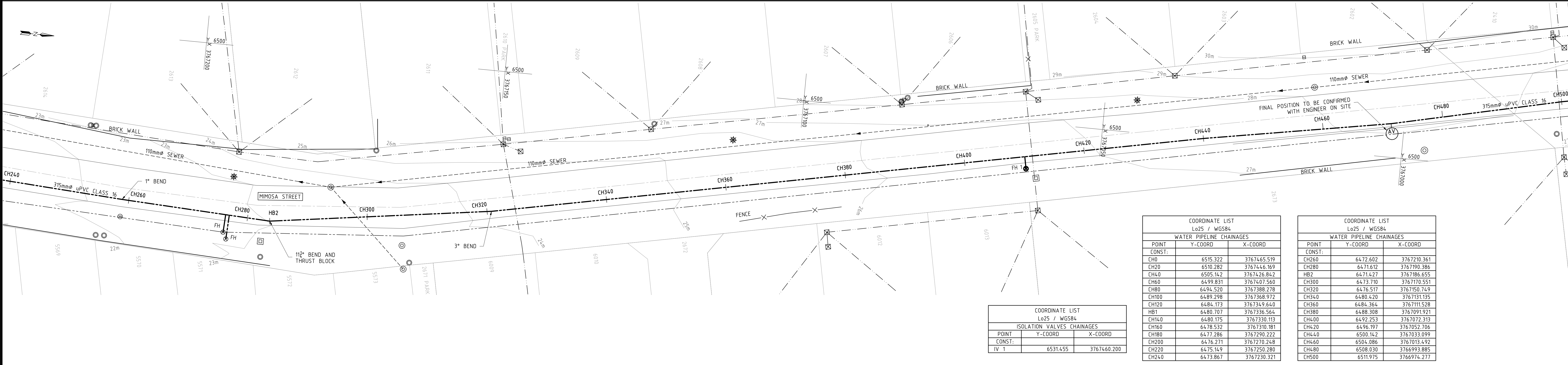
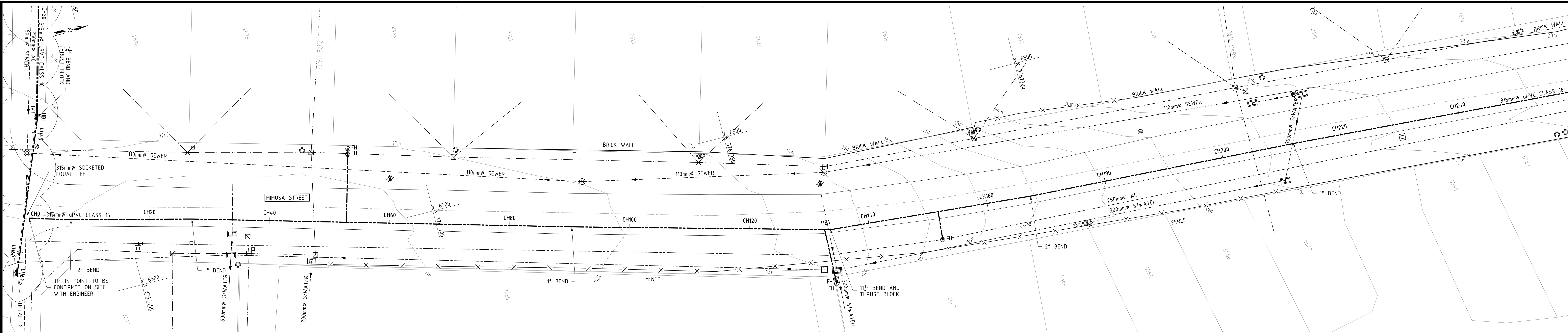
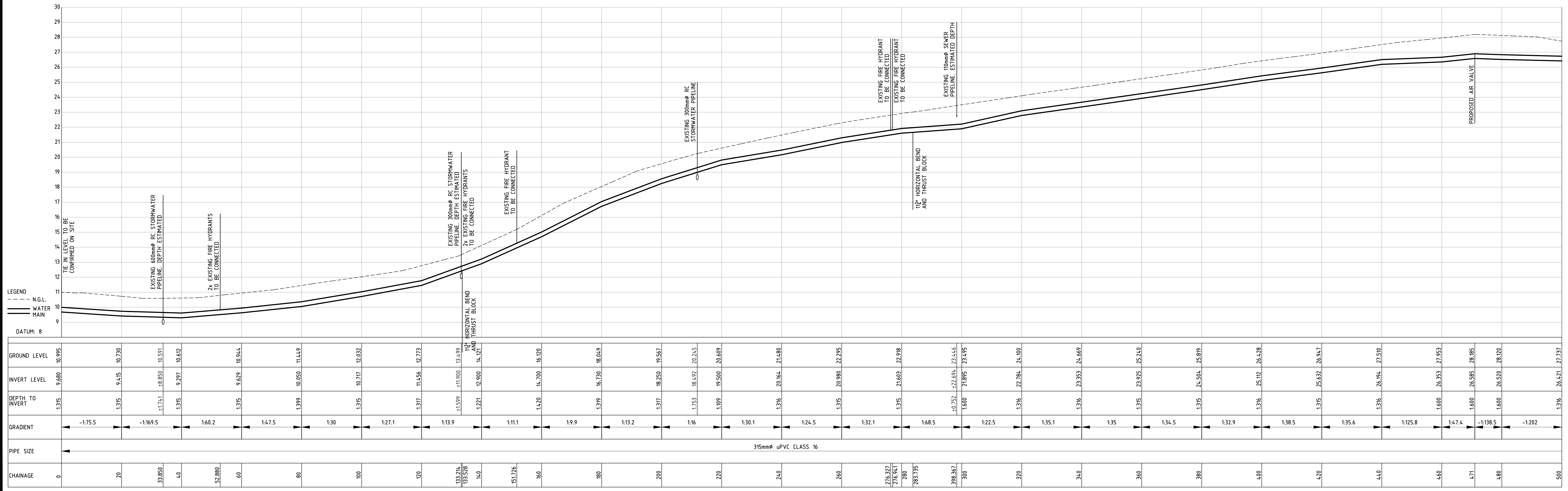




COORDINATE LIST		
L025 / WGS84		
ISOLATION VALVES CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH0	6515.322	3767465.519
CH20	6510.282	3767444.160
CH40	6505.142	3767426.842
CH60	6499.831	3767407.560
CH80	6494.520	3767388.278
CH100	6489.288	3767368.972
CH120	6484.173	3767349.640
HB1	6480.707	3767336.564
CH140	6480.175	3767330.113
CH160	6478.532	3767310.181
CH180	6477.286	3767290.222
CH200	6476.271	3767270.248
CH220	6475.149	3767250.280
CH240	6473.867	3767230.321

COORDINATE LIST		
L025 / WGS84		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH0	6515.322	3767465.519
CH20	6510.282	3767444.160
CH40	6505.142	3767426.842
CH60	6499.831	3767407.560
CH80	6494.520	3767388.278
CH100	6489.288	3767368.972
CH120	6484.173	3767349.640
HB1	6480.707	3767336.564
CH140	6480.175	3767330.113
CH160	6478.532	3767310.181
CH180	6477.286	3767290.222
CH200	6476.271	3767270.248
CH220	6475.149	3767250.280
CH240	6473.867	3767230.321

COORDINATE LIST		
L025 / WGS84		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH260	6472.602	3767210.361
CH280	6471.612	3767190.384
HB2	6471.427	3767186.655
CH300	6471.710	3767170.551
CH320	6476.517	3767150.749
CH340	6480.420	3767131.135
CH360	6484.364	3767111.528
CH380	6488.308	3767091.921
CH400	6492.253	3767072.313
CH420	6496.197	3767052.706
CH440	6500.142	3767033.099
CH460	6504.086	3767013.492
CH480	6508.030	3766993.885
CH500	6511.975	3766974.277



LEGEND
EXISTING SERVICES
STORMWATER PIPE
STORMWATER MANHOLE
STORMWATER INLET
WATER PIPE (APPROXIMATE POSITION)
VALVE
FIRE HYDRANT
WATER METER
SEWER PIPE
SEWER MANHOLE
TELKOM OVERHEAD
TELKOM POLE
OPEN SERVE UNDERGROUND LINE
OPEN SERVE KIOSK/MANHOLE
EXISTING FENCE
LAMP POST
ELECTRICAL KIOSK
ROAD SIGN
ADVERT

