

LEGEND

- ROADS:**
1. KERBING TO BE AS PER STANDARD DETAIL PLANS.
 2. TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD TRAFFIC SIGNS MANUAL (THIRD EDITION).
 3. ALL LEVELS TO BE CONFIRMED ON SITE.

- STORMWATER**
1. MINIMUM PIPE DIAMETER TO BE 450mm.
 2. MINIMUM PIPE FALL TO BE 1:200(1%) UNLESS OTHERWISE APPROVED BY MUNICIPALITY.
 3. PIPE BEDDING TO BE CLASS B UNLESS OTHERWISE SPECIFIED.
 4. ALL EXCAVATIONS AND BEDDING MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE LAYING OF ANY PIPES.
 5. CLEAN EXISTING STORMWATER INLETS AND REPAIR WHERE NECESSARY (IF APPLICABLE).
 6. BELL MOUTHS TO HAVE FIGS: KERBS



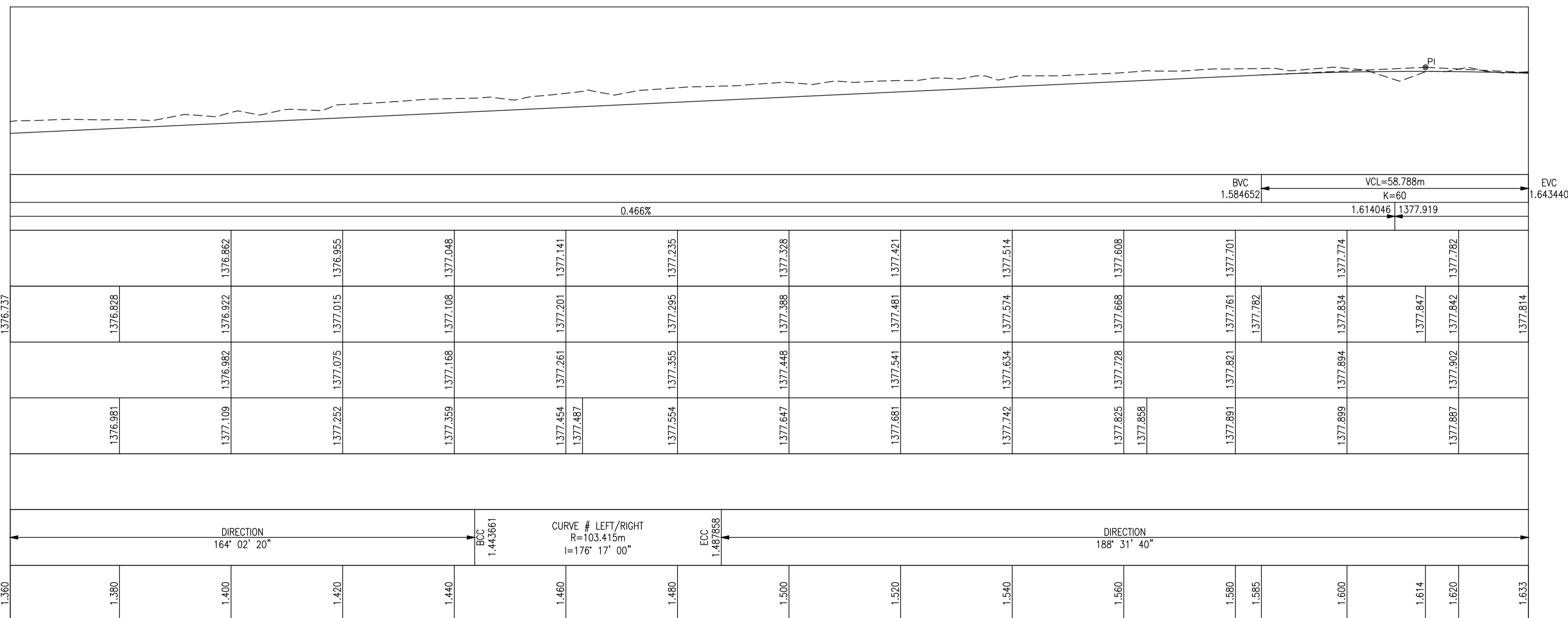
No.	Type	Length	Radius	Direction	Start Station	End Station	Start Direction	End Direction	PI Station	Start Point	End Point	Center Point	PI Point
1	Line	1099.223m		127° 55' 30"	0.000m	1099.223m	127° 55' 30"	164° 02' 20"	1118.140m	(-102807.227995m, -3013783.872706m, 0.000000m)	(-103674.314258m, -3013108.260304m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
2	Curve	36.573m	58.022m		1099.223m	1135.796m	127° 55' 30"	164° 02' 20"	1118.140m	(-103694.437957m, -3013108.260304m, 0.000000m)	(-103694.437957m, -3013108.260304m, 0.000000m)	(-103694.437957m, -3013108.260304m, 0.000000m)	(-103694.437957m, -3013108.260304m, 0.000000m)
3	Line	307.865m		164° 02' 20"	1135.796m	1443.661m	164° 02' 20"	188° 31' 40"	1466.102m	(-103694.437957m, -3013108.260304m, 0.000000m)	(-103779.091150m, -3012782.447619m, 0.000000m)	(-103779.091150m, -3012782.447619m, 0.000000m)	(-103779.091150m, -3012782.447619m, 0.000000m)
4	Curve	44.197m	103.415m		1443.661m	1487.858m	164° 02' 20"	188° 31' 40"	1466.102m	(-103779.091150m, -3012782.447619m, 0.000000m)	(-103781.934351m, -3012738.678171m, 0.000000m)	(-103781.934351m, -3012738.678171m, 0.000000m)	(-103781.934351m, -3012738.678171m, 0.000000m)
5	Line	157.383m		188° 31' 40"	1487.858m	1645.241m	188° 31' 40"	208° 48' 30"	1665.311m	(-103781.934351m, -3012738.678171m, 0.000000m)	(-103758.598680m, -3012583.034970m, 0.000000m)	(-103758.598680m, -3012583.034970m, 0.000000m)	(-103758.598680m, -3012583.034970m, 0.000000m)
6	Curve	39.720m	112.219m		1645.241m	1684.962m	188° 31' 40"	208° 48' 30"	1665.311m	(-103758.598680m, -3012583.034970m, 0.000000m)	(-103745.951601m, -3012545.600165m, 0.000000m)	(-103745.951601m, -3012545.600165m, 0.000000m)	(-103745.951601m, -3012545.600165m, 0.000000m)
7	Line	93.805m		208° 48' 30"	1684.962m	1778.767m	208° 48' 30"	237° 20' 30"	1799.253m	(-103745.951601m, -3012545.600165m, 0.000000m)	(-103700.749804m, -3012463.403770m, 0.000000m)	(-103700.749804m, -3012463.403770m, 0.000000m)	(-103700.749804m, -3012463.403770m, 0.000000m)
8	Curve	40.122m	80.563m		1778.767m	1818.889m	208° 48' 30"	237° 20' 30"	1799.253m	(-103700.749804m, -3012463.403770m, 0.000000m)	(-103673.630765m, -3012434.398089m, 0.000000m)	(-103673.630765m, -3012434.398089m, 0.000000m)	(-103673.630765m, -3012434.398089m, 0.000000m)
9	Line	315.504m		237° 20' 30"	1818.889m	2134.393m	237° 20' 30"	254° 00' 10"	2156.895m	(-103673.630765m, -3012434.398089m, 0.000000m)	(-103408.005839m, -3012284.144550m, 0.000000m)	(-103408.005839m, -3012284.144550m, 0.000000m)	(-103408.005839m, -3012284.144550m, 0.000000m)
10	Curve	44.687m	153.683m		2134.393m	2179.080m	237° 20' 30"	254° 00' 10"	2156.895m	(-103408.005839m, -3012284.144550m, 0.000000m)	(-103367.430298m, -3012245.800121m, 0.000000m)	(-103367.430298m, -3012245.800121m, 0.000000m)	(-103367.430298m, -3012245.800121m, 0.000000m)
11	Line	260.009m		254° 00' 10"	2179.080m	2439.089m	254° 00' 10"			(-103367.430298m, -3012245.800121m, 0.000000m)	(-103117.490715m, -3012174.140645m, 0.000000m)	(-103117.490715m, -3012174.140645m, 0.000000m)	(-103117.490715m, -3012174.140645m, 0.000000m)

