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MINISTRY OF PUBLIC WORKS

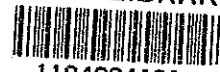
THE NAIROBI BYPASS PROJECT  
DETAILED DESIGN STUDY  
FINAL REPORT  
PART II  
VOLUME 6  
(DRAWINGS)

SEPTEMBER 1992

JAPAN INTERNATIONAL COOPERATION AGENCY

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**MINISTRY OF PUBLIC WORKS**

**THE NAIROBI BYPASS PROJECT**

**DETAILED DESIGN STUDY**

**FINAL REPORT**

**PART II**

**VOLUME 6**

**(DRAWINGS)**

SEPTEMBER 1992

**JAPAN INTERNATIONAL COOPERATION AGENCY**



国際協力事業団

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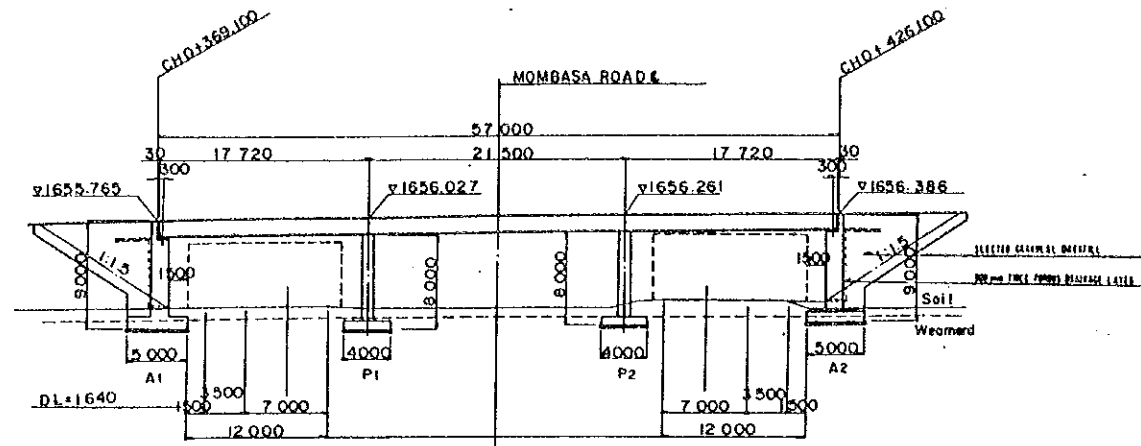
	SHEET NUMBER	DESCRIPTION	SCALE	M. O. P. W NUMBER
<b>STRUCTURES</b>				
VOLUME 6	0 1-75	BRIDGES OF MAIN ROAD		
		WONDASA ROAD JUNCTION BRIDGE		
	1	GENERAL VIEW (1)	As Shown	
	2-5	SUPERSTRUCTURE (1)~(4)	"	
	6-10	ABUTMENTS (A <sub>1</sub> , A <sub>2</sub> ) (1)~(5)	"	
	11-12	WING WALL (A <sub>1</sub> ) (1)~(2)	"	
	13-15	PIERS (P <sub>1</sub> , P <sub>2</sub> ) (1)~(3)	"	
	16-17	WING WALL (A <sub>2</sub> ) (1)~(2)	"	
	18	PARAPET (1)	"	
		UHURU MONUMENT JUNCTION BRIDGE		
	19	GENERAL VIEW (1)	As Shown	
	20-23	SUPERSTRUCTURE (1)~(4)	"	
	24-28	ABUTMENTS (A <sub>1</sub> , A <sub>2</sub> ) (1)~(5)	"	
	29-30	WING WALL (A <sub>1</sub> ) (1)~(2)	"	
	31-33	PIERS (1)~(3)	"	
	34-35	WING WALL (A <sub>2</sub> ) (1)~(2)	"	
	36	PARAPET (1)	"	
		RAILWAY BRIDGE		
	37-39	RAILWAY PROFILE (1)~(3)	As Shown	
	40	GENERAL VIEW (1)	"	
	41-44	SUPERSTRUCTURE (1)~(4)	"	
	45-50	ABUTMENTS (A <sub>1</sub> ) (1)~(6)	"	
	51-52	WING WALL (A <sub>1</sub> ) (1)~(2)	"	
	53-55	PIERS (1)~(3)	"	
	56-60	ABUTMENTS (A <sub>2</sub> ) (1)~(5)	"	
	61-64	WING WALL (A <sub>2</sub> ) (1)~(4)	"	
	65-74	RETAINING WALL (1)~(10)	"	
	75	PARAPET (1)	"	

	SHEET NUMBER	DESCRIPTION	SCALE	M. O. P. W NUMBER
VOLUME 7	P 1-45	OVER BRIDGES		
		PEDESTRIAN OVER BRIDGE (1), W=3m CH 1Km+180		
	1	GENERAL VIEW (1)	As Shown	
	2-3	SUPERSTRUCTURE (1)~(2)	"	
	4	ABUTMENTS (A <sub>1</sub> , A <sub>2</sub> ) (1)	"	
	5	PIER (1)	"	
	6	PARAPET (1)	"	
		PEDESTRIAN OVER BRIDGE (2), W=6m CH 15Km+980		
	7	GENERAL VIEW (1)	As Shown	
	8-10	SUPERSTRUCTURE (3)	"	
	11	ABUTMENTS (A <sub>1</sub> , A <sub>2</sub> ) (1)	"	
	12	PIER (1)	"	
	13	PARAPET (1)	"	
		OVER BRIDGE (1) W=6m CH 15Km+980		
	14	GENERAL VIEW (1)	As Shown	
	15-17	SUPERSTRUCTURE (1)~(3)	"	
	18-20	ABUTMENTS (A <sub>1</sub> , A <sub>2</sub> ) (1)~(3)	"	
	21-22	WING WALL (A <sub>1</sub> ) (1)~(2)	"	
	23-25	PIERS (1)~(3)	"	
	26-27	WING WALL (A <sub>2</sub> ) (1)~(2)	"	
	28	PARAPET (1)	"	
		OVER BRIDGE (2) W=10m CH 27Km+920		
	29	GENERAL VIEW (1)	As Shown	
	30-32	SUPERSTRUCTURE (1)~(3)	"	
	33-36	ABUTMENTS (A <sub>1</sub> , A <sub>2</sub> ) (1)~(4)	"	
	37-39	PIERS (1)~(3)	"	
	40-44	RETAINING WALL (1)~(5)	"	
	45	PARAPET (1)	"	

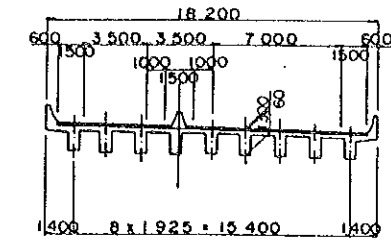
	SHEET NUMBER	DESCRIPTION	SCALE	M. O. P. W NUMBER
VOLUME 8	01-183	BOX CULVERTS		
		VEHICLE BOX CULVERTS		
	1-15	CH 15+516.37 (1)~(9) W=10.00 H=5.80	As Shown	
	16-25	CH 19+500.00 (1)~(10) W= 8.00 H=5.60	"	
	26-52	CH 20+930.04 (1)~(27) W=10.00 H=6.00	"	
	53-62	CH 23+169.41 (1)~(10) W= 8.50 H=5.75	"	
	63-72	CH 23+760.00 (1)~(10) W= 8.50 H=5.60	"	
	73-82	CH 24+980.00 (1)~(10) W= 8.50 H=5.60	"	
	83-106	CH 26+464.00 (1)~(24) W= 8.50 H=5.65	"	
		WATER BOX CULVERTS		
	107-117	CH 13+978.00 (1)~(11) W= 3.00 H=3.00	As Shown	
	118-123	CH 14+934.00 (1)~(6) W= 2.00 H=3.00	"	
	124-133	CH 15+560.00 (1)~(10) W= 3.50 H=3.00	"	
	134-143	CH 00+157.000000 J.C.B SLIP (1)~(10) W=3.50 H=3.00	"	
	144-161	CH 26+335.00 (1)~(18) W= 3.50 H=3.50	"	
		PEDESTRIAN BOX CULVERTS		
	162-168	CH 18+400.00 (1)~(7) W= 3.00 H=3.00	As Shown	
	169-172	CH 20+200.00 (1)~(4) W= 3.00 H=3.00	"	
	173-176	CH 22+880.00 (1)~(4) W= 3.00 H=3.00	"	
	177-183	CH 26+222.00 (1)~(7) W= 3.00 H=3.00	"	

SURVEYED BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 AERIAL PHOTO BY \_\_\_\_\_  
 MAPPING BY \_\_\_\_\_  
 LOCATION BY \_\_\_\_\_

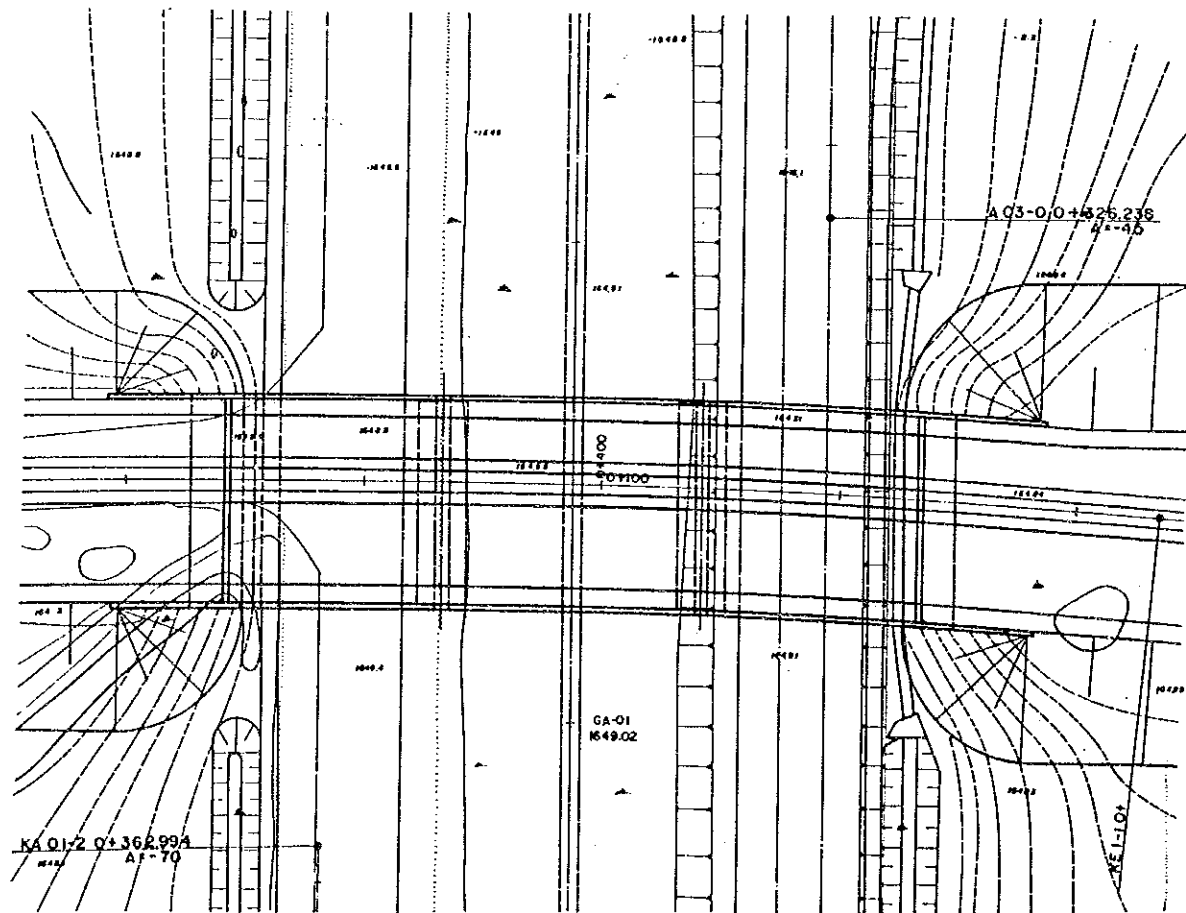
M.O.P.W. ROADS DEPT. DRG. NO.



