



BOOK OF DRAWINGS



REVISIONS			
No	DATE	INIT	DESCRIPTION

PROJECT
CONSTRUCTION OF SETATENG WATER RETICULATION
CONTRACT No. JSM-W02/21-22/W28

TITLE
Dr JS MOROKA LOCAL MUNICIPALITY

BOOK OF DRAWINGS

CLIENT:

Dr JS Moroka Local Municipality
2601/3 Bongimfundo Street,
Siyabuswa, 0472
Tel: 013 973 1390/1101 Fax: 013 973 2463

CONSULTANT:

Unit 101, The Office Park,
90 Schoeman Street,
Polokwane, 0699
Tel: 015 065 0585/010 880 0138

SCALE ON REDUCED DRAWING
80mm SCALE ON ORIGINAL DRAWING

DESIGNED/DRAWN VL RATSHIBVUMO	CHECKED F. BALOYI-Pr.ENG
PROJECT MANAGER AB MABUNZA	APPROVED
DATE JUNE 2021	SCALE AS SHOWN

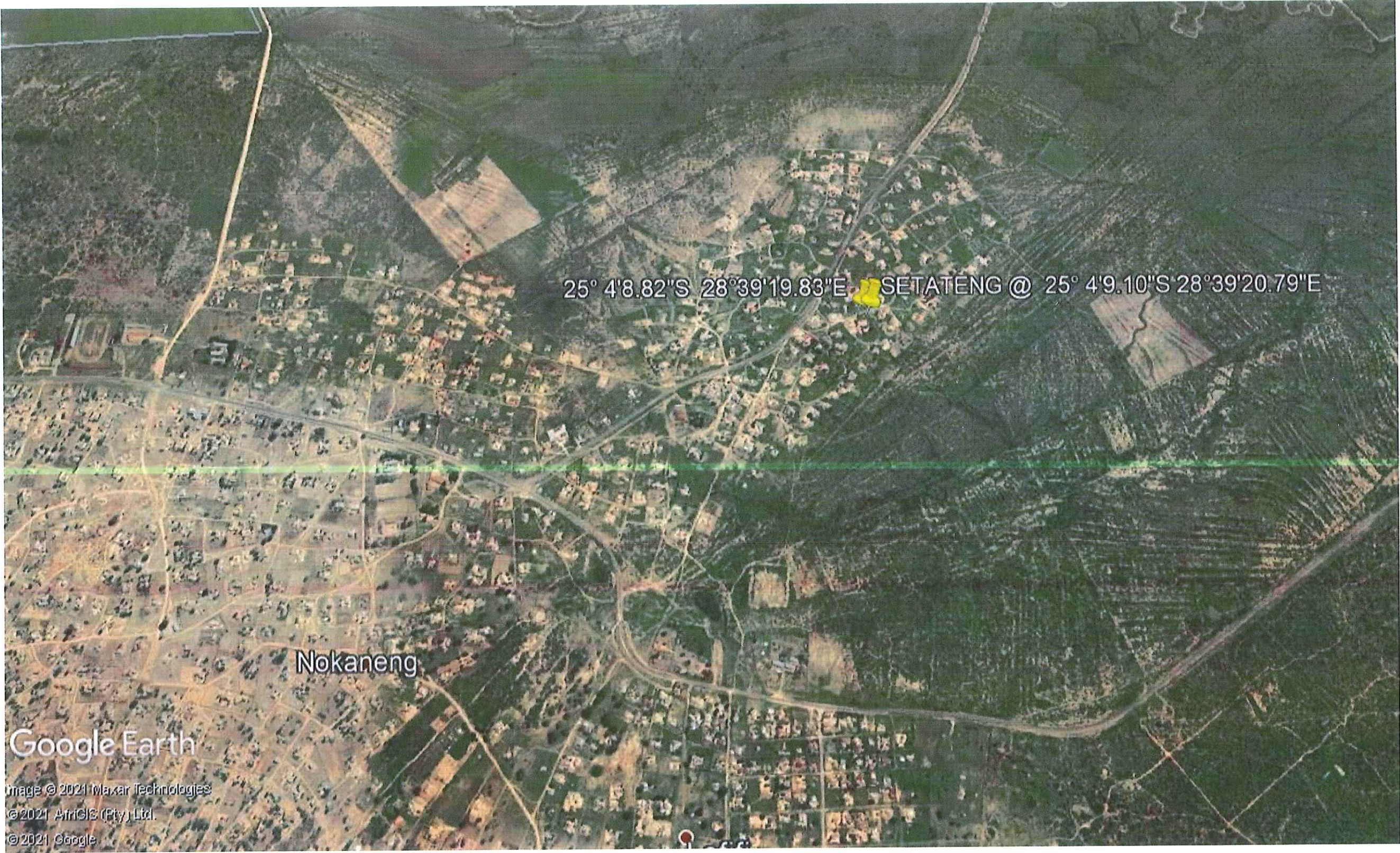
BOOK OF DRAWINGS

REVISION
0

ANNEXURE

JUNE 2021

REVISIONS		
DATE	INIT	DESCRIPTION
PROJECT		
CONSTRUCTION OF SETATENG WATER RETICULATION		
CONTRACT No. JSM-W02/21-22/W28		
TITLE		
DRAWING LIST		
CLIENT		
 Dr JS Moroka Local Municipality 2601/3 Bongimfundo Street, Siyabuswa, 0472 Tel: 013 973 1390/1101 Fax: 013 973 2463		
MUNICIPALITY		
 Dr JS Moroka Local Municipality 2601/3 Bongimfundo Street, Siyabuswa, 0472 Tel: 013 973 1390/1101 Fax: 013 973 2463		
CONSULTANT:		
 Unit 101, The Office Park, 90 Schoeman Street, Polokwane, 0699 Tel: 015 065 0585/010 880 0138		
SCALE ON REDUCED DRAWING  80mm SCALE ON ORIGINAL DRAWING		
DESIGNED/DRAWN A.B MABUNDZA PROJECT MANAGER VL RATSHIBVUMO		CHECKED F. BALOYI-Pr.ENG APPROVED
DATE JUNE 2021		SCALE AS SHOWN
DRAWING LIST		REVISION
		 0



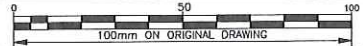
						CLIENT		CONSULTANT		CLIENT		PROJECT						
						 Dr JS Moroka Local Municipality 2601/3 Bongimfundo Street, Siyabuswa, 0472 Tel: 013 973 1390/1101 Fax: 013 973 2463		 Unit 101, The Office Park, 90 Schoeman Street, Polokwane, 0699 Tel: 015 065 0585/010 880 0138		DESIGNED/DRAWN BY VL RATHIBVINDO		DATE	APPROVED BY	DATE	CONSTRUCTION OF SETATENG WATER RETICULATION			
										PROJECT MANAGER AB MABUNDA		DATE	DRAWING TITLE LOCALITY MAP					
										CHECKED BY FIDELIS BALOYI-PL-ENG		DATE	PR. ENG. No.	DRAWING No. 106/DrJSM/MUN/06/2021/LP/01	REVISION 0			
REVISION		DATE	DATE	DATE	DATE					DATE	SCALE							
		CHECKED	APPROVED															
				REFERENCES														

Coordinate List Lo 29		
SETATENG 3		
Node	YLo	XLo
Const:		
W1	34 902.445	2 773 096.820
W2	34 801.810	2 773 103.455
W3	34 675.707	2 773 113.348
W4	34 496.190	2 773 130.407
W5	34 387.843	2 773 184.073
W6	34 520.660	2 773 198.474
W7	34 711.372	2 773 222.280
W8	34 324.220	2 773 248.676
W9	34 835.258	2 773 300.034
W10	34 562.185	2 773 311.589
W11	34 462.558	2 773 326.136
W12	34 544.517	2 773 378.228
W13	34 737.292	2 773 390.030
W14	34 219.241	2 773 404.143
W15	34 367.176	2 773 411.850
W16	34 912.139	2 773 438.961
W17	34 890.651	2 773 442.535
W18	34 407.772	2 773 453.499
W19	34 915.924	2 773 456.397
W20	34 782.577	2 773 468.265
W21	35 031.805	2 773 488.579
W22	34 779.984	2 773 512.710
W23	34 340.908	2 773 532.853
W24	34 657.095	2 773 540.966
W25	35 219.823	2 773 543.308
W26	35 454.784	2 773 549.445
W27	35 026.114	2 773 550.906
W28	34 894.940	2 773 552.333
W29	34 382.944	2 773 572.774
W30	34 921.666	2 773 585.061
W31	34 849.422	2 773 588.224
W32	34 547.950	2 773 597.309
W33	35 039.705	2 773 645.819
W34	34 736.985	2 773 646.548
W35	34 600.979	2 773 651.711
W36	35 256.899	2 773 658.307
W37	34 835.581	2 773 660.145
W38	34 480.628	2 773 660.721
W39	34 866.959	2 773 664.472
W40	35 362.123	2 773 675.320
W41	34 553.666	2 773 681.336
W42	35 266.182	2 773 687.102
W43	35 084.623	2 773 690.337
W44	34 677.913	2 773 719.150
W45	34 689.559	2 773 724.010
W46	35 080.975	2 773 727.845
W47	34 735.289	2 773 743.096
W48	34 945.096	2 773 759.921
W49	34 819.040	2 773 773.779
W50	35 431.193	2 773 791.090
W51	35 074.442	2 773 795.013
W52	34 861.191	2 773 795.641
W53	35 284.232	2 773 797.035
W54	34 860.549	2 773 810.251
W55	35 106.197	2 773 814.879
W56	35 205.613	2 773 818.834
W57	34 679.874	2 773 819.325
W58	35 202.842	2 773 922.904
W59	35 364.143	2 773 938.123
W60	35 043.848	2 773 942.774
W61	34 990.220	2 773 966.204
W62	35 254.431	2 773 984.553
W63	35 193.926	2 773 987.873
W64	35 161.126	2 774 002.309
W65	35 088.853	2 774 034.338
W66	35 346.171	2 774 043.331
W67	35 381.908	2 774 066.228
W68	35 237.046	2 774 186.783
W69	35 532.995	2 774 187.739
W70	35 457.580	2 774 192.894
W71	35 368.426	2 774 198.987
W72	35 089.863	2 774 203.740
W73	35 047.125	2 774 205.679
W74	35 583.729	2 774 210.710
W75	35 178.836	2 774 227.249
W76	35 127.197	2 774 258.373
W77	35 710.690	2 774 305.101
W78	35 553.170	2 774 320.888
W79	35 497.957	2 774 413.454
W80	35 326.383	2 774 543.567
W81	35 403.083	2 774 543.567
W82	35 383.290	2 774 543.567

