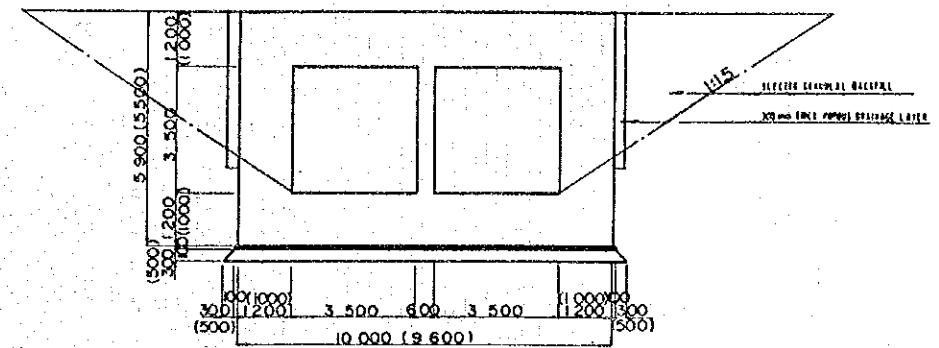
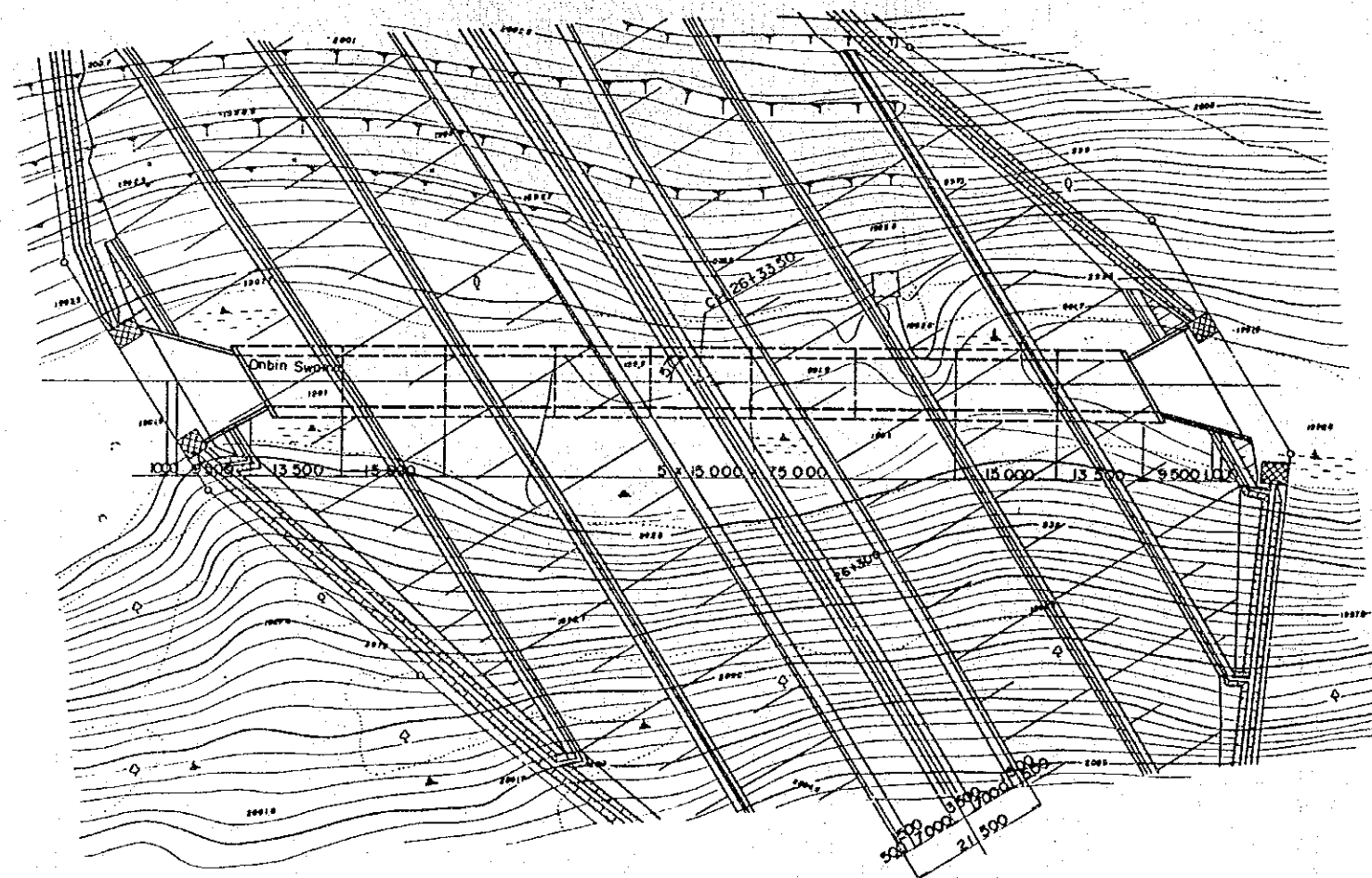


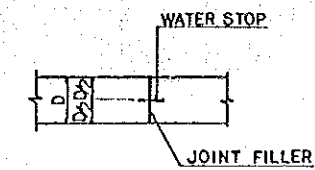
PROFILE SCALE 1:500



CROSS SECTION SCALE 1:100



PLAN SCALE 1:500



DETAIL OF JOINTS

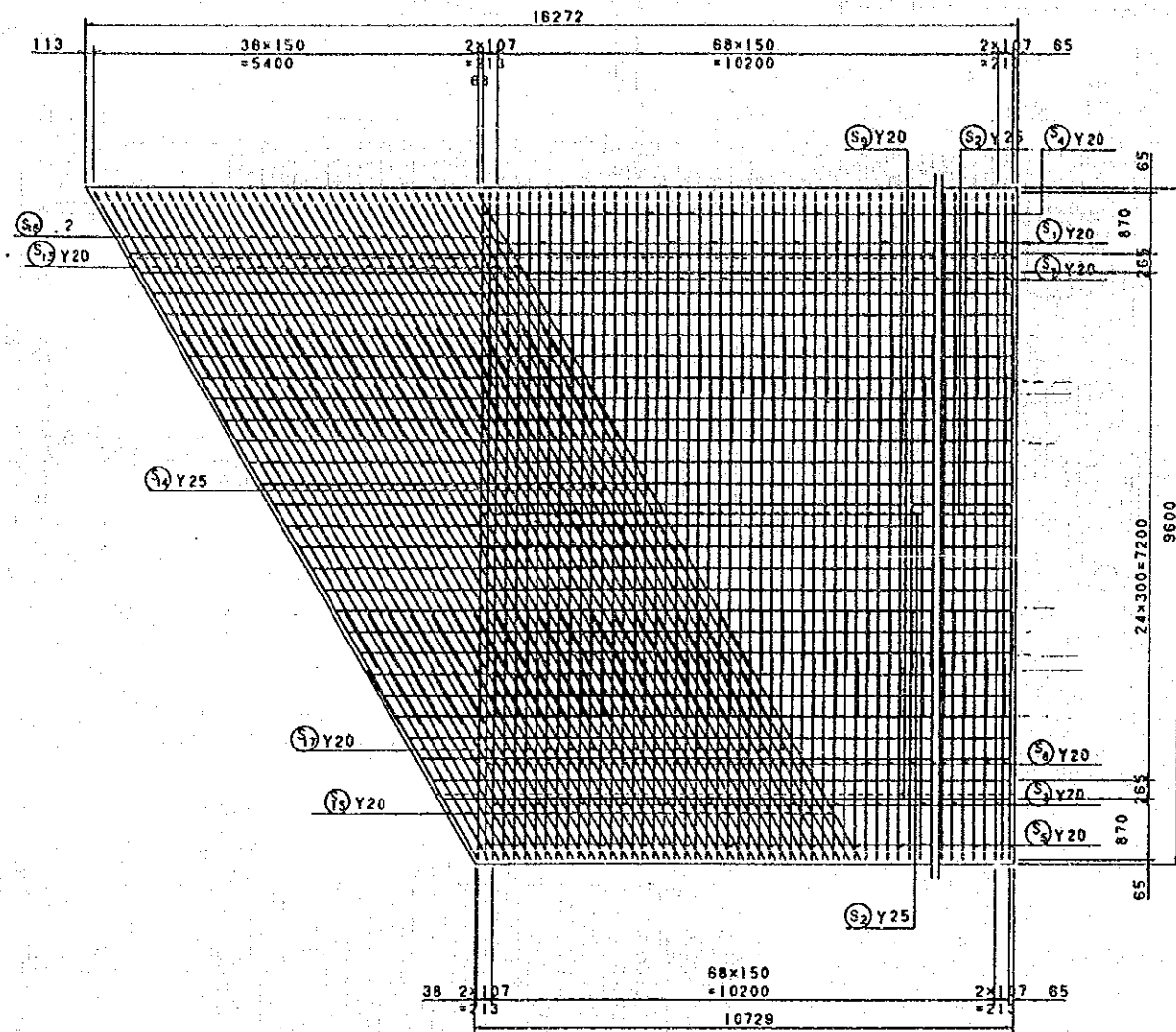
SURVEYED BY
 MAPPING BY
 LOCATION BY
 TRACED BY
 CHECKED BY

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

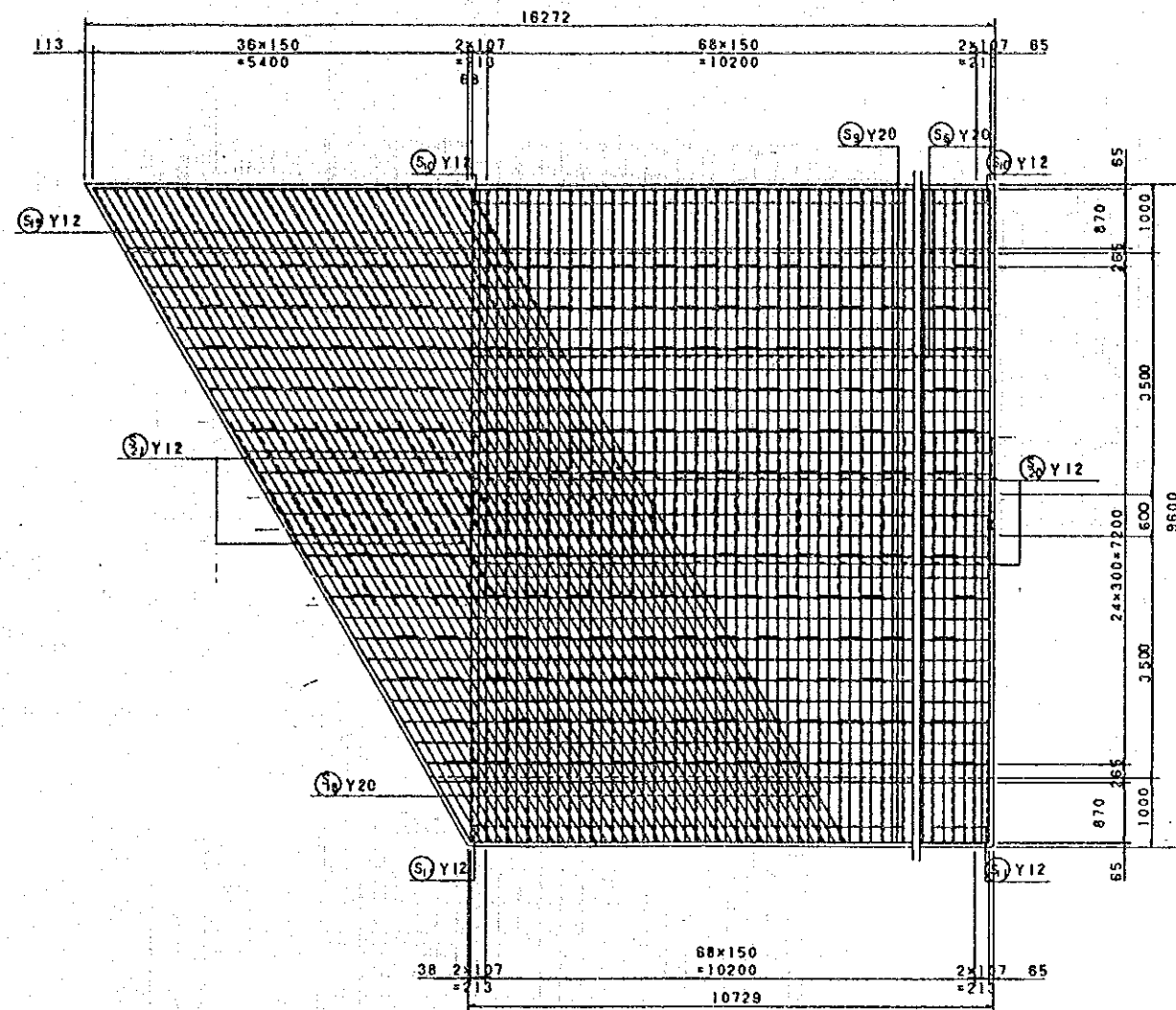
REVISIONS DESCRIPTION DATE		JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS) CHIEF SUPT. ENG. (DESIGN)	SEN SUPT. ENG. (DESIGN) SUPT. ENGINEER (DESIGN) PROJECT ENGINEER	SCALES 1:100, 500	NAIROBI BYPASS WATER BOX CULVERTS - NO. 5 CB 26+336.00 W-3.60 R-3.60 (1)	Q SHEET 144 OF 163

AERIAL PHOTO BY
MAPPING BY
LOCATION BY

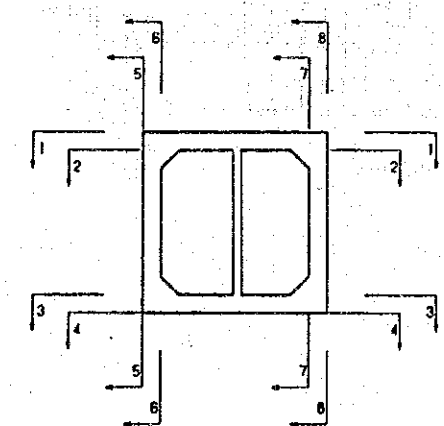
M.O.P.W. ROADS. DEPT DRG NO.



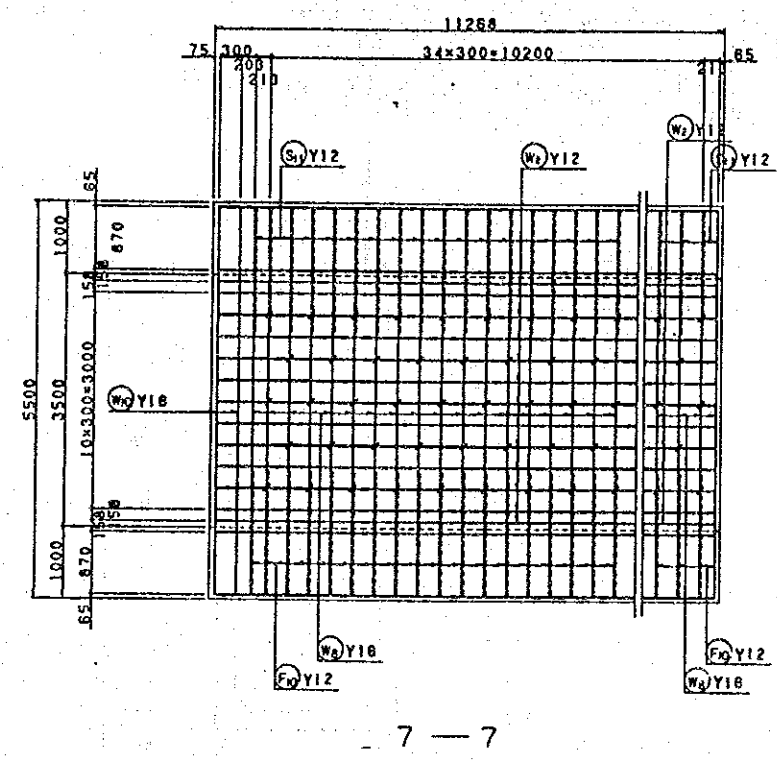
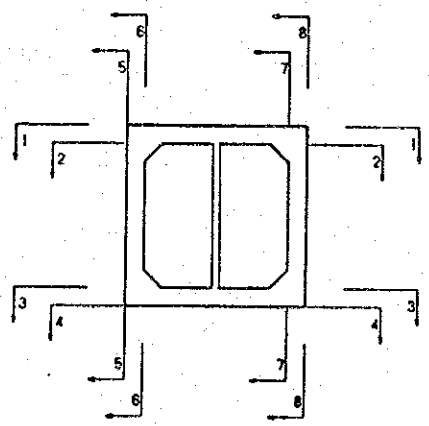
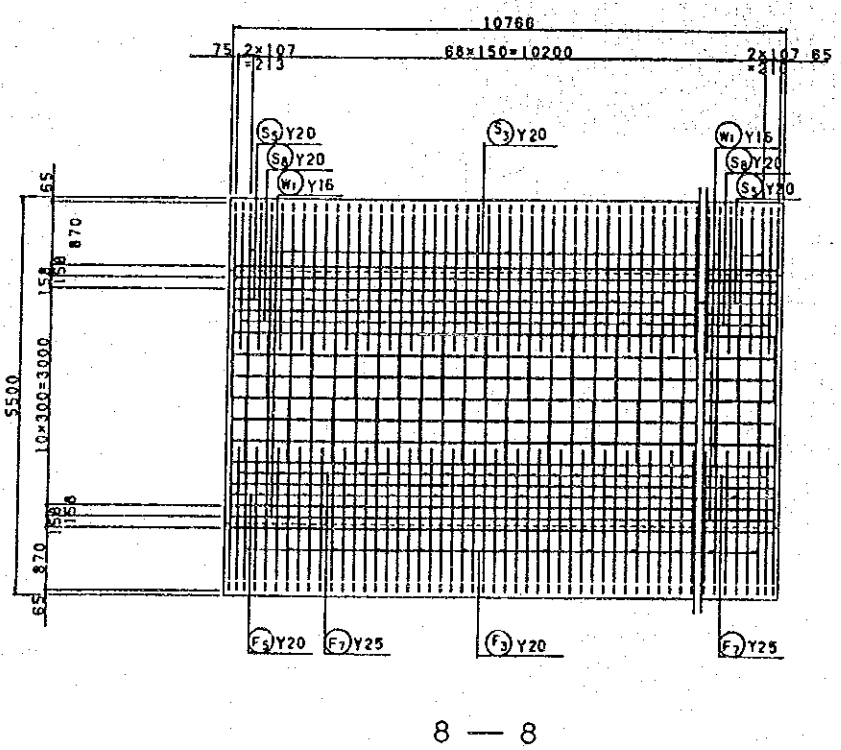
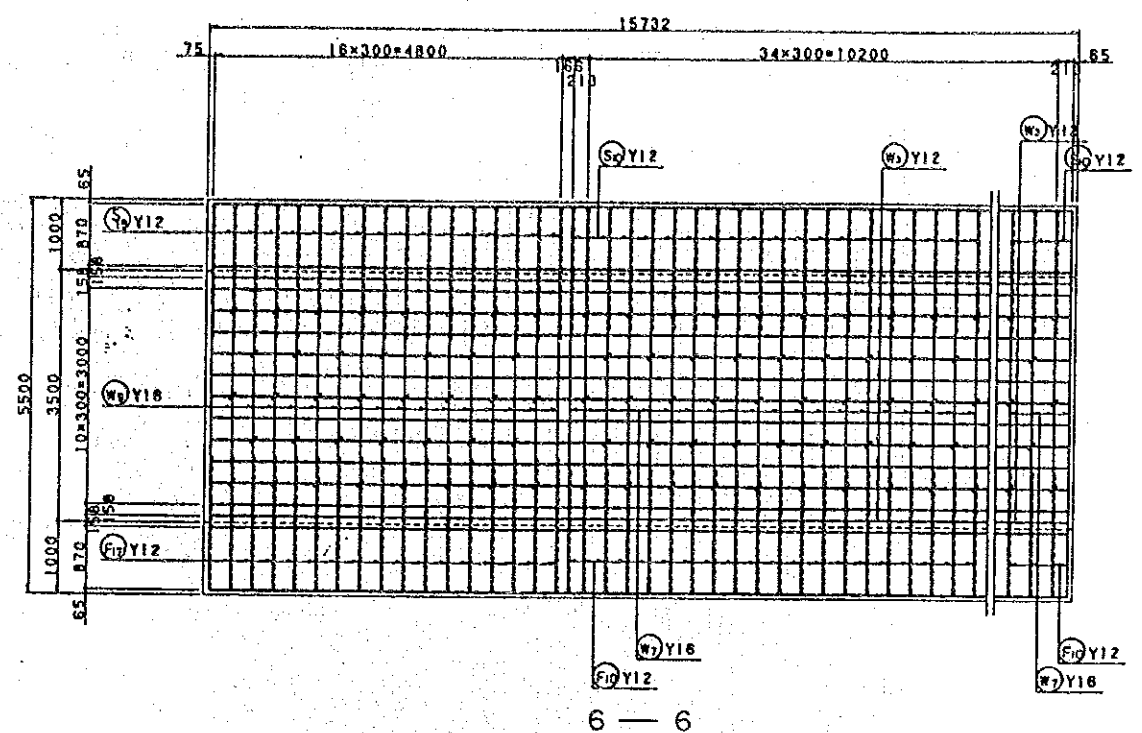
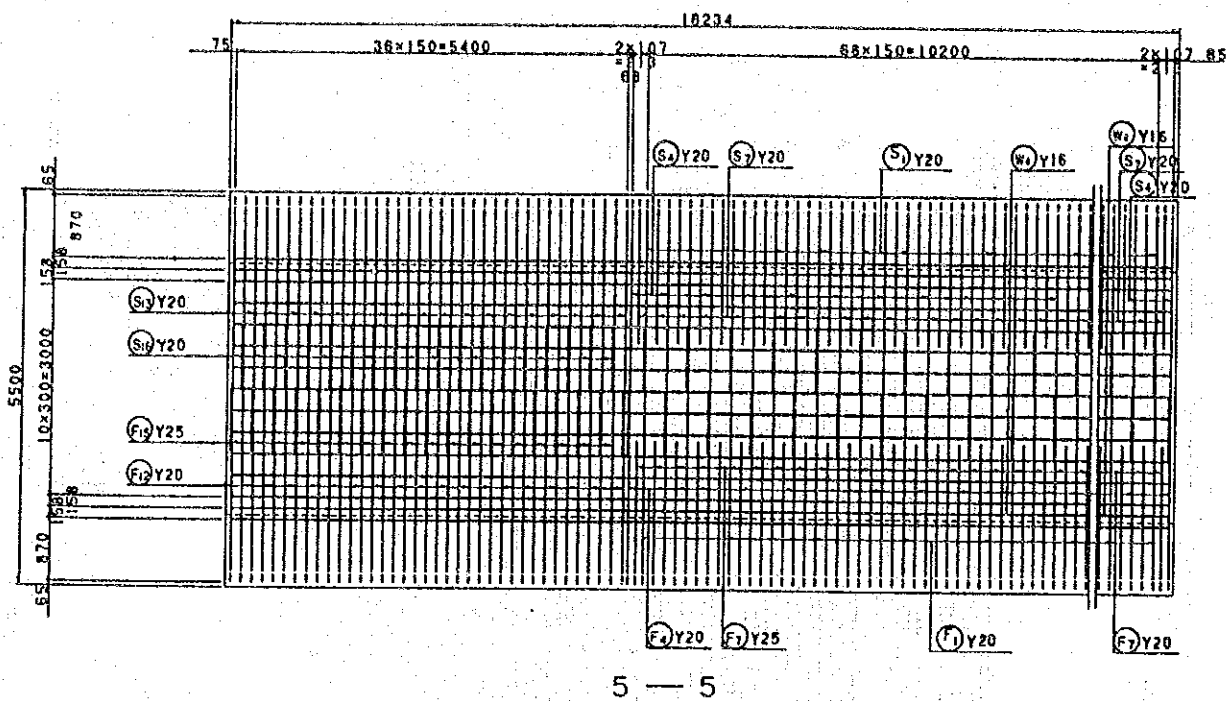
1 — 1



