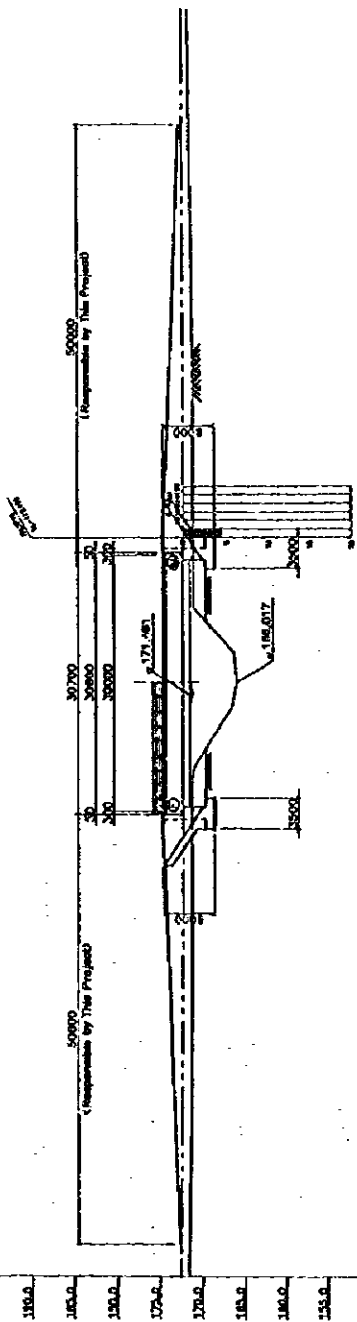


GENERAL VIEW (XPNo. 16)

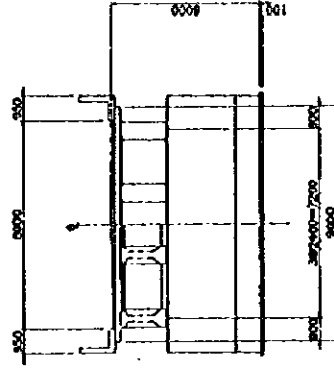
SIDE ELEVATION S = 1 / 300



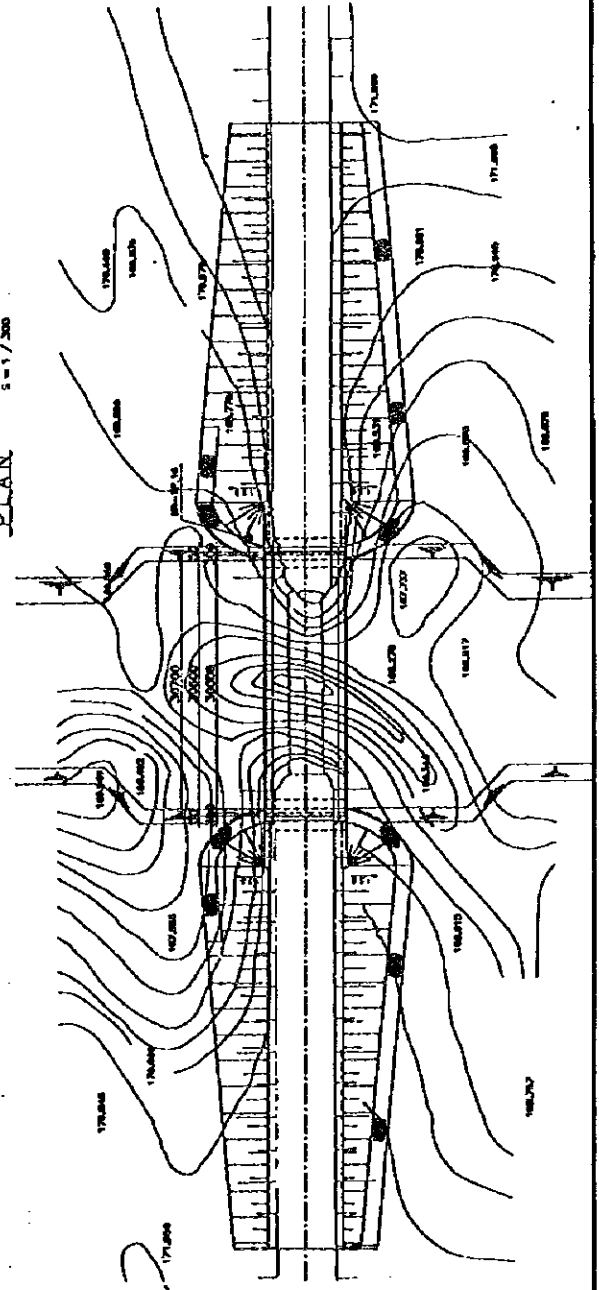
DESIGN CONDITION

TYPE	PC 1 span I-girder bridge
BRIDGE LENGTH	30,700
CHORD LENGTH	30,600
SPAN	30,000
WIDTH	6.000
LINE LOAD	Type B live load
SEISMIC COEFFICIENT	C _s = 0.08
ANGLE OF SLOPE	8°

CROSS SECTION S = 1 / 100



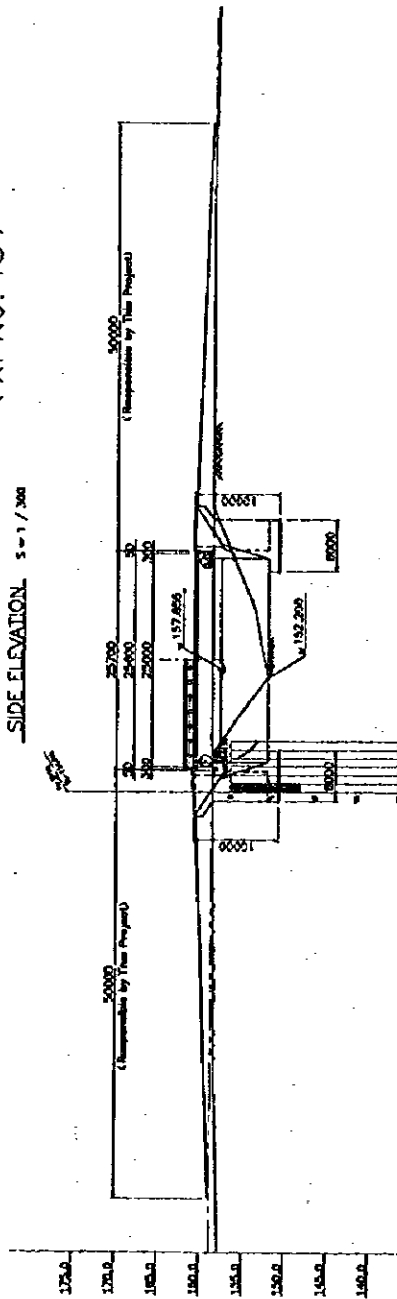
PLAN S = 1 / 300



LAD PEOPLE'S RESISTANCE MATERIALS	
THE PROJECT AND THE CONSTRUCTION OF THE BRIDGE	
THE NATIONAL ROAD SERVICE S.S. PHASE 2	
DATE	GENERAL VIEW (XPNo. 16)
SCALE	1 : 300
LAD PEOPLE'S RESISTANCE MATERIALS	

GENERAL VIEW (XPNo. 18)

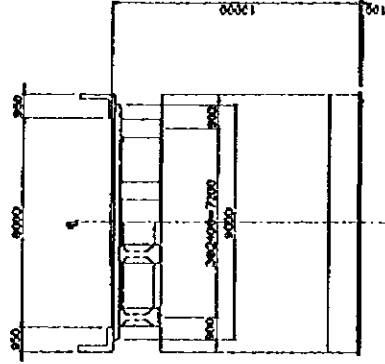
SIDE ELEVATION S = 1 / 300



DESIGN CONDITION

TYPE	PC I span (single) bridge
BRIDGE LENGTH	25.700
CHORD LENGTH	25.000
SPAN	25.000
WIDTH	15.000
LIVE LOAD	Type B live load
SKIRM COEFFICIENT	0.1 = 0.06
ANGLE OF SKEW	0°

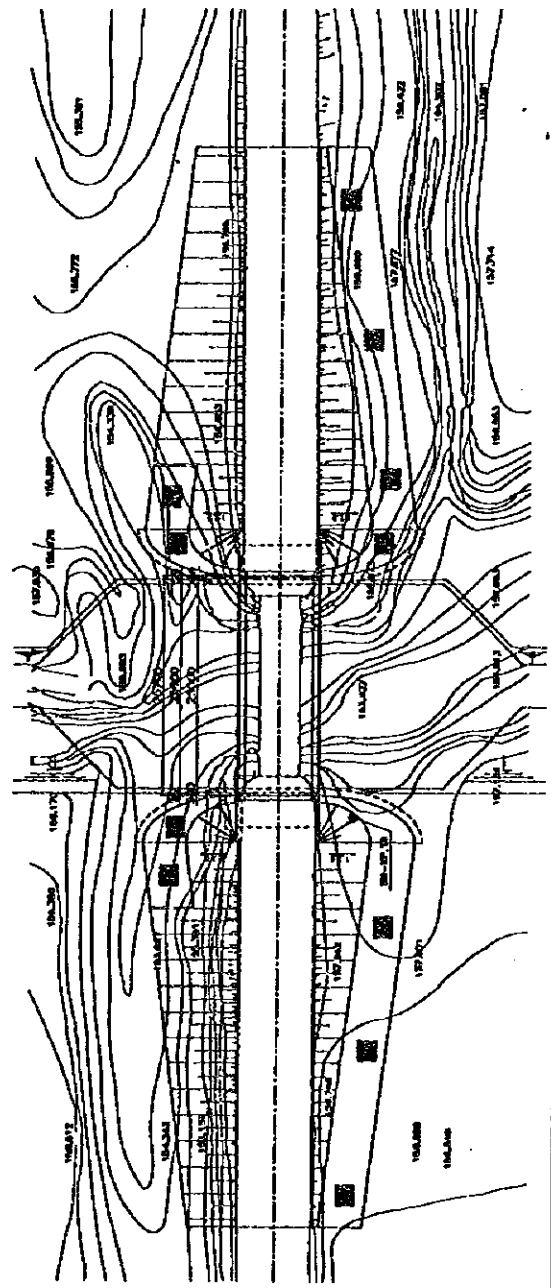
CROSS SECTION S = 1 / 100



LAD PEPLEY'S SURVEYING ENGINEERS	
THE PROJECT FOR THE RECONSTRUCTION OF BRIDGE	
THE NATIONAL ROAD DEPT. IS, PHASE II	
Project No.	GENERAL VIEW (XPNo. 18)
Date	1 / 1 / 68
Scale	30
Approved by: [Signature]	
Checked by: [Signature]	
Drawn by: [Signature]	

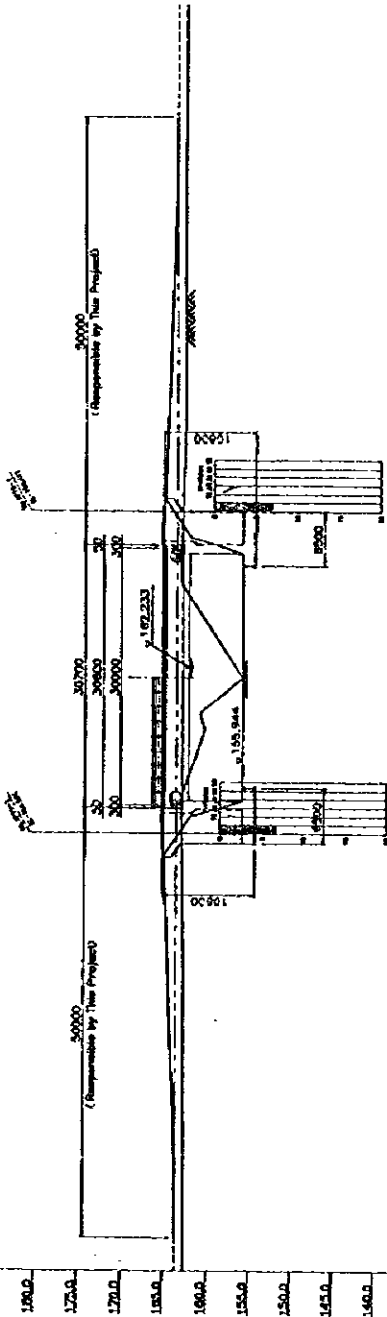
GRADE	132.0	134.0	136.0	138.0	140.0	142.0	144.0	146.0	148.0	150.0	152.0	154.0	156.0	158.0	160.0	162.0	164.0	166.0	168.0	170.0	172.0	
PROPOSED																						
RECORDED																						
GROUND																						
SECTION																						
SURVEY																						

PLAN S = 1 / 300



GENERAL VIEW (XPNo. 19)

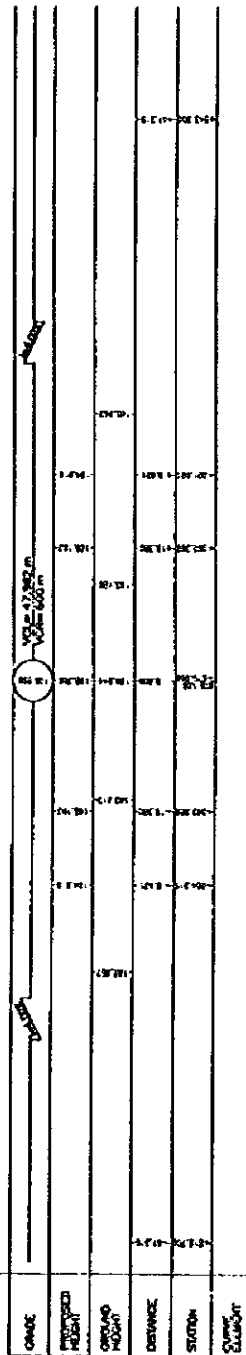
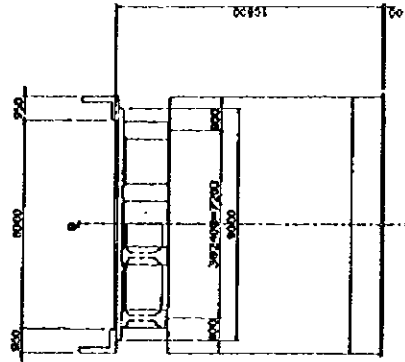
SIDE ELEVATION S = 1 / 300



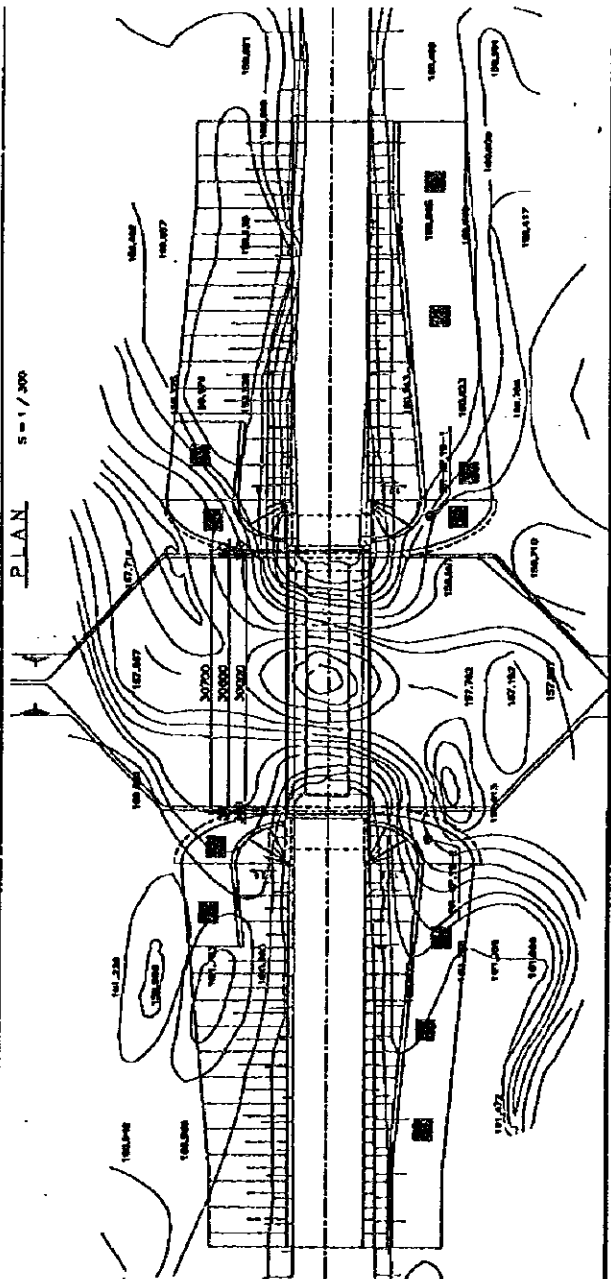
DESIGN CONDITION

TYPE	PC 1 span I-girder bridge
BRIDGE LENGTH	30,700
SPAN LENGTH	30,000
SPAN	30,000
WIDTH	8,000
TYPE LOAD	Type B live load
SEISMIC COEFFICIENT	0.1 = 0.08
ANGLE OF SKEW	9.7

CROSS SECTION S = 1 / 100



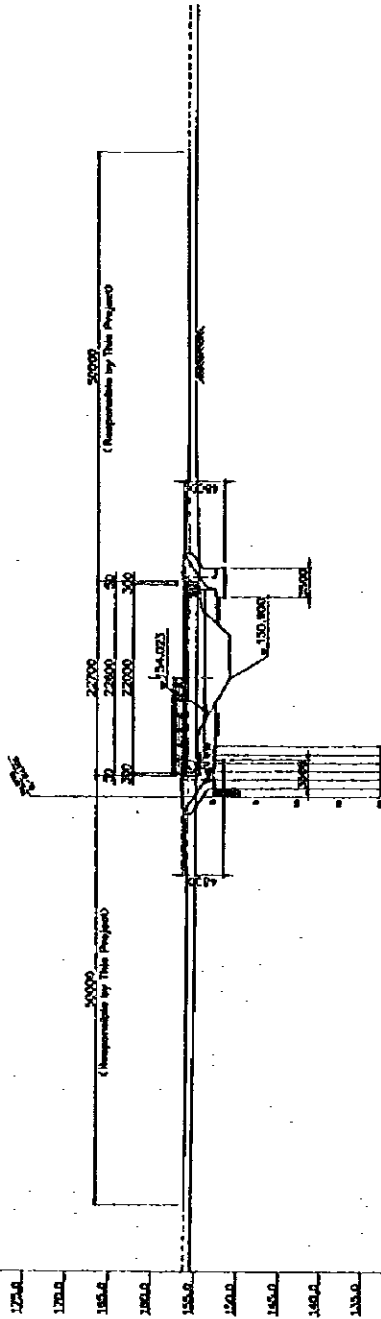
PLAN S = 1 / 300



LAD PAPER'S BRIDGEABLE REPORT, I & II	
THE PROJECT FOR THE RECONSTRUCTION OF BRIDGE 19	
THE NATIONAL ROAD SERVICE IS, PHASE II	
Project No.	GENERAL #189 (100km. P. 03)
Scale	1 : 800
Sheet No.	31
APPROVED FOR THE PROJECT MANAGER	
APPROVED FOR THE PROJECT MANAGER	
APPROVED FOR THE PROJECT MANAGER	

GENERAL VIEW (X P No. 20)

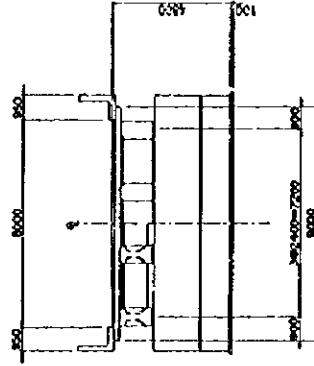
SIDE ELEVATION S = 1 / 300



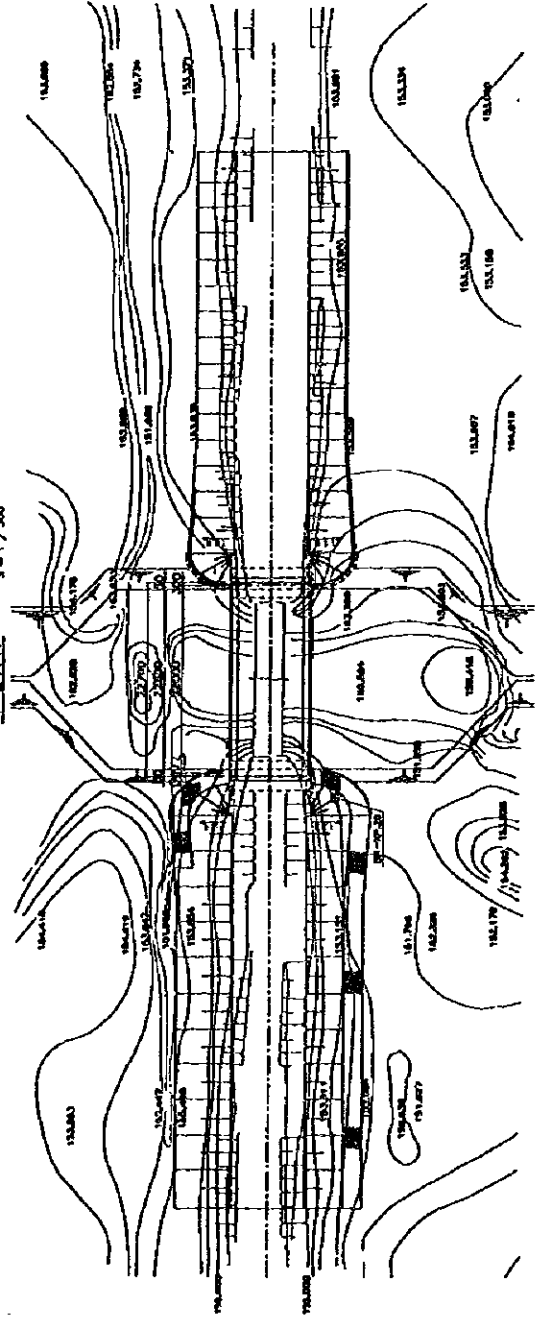
DESIGN CONDITION

TYPE	PC 1 open T-girder bridge
BRIDGE LENGTH	22,700
CROWN LENGTH	21,800
SPAN	22,000
WIDTH	8.000
LMC LOAD	Type 0 (See Note)
SENSIC COEFFICIENT	101 + 0.08
ANGLE OF SKIN	90°

CROSS SECTION S = 1 / 100

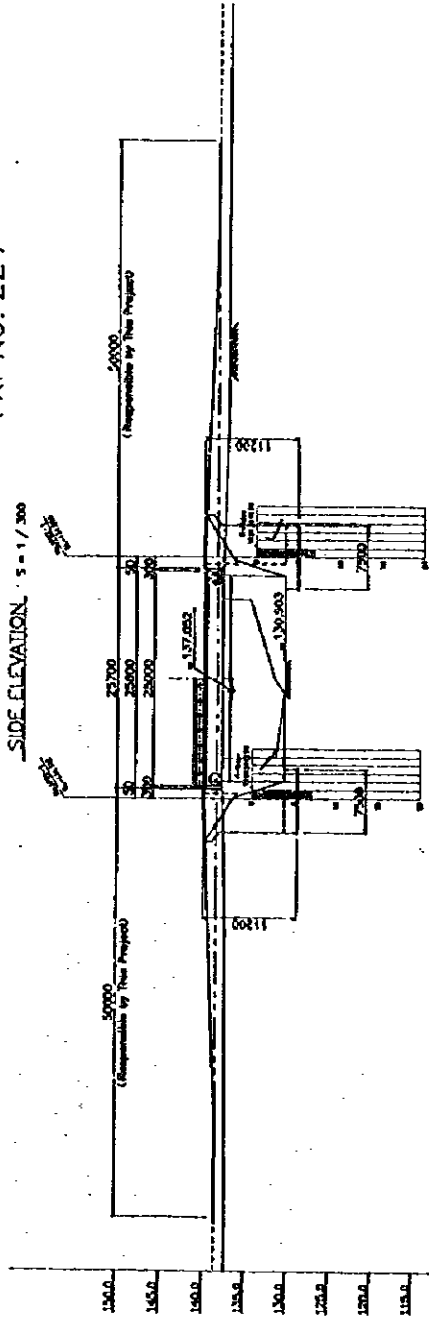


PLAN S = 1 / 300



LAR PEARL'S CONSULTANTS (P) PRIVATE LTD THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES OVER THE SIAI (Main, sub-projects 1), PHASE 2			
Project No.	1 / 1	Revision No.	3 / 2
Sheet No.	1 / 1	Revision No.	3 / 2
GENERAL VIEW (X P No. 20)			
A. PEARL'S CONSULTANTS (P) PRIVATE LTD, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.			