PROPOSED SERVICES
WATER PIPE
VALVE
AIR VALVE
FIRE HYDRANT

NOTE:
1. UNLESS OTHERWISE INDICATED, CHANGE IN HORIZONTAL DIRECTION OR VERTICAL GRADE TO BE ACHIEVED OVER A NUMBER OF PIPE LENGTHS
2. MAXIMUM PIPE JOINT DEFLECTION 2"
3. WHERE AN EXISTING PIPE IS NOT SHOWN IN VERTICAL OR NO INVERT LEVEL IS GIVEN, THE VERTICAL POSITION IS UNKNOWN
4. THE MINIMUM CLEARANCE BETWEEN THE OUTSIDE DIAMETER OF THE PIPELINE AND THE OUTSIDE DIAMETER OF ANY SERVICE IT CROSSES SHALL BE 150mm
5. DEPTH OF EXISTING SERVICES CROSSING THE PIPELINE ROUTE IS UNKNOWN UNLESS OTHERWISE NOTED
6. PIPELINE SHALL BE LAID WITH A MINIMUM COVER OF 600mm TO THE SOFFIT OF THE PIPE, EXCEPT UNDER ROADS WHERE THE COVER SHALL BE AT LEAST 800mm

1	FOR APPROVAL	MM	12.11.21
0	FOR APPROVAL	MM	16.08.21

REV.	AMENDMENTS	APPR.	DATE

SURVEYED	SURPLAN	FILE	2021-003 - 002-007 Rev 1.0
DRAWN	RH	DRAWING CHECKED	MM
DESIGNED	RH	DESIGN CHECKED	MM
SHEET SIZE	A0	PLOT SCALE	1:1000

ISSUED FOR
APPROVAL

MARINUS MEIRING PR TECH ENG 200870009

SIGNATURE

MJM
CONSULTING ENGINEERS
Call: 082 888 9635
marinus@mjmconsult.co.za
P O Box 210902
The Fig Tree
Port Elizabeth
6033

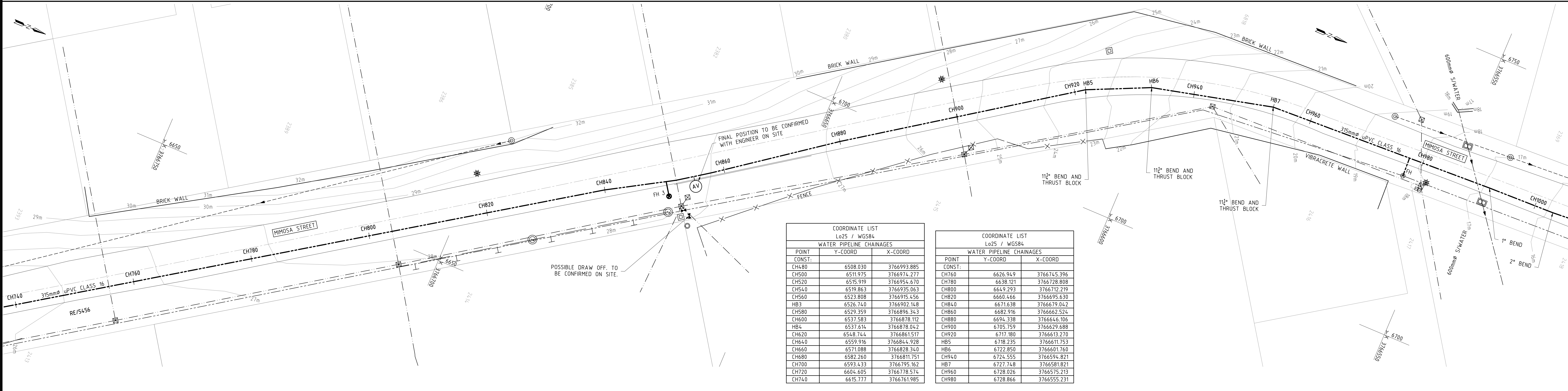
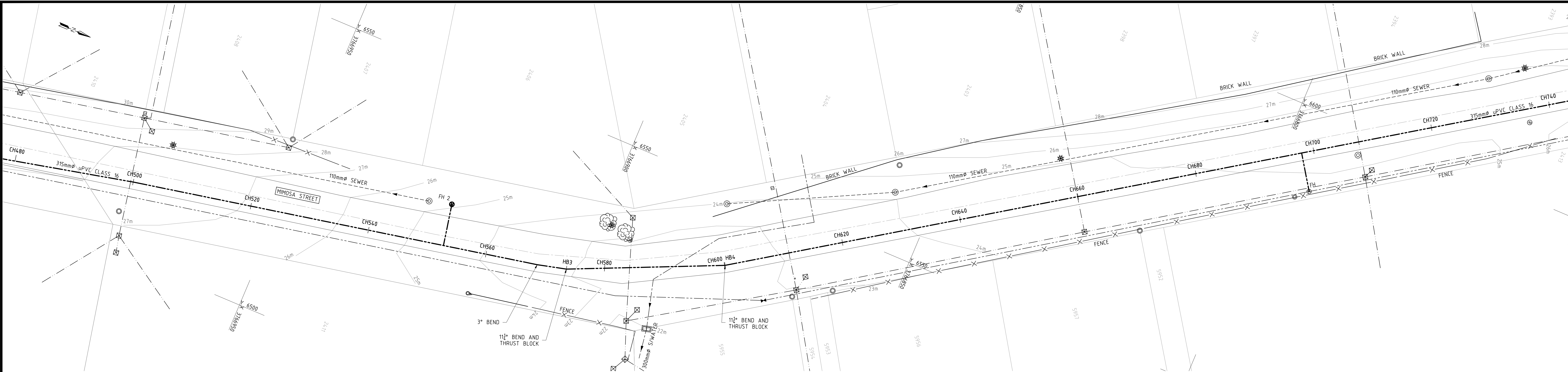
Client
KOUGA LOCAL MUNICIPALITY

Project
REPLACEMENT OF THE EXISTING WATER MAIN IN MIMOSA STREET

Drawing Title
**MIMOSA STREET
LONGITUDINAL SECTION
CH0 - CH500**

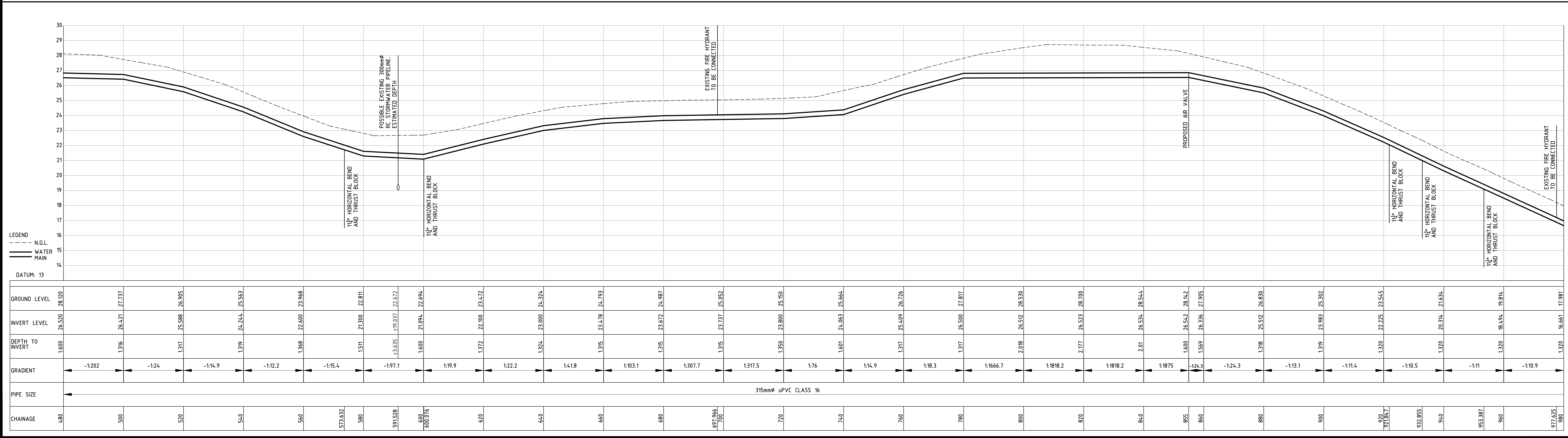
SCALE
1:250
SHEET 1 OF SHEET 6

DRAWING No
2021-003/002
REVISION
1



COORDINATE LIST Lo25 / WGS84		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST.	6508.030	3766993.885
CH480	6511.975	3766974.277
CH500	6515.919	3766954.670
CH520	6519.863	3766935.063
CH540	6523.808	3766915.456
CH560	6527.752	3766895.849
CH580	6531.696	3766876.242
CH600	6535.640	3766856.635
CH620	6539.584	3766837.028
CH640	6543.528	3766817.421
CH660	6547.472	3766797.814
CH680	6551.416	3766778.207
CH700	6555.360	3766758.600
CH720	6559.304	3766738.993
CH740	6563.248	3766719.386

COORDINATE LIST Lo25 / WGS84		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST.	6626.949	3766745.396
CH760	6630.893	3766725.789
CH780	6634.837	3766706.182
CH800	6638.781	3766686.575
CH820	6642.725	3766666.968
CH840	6646.669	3766647.361
CH860	6650.613	3766627.754
CH880	6654.557	3766608.147
CH900	6658.501	3766588.540
CH920	6662.445	3766568.933
CH940	6666.389	3766549.326
CH960	6670.333	3766529.719
CH980	6674.277	3766510.112



