

THE UNITED REPUBLIC OF TANZANIA

THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE
IN
DAR ES SALAAM

FINAL REPORT
DRAWINGS

JULY, 1990

JAPAN INTERNATIONAL COOPERATION AGENCY

THE FEASIBILITY STUDY ON ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAAM

FINAL REPORT

DRAWINGS

JULY, 1990

21315

THE UNITED REPUBLIC OF TANZANIA

**THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE
IN
DAR ES SALAAM**

**FINAL REPORT
DRAWINGS**

JICA LIBRARY



1082832(5)

JULY, 1990

JAPAN INTERNATIONAL COOPERATION AGENCY

国際協力事業団

21315

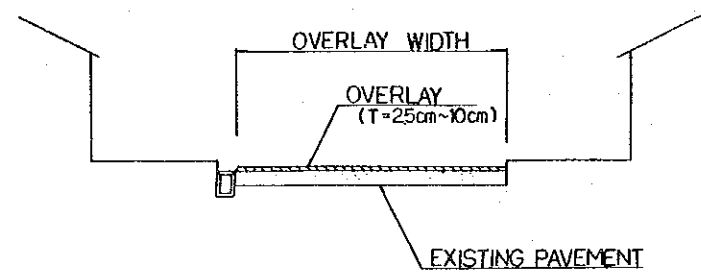
INDEX

NO.	TITLE	DRAWING NO.	NO.	TITLE	DRAWING NO.
1.	AREA ROAD GROUPS TO BE IMPROVED BY OVERLAY AND RECONSTRUCTION		2-2	UPANGA ROAD	
(1)	TYPICAL CROSS SECTION OF OVERLAY AND RECONSTRUCTION	1	(1)	PLAN AND PROFILE	32
(2)	CENTRAL AREA ROADS GROUP (1)~(3)	2~4	(2)	TYPICAL CROSS SECTION	33
(3)	KARIAKOO AREA ROADS GROUP	5	(3)	CROSS SECTIONS (1), (2)	34, 35
(4)	CHANGOMBE AREA ROADS GROUP	6	(4)	TANGANYIKA MOTORS INTERSECTION	36
(5)	MWINJUMA AREA ROADS GROUP (1)~(4)	7~10	2-3	NEW BAGAMOYO ROAD	
(6)	NEW BAGAMOYO ROADS GROUP	11	(1)	PLAN AND PROFILE (1), (2)	37, 38
2.	ARTERIAL ROADS TO BE IMPROVED BY WIDENING		(2)	TYPICAL CROSS SECTION	39
2-1	MOROGORO ROAD		(3)	CROSS SECTIONS (1)~(4)	40~43
(1)	PLAN AND PROFILE (1)~(5)	12~16	3.	PRIORITY INTERSECTIONS	44
(2)	TYPICAL CROSS SECTION	17	4.	BUS BAY AND APPROACH ROAD	45
(3)	CROSS SECTIONS (1)~(8)	18~25	5.	LIGHTING FACILITIES AND TRAFFIC SIGNAL	46
(4)	INTERSECTIONS	26, 27	6.	DRAINAGE STRUCTURES AND MISCELLANEOUS (1), (2)	47, 48
(5)	GENERAL VIEW OF MANZESE SECTION	28	7.	UNDERGROUND UTILITIES	
(6)	MANZESE BUS TERMINAL	29	(1)	WATER PIPE LINE (1)~(4)	50~53
(7)	MANZESE TRUCK TERMINAL	30	(2)	TELEPHONE LINE (1)~(4)	54~57
(8)	PEDESTRIAN BRIGDE	31	(3)	ELECTRIC WIRE (1)~(4)	58~61
			8.	MAINTENANCE DEPOT	62

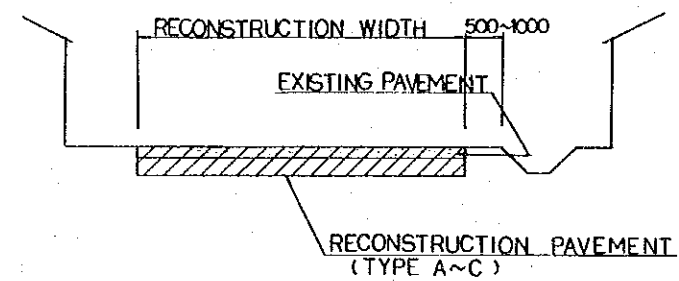
1. AREA ROAD GROUPS TO BE IMPROVED BY OVERLAY AND RECONSTRUCTION

TYPICAL CROSSSECTION OF OVERLAY AND RECONSTRUCTION

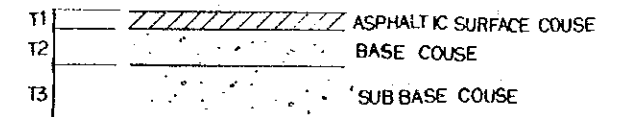
OVERLAY



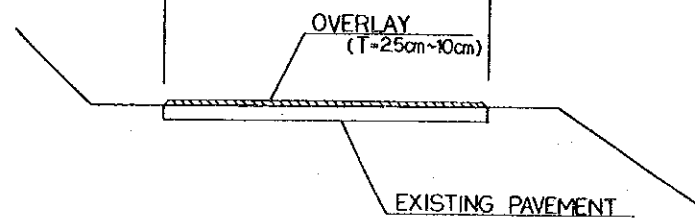
RECONSTRUCTION



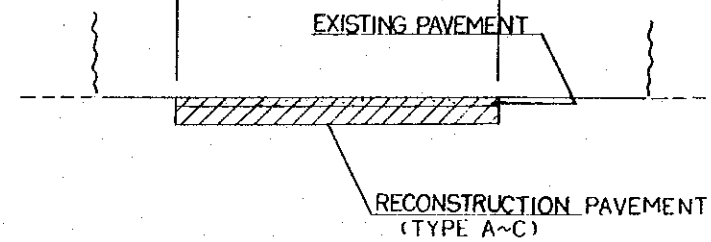
PAVEMENT STRUCTURE OF RECONSTRUCTION



OVERLAY WIDTH



RECONSTRUCTION WIDTH

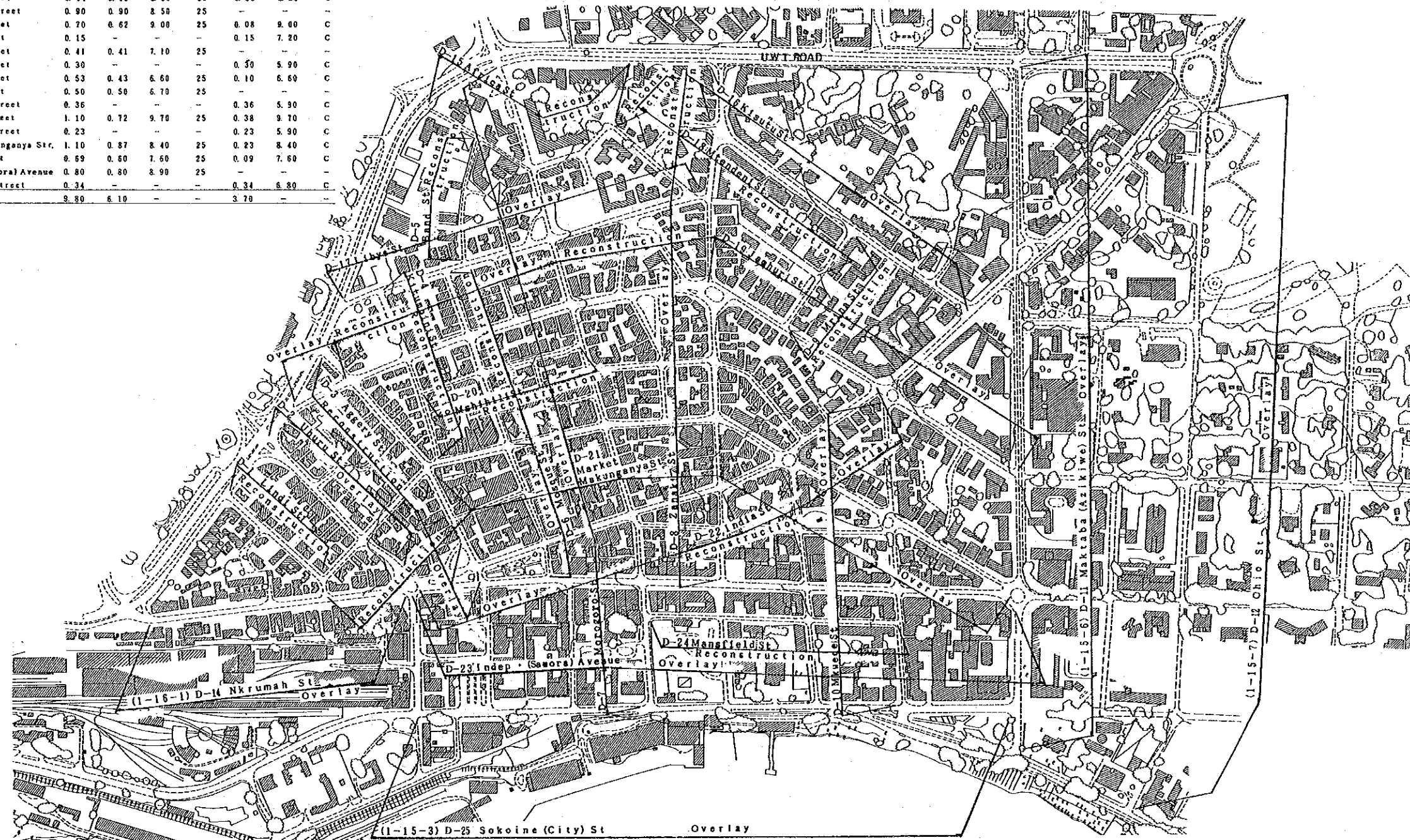


NAME OF EACH COUSES	THICKNESS TYPE (cm)		
	A	B	C
T1	10	7	5
T2	20	20	15
T3	30	30	25

1-2 Quantities of overlay and reconstruction

Link No.	Name of Roads	Road Length (km)	Overlay		Reconstruction			
			Length (km)	Width (m)	Thickness (mm)	Length (km)	Width (m)	Type
D-Central Area Roads								
D-1	Lindi Street	0.20	-	-	-	0.20	6.40	C
D-2	Uhuru Street	0.26	-	-	-	0.26	9.10	C
D-3	Aggrey Street	0.38	0.06	9.00	25	0.32	9.00	C
D-4	Kitumbini Street	0.24	-	-	-	0.24	6.80	C
D-5	Band Street	0.17	-	-	-	0.17	4.00	C
D-6	Mosque Street	0.44	0.19	8.20	25	0.25	8.20	C
D-7	Morogoro Street	0.90	0.90	8.50	25	-	-	-
D-8	Zanaki Street	0.70	0.62	9.00	25	0.08	9.00	C
D-9	Mirna Street	0.15	-	-	-	0.15	7.20	C
D-10	Mkvege Street	0.41	0.41	7.10	25	-	-	-
D-15	Africa Street	0.30	-	-	-	0.30	5.90	C
D-16	Kiautu Street	0.53	0.43	6.60	25	0.10	6.60	C
D-17	Libya Street	0.50	0.50	6.70	25	-	-	-
D-18	Mtendani Street	0.36	-	-	-	0.36	5.90	C
D-19	Janhuri Street	1.10	0.72	9.70	25	0.38	9.70	C
D-20	Mshibili Street	0.23	-	-	-	0.23	5.90	C
D-21	Market-Makunganya Str.	1.10	0.87	8.40	25	0.23	8.40	C
D-22	India Street	0.89	0.80	7.60	25	0.09	7.60	C
D-23	Indep. (Sawara) Avenue	0.80	0.80	8.90	25	-	-	-
D-24	Mansfield Street	0.34	-	-	-	0.34	6.80	C
Total		9.80	6.10	-	-	3.78	-	-

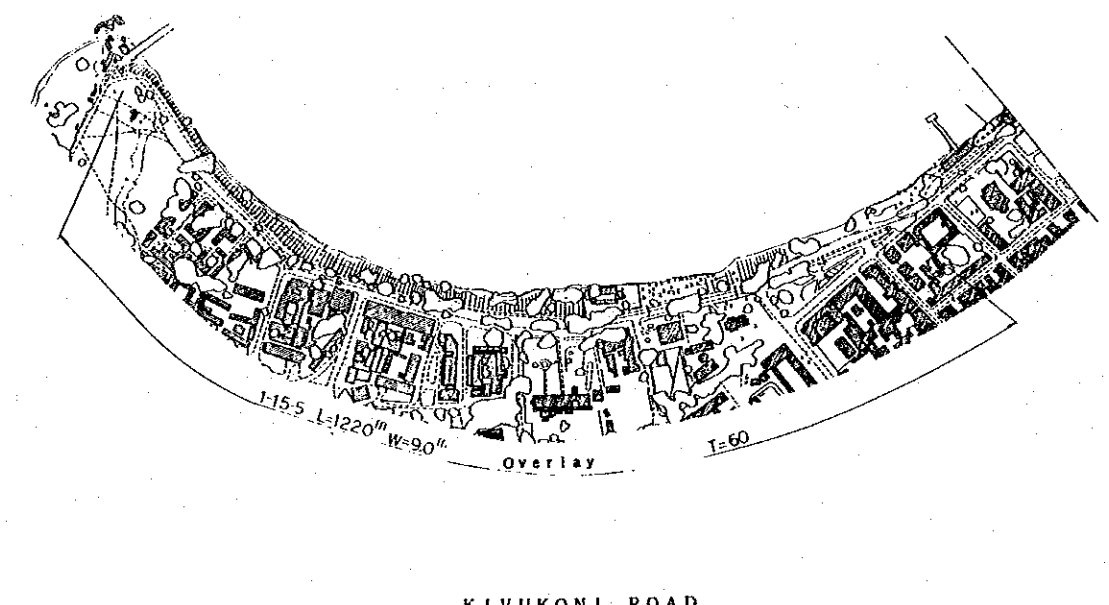
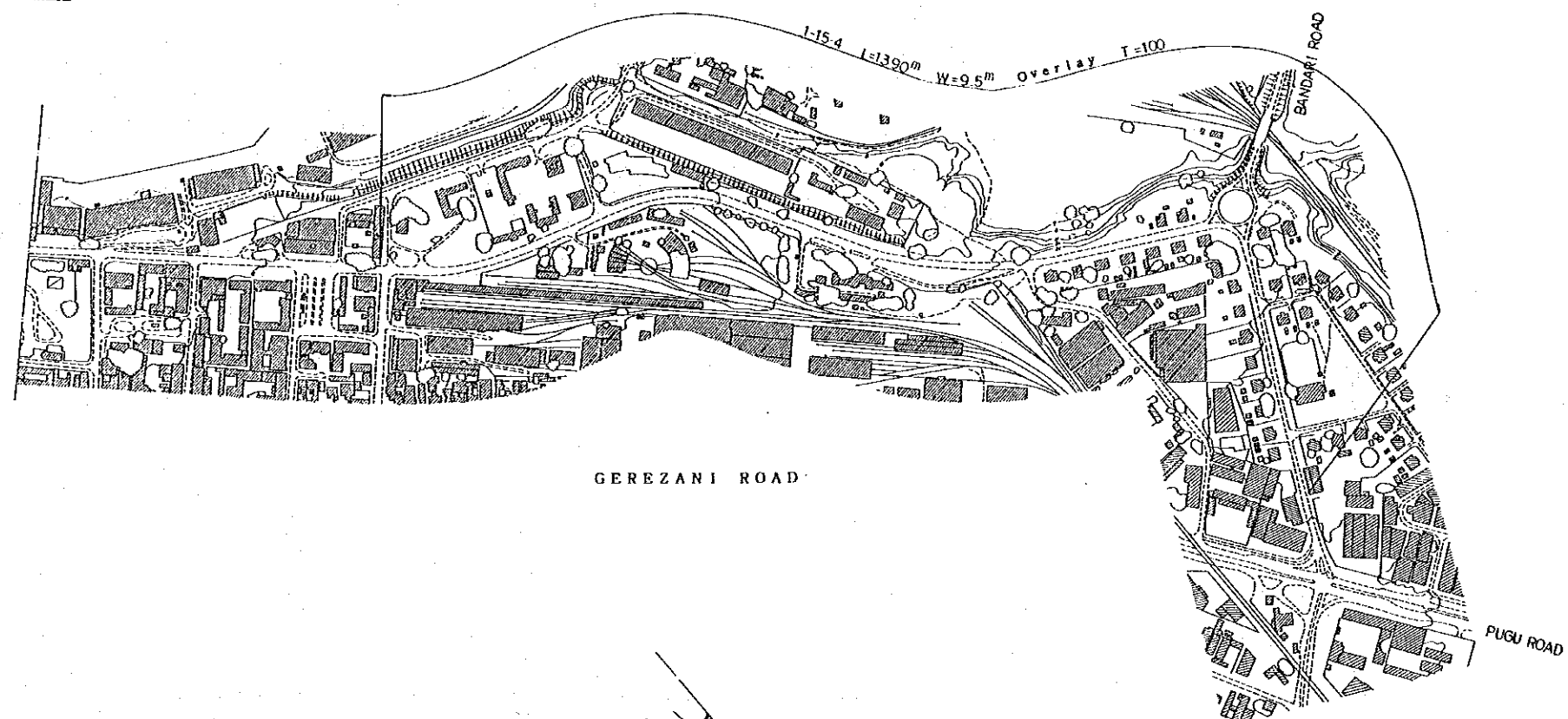
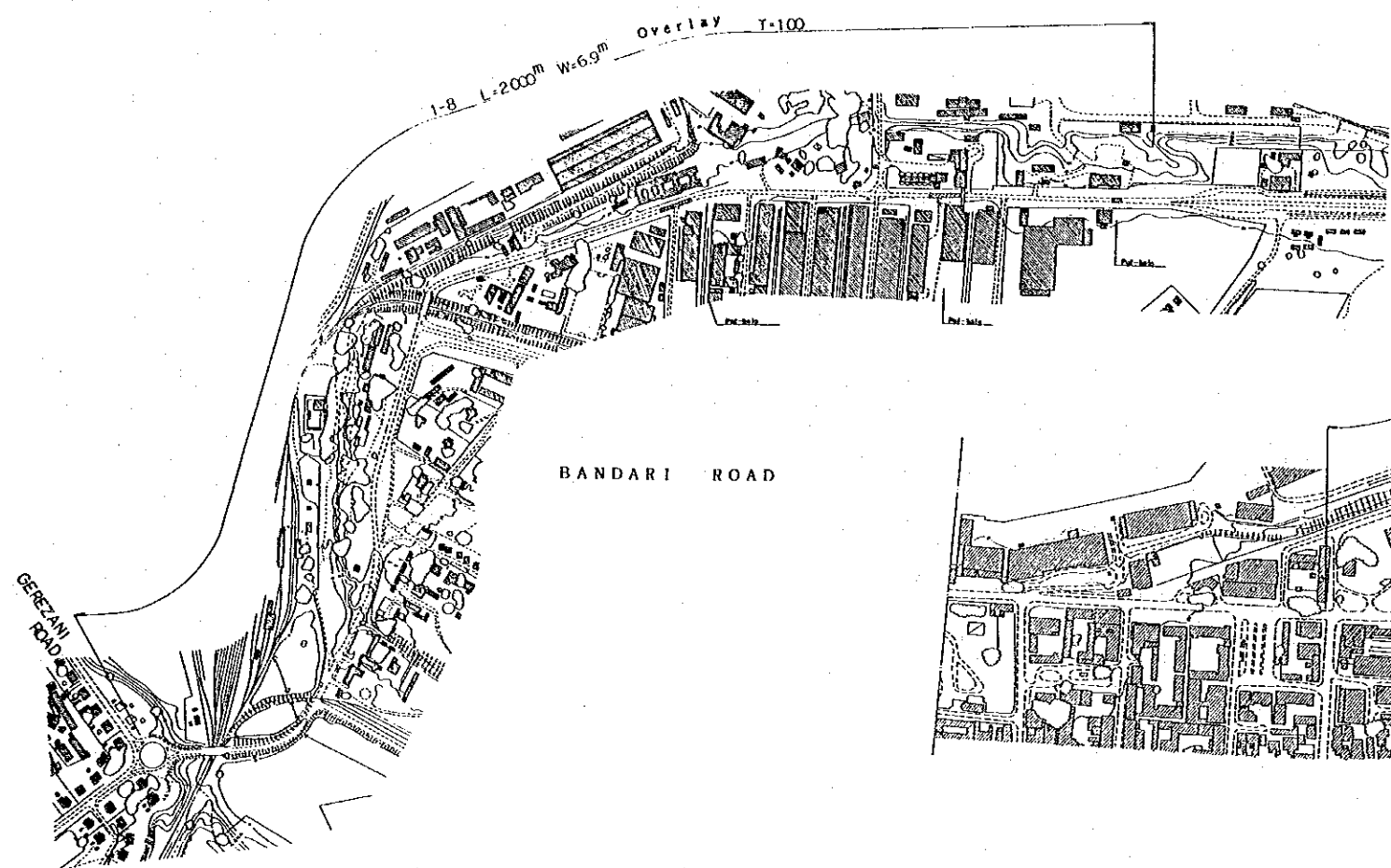
CENTRAL AREA ROADS GROUP TO BE IMPROVED (1)



