALVE CHAMBER TYPE 2
SHEET 2 OF 2

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	D	ISSUED FOR TENDER	PG	2022-10-14

DRAWING No.: JW14358-16941-T-013-S06-00-TMS

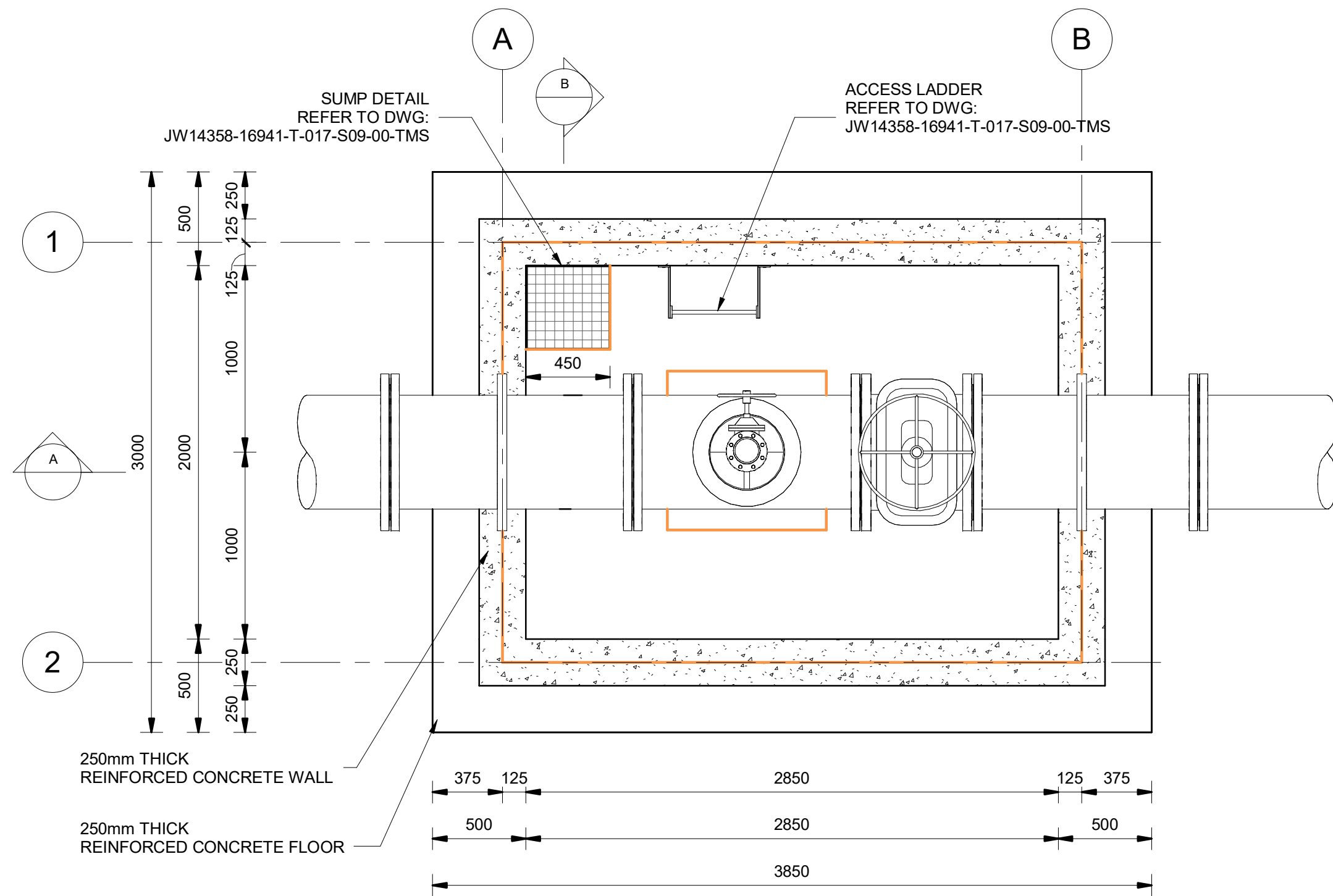
CONTRACT No.: JW14358

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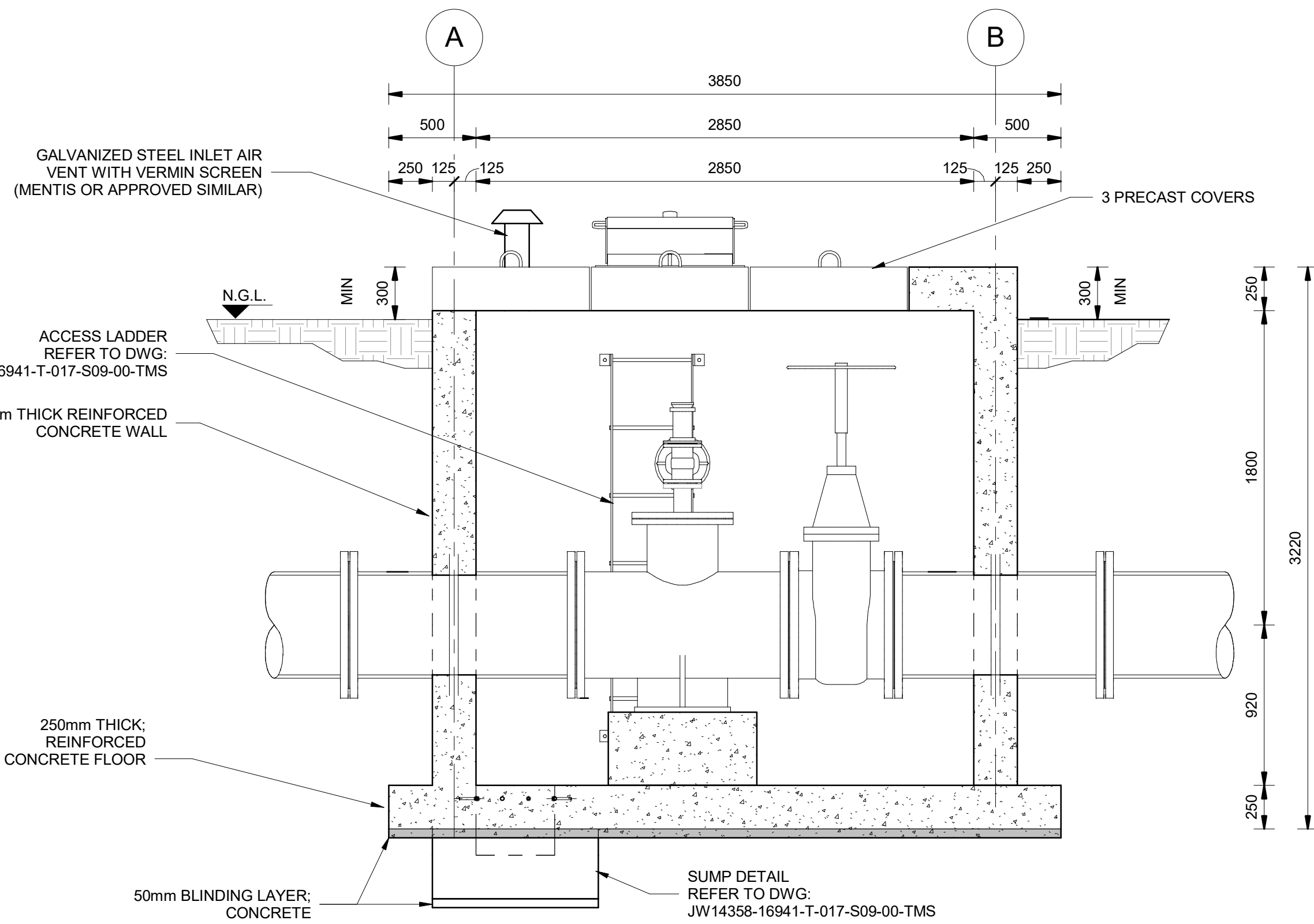
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A1 SHEET 2 OF 2

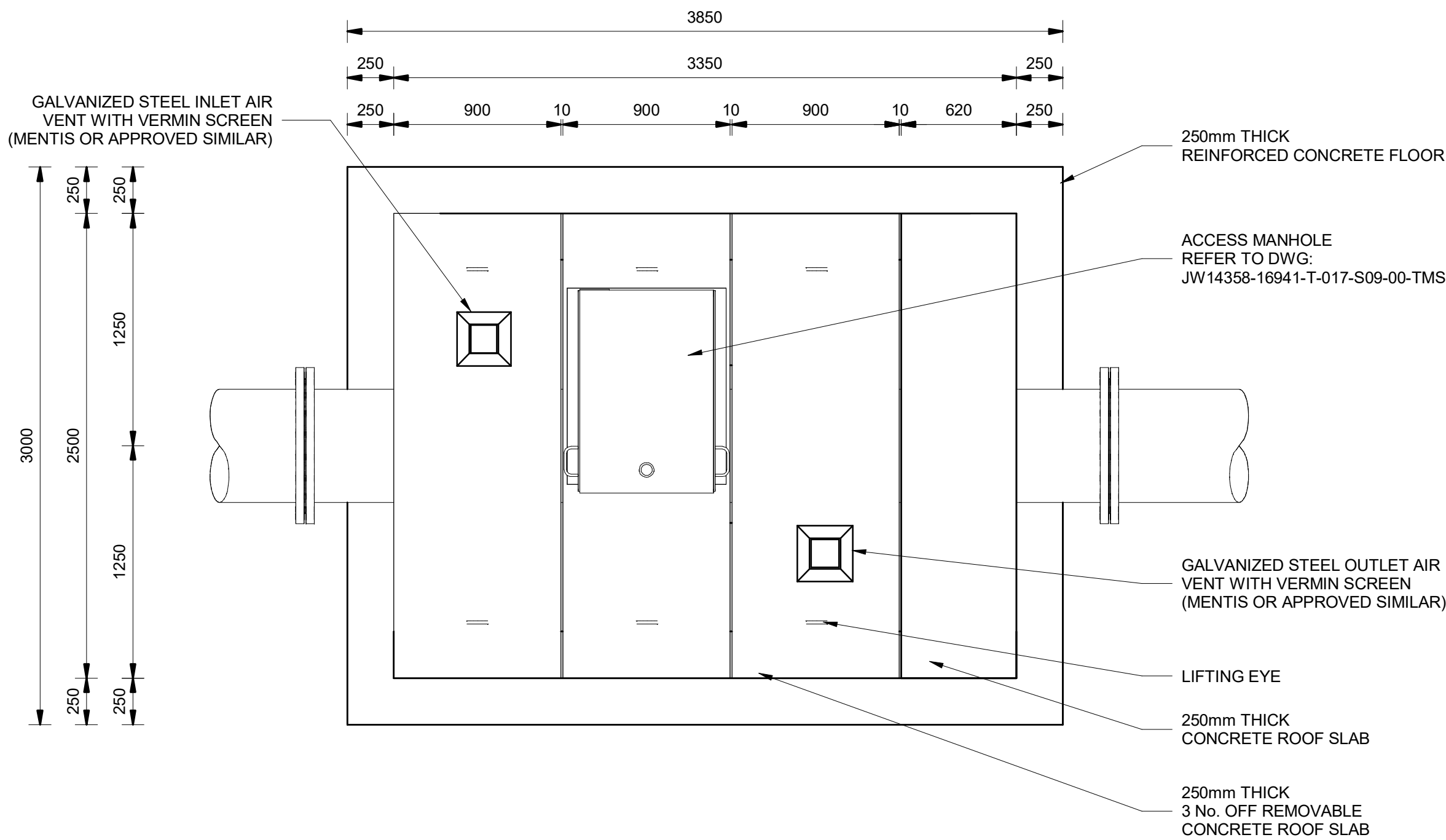
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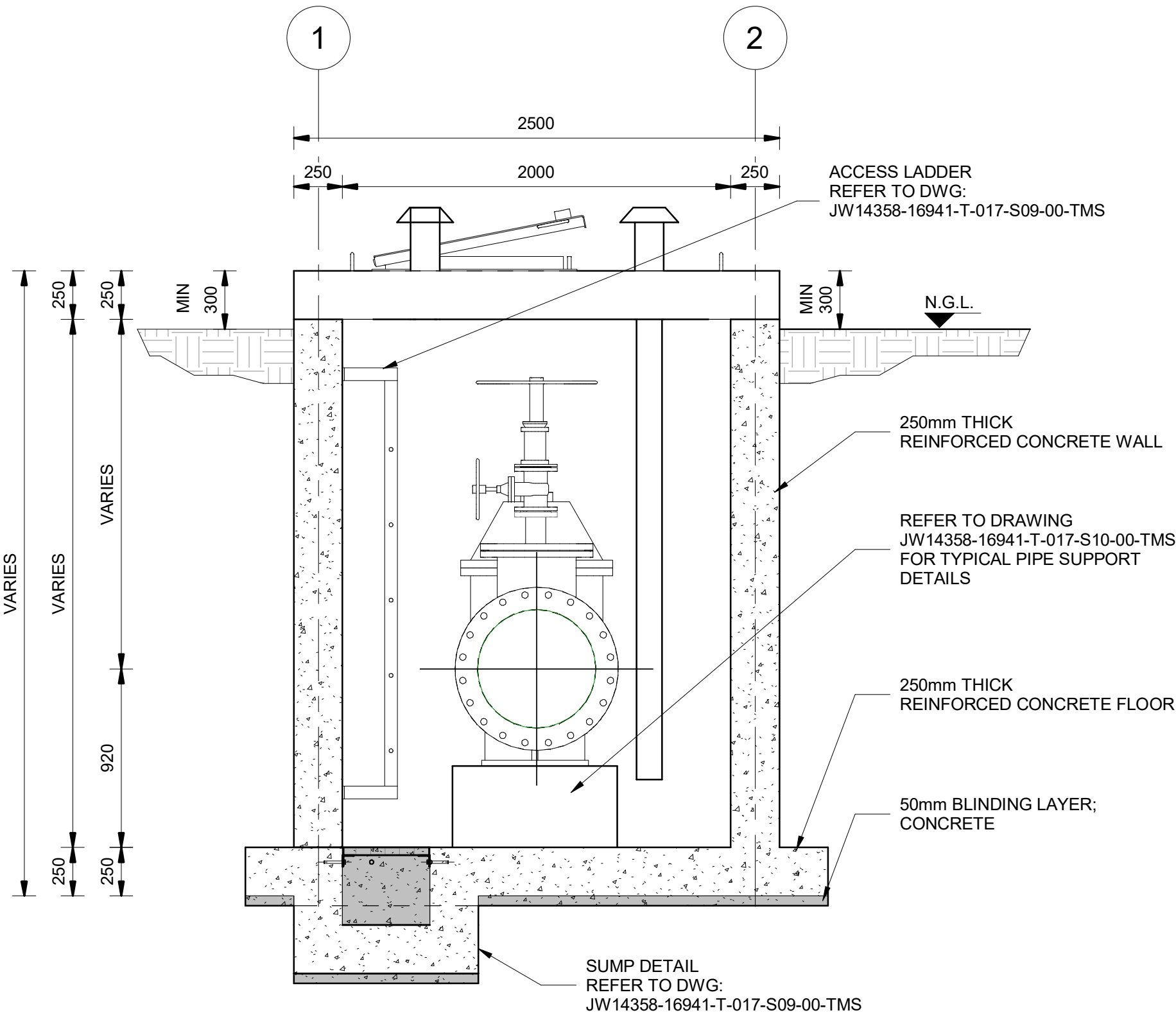
FLOOR PLAN
SCALE 1 : 25



SECTION A-A
SCALE 1 : 25



ROOF PLAN
SCALE 1 : 25



SECTION B-B
SCALE 1 : 25

- GENERAL
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 6. JOINTS TO BE FILLED WITH POLYSULPHIDE.
 7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES.

Reference drawings:
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JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

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THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTING ENGINEERS
Nyeleti
Engineered to Excel

Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

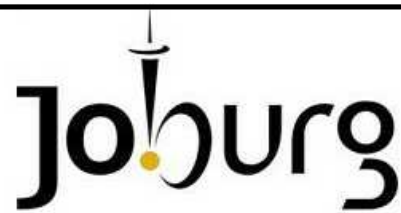
CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T.FOSA	
DRAWN	Y.GOVENDER	
CHECKED	P.SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304
		DWG NO.



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

DN 600 AIR VALVE CHAMBER TYPE 2

SHEET 1 OF 2

AMENDMENTS

SCALE	REV.	DESCRIPTION	APPROVED	DATE:
AS SHOWN	C	ISSUED FOR TENDER	PG	2022-10-17

DRAWING No.: JW14358-16941-T-013-S07-00-TMS

CONTRACT No.: JW14358

UR1305B

PROJECT No.

A1

SHEET

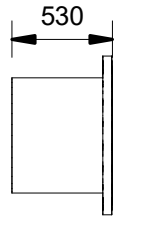
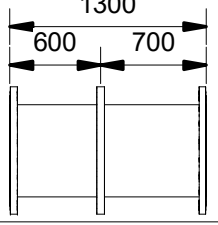
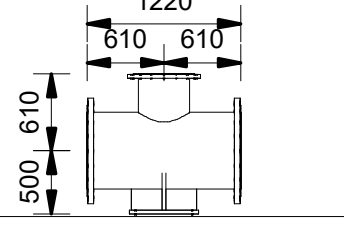
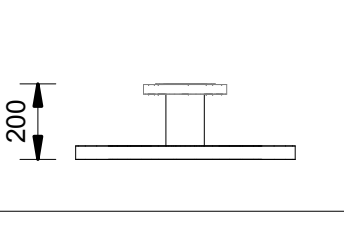
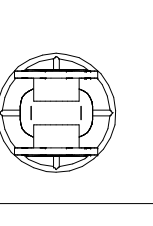
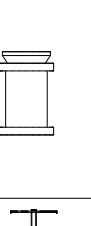
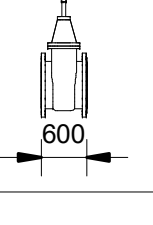
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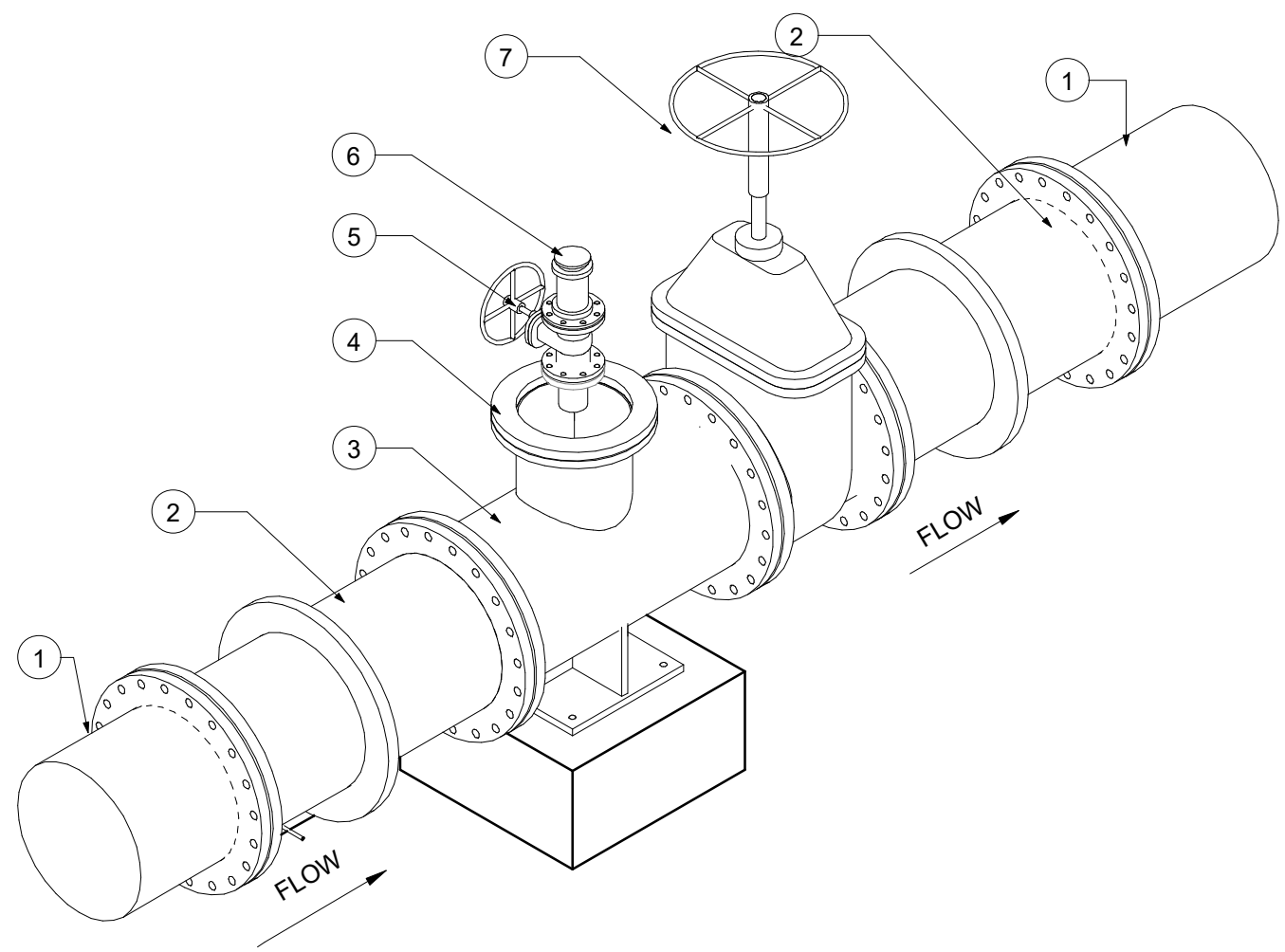
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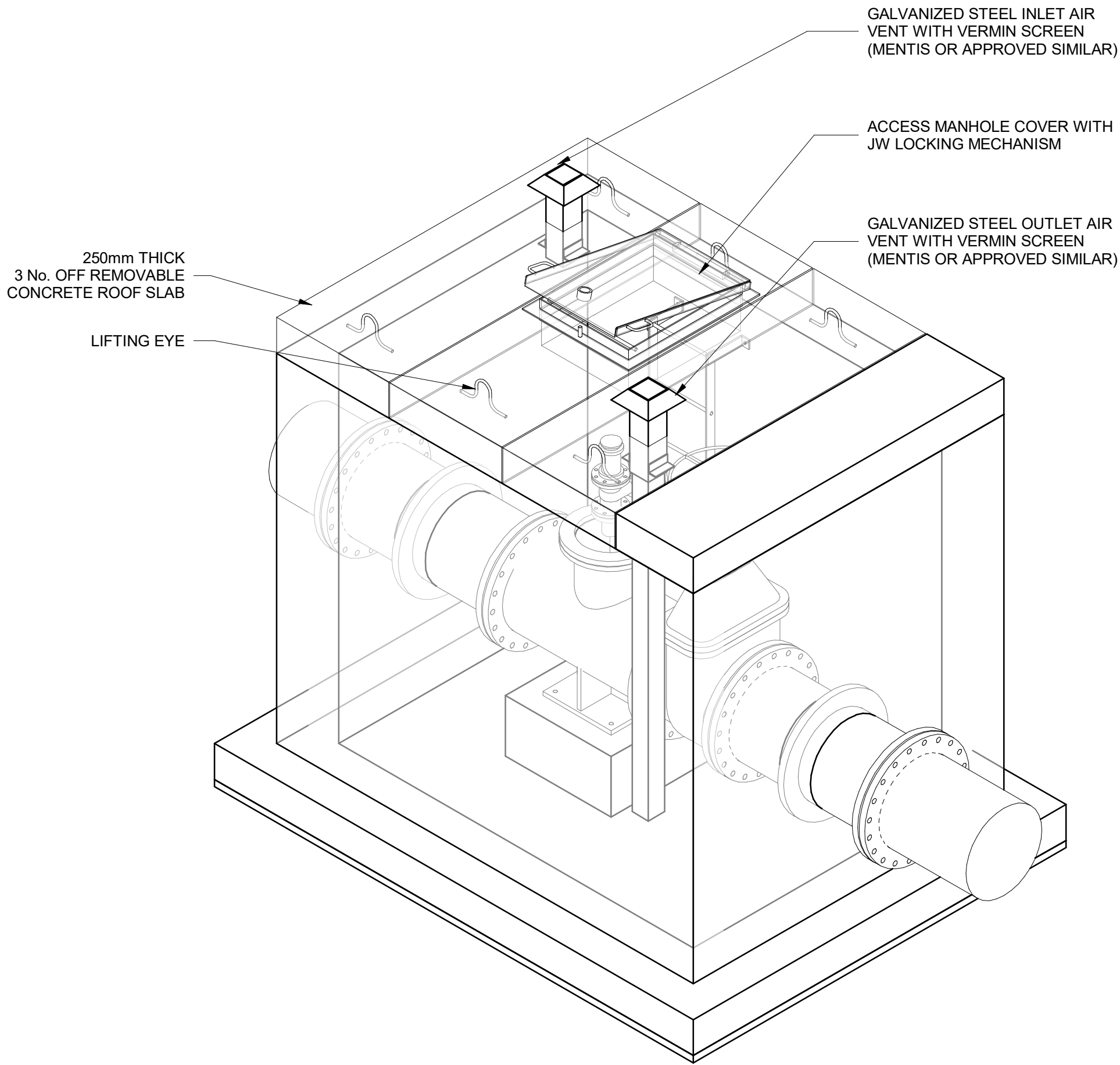
PIPE SCHEDULE - DN 600 AIR VALVE CHAMBER TYPE 2

ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
1		PN16	SPOOL PIECE DN 600 x 6mm SANS 719; ONE END FLANGED TO SANS 1123 TABLE 1600/3	RPU	2	DN 600
2		PN16	SPOOL PIECE DN 600 x 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	2	DN 600
3		PN16	UNEQUAL TEE; DN 600 x DN 400 x 6 mm SANS 719; FLANGED TO SANS 1123 TABLE 1600/3, PIPE SUPPORT SINGLE DN 600 AS PER DETAIL DRAWING JW13037-16941-T-017-S10-00-TMS	RPU	1	DN 600 - DN 400
4		PN16	DN 100 STRAIGHT PIPE; 200mm LONG SANS 62 MEDIUM CLASS; ONE END FLANGED WITH FLANGE DRILLED TO SANS 1123 TABLE 1600/3; OTHER ENDS WELDED TO DN 400 BLANK FLANGE (SANS 1123 TABLE 1600/8) WITH HOLE DRILLED FOR DN 100 PIPE	RPU	1	DN 100
5		PN16	DN 100 RESILIENT SEAL VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE ; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED VOSA OR SIMILAR APPROVED, BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 100
6		PN16	DN 100 DOUBLE ORIFICE WITH ANTI-SHOCK ORIFICE MECHANISM AIR RELEASE VALVE; VENTO-MAT RBX OR SIMILAR; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 100
7		PN16	DN 600 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED; VOSA OR EQUIVALENT APPROVED; BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 600



MECHANICAL ISOMETRIC VIEW

SCALE



ISOMETRIC VIEW

SCALE

GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm
4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm TO ALL BLINDING
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT
6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

Reference drawings:

JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS

JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS

JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTING ENGINEERS

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Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

DESIGNED

T.FOSA

DRAWN

Y.GOVENDER

CHECKED

P.SEKOAILA

DATE:

SIGNATURE

ECSA REG. No

APPROVED BY:

P.GROBLER

DATE:

SIGNATURE

ECSA REG. No

950304

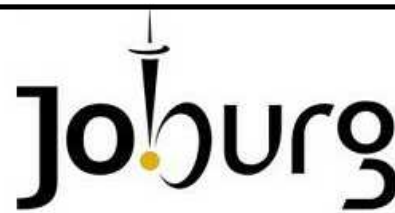
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DWG NO.



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

DN 600 AIR VALVE CHAMBER TYPE 2

SHEET 2 OF 2

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	C	ISSUED FOR TENDER	PG	2022-10-17

DRAWING No.: JW14358-16941-T-013-S08-00-TMS

CONTRACT No.: JW14358

UR1305B

C

PROJECT No.

REV.

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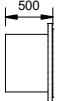
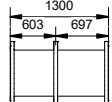
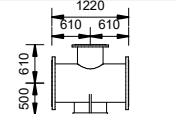
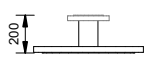
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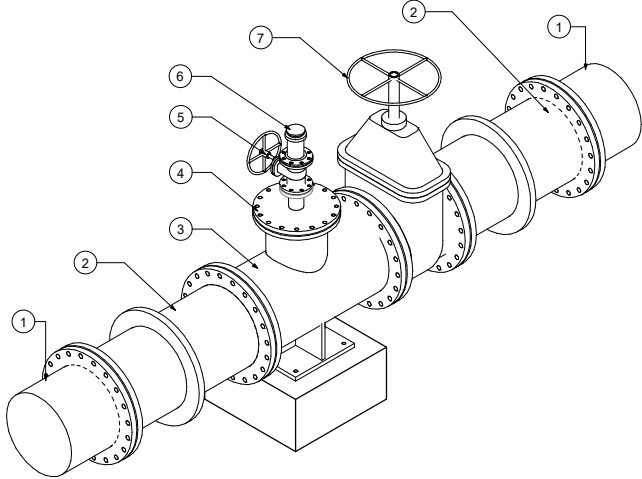
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OF

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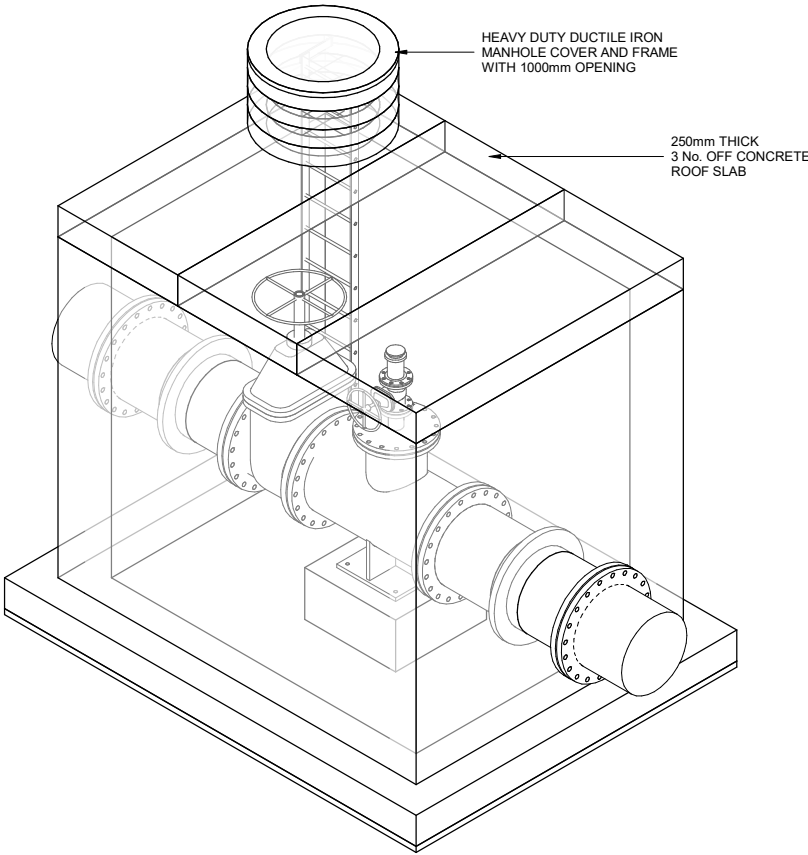
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PIPE SCHEDULE - DN 600 AIR VALVE CHAMBER TYPE 3						
ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
1		PN16	SPOOL PIECE DN 600 x 6mm SANS 719; ONE END FLANGED TO SANS 1123 TABLE 1600/3	RPU	2	DN 600
2		PN16	SPOOL PIECE DN 600 x 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	2	DN 600
3		PN16	UNEQUAL TEE; DN 600 x DN 400 x 6 mm SANS 719; FLANGED TO SANS 1123 TABLE 1600/3, PIPE SUPPORT SINGLE DN 600 AS PER DETAIL DRAWING JW14358-16941-T-017-S10-00-TMS	RPU	1	DN 600 - DN 400
4		PN16	DN 100 STRAIGHT PIPE; 200 mm LONG MEDIUM CLASS; ONE END FLANGED WITH FLANGE DRILLED TO SANS 1123 TABLE 1600/3; OTHER END WELDED TO DN 400 BLANK FLANGE (SANS 1123 TABLE 1600/8) WITH HOLE DRILLED FOR DN 100 PIPE	RPU	1	DN 100
5		PN16	DN 100 RESILANT SEAL GATE VALVE; NON RISING SPINDLE ; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED VOSA OR SIMILAR APPROVED. BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 100
6		PN16	DN 100 DOUBLE ORIFICE WITH ANTI-SHOCK ORIFICE MECHANISM AIR RELEASE VALVE; VENTO-MAT RBX OR SIMILAR; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 100
7		PN16	DN 600 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED; VOSA OR EQUIVALENT APPROVED; BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 600



MECHANICAL ISOMETRIC VIEW

SCALE



ISOMETRIC VIEW

SCALE

- GENERAL
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 - ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
 - CONCRETE GRADE SHALL BE 30 Mpa/19 mm
 - CONCRETE GRADE SHALL BE 15 Mpa/19 mm TO ALL BLINDING
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
 - ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
 - REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS

JW 14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS

JW 14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS

JW 14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
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CONSULTING ENGINEERS

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1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

DESIGNED	T.FOSA	
DRAWN	Y.GOVENDER	
CHECKED	P.SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304

Johannesburg Water

Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

Joburg

WOODMEAD WATER UPGRADE

DN 600 AIR VALVE CHAMBER TYPE 3

SHEET 2 OF 2

AMENDMENTS

SCALE	REV.	DESCRIPTION	APPROVED	DATE:
1:25	C	ISSUED FOR TENDER	PG	2022-10-18

CONTRACT No.: JW14358

UR1305B

PROJECT No.

A1

SHEET

REV.

2

OF

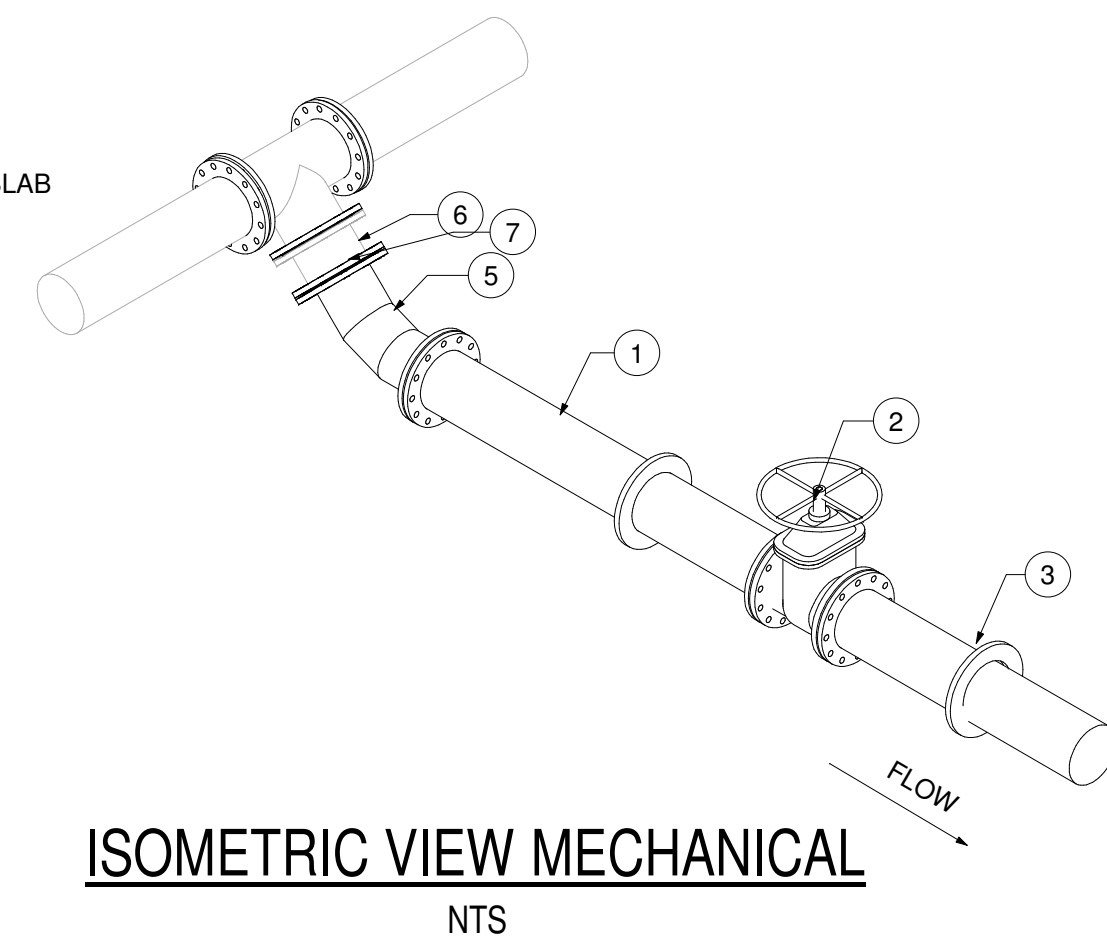
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GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING
7. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS
8. SET OUT IN THE CONTRACT DOCUMENT.
8. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON
8. SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND LONGER
8. NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
9. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES



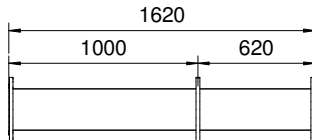
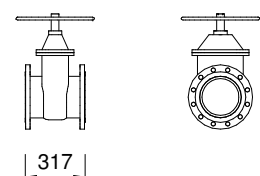
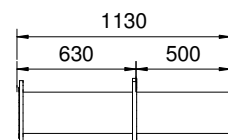
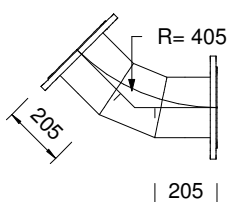
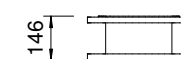
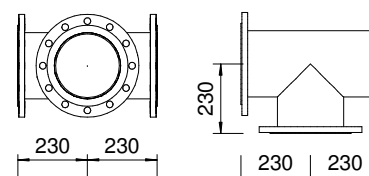
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JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAIL

FOR TENDER



TEL: (011) 688-1400
FAX: (011) 688-1529

PIPE SCHEDULE - DN 200 SCOUR VALVE TYPE 1

FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIA.METER
	PN16	SPOOL PIECE DN 200 x 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN200
	PN16	DN 200 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED; VOSA OR SIMILAR APPROVED ; BOTH ENDS FLANGED; FLANGES DRILLED IN ACCORDANCE WITH SANS 1123 TABLE 1600/3	EPOXY	1	DN200
	PN16	SPOOL PIECE DN 200 x 6 mm SANS 719; FLANGED ONE END TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN200
	PN16	3 SEGMENT MEDIUM RADIUS BEND 45°, DN 200 X 6mm SANS 719 R=405, BOTH ENDS FLANGED TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN200
	PN16	SPOOL PIECE DN 200 x 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN200
	PN16	DN 200 TEE-PIECE; 460mm LONG; WALL THICKNESS t = 6mm; ALL ENDS FLANGED; FLANGED DRILLED TO SANS 1123 TABLE 1600/3	RPU	1	DN200

ISOMETRIC VIEW
NTS

ISOMETRIC VIEW MECHANICAL

Joburg

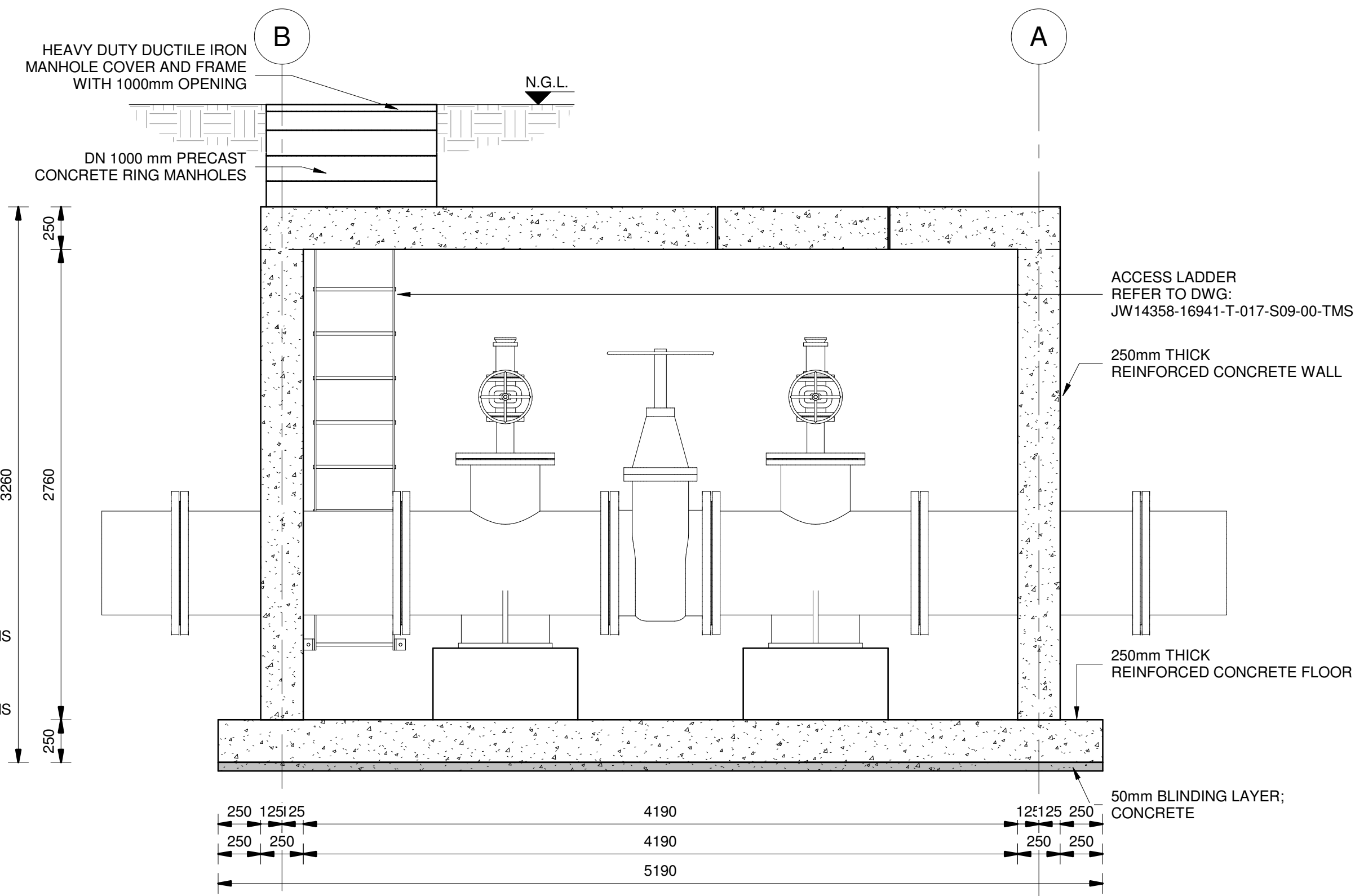
WOODMEAD WATER UPGRADE

DN 200 SCOUR VALVE CHAMBER TYPE 1

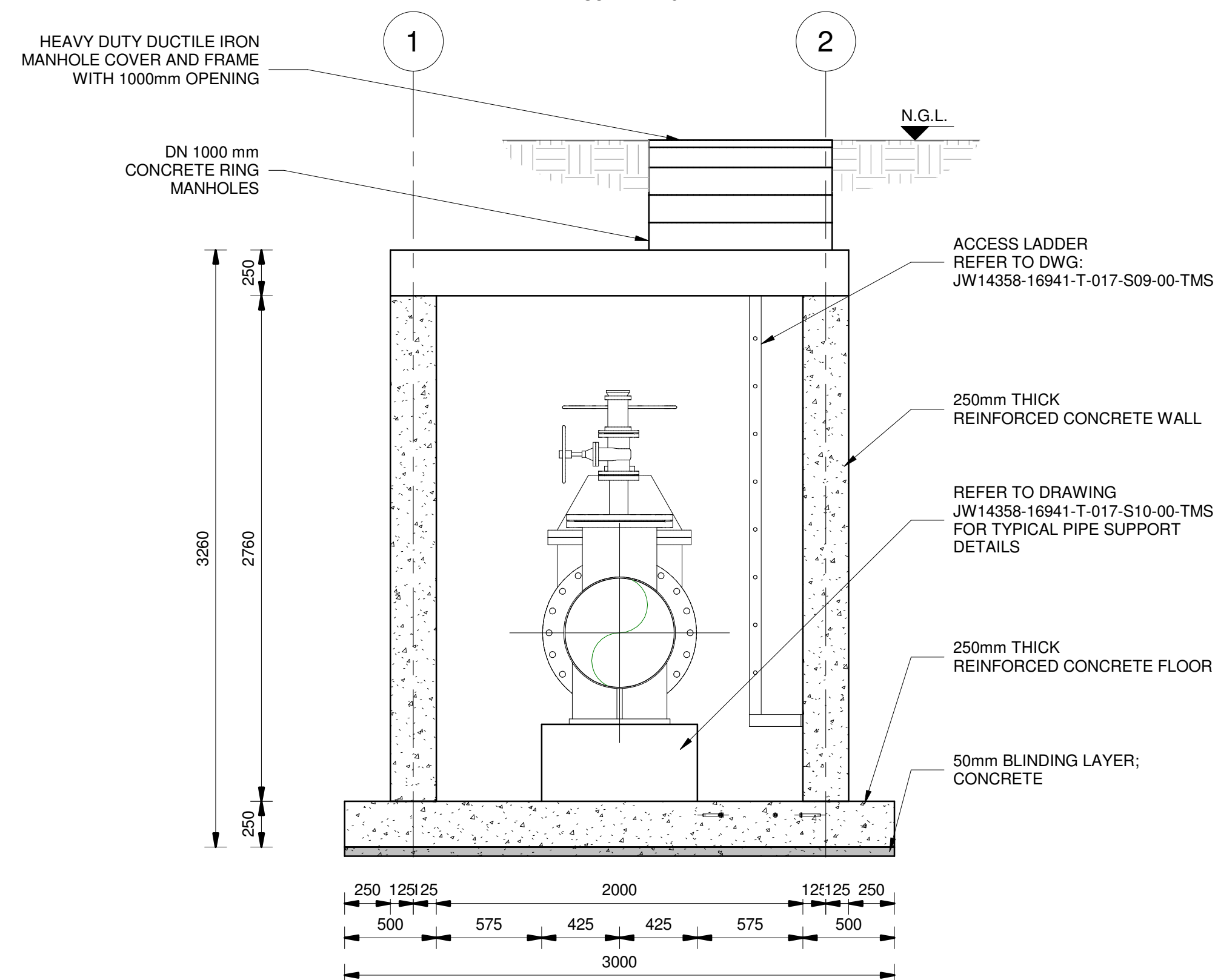
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CONTRACT No.: JW14358			
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PROJECT No.		REV.	
A1	SHEET	1	OF 1
ORIGINAL PAGE SIZE			
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SECTION A-A
SCALE 1 : 25



SECTION B-B
SCALE 1 : 25

- ## REFERENCE DRAWINGS

FOR TENDER

CONTRACT No.: JW14358

UR1305B	A
PROJECT No.	REV.
A1 SHEET	1 OF 2

ORIGINAL PAGE SIZE
FILE No.



FOR TENDER

CONTRACT No.: JW14358			
UR1305B		B	
PROJECT No.		REV.	
A1	SHEET	1	OF 2
ORIGINAL PAGE SIZE			
FILE No.			

DATE:	
DATE:	
950304	



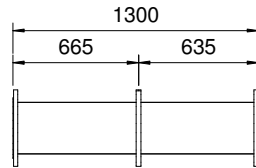
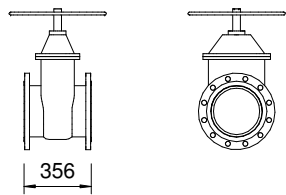
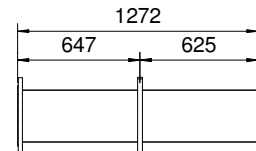
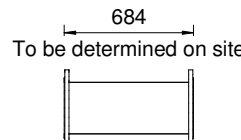
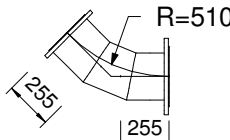
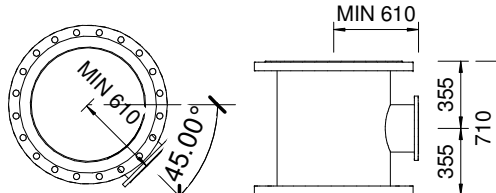
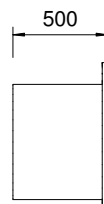
TEL: (011) 688-1400
FAX: (011) 688-1529



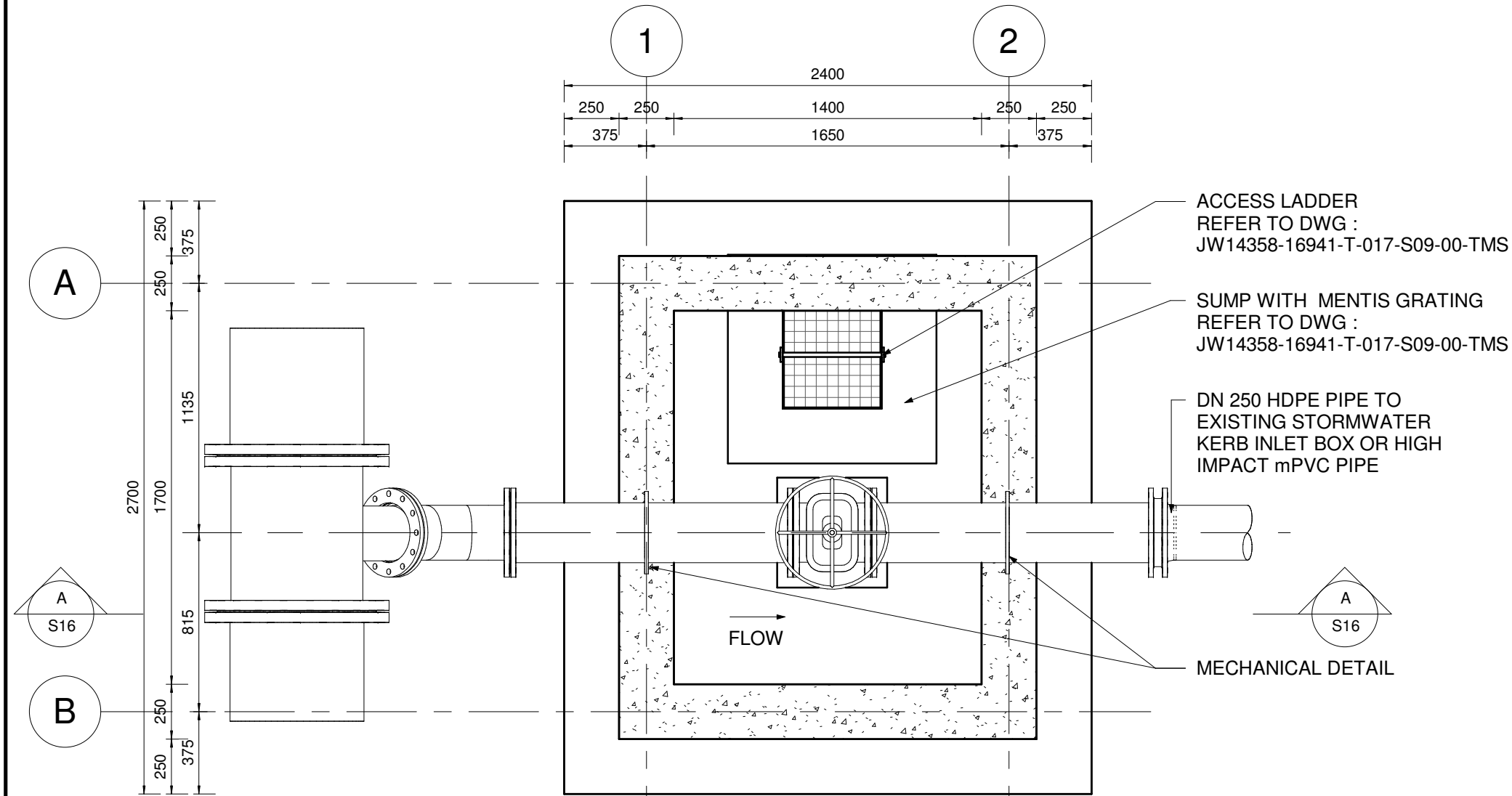
WOODMEAD WATER UPGRADE
DN 600 SCOUR VALVE CHAMBER TYPE 1
SHEET 1 OF 2

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS-SHOWN	A	ISSUED FOR TENDER	PG	2021-10-25
AS-SHOWN	B	ISSUED FOR TENDER	PG	2022-12-08



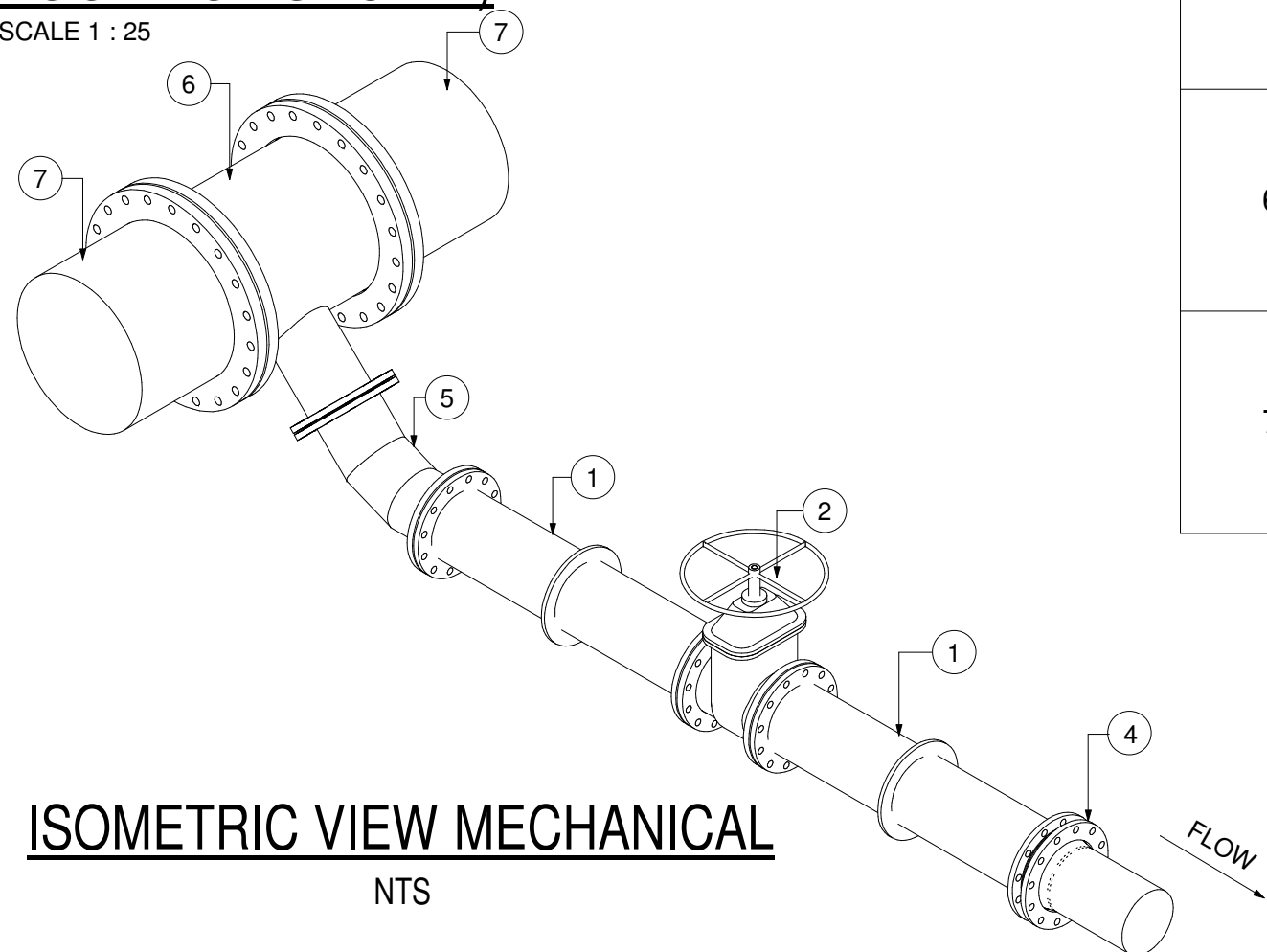
ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
1		PN16	SPOOL PIECE DN 250 x 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN 250
2		PN16	DN 250 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED; VOSA OR EQUIVALENT APPROVED; BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 250
3		PN16	SPOOL PIECE DN 250 x 6 mm SANS 719; FLANGED ONE END TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN 250
4		PN16	SPOOL PIECE DN 250 x 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 250
5		PN16	3 SEGMENT MEDIUM RADIUS BEND 45°, DN 250 X 6mm SANS 719 R=510, BOTH ENDS FLANGED TO SANS 1123 TABLE 1600/3	RPU	1	DN 250
6		PN16	REDUCING TEE-PIECE DN 600 x DN 250 x 6mm SANS 719; ALL ENDS FLANGED TO SANS 1123 TABLE 1600/3	RPU	1	DN 600 - DN 250
7		PN16	SPOOL PIECE DN 600 x 6mm SANS 719; ONE END FLANGED TO SANS 1123 TABLE 1600/3	RPU	2	DN 600

REFERENCE DRAWINGS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS
FOR TENDER



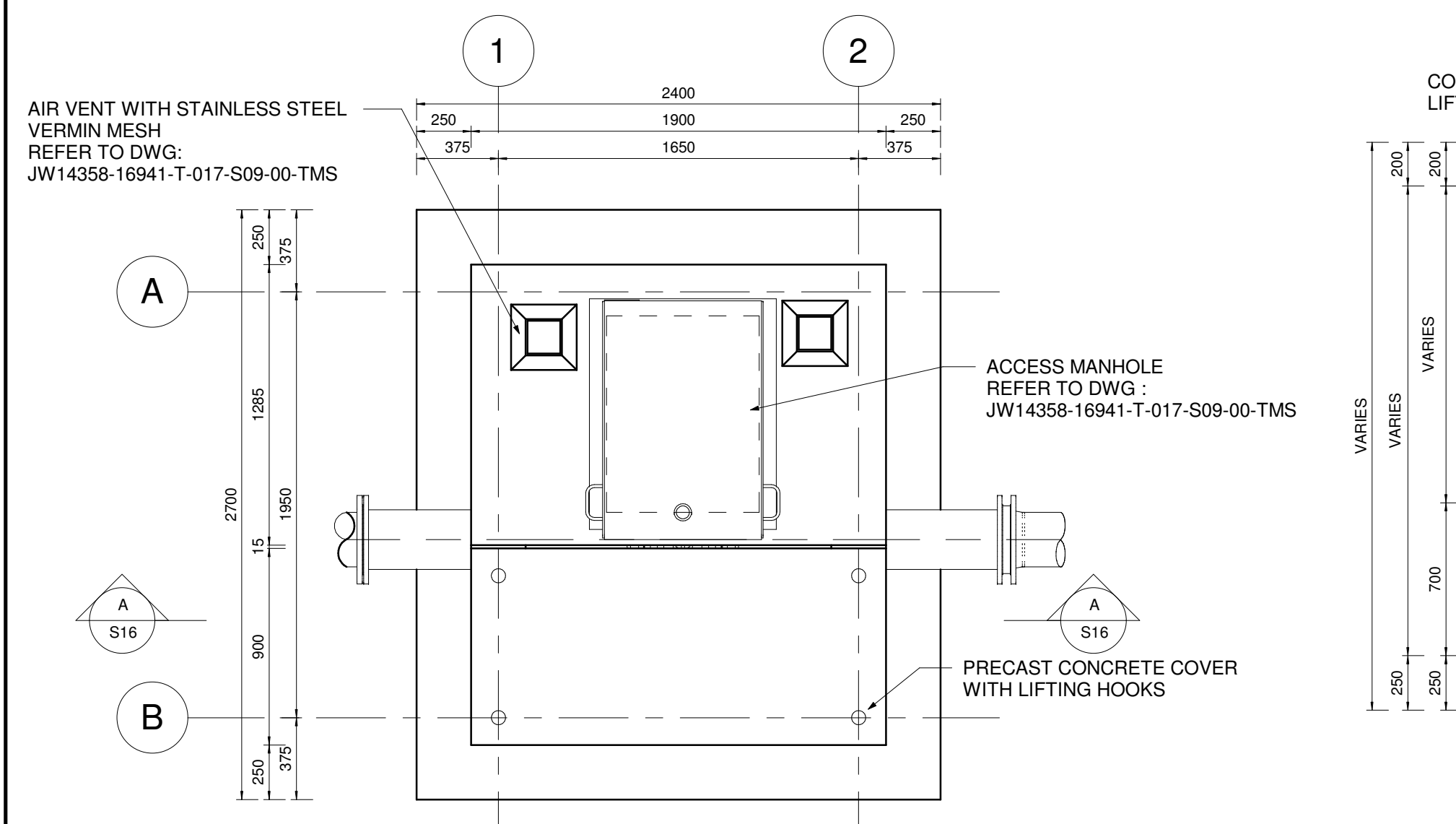
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SCALE 1 : 25



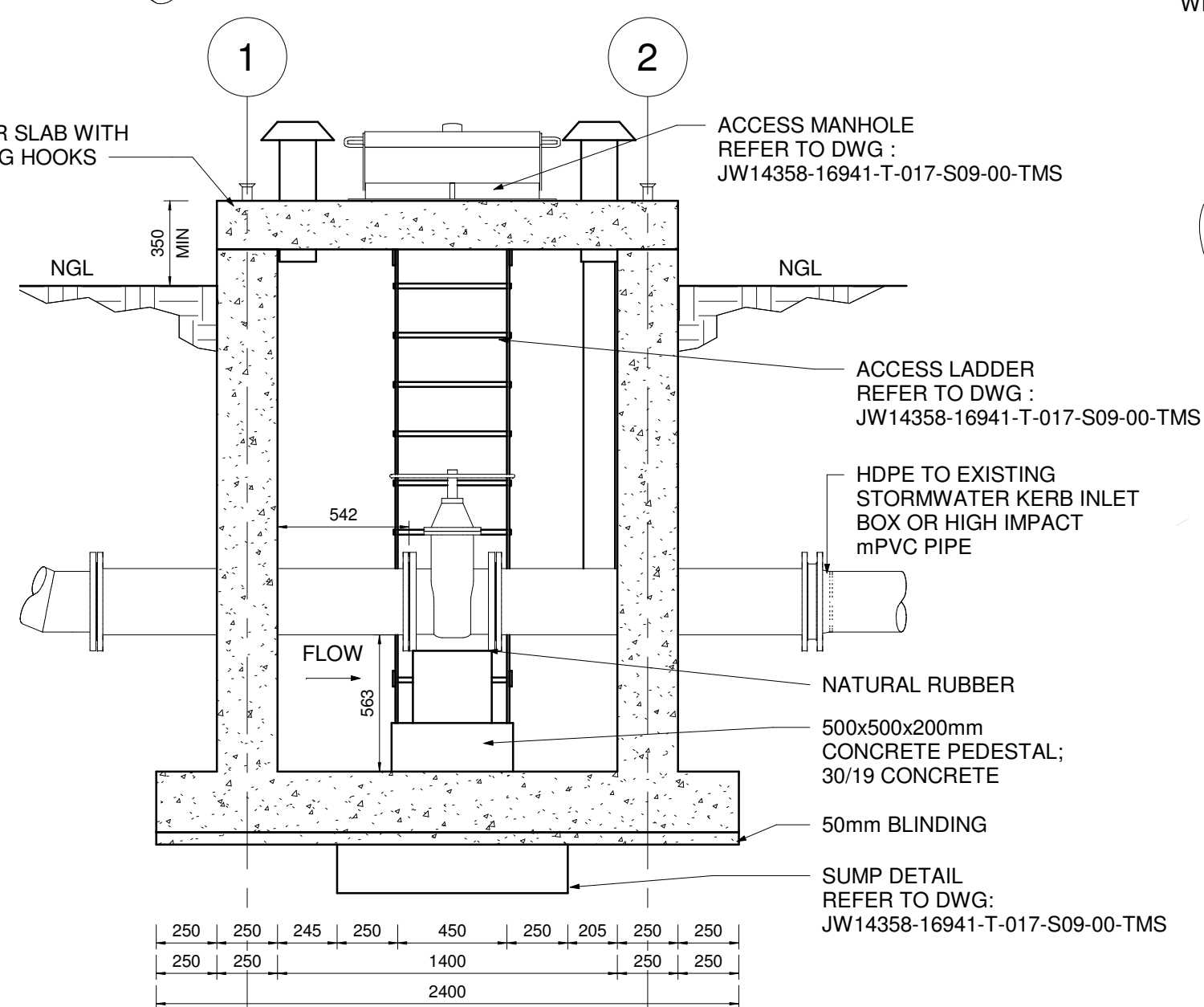
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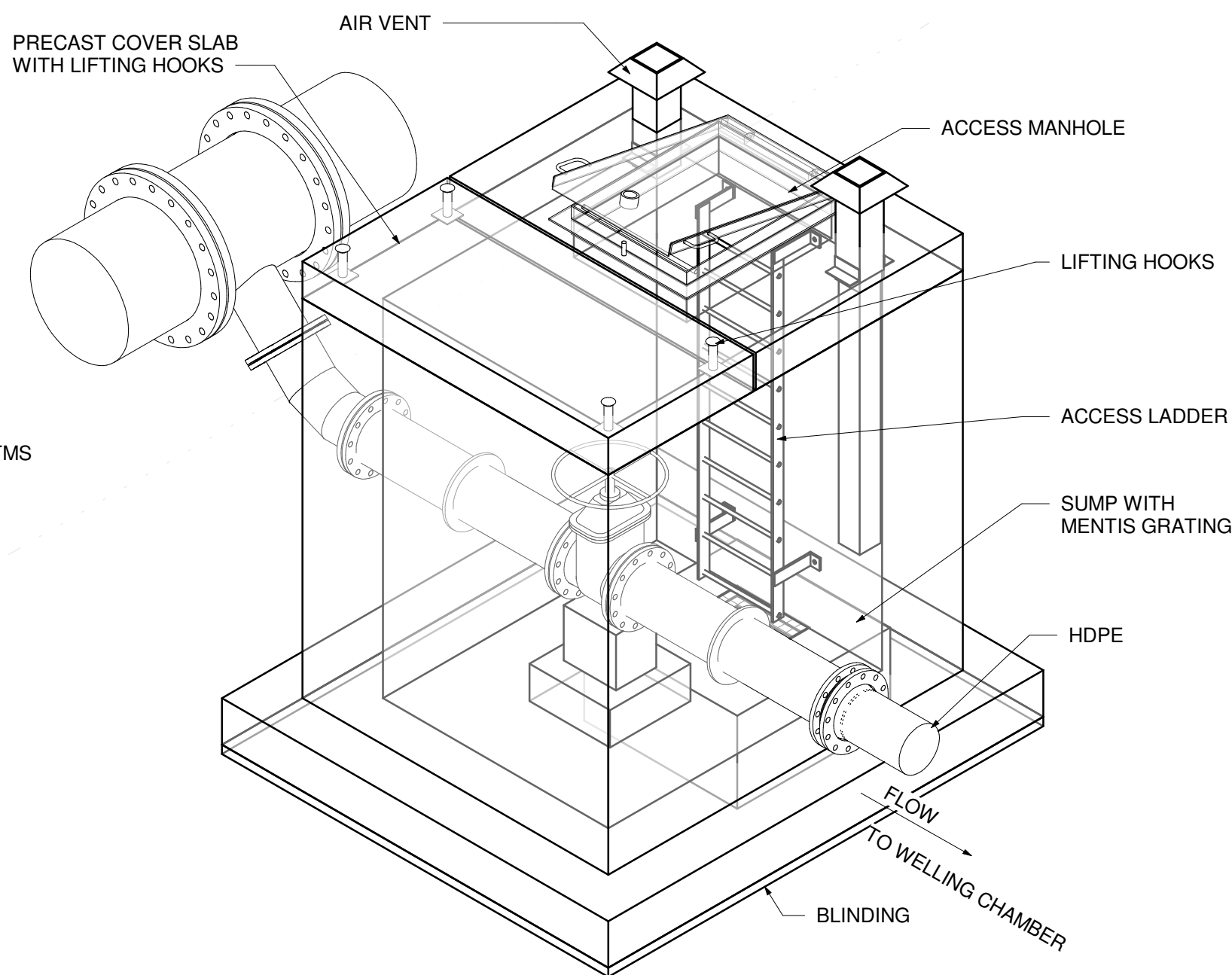
PLAN VIEW (ROOF SHOWN)

SCALE 1 : 25



SECTION A-A

SCALE 1 : 25



ISOMETRIC VIEW

NTS

PIPE SCHEDULE - DN 600 SCOUR VALVE CHAMBER TYPE 2						
ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
1		PN16	SPOOL PIECE DN 250 x 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	2	DN 250
2		PN16	DN250 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE; ANTI CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED ; VOSA OR SIMILAR APPROVED; BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 250
4a		PN16	1x STUB FLANGE AND STEEL FLANGE FOR HDPE PIPE ADAPTOR, STEEL FLANGE TO BE ACCORDING TO SANS 1123 TABLE 1600/3; FOR HDPE = 250mm	NONE	1	DN 250
4b		PN16	DN 250 FLANGE ADAPTOR FOR HIGH IMPACT MPVC CLASS 16 COMPLETE WITH SHOULDERED END COUPLING SYSTEM; FLANGE DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 250
5		PN16	3 SEGMENT MEDIUM RADIUS BEND 45°; DN 250 X 6mm SANS 719 R=510, BOTH ENDS FLANGED TO SANS 1123 TABLE 1600/3	RPU	1	DN250
6		PN16	REDUCING TEE-PIECE DN 600 x DN 250 x 6mm SANS 719; ALL ENDS FLANGED TO SANS 1123 TABLE 1600/3	RPU	1	DN 600 - DN 250
7		PN16	SPOOL PIECE DN 600 x 6mm SANS 719; ONE END FLANGED TO SANS 1123 TABLE 1600/3	RPU	2	DN 600

GENERAL NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
- ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
- CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
- CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
- ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
- REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS

JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS

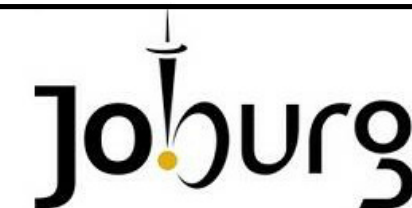
FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING, BEARS THE ORIGINAL SIGNATURE OF APPROVAL.	DESIGNED	T. FOSA	
CONSULTING ENGINEERS	DRAWN	C. MOODLEY	
	CHECKED	T. FOSA	DATE:
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P. GROBLER	DATE:
		SIGNATURE	
		ECSA REG. No	950304
CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntlemi Piliso Street Newtown, Johannesburg			



Turbine Hall
65 Ntlemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

DN 600 SCOUR VALVE CHAMBER TYPE 2

SHEET 1 OF 1

AMENDMENTS

SCALE	REV.	DESCRIPTION	APPROVED	DATE:
AS-SHOWN	B	ISSUED FOR TENDER	PG	2022-10-25

DRAWING No. JW14358-16941-T-013-S16-00-TMS

CONTRACT No.: JW14358

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PROJECT No.

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1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
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4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm TO ALL BLINDING
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6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
7. REFER TO DRAWING JWI/4358-16594-1-004-501-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS
IW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
IW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
IW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS

FOR TENDER

CONTRACT No.: JW14358

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PROJECT No.

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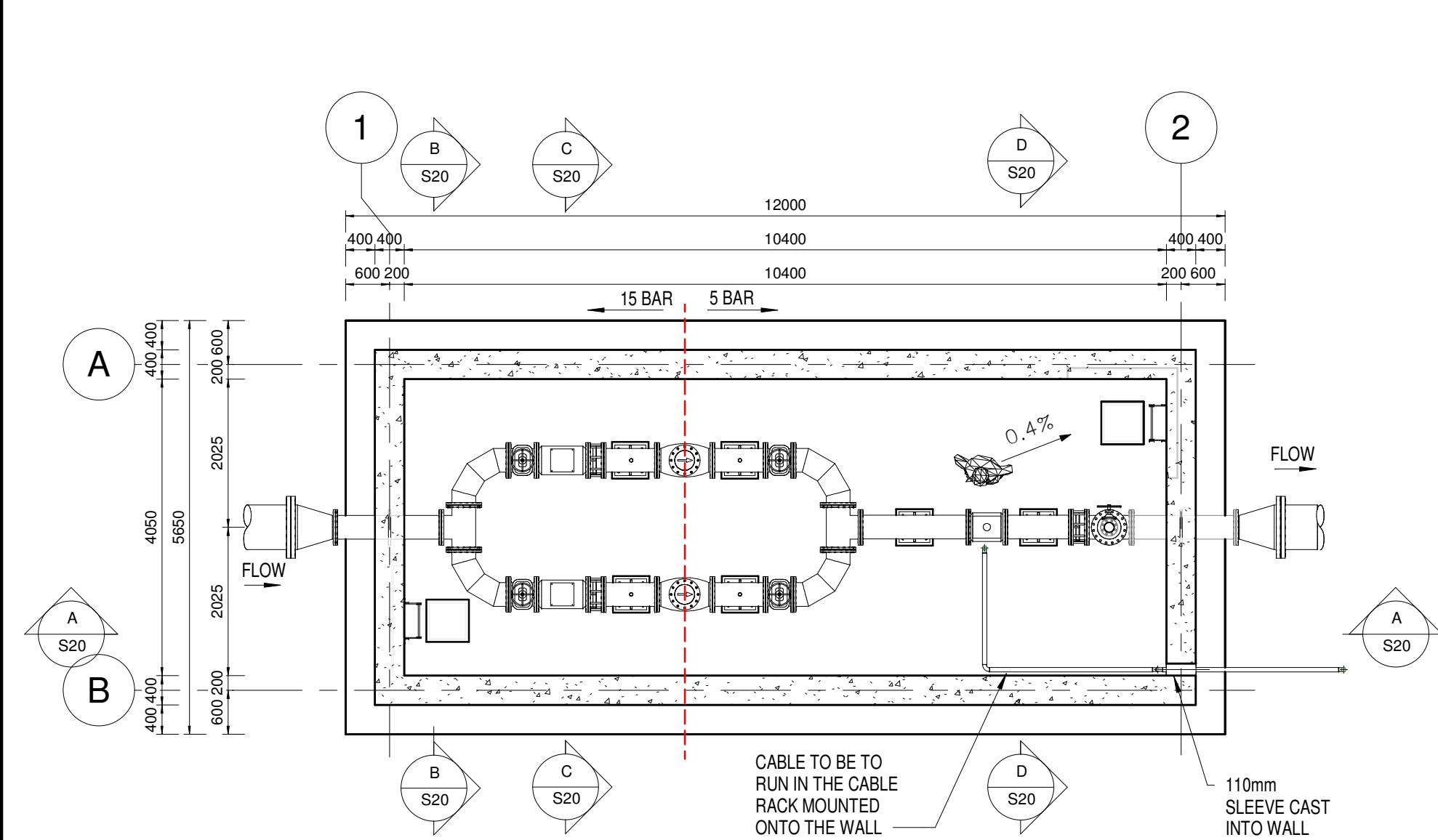
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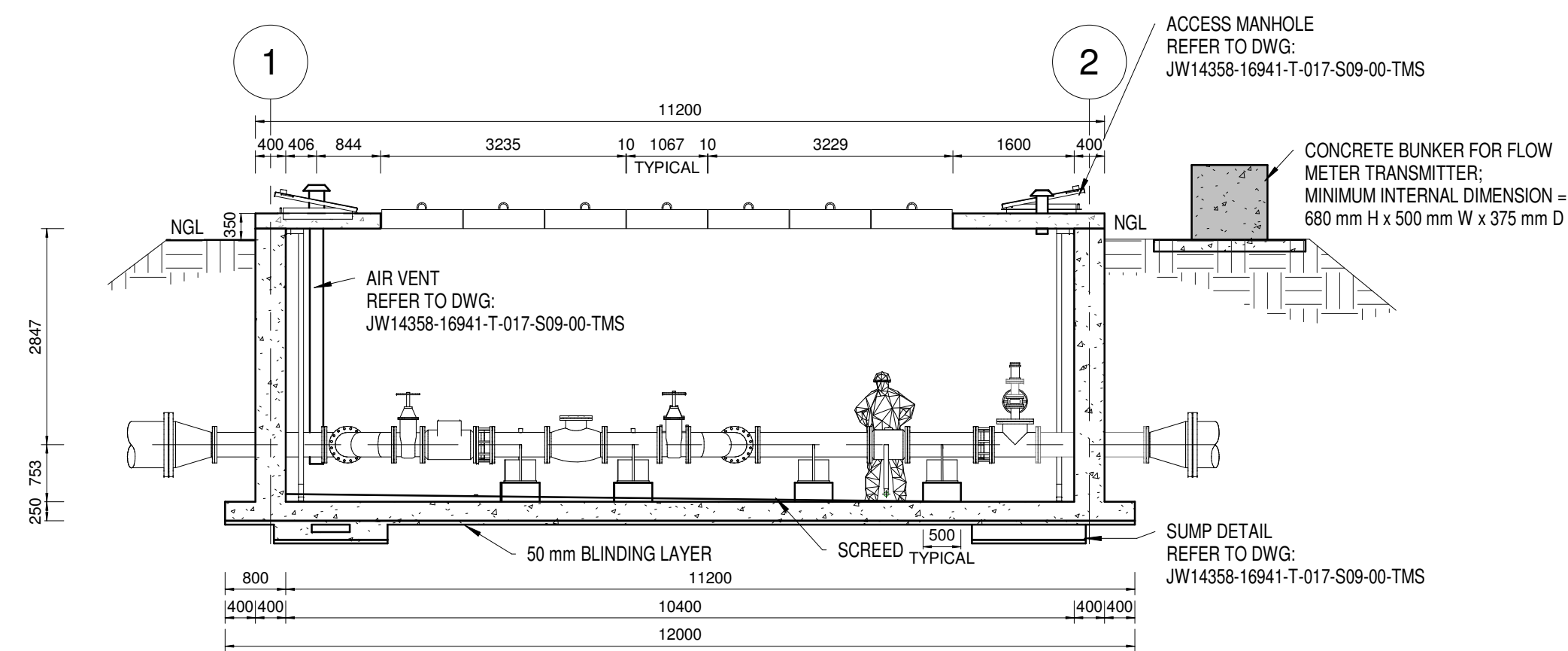
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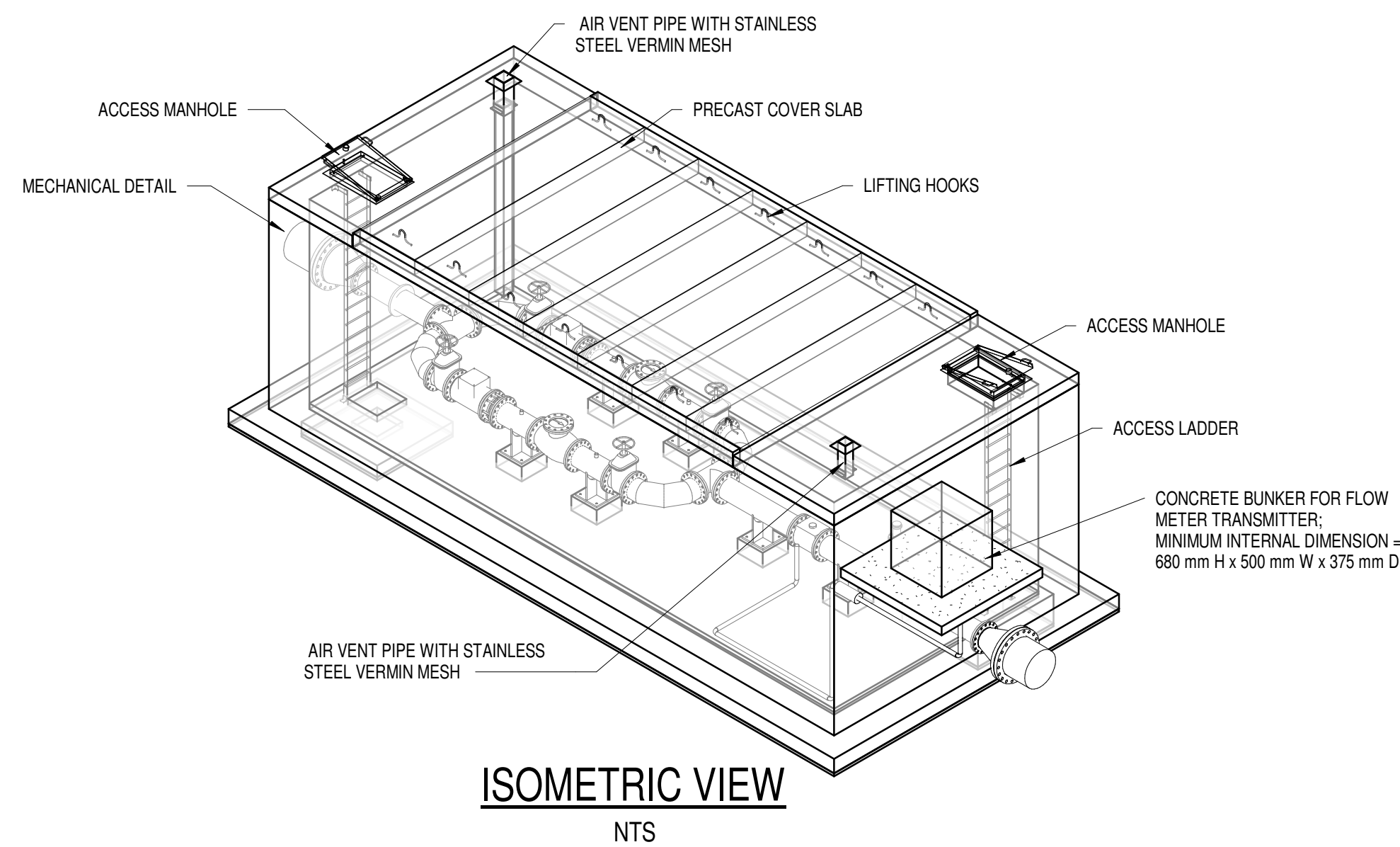
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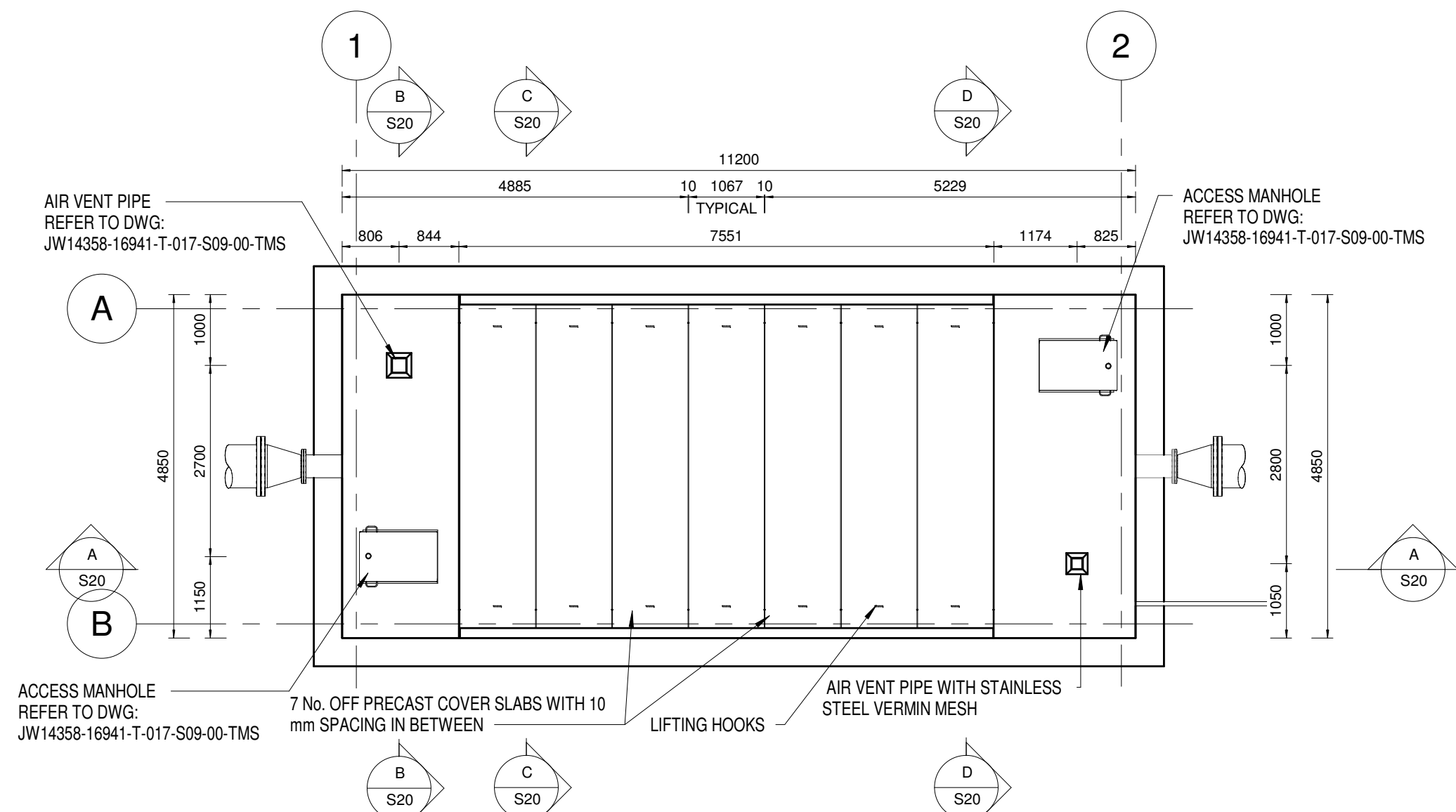
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SCALE1 : 75



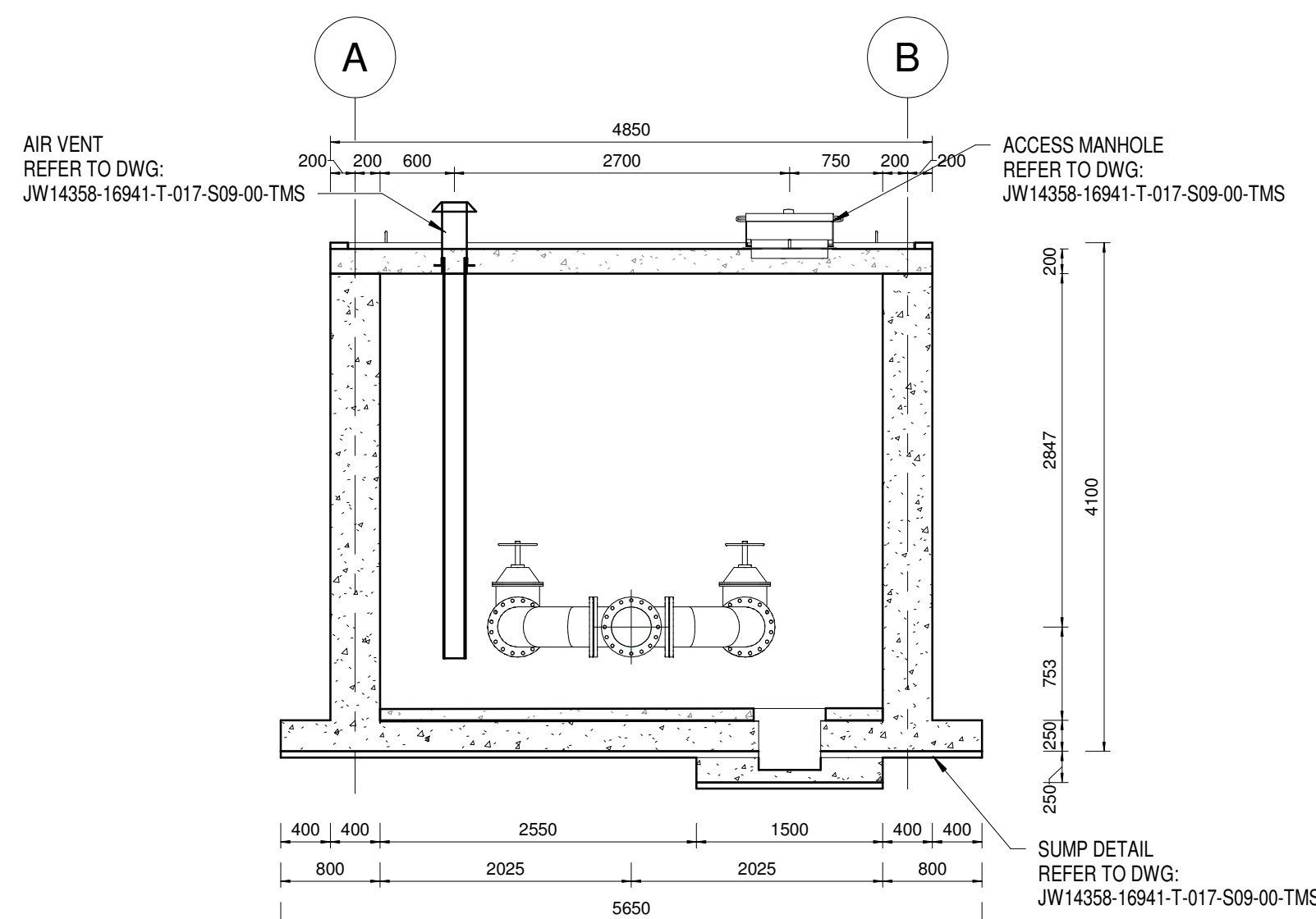
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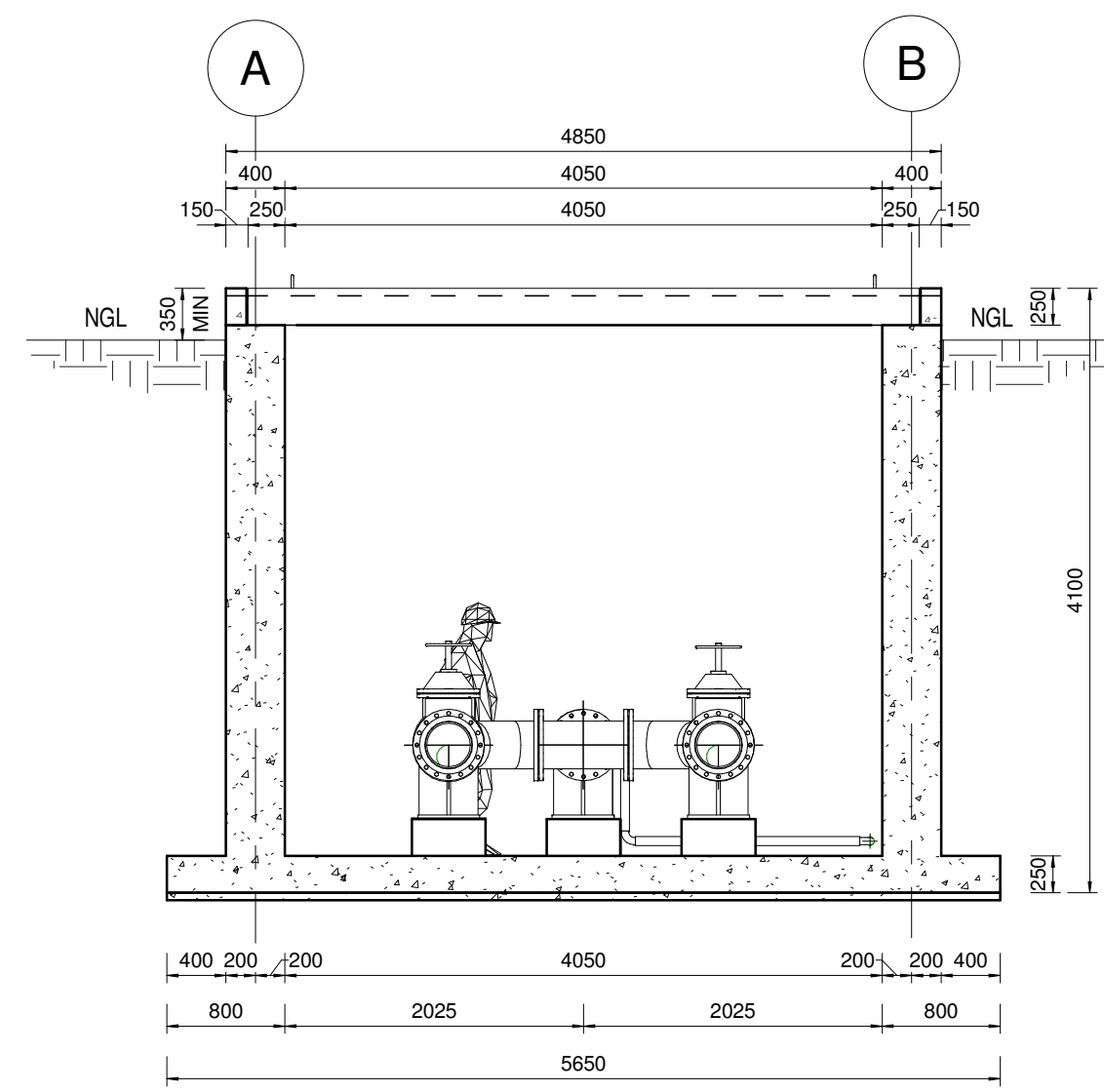
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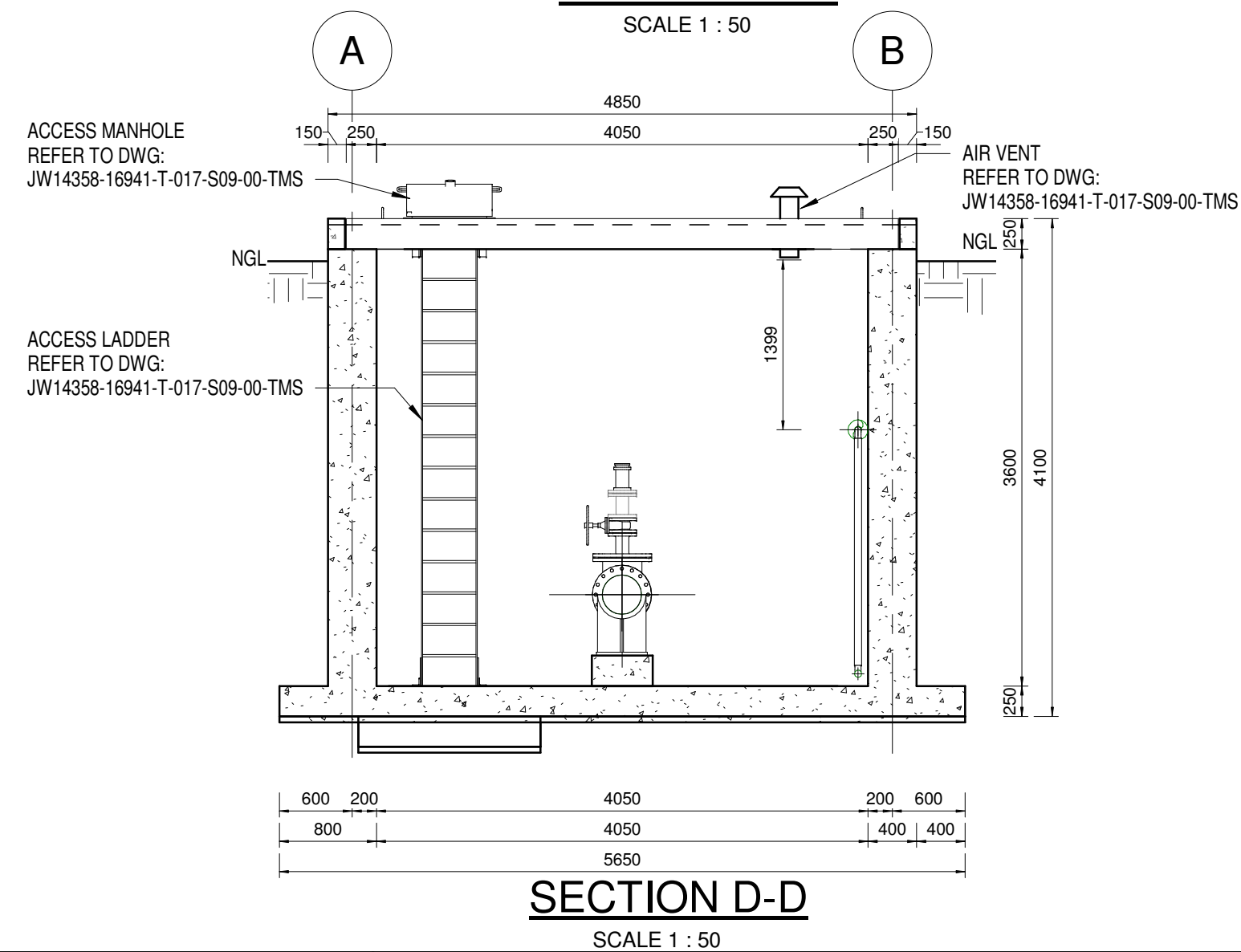
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SCALE1 : 75



SECTION B-B
SCALE 1 : 50



SECTION C-C
SCALE 1 : 50



SECTION D-D
SCALE 1 : 50

- GENERAL NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
 3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm
 4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm TO ALL BLINDING
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 6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
 7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES
 8. ALL NEW PRV INSTALLATIONS SHALL BE INSTALLED WITH GSM BATTERY OPERATED DATA LOGGERS WITH PRESSURE TRANSMITTERS UP/DOWN AND FLOW PULSE ON METER.
 9. WATER METER SHALL BE GSM BATTERY OPERATED EMF METERS TO COMPLY TO JOHANNESBURG WATERS MONITORING SYSTEMS.