LEGEND
EXISTING SERVICES
STORMWATER PIPE
STORMWATER MANHOLE
STORMWATER INLET
WATER PIPE (APPROXIMATE POSITION)
VALVE
FIRE HYDRANT
WATER METER
SEWER PIPE
SEWER MANHOLE
TELKOM OVERHEAD
TELKOM POLE
OPEN SERVE UNDERGROUND LINE
OPEN SERVE KIOSK/MANHOLE
EXISTING FENCE
LAMP POST
ELECTRICAL KIOSK
ROAD SIGN
ADVERT
PROPOSED SERVICES
WATER PIPE
VALVE
AIR VALVE
FIRE HYDRANT

NOTE:
1. UNLESS OTHERWISE INDICATED, CHANGE IN HORIZONTAL DIRECTION OR VERTICAL GRADE TO BE ACHIEVED OVER A NUMBER OF PIPE LENGTHS
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3. WHERE AN EXISTING PIPE IS NOT SHOWN IN VERTICAL OR NO INVERT LEVEL IS GIVEN, THE VERTICAL POSITION IS UNKNOWN
4. THE MINIMUM CLEARANCE BETWEEN THE OUTSIDE DIAMETER OF THE PIPELINE AND THE OUTSIDE DIAMETER OF ANY SERVICE IT CROSSES SHALL BE 150mm
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6. PIPELINE SHALL BE LAID WITH A MINIMUM COVER OF 600mm TO THE SOFFIT OF THE PIPE, EXCEPT UNDER ROADS WHERE THE COVER SHALL BE AT LEAST 800mm

1	FOR APPROVAL	MM	12.11.21
0	FOR APPROVAL	MM	16.08.21

REV.	AMENDMENTS	APPR.	DATE
1	FOR APPROVAL	MM	12.11.21
0	FOR APPROVAL	MM	16.08.21

SURVEYED	SURPLAN	FILE 2021-003 - 002-007 Rev 1.0
DRAWN	RH	DRAWING CHECKED MM
DESIGNED	RH	DESIGN CHECKED MM
SHEET SIZE	A0	PLOT SCALE 1:1000

ISSUED FOR APPROVAL

MARINUS MEIRING PR TECH ENG 200870009

SIGNATURE

MJM
CONSULTING ENGINEERS
Call: 082 888 3935
marinus@mjmconsult.co.za
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Port Elizabeth
6033

Client
KOUGA LOCAL MUNICIPALITY

Project
REPLACEMENT OF THE EXISTING WATER MAIN IN MIMOSA STREET

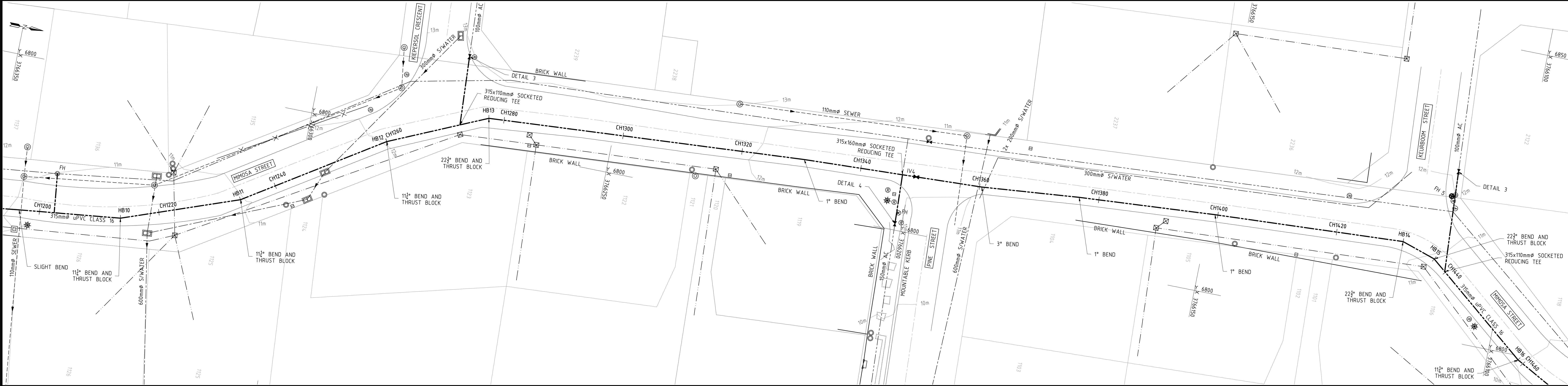
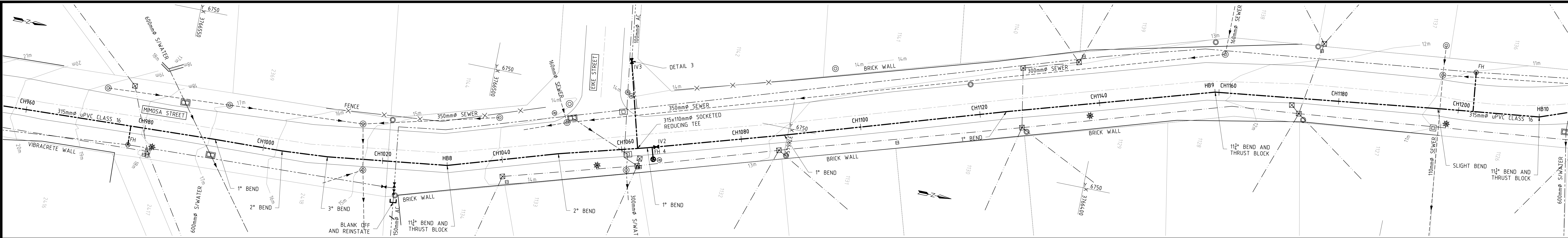
Drawing Title
**MIMOSA STREET
LONGITUDINAL SECTION
CH480 - CH980**

SCALE
1:250

DRAWING No
2021-003/003

SHEET 2 OF SHEET 6

REVISION
1



- 1 110mm uPVC CLASS 16 PIPE (PROPOSED)
2 100mm AC PIPE (EXISTING)
3 160mm VALVE AND CHAMBER (EXISTING)
4 110mm AC TO uPVC ADAPTER

WATER MAIN CONNECTION DETAIL 3

- 1 160mm uPVC CLASS 16 PIPE (PROPOSED)
2 150mm AC PIPE (EXISTING)
3 160mm VALVE AND CHAMBER (EXISTING)
4 160mm AC TO uPVC ADAPTER

WATER MAIN CONNECTION DETAIL 4

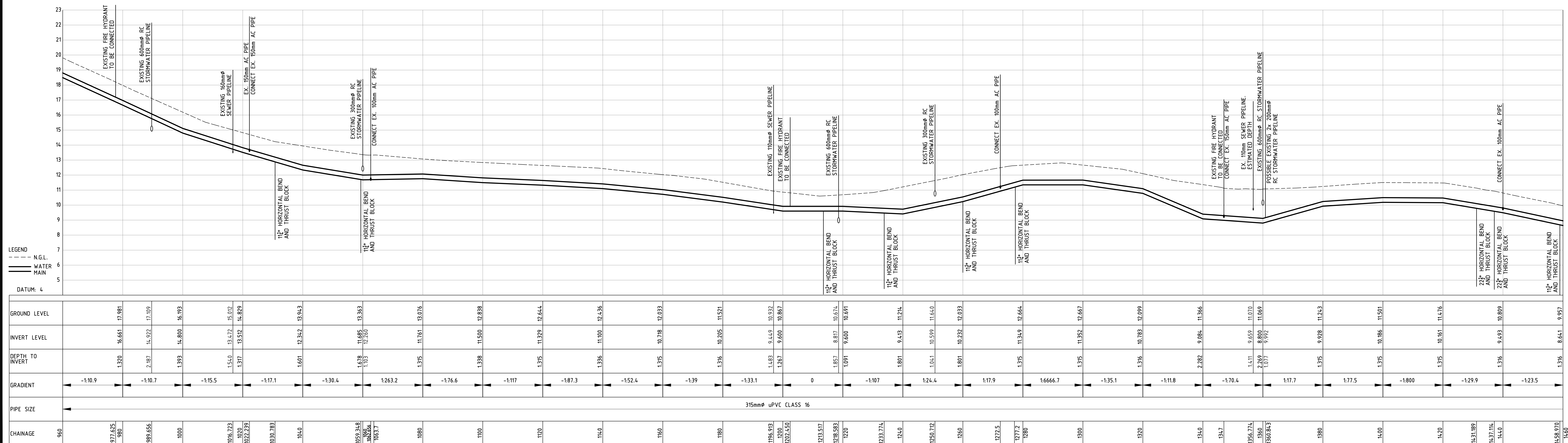
COORDINATE LIST Lo25 / WGS84		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH960	6728.026	3766575.213
CH980	6728.866	3766555.231
CH1000	6729.591	3766535.244
CH1020	6731.378	3766515.338
HB8	6732.739	3766504.641
CH1040	6742.628	3766495.845
CH1060	6741.076	3766476.644
CH1080	6746.702	3766457.453
CH1100	6752.588	3766438.339

