

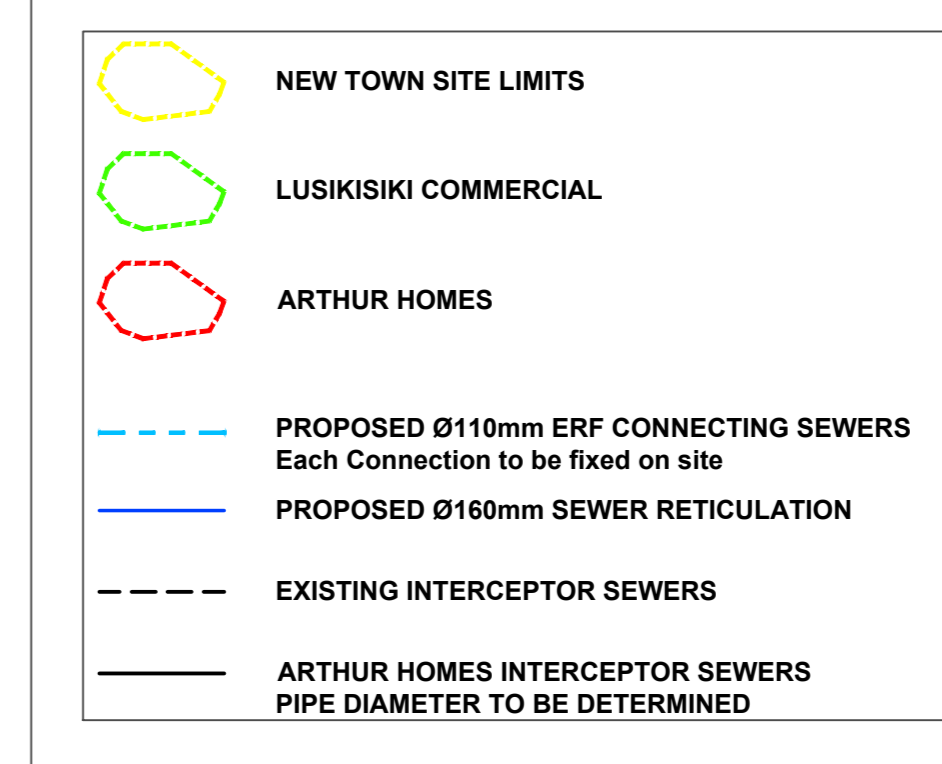


- GENERAL NOTES:**
- All Work To Be Done According To The Project Specifications.
  - All Levels And Dimensions To Be Checked On The Site Prior To Commencement Of Any Construction.
  - All Setting Out Coordinates Are On The WGS84, L029 System. Coordinates To Be Checked Prior To Any Construction.
  - All Existing Services To Be Exposed To Establish Exact Levels Before Construction May Commence.
  - The Contractor Must Liaise With Responsible Service Providers With Respect To Affected Services And Protection Thereof.
  - The Contractor Must Liaise With The Roads & Stormwater Division With Respect To Reinstatement Of Road Surfacing & Sidewalks.
  - Where Applicable Trenches To Be Extent 1m On Either Side Of The Road Edge.
  - All Conditions As Specified In The Environmental Management Plan, Must Be Complied With.
  - Maximum Deflection Angle At Couplings To Comply With Minimum Recommended By Pipe Manufacturer.
  - All Future Sewer Reticulation Pipelines To Be 100mmØ. Connections Into Manholes To Be As Directed On Site By The Engineer.
  - Existing Sewer Reticulation To Be Confirmed On Site. Connections Into Manholes To Be As Directed On Site By The Engineer.
  - Existing Septic And Conservancy Tanks to be confirmed on site and house connections to be adjusted as directed by the Engineer.
  - Where two invert levels are given, they refer to invert levels at the centre of the manhole.