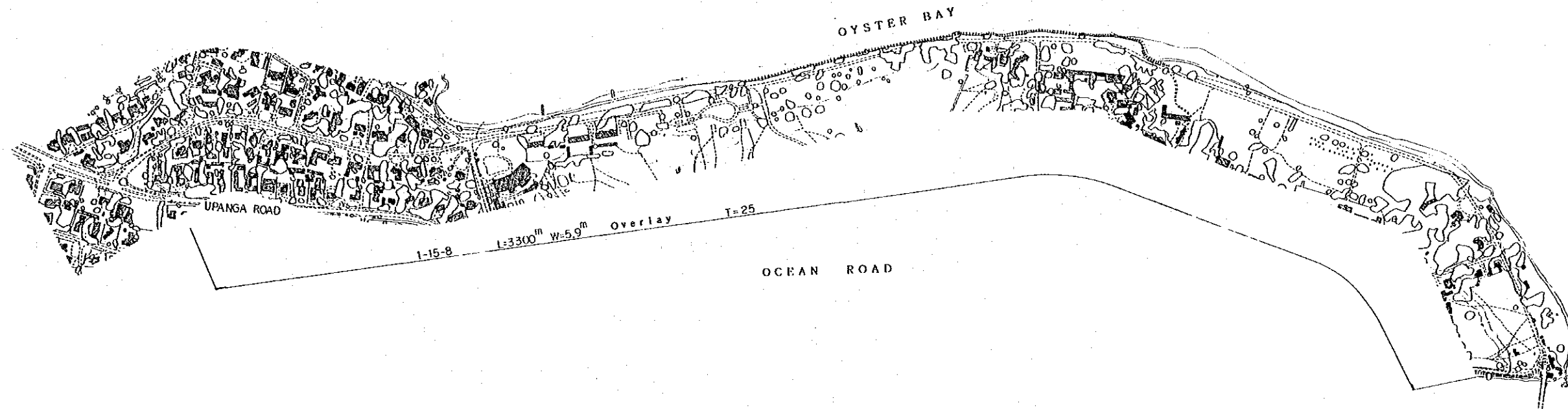
CENTRAL AREA ROADS GROUP TO BE IMPROVED (2)

Quantities of overlay and reconstruction

Name of Roads	Road Length (km)	Overlay			Reconstruction				
		Length (km)	Width (m)	Area (sq m)	Thickness (mm)	Length (km)	Width (m)	Area (sq m)	Thickness Type
Central Area Group	20.98	17.08	-	136,000.0	-	3.70	-	27,213.0	-
Central Area Roads	9.80	8.10	-	50,430.0	25	3.70	-	27,200.0	C
Bandari Road	2.20	2.00	6.90	13,800.0	100	-	-	-	A
Nkurumah Road	0.36	0.36	9.00	3,240.0	25	-	-	-	C
Sokolne Road	0.82	0.82	9.50	7,790.0	80	-	-	-	A
Gerezani Road	1.39	1.39	9.50	13,200.0	100	-	-	-	A
Kivukoni Road	1.22	1.22	9.00	8,540.0	60	-	-	-	B
Maktaba Road	0.93	0.93	12.60	10,980.0	60	-	-	-	B
Ohio Road	0.96	0.96	8.70	8,350.0	25	-	-	-	C
Ocean Road	3.30	3.30	5.90	19,500.0	25	-	-	-	C



CENTRAL AREA ROADS GROUP TO BE IMPROVED (3)



THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAA

JAPAN INTERNATIONAL
COOPERATION AGENCY

CENTRAL AREA ROADS GROUP(3)
OVERLAY AND RECONSTRUCTION.

DATE
JUNE .
1990

SHEET NO.
4

KARIAKOO AREA ROADS GROUP TO BE IMPROVED



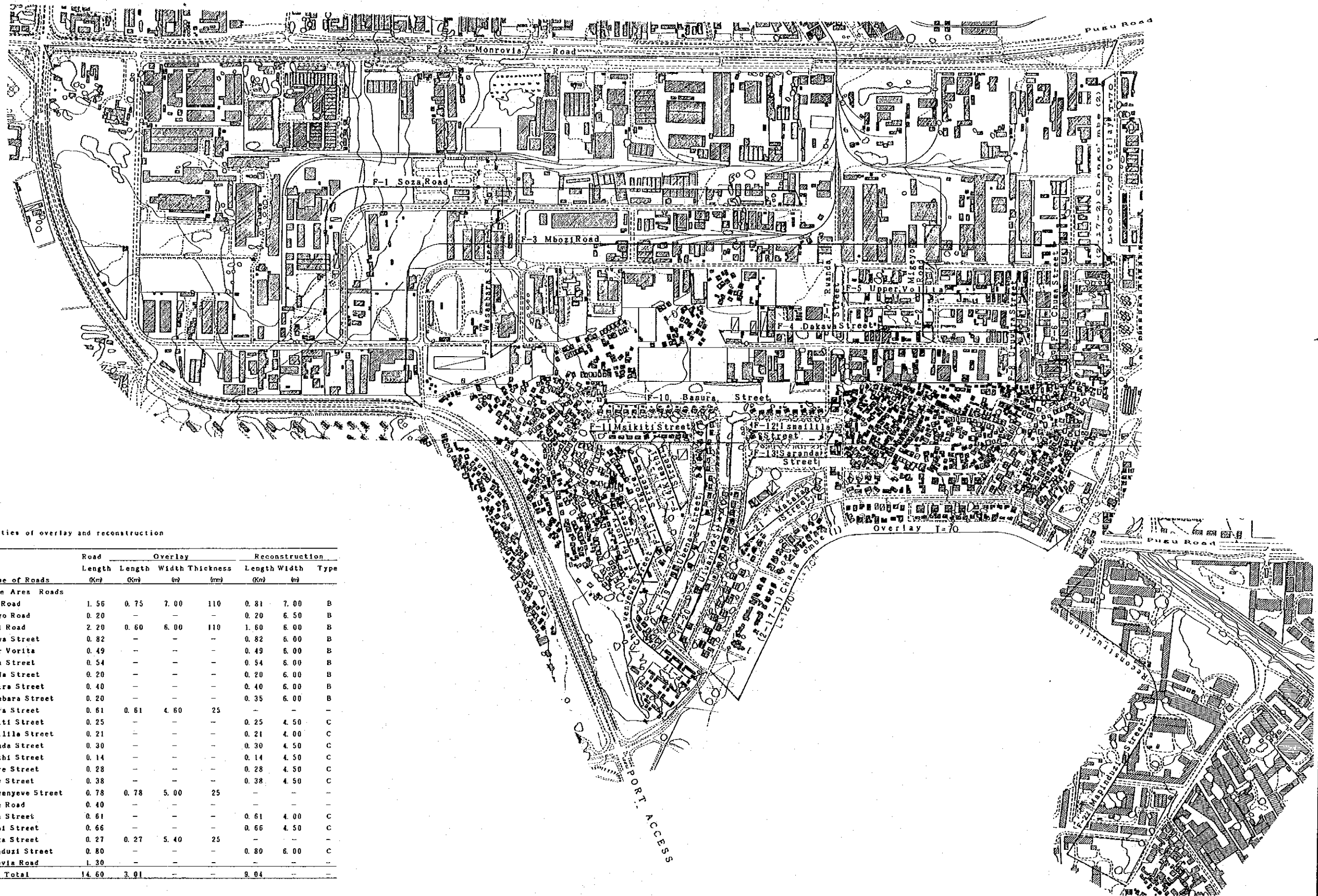
1-3 Quantities of overlay and reconstruction

Link No.	Name of Roads	Road Length (km)	Overlay			Reconstruction		
			Length (km)	Width (m)	Thickness (mm)	Length (km)	Width (m)	Type
E-Kariakoo Arer Road								
E-1	Matumbi (W) Street	0.44	-	-	-	0.14	5.00	C
E-2	Matumbi (B) Street	0.24	-	-	-	0.24	5.00	C
E-3	Nyati Street	0.36	-	-	-	0.25	5.00	C
E-4	Faru Street	0.38	-	-	-	0.38	5.00	C
E-5	Twiga Street	0.50	-	-	-	0.50	5.00	C
E-6	Nduvu Street	0.40	-	-	-	0.40	5.00	C
E-7	Rufiji Street	0.39	-	-	-	0.39	5.00	C
E-8	Muhoro Street	0.70	-	-	-	0.30	5.00	C
E-9	Ungoni Street	0.30	-	-	-	0.30	5.00	C
E-10	Anani Street	0.60	-	-	-	0.60	5.00	C
E-11	Udove Street	0.40	-	-	-	0.40	5.00	C
E-12	Kariakoo Street	0.88	-	-	-	0.88	5.00	C
E-13	Kibabawe Street	0.27	-	-	-	0.27	5.00	C
E-14	Mafia Street	0.83	-	-	-	0.83	5.00	C
E-15	Mkunguni Street	0.89	-	-	-	0.89	5.50	C
E-16	Peмба Street	0.30	-	-	-	0.30	5.00	C
E-17	Tandani Street	1.06	-	-	-	1.06	5.00	C
E-18	Narungombe Street	1.06	-	-	-	1.06	5.00	C
E-19	Mahiva Street	0.23	-	-	-	0.23	5.00	C
E-20	Muhonda Street	0.55	-	-	-	0.55	5.00	C
E-21	Magila Street	0.32	-	-	-	0.32	5.00	C
E-22	Mohikichi Street	0.73	-	-	-	0.73	5.00	C
E-23	Aggrey Street	1.07	-	-	-	1.07	5.00	C
E-24	Masasi Street	0.32	-	-	-	0.32	5.00	C
E-25	Uhuru Street	1.20	0.70	9.2	90	-	-	-
E-26	Kipata Street	0.69	-	-	-	0.69	5.00	C
E-27	Lindi Street	0.65	-	-	-	0.65	5.00	C
E-28	Swali Street	0.60	-	-	-	0.60	5.00	C
E-29	Kitungani Street	0.70	-	-	-	0.70	5.00	C
Sub Total		17.06	0.70	-	-	15.05	-	-

1-4 Quantities of overlay and reconstruction

Link No.	Name of Roads	Road Length (km)	Overlay			Reconstruction		
			Length (km)	Width (m)	Thickness (mm)	Length (km)	Width (m)	Type
E-30	Mbaruku Street	0.39	-	-	-	0.39	6.50	C
E-31	Kisarave Street	0.66	-	-	-	0.37	5.00	C
E-32	Vivanda Street	0.58	-	-	-	0.08	5.00	C
E-33	Luumba Street	1.20	-	-	-	-	-	-
E-34	Nyasa Street	0.16	-	-	-	0.16	5.00	C
E-35	Ukoni Street	0.15	-	-	-	0.15	5.00	C
E-36	Kipande Street	0.16	-	-	-	0.16	5.00	C
E-37	Livingstone Street	1.32	1.32	6.00	90	-	-	-
E-38	Mvita Street	0.14	-	-	-	0.14	5.00	C
E-39	Hivao Street	0.10	-	-	-	0.10	5.00	C
E-40	Chura Street	0.17	-	-	-	0.17	5.00	C
E-41	Sikukuu Street	1.46	-	-	-	1.46	6.50	C
E-42	Sukuma Street	0.18	-	-	-	0.18	5.00	C
E-43	Gogo Street	0.10	-	-	-	0.10	5.50	C
E-44-1	Swahili Street	0.72	-	-	-	0.72	7.50	C
E-44-2	Swahili Street	0.75	-	-	-	0.75	6.50	C
E-45-1	Wanyavezi Street	0.76	-	-	-	0.76	6.50	C
E-45-2	Wanyavezi Street	0.58	-	-	-	0.58	6.50	C
E-47-1	Kongo Street	0.63	-	-	-	0.63	6.00	C
E-47-2	Kongo Street	0.36	-	-	-	0.36	5.50	C
E-47-3	Kongo Street	0.28	-	-	-	0.28	5.50	C
E-48	Jangvni Street	0.59	-	-	-	0.59	6.50	C
E-49-1	Likasa Street	0.20	-	-	-	0.20	5.00	C
E-49-2	Likasa Street	0.11	-	-	-	0.11	5.00	C
E-49-3	Likasa Street	0.32	-	-	-	0.32	5.00	C
E-50	Mzimbazi Street	0.20	-	-	-	0.20	5.00	C
E-50'	Mzimbazi Street	0.32	-	-	-	0.32	5.00	C
E-51	Muhoza Street	0.35	-	-	-	0.35	5.00	C
Sub Total		12.94	1.32	-	-	9.63	-	-
Total		30.00	2.02	-	-	24.68	-	-

CHANGO' MBE AREA ROADS GROUP TO BE IMPROVED



1-5 Quantities of overlay and reconstruction

Link No. Name of Roads	Road				Overlay		Reconstruction		Type
	Length (Km)	Length (Km)	Width (m)	Thickness (mm)	Length (Km)	Width (m)			
F-1 Soza Road	1.56	0.75	7.00	110	0.81	7.00	B		
F-2 Migeyo Road	0.20	-	-	-	0.20	6.50	B		
F-3 Mbozi Road	2.20	0.60	6.00	110	1.60	6.00	B		
F-4 Dakava Street	0.82	-	-	-	0.82	6.00	B		
F-5 Upper Vorita	0.49	-	-	-	0.49	6.00	B		
F-6 Chuzza Street	0.54	-	-	-	0.54	6.00	B		
F-7 Kwanda Street	0.20	-	-	-	0.20	6.00	B		
F-8 Uruvira Street	0.40	-	-	-	0.40	6.00	B		
F-9 Wasabara Street	0.20	-	-	-	0.35	6.00	B		
F-10 Basura Street	0.61	0.61	4.60	25	-	-	-		
F-11 Maikiti Street	0.25	-	-	-	0.25	4.50	C		
F-12 Isallila Street	0.21	-	-	-	0.21	4.00	C		
F-13 Saranda Street	0.30	-	-	-	0.30	4.50	C		
F-14 Kimathi Street	0.14	-	-	-	0.14	4.50	C		
F-15 Tagore Street	0.28	-	-	-	0.28	4.50	C		
F-16 Ivory Street	0.38	-	-	-	0.38	4.50	C		
F-17 Chanyenyeve Street	0.78	0.78	5.00	25	-	-	-		
F-18 Mzore Road	0.40	-	-	-	-	-	-		
F-19 Ubena Street	0.61	-	-	-	0.61	4.00	C		
F-20 Uivani Street	0.66	-	-	-	0.66	4.50	C		
F-21 Mataka Street	0.27	0.27	5.40	25	-	-	-		
F-22 Mapinduzi Street	0.80	-	-	-	0.80	6.00	C		
F-23 Monrovia Road	1.30	-	-	-	-	-	-		
Total	14.60	3.91	-	-	9.04	-	-		

MWINJUMA AREA ROADS GROUP TO BE IMPROVED (1)

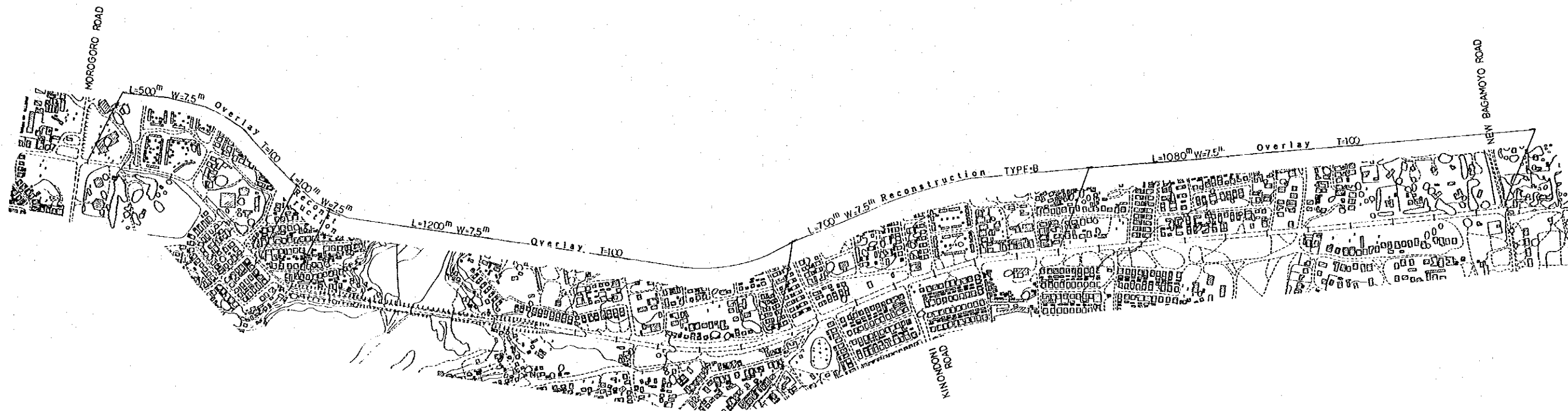
MWINJUMA AREA ROADS



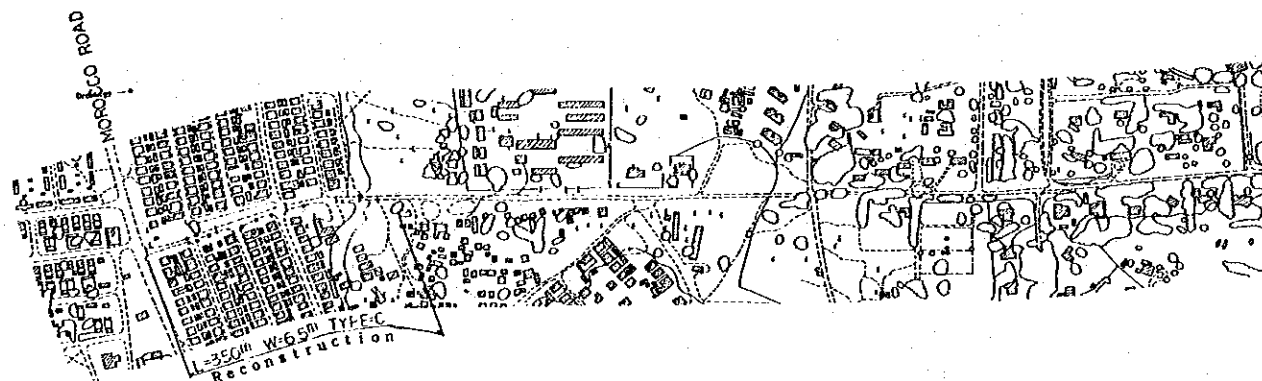
Quantities of overlay and reconstruction

