



JAPAN INTERNATIONAL  
COOPERATION AGENCY (JICA)



MUNICIPAL COUNCIL OF MAPUTO  
THE CITY OF MAPUTO  
THE REPUBLIC OF MOZAMBIQUE

# THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY FOR THE ROAD DEVELOPMENT OF THE CITY OF MAPUTO IN THE REPUBLIC OF MOZAMBIQUE

## FINAL REPORT DRAWINGS

October 2001



 Oriental Consultants Company Limited  
 Japan Engineering Consultants Company Limited



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COOPERATION AGENCY (JICA)



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October 2001



**Oriental Consultants Company Limited**



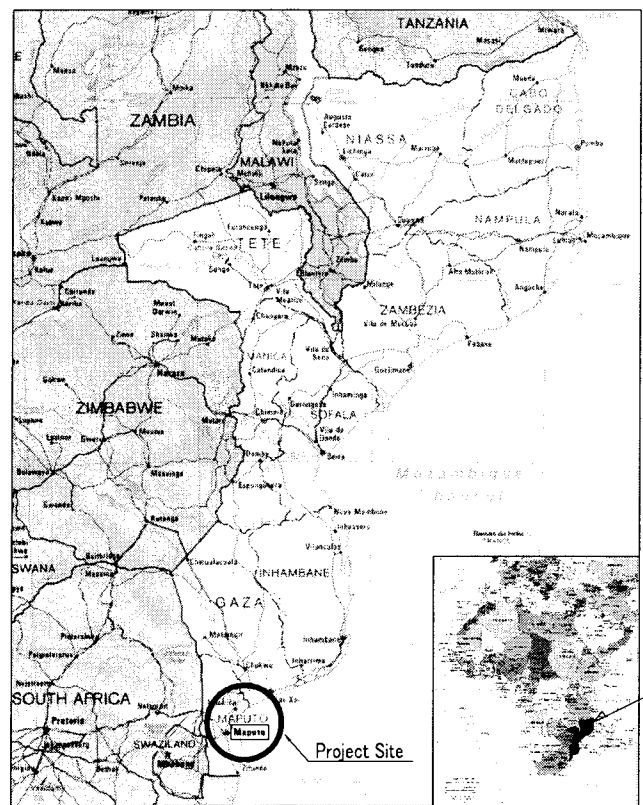
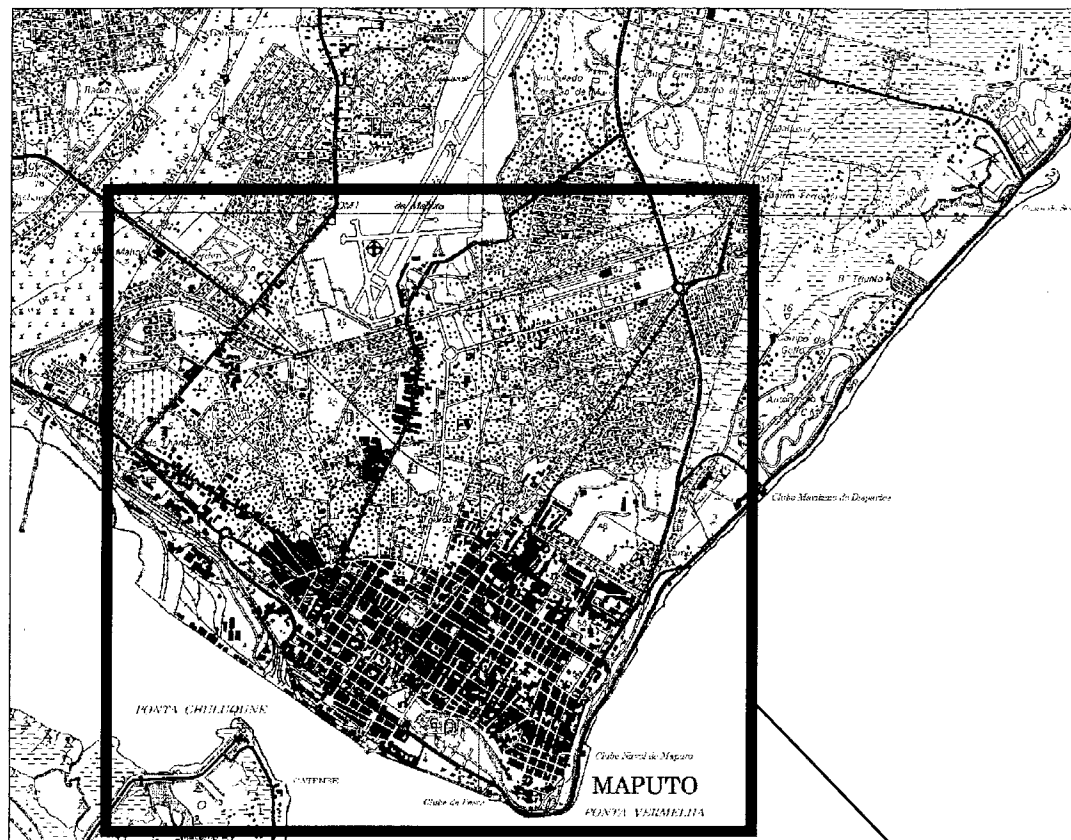
**Japan Engineering Consultants Company Limited**

**THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY FOR THE ROAD DEVELOPMENT OF THE CITY OF MAPUTO  
IN REPUBLIC OF MOZAMBIQUE**

**DRAWINGS**

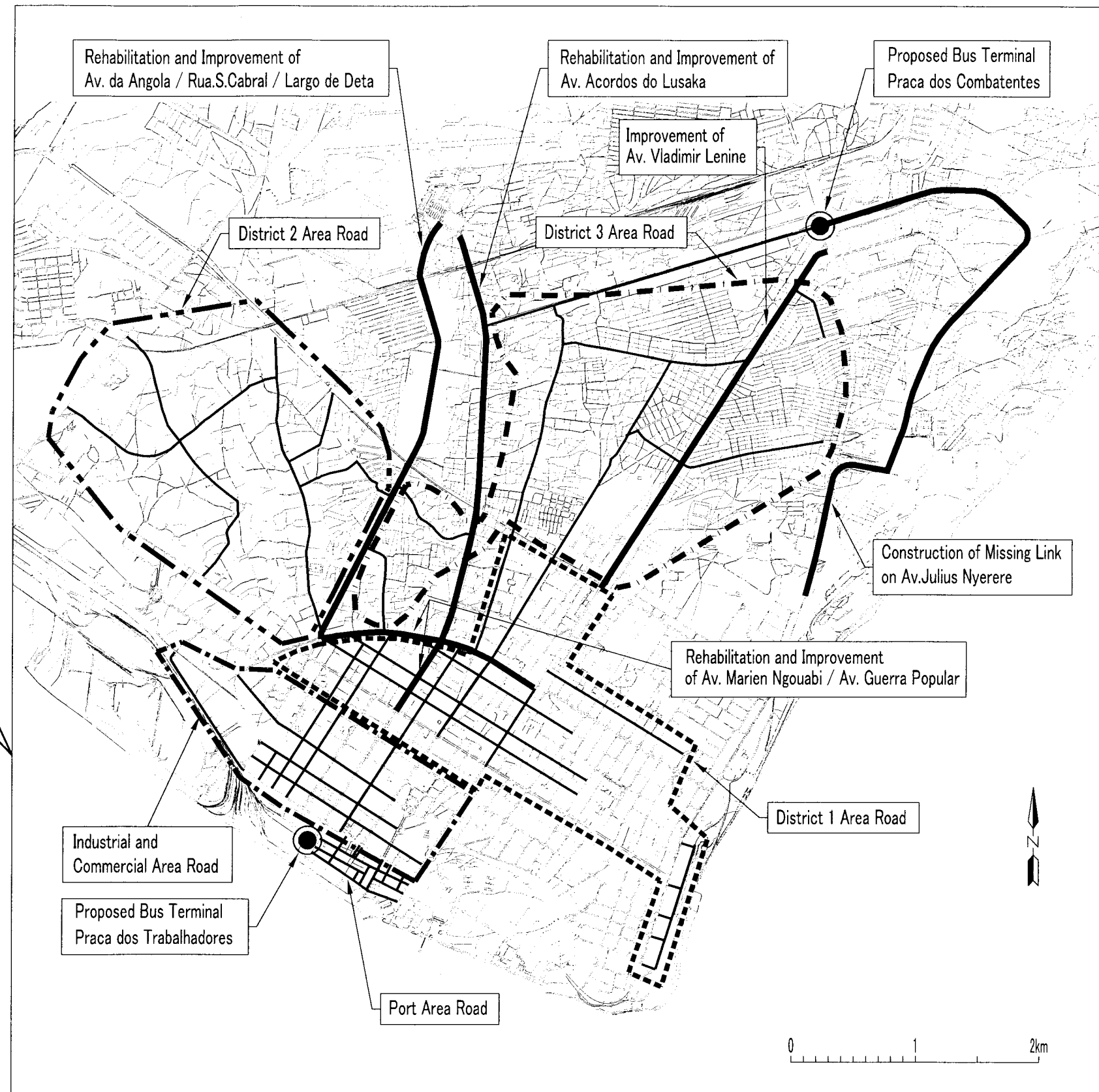
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# Location Map