Reference drawings:	
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES	
JW14358-16941-T-017-S09-00-TMS - CAST IN AIR VENT, COVERS, ACCESS LADDERS	
JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAIL	
JW14358-16941-T-012-S01-00-TMS-LAYOUT AND LONGSECTION	
JW14358-16941-T-017-S09-00-TMS- SUMP DETAILS	
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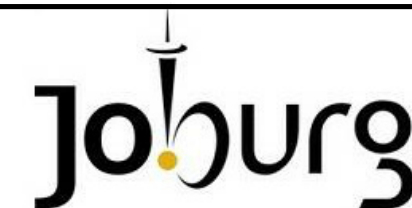
FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING, BEARS THE ORIGINAL SIGNATURE OF APPROVAL			
CONSULTING ENGINEERS			
 Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT JOHANNESBURG WATER 17 HARRISON STREET MARSHALLTOWN 2107	DESIGNED	T. FOSA	
	DRAWN	T. FOSA	
	CHECKED	P. SEKOAILA	DATE:
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE:
		SIGNATURE	
		ECSA REG. No	950304
		DWG NO.	



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

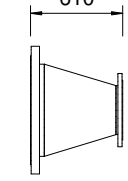
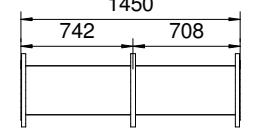
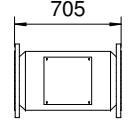
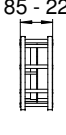
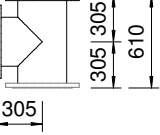
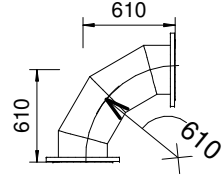
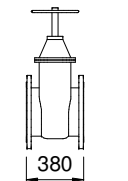
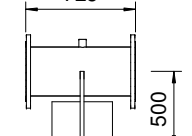
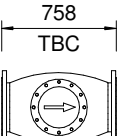
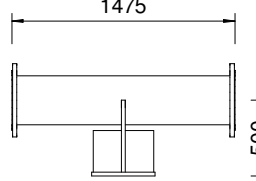
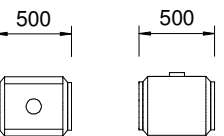
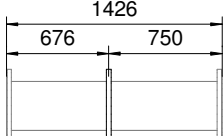
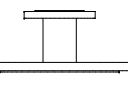
TEL: (011) 688-1400
FAX: (011) 688-1529


WOODMEAD WATER UPGRADE
DN 600 PRESSURE REDUCING VALVE CHAMBER 1
SHEET 1 OF 2

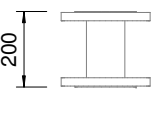
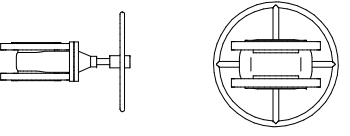
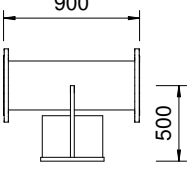
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AS SHOWN	D	ISSUED FOR TENDER	PG	2022-10-27

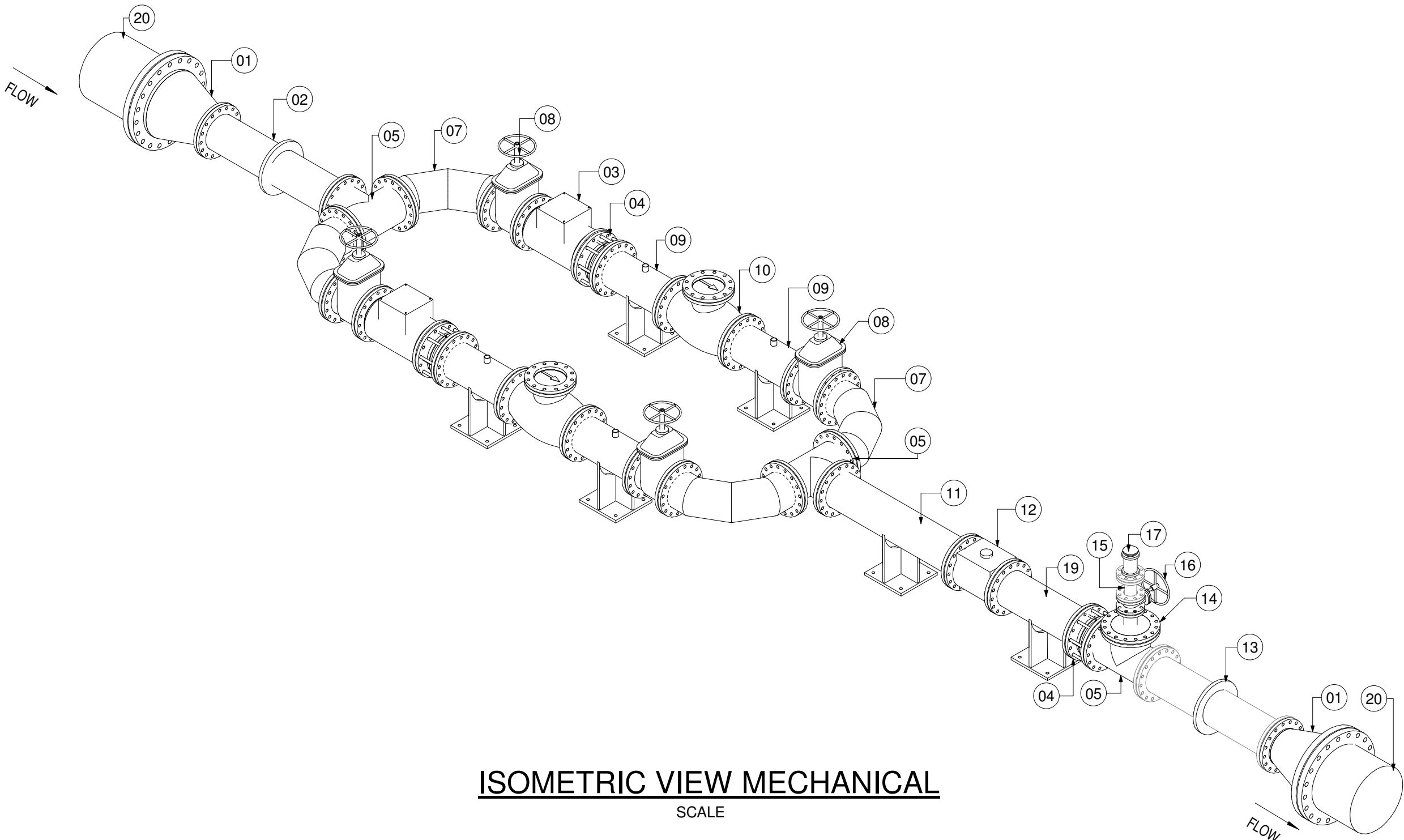
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CONTRACT No.: JW14358	
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PIPE SCHEDULE - DN 600 PRV CHAMBER 1

ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
01		PN25	CONCENTRIC REDUCER; DN 600 - DN 300 X 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 2500/3	RPU	2	DN 600 - DN 300
02		PN25	SPOOL PIECE DN 300 X 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 2500/3 WITH PUDDLE FLANGE	RPU	1	DN 300
03		PN25	DN 300 INLINE STRAINER, T-TYPE, FLANGED BOTH ENDS TO SANS 1123 TABLE 2500/3	RPU	2	DN 300
04		PN25	DISMANTLING JOINT DN 300; FLANGED BOTH ENDS TO SANS 1123 TABLE 2500/3	EPOXY	3	DN 300
05		PN25	EQUAL TEE DN 300 X DN 300 X 6 mm SANS 719; FLANGED ALL ENDS TO SANS 1123 TABLE 2500/3	RPU	3	DN 300 - DN 300
07		PN25	MEDIUM RADIUS BEND 90°, DN 300 X 6 mm SANS 719 R=610, FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	4	DN 300
08		PN25	DN 300 PN 25 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE, MANUALLY OPERATED SANS 664; FLANGED TO SANS 1123 TABLE 2500/3	EPOXY	4	DN 300
09		PN25	SPOOL PIECE DN 300 X 6 mm SANS 719; FLANGED BOTH ENDS SANS 1123 TABLE 2500/3 WITH 15 INCH PRESSURE TESTING SOCKET; PIPE SUPPORT WELDED TO CENTRE OF SPOOL PIECE	RPU	4	DN 300
10		PN25	DN 300 PRESSURE REDUCING VALVE, FLANGED BOTH ENDS TO SANS 1123 TABLE 2500/3, BAKER 115 OR SIMILAR APPROVED	EPOXY	2	DN 300
11		PN25	SPOOL PIECE DN 300 X 6 mm SANS 719; FLANGED BOTH ENDS SANS 1123 TABLE 2500/3; PIPE SUPPORT WELDED TO CENTRE OF SPOOL PIECE	RPU	1	DN 300
12		PN25	DN 300 PN25 ELECTROMAGNETIC FLOW METER COMPLETE WITH SENSOR AND REMOTELY MOUNTED TRANSMITTER; FLANGES DRILLED TO SANS 1123 TABLE 2500/3; SUPPLIED WITH A MINIMUM CABLE LENGTH OF 15 m; CONTRACTOR TO CONFIRM REQUIRED LENGTH ON SITE BEFORE ORDERING	EPOXY	1	DN 300
13		PN25	SPOOL PIECE DN 300 X 6 mm SANS 719; FLANGED BOTH ENDS SANS 1123 TABLE 2500/3 WITH PUDDLE FLANGE	RPU	1	DN 300
14		PN25	DN 100 STRAIGHT PIPE; SANS 62 HEAVY CLASS; ONE END FLANGED WITH FLANGE DRILLED TO SANS 1123 TABLE 2500/3; OTHER END WELDED TO DN 300 BLANK FLANGE (SANS 1123 TABLE 2500/8) WITH HOLE DRILLED FOR DN 100 PIPE	RPU	1	DN 100

PIPE SCHEDULE - DN 600 PRV CHAMBER 1

ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
15		PN25	SPOOL PIECE DN 100, SANS 62 HEAVY CLASS, FLANGED BOTH ENDS TO SANS 1123 TABLE 2500/3	RPU	1	DN 100
16		PN25	DN 100 RESILIENT SEAL GATE VALVE, NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664, MANUALLY OPERATED, BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 2500/3	RPU	1	DN 100
17		PN25	DN 100 DOUBLE ORIFICE WITH ANTI-SHOCK ORIFICE MECHANISM AIR RELEASE VALVE, VENTO-MAT RBX OR SIMILAR APPROVED, FLANGES DRILLED TO SANS 1123 TABLE 2500/3	RPU	1	DN 100
19		PN25	SPOOL PIECE DN 300 X 6 mm SANS 719; FLANGED BOTH ENDS SANS 1123 TABLE 2500/3 WITH A PRESSURE TESTING SOCKET; PIPE SUPPORT SINGLE DN 300 AS PER DETAIL DRAWING JW14358-16941-T-017-S10-00-TMS	RPU	1	DN 300
20		PN25	SPOOL PIECE DN 600 x 6mm SANS 719; ONE END FLANGED TO SANS 1123 TABLE 2500/3	RPU	2	DN 600



Reference drawings:

JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

JW14358-16941-T-004-S01-00-TMS - CAST IN AIR VENT, COVERS, ACCESS LADDERS

JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS

JW14358-16941-T-012-S01-00-TMS-LAYOUT AND LONGSECTION

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING, BEARS THE ORIGINAL SIGNATURE OF APPROVAL.

CONSULTING ENGINEERS



Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

CLIENT
JOHANNESBURG WATER
17 HARRISON STREET
MARSHALLTOWN
2107

DESIGNED

T. FOSA

DRAWN

T. FOSA

CHECKED

P. SEKOAILA

DATE:

SIGNATURE

ECSA REG. No

APPROVED BY:

P.GROBLER

DATE:

SIGNATURE

ECSA REG. No

950304

DWG NO.



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

DN 600 PRESSURE REDUCING VALVE CHAMBER 1

SHEET 2 OF 2

AMENDMENTS

SCALE	REV.	DESCRIPTION	APPROVED	DATE:
AS SHOWN	D	ISSUED FOR TENDER	PG	2022-10-27

DRAWING No.: JW14358-16941-T-013-S21-00-TMS

CONTRACT No.: JW14358

UR1305B

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PROJECT No.

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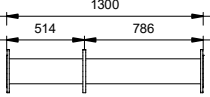
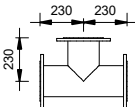
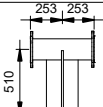
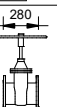
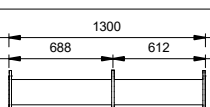
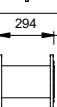
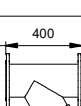
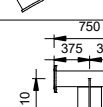
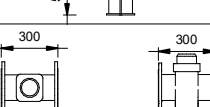
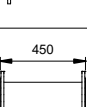
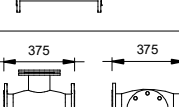
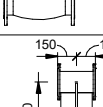
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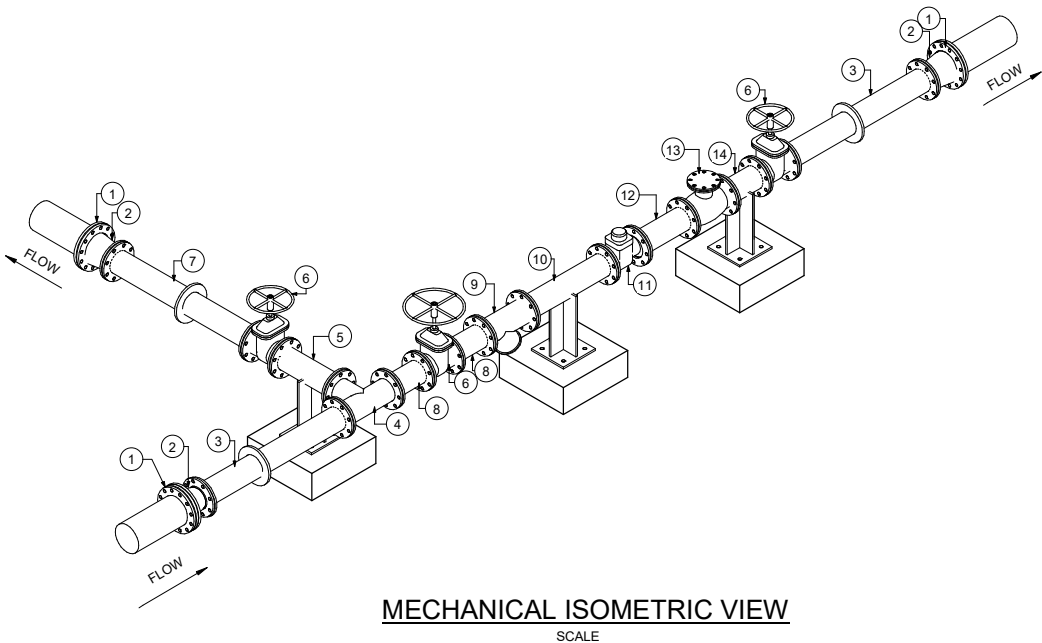
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PIPE SCHEDULE - DN 200 FLOW METER AND SCOUR VALVE CHAMBER						
ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
1		PN16	FLANGE ADAPTOR FOR HIGH IMPACT mPVC CLASS 16 COMPLETE WITH SHOLDERED END COUPLING FLANGE DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	3	DN 200
2		PN16	CONCENTRIC REDUCER DN 200 TO DN 150; WALL THICKNESS 6mm; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	3	DN 200 - DN 150
3		PN16	SPOOL PIECE DN 150 SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	2	DN 150
4		PN16	EQUAL TEE; DN 150 X DN 150 SANS 62 MEDIUM CLASS; FLANGED ALL END SANS 1123 TABLE 1600/3	RPU	1	DN 150 - DN 150
5		PN16	SPOOL PIECE DN 150 SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE PIPE SUPPORT SINGLE DN 150 AS PER DETAIL DRAWING JW14358-16941-T-017-S10-00-TMS	RPU	1	DN 150
6		PN16	DN 150 RESILIENT SEAL GATE VALVE; NON-RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED VOSA OR SIMILAR APPROVED. BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	3	DN 150
7		PN16	SPOOL PIECE DN 150 SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN 150
8		PN16	SPOOL PIECE DN 150 SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	2	DN 150
9		PN16	DN 150 Y-STRAINER; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 150
10		PN16	SPOOL PIECE DN 150 SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS SANS 1123 TABLE 1600/3 WITH PIPE SUPPORT SINGLE DN 150 AS PER DETAIL DRAWING JW14358-16941-T-017-S10-00-TMS	RPU	1	DN 150
11		PN16	ELECTROMAGNETIC FLOW METER DN 150; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3; A MINIMUM OF 15 m OF CABLE IS REQUIRED; CONTRACTOR TO CONFIRM REQUIRED LENGTH ON SITE BEFORE ORDERING	EPOXY	1	DN 150
12		PN16	SPOOL PIECE DN 150 x 6mm MEDIUM CLASS TO SANS 62; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 150
13		PN16	DN 150 SINGLE DOOR SWING CHECK VALVE TO SANS 1551 VOSA OR SIMILAR APPROVED; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 150
14		PN16	SPOOL PIECE DN 150 SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS SANS 1123 TABLE 1600/3 PIPE SUPPORT SINGLE DN 150 AS PER DETAIL DRAWING JW14358-16941-T-017-S10-00-TMS	RPU	1	DN 150



MECHANICAL ISOMETRIC VIEW
SCALE

- GENERAL
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 - ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
 - CONCRETE GRADE SHALL BE 30 Mpa/19 mm
 - CONCRETE GRADE SHALL BE 15 Mpa/19 mm TO ALL BLINDING
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT
 - ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
 - REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS:

- JW 14358-16941-T-012-S12-00-TMS-LAYOUT AND LONGSECTION
- JW 14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
- JW 14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTING ENGINEERS

Nyeleti
Engineered to Excel

Woodhill Office park
53 Phillip Engelbretcht Drive
Alberton
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T.FOSA	
DRAWN	Y.GOVENDER	
CHECKED	P.SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304
	-	DWG NO.



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

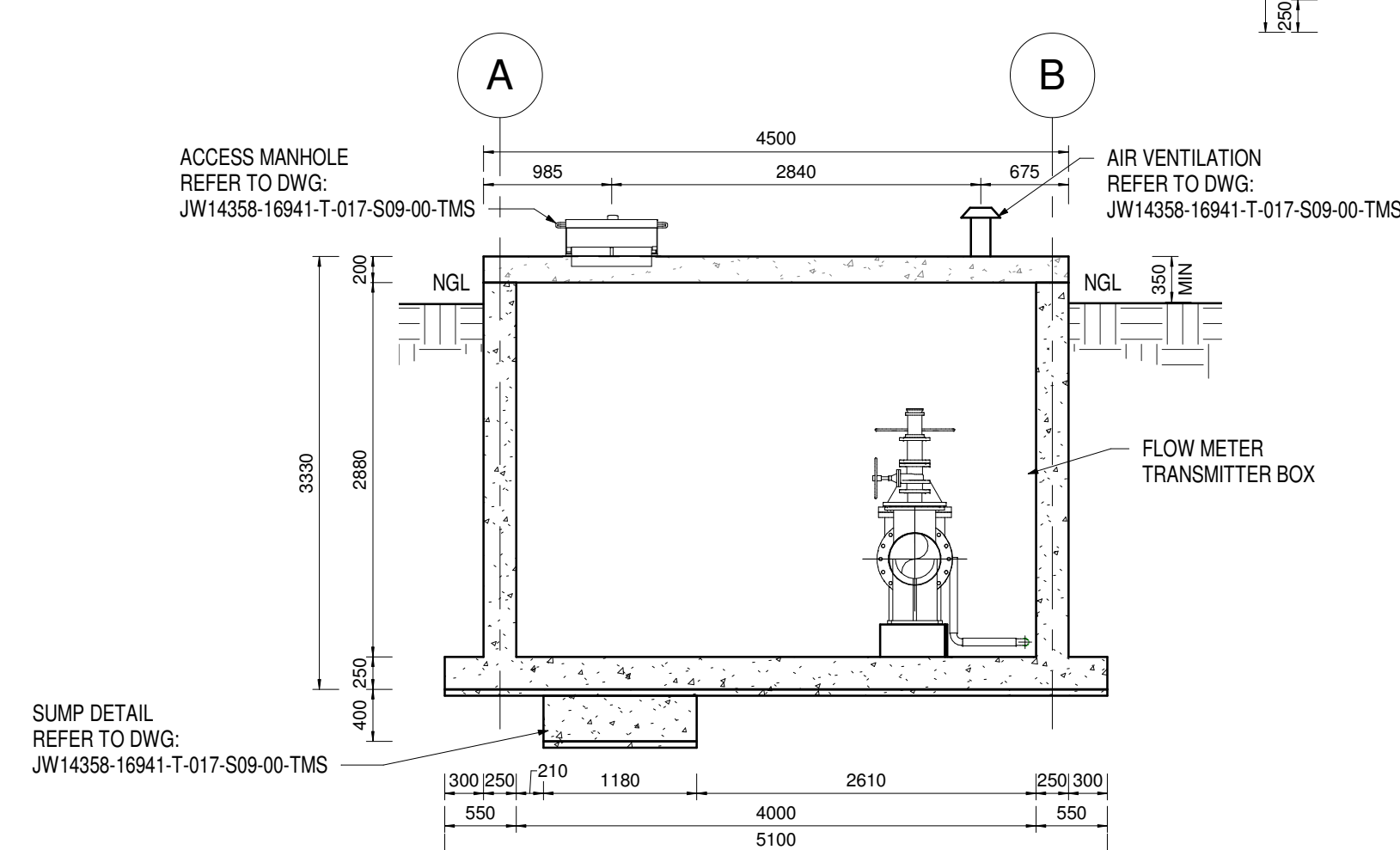
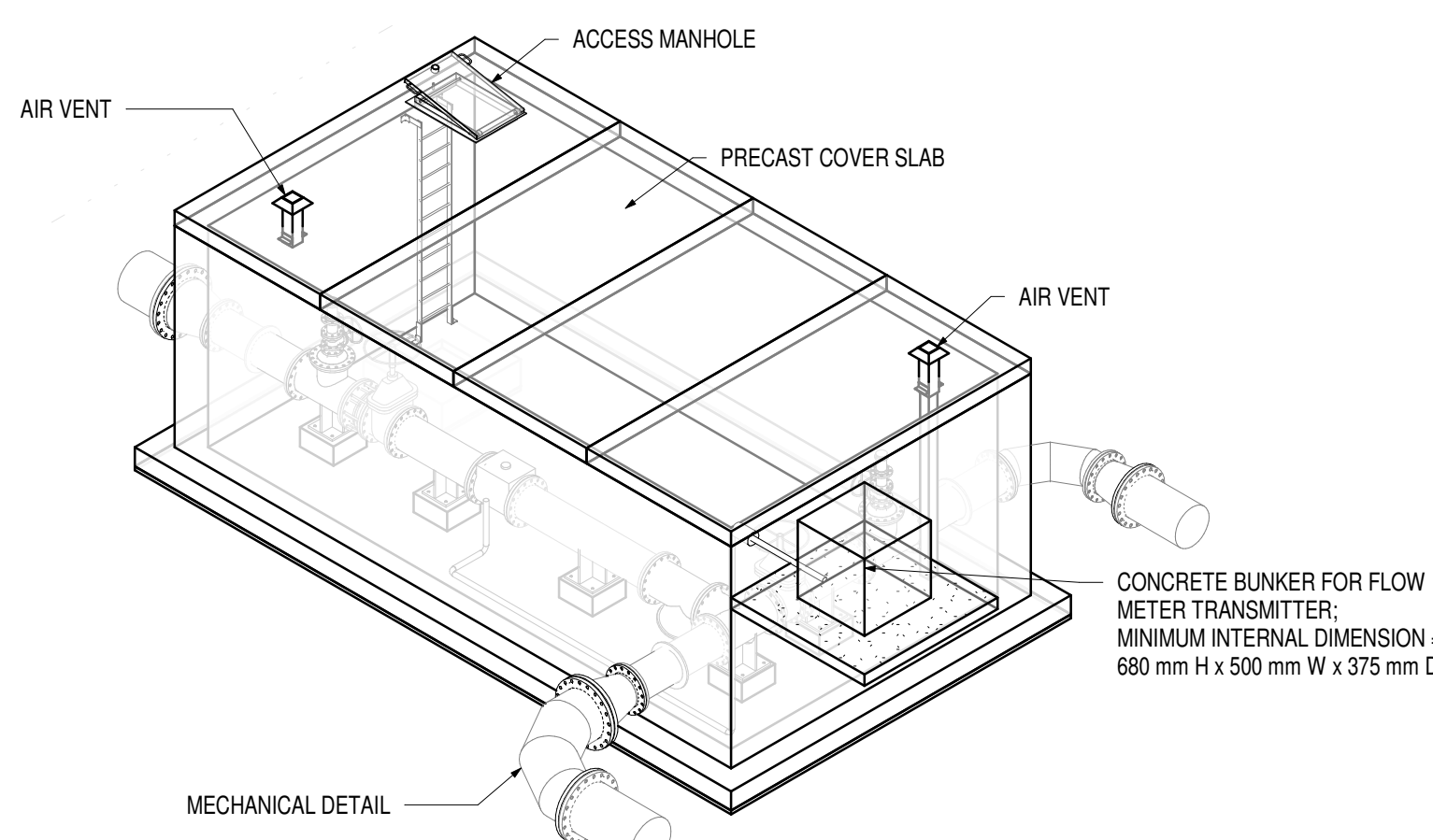
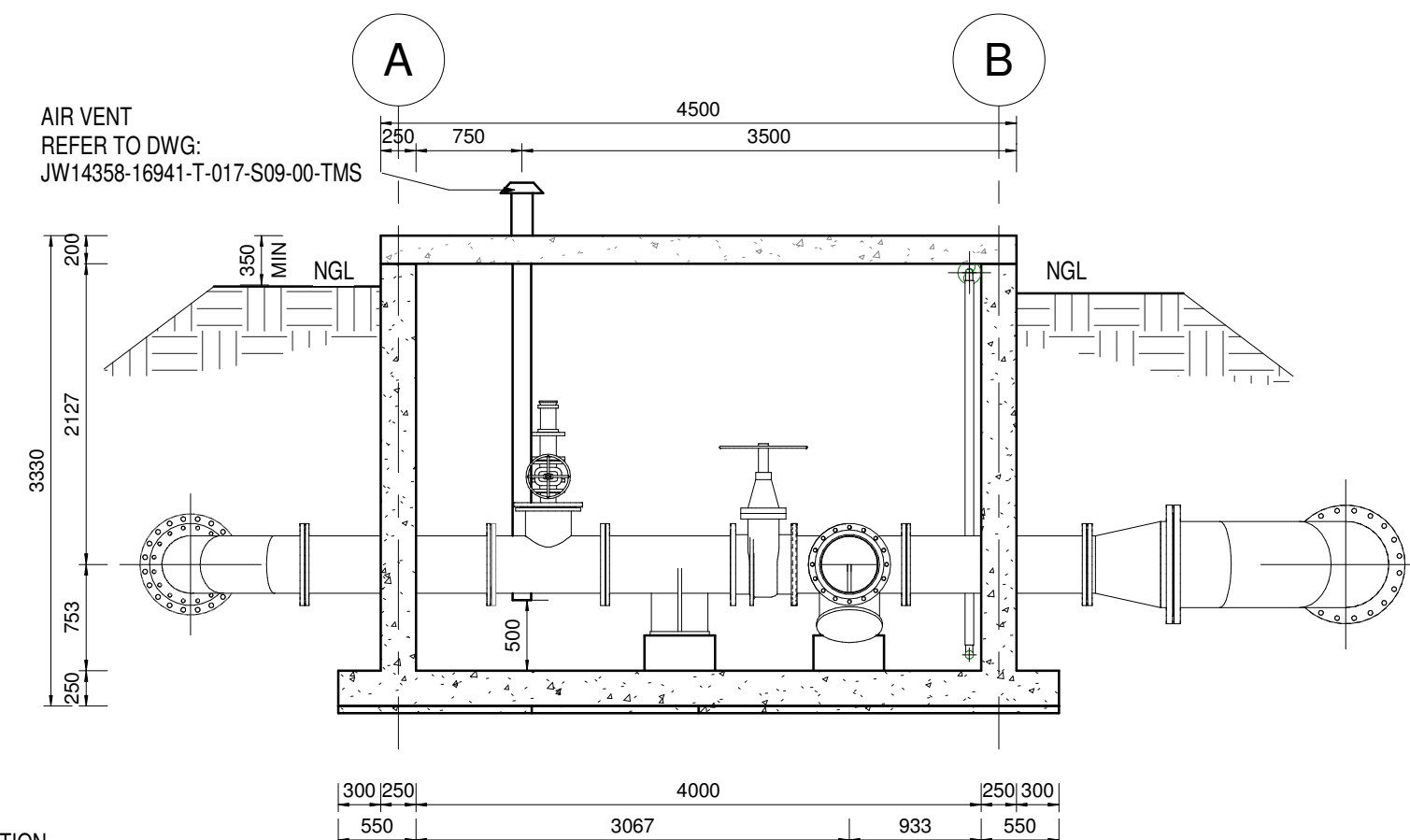
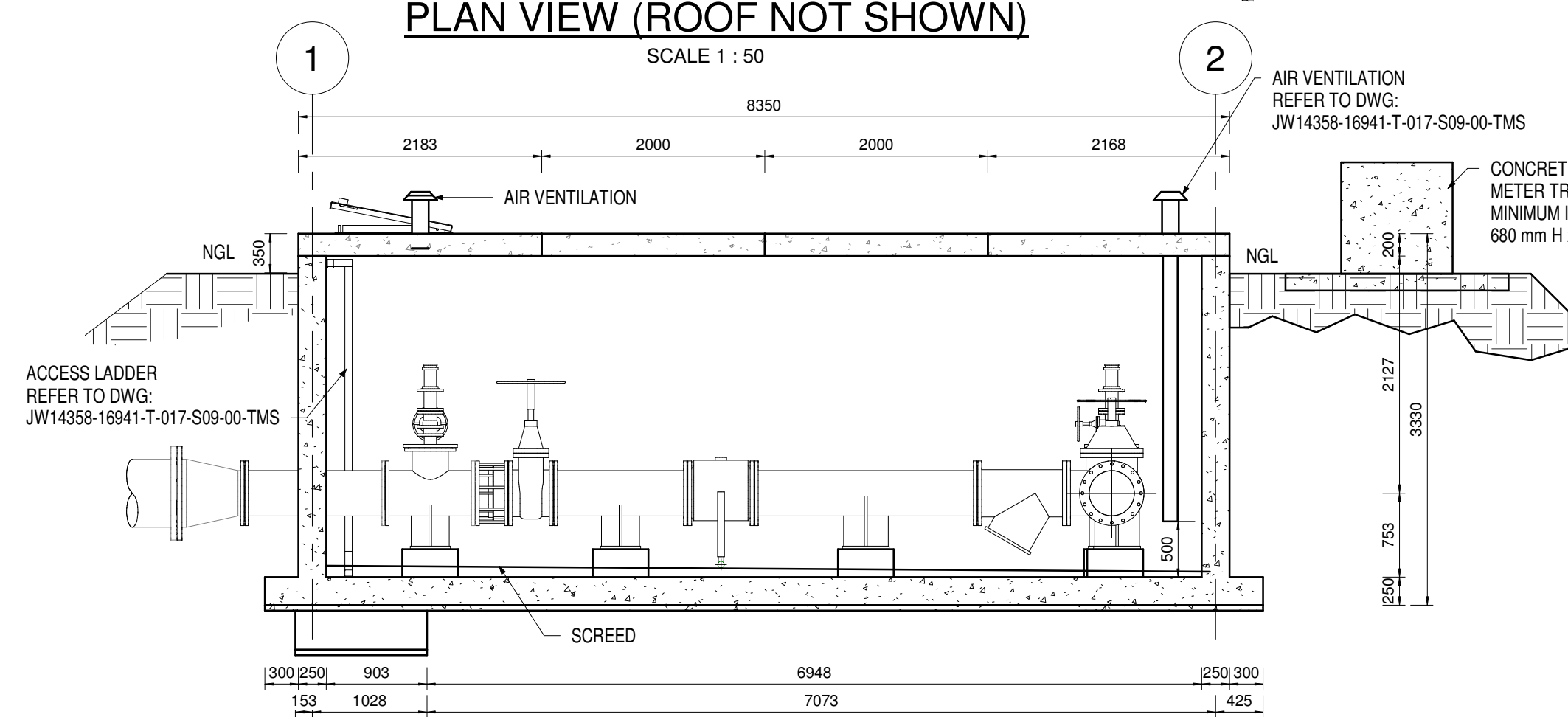
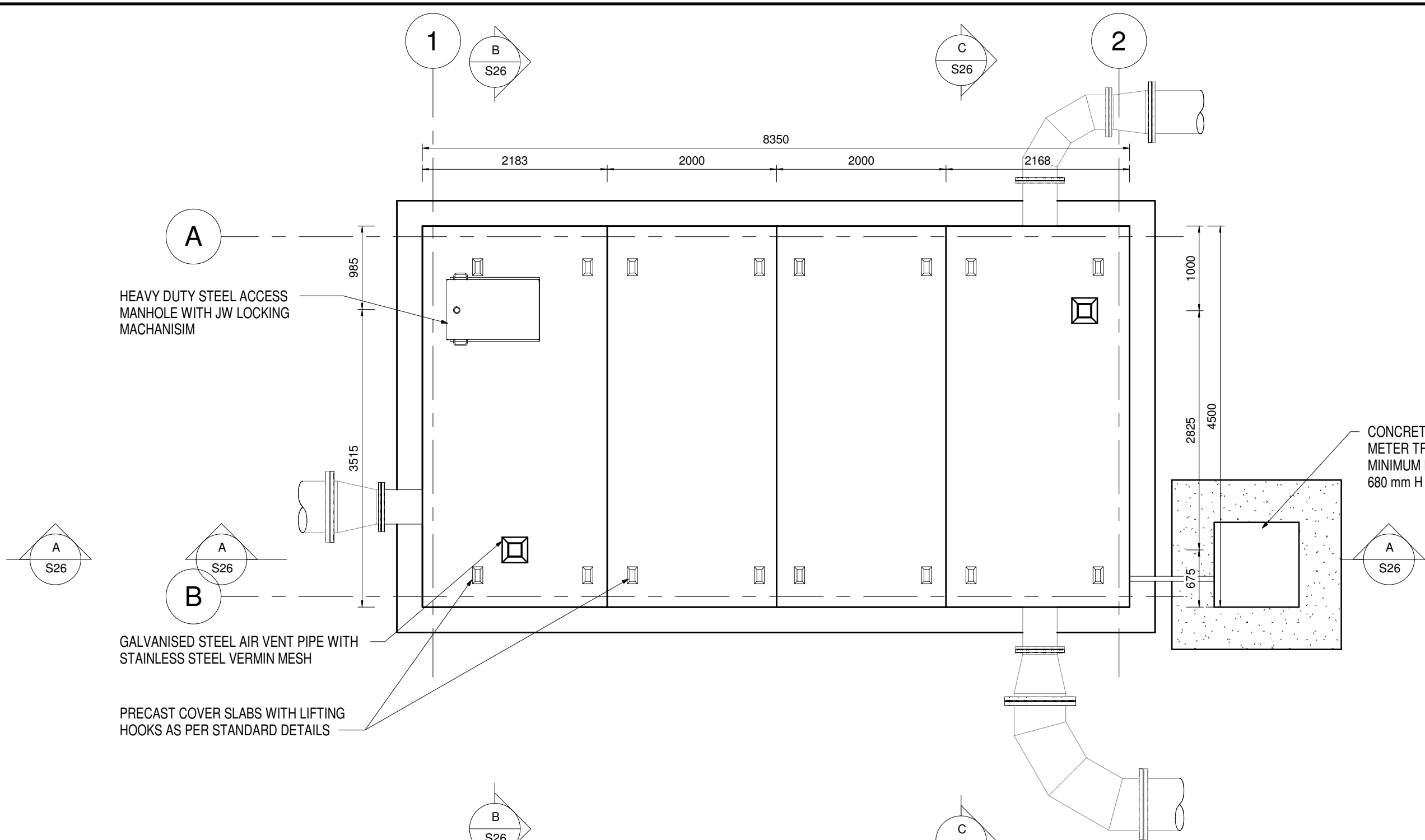
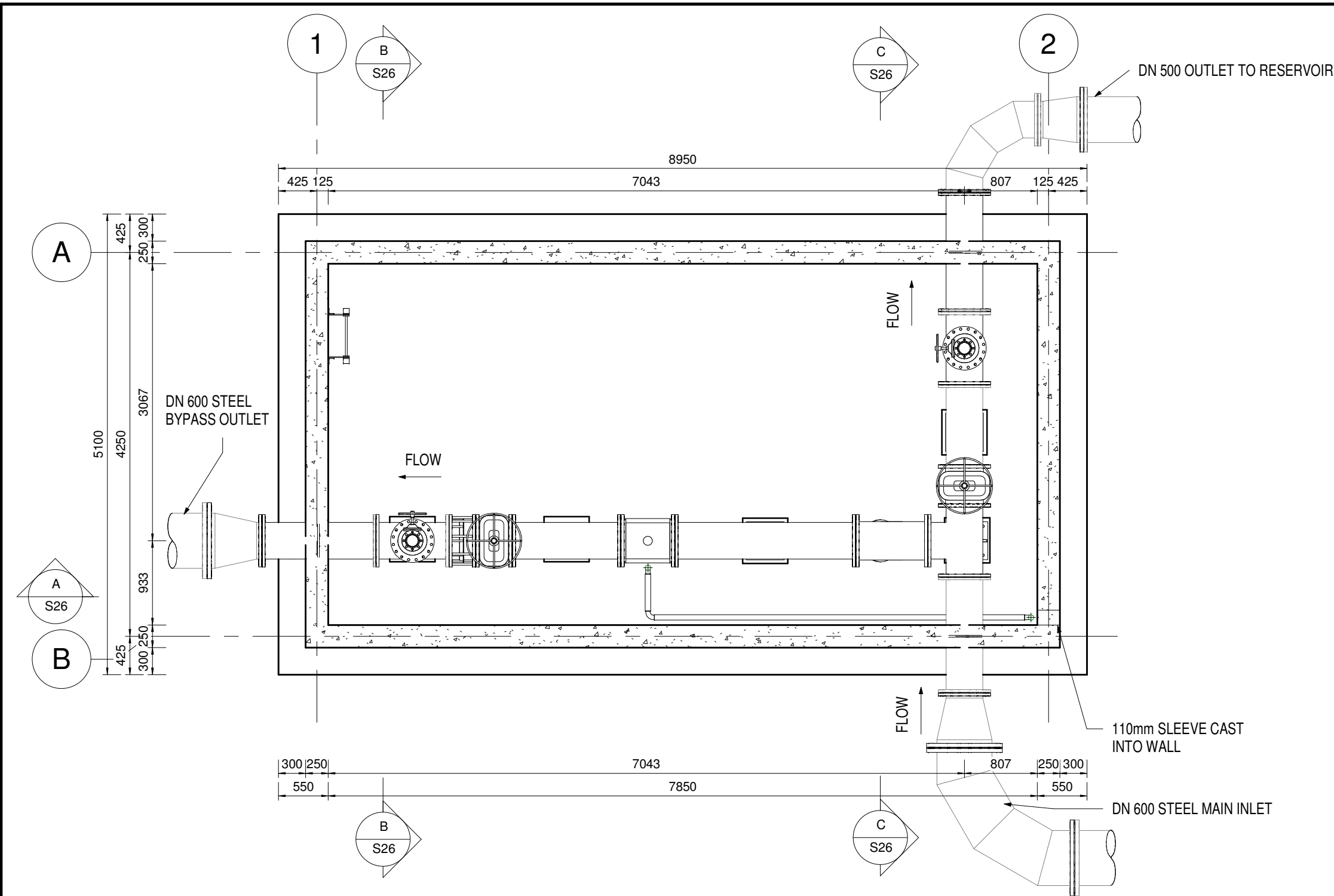
TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 200 FLOW METER AND SCOUR VALVE CHAMBER
SHEET 2 OF 2

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS-SHOWN	C	ISSUED FOR TENDER	PG	2022-10-28

CONTRACT No.: JW14358	
UR1305B	C
PROJECT No.	REV.
A1	2
SHEET	OF
2	2
ORIGINAL PAGE SIZE	
FILE No.	



- GENERAL NOTES:**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 - ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
 - CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
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 - REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS:

JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

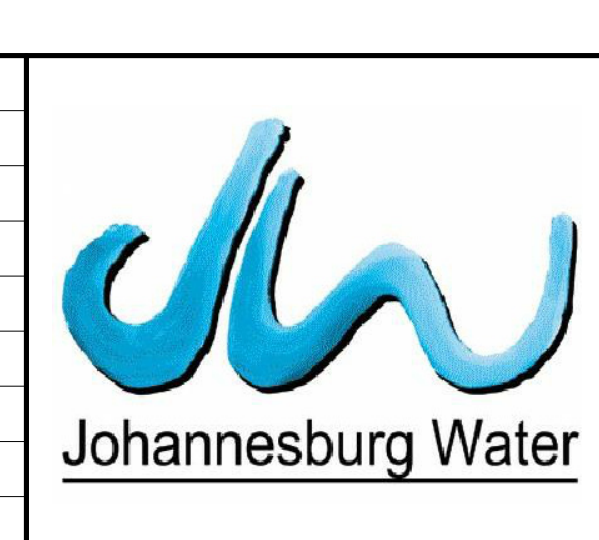
JW14358-16941-T-017-S09-00-TMS - CAST IN AIR VENT, COVERS, ACCESS LADDERS

JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAIL

JW14358-16941-T-012-S10-00-TMS-LAYOUT AND LONGSECTION

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING, BEARS THE ORIGINAL SIGNATURE OF APPROVAL. CONSULTING ENGINEERS Nyeleti Engineered to Excel Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg	DESIGNED	T. FOSA	
	DRAWN	T. FOSA	
	CHECKED	P. SEKOAILA	DATE:
		SIGNATURE	
		ECSA REG. No	
APPROVED BY:		P. GROBLER	DATE:
		SIGNATURE	
		ECSA REG. No	950304
			DWG NO.



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

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FAX: (011) 688-1529

Joburg

WOODMEAD WATER UPGRADE

DN 600 TIE-IN CHAMBER 2

SHEET 1 OF 2

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
AS SHOWN	B	ISSUED FOR TENDER	PG	2022-10-28

DRAWING No.: JW14358-16941-T-013-S26-00-TMS

CONTRACT No.: JW14358

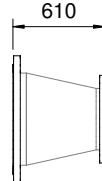
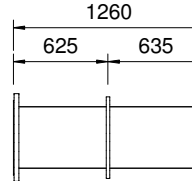
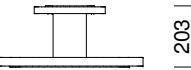
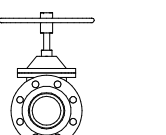
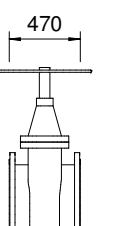
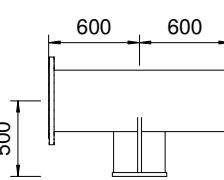
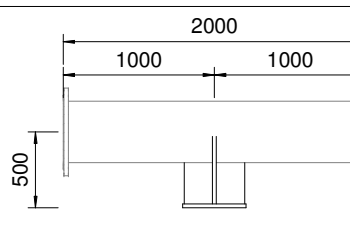
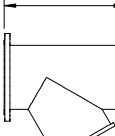
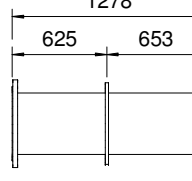
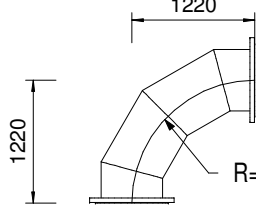
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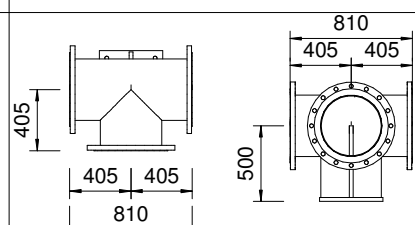
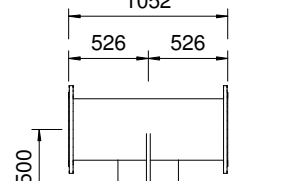
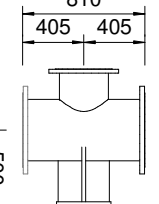
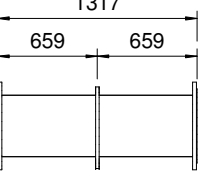
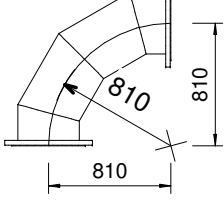
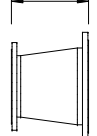
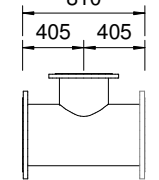
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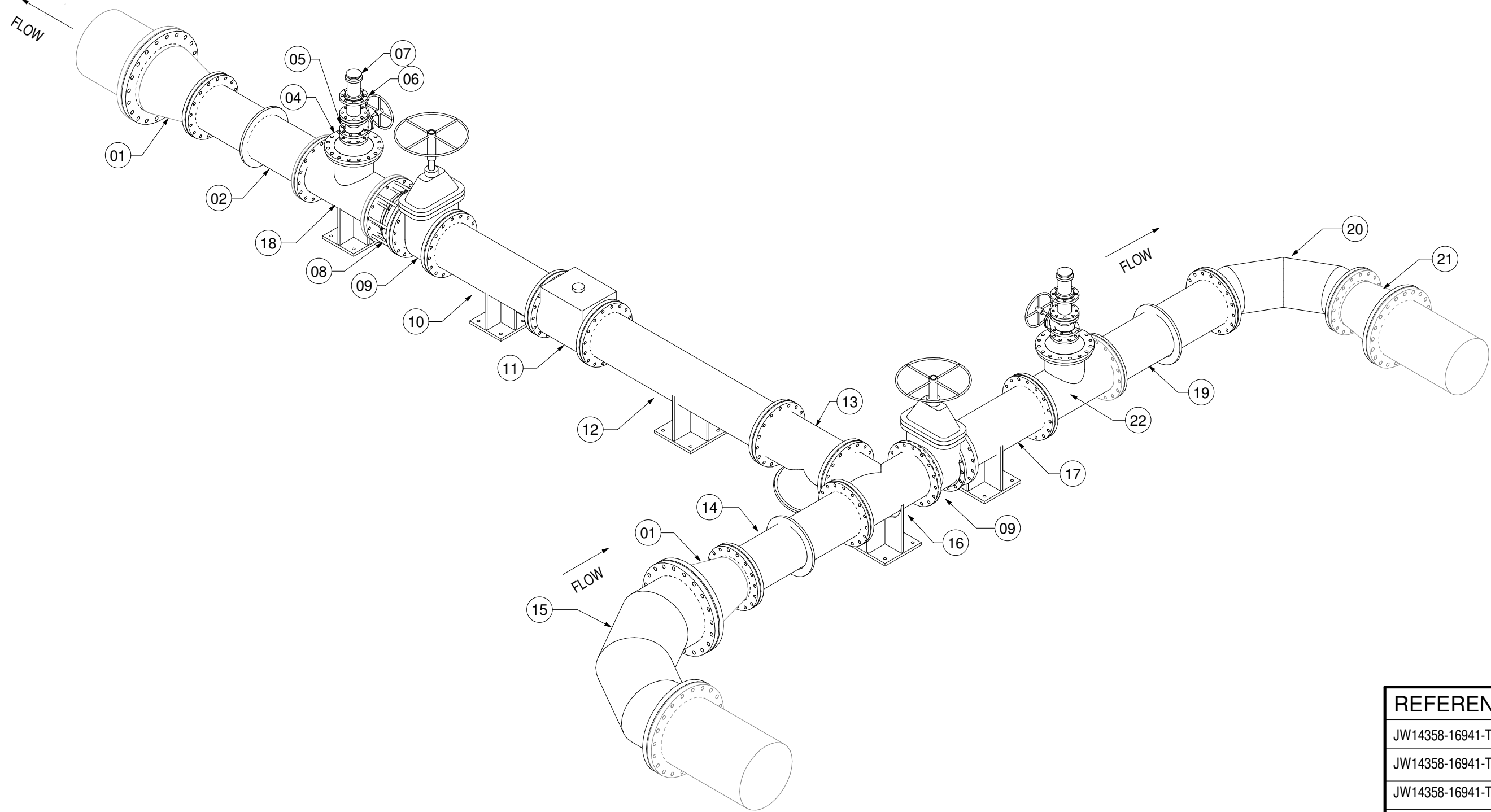
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PIPE SCHEDULE - DN 600 TIE-IN CHAMBER 2

ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
01		PN16	CONCENTRIC REDUCER; DN 600 - 400 X 6 mm SANS 719; FLANGED ONE END SANS 1123 TABLE 1600/3	RPU	2	DN 600 - DN 400
02		PN16	SPOOL PIECE DN 400 X 6 mm SANS 719; FLANGED BOTH ENDS SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN 400
04		PN16	DN 100 STRAIGHT PIPE, SANS 62 MEDIUM CLASS, WELDED ONTO DN 300 BLANK FLANGE SANS 1123 TABLE 1600/3, OTHER END FLANGED SANS 1123 TABLE 1600/3	RPU	2	DN 100
05		PN16	DN 100 RESILIENT SEAL GATE VALVE, NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664, MANUALLY OPERATED, BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	2	DN 100
06		PN16	SPOOL PIECE DN 100 SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS SANS 1123 TABLE 1600/3	RPU	2	DN 100
07		PN16	DN 100 DOUBLE ORIFICE WITH ANTI-SHOCK ORIFICE MECHANISM AIR RELEASE VALVE, VENTO-MAT RBX OR SIMILAR APPROVED, FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	2	DN 100
08		PN16	DISMANTLING JOINT DN 400 SANS 1123 TABLE 1600/3	EPOXY	1	DN 400
09		PN16	DN 400 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED; VOSA OR EQUIVALENT APPROVED; BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	2	DN 400
10		PN16	SPOOL PIECE DN 400 X 6 mm SANS 719; FLANGED BOTH ENDS SANS 1123 TABLE 1600/3 WITH 15 INCH PRESSURE TESTING SOCKET	RPU	1	DN 400
11		PN16	ELECTROMAGNETIC FLOW METER DN 400; FLANGED BOTH END SANS 1123 TABLE 1600/3; A MINIMUM OF 15 m OF CABLE IS REQUIRED; CONTRACTOR TO CONFIRM REQUIRED LENGTH ON SITE BEFORE ORDERING	EPOXY	1	DN 400
12		PN16	SPOOL PIECE DN 400 X 6 mm SANS 719; FLANGED BOTH ENDS SANS 1123 TABLE 1600/3 WITH PIPE SUPPORT SINGLE DN 400 AS PER DETAIL DRAWING JW14358-16941-T-017-S10-00-TMS	RPU	1	DN 400
13		PN16	DN 400 Y-TYPE STRAINER OR SIMILAR APPROVED, BOTH ENDS FLANGE SANS 1123 TABLE 1600/3	EPOXY	1	DN 400
14		PN16	SPOOL PIECE DN 400 X 6 mm SANS 719; FLANGED ONE END SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN 400
15		PN16	DN 600 90 ° 4 SEGMENTED BEND MEDIUM RADIUS R= 1220; SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 600

PIPE SCHEDULE - DN 600 TIE-IN CHAMBER 2

ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
16		PN16	EQUAL TEE; DN 400 - DN 400 x 6 mm SANS 719 ; FLANGE SANS 1123 TABLE 1600/3; WITH PIPE SUPPORT SINGLE DN 400 AS PER DETAIL DRAWING JW14358-16941-T-017-S10-00-TMS	RPU	1	DN 400
17		PN16	SPOOL PIECE DN 400 X 6 mm SANS FLANGED BOTH ENDS SANS 1123 TABLE 1600/3 ,WITH PIPE SUPPORT SINGLE DN 400 AS PER DETAIL DRAWING JW14358-16941-T-017-S10-00-TMS	RPU	1	DN 400
18		PN16	UNEQUAL TEE DN 400X DN 300 X 6 mm SANS 719 ; FLANGED SANS 1123 TABLE 1600/3; WITH PIPE SUPPORT SINGLE DN 400 AS PER DETAIL DRAWING JW14358-16941-T-017-S10-00-TMS	RPU	1	DN 400
19		PN16	SPOOL PIECE DN 400 X 6 mm SANS 719; FLANGED ONE END SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN 400
20		PN16	DN 400, 90 ° 4 SEGMENTED BEND MEDIUM RADIUS R=810 SANS 719 , FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 400
21		PN16	CONCENTRIC REDUCER; DN 400 - 500 X 6 mm SANS 719; FLANGED ONE END SANS 1123 TABLE 1600/3	RPU	1	DN 400 - DN 500
22		PN16	UNEQUAL TEE DN 400X DN 300 X 6 mm SANS 719 ; FLANGED SANS 1123 TABLE 1600/3	RPU	1	DN 400



ISOMETRIC VIEW MECHANICAL
NTS

REFERENCE DRAWINGS:

JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
JW14358-16941-T-017-S09-00-TMS - CAST IN AIR VENT, COVERS, ACCESS LADDERS
JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAIL
JW14358-16941-T-012-S10-00-TMS-LAYOUT AND LONGSECTION

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL
CONSULTING ENGINEERS

Nyeleti
Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntlemi Piliso Street
Newtown, Johannesburg

DESIGNED	T. FOSA	
DRAWN	T. FOSA	
CHECKED	P. SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304
		DWG NO.



Turbine Hall
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Newtown, Johannesburg

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FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 TIE-IN CHAMBER 2
SHEET 2 OF 2

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	B	ISSUED FOR TENDER	PG	2022-10-28

DRAWING No.: JW14358-16941-T-013-S27-00-TMS

CONTRACT No.: JW14358

UR1305B

B

PROJECT No.

REV.

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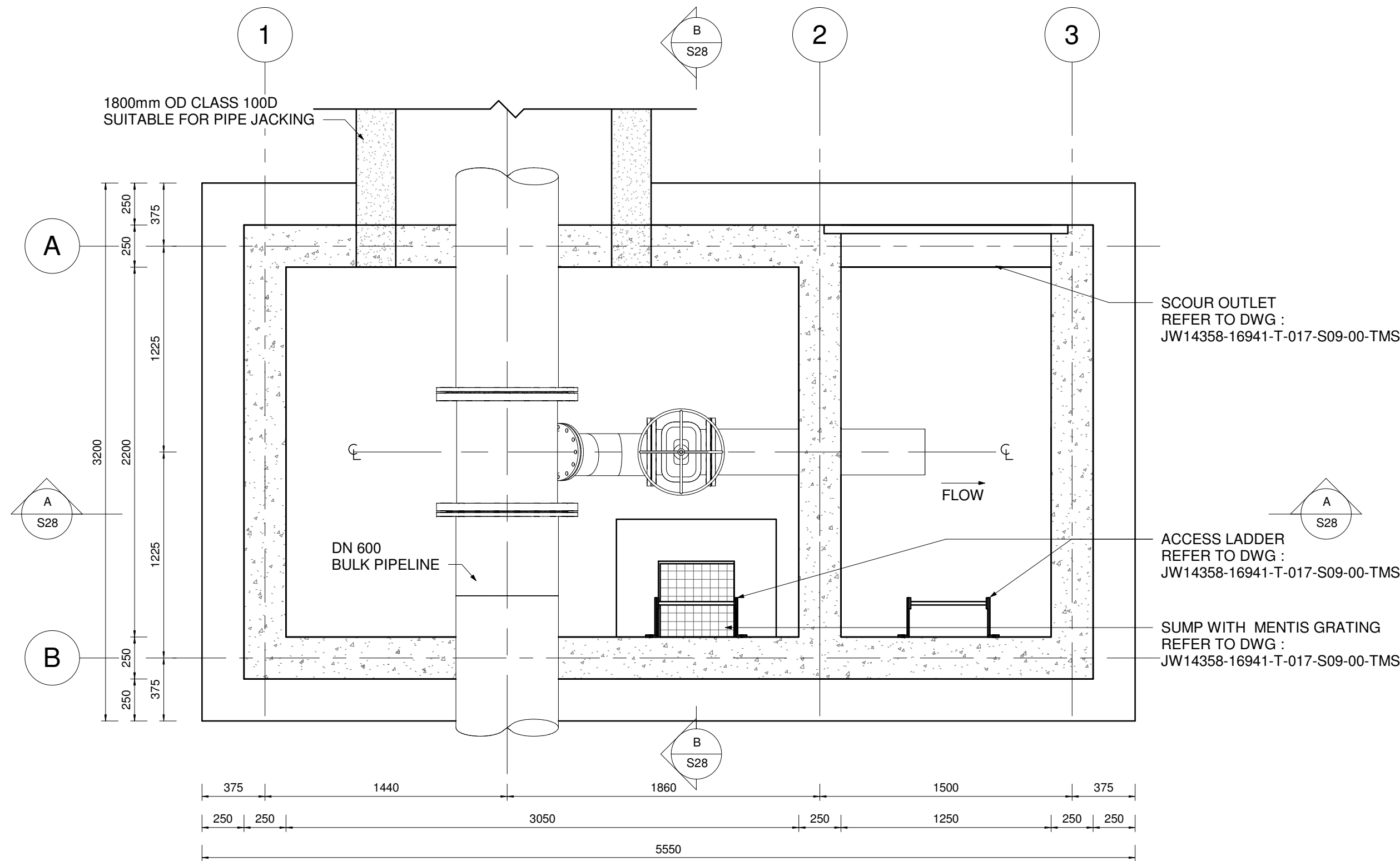
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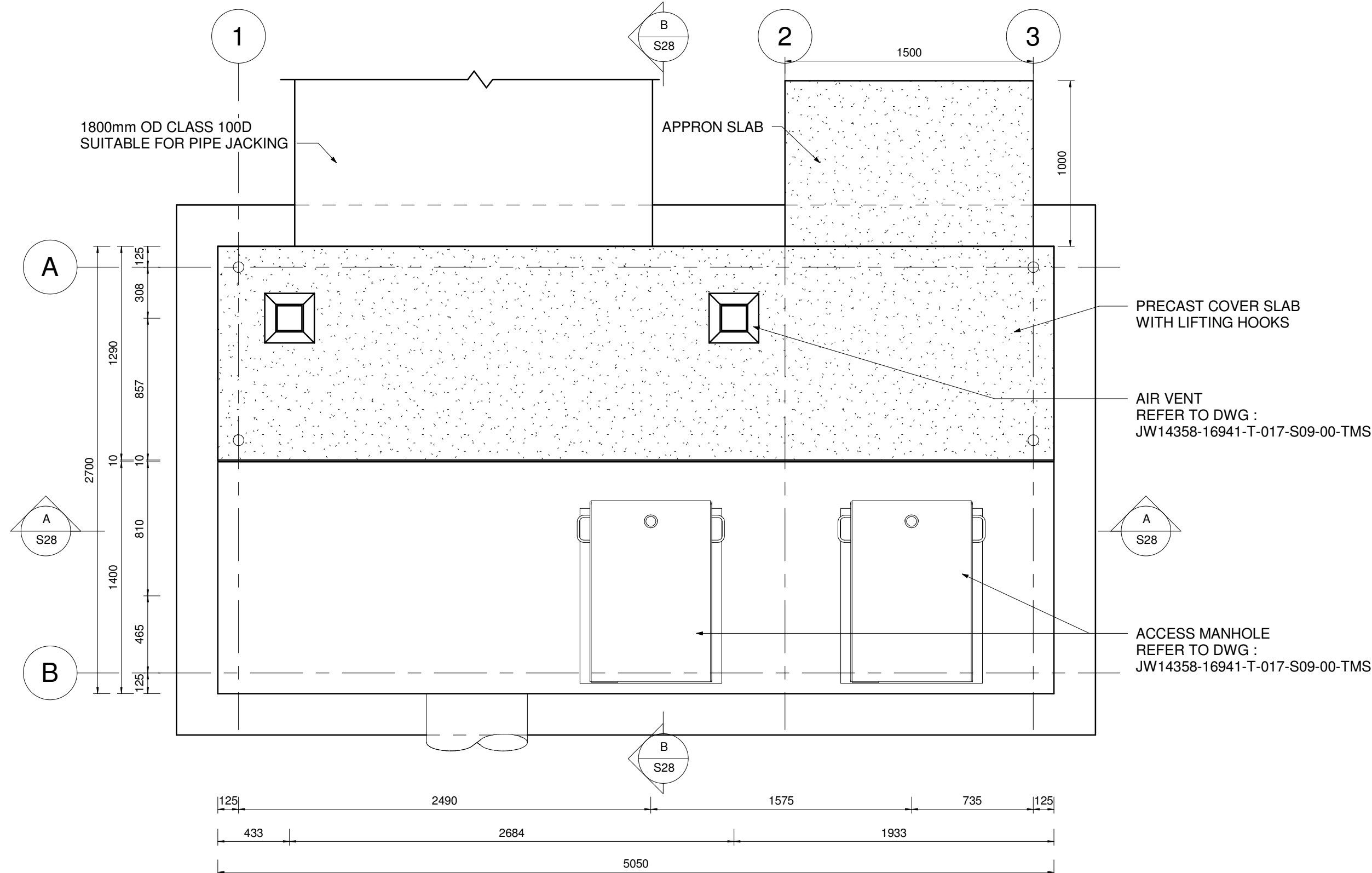
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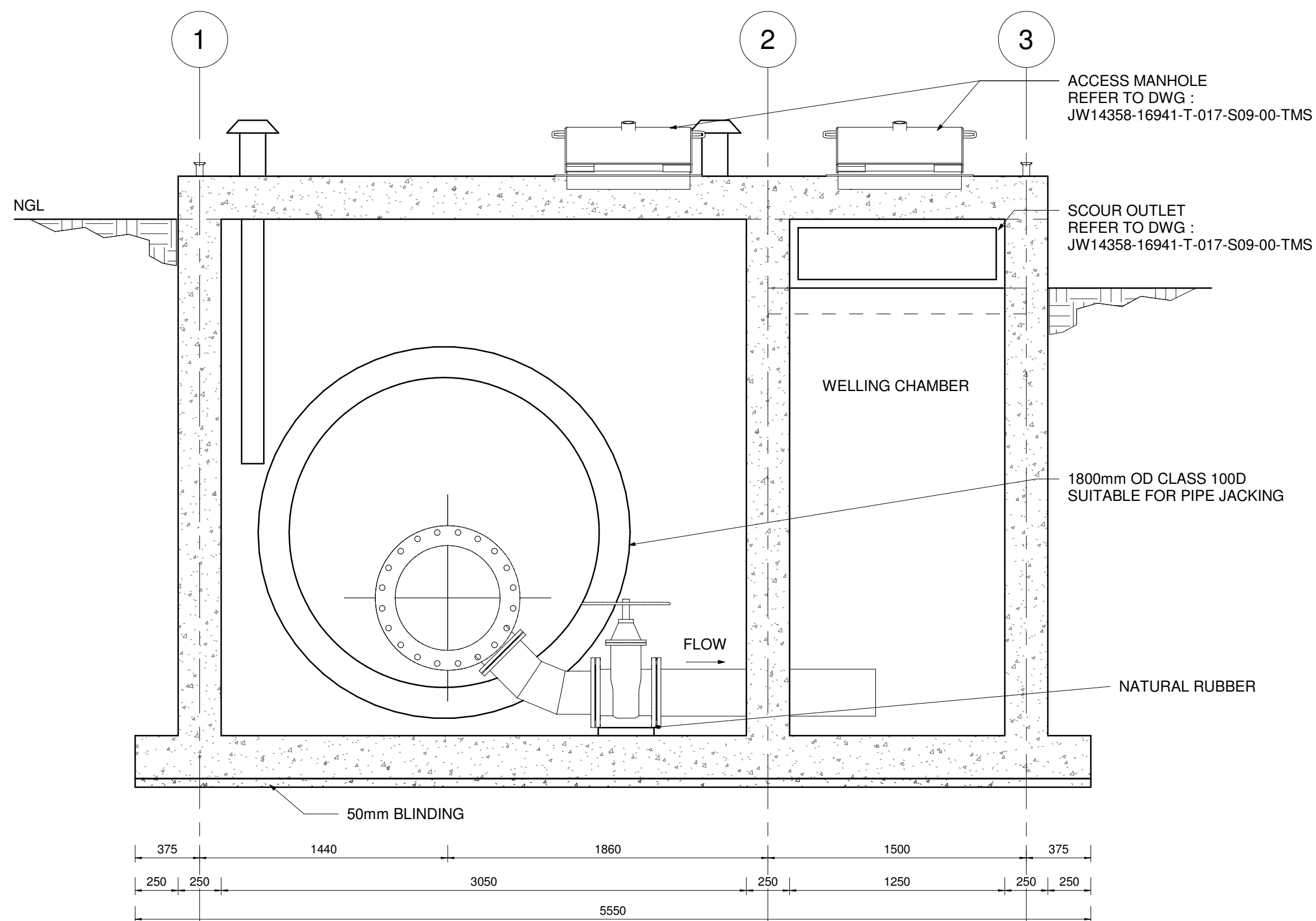
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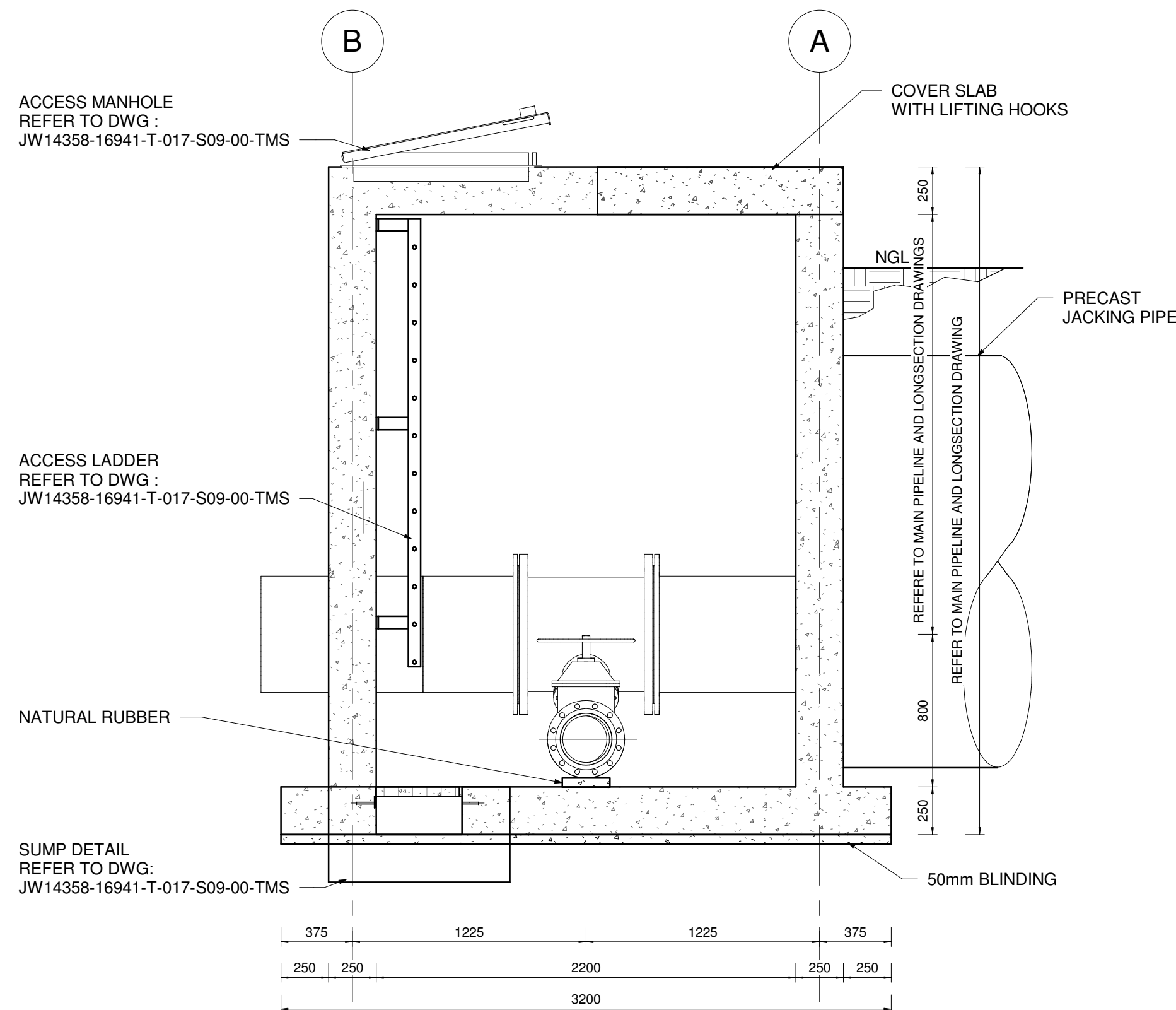
PLAN VIEW (ROOF NOT SHOWN)
SCALE 1 : 25



PLAN VIEW (ROOF SHOWN)
SCALE 1 : 25



SECTION A-A
SCALE 1 : 25



SECTION B-B
SCALE 1 : 25

GENERAL NOTES

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2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN.
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9. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES.

REFERENCE DRAWINGS

JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL.

Nyeleti
Engineered to Excel

Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

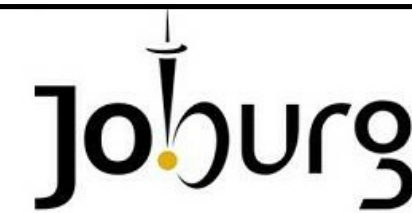
CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T. Fosa	
DRAWN	C. MOODLEY	
CHECKED	T. FOSA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P. GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304



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WOODMEAD WATER UPGRADE
DN 600 SCOUR VALVE CHAMBER TYPE 3
SHEET 1 OF 2

AMENDMENTS

SCALE	REV.	DESCRIPTION	APPROVED	DATE:
AS-SHOWN	A	ISSUED FOR TENDER	PG	2023-03-15
AS-SHOWN				

DRAWING No.: JW14358-16941-T-013-S28-00-TMS

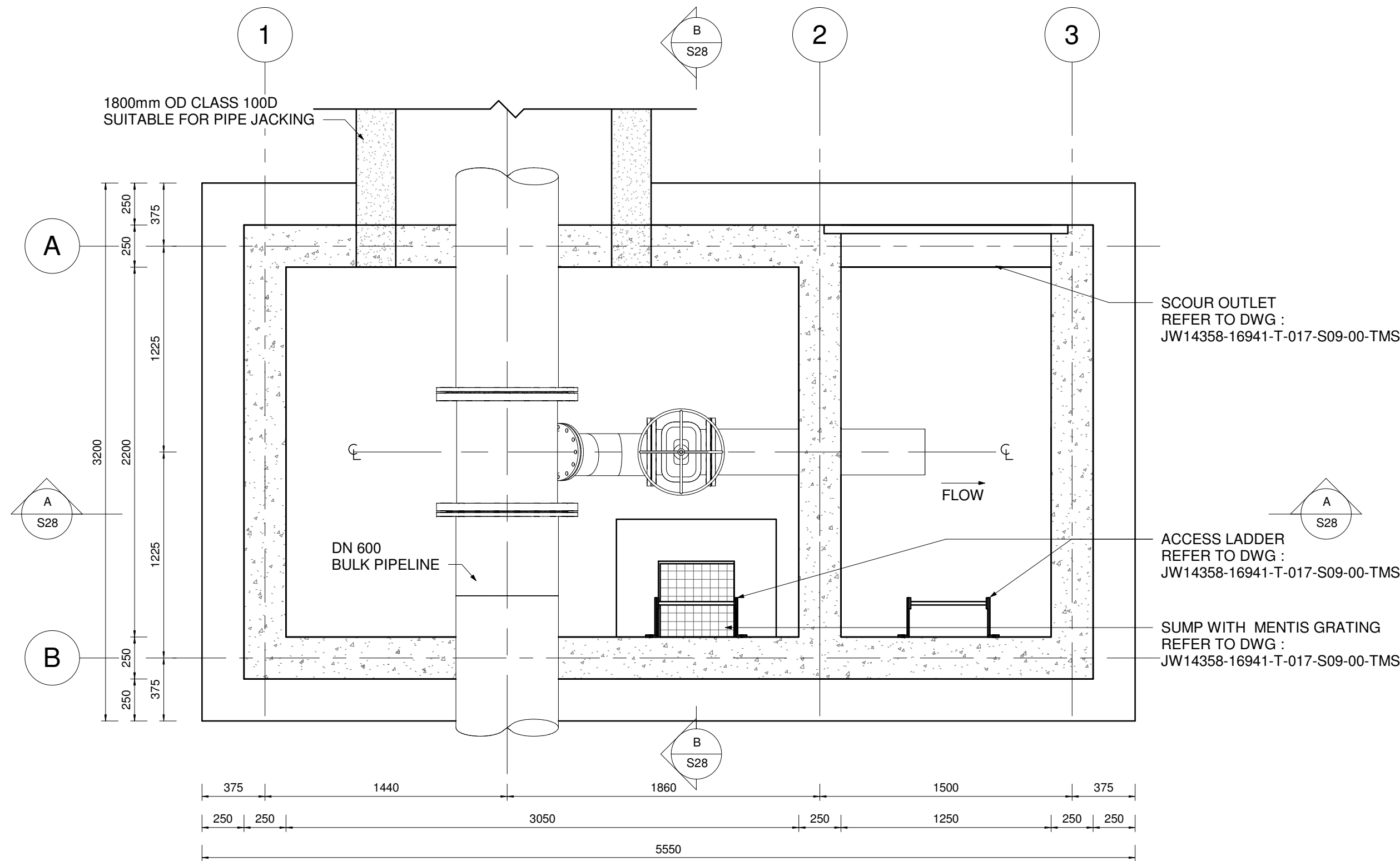
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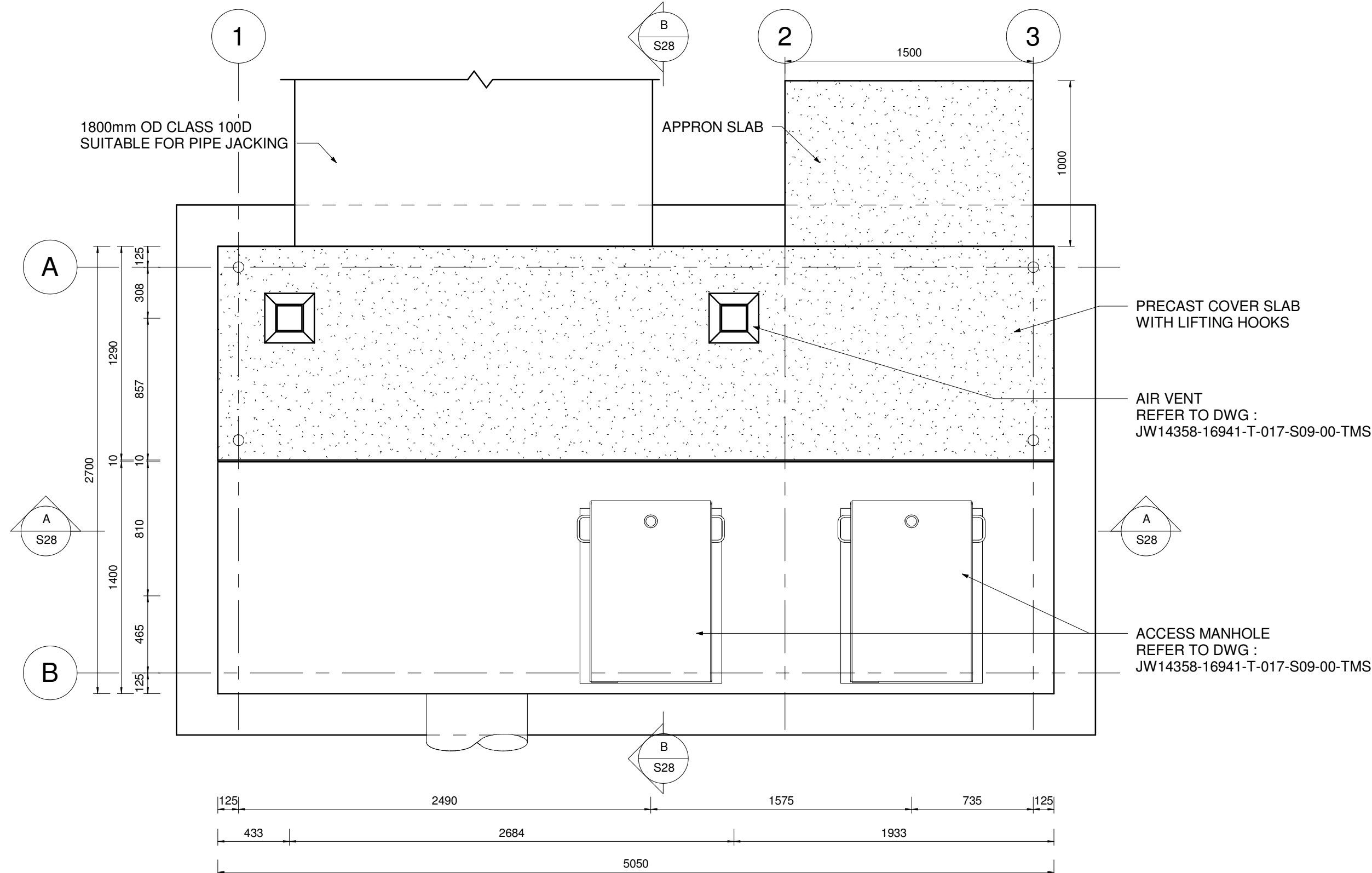
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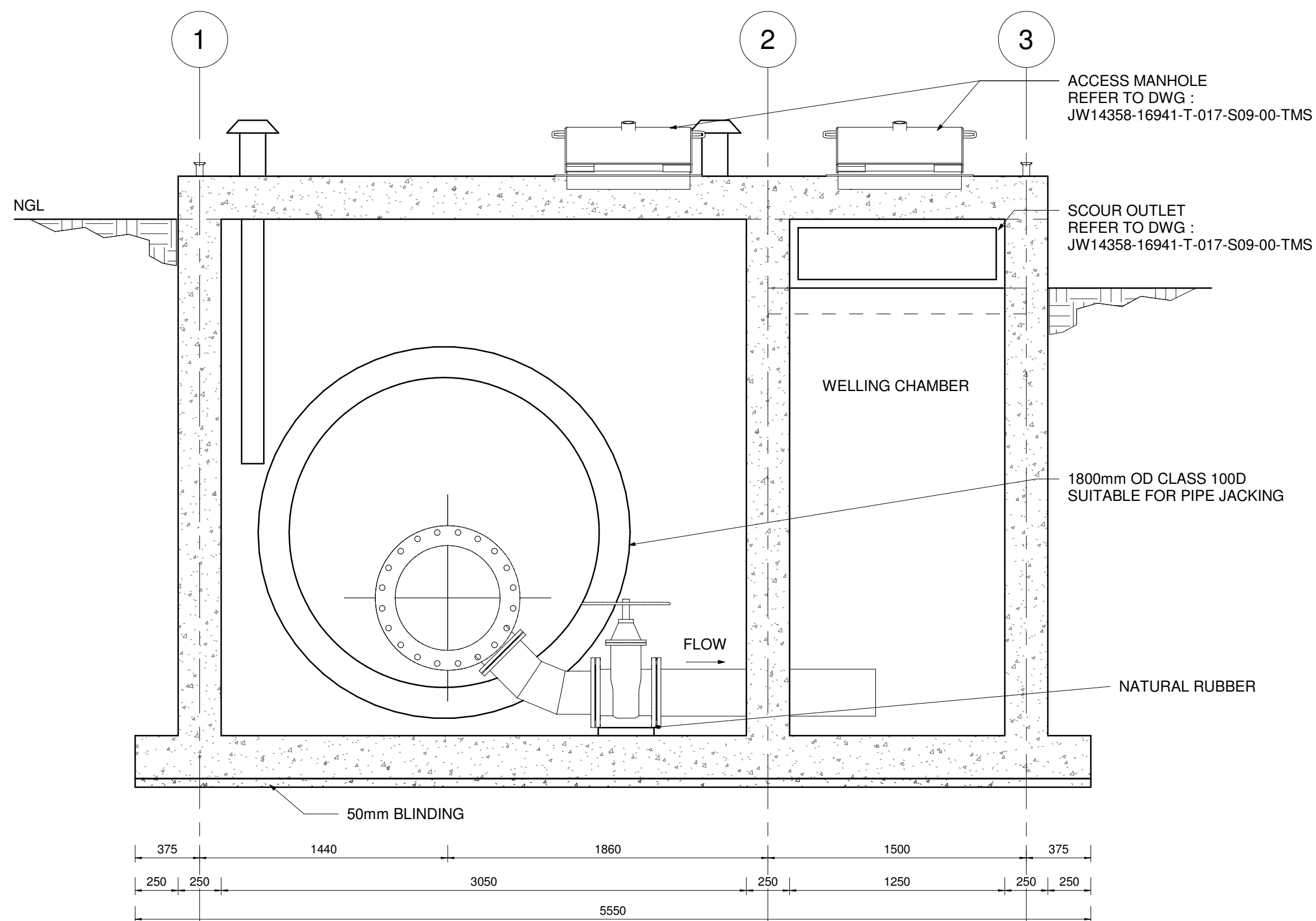
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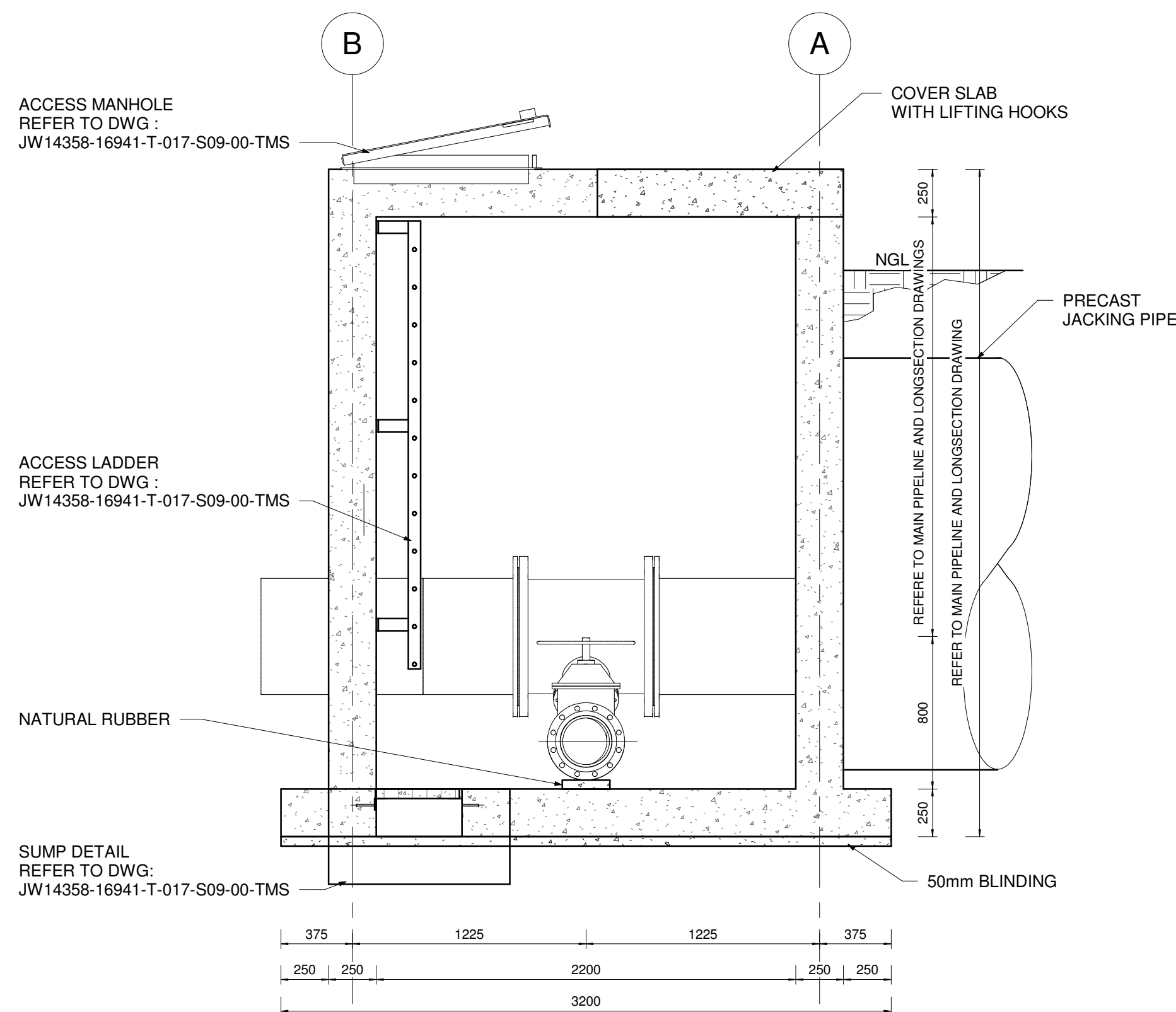
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SCALE 1 : 25



PLAN VIEW (ROOF SHOWN)
SCALE 1 : 25



SECTION A-A
SCALE 1 : 25



SECTION B-B
SCALE 1 : 25

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JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAILS

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Alberton
1450

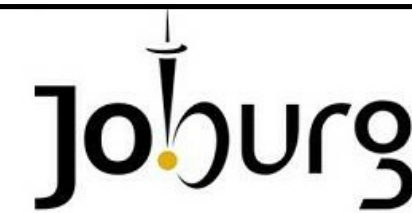
CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T. Fosa	
DRAWN	C. MOODLEY	
CHECKED	T. FOSA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P. GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

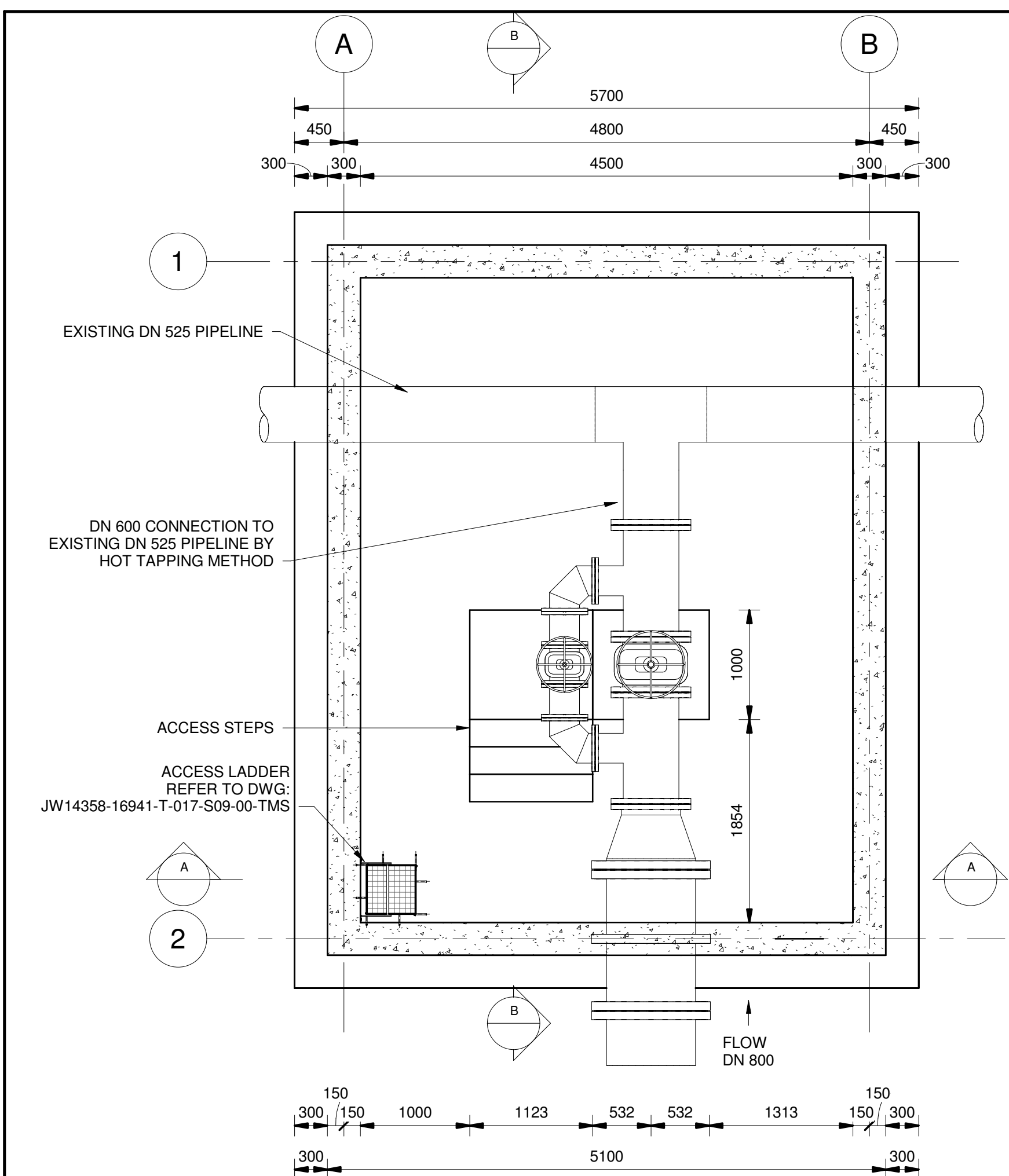
DN 600 SCOUR VALVE CHAMBER TYPE 3

SHEET 1 OF 2

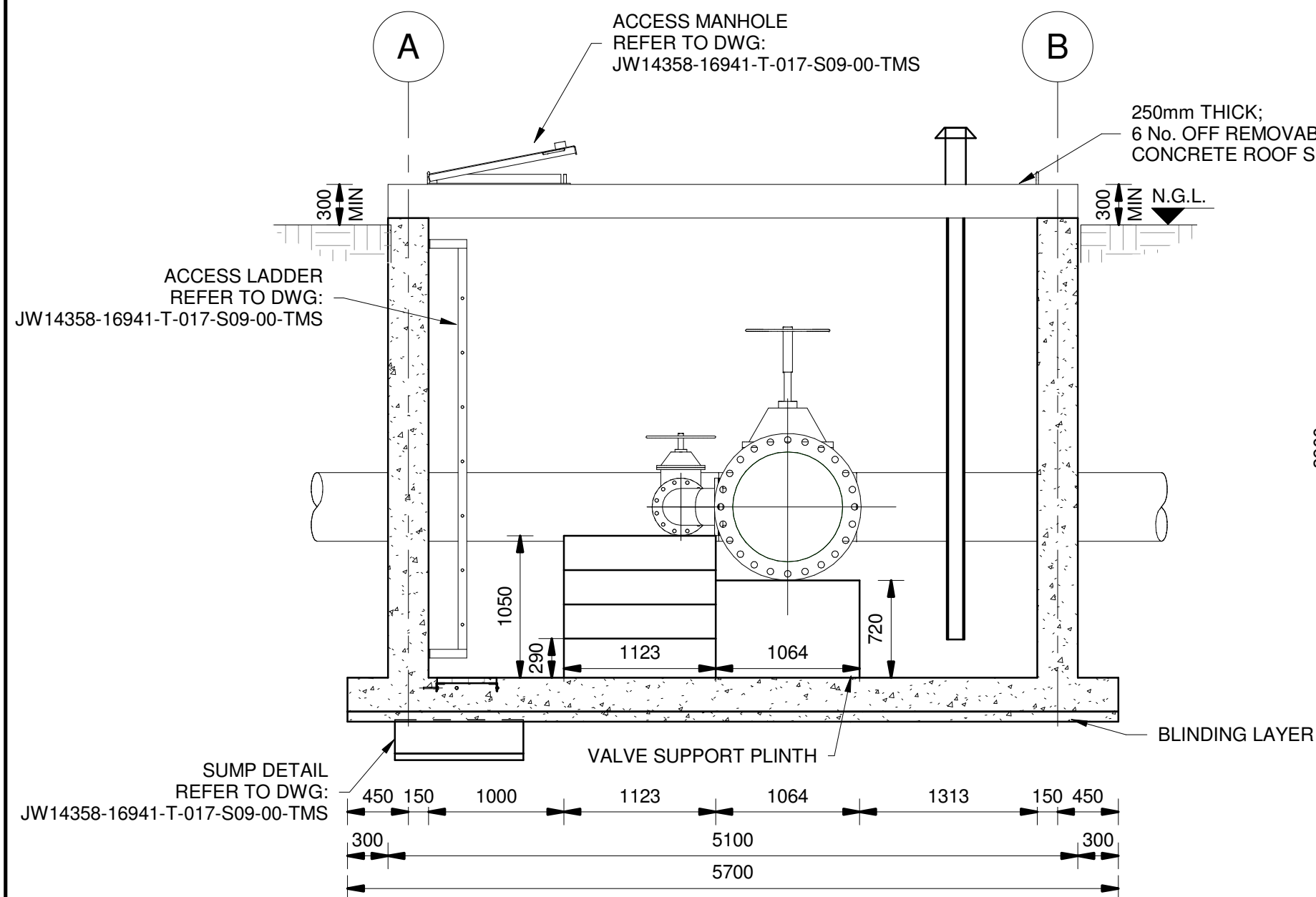
AMENDMENTS

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AS-SHOWN	A	ISSUED FOR TENDER	PG	2023-03-15
AS-SHOWN				

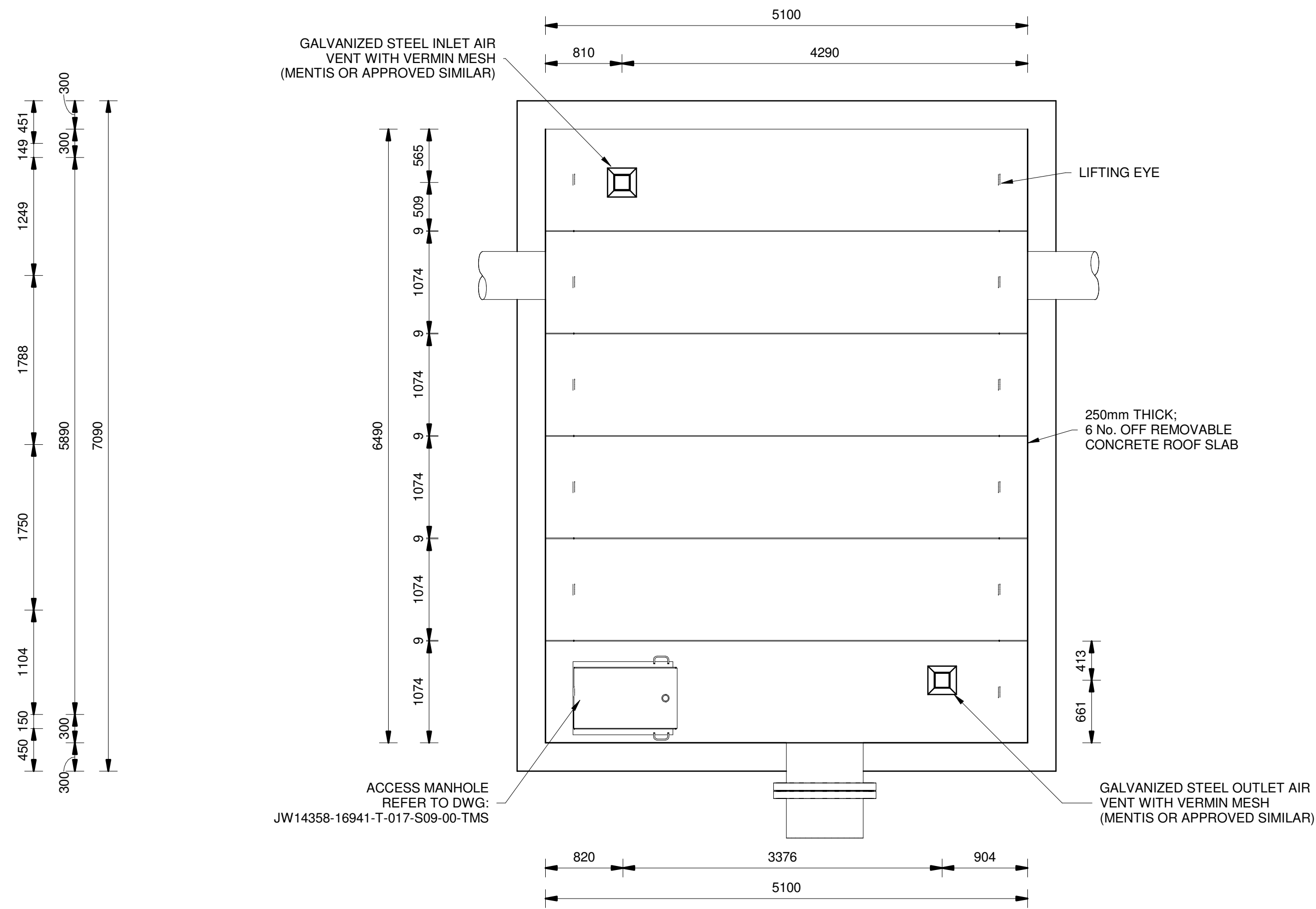
CONTRACT No.: JW14358			
UR1305B	A		
PROJECT No.		REV.	
A1	SHEET	1	OF 2
ORIGINAL PAGE SIZE			
FILE No.			



