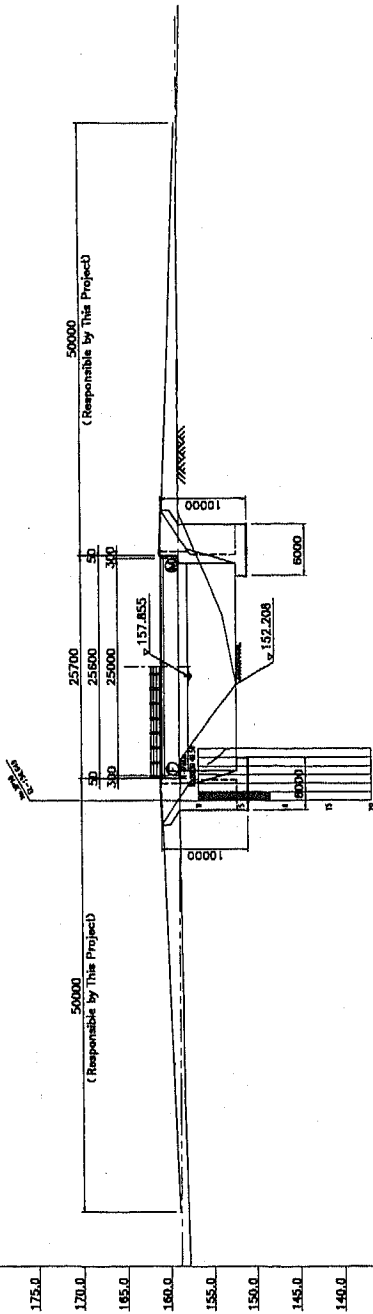


GENERAL VIEW (XPNo. 18)

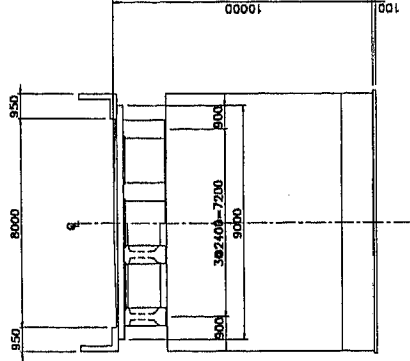
SIDE ELEVATION S = 1 / 300



DESIGN CONDITION

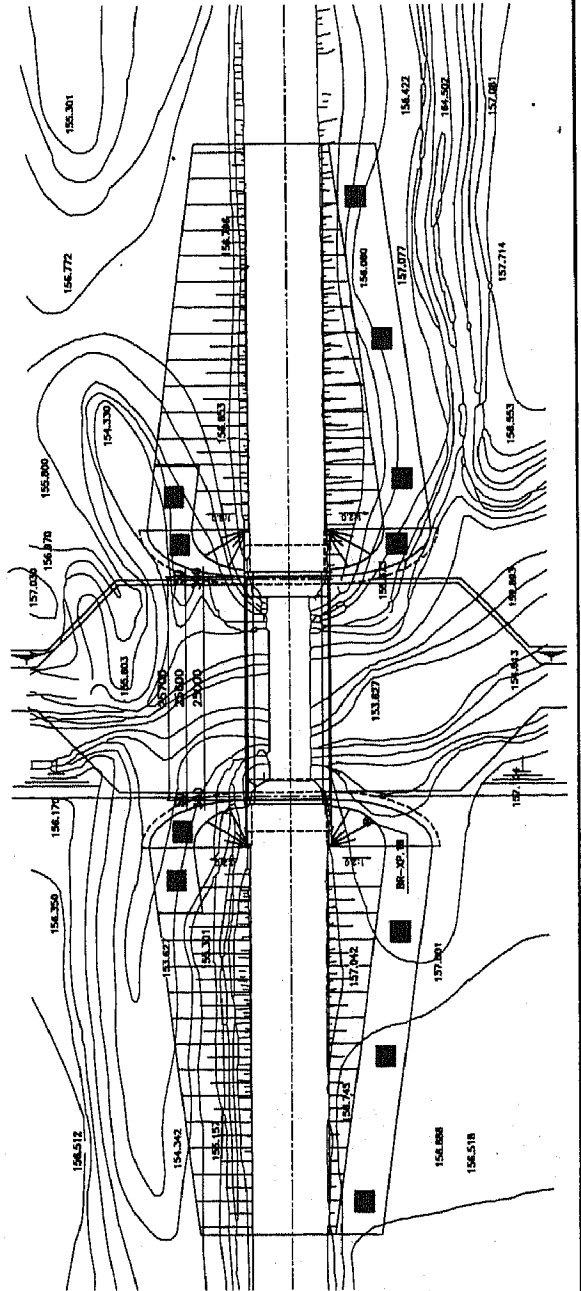
TYPE	PC 1 span I-girder bridge
BRIDGE LENGTH	25,700
GIRDER LENGTH	25,600
SPAN	25,000
WIDTH	8,000
LIVE LOAD	Type B live load
SEISMIC COEFFICIENT	KH = 0.06
ANGLE OF SKEW	9°

CROSS SECTION S = 1 / 100



GRADE	PROPOSED HEIGHT	GROUND HEIGHT	DISTANCE	STATION	CURVE ELEMENT
175.0	175.0	175.0	0.00	100+00	
170.0	170.0	170.0	10.00	101+00	
165.0	165.0	165.0	20.00	102+00	
160.0	160.0	160.0	30.00	103+00	
155.0	155.0	155.0	40.00	104+00	
150.0	150.0	150.0	50.00	105+00	
145.0	145.0	145.0	60.00	106+00	
140.0	140.0	140.0	70.00	107+00	
135.0	135.0	135.0	80.00	108+00	
			90.00	109+00	
			100.00	110+00	
			110.00	111+00	
			120.00	112+00	
			130.00	113+00	
			140.00	114+00	
			150.00	115+00	

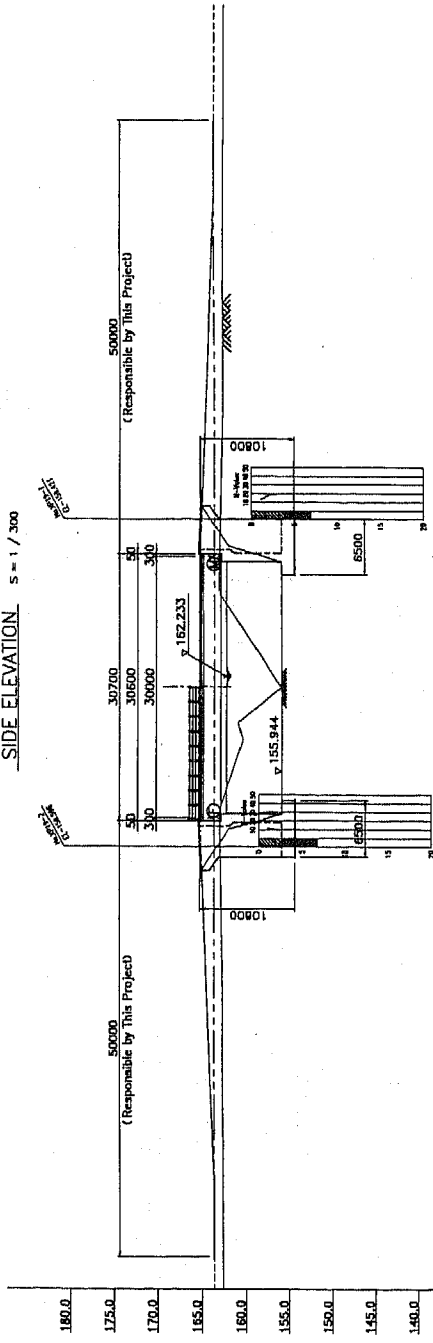
PLAN S = 1 / 300



LAO PEOPLE'S DEMOCRATIC REPUBLIC
THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES
ON
THE NATIONAL ROAD ROUTE 13, PHASE 3
GENERAL VIEW (XPNo. 18)
Scale: 1 : 800 Drawing No. 30
JAPAN INTERNATIONAL COOPERATION AGENCY
INTERNATIONAL COMMUNITARIAN CENTER
JAPAN STRATEGIC CONSULTANTS CO., LTD.

GENERAL VIEW (XPNo. 19)

