

WET WELL ROOF PLAN
SCALE 1:20

GENERAL NOTES:

1. ALL LEVELS TO BE CONFIRMED ON SITE.
2. READ THIS DRAWING IN CONJUNCTION WITH RELEVANT ENGINEERING DRAWINGS.
3. DO NOT SCALE FROM THIS DRAWING. USE ONLY THE CALCULATED AND WRITTEN DIMENSIONS.
4. ALL EXCAVATIONS SHOULD BE INSPECTED AND APPROVED BY THE ENGINEER ON SITE.
5. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE STATED
6. ALL SHARP EDGES AT CORNERS OF WALLS AND FLOORS TO BE 25X25 CHAMFER.

GENERAL, CONCRETE & MISCELLANEOUS NOTES:

1. CONCRETE AND MISCELLANEOUS
 - 1.1. ALL CONCRETE EDGES TO BE 25mm CHAMFERED
 - 1.2. CONCRETE : CHAMBER - CLASS 25/19
 - 1.3. ALL EXPOSED METAL WORK TO BE CR12 (UNPAINTED)
 - 1.4. BACKFILL BELOW CHAMBER TO BE COMPACTED ON 150mm LAYERS TO 90 PERCENT MOD AASHTO

ABBREVIATION:

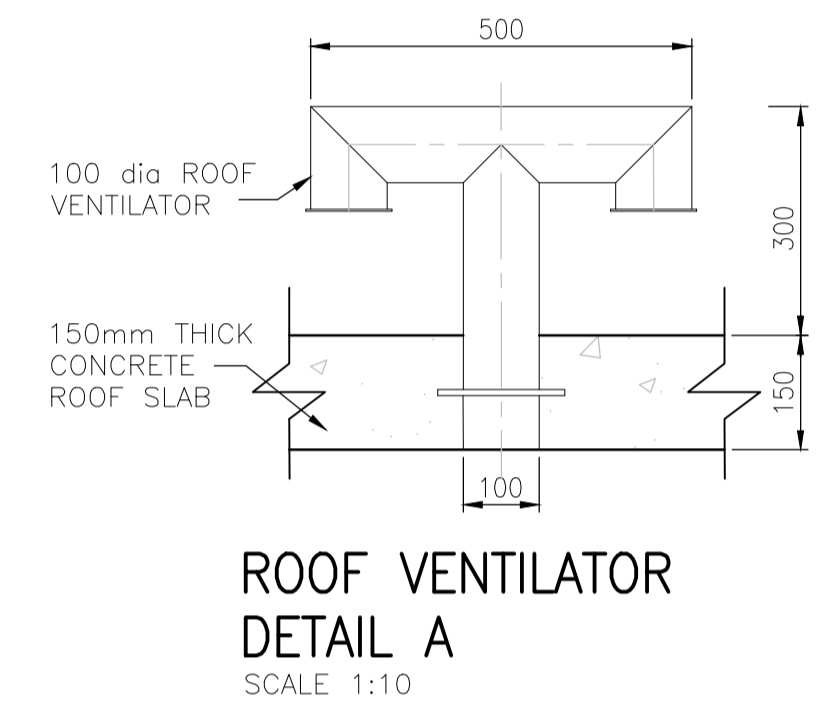
- NGL - NATURAL GROUND LEVEL
- PIL - PIPE INVERT LEVEL
- RL - REDUCED LEVEL

NOTES:

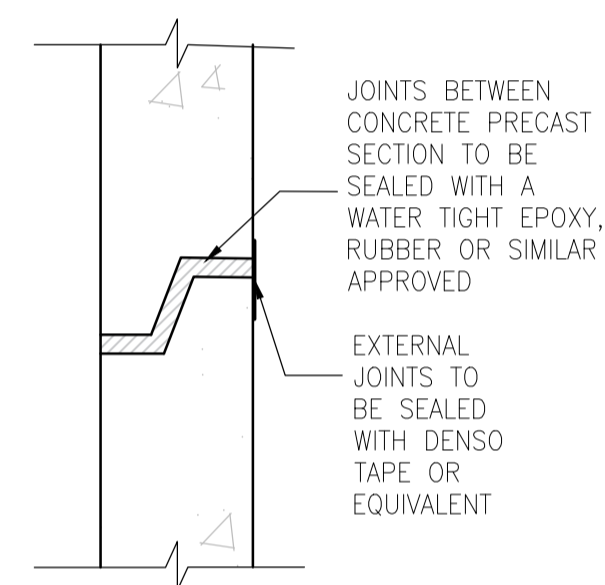
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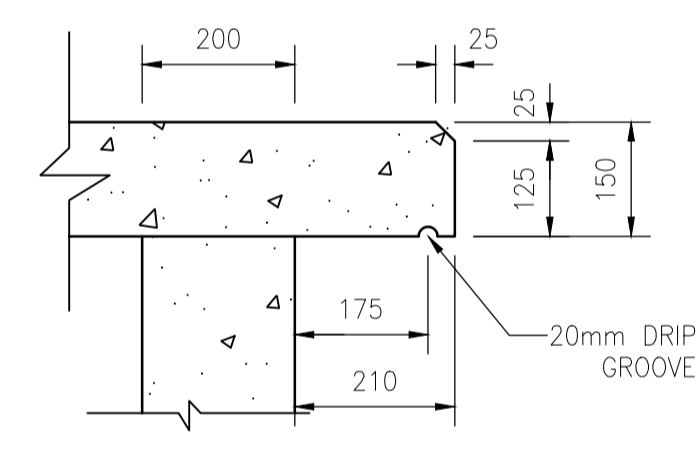
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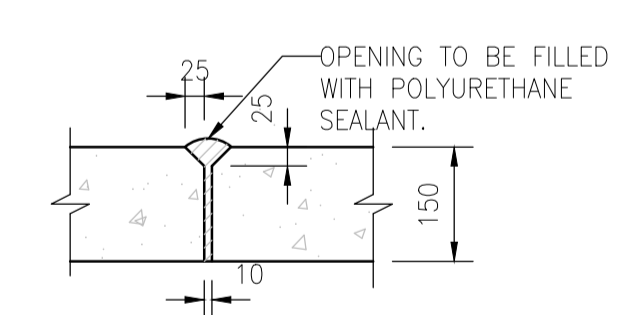
ROOF VENTILATOR DETAIL A
SCALE 1:10



