APPENDIX I-6

REHABILITATION COSTS IN REGION IX

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I – 6 - A: Reconstruction Costs

I-6-A Reconstruction Costs

Bridge Description				Bridge Length (m)	Number of Lanes	Bridge Cost		Approach Road Cost (x 1,000 pesos)	River Protection Cost (x1,000 pesos)	Total of Cost (x1,000 pesos)
Link No.	Bridge No.	Commune Name	Bridge Name			Bridge Area (m2)	Cost (x1,000 pesos)			
35	IX-001	LAUTARO	NIBLINTO	24.80	2	233.12	119,400	45,800	2,300	167,500
35	IX-002	LAUTARO	MUCOBAJO	34.50	2	324.30	166,000	45,800	2,300	214,100
36	IX-003	VILCUN	QUINTRILPE	10.00	1	60.00	30,700	39,000	2,300	72,000
40	IX-004	VILLARRICA	LLAMUCO	22.00	1	132.00	67,600	39,000	2,300	108,900
40	IX-005	VILLARRICA	PEDREGOSO	16.50	1	99.00	50,700	39,000	2,300	92,000
40	IX-006	VILLARRICA	CALBUCO	13.00	1	78.00	39,900	39,000	2,300	81,200
41	IX-007	VILLARRICA	ELTIGRE	19.50	1	117.00	59,900	39,000	2,300	101,200
42	IX-008	VILLARRICA	CHOMEZ	10.00	1	60.00	30,700	39,000	2,300	72,000
42	IX-009	VILLARRICA	EUSALTO	11.70	1	70.20	35,900	39,000	2,300	77,200
39	IX-010	VILLARRICA	LANI	21.80	2	204.92	104,900	45,800	2,300	153,000
39	IX-011	VILLARRICA	LANI2	8.80	2	82.72	42,400	45,800	2,300	90,500
34	IX-012	NUEVA IMPERIAL	HUECHUCON	30.60	2	287.64	147,300	45,800	2,300	195,400
33	IX-013	NUEVA IMPERIAL	HUAMAQUI	19.10	2	179.54	91,900	45,800	2,300	140,000
78	IX-014	VILCUN	PUMAJAL	32.20	1	193.20	98,900	39,000	2,300	140,200
56	IX-015	GORBEA	CHARLEO	20.46	2	191.76	98,200	45,800	2,300	146,300
56	IX-016	GORBEA	LAS LUMAS	13.20	2	124.08	63,500	45,800	2,300	111,600
57	IX-017	GORBEA	POLULI	22.70	1	136.20	69,700	39,000	2,300	111,000
58	IX-018	GORBEA	PUYEHUE	32.10	2	301.74	154,500	45,800	2,300	202,600
59	IX-019	GORBEA	DONGIL	44.10	1	264.60	135,500	39,000	2,300	176,800
59	IX-020	GORBEA	RINCO	12.20	1	73.20	37,500	39,000	2,300	78,800
63	IX-021	VILLARRICA	PEDREGOSO	38.00	2	357.20	182,900	45,800	2,300	231,000
61	IX-022	VILLARRICA	LONG LONG	14.65	1	87.60	44,900	39,000	2,300	86,200
72	IX-023	VILLARRICA	QUEBRADA HONDA	18.00	2	-	-	-	-	-
62	IX-024	VILLARRICA	SALVA TU ALMA	40.70	2	382.58	195,900	45,800	2,300	244,000
75	IX-025	VILLARRICA	COLLICO	9.60	2	90.24	46,200	45,800	2,300	94,300
75	IX-026	VILLARRICA	CRUCES	20.00	2	188.00	96,300	45,800	2,300	144,400
74	IX-027	PUCON	EL CRISTO	26.00	2	244.40	125,100	45,800	2,300	173,200
73	IX-028	PUCON	CARHUELLO	21.90	2	205.86	105,400	45,800	2,300	153,500
60	IX-029	CUNCO	LA BASTILLA	74.10	1	444.60	227,600	39,000	2,300	268,900
46	IX-030	CUNCO	CODULTO	10.80	1	64.80	33,200	39,000	2,300	74,500
45	IX-031	VILLARRICA	HUICAHUE	33.00	1	198.00	101,400	39,000	2,300	142,700
64	IX-032	CUNCO	MEDINA	170.00	1	1,020.00	522,200	39,000	2,300	563,500
66	IX-033	LONQUIMAY	ICALMA	17.90	1	107.40	55,000	39,000	2,300	96,300
65	IX-034	MELIPEUCO	AILLIPEN	58.00	1	348.00	178,200	39,000	2,300	219,500
47	IX-035	FREIRE	NEGRO	20.70	2	194.58	99,600	45,800	2,300	147,700
48	IX-036	FREIRE	PELALES	15.80	2	148.52	76,000	45,800	2,300	124,100
49	IX-037	FREIRE	CHUCAUCO	17.50	1	105.00	53,800	39,000	2,300	95,100
49	IX-038	FREIRE	FIN FIN	10.00	1	60.00	30,700	39,000	2,300	72,000
50	IX-039	NUEVA IMPERIAL	BOROA	15.90	2	149.46	76,500	45,800	2,300	124,600
77	IX-040	CARAHUE	SAN JUAN	31.60	2	297.04	152,100	45,800	2,300	200,200
77	IX-041	CARAHUE	LONCOMAYO	18.00	2	169.20	86,600	45,800	2,300	134,700
53	IX-042	TEODO. SCHMIDT	PUYEHUE	8.40	1	50.40	25,800	39,000	2,300	67,100
52	IX-043	TEODO. SCHMIDT	ALLIPEN	9.30	1	55.80	28,000	39,000	2,300	69,300
54	IX-044	PITRUFQUEN	QUINQUE	24.80	2	233.12	119,400	45,800	2,300	167,500
32	IX-045	GALVARINO	AILLINCO	-	-	-	-	-	-	-
55	IX-046	PITRUFQUEN	MAHUIDANCHE	36.40	2	342.16	175,200	45,800	2,300	223,300
18	IX-047	COLLIPULLI	LAS TOSCAS	10.80	2	101.52	52,000	45,800	2,300	100,100
71	IX-048	LONQUIMAY	NANCUREO	10.00	2	94.00	48,100	45,800	2,300	96,200
73	IX-049	LONQUIMAY	NIRECO	8.20	2	77.08	39,500	45,800	2,300	87,600
7	IX-050	LOS SAUCES	HUADABA	19.90	1	119.40	61,100	39,000	2,300	102,400
6	IX-051	LOS SAUCES	AGUA SANTA	15.50	1	93.00	47,600	39,000	2,300	88,900
13	IX-052	PUREN	PINGUIDAHUE	11.00	2	103.40	52,900	45,800	2,300	101,000
13	IX-053	PUREN	NATO	28.40	2	266.96	136,700	45,800	2,300	184,800
13	IX-054	PUREN	CHACRE	20.10	2	188.94	96,700	45,800	2,300	144,800
13	IX-055	PUREN	VILUCO	8.30	2	78.02	39,900	45,800	2,300	88,000
15	IX-056	LOS SAUCES	RANQUILEO	15.30	2	143.82	73,600	45,800	2,300	121,700
25	IX-057	VICTORIA	HUILLINLEBU	10.40	2	97.76	50,100	45,800	2,300	98,200
11	IX-058	LOS SAUCES	REHUE	30.50	1	183.00	93,700	39,000	2,300	135,000
10	IX-059	LOS SAUCES	NAPANIR	11.10	1	66.60	34,100	39,000	2,300	75,400
11	IX-060	LOS SAUCES	CATALINA N°2	28.90	1	173.40	88,800	39,000	2,300	130,100
10	IX-061	LOS SAUCES	CATALINA N°1	20.40	1	122.40	62,700	39,000	2,300	104,000
10	IX-062	LOS SAUCES	PELEHUTO	17.80	1	106.80	54,700	39,000	2,300	96,000
22	IX-063	VICTORIA	MALLECO	32.20	1	193.20	98,900	39,000	2,300	140,200
22	IX-064	VICTORIA	LOS SOLDADOS	33.50	1	201.00	102,900	39,000	2,300	144,200
24	IX-065	VICTORIA		12.00	1	72.00	36,900	39,000	2,300	78,200
17	IX-066	LOS SAUCES	QUINQUEN	36.10	2	339.34	173,700	45,800	2,300	221,800
5	IX-067	ANGOL	VEGAS BLANCAS	8.00	1	48.00	24,600	39,000	2,300	65,900
5	IX-068	ANGOL	EL MANZANO	15.40	1	92.40	47,300	39,000	2,300	88,600
9	IX-069	LOS SAUCES	MIRAFLORES	44.40	2	417.36	213,700	45,800	2,300	261,800
8	IX-070	LOS SAUCES	LA OBRA	10.40	2	97.76	50,100	45,800	2,300	98,200
19	IX-071	COLLIPULLI	CALLEN	13.60	2	127.84	65,500	45,800	2,300	113,600
20	IX-072	COLLIPULLI	MININCO	16.30	1	97.80	50,100	39,000	2,300	91,400
21	IX-073	COLLIPULLI	NANCO	14.40	1	86.40	44,200	39,000	2,300	85,500
1	IX-074	RENAICO	TOLPAN	93.40	1	560.40	286,900	39,000	2,300	328,200
68	IX-075	LONQUIMAY	LOS SOLDADOS	10.00	2	94.00	48,100	45,800	2,300	96,200
68	IX-076	LONQUIMAY	MIRAFLORES	19.70	2	185.18	94,800	45,800	2,300	142,900
67	IX-077	LONQUIMAY	RUCANUCO	22.80	2	214.32	109,700	45,800	2,300	157,800
31	IX-078	TRAIGUEN	HUINTILHUE	33.30	2	313.02	160,300	45,800	2,300	208,400
12	IX-079	PUREN	LA ISLA	36.70	1	220.20	112,700	39,000	2,300	154,000
23	IX-080	VICTORIA	OUMO	32.90	1	197.40	101,100	39,000	2,300	142,400
26	IX-081	CURACAUTIN	AMANTIBLE	19.20	2	173.08	87,600	45,800	2,300	135,700
27	IX-082	CURACAUTIN	CORCOLUDO	13.80	1	82.80	42,400	39,000	2,300	83,700
27	IX-083	CURACAUTIN	SANTA RITA	11.70	1	70.20	35,900	39,000	2,300	77,200
28	IX-084	CURACAUTIN	DILLO	10.00	1	60.00	30,700	39,000	2,300	72,000
66	IX-085	LONQUIMAY	HUILLINCO	16.80	1	100.80	51,600	39,000	2,300	92,900
3	IX-086	ANGOL	MALLECO	92.00	1	552.00	282,600	39,000	2,300	323,900
29	IX-087	CURACAUTIN	TRAHUILCO	39.70	1	238.20	122,000	39,000	2,300	163,300
29	IX-088	CURACAUTIN	CAUTIN	39.40	1	236.40	121,000	39,000	2,300	162,300
30	IX-089	CURACAUTIN	COLORADO	21.50	1	129.00	66,000	39,000	2,300	107,300
37	IX-090	LAUTARO	EL TRUENO	43.80	1	262.80	134,600	39,000	2,300	175,900
38	IX-091	LAUTARO	COLLEN	21.80	1	130.80	67,000	39,000	2,300	108,300
2	IX-092	ANGOL	LAS ANIMAS	24.70	1	148.20	75,900	39,000	2,300	117,200
2	IX-093	ANGOL	PELLOMENCO	14.10	1	84.60	43,300	39,000	2,300	84,600
70	IX-094	LONQUIMAY	LOLEN	67.00	2	629.80	322,500	45,800	2,300	370,600
16	IX-095	LOS SAUCES	RENICO	20.70	1	124.20	63,600	39,900	2,300	104,900
69	IX-096	LONQUIMAY	PUNTA NEGRA 1	28.60	2	268.84	137,600	45,800	2,300	185,700
69	IX-097	LONQUIMAY	PUNTA NEGRA 2	28.80	2	270.72	138,600	45,800	2,300	186,700
4	IX-098	ANGOL	LEALTAD	63.70	2	598.78	306,600	45,800	2,300	354,700
51	IX-099	TEODO.SCHMIDT	POCULON	31.00	2	291.40	149,200	45,800	2,300	197,300
14	IX-100	PUREN	LAS MINAS	12.50	1	75.00	38,400	39,300	2,300	79,700
42	IX-101	VILLARRICA	MALLA	10.00	1	60.00	30,700	39,000	2,300	72,000
43	IX-102	VILLARRICA	PUELLO	14.50	1	87.00	44,500	39,000	2,300	85,800
76	IX-103	GORBEA	PLANCHADO 1	7.00	1	42.00	21,500	39,000	2,300	62,800
76	IX-104	GORBEA	PLANCHADO 2	9.60	1	57.60	29,500	39,000	2,300	70,800
76	IX-105	GORBEA	PLANCHADO 3	8.00	1	48.00	24,600	39,000	2,300	65,900
76	IX-106	GORBEA	PLANCHADO 4	11.30	1	67.80	34,700	39,000	2,300	76,000
76	IX-107	GORBEA	PLANCHADO 5	10.00	1	60.00	30,700	39,000	2,300	72,000
76	IX-108	GORBEA	PLANCHADO 6	8.90	1	53.40	27,300	39,000	2,300	68,600
76	IX-109	GORBEA	PLANCHADO 7	14.80	1	88.80	45,500	39,000	2,300	86,800
76	IX-110	GORBEA	PLANCHADO 8	12.80	1	76.80	39,300	39,000	2,300	80,600
Total						19,497	9,992,200	4,538,600	244,400	14,775,600
Average						180.53	92,500	41,800	2,300	136,600

I – 6 - B: Repair Costs

I-6-B Repair Costs of Region IX (1)

Bridge Data from Inventory

Link No.	Bridge No.	Bridge Description: District Name	Bridge Description: Bridge Name	Span length and Substructure height: Abutment A1	A1-P1 Span	Pier P1	P1-P2 Span	Pier P2	P2-P3 Span	Pier P3	P3-P4 Span	Pier P4	P4-P5 Span
35	IX-001	LAUTARO	NIBLINTO	2.50	8.30	4.50	8.00	4.50	8.50				
35	IX-002	LAUTARO	MOCOBAJO	4.50	7.20	9.00	20.00	9.00	7.30				
36	IX-003	VILCUN	QUINTRILPE	5.00	10.00								
40	IX-004	VILLARRICA	LLAMUCO	5.00	22.00								
40	IX-005	VILLARRICA	PEDREGOSO	3.30	8.50		8.00						
40	IX-006	VILLARRICA	CAJIUCO	1.15	3.00	3.40	10.00						
41	IX-007	VILLARRICA	ELTIGRE	3.60	7.10	7.20	12.40						
42	IX-008	VILLARRICA	CHOME2	3.20	10.00								
42	IX-009	VILLARRICA	ELSALTO	3.40	11.70								
39	IX-010	VILLARRICA	LAN1	3.20	6.70	6.90	9.10		6.00				
39	IX-011	VILLARRICA	LAN2	2.50	8.80								
34	IX-012	NUEVA IMPERIAL	HUECHUCON	4.00	5.40	8.00	5.60	8.60	8.80	8.00	5.30	8.00	5.50
33	IX-013	NUEVA IMPERIAL	HUAMAQUE	3.00	9.90	6.00	9.20						
78	IX-014	VILCUN	PUMALAL	4.70	16.10	9.40	16.10						
56	IX-015	GORBEA	CHARLEO	3.00	8.90	5.60	7.10	5.60	6.50				
56	IX-016	GORBEA	LAS LUMAS	2.05	8.50	4.10	4.70						
57	IX-017	GORBEA	POLILI	1.70	7.50	6.45	7.40	3.45	7.80				
58	IX-018	GORBEA	PUYEHUE	4.00	8.10	8.00	15.90	8.00	8.10				
59	IX-019	GORBEA	DONGIL	2.85	8.50	5.70	8.10	5.70	8.50	5.70	8.50	5.70	10.50
59	IX-020	GORBEA	RINCO	1.50	8.40	3.00	3.60						
63	IX-021	VILLARRICA	PEDREGOSO	3.00	19.00	6.00	19.00						
61	IX-022	VILLARRICA	LONG LONG	2.10	7.40	4.20	7.20						
72	IX-023	VILLARRICA	QUEBRADA HONDA	5.00	18.00								
62	IX-024	VILLARRICA	SALVA TU ALMA	4.10	20.50	8.25	10.00	8.25	10.20				
75	IX-025	VILLARRICA	COLLICO	5.00	9.60								
75	IX-026	VILLARRICA	CRUCES	2.50	10.00	3.40	10.00						
74	IX-027	PUCON	EL CRISTO	5.00	26.00								
73	IX-028	PUCON	CARHUELLO	4.52	8.30		13.60						
60	IX-029	CUNCO	LA BASTILLA	5.00	74.10								
46	IX-030	CUNCO	CODULTO	5.00	10.80								
45	IX-031	VILLARRICA	HUICAHUE	2.55	7.00	5.10	8.70	5.10	8.70	5.10	8.60		
64	IX-032	CUNCO	MEDINA	3.70	25.00	7.50	25.00	7.50	25.00	7.50	25.00	7.50	35.00
66	IX-033	LONQUIMAY	ICALMA	2.00	8.80	5.30	9.10						
65	IX-034	MELIPEUCO	ALLIPEN	3.25	10.40	6.50	11.80	5.50	12.00	6.50	12.00	6.50	11.80
47	IX-035	FREIRE	NEGRO	2.70	6.80	3.40	7.20	3.40	6.70				
48	IX-036	FREIRE	PELALES	4.00	7.80	4.20	8.00						
49	IX-037	FREIRE	CHUCAUCO	2.00	8.80	2.80	8.70						
49	IX-038	FREIRE	FIN FIN	3.00	4.90	3.25	5.10						
50	IX-039	NUEVA IMPERIAL	BOROA	1.80	7.90	3.60	8.00						
77	IX-040	CARAHUE	SAN JUAN	3.00	8.00	6.00	8.00	6.00	7.50	6.00	8.10		
77	IX-041	CARAHUE	LONCOMAYO	2.50	9.50		8.50						
53	IX-042	TEODO. SCHMIDT	PUYEHUE	4.00	8.40								
52	IX-043	TEODO. SCHMIDT	ALLIPEN	1.50	9.10								
54	IX-044	PITRUFQUEN	QUINQUE	2.20	7.40	4.40	8.70	4.40	8.70				
32	IX-045	GALVARINO	AILINCO										
55	IX-046	PITRUFQUEN	MAHUIDANCHE	5.00	9.00	7.60	9.00	7.60	9.60	7.60	9.30		
18	IX-047	COLLIPULLI	LAS TOSCAS	2.10	5.50	4.20	5.30						
71	IX-048	LONQUIMAY	ÑANCUREO	1.80	10.00								
71	IX-049	LONQUIMAY	SIRECO	1.50	8.20								
7	IX-050	LOS SAUCES	HUADABA	4.40	10.40	4.40	9.50						
6	IX-051	LOS SAUCES	AGUA SANTA	5.20	7.10	5.20	8.40						
33	IX-052	PUREN	PENGUIDAHUE	1.20	11.00								
33	IX-053	PUREN	ÑATO	3.00	10.70	4.90	9.50	4.90	8.20				
33	IX-054	PUREN	CHACRE	3.10	10.30	5.20	9.80						
33	IX-055	PUREN	VILUCO	2.10	4.40	2.80	3.90						
15	IX-056	LOS SAUCES	RANQUILEO	0.90	7.00	1.80	8.30						
25	IX-057	VICTORIA	HUILLINLEBU	5.00	10.40								
11	IX-058	LOS SAUCES	REHUE	3.90	11.70	5.10	8.90	5.10	9.90				
10	IX-059	LOS SAUCES	NAPAÑIR	3.10	5.50	3.10	5.60						
11	IX-060	LOS SAUCES	CATALINA N°2	4.20	11.50	4.20	5.60	4.20	11.80				
10	IX-061	LOS SAUCES	CATALINA N°1	2.90	3.00	2.80	7.50	2.80	7.20	2.80	2.70		
10	IX-062	LOS SAUCES	PELEHUTO	1.20	9.20	2.80	9.60						
22	IX-063	VICTORIA	MALLECO	3.20	5.00	6.50	5.40	6.50	13.00		8.80		
22	IX-064	VICTORIA	LOS SOLDADOS	3.50	12.20	7.00	10.40	7.00	10.90				
24	IX-065	VICTORIA		5.00	12.00								
17	IX-066	LOS SAUCES	QUINQUEN	5.00	14.90		13.90		7.30				
5	IX-067	ANGOL	VEGAS BLANCAS	2.00	8.00								
5	IX-068	ANGOL	EL MANZANO	3.00	15.40								
9	IX-069	LOS SAUCES	MIRAFLORES	3.00	8.50	7.00	8.20	7.00	9.90	7.00	7.80	7.00	10.00
8	IX-070	LOS SAUCES	LA OBRA	1.60	2.90		7.50						
19	IX-071	COLLIPULLI	CALLIN	2.50	6.80	2.50	6.80						
20	IX-072	COLLIPULLI	MININCO	4.50	5.90	9.00	10.40						
21	IX-073	COLLIPULLI	NANCO	1.70	8.10	3.40	6.30						
1	IX-074	RENAICO	TOLPAN	1.20	15.70	7.00	15.50	7.00	15.50	7.00	15.50	7.00	15.50
68	IX-075	LONQUIMAY	LOS SOLDADOS	3.00	10.00								
68	IX-076	LONQUIMAY	MIRAFLORES	1.20	9.00	3.50	10.70						
67	IX-077	LONQUIMAY	ROCANUCO	2.50	11.30	3.46	11.50						
31	IX-078	TRAIGUEN	HUIÑILHUE	2.30	8.80	4.60	7.90	4.60	8.00	4.60	8.60		
12	IX-079	PUREN	LA ISLA	1.15	9.70	2.30	9.70	2.30	7.60	2.30	9.70		
23	IX-080	VICTORIA	OUMO	2.25	10.20	4.50	12.00	4.50	10.70				
26	IX-081	CURACAUTIN	AMANTIBLE	4.35	6.30	5.00	5.90	5.00	6.00				
27	IX-082	CURACAUTIN	CORCOLUDO	2.40	4.50	4.00	9.30						
27	IX-083	CURACAUTIN	SANTA RITA	2.25	11.70								
28	IX-084	CURACAUTIN	DOLLO	5.00	10.00								
66	IX-085	LONQUIMAY	HUILLINCO	2.10	8.40	4.20	8.40						
3	IX-086	ANGOL	MALLECO	3.75	92.00	9.70		9.20		9.20		9.20	
29	IX-087	CURACAUTIN	TRAHUILCO	2.50	7.30	5.50	9.20	5.50	9.40	5.50	7.30	5.50	6.80
29	IX-088	CURACAUTIN	CAUTIN	4.50	15.40	6.50	24.00	6.50					
30	IX-089	CURACAUTIN	COLORADO	2.40	11.50	3.80	10.00						
37	IX-090	LAUTARO	EL TRUENO	2.60	9.30	10.00	18.00	10.00	8.50	10.00	7.30		
38	IX-091	LAUTARO	COLLIN	3.80	5.80	7.60	8.00	7.60	5.10	7.60	3.70	7.60	3.20
2	IX-092	ANGOL	LAS ANIMAS	1.20	7.10	4.50	10.00	4.50	7.60				
2	IX-093	ANGOL	PELLOMENCO	1.50	7.60	2.60	6.50						
70	IX-094	LONQUIMAY	LOLEN	5.00	67.00								
16	IX-095	LOS SAUCES	REÑICO	2.00	6.80	4.00	6.20	4.00	7.70				
69	IX-096	LONQUIMAY	PUNTA NEGRA 1	1.40	9.50	3.50	9.40	3.50	9.70				
69	IX-097	LONQUIMAY	PUNTA NEGRA 2	1.00	9.60	3.10	9.60	3.10	9.60				
4	IX-098	ANGOL	LEALTAD	3.00	8.00	6.00	8.00	6.00	8.00	6.00	8.00	6.00	7.60
51	IX-099	TEODO.SCHMIDT	POCULON	4.35	8.10	4.35	7.40	4.35	7.50	4.35	8.00		
14	IX-100	PUREN	LAS MINAS	1.25	6.20	2.50	6.30						
63	IX-101	VILLARRICA	MAILLA	5.00	10.00								
64	IX-102	VILLARRICA	PUELLO	1.85	7.50	3.29	7.00						
76	IX-103	GORBEA	PLANCHADO 1	5.00	7.00								
76	IX-104	GORBEA	PLANCHADO 2	5.00	9.60								
76	IX-105	GORBEA	PLANCHADO 3	5.00	8.00								
76	IX-106	GORBEA	PLANCHADO 4	5.00	11.30								
76	IX-107	GORBEA	PLANCHADO 5	5.00	10.00								
76	IX-108	GORBEA	PLANCHADO 6	5.00	8.90								
76	IX-109	GORBEA	PLANCHADO 7	1.15	6.00	2.30	8.80						
76	IX-110	GORBEA	PLANCHADO 8	1.45	6.10	2.90	6.70						
			Total										
			Average										