Name of Roads	Road				Overlay				Reconstruction			
	Length (km)	Length (km)	Width (m)	Area (sq. m)	Thickness (mm)	Length (km)	Width (m)	Area (sq. m)	Thickness (mm)	Type		
Mwinjuma Group	16.73	7.03	--	46,800.0	--	9.35	--	54,980.0	--	--		
Mwinjuma Area Roads	2.15	0.75	7.00	5,250.0	100	1.40	7.00	9,800.0	B			
Mwinjuma L-1	1.50	--	--	--	--	1.50	5.00	7,500.0	C			
Morocco Road	3.58	2.78	7.50	20,850.0	100	0.80	7.50	6,000.0	B			
Kinondoni Road	0.70	--	--	--	--	0.35	6.50	2,250.0	C			
Shekilango Road	3.80	2.00	6.60	13,200.0	100	1.80	6.60	11,900.0	A			
Mkanya Road	5.00	1.50	5.00	7,500.0	50	3.50	5.00	17,500.0	C			

MWINJUMA AREA ROADS GROUP TO BE IMPROVED (2)



1-2 MOROCCO ROAD



1-3 KINONDONI ROAD

<p>THE UNITED REPUBLIC OF TANZANIA DAR ES SALAAM CITY COUNCIL</p>	<p>THE FEASIBILITY STUDY ON ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAA</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY</p>	<p>MWINJUMA AREA ROADS GROUP(2) OVERLAY AND RECONSTRUCTION.</p>	<p>DATE JUNE, 1990</p>	<p>SHEET NO. 8</p>
-----------------------------------------------------------------------	------------------------------------------------------------------------------------------	---------------------------------------------------	---------------------------------------------------------------------	--------------------------------	------------------------

MWINJUMA AREA ROADS GROUP TO BE IMPROVED (3)



THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAAM

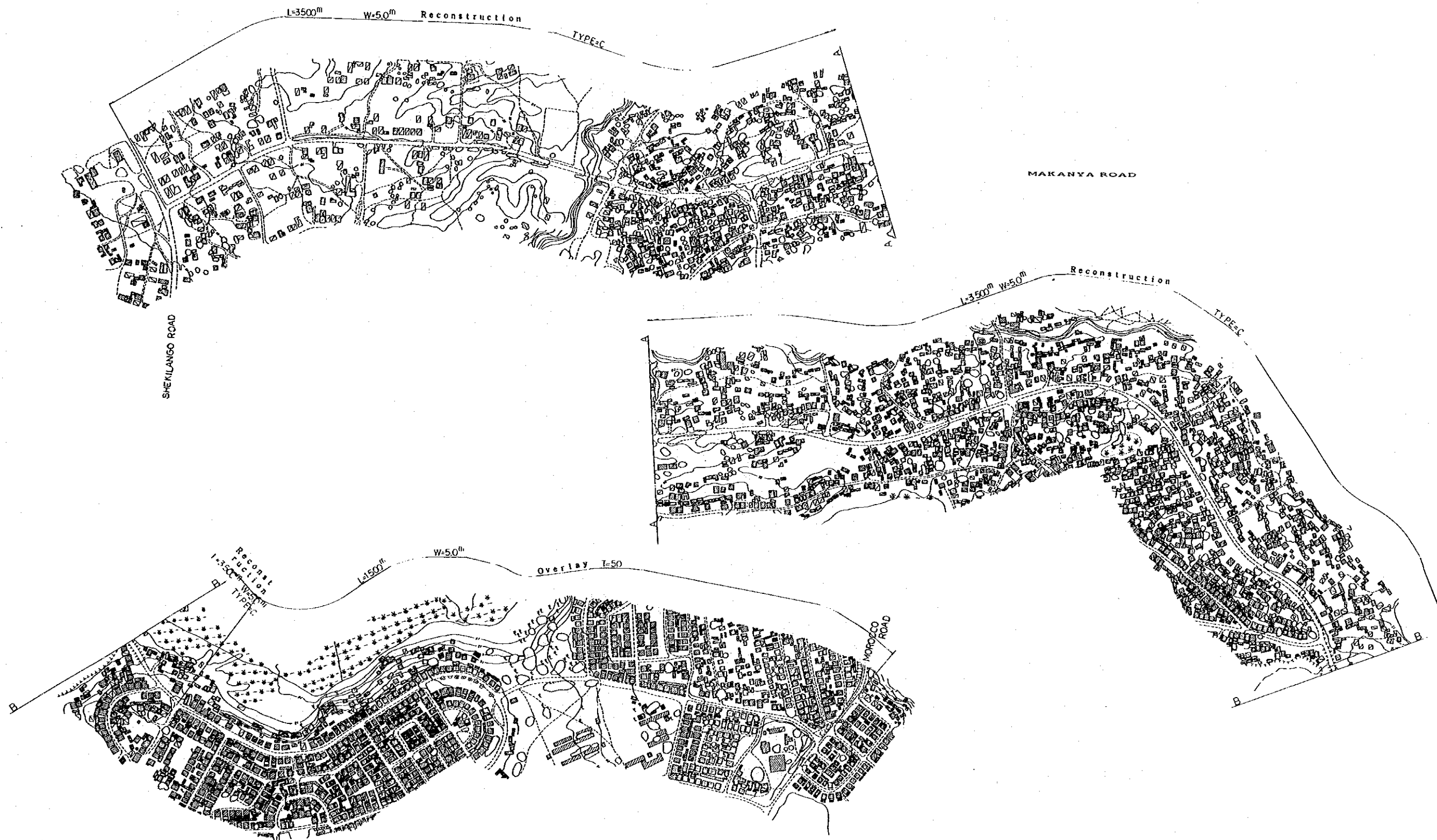
JAPAN INTERNATIONAL
COOPERATION AGENCY

MWINJUMA AREA ROADS GROUP(3)
OVERLAY AND RECONSTRUCTION.

DATE
JUNE,
1990

SHEET NO.
9

MWINJUMA AREA ROADS GROUP TO BE IMPROVED (4)



THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAA

JAPAN INTERNATIONAL
COOPERATION AGENCY

MWINJUMA AREA ROADS GROUP 4
OVERLAY AND RECONSTRUCTION.

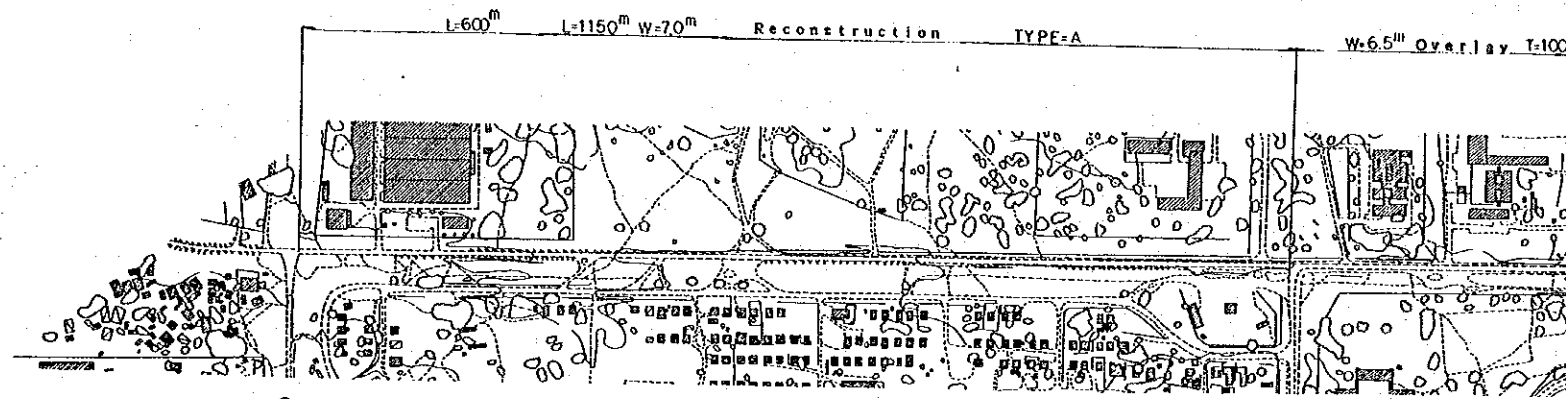
DATE
JUNE.
1990

SHEET NO.
10

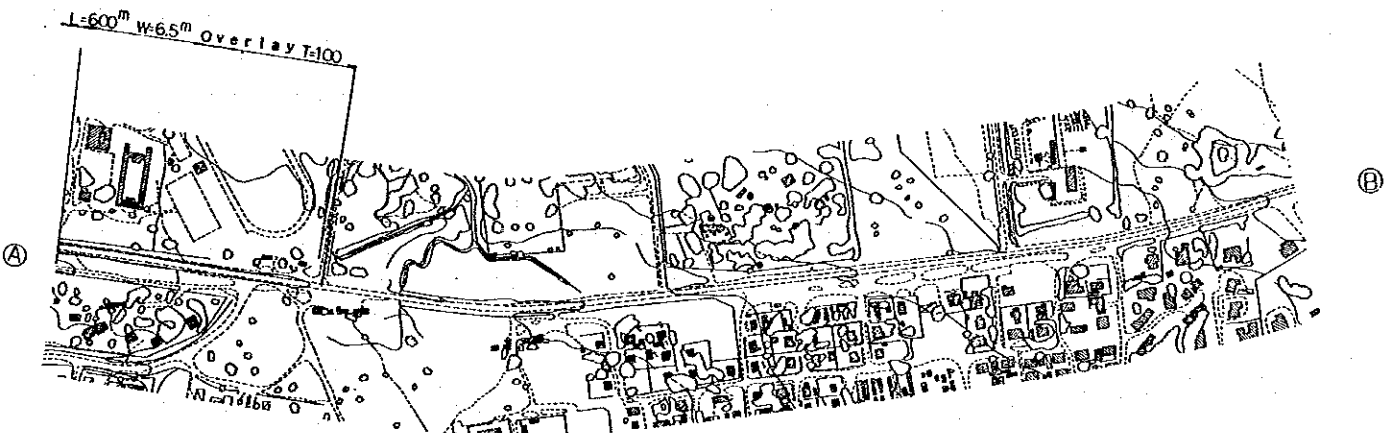
NEW BAGAMOYO ROAD GROUPS TO BE IMPROVED

Quantities of overlay and reconstruction

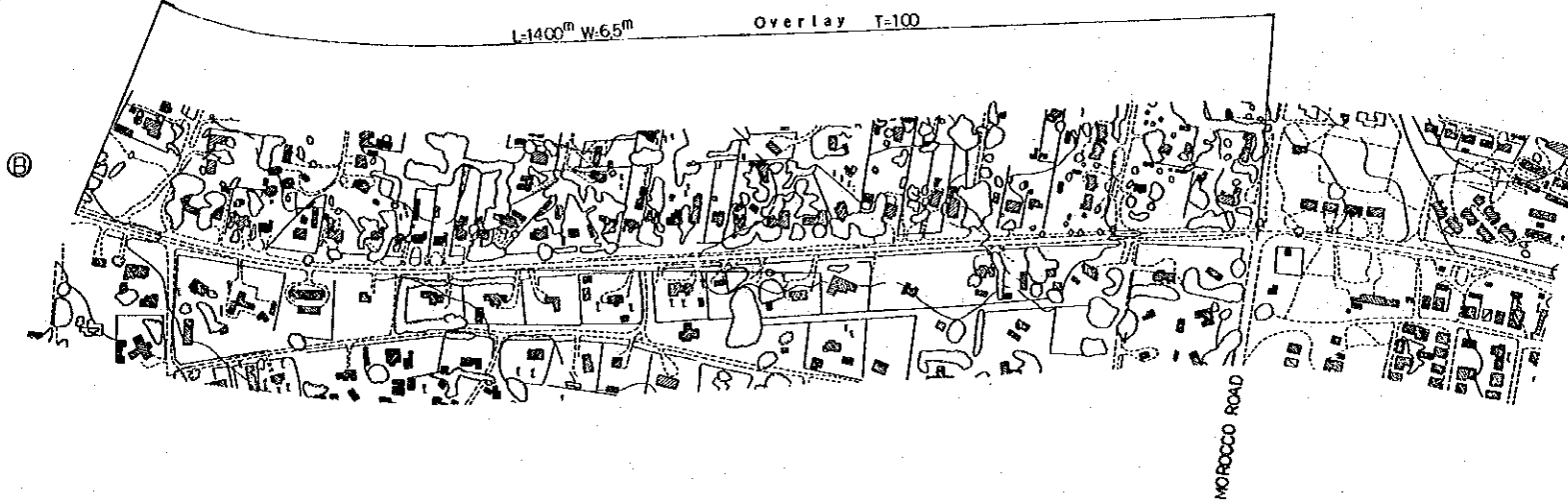
Name of Roads	Road		Overlay				Reconstruction			
	Length (km)	Length (km)	Width (m)	Area (sq. m)	Thickness (mm)	Length (km)	Width (m)	Area (sq. m)	Thickness (mm)	
Widening of New Bagamoyo Road	9.79	2.30	-	14,800.0	-	1.38	-	9,430.0	-	
Upanga Road	1.86	0.30	6.00	1,800.0	25	0.23	6.00	1,380.0	C	
New Bagamoyo Road										
-Up to Morocco Junc.	3.53	-	-	-	-	-	-	-	-	
-Beyond Morocco Junc.	4.40	2.00	6.50	13,000.0	100	1.15	7.00	8,050.0	A	



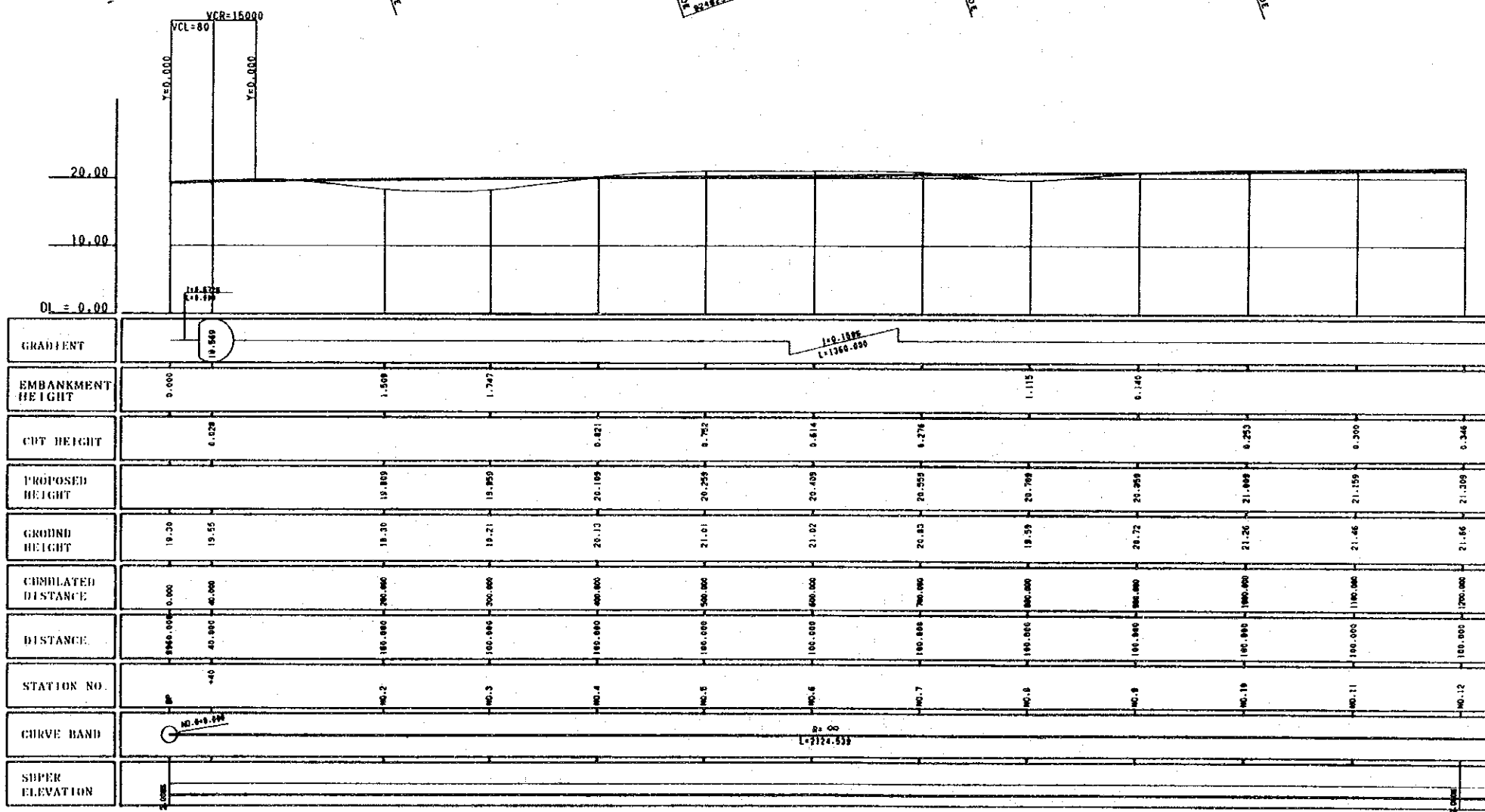
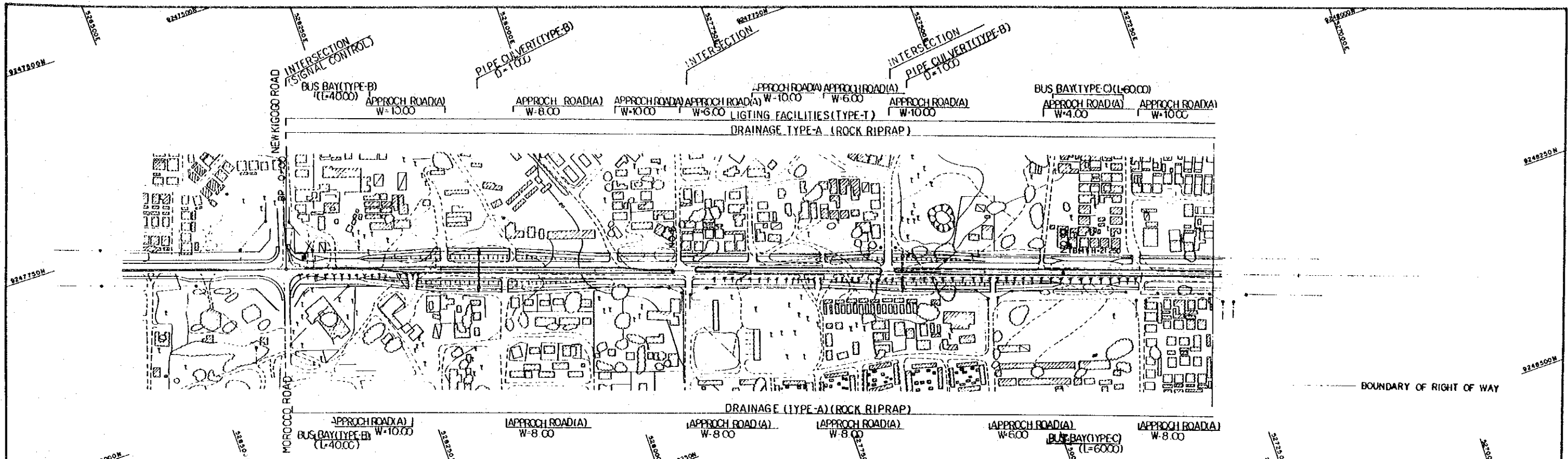
MPAKANI ROAD

