



LEGEND

- SEWER MANHOLE
- MAIN SEWER OUTFALL
- EXISTING SEWER RETICULATION
- 1:100 YEAR FLOODLINE
- PHASE 2 BOUNDARY

NOTES

1. PRE-CAST CONCRETE MANHOLES AND SLABS, THE INSTALLATION AND CONSTRUCTION THEREOF TO COMPLY WITH SABS1294 AND SABS120 OLD.
2. THE UPPERMOST SECTION OF THE CHAMBER OR SHAFT TO BE A 250mm SECTION.
3. MANHOLE SHAFTS AND STEP IRONS ARE TO BE PLACED OVER THE LARGEST LANDING ON THE DOWNSTREAM SIDE.
4. HORIZONTAL SPACING OF STEPS TO BE 150mm (+/- 12 mm).
5. PIPE SECTIONS AND SLABS TO BE BEDDED ON A 2:1 CEMENT MORTAR GROUT TO FORM A COMPACTED WATER-TIGHT JOINT OF APPROXIMATELY 5mm THICK.
6. MAXIMUM PROTRUSION OF PIPES INTO MANHOLES TO BE 50mm.
7. ALL CHANNELS TO BE VITRIFIED CLAY.
8. FOR LARGER PIPE DIAMETERS, DEEP SEWERS AND CHANNEL LAYOUTS NOT FITTING INSIDE STANDARD PRECAST MANHOLE SECTIONS, THE ENGINEER SHALL DESIGN A CHAMBER TO SUIT THE CONDITIONS.
9. COVERS AND FRAMES AS PER SABS 558, OR SIMILAR APPROVED.
10. COVERS AND FRAMES TO BE INSTALLED (OR SIMILAR APPROVED):
 IN ROADS : TYPE 1A OR 2A
 OTHER AREAS : TYPES 1B, 4, 4A OR 6
11. IN ROADS, PAVED AREAS OR PEDESTRIAN WALKWAYS, THE TOP OF THE MANHOLE COVER SHALL BE AT THE SAME LEVEL AS THE FINISHED LEVEL OF THE SURROUNDING AREA.
12. THE COVER OF MANHOLES IN UNDEVELOPED AREAS OR MAHOLES ON OUTFALL SEWERS MUST BE +/- 500mm ABOVE NATURAL GROUND LEVEL.
13. CONCRETE OR HINGED DUCTILE IRON COVERS MAY BE USED WITH APPROVAL FROM THE CLIENT.
14. ALL CONNECTIONS TO BE CAPPED BEFORE BACKFILLING AND TO BE WIRE MARKED.
15. ALL PIPES, FITTINGS TO SABS 559 (1993), AS AMENDED.
16. ALL CONCRETE TO BE 15MPa AS PER SABS 1200 (1982).
17. THE MINIMUM GRADE OF THE SEWER CONNECTION IS TO BE 1 IN 60.
18. IN ALL CASES THE JUNCTION INTO THE MAIN SEWER IS TO BE ENCASED.
19. INVERT OF CONNECTION TO CONNECT TO SOFFIT OF SEWER.
20. NO TREES OR SHRUBS SHALL BE PLACED WITHIN 2m OF ANY SEWER MAIN.
21. SEWER MANHOLES ARE TO BE PLACED AT A MAXIMUM DISTANCE OF 80m.
22. ANCHORING OF SEWER MAINS:
 a) FOR GRADES BETWEEN 1:10 AND 1:6, ANCHOR BLOCKS SHALL BE INSTALLED AT INTERVALS NOT EXCEEDING 12m.
 b) FOR GRADES STEEPER THAN 1:6, THE SEWER MAIN SHALL BE ENCASED FOR THE ENTIRE SECTION WHERE THE GRADE IS STEEPER THAN 1:6.

LAYOUT PLAN
SCALE 1 : 8 000

Rev	Date	Designed by	Drawn by	Checked by	Description	Stage
00	01.10.2022	ND	CDN	BN	ISSUED FOR TENDER	T

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CLIENT ACCEPTANCE
 THIS ACCEPTANCE IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OR LIABILITY OF ANY KIND FROM WHATSOEVER CAUSE OR HOWEVER ARISING.
 Date: _____

CONSULTANT APPROVAL
 Name: _____
 Prof. Reg. No.: _____
 Date: 07 JUNE 2021
 THE ABOVE SIGNATORY CERTIFIES THAT THE DESIGNER AND OWNER HAVE CONSENTED TO THEIR NAMES BEING INSERTED ON THIS DRAWING AND THAT THEY HAVE SEEN AND APPROVED THE DRAWING.
 Date: _____

Appointment number: XXX-XX-XXX	Project description: EMPUMELELWENI TOWNSHIP SEWER RETICULATION
Scale: As Shown	Drawing name: BULK SEWER LAYOUT PLAN
Original size: A0	Drawing number: 20217 -SEW - LP - 101
Sheet: 1 of 1	Revision: 00
	Project No. Discipline Type Number