I-6-B Repair Costs of Region IX (2)

Bridge Data from Inventory

Bridge Description		Span length and Substructure height									Bridge
Dist. No.	Bridge No.	Pier P5	P5-P6 Span	Pier P6	P6-P7 Span	Pier P7	P7-P8 Span	Pier P8	P8-A2 Span	Abutment A2	Width (m)
35	IX-001									2.50	4.00
35	IX-002									4.50	4.85
36	IX-003									5.00	3.60
40	IX-004									5.00	4.40
40	IX-005									3.70	3.70
40	IX-006									1.15	3.95
41	IX-007									3.60	3.75
42	IX-008									3.20	3.70
42	IX-009									3.40	3.98
39	IX-010									5.20	4.50
39	IX-011									2.50	4.28
34	IX-012									4.00	4.85
33	IX-013									3.00	4.50
78	IX-014									4.70	4.65
56	IX-015									5.00	4.50
56	IX-016									2.05	4.40
57	IX-017									1.70	4.30
58	IX-018									4.00	4.85
59	IX-019									2.85	4.85
59	IX-020									1.50	4.28
63	IX-021									3.00	4.73
61	IX-022									2.10	4.60
72	IX-023									-	4.70
62	IX-024									4.10	4.63
75	IX-025									-	4.45
75	IX-026									2.50	4.60
74	IX-027									-	3.90
73	IX-028									-	4.70
60	IX-029									5.00	4.78
46	IX-030									-	4.05
45	IX-031									2.55	4.30
64	IX-032	7.50	35.00							3.70	4.75
66	IX-033									2.50	4.10
65	IX-034									3.25	4.68
47	IX-035									2.70	4.26
48	IX-036									5.00	4.32
49	IX-037									2.00	4.40
49	IX-038									3.00	4.40
50	IX-039									1.80	4.40
77	IX-040									3.00	5.00
77	IX-041									2.50	4.48
53	IX-042									-	4.70
52	IX-043									1.50	4.05
54	IX-044									2.20	4.63
32	IX-045									-	-
55	IX-046									4.00	4.80
35	IX-047									2.10	4.10
71	IX-048									-	3.80
73	IX-049									3.50	4.00
7	IX-050									4.40	3.95
6	IX-051									5.20	4.10
13	IX-052									1.20	3.80
13	IX-053									0.80	4.30
13	IX-054									3.10	3.90
13	IX-055									2.10	4.40
15	IX-056									0.90	4.10
25	IX-057									3.00	4.80
11	IX-058									3.90	4.30
10	IX-059									3.10	3.60
11	IX-060									4.20	4.60
10	IX-061									2.00	4.30
10	IX-062									1.20	3.60
22	IX-063									5.20	4.00
22	IX-064									3.50	4.10
24	IX-065									5.00	3.80
17	IX-066									5.00	4.10
5	IX-067									2.00	3.80
5	IX-068									3.00	4.40
9	IX-069									3.00	4.40
8	IX-070									1.60	3.90
19	IX-071									2.50	4.40
20	IX-072									4.50	4.60
21	IX-073									1.70	4.40
1	IX-074	7.00	15.70							1.20	3.50
68	IX-075									3.00	3.65
68	IX-076									1.20	4.25
67	IX-077									2.60	3.70
31	IX-078									2.50	4.50
12	IX-079									1.15	3.70
23	IX-080									2.25	4.30
26	IX-081									4.20	3.50
27	IX-082									4.00	3.70
27	IX-083									2.40	4.10
28	IX-084									5.00	5.00
66	IX-085									2.10	4.80
3	IX-086	9.20		9.20		9.20		18.40		3.75	4.50
29	IX-087	5.50								2.50	4.40
29	IX-088									4.50	4.30
30	IX-089									2.40	4.20
37	IX-090									2.90	4.45
38	IX-091									3.60	3.76
2	IX-092									2.20	4.50
2	IX-093									1.50	4.70
70	IX-094									5.00	2.60
16	IX-095									2.00	3.40
69	IX-096									1.40	3.95
69	IX-097									1.00	3.95
4	IX-098	6.00	7.90	6.00	8.00	6.00	7.90			3.00	4.00
58	IX-099									4.35	3.40
14	IX-100									1.25	4.00
43	IX-101									5.00	4.40
44	IX-102									1.85	3.95
76	IX-103									5.00	4.37
76	IX-104									5.00	4.40
76	IX-105									5.00	3.70
76	IX-106									5.00	3.66
76	IX-107									5.00	3.30
76	IX-108									5.00	4.55
76	IX-109									1.85	3.71
76	IX-110									1.45	4.35

I-6-B Repair Costs of Region IX (3)

Damage Code and Damage Ratio of Superstructure

Bridge Description		Damage Code of Superstructure																			
Link No.	Bridge No.	A1-P1						P1-P2						P2-P3							
		Concrete	D.Ratio	Steel	D.Ratio	Timber	D.Ratio	Concrete	D.Ratio	Steel	D.Ratio	Timber	D.Ratio	Concrete	D.Ratio	Steel	D.Ratio	Timber	D.Ratio		
35	IX-001		0.60		1.00	BR	0.40		0.60		1.00	CO	0.40		0.60		1.00	BR	0.40		
35	IX-002		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		
36	IX-003		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
40	IX-004		0.60	CO	1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
40	IX-005		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00		0.40		
40	IX-006		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00		0.40		
41	IX-007		0.60		1.00	BR	0.40		0.60		1.00	BR	0.40		0.60		1.00		0.40		
42	IX-008		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
42	IX-009		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
39	IX-010		0.60		1.00	BR	0.40		0.60		1.00	CO	0.40		0.60		1.00	BR	0.40		
39	IX-011		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
34	IX-012	CR	0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		
33	IX-013		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
78	IX-014		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
56	IX-015		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00		0.40		
56	IX-016		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
57	IX-017		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		
58	IX-018		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
59	IX-019		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
59	IX-020		0.60	CR	1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
63	IX-021		0.60	CO	1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
61	IX-022		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
72	IX-023		0.60	CO	1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
62	IX-024		0.60	CO	1.00		0.40		0.60	CO	1.00		0.40		0.60		1.00		0.40		
75	IX-025		0.60		1.00	BR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
75	IX-026		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
74	IX-027		0.60		1.00	BR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
73	IX-028		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
60	IX-029		0.60	CR	1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
46	IX-030		0.60		1.00	BR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
45	IX-031		0.60		1.00	CR	0.40		0.60		1.00	BR	0.40		0.60		1.00		0.40		
64	IX-032		0.60	CO	1.00		0.40		0.60	CR	1.00		0.40		0.60	CR	1.00		0.40		
66	IX-033		0.60		1.00	CR	0.40		0.60		1.00	BR	0.40		0.60		1.00		0.40		
65	IX-034		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00	CR	0.40		
47	IX-035		0.60	CO	1.00		0.40		0.60	CR	1.00		0.40		0.60		1.00		0.40		
48	IX-036		0.60	CO	1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
49	IX-037		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
49	IX-038		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
50	IX-039		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
77	IX-040		0.60		1.00	CO	0.40		0.60		1.00	BR	0.40		0.60		1.00	BR	0.40		
72	IX-041		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
53	IX-042		0.60		1.00	BR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
52	IX-043		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
54	IX-044		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00		0.40		
32	IX-045		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
55	IX-046		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		
18	IX-047		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
71	IX-048		0.60		1.00	BR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
70	IX-049		0.60	CO	1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
7	IX-050		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
6	IX-051		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
13	IX-052		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
13	IX-053		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
13	IX-054		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
13	IX-055		0.60		1.00	BR	0.40		0.60		1.00	CO	0.40		0.60		1.00		0.40		
15	IX-056		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
25	IX-057		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
11	IX-058		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
10	IX-059		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
11	IX-060		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
10	IX-061		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00	BR	0.40		
10	IX-062		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
22	IX-063		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00		0.40		
22	IX-064		0.60		1.00	CO	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
24	IX-065		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
17	IX-066		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
5	IX-067		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
5	IX-068		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
9	IX-069		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		
8	IX-070		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
19	IX-071		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
20	IX-072		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
21	IX-073		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
1	IX-074		0.60	CR	1.00		0.40		0.60	CR	1.00		0.40		0.60	CR	1.00		0.40		
68	IX-075		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
68	IX-076		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
67	IX-077		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
31	IX-078		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40		
12	IX-079		0.60		1.00	BR	0.40		0.60		1.00	BR	0.40		0.60		1.00	BR	0.40		
23	IX-080		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
26	IX-081		0.60		1.00	CO	0.40		0.60		1.00	BR	0.40		0.60		1.00		0.40		
27	IX-082		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
27	IX-083		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
28	IX-084		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
66	IX-085		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
3	IX-086		0.60		1.00	BR	0.40		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		
29	IX-087		0.60		1.00	BR	0.40		0.60		1.00	BR	0.40		0.60		1.00	BR	0.40		
29	IX-088		0.60	BR	1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
30	IX-089		0.60		1.00	CR	0.40		0.60		1.00	CO	0.40		0.60		1.00		0.40		
32	IX-090		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		
38	IX-091		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		
2	IX-092		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00		0.40		
2	IX-093		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
70	IX-094		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
16	IX-095		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00		0.40		
69	IX-096		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00		0.40		
69	IX-097		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
4	IX-098		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		
51	IX-099		0.60		1.00	BR	0.40		0.60		1.00	BR	0.40		0.60		1.00		0.40		
14	IX-100		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
43	IX-101		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
44	IX-102		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40		
76	IX-103		0.60		1.00	BR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
76	IX-104		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
76	IX-105		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
76	IX-106		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
76	IX-107		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
76	IX-108		0.60		1.00	BR	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
76	IX-109		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		
76	IX-110		0.60		1.00	CO	0.40		0.60		1.00		0.40		0.60		1.00		0.40		

I-6-B Repair Costs of Region IX (4)

Damage Code and Damage Ratio of Superstructure

Bridge Description		Damage Code of Superstructure															
Link	Bridge	P3-P4						P4-P5						P5-P6			
No.	No.	Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio	Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio	Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio
35	EX-001		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
35	EX-002		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
36	EX-003		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
40	EX-004		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
40	EX-005		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
40	EX-006		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
41	EX-007		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
42	EX-008		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
42	EX-009		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
39	EX-010		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
39	EX-011		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
34	EX-012		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40
33	EX-013		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
78	EX-014		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
56	EX-015		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
56	EX-016		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
57	EX-017		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
58	EX-018		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
59	EX-019		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40
59	EX-020		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
63	EX-021		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
61	EX-022		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
22	EX-023		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
62	EX-024		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
75	EX-025		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
75	EX-026		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
74	EX-027		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
73	EX-028		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
60	EX-029		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
46	EX-030		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
45	EX-031		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
64	EX-032		0.60	CR	1.00		0.40		0.60	BR	1.00		0.40		0.60		1.00		0.40
66	EX-033		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
65	EX-034		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40
47	EX-035		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
48	EX-036		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
49	EX-037		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
49	EX-038		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
50	EX-039		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
77	EX-040		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
77	EX-041		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
53	EX-042		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
52	EX-043		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
54	EX-044		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
32	EX-045		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
55	EX-046		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
18	EX-047		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
71	EX-048		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
71	EX-049		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
7	EX-050		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
6	EX-051		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
13	EX-052		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
13	EX-053		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
13	EX-054		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
13	EX-055		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
15	EX-056		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
25	EX-057		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
61	EX-058		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
10	EX-059		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
11	EX-060		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
10	EX-061		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40
10	EX-062		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
22	EX-063		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
22	EX-064		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
24	EX-065		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
17	EX-066		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
5	EX-067		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
5	EX-068		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
9	EX-069		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00		0.40
8	EX-070		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
19	EX-071		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
20	EX-072		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
21	EX-073		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
1	EX-074		0.60	CR	1.00		0.40		0.60	CR	1.00		0.40		0.60		1.00		0.40
68	EX-075		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
68	EX-076		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
67	EX-077		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
34	EX-078		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
12	EX-079		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
23	EX-080		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
26	EX-081		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
27	EX-082		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
27	EX-083		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
28	EX-084		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
66	EX-085		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
3	EX-086		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40		0.60		1.00	CR	0.40
29	EX-087		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
29	EX-088		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
30	EX-089		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
37	EX-090		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
38	EX-091		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
2	EX-092		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
2	EX-093		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
70	EX-094		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
16	EX-095		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
69	EX-096		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
69	EX-097		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
4	EX-098		0.60		1.00	CO	0.40		0.60		1.00	CR	0.40		0.60		1.00	CO	0.40
58	EX-099		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
14	EX-100		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
43	EX-101		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
41	EX-102		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	EX-103		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	EX-104		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	EX-105		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	EX-106		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
75	EX-107		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
75	EX-108		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
75	EX-109		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
75	EX-110		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40

I-6-B Repair Costs of Region IX (5)

Damage Code and Damage Ratio of Superstructure

Bridge Description		Damage Code of Superstructure																	
Link No.	Bridge No.	P6,P7						P7,P8						P8,A2					
		Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio	Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio	Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio
35	IX-001		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
35	IX-002		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
36	IX-003		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
40	IX-004		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
40	IX-005		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
40	IX-006		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
41	IX-007		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
42	IX-008		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
42	IX-009		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
39	IX-010		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
39	IX-011		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
34	IX-012		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
33	IX-013		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
78	IX-014		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
56	IX-015		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
56	IX-016		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
57	IX-017		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
58	IX-018		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
59	IX-019		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
59	IX-020		0.60		1.00		0.40		0.60		1.00		0.40		0.60	BR	1.00		0.40
63	IX-021		0.60		1.00		0.40		0.60		1.00		0.40		0.60	CO	1.00		0.40
61	IX-022		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
72	IX-023		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
82	IX-024		0.60		1.00		0.40		0.60		1.00		0.40		0.60	CO	1.00		0.40
75	IX-025		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
75	IX-026		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
74	IX-027		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
73	IX-028		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
60	IX-029		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
46	IX-030		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
45	IX-031		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
64	IX-032		0.60		1.00		0.40		0.60		1.00		0.40		0.60	BR	1.00	BR	0.40
66	IX-033		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
65	IX-034		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
47	IX-035		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
48	IX-036		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
49	IX-037		0.60		1.00		0.40		0.60		1.00		0.40		0.60	CO	1.00		0.40
49	IX-038		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
50	IX-039		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
77	IX-040		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
77	IX-041		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
53	IX-042		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
52	IX-043		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
54	IX-044		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
32	IX-045		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
55	IX-046		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
18	IX-047		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
71	IX-048		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
71	IX-049		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
7	IX-050		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
6	IX-051		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
13	IX-052		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
13	IX-053		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
13	IX-054		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
13	IX-055		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
15	IX-056		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
25	IX-057		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
11	IX-058		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
10	IX-059		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
11	IX-060		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
10	IX-061		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
10	IX-062		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
22	IX-063		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
22	IX-064		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
24	IX-065		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
17	IX-066		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
5	IX-067		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
5	IX-068		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
9	IX-069		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
8	IX-070		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
19	IX-071		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CR	0.40
20	IX-072		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
21	IX-073		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
1	IX-074		0.60		1.00		0.40		0.60		1.00		0.40		0.60	CO	1.00		0.40
68	IX-075		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
68	IX-076		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
67	IX-077		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
31	IX-078		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
12	IX-079		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	BR	0.40
23	IX-080		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
26	IX-081		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
27	IX-082		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
27	IX-083		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
28	IX-084		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
66	IX-085		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
3	IX-086		0.60		1.00	CO	0.40		0.60		1.00	CO	0.40		0.60		1.00	BR	0.40
29	IX-087		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	BR	0.40
29	IX-088		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
30	IX-089		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
33	IX-090		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
38	IX-091		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
2	IX-092		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	BR	0.40
2	IX-093		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	BR	0.40
70	IX-094		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
16	IX-095		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
69	IX-096		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
69	IX-097		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
4	IX-098		0.60		1.00	CR	0.40		0.60		1.00		0.40		0.60		1.00	BR	0.40
58	IX-099		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	BR	0.40
14	IX-100		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
43	IX-101		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
44	IX-102		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	IX-103		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	IX-104		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	IX-105		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	IX-106		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	IX-107		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	IX-108		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00		0.40
76	IX-109		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40
76	IX-110		0.60		1.00		0.40		0.60		1.00		0.40		0.60		1.00	CO	0.40

I-6-B Repair Costs of Region IX (6)