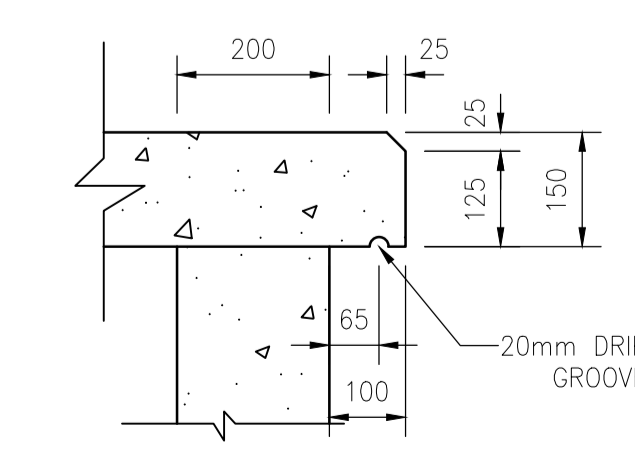
DETAIL B
SCALE 1:10



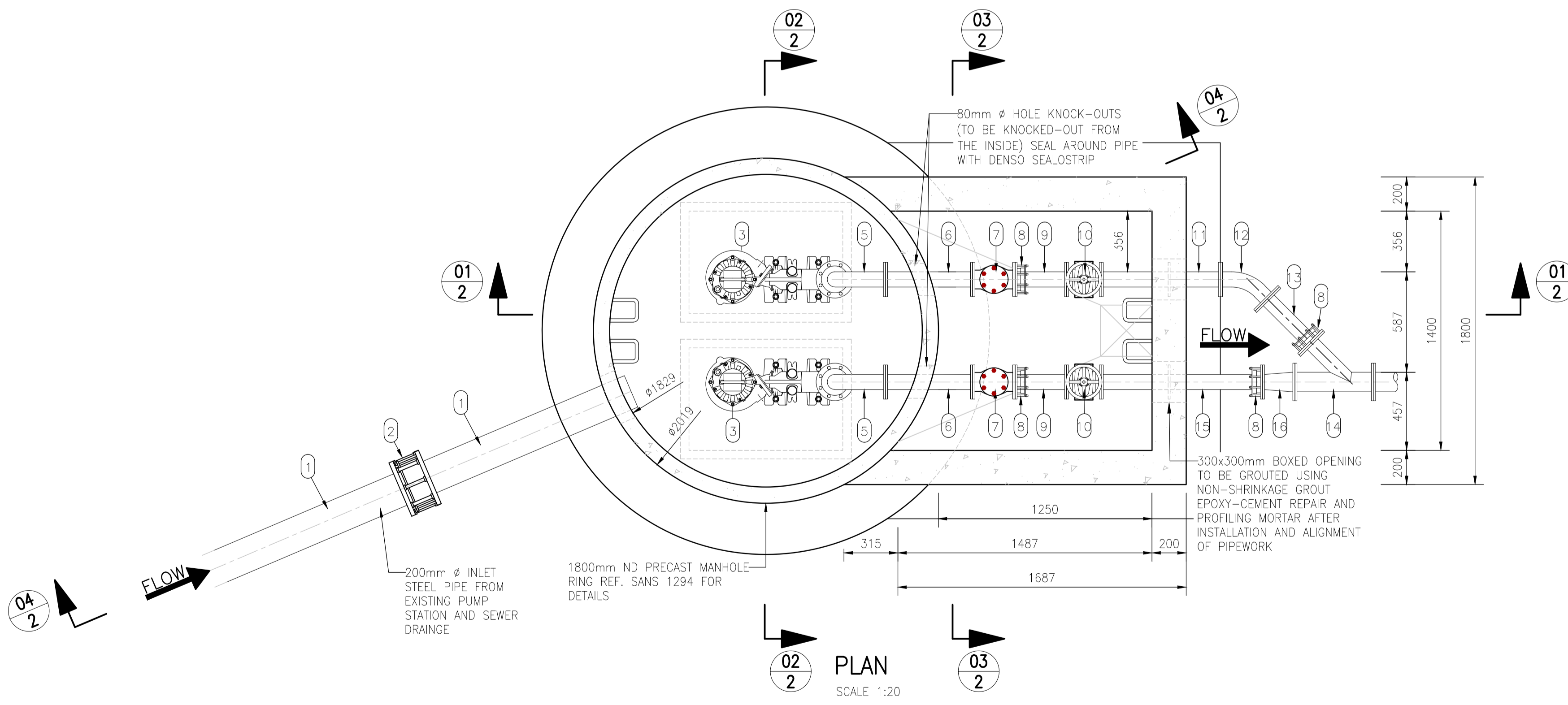
DETAIL C
SCALE 1:10



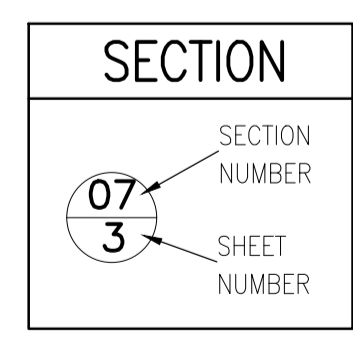
DETAIL-D OPENING BETWEEN ROOF SLABS
SCALE 1:10



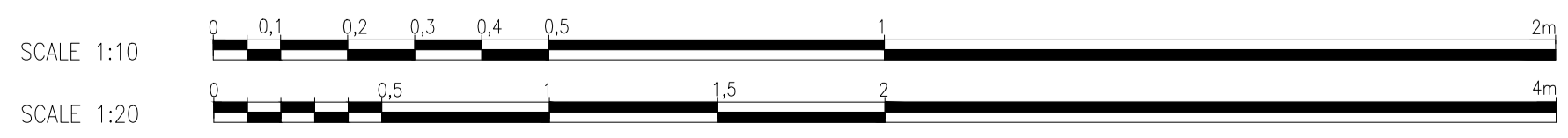
DETAIL E
SCALE 1:10



PLAN
SCALE 1:20



FOR TENDER PURPOSES ONLY



AMMENDMENTS

| REVISION | DATE | DESCRIPTION |
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| A | 07/03/2023 | ISSUED FOR TENDER |