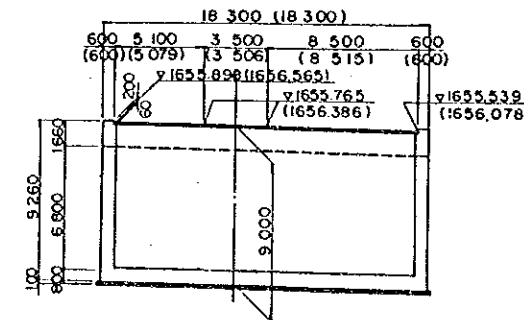
PROFILE SCALE 1:300



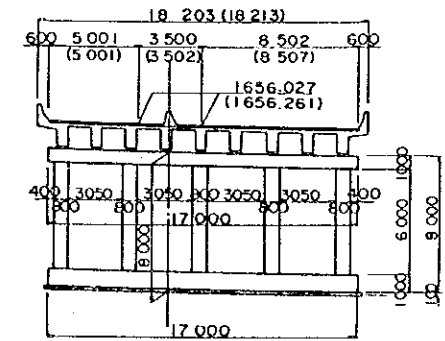
SUPERSTRUCTURE SCALE 1:200



PLAN SCALE 1:300

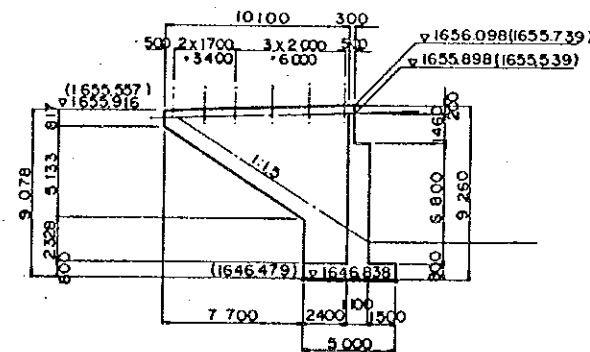


ABUTMENT A1 (A2)

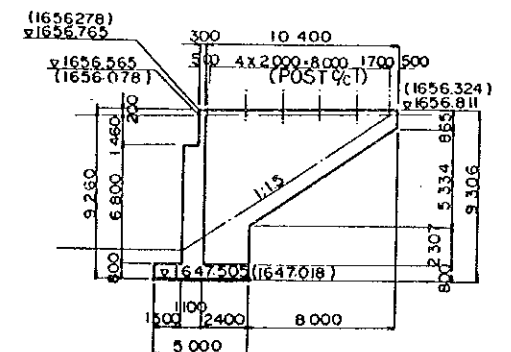


PIER: P1 (P2)

SUBSTRUCTURE SCALE 1:200



A1-WING



A2 - WING

SURVEYED BY  
 MAPPING BY  
 TRACED BY  
 LOCATION BY  
 CHECKED BY

MOPW ROADS DEPT DRG NO

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

CHIEF ENGINEER (ROADS)  
 CHIEF SUPT ENG (DESIGN)

SEN SUPT. ENG (DESIGN)  
 SUPT ENGINEER (DESIGN)  
 PROJECT ENGINEER

SCALES

1:200, 1:300

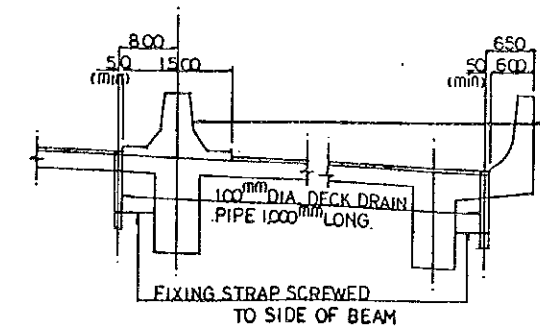
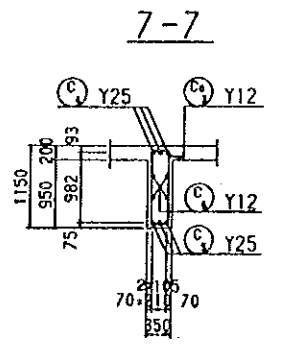
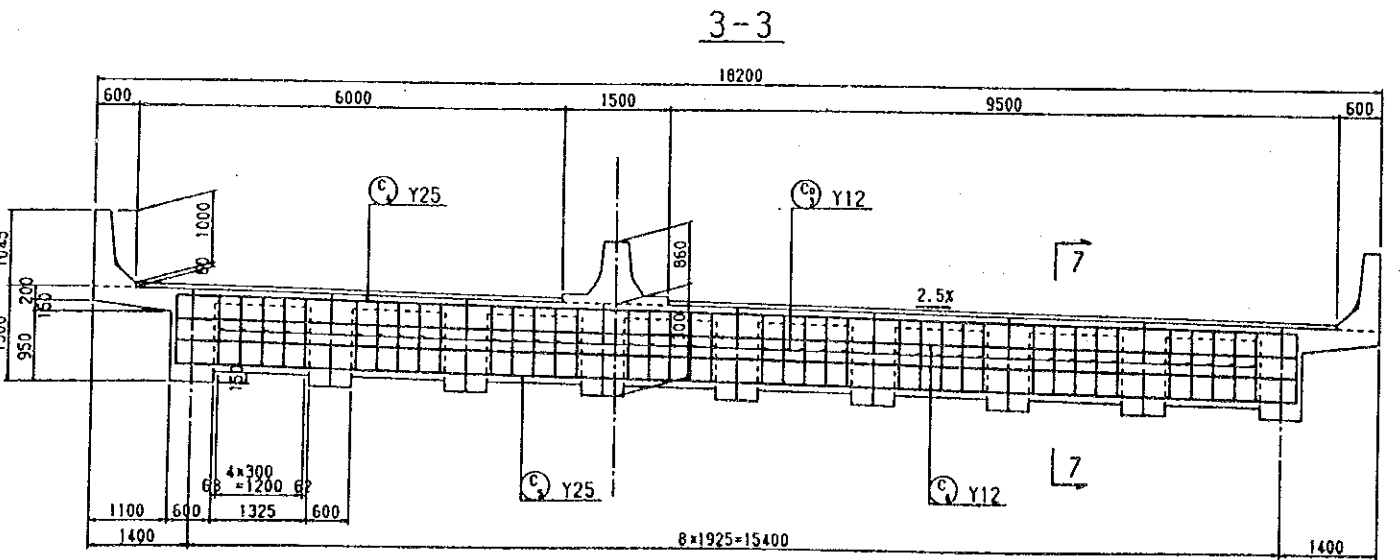
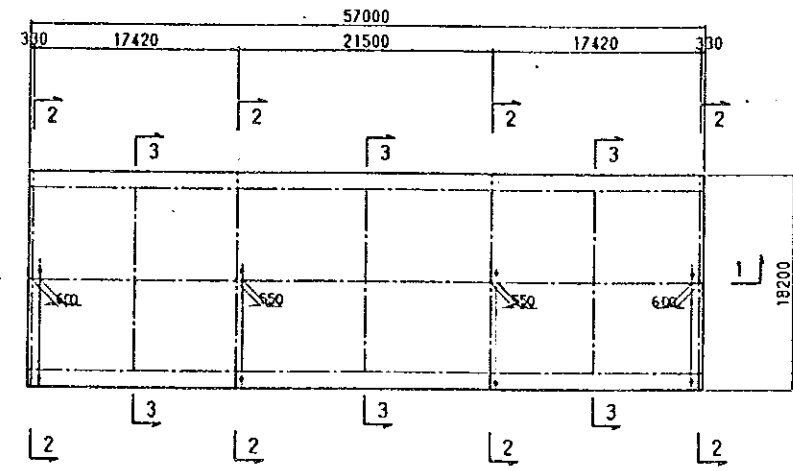
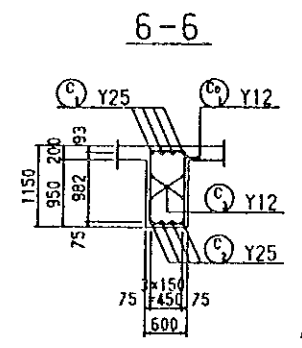
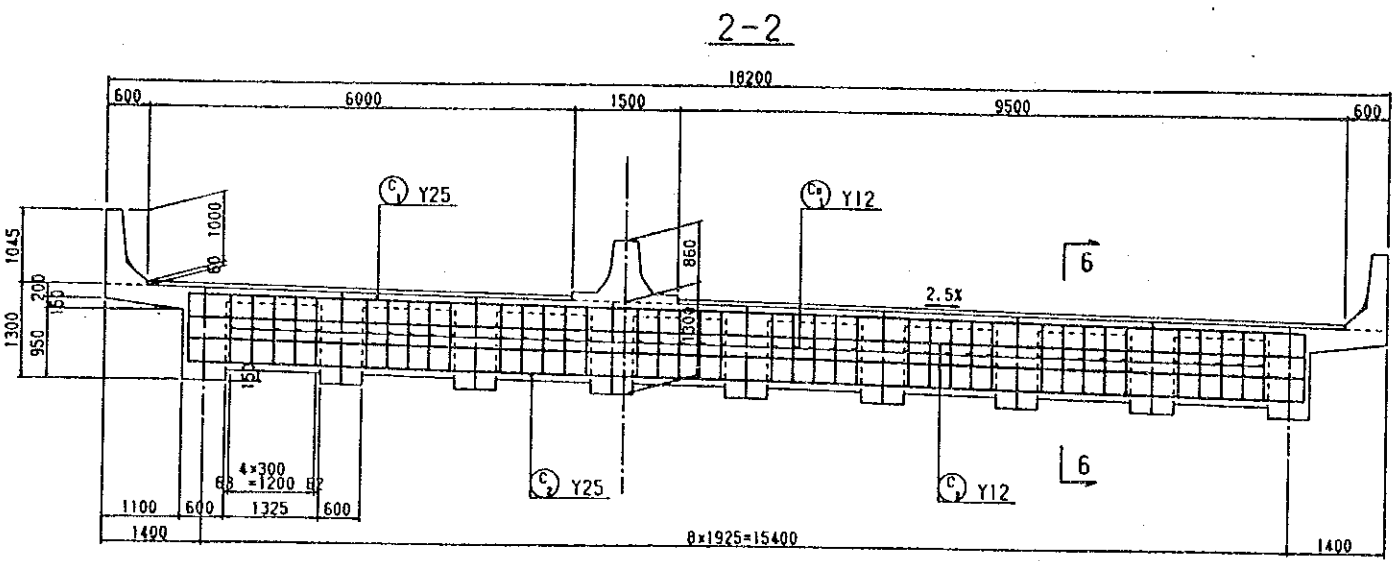
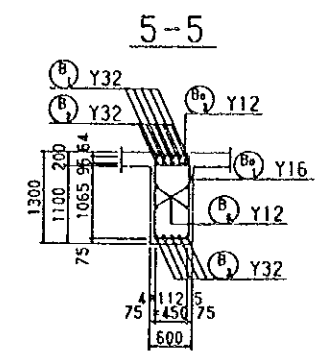
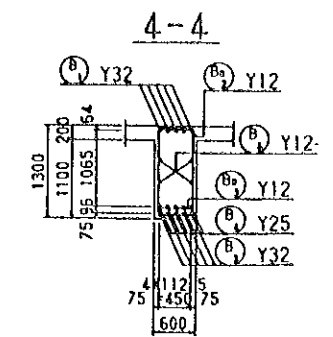
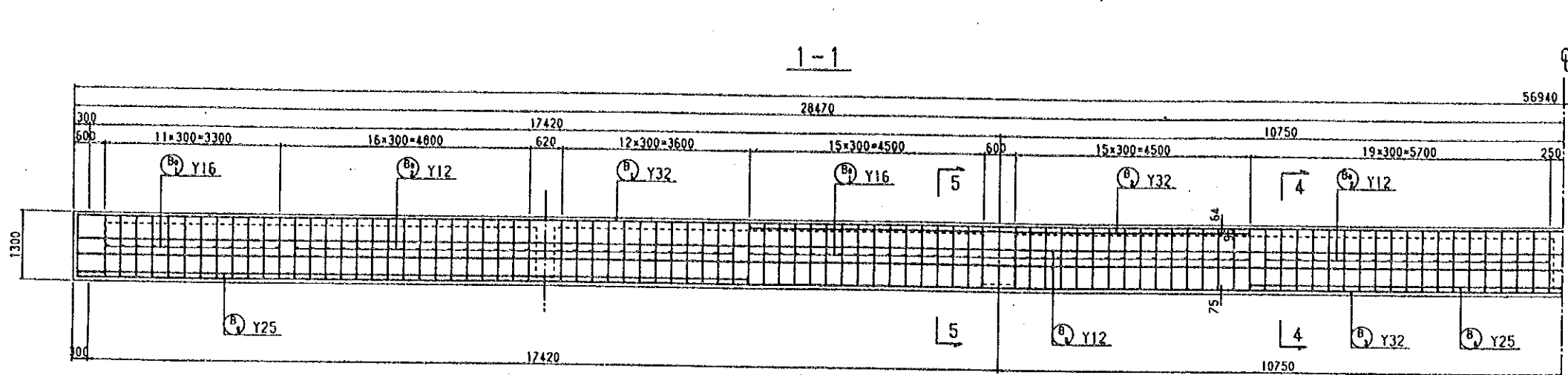
NAIROBI BYPASS