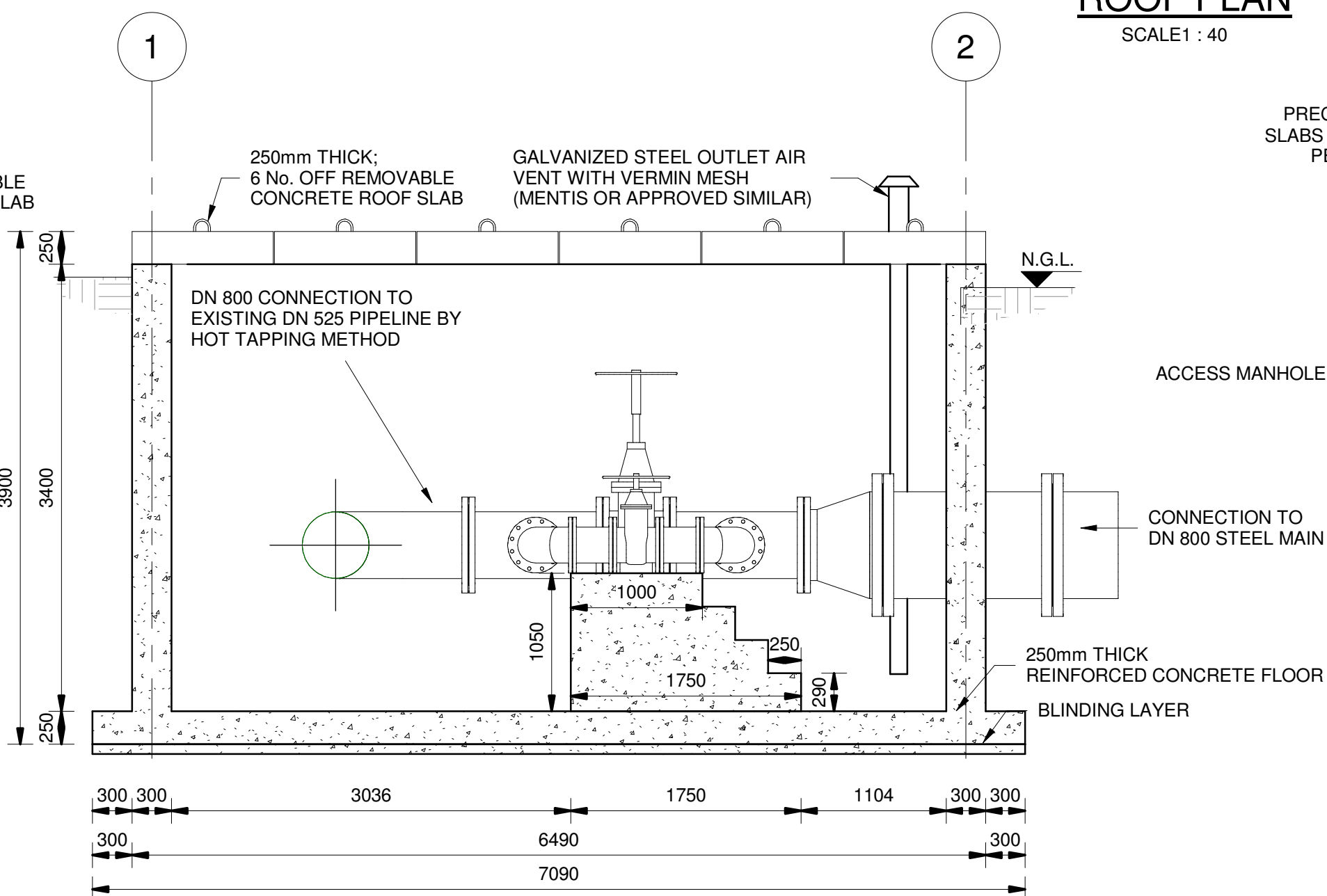
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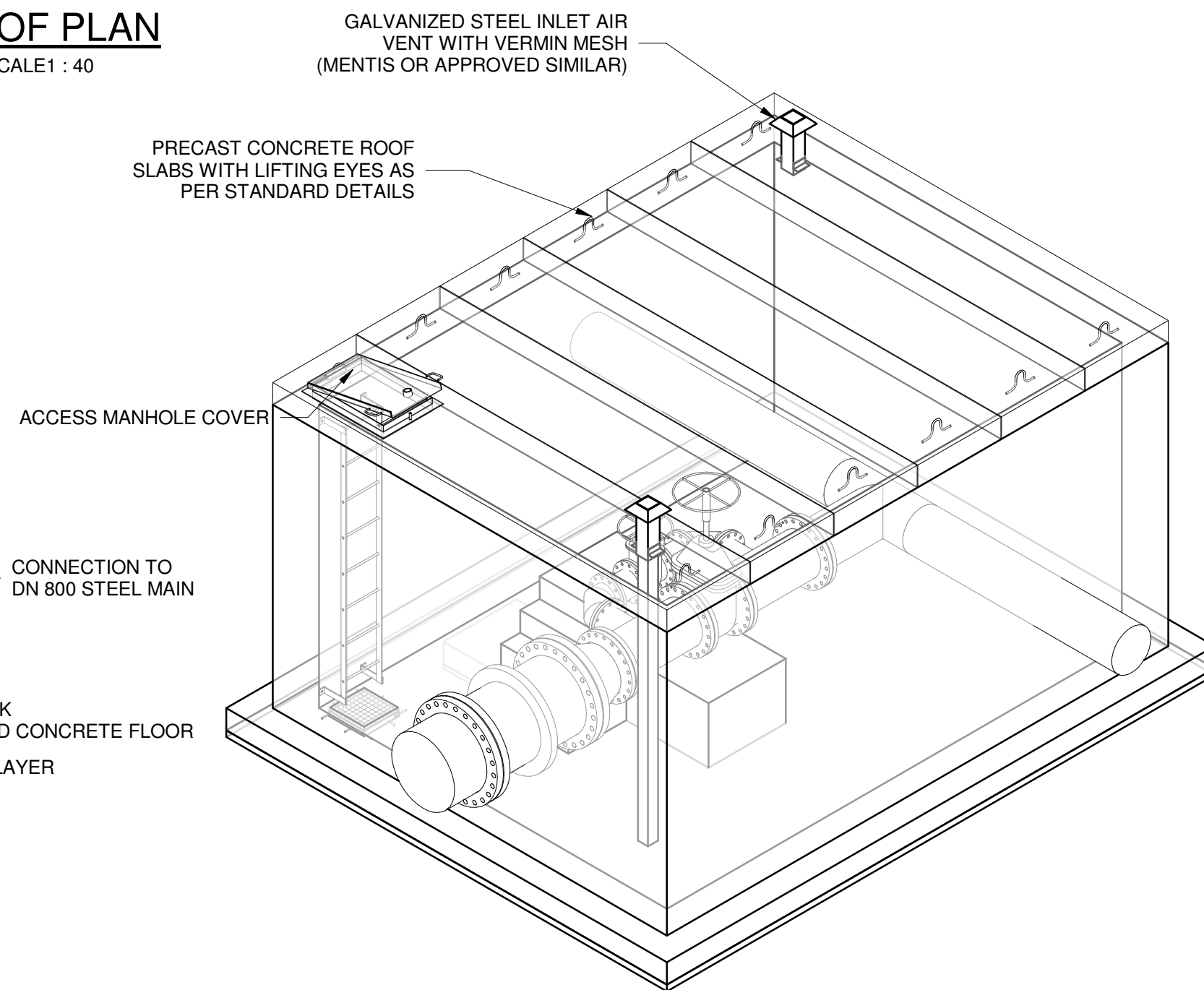
SECTION A-A
SCALE 1 : 40



ROOF PLAN
SCALE 1 : 40



SECTION B-B
SCALE 1 : 40



ISOMETRIC VIEW
SCALE

- GENERAL**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 - ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN.
 - CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE.
 - CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
 - ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS.
 - JOINTS TO BE FILLED WITH POLYSULPHIDE.
 - REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES.

REFERENCE DRAWINGS

JW14358-16941-T-017-S10-00-TMS-PIPE SUPPORT DETAILS
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL
CONSULTING ENGINEERS

Nyeleti
Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450
CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T.FOSA	
DRAWN	Y.GOVENDER	
CHECKED	P.SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304

Johannesburg Water

Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

Joburg

WOODMEAD WATER UPGRADE
DN 800 TO DN 525 TIE-IN CHAMBER
SHEET 1 OF 2

AMENDMENTS

SCALE	REV.	DESCRIPTION	APPROVED	DATE:
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DRAWING No.: JW14358-16941-T-013-S30-00-TMS

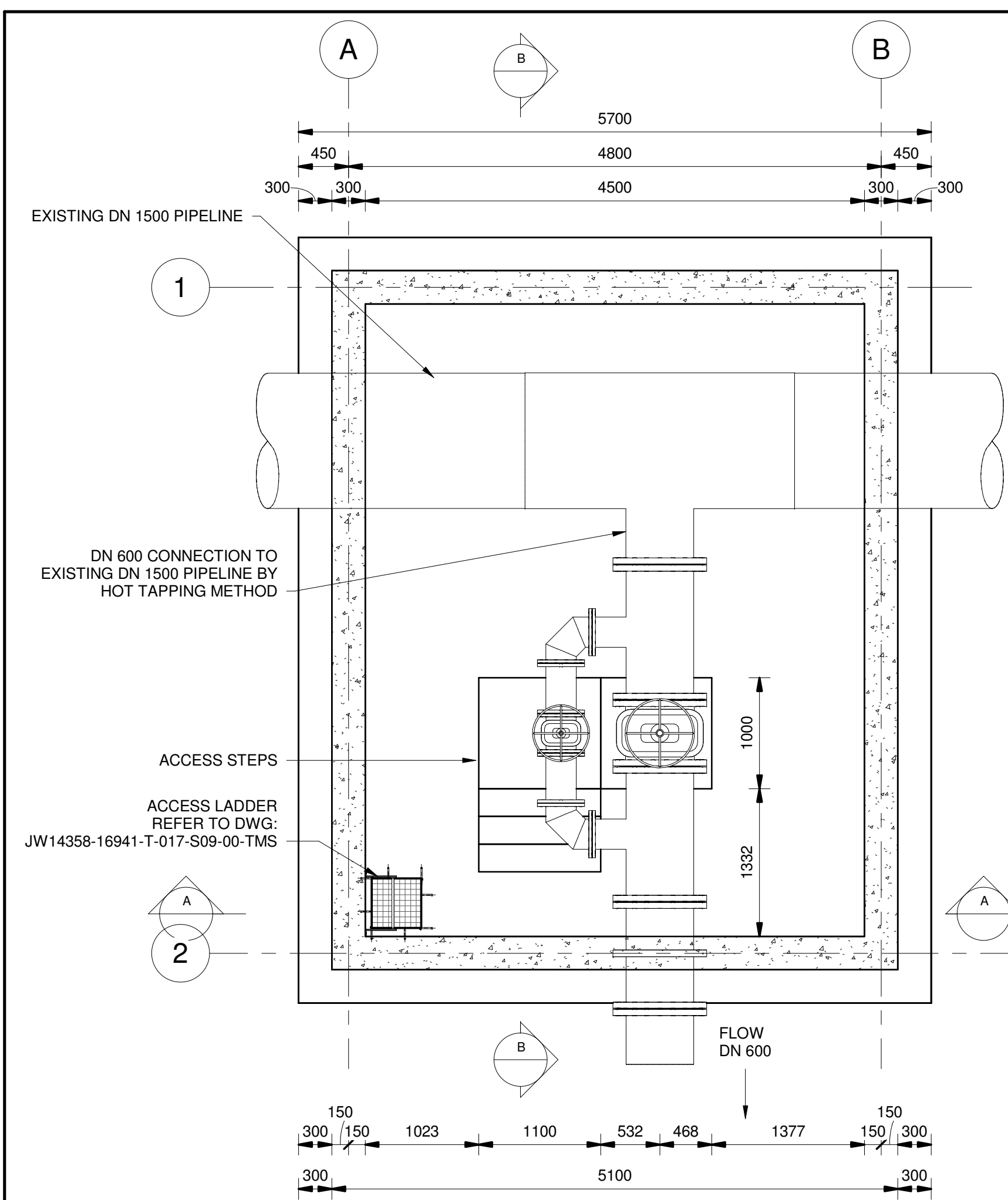
CONTRACT No.: JW14358

UR1305B C

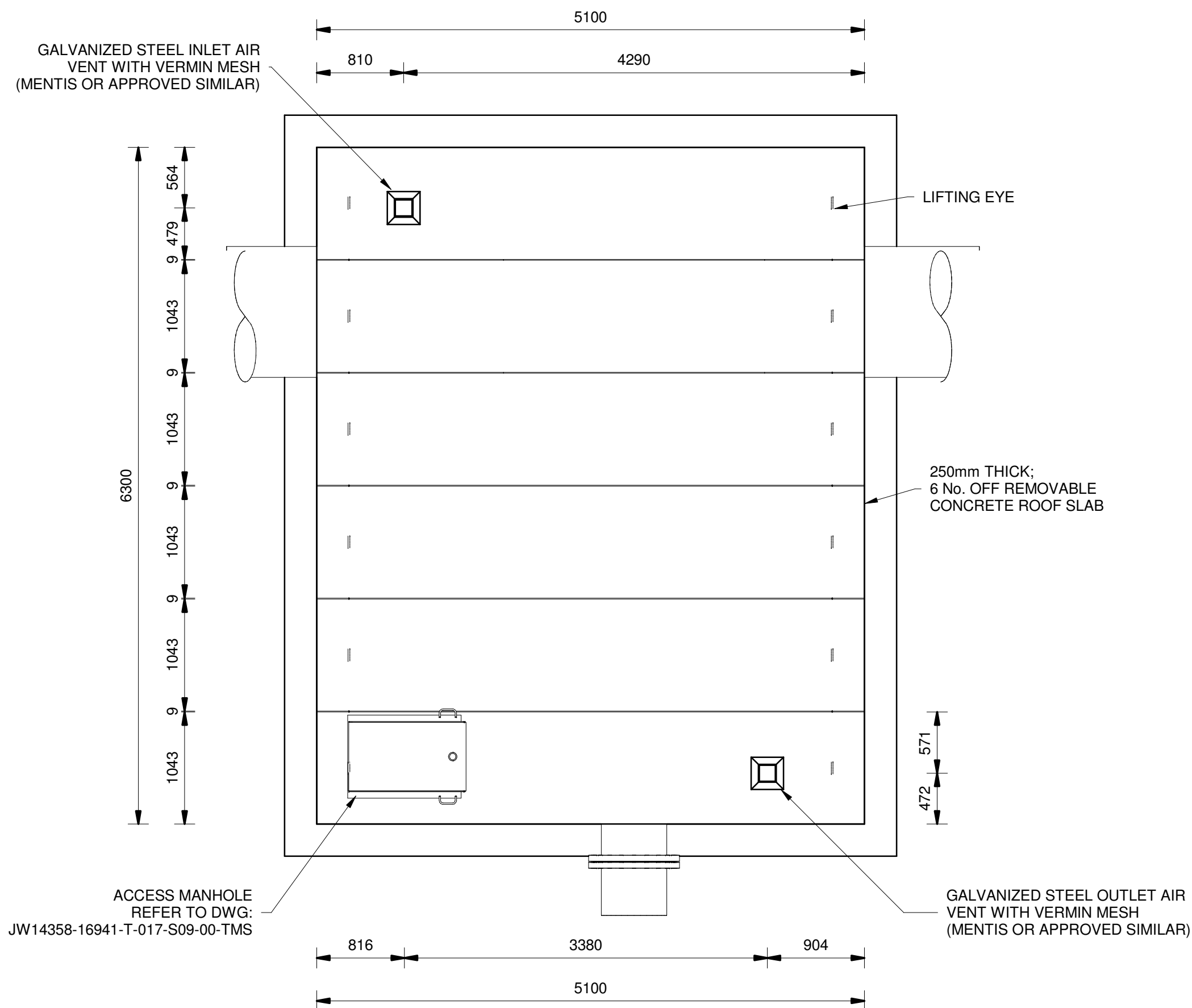
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A1 SHEET 1 OF 2

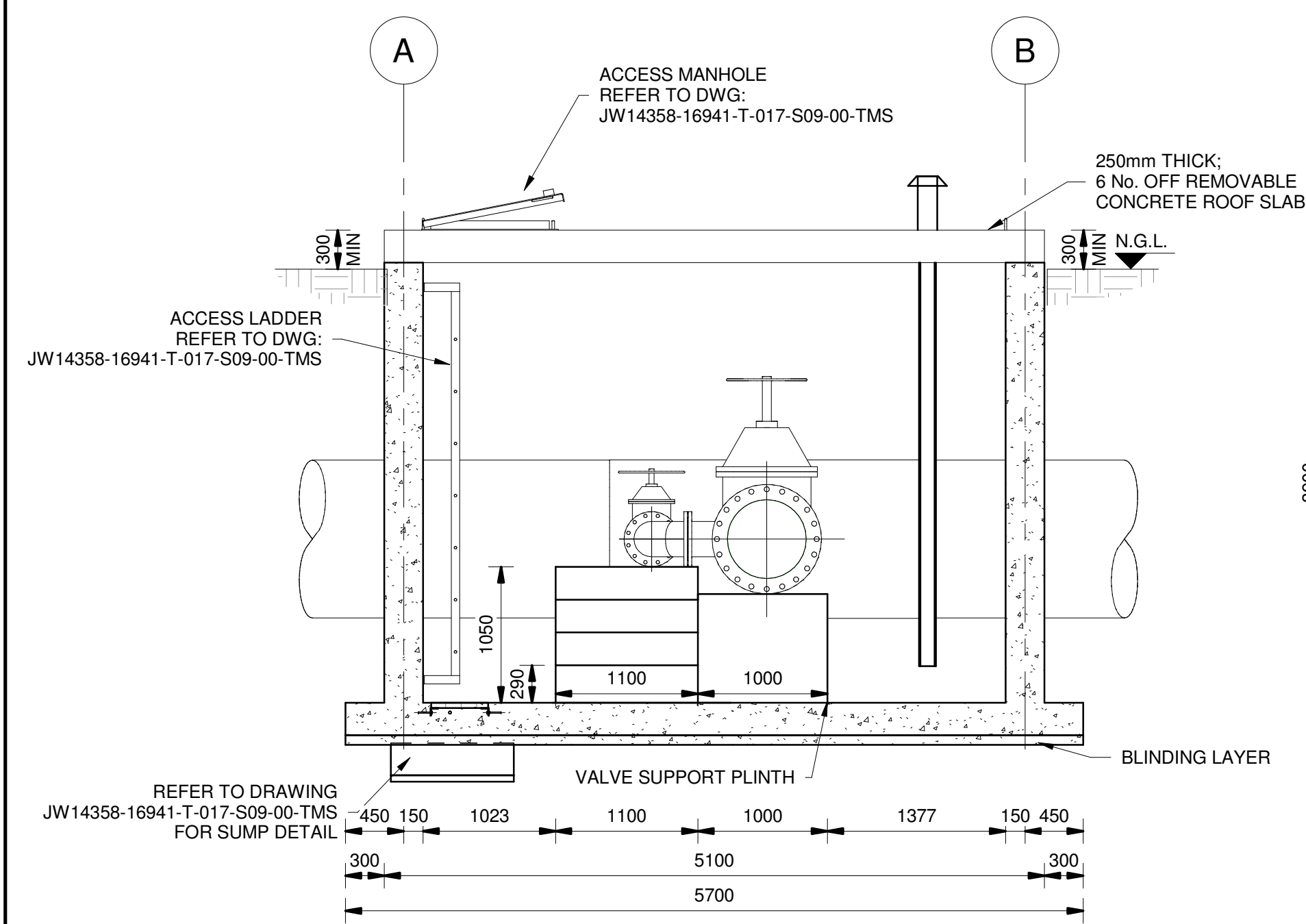
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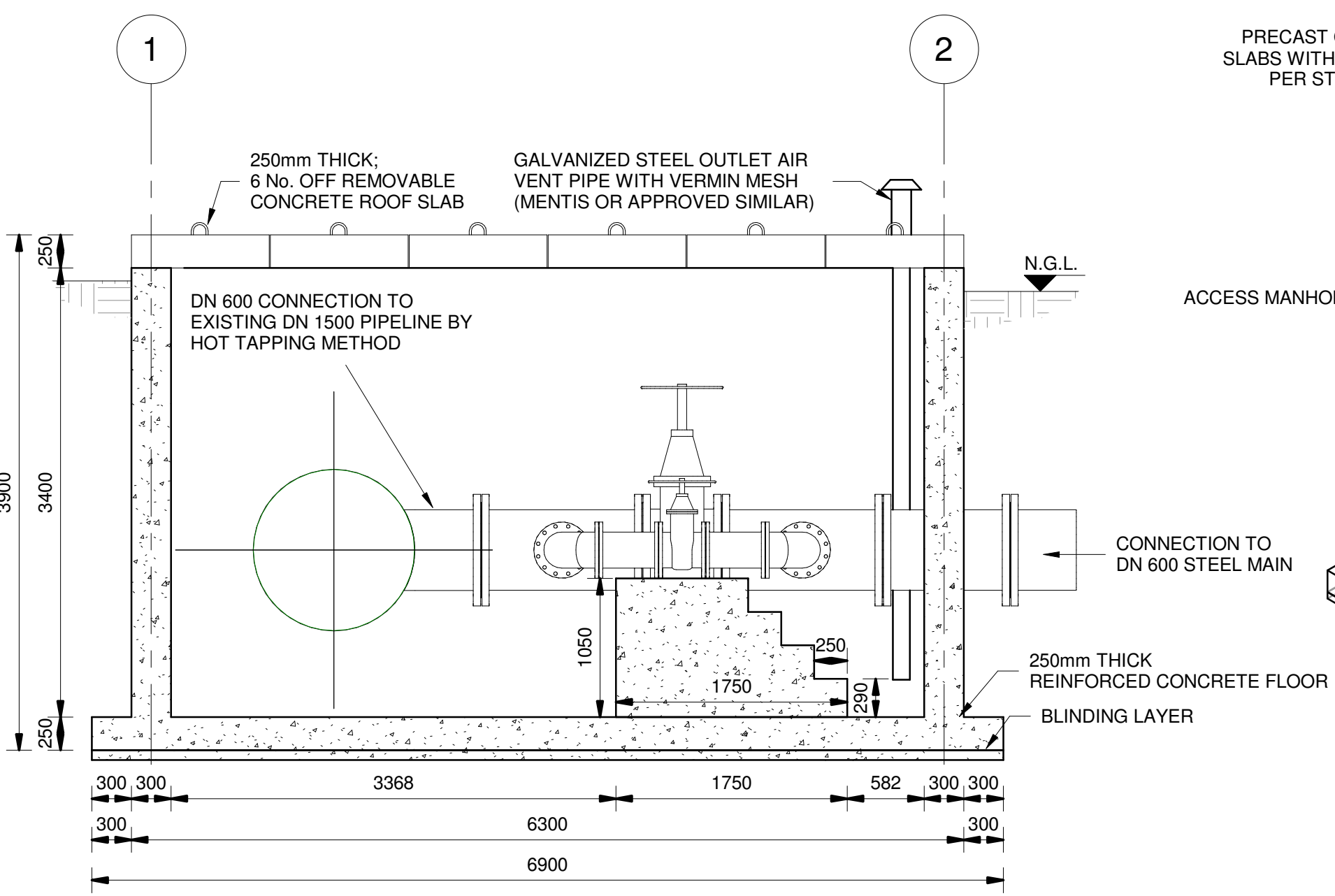
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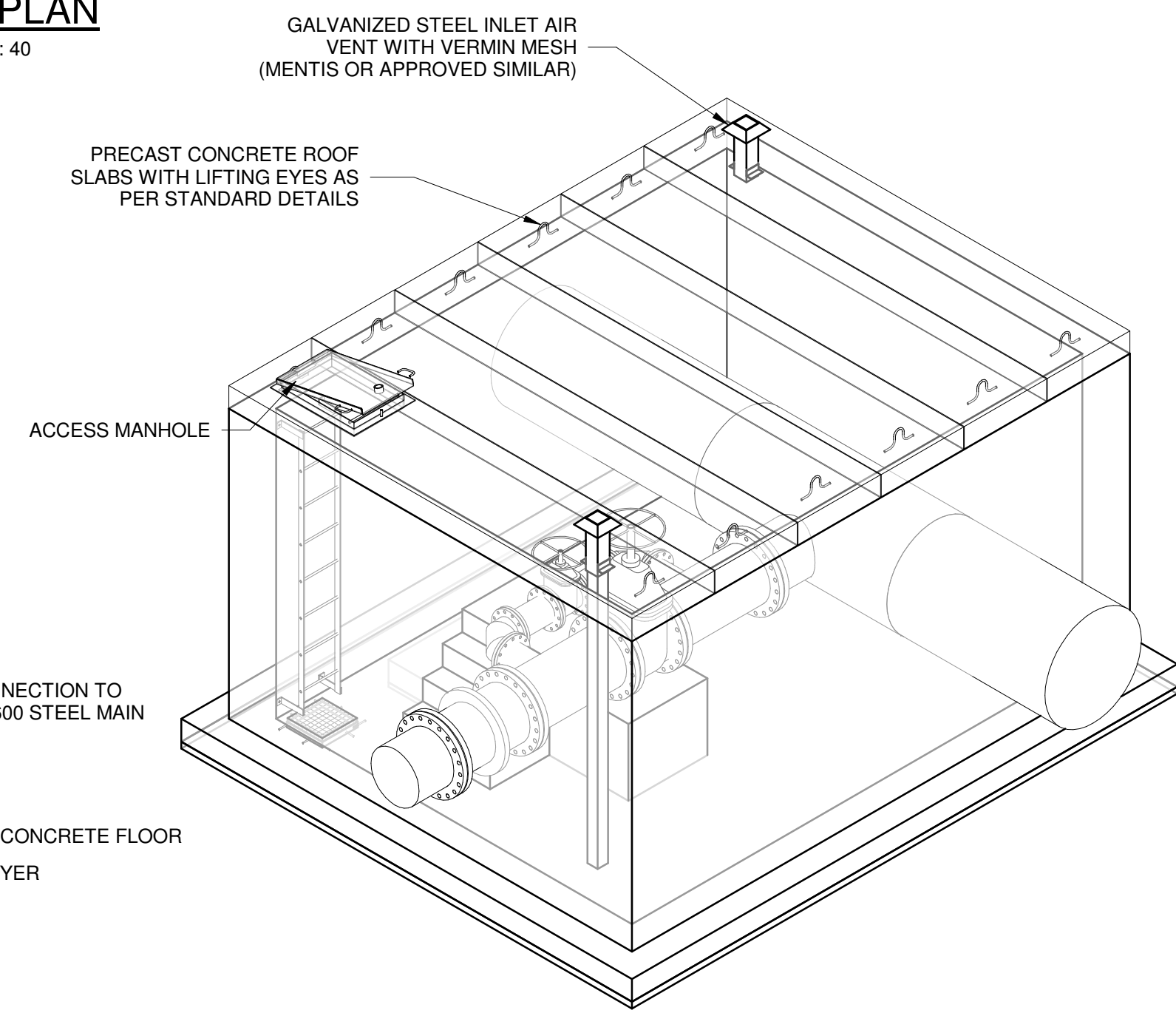
ROOF PLAN
SCALE 1 : 40



SECTION A-A
SCALE 1 : 40



SECTION B-B
SCALE 1 : 40



ISOMETRIC VIEW
SCALE

- GENERAL**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN.
 3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE.
 4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING.
 5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
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 7. JOINTS TO BE FILLED WITH POLYSULPHIDE.
 8. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES.

REFERENCE DRAWINGS

JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS

JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

 Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE:
		SIGNATURE	
		ECSA REG. No	
APPROVED BY:		P.GROBLER	DATE:
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529


WOODMEAD WATER UPGRADE
DN 600 TO DN 1500 TIE-IN CHAMBER
SHEET 1 OF 2

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE
AS-SHOWN	C	ISSUED FOR TENDER	PG	2022/11/07

CONTRACT No.: JW14358

UR1305B

C

PROJECT No.

REV.

A1

SHEET

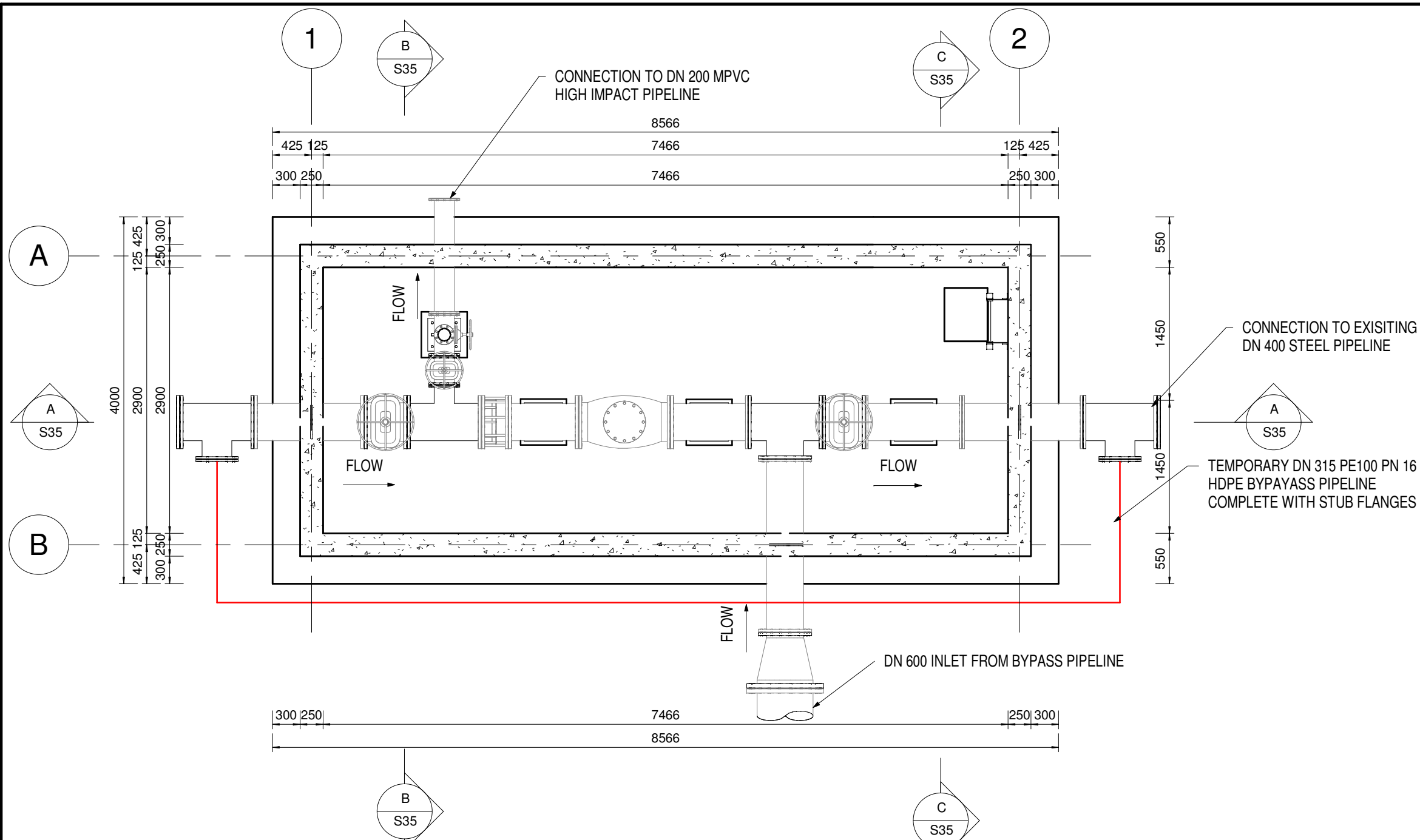
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OF

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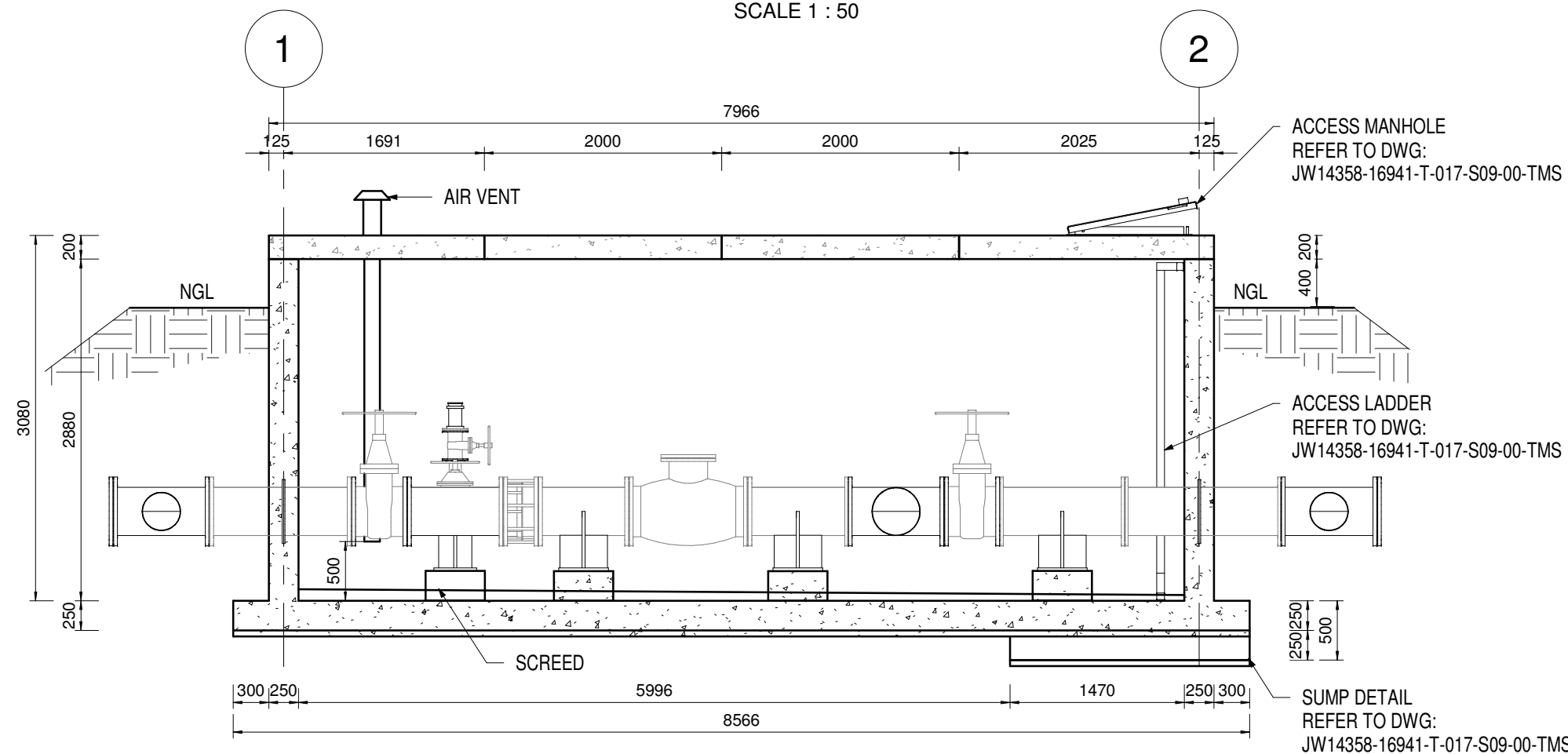
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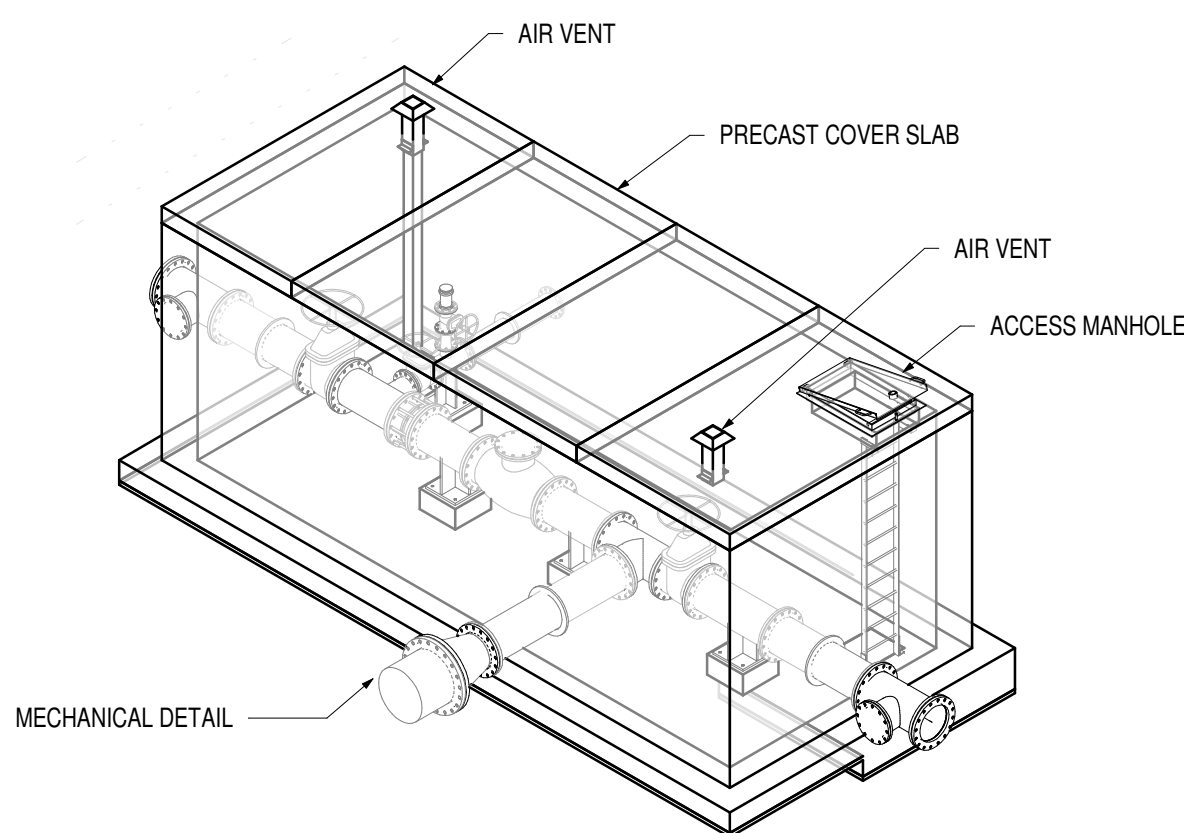
PLAN VIEW (ROOF NOT SHOWN)

SCALE 1 : 50



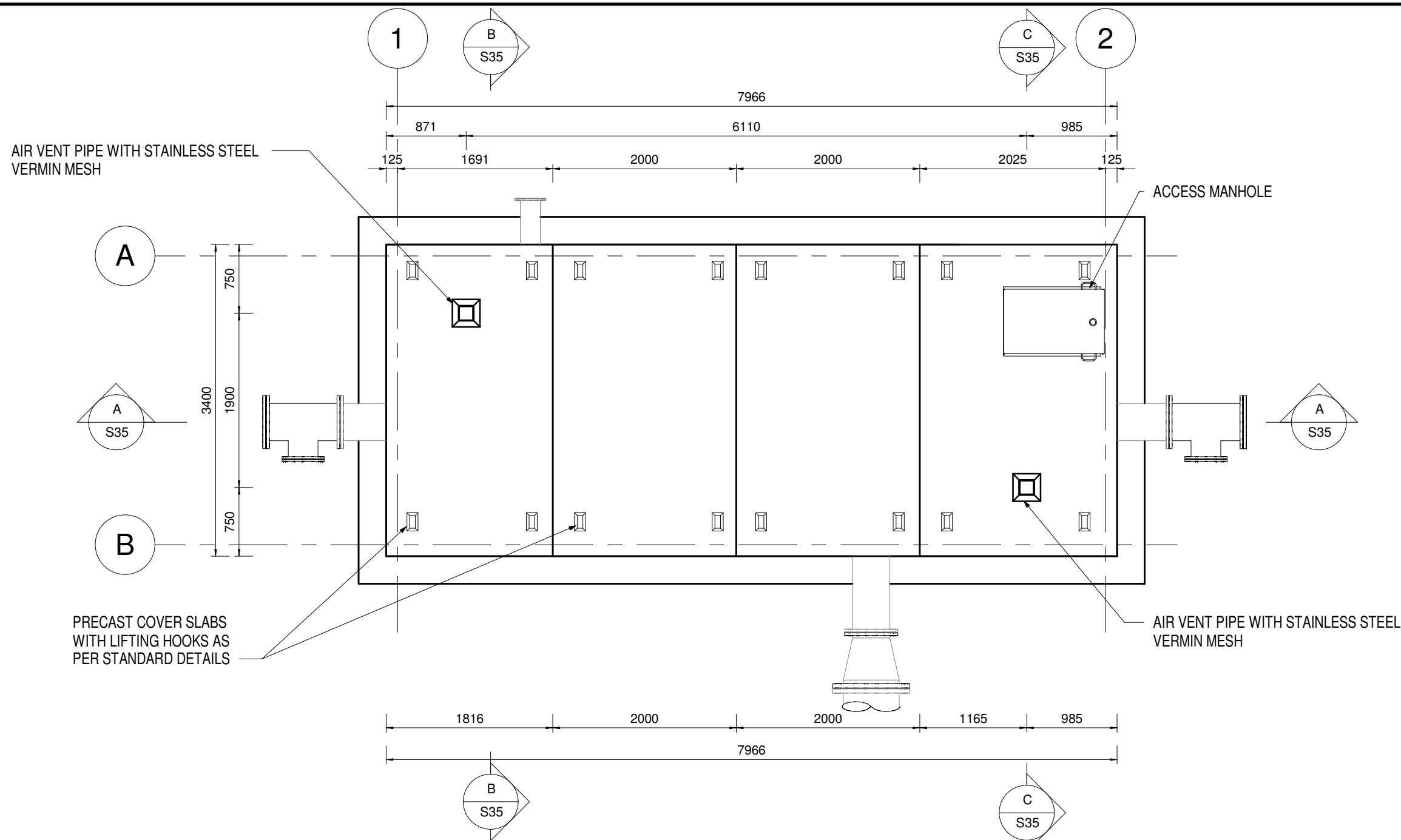
SECTION A-A

SCALE 1 : 50



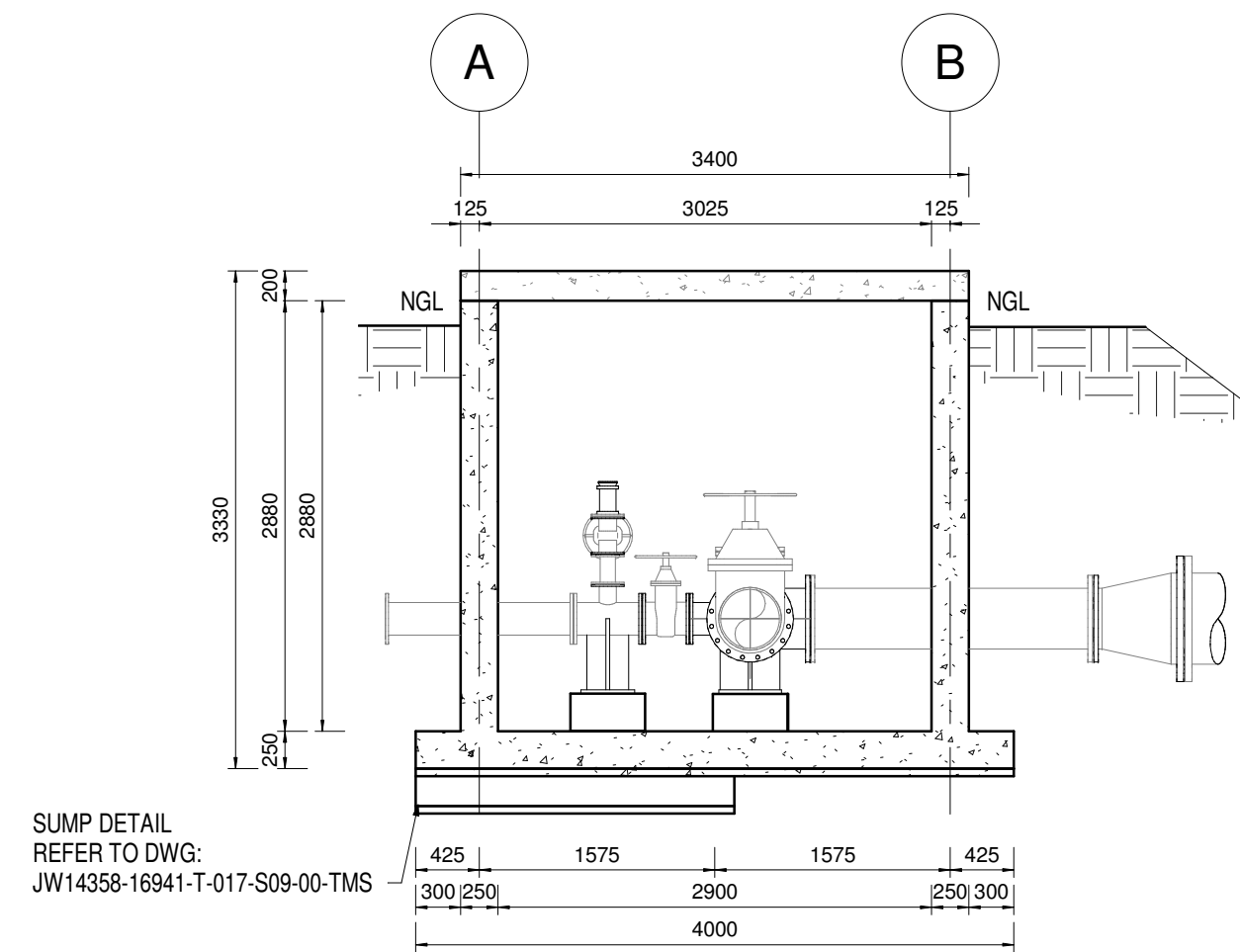
ISOMETRIC VIEW

NTS



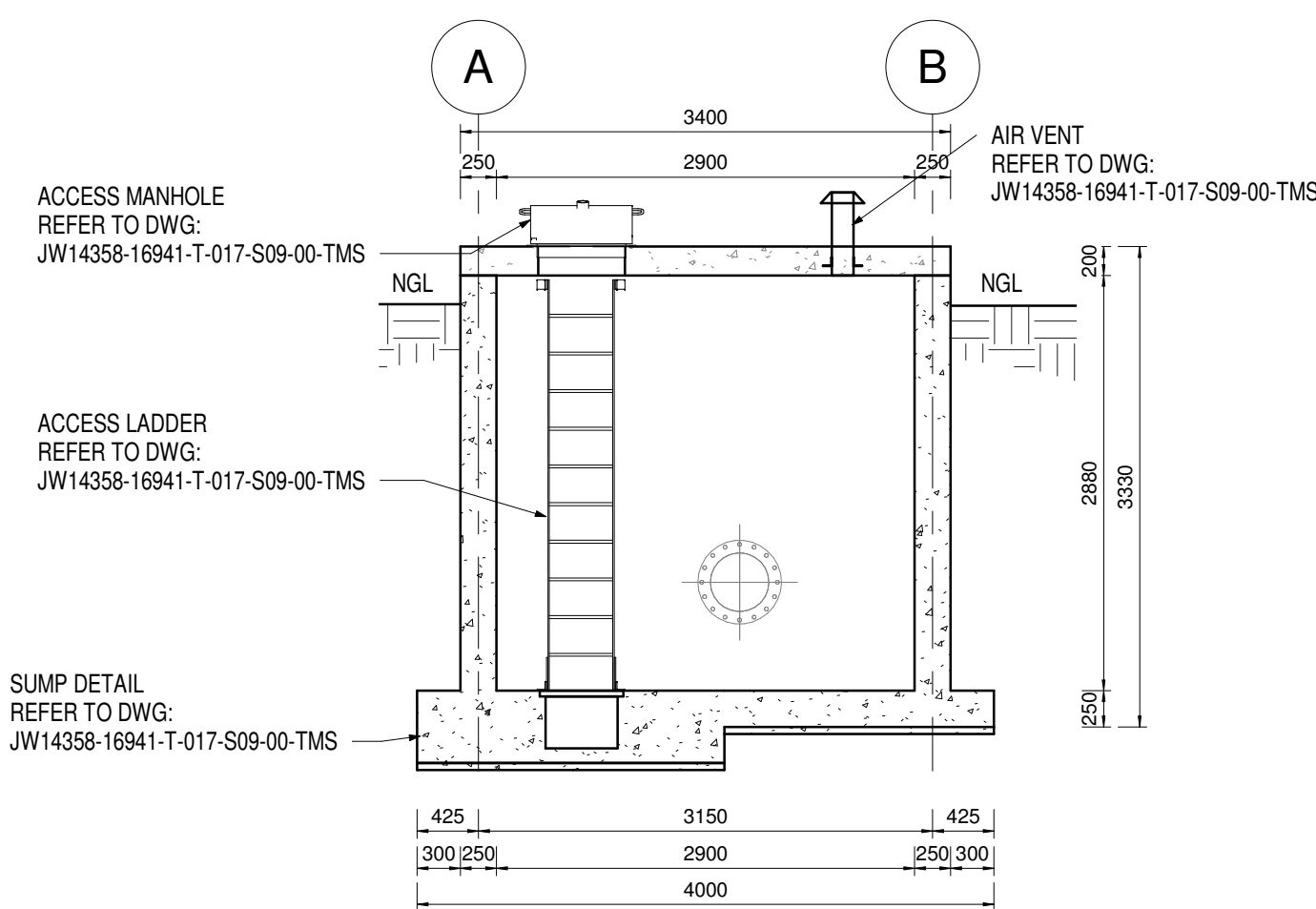
PLAN VIEW (ROOF SHOWN)

SCALE 1 : 50



SECTION B-B

SCALE 1 : 50



SECTION C-C

SCALE 1 : 50

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm
4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm TO ALL BLINDING
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7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS

- JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
 JW14358-16941-T-017-S09-00-TMS - CAST IN AIR VENT, COVERS, ACCESS LADDERS
 JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAIL

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
 BEARS THE ORIGINAL SIGNATURE OF APPROVAL
 CONSULTING ENGINEERS

Nyeleti
 Engineered to Excel
 Woodhill Office park
 53 Phillip Engelbrecht Drive
 Alberton
 1450

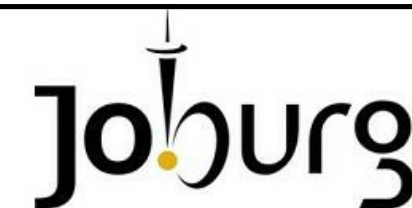
CLIENT
 Johannesburg Water SOC LTD
 Turbine Hall
 65 Ntengi Piliso Street
 Newtown, Johannesburg

DESIGNED	T. FOSA	
DRAWN	T. FOSA	
CHECKED	P. SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P. GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304



Turbine Hall
 65 Ntengi Piliso Street
 Newtown, Johannesburg

TEL: (011) 688-1400
 FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

DN 400 TIE-IN CHAMBER
 SHEET 1 OF 2

AMENDMENTS

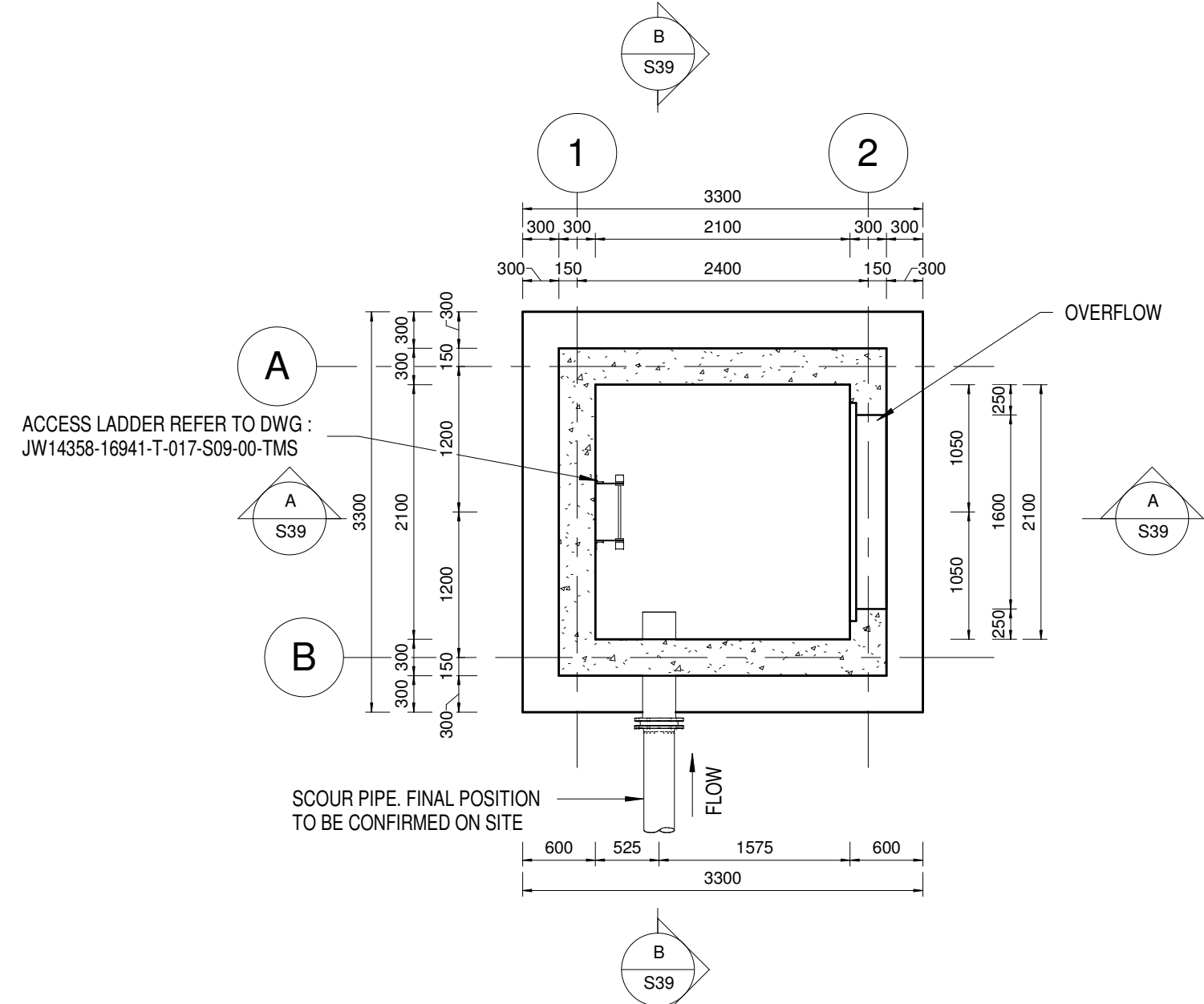
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AS SHOWN	A	FOR TENDER	PG	2022-10-21

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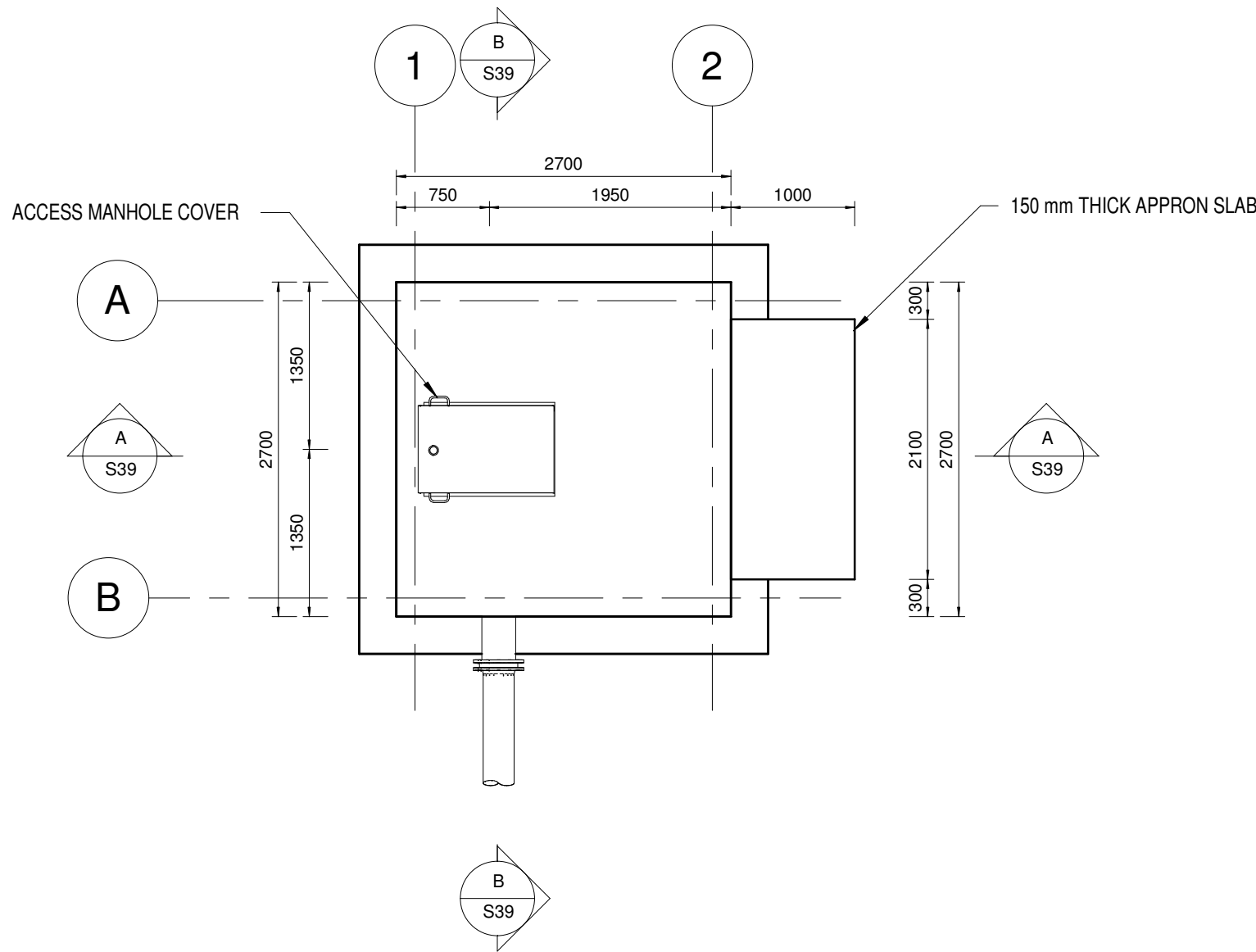
CONTRACT No.: JW14358

UR1305B	A
PROJECT No.	REV.
A1	1
SHEET	OF
1	2

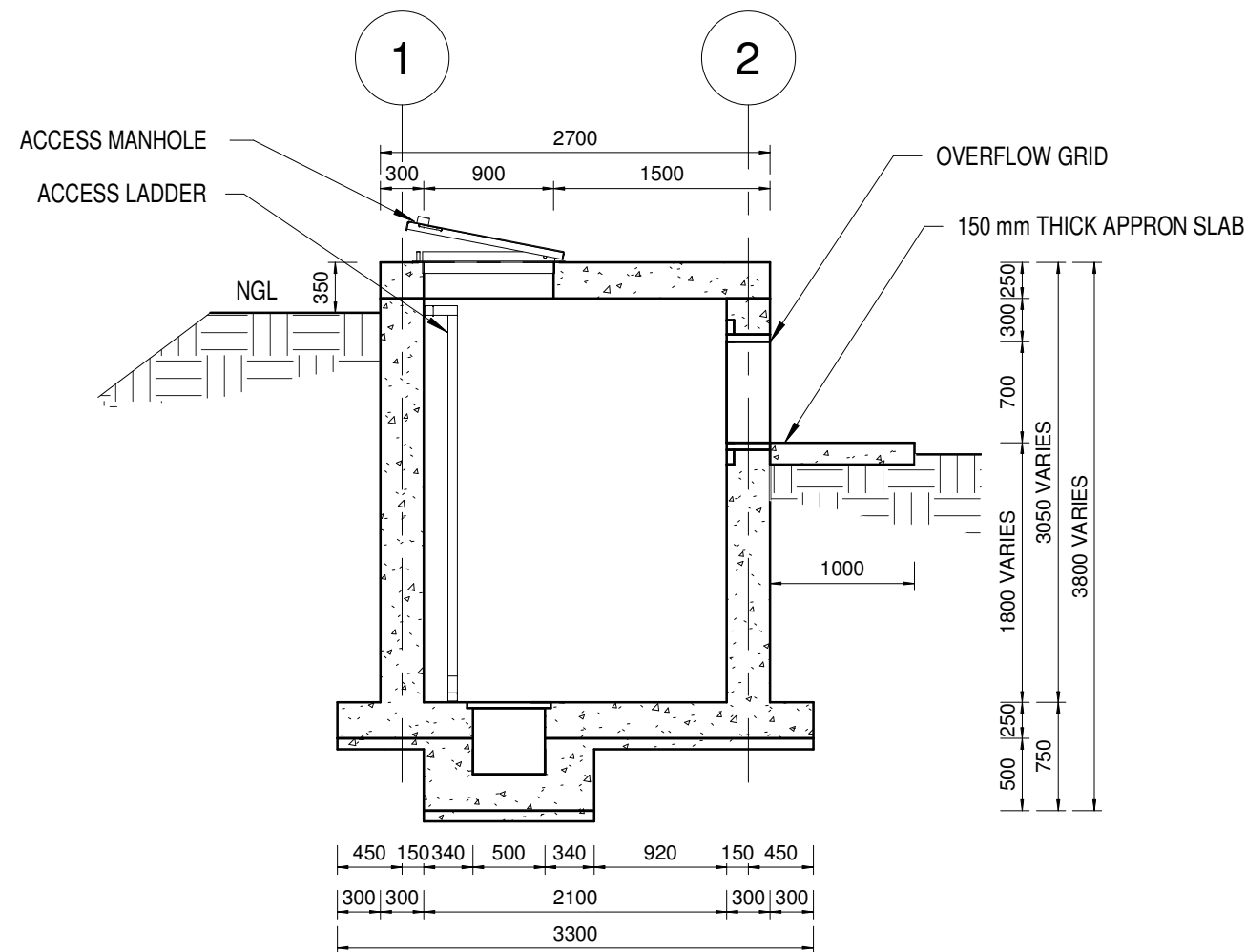
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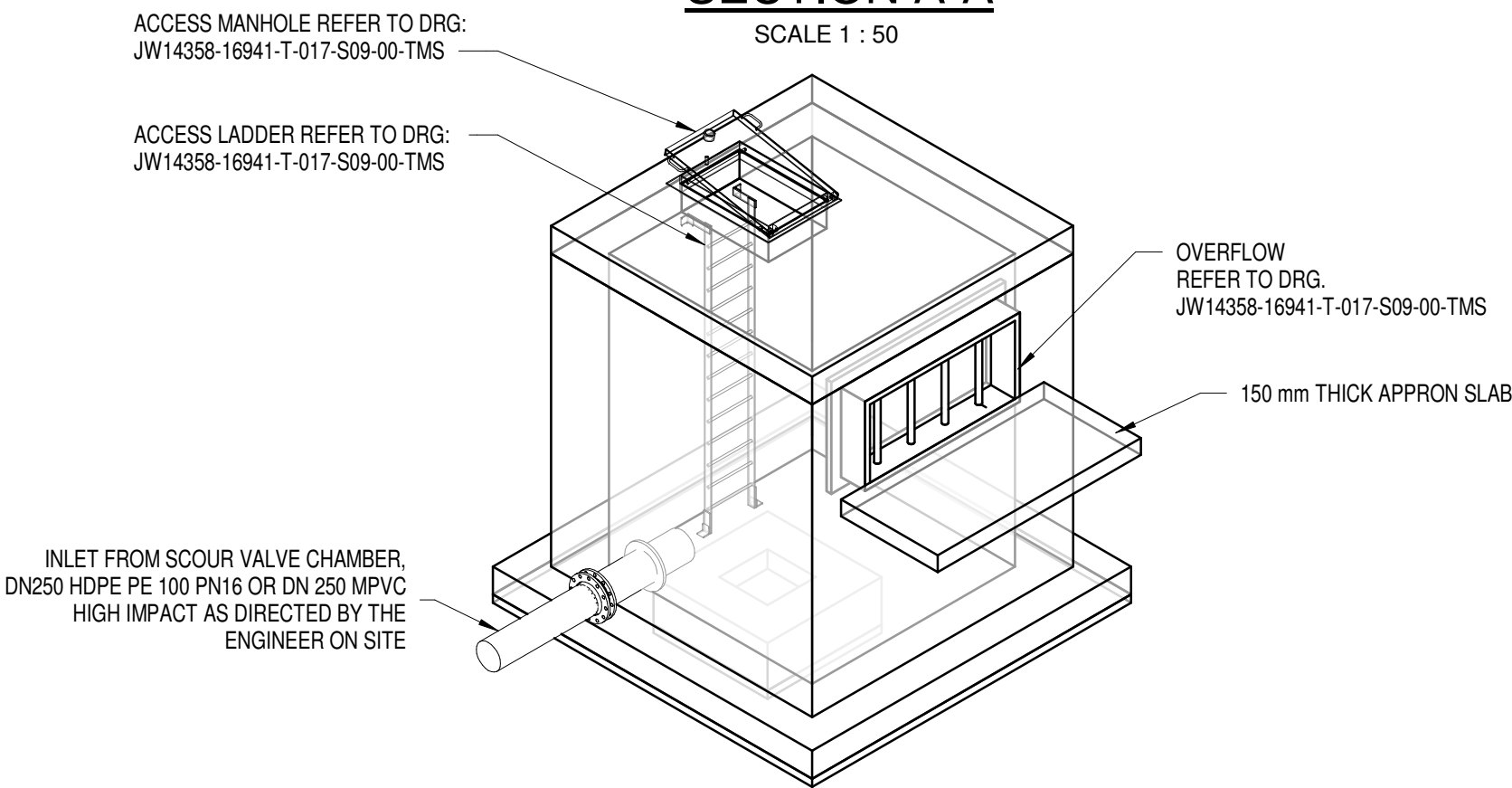
WELLING CHAMBER - TYPE 2 PLAN VIEW (ROOF SLABS NOT SHOWN)
SCALE 1 : 50



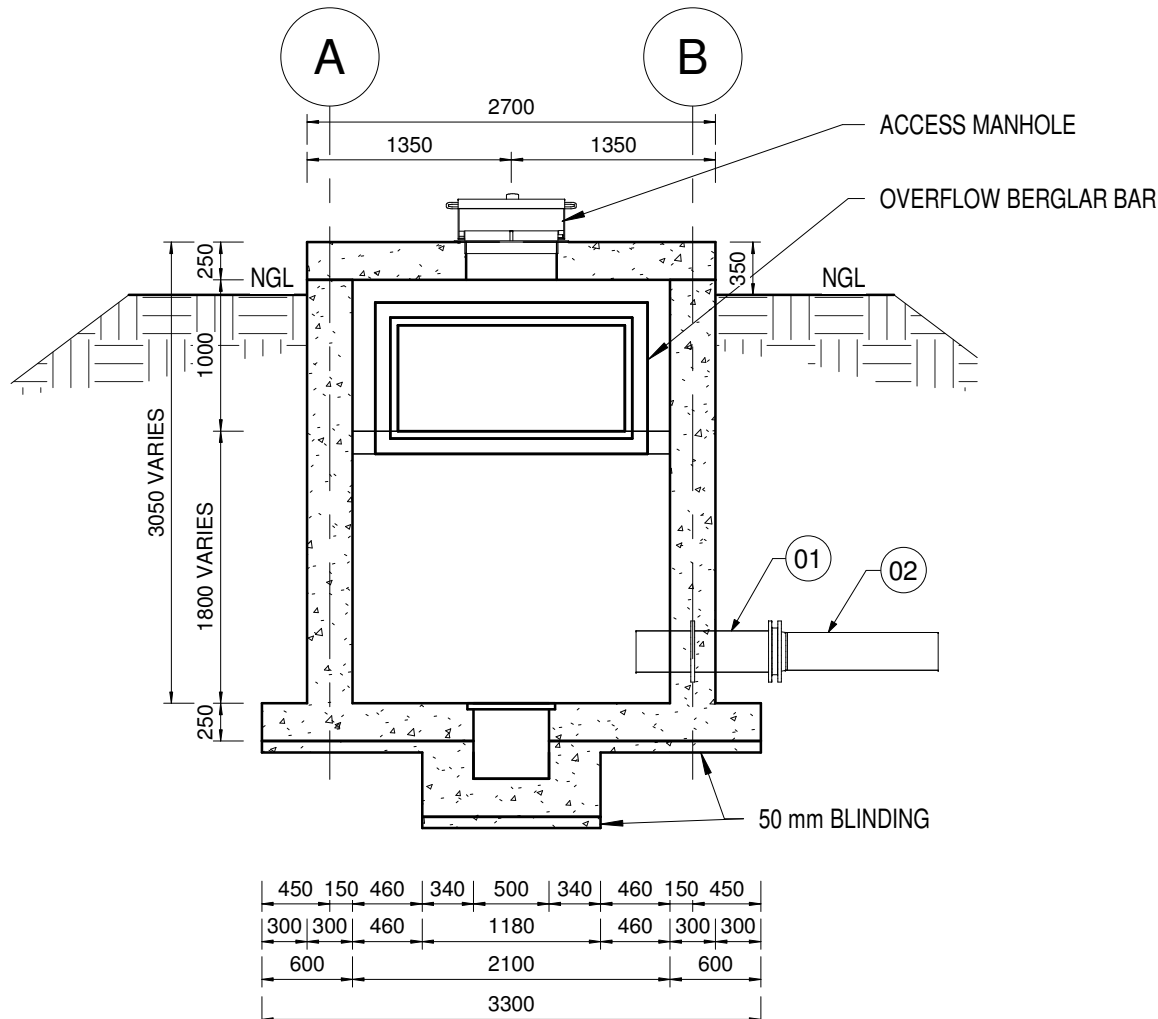
WELLING CHAMBER - TYPE 2 PLAN VIEW (ROOF SHOWN)
SCALE 1 : 50



SECTION A-A
SCALE 1 : 50

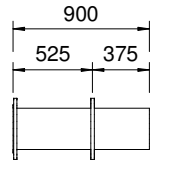
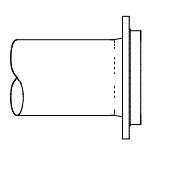


WELLING CHAMBER ISOMETRIC VIEW
SCALE



SECTION B-B
SCALE 1 : 50

PIPE SCHEDULE - WELLING CHAMBER - TYPE 2

ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
01		PN16	SPOOL PIECE DN 250 x 6 mm SANS 719; FLANGED ONE END TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN 250
02		PN16	1x STUB FLANGE AND STEEL FLANGE FOR HDPE PIPE ADAPTOR, STEEL FLANGE TO BE ACCORDING TO SANS 1123 TABLE 1600/3; FOR HDPE = 250mm	RPU	1	DN 250

GENERAL NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
- ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN.
- CONCRETE GRADE SHALL BE 35 Mpa/19 mm
- CONCRETE GRADE SHALL BE 15 Mpa/19 mm TO ALL BLINDING
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
- ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
- REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS

- JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
JW14358-16941-T-017-S09-00-TMS - CAST IN AIR VENT, COVERS, ACCESS LADDERS
JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAIL

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL
CONSULTING ENGINEERS

Nyeleti
Engineered to Excel
16 NEW QUAY STREET
NEW REDRUTH
ALBERTON
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T. FOSA	
DRAWN	T. FOSA	
CHECKED	P. SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P. GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

WELLING CHAMBER-TYPE 2
SHEET 1 OF 1

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	A	ISSUES FOR TENDER	PG	2022-10-06

DRAWING No.: JW14358-16941-T-013-S39-00-TMS

CONTRACT No.: JW14358

UR1305B

PROJECT No.

A1

SHEET

1

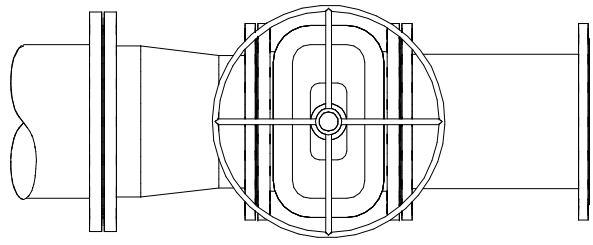
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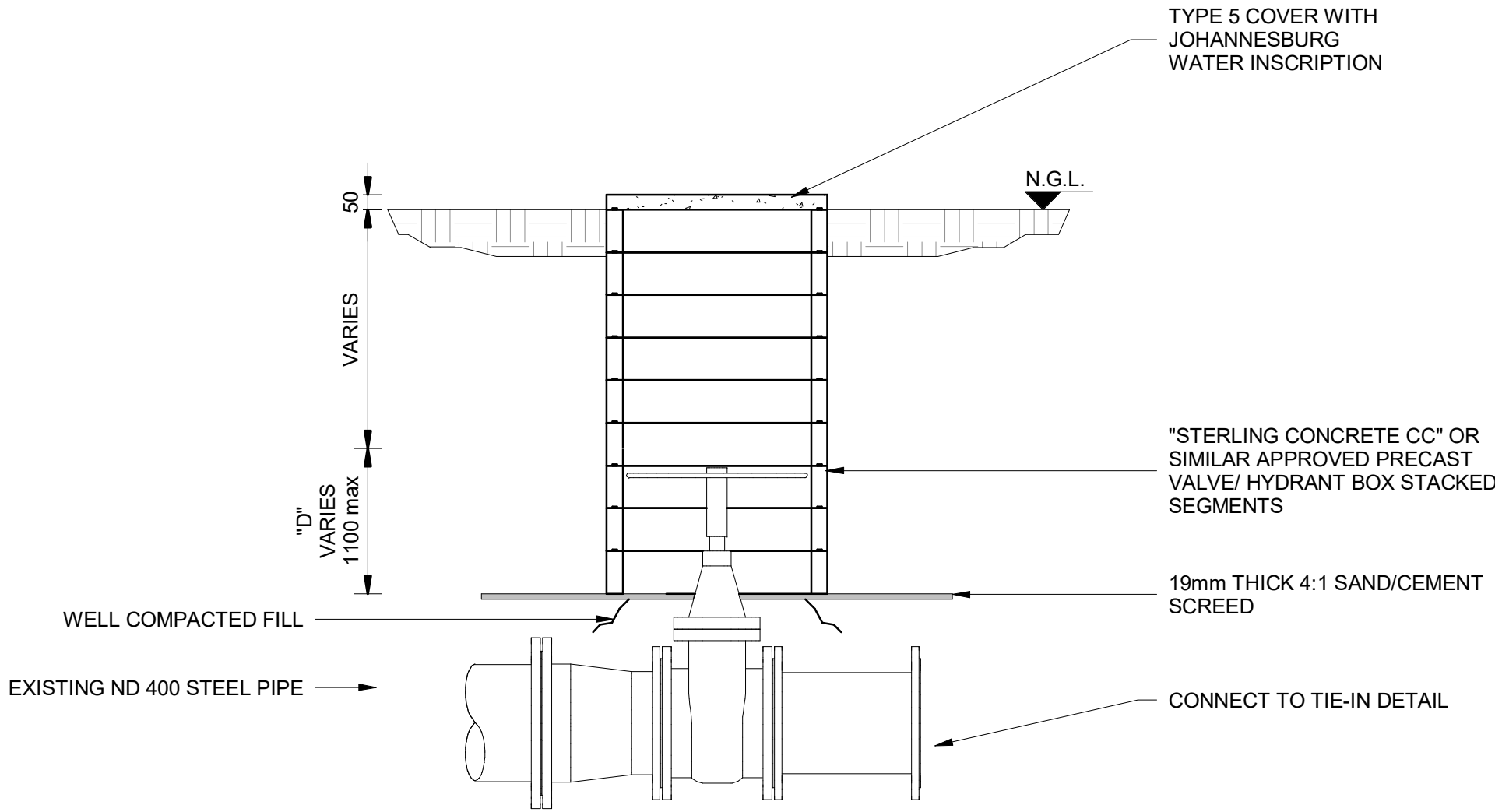
NOTES

- a) VALVE UP TO 350mm N.B.
- 1) RESILIENT SEAL GATE VALVE (80mm UP TO 150mm N.B)
 - 2) WEDGE TYPE GATE VALVES (200mm UP TO 350mm)
 - 3) NON RISING SPINDLE
 - 4) ANTI-CLOCKWISE CLOSING
 - 5) SPECIFICATIONS TO SANS 664 AND SPECIFICATIONS IN ANNEXURE E OF THE JW STANDARD GUIDELINES.
- b) PRECAST SEGMENT SPECIFICATIONS
- 1) ALL MANHOLE SEGMENTS ACCORDING TO SANS 1294-1981
 - 2) TOP SURFACE OF MANHOLE COVER TO BE 50mm ABOVE THE FINISH GROUND LEVEL EXCEPT IN PAVED AREAS SEGMENTS TO BE STACKED
- c) ISOLATING VALVE
- ALL VALVES TO BE FLANGED IN ACCORDANCE TO SABS 664 AND DRILLED TO SANS 1123 TABLE 1600/3
- 1) VICTAULIC VALVES AND FITTINGS MY BE USED AS AN ALTERNATIVE TO THE PROPOSED ASSEMBLY.
 - 2) WRITTEN PERMISSION FROM THE ENGINEER MUST BE OBTAINED FOR THE INSTALLATION OF ALTERNATIVES.
 - 3) THE INSTALLATION MUST BE OF SUCH A NATURE THAT THE REMOVAL OF THE VALVES AND FITTINGS, FOR MAINTENANCE PURPOSES, CAN EASILY BE EXECUTED.



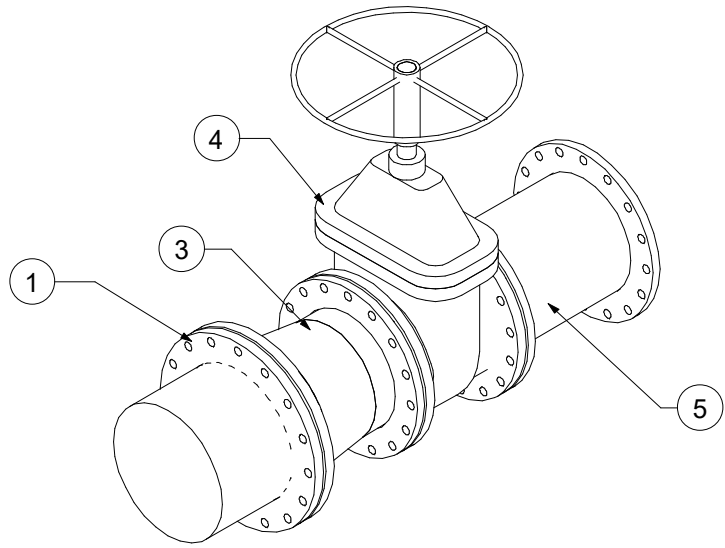
FLOOR PLAN

SCALE 1 : 20



ELEVATION

SCALE 1 : 20



MECHANICAL ISOMETRIC VIEW

SCALE 1:50

GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
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7. REFER TO DRAWING JW13037-16941-T-004-S01-00-TMS FOR GENERAL NOTES

Reference drawings:

JW13037-16941-T-017-S09-00-TMS - CHAMBER DETAILS

JW13037-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

CONTRACT No.: JW14358

UR1305B

B

PROJECT No.

REV.

A1

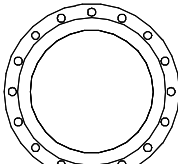
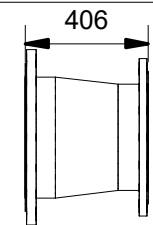
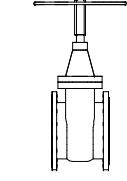
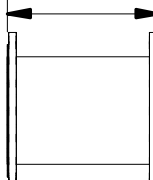
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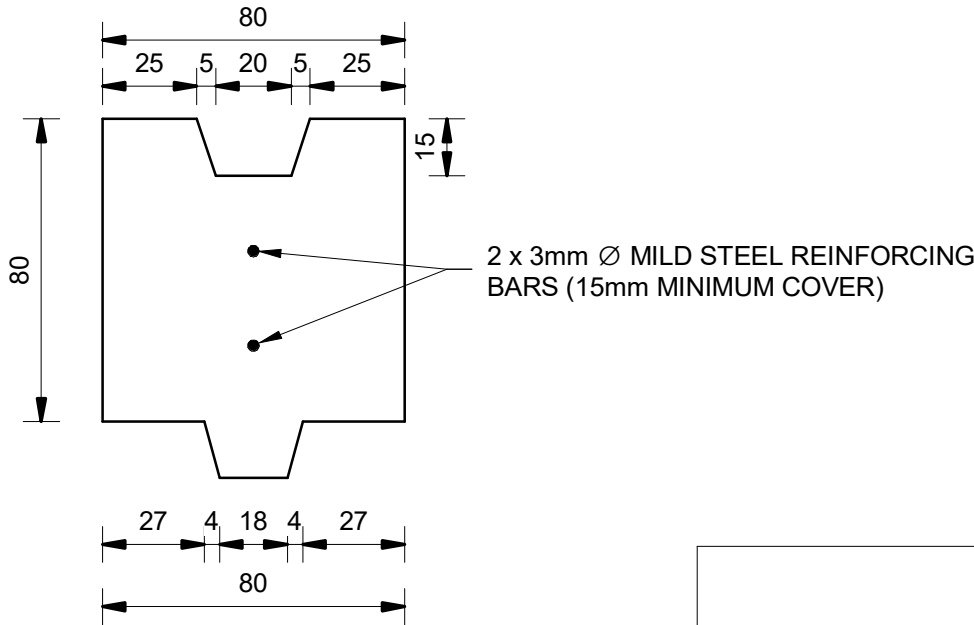
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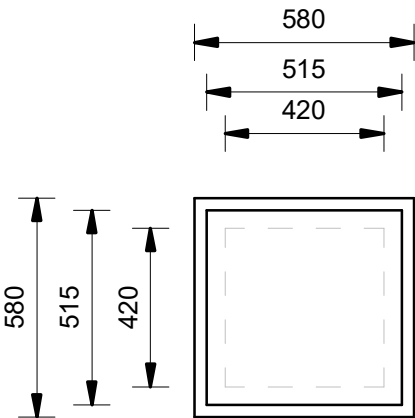
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FILE No.

PIPE SCHEDULE - DN 350 PIPELINE ISOLATING VALVE BOX DETAIL						
ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
1		PN16	DN 400 LOOSE FLANGE TO SANS 1123 TABLE 1600/3	RPU	1	DN 400
3		PN16	CONCENTRIC REDUCER; DN 400 - DN 350 X 6 mm SANS 719; FLANGED BOTH ENDS SANS 1123 TABLE 1600/3	RPU	1	DN 400 - DN 350
4		PN16	DN 350 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED; VOSA OR EQUIVALENT APPROVED; BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 350
5		PN16	SPOOL PIECE DN 350; WALL THICKNESS t= 6 mm SANS 719; BOTH ENDS FLANGED TO SANS 1123 TABLE 1600/3	RPU	1	DN 350



SECTION A-A
TYPICAL PRECAST
SEGMENT PROFILE



PLAN VIEW
VALVE AND HYDRANT BOX (MINIMUM SIZE)

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTING ENGINEERS

Nyeleti
Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T.FOSA	
DRAWN	Y.GOVENDER	
CHECKED	P.SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304
	-	DWG NO.