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CLIENT

HARRY GWALA DISTRICT MUNICIPALITY
40 MAIN STREET
P. O BOX X501
IXOPO
3279

PROJECT TITLE:
IXOPO SEWER UPGRADE

DRAWING DESCRIPTION:
TEMPORARY PUMP STATION AND DETAILS - SHEET 2 OF 3

CONSULTANT

ZIMILE
Consulting Engineers

INTERNATIONAL BUSINESS GATEWAY OFFICE PARK
CNR PIONEER AVENUE AND ELIZABETH ROAD
MIDRIDGE PARK

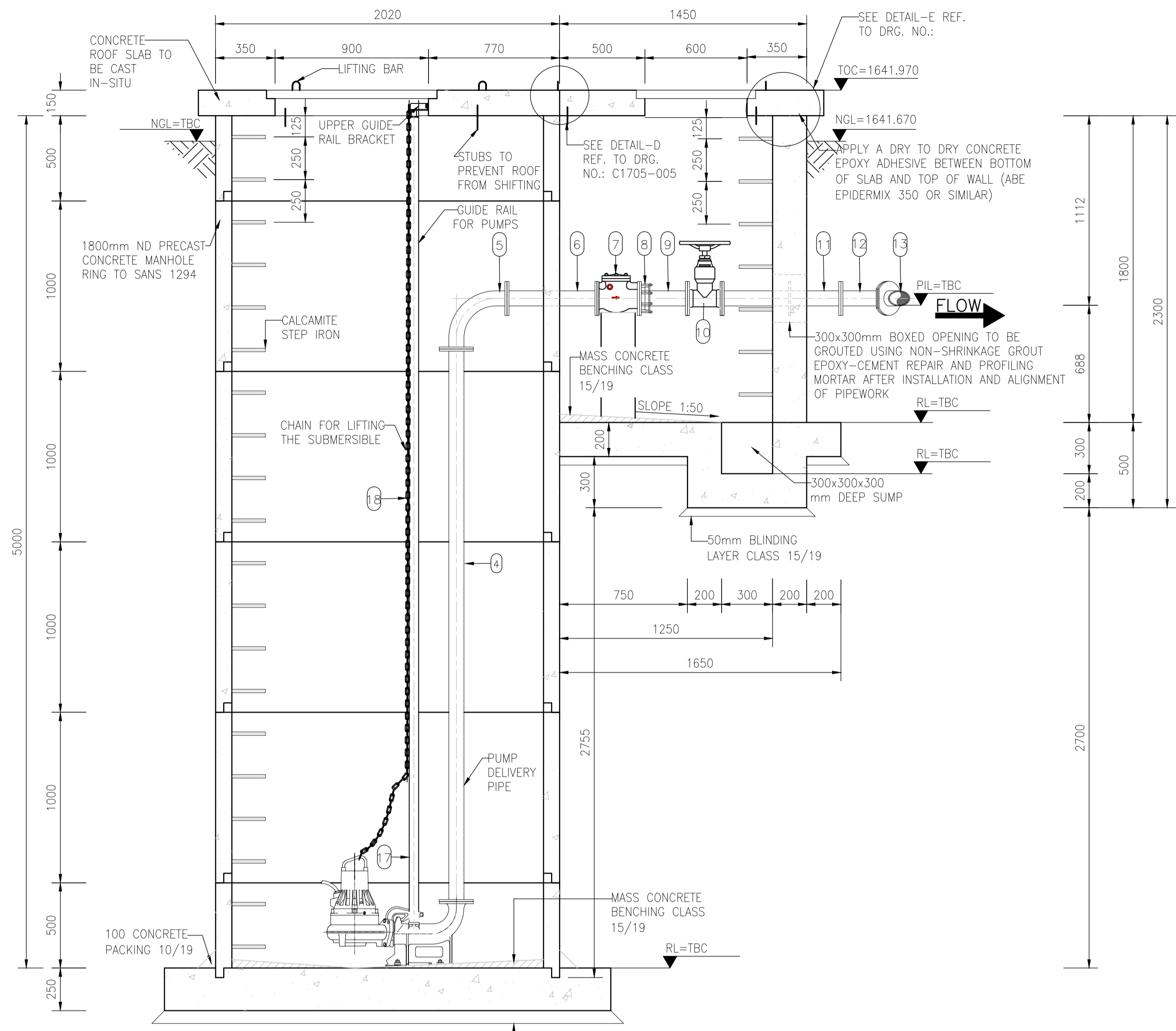
Tel : (011) 466 8576
Fax : (011) 466 8813
Email : info@zimile.co.za