MOMBASA ROAD JUNCTION BRIDGE  
 GENERAL VIEW

0

SHEET 1 OF 7R





THE PARAPET BE MAKE JOINTS OR V-CUTS OF CONCRETE FACE IN 1/2 SPAN AND FULCLUM

SURVEYED BY  
 TRACED BY  
 CHECKED BY  
 AERIAL PHOTO BY  
 MAPPING BY  
 LOCATION BY  
 MOPW ROADS DEPT DRG NO

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

CHIEF ENGINEER (ROADS)  
 CHIEF SUPT ENG (DESIGN)

SEN SUPT. ENG (DESIGN)  
 SUPT ENGINEER (DESIGN)  
 PROJECT ENGINEER

SCALES  
 1:50

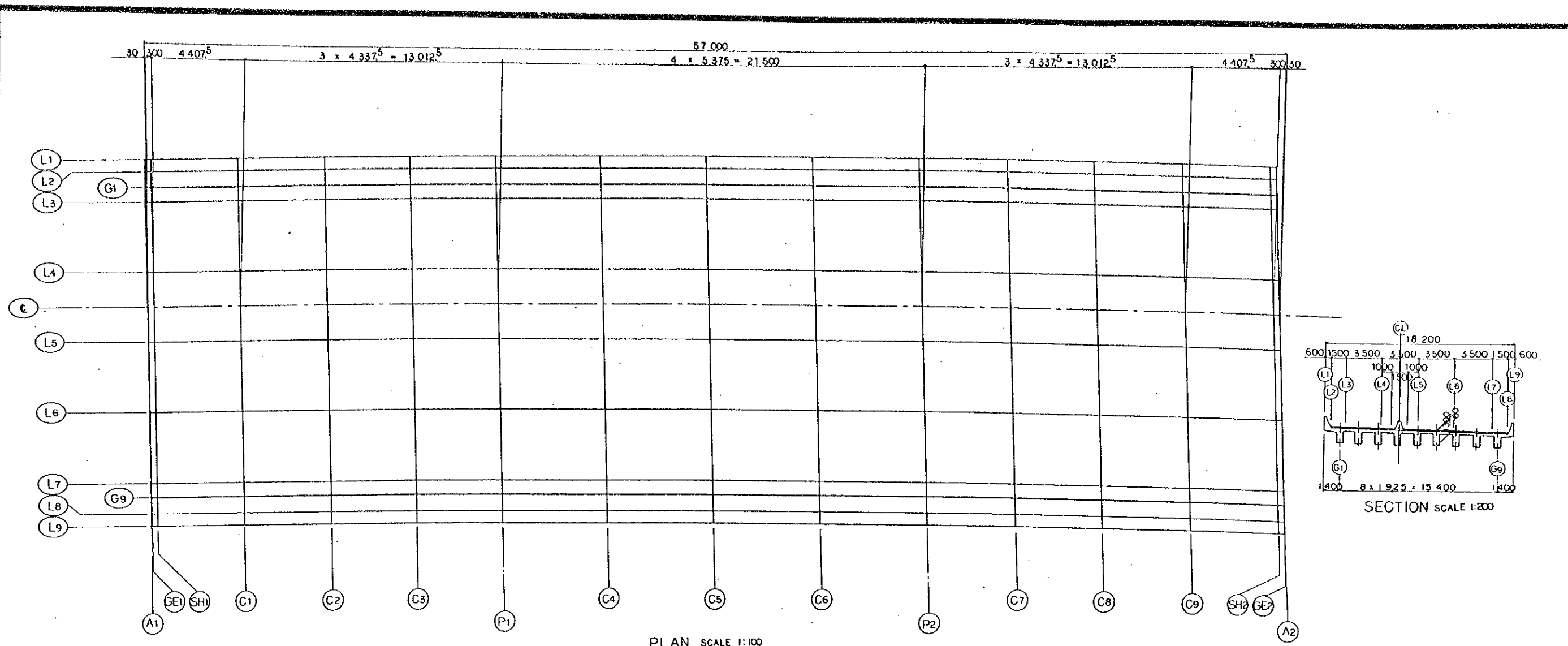
NAIROBI BYPASS  
 MOMBASA ROAD JUNCTION BRIDGE  
 SUPERSTRUCTURE (1)

0  
 SHEET 4 OF 76









PLAN SCALE 1:100

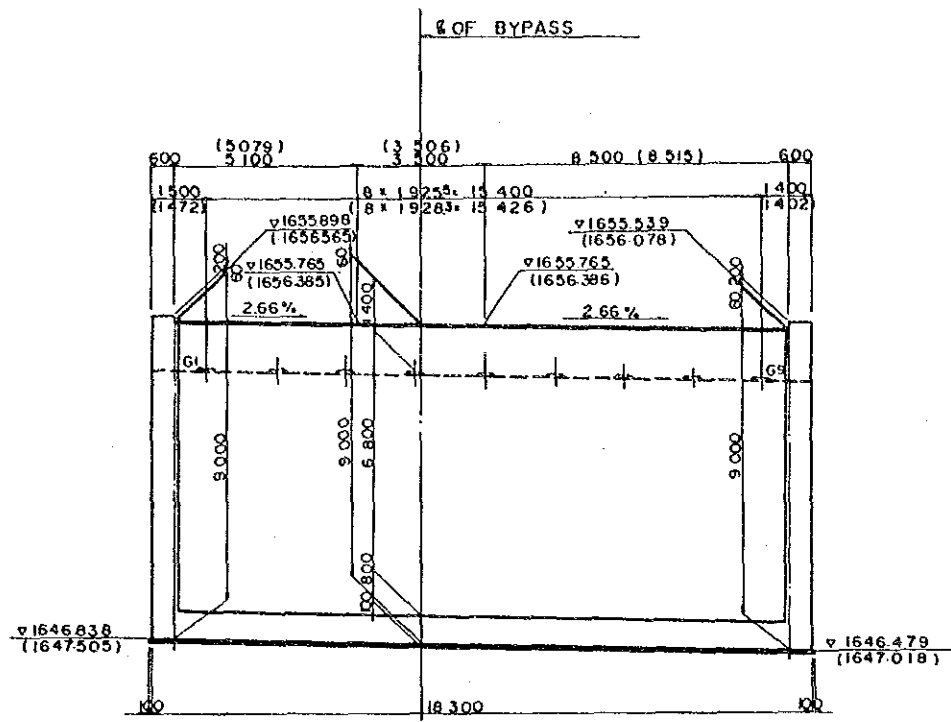
SECTION SCALE 1:200

COORDINATES AND PROPORTION HEIGHT

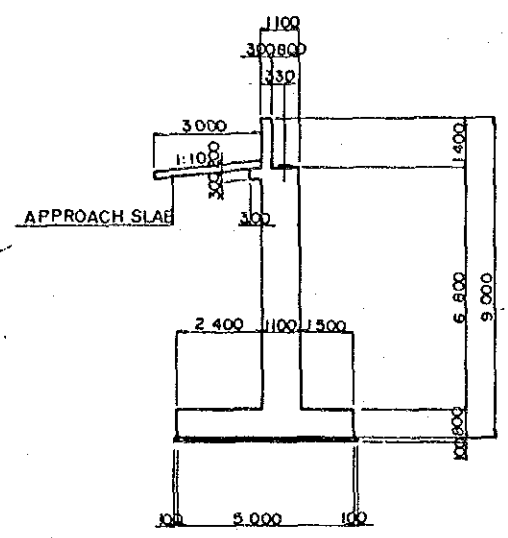
	A1	GE1	SH1	C1	C2	C3	P1	C4	C5	C6	P2	C7	C8	C9	SH2	GE2	A2
L1	X 53787.8041	53787.7783	53787.5202	53783.7313	53780.0086	53776.2922	53772.5827	53767.9962	53763.4220	53758.8611	53754.3144	53750.6565	53747.0090	53743.3727	53739.6896	53739.4393	53739.4143
	Y 260363.2035	260363.1883	260363.0353	260360.7835	260358.5573	260356.3209	260354.0729	260351.2704	260348.4478	260345.6038	260342.7371	260340.4063	260338.0590	260335.6947	260333.2740	260333.1086	260333.0920
L2	X 53788.1059	53788.0801	53787.8220	53784.0331	53780.3104	53776.5940	53772.8845	53768.2981	53763.7239	53759.1630	53754.6164	53750.9585	53747.3112	53743.6749	53739.9918	53739.7416	53739.7168
	Y 260362.6859	260362.6696	260362.5167	260360.2649	260358.0389	260355.8023	260353.5542	260350.7516	260347.9290	260345.0850	260342.2182	260339.8872	260337.5399	260335.1754	260332.7546	260332.5891	260332.5728
G1	X 1823.8982	1823.8987	1823.9039	1823.9779	1823.0471	1823.1125	1823.1743	1823.2427	1823.3114	1823.3715	1823.4259	1823.4827	1823.5019	1823.5343	1823.5654	1823.5829	1823.5829
	Y 53788.5082	53788.4824	53788.2243	53784.4355	53780.7128	53776.9964	53773.2870	53768.7005	53764.1264	53759.5656	53755.0190	53751.3612	53747.7139	53744.0778	53740.3949	53740.1446	53740.1196
L3	X 53788.8603	53788.8345	53788.5764	53784.7876	53781.0649	53777.3485	53773.6391	53769.0527	53764.4786	53759.9178	53755.3714	53751.7136	53748.0664	53744.4303	53740.7475	53740.4973	53740.4723
	Y 260361.3884	260361.3731	260361.2202	260358.9684	260356.7423	260354.5056	260352.2575	260349.4548	260346.6320	260343.7878	260340.9207	260338.5896	260336.2419	260333.8722	260331.4560	260331.2905	260331.2739
L4	X 53790.6207	53790.5949	53790.3368	53786.5480	53782.8253	53779.1091	53775.3997	53770.8135	53766.2396	53761.6791	53757.1330	53752.4755	53748.8287	53745.1930	53742.5107	53742.2605	53742.2355
	Y 260358.3632	260358.3479	260358.1950	260355.9431	260353.7169	260351.4801	260349.2318	260346.4288	260343.6057	260340.7610	260337.8934	260335.5617	260333.2134	260330.8480	260328.4259	260328.2603	260328.2438
CL	X 53791.5008	53791.4750	53791.2169	53787.4282	53783.7056	53779.9893	53776.2801	53771.6939	53767.1201	53762.5597	53758.0138	53753.4565	53748.8998	53744.3744	53739.8225	53739.5723	53739.5473
	Y 260356.8506	260356.8353	260356.6824	260354.4304	260352.2042	260349.9673	260347.7190	260345.4707	260343.2224	260340.9741	260338.7258	260336.4775	260334.2292	260331.9809	260329.7326	260329.5670	260329.5504
L5	X 53792.3810	53792.3552	53792.0971	53788.3083	53784.5858	53780.8696	53777.1604	53772.5743	53768.0006	53763.4404	53758.8946	53754.3725	53749.8510	53745.3299	53740.8084	53740.5582	53740.5332
	Y 260355.3380	260355.3227	260355.1698	260352.9178	260350.6915	260348.4546	260346.2061	260343.4029	260340.5993	260337.7942	260334.9861	260332.1780	260329.3699	260326.5618	260323.7537	260323.5881	260323.5715
L6	X 53794.1414	53794.1156	53793.8575	53789.0688	53784.3463	53779.6302	53774.9210	53770.2118	53765.5026	53760.7934	53756.0842	53751.3750	53746.6658	53741.9566	53737.2474	53736.9972	53736.9722
	Y 260352.3128	260352.2975	260352.1446	260349.8925	260347.6662	260345.4291	260343.1805	260340.9319	260338.6833	260336.4347	260334.1861	260331.9375	260329.6889	260327.4403	260325.1917	260324.9421	260324.9255
L7	X 53795.9018	53795.8759	53795.6179	53791.8292	53788.1067	53784.3907	53780.6817	53776.9727	53773.2637	53769.5547	53765.8457	53762.1367	53758.4277	53754.7187	53751.0097	53747.3007	53747.2757
	Y 260349.2876	260349.2723	260349.1194	260346.8672	260344.6408	260342.4035	260340.1548	260337.9061	260335.6574	260333.4087	260331.1600	260328.9113	260326.6626	260324.4139	260322.1652	260321.9156	260321.8990
G8	X 53796.2538	53796.2280	53792.9699	53792.1813	53788.4588	53784.7428	53781.0268	53777.3108	53773.5948	53769.8788	53766.1628	53762.4468	53758.7308	53755.0148	53751.2988	53747.5828	53747.5578
	Y 260348.6826	260348.6673	260348.5143	260346.2622	260344.0357	260341.7984	260339.5496	260337.2908	260335.0320	260332.7732	260330.5144	260328.2556	260326.0068	260323.7580	260321.5092	260321.2596	260321.2430
L8	X 53796.6562	53796.6304	53796.3723	53792.5837	53788.8612	53785.1452	53781.4292	53777.7132	53774.0042	53770.2882	53766.5722	53762.8562	53759.1402	53755.4242	53751.7082	53747.9922	53747.9672
	Y 260347.9911	260347.9758	260347.8228	260345.5707	260343.3442	260341.1069	260338.8580	260336.6092	260334.3604	260332.1116	260329.8628	260327.6140	260325.3652	260323.1164	260320.8676	260320.6180	260320.6014
L9	X 53796.9580	53796.9322	53796.6741	53792.8854	53789.1630	53785.4470	53781.7310	53778.0150	53774.2990	53770.5830	53766.8670	53763.1510	53759.4350	53755.7190	53752.0030	53748.2870	53748.2620
	Y 260347.4725	260347.4572	260347.3042	260345.0521	260342.8255	260340.5982	260338.3393	260336.0805	260333.8217	260331.5629	260329.3041	260327.0453	260324.7865	260322.5277	260320.2689	260320.0193	260320.0027
	Z 1655.5226	1655.5230	1655.5275	1655.5916	1655.6509	1655.7065	1655.7584	1655.8174	1655.8707	1655.9182	1655.9599	1655.9893	1656.0150	1656.0369	1656.0552	1656.0563	1656.0564