Benchmark No.	X-coordinate	Y-coordinate	Z-coordinate	Description
7000	-103059.84	-3012165.654	1361.931	12MM IRON PEG
7001	-103429.057	-3012267.855	1376.02	12MM IRON PEG
7002	-103692.625	-3012434.097	1377.139	FIRE HYDRANT
7003	-103769.147	-3012576.171	1378.526	MAN-HOLE
7004	-103791.108	-3012767.044	1377.782	12MM IRON PEG
7005	-103700.093	-3013092.717	1378.258	12MM IRON PEG
7006	-103519.865	-3013398.163	1372.748	12MM IRON PEG
7007	-103090.864	-3013551.728	1366.662	12MM IRON PEG
7008	-102816.533	-3013764.866	1360.909	12MM IRON PEG NEXT TO ANCOR WIRE
7009	-103151.531	-3013164.306	1370.401	MAN-HOLE
7010	-102954.641	-3012954.4	1367.246	12MM IRON PEG
7011	-102747.787	-3012900.241	1369.482	12MM IRON PEG
7012	-102986.979	-3012795.049	1374.051	12MM IRON PEG

SCALES:
Horizontal 1:100
Vertical 1:10

DATUM 1376.000

VERTICAL PROFILE GRADES	
FINAL DESIGN ROAD LEVELS	LEFT EDGE (HL)
	CENTRE LINE (CL)
	RIGHT EDGE (HR)
GROUND LEVELS ON CL	
SUPERELEVATION LEFT RIGHT ---	
HORIZONTAL ALIGNMENT	
DISTANCE (km)	



LONGSECTION ALIGNMENT 1
FROM 1360.427 TO 1632.513

AMENDMENTS		
NR.	DATE	DESCRIPTION

CONSULTANTS DETAIL:
TEKROD CONSULTING ENGINEERS
21 RIVIER STREET
VILLA PEREZ
UNIT No.8
POTCHEFSTROOM
2531
TEL : 015 023 1118
eMAIL: admin@tekrod.co.za
WEBSITE: www.Tekrod.co.za



CLIENT DETAIL:
MAQUASSI HILLS LOCAL MUNICIPALITY
13 KRUGER STREET
PRIVATE BAG X 3
WOLMARANSSTAD
2630
TEL : 018 065 0010
FAX : 018 596 1555