APPROVED _____ SIGNATURE _____

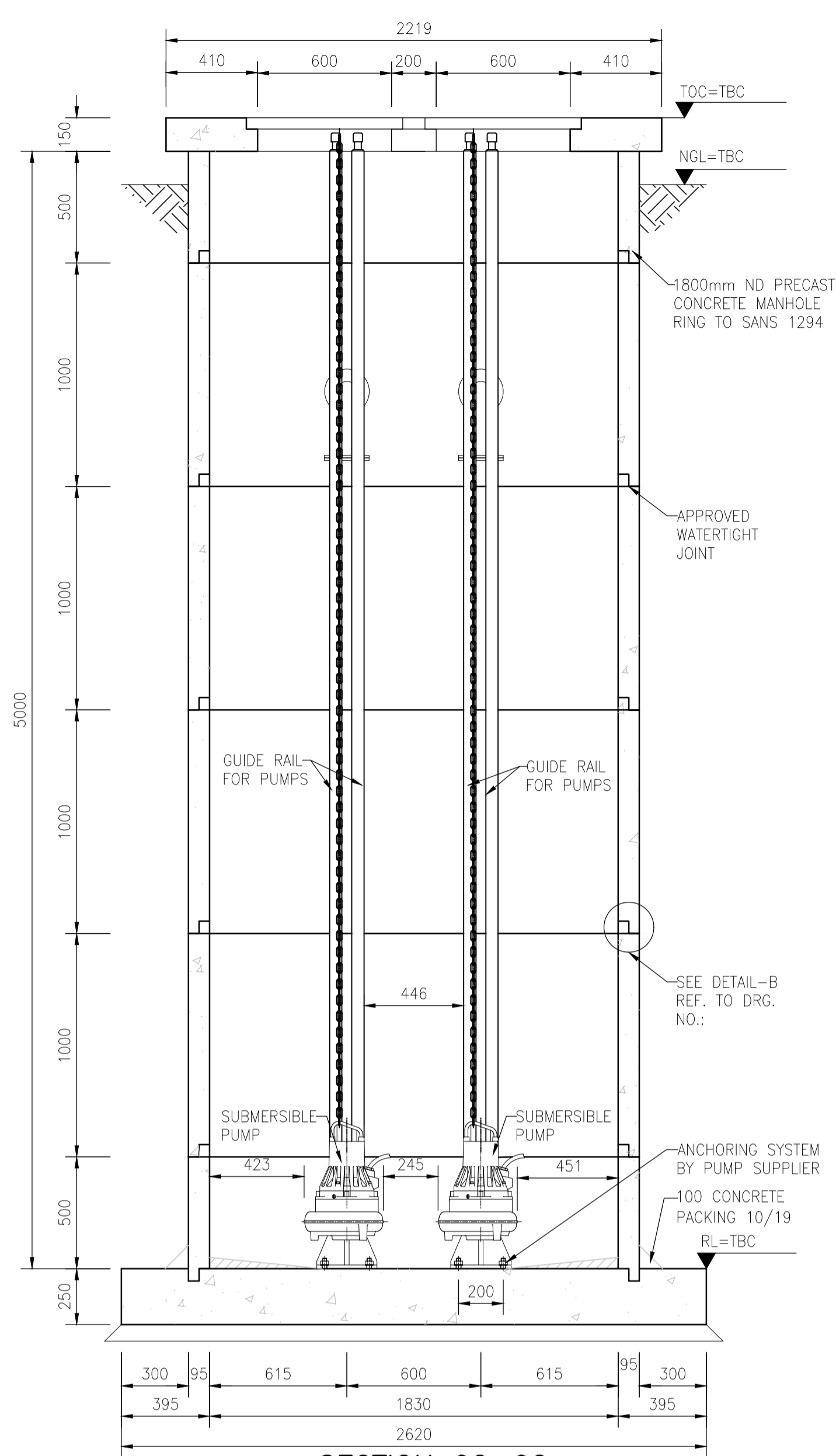
DISCIPLINE: CIVIL/WATER

DESIGNED: N. NDLOVU
DRAWN: N. NDLOVU
CHECKED: I. MASUNUNGURE

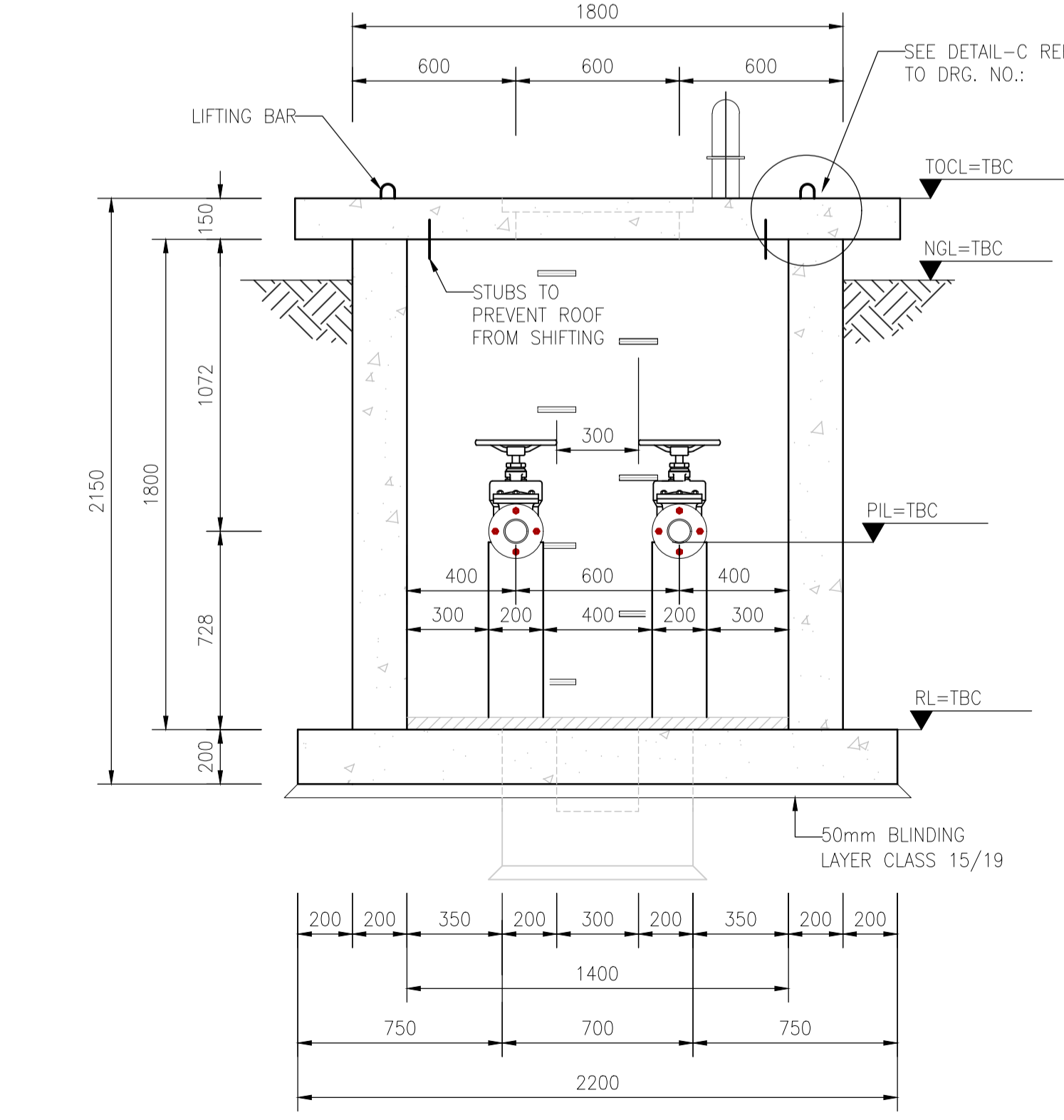
| PROJECT PHASE | | | | REVISION |
|-------------------------------|--|--------------|----------|----------|
| PRELIMINARY | TENDER | CONSTRUCTION | AS-BUILT | |
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| DATE: _____ SCALE: _____ | | | | |
