

FP1 CO-ORDINATE TABLE			
POINTS	Y	X	
0.00	9252.721	3314897.093	
CD1	9251.772	3314892.317	
CD2	9241.668	3314886.087	
CD3	9240.364	3314883.214	
CD4	9240.214	3314877.338	
CD5	9238.420	3314875.833	
CD6	9240.026	3314864.880	
CD7	9239.899	3314861.275	
CD8	9240.614	3314856.557	
CD9	9242.335	3314845.738	
CD10	9239.316	3314844.152	
END	9244.779	3314833.348	

FP2 CO-ORDINATE TABLE			
POINTS	Y	X	
0.00	9295.791	3314820.690	
CD1	9299.791	3314814.128	
CD2	9305.049	3314810.546	
CD3	9309.858	3314804.269	
CD4	9317.930	3314797.175	
CD5	9322.730	3314790.953	
CD6	9325.956	3314783.169	
CD7	9317.404	3314775.946	
CD8	9317.940	3314769.781	
END	9308.761	3314762.104	

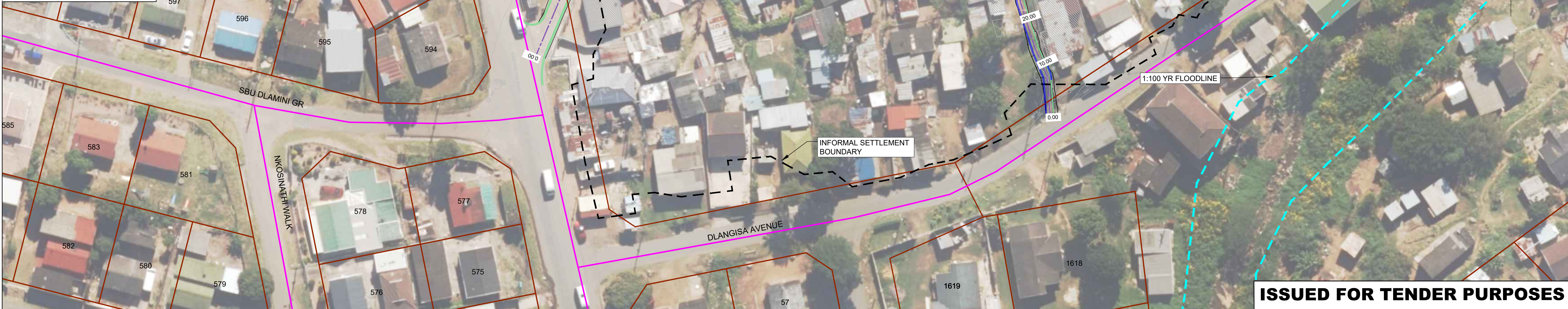
FP3 CO-ORDINATE TABLE			
POINTS	Y	X	
0.00	9302.642	3314834.581	
CD1	9305.220	3314831.205	
CD2	9304.397	3314828.170	
CD3	9292.355	3314819.132	
CD4	9288.058	3314819.818	
CD5	9280.227	3314814.168	
END	9265.946	3314803.783	

FP4 CO-ORDINATE TABLE			
POINTS	Y	X	
0.00	9334.615	3314899.380	
CD1	9318.463	3314895.849	
CD2	9315.877	3314899.121	
CD3	9309.264	3314894.962	
CD4	9301.253	3314891.608	
CD5	9296.783	3314887.090	
CD6	9284.887	3314878.725	
CD7	9276.033	3314877.252	
CD8	9271.178	3314884.180	
CD9	9263.072	3314897.947	
CD10	9259.411	3314899.916	
CD11	9252.721	3314897.093	
CD12	9243.549	3314913.378	
CD13	9239.344	3314915.219	
END	9229.632	3314932.405	

FP5 CO-ORDINATE TABLE			
POINTS	Y	X	
0.00	9295.202	3314976.569	
CP1	9295.820	3314968.635	
CP2	9298.299	3314963.081	
CP3	9301.385	3314953.296	
CP4	9301.821	3314944.224	
CP5	9300.178	3314942.469	
CP6	9301.608	3314936.703	
CP7	9300.433	3314933.755	
CP8	9301.800	3314928.362	
CP9	9307.435	3314929.363	
CP10	9314.298	3314930.912	
CP11	9317.859	3314922.802	
CP12	9321.073	3314915.654	
CP13	9332.029	3314918.832	
END	9337.931	3314901.736	

