GENERAL NOTES

1. SPECIFIC CATALOGUE DIMENSIONS WITH REGARD TO PUMPING EQUIPMENT, VALVES, ETC. WERE USED IN THE DESIGN LAYOUTS. SHOULD DIMENSIONS OF APPROVED EQUIPMENT NOT COINCIDE WITH THOSE OF THE DESIGN, IT SHALL BE THE **CONTRACTOR'S SOLE RESPONSIBILITY** TO REVISE SUCH DIMENSIONS ACCORDINGLY, TO THE APPROVAL OF THE ENGINEER.

2. **ITEM:**
EACH ITEM IS TO BE CLEARLY MARKED ACCORDING TO THE NUMBERS GIVEN IN THE LIST

3. **CLASS:**
ALL FLANGES AND FLANGE DRILLINGS ARE TO BE IN ACCORDANCE WITH SABS 1123, UNLESS STATED DIFFERENTLY.

CLASS	WORKING PRESSURE	TABLE SABS 1123
6	600 kPa	600/3
10	1 000 kPa	1 000/3
16	1 600 kPa	1 600/3
25	2 500 kPa	2 500/3
40	4 000 kPa	4 000/3

* FLAT FACED FLANGES TO BE USED
TESTING PRESSURE - 1,5 x WORKING PRESSURE, FOR ALL FLANGES, COUPLING AS WELL AS PUDDLE FLANGES.

IT IS ESSENTIAL THAT PUDDLE FLANGES ARE NOT DRILLED.
WHERE PUDDLE FLANGES ARE NON STANDARD SUCH PUDDLE FLANGES NEED NOT BE CIRCULAR, BUT SHALL MEET THE SPECIFIED PRESSURE RATING AND SHALL PROJECT AT LEAST 100mm FROM OUTER WALL OF THE PIPE.

GASKETS FOR PRESSURE RATINGS UP TO AND INCLUDING 2 500 kPa, SHALL BE CUT FROM MATERIAL MANUFACTURED TO THE SPECIFICATION BEP J59, OR EQUIVALENT.
GASKETS FOR PRESSURE RATINGS ABOVE 2 500 kPa, UP TO AND INCLUDING 4 000 kPA, SHALL BE CUT FROM MATERIAL MANUFACTURED TO THE SPECIFICATION B.S. 2815 B, OR EQUIVALENT.
GASKETS FOR PRESSURE RATINGS UP TO AND INCLUDING 1 600 kPa SHALL BE 3 mm THICK CAF FULL FACE GASKETS.
GASKETS FOR PRESSURE RATINGS ABOVE 1 600 kPA SHALL BE 3 mm THICK CAF RING GASKETS.

4. **PROTECTION CODES:**

EP: ALL SURFACES SHALL BE BLAST CLEANED TO SA 2½ AND TO BE COATED WITH 3 LAYERS OF EPOXY RESIN TO GIVE A MIN. DRY FILM THICKNESS OF 250µm, REFER TECHNICAL SPECIFICATION: PUMPS, PIPEWORK AND ANCILLARY EQUIPMENT CLAUSE 1.2.3, 1.2.4 AND 1.2.5
FP: FACTORY PROTECTION.
CM: ALL PIPE SPECIALS TO BE SANDBLASTED TO Sa 2½, CLEANED AND TO BE COATED WITH
SINTAKOTE EXTERNAL, 10mm THICK CEMENT MORTAR LINED INTERNAL.
GM: HOT DIPPED GALVANISED MILD STEEL IN ACCORDANCE WITH THE SPECIFICATION.

5. **MATERIAL:** GRADE 300 WA STEEL AS PRESCRIBED IN SABS 1431 WITH A MINIMUM WALL THICKNESS AS SPECIFIED.
ALL PIPE ITEMS TO BE 4.5mm MINIMUM WALL THICKNESS UNLESS INDICATED DIFFERENTLY. ALSO REFER TECHNICAL SPECIFICATION: PUMPS, PIPEWORK AND ANCILLARY EQUIPMENT CLAUSE 2.3.4 FOR MINIMUM WALL THICKNESS.

6. **VALVES:**
ALL VALVES TO BE FLANGED AND RATED PN10 MINIMUM.
ALL GEARBOX POSITIONS TO BE AS FOR RIGHT HAND VALVE, RIGHT HAND PROJECTION, UNLESS STATED DIFFERENTLY ON DRAWINGS OR ITEM LIST.
RESILIENT SEAL GATE: IN ACCORDANCE TO SABS 664. RIGHT HAND LOCKING. ALL VALVES ARE TO BE EQUIPPED WITH HAND WHEELS, UNLESS OTHERWISE STATED. VALVES TO BE SUPPLIED WITH THE NECESSARY PRESSURE REDUCERS AND / OR GEARS TO ENABLE FUNCTIONING AT THE SPECIFIED UNBALANCED PRESSURE.

