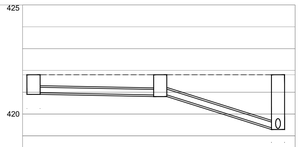
LONG SECTION SWMH 23-2 - SWMH 23

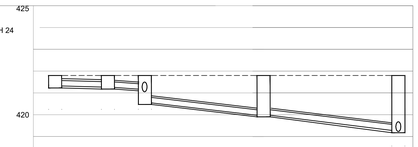


SCALES:
Hoocttonal 1:200
Vertical 1:100

DATUM 415.000

REFERENCE	SWMH 23-2	250mmØ CLASS 34 uPVC PIPE	SWMH 23-1	250mmØ CLASS 34 uPVC PIPE	SWMH 23
COVER LEVEL	421.800	421.800	421.800
PIPE INVERT LEVEL	420.900	420.800	419.340
SLOPE / LENGTH	1.0% 1:10 11.62m	14.60% 1:0.68 10.80m

LONG SECTION SWMH 24-4 - SWMH 24

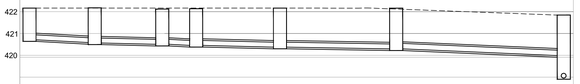


SCALES:
Horizontal 1:200
Vertical 1:100

DATUM 415.000

REFERENCE	SWMH 24-4	250mmØ CLASS 34 uPVC PIPE	SWMH 24-3	250mmØ CLASS 34 uPVC PIPE	SWMH 24-2	250mmØ CLASS 34 uPVC PIPE	SWMH 24-1	250mmØ CLASS 34 uPVC PIPE	SWMH 24
COVER LEVEL	422.230	422.230	422.000	421.800	421.800
PIPE INVERT LEVEL	421.230	421.180	421.100	420.470	419.90	419.230
SLOPE / LENGTH	2.08% 1:48 4.48m	2.03% 1:42 3.39m	1.01% 1:99.1 11.89m	6.70% 1:1.49 12.36m

LONG SECTION SWMH 29-6-SWMH 29



SCALES:
Horizontal 1:200
Vertical 1:100

DATUM 417.000

REFERENCE	SWMH 29-6	450mmØ CLASS 100D CONCRETE PIPE	SWMH 29-5	450mmØ CLASS 100D CONCRETE PIPE	SWMH 29-4	SWMH 29-3	450mmØ CLASS 100D CONCRETE PIPE	SWMH 29-2	450mmØ CLASS 100D CONCRETE PIPE	SWMH 29-1	450mmØ CLASS 100D CONCRETE PIPE	SWMH 29
COVER LEVEL	422.000	422.000	422.000	422.000	422.000	422.000	421.800
PIPE INVERT LEVEL	420.550	420.490	420.430	420.380	420.300	420.220	420.090 418.800
SLOPE / LENGTH	1.00% 1:100 5.98	1.00% 1:103 6.20m	1.00% 1:103 3.11m	1.00% 1:103 7.69m	0.75% 1:133 10.66m	7.01% 1:14.3 18.83m

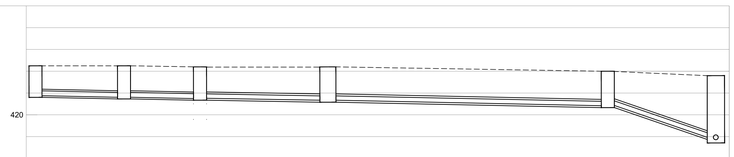
LONG SECTION SWMH 29-1-3 -SWMH 29-1

SCALES:
Horizontal 1:200
Vertical 1:100

DATUM 417.000

REFERENCE	SWMH 29-1-3	250mmØ CLASS 34 uPVC PIPE	SWMH 29-1-2	250mmØ CLASS 34 uPVC PIPE	SWMH 29-1-1	SWMH 29-1
COVER LEVEL	422.230	422.160	422.160	422.000
PIPE INVERT LEVEL	421.230	421.170	421.060 421.000	421.000 420.220
SLOPE / LENGTH	0.73% 1:137 8.21m	8.68% 1:104 11.52m	1.42% 1:70.16 4.21m