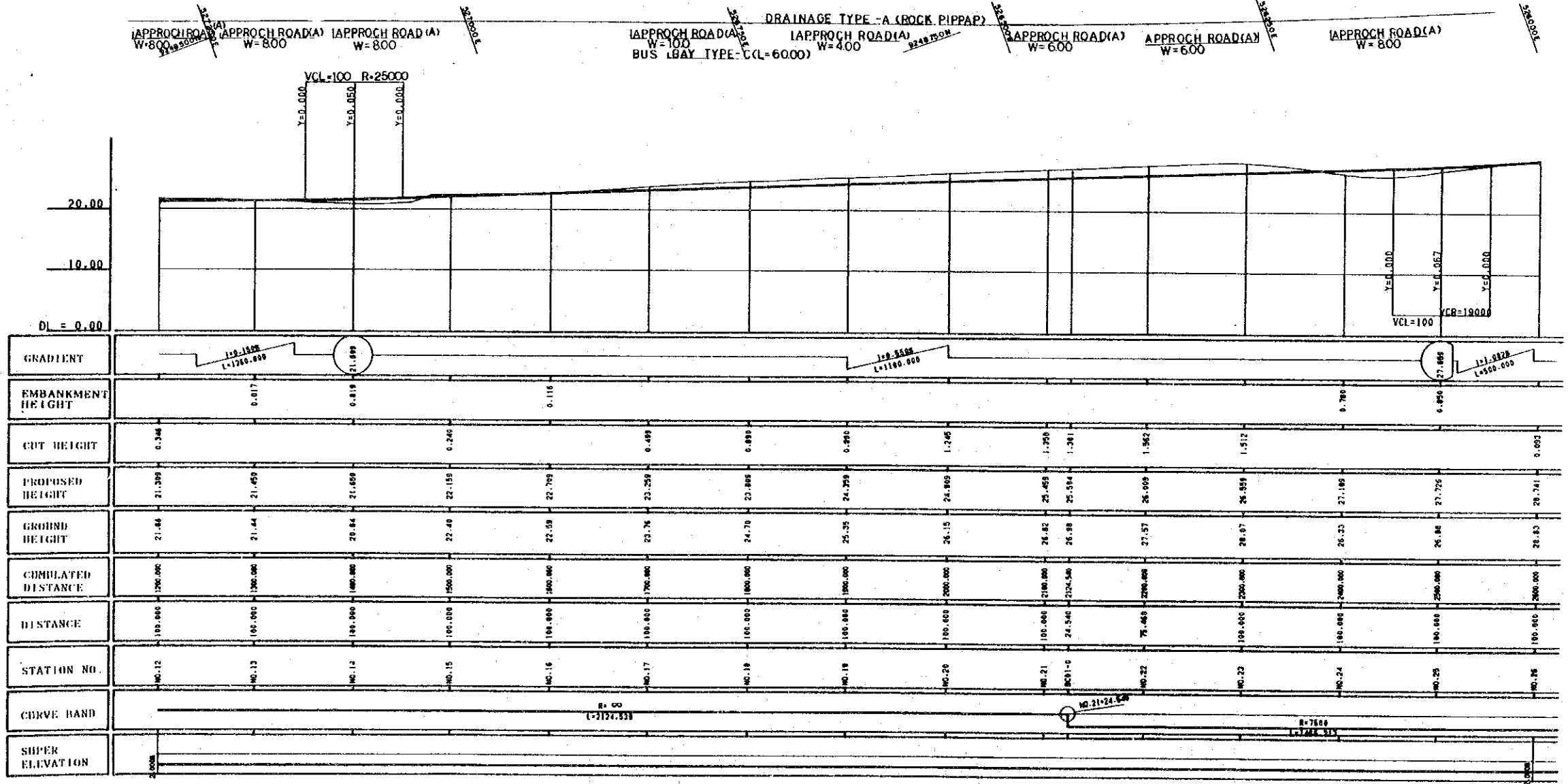
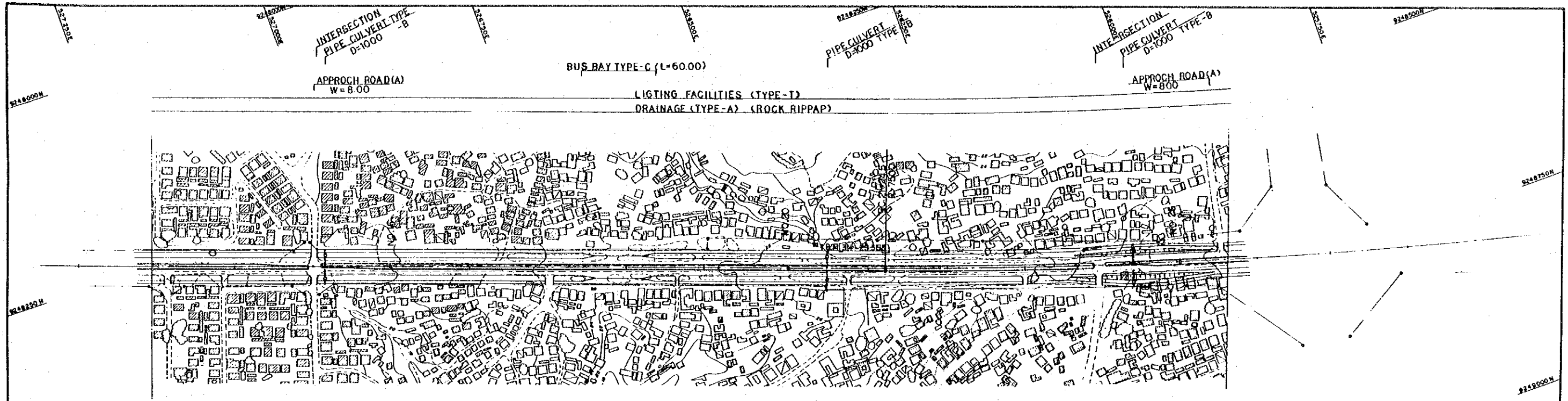


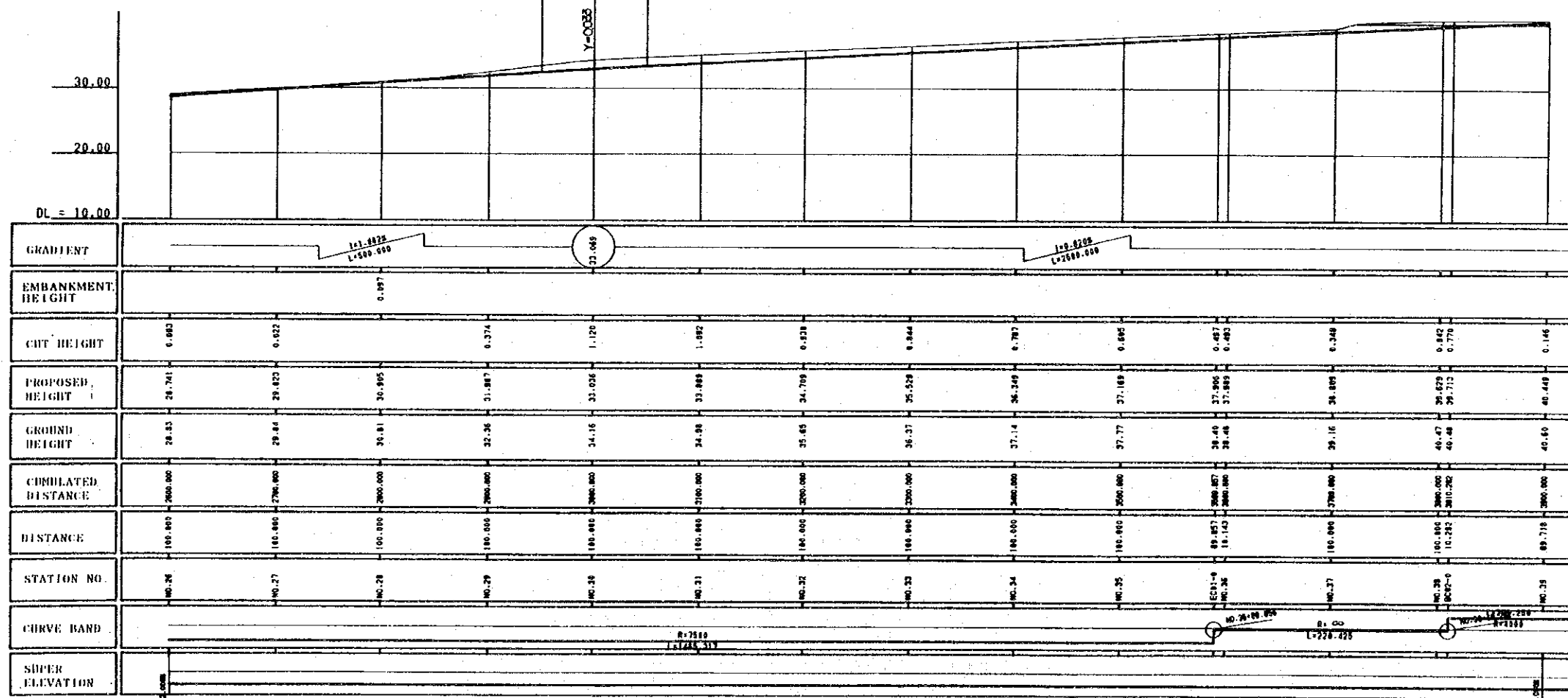
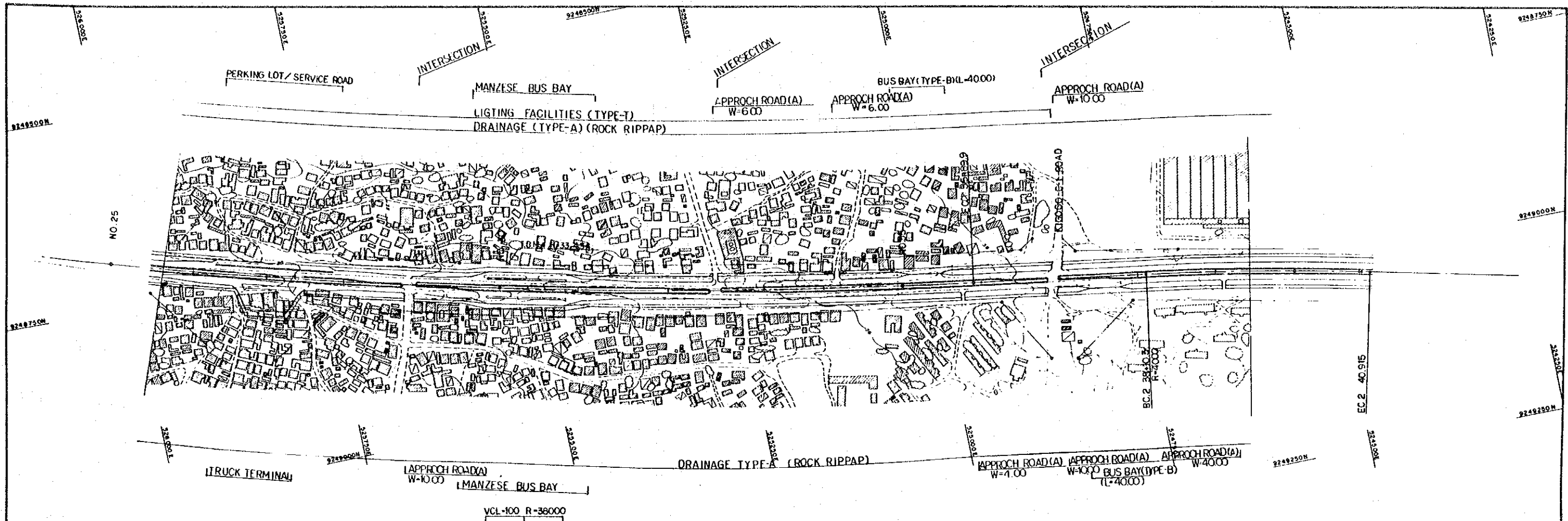
NEW BAGAMOYO ROAD

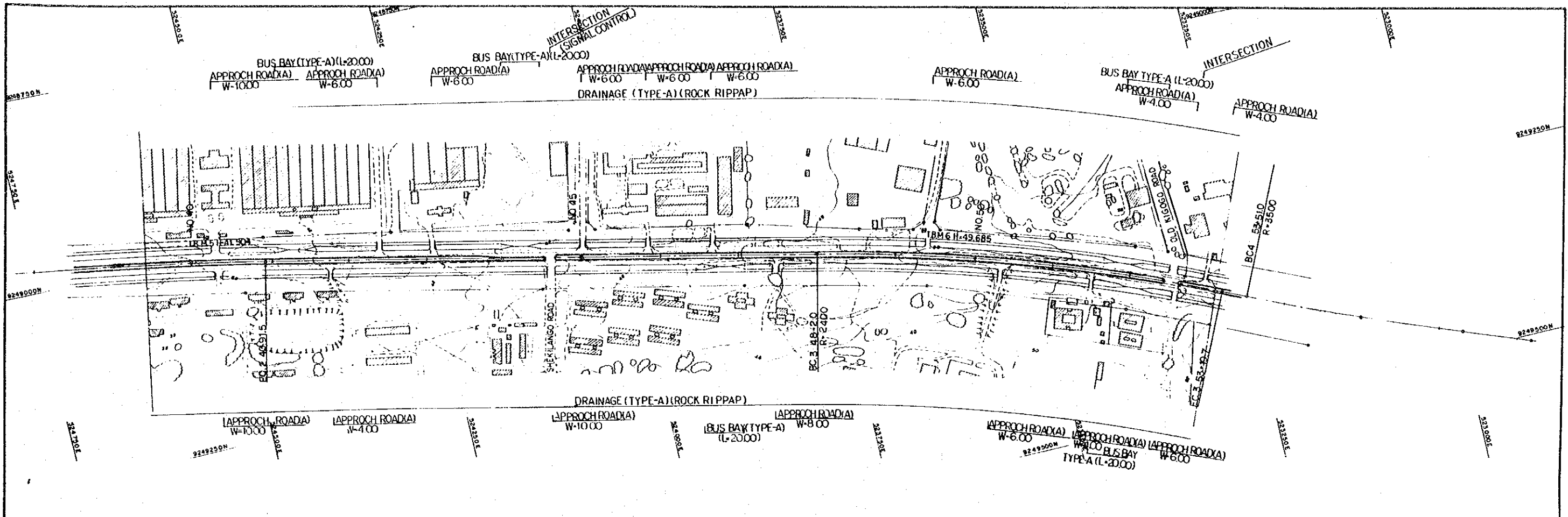


MOROCCO ROAD





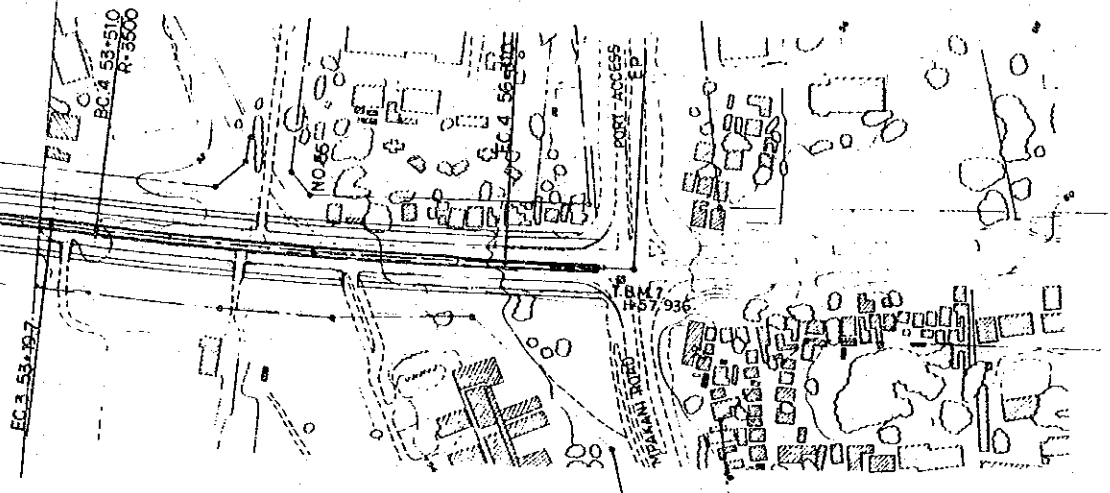




	0+00	0+10	0+20	0+30	0+40	0+50	0+60	0+70	0+80	0+90	0+100	0+110	0+120	0+130	0+140	0+150	0+160	0+170	0+180	0+190	0+200	
GRADIENT	1:0.823% L=2000.000																					
EMBANKMENT HEIGHT		0.007	0.122	0.237	0.281	0.447	0.672	0.961	0.840	0.661	0.855	0.352	0.289	0.126	0.887	0.987						
CUT HEIGHT	0.146						0.760	0.961	0.840	0.661	0.855	0.352	0.289	0.126	0.887	0.987						
PROPOSED HEIGHT	40.448	41.269	42.029	42.800	43.729	44.549	45.383	46.189	47.002	47.829	48.645	49.469	50.289	51.109	51.929	52.749						
GROUND HEIGHT	40.60	41.26	41.86	42.53	43.28	44.43	46.07	47.15	47.85	48.48	49.18	49.76	50.28	51.10	51.83	52.53						
CUMULATED DISTANCE	0+00.000	0+00.000	0+01.523	0+03.046	0+04.569	0+06.092	0+07.615	0+09.138	0+10.661	0+12.184	0+13.707	0+15.230	0+16.753	0+18.276	0+19.800	0+21.323						
DISTANCE	0+00.000	0+00.000	0+01.523	0+03.046	0+04.569	0+06.092	0+07.615	0+09.138	0+10.661	0+12.184	0+13.707	0+15.230	0+16.753	0+18.276	0+19.800	0+21.323						
STATION NO.	0+00	0+10	0+20	0+30	0+40	0+50	0+60	0+70	0+80	0+90	0+100	0+110	0+120	0+130	0+140	0+150						
CURVE BAND	R=4000 L=2000.000 R=4000 L=2000.000 R=4000 L=2000.000 R=4000 L=2000.000 R=4000 L=2000.000 R=4000 L=2000.000 R=4000 L=2000.000 R=4000 L=2000.000 R=4000 L=2000.000 R=4000 L=2000.000 R=4000 L=2000.000																					
SUPER ELEVATION	0.000																					