7. **ABBREVIATIONS:**
AC - ASBESTOS CEMENT
CI - CAST IRON
FA - FLANGE ADAPTOR
FC - FLEXIBLE COUPLING
GS - GALVANISED STEEL
MS - MILD STEEL
SS - STAINLESS STEEL
GMS - GALVANISED MILD STEEL

8. **BOLTS**
BOLT LENGTHS SHALL MAKE ALLOWANCE FOR TWO x 3mm THICK WASHERS AND A 3mm THICK GASKET SHALL BE PROVIDED FOR EACH PIPE ITEM AS LISTED. BOLTS THAT PROTRUDE BEYOND THE NUT BY A MINIMUM OF TWO THREADS, WHEN THE ASSEMBLIES ARE FULLY TIGHTENED, SHALL BE USED.

A WASHER SHALL BE FITTED UNDER ALL BOLT/SCREW HEADS AND NUTS.

ALL BOLTS, NUTS AND WASHERS ON PIPE WORK TO BE HOT DIP GALVANISED MS, UNLESS WHERE IN CONTACT WITH SEWER TO BE SS. EXCEPT WHEN SPECIFIED OTHERWISE.

EXCEPTIONS SHALL BE
FOR SS TO SS FLANGE CONNECTIONS, OR NON-INSULATED SS TO MS FLANGE CONNECTIONS, CONNECTING MATERIAL FOR SUCH TO BE POWDER COATED 304 SS BOLTS, NUTS AND WASHERS.

9. PROVIDE APPROPRIATE BOLT UNITS (CONSISTING OF A STANDARD LENGTH BOLT, NUT AND TWO WASHERS) AND RING GASKET FOR EACH SET OF FLANGES AND FOR FLANGE ADAPTOR TO FLANGE INSTALLATIONS.

10. **SUPPORTS AND ANCHOR SUPPORTS**
SUPPORTS OR ANCHOR SUPPORTS ARE REQUIRED FOR CERTAIN PIPE ITEMS. TENDERER TO SUBMIT DETAILS OF PROPOSED SUPPORTS AND ANCHORS AS PART OF WORKSHOP DRAWINGS REQUIRED FOR EACH PIPE ITEM, IF NOT DETAILED. NO SITE WELDING SHALL BE PERMITTED ON SUPPORTS OR ANCHORS, WHICH COULD DAMAGE FACTORY APPLIED CORROSION PROTECTION. ALL ANCHOR BOLTS TO BE 16 mm Ø MINIMUM of 316 STAINLESS STEEL.

11. **PIPE DETAILING:**
LAYOUTS DETAILED INCLUDE FOR A 3mm THICK GASKET.

12. PIPE ITEM DIMENSIONS ON DRAWINGS NEED TO BE VERIFIED BY THE CONTRACTOR ON SITE PRIOR TO THE MANUFACTURE OF ANY ITEMS.

13. ALL BOLTS AND NUTS OUTSIDE OF CONCRETE CHAMBER IN GROUND MATERIAL TO BE WRAPPED WITH AN APPROVED CORROSION PROTECTIVE WRAPPING (DENZO OR SIMILAR APPROVED).

14. ALL PIPE WORK ABOVE GROUND TO BE GMS UNLESS SPECIFIED OTHER
ALL PIPE WORK BELOW GROUND TO BE EP UNLESS SPECIFIED OTHER
ALL PIPE WORK IN DIRECT CONTACT WITH SEWER TO BE SS UNLESS SPECIFIED OTHER

PIPE LIST

LIST NO. 2

POSITION : 300mm Ø SCOUR PIPEWORK.

AMEND

ITEM	AMOUNT	CLASS	PROTECTION	DESCRIPTION	DIMENSIONS
7.1	1	16	SS	300mm Ø SS GRADE 304 PIPE, BOTH ENDS SUITABLE FOR FLEXIBLE COUPLING, WITH POSITION OF PUDDLE FLANGE AS INDICATED.	2430, 60
7.2	1	16	FP	300mm Ø FLEXIBLE COUPLING.	STANDARD
7.3	1	16	EP	300mm Ø MS PIPE, ONE END SUITABLE FOR FLEXIBLE COUPLING, AND OTHER END SUITABLE FOR FLANGE ADAPTOR	855
7.4	1	16	FP	300mm Ø FLANGED RSV VALVE, AVK OR SIMILAR APPROVED.	380
7.5	2	16	EP	300mm Ø FLANGED MS EQUAL TEE.	305, 610
7.6	3	16	FP	300mm Ø FLANGE ADAPTOR	STANDARD