| DRAWING No. J000141 WT DT 200 | | | | A |
| CAD FILENAME | C:\Users\Ushisha\OneDrive - Zimile Consulting Engineers\Desktop\J000141-WT-DT-200_2023_Rev A_Temporary Pumpstation and details.dwg | | | A1 |



SECTION 01-01
SCALE 1:20

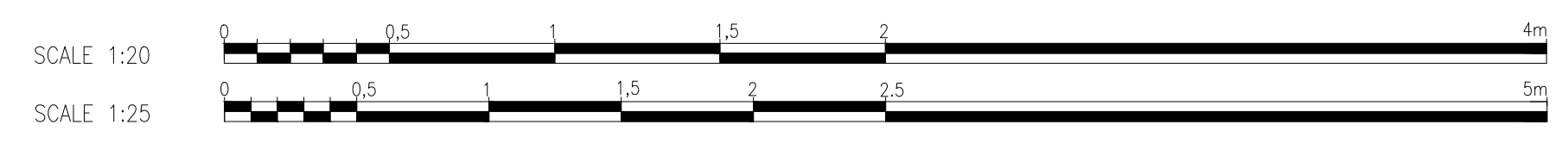


SECTION 02-02
SCALE 1:20



SECTION 03-03
SCALE 1:20

NOTES:
POSITION AND LEVELS OF THE CHAMBER MUST BE DECIDED ON SITE ACCORDING TO THE TERRAIN SLOPE AND DEPTH OF EXISTING PIPE