COORDINATE LIST Lo25 / WGS84		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH1120	6758.562	3766419.252
CH1140	6764.359	3766400.111
HB9	6769.917	3766381.579
CH1160	6769.918	3766362.937
CH1180	6772.487	3766343.107
CH1200	6774.948	3766324.129
HB10	6776.520	3766305.814
CH1220	6778.350	3766286.327
CH1240	6783.489	3766267.794

COORDINATE LIST Lo25 / WGS84		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH1260	6786.884	3766248.495
HB12	6797.769	3766229.842
CH1280	6797.785	3766210.657
HB13	6800.938	3766191.480
CH1300	6805.113	3766172.314
CH1320	6806.482	3766153.144
CH1340	6807.851	3766134.000
CH1360	6809.992	3766114.866

COORDINATE LIST Lo25 / WGS84		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH1380	6811.654	3766095.599
CH1400	6813.075	3766076.425
CH1420	6814.205	3766057.251
HB14	6814.837	3766038.077
CH1440	6815.113	3766018.903
CH1460	6816.482	3766000.000

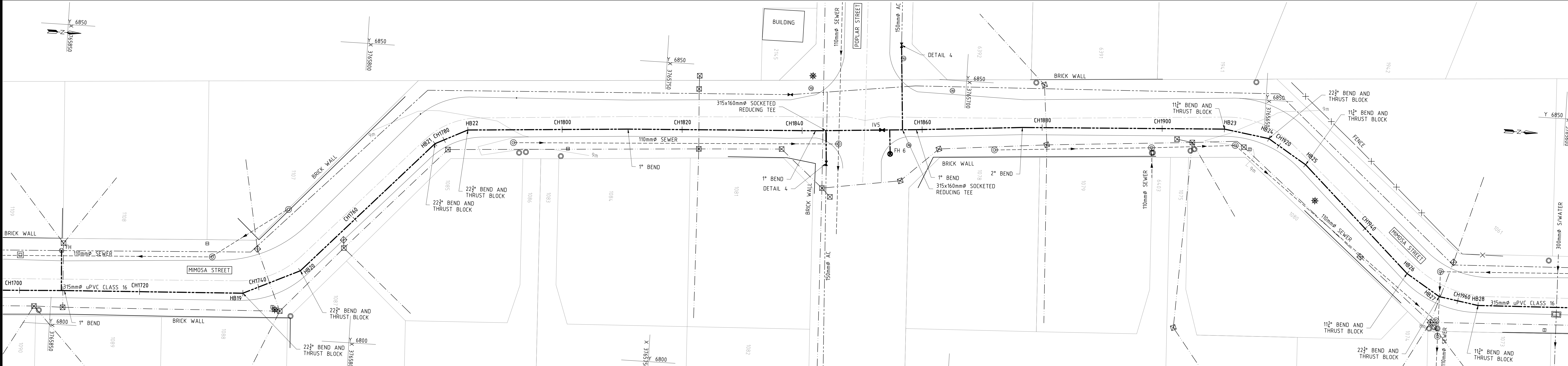
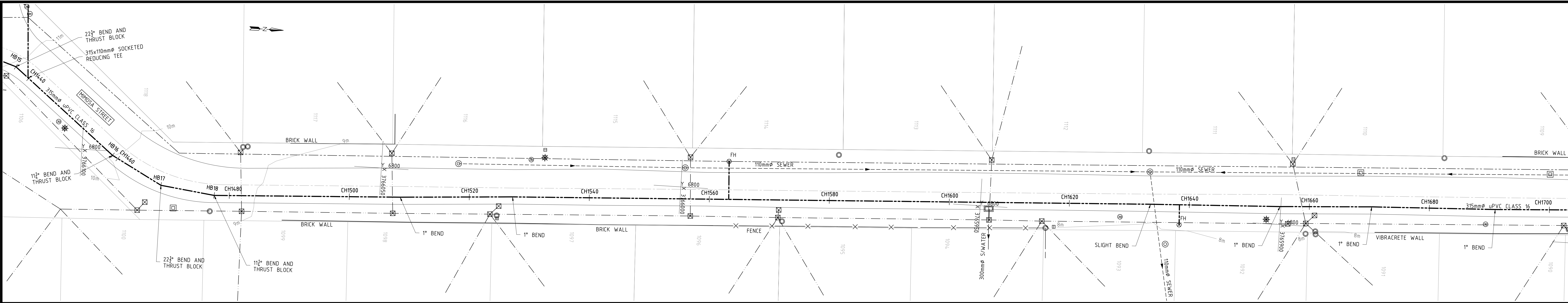
COORDINATE LIST Lo25 / WGS84		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH1480	6817.851	3765980.866
CH1500	6819.220	3765961.692
CH1520	6820.589	3765942.518
CH1540	6821.958	3765923.344
CH1560	6823.327	3765904.170



- LEGEND**
- EXISTING SERVICES**
- STORMWATER PIPE
 - STORMWATER MANHOLE
 - STORMWATER INLET
 - WATER PIPE (APPROXIMATE POSITION)
 - VALVE
 - FIRE HYDRANT
 - WATER METER
 - SEWER PIPE
 - SEWER MANHOLE
 - TELKOM OVERHEAD
 - TELKOM POLE
 - OPEN SERVE UNDERGROUND LINE
 - OPEN SERVE KIOSK/MANHOLE
 - EXISTING FENCE
 - LAMP POST
 - ELECTRICAL KIOSK
 - ROAD SIGN
 - ADVERT
- PROPOSED SERVICES**
- WATER PIPE
 - VALVE
 - FIRE HYDRANT

- NOTE:**
- UNLESS OTHERWISE INDICATED, CHANGE IN HORIZONTAL DIRECTION OR VERTICAL GRADE TO BE ACHIEVED OVER A NUMBER OF PIPE LENGTHS
 - MAXIMUM PIPE JOINT DEFLECTION 2"
 - WHERE AN EXISTING PIPE IS NOT SHOWN IN VERTICAL OR NO INVERT LEVEL IS GIVEN, THE VERTICAL POSITION IS UNKNOWN
 - THE MINIMUM CLEARANCE BETWEEN THE OUTSIDE DIAMETER OF THE PIPE AND THE OUTSIDE DIAMETER OF ANY SERVICE IT CROSSES SHALL BE 150mm
 - DEPTH OF EXISTING SERVICES CROSSING THE PIPELINE ROUTE IS UNKNOWN UNLESS OTHERWISE NOTED
 - PIPELINE SHALL BE LAID WITH A MINIMUM COVER OF 600mm TO THE SOFIT OF THE PIPE, EXCEPT UNDER ROADS WHERE THE COVER SHALL BE AT LEAST 800mm

1 FOR APPROVAL	MM	12.11.21
0 FOR APPROVAL	MM	16.08.21
REV.	AMENDMENTS	APPR. DATE
SURVEYED	SURPLAN	FILE 2021-003 - 002-007 Rev 1.0
DRAWN	RH	DRAWING CHECKED MM
DESIGNED	RH	DESIGN CHECKED MM
SHEET SIZE	A0	PLOT SCALE 1:1000
ISSUED FOR	APPROVAL	
SIGNATURE	MARINUS WEIRING PR TECH ENG 200870009	
CLIENT	KOUGA LOCAL MUNICIPALITY	
PROJECT	REPLACEMENT OF THE EXISTING WATER MAIN IN MIMOSA STREET	
DRAWING TITLE	MIMOSA STREET	
LONGITUDINAL SECTION	CH960 - CH1460	
SCALE	1:250	SHEET 3 OF SHEET 6
DRAWING No	2021-003/004	REVISION 1



- ① 110mm uPVC CLASS 16 PIPE (PROPOSED)
② 100mm AC PIPE (EXISTING)
③ 100mm VALVE AND CHAMBER (EXISTING)
④ 110mm AC TO uPVC ADAPTER

WATER MAIN CONNECTION DETAIL 3

- ① 160mm uPVC CLASS 16 PIPE (PROPOSED)
② 150mm AC PIPE (EXISTING)
③ 160mm VALVE AND CHAMBER (EXISTING)
④ 160mm AC TO uPVC ADAPTER

WATER MAIN CONNECTION DETAIL 4

COORDINATE LIST L225 / W6584		
ISOLATION VALVES CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
IV 5	6840.977	3765713.537

COORDINATE LIST L225 / W6584		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH1440	6811.212	3766109.599
HB16	6799.292	3766094.842
CH1460	6798.807	3766093.934
HB17	6794.816	3766086.474
HB18	6793.693	3766077.531
CH1480	6793.828	3766075.008
CH1500	6794.895	3766055.336
CH1520	6796.101	3766035.073
CH1540	6797.228	3766015.105