2 — 2



REVISIONS		JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS)	SEN SUPT. ENG (DESIGN)	SCALES	NAIROBI BYPASS	Q
DESCRIPTION	DATE						



AERIAL PHOTO BY	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

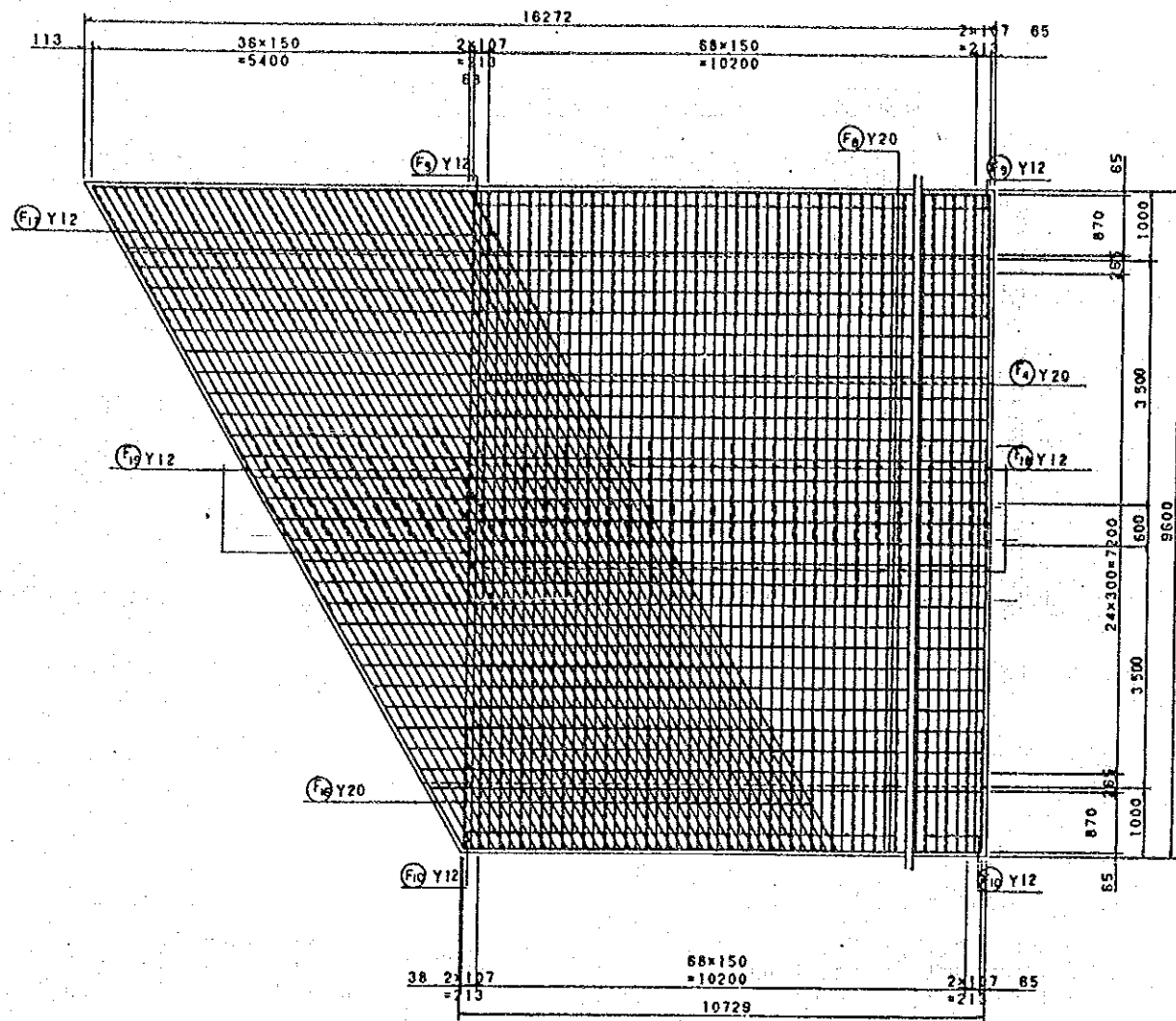
SCALES
1:50

NAIROBI BYPASS
WATER BOX CULVERTS
CR 16+536.00 R+3.40 R+3.60 (3)

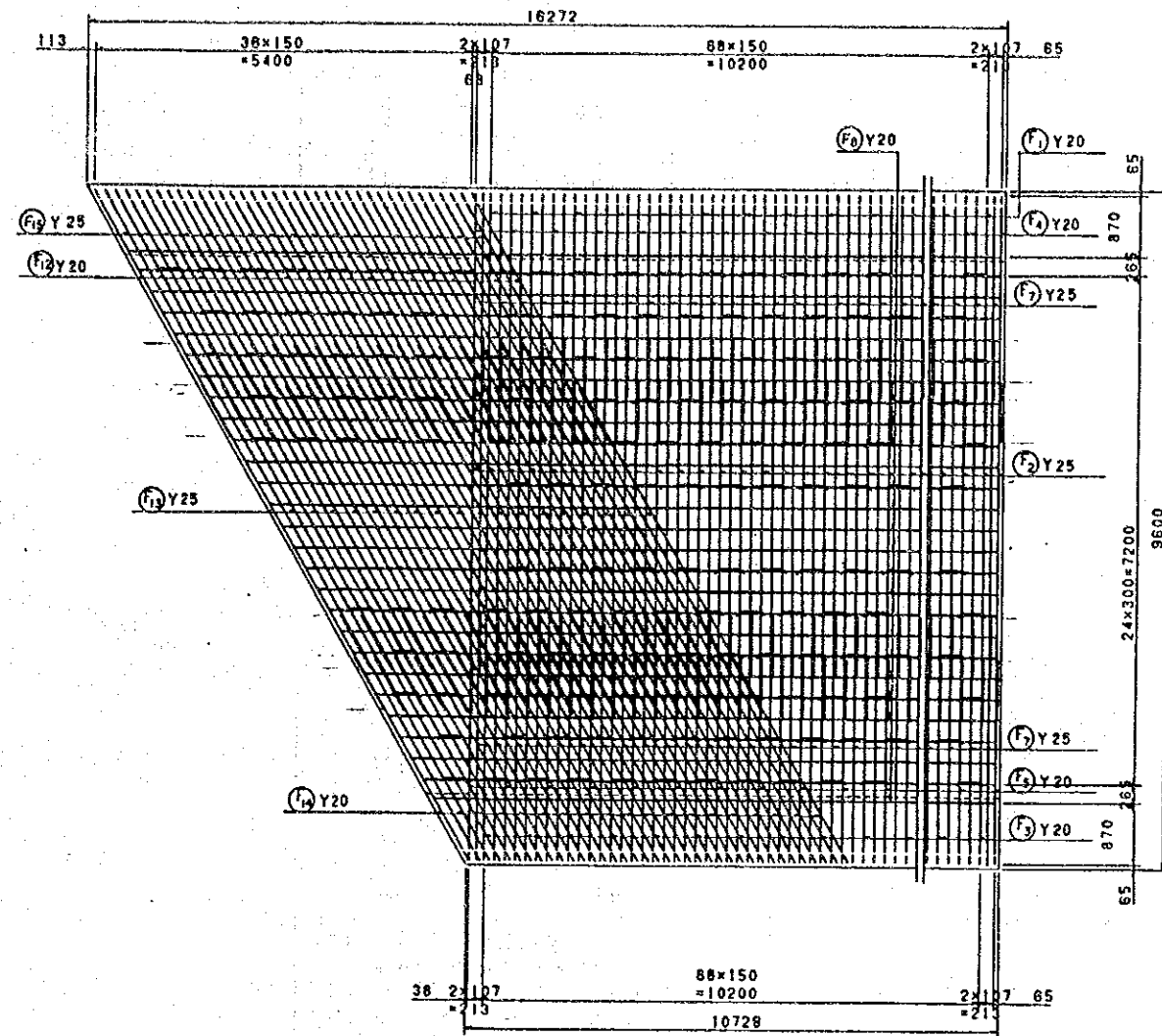
Q
SHEET 146 OF 183

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

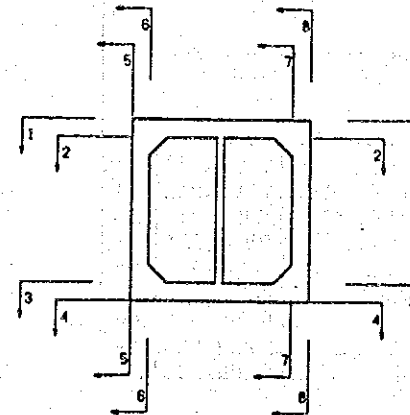
MOPW ROADS DEPT DRG NO.



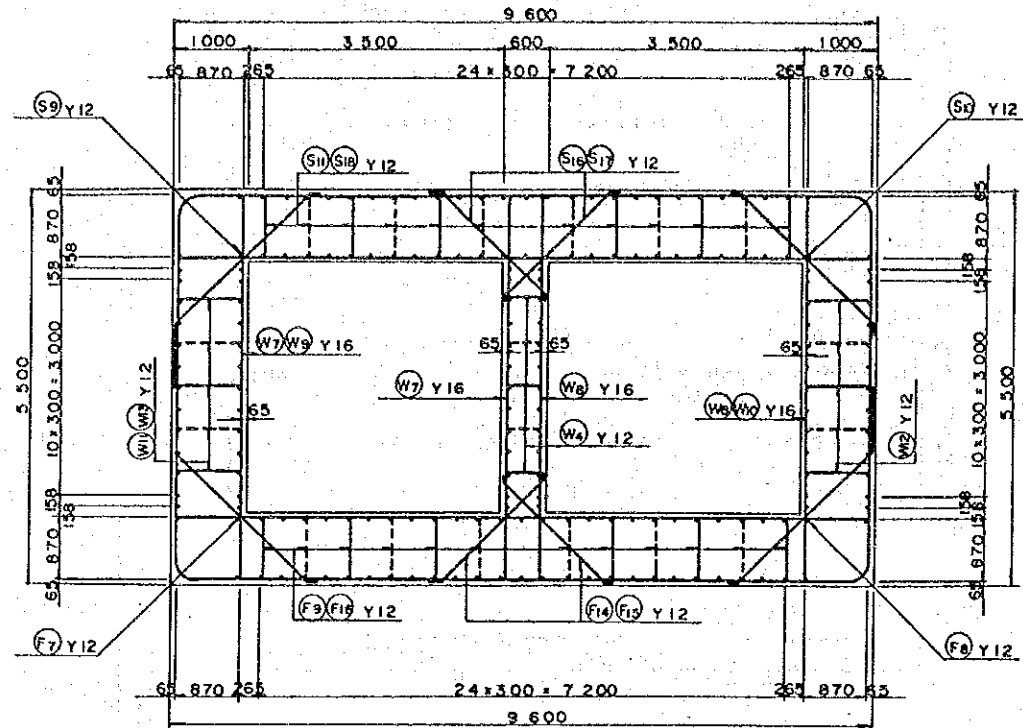
3 — 3



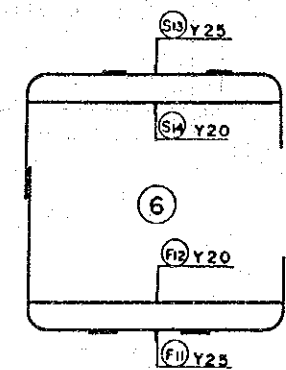
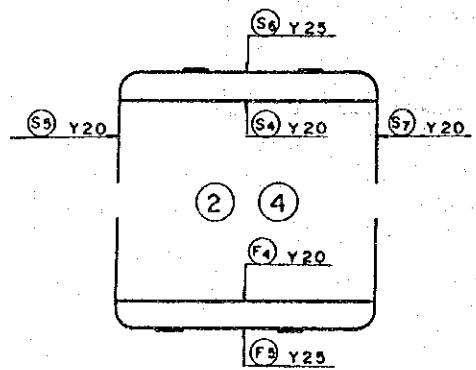
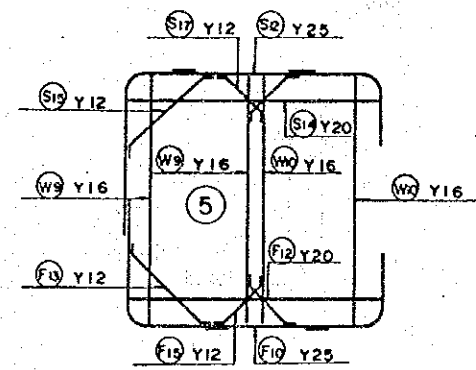
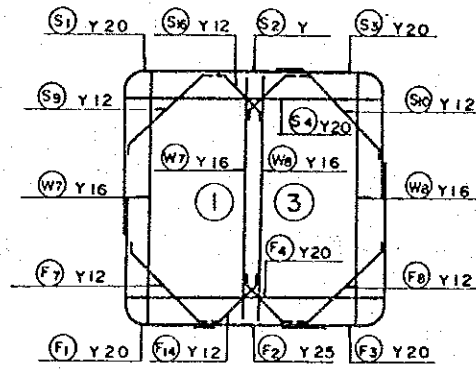
4 — 4



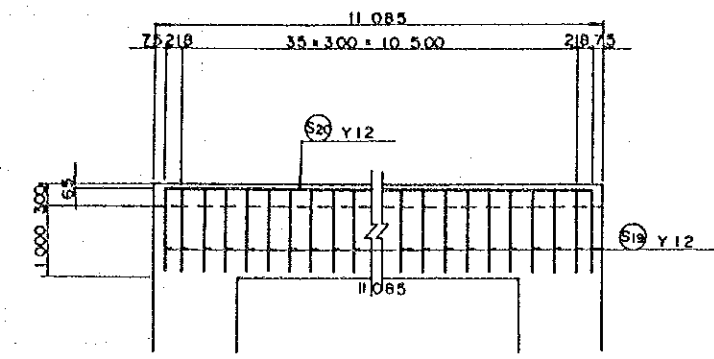
REVISIONS		JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS)	SEN SUPT. ENG (DESIGN)	SCALES	NAIROBI BYPASS	0
DESCRIPTION	DATE						
				PROJECT ENGINEER			



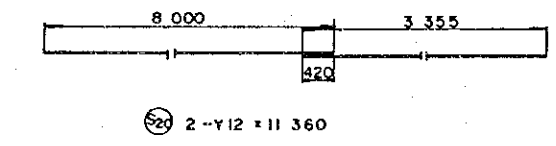
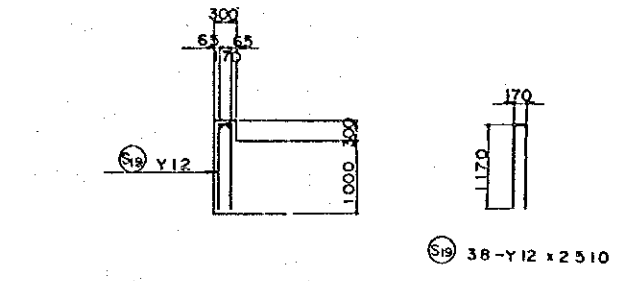
SECTION



MARK	DIA	a	b	L	REMARK
S 11	Y12	338	907	2 352	
S 18	"	338	907	2 352	
F 9	"	338	907	2 352	
F 16	"	338	907	2 352	
W 11	"		904	1 104	
W 12	"		904	1 104	
W 13	"		1 038	1 238	
W 14	"		499	699	



MARK	DIA	a	H	L	NUMBER
S 8	Y12	2 514	1 778	2 714	37
S10	"	2 514	1 778	2 714	37
S15	"	2 719	1 923	2 919	17
F 7	"	2 514	1 778	2 714	37
F 8	"	2 514	1 778	2 714	37
F13	"	2 719	1 923	2 919	17
S16	"	1 895	1 340	2 095	74
S17	"	2 047	1 447	2 247	19
F14	"	1 895	1 340	2 095	74
F15	"	2 047	1 447	2 247	19



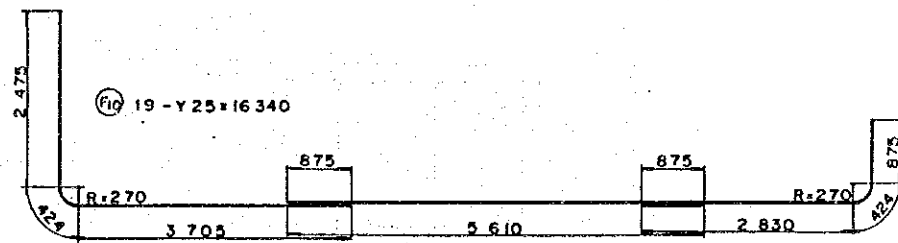
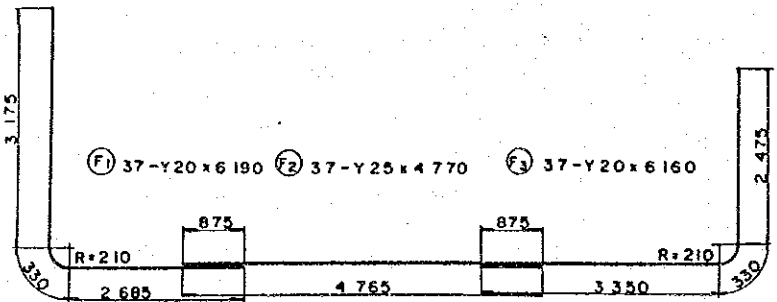
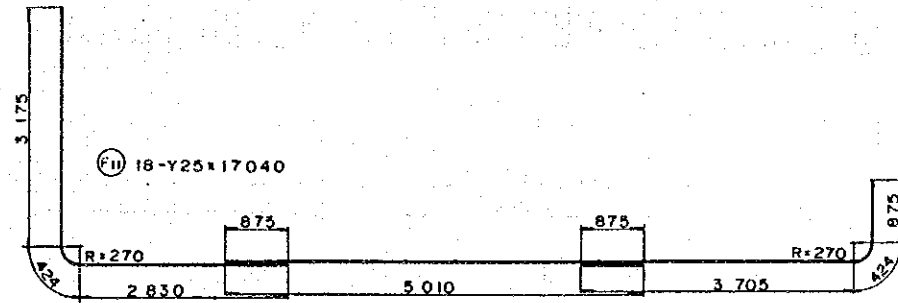
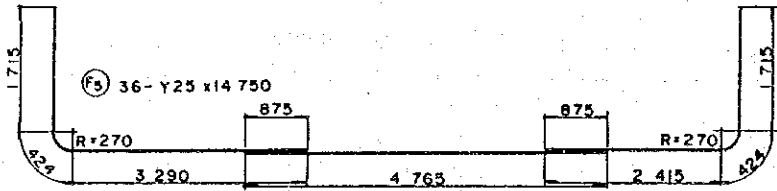
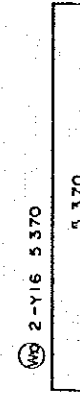
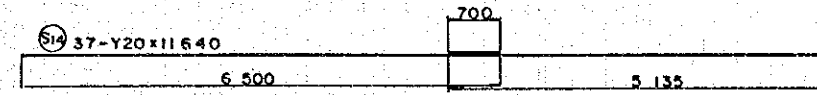
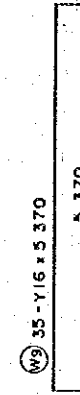
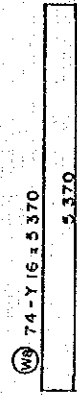
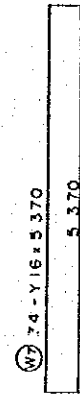
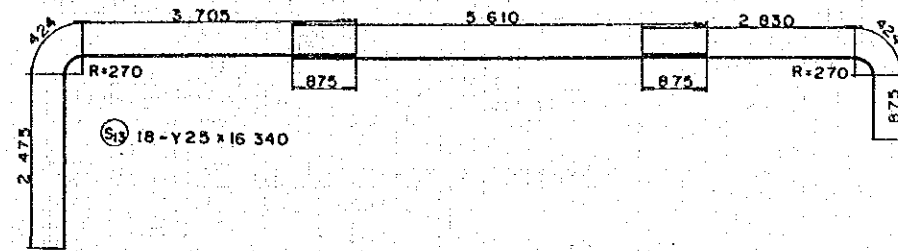
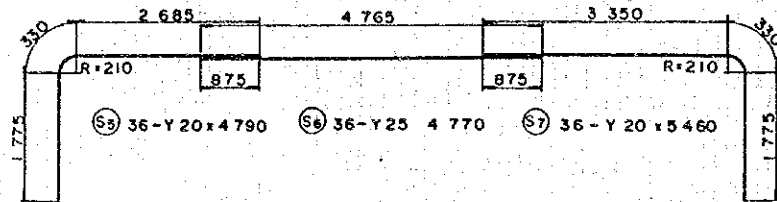
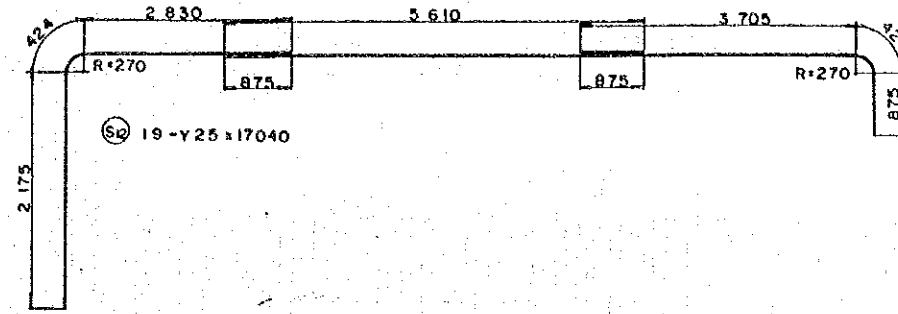
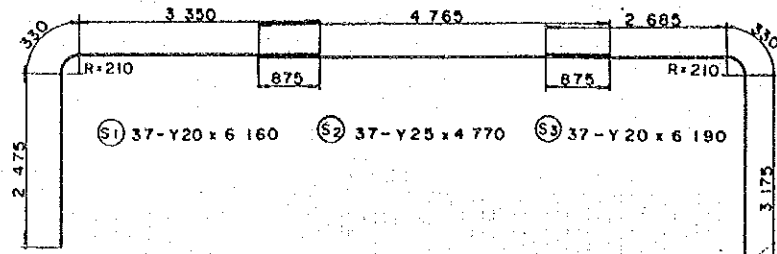
MARK	DIA	a	b	c	L	LAP. N	NUMBER
S 8	Y20	10 000	1 326 ~ 6 794 (4 060)	700	11 326 ~ 16 794 (14 060)	1	56
F 6	"	10 000	1 326 ~ 6 794 (4 060)	700	11 326 ~ 16 794 (14 060)	1	56
W1	Y16	10 000		1 186	560	1	13
W2	Y12	10 000		1 546	420	1	13
W3	"	10 000		6012	420	1	13
W4	Y16	10 000		6 664	560	1	13
W5	Y12	10 000		3 644	420	1	13
W6	"	10 000		3 916	420	1	13