DESIGNED TEKROD CONSULTING ENGINEERS
DRAWING CHECKED BY TEKROD CONSULTING ENGINEERS
DRAWN TEKROD CONSULTING ENGINEERS
CIVIL DRAUGHTING SERVICES TEKROD CONSULTING ENGINEERS

LOCATION OF PROJECT:
NORTH WEST: WOLMARANSSTAD
DESCRIPTION OF PROJECT:
**UPGRADING OF GRAVEL ROAD TO BLOCK PAVING
BETWEEN MAITEMOGELO TAXI ROUTE AND N12
ROAD 1 LAYOUT PLAN & LONG SECTION**
CONTRACT NO. TBC PROJECT NO. 001 - R SCALE 1:1000 DATE: JUNE - 2026

SHEET LAYOUT

PROJECT STATUS

CONCEPT DRAWING	TENDER DRAWING	APPROVED FOR CONSTRUCTION DRAWING	ASBUILT DRAWING
PROJECT ENGINEER	DESIGNER	APPROVED FOR CONSTRUCTION	ASBUILT
DETAILS AND SURFACE	SIGNATURE & P. NUMBER	DATE	
REMARKS	SIGNATURE	DATE	
DRAWING NO. 002-W17-06	ORIGINAL FILE SIZE: A1	SHEET NO. 60F9	

LEGEND

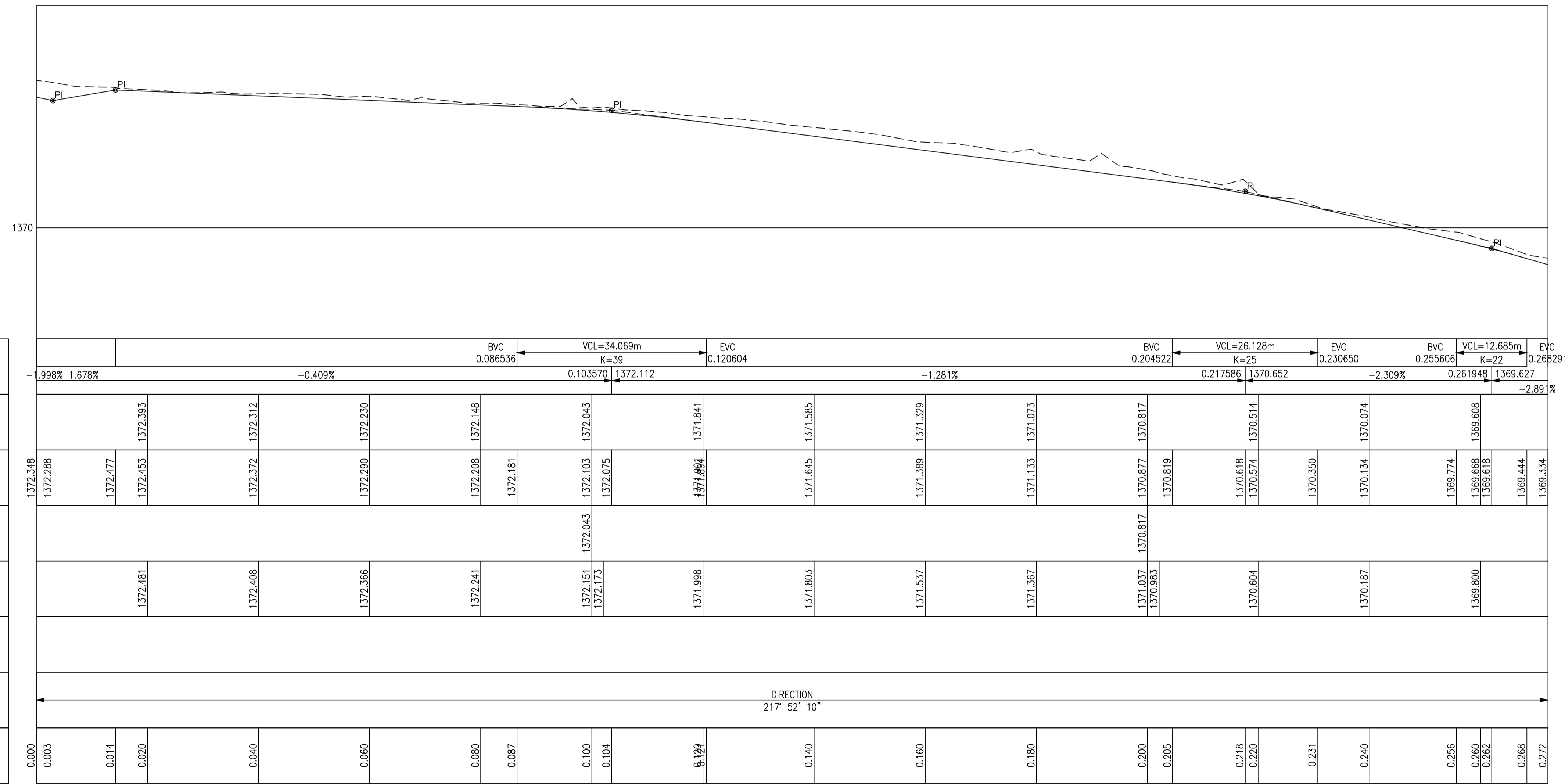
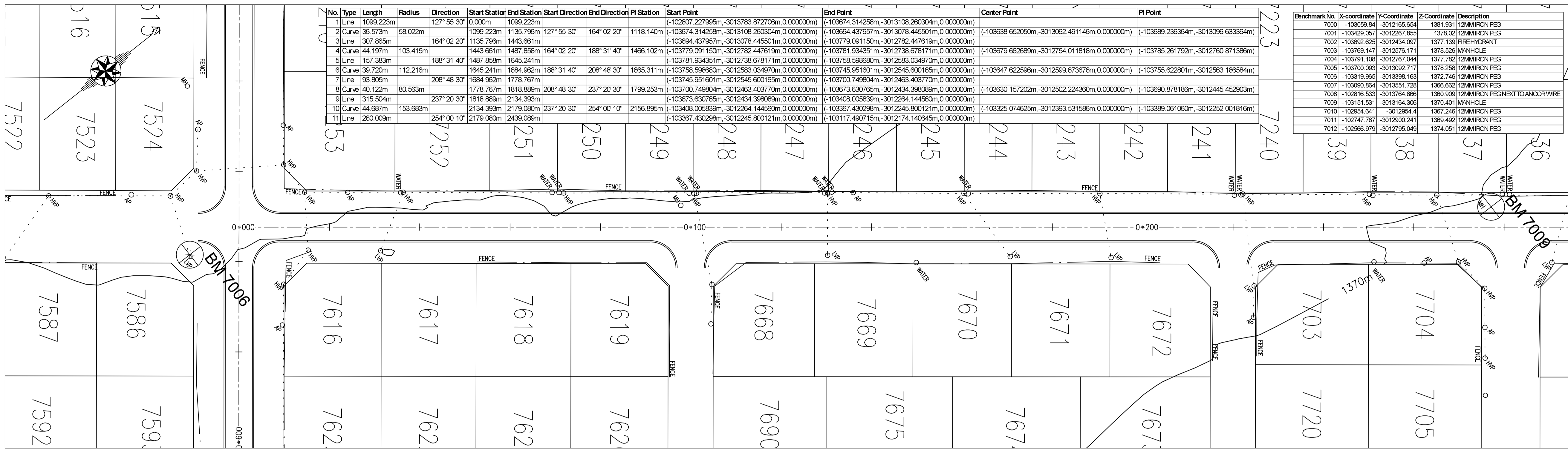
- ROADS:
1. KERBING TO BE AS PER STANDARD DETAIL PLANS.
 2. TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD TRAFFIC SIGNS MANUAL (THIRD EDITION).
 3. ALL LEVELS TO BE CONFIRMED ON SITE.