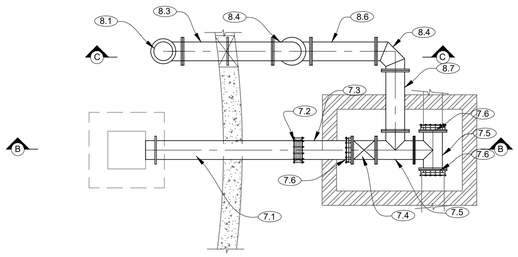
PIPE LIST

LIST NO. 3

POSITION : 300mm Ø OVERFLOW PIPEWORK.

AMEND

ITEM	AMOUNT	CLASS	PROTECTION	DESCRIPTION	DIMENSIONS
8.1	1	16	SS	300mm Ø FLANGED SS GRADE 304 BELLMOUTH.	1000, 400, 300mm Ø, 400mm Ø
8.2	1	16	SS	300mm Ø 90° FLANGED SS GRADE 304 BEND.	314, 305
8.3	1	16	SS	300mm Ø FLANGED SS GRADE 304 PIPE PIECE, WITH POSITION OF PUDDLE FLANGE AS INDICATED.	1367, 649
8.4	3	16	EP	300mm Ø 90° FLANGED MS BEND.	314, 305
8.5	1	16	EP	300mm Ø FLANGED MS PIPE PIECE.	3486
8.6	1	16	EP	300mm Ø FLANGED MS PIPE PIECE.	1357
8.7	1	16	EP	300mm Ø FLANGED MS PIPE PIECE.	1030
8.8	1	16	EP	300mm Ø FLANGED MS PIPE PIECE.	1030



PLAN: OVERFLOW PIPEWORK AND SCOUR VALVE CHAMBER
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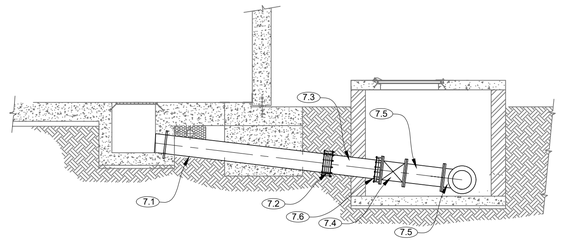
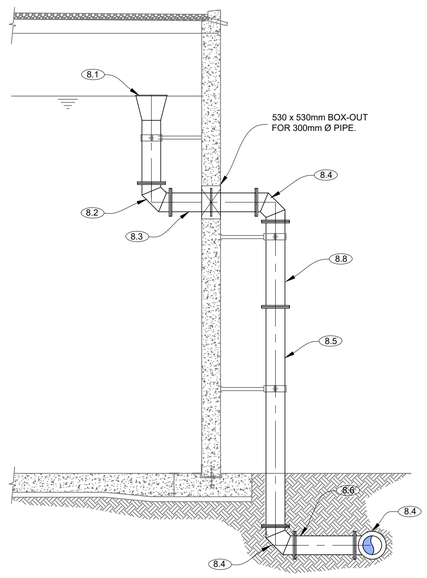


SECTION B - B: SECTION THROUGH SCOUR PIPE
SCALE 1:50



SECTION C - C:
DETAIL SECTION THROUGH OVERFLOW PIPE
SCALE 1:50

FOR TENDER PURPOSES

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Rev	Description	Date	By
	AMENDMENTS		

SERVICE
WATER

DESIGNED	J. LUCKHOFF
DRAWN	I.NEL
CAD FILE NAME	N3110M8002.dwg
CHECKED	W.J. STRYDOM (jnr)
APPROVED	W.J. STRYDOM (jnr)

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CLIENT
Nkangala District Municipality

PROJECT
LOSKOP REGIONAL BULK WATER SUPPLY SCHEME: WORK PACKAGE 1

TITLE
6 Ml WATER RESERVOIR: SCOUR & OVERFLOW DETAILS

DATE	AUGUST 2019
SCALE 1:50	PAPER SIZE A1

SCALE REF.
2 1 0 1 2
1.5 0.5 0.5 1.5
METER

CONSULTANT DWG. NO.
N/3110/M/8/002

CLIENT DWG. NO.
-

(REF FOLDER: X:\02 PROJECTS\3000\3100 - 3199\N3110 - LOSKOP BULK WATER SUPPLY SCHEME\1 DESIGN PHASE\F DRAWINGS\4 TENDER\D WATER\1. WORK PACKAGE 1\C. RESERVOIRS\N3110M8002.DWG)