

Chainage	Ground Level	Manhole Name	Inlet Level / Outlet Level	Link Type / Link Size	Length / Slope	Flow	Capacity	Velocity
861.651	1546.425	MH111	1544.088	PVC-U 200 mm	260.556 m 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s
870.000	1546.219		1544.052					
880.000	1546.053		1544.012					
890.000	1545.954		1543.972					
900.000	1545.875		1543.932					
910.000	1545.789		1543.892					
920.000	1545.717		1543.852					
930.000	1545.669		1543.812					
940.000	1545.572		1543.772					
950.000	1545.478		1543.732					
960.000	1545.379		1543.692					
970.000	1545.276		1543.652					
980.000	1545.171		1543.612					
990.000	1545.064		1543.572					
1000.000	1544.956		1543.532					
1010.000	1544.847		1543.492					
1020.000	1544.737		1543.452					
1030.000	1544.626		1543.412					
1040.000	1544.514		1543.372					
1050.000	1544.402		1543.332					
1060.000	1544.289		1543.292					
1070.000	1544.176		1543.252					
1080.000	1544.063		1543.212					
1090.000	1543.950		1543.172					
1100.000	1543.837		1543.132					
1110.000	1543.724		1543.092					
1120.000	1543.611		1543.052					
1130.000	1543.498		1543.012					
1140.000	1543.385		1542.972					
1150.000	1543.272		1542.932					
1160.000	1543.159		1542.892					
1170.000	1543.046		1542.852					
1180.000	1542.933		1542.812					
1190.000	1542.820		1542.772					
1200.000	1542.707		1542.732					
1210.000	1542.594		1542.692					
1220.000	1542.481		1542.652					
1230.000	1542.368		1542.612					
1240.000	1542.255		1542.572					
1250.000	1542.142		1542.532					
1260.000	1542.029		1542.492					
1270.000	1541.916		1542.452					
1280.000	1541.803		1542.412					
1290.000	1541.690		1542.372					
1300.000	1541.577		1542.332					
1310.000	1541.464		1542.292					
1320.000	1541.351		1542.252					
1330.000	1541.238		1542.212					
1340.000	1541.125		1542.172					
1350.000	1541.012		1542.132					
1360.000	1540.899		1542.092					
1370.000	1540.786		1542.052					
1380.000	1540.673		1542.012					
1390.000	1540.560		1541.972					
1400.000	1540.447		1541.932					
1410.000	1540.334		1541.892					
1420.000	1540.221		1541.852					
1430.000	1540.108		1541.812					
1440.000	1540.000		1541.772					
1450.000	1539.887		1541.732					
1460.000	1539.774		1541.692					
1470.000	1539.661		1541.652					
1480.000	1539.548		1541.612					
1490.000	1539.435		1541.572					
1500.000	1539.322		1541.532					
1510.000	1539.209		1541.492					
1520.000	1539.096		1541.452					
1530.000	1538.983		1541.412					
1540.000	1538.870		1541.372					
1550.000	1538.757		1541.332					
1560.000	1538.644		1541.292					
1570.000	1538.531		1541.252					
1580.000	1538.418		1541.212					
1590.000	1538.305		1541.172					
1600.000	1538.192		1541.132					
1610.000	1538.079		1541.092					
1620.000	1537.966		1541.052					

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GENERAL NOTES:

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- ALL DIMENSIONS ARE IN METERS.