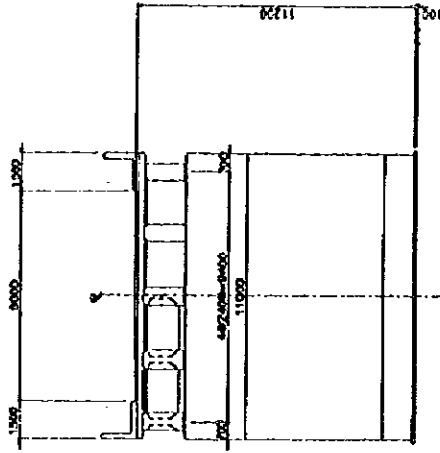
GENERAL VIEW (XPNo. 22)



DESIGN CONDITION

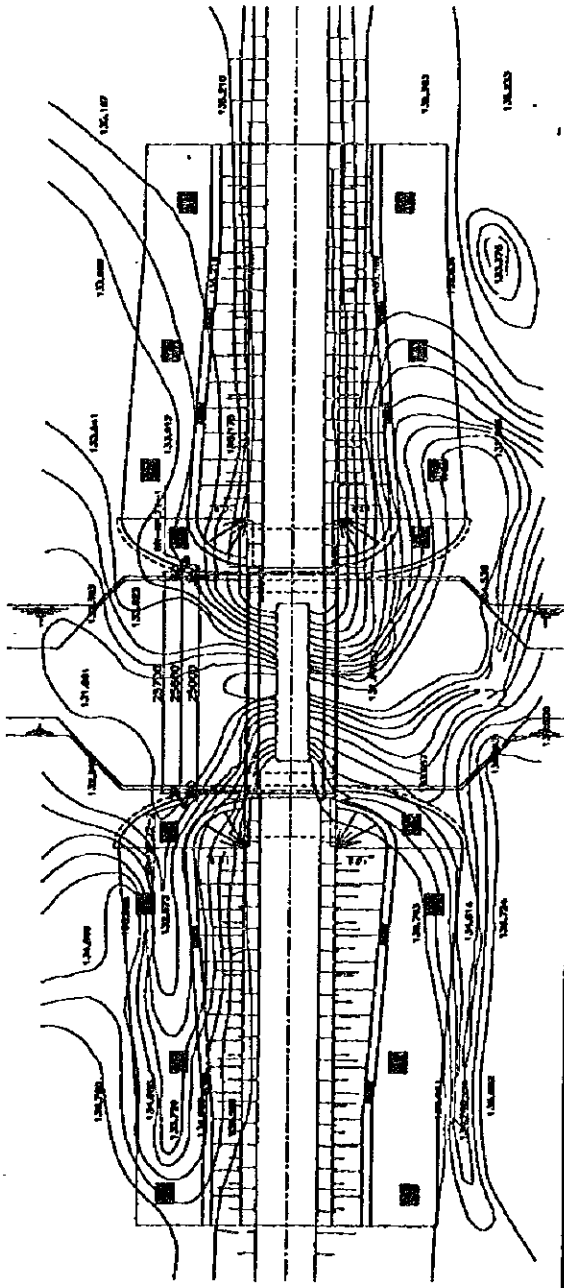
TYPE	PC 1 (Responsibility for This Project)
BRIDGE LENGTH	25,700
SPAN LENGTH	25,800
SPAN	25,000
WIDTH	8,000
UIC LOAD	Type B Rein. Steel
SEISMIC COMPONENT	10% as shown
ANGL. OF SLOPE	9:7

CROSS SECTION S = 1/100



GRADE	ADJUSTED HEIGHT	GROUND HEIGHT	DISTANCE	STATION	CURVE QUANTITY
156.0					
155.0					
154.0					
153.0					
152.0					
151.0					
150.0					
149.0					
148.0					
147.0					
146.0					
145.0					
144.0					
143.0					
142.0					
141.0					
140.0					
139.0					
138.0					
137.0					
136.0					
135.0					
134.0					
133.0					
132.0					
131.0					
130.0					
129.0					
128.0					
127.0					
126.0					
125.0					
124.0					
123.0					
122.0					
121.0					
120.0					
119.0					
118.0					
117.0					
116.0					
115.0					

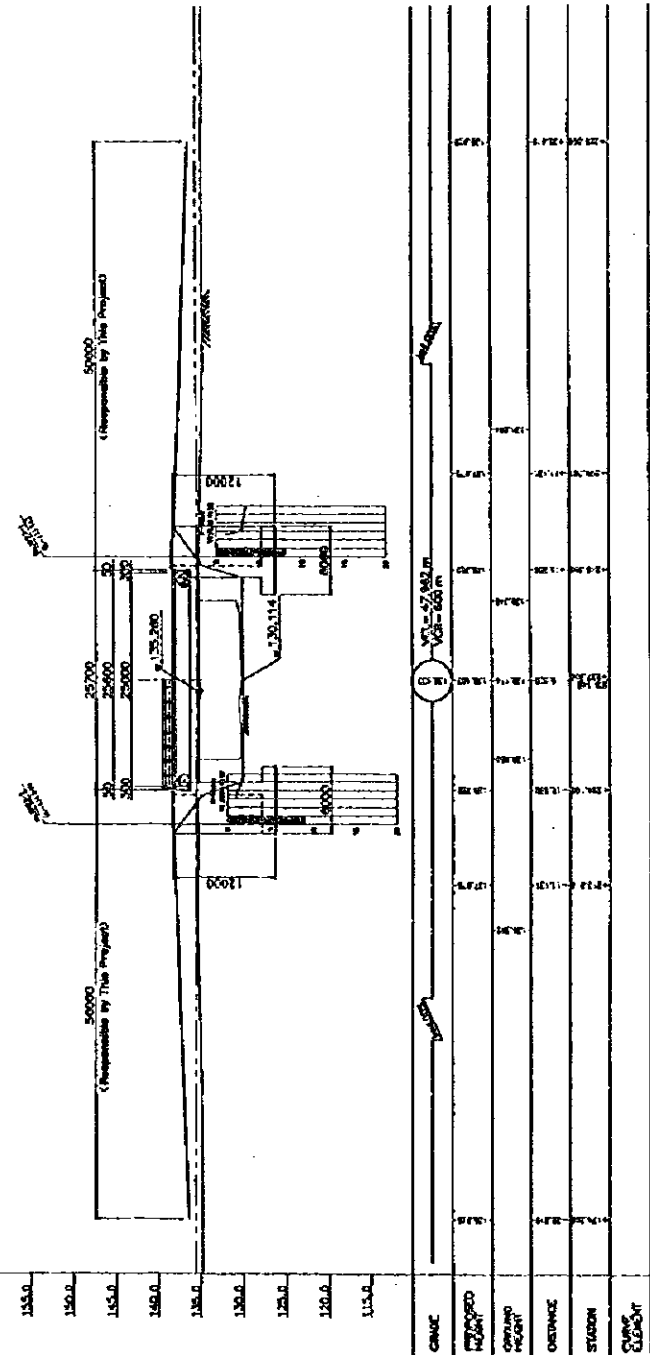
PLAN S = 1/300



Let Republic's Engineering & Planning be prepared for the construction of the bridge on the National Road (Route 1), Phase 2	
Project No.	GENERAL VIEW (XPNo. 22)
Sheet No.	5 of 2000
Scale	As Shown
Author	Republic's Engineering & Planning
Checked	Republic's Engineering & Planning
Approved	Republic's Engineering & Planning

GENERAL VIEW (XPNo. 23)

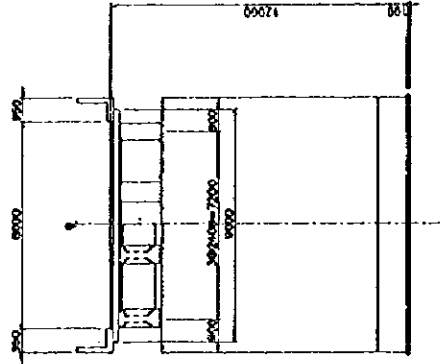
SIDE ELEVATION S = 1 / 300



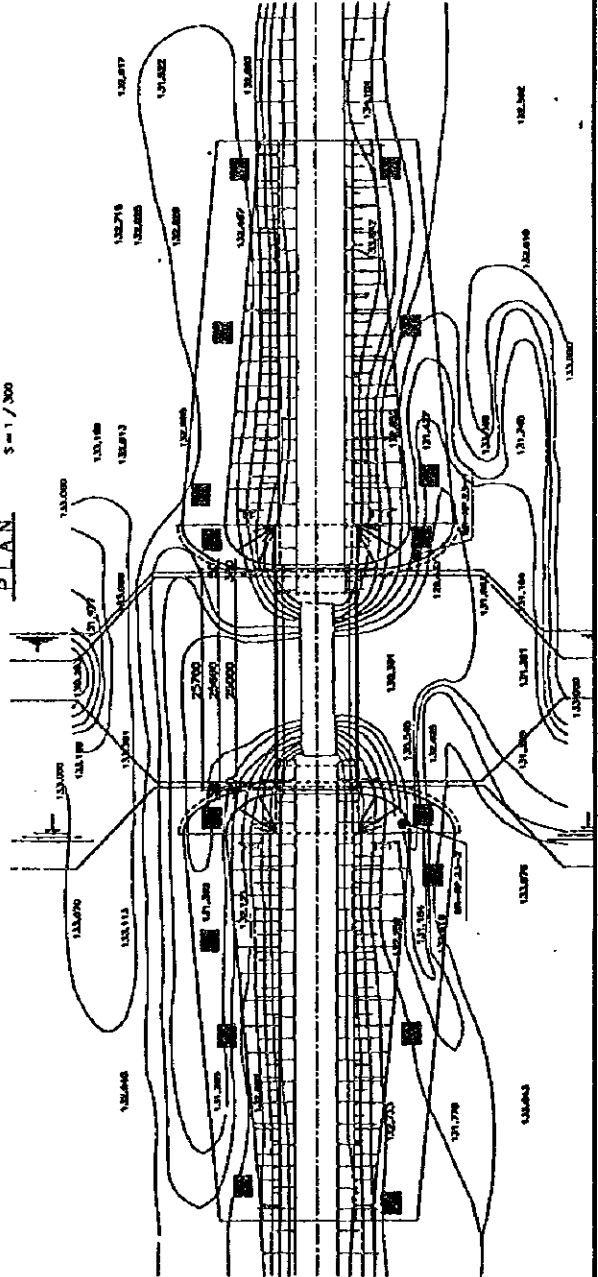
DESIGN CONDITION

TYPE	PC 1 span lighter bridge
BRIDGE LENGTH	25,700
ROAD LENGTH	25,000
SPAN	25,000
WIDTH	0,000
LIVE LOAD	Type B live load
STEERING COEFFICIENT	0.1 = 0.10
ANGLE OF SLOPE	97

CROSS SECTION S = 1 / 100

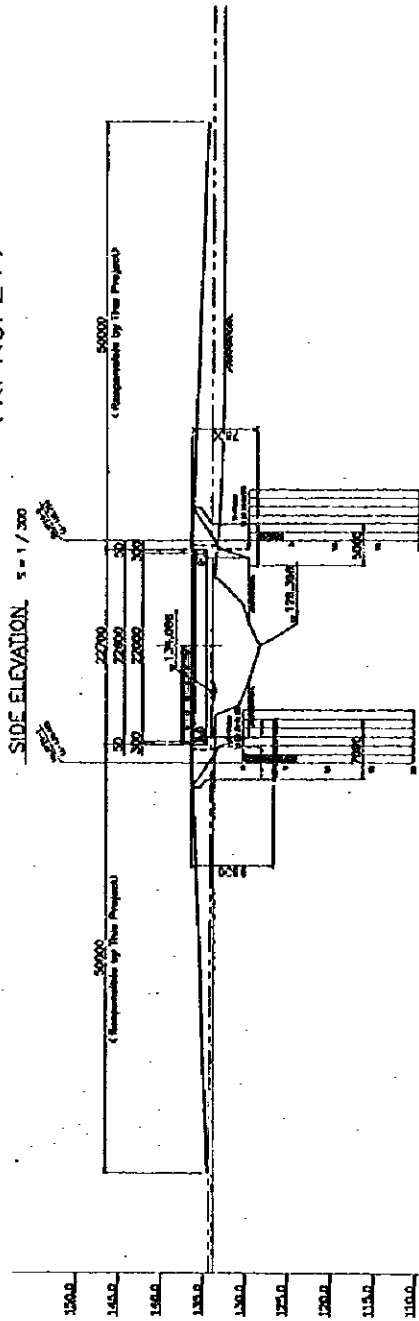


PLAN S = 1 / 300



SAP PROJECT'S PROJECT (S. 1000) (S. 1000)	
THE PROJECT FOR THE DEPARTMENT OF AIR FORCE	
DATE	1970
PROJECT	GENERAL VIEW (S. 1000, S. 1000)
SCALE	1 : 1000
PROJECT	23
SAP PROJECT'S PROJECT (S. 1000) (S. 1000)	
THE PROJECT FOR THE DEPARTMENT OF AIR FORCE	
DATE	1970
PROJECT	GENERAL VIEW (S. 1000, S. 1000)
SCALE	1 : 1000
PROJECT	23

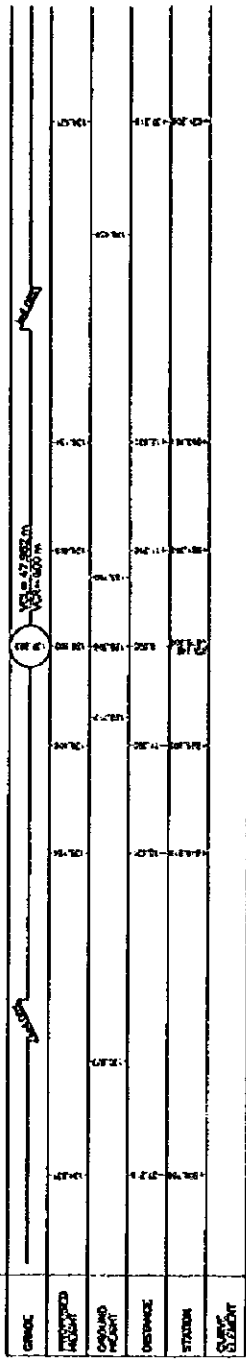
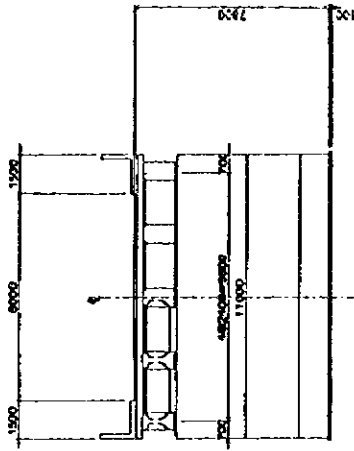
GENERAL VIEW (XPNO. 24)



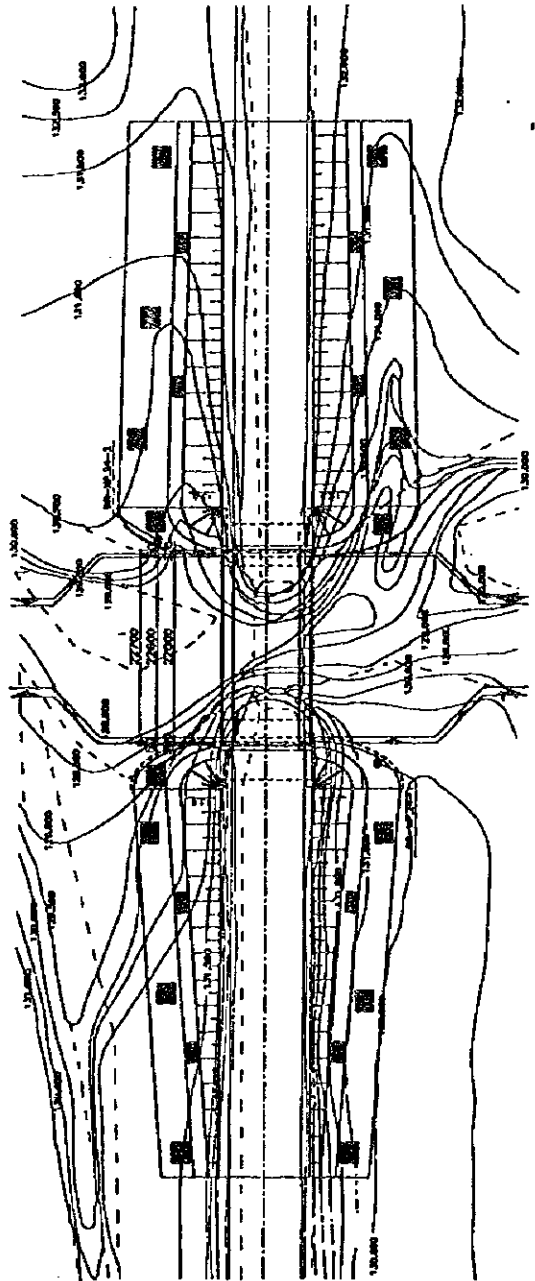
DESIGN CONDITION

TYPE	PG 1 deck In-glass bridge
BRIDGE LENGTH	22,700
SPAN LENGTH	22,000
SPAN	22,000
WIDTH	8,000
MAX LOAD	Type B live load
SEISMIC COEFFICIENT	101 = 0.06
ANGLE OF SIGHT	90°

CROSS SECTION S = 1/100



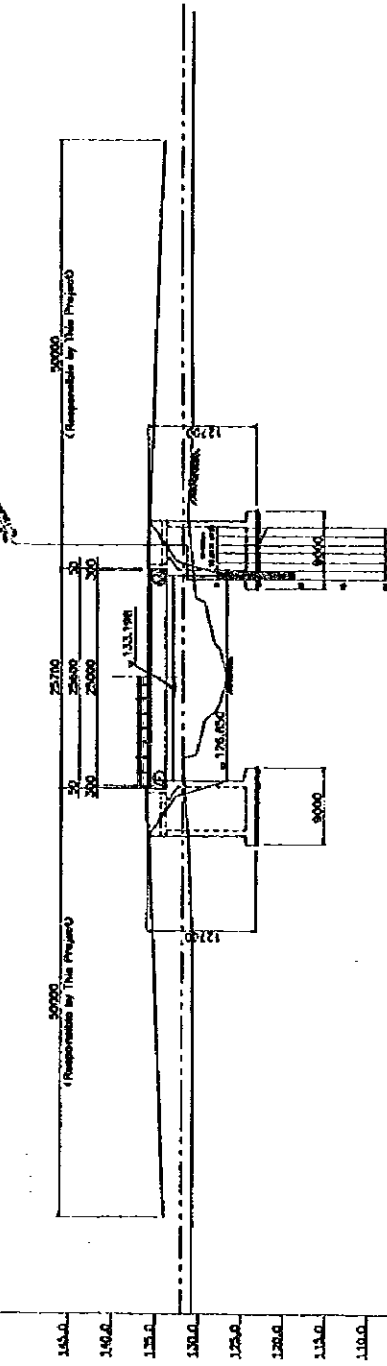
PLAN S = 1/300



LAW PEOPLE'S DEMOCRATIC REVOLUTION	
THE PROJECT FOR THE RECONSTRUCTION OF BR (DAR)	
THE NATIONAL ROAD PROJECT 13, PHASE 2	
Project Title	BRIDGE VIEW (XPNO. 24)
Scale	1:1000
Sheet No.	3/3
LAW PEOPLE'S DEMOCRATIC REVOLUTION MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE GENERAL ENGINEERING DEPARTMENT GENERAL ENGINEERING DIVISION GENERAL ENGINEERING SECTION	

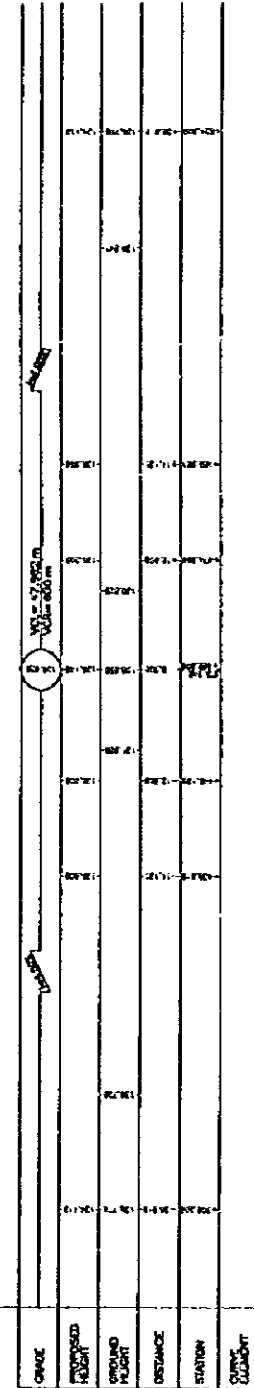
GENERAL VIEW (XPNo. 25)

SIDE ELEVATION. S = 1/500

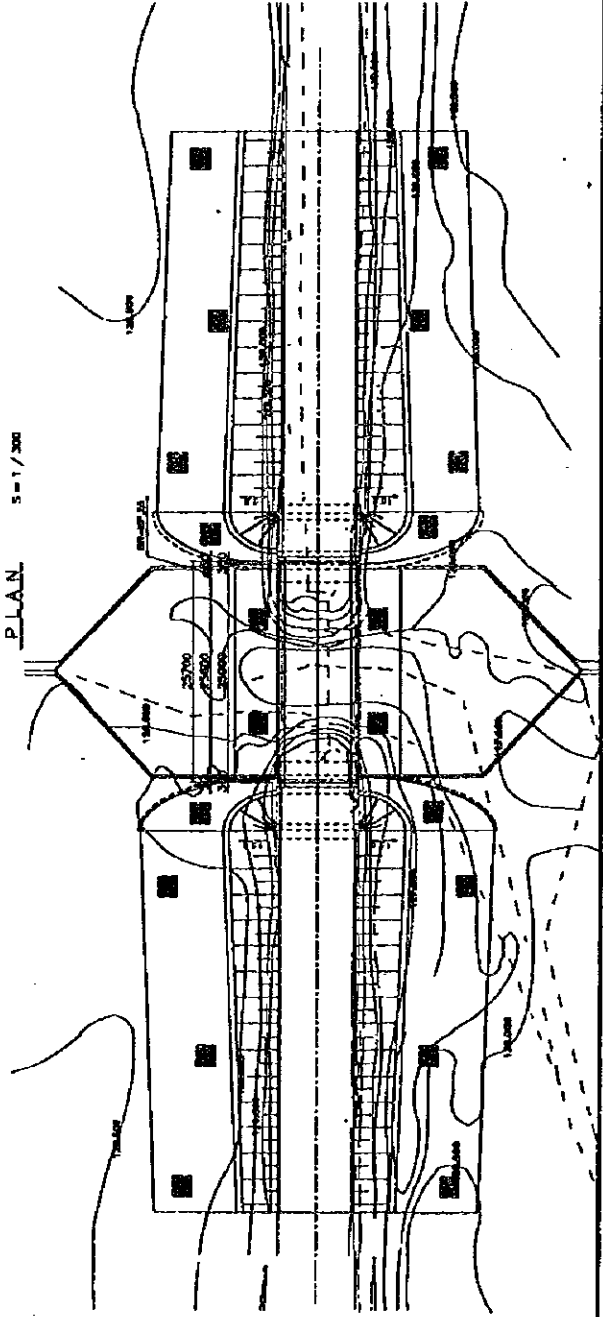


DESIGN CONDITION

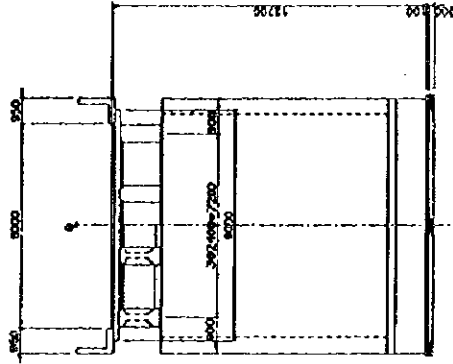
TYPE	PC 1 span - girder bridge
BRIDGE LENGTH	25,700
CENTER LENGTH	25,000
SPAN	25,000
WIDTH	8,000
LIKE LOAD	Type B low level
SCHEMATIC COEFFICIENT	KH = 0.08
ANGLE OF SKEW	0°



PLAN. S = 1/500



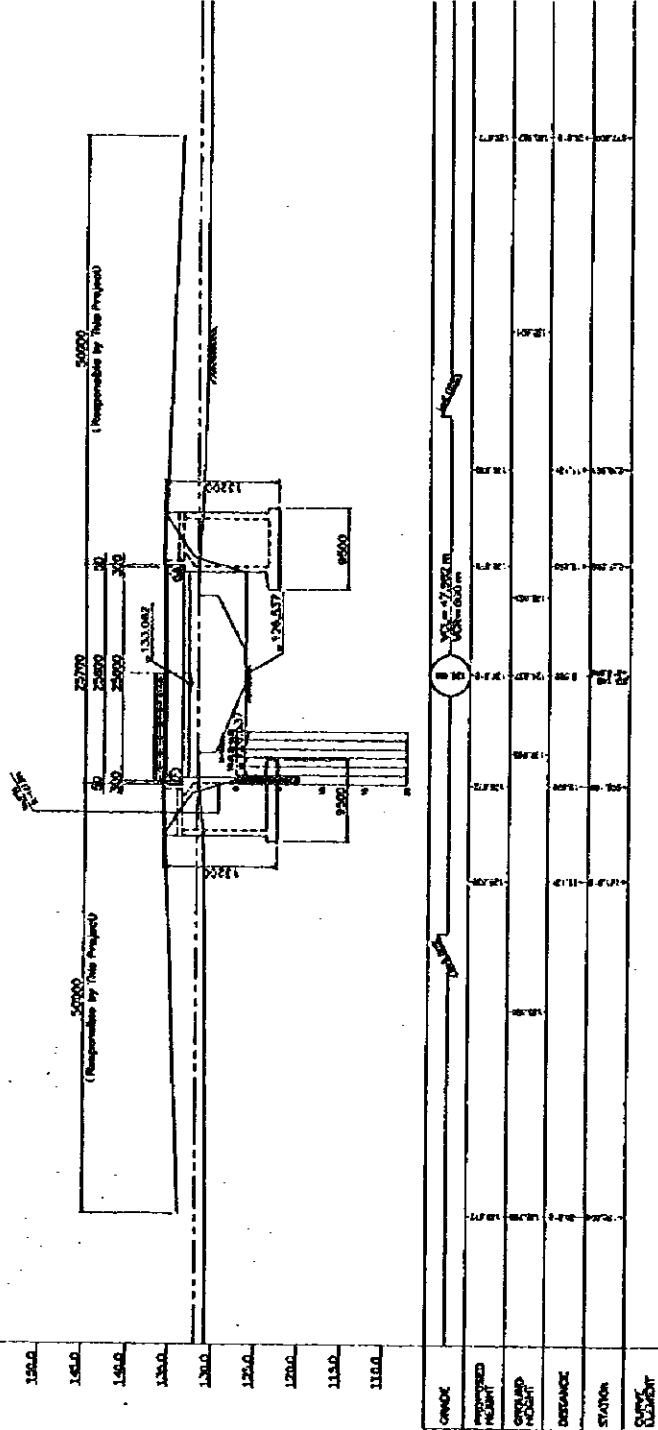
CROSS SECTION. S = 1/100



THE PROJECT HAS BEEN PREPARED FOR THE NATIONAL BUREAU OF STANDARDS AND TECHNOLOGY UNDER CONTRACT NO. 33-68-0011-001 THE NATIONAL BUREAU OF STANDARDS AND TECHNOLOGY GAITHERSBURG, MARYLAND, U.S.A.		
TITLE	GENERAL VIEW (XPNo. 25)	
Scale	1:500	Sheet No. 27
ALPHACONSTRUCTION COMPANY 1100 W. 10th Street, Oklahoma City, Oklahoma, U.S.A.		

**GENERAL VIEW
(XPNo. 26)**

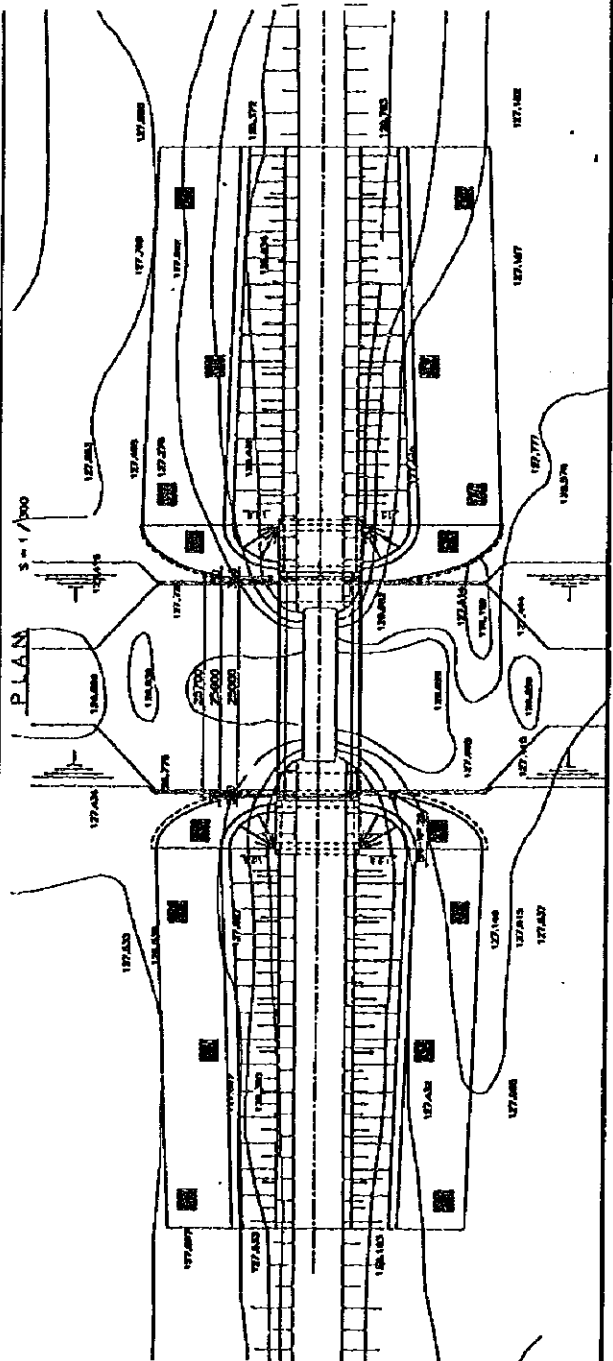
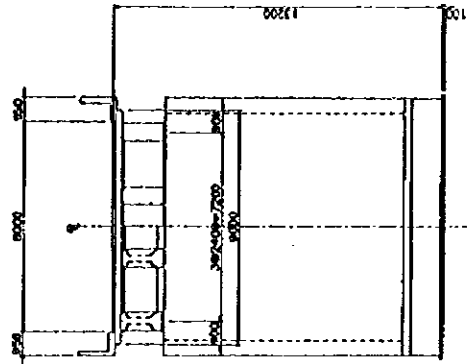
SIDE ELEVATION *S=1/300*



DESIGN CONDITION

TYPE	PC 1 span Inverted T Bridge
BRIDGE LENGTH	25,700
BRIDGE WIDTH	25,000
SPAN	25,000
WIDTH	25,000
LIVE LOAD	Type B (See text)
SEISMIC CONDITION	S ₁ = 0.04
ANGLE OF SKW	90°