Damage Code and Damage Ratio of Substructure

Bridge Link No.	Description Bridge No.	Damage Code of Substructure A1 Concrete	A1 D.Ratio	A1 Steel	A1 D.Ratio	A1 Timber	A1 D.Ratio	P1 Concrete	P1 D.Ratio	P1 Steel	P1 D.Ratio	P1 Timber	P1 D.Ratio	P2 Concrete	P2 D.Ratio	P2 Steel	P2 D.Ratio	P2 Timber	P2 D.Ratio
35	IX-001		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
35	IX-002		0.005		1.00		0.40	SP	0.005		1.00		0.40	SP	0.005		1.00		0.40
36	IX-003		0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
40	IX-004		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
40	IX-005		0.005		1.00		0.40		0.005		1.00	CO	0.40		0.005		1.00		0.40
40	IX-006		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
41	IX-007		0.005		1.00		0.40		0.005		1.00	CO	0.40		0.005		1.00		0.40
42	IX-008		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
42	IX-009	CO	0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
39	IX-010		0.005		1.00		0.40		0.005		1.00	CO	0.40		0.005		1.00	CO	0.40
39	IX-011		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
34	IX-012	CR	0.005		1.00	CR	0.40	CR	0.005		1.00	CR	0.40	CR	0.005		1.00	CR	0.40
33	IX-013		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
28	IX-014		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
56	IX-015		0.005		1.00		0.40		0.005		1.00	SE	0.40		0.005		1.00	SE	0.40
56	IX-016		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
57	IX-017		0.005		1.00	CR	0.40		0.005		1.00	CR	0.40		0.005		1.00	CR	0.40
58	IX-018		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
59	IX-019		0.005		1.00		0.40	SP	0.005		1.00		0.40		0.005		1.00		0.40
59	IX-020		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
63	IX-021		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
61	IX-022		0.005		1.00	CR	0.40		0.005		1.00	CR	0.40		0.005		1.00		0.40
72	IX-023		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
62	IX-024	SP	0.005		1.00		0.40	CO	0.005		1.00		0.40	CO	0.005		1.00		0.40
75	IX-025		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
75	IX-026		0.005		1.00		0.40	CO	0.005		1.00		0.40		0.005		1.00		0.40
74	IX-027		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
73	IX-028		0.005		1.00		0.40	CO	0.005		1.00		0.40		0.005		1.00		0.40
60	IX-029		0.005		1.00	CR	0.40		0.005		1.00		0.40		0.005		1.00		0.40
86	IX-030		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
45	IX-031		0.005		1.00		0.40	SC	0.005		1.00		0.40	SC	0.005		1.00		0.40
64	IX-032	CO	0.005	CO	1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
66	IX-033		0.005		1.00	CO	0.40		0.005		1.00	CO	0.40		0.005		1.00	CO	0.40
65	IX-034		0.005		1.00	CO	0.40		0.005		1.00	CR	0.40		0.005		1.00	CO	0.40
47	IX-035		0.005		1.00		0.40	CO	0.005		1.00		0.40		0.005		1.00		0.40
48	IX-036		0.005		1.00	CO	0.40		0.005		1.00	CO	0.40		0.005		1.00		0.40
49	IX-037	CO	0.005		1.00		0.40	CO	0.005		1.00		0.40		0.005		1.00		0.40
49	IX-038		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
50	IX-039	SC	0.005		1.00		0.40	SC	0.005		1.00		0.40		0.005		1.00		0.40
77	IX-040	CO	0.005		1.00	CO	0.40	CO	0.005		1.00	CO	0.40		0.005		1.00		0.40
77	IX-041		0.005		1.00		0.40		0.005		1.00	CO	0.40		0.005		1.00		0.40
53	IX-042		0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
52	IX-043		0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
54	IX-044		0.005		1.00	CO	0.40		0.005		1.00	CR	0.40		0.005		1.00	CR	0.40
32	IX-045		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
55	IX-046		0.005		1.00		0.40		0.005		1.00	CO	0.40		0.005		1.00		0.40
58	IX-047		0.005		1.00		0.40		0.005		1.00	SP	0.40		0.005		1.00		0.40
71	IX-048	SC	0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
71	IX-049		0.005		1.00	CR	0.40		0.005		1.00		0.40		0.005		1.00		0.40
7	IX-050	CO	0.005		1.00	CR	0.40	CR	0.005		1.00	CR	0.40		0.005		1.00		0.40
6	IX-051	CR	0.005	CO	1.00		0.40	CR	0.005	CR	1.00		0.40		0.005		1.00		0.40
83	IX-052	CR	0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
83	IX-053		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
33	IX-054		0.005		1.00		0.40	SP	0.005		1.00		0.40		0.005		1.00		0.40
33	IX-055	SP	0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
35	IX-056		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
25	IX-057		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
11	IX-058		0.005		1.00		0.40	CO	0.005		1.00	CO	0.40	CO	0.005		1.00	CO	0.40
10	IX-059		0.005		1.00		0.40	CO	0.005		1.00	CO	0.40		0.005		1.00		0.40
11	IX-060		0.005		1.00		0.40		0.005		1.00	CR	0.40		0.005		1.00	CR	0.40
10	IX-061		0.005		1.00		0.40		0.005		1.00	CR	0.40		0.005		1.00	CR	0.40
10	IX-062		0.005		1.00	CO	0.40		0.005		1.00	CR	0.40		0.005		1.00		0.40
22	IX-063		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
22	IX-064		0.005		1.00		0.40	SP	0.005		1.00		0.40	CO	0.005		1.00		0.40
24	IX-065		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
17	IX-066		0.005		1.00		0.40		0.005	DH	1.00		0.40	CO	0.005	CO	1.00	CO	0.40
5	IX-067		0.005		1.00	CR	0.40		0.005		1.00		0.40		0.005		1.00		0.40
5	IX-068		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
9	IX-069		0.005		1.00	CO	0.40		0.005		1.00	CR	0.40		0.005		1.00	CR	0.40
8	IX-070		0.005		1.00		0.40		0.005		1.00	CR	0.40		0.005		1.00		0.40
19	IX-071		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
20	IX-072	CO	0.005		1.00		0.40	SE	0.005		1.00		0.40		0.005		1.00		0.40
21	IX-073		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
1	IX-074		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00	CO	0.40
68	IX-075	CO	0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
68	IX-076		0.005		1.00	CO	0.40		0.005		1.00	CO	0.40		0.005		1.00		0.40
67	IX-077		0.005		1.00	CO	0.40		0.005		1.00	BR	0.40		0.005		1.00		0.40
31	IX-078		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
42	IX-079		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
23	IX-080	CR	0.005		1.00		0.40	CO	0.005		1.00		0.40	CO	0.005		1.00		0.40
26	IX-081	CO	0.005		1.00		0.40	CO	0.005		1.00		0.40	CO	0.005		1.00		0.40
27	IX-082	CO	0.005		1.00	CO	0.40	CO	0.005		1.00	CO	0.40		0.005		1.00		0.40
27	IX-083		0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
28	IX-084	CO	0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
66	IX-085		0.005		1.00	CO	0.40		0.005		1.00	CO	0.40		0.005		1.00		0.40
3	IX-086		0.005		1.00		0.40	CR	0.005		1.00		0.40	CR	0.005		1.00		0.40
29	IX-087		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
29	IX-088	CR	0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
30	IX-089		0.005		1.00		0.40		0.005		1.00	SE	0.40		0.005		1.00		0.40
37	IX-090	CO	0.005		1.00		0.40	CR	0.005		1.00		0.40		0.005		1.00		0.40
38	IX-091		0.005		1.00	CO	0.40		0.005		1.00	CO	0.40	CO	0.005		1.00		0.40
2	IX-092		0.005	CR	1.00	CR	0.40		0.005	CR	1.00	CR	0.40		0.005	CR	1.00	CR	0.40
2	IX-093		0.005		1.00	CR	0.40		0.005		1.00	CR	0.40		0.005		1.00		0.40
70	IX-094	SP	0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
35	IX-095		0.005	CO	1.00	CO	0.40		0.005	CO	1.00	CO	0.40	CO	0.005	CO	1.00		0.40
69	IX-096		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
69	IX-097		0.005		1.00		0.40	CO	0.005	CO	1.00		0.40		0.005		1.00		0.40
4	IX-098		0.005		1.00		0.40	SP	0.005		1.00		0.40		0.005		1.00		0.40
51	IX-099	CO	0.005		1.00		0.40	CO	0.005		1.00		0.40	CO	0.005		1.00		0.40
14	IX-100		0.005		1.00		0.40		0.005		1.00	CR	0.40		0.005		1.00		0.40
43	IX-101		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
44	IX-102		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	IX-103		0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	IX-104		0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	IX-105		0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	IX-106		0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	IX-107		0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	IX-108		0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	IX-109		0.005		1.00	CO	0.40		0.005		1.00	CO	0.40		0.005		1.00		0.40
26	IX-110		0.005		1.00	CO	0.40		0.005		1.00	CO	0.40		0.005		1.00		0.40

I-6-B Repair Costs of Region IX (7)

Damage Code and Damage Ratio of Substructure

Bridge Description		Damage Code of Substructure																	
Link No.	Bridge No.	P3						P4						P5					
		Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio	Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio	Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio
35	DC-001		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
35	DC-002		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
36	DC-003		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
40	DC-004		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
40	DC-005		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
40	DC-006		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
41	DC-007		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
42	DC-008		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
42	DC-009		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
39	DC-010		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
39	DC-011		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
34	DC-012	CR	0.005		1.00	CR	0.40	CR	0.005		1.00	CR	0.40		0.005		1.00		0.40
33	DC-013		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
78	DC-014		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
56	DC-015		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
56	DC-016		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
57	DC-017		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
58	DC-018		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
59	DC-019		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
59	DC-020		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
63	DC-021		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
61	DC-022		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
72	DC-023		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
62	DC-024		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
75	DC-025		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
75	DC-026		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
74	DC-027		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
73	DC-028		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
60	DC-029		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
45	DC-030		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
45	DC-031		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
64	DC-032	SC	0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
66	DC-033		0.005		1.00	CO	0.40		0.005		1.00	CR	0.40		0.005		1.00		0.40
65	DC-034		0.005		1.00	CR	0.40		0.005		1.00		0.40		0.005		1.00		0.40
47	DC-035		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
48	DC-036		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
49	DC-037		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
49	DC-038		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
50	DC-039		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
77	DC-040	CO	0.005		1.00	CO	0.40		0.005		1.00		0.40		0.005		1.00		0.40
77	DC-041		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
53	DC-042		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
52	DC-043		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
54	DC-044		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
32	DC-045		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
55	DC-046		0.005		1.00	SR	0.40		0.005		1.00		0.40		0.005		1.00		0.40
18	DC-047		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
71	DC-048		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
71	DC-049		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
7	DC-050		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
6	DC-051		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
13	DC-052		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
13	DC-053		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
13	DC-054		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
13	DC-055		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
15	DC-056		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
25	DC-057		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
11	DC-058		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
10	DC-059		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
11	DC-060		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
10	DC-061		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
10	DC-062		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
22	DC-063		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
22	DC-064		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
24	DC-065		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
17	DC-066		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
5	DC-067		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
5	DC-068		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
9	DC-069		0.005		1.00	CR	0.40		0.005		1.00	CR	0.40		0.005		1.00		0.40
8	DC-070		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
19	DC-071		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
20	DC-072		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
21	DC-073		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
1	DC-074	CO	0.005		1.00	CO	0.40	CO	0.005		1.00	CO	0.40		0.005		1.00		0.40
68	DC-075		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00		0.40
68	DC-076		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
67	DC-077		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
31	DC-078		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
12	DC-079		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
23	DC-080		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
26	DC-081		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
27	DC-082		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
27	DC-083		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
28	DC-084		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
66	DC-085		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
3	DC-086	CR	0.005		1.00		0.40		0.005		1.00		0.40	CR	0.005		1.00		0.40
29	DC-087		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
29	DC-088		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
30	DC-089		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
37	DC-090		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
38	DC-091		0.005		1.00	CO	0.40		0.005		1.00	CO	0.40		0.005		1.00		0.40
2	DC-092		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
2	DC-093		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
70	DC-094		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
16	DC-095		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
69	DC-096		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
69	DC-097		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
4	DC-098		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
51	DC-099	CO	0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
14	DC-100		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
43	DC-101		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
44	DC-102		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	DC-103		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	DC-104		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	DC-105		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	DC-106		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	DC-107		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	DC-108		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	DC-109		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	DC-110		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40

I-6-B Repair Costs of Region IX (8)

Bridge Link No.	Bridge No.	Damage Code of Substructure																					
		P5					P7					P8					A2						
		Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio	Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio	Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio	Concrete	D Ratio	Steel	D Ratio	Timber	D Ratio
35	IX-001		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
35	IX-002		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
36	IX-003		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
40	IX-004		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
40	IX-005		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
40	IX-006		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
41	IX-007		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
42	IX-008		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
42	IX-009		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00		0.40
39	IX-010		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
39	IX-011		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
34	IX-012		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
33	IX-013		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
78	IX-014		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
56	IX-015		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
56	IX-016		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
53	IX-017		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CR	0.005		1.00		0.40
58	IX-018		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
59	IX-019		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
59	IX-020		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
63	IX-021		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CR	0.005		1.00		0.40
61	IX-022		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CR	0.40
72	IX-023		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
62	IX-024		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
75	IX-025		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
75	IX-026		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
74	IX-027		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
73	IX-028		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00		0.40
60	IX-029		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CR	0.40
36	IX-030		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
45	IX-031		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
64	IX-032		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005	CO	1.00		0.40
66	IX-033		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
65	IX-034		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CR	0.40
47	IX-035		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
48	IX-036		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
49	IX-037		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00		0.40
49	IX-038		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
50	IX-039		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
77	IX-040		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00	CO	0.40
73	IX-041		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
53	IX-042		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
52	IX-043		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
54	IX-044		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
32	IX-045		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
55	IX-046		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
18	IX-047		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
71	IX-048		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
71	IX-049		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CR	0.40
7	IX-050		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CR	0.005		1.00	CR	0.40
6	IX-051		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
13	IX-052		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
13	IX-053		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
13	IX-054		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CR	0.005		1.00		0.40
13	IX-055		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005	CO	1.00		0.40
35	IX-056		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
25	IX-057		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
11	IX-058		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
10	IX-059		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
11	IX-060		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
10	IX-061		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
10	IX-062		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CR	0.40
22	IX-063		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
22	IX-064		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
24	IX-065		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
17	IX-066		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
5	IX-067		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CR	0.40
5	IX-068		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
9	IX-069		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
8	IX-070		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
19	IX-071		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
20	IX-072		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00		0.40
21	IX-073		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
1	IX-074		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
68	IX-075		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00		0.40
68	IX-076		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
67	IX-077		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
31	IX-078		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
12	IX-079		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
23	IX-080		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CR	0.005		1.00		0.40
26	IX-081		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00		0.40
27	IX-082		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00	CO	0.40
27	IX-083		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
28	IX-084		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00		0.40
66	IX-085		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
3	IX-086	CR	0.005		1.00		0.40	CR	0.005		1.00		0.40	CR	0.005		1.00		0.40	CR	0.005		1.00		0.40
29	IX-087		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
29	IX-088		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
30	IX-089		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
33	IX-090		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00		0.40
38	IX-091		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
2	IX-092		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005	CR	1.00	CR	0.40
2	IX-093		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CR	0.40
70	IX-094		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	SP	0.005		1.00		0.40
16	IX-095		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005	CO	1.00	CO	0.40
69	IX-096		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
69	IX-097		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
4	IX-098		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
51	IX-099		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40	CO	0.005		1.00		0.40
14	IX-100		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
43	IX-101		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
44	IX-102		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40
76	IX-103		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
76	IX-104		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
76	IX-105		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
76	IX-106		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
76	IX-107		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
76	IX-108		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
76	IX-109		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40
76	IX-110		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00		0.40		0.005		1.00	CO	0.40

I-6-B Repair Costs of Region IX (9)

Superstructure Unit Cost

Bridge Description		Unit Cost of Damage for Superstructure								
Link No.	Bridge No.	A1-P1			P1-P2			P2-P3		
		Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber
35	IX-001	0	0	25,800	0	0	25,800	0	0	25,800
35	IX-002	0	0	25,800	0	0	25,800	0	0	25,800
36	IX-003	0	0	25,800	0	0	0	0	0	0
40	IX-004	0	13,600	0	0	0	0	0	0	0
40	IX-005	0	0	25,800	0	0	25,800	0	0	0
40	IX-006	0	0	25,800	0	0	25,800	0	0	0
41	IX-007	0	0	25,800	0	0	25,800	0	0	0
42	IX-008	0	0	25,800	0	0	0	0	0	0
42	IX-009	0	0	25,800	0	0	0	0	0	0
39	IX-010	0	0	25,800	0	0	25,800	0	0	25,800
39	IX-011	0	0	25,800	0	0	0	0	0	0
34	IX-012	47,000	0	25,800	0	0	25,800	0	0	25,800
33	IX-013	0	0	0	0	0	0	0	0	0
78	IX-014	0	0	25,800	0	0	0	0	0	0
56	IX-015	0	0	25,800	0	0	25,800	0	0	0
56	IX-016	0	0	0	0	0	0	0	0	0
57	IX-017	0	0	25,800	0	0	25,800	0	0	25,800
58	IX-018	0	0	25,800	0	0	25,800	0	0	0
59	IX-019	0	0	25,800	0	0	25,800	0	0	0
59	IX-020	0	29,400	0	0	0	0	0	0	0
63	IX-021	0	13,600	0	0	0	0	0	0	0
61	IX-022	0	0	25,800	0	0	0	0	0	0
72	IX-023	0	13,600	0	0	0	0	0	0	0
62	IX-024	0	13,600	0	0	13,600	0	0	0	0
75	IX-025	0	0	25,800	0	0	0	0	0	0
75	IX-026	0	0	25,800	0	0	0	0	0	0
74	IX-027	0	0	25,800	0	0	0	0	0	0
73	IX-028	0	0	25,800	0	0	0	0	0	0
60	IX-029	0	29,400	0	0	0	0	0	0	0
46	IX-030	0	0	25,800	0	0	0	0	0	0
45	IX-031	0	0	25,800	0	0	25,800	0	0	0
64	IX-032	0	13,600	0	0	29,400	0	0	29,400	0
66	IX-033	0	0	25,800	0	0	25,800	0	0	0
65	IX-034	0	0	25,800	0	0	25,800	0	0	25,800
47	IX-035	0	13,600	0	0	29,400	0	0	0	0
48	IX-036	0	13,600	0	0	0	0	0	0	0
49	IX-037	0	0	25,800	0	0	0	0	0	0
49	IX-038	0	0	25,800	0	0	0	0	0	0
50	IX-039	0	0	25,800	0	0	0	0	0	0
77	IX-040	0	0	25,800	0	0	25,800	0	0	25,800
77	IX-041	0	0	25,800	0	0	0	0	0	0
53	IX-042	0	0	25,800	0	0	0	0	0	0
52	IX-043	0	0	25,800	0	0	0	0	0	0
54	IX-044	0	0	25,800	0	0	25,800	0	0	0
32	IX-045	0	0	0	0	0	0	0	0	0
55	IX-046	0	0	25,800	0	0	25,800	0	0	25,800
18	IX-047	0	0	25,800	0	0	25,800	0	0	0
71	IX-048	0	0	25,800	0	0	0	0	0	0
71	IX-049	0	13,600	0	0	0	0	0	0	0
7	IX-050	0	0	25,800	0	0	0	0	0	0
6	IX-051	0	0	25,800	0	0	0	0	0	0
13	IX-052	0	0	0	0	0	0	0	0	0
13	IX-053	0	0	25,800	0	0	25,800	0	0	0
13	IX-054	0	0	25,800	0	0	25,800	0	0	0
13	IX-055	0	0	25,800	0	0	25,800	0	0	0
15	IX-056	0	0	25,800	0	0	25,800	0	0	0
25	IX-057	0	0	0	0	0	0	0	0	0
11	IX-058	0	0	25,800	0	0	25,800	0	0	0
10	IX-059	0	0	25,800	0	0	0	0	0	0
11	IX-060	0	0	25,800	0	0	25,800	0	0	0
10	IX-061	0	0	25,800	0	0	25,800	0	0	25,800
10	IX-062	0	0	25,800	0	0	0	0	0	0
22	IX-063	0	0	25,800	0	0	25,800	0	0	0
22	IX-064	0	0	25,800	0	0	25,800	0	0	0
24	IX-065	0	0	25,800	0	0	0	0	0	0
17	IX-066	0	0	25,800	0	0	25,800	0	0	0
5	IX-067	0	0	25,800	0	0	0	0	0	0
5	IX-068	0	0	25,800	0	0	0	0	0	0
9	IX-069	0	0	25,800	0	0	25,800	0	0	25,800
8	IX-070	0	0	25,800	0	0	0	0	0	0
19	IX-071	0	0	25,800	0	0	0	0	0	0
20	IX-072	0	0	25,800	0	0	0	0	0	0
21	IX-073	0	0	0	0	0	0	0	0	0
1	IX-074	0	29,400	0	0	29,400	0	0	29,400	0
68	IX-075	0	0	25,800	0	0	0	0	0	0
68	IX-076	0	0	25,800	0	0	0	0	0	0
67	IX-077	0	0	25,800	0	0	0	0	0	0
31	IX-078	0	0	0	0	0	0	0	0	25,800
12	IX-079	0	0	25,800	0	0	25,800	0	0	25,800
23	IX-080	0	0	0	0	0	0	0	0	0
26	IX-081	0	0	25,800	0	0	25,800	0	0	0
27	IX-082	0	0	25,800	0	0	0	0	0	0
27	IX-083	0	0	25,800	0	0	0	0	0	0
28	IX-084	0	0	25,800	0	0	0	0	0	0
66	IX-085	0	0	25,800	0	0	0	0	0	0
3	IX-086	0	0	25,800	0	0	25,800	0	0	25,800
29	IX-087	0	0	25,800	0	0	25,800	0	0	25,800
29	IX-088	0	31,600	0	0	0	0	0	0	0
30	IX-089	0	0	25,800	0	0	25,800	0	0	0
37	IX-090	0	0	25,800	0	0	25,800	0	0	25,800
38	IX-091	0	0	25,800	0	0	25,800	0	0	25,800
2	IX-092	0	0	25,800	0	0	25,800	0	0	0
2	IX-093	0	0	25,800	0	0	0	0	0	0
70	IX-094	0	0	0	0	0	0	0	0	0
16	IX-095	0	0	25,800	0	0	25,800	0	0	0
69	IX-096	0	0	25,800	0	0	25,800	0	0	0
69	IX-097	0	0	0	0	0	0	0	0	0
4	IX-098	0	0	25,800	0	0	25,800	0	0	25,800
51	IX-099	0	0	25,800	0	0	25,800	0	0	0
14	IX-100	0	0	25,800	0	0	0	0	0	0
43	IX-101	0	0	0	0	0	0	0	0	0
44	IX-102	0	0	0	0	0	0	0	0	0
76	IX-103	0	0	25,800	0	0	0	0	0	0
76	IX-104	0	0	25,800	0	0	0	0	0	0
76	IX-105	0	0	25,800	0	0	0	0	0	0
76	IX-106	0	0	25,800	0	0	0	0	0	0
76	IX-107	0	0	25,800	0	0	0	0	0	0
76	IX-108	0	0	25,800	0	0	0	0	0	0
76	IX-109	0	0	25,800	0	0	0	0	0	0
76	IX-110	0	0	25,800	0	0	0	0	0	0