DRAWING NO.	TITLE

CONSULTANT SIGNATURE:

NAME: C.D.C. SIBHLE
REG. NO: 970487
SIGNATURE: _____

APPROVED BY:
DIHLABENG LOCAL MUNICIPALITY
NAME: _____
REG. NO: _____
SIGNATURE: _____

SM - TB JV
40 PRESIDENT STEYN STREET
WESTOENE
BLOEMFONTEIN, 9301
TEL: 051430 0542

FLUING CLIENT:
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FREE STATE PROVINCE
7TH FLOOR, OR TAMBO BUILDING
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Tel: +27 (0) 51 405 4380

PROJECT:
DESIGN AND SUPERVISION OF PAUL ROUX WATER AND SEWER NETWORKS (750)

DRAWING TITLE:
SEWER LAYOUT LONG SECTION (2 OF 3)

COMPUTER FILENAME:
08161

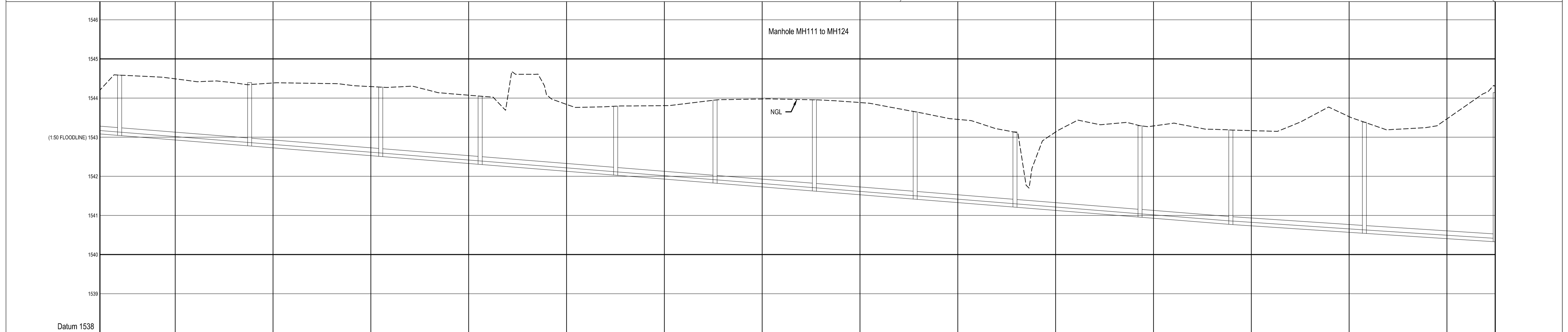
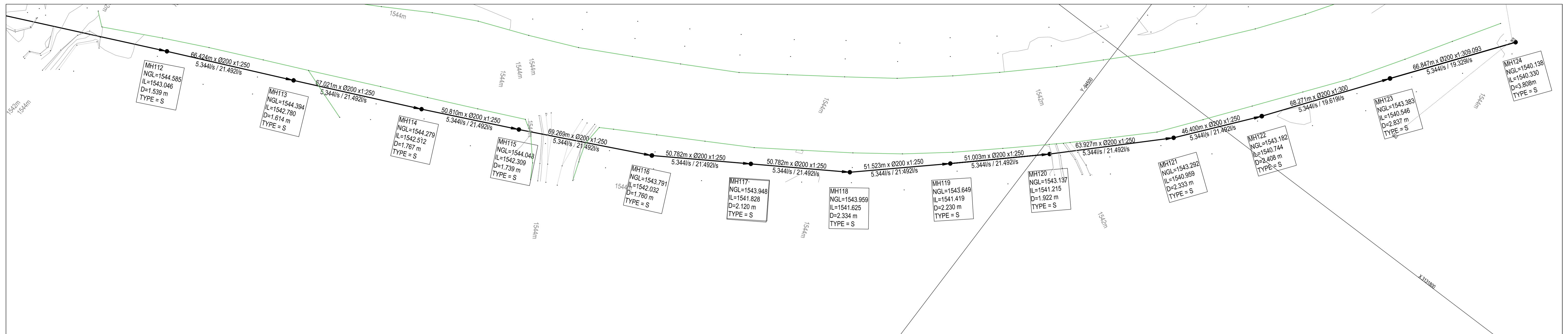
DATE:
SEPTEMBER 2018

REVISIONS:

REV. NO.	DATE	DETAILS	CHK. BY	APP. BY

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Chainage	Ground Level	Manhole Name	Inlet Level / Outlet Level	Link Type / Link Size	Length / Slope	Flow	Capacity	Velocity	Hydraulic Elevation
1543.123	1543.046	MH112	1543.046	PVC-U 200 mm	66.424 m / 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s	1543.123
1543.585	1543.585	MH113	1543.585	PVC-U 200 mm	67.021 m / 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s	1543.585
1544.046	1544.046	MH114	1544.046	PVC-U 200 mm	50.810 m / 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s	1544.046
1544.279	1544.279	MH115	1544.279	PVC-U 200 mm	69.269 m / 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s	1544.279
1544.780	1544.780	MH116	1544.780	PVC-U 200 mm	50.782 m / 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s	1544.780
1545.032	1545.032	MH117	1545.032	PVC-U 200 mm	50.782 m / 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s	1545.032
1545.293	1545.293	MH118	1545.293	PVC-U 200 mm	51.523 m / 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s	1545.293
1545.545	1545.545	MH119	1545.545	PVC-U 200 mm	51.003 m / 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s	1545.545
1545.806	1545.806	MH120	1545.806	PVC-U 200 mm	63.927 m / 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s	1545.806
1546.067	1546.067	MH121	1546.067	PVC-U 200 mm	46.400 m / 0.400 %	0.005 m³/s	0.021 m³/s	0.627 m/s	1546.067
1546.328	1546.328	MH122	1546.328	PVC-U 200 mm	66.271 m / 0.333 %	0.005 m³/s	0.020 m³/s	0.587 m/s	1546.328
1546.589	1546.589	MH123	1546.589	PVC-U 200 mm	66.847 m / 0.324 %	0.005 m³/s	0.019 m³/s	0.580 m/s	1546.589
1546.850	1546.850	MH124	1546.850	PVC-U 200 mm					1546.850

GENERAL NOTES:

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RELATED DRAWINGS:

DRAWING NO.	TITLE

CONSULTANT SIGNATURE:

NAME: S.C. SMITH
REG. NO: 570467
SIGNATURE: _____

APPROVED BY:

DHLABENG LOCAL MUNICIPALITY
NAME: _____
REG. NO: _____
SIGNATURE: _____

DESIGNED BY: _____
CHECKED BY: _____
DRAWN BY: _____

REVISIONS:

REV. NO.	DATE	DETAILS	CHD. BY	APPR. BY

C.I.L. & STRUCTURAL ENGINEER:

SM - TB JV
40 PRESIDENT STEYN STREET
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END USER CLIENT:

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Tel: +27 (0) 51 405 4380

PROJECT:

DESIGN AND SUPERVISION OF PAUL ROUX
WATER AND SEWER NETWORKS (750)