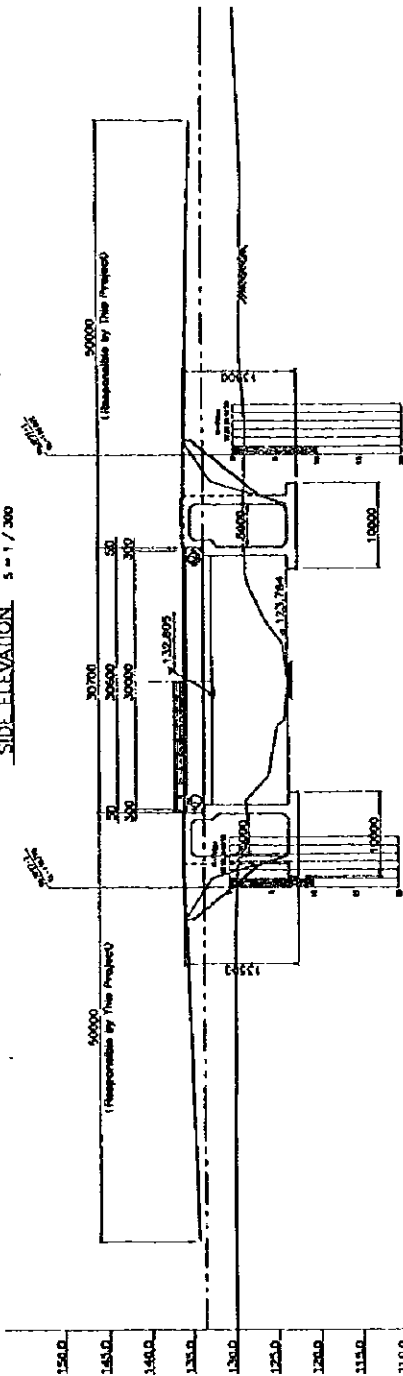
CROSS SECTION *S=1/100*



LAD TRAFFIC ANALYTICAL REPORT IS THE PROPERTY OF THE ASSOCIATION OF ENGINEERS OF THE NATIONAL ROAD BUREAU, U.S. PHASE II	
DATE	GENERAL VIEW (OP. No. 26)
SCALE	GENERAL VIEW (OP. No. 26)
PROJECT	1:1000
SHEET	39

GENERAL VIEW (XPNo. 27)

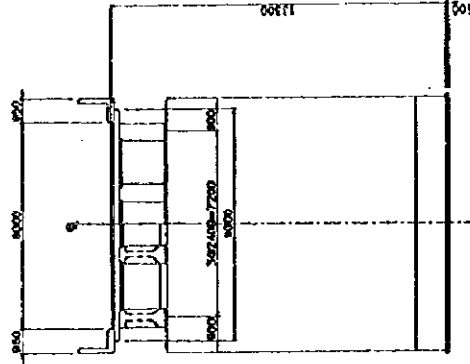
SIDE ELEVATION S = 1/300



DESIGN CONDITION

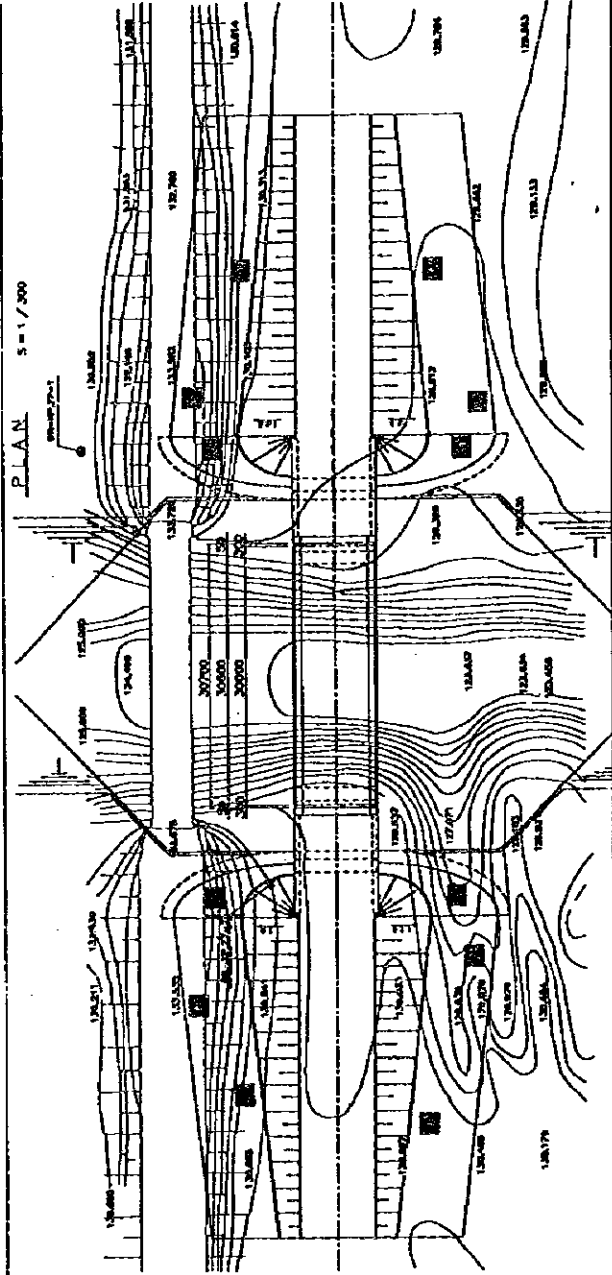
TYPE	PC I span I-girder bridge
BRIDGE LENGTH	91,900
CROWN LENGTH	30,600
SPAN	30,600
WIDTH	8,000
LRG LOAD	Type 2 live load
SCOUR PROTECT	100 = 0.08
ANGLE OF SKIN	90°

CROSS SECTION S = 1/100



GRADE	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING
156.0	156.0	156.0	156.0	156.0	156.0	156.0	156.0	156.0
155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0
154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0	154.0
153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0
152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0
151.0	151.0	151.0	151.0	151.0	151.0	151.0	151.0	151.0
150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0

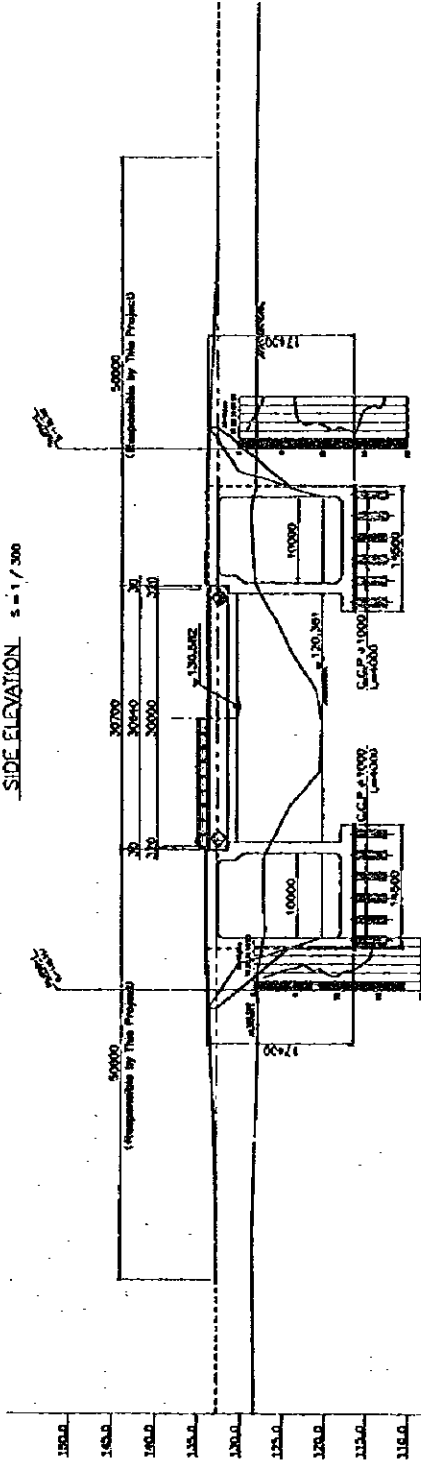
PLAN S = 1/300



DATE	11-28-66	PROJECT NO.	379
BY	J. J. B. B.	DESIGNED BY	J. J. B. B.
CHECKED BY	J. J. B. B.	APPROVED BY	J. J. B. B.
THIS DRAWING IS THE PROPERTY OF THE ENGINEER AND SHOULD NOT BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT HIS WRITTEN PERMISSION.			

GENERAL VIEW (XPNo. 28)

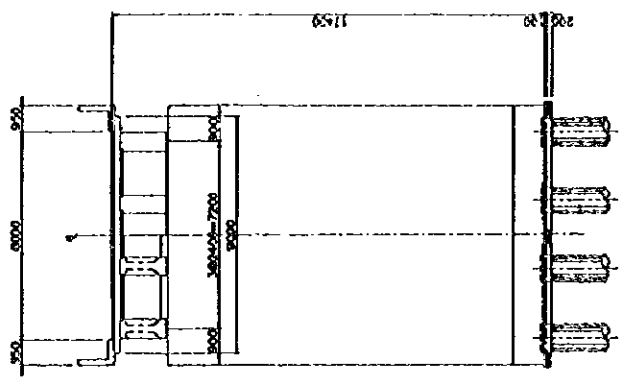
SIDE ELEVATION S = 1/300



DESIGN CONDITION

TYPE	PC 1 month regular bridge
BRIDGE LENGTH	30,000
SPAN LENGTH	30,000
SPAN	30,000
WIDTH	8,000
W/L LOAD	Type B live load
SEISMIC COEFFICIENT	W = 0.06
ANGLE OF SLOPE	8%

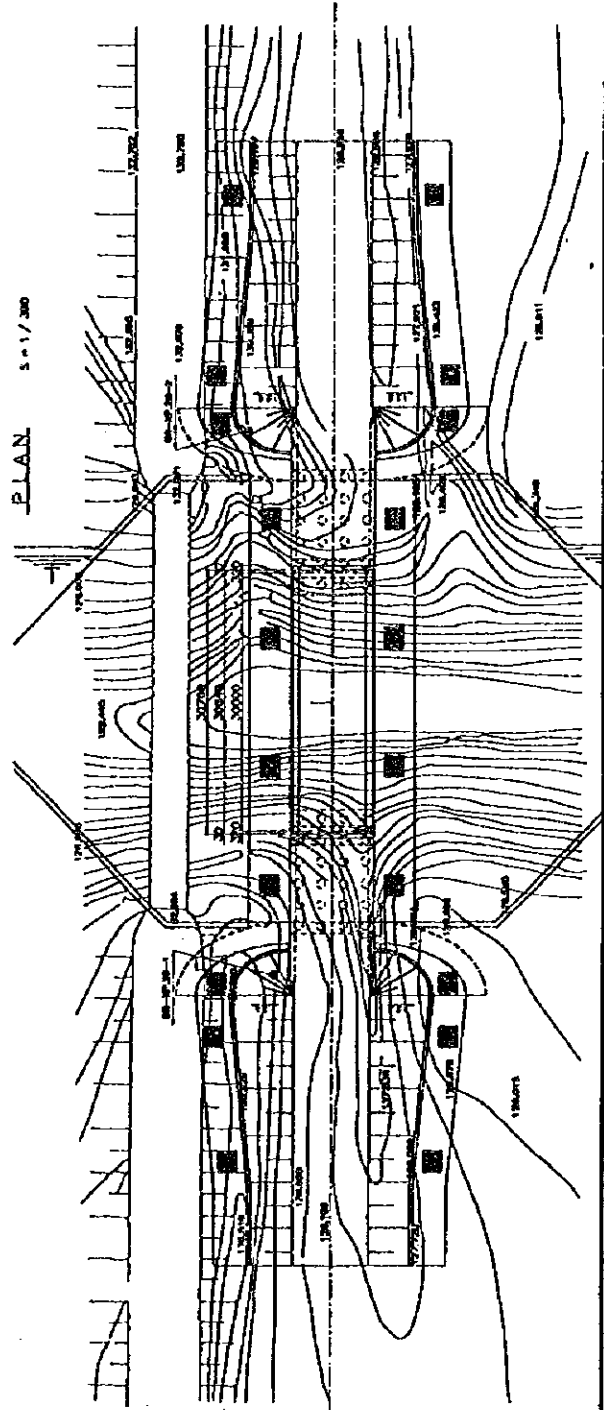
CROSS SECTION S = 1/100



LAD PEOPLE'S BRIDGES & ROADS	
THE PROJECT FOR THE BRIDGE FOR THE	
THE BRIDGE, ROAD NO. 13, PHASE 1	
Project	GENERAL VIEW (XPNo. 28)
Date	11/19/10
Scale	As shown on the drawing
Author	As shown on the drawing
Checker	As shown on the drawing
Approver	As shown on the drawing

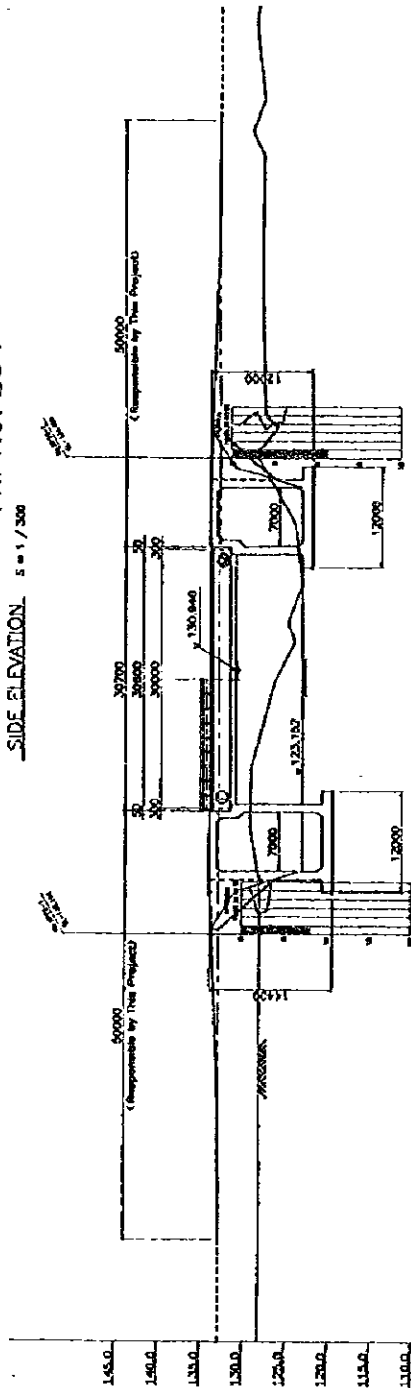
GRADE	STATION	DISTANCE	GROUND HEIGHT	PROPOSED HEIGHT
150.0	0+00	0.00	150.00	150.00
148.0	0+10	10.00	148.00	148.00
150.0	0+20	20.00	150.00	150.00
155.0	0+30	30.00	155.00	155.00
130.0	0+40	40.00	130.00	130.00
125.0	0+50	50.00	125.00	125.00
120.0	0+60	60.00	120.00	120.00
115.0	0+70	70.00	115.00	115.00
116.0	0+80	80.00	116.00	116.00

PLAN S = 1/300



GENERAL VIEW (XPNo. 29)

SIDE ELEVATION S = 1 / 300

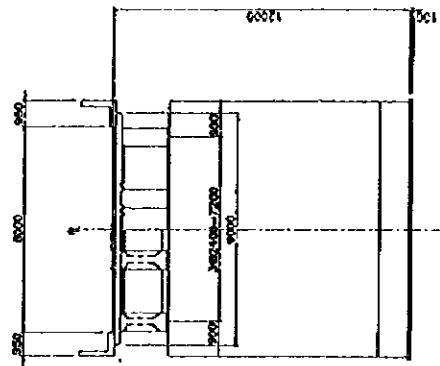


DESIGN CONDITIONS

TYPE	PC 1 span Impinger bridge
BRIDGE LENGTH	30,700
GROSS LENGTH	30,000
SPAN	30,000
WIDTH	8,000
LINE LOAD	Type B line load
SEISMIC COEFFICIENT	0.1 = 0.04
ANGLE OF SLOPE	90°

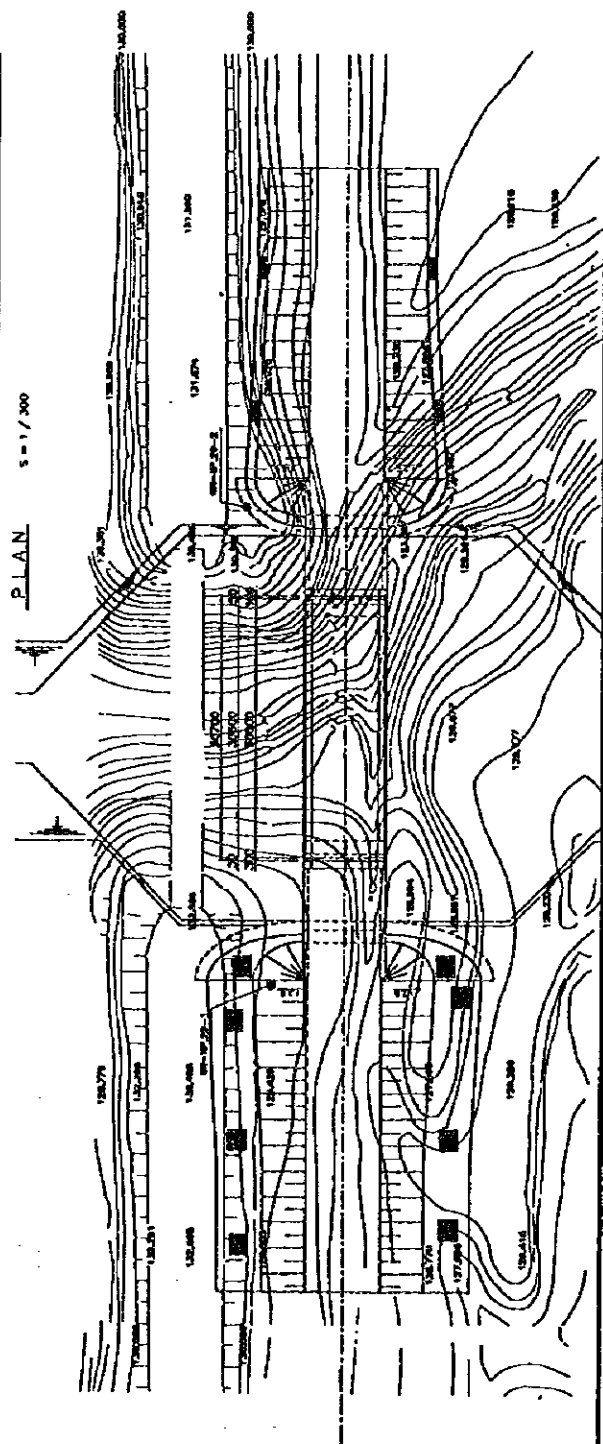
BRIDGE	PROPOSED HEIGHT	ORIGINAL HEIGHT	DISTANCE	STATION	CURVE ELEMENT
1	13.7	13.7	0.0	137+00	137+00
2	13.7	13.7	0.0	137+00	137+00
3	13.7	13.7	0.0	137+00	137+00
4	13.7	13.7	0.0	137+00	137+00
5	13.7	13.7	0.0	137+00	137+00
6	13.7	13.7	0.0	137+00	137+00
7	13.7	13.7	0.0	137+00	137+00
8	13.7	13.7	0.0	137+00	137+00
9	13.7	13.7	0.0	137+00	137+00
10	13.7	13.7	0.0	137+00	137+00
11	13.7	13.7	0.0	137+00	137+00
12	13.7	13.7	0.0	137+00	137+00
13	13.7	13.7	0.0	137+00	137+00
14	13.7	13.7	0.0	137+00	137+00
15	13.7	13.7	0.0	137+00	137+00
16	13.7	13.7	0.0	137+00	137+00
17	13.7	13.7	0.0	137+00	137+00
18	13.7	13.7	0.0	137+00	137+00
19	13.7	13.7	0.0	137+00	137+00
20	13.7	13.7	0.0	137+00	137+00
21	13.7	13.7	0.0	137+00	137+00
22	13.7	13.7	0.0	137+00	137+00
23	13.7	13.7	0.0	137+00	137+00
24	13.7	13.7	0.0	137+00	137+00
25	13.7	13.7	0.0	137+00	137+00
26	13.7	13.7	0.0	137+00	137+00
27	13.7	13.7	0.0	137+00	137+00
28	13.7	13.7	0.0	137+00	137+00
29	13.7	13.7	0.0	137+00	137+00
30	13.7	13.7	0.0	137+00	137+00
31	13.7	13.7	0.0	137+00	137+00
32	13.7	13.7	0.0	137+00	137+00
33	13.7	13.7	0.0	137+00	137+00
34	13.7	13.7	0.0	137+00	137+00
35	13.7	13.7	0.0	137+00	137+00
36	13.7	13.7	0.0	137+00	137+00
37	13.7	13.7	0.0	137+00	137+00
38	13.7	13.7	0.0	137+00	137+00
39	13.7	13.7	0.0	137+00	137+00
40	13.7	13.7	0.0	137+00	137+00
41	13.7	13.7	0.0	137+00	137+00
42	13.7	13.7	0.0	137+00	137+00
43	13.7	13.7	0.0	137+00	137+00
44	13.7	13.7	0.0	137+00	137+00
45	13.7	13.7	0.0	137+00	137+00
46	13.7	13.7	0.0	137+00	137+00
47	13.7	13.7	0.0	137+00	137+00
48	13.7	13.7	0.0	137+00	137+00
49	13.7	13.7	0.0	137+00	137+00
50	13.7	13.7	0.0	137+00	137+00

CROSS SECTION S = 1 / 100



PLAN

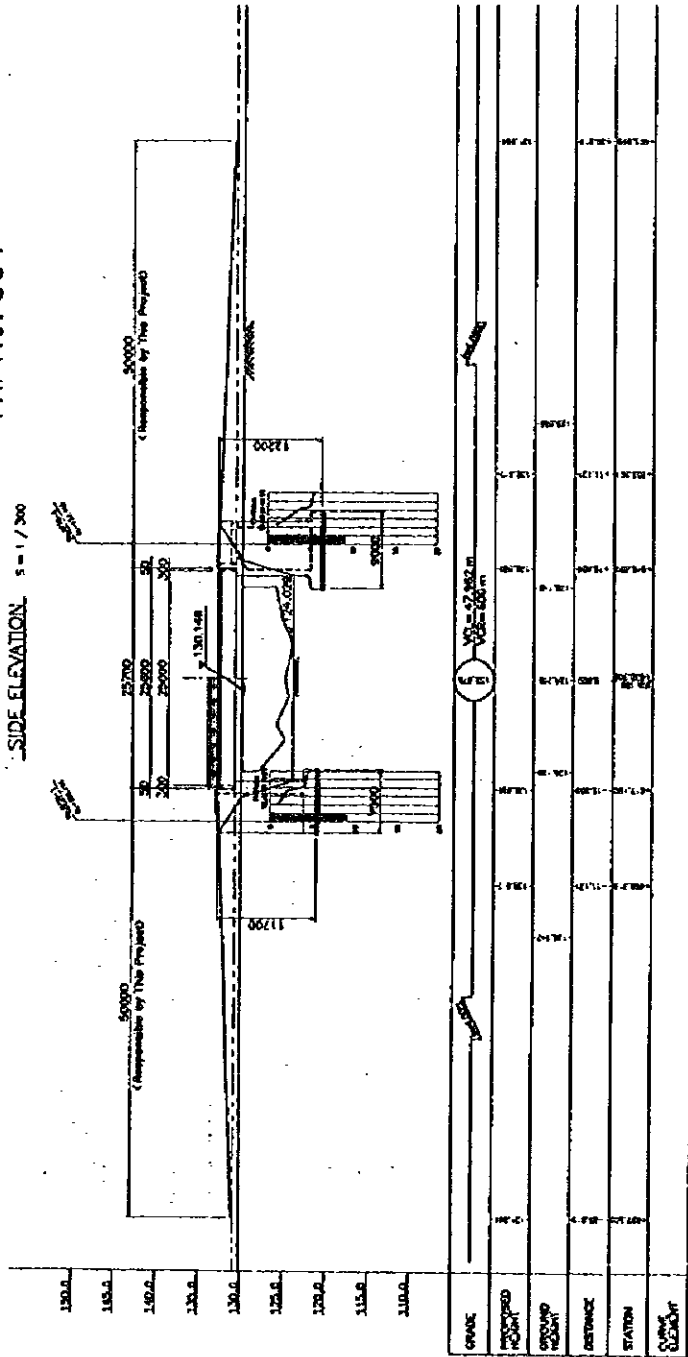
S = 1 / 300



LAP PAPERS' INFORMATION SHEET NO. 6			
THE PROJECT FOR THE SUBMITTANCE OF BRIDGES			
THE NATIONAL ROAD MAPS 13, PHASE I			
Project Title	SPECIAL VIEW (SPN. 29)	Sheet No.	41
Date	1 / 1 / 80	Number of	41
DRAWN BY: [Name] CHECKED BY: [Name] APPROVED BY: [Name]			

GENERAL VIEW (XPNo. 30)

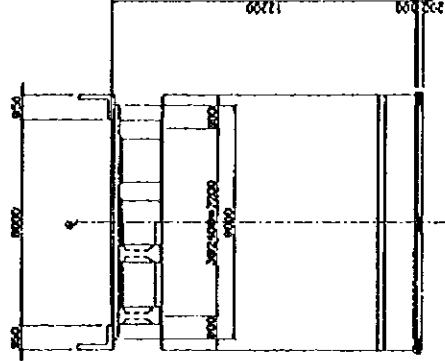
SIDE ELEVATION S = 1 / 300



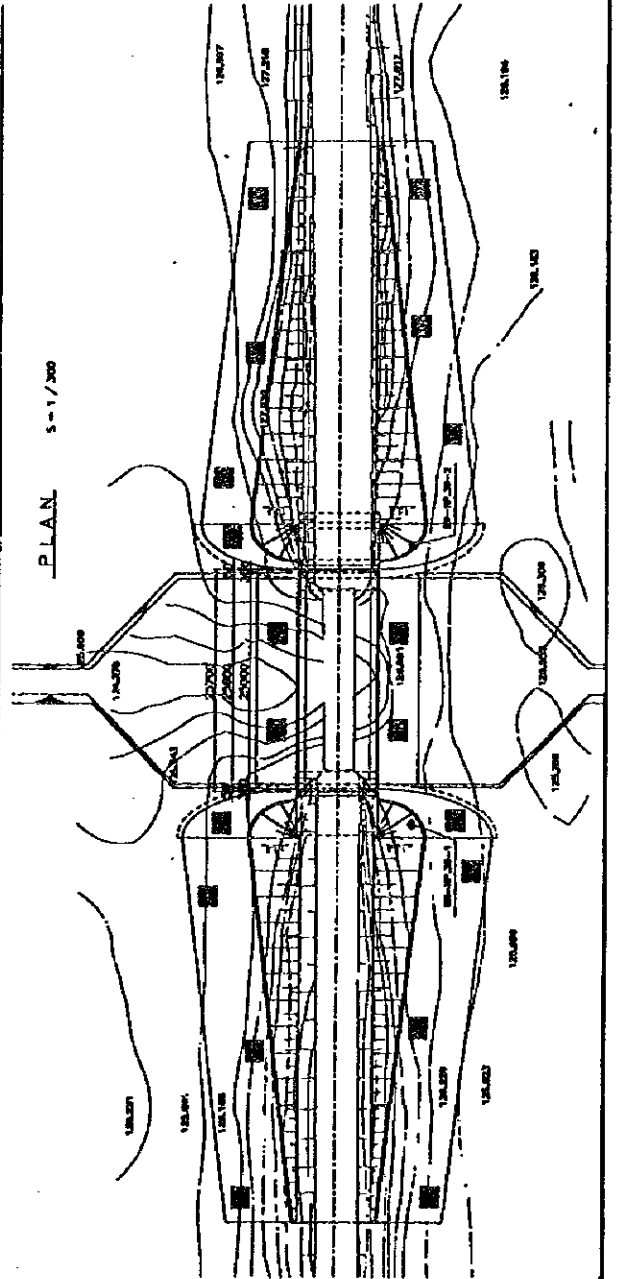
DESIGN CONDITION

TYPE	PC 1 beam trapezoidal bridge
BRIDGE LENGTH	25.700
ROAD LENGTH	25.800
SPAN	25.000
WIDTH	8.000
LANE LOAD	Type B lane load
SEISMIC COEFFICIENT	PH = 0.08
ANGLE OF SLOPE	10°