SURVEYED BY
 TRACED BY
 MAPPING BY
 LOCATION BY
 CHECKED BY

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

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)
CHIEF SUPT ENG (DESIGN)

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

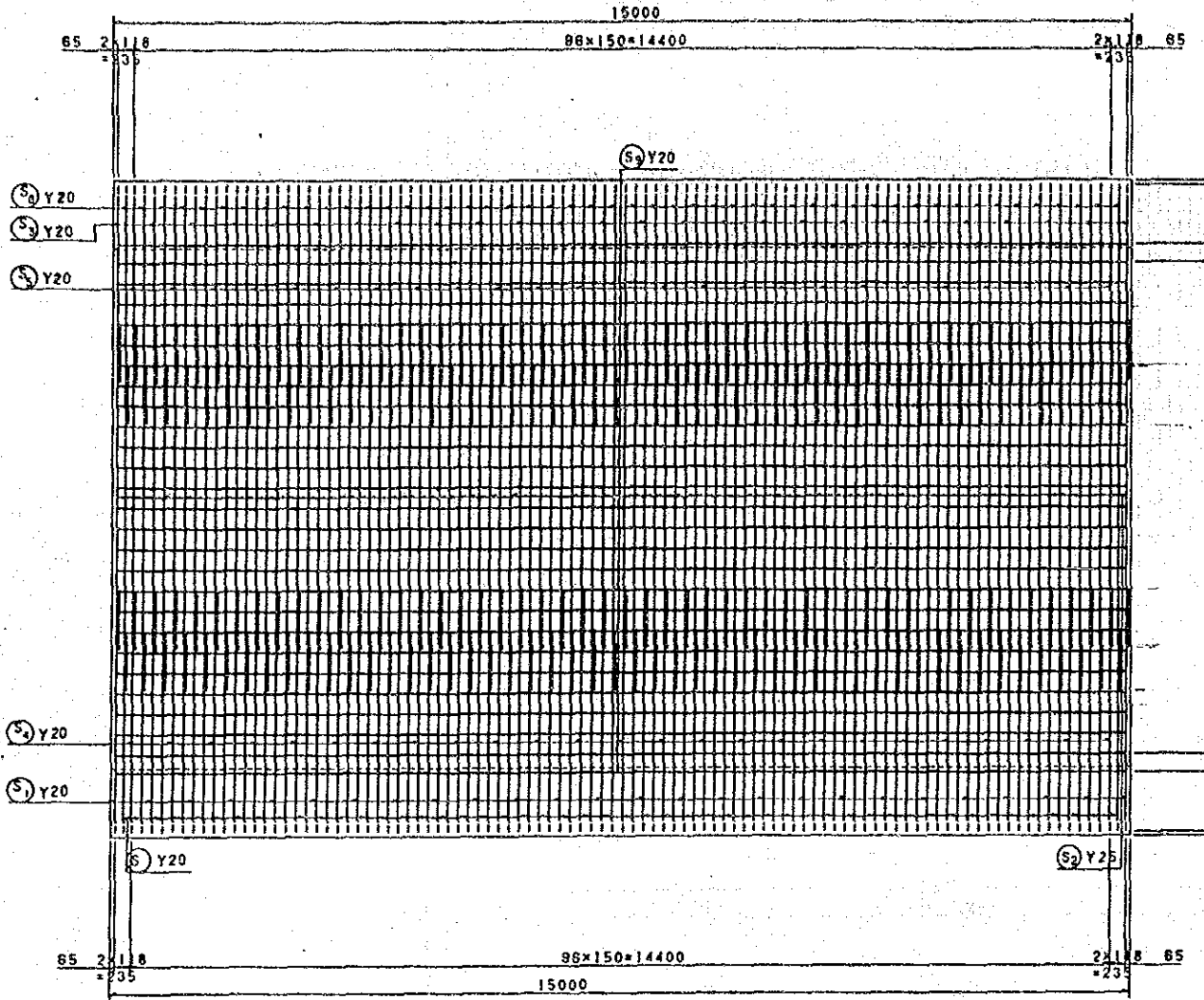
SCALES
1:50

NAIROBI BYPASS
WATER BOX CULVERTS
CN 26+335.00 R-3.60 R-3.60 (6)

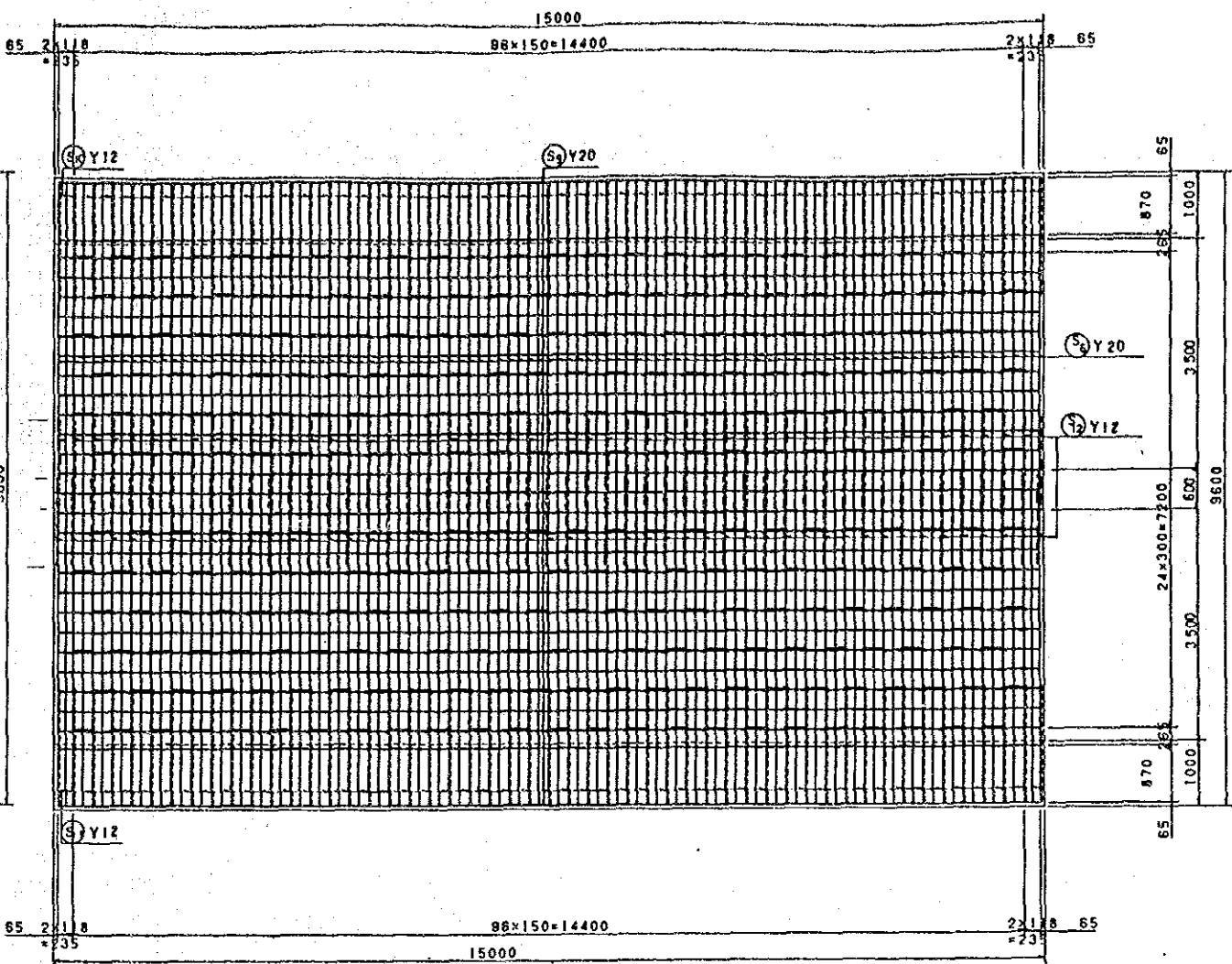
Q
SHEET 149 OF 183

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

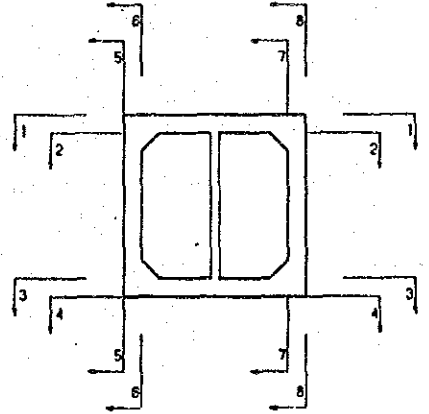
M.C.P.W. ROADS DEPT DRG NO.



1 — 1



2 — 2



REVISIONS	
DESCRIPTION	DATE

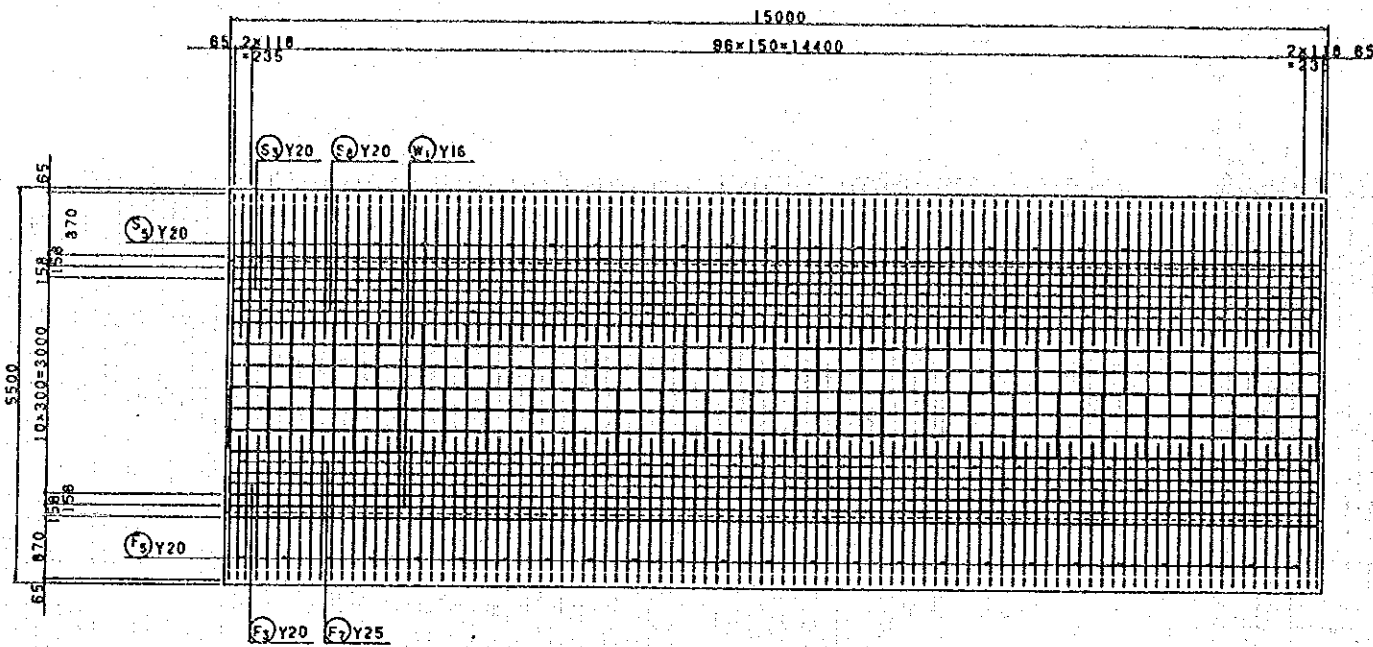
JAPAN INTERNATIONAL COOPERATION AGENCY
 CHIEF ENGINEER (ROADS)
 CHIEF SUPT ENG (DESIGN)

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

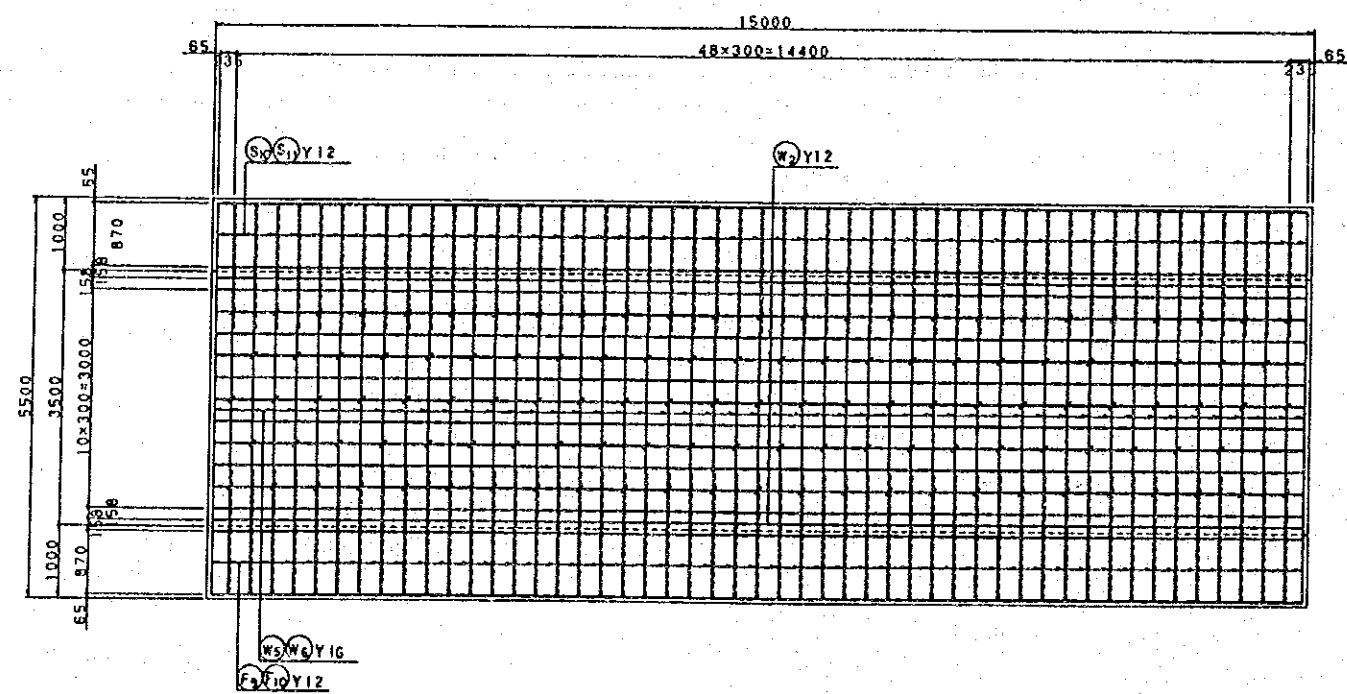
SCALES
 1:50

NAIROBI BYPASS
 WATER BOX CULVERTS
 CR 24x300.00 W=3.60 B=3.60 (7)

Q
 SHEET 1500F 105



5 — 5



6 — 6

AERIAL PHOTO BY 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

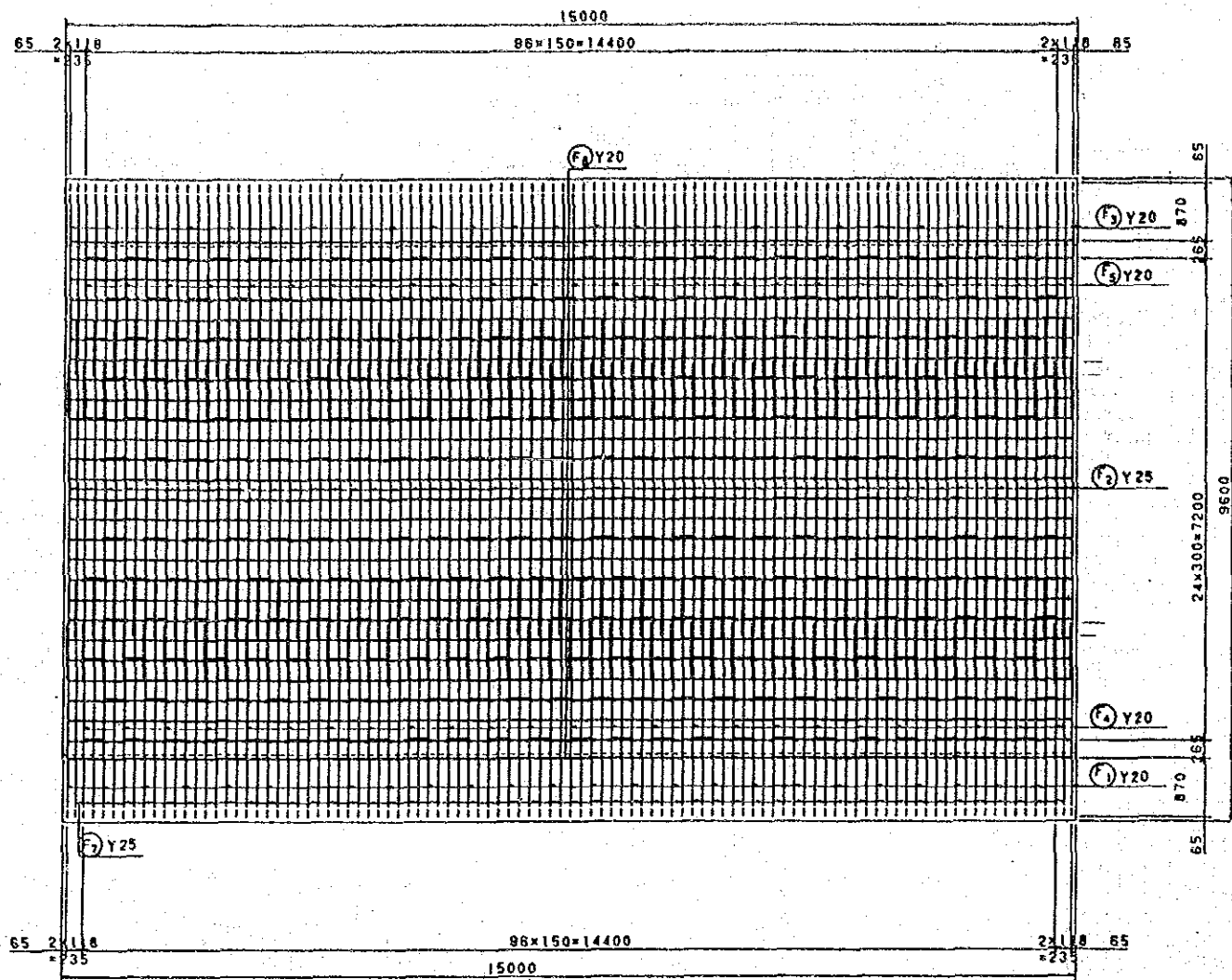
SCALES
1:50

NAIROBI BYPASS
PAPER BOX CULVERTS
CR 26x336.00 W=3.60 H=3.60 (S)

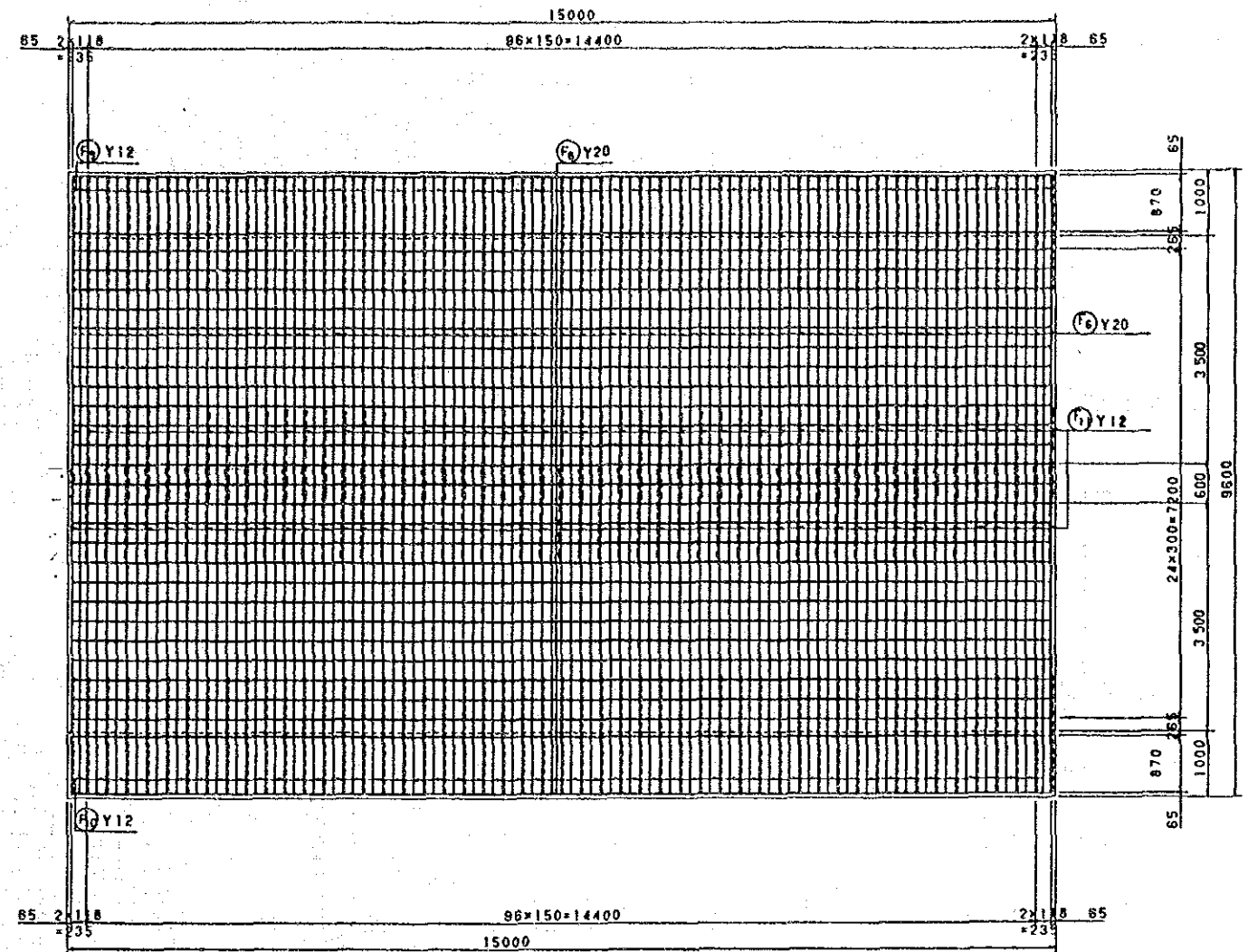
Q
SHEET 151 OF 185

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

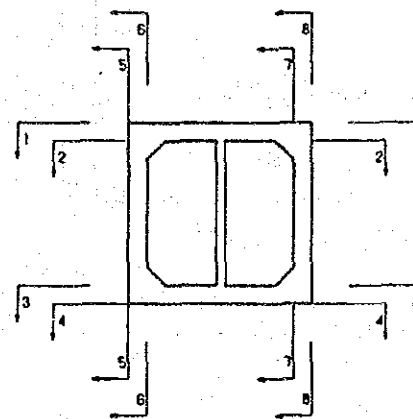
MOPW ROADS DEPT DRG NO.