I-6-B Repair Costs of Region IX (10)

Superstructure Unit Cost

Bridge Description		Unit Cost of Damage for Superstructure								
Unit No	Bridge No	P3 P4			P4 P5			P5 P6		
		Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber
35	EX-001	0	0	0	0	0	0	0	0	0
35	EX-002	0	0	0	0	0	0	0	0	0
36	EX-003	0	0	0	0	0	0	0	0	0
40	EX-004	0	0	0	0	0	0	0	0	0
40	EX-005	0	0	0	0	0	0	0	0	0
40	EX-006	0	0	0	0	0	0	0	0	0
41	EX-007	0	0	0	0	0	0	0	0	0
42	EX-008	0	0	0	0	0	0	0	0	0
42	EX-009	0	0	0	0	0	0	0	0	0
39	EX-010	0	0	0	0	0	0	0	0	0
39	EX-011	0	0	0	0	0	0	0	0	0
34	EX-012	0	0	25,800	0	0	0	0	0	0
33	EX-013	0	0	0	0	0	0	0	0	0
78	EX-014	0	0	0	0	0	0	0	0	0
56	EX-015	0	0	0	0	0	0	0	0	0
56	EX-016	0	0	0	0	0	0	0	0	0
57	EX-017	0	0	0	0	0	0	0	0	0
58	EX-018	0	0	0	0	0	0	0	0	0
59	EX-019	0	0	25,800	0	0	0	0	0	0
59	EX-020	0	0	0	0	0	0	0	0	0
63	EX-021	0	0	0	0	0	0	0	0	0
61	EX-022	0	0	0	0	0	0	0	0	0
72	EX-023	0	0	0	0	0	0	0	0	0
62	EX-024	0	0	0	0	0	0	0	0	0
75	EX-025	0	0	0	0	0	0	0	0	0
75	EX-026	0	0	0	0	0	0	0	0	0
74	EX-027	0	0	0	0	0	0	0	0	0
73	EX-028	0	0	0	0	0	0	0	0	0
60	EX-029	0	0	0	0	0	0	0	0	0
46	EX-030	0	0	0	0	0	0	0	0	0
45	EX-031	0	0	0	0	0	0	0	0	0
64	EX-032	0	29,400	0	0	31,600	0	0	0	0
66	EX-033	0	0	0	0	0	0	0	0	0
65	EX-034	0	0	25,800	0	0	0	0	0	0
47	EX-035	0	0	0	0	0	0	0	0	0
48	EX-036	0	0	0	0	0	0	0	0	0
49	EX-037	0	0	0	0	0	0	0	0	0
49	EX-038	0	0	0	0	0	0	0	0	0
50	EX-039	0	0	0	0	0	0	0	0	0
77	EX-040	0	0	0	0	0	0	0	0	0
77	EX-041	0	0	0	0	0	0	0	0	0
53	EX-042	0	0	0	0	0	0	0	0	0
52	EX-043	0	0	0	0	0	0	0	0	0
54	EX-044	0	0	0	0	0	0	0	0	0
32	EX-045	0	0	0	0	0	0	0	0	0
55	EX-046	0	0	0	0	0	0	0	0	0
18	EX-047	0	0	0	0	0	0	0	0	0
71	EX-048	0	0	0	0	0	0	0	0	0
72	EX-049	0	0	0	0	0	0	0	0	0
7	EX-050	0	0	0	0	0	0	0	0	0
6	EX-051	0	0	0	0	0	0	0	0	0
13	EX-052	0	0	0	0	0	0	0	0	0
13	EX-053	0	0	0	0	0	0	0	0	0
13	EX-054	0	0	0	0	0	0	0	0	0
13	EX-055	0	0	0	0	0	0	0	0	0
15	EX-056	0	0	0	0	0	0	0	0	0
25	EX-057	0	0	0	0	0	0	0	0	0
11	EX-058	0	0	0	0	0	0	0	0	0
10	EX-059	0	0	0	0	0	0	0	0	0
11	EX-060	0	0	0	0	0	0	0	0	0
10	EX-061	0	0	25,800	0	0	0	0	0	0
10	EX-062	0	0	0	0	0	0	0	0	0
22	EX-063	0	0	0	0	0	0	0	0	0
22	EX-064	0	0	0	0	0	0	0	0	0
24	EX-065	0	0	0	0	0	0	0	0	0
17	EX-066	0	0	0	0	0	0	0	0	0
5	EX-067	0	0	0	0	0	0	0	0	0
5	EX-068	0	0	0	0	0	0	0	0	0
9	EX-069	0	0	25,800	0	0	0	0	0	0
8	EX-070	0	0	0	0	0	0	0	0	0
19	EX-071	0	0	0	0	0	0	0	0	0
20	EX-072	0	0	0	0	0	0	0	0	0
21	EX-073	0	0	0	0	0	0	0	0	0
1	EX-074	0	29,400	0	0	29,400	0	0	0	0
68	EX-075	0	0	0	0	0	0	0	0	0
69	EX-076	0	0	0	0	0	0	0	0	0
67	EX-077	0	0	0	0	0	0	0	0	0
31	EX-078	0	0	0	0	0	0	0	0	0
12	EX-079	0	0	0	0	0	0	0	0	0
23	EX-080	0	0	0	0	0	0	0	0	0
26	EX-081	0	0	0	0	0	0	0	0	0
27	EX-082	0	0	0	0	0	0	0	0	0
27	EX-083	0	0	0	0	0	0	0	0	0
28	EX-084	0	0	0	0	0	0	0	0	0
66	EX-085	0	0	0	0	0	0	0	0	0
3	EX-086	0	0	25,800	0	0	25,800	0	0	25,800
29	EX-087	0	0	0	0	0	0	0	0	0
29	EX-088	0	0	0	0	0	0	0	0	0
30	EX-089	0	0	0	0	0	0	0	0	0
37	EX-090	0	0	0	0	0	0	0	0	0
38	EX-091	0	0	0	0	0	0	0	0	0
2	EX-092	0	0	0	0	0	0	0	0	0
2	EX-093	0	0	0	0	0	0	0	0	0
70	EX-094	0	0	0	0	0	0	0	0	0
16	EX-095	0	0	0	0	0	0	0	0	0
69	EX-096	0	0	0	0	0	0	0	0	0
69	EX-097	0	0	0	0	0	0	0	0	0
4	EX-098	0	0	25,800	0	0	25,800	0	0	25,800
58	EX-099	0	0	0	0	0	0	0	0	0
14	EX-100	0	0	0	0	0	0	0	0	0
43	EX-101	0	0	0	0	0	0	0	0	0
45	EX-102	0	0	0	0	0	0	0	0	0
76	EX-103	0	0	0	0	0	0	0	0	0
76	EX-104	0	0	0	0	0	0	0	0	0
76	EX-105	0	0	0	0	0	0	0	0	0
76	EX-106	0	0	0	0	0	0	0	0	0
76	EX-107	0	0	0	0	0	0	0	0	0
76	EX-108	0	0	0	0	0	0	0	0	0
76	EX-109	0	0	0	0	0	0	0	0	0
76	EX-110	0	0	0	0	0	0	0	0	0

I-6-B Repair Costs of Region IX (11)

Superstructure Unit Cost

Bridge Description		Unit Cost of Damage for Superstructure								
Unit No.	Bridge No.	P6-P7			P7-P8			P8-A2		
		Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber
35	IX-001	0	0	0	0	0	0	0	0	0
35	IX-002	0	0	0	0	0	0	0	0	0
36	IX-003	0	0	0	0	0	0	0	0	0
40	IX-004	0	0	0	0	0	0	0	0	0
40	IX-005	0	0	0	0	0	0	0	0	0
40	IX-006	0	0	0	0	0	0	0	0	0
41	IX-007	0	0	0	0	0	0	0	0	0
42	IX-008	0	0	0	0	0	0	0	0	0
42	IX-009	0	0	0	0	0	0	0	0	0
39	IX-010	0	0	0	0	0	0	0	0	0
39	IX-011	0	0	0	0	0	0	0	0	0
34	IX-012	0	0	0	0	0	0	0	0	25,800
33	IX-013	0	0	0	0	0	0	0	0	25,800
78	IX-014	0	0	0	0	0	0	0	0	25,800
56	IX-015	0	0	0	0	0	0	0	0	25,800
56	IX-016	0	0	0	0	0	0	0	0	0
57	IX-017	0	0	0	0	0	0	0	0	25,800
58	IX-018	0	0	0	0	0	0	0	0	25,800
59	IX-019	0	0	0	0	0	0	0	0	25,800
59	IX-020	0	0	0	0	0	0	0	31,600	0
63	IX-021	0	0	0	0	0	0	0	33,600	0
61	IX-022	0	0	0	0	0	0	0	0	25,800
72	IX-023	0	0	0	0	0	0	0	0	0
62	IX-024	0	0	0	0	0	0	0	33,600	0
75	IX-025	0	0	0	0	0	0	0	0	0
75	IX-026	0	0	0	0	0	0	0	0	25,800
74	IX-027	0	0	0	0	0	0	0	0	0
73	IX-028	0	0	0	0	0	0	0	0	25,800
60	IX-029	0	0	0	0	0	0	0	0	0
46	IX-030	0	0	0	0	0	0	0	0	0
45	IX-031	0	0	0	0	0	0	0	0	0
64	IX-032	0	0	0	0	0	0	0	31,600	25,800
66	IX-033	0	0	0	0	0	0	0	0	25,800
65	IX-034	0	0	0	0	0	0	0	0	25,800
47	IX-035	0	0	0	0	0	0	0	0	0
48	IX-036	0	0	0	0	0	0	0	33,600	0
49	IX-037	0	0	0	0	0	0	0	0	25,800
49	IX-038	0	0	0	0	0	0	0	0	25,800
50	IX-039	0	0	0	0	0	0	0	0	25,800
77	IX-040	0	0	0	0	0	0	0	0	0
77	IX-041	0	0	0	0	0	0	0	0	25,800
53	IX-042	0	0	0	0	0	0	0	0	0
52	IX-043	0	0	0	0	0	0	0	0	0
54	IX-044	0	0	0	0	0	0	0	0	25,800
32	IX-045	0	0	0	0	0	0	0	0	0
55	IX-046	0	0	0	0	0	0	0	0	25,800
18	IX-047	0	0	0	0	0	0	0	0	0
71	IX-048	0	0	0	0	0	0	0	0	0
71	IX-049	0	0	0	0	0	0	0	0	0
7	IX-050	0	0	0	0	0	0	0	0	25,800
6	IX-051	0	0	0	0	0	0	0	0	25,800
13	IX-052	0	0	0	0	0	0	0	0	0
13	IX-053	0	0	0	0	0	0	0	0	25,800
13	IX-054	0	0	0	0	0	0	0	0	0
13	IX-055	0	0	0	0	0	0	0	0	0
15	IX-056	0	0	0	0	0	0	0	0	0
25	IX-057	0	0	0	0	0	0	0	0	0
11	IX-058	0	0	0	0	0	0	0	0	25,800
10	IX-059	0	0	0	0	0	0	0	0	25,800
11	IX-060	0	0	0	0	0	0	0	0	25,800
10	IX-061	0	0	0	0	0	0	0	0	0
10	IX-062	0	0	0	0	0	0	0	0	25,800
22	IX-063	0	0	0	0	0	0	0	0	25,800
22	IX-064	0	0	0	0	0	0	0	0	25,800
24	IX-065	0	0	0	0	0	0	0	0	0
17	IX-066	0	0	0	0	0	0	0	0	25,800
5	IX-067	0	0	0	0	0	0	0	0	0
5	IX-068	0	0	0	0	0	0	0	0	0
9	IX-069	0	0	0	0	0	0	0	0	25,800
8	IX-070	0	0	0	0	0	0	0	0	25,800
19	IX-071	0	0	0	0	0	0	0	0	25,800
20	IX-072	0	0	0	0	0	0	0	0	0
21	IX-073	0	0	0	0	0	0	0	0	0
1	IX-074	0	0	0	0	0	0	0	13,600	0
68	IX-075	0	0	0	0	0	0	0	0	0
68	IX-076	0	0	0	0	0	0	0	0	25,800
67	IX-077	0	0	0	0	0	0	0	0	25,800
31	IX-078	0	0	0	0	0	0	0	0	0
12	IX-079	0	0	0	0	0	0	0	0	25,800
23	IX-080	0	0	0	0	0	0	0	0	0
26	IX-081	0	0	0	0	0	0	0	0	25,800
27	IX-082	0	0	0	0	0	0	0	0	25,800
27	IX-083	0	0	0	0	0	0	0	0	0
28	IX-084	0	0	0	0	0	0	0	0	0
66	IX-085	0	0	0	0	0	0	0	0	25,800
3	IX-086	0	0	25,800	0	0	25,800	0	0	25,800
29	IX-087	0	0	0	0	0	0	0	0	25,800
29	IX-088	0	0	0	0	0	0	0	0	0
30	IX-089	0	0	0	0	0	0	0	0	25,800
33	IX-090	0	0	0	0	0	0	0	0	25,800
38	IX-091	0	0	0	0	0	0	0	0	25,800
2	IX-092	0	0	0	0	0	0	0	0	25,800
2	IX-093	0	0	0	0	0	0	0	0	25,800
70	IX-094	0	0	0	0	0	0	0	0	0
35	IX-095	0	0	0	0	0	0	0	0	25,800
69	IX-096	0	0	0	0	0	0	0	0	25,800
69	IX-097	0	0	0	0	0	0	0	0	0
4	IX-098	0	0	25,800	0	0	0	0	0	25,800
51	IX-099	0	0	0	0	0	0	0	0	25,800
14	IX-100	0	0	0	0	0	0	0	0	25,800
43	IX-101	0	0	0	0	0	0	0	0	0
44	IX-102	0	0	0	0	0	0	0	0	0
76	IX-103	0	0	0	0	0	0	0	0	0
76	IX-104	0	0	0	0	0	0	0	0	0
76	IX-105	0	0	0	0	0	0	0	0	0
76	IX-106	0	0	0	0	0	0	0	0	0
76	IX-107	0	0	0	0	0	0	0	0	0
76	IX-108	0	0	0	0	0	0	0	0	0
76	IX-109	0	0	0	0	0	0	0	0	25,800
76	IX-110	0	0	0	0	0	0	0	0	25,800

I-6-B Repair Costs of Region IX (12)

Substructure Unit Cost

Bridge Description		Unit Cost of Damage for Substructure											
Link No.	Bridge No.	A1			P1			P2			P3		
		Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber
35	IX-001	0	0	0	0	0	0	0	0	0	0	0	0
35	IX-002	0	0	0	6,500	0	0	6,500	0	0	0	0	0
36	IX-003	0	0	18,000	0	0	0	0	0	0	0	0	0
40	IX-004	0	0	0	0	0	0	0	0	0	0	0	0
40	IX-005	0	0	0	0	0	18,000	0	0	0	0	0	0
40	IX-006	0	0	0	0	0	0	0	0	0	0	0	0
41	IX-007	0	0	0	0	0	18,000	0	0	0	0	0	0
42	IX-008	0	0	0	0	0	0	0	0	0	0	0	0
42	IX-009	9,300	0	0	0	0	0	0	0	0	0	0	0
39	IX-010	0	0	0	0	0	18,000	0	0	18,000	0	0	0
39	IX-011	0	0	0	0	0	0	0	0	0	0	0	0
34	IX-012	25,300	0	18,000	25,300	0	18,000	25,300	0	18,000	25,300	0	18,000
33	IX-013	0	0	0	0	0	0	0	0	0	0	0	0
78	IX-014	0	0	0	0	0	0	0	0	0	0	0	0
56	IX-015	0	0	0	0	0	FALSE	0	0	FALSE	0	0	0
56	IX-016	0	0	0	0	0	0	0	0	0	0	0	0
57	IX-017	0	0	18,000	0	0	18,000	0	0	18,000	0	0	0
58	IX-018	0	0	0	0	0	0	0	0	0	0	0	0
59	IX-019	0	0	0	6,500	0	0	0	0	0	0	0	0
59	IX-020	0	0	0	0	0	0	0	0	0	0	0	0
63	IX-021	0	0	0	0	0	0	0	0	0	0	0	0
61	IX-022	0	0	18,000	0	0	18,000	0	0	0	0	0	0
72	IX-023	0	0	0	0	0	0	0	0	0	0	0	0
62	IX-024	6,500	0	0	9,300	0	0	9,300	0	0	0	0	0
75	IX-025	0	0	0	0	0	0	0	0	0	0	0	0
75	IX-026	0	0	0	9,300	0	0	0	0	0	0	0	0
74	IX-027	0	0	0	0	0	0	0	0	0	0	0	0
73	IX-028	0	0	0	9,300	0	0	0	0	0	0	0	0
60	IX-029	0	0	18,000	0	0	0	0	0	0	0	0	0
46	IX-030	0	0	0	0	0	0	0	0	0	0	0	0
45	IX-031	0	0	0	8,800	0	0	8,800	0	0	0	0	0
64	IX-032	9,300	12,400	0	0	0	0	0	0	0	8,800	0	0
66	IX-033	0	0	18,000	0	0	18,000	0	0	18,000	0	0	18,000
65	IX-034	0	0	18,000	0	0	18,000	0	0	18,000	0	0	18,000
47	IX-035	0	0	0	9,300	0	0	0	0	0	0	0	0
48	IX-036	0	0	18,000	0	0	18,000	0	0	0	0	0	0
49	IX-037	9,300	0	0	9,300	0	0	0	0	0	0	0	0
49	IX-038	0	0	0	0	0	0	0	0	0	0	0	0
50	IX-039	8,800	0	0	8,800	0	0	0	0	0	0	0	0
77	IX-040	9,300	0	18,000	9,300	0	18,000	0	0	0	9,300	0	18,000
77	IX-041	0	0	0	0	0	18,000	0	0	0	0	0	0
53	IX-042	0	0	18,000	0	0	0	0	0	0	0	0	0
53	IX-043	0	0	18,000	0	0	0	0	0	0	0	0	0
54	IX-044	0	0	18,000	0	0	18,000	0	0	18,000	0	0	0
52	IX-045	0	0	0	0	0	0	0	0	0	0	0	0
55	IX-046	0	0	0	0	0	18,000	0	0	0	0	0	18,000
18	IX-047	0	0	0	0	0	FALSE	0	0	0	0	0	0
71	IX-048	8,800	0	0	0	0	0	0	0	0	0	0	0
71	IX-049	0	0	18,000	0	0	0	0	0	0	0	0	0
7	IX-050	9,300	0	18,000	25,300	0	18,000	0	0	0	0	0	0
6	IX-051	25,300	12,400	0	25,300	24,500	0	0	0	0	0	0	0
13	IX-052	25,300	0	0	0	0	0	0	0	0	0	0	0
13	IX-053	0	0	0	0	0	0	0	0	0	0	0	0
13	IX-054	0	0	0	6,500	0	0	0	0	0	0	0	0
13	IX-055	6,500	0	0	0	0	0	0	0	0	0	0	0
15	IX-056	0	0	0	0	0	0	0	0	0	0	0	0
25	IX-057	0	0	0	0	0	0	0	0	0	0	0	0
11	IX-058	0	0	0	9,300	0	18,000	9,300	0	18,000	0	0	0
10	IX-059	0	0	0	9,300	0	18,000	0	0	0	0	0	0
10	IX-060	0	0	0	0	0	18,000	0	0	18,000	0	0	0
10	IX-061	0	0	0	0	0	18,000	0	0	18,000	0	0	0
10	IX-062	0	0	18,000	0	0	18,000	0	0	0	0	0	0
22	IX-063	0	0	0	0	0	0	0	0	0	0	0	0
22	IX-064	0	0	0	6,500	0	0	9,300	0	0	0	0	0
24	IX-065	0	0	0	0	0	0	0	0	0	0	0	0
17	IX-066	0	0	0	0	473,000	0	9,300	12,400	18,000	0	0	0
5	IX-067	0	0	18,000	0	0	0	0	0	0	0	0	0
5	IX-068	0	0	0	0	0	0	0	0	0	0	0	0
9	IX-069	0	0	18,000	0	0	18,000	0	0	18,000	0	0	18,000
8	IX-070	0	0	0	0	0	18,000	0	0	0	0	0	0
19	IX-071	0	0	0	0	0	0	0	0	0	0	0	0
20	IX-072	9,300	0	0	6,500	0	0	0	0	0	0	0	0
21	IX-073	0	0	0	0	0	0	0	0	0	0	0	0
1	IX-074	0	0	0	0	0	0	9,300	0	18,000	9,300	0	18,000
68	IX-075	9,300	0	0	0	0	0	0	0	0	0	0	0
68	IX-076	0	0	18,000	0	0	18,000	0	0	0	0	0	0
67	IX-077	0	0	18,000	0	0	18,000	0	0	0	0	0	0
31	IX-078	0	0	0	0	0	0	0	0	0	0	0	0
12	IX-079	0	0	0	0	0	0	0	0	0	0	0	0
23	IX-080	25,300	0	0	9,300	0	0	9,300	0	0	0	0	0
26	IX-081	9,300	0	0	9,300	0	0	9,300	0	0	0	0	0
27	IX-082	9,300	0	18,000	9,300	0	18,000	0	0	0	0	0	0
27	IX-083	0	0	18,000	0	0	0	0	0	0	0	0	0
28	IX-084	9,300	0	0	0	0	0	0	0	0	0	0	0
66	IX-085	0	0	18,000	0	0	18,000	0	0	0	0	0	0
3	IX-086	0	0	0	25,300	0	0	25,300	0	0	25,300	0	0
29	IX-087	0	0	0	0	0	0	0	0	0	0	0	0
29	IX-088	25,300	0	0	0	0	0	0	0	0	0	0	0
30	IX-089	0	0	0	0	0	FALSE	0	0	0	0	0	0
32	IX-090	9,300	0	0	25,300	0	0	0	0	0	0	0	0
38	IX-091	0	0	18,000	0	0	18,000	9,300	0	0	0	0	18,000
2	IX-092	0	24,500	18,000	0	24,500	18,000	0	24,500	18,000	0	0	0
2	IX-093	0	0	18,000	0	0	18,000	0	0	0	0	0	0
70	IX-094	6,500	0	0	0	0	0	0	0	0	0	0	0
16	IX-095	0	12,400	18,000	0	12,400	18,000	9,300	12,400	0	0	0	0
69	IX-096	0	0	0	0	0	0	0	0	0	0	0	0
69	IX-097	0	0	0	9,300	12,400	0	0	0	0	0	0	0
4	IX-098	0	0	0	6,500	0	0	0	0	0	0	0	0
51	IX-099	9,300	0	0	9,300	0	0	9,300	0	0	9,300	0	0
14	IX-100	0	0	0	0	0	18,000	0	0	0	0	0	0
43	IX-101	0	0	0	0	0	0	0	0	0	0	0	0
44	IX-102	0	0	0	0	0	0	0	0	0	0	0	0
76	IX-103	0	0	18,000	0	0	0	0	0	0	0	0	0
76	IX-104	0	0	18,000	0	0	0	0	0	0	0	0	0
76	IX-105	0	0	18,000	0	0	0	0	0	0	0	0	0
76	IX-106	0	0	18,000	0	0	0	0	0	0	0	0	0
76	IX-107	0	0	18,000	0	0	0	0	0	0	0	0	0
76	IX-108	0	0	18,000	0	0	0	0	0	0	0	0	0
76	IX-109	0	0	18,000	0	0	18,000	0	0	0	0	0	0
76	IX-110	0	0	18,000	0	0	18,000	0	0	0	0	0	0