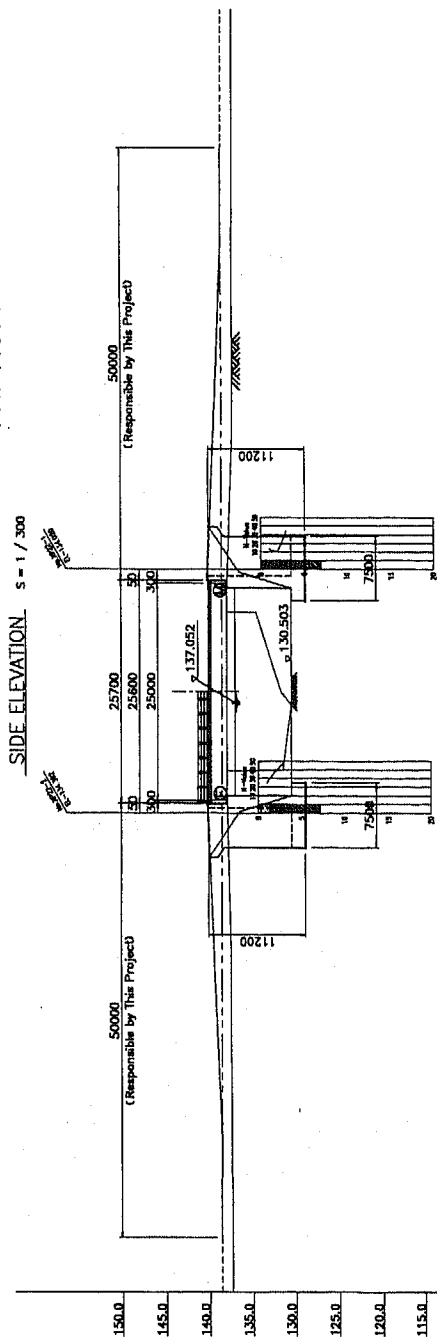
SIDE ELEVATION S = 1 / 300



180.0
175.0
170.0
165.0
160.0
155.0
150.0
145.0
140.0

GRADE	PROPOSED HEIGHT	GROUND HEIGHT	DISTANCE	STATION	CURVE ELEMENT
181.276	41.218	142.057	182.987	0+000	
180.018	82.51	162.013	182.987	0+000	
180.326	112.900	162.013	182.987	0+000	
181.813	82.51	162.013	182.987	0+000	
182.983	112.900	162.013	182.987	0+000	
183.200	143.106	162.013	182.987	0+000	
184.103	82.51	162.013	182.987	0+000	
184.482	112.900	162.013	182.987	0+000	
185.482	143.106	162.013	182.987	0+000	
186.087	173.500	162.013	182.987	0+000	
186.811	203.890	162.013	182.987	0+000	
187.716	234.280	162.013	182.987	0+000	
188.225	264.670	162.013	182.987	0+000	
189.330	295.060	162.013	182.987	0+000	
190.000	325.450	162.013	182.987	0+000	
190.408	355.840	162.013	182.987	0+000	
190.811	386.230	162.013	182.987	0+000	
191.220	416.620	162.013	182.987	0+000	
191.743	447.010	162.013	182.987	0+000	
192.280	477.400	162.013	182.987	0+000	
192.830	507.790	162.013	182.987	0+000	
193.390	538.180	162.013	182.987	0+000	
193.960	568.570	162.013	182.987	0+000	
194.540	598.960	162.013	182.987	0+000	
195.130	629.350	162.013	182.987	0+000	
195.730	659.740	162.013	182.987	0+000	
196.340	690.130	162.013	182.987	0+000	
196.960	720.520	162.013	182.987	0+000	
197.590	750.910	162.013	182.987	0+000	
198.230	781.300	162.013	182.987	0+000	
198.880	811.690	162.013	182.987	0+000	
199.540	842.080	162.013	182.987	0+000	
200.210	872.470	162.013	182.987	0+000	
200.890	902.860	162.013	182.987	0+000	
201.580	933.250	162.013	182.987	0+000	
202.280	963.640	162.013	182.987	0+000	
202.990	994.030	162.013	182.987	0+000	
203.710	1024.420	162.013	182.987	0+000	
204.440	1054.810	162.013	182.987	0+000	
205.180	1085.200	162.013	182.987	0+000	
205.930	1115.590	162.013	182.987	0+000	
206.690	1145.980	162.013	182.987	0+000	
207.460	1176.370	162.013	182.987	0+000	
208.240	1206.760	162.013	182.987	0+000	
209.030	1237.150	162.013	182.987	0+000	
209.830	1267.540	162.013	182.987	0+000	
210.640	1297.930	162.013	182.987	0+000	
211.460	1328.320	162.013	182.987	0+000	
212.290	1358.710	162.013	182.987	0+000	
213.130	1389.100	162.013	182.987	0+000	
213.980	1419.490	162.013	182.987	0+000	
214.840	1449.880	162.013	182.987	0+000	
215.710	1480.270	162.013	182.987	0+000	
216.590	1510.660	162.013	182.987	0+000	
217.480	1541.050	162.013	182.987	0+000	
218.380	1571.440	162.013	182.987	0+000	
219.290	1601.830	162.013	182.987	0+000	
220.210	1632.220	162.013	182.987	0+000	
221.140	1662.610	162.013	182.987	0+000	
222.080	1693.000	162.013	182.987	0+000	
223.030	1723.390	162.013	182.987	0+000	
224.000	1753.780	162.013	182.987	0+000	
224.980	1784.170	162.013	182.987	0+000	
225.970	1814.560	162.013	182.987	0+000	
226.970	1844.950	162.013	182.987	0+000	
227.980	1875.340	162.013	182.987	0+000	
229.000	1905.730	162.013	182.987	0+000	
230.030	1936.120	162.013	182.987	0+000	
231.070	1966.510	162.013	182.987	0+000	
232.120	1996.900	162.013	182.987	0+000	
233.180	2027.290	162.013	182.987	0+000	
234.250	2057.680	162.013	182.987	0+000	
235.330	2088.070	162.013	182.987	0+000	
236.420	2118.460	162.013	182.987	0+000	
237.520	2148.850	162.013	182.987	0+000	
238.630	2179.240	162.013	182.987	0+000	
239.750	2209.630	162.013	182.987	0+000	
240.880	2240.020	162.013	182.987	0+000	
242.020	2270.410	162.013	182.987	0+000	
243.170	2300.800	162.013	182.987	0+000	
244.330	2331.190	162.013	182.987	0+000	
245.500	2361.580	162.013	182.987	0+000	
246.680	2391.970	162.013	182.987	0+000	
247.870	2422.360	162.013	182.987	0+000	
249.070	2452.750	162.013	182.987	0+000	
250.280	2483.140	162.013	182.987	0+000	
251.500	2513.530	162.013	182.987	0+000	
252.730	2543.920	162.013	182.987	0+000	
254.000	2574.310	162.013	182.987	0+000	
255.280	2604.700	162.013	182.987	0+000	
256.570	2635.090	162.013	182.987	0+000	
257.870	2665.480	162.013	182.987	0+000	
259.180	2695.870	162.013	182.987	0+000	
260.500	2726.260	162.013	182.987	0+000	
261.830	2756.650	162.013	182.987	0+000	
263.170	2787.040	162.013	182.987	0+000	
264.520	2817.430	162.013	182.987	0+000	
265.880	2847.820	162.013	182.987	0+000	
267.250	2878.210	162.013	182.987	0+000	
268.630	2908.600	162.013	182.987	0+000	
270.020	2938.990	162.013	182.987	0+000	
271.420	2969.380	162.013	182.987	0+000	
272.830	2999.770	162.013	182.987	0+000	
274.250	3030.160	162.013	182.987	0+000	
275.680	3060.550	162.013	182.987	0+000	
277.120	3090.940	162.013	182.987	0+000	
278.570	3121.330	162.013	182.987	0+000	
280.030	3151.720	162.013	182.987	0+000	
281.500	3182.110	162.013	182.987	0+000	
283.000	3212.500	162.013	182.987	0+000	
284.510	3242.890	162.013	182.987	0+000	
286.040	3273.280	162.013	182.987	0+000	
287.580	3303.670	162.013	182.987	0+000	
289.140	3334.060	162.013	182.987	0+000	
290.710	3364.450	162.013	182.987	0+000	
292.300	3394.840	162.013	182.987	0+000	
293.900	3425.230	162.013	182.987	0+000	
295.520	3455.620	162.013	182.987	0+000	
297.150	3486.010	162.013	182.987	0+000	
298.800	3516.400	162.013	182.987	0+000	
300.470	3546.790	162.013	182.987	0+000	
302.160	3577.180	162.013	182.987	0+000	
303.870	3607.570	162.013	182.987	0+000	
305.600	3637.960	162.013	182.987	0+000	
307.350	3668.350	162.013	182.987	0+000	
309.120	3698.740	162.013	182.987	0+000	
310.910	3729.130	162.013	182.987	0+000	
312.720	3759.520	162.013	182.987	0+000	
314.550	3789.910	162.013	182.987	0+000	
316.400	3820.300	162.013	182.987	0+000	
318.270	3850.690	162.013	182.987	0+000	
320.160	3881.080	162.013	182.987	0+000	
322.070	3911.470	162.013	182.987	0+000	
324.000	3941.860	162.013	182.987	0+000	
325.950	3972.250	162.013	182.987	0+000	
327.920	4002.640	162.013	182.987	0+000	
329.910	4033.030	162.013	182.987	0+000	
331.920	4063.420	162.013	182.987	0+000	
333.950	4093.810	162.013	182.987	0+000	
336.000	4124.200	162.013	182.987	0+000	
338.070	4154.590	162.013	182.987	0+000	
340.160	4184.980	162.013	182.987	0+000	
342.270	4215.370	162.013	182.987	0+000	
344.400	4245.760	162.013	182.987	0+000	
346.550	4276.150	162.013	182.987	0+000	
348.720	4306.540	162.013	182.987	0+000	
350.910	4336.930	162.013	182.987	0+000	
353.120	4367.320	162.013	182.987	0+000	
355.350	4397.710	162.013	182.987	0+000	
357.600	4428.100	162.013	182.987	0+000	
359.870	4458.490	162.013	182.987	0+000	
362.160	4488.880	162.013	182.987	0+000	
364.470	4519.270	162.013	182.987	0+000	
366.800	4549.660	162.013	182.987	0+000	
369.150	4580.050	162.013	182.987	0+000	
371.520	4610.440	162.013	182.987	0+000	
373.910	4640.830	162.013	182.987	0+000	
376.320	4671.220	162.013	182.987	0+000	
378.750	4701.610	162.013	182.987	0+000	
381.200	4732.000	162.013	182.987	0+000	
383.670	4762.390	162.013	182.987	0+000	
386.160	4792.780	162.013	182.987	0+000	
388.670	4823.170	162.013	182.987	0+000	
391.200	4853.560	162.013	182.987	0+000	
393.750	4883.950	162.013	182.987	0+000	
396.320	4914.340	162.013	182.987	0+000	
398.910	4944.730	162.013	182.987	0+000	
401.520	4975.120	162.013	182.987	0+000	
404.150	5005.510	162.013	182.987	0+000	
406.800	5035.900	162.013	182.987	0+000	
409.470	5066.290	162.013	182.987	0+000	
412.160	5096.680	162.013	182.987	0+000	
414.870	5127.070	162.013	182.987	0+000	
417.600	5157.460	162.013	182.987	0+000	
420.350	5187.850	162.013	182.987	0+000	
423.120	5218.240				

GENERAL VIEW (XPNo. 22)

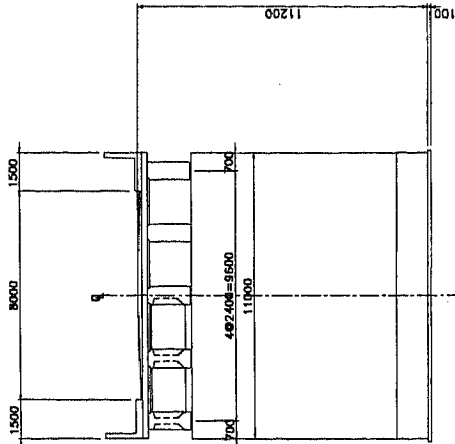


GRADE	PROPOSED HEIGHT	GROUND HEIGHT	DISTANCE	STATION	CURVE ELEMENT
150.0	150.0	150.0	0.000	0+000	
145.0	145.0	145.0	100.000	0+100	
140.0	140.0	140.0	200.000	0+200	
135.0	135.0	135.0	300.000	0+300	
130.0	130.0	130.0	400.000	0+400	
125.0	125.0	125.0	500.000	0+500	
120.0	120.0	120.0	600.000	0+600	
115.0	115.0	115.0	700.000	0+700	
			800.000	0+800	
			900.000	0+900	
			1000.000	1+000	
			1100.000	1+100	
			1200.000	1+200	
			1300.000	1+300	
			1400.000	1+400	
			1500.000	1+500	
			1600.000	1+600	
			1700.000	1+700	
			1800.000	1+800	
			1900.000	1+900	
			2000.000	2+000	
			2100.000	2+100	
			2200.000	2+200	
			2300.000	2+300	
			2400.000	2+400	
			2500.000	2+500	
			2600.000	2+600	
			2700.000	2+700	
			2800.000	2+800	
			2900.000	2+900	
			3000.000	3+000	
			3100.000	3+100	
			3200.000	3+200	
			3300.000	3+300	
			3400.000	3+400	
			3500.000	3+500	
			3600.000	3+600	
			3700.000	3+700	
			3800.000	3+800	
			3900.000	3+900	
			4000.000	4+000	
			4100.000	4+100	
			4200.000	4+200	
			4300.000	4+300	
			4400.000	4+400	
			4500.000	4+500	
			4600.000	4+600	
			4700.000	4+700	
			4800.000	4+800	
			4900.000	4+900	
			5000.000	5+000	

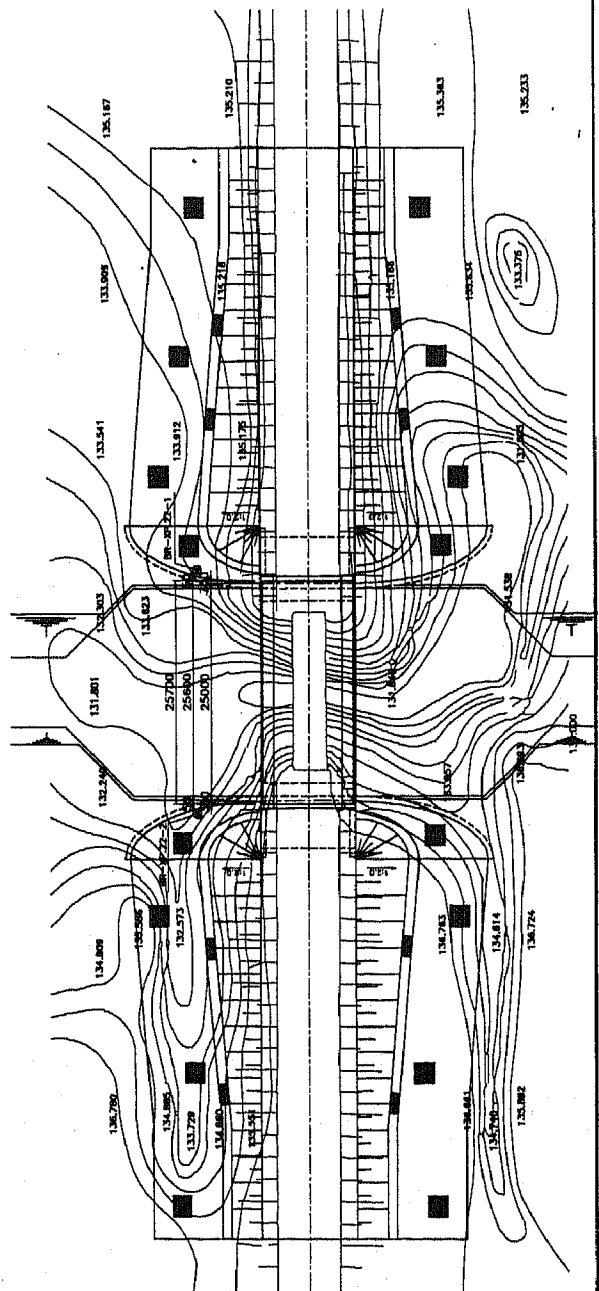
DESIGN CONDITION

TYPE	PC 1 span L-girder bridge
BRIDGE LENGTH	25,700
GIRDER LENGTH	25,600
SPAN	25,000
WIDTH	8,000
LIVE LOAD	Type B live load
SEISMIC COEFFICIENT	KH = 0.06
ANGLE OF SKEW	90°

CROSS SECTION S = 1 / 100



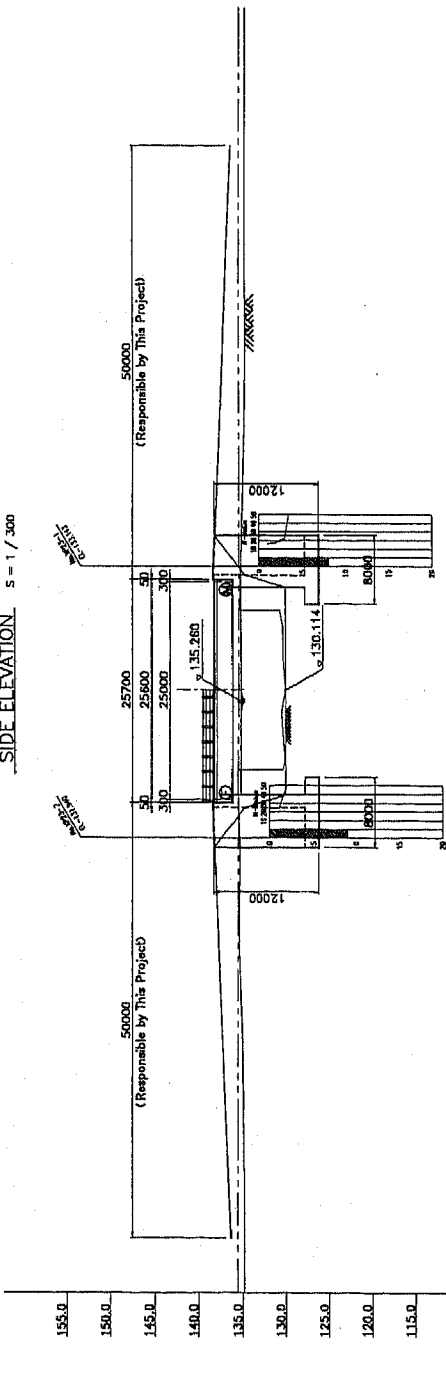
PLAN S = 1 / 300



LAO PEOPLE'S DEMOCRATIC REPUBLIC
 THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES
 THE NATIONAL ROAD ROUTE 13, PHASE I
 GENERAL VIEW (XPNo. 22)
 Scale 1 : 300 Drawing No. 34
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DIPENTAL ENGINEERING CO., LTD.
 JAPAN CHEMICAL CONSULTANT CO., LTD.

GENERAL VIEW (XPNo. 23)

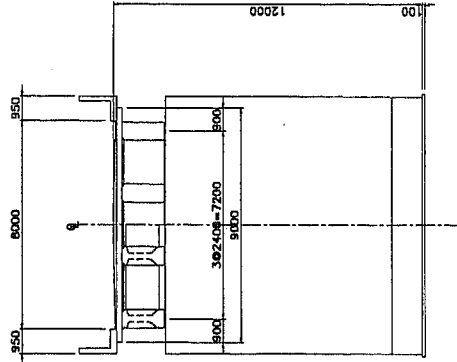
SIDE ELEVATION S = 1 / 300



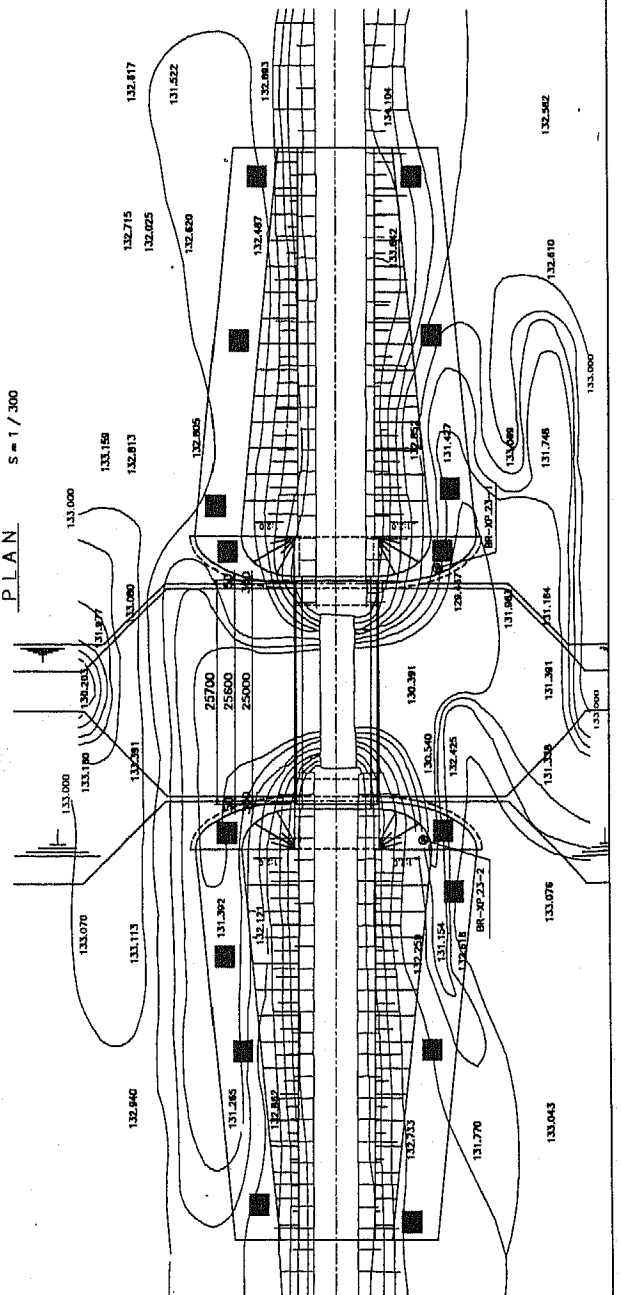
DESIGN CONDITION

TYPE	PC T span I-girder bridge
BRIDGE LENGTH	25,700
GIRDER LENGTH	25,500
SPAN	25,000
WIDTH	8,000
LAKE LOAD	Type B live load
SEISMIC COEFFICIENT	KH = 0.06
ANGLE OF SKEW	90°