Pipe Data List				
Node	Node	Length	Dia.	MATERIAL/CLASS
SETATENG 3				
(m)	(m)	(mm)		
W1	- W2	100.85	90	uPVC 9
W1	- W26	714.11	90	uPVC 9
W2	- W3	126.49	90	uPVC 9
W2	- W9	199.40	90	uPVC 9
W3	- W4	180.33	90	uPVC 9
W3	- W7	114.62	90	uPVC 9
W4	- W5	139.11	90	uPVC 9
W4	- W6	72.33	90	uPVC 9
W5	- W8	77.95	90	uPVC 9
W7	- W13	169.74	90	uPVC 9
W8	- W11	158.55	90	uPVC 9
W8	- W14	187.59	90	uPVC 9
W9	- W17	152.89	90	uPVC 9
W10	- W12	68.94	90	uPVC 9
W11	- W12	97.11	90	uPVC 9
W11	- W15	128.24	90	uPVC 9
W12	- W22	271.16	90	uPVC 9
W13	- W20	90.40	90	uPVC 9
W15	- W18	58.16	90	uPVC 9
W16	- W17	21.78	90	uPVC 9
W16	- W19	17.84	90	uPVC 9
W17	- W20	111.09	90	uPVC 9
W18	- W23	103.77	90	uPVC 9
W18	- W32	200.83	90	uPVC 9
W19	- W21	120.27	90	uPVC 9
W20	- W31	137.33	90	uPVC 9
W21	- W25	195.82	90	uPVC 9
W21	- W27	62.59	90	uPVC 9
W22	- W37	157.57	90	uPVC 9
W23	- W29	57.97	90	uPVC 9
W24	- W35	124.15	90	uPVC 9
W25	- W38	120.83	90	uPVC 9
W26	- W40	156.30	90	uPVC 9
W27	- W33	95.88	90	uPVC 9
W28	- W30	42.25	90	uPVC 9
W28	- W31	57.97	90	uPVC 9
W31	- W48	196.55	90	uPVC 9
W32	- W35	75.97	90	uPVC 9
W32	- W38	92.48	90	uPVC 9
W34	- W37	99.53	90	uPVC 9
W34	- W45	90.83	90	uPVC 9
W35	- W41	55.82	90	uPVC 9
W36	- W42	30.25	90	uPVC 9
W36	- W43	175.23	90	uPVC 9
W37	- W39	31.67	90	uPVC 9
W39	- W52	131.30	90	uPVC 9
W40	- W42	96.66	90	uPVC 9
W41	- W49	113.22	90	uPVC 9
W43	- W46	37.69	90	uPVC 9
W44	- W45	12.62	90	uPVC 9
W44	- W49	80.31	90	uPVC 9
W45	- W47	49.55	90	uPVC 9
W46	- W48	139.61	90	uPVC 9
W46	- W51	67.49	90	uPVC 9
W47	- W52	136.43	90	uPVC 9
W47	- W57	94.24	90	uPVC 9
W50	- W53	147.08	90	uPVC 9
W51	- W55	37.46	90	uPVC 9
W52	- W54	14.62	90	uPVC 9
W53	- W56	81.58	90	uPVC 9
W53	- W59	162.15	90	uPVC 9
W54	- W61	202.82	90	uPVC 9
W55	- W56	59.49	90	uPVC 9
W56	- W58	104.11	90	uPVC 9
W57	- W73	533.05	90	uPVC 9
W59	- W66	106.73	90	uPVC 9
W60	- W61	58.52	90	uPVC 9
W60	- W65	102.03	90	uPVC 9
W62	- W63	60.60	90	uPVC 9
W62	- W66	108.95	90	uPVC 9
W63	- W64	35.84	90	uPVC 9
W64	- W65	79.05	90	uPVC 9
W64	- W68	199.49	90	uPVC 9
W65	- W75	212.87	90	uPVC 9
W66	- W67	42.44	90	uPVC 9
W67	- W71	133.44	90	uPVC 9
W69	- W70	76.59	90	uPVC 9
W69	- W74	55.69	90	uPVC 9
W70	- W71	89.36	90	uPVC 9
W70	- W79	224.23	90	uPVC 9
W71	- W82	344.90	90	uPVC 9
W72	- W73	42.78	90	uPVC 9
W72	- W76	66.17	90	uPVC 9
W74	- W78	114.34	90	uPVC 9
W75	- W76	60.29	90	uPVC 9
W75	- W80	349.04	90	uPVC 9
W77	- W79	238.74	90	uPVC 9
W80	- W82	56.91	90	uPVC 9
W81	- W82	19.77	90	uPVC 9

PIPE MATERIAL LIST		
Diameter (mm)	Class	Length (m)
uPVC		
90	9	10959.82
Total length:		10959.82



VERSION/AMENDMENTS <table border="1"> <tr> <th>No.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>AUTHORISED BY</th> </tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>				No.	DATE	DESCRIPTION	AUTHORISED BY																																									CLIENT:  Dr JS Moroka Local Municipality 2601/3 Bongimfundo Street, Siyobuswa, 0472 Tel: 013 973 1390/1101 Fax: 013 973 2463		CONSULTANT:  Unit 101, The Office Park, 90 Schoeman Street, Polokwane, 0699 Tel: 015 065 0585/010 880 0138		PROJECT NAME: CONSTRUCTION OF SETATENG WATER RETICULATION DRAWING TITLE: WATER LAYOUT		LEGEND — 90mm Diameter uPVC water Pipe Class 9		 SCALE ON ORIGINAL DRAWING: AS SHOWN APPROVED: CLIENT OR ASSIGNEE: _____ DATE: _____ CLIENT DRAWING No.: 105/DrJSM/MUN/06/2021/ML/01		<table border="1"> <tr> <td>SURVEYED</td> <td>MANAGER</td> <td>A B MABUNZA</td> </tr> <tr> <td>DRAWN</td> <td>VL RATSHIBUMU</td> <td>CHECKED F. BALOYI-Pr.ENG</td> </tr> <tr> <td colspan="3">DATE: JUNE 2021</td> </tr> <tr> <td colspan="3">APPROVED ON BEHALF OF PHAMELA ENGINEERING SERVICES</td> </tr> <tr> <td>ENGINEER:</td> <td colspan="2">DATE:</td> </tr> <tr> <td colspan="3">VERSION: 0</td> </tr> </table>		SURVEYED	MANAGER	A B MABUNZA	DRAWN	VL RATSHIBUMU	CHECKED F. BALOYI-Pr.ENG	DATE: JUNE 2021			APPROVED ON BEHALF OF PHAMELA ENGINEERING SERVICES			ENGINEER:	DATE:		VERSION: 0		
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Dr JS Moroka Local Municipality
2601/3 Bongimfundo Street,
Siyabuswa, 0472
Tel: 013 973 1390/1101 Fax: 013 973 2463

CONSULTANT:



Unit 101, The Office Park,
90 Schoeman Street,
Polokwane, 0699
Tel: 015 065 0585/010 880 0138

PROJECT NAME:

CONSTRUCTION OF SETATENG WATER RETICULATION

DRAWING TITLE:

WATER LAYOUT
PORTION 1

LEGEND

— 90mm Diameter uPVC water Pipe Class 9

■ FH FIRE HYDRANT

⊗ ISOLATION VALVES

0 50 100
100mm ON ORIGINAL DRAWING

SCALE ON ORIGINAL DRAWING: AS SHOWN

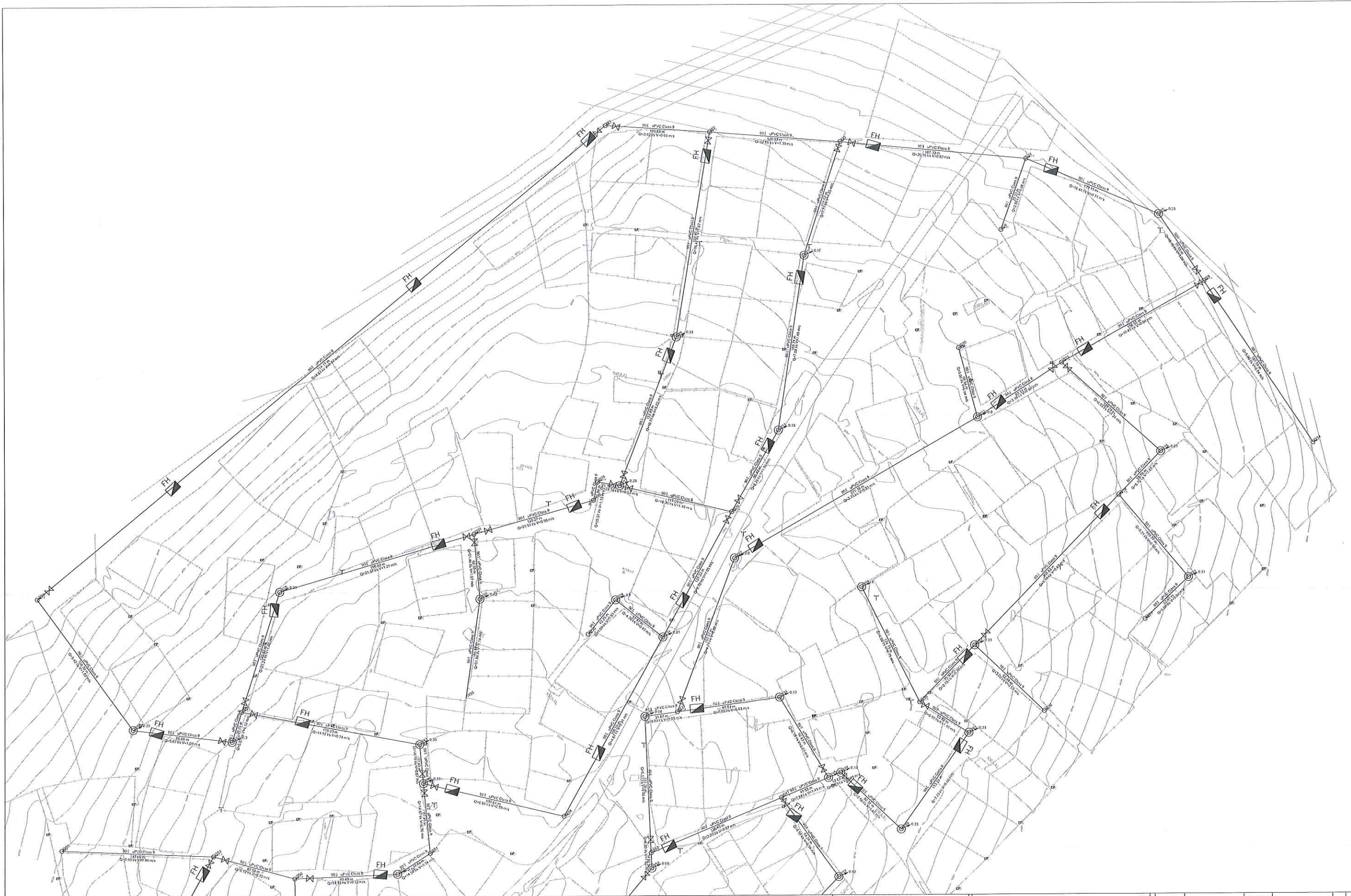
APPROVED:

CLIENT OR ASSIGNEE: _____ DATE: _____

CLIENT DRAWING No.: _____

105/DrJS/MUN/06/2021/WLP1/01

SURVEYED	MANAGER	A.B. MABUNDA
DRAWN	CHECKED	F. BALOYI-Pr.ENG
DATE: JUNE 2021		
APPROVED ON BEHALF OF PHAMELA ENGINEERING SERVICES		
ENGINEER:	DATE:	
VERSION:		0



VERSION/AMENDMENTS			
No.	DATE	DESCRIPTION	AUTHORISED BY

CLIENT:



Dr JS Moroka Local Municipality
2601/3 Bongimfundo Street,
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Tel: 013 973 1390/1101 Fax: 013 973 2463

CONSULTANT:



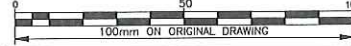
Unit 101, The Office Park,
90 Schoeman Street,
Polokwane, 0699
Tel: 015 065 0585/010 880 0138

PROJECT NAME:
CONSTRUCTION OF SETATENG WATER RETICULATION

DRAWING TITLE:
WATER LAYOUT
PORTION 2

LEGEND

- 90mm Diameter uPVC water Pipe Class 9
- FH FIRE HYDRANT
- X ISOLATION VALVES



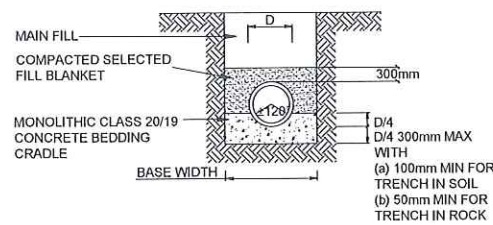
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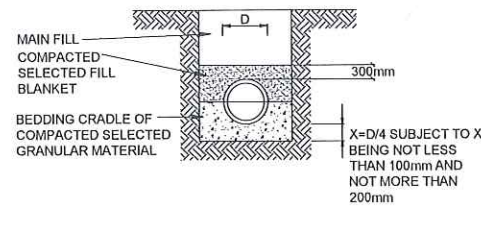
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CLIENT DRAWING No.: 105/DrJSM/MUN/05/2021/WLP2/01

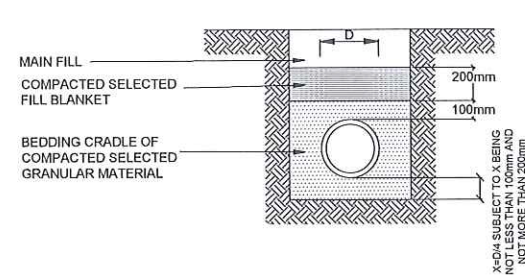
SURVEYED	MANAGER	A.B. MABUNDA
DRAWN	VL. RATSHIBUJO	CHECKED F. BALOYI-Pr.ENG
DATE:	JUNE 2021	
APPROVED ON BEHALF OF PHAMELA ENGINEERING SERVICES		
ENGINEER:	DATE:	VERSION:
		0