4 — 4



3 — 3



REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL
COOPERATION AGENCY

CHIEF ENGINEER (ROADS)
CHIEF SUPT ENG (DESIGN)

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

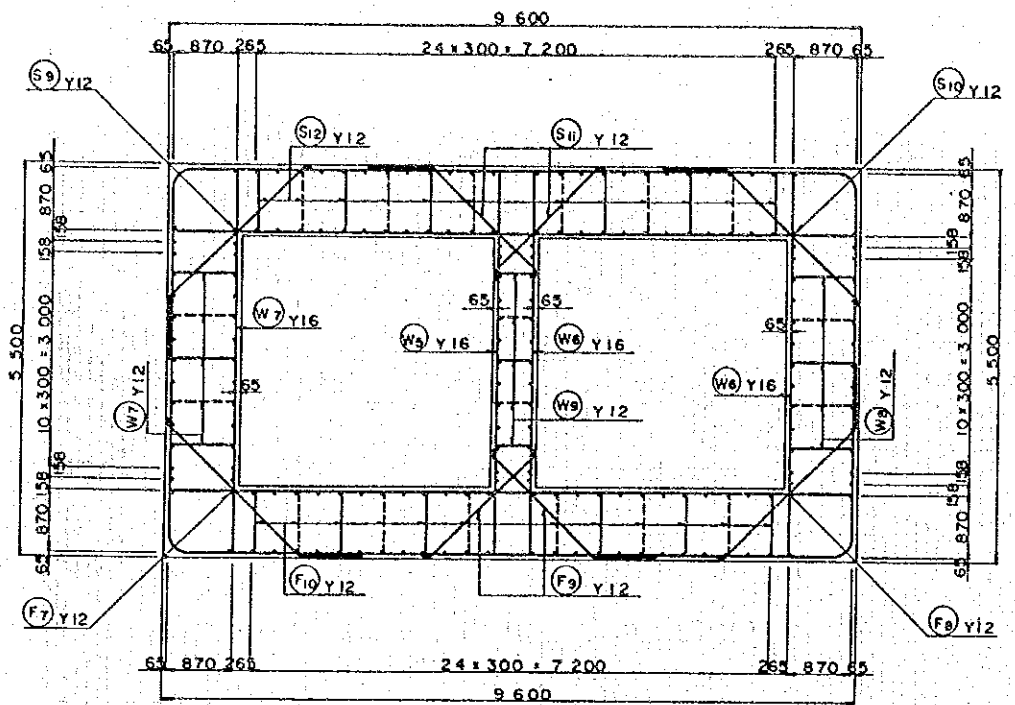
SCALES
1: 50

NAIROBI BYPASS
WATER BOX CULVERTS
CN 10+335.00 R+3.50 R+3.50 (8)

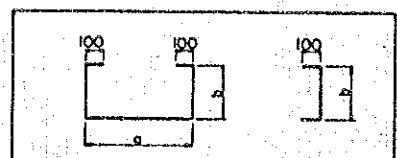
Q
SHEET 152 OF 183

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

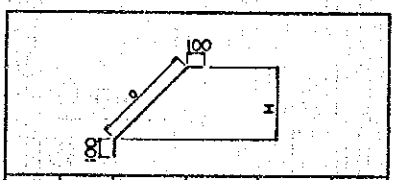
MOPW ROADS DEPT. DRG NO.



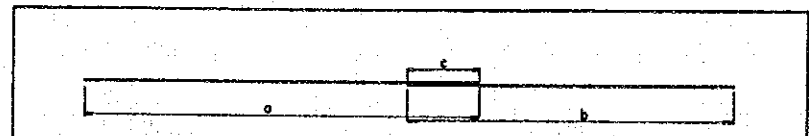
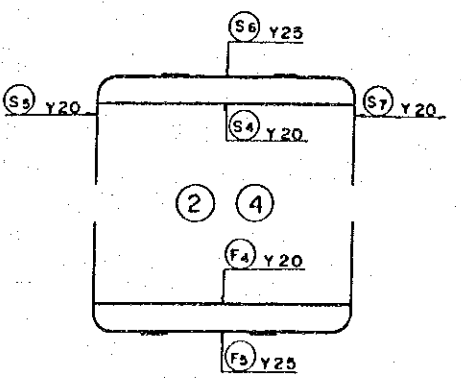
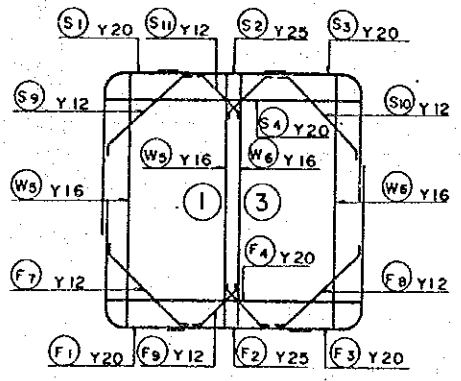
SECTION



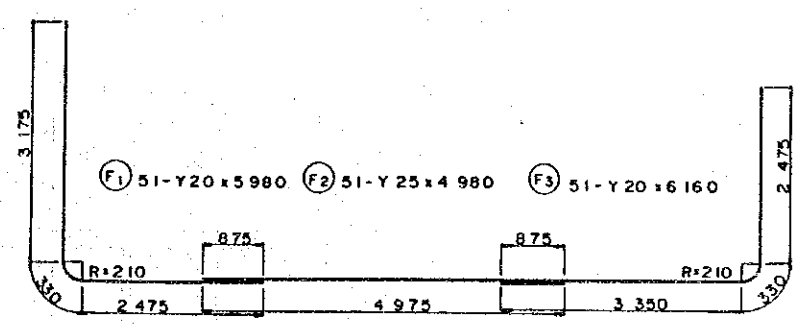
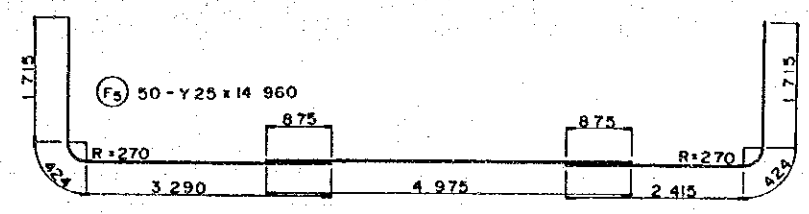
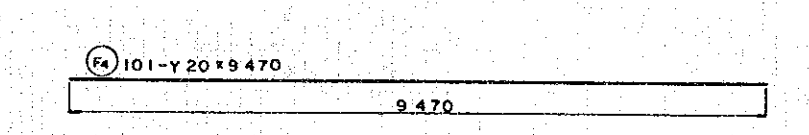
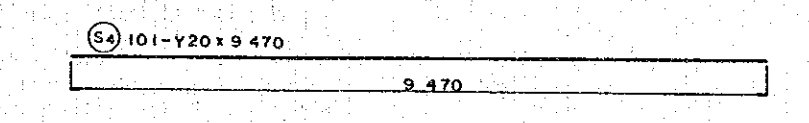
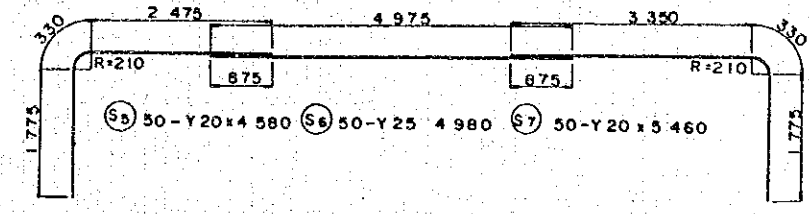
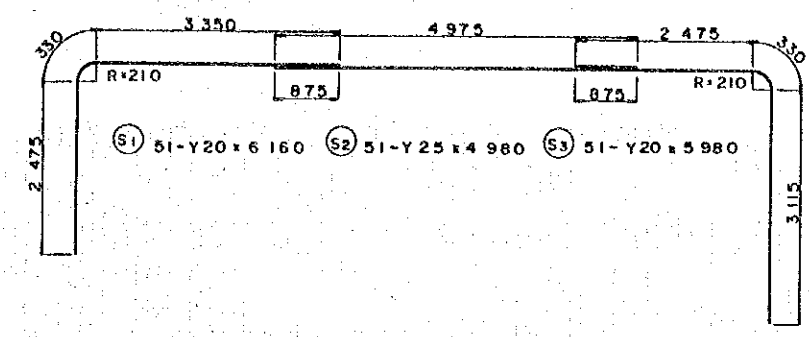
MARK	DIA	a	b	L	REMARK
S12	Y12	338	907	2 352	
F10	"	338	907	2 352	
W7	"	---	904	1 104	
W8	"	---	904	1 104	
W9	"	---	499	699	7



MARK	DIA	a	H	L	NUMBER
S9	Y12	2 514	1 778	2 714	51
S10	"	2 514	1 778	2 714	51
F7	"	2 514	1 778	2 714	51
F8	"	2 514	1 778	2 714	51
S11	"	1 895	1 340	2 095	102
F9	"	1 895	1 340	2 095	102



MARK	DIA	a	b	c	L = a + b	LAP. N	NUMBER
S8	Y20	10 000	5 670	700	15 570	1	56
F6	"	10 000	5 670	700	15 570	1	56
W1	Y16	10 000	5 430	560	15 430	1	13
W2	Y12	10 000	5 290	420	15 290	1	26
W3	"	10 000	5 290	420	15 290	1	26
W4	Y16	10 000	5 430	560	15 430	1	13



W10 102-Y16 x 5370

W6 102-Y16 x 5370

REVISIONS	
DESCRIPTION	DATE

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

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

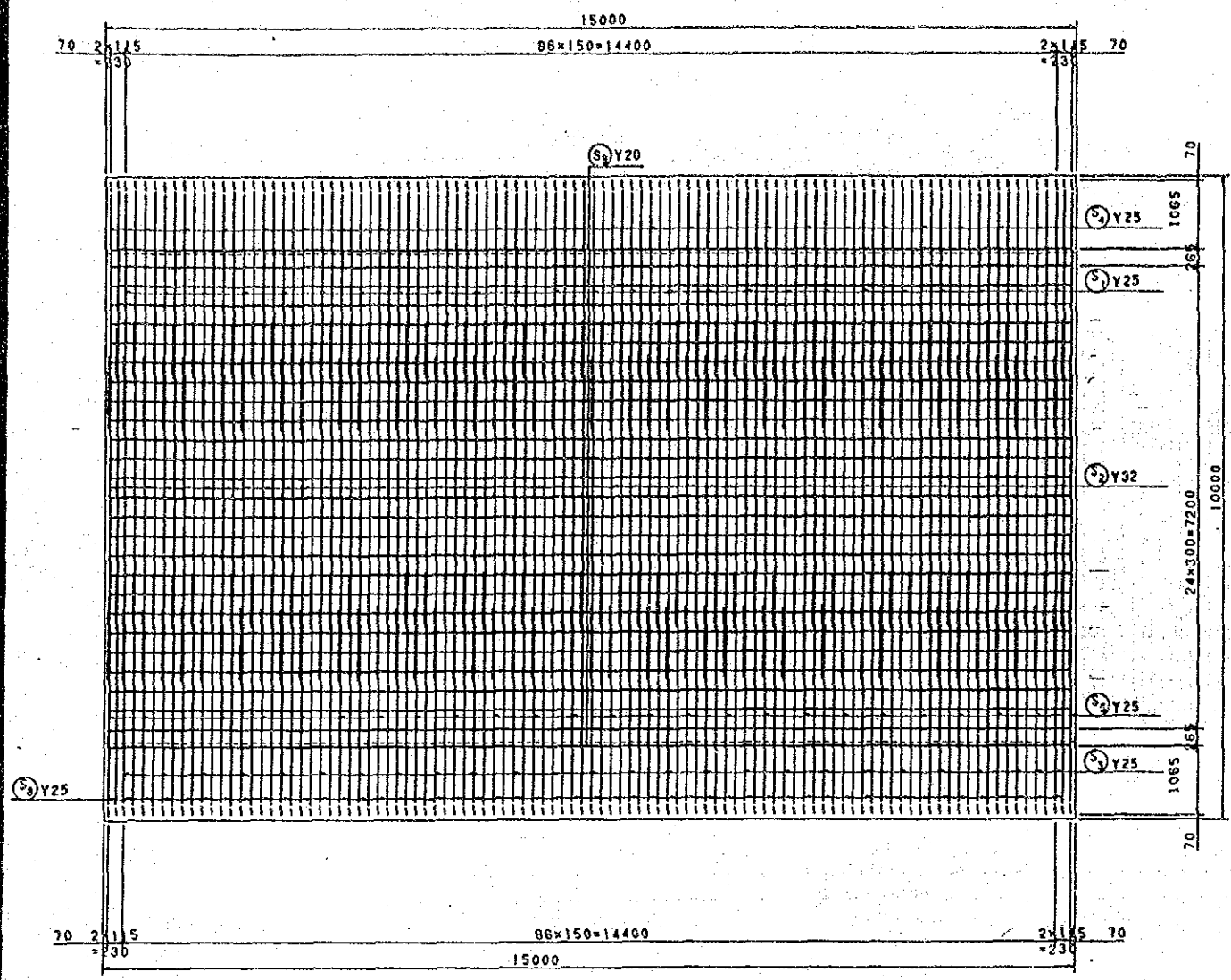
SCALES
 1:50

NAIROBI BYPASS
 WATER BOX CULVERTS
 CH 24-235.00 9+3.50 8+3.50 (10)

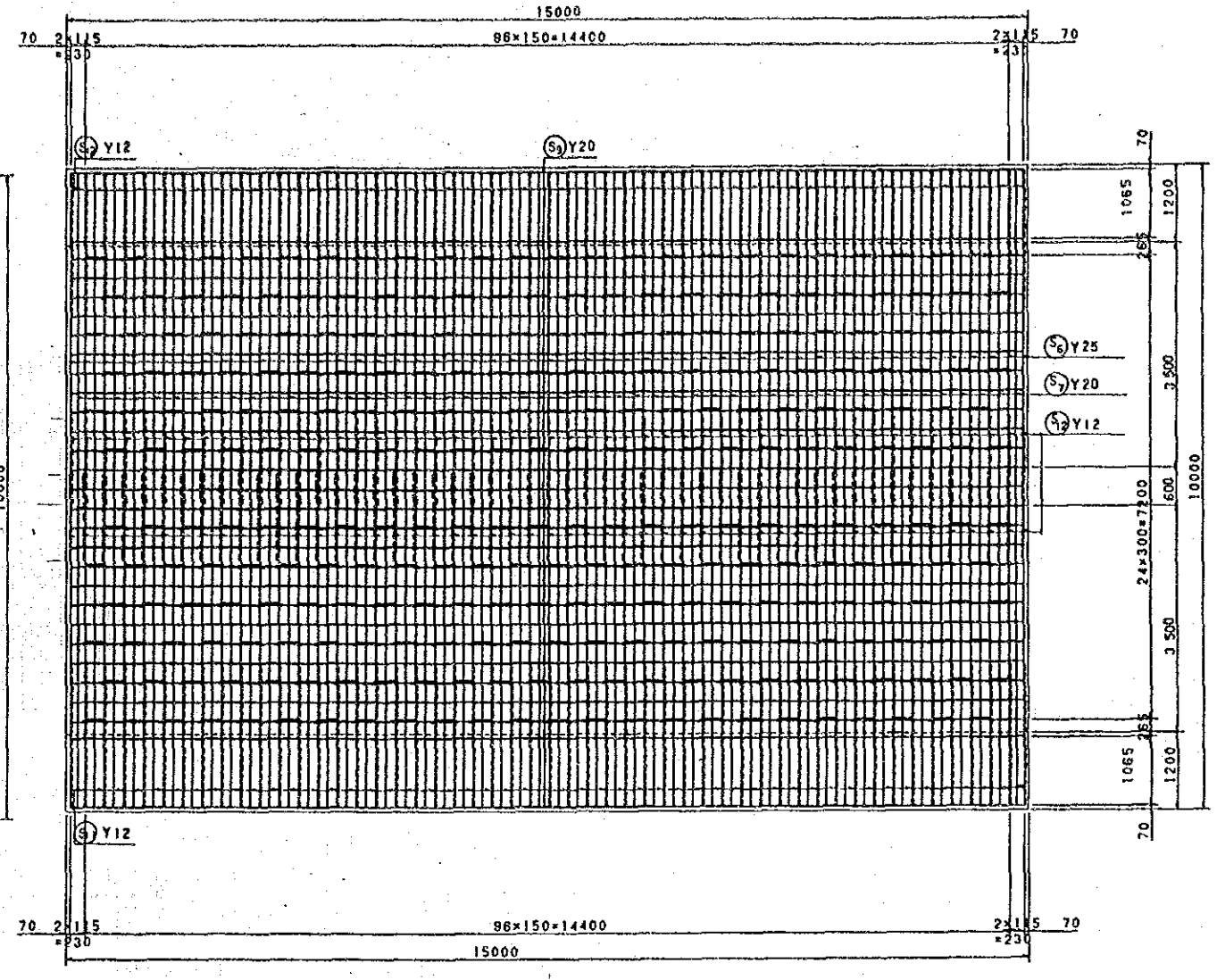
Q
 SHEET 153 OF 163

AERIAL PHOTO BY _____
 SURVEYED BY _____
 MAPPING BY _____
 LOCATION BY _____
 CHECKED BY _____

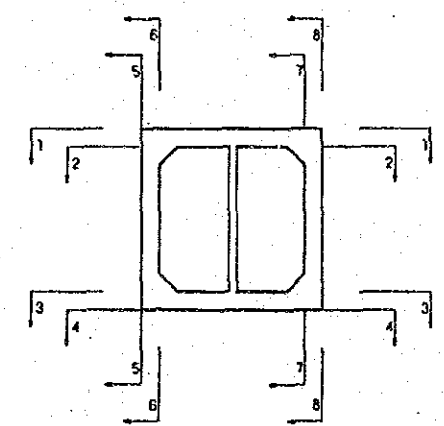
M.O.P.W. ROADS DEPT DRG NO.



1 — 1



2 — 2



REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL
COOPERATION AGENCY

CHIEF ENGINEER (ROADS)
CHIEF SUPT ENG (DESIGN)

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

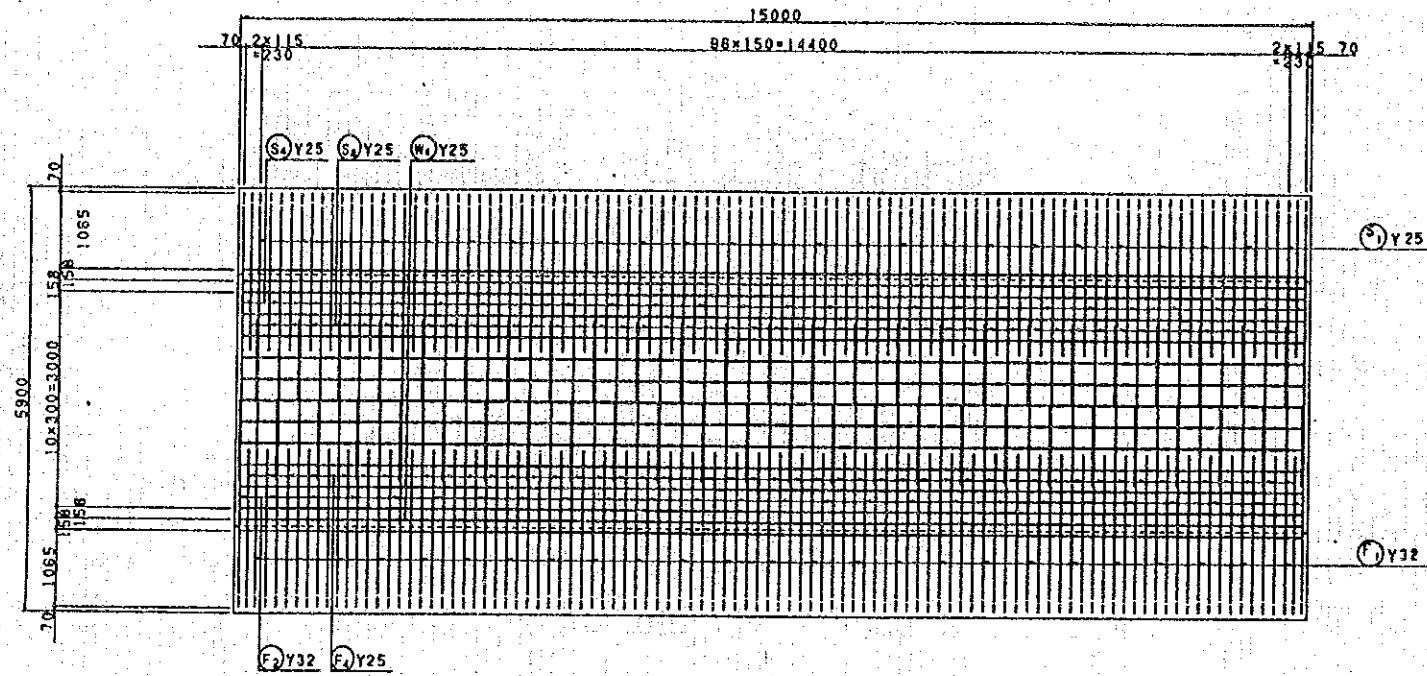
SCALES
1:50

NAIROBI BYPASS
WATER BOX CULVERTS
CW 20+335.00 W=3.50 H=3.50 (11)