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

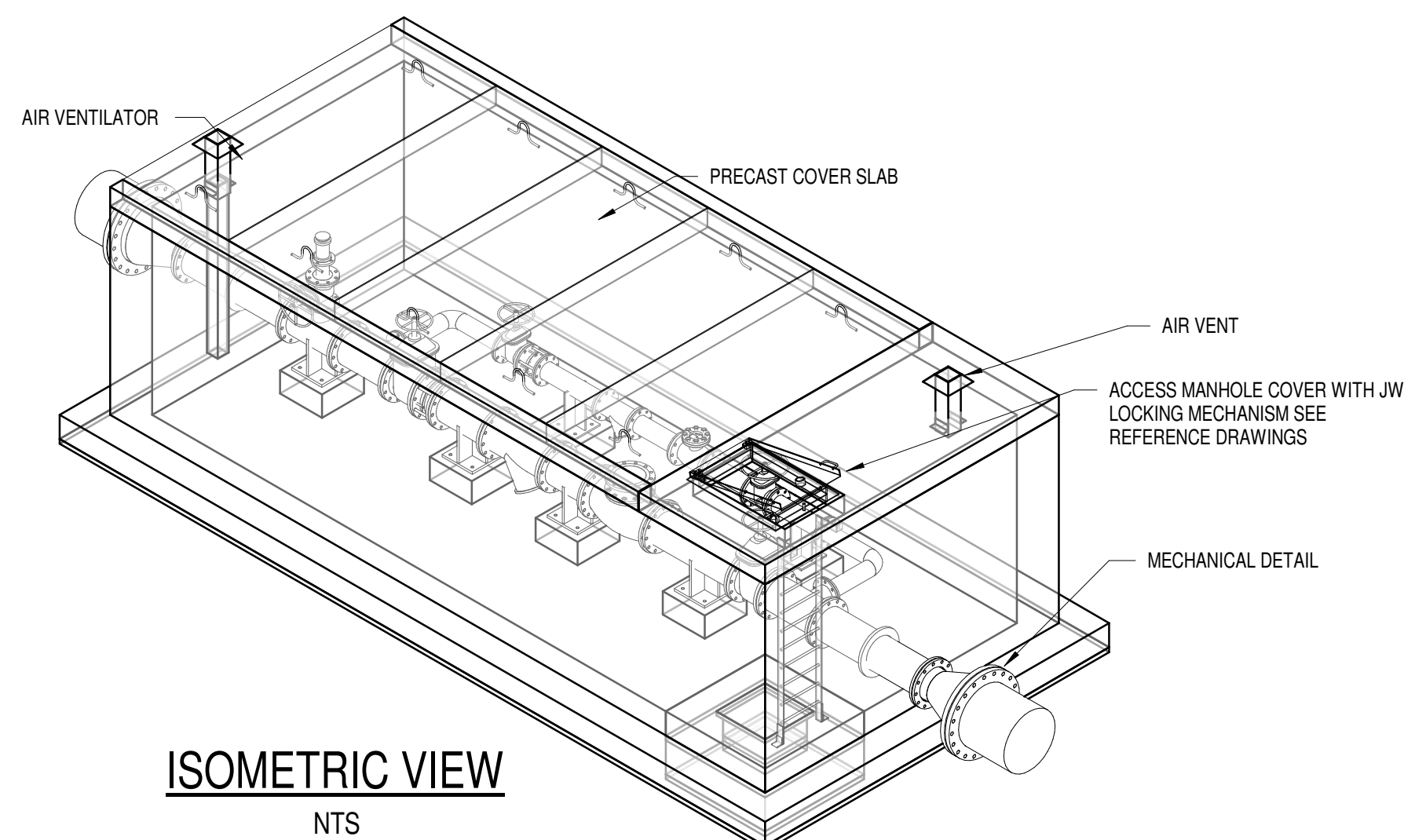
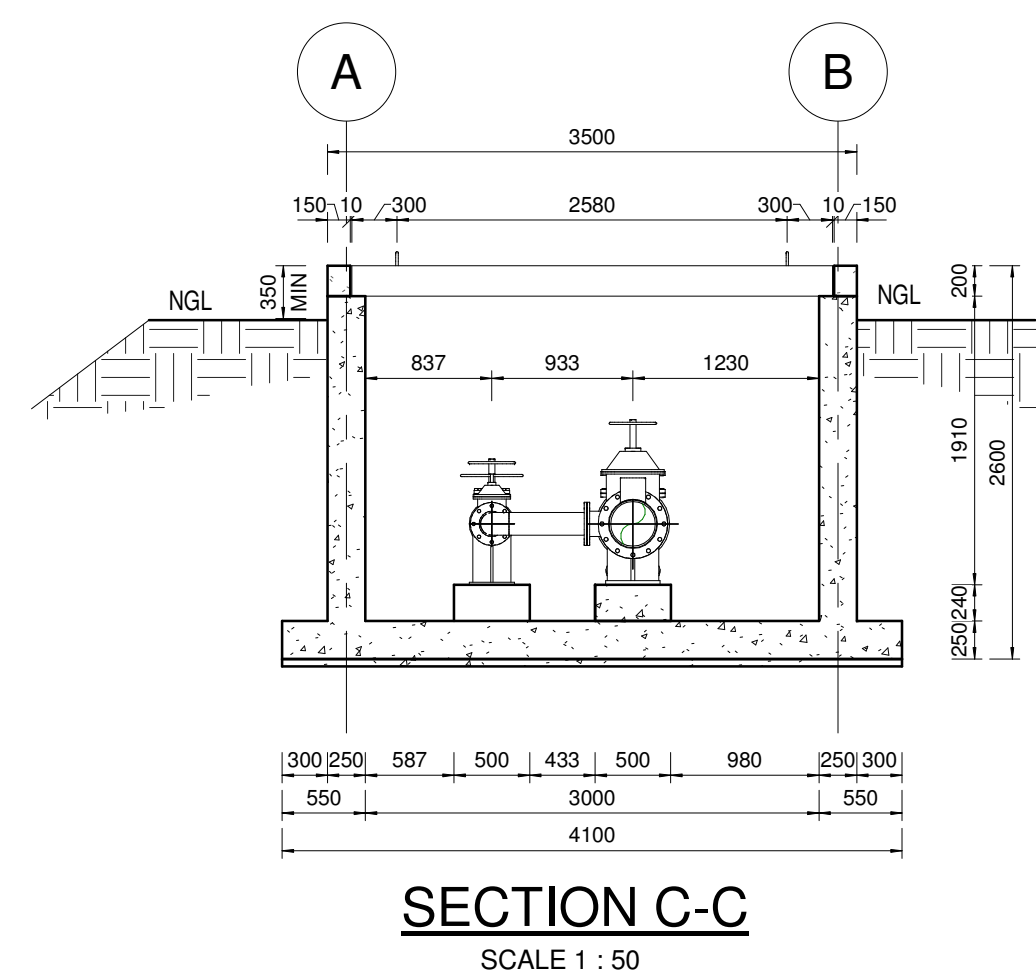
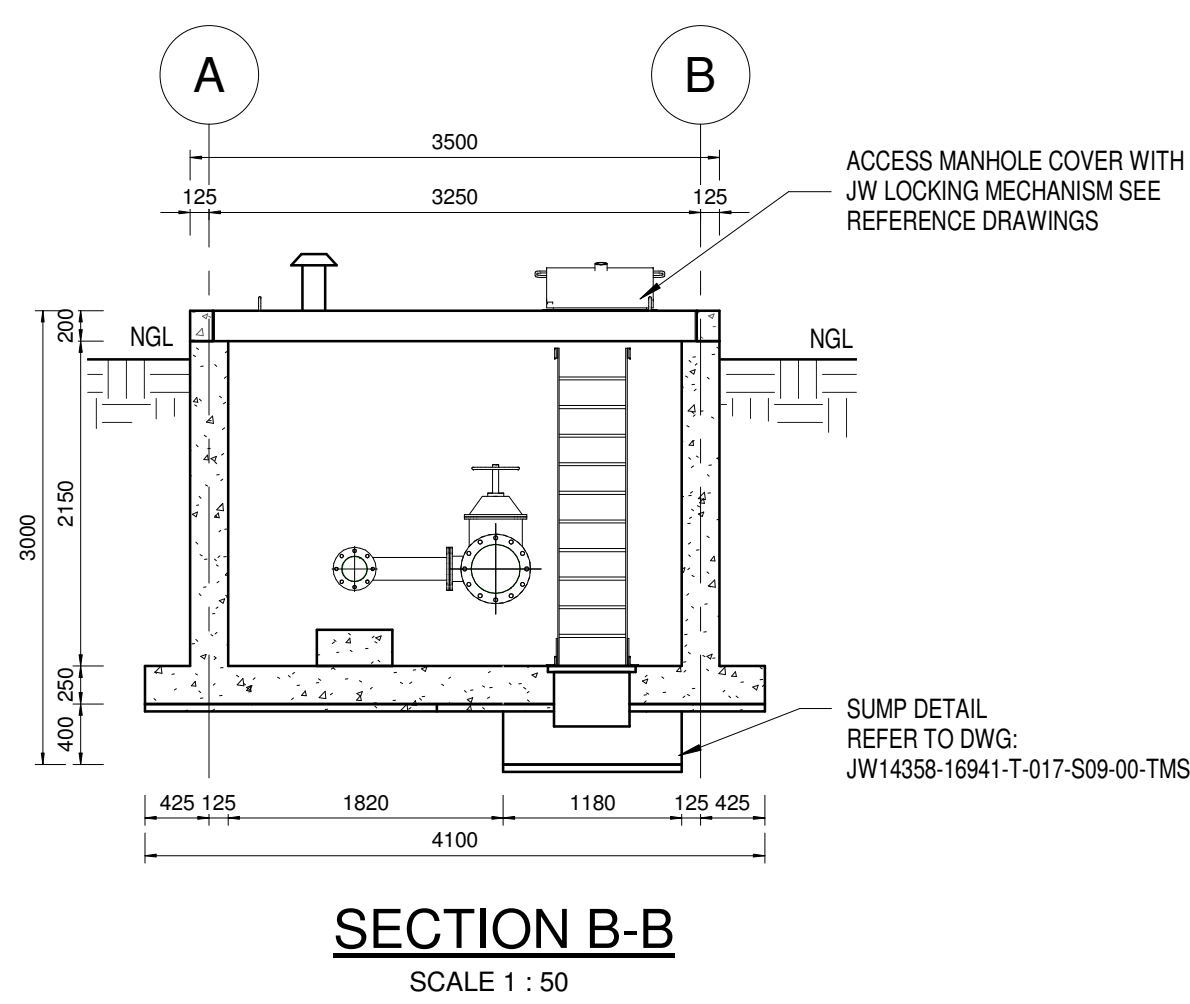
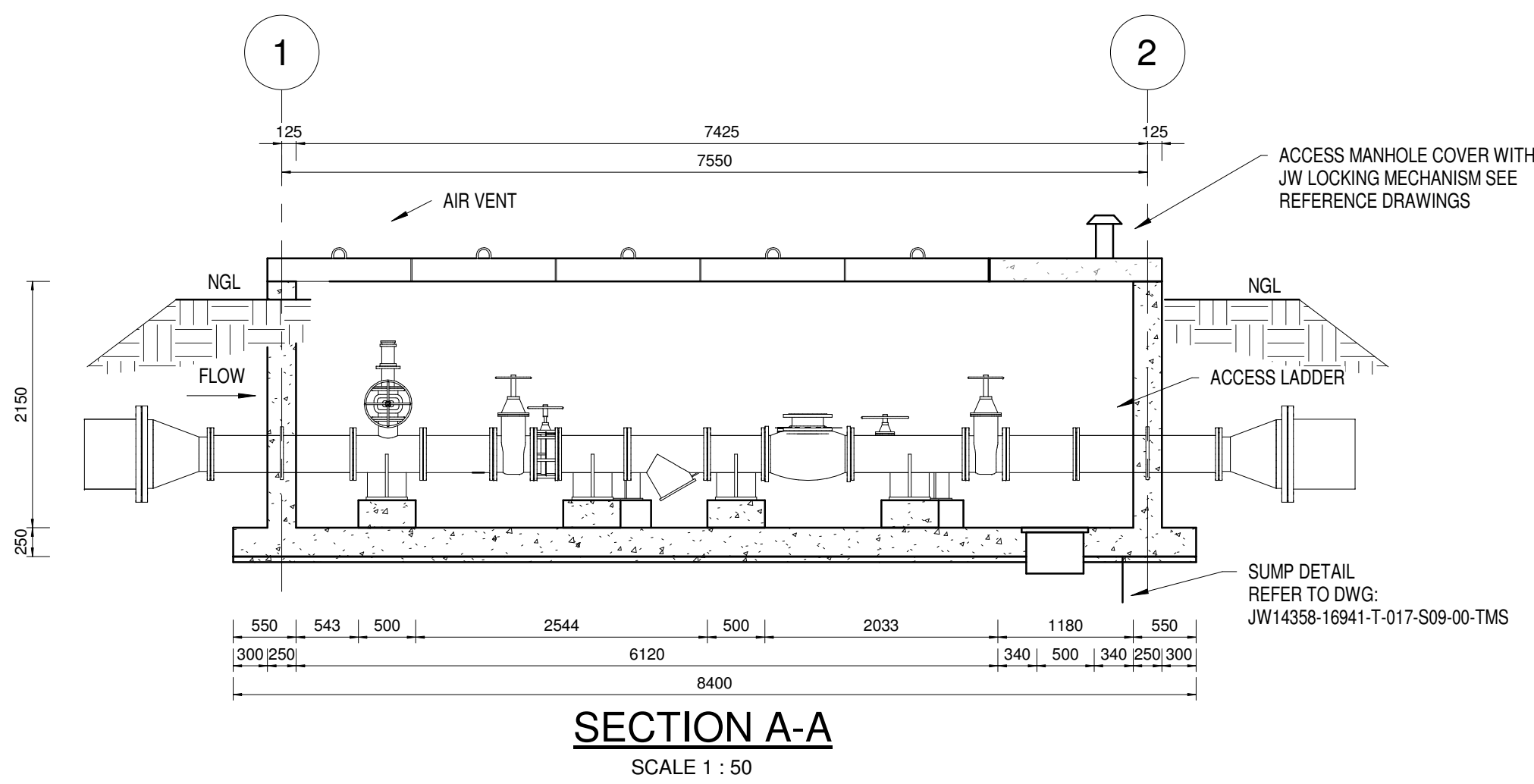
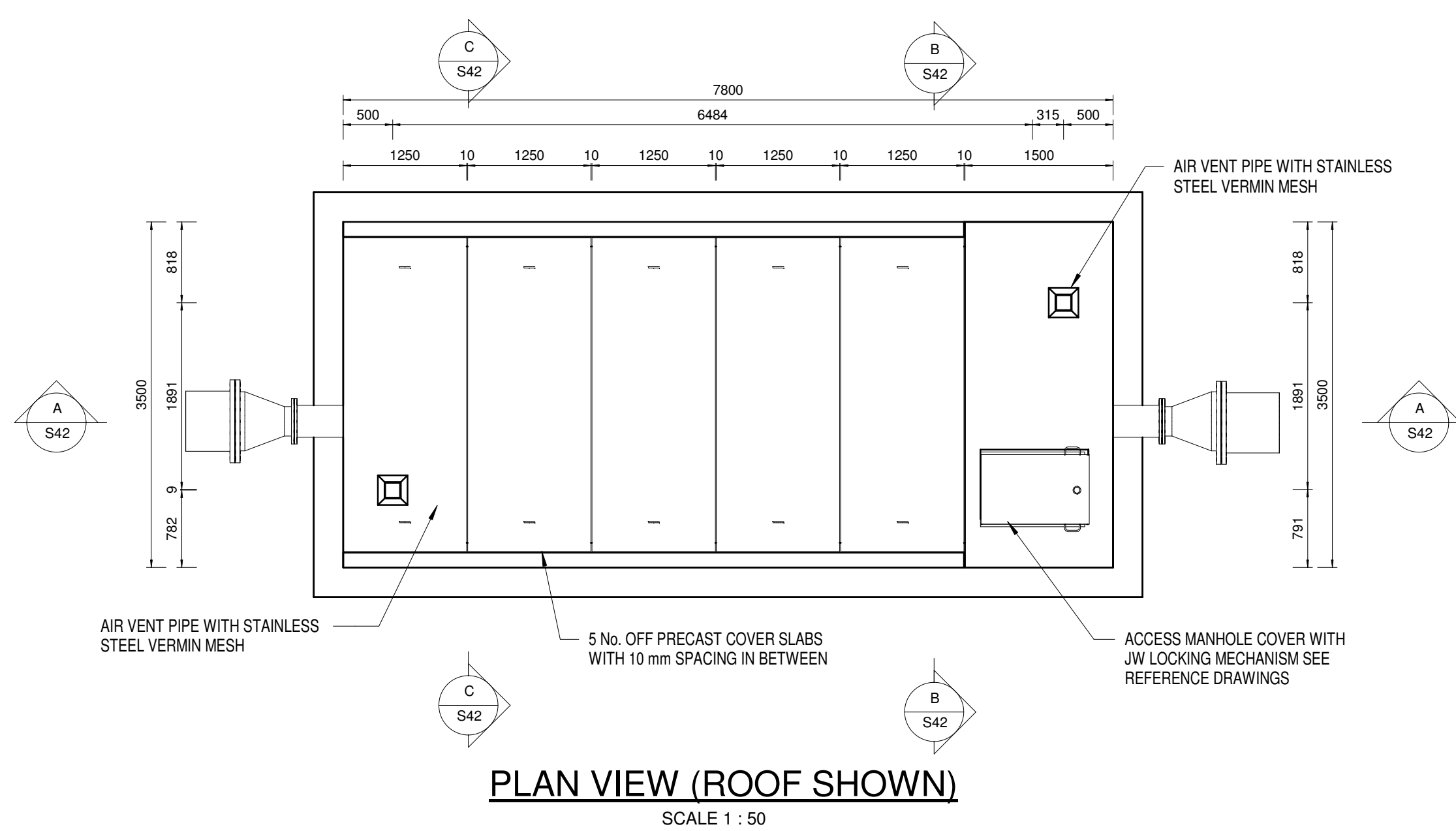
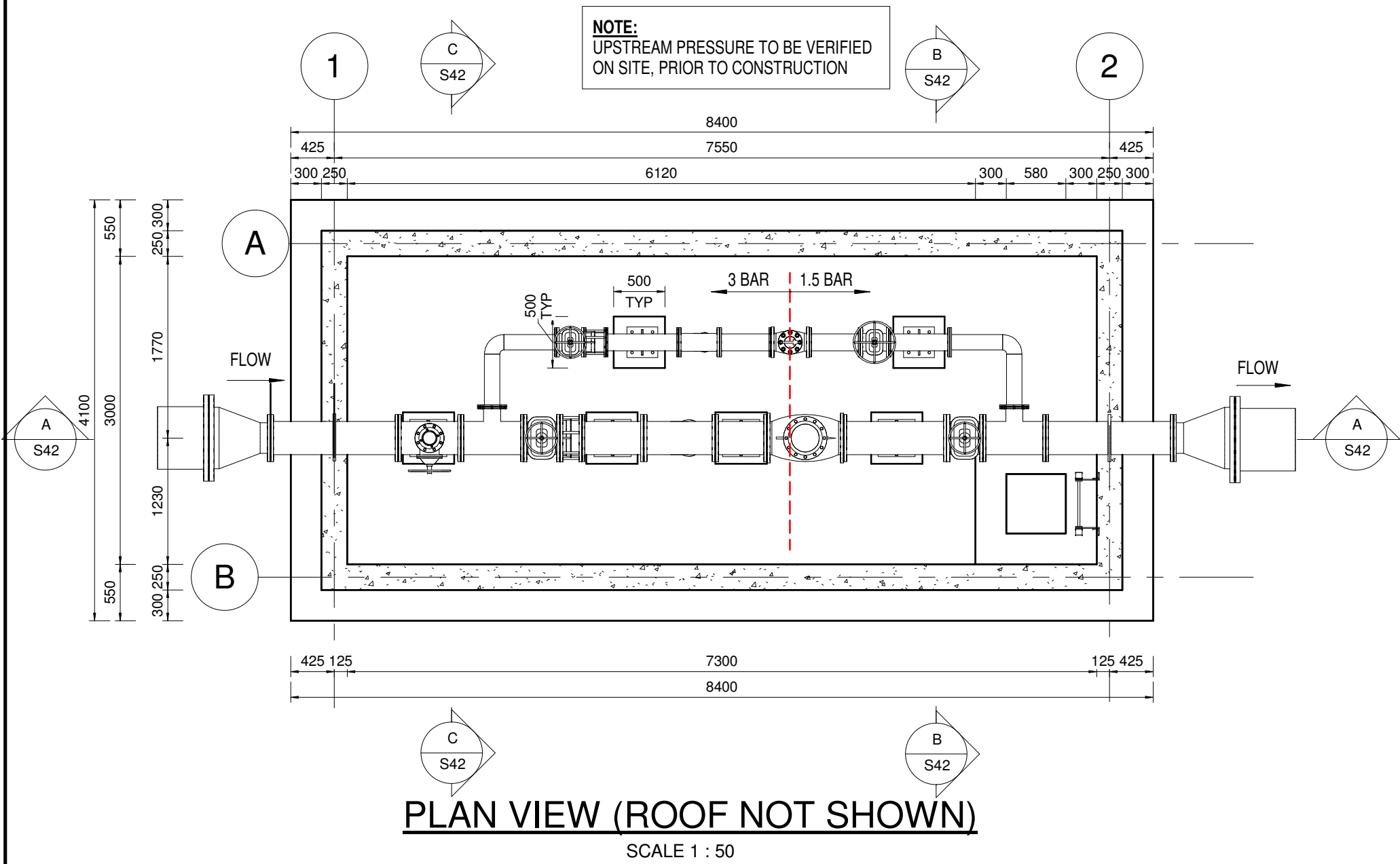


WOODMEAD WATER UPGRADE
DN 350 PIPELINE TEMPORARY ISOLATING VALVE BOX DETAIL

AMENDMENTS

SCALE	REV.	DESCRIPTION	APPROVED	DATE:
AS SHOWN	B	ISSUED FOR TENDER	P.GROBLER	2022-10-31

DRAWING No.: JW14358-16941-T-013-S41-00-TMS



- GENERAL NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
 3. CONCRETE GRADE SHALL BE 35 Mpa/19 mm FOR REINFORCED CONCRETE
 4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING
 5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
 6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
 7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS

JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
JW14358-16941-T-017-S09-00-TMS - CAST IN AIR VENT, COVERS, ACCESS LADDERS
JW14358-16941-T-017-S10-00-TMS - PIPE SUPPORT DETAIL
JW14358-16941-T-012-S11-00-TMS-LAYOUT AND LONGSECTION

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL
CONSULTING ENGINEERS

Nyeleti
Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

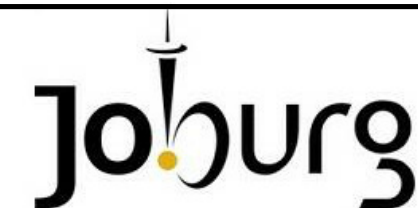
CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T. FOSA	
DRAWN	T. FOSA	
CHECKED	P. SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P. GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

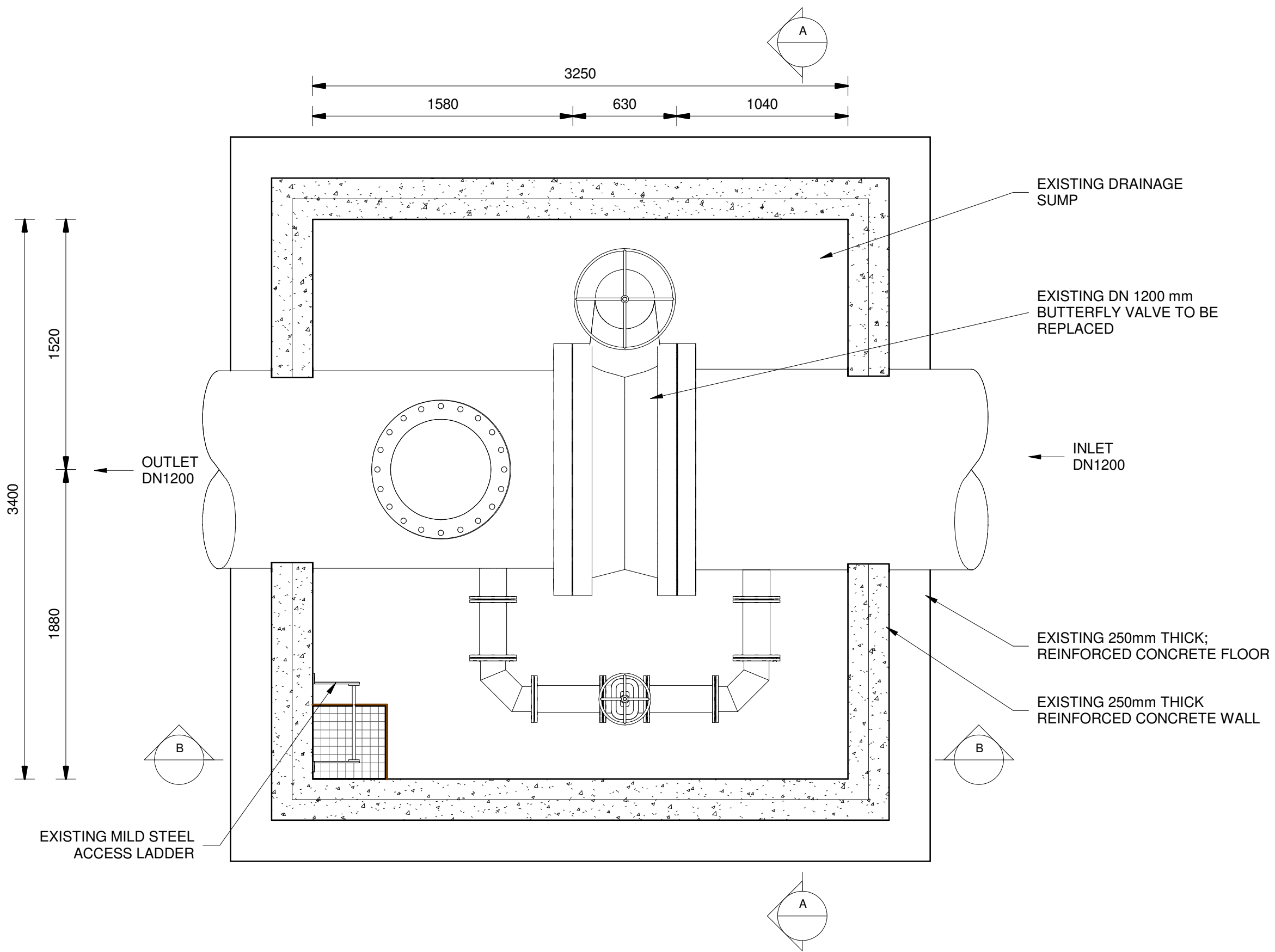


WOODMEAD WATER UPGRADE
DN 600 BYPASS PRESSURE REDUCING VALVE CHAMBER
SHEET 1 OF 2

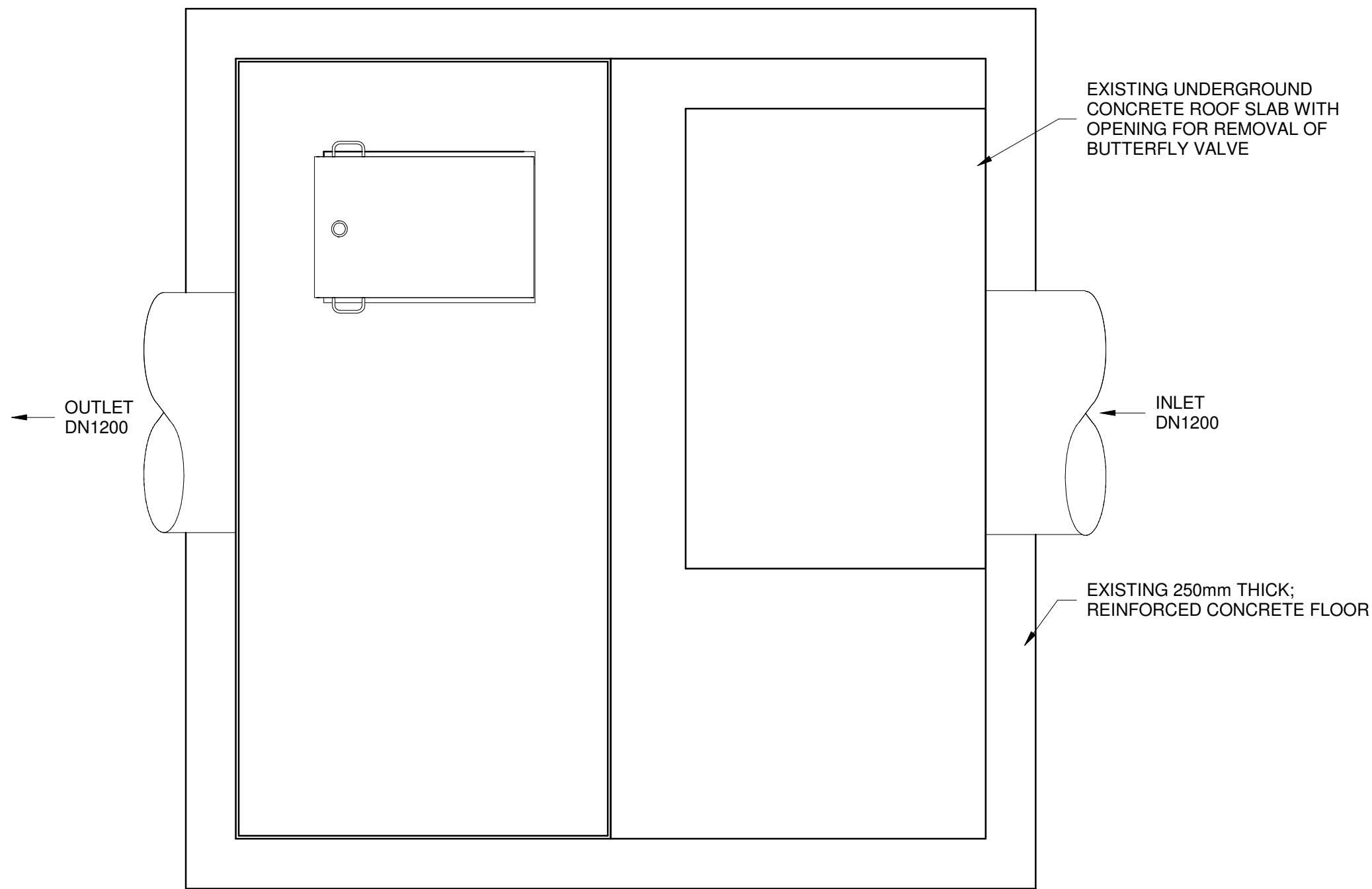
AMENDMENTS

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AS SHOWN	D	ISSUED FOR TENDER	PG	2022-10-27

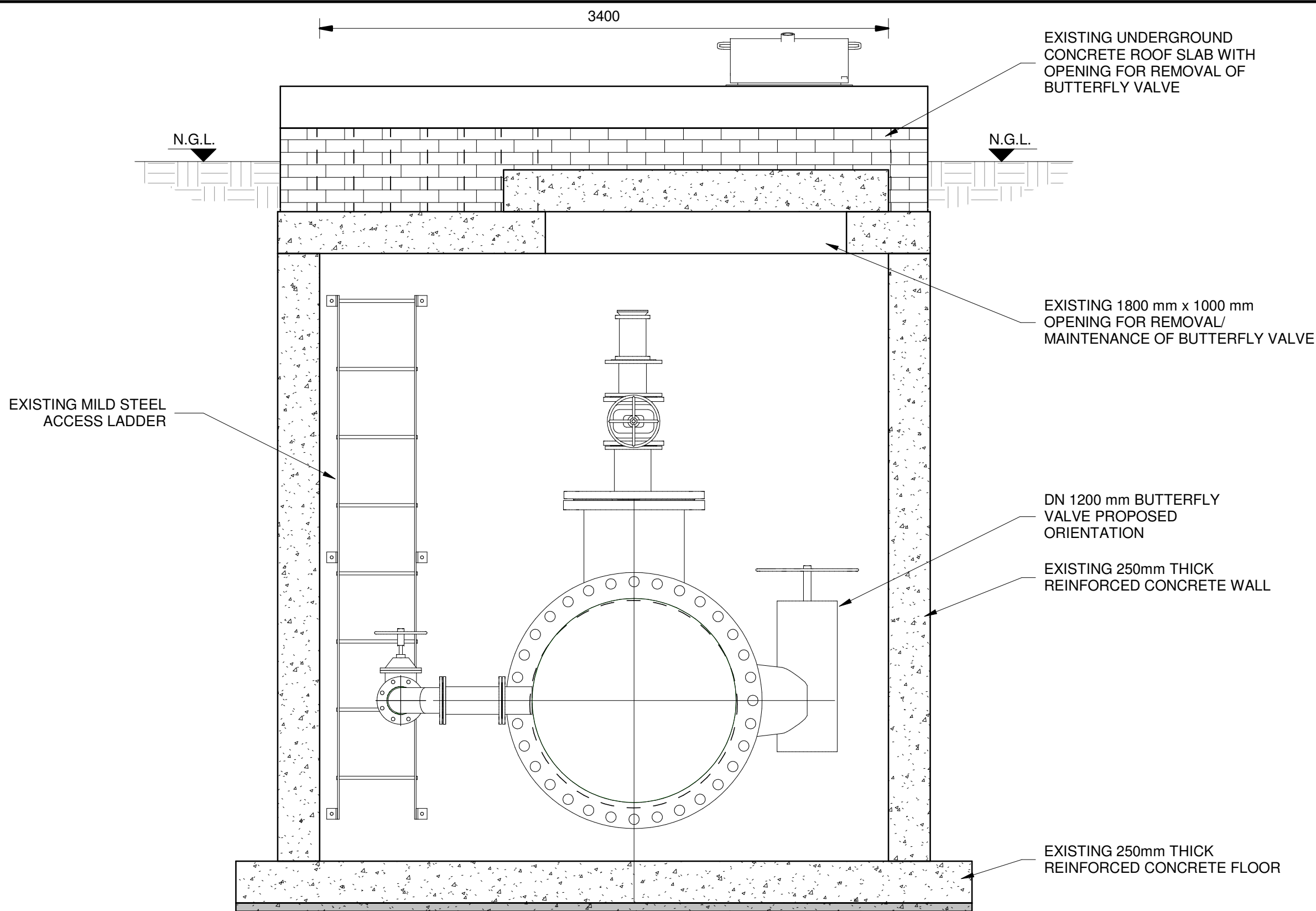
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CONTRACT No.: JW14358			
UR1305B		D	
PROJECT No.		REV.	
A1	SHEET	1	OF 2
ORIGINAL PAGE SIZE			
FILE No.			



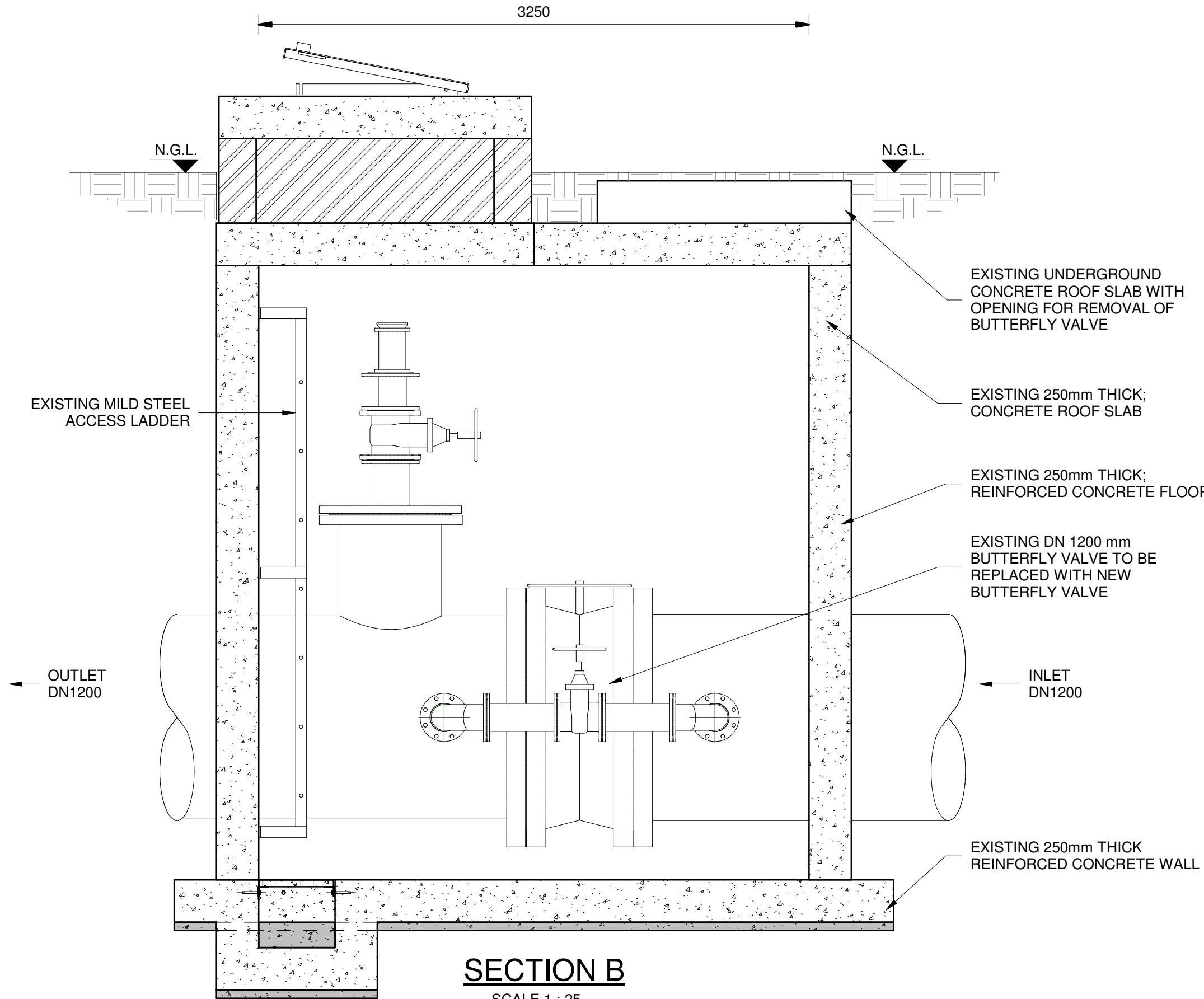
FLOOR PLAN
SCALE 1 : 25



ROOF PLAN
SCALE 1 : 25



SECTION A
SCALE 1 : 25



SECTION B
SCALE 1 : 25

- GENERAL**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
 3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
 4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING
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 7. JOINTS TO BE FILLED WITH POLYSULPHIDE
 8. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

Reference drawings:

JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS

JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

Nyeleti
Engineered to Excel

Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T.FOSA	
DRAWN	Y.GOVENDER	
CHECKED	P.SEKAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304
		DWG NO.



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

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FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
EXISTING BUTTERFLY VALVE CHAMBER 1 UPGRADE
SHEET 1 OF 2

AMENDMENTS

SCALE	REV.	DESCRIPTION	APPROVED	DATE:
AS SHOWN	B	ISSUED FOR TENDER	PG	31/10/2022

DRAWING No JW14358-16941-T-013-S45-00-TMS

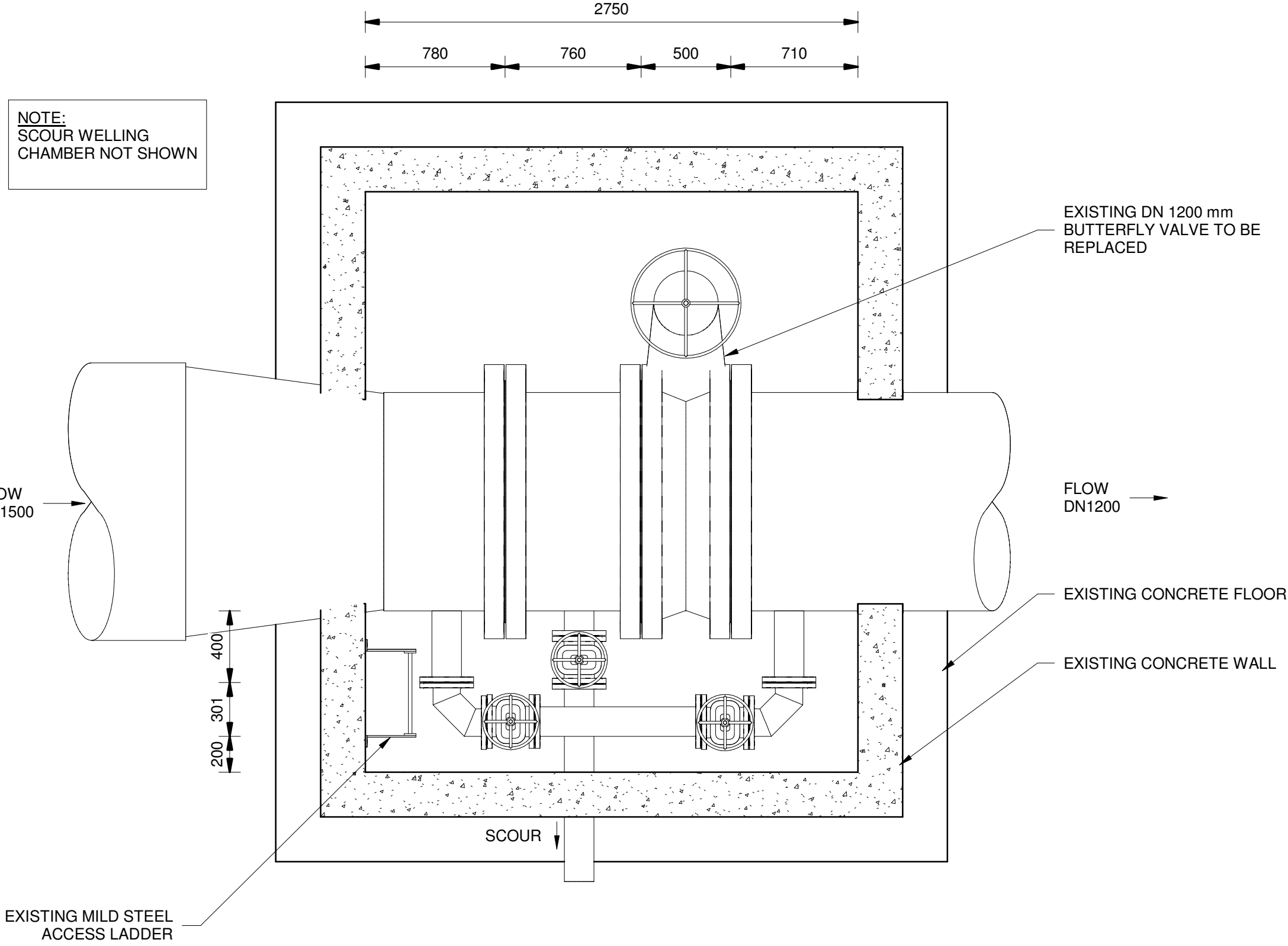
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UR1305B B

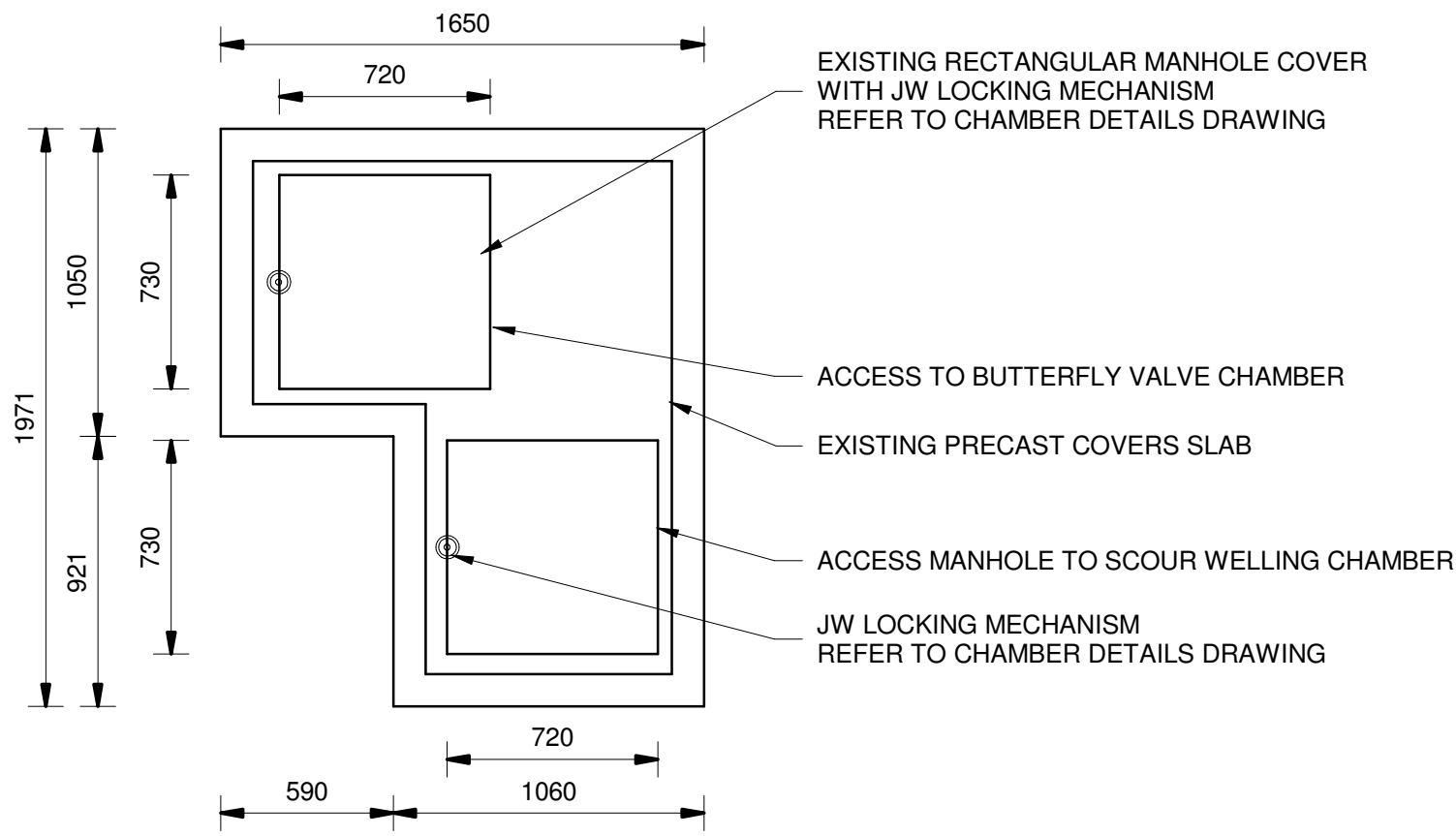
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A1 SHEET 1 OF 2

ORIGINAL PAGE SIZE
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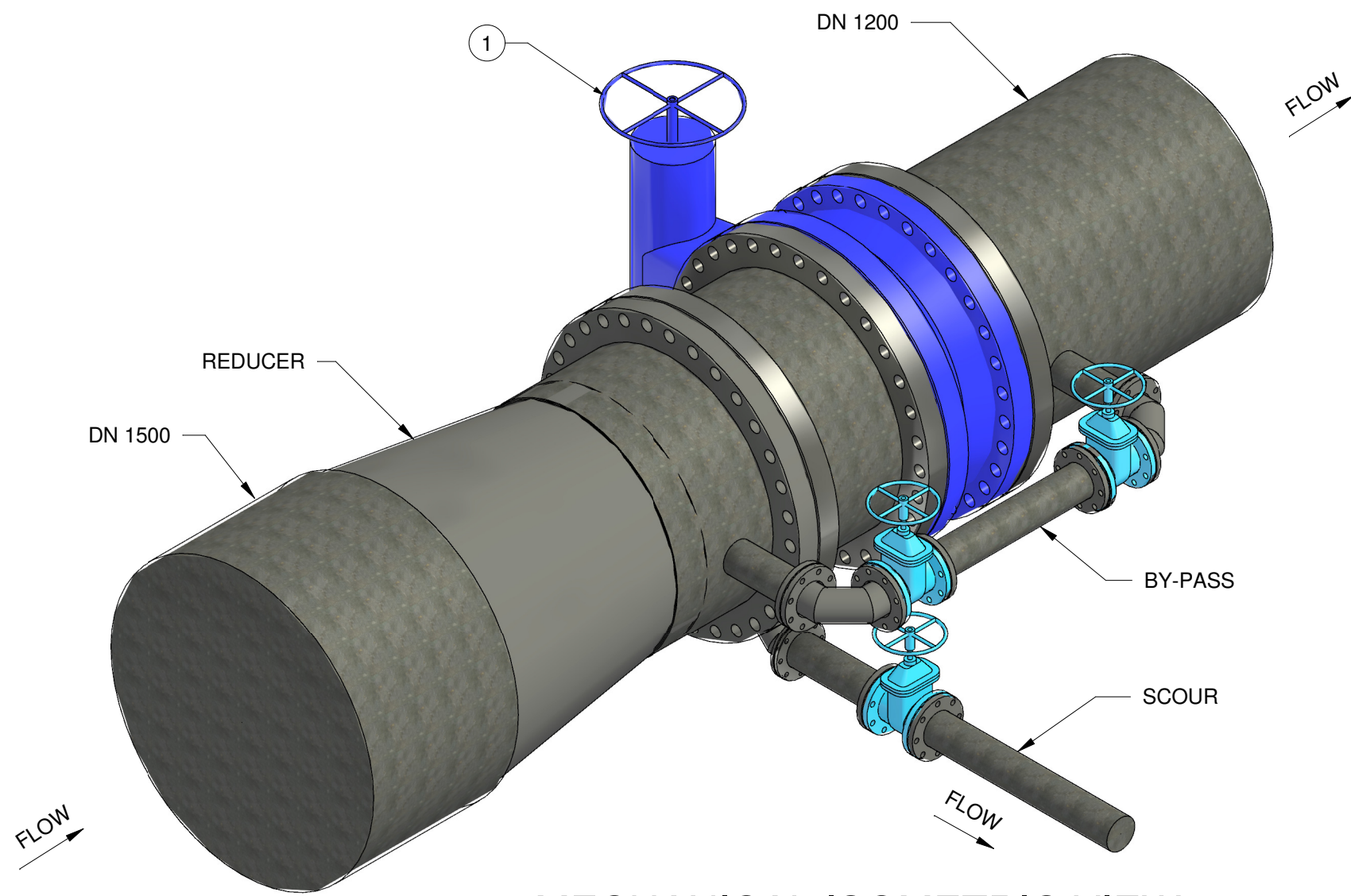
FLOOR PLAN
SCALE 1 : 25



ROOF PLAN
SCALE 1 : 25

PIPE SCHEDULE - EXISITNG BUTTERFLY VALVE CHAMBER 2 UPGRADE

ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMATER
1		PN25	DN 1200 CENTRIC WAFER BUTERFLY VALVE TO EN 593, AVK OR SIMILAR, LOOSE EPDM LINER FOR DRINKING WATER, WITH GEARBOX	EPOXY	1	1200 mm



MECHANICAL ISOMETRIC VIEW
SCALE 1:25

- GENERAL
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
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 - CONCRETE GRADE SHALL BE 30 Mpa/19 mm
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 - JOINTS TO BE FILLED WITH POLYSULPHIDE
 - REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS

JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTING ENGINEERS

Nyeleti
Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntomi Piliso Street
Newtown, Johannesburg

DESIGNED	T.FOSA	
DRAWN	Y.GOVENDER	
CHECKED	P.SEKAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304

Johannesburg Water

Turbine Hall
65 Ntomi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

Joburg

WOODMEAD WATER UPGRADE
EXISTING BUTTERFLY VALVE CHAMBER 2 UPGRADE

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
1:25	A	ISSUED FOR TENDER	PG	12/01/2022

CONTRACT No.: JW14358

UR1305B

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PROJECT No.

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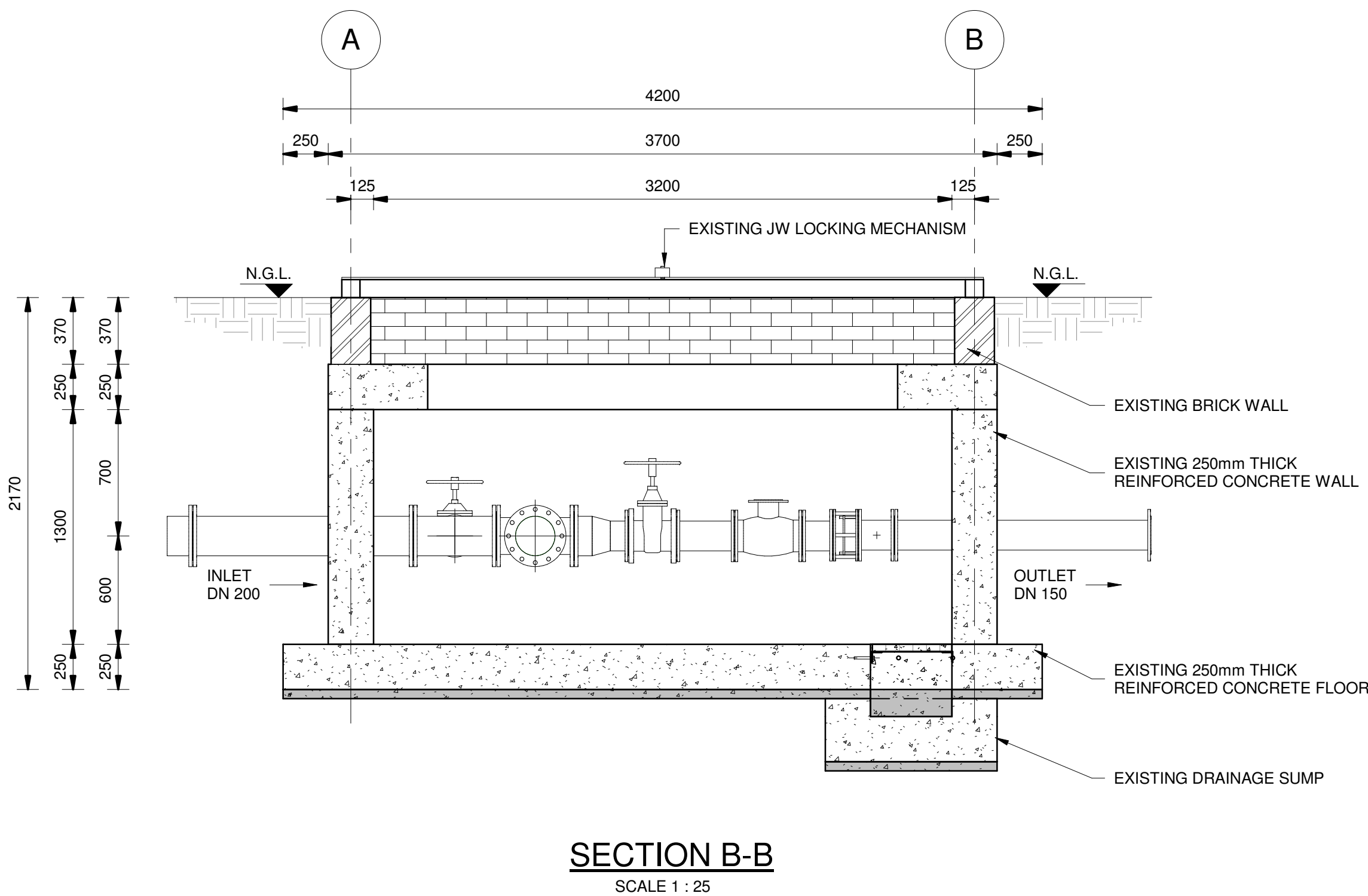
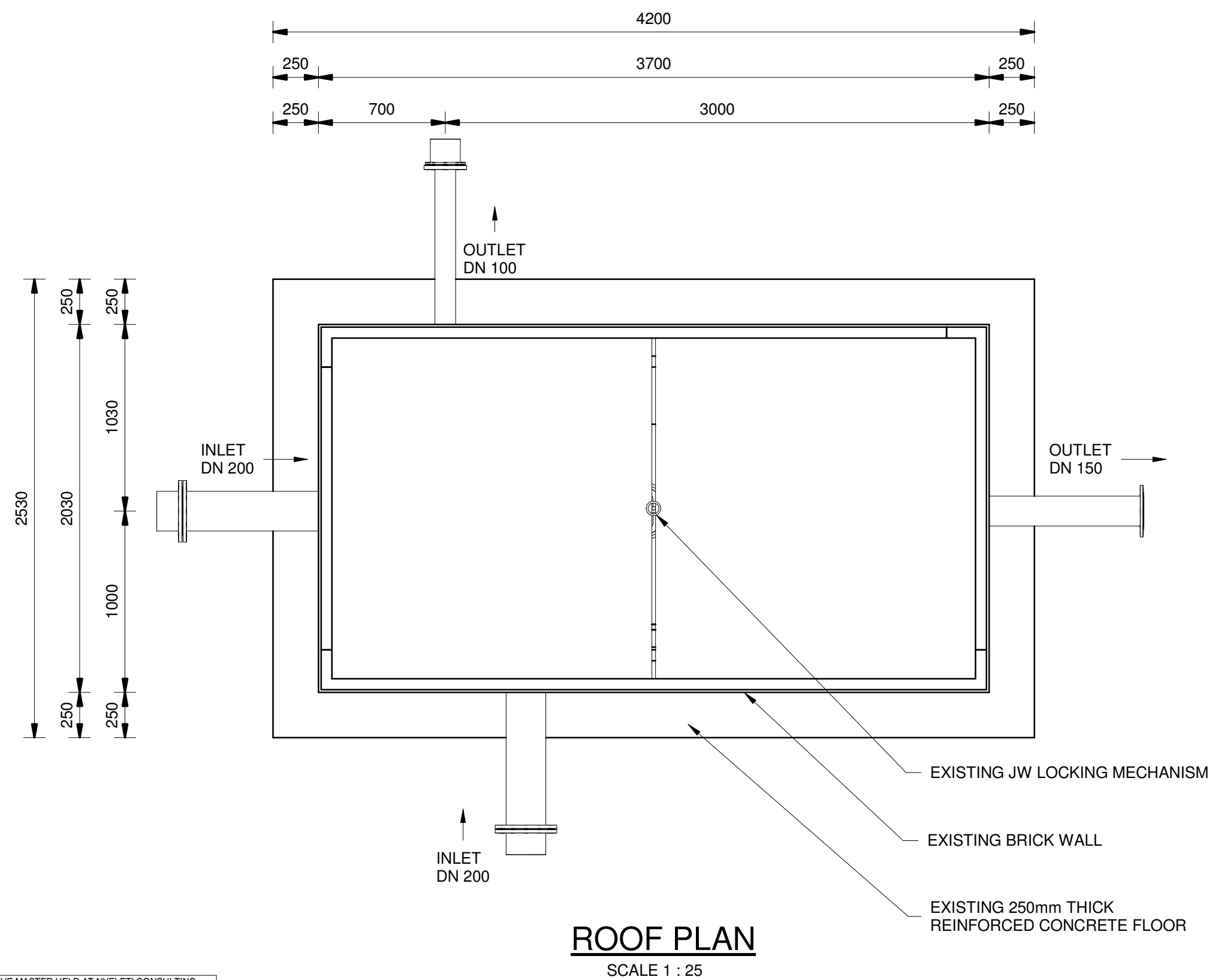
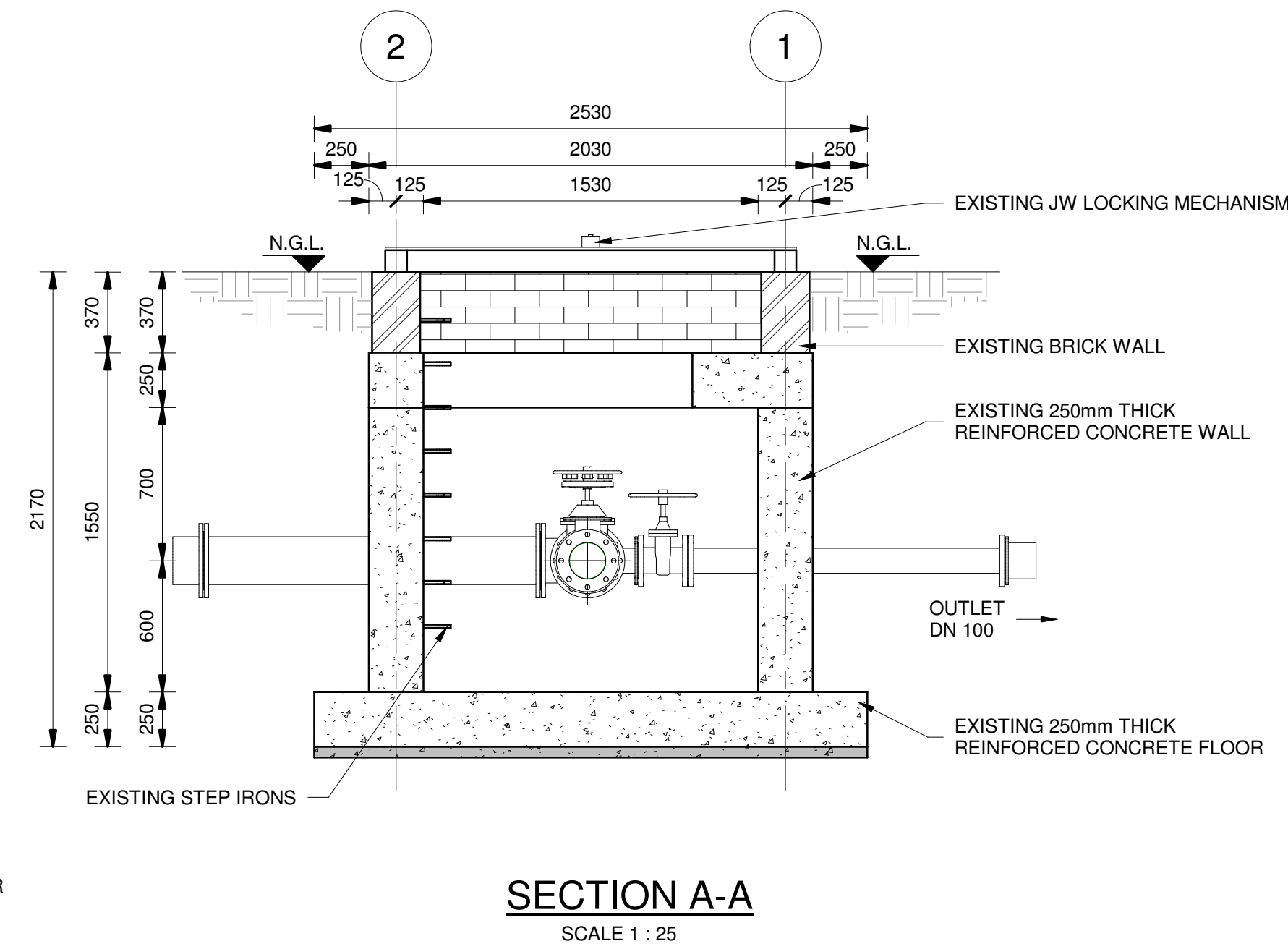
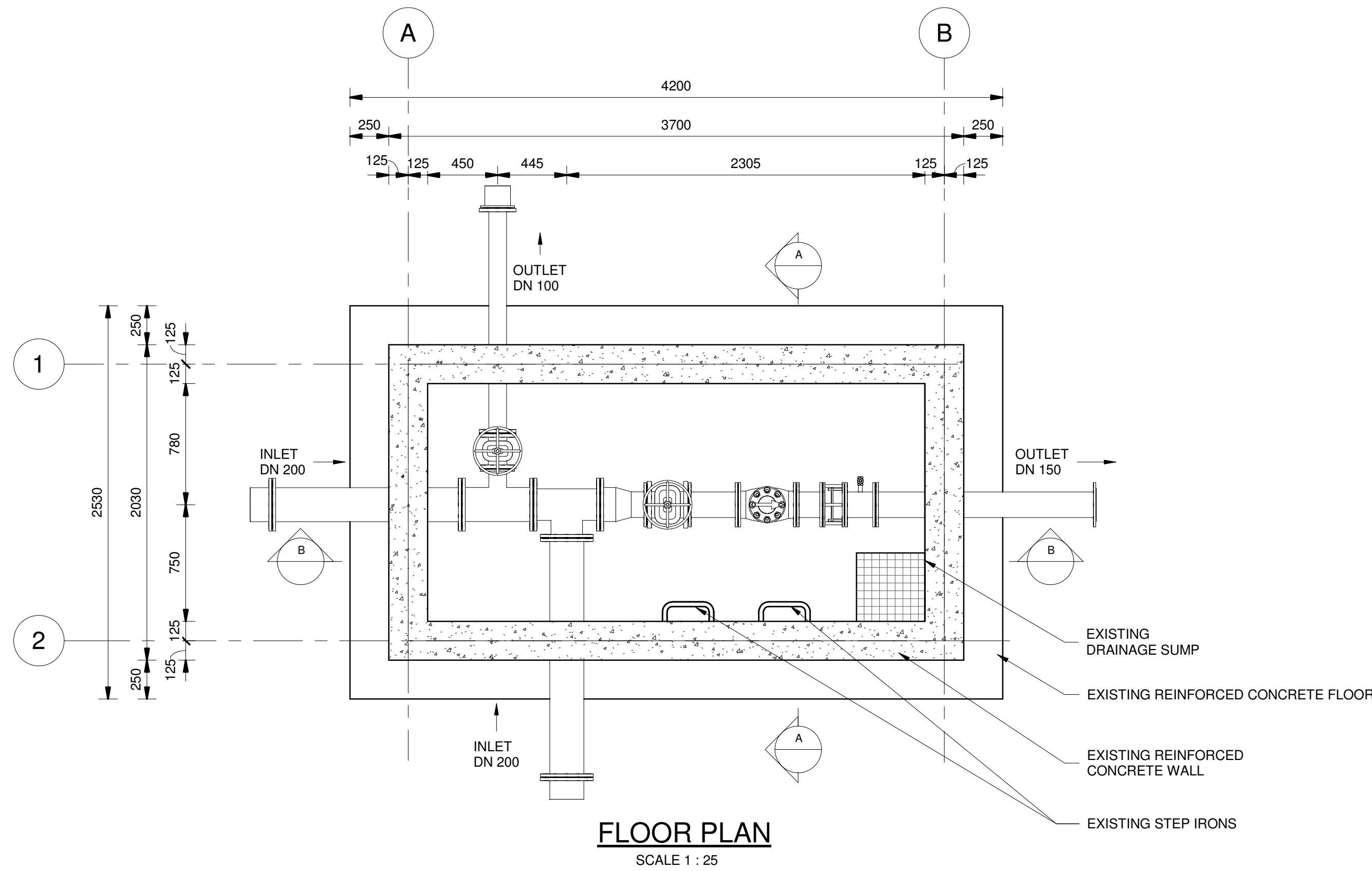
SHEET

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OF

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ORIGINAL PAGE SIZE
FILE No.



- GENERAL**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
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 7. JOINTS TO BE FILLED WITH POLYSULPHIDE.
 8. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES.

REFERENCE DRAWINGS

JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL.

Nyeleti
Engineered to Excel

Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

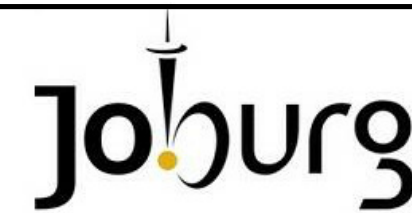
CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntlemi Piliso Street
Newtown, Johannesburg

DESIGNED T.FOSA
DRAWN Y.GOVENDER
CHECKED P.SKOAILA
DATE:
SIGNATURE
ECSA REG. No
APPROVED BY: P.GROBLER
DATE:
SIGNATURE
ECSA REG. No 950304



Turbine Hall
65 Ntlemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

EXISTING DN 150 PRV CHAMBER UPGRADE

SHEET 1 OF 2

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	B	ISSUED FOR TENDER	PG	27/10/2022

DRAWING No JW14358-16941-T-013-S49-00-TMS

CONTRACT No.: JW14358

UR1305B

PROJECT No.

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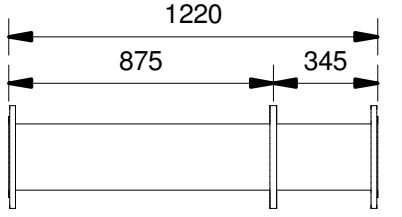
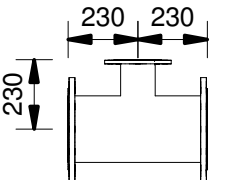
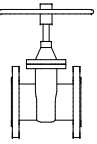
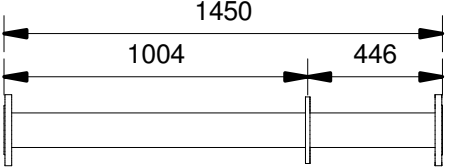
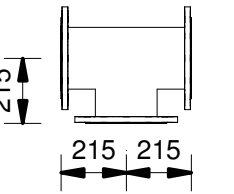
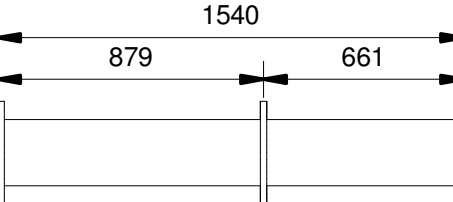
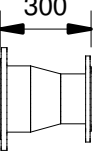
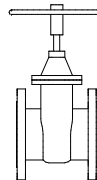
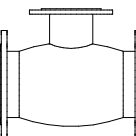
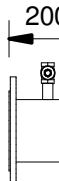
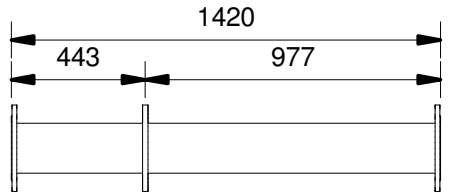
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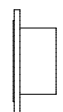
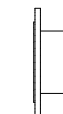
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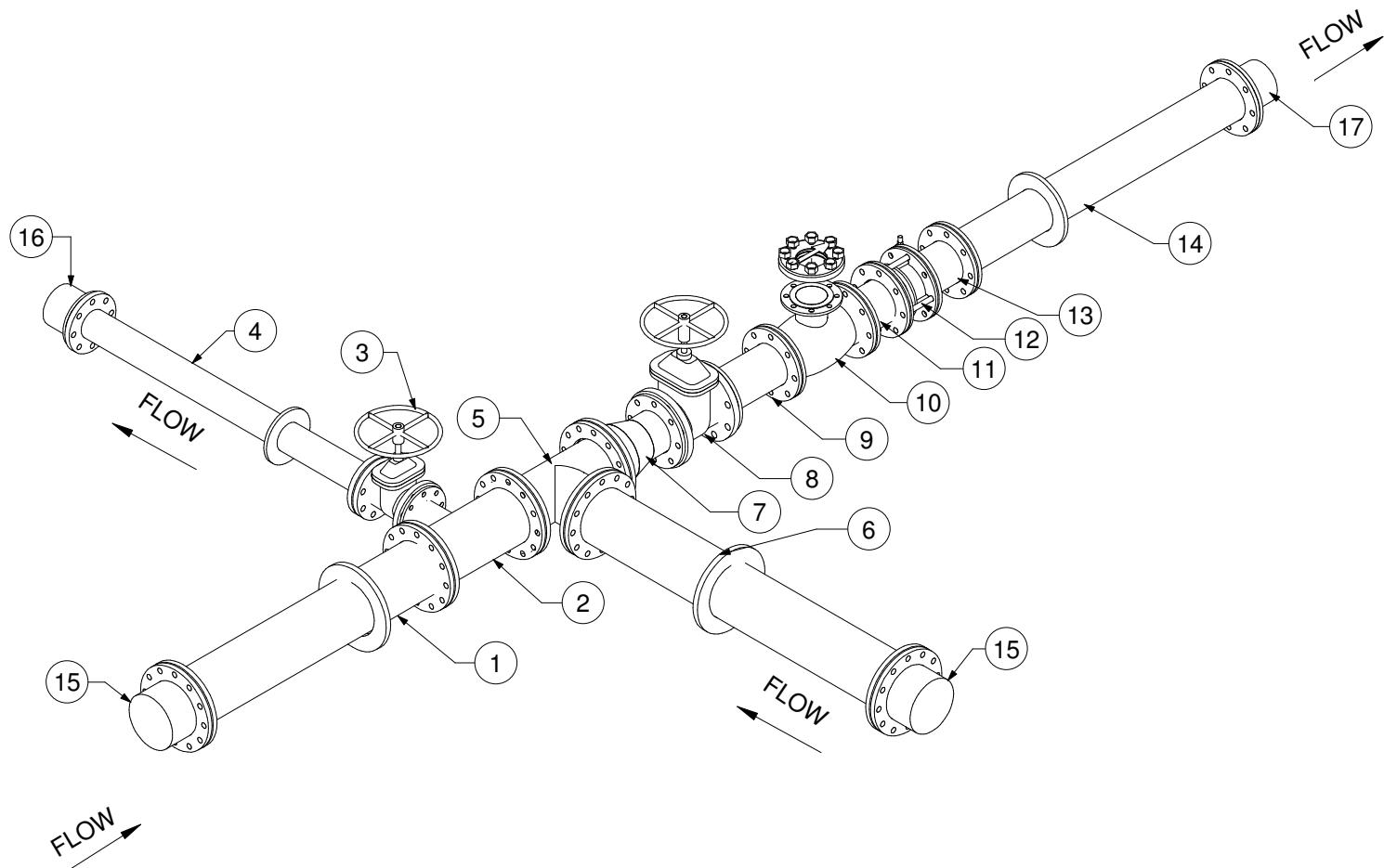
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PIPE SCHEDULE - EXISITNG DN 150 PRV CHAMBER UPGRADE						
ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
1		PN16	PUDDLE PIPE DN 200 x 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN 200
2		PN16	UNEQUAL TEE; DN 200 x DN 100 x 6 mm SANS 719 ; FLANGED ALL ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 200 - DN 100
3		PN16	DN 100 RESILIENT SEAL GATE VALVE; NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED; BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 100
4		PN16	PUDDLE PIPE DN 100 mm SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN 100
5		PN16	EQUAL TEE; DN 200 x 6 mm SANS 719; FLANGED ALL ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 200
6		PN16	PUDDLE PIPE DN 200 mm x 6 mm SANS 719; FLANGED BOTH ENDS SANS 1123 TABLE 1600/3 WITH PUDDLE	RPU	1	DN 200
7		PN16	CONCENTRIC REDUCER; DN 200 x DN 150 x 6 mm SANS 719; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 200 - DN 150
8		PN16	DN 150 RESILIENT SEAL GATE VALVE; NON RISING SPINDLE; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED; BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 150
9		PN16	SPOOL PIECE DN 150 SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 150
10		PN16	DN 150 PRESSURE REDUCING VALVE, FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 150
11		PN16	SPOOL PIECE DN 150 SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3	RPU	1	DN 150
12		PN16	DISMANTLING JOINT DN 150 FLANGED TO SANS 1123 TABLE 1600/3	EPOXY	1	DN 150
13		PN16	SPOOL PIECE DN 150 SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3 WITH PRESSURE SOCKET	RPU	1	DN 150
14		PN16	PUDDLE PIPE DN 150 mm SANS 62 MEDIUM CLASS; FLANGED BOTH ENDS TO SANS 1123 TABLE 1600/3 WITH PUDDLE FLANGE	RPU	1	DN 150

PIPE SCHEDULE - EXISITNG DN 150 PRV CHAMBER UPGRADE						
ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
15		PN16	DN 200 FLANGE ADAPTOR FOR HIGH-IMPACT MPVC CLASS 16 COMPLETE WITH SHOULDERED END COUPLING SYSTEM; FLANGE DRILLED TO SANS 1123 TABLE 1600/3	RPU	2	DN 200
16		PN16	DN100 FLANGE ADAPTOR FOR HIGH-IMPACT MPVC CLASS 16 COMPLETE WITH SHOULDERED END COUPLING SYSTEM; FLANGE DRILLED TO SANS 1123 TABLE 1600/3	RPU	1	DN 100
17		PN16	DN 150 FLANGE ADAPTOR FOR HIGH-IMPACT MPVC CLASS 16 COMPLETE WITH SHOULDERED END COUPLING SYSTEM; FLANGE DRILLED TO SANS 1123 TABLE 1600/3	RPU	1	DN 150

- GENERAL
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
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 - JOINTS TO BE FILLED WITH POLYSULPHIDE
 - REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES



MECHANICAL ISOMETRIC VIEW
SCALE 1:25

REFERENCE DRAWINGS

- JW14358-16941-T-012-S13-00-TMS-LAYOUT AND LONGSECTION
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

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BEARS THE ORIGINAL SIGNATURE OF APPROVAL
CONSULTING ENGINEERS

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DESIGNED T.FOSA
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APPROVED BY: P.GROBLER
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950304



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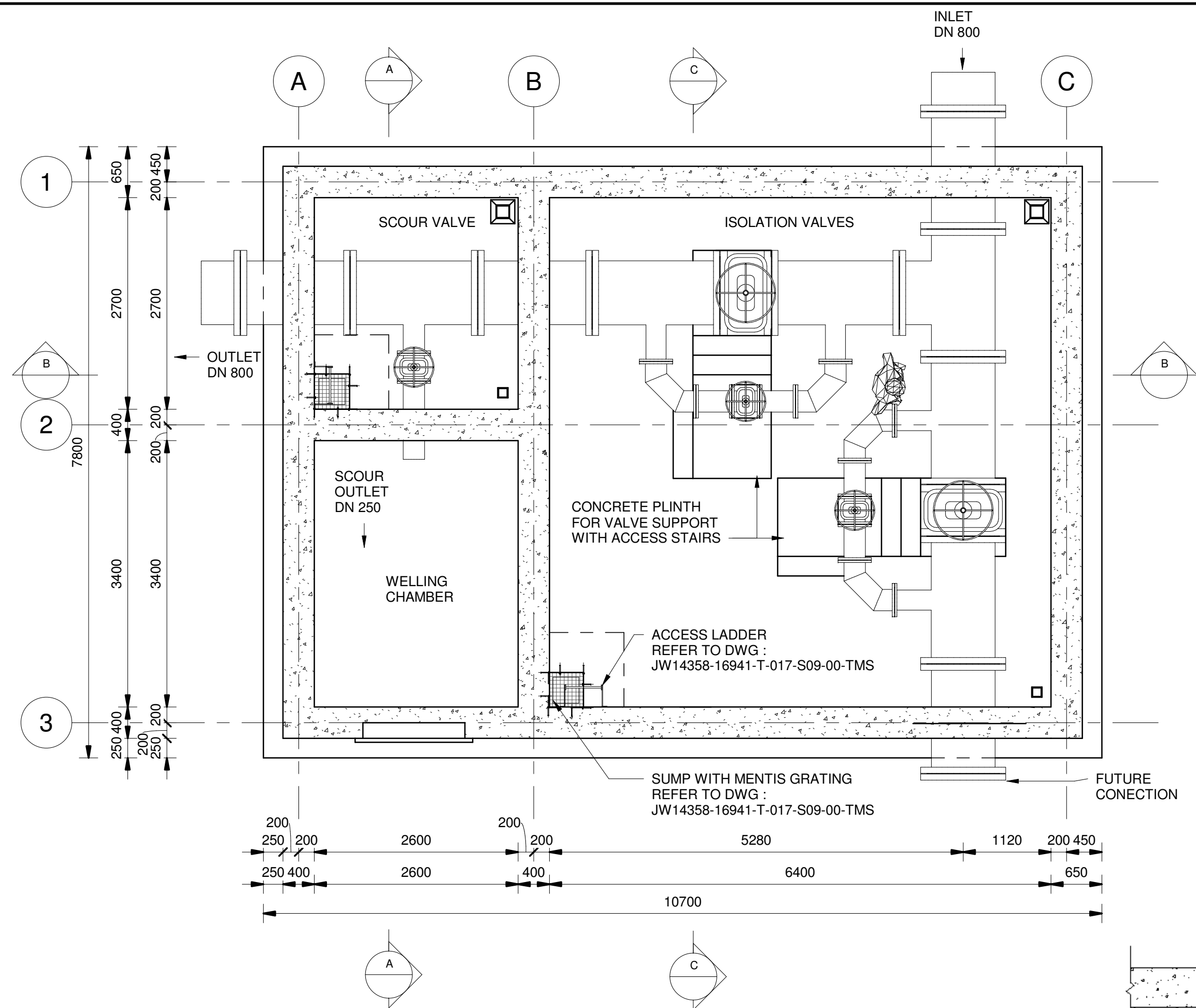


WOODMEAD WATER UPGRADE
EXISTING DN 150 PRV CHAMBER UPGRADE
SHEET 2 OF 2

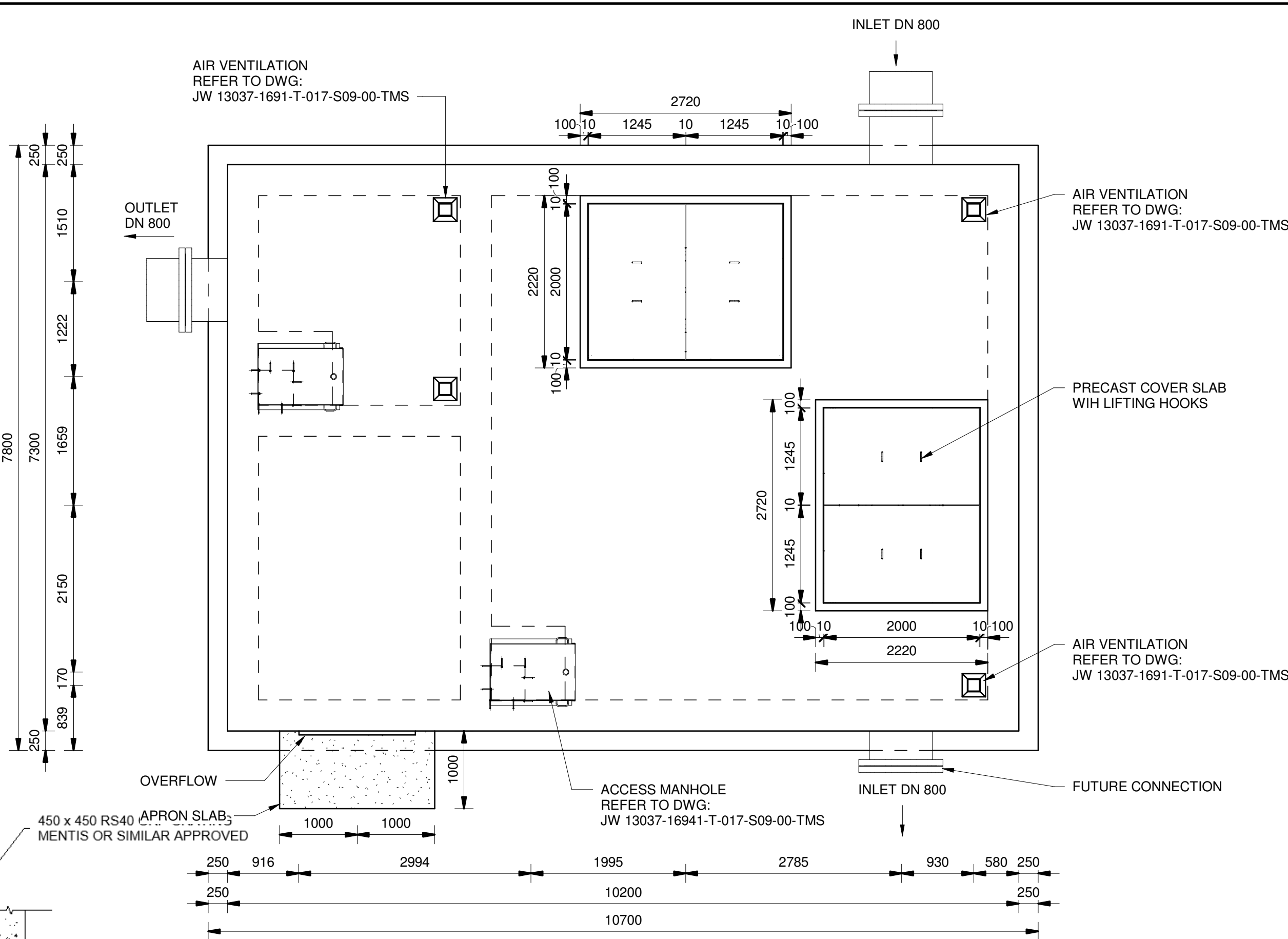
AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	B	ISSUED FOR TENDER	PG	27/10/2022

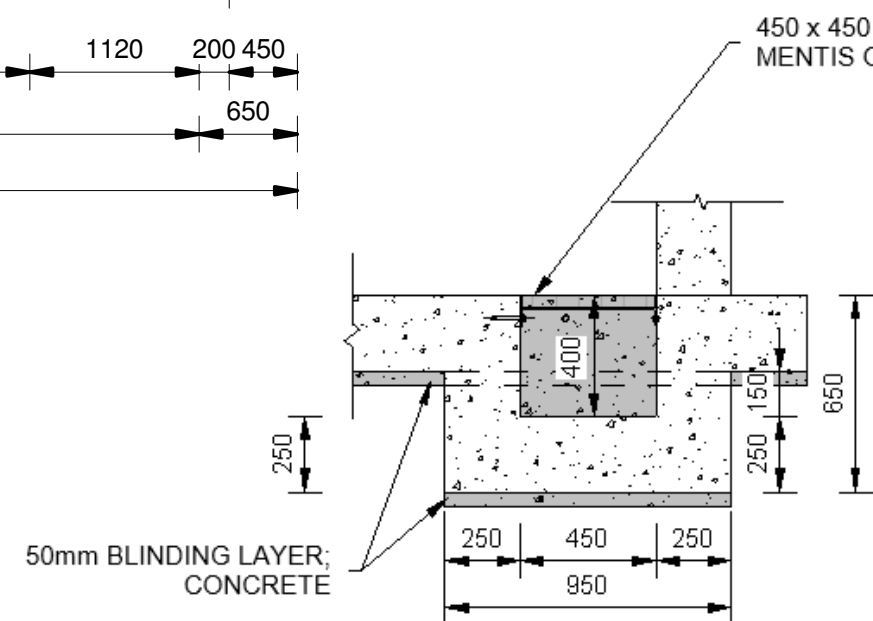
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CONTRACT No.: JW14358
UR1305B
PROJECT No.
REV.
A1 SHEET 2 OF 2
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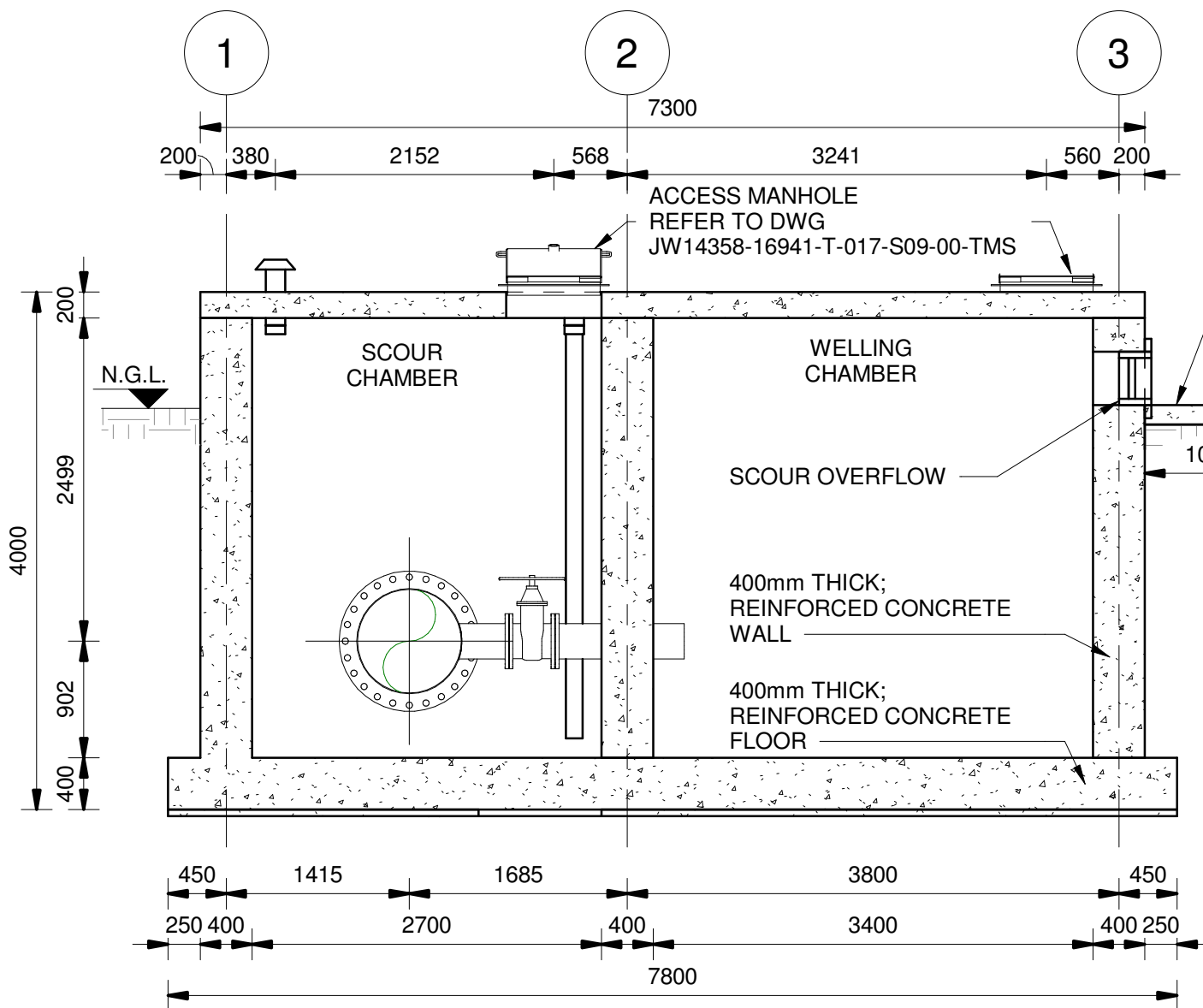
PLAN VIEW (ROOF NOT SHOWN)
SCALE 1 : 50



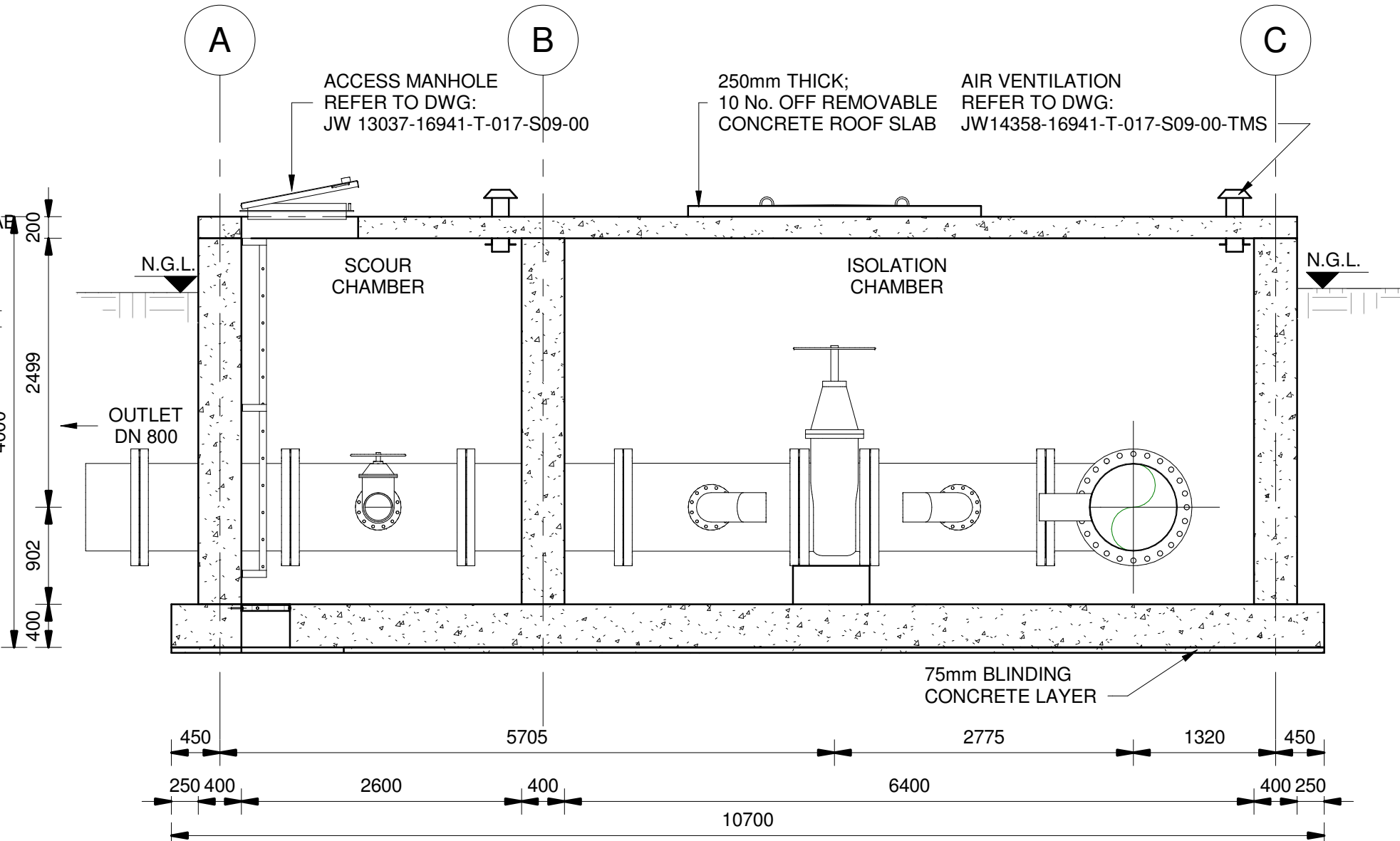
PLAN VIEW (ROOF SHOWN)
SCALE 1 : 50



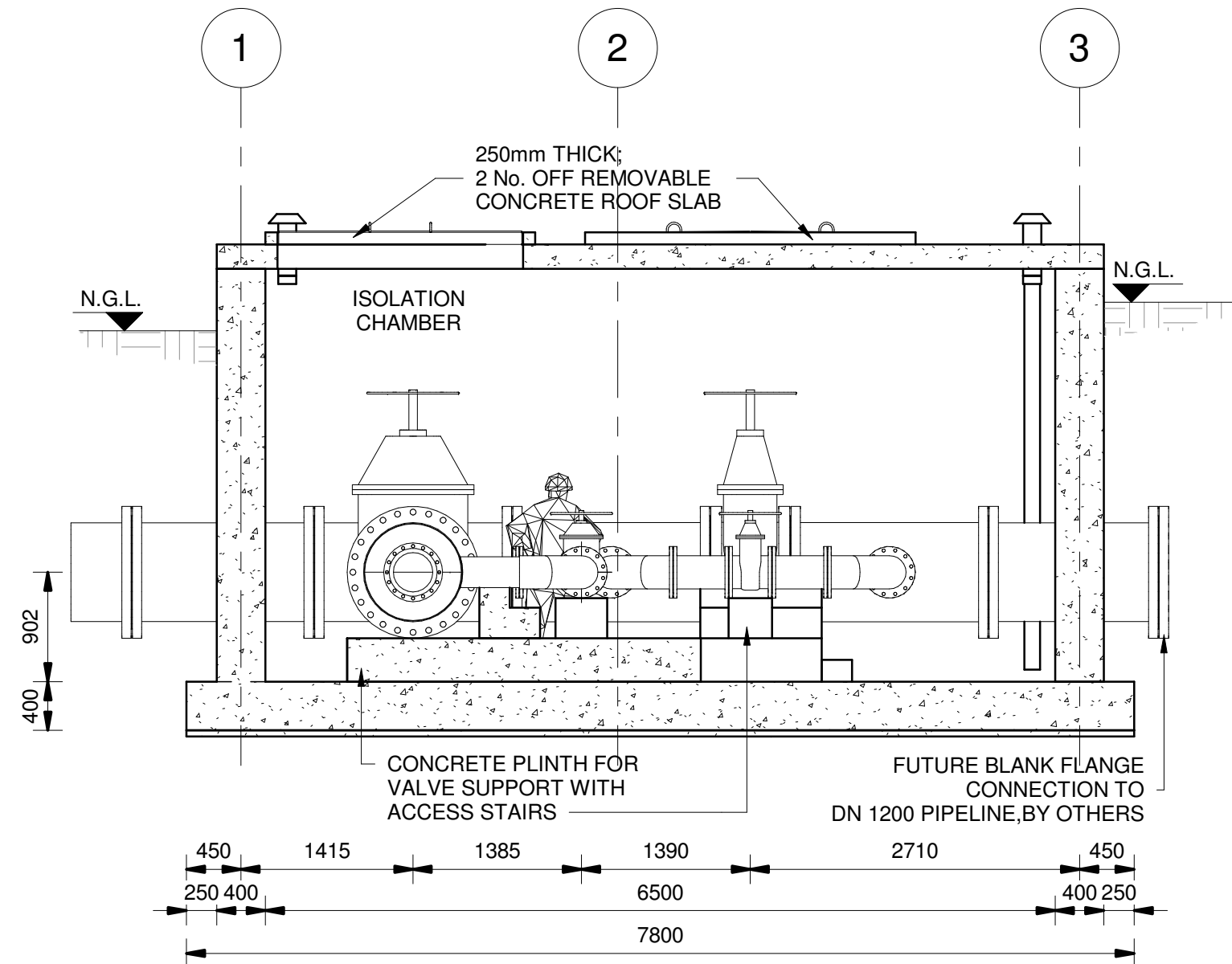
SUMP DETAIL
SCALE 1 : 25



SECTION A-A
SCALE 1 : 50



SECTION B-B
SCALE 1 : 50



SECTION C-C
SCALE 1 : 50

- GENERAL**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN.
 3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE.
 4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING.
 5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
 6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS.
 7. JOINTS TO BE FILLED WITH POLYSULPHIDE.
 8. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES.

REFERENCE DRAWINGS

JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

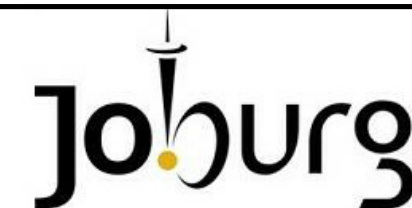
FOR TENDER

 Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE:
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE:
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

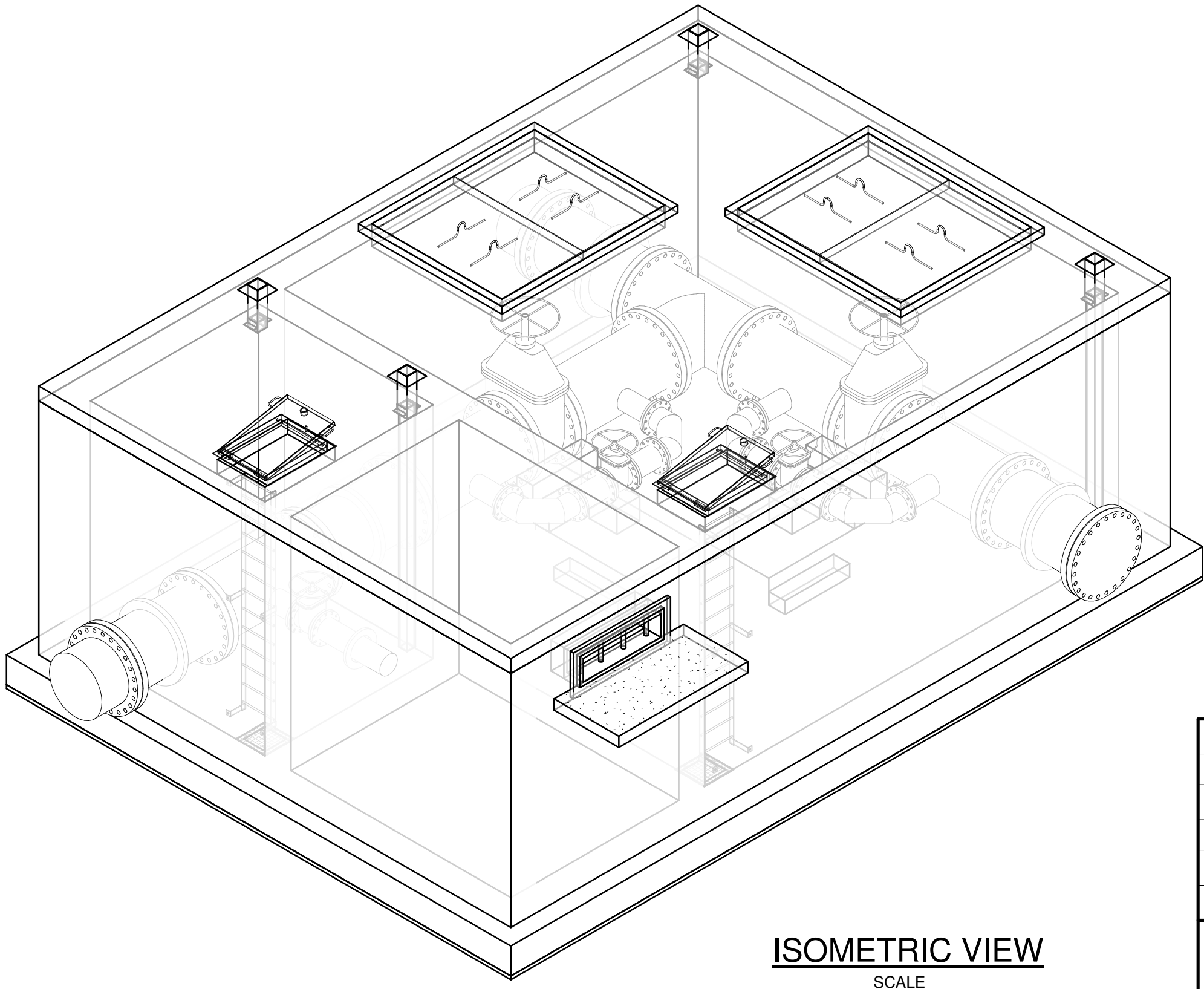
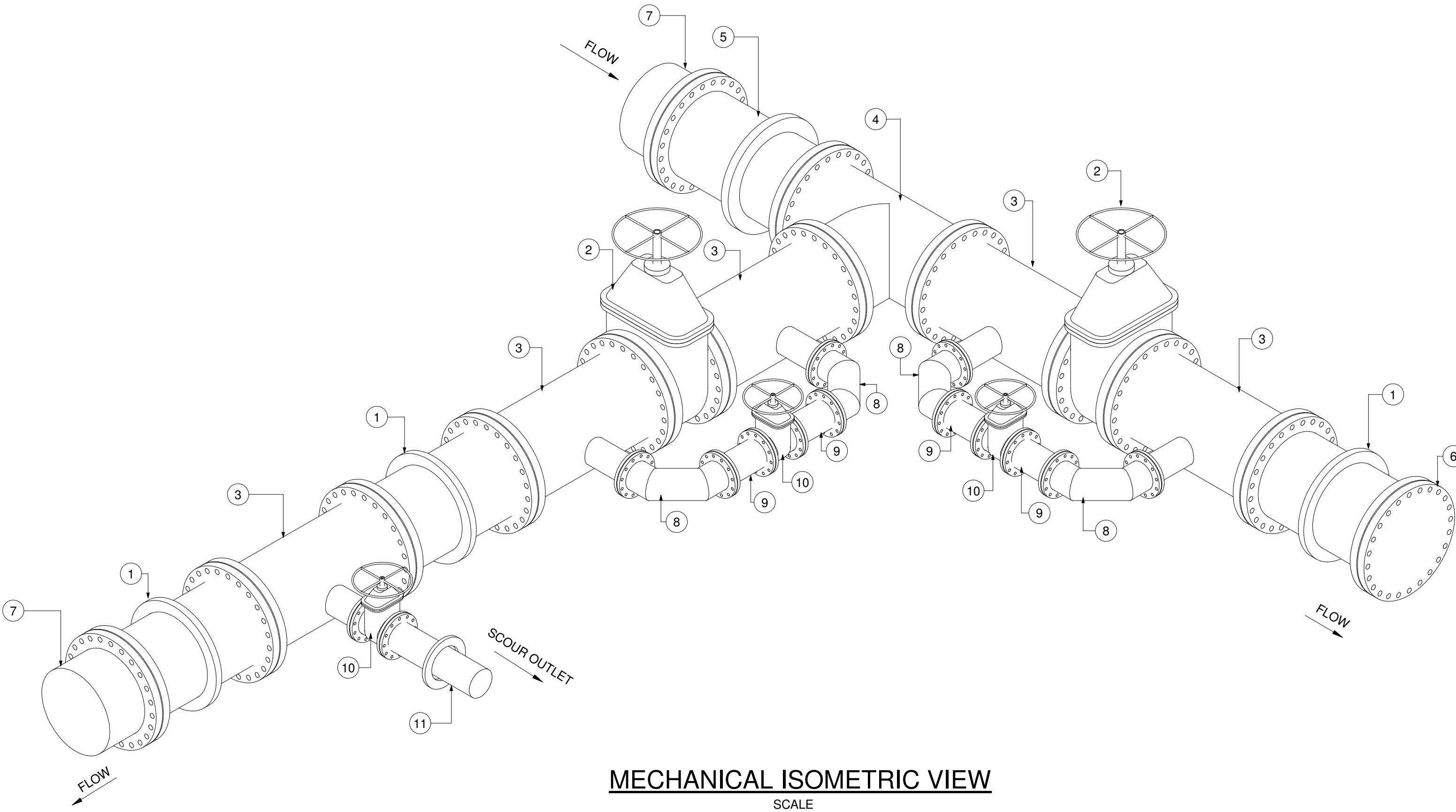
TEL: (011) 688-1400
FAX: (011) 688-1529


WOODMEAD WATER UPGRADE
DN 800 ISOLATION, SCOUR AND FUTURE TIE-IN CHAMBER
SHEET 1 OF 2

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE
1:25	C	ISSUED FOR TENDER	PG	2022/11/24

DRAWING No JW14358-16941-T-013-S53-00-TM											
CONTRACT No.: JW14358											
UR1305B				C							
PROJECT No.				REV.							
A1		SHEET		1		OF		2			
ORIGINAL PAGE SIZE											
FILE No.											