AERIAL PHOTO BY \_\_\_\_\_ SURVEYED BY \_\_\_\_\_  
 MAPPING BY \_\_\_\_\_ TRACED BY \_\_\_\_\_  
 LOCATION BY \_\_\_\_\_ CHECKED BY \_\_\_\_\_  
 MOPW ROADS DEPT DRG NO \_\_\_\_\_

<b>REVISIONS</b> DESCRIPTION DATE		<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>	<b>CHIEF ENGINEER (ROADS)</b> <b>CHIEF SUPT ENG (DESIGN)</b>	<b>SEN SUPT. ENG (DESIGN)</b> <b>SUPT ENGINEER (DESIGN)</b> <b>PROJECT ENGINEER</b>	<b>SCALES</b> 1:100 1:200	<b>NAIROBI BYPASS</b> NAWASA ROAD JUNCTION BRIDGE SUPERSTRUCTURE (C)	0 SHEET 5 OF 75
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FRONT VIEW A1 (A2)



SIDE VIEW

B x 1925 = 15400

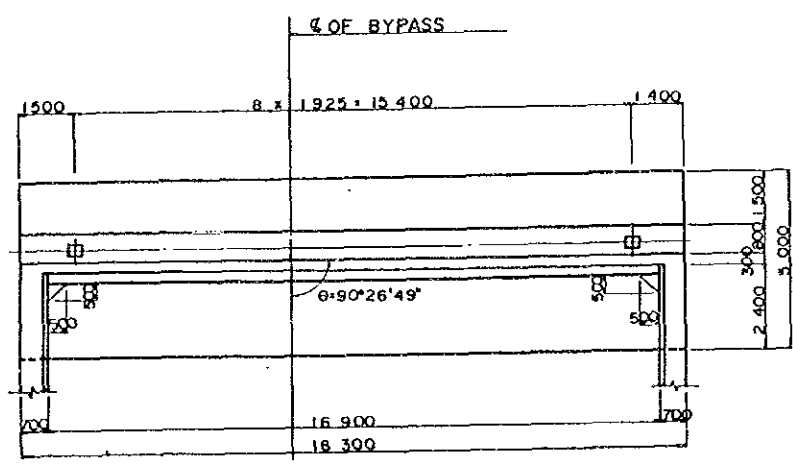
Height	Girder No	G1	G2	G3	G4	G5	G6	G7	G8	G9
Road face		1655.877	1655.826	1655.776	1655.765	1655.765	1655.714	1655.662	1655.611	1655.560
Structure	Pavement	60								60
	Girder	1300								1300
	Shoe	65								65
	Mortar	38	38	38	35	35	35	35	35	35
Total		1463	1463	1463	1460	1460	1460	1460	1460	1460
Pedestal face		1654.414	1654.363	1654.313	1654.305	1654.305	1654.254	1654.202	1654.151	1654.100

A1-ABUTMENT (Mov)

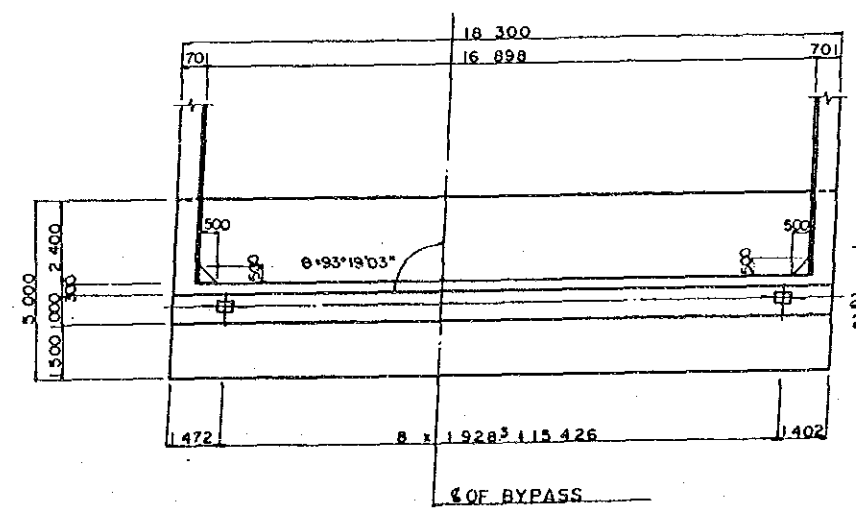
B x 1928 = 15426

Height	Girder No	G1	G2	G3	G4	G5	G6	G7	G8	G9
Road face		1656.537	1656.468	1656.398	1656.386	1656.386	1656.316	1656.247	1656.177	1656.107
Structure	Pavement	60								60
	Girder	1300								1300
	Shoe	65								65
	Mortar	38	38	38	35	35	35	35	35	35
Total		1463	1463	1463	1460	1460	1460	1460	1460	1460
Pedestal face		1655.074	1655.005	1654.935	1654.926	1654.926	1654.856	1654.787	1654.717	1654.647

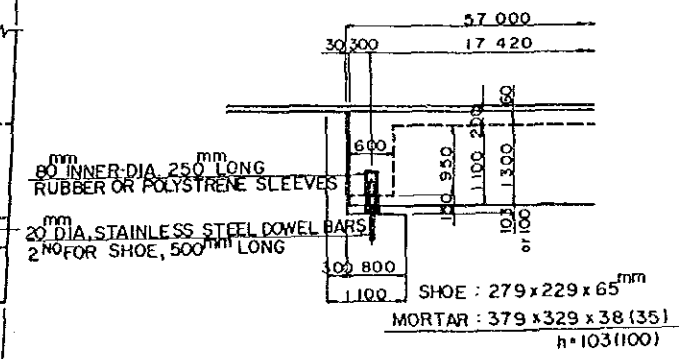
A2-ABUTMENT (Mov)



PLAN - A1 ABUTMENT



PLAN - A2 ABUTMENT



- NOTES:
1. JOINT FILLER SHOULD BE 30mm THICK PLEX CELL OR SIMILAR APPROVED LOW COMPRESSION MATERIAL.
  2. JOINT SEALANT SHOULD BE THIOFLEX 800 OR SIMILAR APPROVED POLYSULPHIDE.

ABUTMENT (Mov)

AERIAL PHOTO BY \_\_\_\_\_  
 SURVEYED BY \_\_\_\_\_  
 MAPPING BY \_\_\_\_\_  
 LOCATION BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

MOPW ROADS DEPT DRG NO.

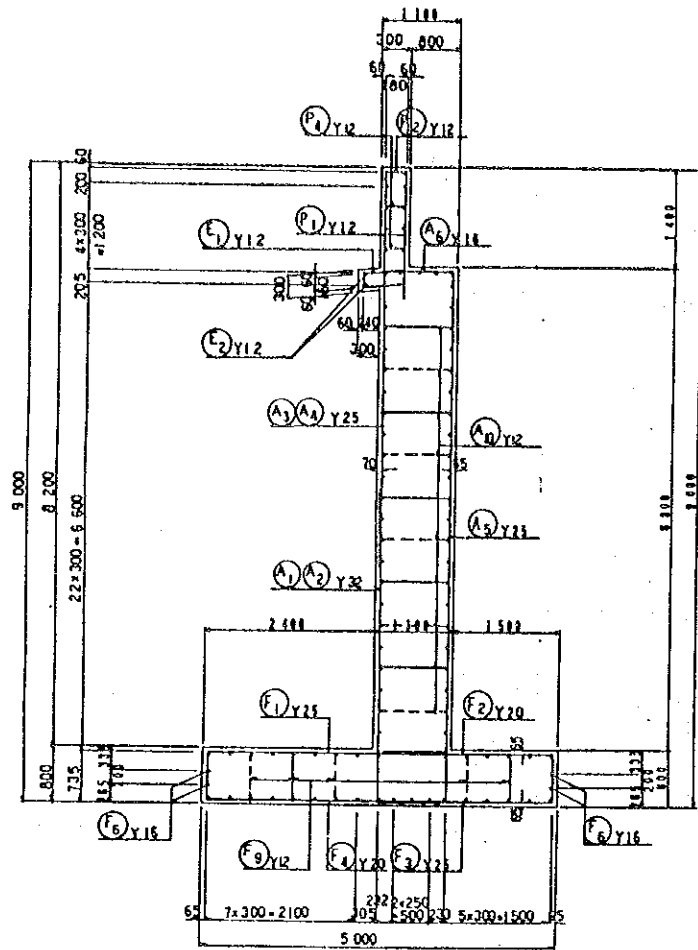
REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS)
	CHIEF SUPT ENG (DESIGN)