CROSS SECTION S = 1 / 100



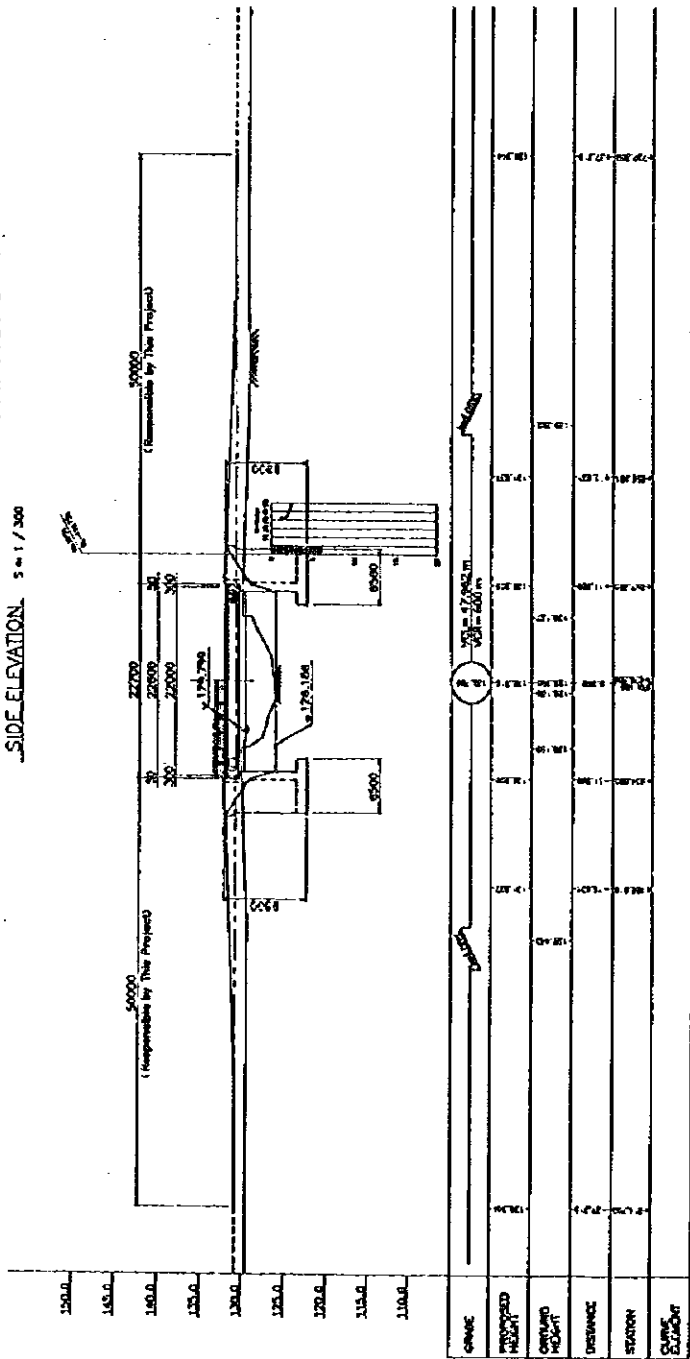
PLAN S = 1 / 300



LAG PEOPLE'S MONUMENTAL BRIDGE
THE PROJECT FOR THE CONSTRUCTION OF BRIDGES
THE NATIONAL ROAD NO. 17, PHASE 2
Scale: 1 : 1000 Sheet No. 42
Project: 1 : 1000 Sheet No. 42
Lag People's Monumental Bridge
National Road No. 17, Phase 2
Lag, P.O. Box 1000, Phnom Penh, Cambodia

GENERAL VIEW (XPNo. 31)

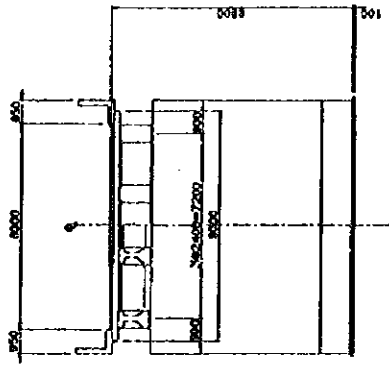
SIDE ELEVATION S = 1 / 300



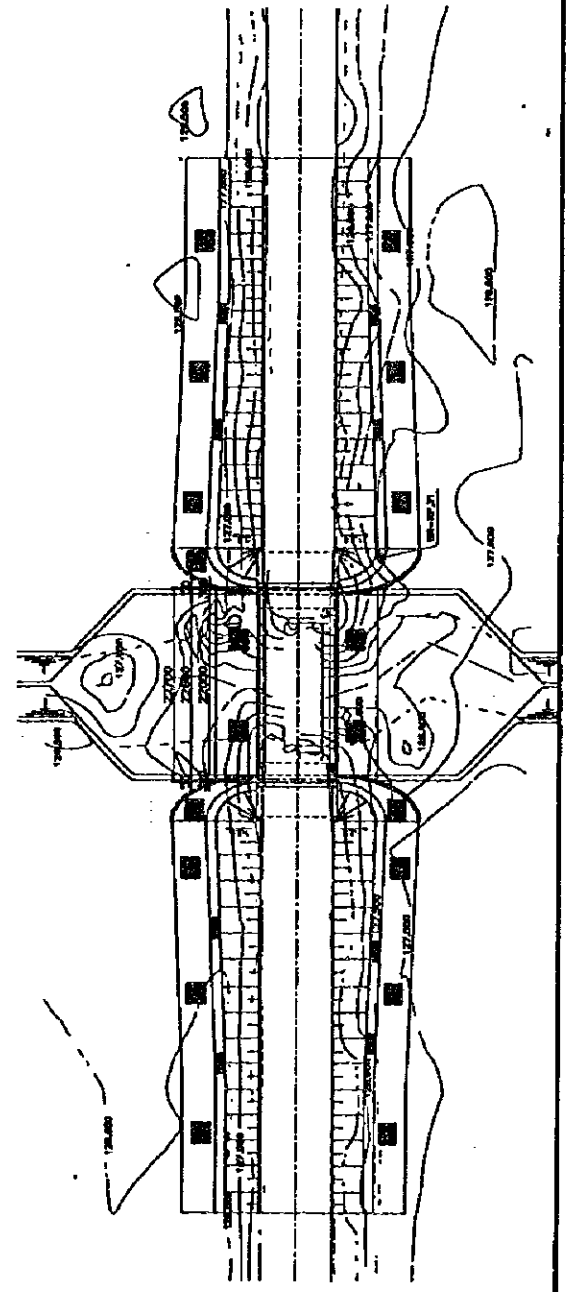
DESIGN CONDITION

TYPE	PC 1 Span Continuous Bridge
BRIDGE LENGTH	22,700
SPAN LENGTH	22,800
SPAN	22,800
WIDTH	6,000
LIVE LOAD	Type B live load
SCHEMATIC COEFFICIENT	0.4 - 0.08
ANGLE OF SLOPE	97

CROSS SECTION S = 1 / 100



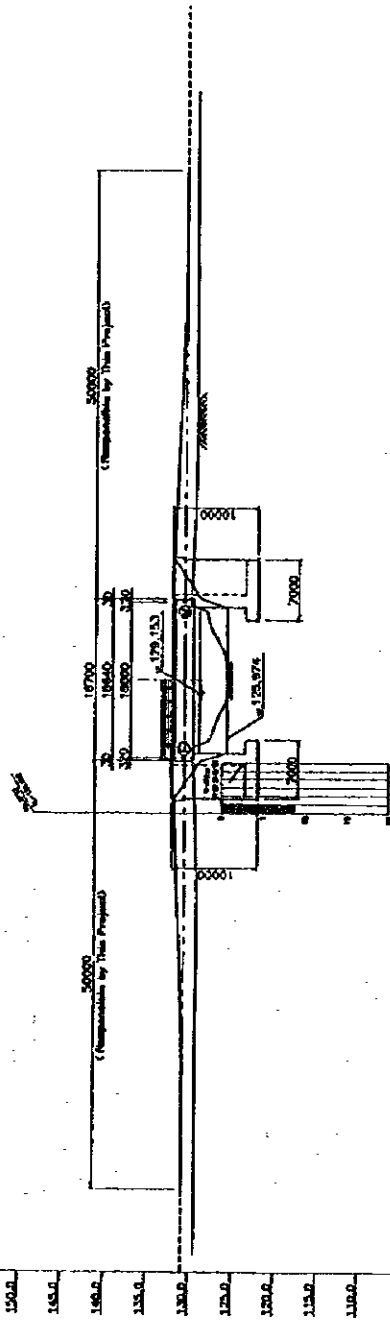
PLAN S = 1 / 300



LAD PEOPLE'S DEMOCRATIC REPUBLIC	
THE PROJECT FOR THE CONSTRUCTION OF BRIDGES	
THE NATIONAL ROAD NETWORK 13, PALAU 2	
DATE	GENERAL VIEW & PLAN, 313
SCALE	1 : 300
PROJECT NO.	613
ROAD CONSTRUCTION AUTHORITY P.O. BOX 100, NAKHON RATCHASIMA, 30000 TEL: 043-222222 FAX: 043-222222	

GENERAL VIEW (XP No. 32)

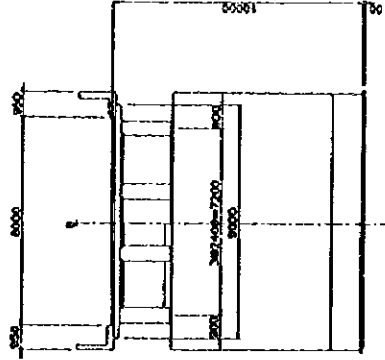
SIDE ELEVATION S = 1/300



DESIGN CONDITION

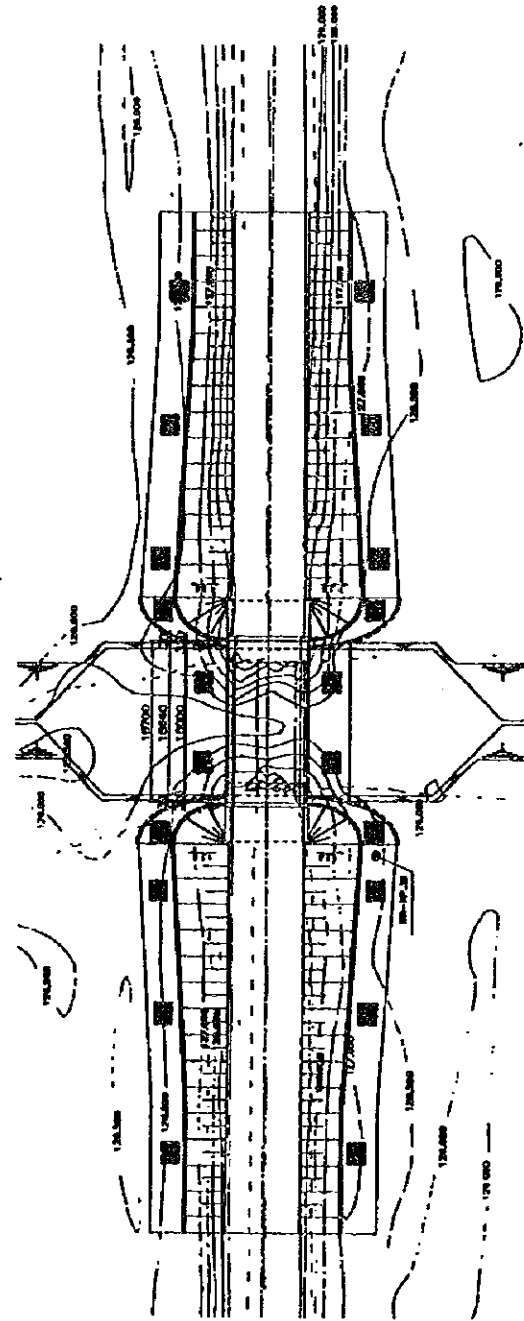
TYPE	MC 1 single span/roller bridge
BRIDGE LENGTH	16,700
GROUND LENGTH	16,840
SPAN	16,000
WIDTH	6,000
LAC LOAD	Type B Non load
SEASIDE COEFFICIENT	KH = 0.08
ANGLE OF SLOPE	8°

CROSS SECTION S = 1/100



GRADE	PROPOSED	GROUND	DISTANCE	STATION	SLOPE
150.0					
145.0					
140.0					
135.0					
130.0					
125.0					
120.0					
115.0					
110.0					

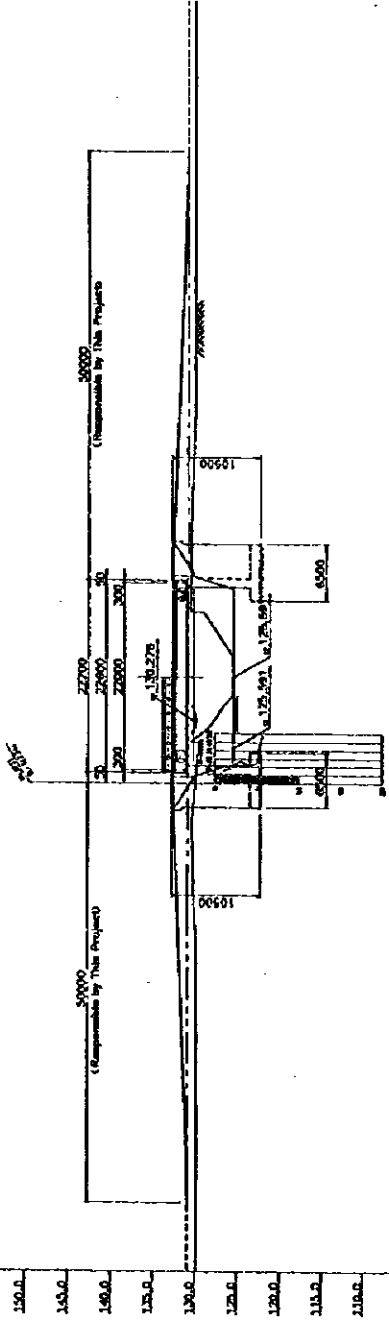
PLAN S = 1/300



LAD PEOPLE'S DEMOCRATIC REPUBLIC	
THE PEOPLE'S MINISTRY OF TRANSPORTATION	
THE NATIONAL ROAD BUREAU (13, PHASE 1)	
Project Title	BRIDGE VIEW (XP No. 32)
Scale	1:1000
Sheet No.	4.4
APPROVED FOR CONSTRUCTION BY THE NATIONAL ROAD BUREAU	
APPROVED FOR CONSTRUCTION BY THE NATIONAL ROAD BUREAU	

GENERAL VIEW (XPNo. 33)

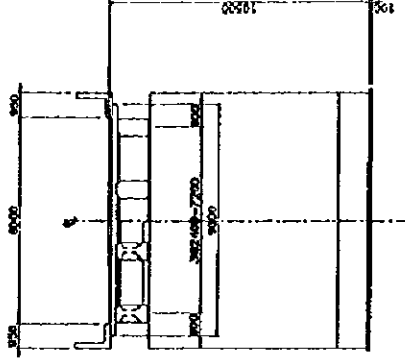
SIDE ELEVATION s = 1 / 300



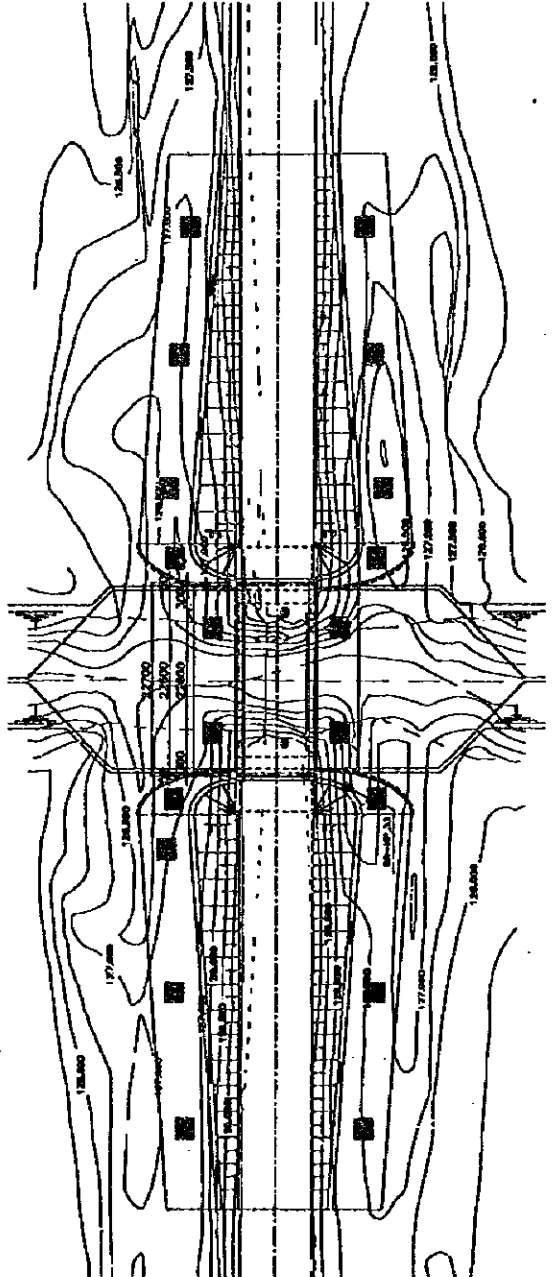
DESIGN CONDITION

TYPE	PC 1 span highway bridge
BRIDGE LENGTH	22,700
SPAN LENGTH	22,000
SPAN	22,000
WIDTH	6,000
LIVE LOAD	Type 2 live load
SEISMIC COEFFICIENT	0.1 = 0.08
ANGLE OF SLOPE	90°

CROSS SECTION s = 1 / 100



PLAN s = 1 / 300

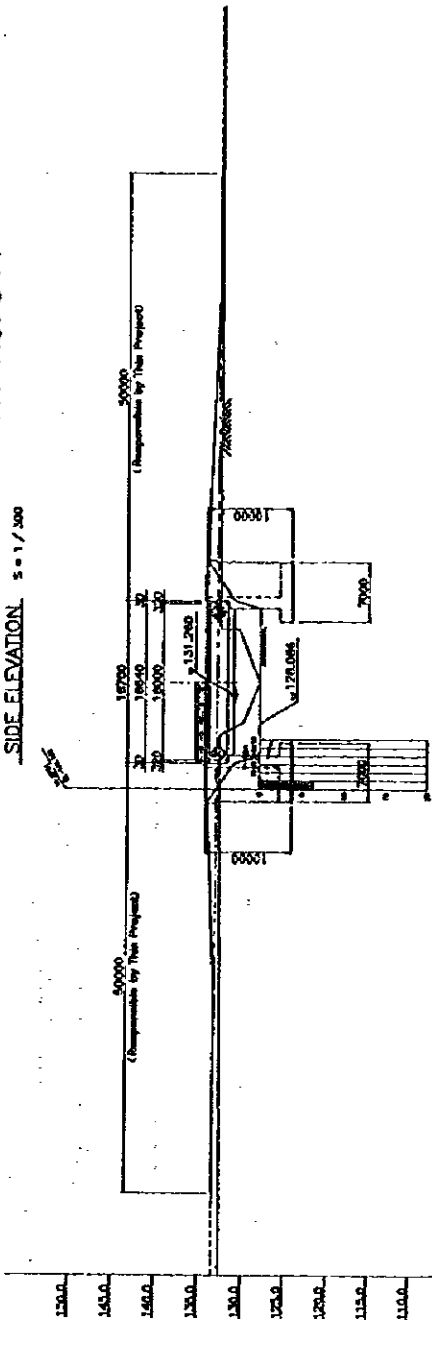


GRADE	150.0	155.0	160.0	165.0	170.0	175.0	180.0	185.0	190.0	195.0	200.0	205.0	210.0
DESIGN													
CONCRETE													
STEEL													
CLIMATE													

LAD COMPANY'S RESPONSIBILITY TO APPROVE
THE PROJECT FOR THE CONTRACTOR NOT OF THE ENGINEER
THE NATIONAL ROAD BOARD IS, PARAGRAPH 2
SECTION 101
GENERAL VIEW (XPNo. 33)
Scale 1 : 300
Drawing No. 45
LAD COMPANY'S RESPONSIBILITY TO APPROVE

GENERAL VIEW (XPNo. 34)

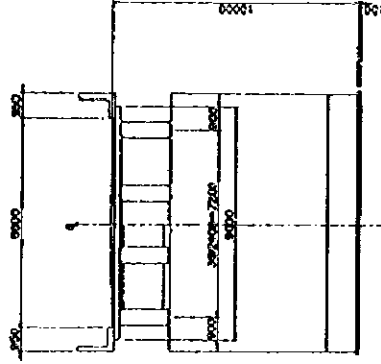
SIDE ELEVATION S = 1/300



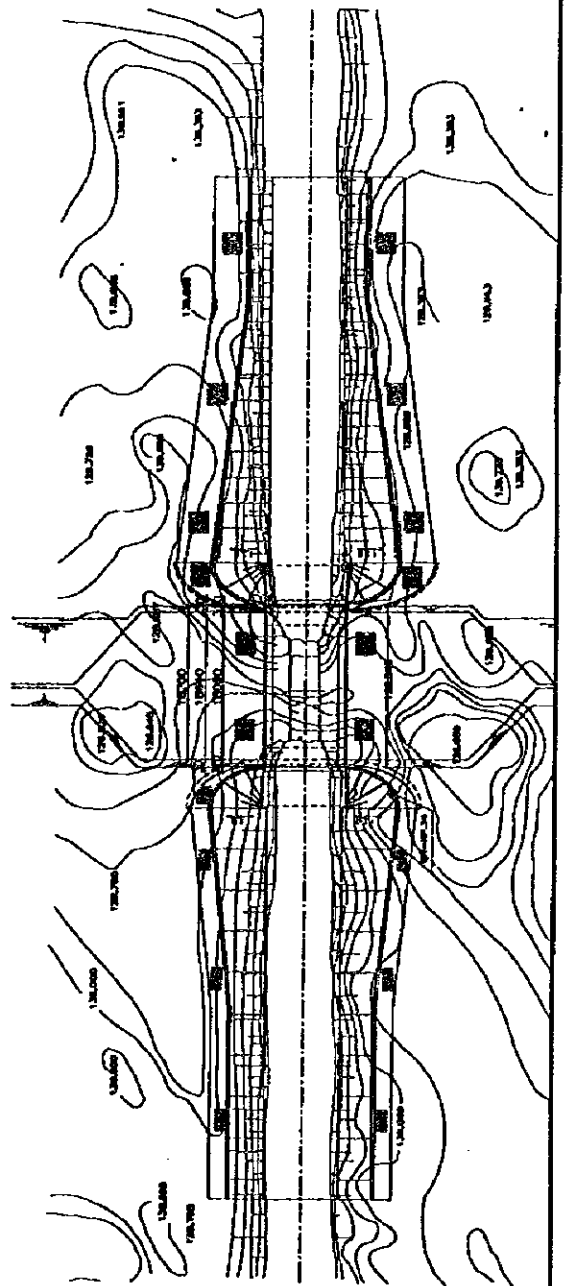
DESIGN CONDITION

TYPE	RC T span 1-girder bridge
BRIDGE LENGTH	16,700
SPAN LENGTH	16,800
SPAN	16,000
WIDTH	6,000
LINK LOAD	Type B live load
SCHEMATIC COEFFICIENT	PH = 0.08
ANGLE OF SLOPE	30°

CROSS SECTION S = 1/100



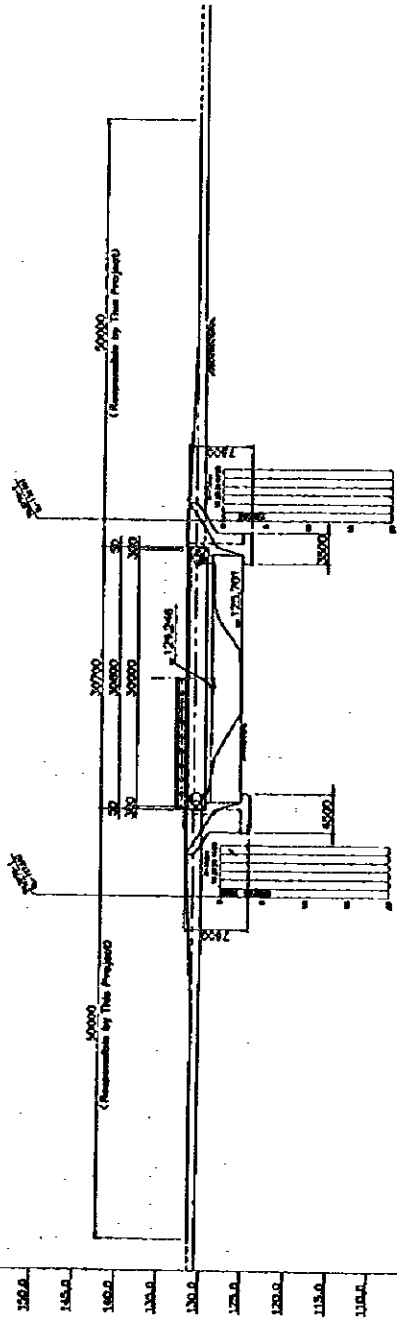
PLAN S = 1/300



LAD PUBLISHER'S REPRESENTATIVE SERVICE, INC.	
THE PROJECT FOR THE CONSTRUCTION OF BRIDGES	
THE NATIONAL ROAD BOARD IS, PHASE 1	
Project No.	GENERAL VIEW (XPNo. 34)
Scale	1 : 300 (Side Elevation)
Sheet No.	40
LAD PUBLISHER'S REPRESENTATIVE SERVICE, INC.	