CROSS SECTION S = 1 / 100

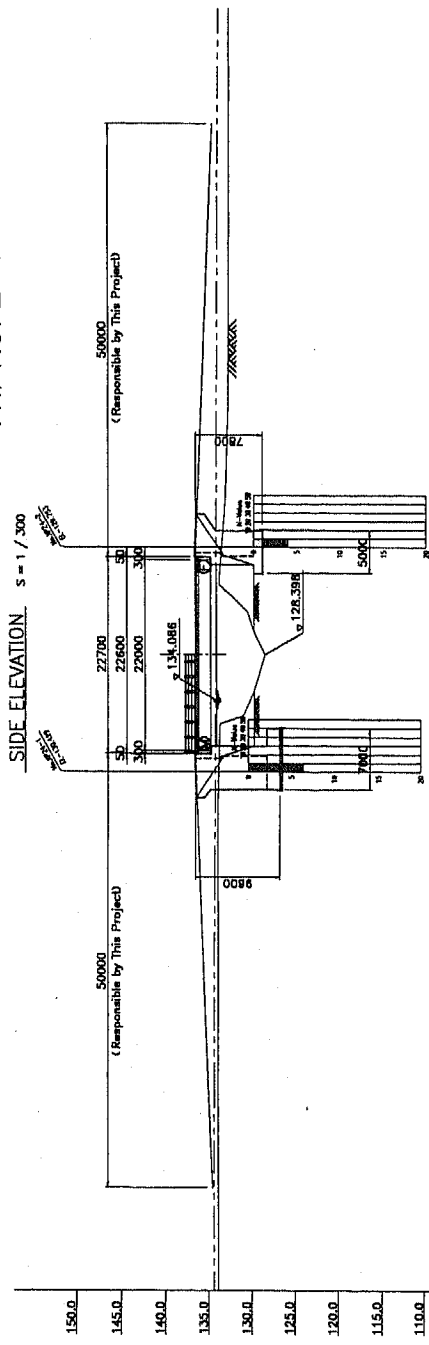


PLAN S = 1 / 300



LAO PEOPLE'S DEMOCRATIC REPUBLIC			
THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES			
THE NATIONAL ROAD ROUTE 13, PHASE I			
Project Title	GENERAL VIEW (XPNo. 23)	Drawing No.	95
Scale	1 : 200	Scale	1 : 200
JAPAN INTERNATIONAL COOPERATION AGENCY ON BEHALF OF THE NATIONAL ROAD ROUTE 13, PHASE I JAPAN OVERSEAS CORP. (LIMITED) JAPAN OVERSEAS CONSTRUCTION CO., LTD.			

GENERAL VIEW (XPNo. 24)

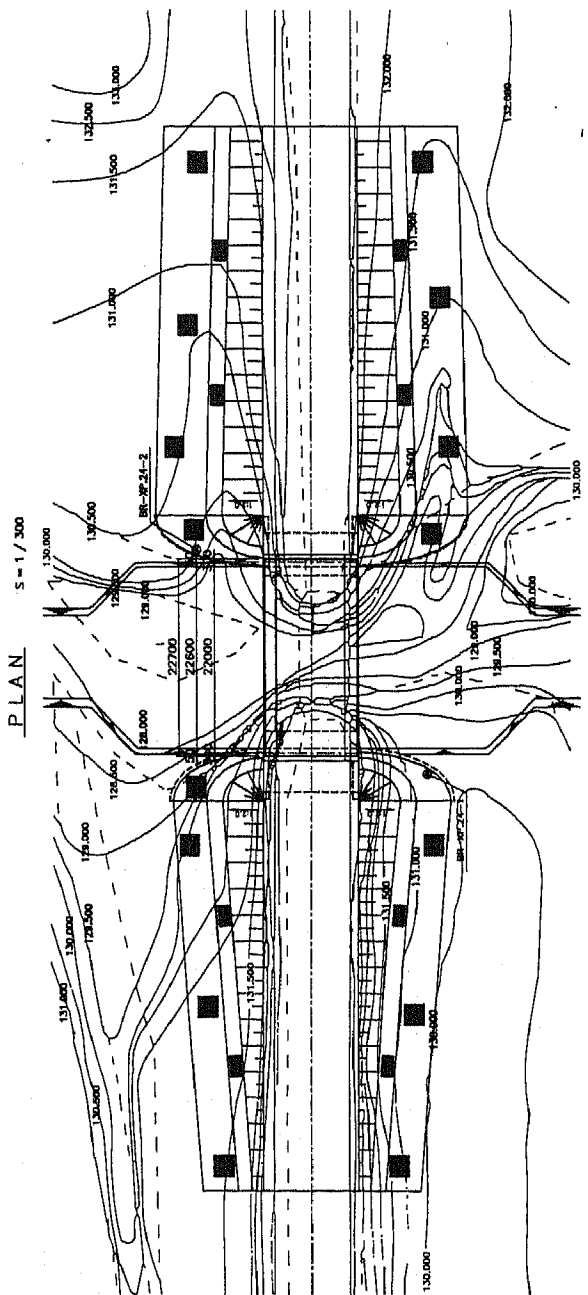
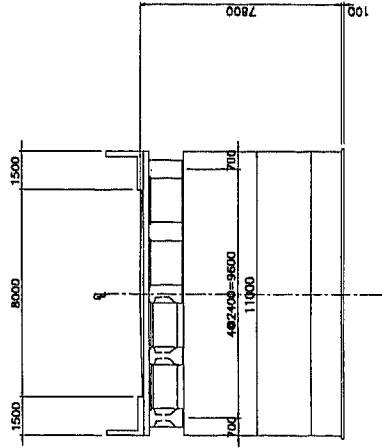


DESIGN CONDITION

TYPE	PC 1 span I-girder bridge
BRIDGE LENGTH	22,700
ORDER LENGTH	22,800
SPAN	22,000
WIDTH	8,000
LIVE LOAD	Type B live load
SEISMIC COEFFICIENT	KH = 0.06
ANGLE OF SKEW	90°

GRADE	PROPOSED HEIGHT	GROUND HEIGHT	DISTANCE	STATION	CURVE ELEMENT
150.0					
145.0					
140.0					
135.0					
130.0					
125.0					
120.0					
115.0					
110.0					
				144.019 - 12.91	
				148.888 - 11.200	
				152.717	
				158.798 - 0.000	
				164.019 - 12.91	
				170.798 - 11.200	
				178.798 - 0.000	
				188.888 - 11.200	
				194.019 - 12.91	
				200.798 - 11.200	
				208.798 - 0.000	
				216.798 - 11.200	
				224.798 - 0.000	
				232.798 - 11.200	
				240.798 - 0.000	
				248.798 - 11.200	
				256.798 - 0.000	
				264.798 - 11.200	
				272.798 - 0.000	
				280.798 - 11.200	
				288.798 - 0.000	
				296.798 - 11.200	
				304.798 - 0.000	
				312.798 - 11.200	
				320.798 - 0.000	
				328.798 - 11.200	
				336.798 - 0.000	
				344.798 - 11.200	
				352.798 - 0.000	
				360.798 - 11.200	
				368.798 - 0.000	
				376.798 - 11.200	
				384.798 - 0.000	
				392.798 - 11.200	
				400.798 - 0.000	
				408.798 - 11.200	
				416.798 - 0.000	
				424.798 - 11.200	
				432.798 - 0.000	
				440.798 - 11.200	
				448.798 - 0.000	
				456.798 - 11.200	
				464.798 - 0.000	
				472.798 - 11.200	
				480.798 - 0.000	
				488.798 - 11.200	
				496.798 - 0.000	
				504.798 - 11.200	
				512.798 - 0.000	
				520.798 - 11.200	
				528.798 - 0.000	
				536.798 - 11.200	
				544.798 - 0.000	
				552.798 - 11.200	
				560.798 - 0.000	
				568.798 - 11.200	
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				616.798 - 11.200	
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				672.798 - 0.000	
				680.798 - 11.200	
				688.798 - 0.000	
				696.798 - 11.200	
				704.798 - 0.000	
				712.798 - 11.200	
				720.798 - 0.000	
				728.798 - 11.200	
				736.798 - 0.000	
				744.798 - 11.200	
				752.798 - 0.000	
				760.798 - 11.200	
				768.798 - 0.000	
				776.798 - 11.200	
				784.798 - 0.000	
				792.798 - 11.200	
				800.798 - 0.000	
				808.798 - 11.200	
				816.798 - 0.000	
				824.798 - 11.200	
				832.798 - 0.000	
				840.798 - 11.200	
				848.798 - 0.000	
				856.798 - 11.200	
				864.798 - 0.000	
				872.798 - 11.200	
				880.798 - 0.000	
				888.798 - 11.200	
				896.798 - 0.000	
				904.798 - 11.200	
				912.798 - 0.000	
				920.798 - 11.200	
				928.798 - 0.000	
				936.798 - 11.200	
				944.798 - 0.000	
				952.798 - 11.200	
				960.798 - 0.000	
				968.798 - 11.200	
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				984.798 - 11.200	
				992.798 - 0.000	
				1000.798 - 11.200	

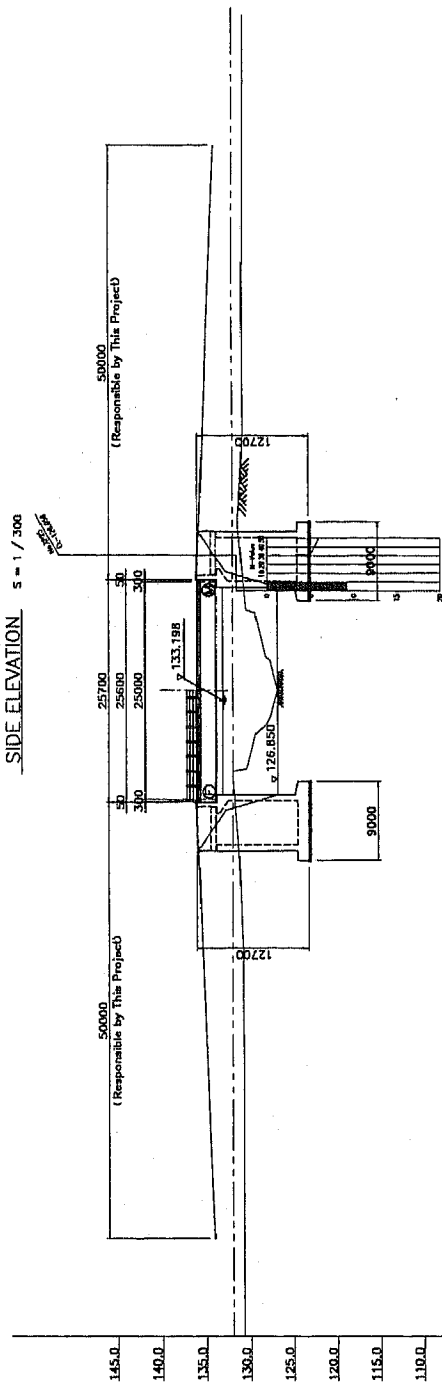
CROSS SECTION S = 1 / 100



LAO PEOPLE'S DEMOCRATIC REPUBLIC	
THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES	
THE NATIONAL ROAD ROUTE 13, PHASE I	
Project Title	GENERAL VIEW (XPNo. 24)
Scale	1 : 300
Project No.	36
JAPAN INTERNATIONAL COOPERATION AGENCY	
ORIENTAL CONSULTANTS Co., Ltd.	
JAPAN OVERSEAS CONSTRUCTION CO., LTD.	