INTERSECTION
(SIGNAL CONTROL)

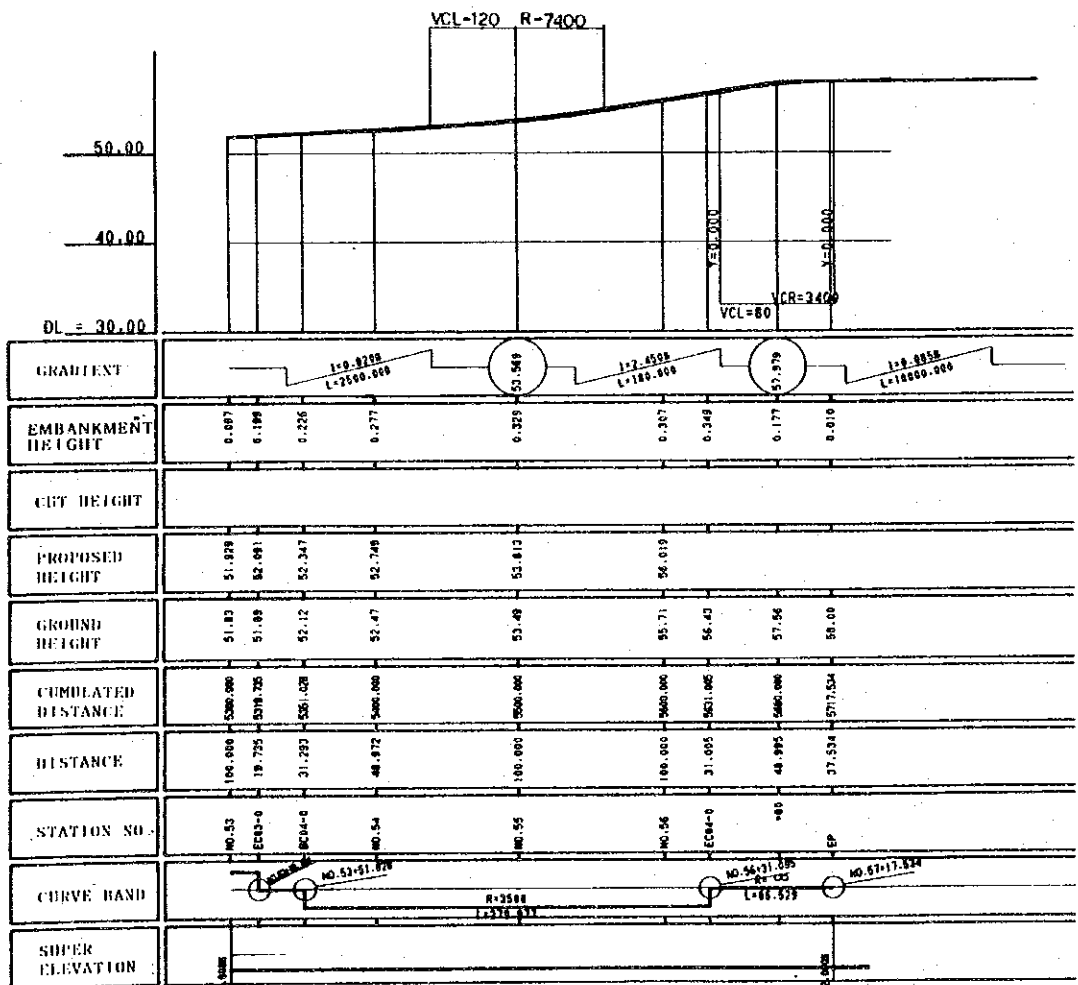
APPROACH ROAD (A)
W=6.00 LIGHTING FACILITIES (TYPE-T)
DRAINAGE (TYPE-A) (ROCK RIPRAP)



LIST OF BENCH MARK
MOROGORO ROAD

LOCATION	NO.	HEIGHT
0+30.0	T. B. M 1	19.634
10+10.0	T. B. M 2	21.250
20+20.0	T. B. M 3	25.353
30+10.0	T. B. M 4	33.434
40+20.0	T. B. M 5	41.804
49+30.0	T. B. M 6	49.685
57+10.0	T. B. M 7	57.936

DRAINAGE (TYPE-A) (ROCK RIPRAP)
APPROACH ROAD (A) W=6.00
APPROACH ROAD (A) W=6.00
APPROACH ROAD (A) W=10.00



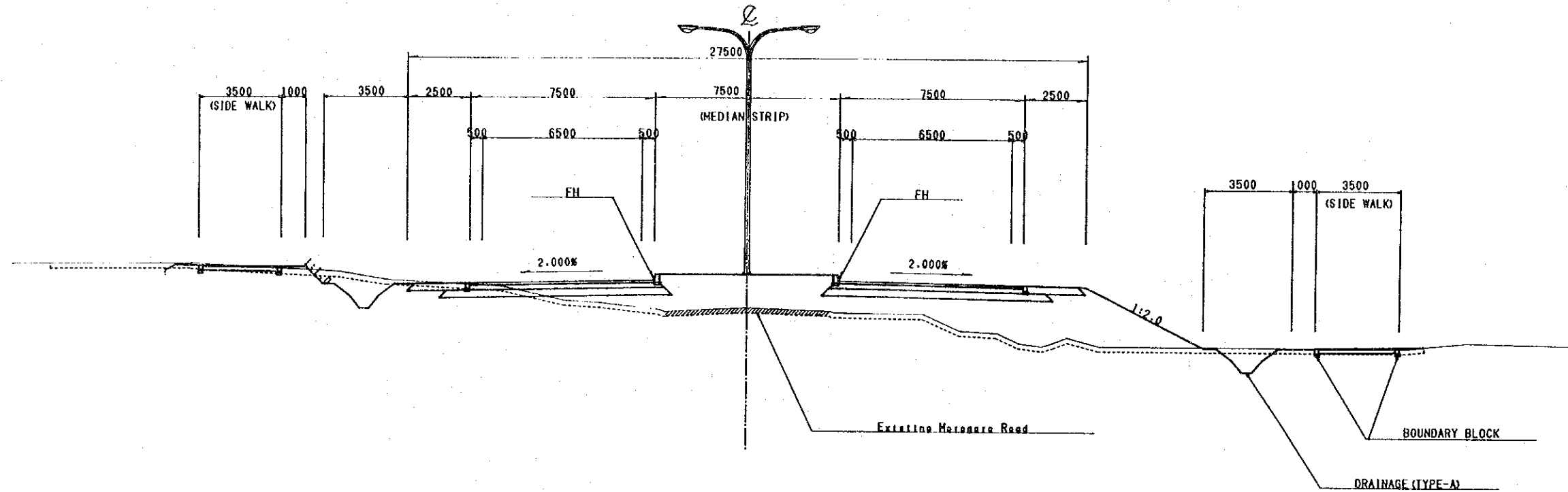
THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAAM

JAPAN INTERNATIONAL
COOPERATION AGENCY

MOROGORO ROAD	DATE	SHEET NO.
PLAN AND PROFILE (5)	JUNE 1990	16

TYPICAL CROSS SECTION OF MOROGORO ROAD S=1:100



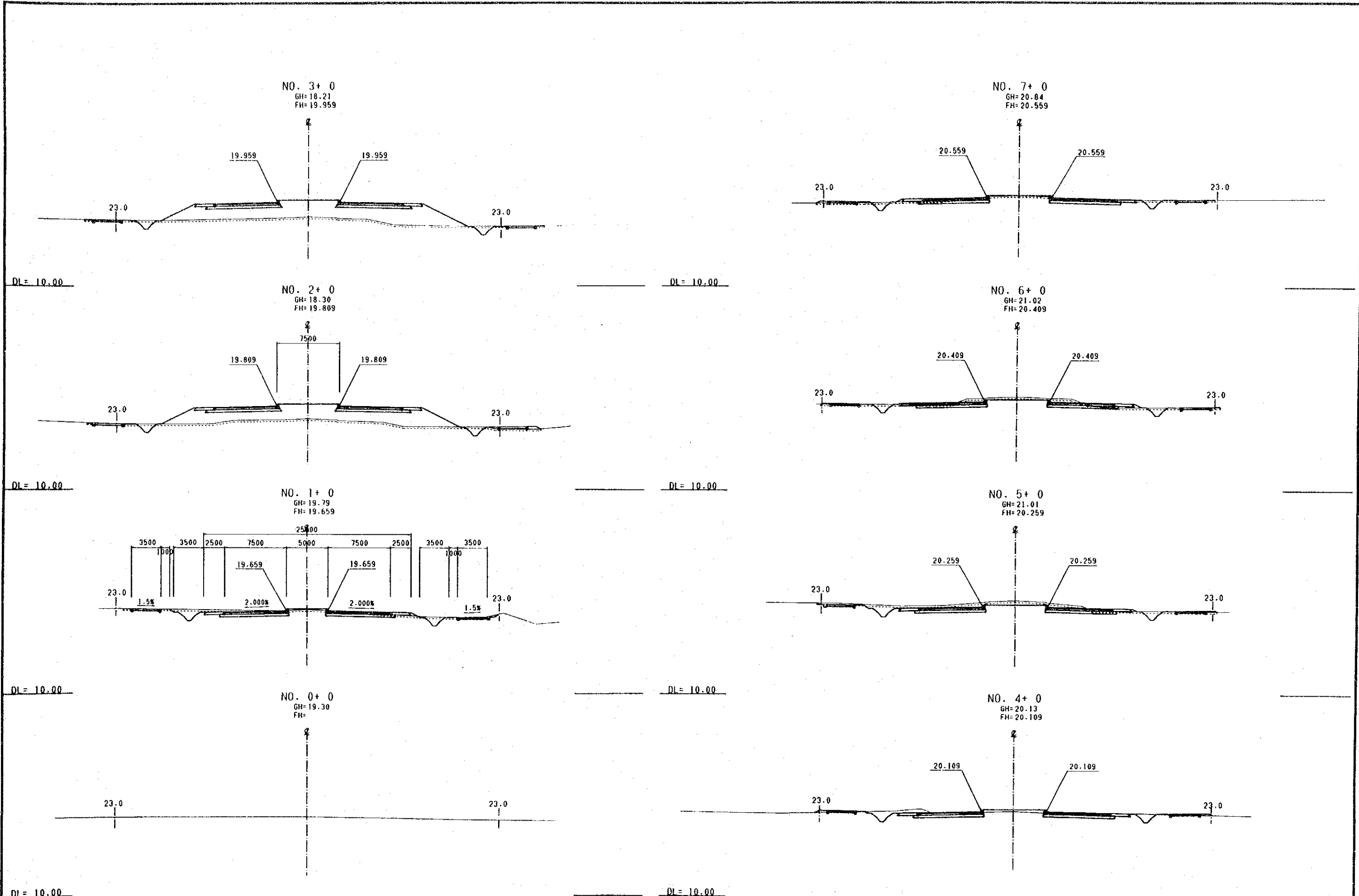
PAVEMENT STRUCTURE
S=1:10

CARRIAGEWAY

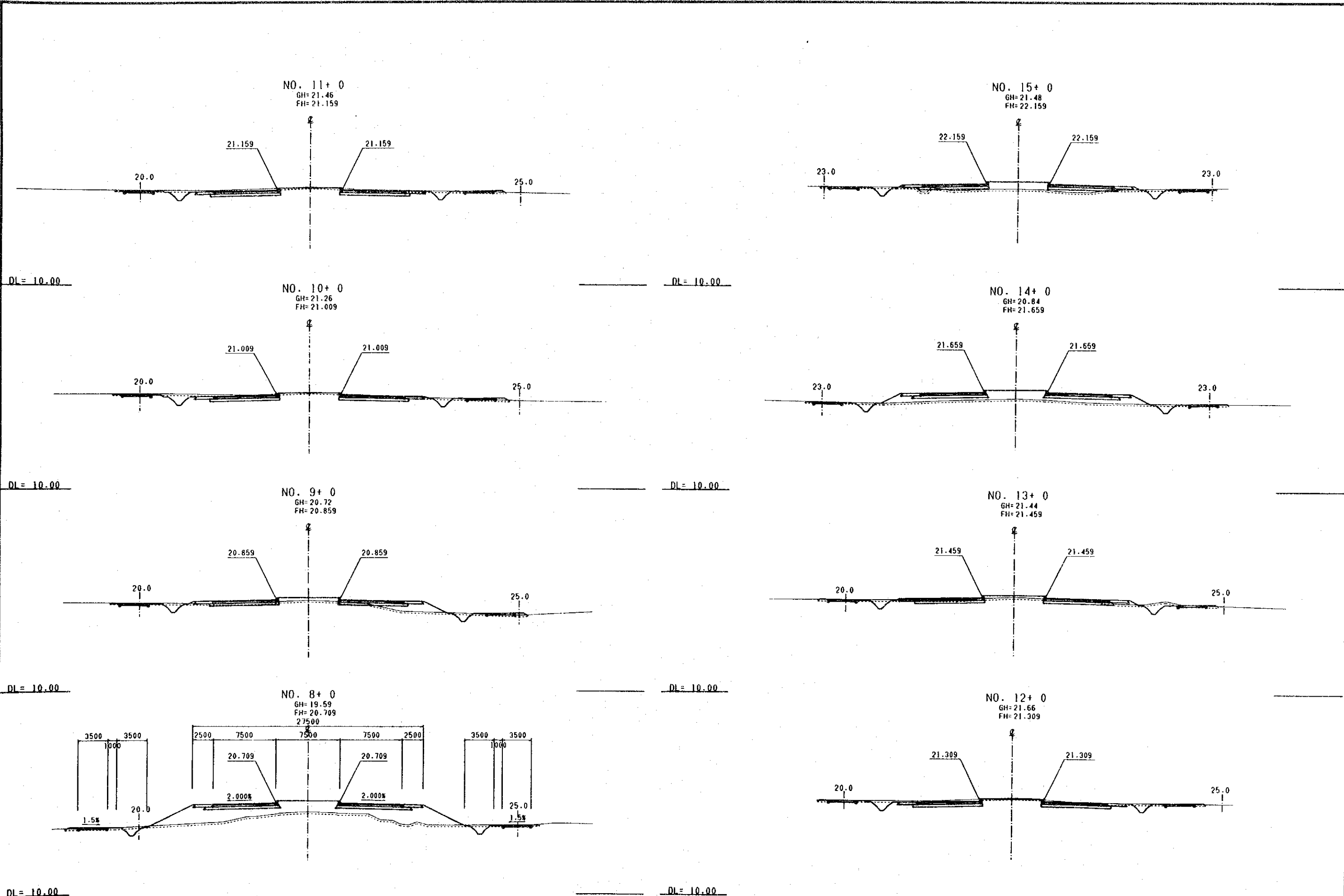
Asphaltic Surface Course	t=50	100
Binder course	t=50	
Base course C.B.R ≥ 80%		200
Subbase Course C.B.R ≥ 30%		300
Subgrade C.B.R= 8%		

SIDE WALK

Asphaltic Surface Course	t=50	100
Base course C.B.R ≥ 80%		



THE UNITED REPUBLIC OF TANZANIA DAR ES SALAAM CITY COUNCIL	THE FEASIBILITY STUDY ON ROAD IMPROVEMENT AND MAINTENANCE IN DARES SALAAM	JAPAN INTERNATIONAL COOPERATION AGENCY	MOROGORO ROAD CROSS SECTION (1)	DATE JUNE 1990	SHEET NO. 18 /
---------------------------------------------------------------	---------------------------------------------------------------------------------	-------------------------------------------	------------------------------------	-------------------	-------------------



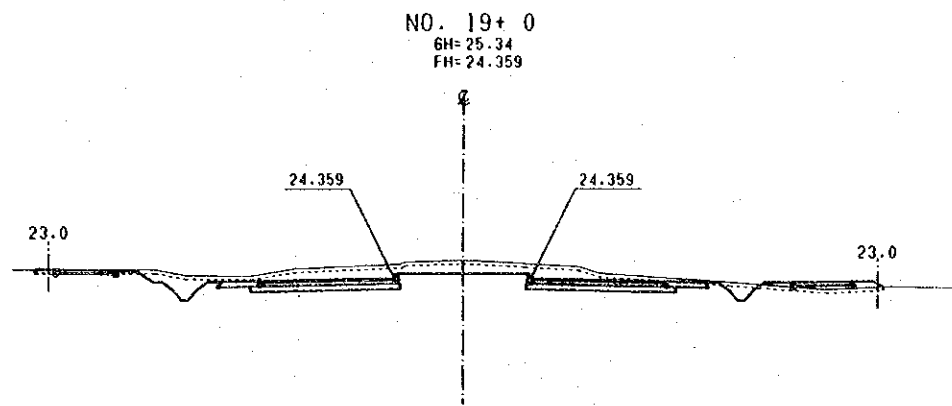
THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DARES SALAAM

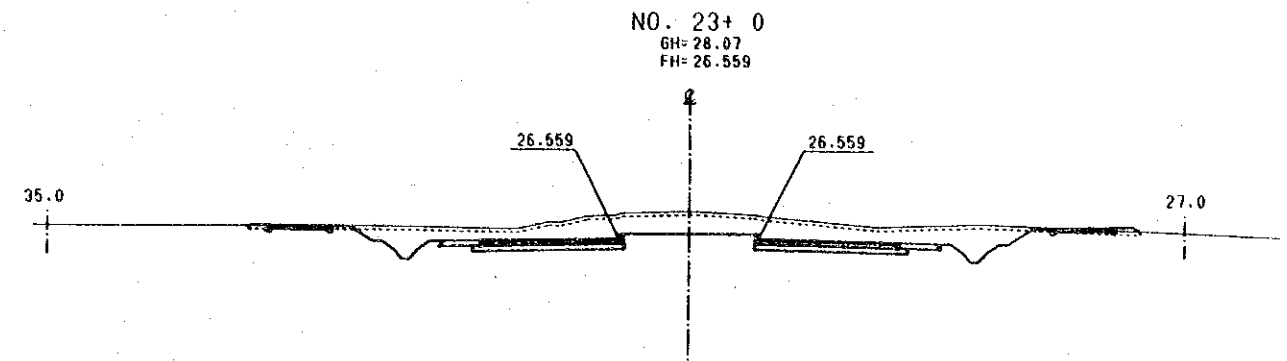
JAPAN INTERNATIONAL
COOPERATION AGENCY

MOROGORO ROAD
CROSS SECTION (2)