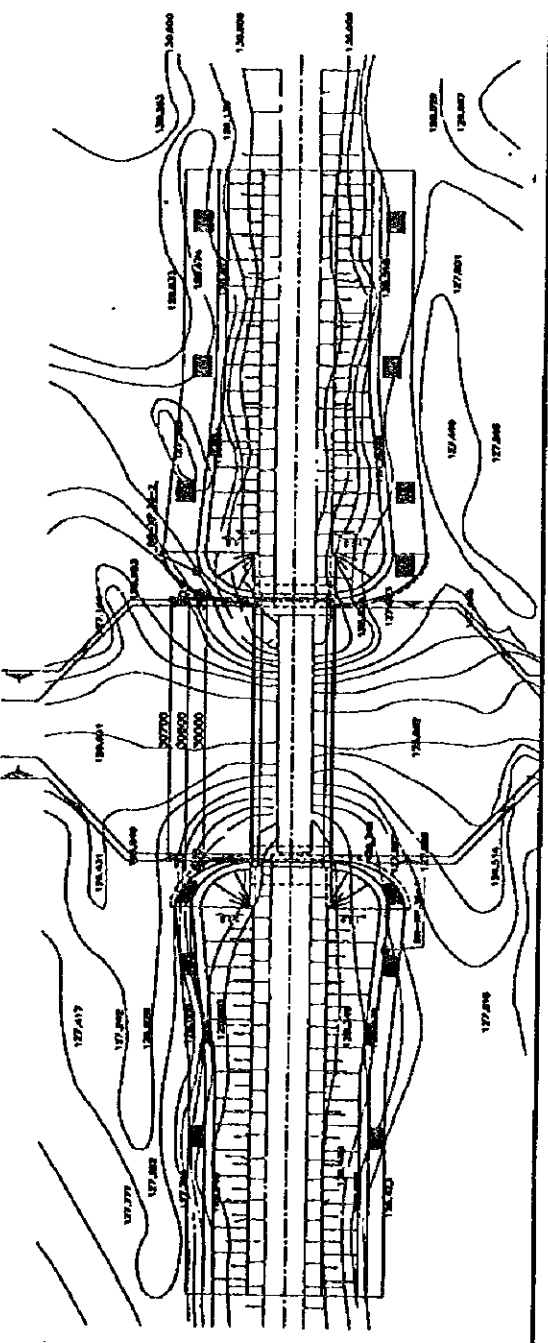
GENERAL VIEW (XPNo. 36)

SIDE ELEVATION S = 1 / 300



GRADE	PROPOSED HEIGHT	EXISTING GROUND	DISTANCE	STATION	CURVE LENGTH
130.0	130.0	130.0	0.0	0+00	
135.0	135.0	135.0	10.0	0+10	
140.0	140.0	140.0	20.0	0+20	
145.0	145.0	145.0	30.0	0+30	
150.0	150.0	150.0	40.0	0+40	
155.0	155.0	155.0	50.0	0+50	
160.0	160.0	160.0	60.0	0+60	
165.0	165.0	165.0	70.0	0+70	
170.0	170.0	170.0	80.0	0+80	
175.0	175.0	175.0	90.0	0+90	
180.0	180.0	180.0	100.0	0+100	
185.0	185.0	185.0	110.0	0+110	
190.0	190.0	190.0	120.0	0+120	
195.0	195.0	195.0	130.0	0+130	
200.0	200.0	200.0	140.0	0+140	
205.0	205.0	205.0	150.0	0+150	
210.0	210.0	210.0	160.0	0+160	
215.0	215.0	215.0	170.0	0+170	
220.0	220.0	220.0	180.0	0+180	
225.0	225.0	225.0	190.0	0+190	
230.0	230.0	230.0	200.0	0+200	
235.0	235.0	235.0	210.0	0+210	
240.0	240.0	240.0	220.0	0+220	
245.0	245.0	245.0	230.0	0+230	
250.0	250.0	250.0	240.0	0+240	
255.0	255.0	255.0	250.0	0+250	
260.0	260.0	260.0	260.0	0+260	
265.0	265.0	265.0	270.0	0+270	
270.0	270.0	270.0	280.0	0+280	
275.0	275.0	275.0	290.0	0+290	
280.0	280.0	280.0	300.0	0+300	
285.0	285.0	285.0	310.0	0+310	
290.0	290.0	290.0	320.0	0+320	
295.0	295.0	295.0	330.0	0+330	
300.0	300.0	300.0	340.0	0+340	
305.0	305.0	305.0	350.0	0+350	
310.0	310.0	310.0	360.0	0+360	
315.0	315.0	315.0	370.0	0+370	
320.0	320.0	320.0	380.0	0+380	
325.0	325.0	325.0	390.0	0+390	
330.0	330.0	330.0	400.0	0+400	
335.0	335.0	335.0	410.0	0+410	
340.0	340.0	340.0	420.0	0+420	
345.0	345.0	345.0	430.0	0+430	
350.0	350.0	350.0	440.0	0+440	
355.0	355.0	355.0	450.0	0+450	
360.0	360.0	360.0	460.0	0+460	
365.0	365.0	365.0	470.0	0+470	
370.0	370.0	370.0	480.0	0+480	
375.0	375.0	375.0	490.0	0+490	
380.0	380.0	380.0	500.0	0+500	
385.0	385.0	385.0	510.0	0+510	
390.0	390.0	390.0	520.0	0+520	
395.0	395.0	395.0	530.0	0+530	
400.0	400.0	400.0	540.0	0+540	
405.0	405.0	405.0	550.0	0+550	
410.0	410.0	410.0	560.0	0+560	
415.0	415.0	415.0	570.0	0+570	
420.0	420.0	420.0	580.0	0+580	
425.0	425.0	425.0	590.0	0+590	
430.0	430.0	430.0	600.0	0+600	
435.0	435.0	435.0	610.0	0+610	
440.0	440.0	440.0	620.0	0+620	
445.0	445.0	445.0	630.0	0+630	
450.0	450.0	450.0	640.0	0+640	
455.0	455.0	455.0	650.0	0+650	
460.0	460.0	460.0	660.0	0+660	
465.0	465.0	465.0	670.0	0+670	
470.0	470.0	470.0	680.0	0+680	
475.0	475.0	475.0	690.0	0+690	
480.0	480.0	480.0	700.0	0+700	
485.0	485.0	485.0	710.0	0+710	
490.0	490.0	490.0	720.0	0+720	
495.0	495.0	495.0	730.0	0+730	
500.0	500.0	500.0	740.0	0+740	
505.0	505.0	505.0	750.0	0+750	
510.0	510.0	510.0	760.0	0+760	
515.0	515.0	515.0	770.0	0+770	
520.0	520.0	520.0	780.0	0+780	
525.0	525.0	525.0	790.0	0+790	
530.0	530.0	530.0	800.0	0+800	
535.0	535.0	535.0	810.0	0+810	
540.0	540.0	540.0	820.0	0+820	
545.0	545.0	545.0	830.0	0+830	
550.0	550.0	550.0	840.0	0+840	
555.0	555.0	555.0	850.0	0+850	
560.0	560.0	560.0	860.0	0+860	
565.0	565.0	565.0	870.0	0+870	
570.0	570.0	570.0	880.0	0+880	
575.0	575.0	575.0	890.0	0+890	
580.0	580.0	580.0	900.0	0+900	
585.0	585.0	585.0	910.0	0+910	
590.0	590.0	590.0	920.0	0+920	
595.0	595.0	595.0	930.0	0+930	
600.0	600.0	600.0	940.0	0+940	
605.0	605.0	605.0	950.0	0+950	
610.0	610.0	610.0	960.0	0+960	
615.0	615.0	615.0	970.0	0+970	
620.0	620.0	620.0	980.0	0+980	
625.0	625.0	625.0	990.0	0+990	
630.0	630.0	630.0	1000.0	0+1000	

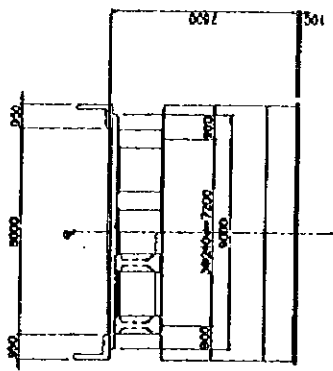
PLAN S = 1 / 300



DESIGN CONDITION

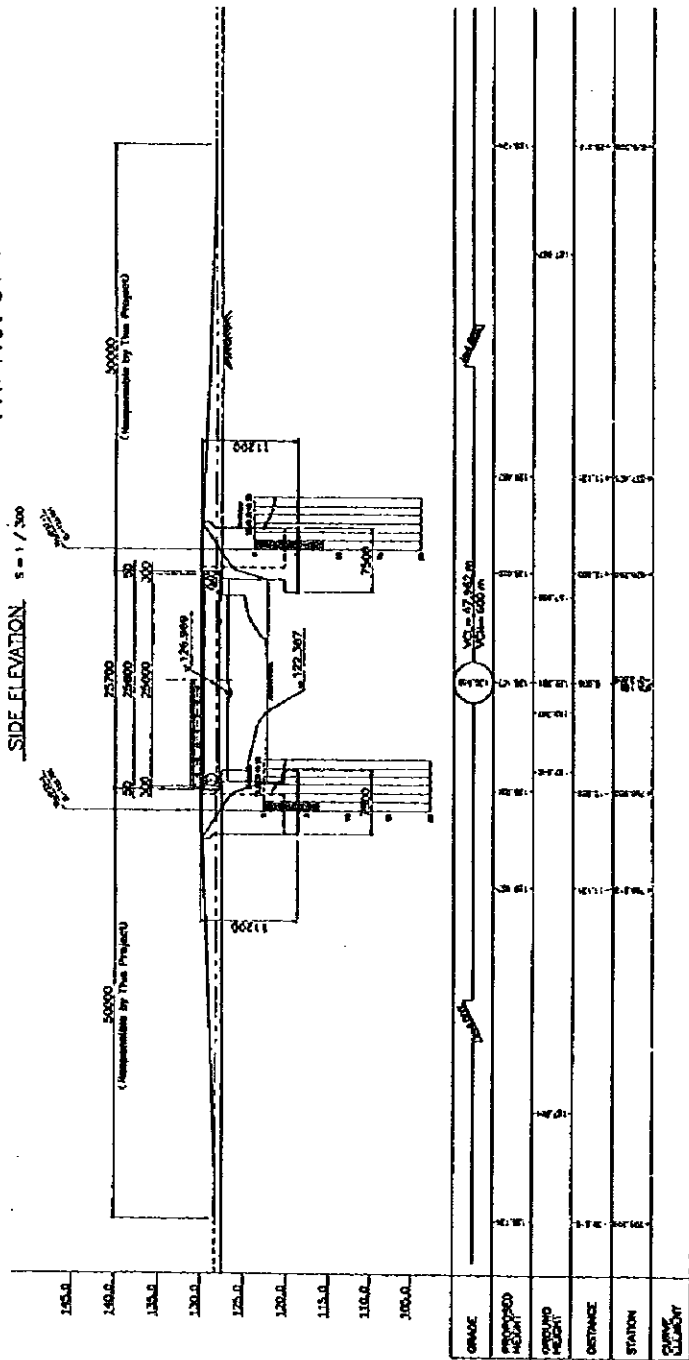
TYPE	PC-1 open T-beam bridge
BRIDGE LENGTH	30.700
SPAN LENGTH	30.000
SPAN	30.000
WIDTH	8.000
LIVE LOAD	Type B Truck load
SEISMIC CONDITION	RT = 0.00
ANGLE OF SLOPE	0°

CROSS SECTION S = 1 / 100



LAD PEOPLE'S REPRESENTATIVE APPROVAL	
THE PROJECT FOR THE REPRESENTATION OF THE PEOPLE	
THE NATIONAL ROAD PROJECT 13, PHASE 1	
DATE	08/08/01
SCALE	1:100
PROJECT NO.	4.0
LAD PEOPLE'S REPRESENTATIVE APPROVAL	
THE PROJECT FOR THE REPRESENTATION OF THE PEOPLE	
THE NATIONAL ROAD PROJECT 13, PHASE 1	
DATE	08/08/01
SCALE	1:100
PROJECT NO.	4.0
LAD PEOPLE'S REPRESENTATIVE APPROVAL	
THE PROJECT FOR THE REPRESENTATION OF THE PEOPLE	
THE NATIONAL ROAD PROJECT 13, PHASE 1	
DATE	08/08/01
SCALE	1:100
PROJECT NO.	4.0

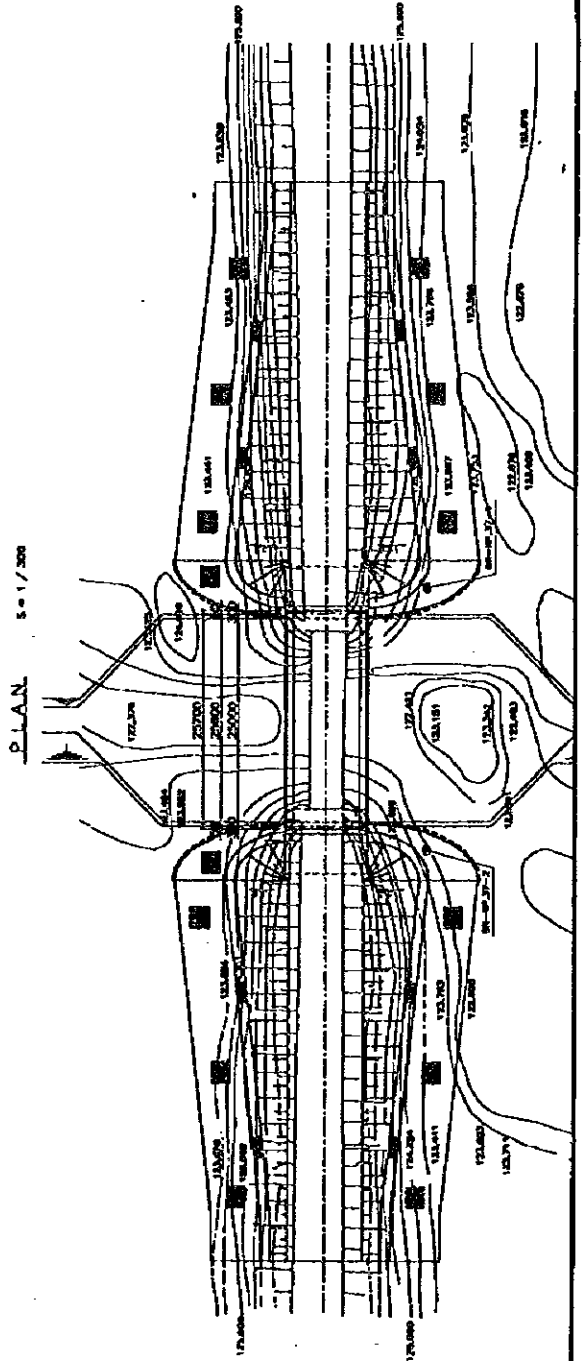
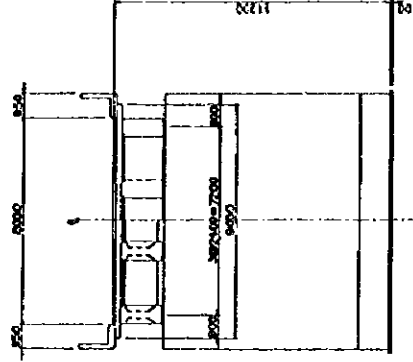
GENERAL VIEW (XPNo. 37)



DESIGN CONDITION

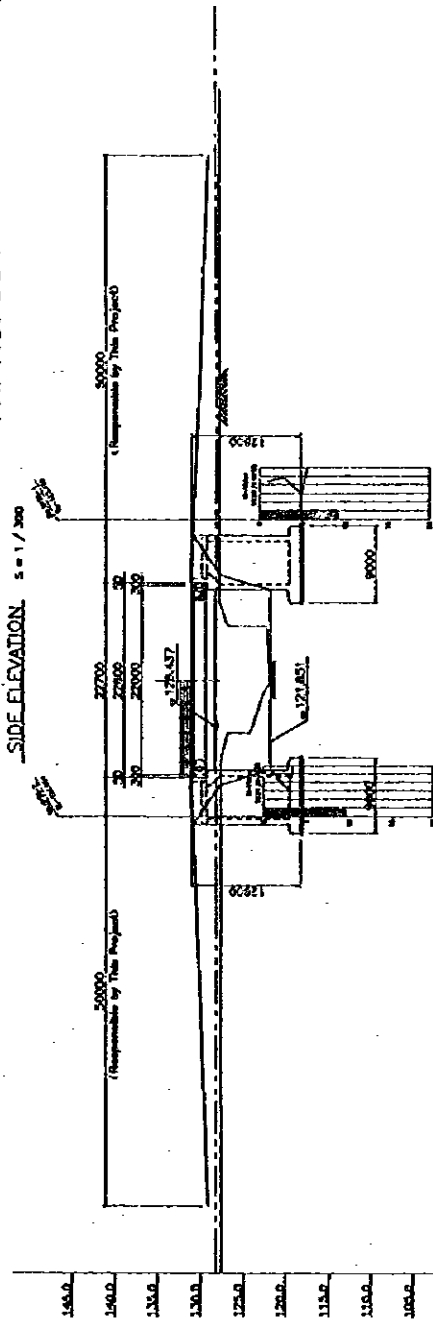
TYPE	PC T span (single bridge)
BRIDGE LENGTH	25,000
SPAN LENGTH	25,000
SPAN	25,000
WIDTH	6,000
RAIL LANG	Type B line load
SEISMIC COEFFICIENT	K ₁ = 0.08
ANGLE OF SKEW	90°

CROSS SECTION $s = 1/100$



Auto prepared by computerized system THE PROJECT AND THE INFORMATION ON THE DRAWING ARE THE PROPERTY OF THE ENGINEERING FIRM.	
DATE	GENERAL VIEW (XPNo. 37)
SCALE	AS SHOWN
PROJECT NO.	410
DATE	11/1988
ENGINEER: [Signature] ARCHITECT: [Signature] CIVIL ENGINEER: [Signature]	

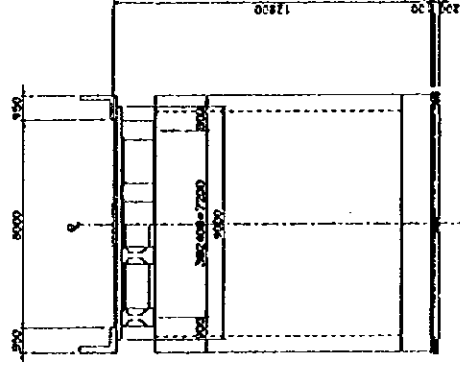
GENERAL VIEW (XP No. 38)



DESIGN CONDITION

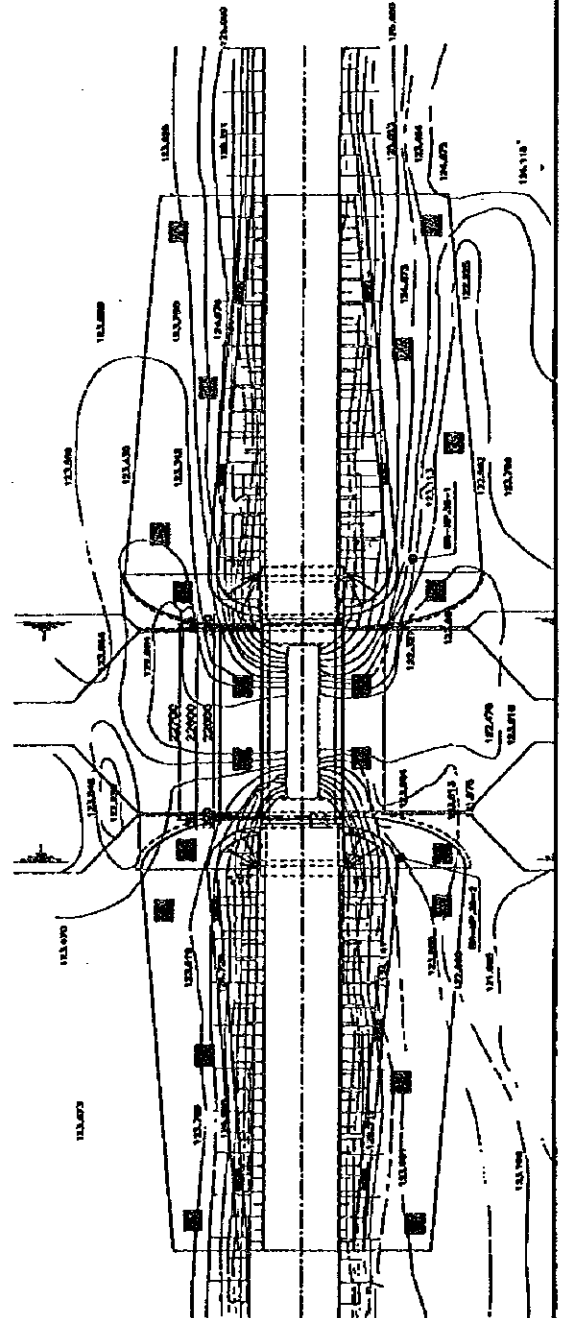
TYPE	PC 1 span I-beam bridge
BRIDGE LENGTH	22,700
SPAN LENGTH	22,000
SPAN	22,000
WIDTH	6,000
WAF LOAD	Type B full load
SCHEMATIC COEFFICIENT	CO = 0.49
ANGLE OF BRIDGE	9°

CROSS SECTION S = 1/100



GRADE	PROPOSED HEIGHT	GROUND HEIGHT	DISTANCE	STATION	GROUND ELEVATION
1440.0	14.0	14.0	0.0	0+00	1440.0
1400.0	10.0	10.0	10.0	0+10	1400.0
1360.0	6.0	6.0	20.0	0+20	1360.0
1320.0	2.0	2.0	30.0	0+30	1320.0
1280.0	0.0	0.0	40.0	0+40	1280.0
1240.0	-4.0	-4.0	50.0	0+50	1240.0
1200.0	-8.0	-8.0	60.0	0+60	1200.0
1160.0	-12.0	-12.0	70.0	0+70	1160.0
1120.0	-16.0	-16.0	80.0	0+80	1120.0
1080.0	-20.0	-20.0	90.0	0+90	1080.0
1040.0	-24.0	-24.0	100.0	0+100	1040.0
1000.0	-28.0	-28.0	110.0	0+110	1000.0

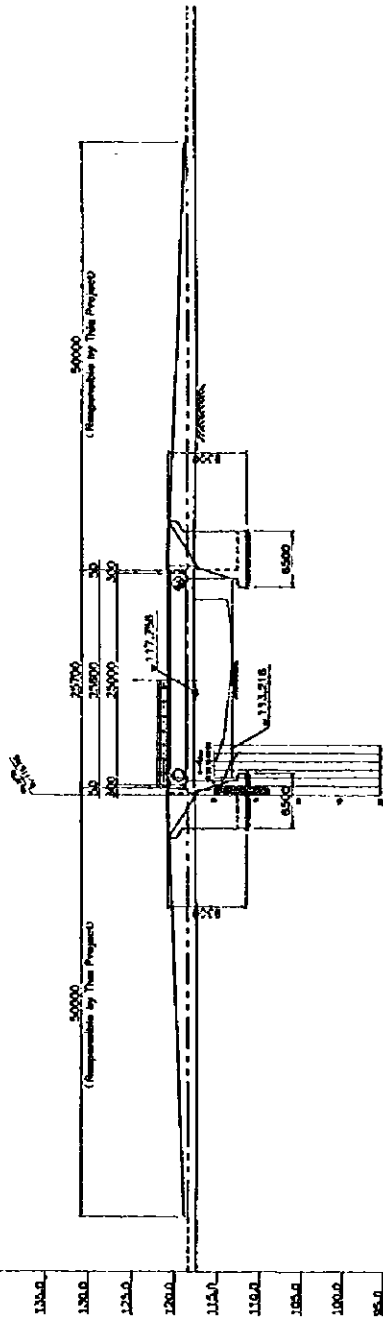
PLAN S = 1/300



LAD PROJECT'S RESPONSIBILITY IS DEFINED AS	
THE PROJECT FOR THE IMPROVEMENT OF BRIDGE #	
THE NATIONAL ROADWAYS IS, PHASE #	
Project No.	GENERAL VIEW (XP No. 38)
Scale	1 : 500
Author	50
APPROVED FOR THE NATIONAL ROADWAYS	
GENERAL VIEW (XP No. 38)	
APPROVED FOR THE NATIONAL ROADWAYS	
GENERAL VIEW (XP No. 38)	

GENERAL VIEW (XPNo. 39)

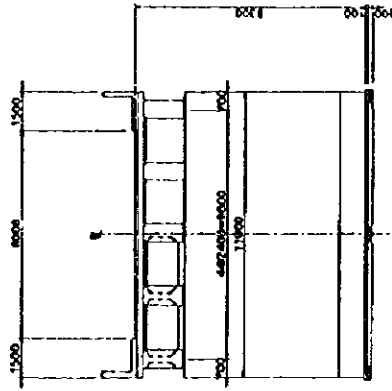
SIDE ELEVATION $S = 1/300$



DESIGN CONDITION

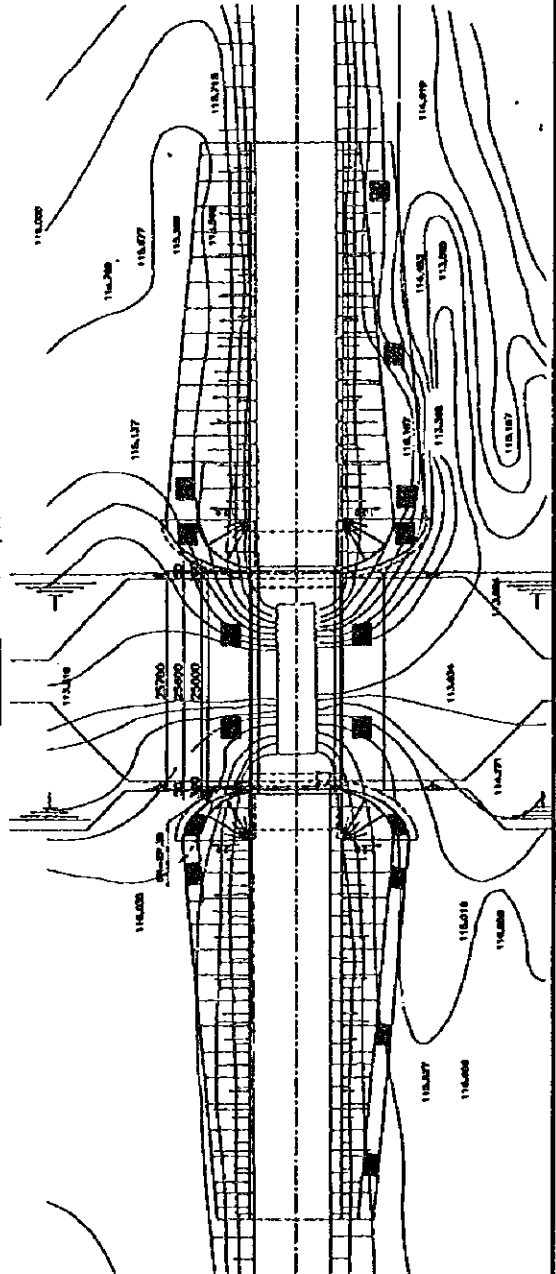
TYPE	PC 1 span (regular bridge)
SPAN LENGTH	25,000
GIRDER LENGTH	25,000
WIDTH	25,000
TYPE LOAD	Type B (see text)
SLABING COEFFICIENT	101 = 0.06
ANGLE OF SKID	90°

CROSS SECTION $S = 1/100$

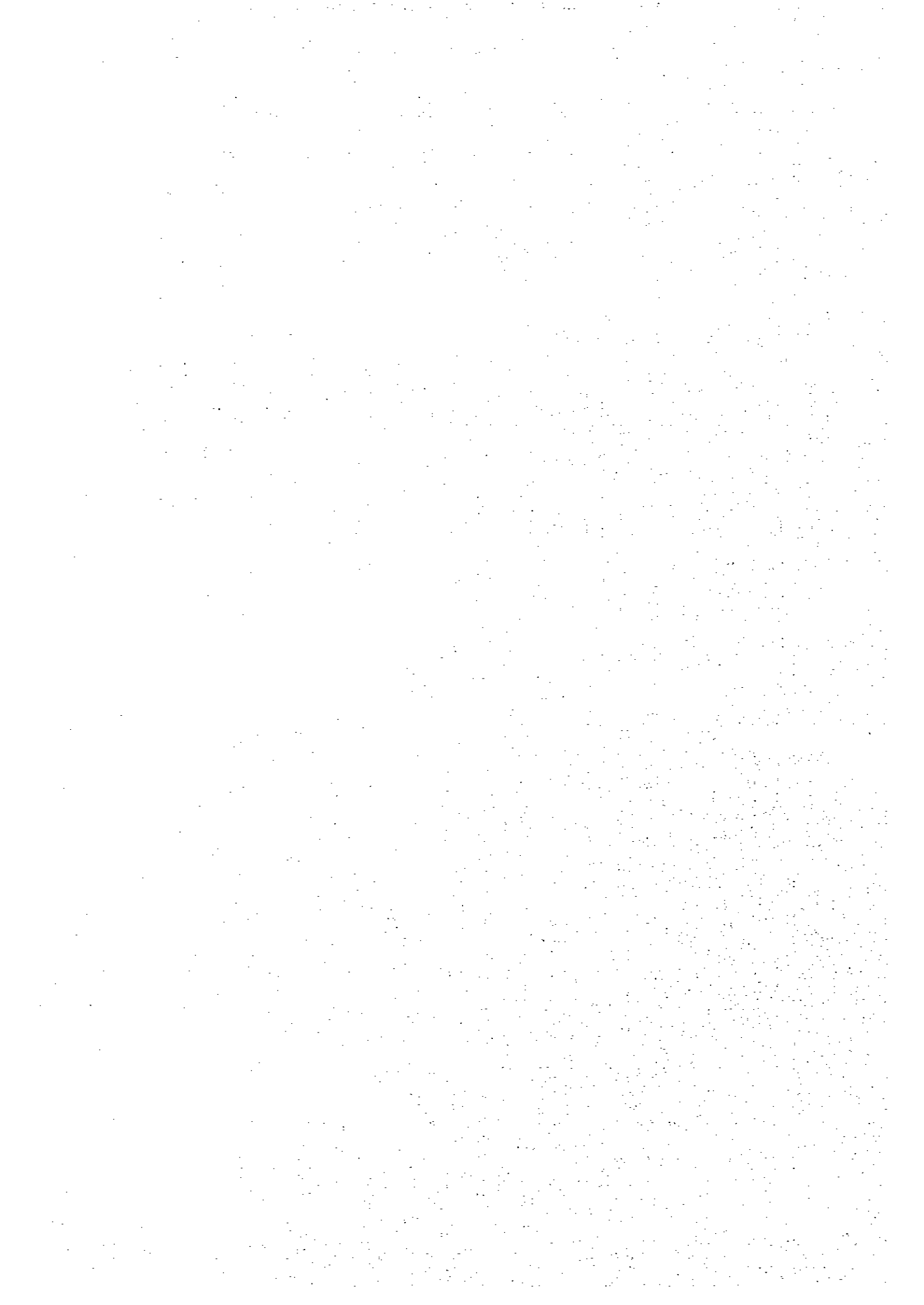


DESIGNER	GENERAL ENGINEERING CO. (INCORPORATED)
DATE	11-28-60
PROJECT NO.	11-28-60
SCALE	AS SHOWN
BY	...
CHECKED BY	...
APPROVED BY	...