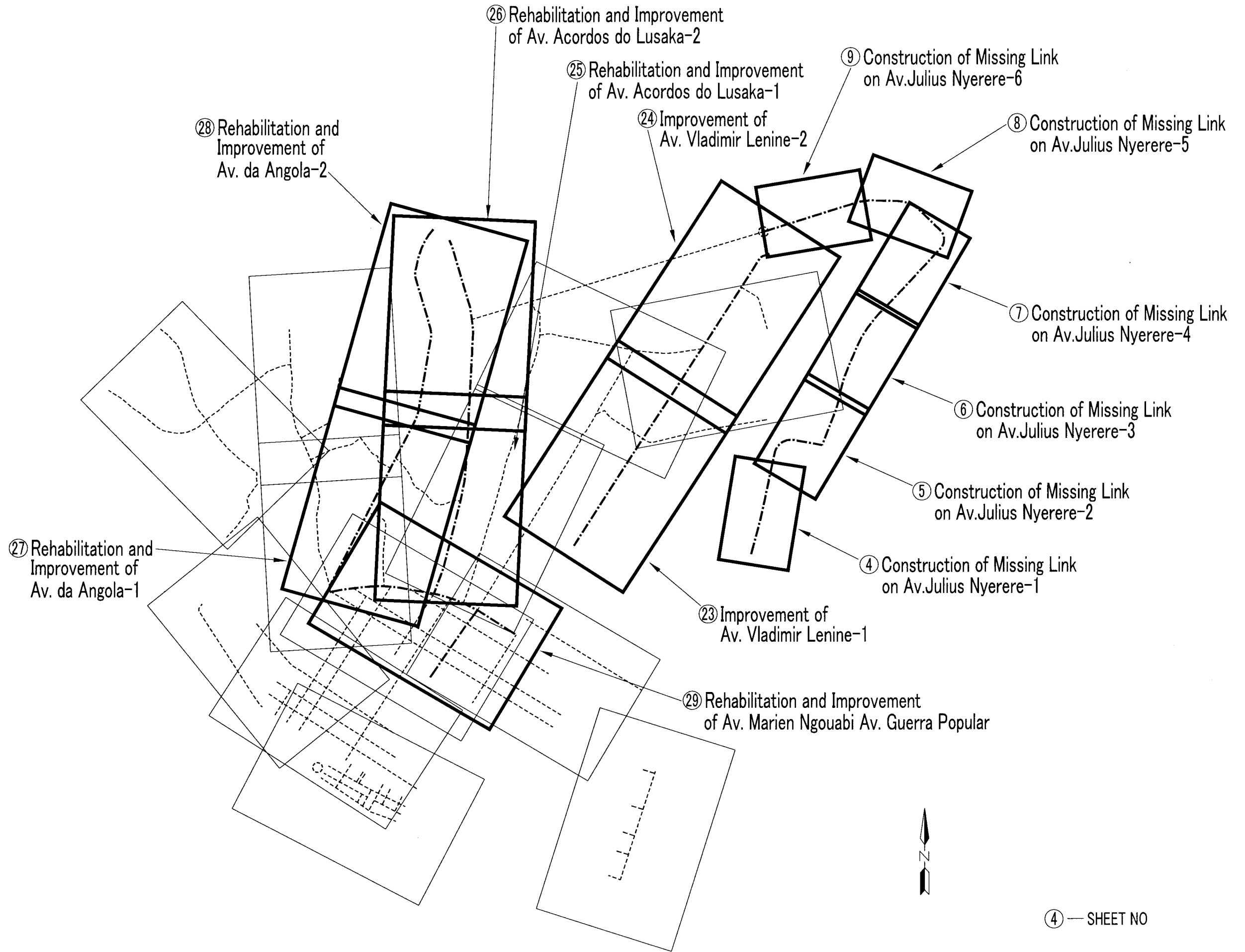


Mozambique

Mozambique



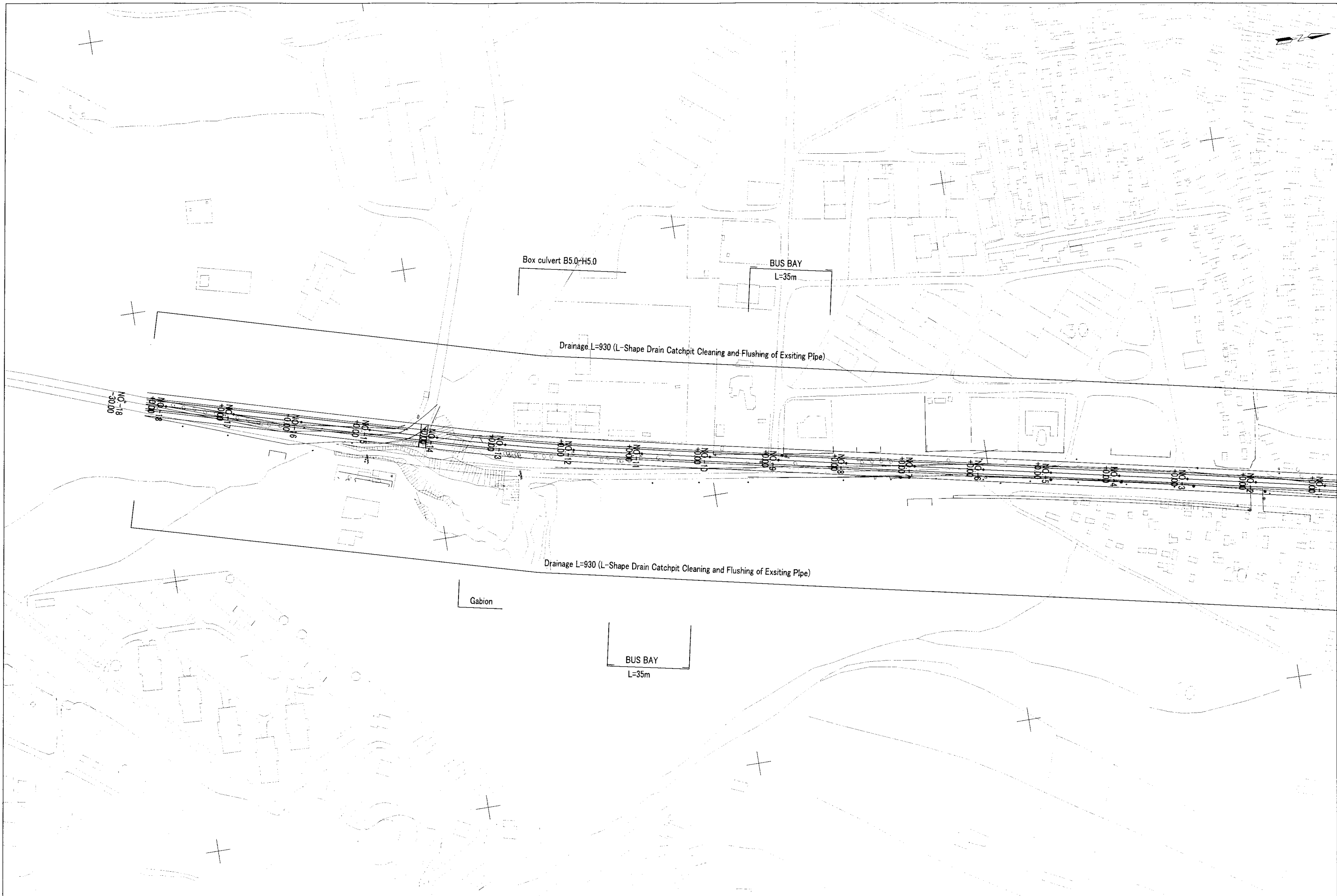




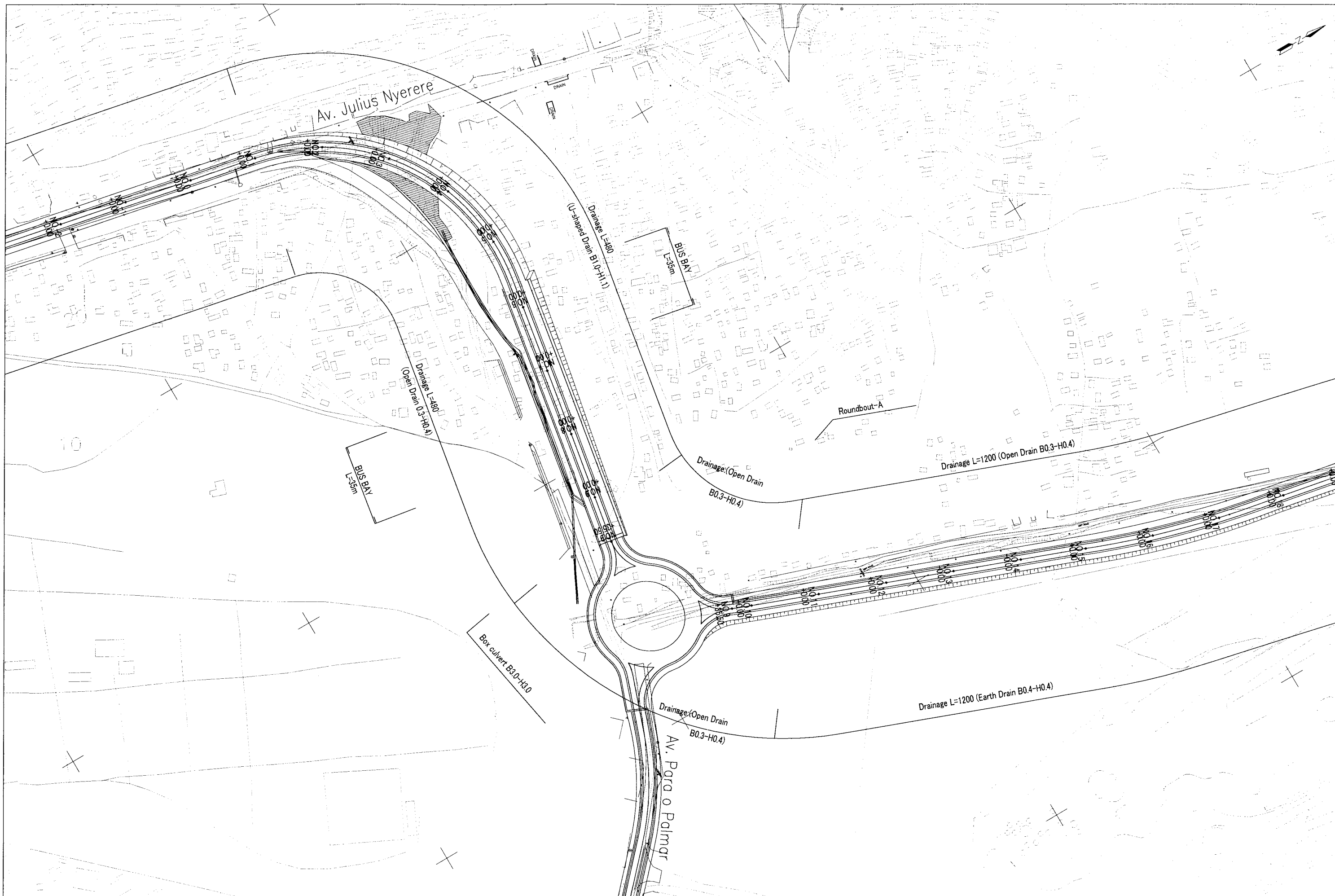
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MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	Trunk Road Key Plan	SCALE	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED DATE	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	PREPARED CHECKED SUBMITTED	DATE	SHEET NO 2
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MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	Construction of Missing Link on Av.Julius Nyerere-1 Plan	SCALE	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	PREPARED CHECKED	DATE	SHEET NO
				H=1:2500		DATE		SUBMITTED		



MUNICIPAL COUNCIL OF MAPUTO  
THE CITY OF MAPUTO  
THE REPUBLIC OF MOZAMBIQUE

THE STUDY  
ON  
THE MASTER PLAN AND FEASIBILITY STUDY  
OF  
THE CITY OF MAPUTO

ORIENTAL CONSULTANS CO.LTD  
IN CONSORTIUM WITH  
JAPAN ENGINEERING CONSULTANTS CO.LTD

Construction of Missing Link  
on Av.Julius Nyerere-2  
Plan

SCALE  
H=1:2500

MUNICIPAL COUNCIL OF MAPUTO  
THE CITY OF MAPUTO  
THE REPUBLIC OF MOZAMBIQUE

APPROVED  
DATE

ORIENTAL CONSULTANS CO.LTD  
IN CONSORTIUM WITH  
JAPAN ENGINEERING  
CONSULTANTS CO.LTD

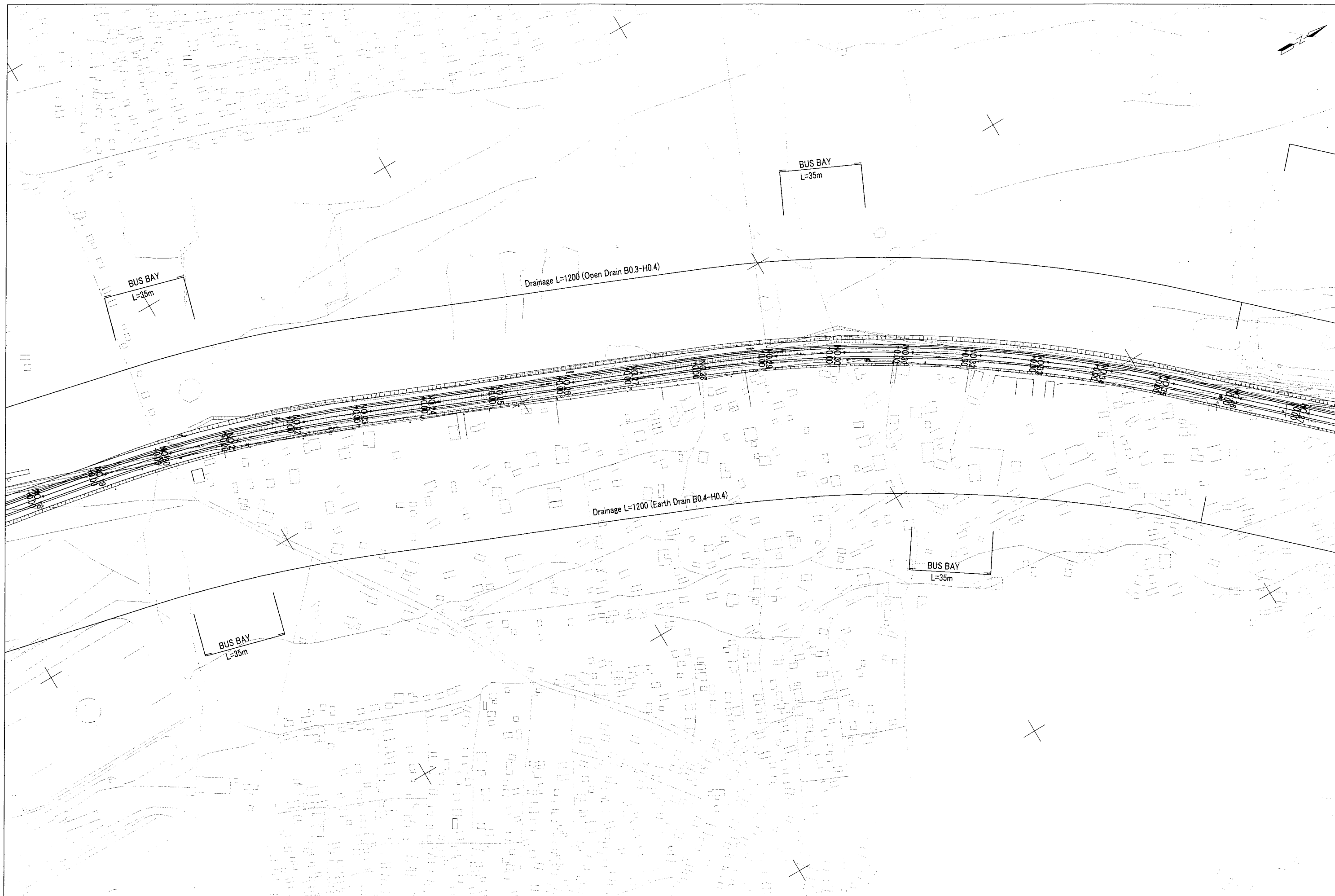
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DATE