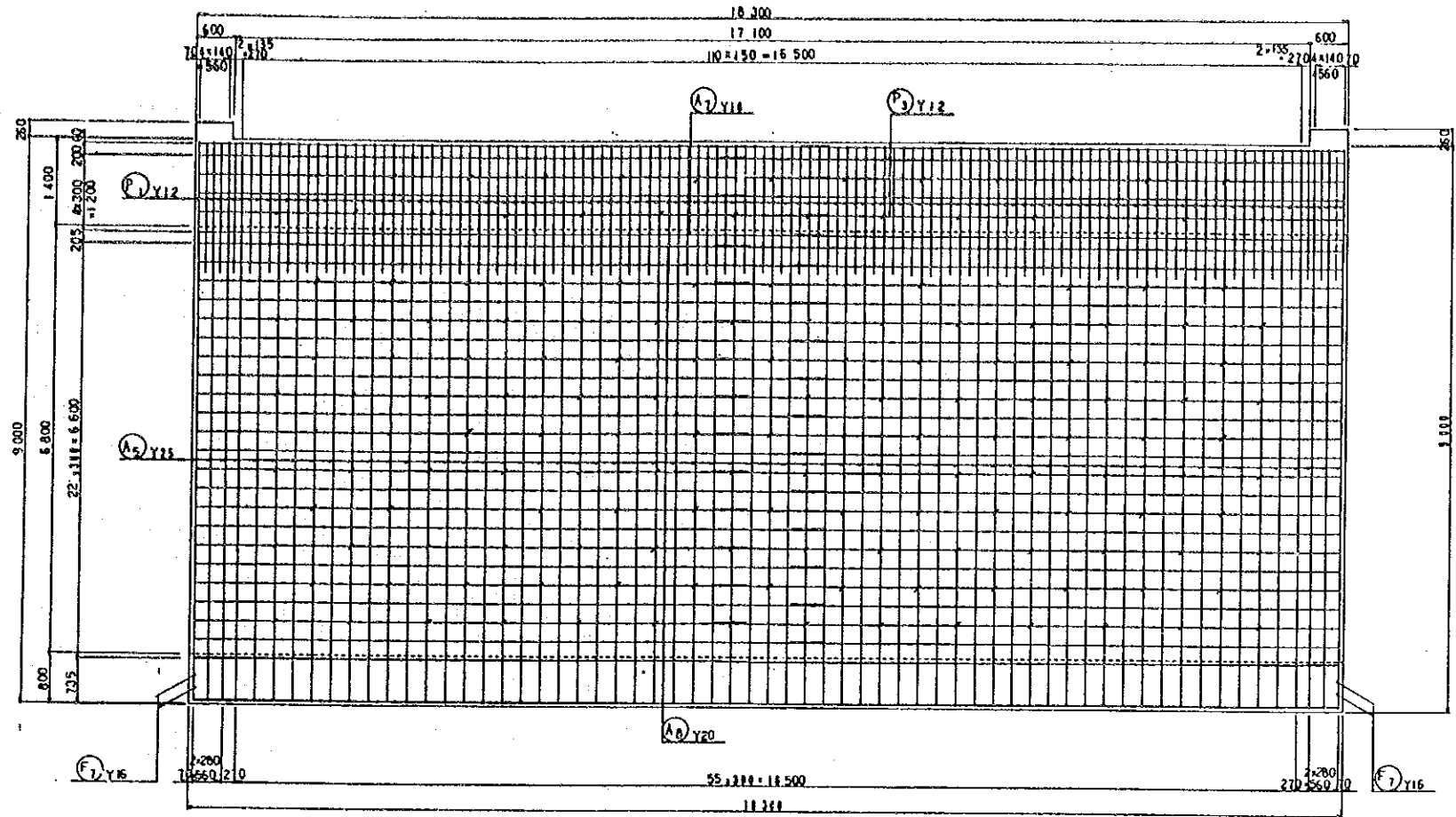
SEN SUPT ENG (DESIGN)	
SUPT ENGINEER (DESIGN)	
PROJECT ENGINEER	

SCALES
1:50, 1:100

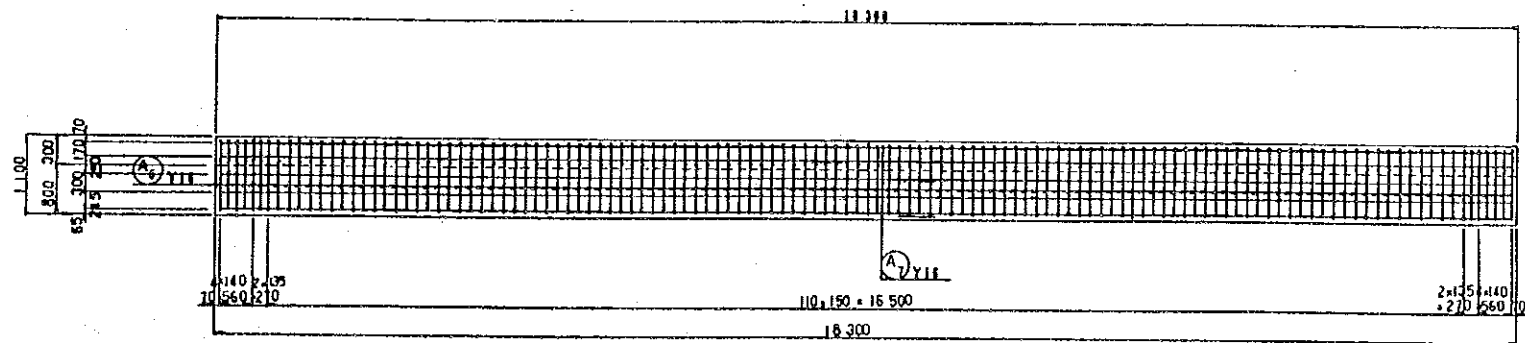
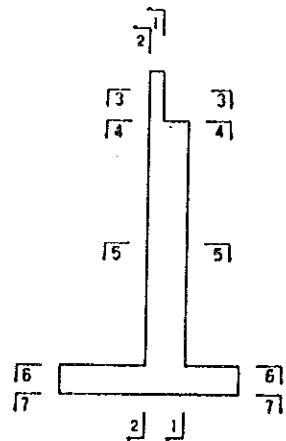
NAIROBI BYPASS MORASA ROAD JUNCTION BRIDGE ABUTMENTS (A1, A2) (1)
-------------------------------------------------------------------------



SECTION



1-1



3-3

4-4

AERIAL PHOTO BY  
MAPPING BY  
LOCATION BY

M.O.P.W. ROADS DEPT. DRG. NO.

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL  
COOPERATION AGENCY

CHIEF ENGINEER (ROADS)  
CHIEF SUPT. ENG. (DESIGN)

SEN. SUPT. ENG. (DESIGN)  
SUPT. ENGINEER (DESIGN)  
PROJECT ENGINEER

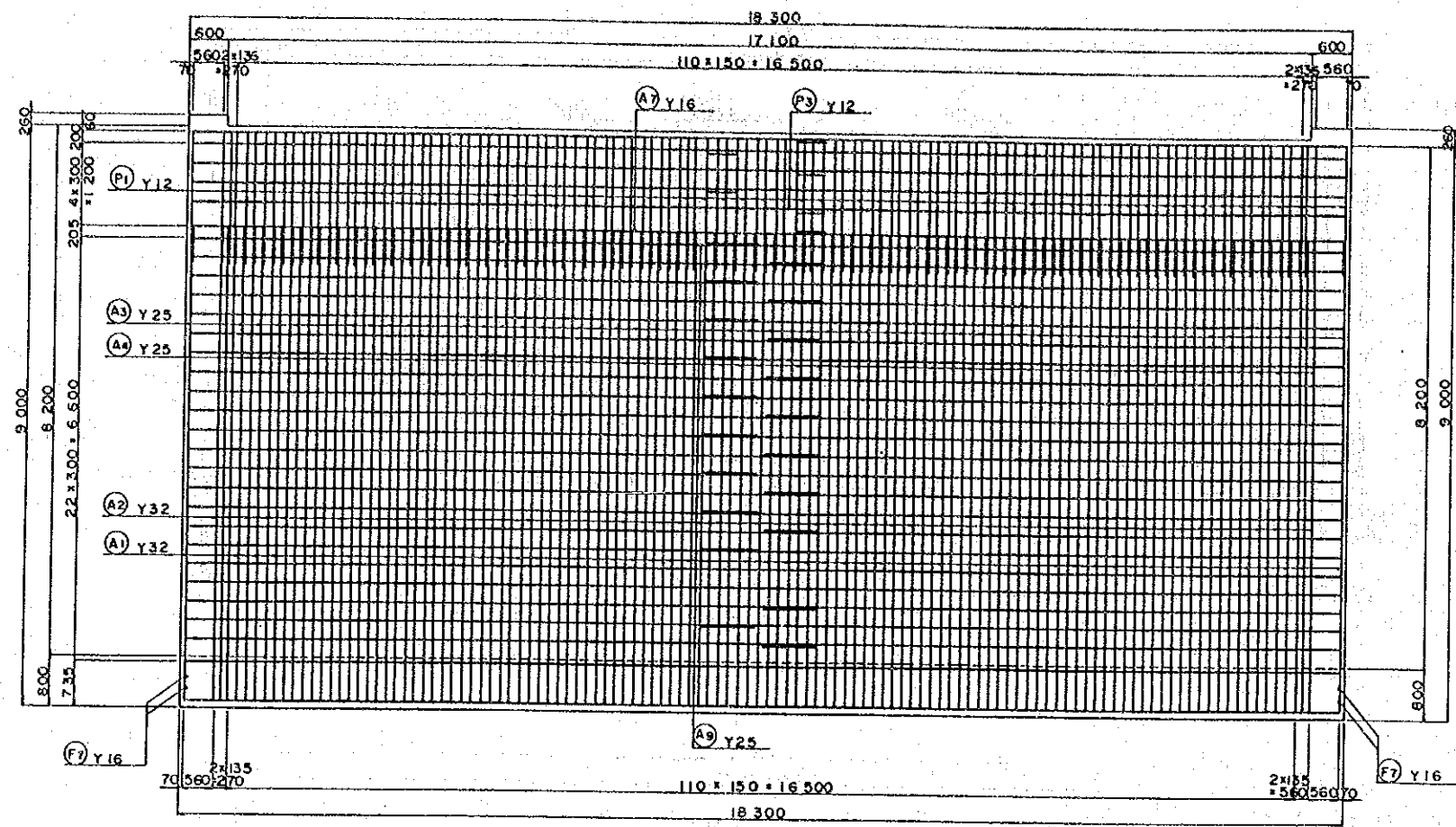
SCALES  
1:50

NAIROBI BYPASS  
MOMBASA ROAD JUNCTION BRIDGE  
ARITHEMES (A1, A2) (2)

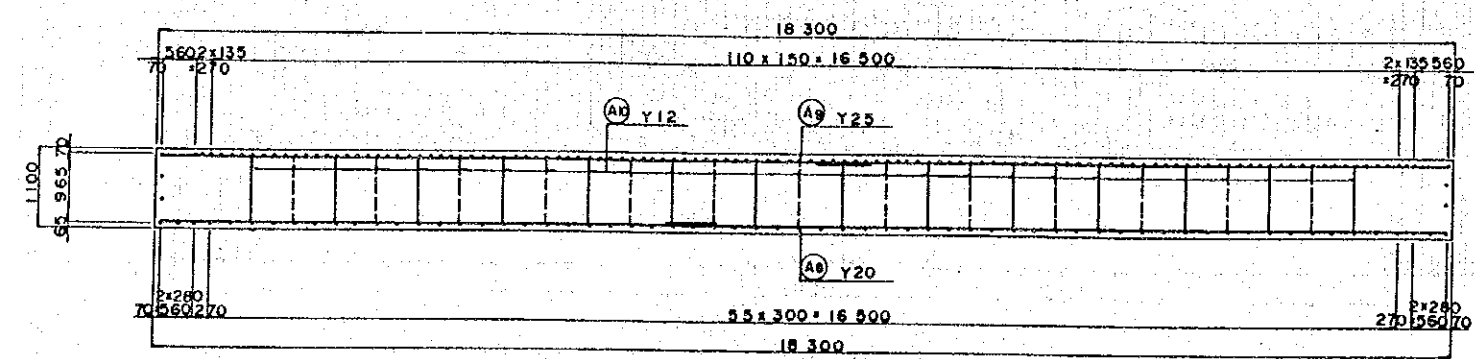
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SHEET 7 OF 75

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 LOCATION BY \_\_\_\_\_ CHECKED BY \_\_\_\_\_