PLAN $S = 1/300$



資料編



資料編 1 調査団員氏名、所属

1—1 第1回本格調査時

氏名	担当	所属
1 花里 信彦	総括	国際協力業団無償資金協力調査部 調査第2課
2 廣谷 彰彦	コンタクト業務主任	㈱オリエンタルコンサルタンツ
3 柳田 和朗	コンタクト団員 (橋梁設計)	㈱オリエンタルコンサルタンツ
4 今野 啓悟	コンタクト団員 (施工計画/積算)	㈱オリエンタルコンサルタンツ
5 大長 欣弘	コンタクト団員 (地質調査)	日本海外コンサルタンツ㈱
6 福田 正美	コンタクト団員 (地形測量)	㈱オリエンタルコンサルタンツ
7 井上 隆司	コンタクト団員 (河川・水文)	日本海外コンサルタンツ㈱

1—2 第2回本格調査時

氏名	担当	所属
1 梅永 哲	総括	国際協力事業団無償資金協力調査部 調査第2課
2 廣谷 彰彦	コンタクト業務主任	㈱オリエンタルコンサルタンツ
3 柳田 和朗	コンタクト団員 (橋梁設計)	㈱オリエンタルコンサルタンツ
4 今野 啓悟	コンタクト団員 (施工計画/積算)	㈱オリエンタルコンサルタンツ
5 井上 隆司	コンタクト団員 (河川・水文)	日本海外コンサルタンツ㈱

1—3 基本設計概要説明時

氏名	担当	所属
1 花岡 慎	総括	外務省経済協力局無償資金協力課
2 廣谷 彰彦	コンタクト業務主任	㈱オリエンタルコンサルタンツ
3 柳田 和朗	コンタクト団員 (橋梁設計)	㈱オリエンタルコンサルタンツ
4 今野 啓悟	コンタクト団員 (施工計画/積算)	㈱オリエンタルコンサルタンツ

資料編 2 調査日程

2-1 第1回本格調査時

ラオス国第二次国道13号線橋梁改修計画基本設計調査日程

日次	日程	コンサルタント設置						業務実施			
		花巻	盛谷	神田	今野	大泉	福田	井上	才田	高宮	北沢
1	1月30日								移動(成田-N222 16641)		
2	1月31日								移動(成田-N222 16641)		
3	2月1日								移動(成田-N222 16641)		
4	2月2日	移動(成田-N222 JL111)	盛谷、今野、大泉、移動(成田-N222 16641)						移動(成田-N222 16641)		
5	2月3日	花巻、盛谷、今野、大泉、移動(成田-N222 16641)	JICA事務所、打ち合わせ、日本大使館表紙印刷						移動(成田-N222 16641)		
6	2月4日	WCIPC、世界銀行との協議			WCIPC、世界銀行との協議				移動(成田-N222 16641)		
7	2月5日								資料まとめ	移動(成田-N222 16641)	
8	2月6日								移動(成田-N222 16641)	移動(成田-N222 16641)	
9	2月7日	M/O署名			M/O署名				移動(成田-N222 16641)	移動(成田-N222 16641)	
10	2月8日	移動(成田-N222 16641)	現地調査(N222)							現地調査同行	
11	2月9日		WCIPC訪問		WCIPC訪問						
12	2月10日										
13	2月11日										
14	2月12日										
15	2月13日										
16	2月14日										
17	2月15日										
18	2月16日										
19	2月17日										
20	2月18日										
21	2月19日										
22	2月20日										
23	2月21日										
24	2月22日										
25	2月23日										
26	2月24日										
27	2月25日										
28	2月26日										
29	2月27日										
30	2月28日										
31	3月1日										
32	3月2日										
33	3月3日										
34	3月4日										
35	3月5日										
36	3月6日										
37	3月7日										
38	3月8日										
39	3月9日										
40	3月10日										
41	3月11日										
42	3月12日										
43	3月13日										
44	3月14日										
45	3月15日										
46	3月16日										
47	3月17日										
48	3月18日										
49	3月19日										
50	3月20日										
51	3月21日										
52	3月22日										
53	3月23日										
54	3月24日										

2-2 第2回本格調査時

		官団員					コンサルタント要員				
		梅永		廣谷		柳田		今野		井上	
1	7月2日	移動 成田ーバンコク(NH915)									
2	7月3日	移動 バンコクーヴィエンチャン(TG690) 14:00 JICA事務所表敬訪問、打合せ 15:00 日本大使館表敬訪問 16:00 MCTPC表敬訪問、協議									
3	7月4日	MCTPCとM/D協議								ヴィエンチャン→ →タケク	
4	7月5日	資料整理								タケク→ →サバナケット	
5	7月6日	資料整理				移動 ヴィエンチャンー バンコク(TG691)				タケク⇔ ⇔サバナケット	
6	7月7日	MCTPCとM/D協議								サバナケット→ →パクセ	
7	7月8日	M/D署名 CDRIと打合せ		M/D署名 移動 ヴィエンチャンー バンコク(TG691)				M/D署名 CDRIと打合せ		パクセ	
8	7月9日	MCTPCと打合せ JICA事務所挨拶 日本大使館挨拶				MCTPCと打合せ JICA事務所挨拶 日本大使館挨拶				パクセ→ →サバナケット	
9	7月10日	移動: ヴィエンチャンー バンコク(TG691) 移動: バンコク				移動: ヴィエンチャンー バンコク(TG691) 移動: バンコク				サバナケット	
10	7月11日	成田(JL718)				成田(JL718)				サバナケット→ →ヴィエンチャン	
11	7月12日	資料整理									
12	7月13日	資料整理									
13	7月14日	JICA事務所挨拶 日本大使館挨拶									
14	7月15日	移動: ヴィエンチャンー バンコク(TG691) 移動: バンコク									
15	7月16日	成田(JL718)									

2-3 基本設計概要書説明時

日数	月日	曜日	行程
1	8月17日	日	成田 (16:25) - パンコク (20:40) NH915
2	8月18日	月	バンコク (10:30) - ヱィエンチャン (11:40) TG690 14:00 JICA事務所表敬訪問、打合せ 15:00 日本大使館表敬訪問、 16:00 MCTPC訪問
3	8月19日	火	8:00 CDRI打合せ、 15:00 MCTPC協議
4	8月20日	水	現地調査：ヱィエンチャン-タケク
5	8月21日	木	9:00 MCTPC協議
6	8月22日	金	10:00 M/D署名、 14:00 JICA事務所挨拶、 15:00 日本大使館挨拶
7	8月23日	土	ヱィエンチャン (12:40) - パンコク (13:45) TG691 バンコク (22:30) JL718
8	8月24日	日	成田 (6:20)

資料編3 相手国関係者リスト

	名前	職位	所屬
1	Mr.P.Bounnaphpl	Minister	Ministry of Communication, Transport, Post and Construction
2	Mr.K.Sidlakone	Vice Minister	Ministry of Communication, Transport, Post and Construction
3	Mr.M.Soummala	Deputy Director of Cabinet	Ministry of Communication, Transport, Post and Construction
4	Mr.K.Lolonesi	Director of Personnel Department	Ministry of Communication, Transport, Post and Construction
5	Mr.S.Pholsena	Director of Communication Department	Ministry of Communication, Transport, Post and Construction
6	Mr.B.Sinthavong	Deputy Director of Communication Department	Ministry of Communication, Transport, Post and Construction
7	Mr.O.Phaduangdeth	Head of Planning-Technical Division	Ministry of Communication, Transport, Post and Construction
8	Mr.S.Pakdimounivongs	Project Manager of Pakse Mekong Bridge	Ministry of Communication, Transport, Post and Construction
9	Mrs.C.Souligno	International Relations Division	Ministry of Communication, Transport, Post and Construction
10	Mrs.A.Bounnaphol	Deputy Director	Savannakhet Province Division of Communication, Transport, Post and Construction

国名	ラオス人民民主共和国
	Lao People's Democratic Republic

一般指標				
政体	共産制	*1	首都	ヴィエンチャン *1
元首	President NOUHAK Phoumsavan	*1	主要都市名	カハナット *1
独立年月日	1949年07月19日	*1	経済活動可人口	2,000千人 (1994年) *5
人種(部族)構成	タイ系99%	*4	義務教育年数	5年間 (1996年) *7
			初等教育就学率	68.0% (1994年) *5
言語・公用語	ラオ語、仏語、英語	*1	初等教育終了率	-% *5
宗教	仏教60%	*1	識字率	54.6% (1993年) *5
国連加盟	1955年12月	*2	人口密度	20.95人/Km ² (1995年) *4
世銀・IMF加盟	1961年07月	*3	人口増加率	2.84% (1995年) *4
			平均寿命	平均 52.2 男50.66 女53.81 *4
			5歳児未満死亡率	138 /1000 (1994年) *5
面積	236.8 千Km ²	*4	カリ供給量	2,259.0 cal/日/人 (1992年) *5
人口	4,837.2 千人 (1995年)	*4		

経済指標				
通貨単位	キープ	*1	貿易量	(1995年) *8
為替レート(IUS\$)	1US\$= 961.0 (1月)	*6	輸出	348.0百万ドル *8
会計年度	7月～ 6月	*1	輸入	587.0百万ドル *8
国家予算		*6	輸入依存率	2.0% (1994年) *9
歳入	- 百万ドル	*6	主要輸出品目	電気、木材製品、コーヒー *4
歳出	- 百万ドル	*6	主要輸入品目	食品、燃料、消費財 *4
国際収支	-229.7 百万ドル (1995年)	*6	日本への輸出	30.0百万ドル (1995年) *10
ODA受取額	218.00 百万ドル (1994年)	*8	日本からの輸入	29.0百万ドル (1995年) *10
国内総生産(GDP)	1,534.00 百万ドル (1993年)	*8		
一人当たりGNP	320.0 ドル (1994年)	*8	外貨準備総額	171.97百万ドル (1997年) *6
GDP産業別構成	農業 51.0 % (1994年)	*8	対外債務残高	20.0百万ドル (1994年) *9
	鉱工業 18.0 % (1994年)		対外債務返済率	7.7% (1994年) *9
	サービス業 31.0 % (1994年)		インフレ率	6.3% (1993年) *5
産業別雇用	農業 78.0 % (1990年)	*5		
	鉱工業 6.0 % (1990年)			
	サービス業 16.0 % (1990年)		国家開発計画	第3次経済社会発展5ヵ年計画 *11
経済成長率	6.2 % (1994年)	*8		

気象(1961年～1990年平均) 場所: Vientiane (標高 162m)													
月	1	2	3	4	5	6	7	8	9	10	11	12	平均計
最高気温	28.0	30.0	33.0	34.0	32.0	32.0	31.0	31.0	31.0	31.0	29.0	28.0	30.8℃
最低気温	14.0	17.0	19.0	23.0	23.0	24.0	24.0	24.0	24.0	21.0	18.0	16.0	20.5℃
平均気温	22.1	24.1	27.0	28.7	28.5	28.2	28.0	27.5	27.4	26.8	24.8	22.6	26.3℃
降水量	5.0	15.0	38.0	99.0	267.0	302.0	267.0	292.0	302.0	109.0	15.0	3.0	1,714.0 mm
雨期/乾期	乾				雨	雨	雨	雨	雨			乾	

- *1 CIA World Fact book(1993)
- *2 States Member of the United Nations
- *3 World Bank Fax(1994)
- *4 CIA World Fact Book(1996-1997)
- *5 Human Development Report(1996)
- *6 International Financial Statistics
- *7 Statistical Yearbook 1996
- *8 World Development Report(1996)
- *9 World Debt Tables (1996)
- *10 世界の国一覽(外務省外務報道官編集)(1996)
- *11 最新世界各国要覽(1996)
- *12 理科年表1997(丸善)

国名	ラオス人民民主共和国 Lao People's Democratic Republic
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1997.03 2/2

*13

項目	年度	1990	1991	1992	1994
技術協力		2,382.47	2,515.30	2,699.97	3,087.67
無償資金協力		1,989.63	2,050.70	2,194.95	2,456.48
有償資金協力		5,676.39	7,364.47	5,852.05	4,352.21
総 額		10,048.49	11,930.47	10,746.97	9,896.36

*14

項目	歴年	1991	1992	1993	1994
技術協力		7.35	7.16	13.97	17.84
無償資金協力		15.09	16.62	28.74	44.59
有償資金協力		-1.88	-2.00	-2.28	-1.72
総 額		20.56	21.78	40.43	60.71

*13

	贈 与 (1)		有償資金協力 (2)	政府開発援助 (ODA) (1) + (2) = (3)	その他政府資金 及び民間資金 (4)	経済協力総額 (3) + (4)
		技術協力				
二国間援助 (主要供与国)	78.90	32.40	-2.00	76.90	0.00	76.90
1. 日本	26.80	7.20	-2.00	24.80	0.00	24.80
2. スウェーデン	15.90	7.30	0.00	15.90	0.00	15.90
3. オーストラリア	10.60	1.80	0.00	10.60	0.00	10.60
4. フランス	8.60	5.10	0.00	8.60	0.00	8.60
多国間援助 (主要援助機関)	28.70	16.70	60.40	89.10	0.00	89.10
1. IDA	0.00	0.00	0.00	0.00	0.00	0.00
2. ASDB	0.00	0.00	0.00	0.00	0.00	0.00
そ の 他	0.00	0.00	0.00	0.00	0.00	0.00
合 計	107.60	49.10	58.40	166.00	0.00	166.00

*15

技術	関係各省庁機関→対外経済関係省
無償	関係各省庁機関→対外経済関係省
協力隊	関係各省庁機関→対外経済関係省

*13 Geographical Distribution of Financial Flows of Developing Countries(1996)

*14 Japan's Official Development Assistance Annual Report (1995)

*15 国別協力情報(JICA)

資料編 5 地質調査概要

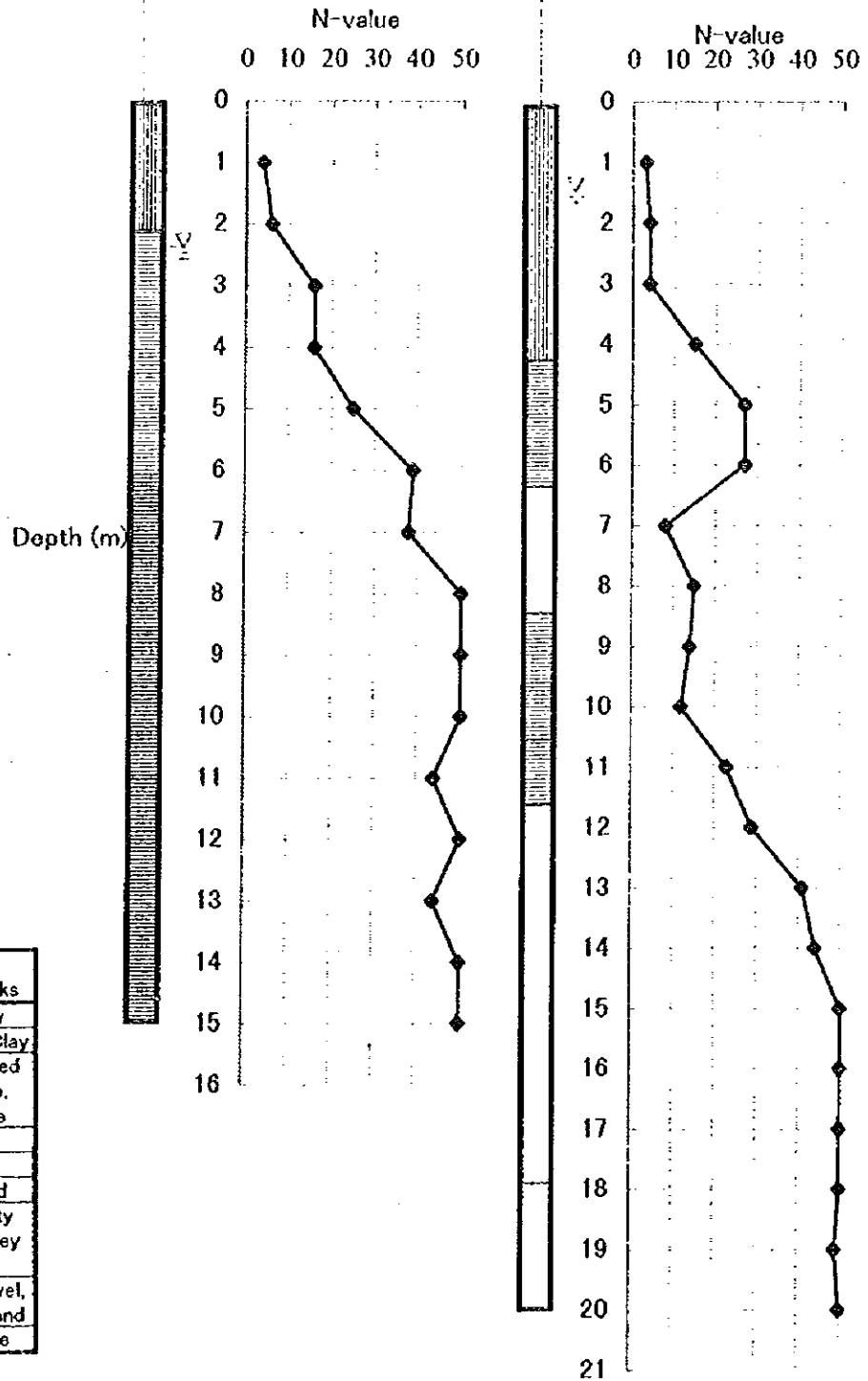
BRIDGE NO.	LOCATION (KM) ¹⁾	RIVER NAME	EXISTING BRIDGE LENGTH (M)	BEARING LAYER FOR FOUNDATION	ELEVATION OF BOREHOLE (M)	DEPTH OF BEARING LAYER (M)	ELEVATION OF BEARING LAYER (M)	DESCRIPTIONS
TX No.1	354.8	Saad	15.0	Decomposed Mudstone	150.9	6.0	144.9	Over N-value 30
TX No.2	360.6	Vanghing	15.0	Decomposed Sandstone	150.0	13.0	137.0	Over N-value 30
TX No.3	361.6	Hongnoy	5.5	Decomposed Sandstone	151.8	7.0	144.8	Over N-value 30
TX No.4	363.5	So	21.0	Sandy Gravel	153.9	6.0	147.9	Over N-value 50
TX No.5	366.8	Meuanpa-1	18.0	Decomposed Mudstone	154.2	2.0	152.2	Over N-value 30
TX No.6	367.1	Meuanpa-2	12.0	Decomposed Mudstone	153.8	5.0	148.8	Over N-value 30
TX No.7	371.1	Khamboune	18.0	Decomposed Mudstone	155.7	4.0	151.7	Over N-value 30
TX No.8	373.4	Langmeu	15.0	Decomposed Mudstone	154.5	3.0	151.5	Over N-value 30
TX No.9	375.3	Tad	27.0	Sandy Gravel	155.2	3.0	152.2	Over N-value 50
TX No.10	383.9	Ton	21.0	Decomposed Mudstone	152.0	6.0	146.0	Over N-value 30
TX No.11	386.1	Phao	27.0	Decomposed Mudstone	147.5	4.0	143.5	Over N-value 30
TX No.13	406.2	Sykhay	30.0	Sandy Gravel	153.1	12.0	141.1	Over N-value 50
TX No.14	413.2	Nakoktang	21.0	Decomposed Mudstone	153.2	4.0	149.2	Over N-value 30
TX No.15	422.2	Thahao	72.0	Decomposed Sandstone Decomposed Sandstone	150.3 148.0	4.0 11.0	146.3 137.0	Over N-value 50 Coring
XP No.1	436.0	Sompoy	9.0	Decomposed Mudstone	179.7	3.0	176.7	Over N-value 50
XP No.2	515.3	Enang	54.0	Sandstone Siltstone	137.6 136.5	6.0 6.0	131.6 130.5	Coring Coring
XP No.3	517.7	Katho	18.0	Mudstone	142.1	1.7	140.4	Coring
XP No.5	533.0	Piane	36.0	Decomposed Mudstone	131.4	4.0	127.4	Over N-value 50
XP No.7	568.1	Teauc	21.0	Sandstone	140.6	2.2	138.4	Coring
XP No.8	570.6	Naviene	9.0	Sandstone	141.7	0.3	141.4	Coring
XP No.9	571.5	Okad	21.0	Sandstone	140.7	2.1	138.6	Coring
XP No.10	512.6	Lamphong	45.0	Sandstone Sandstone	141.6 142.3	0.7 0.0	140.9 142.3	Coring Coring
XP No.11	575.4	Kennoy	21.0	Sandstone	147.9	3.4	144.5	Coring
XP No.12	578.7	Kapho	15.0	Sandstone	155.5	2.1	153.4	Coring
XP No.13	580.2	Hinsoung	18.0	Decomposed Mudstone	159.1	4.0	155.1	Over N-value 50
XP No.14	581.3	Va	21.0	Decomposed Mudstone	157.2	2.0	155.2	Over N-value 50
XP No.15	582.7	Muanxay	24.0	Decomposed Mudstone	161.3	2.0	159.3	Over N-value 50
XP No.16	585.5	Phabath	21.0	Sandstone	172.2	1.4	170.8	Coring
XP No.17	594.6	Makthane	21.0	Decomposed Mudstone	166.9	2.4	164.5	Over N-value 50
XP No.18	601.2	Mee	21.0	Decomposed Mudstone	156.6	2.0	154.6	Over N-value 30
XP No.19	607.3	Liao	27.0	Sandstone	159.4	3.9	155.5	Coring
XP No.20	607.4	Hinlath	18.0	Sandstone	152.9	0.2	152.7	Coring
XP No.21	608.8	Khene	27.0	Sandstone	150.1	2.4	147.7	Coring
XP No.22	609.2	Khay	18.0	Mudstone	134.0	4.0	130.0	Coring
XP No.23	619.8	Mone-1	18.0	Decomposed Mudstone	133.1	4.0	129.1	Over N-value 50
XP No.24	622.3	Mone-2	15.0	Sandstone	130.4	3.4	127.0	Coring
XP No.25	625.1	Phaneng	18.0	Stiff Clay	128.1	1.0	127.1	Over N-value 30
XP No.26	625.8	Kasong	18.0	Decomposed Mudstone	127.6	2.0	125.6	Over N-value 50
XP No.27	626.3	Katine	36.0	Stiff Clay	130.1	1.0	129.1	Over N-value 50
XP No.28	634.3	Sao	48.0	Mudstone Decomposed Mudstone	128.6 130.4	15.0 15.0	113.6 115.4	Coring Over N-value 30
XP No.29	635.9	Lane	42.0	Decomposed Mudstone Decomposed Mudstone	130.2 131.5	4.0 2.0	126.2 129.5	Over N-value 50 Over N-value 30
XP No.30	683.3	Nonsenc	21.0	Sandstone	126.7	5.0	121.7	Coring
XP No.31	639.3	Khamnuang	15.0	Decomposed Sandstone	126.7	3.0	123.7	Over N-value 50
XP No.32	639.9	Kek	15.0	Decomposed Sandstone	126.6	4.0	122.6	Over N-value 50
XP No.33	640.2	Vangmane	15.0	Sandstone	127.7	6.0	121.7	Coring
XP No.34	640.5	Kaipoon	12.0	Silty Sand	128.2	2.0	126.2	Over N-value 50
XP No.35	642.7	Huakhao	15.0	Silty Sand	128.7	2.0	126.7	Over N-value 30
XP No.36	643.7	Sea	27.0	Sandstone	128.0	2.9	125.1	Coring
XP No.37	648.4	Epeng	21.0	Decomposed Sandstone	124.0	3.0	121.0	Over N-value 50
XP No.38	649.0	Kadi	18.0	Stiff Clay	123.2	1.0	122.2	Over N-value 30
XP No.39	661.3	Sonenak	18.0	Decomposed Sandstone	115.4	4.0	111.4	Over N-value 50

¹⁾---- from Vientiane

SUMMARIZED BORING LOGS
FOR
THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES
ON
THE NATIONAL ROAD ROUTE 13, PHASE II
IN
LAO PEOPLE'S DEMOCRATIC REPUBLIC

TX No.1

TX No.2



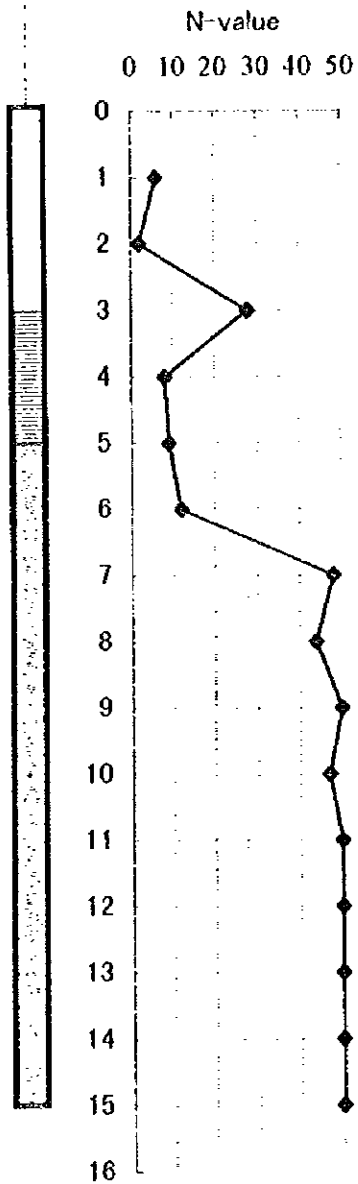
LEGEND

Symbolic Column	Type of Soils/Rocks
	Silty Clay
	Clay, Stiff Clay
	Decomposed Mudstone, Mudstone
	Sand
	Silty Sand
	Dense Silty Sand, Clayey Sand
	Sandy Gravel, Gravelly Sand
	Sandstone

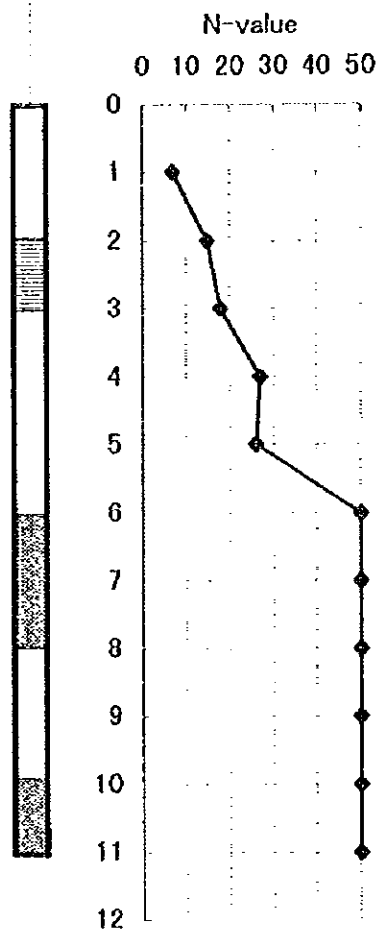
No indication of water table (∇) means that no water table was found in drilling March 1977.