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MUNICIPAL COUNCIL OF MAPUTO  
THE CITY OF MAPUTO  
THE REPUBLIC OF MOZAMBIQUE

THE STUDY  
ON  
THE MASTER PLAN AND FEASIBILITY STUDY  
OF  
THE CITY OF MAPUTO

ORIENTAL CONSULTANTS CO.,LTD  
IN CONSORTIUM WITH  
JAPAN ENGINEERING CONSULTANTS CO.,LTD

Construction of Missing Link  
on Av.Julius Nyerere-3  
Plan

SCALE  
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MUNICIPAL COUNCIL OF MAPUTO  
THE CITY OF MAPUTO  
THE REPUBLIC OF MOZAMBIQUE

APPROVED  
DATE

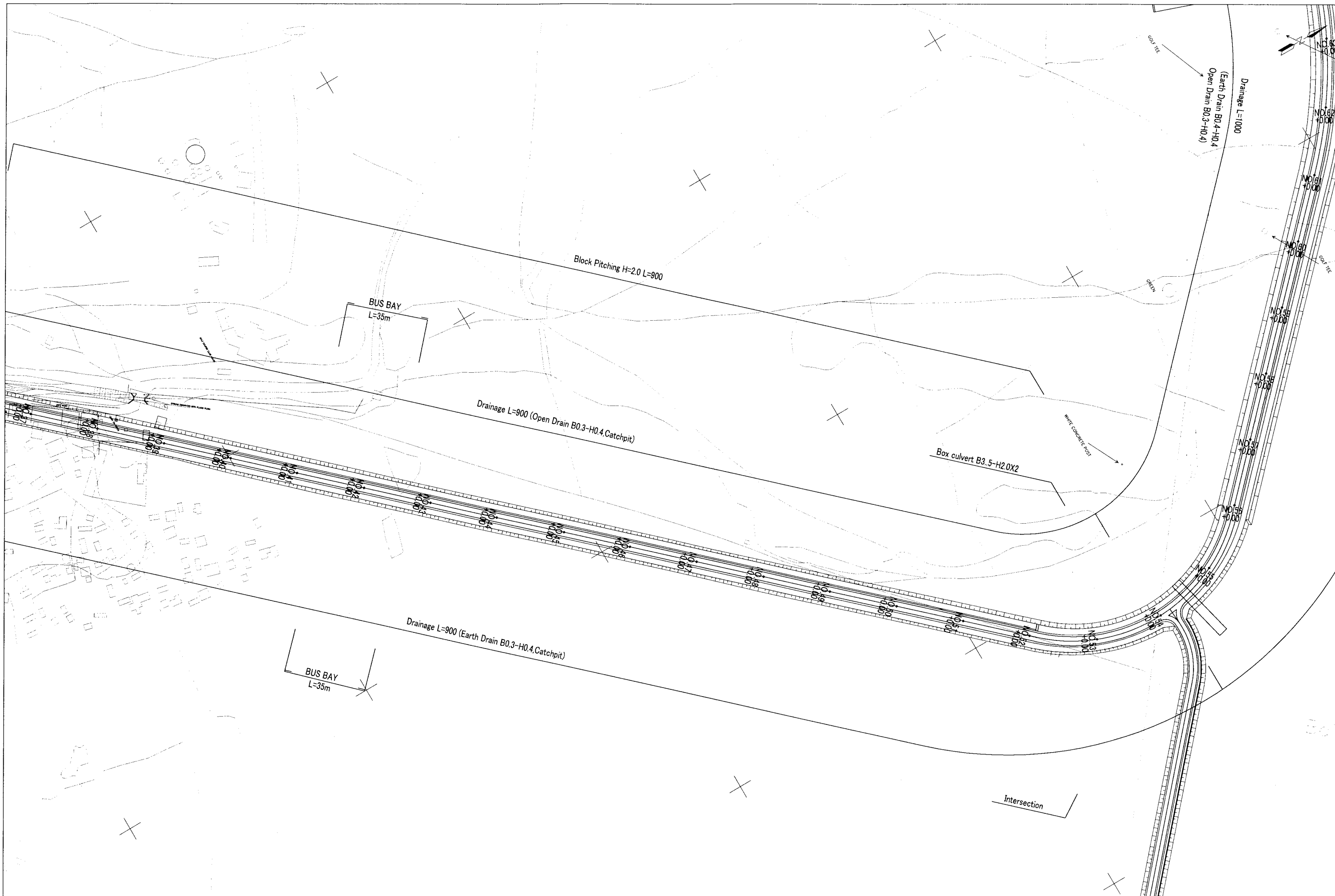
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IN CONSORTIUM WITH  
JAPAN ENGINEERING  
CONSULTANTS CO.LTD

PREPARED CHECKED  
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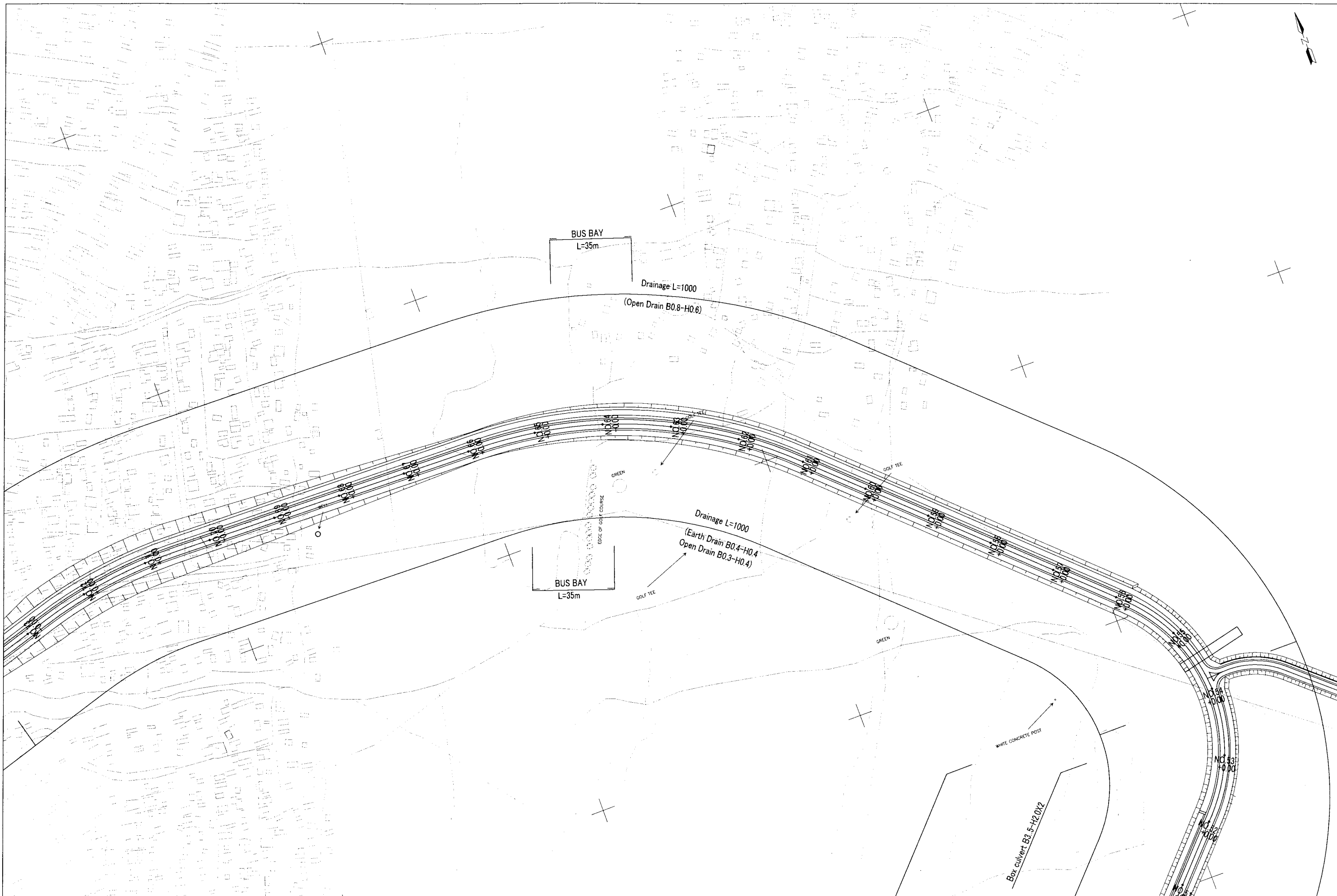
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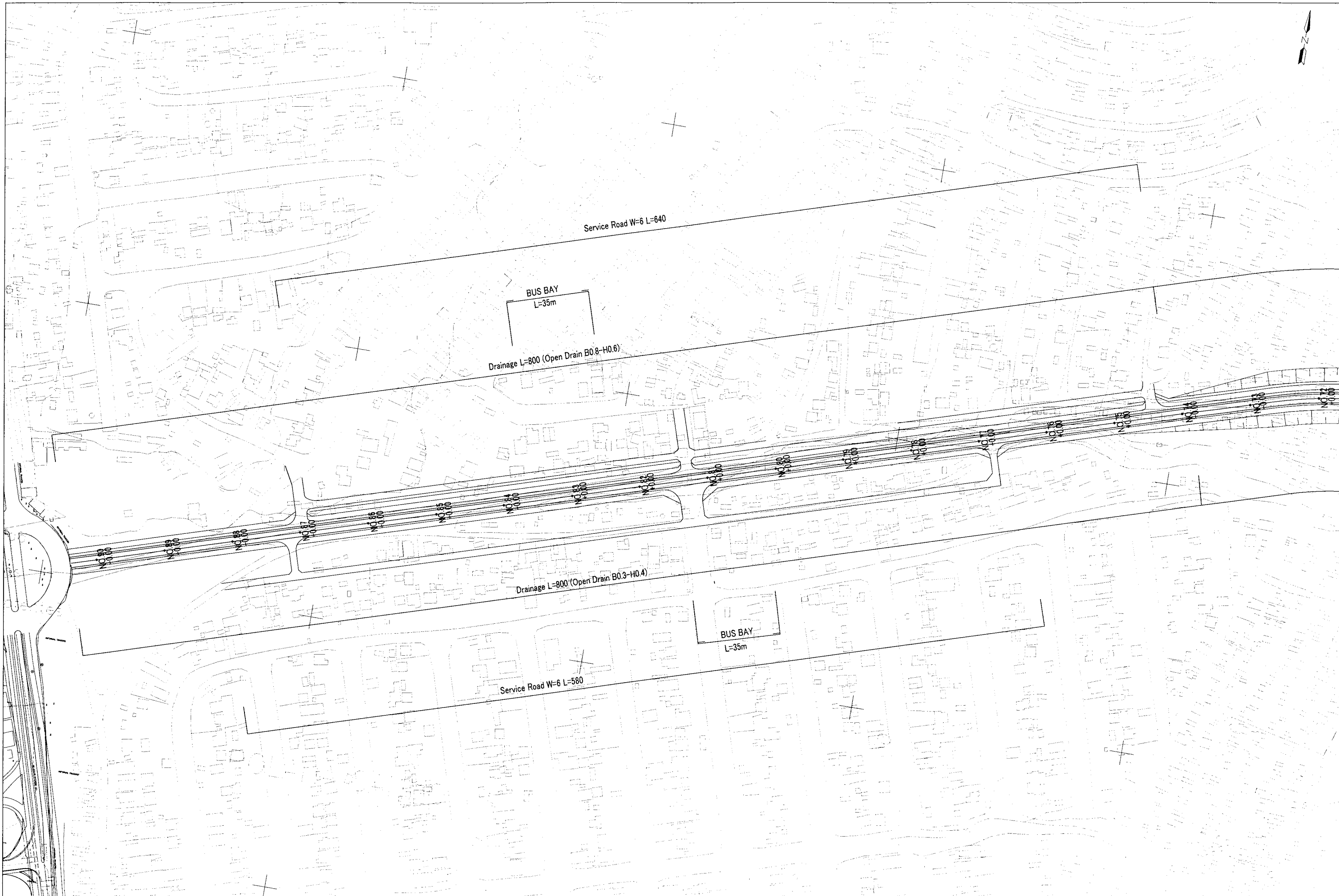
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MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	Construction of Missing Link on Av.Julius Nyerere-4 Plan	SCALE H=1:2500	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	PREPARED CHECKED	DATE	SHEET NO 7
					DATE	SUBMITTED				