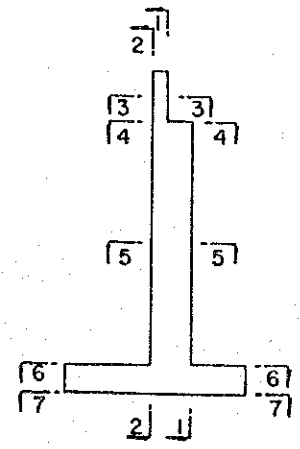
MOPW ROADS DEPT DRG NO



2—2



5—5



REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

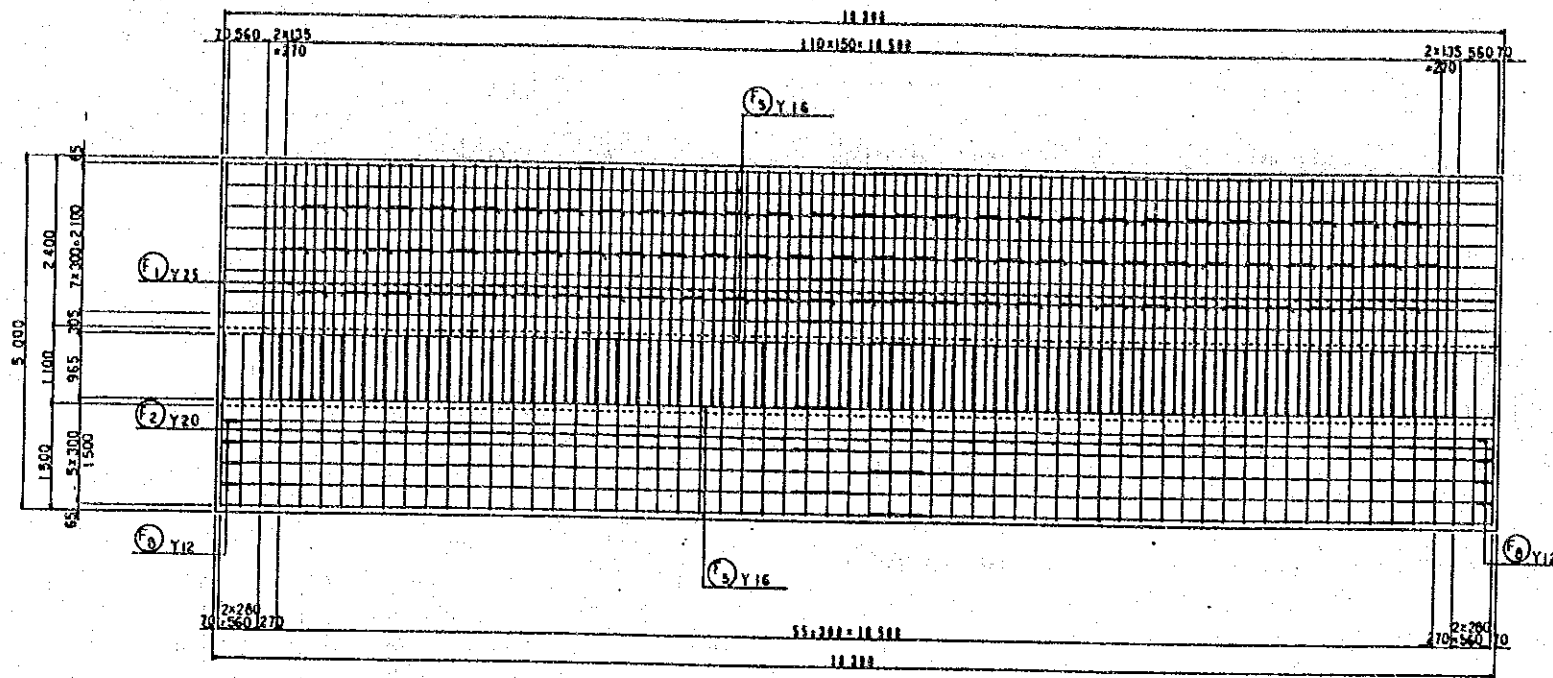
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 CHIEF SUPT ENG (DESIGN)

SEN SUPT ENG (DESIGN)  
 SUPT ENGINEER (DESIGN)  
 PROJECT ENGINEER

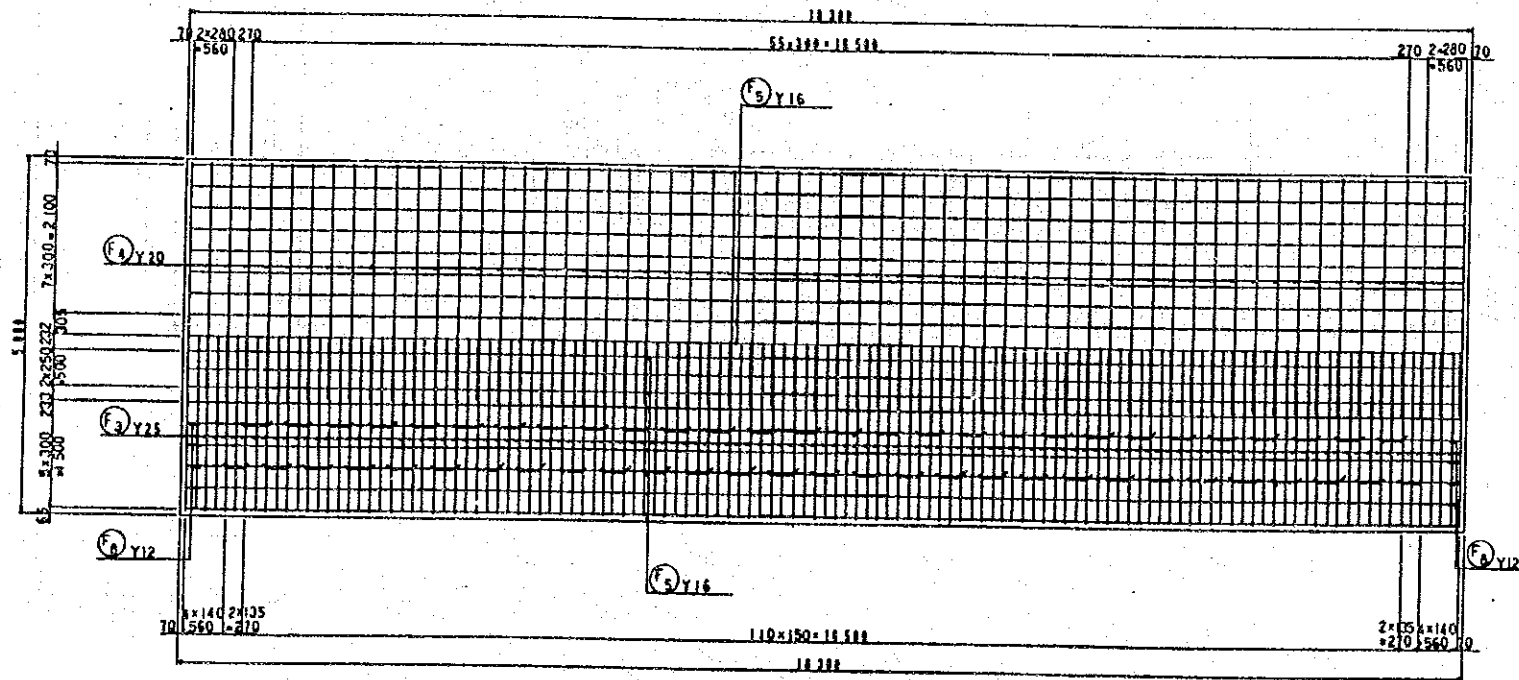
SCALES  
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NAIROBI BYPASS  
 MORASA ROAD JUNCTION BRIDGE  
 ARCHITECTS (A1,423 (3))

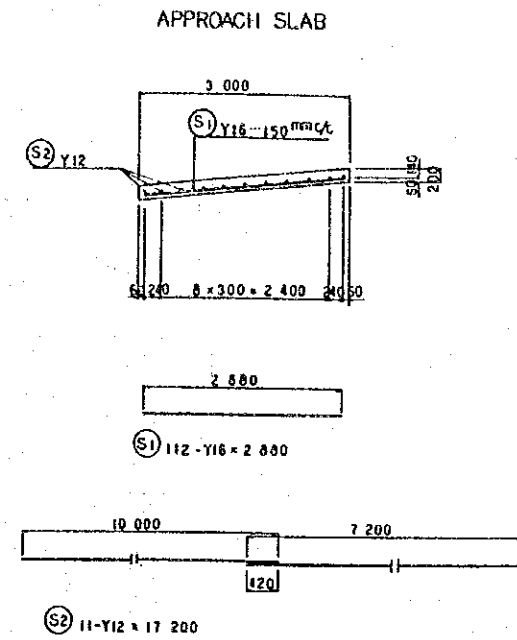
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 SHEET 8 OF 75



6 — 6



7 — 7



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MAPPING BY	TRACED BY
LOCATION BY	CHECKED BY

M.O.P.W. ROADS DEPT DRG NO.

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

CHIEF ENGINEER (ROADS)  
CHIEF SUPT ENG (DESIGN)

SEN SUPT ENG (DESIGN)  
SUPT ENGINEER (DESIGN)  
PROJECT ENGINEER

SCALES  
1:50

NAIROBI BYPASS  
MOMBASA ROAD JUNCTION BRIDGE  
ABUTMENTS (A1, A2) (4)

0  
SHEET 9 OF 75



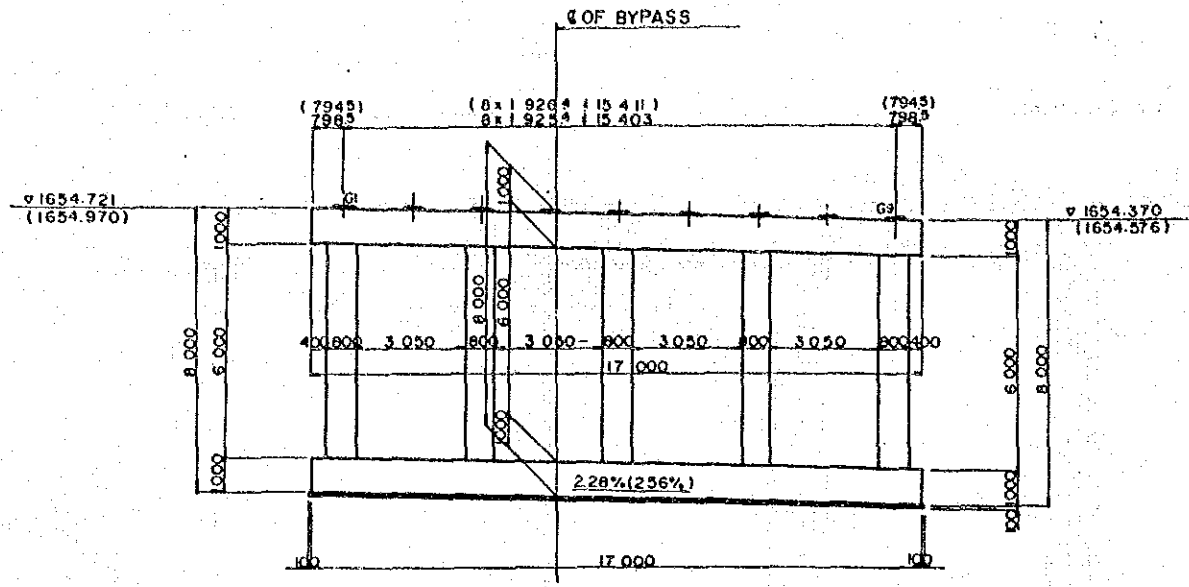




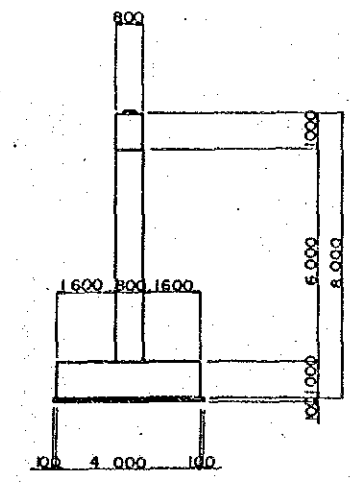


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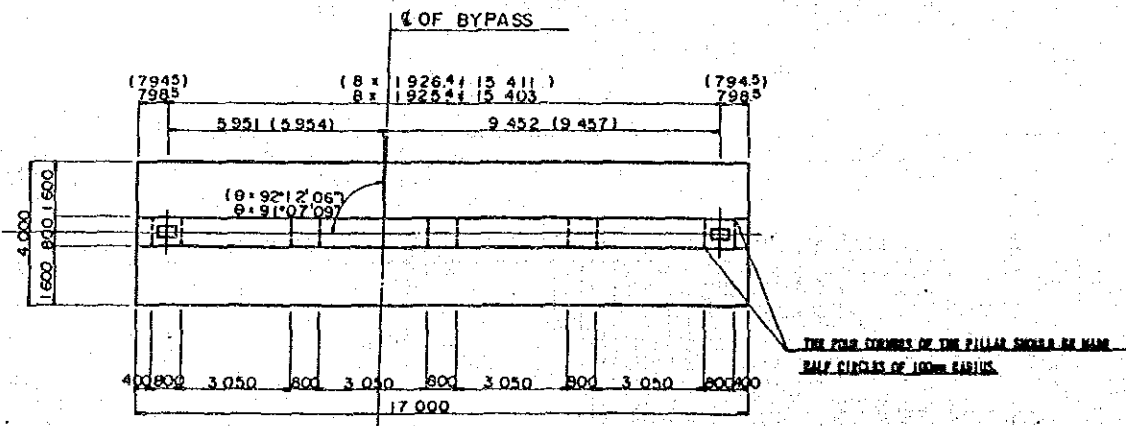
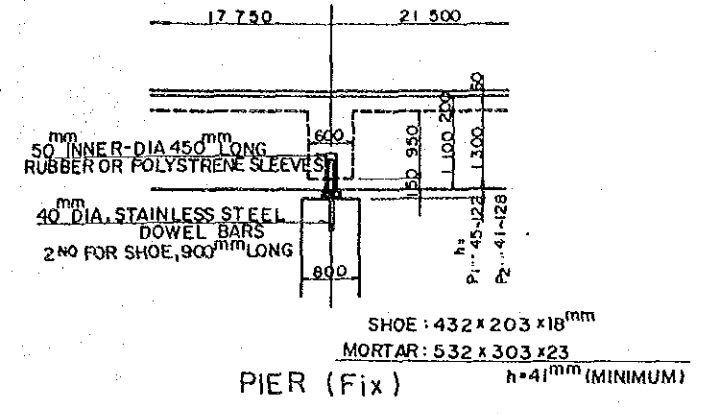
M.O.P.W. ROADS DEPT. DRG. NO.