STORMWATER

1. MINIMUM PIPE DIAMETER TO BE 450mm.
2. MINIMUM PIPE FALL TO BE 1:200(1%) UNLESS OTHERWISE APPROVED BY MUNICIPALITY.
3. PIPE BEDDING TO BE CLASS B UNLESS OTHERWISE SPECIFIED.
4. ALL EXCAVATIONS AND BEDDING MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE LAYING OF ANY PIPES.
5. CLEAN EXISTING STORMWATER INLETS AND REPAIR WHERE NECESSARY (IF APPLICABLE).
6. BELL MOUTHS TO HAVE FIGS & KERBS

No.	Type	Length	Radius	Direction	Start Station	End Station	Start Direction	End Direction	PI Station	Start Point	End Point	Center Point	PI Point
1	Line	1099.223m		127° 55' 30"	0.000m	1099.223m	127° 55' 30"	164° 02' 20"	1118.140m	(-102807.227955m, -3013783.872706m, 0.000000m)	(-103674.314258m, -3013108.260304m, 0.000000m)	(-102638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
2	Curve	36.573m	58.022m		1099.223m	1135.796m				(-103674.314258m, -3013108.260304m, 0.000000m)	(-103694.437957m, -3013078.445501m, 0.000000m)		
3	Line	307.865m		164° 02' 20"	1135.796m	1443.661m	164° 02' 20"	188° 31' 40"	1466.102m	(-103694.437957m, -3013078.445501m, 0.000000m)	(-103779.091150m, -3012782.447619m, 0.000000m)	(-103679.662689m, -3012754.011818m, 0.000000m)	(-103785.261792m, -3012760.871386m)
4	Curve	44.197m	103.415m		1443.661m	1487.858m				(-103779.091150m, -3012782.447619m, 0.000000m)	(-103781.934351m, -3012738.678171m, 0.000000m)		
5	Line	157.383m		188° 31' 40"	1487.858m	1645.241m	188° 31' 40"	208° 48' 30"	1665.311m	(-103781.934351m, -3012738.678171m, 0.000000m)	(-103758.598680m, -3012583.034970m, 0.000000m)	(-103647.622596m, -3012599.673676m, 0.000000m)	(-103755.622801m, -3012563.186584m)
6	Curve	39.720m	112.216m		1645.241m	1684.962m				(-103758.598680m, -3012583.034970m, 0.000000m)	(-103745.951601m, -3012545.600165m, 0.000000m)		
7	Line	53.905m		208° 48' 30"	1684.962m	1778.767m	208° 48' 30"	237° 20' 30"	1799.253m	(-103745.951601m, -3012545.600165m, 0.000000m)	(-103700.749804m, -3012463.403770m, 0.000000m)	(-103630.157202m, -3012502.224360m, 0.000000m)	(-103690.878186m, -3012445.452903m)
8	Curve	40.122m	80.563m		1778.767m	1818.889m				(-103700.749804m, -3012463.403770m, 0.000000m)	(-103673.630765m, -3012434.398039m, 0.000000m)		
9	Line	315.504m		237° 20' 30"	1818.889m	2134.393m	237° 20' 30"	254° 00' 10"	2156.895m	(-103673.630765m, -3012434.398039m, 0.000000m)	(-103408.005839m, -3012254.144566m, 0.000000m)	(-103325.074625m, -3012393.531586m, 0.000000m)	(-103389.061050m, -3012252.001819m)
10	Curve	44.687m	153.683m		2134.393m	2179.080m				(-103408.005839m, -3012254.144566m, 0.000000m)	(-103367.430298m, -3012245.800121m, 0.000000m)		
11	Line	260.009m		254° 00' 10"	2179.080m	2439.089m	254° 00' 10"			(-103367.430298m, -3012245.800121m, 0.000000m)	(-103117.490715m, -3012174.140645m, 0.000000m)		