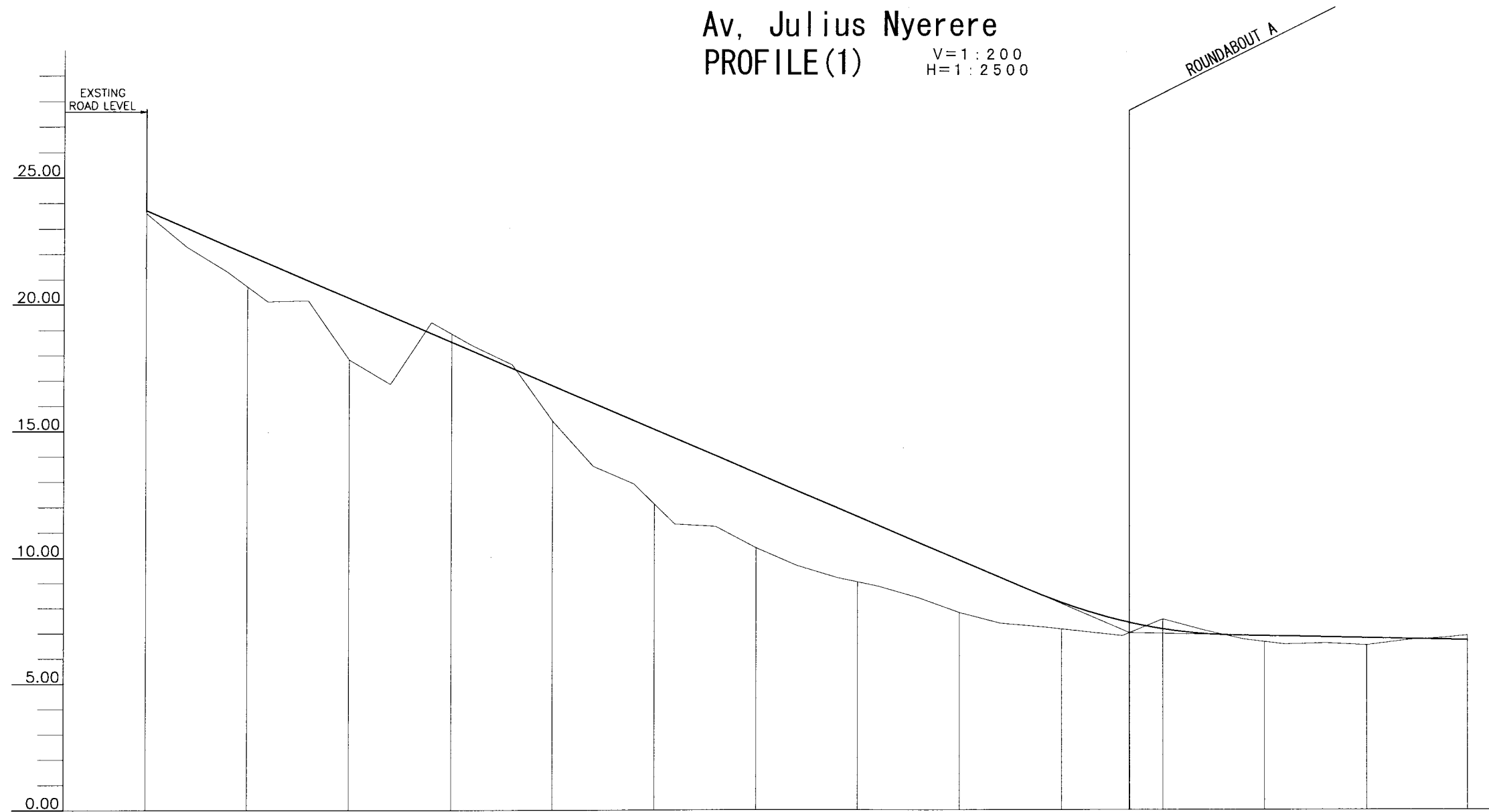
MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	Construction of Missing Link on Av.Julius Nyerere-5 Plan	SCALE H=1:2500	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED DATE	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	PREPARED CHECKED SUBMITTED	DATE	SHEET NO 8
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MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	Construction of Missing Link on Av.Julius Nyerere-6 Plan	SCALE H=1:2500	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED DATE	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	PREPARED CHECKED SUBMITTED	DATE	SHEET NO 9
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# Av, Julius Nyerere PROFILE (1)

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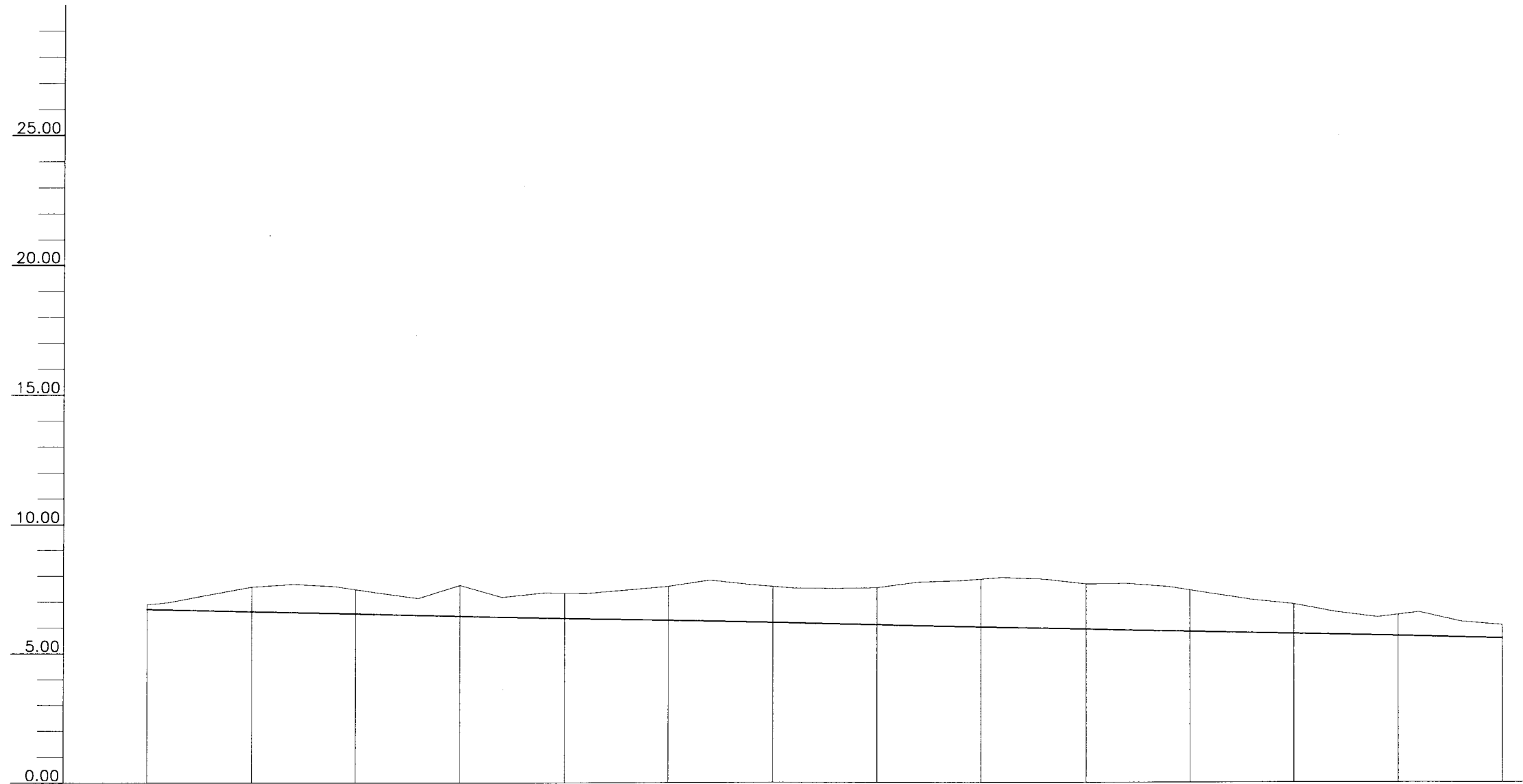


GRADIENT															
FORMATION HEIGHT	23.600	21.883	20.167	18.450	16.733	15.017	13.300	11.584	9.867	8.150	7.251	7.036	6.942	6.898	6.854
GROUND HEIGHT	23.60	20.13	17.83	18.40	15.40	11.32	14.38	8.86	7.81	7.06	6.88	7.55	6.54	6.51	6.97
ACCUMULATED LENGTH	0.000	50.000	100.000	150.000	200.000	250.000	300.000	350.000	400.000	450.000	485.500	500.000	550.000	600.000	650.000
LENGTH	0.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	33.500	16.500	50.000	50.000	50.000
STATION	NO.0	NO.1	NO.2	NO.3	NO.4	NO.5	NO.6	NO.7	NO.8	NO.9	+33.50	NO.10	NO.11	NO.12	NO.13