FRONT VIEW



SIDE VIEW



PLAN - P1 (P2) - PIER

Girder No	G1	G2	G3	G4	G5	G6	G7	G8	G9
Height									
Road face	1656.151	1656.094	1656.038	1656.027	1656.027	1655.970	1655.914	1655.857	1655.800
Structure	Pavement	60							60
	Girder	1300							1300
	Shoe	18							18
	Mortar	52	39	27	60	104	90	78	65
Total	1430	1417	1405	1438	1482	1468	1456	1443	1430
Pedestal face	1654.721	1654.677	1654.633	1654.589	1654.545	1654.502	1654.458	1654.414	1654.370

P1 - PIER (Fix)

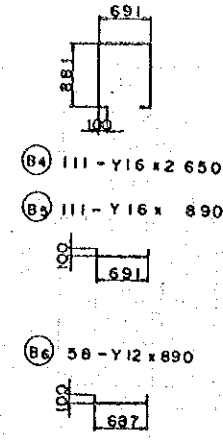
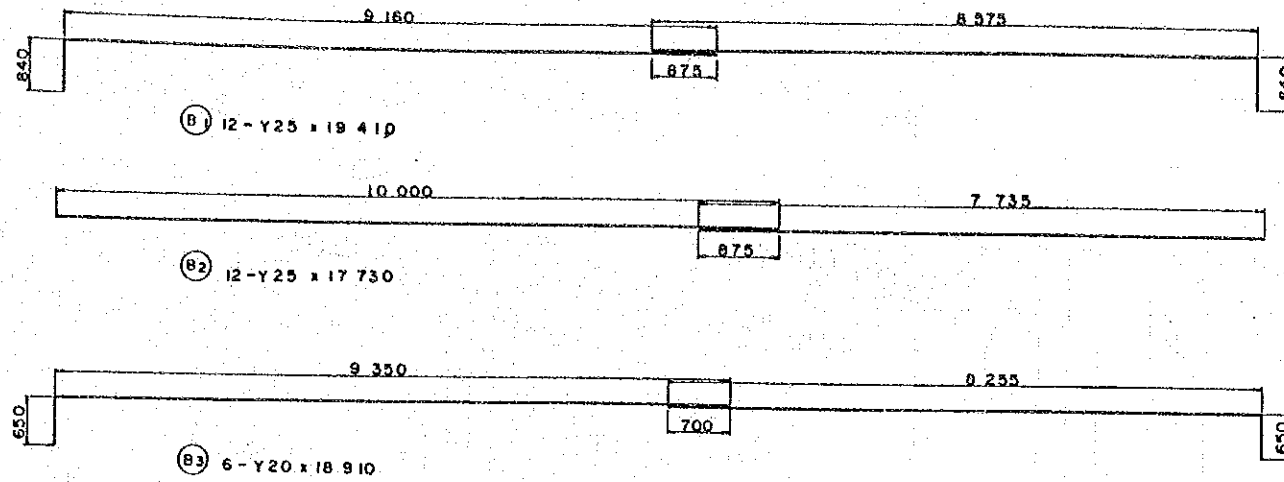
Girder No	G1	G2	G3	G4	G5	G6	G7	G8	G9
Height									
Road face	1656.400	1656.336	1656.273	1656.261	1656.261	1656.197	1656.133	1656.070	1656.006
Structure	Pavement	60							60
	Girder	1300							1300
	Shoe	18							18
	Mortar	52	37	23	60	110	95	80	67
Total	1430	1419	1401	1438	1488	1473	1458	1443	1430
Pedestal face	1654.970	1654.921	1654.872	1654.823	1654.773	1654.724	1654.675	1654.625	1654.576

P2 - PIER (Fix)

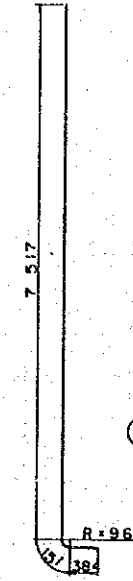
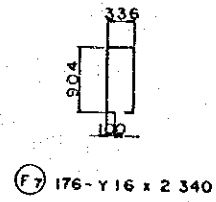
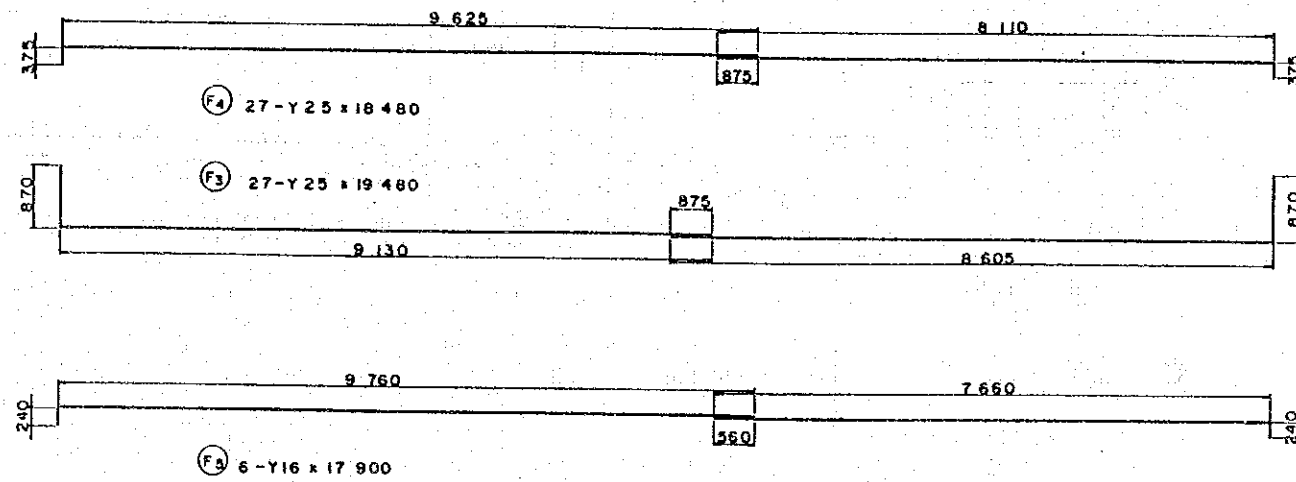
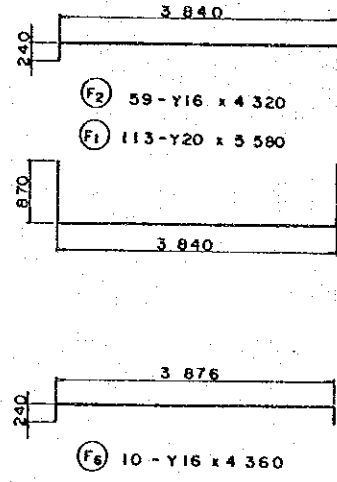
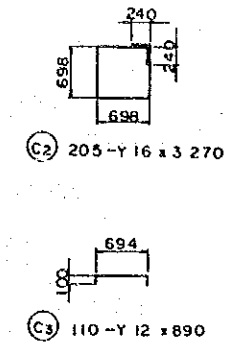


AERIAL PHOTO BY \_\_\_\_\_ SURVEYED BY \_\_\_\_\_  
 MAPPING BY \_\_\_\_\_ TRACED BY \_\_\_\_\_  
 LOCATION BY \_\_\_\_\_ CHECKED BY \_\_\_\_\_

MOPW ROADS DEPT DRG NO.



C 140-Y32 x 8 050



REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

CHIEF ENGINEER (ROADS)  
 CHIEF SUPT ENG (DESIGN)

SEN SUPT ENG (DESIGN)  
 SUPT ENGINEER (DESIGN)  
 PROJECT ENGINEER

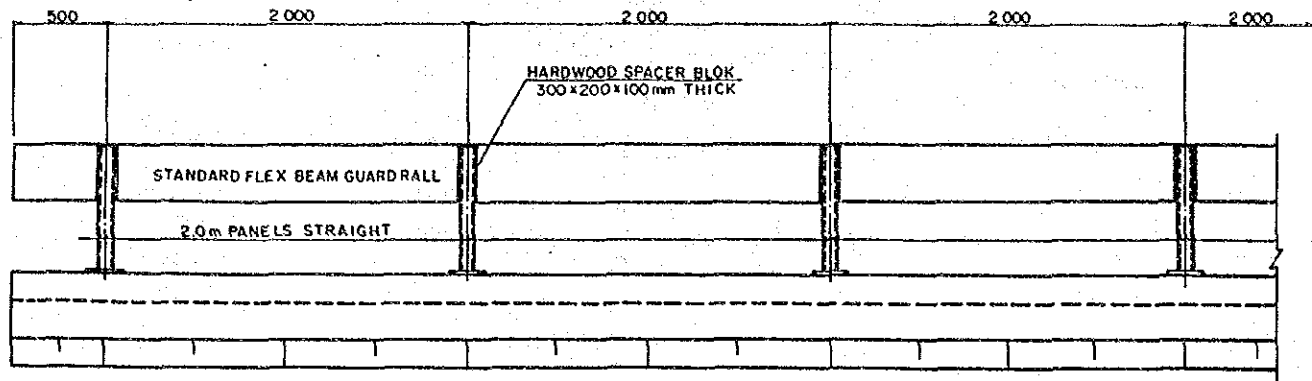
SCALES  
 1:50

NAIROBI BYPASS  
 NOMBASA ROAD JUNCTION BRIDGE  
 PIER (71,72) (1)