Benchmark No.	X-Coordinate	Y-Coordinate	Z-Coordinate	Description
7000	-103059.64	-3012165.654	1381.931	12MM IRON PEG
7001	-103429.057	-3012267.855	1378.02	12MM IRON PEG
7002	-103692.625	-3012434.097	1377.139	FIREHYDRANT
7003	-103789.147	-3012576.171	1378.526	MANHOLE
7004	-103791.108	-3012767.044	1377.782	12MM IRON PEG
7005	-103700.093	-3013292.717	1378.358	12MM IRON PEG
7006	-103319.965	-3013398.163	1372.746	12MM IRON PEG
7007	-103090.864	-3013551.728	1366.662	12MM IRON PEG NEXT TO ANCHOR WIRE
7008	-102816.533	-3013764.866	1360.909	12MM IRON PEG
7009	-103151.531	-3013164.306	1370.401	MANHOLE
7010	-102954.641	-3012954.4	1367.246	12MM IRON PEG
7011	-102747.787	-3012900.241	1369.492	12MM IRON PEG
7012	-102566.979	-3012795.049	1374.051	12MM IRON PEG



SCALES:
Horizontal 1:100
Vertical 1:10
DATUM 1368.000

FINAL DESIGN ROAD LEVELS	LEFT EDGE (HL)
	CENTRE LINE (CL)
	RIGHT EDGE (HR)

GROUND LEVELS ON CL	
LEFT	RIGHT

SUPERELEVATION	
LEFT	RIGHT

HORIZONTAL ALIGNMENT	
DIRECTION 217° 52' 10"	

DISTANCE (km)	Final Design Road Levels (m)	Ground Levels on CL (m)
0.000	1372.348	
0.003	1372.288	
0.014	1372.477	1372.481
0.020	1372.453	1372.408
0.040	1372.372	1372.366
0.060	1372.290	1372.241
0.080	1372.208	1372.181
0.087	1372.181	1372.151
0.100	1372.103	1372.075
0.104	1372.075	1371.998
0.129	1371.891	1371.803
0.140	1371.645	1371.537
0.160	1371.389	1371.367
0.180	1371.133	1370.817
0.200	1370.877	1370.604
0.205	1370.819	1370.514
0.218	1370.618	1370.350
0.220	1370.574	1370.187
0.231	1370.350	1369.774
0.240	1370.134	1369.608
0.256	1369.774	1369.618
0.260	1369.668	1369.444
0.262	1369.618	1369.334
0.268	1369.444	
0.272	1369.334	

LONGSECTION ALIGNMENT 2 FROM 0.000 TO 0.272.085

NR.	DATE	DESCRIPTION

CONSULTANTS DETAIL:
TEKROD CONSULTING ENGINEERS
21 RIVIER STREET
VILLA PEREZ
UNIT No.8
POTCHEFSTROOM
2531
TEL : 015 023 1118
eMAIL: admin@tekrod.co.za
WEBSITE: www.Tekrod.co.za



CLIENT DETAIL:
MAQUASSI HILLS LOCAL MUNICIPALITY
13 KRUGER STREET
PRIVATE BAG X 3
WOLMARANSSTAD
2630
TEL : 018 065 0010
FAX : 018 596 1555