RIGID PIPE ON CLASS A BED

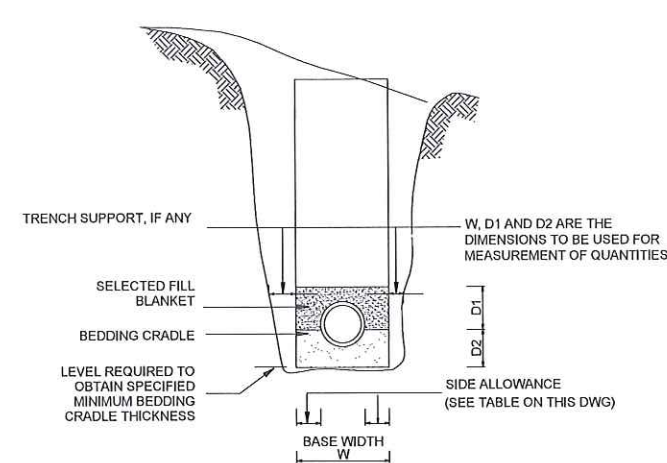


RIGID PIPE ON CLASS B BED



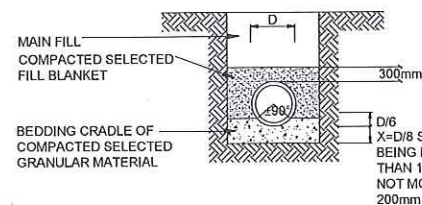
BEDDING FOR FLEXIBLE PIPES

NOT TO SCALE

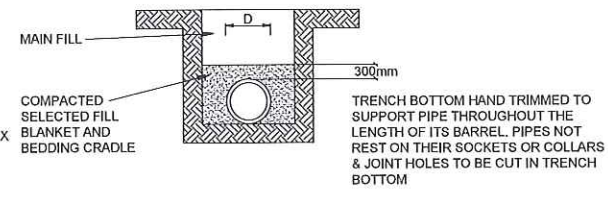


MEASUREMENT OF BEDDING

NOT TO SCALE

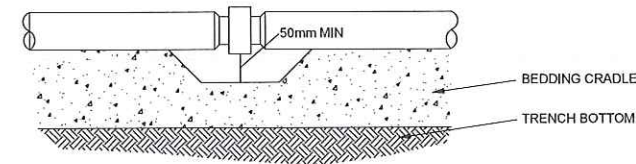


RIGID PIPE ON CLASS C BED

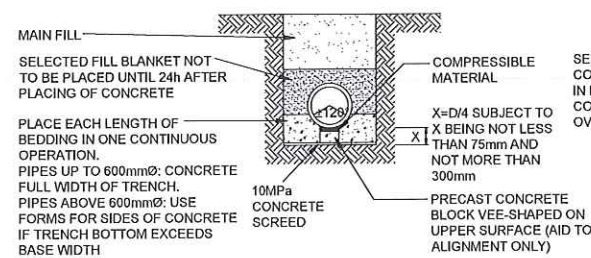


RIGID PIPE ON CLASS D BED

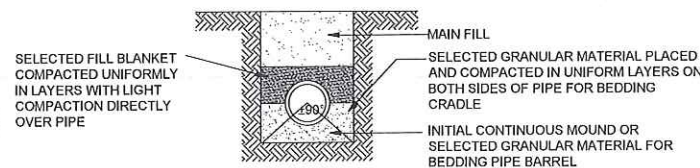
PIPE BEDDING DETAILS



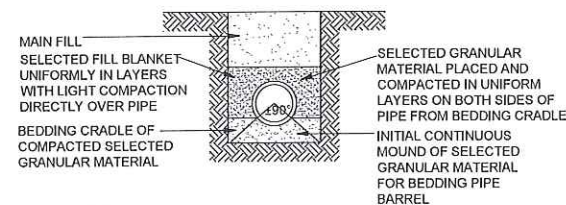
TYPICAL JOINT POCKETS



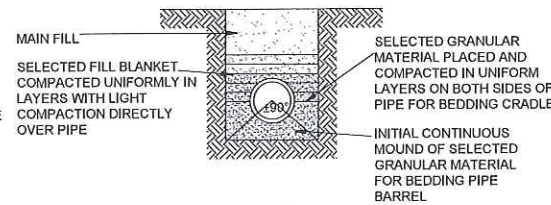
CLASS A BEDDING



CLASS B BEDDING



RIGID PIPE ON CLASS C BED



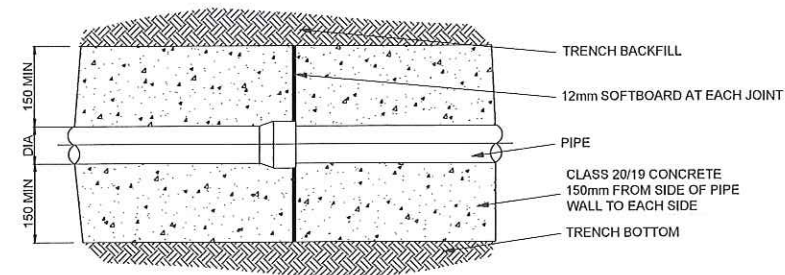
FLEXIBLE PIPE SUPPORTED ON
SELECTED GRANULAR MATERIAL

CONSTRUCTION OF PIPE BEDDING

MINIMUM BASE WIDTH FOR PIPE TRENCHES		
EXTERNAL PIPE DIAMETER (mm)	UP TO AND INCLUDING	SIDE ALLOWANCE ON EACH SIDE (mm)
OVER		
125	125	300
150	150	300
200	200	400
250	250	400
300	300	500
350	350	500
400	400	600
450	450	600
500	500	600
550	550	600
600	600	600

NOTES:
1. FOR TWO OR MORE PIPES IN ONE TRENCH, THE BASE WIDTH SHALL NOT BE LESS THAN THE SUM OF THE PIPE DIAMETER, PLUS EACH OUTER SIDE ALLOWANCE PLUS THE AVERAGE SIDE ALLOWANCE OF BOTH PIPES FOR THE MIDDLE.
2. THE MINIMUM BASE WIDTH FOR PIPES 110mm AND SMALLER WHERE NOT DEEPER THAN 1.5m MAY BE REDUCED TO 600mm.

NOTE:
1. PERMANENT TRENCH DRAINAGE TO BE DONE WITH 100mm THICK 19mm STONE WRAPPED IN NON-WOVEN CONTINUOUS FILAMENT POLYESTER FABRIC (0.21kg/sq m MINIMUM MASS) FOR FULL BEDDING WIDTH ONLY ON WRITTEN INSTRUCTION BY ENGINEER.
2. THE BEDDING AND MAIN FILL SHALL BE COMPACTED IN LAYERS OF THICKNESS NOT EXCEEDING 150mm TO AT LEAST 90% MOD AASHTO. CONTRACTOR TO PROVIDE MEANS TO PERFORM CONTROL TESTS FOR DENSITY. TESTS WITH A DCP MUST BE SUPPORTED WITH CALIBRATION FACTORS FOR THE DCP DETERMINED WITH AN APPROVED METHOD FOR DETERMINING DENSITY FOR EACH TYPE OF MATERIAL.



CONCRETE ENCASEMENT OF PIPES

REVISIONS		
DATE	INIT	DESCRIPTION

PROJECT
CONSTRUCTION OF SETATENG WATER RETICULATION
CONTRACT No. JSM-W02/21-22/W28

TITLE
Dr JS MOROKA LOCAL MUNICIPALITY

BEDDING DETAILS

MUNICIPALITY



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SCALE ON REDUCED DRAWING
80mm SCALE ON ORIGINAL DRAWING

DESIGNED/DRAWN
VL RATSHIBVUMO
PROJECT MANAGER
AB MABUNDZA

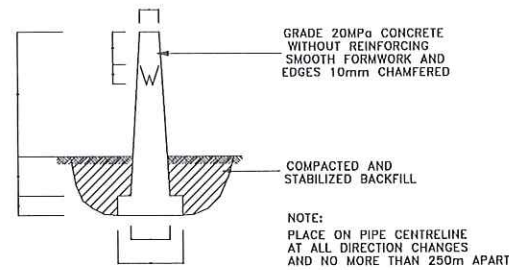
CHECKED
F. BALOYI-Pr.ENG
APPROVED

DATE
JUNE 2021
DRAWING NUMBER

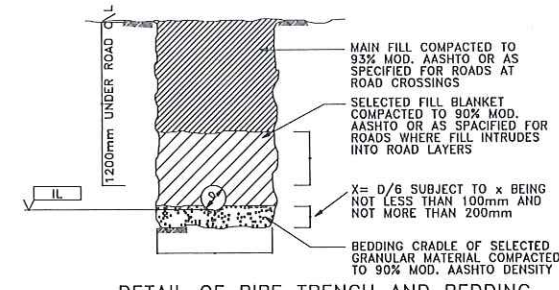
SCALE
AS SHOWN
REVISION

103/DrJSM/MUN/06/2021/BD/SD/01

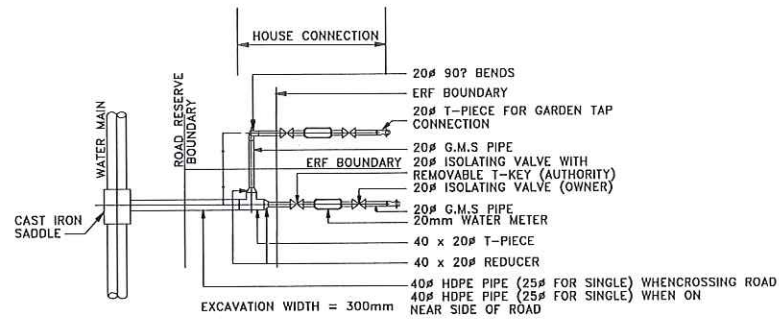
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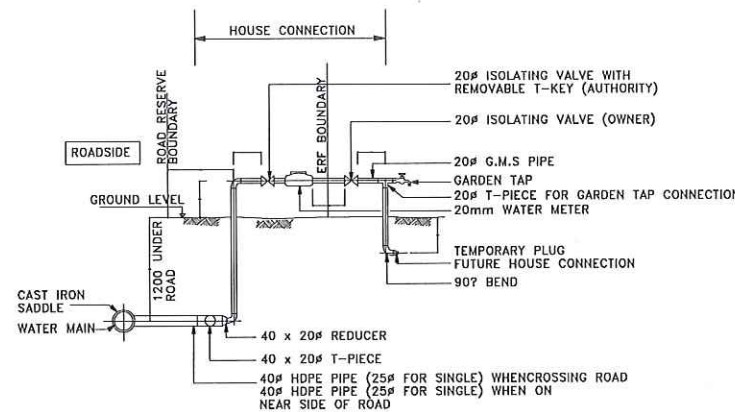
DETAIL OF PIPE LINE MARKERS
SCALE 1:20



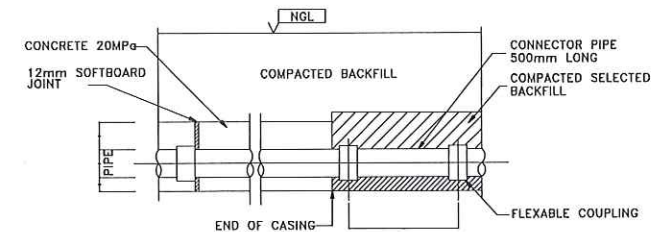
DETAIL OF PIPE TRENCH AND BEDDING
SABS 1200 DB/LB CLASS C
N.T.S.



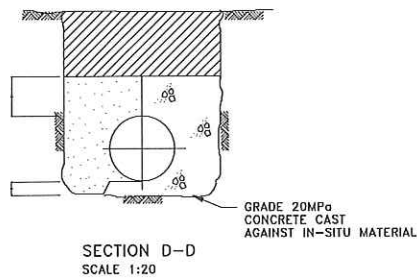
TYPICAL PLAN OF HOUSE CONNECTIONS
NOT TO SCALE



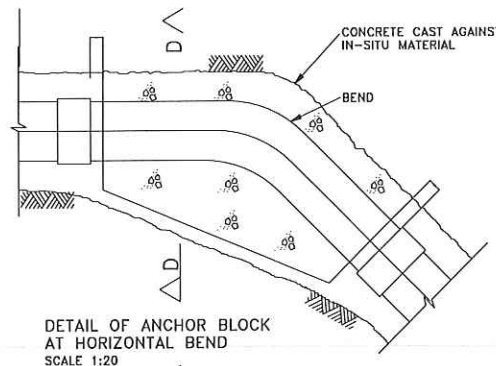
TYPICAL ELEVATION OF HOUSE CONNECTIONS WITH ABOVE GROUND WATER METER
NOT TO SCALE