GENERAL VIEW (XPNo.25)

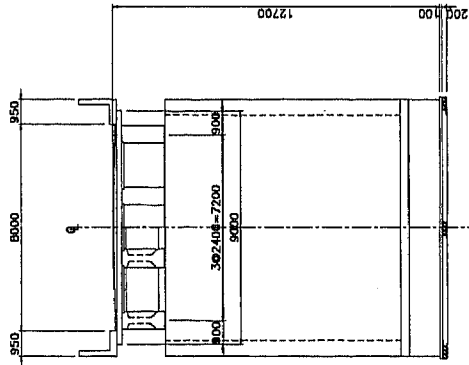
SIDE ELEVATION S = 1 / 300



DESIGN CONDITION

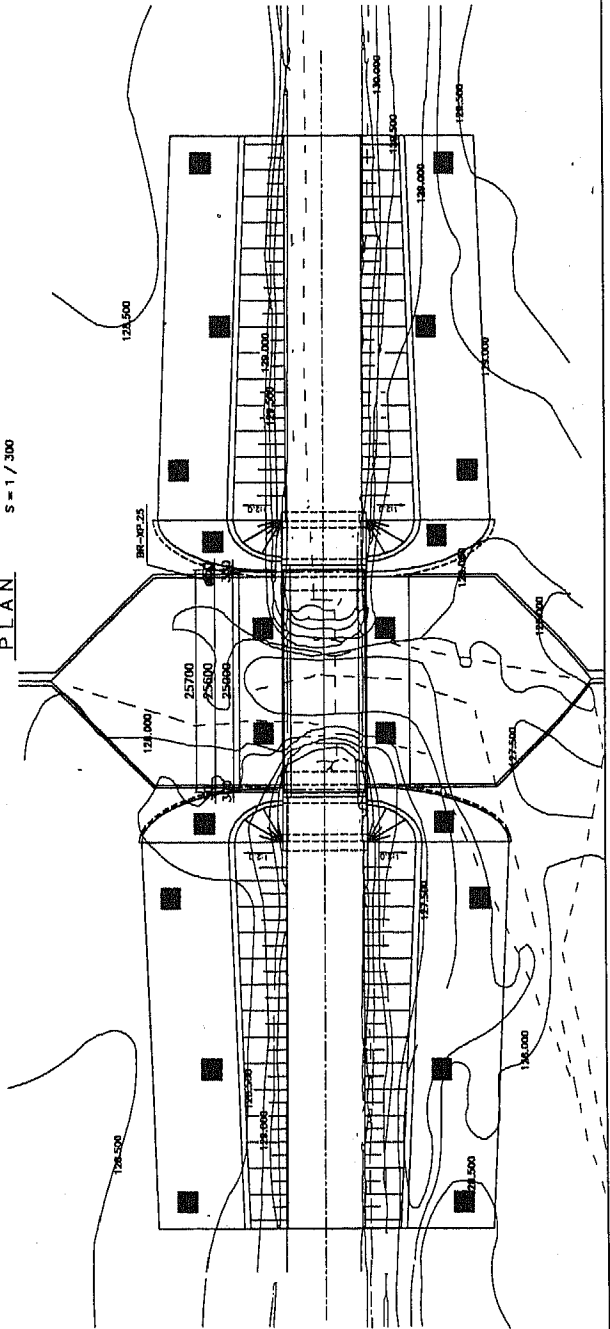
TYPE	PC 1 span I-girder bridge
BRIDGE LENGTH	25,700
GIRDER LENGTH	25,800
SPAN	25,000
WIDTH	8,000
LAKE LOAD	Type B live load
SEISMIC COEFFICIENT	KH = 0.06
ANGLE OF SKEW	90°

CROSS SECTION S = 1 / 100



GRADE	PROPOSED HEIGHT	GROUND HEIGHT	DISTANCE	STATION	CURVE ELEMENT
145.0	129.000	129.000	0.000	129.000	
140.0	128.000	128.000	100.000	128.000	
135.0	127.000	127.000	200.000	127.000	
130.0	126.000	126.000	300.000	126.000	
125.0	125.000	125.000	400.000	125.000	
120.0	124.000	124.000	500.000	124.000	
115.0	123.000	123.000	600.000	123.000	
110.0	122.000	122.000	700.000	122.000	
			800.000	121.000	
			900.000	120.000	
			1000.000	119.000	
			1100.000	118.000	
			1200.000	117.000	
			1300.000	116.000	
			1400.000	115.000	
			1500.000	114.113	
			1600.000	113.181	
			1700.000	112.249	
			1800.000	111.317	
			1900.000	110.385	
			2000.000	109.453	
			2100.000	108.521	
			2200.000	107.589	
			2300.000	106.657	
			2400.000	105.725	
			2500.000	104.793	
			2600.000	103.861	
			2700.000	102.929	
			2800.000	101.997	
			2900.000	101.065	
			3000.000	100.133	

PLAN S = 1 / 300

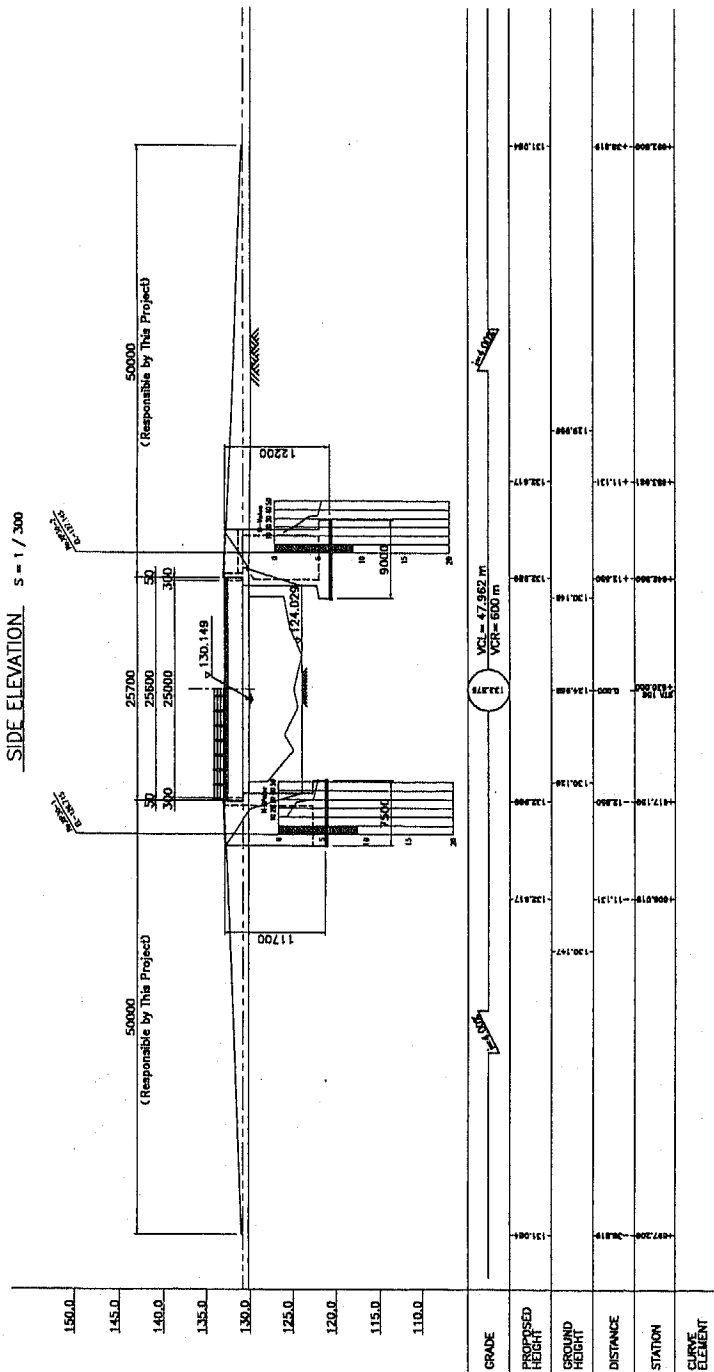


LAO PEOPLE'S DEMOCRATIC REPUBLIC
ON
THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES
ON THE NATIONAL ROAD ROUTE 13, PHASE I
GENERAL VIEW (XPNo.25)

Scale	1 : 300	Drawn No.	37
JAPAN INTERNATIONAL COOPERATION AGENCY ON INFRASTRUCTURE DEVELOPMENT JAPAN OVERSEAS CONSULTANTS CO., LTD.			

GENERAL VIEW (XPNo. 30)

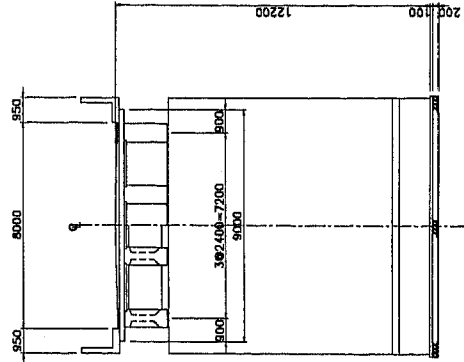
SIDE ELEVATION S = 1 / 300



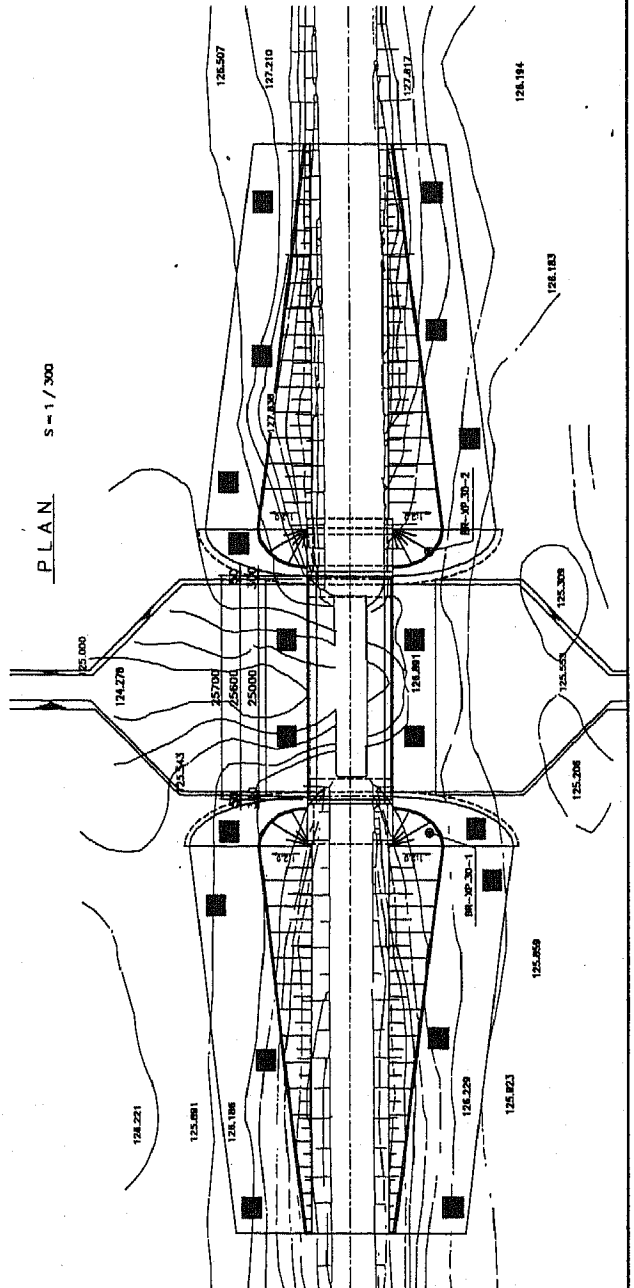
DESIGN CONDITION

TYPE	PC 1 span I-girder bridge
BRIDGE LENGTH	25.700
GIRDER LENGTH	25.600
SPAN	25.000
WIDTH	8.000
LIVE LOAD	Type B live load
SEISMIC COEFFICIENT	KI = 0.06
ANGLE OF SKEW	90°

CROSS SECTION S = 1 / 100



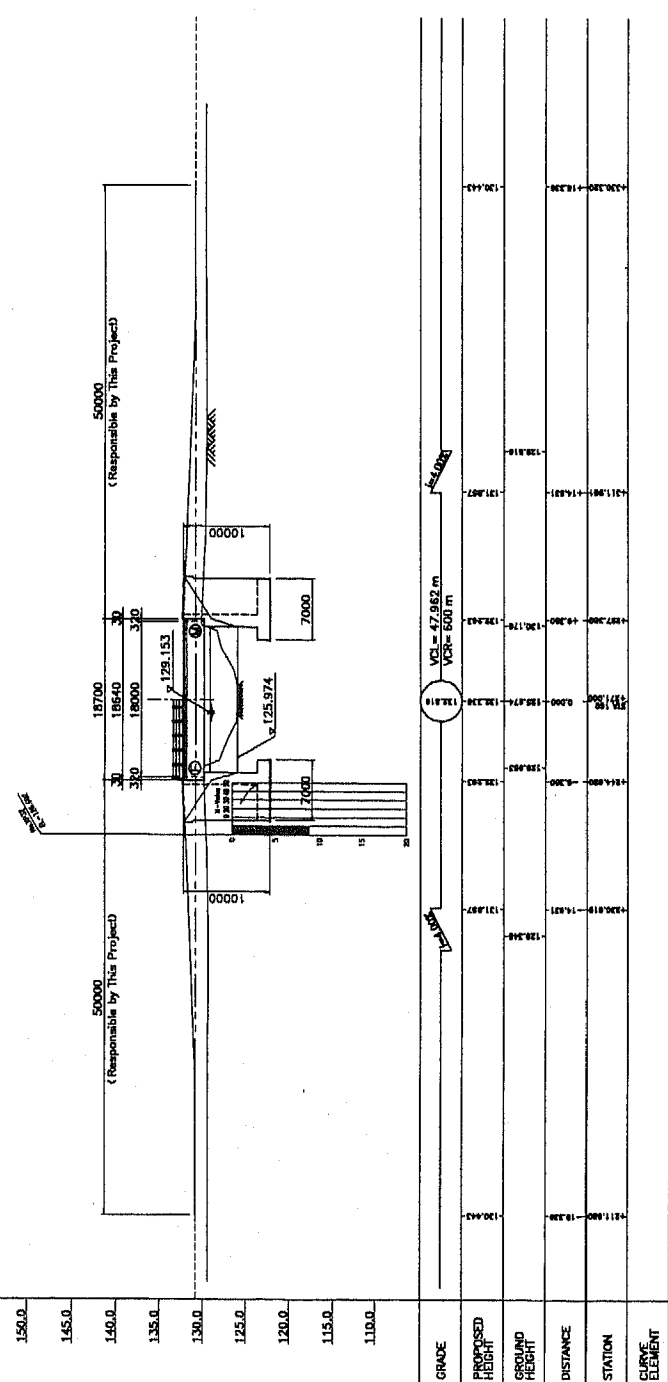
PLAN S = 1 / 300



LAO PEOPLE'S DEMOCRATIC REPUBLIC ON THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES ON THE NATIONAL ROAD ROUTE 15, PHASE I	
Drawing Title	GENERAL VIEW (XPNo. 30)
Scale	1 : 300 Drawing No. 42
JAPAN INTERNATIONAL COOPERATION AGENCY JAPAN OVERSEAS CONSULTANTS CO., LTD.	