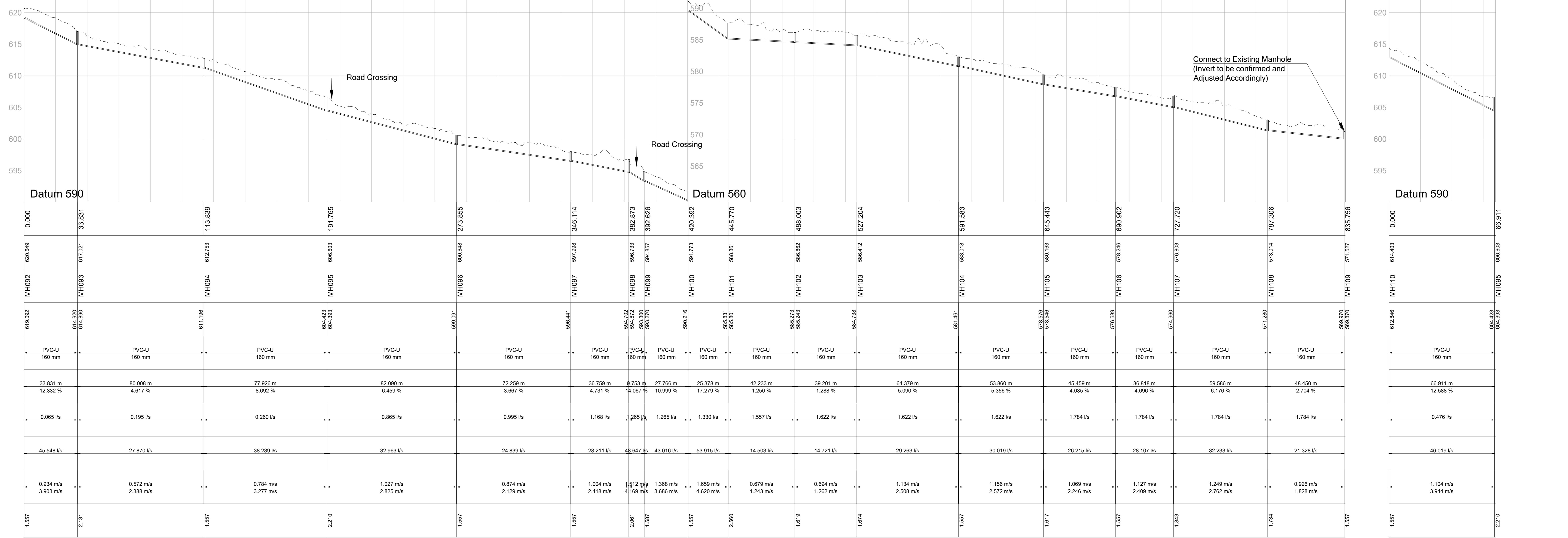
Name	Y-Coord	X-Coord	Cover	Inlet	Depth	Length	Slope	Type	Size
MH092	-54599.39	3472731.93	620.65	619.09	1.56	33.83	12.33 %	PVC-U	160 mm
MH093	-54628.68	3472711.94	617.02	614.89	2.13	80.01	4.62 %	PVC-U	160 mm
MH094	-54627.71	3472631.94	612.75	611.20	1.56	77.93	8.68 %	PVC-U	160 mm
MH095	-54628.80	3472554.02	606.60	604.39	2.21	92.09	8.46 %	PVC-U	160 mm
MH096	-54629.95	3472471.94	600.65	599.09	1.56	72.26	3.67 %	PVC-U	160 mm
MH097	-54630.95	3472399.09	598.00	596.44	1.56	36.76	4.73 %	PVC-U	160 mm
MH098	-54633.63	3472362.65	596.73	594.67	2.06	9.75	14.07 %	PVC-U	160 mm
MH099	-54638.16	3472358.22	594.86	593.27	1.59	27.77	11.00 %	PVC-U	160 mm
MH100	-54654.76	3472335.96	591.77	590.22	1.56	42.23	1.25 %	PVC-U	160 mm
MH101	-54666.45	3472313.44	588.36	586.80	1.56	25.38	17.28 %	PVC-U	160 mm
MH102	-54682.45	3472273.59	586.86	585.24	1.62	39.20	1.29 %	PVC-U	160 mm
MH103	-54638.78	3472238.49	588.41	584.74	1.67	64.38	5.09 %	PVC-U	160 mm
MH104	-54608.21	3472190.39	583.02	581.46	1.56	53.86	5.36 %	PVC-U	160 mm
MH105	-54578.40	3472135.53	580.16	578.55	1.62	36.82	4.70 %	PVC-U	160 mm
MH106	-54544.96	3472104.73	576.25	574.69	1.56	59.59	6.18 %	PVC-U	160 mm
MH107	-54516.54	3472081.38	576.80	574.96	1.84	48.45	2.70 %	PVC-U	160 mm
MH108	-54468.68	3472048.73	573.01	571.28	1.73	66.91	12.59 %	PVC-U	160 mm
MH109	-54433.68	3472013.24	571.53	569.97	1.56				
MH110	-54562.70	3472543.64	614.40	612.85	1.56				
MH095	-54628.80	3472554.02	606.60	604.39	2.21				