# Av, Julius Nyerere PROFILE (2)

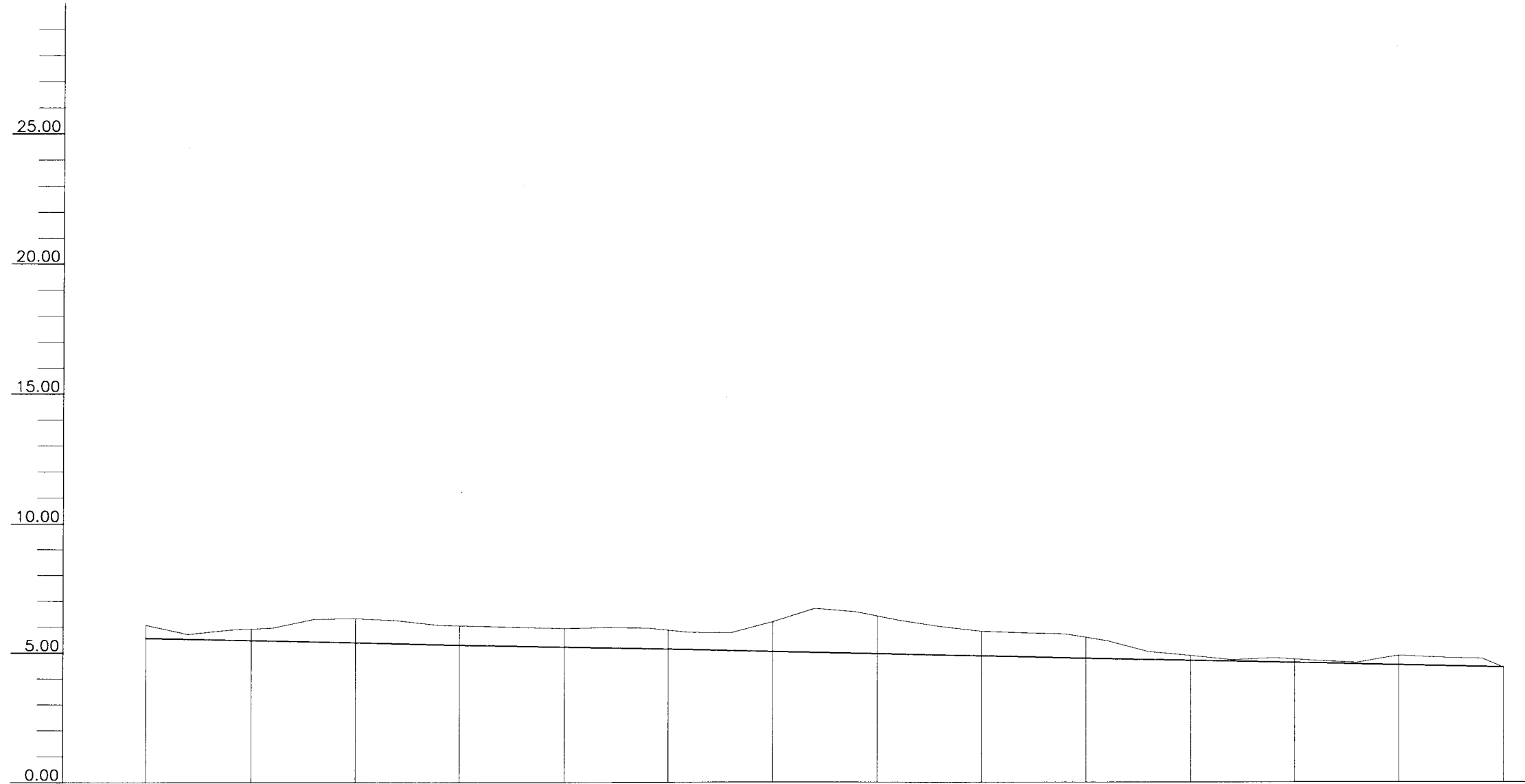
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GRADIENT															
FORMATION HEIGHT	6.854	6.811	6.767	6.723	6.679	6.636	6.592	6.548	6.505	6.461	6.417	6.373	6.330	6.286	
GROUND HEIGHT	6.97	7.58	7.35	7.64	7.32	7.59	7.52	7.53	7.80	7.67	7.31	6.89	6.58	6.07	
ACCUMULATED LENGTH	650.000	700.000	750.000	800.000	850.000	900.000	950.000	1000.000	1050.000	1100.000	1150.000	1200.000	1250.000	300.000	
LENGTH	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	
STATION	NO.13	NO.14	NO.15	NO.16	NO.17	NO.18	NO.19	NO.20	NO.21	NO.22	NO.23	NO.24	NO.25	NO.26	

# Av, Julius Nyerere PROFILE (3)

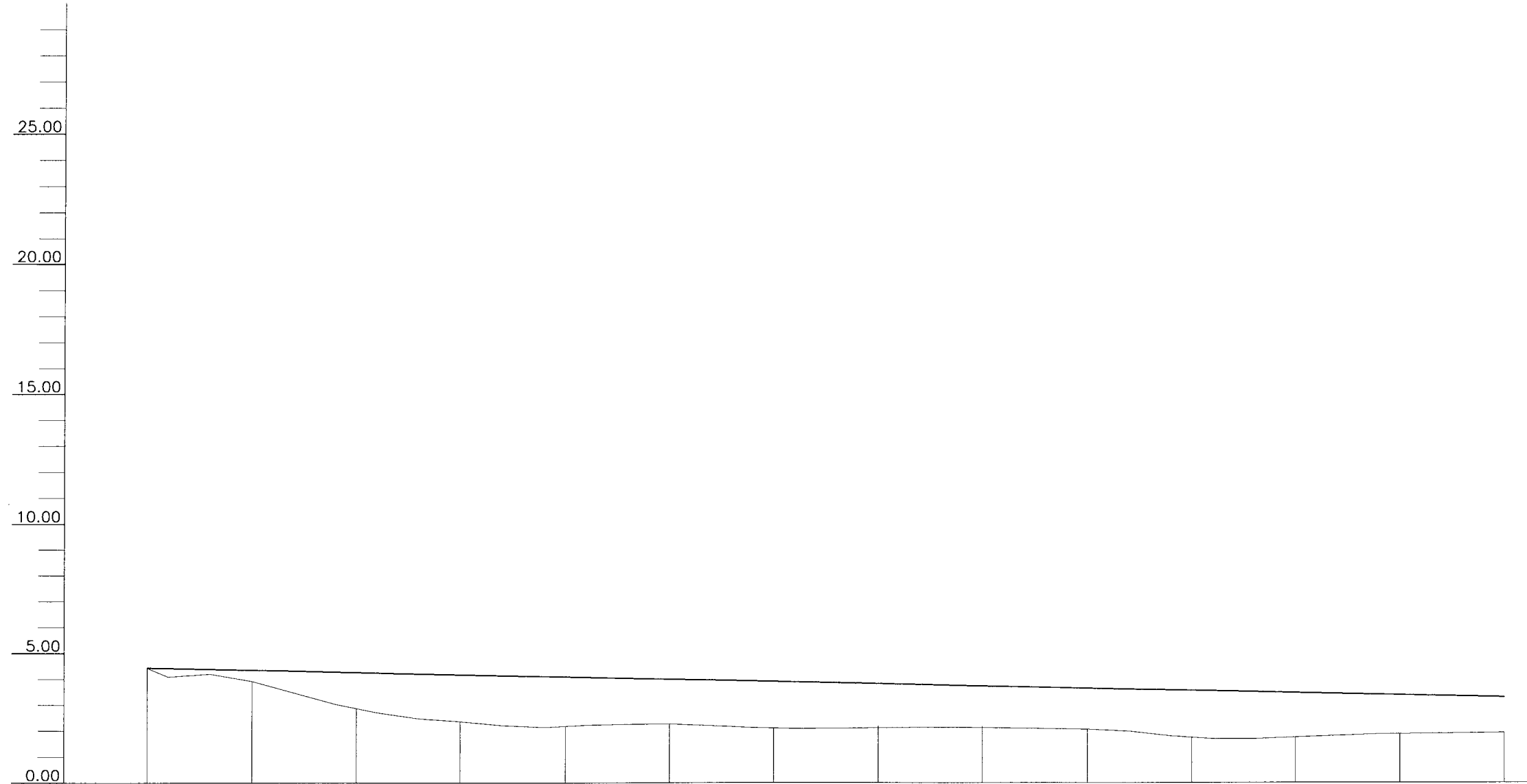
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STATION	NO.26	NO.27	NO.28	NO.29	NO.30	NO.31	NO.32	NO.33	NO.34	NO.35	NO.36	NO.37	NO.38	NO.39
LENGTH	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
ACCUMULATED LENGTH	500.000	350.000	400.000	450.000	500.000	550.000	600.000	650.000	700.000	750.000	800.000	850.000	900.000	950.000
GROUND HEIGHT	6.07	5.96	6.33	6.04	5.95	5.78	6.19	6.26	5.82	5.46	4.89	4.69	4.88	4.08
FORMATION HEIGHT	6.286	6.242	6.198	6.155	6.111	6.067	6.023	5.980	5.936	5.892	5.848	5.805	5.761	5.717
GRADIENT														

# Av, Julius Nyerere PROFILE (4)

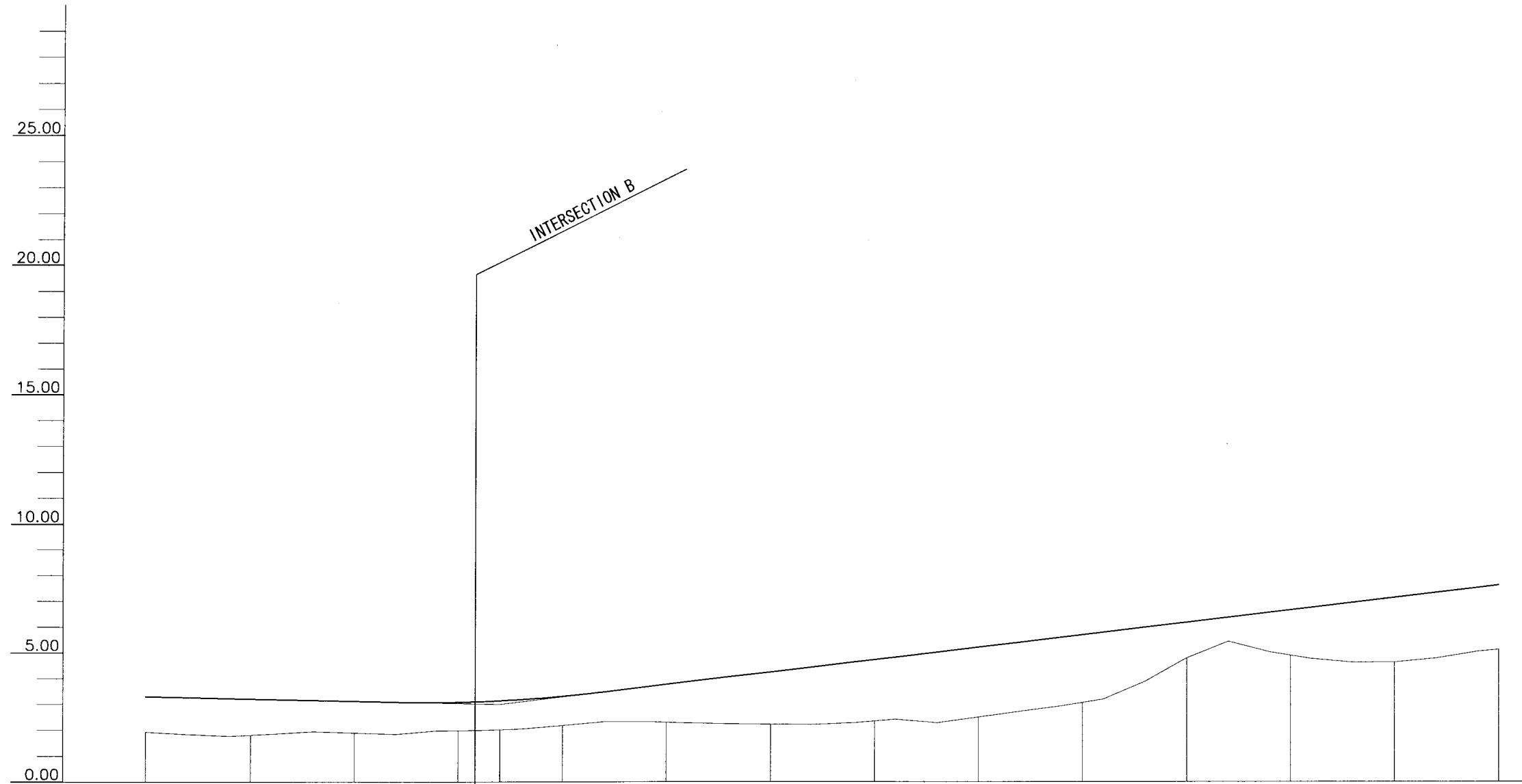
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STATION	LENGTH	ACCUMULATED LENGTH	GROUND HEIGHT	FORMATION HEIGHT	GRADIENT
NO.39	50.000	1950.000	4.08	5.717	
NO.40	50.000	2000.000	3.92	5.674	
NO.41	50.000	2050.000	2.71	5.630	
NO.42	50.000	2100.000	2.37	5.586	
NO.43	50.000	2150.000	2.22	5.542	
NO.44	50.000	2200.000	2.26	5.499	
NO.45	50.000	2250.000	2.09	5.455	
NO.46	50.000	2300.000	2.11	5.411	
NO.47	50.000	2350.000	2.11	5.367	
NO.48	50.000	2400.000	2.07	5.324	
NO.49	50.000	2450.000	1.69	5.280	
NO.50	50.000	2500.000	1.75	5.236	
NO.51	50.000	2550.000	1.89	5.192	
NO.52	50.000	2600.000	1.93	5.149	