LONG SECTION SWMH 31-E - SWMH 31



SCALES:
Horizontal 1:200
Vertical 1:100

DATUM 419.000

REFERENCE	SWMH 31-E	250mmØ CLASS 34 uPVC PIPE	SWMH 31-D	250mmØ CLASS 34 uPVC PIPE	SWMH 31-C	450mmØ CLASS 100D CONCRETE PIPE	SWMH 31-B	450mmØ CLASS 100D CONCRETE PIPE	SWMH 31A	450mmØ CLASS 100D CONCRETE PIPE	SWMH 31
GROUND LEVEL	422.250	422.250	422.200	422.200	422.000	421.800
PIPE INVERT LEVEL	420.800	420.730	420.670	420.580	420.330	418.710
SLOPE / LENGTH	0.86% 1:116 8.12m	0.88% 1:113 6.82m	0.77% 1:130.3 11.73m	0.97% 1:102.7 25.68m	16.34% 1:6.1 9.91m

PRELIMINARY

NOTES :

A. GENERAL

1. ALL SETTING OUT TO BE UNDERTAKEN BY A REGISTERED PROFESSIONAL LAND SURVEYOR.
2. PROVE ALL SERVICES PRIOR TO CONSTRUCTION.
3. ALL WORK AREAS TO BE REINSTATED (PREMIX, CONCRETE, ETC.)
4. MUNICIPALITY TO EXECUTE ALL CONNECTIONS INTO MUNICIPAL LINES.
5. ALL LEVELS AND DIMENSIONS TO BE VERIFIED ON SITE.
6. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE STRUCTURAL ENGINEERING AND ARCHITECTURAL DRAWINGS.
7. ALL WORK IS TO BE EXECUTED IN ACCORDANCE WITH SANS 1200.
8. CONTRACTOR TO PROVIDE AN AS-BUILT SURVEY OF ALL WORKS CONSTRUCTED UPON COMPLETION OF THE PROJECT.
9. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT SABS 1200 SPECIFICATIONS.
10. THE CONTRACTOR MUST GIVE THE ENGINEER 48 HOURS WRITTEN NOTICE OF INSPECTIONS PRIOR TO COVERING UP ANY WORKS.
11. THE CONTRACTOR MUST ARRANGE FOR CONTROL TESTING AT FREQUENCIES SPECIFIED IN THE RELEVANT SABS 1200 SPECIFICATIONS. COSTS FOR CONTROL TESTING WILL BE FOR THE CONTRACTORS ACCOUNT.
12. ONCE THE WORKS ARE SET OUT THE CONTRACTOR MUST CALL THE ENGINEER FOR INSPECTION PRIOR TO COMMENCING WITH CONSTRUCTION.
13. SHOULD THE CONTRACTOR DISCOVER ANY DISCREPANCIES IN THE DRAWINGS, THESE DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY. NO ASSUMPTIONS MUST BE MADE.
14. SHOULD THE CONTRACTOR WISH TO USE ANY MATERIALS OTHER THAN THOSE SPECIFIED, HE MUST OBTAIN WRITTEN APPROVAL FROM THE ENGINEER TO DO SO.
15. ANY DESIGN CHANGES DURING CONSTRUCTION MUST BE ISSUED UNDER SITE INSTRUCTION, AFTER APPROVAL BY THE PRINCIPAL AGENT
16. ALL BRICKS USED TO CONSTRUCT SEWER AND STORMWATER MANHOLES MUST BE NFX LOAD BEARING BRICKS CONFORMING TO SABS 1200 LD.
17. ALL EXISTING SERVICES TO BE PROVED PRIOR TO WORK COMMENCING. ANY EXISTING SERVICE THAT IS DAMAGED BY THE CONTRACTOR AND IS SHOWN ON THE CONSTRUCTION DRAWINGS OR INDICATED TO THE CONTRACTOR ON SITE BY THE ENGINEER, MUST BE REPAIRED BY THE CONTRACTOR AT HIS OWN COST.