I-6-B Repair Costs of Region IX (13)

Substructure Unit Cost

Bridge Link No.	Bridge No.	Unit Cost of Damage for Substructure P4 Concrete	P4 Steel	P4 Timber	P5 Concrete	P5 Steel	P5 Timber	P6 Concrete	P6 Steel	P6 Timber	P7 Concrete	P7 Steel	P7 Timber	P8 Concrete	P8 Steel	P8 Timber	A2 Concrete	A2 Steel	A2 Timber
35	IX-001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	IX-002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	IX-003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	IX-004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	IX-005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
40	IX-006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
41	IX-007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	IX-008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
42	IX-009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	IX-010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	0
39	IX-011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	IX-012	25,300	0	18,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	IX-013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	IX-014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	IX-015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	IX-016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	IX-017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	IX-018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,300	0	0
59	IX-019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	IX-020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63	IX-021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,300	0	0
61	IX-022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
72	IX-023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	IX-024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75	IX-025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75	IX-026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74	IX-027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	IX-028	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	0
60	IX-029	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
46	IX-030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	IX-031	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	IX-032	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66	IX-033	0	0	18,000	0	0	0	0	0	0	0	0	0	0	0	0	9,300	12,400	0
65	IX-034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
47	IX-035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
48	IX-036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	IX-037	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
49	IX-038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	0
50	IX-039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	IX-040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	IX-041	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	18,000
53	IX-042	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	IX-043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
54	IX-044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	IX-045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	IX-046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	IX-047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	IX-048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	IX-049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	IX-050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
6	IX-051	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,300	0	18,000
13	IX-052	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	IX-053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	IX-054	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	IX-055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,300	0	0
15	IX-056	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12,400	0
25	IX-057	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	IX-058	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	IX-059	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	IX-060	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	IX-061	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	IX-062	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
22	IX-063	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	IX-064	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	IX-065	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	IX-066	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	IX-067	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
5	IX-068	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	IX-069	0	0	18,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
8	IX-070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	IX-071	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	IX-072	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	IX-073	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	0
1	IX-074	9,300	0	18,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	IX-075	0	0	0	9,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	IX-076	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	0
67	IX-077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
31	IX-078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13,000
12	IX-079	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	IX-080	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	IX-081	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25,300	0	0
27	IX-082	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	0
27	IX-083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	18,000
28	IX-084	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
66	IX-085	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	0
3	IX-086	0	0	0	25,300	0	0	25,300	0	0	25,300	0	0	25,300	0	0	25,300	0	0
29	IX-087	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	IX-088	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	IX-089	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	IX-090	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	0
38	IX-091	0	0	18,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
2	IX-092	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12,400	18,000
2	IX-093	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
70	IX-094	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,500	0	0
16	IX-095	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12,400	18,000
69	IX-096	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	IX-097	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	IX-098	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	IX-099	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,300	0	0
14	IX-100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	IX-101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	IX-102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	IX-103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
76	IX-104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
76	IX-105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
76	IX-106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
76	IX-107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
76	IX-108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
76	IX-109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000
76	IX-110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,000

I-6-B Repair Costs of Region IX (14)

Superstructure Cost

Bridge Description		Damage Cost of Superstructure											
Brdg No.	Bridge No.	A1-P1			P1-P2			P2-P3			P3-P4		
		Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber
35	IX-001	0	0	242,624	0	0	330,240	0	0	350,880	0	0	0
35	IX-002	0	0	308,362	0	0	856,560	0	0	312,644	0	0	0
36	IX-003	0	0	378,520	0	0	0	0	0	0	0	0	0
40	IX-004	0	1,316,480	0	0	0	0	0	0	0	0	0	0
40	IX-005	0	0	324,564	0	0	305,472	0	0	0	0	0	0
40	IX-006	0	0	132,292	0	0	407,640	0	0	0	0	0	0
41	IX-007	0	0	274,770	0	0	479,880	0	0	0	0	0	0
42	IX-008	0	0	381,840	0	0	0	0	0	0	0	0	0
42	IX-009	0	0	480,561	0	0	0	0	0	0	0	0	0
39	IX-010	0	0	311,148	0	0	422,604	0	0	278,640	0	0	0
39	IX-011	0	0	388,692	0	0	0	0	0	0	0	0	0
34	IX-012	238,558	0	220,281	0	0	280,291	0	0	440,456	0	0	265,276
33	IX-013	0	0	0	0	0	0	0	0	0	0	0	0
28	IX-014	0	0	727,607	0	0	0	0	0	0	0	0	0
56	IX-015	0	0	315,792	0	0	329,724	0	0	0	0	0	0
56	IX-016	0	0	0	0	0	0	0	0	0	0	0	0
57	IX-017	0	0	332,826	0	0	329,382	0	0	346,833	0	0	0
58	IX-018	0	0	405,424	0	0	795,827	0	0	0	0	0	0
59	IX-019	0	0	425,442	0	0	405,424	0	0	0	0	0	425,442
59	IX-020	0	1,666,959	0	0	0	0	0	0	0	0	0	0
63	IX-021	0	1,232,232	0	0	0	0	0	0	0	0	0	0
61	IX-022	0	0	351,293	0	0	0	0	0	0	0	0	0
72	IX-023	0	1,350,560	0	0	0	0	0	0	0	0	0	0
62	IX-024	0	1,290,844	0	0	629,680	0	0	0	0	0	0	0
75	IX-025	0	0	440,870	0	0	0	0	0	0	0	0	0
75	IX-026	0	0	474,720	0	0	0	0	0	0	0	0	0
74	IX-027	0	0	1,046,448	0	0	0	0	0	0	0	0	0
73	IX-028	0	0	402,583	0	0	0	0	0	0	0	0	0
60	IX-029	0	10,413,421	0	0	0	0	0	0	0	0	0	0
46	IX-030	0	0	451,397	0	0	0	0	0	0	0	0	0
45	IX-031	0	0	310,632	0	0	386,071	0	0	0	0	0	0
64	IX-032	0	1,635,000	0	0	3,491,250	0	0	3,491,250	0	0	3,491,250	0
66	IX-033	0	0	372,346	0	0	385,039	0	0	0	0	0	0
65	IX-034	0	0	502,295	0	0	569,912	0	0	579,571	0	0	579,571
47	IX-035	0	393,963	0	0	908,757	0	0	0	0	0	0	0
48	IX-036	0	458,266	0	0	0	0	0	0	0	0	0	0
49	IX-037	0	0	395,590	0	0	0	0	0	0	0	0	0
49	IX-038	0	0	222,499	0	0	0	0	0	0	0	0	0
50	IX-039	0	0	358,723	0	0	0	0	0	0	0	0	0
77	IX-040	0	0	412,800	0	0	412,800	0	0	387,000	0	0	0
77	IX-041	0	0	439,219	0	0	0	0	0	0	0	0	0
53	IX-042	0	0	407,434	0	0	0	0	0	0	0	0	0
52	IX-043	0	0	380,344	0	0	0	0	0	0	0	0	0
54	IX-044	0	0	353,584	0	0	415,700	0	0	0	0	0	0
52	IX-045	0	0	0	0	0	0	0	0	0	0	0	0
55	IX-046	0	0	445,824	0	0	445,824	0	0	450,778	0	0	0
13	IX-047	0	0	232,716	0	0	224,254	0	0	0	0	0	0
71	IX-048	0	0	392,160	0	0	0	0	0	0	0	0	0
71	IX-049	0	446,080	0	0	0	0	0	0	0	0	0	0
7	IX-050	0	0	423,946	0	0	0	0	0	0	0	0	0
6	IX-051	0	0	300,435	0	0	0	0	0	0	0	0	0
13	IX-052	0	0	0	0	0	0	0	0	0	0	0	0
13	IX-053	0	0	452,738	0	0	401,964	0	0	0	0	0	0
13	IX-054	0	0	418,554	0	0	394,430	0	0	0	0	0	0
13	IX-055	0	0	199,795	0	0	177,091	0	0	0	0	0	0
35	IX-056	0	0	296,184	0	0	351,190	0	0	0	0	0	0
25	IX-057	0	0	0	0	0	0	0	0	0	0	0	0
11	IX-058	0	0	519,199	0	0	394,546	0	0	0	0	0	0
10	IX-059	0	0	204,336	0	0	0	0	0	0	0	0	0
11	IX-060	0	0	545,974	0	0	265,843	0	0	0	0	0	0
10	IX-061	0	0	133,128	0	0	332,820	0	0	319,507	0	0	119,815
10	IX-062	0	0	304,646	0	0	0	0	0	0	0	0	0
22	IX-063	0	0	206,400	0	0	222,912	0	0	0	0	0	0
22	IX-064	0	0	516,206	0	0	440,045	0	0	0	0	0	0
24	IX-065	0	0	470,592	0	0	0	0	0	0	0	0	0
17	IX-066	0	0	630,449	0	0	588,137	0	0	0	0	0	0
5	IX-067	0	0	343,728	0	0	0	0	0	0	0	0	0
5	IX-068	0	0	699,283	0	0	0	0	0	0	0	0	0
9	IX-069	0	0	385,968	0	0	372,346	0	0	449,539	0	0	354,182
8	IX-070	0	0	816,719	0	0	0	0	0	0	0	0	0
19	IX-071	0	0	308,774	0	0	0	0	0	0	0	0	0
29	IX-072	0	0	289,085	0	0	0	0	0	0	0	0	0
21	IX-073	0	0	0	0	0	0	0	0	0	0	0	0
1	IX-074	0	1,815,550	0	0	1,594,950	0	0	1,594,950	0	0	1,594,950	0
68	IX-075	0	0	376,680	0	0	0	0	0	0	0	0	0
68	IX-076	0	0	354,230	0	0	0	0	0	0	0	0	0
67	IX-077	0	0	451,479	0	0	0	0	0	0	0	0	0
31	IX-078	0	0	0	0	0	0	0	0	378,520	0	0	0
12	IX-079	0	0	370,385	0	0	370,385	0	0	290,198	0	0	0
23	IX-080	0	0	0	0	0	0	0	0	0	0	0	0
26	IX-081	0	0	223,556	0	0	213,108	0	0	0	0	0	0
27	IX-082	0	0	171,828	0	0	0	0	0	0	0	0	0
22	IX-083	0	0	495,050	0	0	0	0	0	0	0	0	0
28	IX-084	0	0	516,000	0	0	0	0	0	0	0	0	0
66	IX-085	0	0	762,854	0	0	0	0	0	0	0	0	0
3	IX-086	0	0	4,272,480	0	0	0	0	0	0	0	0	0
29	IX-087	0	0	376,958	0	0	413,754	0	0	426,835	0	0	0
29	IX-088	0	2,092,552	0	0	0	0	0	0	0	0	0	0
30	IX-089	0	0	458,656	0	0	433,440	0	0	0	0	0	0
37	IX-090	0	0	422,053	0	0	826,632	0	0	406,131	0	0	0
38	IX-091	0	0	225,059	0	0	155,213	0	0	197,896	0	0	0
2	IX-092	0	0	329,724	0	0	464,400	0	0	0	0	0	0
2	IX-093	0	0	368,630	0	0	0	0	0	0	0	0	0
70	IX-094	0	0	0	0	0	0	0	0	0	0	0	0
16	IX-095	0	0	238,598	0	0	213,546	0	0	0	0	0	0
69	IX-096	0	0	367,258	0	0	383,182	0	0	0	0	0	0
69	IX-097	0	0	0	0	0	0	0	0	0	0	0	0
4	IX-098	0	0	330,240	0	0	330,240	0	0	330,240	0	0	330,240
51	IX-099	0	0	284,243	0	0	259,651	0	0	0	0	0	0
14	IX-100	0	0	255,936	0	0	0	0	0	0	0	0	0
43	IX-101	0	0	0	0	0	0	0	0	0	0	0	0
44	IX-102	0	0	0	0	0	0	0	0	0	0	0	0
76	IX-103	0	0	315,689	0	0	0	0	0	0	0	0	0
76	IX-104	0	0	455,937	0	0	0	0	0	0	0	0	0
76	IX-105	0	0	395,472	0	0	0	0	0	0	0	0	0
76	IX-106	0	0	426,815	0	0	0	0	0	0	0	0	0
76	IX-107	0	0	340,560	0	0	0	0	0	0	0	0	0
76	IX-108	0	0	399,539	0	0	0	0	0	0	0	0	0
76	IX-109	0	0	329,223	0	0	0	0	0	0	0	0	0
76	IX-110	0	0	273,841	0	0	0	0	0	0	0	0	0

I-6-B Repair Costs of Region IX (15)

Superstructure Cost

Bridge Description		Damage Cost of Superstructure																Sub Total
Link No.	Bridge No.	P5-P5			P5-P6			P6-P7			P7-P8			P8-A3				of Superstructure
		Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber		
35	IX-001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,023,779
35	IX-002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,477,601
36	IX-003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		371,556
40	IX-004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,316,520
40	IX-005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		630,076
40	IX-006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		529,972
41	IX-007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		754,695
42	IX-008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		381,882
42	IX-009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		480,603
39	IX-010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,012,431
39	IX-011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		388,731
34	IX-012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,993,897
33	IX-013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		33
78	IX-014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		772,685
56	IX-015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		645,572
56	IX-016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		56
57	IX-017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,007,392
58	IX-018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,203,306
59	IX-019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,256,364
59	IX-020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,057,048
63	IX-021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,232,295
61	IX-022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		351,354
72	IX-023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,150,432
62	IX-024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,920,586
75	IX-025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		440,945
75	IX-026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		474,795
74	IX-027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,046,522
73	IX-028	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		402,456
60	IX-029	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		10,413,481
66	IX-030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		451,643
45	IX-031	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		696,749
64	IX-032	0	5,253,500	0	0	0	0	0	0	0	0	0	0	0	0	0		13,342,518
66	IX-033	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		737,451
65	IX-034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2,231,414
47	IX-035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,295,769
48	IX-036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		458,314
49	IX-037	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		399,039
49	IX-038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		222,548
50	IX-039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		358,773
77	IX-040	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,212,677
77	IX-041	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		439,296
53	IX-042	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		403,487
53	IX-043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		380,390
54	IX-044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		769,338
32	IX-045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		32
55	IX-046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,342,481
18	IX-047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		456,988
71	IX-048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		392,231
71	IX-049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		446,151
7	IX-050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		423,953
6	IX-051	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		300,421
13	IX-052	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		13
13	IX-053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		854,265
13	IX-054	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		808,098
13	IX-055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		376,899
15	IX-056	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		643,389
25	IX-057	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		25
11	IX-058	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		914,157
10	IX-059	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		264,346
11	IX-060	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		818,782
10	IX-061	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		905,280
10	IX-062	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		304,856
22	IX-063	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		429,334
22	IX-064	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		956,273
24	IX-065	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		470,616
17	IX-066	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,218,603
5	IX-067	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		313,333
5	IX-068	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		699,288
9	IX-069	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,562,044
8	IX-070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		415,727
19	IX-071	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		308,793
20	IX-072	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		280,105
21	IX-073	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		21
1	IX-074	0	1,594,550	0	0	0	0	0	0	0	0	0	0	0	0	0		7,995,331
68	IX-075	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		376,748
69	IX-076	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		394,508
67	IX-077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		431,546
31	IX-078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		378,551
12	IX-079	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,030,580
23	IX-080	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		23
26	IX-081	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		440,690
27	IX-082	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		171,855
27	IX-083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		495,077
28	IX-084	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		516,028
66	IX-085	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		762,020
3	IX-086	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		4,272,483
29	IX-087	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,173,555
29	IX-088	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2,042,581
30	IX-089	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		931,926
37	IX-090	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,657,893
38	IX-091	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		578,206
2	IX-092	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		794,126
2	IX-093	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		368,832
70	IX-094	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		70
16	IX-095	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		456,360
69	IX-096	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		778,509
69	IX-097	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		69
4	IX-098	0	0	326,112	0	0	326,112	0	0	330,240	0	0	0	0	0	0		2,303,428
51	IX-099	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		543,915
24	IX-100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		255,950
43	IX-101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		43
44	IX-102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		44
76	IX-103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		345,765
76	IX-104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		435,993
76	IX-105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		305,548
76	IX-106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		426,891
76	IX-107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		340,636
76	IX-108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		399,615
76	IX-109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		329,799
76	IX-110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		273,917
Sub Total																		104,419,979
Average of Superstructure																		

I-6-B Repair Costs of Region IX (16)