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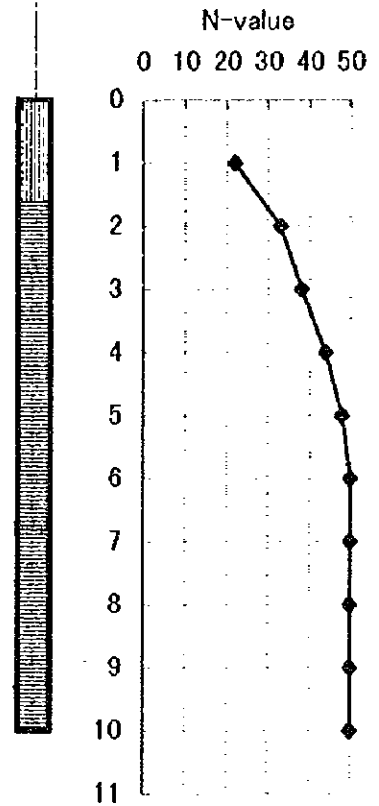
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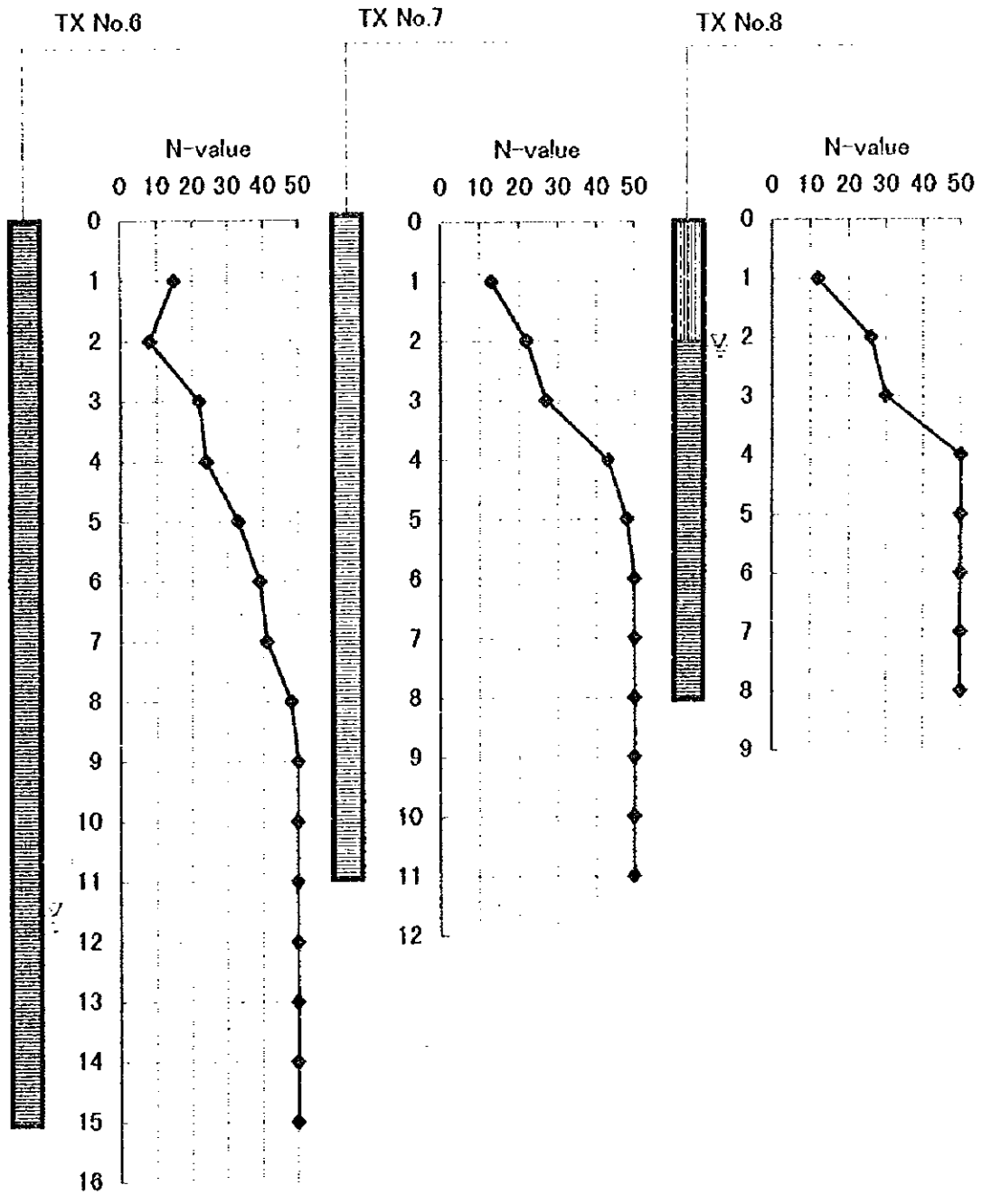
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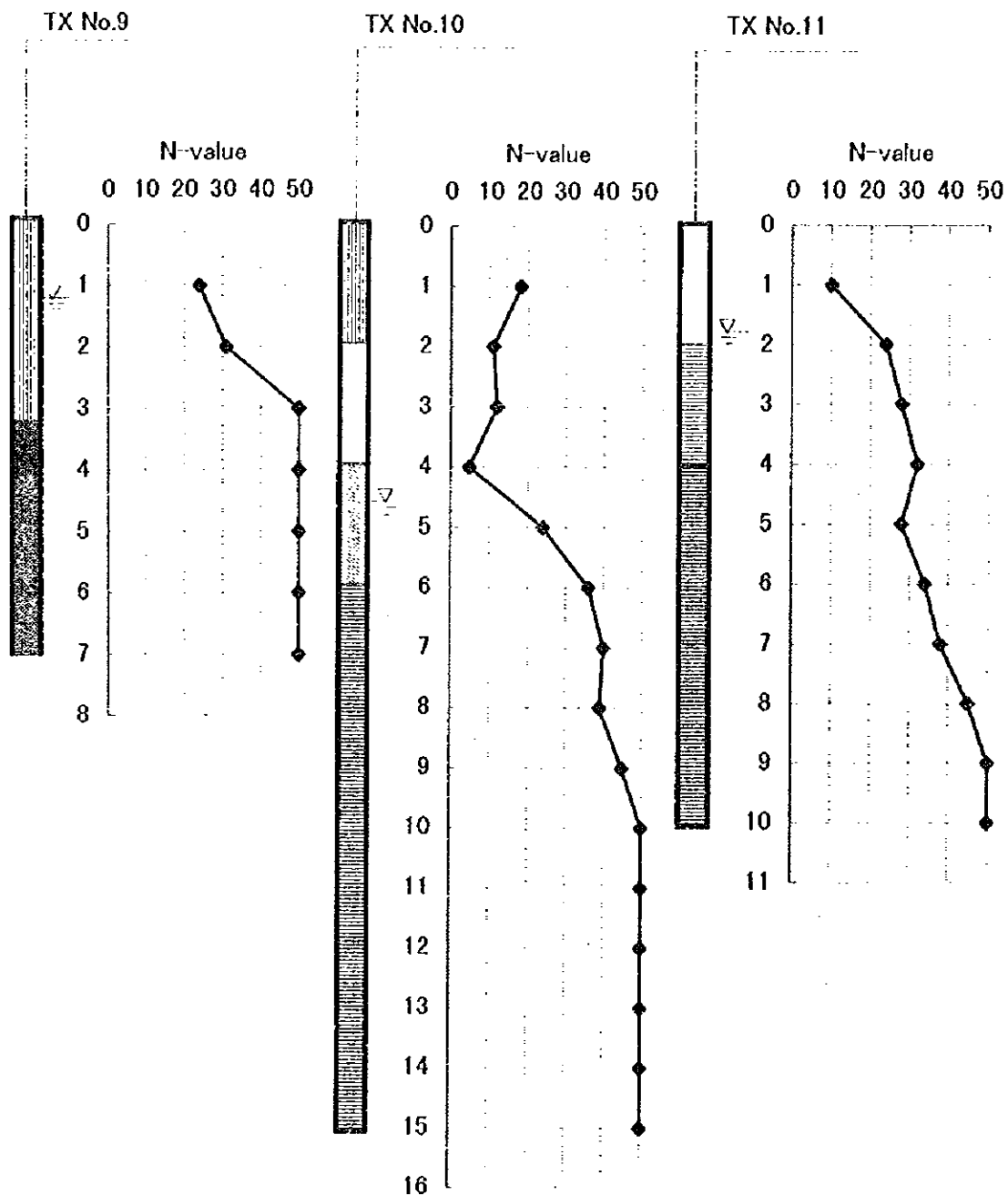
TX No.5



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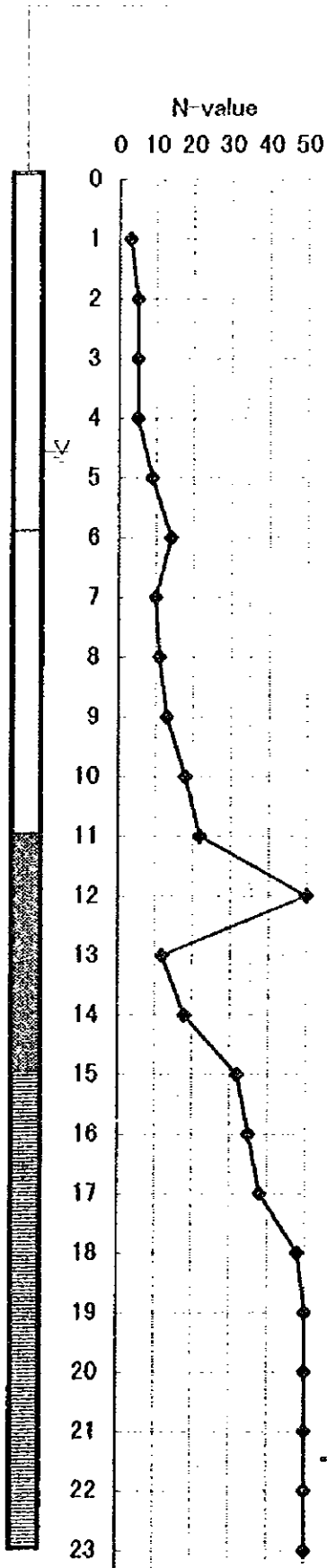


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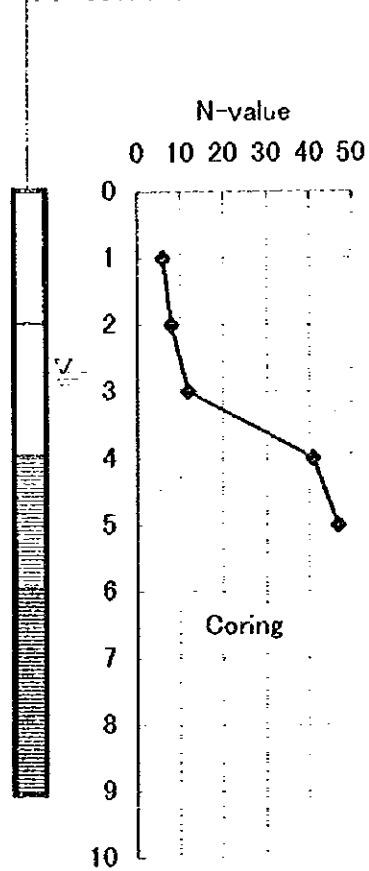


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TX No.13

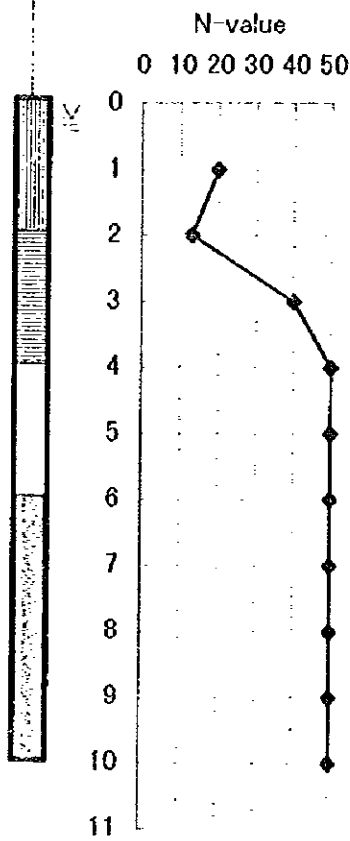


TX No.14

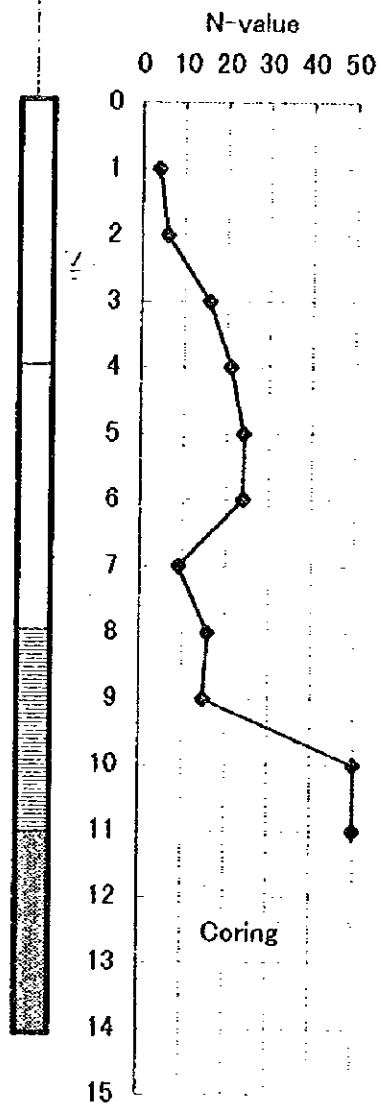


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TX No.15-1

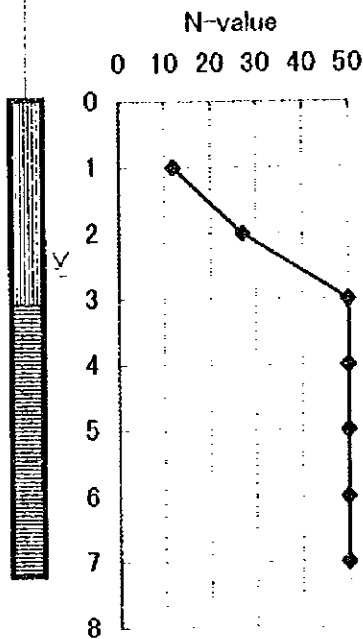


TX No.15-2

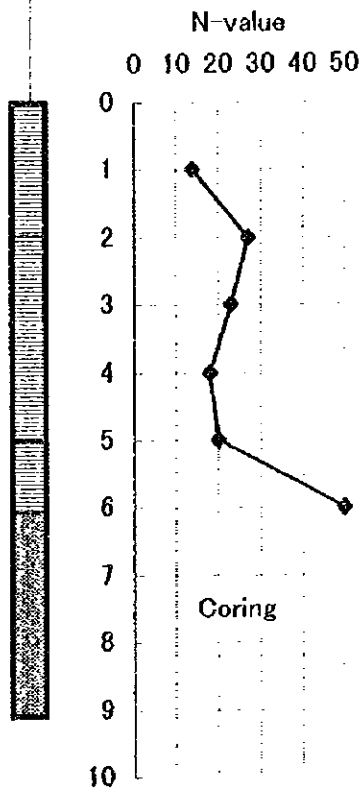


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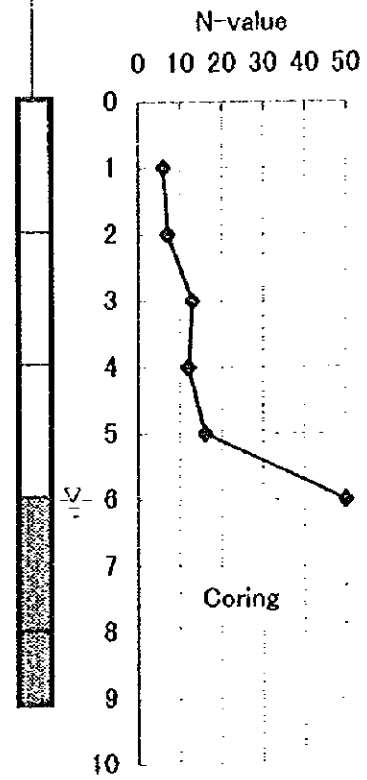
XP No.1



XP No.2-1



XP No.2-2

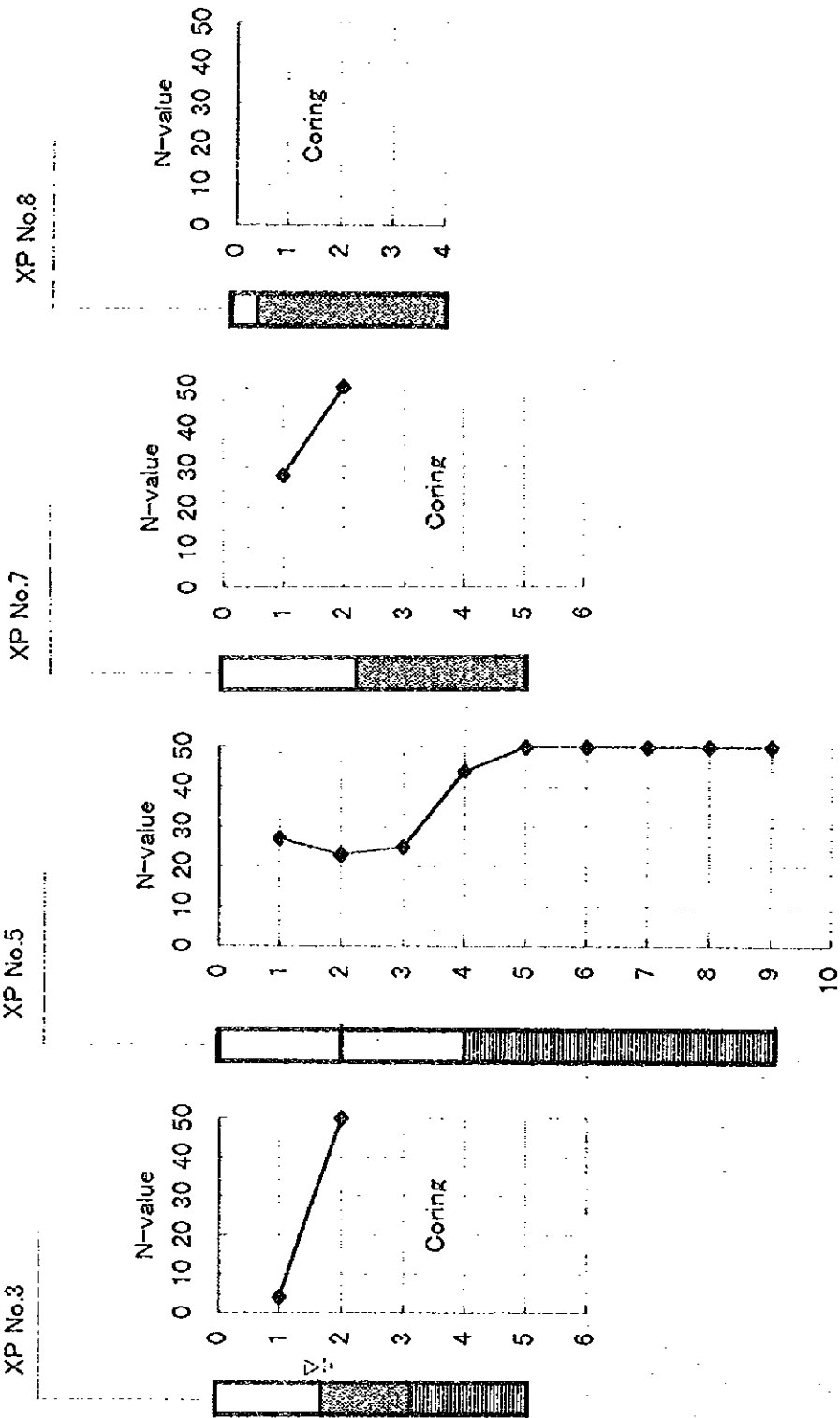


LEGEND

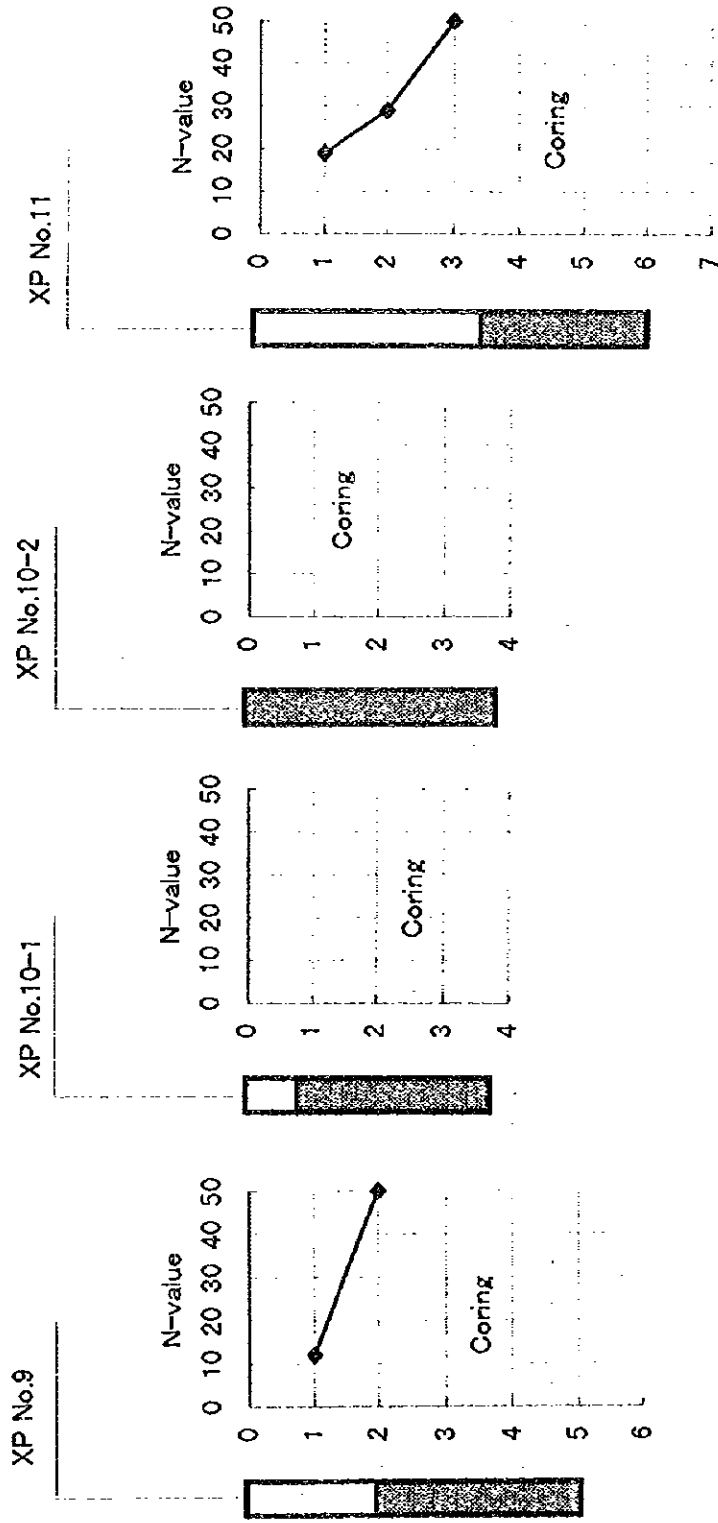
Symbolic Column	Type of Soils/Rocks
[Symbolic Column]	Silty Clay
[Symbolic Column]	Clay, Stiff Clay
[Symbolic Column]	Decomposed Mudstone, Mudstone
[Symbolic Column]	Sand
[Symbolic Column]	Silty Sand
[Symbolic Column]	Dense Silty Sand, Clayey Sand
[Symbolic Column]	Sandy Gravel, Gravelly Sand
[Symbolic Column]	Sandstone

No indication of water table (∇) means that no water table was found in drilling March 1977.

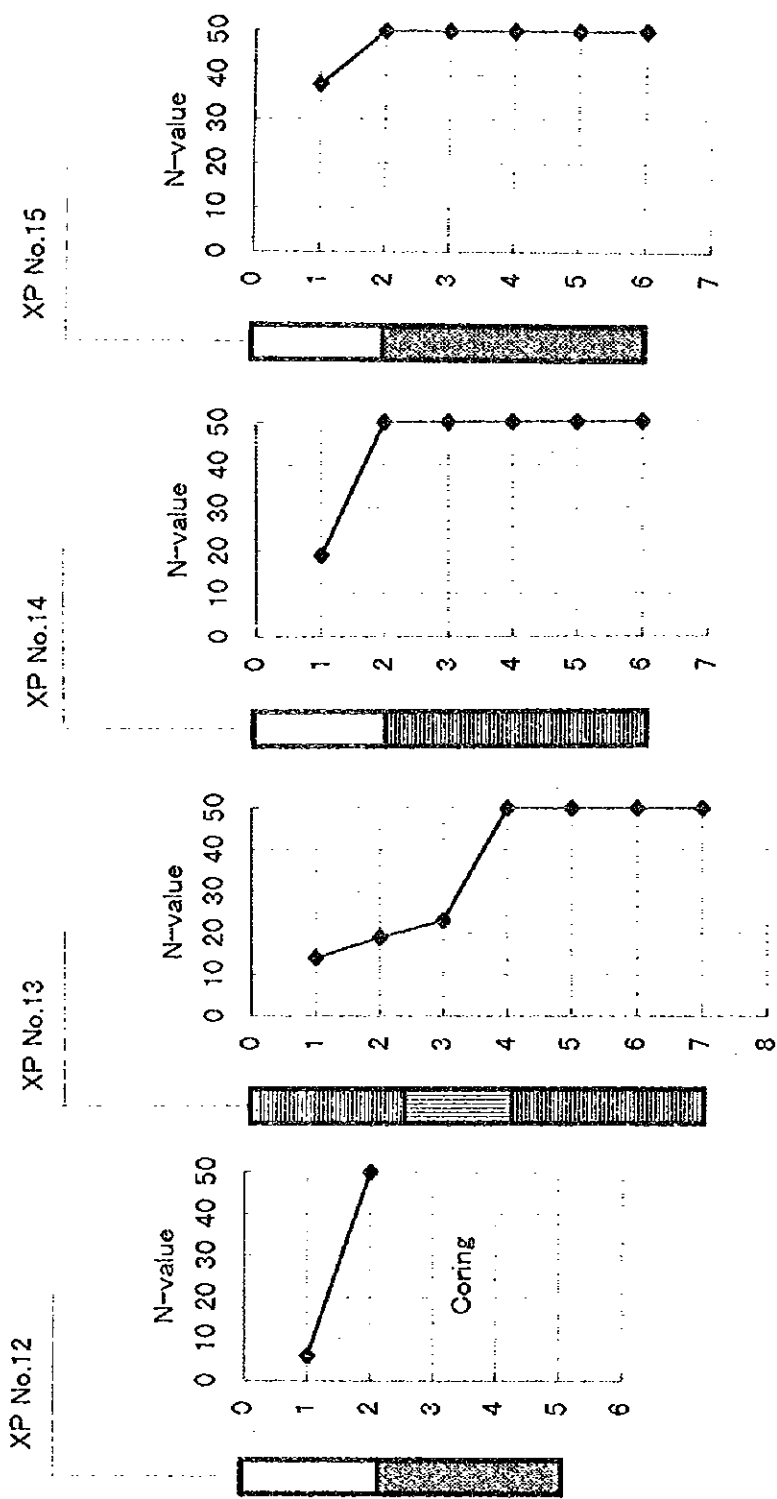
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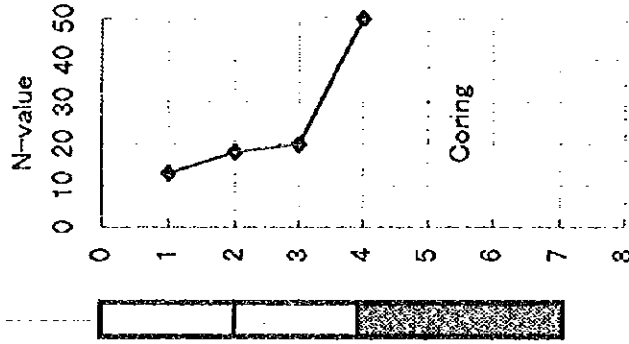


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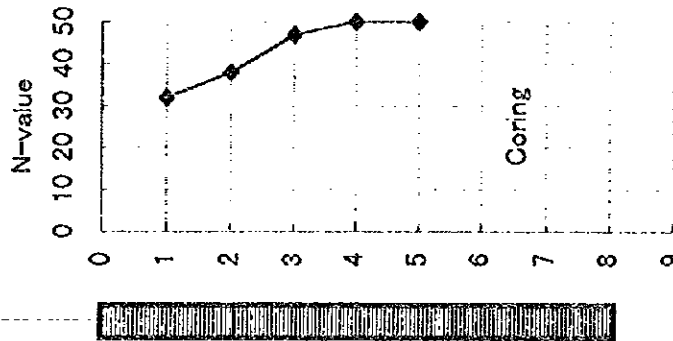


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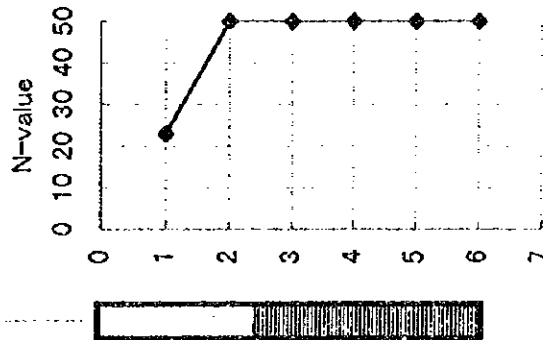
XP No.19