GENERAL VIEW (XPNo. 32)

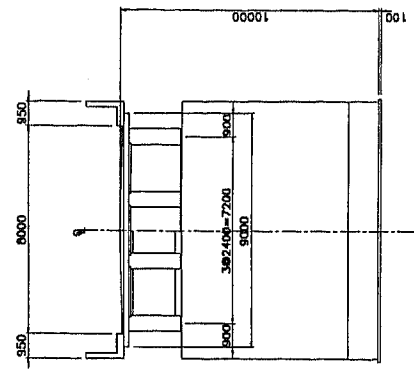
SIDE ELEVATION $s = 1 / 300$



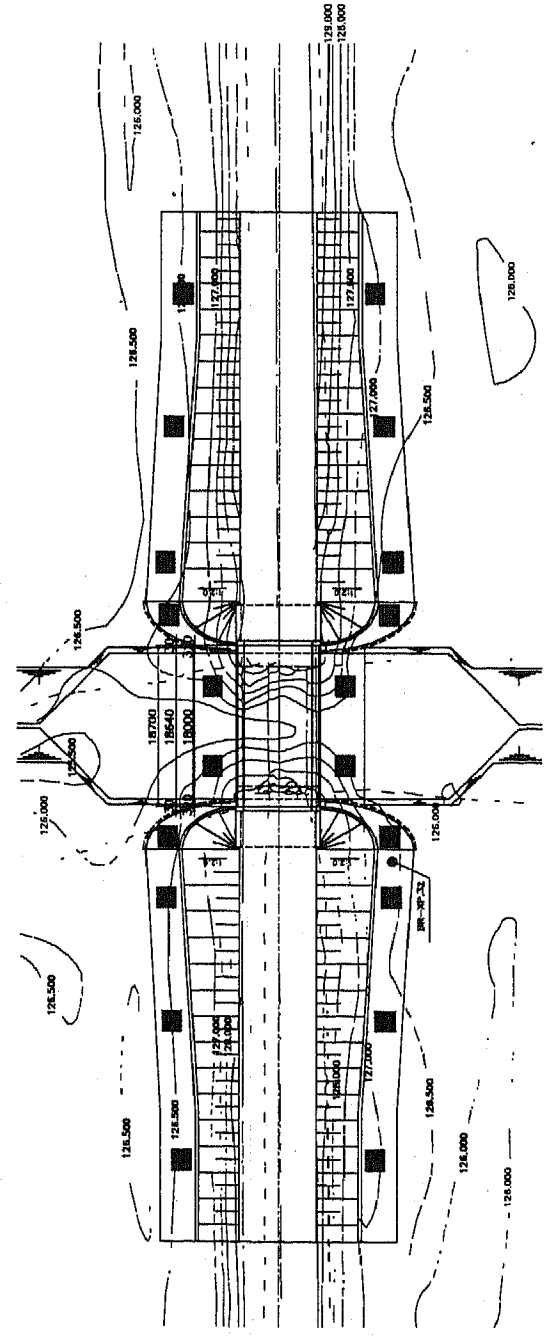
DESIGN CONDITION

TYPE	RC 1 span I-girder bridge
BRIDGE LENGTH	18,700
CHORD LENGTH	18,640
SPAN	18,000
WIDTH	8,000
LIVE LOAD	Type B five load
SEISMIC COEFFICIENT	KH = 0.06
ANGLE OF SKEW	90°

CROSS SECTION $s = 1 / 100$



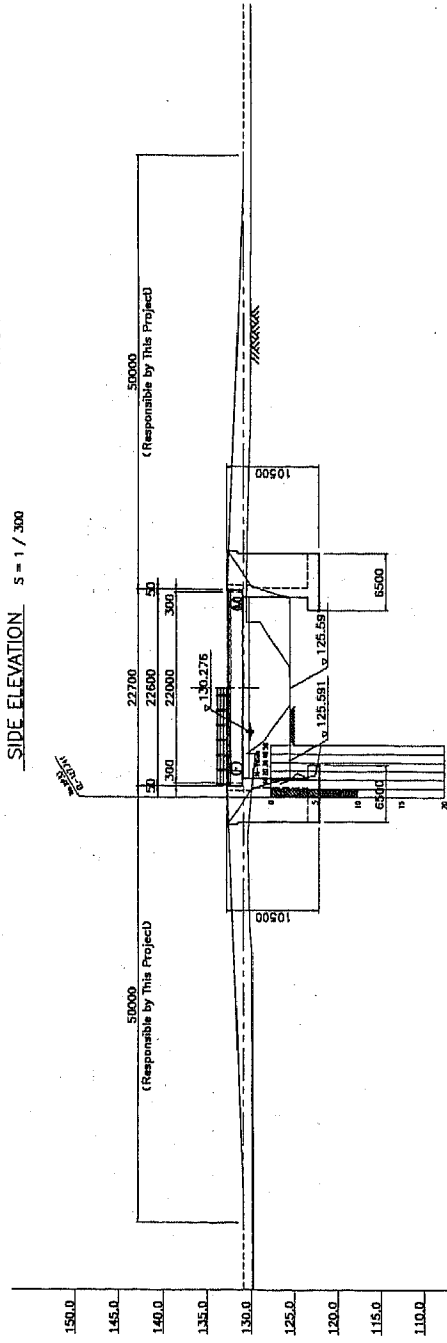
PLAN $s = 1 / 300$



LAD PEOPLE'S DEMOCRATIC REPUBLIC	
THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES	
ON	
THE NATIONAL ROAD ROUTE 15, PHASE I	
Drawing Title	GENERAL VIEW (XPNo. 32)
Scale	1 : 300 Drawing No. 4.4
JAPAN INTERNATIONAL COOPERATION AGENCY	
JAPAN INTERNATIONAL COOPERATION AGENCY	
JAPAN INTERNATIONAL COOPERATION AGENCY	
JAPAN INTERNATIONAL COOPERATION AGENCY	

GENERAL VIEW (XPNo. 33)

SIDE ELEVATION S = 1 / 300

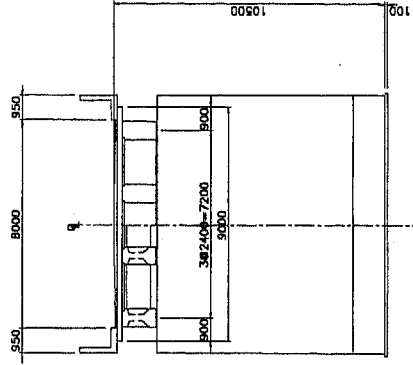


GRADE	PROPOSED HEIGHT	GROUND HEIGHT	DISTANCE	STATION	CURVE ELEMENT
150.0					
145.0					
140.0					
135.0					
130.0					
125.0					
120.0					
115.0					
110.0					
			130.814	12+31.6	
			128.808	12+31.6	
			128.793	12+31.6	
			128.778	12+31.6	
			128.763	12+31.6	
			128.748	12+31.6	
			128.733	12+31.6	
			128.718	12+31.6	
			128.703	12+31.6	
			128.688	12+31.6	
			128.673	12+31.6	
			128.658	12+31.6	
			128.643	12+31.6	
			128.628	12+31.6	
			128.613	12+31.6	
			128.598	12+31.6	
			128.583	12+31.6	
			128.568	12+31.6	
			128.553	12+31.6	
			128.538	12+31.6	
			128.523	12+31.6	
			128.508	12+31.6	
			128.493	12+31.6	
			128.478	12+31.6	
			128.463	12+31.6	
			128.448	12+31.6	
			128.433	12+31.6	
			128.418	12+31.6	
			128.403	12+31.6	
			128.388	12+31.6	
			128.373	12+31.6	
			128.358	12+31.6	
			128.343	12+31.6	
			128.328	12+31.6	
			128.313	12+31.6	
			128.298	12+31.6	
			128.283	12+31.6	
			128.268	12+31.6	
			128.253	12+31.6	
			128.238	12+31.6	
			128.223	12+31.6	
			128.208	12+31.6	
			128.193	12+31.6	
			128.178	12+31.6	
			128.163	12+31.6	
			128.148	12+31.6	
			128.133	12+31.6	
			128.118	12+31.6	
			128.103	12+31.6	
			128.088	12+31.6	
			128.073	12+31.6	
			128.058	12+31.6	
			128.043	12+31.6	
			128.028	12+31.6	
			128.013	12+31.6	
			127.998	12+31.6	
			127.983	12+31.6	
			127.968	12+31.6	
			127.953	12+31.6	
			127.938	12+31.6	
			127.923	12+31.6	
			127.908	12+31.6	
			127.893	12+31.6	
			127.878	12+31.6	
			127.863	12+31.6	
			127.848	12+31.6	
			127.833	12+31.6	
			127.818	12+31.6	
			127.803	12+31.6	
			127.788	12+31.6	
			127.773	12+31.6	
			127.758	12+31.6	
			127.743	12+31.6	
			127.728	12+31.6	
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			127.698	12+31.6	
			127.683	12+31.6	
			127.668	12+31.6	
			127.653	12+31.6	
			127.638	12+31.6	
			127.623	12+31.6	
			127.608	12+31.6	
			127.593	12+31.6	
			127.578	12+31.6	
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			127.518	12+31.6	
			127.503	12+31.6	
			127.488	12+31.6	
			127.473	12+31.6	
			127.458	12+31.6	
			127.443	12+31.6	
			127.428	12+31.6	
			127.413	12+31.6	
			127.398	12+31.6	
			127.383	12+31.6	
			127.368	12+31.6	
			127.353	12+31.6	
			127.338	12+31.6	
			127.323	12+31.6	
			127.308	12+31.6	
			127.293	12+31.6	
			127.278	12+31.6	
			127.263	12+31.6	
			127.248	12+31.6	
			127.233	12+31.6	
			127.218	12+31.6	
			127.203	12+31.6	
			127.188	12+31.6	
			127.173	12+31.6	
			127.158	12+31.6	
			127.143	12+31.6	
			127.128	12+31.6	
			127.113	12+31.6	
			127.098	12+31.6	
			127.083	12+31.6	
			127.068	12+31.6	
			127.053	12+31.6	
			127.038	12+31.6	
			127.023	12+31.6	
			127.008	12+31.6	
			126.993	12+31.6	
			126.978	12+31.6	
			126.963	12+31.6	
			126.948	12+31.6	
			126.933	12+31.6	
			126.918	12+31.6	
			126.903	12+31.6	
			126.888	12+31.6	
			126.873	12+31.6	
			126.858	12+31.6	
			126.843	12+31.6	
			126.828	12+31.6	
			126.813	12+31.6	
			126.798	12+31.6	
			126.783	12+31.6	
			126.768	12+31.6	
			126.753	12+31.6	
			126.738	12+31.6	
			126.723	12+31.6	
			126.708	12+31.6	
			126.693	12+31.6	
			126.678	12+31.6	
			126.663	12+31.6	
			126.648	12+31.6	
			126.633	12+31.6	
			126.618	12+31.6	
			126.603	12+31.6	
			126.588	12+31.6	
			126.573	12+31.6	
			126.558	12+31.6	
			126.543	12+31.6	
			126.528	12+31.6	
			126.513	12+31.6	
			126.498	12+31.6	
			126.483	12+31.6	
			126.468	12+31.6	
			126.453	12+31.6	
			126.438	12+31.6	
			126.423	12+31.6	
			126.408	12+31.6	
			126.393	12+31.6	
			126.378	12+31.6	
			126.363	12+31.6	
			126.348	12+31.6	
			126.333	12+31.6	
			126.318	12+31.6	
			126.303	12+31.6	
			126.288	12+31.6	
			126.273	12+31.6	
			126.258	12+31.6	
			126.243	12+31.6	
			126.228	12+31.6	
			126.213	12+31.6	
			126.198	12+31.6	
			126.183	12+31.6	
			126.168	12+31.6	
			126.153	12+31.6	
			126.138	12+31.6	
			126.123	12+31.6	
			126.108	12+31.6	
			126.093	12+31.6	
			126.078	12+31.6	
			126.063	12+31.6	
			126.048	12+31.6	
			126.033	12+31.6	
			126.018	12+31.6	
			126.003	12+31.6	

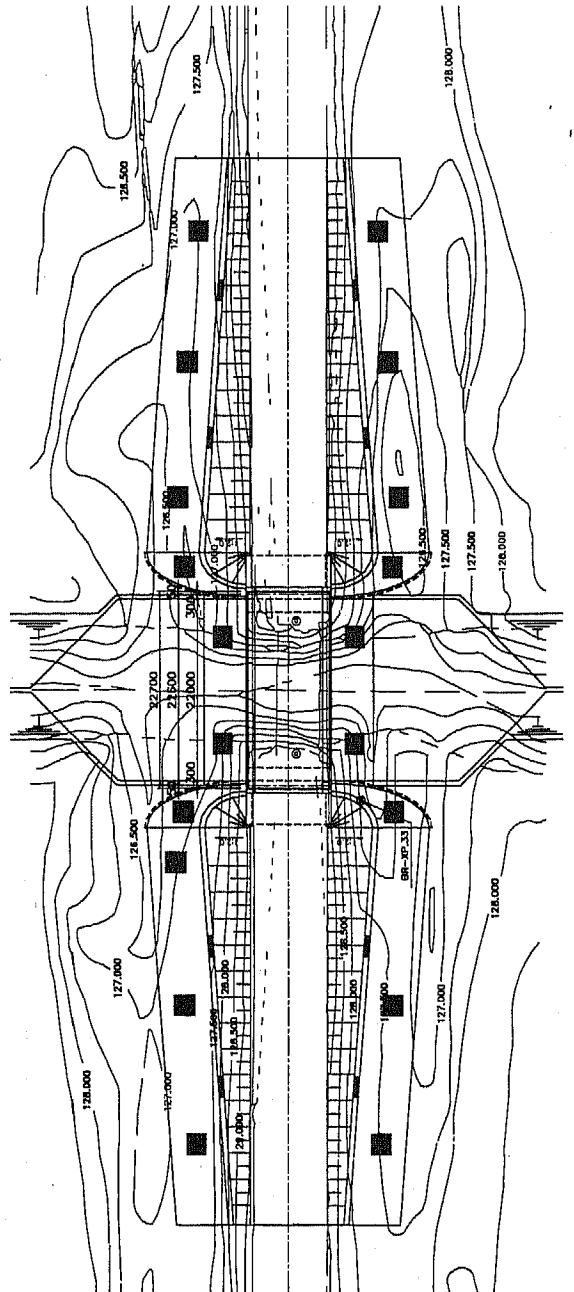
_DESIGN CONDITION

TYPE	PC 1 span 1-girder bridge
BRIDGE LENGTH	22,700
GIRDER LENGTH	22,600
SPAN	22,000
WIDTH	8,000
LINE LOAD	Type B live load
SEISMIC COEFFICIENT	KH = 0.06
ANGLE OF SKEW	90°

CROSS SECTION S = 1 / 100



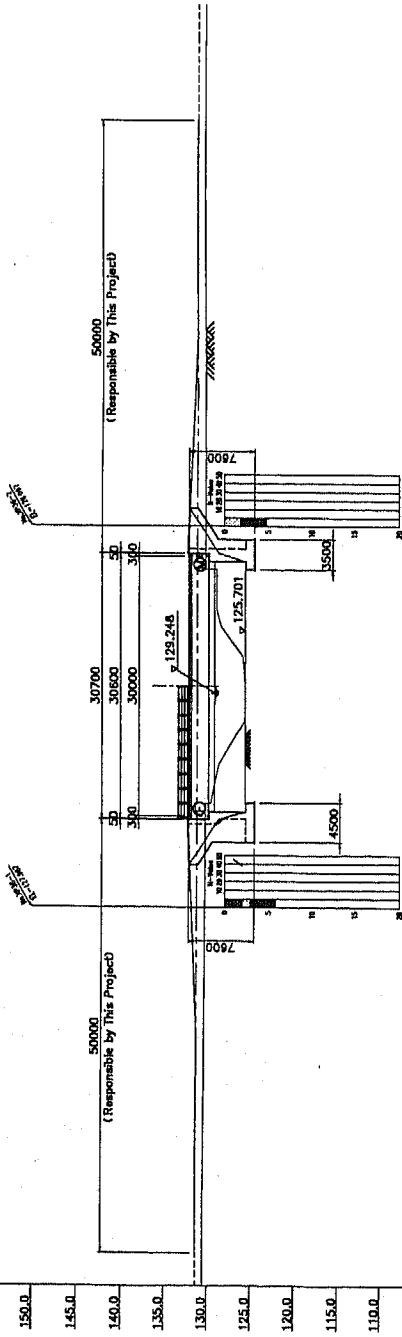
PLAN S = 1 / 300



LAO PEOPLE'S DEMOCRATIC REPUBLIC	
THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES ON THE NATIONAL ROAD ROUTE 13, PHASE I	
Practicing Title	GENERAL VIEW (XPNo. 33)
Scale	1 : 300 Drawing No. 45
JAPAN INTERNATIONAL COOPERATION AGENCY JICA JAPAN OVERSEAS CONSULTANTS CO., LTD.	