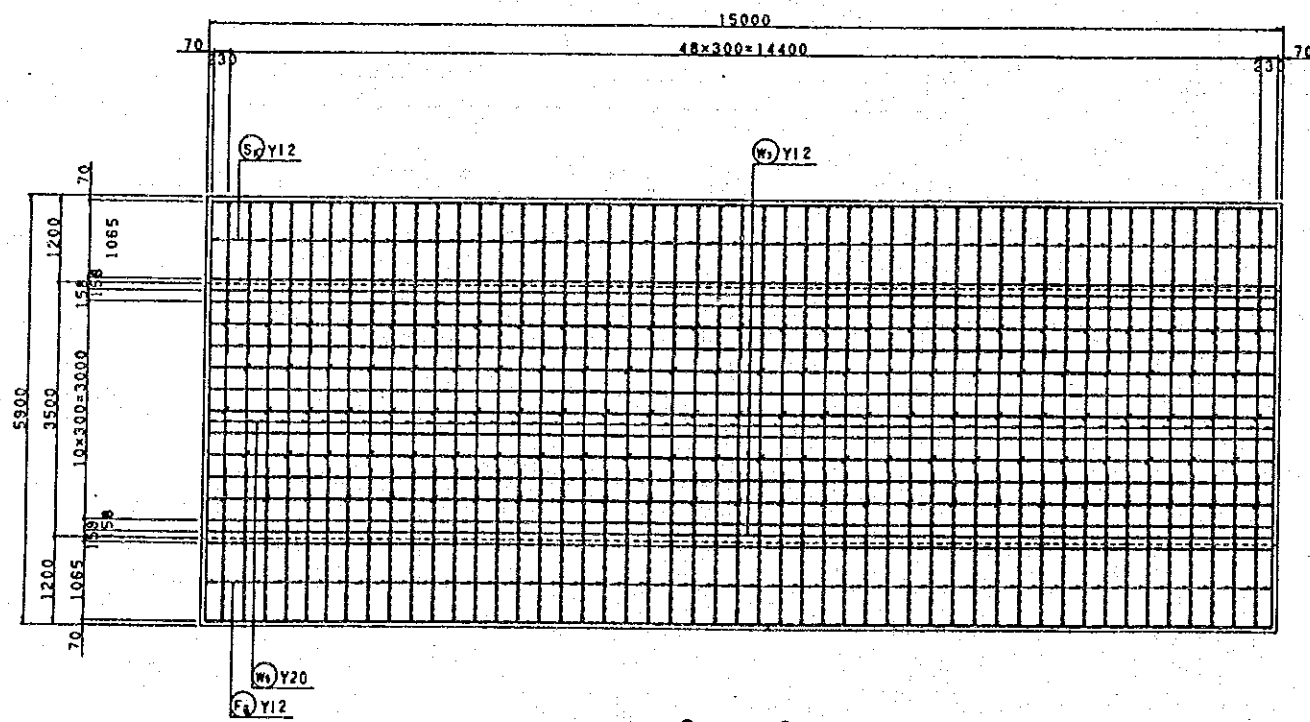
0
SHEET 154 OF 183

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

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



5 — 5



6 — 6

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL
COOPERATION AGENCY

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

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

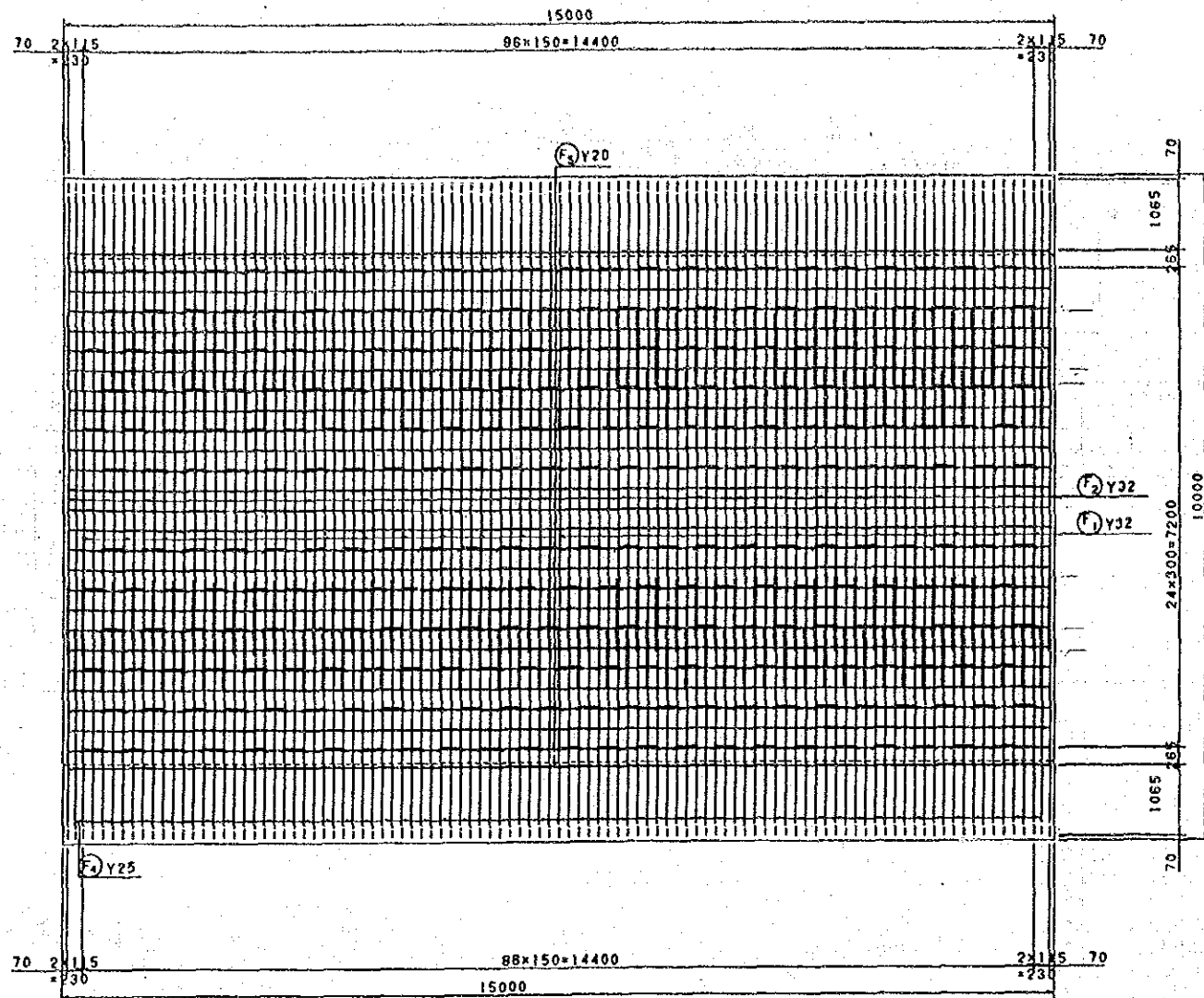
SCALES
1 : 50

NAIROBI BYPASS
WATER BOX CULVERTS
CR 28+336.00 V=3.50 L=3.50 (12)

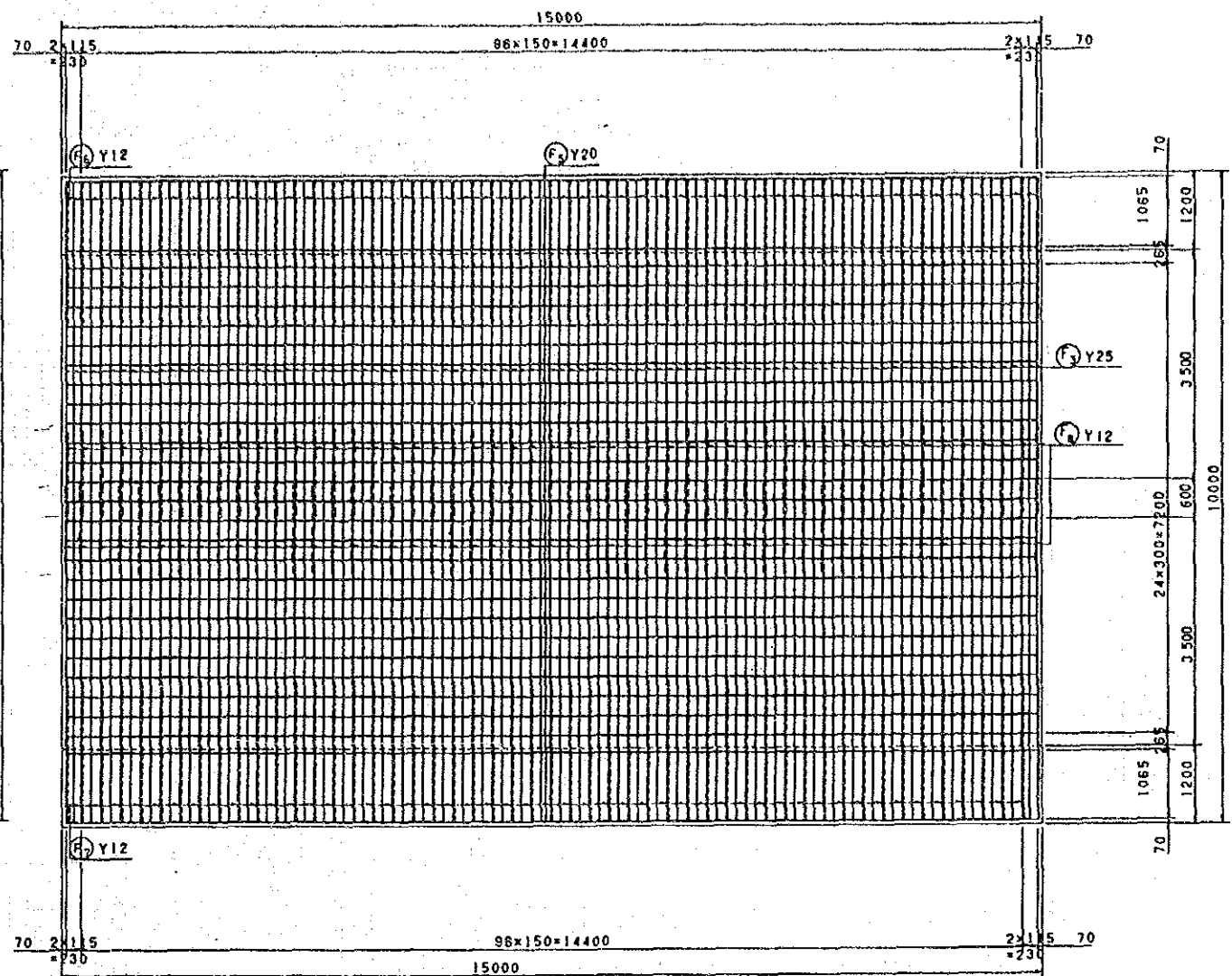
0
SHEET 155 OF 163

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

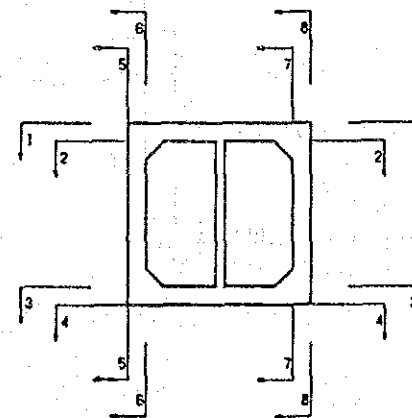
M.O.P.W. ROADS, DEPT. DRG. NO.



4 — 4



3 — 3



REVISIONS			
DESCRIPTION	DATE		

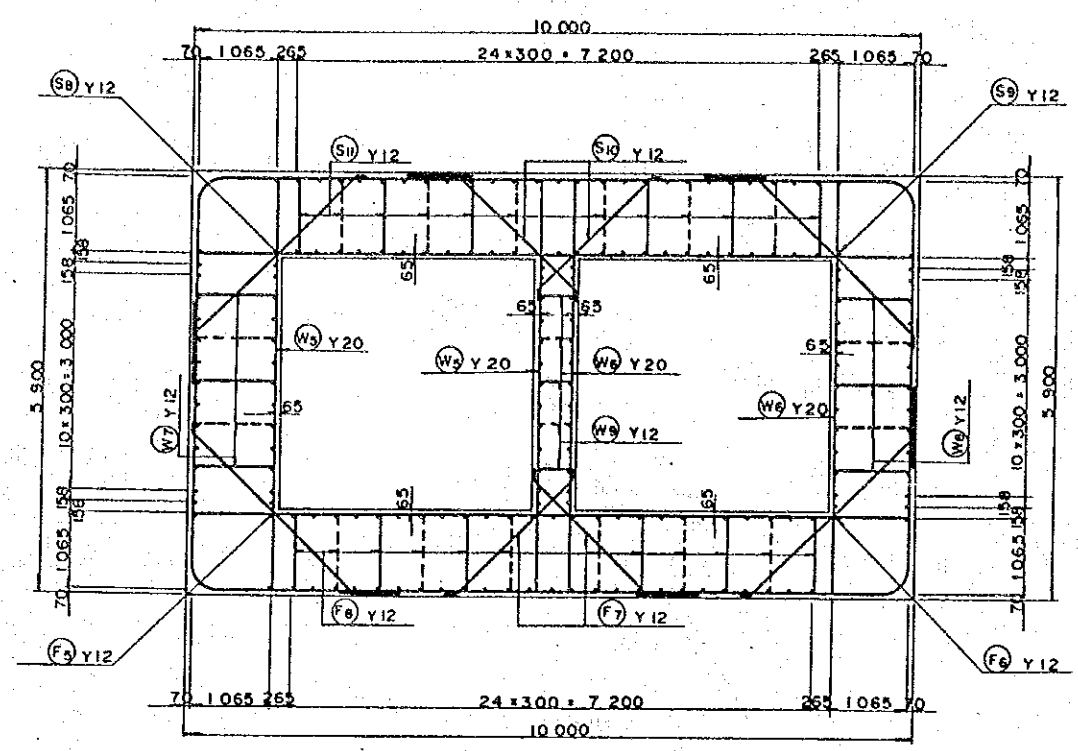
JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS)	SEN SUPT. ENG (DESIGN)	
	CHIEF SUPT. ENG (DESIGN)	SUPT. ENGINEER (DESIGN)	
		PROJECT ENGINEER	

SCALES	
1:50	

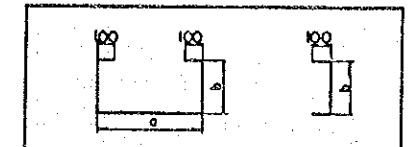
NAIROBI BYPASS	
WATER BOX CULVERTS	
CR 20+335.00 R=3.50 B=3.50 (13)	

SURVEYED BY
 MAPPING BY
 LOCATION BY
 TRACED BY
 CHECKED BY

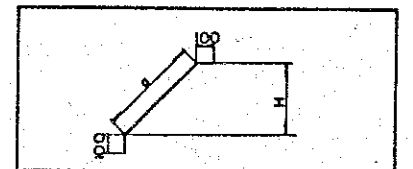
M.O.P.W. ROADS DEPT DRG NO.



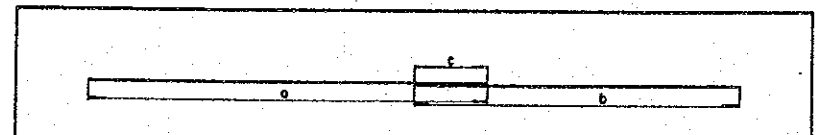
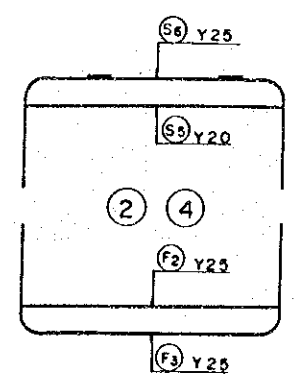
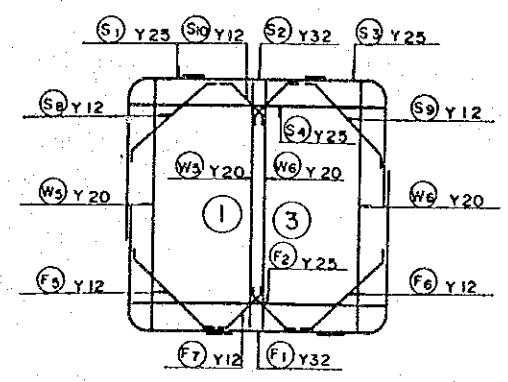
SECTION



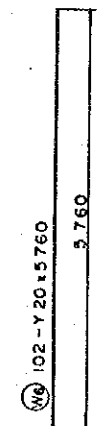
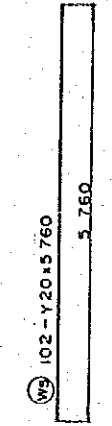
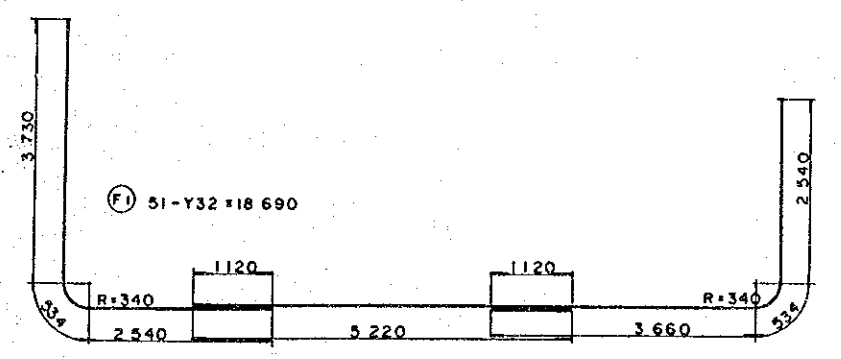
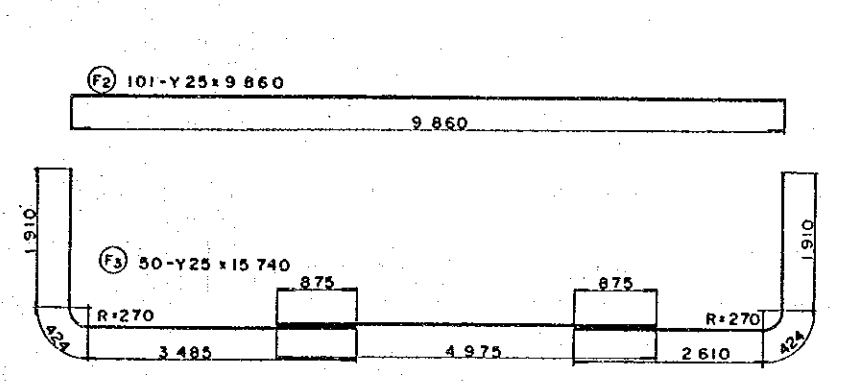
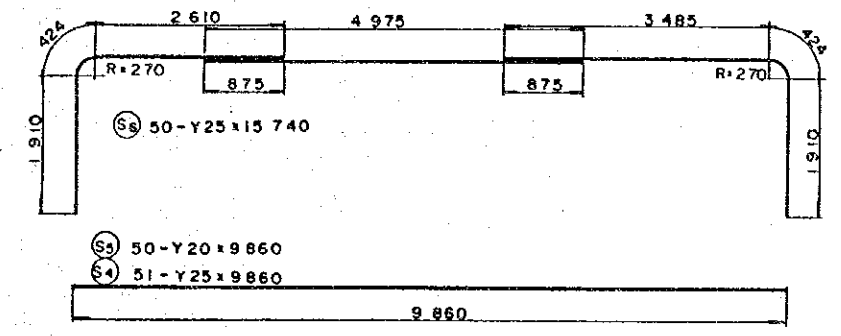
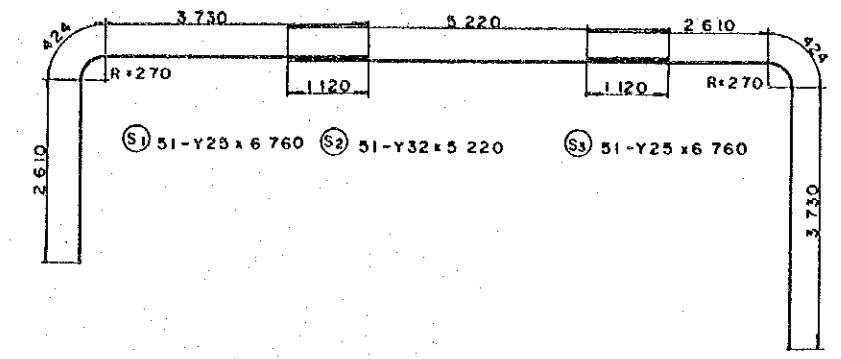
MARK	DIA	a	b	L	REMARK
S11	Y12	345	1107	2759	
F8	"	345	1107	2759	
W7	"	1105	1305		
W8	"	1105	1305		
W9	"	503	703		



MARK	DIA	a	H	L	NUMBER
S8	Y12	3066	2168	3266	51
S9	"	3066	2168	3266	51
F5	"	3066	2168	3266	51
F8	"	3066	2168	3266	51
S10	"	2171	1535	2371	51
F7	"	2171	1535	2371	51



MARK	DIA	a	b	c	L = a + b	LAP. N	NUMBER
S7	Y20	10000	5560	700	15560	1	56
F4	"	10000	5560	700	15560	1	56
W1	"	10000	5560	700	15560	1	13
W2	Y12	10000	5280	420	15280	1	26
W3	"	10000	5280	420	15280	1	26
W4	Y20	10000	5560	700	15560	1	13



REVISIONS	DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

CHIEF ENGINEER (ROADS)
 CHIEF SUPT ENG (DESIGN)

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

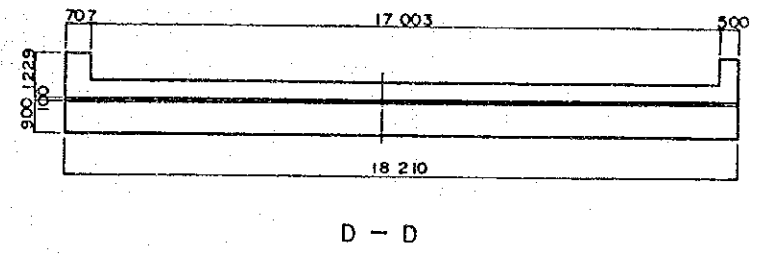
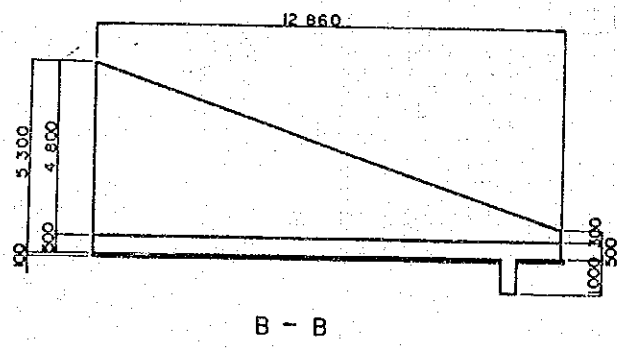
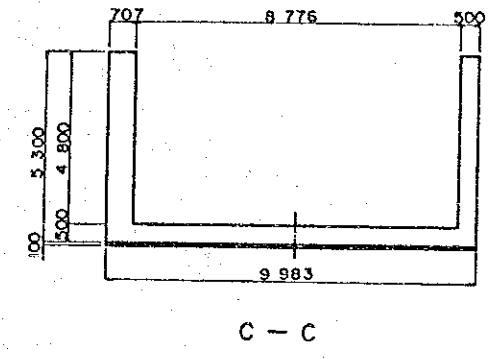
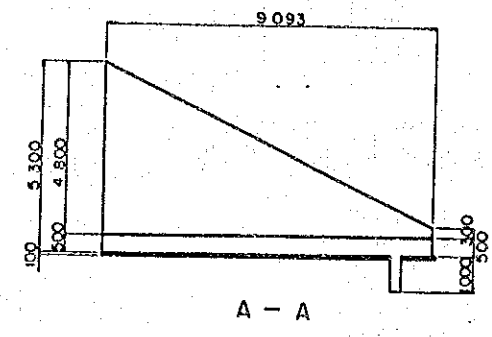
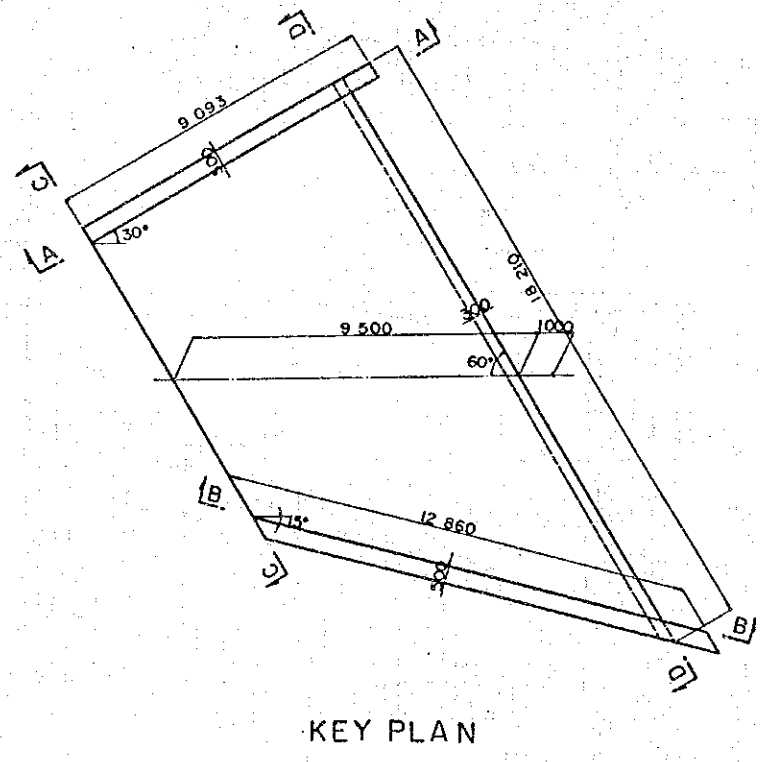
SCALES
 1:50

NAIROBI BYPASS
 WATER BOX CULVERTS
 CR 26+335.00 P+2, S+3, S+3.50 (14)

Q
 SHEET 157 OF 183

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

MOPW ROADS DEPT DRG NO.