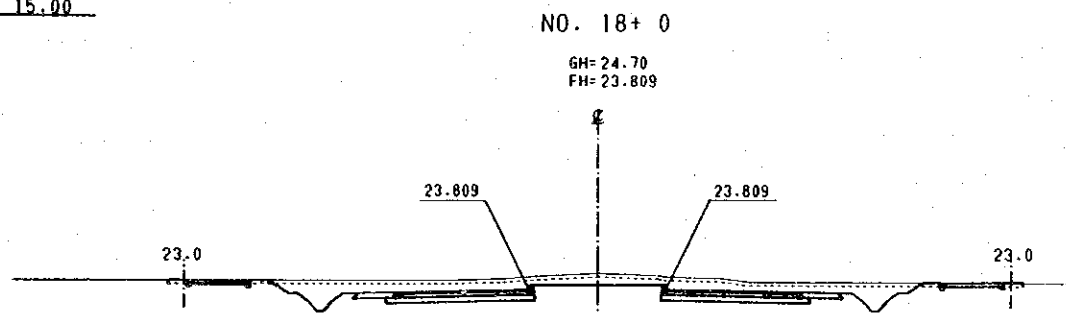
DATE	SHEET NO.
JUNE 1990	19 /



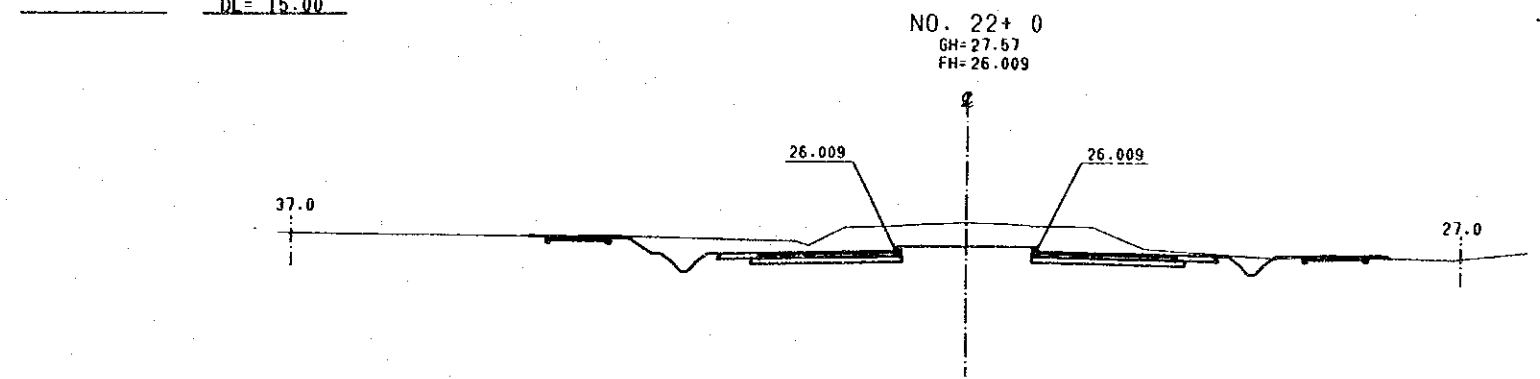
DL = 15.00



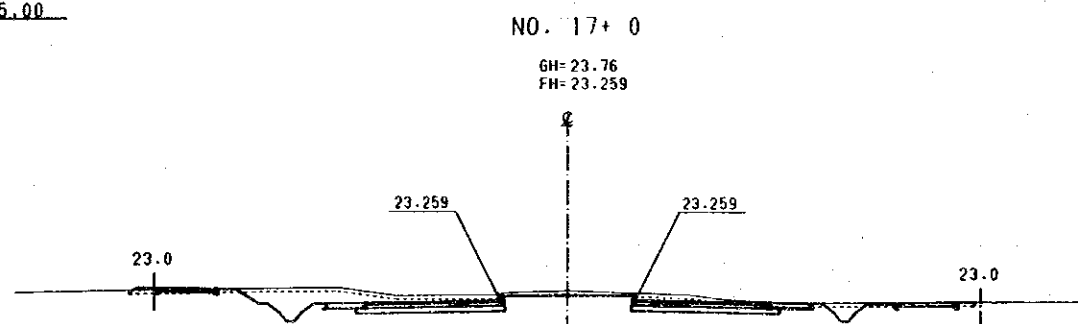
DL = 15.00



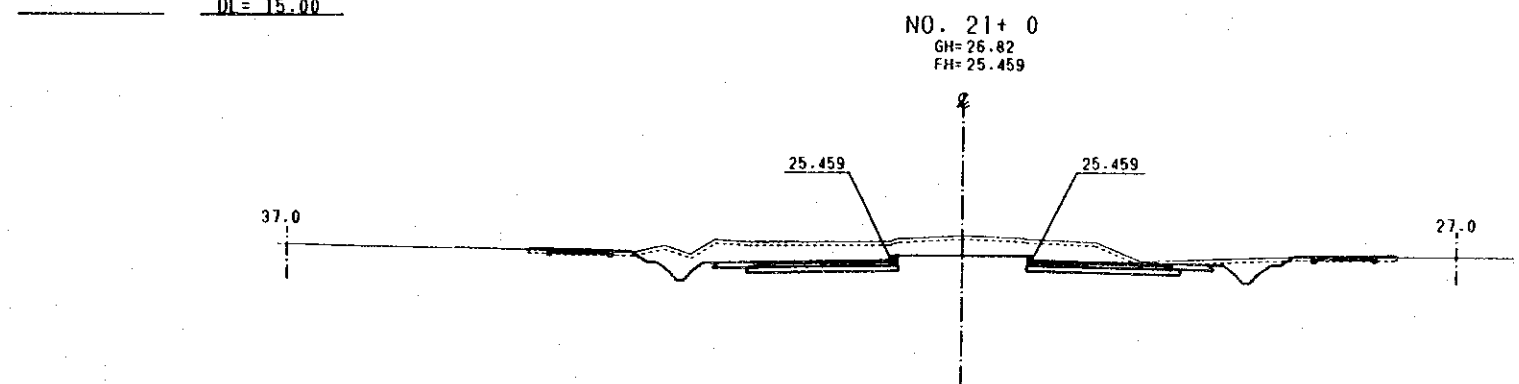
DL = 15.00



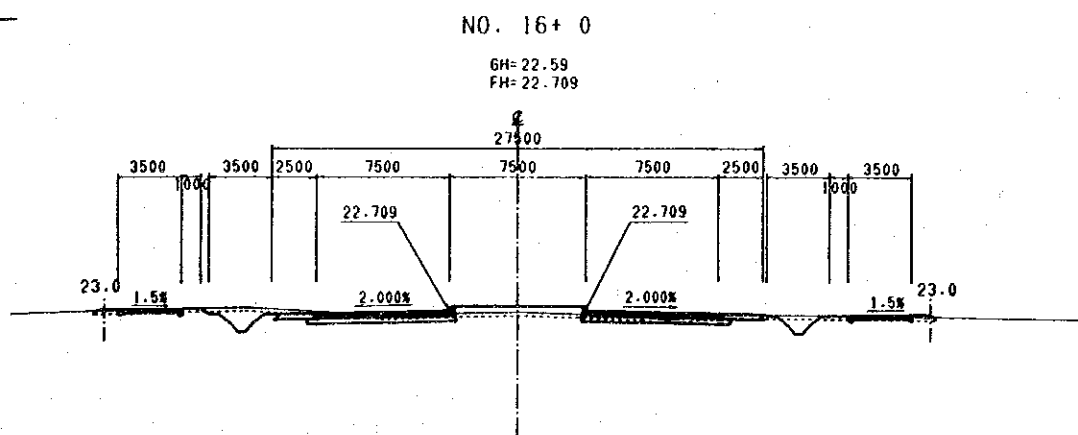
DL = 15.00



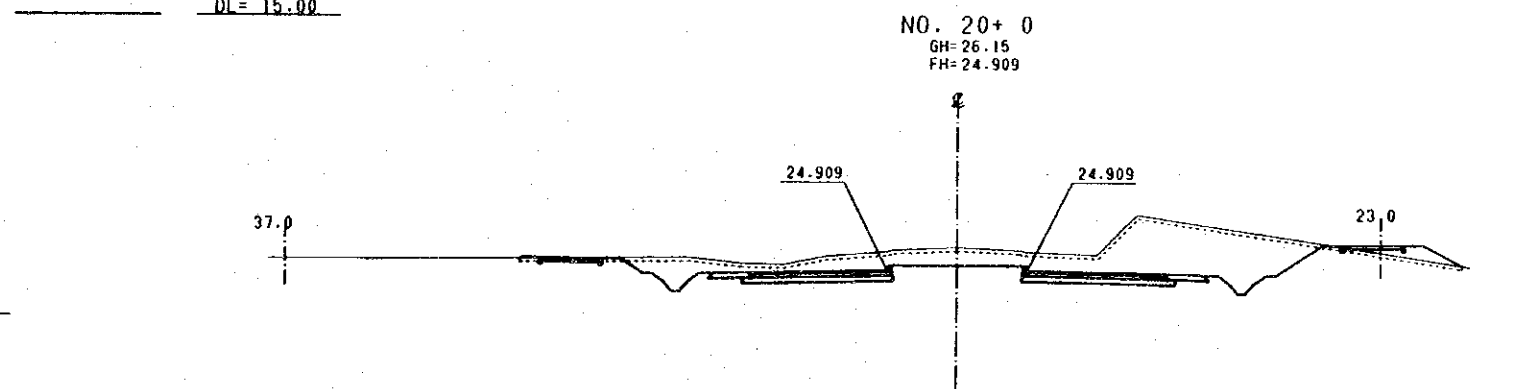
DL = 15.00



DL = 15.00



DL = 15.00



DL = 15.00

THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

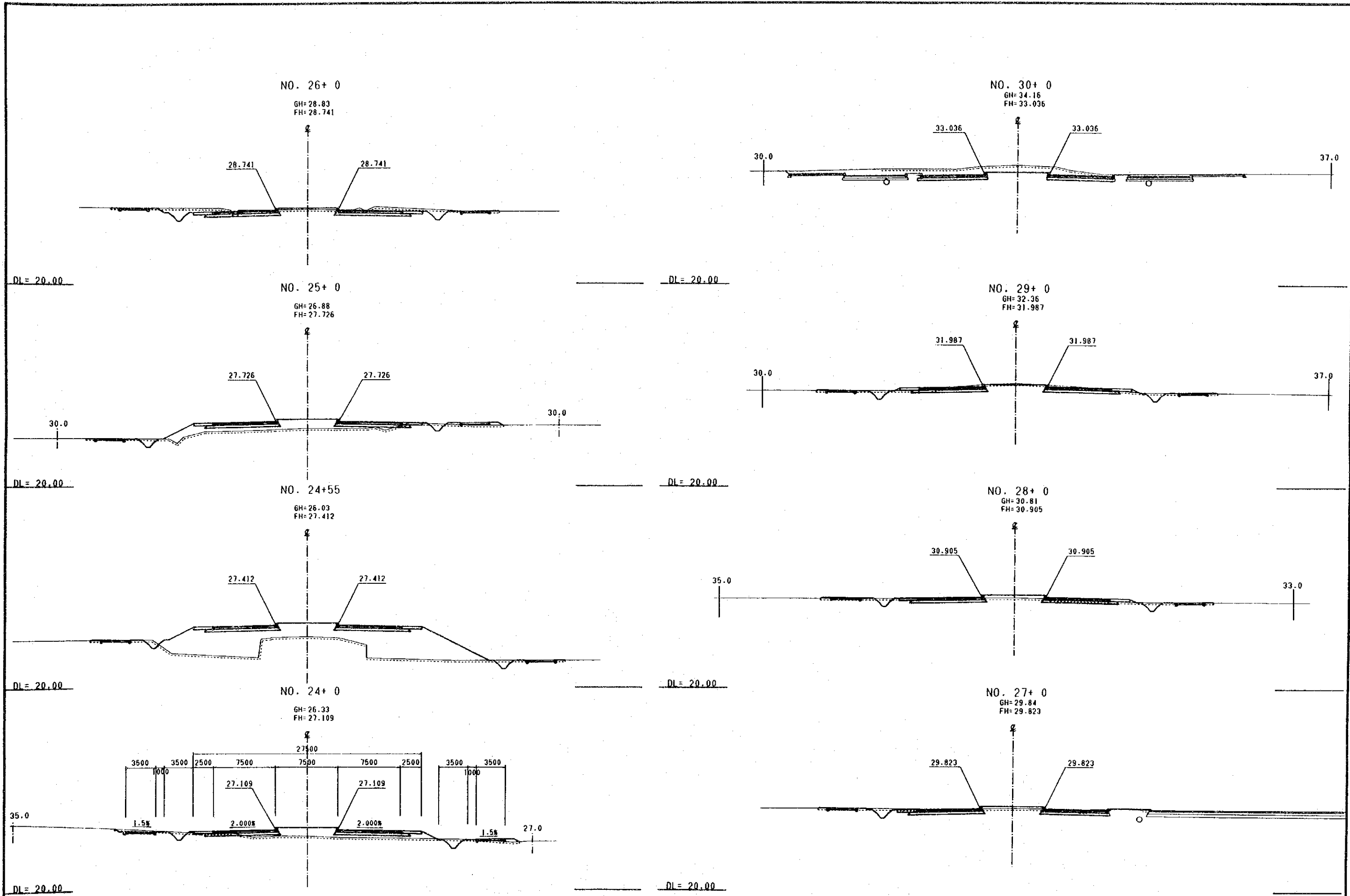
THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAAM

JAPAN INTERNATIONAL
COOPERATION AGENCY

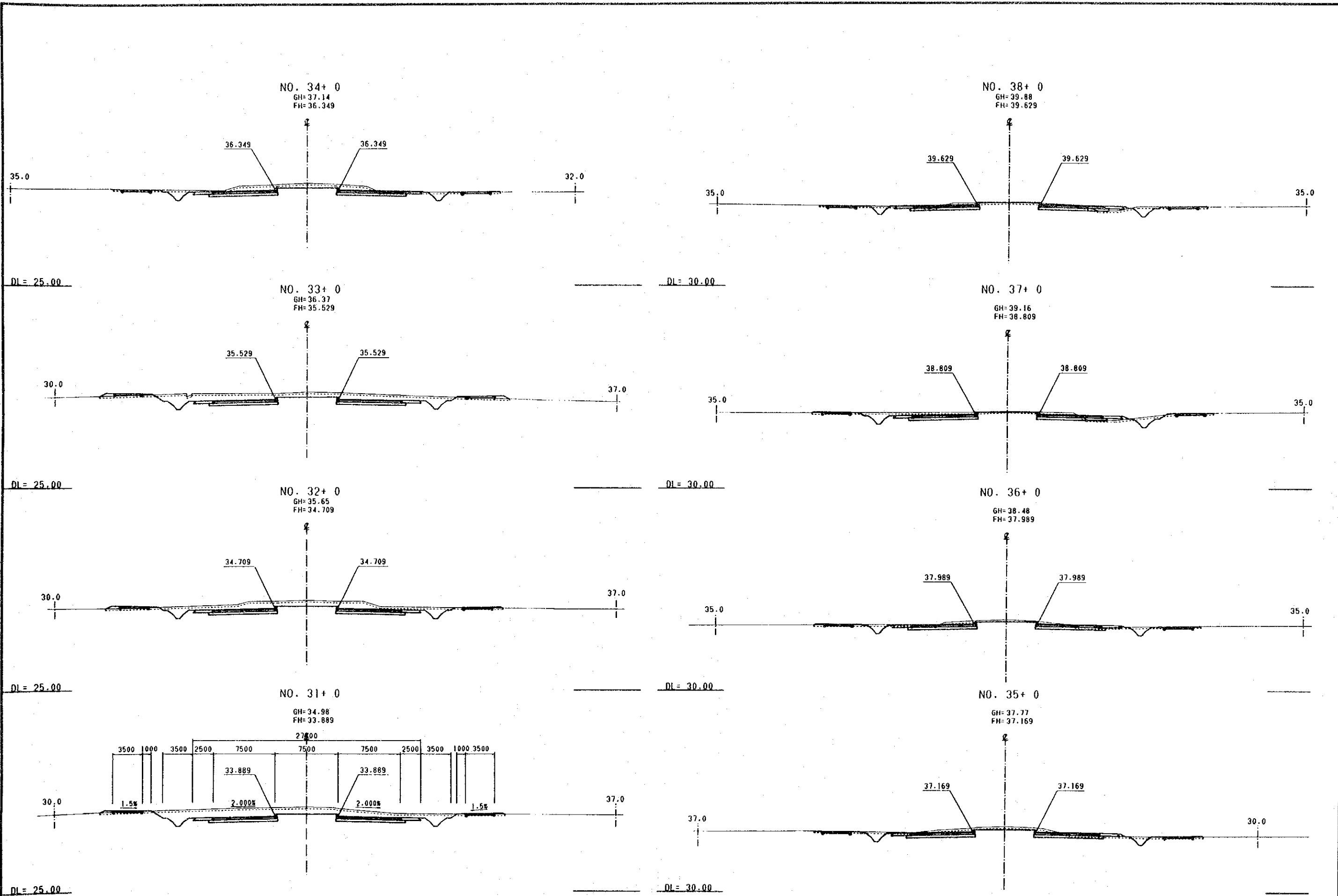
MOROGORO ROAD
CROSS SECTION (3)