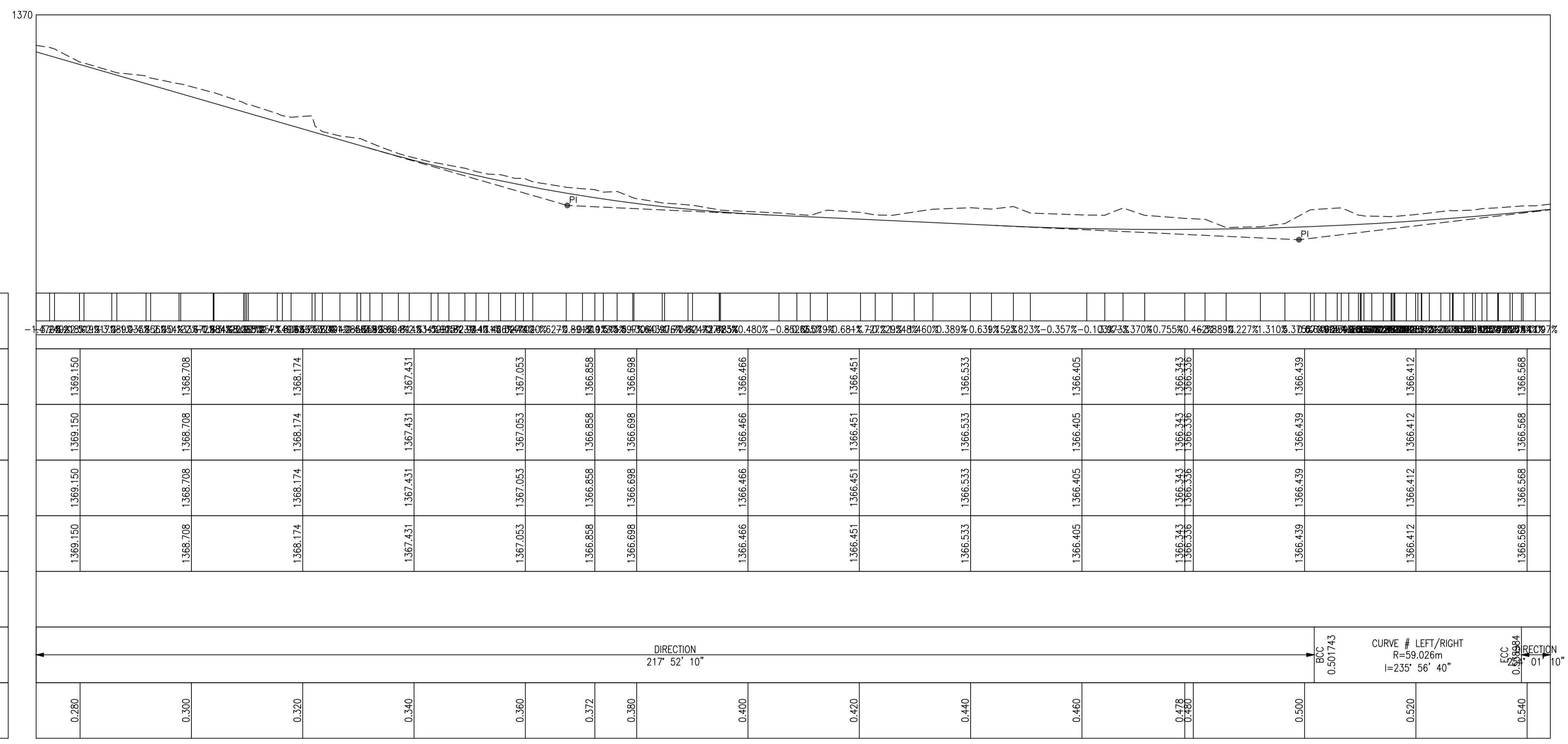
DESIGNED BY
TEKROD CONSULTING ENGINEERS
DRAWING CHECKED BY
TEKROD CONSULTING ENGINEERS
DRAWN BY
TEKROD CONSULTING ENGINEERS
CIVIL DRAUGHTING SERVICES
TEKROD CONSULTING ENGINEERS

LOCATION OF PROJECT:
NORTH WEST: WOLMARANSSTAD
DESCRIPTION OF PROJECT:
UPGRADING OF GRAVEL ROAD TO BLOCK PAVING BETWEEN MAITEMOGELO TAXI ROUTE AND N12 ROAD 2 LAYOUT PLAN & LONG SECTION
CONTRACT NO.: TBC
PROJECT NO.: 001 - R
SCALE: 1:1000
DATE: JUNE - 2026

SHEET LAYOUT			
PROJECT STATUS			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONCEPT DRAWING	TENDER DRAWING	APPROVED FOR CONSTRUCTION DRAWING	AS-BUILT DRAWING
PROJECT ENGINEER	SIGNATURE & P. NUMBER	DATE	
REMARKS	SIGNATURE	DATE	
DRAWING NO.	ORIGINAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
003-W17-01	A1	10F4	10F4

No.	Type	Length	Radius	Direction	Start Station	End Station	Start Direction	End Direction	PI Station	Start Point	End Point	Center Point	PI Point
1	Line	1099.223m		127° 55' 30"	0.000m	1099.223m			1118.140m	(-102807.227995m, -3013783.872709m, 0.000000m)	(-103674.314258m, -3013108.260304m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
2	Curve	36.573m	58.022m		1099.223m	1135.796m	127° 55' 30"	164° 02' 20"		(-103674.314258m, -3013108.260304m, 0.000000m)	(-103694.437957m, -3013078.445501m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
3	Line	307.865m		164° 02' 20"	1135.796m	1443.661m				(-103694.437957m, -3013078.445501m, 0.000000m)	(-103779.091150m, -3012782.447619m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
4	Curve	44.197m	103.415m		1443.661m	1487.858m	164° 02' 20"	188° 31' 40"		(-103779.091150m, -3012782.447619m, 0.000000m)	(-103781.934351m, -3012738.678171m, 0.000000m)	(-103679.662688m, -3012754.011818m, 0.000000m)	(-103785.261792m, -3012760.871389m)
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6	Curve	39.720m	112.216m		1645.241m	1684.962m	188° 31' 40"	208° 48' 30"		(-103758.598680m, -3012583.034970m, 0.000000m)	(-103745.951601m, -3012545.600165m, 0.000000m)	(-103630.157202m, -3012502.224360m, 0.000000m)	(-103690.878189m, -3012445.452903m)
7	Line	93.805m		208° 48' 30"	1684.962m	1778.767m				(-103745.951601m, -3012545.600165m, 0.000000m)	(-103700.749804m, -3012463.403770m, 0.000000m)	(-103630.157202m, -3012502.224360m, 0.000000m)	(-103690.878189m, -3012445.452903m)
8	Curve	40.122m	80.563m		1778.767m	1818.889m	208° 48' 30"	237° 20' 30"		(-103700.749804m, -3012463.403770m, 0.000000m)	(-103673.630765m, -3012434.398089m, 0.000000m)	(-103630.157202m, -3012502.224360m, 0.000000m)	(-103690.878189m, -3012445.452903m)
9	Line	315.504m		237° 20' 30"	1818.889m	2134.393m				(-103673.630765m, -3012434.398089m, 0.000000m)	(-103408.008839m, -3012284.144660m, 0.000000m)	(-103325.074625m, -3012393.531586m, 0.000000m)	(-103389.061060m, -3012252.001816m)
10	Curve	44.687m	153.683m		2134.393m	2179.080m	237° 20' 30"	254° 00' 10"		(-103408.008839m, -3012284.144660m, 0.000000m)	(-103357.430298m, -3012245.800121m, 0.000000m)	(-103325.074625m, -3012393.531586m, 0.000000m)	(-103389.061060m, -3012252.001816m)
11	Line	250.009m		254° 00' 10"	2179.080m	2429.089m				(-103357.430298m, -3012245.800121m, 0.000000m)	(-103117.450715m, -3012174.140645m, 0.000000m)	(-103325.074625m, -3012393.531586m, 0.000000m)	(-103389.061060m, -3012252.001816m)