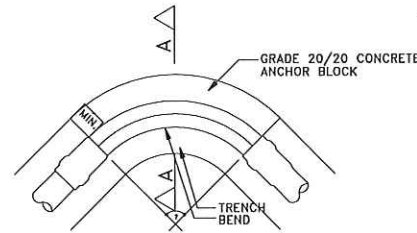
TYPICAL DETAIL BETWEEN ENCASED PIPE AND NORMAL SELECTED BACKFILL
NOT TO SCALE



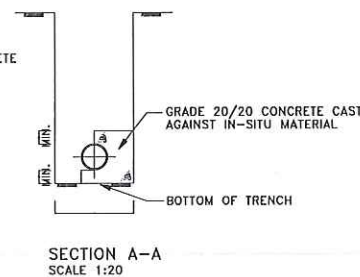
SECTION D-D
SCALE 1:20



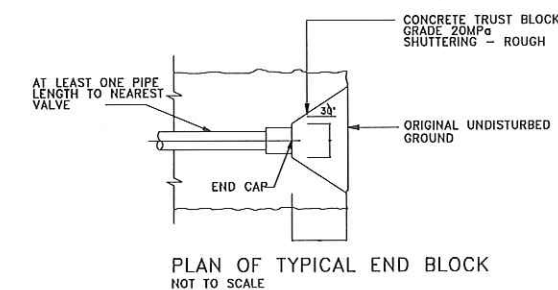
DETAIL OF ANCHOR BLOCK AT HORIZONTAL BEND
SCALE 1:20



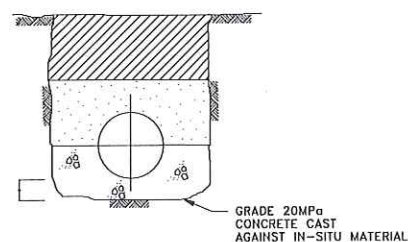
PLAN OF ANCHOR BLOCK AT A 90° BEND
SCALE 1:20



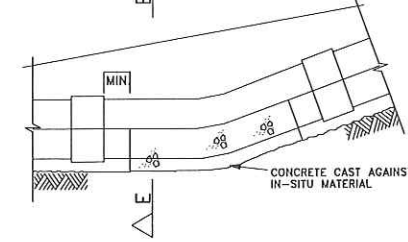
SECTION A-A
SCALE 1:20



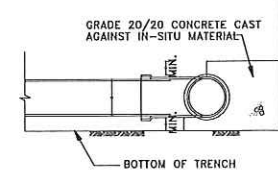
PLAN OF TYPICAL END BLOCK
NOT TO SCALE



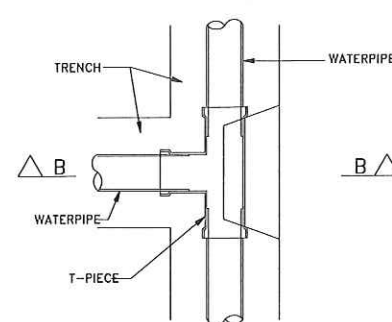
SECTION E-E
SCALE 1:20



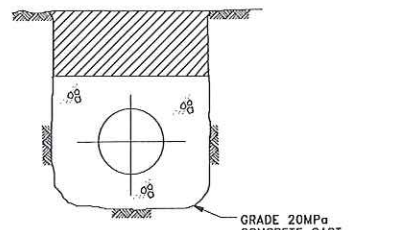
DETAIL OF ANCHOR BLOCK AT UPWARD VERTICAL BEND
SCALE 1:20



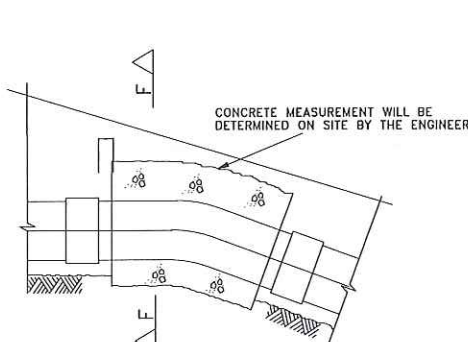
SECTION B-B
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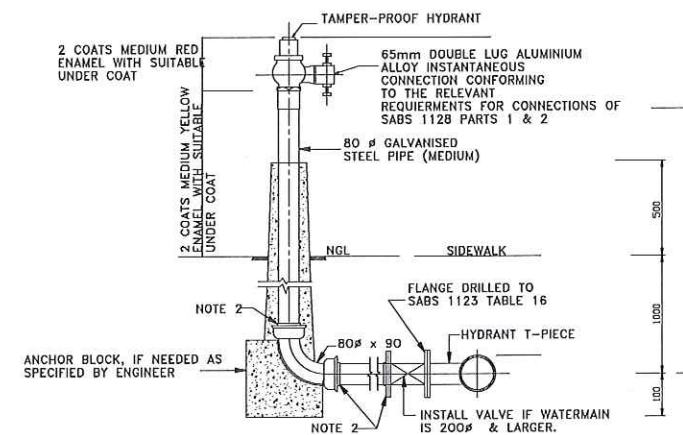
DETAIL OF ANCHOR BLOCK AT A T-PIECE
NOT TO SCALE



SECTION F-F
SCALE 1:20



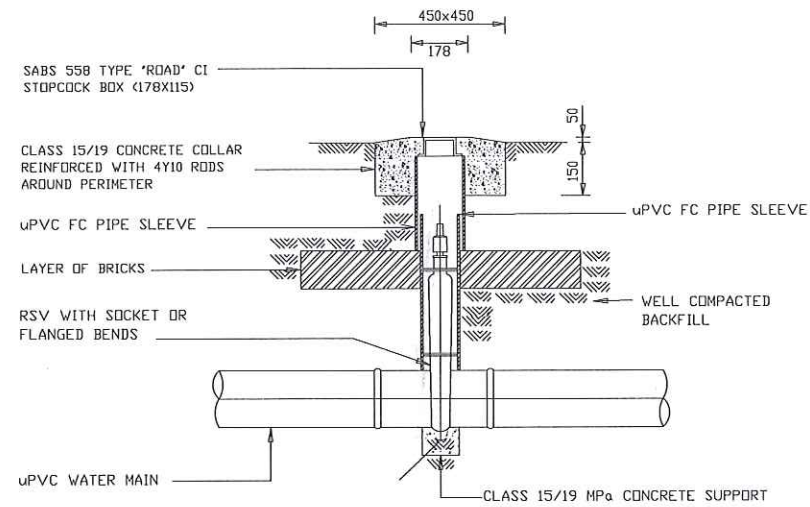
DETAIL OF ANCHOR BLOCK AT UPWARD VERTICAL BEND
SCALE 1:20



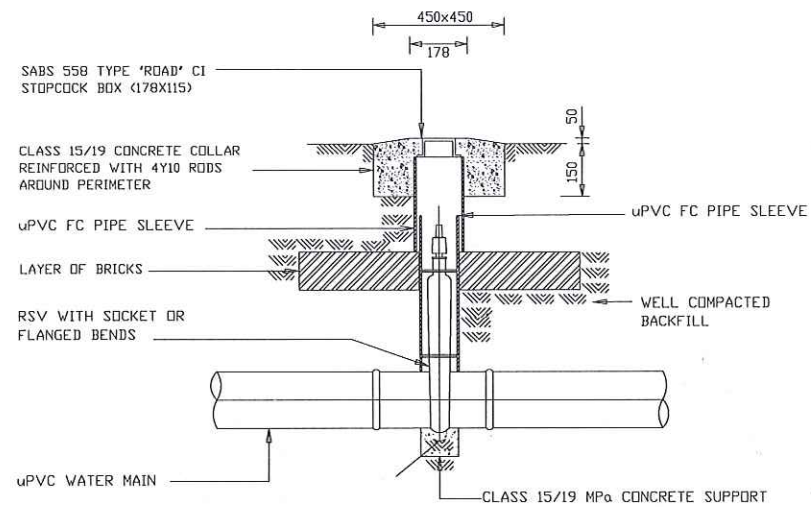
TYPICAL FIRE HYDRANT DETAILS
NOT TO SCALE

- NOTE :
- HYDRANTS MUST BE LOCATED IN COLLABORATION WITH THE CITY ELECTRICAL ENGINEER'S DEPT. SO THAT THEIR POSITIONS DO NOT COINCIDE WITH THOSE SELECTED FOR ELECTRICAL HOUSE CONNECTION BOXES.
 - ALL THREADED CONNECTIONS UNDERGROUND TO BE TAPED WITH "DENSOTAPE" OR SIMILAR.

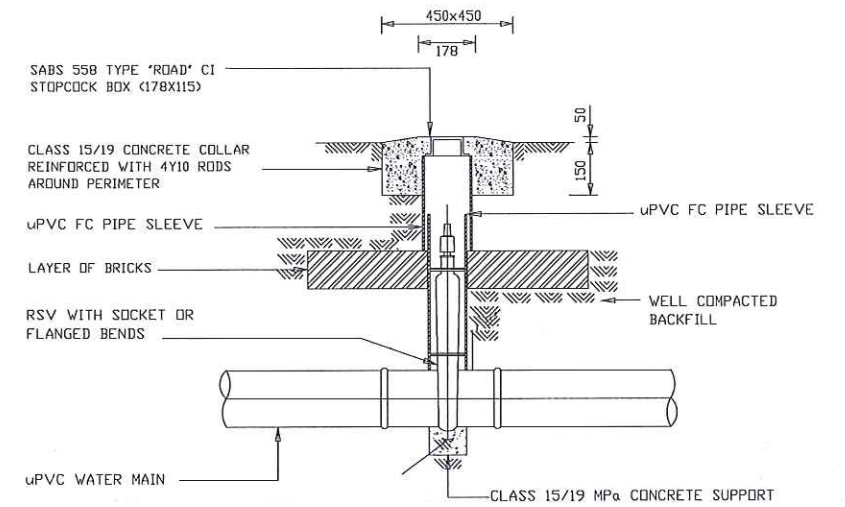
REVISIONS		
DATE	INIT No	DESCRIPTION
PROJECT :		
CONSTRUCTION OF SETATENG WATER RETICULATION		
CONTRACT No. JSM-W02/21-22/W28		
TITLE :		
Dr JS MOROKA LOCAL MUNICIPALITY		
PIPE MARKS, ANCHOR, THRUST BLOCKS AND HOUSE CONNECTION DETAILS		
MUNICIPALITY		
		