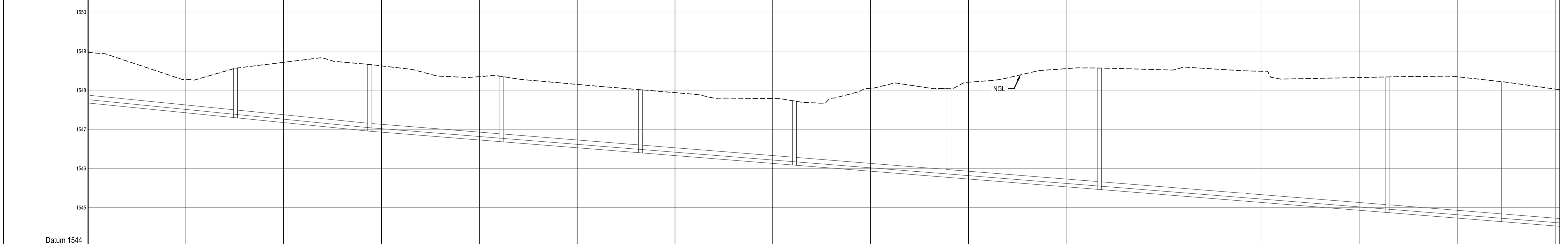
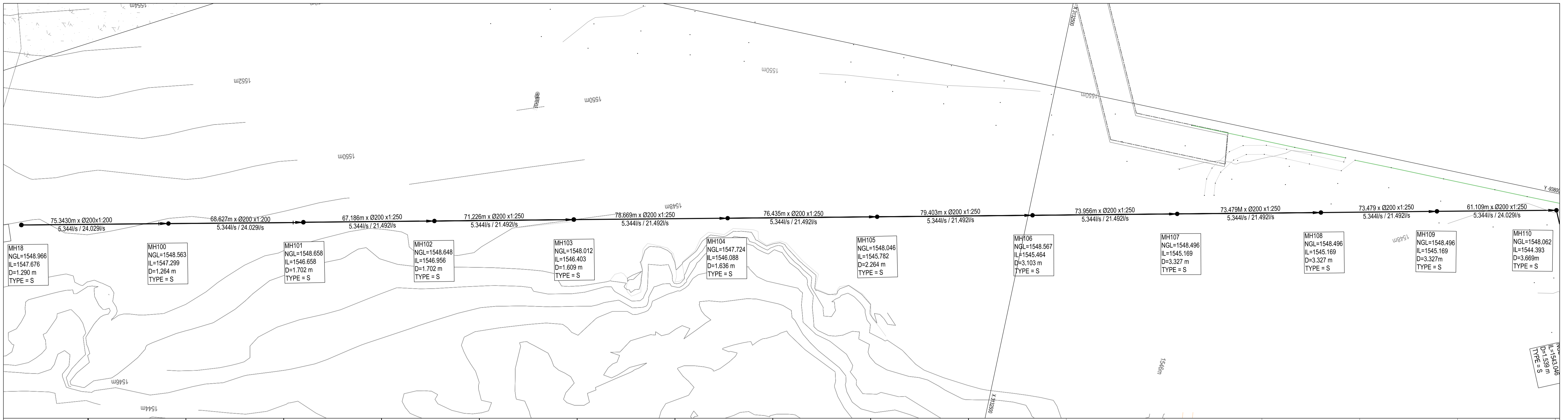
DRAWING TITLE:

SEWER LAYOUT
LONG SECTION
(3 OF 3)