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7007	-103090.864	-3013551.728	1366.662	12MM IRON PEG
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7009	-103151.531	-3013164.306	1370.401	MANHOLE
7010	-102954.641	-3012954.4	1367.246	12MM IRON PEG
7011	-102747.787	-3012900.241	1369.492	12MM IRON PEG
7012	-102966.979	-3012795.049	1374.051	12MM IRON PEG



Distance (km)	Final Design Road Levels (Left Edge, Centre Line, Right Edge)	Ground Levels on CL
0.280	1369.150, 1369.150, 1369.150	1369.150
0.300	1368.708, 1368.708, 1368.708	1368.708
0.320	1368.174, 1368.174, 1368.174	1368.174
0.340	1367.431, 1367.431, 1367.431	1367.431
0.360	1367.053, 1367.053, 1367.053	1367.053
0.372	1366.858, 1366.858, 1366.858	1366.858
0.380	1366.698, 1366.698, 1366.698	1366.698
0.400	1366.466, 1366.466, 1366.466	1366.466
0.420	1366.451, 1366.451, 1366.451	1366.451
0.440	1366.533, 1366.533, 1366.533	1366.533
0.460	1366.405, 1366.405, 1366.405	1366.405
0.478	1366.343, 1366.343, 1366.343	1366.343
0.480	1366.336, 1366.336, 1366.336	1366.336
0.500	1366.439, 1366.439, 1366.439	1366.439
0.520	1366.412, 1366.412, 1366.412	1366.412
0.540	1366.568, 1366.568, 1366.568	1366.568

LONGSECTION ALIGNMENT 2 FROM 272.085 TO 544.171

SCALES:
Horizontal 1:100
Vertical 1:10
DATUM 1365.000

VERTICAL PROFILE GRADES	
FINAL DESIGN ROAD LEVELS	LEFT EDGE (HL)
	CENTRE LINE (CL)
	RIGHT EDGE (HR)
GROUND LEVELS ON CL	
SUPERELEVATION LEFT RIGHT ---	
HORIZONTAL ALIGNMENT	
DIRECTION 217° 52' 10"	
DISTANCE (km)	

CURVE # LEFT/RIGHT
R=59.026m
I=235° 56' 40"

LEGEND

- ROADS:
- KERBING TO BE AS PER STANDARD DETAIL PLANS.
 - TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD TRAFFIC SIGNS MANUAL (THIRD EDITION).
 - ALL LEVELS TO BE CONFIRMED ON SITE.

STORMWATER

- MINIMUM PIPE DIAMETER TO BE 450mm.
- MINIMUM PIPE FALL TO BE 1:200(1%) UNLESS OTHERWISE APPROVED BY MUNICIPALITY.
- PIPE BEDDING TO BE CLASS B UNLESS OTHERWISE SPECIFIED.
- ALL EXCAVATIONS AND BEDDING MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE LAYING OF ANY PIPES.
- CLEAN EXISTING STORMWATER INLETS AND REPAIR WHERE NECESSARY (IF APPLICABLE).
- BELL MOUTHS TO HAVE FIGS & KERBS

SHEET LAYOUT

PROJECT STATUS

CONCEPT DRAWING	TENDER DRAWING	APPROVED FOR CONSTRUCTION DRAWING	ASBUILT DRAWING
PROJECT ENGINEER		DATE	
SIGNATURE		DATE	
REMARKS		ORIGINAL FILE SIZE: A1	
DRAWING NO. 003-W17-02		SHEET NO. 20F4	

AMENDMENTS		
NR.	DATE	DESCRIPTION

CONSULTANTS DETAIL:
TEKROD CONSULTING ENGINEERS
21 RIVER STREET
VILLA PEREZ
UNIT No.8
POTCHEFSTROOM
2531
TEL : 015 023 1118
eMAIL: admin@tekrod.co.za
WEBSITE: www.Tekrod.co.za



CLIENT DETAIL:
MAQUASSI HILLS LOCAL MUNICIPALITY
13 KRUGER STREET
PRIVATE BAG X 3
WOLMARANSSTAD
2630
TEL : 018 065 0010
FAX : 018 596 1555