Dr JS Moroka Local Municipality		
2601/3 Bongimfundo Street,		
Siyabuswa, 0472		
Tel: 013 973 1390/1101 Fax: 013 973 2463		
CONSULTANT:		
		
Unit 101, The Office Park,		
90 Schoeman Street,		
Polokwane, 0699		
Tel: 015 065 0585/010 880 0138		
SCALE ON REDUCED DRAWING		
80mm SCALE ON ORIGINAL DRAWING		
DESIGNED/DRAWN	CHECKED	
VL RATSHIBVUMO	F. BALOYI-Pr.ENG	
PROJECT MANAGER	APPROVED	
AB MABUNDZA		
DATE	SCALE	
JUNE 2021	AS SHOWN	
DRAWING NUMBER	REVISION	
104/DrJSM/MUN/06/2021/HC/01	0	



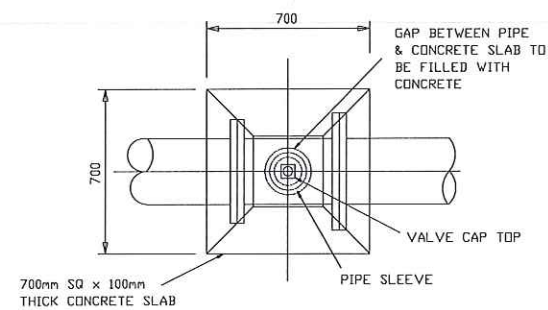
SECTION: ISOLATING VALVE BOX



SECTION: ISOLATING VALVE BOX

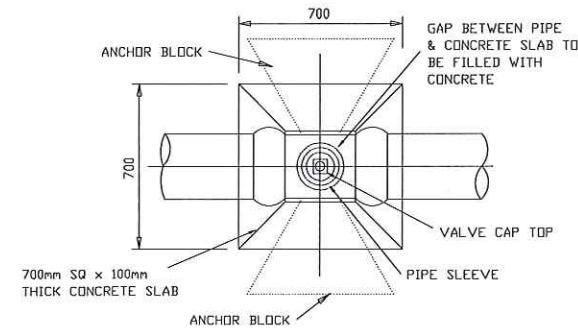


SECTION: ISOLATING VALVE BOX SECTION



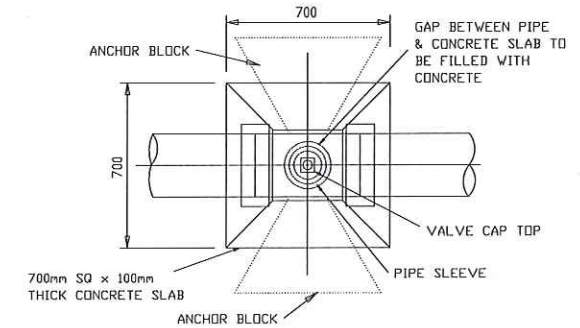
PLAN

VALVE BOX FOR 50-300ND FLANGED PIPEWORK



PLAN

VALVE BOX FOR 63-200ND PVC PIPEWORK



PLAN

VALVE BOX FOR 50-300ND FIBRE CEMENT PIPEWORK

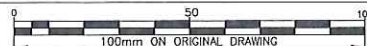
VERSION/AMENDMENTS			
No.	DATE	DESCRIPTION	AUTHORISED BY

CLIENT:	 Dr JS Moroka Local Municipality 2601/3 Bongimfundo Street, Siyabuswa, 0472 Tel: 013 973 1390/1101 Fax: 013 973 2463
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CONSULTANT:	 Unit 101, The Office Park, 90 Schoeman Street, Polokwane, 0699 Tel: 015 065 0585/010 880 0138
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PROJECT NAME:	CONSTRUCTION OF SETATENG WATER RETICULATION
DRAWING TITLE:	ISOLATION VALVE

LEGEND	
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 SCALE ON ORIGINAL DRAWING: AS SHOWN APPROVED: CLIENT OR ASSIGNEE: _____ DATE: _____ CLIENT DRAWING No.: 105/DrJSM/MUN/05/2021/IV/SD/03	SURVEYED DRAWN: VL. RATSHIBVUMO DATE: JUNE 2021 APPROVED ON BEHALF OF PHAMELA ENGINEERING SERVICES ENGINEER: _____ DATE: _____ VERSION: 0
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MANAGER	A.B. MABUNDA
CHECKED	F. BALOYI-Pr.ENG

1. Quality of workmanship to comply with relevant SANS specifications and to comply with the minimum standards prescribed. All requirements of municipal and other authorities concerned have to be adhered to. All work to be done strictly in accordance with the national building regulations and the SANS 0400 minimum standard.
2. The contractor shall be responsible for the correct setting out of the building. All internal and external walls accordingly could be to correct heights, levels and measurements.
3. The contractor is to make sure that all details are clear and contact the engineer if anything is not clear enough.



EXTERNAL FINISHES
 1. Prime — Apply 2 coats of Concrete Compound in accordance with manufacturer's instructions. Colors: Kidstart!
 2. Apply a 20mm thick plaster board and apply 2 coats of Concrete Compound in accordance with manufacturer's instructions. Colors: Gaudy
 3. Cladding — Lay out a 3' strip showing this random size, roughen, tapered stone finishes
 4. Paint — Apply 2 coats of paint, light, solid and exterior to be selected.
 5. Driveways and Walkways — Concrete Compound concrete paving bricks, select Agriplast, pattern: slash bond
DRAINAGE:
 1. Profile the site at all levels and junctions with marked survey
 2. Profile the site at all changes of direction and 15m from main, connection with marked survey and to be accessible at all times.
 3. Profile slash placed at highest level of the closed system.
 4. Profile made place to be 50mm deep.
 5. All soil shall be 100mm per m.
 6. Profile 2 to 3mm voids over an top of all vent pipes.
 7. Drains should have access points and should be accessible at all times
 8. All drains should be 100mm per m.

ROOF NOTES

- Roof covering:IBR roof iron
- Pitch: 6' hip roof(Howe truss)
- Rafter:114x38mm SSAP at 760 c/c
- Wall plate and all membersbars, 114x38mm SSAP-Grade 6
- Tie-beam:152x38mm SSAP at 760 c/c
- Purlins:38x38mm SSAP at 345mm c/c
- Banding:38x38mm SSAP@450mm c/c
- Ceiling:6mm Rhino board
- Gutters:75x100mm
- Downpipe: 75mm diameter

REVISIONS		
DATE	INIT	DESCRIPTION

GUARD HOUSE

MUNICIPALITY/CLIENT



Dr JS Moroka Local Municipality
2601/3 Bongimfundo Street,
Siyanobuswa, 0472
Tel: 013 973 1390/1101 Fax: 013 973 2463

CONSULTANT:

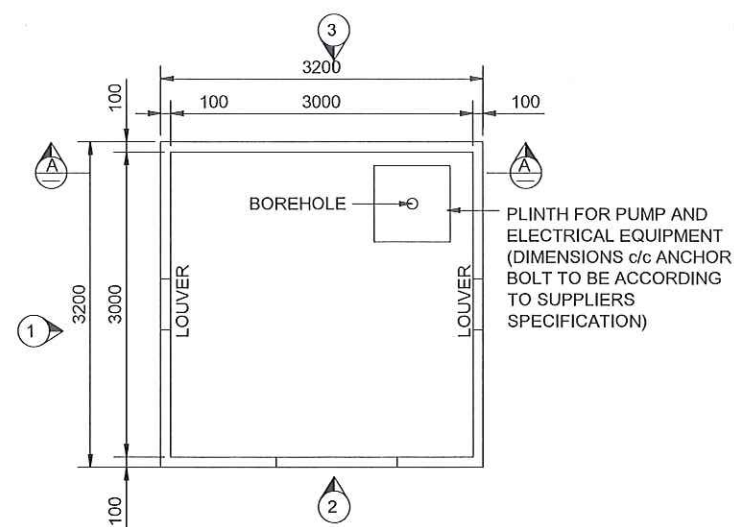


PHAMELA ENGINEERING SERVICES
Unit 101, The Office Park,
90 Schoeman Street,
Polokwane, 0699
Tel: 015 295 2059 / 010 880 0138

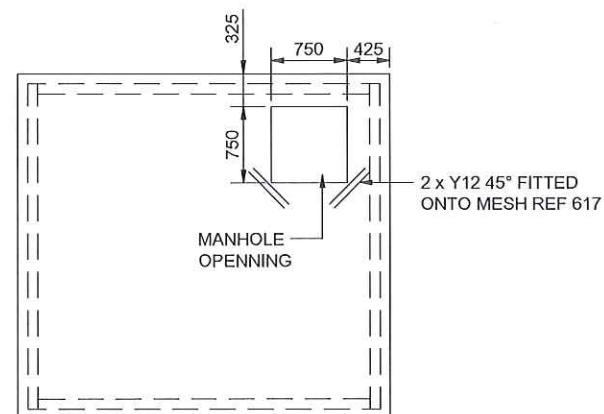
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80mm SCALE ON ORIGINAL DRAWING