PIPE SCHEDULE - DN 800 ISOLATION, SCOUR AND FUTURE TIE-IN CHAMBER						
ITEM No.	FITTING	CLASS	DESCRIPTION	COATING	No. OFF	DIAMETER
1		PN 25	SPOOL PIECE DN 800 x 8 mm SANS 719; FLANGED BOTH END SANS 1123 TABLE 2500/3 WITH PUDDLE FLANGE	RPU	3	800 mm
2		PN 25	DN 800 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE; GEARED, ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED VOSA OR SIMILAR APPROVED. BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 2500/3	EPOXY	2	800 mm
3		PN 25	UNEQUAL TEE; DN 800 x 8 mm x DN 250 x 6 mm SANS 719; FLANGED SANS 1123 TABLE 2500/3	RPU	5	800 mm
4		PN 25	EQUAL TEE; DN 800 x 6 mm x DN 800mmx 46m SANS 719; FLANGE SANS 1123 TABLE 2500/3	RPU	1	800 mm
5		PN 25	SPOOL PIECE DN 800 x 8 mm SANS 719; FLANGED BOTH END SANS 1123 TABLE 2500/3 WITH PUDDLE FLANGE	RPU	1	800 mm
6		PN 25	BLANK FLANGE DN 800 x 8 mm SANS 719; FLANGED ONE END SANS 1123 TABLE 2500/3	RPU	1	800 mm
7		PN 25	SPOOL PIECE DN 800 x 8 mm SANS 719; FLANGED ONE END SANS 1123 TABLE 2500/3	RPU	2	800 mm
8		PN 25	DN 250 90 °3 SEGMENT BEND, SANS 719 MEDIUM CLASS, BOTH ENDS FLANGED, DRILLED IN ACCORDDANCE WITH SANS 1123 TABLE 2500/3	RPU	4	250 mm
9		PN 25	SPOOL PIECE DN 250 SANS 719 MEDIUM CLASS; BOTH ENDS FLANGED TO SANS 1123 TABLE 2500/3	RPU	4	250 mm
10		PN 25	DN 250 WEDGE GATE VALVE FOR VERTICAL OPERATION; NON RISING SPINDLE ; ANTI-CLOCKWISE CLOSING TO SANS 664; MANUALLY OPERATED VOSA OR SIMILAR APPROVED. BOTH ENDS FLANGED; FLANGES DRILLED TO SANS 1123 TABLE 2500/3	EPOXY	3	250 mm
11		PN 25	SPOOL PIECE DN 250 x 6 mm SANS 719; FLANGED ONE END SANS 1123 TABLE 2500/3 WITH PUDDLE FLANGE	RPU	1	250 mm



REFERENCE DRAWINGS
JW14358-16941-T-017-S09-00-TMS - CHAMBER DETAILS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL
CONSULTING ENGINEERS

Nyeleti
Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450
CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	T. FOSA	
DRAWN	Y. GOVENDER	
CHECKED	P. SEKOAILA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P.GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

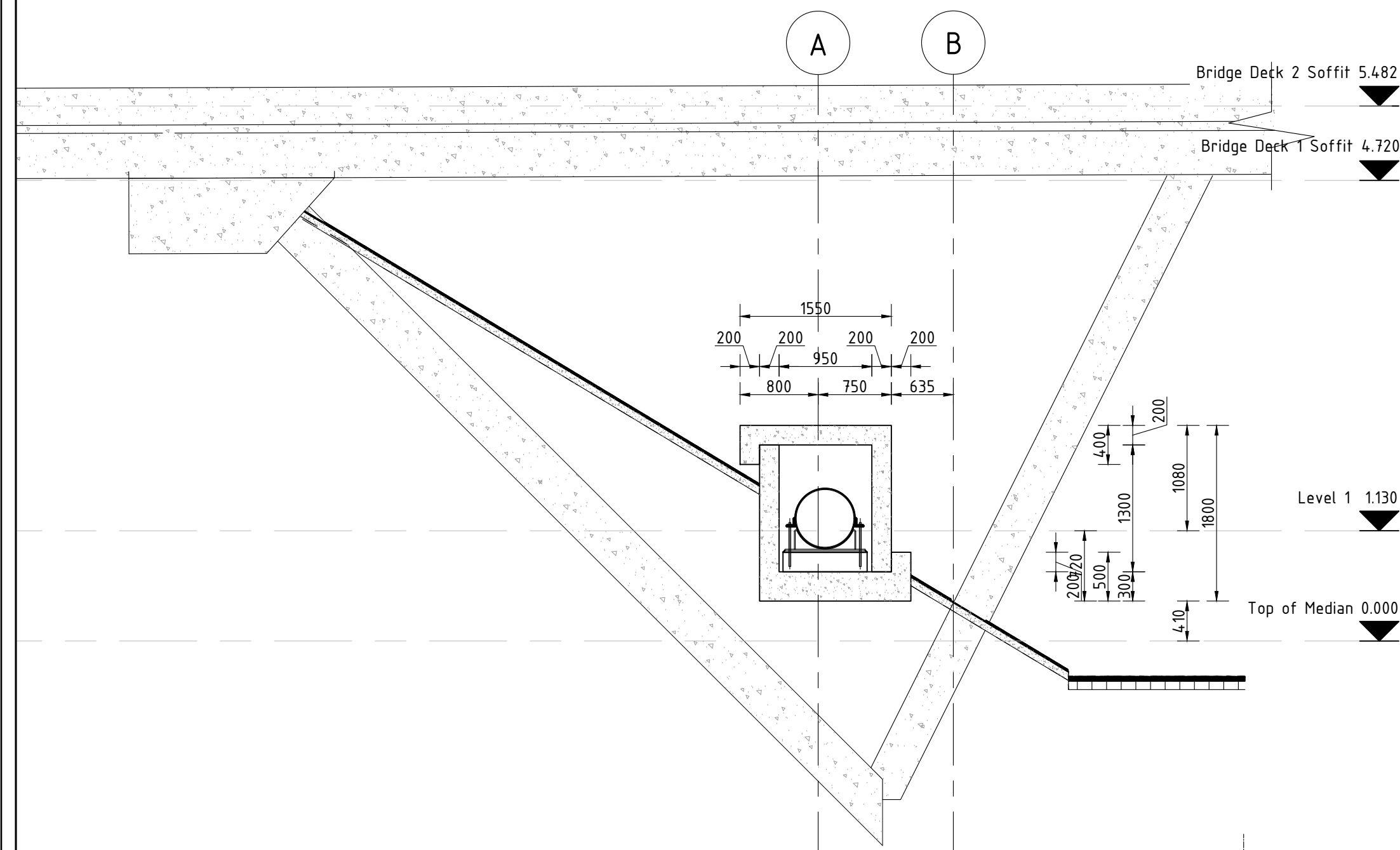
TEL: (011) 688-1400
FAX: (011) 688-1529



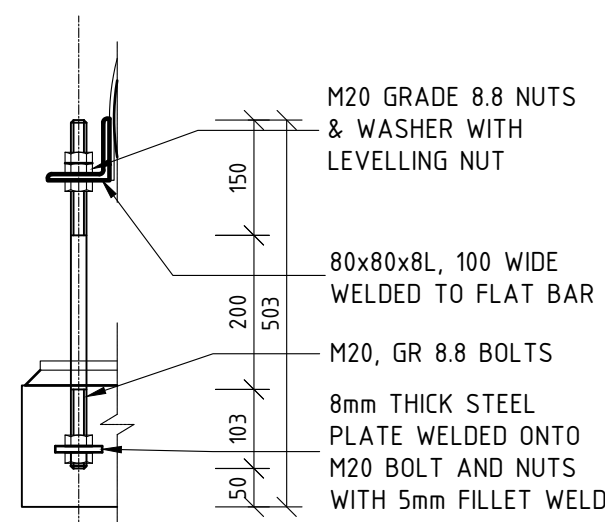
WOODMEAD WATER UPGRADE
DN 800 ISOLATION, SCOUR AND FUTURE TIE-IN CHAMBER
SHEET 2 OF 2

AMENDMENTS				
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	C	ISSUED FOR TENDER	PG	2022/11/24

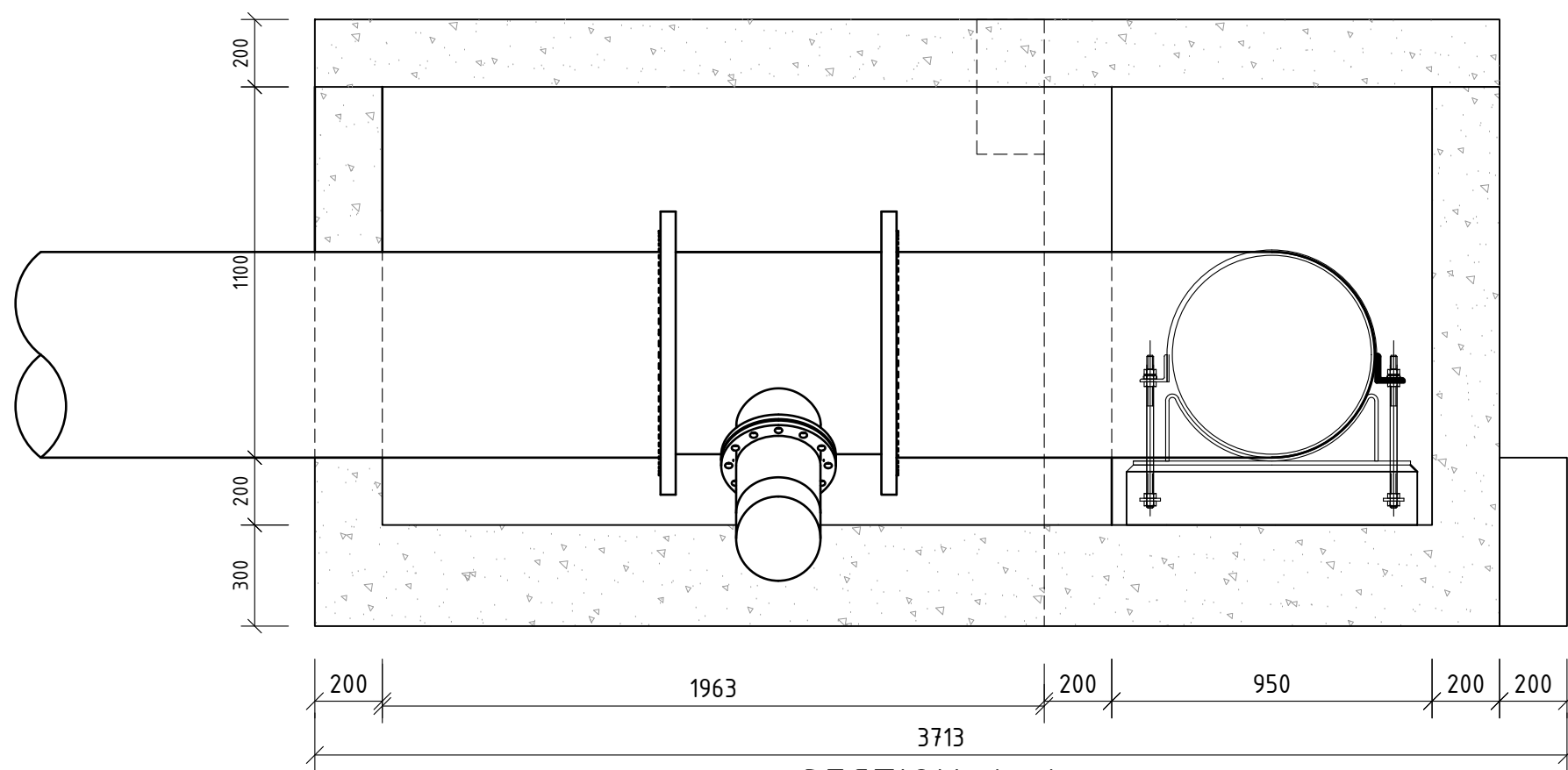
CONTRACT No.: JW14358			
UR1305B		C	
PROJECT No.		REV.	
A1	SHEET	2	OF 2
ORIGINAL PAGE SIZE			
FILE No.			



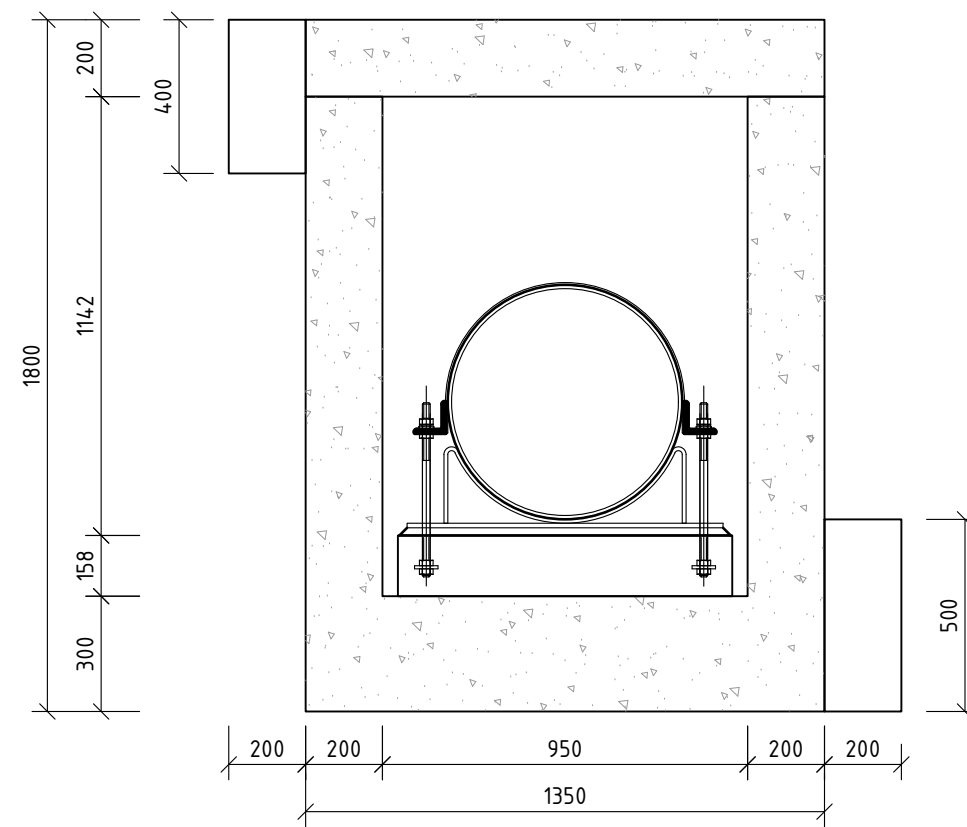
TYPICAL CROSS SECTION
SCALE 1:50



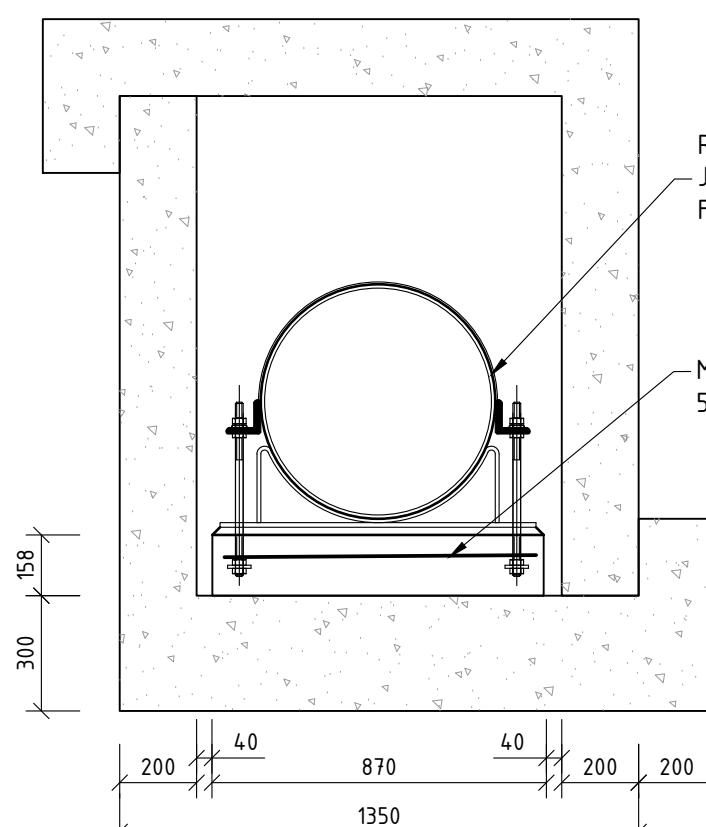
HOLD DOWN BOLT DETAIL
SCALE 1:10



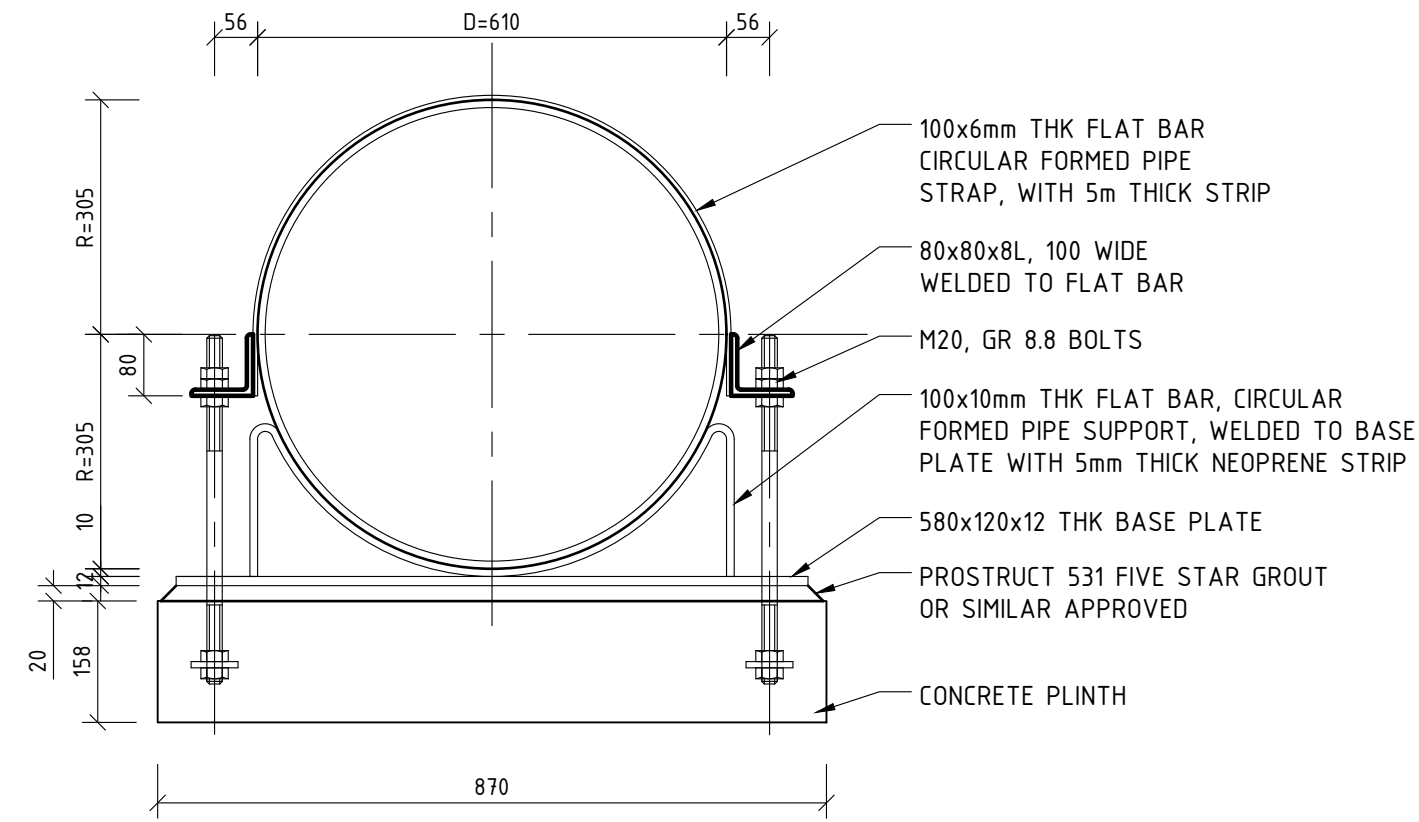
SECTION A-A
SCALE 1:20



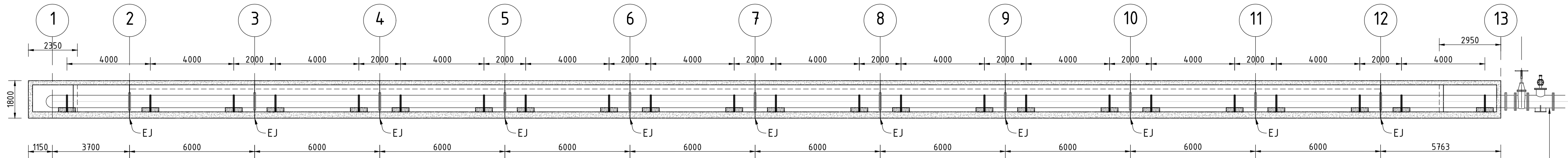
SECTION B-B
SCALE 1:20



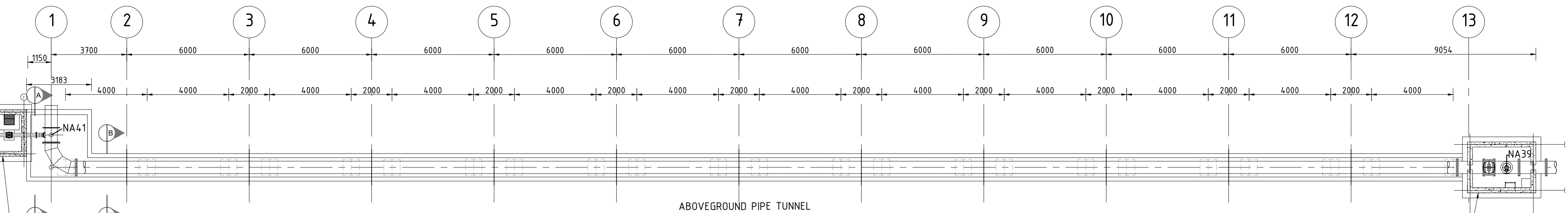
TYPICAL PLINTH DETAIL
SCALE 1:20



TYPICAL PIPE SUPPORT DETAIL
SCALE 1:10



LONG SECTION
SCALE 1:125



PLAN VIEW
SCALE 1:125

GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm
4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm TO ALL BLINDING
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

Pipes

1. PIPE INSTALLED INSIDE THE CONCRETE PIPE THE CONCRETE PIPE TUNNEL SHALL BE SUPPLIED IN 6.00m LENGTH FLANGED ON BOTH ENDS TO SANS 1123 TABLE 1600/3

REFERENCE DRAWINGS

JW14358-16941-T-013-S07-00-TMS
JW14358-16941-T-013-S16-00-TMS
JW14358-16941-T-012-S03-00-TMS

FOR TENDER

CONSULTING ENGINEERS
Nyeleti
Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht
Drive Alberton
1450
CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

DESIGNED	P. MOODLEY	
DRAWN	C. MOODLEY	
CHECKED	N. PILLAY	DATE: 2023-01-31
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	M. MOSTERT	DATE 2023-01-31
	SIGNATURE	
	ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

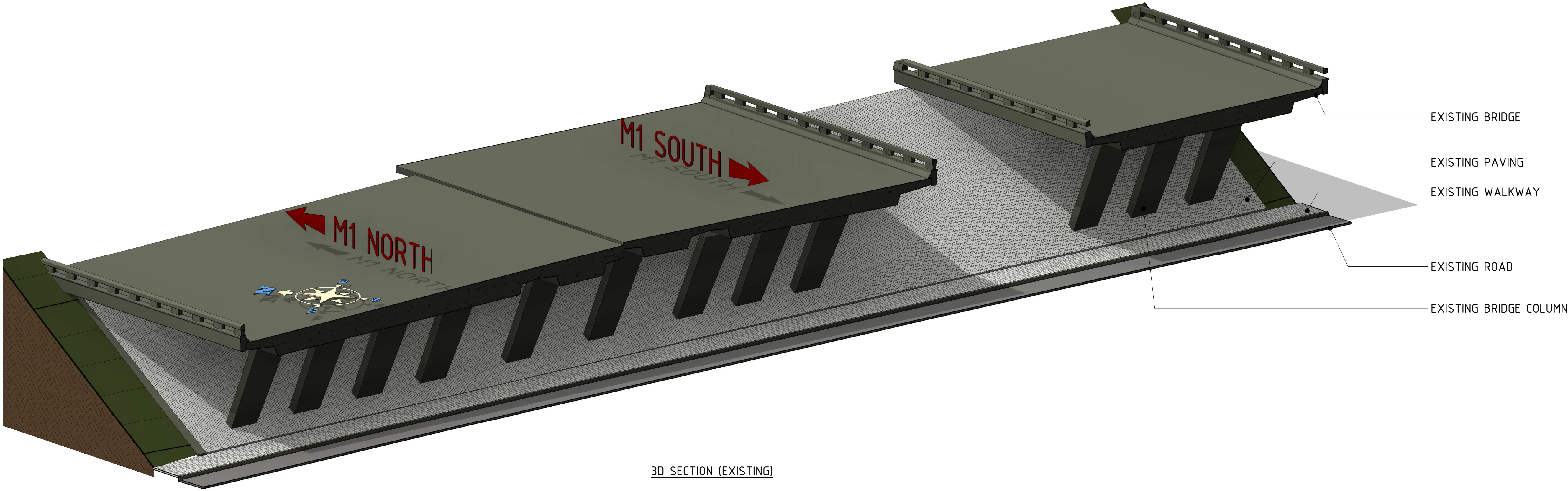


WOODMEAD WATER UPGRADE
DN 600 ABOVE GROUND CONCRETE PIPE TUNNEL

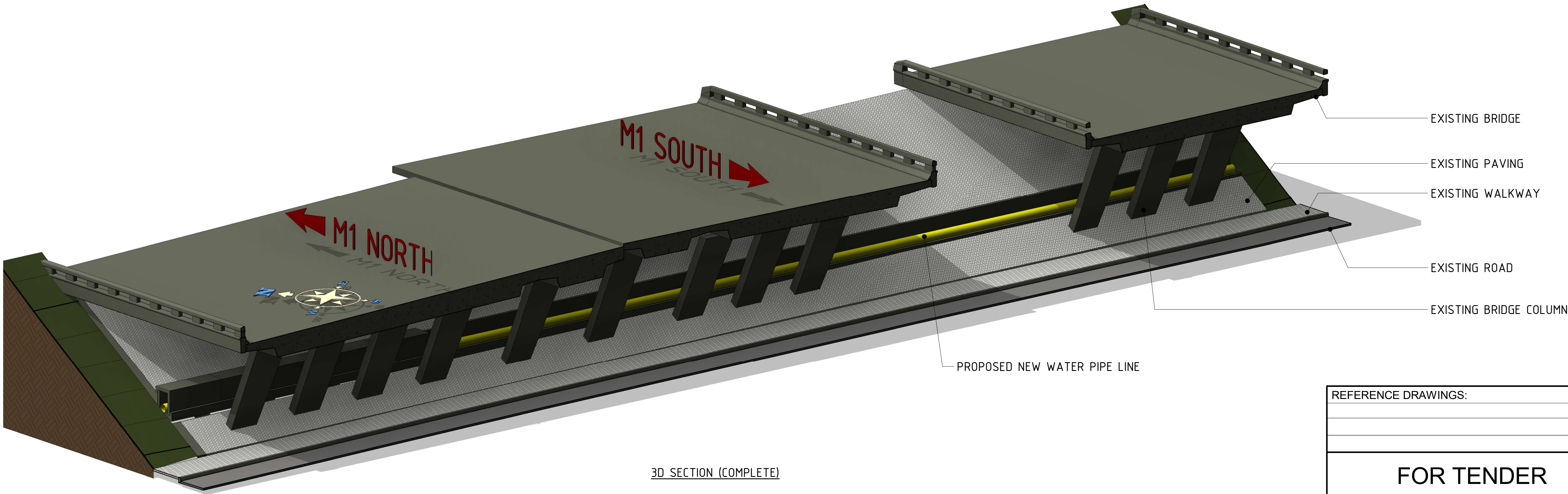
AMENDMENTS

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1:1000	B	ISSUED FOR TENDER	P.GROBLER	2021-12-14
AS SHOWN	C	ISSUED FOR TENDER	P.GROBLER	2022-10-27

CONTRACT No.: JW14358	
UR1305B	B
PROJECT No.	REV.
A1	SHEET
1	OF
1	
ORIGINAL PAGE SIZE	
FILE No.	



3D SECTION (EXISTING)



3D SECTION (COMPLETE)

REFERENCE DRAWINGS:
FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL
CONSULTING ENGINEERS



Woodhill Office park
53 Philip Engelbrecht Drive
Alberton
1450

CLIENT

Johannesburg Water SOC LTD
Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

DESIGNED

M. MOSTERT

DRAWN

A.RABIE

CHECKED

M. MOSTERT

DATE:

SIGNATURE

ECSA REG. No

APPROVED BY:

P.GROBLER

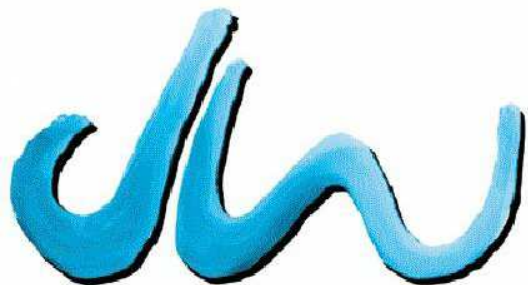
DATE:

SIGNATURE

ECSA REG. No

950304

DWG NO.



Johannesburg Water

Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

M1 BRIDGE CROSSING DETAIL

SHEET 2 OF 2

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
	A	ISSUED FOR APPROVAL	P. GROBLER	2021-11-10
	B	ISSUED FOR TENDER	P. GROBLER	2022-11-01

DRAWING No.:JW14358-16941-T-014-S11-00-TMS

CONTRACT No.: JW14358

UR1305B

B

PROJECT No.

REV.

A1

SHEET

2

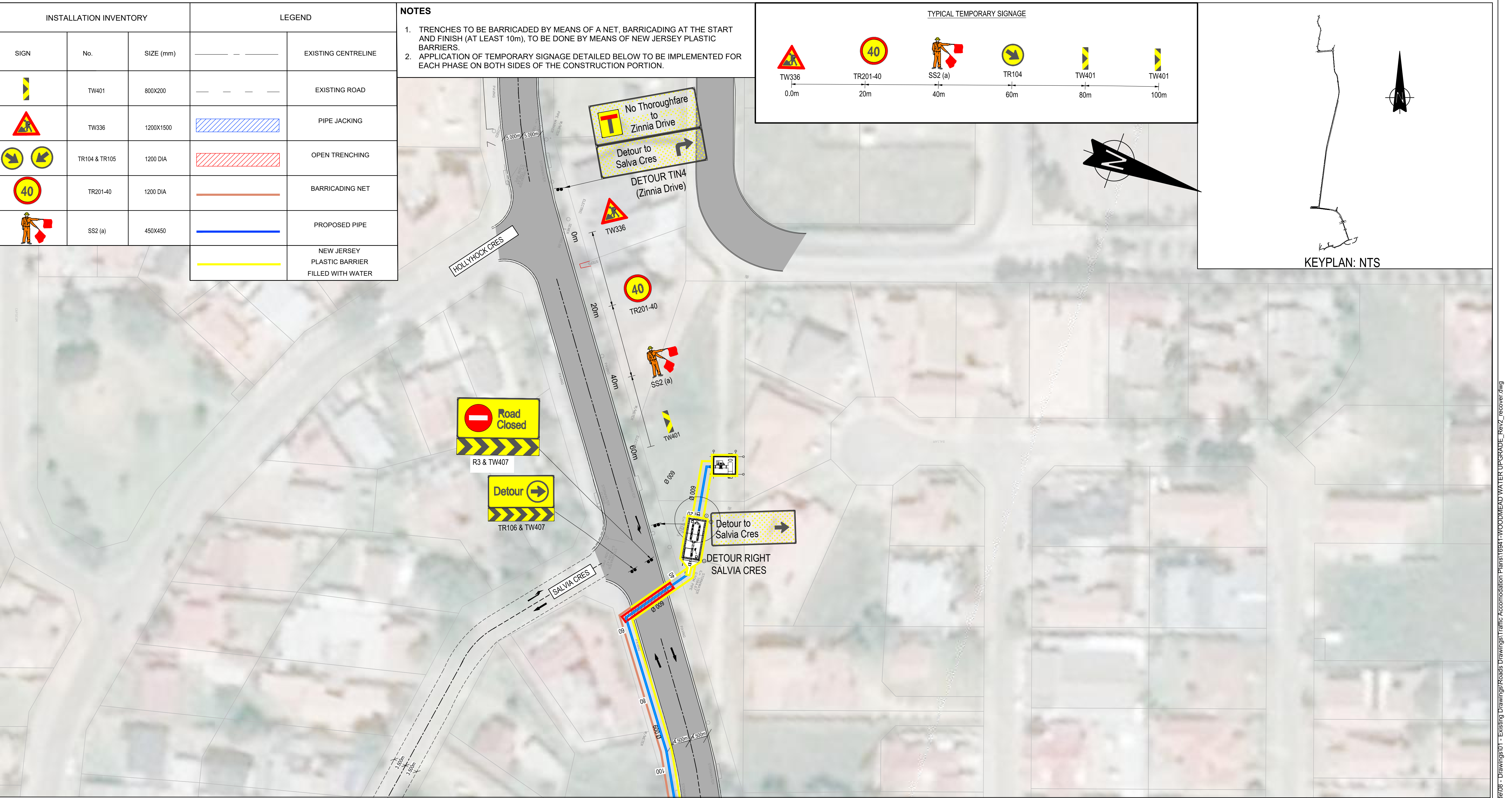
OF

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ORIGINAL PAGE SIZE

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PLOT Date: 2022/03/27 13:26:29



INSTALLATION INVENTORY		
SIGN	No.	SIZE (mm)
	TW401	800X200
	TW336	1200X1500
	TR104 & TR105	1200 DIA
	TR201-40	1200 DIA
	SS2 (a)	450X450

LEGEND	
	EXISTING CENTRELINE
	EXISTING ROAD
	PIPE JACKING
	OPEN TRENCHING
	BARRICADING NET
	PROPOSED PIPE
	NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

NOTES

1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.

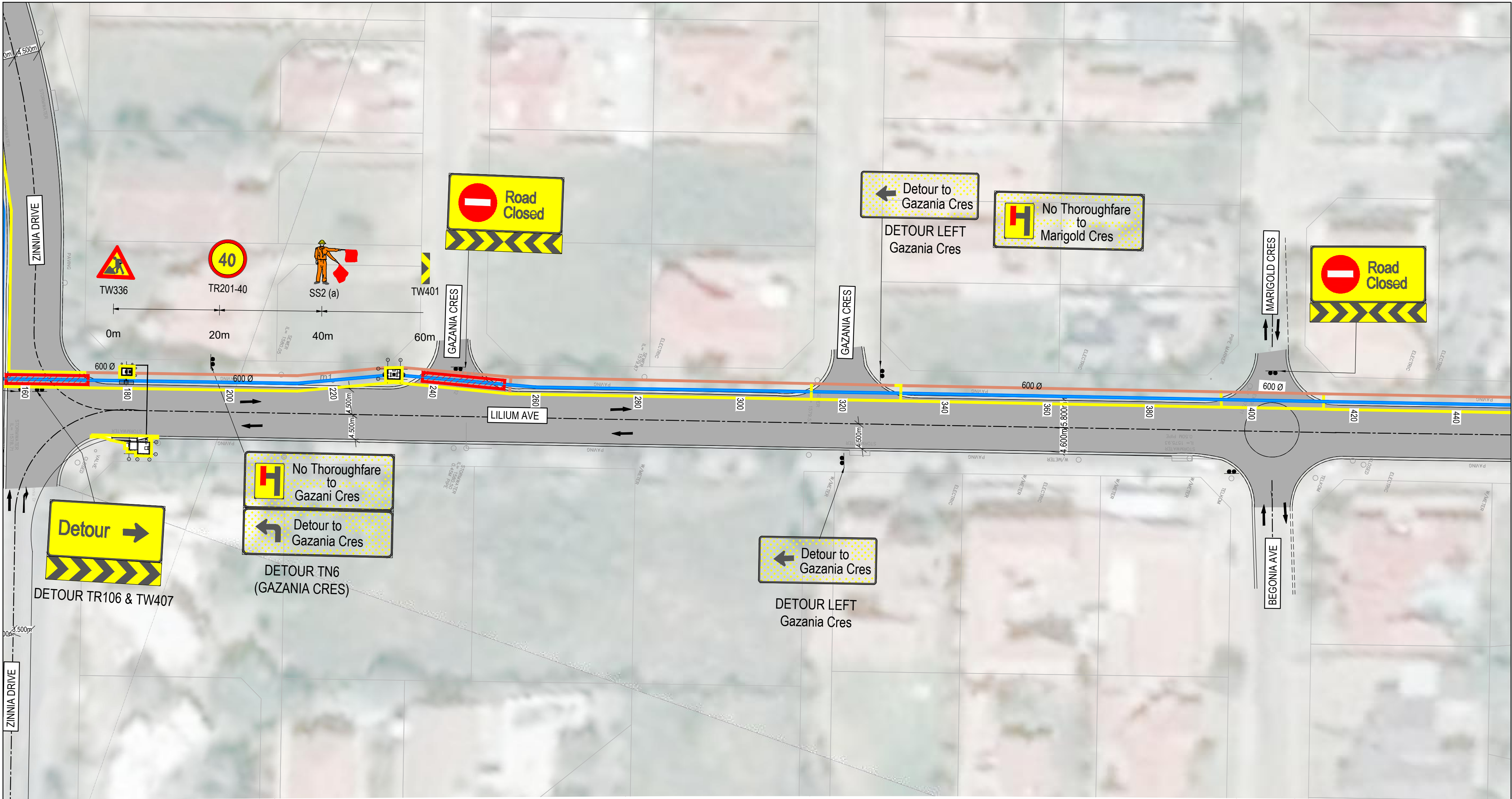
2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.

TYPICAL TEMPORARY SIGNAGE

0.0m 20m 40m 60m 80m 100m

TW336 TR201-40 SS2 (a) TR104 TW401 TW401

KEYPLAN: NTS



DN 600 MAIN
CHAINAGE 160 - 440
SCALE: NOT TO SCALE

FOR TENDER

THE MASTER HELD AT NYELETI PRETORIA OFFICE BEARS THE ORIGINAL SIGNATURE OF APPROVAL

DESIGNED	P.W.MASOGA	
DRAWN	P.W.MASOGA	
CHECKED	T.RIKHOTSO	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	S.NAICKER	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	20040015

Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntomi Piliso Street
Newtown, Johannesburg

Turbine Hall
65 Ntomi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT

SHEET 03 OF 16

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

DRAWING No. **JW14358-16941-T14-S14-00**

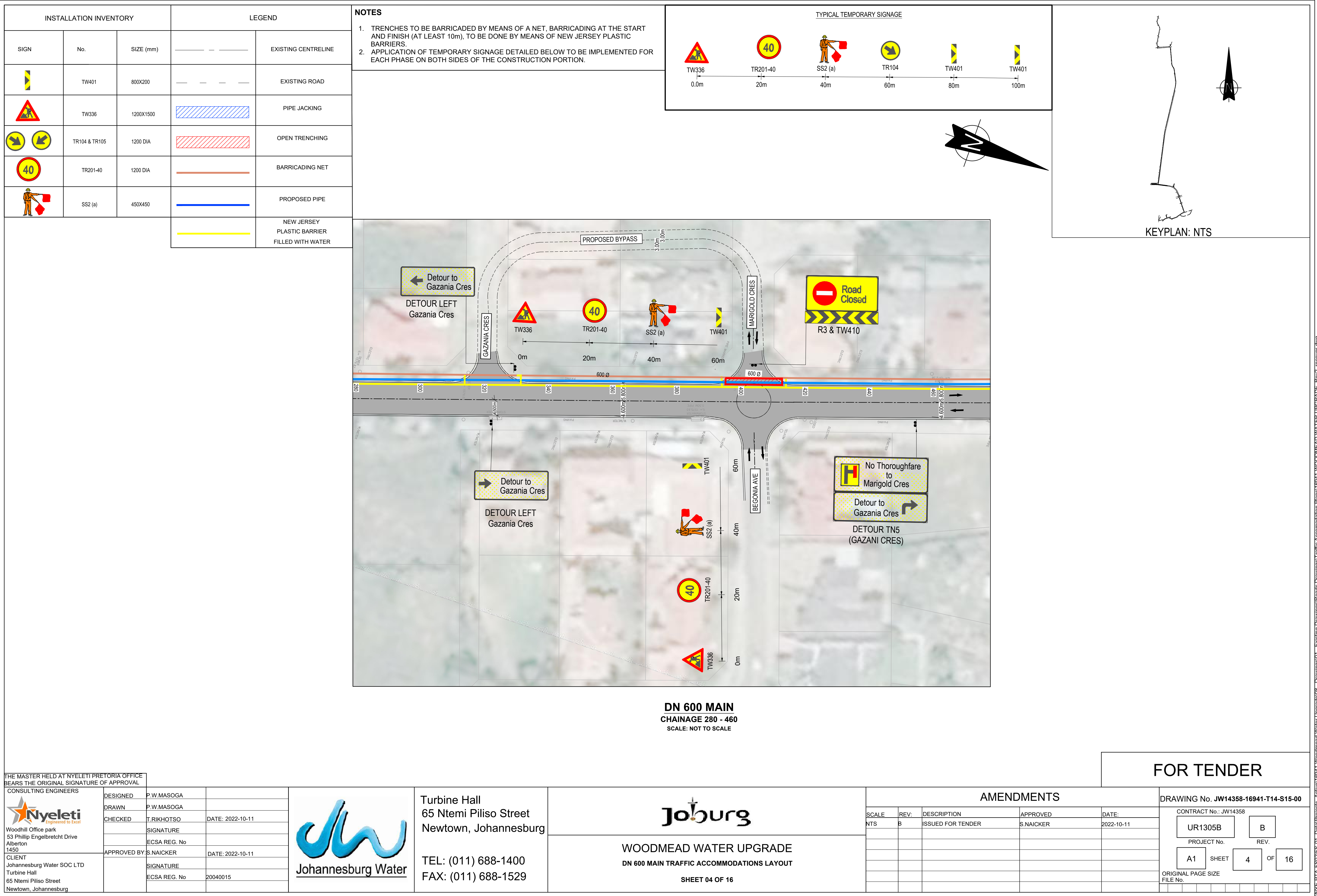
CONTRACT No.: JW14358

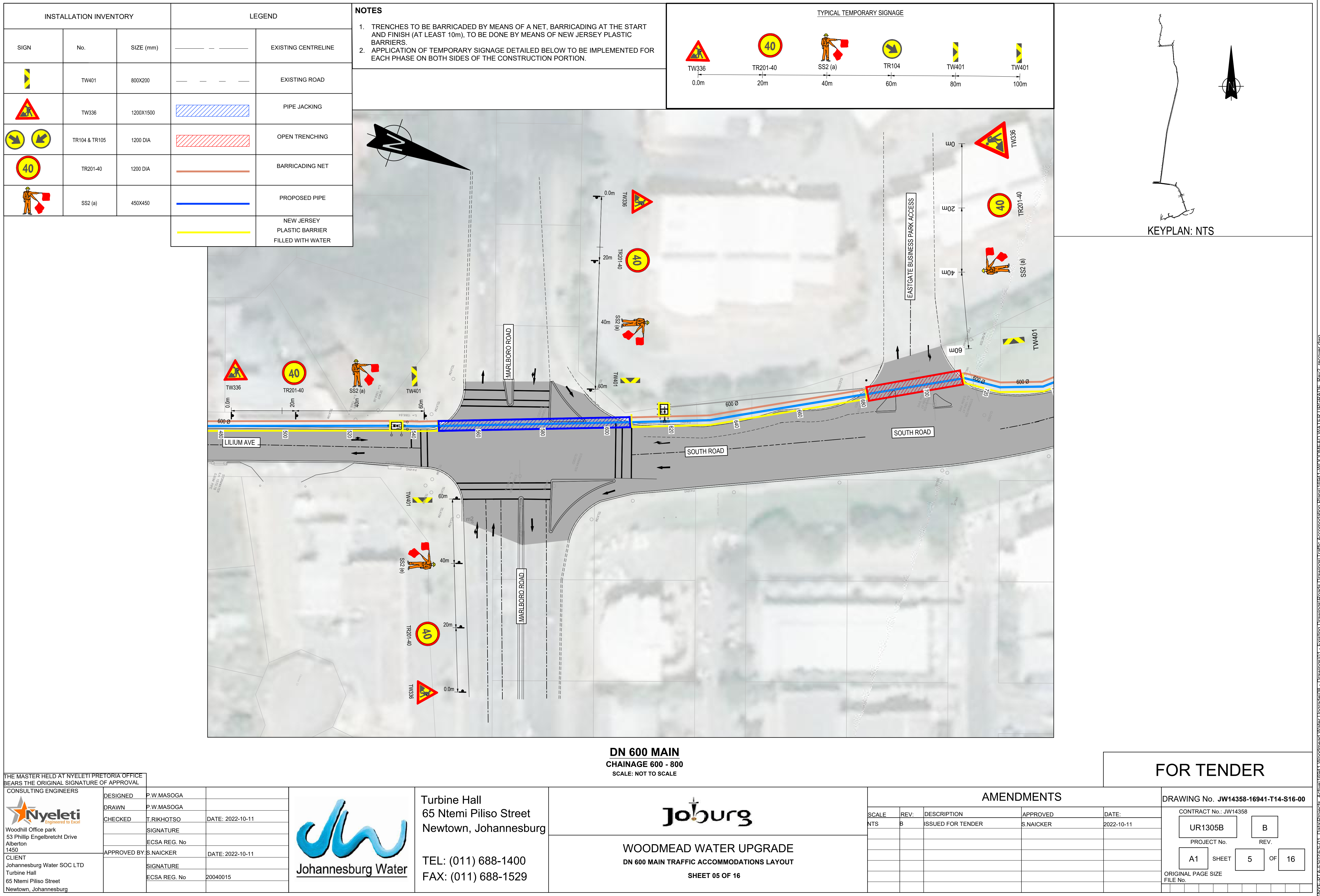
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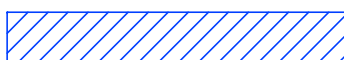
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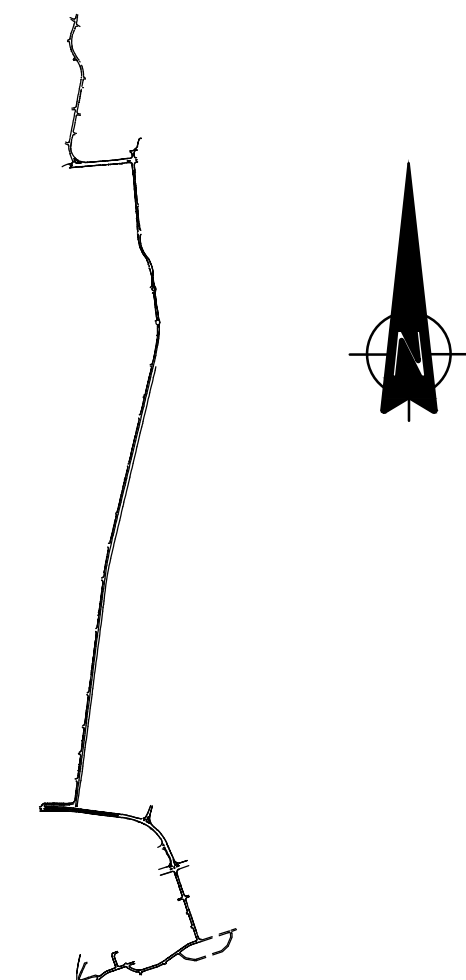
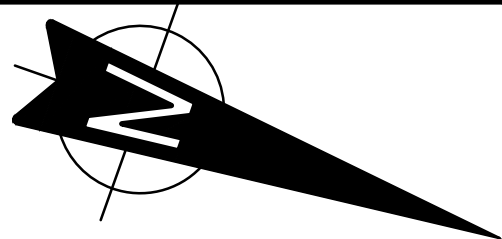
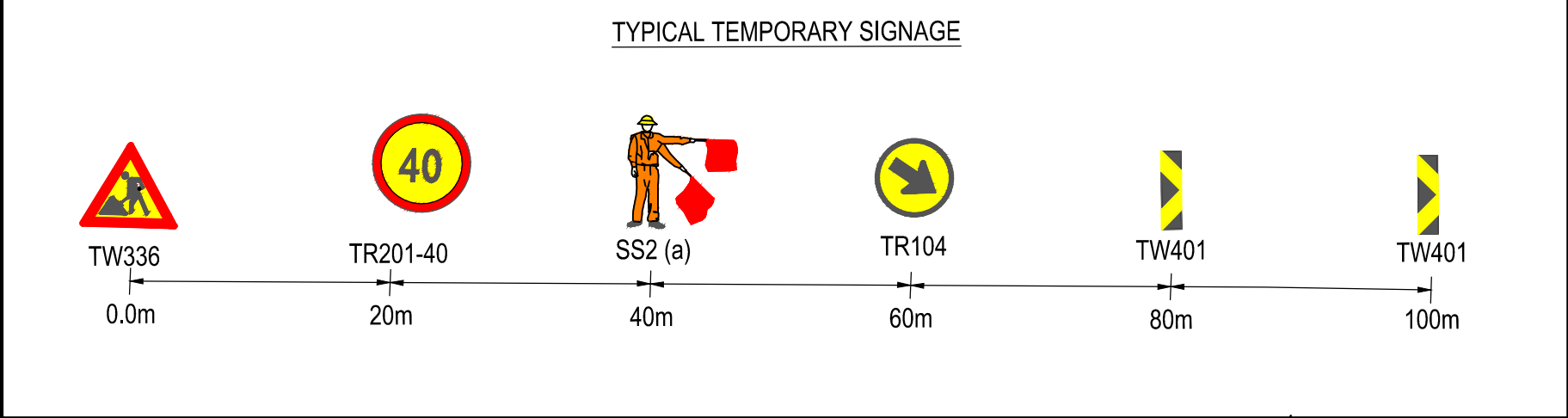




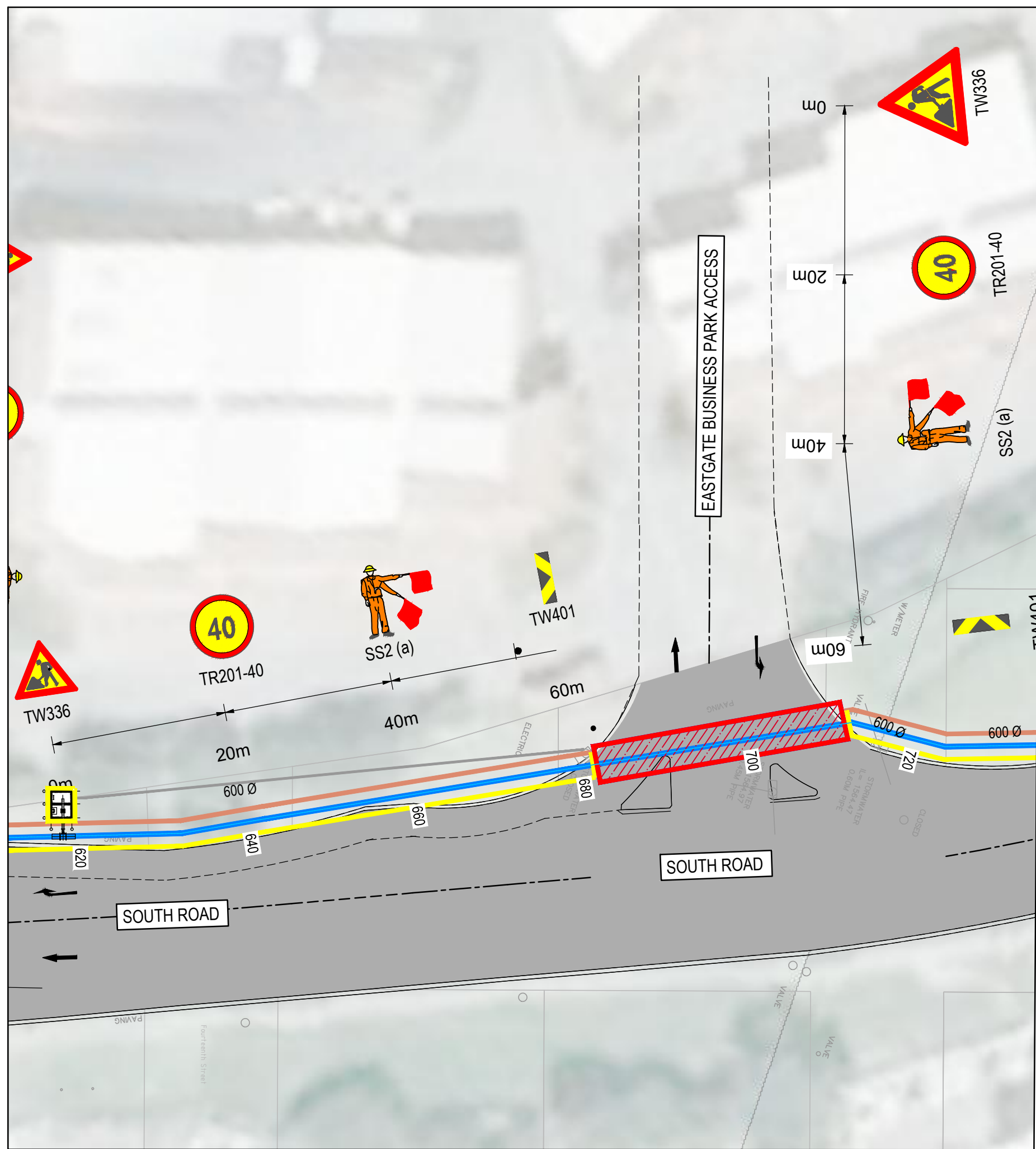
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	No.	SIZE (mm)		EXISTING CENTRELINE
	TW401	800X200		EXISTING ROAD
	TW336	1200X1500		PIPE JACKING
	TR104 & TR105	1200 DIA		OPEN TRENCHING
	TR201-40	1200 DIA		BARRICADING NET
	SS2 (a)	450X450		PROPOSED PIPE
				NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

NOTES

1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.
2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.



KEYPLAN: NTS



DN 600 MAIN
CHAINAGE 640 - 780
SCALE: NOT TO SCALE

THE MASTER HELD AT NYELETI PRETORIA OFFICE BEARS THE ORIGINAL SIGNATURE OF APPROVAL				
	CONSULTING ENGINEERS	DESIGNED	P.W.MASOGA	
	Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450	DRAWN	P.W.MASOGA	
		CHECKED	T.RIKHOTSO	DATE: 2022-10-11
		SIGNATURE		
		ECSA REG. No		
CLIENT	APPROVED BY: S.NAICKER	DATE: 2022-10-11		
Johannesburg Water SOC LTD Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg		SIGNATURE		
		ECSA REG. No	20040015	



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 06 OF 16

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

FOR TENDER

DRAWING No. **JW14358-16941-T14-S17-00**

CONTRACT No.: JW14358

UR1305B **B**

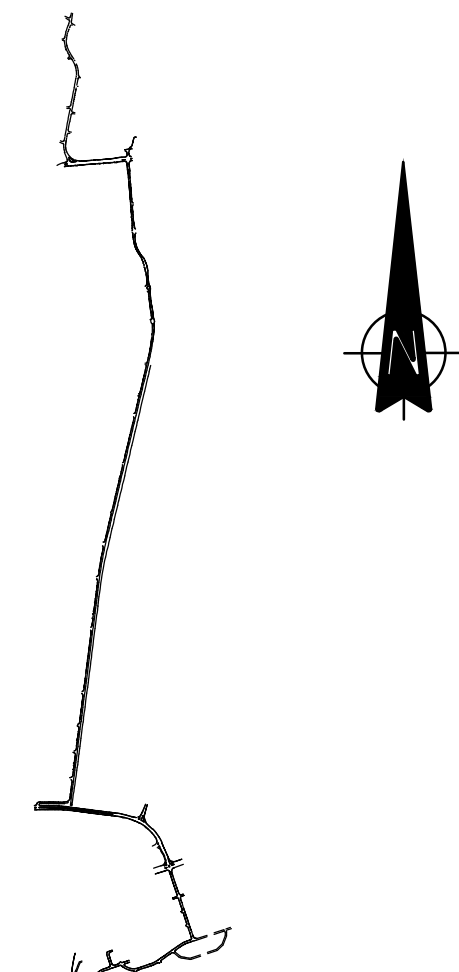
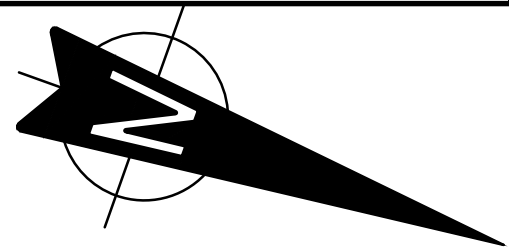
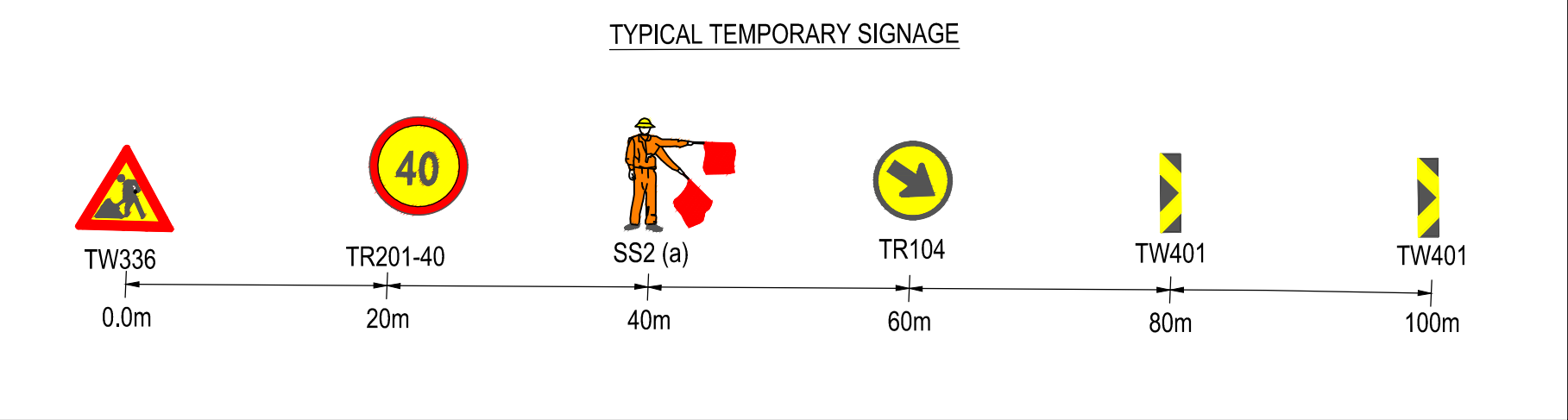
PROJECT No. REV.

A1 SHEET **6** OF **16**

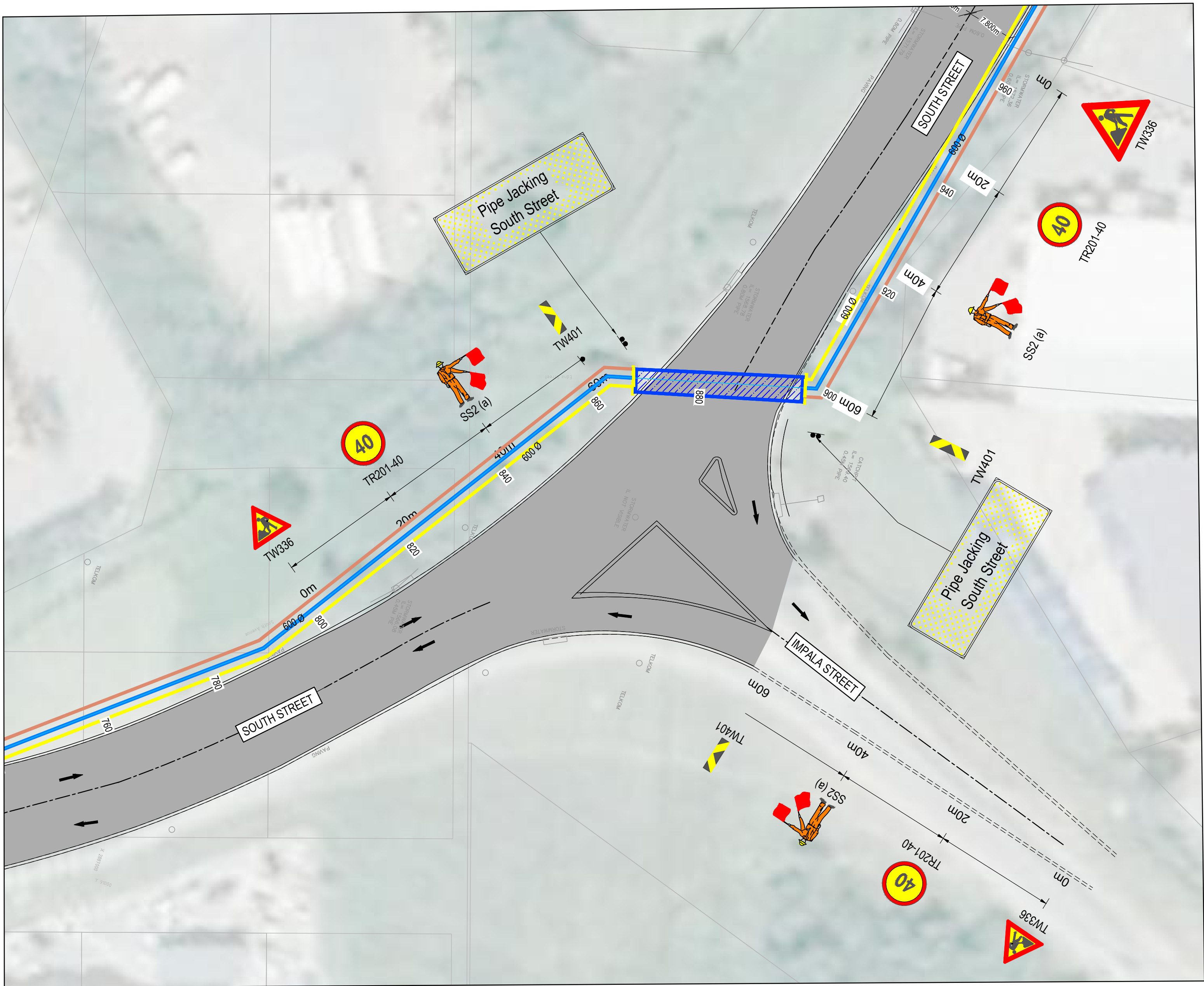
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FILE No.

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	TW401	800X200	---	EXISTING ROAD
	TW336	1200X1500		PIPE JACKING
	TR104 & TR105	1200 DIA		OPEN TRENCHING
	TR201-40	1200 DIA		BARRICADING NET
	SS2 (a)	450X450		PROPOSED PIPE
				NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

- NOTES**
- TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.
 - APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.



KEYPLAN: NTS



DN 600 MAIN
CHAINAGE 780 - 960
SCALE: NOT TO SCALE

FOR TENDER

THE MASTER HELD AT NYELETI PRETORIA OFFICE
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

 Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	P.W.MASOGA	
	DRAWN	P.W.MASOGA	
	CHECKED	T.RIKHOTSO	DATE: 2022-10-11
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	S.NAICKER	DATE: 2022-10-11
		SIGNATURE	
		ECSA REG. No	20040015



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



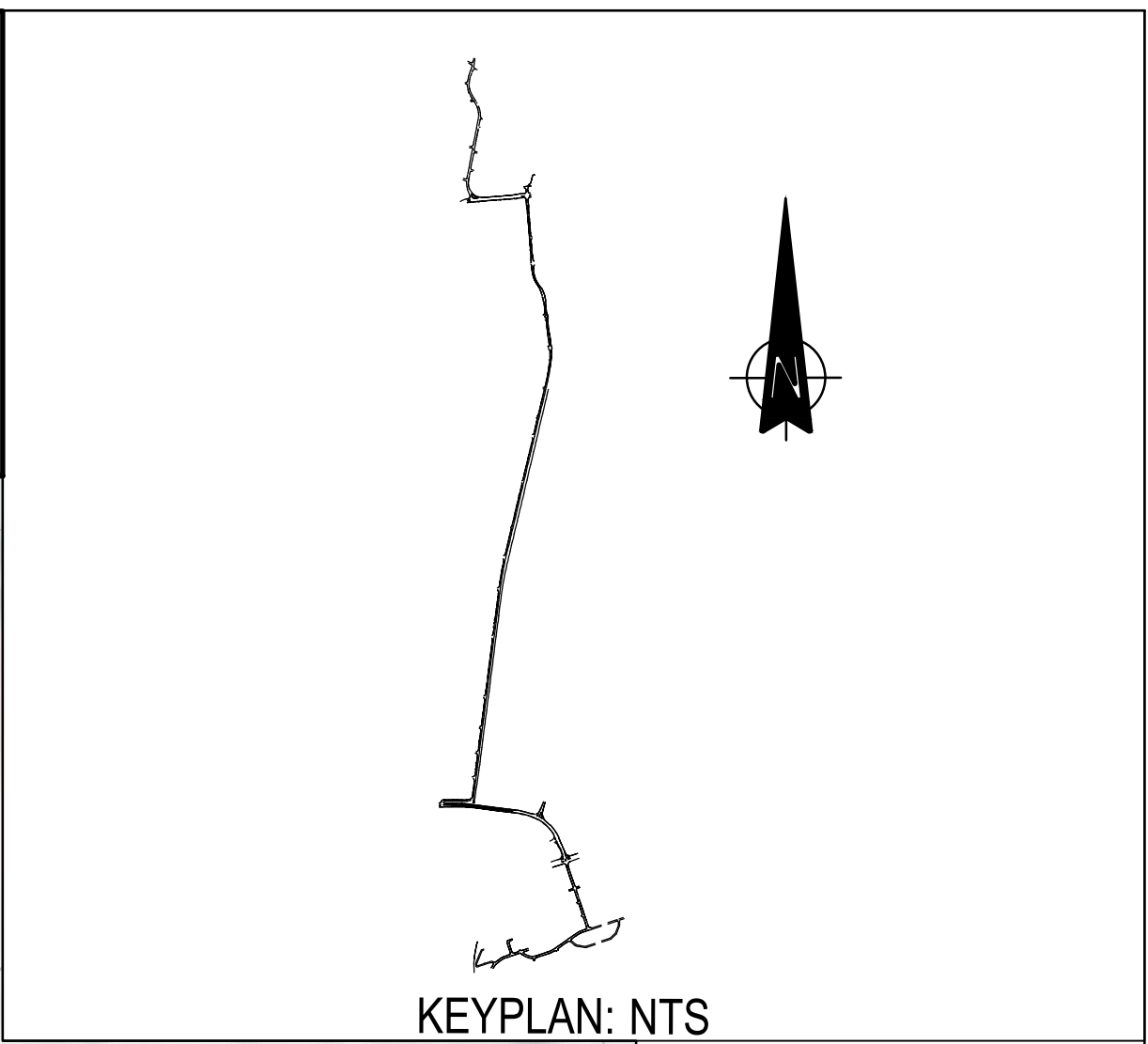
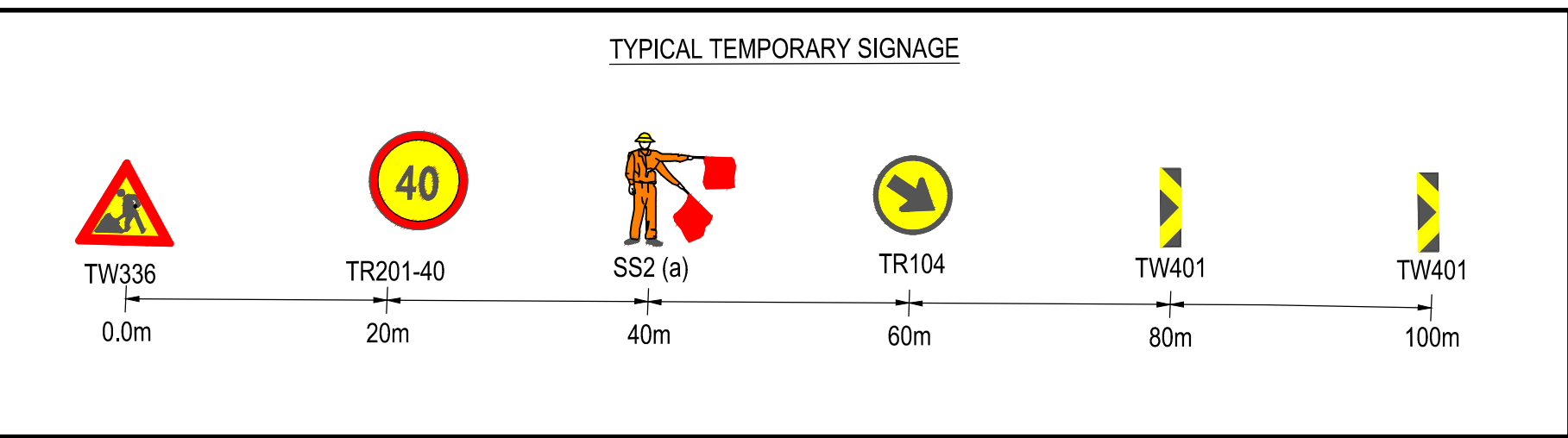
WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 07 OF 16

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

DRAWING No. JW14358-16941-T14-S18-00			
CONTRACT No.: JW14358			
UR1305B		B	
PROJECT No.		REV.	
A1	SHEET	7	OF 16
ORIGINAL PAGE SIZE			
FILE No.			

INSTALLATION INVENTORY			LEGEND	
SIGN	No.	SIZE (mm)	-----	EXISTING CENTRELINE
	TW401	800X200	-----	EXISTING ROAD
	TW336	1200X1500		PIPE JACKING
	TR104 & TR105	1200 DIA		OPEN TRENCHING
	TR201-40	1200 DIA	-----	BARRICADING NET
	SS2 (a)	450X450	-----	PROPOSED PIPE
			-----	NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

- NOTES
- TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.
 - APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.



DN 600 MAIN
CHAINAGE 1160 - 1480
SCALE: NOT TO SCALE

FOR TENDER

THE MASTER HELD AT NYELETI PRETORIA OFFICE
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

 Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg	DESIGNED	P.W.MASOGA	
	DRAWN	P.W.MASOGA	
	CHECKED	T.RIKHOTSO	DATE: 2022-10-11
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	S.NAICKER	DATE: 2022-10-11
		SIGNATURE	
		ECSA REG. No	20040015



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 08 OF 16

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

DRAWING No. JW14358-16941-T14-S19-00										
CONTRACT No.: JW14358										
UR1305B				B						
PROJECT No.				REV.						
A1			SHEET		8		OF		16	
ORIGINAL PAGE SIZE										
FILE No.										

INSTALLATION INVENTORY			LEGEND	
SIGN	No.	SIZE (mm)		EXISTING CENTRELINE
	TW401	800X200	— — — — —	EXISTING ROAD
	TW336	1200X1500		PIPE JACKING
	TR104 & TR105	1200 DIA		OPEN TRENCHING
	TR201-40	1200 DIA		BARRICADING NET
	SS2 (a)	450X450		PROPOSED PIPE
				NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

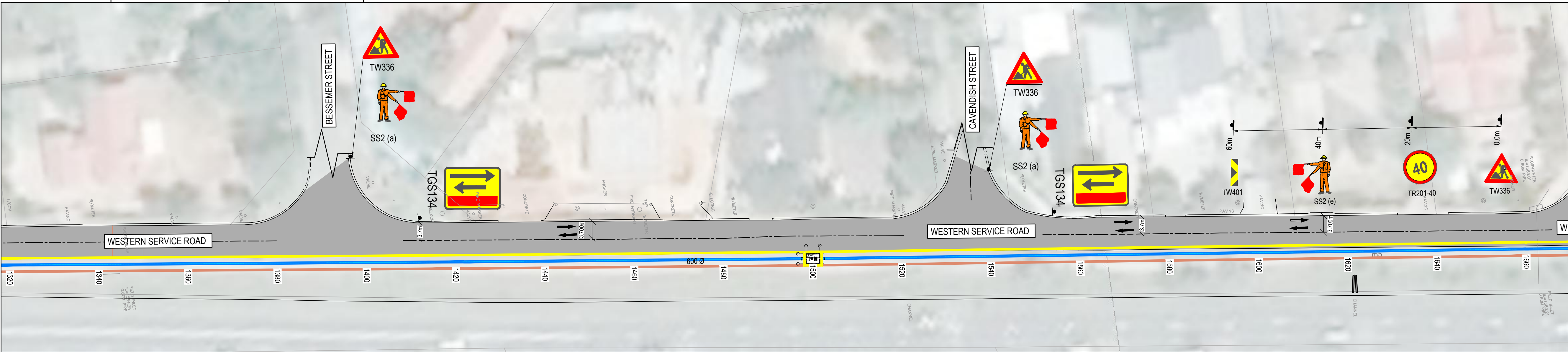
NOTES

1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.

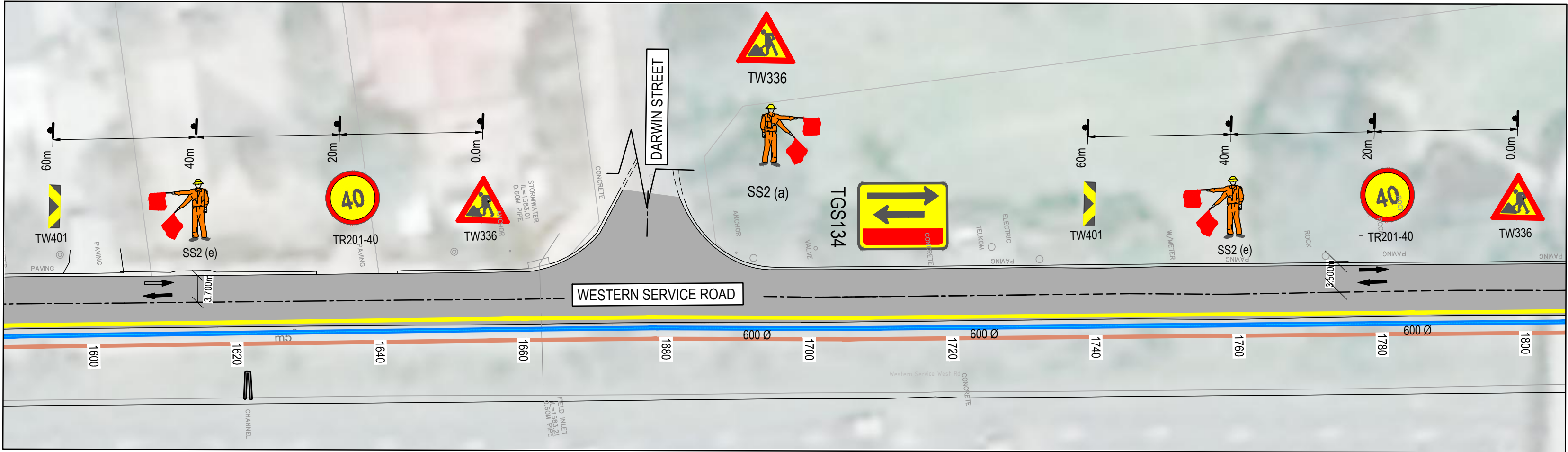
2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.

TYPICAL TEMPORARY SIGNAGE

KEYPLAN: NTS



DN 600 MAIN
CHAINAGE 1320 - 1660
SCALE: NOT TO SCALE



DN 600 MAIN
CHAINAGE 1600- 1800
SCALE: NOT TO SCALE

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 Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	P.W.MASOGA	
	DRAWN	P.W.MASOGA	
	CHECKED	T.RIKHOTSO	DATE: 2022-10-11
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY: S.NACKER	DATE: 2022-10-11	
		SIGNATURE	
		ECSA REG. No	20040015



Turbine Hall
65 Ntemi Piliso Street
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WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 09 OF 16

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NACKER	2022-10-11

FOR TENDER

DRAWING No. JW14358-16941-T14-S20-00			
CONTRACT No.: JW14358			
PROJECT No.		REV.	
ORIGINAL PAGE SIZE			
FILE No.			

INSTALLATION INVENTORY		
SIGN	No.	SIZE (mm)
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	TW336	1200X1500
	TR104 & TR105	1200 DIA
	TR201-40	1200 DIA
	SS2 (a)	450X450

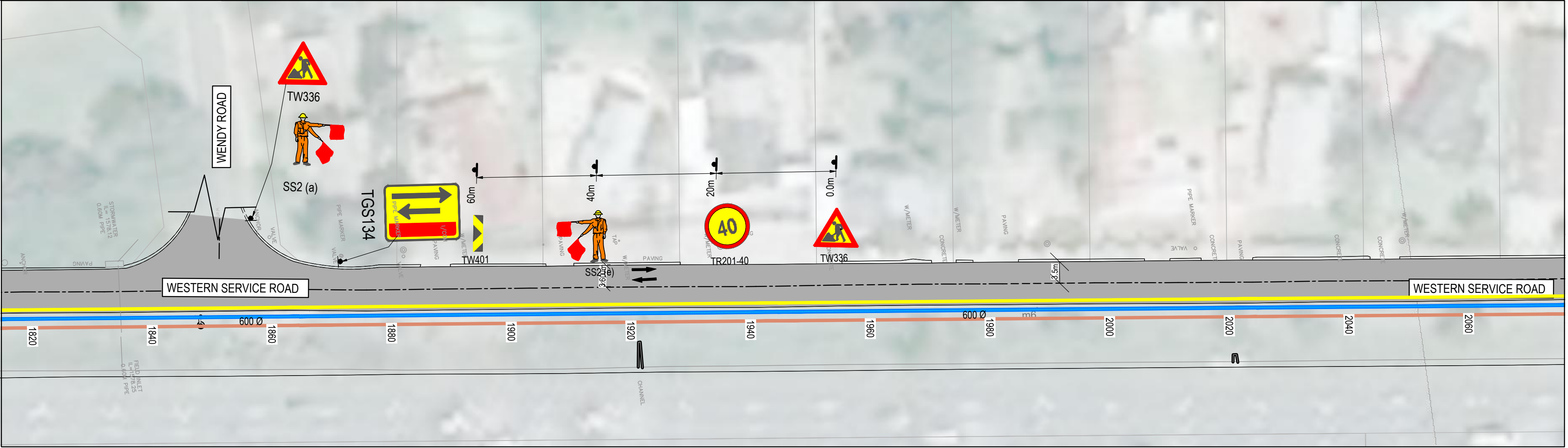
LEGEND	
	EXISTING CENTRELINE
	EXISTING ROAD
	PIPE JACKING
	OPEN TRENCHING
	BARRICADING NET
	PROPOSED PIPE
	NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

NOTES

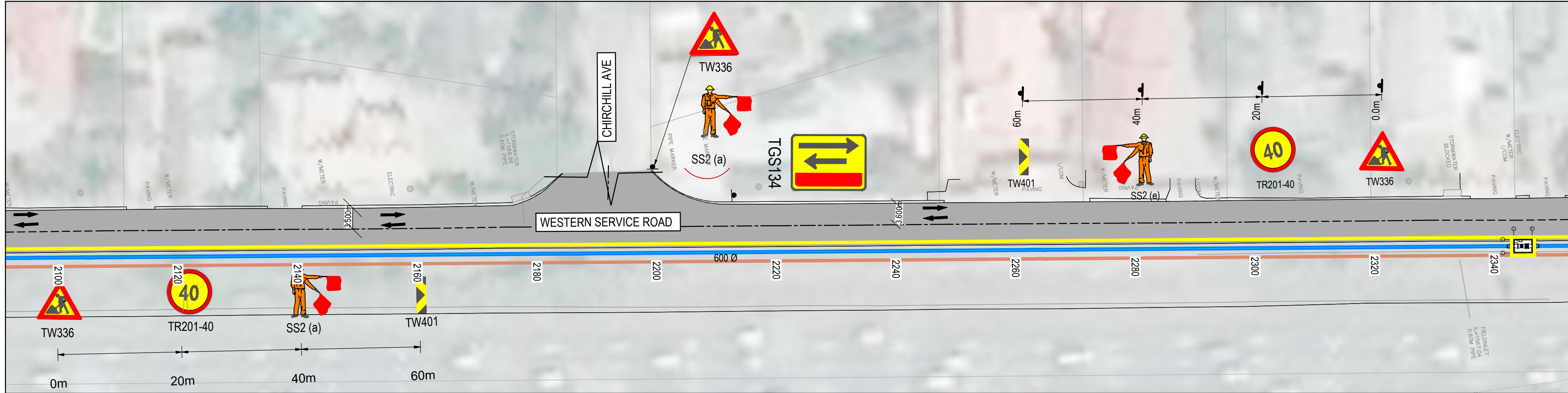
1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.

2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.

TYPICAL TEMPORARY SIGNAGE



DN 600 MAIN
CHAINAGE 1820 - 2060
SCALE: NOT TO SCALE



DN 600 MAIN
CHAINAGE 2100- 2340
SCALE: NOT TO SCALE

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 Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED		
	DRAWN		
	CHECKED		DATE: 2022-10-11
	SIGNATURE		
	ECSA REG. No		
	APPROVED BY:		DATE: 2022-10-11
	SIGNATURE		
	ECSA REG. No	20040015	



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Newtown, Johannesburg

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FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 10 OF 16

FOR TENDER

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

DRAWING No. JW14358-16941-T14-S21-00			
CONTRACT No.: JW14358			
UR1305B		B	
PROJECT No.		REV.	
A1	SHEET	10	OF 16
ORIGINAL PAGE SIZE			
FILE No.			

INSTALLATION INVENTORY		
SIGN	No.	SIZE (mm)
	TW401	800X200
	TW336	1200X1500
	TR104 & TR105	1200 DIA
	TR201-40	1200 DIA
	SS2 (a)	450X450

LEGEND	
	EXISTING CENTRELINE
	EXISTING ROAD
	PIPE JACKING
	OPEN TRENCHING
	BARRICADING NET
	PROPOSED PIPE
	NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

NOTES

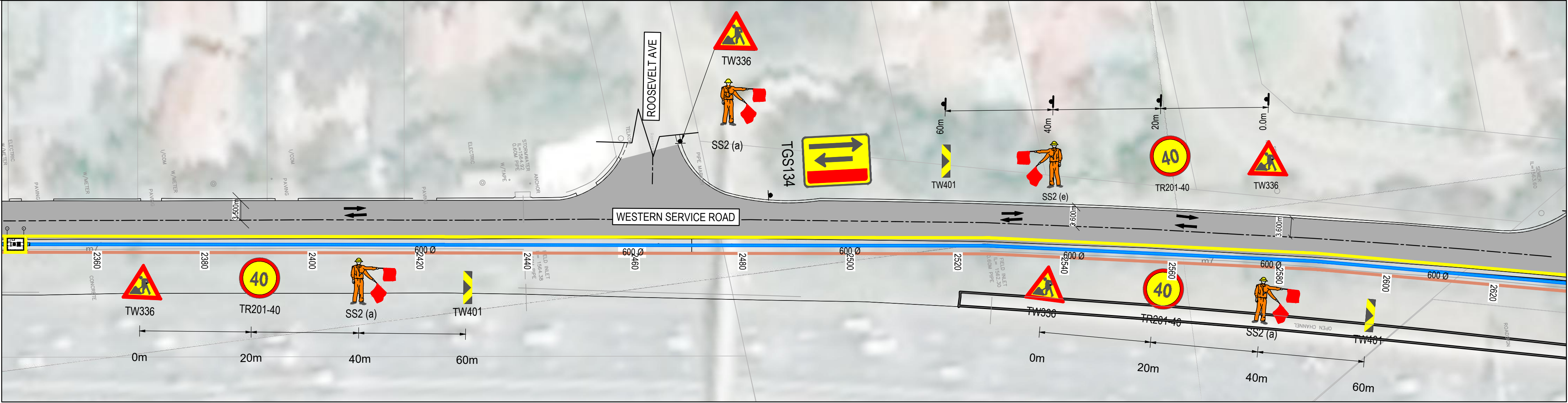
1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.

2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.

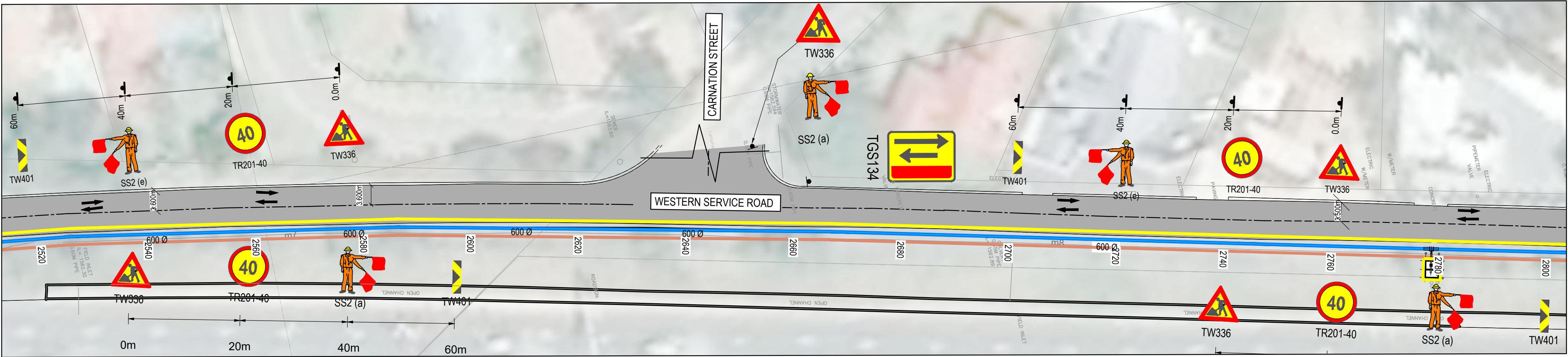
TYPICAL TEMPORARY SIGNAGE

0.0m 20m 40m 60m 80m 100m

KEYPLAN: NTS



DN 600 MAIN
CHAINAGE 2360 - 2600
SCALE: NOT TO SCALE



DN 600 MAIN
CHAINAGE 2520 - 2780
SCALE: NOT TO SCALE

FOR TENDER

THE MASTER HELD AT NYELETI PRETORIA OFFICE BEARS THE ORIGINAL SIGNATURE OF APPROVAL

DESIGNED	P.W.MASOGA	
DRAWN	P.W.MASOGA	
CHECKED	T.RIKHOTSO	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	S.NAICKER	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	20040015

Woodhill Office park
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Alberton
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65 Ntemi Piliso Street
Newtown, Johannesburg

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Newtown, Johannesburg

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WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 11 OF 16

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

DRAWING No. **JW14358-16941-T14-S22-00**

CONTRACT No.: JW14358

PROJECT No. **UR1305B** REV. **B**

A1 SHEET **11** OF **16**

ORIGINAL PAGE SIZE
FILE No.

INSTALLATION INVENTORY		
SIGN	No.	SIZE (mm)
	TW401	800X200
	TW336	1200X1500
	TR104 & TR105	1200 DIA
	TR201-40	1200 DIA
	SS2 (a)	450X450

LEGEND	
	EXISTING CENTRELINE
	EXISTING ROAD
	PIPE JACKING
	OPEN TRENCHING
	BARRICADING NET
	PROPOSED PIPE
	NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

NOTES

1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.

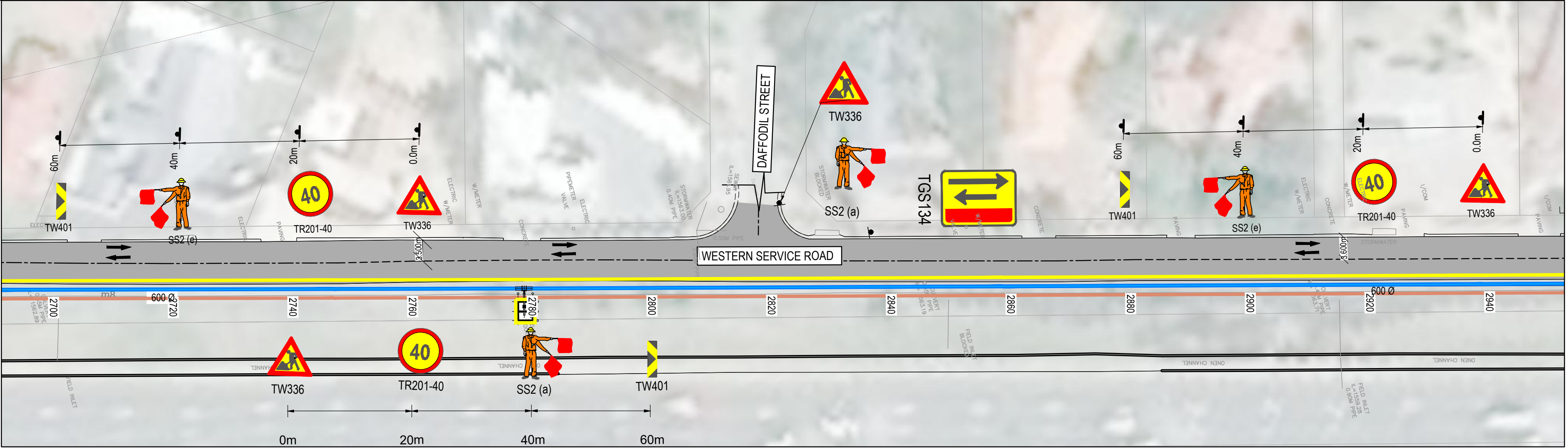
2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.

TYPICAL TEMPORARY SIGNAGE

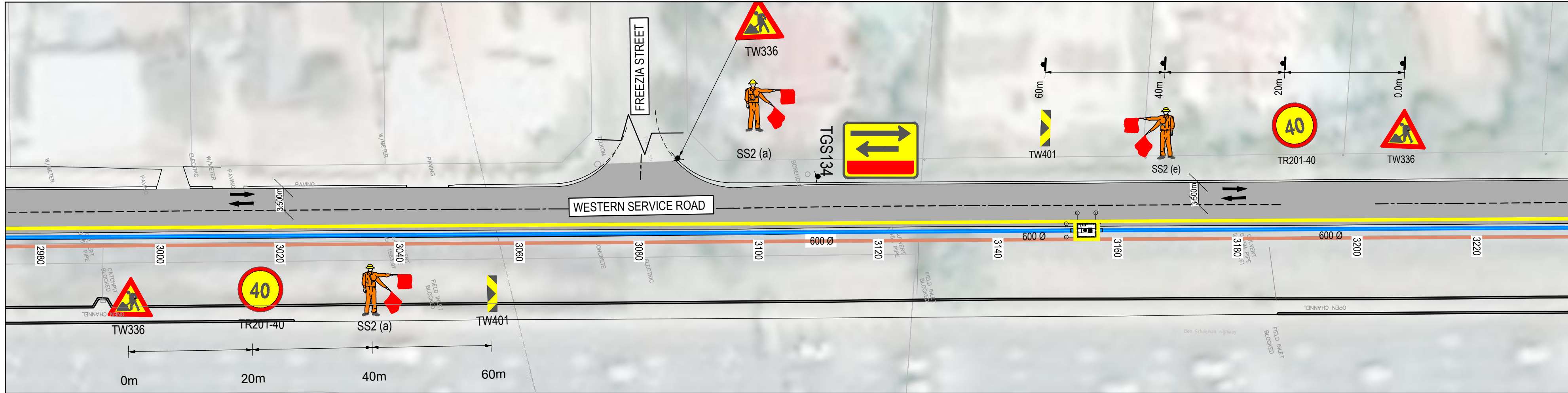
0.0m 20m 40m 60m 80m 100m

TW336 TR201-40 SS2 (a) TR104 TW401 TW401

KEYPLAN: NTS



DN 600 MAIN
CHAINAGE 2700 - 2940
SCALE: NOT TO SCALE



DN 600 MAIN
CHAINAGE 2980 - 3220
SCALE: NOT TO SCALE

THE MASTER HELD AT NYELETI PRETORIA OFFICE BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTING ENGINEERS	DESIGNED	P.W.MASOGA	
	DRAWN	P.W.MASOGA	
	CHECKED	T.RIKHOTSO	DATE: 2022-10-11
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	S.NACKER	DATE: 2022-10-11
		SIGNATURE	
		ECSA REG. No	20040015

Nyeleti
Engineered to Excel

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53 Phillip Engelbrecht Drive
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1450

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WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 12 OF 16

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NACKER	2022-10-11

FOR TENDER

DRAWING No. JW14358-16941-T14-S23-00				
CONTRACT No.: JW14358				
UR1305B		B		
PROJECT No.		REV.		
A1	SHEET	12	OF	16
ORIGINAL PAGE SIZE				
FILE No.				

INSTALLATION INVENTORY		
SIGN	No.	SIZE (mm)
	TW401	800X200
	TW336	1200X1500
	TR104 & TR105	1200 DIA
	TR201-40	1200 DIA
	SS2 (a)	450X450

LEGEND	
	EXISTING CENTRELINE
	EXISTING ROAD
	PIPE JACKING
	OPEN TRENCHING
	BARRICADING NET
	PROPOSED PIPE
	NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

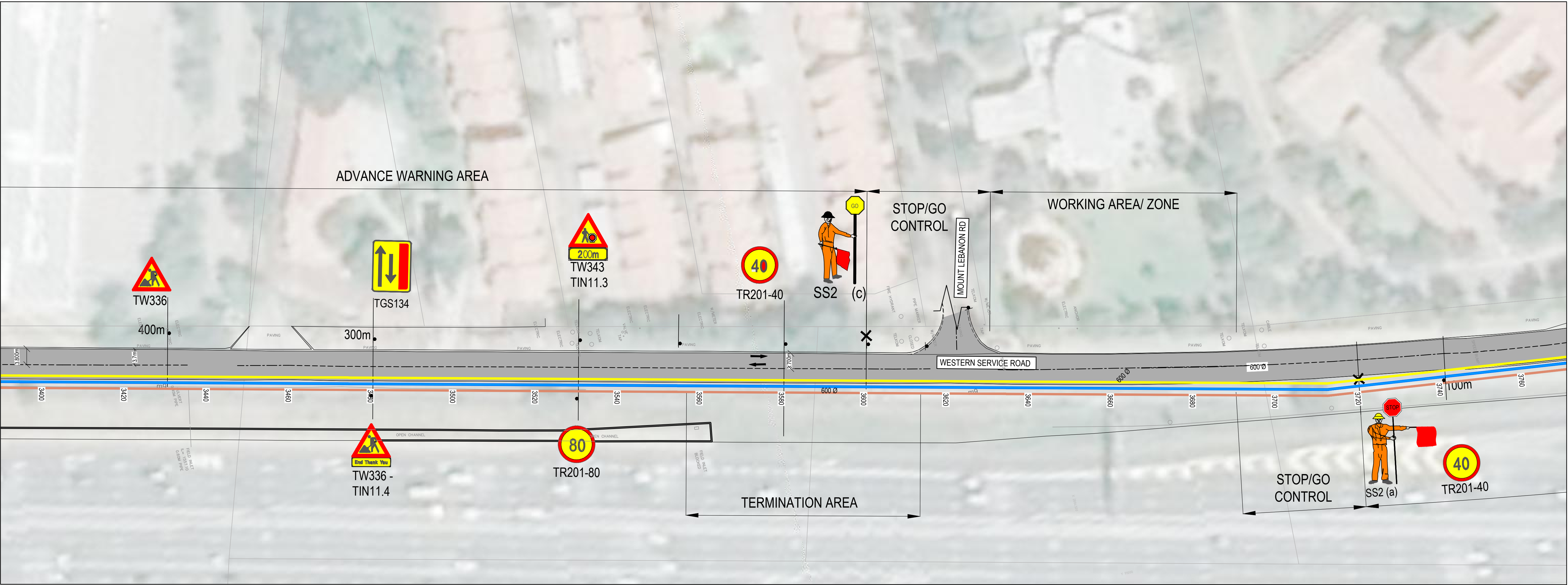
NOTES

1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.

2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.

TYPICAL TEMPORARY SIGNAGE

KEYPLAN: NTS



DN 600 MAIN
CHAINAGE 3400 - 3760
SCALE: NOT TO SCALE

FOR TENDER

THE MASTER HELD AT NYELETI PRETORIA OFFICE BEARS THE ORIGINAL SIGNATURE OF APPROVAL

DESIGNED	P.W.MASOGA	
DRAWN	P.W.MASOGA	
CHECKED	T.RIKHOTSO	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	S.NAICKER	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	20040015

Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

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Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

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Newtown, Johannesburg

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FAX: (011) 688-1529

WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 13 OF 16

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

DRAWING No. JW14358-16941-T14-S24-00	
CONTRACT No.: JW14358	
UR1305B	B
PROJECT No.	
A1	REV.
SHEET	13 OF 16
ORIGINAL PAGE SIZE	
FILE No.	

\\NYE\PTA-FS2\F5-07_Data\Projects_Active\16941_Woodmead Water Upgrade\08 - Existing Drawings\Roads Drawings\Traffic Accommodation Plans\16941-T14-S24-00-Woodmead Water Upgrade_Rev2_recover.dwg

INSTALLATION INVENTORY		
SIGN	No.	SIZE (mm)
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	TW336	1200X1500
	TR104 & TR105	1200 DIA
	TR201-40	1200 DIA
	SS2 (a)	450X450

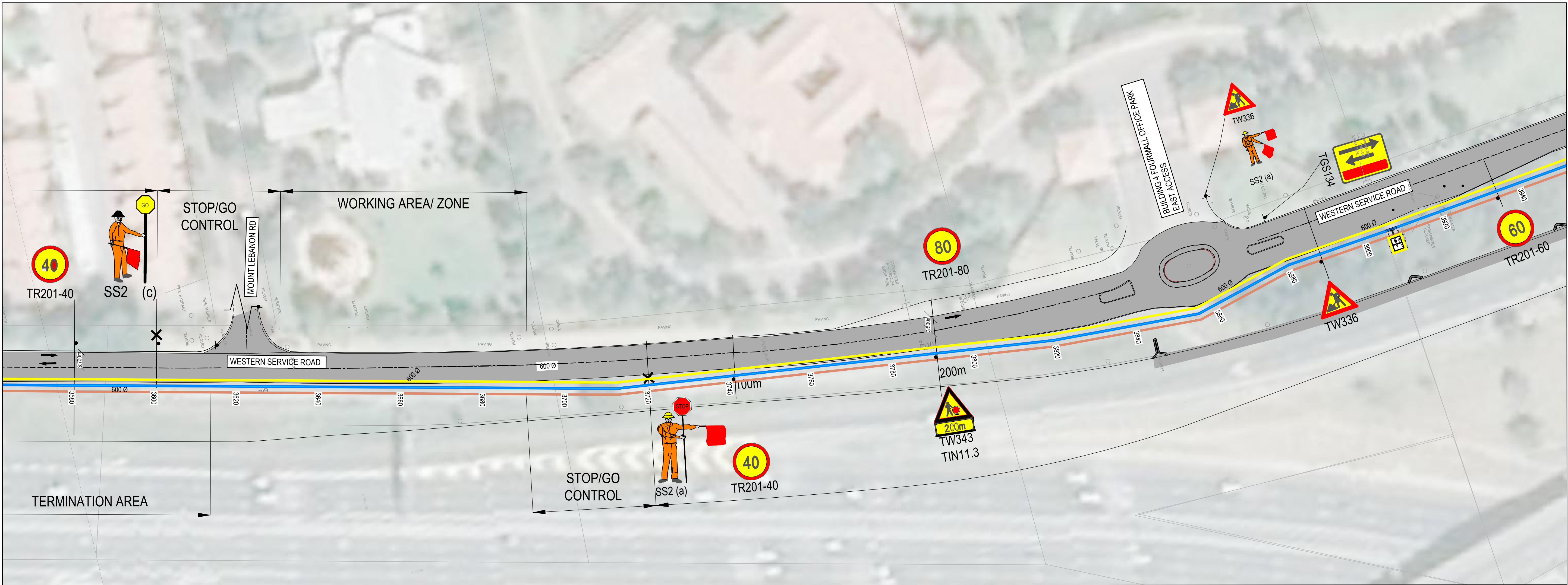
LEGEND	
	EXISTING CENTRELINE
	EXISTING ROAD
	PIPE JACKING
	OPEN TRENCHING
	BARRICADING NET
	PROPOSED PIPE
	NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

NOTES

1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.

2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.