**BENCH MARKS**  
(WGS 84 Lo = 29)  
16mm PEG IN CONCRETE

Name	Y Co-ord	X Co-ord	Height
BM1	-53150.18	3470371.65	592.722
BM2	-53259.02	3470734.49	609.598
BM3	-53559.38	3470582.26	603.413
BM4	-54036.16	3470295.45	581.091
BM5	-54184.64	3469845.94	592.584
BM6	-54173.62	3469551.30	541.106
BM7	-54420.47	3469534.59	542.937
BM8	-54602.65	3469060.56	534.734
BM9	-54962.68	3468958.32	532.258
BM10	-55124.69	3470097.31	539.505
BM11	-55278.77	3470209.37	536.395
BM12	-55417.76	3470206.85	532.658
BM13	-55527.25	3470495.20	534.251
BM14	-55198.47	3470857.30	550.636
BM15	-55113.18	3471213.19	533.338
BM16	-54702.83	3471105.37	547.184
BM17	-54589.10	3470916.37	557.286
BM18	-54537.38	3471152.73	560.729
BM19	-54188.47	3471552.44	662.323
BM20	-53810.21	3471607.79	567.013
BM21	-53583.80	3471835.51	576.429
BM22	-54888.93	3471535.68	572.038
BM23	-55124.29	3471495.36	580.627
BM24	-55337.29	3471755.64	582.184
BM25	-55452.25	3471979.79	581.060
BM26	-55422.32	3472433.53	590.483
BM27	-55148.29	3472567.22	597.988
BM28	-55493.80	3472732.48	602.445
BM29	-55670.40	3472998.99	600.859
BM30	-56074.52	3472314.47	610.769