Substructure Cost and Total Cost

Bridge Description		Damage cost of Substructure															
Link No.	Bridge No.	A1			P1			P2			P3			P4			
		Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber	
35	IX-001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	IX-002	0	0	0	1,214	0	0	1,214	0	0	0	0	0	0	0	0	
36	IX-003	0	0	129,600	0	0	0	0	0	0	0	0	0	0	0	0	
40	IX-004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	IX-005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	IX-006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	IX-007	0	0	0	0	0	194,400	0	0	0	0	0	0	0	0	0	
42	IX-008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	IX-009	629	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	IX-010	0	0	0	0	0	223,560	0	0	0	0	0	0	0	0	0	
39	IX-011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	IX-012	2,454	0	139,680	4,908	0	279,360	4,908	0	279,360	4,908	0	279,360	4,908	0	279,360	
33	IX-013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	IX-014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
58	IX-015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
56	IX-016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
57	IX-017	0	0	52,632	0	0	199,692	0	0	106,812	0	0	0	0	0	0	
58	IX-018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
59	IX-019	0	0	0	898	0	0	0	0	0	0	0	0	0	0	0	
59	IX-020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
63	IX-021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
61	IX-022	0	0	69,552	0	0	139,104	0	0	0	0	0	0	0	0	0	
72	IX-023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
62	IX-024	617	0	0	1,776	0	0	1,776	0	0	0	0	0	0	0	0	
75	IX-025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
75	IX-026	0	0	0	727	0	0	0	0	0	0	0	0	0	0	0	
74	IX-027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
73	IX-028	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
60	IX-029	0	0	172,080	0	0	0	0	0	0	0	0	0	0	0	0	
46	IX-030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	IX-031	0	0	0	965	0	0	965	0	0	0	0	0	0	0	0	
64	IX-032	817	217,930	0	0	0	0	0	0	0	1,568	0	0	0	0	0	
66	IX-033	0	0	59,040	0	0	156,456	0	0	0	0	0	0	0	0	0	
65	IX-034	0	0	109,512	0	0	219,024	0	0	219,024	0	0	219,024	0	0	0	
47	IX-035	0	0	0	674	0	0	0	0	0	0	0	0	0	0	0	
48	IX-036	0	0	124,416	0	0	133,456	0	0	0	0	0	0	0	0	0	
49	IX-037	409	0	0	573	0	0	0	0	0	0	0	0	0	0	0	
49	IX-038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	IX-039	348	0	0	697	0	0	0	0	0	0	0	0	0	0	0	
77	IX-040	698	0	108,000	1,395	0	216,000	0	0	0	1,395	0	216,000	0	0	0	
77	IX-041	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	IX-042	0	0	135,360	0	0	0	0	0	0	0	0	0	0	0	0	
52	IX-043	0	0	43,740	0	0	0	0	0	0	0	0	0	0	0	0	
54	IX-044	0	0	73,539	0	0	146,678	0	0	146,678	0	0	0	0	0	0	
32	IX-045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	IX-046	0	0	0	0	0	262,656	0	0	0	0	0	262,656	0	0	0	
18	IX-047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
71	IX-048	301	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
71	IX-049	0	0	43,200	0	0	0	0	0	0	0	0	0	0	0	0	
7	IX-050	808	0	125,136	2,448	0	139,356	0	0	0	0	0	0	0	0	0	
6	IX-051	2,697	264,368	0	2,697	522,340	0	0	0	0	0	0	0	0	0	0	
33	IX-052	577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	IX-053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	IX-054	0	0	0	659	0	0	0	0	0	0	0	0	0	0	0	
33	IX-055	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	IX-056	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	IX-057	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	IX-058	0	0	0	1,020	0	133,896	1,020	0	557,895	0	0	0	0	0	0	
10	IX-059	0	0	0	519	0	50,352	0	0	0	0	0	0	0	0	0	
11	IX-060	0	0	0	0	0	139,104	0	0	139,104	0	0	0	0	0	0	
10	IX-061	0	0	0	0	0	86,688	0	0	86,688	0	0	0	0	0	0	
10	IX-062	0	0	31,104	0	0	72,576	0	0	0	0	0	0	0	0	0	
22	IX-063	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	IX-064	0	0	0	933	0	0	1,335	0	0	0	0	0	0	0	0	
24	IX-065	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	IX-066	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	IX-067	0	0	54,720	0	0	0	0	0	0	0	0	0	0	0	0	
5	IX-068	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	IX-069	0	0	95,040	0	0	228,760	0	0	221,760	0	0	221,760	0	0	221,760	
8	IX-070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	IX-071	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	IX-072	963	0	0	1,346	0	0	0	0	0	0	0	0	0	0	0	
21	IX-073	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	IX-074	0	0	0	0	0	0	1,439	0	176,400	1,439	0	176,400	1,439	0	176,400	
68	IX-075	509	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
68	IX-076	0	0	35,720	0	0	107,160	0	0	0	0	0	0	0	0	0	
67	IX-077	0	0	59,264	0	0	92,174	0	0	0	0	0	0	0	0	0	
31	IX-078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	IX-079	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	IX-080	1,224	0	0	900	0	0	900	0	0	0	0	0	0	0	0	
26	IX-081	708	0	0	814	0	0	814	0	0	0	0	0	0	0	0	
27	IX-082	413	0	63,936	688	0	106,560	0	0	0	0	0	0	0	0	0	
27	IX-083	0	0	84,180	0	0	0	0	0	0	0	0	0	0	0	0	
28	IX-084	1,163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
66	IX-085	0	0	133,056	0	0	266,112	0	0	0	0	0	0	0	0	0	
3	IX-086	0	0	0	5,237	0	0	5,237	0	0	5,237	0	0	0	0	0	
29	IX-087	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	IX-088	2,448	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	IX-089	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	IX-090	538	0	0	5,829	0	0	0	0	0	0	0	0	0	0	0	
38	IX-091	0	0	102,874	0	0	205,747	1,329	0	0	0	0	205,747	0	0	205,747	
2	IX-092	0	132,300	38,880	0	496,125	145,800	0	496,125	145,800	0	0	0	0	0	0	
2	IX-093	0	0	50,750	0	0	87,954	0	0	0	0	0	0	0	0	0	
70	IX-094	423	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	IX-095	0	84,320	48,960	0	168,640	97,920	632	168,640	0	0	0	0	0	0	0	
69	IX-096	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
69	IX-097	0	0	0	569	151,838	0	0	0	0	0	0	0	0	0	0	
4	IX-098	0	0	0	780	0	0	0	0	0	0	0	0	0	0	0	
51	IX-099	665	0	0	688	0	0	688	0	0	688	0	0	0	0	0	
14	IX-100	0	0	0	0	0	72,000	0	0	0	0	0	0	0	0	0	
43	IX-101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	IX-102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
76	IX-103	0	0	157,920	0	0	0	0	0	0	0	0	0	0	0	0	
76	IX-104	0	0	158,400	0	0	0	0	0	0	0	0	0	0	0	0	
76	IX-105	0	0	133,200	0	0	0	0	0	0	0	0	0	0	0	0	
76	IX-106	0	0	131,760	0	0	0	0	0	0	0	0	0	0	0	0	
76	IX-107	0	0	118,800	0	0	0	0	0	0	0	0	0	0	0	0	
76	IX-108	0	0	156,600	0	0	0	0	0	0	0	0	0	0	0	0	
76	IX-109	0	0	30,719	0	0	81,438	0	0	0	0	0	0	0	0	0	
76	IX-110	0	0	45,414	0	0	90,828	0	0	0	0	0	0	0	0	0	

I-6-B Repair Costs of Region IX (17)

Substructure Cost and Total Cost

Bridge Description		Damage cost of Substructure																Substructure Repair Sub Total	Repair Total Cost
Link No.	Bridge No.	P5			P6			P7			P8			A2					
		Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber	Concrete	Steel	Timber			
35	IX-001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		35	1,023,834
35	IX-002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2,463	1,480,065
36	IX-003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		129,636	501,192
40	IX-004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158,400		158,440	1,474,960
40	IX-005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87,912		87,952	719,028
40	IX-006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		40	530,012
41	IX-007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97,200		293,641	1,046,332
42	IX-008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		42	381,924
42	IX-009	0	0	0	0	0	0	0	0	0	0	0	0	629	0	0		1,300	481,904
38	IX-010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		223,599	1,236,090
39	IX-011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		39	388,770
34	IX-012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,279,241	3,274,138
33	IX-013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		33	66
78	IX-014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		78	772,763
56	IX-015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		56	645,628
56	IX-016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		56	112
57	IX-017	0	0	0	0	0	0	0	0	0	0	0	0	925	0	0		360,118	1,367,510
58	IX-018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		58	1,201,364
59	IX-019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		959	1,257,322
59	IX-020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		59	1,057,307
63	IX-021	0	0	0	0	0	0	0	0	0	0	0	0	1,795	0	0		1,859	1,224,153
61	IX-022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69,552		278,269	629,623
72	IX-023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		72	1,150,704
62	IX-024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		4,231	1,524,817
75	IX-025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		75	443,020
75	IX-026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		802	475,597
74	IX-027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		74	1,046,596
73	IX-028	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		73	402,729
60	IX-029	0	0	0	0	0	0	0	0	0	0	0	0	0	0	172,080		344,220	10,753,701
46	IX-030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		46	451,489
45	IX-031	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,975	698,723
64	IX-032	0	0	0	0	0	0	0	0	0	0	0	0	817	217,930	0		439,126	12,781,440
66	IX-033	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73,800		289,362	1,046,813
65	IX-034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109,512		876,161	3,307,595
47	IX-035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		721	1,296,489
48	IX-036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	155,520		413,420	878,734
49	IX-037	0	0	0	0	0	0	0	0	0	0	0	0	409	0	0		1,440	401,080
49	IX-038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		49	223,597
50	IX-039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1,065	359,869
77	IX-040	0	0	0	0	0	0	0	0	0	0	0	0	698	0	108,000		652,262	1,864,939
77	IX-041	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		77	439,373
53	IX-042	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		135,413	542,900
52	IX-043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		43,792	424,188
54	IX-044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		366,250	1,136,088
32	IX-045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		32	64
55	IX-046	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		535,367	1,867,845
18	IX-047	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		18	457,006
71	IX-048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		372	292,603
71	IX-049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43,200		86,471	532,652
7	IX-050	0	0	0	0	0	0	0	0	0	0	0	0	2,199	0	125,136		395,090	819,043
6	IX-051	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		792,108	1,092,529
13	IX-052	0	0	0	0	0	0	0	0	0	0	0	0	590	0	0		590	903
13	IX-053	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		13	854,726
13	IX-054	0	0	0	0	0	0	0	0	0	0	0	0	1,529	0	0		2,291	811,899
13	IX-055	0	0	0	0	0	0	0	0	0	0	0	0	0	113,576	0		114,869	491,739
15	IX-056	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		13	647,404
25	IX-057	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		25	50
31	IX-058	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		347,842	1,231,995
10	IX-059	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		80,851	295,227
11	IX-060	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		278,219	1,090,001
10	IX-061	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		173,386	1,078,666
10	IX-062	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31,104		134,794	439,850
22	IX-063	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		22	429,356
22	IX-064	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2,289	958,563
24	IX-065	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		24	430,640
17	IX-066	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		17	1,218,620
5	IX-067	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54,720		109,445	423,178
5	IX-068	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		5	699,293
9	IX-069	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95,040		1,077,129	2,639,173
8	IX-070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		8	415,735
19	IX-071	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		19	308,812
20	IX-072	0	0	0	0	0	0	0	0	0	0	0	0	963	0	0		3,291	283,395
21	IX-073	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		21	42
1	IX-074	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		532,619	8,527,950
68	IX-075	0	0	0	0	0	0	0	0	0	0	0	0	509	0	0		1,066	337,834
69	IX-076	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36,720		180,668	575,416
67	IX-077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69,264		230,769	662,316
31	IX-078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		31	371,582
12	IX-079	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		12	1,030,09
23	IX-080	0	0	0	0	0	0	0	0	0	0	0	0	1,224	0	0		4,270	4,295
36	IX-081	0	0	0	0	0	0	0	0	0	0	0	0	651	0	0		3,045	445,735
27	IX-082	0	0	0	0	0	0	0	0	0	0	0	0	688	0	106,560		278,872	450,727
27	IX-083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70,848		152,055	647,132
28	IX-084	0	0	0	0	0	0	0	0	0	0	0	0	1,163	0	0		2,353	518,381
66	IX-085	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		399,234	1,162,154
3	IX-086	5,237	0	0	5,237	0	0	5,237	0	0	10,474	0	0	2,135	0	0		44,034	4,316,517
29	IX-087	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		29	1,171,584
29	IX-088	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2,477	2,095,058
30	IX-089	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		30	938,956
37	IX-090	0	0	0	0	0	0	0	0	0	0	0	0	600	0	0		8,804	1,664,698
38	IX-091	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102,874		824,256	1,402,561
2	IX-092	0	0	0	0	0	0	0	0	0	0	0	0	0	243,550	71,250		1,769,862	2,562,958
2	IX-093	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50,760		139,506	558,132
70	IX-094	0	0	0	0	0	0	0	0	0	0	0	0	933	0	0		935	935
16	IX-095	0	0	0	0	0	0	0	0	0	0	0	0	0	84,320	48,960		702,498	1,158,568
69	IX-096	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		69	739,578
69	IX-097	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		332,476	332,545
4	IX-098	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		784	2,304,241
51	IX-099	0	0	0	0	0	0	0	0	0	0	0	0	688	0	0		3,490	547,405
14	IX-100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		72,014	327,964
43	IX-101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		43	86
44	IX-102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		44	88
76	IX-103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157,320		314,716	630,481
76	IX-104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158,400		315,876	752,869
76	IX-105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133,200		266,476	572,024
76	IX-106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	131,760		263,596	600,487
76	IX-107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118,800		237,676	578,532
76	IX-108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156,600		313,276	712,891
76	IX-109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30,719		122,951	352,750
76	IX-110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65,414		182,733	455,849
Total Cost																		18,052,387	126,681,822
Average Cost																		240,951	1,229,726

APPENDIX I-7

ALTERNATIVE MEHTOD FOR PRIORITY INDICES

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Appendix I-7

Alternative Method for Priority Indices

(1) Suggestion of Another Method

For the appraisal of bridge rehabilitation priority, another method was suggested by the Advisory Committee after the submission of Progress Report (2). However, because the priority appraisal method have been already concluded through a series of discussions between the MOP and the Study Team, the suggested method will be explained here as only a reference.

(2) Concept of the Suggested Method

The suggestion is defined as a method based on the idea of cost-benefit relation, i.e. all rehabilitation effects are collected for benefit and that is compared with cost. **Figure 1** shows the relation of the nine rehabilitation effects (refer to Figure 2.14 in Chapter 2.6.2 of Main Report (Volume 2/8)) and the benefits based on the suggested idea.

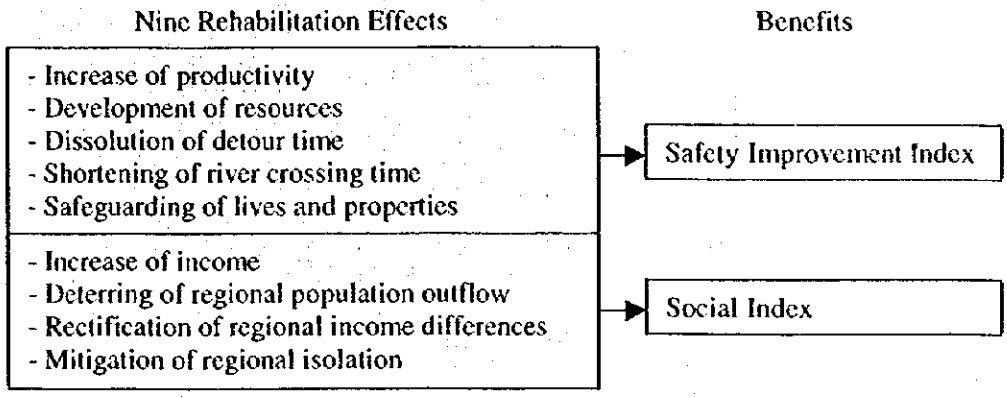

Figure 1 Process from Nine Effects to Two Benefits

Figure 2 compares the process of the two methods, the suggested and the original.

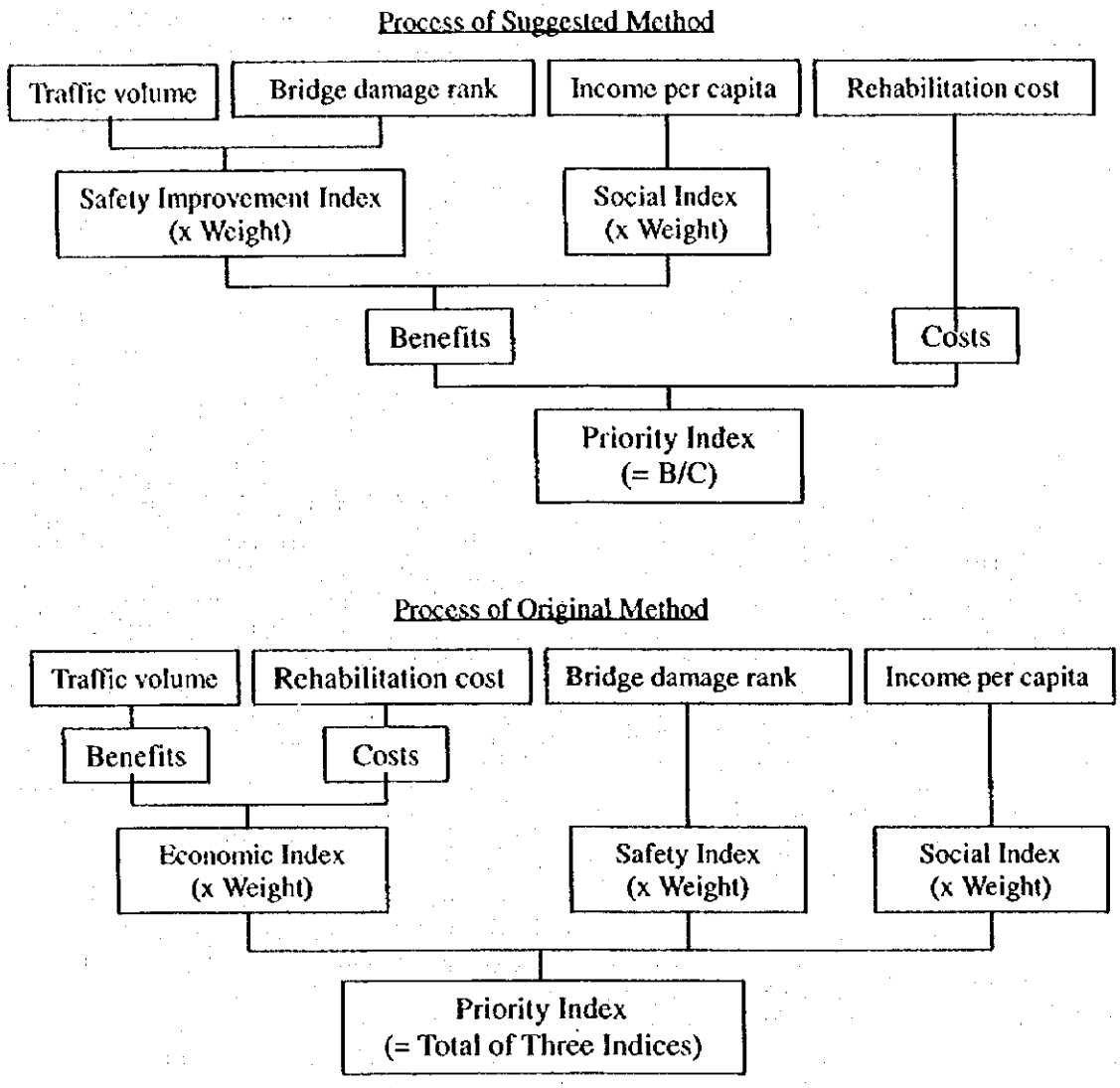

Figure 2 Process to Priority Index

As shown in the **Figure 2**, the suggested method is different from the original on the following points:

- The suggested summarizes the four data into only one index (B/C), while the original leads to three independent indices.
- The suggested applies policy weight on the items of benefit, while the original on indices.

(3) Calculation of Suggested Indicator

Table 2 shows the result of a sample calculation by the suggested method. The sample calculation by the original method is also shown in **Table 3** to be compared with the suggested.

The following weights are applied for easy comparison of both methods.

Policy Weight in Sample Calculation

Original Method		Suggested Method	
For Economic Indicator	30 %	For Safety Improvement Index	80 %
For Safety Indicator	50 %		
For Social Indicator	20 %	For Social Index	20 %

In **Table 2**, data and indexes are treated as follows:

Column 'E' = Risk Improvement Effect

Risk improvement effect is directly given by the bridge damage degree of Column 'A'.

Improvement of bridge risk is defined as a benefit of rehabilitation. For example, when a bridge which condition is rated '1' very dangerous, is rehabilitated to a new structure, the condition after rehabilitation goes up to '5' good or like-new. Therefore, the risk improvement effect is appraised by the difference of '1' and '5'.

However, because the bridge condition rating '1' to '5' presents only classification of degree of bridge damage, the magnitude of bridge destruction risk and its improvement effect are assumed as shown in **Table 1**.