COORDINATE LIST L225 / W6584		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH1560	6798.255	3765995.132
CH1580	6799.281	3765975.138
CH1600	6800.308	3765955.185
CH1620	6801.334	3765935.211
CH1640	6802.320	3765915.235
CH1660	6803.292	3765895.259
CH1680	6804.309	3765875.286
CH1700	6805.280	3765855.310
CH1720	6806.309	3765835.337

COORDINATE LIST L225 / W6584		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
HB19	6807.135	3765818.145
CH1740	6808.311	3765805.617
HB20	6811.470	3765808.817
CH1760	6820.608	3765800.284
HB21	6834.030	3765787.750
CH1780	6834.750	3765786.281
HB22	6836.640	3765781.430
CH1800	6837.715	3765766.757
CH1820	6838.956	3765746.796

COORDINATE LIST L225 / W6584		
WATER PIPELINE CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
CH1840	6840.041	3765726.834
CH1860	6841.476	3765706.886
CH1880	6843.052	3765686.949
CH1900	6844.149	3765666.979
HB23	6844.719	3765656.587
HB24	6843.607	3765649.139
CH1920	6842.517	3765631.739
HB25	6839.640	3765642.737
CH1940	6829.647	3765632.177

- LEGEND**
- EXISTING SERVICES**
- STORMWATER PIPE
 - STORMWATER MANHOLE
 - STORMWATER INLET
 - WATER PIPE (APPROXIMATE POSITION)
 - VALVE
 - FIRE HYDRANT
 - WATER METER
 - SEWER PIPE
 - SEWER MANHOLE
 - TELKOM OVERHEAD
 - TELKOM POLE
 - OPEN SERVE UNDERGROUND LINE
 - OPEN SERVE KIOSK/MANHOLE
 - EXISTING FENCE
 - LAMP POST
 - ELECTRICAL KIOSK
 - ROAD SIGN
 - ADVERT
- PROPOSED SERVICES**
- WATER PIPE
 - VALVE
 - FIRE HYDRANT

- NOTE:**
- UNLESS OTHERWISE INDICATED, CHANGE IN HORIZONTAL DIRECTION OR VERTICAL GRADE TO BE ACHIEVED OVER A NUMBER OF PIPE LENGTHS
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1	FOR APPROVAL	MM	12.11.21
2	FOR APPROVAL	MM	16.08.21
REV.	AMENDMENTS	APPR.	DATE

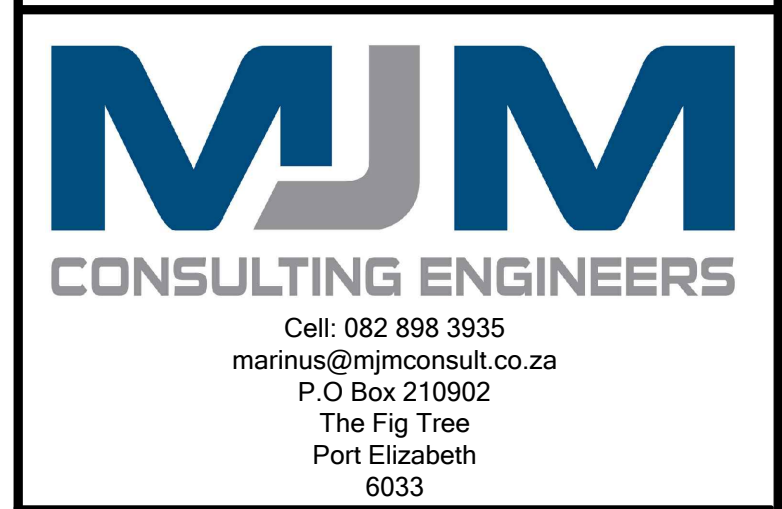
SURVEYED	SURPLAN	FILE 2021-003 - 002-007 Rev 1.0
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DRAWN	RH	DRAWING CHECKED	MM
DESIGNED	RH	DESIGN CHECKED	MM
SHEET SIZE	A0	PLOT SCALE	1:1000

ISSUED FOR APPROVAL

MARINUS MEIRING PR TECH ENG 200870009

SIGNATURE



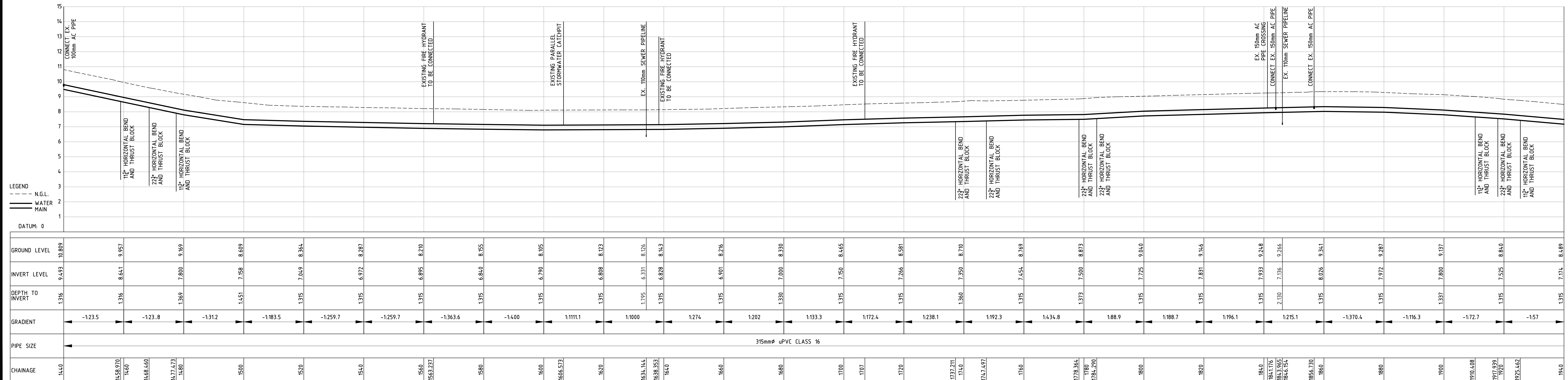
Client KOUGA LOCAL MUNICIPALITY

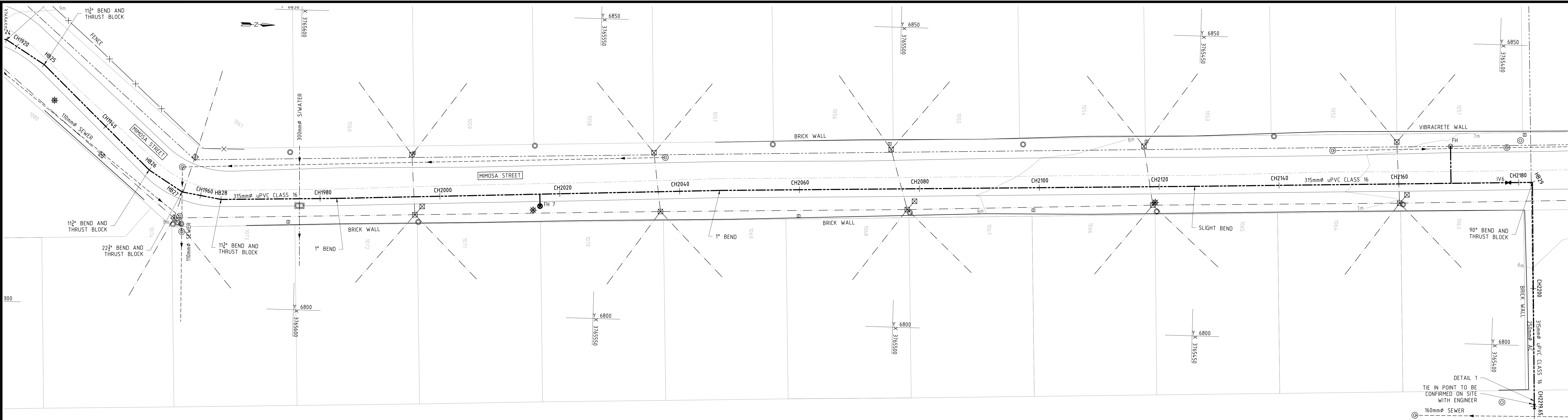
Project REPLACEMENT OF THE EXISTING WATER MAIN IN MIMOSA STREET