RETAINING WALL OF NO5 BOX FOR DRAINAGE

REVISIONS	
DESCRIPTION	DATE

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

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

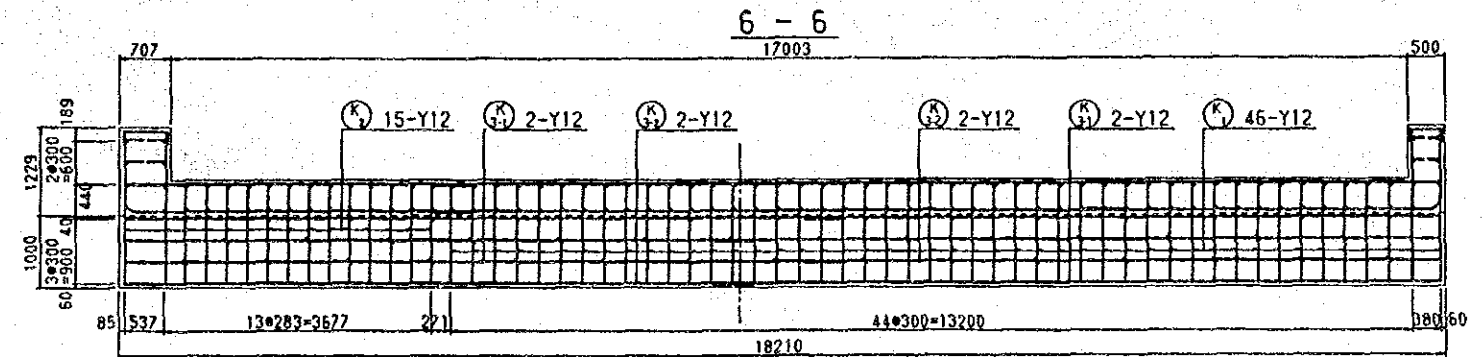
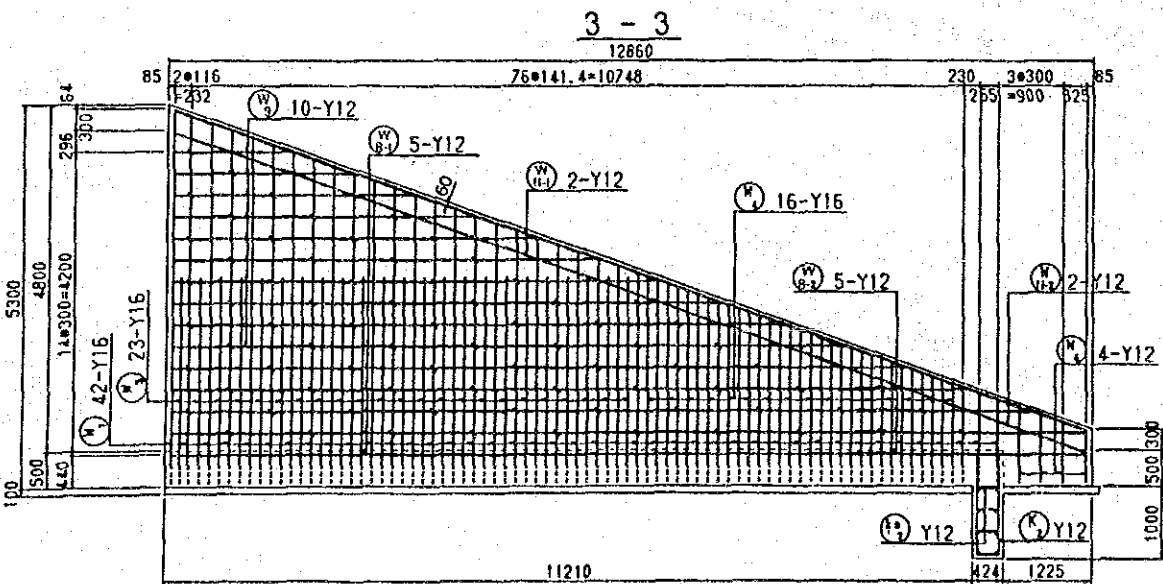
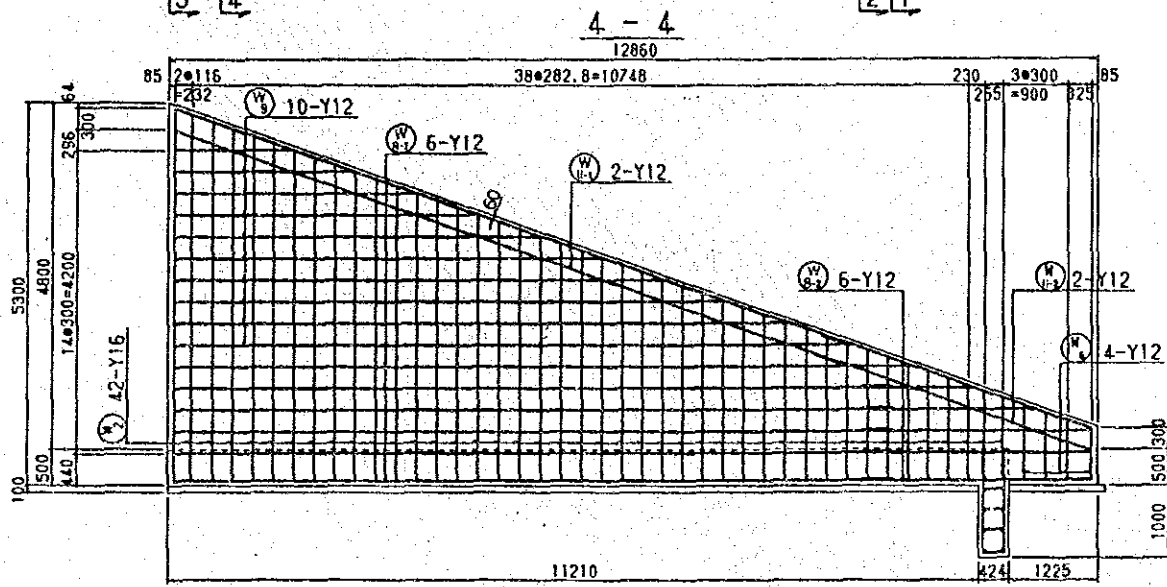
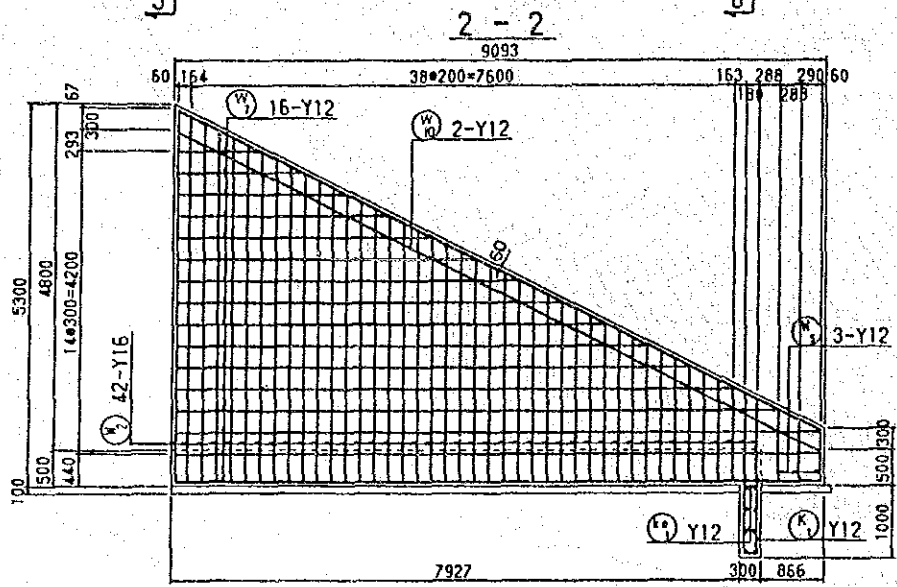
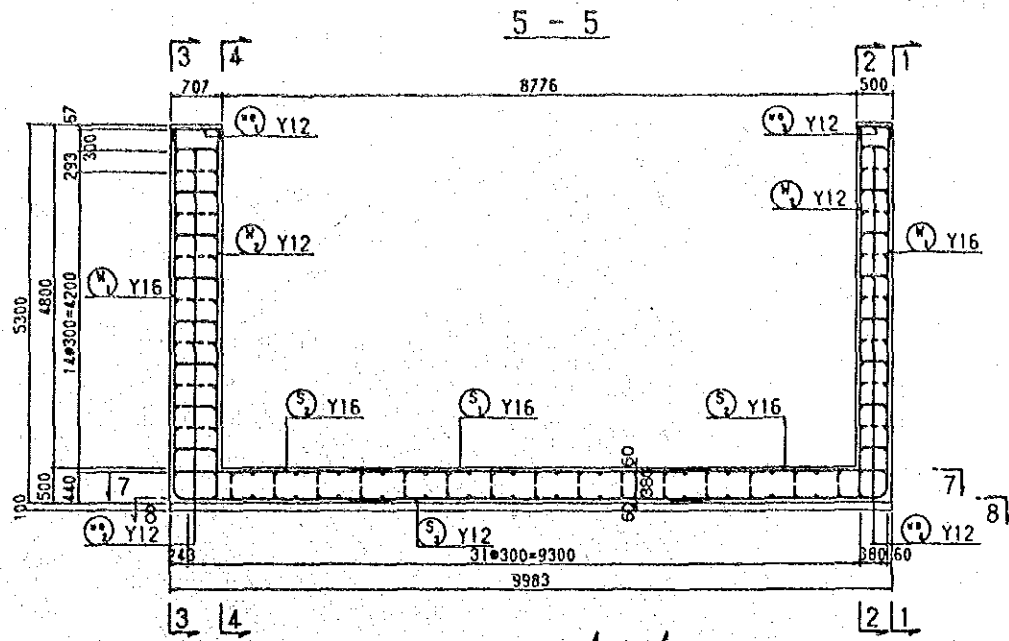
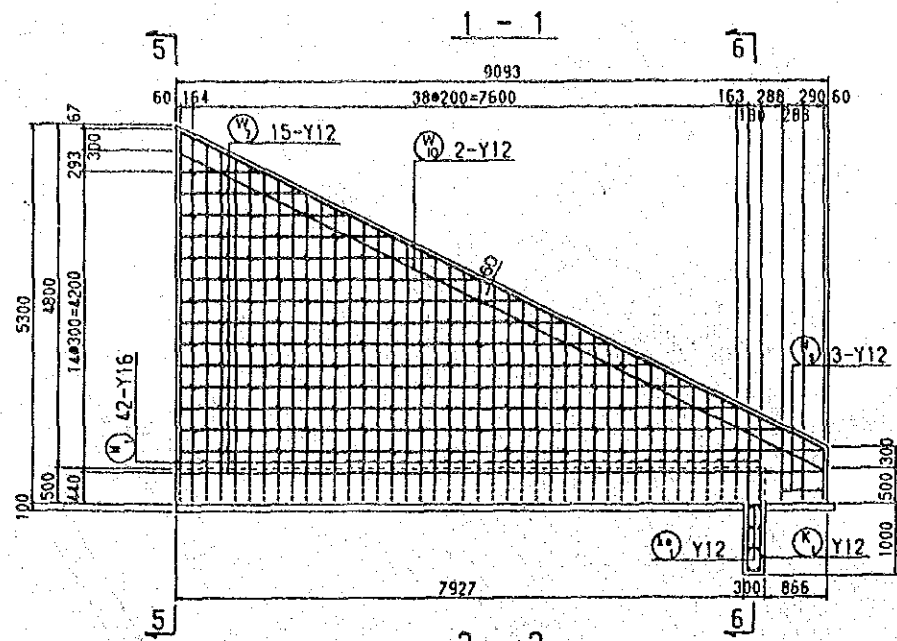
SCALES
 1 : 100

NAIROBI BYPASS
 WATER BOX CULVERTS
 CW 26+356.00 W=3.80 S=0.60 (16)

Q
 SHEET 158 OF 103

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

MOPW ROADS DEPT DRG NO.



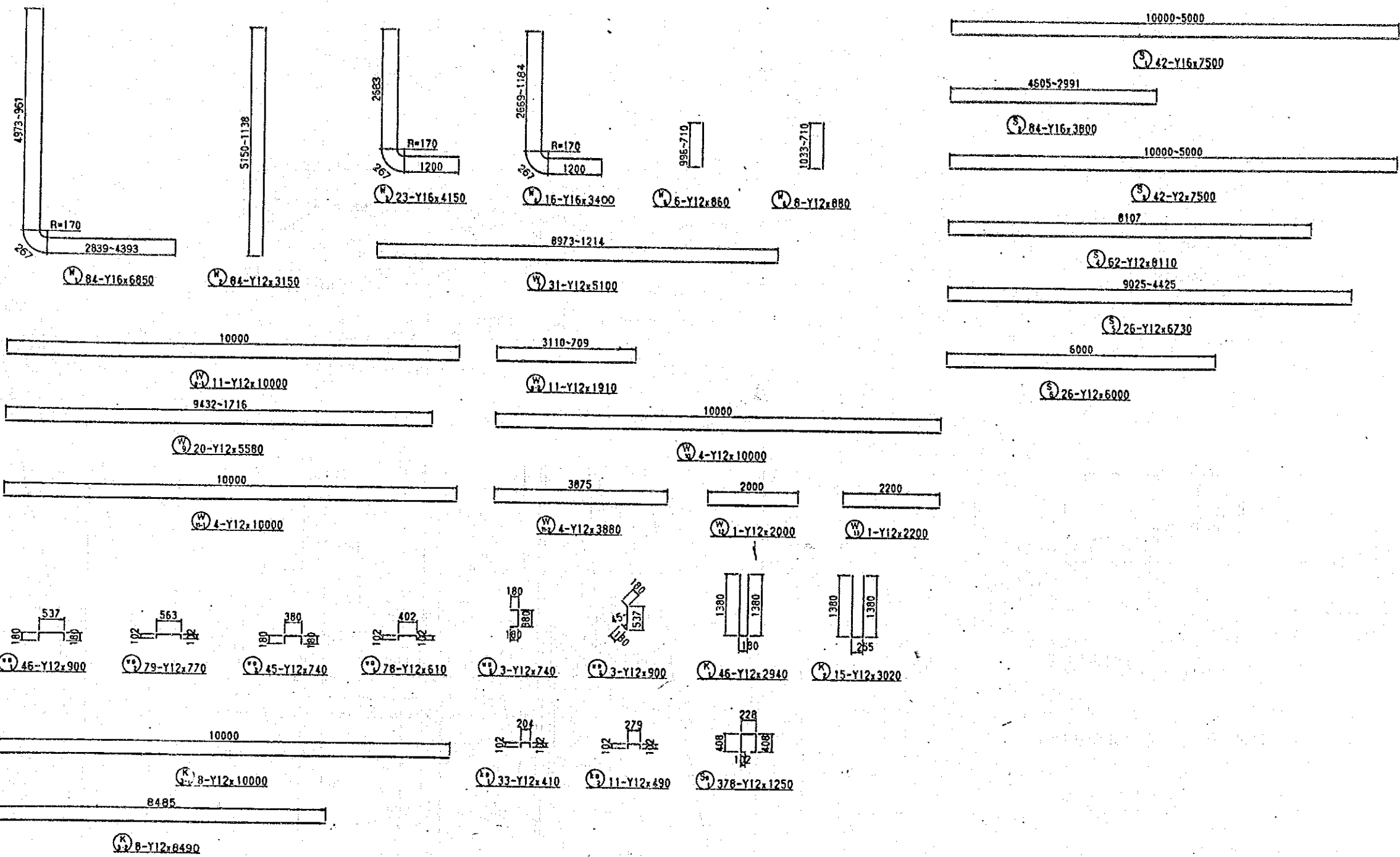
REVISIONS	
DESCRIPTION	DATE

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
 WATER BOX CULVERTS
 CR 20+316.00 R-3.69 R-3.69 (10)



AERIAL PHOTO BY	SURVEYED BY
MAPPING	TRACED BY
LOCATION	CHECKED BY

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

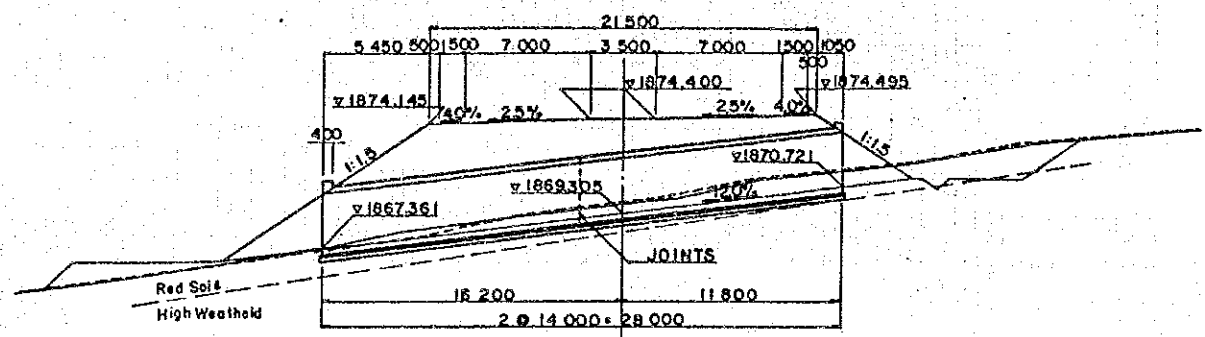
REVISIONS	
DESCRIPTION	DATE

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

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

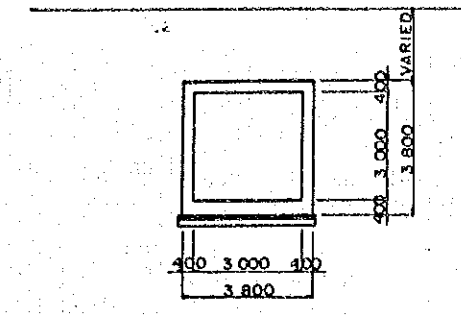
SCALES
1 : 50

NAIROBI BYPASS
WATER BOX CULVERTS
CR 28+336.00 R+3.50 D+3.50 (14)