GENERAL VIEW (XPNo. 36)

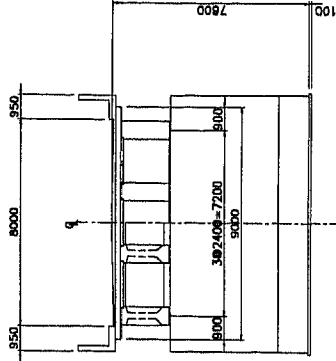
SIDE ELEVATION S = 1 / 300



DESIGN CONDITION

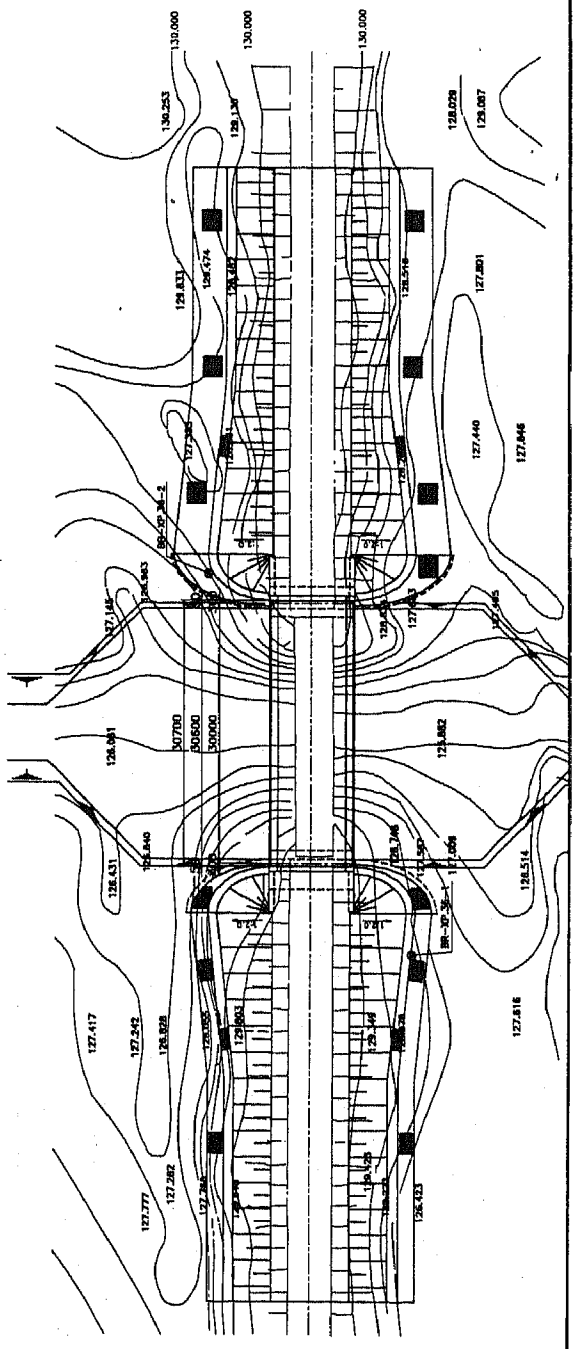
TYPE	PC 1 span I-girder bridge
BRIDGE LENGTH	30,700
GIRDER LENGTH	30,600
SPAN	30,000
WIDTH	8,000
LINE LOAD	Type B line bed
SEISMIC COEFFICIENT	KH = 0.06
ANGLE OF SKEW	90°

CROSS SECTION S = 1 / 100



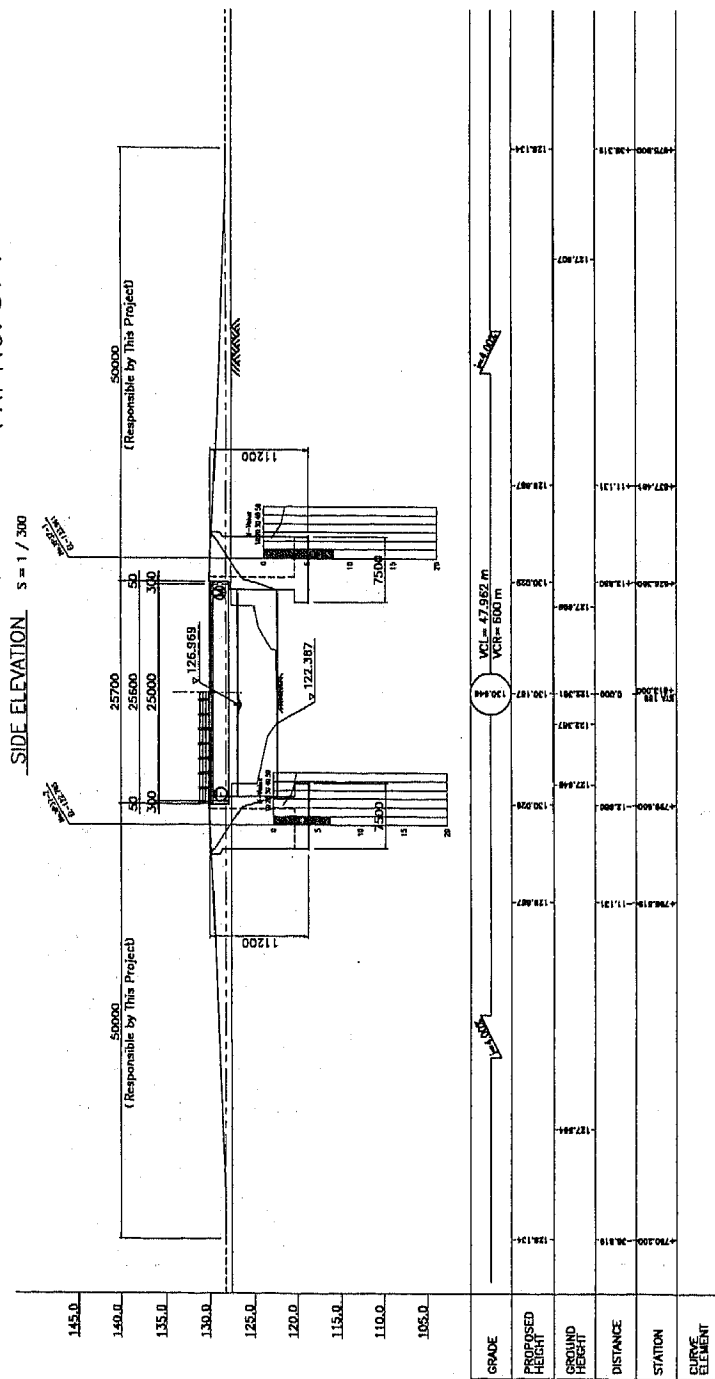
GRADE	PROPOSED HEIGHT	GROUND HEIGHT	DISTANCE	STATION	CURVE ELEMENT
150.0	448.700	11.116	130.272	4+48.700	
145.0	130.408	19.000	130.272	4+77.911	
140.0	125.701	0.000	130.272	5+07.700	
135.0	120.408	18.300	130.272	5+37.500	
130.0	115.116	19.000	130.272	5+67.300	
125.0	109.824	18.300	130.272	5+97.100	
120.0	104.532	18.300	130.272	6+26.900	
115.0	99.240	18.300	130.272	6+56.700	
110.0	93.948	18.300	130.272	6+86.500	
	88.656	18.300	130.272	7+16.300	
	83.364	18.300	130.272	7+46.100	
	78.072	18.300	130.272	7+75.900	
	72.780	18.300	130.272	8+05.700	
	67.488	18.300	130.272	8+35.500	
	62.196	18.300	130.272	8+65.300	
	56.904	18.300	130.272	8+95.100	
	51.612	18.300	130.272	9+24.900	
	46.320	18.300	130.272	9+54.700	
	41.028	18.300	130.272	9+84.500	
	35.736	18.300	130.272	10+14.300	
	30.444	18.300	130.272	10+44.100	
	25.152	18.300	130.272	10+73.900	
	19.860	18.300	130.272	11+03.700	
	14.568	18.300	130.272	11+33.500	
	9.276	18.300	130.272	11+63.300	
	3.984	18.300	130.272	11+93.100	
	0.000	18.300	130.272	12+22.900	

PLAN S = 1 / 300



LAO PEOPLE'S DEMOCRATIC REPUBLIC	
THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES	
THE NATIONAL ROAD ROUTE 13, PHASE I	
Scale	GENERAL VIEW (XPNo. 36)
Sheet	1 : 300 Drawing No. 4B
JAPAN INTERNATIONAL COOPERATION AGENCY	
ORIENTAL CONSULTANTS CO., LTD.	
JAPAN OVERSEAS CONSULTANT CO., LTD.	

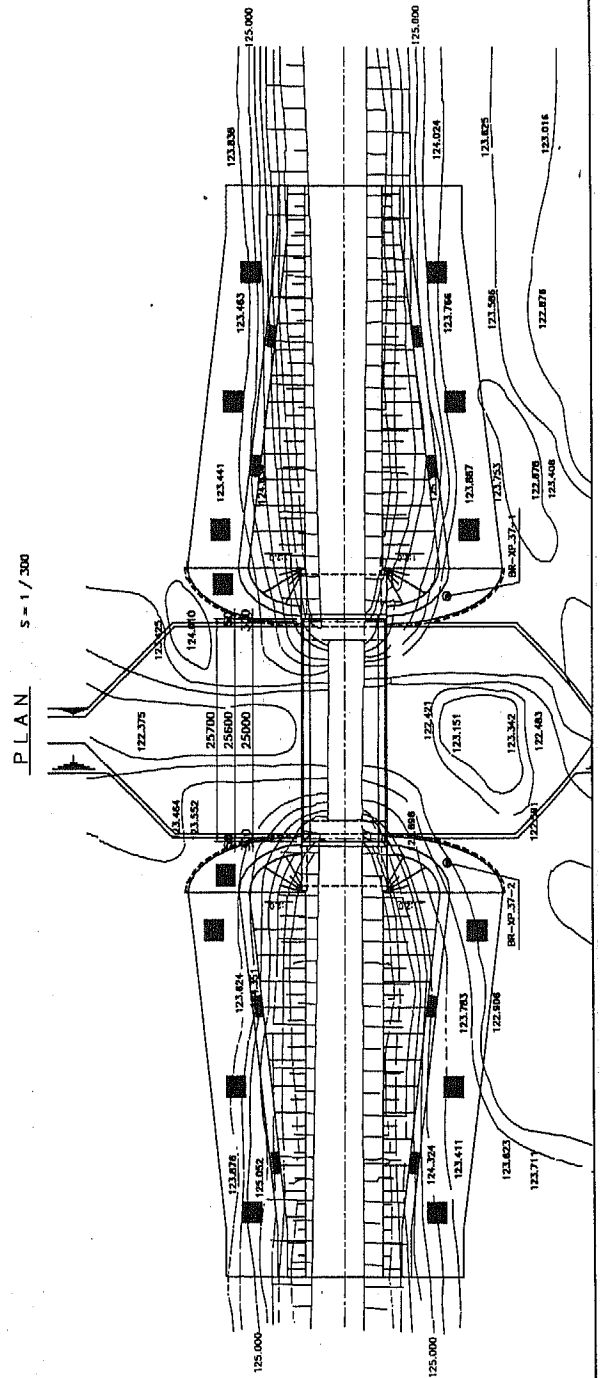
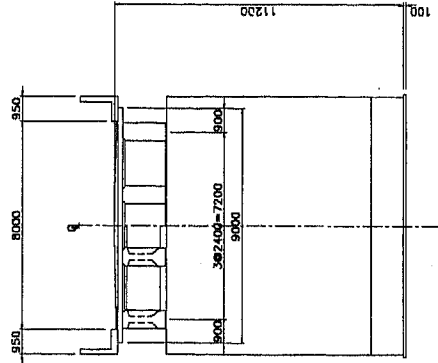
GENERAL VIEW (XPNo. 37)



DESIGN CONDITION

TYPE	PC 1 span I-girder bridge
BRIDGE LENGTH	25.700
GIRDER LENGTH	25.600
SPAN	25.000
WIDTH	8.000
LIVE LOAD	Type B live load
SEISMIC COEFFICIENT	KH = 0.06
ANGLE OF SKEW	90°

CROSS SECTION S = 1 / 100



LAO PEOPLE'S DEMOCRATIC REPUBLIC ON THE PROJECT FOR THE RECONSTRUCTION OF BRIDGES ON THE NATIONAL ROAD ROUTE 13, PHASE I			
Project Title	GENERAL VIEW (XPNo. 37)		
Scale	1 : 300	Drawing No.	49
JAPAN INTERNATIONAL COOPERATION AGENCY JAPAN OVERSEAS CONSULTANT CO., LTD.			

Appendices

1. Member List of the Survey Team
2. Survey Schedule
3. List of Party Concerned in Lao
4. Minutes of Discussion
5. Study data

Appendix-1 Members of the Survey Team

(a) For the Study of First Stage

Mr. Nobuhiko HANAZATO	Team Leader	Grant Aid Study Department, JICA
Mr. Akihiko HIROTANI	Chief Consultant / Bridge Planner	Oriental Consultants Co., Ltd.
Mr. Kazuo YANAGIDA	Bridge Designer	Oriental Consultants Co., Ltd.
Mr. Keigo KONNO	Construction Planner / Cost Estimator	Oriental Consultants Co., Ltd.
Mr. Yoshihiro DAICHO	Geological Surveyor	Japan Overseas Co., Ltd.
Mr. Masami FUKUDA	Topographic Surveyor	Oriental Consultants Co., Ltd.
Mr. Takashi INOUE	River /Hydrological Surveyor	Japan Overseas Co., Ltd.

(b) For the Study of Second Stage

Mr. Satoshi UMENAGA	Team Leader	Grant Aid Study Department, JICA
Mr. Akihiko HIROTANI	Chief Consultant / Bridge Planner	Oriental Consultants Co., Ltd.
Mr. Kazuo YANAGIDA	Bridge Designer	Oriental Consultants Co., Ltd.
Mr. Keigo KONNO	Construction Planner / Cost Estimator	Oriental Consultants Co., Ltd.
Mr. Takashi INOUE	River /Hydrological Surveyor	Japan Overseas Co., Ltd.