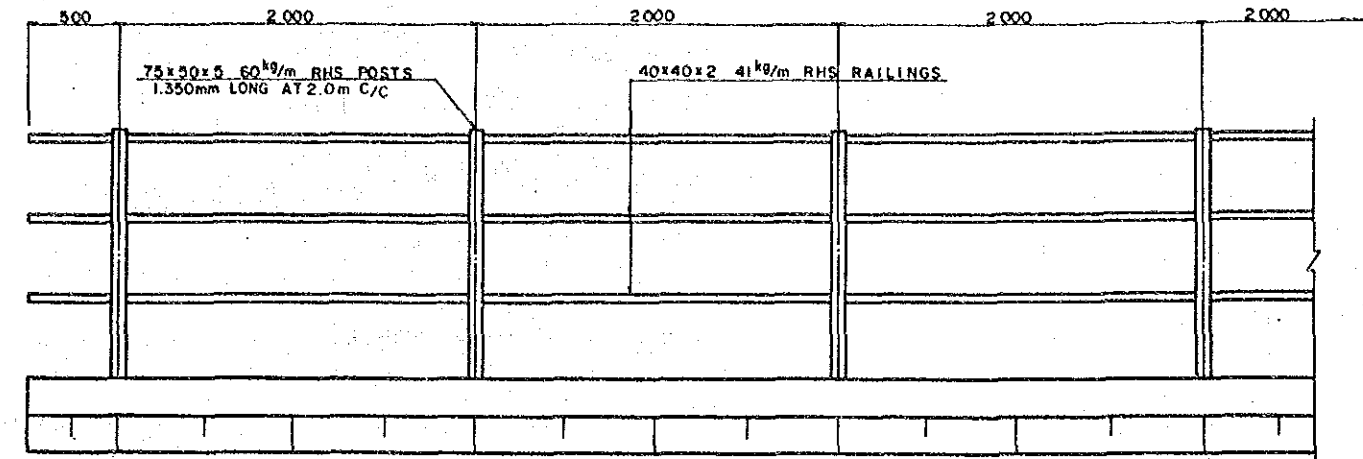




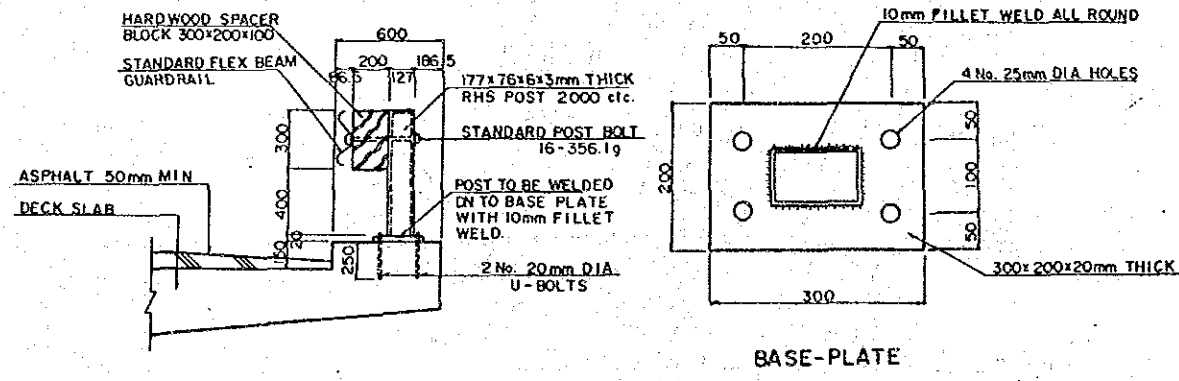




PROFILE SCALE 1:20

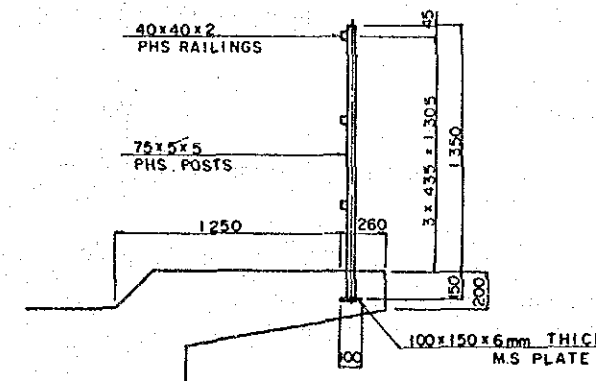


PROFILE SCALE 1:20



CROSS SECTION SCALE 1:20

VEHICLE BRIDGE PARAPET



CROSS SECTION SCALE 1:20

RAILWAY BRIDGE PRAPET

SURVEYED BY  
 TRACED BY  
 CHECKED BY  
 AERIAL PHOTO BY  
 MAPPING BY  
 LOCATION BY

M.O.P.W. ROADS DEPT DRG NO

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

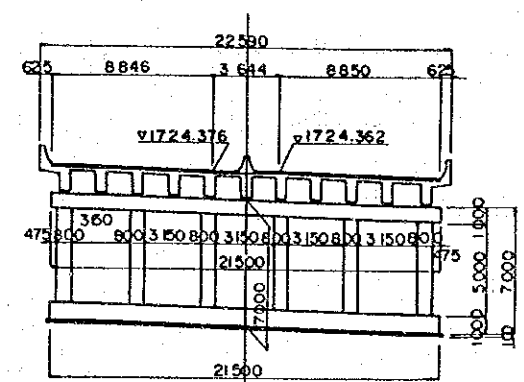
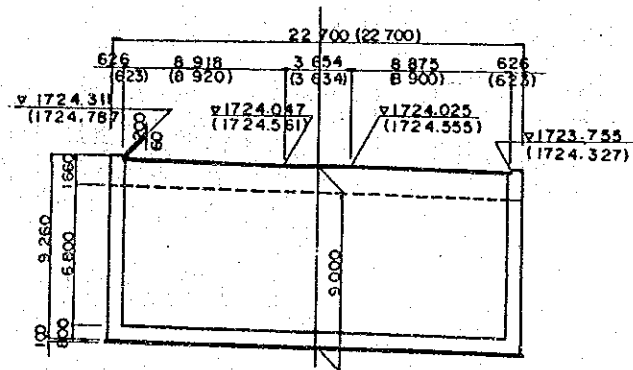
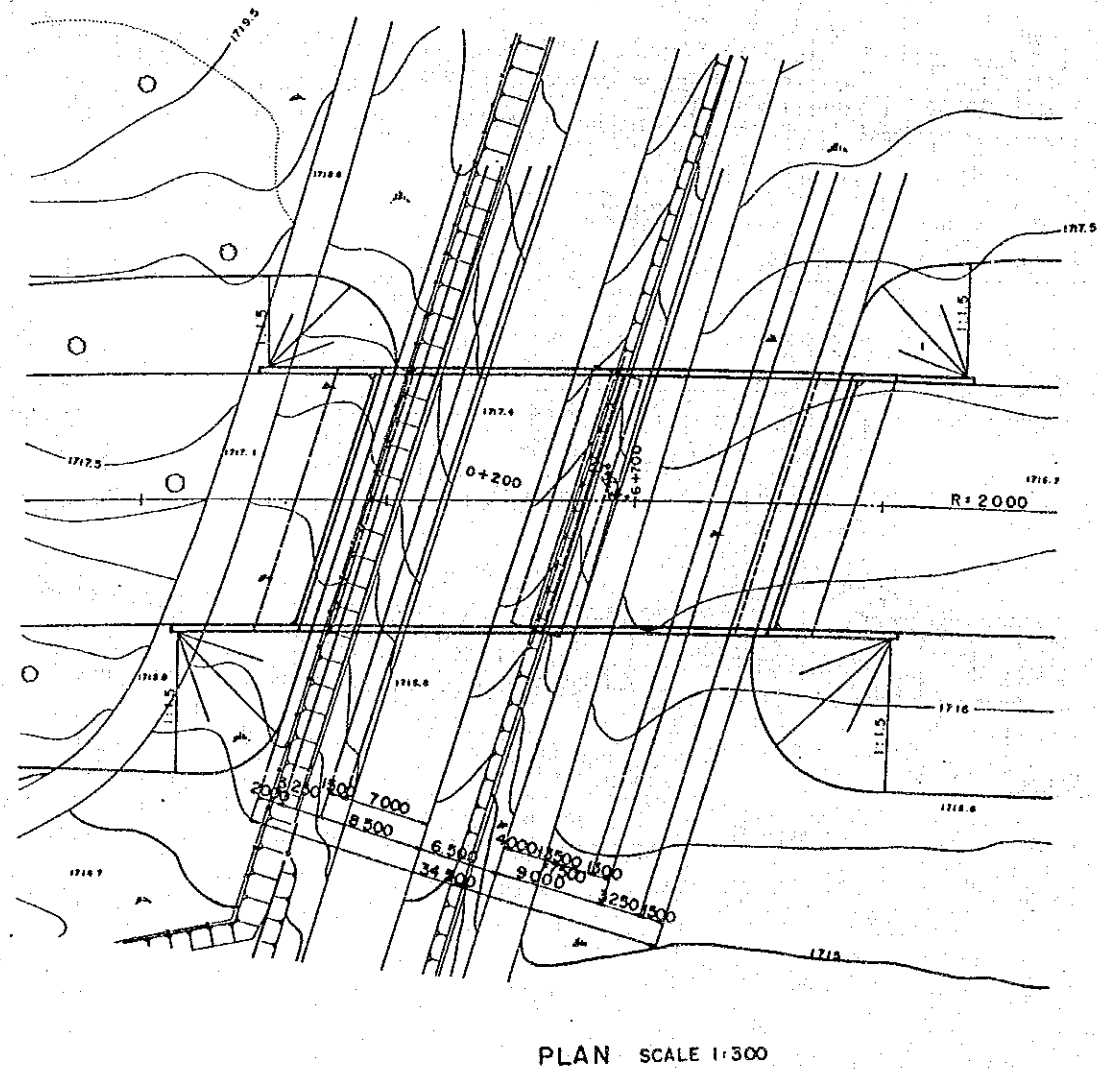
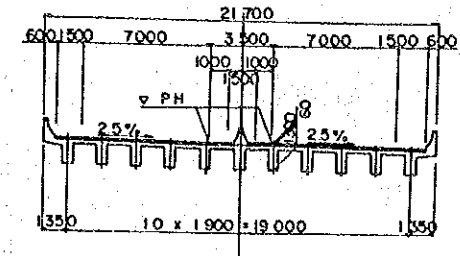
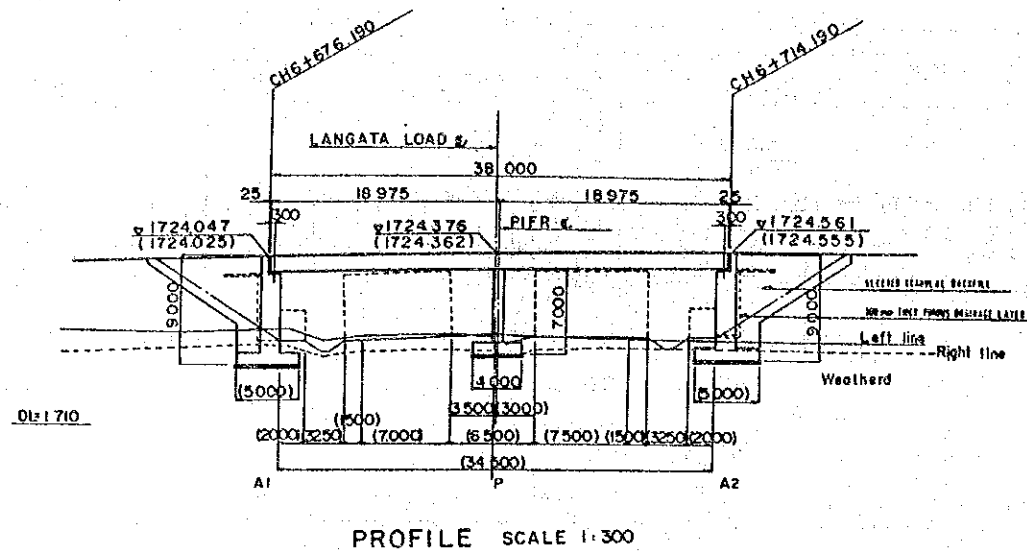
CHIEF ENGINEER (ROADS)  
 CHIEF SUPT ENG (DESIGN)

SEN SUPT. ENG (DESIGN)  
 SUPT ENGINEER (DESIGN)  
 PROJECT ENGINEER

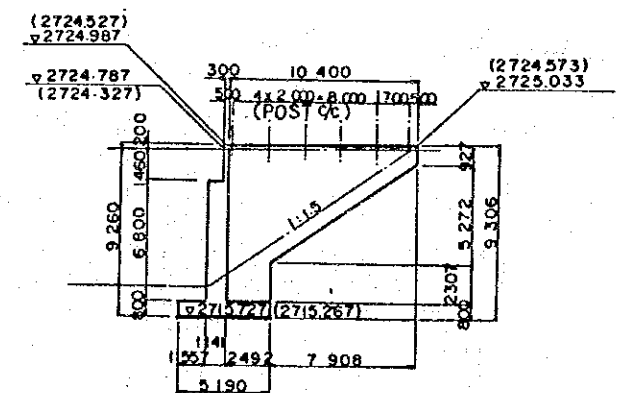
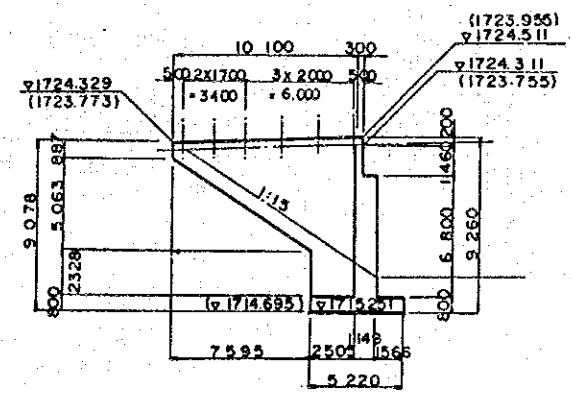
SCALES  
 1:20

NAIROBI BYPASS  
 HOWASSA ROAD JUNCTION BRIDGE  
 PARAPET

0  
 SHEET 18 OF 75



SUB STRUCTURE SCALE 1:200



UHURU MONUMENT JUNCTION BRIDGE

AERIAL PHOTO BY \_\_\_\_\_ SURVEYED BY \_\_\_\_\_  
 MAPPING BY \_\_\_\_\_ TRACED BY \_\_\_\_\_  
 LOCATION BY \_\_\_\_\_ CHECKED BY \_\_\_\_\_  
 M.O.P.W. ROADS DEPT. DRG. NO. \_\_\_\_\_

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS)	SEN SUPT. ENG. (DESIGN)
	CHIEF SUPT. ENG. (DESIGN)	SUPT. ENGINEER (DESIGN)
		PROJECT ENGINEER


SCALES
1:200, 1:300

NAIROBI BYPASS
UHURU MONUMENT JUNCTION BRIDGE
GENERAL VIEW