Table 1 Magnitude of Bridge Risk and Improvement Effect

Condition Rating (Damage Degree)	Magnitude of Risk	Risk Improvement Effect
1: dangerous	1.0000	1.0000 – 0.0001 = 0.9999 ≒ 1.0000
2	0.1000	0.1000 – 0.0001 = 0.0999 ≒ 0.1000
3	0.0100	0.0100 – 0.0001 = 0.0099 ≒ 0.0100
4	0.0010	0.0010 – 0.0001 = 0.0009 ≒ 0.0010
5: Good	0.0001	0.0001 – 0.0001 = 0.0000 → 0.0001 *

Note*: Even the bridges rated '5', if rehabilitated like timber bridges, are to be given the minimum effect of 0.0001.

Column 'F' = Total Improvement Effects

From Column 'C' and 'E', the total of safety improvement effects is calculated by multiplying safety improvement effect by traffic volume to use the bridge.

In relation to Column 'G', in order to objectively appraise the index under the same scale, the average index and the standard deviation should be calculated for the total of bridges in plan.

Column 'G' = Safety Improvement Index (Standardized Index)

Standardized index is adopted to combine the two different benefit indexes (Safety Improvement Index and Social Index) under the same scale. The standardized index is defined by the following formula:

Standardized Index = (Individual Index – Average Index)/Standard Deviation

Column 'H' = Weight for Index

The importance of the two benefit indexes is not same. Therefore, weight is a measure for MOP to reflect its rehabilitation policy upon the priority order of bridges by changing the weights between the two indexes. The table shows a sample of weight at 80 % for the index.

Column 'I', 'J' and 'K'= Social Index

Social index is calculated and standardized in same manner as the original method for social indicator. The index is weighed at 20 %

Column 'L' = Priority Index

From Column 'B', 'H' and 'K', the national average income, the income correction index is calculated in the form of benefits/costs.

$$\text{Priority Index} = \frac{\text{(Safety Improvement Index in Column 'H' + Social Index in Column 'K')}}{\text{Rehabilitation Cost in Column 'B'}}$$

Table 2 Priority by Suggested Method

(IX Region)

Priority Order	Bridge Location: Link No.	Comuna Name	Bridge No.	Bridge Name	Existing Bridge Data: Bridge Type	Length (m)	Width (m)	Load Limit (t)	Damage Rank A	Bridge Rehabilitation Data: Rehabil. Method	Number of Lanes	Cost (mil.peso) B	Traffic (pcu) C	Income (thou.peso) D	Economic Index: Traffic /Cost E=C/B	Std.Index F=(E-ave.E)/stdv.E	Weight 0.30	Safety Index: Damage Degree	Std.Index H=(H-ave.H)/stdv.H	Weight 0.50	Social Index: Nat.Ave.Inc. /Com.Inc.	Std.Index L=(K-ave.K)/stdv.K	Weight 0.20	Total Index	Bridge No.	Priority Order
1	71	LONQUIMAY	IX-049	ÑIRECO	Timber	8.20	3.70	10	2	Reconst.	2	87.6	4660	91.0	53.202	4.876	1.463	4	0.679	0.340	4.947	1.997	0.399	2.202	IX-049	1
2	71	LONQUIMAY	IX-048	ÑANCUREO	Timber	10.00	3.00	6	2	Reconst.	2	96.2	4660	91.0	48.446	4.385	1.316	4	0.679	0.340	4.947	1.997	0.399	2.055	IX-048	2
3	74	PUCON	IX-027	EL CRISTO	Timber	26.00	3.50	6	1	Reconst.	2	173.2	1504	254.0	8.686	0.284	0.085	5	1.550	0.775	1.771	-0.884	-0.177	0.683	IX-027	3
4	77	CARAHUE	IX-040	SAN JUAN	Timber	31.60	4.00	10	2	Reconst.	2	200.2	1830	110.3	9.142	0.331	0.099	4	0.679	0.340	4.080	1.211	0.242	0.681	IX-040	4
5	66	LONQUIMAY	IX-033	ICALMA	Timber	17.90	3.70	10	2	Reconst.	1	96.3	190	91.0	1.975	-0.408	-0.122	4	0.679	0.340	4.947	1.997	0.399	0.617	IX-033	5
6	65	MELPEUCO	IX-034	ALLIPEN	Timber	58.00	3.82	4	2	Reconst.	1	219.5	286	91.0	1.301	-0.477	-0.143	4	0.679	0.340	4.947	1.997	0.399	0.596	IX-034	6
7	33	NUEVA IMPERIAL	IX-013	HUAMAQUI	Timber	19.10	4.00	8	2	Reconst.	2	140.0	628	110.1	4.483	-0.149	-0.045	4	0.679	0.340	4.087	1.217	0.243	0.538	IX-013	7
8	52	TEODO. SCHMIDT	IX-043	ALLLIPEN	Timber	9.10	4.05	10	2	Reconst.	1	69.3	404	118.3	5.825	-0.011	-0.003	4	0.679	0.340	3.803	0.959	0.192	0.529	IX-043	8
9	34	NUEVA IMPERIAL	IX-012	HUECHUCON	Timber	30.60	4.10	-	2	Reconst.	2	195.6	628	110.1	3.212	-0.280	-0.084	4	0.679	0.340	4.087	1.217	0.243	0.499	IX-012	9
10	63	VILLARRICA	IX-021	PEDREGOSO	Steel	38.00	3.85	12	2	Reconst.	2	231.0	1909	161.9	8.266	0.241	0.072	4	0.679	0.340	2.779	0.030	0.006	0.418	IX-021	10
11	77	CARAHUE	IX-041	LONCOMAYO	Timber	18.00	3.84	12	3	Reconst.	2	134.7	1830	110.3	13.588	0.790	0.237	3	-0.192	-0.096	4.080	1.211	0.242	0.383	IX-041	11
12	18	COLLIPULLI	IX-047	LAS TOSCAS	Timber	10.80	3.85	6	2	Reconst.	2	100.1	543	150.1	5.421	-0.052	-0.016	4	0.679	0.340	2.997	0.228	0.046	0.370	IX-047	12
13	35	LAUTARO	IX-001	NIBLINTO	Timber	24.80	3.60	8	2	Reconst.	2	167.5	1098	165.8	6.555	0.064	0.019	4	0.679	0.340	2.714	-0.029	-0.006	0.353	IX-001	13
14	62	VILLARRICA	IX-024	SALVA TU ALMA	Steel	40.70	3.77	15	2	Reconst.	2	244.0	1427	161.9	5.847	-0.009	-0.003	4	0.679	0.340	2.779	0.030	0.006	0.343	IX-024	14
15	7	LOS SAUCES	IX-050	HUADABA	Timber	19.90	3.60	10	2	Reconst.	1	102.4	181	130.7	1.765	-0.430	-0.129	4	0.679	0.340	3.444	0.624	0.127	0.338	IX-050	15
16	35	LAUTARO	IX-002	MUCOBAJO	Timber	34.50	3.70	6	2	Reconst.	2	214.1	1098	165.8	5.128	+0.083	-0.025	4	0.679	0.340	2.714	-0.029	-0.006	0.309	IX-002	16
17	47	FREIRE	IX-035	NEGRO	Steel	20.70	3.85	8	2	Reconst.	2	147.7	755	178.9	5.115	-0.084	-0.025	4	0.679	0.340	2.515	-0.209	-0.042	0.273	IX-035	17
18	40	VILLARRICA	IX-005	PEDREGOSO	Timber	16.50	3.20	-	2	Reconst.	1	92.0	293	161.9	3.189	-0.283	-0.085	4	0.679	0.340	2.779	0.030	0.006	0.261	IX-005	18
19	59	GORBEA	IX-020	RINCO	Steel	12.20	3.85	12	2	Reconst.	1	78.8	370	193.4	4.689	-0.128	-0.038	4	0.679	0.340	2.326	-0.381	-0.076	0.226	IX-020	19
20	49	FREIRE	IX-037	CHUCAUCO	Timber	17.50	3.97	8	2	Reconst.	1	95.1	257	178.9	2.700	-0.333	-0.100	4	0.679	0.340	2.515	-0.209	-0.042	0.198	IX-037	20
21	56	GORBEA	IX-015	CHARLEO	Timber	20.40	3.90	8	2	Reconst.	2	146.3	527	193.4	3.601	+0.240	-0.072	4	0.679	0.340	2.326	-0.381	-0.076	0.192	IX-015	21
22	58	GORBEA	IX-018	PUYEHUE	Timber	32.10	4.00	10	2	Reconst.	2	202.6	621	193.4	3.064	+0.296	-0.089	4	0.679	0.340	2.326	-0.381	-0.076	0.175	IX-018	22
23	36	VILCUN	IX-003	QUINTRILPE	Timber	10.00	2.90	8	2	Reconst.	1	72.0	309	213.9	4.291	-0.169	-0.051	4	0.679	0.340	2.104	-0.582	-0.116	0.173	IX-003	23
24	41	VILLARRICA	IX-007	EL TIGRE	Timber	19.50	3.75	8	2	Reconst.	1	101.2	29	161.9	0.283	-0.582	-0.175	4	0.679	0.340	2.779	0.030	0.006	0.171	IX-007	24
25	59	GORBEA	IX-019	DONGIL	Timber	44.10	4.00	12	2	Reconst.	1	176.8	370	193.4	2.090	-0.396	-0.119	4	0.679	0.340	2.326	-0.381	-0.076	0.145	IX-019	25
26	53	TEODO. SCHMIDT	IX-042	PUYEHUE	Timber	8.40	4.00	10	3	Reconst.	1	67.1	492	118.3	7.332	0.145	0.043	3	-0.192	-0.096	3.803	0.959	0.192	0.139	IX-042	26
27	57	GORBEA	IX-017	POLUL 1	Timber	22.70	3.90	10	2	Reconst.	1	111.0	198	193.4	1.783	-0.428	-0.128	4	0.679	0.340	2.326	-0.381	-0.076	0.136	IX-017	27
28	54	PITRUFQUEN	IX-044	QUINQUE	Timber	24.80	4.12	8	2	Reconst.	2	167.5	997	304.3	5.953	0.002	0.001	4	0.679	0.340	1.479	-1.149	-0.230	0.111	IX-044	28
29	50	NUEVA IMPERIAL	IX-039	BOROA	Timber	15.90	3.75	12	3	Reconst.	2	124.6	588	110.1	4.718	-0.125	-0.037	3	-0.192	-0.096	4.087	1.217	0.243	0.110	IX-039	29
30	78	VILCUN	IX-014	PUMALAL	Timber	32.20	4.20	2	2	Reconst.	1	140.2	180	213.9	1.287	-0.479	-0.144	4	0.679	0.340	2.104	-0.582	-0.116	0.080	IX-014	30
31	75	VILLARRICA	IX-025	COLLICO	Timber	9.60	4.04	4	3	Reconst.	2	94.3	718	161.9	7.610	0.173	0.052	3	-0.192	-0.096	2.779	0.030	0.006	-0.038	IX-025	31
32	60	CUNCO	IX-029	LA BASTILLA	Timber	74.10	3.97	6	2	Reconst.	1	268.9	427	341.2	1.587	-0.448	-0.134	4	0.679	0.340	1.319	-1.294	-0.259	-0.053	IX-029	32
33	75	VILLARRICA	IX-026	CRUCES	Timber	20.00	5.70	8	3	Reconst.	2	144.4	718	161.9	4.970	-0.099	-0.030	3	-0.192	-0.096	2.779	0.030	0.006	-0.120	IX-026	33
34	61	VILLARRICA	IX-022	LONG LONG	Timber	14.60	3.95	10	3	Reconst.	1	86.2	407	161.9	4.722	-0.125	-0.037	3	-0.192	-0.096	2.779	0.030	0.006	-0.127	IX-022	34
35	73	PUCON	IX-028	CARHUELLO	Timber	21.90	3.91	8	3	Reconst.	2	153.5	1504	254.0	9.800	0.399	0.120	3	-0.192	-0.096	1.771	-0.884	-0.177	-0.153	IX-028	35
36	48	FREIRE	IX-036	PELALES	Timber	15.80	3.92	8	3	Reconst.	2	124.1	576	178.9	4.642	-0.133	-0.040	3	-0.192	-0.096	2.515	-0.209	-0.042	-0.178	IX-036	36
37	42	VILLARRICA	IX-009	EL SALTO	Timber	11.70	3.50	6	3	Reconst.	1	77.2	29	161.9	0.371	-0.573	-0.172	3	-0.192	-0.096	2.779	0.030	0.006	-0.262	IX-009	37
38	55	PITRUFQUEN	IX-046	MAHUIDANCHE	Timber	36.40	4.00	10	3	Reconst.	2	223.3	851	304.3	3.810	-0.219	-0.066	3	-0.192	-0.096	1.479	-1.149	-0.230	-0.392	IX-046	38
39	64	CUNCO	IX-032	MEDINA	Steel	170.00	3.97	8	3	Reconst.	1	563.5	384	341.2	0.682	-0.541	-0.162	3	-0.192	-0.096	1.319	-1.294	-0.259	-0.517	IX-032	39
40	39	VILLARRICA	IX-011	LAN2	Timber	8.80	3.95	8	4	Reconst.	2	90.5	525	161.9	5.803	-0.013	-0.004	2	-1.063	-0.531	2.779	0.030	0.006	-0.529	IX-011	40
41	40	VILLARRICA	IX-006	CALBUCO	Timber	13.00	3.55	8	4	Reconst.	1	81.2	293	161.9	3.613	-0.239	-0.072	2	-1.063	-0.531	2.779	0.030	0.006	-0.597	IX-006	41
42	39	VILLARRICA	IX-010	LAN1	Timber	21.80	3.60	10	4	Reconst.	2	153.0	525	161.9	3.433	-0.258	-0.077	2	-1.063	-0.531	2.779	0.030	0.006	-0.602	IX-010	42
43	40	VILLARRICA	IX-004	LLAMUCO	Steel	22.00	4.00	12	4	Reconst.	1	108.9	293	161.9	2.694	-0.334	-0.100	2	-1.063	-0.531	2.779	0.030	0.006	-0.625	IX-004	43
44	39	FREIRE	IX-038	FIN FIN	Timber	10.00	4.00	8	4	Reconst.	1	72.0	257	178.9	3.567	-0.244	-0.073	2	-1.063	-0.531	2.515	-0.209	-0.042	-0.646	IX-038	44
45	42	VILLARRICA	IX-008	CHOME2	Timber	10.00	3.20	12	4	Reconst.	1	72.0	29	161.9	0.398	-0.571	-0.171	2	-1.063	-0.531	2.779	0.030	0.006	-0.696	IX-008	45
46	56	GORBEA	IX-016	LAS LUMAS	Timber	13.20	3.90	6	5	Reconst.	2	111.6	527	193.4	4.721	-0.125	-0.037	1	-1.934	-0.967	2.326	-0.381	-0.076	-1.080	IX-016	46
47	45	VILLARRICA	IX-031	HUICAHUE	Timber	33.00	3.70	10	5	Reconst.	1	142.7	36	161.9	0.255	-0.585	-0.176	1	-1.934	-0.967	2.779	0.030	0.006	-1.137	IX-031	47
48	46	CUNCO	IX-030	CODULTO	Timber	10.80	4.00	8	5	Reconst.	1	74.5	65	341.2	0.868	-0.522	-0.157	1	-1.934	-0.967	1.319	-1.294	-0.259	-1.383	IX-030	48
49	72	VILLARRICA	IX-023	QUEBRADA HONDA	Steel	18.00	3.52	12	5	NoAction	-	0.0	613	161.9	0.000	-10.000	-3.000	0	-10.000	-5.000	0.000	-10.000	-2.000	-10.000	IX-023	49
50	32	GALVARINO	IX-045	AILLINCO	NoBridge				0	NoAction	-	0.0	562	0.0	0.000	-10.000	-3.000	0	-10.000	-5.000	0.000	-10.000	-2.000	-10.000	IX-045	50
				Average					2.000						5.930			3.220			2.745					
				Standard Deviation					0.324						9.696			1.148			1.102					

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Table 3 Priority by Original Method

(IX Region)