TYPICAL TEMPORARY SIGNAGE



DN 600 MAIN
CHAINAGE 3600 - 3980
SCALE: NOT TO SCALE

THE MASTER HELD AT NYELETI PRETORIA OFFICE BEARS THE ORIGINAL SIGNATURE OF APPROVAL

DESIGNED	P.W.MASOGA	
DRAWN	P.W.MASOGA	
CHECKED	T.RIKHOTSO	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	S.NAICKER	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	20040015

Woodhill Office park
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FAX: (011) 688-1529

WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 14 OF 16

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

DRAWING No. JW14358-16941-T14-S25-00	
CONTRACT No.: JW14358	
UR1305B	B
PROJECT No.	
A1	REV.
SHEET	14 OF 16
ORIGINAL PAGE SIZE	
FILE No.	

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INSTALLATION INVENTORY			LEGEND	
SIGN	No.	SIZE (mm)		EXISTING CENTRELINE
	TW401	800X200	---	EXISTING ROAD
	TW336	1200X1500		PIPE JACKING
	TR104 & TR105	1200 DIA		OPEN TRENCHING
	TR201-40	1200 DIA		BARRICADING NET
	SS2 (a)	450X450		PROPOSED PIPE
				NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

NOTES

1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.

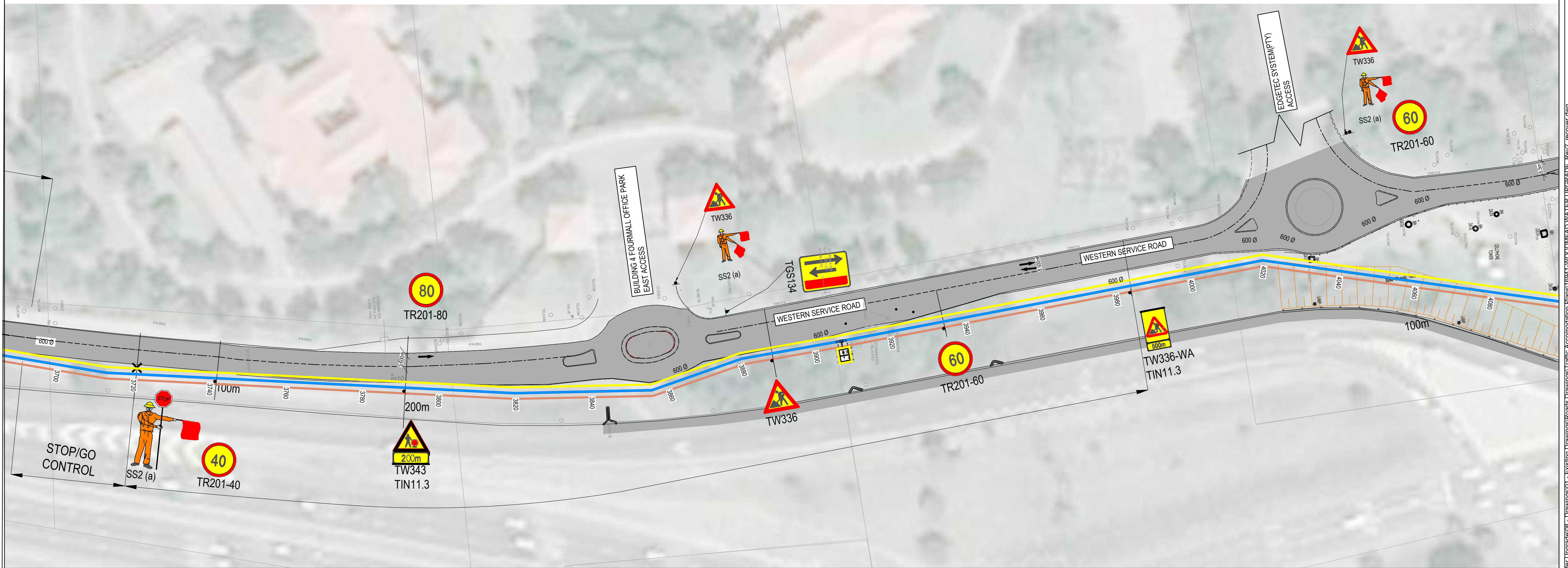
2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.

TYPICAL TEMPORARY SIGNAGE

0.0m 20m 40m 60m 80m 100m

TW336 TR201-40 SS2 (a) TR104 TW401 TW401

KEYPLAN: NTS



DN 600 MAIN
CHAINAGE 3700 - 4080
SCALE: NOT TO SCALE

FOR TENDER

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CONSULTING ENGINEERS

Nyeleti
Engineered to Excel

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Alberton
1450

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Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

DESIGNED	P.W.MASOGA	
DRAWN	P.W.MASOGA	
CHECKED	T.RIKHOTSO	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	S.NAICKER	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	20040015

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WOODMEAD WATER UPGRADE
DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 15 OF 16

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

DRAWING No. **JW14358-16941-T14-S26-00**

CONTRACT No.: JW14358

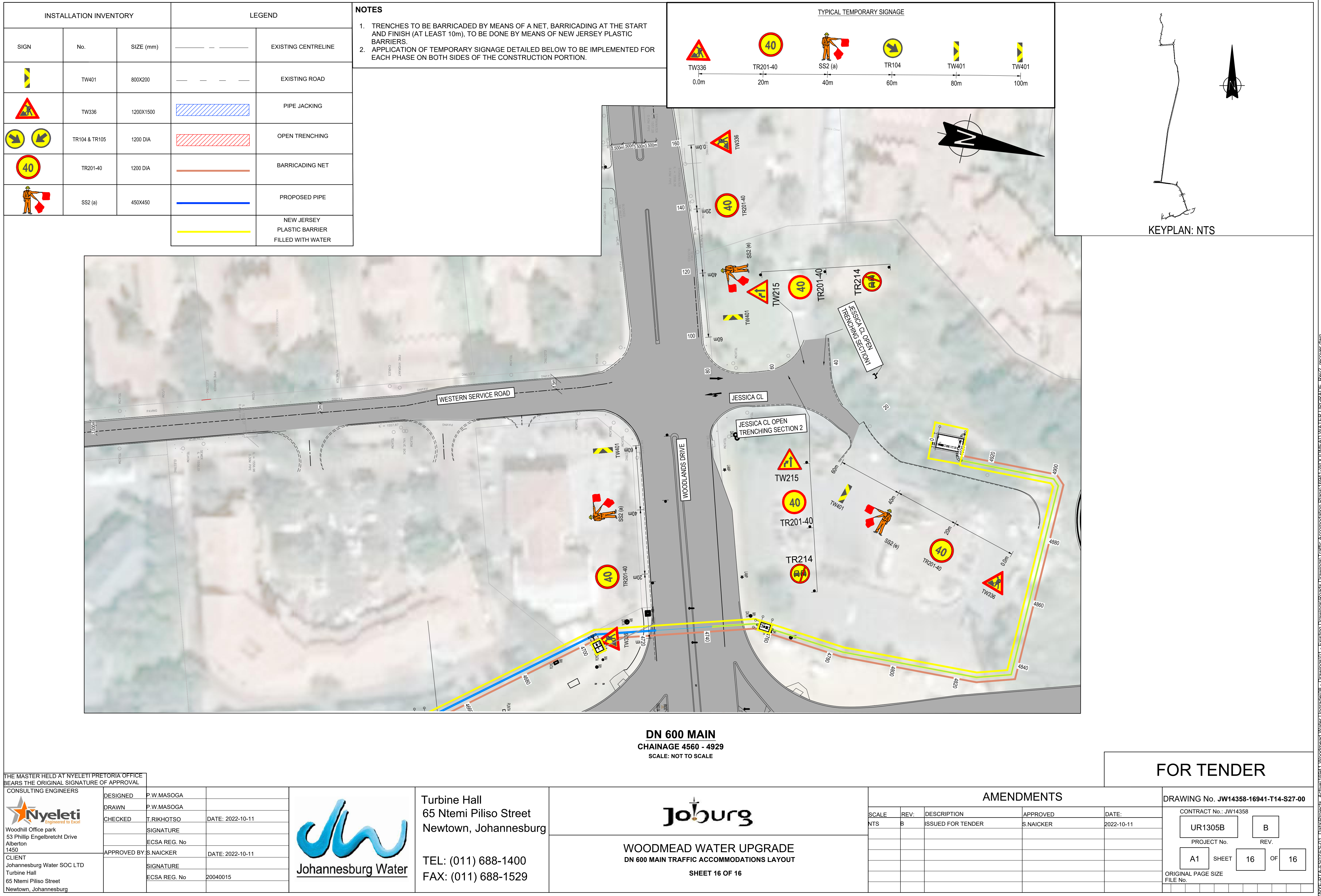
UR1305B B

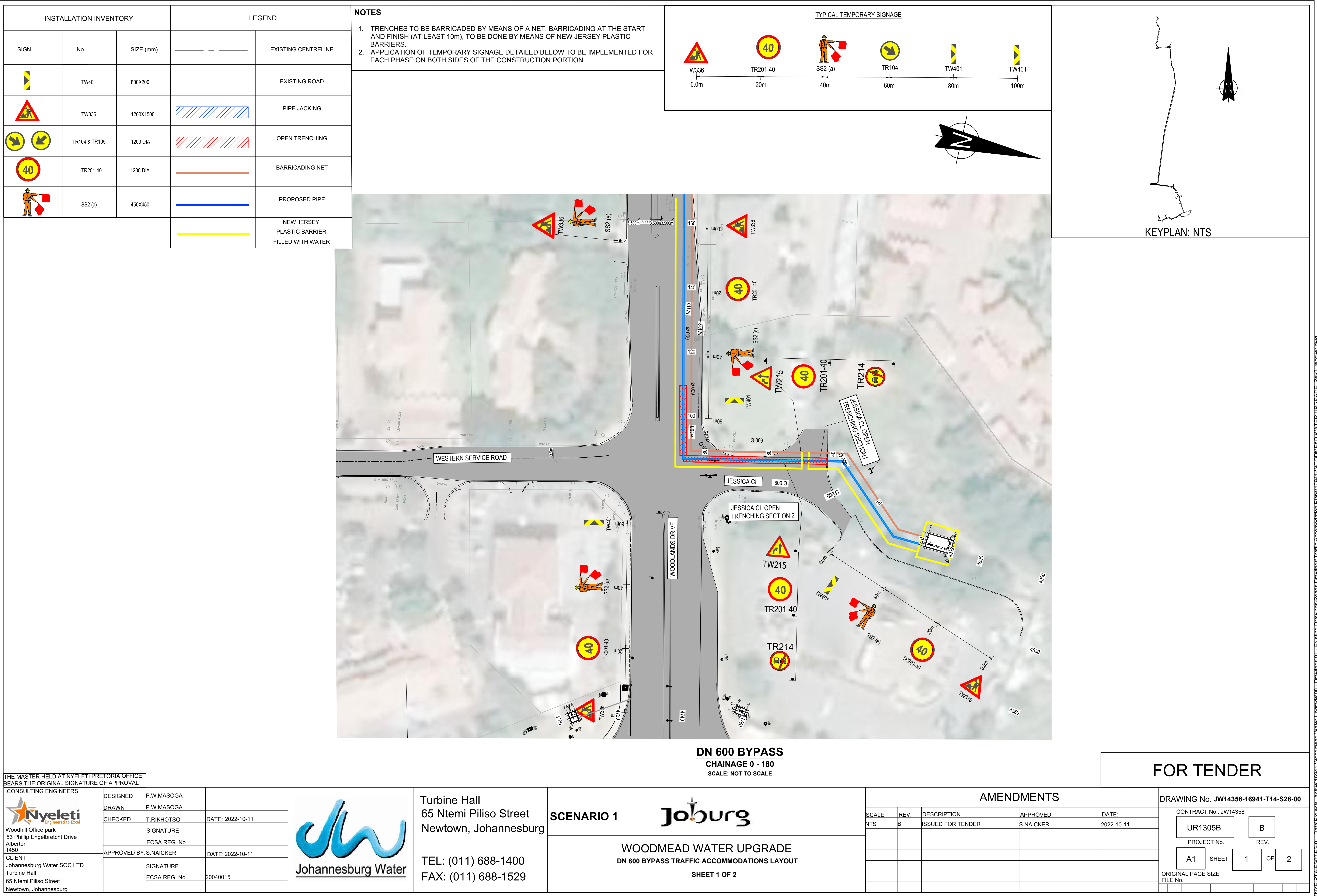
PROJECT No. REV.

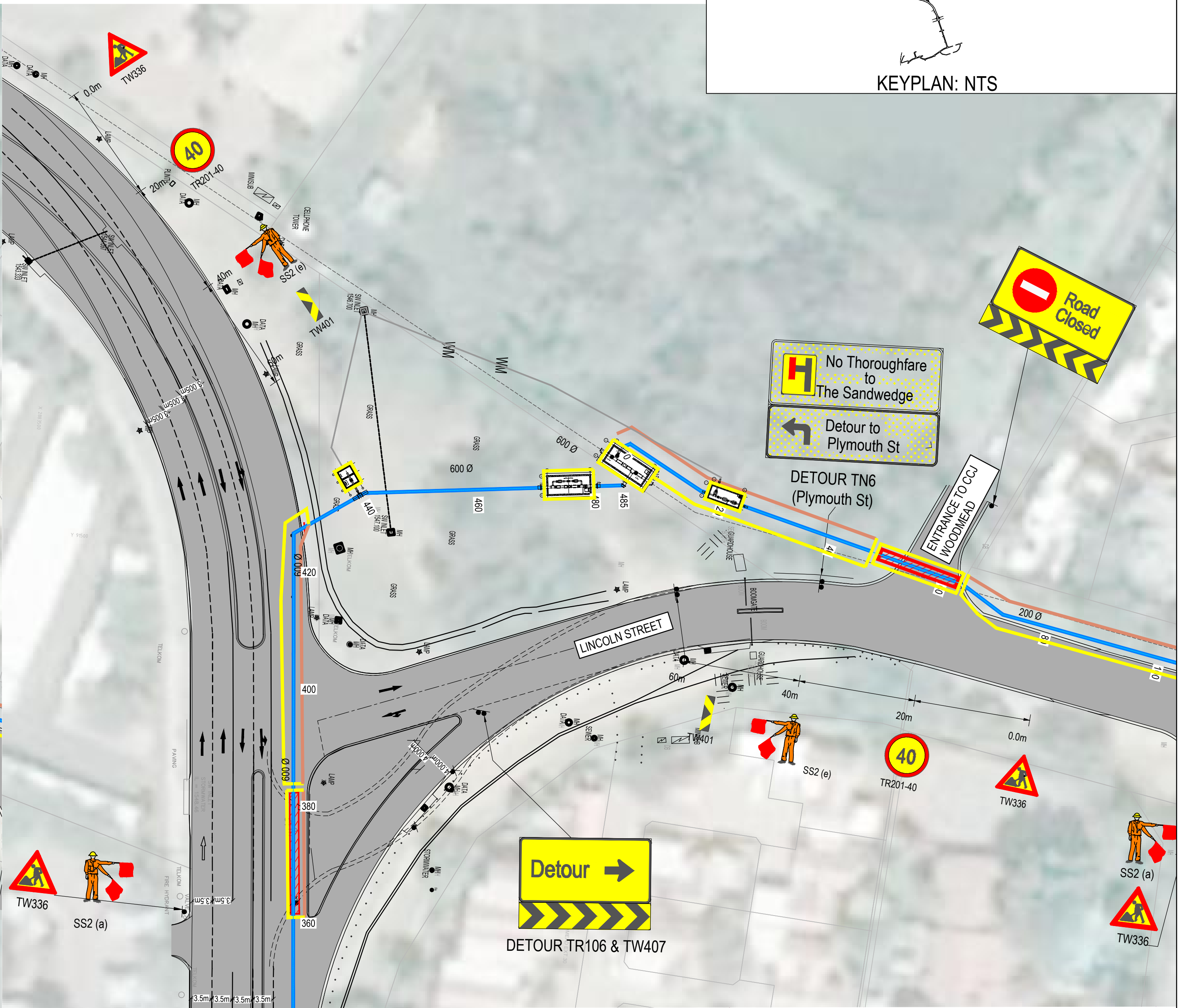
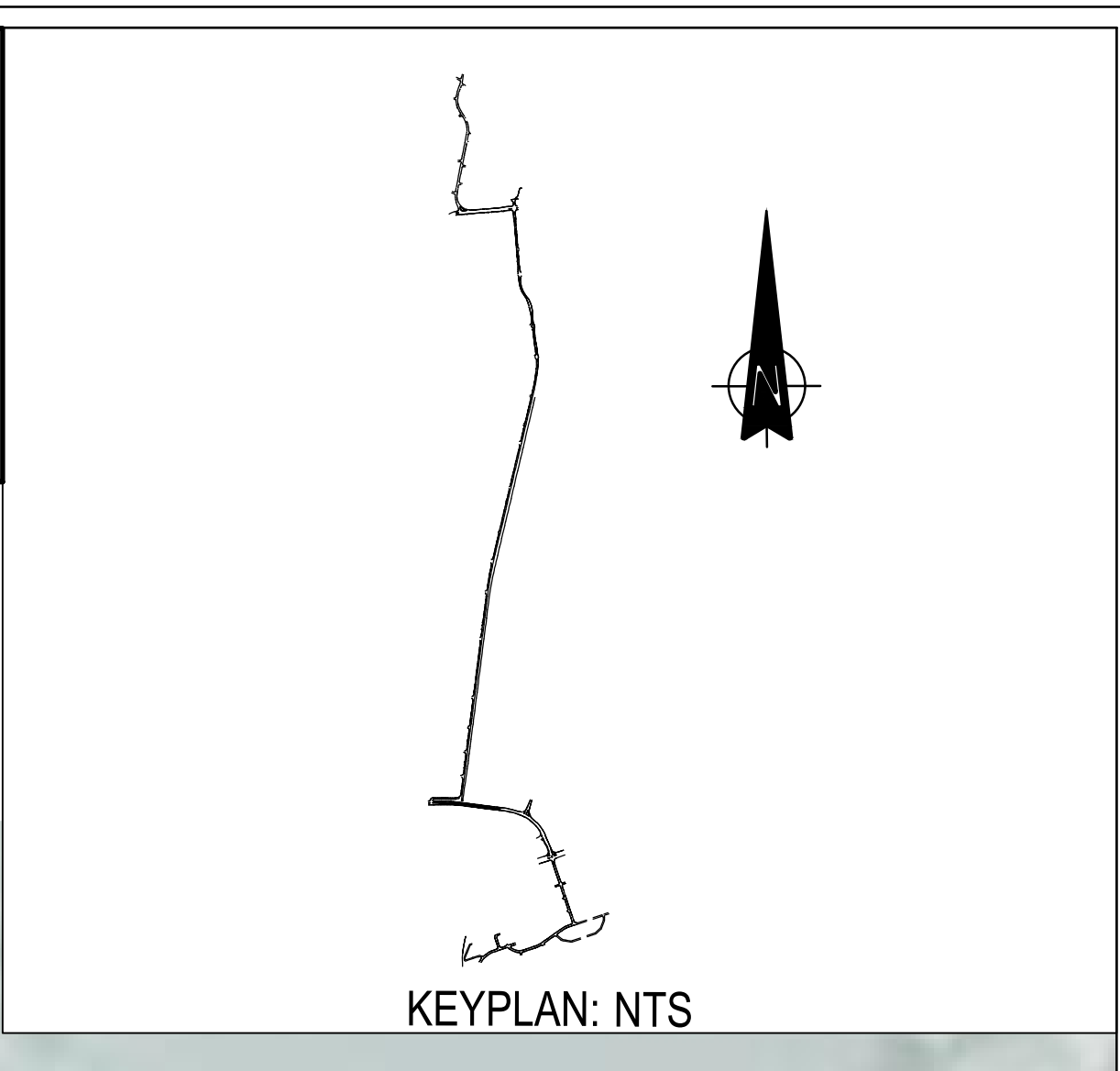
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ORIGINAL PAGE SIZE
FILE No.

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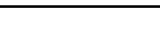




[illegible]

DN 600 BYPASS
SCENARIO 2
CHAINAGE 300 - 480
SCALE: NOT TO SCALE

CONTRACT No.: JW14358			
UR1305B		B	
PROJECT No.		REV.	
A1	SHEET	2	OF 2
ORIGINAL PAGE SIZE			
FILE No.			

 <u>Johannesburg Water</u>	Turbine Hall 65 Ntengi Pilliso Street Newtown, Johannesburg TEL: (011) 688-1400 FAX: (011) 688-1529
--	---

[illegible]

INSTALLATION INVENTORY			LEGEND	
SIGN	No.	SIZE (mm)		
	TW401	800X200	---	EXISTING CENTRELINE
	TW401	800X200	---	EXISTING ROAD
	TW336	1200X1500		PIPE JACKING
	TR104 & TR105	1200 DIA		OPEN TRENCHING
	TR201-40	1200 DIA		BARRICADING NET
	SS2 (a)	450X450		PROPOSED PIPE
				NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

NOTES

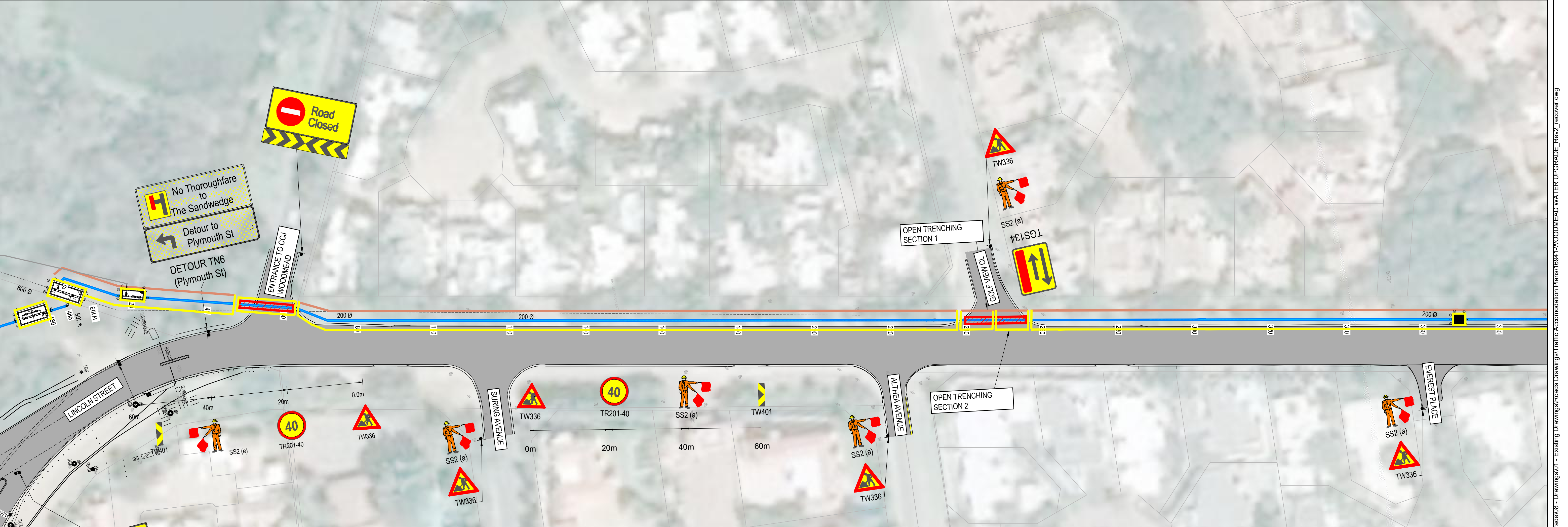
1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.

2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.

TYPICAL TEMPORARY SIGNAGE

TW336 0.0m TR201-40 20m SS2 (a) 40m TR104 60m TW401 80m TW401 100m

KEYPLAN: NTS



DN 200 MPVC
CHAINAGE 0 - 400
SCALE: NOT TO SCALE

THE MASTER HELD AT NYELETI PRETORIA OFFICE BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTING ENGINEERS

Nyeleti
Engineered to Excel

Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

DESIGNED	P.W.MASOGA	
DRAWN	P.W.MASOGA	
CHECKED	T.RIKHOTSO	DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	
APPROVED BY: S.NAICKER		DATE: 2022-10-11
	SIGNATURE	
	ECSA REG. No	20040015

Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

WOODMEAD WATER UPGRADE
DN 200 MPVC TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 1 OF 3

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

FOR TENDER

DRAWING No. **JW14358-16941-T30-S30-00**

CONTRACT No.: JW14358

UR1305B

PROJECT No. REV.

A1 SHEET 1 OF 3

ORIGINAL PAGE SIZE
FILE No.

INSTALLATION INVENTORY			LEGEND	
SIGN	No.	SIZE (mm)		
	TW401	800X200	---	EXISTING CENTRELINE
	TW401	800X200	---	EXISTING ROAD
	TW336	1200X1500		PIPE JACKING
	TR104 & TR105	1200 DIA		OPEN TRENCHING
	TR201-40	1200 DIA		BARRICADING NET
	SS2 (a)	450X450		PROPOSED PIPE
				NEW JERSEY PLASTIC BARRIER FILLED WITH WATER

NOTES

1. TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.

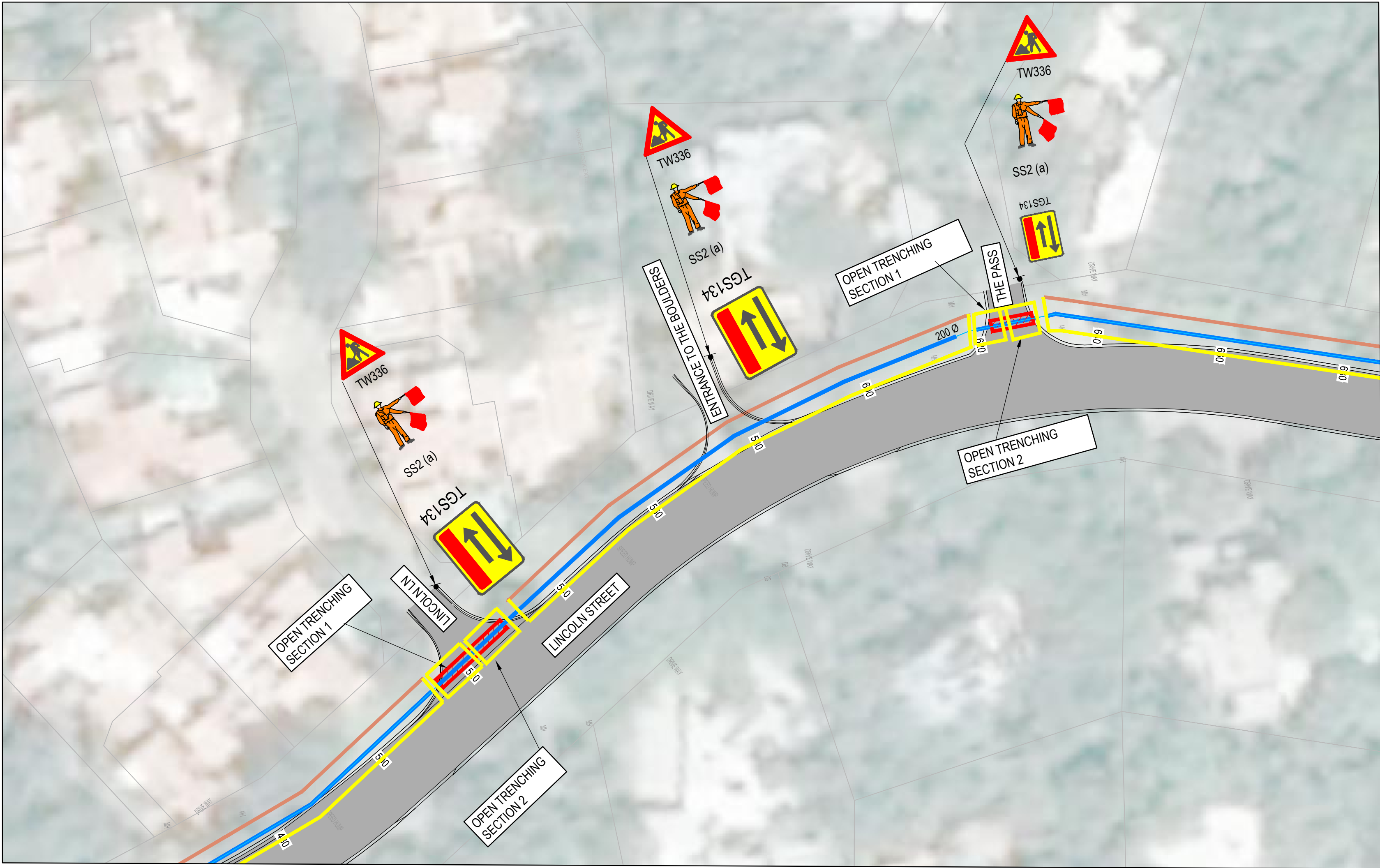
2. APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.

TYPICAL TEMPORARY SIGNAGE

0.0m 20m 40m 60m 80m 100m

TW336 TR201-40 SS2 (a) TR104 TW401 TW401

KEYPLAN: NTS



DN 200 MPVC
CHAINAGE 400 - 740
SCALE: NOT TO SCALE

THE MASTER HELD AT NYELETI PRETORIA OFFICE BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTING ENGINEERS	DESIGNED	P.W.MASOGA	
	DRAWN	P.W.MASOGA	
	CHECKED	T.RIKHOTSO	DATE: 2022-10-11
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY: S.NAICKER	DATE: 2022-10-11	
		SIGNATURE	
		ECSA REG. No	20040015

Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450

CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

WOODMEAD WATER UPGRADE
DN 200 MPVC TRAFFIC ACCOMMODATIONS LAYOUT
SHEET 2 OF 3

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
NTS	B	ISSUED FOR TENDER	S.NAICKER	2022-10-11

FOR TENDER

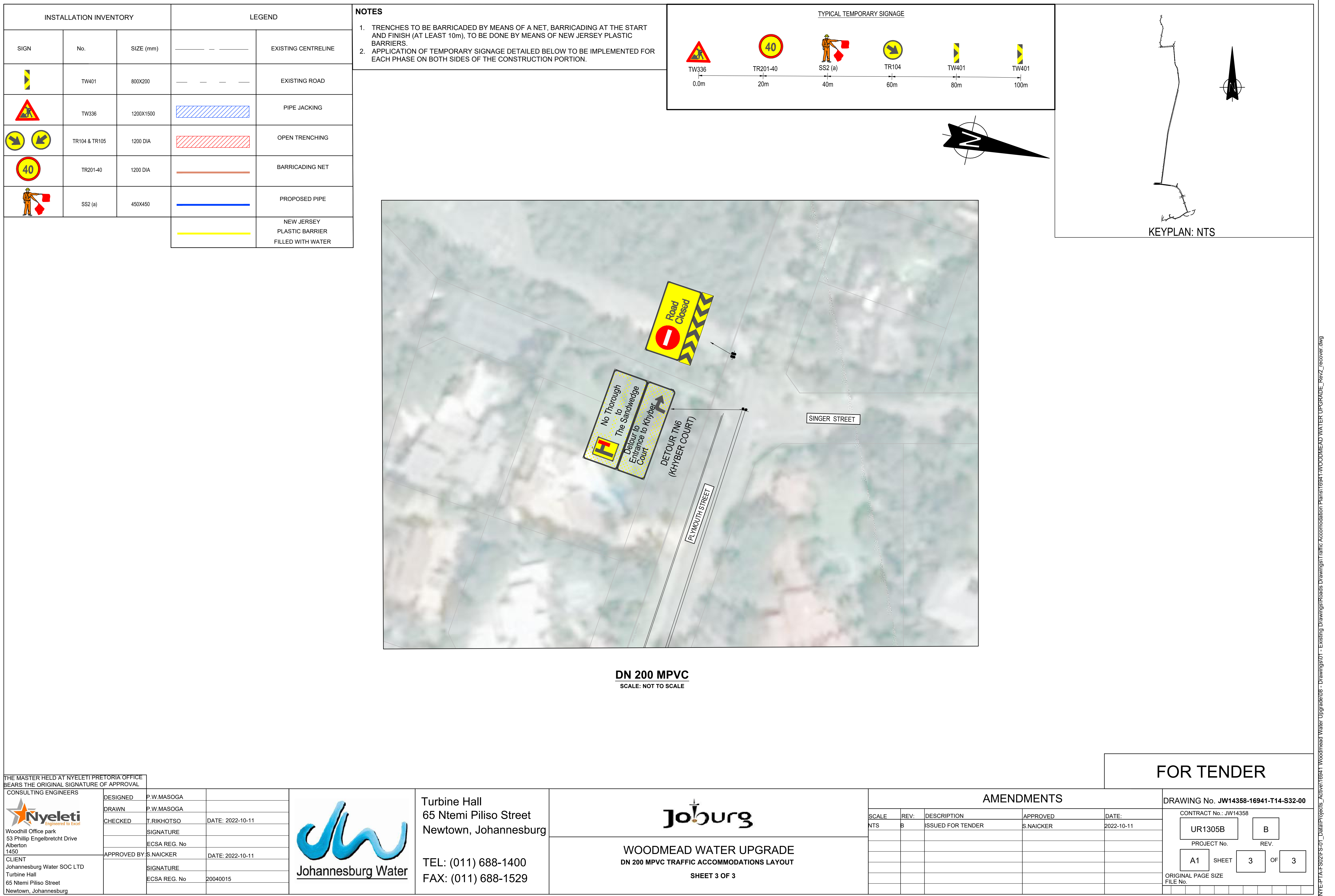
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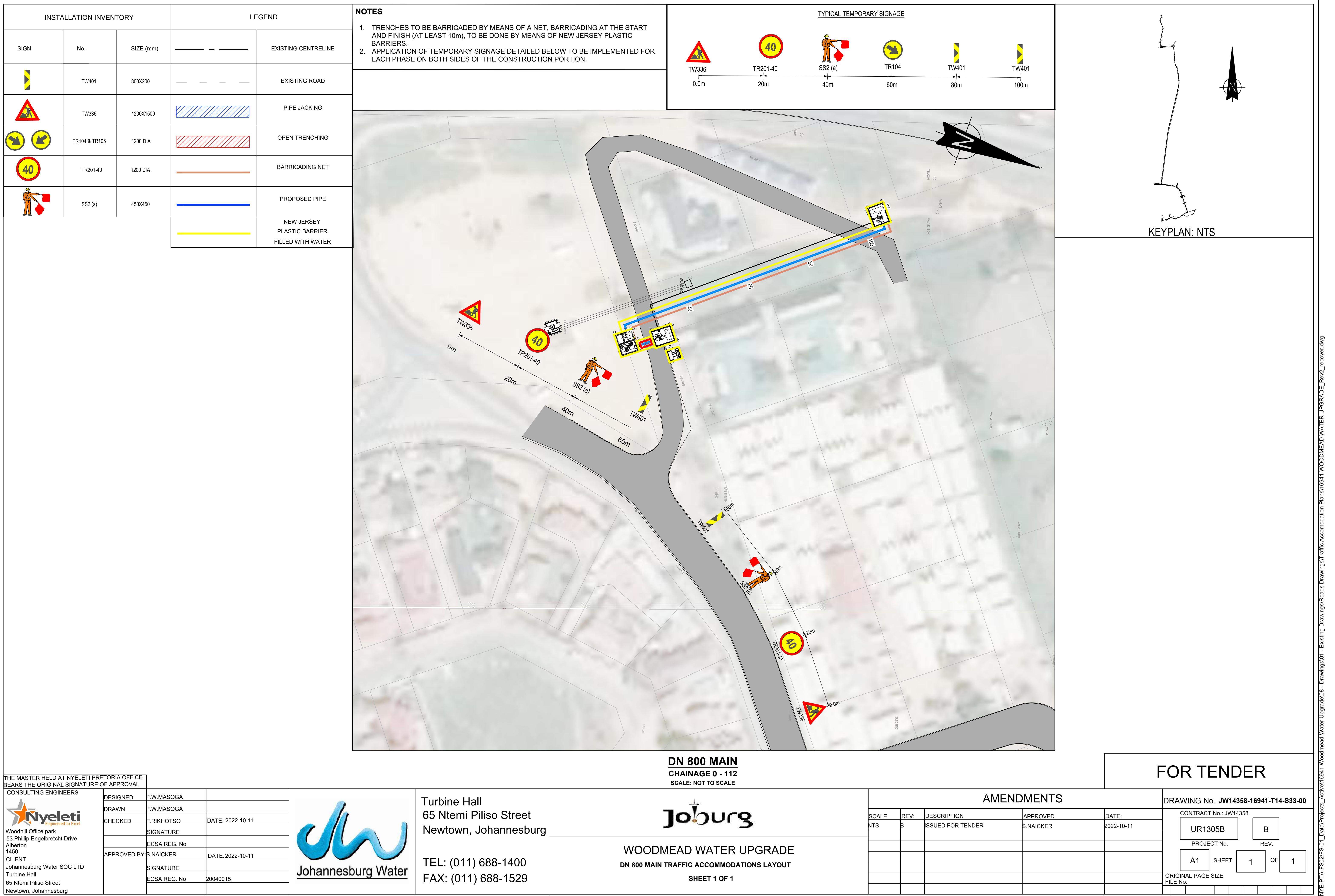
CONTRACT No.: JW14358

PROJECT No. **UR1305B** REV. **B**

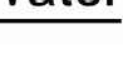
A1 SHEET **2** OF **3**

ORIGINAL PAGE SIZE
FILE No.





NOTES	
1.	TRENCHES TO BE BARRICADED BY MEANS OF A NET, BARRICADING AT THE START AND FINISH (AT LEAST 10m), TO BE DONE BY MEANS OF NEW JERSEY PLASTIC BARRIERS.
2.	APPLICATION OF TEMPORARY SIGNAGE DETAILED BELOW TO BE IMPLEMENTED FOR EACH PHASE ON BOTH SIDES OF THE CONSTRUCTION PORTION.



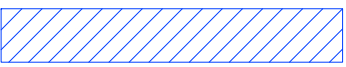
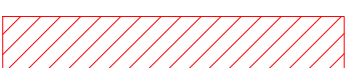


WOODMEAD WATER UPGRADE

DN 600 MAIN TRAFFIC ACCOMMODATIONS LAYOUT

SHEET 1 OF 1

DRAWING No. JW14358-16941-T14-S34-00					
CONTRACT No.: JW14358					
UR1305B		B			
PROJECT No.		REV.			
A1	SHEET	1	OF	1	
ORIGINAL PAGE SIZE					
FILE No.					

TREES INVENTORY		LEGEND	
TREES	No.	---	EXISTING CENTRELINE
REMOVE	13	---	EXISTING ROAD
ENCROCH	58		PIPE JACKING
			OPEN TRENCHING
			PROPOSED PIPE
			TRENCH EXTENTS



THE MASTER HELD AT NYELETI PRETORIA OFFICE
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

 Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	A.BUNSI	
	DRAWN	A.BUNSI	
	CHECKED	T.FOSA	DATE: 2023-02-24
		SIGNATURE	
		ECSA REG. No	
APPROVED BY: P.GROBLER		DATE: 2023-02-24	
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 MAIN EXISTING TREES SERVITUDE LAYOUT

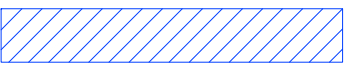
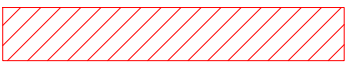
SHEET 1 OF 2

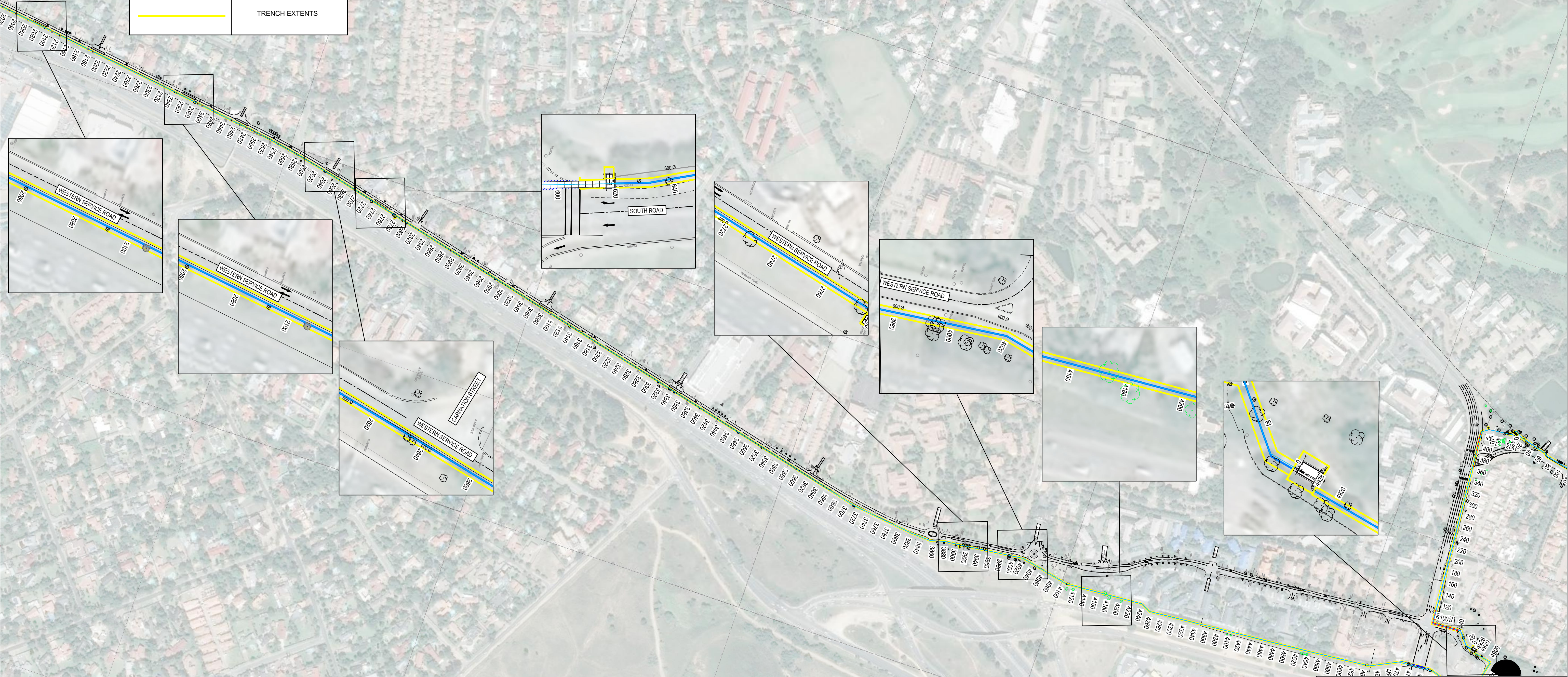
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SCALE	REV:	DESCRIPTION	APPROVED	DATE:
NTS	A	ISSUED FOR TENDER	P.GROBLER	2022-10-11

FOR TENDER

DRAWING No. JW14358-16941-T-015-S01-00			
CONTRACT No.: JW14358			
UR1305B		A	
PROJECT No.		REV.	
A1	SHEET	1	OF 2
ORIGINAL PAGE SIZE			
FILE No.			

116941-Woodmead Water Upgrade08 - Drawings01 - Existing DrawingsRoads DrawingsTraffic Accommodation Plans16941-WOODMEAD WATER UPGRADE_Rev1_Trees.dwg

TREES INVENTORY		LEGEND	
TREES	No.	— — — — —	EXISTING CENTRELINE
REMOVE	13	— — — — —	EXISTING ROAD
ENCROCH	58		PIPE JACKING
			OPEN TRENCHING
			PROPOSED PIPE
			TRENCH EXTENTS



THE MASTER HELD AT NYELETI PRETORIA OFFICE
BEARS THE ORIGINAL SIGNATURE OF APPROVAL

 Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	A.BUNSI	
	DRAWN	A.BUNSI	
	CHECKED	T.FOSA	DATE: 2023-02-24
		SIGNATURE	
		ECSA REG. No	
APPROVED BY: P.GROBLER		DATE: 2023-02-24	
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 MAIN EXISTING TREES SERVITUDE LAYOUT

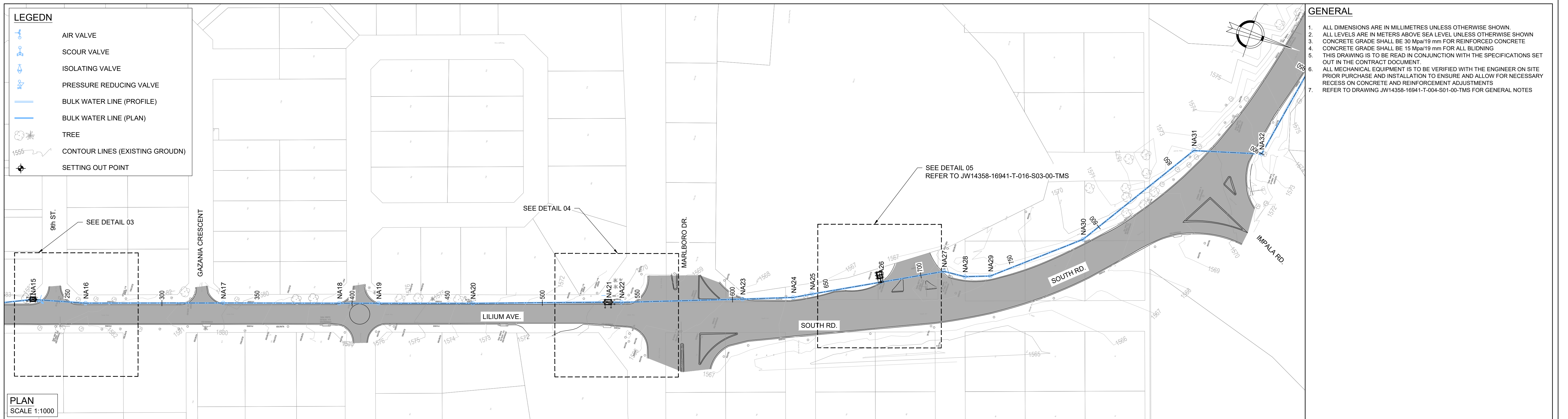
SHEET 2 OF 2

AMENDMENTS

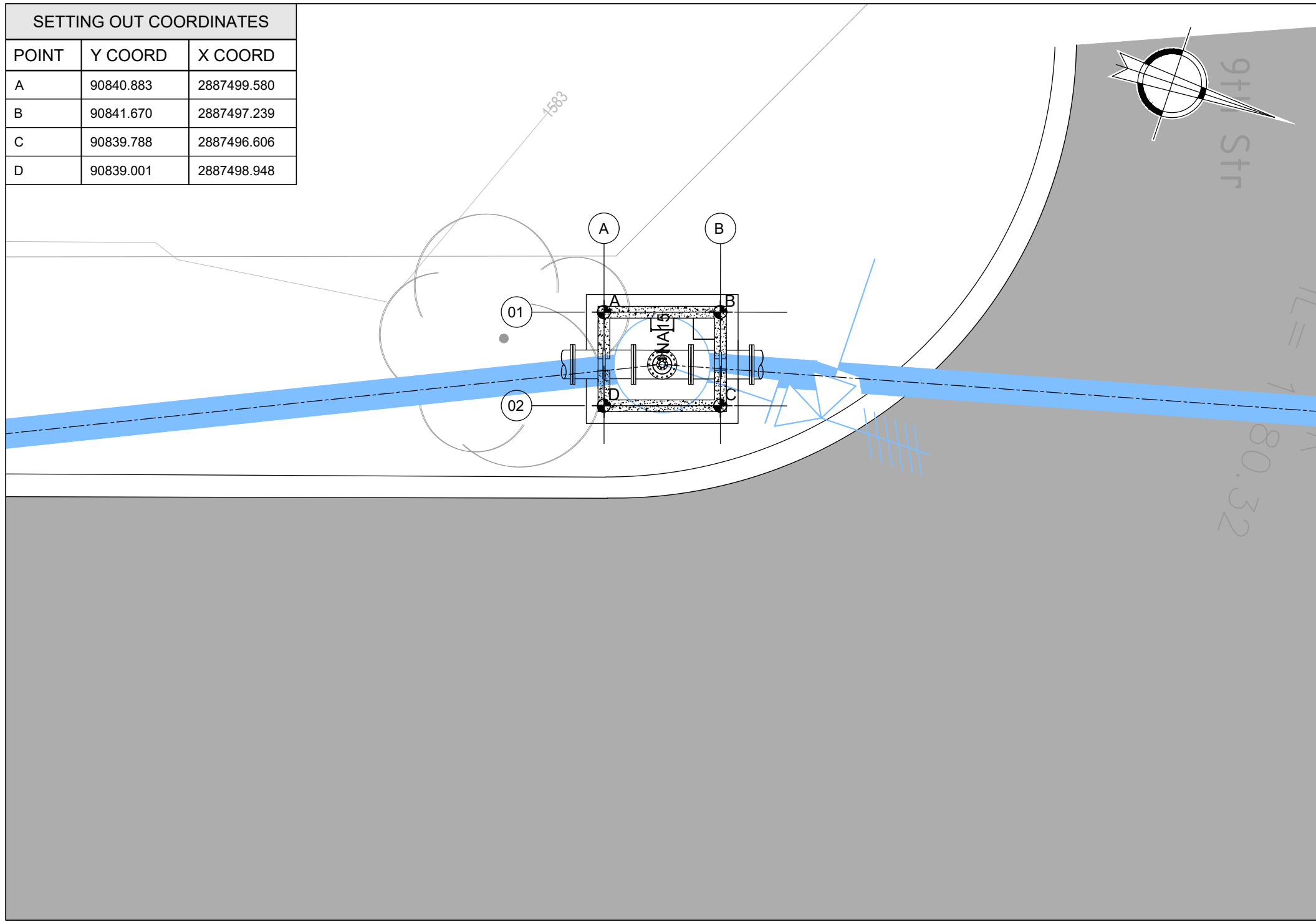
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NTS	A	ISSUED FOR TENDER	P.GROBLER	2022-10-11

FOR TENDER

DRAWING No. JW14358-16941-T-015-S02-00			
CONTRACT No.: JW14358			
UR1305B	A		
PROJECT No.		REV.	
A1	SHEET	2	OF 2
ORIGINAL PAGE SIZE			
FILE No.			

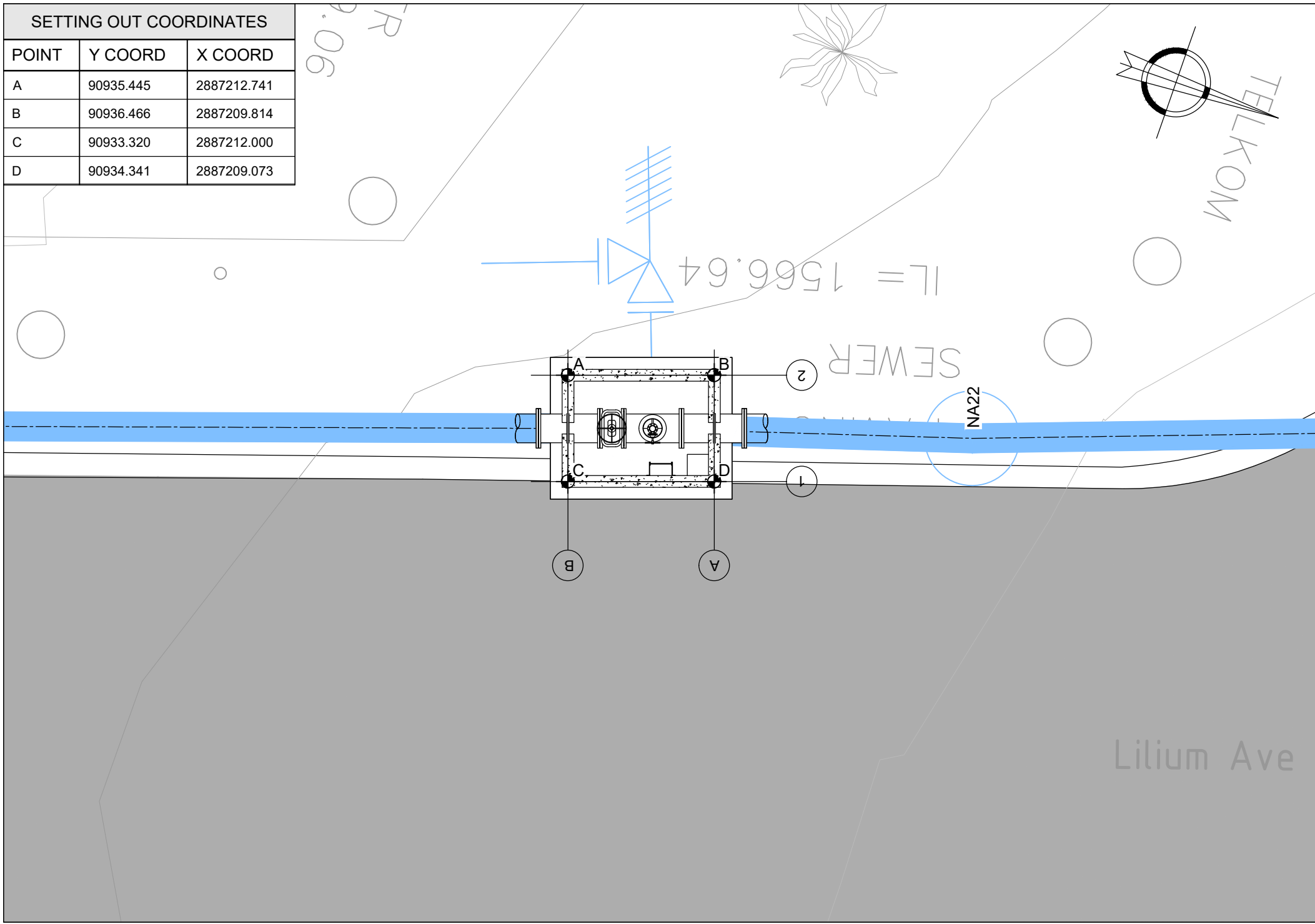


- GENERAL**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 - ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
 - CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
 - CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLIDNING
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
 - ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
 - REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES



DETAIL 03: AIR VALVE CHAMBER

TYPE 1 NODE: NA15
CHAINAGE 260.016
SCALE 1:100



DETAIL 04: AIR VALVE CHAMBER

TYPE 2 NODE: NA21
CHAINAGE 534.911
SCALE 1:100

REFERENCE DRAWINGS

JW14358-16941-T-011-S01-00-TMS TO JW14358-16941-T-011-S07-00-TMS - LAYOUT AND SETTING OUT
JW14358-16941-T-012-S01-00-TMS TO JW14358-16941-T-012-S10-00-TMS - LAYOUT AND LONGSECTION
JW14358-16941-T-015-S02-00-TMS - PIPELINE AND NODE SETTING OUT

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbretch Drive Alberton 1450	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2022-12-09
		SIGNATURE	
CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	APPROVED BY:	P.GROBLER	DATE 2022-12-09
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

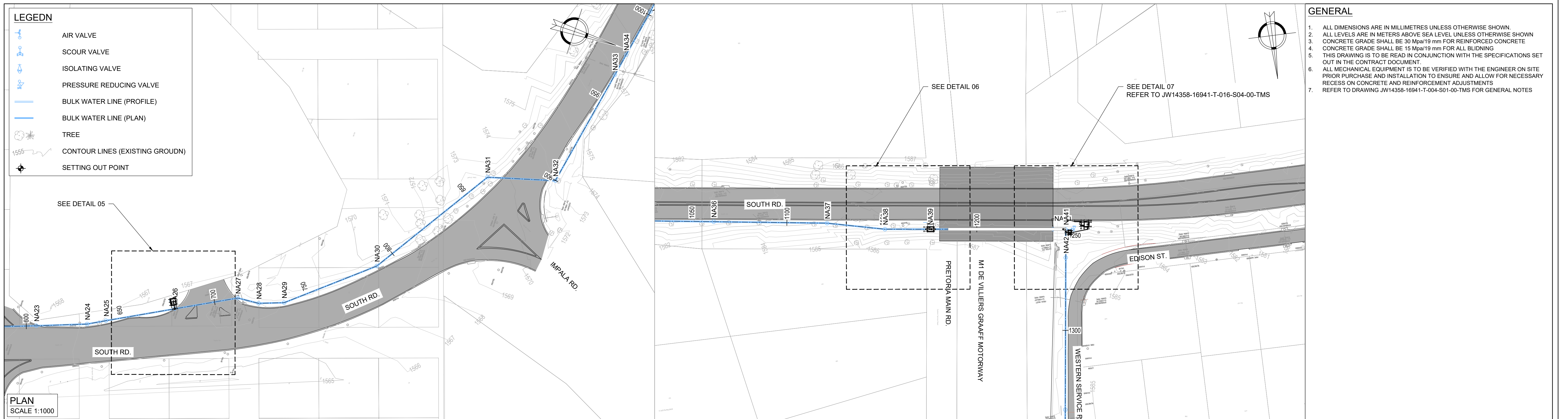
TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT
SHEET 2 OF 8

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	C	ISSUED FOR TENDER	P.GROBLER	2202/11/02

DRAWING No. JW14358-16941-T-016-S02-00-TMS			
CONTRACT No.: JW14358			
UR1305B		C	
PROJECT No.		REV.	
A1		2 OF 8	
ORIGINAL PAGE SIZE FILE No.			



SEE DETAIL 05

SEE DETAIL 06

SEE DETAIL 07
REFER TO JW14358-16941-T-016-S04-00-TMS

GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN

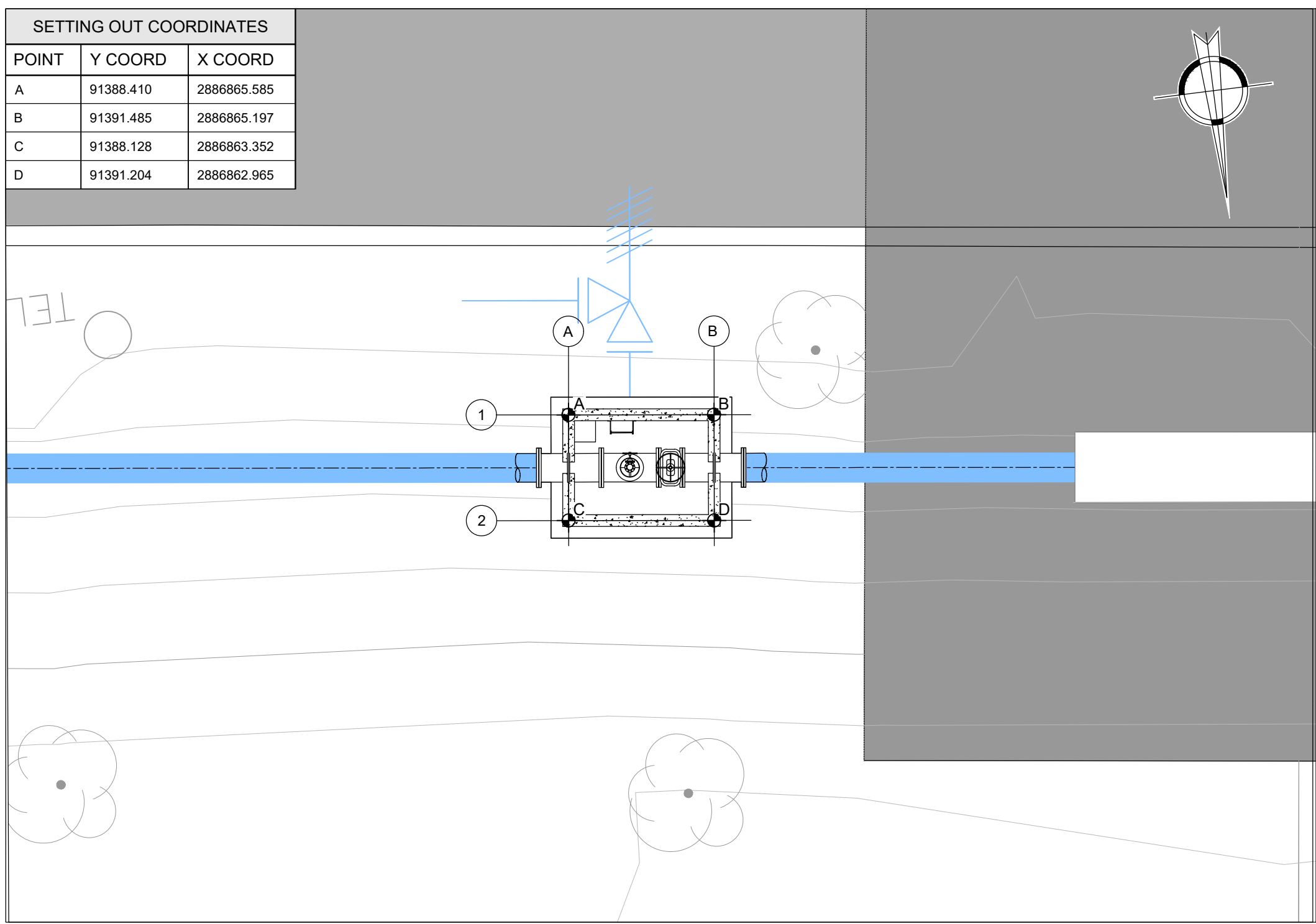
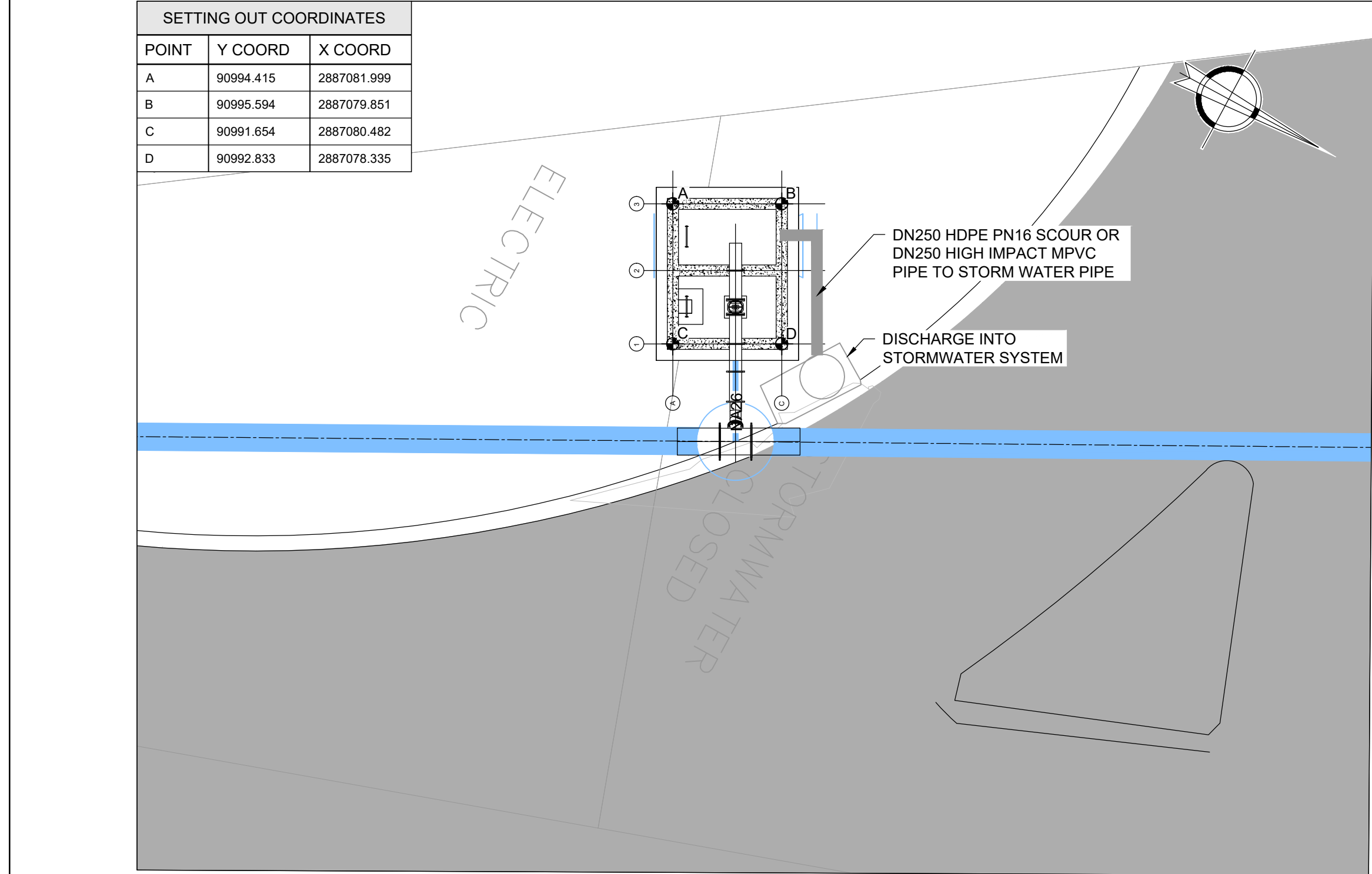
3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE

4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLIDNING

5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.

6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS

7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES



CONSULTING ENGINEERS	DESIGNED	T.FOSA	
 Woodhill Office park 53 Phillip Engelbretch Drive Alberton 1450	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2022-12-09
		SIGNATURE	
CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntami Piliso Street Newtown, Johannesburg	APPROVED BY:	P.GROBLER	DATE 2022-12-09
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntami Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

WOODMEAD WATER UPGRADE

DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT

SHEET 3 OF 8

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
AS SHOWN	C	ISSUED FOR TEDNER	P.GROBLER	2202/11/02

DRAWING No. JW14358-16941-T-016-S03-00-TMS

CONTRACT No.: JW14358

UR1305B

C

PROJECT No.

REV.

A1

SHEET

3

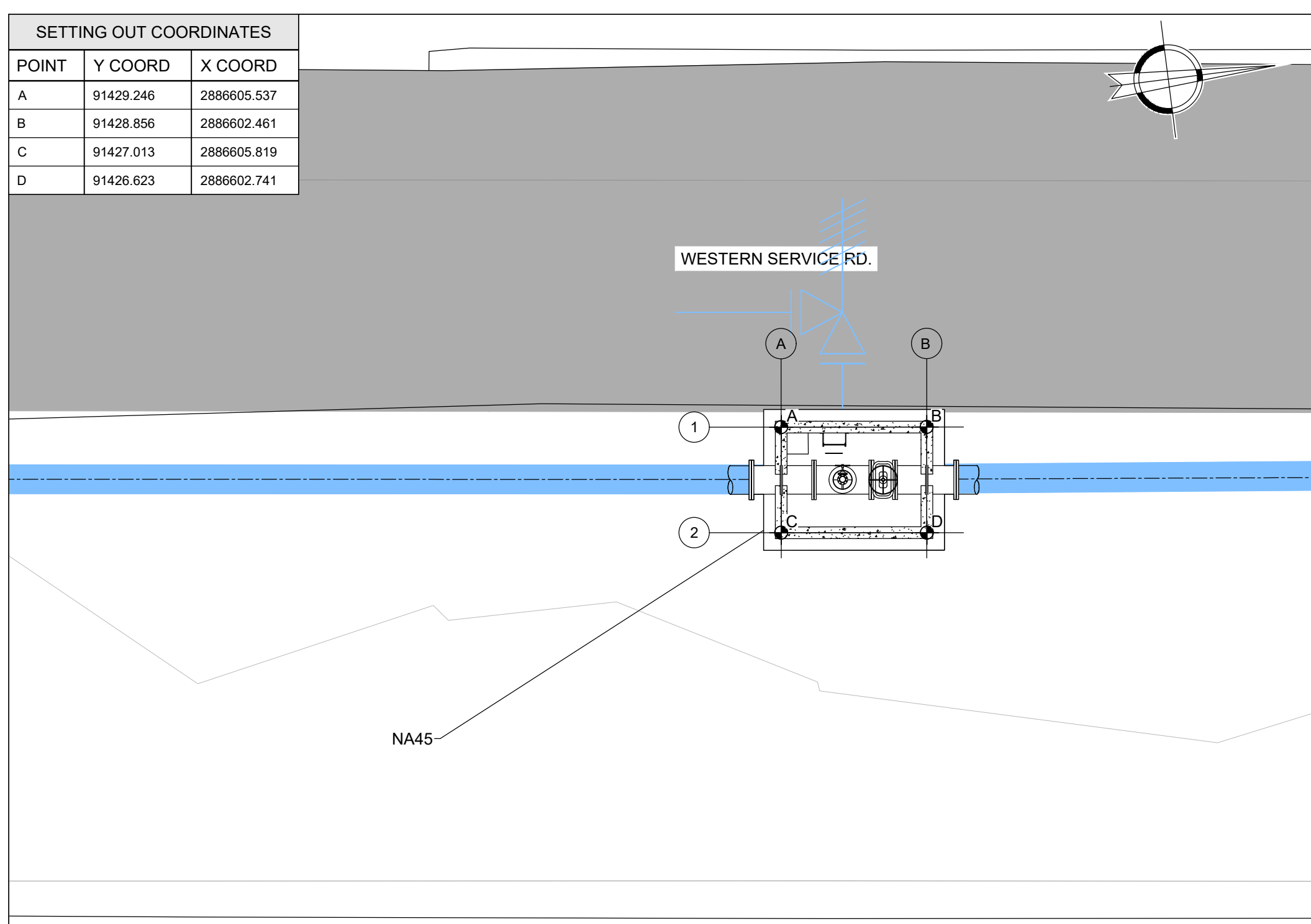
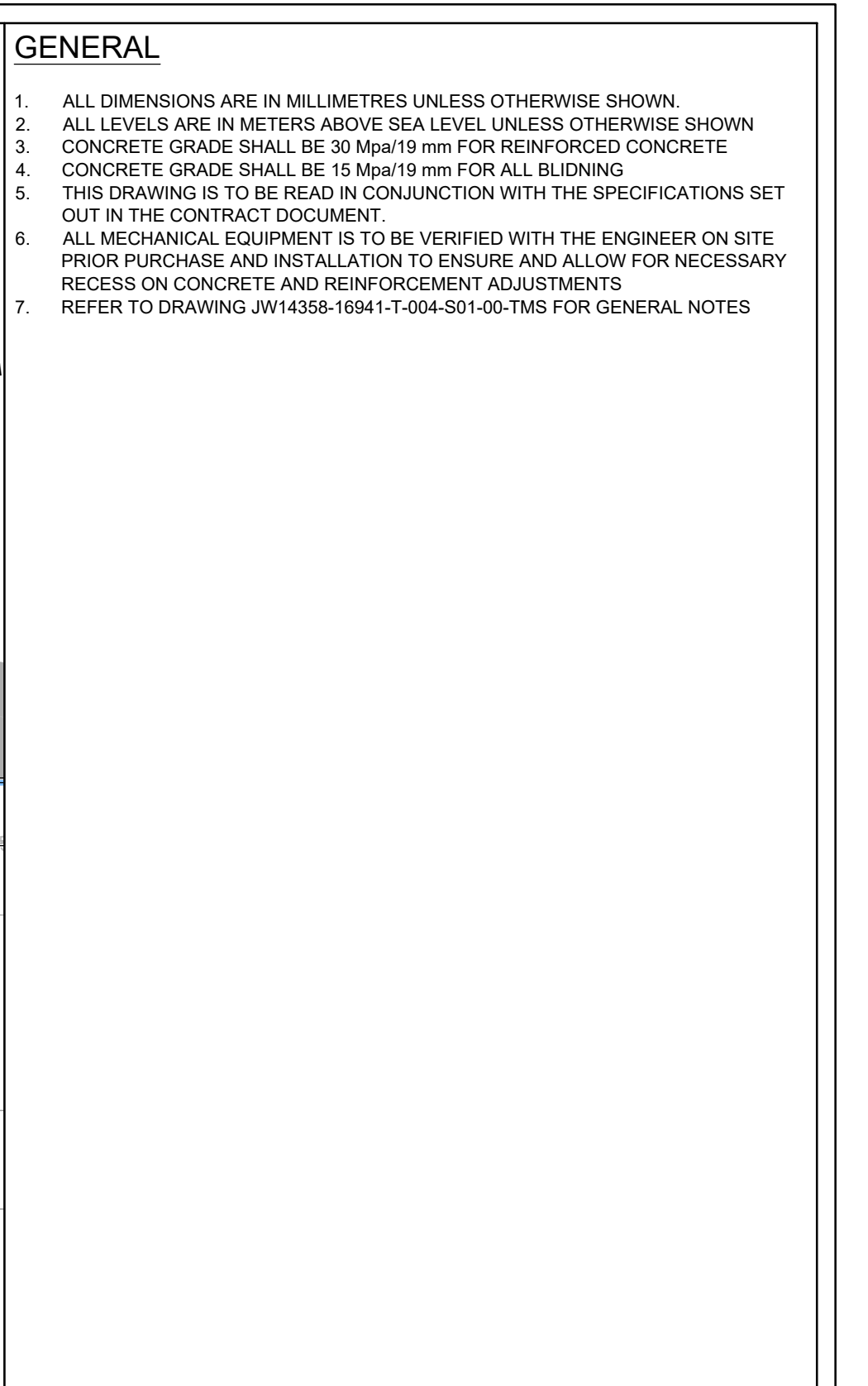
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ORIGINAL PAGE SIZE

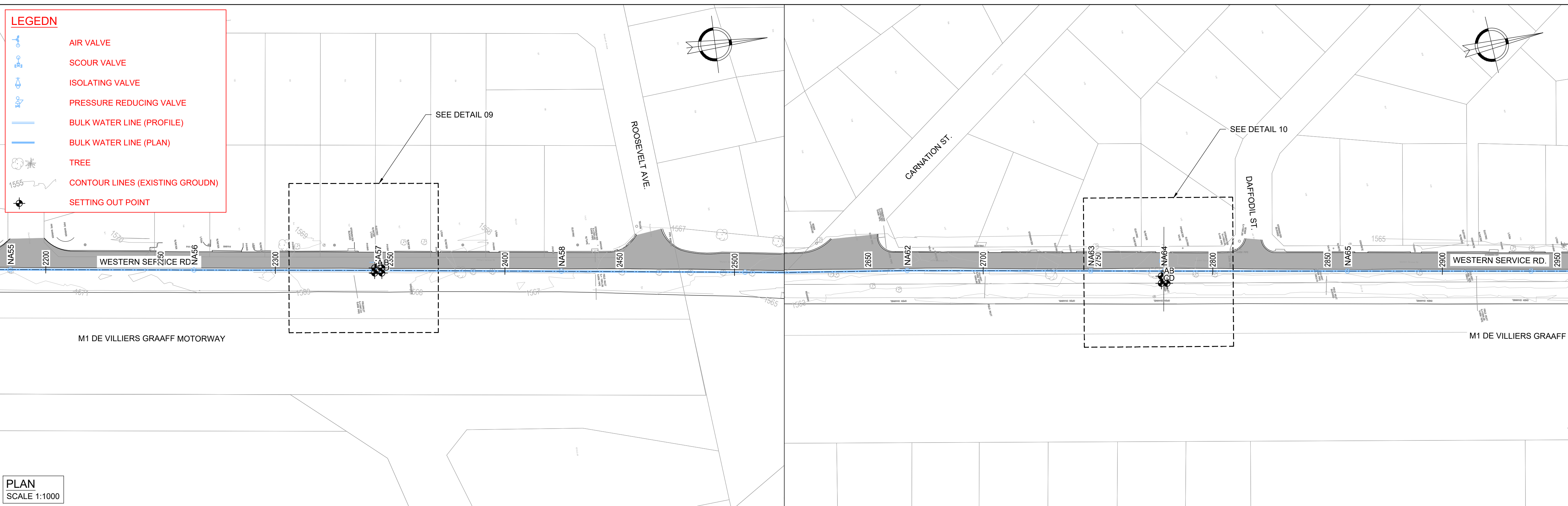
FILE No.

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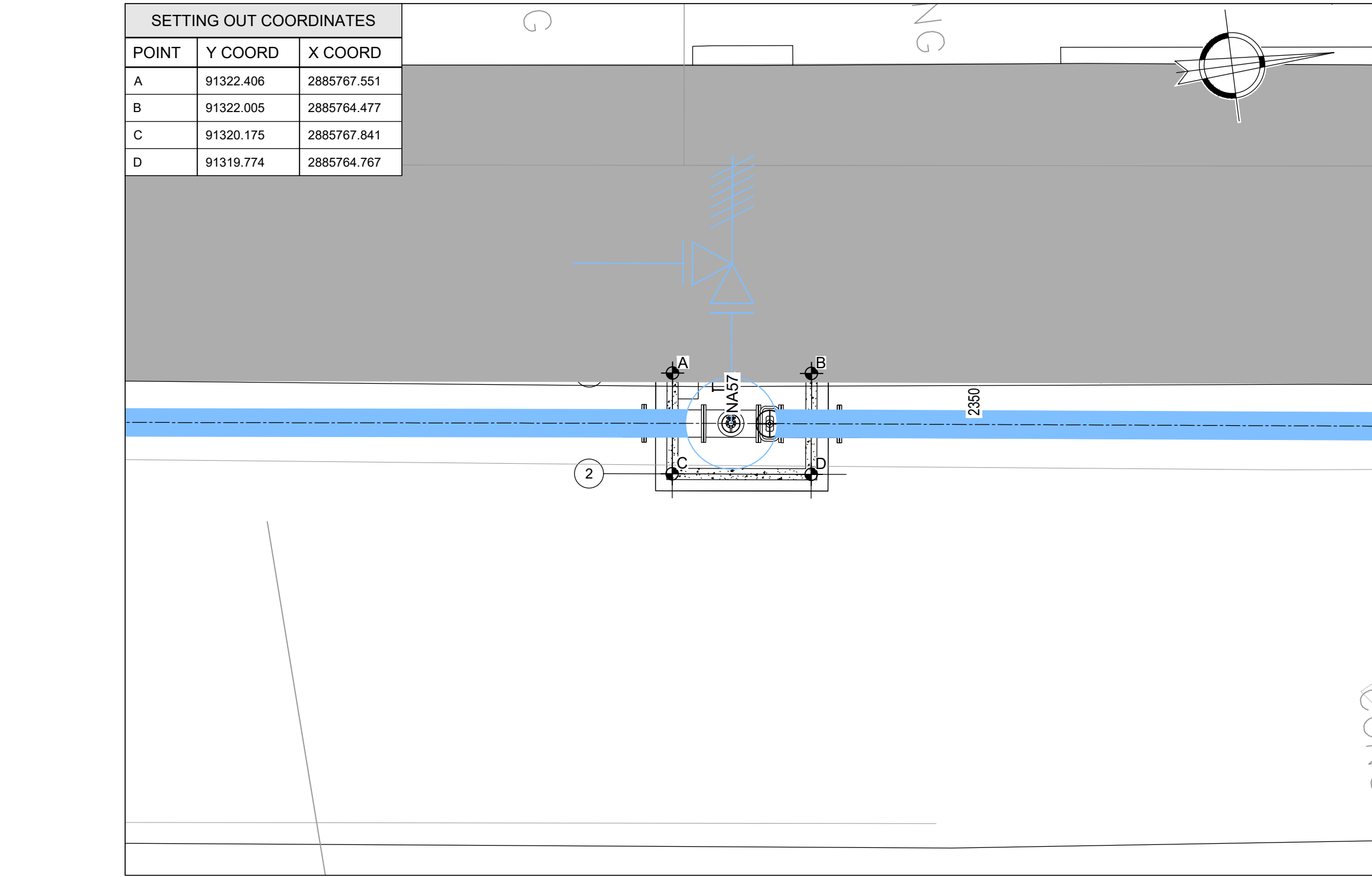


TYPE 2 NODE: NA45
CHAINAGE 1500.00
SCALE 1:100

DRAWING No. JW14358-16941-T-016-S04-00-TMS			
CONTRACT No.: JW14358			
UR1305B		C	
PROJECT No.		REV.	
A1	SHEET	4	OF
		8	
ORIGINAL PAGE SIZE			
FILE No.			



- GENERAL**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 - ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
 - CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
 - CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLIDNING
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
 - ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
 - REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

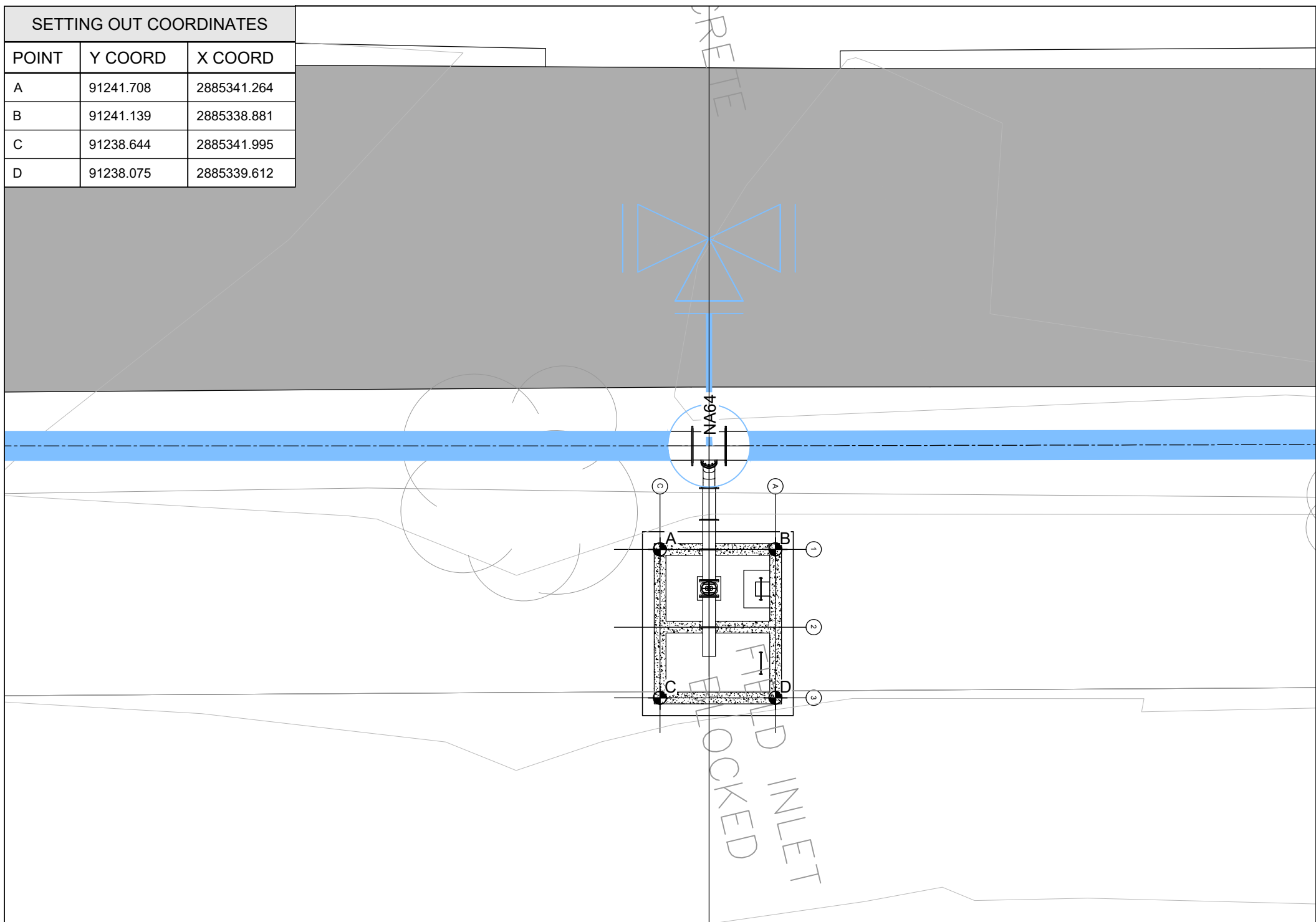


DETAIL 09: AIR VALVE CHAMBER

TYPE 2 NODE: NA57

CHAINAGE 2350.00

SCALE 1:100



DETAIL 10: SCOUR VALVE CHAMBER

NODE: NA64

CHAINAGE 2778.954

SCALE 1:100

REFERENCE DRAWINGS

JW14358-16941-T-011-S01-00-TMS TO JW14358-16941-T-011-S07-00-TMS - LAYOUT AND SETTING OUT

JW14358-16941-T-012-S01-00-TMS TO JW14358-16941-T-012-S10-00-TMS - LAYOUT AND LONGSECTION

JW14358-16941-T-015-S02-00-TMS - PIPELINE AND NODE SETTING OUT

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbretcht Drive Alberton 1450	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2022-12-09
		SIGNATURE	
CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntami Piliso Street Newtown, Johannesburg	APPROVED BY:	P.GROBLER	DATE 2022-12-09
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntami Piliso Street
Newtown, Johannesburg

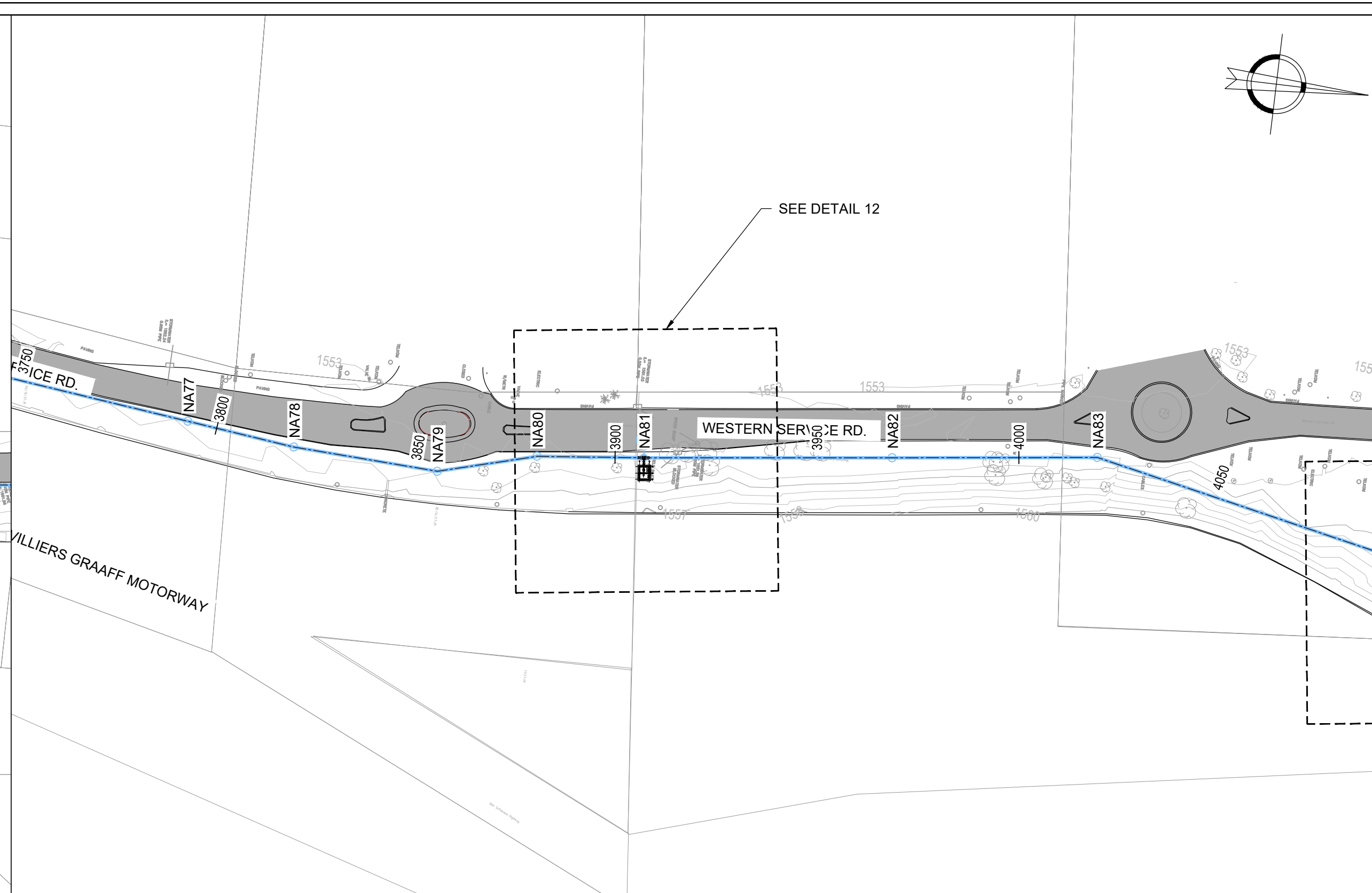
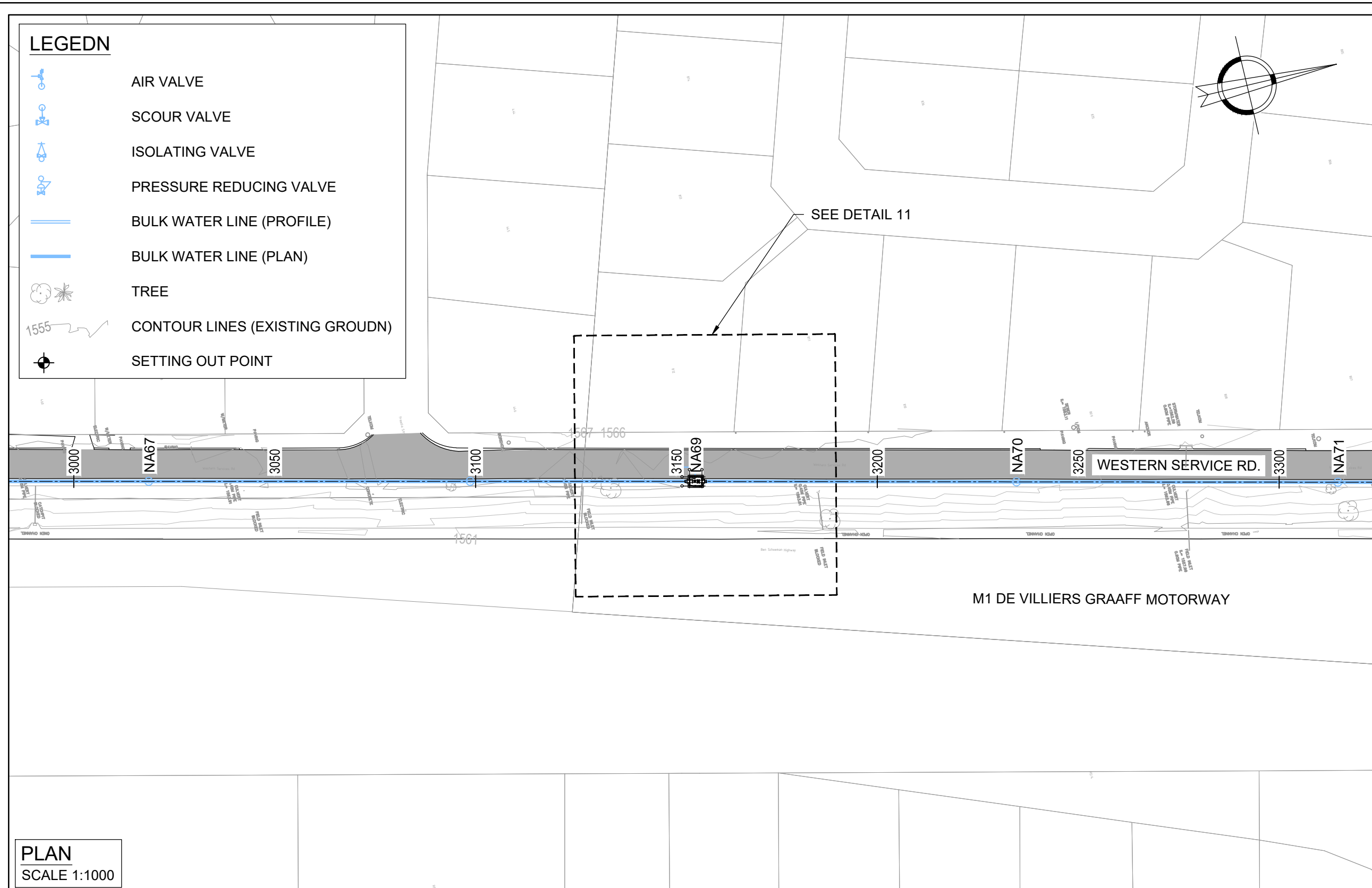
TEL: (011) 688-1400
FAX: (011) 688-1529



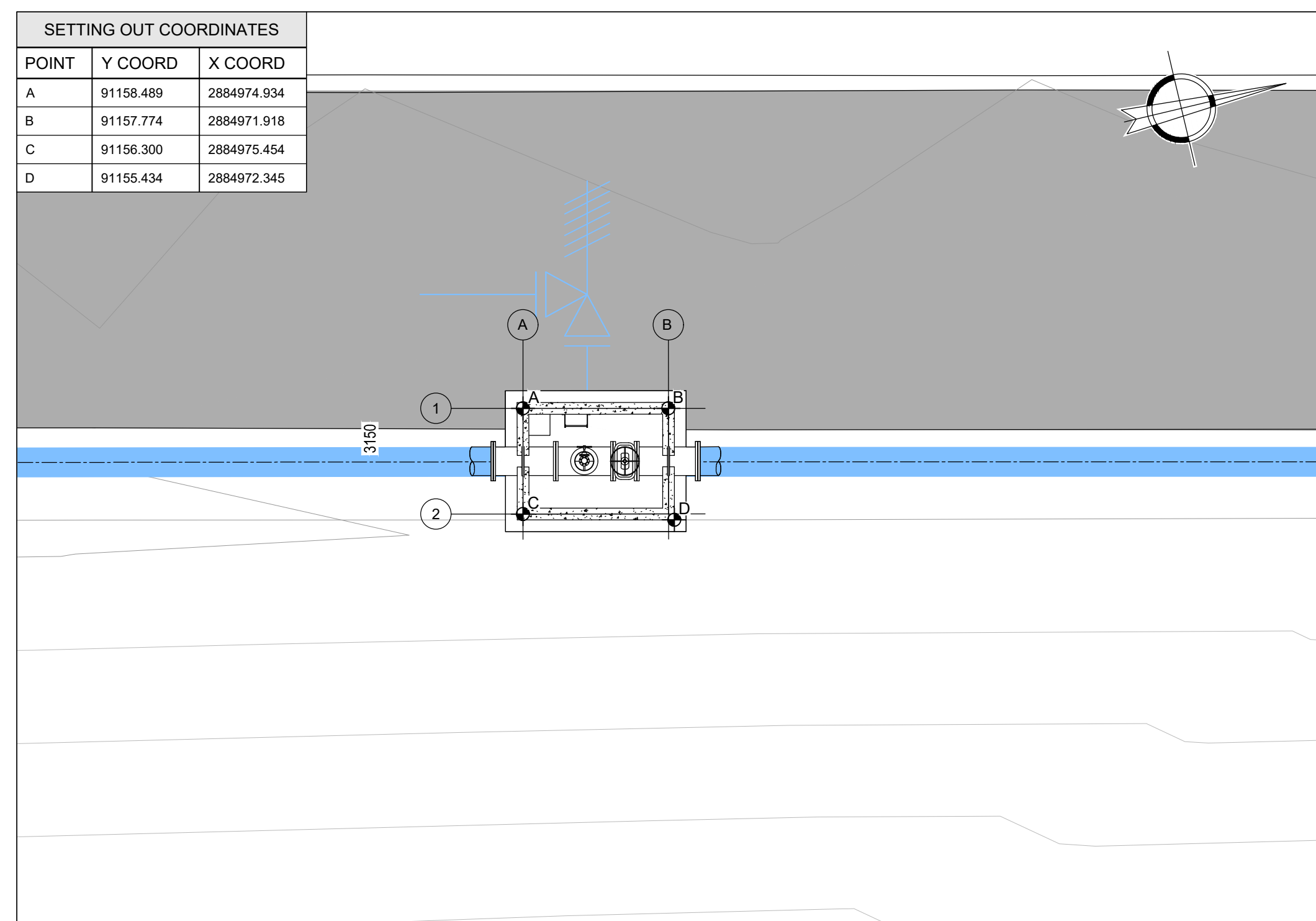
WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT
SHEET 5 OF 8

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
AS SHOWN	C	ISSUED FOR TENDER	P.GROBLER	2202/11/02

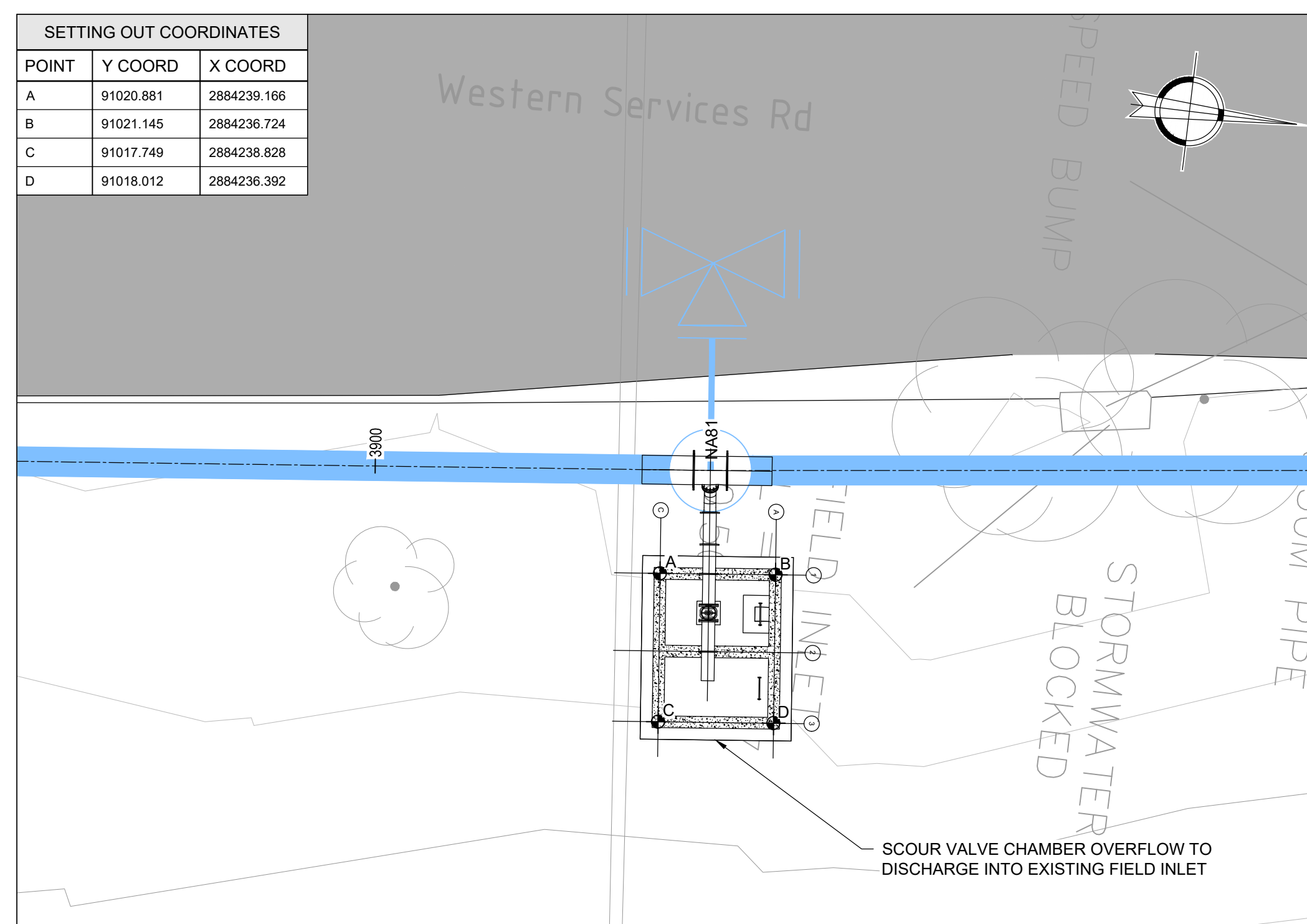
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CONTRACT No.: JW14358	
UR1305B	C
PROJECT No.	REV.
A1	5
SHEET	OF
8	
ORIGINAL PAGE SIZE	
FILE No.	