FP6 CO-ORDINATE TABLE			
POINTS	Y	X	
0.00	2425.243	3314912.817	
CD1	9413.577	3314890.705	
CD2	9411.439	3314885.581	
CD3	9409.923	3314879.834	
CD4	9406.177	3314874.569	
END	9397.507	3314865.037	

SETTING OUT DATA ACCESS ROAD 01				
CH	Y	X	DETAILS	
0.000	9401.338	3314964.643	L 36.222m	
CURVE 1				
R 20.000m				
DA 341°03'00"				
TL 6.173m				
AL 11.976m				
36.222	9387.204	3314931.292		
48.198	9384.795	3314925.608		
	9379.602	3314922.270		
CURVE 2				
R 25.000m				
DA 30°06'40"				
TL 6.725m				
AL 13.138m				
80.860	9352.125	3314904.613		
	9346.468	3314900.978		
93.998	9343.398	3314894.995		
115.019	9333.800	3314876.292		
115.019	9333.800	3314876.292		
133.488	9323.510	3314868.037		
	9329.565	3314861.008		
168.067	9300.942	3314834.808		



BENCH MARKS (SYSTEM WG31)			
CH	Y	X	Z
BASE	9504.768	3314840.442	73.922
BM01	9482.947	3314856.304	70.960
BM02	9411.143	3314973.733	73.588
BM03	9227.911	3314937.818	58.115

## 1. GENERAL NOTES

- 1.1 NO SCALING-OFF IS PERMITTED ONLY WRITTEN DIMENSIONS MAY BE DEEMED CORRECT. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
- 1.2 ALL WORK TO COMPLY WITH THE LATEST EDITION OF THE SANS 1200 SPECIFICATIONS.
- 1.3 ALL CUT SLOPES TO BE SHAPED TO 1:1.5 AND FILL SLOPES TO 1:2 UNLESS OTHERWISE DIRECTED BY THE ENGINEER ON SITE.
- 1.4 FILL MATERIAL TO BE COMPACTED IN LAYERS OF MAX. 150mm TO 93% MOD. AASHTO. STEPS TO BE FORMED PRIOR TO FILLING. HEIGHT OF STEPS TO BE APPROXIMATELY 300mm LIFTS.
- 1.5 COMPACTION TESTING TO BE DONE AS FOLLOWS:  
(a) 1 TEST PER LAYER FOR EACH 25m LENGTH OF FOOTPATH
- 1.6 BOLLARDS TO BE CONSTRUCTED ONLY WHEN INSTRUCTED BY THE ENGINEER.
- 1.7 WHERE THE COVER LEVELS OF THE EXISTING MANHOLES LOCATED IN THE ALIGNMENT OF NEW FOOTPATHS IS HIGHER THAN THE FINISHED DESIGN LEVEL OF THE FOOTPATH, MANHOLE RINGS ARE TO BE CUT SUCH THAT THE NEW MANHOLE COVER LEVEL IS CONSISTENT WITH THE LEVEL AND SLOPE OF THE FOOTPATH. EXISTING MANHOLE LIGHT DUTY COVERS AND FRAME ARE TO BE REPLACED WITH HEAVY DUTY COVER AND FRAME. EXPOSED REINFORCING MUST BE PAINTED WITH SIKATOP AMATEC 110 EC OR SIMILAR APPROVED.
- 1.8 THESE DESIGNS OR DRAWINGS ARE NOT TO BE SOLD AND ARE SUBJECT TO RECALL. REPRODUCTION OR COPYING RIGHTS ARE RESERVED SOLELY BY BVI CONSULTING ENGINEERS UNDER COPYRIGHT LAW. THESE DRAWINGS HAVE BEEN ISSUED AND RECEIVED ON THE FOLLOWING CONDITIONS:  
(a) THAT THEY ARE NOT USED IN ANY WAY AGAINST THE INTERESTS AND BENEFITS OF BVI  
(b) THAT THESE DRAWINGS AND ALL COPIES WILL BE RETURNED TO BVI IMMEDIATELY ON DEMAND.  
(c) THAT ALL INFORMATION DISCLOSED BY THESE DRAWINGS SHALL BE DEEMED TO BE CONFIDENTIAL.