FOR TENDER PURPOSES ONLY

ABBREVIATION:

NGL - NATURAL GROUND LEVEL
 PIL - PIPE INVERT LEVEL
 RL - REDUCED LEVEL

LEGEND:



NOTES:

1. TRENCH EXCAVATION IS TO BE DONE ACCORDING TO SANS 1200.
2. ALL CAST IRON FITTINGS TO BE HOT BITUMEN DIPPED IN ACCORDANCE WITH SANS 1178.
3. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
4. ALL CONCRETE EDGES TO BE 25mm CHAMFERED.
5. ALL EXPOSED METAL WORK TO BE 3CR12 (UNPAINTED)
6. BACKFILL BELOW CHAMBER TO BE COMPACTED ON 150mm LAYERS TO BE 90% MOD AASHTO.
7. CHECK THAT PIPES SPECIALS FIT CORRECTLY IN THE CHAMBERS.
8. PIPE SPECIAL TO BE CUT ON SITE, SHALL BE MANUFACTURED WITH AN EXTRA LENGTH OF 30%.
9. ALLOW FOR 3mm THICK GASKETS.
10. PROVIDE LIFTING LUGS WHERE REQUIRED.

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 40 MAIN STREET
 P. O BOX X501
 IXOPO
 3279

PROJECT TITLE:
IXOPO SEWER UPGRADE

DRAWING DESCRIPTION:
TEMPORARY PUMP STATION AND DETAILS - SHEET 2 OF 3

- GENERAL NOTES:**
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 5. ALL SHARP EDGES AT CORNERS OF WALLS AND FLOORS TO BE 25X25 CHAMFER.

- GENERAL, CONCRETE & MISCELLANEOUS NOTES:**
1. CONCRETE AND MISCELLANEOUS
 - 1.1. ALL CONCRETE EDGES TO BE 25mm CHAMFERED
 - 1.2. CONCRETE :
 CHAMBERE - CLASS 25/19
 BLINDING LAYER - CLASS 15/19
 - 1.3. ALL EXPOSED METAL WORK TO BE CR12 (UNPAINTED)
 - 1.4. BACKFILL BELOW CHAMBER TO BE COMPACTED ON 150mm LAYERS TO 90 PERCENT MOD AASHTO

ABBREVIATION:

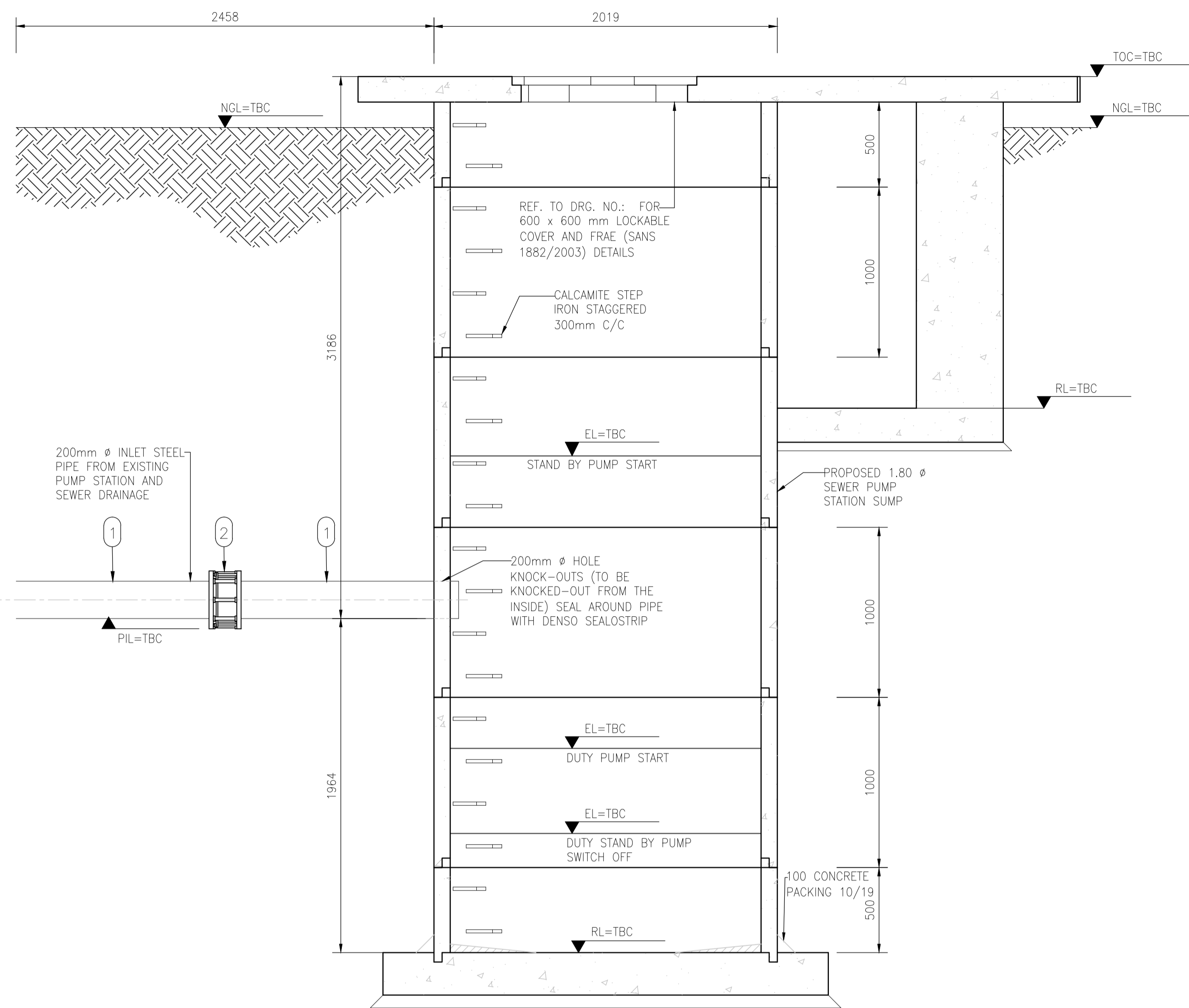
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APPROVED _____ SIGNATURE _____