- | GENERAL | |
|---------|---|
| 1. | ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN |
| 2. | ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN |
| 3. | CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE |
| 4. | CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BUILDING |
| 5. | THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT |
| 6. | ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE FOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS |
| 7. | REFER TO DRAWING JMW1358-16941-T-004-001-00-TMS FOR GENERAL NOTES |



DETAIL 11: AIR VALVE CHAMBER
TYPE 2 NODE: NA69
CHAINAGE 3154.753
SCALE 1:100



DETAIL 12: SCOUR VALVE CHAMBER

NODE: NA81

CHAINAGE 3907.248

SCALE 1:100

REFERENCE DRAWINGS	
JW14358-16941-T-011-S01 -00-TMS TO JW14358-16941-T-011-S07-00-TMS	LAYOUT AND SETTING OUT
JW14358-16941-T-012-S01-00-TMS TO JW14358-16941-T-012-S10-00-TMS	LAYOUT AND LONGSECTION
JW14358-16941-T-015-S02-00-TMS	PIPELINE AND NODE SETTING OUT

FOR TENDER

CONTRACT No.: JW14358	
UR1305B	C
PROJECT No.	REV.
A1 SHEET	6 OF 8
ORIGINAL PAGE SIZE	
FILE No.	

 CONSULTING ENGINEERS Woodhill Office park 63 Phillip Engelbrecht Drive Alberton 1450	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOALA	DATE: 2022-12-09
		SIGNATURE	
		ECSA REG. No	
CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg	APPROVED BY:	P.GROBLER	DATE 2022-12-09
		SIGNATURE	
		ECSA REG. No	950304



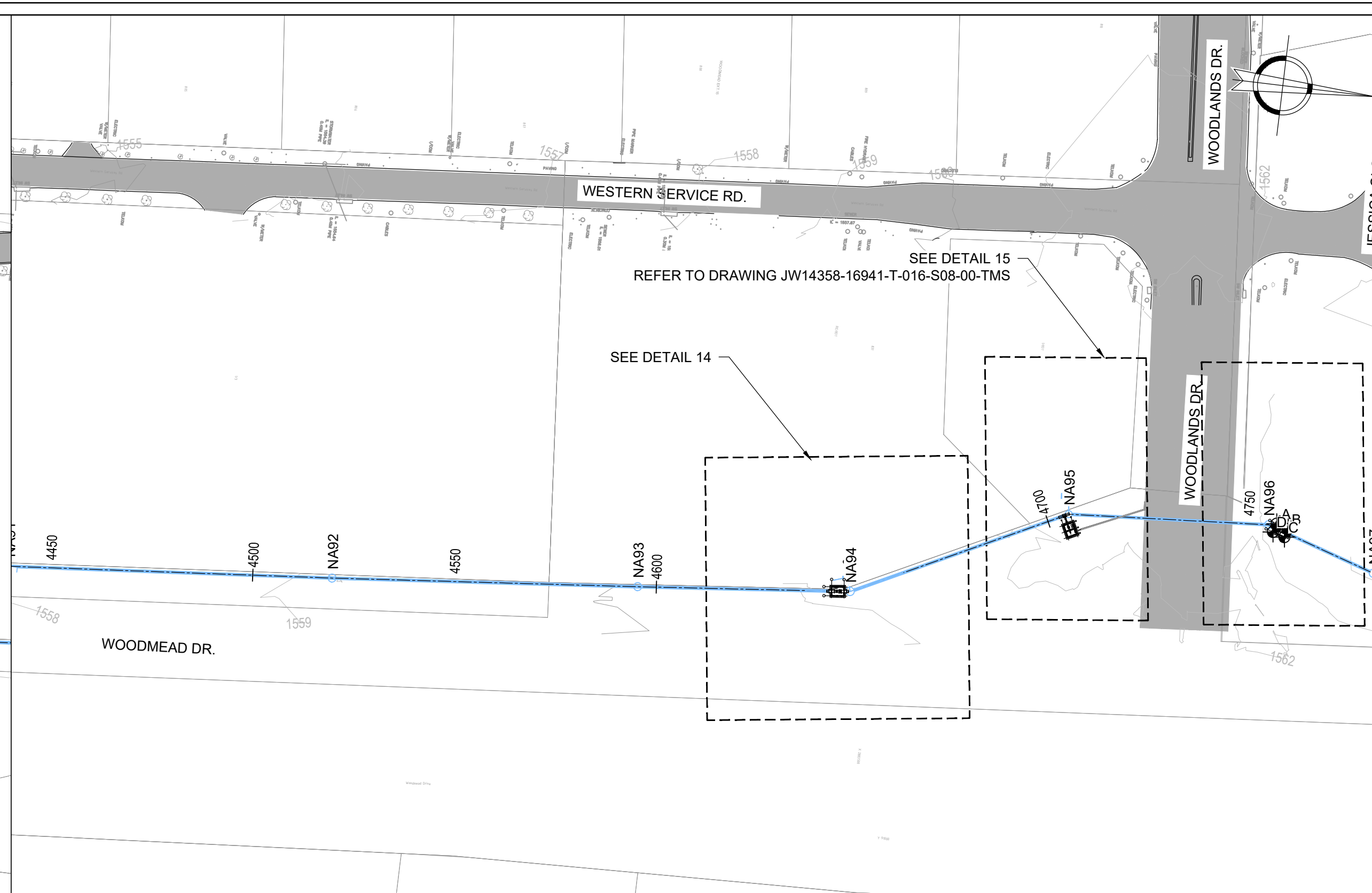
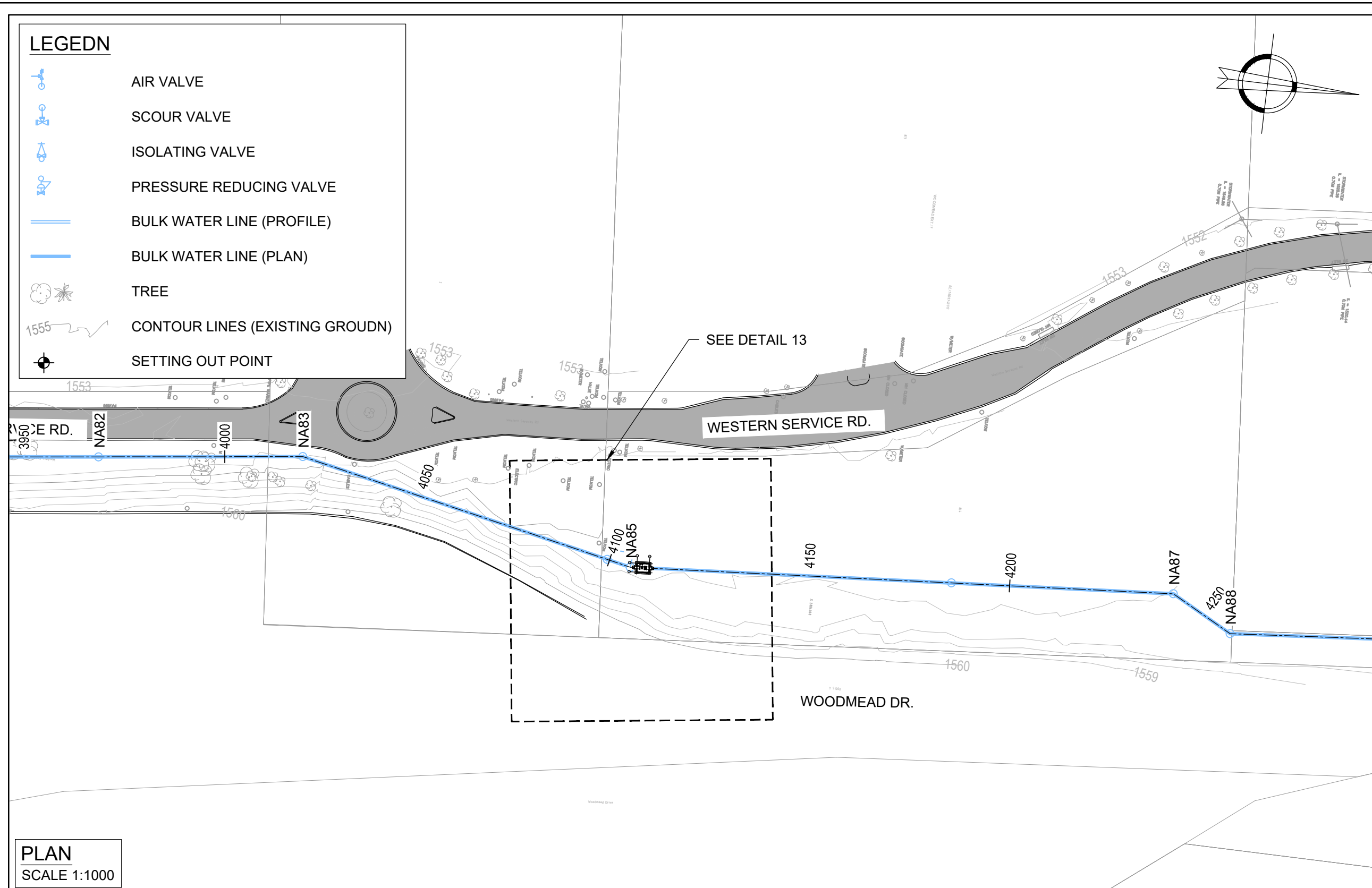
Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

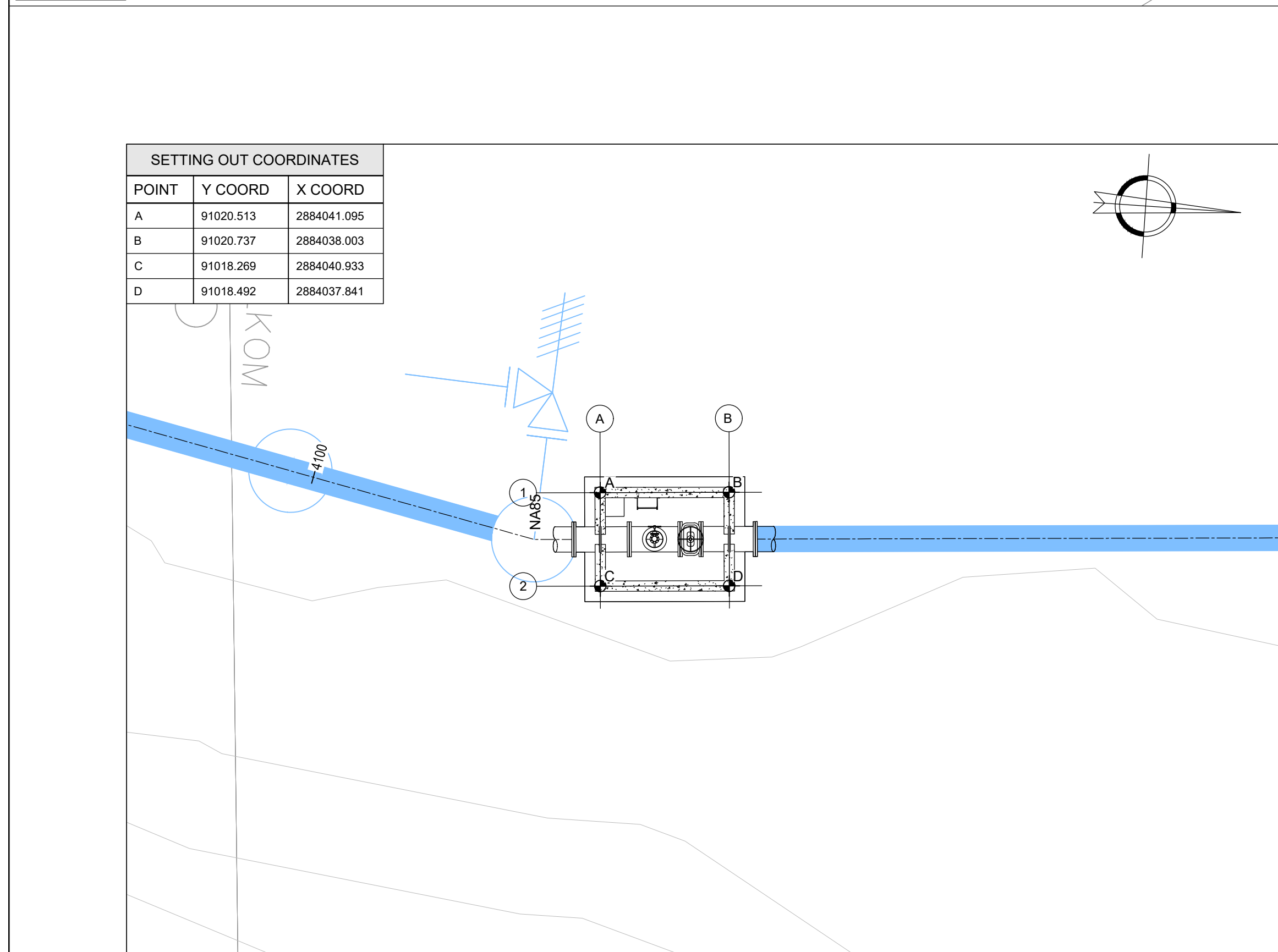


WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT
SHEET 6 OF 8

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	C	ISSUED FOR TENDER	P.GROBLER	2202/11/02



- | | |
|----|--|
| | GENERAL |
| 1. | ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN. |
| 2. | ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN |
| 3. | CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE |
| 4. | CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING |
| 5. | THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT. |
| 6. | ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY ADJUSTMENTS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS |
| 7. | REFER TO DRAWING J413588-16941-1-004-S01-00-TMS FOR GENERAL NOTES |

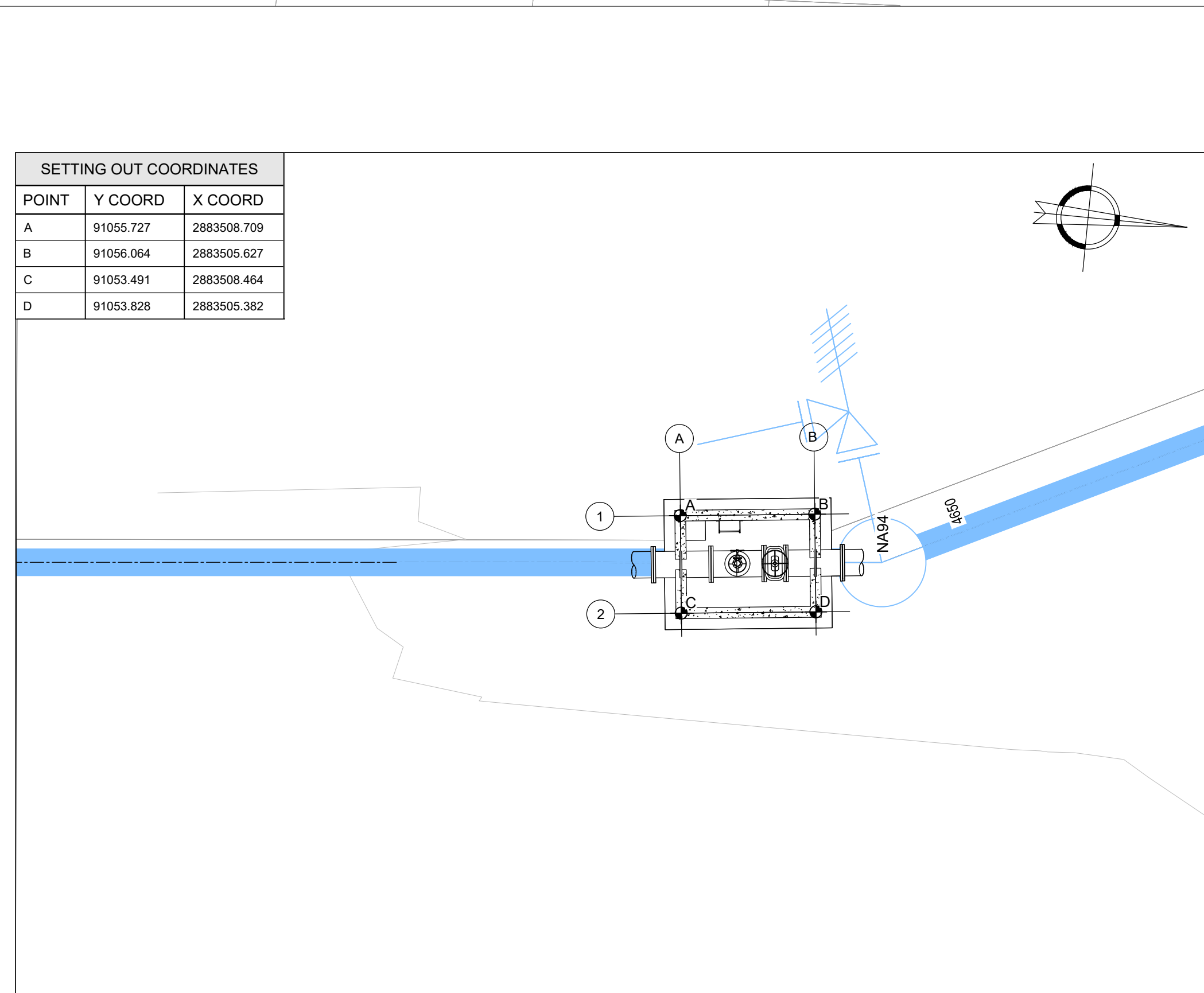


DETAIL 13: AIR VALVE CHAMBER

TYPE 2 NODE: NA85

CHAINAGE 4109.672

SCALE 1:100



DETAIL 14: AIR VALVE CHAMBER

TYPE 2 NODE: NA94

CHAINAGE 4642.979

SCALE 1:100

REFERENCE DRAWINGS
JW14358-16941-T-011-S01 -00-TMS TO JW14358-16941-T-011-S07-00-TMS - LAYOUT AND SETTING OUT
JW14358-16941-T-012-S01-00-TMS TO JW14358-16941-T-012-S10-00-TMS - LAYOUT AND LONGSECTION
JW14358-16941-T-015-S02-00-TMS - PIPELINE AND NODE SETTING OUT

FOR TENDER

 CONSULTING ENGINEERS Woodhill Office park 63 Phillip Engelbrecht Drive Alberton 1450	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOALA	DATE: 2022-12-09
		SIGNATURE	
		ECSA REG. No	
CLIENT	APPROVED BY:	P.GROBLER	DATE 2022-12-09
Johannesburg Water SOC LTD		SIGNATURE	
Turbine Hall		ECSA REG. No	950304
65 Ntengi Piliso Street			
Newtown, Johannesburg			



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

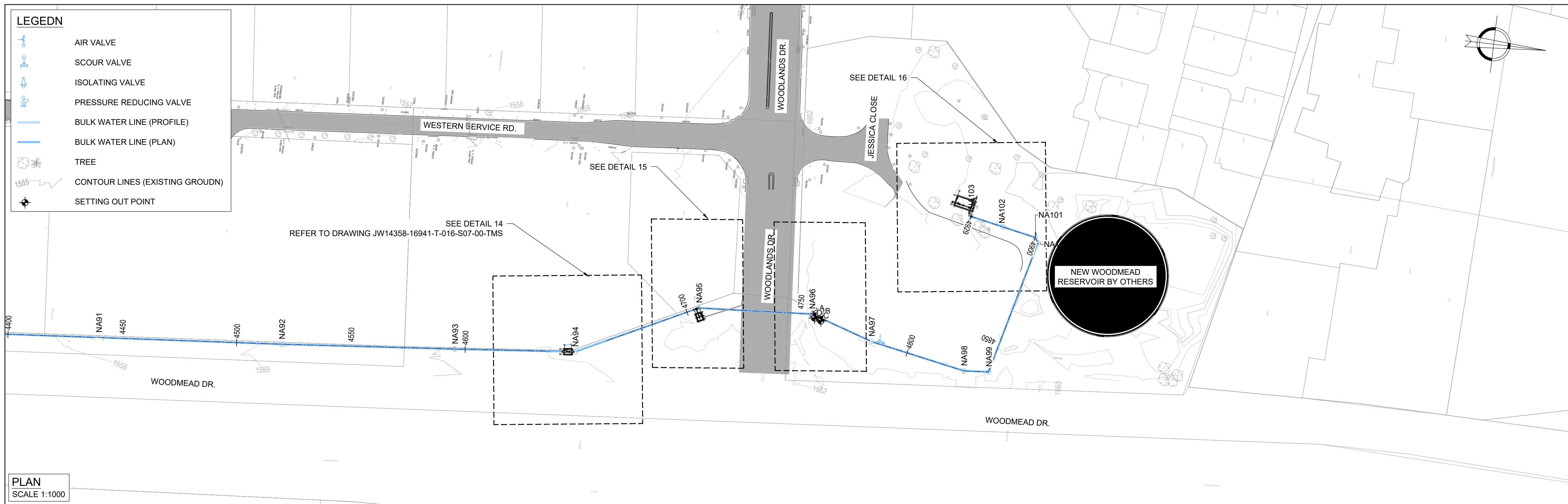
TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT
SHEET 7 OF 8

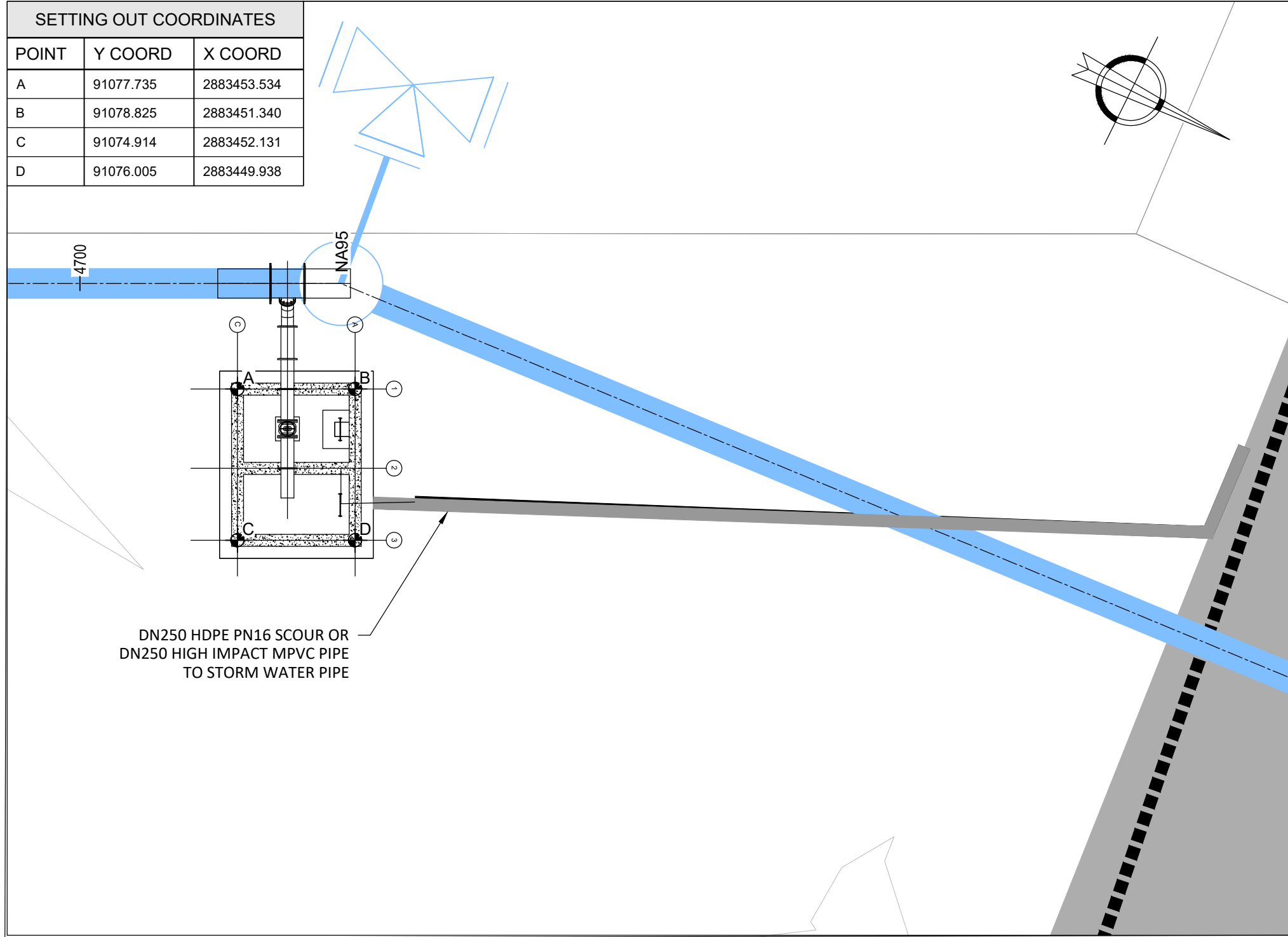
AMENDMENTS			
SCALE	REV.	DESCRIPTION	APPROVED
AS SHOWN	C	ISSUED FOR TENDER	P.GROBLER

DRAWING No. JW14358-16941-T-016-S07-00-TMS										
CONTRACT No.: JW14358										
UR1305B					C					
PROJECT No.					REV.					
A1			SHEET		7		OF		8	
ORIGINAL PAGE SIZE										
FILE No.										



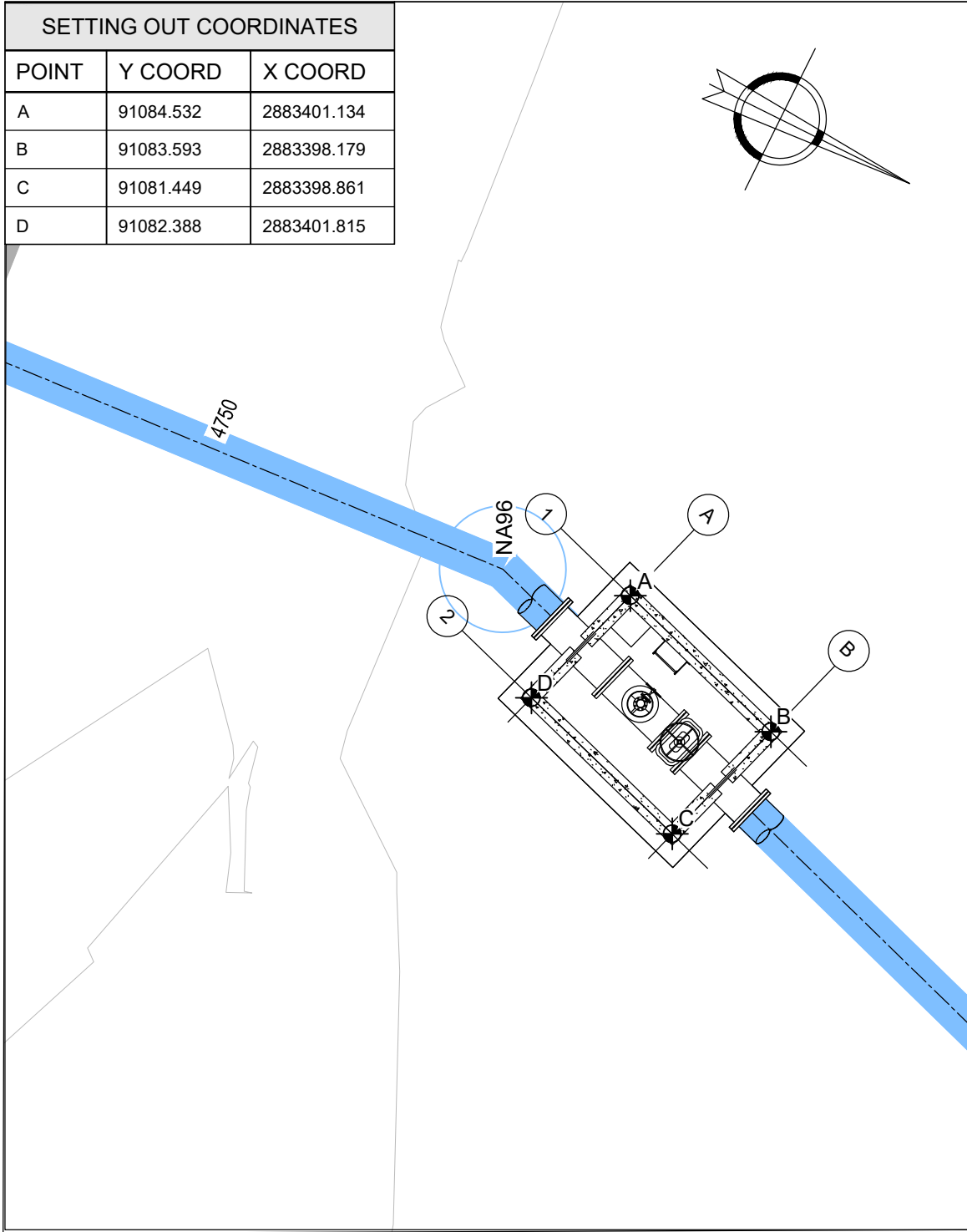
GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
3. CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLIDNING
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES



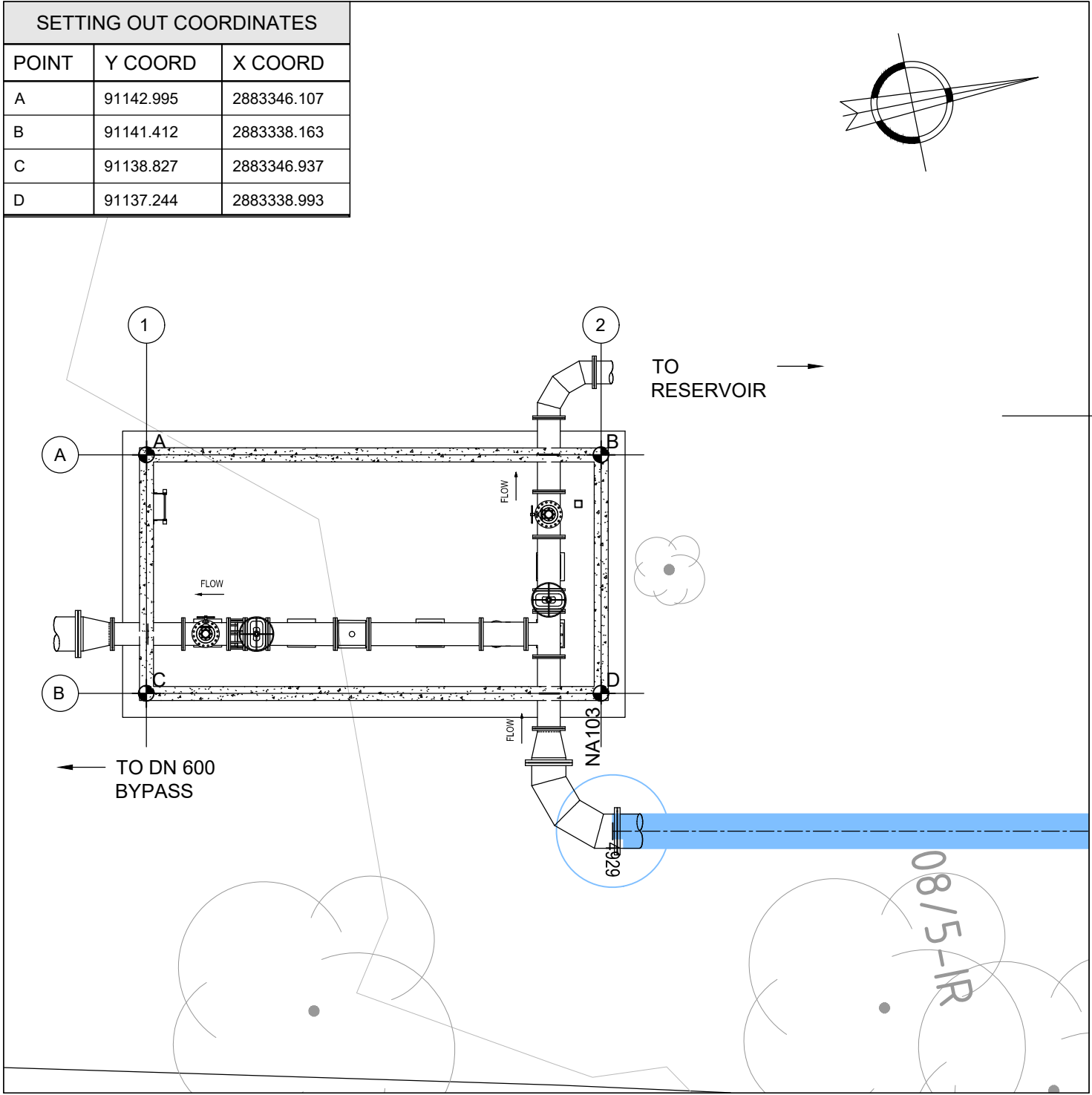
DETAIL 15: SCOUR VALVE CHAMBER

NODE: NA95
CHAINAGE 4705.618
SCALE 1:100



DETAIL 17: AIR VALVE CHAMBER

NODE: NA96
CHAINAGE 4706.543
SCALE 1:100



DETAIL 16: RESERVOIR INLET CHAMBER

NODE :NA103
CHAINAGE 4914.804
SCALE 1:100

REFERENCE DRAWINGS

JW14358-16941-T-011-S01-00-TMS TO JW14358-16941-T-011-S07-00-TMS - LAYOUT AND SETTING OUT
JW14358-16941-T-012-S01-00-TMS TO JW14358-16941-T-012-S10-00-TMS - LAYOUT AND LONGSECTION
JW14358-16941-T-015-S02-00-TMS - PIPELINE AND NODE SETTING OUT

FOR TENDER

CONSULTING ENGINEERS	DESIGNED	T.FOSA	
 Nyeleti <i>Engineered to Excel</i> Woodhill Office park 53 Phillip Engelbretch Drive Alberton 1450	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2022-12-09
		SIGNATURE	
		ECSA REG. No	
		APPROVED BY: P.GROBLER	DATE 2022-12-09
CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

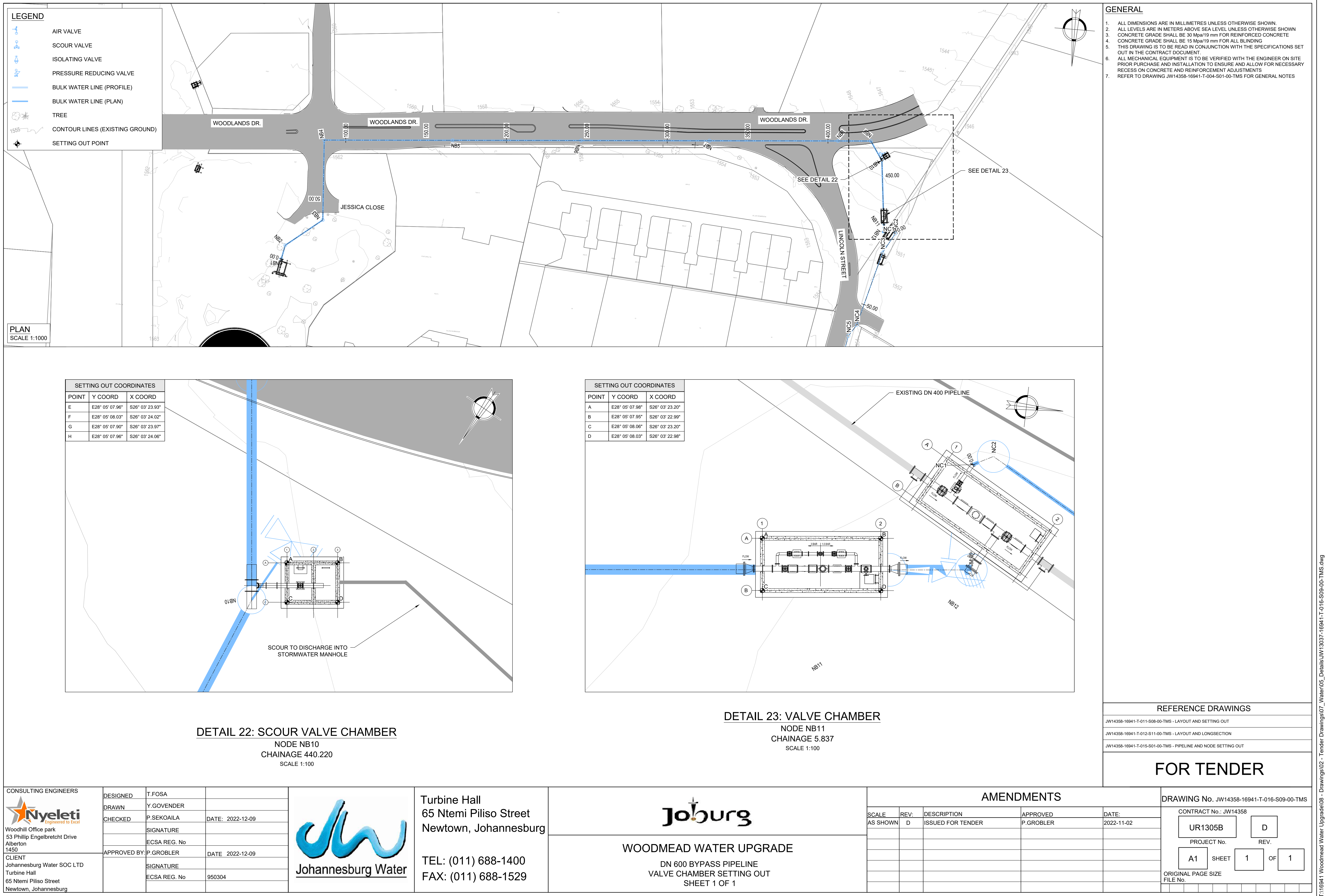


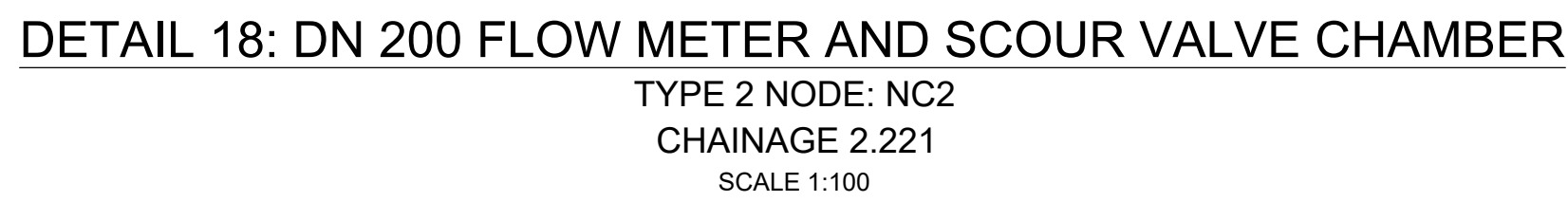
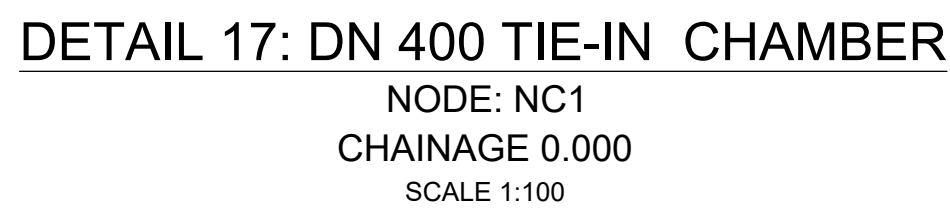
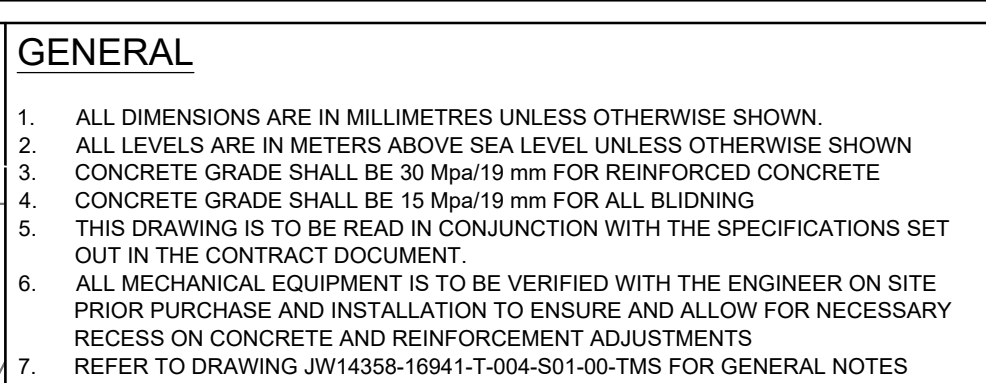
WOODMEAD WATER UPGRADE
DN 600 STEEL MAIN PIPELINE CHAMBER SETTING OUT
SHEET 8 OF 8

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	C	ISSUED FOR TENDER	P.GROBLER	2202/11/02

DRAWING No. JW14358-16941-T-016-S08-00-TMS			
CONTRACT No.: JW14358			
UR1305B		C	
PROJECT No.		REV.	
A1	SHEET	8	OF 8
ORIGINAL PAGE SIZE FILE No.			

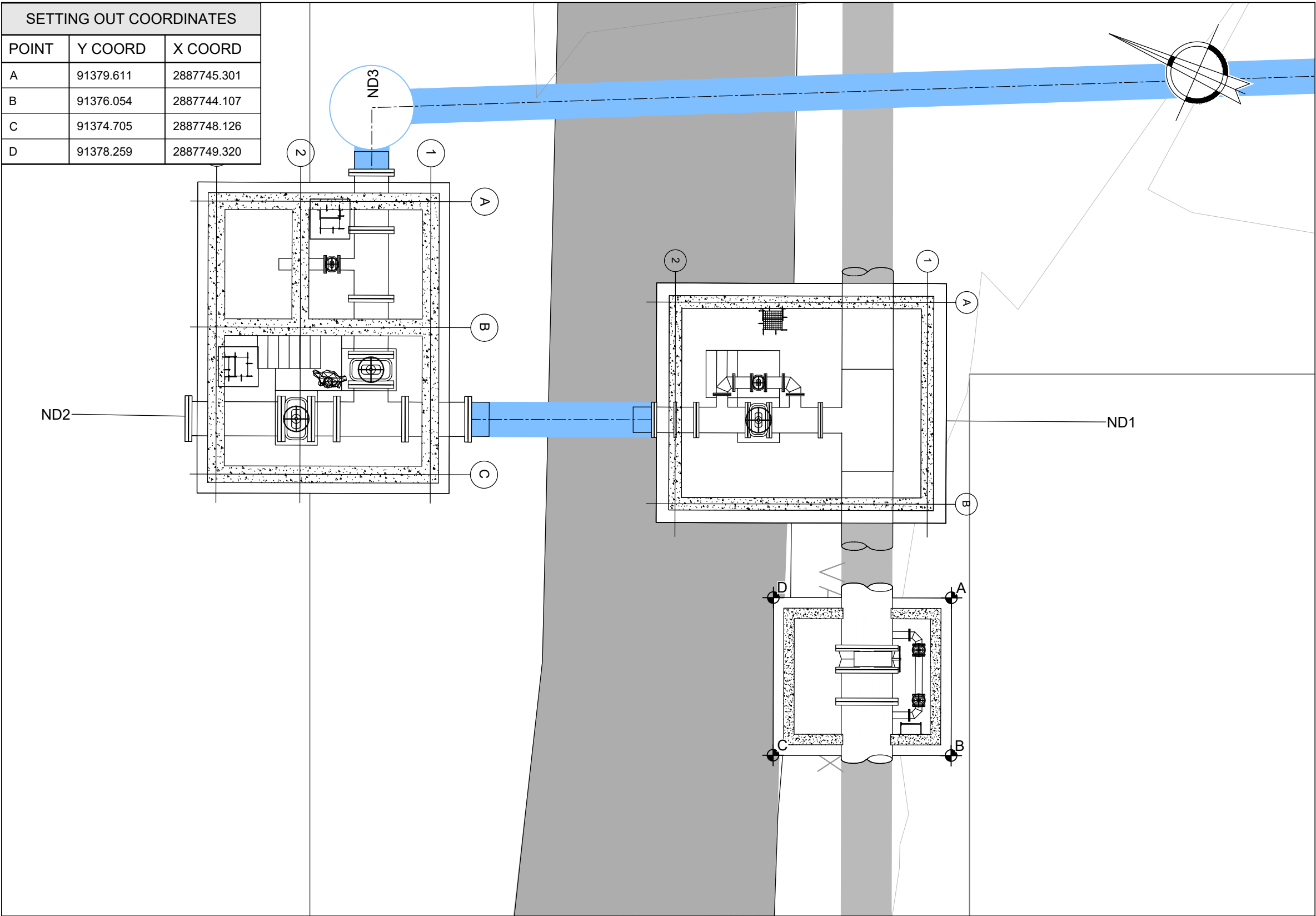
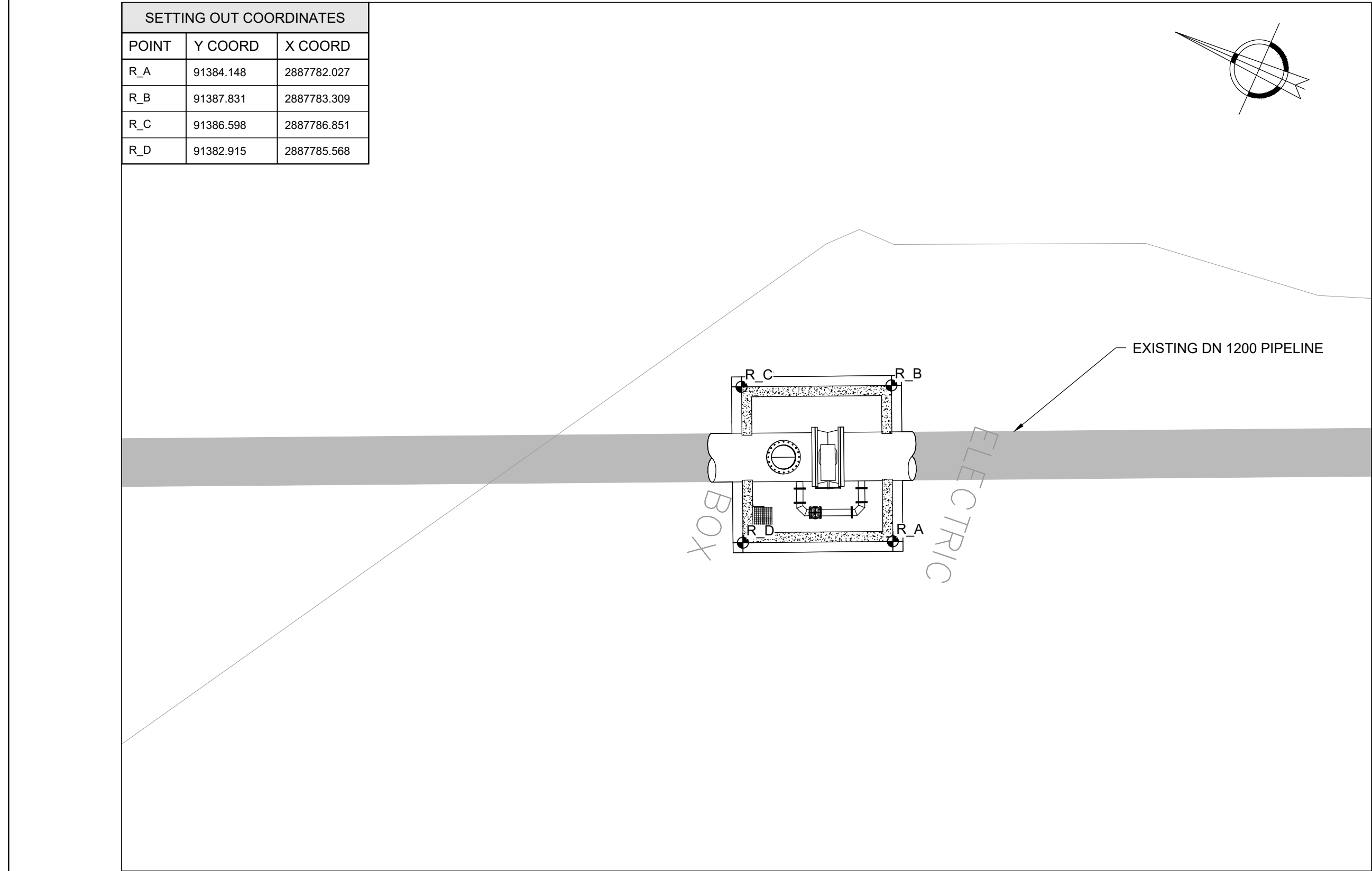
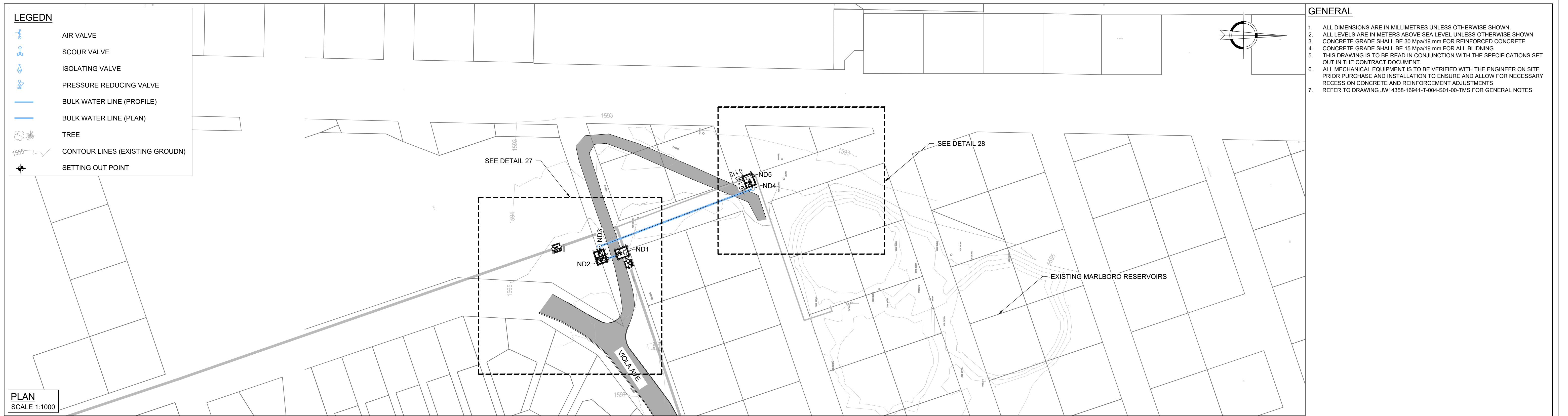




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FAX: (011) 688-1529


WOODMEAD WATER UPGRADE
DN 200 PIPELINE CHAMBER SETTING OUT
SHEET 1 OF 3

DRAWING No. JW14358-16941-T-016-S10-00-TMS			
CONTRACT No.: JW14358			
UR1305B	C		
PROJECT No.	REV.		
A1	SHEET	1	OF
3			
ORIGINAL PAGE SIZE FILE No.			



CONSULTING ENGINEERS Woodhill Office park 53 Phillip Engelbretch Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2023-01-19
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2023-01-19
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

WOODMEAD WATER UPGRADE
DN 800 PIPELINE CHAMBER SETTING OUT
SHEET 2 OF 2

AMENDMENTS				
SCALE	REV.	DESCRIPTION	APPROVED	DATE:
AS SHOWN	B	ISSUED FOR TENDER	P.GROBLER	2023-01-19

DRAWING No. JW14358-16941-T-016-S14-00-TMS

CONTRACT No.: JW14358

UR1305B

B

PROJECT No.

REV.

A1

SHEET

2

OF

2

ORIGINAL PAGE SIZE
FILE No.

ANOTHER
JOHANNESBURG WATER
SERVICE
DELIVERY PROJECT
HELPDESK: (011) 375-5555



PROJECT DETAILS
CONTRACT NO:JW14358
DESCRIPTION: WOODMEAD
WATER UPGRADE

CONSULTANT
NYELETI CONSULTING (Pty) Ltd

TEL: 012 361 3629

CONTRACTOR

.....
TEL:

CLIENT
JOHANNESBURG WATER
PROJECT MANAGEMENT UNIT
TEL:

FONT: 70mm	}	780
FONT: 60mm SPACING: 60mm		
FONT: 70mm	}	540
FONT: 50mm SPACING: 50mm		
FONT: 70mm	}	540
FONT: 50mm SPACING: 50mm		
FONT: 70mm	}	540
FONT: 50mm SPACING: 50mm		

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbretcht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2021-06-07
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2021-06-07
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529

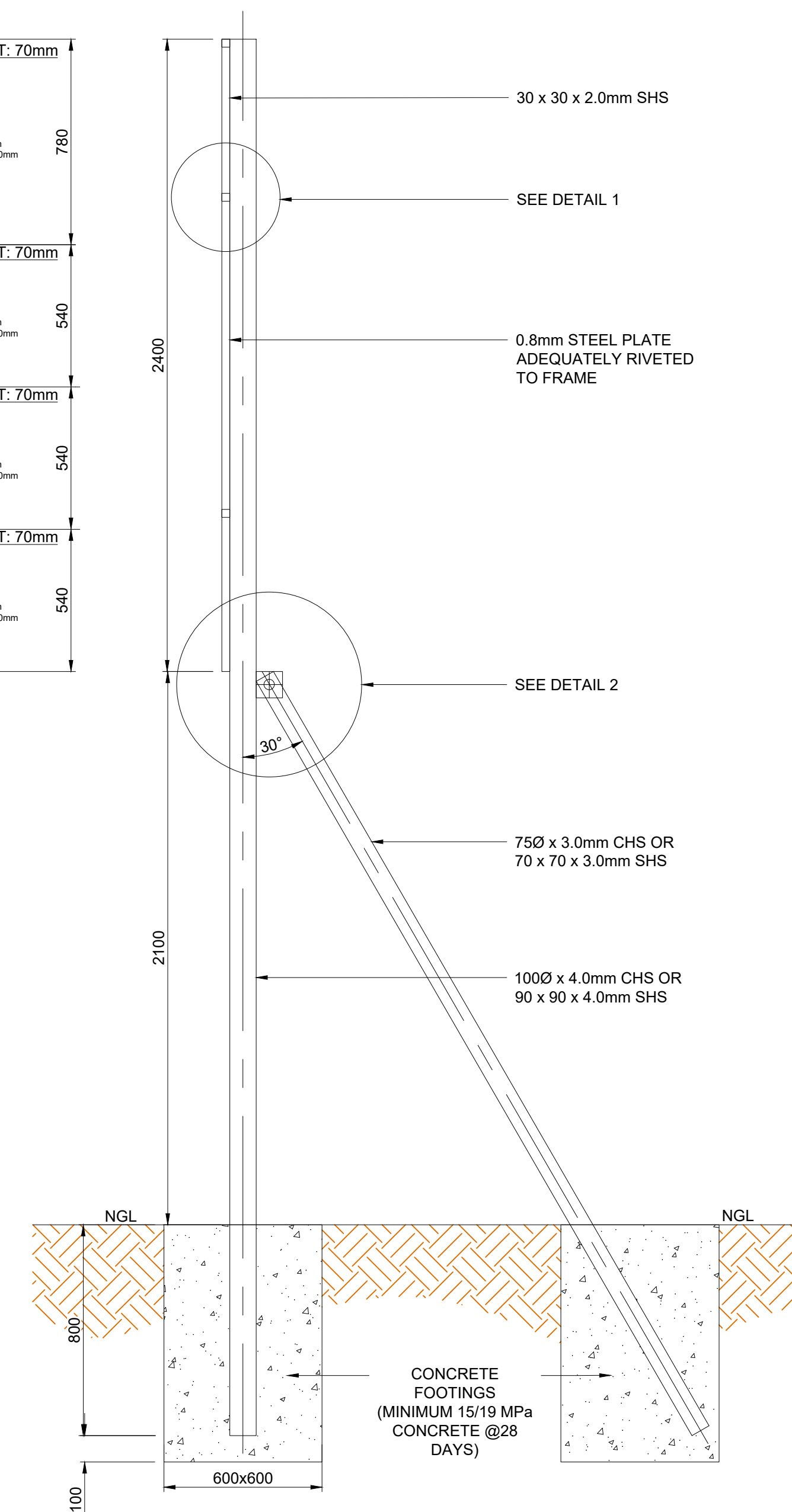
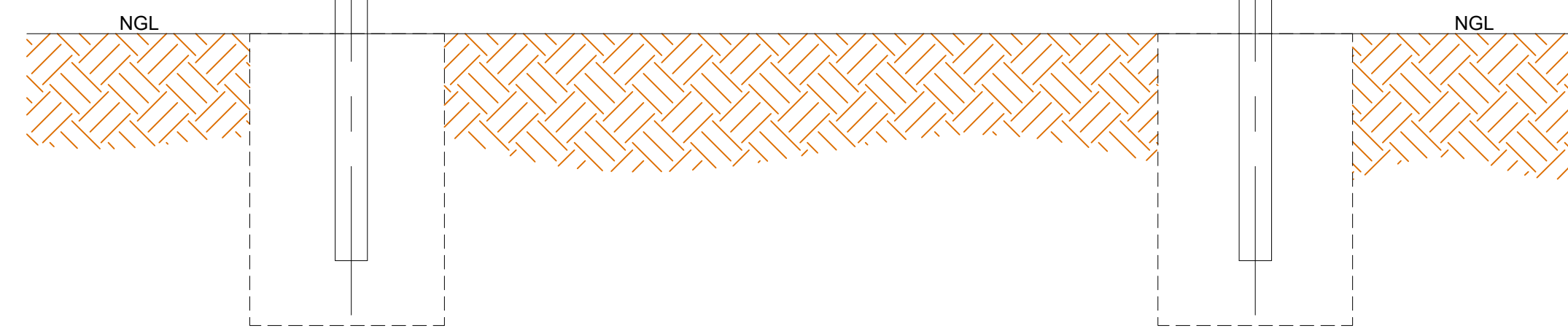
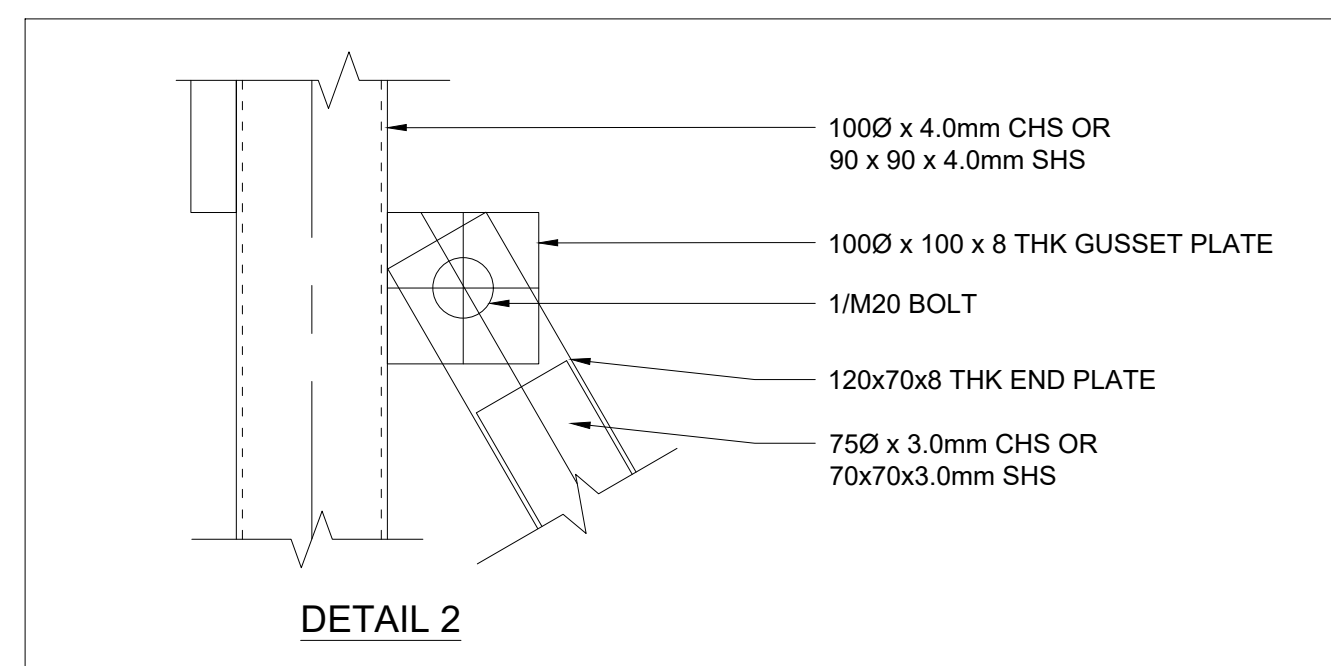


WOODMEAD WATER UPGRADE
STANDARD DETAILS - CONSTRUCTION NAME BOARD
SHEET 1 OF 2

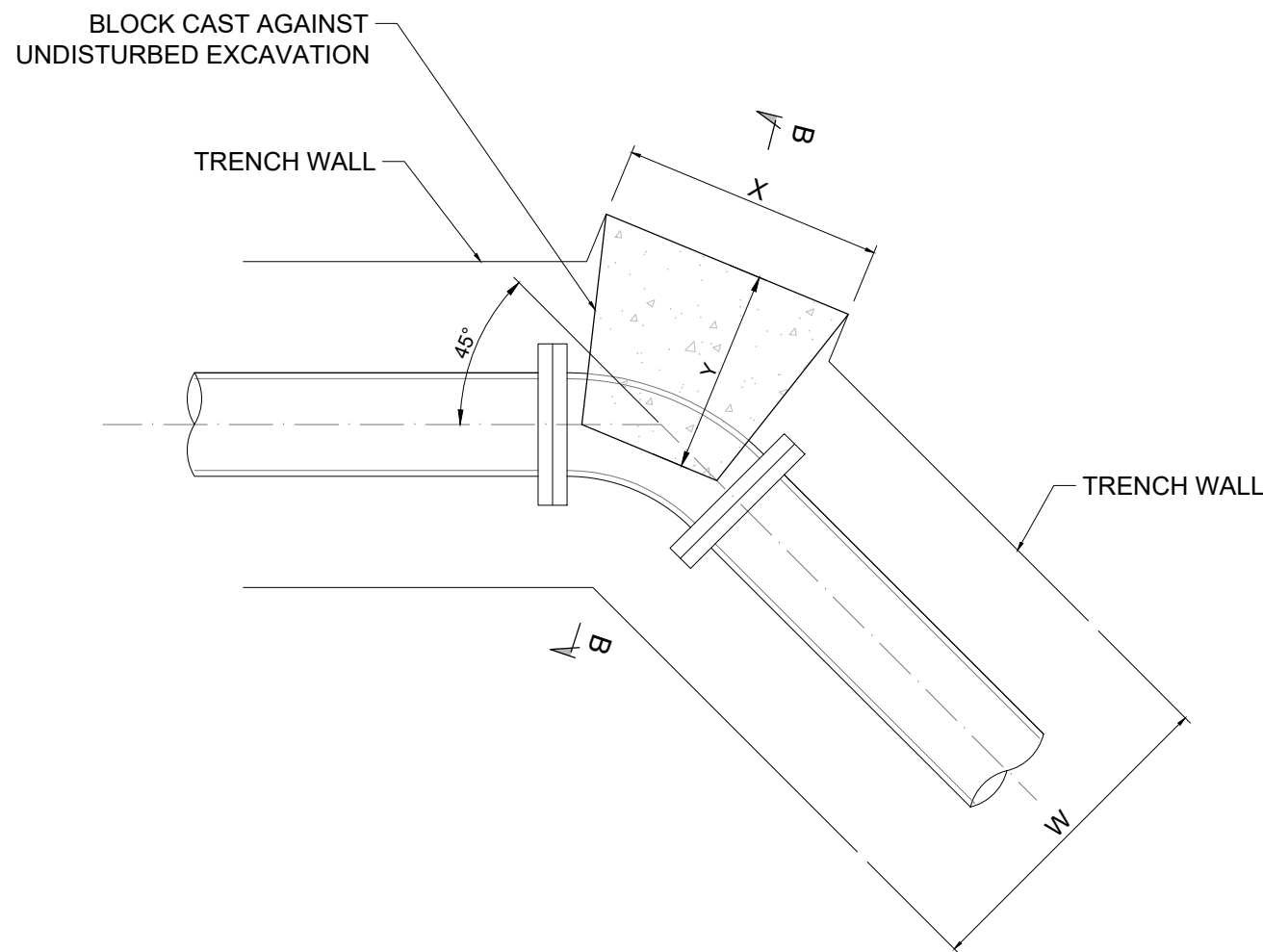
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NTS	A	ISSUED FOR TENDER	P.GROBLER	2021-06-07

DRAWING No. JW14358-16941-T-017-S01-00-TMS				
CONTRACT No.: JW14358				
UR1305B		A		
PROJECT No.		REV.		
A1	SHEET	1	OF	2
ORIGINAL PAGE SIZE				
FILE No.				

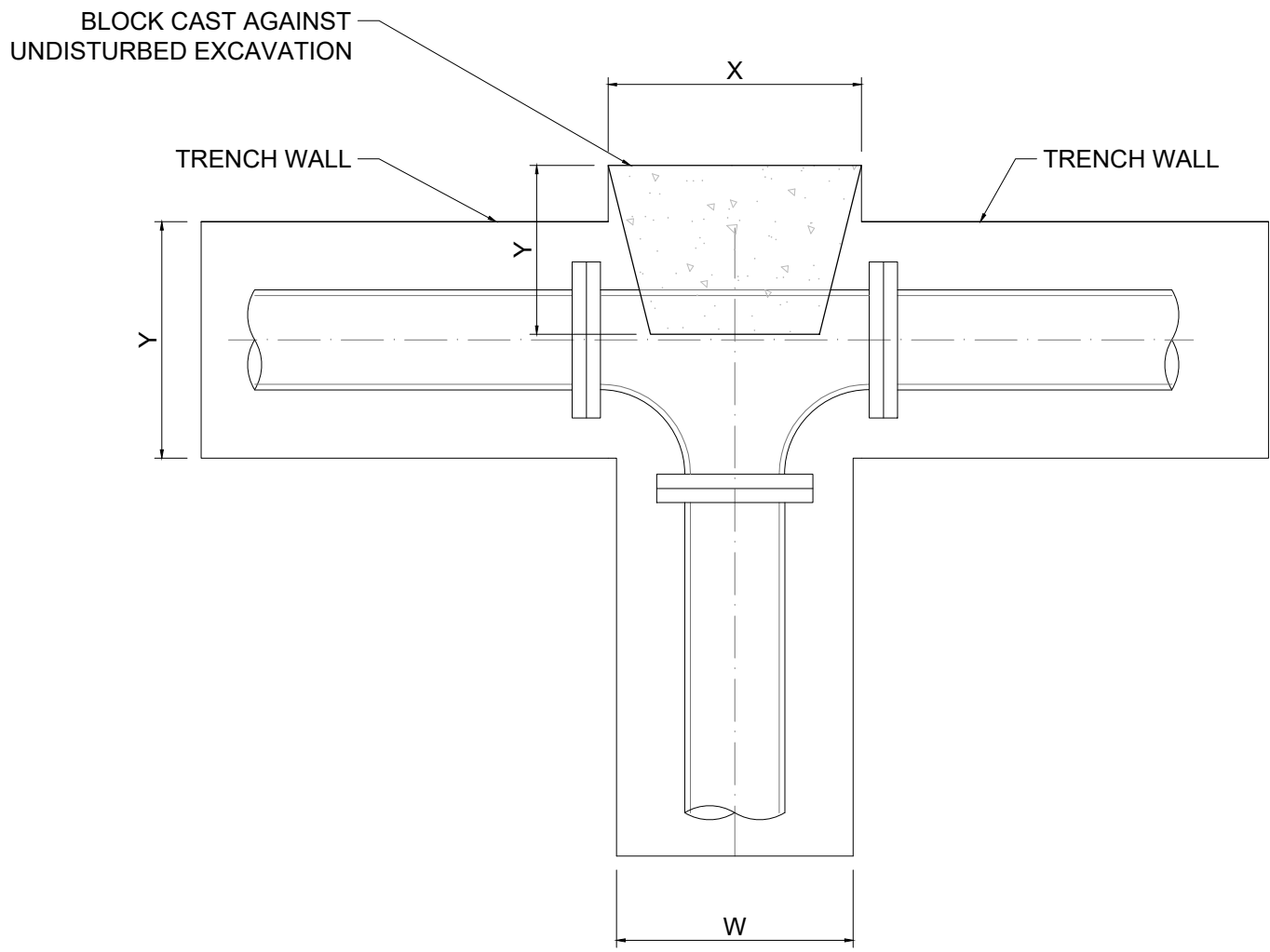
NOTE
ALL WELDS RO BE 6mm
WELD ALL AROUND UNLESS
OTHERWISE SPECIFIED



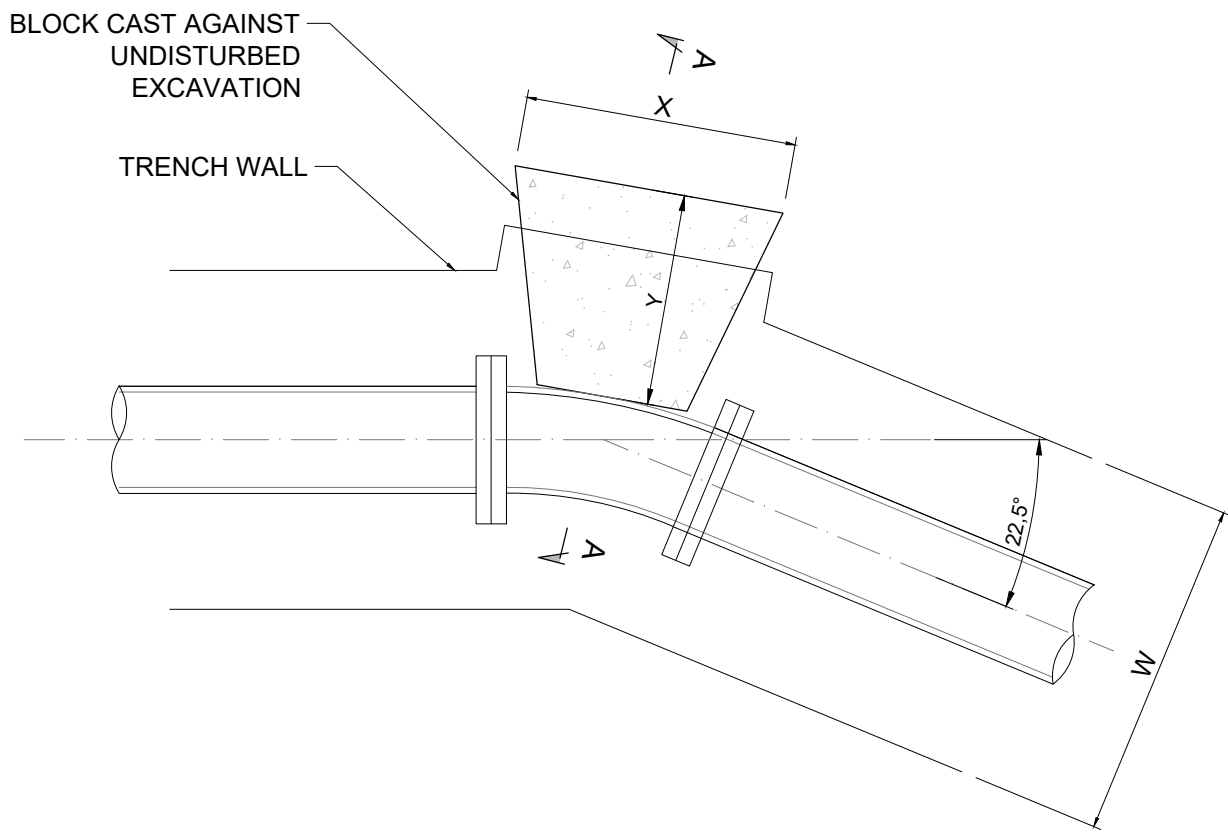
FOR TENDER



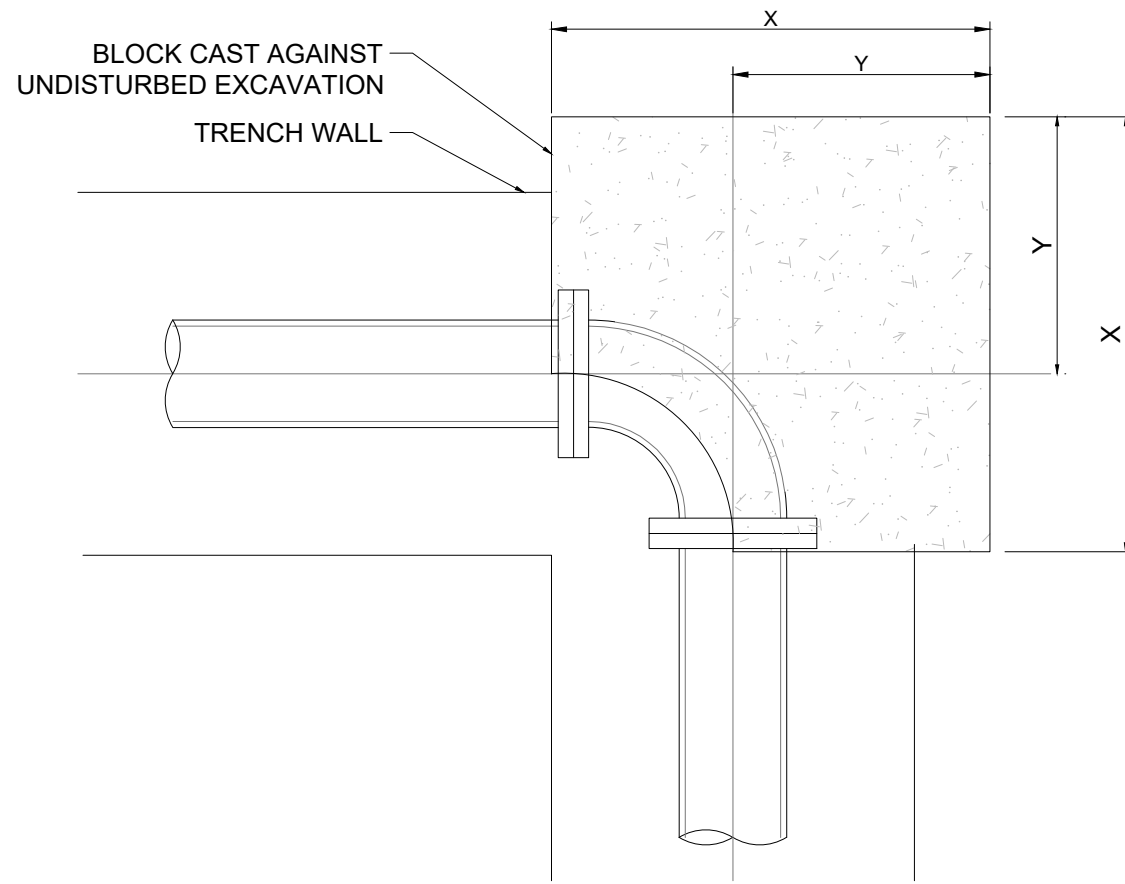
THRUST BLOCK FOR 45° BEND
SCALE 1:25



THRUST BLOCK FOR 45° BEND
SCALE 1:25



THRUST BLOCK FOR 22 1/2° BEND
SCALE 1:25



THRUST BLOCK FOR 90° BEND
SCALE 1:25

NOMINAL DIAMETER Ø (mm)	DIMENSIONS				
	D (mm)	Z(mm)	X(mm)	Y(mm)	VOL (m³)
300	1400	700	2000	1000	1400
250	1300	650	1600	800	0.800
200	1200	600	1200	600	0.430
150	1000	500	1000	500	0.250
100	1000	500	350	250	0.043
75	800	400	350	200	0.028

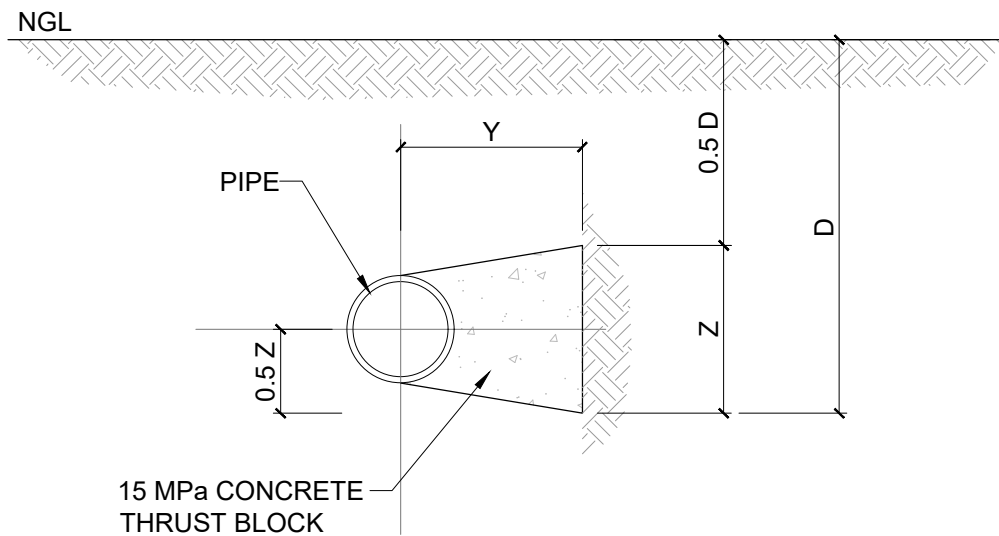
NOMINAL DIAMETER Ø (mm)	DIMENSIONS				
	D (mm)	Z(mm)	X(mm)	Y(mm)	VOL (m³)
300	1400	700	2700	1300	2550
250	1300	650	2150	1100	1500
200	1200	600	1600	800	0.770
150	1000	500	1300	650	0.420
100	1000	500	500	300	0.075
75	800	400	450	300	0.054

NOMINAL DIAMETER Ø (mm)	DIMENSIONS				
	D (mm)	Z(mm)	X(mm)	Y(mm)	VOL (m³)
300	1400	700	1000	500	0.350
250	1300	650	760	400	0.200
200	1200	600	600	400	0.150
150	1000	500	500	300	0.075
100	1000	400	300	200	0.024
75	800	300	300	200	0.018

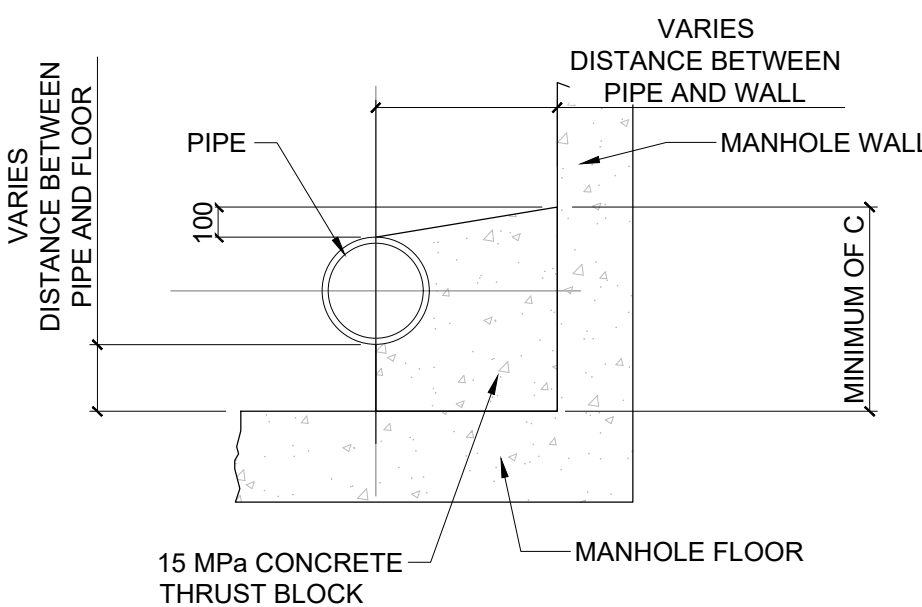
NOMINAL DIAMETER Ø (mm)	DIMENSIONS				
	D (mm)	Z(mm)	X(mm)	Y(mm)	VOL (m³)
300	1400	700	2700	1400	5.00
250	1300	650	2150	1100	3.00
200	1200	600	1600	800	1.54
150	1000	500	1300	700	0.80
100	1000	500	500	300	0.12
75	800	400	450	300	0.08

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. THIS TABLE WAS CALCULATED FOR THRUST BLOCKS IN SANDY SOILS
3. CONCRETE = 15 MPa
4. HALF THE DEPTH OF THE THRUST BLOCK NEEDS TO BE BELOW THE PIPE AXIS
5. KEEP THE CONCRETE AWAY FROM THE COUPLINGS AND THE PIPE JOINTS.
6. PROVIDE POLYETHYLENE FILM BETWEEN CONCRETE AND FITTINGS.
7. THRUST BLOCKS FOR PIPE DIAMETERS LARGER THAN 300 mm AND HIGHEST TEST PRESSURES THAN 18 BAR NEEDS TO BE DESIGNED BY THE ENGINEER.
8. THRUST BLOCKS AT PUDDLE FLANGES NEED TO BE REINFORCED AND DESIGNED BY THE ENGINEER.
9. IN CASES OF SOFT CLAY AND SILTY SANDS, THE ANCHOR BLOCKS NEED TO BE DESIGNED BY THE ENGINEER.
10. REFER TO SPECIFICATIONS.



TYPICAL THRUST BLOCK IN TRENCH
SECTION B-B
SCALE 1:25



TYPICAL THRUST BLOCK IN CHAMBER
SECTION A-A
SCALE 1:25

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbretch Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2021-06-07
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2021-06-07
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

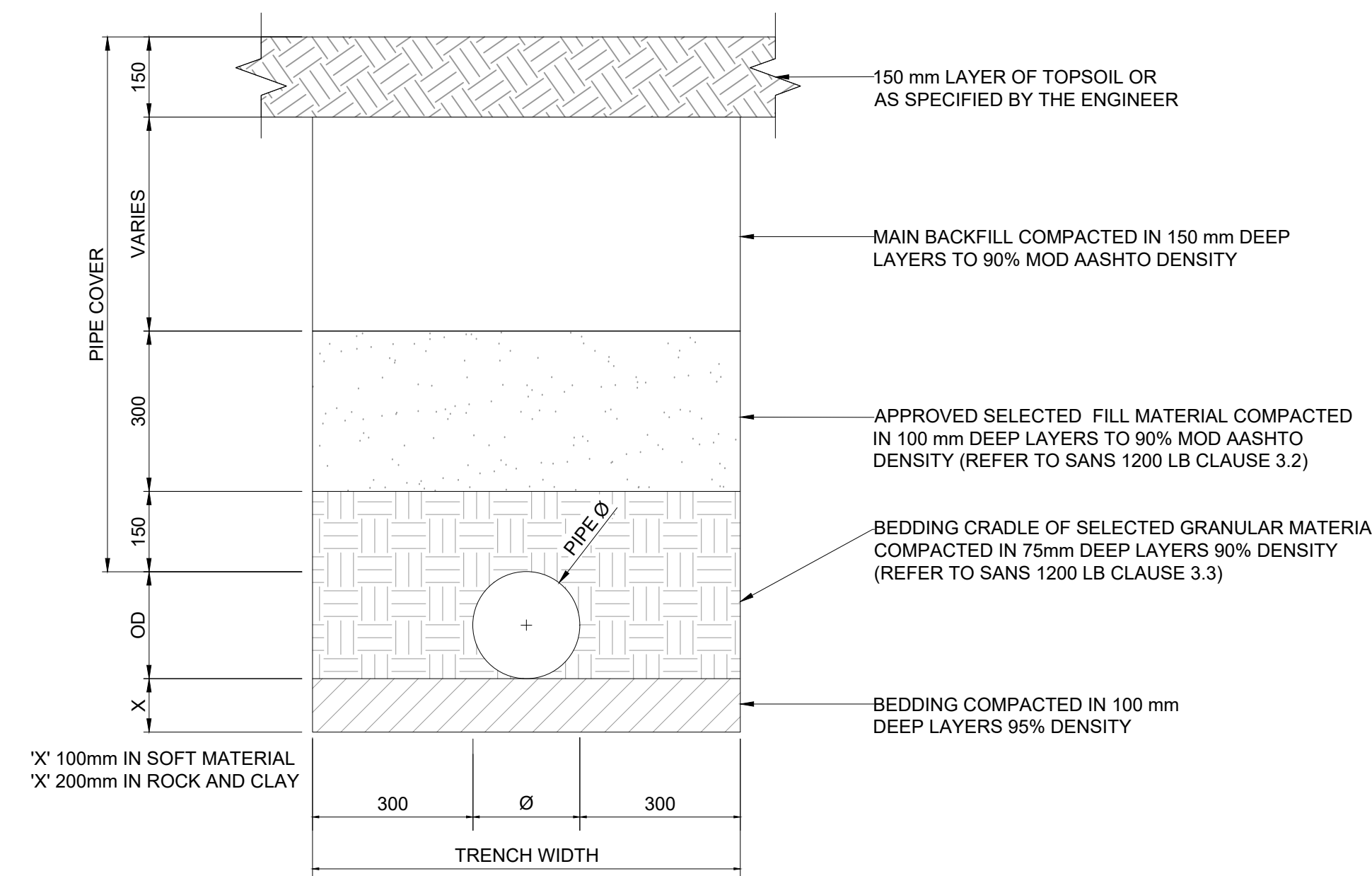
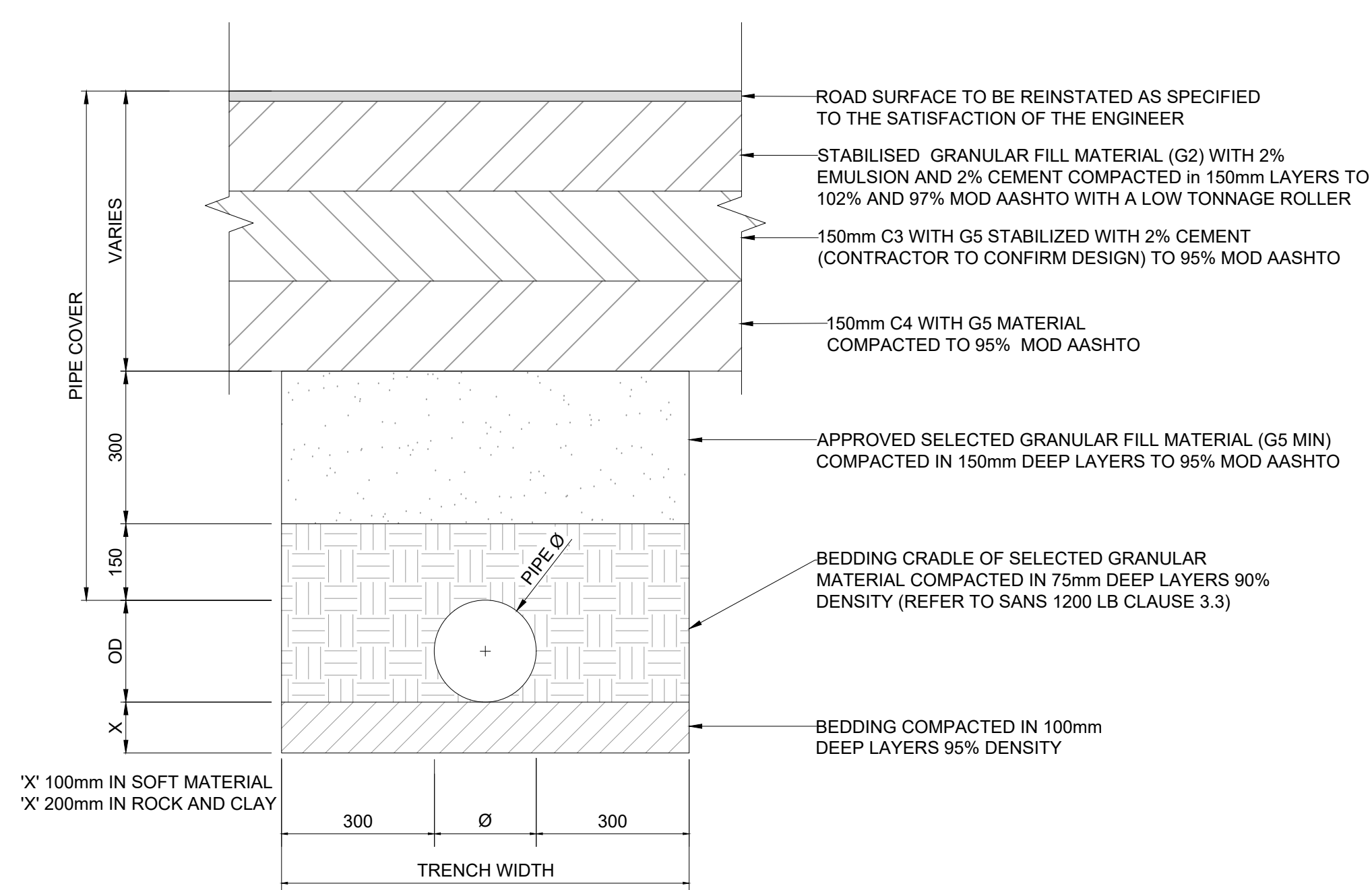
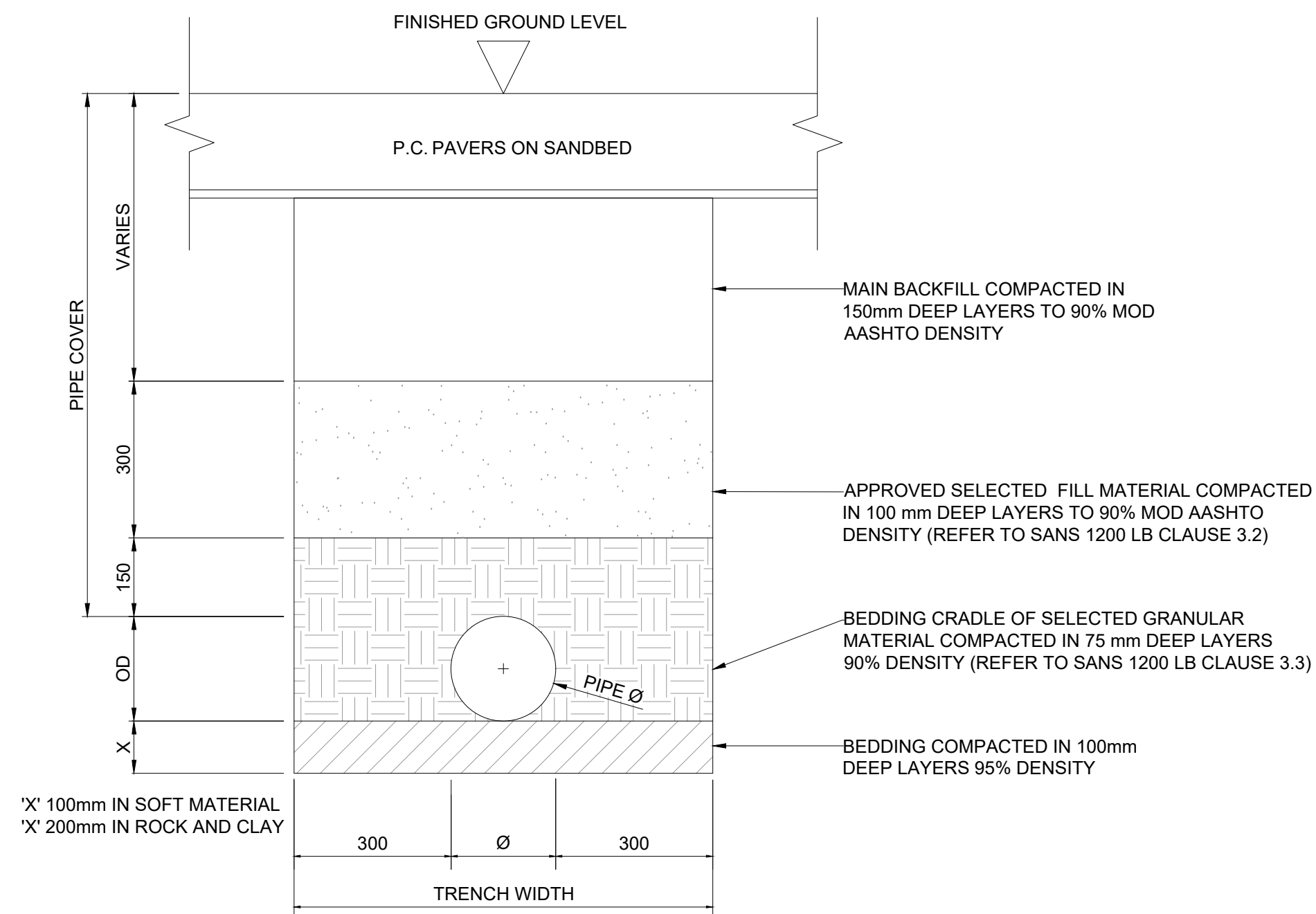
TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
STANDARD DETAILS - THRUST BLOCK DETAIL

AMENDMENTS				
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AS SHOWN	0	ISSUED FOR TENDER	P.GROBLER	2021-06-07

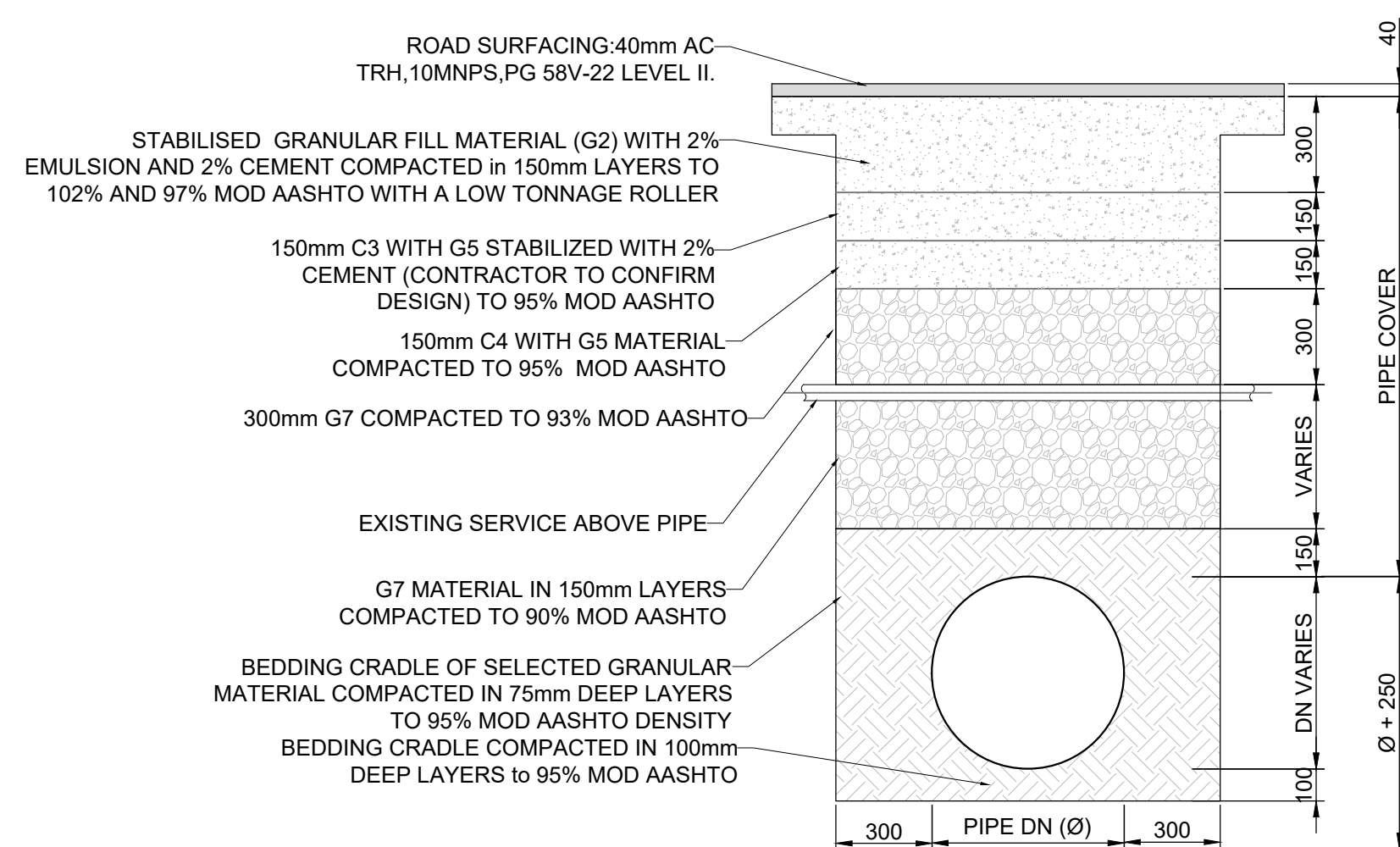
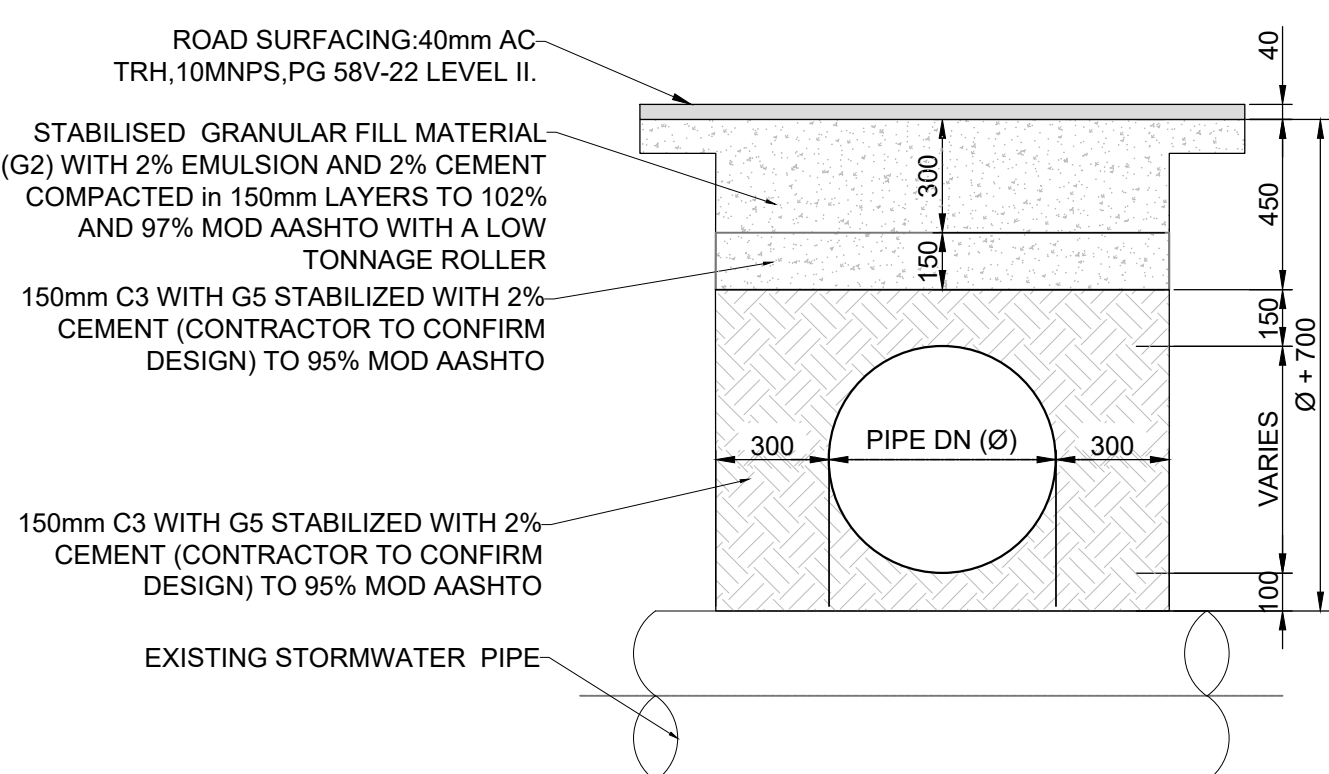
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CONTRACT No.: JW14358									
UR1305B				A					
PROJECT No.				REV.					
A1		SHEET		1		OF		1	
ORIGINAL PAGE SIZE									
FILE No.									