(c) For Explanation Draft Final Report

Mr. Makoto HANAOKA	Team Leader	Grant Aid Division, Bureau of Economic cooperation, Ministry of Foreign Affairs
Mr. Akihiko HIROTANI	Chief Consultant / Bridge Planner	Oriental Consultants Co., Ltd.
Mr. Kazuo YANAGIDA	Bridge Designer	Oriental Consultants Co., Ltd.
Mr. Keigo KONNO	Construction Planner / Cost Estimator	Oriental Consultants Co., Ltd.

Appendix-2 Survey Schedule

(a) For the Study of First Stage

No	Date	Day	Accommodation	Activities
1	2/2	Sun.	Bangkok	Tokyo-Bangkok TG641 (10:30-15:30)
2	2/3	Mon.	Vientiane	Bangkok-Vientiane (3 consultants: Hirotani, Konno, Daicho) JICA Office, Courtesy call at authorities concerned (MCTPC and Embassy of Japan) (1 official: Hanazato + 3 consultants: Hirotani, Konno, Daicho) TG690 (10:30-11:40)
3 ↓	2/4 ↓	Tue.	Pakxe Vientiane	To Site survey Pakxe (1 consultant: Daicho) Meeting concerning the Inception Report (1 official: Hanazato + 2 consultants: Hirotani, Konno) QV300(8:20-9:04)
4	2/5	Wed.	Pakxe Vientiane	Continue Investigation in Pakxe (1 consultant: Daicho) Meeting concerning the National Road 13 at ADB, IDA, etc. (1 official: Hanazato + 2 consultants: Hirotani, Konno)
5	2/6	Thu.	Pakxe Vientiane	Signing of Minutes of Discussion, Courtesy call to Embassy of Japan (1 official: Hanazato + 2 consultants: Hirotani, Konno)
6	2/7	Fri.	Bangkok Pakxe	(1 official: Hanazato) To Site Survey (2 consultants: Hirotani, Konno) QV415 (14:00-15:00) QV302(11:35-12:55)
7	2/8	Sat.	Pakxe	Continue Investigation (3 consultants: Hirotani, Konno, Daicho)
8	2/9	Sun.	Bangkok	Tokyo-Bangkok (1 consultant: Fukuda) JL717(11:00-15:55)
9	2/10	Mon.	Vientiane	Bangkok-Vientiane (1 consultant: Fukuda) TG690(10:30-11:40)
10	2/11	Tue.	Savanakhet	Vientiane-Savanakhet (1 consultant: Fukuda)
11	2/12	Wed.	Bangkok	Tokyo-Bangkok (1 consultant: Yanagida) JL717(11:00-15:55)
12	2/13	Thu.	Savanakhet	To Site Survey (1 consultant: Yanagida)
13 ↓	2/14 ↓	Fri. ↓	Savanakhet ↓	Continue Investigation (5 consultants: Hirotani, Yanagida, Konno, Daicho, Fukuda)
15	2/16	Sun.	Bangkok	Tokyo-Bangkok (1 consultant: Inoue) JL717(11:00-15:55)
16	2/17	Mon.	Vientiane	Vientiane-Bangkok (1 consultant: Inoue) Discussion at IDA (5 consultants: Hirotani, Yanagida, Konno, Fukuda, Inoue) TG690(10:30-11:40)

No	Date	Day	Accommodation	Activities
17	2/18	Tue.	Vientiane	Meeting at JICA Office, Courtesy call at Embassy of Japan (5 consultants: Hirotani, Yanagida, Konno, Fukuda, Inoue)
18	2/19	Wed.	Vientiane	Meeting at MCTPC (5 consultants: Hirotani, Yanagida, Konno, Fukuda, Inoue)
19	2/20	Thu.	On Plane	Vientiane-Bangkok (1 consultant: Hirotani) TG691(12:00-13:45)
20	2/21	Fri.	on Plane	Bangkok-Tokyo (1 consultant: Hirotani) JL718(22:50-6:20)
21 ↓ 27 ↓ 38	2/22 ↓ 3/1 ↓ 3/11	Sat. ↓ Fri. ↓ Tue.	Savanakhet ↓ on Plane ↓ Vientiane	Continue Investigation (5 consultants: Hirotani, Yanagida, Konno, Fukuda, Inoue) Vientiane-Bangkok TG691(12:40-13:45) Bangkok-Tokyo JL718(22:50-6:20) (1 Consultant: Inoue) Meeting at JICA Office, Courtesy call at Embassy of Japan and other authorities concerned MCTPC (3 consultants: Yanagida, Konno, Daicho)
39	3/12	Wed.	on Plane	Vientiane-Bangkok (3 consultants: Yanagida, Konno, Daicho) TG691(12:40-13:45)
40 ↓	3/13 ↓	Thu. ↓	on Plane ↓	Bangkok-Tokyo (3 consultants: Yanagida, Konno, Daicho) JL718(22:50-6:20)
46	3/19	Wed.	Savanakhet	Close Office (1 consultant: Fukuda)
47	3/20	Thu.	Vientiane	Close Office, Courtesy Call at JICA, Embassy of Japan and other authorities.
48	3/21	Fri.	Bangkok	Vientiane-Bangkok TG691(12:40-13:45)
49	3/22	Sat.	Bangkok	Collect of Survey and Soil Data
50	3/23	Sun.	Bangkok	Data arrangement of Survey and Soil Data
51 52	3/24 3/25	Mon. Tue.	On Plane	Bangkok-Tokyo JL718(22:50-6:20) Arrive at Tokyo

(b) For the Study of Second Stage

No	Date	Day	Accommodation	Activities
1	7/2	Wed.	Bangkok	Tokyo-Bangkok NH915 (16:30-20:30) (1 official: Umenaga+ 4 consultants: Hirotani, Yanagida, Konno, Inoue)
2	7/3	Thu.	Vientiane	Bangkok-Vientiane TG690 (10:30-11:40) (1 official: Umenaga+ 4 consultants: Hirotani, Yanagida, Konno, Inoue) JICA Office, Courtesy call at authorities concerned (MCTPC and Embassy of Japan)
3	7/4	Fri.	Thakhek Vientiane	To Site survey Tahkek (1 consultant: Inoue) Meeting concerning the Draft Report(1) at MCTPC (1 official: Umenaga +3 consultants: Hirotani, Yanagida, Konno)
4	7/5	Sat.	Savanahket Vientiane	Continue Investigation in Tahkek and Savanahket (1 consultant: Inoue) Collecting Data (1 official: Umenaga +3 consultants: Hirotani, Yanagida, Konno)
5	7/6	Sun.	Savanahket Vientiane	Continue Investigation in Tahkek and Savanahket (1 consultant: Inoue) Collecting Data (1 official: Umenaga +2 consultants: Hirotani, Konno) Vientiane-Bangkok(1 consultant: Yanagida)
6	7/7	Mon.	Pakxe Vientiane	To Site survey Pakxe (1 consultant: Inoue) Meeting concerning the Draft Report(1) at MCTPC (1 official: Umenaga +2 consultants: Hirotani, Konno)
7	7/8	Tue.	Pakxe Vientiane	Continue Investigation in Pakxe and Savanahket (1 consultant: Inoue) Signing of Minutes of Discussion (1 official: Umenaga +2 consultants: Hirotani, Konno) Vientiane-Bangkok(1 consultant: Hirotani) Meeting concerning the Road Profile at CDRI (1 official: Umenaga +1 consultant: Konno)
8	7/9	Wed.	Savanahket Vientiane	Continue Investigation in Savanahket (1 consultant: Inoue) Meeting concerning the Draft Report(1) at MCTPC JICA Office, Courtesy call at Embassy of Japan (1 official: Umenaga +1 consultant: Konno)
9	7/10	Thu.	Savanahket on Plane	Continue Investigation in Savanahket (1 consultant: Inoue) Vientiane-Bangkok(1 official: Umenaga +1 consultant: Konno) TG691(12:30-13:40) Bangkok-Tokyo (1 official: Umenaga +1 consultant: Konno) JL718(22:30-06:20)
10	7/11	Fri.	Vientiane	Arrival at Tokyo (1 official: Umenaga +1 consultant: Konno) Savanahket-Vientiane (1 consultant: Inoue)
11 ↓	7/12 ↓	Sat. ↓	Vientiane	Collecting Data (1 consultant: Inoue)
12	7/13	Sun.		
13	7/14	Mon.	Vientiane	JICA Office, Courtesy call at Embassy of Japan (1 consultant: Inoue)
14	7/15	Tue	Bangkok on Plane	Vientiane- Bangkok(1 consultant: Inoue) TG691(12:30-13:40) Bangkok-Tokyo JL718(22:30-06:20)
15	7/16	Wed.		Arrival at Tokyo

(c) For Explanation Draft report

No	Date	Day	Accommodation	Activities
1	8/17	Sun.	Bangkok	Tokyo-Bangkok NH915 (16:30-20:30) (1 official: Hanaoka+ 3 consultants: Hirotani, Yanagida, Konno)
2	8/18	Mon.	Vientiane	Bangkok-Vientiane TG690 (10:30-11:40) (1 official: Hanaoka+ 3 consultants: Hirotani, Yanagida, Konno) JICA Office, Courtesy call at authorities concerned (MCTPC and Embassy of Japan)
3	8/19	Tue.	Vientiane	Meeting concerning the Draft Report(2) at MCTPC and CDRI (1 official: Hanaoka + 3 consultants: Hirotani, Yanagida, Konno)
4	8/20	Wed.	Thahkek Vientiane	To Site survey Tahkek(1 official: Hanaoka+ 3 consultants: Hirotani, Yanagida, Konno)
5	8/21	Thu.	Vientiane	Meeting concerning the Draft Report(2) at MCTPC (1 official: Hanaoka + 3 consultants: Hirotani, Yanagida, Konno)
6	8/22	Fri.	Vientiane	Signing of Minutes of Discussion (1 official: Hanaoka +2 consultants: Hirotani, Yanagida, Konno) JICA Office, Courtesy call at Embassy of Japan
7	8/23	Sat.	Vientiane on Plane	JICA Office, Courtesy call at Embassy of Japan (1 official: Hanaoka +2 consultants: Hirotani, Yanagida, Konno) Vientiane-Bangkok TG691(12:30-13:40) Bangkok-Tokyo JL718(22:30-06:20)
8	8/24	Sun.		Arrival at Tokyo

Appendix-3 List of Party Concerned in the Laotian Side

	Name	Position	
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.S.Pholsena	Director of Communication Department	Ministry of Communication, Transport, Post and Construction
4	Mr.B.Sinthavong	Deputy Director of Communication Department	Ministry of Communication, Transport, Post and Construction
5	Mr.O.Phaduangdeth	Head of Planning-Technical Division	Ministry of Communication, Transport, Post and Construction
6	Mr.S.Pakdimounivongs	Project Manager of Pakse Mekong Bridge	Ministry of Communication, Transport, Post and Construction
7	Mrs.C.Souligno	International Relations Division	Ministry of Communication, Transport, Post and Construction
8	Mrs.A.Bounnaphol	Deputy Director	Sawannakhet Province Division of Communication, Transport, Post and Construction

Appendix-4 Minutes of Discussion
(a) For the Study of First Stage

Minutes of Discussions
on
The Basic Design Study
on
The Project for Reconstruction of Bridges on the National Road Route 13, Phase II
in
The Lao People's Democratic Republic

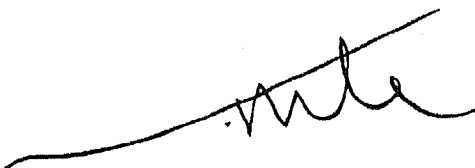
In response to a request from the Government of the Lao People's Democratic Republic (hereinafter referred to as "the Lao PDR"), the Government of Japan decided to conduct a Basic Design Study on the Project for Reconstruction of Bridges on the National Road Route 13, Phase II (hereinafter referred to as "the Project") in the Lao PDR, and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to the Lao PDR the Basic Design Study Team (hereinafter referred to as "the Study Team") headed by Mr. Nobuhiko Hanazato, Second Project Study Division, Grant Aid Project Study Department, JICA, which is scheduled to stay in the country from February 3 to March 24, 1997.

The Study Team held a series of discussions with the concerned officials of the Lao PDR.

As a result of discussions, both parties have confirmed the main items described in the attached sheets.

Vientiane, February 6, 1997



Nobuhiko HANAZATO
Leader
Study Team
JICA



Sommad PHOLSENA
Director
Communication Department
MCTPC

ATTACHMENT

1. OBJECTIVE

The objective of the Project is to construct permanent bridges on NR 13 which is the most important trunk road directly connecting southern provinces with Vientiane bearing heavy trade traffic. The Project will accompany various intangible benefit that will contribute to the development and well-being of the region in and around the project area, and also will contribute to forming a prospective transportation network in Indochina and greater Mekong sub-region.

2. PROJECT IMPLEMENTING AGENCY

The Ministry of Communication, Transport, Post and Construction is responsible for the administration and execution of the Project.

3. PROJECT SITE

The sites of the proposed bridges are shown in Annex-1.

4. MAJOR ITEMS REQUESTED BY THE LAO PDR SIDE

After a series of discussions, the bridges listed in Annex-2 are finally requested by the Lao PDR side.

However, the bridges to be covered under the Project will be subject to the further studies.

5. ROAD ALIGNMENT

1) Centerline

Modification of the road centerline shall be suggested to the Lao PDR side by the end of February 1997, to be incorporated into the detailed design of the IDA Project.

2) Profile

The result of the analysis and modification of the road profile shall be informed by the end of July 1997, to be incorporated into the addendum of the Contract Document of the IDA Project which contract is scheduled to be offered in October, 1997.

6. JAPANESE GRANT AID PROGRAMME

The Lao PDR side has understood the system of Japanese Grant Aid Programme explained in Annex-3.


7. NECESSARY MEASURES TO BE TAKEN BY THE LAO PDR SIDE

The Lao PDR side will take necessary measures described in Annex-4 for smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to the Project.