# Av, Julius Nyerere PROFILE (5)

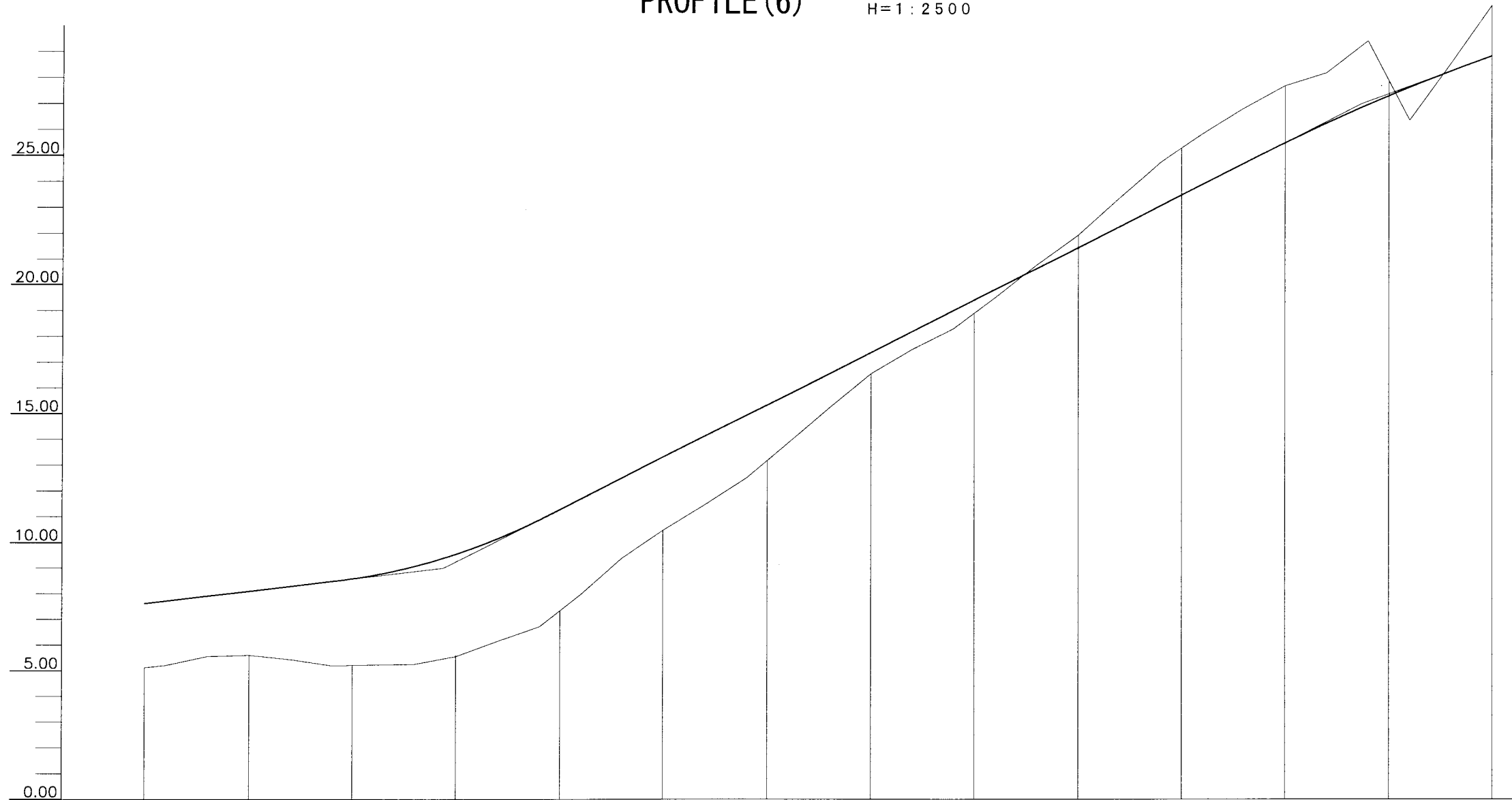
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STATION	LENGTH	ACCUMULATED LENGTH	GROUND HEIGHT	FORMATION HEIGHT	GRADIENT
NO.52	50.000	2600.000	1.93	5.149	i=0.170% L=2286.500m
NO.53	50.000	2650.000	1.85	5.105	
NO.54	50.000	2700.000	1.89	5.061	5.000
NO.55	50.000	2750.000	1.99	5.024	
+20.00	20.000	2770.000	2.02	5.055	i=0.960% L=624.000m
NO.56	30.000	2800.000	2.19	5.192	
NO.57	50.000	2850.000	2.27	5.513	i=0.960% L=624.000m
NO.58	50.000	2900.000	2.23	5.833	
NO.59	50.000	2950.000	2.42	6.154	i=0.960% L=624.000m
NO.60	50.000	3000.000	2.50	6.474	
NO.61	50.000	3050.000	3.20	6.795	i=0.960% L=624.000m
NO.62	50.000	3100.000	4.79	7.115	
NO.63	50.000	3150.000	4.77	7.436	i=0.960% L=624.000m
NO.64	50.000	3200.000	4.63	7.756	
NO.65	50.000	3250.000	5.21	8.077	

# Av, Julius Nyerere PROFILE (6)

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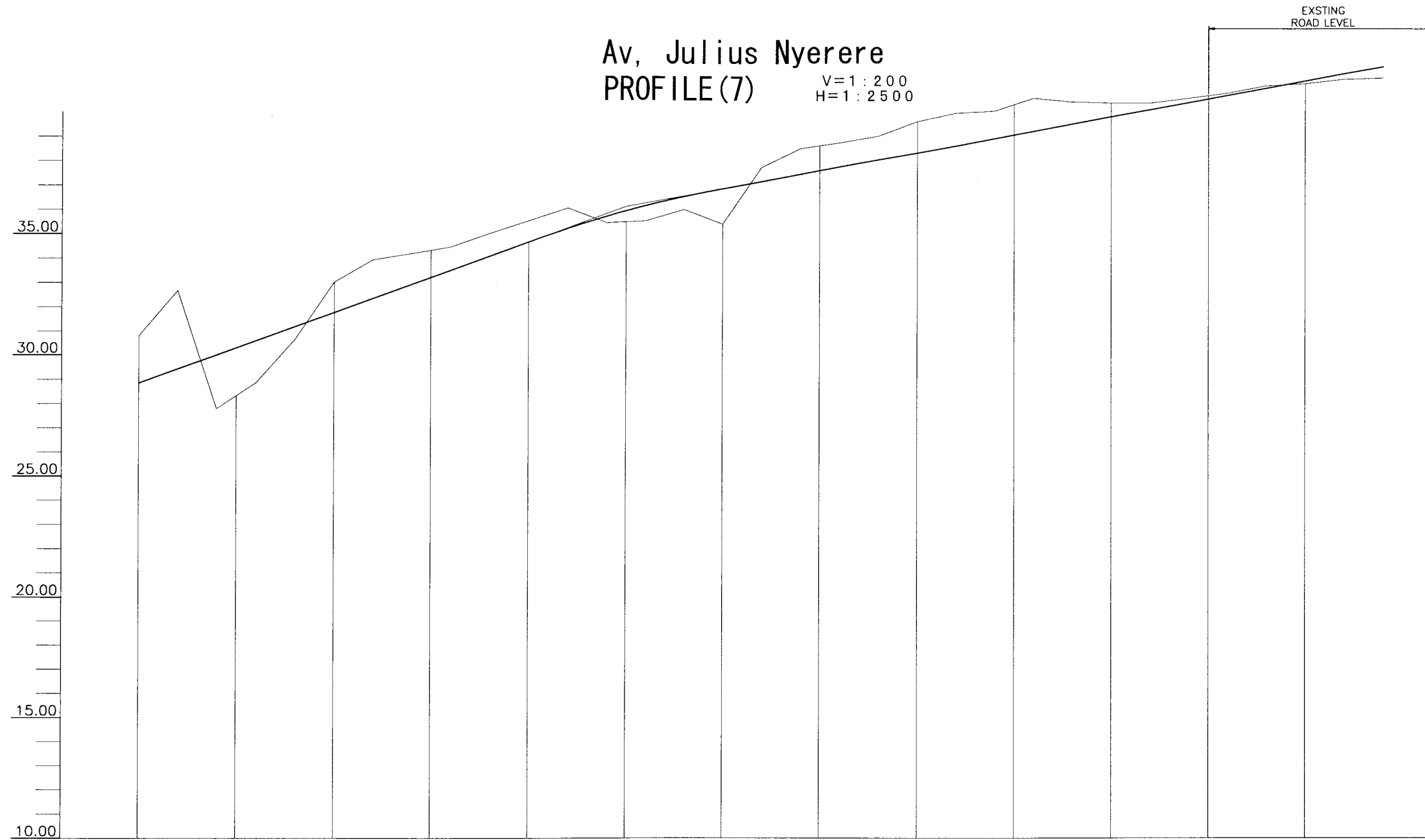


STATION	LENGTH	ACCUMULATED LENGTH	GROUND HEIGHT	FORMATION HEIGHT	GRADIENT
NO.65	50.000	3250.000	5.21	8.077	i=0.960% L=624.000m
NO.66	50.000	3300.000	5.61	8.397	
NO.67	50.000	3350.000	5.21	8.718	
+44.00 NO.68	44.000 6.000	3394.000 3400.000	5.41 5.56	9.257 9.408	(9.000)
NO.69	50.000	3450.000	7.97	11.275	i=4.060% L=443.000m
NO.70	50.000	3500.000	10.46	13.307	
NO.71	50.000	3550.000	13.87	15.339	
NO.72	50.000	3600.000	16.55	17.370	i=2.910% L=313.000m
NO.73	50.000	3650.000	19.49	19.402	
NO.74	50.000	3700.000	21.92	21.433	
NO.75	50.000	3750.000	25.81	23.465	
NO.76	50.000	3800.000	27.68	25.497	
+37.00 NO.77	37.000 13.000	3837.000 3850.000	28.04 27.89	26.913 27.350	(27.000)
NO.78	50.000	3900.000	30.78	28.832	



# Av, Julius Nyerere PROFILE (7)

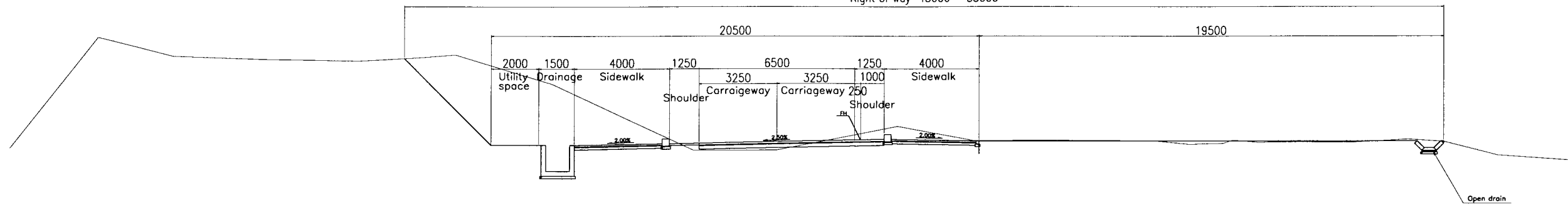
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GRADIENT														
FORMATION HEIGHT	28.832	30.285	31.739	33.193	34.646	35.992	36.835	37.570	38.305	39.040	39.775	40.510		
GROUND HEIGHT	30.78	28.84	32.99	34.44	35.82	35.47	35.39	38.70	39.59	40.54	40.33	40.74	41.13	
ACCUMULATED LENGTH	50.000	100.000	150.000	200.000	250.000	300.000	350.000	400.000	450.000	500.000	550.000	600.000	650.000	
LENGTH	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	
STATION	NO.78	NO.79	NO.80	NO.81	NO.82	NO.83	NO.84	NO.85	NO.86	NO.87	NO.88	NO.89	NO.90	