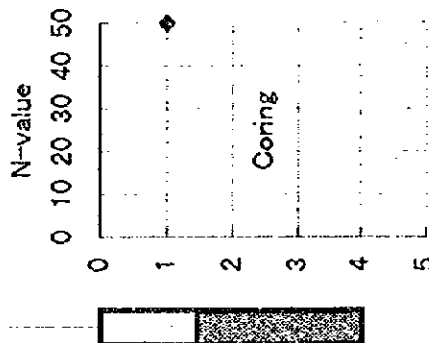
XP No.18



XP No.17

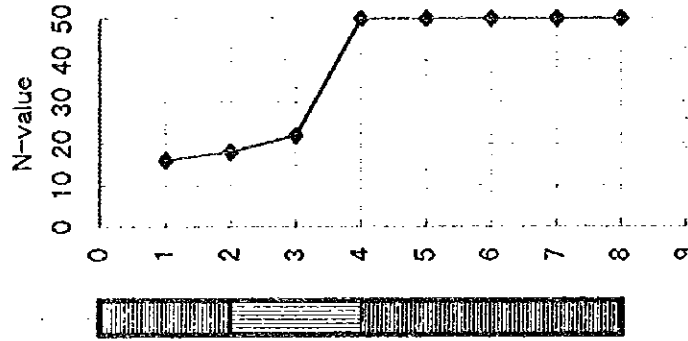


XP No.16

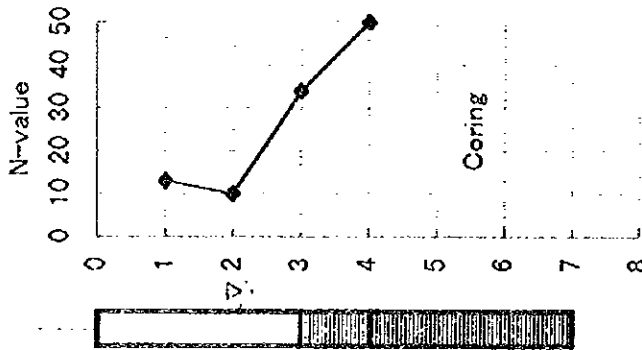


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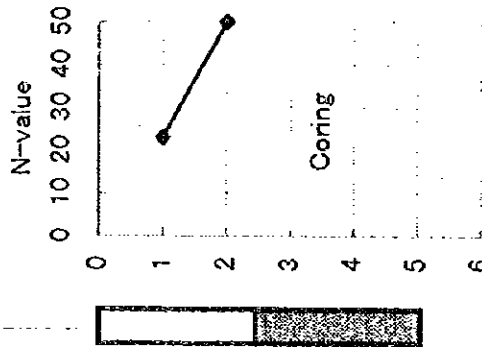
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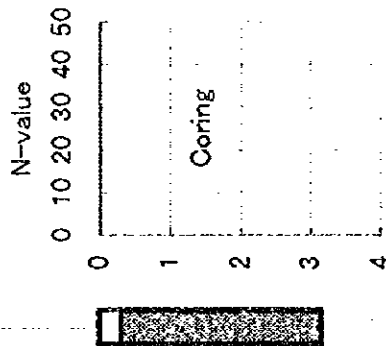
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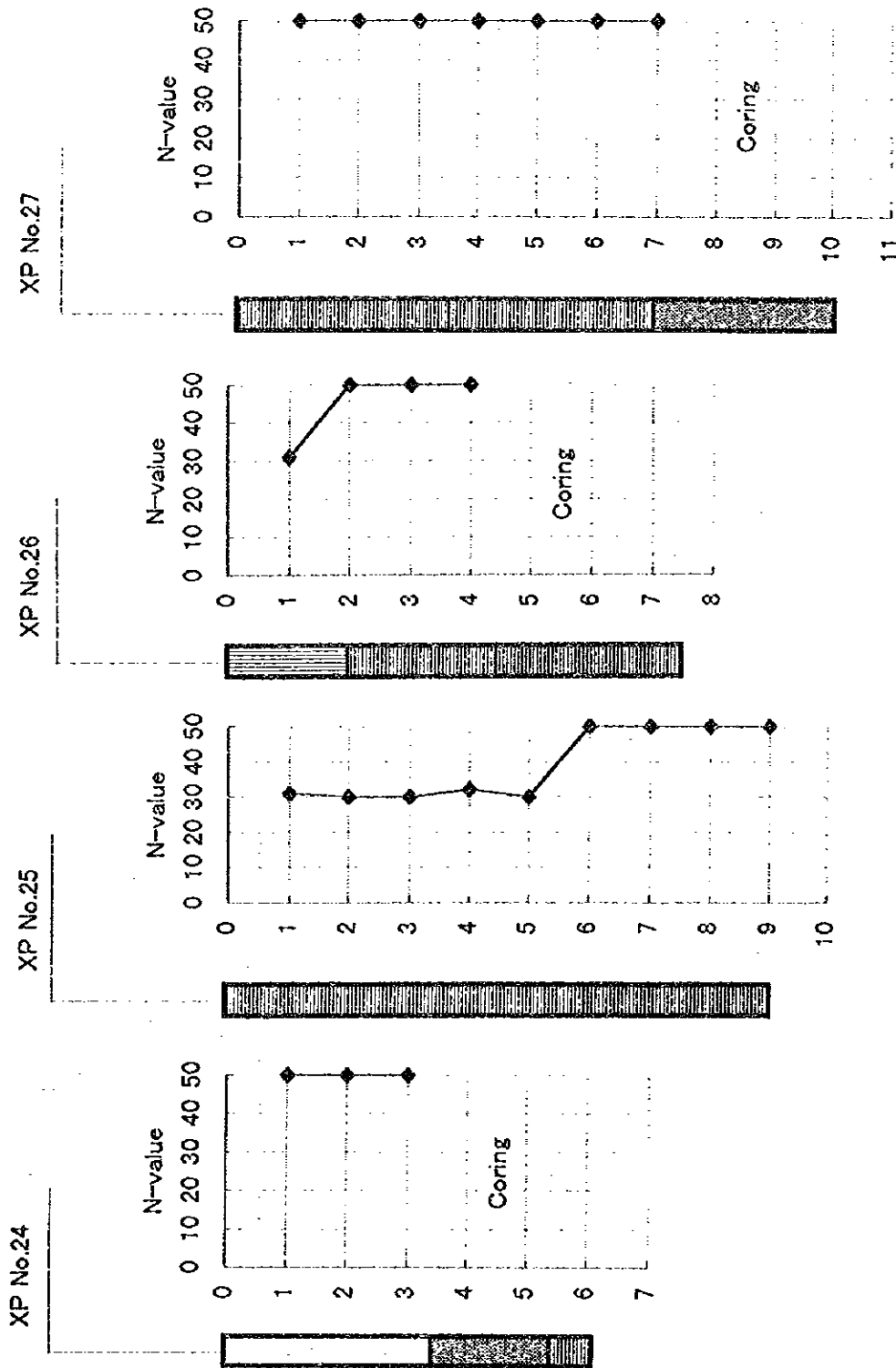
XP No.21



XP No.20

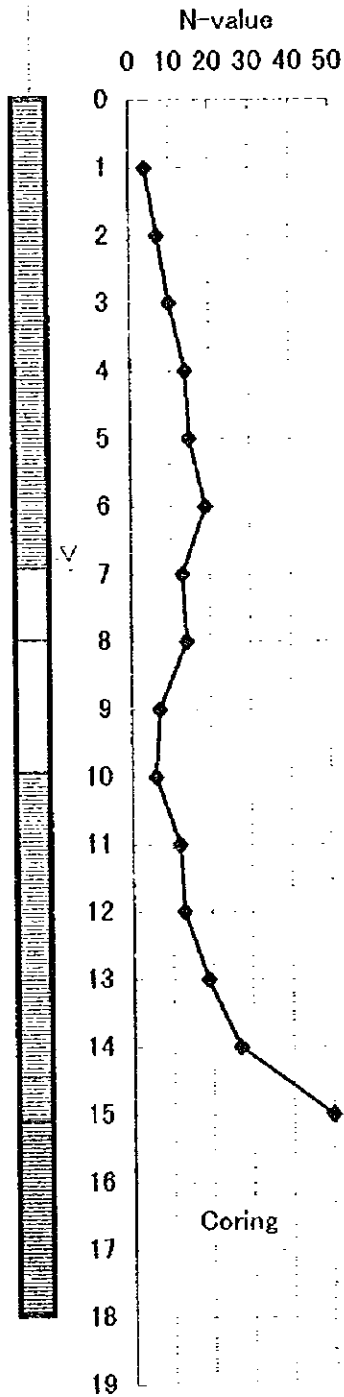


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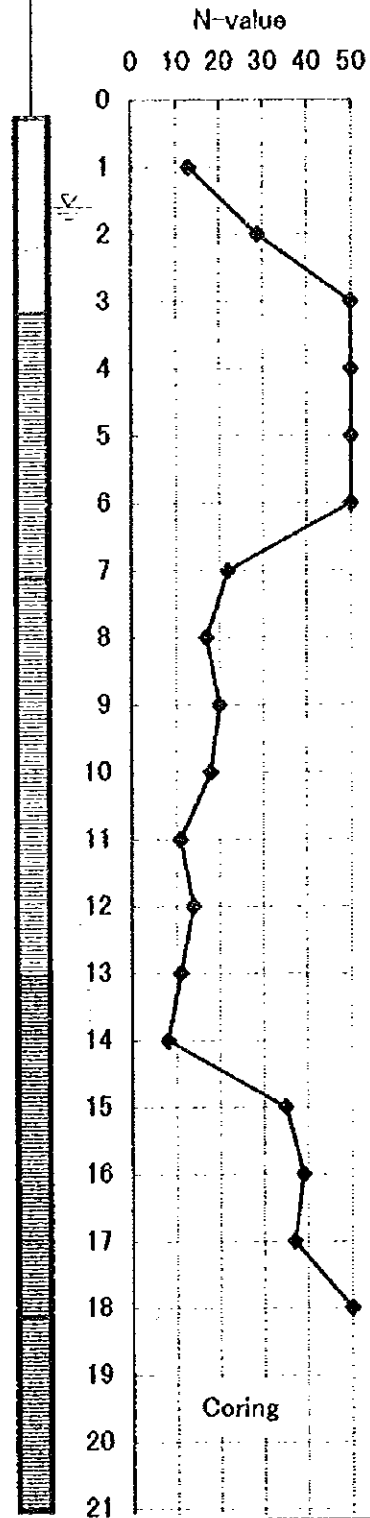


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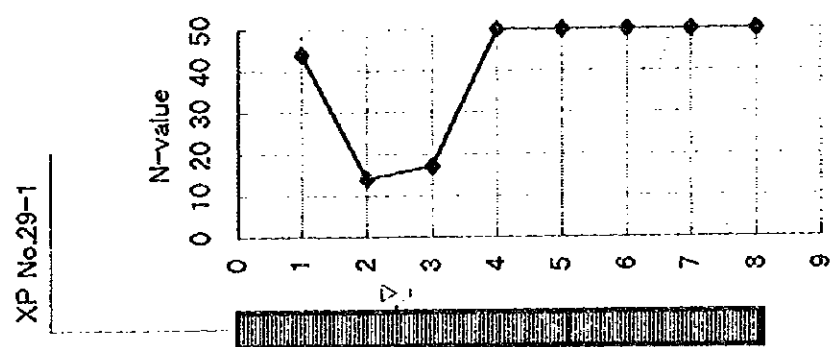
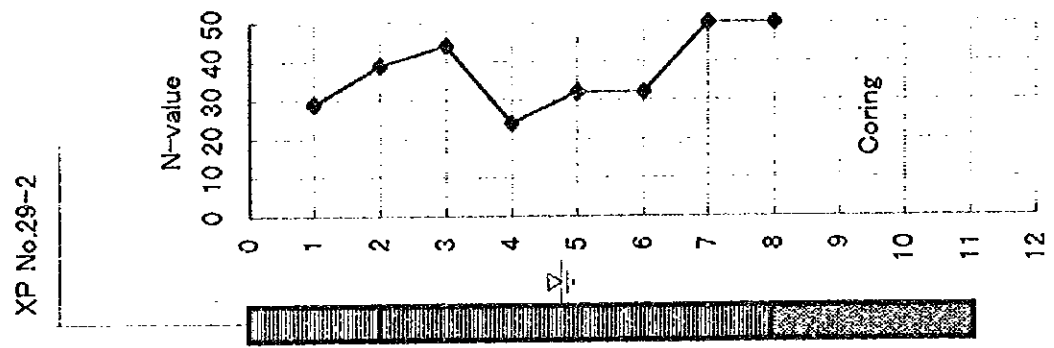
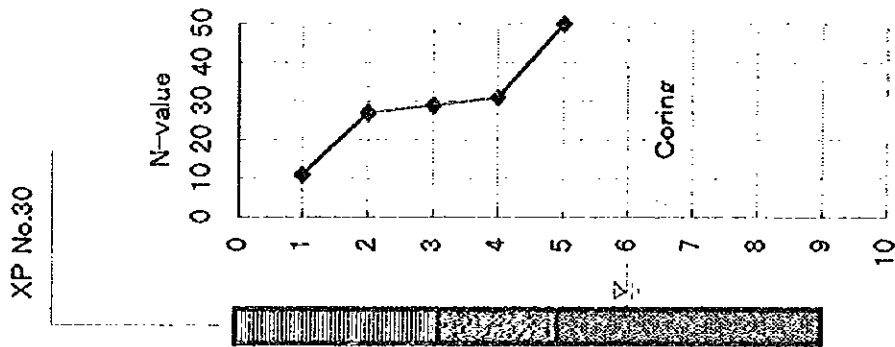
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XP No.28-2

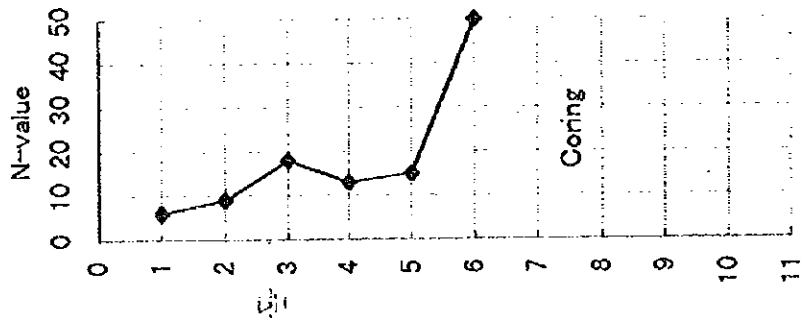


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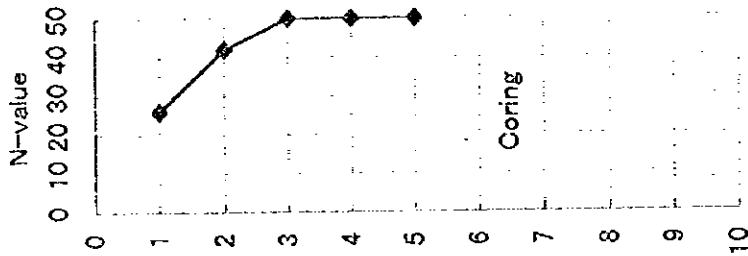


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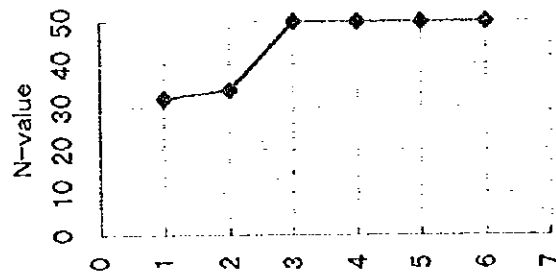
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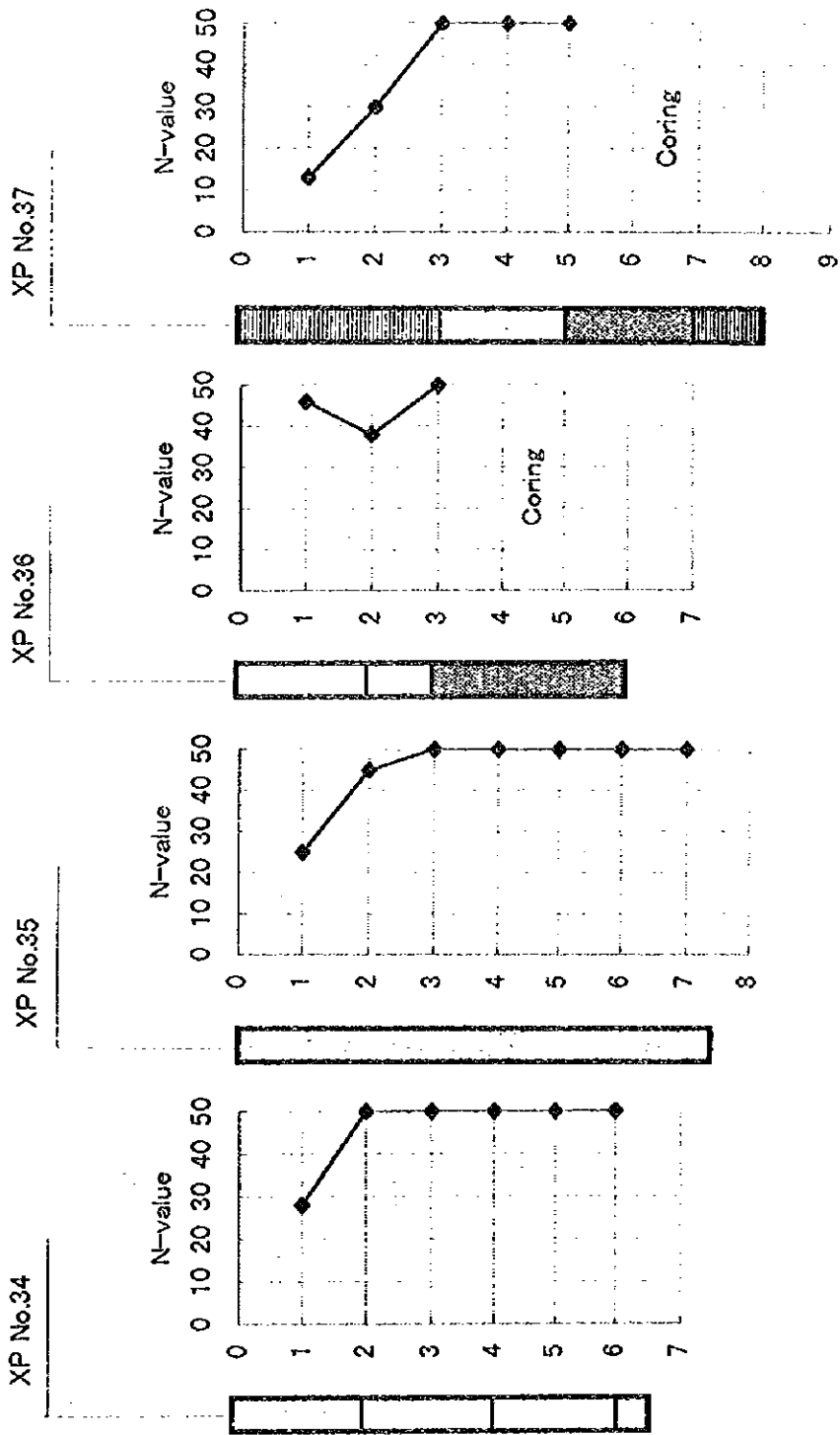
XP No.32



XP No.31

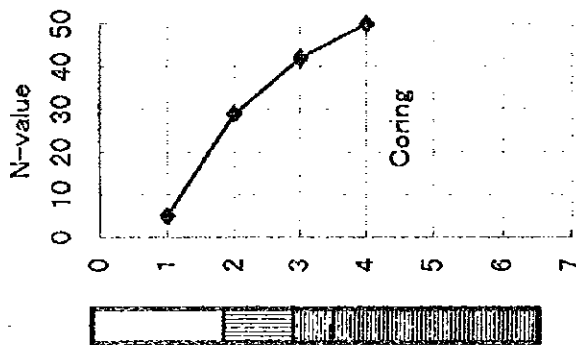


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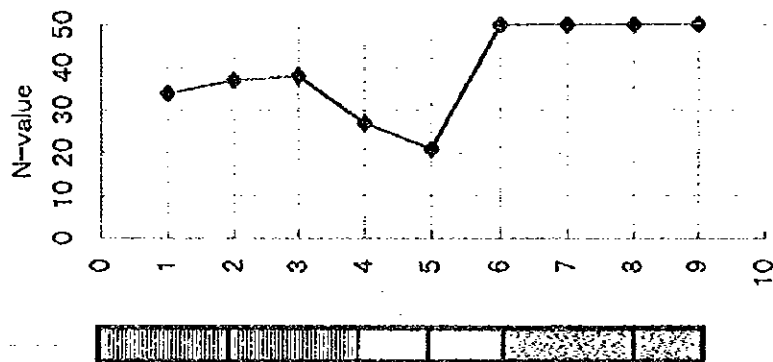


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XP No.39



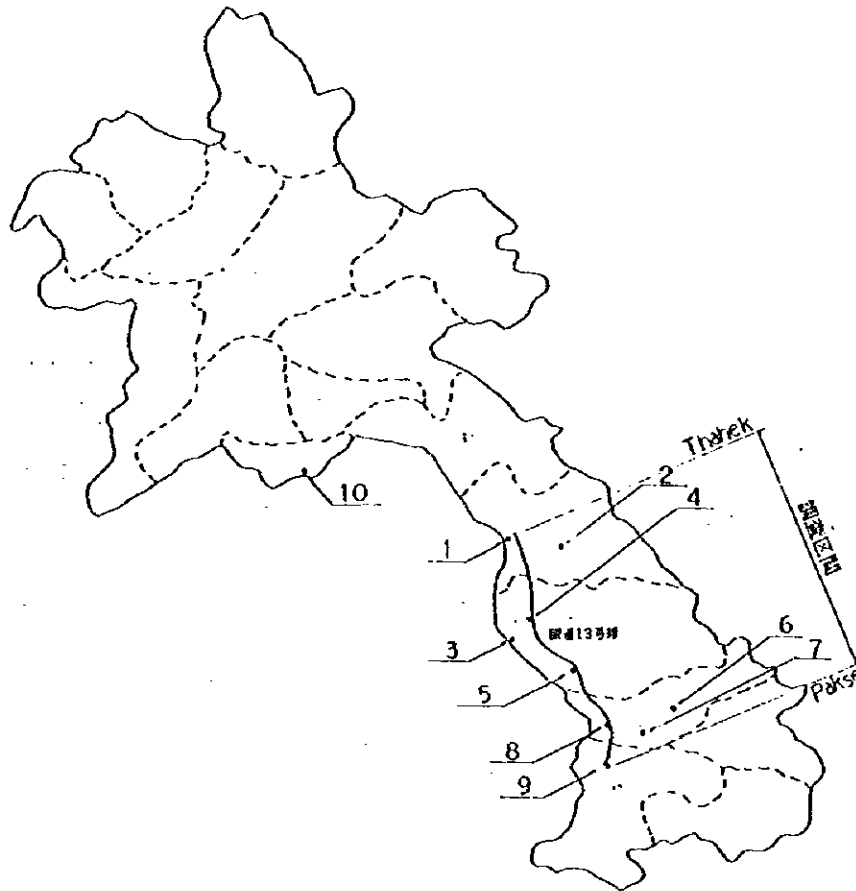
XP No.38



主要地点の日最大雨量記録

Location	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	最大	摘要
1. Thakhek	149.6(8)	157.9(8)	152.1(8)	136.3(7)	216.9(8)	151.1(8)	74.0(8)	202.3(7)	156.6(6)	271.4(8)	121.3(9)	202.3	1983.6.25 450.3mm 最大
2. Mahaxay						182.5(8)	166.0(4)	109.0(5)	129.2(8)	124.0(8)	200.0(7)	200.0	
3. Savanokhet	36.1(7)	96.7(8)	69.3(8)	70.9(7)	83.0(8)	184.8(9)	120.8(8)	73.1(5)	92.2(8)	81.3(8)	93.2(9)	184.8	
4. Seno						137.6(9)	74.8(7)	179.6(8)	126.0(8)	63.2(5)	69.7(8)	137.6	
5. B. Kengdome						243.1(9)	126.5(7)	65.2(8)	112.1(7)	111.7(6)	113.7(9)	243.1	
6. Saravane						152.5(8)	184.5(6)	190.5(8)	86.5(9)	156.6(7)	299.2(9)	299.2	
7. Laongam						105.6(8)	219.2(6)	72.5(8)	73.5(9)	75.0(6)	163.5(9)	219.2	
8. Kongsedone						204.2(7)	163.7(7)	95.6(6)	108.3(9)	72.0(8)	143.7(9)	204.2	
9. Pakse	105.8(8)	226.4(8)	115.7(8)	81.2(7)	54.3(8)	87.6(9)	81.2(8)	86.4(8)	178.1(9)	95.9(7)	93.6(8)	178.1	
10. Vientiane						80.6(7)	151.5(6)	150.4(6)	77.6(6)	134.6(8)	123.5(7)	151.5	

(mm) () 月



雨量観測所位置図

河川諸元及び橋地点の流出量及び流下能力量

標 番 号	流域面積 C. A. km ²	流 路 長 L. km	高 低 差 H. m	河 床 勾 配 i	流 出 量 Qp 300 mm/7s m ³ /s	流 下 能 力 m ³ /s	H. W. L. m	備 考
IX- No 1	8.2	3.5	50	1/200	143.0	< 155.0	150.980	
No 2	4.0	3.0	50	"	77.6	< 99.8	150.239	
No 3	3.6	3.0	50	"	70.0	< 110.0	153.622	
No 4	8.0	3.0	60	"	161.8	< 164.0	153.886	
No 5	11.0	4.0	50	"	175.1	< 294.8	155.709	
No 6	2.5	2.0	25	"	54.8	< 94.6	154.357	
No 7	18.0	5.0	30	1/100	234.8	< 474.0	156.428	
No 8	3.5	2.0	40	"	85.5	< 124.8	155.800	
No 9	5.4	3.0	25	1/200	89.2	< 419.0	156.750	
No 10	6.3	3.0	30	"	108.6	< 280.6	151.045	
No 11	8.4	4.0	40	"	127.0	< 560.3	149.847	
No 13	112.0	20.0	150	"	753.2	< 1507.5	154.371	
No 14	19.2	5.0	20	1/400	213.2	< 521.8	155.833	
No 15	530.0	70.0	200	1/600	1598.0	< 4633.0	154.817	
XF- No 1	2.0	—	—	"	49.6	< 54.1	180.389	
No 2	97.5	20.0	30	"	452.0	< 2061.0	141.362	
No 3	2.4	—	—	1/400	59.5	< 153.8	143.238	
No 5	25.8	6.0	20	1/600	250.9	< 840.0	132.728	
No 7	4.0	2.0	30	1/400	91.5	< 184.8	142.900	
No 8	4.0	2.5	30	1/200	78.5	< 93.9	143.158	
No 9	3.2	2.0	20	1/600	66.6	< 200.6	142.604	
No 10	116.0	15.0	260	1/200	1080.0	< 1131.0	144.502	
No 11	8.7	7.0	130	1/600	117.1	< 266.7	149.553	
No 12	6.0	4.5	130	1/400	109.8	< 225.5	157.323	
No 13	7.8	4.0	130	1/600	154.8	< 408.4	160.624	
No 14	2.2	—	—	1/400	54.6	< 184.8	158.097	
No 15	13.8	5.0	110	"	225.5	< 494.9	162.226	
No 16	7.6	4.0	230	1/600	172.1	< 184.0	171.491	
No 17	9.2	5.0	290	1/200	188.1	< 325.4	167.939	
No 18	14.8	5.0	110	"	241.9	< 602.7	157.855	
No 19	1.2	—	—	1/600	29.8	< 510.3	162.233	
No 20	1.0	—	—	"	24.8	< 55.8	154.023	
No 21	15.0	5.0	340	1/200	318.1	< 451.0	151.996	
No 22	19.9	7.0	340	"	341.0	< 750.0	137.052	
No 23	19.6	7.0	340	1/400	338.0	< 376.1	135.260	
No 24	5.1	2.5	280	1/600	167.5	< 303.0	134.086	
No 25	3.0	15.0	180	1/1000	25.7	—	133.198	
No 26	0	—	—	"	14.9	—	133.062	
No 27	17.8	7.0	270	"	284.6	< 928.0	132.805	
No 28	78.2	14.0	350	"	818.9	< 1438.0	130.582	
No 29	8.7	7.0	500	"	159.8	< 871.9	130.940	
No 30	3.2	2.0	80	"	91.8	< 292.8	130.149	
No 31	1.5	—	—	"	42.5	< 115.8	129.799	
No 32	2.1	—	—	1/600	59.5	< 102.0	129.153	
No 33	4.0	2.0	480	"	173.6	< 228.5	130.276	
No 34	1.5	—	—	"	42.5	< 102.0	131.260	
No 35	1.2	—	—	"	34.0	< 112.0	130.055	
No 36	5.2	3.0	440	"	167.5	< 211.0	129.248	
No 37	9.4	5.0	500	"	217.9	< 258.8	126.969	
No 38	19.3	8.5	500	"	323.4	< 373.2	128.437	
No 39	13.5	6.5	500	1/400	261.4	< 312.2	117.758	

JICA