Priority Order	Bridge Location: Link No.	Comuna Name	Bridge No.	Bridge Name	Existing Bridge Data: Bridge Type	Length (m)	Width (m)	Load Limit (t)	Damage Rank A	Bridge Rehabilitation Data: Rehabil. Method	Number of Lanes	Cost (mil.peso) B	Traffic (pcu) C	Income (thou.peso) D	Safety Improvement Index: Risk Improve. F	Total Improve. F=CxB	Std.Index G=(F-ave.F)/stdv.F	Weight 0.80 H=0.80G	Social Index: Nat.Ave.Inc./Com.Inc. J=I/50/D	Std.Index Js=(J-ave.J)/stdv.J	Weight 0.20 K=0.20J	Total Indicator Ls=(H+K)/I	Bridge No.	Priority Order
1	74	PUCON	IX-027	EL CRISTO	Timber	26.00	3.50	6	1	Reconst.	2	173.2	1504	254.0	1.0000	1504.3633	6.2684	5.015	1.771	-0.884	-0.177	2.793	IX-027	1
2	71	LONQUIMAY	IX-049	ÑIRECO	Timber	8.20	3.70	10	2	Reconst.	2	87.6	4660	91.0	0.1000	466.0491	1.6941	1.355	4.947	1.997	0.399	2.002	IX-049	2
3	71	LONQUIMAY	IX-048	ÑANCUREO	Timber	10.00	3.00	6	2	Reconst.	2	96.2	4660	91.0	0.1000	466.0491	1.6941	1.355	4.947	1.997	0.399	1.823	IX-048	3
4	77	CARAHUE	IX-040	SAN JUAN	Timber	31.60	4.00	10	2	Reconst.	2	200.2	1830	110.3	0.1000	183.0259	0.4473	0.358	4.080	1.211	0.242	0.300	IX-040	4
5	66	LONQUIMAY	IX-033	ICALMA	Timber	17.90	3.70	10	2	Reconst.	1	96.3	190	91.0	0.1000	19.0183	-0.2752	-0.220	4.947	1.997	0.399	0.186	IX-033	5
6	63	VILLARRICA	IX-021	PEDREGOSO	Steel	38.00	3.85	12	2	Reconst.	2	231.0	1909	161.9	0.1000	190.9477	0.4822	0.386	2.779	0.030	0.006	0.170	IX-021	6
7	33	NUEVA IMPERIAL	IX-013	HUAMAQUI	Timber	19.10	4.00	8	2	Reconst.	2	140.0	628	110.1	0.1000	62.7614	-0.0825	-0.066	4.087	1.217	0.243	0.126	IX-013	7
8	65	MELPEUCO	IX-034	ALLIPEN	Timber	58.00	3.82	4	2	Reconst.	1	219.5	286	91.0	0.1000	28.5660	-0.2332	-0.187	4.947	1.997	0.399	0.097	IX-034	8
9	62	VILLARRICA	IX-024	SALVA TU ALMA	Steel	40.70	3.77	15	2	Reconst.	2	244.0	1427	161.9	0.1000	142.6560	0.2694	0.216	2.779	0.030	0.006	0.091	IX-024	9
10	34	NUEVA IMPERIAL	IX-012	HUECHUCON	Timber	30.60	4.10	-	2	Reconst.	2	195.4	628	110.1	0.1000	62.7614	-0.0825	-0.066	4.087	1.217	0.243	0.091	IX-012	10
11	52	TEODO. SCHMIDT	IX-043	ALLLIPEN	Timber	9.10	4.05	10	2	Reconst.	1	69.3	404	118.5	0.1000	40.3689	-0.1812	-0.145	3.803	0.959	0.192	0.068	IX-043	11
12	35	LAUTARO	IX-001	NIBLINTO	Timber	24.80	3.60	8	2	Reconst.	2	167.5	1098	165.8	0.1000	109.7985	0.1247	0.100	2.714	-0.029	-0.006	0.056	IX-001	12
13	35	LAUTARO	IX-002	MUCOBAJO	Timber	34.50	3.70	6	2	Reconst.	2	214.1	1098	165.8	0.1000	109.7985	0.1247	0.100	2.714	-0.029	-0.006	0.044	IX-002	13
14	77	CARAHUE	IX-041	LONCOMAYO	Timber	18.00	3.84	12	3	Reconst.	2	134.7	1830	110.3	0.0100	18.3026	-0.2784	-0.223	4.080	1.211	0.242	0.014	IX-041	14
15	50	NUEVA IMPERIAL	IX-039	BOROA	Timber	15.90	3.75	12	3	Reconst.	2	124.6	588	110.1	0.0100	5.8792	-0.3331	-0.266	4.087	1.217	0.243	-0.018	IX-039	15
16	67	FREIRE	IX-033	NEGRO	Steel	20.70	3.85	8	2	Reconst.	2	147.7	755	178.9	0.1000	75.5492	-0.0262	-0.021	2.515	-0.209	-0.042	-0.063	IX-035	16
17	18	COLLIPULLI	IX-047	LAS TOSCAS	Timber	10.80	3.85	6	2	Reconst.	2	100.1	543	150.1	0.1000	54.2660	-0.1200	-0.096	2.997	0.228	0.046	-0.050	IX-047	17
18	58	GORBEA	IX-018	PUYEHUE	Timber	32.10	4.00	10	2	Reconst.	2	202.6	621	193.4	0.1000	62.0702	-0.0856	-0.068	2.326	-0.381	-0.076	-0.071	IX-018	18
19	64	CUNCO	IX-032	MEDINA	Steel	170.00	3.97	8	3	Reconst.	1	563.5	384	341.2	0.0100	3.8423	-0.3421	-0.274	1.319	-1.294	-0.259	-0.095	IX-032	19
20	7	LOS SAUCES	IX-050	HUADABA	Timber	19.90	3.60	10	2	Reconst.	1	102.4	181	130.7	0.1000	18.0733	-0.2794	-0.224	3.444	0.634	0.127	-0.095	IX-050	20
21	54	PITRUFQUEN	IX-044	QUINQUE	Timber	24.80	4.12	8	2	Reconst.	2	167.5	997	304.3	0.1000	99.7198	0.0803	0.064	1.479	-1.149	-0.230	-0.099	IX-044	21
22	53	TEODO. SCHMIDT	IX-042	PUYEHUE	Timber	8.40	4.00	10	3	Reconst.	1	67.1	492	118.3	0.0100	4.9200	-0.3373	-0.270	3.803	0.959	0.192	-0.116	IX-042	22
23	56	GORBEA	IX-015	CHARLEO	Timber	20.40	3.90	8	2	Reconst.	2	146.3	527	193.4	0.1000	52.6834	-0.1269	-0.102	2.326	-0.381	-0.076	-0.122	IX-015	23
24	59	GORBEA	IX-019	DONGIL	Timber	44.10	4.00	12	2	Reconst.	1	176.8	370	193.4	0.1000	36.9507	-0.1962	-0.157	2.326	-0.381	-0.076	-0.132	IX-019	24
25	60	CUNCO	IX-029	LA BASTILLA	Timber	74.10	3.97	6	2	Reconst.	1	268.9	427	341.2	0.1000	42.6739	-0.1710	-0.137	1.319	-1.294	-0.259	-0.147	IX-029	25
26	75	VILLARRICA	IX-026	CRUCES	Timber	20.00	5.70	8	3	Reconst.	2	144.4	718	161.9	0.0100	7.1764	-0.3274	-0.262	2.779	0.030	0.006	-0.177	IX-026	26
27	39	VILLARRICA	IX-010	LAN1	Timber	21.80	3.60	10	4	Reconst.	2	153.0	525	161.9	0.0010	0.5252	-0.3567	-0.285	2.779	0.030	0.006	-0.182	IX-010	27
28	40	VILLARRICA	IX-005	PEDREGOSO	Timber	16.50	3.20	-	2	Reconst.	1	92.0	293	161.9	0.1000	29.3393	-0.2298	-0.184	2.779	0.030	0.006	-0.193	IX-005	28
29	45	VILLARRICA	IX-031	HUICAHUE	Timber	33.00	3.70	10	5	Reconst.	1	142.7	36	161.9	0.0001	0.0036	-0.3590	-0.287	2.779	0.030	0.006	-0.197	IX-031	29
30	55	PITRUFQUEN	IX-046	MAHUIDANCHE	Timber	36.40	4.00	10	3	Reconst.	2	223.3	851	304.3	0.0100	8.5082	-0.3215	-0.257	1.479	-1.149	-0.230	-0.218	IX-046	30
31	78	VILCUN	IX-014	PUMALAL	Timber	32.20	4.20	2	2	Reconst.	1	140.2	180	213.9	0.1000	18.0498	-0.2795	-0.224	2.104	-0.582	-0.116	-0.243	IX-014	31
32	48	FREIRE	IX-036	PELALES	Timber	15.80	3.92	8	3	Reconst.	2	124.1	576	178.9	0.0100	5.7603	-0.3336	-0.267	2.515	-0.209	-0.042	-0.249	IX-036	32
33	49	FREIRE	IX-037	CHUCAUCO	Timber	17.50	3.97	8	2	Reconst.	1	95.1	257	178.9	0.1000	25.6789	-0.2459	-0.197	2.515	-0.209	-0.042	-0.251	IX-037	33
34	40	VILLARRICA	IX-004	LLAMUCO	Steel	22.00	4.00	12	4	Reconst.	1	108.9	293	161.9	0.0010	0.2934	-0.3577	-0.286	2.779	0.030	0.006	-0.257	IX-004	34
35	57	GORBEA	IX-017	POLUL 1	Timber	22.70	3.90	10	2	Reconst.	1	111.0	198	193.4	0.1000	19.7898	-0.2718	-0.217	2.326	-0.381	-0.076	-0.264	IX-017	35
36	73	PUCON	IX-028	CARHUELLO	Timber	21.90	3.91	8	3	Reconst.	2	153.5	1504	254.0	0.0100	15.0436	-0.2927	-0.234	1.771	-0.884	-0.177	-0.268	IX-028	36
37	41	VILLARRICA	IX-007	EL TIGRE	Timber	19.50	3.75	8	2	Reconst.	1	101.2	29	161.9	0.1000	2.8654	-0.3464	-0.277	2.779	0.030	0.006	-0.268	IX-007	37
38	75	VILLARRICA	IX-025	COLLICO	Timber	9.60	4.04	4	3	Reconst.	2	94.3	718	161.9	0.0100	7.1764	-0.3274	-0.262	2.779	0.030	0.006	-0.271	IX-025	38
39	59	GORBEA	IX-020	RINCO	Steel	12.20	3.85	12	2	Reconst.	1	78.8	370	193.4	0.1000	36.9507	-0.1962	-0.157	2.326	-0.381	-0.076	-0.296	IX-020	39
40	39	VILLARRICA	IX-011	LAN2	Timber	8.80	3.95	8	4	Reconst.	2	90.5	525	161.9	0.0010	0.5252	-0.3567	-0.285	2.779	0.030	0.006	-0.308	IX-011	40
41	61	VILLARRICA	IX-022	LONG LONG	Timber	14.60	3.95	10	3	Reconst.	1	86.2	407	161.9	0.0100	4.0701	-0.3411	-0.273	2.779	0.030	0.006	-0.310	IX-022	41
42	56	GORBEA	IX-016	LAS LUMAS	Timber	13.20	3.90	6	5	Reconst.	2	111.6	527	193.4	0.0001	0.0527	-0.3588	-0.287	2.326	-0.381	-0.076	-0.325	IX-016	42
43	40	VILLARRICA	IX-006	CALBUCO	Timber	13.00	3.55	8	4	Reconst.	1	81.2	293	161.9	0.0010	0.2934	-0.3577	-0.286	2.779	0.030	0.006	-0.345	IX-006	43
44	42	VILLARRICA	IX-009	EL SALTO	Timber	11.70	3.50	6	3	Reconst.	1	77.2	29	161.9	0.0100	0.2865	-0.3578	-0.286	2.779	0.030	0.006	-0.363	IX-009	44
45	42	VILLARRICA	IX-008	CHOMI2	Timber	10.00	3.20	12	4	Reconst.	1	72.0	29	161.9	0.0010	0.0287	-0.3589	-0.287	2.779	0.030	0.006	-0.390	IX-008	45
46	36	VILCUN	IX-003	QUINTRILPE	Timber	10.00	2.90	8	2	Reconst.	1	72.0	309	213.9	0.1000	30.8955	-0.2229	-0.178	2.104	-0.582	-0.116	-0.408	IX-003	46
47	49	FREIRE	IX-038	FIN FIN	Timber	10.00	4.00	8	4	Reconst.	1	72.0	257	178.9	0.0010	0.2568	-0.3579	-0.286	2.515	-0.209	-0.042	-0.456	IX-038	47
48	46	CUNCO	IX-030	CODULTO	Timber	10.80	4.00	8	5	Reconst.	1	74.5	65	341.2	0.0001	0.0065	-0.3590	-0.287	1.319	-1.294	-0.259	-0.733	IX-030	48
49	72	VILLARRICA	IX-023	QUEBRADA HONDA	Steel	18.00	3.52	12	5	NoAction	-	0.0	613	161.9	0.0001	0.0613	-0.3588	-0.287	0.000	-10.000	-2.000	-10.000	IX-023	49
50	32	GALVARINO	IX-045	AILLINCO	NoBridge				0	NoAction	-	0.0	562	0.0	0.0000	0.0000	-10.0000	-8.000	0.000	-10.000	-2.000	-10.000	IX-045	50
				Average					2.100							81.495			2.745					
				Standard Deviation					0.447							226.991			1.102					

APPENDIX I-8

INDEXIZATION OF EACH EFFECT BY BRIDGE REHABILITATION

Indexization of Each Effect by Bridge Rehabilitation

(1) Indextization of Income Increase Effect

1) Net income amount = increase of amount sold - production cost
2) Income amount = net income for 10 years - bridge rehabilitation cost for 10 years
3) income increase per person = income for 10 years / present population
4) Income cost ratio index = income increase per person / the average of all roads in the project

- With project = enlargement of cultivated acreage, increase of productivity per unit, and increase of amount sold.
- Income means net increase of income with project compared to without project.
- Problems: Data of net income for at least the past 10 years is needed for this analysis, which is difficult to estimate in village area. Also since bridge is generally small, income increase can not be expected to an extensive degree.

(2) Indextization of Productivity Increase Effect

1) Production increase = net increase of production with project for 10 years in comparison to without project.
2) Amount of production increase per rehabilitation cost = amount of production increase / rehabilitation cost of bridges.
3) Index of production and cost ratio = amount of production increase per rehabilitation cost / the average cost of all bridges

- Bridge rehabilitation is to dissolve transportation difficulties, to save transportation cost and to increase production.
- Problems: Production increase estimate is needed at least for 10 years. This estimation is difficult. Since bridge scale is small, large amount of production increase can not be expected. Also it takes time for production increase.

(3) Indextization of Promoting Effect of National Resources Development

1) Resources of study = mining, forestry, stock farming, agriculture, sightseeing, and fishing.
2) Undeveloped rate of resources = resources deposit rate x resources development rate
(or contribution rate for resources development = planned rate of resources development x bridge usage rate of vehicle for resources development)
3) Index of resources potential = 1 / [undeveloped resources rate / average of all roads of study]
(or Index of resources potential = contribution rate for resources development / average of all roads of study)

- This program is to promote effective use of resources utilized for the shortage of transportation services ,and to enhance diversity of mono cultural economy.
- There are two methods to set up indexes as shown in Table 1.

Forestry resources in the first case amounts to 50% of the province, of which 60% has been already developed (50 x 60 = 30). Supposedly percentage of development is only five, the index will be 50 x 5 = 25. In this case we may say that resources development potential become high by bridge rehabilitation project. As a whole, index of 62 means potential of 62 resources development. Smaller the index is, higher the priority of bridge rehabilitation.

The second case shows that the provincial government places 30% weight of development on sightseeing development. But sightseeing related traffic volume is considered to be 0% (Index = 0) of the total contribution of rehabilitation programe. If the contribution rate is 80 %, the index will be 24 (30 x 80 =24). Total index amounts to 23.7. Larger the index is, priority is higher. Data is needed by bridge and by travel purpose.

Table 1 A Case of Calculation for Potential Resources Index

A) Unutilized Resources Development Index

Resources	% of Distribution	% of Development	Index
Mining	0	0	0
Forestry	50	60	30
Cattle Farming	20	50	10
Agriculture	10	80	8
Sightseeing	20	70	14
Fishing	0	0	0
Total	100		62

B) Index of Contribution to Resources Development

Resources	% of Distribution	% of Development	Index
Mining	0	0	0.0
Forestry	30	50	15.0
Cattle Farming	15	25	3.7
Agriculture	20	25	5.0
Sightseeing	30	0	0.0
Fishing	5	0	0.0
Total	100		23.7

(4) Indextization of Time Saving by Avoiding Detour

1) Distance of study = from the bridge of study to the central city of the region
2) Ratio of time saving = time required without rehabilitation / time required with rehabilitation
3) Index of time saving ratio = time saving ratio / average time saving ratio of all roads of study

- Rehabilitation program is to dissolve detour and to shorten both running distance and running time.
- As running speed differ by vehicle types, weighted average of time saving is to be adopted here.
- Problem: Considerations should be given to select bypass route. It will be difficult to form data to decide detour distance, surface condition, and originating site.

(5) Indextization of Time Saving for River Crossing

1) Bridge crossing time = depending on the degree of bridge damage
2) Index of bridge damage = damage degree of a bridge / average degree of all bridges of study

- Running time saving by rehabilitation of bridges.
- Damage degree of a bridge is to be judged by the standard formed by the team engineer.

(6) Indextization of Accessibility Increase

1) Increase of accessibility = dissolution of impassable conditions of bridges 2) passable ratio of bridges = passable weeks after rehabilitation / present passable weeks
2) Accessibility index = passable rate / average passable rate of all bridges of study

- Impassable period such as during rainy season is to be dissolved, and it will be passable for all year round.

(7) Indextization of Decreasing Population Outflow

1) Increase and decrease of population = present comuna population - that of 5 years ago
2) Decreasing rate of population = population decrease / that of 5 years ago
3) Index of population decrease = population decreasing rate / average rate of all bridges of study

- Bridge rehabilitation program is to stop outflow of rural population to urban areas by improvement and stabilization of agricultural life.
- If records of birth, death and of transfer is not available, the above method will be used for out-flowing rate.

(8) Indextization of Income Difference Correction

1) Income defference ratio = average income per capita of a region / average income per capita in the area of a bridge
2) Index of correct income difference = income difference ratio / average ratio of all bridges of study

- Improvement policy of bridges in rural area is to increase income.
- In this analysis average national income per capita could be used instead of average income per capita of a region.

(9) Indextization of Dissolution of Social Isolation

1) Isolation degree = Classification of 100% isolation (degree 5) to no isolation (degree 1).
2) Index to dissolve isolation = isolation degree / average isolation degree of all area of study

- Rehabilitation program will respond to basic human needs of the rural residents.
- It will contribute to national political integration.

APPENDIX I-9

ESTIMATE OF COMUNA AVERAGE INCOME

Estimate of Comuna Income

There was no direct income data available in Comuna at present, but there is a way to calculate Comuna income by using the following two data.

a) GDP capita of the country (Central Bank of Chile)
b) Population of Comuna and extreme poor population in Comuna (Regional Planning Ministry)

Table -1 shows GDP per capita by region. Average GDP per capita in the country is 447,230 pesos of 1986 constant price in 1995. GDP per capita in IX Region is 145,597 pesos.

Table -1 GDP per capita by Region (1995)

1986 constant price

Region	GDP.Real Mill. Pesos	Population	GDP per Capita Pesos
Region I	159,768	366,257	436,218
Region II	354,527	436,744	811,750
Region III	101,498	250,163	405,727
Region IV	140,515	536,216	262,049
Region V	491,764	1,469,148	334,727
Region VI	258,646	737,047	350,922
Region VII	267,243	872,011	306,467
Region VIII	517,426	1,830,651	282,646
[illegible]	[illegible]	[illegible]	[illegible]
Region X	201,551	1,004,929	200,562
Region XI	26,890	87,789	306,303
Region XII	118,787	151,355	784,824
Santiago	2,643,546	5,641,811	468,563
Sub Total	5,402,465		
Public Sector	952,860		
Total	6,355,325	14,210,429	447,230

Souse: Banco Central de Chile

Trend of GDP with Main Economic Index is shown in Table -2

Table -2 Trend of GDP with Main Economic Index

Items	Unit	1990	1991	1992	1993	1994	1995	1996
Nominal GDP#	Bil.Pesos	9,269.5	12,017.1	15,499.8	18,453.5	21,917.9		
Growth Rate	%		29.6%	29.0%	19.1%	18.8%		
Real GDP(1986 Price)	Bil.Pesos	4,437	4,759	5,285	5,616	5,855	6,355	
Growth Rate	%		7.3%	11.0%	6.3%	4.2%	8.5%	7.0%
us$ Exchange Rate	Pesos	305.06	349.37	362.59	404.35	420.08		
Population	Person	13,099,513	13,319,716	13,544,964	13,771,187	13,994,355	14,210,429	
Nominal GDP/Capita	Pesos	707,622	902,204	1,144,322	1,340,008	1,566,196		
Growth Rate	%		27.5%	26.8%	17.1%	16.9%		
NominalGDP/Capita	us$	2,320	2,582	3,156	3,314	3,728		
Growth Rate	%		11.3%	22.2%	5.0%	12.5%		
Inflation Index#		27.3%	18.7%	12.7%	12.2%	8.9%	8.2%	6.5%
Consumer Index#	%	26.0%	21.8%	15.4%	12.7%	11.4%		
Whole Sale Index#	%	21.8%	21.5%	11.7%	8.6%	7.7%		

Original data: Instituto National de Estadisticas 1996

#: World Economic Information Services (WEIS)1995

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Region VI	258,646	737,047	350,922
Region VII	267,243	872,011	306,467
Region VIII	517,426	1,830,651	282,646
Region IX	**120,304**	**826,308**	**145,592**
Region X	201,551	1,004,929	200,562
Region XI	26,890	87,789	306,303
Region XII	118,787	151,355	784,824
Santiago	2,643,546	5,641,811	468,563
Sub Total	5,402,465		
Public Sector	952,860		
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Growth Rate	%		11.3%	22.2%	5.0%	12.5%		
Inflation Index#		27.3%	18.7%	12.7%	12.2%	8.9%	8.2%	6.5%
Consumer Index#	%	26.0%	21.8%	15.4%	12.7%	11.4%		
Whole Sale Index#	%	21.8%	21.5%	11.7%	8.6%	7.7%		

Original data: Instituto National de Estadisticas 1996

#: World Economic Information Services (WEIS)1995

Table -3 shows extreme poor population and method to get comuna income. Figure of 'Extreme poor population' can be obtained from the report published by 'Secretaria Regional Ministerial de Planificacion'. Income per capita comuna can be obtained by multiplying the average income per capita of Region 9,145,592 with column 'e' index.

Table -3 Estimation of Comuna Income per Capita, Region 9

1986 constant price

No.	Communes	Population 1995	Extreme Poor 1995	Extreme Poor % of Poor	Index	Adjustment Index	Income per Capita
		a	b	c=b/a	d=c/0.151	e=1/d	f=ex145,592
1	Angol	49,912	3,006	0.06	0.40	2.51	**365,166**
2	Renaico	9,518	625	0.07	0.43	2.30	**334,920**
3	Collipulli	24,583	3,601	0.15	0.97	1.03	**150,137**
4	Puren	14,805	2,246	0.15	1.00	1.00	**144,968**
5	Los Sauces	8,954	1,507	0.17	1.11	0.90	**130,671**
6	Ercilia	8,755	1,701	0.19	1.29	0.78	**113,195**
7	Lonquimay	9,027	n.a.				**90,964**
8	Lumaco	12,586	3,460	0.27	1.82	0.55	**79,999**
9	Traiguen	21,085	2,555	0.12	0.80	1.25	**181,492**
10	Victoria	34,130	3,131	0.09	0.61	1.65	**239,733**
11	Curacautin	18,066	653	0.04	0.24	4.18	**608,448**
12	Galvarino	14,515	4,025	0.28	1.84	0.54	**79,310**
13	Perquenco	5,845	863	0.15	0.98	1.02	**148,953**
14	Carahue	26,247	5,234	0.20	1.32	0.76	**110,286**
15	Nueva Imperial	38,957	7,781	0.20	1.32	0.76	**110,110**
16	Temuco	269,063	12,987	0.05	0.32	3.13	**455,638**
17	Lautaro	29,219	3,876	0.13	0.88	1.14	**165,789**
18	Vilcun	21,335	2,194	0.10	0.68	1.47	**213,861**
19	Melipeuco	5,286	1,278	0.24	1.60	0.62	**90,964**
20	Saavedra	14,796	3,841	0.26	1.72	0.58	**84,718**
21	Teodoro Schmidt	15,422	2,866	0.19	1.23	0.81	**118,342**
22	Freire	23,939	2,943	0.12	0.81	1.23	**178,892**
23	Cunco	18,696	1,205	0.06	0.43	2.34	**341,222**
24	Tolten	12,848	2,197	0.17	1.13	0.88	**128,612**
25	Pitrufquen	20,465	1,479	0.07	0.48	2.09	**304,311**
26	Gorbea	15,040	1,710	0.11	0.75	1.33	**193,431**
27	Loncoche	24,242	3,293	0.14	0.90	1.11	**161,902**
28	Villarrica	37,664	n.a.				**161,902**
29	Pucon	15,374	1,331	0.09	0.57	1.74	**254,029**
30	Curarrehue	5,934	2,119	0.36	2.36	0.42	**61,587**
	Total	826,308	Total of c....	4.230	Average Income/Capita in Region IX		(Peso) **145,592**
			Average.....	**0.151**			

Income per capitas in Lonquimay and Villarrica are not available, therefore those of Melipeuco and Loncoche are applied here.