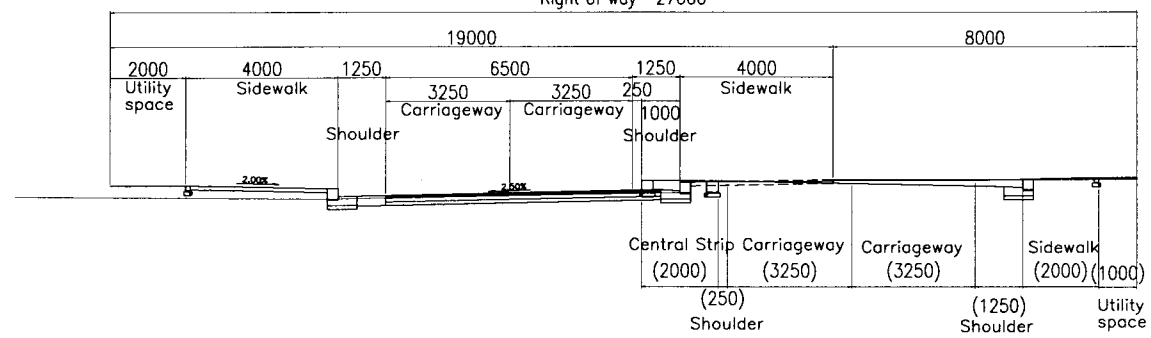
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Right of way 45000 ~ 55000

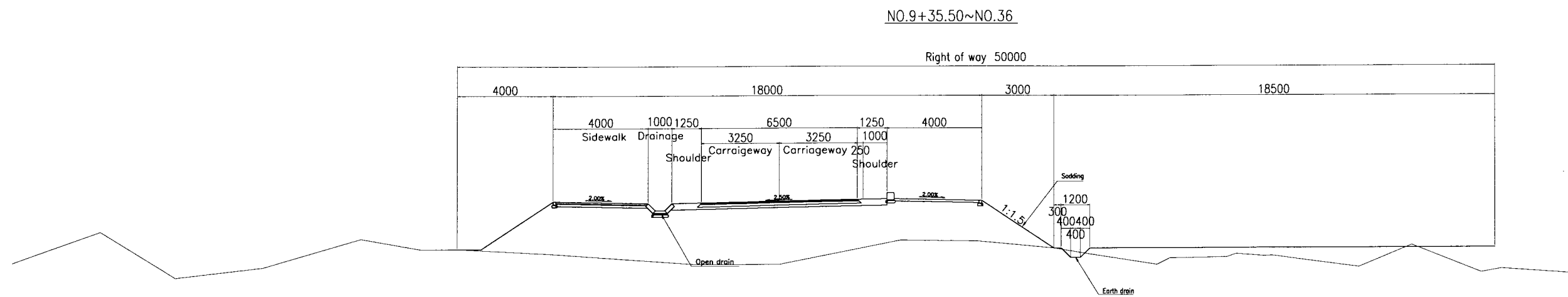
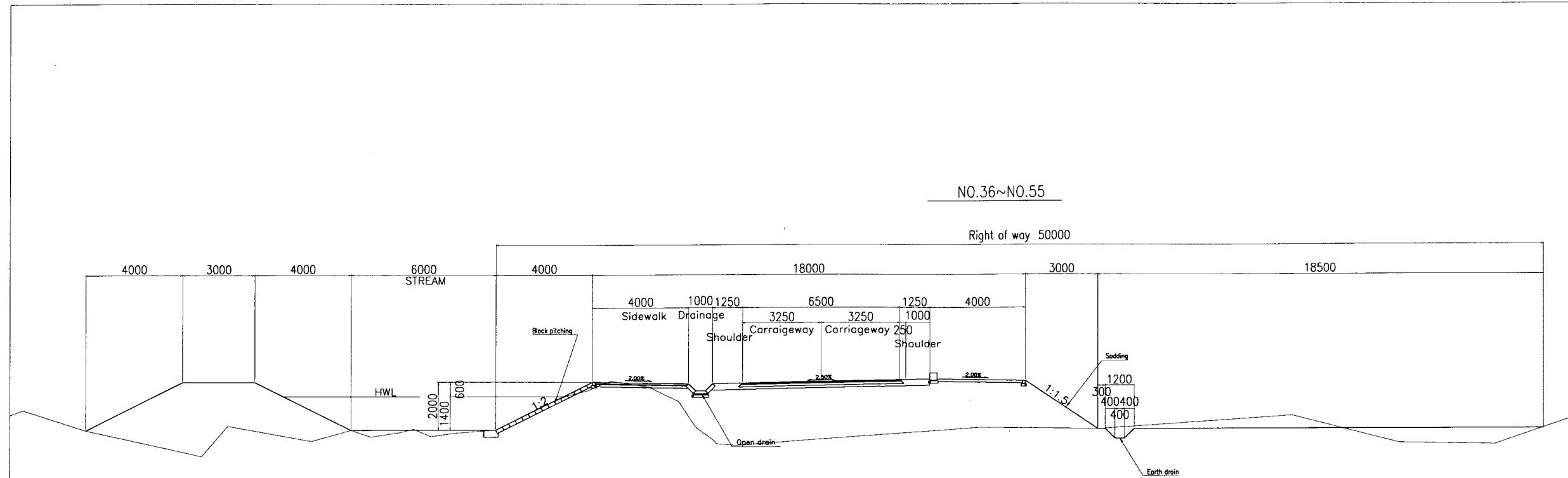


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Right of way 27000



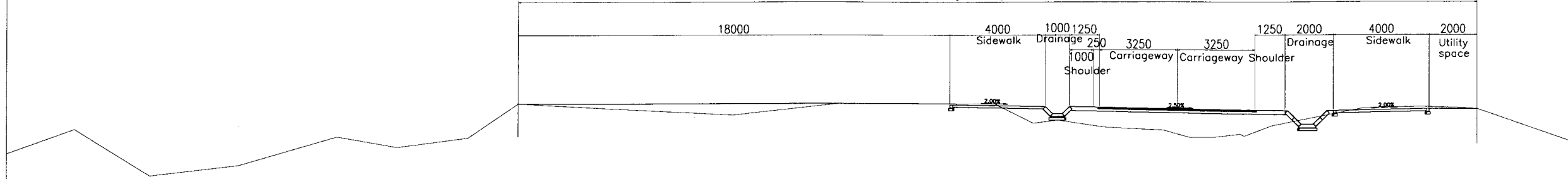
MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	Av.Julius Nyerere CROSS SECTION (1/3)	SCALE	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	PREPARED CHECKED	DATE	SHEET NO
				S=1:200		DATE		SUBMITTED		



MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANTS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	Av.Julius Nyerere CROSS SECTION (2/3)	SCALE S=1:200	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED DATE	ORIENTAL CONSULTANTS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	PREPARED CHECKED SUBMITTED	DATE	SHEET NO <b>18</b>
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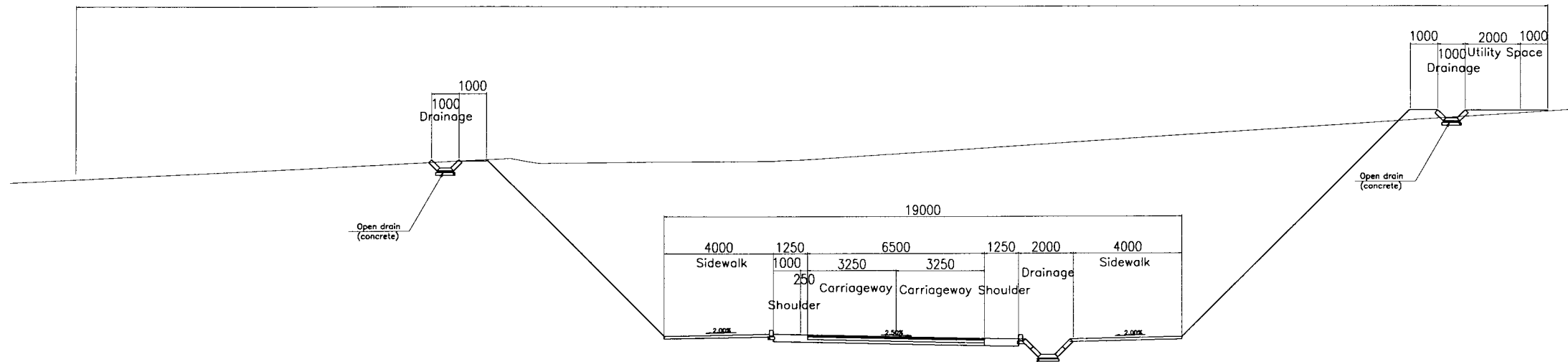
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Right of way 40000



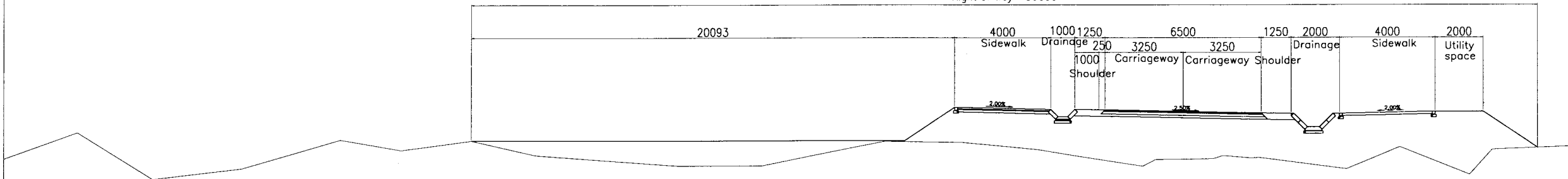
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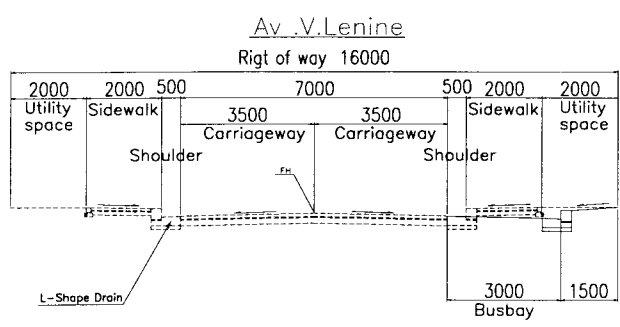
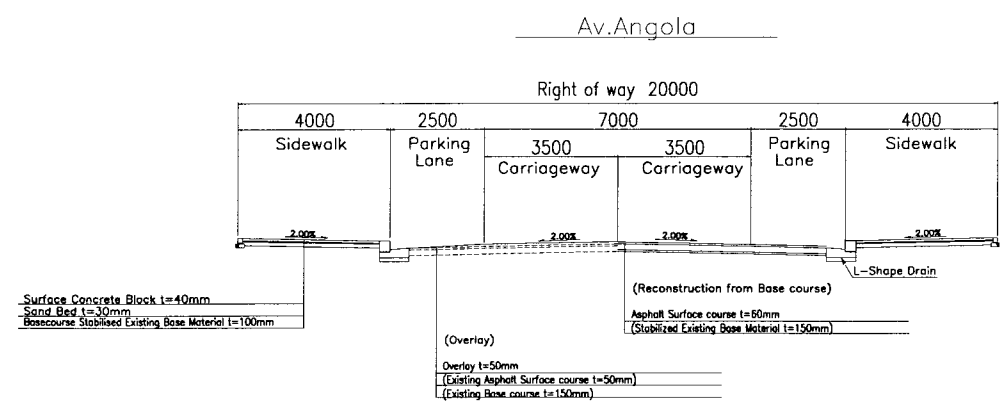
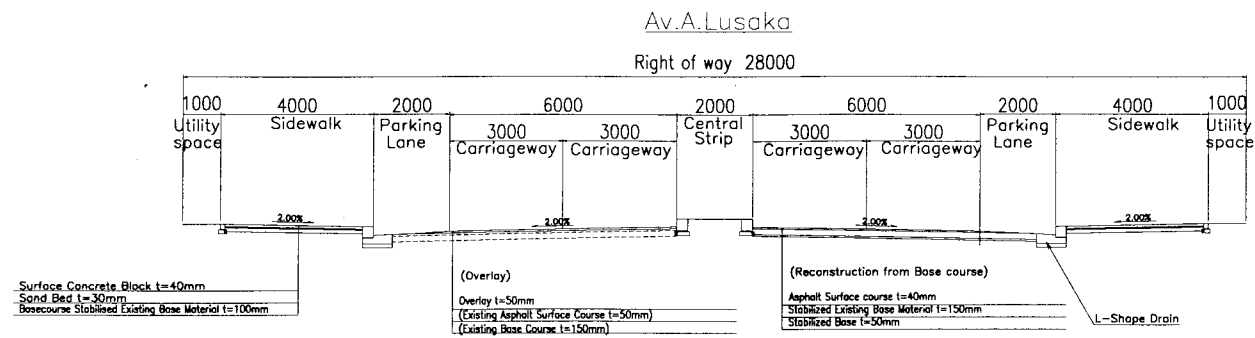
Right of way 50000