- ## GENERAL NOTES
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
 2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
 3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
 4. REFER TO DRAWING JW13037-16941-T-004-S01-00-TMS FOR GENERAL NOTES

- ## PIPE BEDDING NOTES
- PIPE SLEAVE ALLOWANCE OF 300 mm TYPICAL FOR UP TO DN 700 DIAMETER PIPES. FOR PIPES GREATER THAN 700 mm REFER TO SANS 1200DB CLAUSES 5.2 "MINIMUM BASE WIDTHS"
 - FOR MINIMUM PIPE COVER REFER TO PIPELINE LONGSECTIONS AND PROJECT SPECIFICATIONS.
 - CRITERIA FOR FLEXIBILITY OF PIPES (BASED ON SANS 10102-1):
 FLEXIBILITY STIFFNESS RATIO < 10 = RIGID PIPE;
 FLEXIBILITY STIFFNESS RATIO > 10 AND < 1000 = SEMI FLEXIBLE;
 FLEXIBILITY STIFFNESS RATIO > 1000 = FLEXIBLE.
 - FLEXIBLE PIPELINES ARE TREATED AS FLEXIBLE PIPELINES FOR BEDDING AND BACKFILL PURPOSES.
 - REFER TO JRA AND OTHER SERVICE PROVIDERS SPECIFICATIONS FOR BEDDING DETAILS IN ROAD RESERVES OR WHERE THE PIPE INTERSECTS WITH OTHER SERVICES.

TRENCH DIMENSIONS	
PIPE SIZE (DN)	TRENCH WIDTH (mm)
UP TO 400 mm	600 mm + OD
450 mm TO 500 mm	600 mm + OD
550 mm TO 600 mm	600 mm + OD
650 mm TO 700 mm	600 mm + OD
750 mm TO 800 mm	800 mm + OD
850 mm TO 1000 mm	800 mm + OD



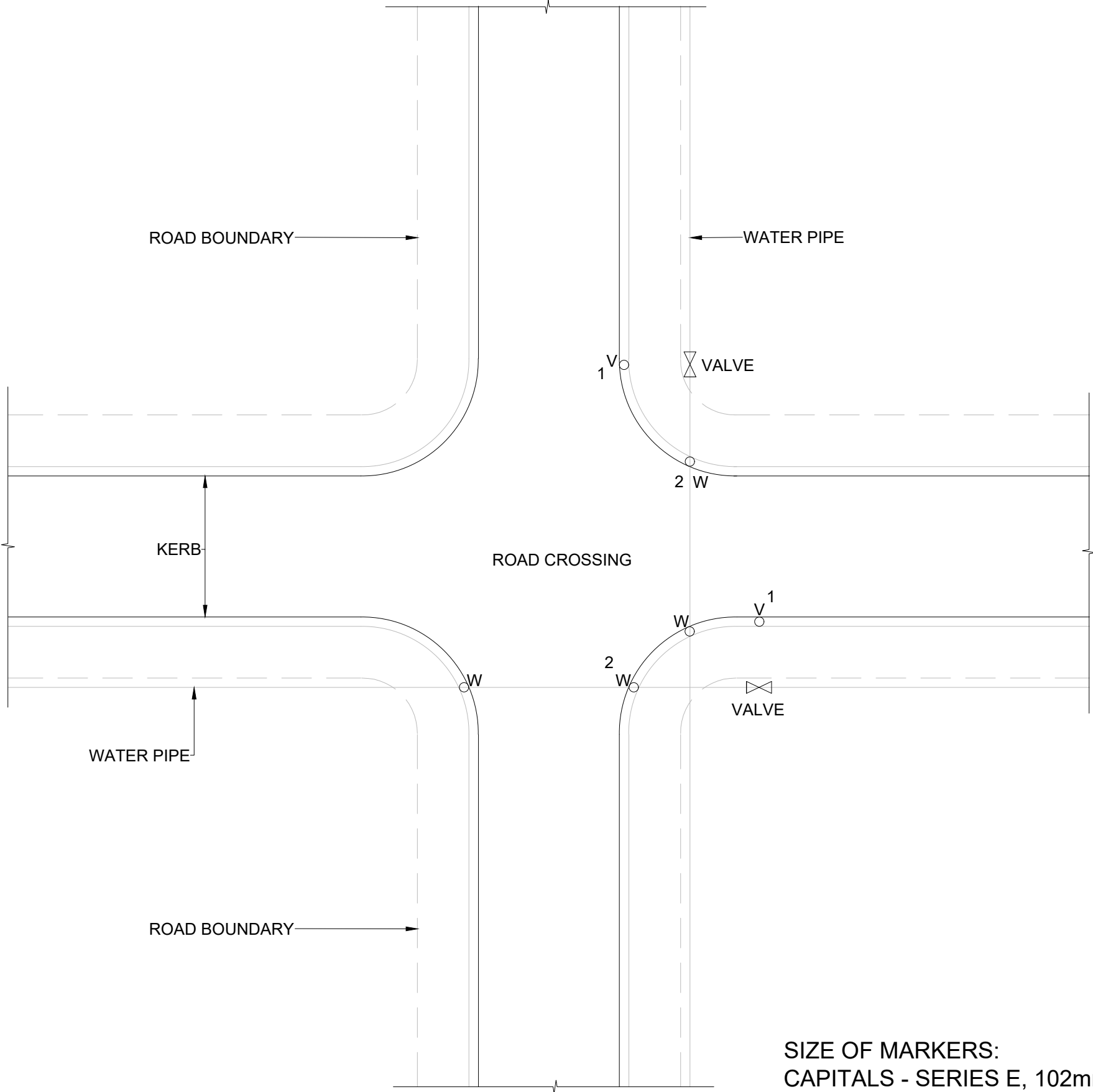
TYPICAL TRENCH DETAIL (SHALLOW)
(PIPE CROSSING ABOVE EXISTING SERVICE)
SCALE 1:20

TYPICAL TRENCH DETAIL (DEEP)
(PIPE CROSSING BELOW EXISTING SERVICE)
SCALE 1:20

FOR TENDER

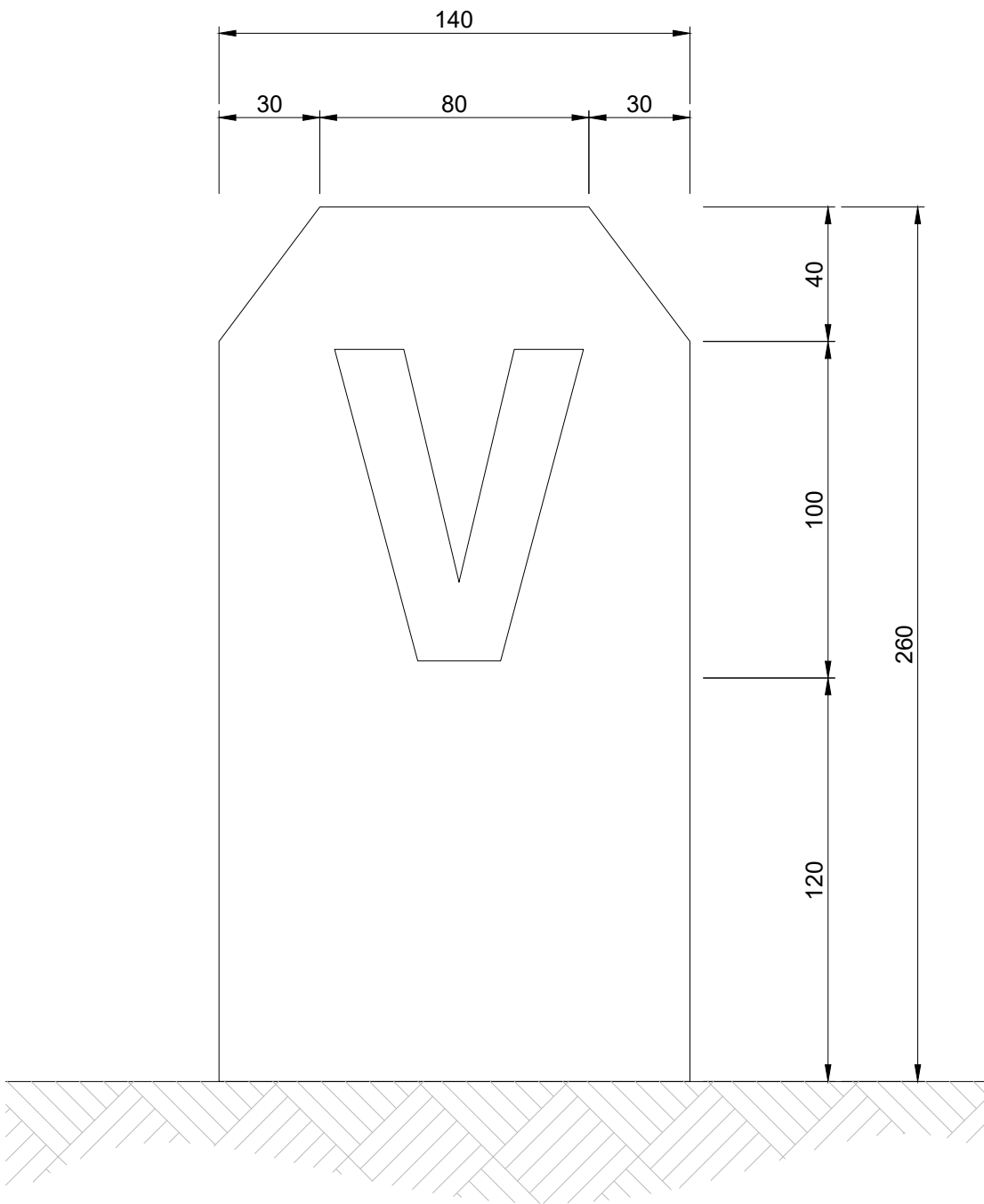
CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbretch Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA		 Johannesburg Water	Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg TEL: (011) 688-1400 FAX: (011) 688-1529	 WOODMEAD WATER UPGRADE STANDARD DETAILS - PIPE BEDDING DETAIL	AMENDMENTS					DRAWING No. JW14358-16941-T-017-S05-00-TMS CONTRACT No.: JW14358 UR1305B A PROJECT No. REV. A1 SHEET 1 OF 1 ORIGINAL PAGE SIZE FILE No.
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	CHECKED	P.SEKOAILA	DATE: 2021-06-07				AS SHOWN		ISSUED FOR TENDER	P.GROBLER	2022-10-31	
		SIGNATURE										
		ECSA REG. No										
	APPROVED BY:	P.GROBLER	DATE 2021-06-07									
		SIGNATURE										
	ECSA REG. No	950304										

NOTE:
1. TOP SURFACE OF COVERS TO BE PAINTED AS FOLLOWS:
VALVES NORMALLY OPEN: BLUE
VALVES NORMALLY CLOSED: SIGNAL RED
SCOUR VALVES: GREEN
AIR VALVES: BROWN



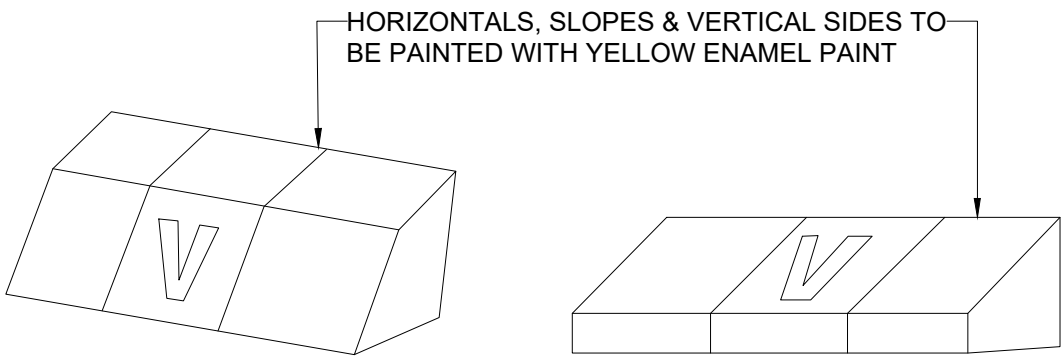
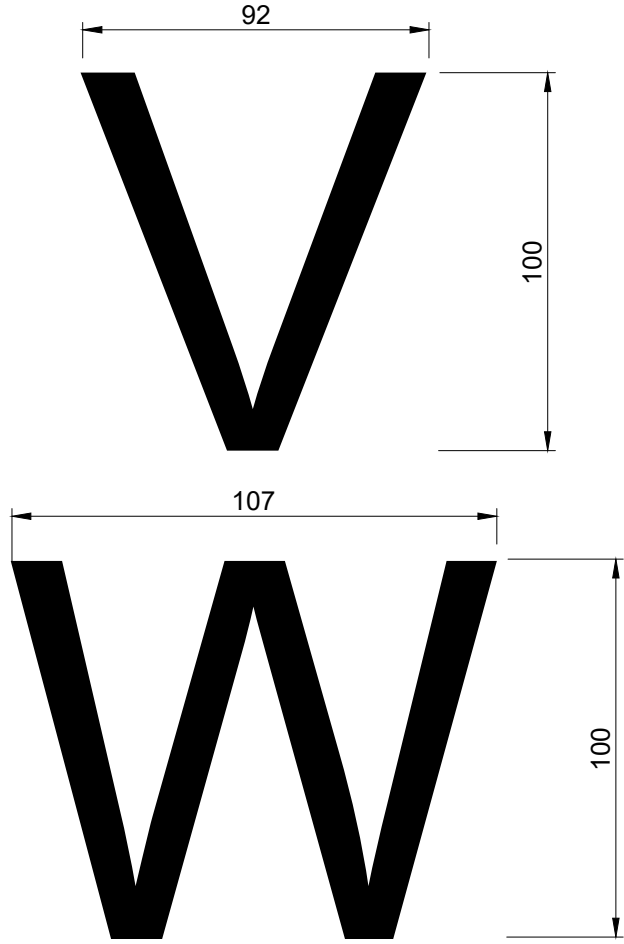
SIZE OF MARKERS:
CAPITALS - SERIES E, 102mm IN SIZE
ACCORDING TO THE S.A.
BOOK OF ROAD SIGNS

PIPE AND VALVE MARKER POSITIONING
(NOT TO SCALE)



PRECAST CONCRETE

- 1 VALVE MARKER - "V" MUST BE PAINTED
- 2 WATER PIPE MARKER - "W"



BARRIER KERB MOUNTABLE KERB

PIPE AND VALVE MARKER DETAILS
(NOT TO SCALE)

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbretcht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2021-06-07
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2021-06-07
		SIGNATURE	
		ECSA REG. No	950304



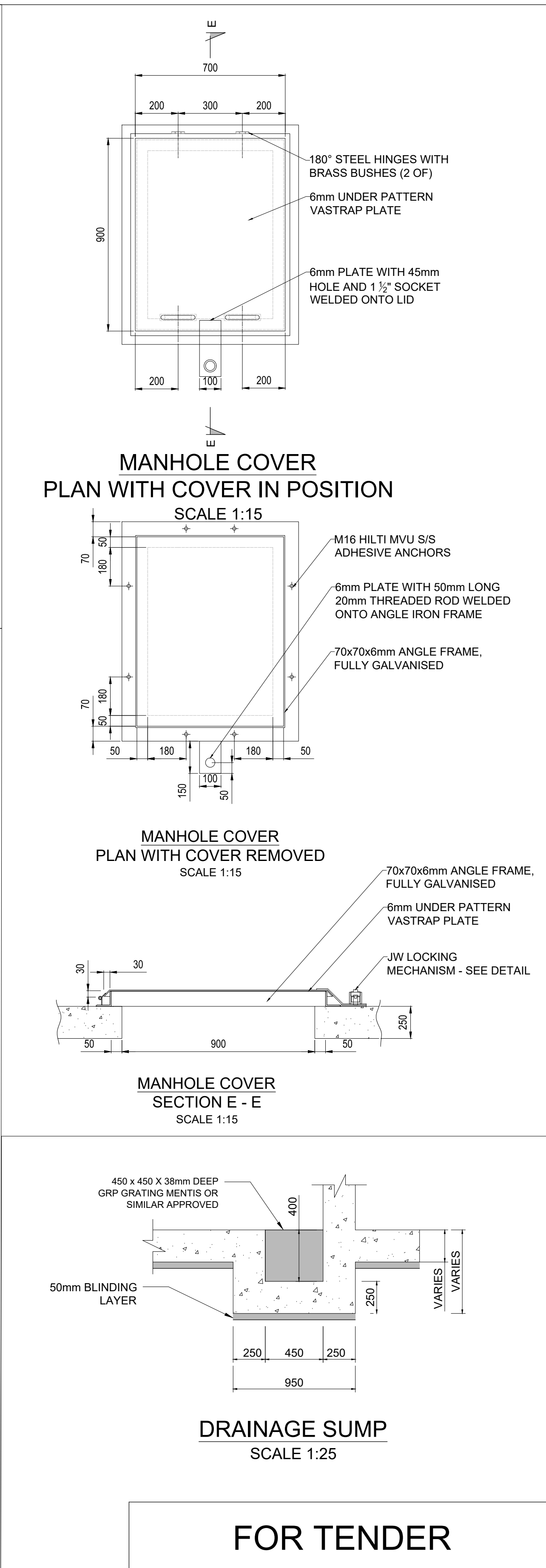
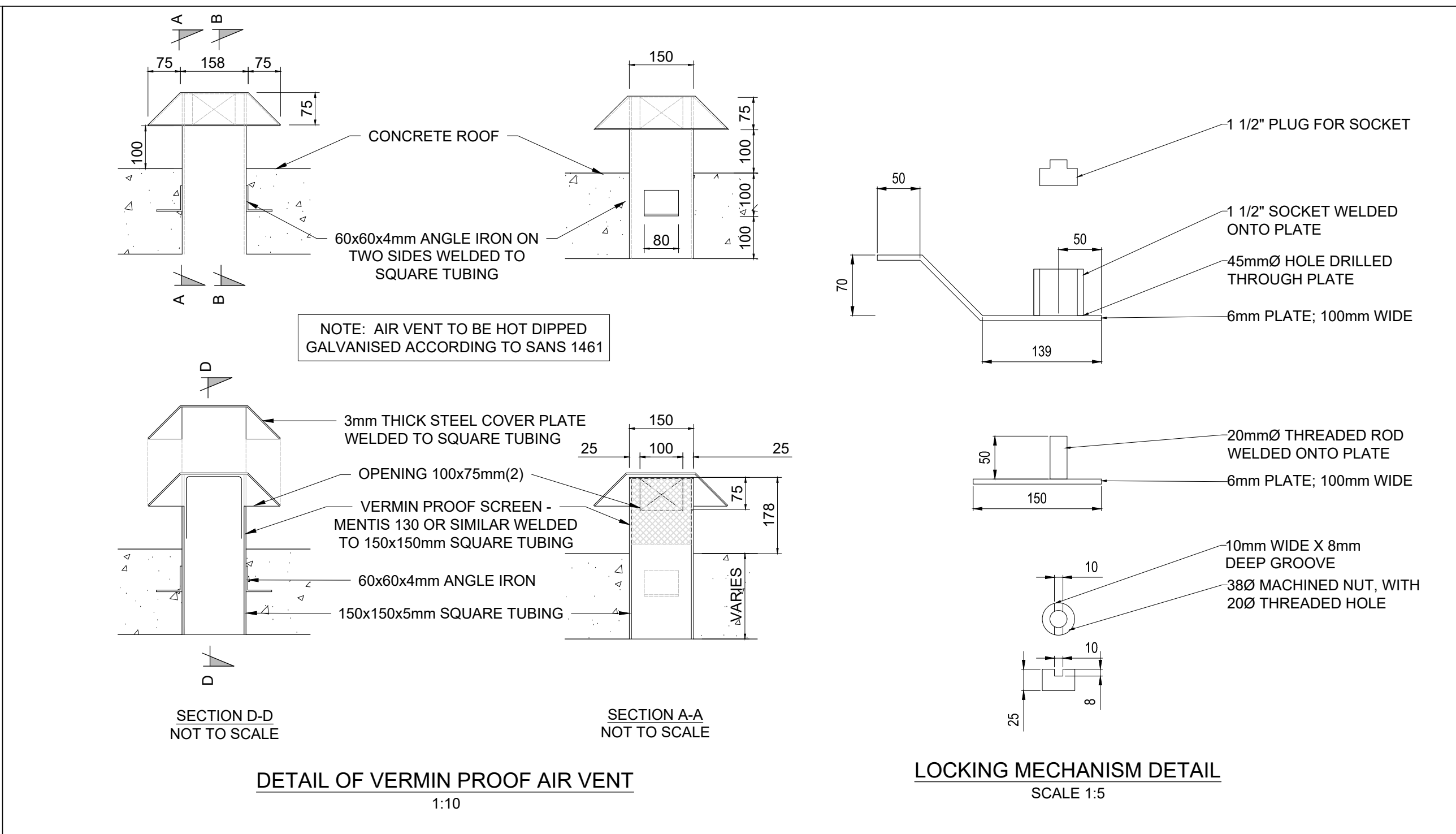
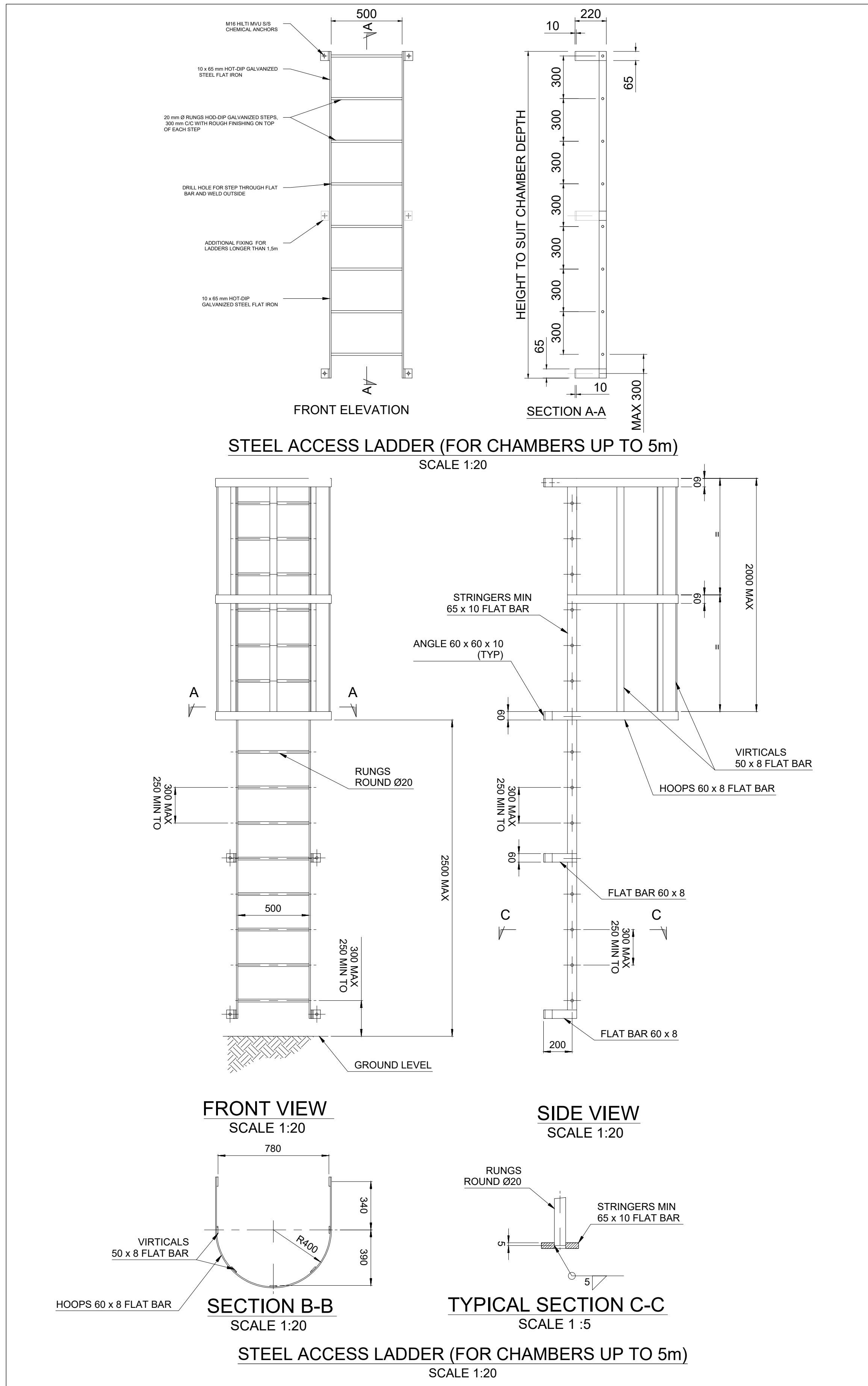
Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

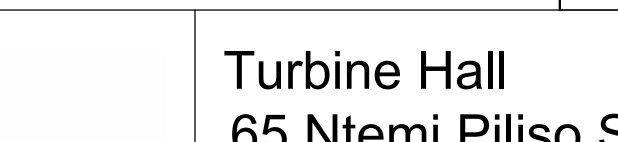
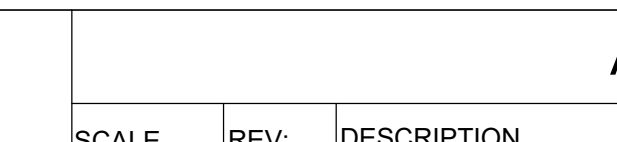
TEL: (011) 688-1400
FAX: (011) 688-1529

	
WOODMEAD WATER UPGRADE	
STANDARD DETAILS - SERVICE MARKERS	

AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
NTS	A	ISSUED FOR TENDER	P.GROBLER	2021-06-07

DRAWING No. JW143585-16941-T-017-S07-00-TMS	
CONTRACT No.: JW1358	
UR1305B	A
PROJECT No.	REV.
A1 SHEET	1 OF 1
ORIGINAL PAGE SIZE	
FILE No.	

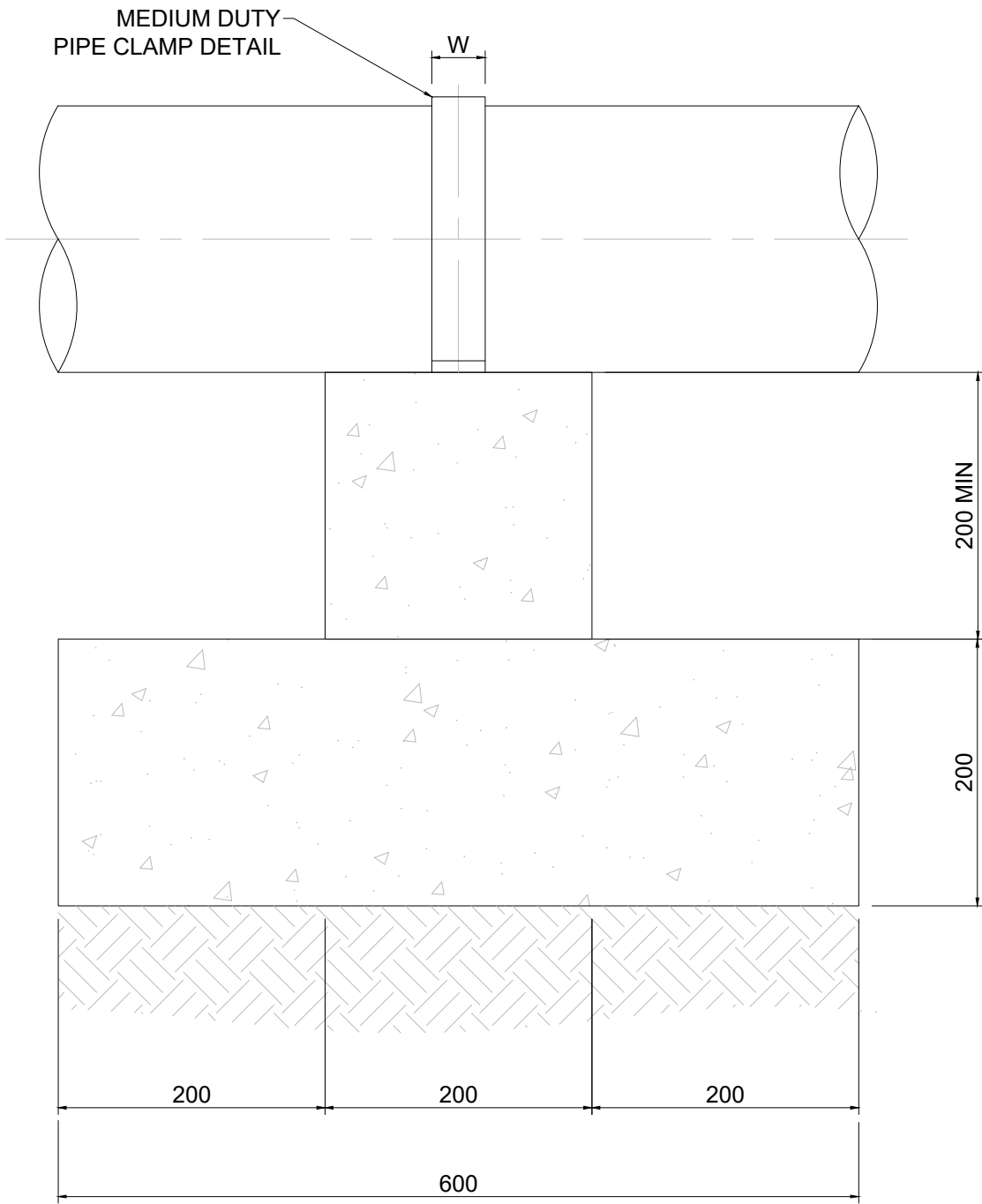
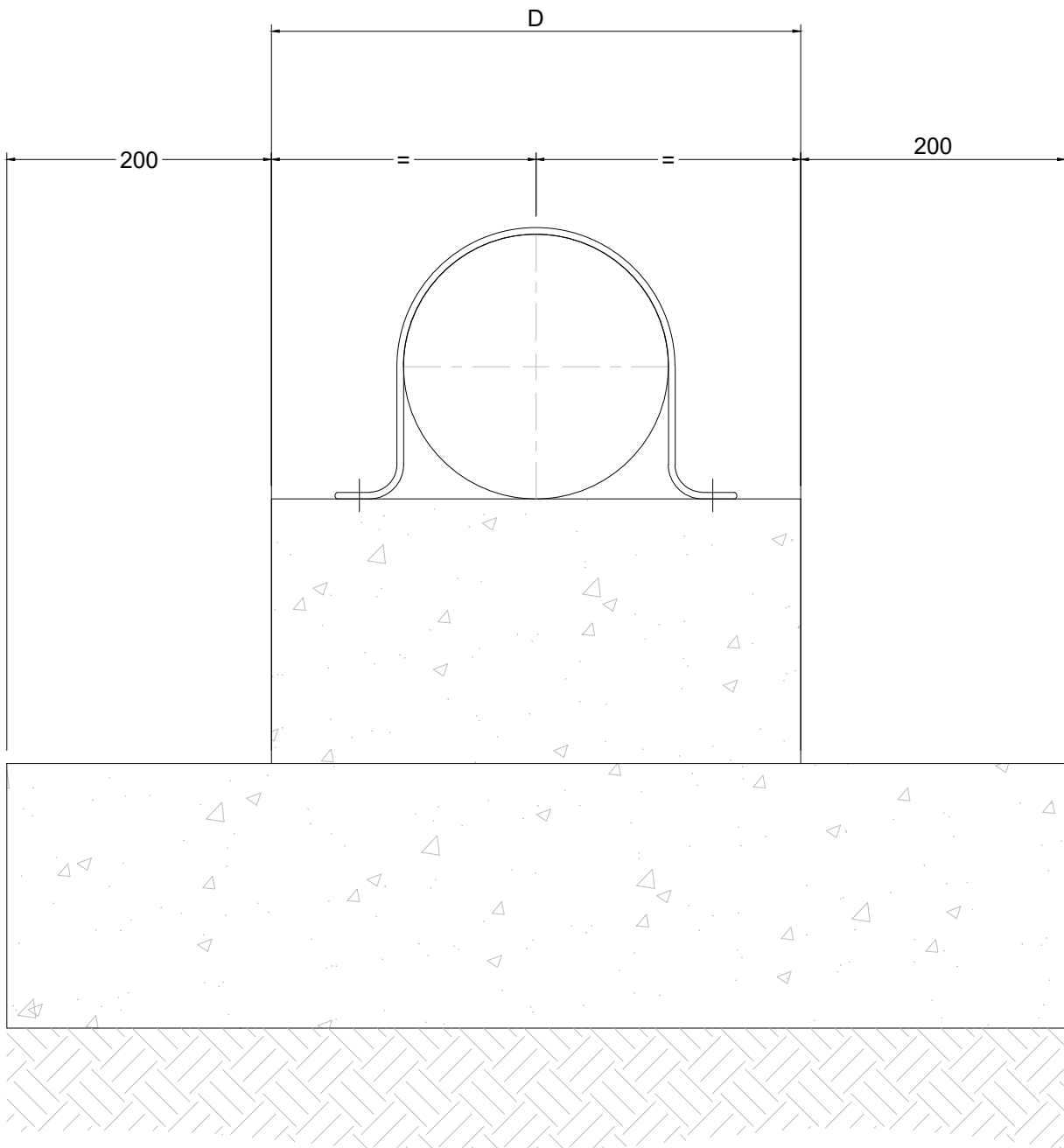


CONSULTING ENGINEERS		DESIGNED		T.FOSA					Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg		WOODMEAD WATER UPGRADE	AMENDMENTS					DRAWING No. JW14358-16941-T-017-S09-00-TMS				
 Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntengi Piliso Street Newtown, Johannesburg		DRAWN		Y.GOVENDER								CONTRACT No.: JW14358									
		CHECKED		P.SEKOAILA		DATE: 2021-06-07						SCALE		REV:		DESCRIPTION		APPROVED		DATE:	
				SIGNATURE								AS SHOWN A		ISSUED FOR TENDER		P.GROBLER		2021-06-07			
				ECSA REG. No								AS SHOWN B		ISSUED FOR TENDER		P.GROBLER		2022-01-04			
		APPROVED BY:		P.GROBLER		DATE 2021-06-07				AS SHOWN C		ACCESS LADDER		P.GROBLER		2022-09-19					
				SIGNATURE														PROJECT No.		REV.	
				ECSA REG. No		950304		<u>Johannesburg Water</u>		TEL: (011) 688-1400 FAX: (011) 688-1529		STANDARD DETAILS CHAMBER DETAILS						A1		SHEET 1 OF 1	
																		ORIGINAL PAGE SIZE		FILE No.	

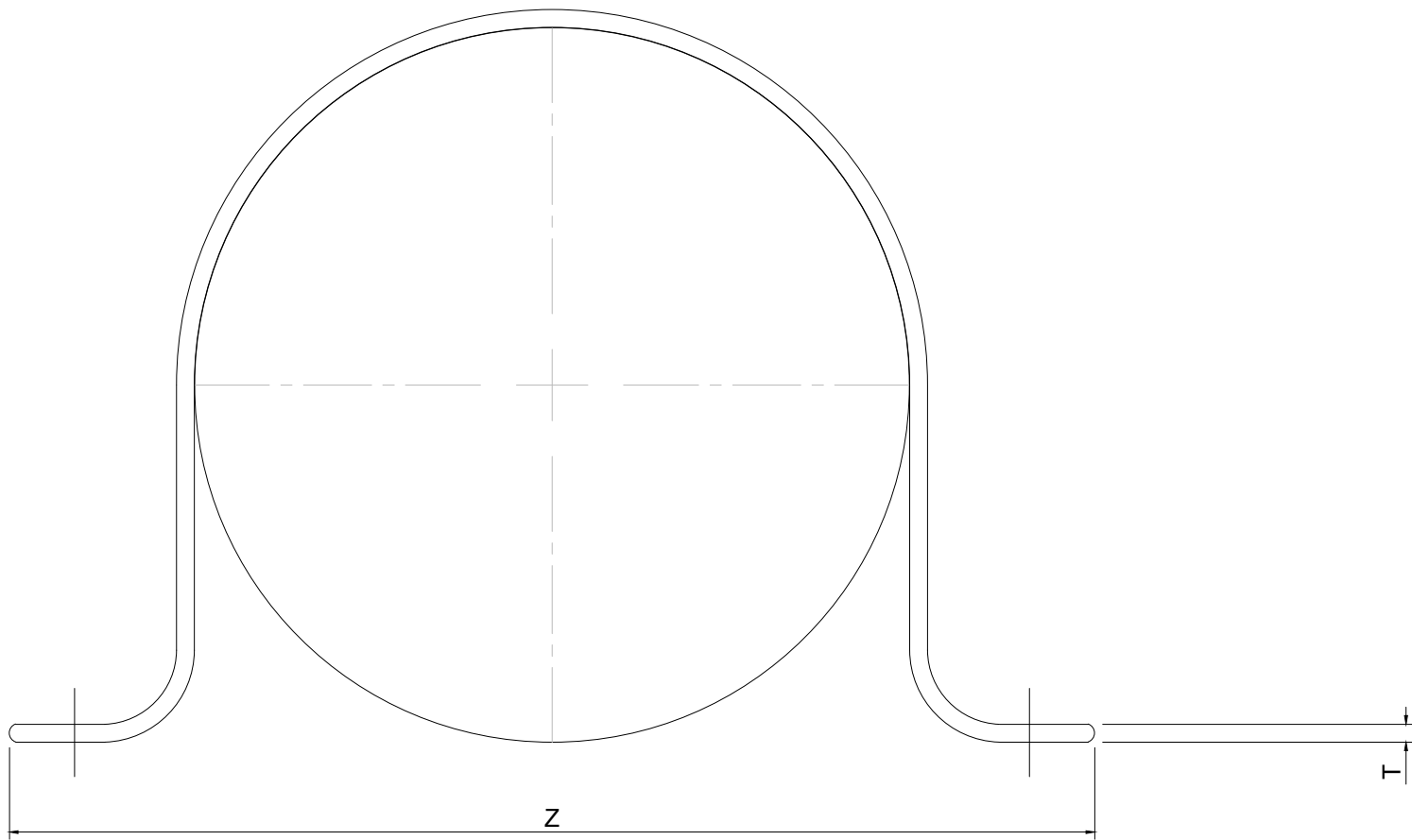
GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER, UNLESS OTHERWISE SPECIFIED.
2. ALL DIMENSIONS MUST BE CHECKED AND APPROVED ON SITE PRIOR TO FABRICATION.
3. THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS.
4. REMOVE ALL SHARP EDGES AND BURS.
5. ALL SUPPORTS TO BE MANUFACTURED FROM GRADE 350WA (SANS 1431) STRUCTURAL STEEL AND HOT DIPPED GALVANIZED AS PER MECHANICAL SPECIFICATION.
6. REFER TO PROJECT SPECIFICATIONS FOR ANCHOR BOLTS
7. CONCRETE GRADE SHALL BE 35 Mpa/19 mm

PIPE POSITIONING ON PLINTHS				
PIPE SIZE (DN)	PIPE CRS 'A'	PLINTH SIZE		
		'B'	'C'	'D'
50	165	600	400	200
65	185	650	450	200
80	195	650	450	300
100	220	750	500	300
160	275	900	600	350
200	330	1060	700	400

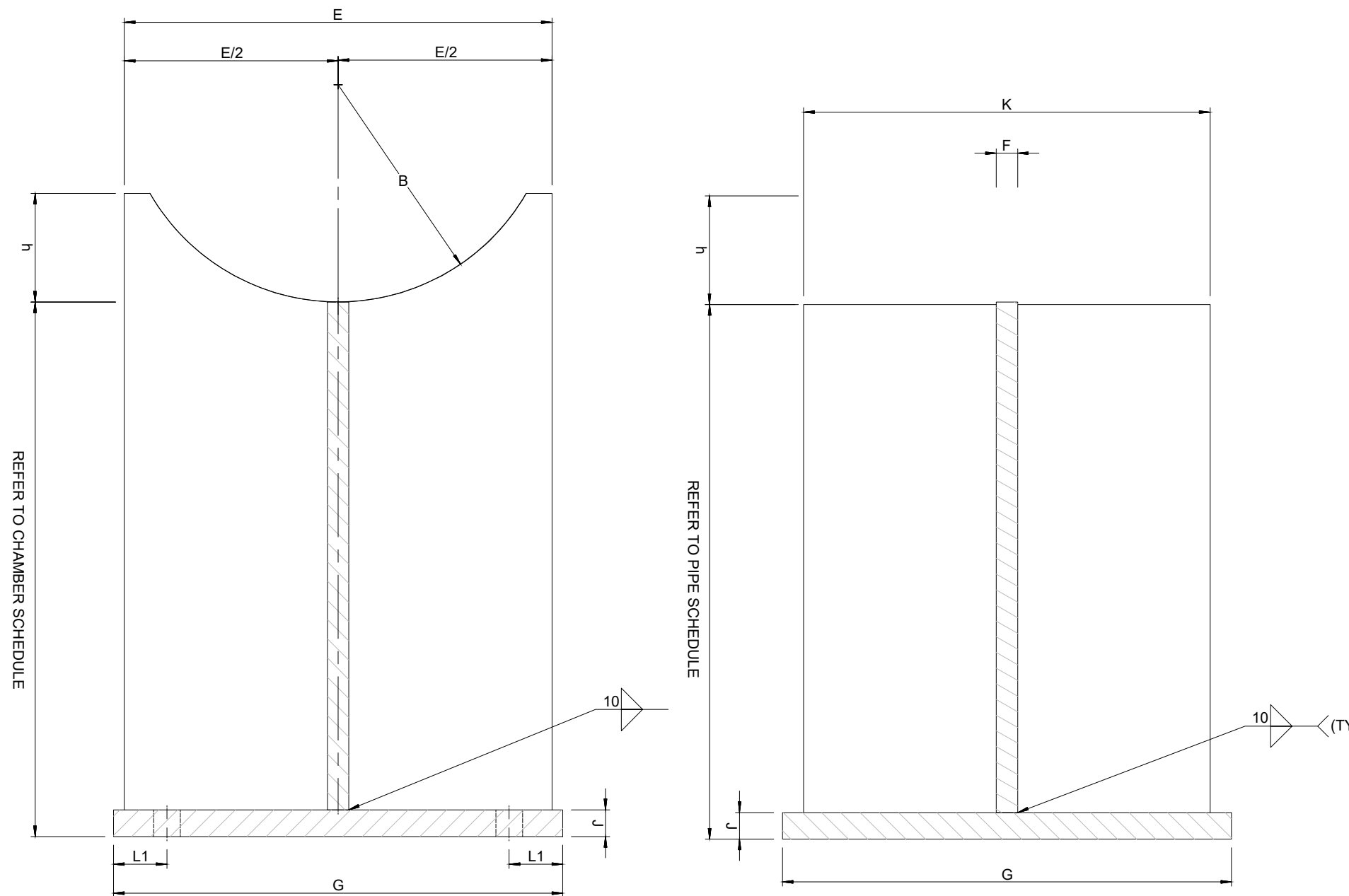


TYPICAL PLINTH DETAIL
NOT TO SCALE



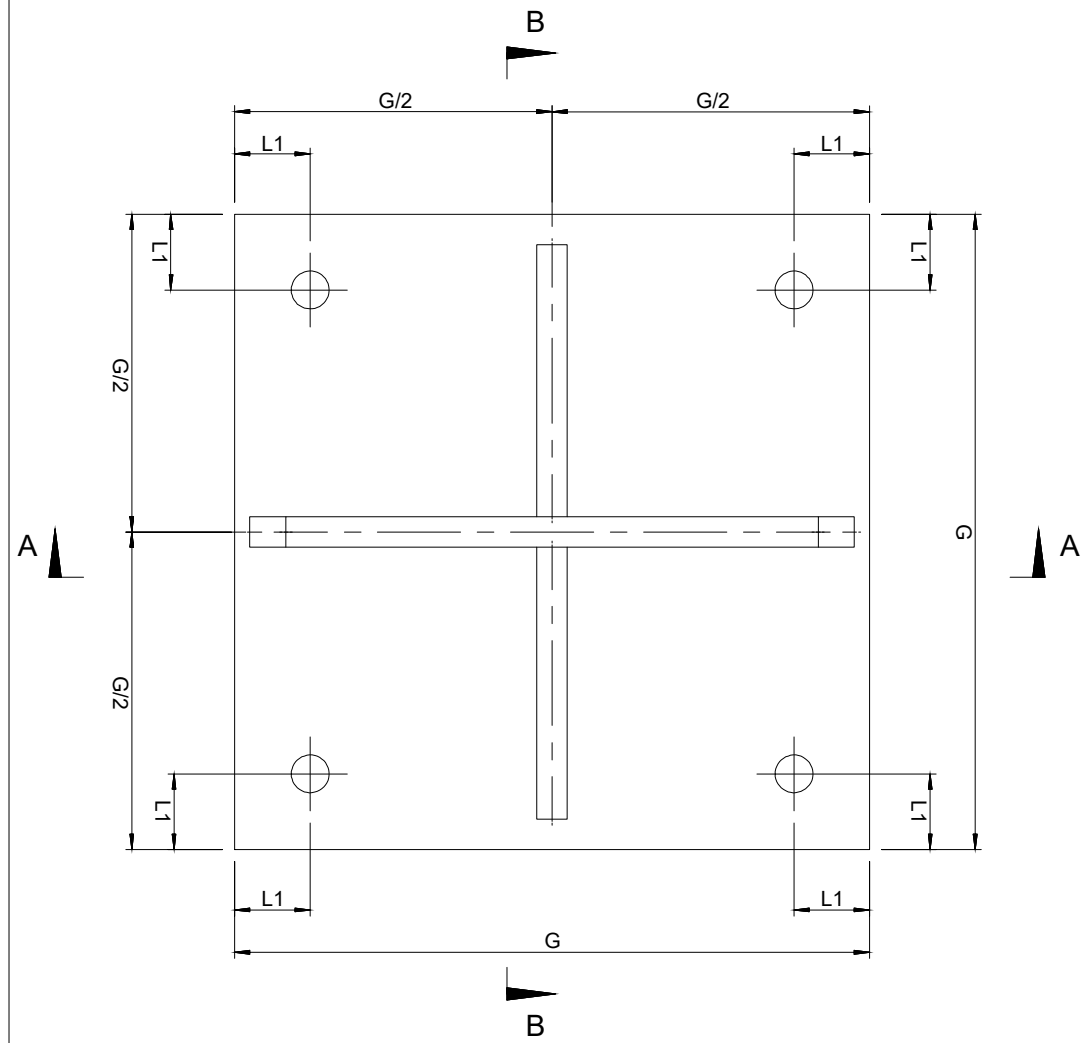
MEDIUM DUTY
PIPE CLAMP DETAIL
NOT TO SCALE

MEDIUM DUTY PIPE CLAMP SIZES			
PIPE SIZE (DN)	L (mm)	W x T (mm)	HS (mm)
50	160	40 x 6	14
65	175	40 x 6	14
80	190	40 x 6	14
100	215	40 x 6	14
160	265	40 x 6	14
200	315	40 x 6	14



SECTION A-A
NOT TO SCALE

SECTION B-B
NOT TO SCALE



STEEL PIPE SUPPORT PLAN VIEW
NOT TO SCALE

DIMENSIONS TABLE										
PIPE SIZE	B	E	F	G	J	K	L1 (mm)	DIA (mm)	Bolt Size (GRADE 8.8)	h (mm)
DN 100	R 58	200	15	250	15	100	50	Ø 18	M16	13
DN 150	R 84	250	15	300	15	120	85	Ø 22	M20	30
DN 200	R 110	280	20	360	25	150	95	Ø 26	M24	47
DN 250	R 137	340	20	360	25	150	90	Ø 26	M24	65
DN 300	R 162	340	20	360	25	150	100	Ø 26	M24	72
DN 350	R 178	380	20	420	25	180	100	Ø 26	M24	109
DN 400	R 203	400	20	420	25	180	100	Ø 26	M24	124
DN 450	R 229	435	25	450	30	205	110	Ø 32	M30	130
DN 500	R 254	445	25	480	30	210	110	Ø 32	M30	140
DN 550	R 260	475	25	520	30	225	115	Ø 32	M30	140
DN 600	R 305	515	25	550	30	230	120	Ø 32	M30	140

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbretcht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	T.FOSA	
	DRAWN	Y.GOVENDER	
	CHECKED	P.SEKOAILA	DATE: 2021-06-07
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2021-06-07
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

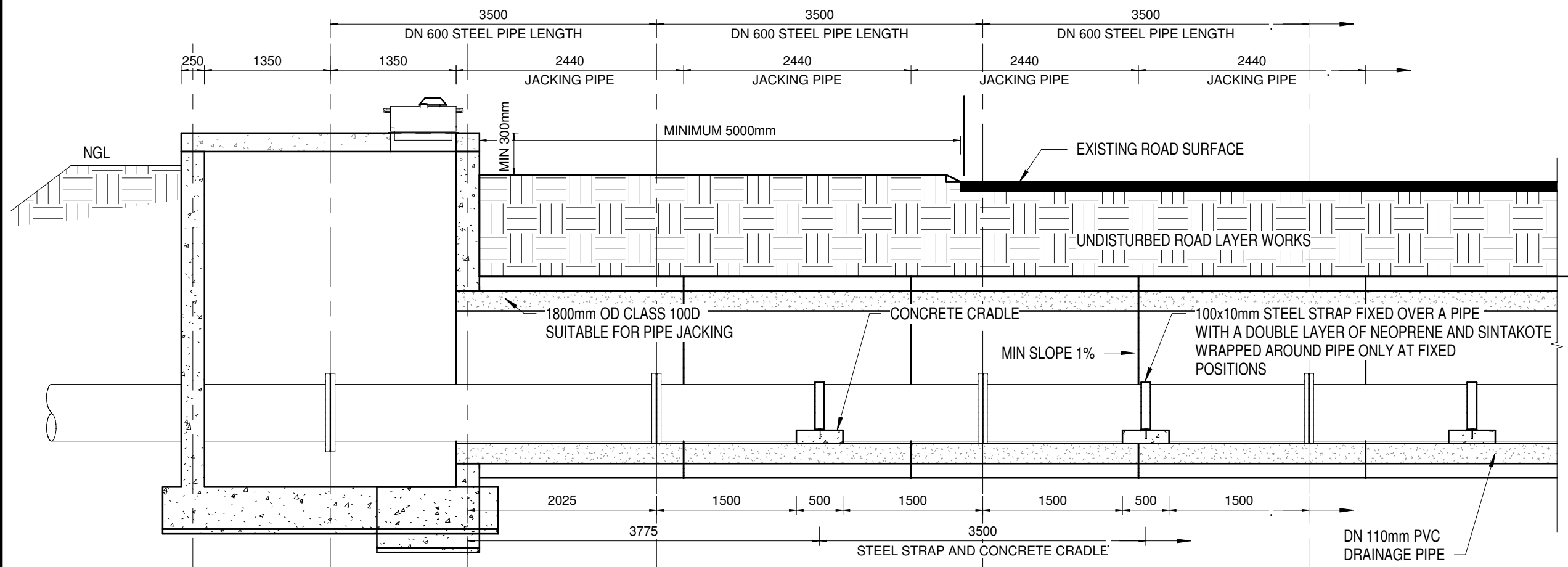
TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
STANDARD DETAILS - PIPE SUPPORT DETAILS

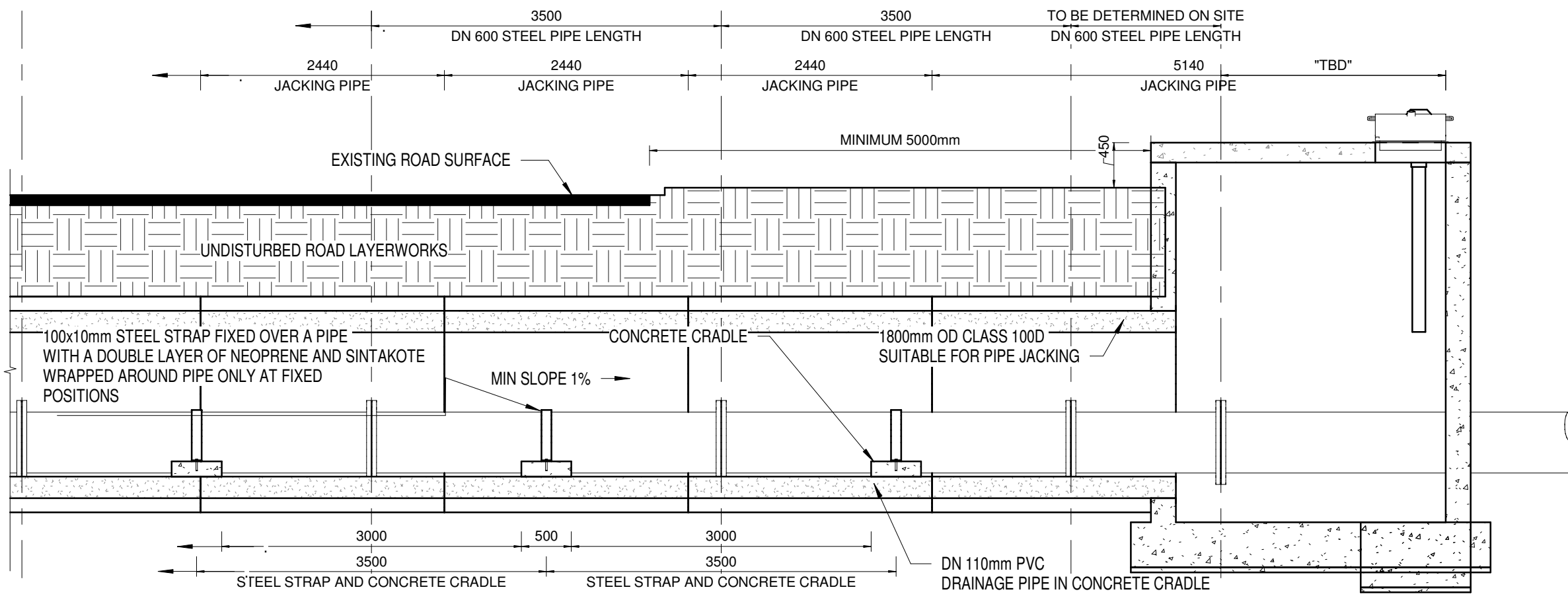
AMENDMENTS				
SCALE	REV:	DESCRIPTION	APPROVED	DATE:
VARIES	A	ISSUED FOR TENDER	P.GROBLER	2021-06-07

DRAWING No. JW14358-16941-T-017-S10-00-TMS									
CONTRACT No.: JW14358									
UR1305B				A					
PROJECT No.				REV.					
A1		SHEET		1		OF		1	
ORIGINAL PAGE SIZE									
FILE No.									



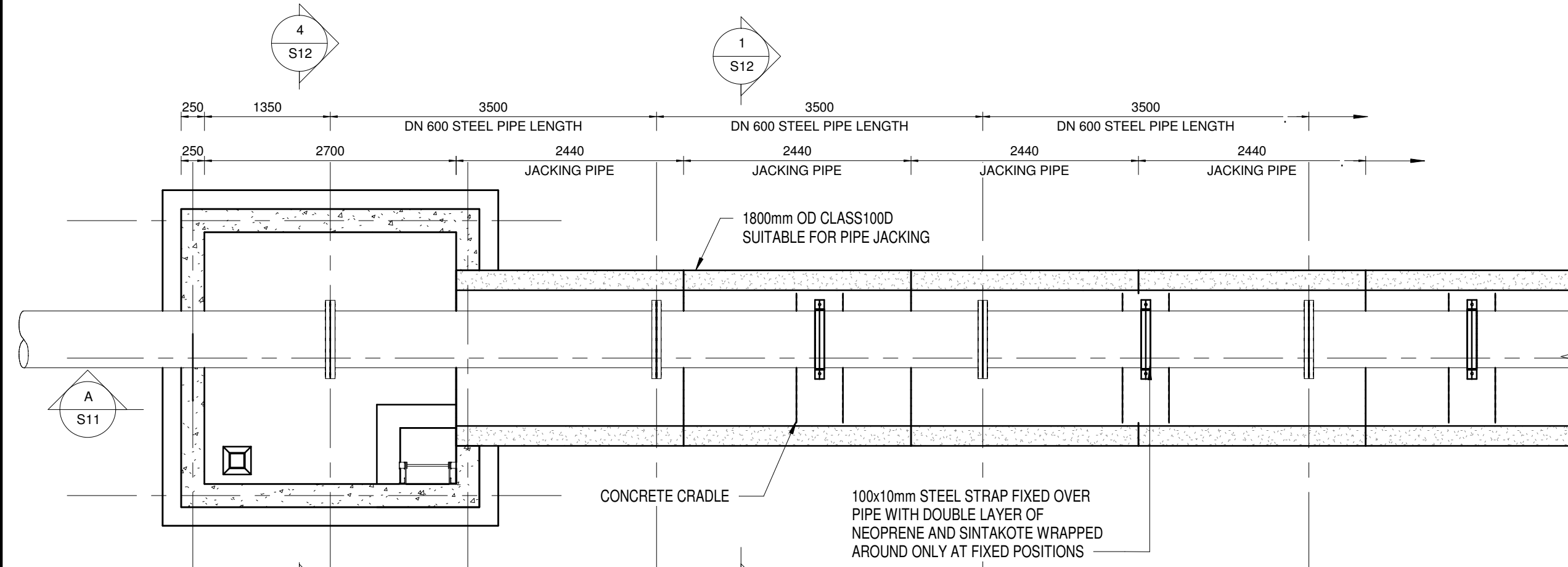
JACKING PIPE SECTION 1

SCALE 1 : 50



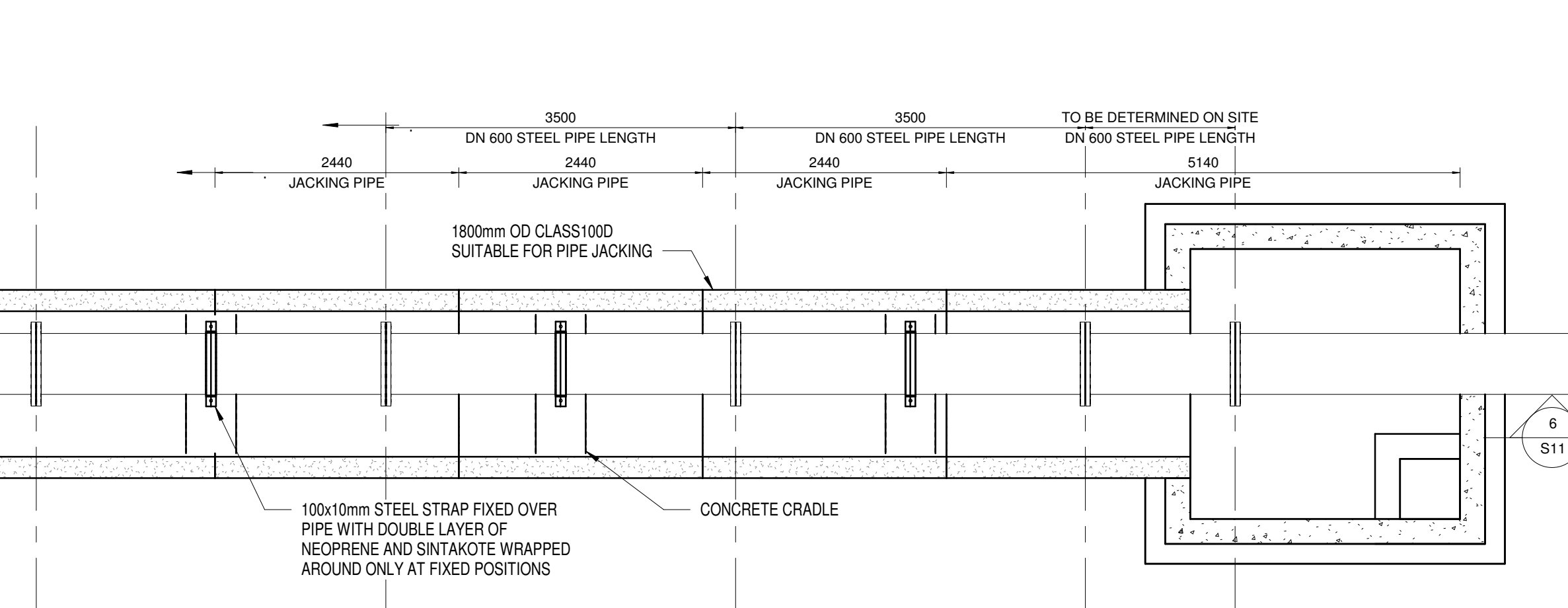
JACKING PIPE SECTION 2

SCALE 1 : 50



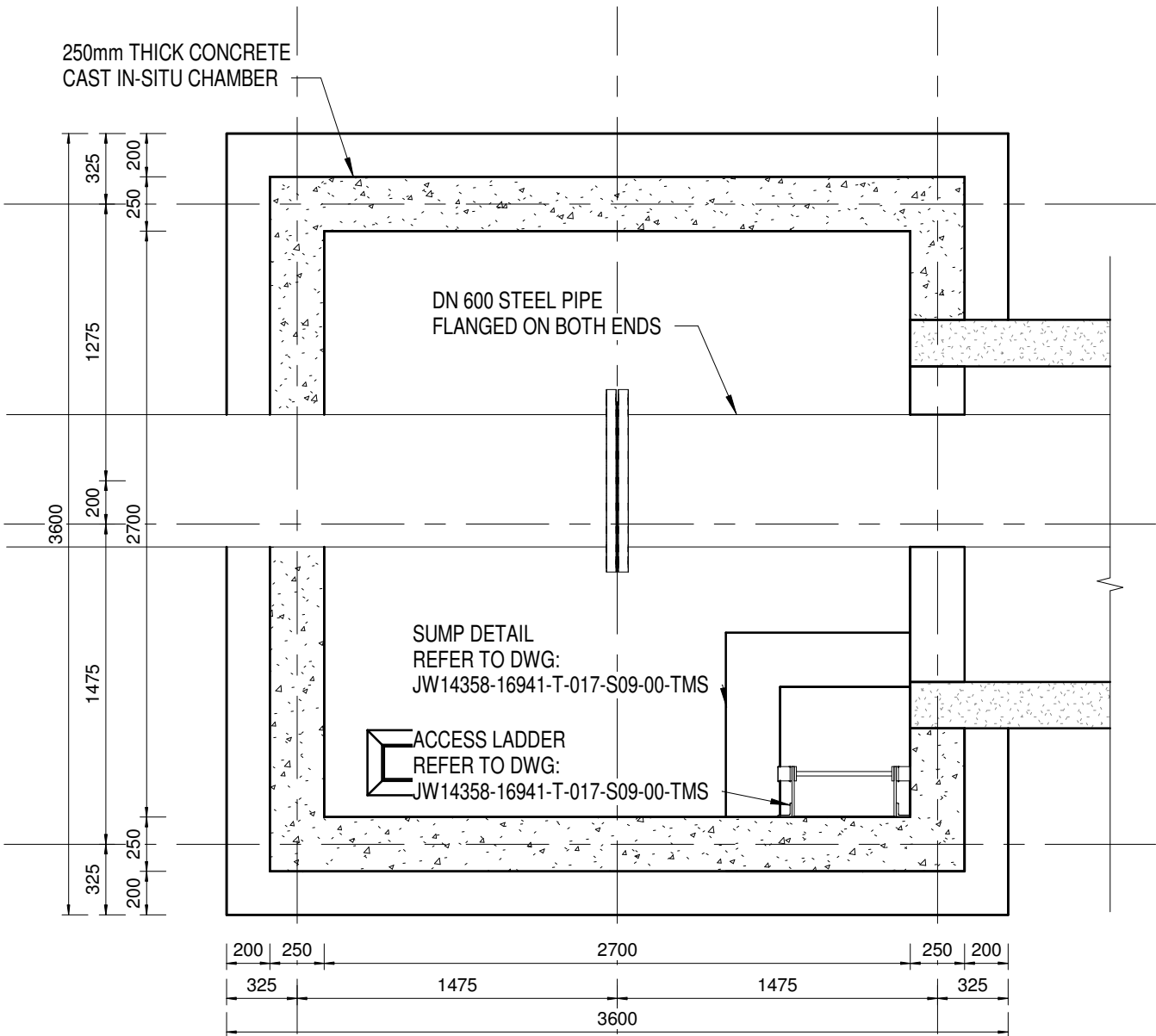
PIPE JACKING PLAN VIEW 1

SCALE 1 : 50



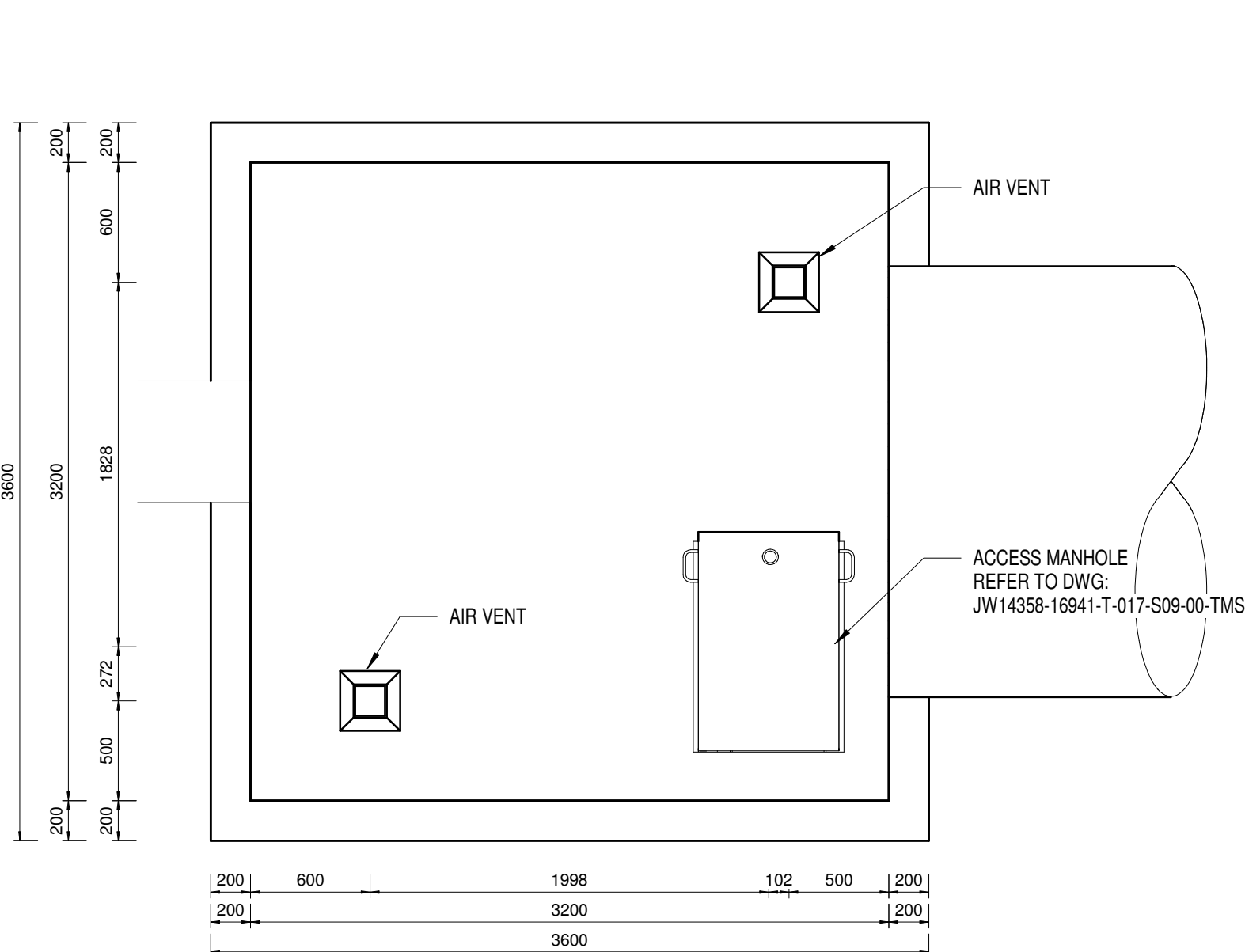
PIPE JACKING PLAN VIEW 2

SCALE 1 : 50



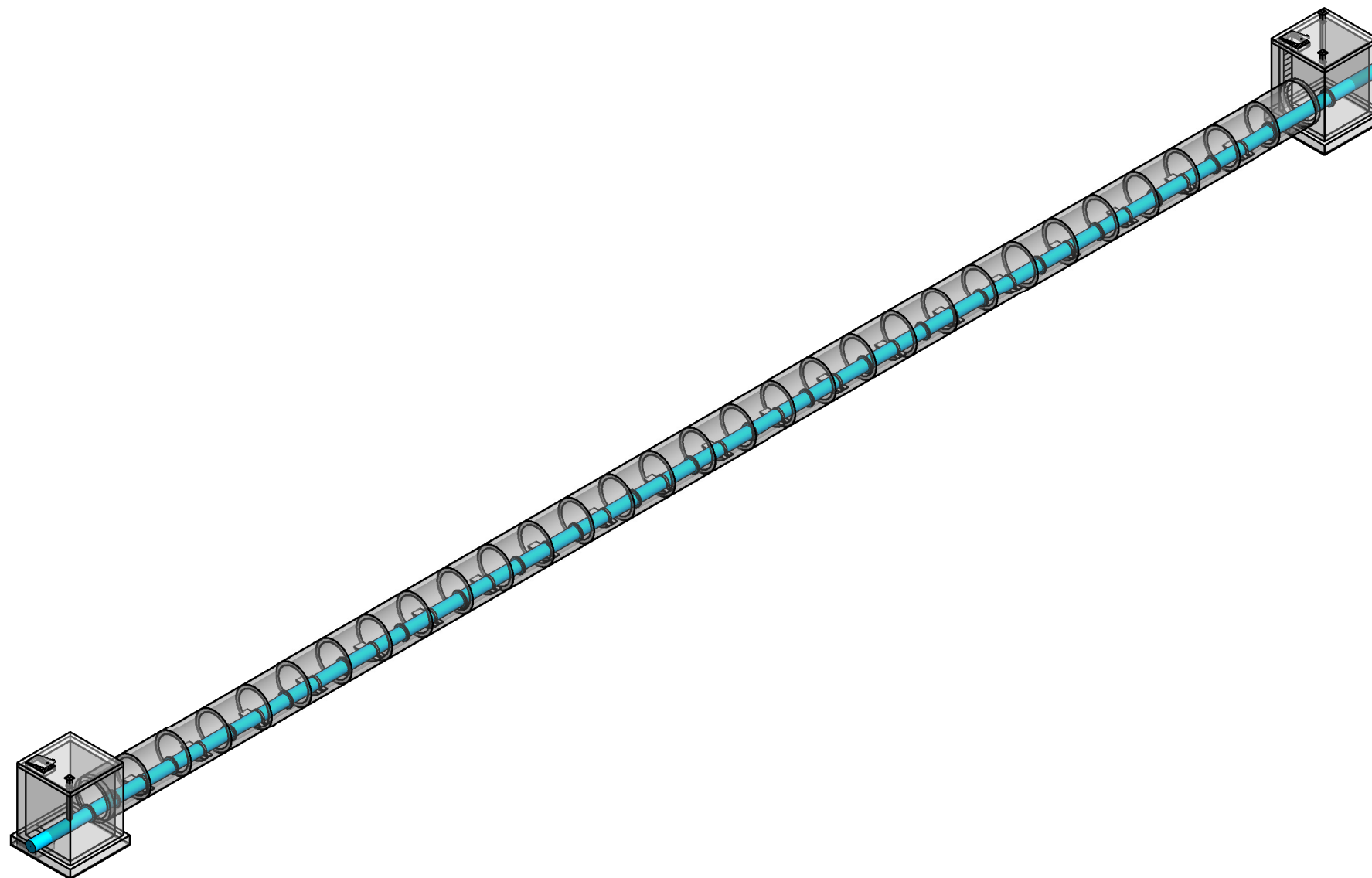
CHAMBER PLAN VIEW (ROOF NOT SHOWN)

SCALE 1 : 30



CHAMBER PLAN VIEW (ROOF SHOWN)

SCALE 1 : 30



PIPE JACKING ISOMETRIC VIEW

SCALE

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
3. CONCRETE GRADE SHALL BE 35 Mpa/19 mm FOR REINFORCED CONCRETE
4. CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
6. ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

PIPE JACKING LOCATION		
No.	LOCATION	LENGTH
1	OVER MARLBORO DRIVE, FROM LILUM AVE TO SOUTH RD, MARLBORO GARDENS	75m
2	OVER WOODLANDS DRIVE VIA R55 (WOODMEAD DRIVE), WOODMEAD	35m
3	OVER SOUTH ROAD, ADJACENT TO IMPALA RD, MARLBORO GARDENS	40m

REFERENCE DRAWINGS

JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
JW14358-16941-T-017-S09-00-TMS - CAST IN AIR VENT, COVERS, ACCESS LADDERS

FOR TENDER

THE MASTER HELD AT NYELETI CONSULTING,
BEARS THE ORIGINAL SIGNATURE OF APPROVAL
CONSULTING ENGINEERS

Nyeleti
Engineered to Excel
Woodhill Office park
53 Phillip Engelbrecht Drive
Alberton
1450
CLIENT
Johannesburg Water SOC LTD
Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

DESIGNED	C. MOODLEY	
DRAWN	C. MOODLEY	
CHECKED	T. FOSA	DATE:
	SIGNATURE	
	ECSA REG. No	
APPROVED BY:	P. GROBLER	DATE:
	SIGNATURE	
	ECSA REG. No	950304



Turbine Hall
65 Ntengi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE

DN 600 PIPE JACKING DETAIL
SHEET 1 OF 2

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	A	ISSUED FOR TENDER	PG	2023-02-13

DRAWING No.: JW14358-16941-T-017-S11-00-TMS

CONTRACT No.: JW14358

UR1305B

A

PROJECT No.

REV.

A1

SHEET

1

OF

2

ORIGINAL PAGE SIZE
FILE No.

STEEL STRAP PLAN VIEW

SCALE 1 : 20

STEEL STRAP SECTION VIEW

SCALE 1 : 20

STEEL STRAP ISOMETRIC VIEW

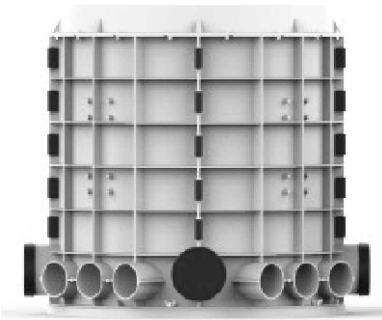
CHAMBER SECTION VIEW
SCALE 1 : 30

CHAMBER ISOMETRIC VIEW

PIPE JACKING LOCATION		
No.	LOCATION	LENGTH
1	OVER MARLBORO DRIVE, FROM LILIUIM AVE TO SOUTH RD, MARLBORO GARDENS	75m
2	OVER WOODLANDS DRIVE VIA R55 (WOODMEAD DRIVE), WOODMEAD	35m
3	OVER SOUTH ROAD, ADJACENT TO IMPALA RD, MARLBORO GARDENS	40m

REFERENCE DRAWINGS
JW14358-16941-T-004-S01-00-TMS - GENERAL NOTES
JW14358-16941-T-017-S09-00-TMS - CAST IN AIR VENT, COVERS, ACCESS LADDERS
FOR TENDER

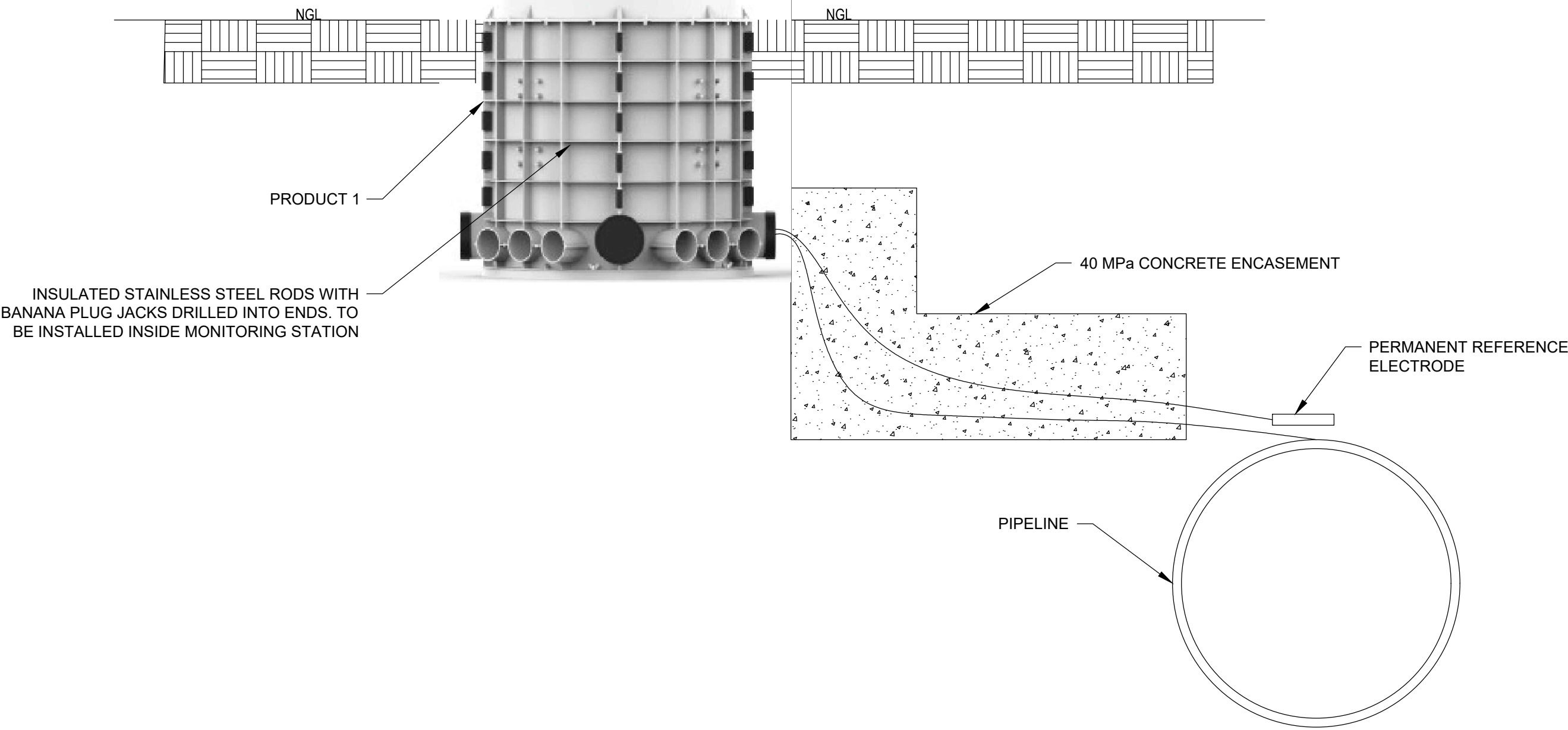
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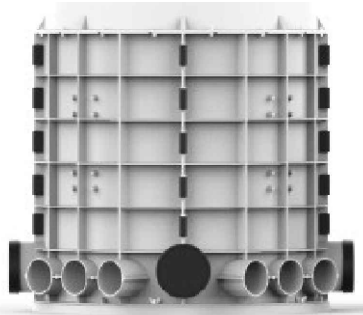
BELOW GROUND MONITORING STATION ENCLOSURE

PRODUCT 1
SCALE 1:1000

- SPECIFICATIONS:**
- RHI-NODE 1000 DUDC (or equivalent) - FOR SINGLE PHASE 3KW SWITCH-MODE CP RECTIFIER
- PRE-CAST SMC CHAMBER WITH RETRACTABLE STAINLESS-STEEL FRAME
- LOAD AND IMPACT STRENGTH
 - SANS 558:2009 HD ROADWAY
 - SANS- 558: EN -124 B125 (125 kN)
 - UV STABILISED SMC - 30% GLASS FIBRE CONTENT
 - OPENING AND DEPTH OF CHAMBER
 - DAYLIGHT OPENING 650 mm
 - DEPTH 1000 mm
 - METAL COMPONENTS AND FASTENERS
 - 304 STAINLESS STEEL
 - WATER INGRESS PROTECTION
 - IP 68
 - QUALITY ASSURED
 - ISO 9001
 - LOCKING MECHANISM
 - MECHANICAL AND ELECTRONIC LOCKING SYSTEM COMPLETE WITH ALARM MONITORING DEVICES & CENTRALIZED MANAGEMENT PLATFORM
 - LID SURFACE
 - DUAL LID SYSTEM FOR WATER INGRESS PROTECTION, RAISED AND HAVE A NON-SLIP PATTERN.



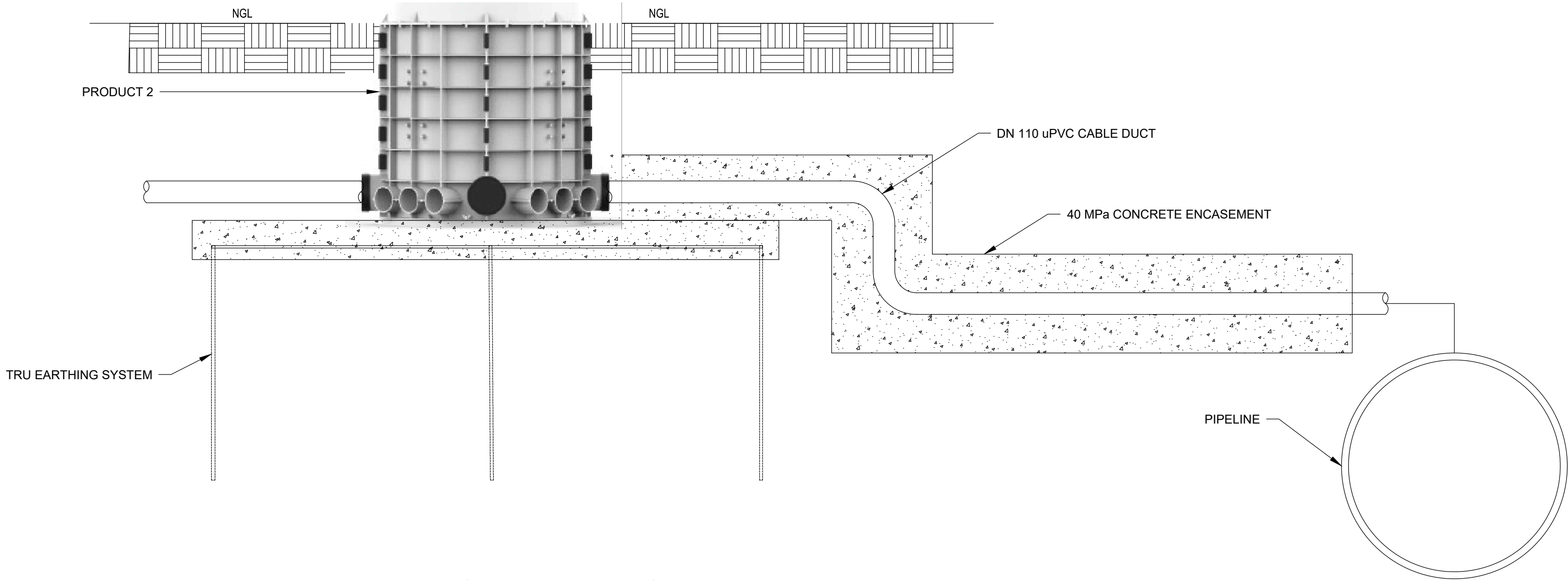
BELOW GROUND MONITORING STATION
SCALE NTS



TRU/NDU ENCLOSURE

PRODUCT 2
SCALE 1:1000

- SPECIFICATIONS:**
- RHI-NODE 600 (or equivalent) - FOR DRY UNDERGROUND INTELLIGENT TEST POST
- PRE-CAST SMC CHAMBER
- LOAD AND IMPACT STRENGTH
 - SANS 558 MD (40 kN)
 - UV STABILISED SMC - 30% GLASS FIBRE CONTENT
 - OPENING AND DEPTH OF CHAMBER
 - DAYLIGHT OPENING 350MM
 - DEPTH 600MM
 - METAL COMPONENTS AND FASTENERS
 - 304 STAINLESS STEEL
 - WATER INGRESS PROTECTION
 - IP 68
 - QUALITY ASSURED
 - ISO 9001
 - LOCKING MECHANISM
 - MECHANICAL AND ELECTRONIC LOCKING SYSTEM COMPLETE WITH ALARM MONITORING DEVICES & CENTRALIZED MANAGEMENT PLATFORM
 - LID SURFACE
 - DUAL LID SYSTEM FOR WATER INGRESS PROTECTION, RAISED AND HAVE A NON-SLIP PATTERN.



TRU/NDU ENCLOSURE INSTALLATION DETAIL
SCALE NTS

GENERAL

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
- ALL LEVELS ARE IN METERS ABOVE SEA LEVEL UNLESS OTHERWISE SHOWN
- CONCRETE GRADE SHALL BE 30 Mpa/19 mm FOR REINFORCED CONCRETE
- CONCRETE GRADE SHALL BE 15 Mpa/19 mm FOR ALL BLINDING
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS SET OUT IN THE CONTRACT DOCUMENT.
- ALL MECHANICAL EQUIPMENT IS TO BE VERIFIED WITH THE ENGINEER ON SITE PRIOR PURCHASE AND INSTALLATION TO ENSURE AND ALLOW FOR NECESSARY RECESS ON CONCRETE AND REINFORCEMENT ADJUSTMENTS
- REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

REFERENCE DRAWINGS

JW14358-16941-T-011-S10-00-TMS - LAYOUT AND SETTING OUT

JW14358-16941-T-015-S03-00-TMS - PIPELINE AND NODE SETTING OUT

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	G.J.TURNER	
	DRAWN	T.FOSA	
	CHECKED	G.J.TURNER	DATE: 2023-01-09
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	G.J.TURNER	DATE 2023-01-09
		SIGNATURE	
		ECSA REG. No	20080049



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

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FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
CATHODIC PROTECTION
MONITORING STATION AND TRU/NDU ENCLOSURES

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
AS SHOWN	A	ISSUED FOR TENDER	G.J.TURNER	2023-01-20

DRAWING No. JW14358-16941-T-018-S02-00-TMS

CONTRACT No.: JW14358

UR1305B

A

PROJECT No.

REV.

A1

SHEET

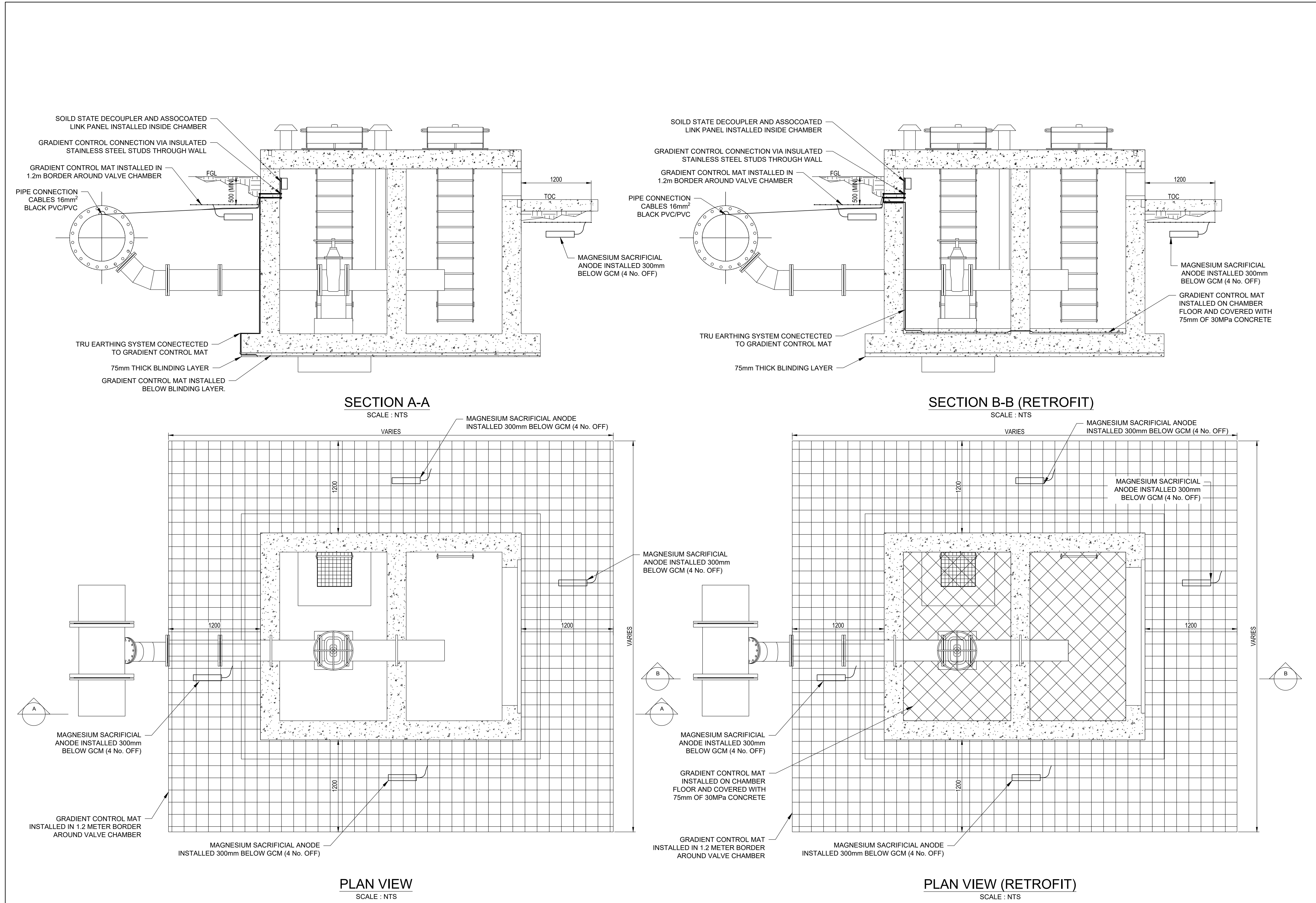
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- GENERAL
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 7. REFER TO DRAWING JW14358-16941-T-004-S01-00-TMS FOR GENERAL NOTES

CHAMBER CLASIFICATION	ROOF AREA	NO. Off
SMALL	UNDER 25 m ²	15
MEDIUM	25 m ² TO 50 m ²	6
LARGE	OVER m ²	2

REFERENCE DRAWINGS

JW14358-16941-T-011-S10-00-TMS - LAYOUT AND SETTING OUT

JW14358-16941-T-015-S03-00-TMS - PIPELINE AND NODE SETTING OUT

FOR TENDER

CONSULTING ENGINEERS  Woodhill Office park 53 Phillip Engelbrecht Drive Alberton 1450 CLIENT Johannesburg Water SOC LTD Turbine Hall 65 Ntemi Piliso Street Newtown, Johannesburg	DESIGNED	G.J.TURNER	
	DRAWN	T.FOSA	
	CHECKED	G.J.TURNER	DATE: 2023-01-09
		SIGNATURE	
		ECSA REG. No	
	APPROVED BY:	P.GROBLER	DATE 2023-01-09
		SIGNATURE	
		ECSA REG. No	950304



Turbine Hall
65 Ntemi Piliso Street
Newtown, Johannesburg

TEL: (011) 688-1400
FAX: (011) 688-1529



WOODMEAD WATER UPGRADE
CATHODIC PROTECTION
GRADIENT CONTROL MAT FOR VALVE CHAMBERS

AMENDMENTS

SCALE	REV:	DESCRIPTION	APPROVED	DATE:
1:1000	C	ISSUED FOR TENDER	P.GROBLER	2023-01-09

DRAWING No. JW14358-16941-T-018-S03-00-TMS			
CONTRACT No.: JW14358			
UR1305B		A	
PROJECT No.		REV.	
A1	SHEET	1	OF 1
ORIGINAL PAGE SIZE			
FILE No.			