DATE
JUNE 1990

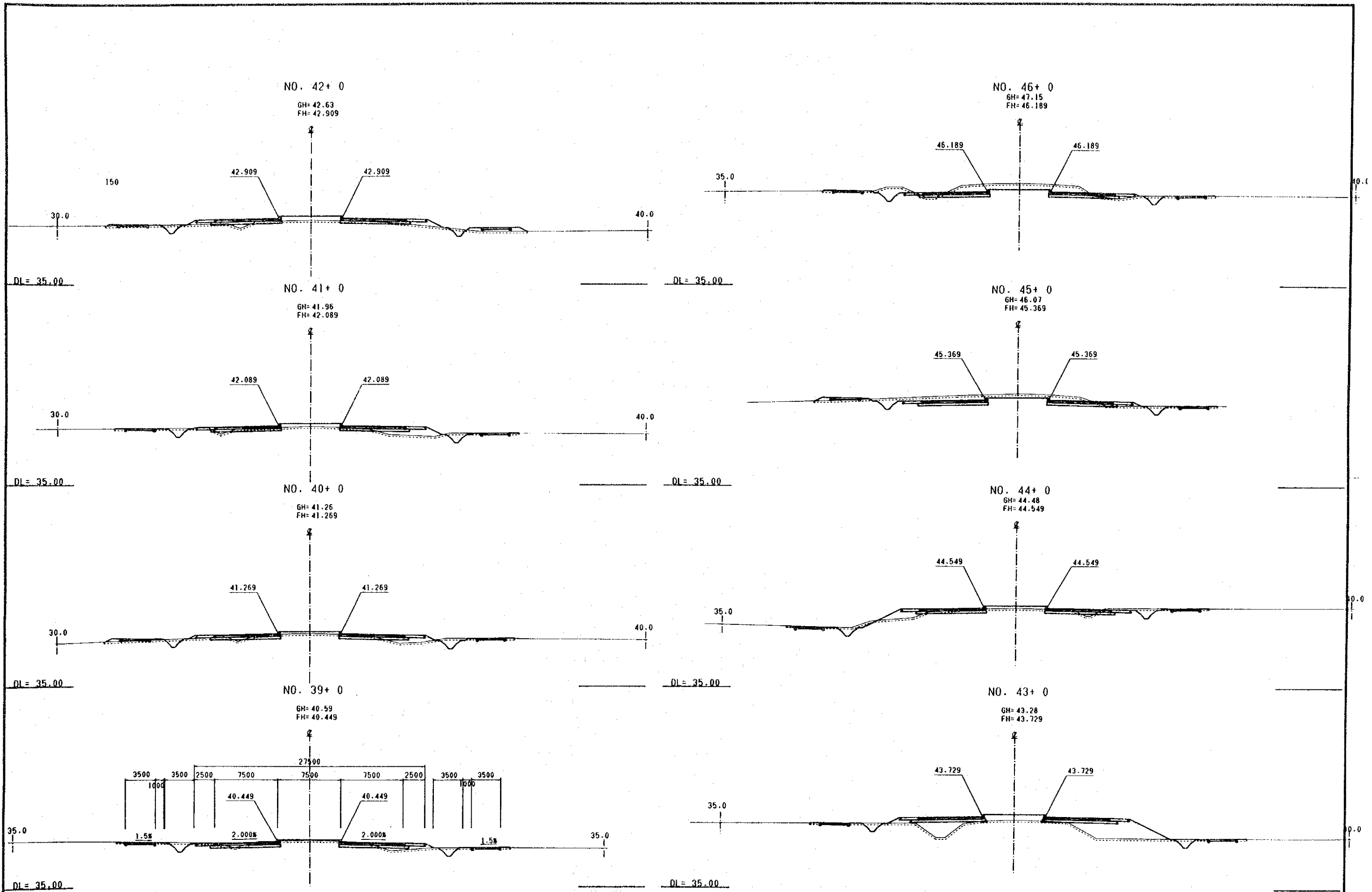
SHEET NO.
20 /



THE UNITED REPUBLIC OF TANZANIA DAR ES SALAAM CITY COUNCIL	THE FEASIBILITY STUDY ON ROAD IMPROVEMENT AND MAINTENANCE IN DARES SALAAM	JAPAN INTERNATIONAL COOPERATION AGENCY	MOROGORO ROAD CROSS SECTION (4)	DATE JUNE .1990	SHEET NO. 21 /
---------------------------------------------------------------	---------------------------------------------------------------------------------	-------------------------------------------	------------------------------------	-----------------------	-------------------



THE UNITED REPUBLIC OF TANZANIA DAR ES SALAAM CITY COUNCIL	THE FEASIBILITY STUDY ON ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAAM	JAPAN INTERNATIONAL COOPERATION AGENCY	MOROGORO ROAD CROSS SECTION (5)	DATE JUNE 1990	SHEET NO. 22 /
---------------------------------------------------------------	----------------------------------------------------------------------------------	-------------------------------------------	------------------------------------	-------------------	-------------------



THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

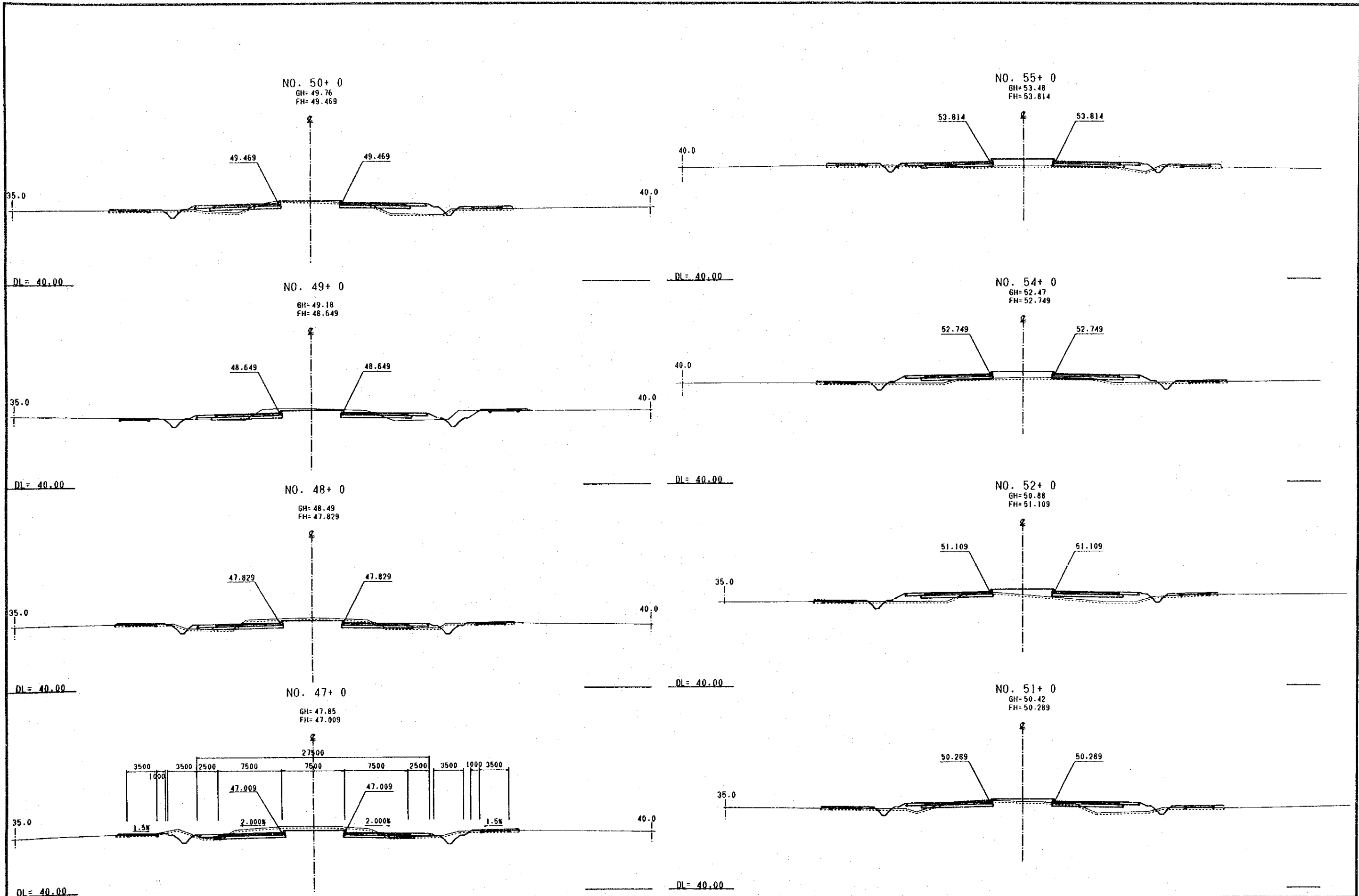
THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DARES SALAAM

JAPAN INTERNATIONAL
COOPERATION AGENCY

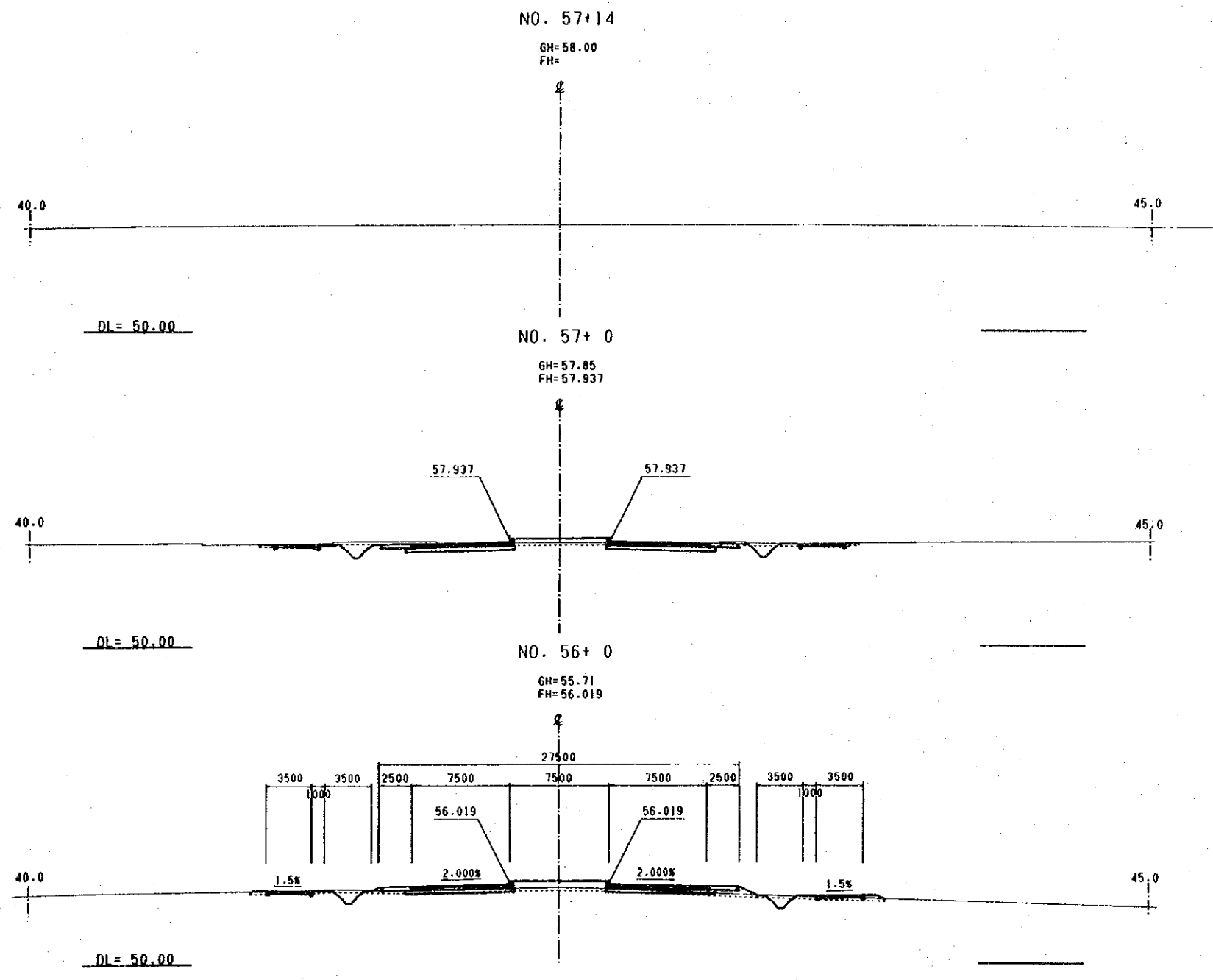
MOROGORO ROAD
CROSS SECTION (6)

DATE
JUNE
.1990

SHEET NO.
23 /



THE UNITED REPUBLIC OF TANZANIA DAR ES SALAAM CITY COUNCIL	THE FEASIBILITY STUDY ON ROAD IMPROVEMENT AND MAINTENANCE IN DARES SALAAM	JAPAN INTERNATIONAL COOPERATION AGENCY	MOROGORO ROAD CROSS SECTION (7)	DATE JUNE 1990	SHEET NO 24
---------------------------------------------------------------	---------------------------------------------------------------------------------	-------------------------------------------	------------------------------------	-------------------	----------------



THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DARES SALAAM

JAPAN INTERNATIONAL
COOPERATION AGENCY

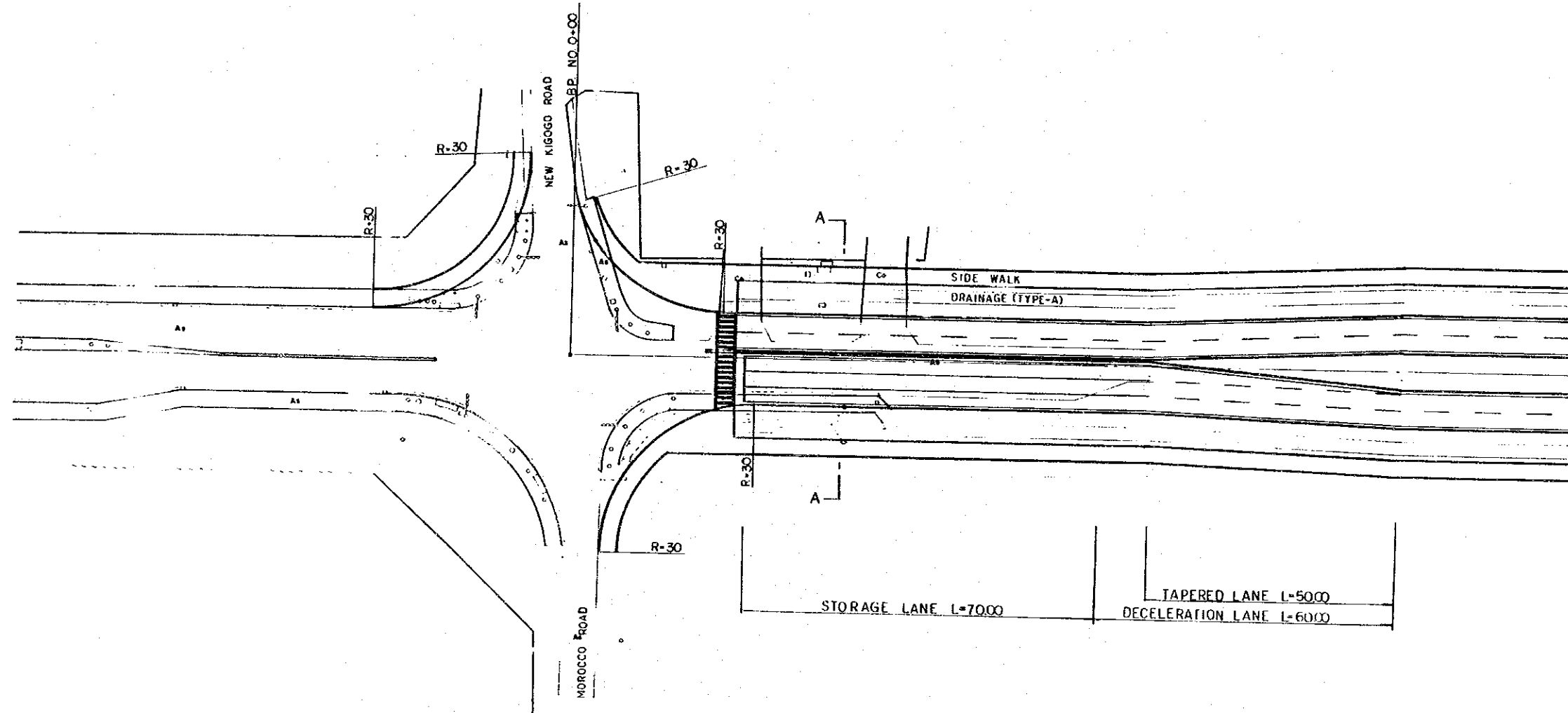
MROGORO ROAD
CROSS SECTION (8)

DATE
JUNE 1990

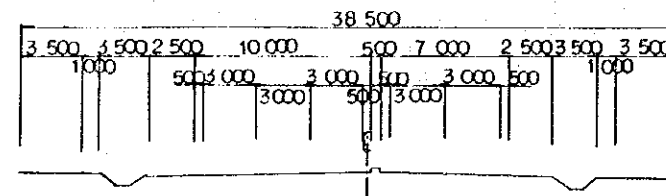
SHEET NO
25

INTERSECTION AT NEW KIGOGO ROAD (SIGNAL CONTROL)

S-1:500

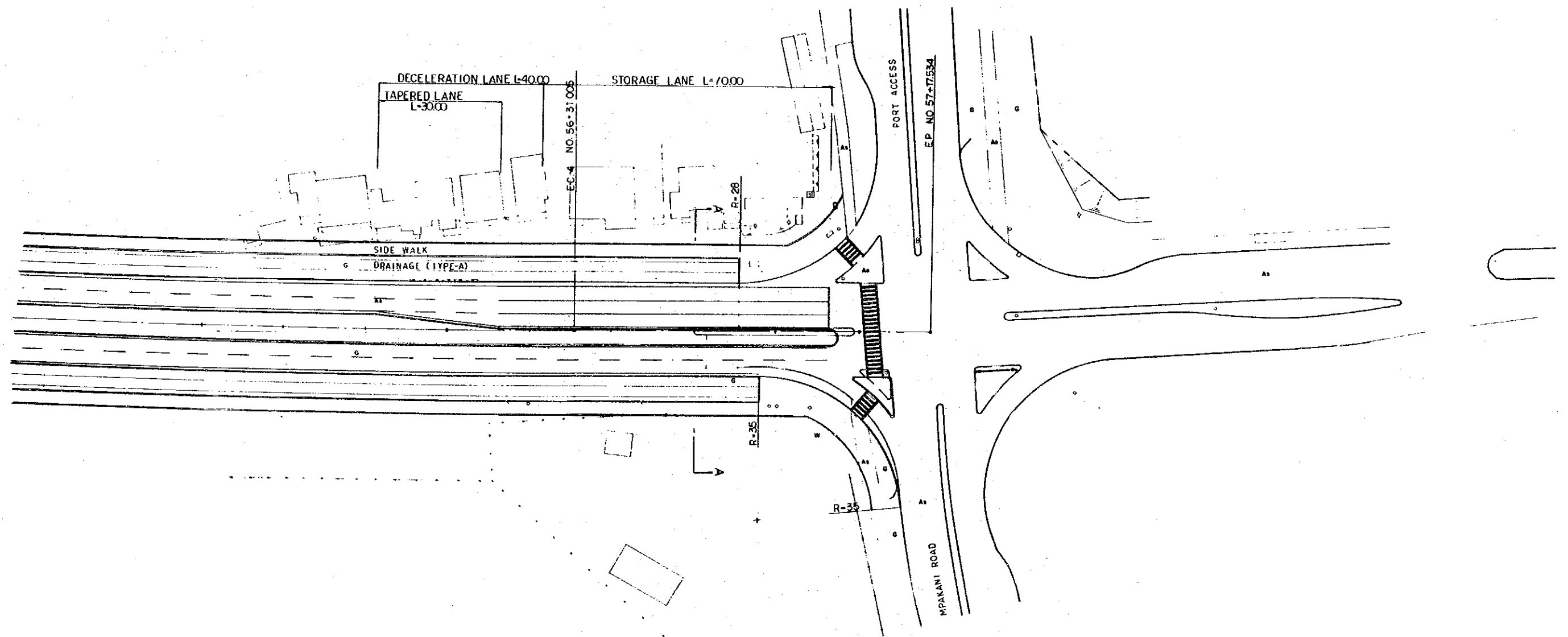


A-A SECTION S-1:200

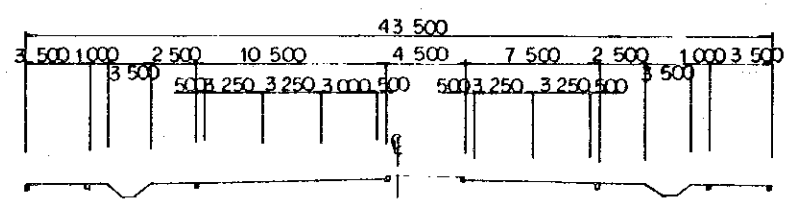


INTERSECTION AT PORT ACCESS (SIGNAL CONTROL)