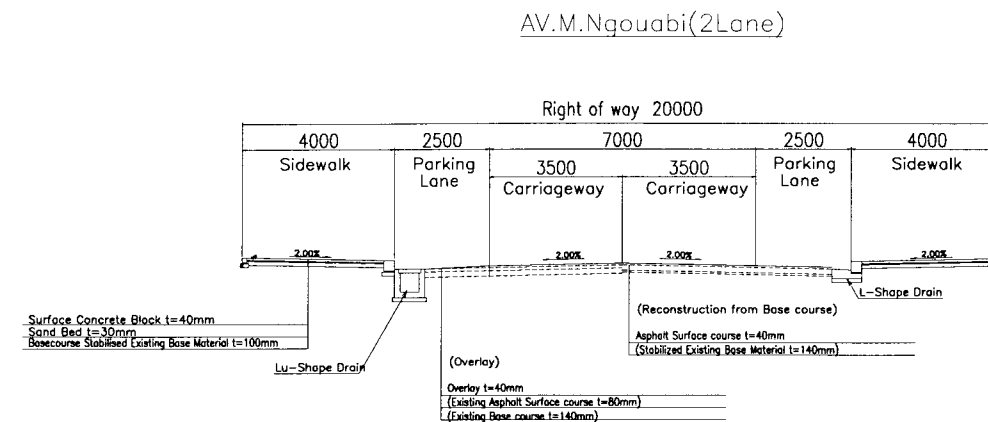
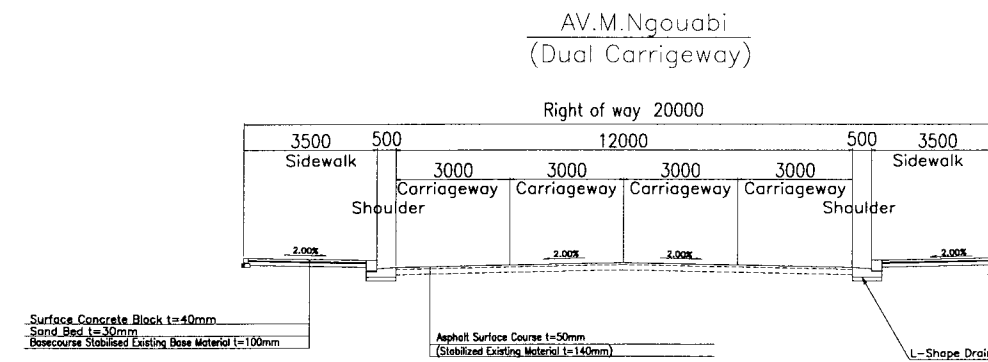
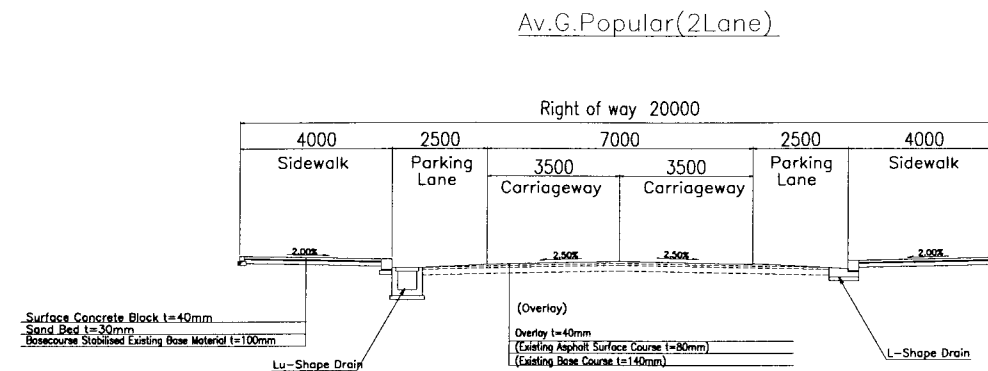
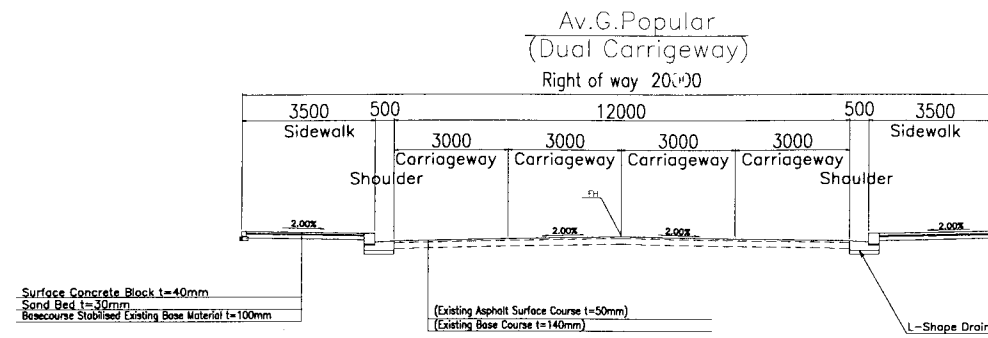
MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	Av.Julius Nyerere CROSS SECTION (3/3)	SCALE S=1:200	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED	ORIENTAL CONSULTANTS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	PREPARED CHECKED	DATE	SHEET NO 19
					DATE	SUBMITTED				







MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	TYPICAL CROSS SECTION	SCALE	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	PREPARED CHECKED	DATE	SHEET NO
				S=1:200		DATE		SUBMITTED		



MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	TYPICAL CROSS SECTION	SCALE	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED	ORIENTAL CONSULTANTS CO.,LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.,LTD	PREPARED CHECKED	DATE	SHEET NO
				S=1:200		DATE		SUBMITTED		



MUNICIPAL COUNCIL OF MAPUTO  
THE CITY OF MAPUTO  
THE REPUBLIC OF MOZAMBIQUE

THE STUDY  
ON  
THE MASTER PLAN AND FEASIBILITY STUDY  
OF  
THE CITY OF MAPUTO

ORIENTAL CONSULTANS CO.,LTD  
IN CONSORTIUM WITH  
JAPAN ENGINEERING CONSULTANTS CO.,LTD

Improvement of Av.Vladimir Lenine-1  
Plan

SCALE  
H=1:5000

MUNICIPAL COUNCIL OF MAPUTO  
THE CITY OF MAPUTO  
THE REPUBLIC OF MOZAMBIQUE

APPROVED  
DATE

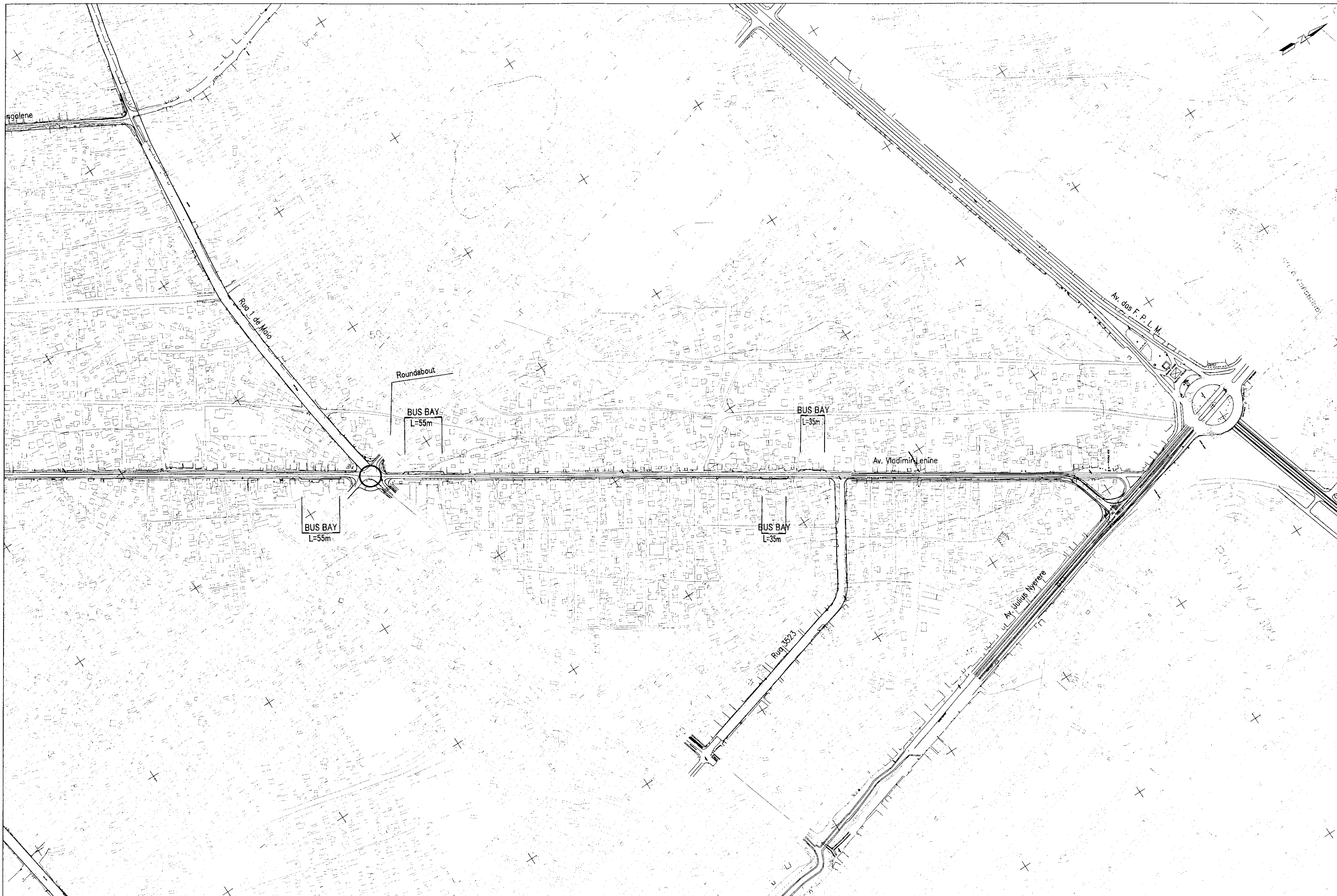
ORIENTAL CONSULTANS CO.,LTD  
IN CONSORTIUM WITH  
JAPAN ENGINEERING  
CONSULTANTS CO.,LTD

PREPARED CHECKED  
SUBMITTED

DATE

SHEET NO

23



MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	THE STUDY ON THE MASTER PLAN AND FEASIBILITY STUDY OF THE CITY OF MAPUTO	ORIENTAL CONSULTANS CO.LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.LTD	Improvement of Av.Vladimir Lenine-2 Plan	SCALE H=1:5000	MUNICIPAL COUNCIL OF MAPUTO THE CITY OF MAPUTO THE REPUBLIC OF MOZAMBIQUE	APPROVED DATE	ORIENTAL CONSULTANS CO.LTD IN CONSORTIUM WITH JAPAN ENGINEERING CONSULTANTS CO.LTD	PREPARED CHECKED SUBMITTED	DATE	SHEET NO 24
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