## 2. CONCRETE

- 2.1 CONCRETE WORKS TO COMPLY WITH SANS1200 SECTION G AND SANS 0100 PART 2
- 2.2 THE FREQUENCY OF CONCRETE WORKS TESTING MUST BE DONE AS FOLLOWS:  
(a) AT LEAST ONE SET (3 NO. CUBES) OF SAMPLES FOR EVERY 50m<sup>3</sup> OF CONCRETE PLACED  
(b) AT LEAST ONE SET OF SAMPLES SHALL BE TAKEN FROM EACH DAY CASTING  
(c) TESTING MUST BE BE CARRIED OUT IN ACCORDANCE TO SANS METHOD 861 AND TESTED BY AN APPROVED LABORATORY. RESULTS TO BE SUBMITTED TO THE ENGINEER.  
(d) ON THE BASIS IF IMPORTANCE, WHERE DIRECTED BY THE ENGINEER, A SET OF SAMPLES MAY BE REQUESTED.  
(e) UNLESS OTHERWISE ADVISED, NO SAMPLE SHALL BE TAKEN OF ANY CONCRETE UNTIL AT LEAST 1m<sup>3</sup> OF SUCH CONCRETE HAS BEEN MIXED AND DISCHARGED FOR THE FOOTPATHS
- 2.3 CURING AND PROTECTION SHALL BE ACCORDING TO SANS 0100 II-1980, 5.8.8
- 2.4 ALL CONCRETE TO BE PROPERLY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP, AT LEAST 7 DAYS AFTER CASTING.
- 2.5 CONCRETE POURING WILL ONLY BE DONE UPON THE APPROVAL OF THE SHUTTERING AND FIXING OF THE REINFORCEMENT FOR THE FOOTPATHS/DRAINS
- 2.6 MIN. CONCRETE CUBE STRENGTH AT 28 DAYS:  
FOOTPATH 20 MPa  
DRAINS 20 MPa  
KERB BASE AND HAUNCH 20 MPa  
STEP CONCRETE BASE 15 MPa  
RETAINING WALL BASE 20 MPa

LEGEND	
	PROPOSED FOOTPATH
	FIGURE 12 KERB
	INFORMAL SETTLEMENT BOUNDARY
	CONTROL POINTS
	CADASTRAL BOUNDARY
	ABLUTION FACILITIES
	EXISTING SURFACE ROAD
	EXISTING FOOTPATH
	FIG. 6 MAINTAINABLE KERB
	EXISTING SEWER MANHOLE (Ex SMH)
	EXISTING SEWER PIPE
	EXISTING STORMWATER MANHOLE (Ex SWMH)
	EXISTING STORMWATER PIPE
	EXISTING HEADWALL
	STORMWATER PIPE
	STORMWATER MANHOLE
	600mm CONCRETE DRAIN
	FUTURE WORKS
	RENO MATTRESS

ENGINEERING UNIT  
DEVELOPMENT ENGINEERING

PLAN DESCRIPTION	DWG. NO.	SHEET NO.
CONTINUED FROM		
CONTINUED ON		
CROSS SECTIONS		
TYPICAL CROSS SECTION		
SURVEY LAYOUT		

REDUCED PLAN USE SCALE BELOW  

70mm ON ORIGINAL PLAN

Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
DESIGN CONSULTANT  

BVI Consulting Engineers KwaZulu-Natal PTY (L) Ltd  
Provinc: \_\_\_\_\_ Office: \_\_\_\_\_ E-MAIL: \_\_\_\_\_  
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Revision	Date	Description
C	12-01-24	ISSUED FOR TENDER
B	08-12-23	ISSUED FOR APPROVAL
A	05-12-23	ISSUED FOR INTERNAL REVIEW

NOTE: No construction work to commence until land and servitude acquisitions have been completed.  
Acquisitions completed  
DATE: \_\_\_\_\_ TOPOGRAPHY: \_\_\_\_\_  
UNDERGROUND SERVICES CHECKED  

SERVICE	DATE	SIGNATURE
S.W. DRAINS		
SEWERS		
WATER MAINS		
G.P.O. CABLES		
ELECTRIC CABLES		
S.A.R. CABLES		
E.S.C. CABLES		
OL PIPELINE		

NOTE: Only underground services affected by new construction work are shown. Care must be taken during excavations for road foundations, trenches etc. to avoid damage to underground services such as sewers, drains, cables, water mains and connections. Wherever possible these must be located before work proceeds.

Contract No. 3V-28527  
Project Title  
**PROVISION OF INCREMENTAL SERVICES TO SETTLEMENT EMLAZA CX1**  
Drawing Title  
**ROAD & FOOTPATH LAYOUT**

Scales: 1:500  
Reference: \_\_\_\_\_  
Checked: KP Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Designed: PT  
Drawn by: BS  
Senior Manager: Development Engineering (South)  
Deputy Head: Development Engineering  
Head: Engineering  
Drawing No. 49285  
Sheet 1 of 3 Sheets

ISSUED FOR TENDER PURPOSES