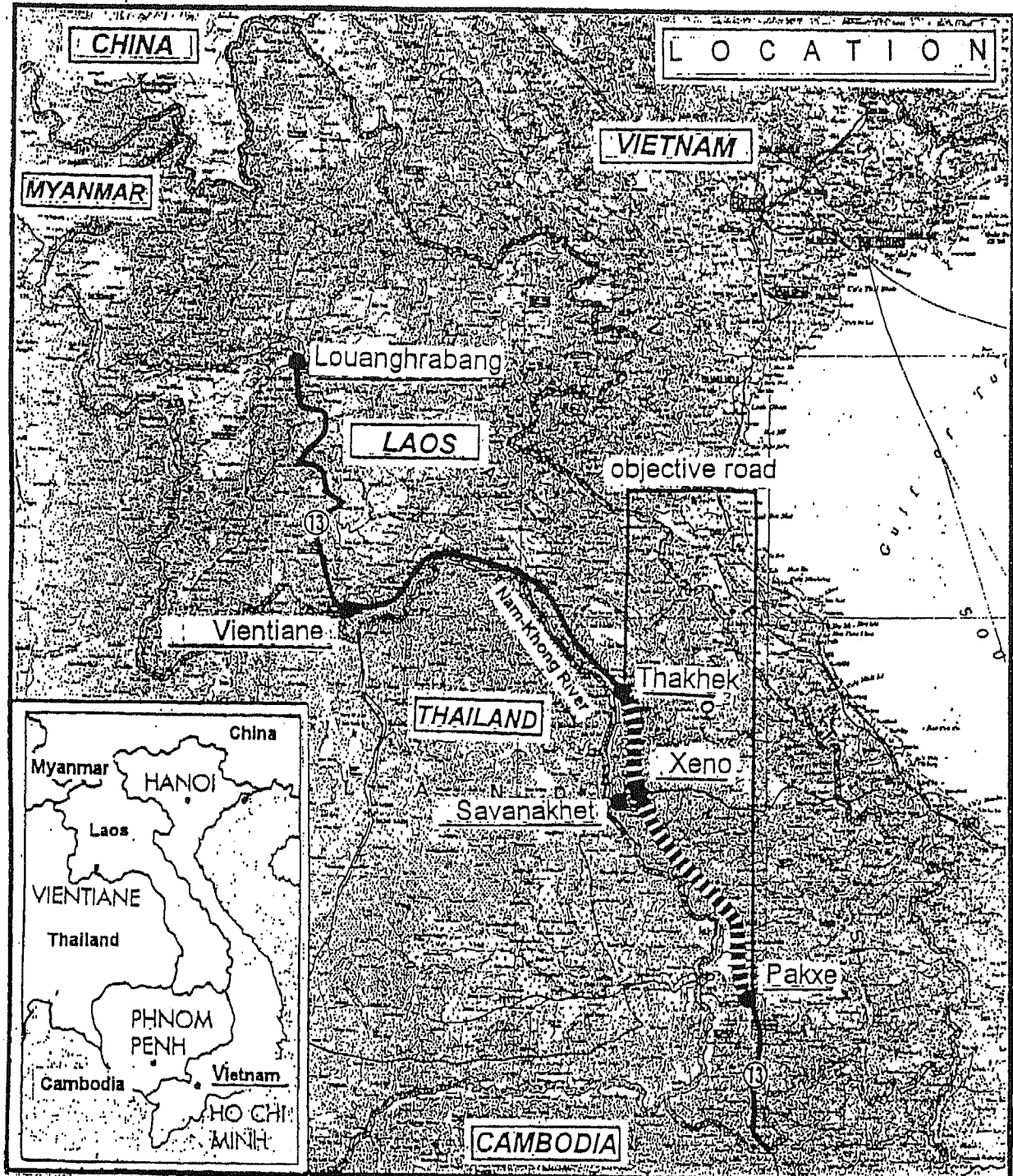
8. FURTHER SCHEDULE OF THE STUDY

- 1) The Study Team will proceed to further studies in the Lao PDR, until March 24, 1997.
- 2) Based on the results of the analysis and discussions in Japan, JICA will prepare the Draft Basic Design Report (1) and dispatch a team in the beginning of July 1997 in order to explain on the

outline of the Basic Design and to conduct survey on the various conditions during the rainy season.

- 3) Based on the results, JICA will prepare the Draft Basic Design Report (2) and dispatch a team in the end of August 1997 in order to confirm the contents.
 - 4) JICA will complete the Basic Design Study Report and forward it to the Lao PDR by November 1997.
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ANNEX-1: THE SITE OF THE PROPOSED BRIDGES



ml

ANNEX-2:THE LIST OF BRIDGES

City Name	Number	Bridge Name	Existing Bridge Length(m)	
Thakhek	1	TX No.1	15.50	
	2	TX No.2	15.50	
	3	TX No.3	7.00	
	4	TX No.4	20.00	
	5	TX No.5	18.00	
	6	TX No.6	12.00	
	7	TX No.7	15.00	
	8	TX No.8	12.50	
	9	TX No.9	27.50	
	10	TX No.10	21.50	
	11	TX No.11	25.00	
	12	TX No.13	30.00	
	13	TX No.14	20.00	
Xeno	14	TX No.15	70.00	
Xeno	15	XP No.1	9.20	
	16	XP No.2	54.70	
	17	XP No.3	18.30	
	18	XP No.5	36.60	
	19	XP No.7	21.30	
	20	XP No.8	9.20	
	21	XP No.9	21.40	
	22	XP No.10	45.80	
	23	XP No.11	21.40	
	24	XP No.12	15.30	
	25	XP No.13	18.30	
	26	XP No.14	21.40	
	27	XP No.15	24.40	
	28	XP No.16	21.40	
	29	XP No.17	21.40	
	30	XP No.18	21.40	
	31	XP No.19	27.50	
	32	XP No.20	18.30	
	33	XP No.21	27.50	
	34	XP No.22	18.30	
	35	XP No.23	18.30	
	36	XP No.24	15.30	
	37	XP No.25	18.30	
	38	XP No.26	18.30	
	39	XP No.27	36.60	
	40	XP No.28	48.80	
	41	XP No.29	42.30	
	42	XP No.30	21.40	
	43	XP No.31	15.00	
	44	XP No.32	15.30	
	45	XP No.33	15.30	
	46	XP No.34	12.10	
	47	XP No.35	12.20	
	48	XP No.36	27.50	
	49	XP No.37	21.40	
	Pakxe	50	XP No.38	18.30
		51	XP No.39	18.30

ANNEX-3: JAPANESE GRANT AID PROGRAMME

1. Grant Aid Procedures

- 1) Japan's Grant Aid Program is executed through the following procedures.

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Governments of Japan and the recipient country)

- 2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.



2. Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Japanese Government. The contents of the Study are as follows:

- a) Confirmation of the background, objectives, and benefits of the requested project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation,
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic points of view,
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project,
- d) Preparation of a basic design of the Project, and
- e) Estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

The consulting firm(s) used for the Study is (are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be repeated.

3. Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanges by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

3) "The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed.

However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However the prime contractors, namely, consulting, constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

The Government of recipient country or its designed authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

6) Undertakings required of the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

- (1) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction,
- (2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- (3) To secure buildings prior to the procurement in case the installation of the equipment,
- (4) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- (5) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- (6) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work,
- (7) "Proper Use",

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

- (8) "Re-export", and

The products purchased under the Grant Aid should not be re-exported from the recipient country.

- (9) Banking Arrangements(B/A).

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.
- b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.



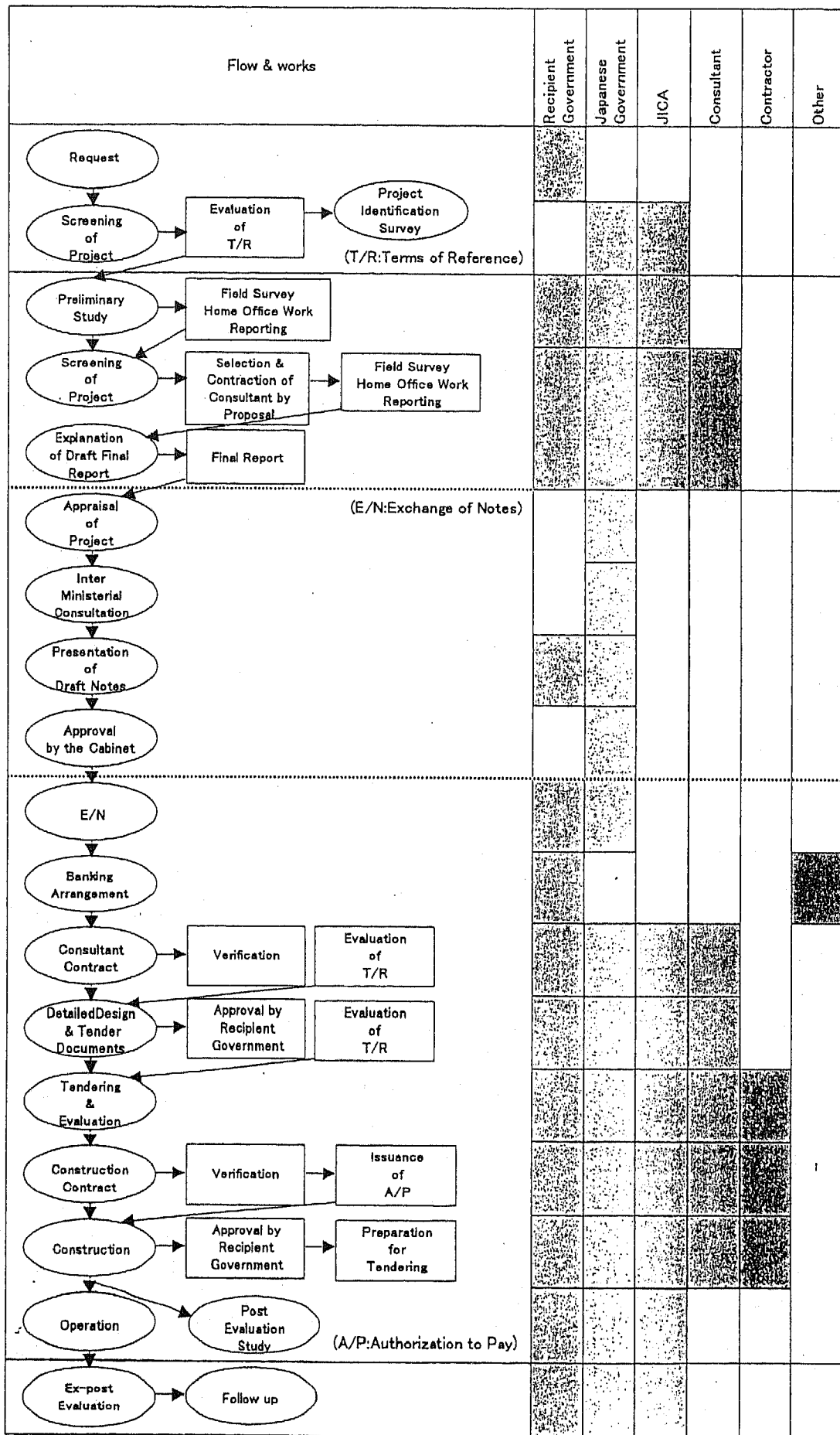


Fig-1 Flow Chart of Japan's Grant Aid Procedures

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot	●	
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct the buildings	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. the city water distribution main to the site		●
	b. the supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	
	5) Telephone system		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b. The MDF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
8	To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient country	●	
	2) tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site		●
10	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.		●
			●
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts.		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant.		●
13	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.		●

Fig-2 Major Undertaking to be taken by Each Government

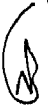
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ANNEX-4 : NECESSARY MEASURES TO BE TAKEN BY THE LAO PDR SIDE

Following necessary measures should be taken by the Lao PDR side on condition that the Grant Aid by the Government of Japan is extended to the Project:

1. To provide data and information necessary for the Project.
2. To secure the land necessary for the execution of the Project, such as the land for bridge, temporary offices, working areas, storage yards and others.
3. To clear the sites prior to the commencement of the construction including detection and removal of the land mines if required.
4. To make passable all roads and bridges leading to the Project sites before the commencement of inland transportation of materials and equipment.
5. To bear commissions to the Japanese foreign exchange bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commission.
6. To ensure prompt unloading, tax exemption, customs clearance at the port of disembarkation in the Lao PDR and prompt internal transportation therein of the materials and equipment for the Project purchased under the Grant Aid.
7. To exempt Japanese juridical and physical nationals engaged in the Project from customs duties, internal taxes and other fiscal levies which may be imposed in the Lao PDR with respect to the supply of the products and services under the verified contracts.
8. To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the Lao PDR and stay therein for the performance of their work.
9. To Provide necessary permissions, licenses and other authorizations for implementing the Project, if necessary.
10. To maintain and use properly and effectively the facilities constructed under the Project.
11. To coordinate and solve any issues related to the project which may be raised from third parties or inhabitants in the Project area during implementation of the Project.



(b) For the Study of Second Stage

Minutes of Discussions

on

The Basic Design Study

on

The Project for Reconstruction of Bridges on the National Road Route 13, Phase II

in

The Lao People's Democratic Republic.

From February to March 1997, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study team on The Project for Reconstruction of Bridges on the National Road Route 13, Phase II (hereinafter referred to as "the Project") to the Lao People's Democratic Republic (hereinafter referred to as "the Lao PDR"), and through discussions and field survey in the Lao PDR; and technical examination of the results in Japan, has prepared the Draft Basic Design report (1) of the study.

In order to explain and to consult the Government of the Lao PDR on the components of the Draft Basic Design Report (1), and conduct the additional field survey, JICA sent to the Lao PDR a study team (hereinafter referred to as "the Study Team"), which is headed by Mr. Satoshi UMENAGA, Second Project Study Division, Grant Aid Project Study Department, JICA, and is scheduled to stay in the country from July 3 to July 15, 1997. The Study Team will proceed to further works and prepare the Basic Design report (2).

As a result of discussions, both parties have confirmed the main items described in the attached sheets.

Vientiane, July 8, 1997



Satoshi UMENAGA
Leader
Study Team
JICA



Sommad PHOLSENA
Director
Communication Department
MCTPC

ATTACHMENT

1. OBJECTIVE OF THE FIELD SURVEY

The objective of the field survey is to investigate the influence of flood against the fifty-one bridges in the rainy season. The result of water level on field survey should be reflected on the Draft Basic Design Report (2) by the Study Team.

2. COMPONENTS OF THE DRAFT BASIC DESIGN (1)

The Government of the Lao PDR has agreed and accepted in principle the components of the Draft Basic Design Report (1) proposed by the Study Team.

3. RESPONSIBLE ORGANIZATION AND IMPLEMENTING AGENCY

- 1) Responsible organization : Ministry of Communication, Transport, Post and Construction (MCTPC).
- 2) Implementing agency : Communication Department, MCTPC.

4. PROJECT SITE

The Project site is shown in ANNEX-1, for fifty-one bridges between Thakhek to Pakxe.

5. ROAD PROFILE

The components of the Draft Basic Design Report (1) mentioned above 2 will be incorporated into the addendum of the Contract Document of the IDA Project which contract is scheduled to be offered in October, 1997.

6. JAPAN'S GRANT AID SYSTEM

The Government of the Lao PDR has understood the system of Japan's Grant Aid explained by the Study Team.

7. FURTHER SCHEDULE OF THE STUDY

- 1) The Study Team will proceed to further studies in the Lao PDR until July 15, 1997.
- 2) In accordance with the confirmed items, and the analysis of the field survey, JICA will prepare the Draft Basic Design Report (2) and dispatch a team in the end of August 1997 in order to confirm the contents.
- 3) JICA will complete the Basic Design Study Report and forward it to the Lao PDR by November 1997.

8. OTHER RELEVANT ISSUE

The Government of the Lao PDR will take all possible measures to secure the safety of the concerned people during the project implementation.