DESIGNED BY
TEKROD CONSULTING ENGINEERS
DRAWING CHECKED BY
TEKROD CONSULTING ENGINEERS
DRAWN BY
TEKROD CONSULTING ENGINEERS
CIVIL DRAUGHTING SERVICES
TEKROD CONSULTING ENGINEERS

LOCATION OF PROJECT:
NORTH WEST: WOLMARANSSTAD
DESCRIPTION OF PROJECT:
UPGRADING OF GRAVEL ROAD TO BLOCK PAVING BETWEEN MAITEMOGELO TAXI ROUTE AND N12 ROAD 2 LAYOUT PLAN & LONG SECTION
DRAWING NO. TBC
PROJECT NO. 001 - R
SCALE: 1:1000
DATE: JUNE - 2026

LEGEND

- ROADS:**
1. KERBING TO BE AS PER STANDARD DETAIL PLANS.
 2. TRAFFIC CONTROL MUST COMPLY WITH THE REQUIREMENTS OF THE SOUTH AFRICAN ROAD TRAFFIC SIGNS MANUAL (THIRD EDITION).
 3. ALL LEVELS TO BE CONFIRMED ON SITE.

STORMWATER

1. MINIMUM PIPE DIAMETER TO BE 450mm.
2. MINIMUM PIPE FALL TO BE 1:200(1%) UNLESS OTHERWISE APPROVED BY MUNICIPALITY.
3. PIPE BEDDING TO BE CLASS B UNLESS OTHERWISE SPECIFIED.
4. ALL EXCAVATIONS AND BEDDING MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE LAYING OF ANY PIPES.
5. CLEAN EXISTING STORMWATER INLETS AND REPAIR WHERE NECESSARY (IF APPLICABLE).
6. BELL MOUTHS TO HAVE FIGS & KERBS.

No.	Type	Length	Radius	Direction	Start Station	End Station	Start Direction	End Direction	PI Station	Start Point	End Point	Center Point	PI Point
1	Line	1099.223m		127° 55' 30"	0+000	1099.223m			1118.140m	(-102807.227995m, -3013783.872709m, 0.000000m)	(-103674.314258m, -3013108.260304m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
2	Curve	36.573m	58.022m		1099.223m	1135.796m	127° 55' 30"	164° 02' 20"	1118.140m	(-103674.314258m, -3013108.260304m, 0.000000m)	(-103694.437957m, -3013078.445501m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
3	Line	307.865m		164° 02' 20"	1135.796m	1443.661m			1466.102m	(-103694.437957m, -3013078.445501m, 0.000000m)	(-103779.091150m, -3012782.447619m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
4	Curve	44.197m	103.415m		1443.661m	1487.858m	164° 02' 20"	188° 31' 40"	1466.102m	(-103779.091150m, -3012782.447619m, 0.000000m)	(-103781.934351m, -3012738.678171m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
5	Line	157.383m		188° 31' 40"	1487.858m	1645.241m			1665.311m	(-103781.934351m, -3012738.678171m, 0.000000m)	(-103758.596680m, -3012583.034970m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
6	Curve	39.720m	112.216m		1645.241m	1684.962m	188° 31' 40"	208° 48' 30"	1665.311m	(-103758.596680m, -3012583.034970m, 0.000000m)	(-103745.951601m, -3012545.600165m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
7	Line	93.805m		208° 48' 30"	1684.962m	1778.767m			1799.253m	(-103745.951601m, -3012545.600165m, 0.000000m)	(-103700.749804m, -3012463.403770m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
8	Curve	40.122m	80.563m		1778.767m	1818.889m	208° 48' 30"	237° 20' 30"	1799.253m	(-103700.749804m, -3012463.403770m, 0.000000m)	(-103673.630765m, -3012434.398089m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
9	Line	315.504m		237° 20' 30"	1818.889m	2134.393m			2156.865m	(-103673.630765m, -3012434.398089m, 0.000000m)	(-103408.005839m, -3012284.144560m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
10	Curve	44.687m	153.683m		2134.393m	2179.080m	237° 20' 30"	254° 00' 10"	2156.865m	(-103408.005839m, -3012284.144560m, 0.000000m)	(-103367.430298m, -3012245.800121m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)
11	Line	260.009m		254° 00' 10"	2179.080m	2439.089m				(-103367.430298m, -3012245.800121m, 0.000000m)	(-103117.480715m, -3012174.140645m, 0.000000m)	(-103638.652050m, -3013062.491146m, 0.000000m)	(-103689.236364m, -3013096.633364m)

Benchmark No.	X-coordinate	Y-coordinate	Z-coordinate	Description
7001	-103269.84	-3012165.654	1381.931	12MM IRON PEG
7002	-103692.625	-3012426.087	1377.139	FIREHYDRANT
7003	-103769.147	-3012576.171	1378.528	MANHOLE
7004	-103791.108	-3012767.044	1377.782	12MM IRON PEG
7005	-103700.093	-3013092.717	1378.258	12MM IRON PEG
7006	-103319.965	-3013398.163	1372.746	12MM IRON PEG
7007	-103090.864	-3013551.728	1365.662	12MM IRON PEG
7008	-102816.533	-3013764.866	1360.909	12MM IRON PEG NEXT TO ANCOR WIRE
7009	-103151.531	-3013164.306	1370.401	MANHOLE
7010	-102954.641	-3012654.4	1367.246	12MM IRON PEG
7011	-102747.787	-3012900.241	1369.492	12MM IRON PEG
7012	-102566.979	-3012795.049	1374.051	12MM IRON PEG