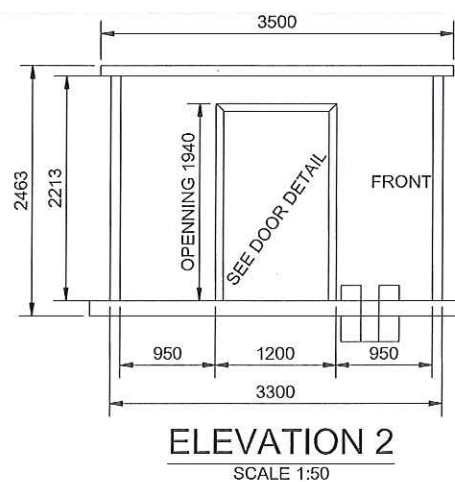
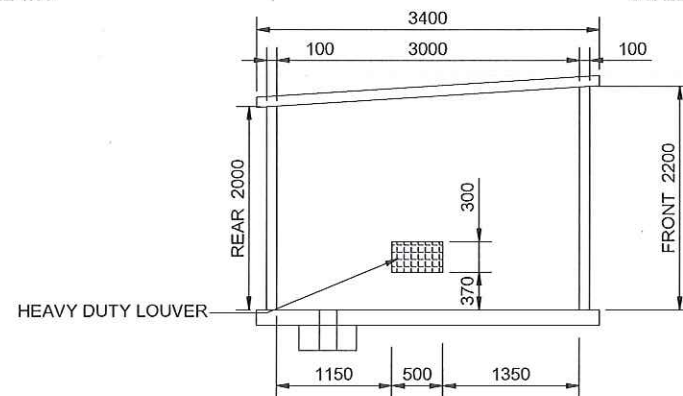
DRAWN VL.RATSHIBVUMO	CHECKED F.BALOYI-Pr.ENG
APPROVED	
DATE JUNE 2021	SCALE AS SHOWN
DRAWING NUMBER 107/PrJSM/MUN/06/2021/GH/01	REVISION 0



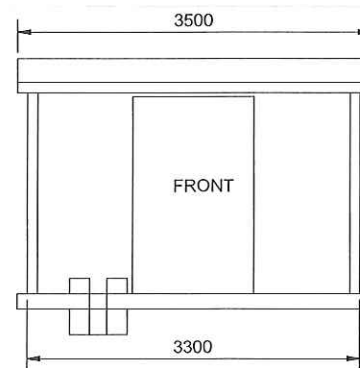
PUMPHOUSE FLOOR LAYOUT
SCALE 1:50



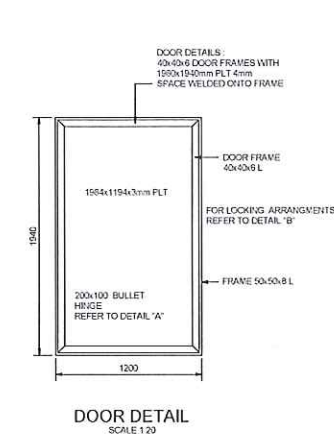
ROOF SLAB LAYOUT
SCALE 1:50



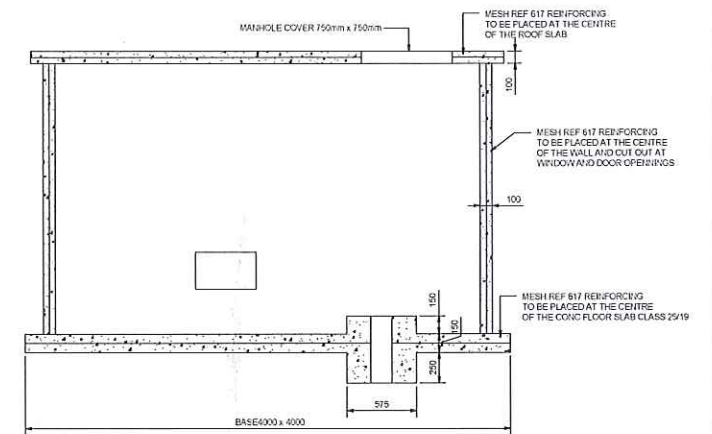
ELEVATION 2
SCALE 1:50



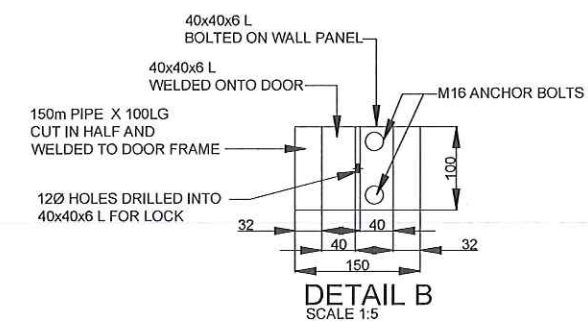
ELEVATION 3
SCALE 1:50



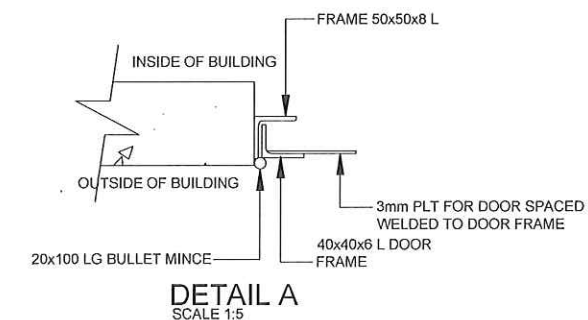
DOOR DETAIL
SCALE 1:20



SECTION A - A
SCALE 1:20



DETAIL B
SCALE 1:5



DETAIL A
SCALE 1:5

NOTES:
1. Do not scale off this drawing

LEGEND:

DESIGNED/DRAWN BY VL RATSHIBVUMO
CHECKED BY F. BALOYI-Pr.ENG
PROJECT MANAGER A.B MABUNDZA
APPROVED BY

CLIENT:



Dr JS Moroka Local Municipality
2601/3 Bongimfundo Street,
Siyabuswa, 0472
Tel: 013 973 1390/1101 Fax: 013 973 2463

CONSULTANT:



Unit 101, The Office Park,
90 Schoeman Street,
Polokwane, 0699
Tel: 015 065 0585/010 880 0138