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|---|---|
| DISCIPLINE : CIVIL/WATER | |
| DESIGNED : | N. NDLOVU NAME _____ SIG _____ |
| DRAWN : | N. NDLOVU NAME _____ SIG _____ |
| CHECKED : | I. MASUNUNGURE NAME _____ SIG _____ |
| PROJECT PHASE | |
| PRELIMINARY | TENDER |
| CONSTRUCTION | |
| AS-BUILT | |
| DATE: _____ SCALE: _____ | |
| DRAWING No. | REVISION |
| J000141 | WT DT 201 A |
| CAD FILENAME | SIZE |
| C:\Users\Nkomo\OneDrive - Zimile Consulting Engineers\Desktop\J000141-WT-DT-200_202_Rev A_Temporary Pumpstation and details.dwg | A1 |



SECTION 04-04
SCALE 1:25

| ITEM No. | No. OFF | DIA (mm) NB | WALL THK | MATERIAL | DESCRIPTION | SKETCH | CORROSION PROTECTION AS SHOWN IN PIPE NOTES | | |
|----------|---------|-------------|----------|-----------------|---------------------------------|--------|---|---------|---------|
| | | | | | | | LINING | COATING | FLANGES |
| 17 | 2 | | | STAINLESS STEEL | GUIDE RAILS CUT TO SUIT ON SITE | | | | |
| 18 | | | | STAINLESS STEEL | CHAIN CUT TO SUIT ON SITE | | | | |

NOTE:

- FLANGES:
 - ALL DRILLED FLANGES' THICKNESS TO SANS 1123, TYPE 3, AND FOR CLASSIFICATION REFER TO THE RELEVANT DRAWING. FLANGES TO BE DRILLED OFF-CENTRE AND TO BE FLAT JOINT FACES MACHINED N11.
 - PUDDLE FLANGES: SAME TYPE AND OD AS DRILLED FLANGES. FLAT FACED.
 - ANCHOR/TRUST FLANGES: SAME TYPE AND OD. 1" AS DRILLED FLANGES. FLAT FACED.
 - COUPLINGS: BURIED IN SOIL TO BE PROTECTED IN ACCORDANCE WITH DWS 9900, SECTION 13 (COATING SYSTEM PLUS PETROLATUM WRAPPING).
- FASTENERS FOR STAINLESS STEEL BALL VALVES ONTOSTEEL FLANGES:
 - FASTENERS SHALL BE STAINLESS STEEL ON BOTH JOINTS, TOP AND BOTTOM.
- CORROSION PROTECTION:
 - LINING:
 - PIPES 250 & 300 mm NB: CEMENT MORTAR LINING; THICKNESS, MATERIALS, SURFACE PREPARATION AND APPLICATION AS PER DWS 9900, CLAUSES 17.
 - PIPES 50, 80 AND 150 mm NB: TWO PACK EPOXY, 0,400 mm THICK; MATERIALS, SURFACE PREPARATION AND APPLICATION AS PER DWS 9900, CLAUSES 7 AND 8.
 - COATING: TWO PACK EPOXY, 0,300 mm THICK. MATERIALS, SURFACE PREPARATION AND APPLICATION AS PER DWS 9900 CLAUSES 7 AND 8. OVERCOAT WITH A 0,040mm THICK RECOATABLE ALIPHATIC POLYURETHANE LAYER OF PAINT BRILLIANT GREEN TO SANS 1091 CODE-H10.
 - FLANGE FACES: TWO PACK EPOXY 0,060-0,090 mm.
 - FASTENERS FOR STAINLESS STEEL BALL VALVES: HEADS AND SHANKS AREAS OF BOLTS, NUTS AND WASHERS SHALL BE EPOXY POWDER COATED TO DFT 50 MICRONS. THREADS SHALL BE PROTECTED WITH MOLYBDENUM DISULPHIDE LUBRICANT OR A NICKEL ANTISEIZE COMPOUND. THREAD OF THE BOLTS MUST BE ON THE STAINLESS STEEL FLANGE.