Drawing Title MIMOSA STREET
LONGITUDINAL SECTION
CH1440 - CH1940

SCALE 1:250 SHEET 4 OF SHEET 6

DRAWING No 2021-003/005 REVISION 1





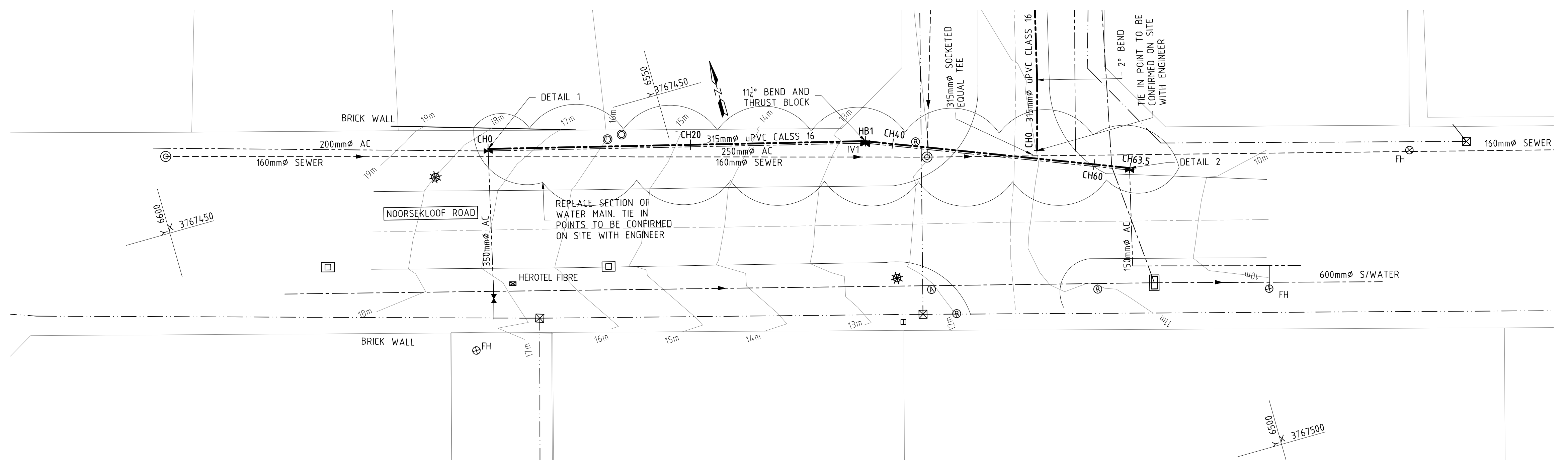
- LEGEND**
- EXISTING SERVICES**
- STORMWATER PIPE
 - STORMWATER MANHOLE
 - STORMWATER INLET
 - WATER PIPE (APPROXIMATE POSITION)
 - VALVE
 - FIRE HYDRANT
 - WATER METER
 - SEWER PIPE
 - SEWER MANHOLE
 - TELKOM OVERHEAD
 - TELKOM POLE
 - OPEN SERVE UNDERGROUND LINE
 - OPEN SERVE KIOSK/MANHOLE
 - EXISTING FENCE
 - LAMP POST
 - ELECTRICAL KIOSK
 - ROAD SIGN
 - ADVERT
- PROPOSED SERVICES**
- WATER PIPE
 - VALVE
 - FIRE HYDRANT

- WATER MAIN CONNECTION DETAIL 1**
- 1 315mm Ø uPVC CLASS 16 PIPE (PROPOSED)
 - 2 250mm Ø AC PIPE (EXISTING)
 - 3 250mm VALVE AND CHAMBER (EXISTING)
 - 4 250mm Ø AC TO uPVC ADAPTER
 - 5 315mm x 250mm Ø REDUCER
 - 6 315mm Ø VJ

COORDINATE LIST Lo25 / WGS84		
WATER PIPELINE CHAINAGES (MIMOSA)		
POINT	Y-COORD	X-COORD
CONST:		
CH1920	6842.517	3765647.379
HB25	6839.440	3765642.137
CH1940	6829.647	3765632.177
HB26	6822.598	3765624.729
HB27	6819.090	3765619.119
CH1960	6818.589	3765616.031
HB28	6818.030	3765612.587
CH1980	6818.659	3765596.088
CH2000	6819.621	3765576.112
CH2020	6820.616	3765556.136
CH2040	6821.610	3765536.161
CH2060	6822.445	3765516.179
CH2080	6823.199	3765496.193
CH2100	6823.952	3765476.207
CH2120	6824.706	3765456.222
CH2140	6825.503	3765436.237
CH2160	6826.319	3765416.254
CH2180	6827.134	3765396.271
HB29	6827.227	3765393.998
CH2200	6828.514	3765393.331
CH2219.65	6789.874	3765392.391

COORDINATE LIST Lo25 / WGS84		
WATER PIPELINE CHAINAGES (NOORSEKLOOF)		
POINT	Y-COORD	X-COORD
CONST:		
CH0	6567.525	3767450.778
CH20	6548.178	3767455.831
HB1	6531.456	3767440.206
CH40	6518.956	3767441.190
CH60	6510.369	3767448.572
CH63.5	6507.062	3767449.860

COORDINATE LIST Lo25 / WGS84		
ISOLATION VALVES CHAINAGES		
POINT	Y-COORD	X-COORD
CONST:		
IV 1	6531.455	3767440.200
IV 6	6827.063	3765398.020



- WATER MAIN CONNECTION DETAIL 2**
- 1 315mm Ø uPVC CLASS 16 PIPE (PROPOSED)
 - 2 150mm Ø AC PIPE (EXISTING)
 - 3 160mm VALVE AND CHAMBER (EXISTING)
 - 4 150mm Ø AC TO uPVC ADAPTER
 - 5 315mm x 160mm Ø REDUCER
 - 6 315mm Ø VJ

- NOTE:**
- UNLESS OTHERWISE INDICATED, CHANGE IN HORIZONTAL DIRECTION OR VERTICAL GRADE TO BE ACHIEVED OVER A NUMBER OF PIPE LENGTHS
 - MAXIMUM PIPE JOINT DEFLECTION 2"
 - WHERE AN EXISTING PIPE IS NOT SHOWN IN VERTICAL OR NO INVERT LEVEL IS GIVEN, THE VERTICAL POSITION IS UNKNOWN
 - THE MINIMUM CLEARANCE BETWEEN THE OUTSIDE DIAMETER OF THE PIPELINE AND THE OUTSIDE DIAMETER OF ANY SERVICE IT CROSSES SHALL BE 150mm
 - DEPTH OF EXISTING SERVICES CROSSING THE PIPELINE ROUTE IS UNKNOWN UNLESS OTHERWISE NOTED
 - PIPELINE SHALL BE LAID WITH A MINIMUM COVER OF 600mm TO THE SOFFIT OF THE PIPE, EXCEPT UNDER ROADS WHERE THE COVER SHALL BE AT LEAST 800mm

1	FOR APPROVAL	MM	12.11.21
0	FOR APPROVAL	MM	16.08.21

REV.	AMENDMENTS	APPR.	DATE
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SURVEYED	SURPLAN	FILE 2021-003 - 002-007 Rev 1.0
DRAWN	RH	DRAWING CHECKED MM
DESIGNED	RH	DESIGN CHECKED MM
SHEET SIZE	A0	PLOT SCALE 1:1000

ISSUED FOR APPROVAL

MARINUS MEIRING PR TECH ENG 200870009

SIGNATURE

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The Fig Tree
Port Elizabeth
6033

Client
KOUGA LOCAL MUNICIPALITY

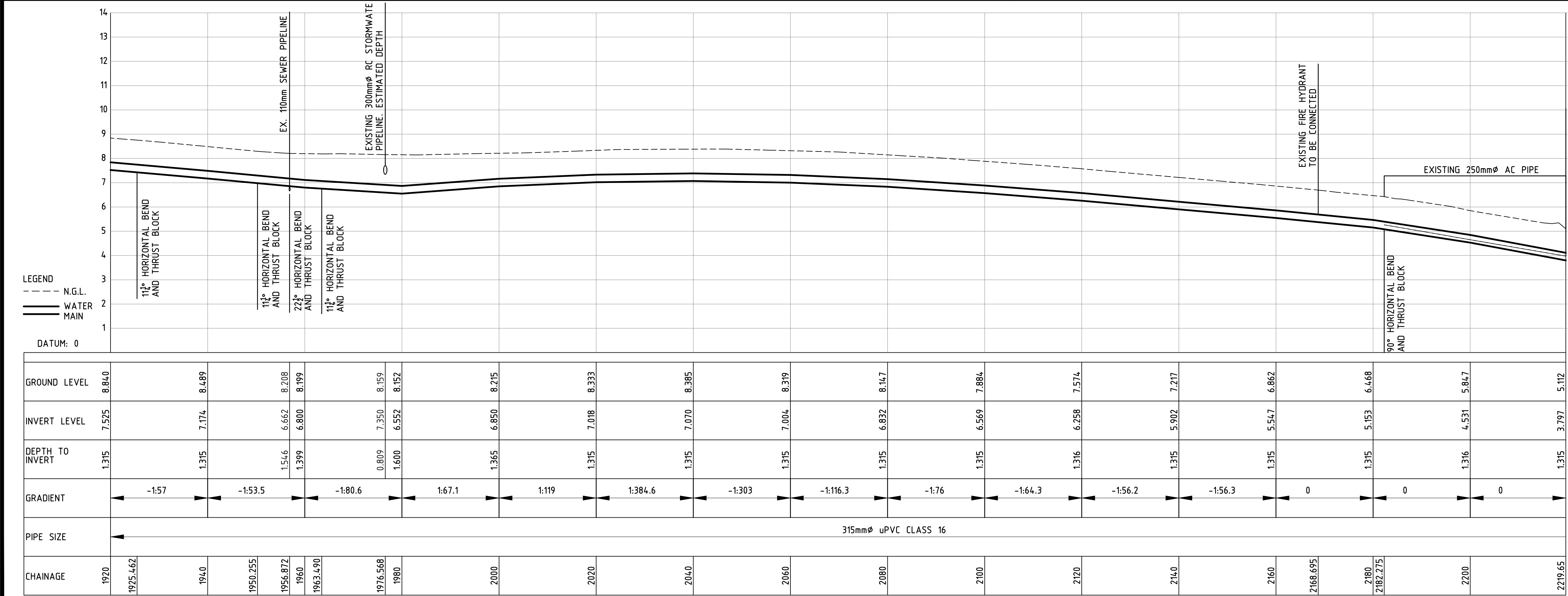
Project
REPLACEMENT OF THE EXISTING WATER MAIN IN MIMOSA STREET