B. EARTHWORKS :

1. 100mm TOPSOIL TO BE STRIPPED AND STOCKPILED AS INSTRUCTED.
2. UNSUITABLE MATERIAL TO BE SPOILT AS INDICATED BY THE ENGINEER.
3. IN SITU MATERIAL TO BE COMPACTED TO 93% MOD. AASHTO DENSITY.
4. FILL TO BE COMPACTED IN MAX. 200mm THICKNESS TO 93% MOD. AASHTO DENSITY.
5. ALL BATTERS TO BE TOPSOILED WITH MATERIAL FROM STOCKPILE.

C. STORMWATER

1. ALL STORMWATER PIPES ARE :
   250mm NOMINAL DIAMETER - CLASS 34HD uPVC
   375mm / 450mm NOMINAL DIAMETER - CLASS 100D CONCRETE
2. ALL STORMWATER CONCRETE PIPES TO COMPLY WITH SANS 677 STANDARDS.
3. ALL JOINTS TO BE 'SPIGOT AND SOCKET' TYPE.
4. ALL STORMWATER PIPES TO BE LAID ON CLASS B BEDDING.

D. SEWER

1. ALL SEWER PIPES ARE 160mm NOMINAL DIAMETER CLASS 34 HEAVY DUTY UPVC PIPES.
2. ALL SEWER PIPES TO BE LAID ON CLASS B BEDDING.
3. ALL SEWER PIPES TO COMPLY WITH SANS 1601 STANDARDS.
4. ALL SEWER PIPES IN PARKING AREAS/ROAD CROSSING TO BE CONCRETE ENCASED 150mm ALL ROUND WITH 25MPa CONCRETE AT 28 DAYS STRENGTH.

E. WATER RETICULATION

1. BULK WATER MAIN : 75mm Ø HDPE PE100 PN 12.5
2. BEDDING TO SUIT FLEXIBLE PIPES.
3. PIPES TO BE INSTALLED WITH ALL COUPLINGS AND TO BE TESTED AND DISINFECTED.
4. INSTALLATION TO COMPLY WITH SABS 1200.
5. THRUST BLOCKS TO BE 25MPa CONCRETE AT 28 DAYS STRENGTH.
6. CONTRACTOR TO ENSURE THAT ALL INDIVIDUAL DOMESTIC SUPPLY WATER MAINS ARE CONNECTED TO THE POTABLE WATER RETICULATION AND NOT THE FIRE RETICULATION.
7. PRECAST MARKERS TO BE INSTALLED TO INDICATE TO THE RELEVANT UNDERGROUND SERVICES (WATER LINES, VALVES, FIRE LINES ETC.)
8. MINIMUM COVER TO BURIED PIPES SHALL BE 800mm, EXCEPT AT ROAD CROSSINGS WHERE THE COVER SHALL BE INCREASED TO 1000mm.

SCALE (mm)
0 10 20

No.	REFERENCE DRAWINGS
911	BULK STORMWATER LONG SECTIONS 2
908	BULK STORM WATER RETICULATION LAYOUT
902	BULK SERVICES LAYOUT

REV	DESCRIPTION	BY	DATE
P2	STORMWATER POSITIONS AMENDED	S.M	2025.04.14
P1	ISSUED FOR COMMENTS	A.M	2024.09.13

Professional person Registration

CLIENT

SOUTH AFRICAN POLICE SERVICES

PROJECT

MSINSINI POLICE STATION

DETAILS

BULK STORM WATER LONG SECTION 2 OF 2

MAP AFRICA CONSULTING

SUITE ESS106 STRATHMORE PARK, 305 MUSGRAVE ROAD, MUSGRAVE, DURBAN
e-mail : admin@mapafrica.co.za
website : www.mapafrica.co.za
FAX (031) 3092929 TEL. (031) 3095831

SABS ISO 9001 CESA

DESIGNED	A.M	COPYRIGHT RESERVED	SCALES
DRAWN	A.M		AS SHOWN
APPROVED	S.S	PL	DATE 2024.09.13
TENDER No.			
DRAWING No.	589/MSI/911		REV P2