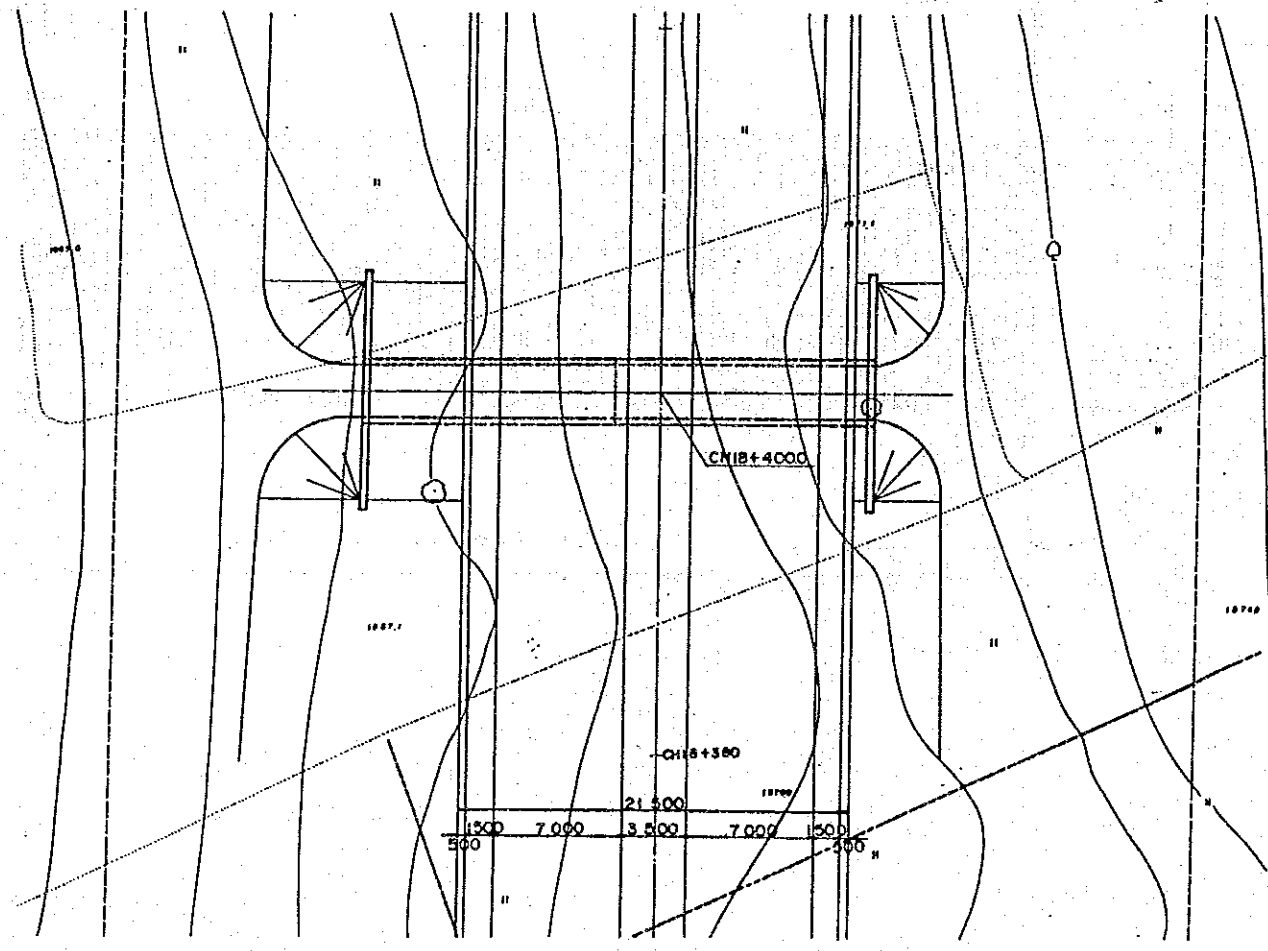


DL = 1860

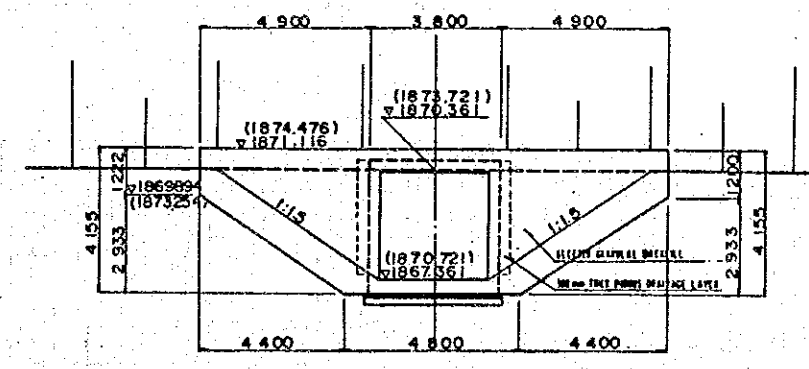
PROFILE SCALE 1:200



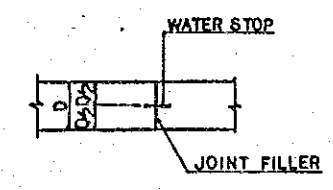
CROSS SECTION SCALE 1:100



PLAN SCALE 1:200



LEFT (RIGHT) ELEVATION OF WINGWALL SCALE 1:100

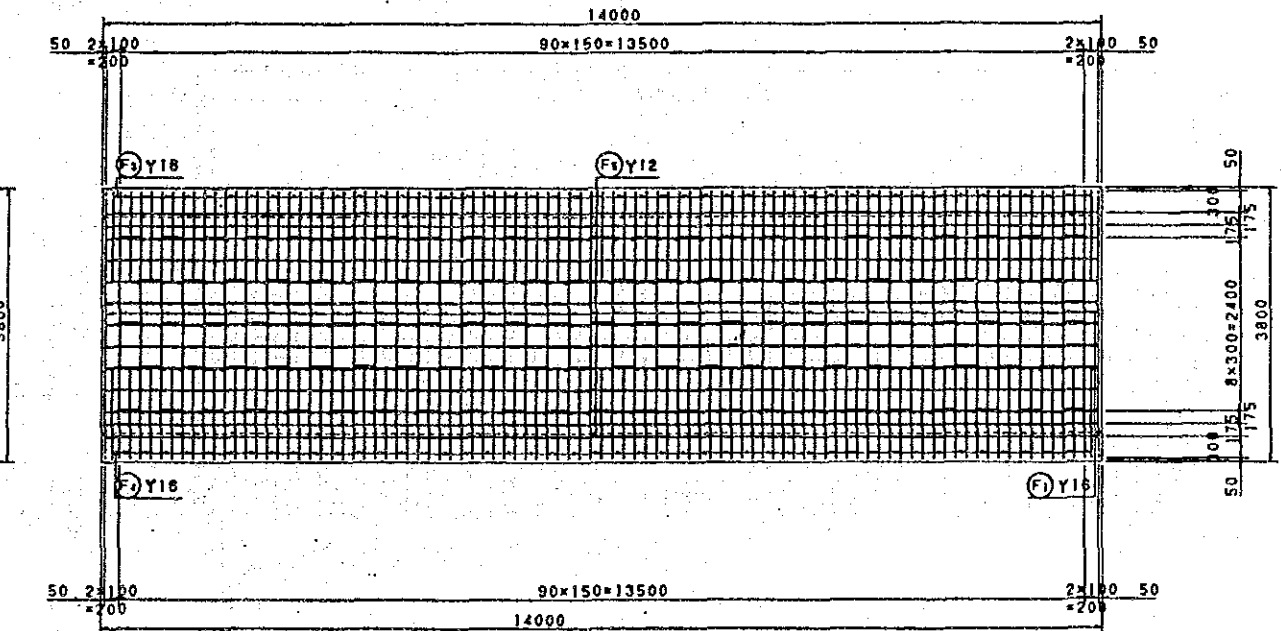
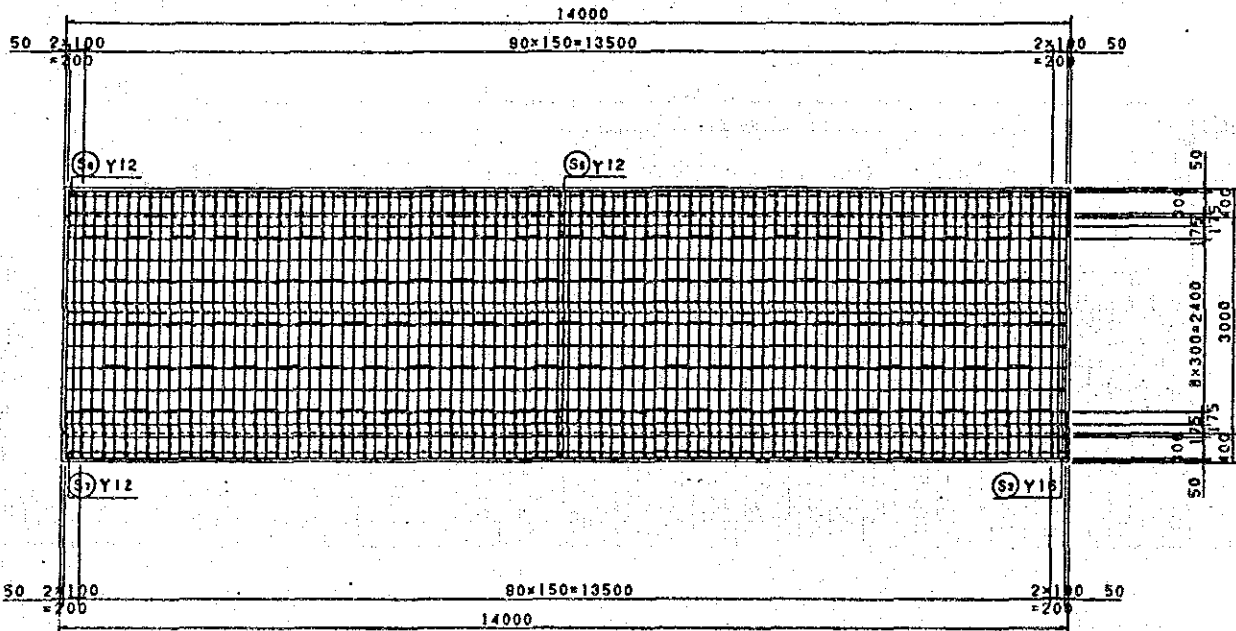
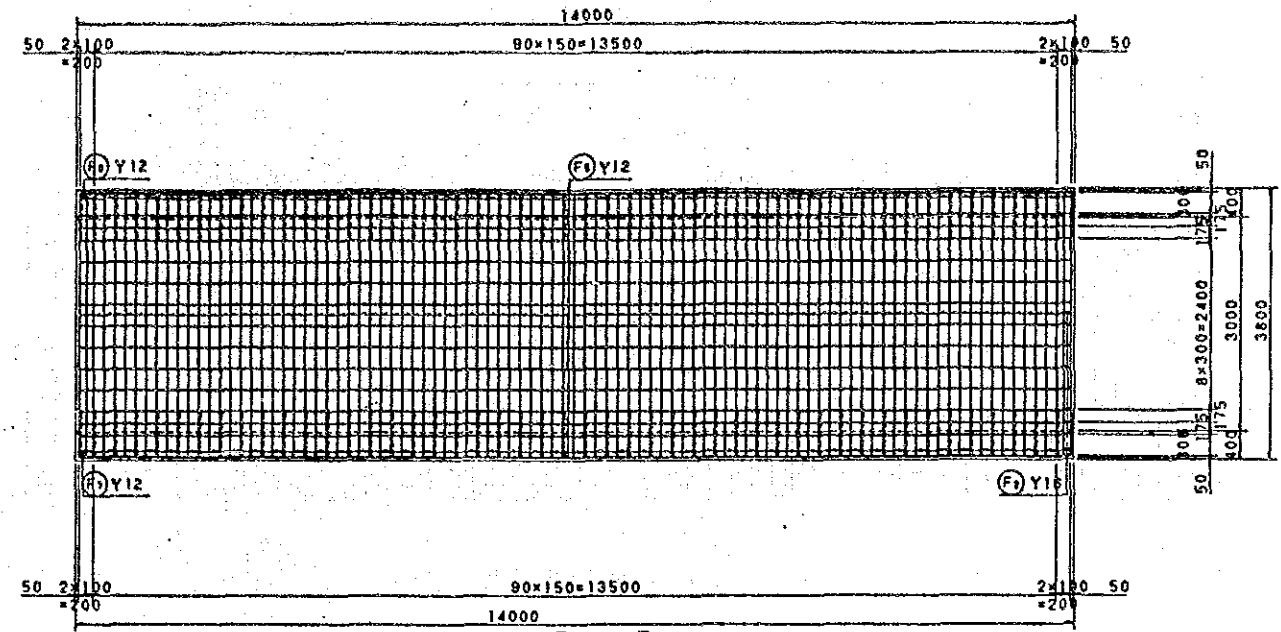
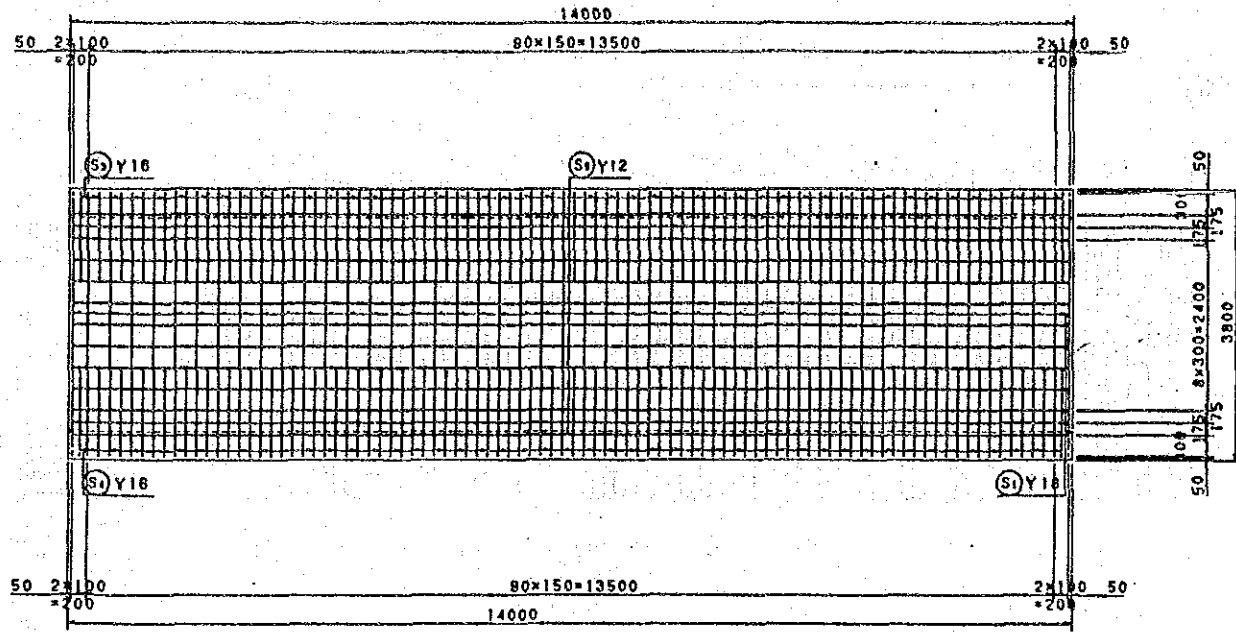


DETAIL OF JOINTS

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

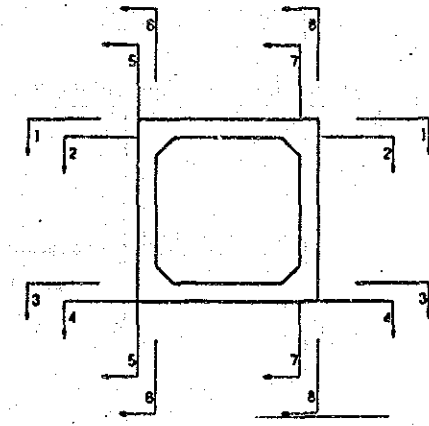
MOPW ROADS DEPT DRG NO.

REVISIONS		JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS) CHIEF SUPT ENG (DESIGN)	SEN SUPT. ENG (DESIGN) SUPT ENGINEER (DESIGN) PROJECT ENGINEER	SCALES 1:100, 200	NAIROBI BYPASS PEDESTRIAN BOX COLVERTS - NO. 1 CR 18+400.00 W=3.80 X=3.80 (1)	Q
DESCRIPTION	DATE						



2 - 2

4 - 4



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

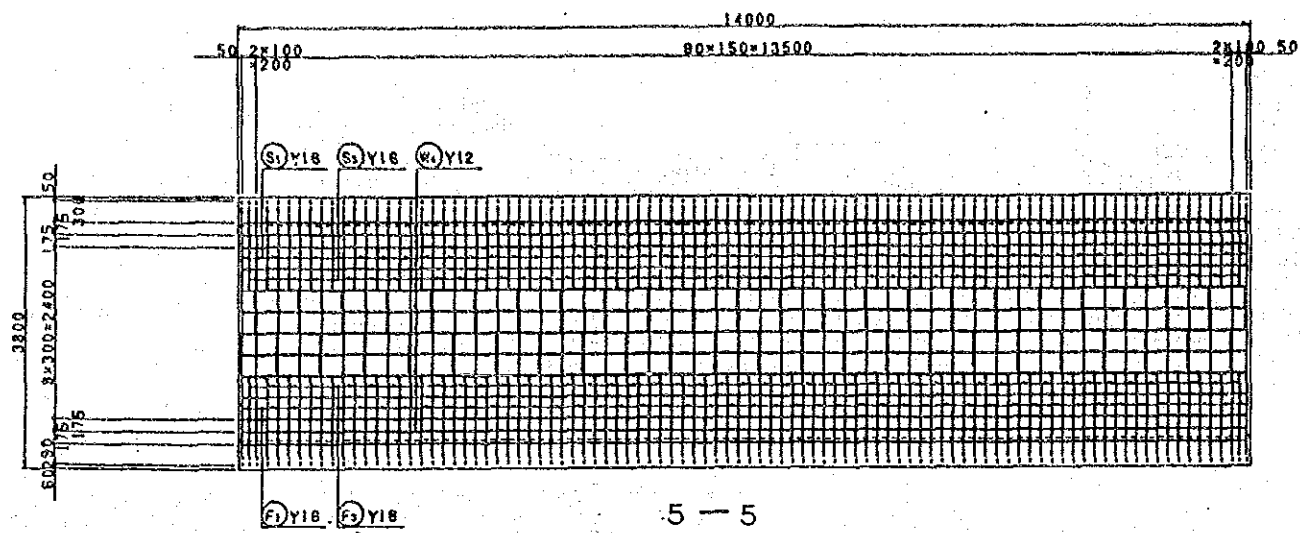
CHIEF ENGINEER (ROADS)
CHIEF SUPT. ENG. (DESIGN)

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

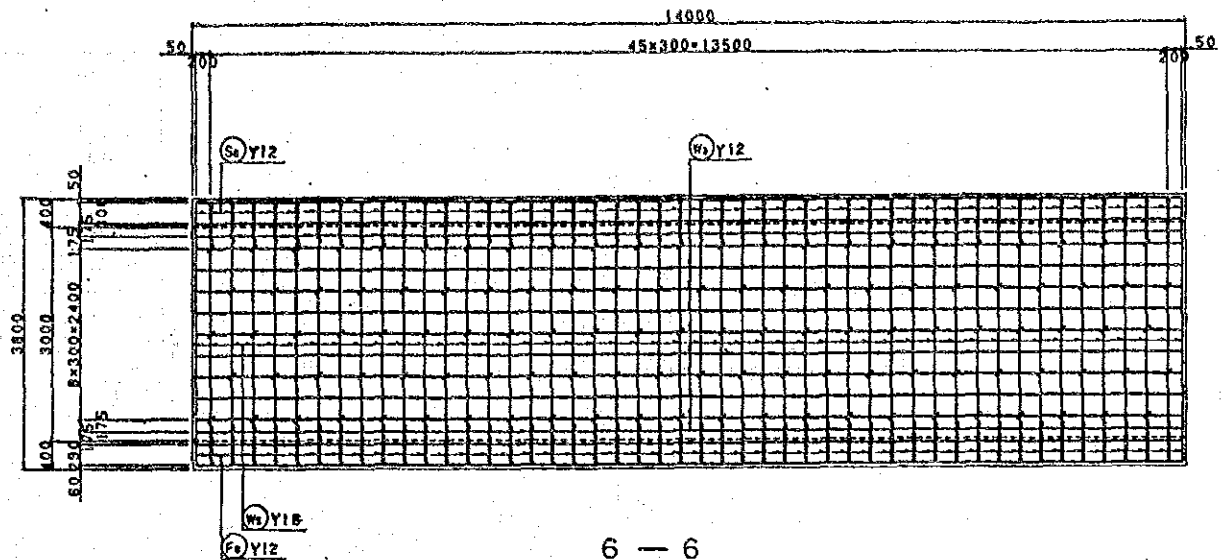
SCALES
1:50

NAIROBI BYPASS
PEDESTRIAN BOX CULVERTS
CR 14+00.00 R+3.00 R+3.00 (2)

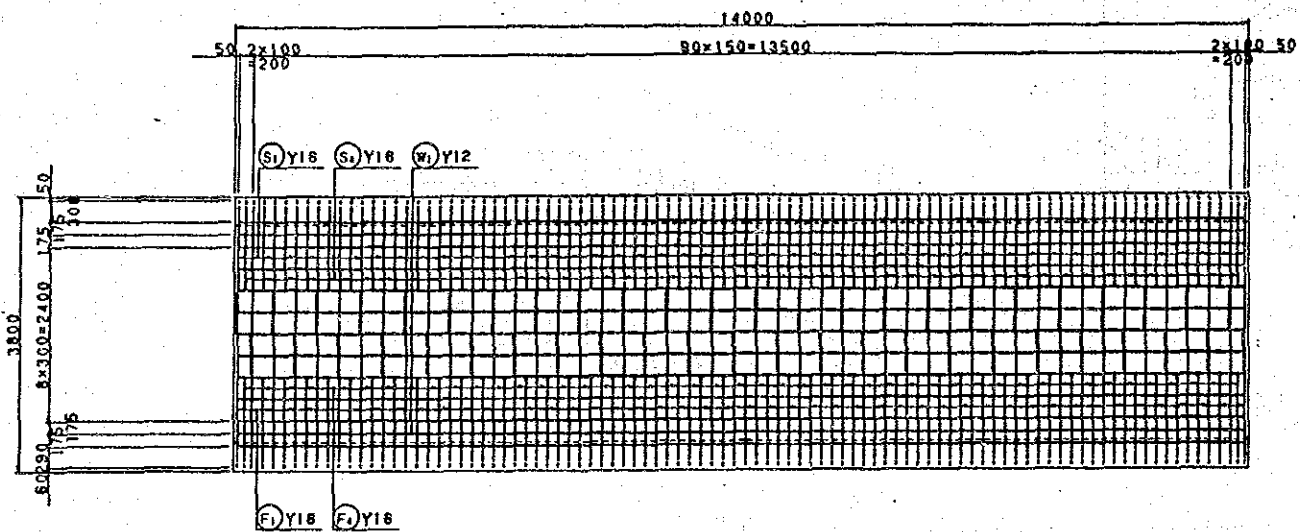
Q
SHEET 10 OF 183



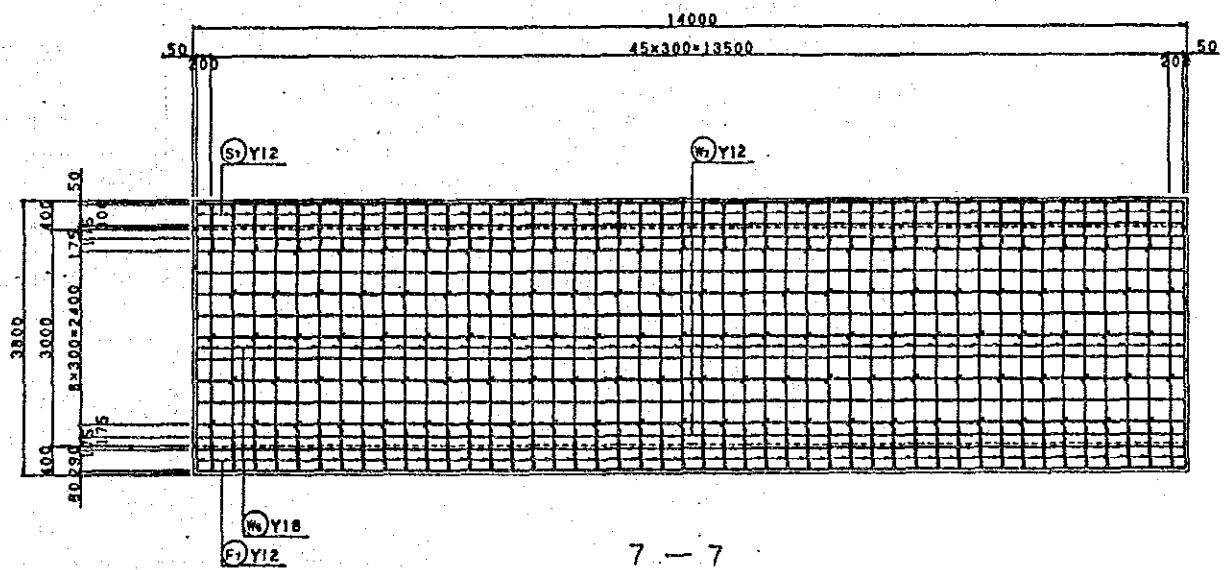
5 - 5



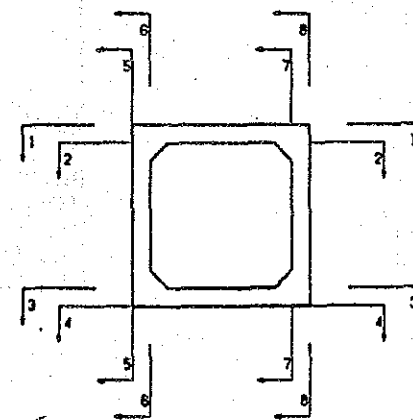
6 - 6



8 - 8



7 - 7



AERIAL PHOTO BY _____ 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

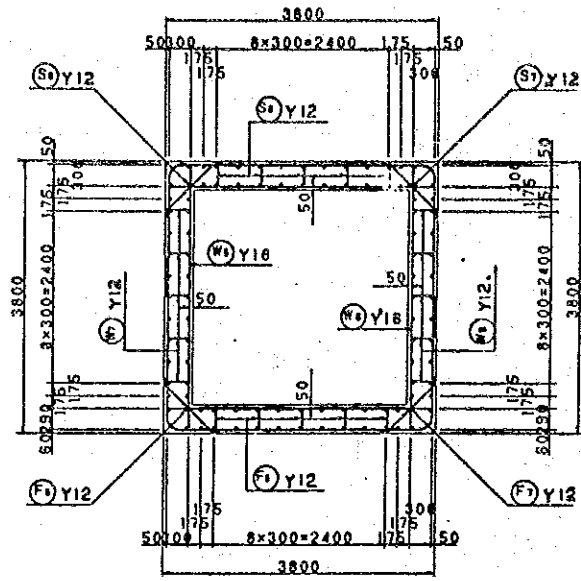
SCALES
 1:50

NAIROBI BYPASS
 PEDESTRIAN BOX CULVERTS
 CA 1A+600.00 0+3.00 0+3.00 (S)