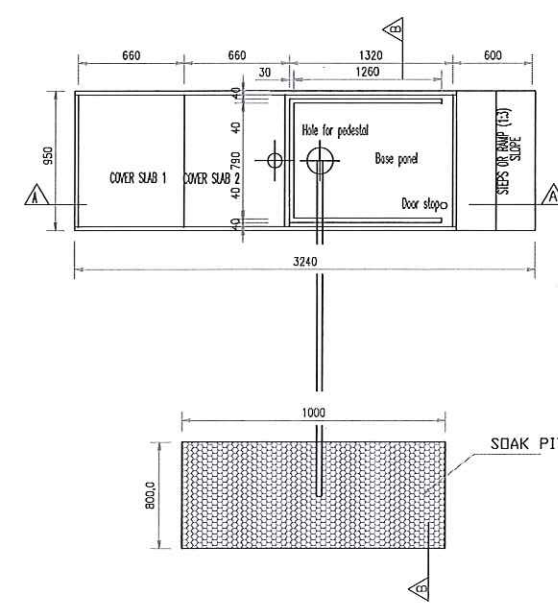
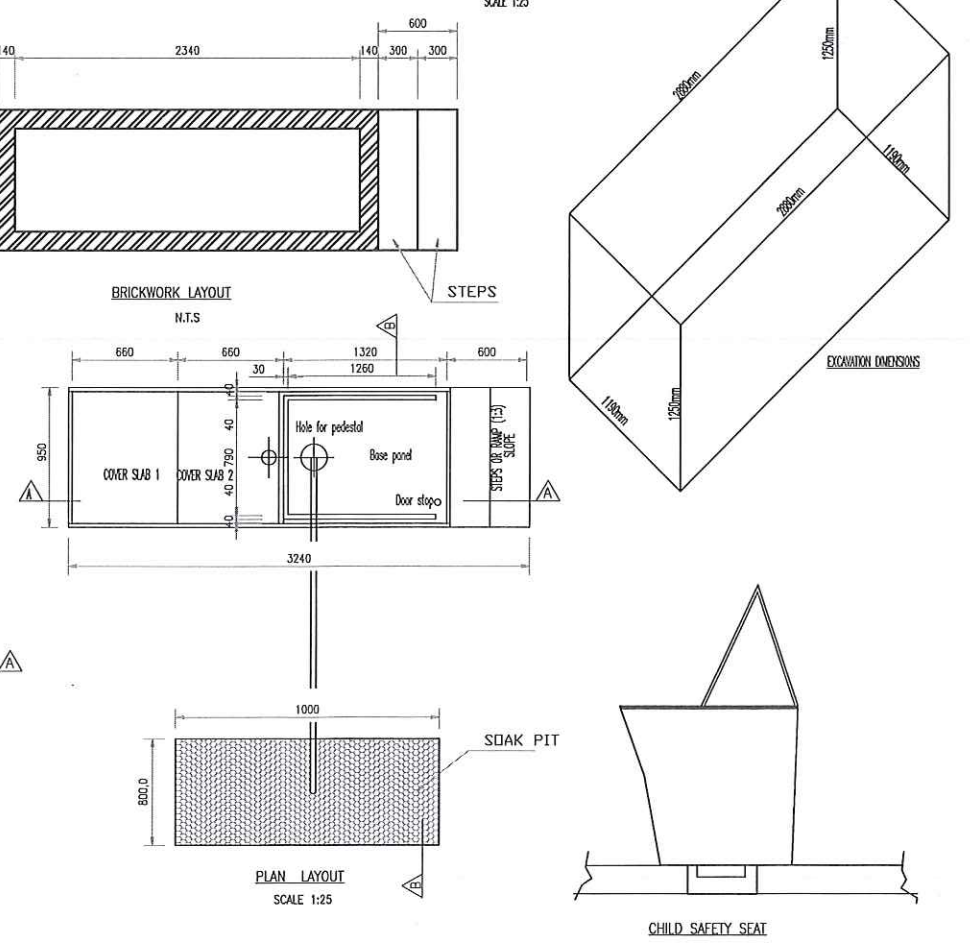
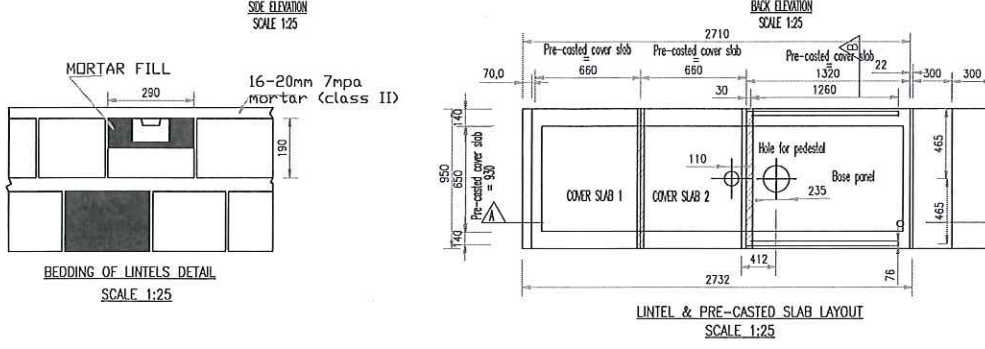
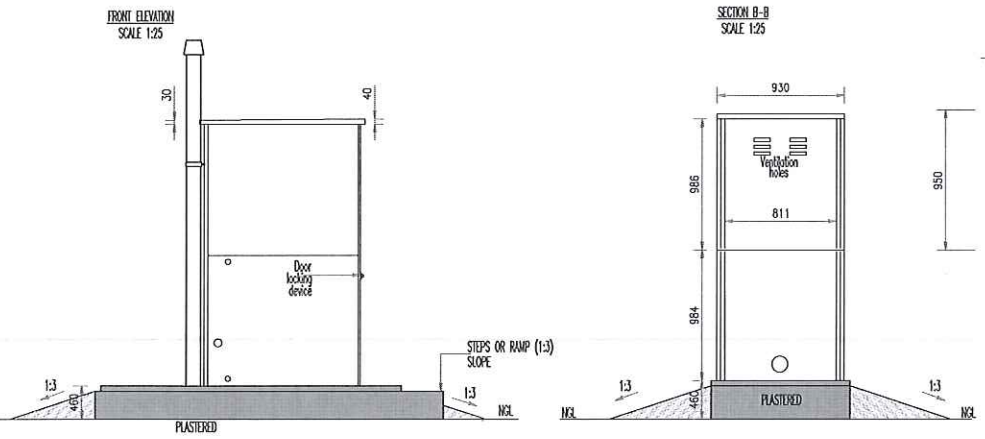
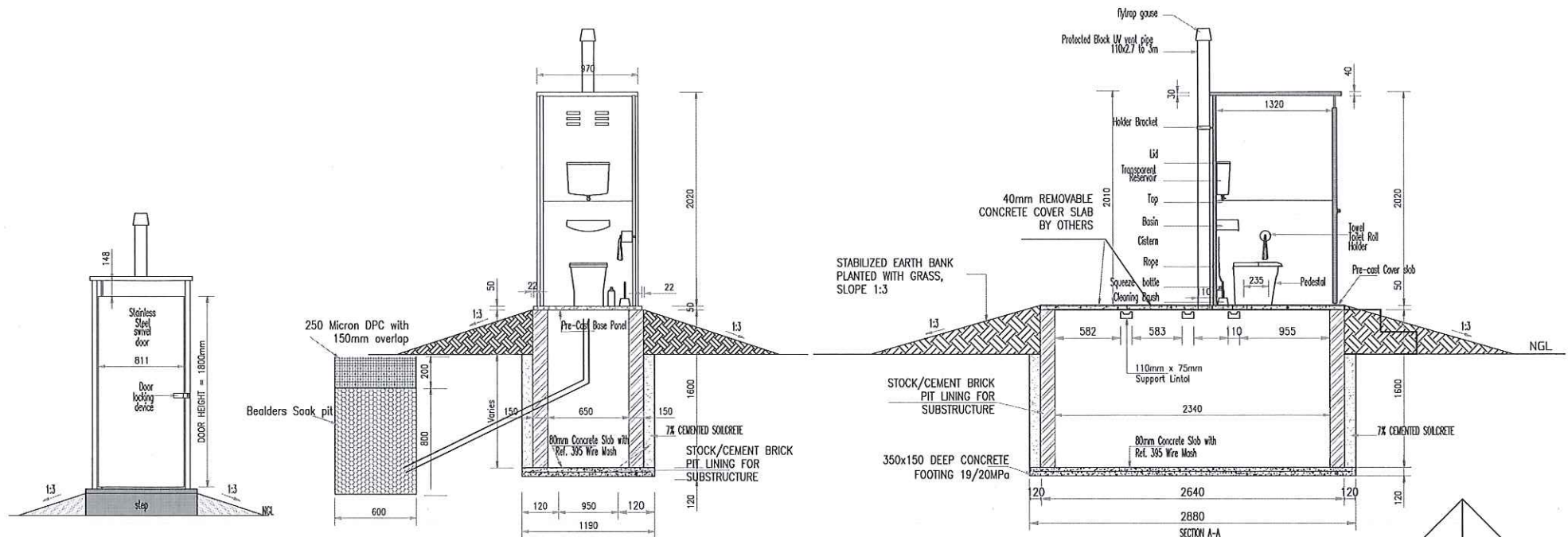
PROJECT NAME:
CONSTRUCTION OF SETATENG WATER RETICULATION
DRAWING TITLE: CONCRETE PUMP HOUSE

DATE: JUNE 2021

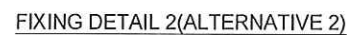
DRAWING NUMBER:
108/DrJSM/MUN/06/2021/PH/01

SCALE:
AS SHOWN

REVISION



GENERAL NOTES: All components of the superstructure (Walls, roof slab, pit cover slab) are to be made of steel reinforced precast concrete of a minimum 30mpa. Precast components, in size and locknuts are to be manufactured as one piece each and to be joined together. No steel frame joined panel using etc/other. The separate panels are sealed together with a weak mortar mix. Simple assembly of the unit with a maximum of twelve (12) bolts for assembly of the toilet structure. At vents provided at the top of the side and back wall panels with the roof overhanging to keep rain out. Door slab to have a hole cast in with a cast in flange so as to accept "400 type" pedestal. A pit cover slab for de-sludging. When placing the pit cover slab onto a pit structure constructed of 4M blocks, ensure foot print "f" of the pit needs to be a minimum of 1.75m² so as to ensure adequate volume without excessively deep excavations. An internal PVC vent pipe-110mm diameter, which must be secured to the toilet structure by cast in socket. The vent must extend to a minimum of 500mm above the roof and be black in colour. Stainless steel door with negligible space below the toilet door in order to keep out snakes, scorpions, etc. but with vent slots cut into the lower 1/4 to allow cross-ventilation in the structure. A quality dual opening door locking device, that is lockable inside and outside whilst being able to open on the inside when locked on the outside. A toilet paper holder facility. A toilet pedestal to be Brimacombe VP 400 or equivalent. A hand washing facility of minimum 2L capacity provided. Brick Force: Every 2nd course of Blocks (110mm x 225mm - SABS Approved) Dimensions for blocks = 220 x 110 x 75 (Ordinary bricks) Mix for blocks to be 1 cement : 6 sand by volume. Mix for mortar to be 1 cement : 3 sand. Mortar joints to be 10 to 15 mm thick. Mix for sludge footings to be 1 cement : 4 sand : 4 stone. Max. stone size 10 mm.								
REVISIONS <table> <tr> <th>DATE</th><th>INIT</th><th>DESCRIPTION</th></tr> <tr> <td></td><td></td><td></td></tr> </table>			DATE	INIT	DESCRIPTION			
DATE	INIT	DESCRIPTION						
PROJECT CONSTRUCTION OF SETATENG WATER RETICULATION								
PROJECT TITLE PRECAST VIP SECTION DETAILS								
MUNICIPALITY/CLIENT Dr JS Moroka Local Municipality 2601/3 Bongimfundo Street, Siyabuswa, 0472 Tel: 013 973 1390/1101 Fax: 013 973 2463								
CONSULTANT: PHAMELA ENGINEERING SERVICES Unit 101, The Office Park, 90 Schoeman Street, Polokwane, 0699 Tel: 015 295 2059 / 010 880 0138								
SCALE ON REDUCED DRAWING 80mm SCALE ON ORIGINAL DRAWING								
DRAWN VL-RATSHIBVUMO		CHECKED F.BALOYI-Pr.ENG						
APPROVED		SCALE AS SHOWN						
DATE JUNE 2021		REVISION						
DRAWING NUMBER 109/DrJSM/MUN/06/2021/VIPS/01 0								



- 32mm CABLE RACKING WELDED TO SQUARE
TUBING FRAME AND BOLTED TO 76mmQ STEEL
PIPES

CONSULTANT:


PHANELA
ASSOCIATES (PTY) LTD
ARCHITECTS & INTERIORS

Unit 101, The Office Park,
90 Schoeman Street,
Polokwane, 0699
Tel: 015 065 0585/010 880 0138

DRAWING NO:	REVISION
109/DrJSM/MUN/06/2021/SD/01	1