PLAN SCALE 1 : 1000



Chainage	Ground Level	Manhole Name	Invert Level	Link Type / Link Size	Length / Slope	Flow	Capacity	Velocity/Full-bore Velocity	Depth
0.000	620.649	MH092	619.092	PVC-U 160 mm	33.831 m / 12.332 %	0.065 l/s	45.548 l/s	0.934 m/s / 3.903 m/s	1.567
33.831	617.021	MH093	614.920 / 614.890	PVC-U 160 mm	80.008 m / 4.617 %	0.195 l/s	27.870 l/s	0.572 m/s / 2.306 m/s	2.131
113.839	612.753	MH094	611.198	PVC-U 160 mm	77.926 m / 8.692 %	0.260 l/s	38.239 l/s	0.784 m/s / 3.277 m/s	1.567
191.765	606.603	MH095	604.423 / 604.393	PVC-U 160 mm	92.090 m / 6.450 %	0.865 l/s	32.963 l/s	1.027 m/s / 2.625 m/s	2.210
273.855	600.648	MH096	599.091	PVC-U 160 mm	82.090 m / 3.667 %	0.995 l/s	24.839 l/s	0.874 m/s / 2.129 m/s	1.567
346.114	597.098	MH097	596.441	PVC-U 160 mm	72.259 m / 3.667 %	1.168 l/s	28.211 l/s	1.004 m/s / 2.416 m/s	1.567
382.873	596.733	MH098	594.702	PVC-U 160 mm	36.759 m / 9.753 %	1.265 l/s	48.647 l/s	1.312 m/s / 4.169 m/s	2.081
392.626	594.667	MH099	593.270	PVC-U 160 mm	27.766 m / 10.969 %	1.265 l/s	43.016 l/s	1.368 m/s / 3.686 m/s	1.567
420.392	591.773	MH100	590.216	PVC-U 160 mm	25.378 m / 17.279 %	1.330 l/s	53.915 l/s	1.659 m/s / 4.620 m/s	1.567
445.770	588.381	MH101	586.831 / 586.801	PVC-U 160 mm	42.233 m / 1.250 %	1.557 l/s	14.503 l/s	0.679 m/s / 1.243 m/s	2.060
468.003	586.862	MH102	585.273 / 585.243	PVC-U 160 mm	39.201 m / 1.296 %	1.622 l/s	14.721 l/s	0.694 m/s / 1.262 m/s	1.619
527.204	586.412	MH103	584.738	PVC-U 160 mm	64.379 m / 5.000 %	1.622 l/s	29.263 l/s	1.134 m/s / 2.526 m/s	1.674
591.583	583.018	MH104	581.461	PVC-U 160 mm	53.860 m / 3.364 %	1.622 l/s	30.019 l/s	1.156 m/s / 2.572 m/s	1.567
645.443	578.546	MH105	576.876 / 576.546	PVC-U 160 mm	48.459 m / 4.085 %	1.784 l/s	26.215 l/s	1.069 m/s / 2.246 m/s	1.617
690.902	578.246	MH106	576.889	PVC-U 160 mm	36.818 m / 4.696 %	1.784 l/s	28.107 l/s	1.127 m/s / 2.449 m/s	1.567
727.720	576.883	MH107	574.960	PVC-U 160 mm	59.586 m / 6.176 %	1.784 l/s	32.233 l/s	1.249 m/s / 2.762 m/s	1.843
787.306	573.014	MH108	571.280	PVC-U 160 mm	48.450 m / 2.704 %	1.784 l/s	21.328 l/s	1.249 m/s / 1.829 m/s	1.714
832.756	571.627	MH109	569.970 / 569.970	PVC-U 160 mm	66.911 m / 12.588 %	1.784 l/s	48.019 l/s	1.104 m/s / 3.944 m/s	1.567
866.903	614.403	MH110	613.846	PVC-U 160 mm					1.567
911.111	606.603	MH095	604.423 / 604.393	PVC-U 160 mm					2.210

MH092 to MH109

MH110 to MH095

**FOR TENDER PURPOSES**

		CLIENT: O.R. TAMBO DISTRICT MUNICIPALITY	SCALE: AS SHOWN	DESIGNED BY: N. LELALA	PROJECT: LUSIKISIKI SEWER RETICULATION
		DRAWN: N. LELALA	DISCIPLINE: CIVIL	NAME: N. LELALA	TITLE: PHASE 3A : ARTHUR HOMES PLAN AND LONSECTIONS SHEET 6 OF 10
		DATE: MAY 2020	CHECKED BY: I. FIELD	SIGNATURE: I. FIELD	SHEET: A0
IN JOINT VENTURE WITH		CHECKED: [ ] APPR'D: [ ]	DATE: MAY 2020	SIGNATURE: [ ]	CONTRACT No: 20209
FIRST ISSUE FOR TENDER		CHECKED: [ ] APPR'D: [ ]	DESCRIPTION:	DESCRIPTION:	DRAWING No: 20209/03A/00/500/205
REV: [ ]	DATE: [ ]	BY: [ ]	DESCRIPTION:	CHECKED: [ ] APPR'D: [ ]	REVISION: [ ]