S=1:500



A-A SECTION S=1:200



THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

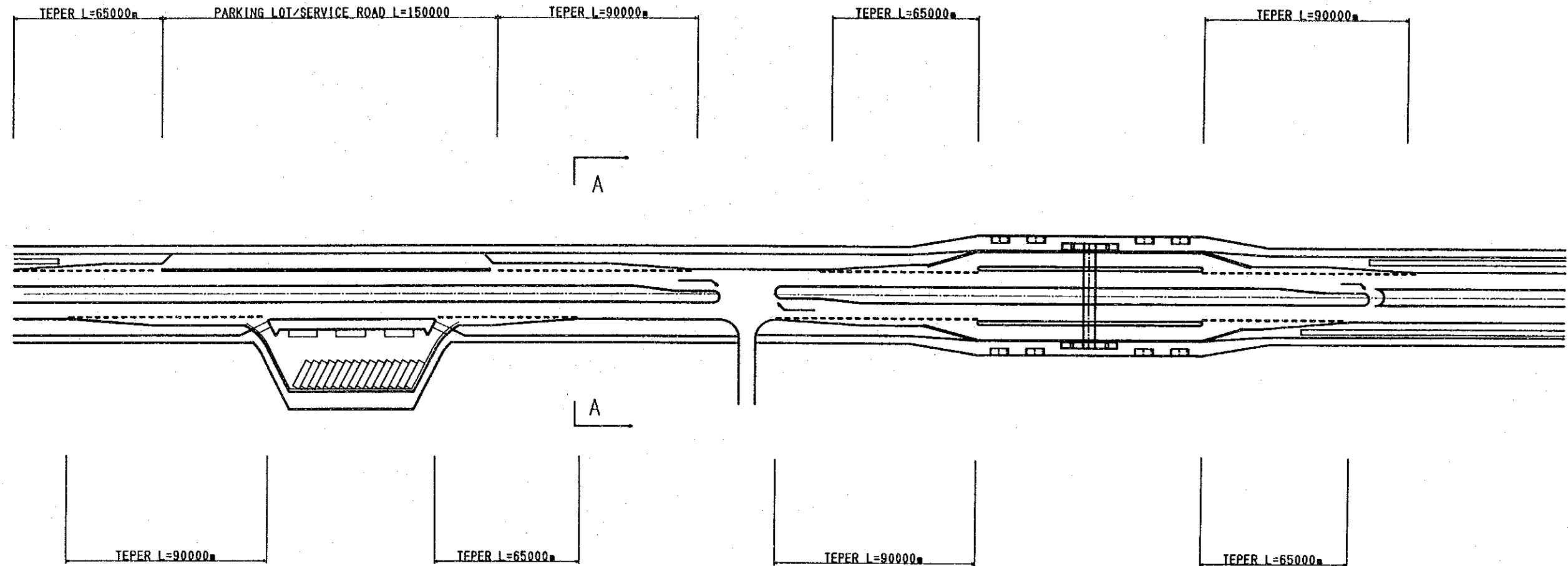
THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAAM

JAPAN INTERNATIONAL
COOPERATION AGENCY

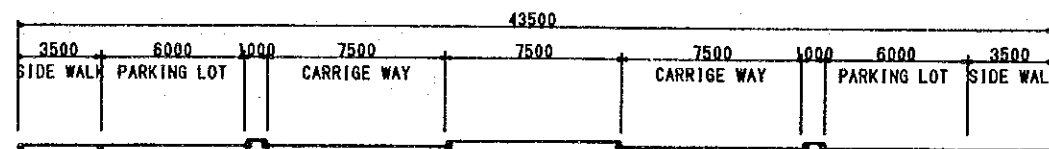
MOROGORO ROAD	DATE	SHEET NO
INTERSECTION AT PORT ACCESS	JUNE, 1990	27

GENERAL VIEW OF MANZESE SECTION

S = 1:1000



A-A SECTION S = 1:150



THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DARES SALAAM

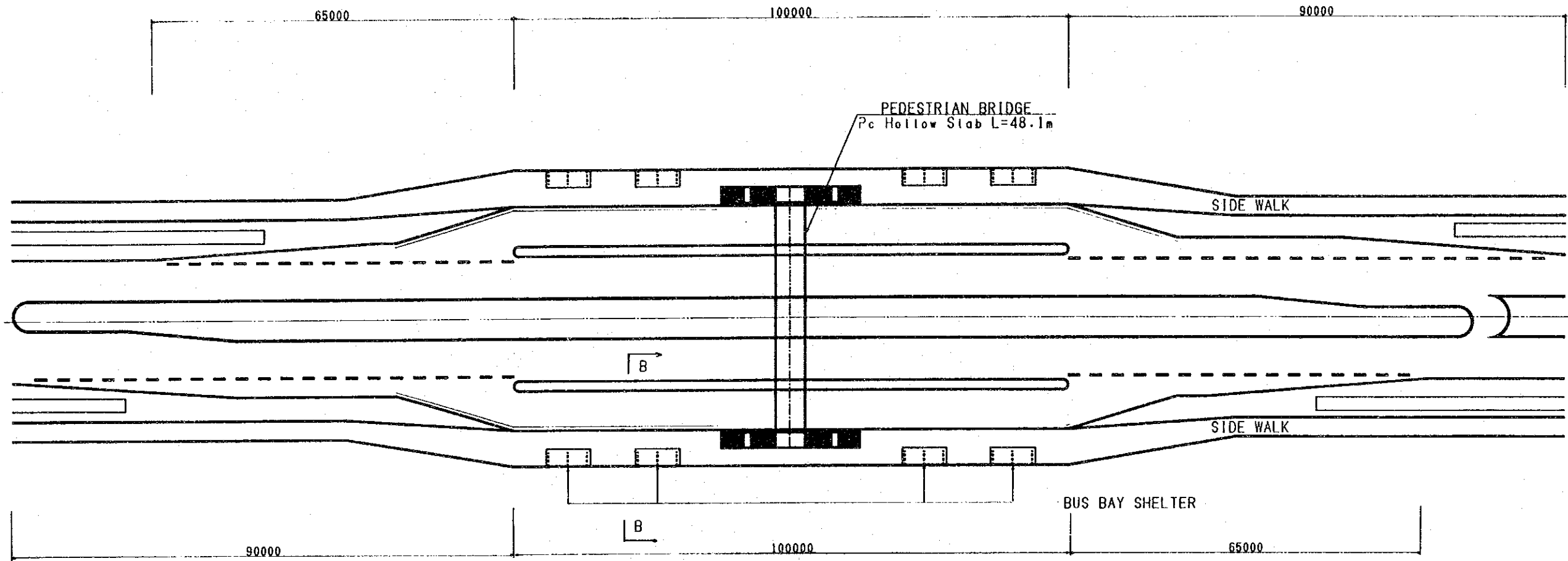
JAPAN INTERNATIONAL
COOPERATION AGENCY

MOROGORO ROAD
GENERAL VIEW OF
MANZESE SECTION

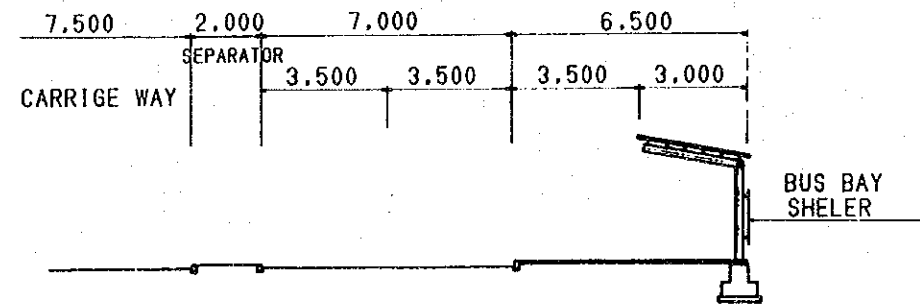
DATE
JUNE
1990

SHEET NO.
28 /

MANZESE BUS TERMINAL S=1:400
(MOROGORO ROAD)



B-B SECTION S=1:100



THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAAM

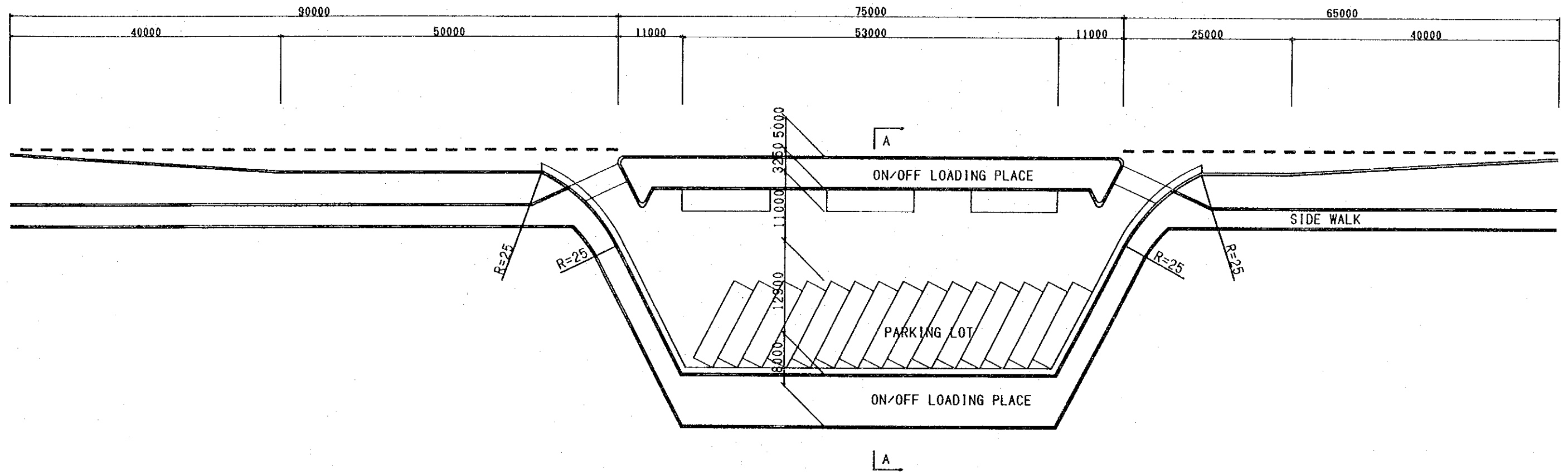
JAPAN INTERNATIONAL
COOPERATION AGENCY

MOROGORO ROAD
MANZESE BUS TERMINAL

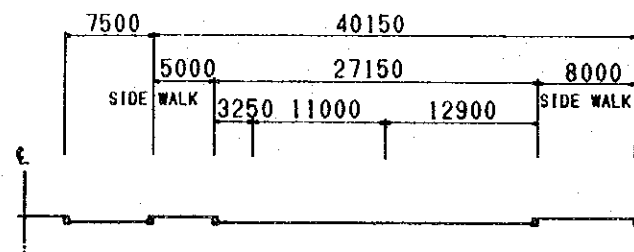
DATE
JUNE 1990

SHEET NO.
29 /

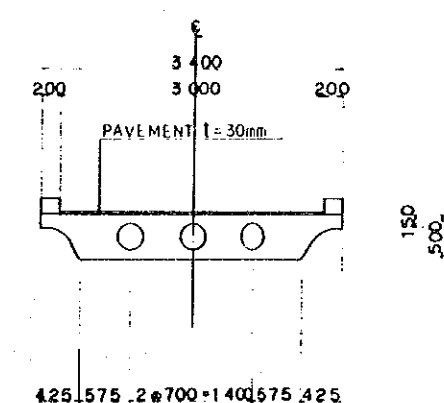
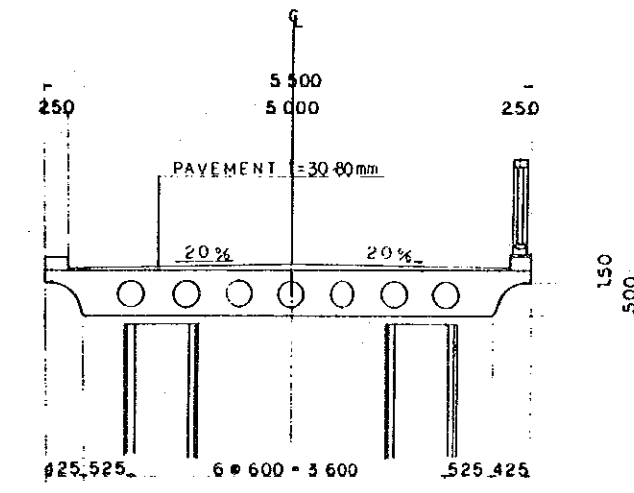
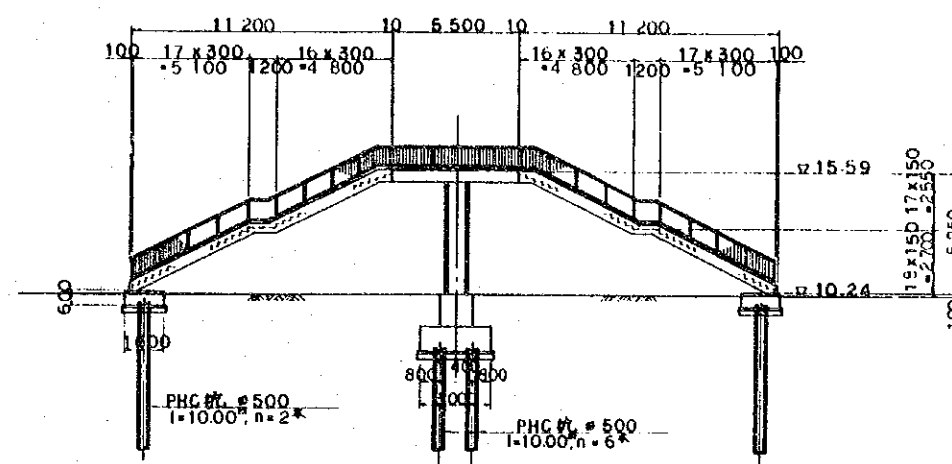
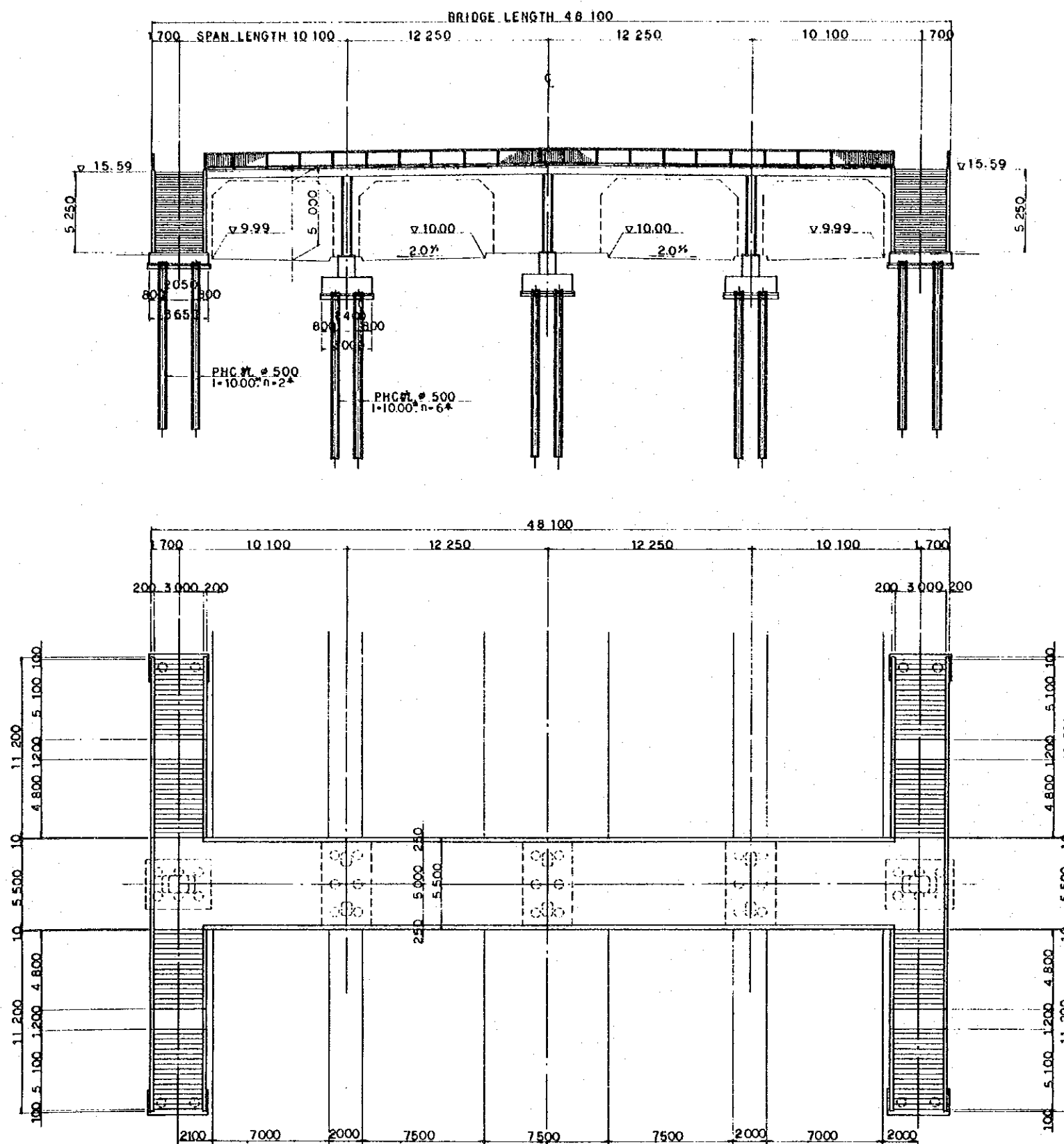
MANZESE TRUCK TERMINAL S=1:300
(ON/OFF LOADING BAY)



A-A SECTION S=1:300



PEDESTRIAN BRIDGE



THE UNITED REPUBLIC OF TANZANIA
DAR ES SALAAM CITY COUNCIL

THE FEASIBILITY STUDY
ON
ROAD IMPROVEMENT AND MAINTENANCE IN DAR ES SALAAM

JAPAN INTERNATIONAL
COOPERATION AGENCY

MOROGORO ROAD
PEDESTRIAN BRIDGE

DATE
JUNE,
1990

SHEET
31