COMPUTER FILENAME: 08161
DATE: SEPTEMBER 2018
PROJECT No.: W014
DRAWING No.: A

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Chainage	Ground Level	Manhole Name	Inlet Level / Outlet Level	Link Type / Link Size	Length / Slope	Flow	Capacity	Velocity
0.000	1548.966	MH18	1547.876	PVC-U 200 mm	75.343 m 0.500 %	0.005 m³/s	0.024 m³/s	0.680 m/s
10.000	1548.911		1547.626					
20.000	1548.744		1547.476					
30.000	1548.578		1547.326					
40.000	1548.411		1547.176					
50.000	1548.244		1547.026					
60.000	1548.078		1546.876					
70.000	1547.911		1546.726					
75.343	1548.653	MH100	1547.299					
80.000	1548.526		1547.149					
90.000	1548.360		1546.983					
100.000	1548.194		1546.817					
110.000	1548.028		1546.651					
120.000	1547.862		1546.485					
130.000	1547.696		1546.319					
140.000	1547.530		1546.153					
150.000	1547.364		1545.987					
154.868	1548.046	MH101	1547.299					
160.000	1547.911		1547.149					
170.000	1547.744		1546.983					
180.000	1547.578		1546.817					
190.000	1547.411		1546.651					
200.000	1547.244		1546.485					
211.156	1548.000	MH102	1546.887					
220.000	1547.833		1546.677					
230.000	1547.677		1546.521					
240.000	1547.521		1546.365					
250.000	1547.365		1546.209					
260.000	1547.209		1546.053					
270.000	1547.053		1545.897					
280.000	1546.897		1545.741					
290.000	1546.741		1545.585					
300.000	1546.585		1545.429					
310.000	1546.429		1545.273					
320.000	1546.273		1545.117					
330.000	1546.117		1544.961					
340.000	1545.961		1544.805					
350.000	1545.741		1544.649					
361.051	1546.500	MH103	1546.000					
370.000	1546.344		1545.844					
380.000	1546.188		1545.688					
390.000	1546.032		1545.532					
400.000	1545.876		1545.376					
410.000	1545.720		1545.220					
420.000	1545.564		1545.064					
430.000	1545.408		1544.908					
440.000	1545.252		1544.752					
450.000	1545.096		1544.596					
460.000	1544.940		1544.440					
470.000	1544.784		1544.284					
480.000	1544.628		1544.128					
490.000	1544.472		1543.972					
500.000	1544.316		1543.816					
510.000	1544.160		1543.660					
520.000	1544.004		1543.504					
530.000	1543.848		1543.348					
540.000	1543.692		1543.192					
550.000	1543.536		1543.036					
560.000	1542.880		1542.380					
570.000	1542.724		1542.224					
580.000	1542.568		1542.068					
590.000	1542.412		1541.912					
600.000	1542.256		1541.756					
610.000	1542.100		1541.600					
620.000	1541.944		1541.444					
630.000	1541.788		1541.288					
640.000	1541.632		1541.132					
650.000	1541.476		1540.976					
660.000	1541.320		1540.820					
670.000	1541.164		1540.664					
680.000	1541.008		1540.508					
690.000	1540.852		1540.352					
700.000	1540.696		1540.196					
710.000	1540.540		1540.040					
720.000	1540.384		1539.884					
730.000	1540.228		1539.728					
740.000	1540.072		1539.572					
750.000	1539.916		1539.416					
760.000	1539.760		1539.260					
770.000	1539.604		1539.104					
780.000	1539.448		1538.948					
790.000	1539.292		1538.792					
800.000	1539.136		1538.636					
810.000	1538.980		1538.480					
820.000	1538.824		1538.324					
830.000	1538.668		1538.168					
840.000	1538.512		1538.012					
850.000	1538.356		1537.856					
860.000	1538.200		1537.700					
870.000	1538.044		1537.544					
880.000	1537.888		1537.388					
890.000	1537.732		1537.232					
900.000	1537.576		1537.076					
910.000	1537.420		1536.920					
920.000	1537.264		1536.764					
930.000	1537.108		1536.608					
940.000	1536.952		1536.452					
950.000	1536.796		1536.296					
960.000	1536.640		1536.140					
970.000	1536.484		1535.984					
980.000	1536.328		1535.828					
990.000	1536.172		1535.672					
1000.000	1536.016		1535.516					

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		DRAWING NO.	TITLE													
<p>THIS DRAWING HAS BEEN PREPARED UNDER THE CONTROLS ESTABLISHED BY THE SETA QUALITY MANAGEMENT SYSTEM AND MEETS THE REQUIREMENTS OF THE SETA QUALITY GRADING SYSTEM THAT IS ISO COMPLIANT.</p>	<p>REVISIONS:</p> <table border="1"> <tr> <th>REV. NO.</th> <th>DATE</th> <th>DETAILS</th> <th>CHK. BY</th> <th>APPR. BY</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REV. NO.	DATE	DETAILS	CHK. BY	APPR. BY						<p>SM - TB JV 40 PRESIDENT STEYN STREET WESTDENE BLOEMFONTEIN, 9301 TEL: 051430 0542</p>	<p>DRAWING TITLE:</p> <p>SEWER LAYOUT LONG SECTION (1 OF 3)</p>	<p>COMPUTER FILENAME:</p> <p>08161</p>	<p>DATE:</p> <p>SEPTEMBER 2018</p>	<p>DRAWING No. / REV:</p> <p>W013 / 0</p>
REV. NO.	DATE	DETAILS	CHK. BY	APPR. BY												