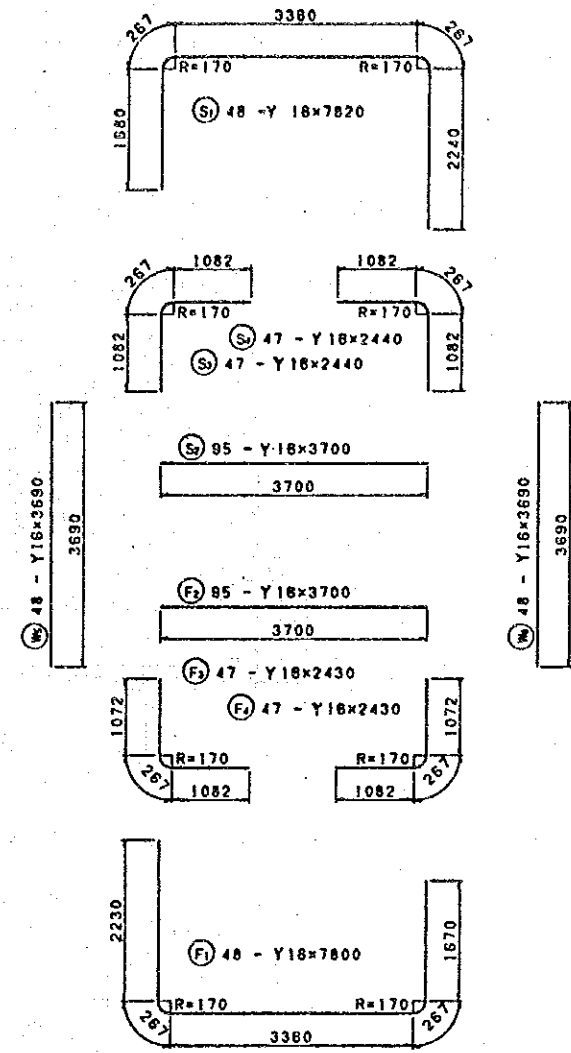
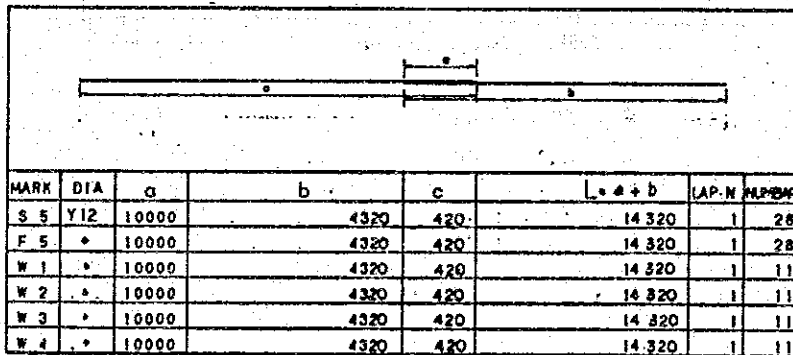
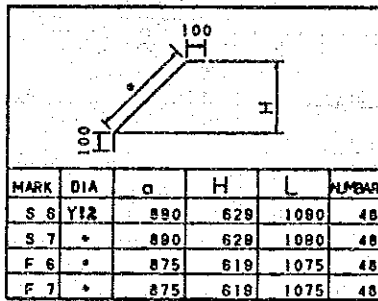
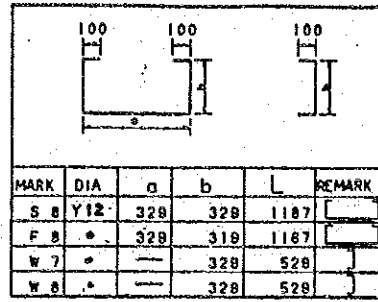
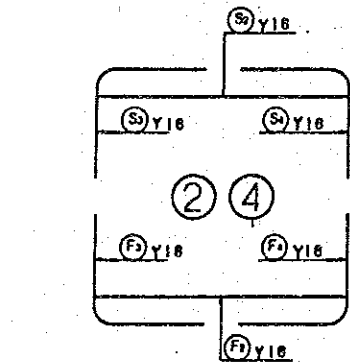
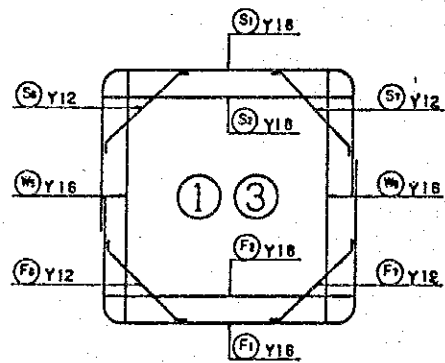
0
 SHEET 10 OF 183

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

MOPW ROADS DEPT DRG NO.



SECTION



REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

CHIEF ENGINEER (ROADS)
CHIEF SUPY ENG (DESIGN)

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

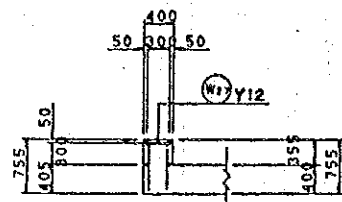
SCALES
1:50

NAIROBI BYPASS
PEDESTRIAN BOX CULVERTS
CN 18+600.00 V=3.00 H=3.00 (4)

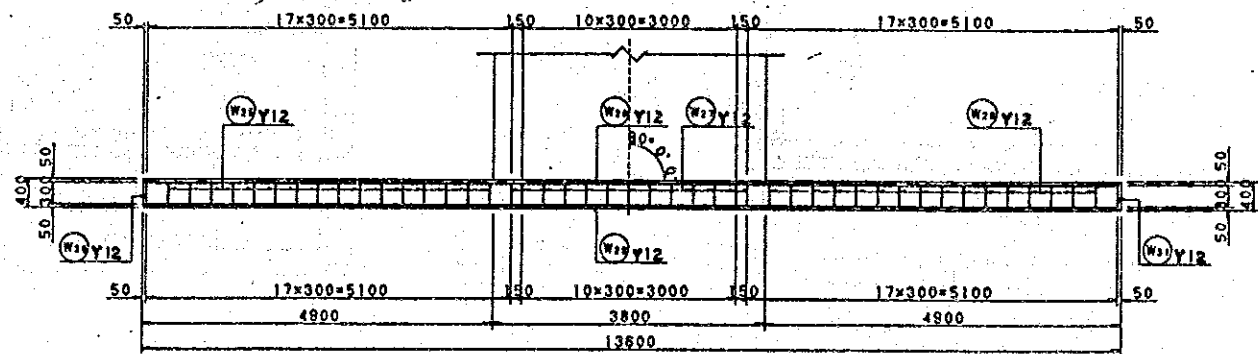
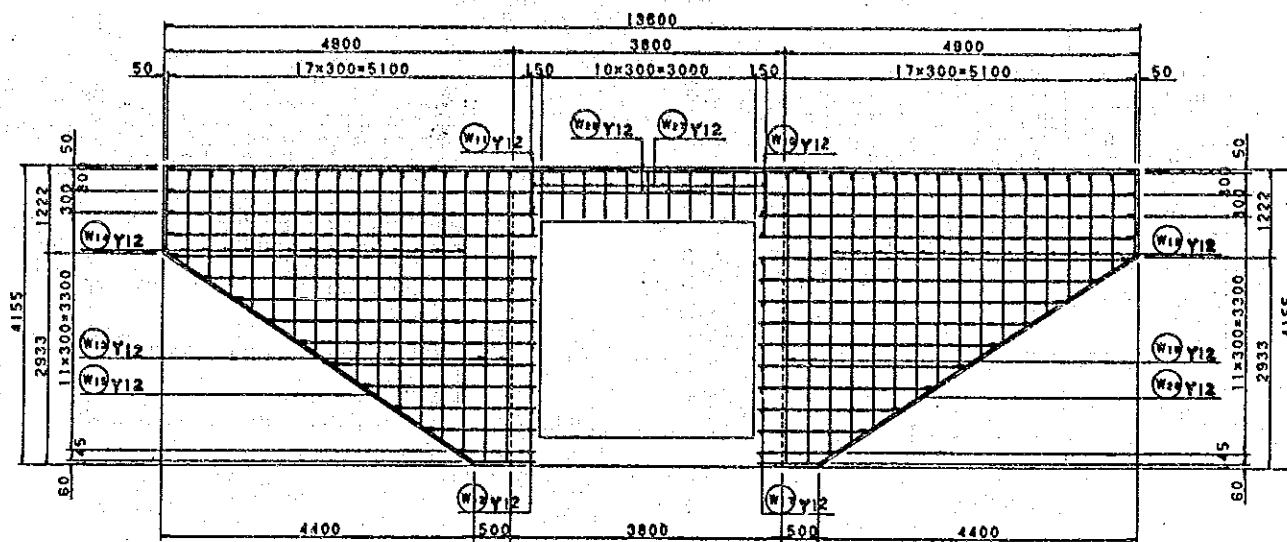
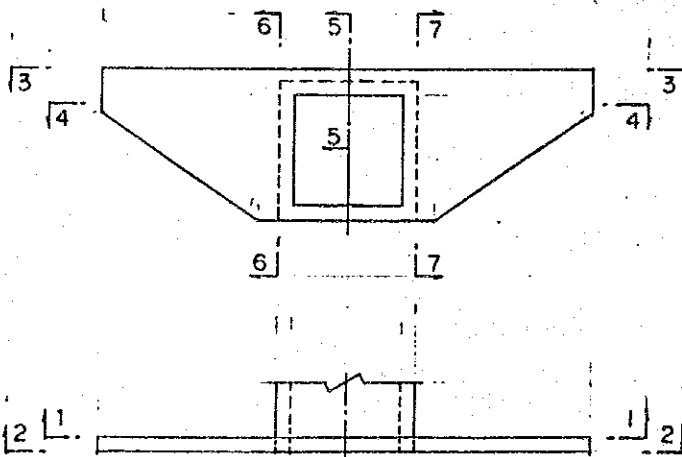
Q
SHEET 10 OF 18

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

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



5 — 5



REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL
COOPERATION AGENCY

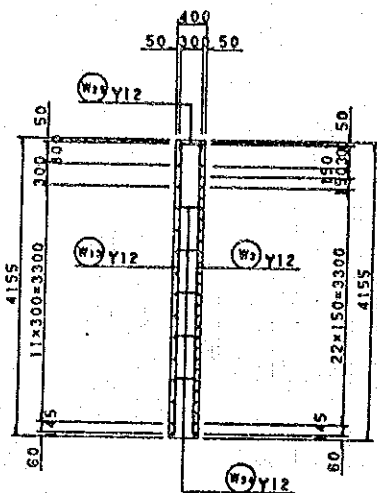
CHIEF ENGINEER (ROADS)
CHIEF SUPT. ENG. (DESIGN)

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

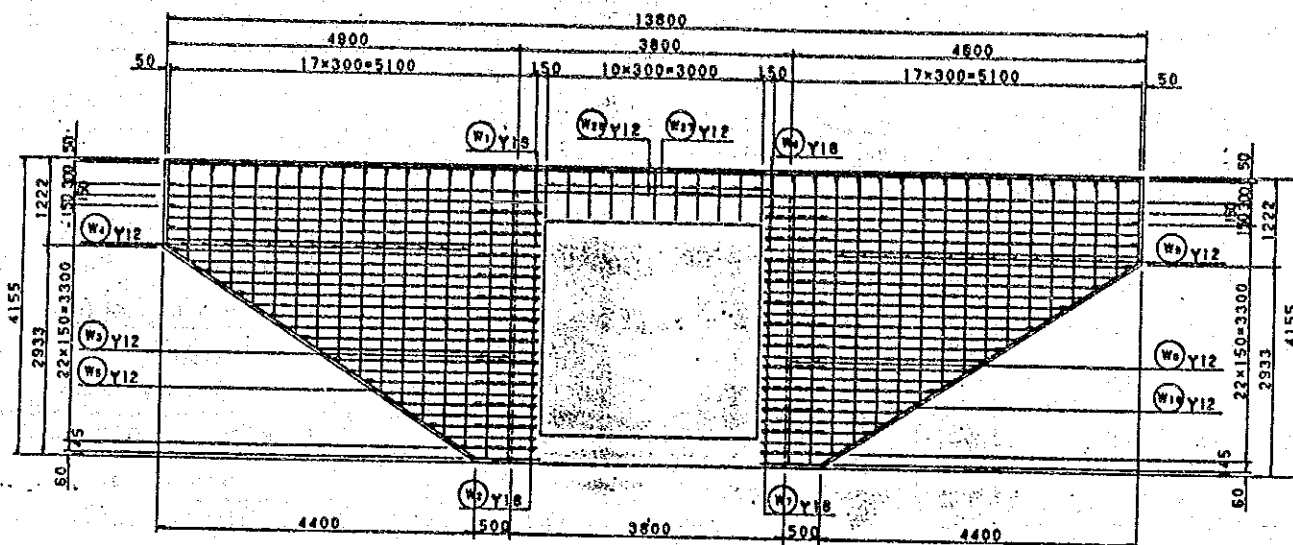
SCALES
1:50

NAIROBI BYPASS
PEDESTRIAN BOX CULVERTS
CR 18+400.00 R+3.00 W-3.00 (S)

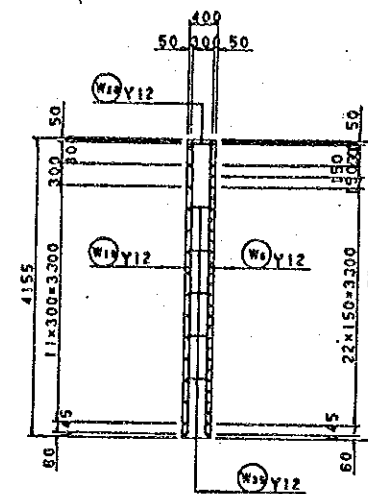
0
SHEET 106 OF 183



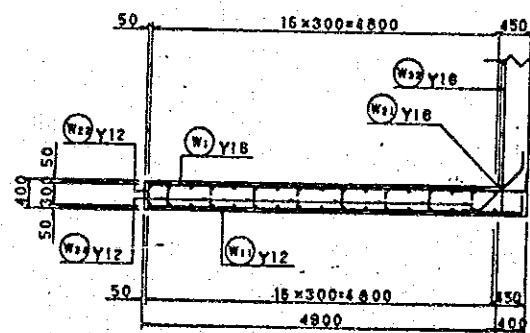
6 - 6



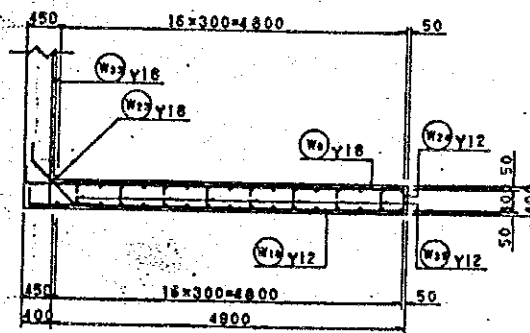
2 - 2



7 - 7



4 - 4



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

M.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

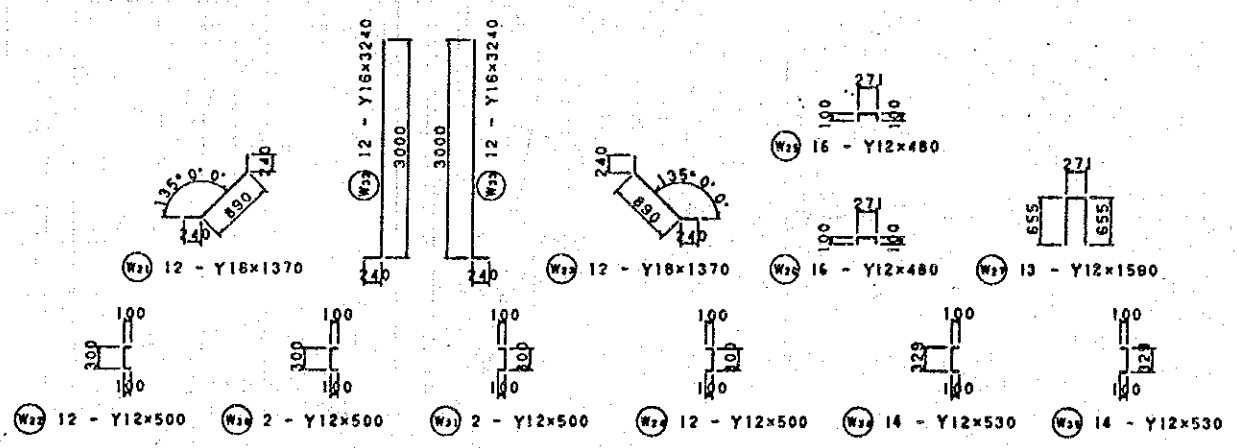
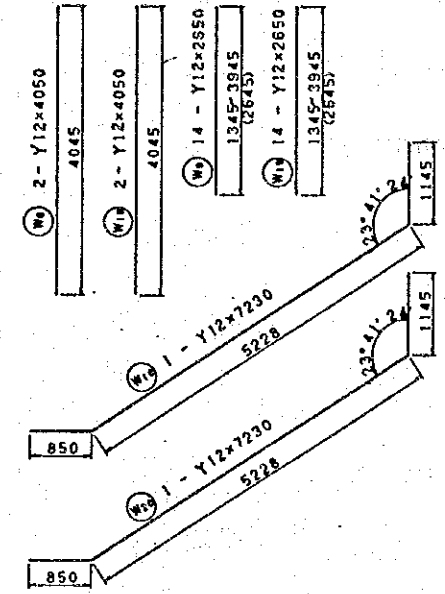
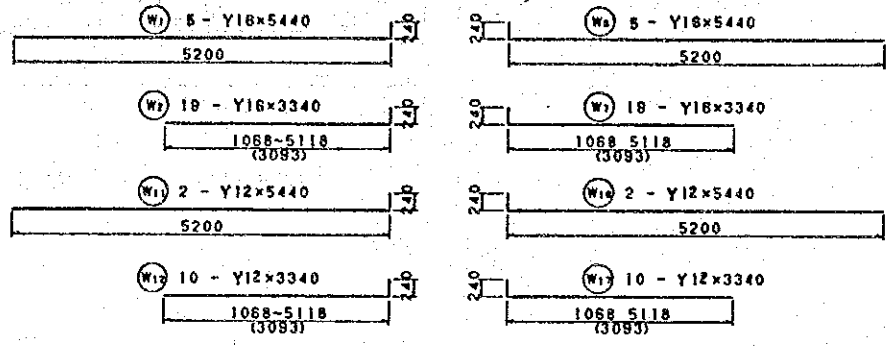
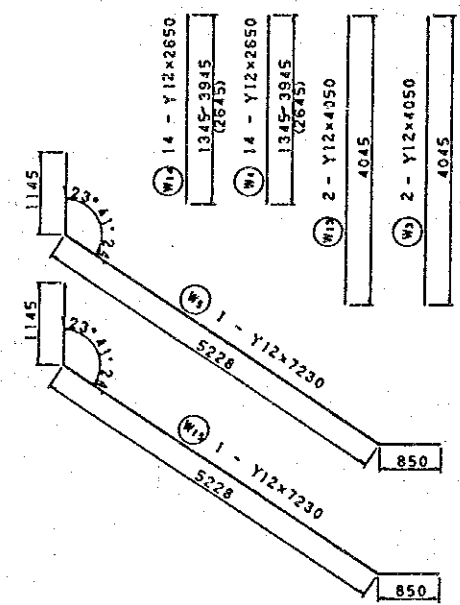
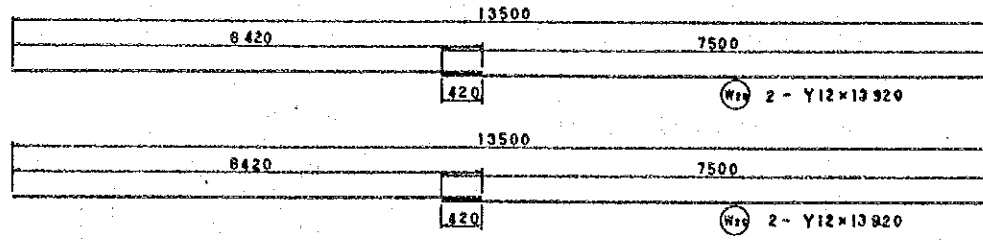
SCALES
1 50

NAIROBI BYPASS
PEDESTRIAN BOX CULVERTS
CH 18+400.00 0+2.00 0+2.00 (S)

Q
SHEET 1870F1 83

AERIAL PHOTO BY	SURVEYED BY
MAPPING	TRACED BY
LOCATION	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

NAIROBI BYPASS
 PRESTRESS BOX CULVERTS
 CN 10+400.00 R=3.00 R=3.00 (1)

Q
 SHEET 106 OF 113