CONCRETE & MISCELLANEOUS

- ALL EXPOSED CONCRETE EDGES TO BE 25mm CHAMFERED.
- ALL EXPOSED METALWORK TO BE 3CR12 AND LEFT UNPAINTED.
- BACKFILL BELOW CHAMBER TO BE COMPACTED IN 150 mm LAYERS TO BE 95% MOD AASHTO.

FOR TENDER PURPOSES ONLY

| ITEM No. | No. OFF | DIA (mm) NB | WALL THK | MATERIAL | DESCRIPTION | SKETCH | CORROSION PROTECTION AS SHOWN IN PIPE NOTES | | |
|----------|---------|-------------|-------------|----------------------------|--|--------|---|---------|---------|
| | | | | | | | LINING | COATING | FLANGES |
| 1 | 2 | 200 | 4.5mm | SANS 719: STEEL GRADE-A | STRAIGHT PIPE. BOTH ENDS PLAIN TO CUT TO SUIT ON SITE. PN 10 | | 3.1 | 3.2 | 3.3 |
| 2 | 1 | 200 | | STEEL | FLEXIBLE COUPLING. PN10 | | | | 3.3 |
| 3 | 2 | | | | SELECTED PUMP: Flow = 6l/s, Head = 26m. 400 Volt Power, Three Phase, 2 Pole Motor, - KSB KRT K 040-250 or similar approved | | 3.1 | 3.2 | 3.3 |
| 4 | 2 | 80 | 3.5mm | SANS 62 STEEL CLASS MEDIUM | STRAIGHT PIPE. ONE END FLANGED. OTHER PLAIN TO WELD TO LOOSE FLANGE AS INDICATED. PN 10 | | 3.1 | 3.2 | 3.3 |
| 5 | 2 | 80 | 3.5 | SANS 62 STEEL CLASS MEDIUM | 90° ELBOW PN 10 | | 3.1 | 3.2 | 3.3 |
| 6 | 2 | 80 | 3.5mm | SANS 62 STEEL CLASS MEDIUM | STRAIGHT PIPE. ONE END FLANGED. OTHER PLAIN TO WELD TO LOOSE FLANGE AS INDICATED. PN 10 | | 3.1 | 3.2 | 3.3 |
| 7 | 2 | 80 | | DUCTILE IRON | NON RETURN VALVE. FLANGED PN10 | | | | 3.3 |
| 8 | 4 | 80 | | STEEL | FLANGE ADAPTOR. PN10 | | | | 3.3 |
| 9 | 2 | 80 | 3.5mm | SANS 62 STEEL CLASS MEDIUM | STRAIGHT PIPE. ONE END FLANGED. OTHER PLAIN TO CUT TO SUIT ON SITE. PN 10 | | 3.1 | 3.2 | 3.3 |
| 10 | 2 | 80 | | SG IRON | RESILIENT SEAL GATE VALVE FLANGED. NON-RISING SPINDLE. PN 10 | | | | 3.3 |
| 11 | 1 | 80 | 3.5mm | SANS 62 STEEL CLASS MEDIUM | STRAIGHT PIPE. BOTH ENDS FLANGED. PUDDLE FLANGE AS INDICATED. PN 10 | | 3.1 | 3.2 | 3.3 |
| 12 | 1 | 80 | 3.5mm | SANS 62 STEEL CLASS MEDIUM | 45° BEND, FLANGED. PN 10 | | 3.1 | 3.2 | 3.3 |
| 13 | 1 | 80 | 3.5mm | SANS 62 STEEL CLASS MEDIUM | STRAIGHT PIPE. ONE END FLANGED. OTHER PLAIN TO CUT TO SUIT ON SITE. PN 10 | | 3.1 | 3.2 | 3.3 |
| 14 | 1 | 100/80 | 4.2mm/3.5mm | SANS 62 STEEL CLASS MEDIUM | 45° UNEQUAL LATERAL. FLANGED. PN10 | | 3.1 | 3.2 | 3.3 |
| 15 | 1 | 80 | 3.5mm | SANS 62 STEEL CLASS MEDIUM | STRAIGHT PIPE. ONE END FLANGED OTHER PLAIN TO CUT TO SUIT ON SITE. PUDDLE FLANGE AS INDICATED. PN10 | | 3.1 | 3.2 | 3.3 |
| 16 | 1 | 100/80 | 3.5mm | SANS 62 STEEL CLASS MEDIUM | CONCENTRIC REDUCER. FLANGED. PN10 | | 3.1 | 3.2 | 3.3 |

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TEMPORARY PUMP STATION AND DETAILS - SHEET 3 OF 3

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DESIGNED : N. NDLOVU
NAME _____ SIG. _____

DRAWN : N. NDLOVU
NAME _____ SIG. _____

CHECKED : I. MASUNUNGURE
NAME _____ SIG. _____

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| PRELIMINARY | TENDER | CONSTRUCTION | AS-BUILT |
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| DATE: | SCALE: | | |
| DRAWING No. | REVISION | | |
| J000141 | WT DT 202 | A | |
| CAD FILENAME | SIZE | | |
| C:\Users\Nkomo\OneDrive - Zimile Consulting Engineers\Desktop\J000141-WT-DT-202_202_Rev A_Temporary Pumpstation and details.dwg | A1 | | |