Drawing Title
**MIMOSA STREET LONGITUDINAL SECTION CH1920 - CH2219.65
NOORSEKLOOF ROAD LONG SECTION CH0 - CH63.5**

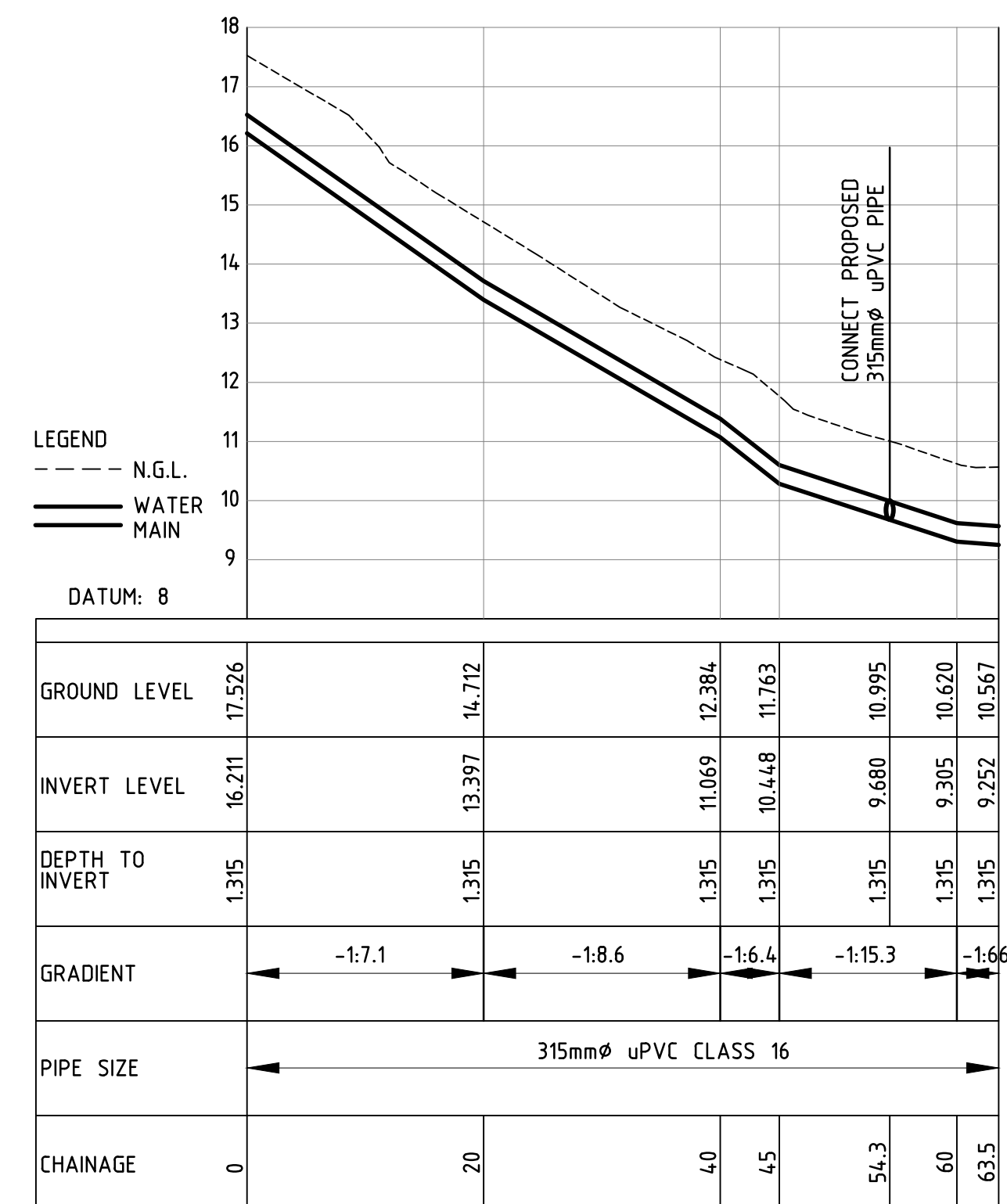
SCALE
1:250

DRAWING No
2021-003/006

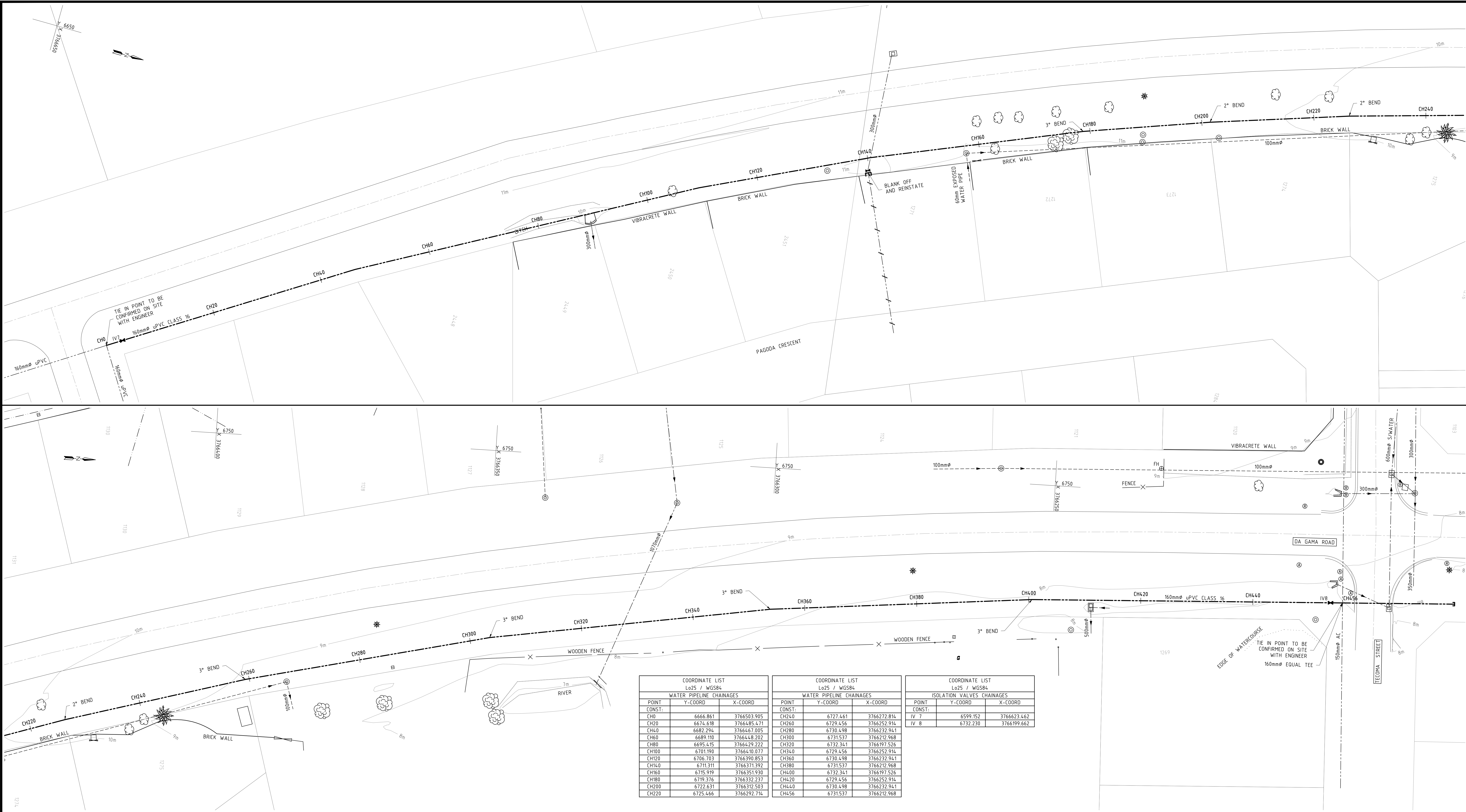
REVISION
1



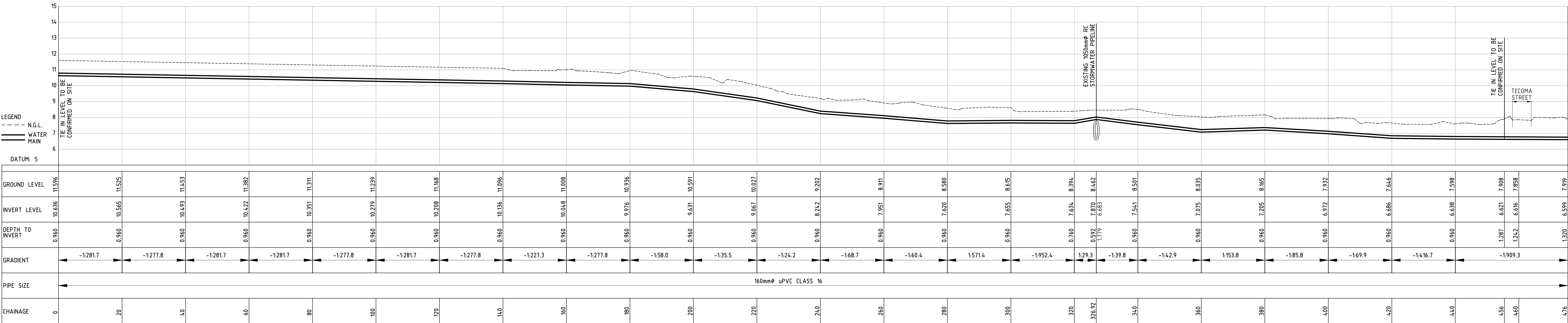
MIMOSA STREET LONGITUDINAL SECTION



NOORSEKLOOF ROAD LONGITUDINAL SECTION



COORDINATE LIST Lo25 / WGS84			COORDINATE LIST Lo25 / WGS84			COORDINATE LIST Lo25 / WGS84		
WATER PIPELINE CHAINAGES			WATER PIPELINE CHAINAGES			ISOLATION VALVES CHAINAGES		
POINT	Y-COORD	X-COORD	POINT	Y-COORD	X-COORD	POINT	Y-COORD	X-COORD
CONST:			CONST:			CONST:		
CH0	6666.861	3766503.905	CH240	6727.461	3766272.814	IV 7	6599.152	3766623.462
CH20	6674.618	3766485.471	CH260	6729.456	3766252.914	IV 8	6732.230	3766199.662
CH40	6682.294	3766467.005	CH280	6730.498	3766233.941			
CH60	6689.110	3766448.202	CH300	6731.537	3766212.968			
CH80	6695.415	3766429.222	CH320	6732.341	3766197.526			
CH100	6701.190	3766410.077	CH340	6729.456	3766252.914			
CH120	6706.703	3766390.853	CH360	6730.498	3766233.941			
CH140	6711.311	3766371.382	CH380	6731.537	3766212.968			
CH160	6715.919	3766351.930	CH400	6732.341	3766197.526			
CH180	6719.376	3766332.237	CH420	6729.456	3766252.914			
CH200	6722.631	3766312.503	CH440	6730.498	3766233.941			
CH220	6725.466	3766292.714	CH456	6731.537	3766212.968			



LEGEND
EXISTING SERVICES
STORMWATER PIPE
STORMWATER MANHOLE
STORMWATER INLET
WATER PIPE (APPROXIMATE POSITION)
VALVE
FIRE HYDRANT
WATER METER
SEWER PIPE
SEWER MANHOLE
TELKOM OVERHEAD
TELKOM POLE
OPEN SERVE UNDERGROUND LINE
OPEN SERVE KIOSK/MANHOLE
EXISTING FENCE
LAMP POST
ELECTRICAL KIOSK
ROAD SIGN
ADVERT
PROPOSED SERVICES
WATER PIPE
VALVE
FIRE HYDRANT

NOTE:
1. UNLESS OTHERWISE INDICATED, CHANGE IN HORIZONTAL DIRECTION OR VERTICAL GRADE TO BE ACHIEVED OVER A NUMBER OF PIPE LENGTHS
2. MAXIMUM PIPE JOINT DEFLECTION 2°
3. WHERE AN EXISTING PIPE IS NOT SHOWN IN VERTICAL OR NO INVERT LEVEL IS GIVEN, THE VERTICAL POSITION IS UNKNOWN
4. THE MINIMUM CLEARANCE BETWEEN THE OUTSIDE DIAMETER OF THE PIPELINE AND THE OUTSIDE DIAMETER OF ANY SERVICE IT CROSSES SHALL BE 150mm
5. DEPTH OF EXISTING SERVICES CROSSING THE PIPELINE ROUTE IS UNKNOWN UNLESS OTHERWISE NOTED
6. PIPELINE SHALL BE LAID WITH A MINIMUM COVER OF 600mm TO THE SOFFIT OF THE PIPE, EXCEPT UNDER ROADS WHERE THE COVER SHALL BE AT LEAST 800mm

1	FOR APPROVAL	MM	12.11.21
0	FOR APPROVAL	MM	16.08.21
REV.	AMENDMENTS	APPR.	DATE
SURVEYED	SURPLAN	FILE	2021-003 - 002-007 Rev 16
DRAWN	RH	DRAWING CHECKED	MM
DESIGNED	RH	DESIGN CHECKED	MM
SHEET SIZE	A0	PLOT SCALE	1:1000
ISSUED FOR	APPROVAL		
MARINUS MEIRING PR TECH ENG 200870009			
SIGNATURE			
MJM CONSULTING ENGINEERS Call: 082 888 3935 marinus@mjmconsult.co.za P O Box 210902 The Fig Tree Port Elizabeth 6033			
Client	ROUGA LOCAL MUNICIPALITY		
Project	REPLACEMENT OF THE EXISTING WATER MAIN IN MIMOSA STREET		
Drawing Title	DA GAMA ROAD LONGITUDINAL SECTION CH0 - CH456		
SCALE	1:250	SHEET 6 OF SHEET 6	
DRAWING No	2021-003/007	REVISION	1



1. ALL WORK TO BE CONSTRUCTED IN TERMS OF THE RELEVANT SANS 1200 SPECIFICATIONS.
 2. THE CONTRACTOR SHALL CAREFULLY IDENTIFY AND EXPOSE ALL EXISTING SERVICES BY HAND PRIOR TO THE COMMENCEMENT OF THE WORKS.
 3. WHEN WORKS ARE TO BE DONE NEAR EXISTING STRUCTURES PRECAUTIONS ARE TO BE TAKEN REGARDING LATERAL SUPPORT.
 4. CONTRACTOR IS RESPONSIBLE FOR CORRECT SETTING OUT OF STRUCTURES WITH PARTICULAR REFERENCE TO BOUNDARIES AND BUILDING LINES.
 5. ANY ERRORS, DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE ENGINEER FOR CLARIFICATION BEFORE WORK IS UNDERTAKEN.
 6. ALL MILD STEEL PIPEWORK TO BE HOT DIPPED GALVANISED AFTER MANUFACTURE AND FUSION BONDED EPOXY (FBE) COATED.
 7. MAMOD = MOD AASHTO MAXIMUM DRY DENSITY
- CHAMBERS
1. ALL CONCRETE TO BE 30MPa/19mm UNLESS OTHERWISE NOTED
 2. FINAL POSITION OF CHAMBERS TO BE AGREED WITH THE ENGINEER ON SITE.
 3. BRICKWORK EVERY COURSE FOR FIRST SIX COURSES.
 4. 230mm BRICKWORK TO BE LAID IN BOND OF 2 STRETCHER AND 1 HEADER COURSE WITH FLUSH JOINTS.
 5. CONTRACTOR TO CHECK COMBINED LENGTH OF FITTINGS BEFORE CONSTRUCTING THE CHAMBER.
 6. BRICKWORK MUST NOT BE PLASTERED. ENGINEERING BRICKS TO BE USED, BRICKS TO BE IN ACCORDANCE WITH SABS 0164.
 7. COVER TO REINFORCEMENT MIN 50mm.
 8. INSITU MATERIAL UNDER CHAMBER AND BACKFILL AROUND CHAMBER TO BE COMPACTED IN LAYERS.
 9. MOD AASHTO MAXIMUM DRY DENSITY

SURVEYED	N/A	FILE	2021-003 - 009 Rev 1.dwg
DRAWN	RH	DRAWING	CHECKED MM
DESIGNED	RH	DESIGN	CHECKED MM
SHEET	A0	PLOT	SCALE 1:1000

APPROVAL

MARINUS MEIRING PR TECH ENG 200870009

SIGNATURE _____

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Client
KOUGA LOCAL MUNICIPALITY

Project

REPLACEMENT OF THE
EXISTING WATER MAIN IN
MIMOSA STREET

Drawing Title

SERVICES DETAILS

AIR VALVE CHAMBERS

SCALE AS SHOWN	SHEET 2 OF SHEET 2
DRAWING No 2021-003/009	REVISION 1